

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

DARLINGTON - ARGYLE

(WELLS STREET - CLAY STREET)

STH 81

LAFAYETTE COUNTY

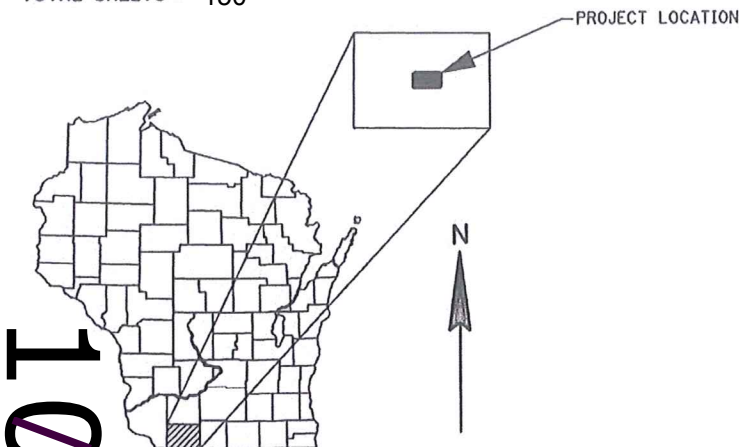
STATE PROJECT NUMBER
5944-03-84

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5944-03-84		

ORDER OF SHEETS

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

TOTAL SHEETS = 150



BEGIN PROJECT
STA 6+75
Y = 166,017.36
X = 483,355.44

END PROJECT
STA 23+25
Y = 166,170.74
X = 484,968.09

DESIGN DESIGNATION

A.A.D.T. (2015)	= 2,750
A.A.D.T. (2035)	= 3,050
D.H.V. (2035)	= 403
D.O.	= 60/40
T.	= 17.3%
DESIGN SPEED	= 25 MPH
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	CAUTION
MARSH AREA	----
WOODED OR SHRUB AREA	----

PROFILE

GRADE LINE	----
ORIGINAL GROUND	----
MARSH OR ROCK PROFILE (To be noted as such)	----
SPECIAL DITCH	----
GRADE ELEVATION	95.36
CULVERT (Profile View)	----
UTILITIES	----
ELECTRIC	----
FIBER OPTIC	----
GAS	----
SANITARY SEWER	----
STORM SEWER	----
TELEPHONE	----
WATER	----
UTILITY PEDESTAL	----
POWER POLE	----
TELEPHONE POLE	----

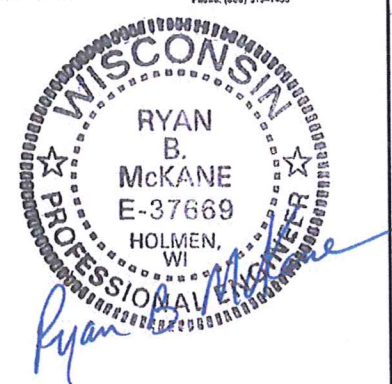
T-2-N

R-3-E

LAYOUT
SCALE 0 500 FT.
TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), LAFAYETTE COUNTY."

ORIGINAL PLANS PREPARED BY
KNIGHT
Engineers & Architects
200 N Third Street
Suite 104
La Crosse, WI 54601-3392
Phone: (608) 719-1455



3/27/2014 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	
Designer	KNIGHT E/A, INC.
Project Manager	MAHESH SHRESTHA
Regional Examiner	
Regional Supervisor	WILLIAM STROBEL
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 3/27/14 (Signature) William Strobel

E

GENERAL NOTES

- NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.
- DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE SALVAGED TOPSOILED, FERTILIZED, AND SEEDED AS DIRECTED BY THE ENGINEER.
- WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW JOINTS AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- PAVING LIMITS ARE TO BE DETERMINED BY THE ENGINEER.
- CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS.
- THE LOCATIONS OF UTILITIES SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT THAT ARE NOT SHOWN.
- UTILITIES ARE SHOWN AS EXISTED PRIOR TO RELOCATION ACTIVITIES.
- WISDOT MONUMENTS WILL BE SUPPLIED BY THE STATE AND INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

UTILITY CONTACTS

STEVE BISHOP CENTURYLINK - COMMUNICATION LINE 130 4TH STREET BARABOO, WI 53913 (608) 355-7501 (OFFICE) (608) 963-8594 (CELL) STEVEN.BISHOP@CENTURYLINK.COM	JASON HOGAN ALLIANT ENERGY- ELECTRICITY/ GAS/ PETROLEUM 4902 N BILTMORE LANE SUITE 1000 MADISON, WI 53718 (608) 395-7395 JASONHOGAN@ALLIANTENERGY.COM
JEREMY WILLIAMS CITY OF DARLINGTON - SEWER & WATER 627 MAIN ST P.O. BOX 207 DARLINGTON, WI 53530 (608) 482-3431 JEREMY.WILLIAMS@CITYOFDARLINGTONWI.ORG	JASON HEMING ALLIANT ENERGY- ELECTRICITY/ GAS/ PETROLEUM 490 SHAKERAG STREET MINERAL POINT, WI 53565 (608) 458-4542 (OFFICE) (608) 295-9730 (CELL) JASONHEMING@ALLIANTENERGY.COM

MATT FORGAS
MEDIACOM LLC WISCONSIN - COMMUNICATION LINE
808 E. NORTH ST
ELBURN, IL 60119
(815) 597-5103
MFORGAS@MEDIACOMCC.COM

WisDOT SW REGION (MADISON)
MAHESH SHRESTHA
2101 WRIGHT ST
MADISON, WI 53704
PHONE: (608) 245-2674
MAHESH.SHRESTHA@DOT.WI.GOV

AREA CONTACTS

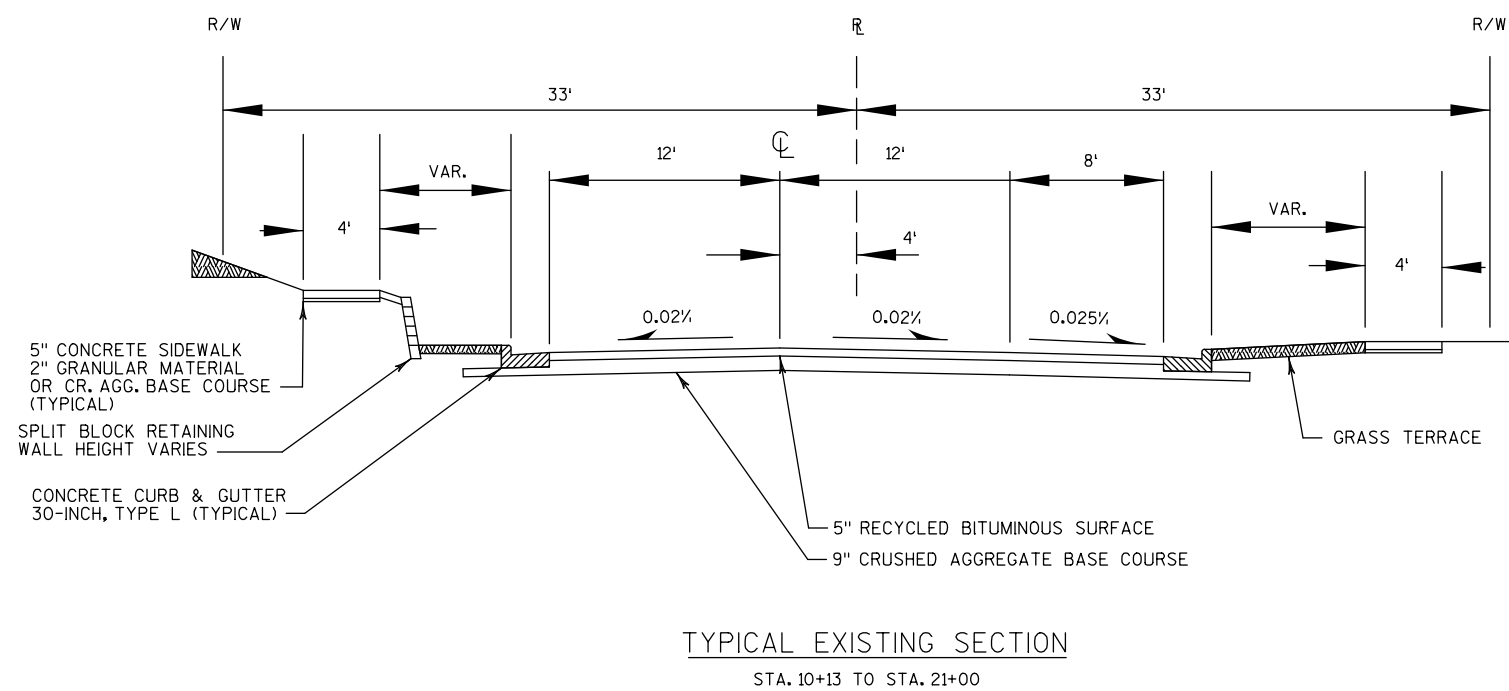
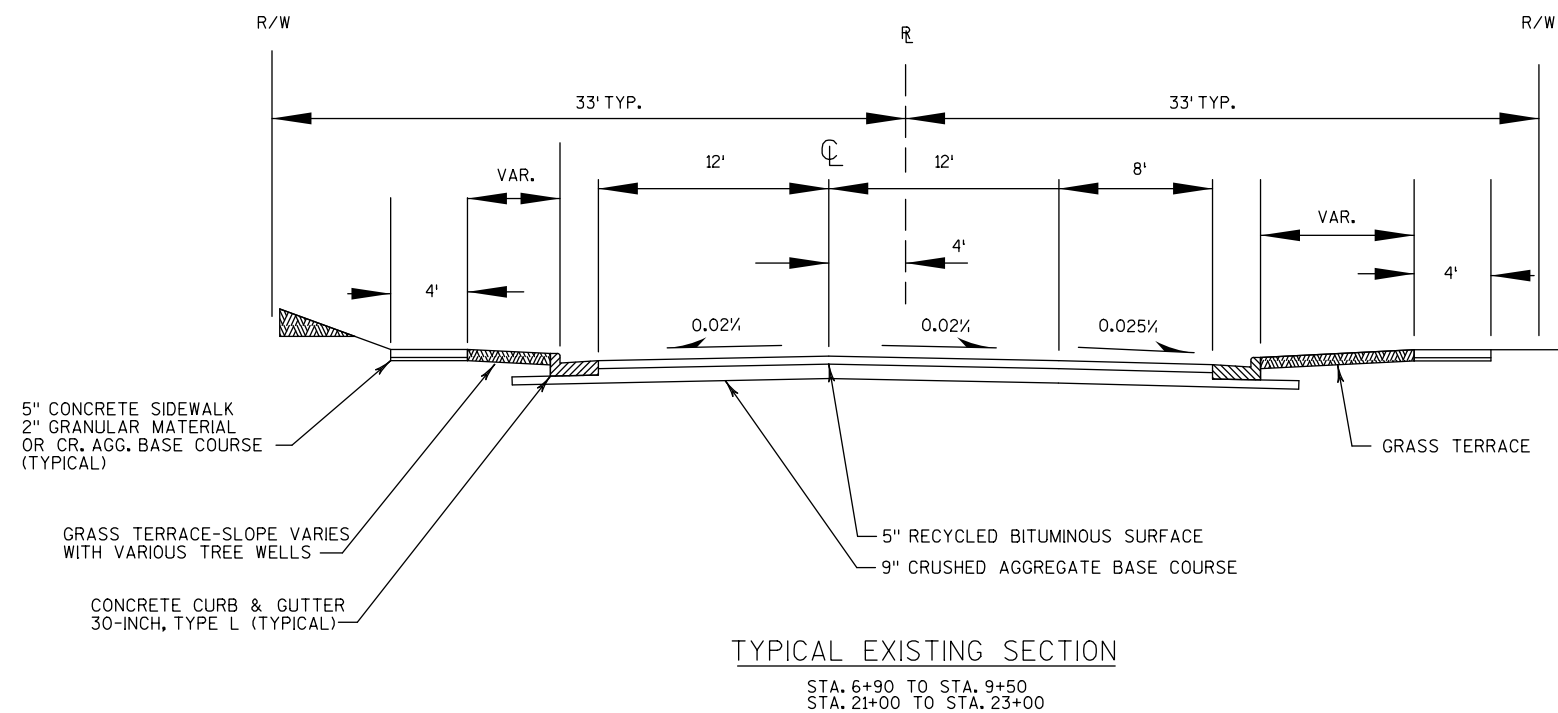
DESIGN CONTACT
KNIGHT E/A
HEIDI SCHWARZ
700 N THIRD ST., SUITE 104
LA CROSSE, WI 54601
PHONE: (608) 519-1455 EXT. #2
HSCHWARZ@KNIGHTEA.COM

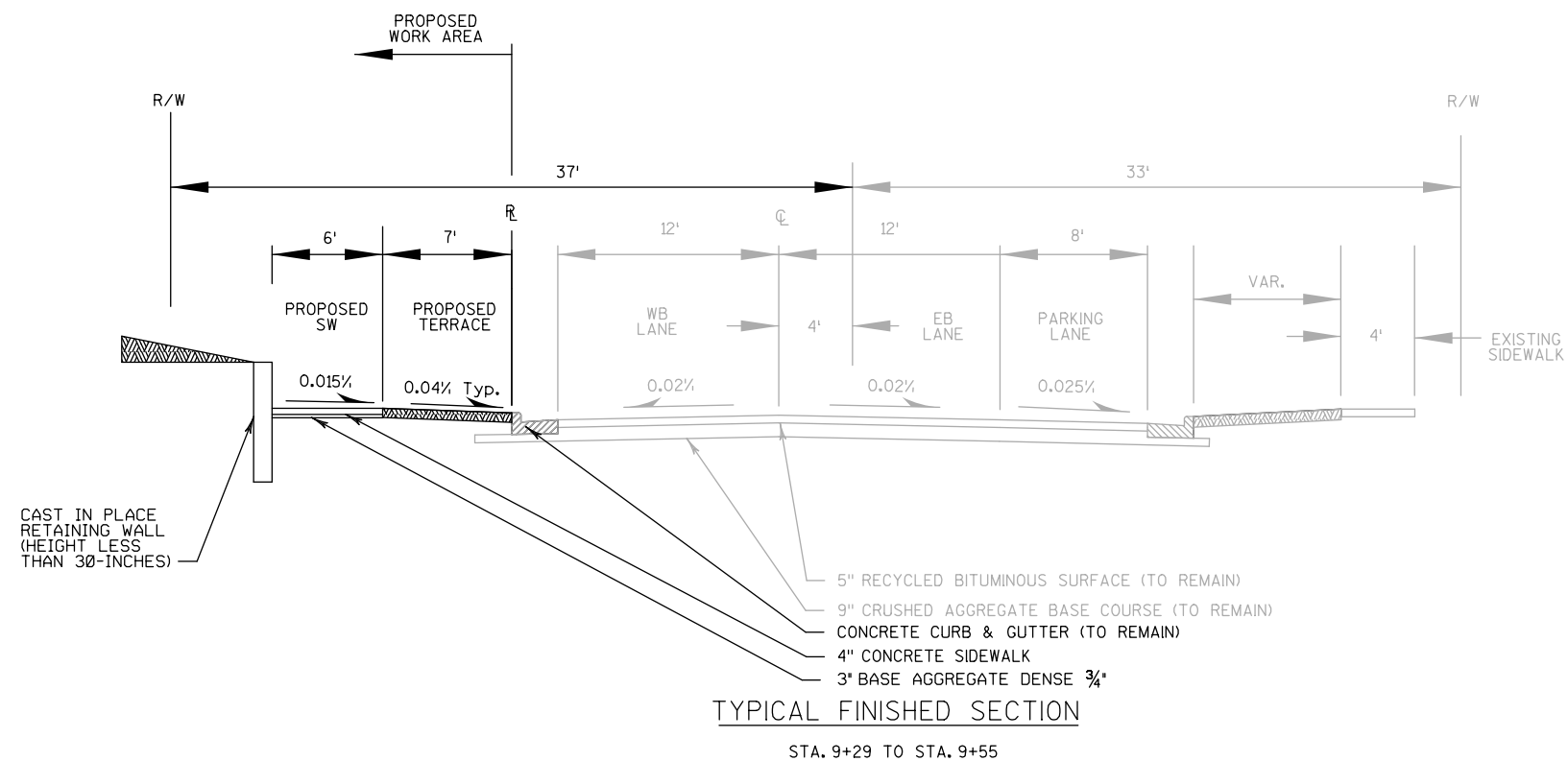
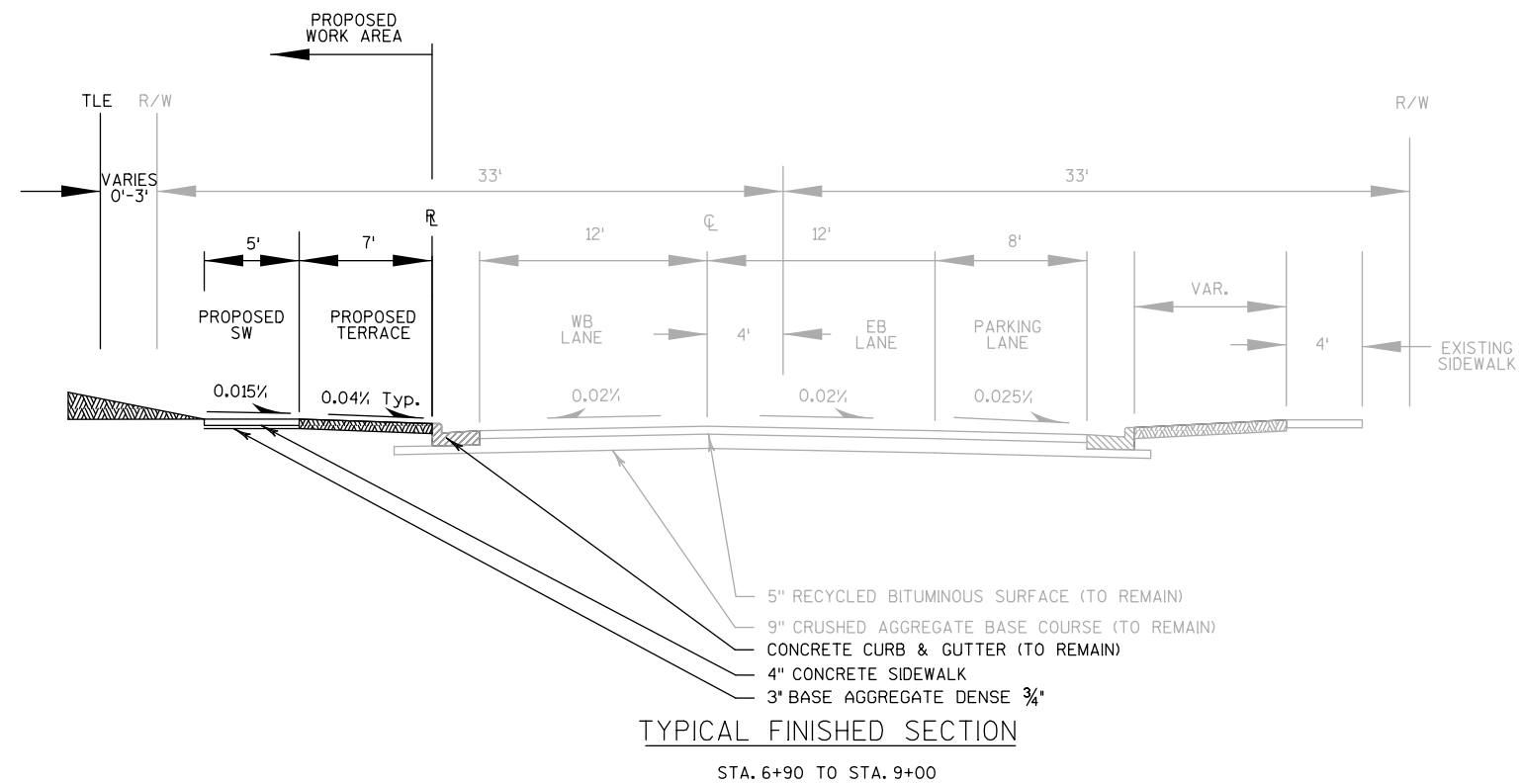
WisDNR CONTACT
LAURA BUB
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
(608) 275-3485
LAURABUB@WISCONSIN.GOV

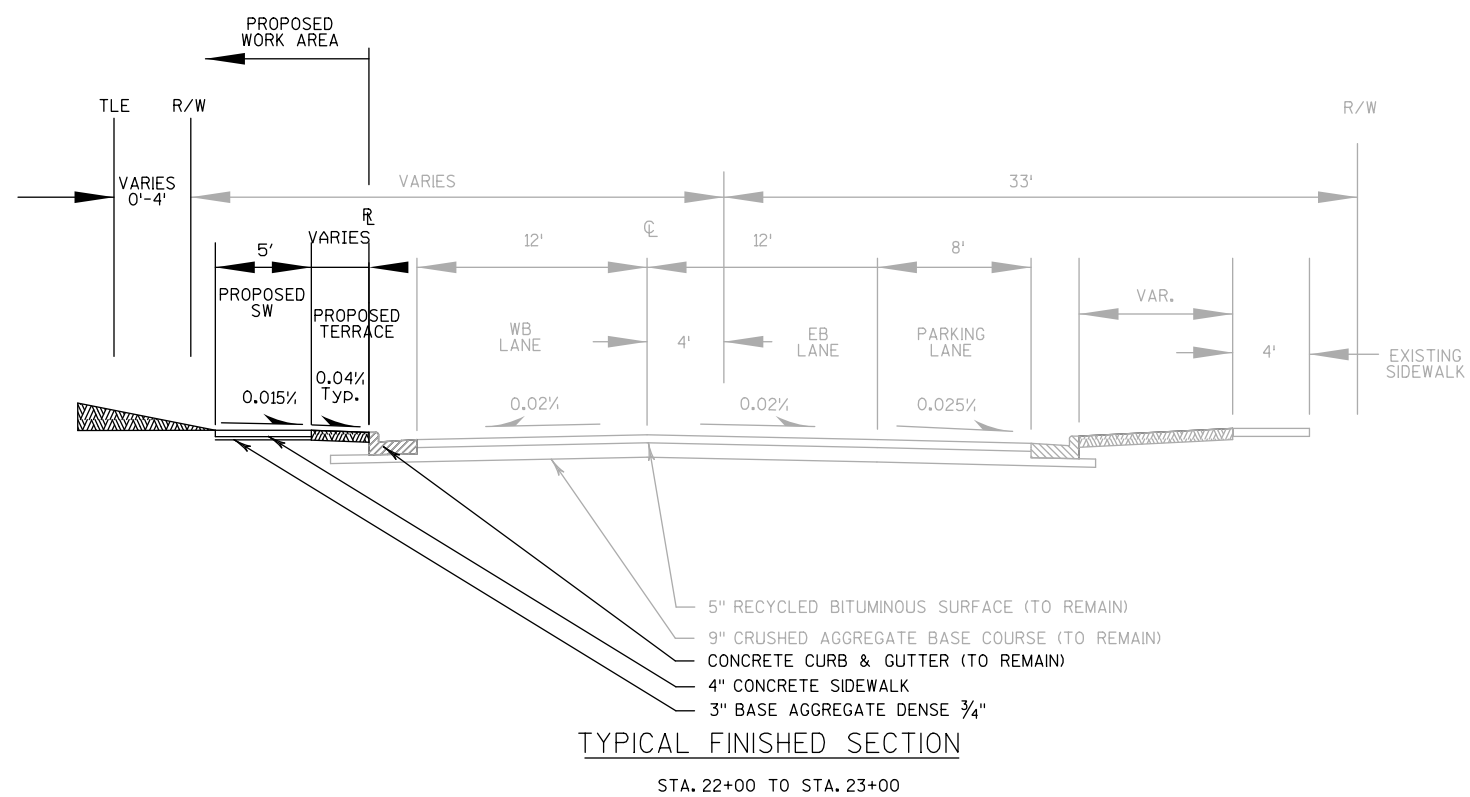
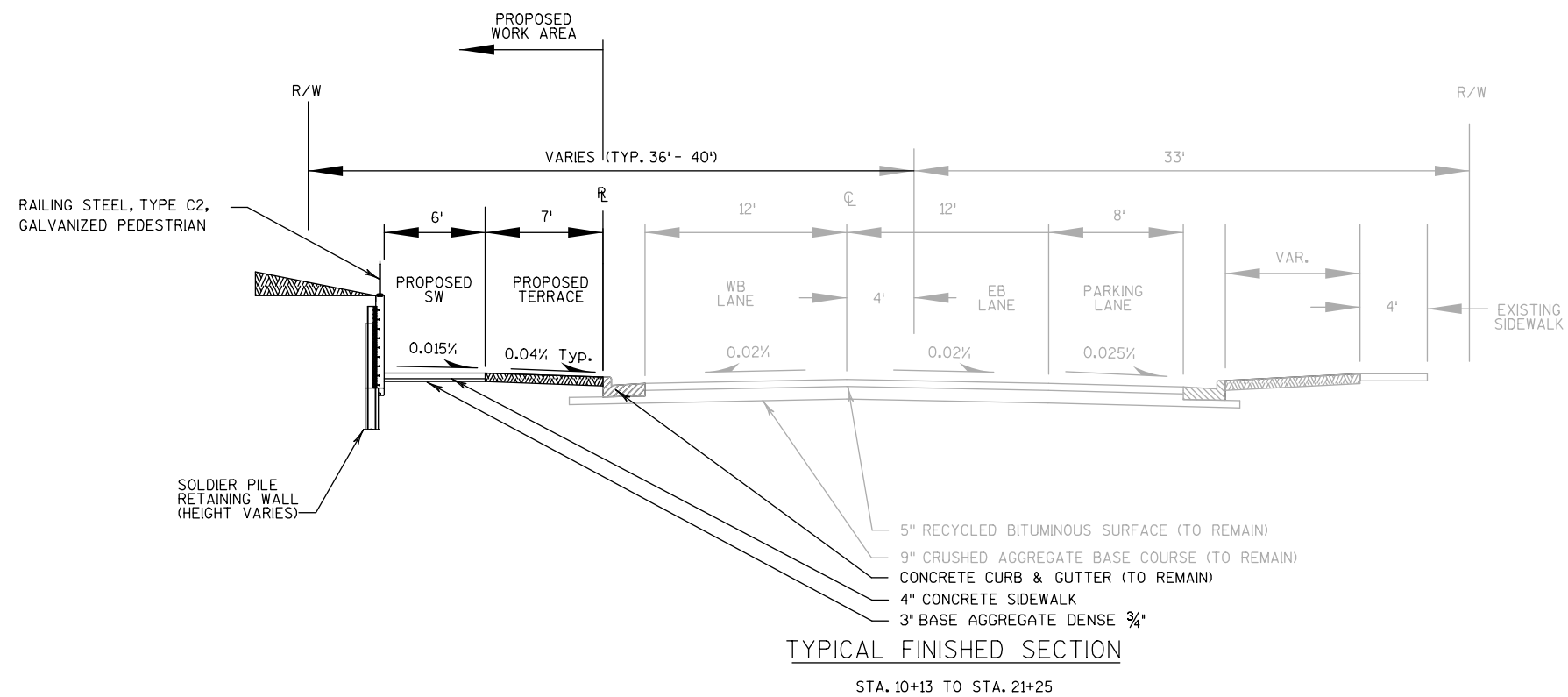
STANDARD ABBREVIATIONS

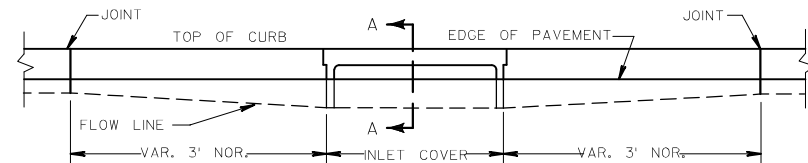
AC	ACRE	INL	INLET
AGG	AGGREGATE	INV	INVERT
AH	AHEAD	JCT	JUNCTION
AADT	ANNUAL AVERAGE DAILY TRAFFIC	LT	LEFT
ASPH	ASPHALTIC	L	LENGTH OF CURVE
AVG	AVERAGE	LIN FT or LF	LINEAR FOOT
BK	BACK	LS	LUMP SUM
BAD	BASE AGGREGATE DENSE	NC	NORMAL CROWN
BM	BENCH MARK	N	NORTH
BR	BRIDGE	NB	NORTHBOUND
CL or C/L	CENTER LINE	NO	NUMBER
CE	COMMERCIAL ENTRANCE	PT	POINT
CONC	CONCRETE	PC	POINT OF CURVATURE
CO	COUNTY	PI	POINT OF INTERSECTION
CTH	COUNTY TRUNK HIGHWAY	PT	POINT OF TANGENCY
CR	CREEK	PCC	PORTLAND CEMENT CONCRETE
CABC	CRUSHED AGGREGATE BASE COURSE	LB	POUND
CY or CUYD	CUBIC YARD	PE	PRIVATE ENTRANCE
CULV	CULVERT	R	RADIUS
CP	CULVERT PIPE	RL or R/L	REFERENCE LINE
C & G	CURB AND GUTTER	RT	RIGHT
D	DEGREE OF CURVE	R/W	RIGHT-OF-WAY
DIA	DIAMETER	RD	ROAD
DISCH	DISCHARGE	SHLDR	SHOULDER
E	EAST	SB	SOUTHBOUND
EB	EASTBOUND	SF or SQ FT	SQUARE FEET
EL or ELEV	ELEVATION	SY or SQ YD	SQUARE YARD
EW	ENDWALL	SDD	STANDARD DETAIL DRAWINGS
ENT	ENTRANCE	STH	STATE TRUNK HIGHWAYS
EXC	EXCAVATION	SE	SUPERELEVATION
EX	EXISTING	T	TANGENT
FERT	FERTILIZER	TEMP	TEMPORARY
FE	FIELD ENTRANCE	USH	UNITED STATES HIGHWAY
FL or F/L	FLOW LINE	V	VELOCITY OR DESIGN SPEED
FT	FOOT	VC	VERTICAL CURVE
HMA	HOT MIX ASPHALT	WB	WESTBOUND
CWT	HUNDREDWEIGHT	YD	YARD



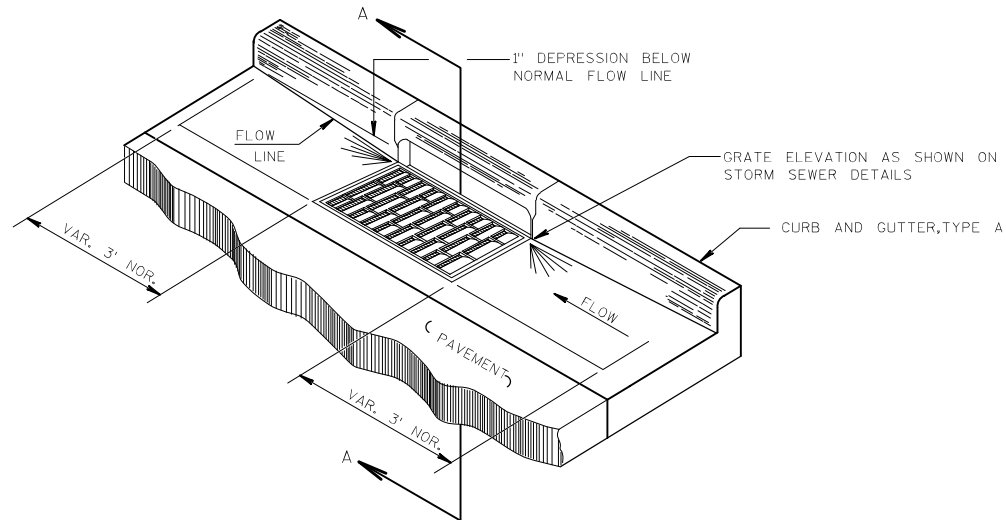
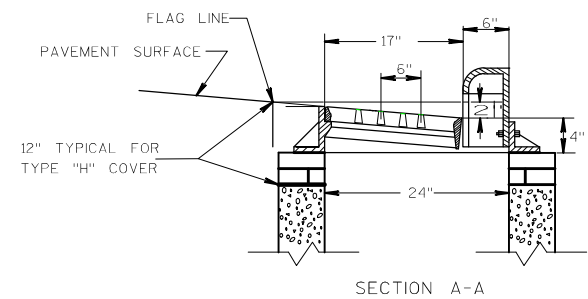




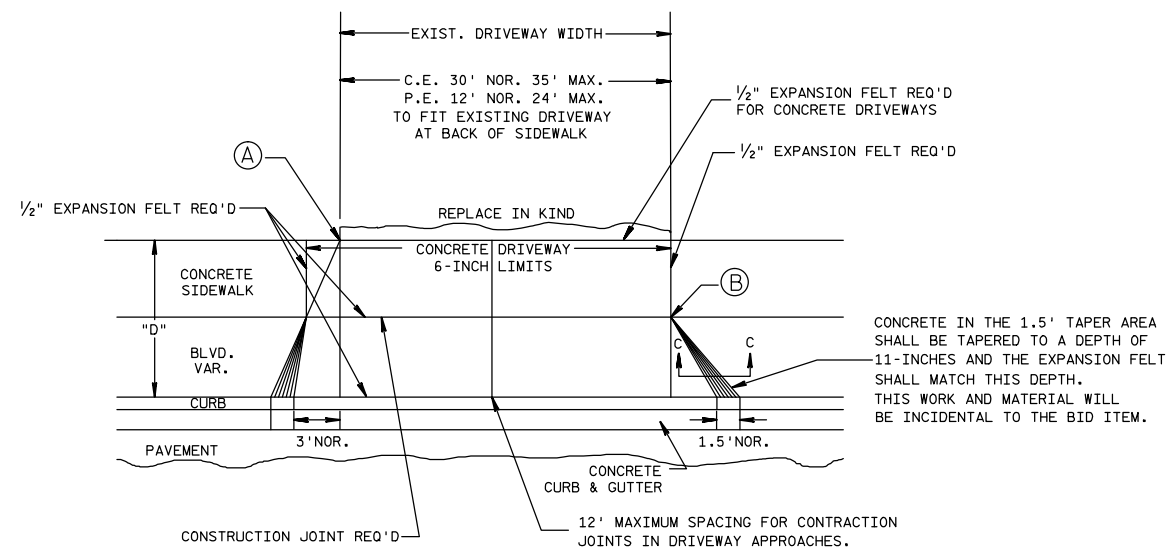




ELEVATION

DETAIL OF CURB AND GUTTER AT INLETS
(TYPE 3-H INLET SHOWN)

SECTION A-A

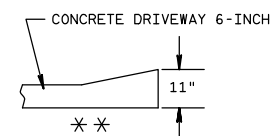


PLAN VIEW

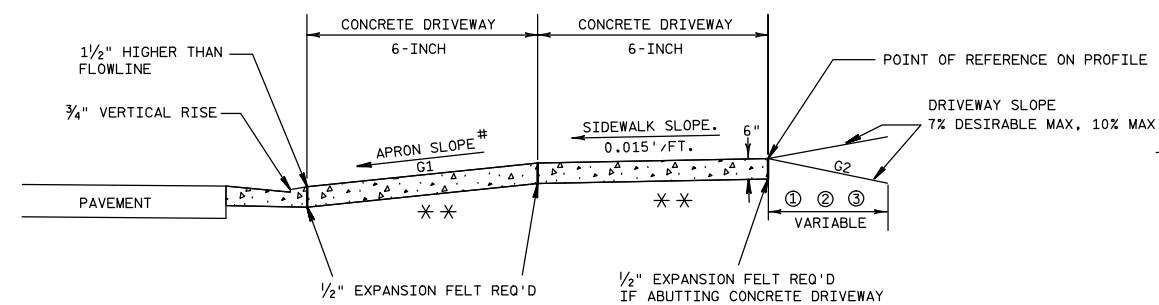
STA 8+10
STA 8+32
STA 14+80

(A) WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

(B) WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK



SECTION C-C



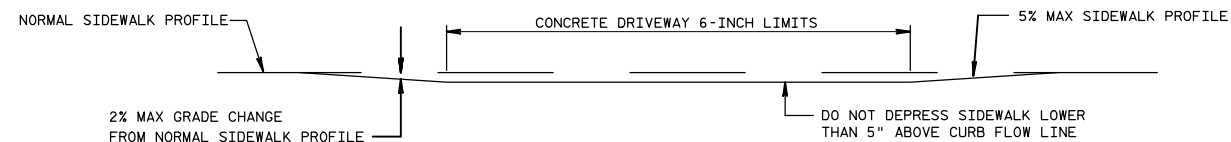
TYPICAL SIDEWALK SECTION

- ①—6" CONCRETE DRIVEWAY OR H.E.S. CONCRETE DRIVEWAY
②— 6" BASE AGG. DENSE 3/4-INCH
③— 4" BASE AGG. DENSE 3/4-INCH BASE WITH 3" ASPHALTIC SURFACE
** = 6" BASE AGG. DENSE 3/4-INCH REQ'D UNDER CONCRETE DRWY

TERRACE	APRON SLOPE (G1)		
	WIDTH	MIN %	DESIRABLE %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

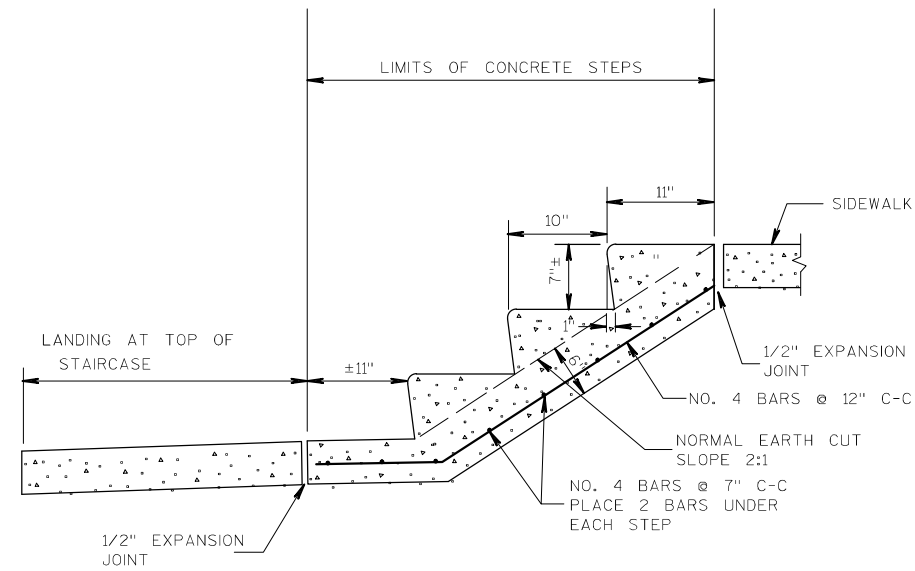
DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE



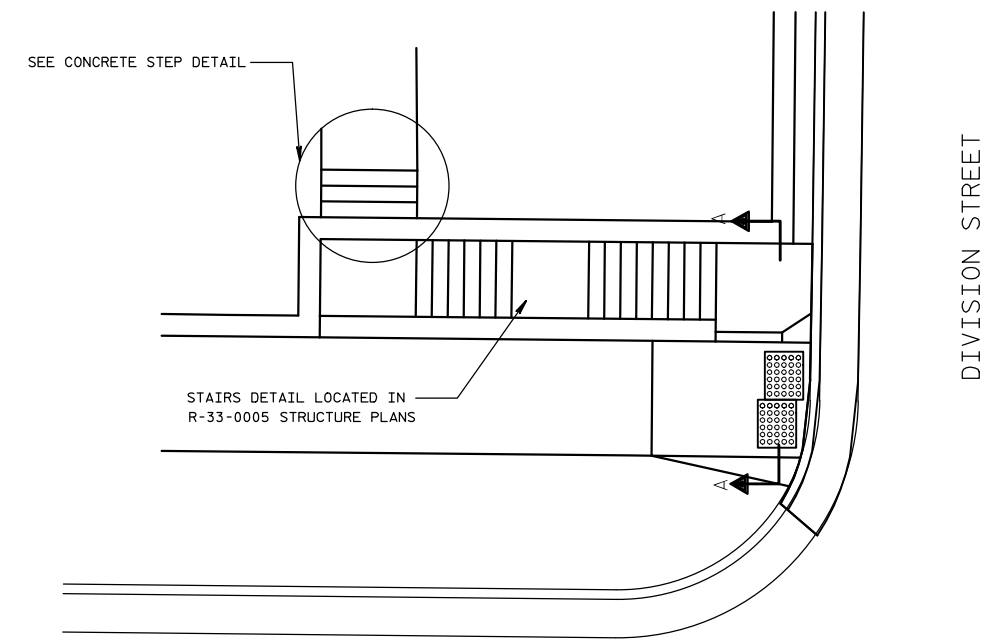
DEPRESSED SIDEWALK PROFILE DETAIL

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

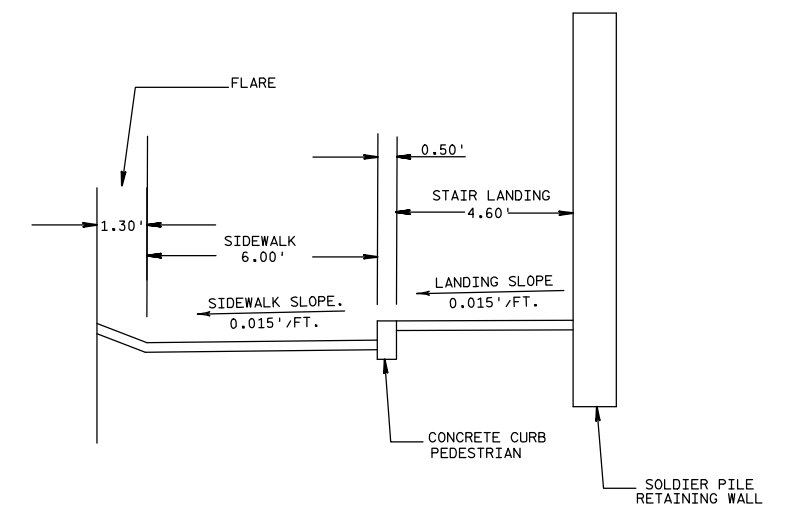
NOTE: THE EXACT LOCATION, WIDTHS & NUMBER OF STEPS TO BE DETERMINED BY THE ENGINEER IN FIELD.



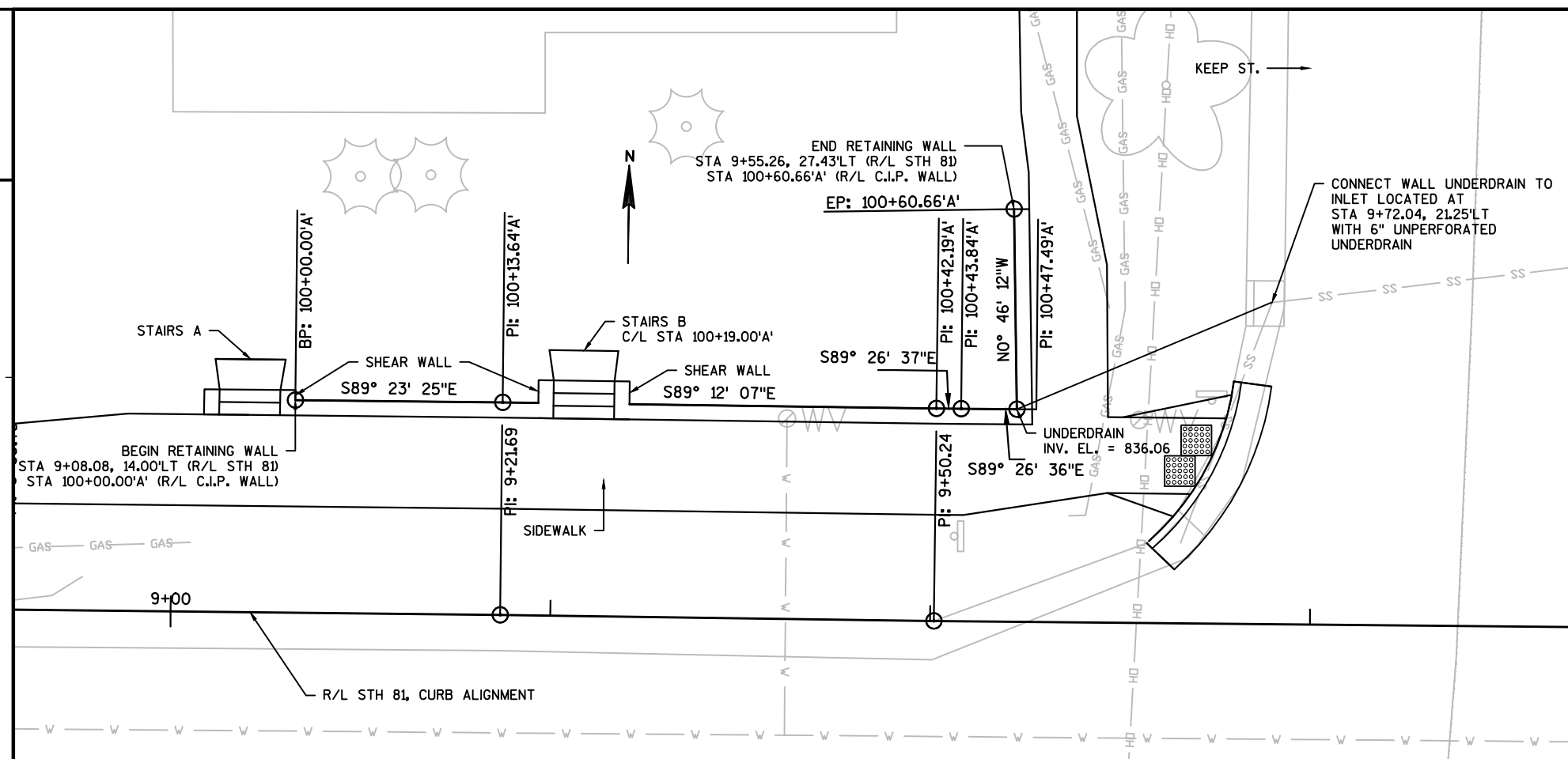
CONCRETE STEP DETAIL
STA 15+98, 19' LT



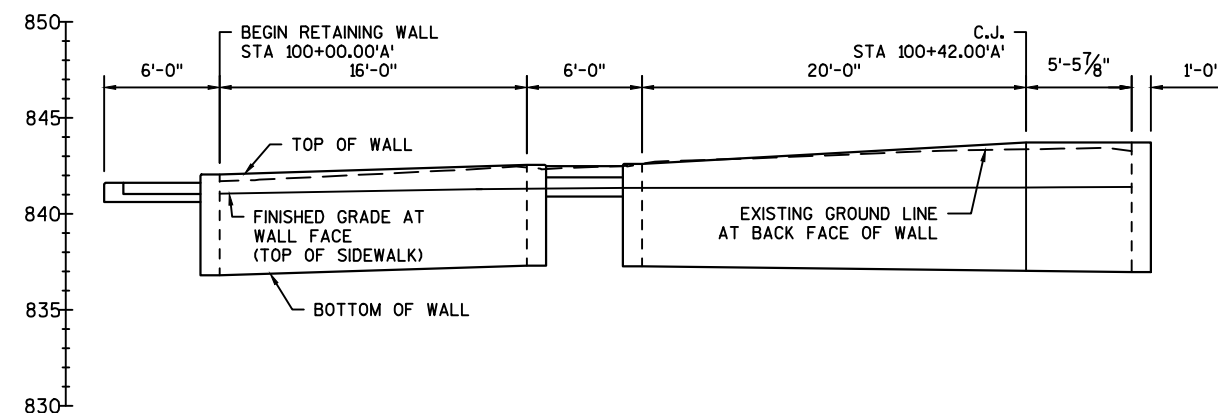
DIVISION ST/ STH 81 CURB RAMP/ STAIRWAY ACCESS DETAIL



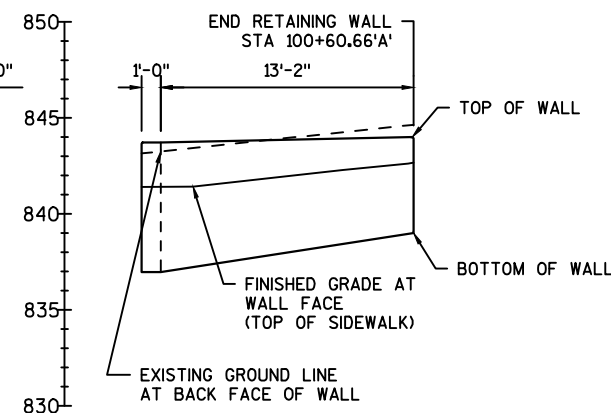
SECTION VIEW A-A



PLAN
(CORNER OF LOUISA ST. & KEEP ST.)



ELEVATION
(LOOKING NORTH AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG BACK FACE OF WALL)



ELEVATION
(LOOKING WEST AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG BACK FACE OF WALL)

DESIGN DATA

LIVE LOAD:
LIVE LOAD SURCHARGE: 100 P.S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY $f'_c = 4,000$ P.S.I.
BAR STEEL REINFORCEMENT (GRADE 60)
 $f_y = 60,000$ P.S.I.

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

BEVELED EXPOSED EDGES OF CONCRETE IS $\frac{3}{4}$ -INCH, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES, UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

ALL REINFORCEMENT SHALL HAVE A MINIMUM OF 2-INCHES CLEAR COVER UNLESS SHOWN OTHERWISE. REINFORCEMENT IN FACES CAST PERMANENTLY AGAINST EARTH SHALL HAVE A MINIMUM OF 3-INCHES CLEAR COVER.

6" DRAINAGE PIPE HAS A MINIMUM SLOPE OF 0.5%.

BACK FACE OF WALL FOLLOWS STH 81 CURB ALIGNMENT, 14'-0" TYPICAL OFFSET.

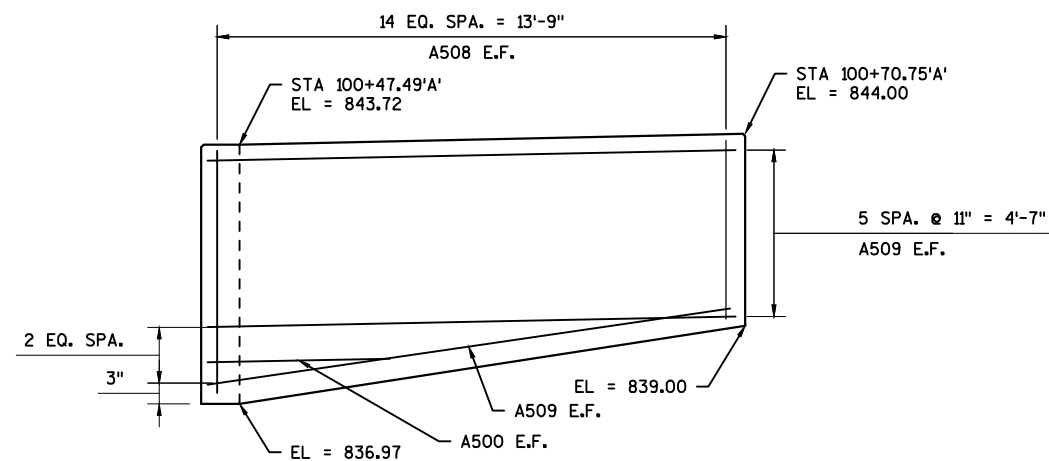
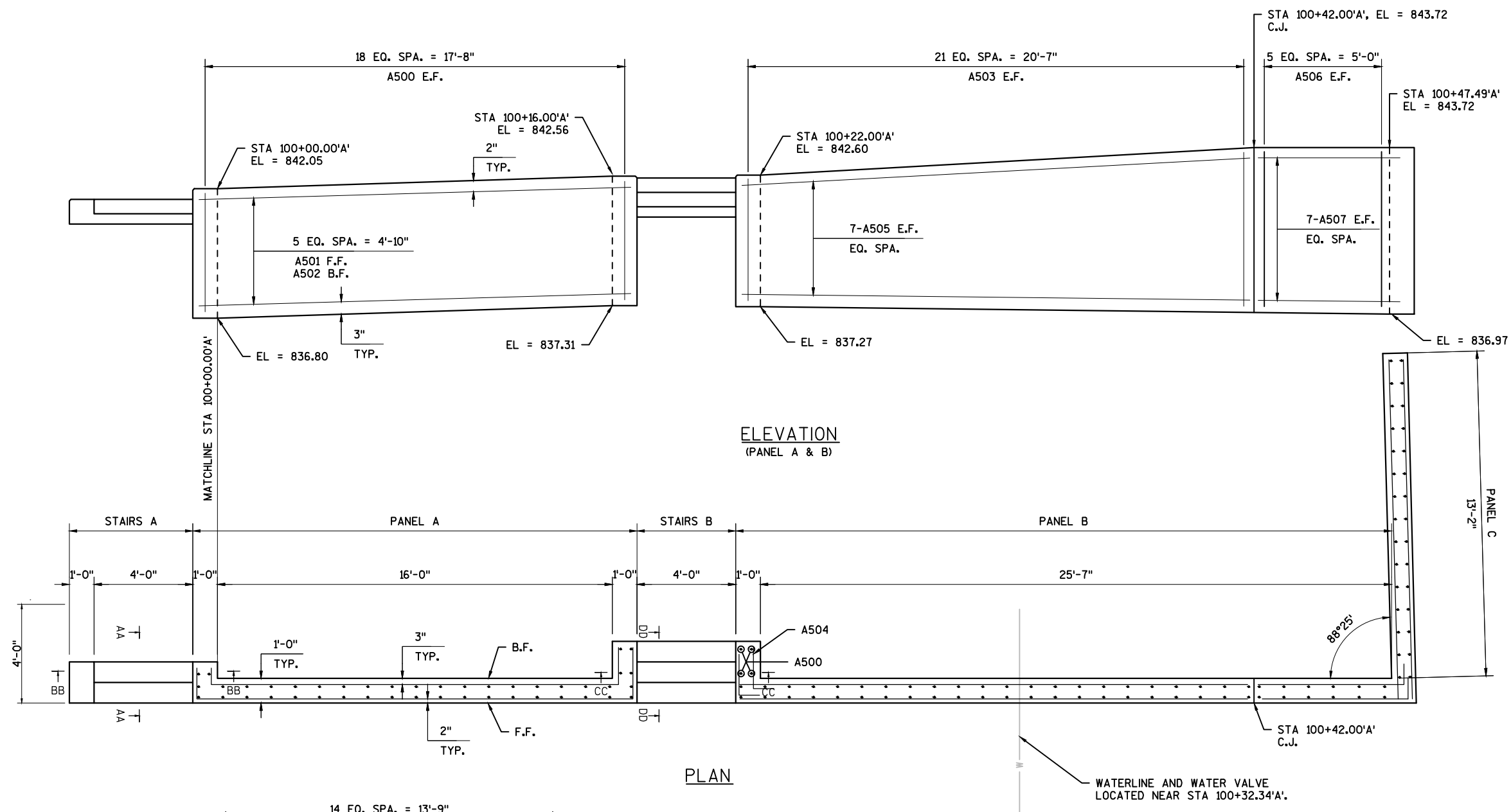
BACKFILL THE FACES OF THE WALL EQUALLY.

CONNECT THE UNDERDRAIN PIPE BENEATH THE SHEAR WALLS TO THE UNDERDRAIN PIPE BENEATH THE WALL ALONG STH 81.

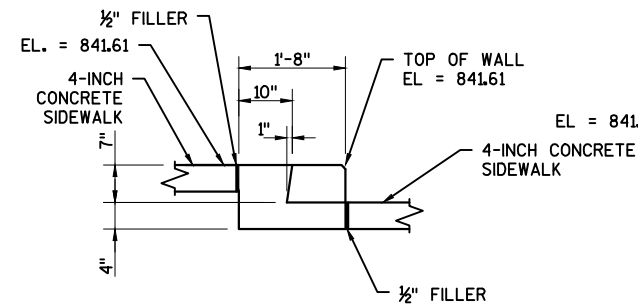
CONNECTION FROM UNPERFORATED PIPE TO INLET IS INCIDENTAL TO PIPE UNDERDRAIN.

LEGEND

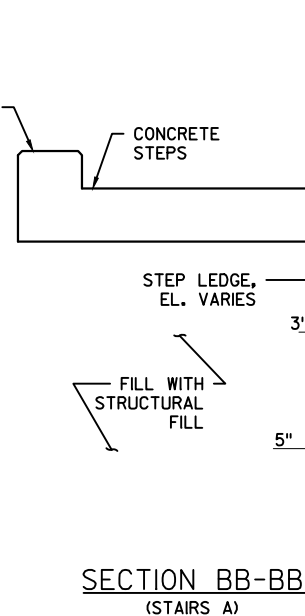
C.J. = CONTRACTION JOINT
INV. EL. = INVERT ELEVATION
C.I.P. = CAST IN PLACE



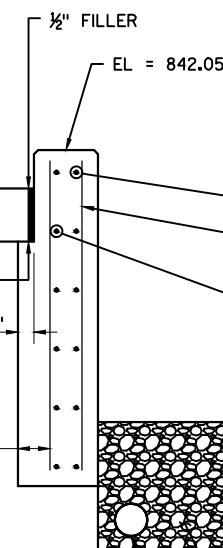
LEGEND
 E.F. = EACH FACE
 B.F. = BACK FACE
 F.F. = FRONT FACE
 C.J. = CONTRACTION JOINT



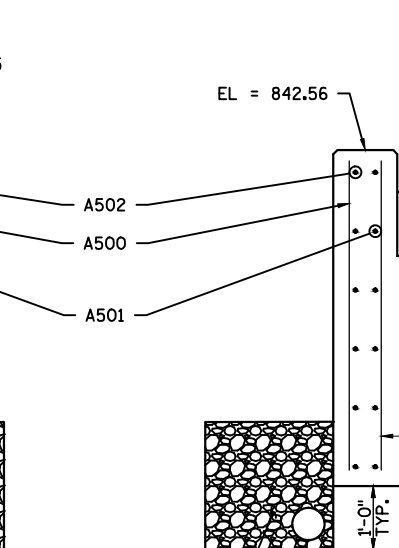
SECTION AA-AA
(STAIRS A)



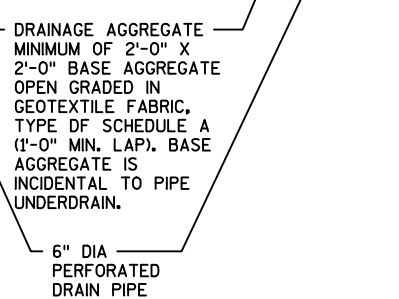
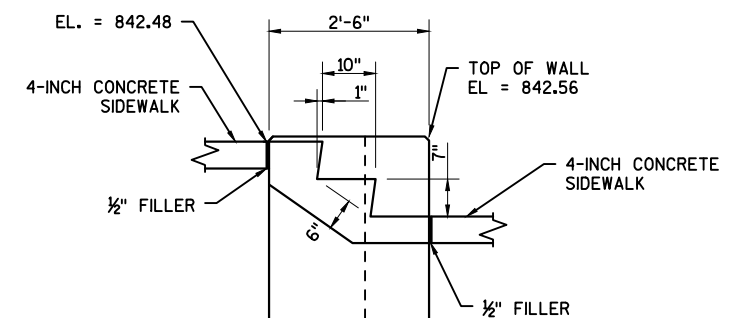
SECTION BB-BB
(STAIRS A)



SECTION CC-CC
(STAIRS B)

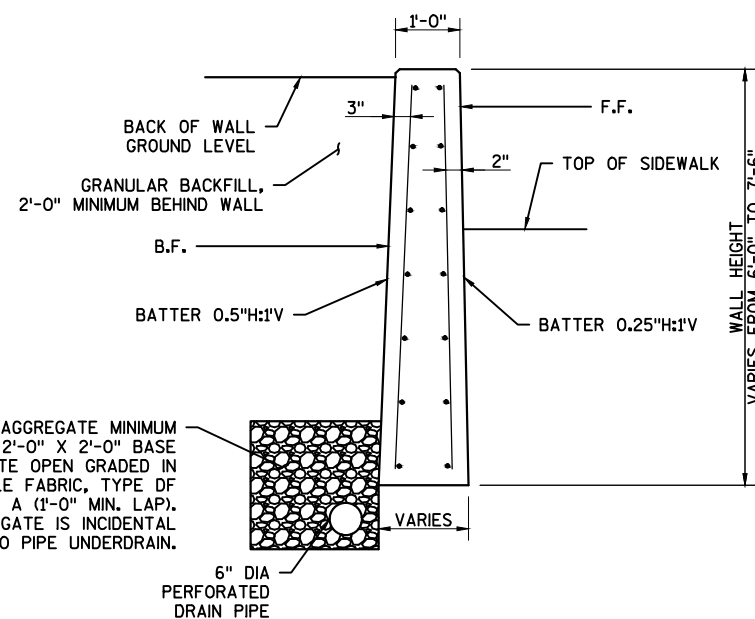


SECTION DD-DD
(STAIRS B)

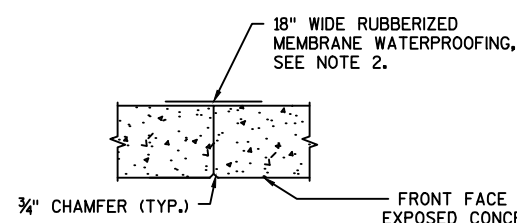


DRAINAGE AGGREGATE MINIMUM OF 2'-0" X 2'-0" BASE AGGREGATE OPEN GRADED IN GEOTEXTILE FABRIC, TYPE DF SCHEDULE A (1'-0" MIN. LAP). BASE AGGREGATE IS INCIDENTAL TO PIPE UNDERDRAIN.

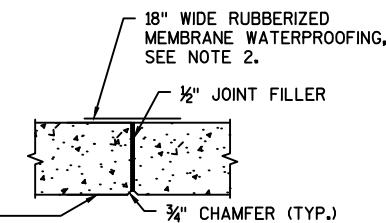
6" DIA PERFORATED DRAIN PIPE



TYPICAL SECTION
CAST IN PLACE CONCRETE WALL



C.I.P. WALL CONTRACTION
JOINT DETAIL



C.I.P. WALL EXPANSION
JOINT DETAIL

NOTES

PLACE 2'-FT STRUCTURAL BACKFILL BELOW BOTTOM OF STEPS.

RUBBERIZED MEMBRANE WATERPROOFING RUNS FROM GROUND LEVEL DOWN TO BOTTOM OF WALL, COST INCIDENTAL TO "CONCRETE MASONRY RETAINING WALLS."

LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE

BILL OF BARS

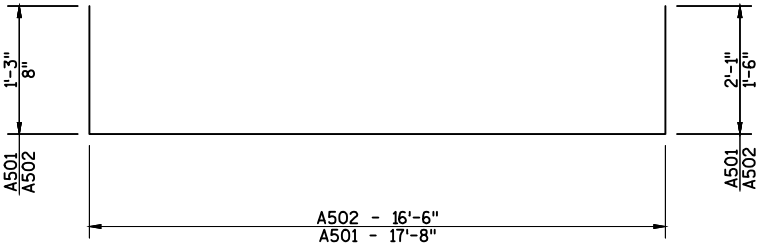
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A500	X	50	4'-10"			PAN. A & B VERT., PAN. C HORI.
A501	X	6	20'-9"	X		PANEL A HORIZONTAL
A502	X	6	18'-4"	X		PANEL A HORIZONTAL
A503	X	42	5'-7"		▲	PANEL B VERTICAL
A504	X	10	2'-5"	X		PANEL B HORIZONTAL
A505	X	14	20'-7"			PANEL B HORIZONTAL
A506	X	12	6'-4"			PANEL B VERTICAL
A507	X	14	6'-6"	X		PANEL B HORIZONTAL
A508	X	30	5'-6"		▲	PANEL C VERTICAL
A509	X	14	13'-9"			PANEL C HORIZONTAL

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

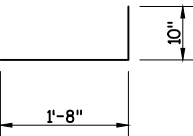
NOTE: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.

SERIES OF BARS

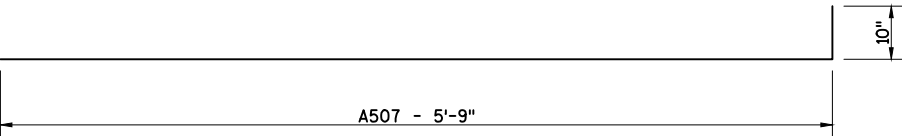
BAR MARK	NO. REQ'D	LENGTH
A503	2 SERIES OF 21	4'-11" TO 6'-3"
A508	2 SERIES OF 15	4'-8" TO 6'-4"



A501 & A502



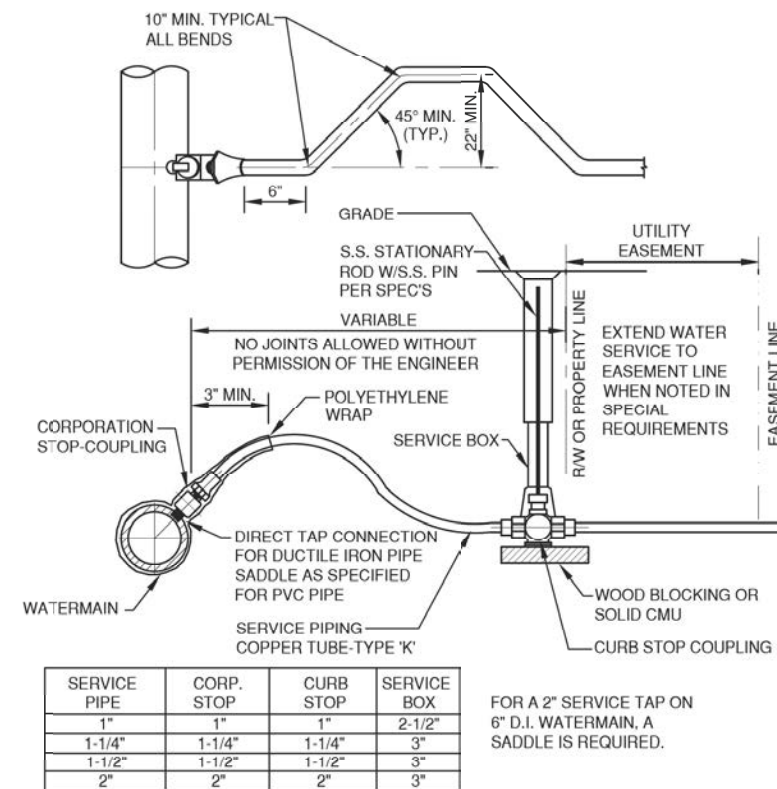
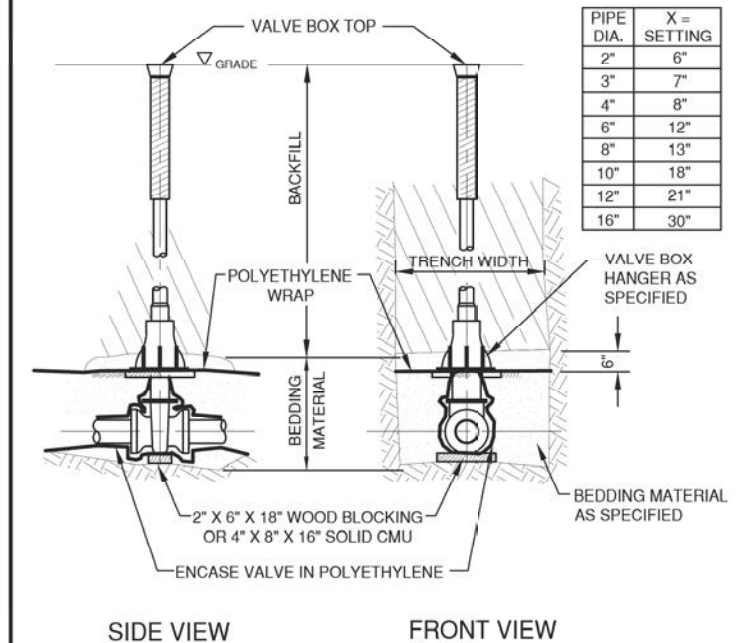
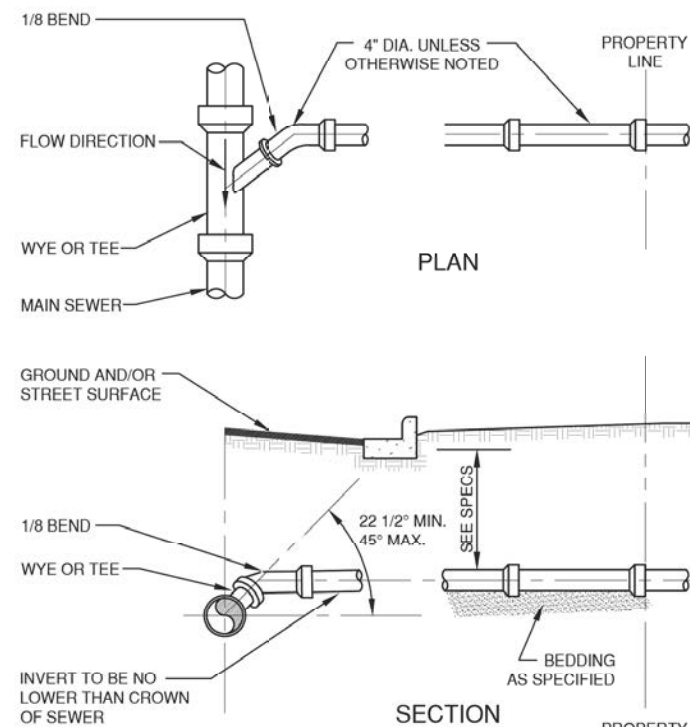
A504



A507

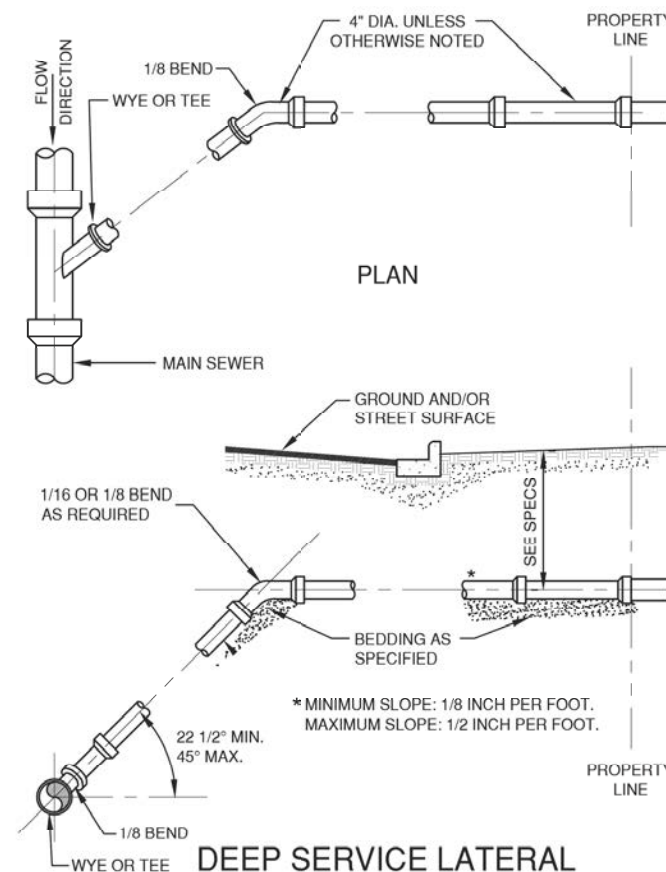


03/25/2014

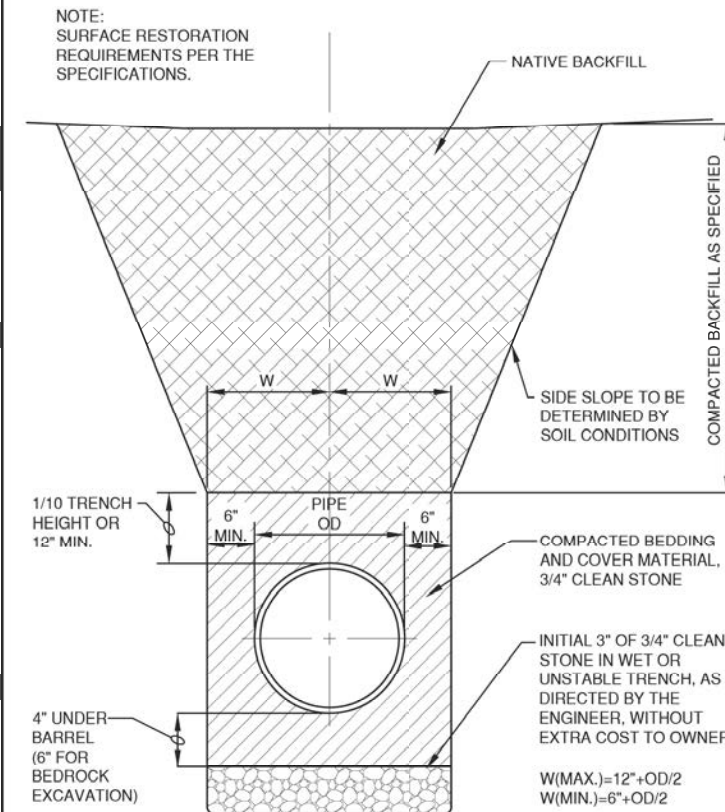
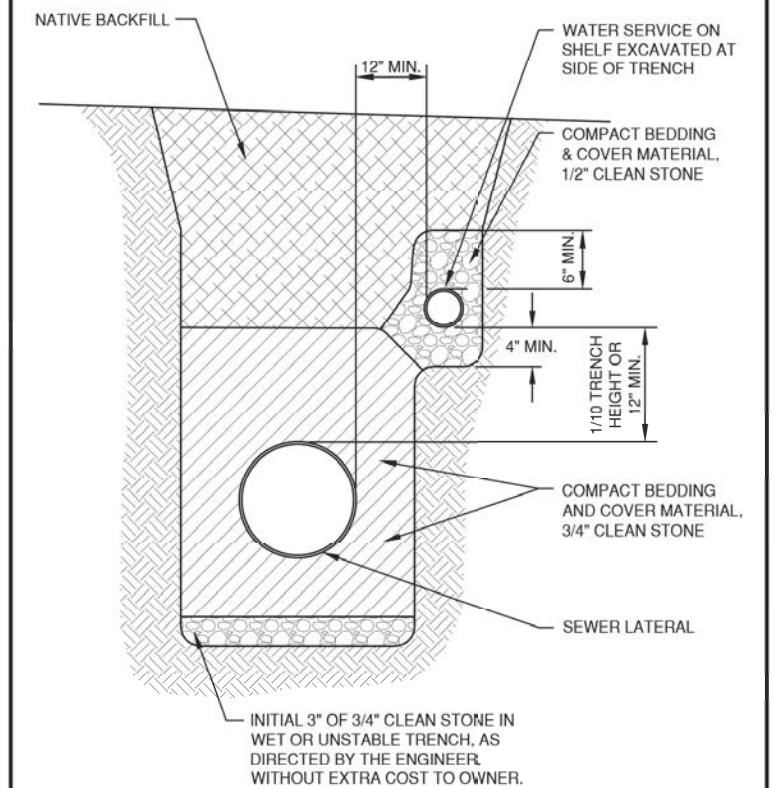
TAP SERVICE PIPING
(COPPER)SIDE VIEW FRONT VIEW
VALVE BOX SETTING

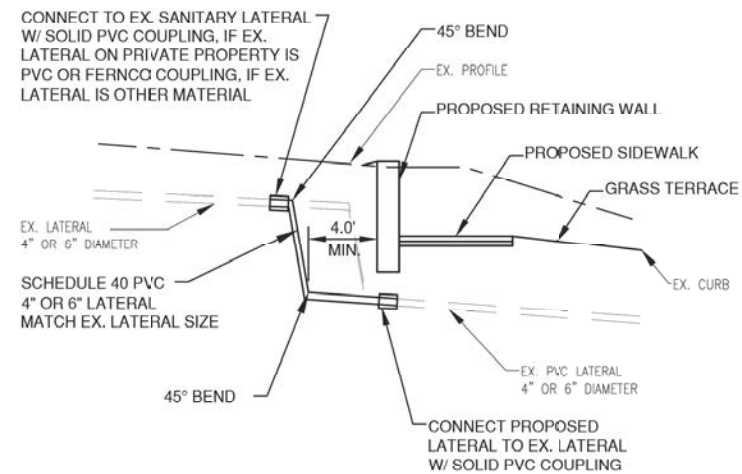
- NOTES:
1. SADDLE CONNECTIONS NOT PERMITTED.
 2. BACKFILL TO CONFORM TO MAIN SEWER.
 3. MINIMUM SLOPE: 1/8 INCH PER FOOT.
 4. MAXIMUM SLOPE: 1/2 INCH PER FOOT.

STANDARD SERVICE LATERAL



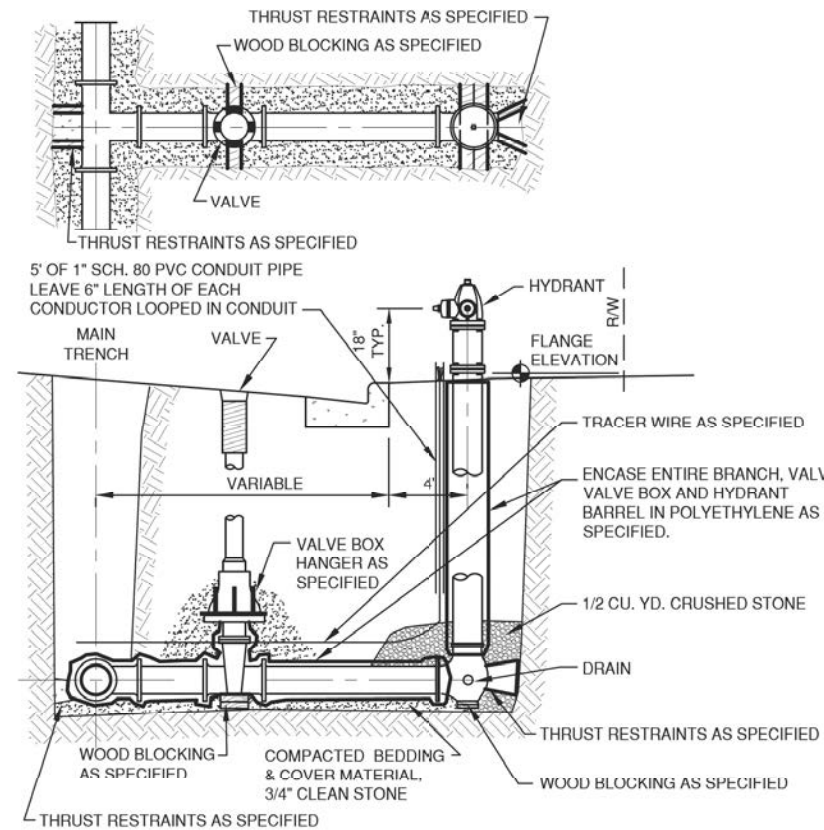
DEEP SERVICE LATERAL

PVC SEWER & WATERMAIN
BEDDING & TRENCH SECTIONSEWER & WATER LATERALS
IN COMMON TRENCH



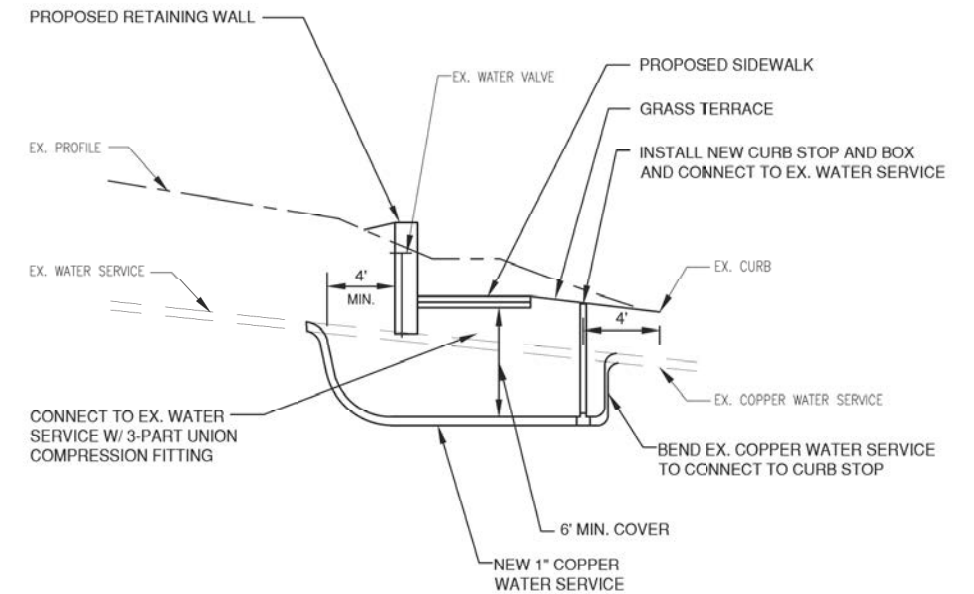
SANITARY SEWER LATERAL RELOCATION DETAIL
ITEM SPV. 0060.01

STATION	LOCATION	HOUSE NUMBER
11+66	Louisa Street, Lt	Parking Lot/#308
12+15	Louisa Street, Lt	Parking Lot
14+26	Louisa Street, Lt	#404
15+33	Louisa Street, Lt	#430
15+72	Louisa Street, Lt	#442
17+31	Louisa Street, Lt	#504
17+69	Louisa Street, Lt	Between #504 and #530
18+37	Louisa Street, Lt	#530
19+71	Louisa Street, Lt	#600
20+68	Louisa Street, Lt	#604



WATER MAIN, HYDRANT RELOCATION DETAIL
ITEM SPV. 0060.02

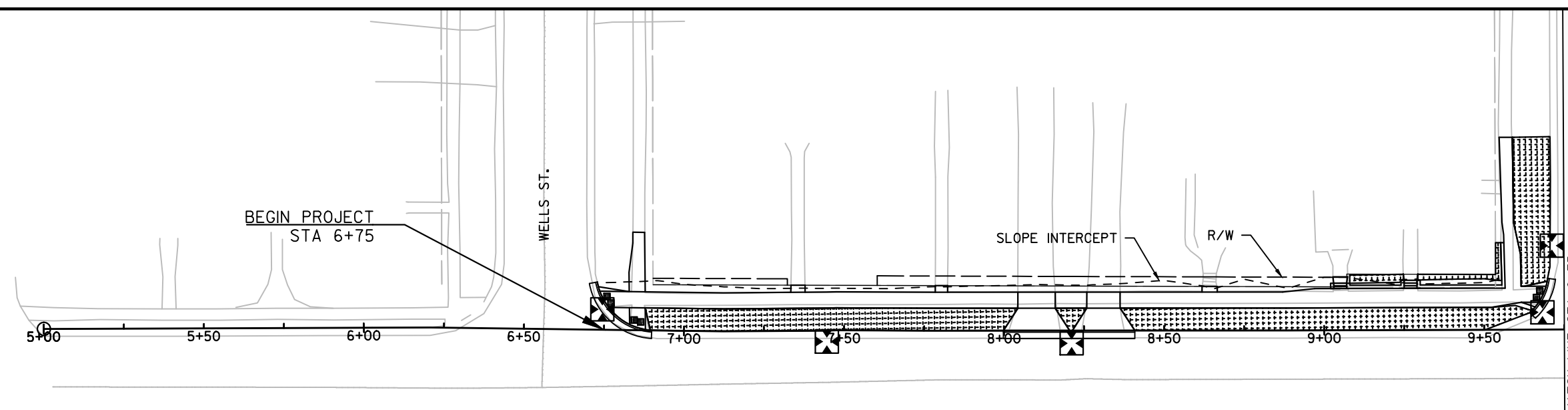
STATION	LOCATION
10+16	Louisa Street, Lt
13+53	Louisa Street, Lt



WATER MAIN, WATER SERVICE RELOCATION DETAIL
ITEM SPV. 0060.3

STATION	LOCATION	HOUSE NUMBER
9+40	Louisa Street, Lt	#244
10+17	Louisa Street, Lt	#308
14+67	Louisa Street, Lt	#404
15+31	Louisa Street, Lt	#430
18+37	Louisa Street, Lt	#530
19+06	Louisa Street, Lt	#544
19+78	Louisa Street, Lt	#600
20+38	Louisa Street, Lt	#604

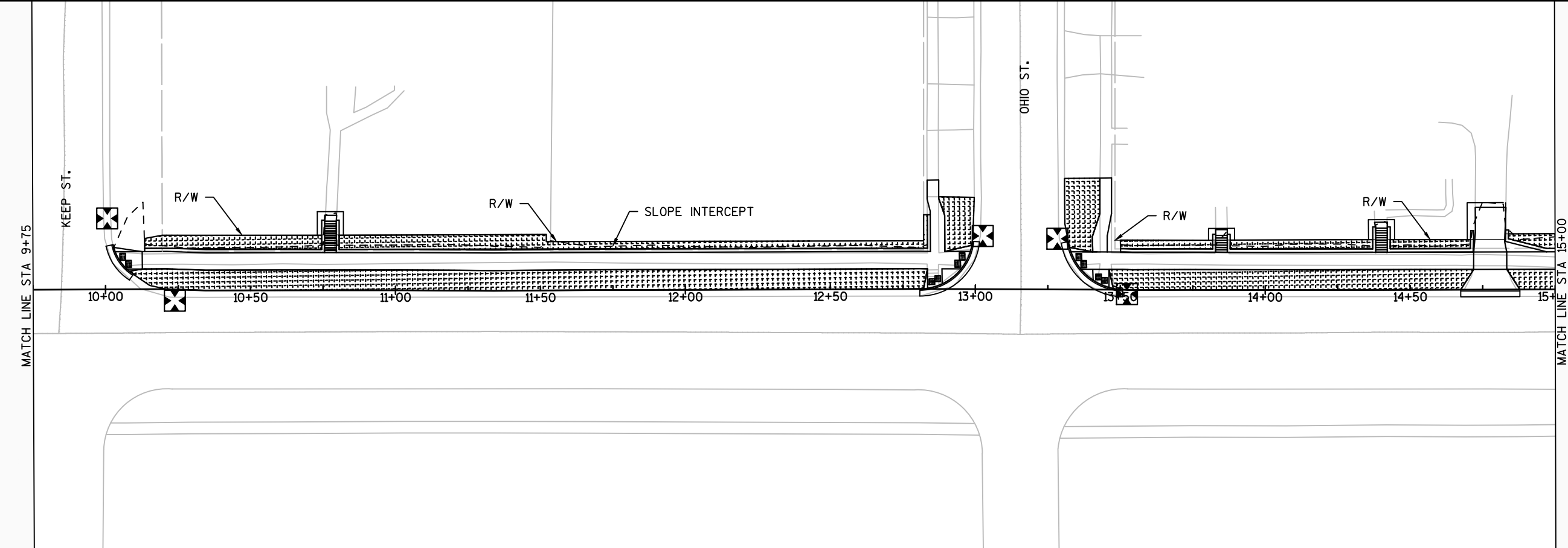


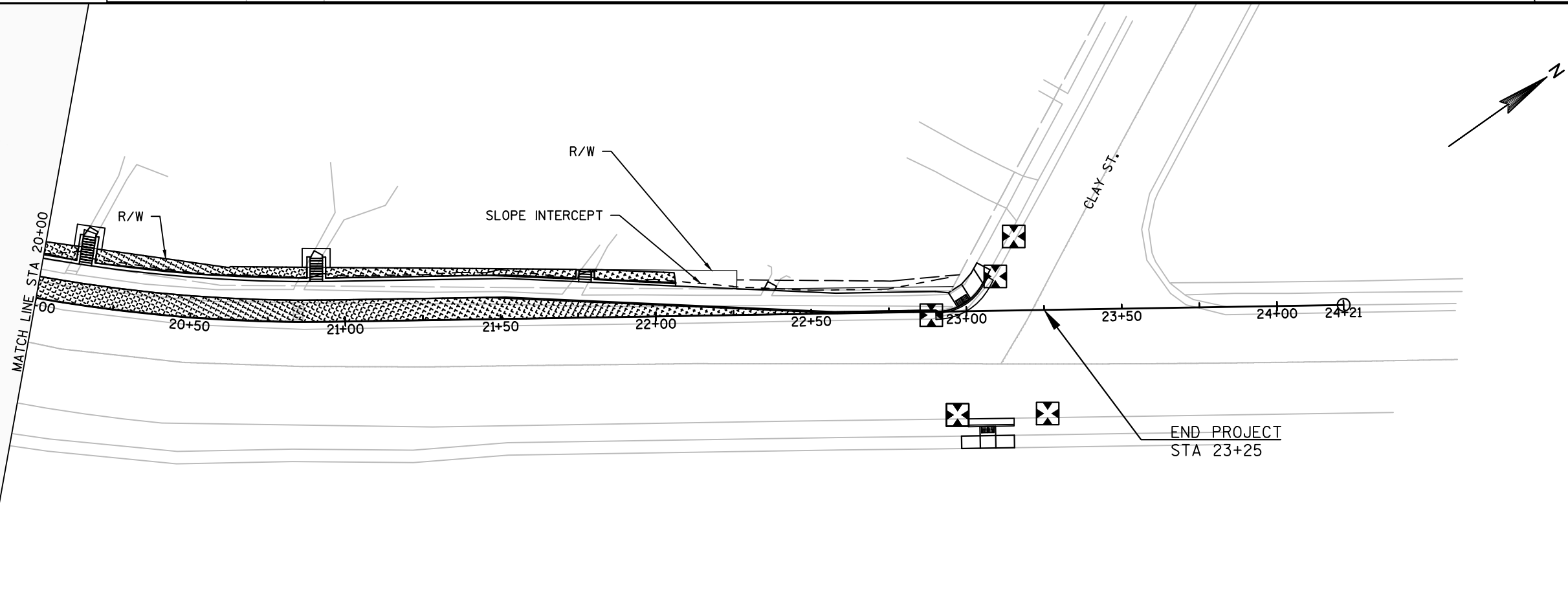
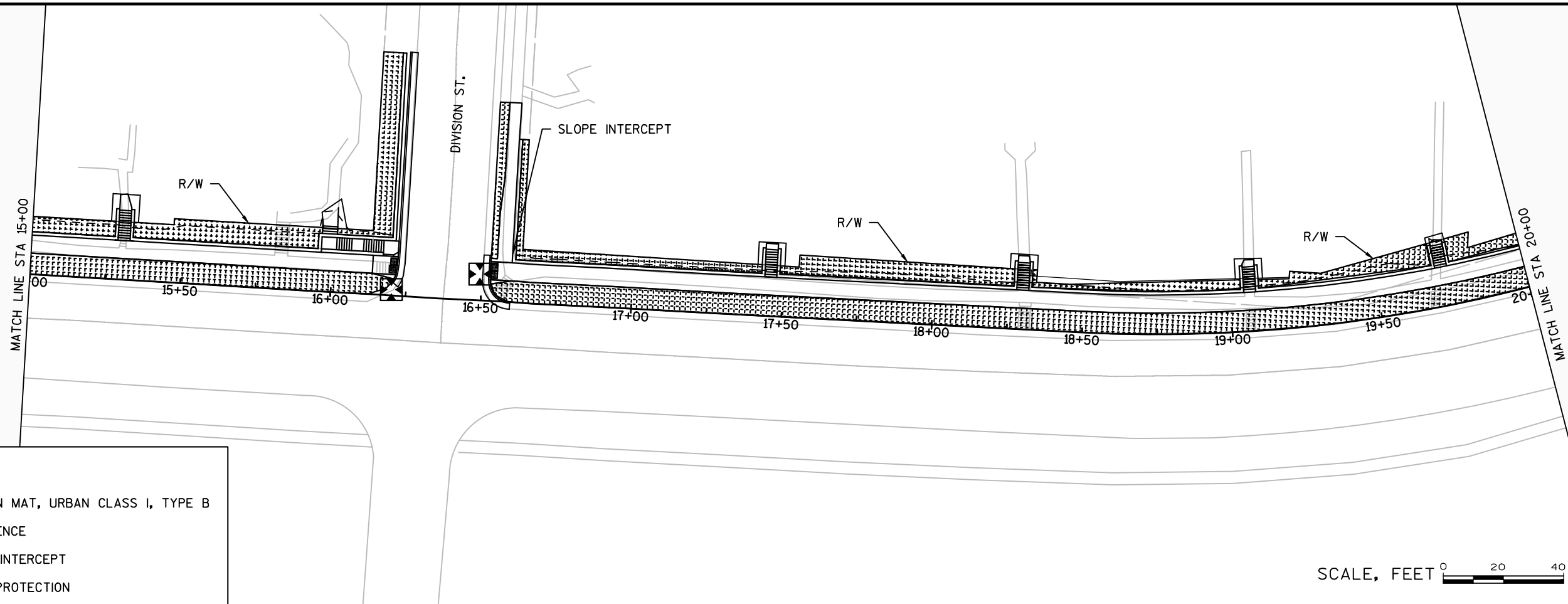


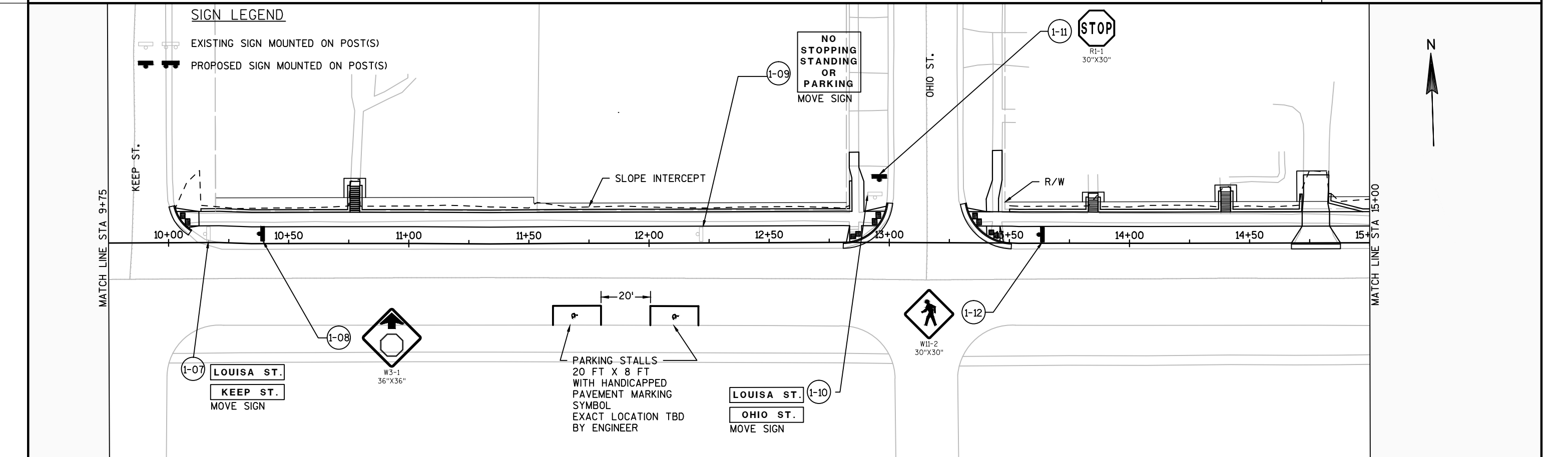
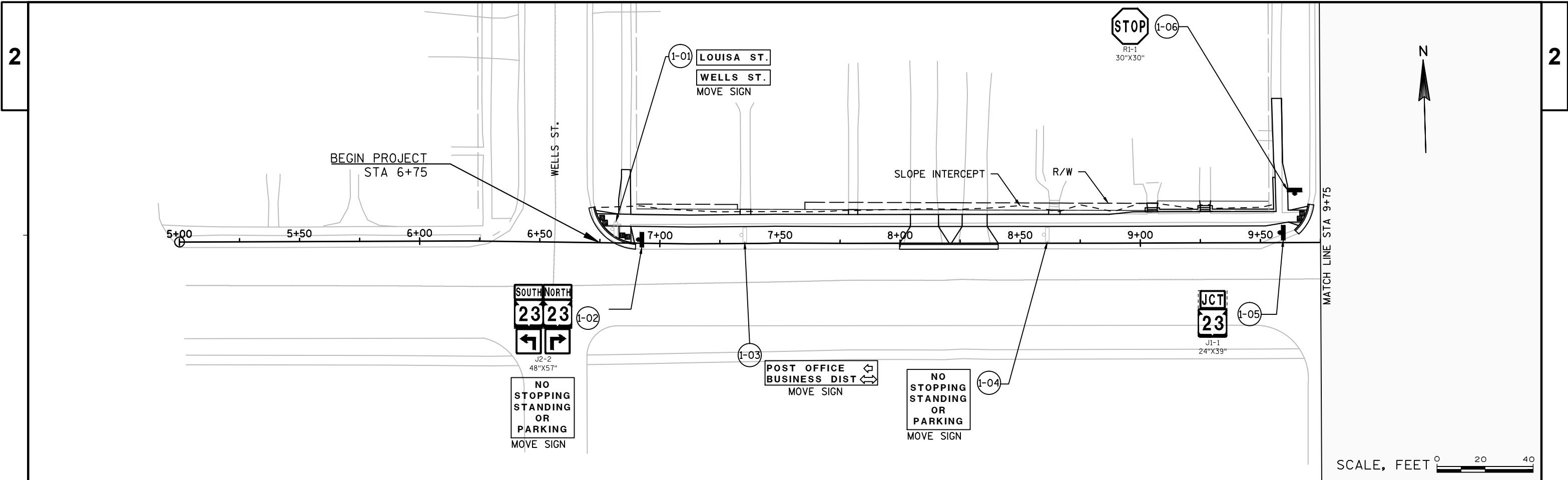
LEGEND

- EROSION MAT, URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION

SCALE, FEET 0 20 40



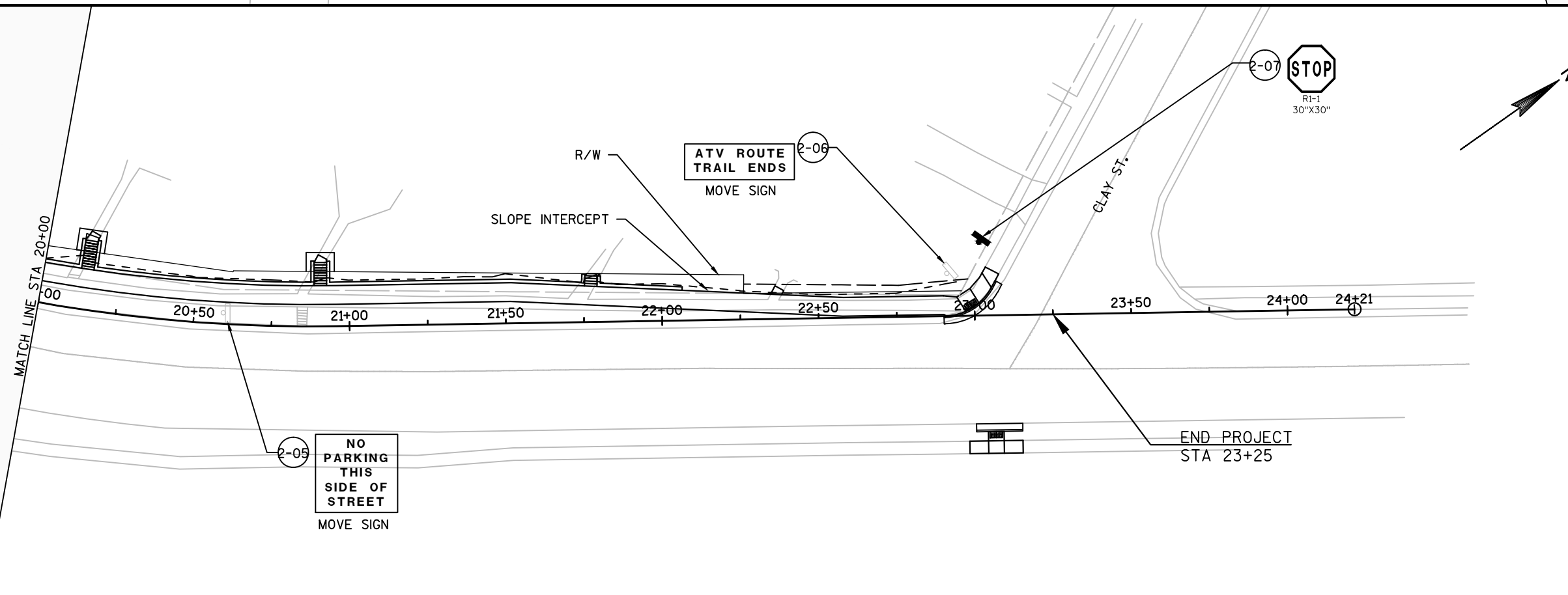
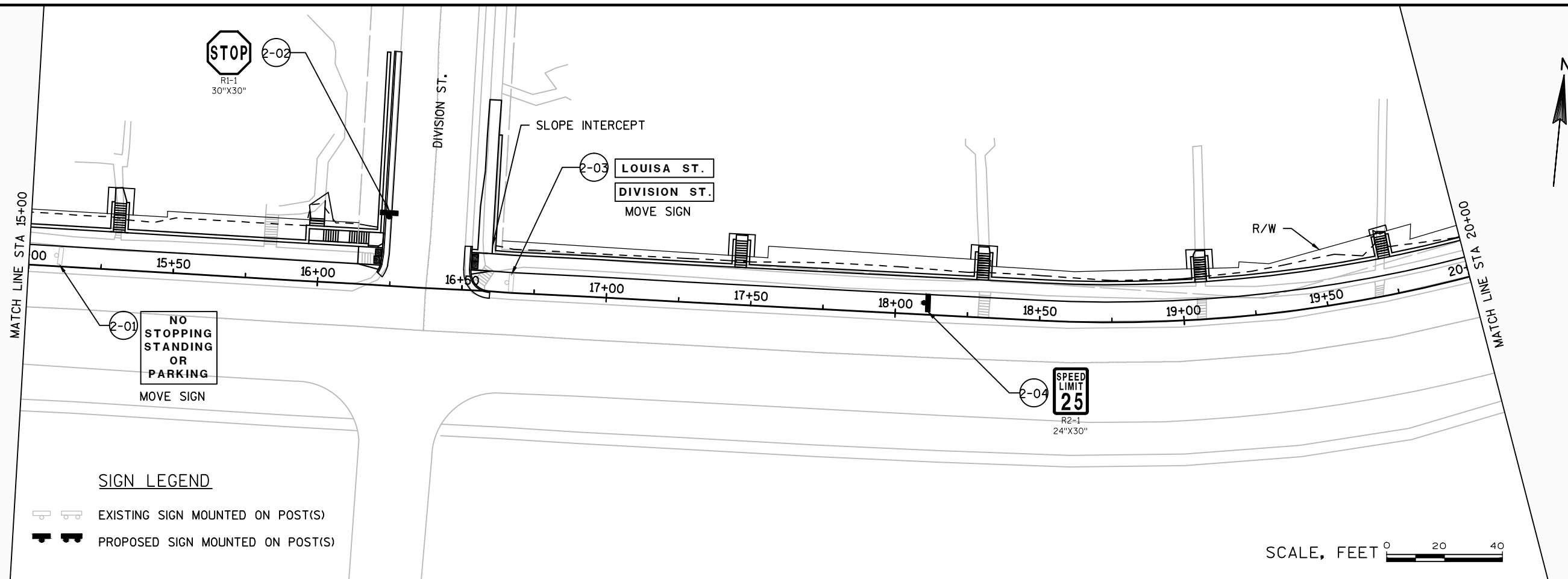


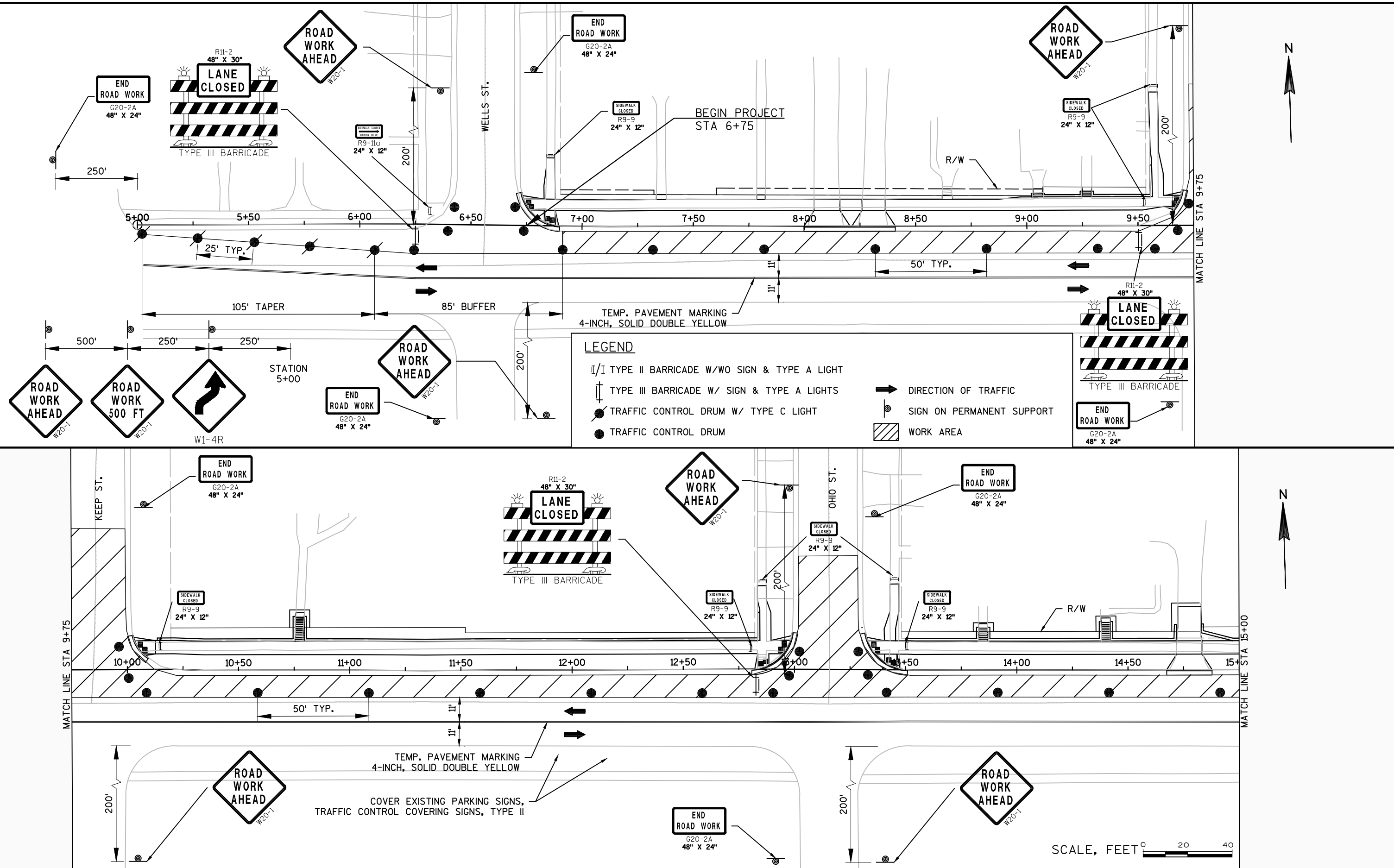


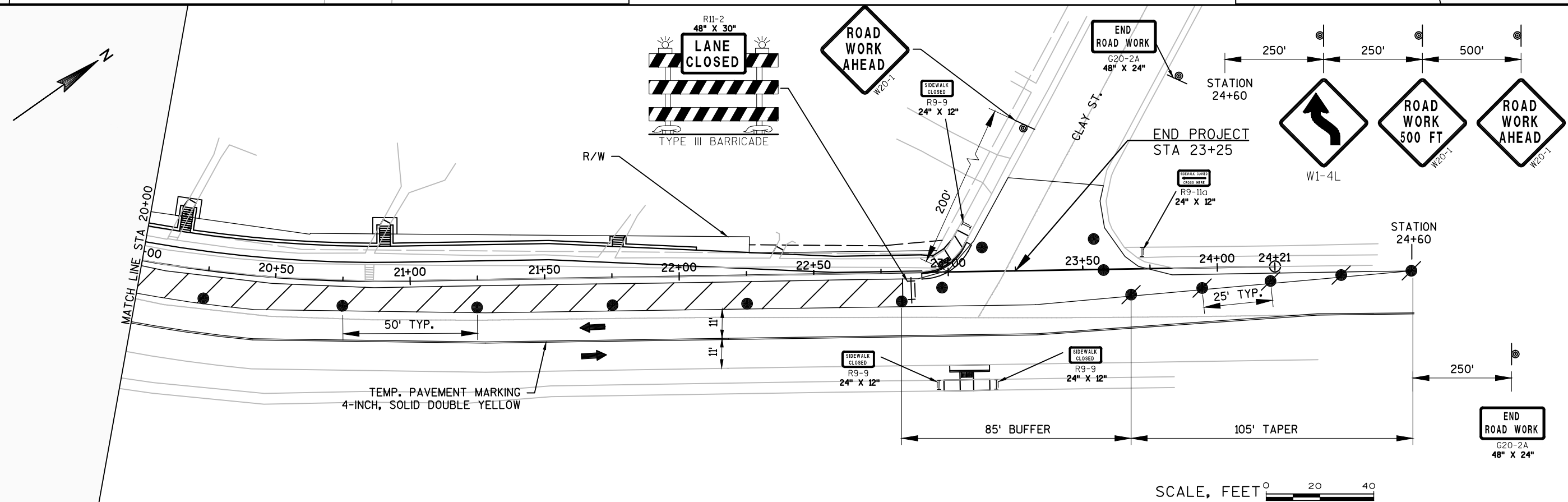
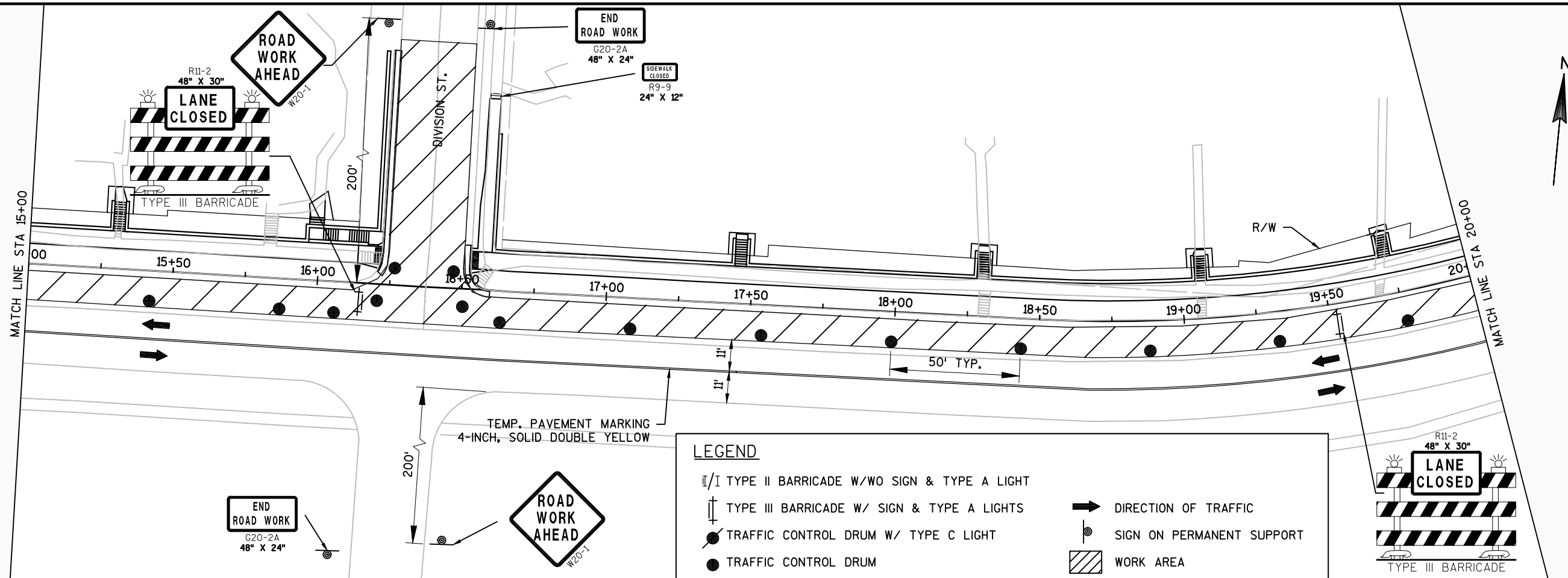
SIGN LEGEND

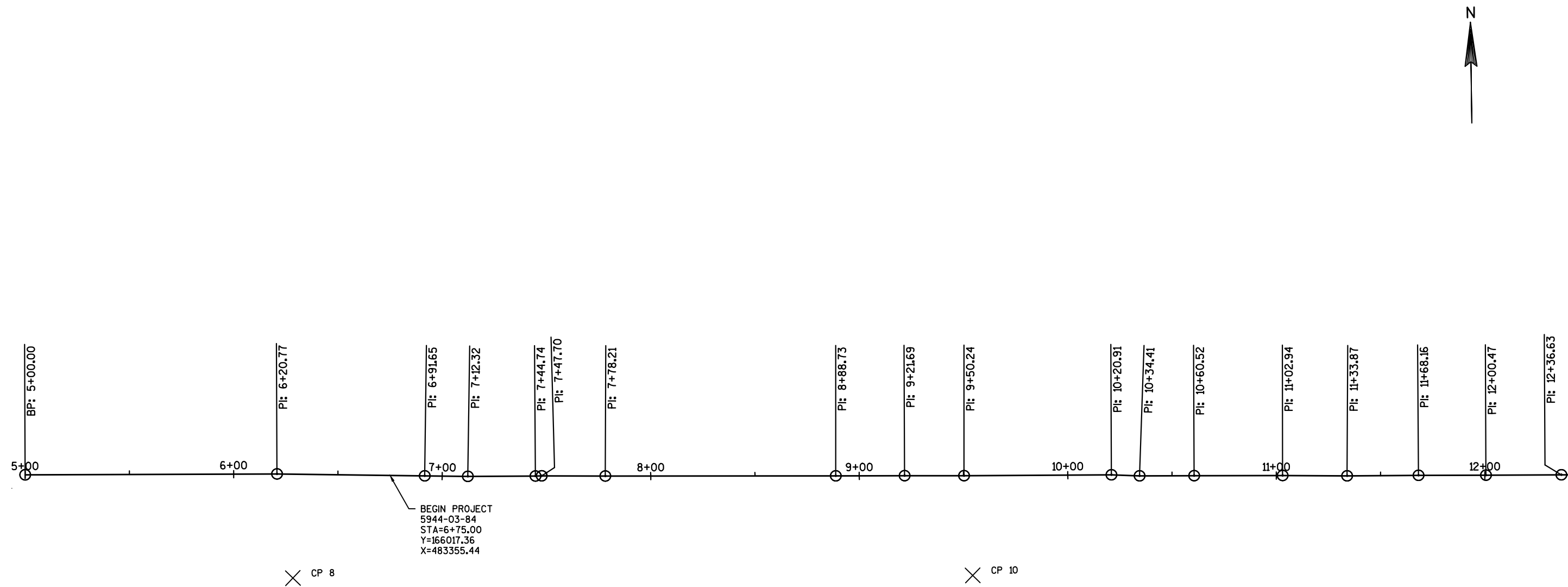
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)

PARKING STALLS
20 FT X 8 FT
WITH HANDICAPPED
PAVEMENT MARKING
SYMBOL
EXACT LOCATION TBD
BY ENGINEER





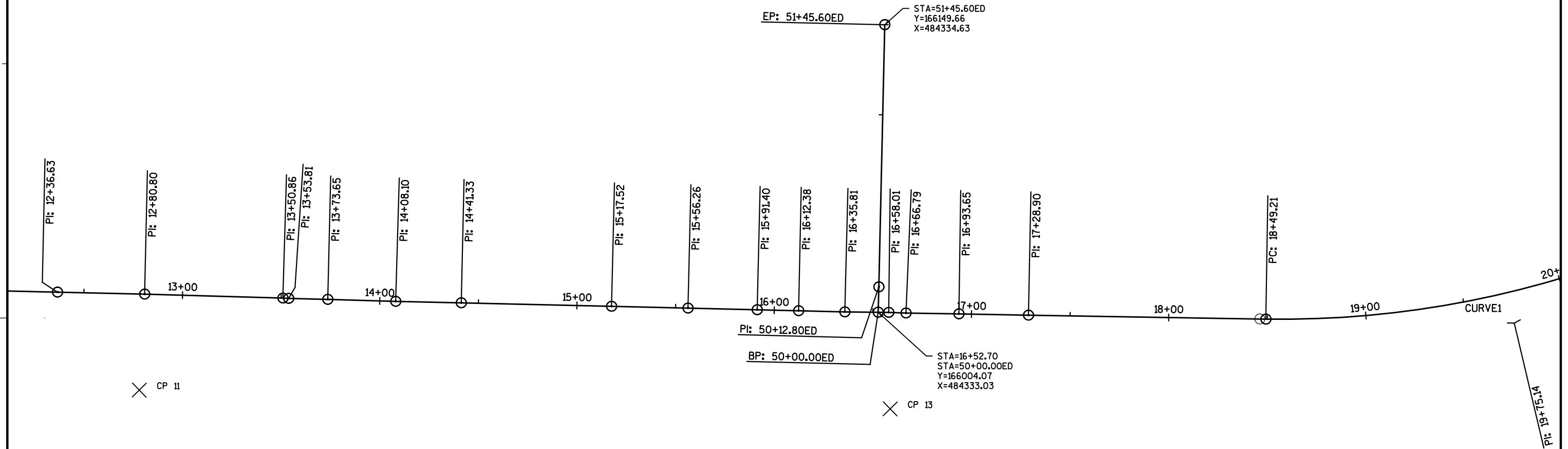




PI STA	DISTANCE	DIRECTION
5+00.00		
	120.775'	S89° 22' 15.93"E
6+20.77		
	70.871'	S88° 23' 45.24"E
6+91.65		
	20.674'	S88° 22' 29.58"E
7+12.32		
	32.416'	S89° 33' 52.14"E
7+44.74		
	2.964'	N89° 17' 19.13"E
7+47.70		
	30.513'	S88° 55' 41.25"E
7+78.21		
	110.521'	S89° 11' 32.97"E
8+88.73		

PI STA	DISTANCE	DIRECTION
8+88.73		
	32.952'	S89° 23' 25.38"E
9+21.69		
	28.557'	S89° 12' 06.59"E
9+50.24		
	70.663'	S89° 26' 37.23"E
10+20.91		
	13.505'	S87° 10' 14.63"E
10+34.41		
	26.114'	S89° 22' 20.16"E
10+60.52		
	42.417'	S89° 12' 06.47"E
11+02.94		
	30.931'	S88° 52' 03.31"E
11+33.87		

PI STA	DISTANCE	DIRECTION
11+33.87		
	34.288'	S89° 34' 06.76"E
11+68.16		
	32.309'	S89° 21' 24.42"E
12+00.47		
	36.156'	S89° 25' 06.30"E
12+36.63		

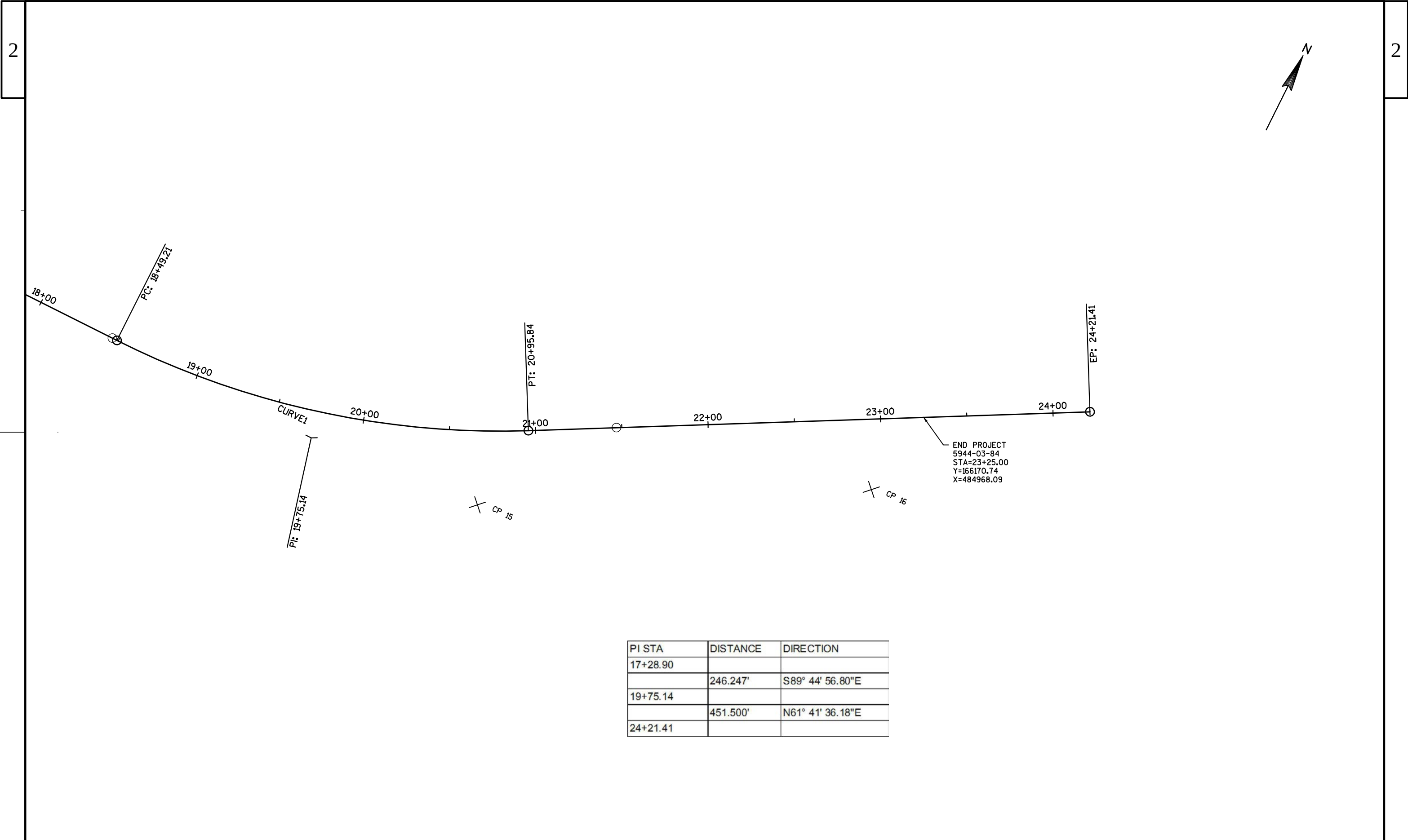


PI STA	DISTANCE	DIRECTION
12+36.63		
	44.170'	S89° 22' 24.00"E
12+80.80		
	70.061'	S89° 00' 33.36"E
13+50.86		
	2.951'	S86° 56' 48.51"E
13+53.81		
	19.845'	S89° 17' 16.76"E
13+73.65		
	34.450'	S89° 02' 27.53"E
14+08.10		
	33.222'	S89° 21' 41.49"E
14+41.33		

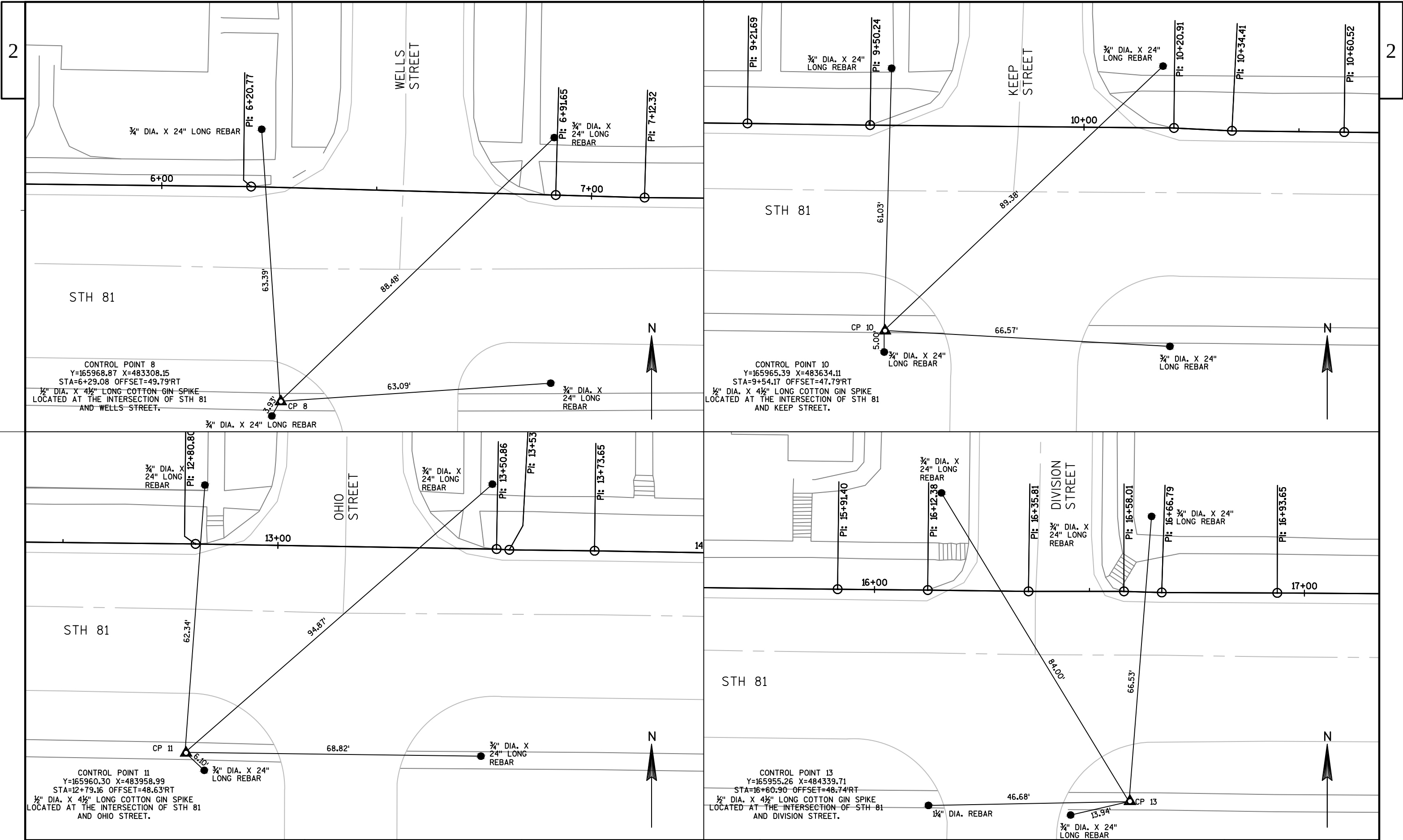
PI STA	DISTANCE	DIRECTION
14+41.33		
	76.192'	S89° 20' 13.84"E
15+17.52		
	38.746'	S89° 18' 38.14"E
15+56.26		
	35.132'	S89° 18' 23.54"E
15+91.40		
	20.982'	S89° 27' 34.46"E
16+12.38		
	23.429'	S89° 15' 37.69"E
16+35.81		
	22.205'	S89° 58' 50.23"E
16+58.01		

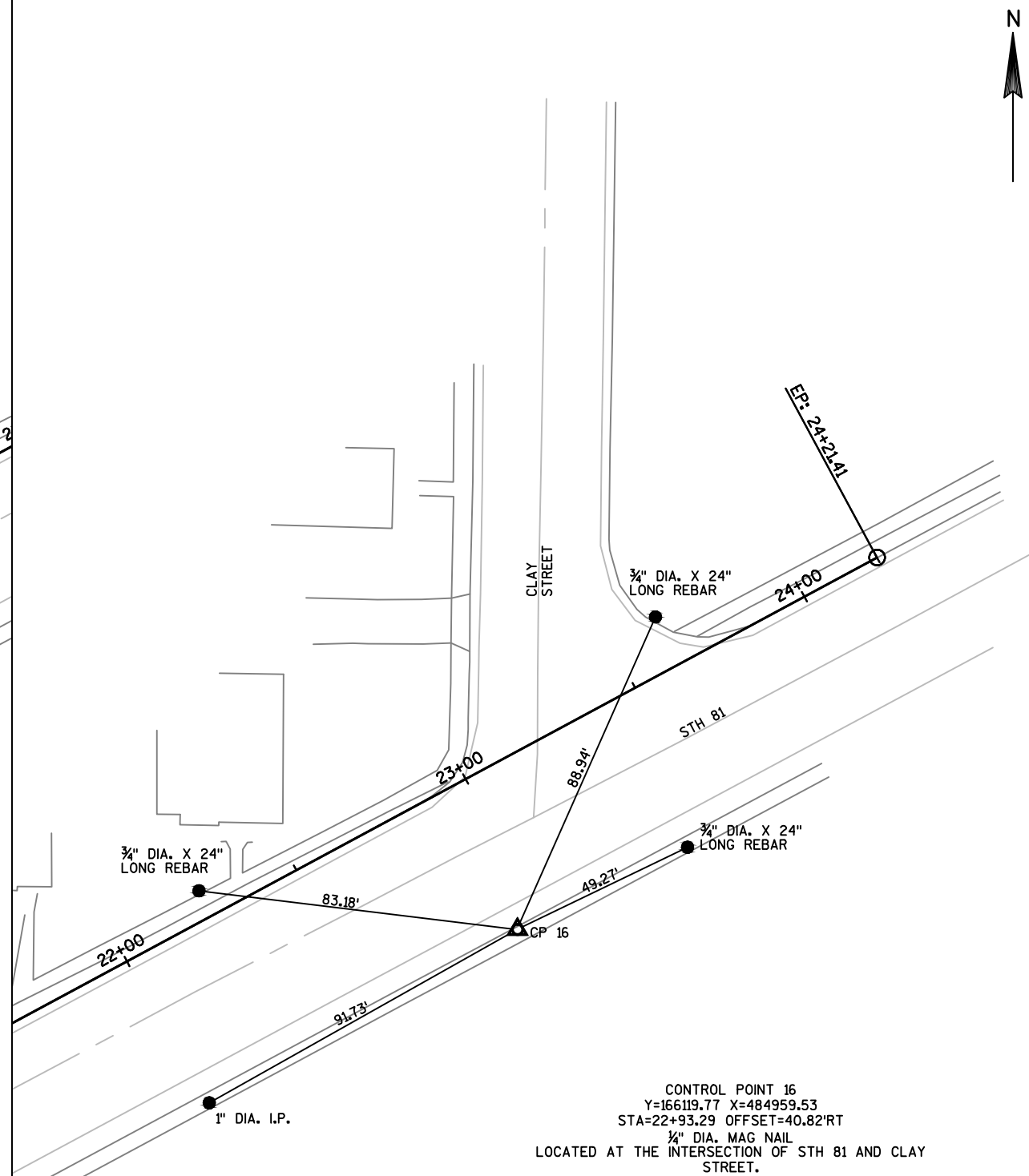
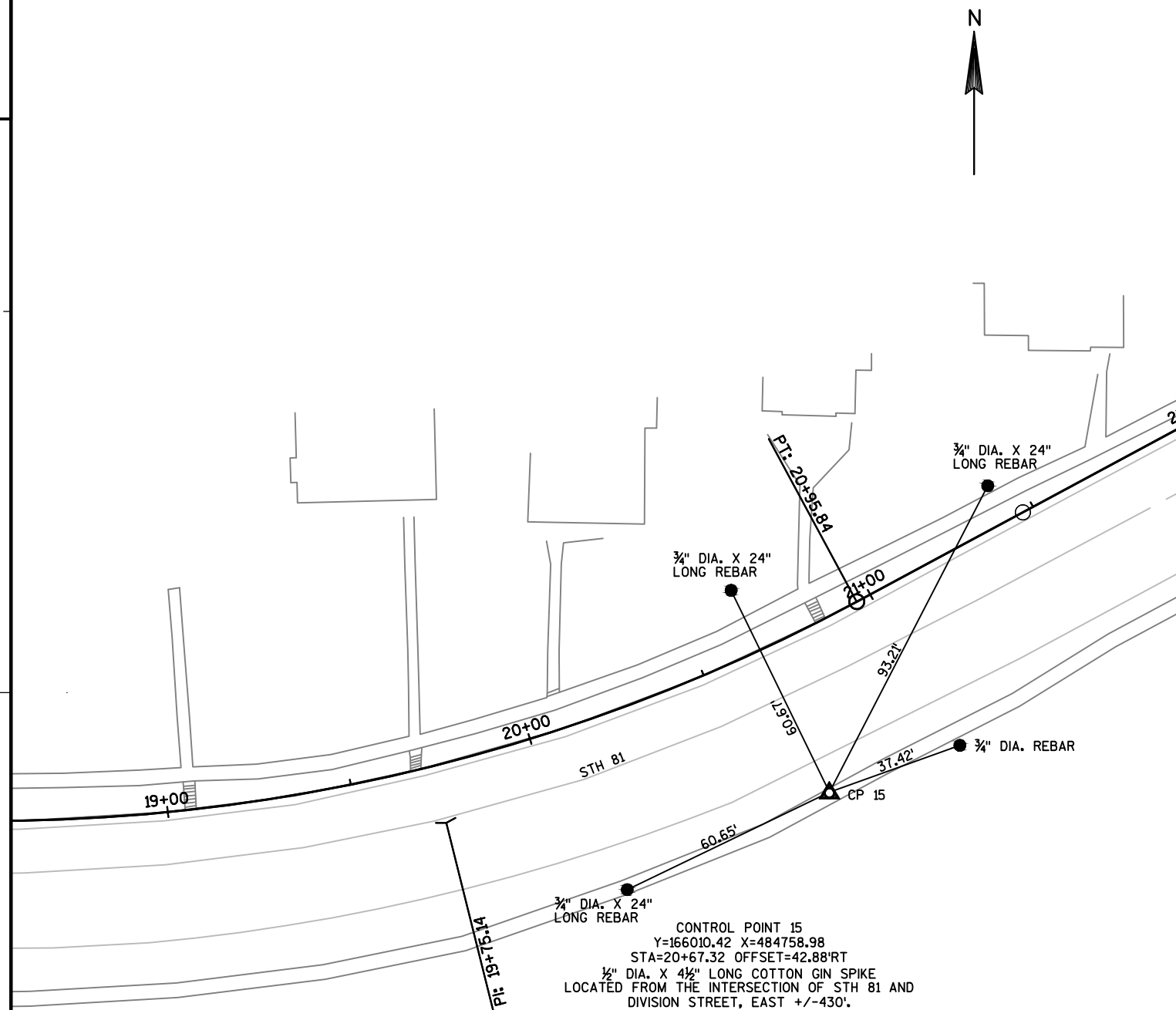
PI STA	DISTANCE	DIRECTION
16+58.01		
	8.777'	S88° 12' 49.31"E
16+66.79		
	26.864'	S89° 50' 34.88"E
16+93.65		
	35.244'	S89° 32' 34.86"E
17+28.90		
50+00.00ED		
	12.80'	N0° 44' 46.47"E
50+12.80ED		
	132.80'	N0° 37' 08.95"E
51+45.60ED		

CURVE1
PI STA = 19+75.14
Y = 166002.361
X = 484655.463
DELTA = 28°33'27"
D = 11°34'45"
T = 125.93'
L = 246.63'
R = 494.82'
PC STA = 18+49.21
Y = 166002.9123
X = 484529.5311
PT STA = 20+95.84
Y = 166062.0771
X = 484766.3378



PI STA	DISTANCE	DIRECTION
17+28.90		
	246.247'	S89° 44' 56.80"E
19+75.14		
	451.500'	N61° 41' 36.18"E
24+21.41		





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DATE 29APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE		5944-03-84			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0120	CLEARING	ID	74.000	74.000
0020	201.0220	GRUBBING	ID	74.000	74.000
0030	204.0100	REMOVING PAVEMENT	SY	53.000	53.000
0040	204.0110	REMOVING ASPHALTIC SURFACE	SY	24.000	24.000
0050	204.0150	REMOVING CURB & GUTTER	LF	302.000	302.000
0060	204.0155	REMOVING CONCRETE SIDEWALK	SY	862.000	862.000
0070	204.0165	REMOVING GUARDRAIL	LF	128.000	128.000
0080	204.9105.S	REMOVING (ITEM DESCRIPTION) 01. MODULAR BLOCK RETAINING WALL (STA 15+50)	LS	1.000	1.000
0090	204.9105.S	REMOVING (ITEM DESCRIPTION) 02. MODULAR BLOCK RETAINING WALL (STA 20+00)	LS	1.000	1.000
0100	205.0100	EXCAVATION COMMON	CY	1,709.000	1,709.000
0110	205.0300	EXCAVATION STONE PILES AND STONE FENCES	CY	45.000	45.000
0120	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 01. 9+50	LS	1.000	1.000
0130	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 02. R-33-004	LS	1.000	1.000
0140	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 03. R-33-005	LS	1.000	1.000
0150	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 04. R-33-006	LS	1.000	1.000
0160	210.0100	BACKFILL STRUCTURE	CY	71.000	71.000
0170	213.0100	FINISHING ROADWAY (PROJECT) 01. 5944-03-84	EACH	1.000	1.000
0180	305.0115	BASE AGGREGATE DENSE 3/4-INCH	CY	167.000	167.000
0190	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	60.000	60.000
0200	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	6.000	6.000
0210	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	440.000	440.000
0220	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	39,780.000	39,780.000
0230	506.0605	STRUCTURAL STEEL HS	LB	123,194.000	123,194.000
0240	506.3014	WELDED STUD SHEAR CONNECTORS 3/4X6-INCH	EACH	1,736.000	1,736.000
0250	513.2050.S	RAILING PIPE	LF	254.000	254.000
0260	517.1010.S	CONCRETE STAINING (STRUCTURE) 01. R-33-004	SF	622.000	622.000
0270	517.1010.S	CONCRETE STAINING (STRUCTURE) 02. R-33-005	SF	992.000	992.000
0280	517.1010.S	CONCRETE STAINING (STRUCTURE) 03. R-33-006	SF	1,738.000	1,738.000
0290	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 01. R-33-004	SF	622.000	622.000
0300	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 02. R-33-005	SF	992.000	992.000
0310	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 03. R-33-006	SF	1,738.000	1,738.000
0320	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	302.000	302.000
0330	601.0600	CONCRETE CURB PEDESTRIAN	LF	4.000	4.000
0340	602.0405	CONCRETE SIDEWALK 4-INCH	SF	9,934.000	9,934.000
0350	602.0515	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA	SF	106.000	106.000
0360	602.1500	CONCRETE STEPS	SF	85.000	85.000
0370	611.8115	ADJUSTING INLET COVERS	EACH	2.000	2.000
0380	612.0106	PIPE UNDERDRAIN 6-INCH	LF	1,496.000	1,496.000
0390	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	189.000	189.000
0400	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 5944-03-84	EACH	1.000	1.000

3

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DATE 29APR14		E S T I M A T E O F Q U A N T I T I E S			
LINE				5944-03-84	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0410	619.1000	MOBILIZATION	EACH	1.000	1.000
0420	624.0100	WATER	MGAL	5.000	5.000
0430	625.0500	SALVAGED TOPSOIL	SY	6,660.000	6,660.000
0440	628.1504	SILT FENCE	LF	100.000	100.000
0450	628.1520	SILT FENCE MAINTENANCE	LF	100.000	100.000
0460	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	5.000	5.000
0470	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000
0480	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	1,623.000	1,623.000
0490	628.7005	INLET PROTECTION TYPE A	EACH	1.000	1.000
0500	628.7015	INLET PROTECTION TYPE C	EACH	17.000	17.000
0510	629.0210	FERTILIZER TYPE B	CWT	1.040	1.040
0520	630.0140	SEEDING MIXTURE NO. 40	LB	29.240	29.240
0530	630.0200	SEEDING TEMPORARY	LB	43.850	43.850
0540	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	9.000	9.000
0550	637.2210	SIGNS TYPE II REFLECTIVE H	SF	51.220	51.220
0560	637.2230	SIGNS TYPE II REFLECTIVE F	SF	15.250	15.250
0570	638.2102	MOVING SIGNS TYPE II	EACH	15.000	15.000
0580	638.2602	REMOVING SIGNS TYPE II	EACH	15.000	15.000
0590	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	9.000	9.000
0600	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	10.000	10.000
0610	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0620	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5944-03-84	EACH	1.000	1.000
0630	643.0300	TRAFFIC CONTROL DRUMS	DAY	5,280.000	5,280.000
0640	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	960.000	960.000
0650	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	480.000	480.000
0660	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	1,920.000	1,920.000
0670	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	800.000	800.000
0680	643.0900	TRAFFIC CONTROL SIGNS	DAY	3,526.000	3,526.000
0690	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	2.000	2.000
0700	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	1,187.000	1,187.000
0710	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	4,040.000	4,040.000
0720	646.0600	REMOVING PAVEMENT MARKINGS	LF	4,040.000	4,040.000
0730	647.0256	PAVEMENT MARKING SYMBOLS EPOXY	EACH	2.000	2.000
0740	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	3,960.000	3,960.000
0750	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. STA 9+50	LS	1.000	1.000
0760	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. R-33-004	LS	1.000	1.000
0770	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03. R-33-005	LS	1.000	1.000
0780	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 04. R-33-006	LS	1.000	1.000
0790	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5944-03-84	LS	1.000	1.000
0800	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	1,650.000	1,650.000
0810	690.0150	SAWING ASPHALT	LF	33.000	33.000
0820	690.0250	SAWING CONCRETE	LF	155.000	155.000
0830	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	2,532.000	2,532.000
0840	SPV.0035	SPECIAL 01. CONCRETE MASONRY SOLDIER PILE FOOTINGS	CY	144.000	144.000
0850	SPV.0060	SPECIAL 01. SANITARY SEWER LATERAL RELOCATION	EACH	10.000	10.000
0860	SPV.0060	SPECIAL 02. WATER MAIN, HYDRANT RELOCATION	EACH	2.000	2.000

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DATE 29APR14			E S T I M A T E O F Q U A N T I T I E S		
LINE			5944-03-84		
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0870	SPV.0060	SPECIAL 03. WATER MAIN, WATER SERVICE RELOCATION	EACH	9.000	9.000
0880	SPV.0090	SPECIAL 01. FOUNDATION DRILLING 24-INCH DIAMETER	LF	2,191.000	2,191.000
0890	SPV.0105	SPECIAL 01. RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN R-33-004	LS	1.000	1.000
0900	SPV.0105	SPECIAL 02. RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN R-33-005	LS	1.000	1.000
0910	SPV.0105	SPECIAL 03. RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN R-33-006	LS	1.000	1.000
0920	SPV.0110	SPECIAL 01. TIMBER LAGGING	MBM	20.210	20.210
0930	SPV.0165	SPECIAL 01. GEOCOMPOSITE DRAIN BOARD	SF	7,382.000	7,382.000

3

CLEARING AND GRUBBING

		201.0120	201.0220	REMARKS
		CLEARING	GRUBBING	
STA	LOCATION	ID	ID	
14+10	STH 81 LT	20	20	TREE IN TERRACE
18+00	STH 81 LT	48	48	PINE
20+85	STH 81 LT	6	6	2 LARGE SHRUBS
PROJECT TOTALS =		74	74	

REMOVING PAVEMENT

		204.0100		REMARKS
STA	TO	STA	LOCATION	
8+00	-	8+16	STH 81 LT	DRIVEWAY
8+23	-	8+36	STH 81 LT	DRIVEWAY
14+63	-	14+86	STH 81 LT	DRIVEWAY
TOTAL =		53		

REMOVING ASPHALTIC SURFACE

		204.0110		REMARKS
STA	TO	STA	LOCATION	
8+00	-	8+16	STH 81 LT	DRIVEWAY
8+23	-	8+36	STH 81 LT	DRIVEWAY
14+63	-	14+86	STH 81 LT	DRIVEWAY
TOTAL =		24		

REMOVING CURB & GUTTER

		204.0150		REMARKS
STA	TO	STA	LOCATION	
6+70	-	6+90	STH 81 LT	E. WELLS ST RAMPS
8+00	-	8+41	STH 81 LT	DRIVEWAY
9+64	-	9+70	STH 81 LT	W. KEEP ST RAMPS
10+02	-	10+09	STH 81 LT	E. KEEP ST RAMPS
12+81	-	13+01	STH 81 LT	W. OHIO ST RAMPS
13+31	-	13+51	STH 81 LT	E. OHIO ST RAMPS
14+67	-	14+88	STH 81 LT	DRIVEWAY
16+20	-	16+22	STH 81 LT	W. DIVISION
16+52	-	16+52	STH 81 LT	E. DIVISION RAMP
22+90	-	23+07	STH 81 LT	W. CLAY RAMP
23+00	-	23+15	STH 81 RT	S. LOUISA ST RAMP
TOTAL =		302		

REMOVING CONCRETE SIDEWALK

		204.0155		REMARKS
STA	TO	STA	LOCATION	
6+84	-	8+04	STH 81 LT	54
6+76	-	-	STH 81 LT	5 CURB RAMP TO WELLS
6+85	-	-	STH 81 LT	4 CURB RAMP TO STH 81
6+85	-	-	STH 81 LT	9 WELLS ST
7+35	-	-	STH 81 LT	2 PRIVATE SIDEWALK
7+80	-	-	STH 81 LT	1 PRIVATE SIDEWALK
8+16	-	8+26	STH 81 LT	5
8+36	-	9+59	STH 81 LT	55
8+64	-	-	STH 81 LT	1 PRIVATE SIDEWALK
9+05	-	-	STH 81 LT	3 PRIVATE SIDEWALK/STEPS
9+26	-	-	STH 81 LT	3 PRIVATE SIDEWALK/STEPS
9+57	-	-	STH 81 LT	20 KEEP ST
9+60	-	-	STH 81 LT	5 CURB RAMP TO KEEP
10+13	-	12+87	STH 81 LT	122
10+02	-	-	STH 81 LT	5 CURB RAMP TO KEEP
10+76	-	-	STH 81 LT	6 PRIVATE SIDEWALK/STEPS
12+85	-	-	STH 81 LT	4 CURB RAMP TO STH 81/STEPS
12+88	-	-	STH 81 LT	6 CURB RAMP TO OHIO
12+85	-	-	STH 81 LT	12 W. OHIO ST
13+43	-	14+72	STH 81 LT	58
13+43	-	-	STH 81 LT	5 CURB RAMP TO OHIO
13+43	-	-	STH 81 LT	5 CURB RAMP TO STH 81
13+43	-	-	STH 81 LT	12 E. OHIO ST
13+84	-	-	STH 81 LT	5 PRIVATE SIDEWALK/STEPS
14+39	-	-	STH 81 LT	5 PRIVATE SIDEWALK/STEPS
14+83	-	16+13	STH 81 LT	58
15+30	-	-	STH 81 LT	5 PRIVATE SIDEWALK/STEPS
15+82	-	-	STH 81 LT	6 PRIVATE SIDEWALK/STEPS
16+13	-	-	STH 81 LT	4 CURB RAMP TO DIVISION/STEPS
16+52	-	16+70	STH 81 LT	8
16+55	-	-	STH 81 LT	4 STEPS TO STH 81
16+56	-	-	STH 81 LT	24 DIVISION ST
16+70	-	22+96	STH 81 LT	279
18+29	-	-	STH 81 LT	9 PRIVATE SIDEWALK/STEPS
19+05	-	-	STH 81 LT	7 PRIVATE SIDEWALK/STEPS
19+70	-	-	STH 81 LT	7 PRIVATE SIDEWALK/STEPS
20+13	-	-	STH 81 LT	6 PRIVATE SIDEWALK/STEPS
20+84	-	-	STH 81 LT	7 PRIVATE SIDEWALK/STEPS
21+75	-	-	STH 81 LT	6 PRIVATE SIDEWALK
22+34	-	-	STH 81 LT	1 PRIVATE SIDEWALK
22+96	-	23+08	STH 81 LT	9 CLAY ST
22+95	-	23+13	STH 81 RT	10 RT SIDE FOR RAMP INSTALL
TOTAL =		862		

REMOVING GUARDRAIL

		204.0165		REMARKS
STA	TO	STA	LOCATION	
11+55	-	12+83		128
TOTAL =		128		

REMOVING MODULAR BLOCK RETAINING WALL SUMMARY

		204.9105.S.01		204.9105.S.02		REMARKS
STA	TO	STA	LOCATION	LS	LS	
14+90	-	16+19	LT	1	-	
16+63	-	21+56	LT	-	1	
TOTALS =		1		1		

EXCAVATION STONE PILES AND STONE FENCES

		205.0300		REMARKS
STA	TO	STA	LOCATION	
7+68	-	7+97	STH 81 LT	1 TREE WELL
8+42	-	8+57	STH 81 LT	1 TREE WELL
8+80	-	8+94	STH 81 LT	1 TREE WELL
10+21	-	11+71	STH 81 LT	11 UNDER 5 FT
13+58	-	14+62	STH 81 LT	6 UNDER 5 FT
14+42	-	14+71	STH 81 LT	1 BLOCK SECTION BEHIND EXIST. SW
14+71	-	14+73	STH 81 LT	1 W. SIDE DRIVEWAY
14+82	-	14+83	STH 81 LT	2 E. SIDE DRIVEWAY
14+82	-	15+26	STH 81 LT	3 BLOCK SECTION BEHIND EXIST. SW
16+05	-	16+20	STH 81 LT	5 UPPER BLOCK WALL W. SIDE DIVISION
16+12	-	16+22	STH 81 LT	8 LOWER BLOCK WALL W. SIDE DIVISION
16+58	-	16+61	STH 81 LT	2 UPPER BLOCK WALL E. SIDE DIVISION
16+61	-	17+56	STH 81 LT	3 UPPER BLOCK WALL
TOTAL =		45		

EXCAVATION FOR STRUCTURES RETAINING WALLS

		206.3000.01		REMARKS
CAT	LOCATION	LS	LS	
0010	STA 9+02 TO STA 9+56	1		
TOTAL =		1		

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

STATE PROJECT NO: 5944-03-84

HWY: STH 81

COUNTY: LAFAYETTE

MISCELLANEOUS QUANTITIES

SHEET NO: 28

E

FILE NAME :

PLOT DATE :

PLOT BY :

PLOT NAME :

ORIGINATOR : DIST _

PLOT SCALE : 1:1

3

EARTHWORK SUMMARY

	Common Excavation								Fill				
Station	Area		Area Total (SF)	Volume		Cum. Volume			Area	Volume	Expanded	Cum Volume	Mass Ordinate (CY)
	Salvaged Unusable Pavement Material (SF)	Cut (Unclassified) (SF)		Salvaged Unusable Pavement Material (CY)	Cut (Unclassified) (CY)	Salvaged Unusable Pavement Material (CY)	Cut (unclass- ified) (CY)	Total (CY)	Unclass- ified	Unclassified	Vol. (1.25)	Unclassified	
									(SF)	(CY)	(SF)	(CY)	
6+75	1.33	3.00	4.33	0	0	0	0	0	0	0	0	0	0
7+00	1.33	4.57	5.90	1	3	1	3	5	0	0	0	0	3
7+25	1.33	3.25	4.59	1	4	2	7	10	0	0	0	0	7
7+50	1.33	2.68	4.01	1	3	4	10	13	0	0	0	0	10
7+75	1.33	5.55	6.89	1	4	5	14	19	0	0	0	0	14
8+00	1.33	4.59	5.92	1	5	6	18	24	0	0	0	0	18
8+25	1.33	3.68	5.01	1	4	7	22	30	0	0	0	0	22
8+50	1.33	7.45	8.78	1	5	9	27	36	0	0	0	0	27
8+75	1.33	3.40	4.73	1	5	10	32	42	0	0	0	0	32
9+00	1.33	6.00	7.33	1	4	11	37	48	0	0	0	0	37
9+07	1.33	6.38	7.72	0	2	11	38	50	0	0	0	0	38
9+25	1.33	14.24	15.57	1	7	12	45	57	0	0	0	0	45
9+55	1.33	18.61	19.94	1	18	14	63	77	0	0	0	0	63
9+65	1.33	3.00	4.33	0	4	14	67	82	0	0	0	0	67
10+03	1.33	3.00	4.33	0	0	14	67	82	0	0	0	0	67
10+14	1.33	16.50	17.83	1	4	15	71	86	0	0	0	0	71
10+25	1.33	35.13	36.46	1	11	15	82	98	0	0	0	0	82
10+50	1.33	46.49	47.82	1	38	17	120	137	0	0	0	0	120
10+75	1.33	52.15	53.48	1	46	18	166	183	0	0	0	0	166
11+00	1.33	50.93	52.26	1	48	19	213	232	0	0	0	0	213
11+25	1.33	47.33	48.66	1	45	20	259	279	0	0	0	0	259
11+50	1.33	44.36	45.69	1	42	22	301	323	0	0	0	0	301
11+75	1.33	31.30	32.64	1	35	23	336	359	0	0	0	0	336
12+00	1.33	30.44	31.78	1	29	24	365	389	0	0	0	0	365
12+25	1.33	24.42	25.76	1	25	25	390	416	0	0	0	0	390
12+50	1.33	18.24	19.57	1	20	26	410	437	0	0	0	0	410
12+75	1.33	14.12	15.46	1	15	28	425	453	0	0	0	0	425
12+84	1.33	12.00	13.33	0	4	28	429	458	0	0	0	0	429
13+00	1.33	3.00	4.33	1	4	29	434	463	0	0	0	0	434
13+30	1.33	3.00	4.33	0	0	29	434	463	0	0	0	0	434
13+50	1.33	6.59	7.93	1	4	30	437	467	0	0	0	0	437
13+50	1.33	8.40	9.74	0	0	30	437	467	0	0	0	0	437
13+75	1.33	24.72	26.06	1	15	31	453	484	0	0	0	0	453
14+00	1.33	31.63	32.96	1	26	32	479	511	0	0	0	0	479
14+25	1.33	35.55	36.89	1	31	34	510	544	0	0	0	0	510
14+50	1.33	28.73	30.06	1	30	35	540	575	0	0	0	0	540
14+71	1.33	8.41	9.74	1	14	36	554	590	0	0	0	0	554

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ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

TABLE CONTINUED ON NEXT PAGE

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TABLE CONTINUED FROM PREVIOUS PAGE

Station	Common Excavation								Fill				Mass Ordinate	Summary			
	Area		Area Total (SF)	Volume		Cum. Volume			Area	Volume	Expanded	Cum Volume		Borrow	Waste		
	Salvaged Unusable Pavement Material (SF)	Cut (Unclassified) (SF)		Salvaged Unusable Pavement Material (CY)	Cut (Unclassified) (CY)	Salvaged Unusable Pavement Material (CY)	Cut (unclass- ified) (CY)	Total (CY)	Unclass- ified (SF)	Unclassified (CY)	Vol. (1.25) (CY)	Unclassified (CY)		(CY)	Salvaged Unusable Pavement Material (CY)	Cut (Unclassified) (CY)	Total (CY)
14+84	1.33	16.68	18.02	0	0	36	554	590	0	0	0	0	554	0	83	1,709	1,792
15+00	1.33	21.12	22.45	1	11	37	565	602	0	0	0	0	565				
15+25	1.33	43.37	44.70	1	30	38	595	633	0	0	0	0	595				
15+50	1.33	44.92	46.25	1	41	39	636	675	0	0	0	0	636				
15+75	1.33	42.96	44.30	1	41	40	677	717	0	0	0	0	677				
15+96	1.33	41.12	42.46	1	33	41	709	751	0	0	0	0	709				
15+96	1.33	109.79	111.12	0	0	41	709	751	0	0	0	0	709				
16+19	1.33	77.63	78.96	1	80	43	789	832	0	0	0	0	789				
16+53	1.33	36.63	37.97	0	0	43	789	832	0	0	0	0	789				
16+61	1.33	32.18	33.52	0	10	43	799	842	0	0	0	0	799				
17+00	1.33	28.15	29.48	2	44	45	843	888	0	0	0	0	843				
17+25	1.33	36.12	37.45	1	30	46	873	919	0	0	0	0	873				
17+50	1.33	36.54	37.87	1	34	47	906	954	0	0	0	0	906				
17+75	1.33	40.82	42.15	1	36	49	942	991	0	0	0	0	942				
18+00	1.33	30.49	31.83	1	33	50	975	1,025	0	0	0	0	975				
18+25	1.33	31.60	32.93	1	29	51	1,004	1,055	0	0	0	0	1,004				
18+50	1.33	30.08	31.41	1	29	52	1,033	1,085	0	0	0	0	1,033				
18+75	1.33	33.33	34.66	1	29	54	1,062	1,115	0	0	0	0	1,062				
19+00	1.33	34.23	35.56	1	31	55	1,093	1,148	0	0	0	0	1,093				
19+25	1.33	42.78	44.11	1	36	56	1,129	1,185	0	0	0	0	1,129				
19+50	1.33	44.72	46.06	1	41	57	1,169	1,227	0	0	0	0	1,169				
19+75	1.33	43.82	45.16	1	41	58	1,210	1,269	0	0	0	0	1,210				
20+00	1.33	44.04	45.37	1	41	60	1,251	1,311	0	0	0	0	1,251				
20+25	1.33	43.76	45.10	1	41	61	1,292	1,353	0	0	0	0	1,292				
20+50	1.33	43.04	44.38	1	40	62	1,332	1,394	0	0	0	0	1,332				
20+75	1.33	41.90	43.24	1	39	63	1,371	1,435	0	0	0	0	1,371				
21+00	1.33	39.85	41.18	1	38	65	1,409	1,474	0	0	0	0	1,409				
21+25	1.33	37.24	38.57	1	36	66	1,445	1,511	0	0	0	0	1,445				
21+50	1.33	28.03	29.37	1	30	67	1,475	1,542	0	0	0	0	1,475				
21+75	1.33	20.39	21.73	1	22	68	1,497	1,566	0	0	0	0	1,497				
22+06	1.33	9.00	10.33	2	17	70	1,514	1,584	0	0	0	0	1,514				
22+06	1.33	9.90	11.24	0	0	70	1,514	1,584	0	0	0	0	1,514				
22+25	1.33	4.36	5.69	1	5	71	1,519	1,590	0	0	0	0	1,519				
22+50	1.33	2.42	3.75	1	3	72	1,522	1,594	0	0	0	0	1,522				
22+75	1.33	3.23	4.57	1	3	73	1,525	1,598	0	0	0	0	1,525				
22+94	1.33	8.67	10.01	1	4	74	1,529	1,603	0	0	0	0	1,529				
wells Street				1	9	75	1,538	1,613	0	0	0	0	1,538				
Keep Street				2	26	78	1,564	1,641	0	0	0	0	1,564				
Ohio Street				2	22	80	1,586	1,666	0	0	0	0	1,586				
Division Street				3	23	83	1,609	1,692	0	0	0	0	1,609				
Undistributed				0	100	83	1,709	1,792	0	0	0	0	1,709				

NOTES

1) COMMON EXCAVATION ITEM NUMBER 205.0100

2) AVAILABLE MATERIAL= CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL

3) THE MASS ORDINATE + OR - QUANTITY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION

3

BASE AGGREGATE DENSE 3/4-INCH

305.0115					
STA	TO	STA	LOCATION	CY	REMARKS
6+70	-	6+90	STH 81 LT	2	CURB & GUTTER
6+72	-	6+88	STH 81 LT	2	CURB RAMP
6+83	-	6+88	STH 81 LT	1	WELLS STREET
6+88	-	8+04	STH 81 LT	7	
7+34	-	7+38	STH 81 LT	1	PRIVATE SIDEWALK
7+79	-	7+82	STH 81 LT	1	PRIVATE SIDEWALK
8+00	-	8+16	STH 81 LT	4	CONCRETE DRIVEWAY
8+00	-	8+41	STH 81 LT	2	CURB & GUTTER
8+03	-	8+15	STH 81 LT	1	ASPHALT DRIVEWAY
8+16	-	8+25	STH 81 LT	1	
8+23	-	8+36	STH 81 LT	4	CONCRETE DRIVEWAY
8+25	-	8+35	STH 81 LT	1	ASPHALT DRIVEWAY
8+36	-	9+57	STH 81 LT	7	
8+62	-	8+67	STH 81 LT	1	PRIVATE SIDEWALK
9+02	-	9+57	STH 81 LT	10	CAST IN PLACE WALL
9+03	-	9+07	STH 81 LT	1	PRIVATE SIDEWALK
9+25	-	9+29	STH 81 LT	1	PRIVATE SIDEWALK
9+57	-	9+70	STH 81 LT	1	CURB RAMP
9+57	-	9+62	STH 81 LT	2	KEEP STREET
9+64	-	9+70	STH 81 LT	1	CURB & GUTTER
10+02	-	10+09	STH 81 LT	1	CURB & GUTTER
10+03	-	10+13	STH 81 LT	1	CURB RAMP
10+13	-	12+83	STH 81 LT	15	
10+76	-	10+80	STH 81 LT	1	PRIVATE SIDEWALK
12+81	-	13+01	STH 81 LT	2	CURB & GUTTER
12+83	-	12+99	STH 81 LT	2	CURB RAMP
12+84	-	12+89	STH 81 LT	2	OHIO STREET
13+31	-	13+51	STH 81 LT	2	CURB & GUTTER
13+32	-	13+46	STH 81 LT	2	CURB RAMP
13+40	-	13+45	STH 81 LT	2	OHIO STREET
13+46	-	14+72	STH 81 LT	7	
13+83	-	13+87	STH 81 LT	1	PRIVATE SIDEWALK
14+38	-	14+42	STH 81 LT	1	PRIVATE SIDEWALK
14+63	-	14+86	STH 81 LT	4	CONCRETE DRIVEWAY
14+67	-	14+88	STH 81 LT	1	CURB & GUTTER
14+71	-	14+83	STH 81 LT	2	ASPHALT DRIVEWAY
14+83	-	16+14	STH 81 LT	8	
15+29	-	15+33	STH 81 LT	1	PRIVATE SIDEWALK
15+96	-	16+01	STH 81 LT	1	PRIVATE SIDEWALK
16+14	-	16+22	STH 81 LT	1	CURB RAMP
16+17	-	16+22	STH 81 LT	1	
16+20	-	16+22	STH 81 LT	4	CURB & GUTTER
16+52	-	16+52	STH 81 LT	1	CURB & GUTTER
16+53	-	16+60	STH 81 LT	1	CURB RAMP
16+53	-	16+59	STH 81 LT	3	DIVISION STREET
16+60	-	22+90	STH 81 LT	35	

SUBTOTAL #1 = 153

CONTINUED ON NEXT COLUMN

BASE AGGREGATE DENSE ¾ - INCH
(CONTINUED FROM PREVIOUS COLUMN)

305.0115					
STA	TO	STA	LOCATION	CY	REMARKS
17+44	-	17+48	STH 81 LT	1	PRIVATE SIDEWALK
18+28	-	18+32	STH 81 LT	1	PRIVATE SIDEWALK
19+05	-	19+09	STH 81 LT	1	PRIVATE SIDEWALK
19+70	-	19+74	STH 81 LT	1	PRIVATE SIDEWALK
20+12	-	20+16	STH 81 LT	1	PRIVATE SIDEWALK
20+89	-	20+93	STH 81 LT	1	PRIVATE SIDEWALK
21+76	-	21+80	STH 81 LT	1	PRIVATE SIDEWALK
22+35	-	22+38	STH 81 LT	1	PRIVATE SIDEWALK
22+90	-	23+04	STH 81 LT	2	CURB RAMP
22+90	-	23+07	STH 81 LT	2	CURB & GUTTER
22+98	-	23+15	STH 81 RT	1	CURB RAMP
23+00	-	23+15	STH 81 RT	1	CURB & GUTTER

SUBTOTAL #2 = 14

TOTALS	
SUBTOTAL #1	153
SUBTOTAL #2	14
TOTAL	167

BACKFILL STRUCTURAL

210.0100				
STA	TO	STA	CY	REMARKS
9+02.08	-	9+07.08	0.6	Stairs A
9+07.08	-	9+25	4.9	
9+25	-	9+29	0.7	Stairs B
9+29	-	9+53.44	7.5	
9+53.44	-	9+55	3.8	Keep St
UNDISTRIBUTED			1	
TOTAL			18	

FINISHING ROADWAY (PROJECT) 01. 5944-03-84

213.0100		
LOCATION	EACH	REMARKS
PROJECT 5944-03-84	1	
TOTAL =		1

CONCRETE DRIVEWAY 6-INCH

416.0160					
STA	TO	STA	LOCATION	SY	REMARKS
8+00	-	8+16	STH 81 LT	21	
8+23	-	8+36	STH 81 LT	19	
14+63	-	14+86	STH 81 LT	20	
TOTAL =				60	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

465.0120					
STA	TO	STA	LOCATION	TON	REMARKS
8+03	-	8+15	STH 81 LT	1	
8+25	-	8+35	STH 81 LT	1	
14+71	-	14+83	STH 81 LT	4	
TOTAL =				6	

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

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CONCRETE MASONRY RETAINING WALLS

504.0500				
STA	TO	STA	LOCATION	CY
9+02	-	9+03	STH 81 LT	1
9+07	-	9+25	STH 81 LT	4
9+29	-	9+50	STH 81 LT	5
9+50	-	9+56	STH 81 LT	2
9+56	-	9+57	STH 81 LT	4
			UNDISTRIBUTED	1
TOTAL				= 17

BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS

505.0615												LB	REMARKS
BAR MARK	COAT NO.	REQ'D LENGTH (FT)	LENGTH (IN)	BENT	BAR SERIES	SIZE	WT./FT						
A500	X	50	4			5	1.04					252	CAST IN PLACE WALL
A501	X	6	20			5	1.04					130	CAST IN PLACE WALL
A502	X	6	18			5	1.04					115	CAST IN PLACE WALL
A503	X	42	5			5	1.04			X		245	CAST IN PLACE WALL
A504	X	10	2			5	1.04			X		25	CAST IN PLACE WALL
A505	X	14	20			5	1.04					301	CAST IN PLACE WALL
A506	X	12	6			5	1.04					79	CAST IN PLACE WALL
A507	X	14	6			5	1.04			X		95	CAST IN PLACE WALL
A508	X	30	5			5	1.04				X	172	CAST IN PLACE WALL
A509	X	14	13			5	1.04					201	CAST IN PLACE WALL
A410	X	3	5							X			INCIDENTAL STAIRS
A411	X	6	1							X			INCIDENTAL STAIRS
A412	X	4	3										INCIDENTAL STAIRS
A413	X	5	2							X			INCIDENTAL STAIRS
TOTAL												= 1615	

*SEE CONSTRUCTION DETAIL - CIP WALL FOR ADDITIONAL INFORMATION

CONCRETE CURB AND GUTTER ITEMS

CONCRETE CURB & GUTTER 30-INCH TYPE D 601.0411							CONCRETE CURB PEDESTRIAN 601.0600		REMARKS
STA	TO	STA	LOCATION	LF			LF		
6+72	-	6+90	STH 81 LT	25			-		E. WELLS ST RAMPS
8+00	-	8+40	STH 81 LT	41			-		DRIVEWAY
9+64	-	9+70	STH 81 LT	13			-		W. KEEP ST RAMPS
10+02	-	10+09	STH 81 LT	13			-		E. KEEP ST RAMPS
12+80	-	12+99	STH 81 LT	28			-		W. OHIO ST RAMPS
13+29	-	13+50	STH 81 LT	28			-		E. OHIO ST RAMPS
14+67	-	14+87	STH 81 LT	20			-		DRIVEWAY
16+17	-	16+21	STH 81 LT	-			4		CURB RAMP
16+20	-	16+24	STH 81 LT	77			-		W. SIDE DIVISION
16+50	-	16+59	STH 81 LT	20			-		E. DIVISION RAMP
22+90	-	23+09	STH 81 LT	22			-		W. CLAY RAMP
23+00	-	23+15	STH 81 RT	15			-		S. LOUISA ST RAMP
TOTAL				= 302			4		

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

602.0515			
STA	LOCATION	SF	REMARKS
6+75	STH 81 LT	8	TYPE 2 CURB RAMP
6+85	STH 81 LT	8	TYPE 2 CURB RAMP
9+65	STH 81 LT	8	TYPE 2 CURB RAMP
10+05	STH 81 LT	10	TYPE 2 CURB RAMP
12+85	STH 81 LT	8	TYPE 2 CURB RAMP
12+94	STH 81 LT	10	TYPE 2 CURB RAMP
13+35	STH 81 LT	10	TYPE 2 CURB RAMP
13+44	STH 81 LT	8	TYPE 2 CURB RAMP
16+19	STH 81 LT	10	TYPE 2 CURB RAMP
16+53	STH 81 LT	10	TYPE 2 CURB RAMP
23+00	STH 81 LT	8	TYPE 1-A CURB RAMP
23+00	STH 81 RT	8	TYPE 7-B CURB RAMP*
TOTAL		= 106	

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

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CONCRETE SIDEWALK

CONCRETE SIDEWALK 4-INCH 602.0405					
STA	TO	STA	LOCATION	SF	REMARKS
6+72	-	6+88	STH 81 LT	123	CURB RAMP
6+83	-	6+88	STH 81 LT	83	WELLS STREET
6+88	-	8+04	STH 81 LT	580	
7+34	-	7+38	STH 81 LT	10	PRIVATE SIDEWALK
7+79	-	7+82	STH 81 LT	8	PRIVATE SIDEWALK
8+16	-	8+25	STH 81 LT	45	
8+36	-	8+97	STH 81 LT	310	
8+62	-	8+67	STH 81 LT	8	PRIVATE SIDEWALK
8+97		9+57	STH 81 LT	360	
9+03	-	9+07	STH 81 LT	5	PRIVATE SIDEWALK
9+25	-	9+29	STH 81 LT	5	PRIVATE SIDEWALK
9+57	-	9+70	STH 81 LT	77	CURB RAMP
9+57	-	9+62	STH 81 LT	197	KEEP STREET
10+03	-	10+13	STH 81 LT	56	CURB RAMP
10+13	-	12+83	STH 81 LT	1629	
10+76	-	10+80	STH 81 LT	5	PRIVATE SIDEWALK
12+83	-	12+99	STH 81 LT	142	CURB RAMP
12+84	-	12+89	STH 81 LT	113	OHIO STREET
13+32	-	13+46	STH 81 LT	116	CURB RAMP
13+40	-	13+45	STH 81 LT	112	OHIO STREET
13+46	-	14+72	STH 81 LT	759	
13+83	-	13+87	STH 81 LT	5	PRIVATE SIDEWALK
14+38	-	14+42	STH 81 LT	5	PRIVATE SIDEWALK
14+83	-	16+14	STH 81 LT	783	
15+29	-	15+33	STH 81 LT	15	PRIVATE SIDEWALK
15+96	-	16+01	STH 81 LT	19	PRIVATE SIDEWALK
16+14	-	16+22	STH 81 LT	54	CURB RAMP
16+17	-	16+22	STH 81 LT	22	STAIRCASE BOTTOM LANDING
16+53	-	16+60	STH 81 LT	48	CURB RAMP
16+53	-	16+59	STH 81 LT	237	DIVISION STREET
16+60	-	22+90	STH 81 LT	3762	
17+44	-	17+48	STH 81 LT	5	PRIVATE SIDEWALK
18+28	-	18+32	STH 81 LT	5	PRIVATE SIDEWALK
19+05	-	19+09	STH 81 LT	5	PRIVATE SIDEWALK
19+70	-	19+74	STH 81 LT	3	PRIVATE SIDEWALK
20+12	-	20+16	STH 81 LT	6	PRIVATE SIDEWALK
20+89	-	20+93	STH 81 LT	3	PRIVATE SIDEWALK
21+76	-	21+80	STH 81 LT	8	PRIVATE SIDEWALK
22+35	-	22+38	STH 81 LT	8	PRIVATE SIDEWALK
22+90	-	23+04	STH 81 LT	113	CURB RAMP
22+98	-	23+15	STH 81 RT	85	CURB RAMP
TOTAL				=	9,934

CONCRETE STEPS

602.1500			
STA	LOCATION	SF	REMARKS
9+05	STH 81 LT	16	
9+26	STH 81 LT	15	
10+77	STH 81 LT	4	STEP AT TOP OF STAIRCASE
13+85	STH 81 LT	4	STEP AT TOP OF STAIRCASE
14+40	STH 81 LT	4	STEP AT TOP OF STAIRCASE
15+30	STH 81 LT	4	STEP AT TOP OF STAIRCASE
15+98	STH 81 LT	10	STAIRS ABOVE STAIRCASE TO PRIVATE SIDEWALK
17+45	STH 81 LT	4	STEP AT TOP OF STAIRCASE
18+30	STH 81 LT	4	STEP AT TOP OF STAIRCASE
19+07	STH 81 LT	4	STEP AT TOP OF STAIRCASE
19+72	STH 81 LT	4	STEP AT TOP OF STAIRCASE
20+14	STH 81 LT	4	STEP AT TOP OF STAIRCASE
20+91	STH 81 LT	4	STEP AT TOP OF STAIRCASE
21+77	STH 81 LT	4	STEP AT TOP OF STAIRCASE
TOTAL		=	85

ADJUSTING INLET COVERS

611.8115			
STA	LOCATION	EACH	REMARKS
6+78	LT	1	
16+52	LT	1	
		=	2

PIPE UNDERDRAIN SUMMARY

				PIPE UNDERDRAIN 6-INCH 612.0106	PIPE UNDERDRAIN UNPERFORATED 6-INCH 612.0206	REMARKS
STA	TO	STA	LOCATION	LF	LF	
9+08	-	9+24	STH 81 LT	16	-	PIPE BEHIND WALL
9+30	-	9+56	STH 81 LT	26	-	PIPE BEHIND WALL
9+56	-	9+57	KEEP ST	13	-	PIPE BEHIND WALL
9+24	-	9+25	STH 81 LT	1	-	PIPE SLEEVE REQUIRED
9+29	-	9+30	STH 81 LT	1	-	PIPE SLEEVE REQUIRED
9+56	-	9+57	STH 81 LT	1	-	PIPE SLEEVE REQUIRED
9+25	-	9+29	STH 81 LT	4	-	PERFORATED PIPE CONNECTING PIPE SLEEVES
9+57	-	9+66	STH 81 LT	-	16	
TOTAL				=	62	
					=	16

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

3

MAINTENANCE AND REPAIR OF HAUL ROADS (5944-03-84)

LOCATION	618.0100 EACH	REMARKS
PROJECT	1.00	
TOTAL = 1		

MOBILIZATION

CATEGORY	LOCATION	619.1000 EACH	REMARKS
0010	ROADWAY	0.25	
0020	STRUCTURES	0.75	R-33-0004, R-33-0005, R-33-0006
TOTAL = 1			

WATER

STA TO STA	LOCATION	624.0100 MGAL	REMARKS
	UNDISTRIBUTED	5	
TOTAL		5	

3

MOBILIZATION EROSION CONTROL

INLET PROTECTION SUMMARY

STA	LOCATION	INLET PROTECTION TYPE A 628.7005 EACH	INLET PROTECTION TYPE C 628.7015 EACH	REMARKS
6+77	STH 81 LT	-	1	
7+46	STH 81 RT	-	1	
8+21	STH 81 LT	1	-	
9+66	STH 81 LT	-	1	
9+72	STH 81 LT	-	1	
10+00	STH 81 LT	-	1	
10+22	STH 81 RT	-	1	
13+00	STH 81 LT	-	1	
13+30	STH 81 LT	-	1	
13+52	STH 81 RT	-	1	
16+20	STH 81 LT	-	1	
16+52	STH 81 LT	-	1	
22+88	STH 81 RT	-	1	
22+98	STH 81 RT	-	1	
23+09	STH 81 LT	-	1	
23+15	STH 81 LT	-	1	
23+16	STH 81 LT	-	1	
23+31	STH 81 RT	-	1	
TOTAL		1	17	

LOCATION	MOBILIZATIONS EROSION CONTROL 628.1905 EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL 628.1910 EACH	REMARKS
PROJECT 5944-03-84	5	5	
TOTALS =		5	5

EROSION CONTROL SUMMARY

LOCATION	TO	LOCATION	SALVAGED TOPSOIL 625.0500 SY	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF	EROSION MAT URBAN CLASS I TYPE B 628.2008 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 40 630.0140 LB	SEEDING TEMPORARY 630.0200 LB
WELLS ST	-	KEEP ST	1,100	-	-	252	0.16	4.54	6.81
KEEP ST	-	OHIO ST	2,315	-	-	339	0.22	6.11	9.16
OHIO ST	-	DIVISION ST	1,889	-	-	379	0.24	6.83	10.24
DIVISION ST	-	CLAY ST	1,356	-	-	653	0.42	11.76	17.64
UNDISTRIBUTED			-	100	100	-	0.00	0.00	0
TOTAL			6,660	100	100	1,623	1.04	29.24	43.85

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

3

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SIGN SUMMARY													
SIGN #	SIGN CODE	SIGN MESSAGE	STATION	LOCATION	SIGN SIZE	POSTS WOOD	SIGNS TYPE	SIGNS TYPE	MOVING	REMOVING	REMOVING	MOVING SMALL	REMARKS
						4X6-INCH X 14-FT 634.0614	II REFLECTIVE H 637.2210	II REFLECTIVE F 637.2230	SIGNS TYPE II 638.2102	SIGNS TYPE II 638.2602	SMALL SIGN SUPPORTS 638.3000	SIGN SUPPORTS 638.4000	
						EACH	SF	SF	EACH	EACH	EACH	EACH	
1-01	-	LOUISA ST/ WELLS ST	6+80	STH 81 LT		-	-	-	2	-	-	1	
1-02	J2-2		6+90	STH 81 LT	48 X 57	1	19.00	-	-	-	1	-	
-	M1-6	STH 23	6+90	STH 81 LT	24 X 24	-	-	-	-	1	-	-	
-	M1-6	STH 23	6+90	STH 81 LT	24 X 24	-	-	-	-	1	-	-	
-	M3-1	NORTH	6+90	STH 81 LT	24 X 12	-	-	-	-	1	-	-	
-	M3-3	SOUTH	6+90	STH 81 LT	24 X 12	-	-	-	-	1	-	-	
-	M5-1L	LEFT ARROW	6+90	STH 81 LT	21 X 21	-	-	-	-	1	-	-	
-	M5-1R	RIGHT ARROW	6+90	STH 81 LT	21 X 21	-	-	-	-	1	-	-	
-	-	NO STOPPING STANDING OR PARKING	6+90	STH 81 LT		-	-	-	1	-	-	-	MOUNT WITH ASSEMBLY
1-03	-	POST OFFICE/BUSINESS DIST.	7+30	STH 81 LT		-	-	-	1	-	-	1	
1-04	-	NO STOPPING STANDING OR PARKING	8+55	STH 81 LT		-	-	-	1	-	-	1	
1-05	J1-1	-	9+50	STH 81 LT	24 X 39	1	6.50	-	-	-	1	-	
-	M1-6	STH 23	9+50	STH 81 LT	24 X 24	-	-	-	-	1	-	-	
-	M2-1	JCT	9+50	STH 81 LT	21 X 15	-	-	-	-	1	-	-	
1-06	R1-1	STOP	9+50	KEEP ST.	30 X 30	1	5.18	-	-	1	1	-	
1-07	-	LOUISA ST/ KEEP ST	10+10	STH 81 LT		-	-	-	2	-	-	1	
1-08	W3-1	STOP AHEAD	10+35	STH 81 LT	36 X 36	1	-	9.00	-	1	1	-	
1-09	-	NO STOPPING STANDING OR PARKING	12+15	STH 81 LT		-	-	-	1	-	-	1	
1-10	-	LOUISA ST/ OHIO ST	13+00	STH 81 LT		-	-	-	2	-	-	1	
1-11	R1-1	STOP	13+00	OHIO ST	30 X 30	1	5.18	-	-	1	1	-	
1-12	W11-2	CROSSWALK	13+50	STH 81 LT	30 X 30	1	-	6.25	-	1	1	-	
2-01	-	NO STOPPING STANDING OR PARKING	15+10	STH 81 LT		-	-	-	1	-	-	1	
2-02	R1-1	STOP	16+20	DIVISION ST	30 X 30	1	5.18	-	-	1	1	-	
2-03	-	LOUISA ST/ DIVISION ST	16+62	STH 81 LT		-	-	-	2	-	-	1	
2-04	R2-1	SPEED LIMIT 25	18+00	STH 81 LT	24 X 30	1	5.00	-	-	1	1	-	
2-05	-	NO PARKING THIS SIDE OF STREET	20+50	STH 81 LT		-	-	-	1	-	-	1	
2-06	-	ATV TRAIL ROUTE ENDS	23+00	STH 81 LT		-	-	-	1	-	-	1	
2-07	R1-1	STOP	23+00	CLAY ST.	30 X 30	1	5.18	-	-	1	1	-	
TOTAL =						9	51.22	15.25	15.00	15	9	10.00	

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

FIELD OFFICE TYPE B

642.5001		
LOCATION	EACH	REMARKS
PROJECT 5944-03-84	1	
TOTAL = 1		

TRAFFIC CONTROL (PROJECT) 01. 5944-03-84

643.0100		
LOCATION	EACH	REMARKS
PROJECT 5944-03-84	1	
TOTAL = 1		

GEOTEXTILE FABRIC TYPE DF SCHEDULE A

645.0111					
STATION	TO	STATION	LOCATION	SY	REMARKS
9+08	-	9+57	STH 81 LT	28	
TOTAL = 28					

TRAFFIC CONTROL SIGNS

				643.0900		REMARKS
STATION	LOCATION	SIGN CODE	DESCRIPTION	QTY	DAYS	
START	STH 81 EB	W20-1A	ROAD WORK AHEAD	1	80	
0+00	STH 81 EB	W20-1D	ROAD WORK 500 FT	1	80	
2+50	STH 81 EB	W1-4R	ROAD CURVES AHEAD	1	80	
2+50	STH 81 WB	G20-2A	END ROAD WORK	1	80	
6+25	TYPE III BARRICADE	R11-2	LANE CLOSED	1	80	
6+40	TYPE II BARRICADE	R9-11A	SIDEWALK CLOSED, CROSS HERE (RT ARROW)	1	80	
6+80	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	E.SIDE WELLS ST
9+50	TYPE III BARRICADE	R11-2	LANE CLOSED	1	80	
9+55	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	
9+60	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	W. SIDE KEEP ST
10+15	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	
12+80	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	
12+80	TYPE III BARRICADE	R11-2	LANE CLOSED	1	80	
12+85	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	W. SIDE OHIO ST
13+45	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	E. SIDE OHIO ST
13+50	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	
16+15	TYPE III BARRICADE	R11-2	LANE CLOSED	1	80	
16+55	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	
19+50	TYPE III BARRICADE	R11-2	LANE CLOSED	1	80	
22+85	TYPE III BARRICADE	R11-2	LANE CLOSED	1	80	
22+95	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	3	S. SIDE DIVISION
23+15	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	3	S. SIDE DIVISION
23+70	TYPE II BARRICADE	R9-11A	SIDEWALK CLOSED, CROSS HERE (LT ARROW)	1	80	
23+05	TYPE II BARRICADE	R9-9	SIDEWALK CLOSED	1	80	
27+10	STH 81 EB	G20-2A	END ROAD WORK	1	80	
27+10	STH 81 WB	W1-4R	ROAD CURVES AHEAD	1	80	
29+60	STH 81 WB	W20-1D	ROAD WORK 500 FT	1	80	
34+60	STH 81 WB	W20-1A	ROAD WORK AHEAD	1	80	
-	WELLS ST NB	W20-1A	ROAD WORK AHEAD	1	80	
-	WELLS ST NB	G20-2A	END ROAD WORK	1	80	
-	WELLS ST SB	W20-1A	ROAD WORK AHEAD	1	80	
-	WELLS ST SB	W20-1A	END ROAD WORK	1	80	
-	KEEP ST NB	W20-1A	ROAD WORK AHEAD	1	80	
-	KEEP ST NB	G20-2A	END ROAD WORK	1	80	
-	KEEP ST SB	W20-1A	ROAD WORK AHEAD	1	80	
-	KEEP ST SB	G20-2A	END ROAD WORK	1	80	
-	OHIO ST NB	W20-1A	ROAD WORK AHEAD	1	80	
-	OHIO ST NB	G20-2A	END ROAD WORK	1	80	
-	OHIO ST SB	W20-1A	ROAD WORK AHEAD	1	80	
-	OHIO ST SB	G20-2A	END ROAD WORK	1	80	
-	DIVISION ST NB	W20-1A	ROAD WORK AHEAD	1	80	
-	DIVISION ST NB	G20-2A	END ROAD WORK	1	80	
-	DIVISION ST SB	W20-1A	ROAD WORK AHEAD	1	80	
-	DIVISION ST SB	G20-2A	END ROAD WORK	1	80	
-	CLAY ST SB	W20-1A	ROAD WORK AHEAD	1	80	
-	CLAY ST NB	G20-2A	END ROAD WORK	1	80	
TOTAL				=	3526	

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TRAFFIC CONTROL SUMMARY

			TRAFFIC CONTROL DRUMS 643.0300	TRAFFIC CONTROL BARRICADES TYPE II 643.0410	TRAFFIC CONTROL BARRICADES TYPE III 643.0420	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715	TRAFFIC CONTROL COVERING SIGNS TYPE II 643.0920	
LOCATION	TO	LOCATION	DAYS	DAYS	DAYS	DAYS	DAYS	EACH	REMARKS
BEGIN	-	KEEP ST	1,520	320	160	640	400	-	
KEEP ST	-	OHIO ST	880	240	80	400	-	2	
OHIO ST	-	DIVISION ST	880	160	80	320	-	-	
DIVISION ST	-	END	2,000	240	160	560	400	-	
TOTALS =			5,280	960	480	1,920	800	2	

PAVEMENT MARKING SUMMARY

				PAVEMENT MARKING EPOXY 4- INCH 646.0106	REMOVING PAVEMENT MARKINGS 646.0600	PAVEMENT MARKING SYMBOLS (EPOXY) 647.0256	TEMPORARY PAVEMENT MARKING 4- INCH 649.0100	
STATION	TO	STATION	LOCATION	LF	LF	EACH	LF	REMARKS
5+00	-	24+80	STH 81	3960	3960	-	3960	SOLID DOUBLE YELLOW
11+58	-	11+81		40	40	1	-	PARKING LINES/ SYMBOL
11+98	-	12+21		40	40	1	-	PARKING LINES/ SYMBOL
TOTAL				= 4,040	4,040	2	3,960	

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5944-03-84

		650.9910	REMARKS
LOCATION		LS	
PROJECT 5944-03-84		1	
TOTAL		= 1	

CONSTRUCTION STAKING SLOPE STAKES

STATION	TO	STATION	LOCATION	650.9920	REMARKS
				LF	
6+75	-	23+25	LT STH 81	1,650	
TOTAL				= 1,650	

CONSTRUCTION STAKING STRUCTURE LAYOUT SUMMARY

		CONSTRUCTION STAKING STRUCTURE LAYOUT 01. STA 9+50 650.6500.01	CONSTRUCTION STAKING STRUCTURE LAYOUT 02. R-33-004 650.6500.02	CONSTRUCTION STAKING STRUCTURE LAYOUT 03. R-33-005 650.6500.03	CONSTRUCTION STAKING STRUCTURE LAYOUT 04. R-33-006 650.6500.04
CATEGORY	LOCATION	LS	LS	LS	LS
0010	STA 9+50	1	-	-	-
0020	STA 11+50	-	1	-	-
0020	STA 15+00	-	-	1	-
0020	STA 19+00	-	-	-	1
TOTAL		= 1	1	1	1

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

SAWING ASPHALT

				690.0150	REMARKS
STA	TO	STA	LOCATION	LF	
8+04	-	8+16	STH 81 LT	12	
8+26	-	8+36	STH 81 LT	10	
14+72	-	14+83	STH 81 LT	11	
TOTAL				= 33	

SAWING CONCRETE

				690.0250	REMARKS
STA	TO	STA	LOCATION	LF	
6+72	-	6+90	STH 81 LT	5	CURB & GUTTER
6+84	-	6+87	STH 81 LT	4	SIDEWALK
7+34	-	7+38	STH 81 LT	4	PRIVATE SIDEWALK
7+79	-	7+82	STH 81 LT	4	PRIVATE SIDEWALK
8+00	-	8+41	STH 81 LT	5	CURB & GUTTER
8+62	-	8+66	STH 81 LT	5	PRIVATE SIDEWALK
9+03	-	9+07	STH 81 LT	5	PRIVATE SIDEWALK
9+25	-	9+29	STH 81 LT	5	PRIVATE SIDEWALK
9+55	-	9+59	STH 81 LT	4	SIDEWALK
9+65	-	9+70	STH 81 LT	5	CURB & GUTTER
10+00	-	10+09	STH 81 LT	5	CURB & GUTTER
10+76	-	10+80	STH 81 LT	4	PRIVATE SIDEWALK
12+81	-	13+01	STH 81 LT	5	CURB & GUTTER
12+83	-	12+87	STH 81 LT	4	SIDEWALK
13+29	-	13+51	STH 81 LT	5	CURB & GUTTER
13+43	-	13+47	STH 81 LT	4	SIDEWALK
13+83	-	13+87	STH 81 LT	4	PRIVATE SIDEWALK
14+38	-	14+42	STH 81 LT	4	PRIVATE SIDEWALK
14+67	-	14+88	STH 81 LT	5	CURB & GUTTER
15+29	-	15+31	STH 81 LT	3	PRIVATE SIDEWALK
15+81	-	15+85	STH 81 LT	4	PRIVATE SIDEWALK
16+20	-	16+22	STH 81 LT	5	CURB & GUTTER
16+52	-	16+60	STH 81 LT	5	CURB & GUTTER
16+55	-	16+59	STH 81 LT	4	SIDEWALK
18+28	-	18+31	STH 81 LT	4	PRIVATE SIDEWALK
19+05	-	19+09	STH 81 LT	3	PRIVATE SIDEWALK
19+71	-	19+74	STH 81 LT	3	PRIVATE SIDEWALK
20+14	-	20+17	STH 81 LT	3	PRIVATE SIDEWALK
20+90	-	20+93	STH 81 LT	3	PRIVATE SIDEWALK
21+78	-	21+81	STH 81 LT	4	PRIVATE SIDEWALK
22+36	-	22+39	STH 81 LT	3	PRIVATE SIDEWALK
22+90	-	23+09	STH 81 LT	5	CURB & GUTTER
22+97	-		STH 81 RT	5	SIDEWALK
23+00	-	23+15	STH 81 RT	5	CURB & GUTTER
23+04	-		STH 81 LT	5	SIDEWALK
23+15	-		STH 81 RT	5	SIDEWALK
TOTAL				= 155	

STATE PROJECT NO: 5944-03-84

HWY: STH 81

COUNTY: LAFAYETTE

MISCELLANEOUS QUANTITIES

SHEET NO: 37

E

FILE NAME :

PLOT DATE :

PLOT BY :

PLOT NAME :

ORIGINATOR : DIST _

PLOT SCALE : 1:1

ITEMS ASSOCIATED WITH UTILITY ADJUSTMENTS

SANITARY SEWER LATERAL RELOCATION

SPV. 0060.01

CATEGORY	STATION	LOCATION	HOUSE NUMBER	EACH	COMMENTS
0030	11+66	Louisa Street, Lt	Parking Lot/#308	1	
0030	12+15	Louisa Street, Lt	Parking Lot	1	
0030	14+26	Louisa Street, Lt	#404	1	
0030	15+33	Louisa Street, Lt	#430	1	Relocate lateral to east of new stairs
0030	15+72	Louisa Street, Lt	#442	1	
0030	17+31	Louisa Street, Lt	#504	1	
0030	17+69	Louisa Street, Lt	Between #504 and #530	1	
0030	18+37	Louisa Street, Lt	#530	1	
0030	19+71	Louisa Street, Lt	#600	1	Relocate lateral to west of new stairs
0030	20+68	Louisa Street, Lt	#604	1	
PROJECT TOTAL				10	

WATER MAIN, HYDRANT RELOCATION

SPV. 0060.02

CATEGORY	STATION	LOCATION	EACH	COMMENTS
0050	10+16	Louisa Street, Lt	1	Install new hydrant, 6-inch diameter resilient wedge valve, and 6-inch diameter pvc hydrant lead
0050	13+53	Louisa Street, Lt	1	Install new hydrant, 6-inch diameter resilient wedge valve, and 6-inch diameter pvc hydrant lead
PROJECT TOTAL			2	

WATER MAIN, WATER SERVICE RELOCATION

SPV. 0060.03

CATEGORY	STATION	LOCATION	HOUSE NUMBER	EACH	COMMENTS
0040	9+40	Louisa Street, Lt	#244	1	
0040	10+17	Louisa Street, Lt	#308	1	
0040	14+67	Louisa Street, Lt	#404	1	Connect to existing curb stop
0040	15+31	Louisa Street, Lt	#430	1	Relocate lateral to east of new stairs and connect to existing curb stop
0040	18+37	Louisa Street, Lt	#530	1	
0040	19+06	Louisa Street, Lt	#544	1	Relocate lateral to east of new stairs and connect to existing curb stop
0040	19+78	Louisa Street, Lt	#600	1	
0040	20+38	Louisa Street, Lt	#604	1	
0040	21+27	Louisa Street, Lt	#636	1	
PROJECT TOTAL				9	

ALL ITEMS CATEGORY 0010 UNLESS NOTED OTHERWISE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT 5944-03-24

DARLINGTON - ARGYLE

(WELLS STREET TO CLAY STREET)

STH 81

LAFAYETTE COUNTY



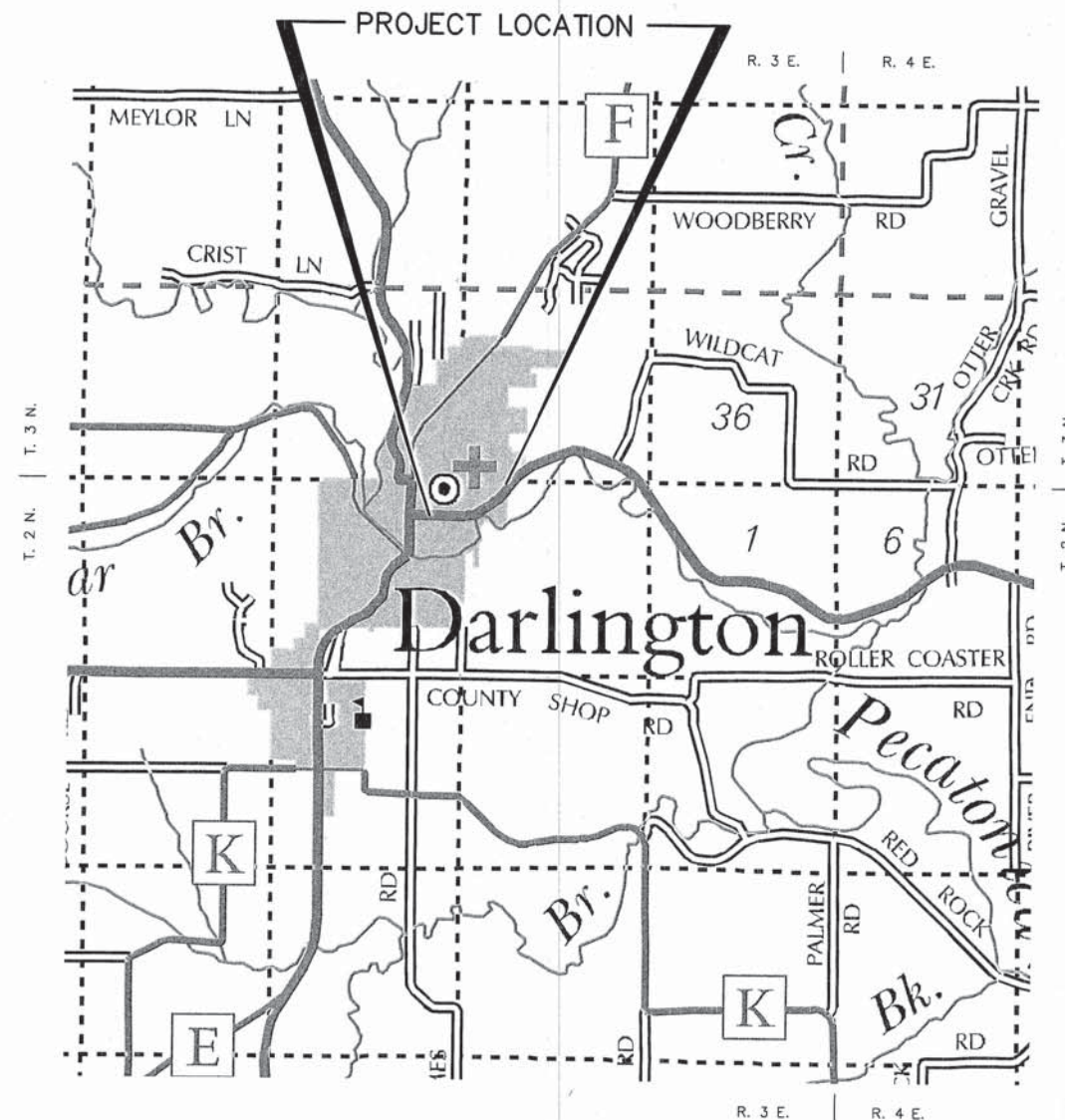
CONVENTIONAL SYMBOLS AND ABBREVIATIONS

SECTION LINE	--- ---	SECTION CORNER	18
QUARTER LINE	--- ---	R/W MONUMENT	•
SIXTEENTH LINE	--- ---	NON-MONUMENTED	○
NEW REFERENCE LINE	--- ---	R/W POINT	•
NEW R/W LINE	--- ---	FOUND IRON PIN	IP
EXISTING R/W LINE	--- ---	VALVE (GAS, WATER, ETC.)	⊙ (TYPE)
PROPERTY LINE	--- ---	SIGN	⊙ (TYPE)
LOT, TIE & OTHER MINOR LINES	--- ---	OFF-PREMISE SIGN	⊙ (TYPE)
CORPORATE LIMITS	--- ---	COMPENSABLE	⊙
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	--- ---	NON-COMPENSABLE	⊙
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	--- ---	ELECTRIC POLE	⊙
TEMPORARY LIMITED EASEMENT AREA	--- ---	TELEPHONE POLE	⊙
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	--- ---	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	⊙
TRANSMISSION STRUCTURES	--- ---	ACCESS CONTROLLED BY ACQUISITION	--- ---
BUILDING	--- ---	NO ACCESS (BY STATUTORY AUTHORITY)	--- ---
NATIONAL GEODETIC SURVEY MONUMENT	--- ---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	--- ---
SIXTEENTH CORNER MONUMENT	--- ---	BRIDGE	--- ---
		PARCEL NUMBER	25
		UTILITY NUMBER	40

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	COUNTY	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TPL
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV		
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	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	PG		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATE

LONG CHORD	L.C.
LONG CHORD BEARING	L.C.B.
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB



NOTES:

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 LINES 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.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR E. LOUISA STREET (S.T.H. 81) ESTABLISHED FROM THE ORIGINAL PLAT CITY OF DARLINGTON AND FROM PRIVATE SURVEYS OF RECORD "PLAT OF SURVEY" BY BRUCE D. BOWDEN DATED MARCH 31, 1991 AND REVISED JULY 30, 1992 AND ANOTHER DATED JULY 30, 1992, CERTIFIED SURVEY MAP NO. 107 AND "PLAT OF SURVEY" BY MICHAEL R. LAROSA DATED NOVEMBER 30, 1999.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY LINE 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 TO INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (T.L.E.s) 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 THE EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

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

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, LAFAYETTE COUNTY, NAD 83, 2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

CONVENTIONAL UTILITY SYMBOLS

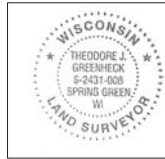
WATER	W
GAS	G
TELEPHONE	T
OVERHEAD	OH
TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SS
STORM SEWER	SS

TPP NUMBER 5944-03-24-4.01
SHEET 2 OF 2

KNIGHT

700 N Third Street
Suite 104
La Crosse, WI 54601
Engineers & Architects Phone: (608) 519-1455

I, THEODORE J. GREENHECK, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.09 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 5944-03-24-4.01 AMENDMENT NO. 1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



2/7/14
THEODORE J. GREENHECK
AGENT FOR KNIGHT E/A INC.
R.L.S. #2431
2/10/14
THIS PLAT AND RELOCATION ORDER
ARE APPROVED FOR THE
WISCONSIN DEPARTMENT OF TRANSPORTATION.

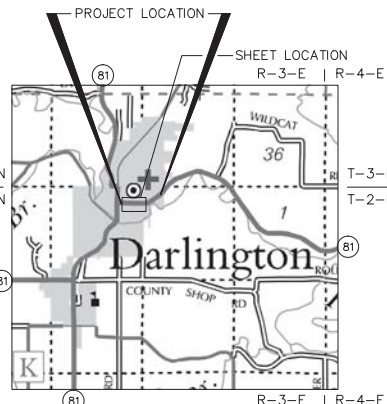
UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTERESTS REQUIRED
40	ALLIANT ENERGY	RELEASE OF RIGHTS
41	CENTURYLINK	RELEASE OF RIGHTS
42	CITY OF DARLINGTON - WATER UTILITY	RELEASE OF RIGHTS
43	CITY OF DARLINGTON - SEWER UTILITY	RELEASE OF RIGHTS
-	-	-

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W REQUIRED SQUARE FEET			T.L.E. SQ. FT. TEMP.
			NEW	EXISTING	TOTAL	
1	LESLIE C. & SUSAN M. TORSTENSON	TLE	-	-	-	84
2	DONALD & DIANNE OSTERDAY	TLE	-	-	-	185
3	NAOMI I. JENSON	TLE	-	-	-	198
4	DAVID T. & LORRIE K. REED	FEE/TLE	186	-	186	58
5	SHEILA A. (MERRITT) JOHNSON	FEE/TLE	729	-	729	72
6	IMMANUEL UNITED CHURCH OF CHRIST	FEE	391	-	391	-

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.



LOCATION MAP
(NOT TO SCALE)

ALLIANT ENERGY
NO RECORD OF EASEMENTS - PARCEL 6

CENTURYLINK
NO RECORD OF EASEMENT - PARCEL 5

CITY OF DARLINGTON - WATER UTILITY
NO RECORD OF EASEMENT - PARCEL 4

CITY OF DARLINGTON - SEWER UTILITY
NO RECORD OF EASEMENT - PARCEL 6

TRANSPORTATION PROJECT PLAT NO: 5944-03-24-4.01 AMENDMENT NO. 1 AMENDS UTILITY NUMBERS 40 AND ADDS UTILITY NUMBERS 41, 42 AND 43 OF TRANSPORTATION PROJECT PLAT NO. 5944-03-24-4.01 RECORDED AS DOCUMENT NO. 338961.

THAT PART OF LOTS 7 AND 8, BLOCK 10 AND THAT PART OF LOTS 7 AND 8 OF BLOCK 25 OF THE ORIGINAL PLAT OF THE CITY OF DARLINGTON, BEING LOCATED IN GOVERNMENT LOT 1 OF SECTION 3, ALL IN TOWN 2 NORTH, RANGE 3 EAST, CITY OF DARLINGTON, LAFAYETTE COUNTY, WISCONSIN.

RELOCATION ORDER STH 81 DARLINGTON-ARGYLE (WELLS STREET TO CLAY STREET)

TO PROPERLY ESTABLISHED, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEM 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 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION 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 OF RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, LAFAYETTE COUNTY, NAD 83, 2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR E. LOUISA STREET (S.T.H. 81) ESTABLISHED FROM THE ORIGINAL PLAT CITY OF DARLINGTON.

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

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN LAFAYETTE COUNTY AS SHEET 2 OF 2 DOCUMENT NUMBER 338961 AND FILED IN ENVELOPE 2, CABINET 2, LAFAYETTE COUNTY.

AND TRANSPORTATION PROJECT PLAT SHEET 4.01 RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS AS DOCUMENT NUMBER 338961 AND FILED IN ENVELOPE 2, CABINET 2, LAFAYETTE COUNTY.

R/W COURSE TABLE

100-101	S 89°27'59" E	262.05'
101-102	S 88°58'01" E	66.00'
102-103	S 88°58'01" E	216.69'
103-104	N 00°37'52" E	4.00'
104-105	S 88°58'01" E	46.50'
105-106	S 00°37'52" W	4.00'
106-107	S 89°19'22" E	66.00'
107-108	N 00°37'52" E	5.50'
108-109	S 89°19'22" E	132.45'
109-110	S 00°28'04" W	2.50'
110-111	S 89°19'22" E	130.14'
111-112	S 00°48'48" W	3.00'
112-113	S 89°19'22" E	66.00'
113-114	S 00°56'21" E	66.03'
114-115	N 89°19'20" W	66.00'
115-116	N 89°19'22" W	263.35'
116-117	N 89°19'47" W	66.00'
117-118	N 88°58'01" W	263.35'
118-119	N 88°57'32" W	66.01'
119-120	N 89°27'59" W	262.90'
120-100	N 00°37'18" E	66.00'

R/W POINT STATION & OFFSET TABLE

POINT NUMBER	STATION	OFFSET
100	110+00.05	33.00'
101	112+61.95	33.00'
102	113+27.81	33.00'
103	115+44.50	33.00'
104	115+44.47	37.00'
105	115+90.98	37.00'
106	115+91.00	33.00'
107	116+57.21	33.00'
108	116+57.20	38.50'
109	117+89.65	38.50'
110	117+89.66	36.00'
111	119+19.79	36.00'
112	119+19.79	33.00'
113	119+85.78	33.00'
114	119+87.66	33.00'
115	119+21.64	33.00'
116	116+58.29	33.00'
117	115+92.29	33.01'
118	113+29.14	33.00'
119	112+63.14	32.99'
120	110+00.00	33.00'

T.L.E. STATION & OFFSET TABLE

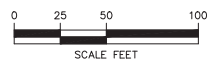
POINT NUMBER	STATION	OFFSET
T1	113+27.81	33.00'
T2	113+27.80	35.00'
T3	113+69.80	35.00'
T4	113+69.81	33.00'
T5	113+97.81	33.00'
T6	113+97.83	36.00'
T7	115+44.48	36.00'
T8	115+44.50	33.00'
T9	117+10.70	38.50'
T10	117+10.70	46.50'
T11	117+19.70	46.50'
T12	117+18.70	38.50'

P.I. = 119+85.78
Y 165988.759
X 484028.289
Δ = 00°01'32" RT.

P.I. = 115+91.11
Y 165993.421
X 483633.644
Δ = 00°21'22" LT.

P.I. = 112+61.95
Y 165999.356
X 483304.543
Δ = 00°29'58" RT.

P.I. = 110+00.00
Y 166001.796
X 483042.603



SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W REQUIRED SQUARE FEET			T.L.E. SQ. FT. TEMP.
			NEW	EXISTING	TOTAL	
7	LDW HOLDINGS, LLC	FEE/TLE	677	-	677	238
8	BLAKE C. PRINE/CASSIE L. TAYLOR	FEE/TLE	331	-	331	82
9	LONA A. PARKINSON	FEE/TLE	464	-	464	56
10	NATHAN J. & REBECCA I. WIEGEL	FEE	276	-	276	68
11	BRIAN C. & KATHERINE M. FINDLEY	FEE/TLE	404	-	404	49
12	ROBERT J. & MARLENE FINLEY	FEE/TLE	425	-	425	59
13	EDWIN J. EDWARDS & VICKI L. SELWE TRUST	FEE/TLE	684	-	684	12
14	PATRICK H. & JANE M. KLEIBER	FEE/TLE	472	-	472	62
15	KATIE R. KIEFFER	FEE/TLE	446	-	446	54
16	CONSTANCE M. WEGEL	FEE	371	-	371	-
17	JANET E. GEORGE	FEE	171	-	171	232

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.

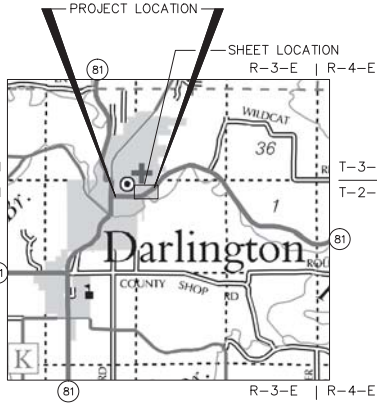
NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, LAFAYETTE COUNTY, NAD 83, 2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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EXISTING HIGHWAY RIGHT-OF-WAY FOR E. LOUISA STREET (S.T.H. 81) ESTABLISHED FROM THE ORIGINAL PLAT CITY OF DARLINGTON AND FROM PRIVATE SURVEYS OF RECORD "PLAT OF SURVEY" BY BRUCE D. BOWDEN DATED MARCH 31, 1991 AND REVISED JULY 30, 1992 AND ANOTHER DATED JULY 30, 1992.

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

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.



LOCATION MAP
(NOT TO SCALE)

TRANSPORTATION PROJECT PLAT NO: 5944-03-24-4.02 AMENDMENT NO. 1 AMENDS UTILITY NUMBERS 40 AND ADDS UTILITY NUMBERS 42 AND 43 OF TRANSPORTATION PROJECT PLAT NO: 5944-03-24-4.02 RECORDED AS DOCUMENT NO. 339156.

THAT PART OF LOTS 7 AND 8 OF BLOCK 30 OF THE ORIGINAL PLAT OF THE CITY OF DARLINGTON, AND THAT PART OF LOT 8 OF BLOCK 3 OF RUSSELL'S ADDITION TO THE CITY OF DARLINGTON, BEING LOCATED IN GOVERNMENT LOT 1 OF SECTION 3, PART OF LOT 1, CERTIFIED SURVEY MAP NO. 107 AND THAT PART OF LOTS 5, 6, 7 AND 8 OF BLOCK 3 OF RUSSELL'S ADDITION TO THE CITY OF DARLINGTON BEING LOCATED IN GOVERNMENT LOT 6 OF SECTION 2, AND PART OF OTHER UNPLATTED LANDS BEING LOCATED IN GOVERNMENT LOT 6 OF SECTION 2, ALL IN TOWN 2 NORTH, RANGE 3 EAST, CITY OF DARLINGTON, LAFAYETTE COUNTY, WI.

RELOCATION ORDER STH 81 DARLINGTON-ARGYLE (WELLS STREET TO CLAY STREET)

TO PROPERLY ESTABLISHED, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEM 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 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION 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 IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEED IN LAFAYETTE COUNTY, WISCONSIN AT 8:30 AM ON FEBRUARY 17, 2014 AS DOCUMENT 339909 AND FILED ENVELOPE 4 CABINET 2

Joseph G Boll
SIGNATURE OF REGISTER OF DEEDS

THIS IS A COPY, ORIGINAL DOCUMENT IS FILED AT THE COUNTY REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER:
5944-03-24-4.02
AMENDMENT NO: 1

LAFAYETTE CO.
ALUMINUM
MONUMENT FOUND
Y= 166977.367
X= 487001.890

LAFAYETTE CO.
ALUMINUM
MONUMENT FOUND
Y= 167006.488
X= 481669.278

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTERESTS REQUIRED
40	ALLIANT ENERGY	RELEASE OF RIGHTS
42	CITY OF DARLINGTON - WATER UTILITY	RELEASE OF RIGHTS
43	CITY OF DARLINGTON - SEWER UTILITY	RELEASE OF RIGHTS
-	-	-

ALLIANT ENERGY
NO RECORD OF EASEMENTS - PARCEL 7, 8, 12, 16, 17
CITY OF DARLINGTON - WATER UTILITY
NO RECORD OF EASEMENT - PARCEL 7, 8, 10, 11, 12, 13, 14, 15
CITY OF DARLINGTON - SEWER UTILITY
NO RECORD OF EASEMENT - PARCEL 7, 8, 9, 10, 11, 13, 14

T.L.E. STATION & OFFSET TABLE

POINT NUMBER	STATION	OFFSET
T50	120+18.03	36.00'
T51	120+18.03	40.00'
T52	120+27.03	40.00'
T53	120+27.03	36.00'
T54	120+73.22	36.00'
T55	120+72.22	43.00'
T56	120+82.22	43.00'
T57	120+82.22	36.00'
T58	121+07.30	36.00'
T59	121+07.30	49.00'
T60	121+20.55	49.00'
T61	121+20.55	38.00'
T62	121+63.62	38.00'
T63	121+63.62	47.00'
T64	121+72.62	47.00'
T65	121+72.62	38.00'
T66	122+34.13	40.00'
T67	122+33.29	45.07'
T68	122+39.50	49.85'
T69	123+41.84	40.00'
T70	123+78.84	36.50'
T71	123+78.84	44.00'
T72	123+87.84	44.00'
T73	123+87.84	36.50'
T74	124+62.58	40.00'
T75	124+62.58	45.00'
T76	124+71.60	45.00'
T77	124+71.60	38.00'
T78	125+42.61	36.83'
T79	125+42.75	43.41'
T80	125+52.59	42.81'
T81	125+52.31	36.26'
T82	126+12.32	39.00'
T83	126+12.32	41.00'
T84	126+18.83	41.30'
T85	126+18.83	39.30'
T86	126+54.20	35.13'
T87	126+54.39	42.01'
T88	126+64.21	41.82'
T89	126+63.88	34.99'
T90	127+32.53	31.90'
T91	127+32.53	38.00'
T92	127+41.53	38.00'
T93	127+41.53	31.78'
T94	128+72.36	24.00'
T95	128+72.36	27.00'
T96	129+21.89	26.32'
T97	129+44.12	28.23'
T98	129+44.12	23.06'

P.I. = 19+85.78
Y = 165988.759
X = 484028.289
Δ = 00°01'32" RT.

R/W POINT STATION & OFFSET TABLE

POINT NUMBER	STATION	OFFSET
200	119+85.78	33.00'
201	119+85.78	36.00'
202	121+18.23	36.00'
203	121+18.23	38.00'
204	121+84.46	38.00'
205	121+84.46	40.00'
206	122+50.68	40.00'
207	122+50.69	33.00'
208	123+00.59	38.77'
209	123+00.59	36.77'
210	123+92.56	36.37'
211	123+92.56	40.37'
212	124+69.62	40.04'
213	124+69.61	38.04'
214	125+00.53	37.27'
215	125+61.85	35.53'
216	125+62.23	37.50'
217	125+73.22	35.53'
218	126+26.09	39.59'
219	126+26.38	34.58'
220	127+08.44	32.05'
221	127+83.59	31.21'
222	128+45.45	30.36'
223	128+72.43	30.00'
224	128+72.40	27.00'
225	129+21.89	26.32'
226	129+44.12	28.23'
227	129+44.12	23.06'
228	130+03.90	25.10'
229	129+89.21	27.00'
230	129+46.62	30.43'
231	127+48.49	34.32'
232	126+55.74	36.70'
233	125+63.86	40.79'
234	125+84.03	32.90'
235	122+51.03	33.00'
236	119+87.66	33.00'

KNIGHT

700 N Third Street
Suite 104
La Crosse, WI 54601
Phone: (608) 519-1455
Engineers & Architects



THEODORE J. GREENHECK
AGENT FOR KNIGHT E/A INC.
R.L.S. #2431
DATE 2/10/14
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

R/W COURSE TABLE

200-201 N 00°48'48" E	3.00'	219-220 N 70°26'14" E	76.55'
201-202 S 89°17'50" E	132.46'	220-221 N 63°04'56" E	74.29'
202-203 N 00°43'21" E	2.00'	221-222 N 63°05'02" E	61.86'
203-204 S 89°17'50" E	66.23'	222-223 N 63°04'44" E	26.91'
204-205 N 00°40'37" E	2.00'	223-224 S 27°41'54" E	6.00'
205-206 S 89°17'50" E	66.23'	224-225 N 63°04'56" E	68.96'
206-207 S 00°37'54" W	7.00'	225-226 N 63°04'56" E	74.59'
207-208 N 89°49'08" E	49.91'	226-227 S 00°51'23" W	55.84'
208-209 N 00°37'54" E	3.00'	227-228 S 60°54'17" W	140.63'
209-210 S 89°02'58" E	91.98'	228-229 S 60°04'40" W	100.21'
210-211 N 00°37'54" E	4.00'	229-230 S 63°39'47" W	97.43'
211-212 S 89°02'58" E	77.06'	230-231 S 72°47'47" W	98.95'
212-213 S 00°57'02" W	2.00'	231-232 N 89°27'27" W	286.63'
213-214 S 89°02'58" E	28.94'	232-233 N 89°28'17" W	33.00'
214-215 N 85°54'18" E	56.85'	233-234 N 89°17'50" W	263.36'
215-216 N 00°37'39" E	2.00'	234-200 N 00°56'21" W	66.03'
216-217 S 89°02'58" E	10.38'		
217-218 N 71°37'40" E	50.88'		
218-219 S 00°37'40" W	5.25'		

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
100	166034.794	483042.961
101	166032.353	483304.995
102	166031.163	483370.985
103	166027.256	483587.643
104	166031.256	483587.687
105	166030.418	483634.181
106	166026.418	483634.136
107	166025.638	483700.132
108	166031.136	483700.192
109	166029.573	483832.628
110	166027.073	483832.608
111	166025.535	483962.733
112	166022.535	483962.691
113	166021.755	484028.686
114	165955.737	484029.768
115	165956.518	483963.770
116	165959.630	483700.434
117	165960.402	483634.437
118	165965.150	483371.130
119	165966.349	483305.136
120	165968.798	483042.245

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X
200	166021.755	484028.686
201	166024.755	484028.729
202	166023.130	484161.174
203	166025.130	484161.199
204	166024.318	484227.420
205	166028.318	484227.444
206	166025.506	484293.663
207	166018.506	484293.586
208	166018.664	484343.494
209	166021.664	484343.527
210	166020.138	484435.489
211	166024.138	484435.533
212	166022.859	484512.587
213	166020.860	484512.554
214	166020.380	484541.485
215	166024.440	484598.189
216	166026.440	484598.211
217	166026.267	484608.587
218	166042.305	484656.877
219	166037.054	484656.819
220	166062.685	484728.949
221	166096.317	484795.191
222	166124.321	484850.352
223	166136.507	484874.349
224	166131.194	484877.138
225	166162.411	484938.622
226	166196.180	485005.135
227	166140.347	485004.300
228	166071.966	484881.420
229	166021.980	484794.570
230	165978.756	484707.255
231	165949.489	484612.729
232	165952.203	484326.113
233	165952.507	484293.113
234	165955.737	484029.768

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

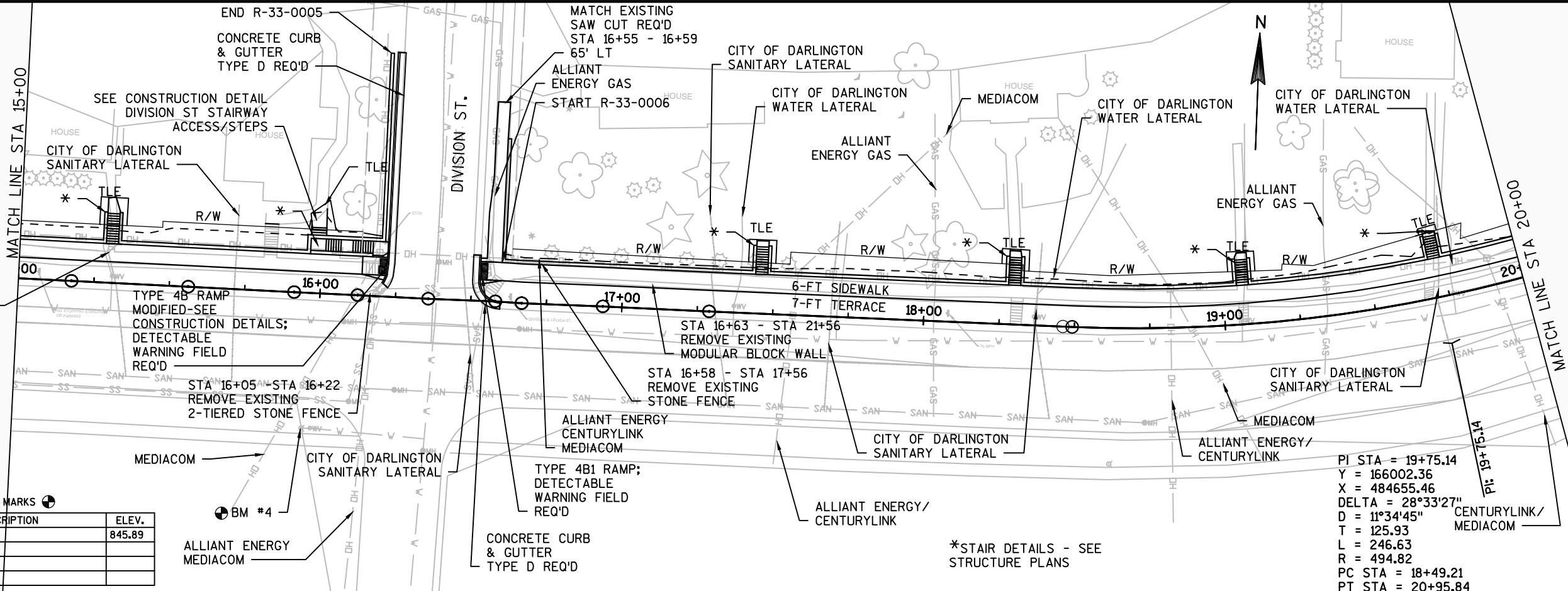
R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE		
POINT	Y	X

P.I. STA
15+17.52
15+56.26
15+91.40
16+12.38
16+35.81
16+58.01
16+66.79
16+93.65
17+28.90

CITY OF DARLINGTON
SANITARY LATERAL



BENCH MARKS

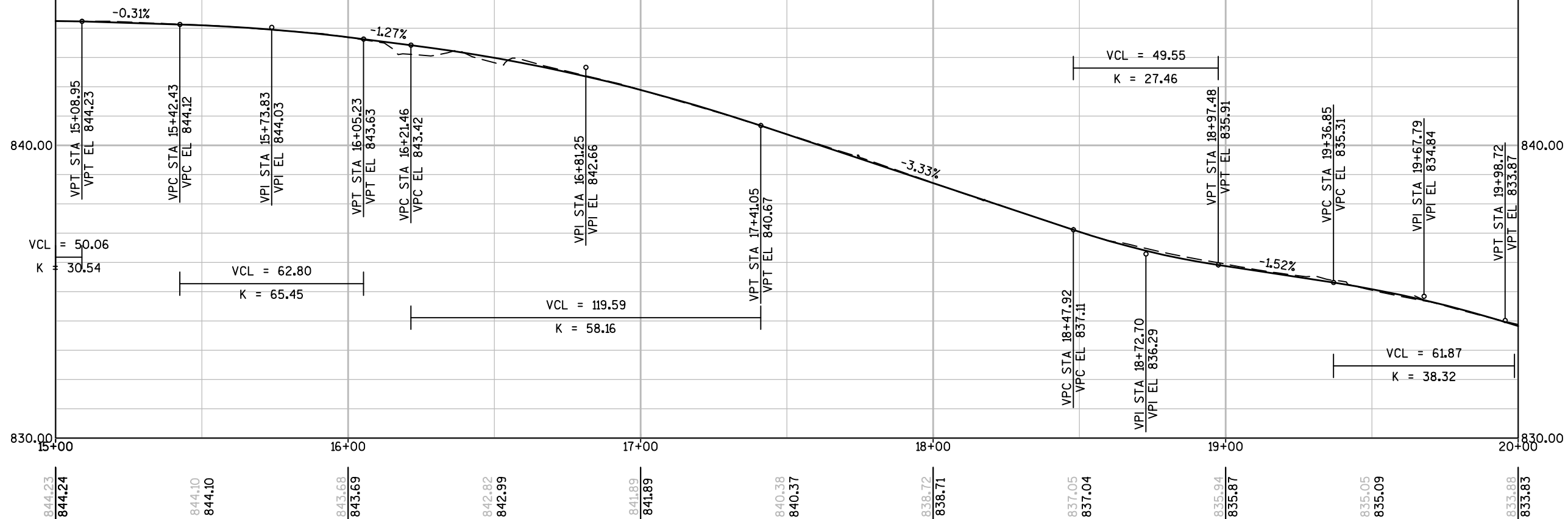
NO.	STATION	DESCRIPTION	ELEV.
4	15+95.99	HYDRANT, RT	845.89

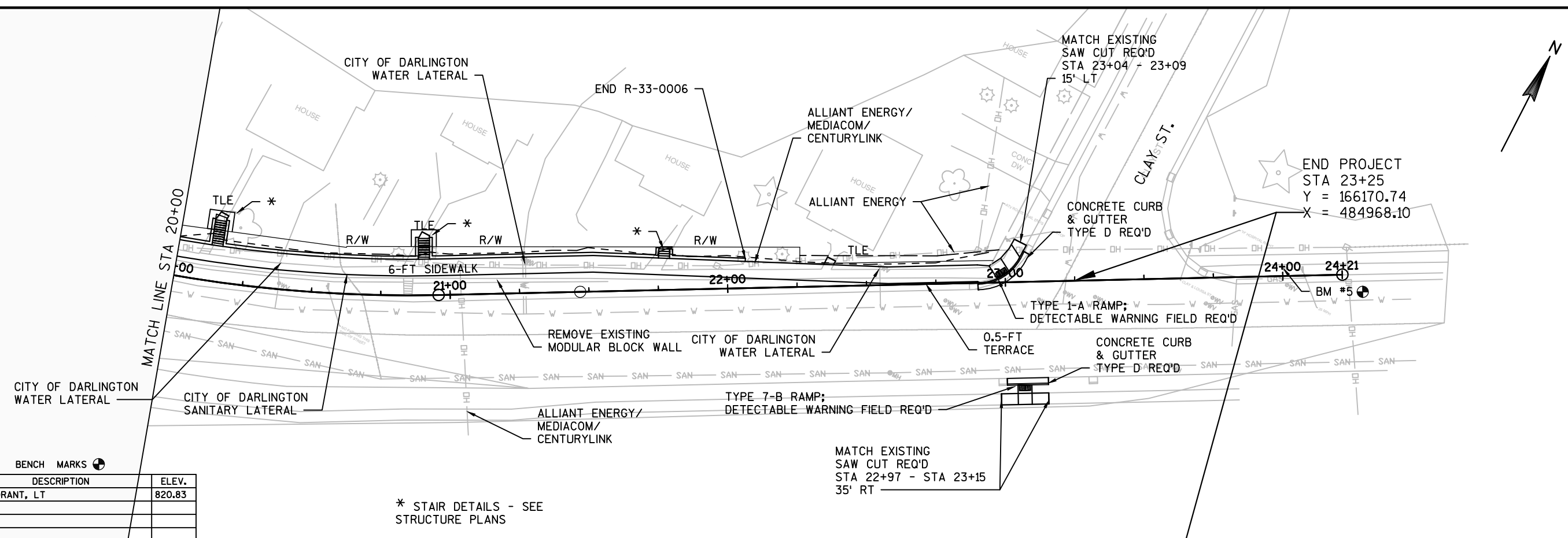
ALLIANT ENERGY
MEDIACOM

CONCRETE CURB
& GUTTER
TYPE D REQ'D

*STAIR DETAILS - SEE
STRUCTURE PLANS

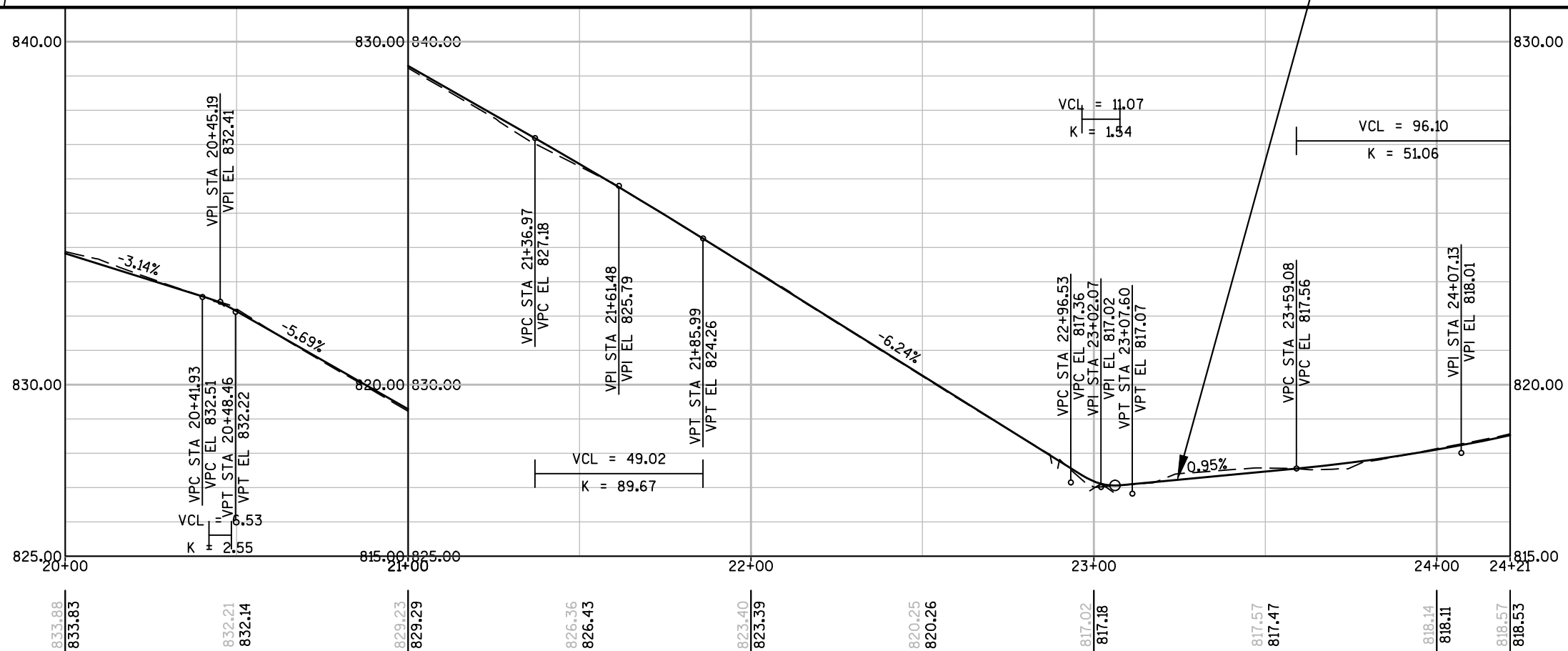
PI STA = 19+75.14
Y = 166002.36
X = 484655.46
DELTA = 28°33'27"
D = 11°34'45"
T = 125.93
L = 246.63
R = 494.82
PC STA = 18+49.21
PT STA = 20+95.84





NO.	STATION	DESCRIPTION	ELEV.
5	24+00.55	HYDRANT, LT	820.83

* STAIR DETAILS - SEE
STRUCTURE PLANS



PROJECT NO:5944-03-84

HWY:STH 81

COUNTY:LAFAYETTE

PLAN AND PROFILE: WELLS ST - CLAY ST

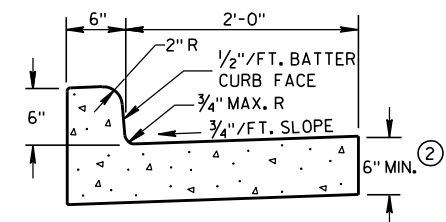
SHEET

46

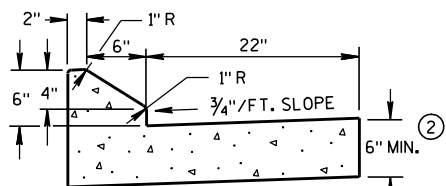
E

Standard Detail Drawing List

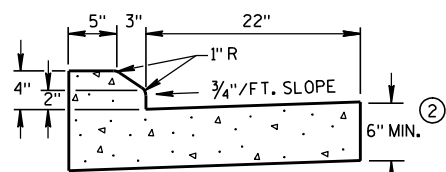
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
12A03-10	NAME PLATE (STRUCTURES)
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12A	PAVEMENT MARKING SYMBOLS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE



TYPES A & D ①



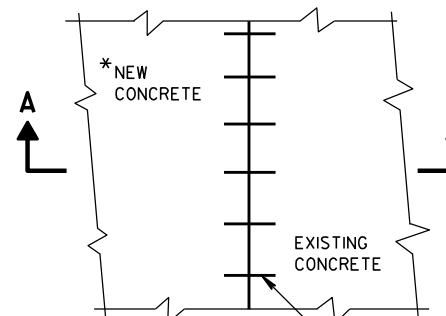
6" SLOPED CURB TYPES G & J ①



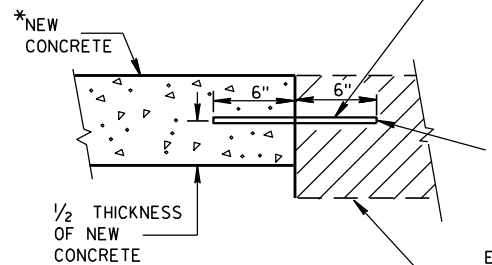
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

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



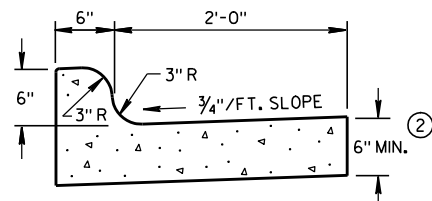
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

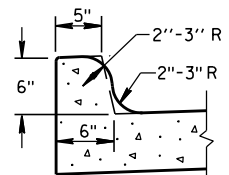
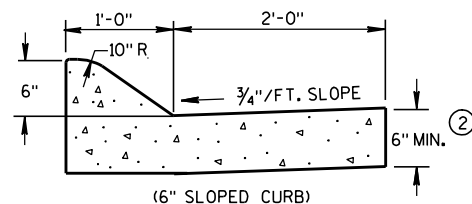
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

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

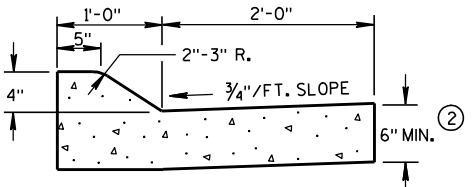
EXISTING
CONCRETE



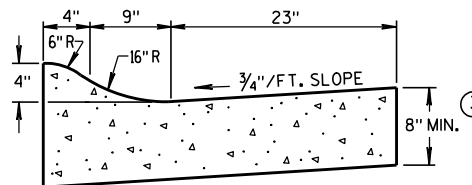
TYPES K & L ①

OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

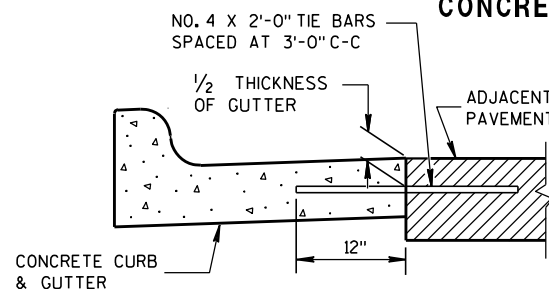


TYPES A & D ①

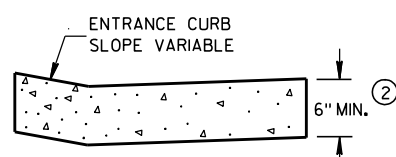


4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

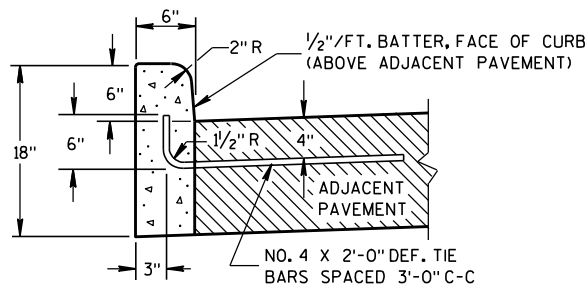


TYPICAL TIE BAR LOCATION ①



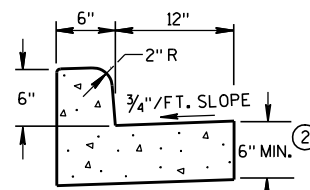
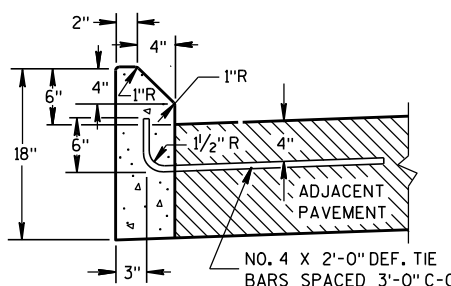
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

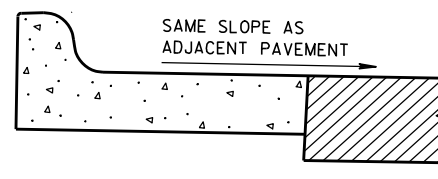
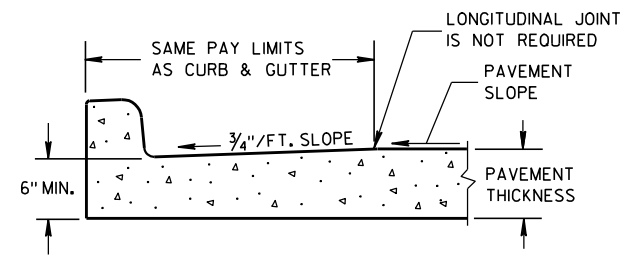
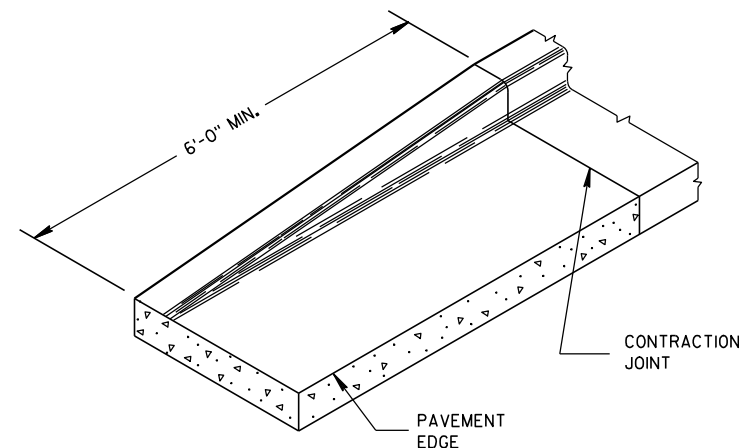
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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 AND R.
- 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 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.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

DATE

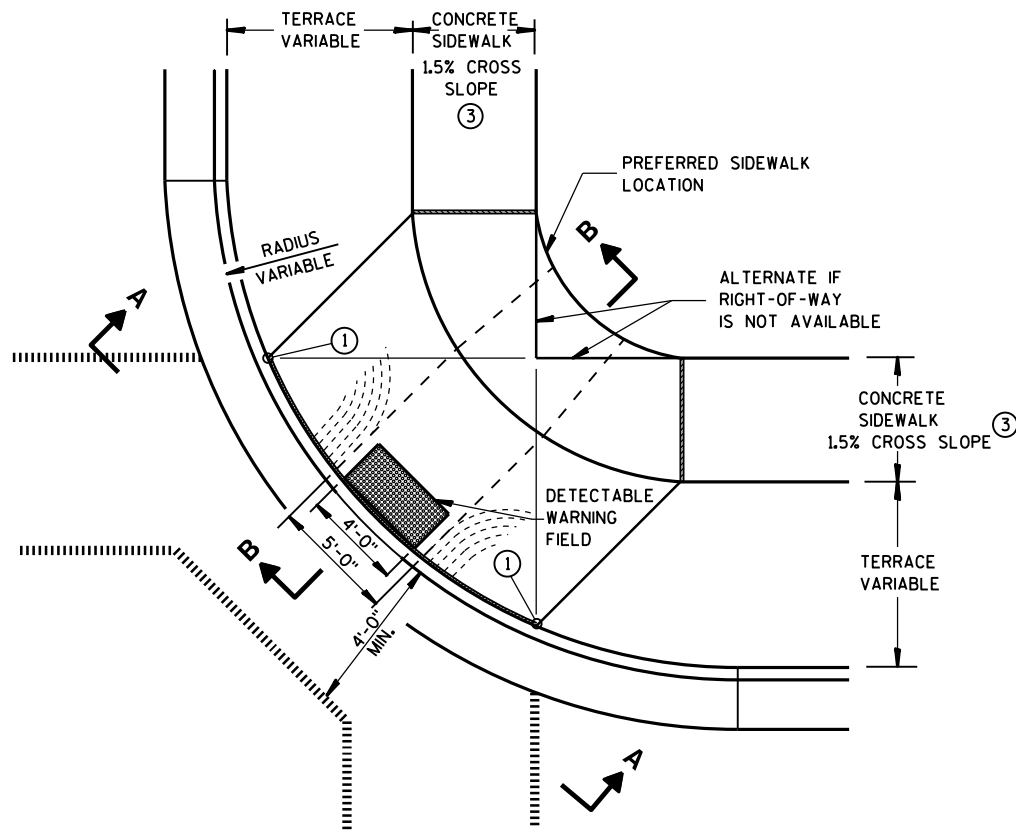
FHWA

/S/ Jerry H. 7

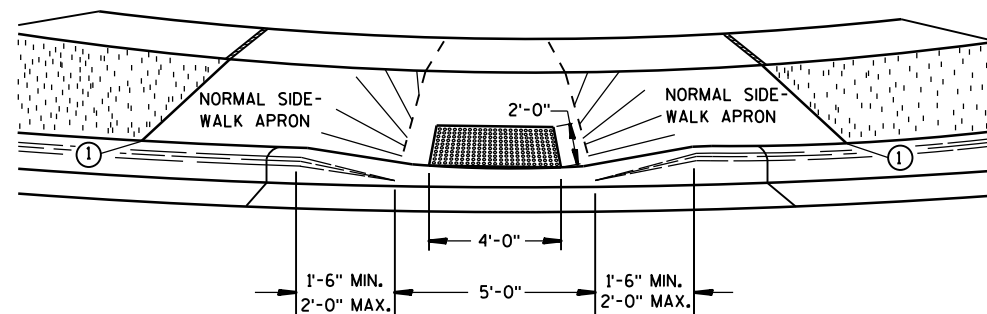
ROADWAY STANDARDS 48

ENGINEER

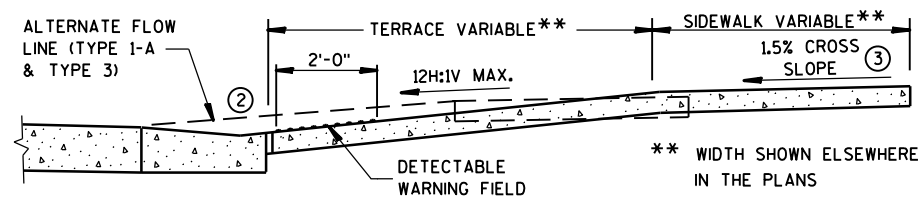
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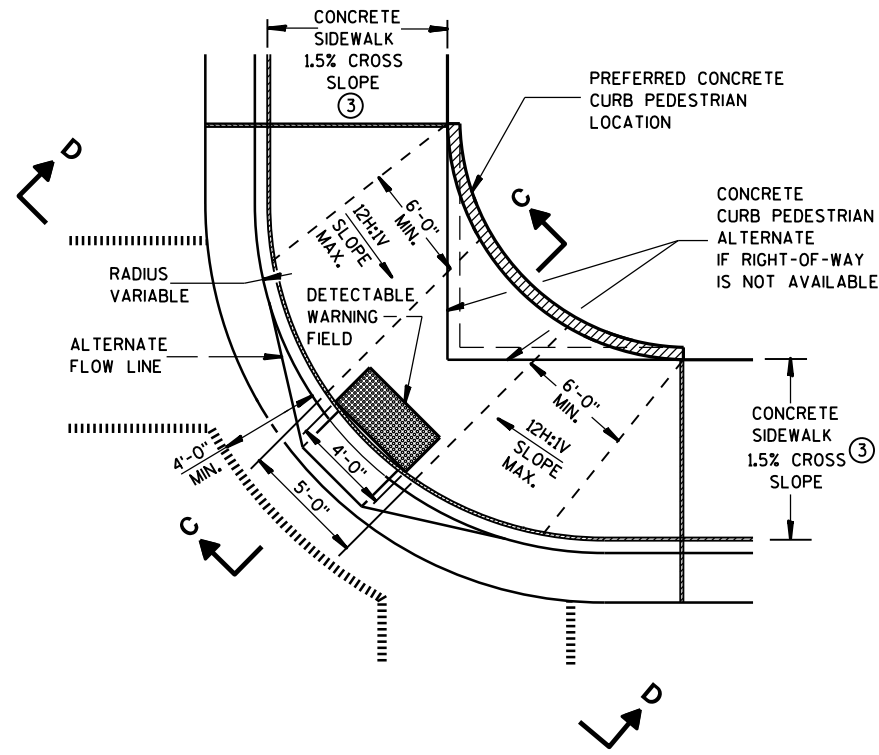
**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)



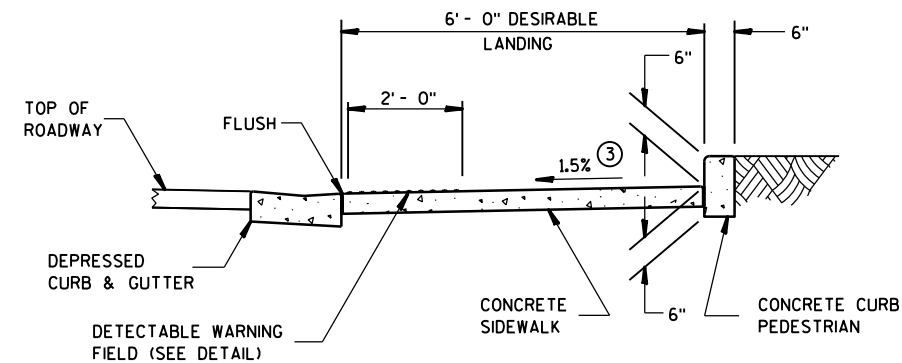
VIEW A-A



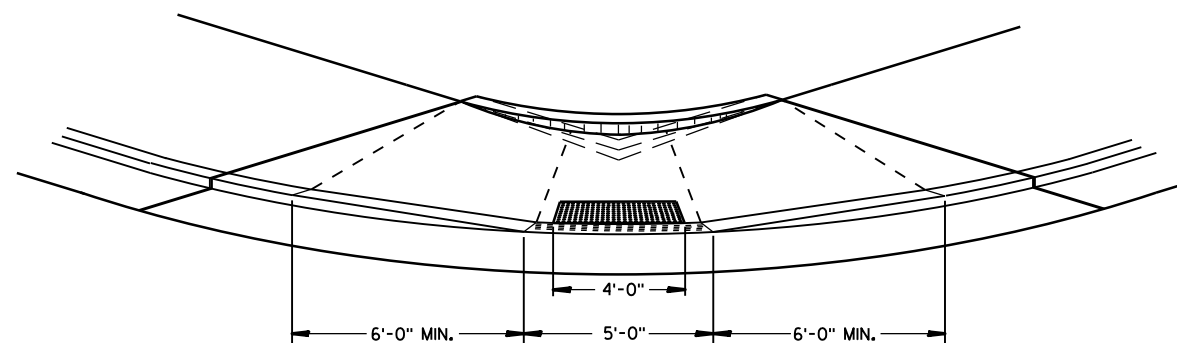
SECTION B-B



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



SECTION C-C



VIEW D-D

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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. 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.

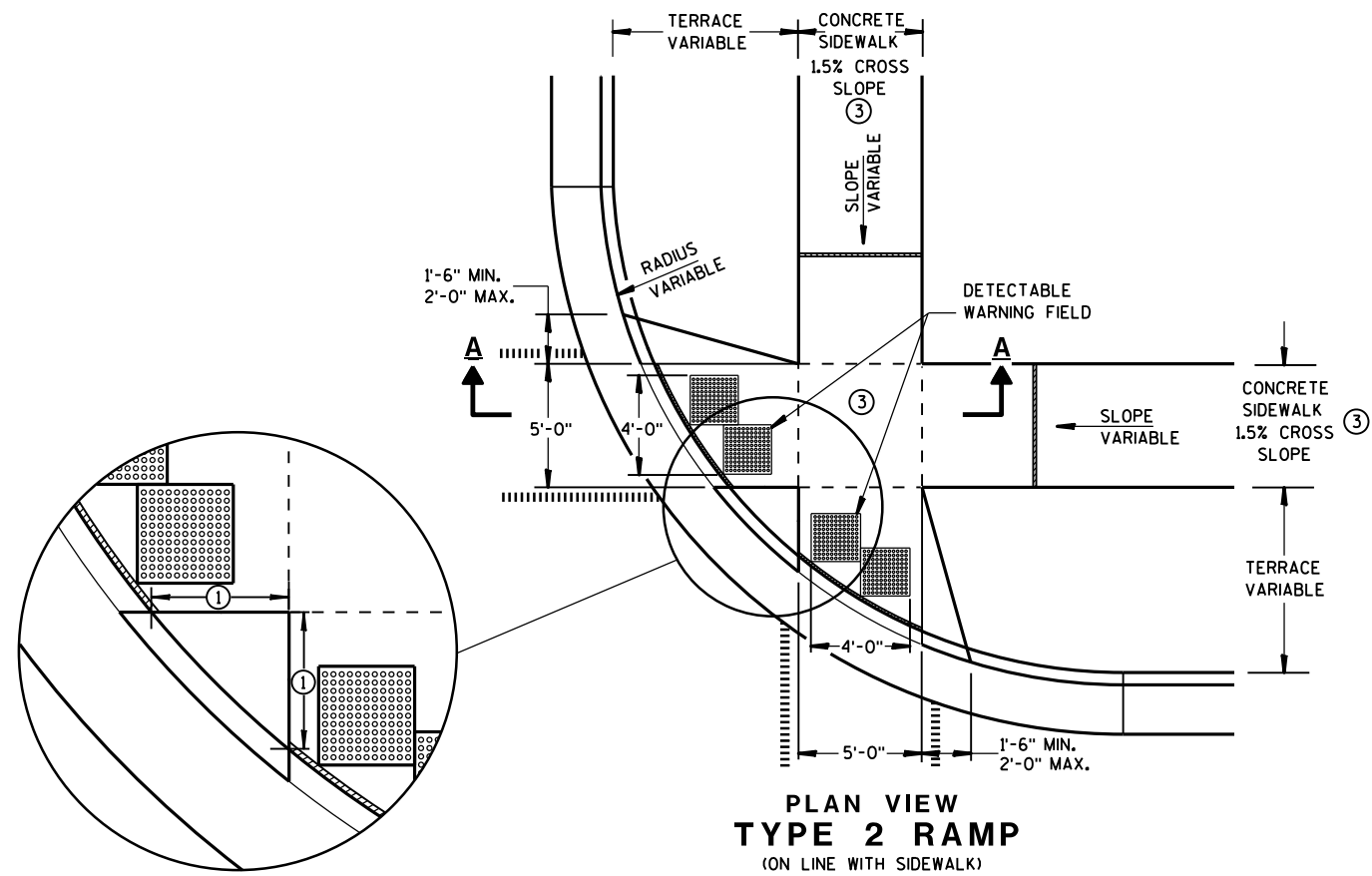
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

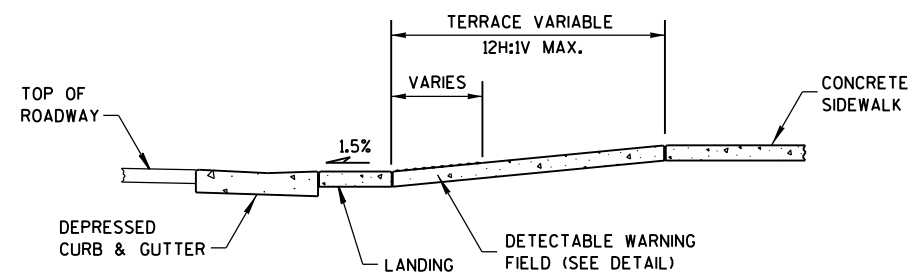
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

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

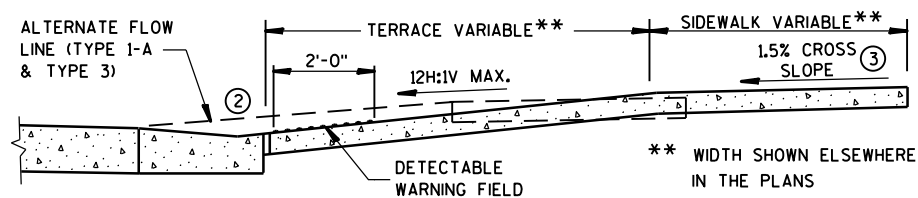
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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



SECTION A-A



SECTION B-B

GENERAL NOTES

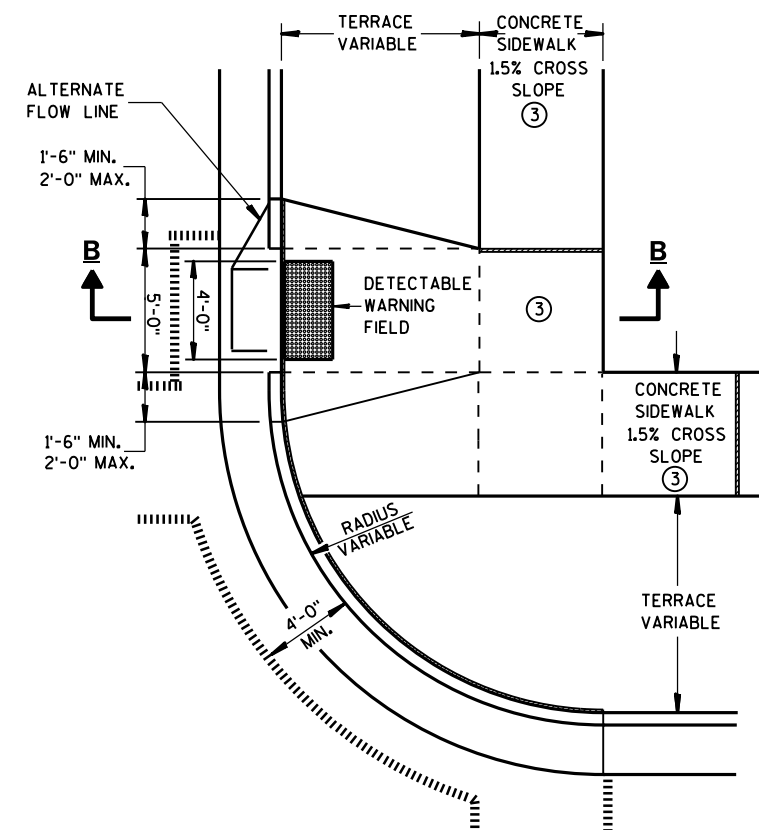
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

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

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

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



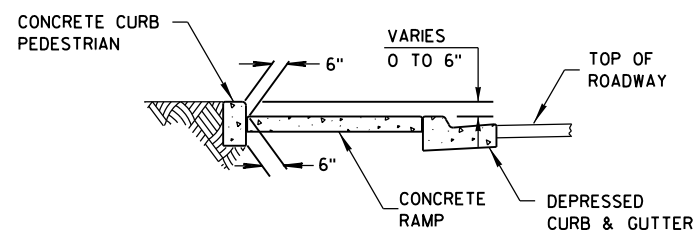
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

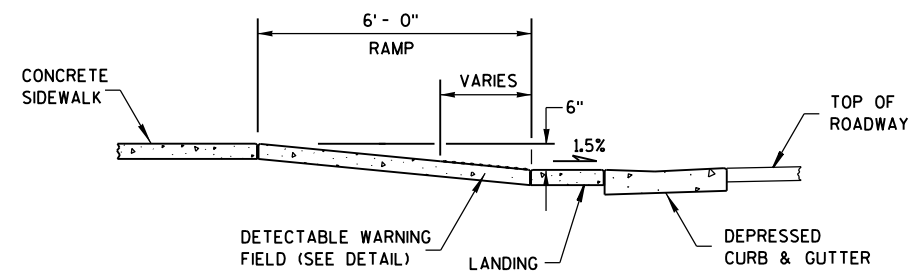
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 4A
PLAN VIEW



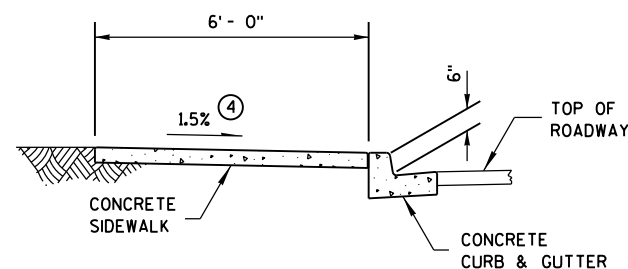
SECTION C-C FOR TYPE 4A



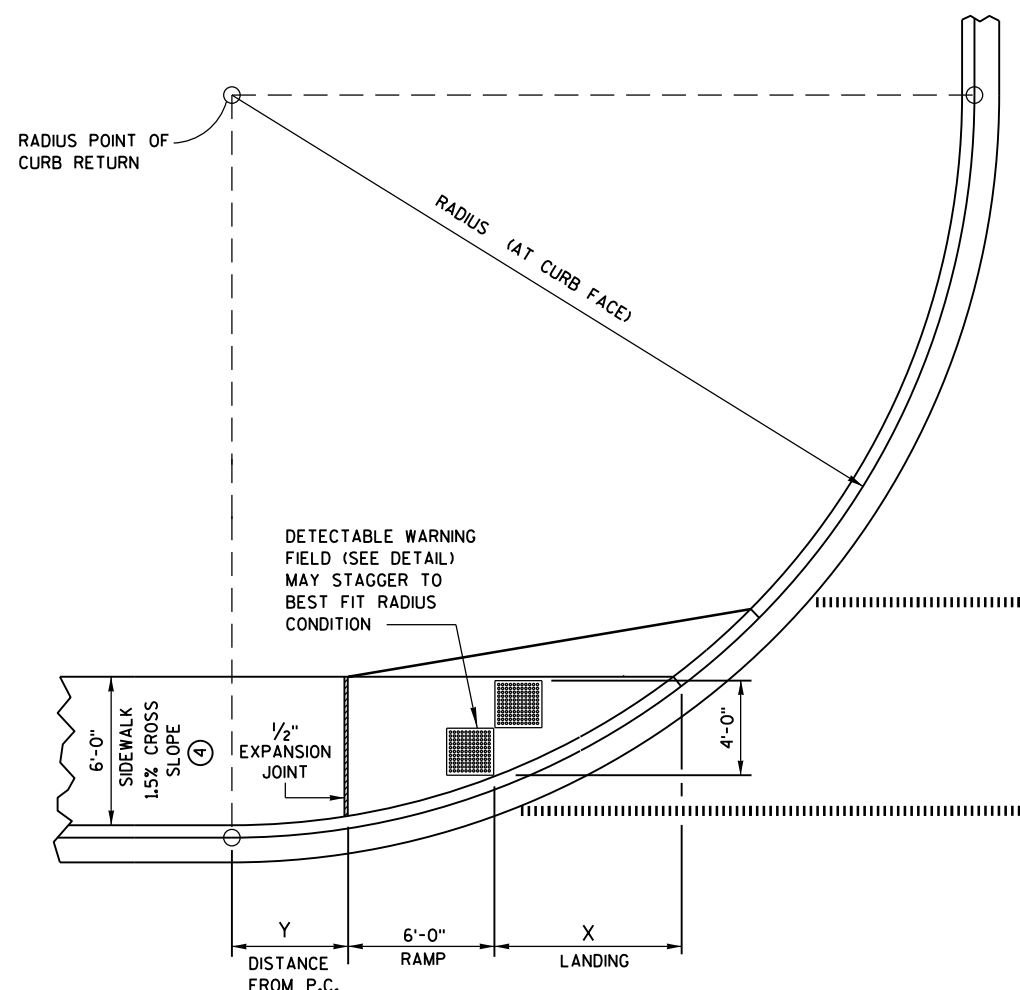
SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW

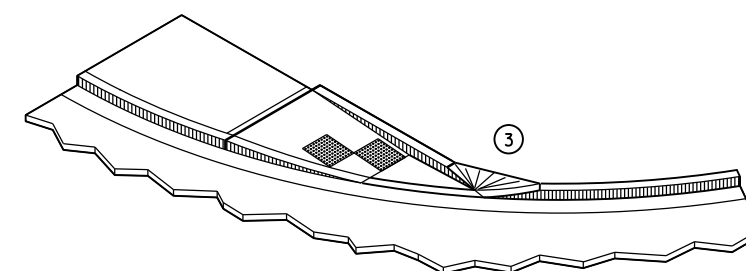
GENERAL NOTES

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

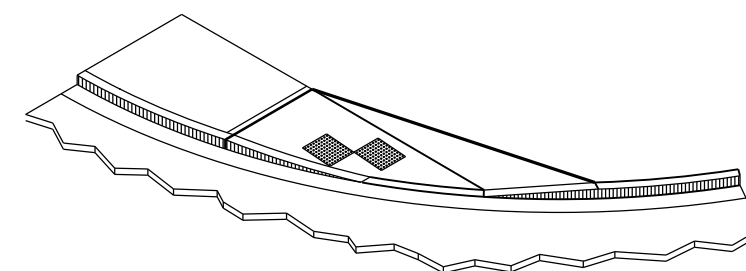
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

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

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



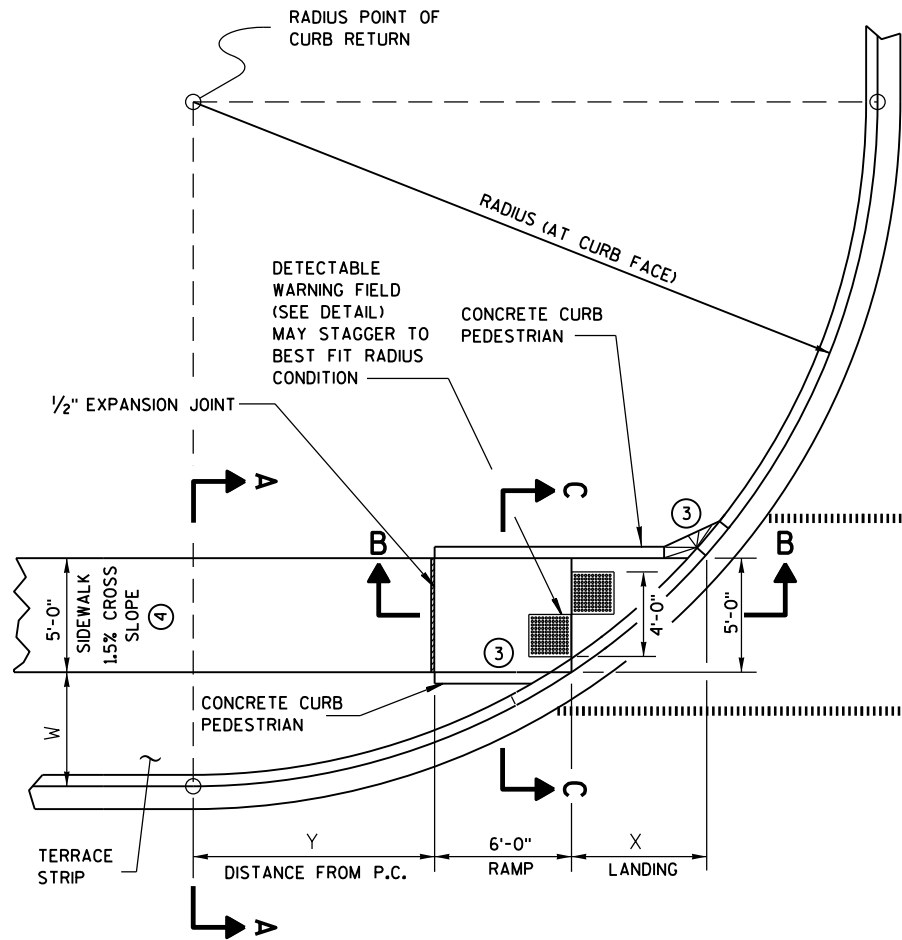
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

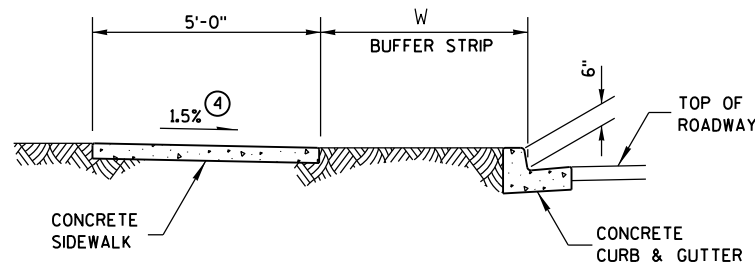
- | | |
|---|------------------------------------|
| | 1/2" EXPANSION JOINT-SIDEWALK |
|  | CONTRACTION JOINT FIELD LOCATED |
|  | PAVEMENT MARKING CROSSWALK (WHITE) |

CURB RAMPS TYPES 4A AND 4A1

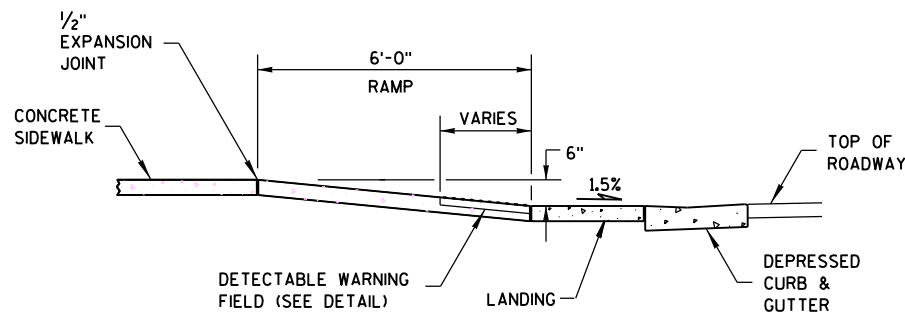
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION⁵¹



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B

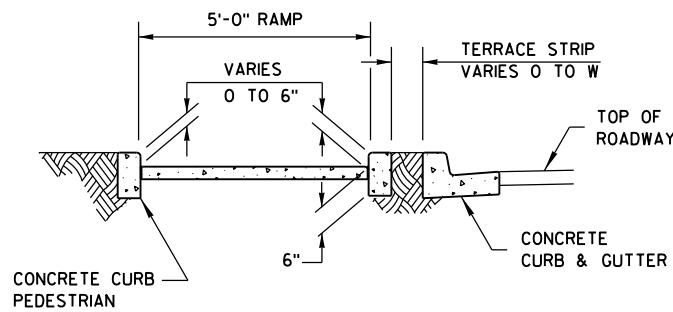


SECTION B-B FOR TYPE 4B

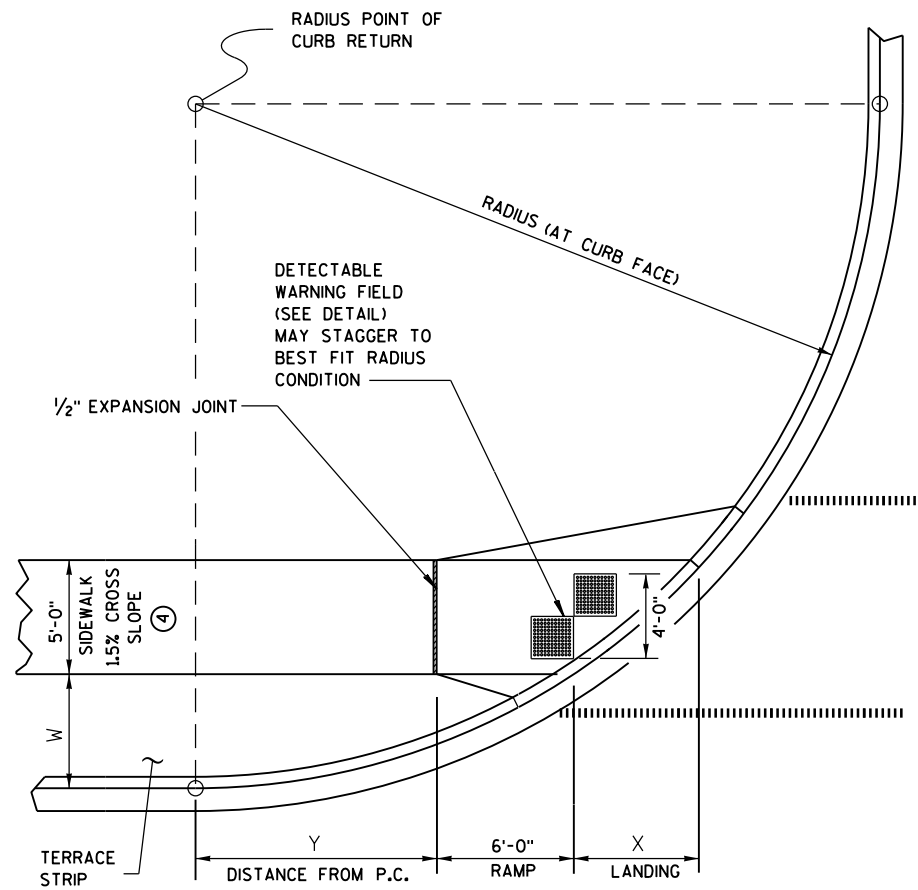
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B



CURB RAMP TYPE 4B1
PLAN VIEW

GENERAL NOTES

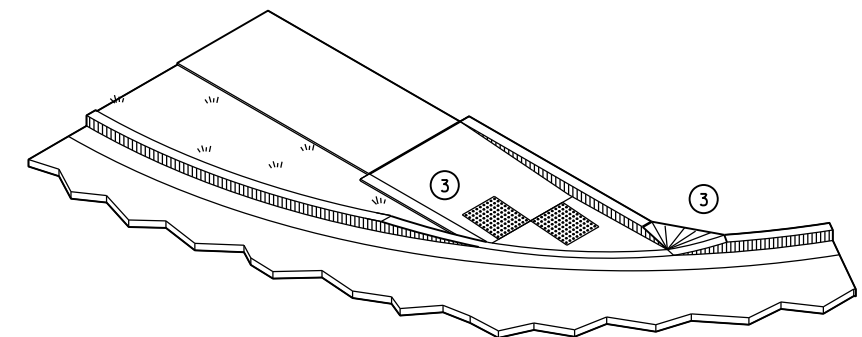
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

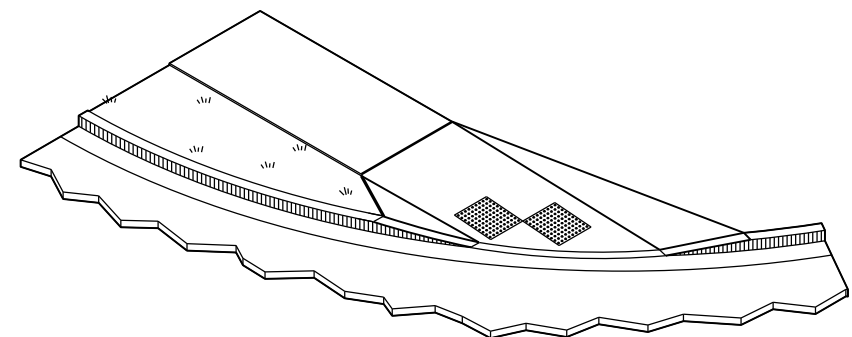
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



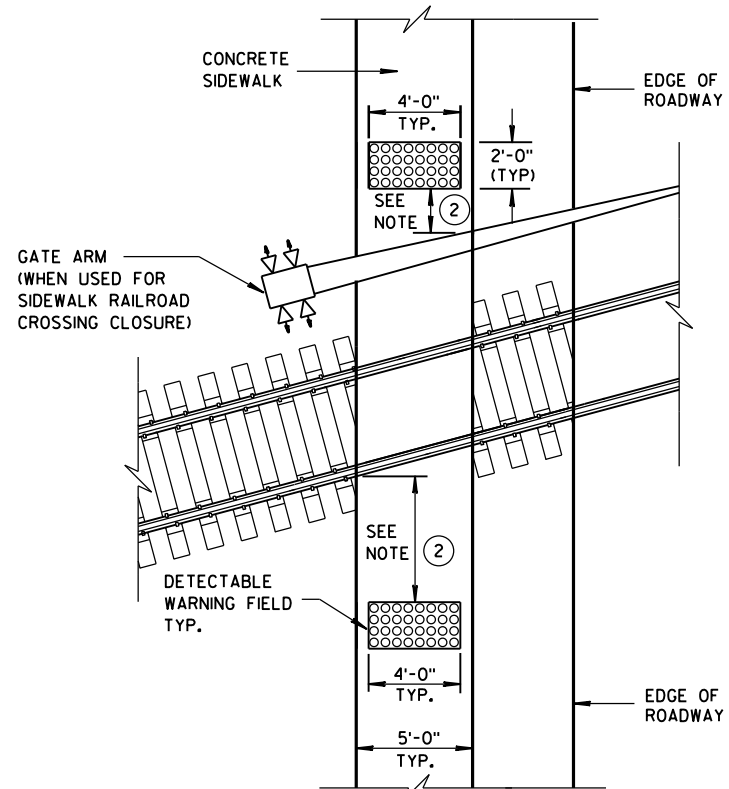
ISOMETRIC VIEW FOR TYPE 4B



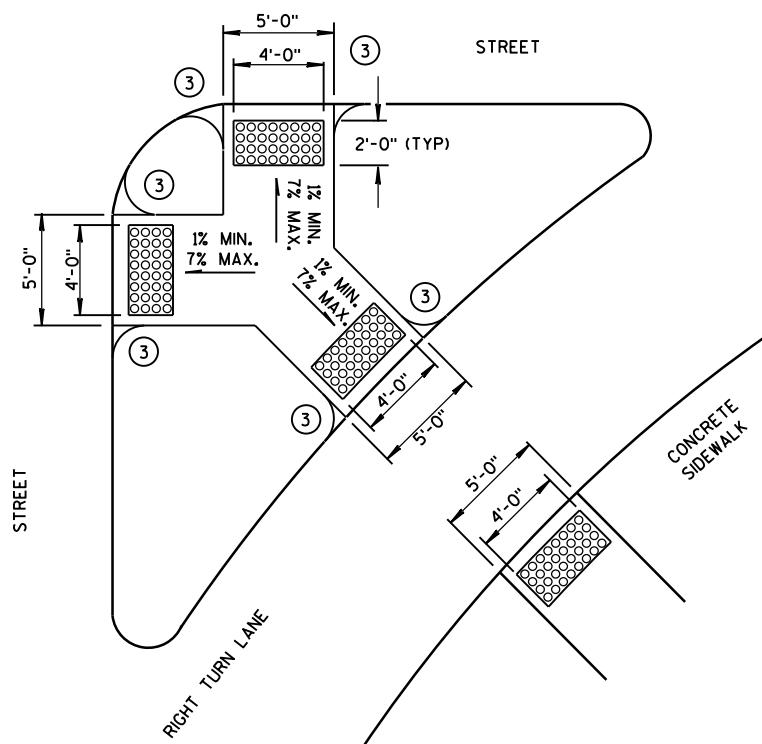
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

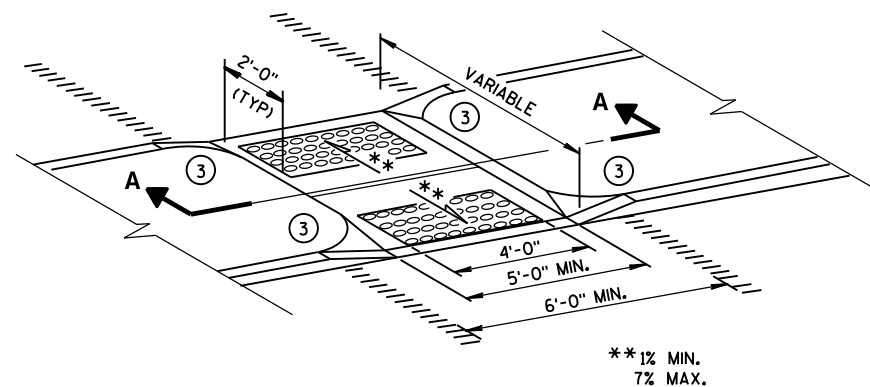
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



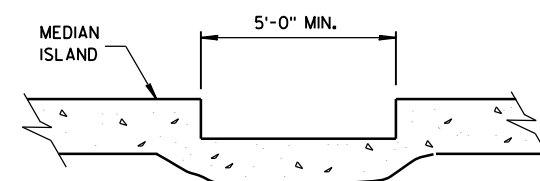
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



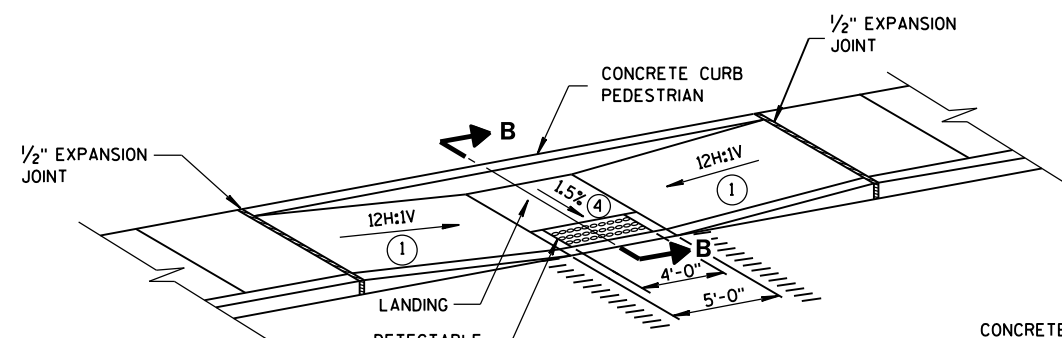
TYPE 6
DETECTABLE WARNING AT ISLANDS



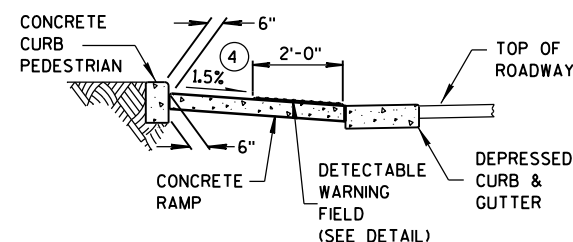
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



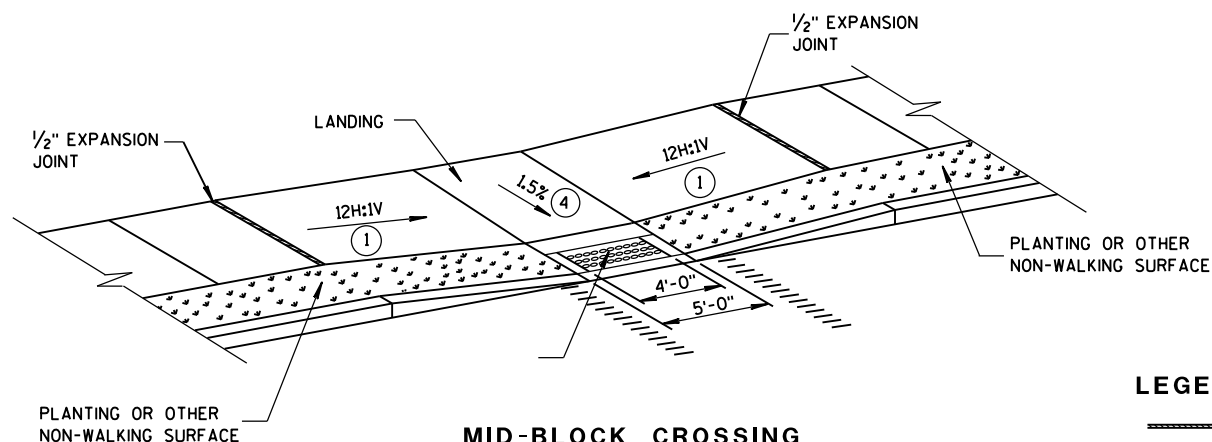
SECTION A-A



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

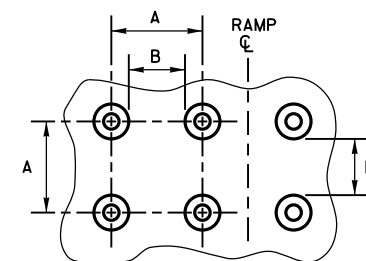
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

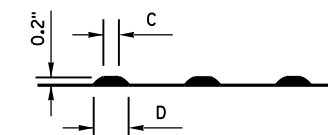
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm$ 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.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- ④ $\pm$ 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



PLAN VIEW



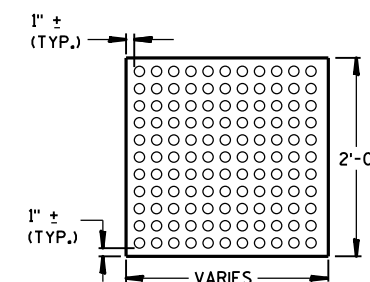
ELEVATION VIEW

	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.

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

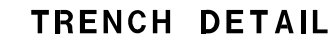
2-6-2013
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS 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.

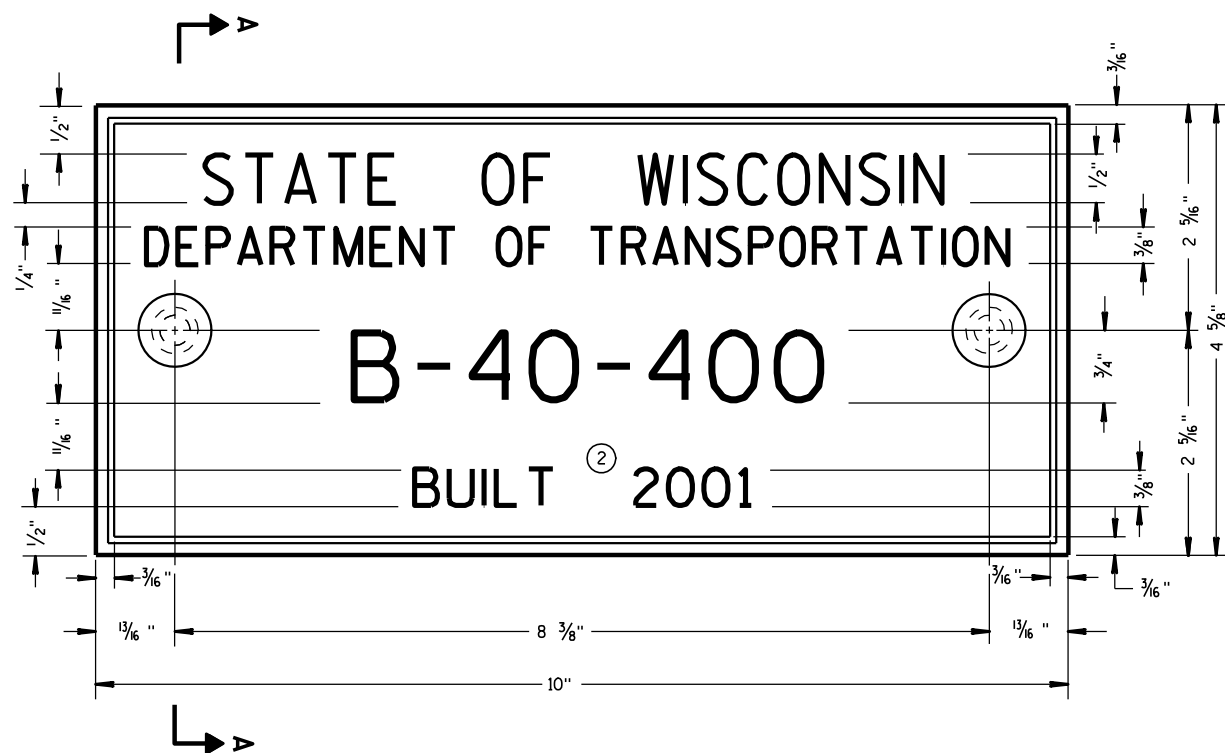


SILT FENCE

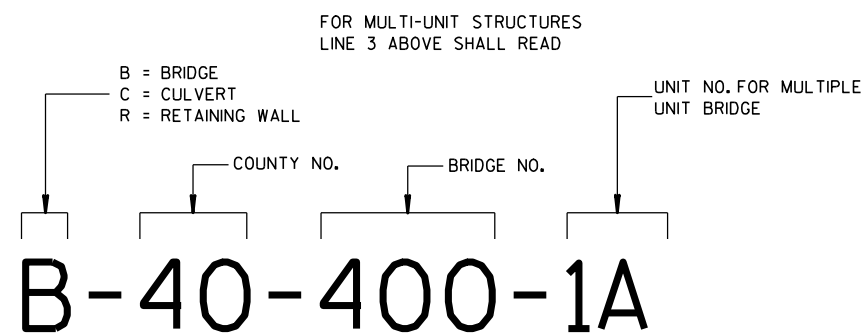
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Connolly
DATE CHIEF ROADWAY DEVELOPMENT 54 JINEER

FHWA



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



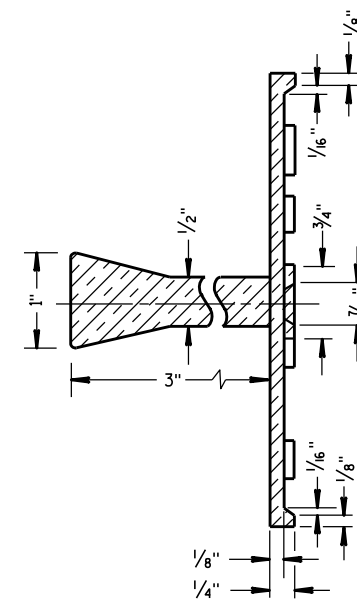
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

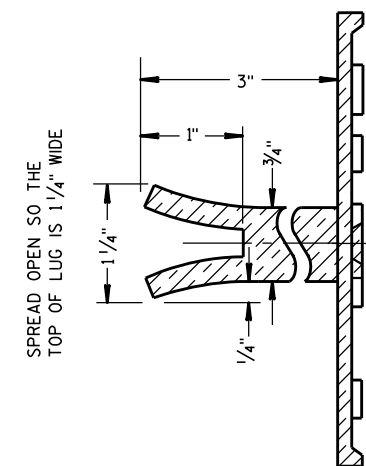
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



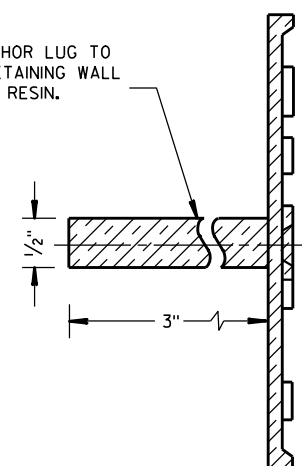
SECTION A-A



SPREAD OPEN SO THE
TOP OF LUG IS 1 1/4" WIDE

ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

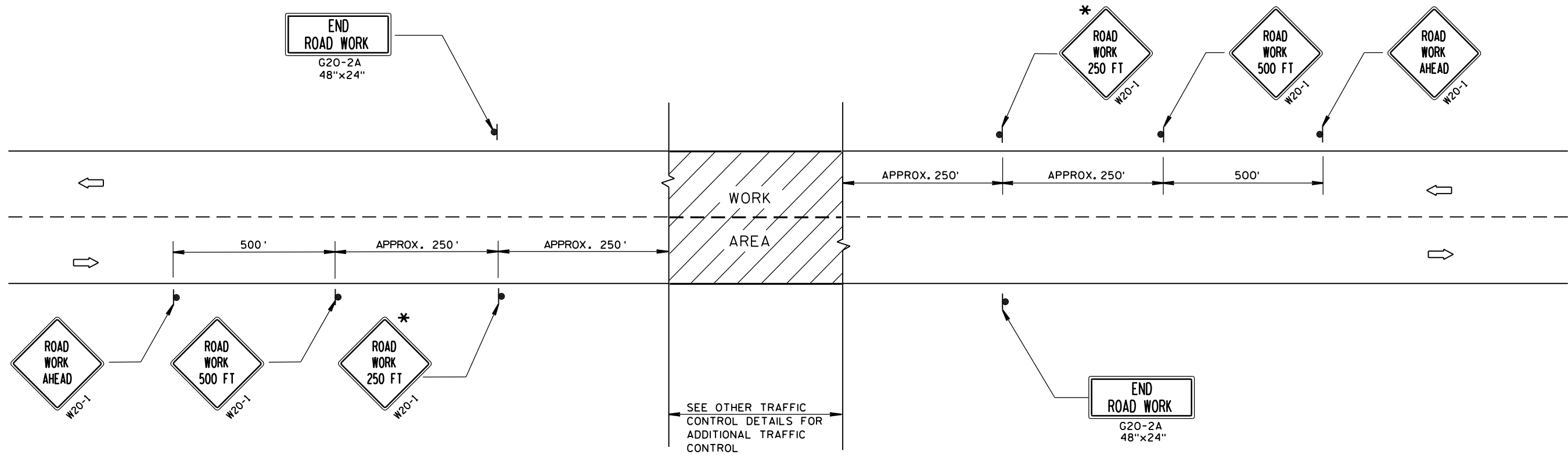
APPROVED

3/26/10
DATE

FHWA

/S/ Scot Beck
CHIEF STRUCTURAL DEVELOPER

JEER



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.

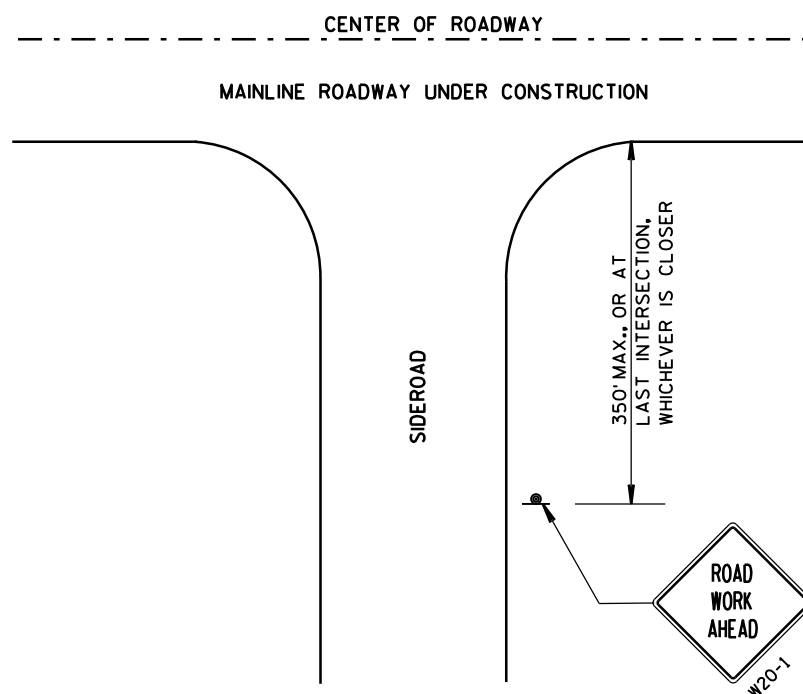
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



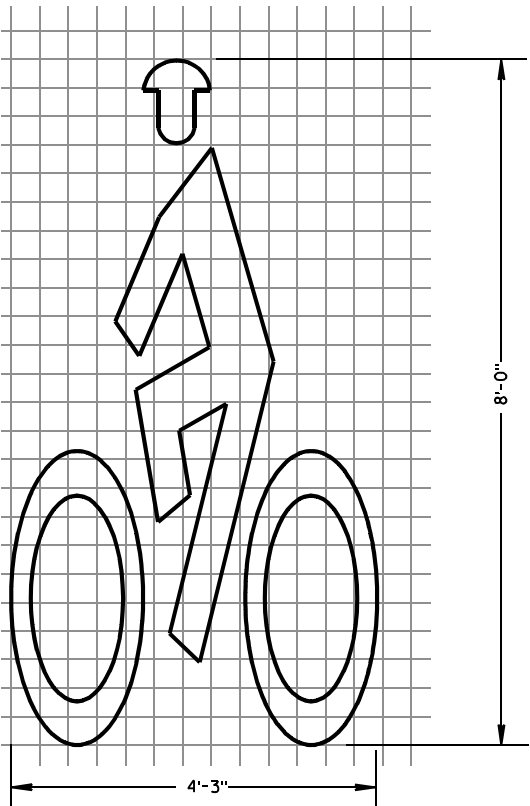
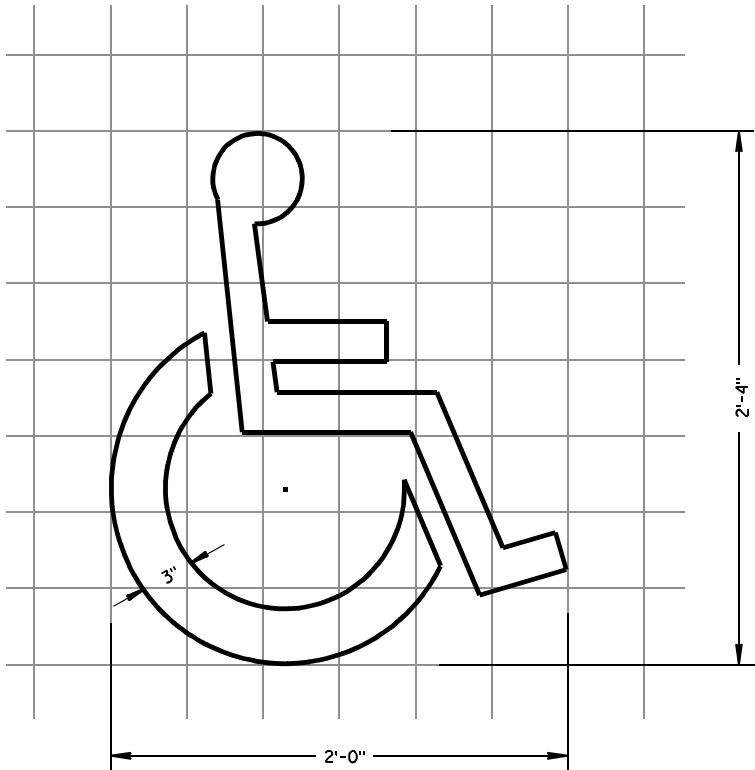
LEGEND

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

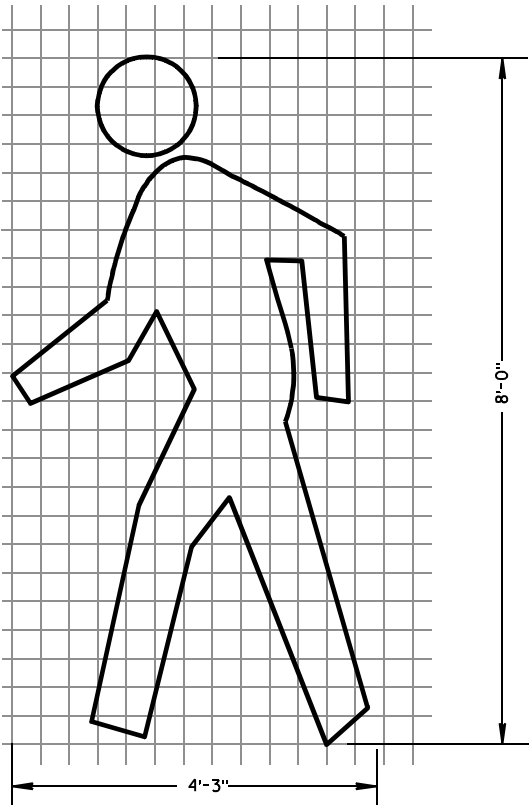
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

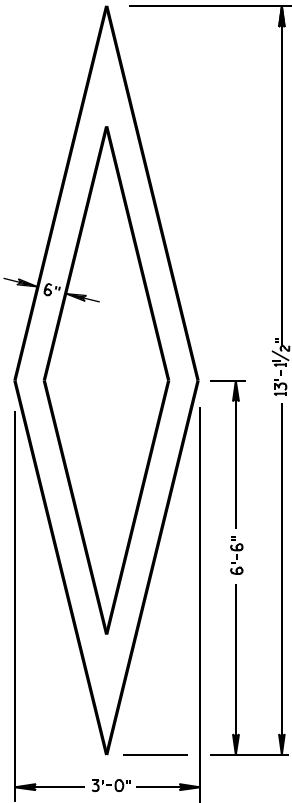
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER SIGN
FHWA



BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL
LANE SYMBOL

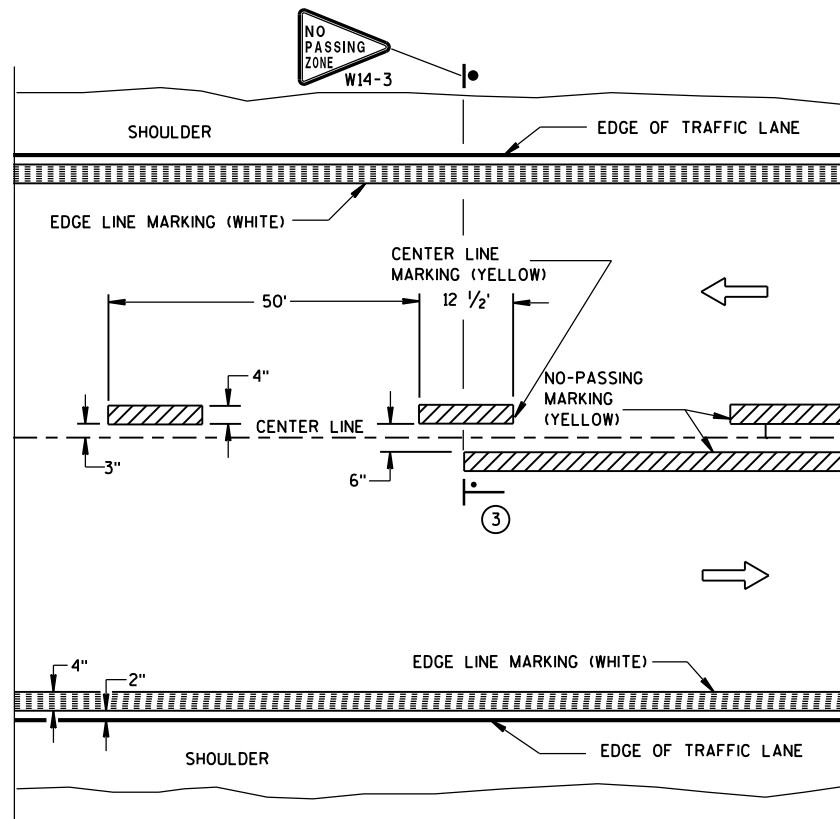
GENERAL NOTES

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.

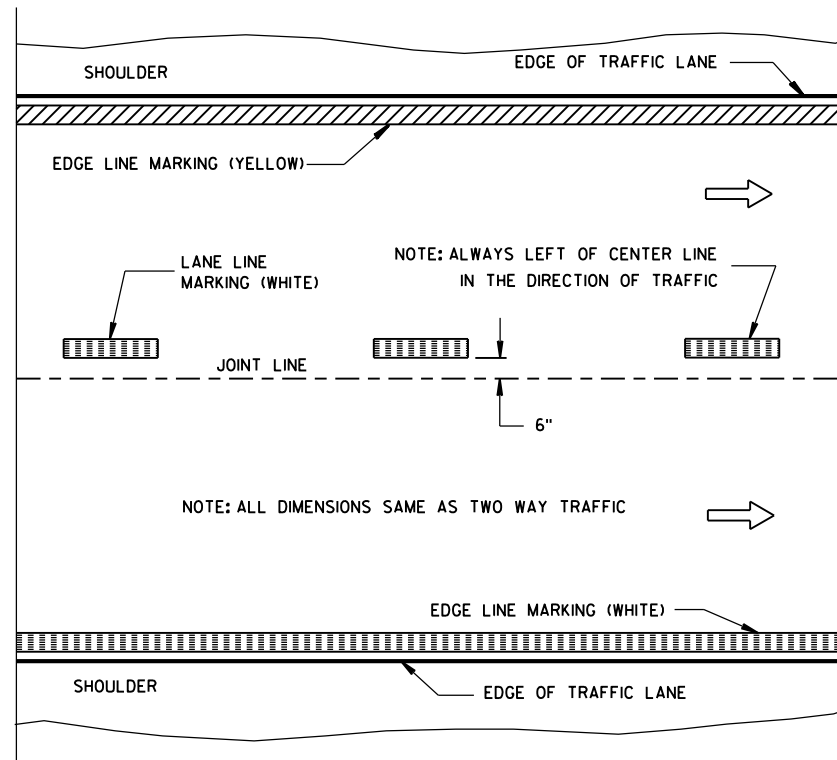
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

PAVEMENT MARKING SYMBOLS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED			
7/1/11	/S/ Thomas N. Nathan		
DATE	STATE TRAFFIC ENGINEER	58	IGN
FHWA			

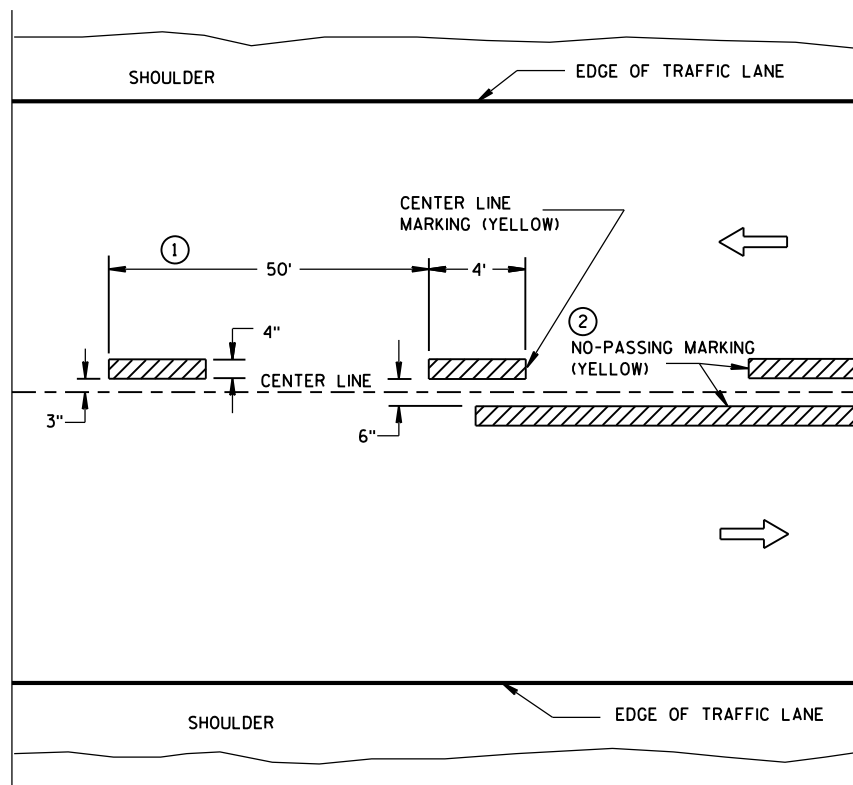


TWO WAY TRAFFIC

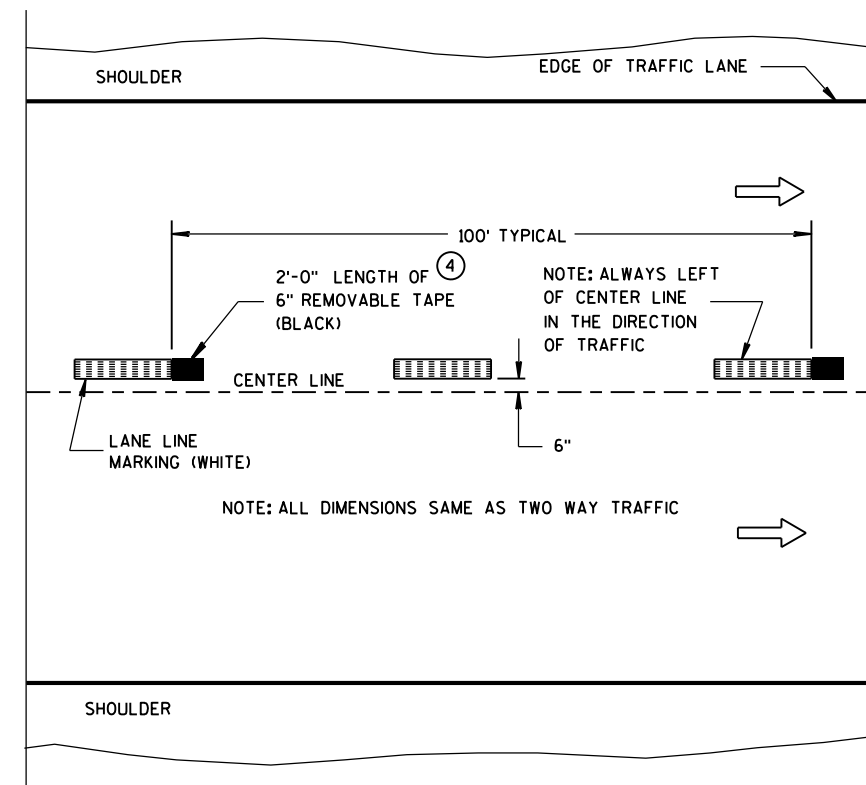


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

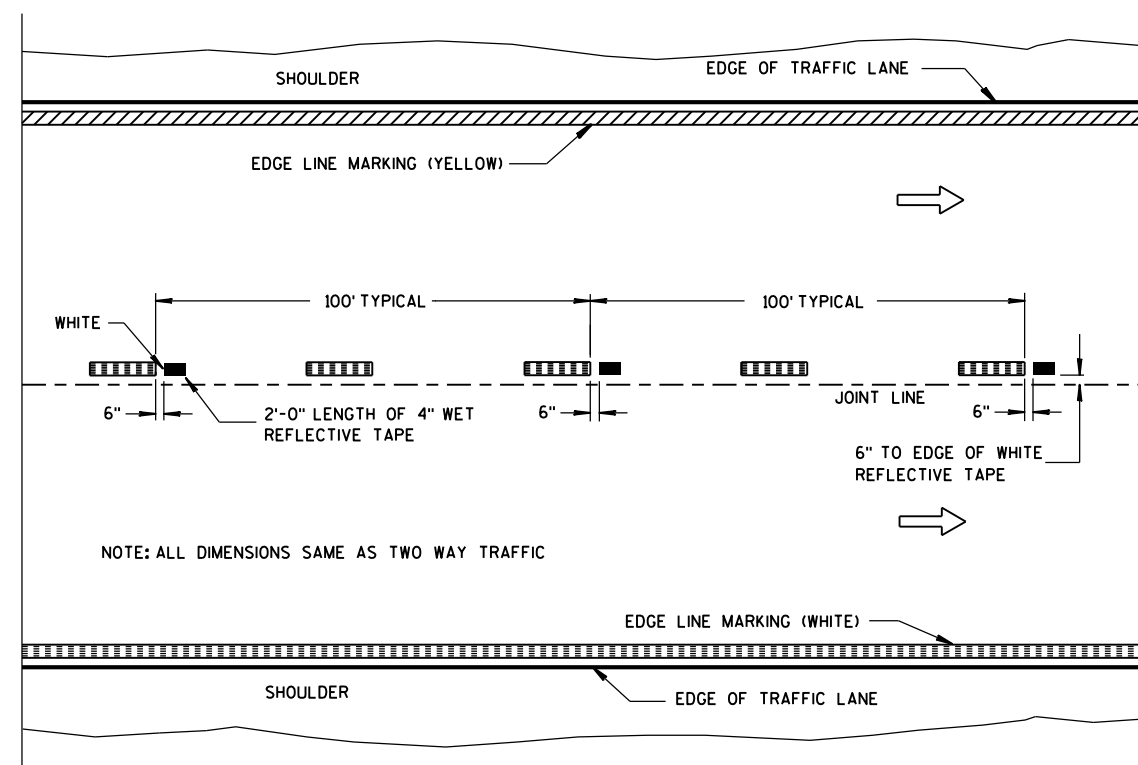
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC E 59

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.

W20-1 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.

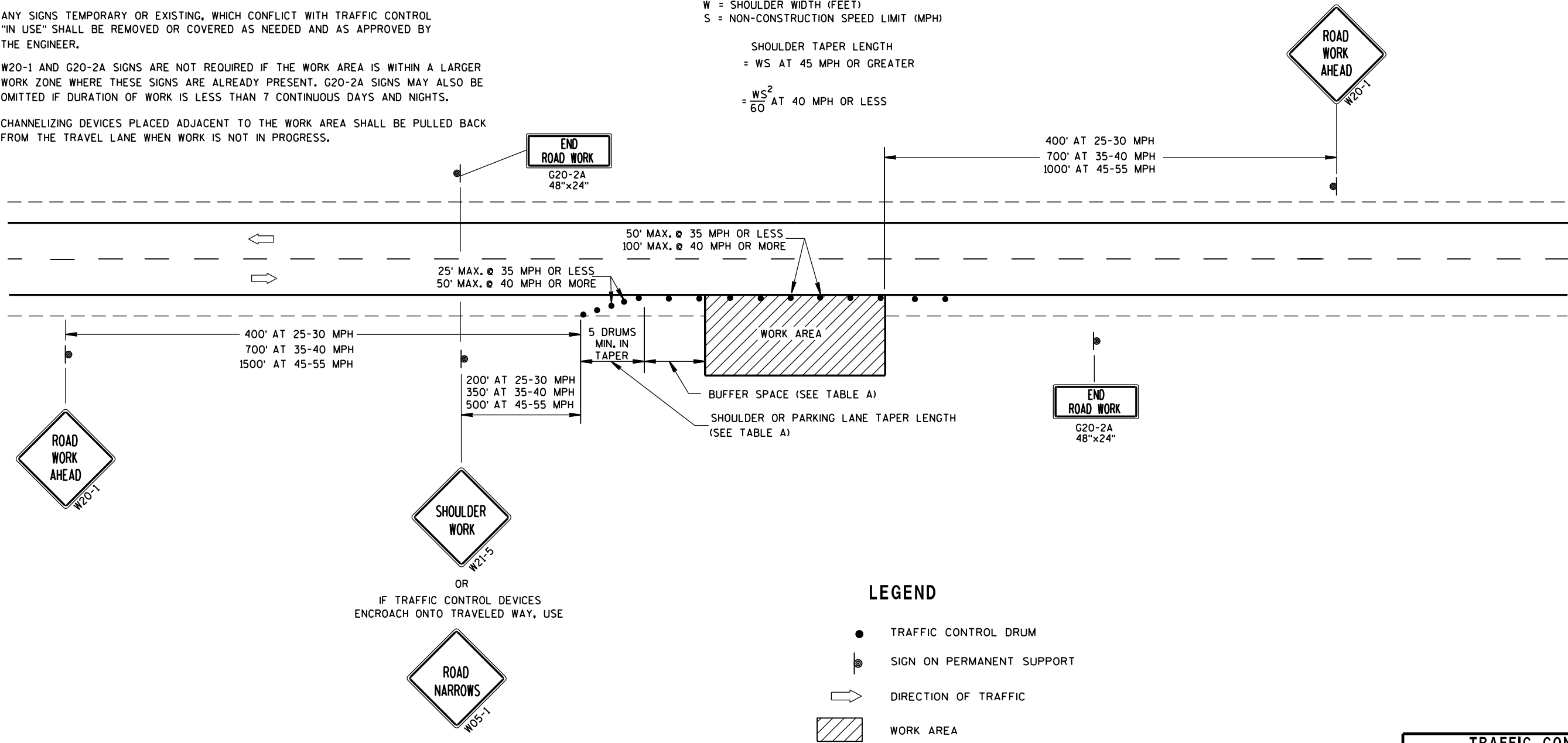
TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

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

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

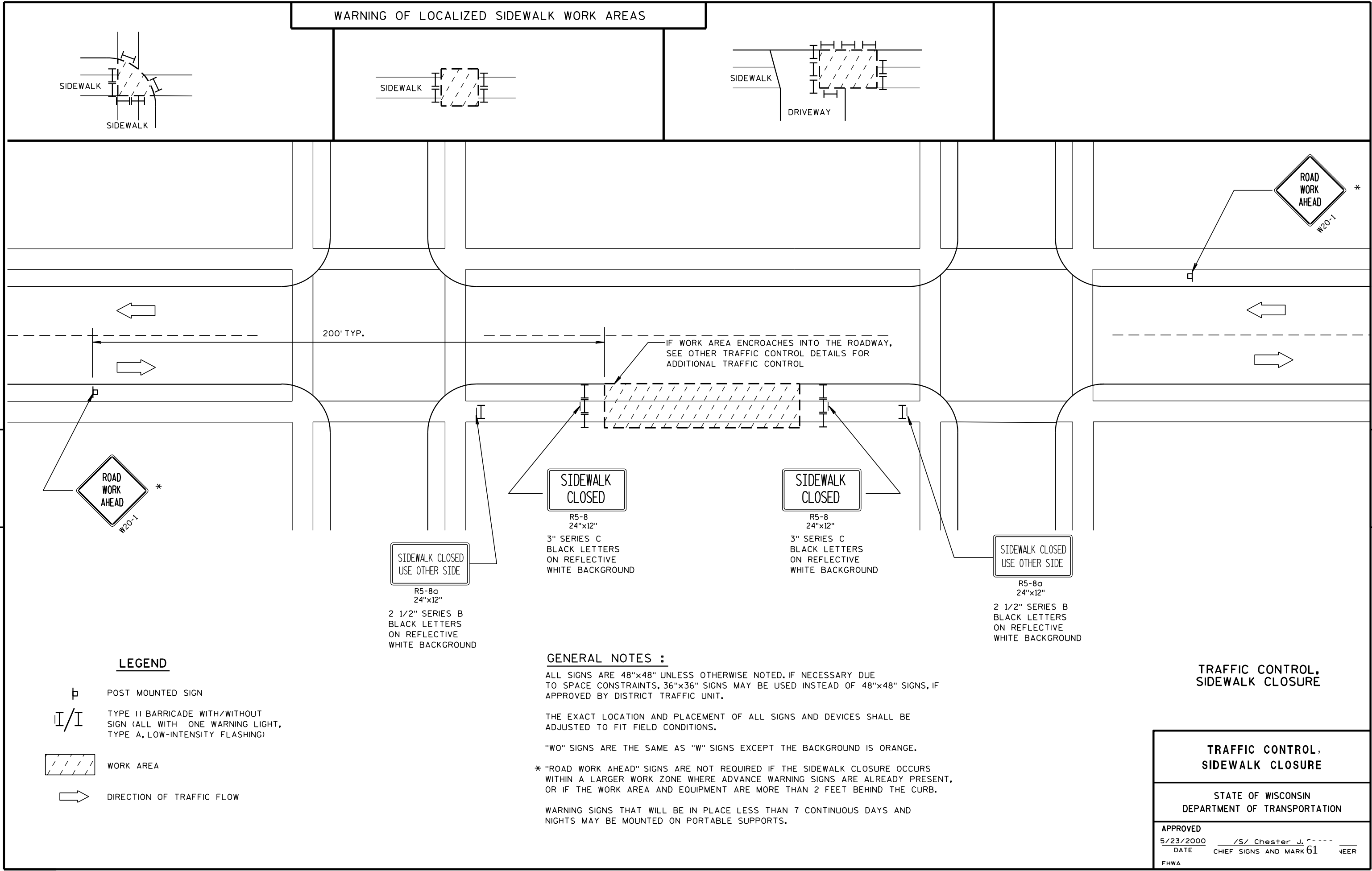
= $\frac{WS^2}{60}$ AT 40 MPH OR LESS



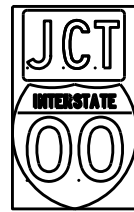
LEGEND

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

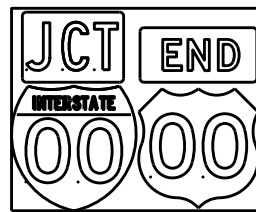
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINE 60	ESIGN
FHWA		



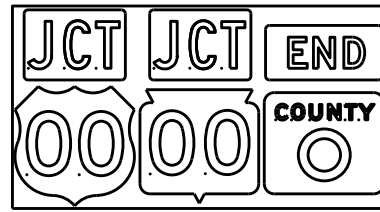
TYPICAL ASSEMBLIES



J1-1



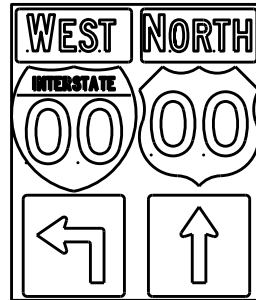
J1-2



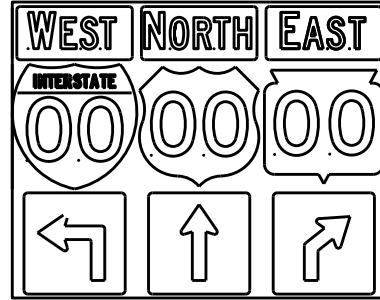
J1-3



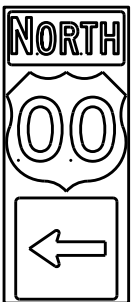
J2-1



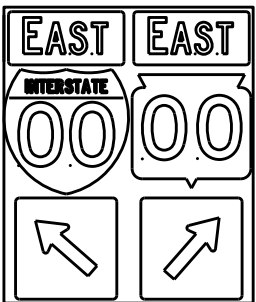
J2-2



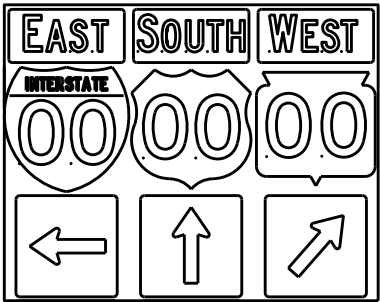
J2-3



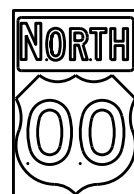
J3-1



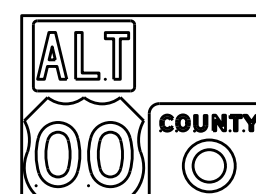
J3-2



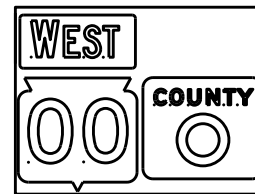
J3-3



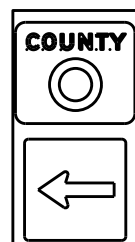
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

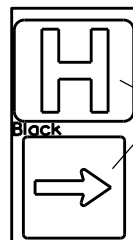


J22-1



JV

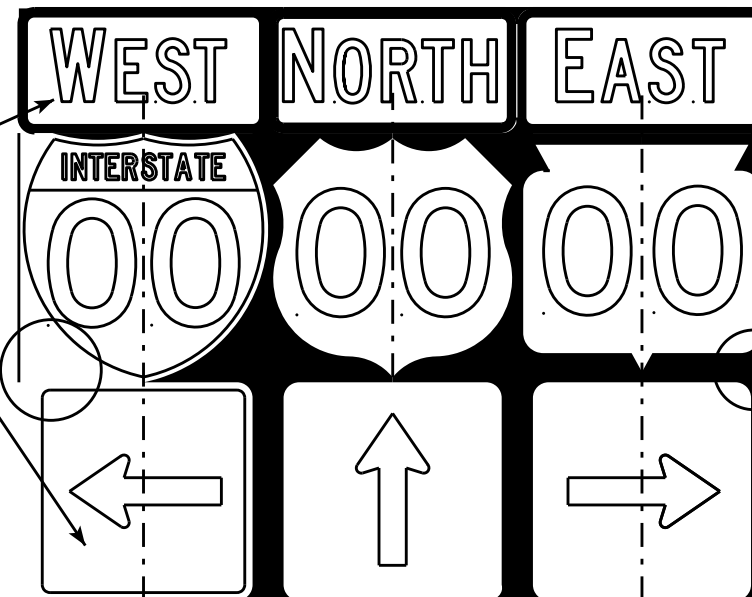
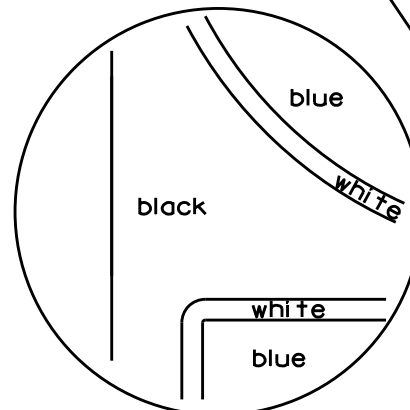
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

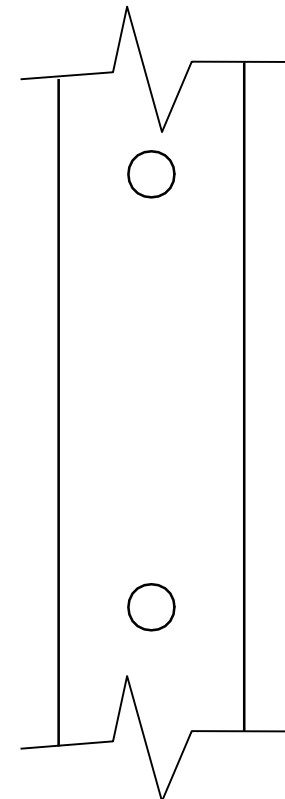
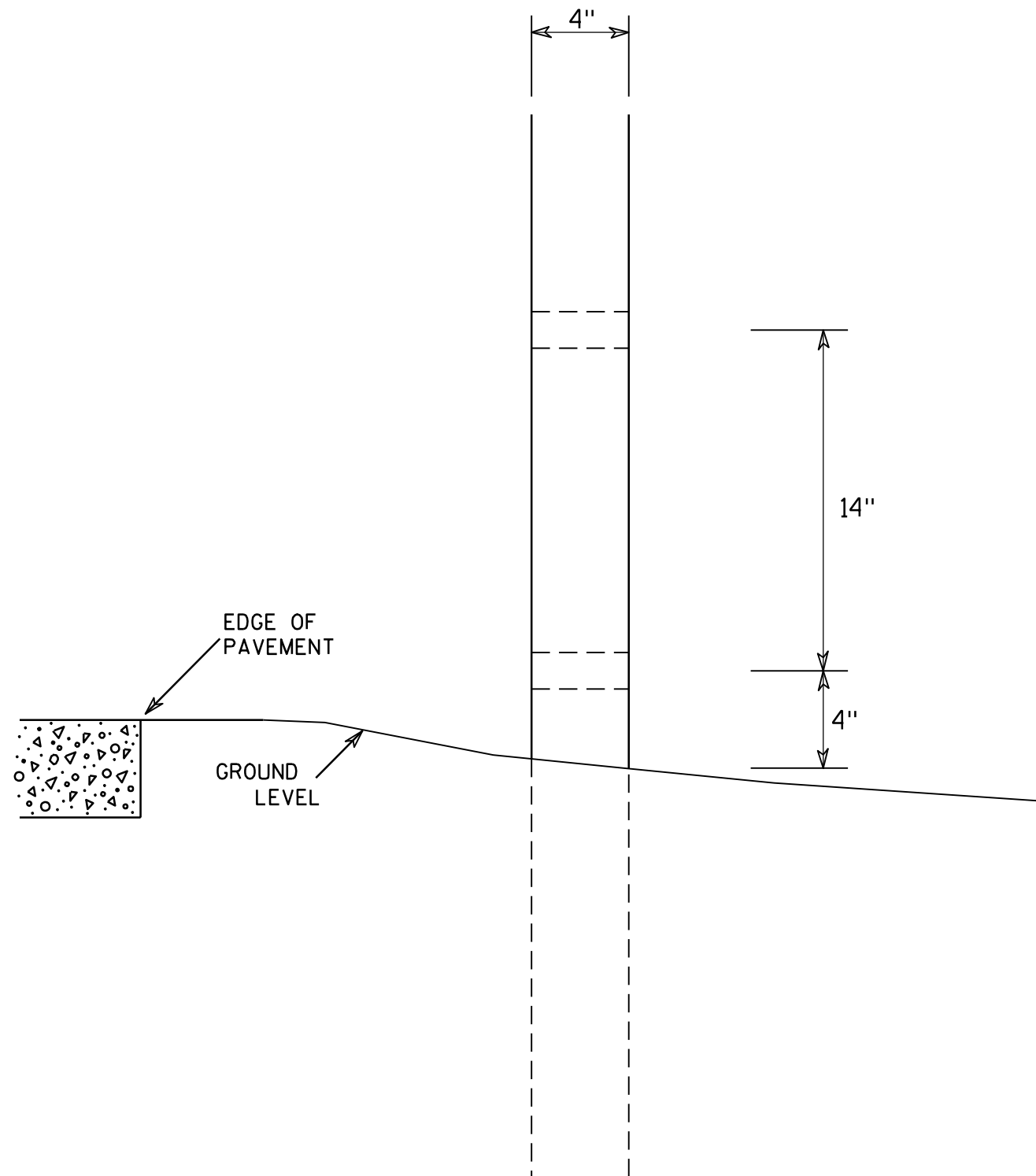
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PL 62 A2-1S.8

SHEET NO: E

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

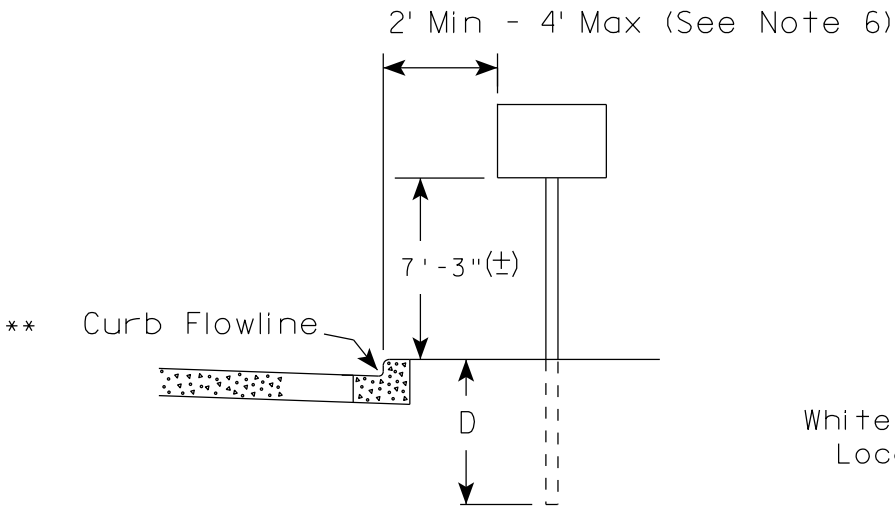
HWY:

COUNTY:

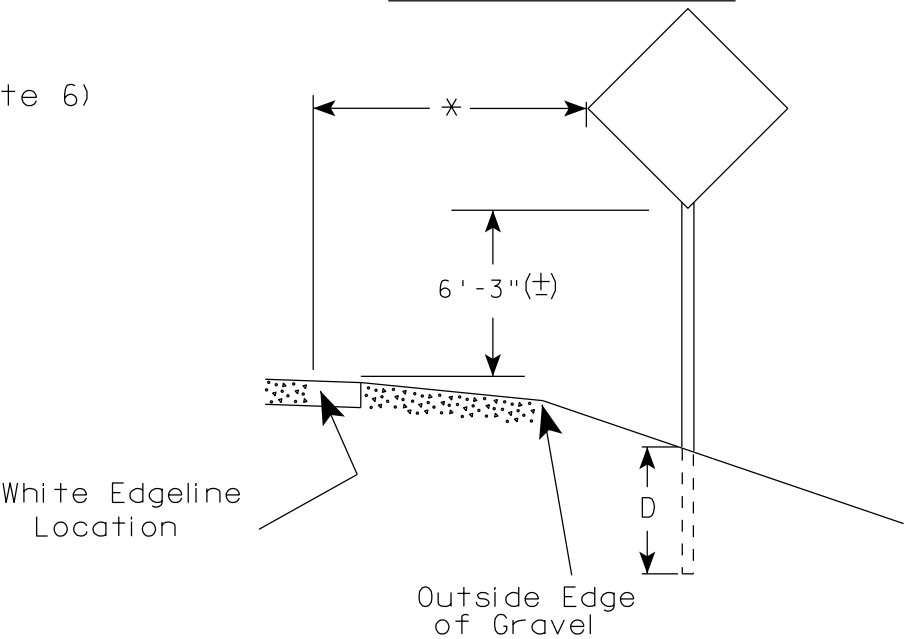
SHEET NO: 63

E

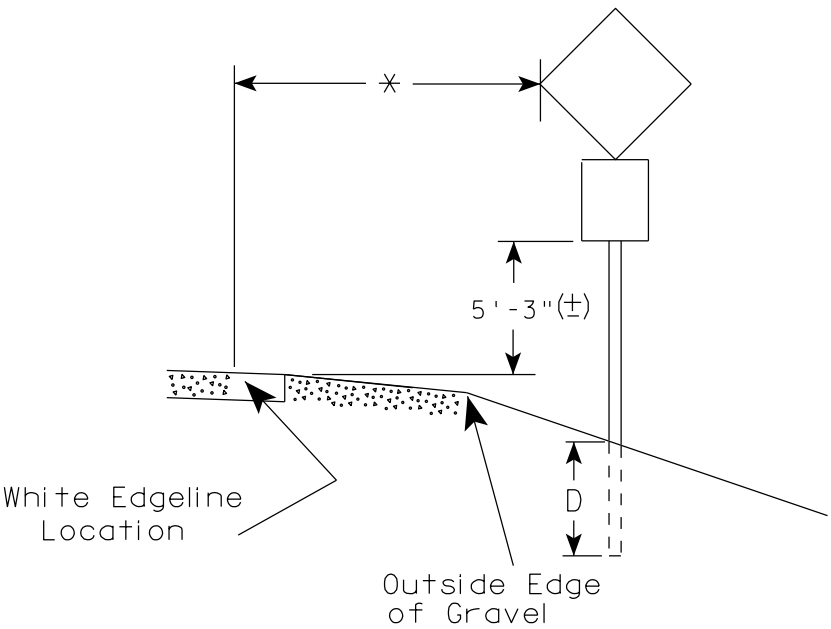
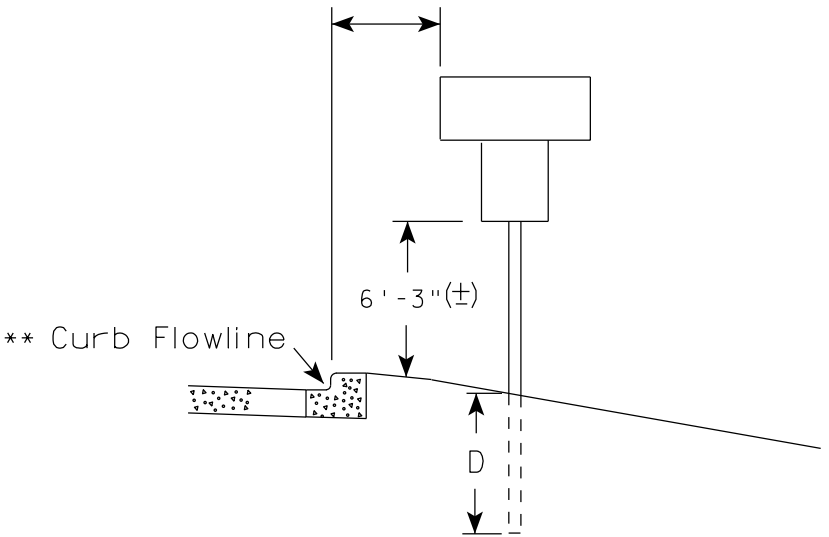
URBAN AREA



RURAL AREA (See Note 2)



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



GENERAL NOTES

1. Signs wider than 4 feet, 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 (A4-5) 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 stop signs (R1-1F) 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) & End of Rod Markers (W5-56 & W5-56A) 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.

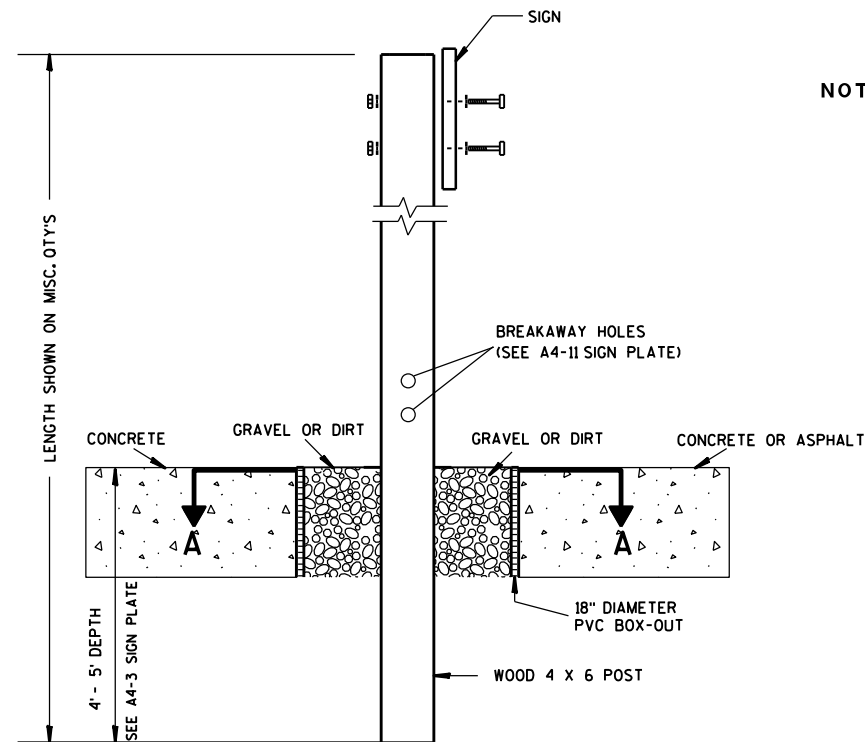
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

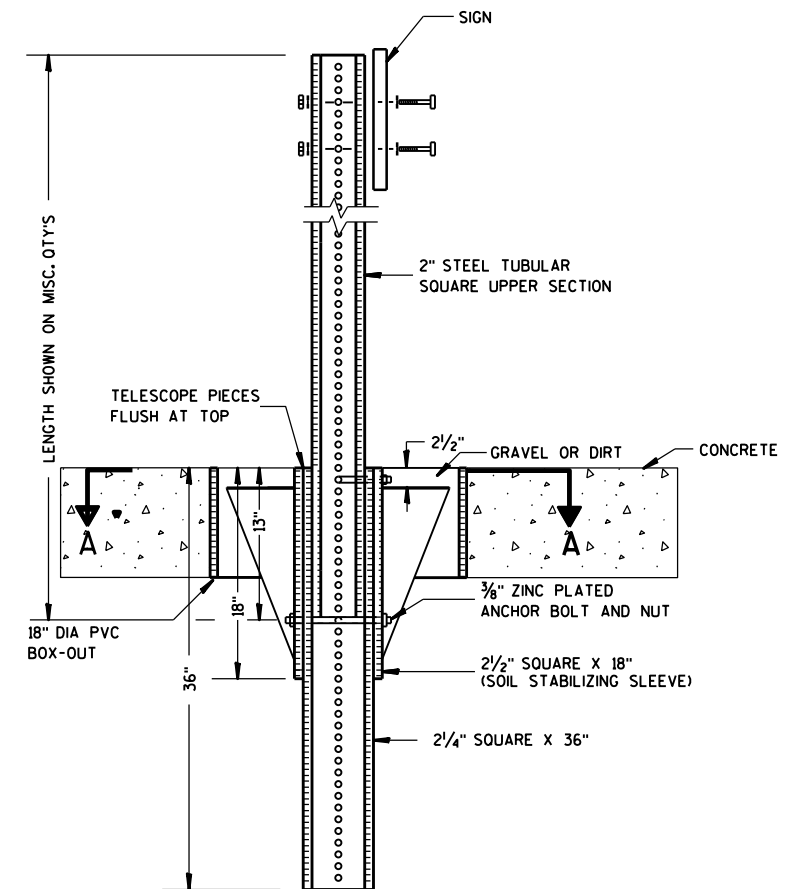
DATE 9/30/13 PLATE NO. A4-3.18



ELEVATION VIEW

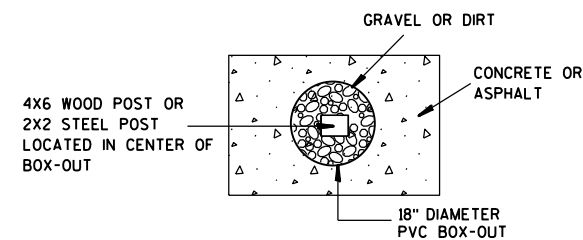
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 65 A4-3B.1

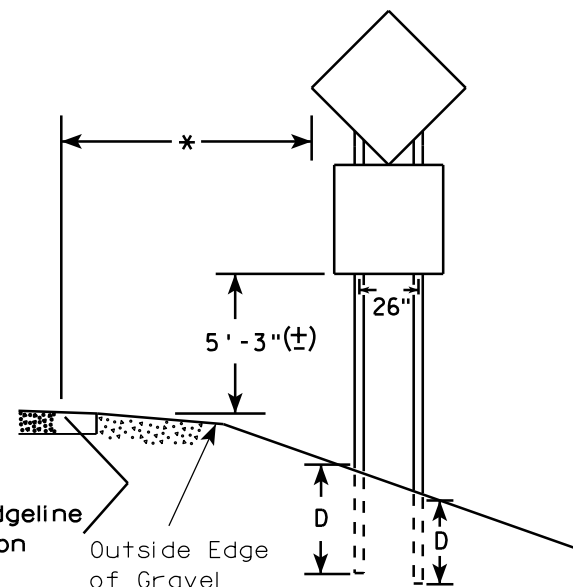
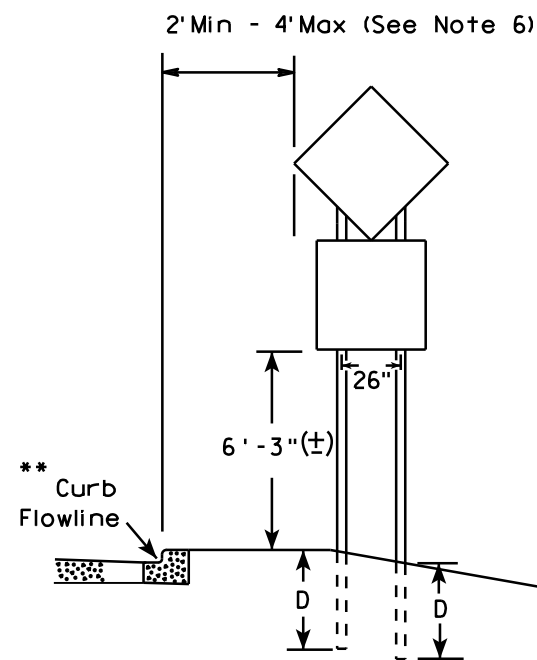
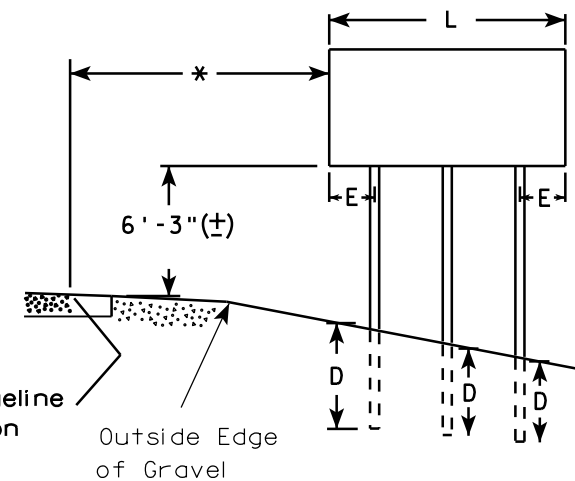
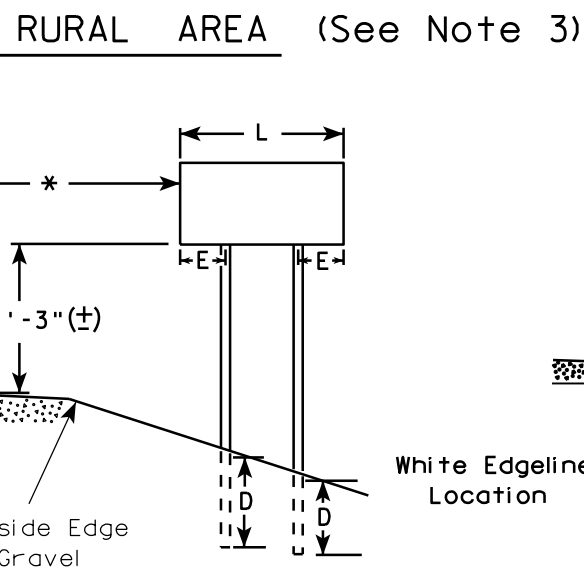
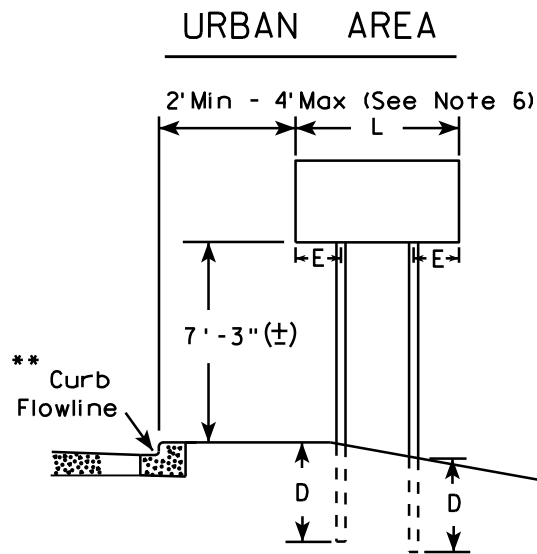
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

- 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 (A4-5) 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 stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

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

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

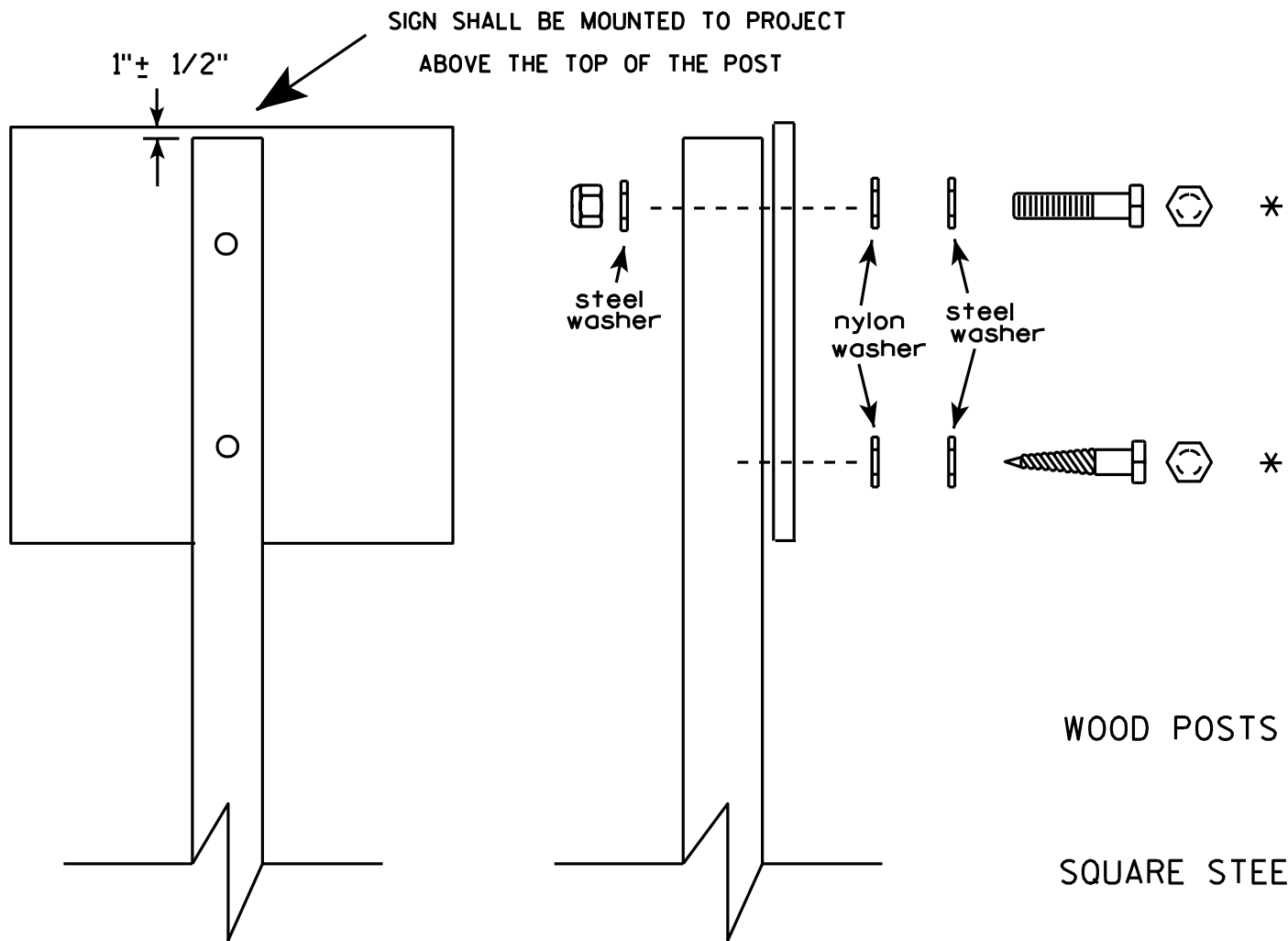
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/13 PLATE NO. 12-66

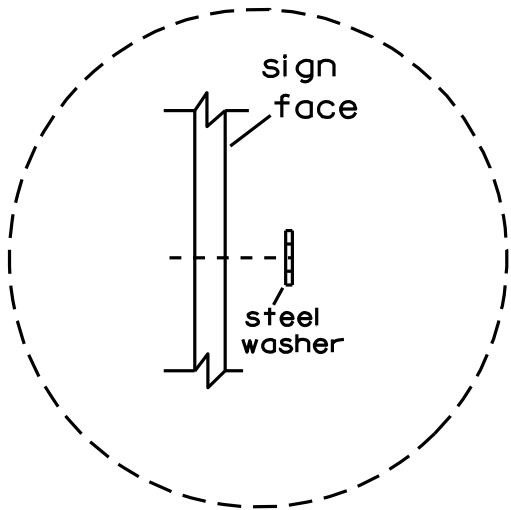


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.



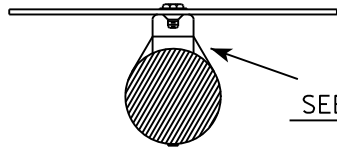
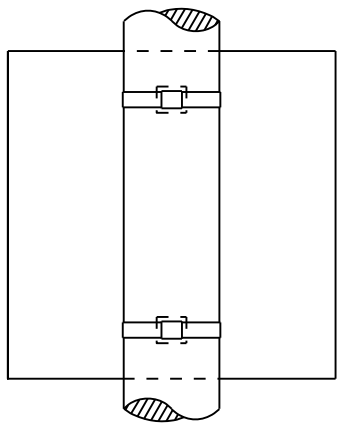
Washer Placement when Sign Has Other Than Type H or Type F Face

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

BANDING

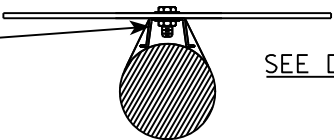
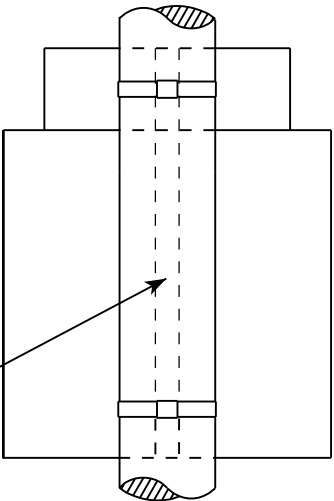
SINGLE SIGN



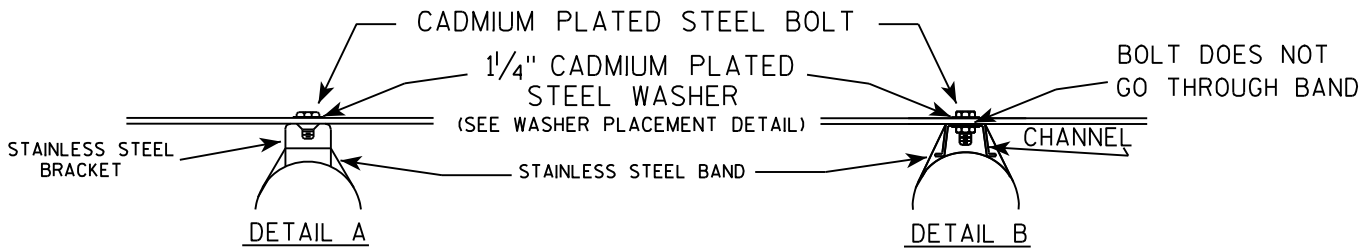
SEE DETAIL A

CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

"J" ASSEMBLY



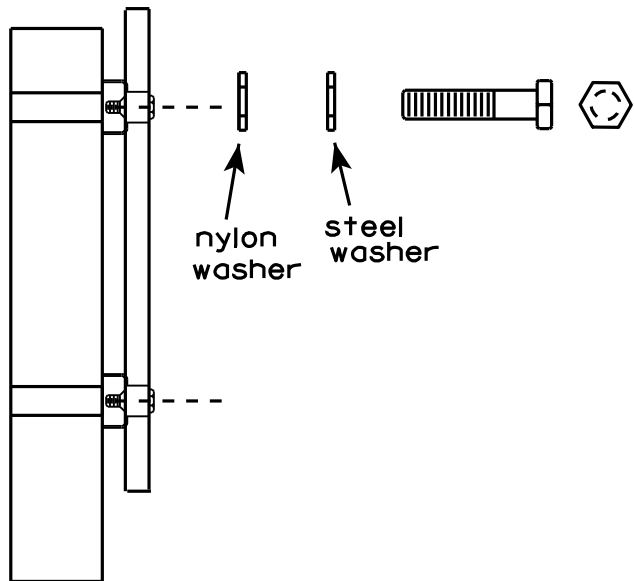
SEE DETAIL B



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



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

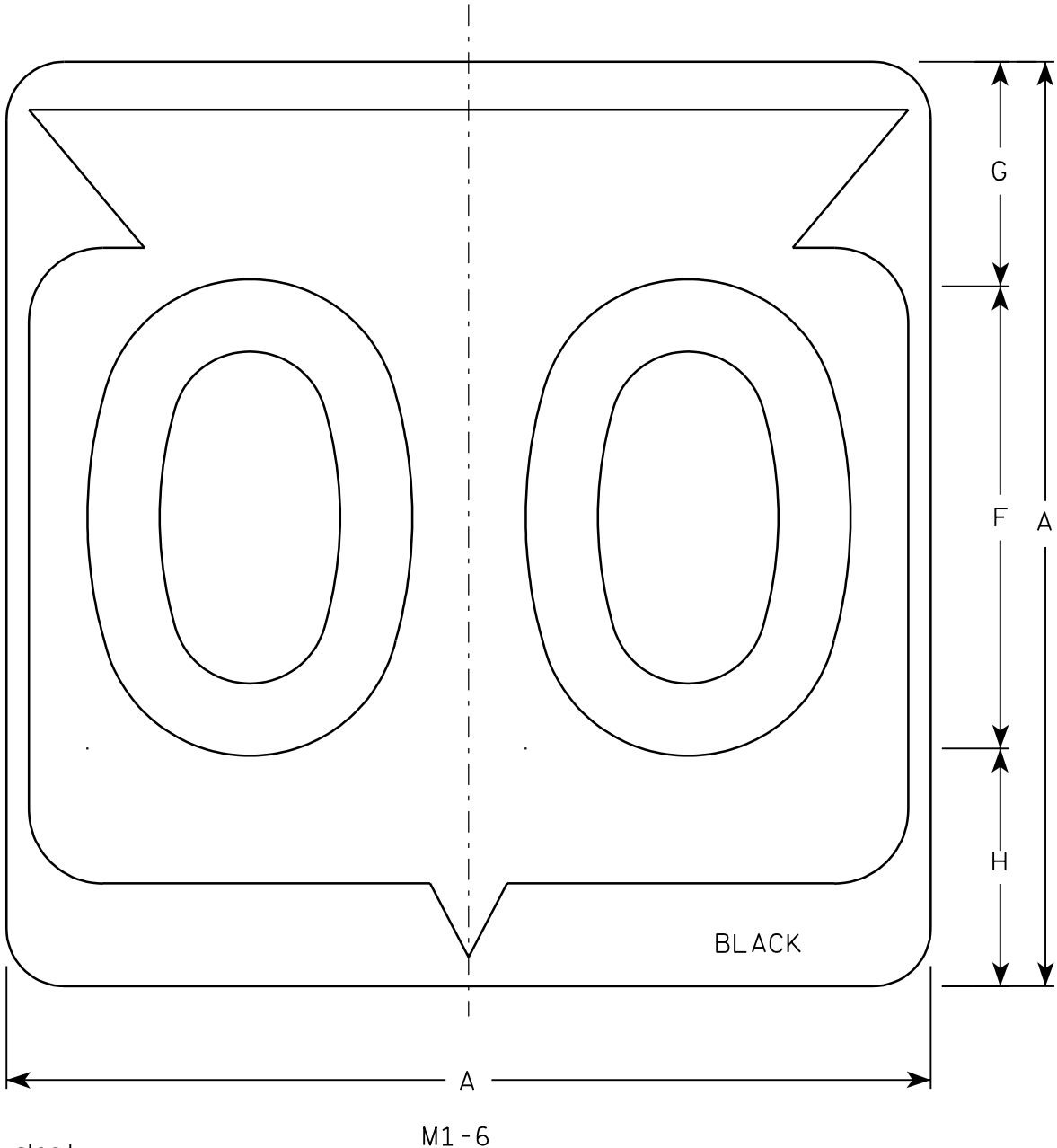
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 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 m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

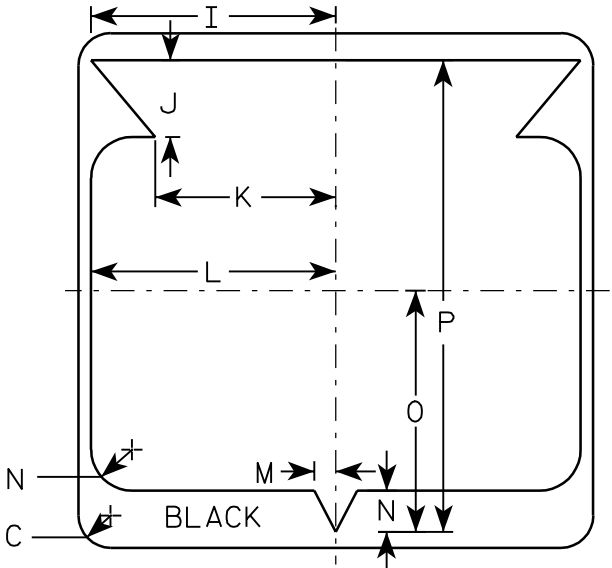
COUNTY:

SHEET NO: 69

E

NOTES

1. Sign is Type II - See Note 6 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
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. Substitute appropriate Series numerals and
adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

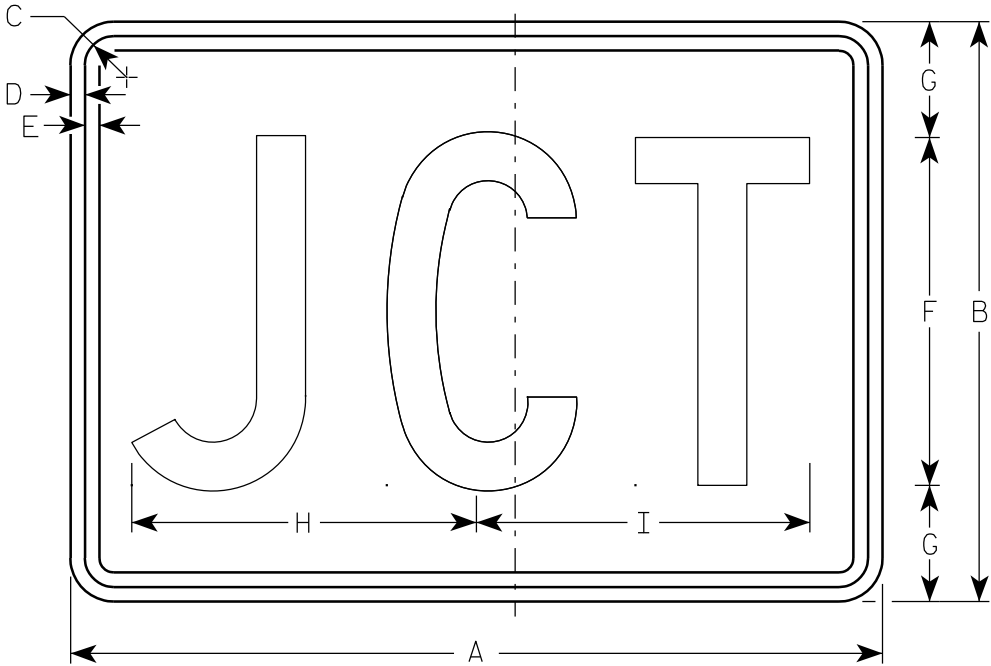
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

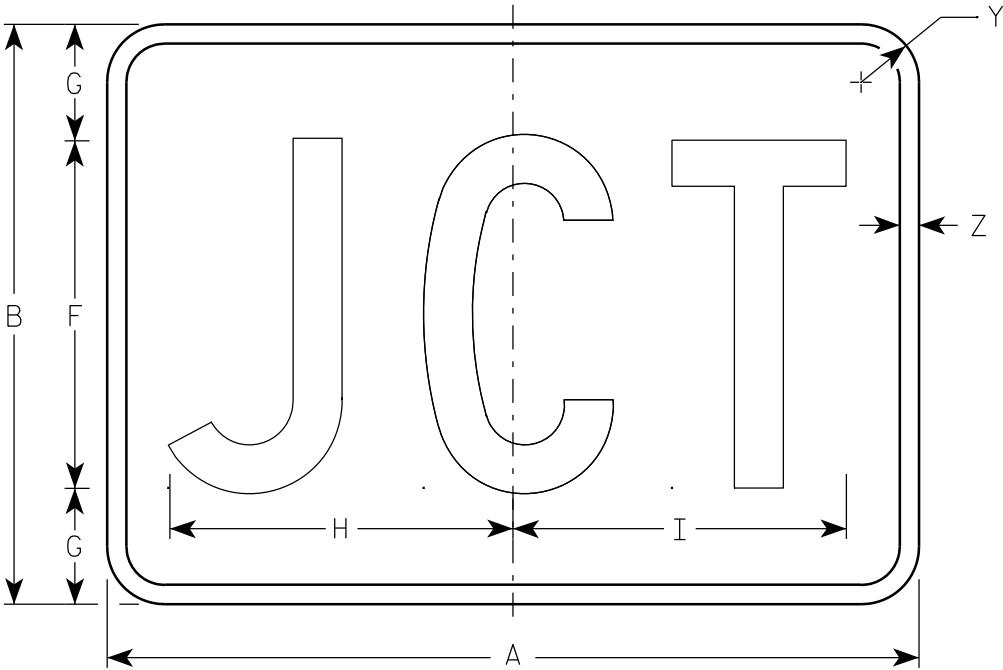
PLATE NO. M1-6.9

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
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. M2-1 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 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 m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

STANDARD SIGN

M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 3/16/10

PLATE NO. M2-1.10

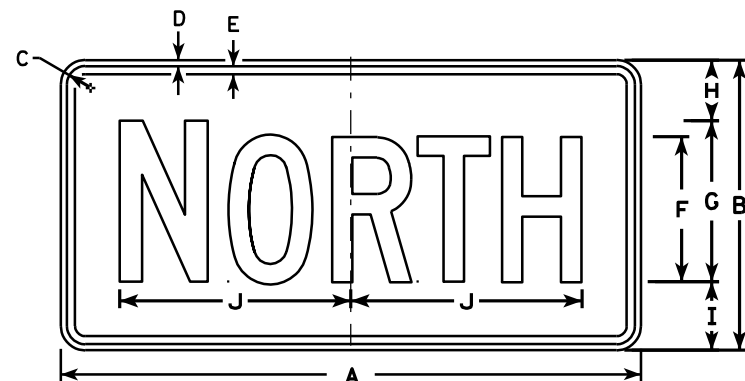
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 70

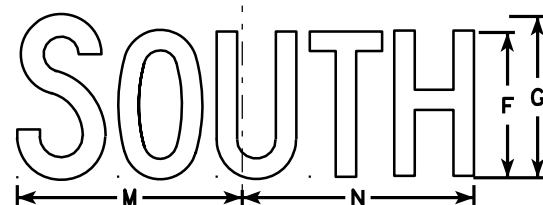
E



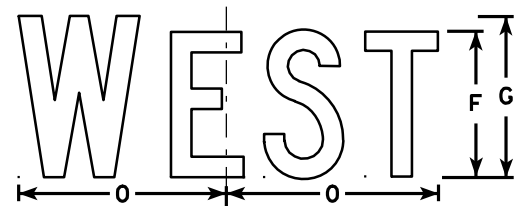
M3-1
MK3-1
M03-1



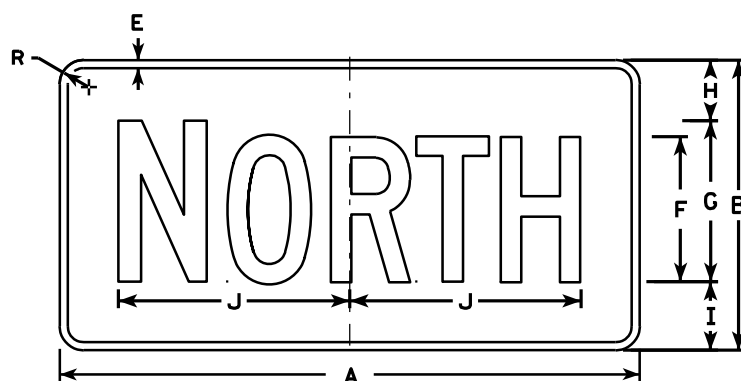
M3-2
MK3-2
M03-2



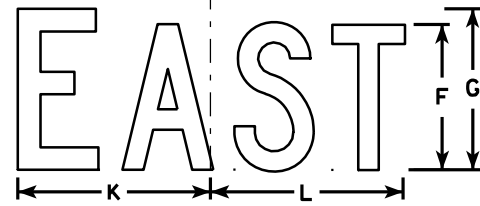
M3-3
MK3-3
M03-3



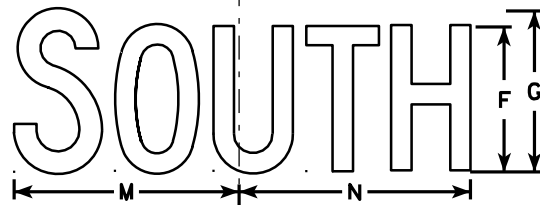
M3-4
MK3-4
M03-4



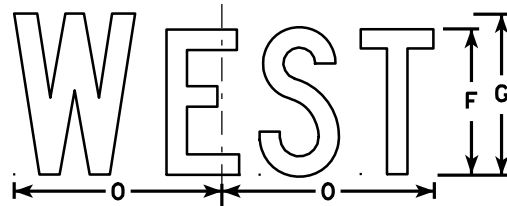
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
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

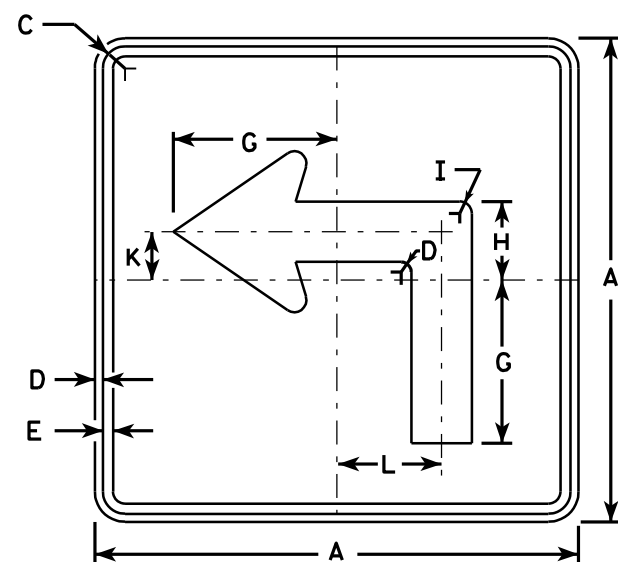
PROJECT NO: HWY: COUNTY: SHEET NO: 71 E

STANDARD SIGNS M3-1 thru M3-4 SERIES

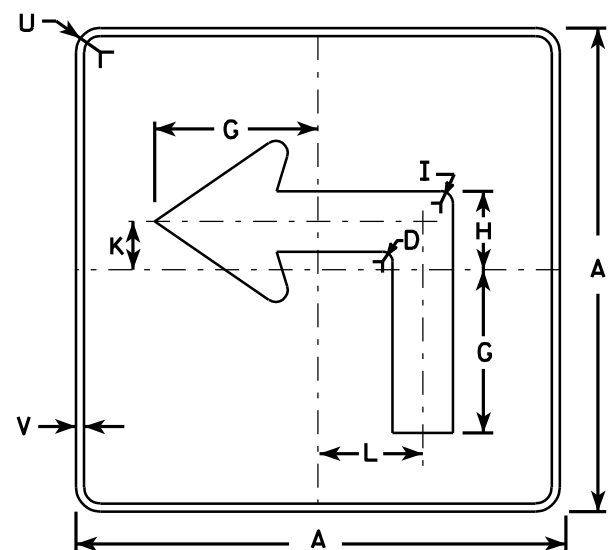
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

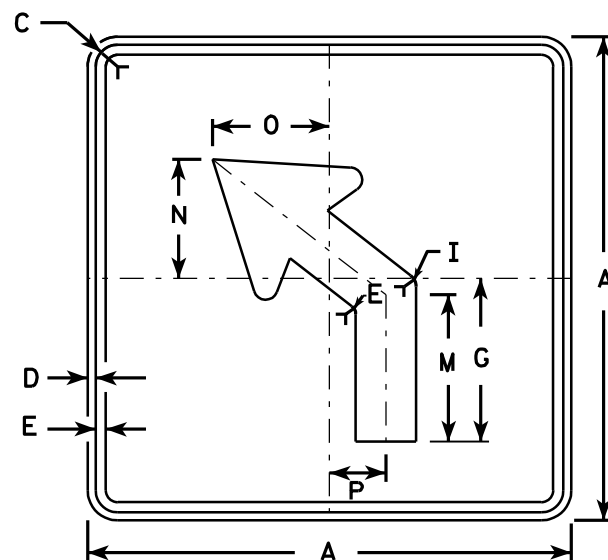
DATE 11/10/10 PLATE NO. M3-1.12



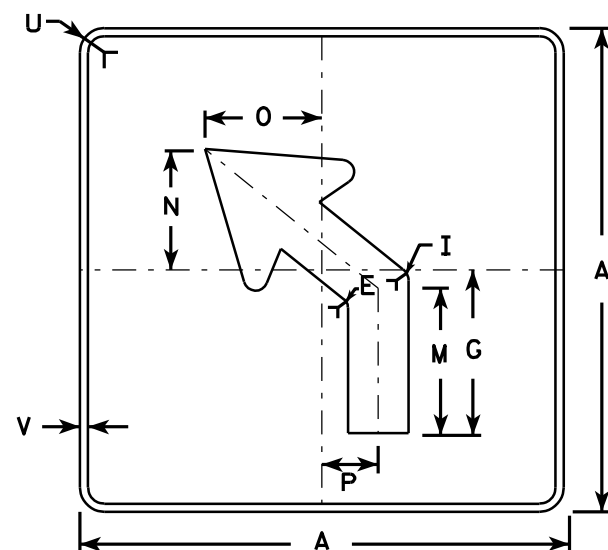
M5-1L
MK5-1L
MM5-1L
M05-1L
MP5-1L
MR5-1L



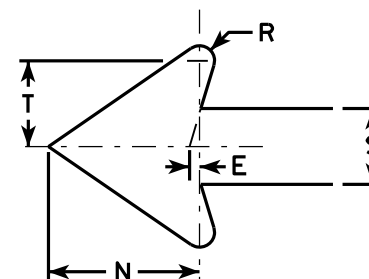
MB5-1L
MG5-1L
MN5-1L



M5-2L
MK5-2L
MM5-2L
M05-2L
MP5-2L
MR5-2L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 4
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

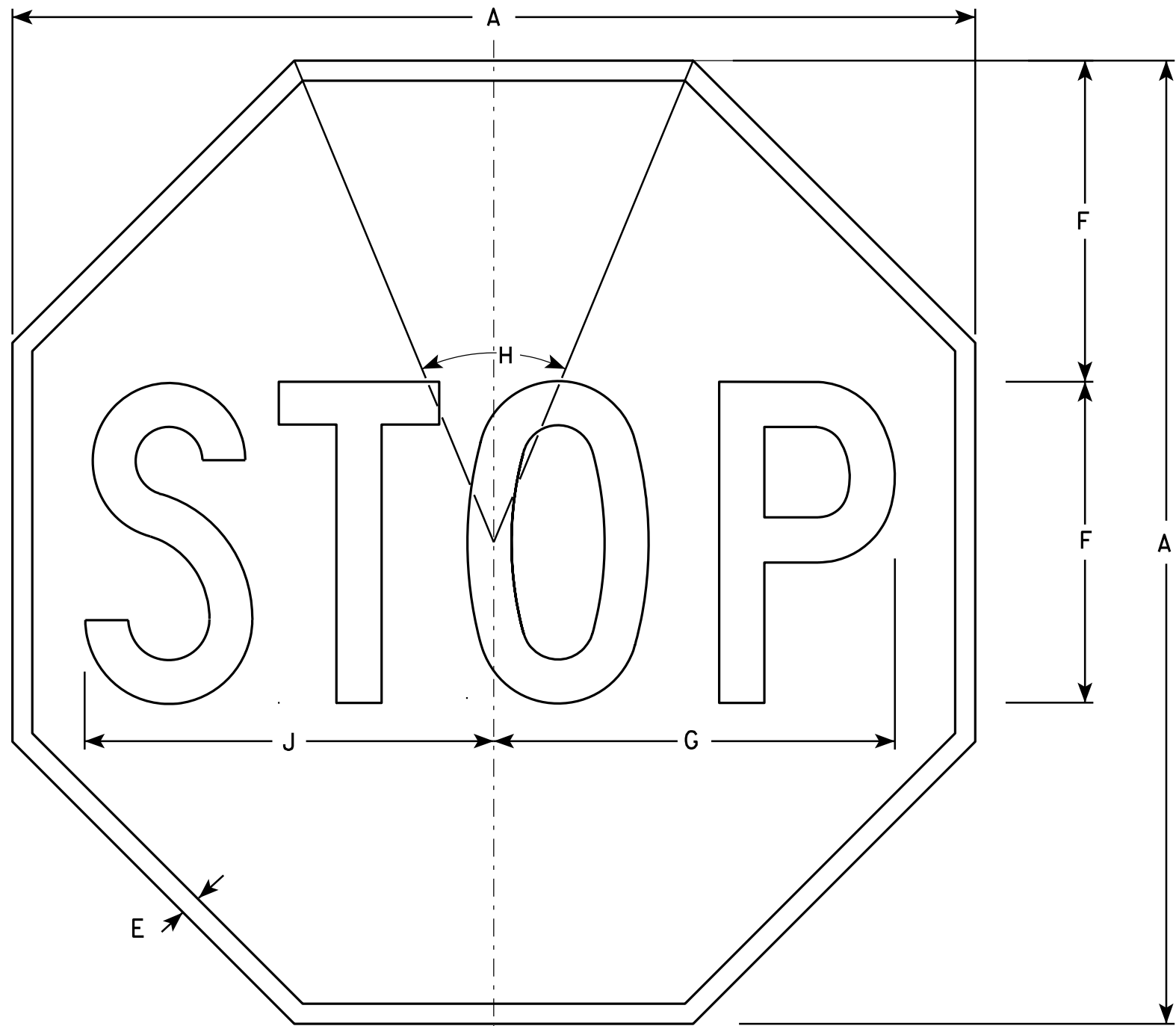
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12



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

R1-1

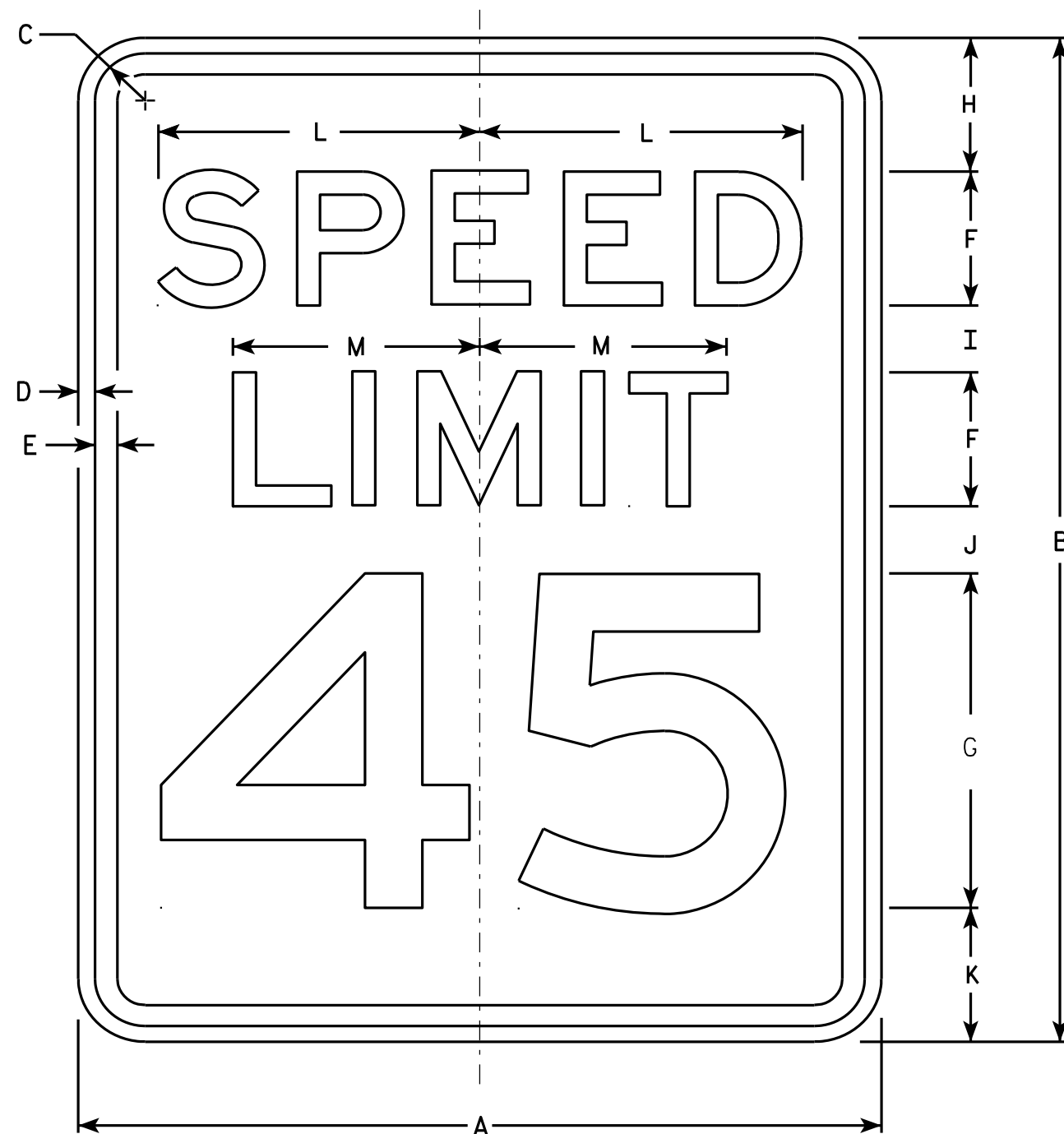
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 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 12/03/10 PLATE NO. R1-1.12



R2-1

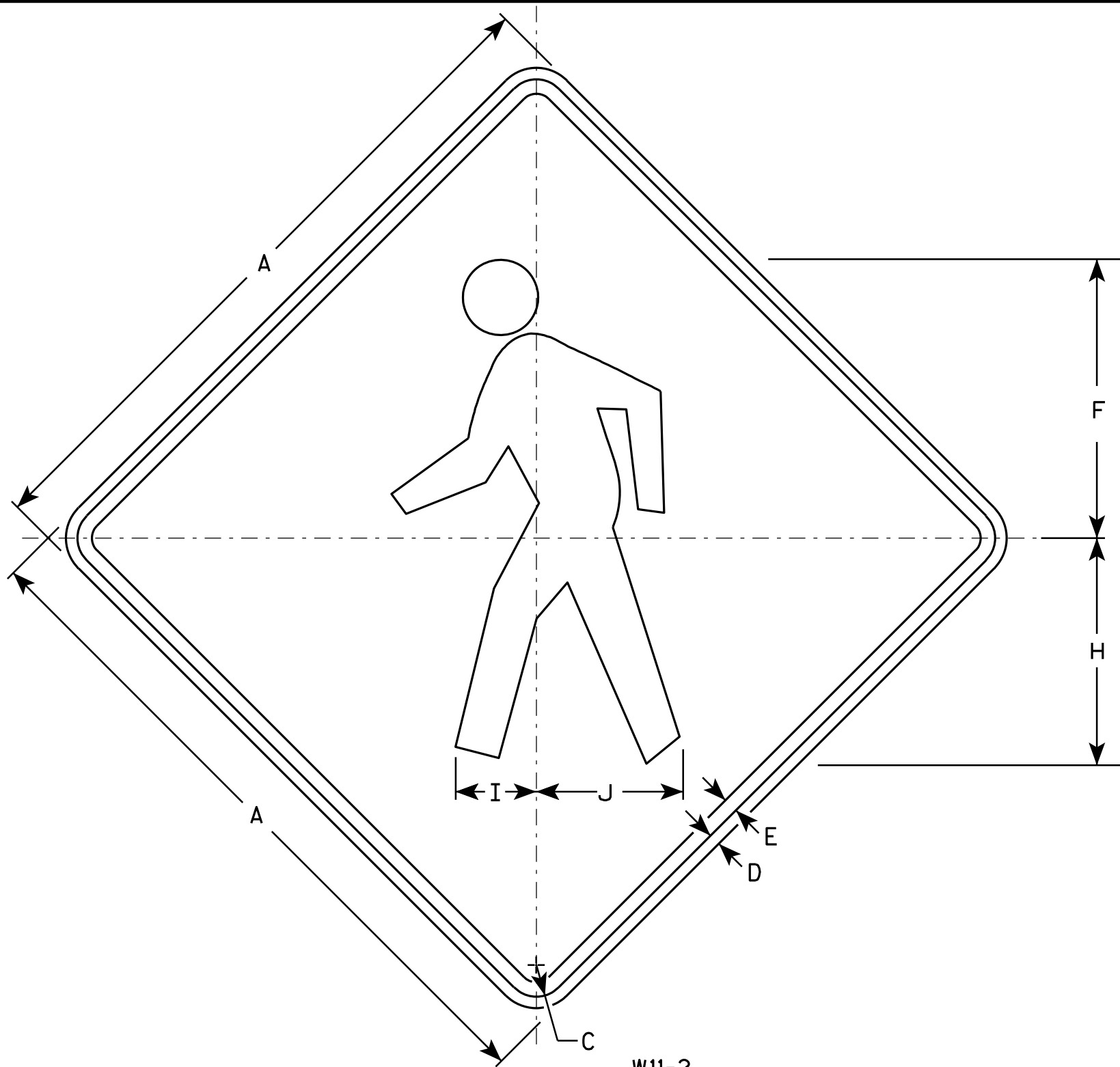
NOTES

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 - 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.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

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

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13



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.

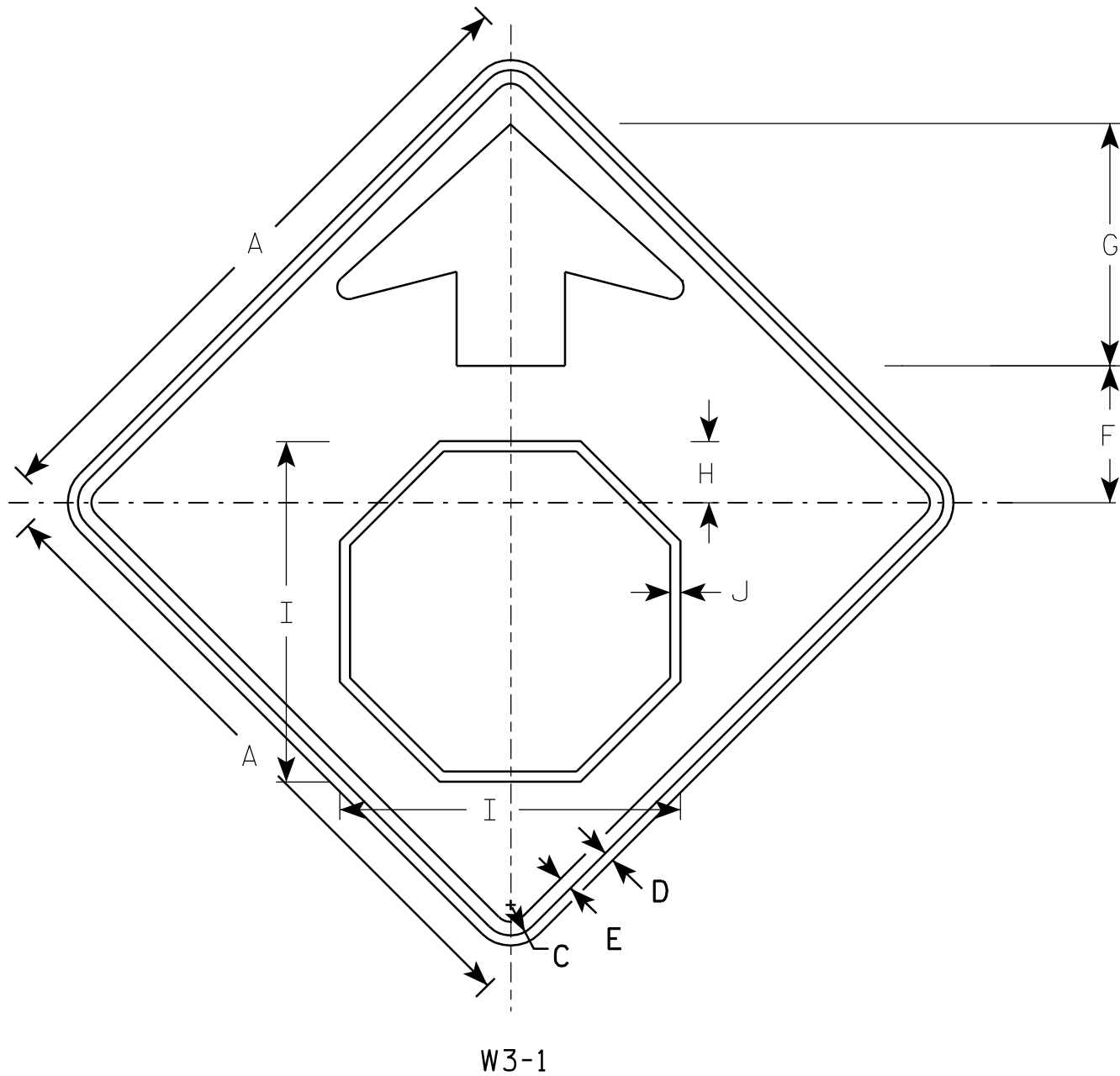
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11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

STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

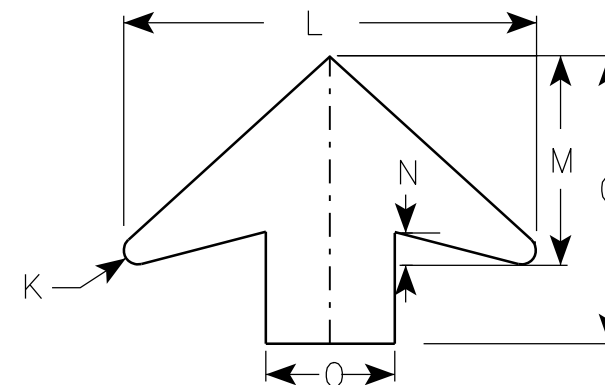
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7



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:

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

SHEET NO: 76

E

NOTES

CONNECT THE UNDERDRAIN PIPE BENEATH THE STAIRCASE SHEAR WALLS TO THE UNDERDRAIN PIPE BENEATH THE WALL ALONG STH 81.

CONNECTION FROM UNPERFORATED PIPE TO INLET IS INCIDENTAL TO PIPE UNDERDRAIN.

DESIGN DATA

LIVE LOAD:
LIVE LOAD SURCHARGE: 100 P.S.F.

MATERIAL PROPERTIES:

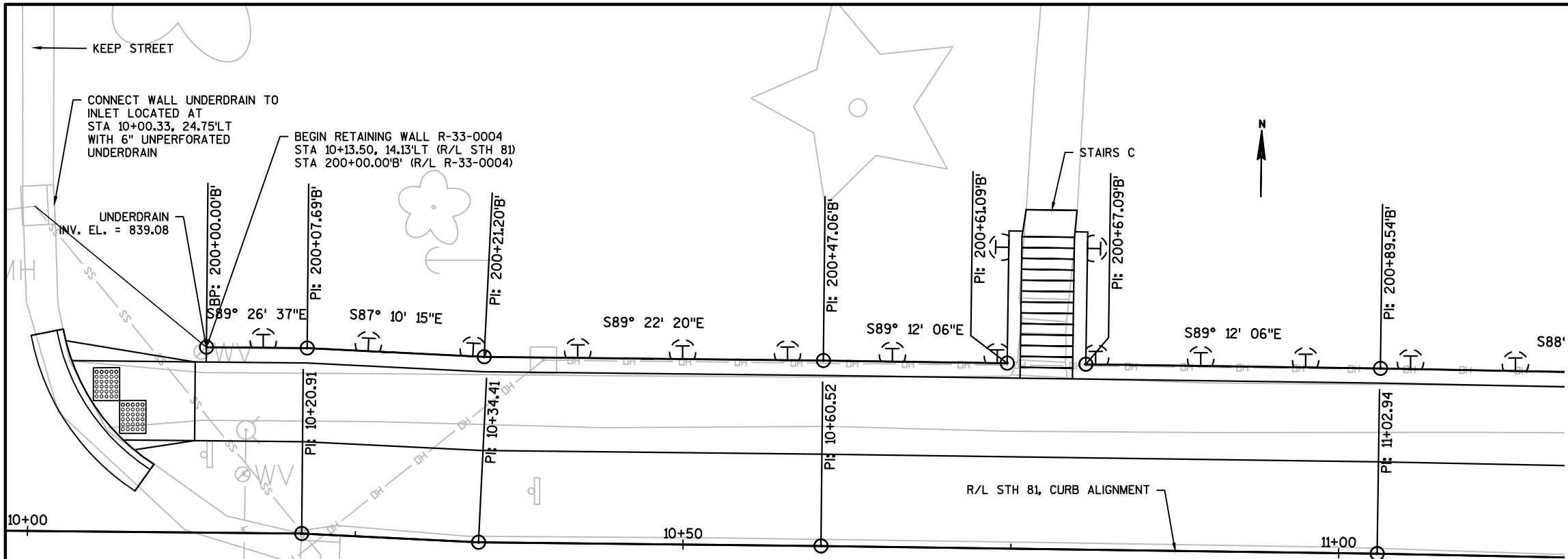
CONCRETE MASONRY $f'_c = 4,000$ P.S.I.
BAR STEEL REINFORCEMENT (GRADE 60) $f_y = 60,000$ P.S.I.
STRUCTURAL STEEL HS $f_y = 50,000$ P.S.I.
*TIMBER LAGGING $E = 1,800,000$ P.S.I.
 $f_{bo} = 1,000$ P.S.I.
* MATERIAL VALUES BASED ON DOUGLAS FIR-LARCH NO. 1, 3"-4" THICK,
REFERENCE AASHTO LRFD SPECIFICATIONS TABLE 8.4.1.1.4-1
PILE FOOTINGS $f'_c = 3,500$ P.S.I.

STRUCTURE DESIGN CONTACTS

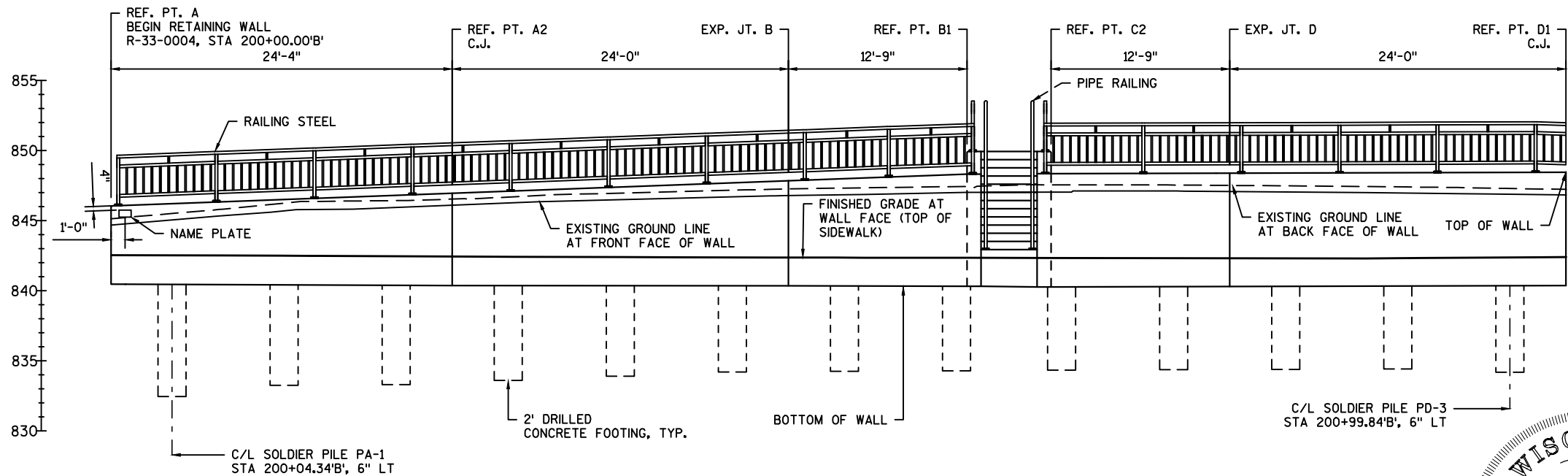
BRIDGE OFFICE: WILLIAM DREHER
(608)-266-8489
CONSULTANT: WILLIAM MURPHY
(312)-577-3327

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. GENERAL PLAN & ELEVATION
3. GENERAL PLAN & ELEVATION
4. GENERAL NOTES, PILE/REFERENCE INFORMATION AND EST. QUANTITIES
5. TYPICAL SECTIONS
6. TYPICAL SECTIONS
7. REINFORCEMENT LAYOUT
8. REINFORCEMENT LAYOUT
9. STAIRS C DETAILS
10. REINFORCEMENT SCHEDULE
11. RAILING AND ARCHITECTURAL DETAILS
12. SUBSURFACE EXPLORATION
13. PIPE RAILING DETAIL
14. STEEL RAILING DETAILS



PLAN

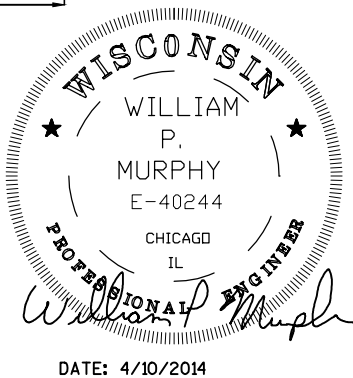


ELEVATION

(LOOKING NORTH AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE BACK FACE OF WALL)

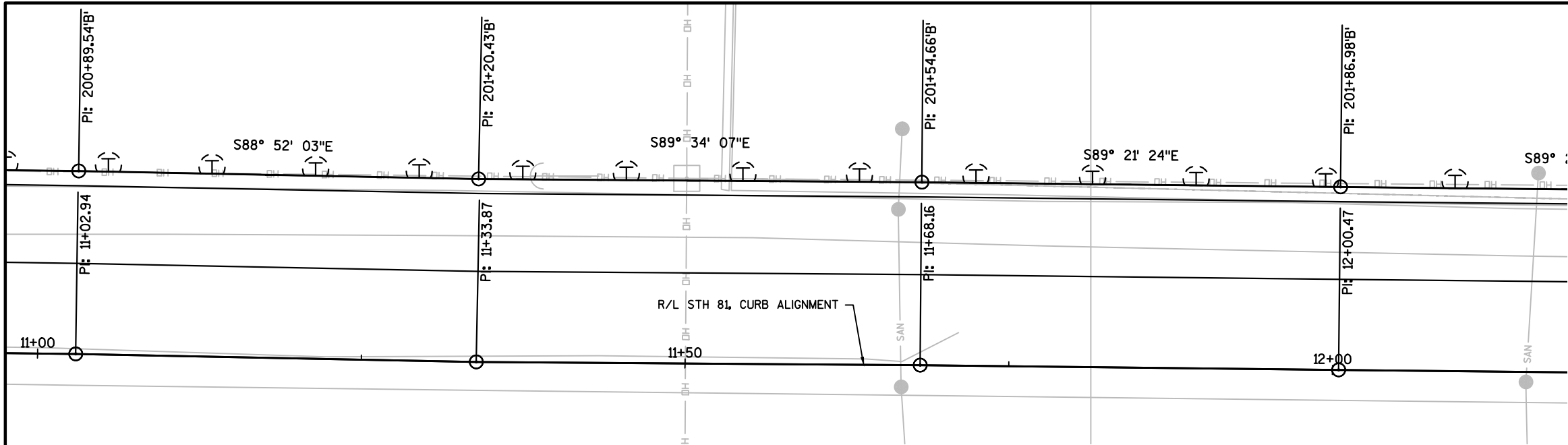
LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
P"X"- "*" = PILE IDENTIFICATION

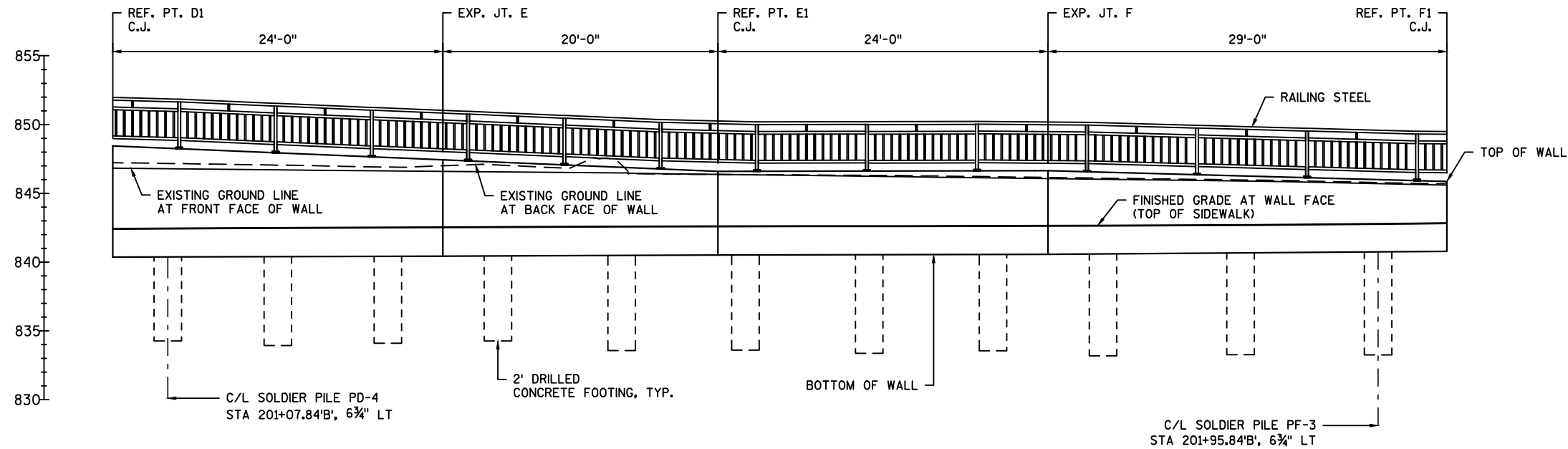


DATE: 4/10/2014

NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> KAR		04/11/14	DATE
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE R-33-0004			
STH 81 ALONG LOUISA STREET			
COUNTY	LAFAYETTE	CITY	DARLINGTON
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN 2012 SIXTH EDITION			
DESIGNED BY AFD	DESIGN CK'D. WPM	DRAWN BY AFD	PLANS CK'D. JDG
GENERAL PLAN AND ELEVATION			SHEET 1 OF 14



PLAN



ELEVATION

(LOOKING NORTH AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE BACK FACE OF WALL)

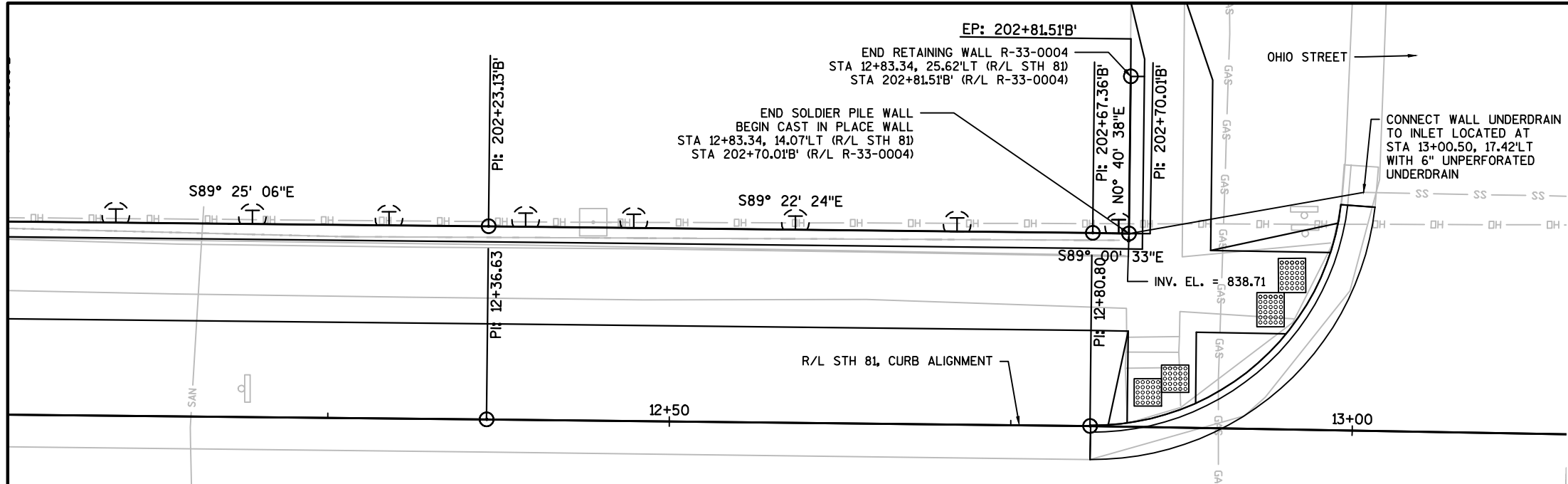
STATE PROJECT NUMBER

5944-03-84

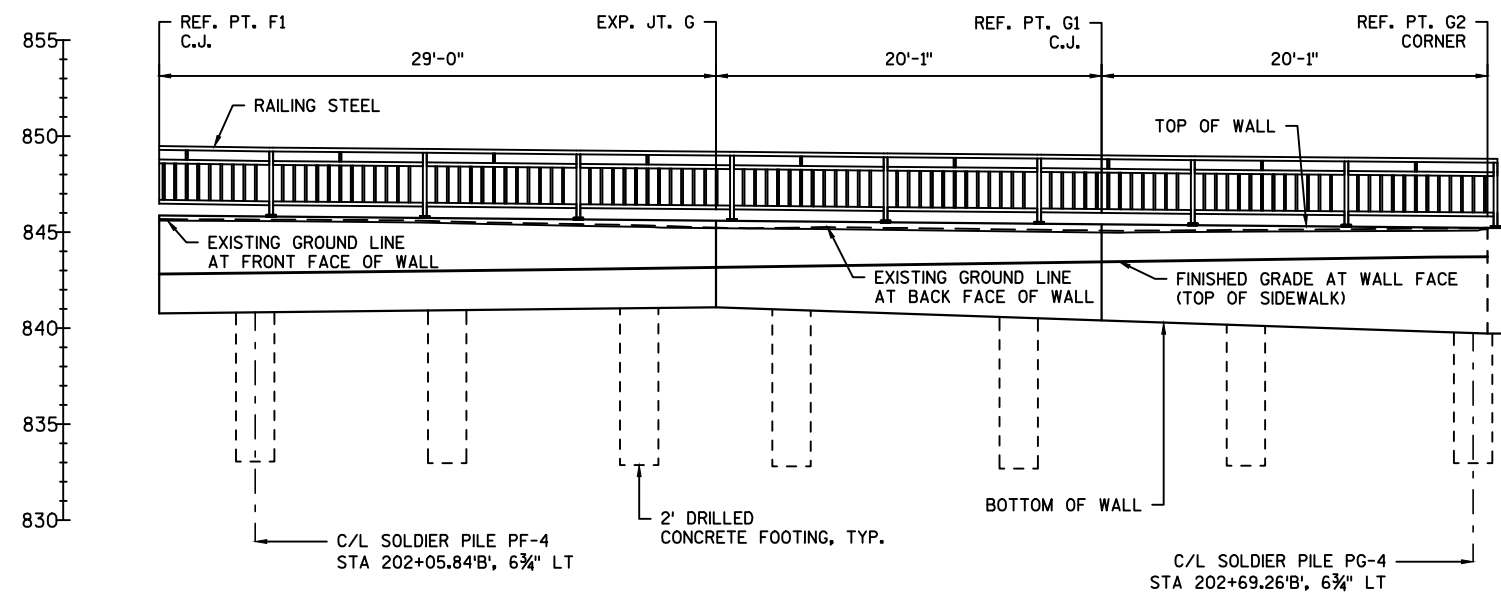
LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONSTRUCTION JOINT
EXP. JT. = EXPANSION JOINT
P"x"- "B'" = PILE IDENTIFICATION

NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0004			
DRAWN BY AFD		PLANS CK'D. JDG	
GENERAL PLAN & ELEVATION		SHEET 2 OF 14	

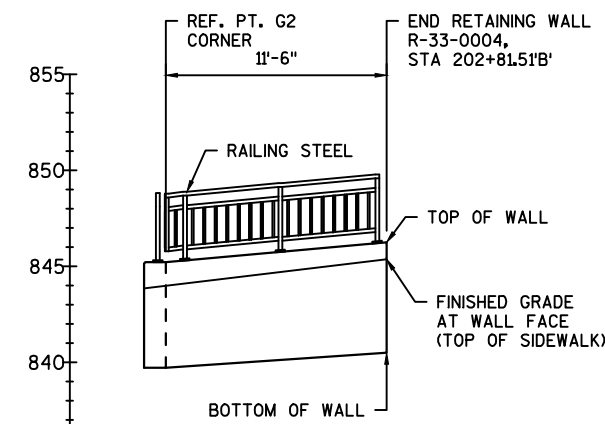


PLAN



ELEVATION

(LOOKING NORTH AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE BACK FACE OF WALL)



ELEVATION

(LOOKING WEST AT FRONT FACE OF WALL)
(CONCRETE C.I.P. WALL)

STATE PROJECT NUMBER

5944-03-84

NOTES

CONNECT UNDERDRAIN PIPE FROM THE C.I.P. WALL PRIOR TO CONVERTING THE PERFORATED PIPE TO UNPERFORATED PIPE.

CONNECTION FROM UNPERFORATED PIPE TO INLET IS INCIDENTAL TO PIPE UNDERDRAIN.

LEGEND

- E.F. = EACH FACE
- F.F. = FRONT FACE
- B.F. = BACK FACE
- C.J. = CONTRACTION JOINT
- EXP. JT. = EXPANSION JOINT
- INV. EL. = INVERT ELEVATION
- P"X"-"" = PILE IDENTIFICATION
- C.I.P. = CAST IN PLACE

ALIGNMENT INFORMATION

PI STA	NORTHING	EASTING
200+00.00	166026.73	483694.04
200+07.69	166026.66	483701.72
200+21.20	166025.99	483715.22
200+47.06	166025.70	483741.08
200+61.09	166025.51	483755.10
200+67.09	166025.43	483761.10
200+89.54	166025.12	483783.56
201+20.43	166024.50	483814.44
201+54.66	166024.25	483848.67
201+86.98	166023.88	483880.99
202+23.13	166023.52	483917.14
202+67.36	166023.03	483961.36
202+70.01	166022.99	483964.02
202+81.51	166034.49	483964.15

NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0004			
DRAWN BY AFD		PLANS CK'D. JDG	
GENERAL PLAN & ELEVATION		SHEET 3 OF 14	

PILE/ REFERENCE INFORMATION													STATE PROJECT NUMBER	
													5944-03-84	
STA	REFERENCE/ PILE NUMBER	OFFSET SEE NOTE 12	FINISH GRADE AT WALL FACE	WALL HEIGHT (FT)	TOP OF WALL	BOTTOM OF WALL	TOP OF PILE	TOP OF FOOTING	BOTTOM OF FOOTING	FOOTING LENGTH	SOLDIER PILE SECTION	SOLDIER PILE LENGTH (FT)	NO. OF STUDS	
200+00.00'B'	REF. PT. A	START	842.54	5.58	846.04	840.45	START	START	START	START	START	START	START	
200+04.34'B'	PA-1	6"	842.53	5.76	846.20	840.44	844.70	840.44	832.45	7.99	HP-12X63	12.25	8	
200+12.34'B'	PA-2	6"	842.49	6.09	846.49	840.40	844.99	840.40	833.24	7.16	HP-12X63	11.75	8	
200+20.34'B'	PA-3	6"	842.45	6.42	846.79	840.37	845.29	840.37	833.29	7.08	HP-12X63	12.00	8	
200+24.34'B'	REF. PT. A1	C.J.	842.44	6.58	846.94	840.36	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	
200+28.34'B'	PA-4	6"	842.42	6.74	847.09	840.35	845.59	840.35	833.59	6.76	HP-12X63	12.00	10	
200+36.34'B'	PA-5	6"	842.39	7.04	847.38	840.34	845.88	840.34	833.88	6.46	HP-12X63	12.00	10	
200+44.34'B'	PA-6	6"	842.37	7.35	847.68	840.33	846.18	840.33	834.18	6.15	HP-12X63	12.00	10	
200+48.34'B'	REF. PT. B	E.J.	842.36	7.50	847.83	840.33	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	
200+52.34'B'	PB-1	6"	842.35	7.66	847.98	840.32	846.48	840.32	834.23	6.09	HP-12X63	12.25	10	
200+60.34'B'	PB-2	6"	842.34	7.97	848.27	840.30	846.77	840.30	834.27	6.03	HP-12X63	12.50	20	
200+60.34'B'	PB-3	8'-10"	842.34	2.89	849.88	846.99	848.38	846.99	834.38	12.61	HP-12X63	14.00	4	
200+61.09'B'	REF. PT. B1	STAIRS	842.34	8.00	848.30	840.30	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	
200+61.09'B'	REF. PT. B2	10'-1"	842.34	2.00	849.88	847.88	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	
200+67.09'B'	REF. PT. C1	10'-1"	842.33	2.00	849.88	847.88	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	
200+67.09'B'	REF. PT. C2	STAIRS	842.33	8.08	848.33	840.25	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	STAIRS	
200+67.84'B'	PC-1	8'-10"	842.33	2.89	849.88	846.99	848.38	846.99	834.38	12.61	HP-12X63	14.00	4	
200+67.84'B'	PC-2	6"	842.33	8.08	848.33	840.25	846.83	840.25	834.33	5.92	HP-12X63	12.50	24	
200+75.84'B'	PC-3	6"	842.32	8.08	848.35	840.27	846.85	840.27	834.35	5.92	HP-12X63	12.50	12	
200+79.84'B'	REF. PT. D	E.J.	842.31	8.08	848.37	840.28	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	
200+83.84'B'	PD-1	6"	842.31	8.08	848.38	840.29	846.88	840.29	834.38	5.92	HP-12X63	12.50	12	
200+91.84'B'	PD-2	6"	842.31	8.08	848.40	840.32	846.90	840.32	834.40	5.92	HP-12X63	12.50	12	
200+99.84'B'	PD-3	6"	842.37	8.08	848.43	840.34	846.93	840.34	834.18	6.17	HP-12X63	12.75	12	
201+03.84'B'	REF. PT. D1	C.J.	842.40	8.08	848.44	840.35	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	
201+07.84'B'	PD-4	6"	842.43	7.90	848.27	840.37	846.77	840.37	834.27	6.10	HP-12X63	12.50	10	
201+15.84'B'	PD-5	6"	842.47	7.54	847.93	840.39	846.43	840.39	834.18	6.21	HP-12X63	12.25	10	
201+23.84'B'	PD-6	6"	842.51	7.18	847.60	840.42	846.10	840.42	834.10	6.32	HP-12X63	12.00	10	
201+27.84'B'	REF. PT. E	E.J.	842.52	7.00	847.43	840.43	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	
201+31.84'B'	PE-1	6"	842.54	6.82	847.26	840.44	845.76	840.44	834.26	6.18	HP-12X63	11.50	10	
201+40.84'B'	PE-2	6"	842.57	6.40	846.88	840.48	845.38	840.48	834.13	6.35	HP-12X63	11.25	8	
201+47.84'B'	REF. PT. E1	C.J.	842.59	6.08	846.59	840.51	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	
201+49.84'B'	PE-3	6"	842.59	6.08	846.59	840.51	845.09	840.51	833.59	6.92	HP-12X63	11.50	8	
201+58.84'B'	PE-4	6"	842.61	6.08	846.61	840.53	845.11	840.53	833.61	6.92	HP-12X63	11.50	8	
201+67.84'B'	PE-5	6"	842.63	6.08	846.63	840.55	845.13	840.55	833.38	7.17	HP-12X63	11.75	8	
201+71.84'B'	REF. PT. F	E.J.	842.64	6.08	846.64	840.55	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	
201+75.84'B'	PF-1	6"	842.64	5.95	846.53	840.58	845.03	840.58	833.53	7.05	HP-12X63	11.50	8	
201+85.84'B'	PF-2	6"	842.69	5.60	846.26	840.66	844.76	840.66	833.26	7.40	HP-12X63	11.50	8	
201+95.84'B'	PF-3	6"	842.77	5.26	845.99	840.74	844.49	840.74	833.24	7.49	HP-12X63	11.25	8	
202+00.84'B'	REF. PT. F1	C.J.	842.82	5.08	845.86	840.77	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	
202+05.84'B'	PF-4	6"	842.87	4.98	845.81	840.83	844.31	840.83	833.06	7.77	HP-12X63	11.25	6	
202+15.84'B'	PF-5	6"	842.99	4.78	845.72	840.94	844.22	840.94	832.97	7.97	HP-12X63	11.25	6	
202+25.84'B'	PF-6	6"	843.11	4.58	845.62	841.04	844.12	841.04	832.87	8.17	HP-12X63	11.25	6	
202+29.84'B'	REF. PT. G	E.J.	843.17	4.50	845.59	841.09	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	
202+33.76'B'	PG-1	6"	843.22	4.60	845.55	840.95	844.05	840.95	832.80	8.15	HP-12X63	11.25	6	
202+45.59'B'	PG-2	6"	843.39	4.89	845.44	840.55	843.94	840.55	832.69	7.86	HP-12X63	11.25	6	
202+49.92'B'	REF. PT. G1	C.J.	843.46	5.00	845.40	840.40	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	
202+57.43'B'	PG-3	6"	843.56	5.19	845.33	840.14	843.83	840.14	832.83	7.31	HP-12X63	11.00	8	
202+69.26'B'	PG-4	6"	843.71	5.48	845.22	839.74	843.72	839.74	832.97	6.77	HP-12X63	10.75	16	
202+70.01'B'	REF. PT. G2	CORNER	843.71	5.50	845.21	839.71	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	
202+81.51'B'	REF. PT. H	END	845.43	5.50	846.25	840.75	END	END	END	END	END	END	END	

GENERAL NOTES:

ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50 EXCEPT AS NOTED ON PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND PERFORMANCE OF THE TIMBER LAGGING USING NO LESS THAN A 3-INCH ROUGH-SAWN THICKNESS AND TIMBER WITH A MINIMUM ALLOWABLE BENDING STRESS OF 1000 P.S.I.

DRAWINGS SHALL NOT BE SCALED.

BEVELED EXPOSED EDGES OF CONCRETE IS ¾-INCH, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES, UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

ARCHITECTURAL SURFACE TREATMENT SHALL ACCURATELY DUPLICATE "RUSTIC ASHLAR" LIMESTONE. THE STONE SHALL BE 8-INCH TO 32-INCH WITH A MAXIMUM RELIEF OF 1 ½-INCH. SEE SPECIAL PROVISIONS.

ALL REINFORCEMENT SHALL HAVE A MINIMUM OF 2-INCHES CLEAR COVER UNLESS SHOWN OTHERWISE. REINFORCEMENT IN FACES CAST PERMANENTLY AGAINST EARTH SHALL HAVE A MINIMUM OF 3-INCHES CLEAR COVER.

IF THE UNDERGROUND UTILITY CONFLICTS WITH A PILE, THAT PILE MAY BE RELOCATED WITHIN 1'-0" FROM THE CALLED OUT LOCATION. DO NOT LOCATE A PILE LESS THAN 1'-0" FROM A CONTRACTION JOINT. PILES LOCATED AT CORNERS OF THE RETAINING WALL SHALL ONLY BE ADJUSTED WITH ENGINEER'S APPROVAL.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES RETAINING WALLS R-33-0004."

OFFSET IS BASED OFF OF BACK FACE OF WALL ALIGNMENT TO CENTER OF PILE.

CONTROLLED LOW STRENGTH MATERIAL AND FLOWABLE BACKFILL ARE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-33-0004." SEE SPECIAL PROVISIONS FOR DESCRIPTION OF CONTROLLED LOW STRENGTH MATERIAL AND FLOWABLE BACKFILL.

6" DRAINAGE PIPE HAS A MINIMUM SLOPE OF 0.5%.

STAINING CONCRETE SHALL ACCURATELY DUPLICATE WEATHERED LIMESTONE COLORATION. COLOR IS MEDIUM TAN * 33446. SEE SPECIAL PROVISIONS.

BACK FACE OF WALL FOLLOWS STH 81 CURB ALIGNMENT, 14'-1½" TYPICAL OFFSET. SEE ROADWAY PLAN FOR CURB ALIGNMENT DETAILS.

BACKFILL THE FACES OF THE WALL EQUALLY.

SHAFT EXCAVATION FOR ALL PILES ARE 2'-0" DIAMETER.

CONSTRUCT A TYPICAL SOLDIER PILE WALL FROM STA 200+00.00'B' TO STA 202+70.01'B'. CONSTRUCT A TYPICAL CAST IN PLACE CONCRETE WALL FROM STA 202+70.01'B' TO STA 202+80.51'B'.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNITS	TOTAL QUANTITY
206.3000.02	EXCAVATION FOR STRUCTURES RETAINING WALL (R-33-0004)	LS	1
210.0100	BACKFILL STRUCTURAL	CY	4
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	84
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	7691
506.0605	STRUCTURAL STEEL HS	LB	24822
506.3014	WELDED STUD SHEAR CONNECTORS 3/4x6-INCH	EACH	314
513.2050.S	RAILING PIPE	LF	24
517.1010.S.01	CONCRETE STAINING R-33-0004	SF	622
517.1050.S.01	ARCHITECTURAL SURFACE TREATMENT R-33-0004	SF	622
612.0106	PIPE UNDERDRAIN 6-INCH	LF	314
612.0204	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	36
645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	254
SPV.0035.01	CONCRETE MASONRY SOLDIER PILE FOOTINGS	CY	29
SPV.0090.01	FOUNDATION DRILLING 24-INCH DIAMETER	LF	446
SPV.0105.01	RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN R-33-0004	LS	1
SPV.0110.01	TIMBER LAGGING	MBM	4.12
SPV.0165.01	GEOCOMPOSITE DRAIN BOARD	SF	1522

SOIL PARAMETERS

SOIL UNIT	TOTAL UNIT WEIGHT, PCF	UNDRAINED, DISTURBED			DRAINED	
		UNDRAINED SHEAR STRENGTH, SU, PSF	FRICTION ANGLE, Φ, DEG	COHESION, C' PSF	COHESION, C', PSF	FRICTION ANGLE, Φ, DEG
LEAN CLAY	130	3800	6	200	0	30
WEATHERED DOLOMITE BEDROCK	140				0	45

KNIGHT

700 N Third Street
Suite 104
La Crosse, WI 54601
Engineers & Architects Phone: (608) 519-1455

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-33-0004

DRAWN BY AFD
PLANS CK'D. JDG

GENERAL NOTES,
PILE/ REF. PT.
INFORMATION, AND
EST. QUANTITIES

SHEET 4 OF 14

80

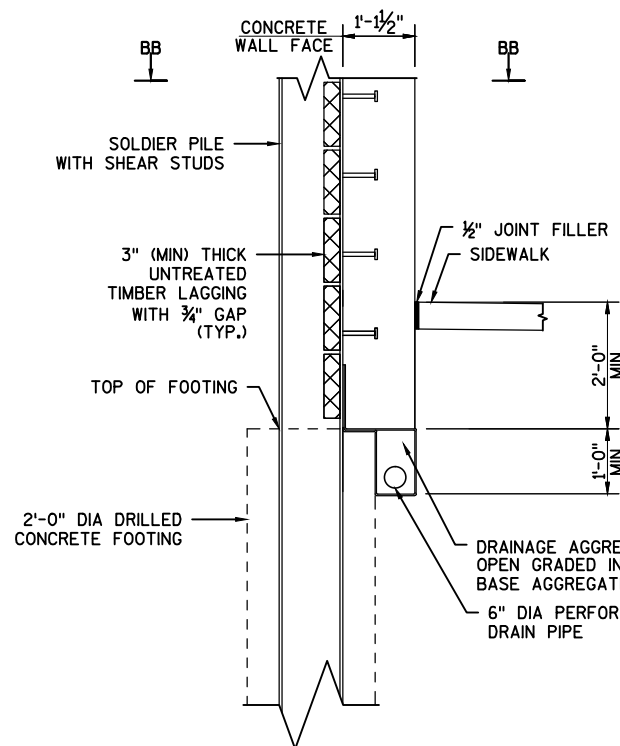
NOTES

PAINT PILE FROM TOP OF PILE TO 1'-0" BELOW TOP OF FOOTING WITH A PRIME COAT OF ORGANIC ZINC-RICH PAINT. PREPARE THE SURFACE AND APPLY THE PAINT AS SPECIFIED IN SECTION 517 OF THE STANDARD SPECIFICATIONS. PAINTING OF PILE IS INCIDENTAL TO THE BID ITEM "STRUCTURAL STEEL HS."

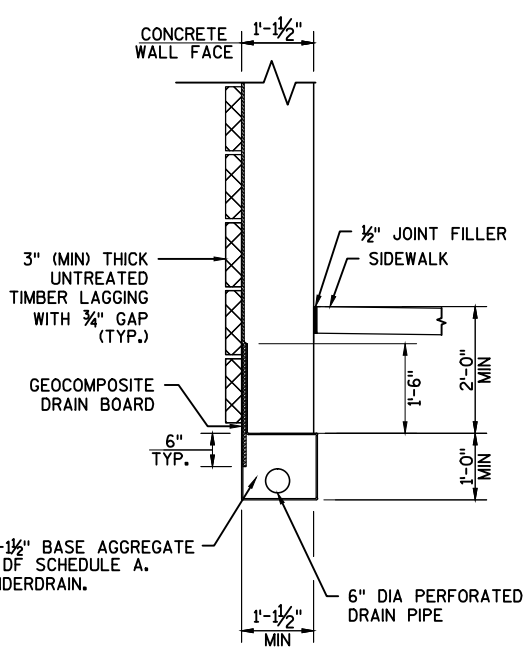
PILES SHOULD BE SET WITH A ¼"H:1"V BATTER.

LEGEND

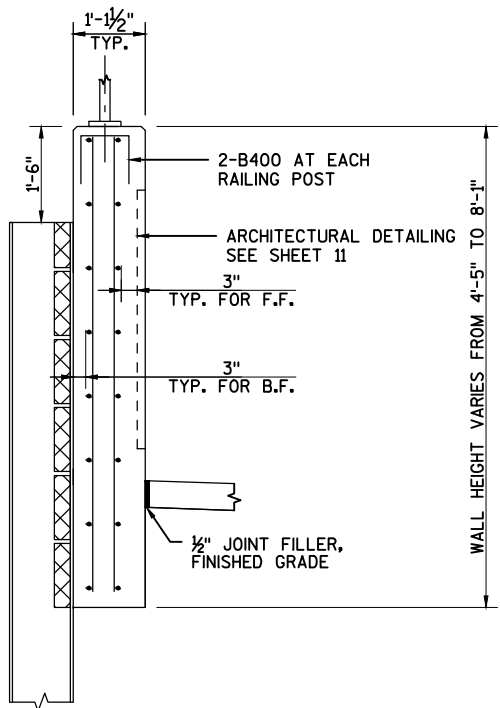
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT



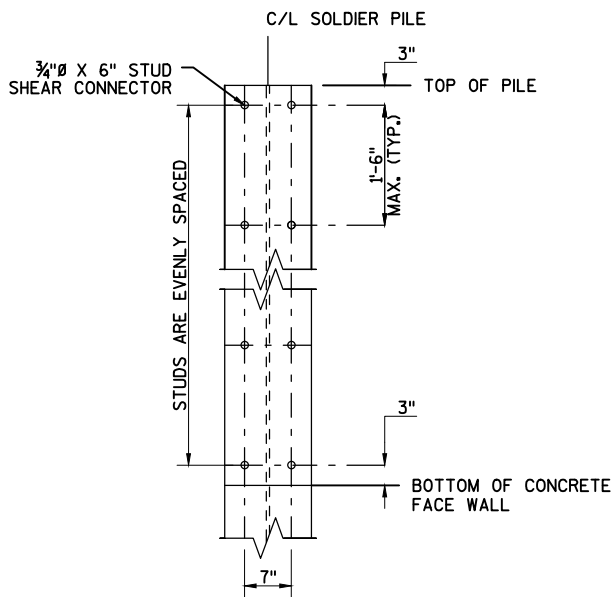
DETAIL A
(AT SOLDIER PILES)



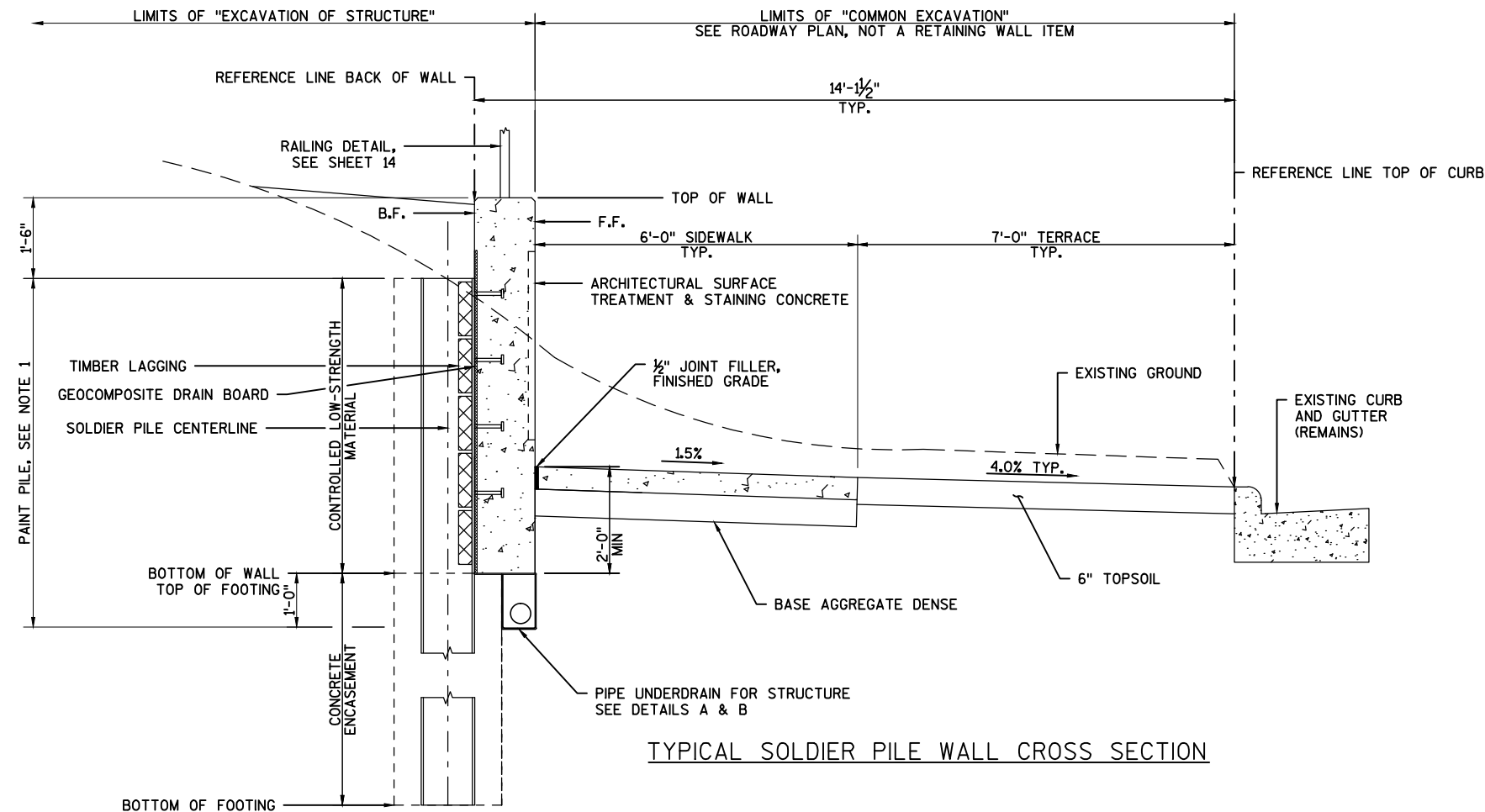
DETAIL B
(BETWEEN SOLDIER PILES)



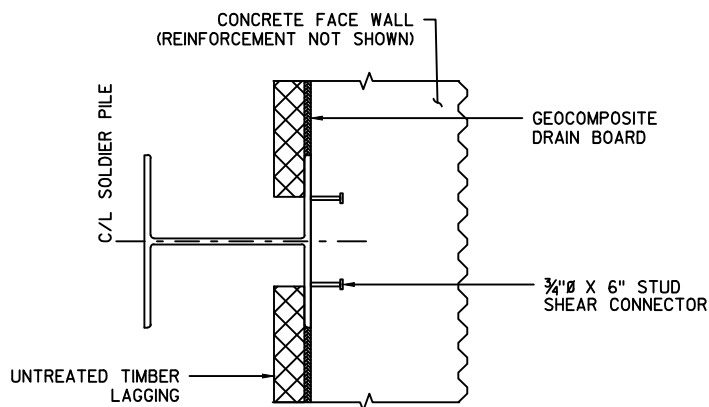
TYP. REINFORCEMENT LAYOUT



**STUD SHEAR
CONNECTION LAYOUT**

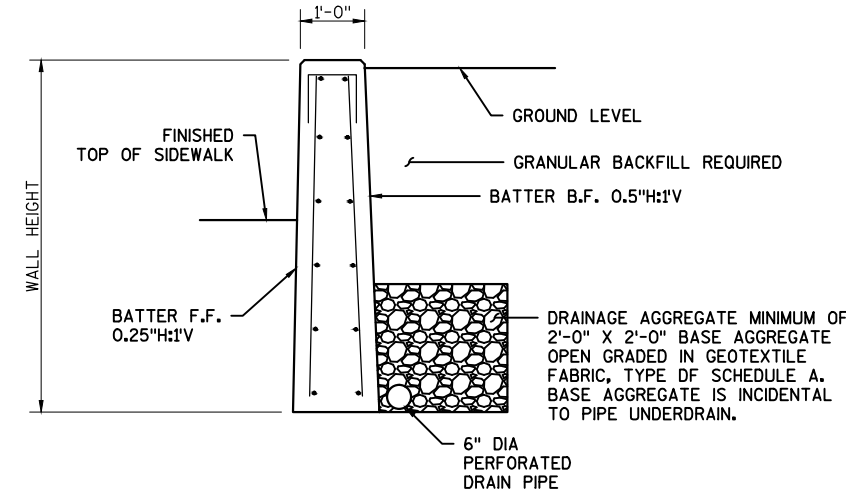


TYPICAL SOLDIER PILE WALL CROSS SECTION

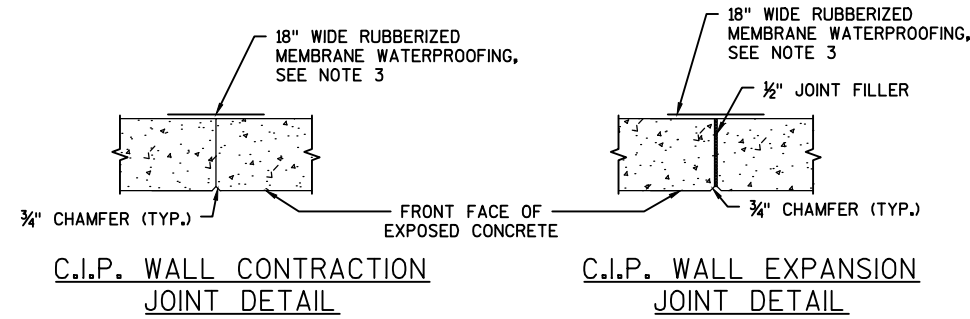


SECTION BB-BB

NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0004			
DRAWN BY AFD		PLANS CK'D. JDG	
TYPICAL SECTIONS			SHEET 5 OF 14



TYPICAL C.I.P. CONCRETE WALL CROSS SECTION
(STA 202+70.01B' TO STA 202+81.51B')

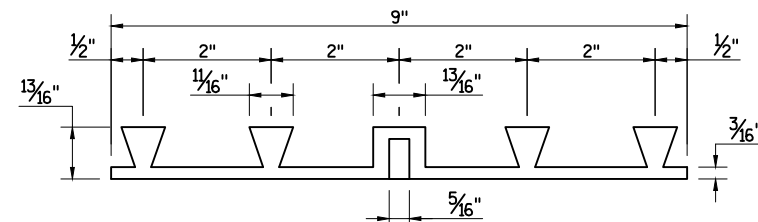


NOTES
PAINT PILE & ANGLED STEEL FROM TOP OF PILE TO 1'-0" BELOW TOP OF FOOTING WITH A PRIME COAT OF ORGANIC ZINC-RICH PAINT. PREPARE THE SURFACE AND APPLY THE PAINT AS SPECIFIED IN SECTION 517 OF THE STANDARD SPECIFICATIONS. PAINTING OF PILE IS INCIDENTAL TO THE BID ITEM "STRUCTURAL STEEL HS."

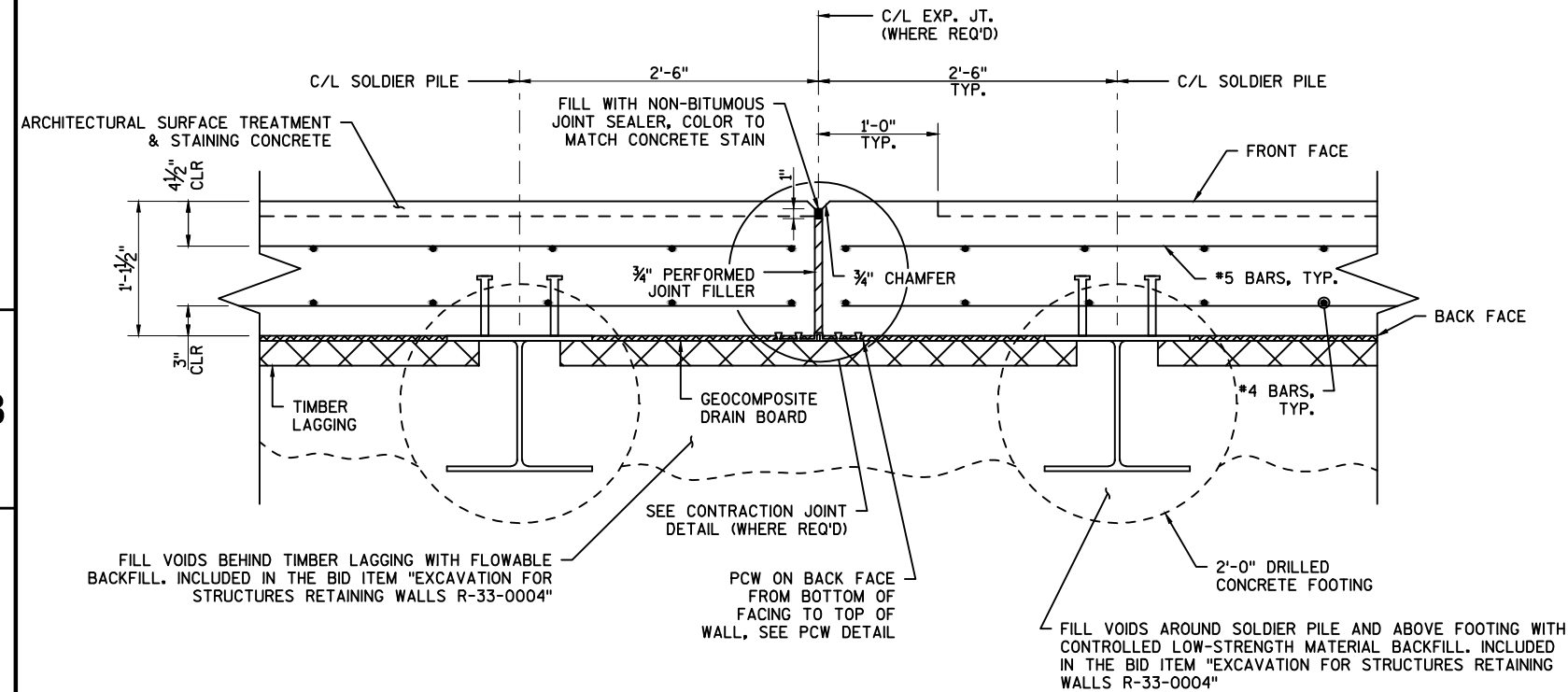
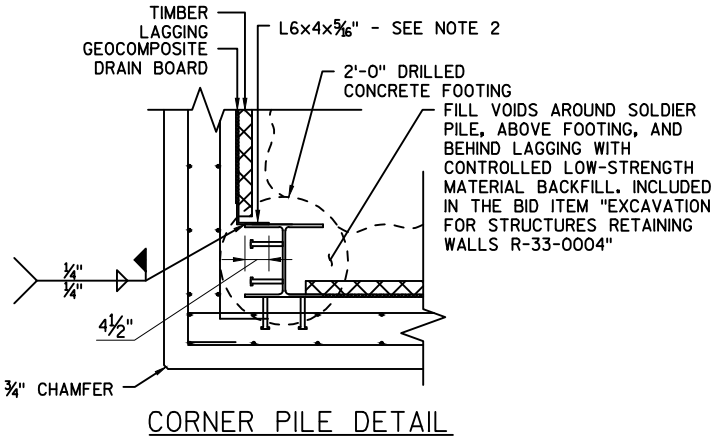
ANGLED STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270M/ M270 GRADE 36. WHERE REQUIRED, THE ANGLED STEEL SPANS FROM THE TOP OF THE PILE TO THE BOTTOM OF THE WALL. ANGLED STEEL IS INCIDENTAL IN THE BID ITEM "STRUCTURAL STEEL HS."

RUBBERIZED MEMBRANE WATERPROOFING RUNS FROM GROUND LEVEL DOWN TO BOTTOM OF WALL, COST INCIDENTAL TO "CONCRETE MASONRY RETAINING WALLS."

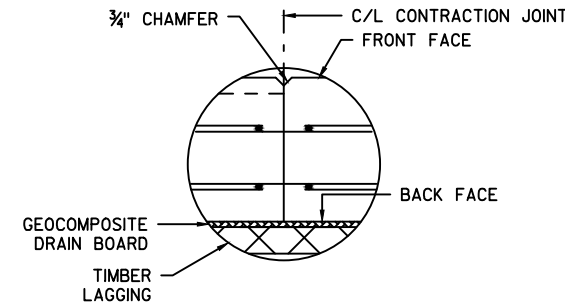
LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE



P.C.W. 'TYPE B' DETAIL
(POLYVINYL CHLORIDE WATERSTOP)
(INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY RETAINING WALLS")
P.C.W. SHALL BE BUTT SPLICED AT ALL INTERSECTION BY USING A HEATED SPLICING IRON. HOLD P.C.W. FLUSH WITH CONCRETE. SEAL ALL VERTICAL ENDS OF P.C.W. WITH NON-STAINING BITUMINOUS JOINT SEALER.

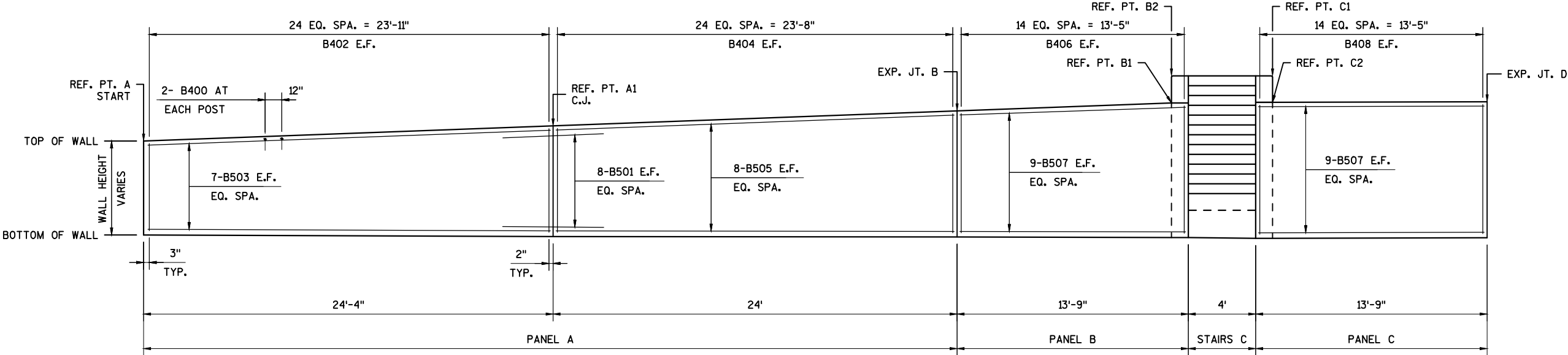


SOLDIER PILE JOINT DETAIL
(SEE PILE INFORMATION SHEETS FOR LOCATION OF CONTRACTION & EXPANSION JOINTS)

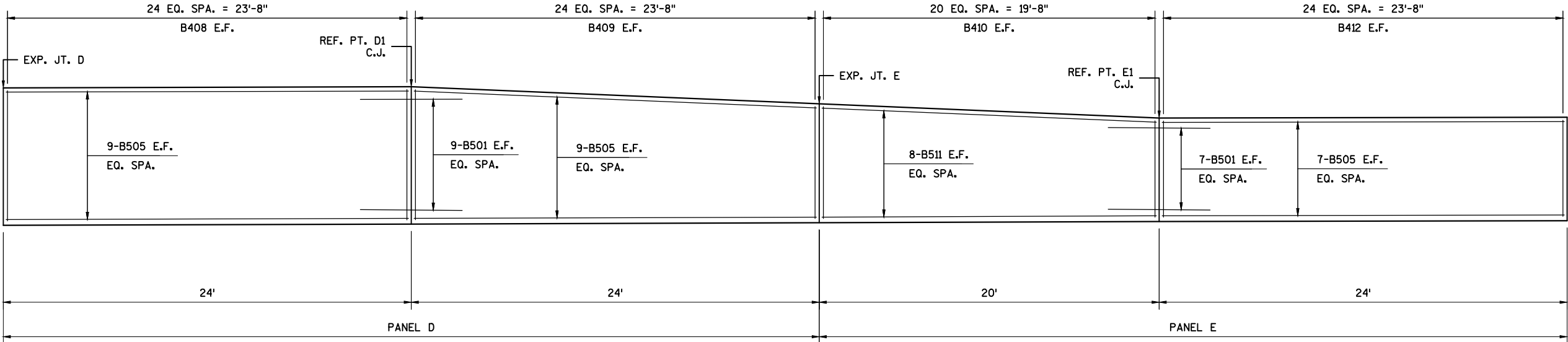


CONTRACTION JOINT DETAIL

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0004			
DRAWN BY AFD		PLANS CK'D. JDG	
TYPICAL SECTIONS			SHEET 6 OF 14



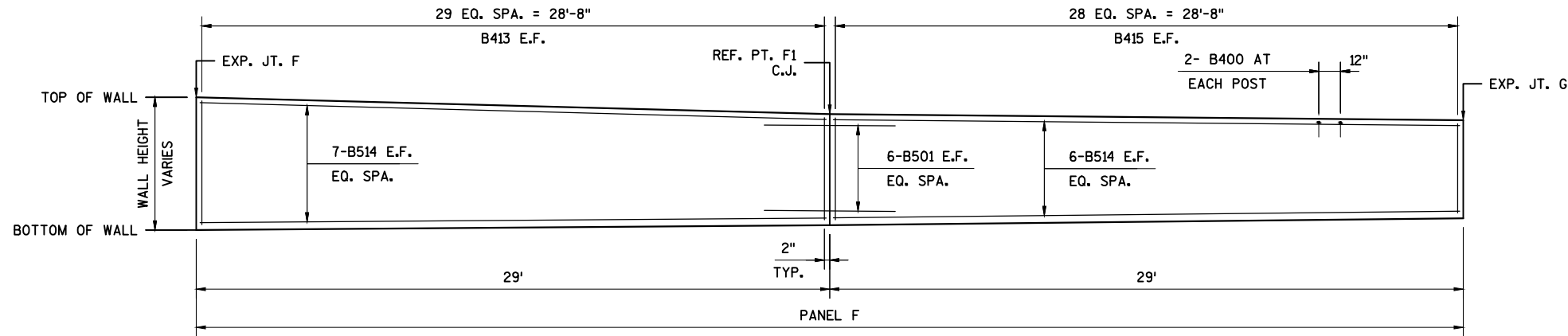
PARTIAL WALL FACING ELEVATION
(PANELS A, B & C)



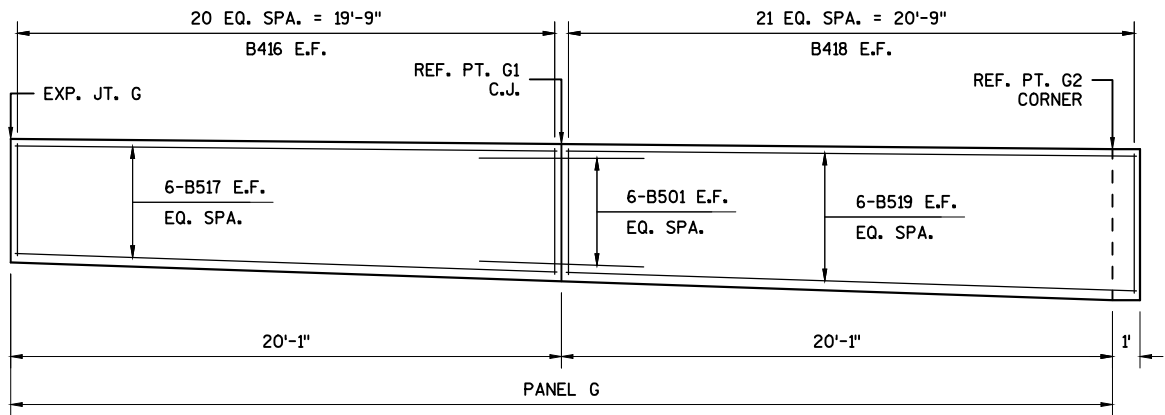
PARTIAL WALL FACING ELEVATION
(PANELS D & E)

LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT

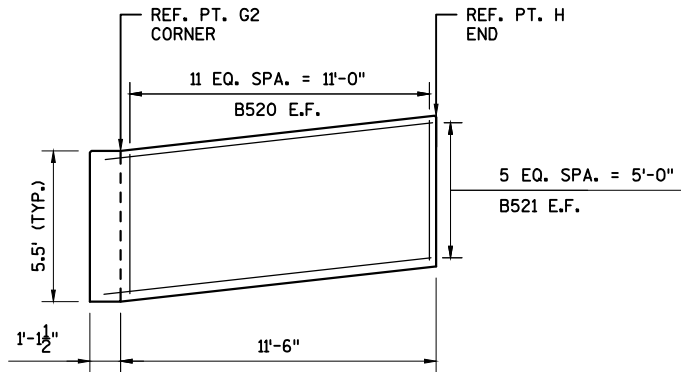
NO.	DATE	REVISION	BY
KNIGHT		700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-33-0004	
		DRAWN BY AFD	PLANS CK'D. JDG
REINFORCEMENT LAYOUT		SHEET 7 OF 14	
		83	



PARTIAL WALL FACING ELEVATION
(PANEL F)



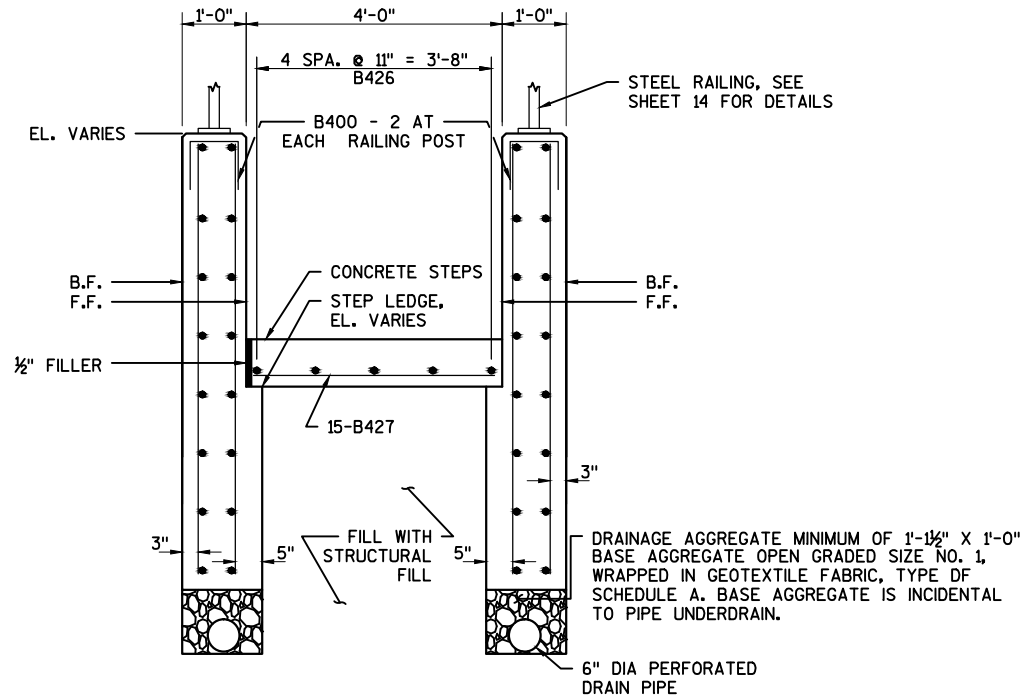
PARTIAL WALL FACING ELEVATION
(PANEL G)



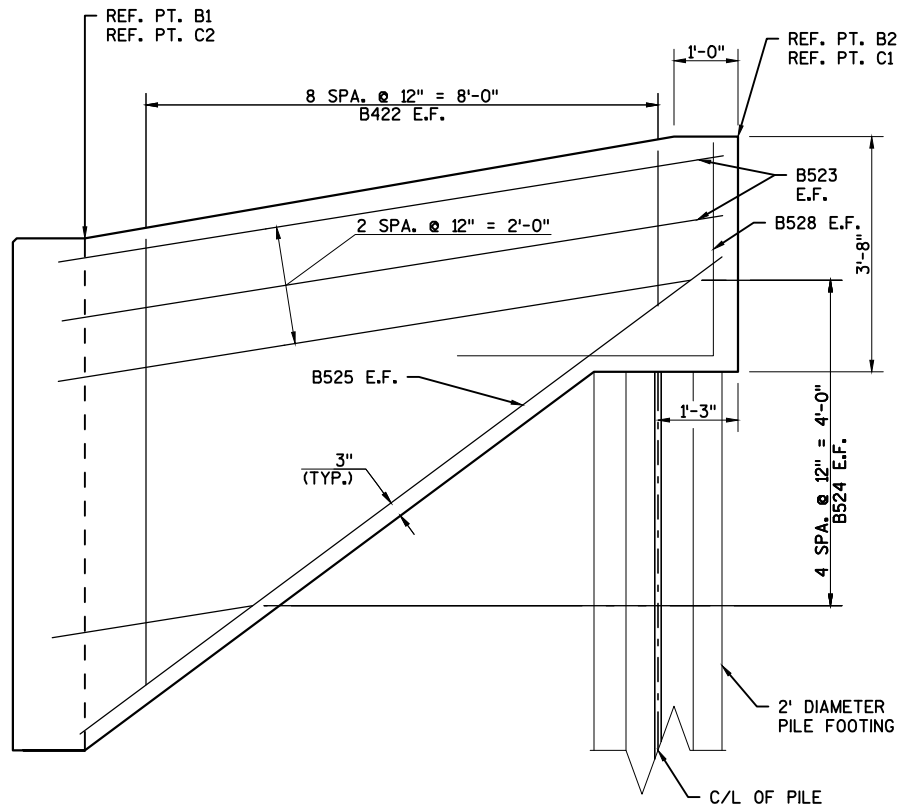
PARTIAL WALL FACING ELEVATION
(CONCRETE C.I.P. WALL)

LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE

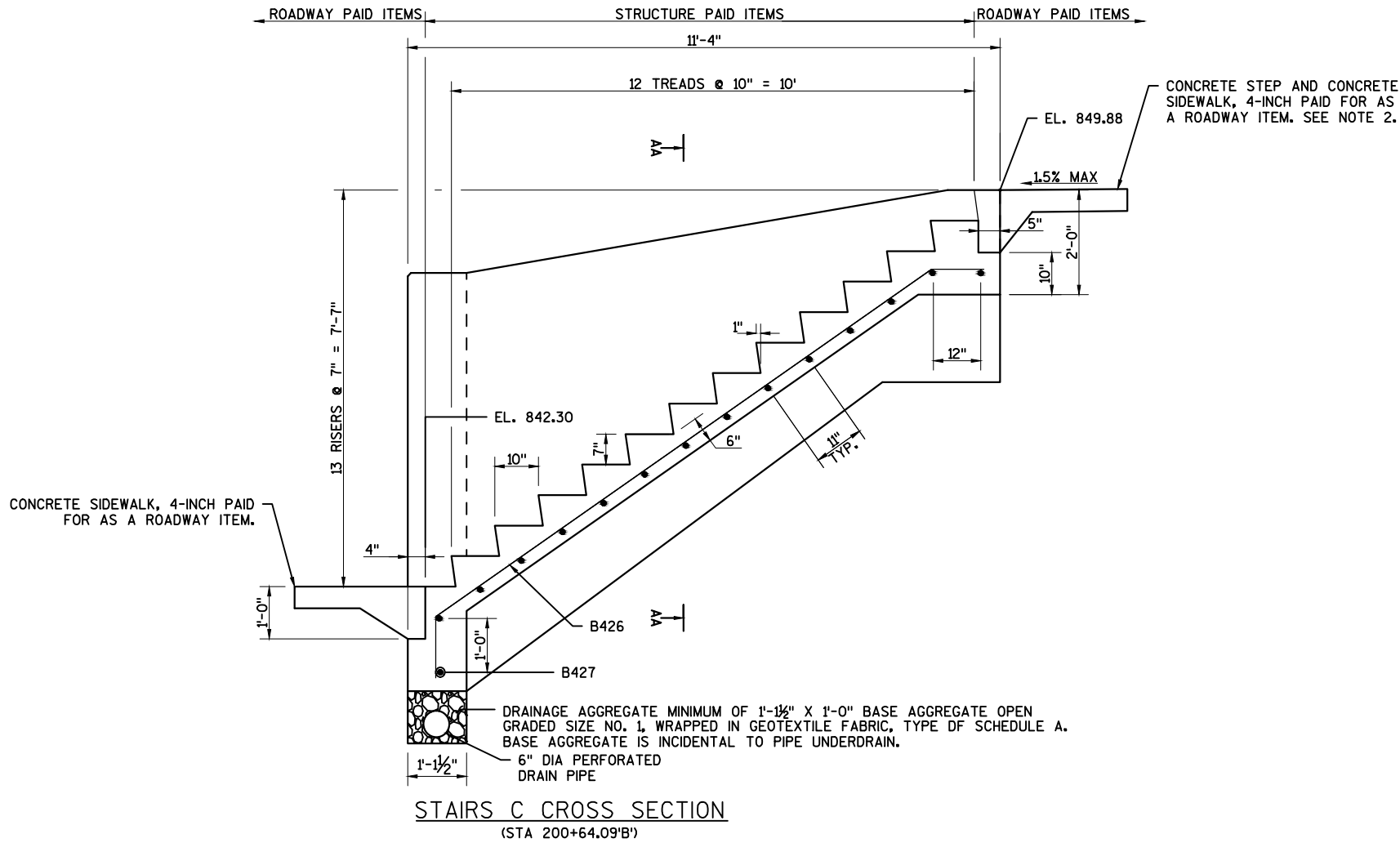
NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0004			
DRAWN BY AFD		PLANS CK'D. JDG	
REINFORCEMENT LAYOUT		SHEET 8 OF 14	



SECTION AA-AA



TYPICAL SHEAR WALL BAR LAYOUT
STAIRS C



STAIRS C CROSS SECTION
(STA 200+64.09'B')

NOTES

PLACE 2-FT STRUCTURAL BACKFILL BELOW BOTTOM OF STEPS.

CONCRETE STEP IS MEASURED FROM THE FRONT FACE OF THE TOP RISER TO 10-INCH BACK FROM FRONT FACE OF THE TOP RISER. CONCRETE BEYOND THAT MARK IS PAID AS "CONCRETE SIDEWALK 4-INCH."

CONCRETE FOR STAIRS SHALL BE INCLUDED IN THE QUANTITY FOR "CONCRETE MASONRY, RETAINING WALL."

CONNECT THE UNDERDRAIN PIPE BENEATH THE STAIRCASE SHEAR WALLS TO THE UNDERDRAIN PIPE BENEATH THE WALL ALONG STH 81.

LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-33-0004	
		DRAWN BY AFD	PLANS CK'D. JDG
STAIRS C DETAILS		SHEET 9 OF 14	
		85	

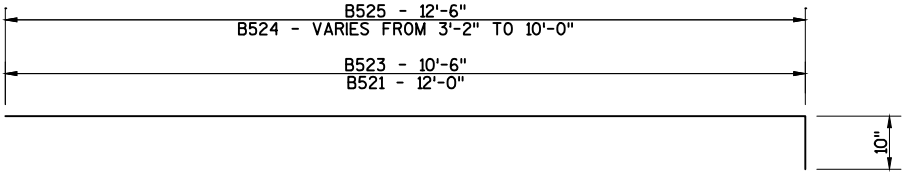
BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B400	X	90	2'-1"	X		AT TOP OF WALL NEAR FENCE POSTS
B501	X	70	6'-1"			AT CONTRACTION JOINTS
B402	X	50	5'-8"		▲	PANEL A VERTICAL
B503	X	14	24'-0"			PANEL A HORIZONTAL
B404	X	50	6'-8"		▲	PANEL A VERTICAL
B505	X	66	23'-8"			PANELS A, D, & E HORIZONTAL
B406	X	30	7'-4"		▲	PANEL B VERTICAL
B507	X	36	13'-5"			PANELS B & C HORIZONTAL
B408	X	80	8'-1"			PANELS C & D VERTICAL
B409	X	50	7'-2"		▲	PANEL D VERTICAL
B410	X	42	6'-2"		▲	PANEL E VERTICAL
B511	X	16	19'-8"			PANEL E HORIZONTAL
B412	X	50	5'-8"			PANEL E VERTICAL
B413	X	60	5'-2"		▲	PANEL F VERTICAL
B514	X	26	28'-8"			PANEL F HORIZONTAL
B415	X	58	4'-5"		▲	PANEL F VERTICAL
B416	X	42	4'-4"		▲	PANEL G VERTICAL
B517	X	12	19'-9"			PANEL G HORIZONTAL
B418	X	44	4'-10"		▲	PANEL G VERTICAL
B519	X	12	20'-9"			PANEL G HORIZONTAL
B520	X	24	5'-1"			C.I.P. WALL VERTICAL
B521	X	12	12'-9"	X		C.I.P. WALL HORIZONTAL
B422	X	36	4'-5"		▲	STAIR SHEAR WALL VERTICAL
B523	X	8	11'-3"	X		STAIR SHEAR WALL HORIZONTAL
B524	X	20	7'-4"	X	▲	STAIR SHEAR WALL HORIZONTAL
B525	X	4	13'-3"	X		STAIR SHEAR WALL HORIZONTAL
B426	X	5	13'-9"	X		STAIRS C
B427	X	15	3'-8"			STAIRS C
B528	X	2	7'-3"	X		STAIRS C SHEAR WALL

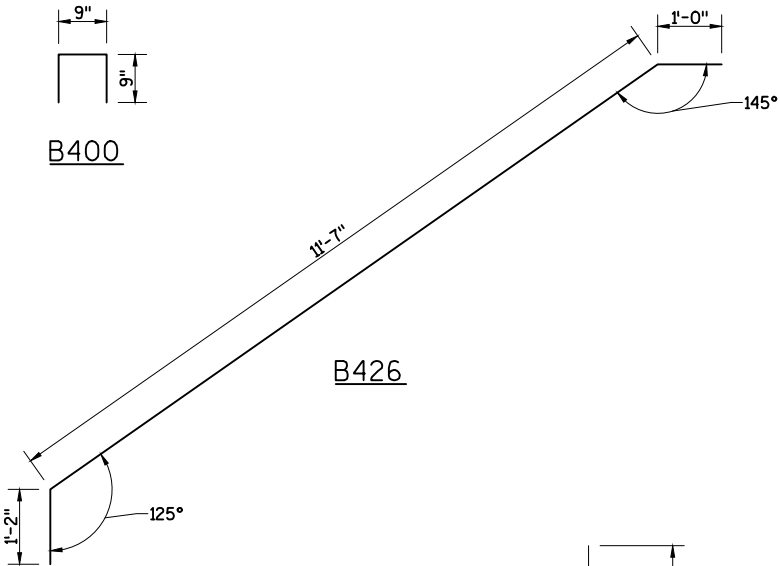
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
B402	2 SETS OF 25	5'-2" TO 6'-2"
B404	2 SETS OF 25	6'-2" TO 7'-1"
B406	2 SETS OF 15	7'-1" TO 7'-7"
B409	2 SETS OF 25	6'-7" TO 7'-8"
B410	2 SETS OF 21	5'-8" TO 6'-7"
B413	2 SETS OF 30	4'-8" TO 5'-8"
B415	2 SETS OF 29	4'-1" TO 4'-8"
B416	2 SETS OF 21	4'-1" TO 4'-7"
B418	2 SETS OF 22	4'-7" TO 5'-1"
B422	4 SETS OF 9	2'-5" TO 6'-11"
B524	4 SETS OF 5	3'-11" TO 10'-9"

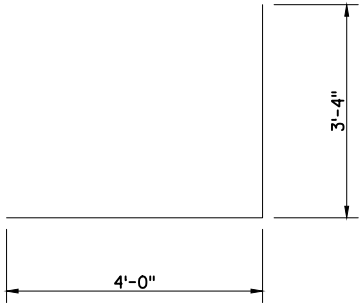


B521, B523, B524, B525



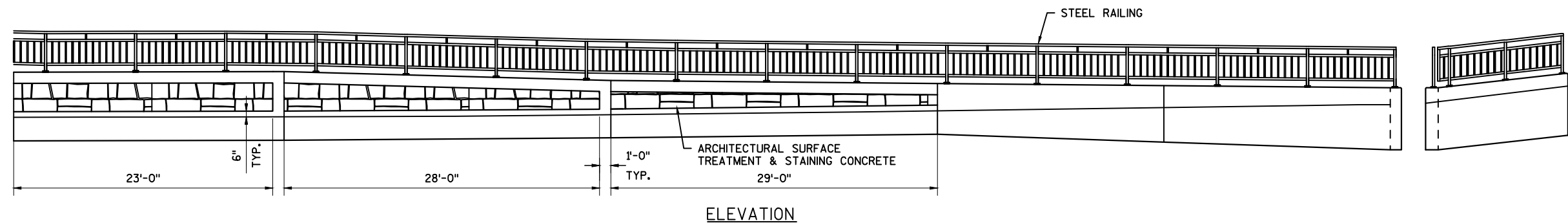
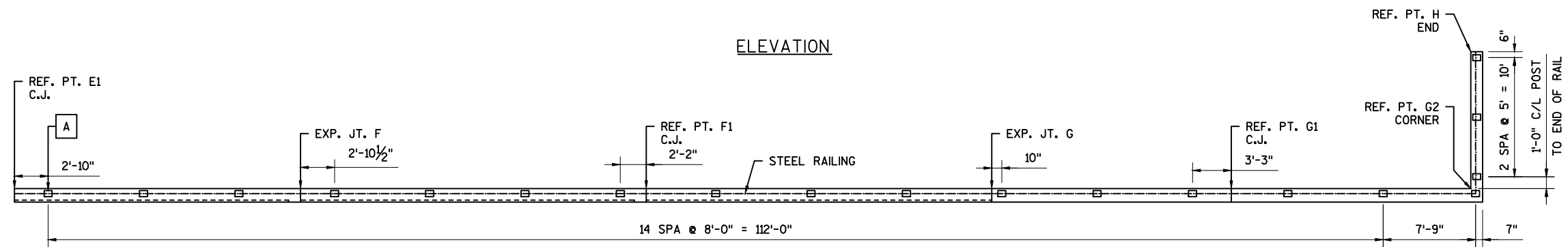
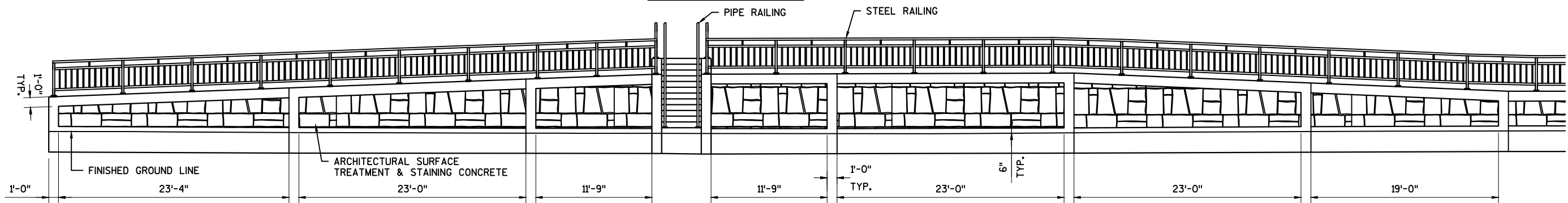
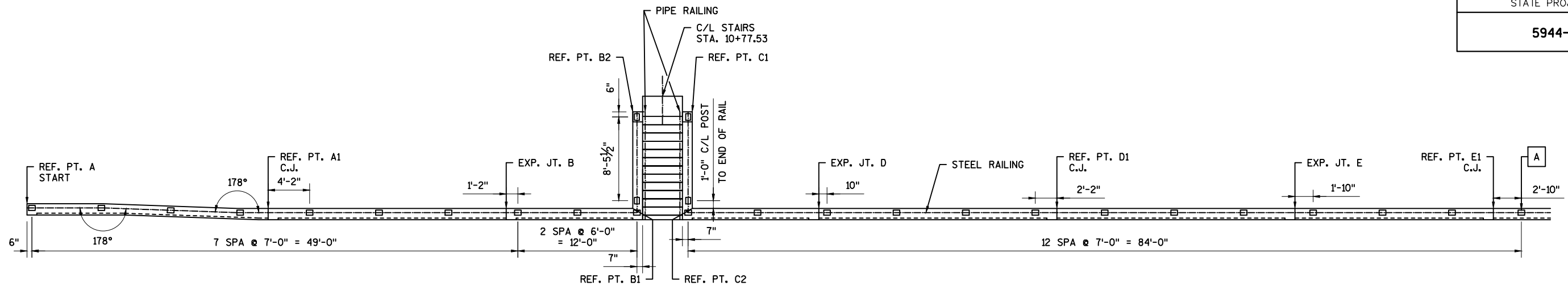
B400

B426



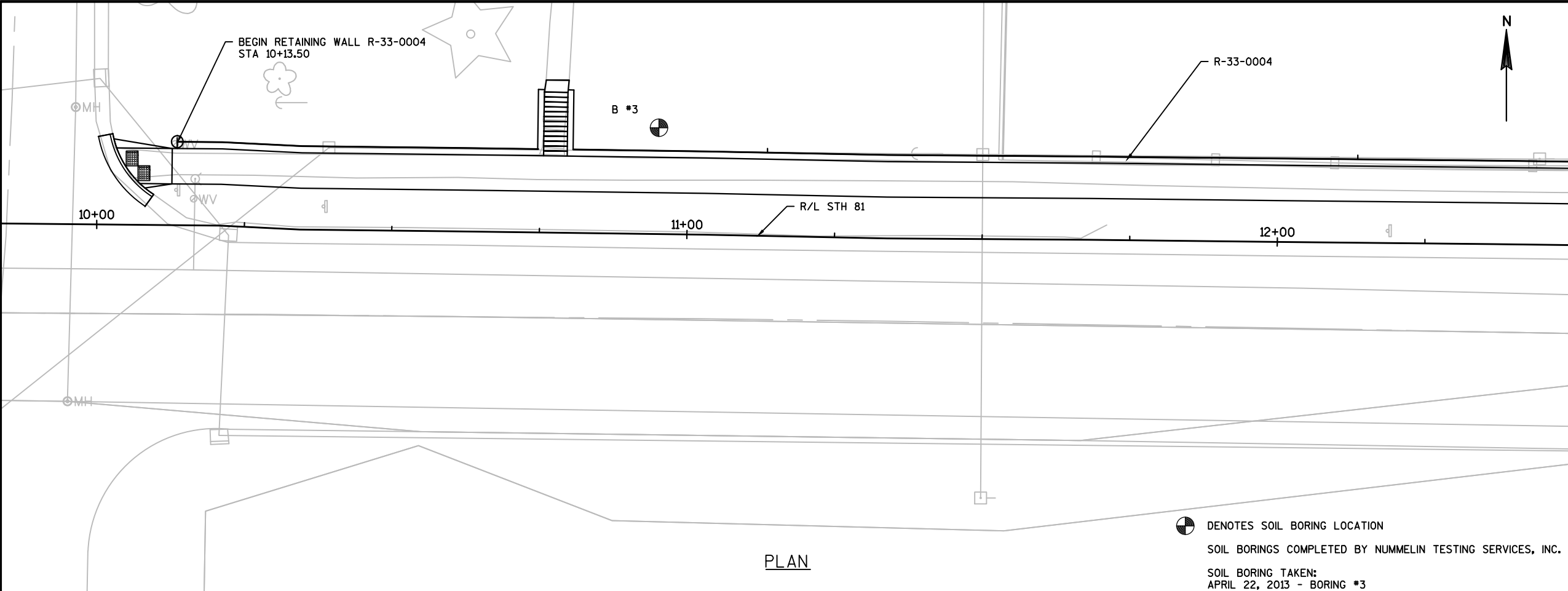
B528

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0004			
DRAWN BY AFD		PLANS CK'D. JDG	
REINFORCEMENT SCHEDULE		SHEET 10 OF 14	
		86	

**NOTES:**

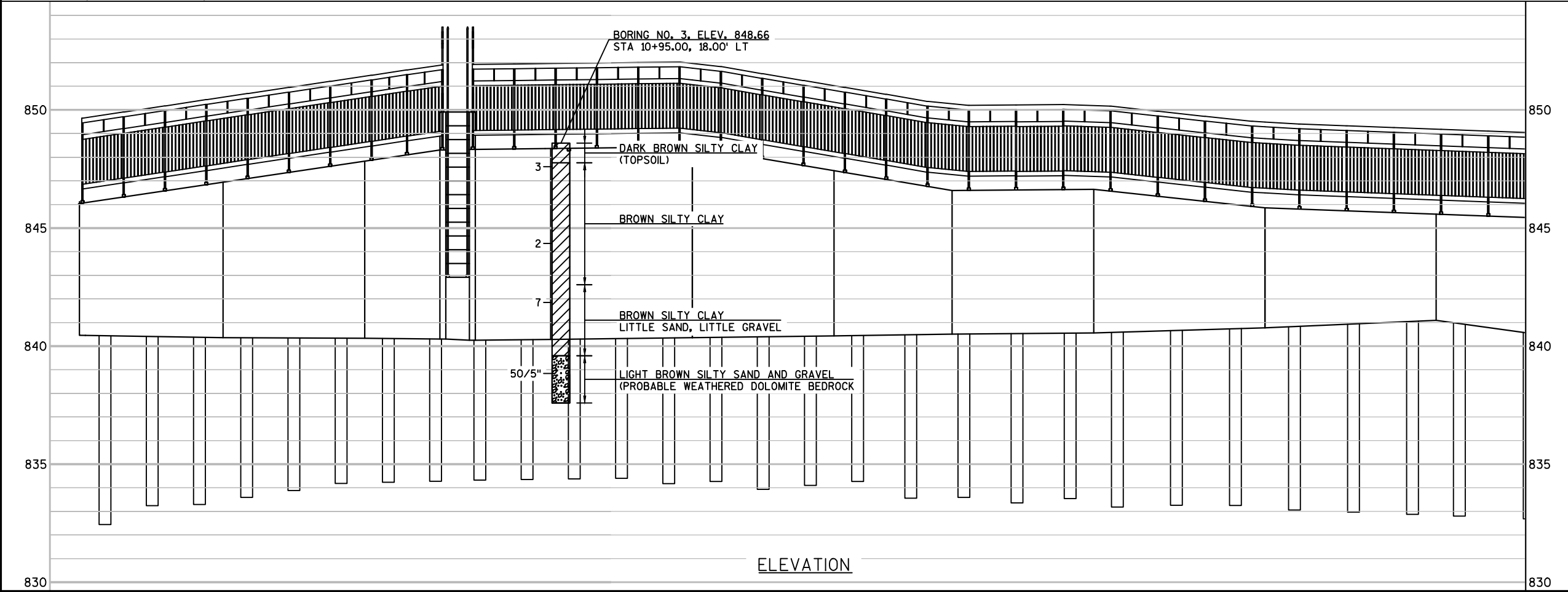
"A" REPRESENTS THE SAME RAILING POST
ALL POST SPACES ARE TAKEN HORIZONTALLY
ALONG C/L RAILING

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STRUCTURE R-33-0004			
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RAILING AND ARCHITECTURAL DETAILS		SHEET 11 OF 14	



PLAN

DENOTES SOIL BORING LOCATION
SOIL BORINGS COMPLETED BY NUMMELIN TESTING SERVICES, INC.
SOIL BORING TAKEN:
APRIL 22, 2013 - BORING #3



ELEVATION

STATE PROJECT NUMBER

5944-03-84

NOTE:
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.
BORING STATIONS AND OFFSETS ARE BASED ON STH 81 TOP OF CURB E.L.

ABBREVIATIONS

F— Fine M— Medium C— Coarse
Ws— Weathered So— Sound

MATERIAL SYMBOLS

TOPSOIL/ FILL Sand Gravel
Silt Peat Clay
Sandstone Limestone Igneous Rock

LEGEND OF PROBING

Probing No.
Sta.
Elevation
7 Average Blows Per Foot
Refusal

LEGEND OF BORING

Boring No.
Sta.
Elev.
Unconfined STRENGTH → 7.7
Blows Per 6-IN. USING 10* WT. FALLING 24"
Wash Sample
Shelby Tube —S.T.
Ground Water ELEVATION
No Ground Water OBSERVED ABOVE THIS ELEVATION
Sandy Gravel
F. Boulders or COBBLES
Sand
Silty Clay
So
Limestone

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER 6-INCH AT THE LOCATIONS INDICATED ARE BASED ON DCP TESTING. THE DCP TESTS WERE PERFORMED USING A SOLID METAL ROD FITTED WITH A 1-3/8-INCH DIAMETER CONICAL POINT. THE POINT IS DRIVEN INTO THE SOIL WITH A 10-POUND WEIGHT FALLING 24-INCHES. THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE, HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

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700 N Third Street
Suite 104
La Crosse, WI 54601
Engineers & Architects Phone: (608) 519-1455

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-33-0004

DRAWN BY KPM PLANS CK'D. Name

SUBSURFACE EXPLORATION SHEET 12 OF 14

NOTES

BID ITEM SHALL BE 'RAILING PIPE, R-33-0004' WHICH INCLUDES ALL ITEMS SHOWN AND PAINTING.

RAILING TO BE PLACED ON BOTH SIDES OF STEPS.

ALL SPACINGS ARE TAKEN HORIZONTALLY ALONG CENTER LINE OF RAILING.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

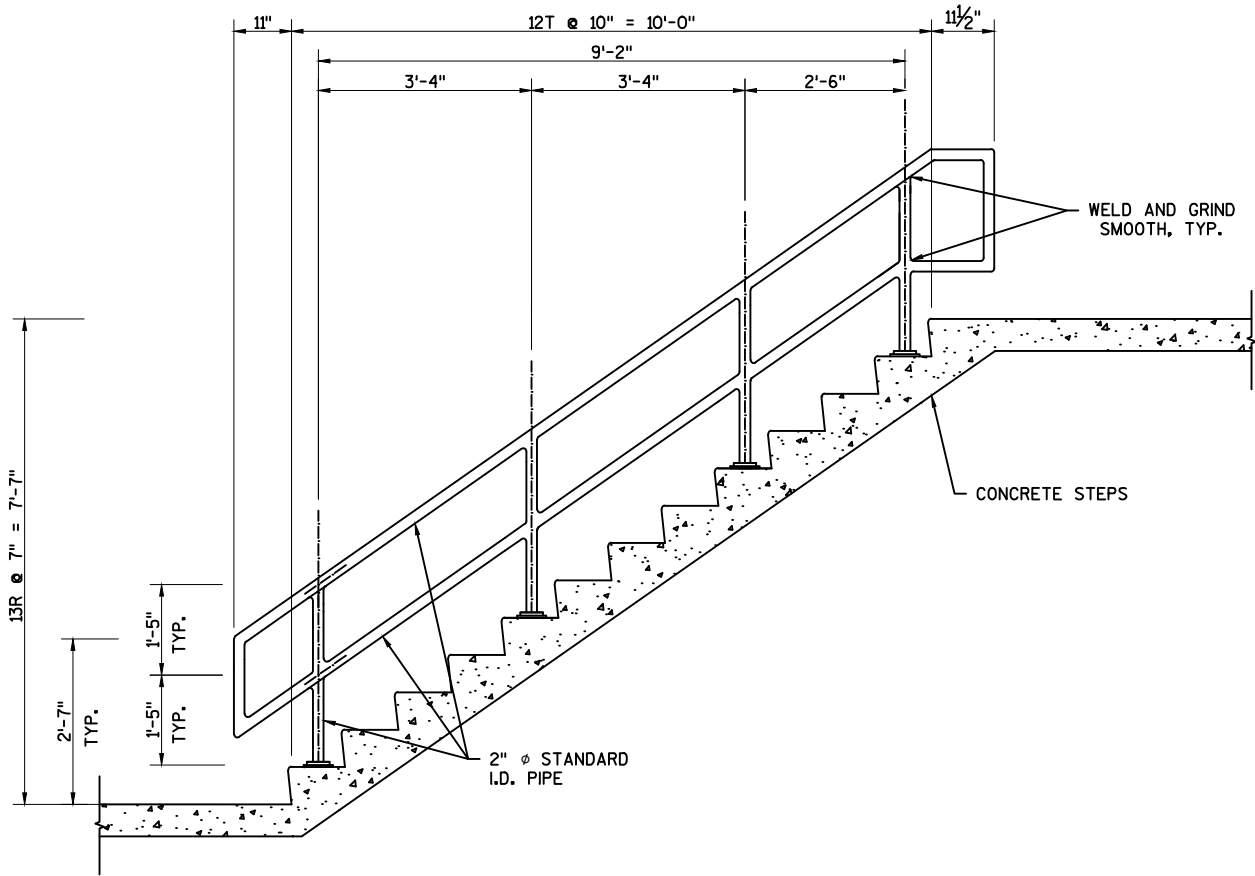
AFTER FABRICATION, ALL MATERIAL SHALL BE PAINTED WITH A THREE COAT ZINC-RICH EPOXY SYSTEM. THE FINISH COLOR SHALL BE BLACK, FED-STD. COLOR NO. 27038. PRIOR TO PAINTING, ALL MEMBERS SHALL BE GIVEN A NO. 11 NEAR WHITE BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

RAILING SHALL BE FABRICATED IN LENGTHS AS SHOWN.

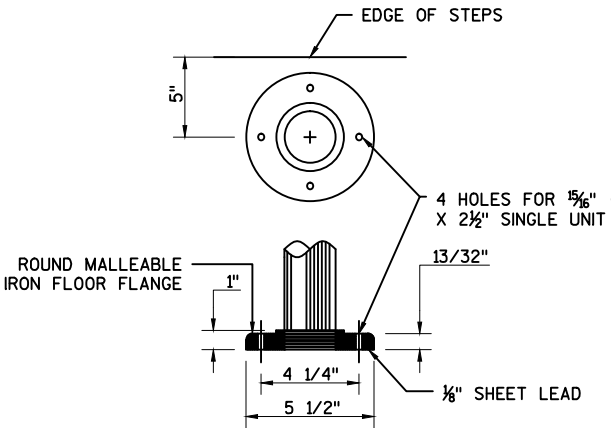
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

ALL POSTS AND RAILS SHALL BE WELDED TOGETHER WITH MIN. 3/16" FILLET WELDS ALL AROUND AND GROUND SMOOTH.

REFER TO R-33-0004 STRUCTURE DRAWINGS FOR CONCRETE STEP DETAILS.



STAIRS C AT STA 200+64.09'B'



FLANGE DETAIL

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STRUCTURE		R-33-0004	
		DRAWN BY AFD	PLANS CK'D. JDG
PIPE RAILING DETAIL		SHEET 13 OF 14	
		89	

NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN R-33-0004", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN AND PAINTING

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 1, 2, 6, 9, AND NO. 10 SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO. 4,5,7,8).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO. 1 AND CAULK AROUND PERIMETER OF PLATE NO. 1 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS IN C.I.P. CONCRETE RETAINING WALL ARE TO BE VERTICAL.

AFTER FABRICATION, ALL MATERIAL, EXCEPT ANCHORAGE (NO. 2 & 3) AND SHIMS SHALL BE PAINTED WITH A THREE COAT ZINC-RICH EPOXY SYSTEM PER WISDOT STANDARD SPECIFICATION, SECTION 517, EPOXY SYSTEM. SHIMS SHALL BE GIVEN ONE COAT OF ZINC RICH PRIMER PAINT. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038, BLACK.

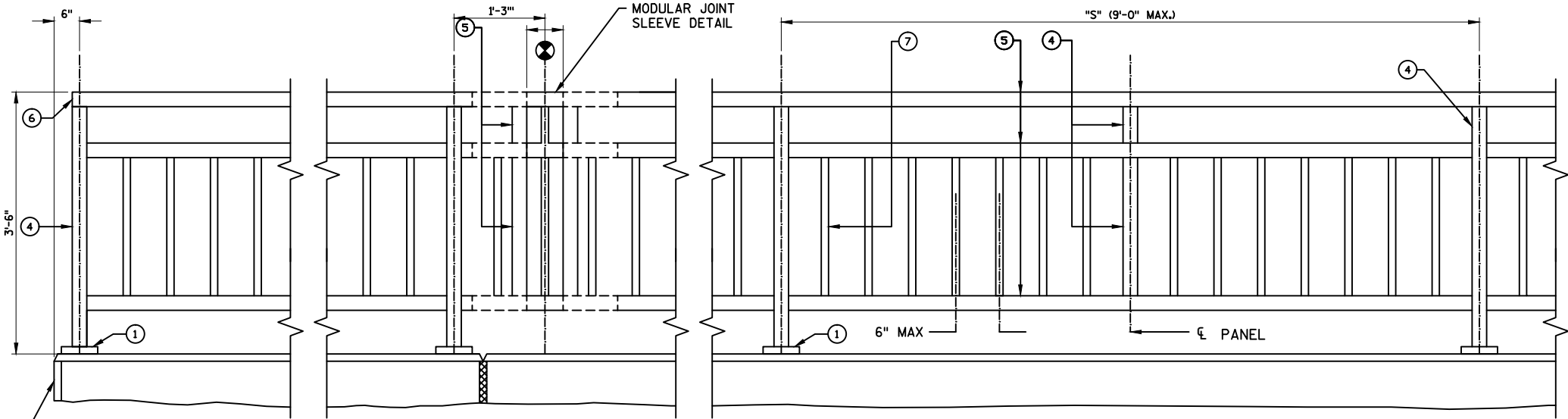
1/4" VENT HOLES LOCATED IN TOP RAIL OVER RAIL POSTS AND AT LOW END OF OTHER RAILS.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

LEGEND

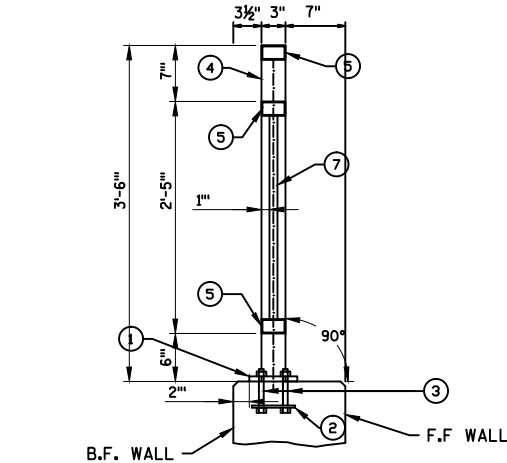
- ① PLATE 5/8" X 6" X 8" WITH 3/4" X 1 1/2" SLOTTED HOLES.
- ② 1/4" X 5" X 7" ANCHOR PLATE WITH 1/8" Ø HOLES FOR ANCHOR BOLTS NO. 3.
- ③ 5/8" DIA. X 7 1/2" LONG ASTM F593 TYPE 316 STAINLESS STEEL ANCHOR BOLTS WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE - 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY) 5/8" Ø, MINIMUM PULLOUT CAPACITY OF 15 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS)
- ④ STRUCTURAL TUBING 3" X 1 1/2" X 3/16". PLACE VERTICAL. WELD TO NO. 1 & 5.
- ⑤ STRUCTURAL TUBING 3" X 1 1/2" X 3/16" RAILS. WELD TO NO. 4.
- ⑥ PLATE 3/8" X 3" X 1 1/2" END CAP. WELD TO NO. 5 AND GRIND SMOOTH.
- ⑦ STRUCTURAL TUBING 1" X 1" X 1/8" PICKETS. WELD TO NO. 5 SPACE AT 6" MAX. C/L SPACING. PLACE VERTICAL.
- ⑧ STRUCTURAL TUBING 1" X 1 1/2" X 3/8" PICKETS. WELD TO NO. 11. PLACE VERTICAL.
- ⑨ RECTANGULAR SLEEVE FABRICATED FROM 3/8" PLATES. PROVIDE "SLIDING FIT".
- ⑩ RECTANGULAR SLEEVE FABRICATED FROM 3/8" PLATES. (1'-4" @ FIELD ERECTION JOINTS).
- ⑪ BAR 2 1/2" X 1" X 2'-0"
- ⑫ 1/2" DIA. STAINLESS STEEL BOLT WITH NUT AND LOCKWASHER.



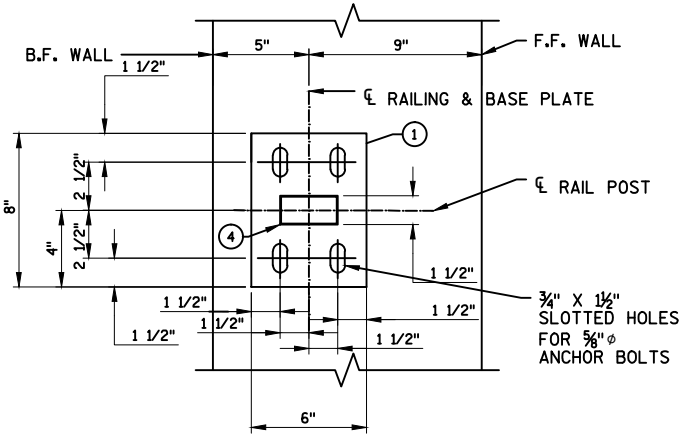
RAILING ELEVATION

"S" DENOTES RAIL POST SPACING. SEE SHEETS **-**.

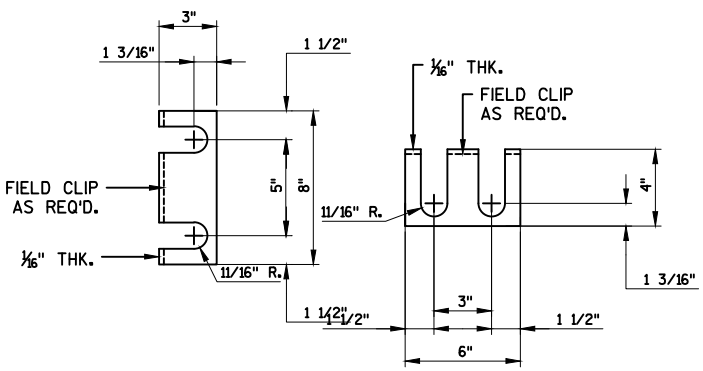
⊗ RAILING OPENING TO BE 6" AT 45°F. MOVEMENT ADJUSTMENT SHALL BE MADE AT A RATE OF 1" PER 20°F.



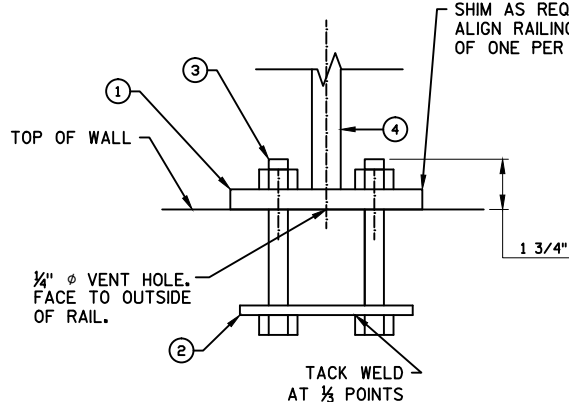
SECTION THRU RAILING



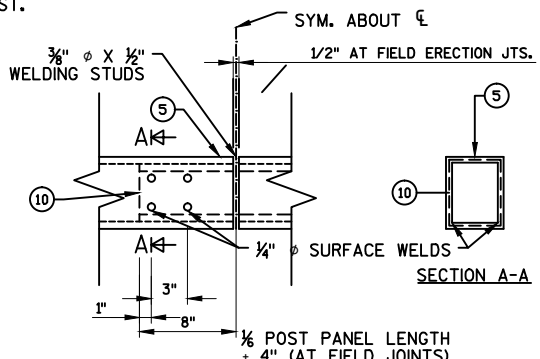
TYPICAL RAIL POST BASE PLATE



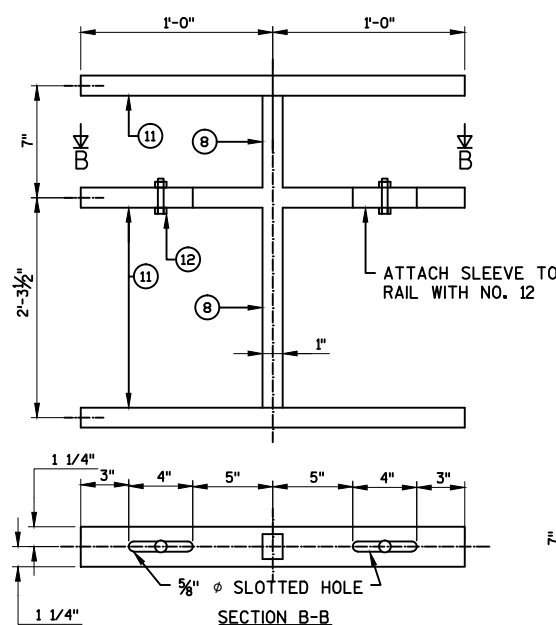
RAIL POST SHIM DETAIL
(2 SETS PER POST)



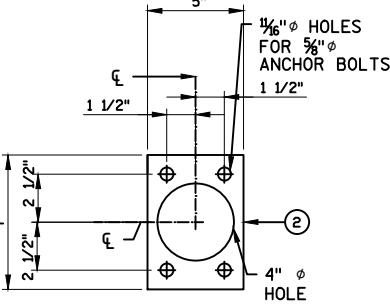
ANCHOR BOLTS FOR RAIL POSTS
NOTE: ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED



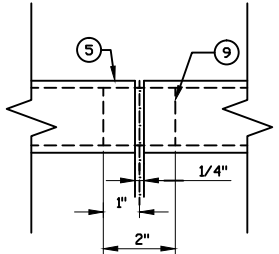
FIELD ERECTION JOINT DETAIL
*MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



MODULAR JOINT SLEEVE DETAIL

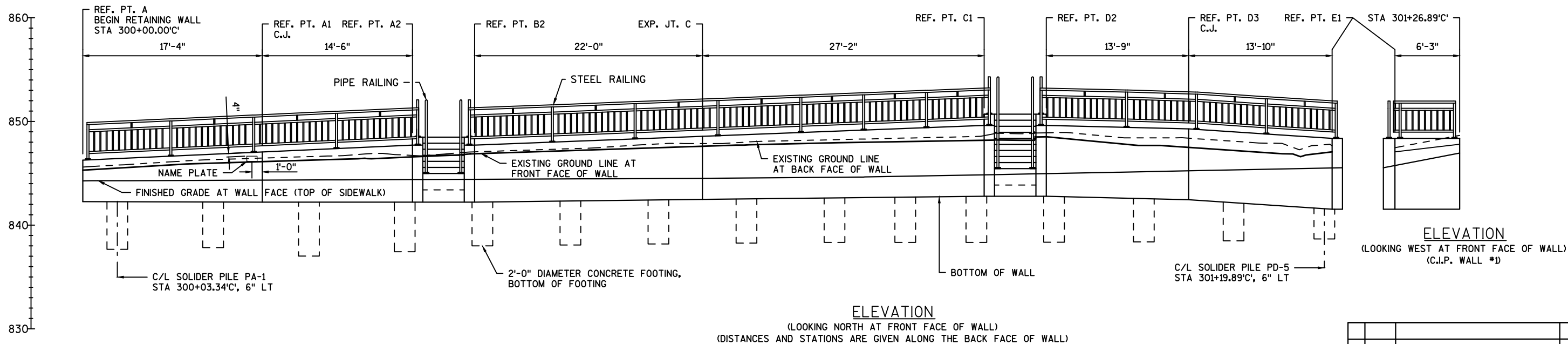
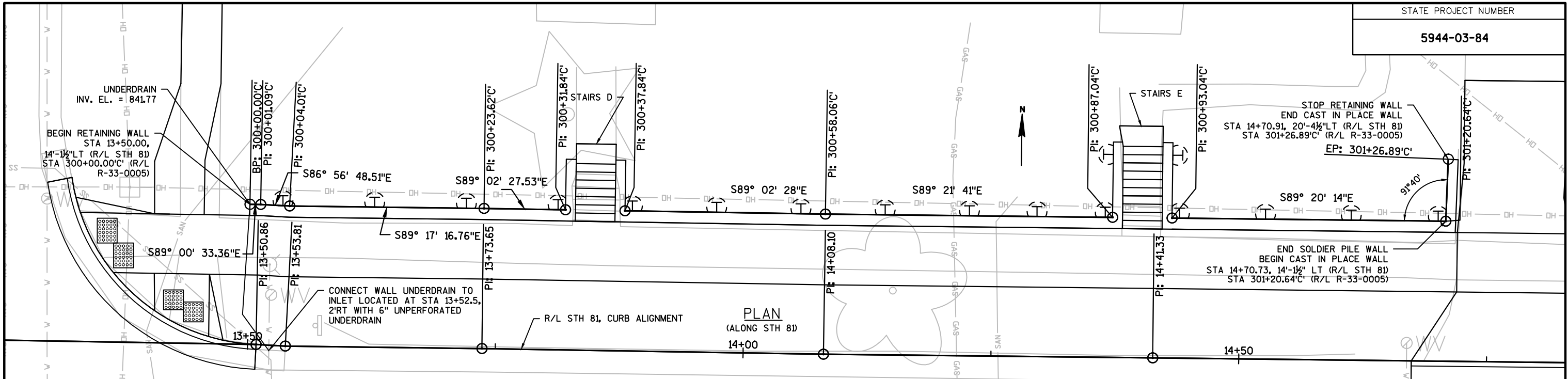


ANCHOR PLATE



SHOP RAIL
SPlice DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

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STRUCTURE R-33-0004			
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STEEL RAILING DETAILS		SHEET 14 OF 14	



NOTES

CONNECT THE UNDERDRAIN PIPE BENEATH THE SHEAR WALLS TO THE UNDERDRAIN PIPE BENEATH THE WALL ALONG STH 81.

CONNECTION FROM UNPERFORATED PIPE TO INLET IS INCIDENTAL TO PIPE UNDERDRAIN.

LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE
P"X"-#" = PILE IDENTIFICATION

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. GENERAL PLAN AND ELEVATION
3. GENERAL PLAN AND ELEVATION
4. GENERAL NOTES & PILE/REFERENCE INFORMATION
5. ESTIMATED QUANTITIES & PILE/REFERENCE INFORMATION
6. TYPICAL SECTIONS
7. TYPICAL SECTIONS
8. REINFORCEMENT LAYOUT
9. REINFORCEMENT LAYOUT
10. REINFORCEMENT LAYOUT
11. C.I.P. DETAILS
12. STAIRS D DETAILS
13. STAIRS E DETAILS
14. STAIRS F DETAILS
15. STAIRS G DETAILS
16. REINFORCEMENT SCHEDULE
17. RAILING AND ARCHITECTURAL DETAILS
18. RAILING AND ARCHITECTURAL DETAILS
19. SUBSURFACE EXPLORATION
20. PIPE RAILING DETAILS
21. STEEL RAILING DETAILS

DESIGN DATA

LIVE LOAD:

LIVE LOAD SURCHARGE: 100 P.S.F.

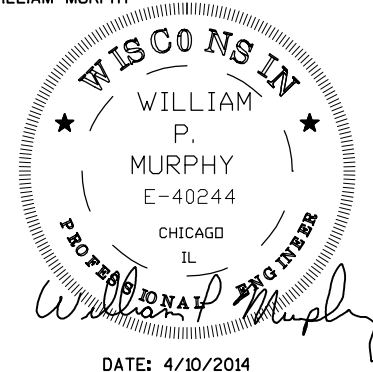
MATERIAL PROPERTIES:

CONCRETE MASONRY $f'_c = 4,000$ P.S.I.
BAR STEEL REINFORCEMENT (GRADE 60) $f_y = 60,000$ P.S.I.
STRUCTURAL STEEL HS $f_y = 50,000$ P.S.I.
*TIMBER LAGGING $E = 1,800,000$ P.S.I.
 $f_{bo} = 1,000$ P.S.I.
PILE FOOTINGS $f'_c = 3,500$ P.S.I.

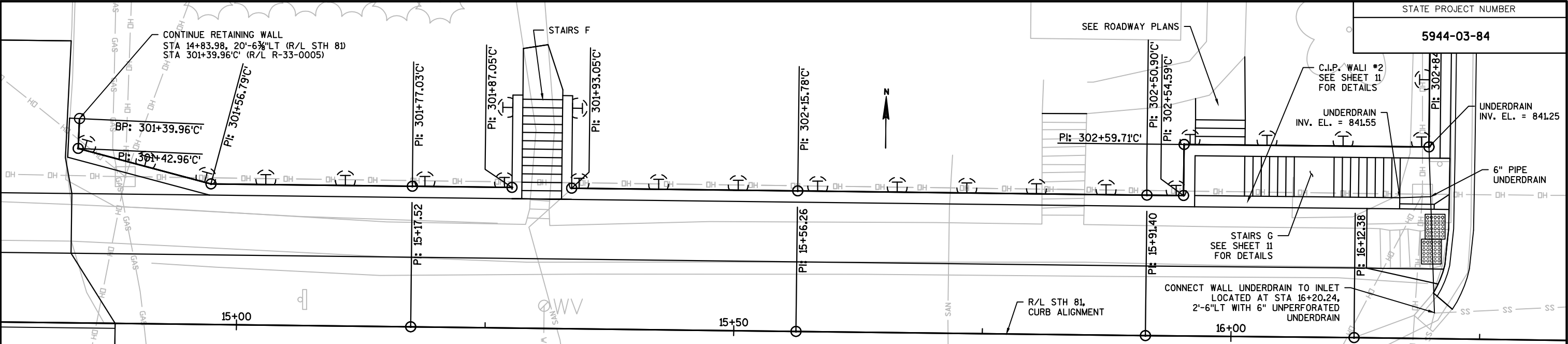
* MATERIAL VALUES BASED ON DOUGLAS FIR-LARCH
NO. 1, 3" THICK, REFERENCE AASHTO LRFD
SPECIFICATIONS TABLE 8.4.1.1.4-1.

STRUCTURE DESIGN CONTACTS

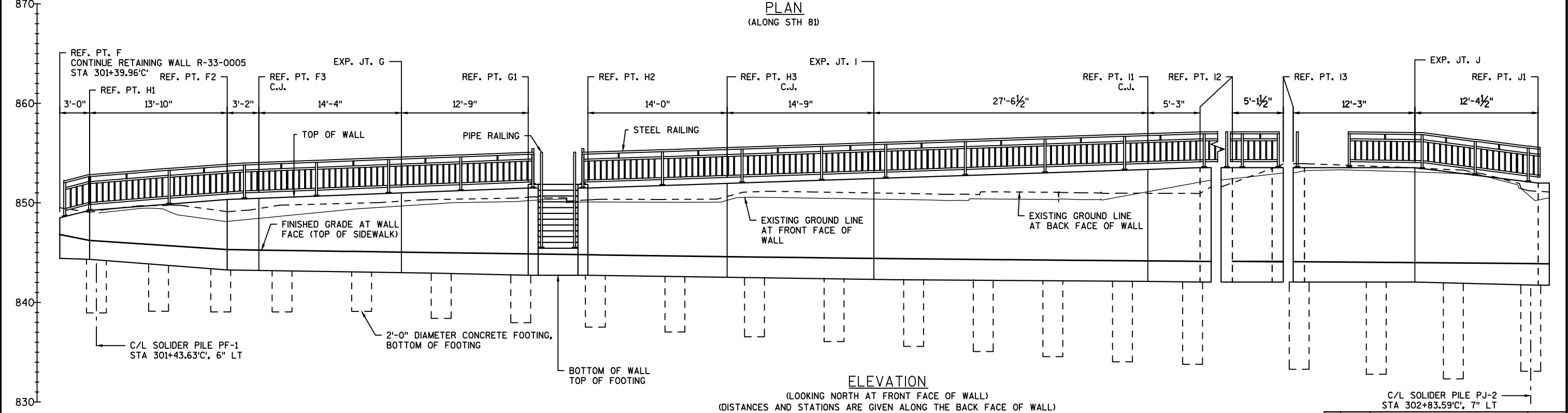
BRIDGE OFFICE: WILLIAM DREHER
(608)-266-8489
CONSULTANT: WILLIAM MURPHY
(312)-577-3327



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KNIGHT		700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> KAR		04/11/14
CHIEF STRUCTURES DESIGN ENGINEER			DATE
STRUCTURE		R-33-0005	
STH 81 ALONG LOUISA STREET			
COUNTY	CITY		
LAFAYETTE	DARLINGTON		
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN 2012 SIXTH EDITION			
DESIGNED BY AFD	DESIGN CK'D. WPM	DRAWN BY AFD	PLANS CK'D. JDG
GENERAL PLAN AND ELEVATION			SHEET 1 OF 21
			91



PLAN
(ALONG STH 81)



ELEVATION

(LOOKING NORTH AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE BACK FACE OF WALL)

8

NOTES

CONNECT THE UNDERDRAIN PIPE BENEATH THE SHEAR WALLS TO THE UNDERDRAIN PIPE BENEATH THE WALL ALONG STH 81.
CONNECTION FROM UNPERFORATED PIPE TO INLET IS INCIDENTAL TO PIPE UNDERDRAIN.

LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
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C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE
P"X"-I*" = PILE IDENTIFICATION

STATE PROJECT NUMBER
5944-03-84

UNDERDRAIN
INV. EL. = 841.25
6" PIPE UNDERDRAIN

STAIRS G
SEE SHEET 11
FOR DETAILS

CONNECT WALL UNDERDRAIN TO INLET
LOCATED AT STA 16+20.24,
2'-6"LT WITH 6" UNPERFORATED
UNDERDRAIN

UNDERDRAIN
INV. EL. = 841.55

C.I.P. WALL #2
SEE SHEET 11
FOR DETAILS

SEE ROADWAY PLANS

STAIRS F

CONTINUE RETAINING WALL
STA 14+83.98, 20'-6 3/4"LT (R/L STH 81)
STA 301+39.96'C (R/L R-33-0005)

BP: 301+39.96'C
PI: 301+42.96'C
PI: 301+56.79'C
PI: 301+77.03'C
PI: 301+87.05'C
PI: 301+93.05'C
PI: 302+15.78'C
PI: 302+59.71'C
PI: 302+50.90'C
PI: 302+54.59'C
PI: 302+84.125'C

15+00
15+50
16+00

R/L STH 81,
CURB ALIGNMENT

WV

SS

NO.	DATE	REVISION	BY

KNIGHT

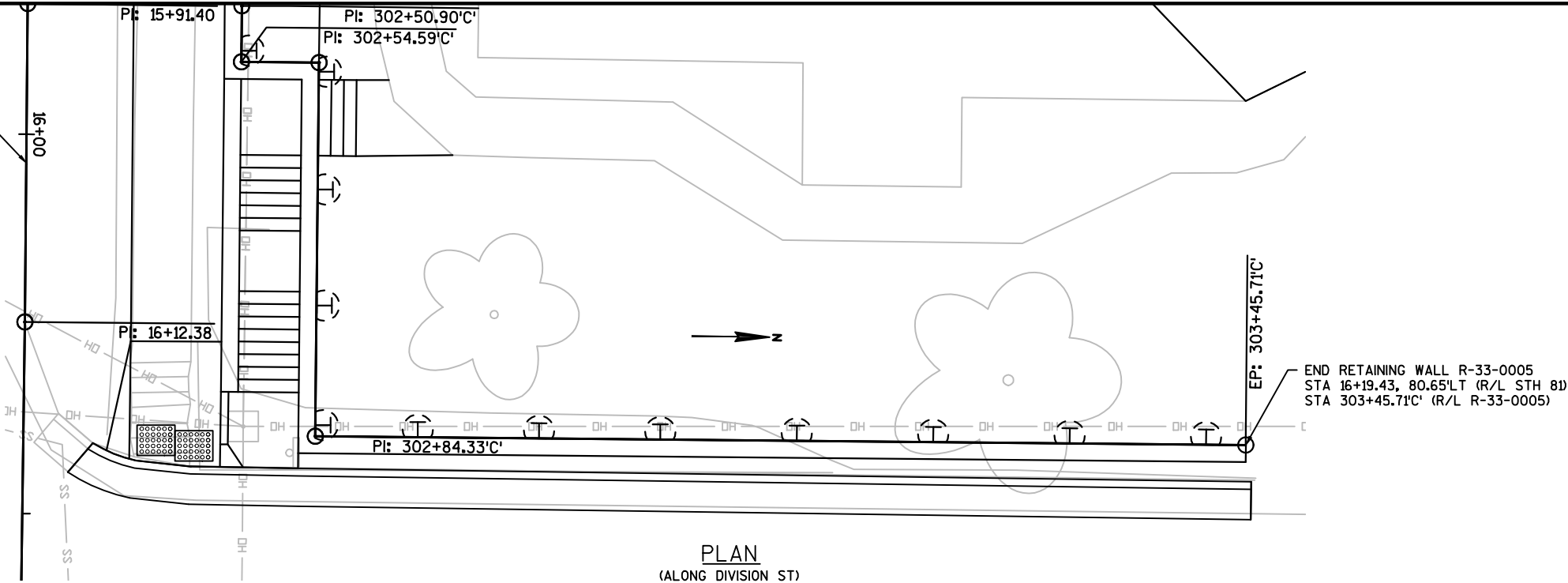
700 N Third Street
Suite 104
La Crosse, WI 54601
Engineers & Architects Phone: (608) 519-1455

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION
STRUCTURE R-33-0005
DRAWN BY AFD
PLANS CK'D. JDG
GENERAL PLAN AND ELEVATION
SHEET 2 OF 21

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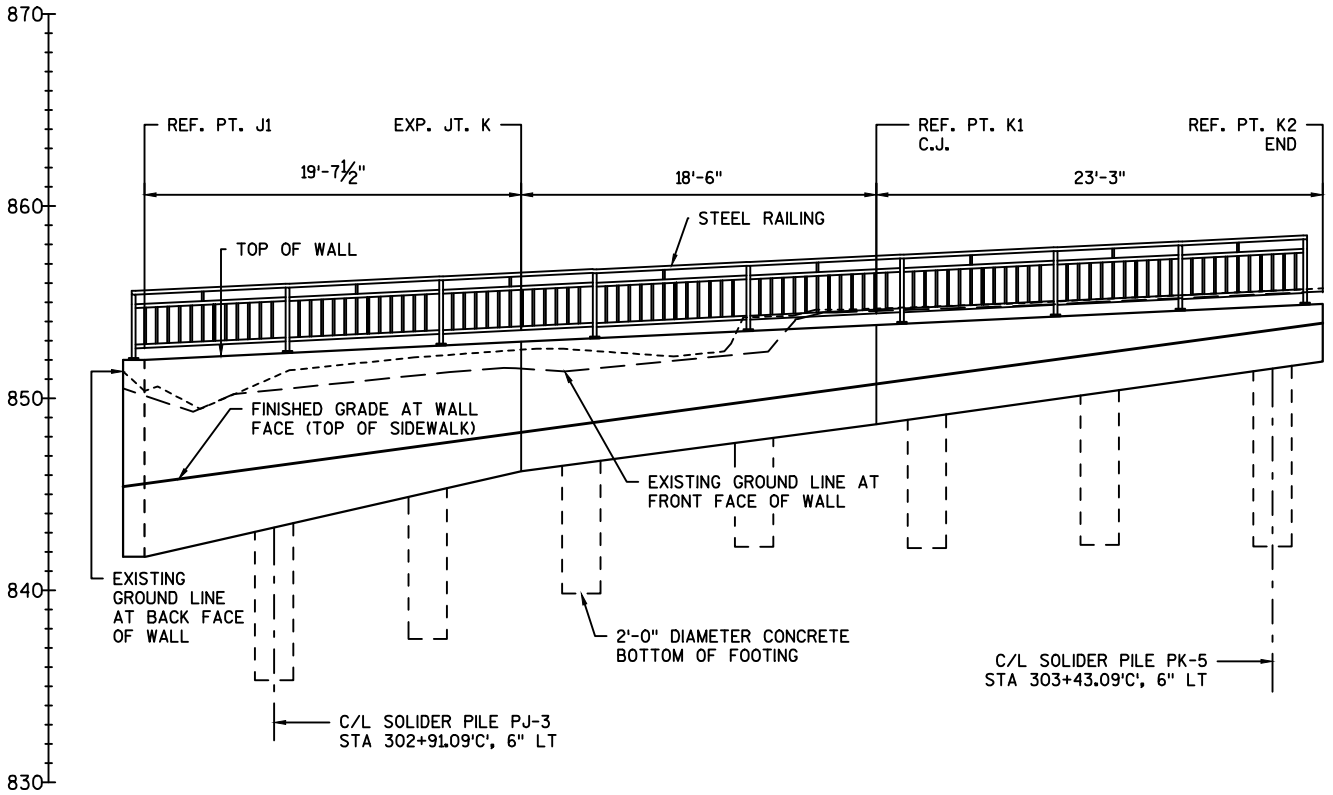
8

R/L STH 81, CURB ALIGNMENT



ALIGNMENT INFORMATION

PI STA	NORTHING	EASTING
301+39.96	166026.39	484164.55
301+42.96	166023.40	484164.42
301+56.79	166019.82	484177.78
301+77.03	166019.59	484198.02
301+87.05	166019.47	484208.03
301+93.05	166019.40	484214.03
302+15.78	166019.12	484236.77
302+50.90	166018.70	484271.88
302+54.59	166018.66	484275.57
302+59.71	166023.79	484275.62
302+84.33	166023.54	484300.24
303+45.71	166084.91	484300.82



LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE
P"X"- "*" = PILE IDENTIFICATION

NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0005			
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GENERAL PLAN AND ELEVATION		SHEET 3 OF 21	

PILE/ REFERENCE INFORMATION

STA	REFERENCE/ PILE NUMBER	OFFSET SEE NOTE 12	FINISH GRADE AT WALL FACE	WALL HEIGHT (FT)	TOP OF WALL	BOTTOM OF WALL	TOP OF PILE	TOP OF FOOTING	BOTTOM OF FOOTING	FOOTING LENGTH	SOLDIER PILE SECTION	SOLDIER PILE LENGTH (FT)	NO. OF STUDS
300+00.00'C	REF. PT. A	START	844.274	4.00	846.27	842.27	START	START	START	START	START	START	START
300+03.34'C	PA-1	6"	844.286	4.16	846.43	842.26	844.93	842.26	837.68	4.59	HP-12X63	7.25	6
300+12.59'C	PA-2	6"	844.323	4.60	846.84	842.24	845.34	842.24	837.84	4.40	HP-12X63	7.50	6
300+17.34'C	REF. PT. A	C.J.	844.343	4.83	847.06	842.23	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.
300+21.84'C	PA-3	6"	844.361	5.05	847.26	842.21	845.76	842.21	837.01	5.20	HP-12X63	8.75	8
300+31.09'C	PA-4	6"	844.398	5.47	847.68	842.21	846.18	842.21	837.43	4.78	HP-12X63	8.75	16
300+31.84'C	REF. PT. A1	STAIRS	844.401	5.50	847.72	842.22	REF. PT. A1	REF. PT. A1	REF. PT. A1	REF. PT. A1	REF. PT. A1	REF. PT. A1	REF. PT. A1
300+31.84'C	REF. PT. A2	5'-1 ½"	844.401	2.00	848.48	846.48	REF. PT. A2	REF. PT. A2	REF. PT. A2	REF. PT. A2	REF. PT. A2	REF. PT. A2	REF. PT. A2
300+37.84'C	REF. PT. B1	5'-1 ½"	844.425	2.00	848.48	846.48	REF. PT. B1	REF. PT. B1	REF. PT. B1	REF. PT. B1	REF. PT. B1	REF. PT. B1	REF. PT. B1
300+37.84'C	REF. PT. B2	STAIRS	844.425	5.50	847.72	842.22	REF. PT. B2	REF. PT. B2	REF. PT. B2	REF. PT. B2	REF. PT. B2	REF. PT. B2	REF. PT. B2
300+38.59'C	PB-1	6"	844.428	5.52	847.74	842.22	846.24	842.22	837.99	4.23	HP-12X63	8.25	16
300+47.09'C	PB-2	6"	844.461	5.76	848.07	842.31	846.57	842.31	838.07	4.24	HP-12X63	8.50	8
300+55.59'C	PB-3	6"	844.510	6.00	848.40	842.40	846.90	842.40	838.15	4.25	HP-12X63	8.75	8
300+58.85'C	EXP. JT. C	E.J.	844.531	6.09	848.53	842.44	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.
300+64.09'C	PC-1	6"	844.565	6.23	848.73	842.49	847.23	842.49	838.23	4.27	HP-12X63	9.00	8
300+72.59'C	PC-2	6"	844.620	6.46	849.06	842.60	847.56	842.60	838.31	4.29	HP-12X63	9.25	8
300+79.42'C	PC-3	6"	844.711	6.63	849.32	842.69	847.82	842.69	838.32	4.37	HP-12X63	9.50	10
300+86.29'C	PC-4	6"	844.832	6.81	849.59	842.78	848.09	842.78	838.34	4.44	HP-12X63	9.75	20
300+86.29'C	PC-5	6'-4 ¼"	844.832	2.91	850.66	847.75	849.16	847.75	838.41	9.34	HP-12X63	10.75	4
300+87.04'C	REF. PT. C1	STAIRS	844.845	6.83	849.62	842.79	REF. PT. C1	REF. PT. C1	REF. PT. C1	REF. PT. C1	REF. PT. C1	REF. PT. C1	REF. PT. C1
300+87.04'C	REF. PT. C2	7'- 7 ½"	844.845	2.00	850.66	848.66	REF. PT. C2	REF. PT. C2	REF. PT. C2	REF. PT. C2	REF. PT. C2	REF. PT. C2	REF. PT. C2
300+93.04'C	REF. PT. D1	7'- 7 ½"	844.963	2.00	850.66	848.66	REF. PT. D1	REF. PT. D1	REF. PT. D1	REF. PT. D1	REF. PT. D1	REF. PT. D1	REF. PT. D1
300+93.04'C	REF. PT. D2	STAIRS	844.963	6.83	849.62	842.79	REF. PT. D2	REF. PT. D2	REF. PT. D2	REF. PT. D2	REF. PT. D2	REF. PT. D2	REF. PT. D2
300+93.79'C	PD-1	6'-4 ¼"	844.978	2.91	850.66	847.75	849.16	847.75	838.41	9.34	HP-12X63	10.75	4
300+93.79'C	PD-2	6"	844.978	6.83	849.62	842.79	848.12	842.79	838.37	4.42	HP-12X63	9.75	20
301+02.46'C	PD-3	6"	845.153	6.83	849.62	842.79	848.12	842.79	838.62	4.17	HP-12X63	9.50	10
301+06.79'C	REF. PT. D3	C.J.	845.240	6.83	849.35	842.51	847.85	842.51	838.60	3.92	HP-12X63	9.25	10
301+11.12'C	PD-4	6"	845.327	6.83	849.04	842.21	847.54	842.21	838.54	3.67	HP-12X63	9.00	10
301+19.89'C	PD-5	6"	845.504	6.83	848.43	841.59	846.93	841.59	838.43	3.17	HP-12X63	8.50	20
301+20.64'C	REF. PT. E1	CORNER	845.519	6.83	848.37	841.54	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER
301+26.89'C	REF. PT. E2	STOP	844.102	6.83	848.37	841.54	STOP	STOP	STOP	STOP	STOP	STOP	STOP

STATE PROJECT NUMBER

PROJECTNUMBER

GENERAL NOTES:

ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 GRADE 50 EXCEPT AS NOTED ON PLANS.

THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND PERFORMANCE OF THE TIMBER LAGGING USING NO LESS THAN A 3-INCH ROUGH-SAWN THICKNESS AND TIMBER WITH A MINIMUM ALLOWABLE BENDING STRESS OF 1000 P.S.I.

DRAWINGS SHALL NOT BE SCALED.

BEVELED EXPOSED EDGES OF CONCRETE IS ¾-INCH, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES, UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

ARCHITECTURAL SURFACE TREATMENT SHALL ACCURATELY DUPLICATE "RUSTIC ASHLAR" LIMESTONE. THE STONE SHALL BE 8-INCH TO 32-INCH WITH A MAXIMUM RELIEF OF 1 ½-INCH. SEE SPECIAL PROVISIONS.

ALL REINFORCEMENT SHALL HAVE A MINIMUM OF 2-INCHES CLEAR COVER UNLESS SHOWN OTHERWISE. REINFORCEMENT IN FACES CAST PERMANENTLY AGAINST EARTH SHALL HAVE A MINIMUM OF 3-INCHES CLEAR COVER.

IF THE UNDERGROUND UTILITY CONFLICTS WITH A PILE, THAT PILE MAY BE RELOCATED WITHIN 1'-0" FROM THE CALLED OUT LOCATION. DO NOT LOCATE A PILE LESS THAN 1'-0" FROM A CONTRACTION JOINT. PILES LOCATED AT CORNERS OF THE RETAINING WALL SHALL ONLY BE ADJUSTED WITH ENGINEER'S APPROVAL.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES RETAINING WALLS R-33-0006."

OFFSET IS BASED OFF OF BACK FACE OF WALL ALIGNMENT TO CENTER OF PILE.

CONTROLLED LOW STRENGTH MATERIAL AND FLOWABLE BACKFILL ARE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-33-0006." SEE SPECIAL PROVISIONS FOR DESCRIPTION OF CONTROLLED LOW STRENGTH MATERIAL AND FLOWABLE BACKFILL.

6" DRAINAGE PIPE HAS A MINIMUM SLOPE OF 0.5%.

STAINING CONCRETE SHALL ACCURATELY DUPLICATE WEATHERED LIMESTONE COLORATION. COLOR IS MEDIUM TAN # 33446. SEE SPECIAL PROVISIONS.

BACK FACE OF WALL FOLLOWS STH 81 CURB ALIGNMENT, 14'-1½" TYPICAL OFFSET. SEE ROADWAY PLAN FOR CURB ALIGNMENT DETAILS.

BACK FILL THE FACES OF THE WALL EQUALLY.

SHAFT EXCAVATION FOR ALL PILES ARE 2'-0" DIAMETER.

CONSTRUCT A TYPICAL SOLDIER PILE WALL FROM STA 300+00.00'C' TO STA 301+20.64'C' AND STA 301+39.96'C' TO STA 303+45.71'C'. CONSTRUCT A TYPICAL CAST IN PLACE CONCRETE WALL FROM STA 301+20.64'C' TO STA 301+26.89'C' AND A CAST IN PLACE CONCRETE WALL WITH FOOTING FROM STA 15+96.24 TO STA 16+16.81.

SOIL PARAMETERS

SOIL UNIT	TOTAL UNIT WEIGHT, PCF	UNDRAINED, DISTURBED			DRAINED	
		UNDRAINED SHEAR STRENGTH, SU, PSF	FRICTION ANGLE, Φ, DEG	COHESION, C' PSF	COHESION, C', PSF	FRICTION ANGLE, Φ, DEG
LEAN CLAY	130	3800	6	200	0	30
WEATHERED DOLOMITE BEDROCK	140				0	45

NO.

DATE

REVISION

BY

KNIGHT

700 N Third Street
Suite 104
La Crosse, WI 54601
Engineers & Architects Phone: (608) 519-1455

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE

R-33-0005

DRAWN
BY

AFD

PLANS
CK'D. JDG

GENERAL NOTES &
PILE/ REFERENCE
POINT INFORMATION

SHEET 4 OF 21

94

PILE/ REFERENCE INFORMATION

STATE PROJECT NUMBER

5944-03-84

STA	REFERENCE/ PILE NUMBER	OFFSET SEE NOTE 12	FINISH GRADE AT WALL FACE	WALL HEIGHT (FT)	TOP OF WALL	BOTTOM OF WALL	TOP OF PILE	TOP OF FOOTING	BOTTOM OF FOOTING	FOOTING LENGTH	SOLDIER PILE SECTION	SOLDIER PILE LENGTH (FT)	NO. OF STUDS
301+39.96'C	REF. PT. F	CONTINUE	846.847	4.08	848.53	844.44	REF. PT. F	REF. PT. F	REF. PT. F	REF. PT. F	REF. PT. F	REF. PT. F	REF. PT. F
301+42.96'C	REF. PT. F1	CORNER	846.240	5.08	849.25	844.17	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER
301+43.63'C	PF-1	6"	846.240	5.18	849.30	844.12	847.80	844.12	838.80	5.32	HP-12X63	9.00	8
301+49.88'C	PF-2	6"	845.757	6.08	849.80	843.72	848.30	843.72	839.05	4.67	HP-12X63	9.25	8
301+56.13'C	PF-3	6"	845.274	6.99	850.30	843.31	848.80	843.31	839.05	4.26	HP-12X63	9.75	10
301+56.79'C	REF. PT. F2	CORNER	845.223	7.08	850.35	843.27	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER
301+59.96'C	REF. PT. F3	C.J.	845.192	7.33	850.47	843.14	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.
301+62.30'C	PF-4	6"	845.159	7.46	850.58	843.12	849.08	843.12	839.08	4.04	HP-12X63	10.00	10
301+70.30'C	PF-5	6"	845.046	7.87	850.95	843.07	849.45	843.07	839.20	3.88	HP-12X63	10.25	10
301+74.30'C	EXP. JT. G	E.J.	844.990	8.08	851.13	843.05	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.
301+78.30'C	PG-1	6"	844.934	8.29	851.25	842.96	849.75	842.96	838.50	4.46	HP-12X63	11.25	12
301+86.30'C	PG-2	6"	844.822	8.71	851.48	842.77	849.98	842.77	837.98	4.79	HP-12X63	12.00	24
301+86.30'C	PG-3	8'-1"	844.822	2.93	851.78	848.85	850.28	848.85	838.03	10.82	HP-12X63	12.25	4
301+87.05'C	REF. PT. G1	STAIRS	844.811	8.75	851.50	842.75	REF. PT. G1	REF. PT. G1	REF. PT. G1	REF. PT. G1	REF. PT. G1	REF. PT. G1	REF. PT. G1
301+87.05'C	REF. PT. G2	9'- 4 ¾"	844.811	2.00	851.78	849.78	REF. PT. G2	REF. PT. G2	REF. PT. G2	REF. PT. G2	REF. PT. G2	REF. PT. G2	REF. PT. G2
301+93.05'C	REF. PT. H1	9'- 4 ¾"	844.726	2.00	851.78	849.78	REF. PT. H1	REF. PT. H1	REF. PT. H1	REF. PT. H1	REF. PT. H1	REF. PT. H1	REF. PT. H1
301+93.05'C	REF. PT. H2	STAIRS	844.726	8.75	851.50	842.75	REF. PT. H2	REF. PT. H2	REF. PT. H2	REF. PT. H2	REF. PT. H2	REF. PT. H2	REF. PT. H2
301+93.80'C	PH-1	8'-1"	844.715	2.93	851.78	848.85	850.28	848.85	837.53	11.32	HP-12X63	12.75	4
301+93.80'C	PH-2	7"	844.715	8.79	851.52	842.74	850.02	842.74	837.52	5.21	W-14X90	12.50	24
302+01.80'C	PH-3	7"	844.604	9.17	851.79	842.62	850.29	842.62	837.04	5.58	W-14X90	13.25	12
302+07.05'C	REF. PT. H3	C.J.	844.535	9.42	851.97	842.55	REF. PT. J3	REF. PT. J3	REF. PT. J3	REF. PT. J3	REF. PT. J3	REF. PT. J3	REF. PT. J3
302+09.80'C	PH-4	7"	844.501	9.54	852.06	842.52	850.56	842.52	836.56	5.96	W-14X90	14.00	14
302+17.80'C	PH-5	7"	844.405	9.90	852.32	842.42	850.82	842.42	836.07	6.35	W-14X90	14.75	14
302+21.80'C	EXP. JT. I	E.J.	844.361	10.08	852.46	842.37	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.
302+25.80'C	PI-1	7"	844.318	10.25	852.59	842.34	851.09	842.34	835.59	6.75	W-14X90	15.50	14
302+32.80'C	PI-2	7"	844.249	10.55	852.82	842.28	851.32	842.28	835.07	7.20	W-14X90	16.25	14
302+39.80'C	PI-3	7"	844.186	10.85	853.06	842.21	851.56	842.21	834.56	7.65	W-14X90	17.00	14
302+49.34'C	REF. PT. I1	C.J.	844.111	11.25	853.38	842.13	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.
302+53.84'C	PI-5	7"	844.078	11.46	853.53	842.06	852.03	842.06	833.78	8.29	W-14X90	18.25	32
302+54.59'C	REF. PT. I2	CORNER	844.072	11.50	853.55	842.05	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER
302+59.71'C	REF. PT. I3	CORNER	844.059	11.50	853.55	842.05	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER
302+60.31'C	PI-6	7"	844.060	11.50	853.55	842.05	852.05	842.05	833.30	8.75	W-14X90	18.75	16
302+68.06'C	PI-7	7"	844.070	11.50	853.55	842.05	852.05	842.05	832.80	9.25	W-14X90	19.25	16
302+71.95'C	EXP. JT. J	E.J.	844.055	11.50	853.55	842.05	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.
302+75.71'C	PJ-1	7"	844.028	11.12	853.08	841.96	851.58	841.96	832.33	9.63	W-14X90	19.25	16
302+83.59'C	PJ-2	7"	843.982	10.32	852.09	841.77	850.59	841.77	833.09	8.68	W-14X90	17.50	28
302+84.34'C	REF. PT. J1	CORNER	845.067	10.25	852.00	841.75	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER	CORNER
302+91.09'C	PJ-3	6"	846.330	9.04	852.32	843.28	850.82	843.28	835.32	7.96	HP-12X63	15.50	12
302+99.09'C	PJ-4	6"	847.704	7.62	852.70	845.08	851.20	845.08	837.45	7.63	HP-12X63	13.75	10
303+03.96'C	EXP. JT. K	E.J.	848.496	6.75	852.94	846.19	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.	E.J.
303+07.09'C	PK-1	6"	849.049	6.48	853.08	846.60	851.58	846.60	839.83	6.77	HP-12X63	11.75	8
303+16.09'C	PK-2	6"	850.655	5.71	853.51	847.80	852.01	847.80	842.26	5.54	HP-12X63	9.75	8
303+22.46'C	REF. PT. K1	C.J.	851.769	5.17	853.81	848.64	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.	C.J.
303+25.09'C	PK-3	6"	851.087	4.92	853.94	849.01	852.44	849.01	842.19	6.83	HP-12X63	10.25	6
303+34.09'C	PK-4	6"	852.312	4.08	854.36	850.28	852.86	850.28	842.36	7.92	HP-12X63	10.50	6
303+43.09'C	PK-5	6"	853.535	3.24	854.79	851.54	853.29	851.54	842.29	9.26	HP-12X63	11.00	4
303+45.71'C	REF. PT. K2	END	853.917	3.00	854.91	851.91	END	END	END	END	END	END	END

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNITS	TOTAL QUANTITY
206.3000.03	EXCAVATION FOR STRUCTURES RETAINING WALL (R-33-0005)	LS	1
210.0100	BACKFILL STRUCTURAL	CY	33
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	141
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	12907
506.0605	STRUCTURAL STEEL HS	LB	36002
506.3014	WELDED STUD SHEAR CONNECTORS 3/4x6-INCH	EACH	556
513.2050.S	RAILING PIPE	LF	106
517.1010.S.02	CONCRETE STAINING R-33-0005	SF	992
517.1050.S.02	ARCHITECTURAL SURFACE TREATMENT R-33-0005	SF	992
612.0106	PIPE UNDERDRAIN 6-INCH	LF	408
612.0204	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	37
645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	331
SPV.0035.01	CONCRETE MASONRY SOLDIER PILE FOOTINGS	CY	35
SPV.0090.01	FOUNDATION DRILLING 24-INCH DIAMETER	LF	609
SPV.0105.02	RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN R-33-0005	LS	1
SPV.0110.01	TIMBER LAGGING	MBM	6.05
SPV.0165.01	GEOCOMPOSITE DRAIN BOARD	SF	2189

NO.

DATE

REVISION

BY

KNIGHT

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Suite 104
La Crosse, WI 54601
Engineers & Architects Phone: (608) 519-1455

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE

R-33-0005

DRAWN
BY

AFD

PLANS
CK'D. JDG

ESTIMATED
QUANTITIES & PILE/
REFERENCE
INFORMATION

SHEET 5 OF 21

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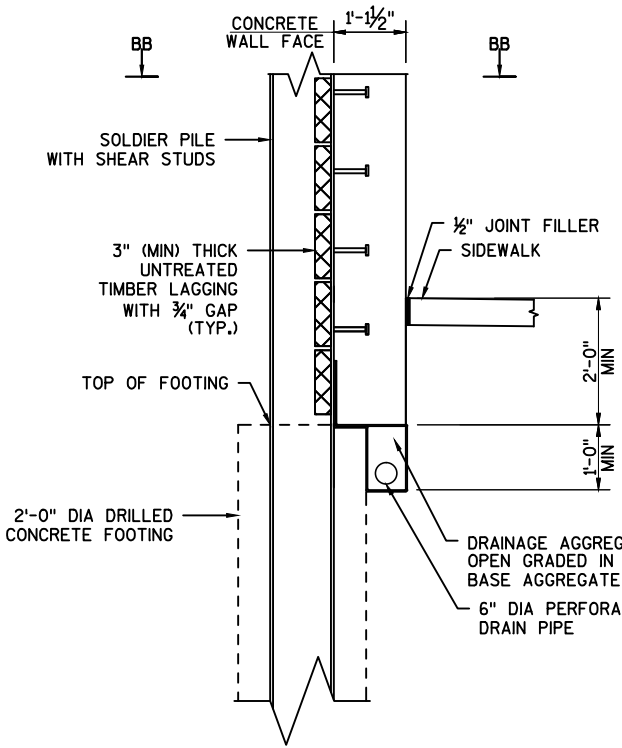
NOTES

PAINT PILE FROM TOP OF PILE TO 1'-0" BELOW TOP OF FOOTING WITH A PRIME COAT OF ORGANIC ZINC-RICH PAINT. PREPARE THE SURFACE AND APPLY THE PAINT AS SPECIFIED IN SECTION 517 OF THE STANDARD SPECIFICATIONS. PAINTING OF PILE IS INCIDENTAL TO THE BID ITEM "STRUCTURAL STEEL HS."

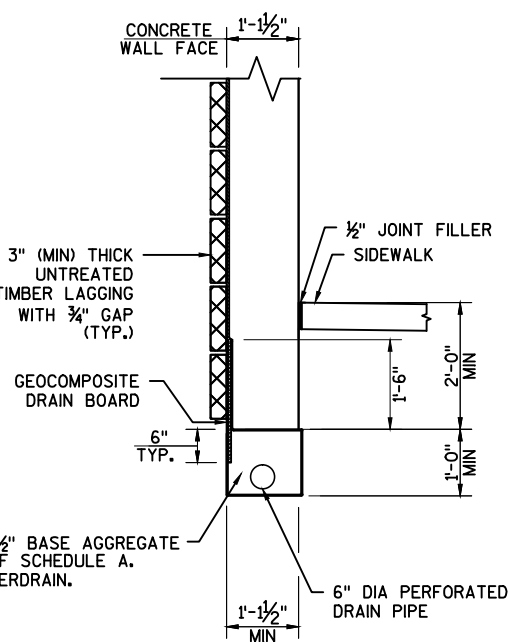
PILES SHOULD BE SET WITH A ¼"H:1"V BATTER.

LEGEND

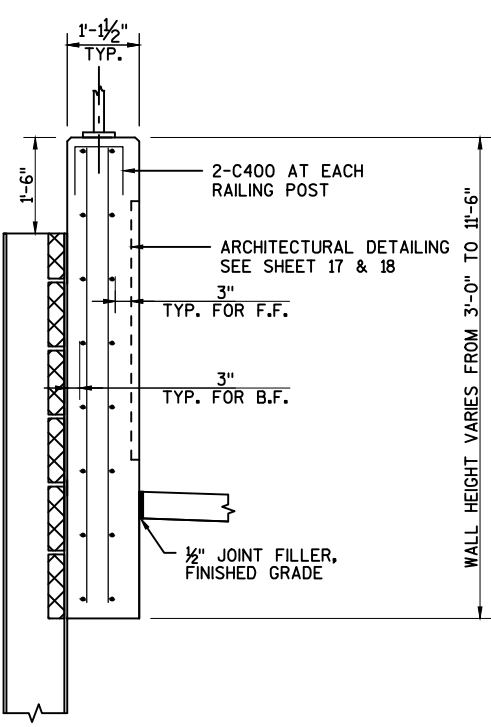
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT



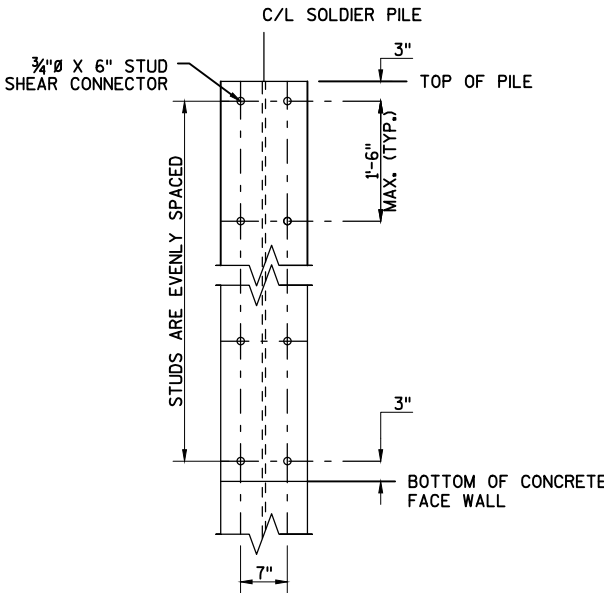
DETAIL A
(AT SOLDIER PILES)



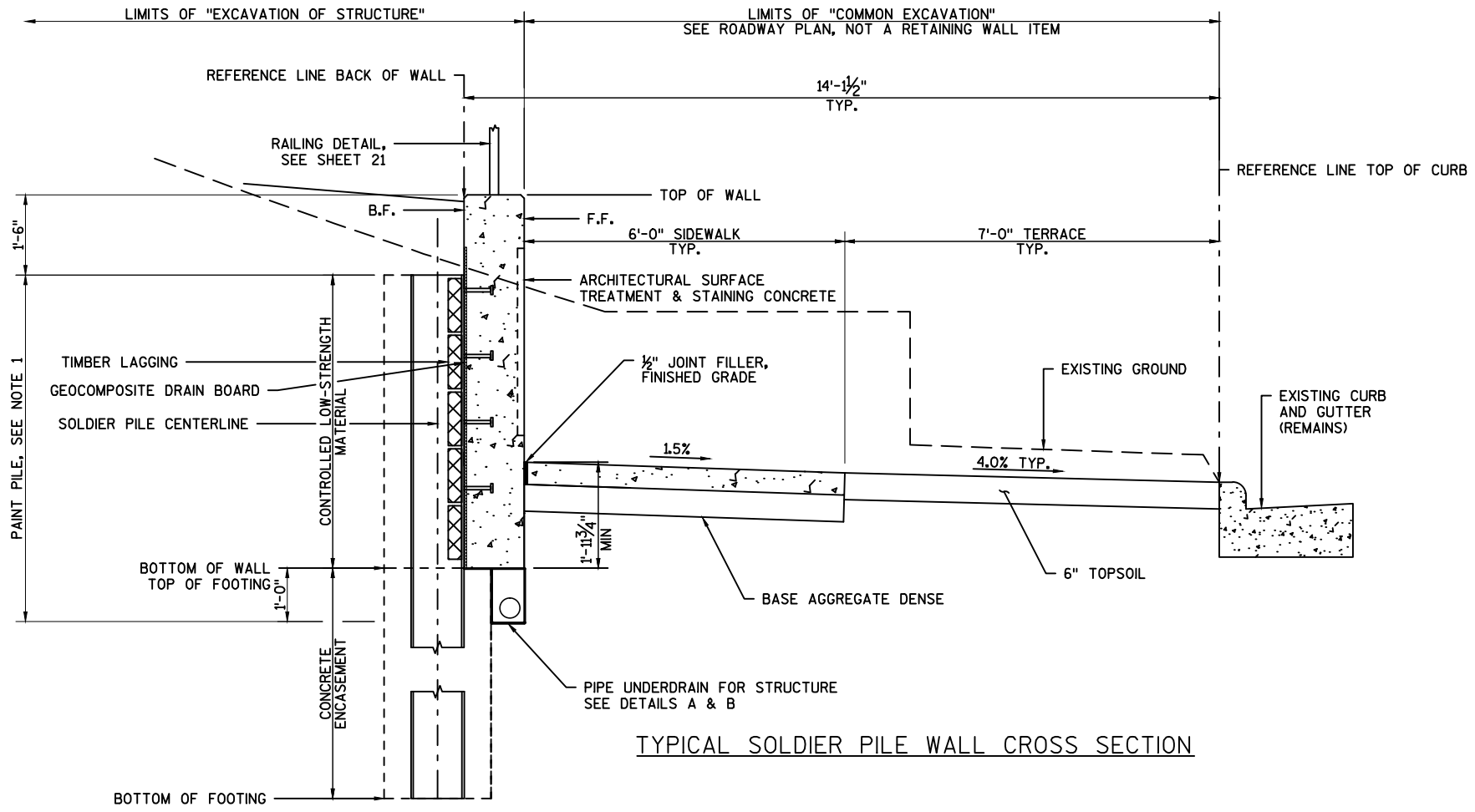
DETAIL B
(BETWEEN SOLDIER PILES)



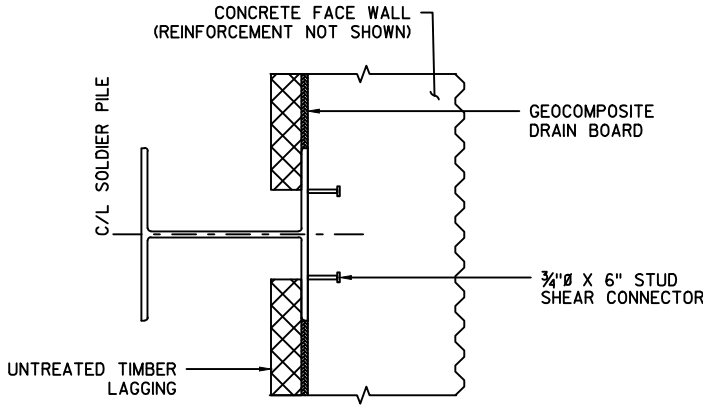
TYP. REINFORCEMENT LAYOUT



STUD SHEAR
CONNECTION LAYOUT

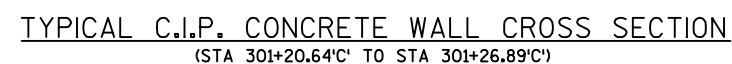


TYPICAL SOLDIER PILE WALL CROSS SECTION



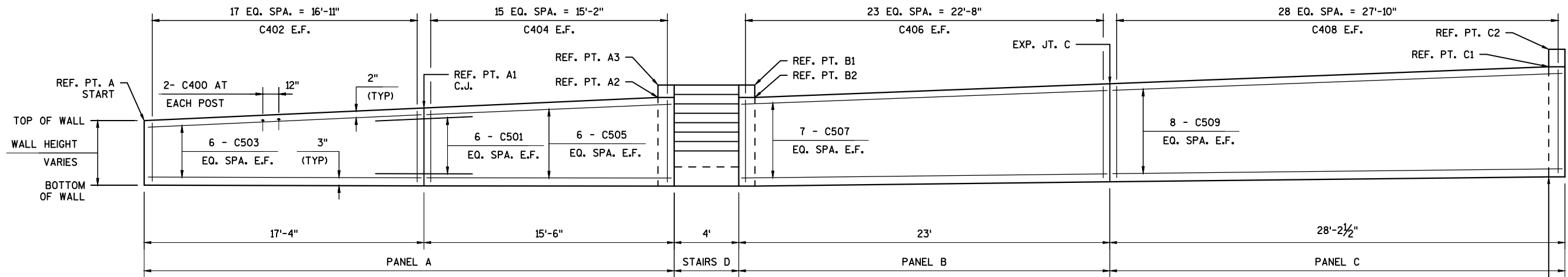
SECTION BB-BB

NO.	DATE	REVISION	BY
KNIGHT		700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-33-0005	
		DRAWN BY AFD	PLANS CK'D. JDG
TYPICAL SECTIONS		SHEET 6 OF 21	
		96	

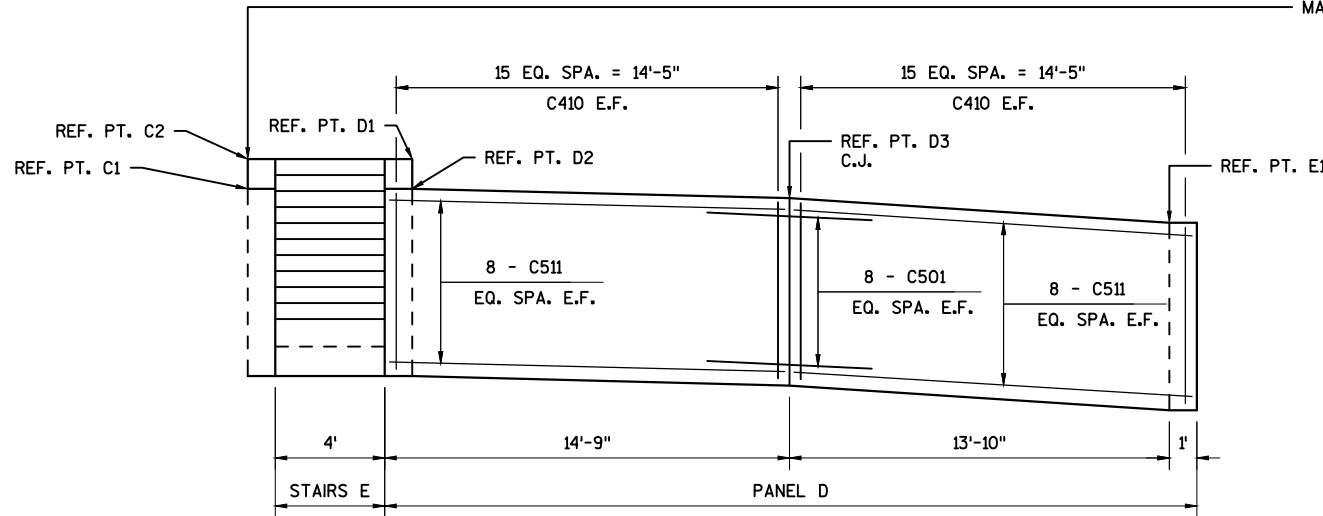


LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE

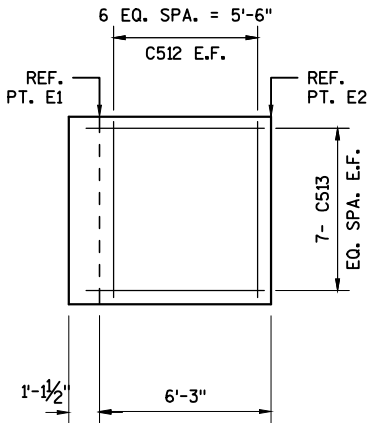
NO.	DATE	REVISION			BY
KNIGHT		700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE		R-33-0005			
		DRAWN BY		AFD PLANS CK'D. JDG	
TYPICAL SECTIONS				SHEET 7 OF 21	
				97	



PARTIAL WALL FACING ELEVATION
(PANELS A TO C)



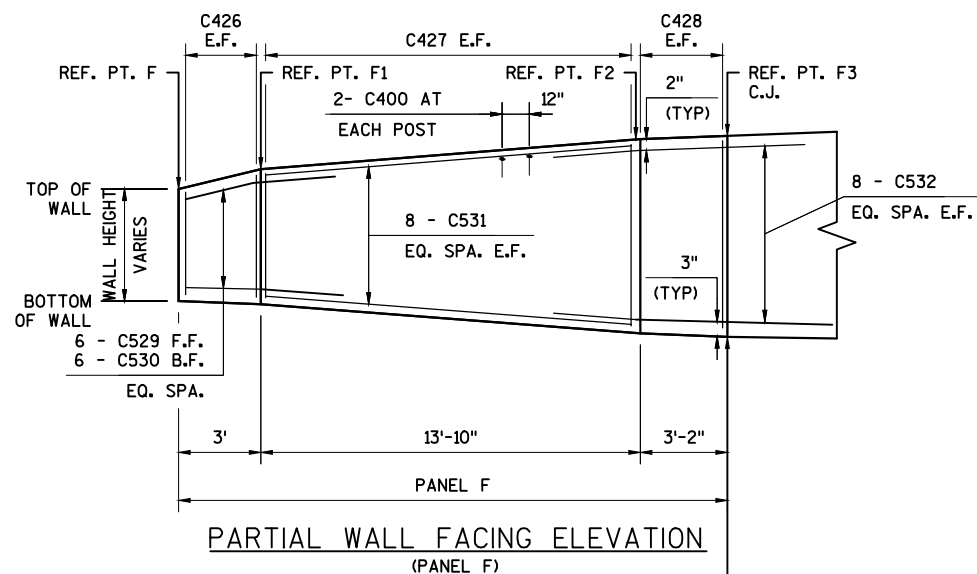
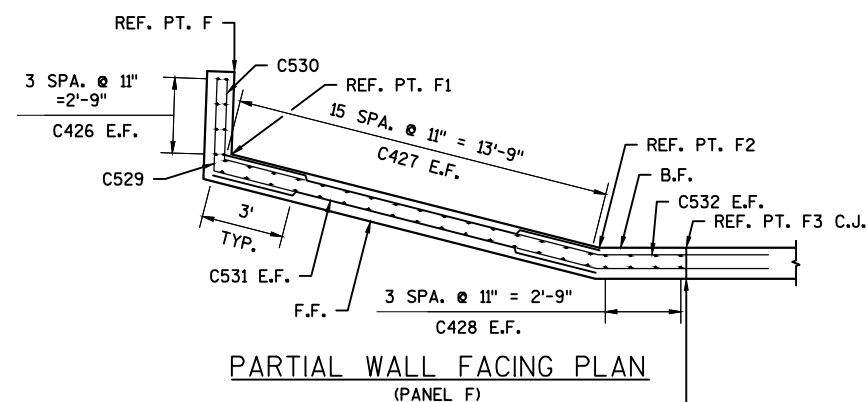
PARTIAL WALL FACING ELEVATION
(PANEL D)



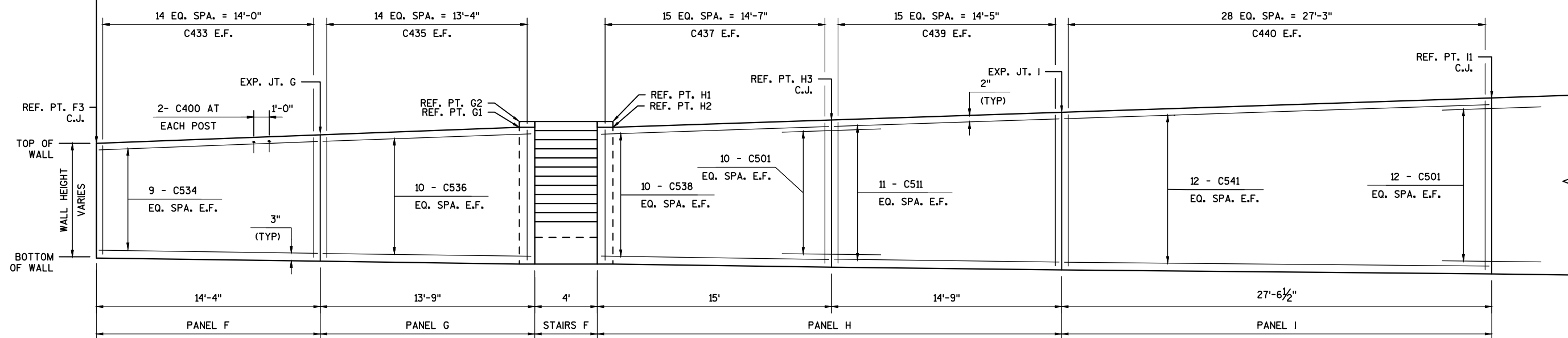
PARTIAL WALL FACING ELEVATION
(C.I.P. WALL #1)

LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE

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REINFORCEMENT LAYOUT		SHEET 8 OF 21	



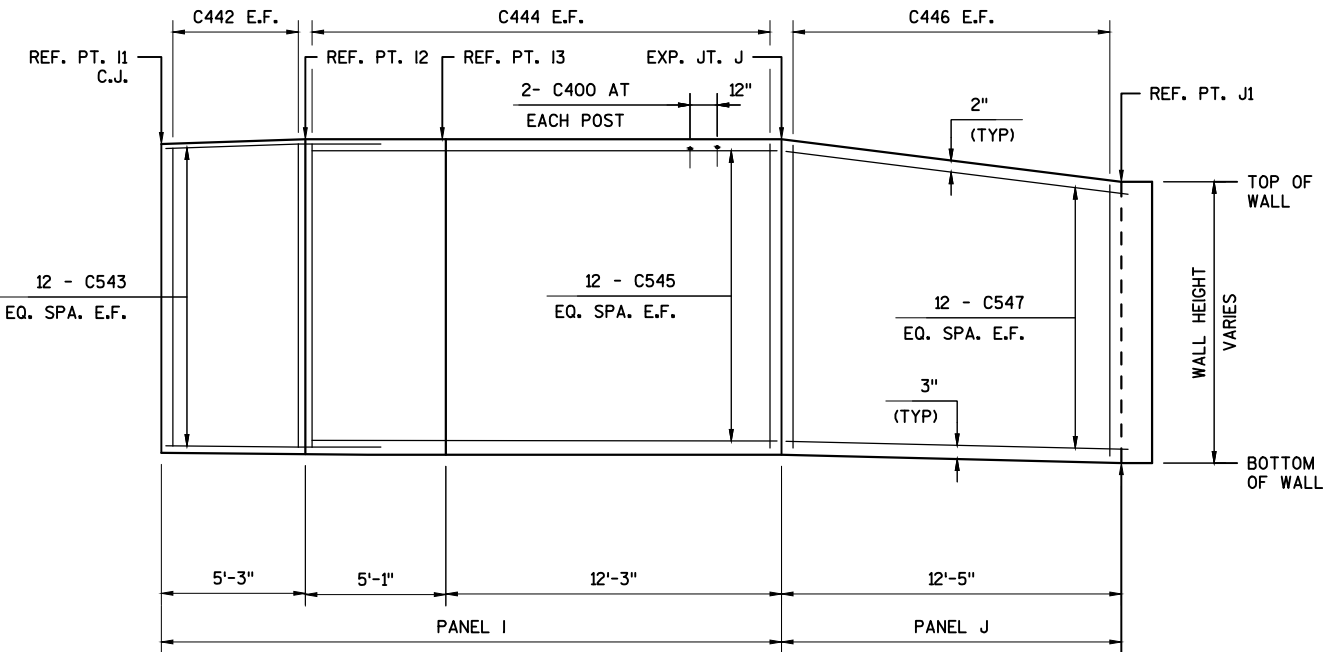
MATCHLINE STA 301+56.79'C'



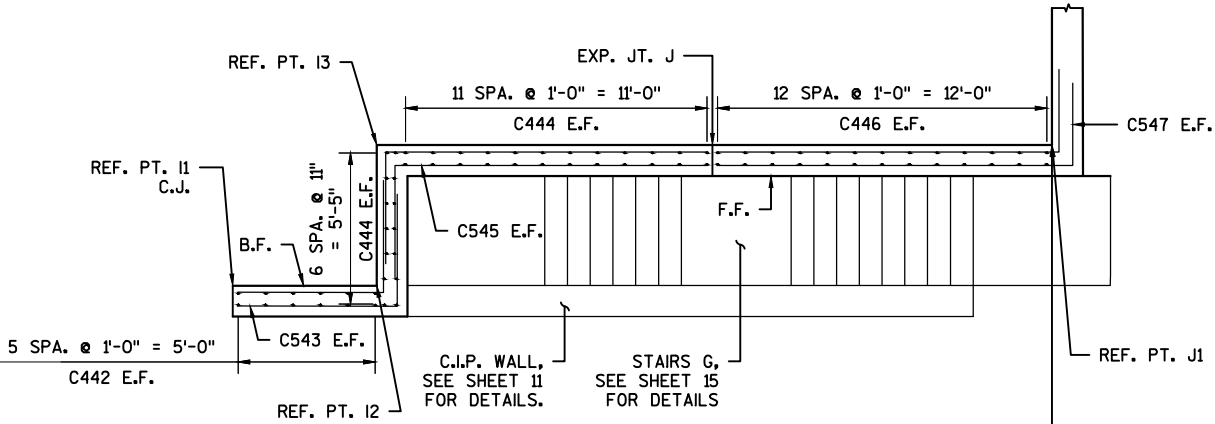
LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT

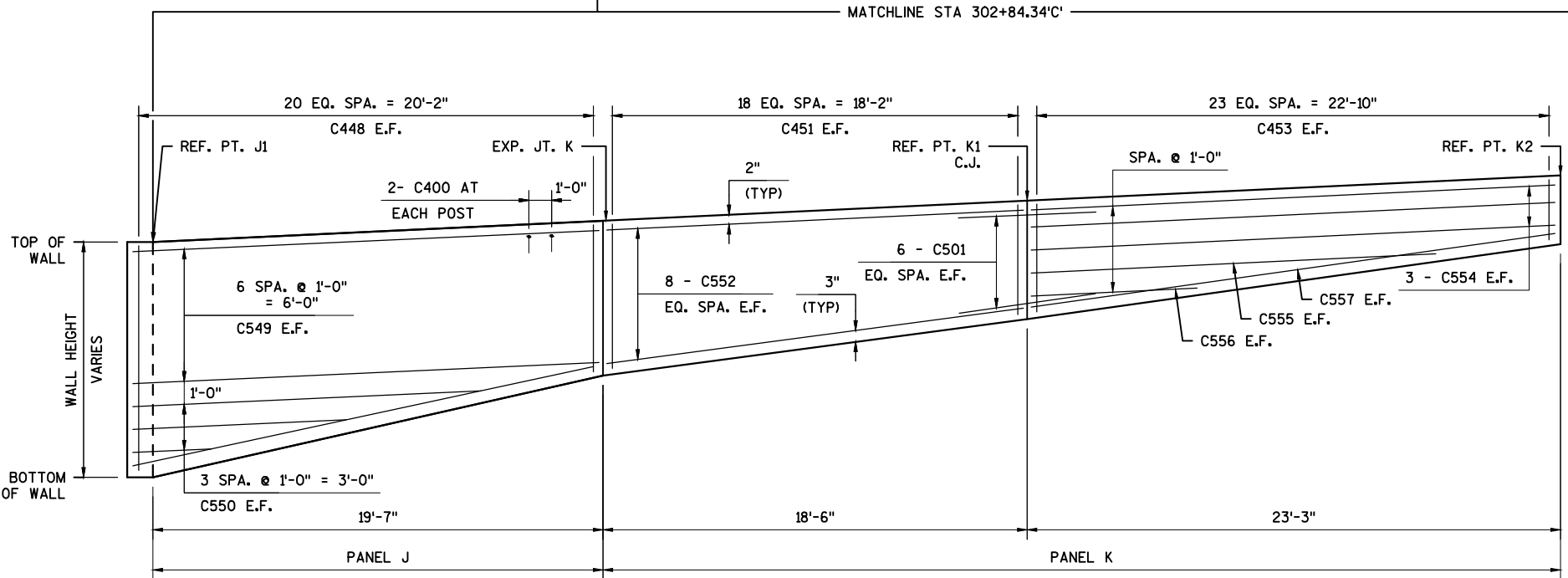
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0005			
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REINFORCEMENT LAYOUT		SHEET 9 OF 21	



PARTIAL WALL FACING ELEVATION
(PANELS I & J)



PARTIAL WALL FACING PLAN
(PANELS I & J)



PARTIAL WALL FACING ELEVATION
(PANELS J & K)

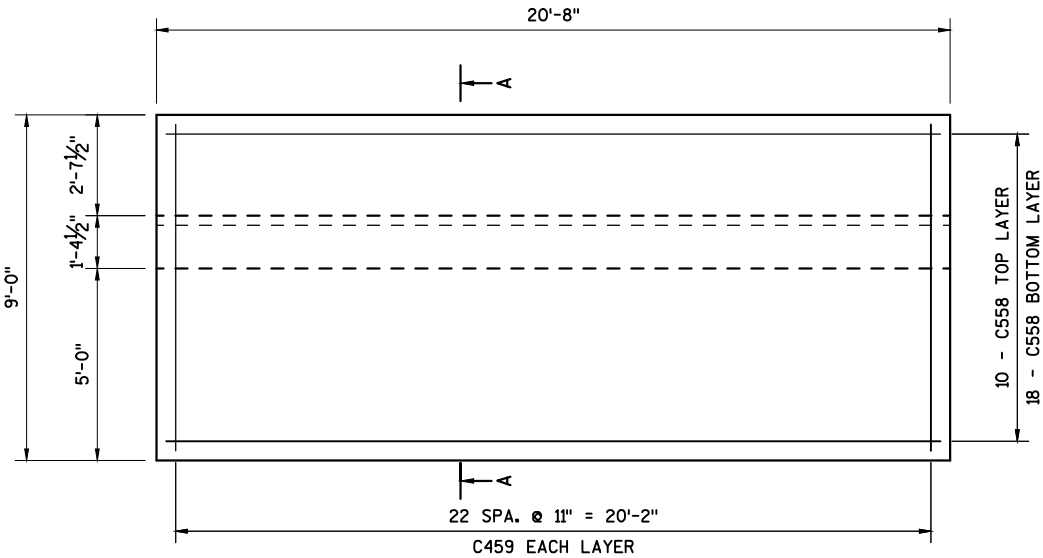
LEGEND

E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.J. = CONTRACTION JOINT
EXP. JT. = EXPANSION JOINT
C.I.P. = CAST IN PLACE

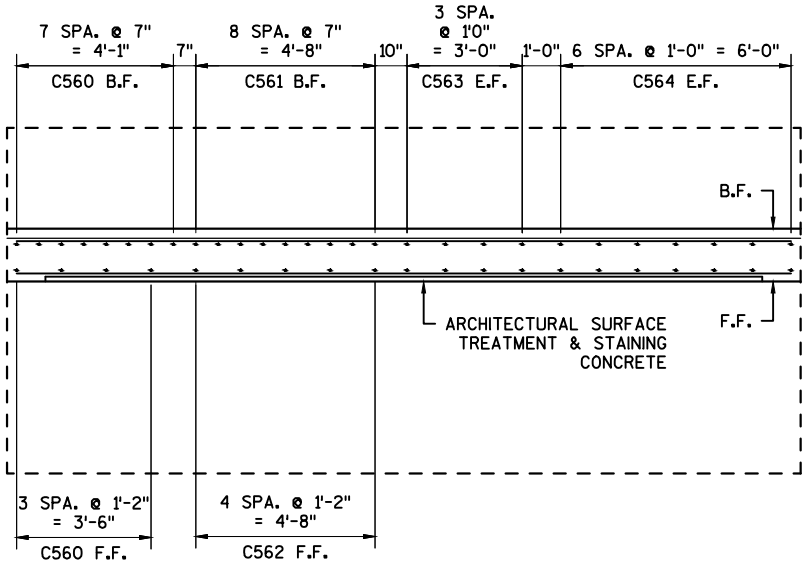
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
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REINFORCEMENT LAYOUT		SHEET 10 OF 21	

NOTES
EXCAVATION FOR C.I.P. WALL #2 IS TO BE PAID AS "COMMON EXCAVATION," ROADWAY ITEM.

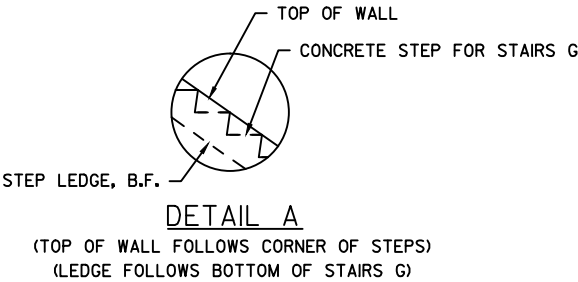
LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE
C.I.P. = CAST IN PLACE



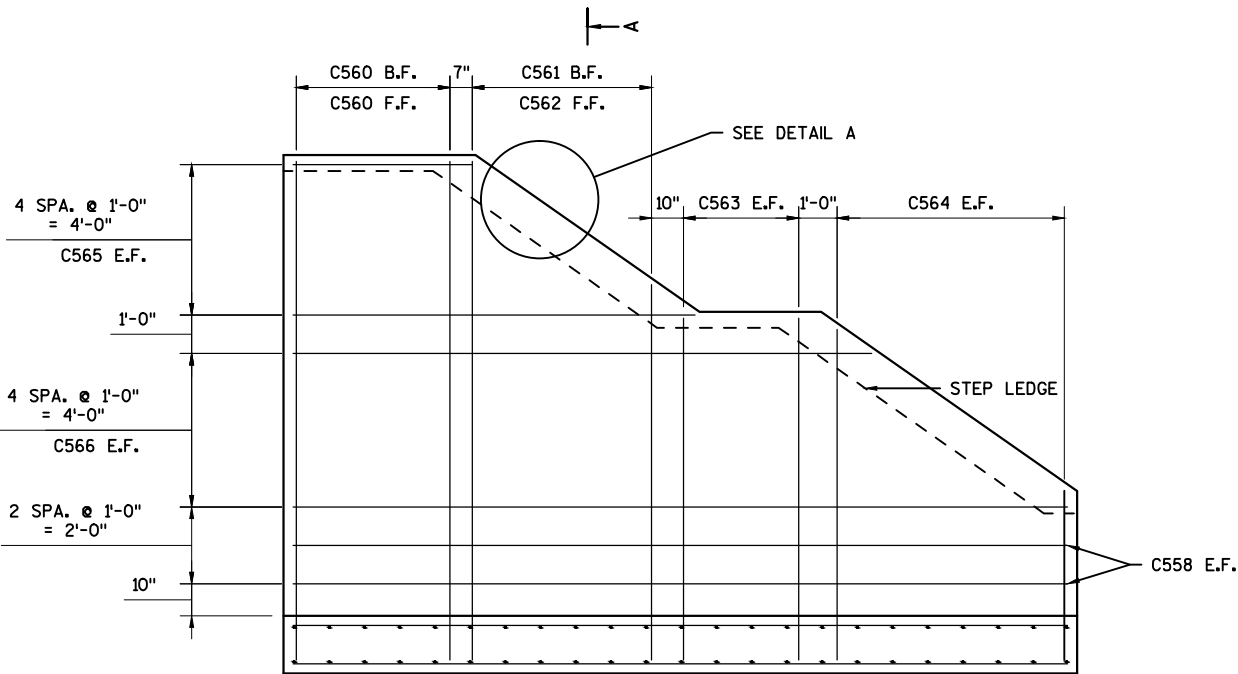
FOOTING PLAN



STEM PLAN

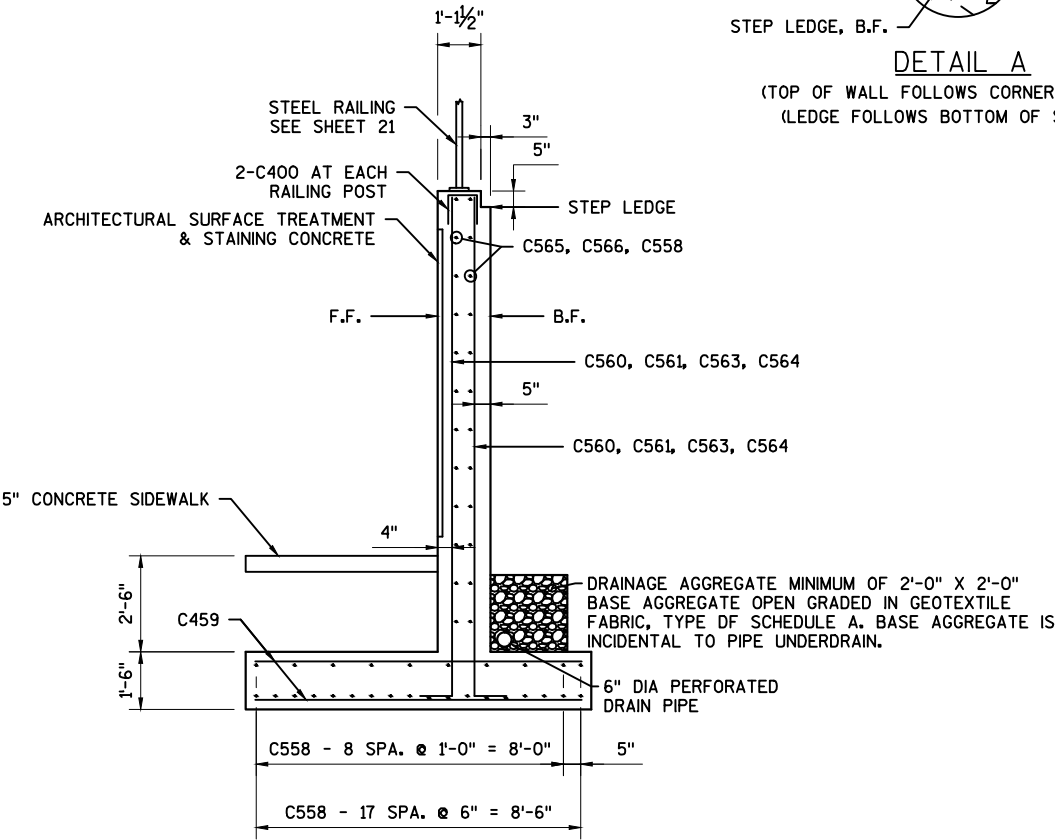


DETAIL A



ELEVATION

(VIEW FROM FRONT OF WALL
SEE STAIR G DETAILS, SHEET 15 FOR ADDITIONAL DETAILS)



TYPICAL CROSS SECTION A-A

(C.I.P. WALL #2 WITH FOOTING)

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STRUCTURE R-33-0005			
DRAWN BY AFD		PLANS CK'D. JDG	
REINFORCEMENT LAYOUT		SHEET 11 OF 21	



LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE

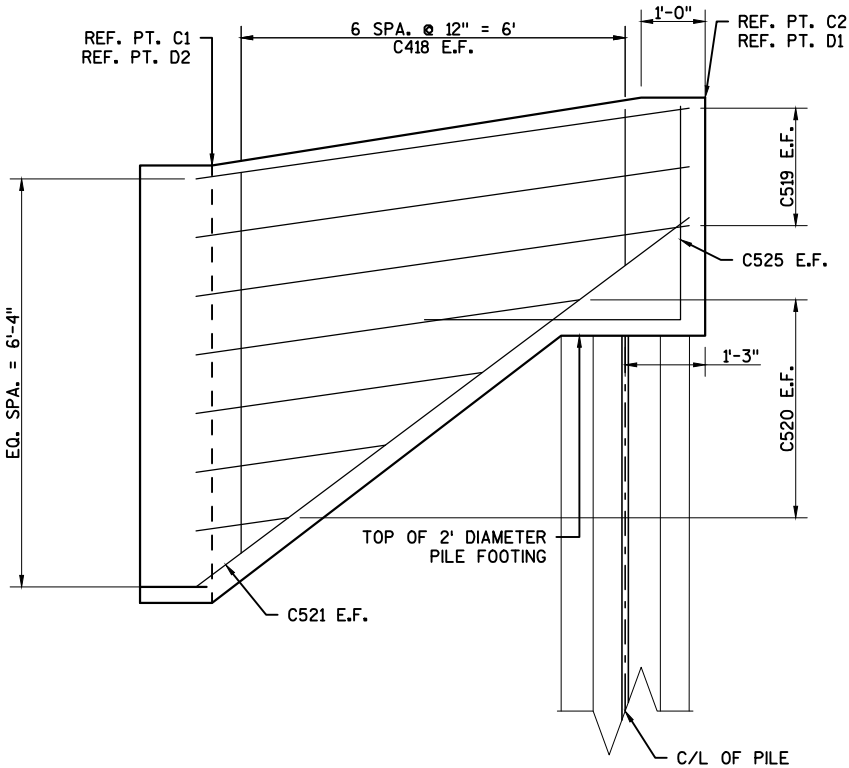
102

NOTES
PLACE 2-FT STRUCTURAL BACKFILL BELOW BOTTOM OF STEPS.

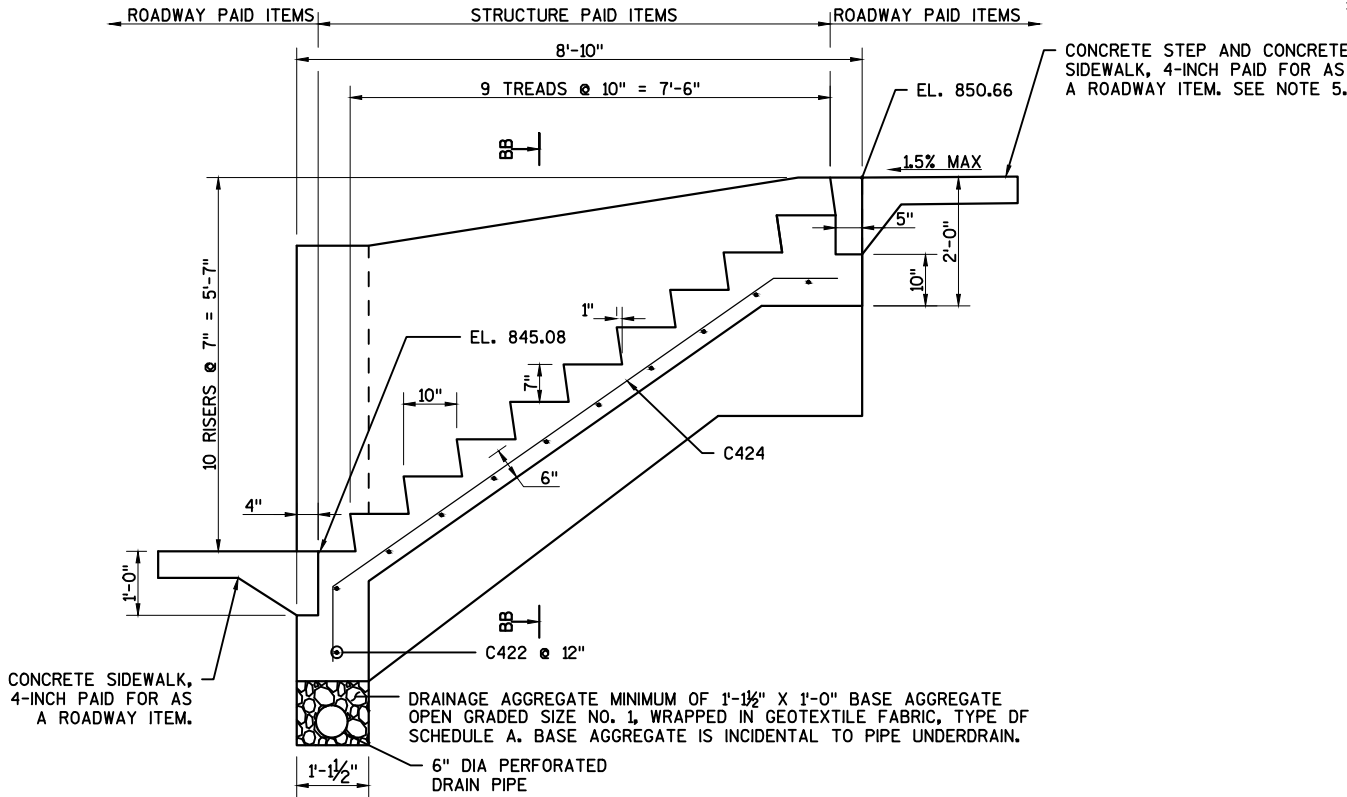
CONCRETE STEP IS MEASURED FROM THE FRONT FACE OF THE TOP RISER TO 1-FT BACK FROM FRONT FACE OF THE TOP RISER. CONCRETE BEYOND THAT MARK IS PAID AS "CONCRETE SIDEWALK 4-INCH."

CONCRETE FOR STAIRS SHALL BE INCLUDED IN THE QUANTITY FOR "CONCRETE MASONRY, RETAINING WALL."

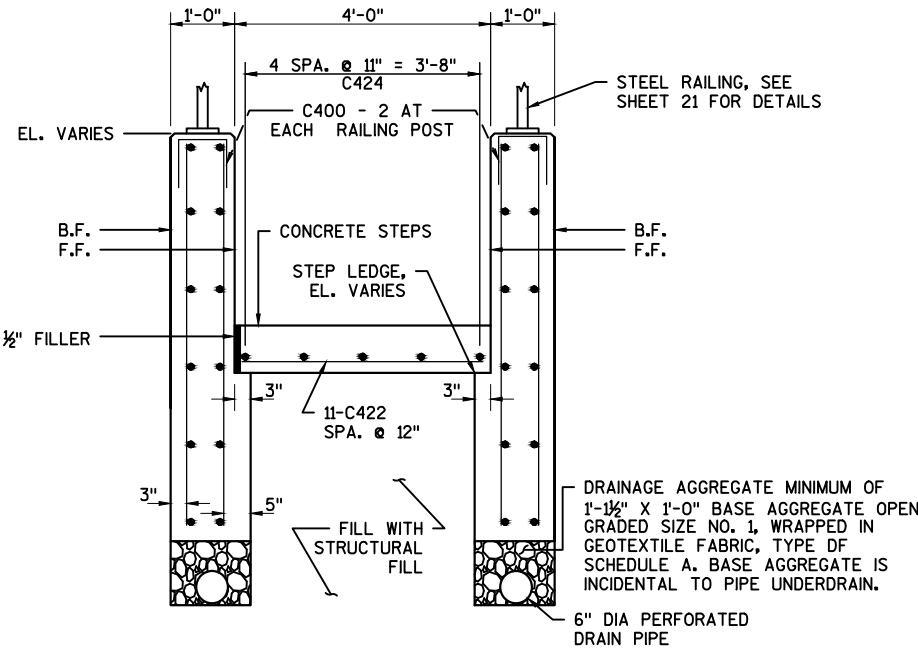
LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE



SHEAR WALL BAR LAYOUT
(STAIRS E)

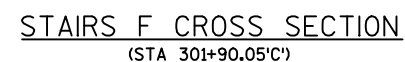


STAIRS E CROSS SECTION
(STA 300+90.04'C)



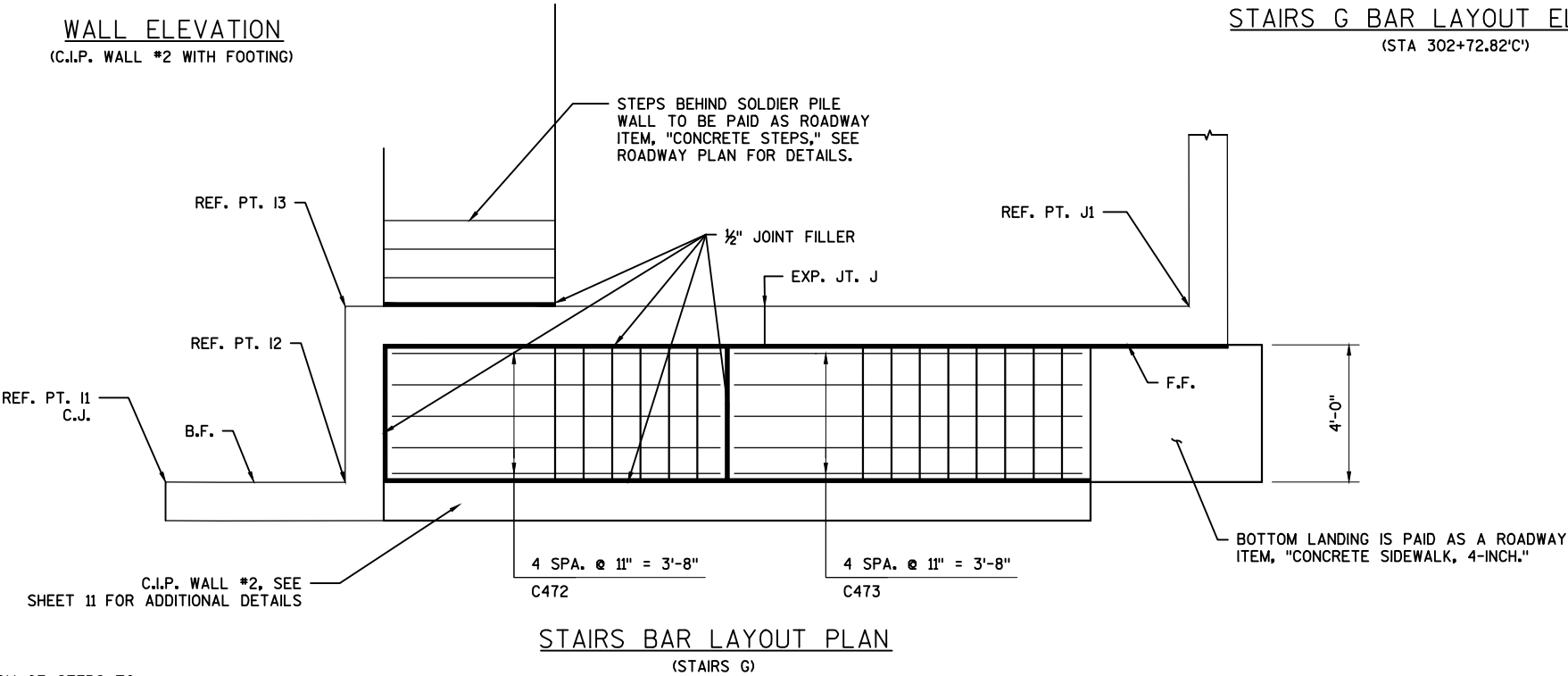
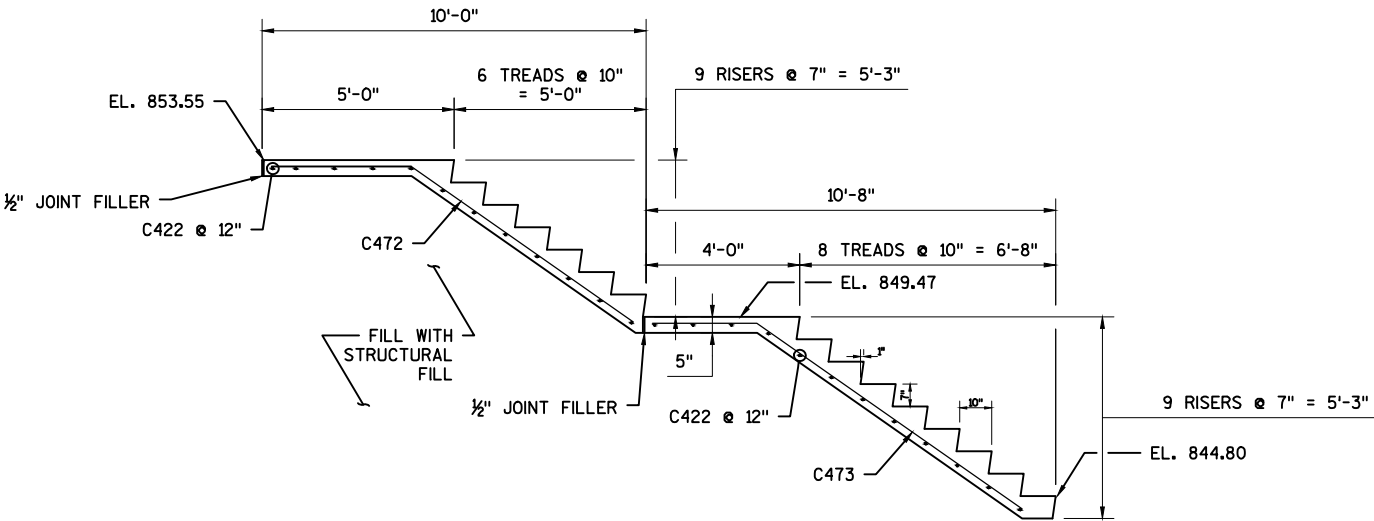
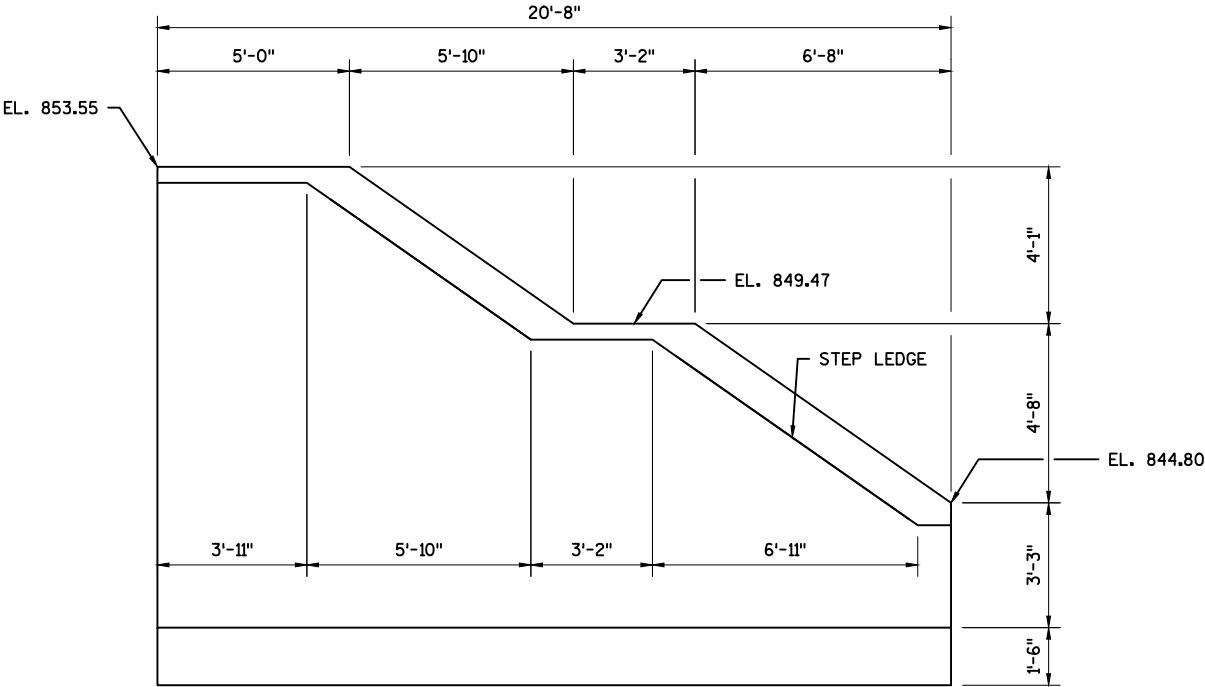
SECTION BB-BB

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0005			
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STAIRS E DETAILS			SHEET 13 OF 21



LEGEND
E.F. = EACH FACE
F.F. = FRONT FACE
B.F. = BACK FACE

104



NOTES

PLACE STRUCTURAL BACKFILL FROM BOTTOM OF STEPS TO TOP OF FOOTING.

CONCRETE FOR STAIRS SHALL BE INCLUDED IN THE QUANTITY FOR "CONCRETE MASONRY, RETAINING WALL."

LEGEND

E.F. = EACH FACE

F.F. = FRONT FACE

B.F. = BACK FACE

C.I.P. = CAST IN PLACE

NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
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STRUCTURE R-33-0005			
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STAIRS G DETAILS			SHEET 15 OF 21

BILL OF BARS

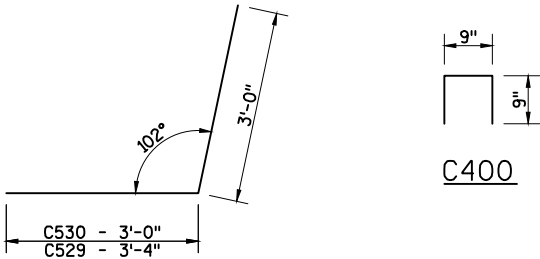
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
C400	X	130	2'-1"	X		TOP OF WALL NEAR FENCE POSTS
C501	X	84	6'-0"			CONTRACTION JOINTS
C402	X	36	4'-0"		▲	PANEL A VERTICAL
C503	X	12	16'-11"			PANEL A HORIZONTAL
C404	X	32	4'-9"		▲	PANEL A VERTICAL
C505	X	12	15'-2"			PANEL A HORIZONTAL
C406	X	48	5'-5"		▲	PANEL B VERTICAL
C507	X	14	22'-8"			PANEL B HORIZONTAL
C408	X	58	6'-1"		▲	PANEL C VERTICAL
C509	X	16	27'-10"			PANEL C HORIZONTAL
C410	X	64	6'-5"			PANEL D VERTICAL
C511	X	54	14'-5"			PANELS D & H HORIZONTAL
C512	X	14	6'-5"			C.I.P. #1 VERTICAL
C513	X	14	7'-3"	X		C.I.P. #1 HORIZONTAL
C414	X	24	3'-3"		▲	STAIRS D SHEAR WALL VERTICAL
C515	X	8	6'-1"	X		STAIRS D SHEAR WALL HORIZONTAL
C516	X	12	4'-1"	X	▲	STAIRS D SHEAR WALL HORIZONTAL
C517	X	4	7'-6"	X		STAIRS D SHEAR WALL HORIZONTAL
C418	X	28	4'-3"		▲	STAIRS E SHEAR WALL VERTICAL
C519	X	12	8'-6"	X		STAIRS E SHEAR WALL VERTICAL
C520	X	16	4'-6"	X	▲	STAIRS E SHEAR WALL VERTICAL
C521	X	4	10'-5"	X		STAIRS E SHEAR WALL VERTICAL
C422	X	56	3'-8"			STAIRS D, E, F, & G HORIZONTAL
C423	X	5	7'-6"	X		STAIRS D VERTICAL
C424	X	5	10'-7"	X		STAIRS E VERTICAL
C525	X	8	7'-3"	X		STAIRS E & F SHEAR WALL
C426	X	8	4'-1"		▲	PANEL F VERTICAL
C427	X	32	5'-7"		▲	PANEL F VERTICAL
C428	X	8	6'-9"		▲	PANEL F VERTICAL
C529	X	6	6'-4"	X		PANEL F HORIZONTAL
C530	X	6	6'-0"	X		PANEL F HORIZONTAL
C531	X	16	13'-4"			PANEL F HORIZONTAL
C532	X	16	9'-3"	X		PANEL F HORIZONTAL
C433	X	30	7'-4"		▲	PANEL F VERTICAL
C534	X	18	14'-0"			PANEL F HORIZONTAL
C435	X	30	8'-0"		▲	PANEL G VERTICAL
C536	X	20	13'-4"			PANEL G HORIZONTAL
C437	X	32	8'-8"		▲	PANEL H VERTICAL
C538	X	20	14'-7"			PANEL H HORIZONTAL
C439	X	32	9'-4"		▲	PANEL H VERTICAL
C440	X	58	10'-3"		▲	PANEL I VERTICAL
C541	X	24	27'-3"			PANEL I HORIZONTAL
C442	X	12	10'-11"		▲	PANEL I VERTICAL
C543	X	24	9'-6"	X		PANEL I HORIZONTAL
C444	X	38	11'-1"			PANEL I VERTICAL
C545	X	24	13'-7"	X		PANEL I HORIZONTAL
C446	X	26	10'-6"		▲	PANEL J VERTICAL
C547	X	24	15'-8"	X		PANEL J HORIZONTAL
C448	X	42	8'-1"		▲	PANEL J VERTICAL
C549	X	14	20'-4"			PANEL J HORIZONTAL
C550	X	8	9'-4"		▲	PANEL J HORIZONTAL
C451	X	38	5'-7"		▲	PANEL K VERTICAL
C552	X	16	18'-3"			PANEL K HORIZONTAL
C453	X	48	3'-9"		▲	PANEL K VERTICAL
C554	X	6	22'-10"			PANEL K HORIZONTAL
C555	X	2	17'-8"			PANEL K HORIZONTAL
C556	X	2	7'-3"			PANEL K HORIZONTAL
C557	X	2	23'-1"			PANEL K HORIZONTAL
C558	X	28	20'-2"			C.I.P. #2 HORIZONTAL FOOTING
C459	X	46	8'-6"			C.I.P. #2 TRANSVERSE FOOTING
C560	X	12	13'-9"	X		C.I.P. #2 STEM VERTICAL
C561	X	9	12'-2"	X	▲	C.I.P. #2 STEM VERTICAL
C562	X	5	12'-2"	X	▲	C.I.P. #2 STEM VERTICAL
C563	X	8	9'-8"	X		C.I.P. #2 STEM VERTICAL
C564	X	14	7'-3"	X	▲	C.I.P. #2 STEM VERTICAL
C565	X	10	7'-7"		▲	C.I.P. #2 STEM HORIZONTAL
C566	X	10	17'-8"		▲	C.I.P. #2 STEM HORIZONTAL
C467	X	36	5'-4"		▲	STAIRS F SHEAR WALL VERTICAL
C568	X	8	10'-2"	X		STAIRS F SHEAR WALL HORIZONTAL
C569	X	24	6'-2"	X	▲	STAIRS F SHEAR WALL HORIZONTAL
C570	X	4	12'-5"	X		STAIRS F SHEAR WALL HORIZONTAL
C471	X	5	12'-7"	X		STAIRS F VERTICAL
C472	X	5	10'-9"	X		STAIRS G VERTICAL
C473	X	5	11'-2"	X		STAIRS G VERTICAL

SERIES OF BARS

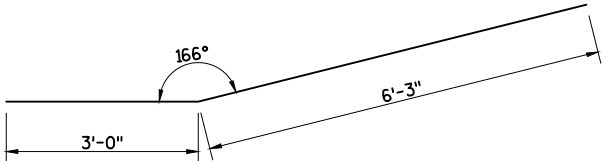
BAR MARK	NO. REQ'D	LENGTH
C402	2 SERIES OF 18	3'-7" TO 4'-5"
C404	2 SERIES OF 16	4'-5" TO 5'-1"
C406	2 SERIES OF 24	5'-1" TO 5'-8"
C408	2 SERIES OF 29	5'-8" TO 6'-5"
C414	4 SERIES OF 6	1'-9" TO 4'-9"
C516	4 SERIES OF 3	2'-6" TO 5'-7"
C418	4 SERIES OF 7	2'-6" TO 6'-0"
C520	4 SERIES OF 4	2'-3" TO 6'-9"
C426	2 SERIES OF 4	3'-9" TO 4'-5"
C427	2 SERIES OF 16	4'-6" TO 6'-8"
C428	2 SERIES OF 4	6'-8" TO 6'-10"
C433	2 SERIES OF 15	6'-11" TO 7'-8"
C435	2 SERIES OF 15	7'-8" TO 8'-4"
C437	2 SERIES OF 16	8'-4" TO 9'-0"
C439	2 SERIES OF 16	9'-0" TO 9'-8"
C440	2 SERIES OF 29	9'-8" TO 10'-10"
C442	2 SERIES OF 6	10'-10" TO 11'-1"
C446	2 SERIES OF 13	9'-11" TO 11'-1"
C448	2 SERIES OF 21	6'-5" TO 9'-9"
C550	2 SERIES OF 3	3'-5" TO 15'-2"
C451	2 SERIES OF 19	4'-9" TO 6'-4"
C453	2 SERIES OF 24	2'-8" TO 4'-9"
C561	2 SERIES OF 9	10'-6" TO 13'-9"
C562	2 SERIES OF 5	10'-6" TO 13'-9"
C564	2 SERIES OF 7	5'-2" TO 9'-4"
C565	2 SERIES OF 5	4'-8" TO 10'-5"
C566	2 SERIES OF 5	15'-1" TO 20'-2"
C467	4 SERIES OF 9	2'-6" TO 8'-2"
C569	4 SERIES OF 6	2'-7" TO 9'-9"

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

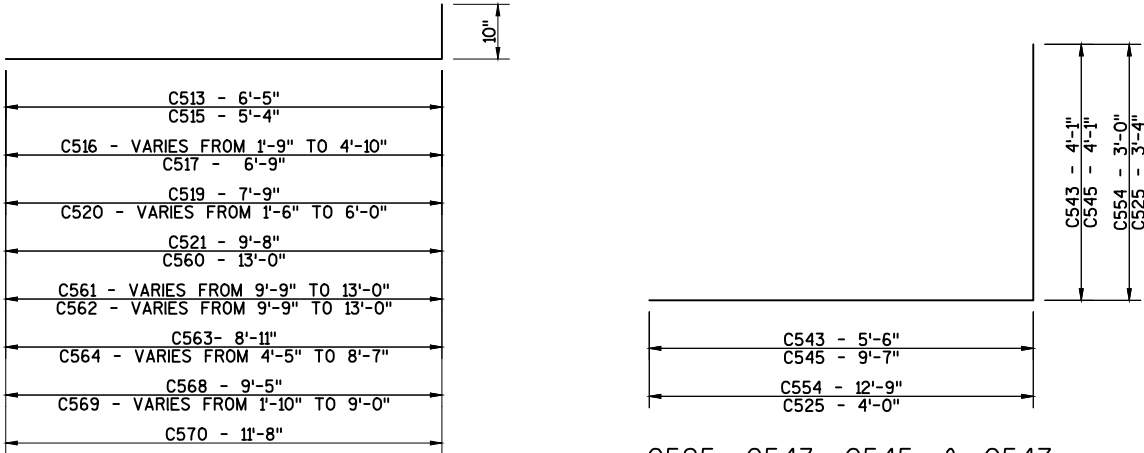
NOTE: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE. DIMENSIONS FOR BENDING ARE OUT TO OUT OF BAR.



C529 & C530

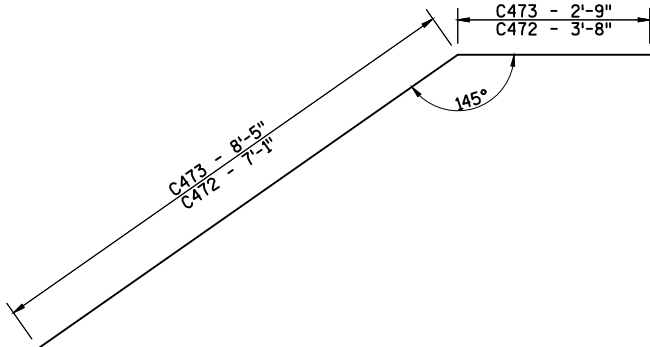


C532

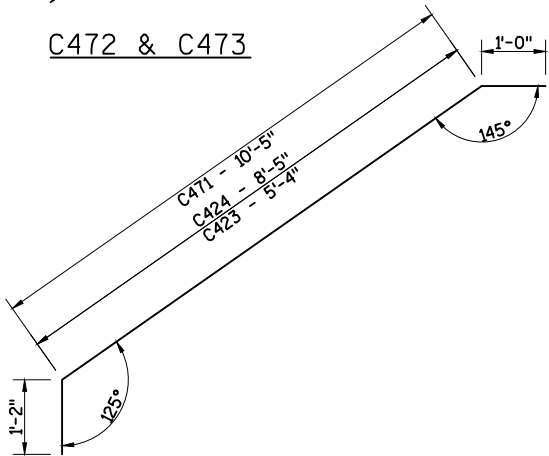


C525, C543, C545, & C547

C513, C515, C516, C517, C519, C520, C521, C560, C561, C562, C563, C564, C568, C569, & C570



C472 & C473

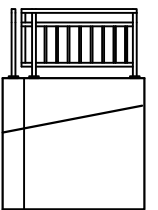
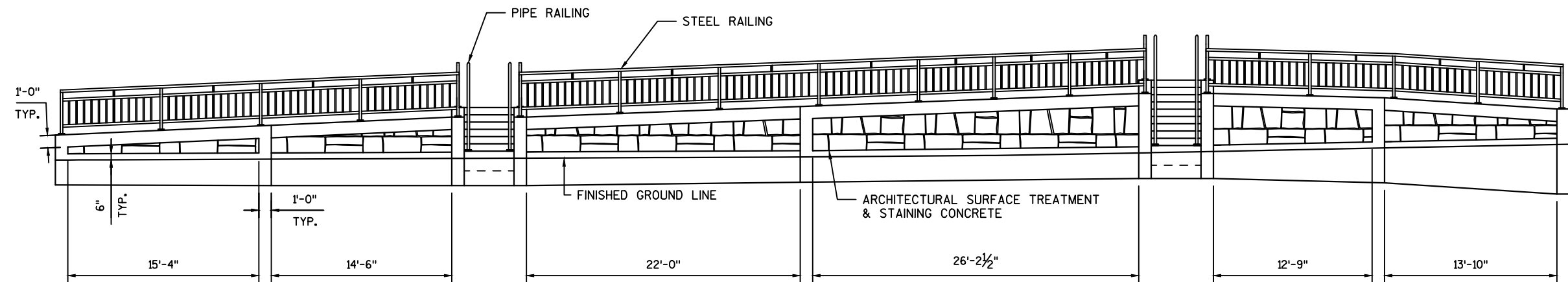
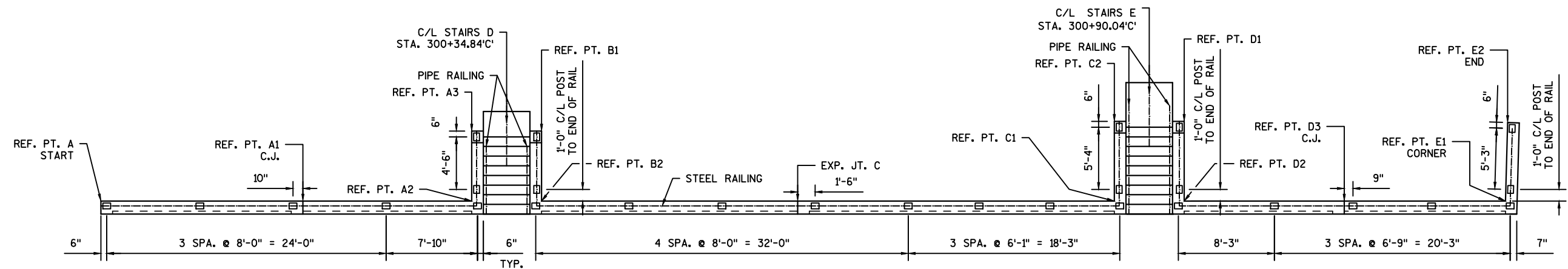


C423, C424, & C471

STATE PROJECT NUMBER
5944-03-84

NO.	DATE	REVISION	BY
KNIGHT700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0005			
DRAWN BY AFD		PLANS CK'D. JDG	
REINFORCEMENT SCHEDULE		SHEET 16 OF 21	

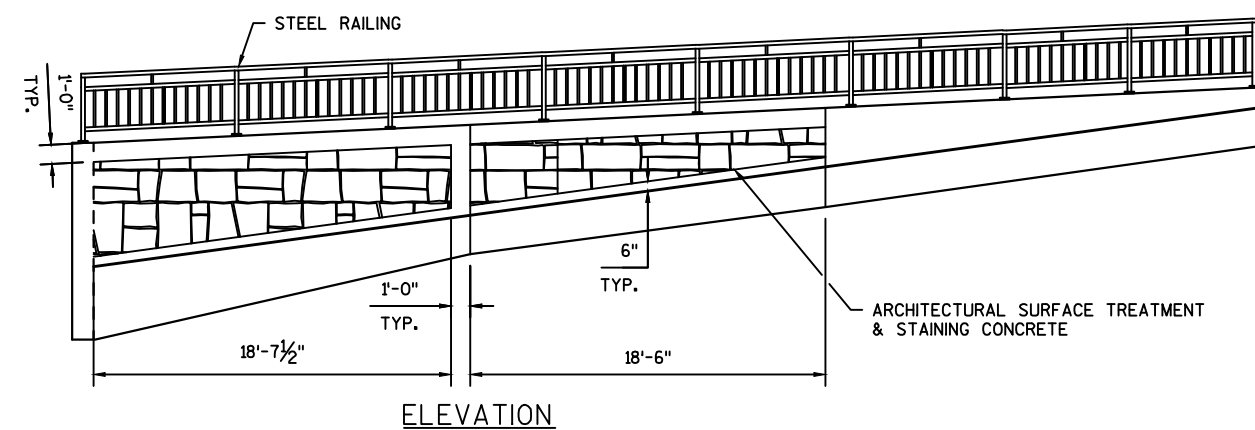
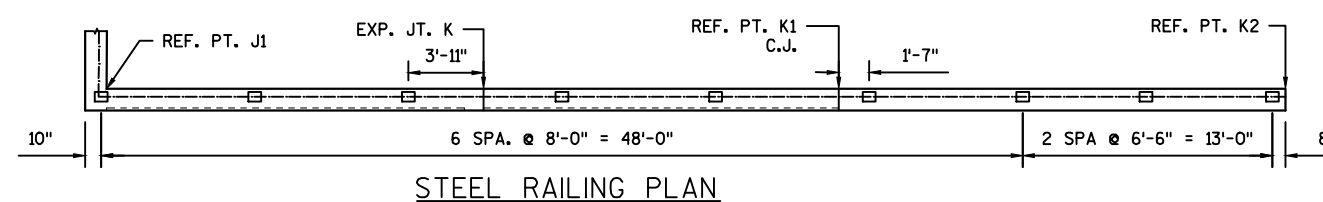
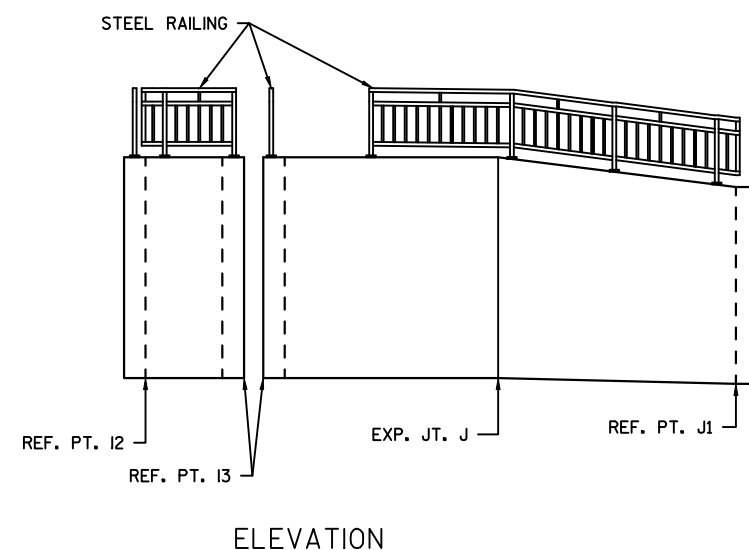
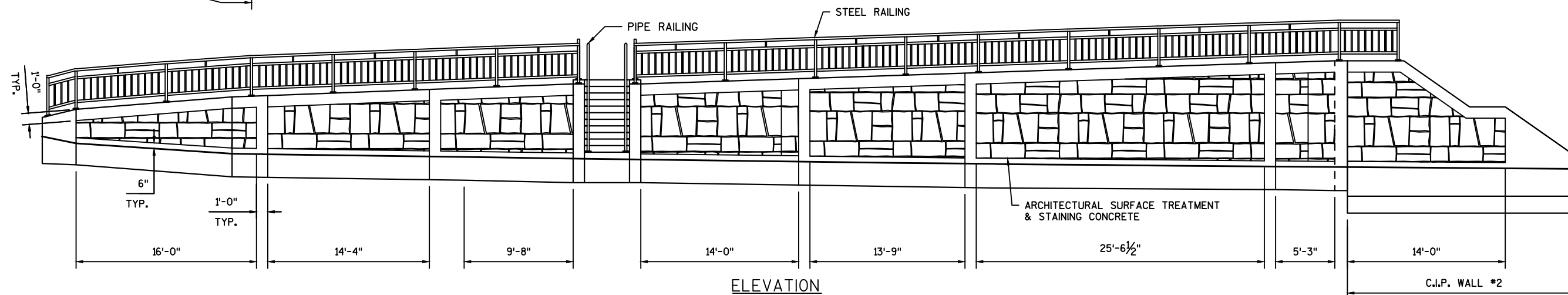
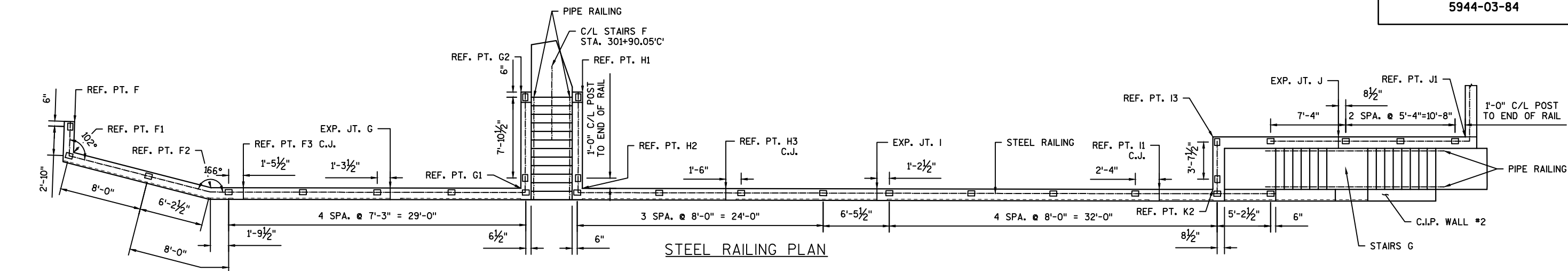
106



NOTES:

ALL POST SPACES ARE TAKEN HORIZONTALLY ALONG C/L RAILING.

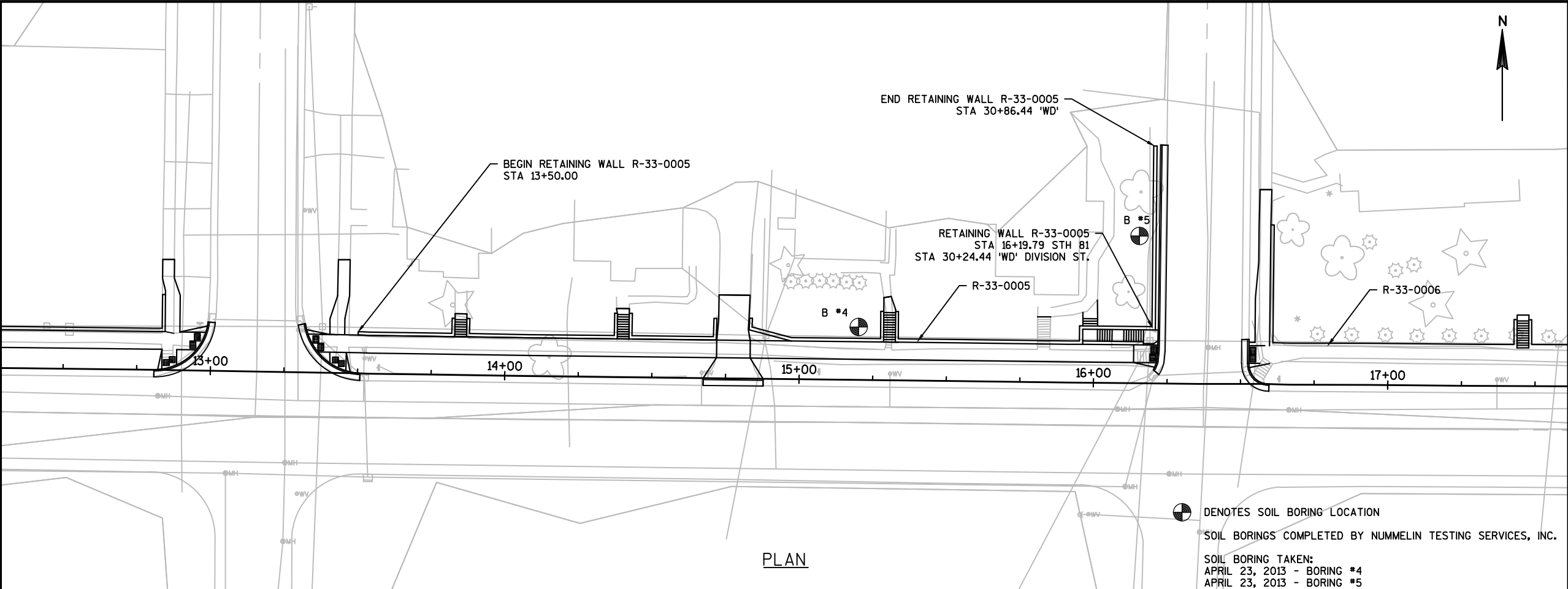
NO.	DATE	REVISION	BY
KNIGHT 700 N Third Street Suite 104 La Crosse, WI 54601 Engineers & Architects Phone: (608) 519-1455			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0005			
DRAWN BY AFD		PLANS CK'D. JDG	
RAILING AND ARCHITECTURAL DETAILS		SHEET 17 OF 21	



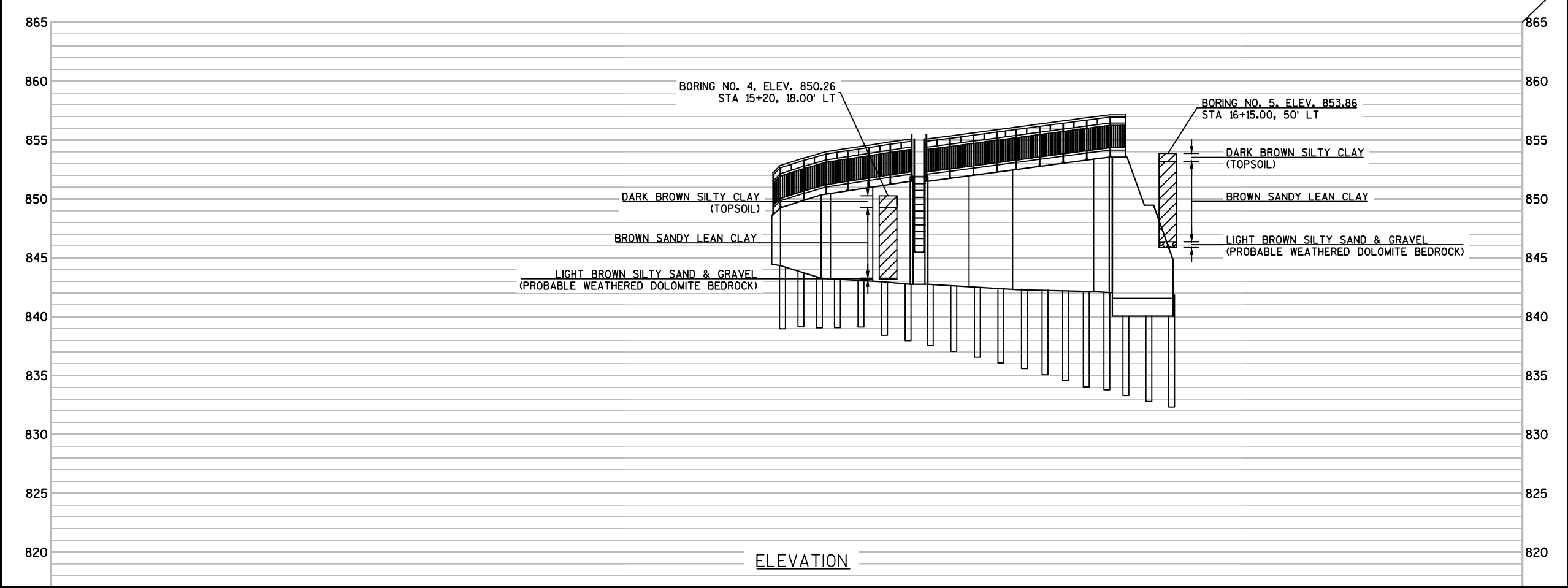
NOTES:

ALL POST SPACES ARE TAKEN HORIZONTALLY ALONG C/L RAILING.

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
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RAILING AND ARCHITECTURAL DETAILS		SHEET 18 OF 21	



PLAN



ELEVATION

STATE PROJECT NUMBER

5944-03-84

NOTE:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON STH 81 TOP OF CURB R.L.

ABBREVIATIONS

F— Fine M—Medium C— Coarse
Ws— Weathered So— Sound

MATERIAL SYMBOLS

TOPSOIL/ FILL	Silt	Sandstone
Sand	Peat	Limestone
Gravel	Clay	Igneous Rock

LEGEND OF PROBING

Probing No.
Sta.
Elevation
7 Average Blows Per Foot
Refusal

LEGEND OF BORING

Elev. Boring No.
Sta.

Unconfined STRENGTH → 7.7
Blows Per 6-IN. USING 10* WT. FALLING 24"

Wash Sample

Shelby Tube —S.T.

Ground Water ELEVATION

No Ground Water OBSERVED ABOVE THIS ELEVATION

Sandy Gravel
F. Boulders or COBBLES
Sand
Silty Clay
So
Limestone

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER 6-INCH AT THE LOCATIONS INDICATED ARE BASED ON DCP TESTING. THE DCP TESTS WERE PERFORMED USING A SOLID METAL ROD FITTED WITH A 1-3/8-INCH DIAMETER CONICAL POINT. THE POINT IS DRIVEN INTO THE SOIL WITH A 10-POUND WEIGHT FALLING 24-INCHES. THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE, HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

KNIGHT

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Suite 104
La Crosse, WI 54601
Engineers & Architects Phone: (608) 519-1455

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES DESIGN SECTION

STRUCTURE R-33-0005

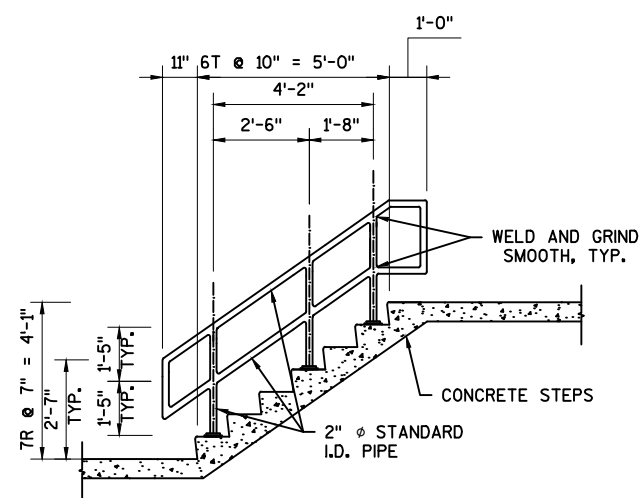
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PLANS CK'D. AFD

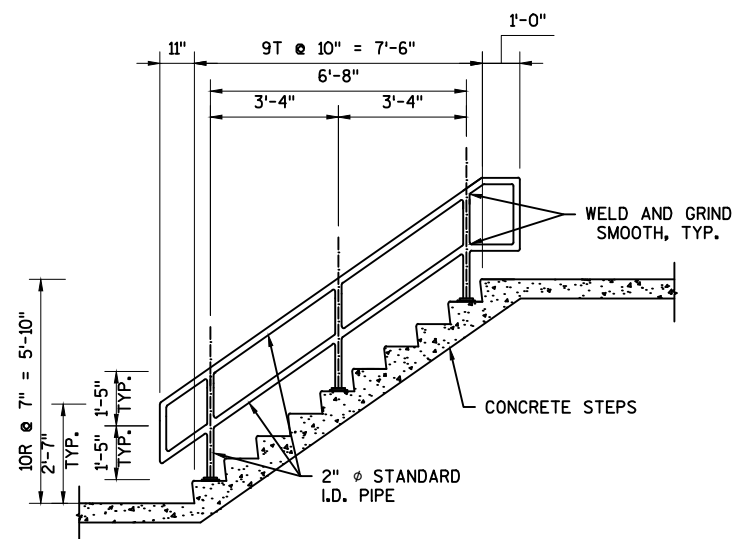
SUBSURFACE EXPLORATION

SHEET 19 OF 21

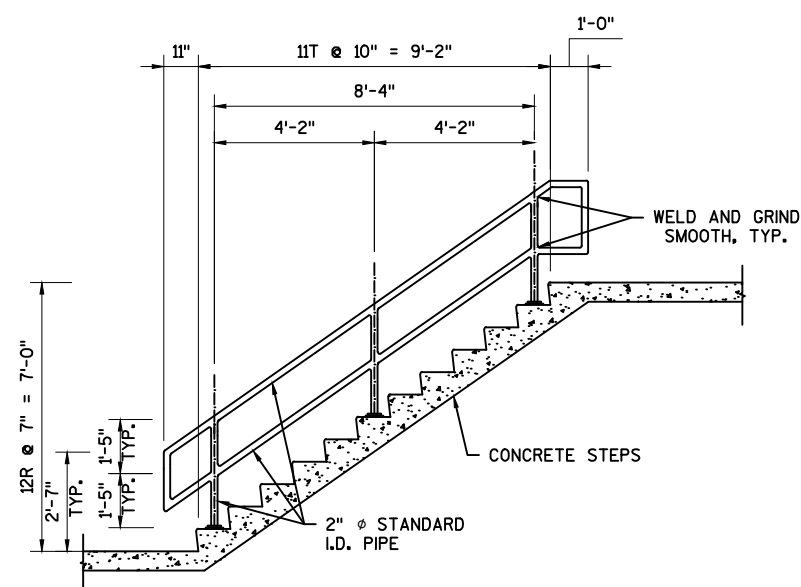
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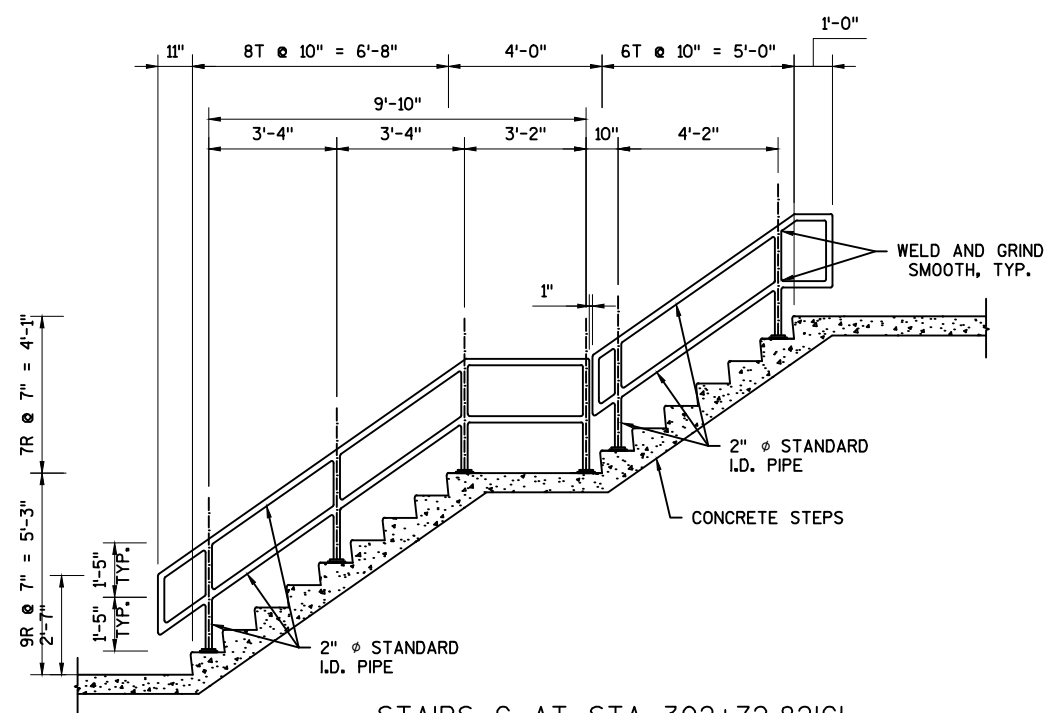
STAIRS D AT STA 300+34.84'C'



STAIRS E AT STA 300+90.04'E'



STAIRS F AT STA 301+90.05'C'



STAIRS G AT STA 302+72.82'C'

NOTES

BID ITEM SHALL BE 'RAILING PIPE, R-33-0005' WHICH INCLUDES ALL ITEMS SHOWN AND PAINTING.

RAILING TO BE PLACED ON BOTH SIDES OF STEPS.

ALL SPACINGS ARE TAKEN HORIZONTALLY ALONG CENTER LINE OF RAILING.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

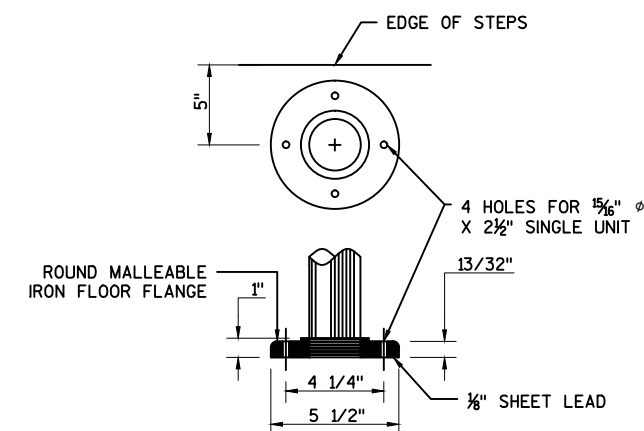
AFTER FABRICATION, ALL MATERIAL SHALL BE PAINTED WITH A THREE COAT ZINC-RICH EPOXY SYSTEM. THE FINISH COLOR SHALL BE BLACK, FED-STD. COLOR NO. 27038. PRIOR TO PAINTING, ALL MEMBERS SHALL BE GIVEN A NO. 11 NEAR WHITE BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

RAILING SHALL BE FABRICATED IN LENGTHS AS SHOWN.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

ALL POSTS AND RAILS SHALL BE WELDED TOGETHER WITH MIN. $\frac{3}{16}$ " FILLET WELDS ALL AROUND AND GROUND SMOOTH.

REFER TO R-33-0005 STRUCTURE DRAWINGS FOR CONCRETE STEP DETAILS.



FLANGE DETAIL

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-33-0005			
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PIPE RAILING DETAILS			SHEET 20 OF 21

BID ITEM SHALL BE "RAILING STEEL TYPE C2 GALVANIZED PEDESTRIAN R-33-0005", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN AND PAINTING

NO. 1, 2, 6, 9, AND NO. 10 SHALL CONFORM TO A.S.T.M. A709 GRADE 36.
STRUCTURAL TUBING SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO. 4,5,7,8).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO. 1 AND CAULK AROUND PERIMETER OF PLATE NO. 1 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS IN C.I.P. CONCRETE RETAINING WALL ARE TO BE VERTICAL.

AFTER FABRICATION, ALL MATERIAL, EXCEPT ANCHORAGE (NO. 2 & 3) AND SHIMS SHALL BE PAINTED WITH A THREE COAT ZINC-RICH EPOXY SYSTEM PER WISDOT STANDARD SPECIFICATION, SECTION 517, EPOXY SYSTEM. SHIMS SHALL BE GIVEN ONE COAT OF ZINC RICH PRIMER PAINT. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038, BLACK.

1/4" Ø VENT HOLES LOCATED IN TOP RAIL OVER RAIL POSTS AND AT LOW END OF OTHER RAIL S.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

① PLATE $\frac{5}{8}$ " X 6" X 8" WITH $\frac{3}{4}$ " X $1\frac{1}{2}$ " SLOTTED HOLES.

② 1/4" X 5" X 7" ANCHOR PLATE WITH 1/6" Ø HOLES FOR ANCHOR BOLTS NO. 3.

③ 5/8" DIA. X 7 1/2" LONG ASTM F593 TYPE 316 STAINLESS STEEL ANCHOR BOLTS WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE - 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY) 5/8" Ø, MINIMUM PULLOUT CAPACITY OF 15 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS)

④ STRUCTURAL TUBING 3" X 1½" X ⅜". PLACE VERTICAL. WELD TO NO. 1 & 5.

⑤ STRUCTURAL TUBING 3" X 1½" X ⅜" RAILS, WELD TO NO. 4.

⑥ PLATE $\frac{3}{16}$ " X 3" X $\frac{1}{2}$ " END CAP. WELD TO NO. 5 AND GRIND SMOOTH.

⑦ STRUCTURAL TUBING 1" X 1" X 1/8" PICKETS. WELD TO NO. 5 SPACE AT 6" MAX. ϕ TO ϕ SPACING. PLACE VERTICAL.

(8) STRUCTURAL TUBING 1" X 1 1/2" X 1/8" PICKETS. WELD TO NO. 11. PLACE VERTICAL.

⑨ RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. PROVIDE "SLIDING FIT".

⑩ RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. (1'-4" @ FIELD ERECTION JOINTS).

⑪ BAR $2\frac{1}{2}" \times 1" \times 2'-0"$

⑫ 1/2" DIA. STAINLESS STEEL BOLT WITH NUT AND LOCKWASHER.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE	R-33-0005
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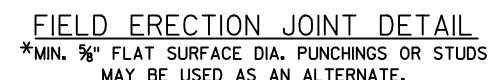
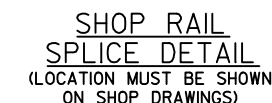
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STEEL RAILING DETAILS

SHEET 21 OF 21



⊗ RAILING OPENING TO BE 6" AT 45°F.
MOVEMENT ADJUSTMENT SHALL BE
MADE AT A RATE OF 1" PER 20°F.



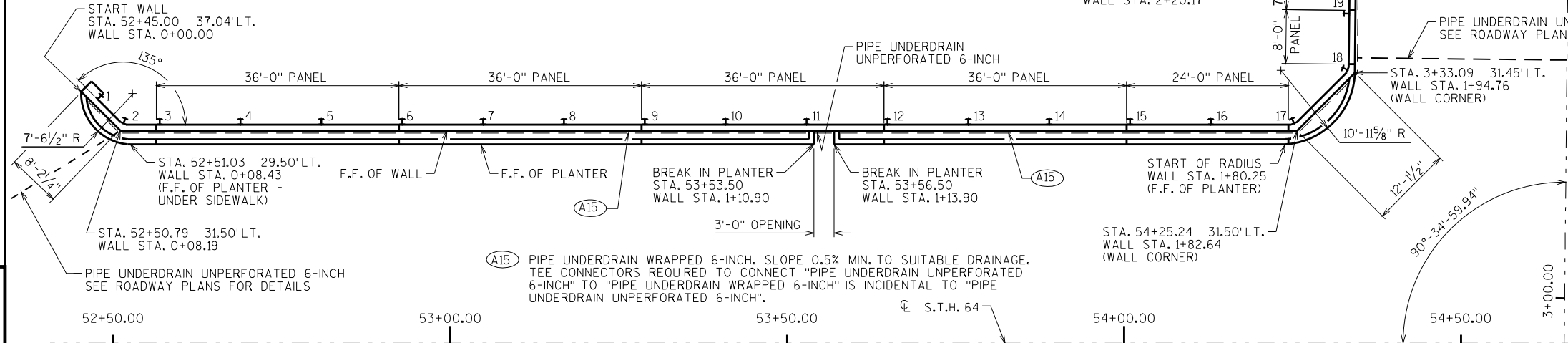
SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
R-35-06 WEST END (BOR-1)			
SAND, BROWN, FINE TO MEDIUM, SOME SILT, LITTLE GRAVEL ELEVATION 1282.2 FT. TO ELEVATION 1279.7 FT.	32	0	120
SAND, BROWN, FINE TO MEDIUM, SOME GRAVEL ELEVATION 1297.7 FT. TO ELEVATION 1275.7	34	0	130
SAND, BROWN, FINE TO MEDIUM, SOME GRAVEL ELEVATION 1275.7 FT. TO ELEVATION 1267.7 FT.	33	0	125
R-35-06 NORTH END (BOR-2)			
SAND, BROWN, FINE TO MEDIUM, LITTLE SILT, SOME GRAVEL ELEVATION 1279.9 FT. TO ELEVATION 1276.9 FT.	31	0	118
SILT, BROWN, SOME SAND, LITTLE GRAVEL ELEVATION 1276.9 FT. TO ELEVATION 1272.4 FT.	30	0	115
SAND, BROWN, SOME SAND LITTLE GRAVEL ELEVATION 1272.4 FT. TO ELEVATION 1270.4 FT.	31	0	118
SAND, BROWN, FINE TO MEDIUM ELEVATION 1270.4 FT. TO ELEVATION 1264.9 FT.	33	0	125

THE TYPICAL WALL SECTION USED IN THE ANALYSES HAD AN EXPOSED HEIGHT THAT VARIES FROM 3.0 FEET TO 7.4 FEET. THE FOLLOWING ASSUMPTIONS ARE ALSO INCLUDED IN THE ANALYSES:

1. THE SLOPE IN FRONT OF THE WALL IS HORIZONTAL.
2. THE SLOPE BEHIND THE WALL RANGED FROM HORIZONTAL TO 4H:IV.
3. GROUNDWATER WAS NOT ENCOUNTERED DURING THE INVESTIGATION.
4. THE POST AND PANEL WALLS HAVE A BATTER SLOPE OF 1/4-INCH PER FOOT.
5. DRAINAGE WILL BE PROVIDED BEHIND THE WALL SUCH THAT THERE WILL BE NO HYDROSTATIC PRESSURE BEHIND THE WALL.
6. THE EMBEDMENT DEPTH WAS DETERMINED BY REDUCING THE COEFFICIENT OF PASSIVE EARTH PRESSURE BY 2/3.
7. THE POST SPACING WAS 12 FEET FOR A DRILLED HOLE SIZE OF 30 INCHES.
8. THE COMPUTER PROGRAM XSTABL DETERMINES THE FACTOR OF SAFETY FOR GLOBAL SLOPE STABILITY
9. THE DESIGN FACTOR OF SAFETY FOR THE SLOPE STABILITY WAS 1.3.

CONTACT THE NORTH CENTRAL REGION, RHINELANDER OFFICE SOILS ENGINEER TO EVALUATE THE SUBSURFACE CONDITIONS AFTER EXCAVATION IS COMPLETED.



POST AND PANEL WALL ANALYSES

STATION	EXPOSED WALL HEIGHT (FEET)	DEPTH OF POST EMBEDMENT (FEET)	TOTAL POST LENGTH (FEET)	MAXIMUM MOMENT (FOOT POUNDS/12 FOOT OF WALL)
53+00.00	3.0	5.5	8.5	9,700
53+50.00	5.2	9.3	15.0	42,100
54+00.00	6.3	10.7	17.0	69,000
54+10.00	7.4	12.1	19.5	103,800
3+50.00	5.5	8.0	13.5	32,500
4+00.00	3.0	5.0	8.0	7,300
4+25.00	1.5	3.0	4.5	700

NOTE: MAX. SPACING ON THE POSTS IS 12 FOOT AND THE HOLE DIAMETER OF THE POSTS IS 30 INCHES.

THE GLOBAL STABILITY OF THE WALL AT THE HIGHEST LOCATION WAS STABLE WITH A FACTOR OF SAFETY OF 3.8.

PLAN

LIST OF DRAWINGS

- | | |
|--|------------------------------------|
| 1. RETAINING WALL | 13. ELEVATION PILES 10 THRU 20 |
| 2. QUANTITIES AND GRADE LINES | 14. ELEVATION PILES 19 THRU 31 |
| 3. SUBSURFACE SHEET | 15. FORMLINER AND POST DETAILS |
| 4. WALL TABLE | 16. FORMLINER AND POST DETAILS |
| 5. CROSS SECTION THRU WALL | 17. FORMLINER AND POST DETAILS |
| 6. ELEVATION S.T.H. 64 | 18. PLANTER REINFORCEMENT DETAILS |
| 7. ELEVATION POPLAR ST. | 19. PLANTER REINFORCEMENT DETAILS |
| 8. ELEVATIONS OF STAIRWELLS | 19A. PLANTER REINFORCEMENT DETAILS |
| 9. RAILING TUBULAR DETAILS | 20. COPING DETAILS |
| 10. RAILING STEEL TYPE C1 | 21. COPING DETAILS |
| 11. REINFORCEMENT DETAILS STAIRS & END OF WALL | 22. COPING DETAILS |
| 12. ELEVATION PILES 1 THRU 10 | 23. REINFORCEMENT DETAILS |
| | 24. REINFORCEMENT DETAILS |

STATE PROJECT NUMBER

9000-10-70

DESIGN DATA

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY RETAINING WALL	$f'_c = 4,000$	P.S.I.
TIMBER LAGGING	$fb = 1,150$	P.S.I.
	$E = 1,800,000$	P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60	$f_y = 60,000$	P.S.I.
STRUCTURAL STEEL HS	$f_y = 50,000$	P.S.I.
CONCRETE MASONRY SOLDIER PILE FOOTING	$f'_c = 3,500$	P.S.I.

FOUNDATION DATA

WALL TO BE SUPPORTED ON HP 10 X 42 STEEL SOLDIER PILING ENCASED
IN 2'-6" DIA. CONCRETE FOOTINGS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

GRANULAR BACKFILL REQUIRED IN ANY AREA FILLED BEHIND THE WALL.

A NAMEPLATE SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

ALL ARCHITECTURAL SURFACE TREATMENT AND STAINING (FOR BOTH THE
PLANTER AND THE WALL) SHALL BE INCLUDED IN (CSS)

PLANTER CONCRETE AND REBAR SHALL BE INCLUDED IN (CSS)

ALL EXPOSED CONCRETE (NON-ARCHITECTURAL TREATMENT SURFACE)
SURFACES OF THE CONCRETE RETAINING WALL AND STAIRS SHALL
REMAIN PLAIN CONCRETE.

STAIN ARCHITECTURAL SURFACE TREATMENT SURFACES TO RESEMBLE GRANITE - SEE SPECIAL PROVISION FOR "CONCRETE STAINING R-35-06".

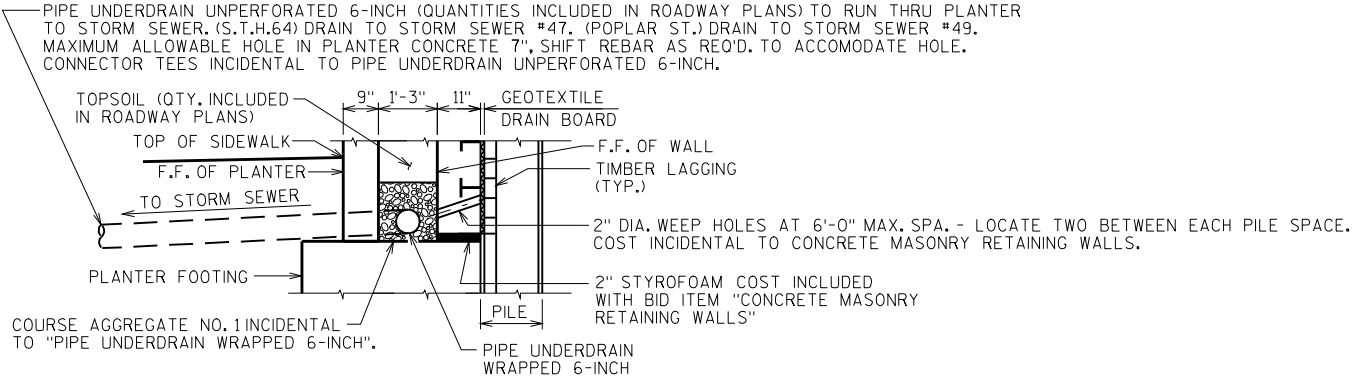
CONTRACTOR SHALL EXCAVATE IN BACK OF THE WALL IN SUFFICIENTLY SMALL LIFTS, TO INSTALL LAGGING FROM THE TOP OF THE PILE DOWN TO THE FOOTING. LAGGING SHALL BE PLACED ON THE INSIDE OF THE FRONT FLANGE OF THE SOLDIER PILING. THE CONTRACTOR SHALL DO THIS IMMEDIATELY AFTER EXCAVATION TO PREVENT THE GROUND FROM ERODING INTO THE EXCAVATED AREA.

STRUCTURES DESIGN CONTACTS:
MIKE WILLIAMS (608) 266-5089
CHRISTINE KRALL (608) 266-8483

NO.	DATE	REVISION	BY
 Plans Prepared By WISDOT BUREAU OF STRUCTURES			
APPROVED <i>William C. Diehn</i> ^{MGW} CHIEF STRUCTURES DESIGN ENGINEER		2/18/10 DATE	
STRUCTURE R-35-06			
WALL ALONG POPLAR STREET AND S.T.H. 64			
COUNTY	LINCOLN	TOWN/CITY/VILLAGE	MERRILL
DESIGN SPEC. AASHTO STD. SPEC. 2003		LOAD	HS-25
DESIGNED BY	MGW	DRAWN BY	DDS
DESIGN CK'D.		PLANS CK'D.	CHK
RETAINING WALL		SHEET 1 OF 25	
		112	

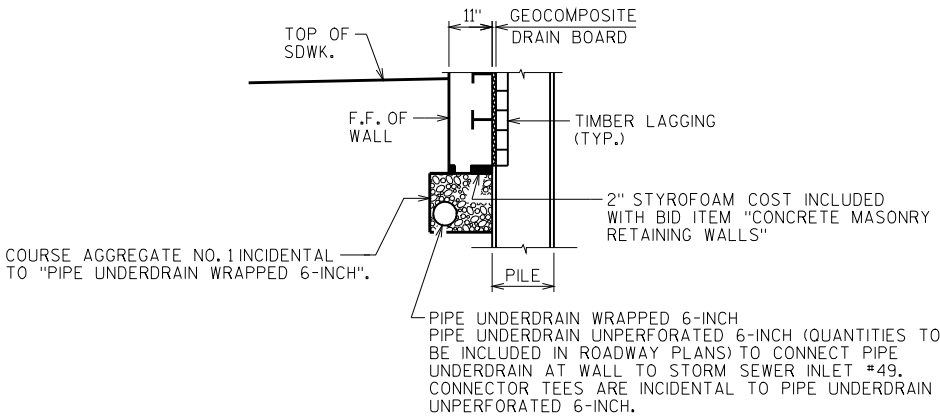
SCALE = 10.0

TOTAL ESTIMATED QUANTITIES			STRUCTURE QUANTITIES (EXCLUDING CSS)	COMMUNITY SENSITIVE SOLUTION (CSS)
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS	TOTALS
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-35-06	LS	1	—
209.0100	BACKFILL GRANULAR	CY	260	—
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	100	47
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	12480	5300
506.0605	STRUCTURAL STEEL HS	LB	17640	—
506.3010	WELDED STUD SHEAR CONNECTORS 7/8X5-INCH	EACH	344	—
513.4080	RAILING TUBULAR SPECIAL R-35-06	LS	1	—
513.7005	RAILING STEEL TYPE C1 R-35-06	LS	1	—
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	325	—
SPV.0035	CONCRETE MASONRY SOILDER PILE FOOTINGS	CY	47	—
SPV.0090	FOUNDATION DRILLING 2'-6" DIA.	LF	256	—
SPV.0110	TIMBER LAGGING	MBM	0.40	—
SPV. 0165	GEOCOMPOSITE DRAIN BOARD	SF	1160	—
SPV.0165	ARCHITECTURAL SURFACE TREATMENT	SF	—	1110
SPV.0165	CONCRETE STAINING R-35-06	SF	—	1110
			—	—
			—	—
			—	—
			—	—
	NON-BID ITEMS			
	FILLER	SIZE	0 1/2" THK.	—
			—	—
			—	—



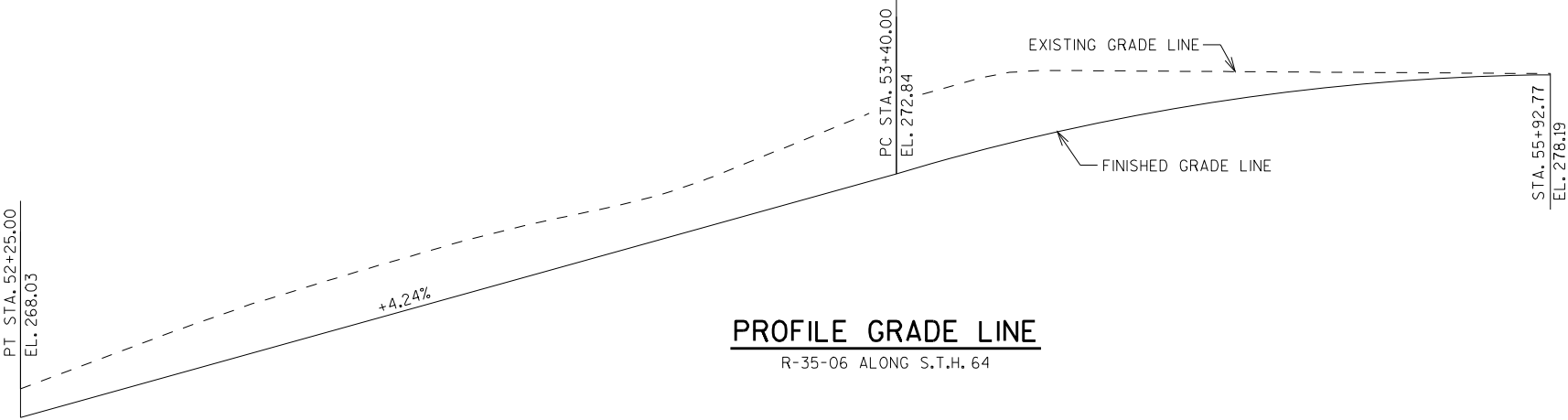
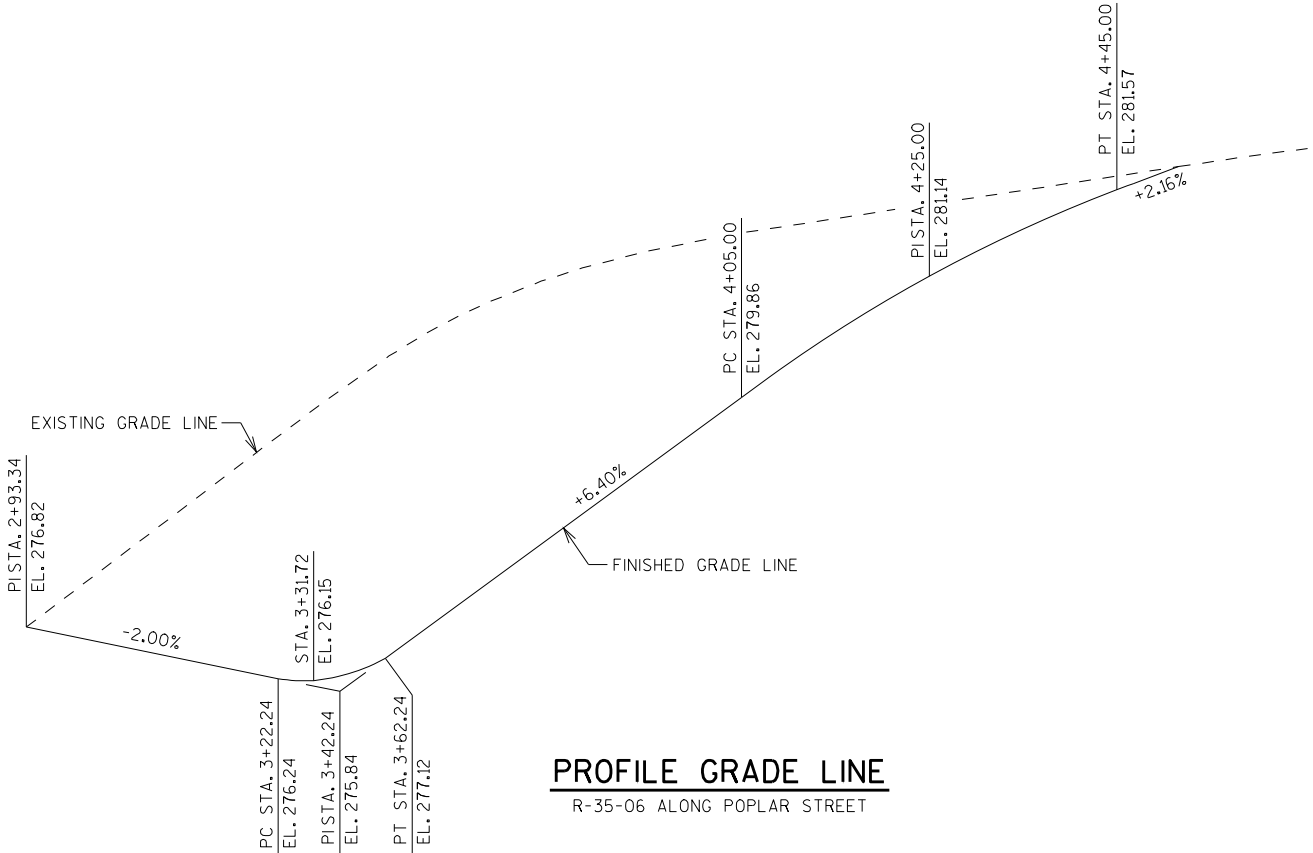
SOLDIER PILEWALL UNDERDRAIN DETAIL

S.T.H. 64



SOLDIER PILEWALL UNDERDRAIN DETAIL

POPLAR ST.



8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
QUANTITIES & GRADE LINES		SHEET 2	
		113	

SCALE =

STH 64 & POPLAR STREET
CITY OF MERRILL

POPLAR ST R/L

5+00

4+00

55+00

53+00

54+00

STH 64 R/L

33.3'

20'

BOR-2

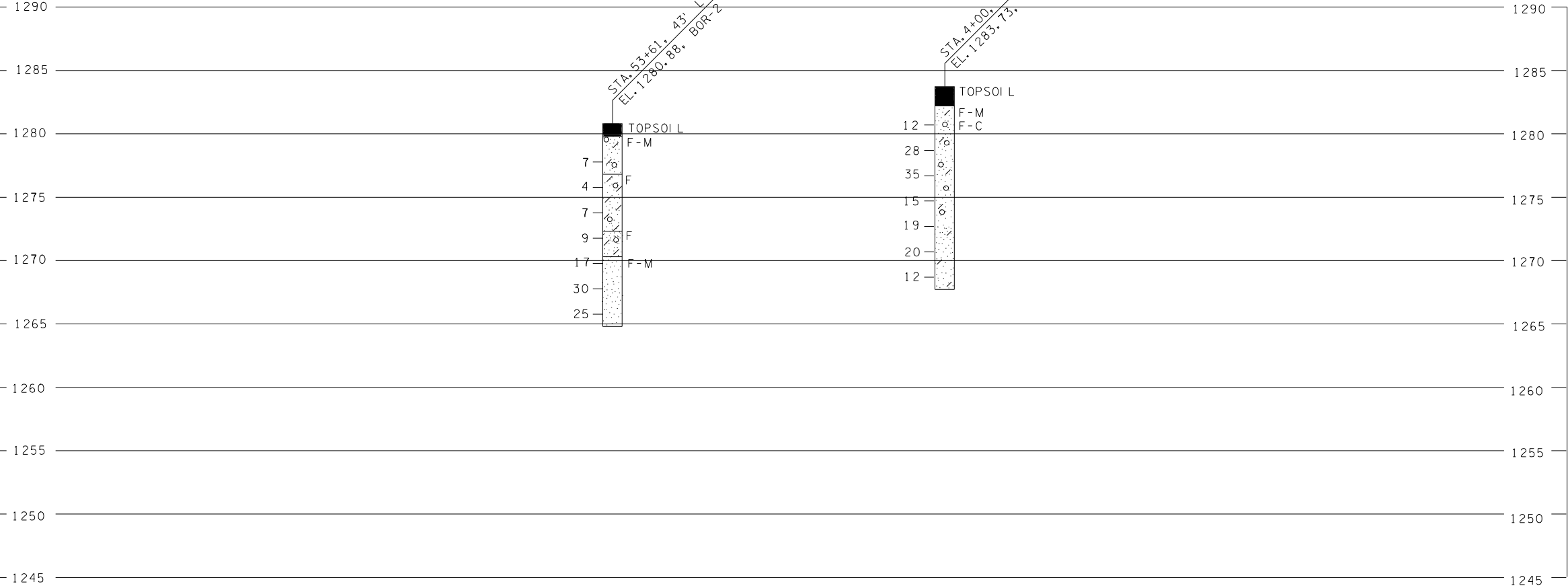
BOR-1

STA. 53+61.43' LT OF STH-64 R/L
EL. 1280.88' BOR-2

STA. 4+00.35' LT OF POPLAR ST R/L
EL. 1283.73' BOR-1

TOPSOIL
F-M
F
F
F-M
25

TOPSOIL
F-M
F-C
12
28
35
15
19
20
12



STATE PROJECT NUMBER

9000-10-70

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL SILT SANDSTONE
SAND PEAT LIMESTONE
GRAVEL CLAY IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

ELEV. BORING NO. STA.
UNCONFINED STRENGTH 7.7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO
LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION
DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		L H	PLANS CK'D. CHK
SUBSURFACE EXPLORATION		SHEET 3	
		114	

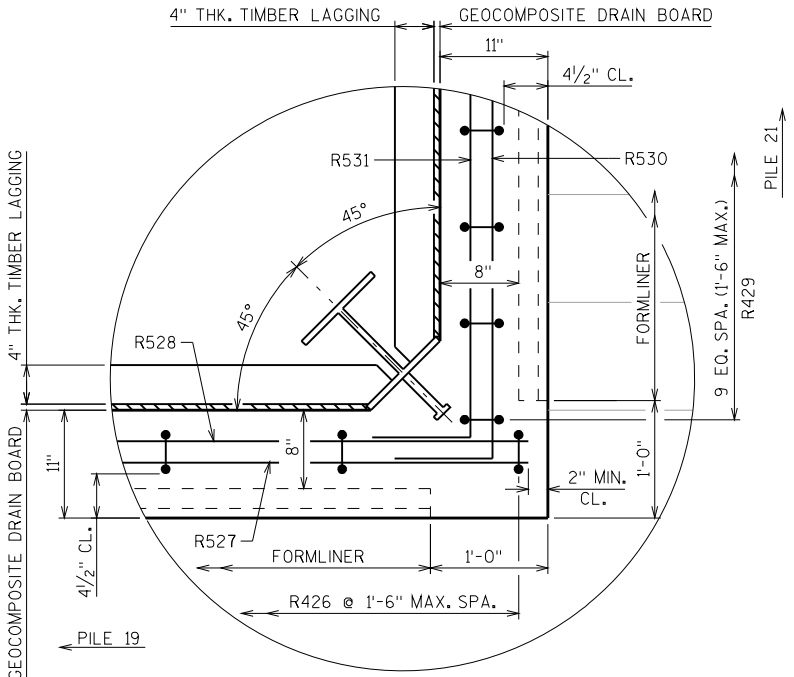
SCALE =

TOP OF PILE = TOP OF WALL - 9"
WALL HEIGHT = TOP OF WALL - TOP OF FOOTING
TOP OF FOOTING = TOP OF SIDEWALK - 1'-6"

* ELEVATIONS TO BE VERIFIED WITH ROADWAY PLANS

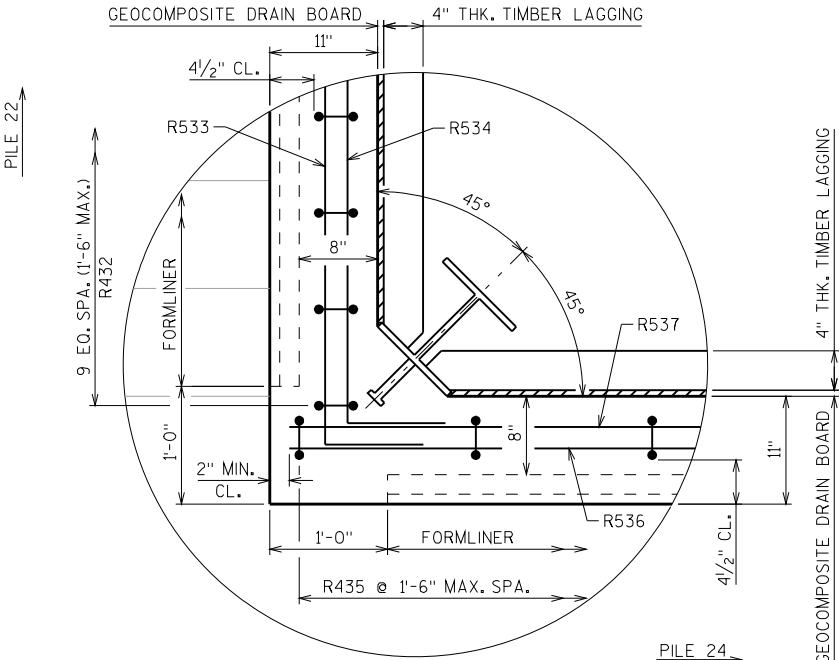
** BASED ON EXPOSED WALL HEIGHT (TOP OF WALL - (TOP OF SIDEWALK OR WALL HEIGHT) - 1.50')

PILE NO.	WALL STATION	TOP OF WALL	TOP OF PILE	*TOP OF SIDEWALK / GROUND	TOP OF FOOTING	BOTTOM OF FOOTING	FOOTING DEPTH **	WALL HEIGHT	PILE LENGTH	SHEAR STUDS REQ'D.	LOCATION/DESCRIPTION
1	00+01.25	1272.50	1271.75	1269.99	1268.49	1262.99	5.50	4.01	8.76	14	BEGIN WALL
2	00+08.78	1272.50	1271.75	1269.15	1267.65	1262.15	5.50	4.85	9.60	9	CORNER
3	00+13.81	1272.66	1271.91	1269.39	1267.89	1262.39	5.50	4.77	9.52	9	
4	00+25.81	1272.99	1272.24	1269.89	1268.30	1262.80	5.50	4.69	9.44	8	
5	00+37.81	1273.62	1272.87	1270.40	1268.90	1263.40	5.50	4.72	9.47	8	
6	00+49.81	1274.60	1273.85	1270.91	1269.41	1260.11	9.30	5.19	13.74	9	
7	00+61.81	1275.59	1274.84	1271.42	1269.92	1260.62	9.30	5.77	14.22	10	
8	00+73.81	1276.58	1275.83	1271.93	1270.43	1261.13	9.30	6.15	14.70	10	
9	00+85.81	1277.57	1276.82	1272.43	1270.93	1261.63	9.30	6.64	15.19	10	
10	00+97.81	1278.55	1277.80	1272.94	1271.44	1260.74	10.70	7.11	17.06	11	
11	01+09.81	1279.48	1278.73	1273.43	1271.93	1261.23	10.70	7.55	17.50	11	
12	01+21.81	1280.19	1279.44	1273.90	1272.40	1261.70	10.70	7.79	17.74	12	
13	01+33.81	1280.89	1280.14	1274.36	1272.86	1260.76	12.10	8.03	19.38	12	
14	01+45.81	1281.54	1280.79	1274.77	1273.27	1261.17	12.10	8.27	19.62	12	
15	01+57.81	1282.18	1281.43	1275.18	1273.68	1261.58	12.10	8.50	19.85	12	
16	01+69.81	1282.36	1281.61	1275.55	1274.05	1261.95	12.10	8.31	19.66	12	
17	01+81.81	1282.44	1281.69	1275.92	1274.42	1262.32	12.10	8.02	19.37	12	CORNER
18	01+95.58	1282.45	1281.70	1276.54	1275.04	1264.34	10.70	7.41	17.36	11	CORNER
19	02+03.58	1282.54	1281.79	1276.83	1275.33	1264.63	10.70	7.21	17.16	11	
20	02+11.92	1282.71	1281.96	1277.14	1275.64	1267.64	8.00	7.07	14.32	11	CORNER
21	02+19.76	1282.71	1281.96	————	1275.64	1267.64	8.00	7.07	14.32	23	SIDEWALK OPENING
22	10+01.50	1282.71	1281.96	1277.26	1275.76	1267.76	8.00	6.95	14.20	23	SIDEWALK OPENING
23	10+08.25	1282.71	1281.96	————	1275.76	1267.76	8.00	6.95	14.20	11	CORNER
24	10+21.68	1282.97	1282.22	1278.16	1276.66	1268.66	8.00	6.31	13.56	10	
25	10+33.68	1283.17	1282.42	1279.01	1277.51	1269.51	8.00	5.66	12.91	9	
26	10+45.68	1283.33	1282.58	1279.89	1278.39	1270.39	8.00	4.94	12.39	9	
27	10+57.68	1283.42	1282.67	1280.72	1279.22	1274.22	5.00	4.20	8.45	8	
28	10+65.93	1283.41	1282.66	1281.23	1279.73	1274.73	5.00	3.68	7.93	7	
29	10+73.97	1283.39	1282.64	1281.73	1280.23	1275.23	5.00	3.16	7.41	11	SIDEWALK OPENING
30	20+02.50	1283.43	1282.68	1282.01	1280.51	1277.51	3.00	2.92	5.17	11	SIDEWALK OPENING
31	20+14.50	1283.65	1282.90	1282.57	1281.07	1278.07	3.00	2.58	4.83	8	END WALL



CORNER DETAIL - SOLDIER PILE #20

SHOWING REINFORCEMENT



CORNER DETAIL - SOLDIER PILE #23

SHOWING REINFORCEMENT

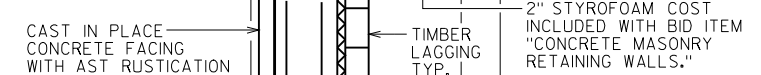
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
WALL TABLE		SHEET 4	
		115	



8



AGE M
E AG
NCIDE
UNDER



SECTION A-A
TYPICAL POST AND CAP E



8

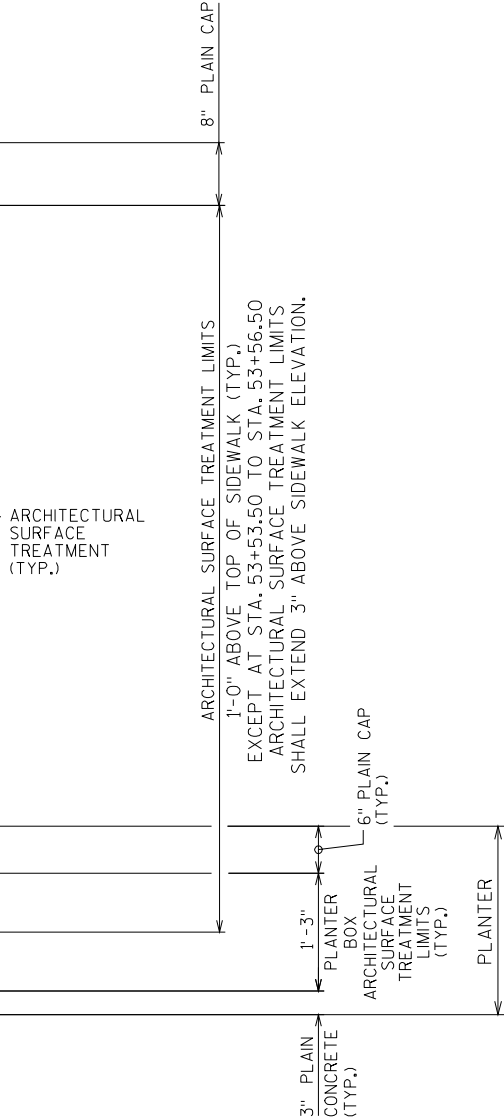
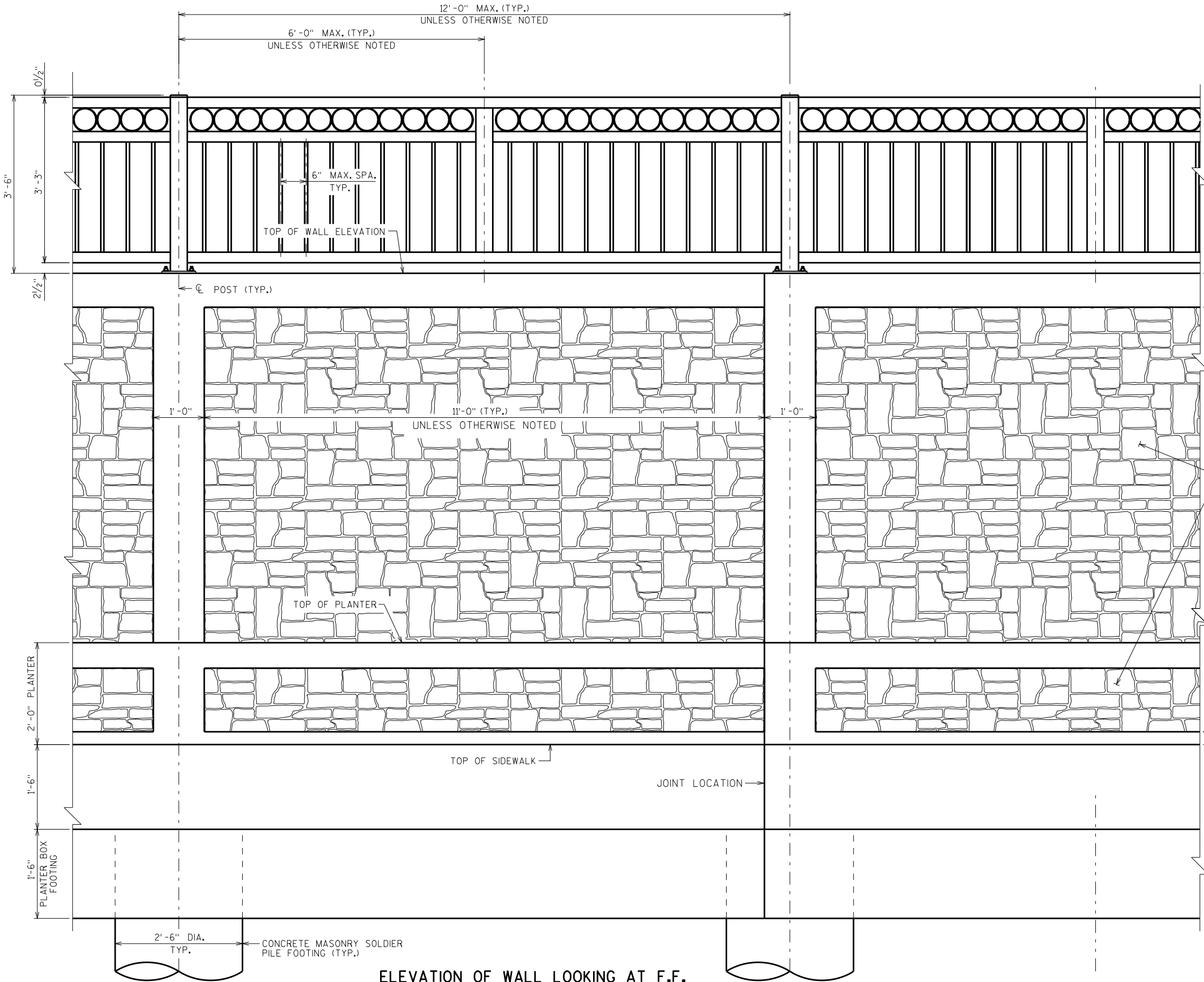
SCALE = 1

NOTES:

ALL SPACES EXCAVATED BUT NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL.

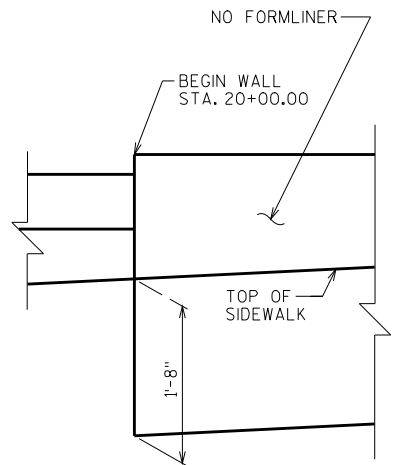
THE SURFACE TREATMENT AND FINISH SHALL USE RUSTIC ASHLAR PANEL WITH GRANITE COLORATION AND ACCURATELY DUPLICATE THE PARAPET ON B-35-2 (S.T.H. 64 OVER THE PRAIRIE RIVER) THE STONES SHALL VARY FROM 14" TO 52" WITH A RELIEF OF 3". SEE SPECIAL PROVISION.

WRAP/MATCH STONE PATTERN AROUND CORNERS WHERE APPLICABLE.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY JPH/DDS		PLANS CK'D. CHK	
ELEVATION S.T.H. 64		SHEET 6 117	

WRAP/MATCH STONE PATTERN AROUND CORNERS
WHERE APPLICABLE.



POPLAR STREET
WALL STA. 20+00.00

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
		DRAWN BY JPH/DD5	PLANS CK'D. CHK
ELEVATION POPLAR ST.		SHEET 7	
		118	

WRAPPED 6-INCH

6'-0"

5'-0" CLEAR

6"

3'-6"

8"

5"

5"

1'-0"

1'-0"

0 1/2" FILLER TYP.

EL. 1282.71 TYP.

EL. 1282.71 TYP.

LEVEL TYP.

EL. 1282.45

EL. 1281.86

EL. 1281.28

EL. 1280.70

EL. 1280.11

EL. 1279.53

EL. 1278.95

EL. 1278.36

EL. 1277.78

0.02% SIDEWALK S

EL. 1277.14 TOP OF SIDEWALK STA. 3+50.25 31.45' LT. OF POPLAR ST. WALL STA. 2+11.92

EL. 1277.26 TOP OF SIDEWALK STA. 3+55.25 31.45' LT. OF POPLAR ST. WALL STA. 10+08.25

EL. 1277.14 TOP OF FOOTING

EL. 1275.64 BOTTOM OF FOOTING

4'-11" X 1'-6" X 1'-0" DEEP CONCRETE STAIR FOOTING

4'-0" CLEAR

6"

5'-0" CLEAR

BETWEEN ANCHOR PLATES

BETWEEN RETAINING WALLS

A14

A15

[illegible]

SECTION C-C

SIMILAR AT POST 22

[illegible]

POPLAR ST. - STA. 4+23.00 TO STA. 4+28.00
BETWEEN WALL STA. 10+75.00 TO WALL STA. 20+00.00

ELEVATION OF STAIRWELLS

NOTES

BID ITEM SHALL BE "RAILING TUBULAR SPECIAL R-35-06" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

RAILS AND POSTS TO BE ASTM A500, GRADE B. BASE PLATES AND SHIMS TO BE ASTM A709, GRADE 36. ALL GALVANIZED AFTER FABRICATION.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET POSTS NORMAL TO GRADE.

ALL POST SPA. ARE TAKEN HORIZ. ALONG CENTER LINE OF RAILING AT BASE OF POST.

SHIMS SHALL BE USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

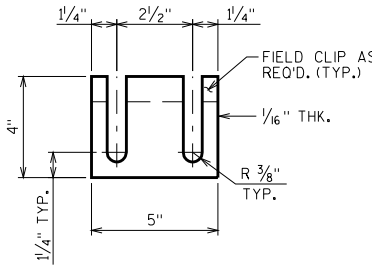
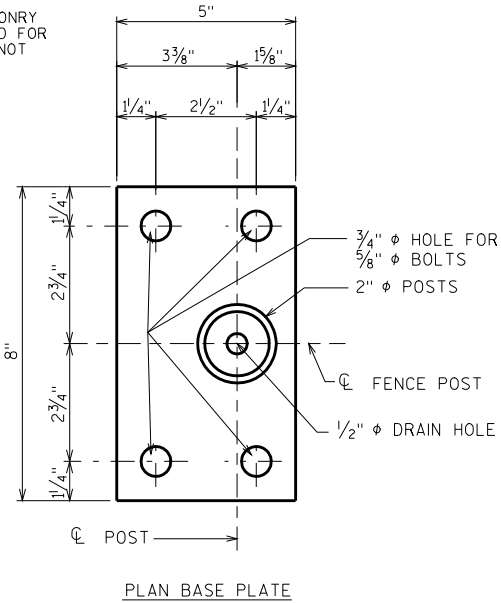
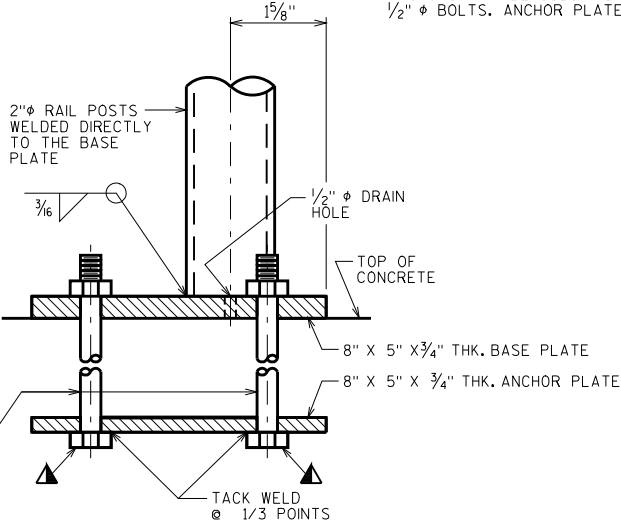
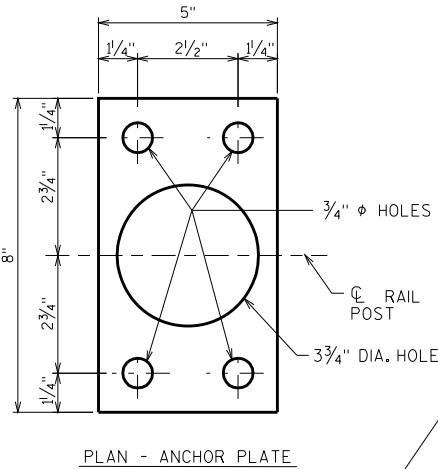
CUT BOTTOM OF POST TO MAKE VERTICAL IN TRANSVERSE AND LONGITUDINAL DIRECTION.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED.

1/4" VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A #6 BLAST CLEANING BY SSPC SPECIFICATIONS.

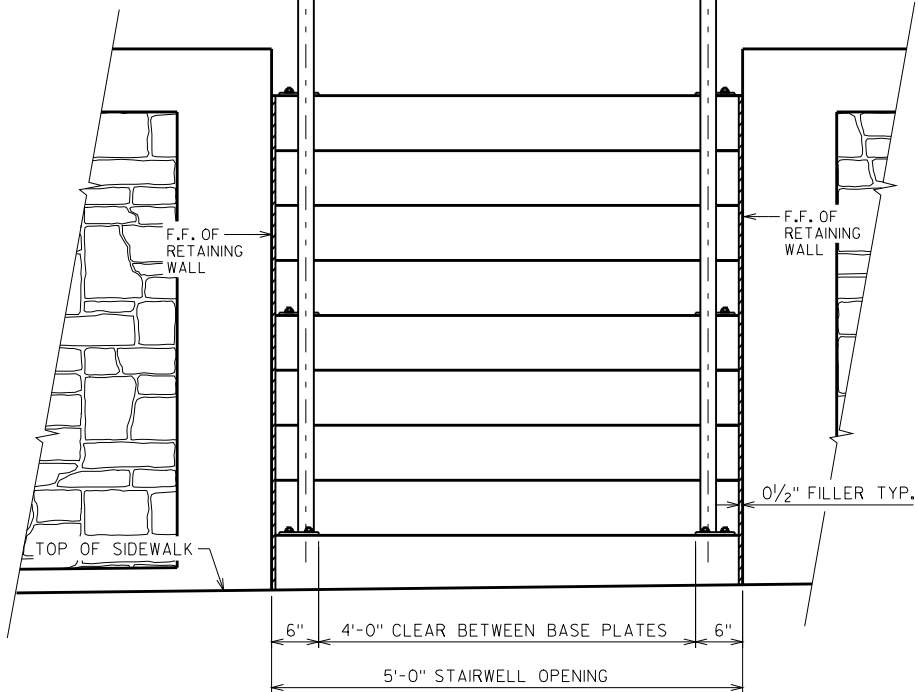
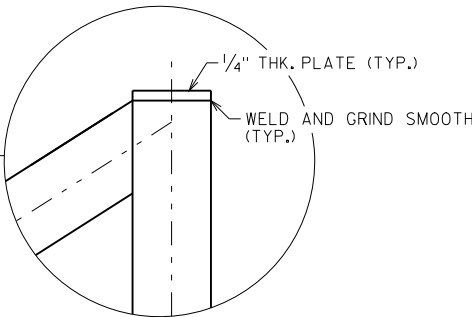
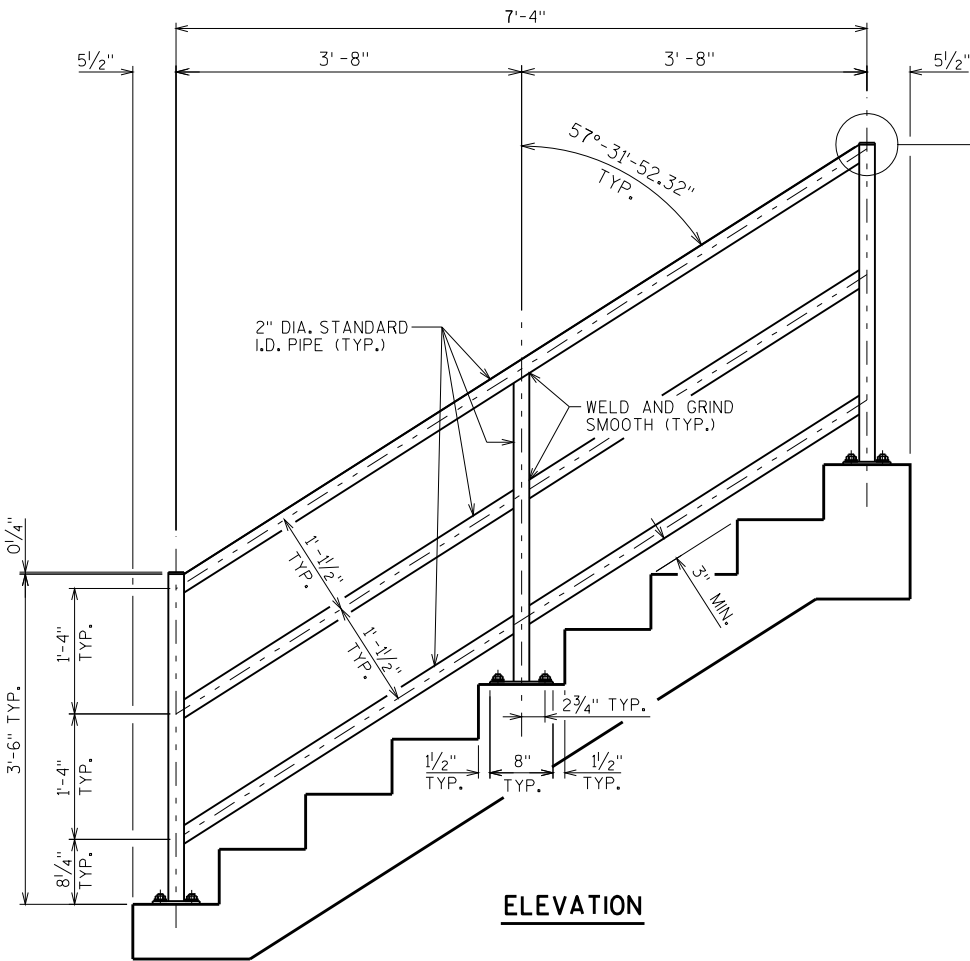
▲ 1/2" ϕ X 6 7/8" LONG GALVANIZED HEX. BOLT WITH NUT AND WASHER. TYPE S. 1/2" ϕ CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR 1/2" ϕ BOLTS. ANCHOR PLATE NOT



POST SHIM DETAIL
PROVIDE 2 SHIMS PER POST.

A307 - 5/8" DIA. X 7 1/2" LONG HEX BOLTS (GALVANIZED) WITH A307 NUT AND WASHER. 4 REQUIRED PER POST. THREAD 3" AND PLACE NORMAL TO BASE PLATE CHAMFER TOP OF BOLTS BEFORE THREADING.

POST ATTACHMENT @ STAIRWAY



ELEVATION

RAILING ON TOP OF RETAINING WALLS
NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
RAILING TUBULAR DETAILS		SHEET 9	
		120	

- (1A) PLATE $\frac{5}{8}$ " THK. X 6" X 10" THK. WITH $\frac{3}{4}$ " X $\frac{1}{2}$ " SLOTTED HOLES.
- (2A) $\frac{1}{4}$ " THK. X 5" X 9" ANCHOR PLATE WITH $\frac{1}{16}$ " ϕ HOLES FOR ANCHOR BOLTS NO. 3.
- (3) $\frac{5}{8}$ " DIA. X $7\frac{1}{2}$ " LONG ASTM F593 TYPE 316 STAINLESS STEEL ANCHOR BOLTS WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE - 4 EQUIV. STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), $\frac{5}{8}$ " ϕ , MINIMUM PULLOUT CAPACITY OF 15 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS.
- (4A) STRUCTURAL TUBING 3" X 3" X $\frac{3}{16}$ ". PLACE VERTICAL. WELD TO NO. 1 & 5.
- (4B) STRUCTURAL TUBING 3" X $1\frac{1}{2}$ " X $\frac{3}{16}$ ". PLACE VERTICAL. WELD TO NO. 5.
- (5A) STRUCTURAL TUBING $1\frac{1}{2}$ " X $1\frac{1}{2}$ " X $\frac{3}{16}$ " RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION JOINTS.
- (6B) $\frac{3}{4}$ " X $\frac{3}{4}$ " SOLID BAR. WELD TO NO. 5. PLACE VERTICAL.
- (8) 5" ϕ SCH. 40 PIPE ($\frac{5}{16}$ " O.D.) $1\frac{1}{2}$ " LONG SLICES. WELD TO NO. 5A.
- (9A) RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. PROVIDE "SLIDING FIT".
- (10A) RECTANGULAR SLEEVE FABRICATED FROM $\frac{3}{16}$ " PLATES. (1'-4" @ FIELD ERECTION JTS.).

BID ITEM SHALL BE "RAILING STEEL TYPE C1 R-35-06", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN, AND PAINTING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO.1, 2, 8, 9 AND NO.10 SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B (NO. 4, NO. 5, AND NO. 6).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO.1 AND CAULK AROUND PERIMETER OF PLATE NO.1 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

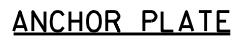
ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

AFTER FABRICATION, ALL MATERIAL, EXCEPT ANCHORAGE (NO. 2 & 3) & SHIMS SHALL BE PAINTED WITH A THREE COAT ZINC-RICH EPOXY SYSTEM PER WISDOT STANDARD SPECIFICATION, SECTION 517, EPOXY SYSTEM. SHIMS SHALL BE GIVEN ONE COAT OF ZINC RICH PRIMER PAINT. THE FINISH COLOR SHALL BE BLACK, FEDERAL COLOR NO. 27038.

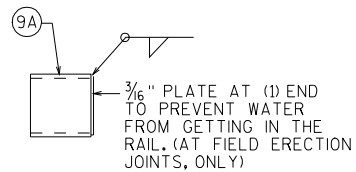
1/4"φ VENT HOLES LOCATED IN TOP RAIL OVER RAIL POSTS AND AT LOW END OF OTHER RAILS.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

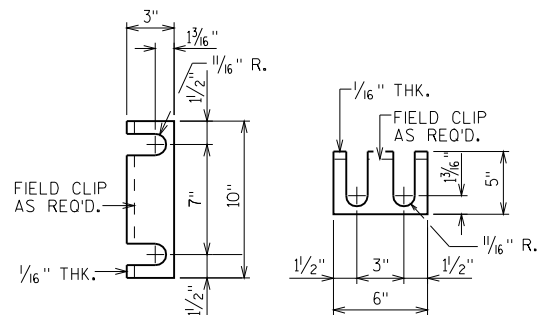
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



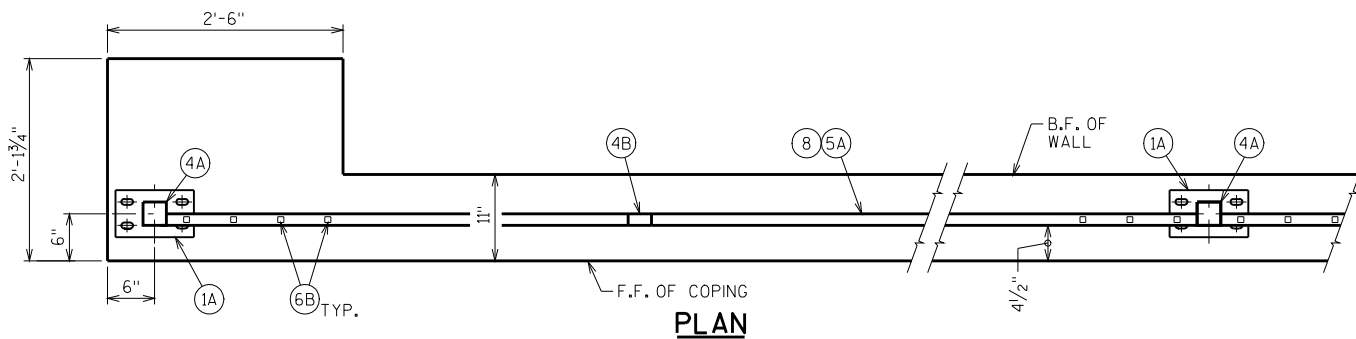
★ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



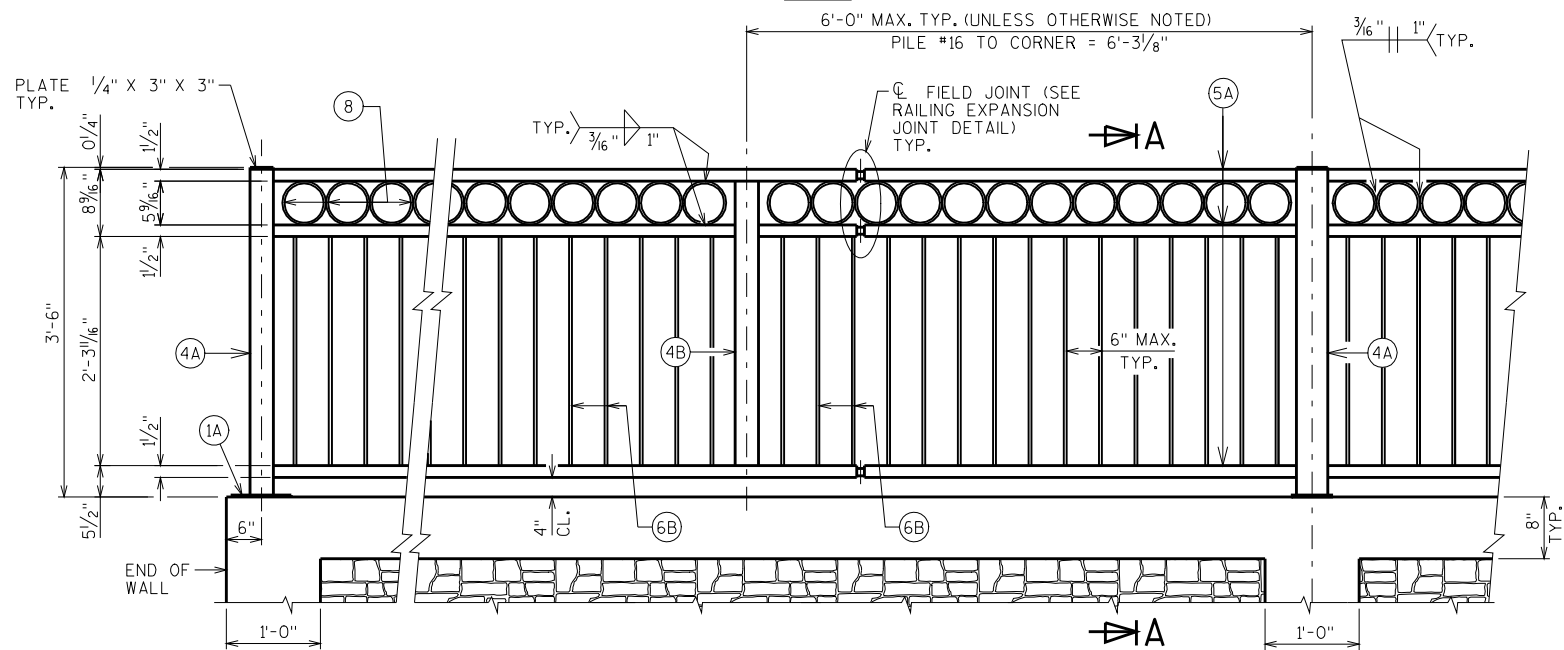
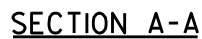
CLOSURE PLUG
DETAIL



(2 SETS PER POST)

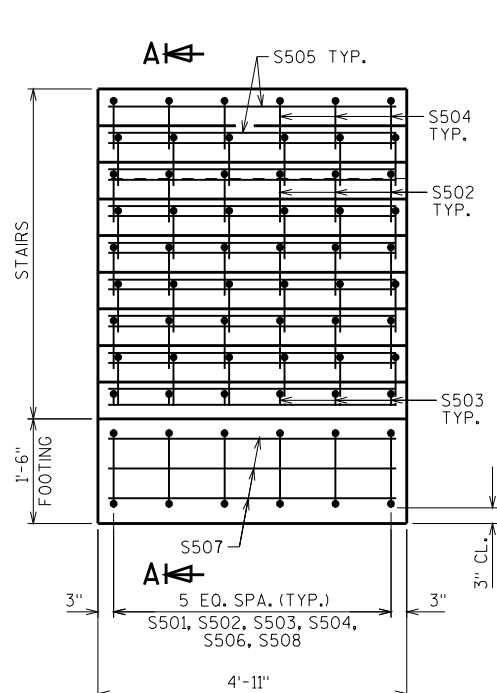


PLAN



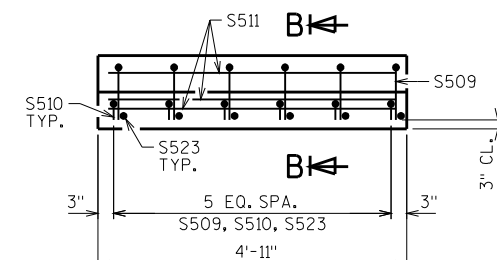
ELEVATION OF RAILING ON TOP OF RETAINING WALL

NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE			R-35-06		
		DRAWN BY	DDS	PLANS CK'D.	CHK
RAILING STEEL TYPE "C1"			SHEET 10		
			121		



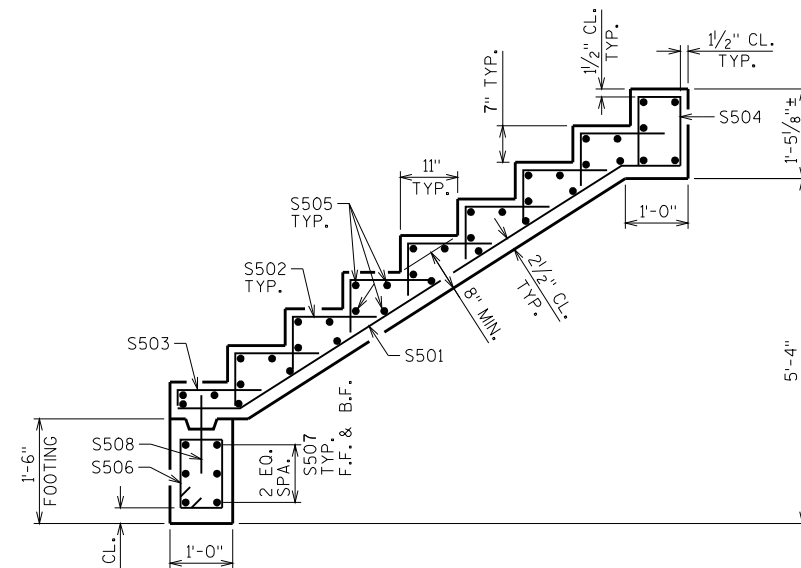
ELEVATION - STAIRS

POPLAR ST.
STA. 3+50.25 TO STA. 3+55.25
WALL STA. 2+11.92 TO WALL STA. 10+08.25

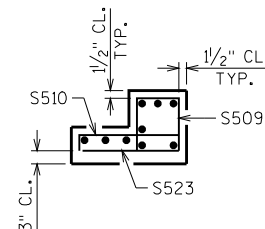


ELEVATION - STAIRS

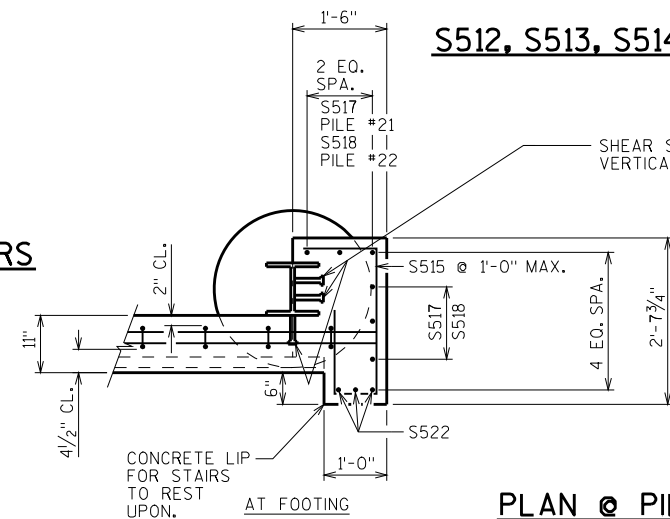
POPLAR ST.
STA. 4+23.00 TO STA. 4+28.00
WALL STA. 10+75.00 TO WALL STA. 20+00.00



CROSS SECTION A-A THRU STAIRS

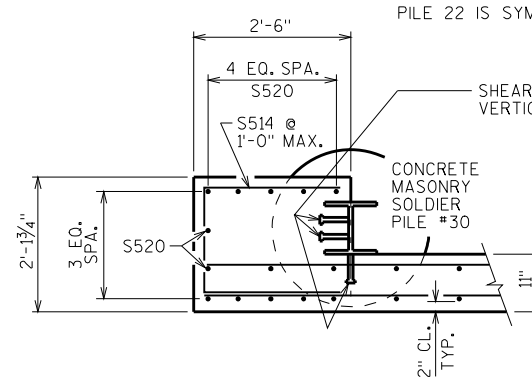


CROSS SECTION B-B THRU STAIRS

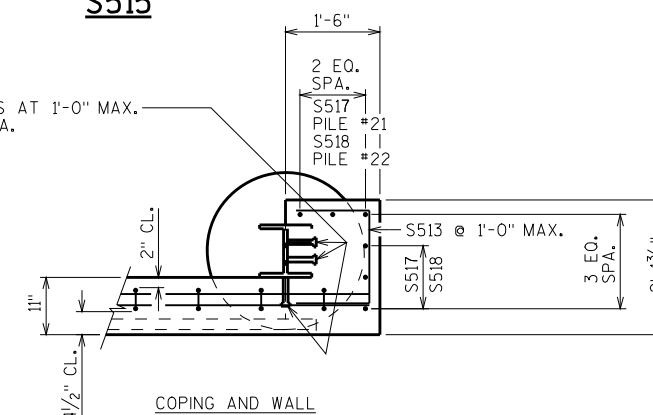


PLAN @ PILES 21

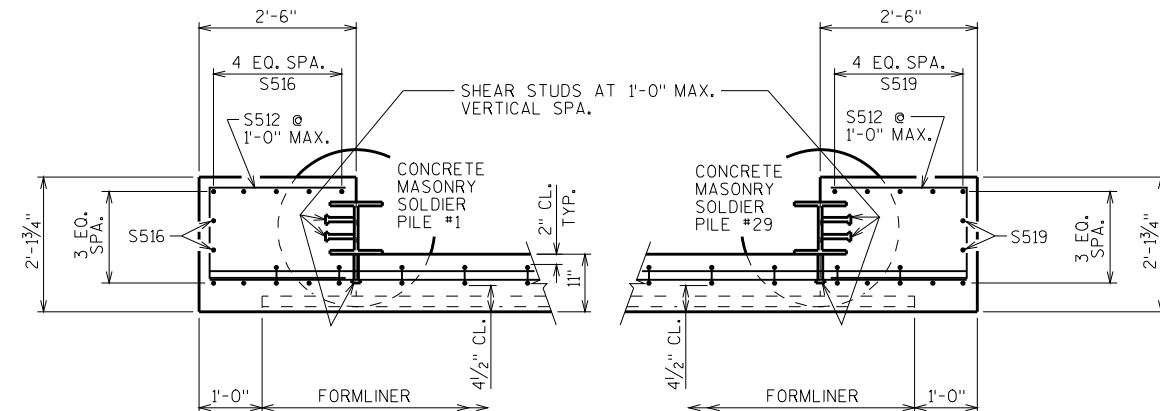
PILE 22 IS SYMETRICAL



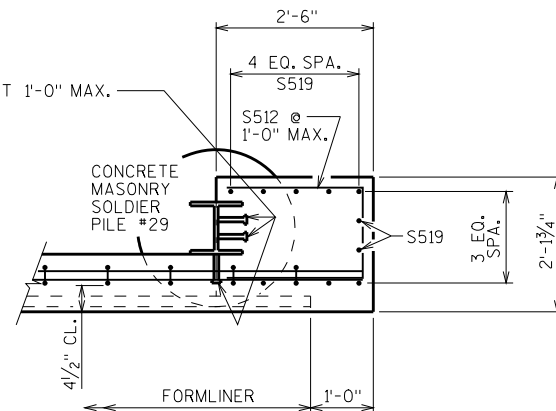
PLAN @ PILE 30



PLAN @ PILE 31



PLAN @ PILE 1



PLAN @ PILE 29

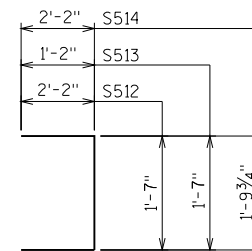
BILL OF BARS

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

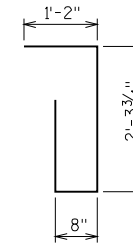
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	6	9'-1"	X		STAIRS - VERT. STAIRS @ STA. 3+52.75
S502	X	42	2'-0"	X		STAIRS - VERT. STAIRS @ STA. 3+52.75
S503	X	6	1'-6"	X		STAIRS - VERT. STAIRS @ STA. 3+52.75
S504	X	6	2'-7"	X		STAIRS - VERT. STAIRS @ STA. 3+52.75
S505	X	38	4'-7"			STAIRS - HORIZ. STAIRS @ STA. 3+52.75
S506	X	6	4'-2"	X		STAIR FOOTING - STIRRUP STAIRS @ STA. 3+52.75
S507	X	6	4'-7"			STAIR FOOTING - HORIZ. STAIRS @ STA. 3+52.75
S508	X	6	1'-6"			DOWEL BARS STAIRS @ STA. 3+52.75
S509	X	6	2'-3"	X		STAIRS - VERT. STAIRS @ STA. 4+25
S510	X	6	1'-9"	X		STAIRS - VERT. STAIRS @ STA. 4+25
S511	X	9	4'-7"			STAIRS - HORIZ. STAIRS @ STA. 4+25
S512	X	9	5'-8"	X		END OF WALL - HORIZ. AT PILES 1 & 29
S513	X	12	3'-8"	X		END OF WALL - HORIZ. AT PILES 21 & 22
S514	X	8	5'-11"	X		END OF WALL - HORIZ. AT PILES 30 & 31
S515	X	12	5'-2"	X		END OF WALL - HORIZ. AT PILES 21 & 22 FOOTING
S516	X	7	3'-7"			END OF WALL - VERT. (PILE #1)
S517	X	6	6'-8"			END OF WALL - VERT. (PILE #21)
S518	X	6	6'-6"			END OF WALL - VERT. (PILE #22)
S519	X	7	2'-9"			END OF WALL - VERT. (PILE #29)
S520	X	7	2'-6"			END OF WALL - VERT. (PILE #30)
S521	X	7	2'-2"			END OF WALL - VERT. (PILE #31)
S522	X	6	4'-11"			END OF WALL - VERT. - CONCRETE LIP
S523	X	6	1'-7"			STAIRS - HORIZ. STAIRS @ STA. 4+25

S502, S503, S510

S504, S509



S512, S513, S514



S515

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
REINFORCEMENT DETAILS - STAIRS & END OF WALL		SHEET 11	
		122	

ELEVATION

This technical drawing illustrates the cross-section of a soldier pile wall. The wall is composed of a central soldier pile, which is a T-shaped steel pile, surrounded by a concrete wall. The concrete wall is formed by a 3/4" preformed joint filler and is reinforced with 6" max. coated dowels. The wall is sealed with a non-bituminous gray non-staining joint sealer, which is 1" deep and holds 1/8" below the surface of the concrete. The wall is also reinforced with a 4" thick timber lagging board. The wall is supported by a soldier pile, which is a T-shaped steel pile. The wall is also reinforced with a 4" thick timber lagging board. The wall is supported by a soldier pile, which is a T-shaped steel pile.

Labels and dimensions in the drawing include:

- PILE #9
- SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)
- 3/4" PREFORMED JOINT FILLER
- SOLDIER PILE
- 4" THK. TIMBER LAGGING BOARD
- GEOCOMPOSITE DRAIN BOARD
- COATED DOWELS - 6" MAX.
- LY COATED
- 6" TYP.
- 1'-0" CHAMFER
- F.F. OF WALL
- FORMLINER TYP.

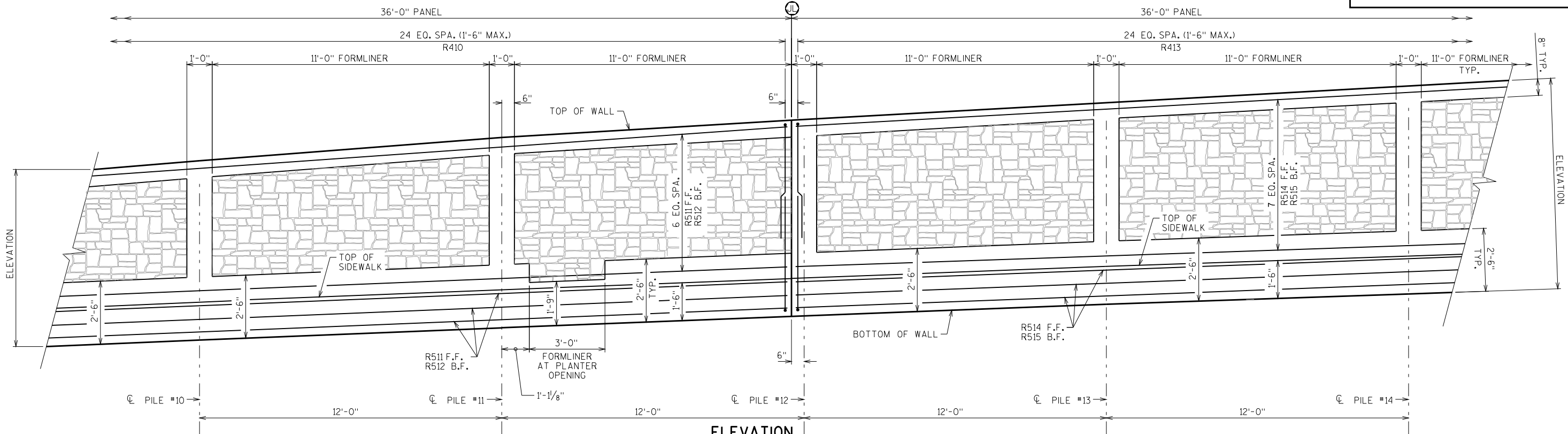
NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE		R-35-06			
		DRAWN BY	DDS	PLANS CK'D.	CHK
ELEVATION PILES 1 THRU 10				SHEET 12	
				123	

R616 - 3/4" DIAMETER X 1'-6" LONG SMOOTH EPOXY COATED DOWELS PLACED BETWEEN VERTICAL REINFORCEMENT AT 1'-6" MAX. MAX. VERTICAL SPACING. DOWELS SHALL BE LIGHTLY COATED WITH A DEBONDING SURFACE TREATMENT OVER 1/2 THE DOWEL LENGTH. EMBED 9" INTO ADJACENT WALL.

⊕ = EXPANSION JOINT LOCATION
JOINT AT EDGE OF FORMLINER

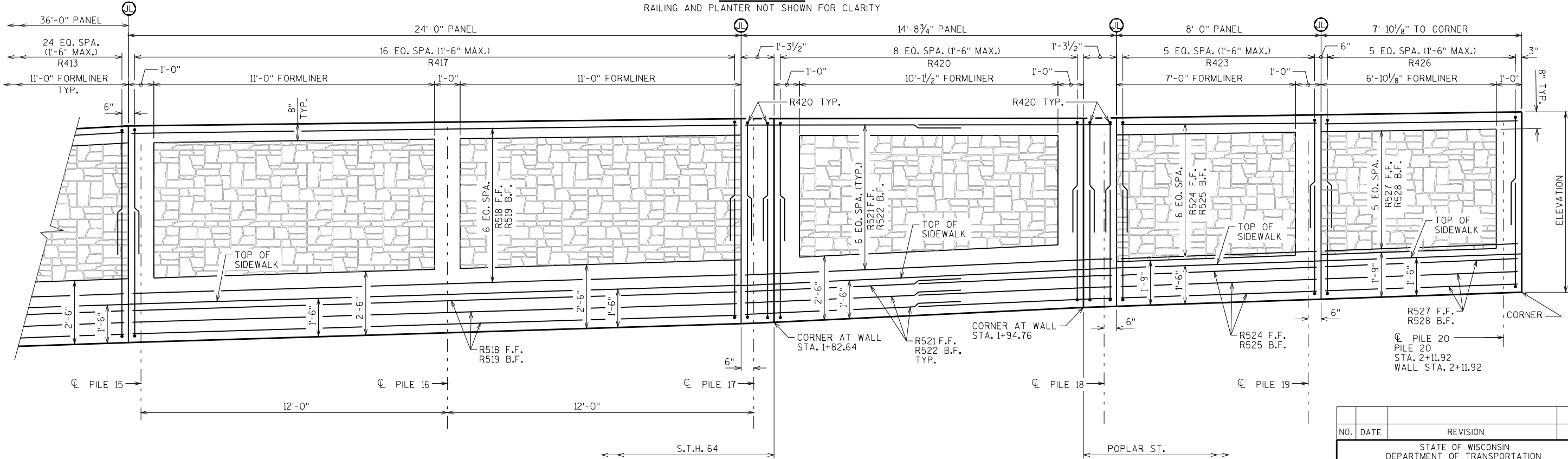
STATE PROJECT NUMBER

9000-10-70



ELEVATION

RAILING AND PLANTER NOT SHOWN FOR CLARITY



ELEVATION

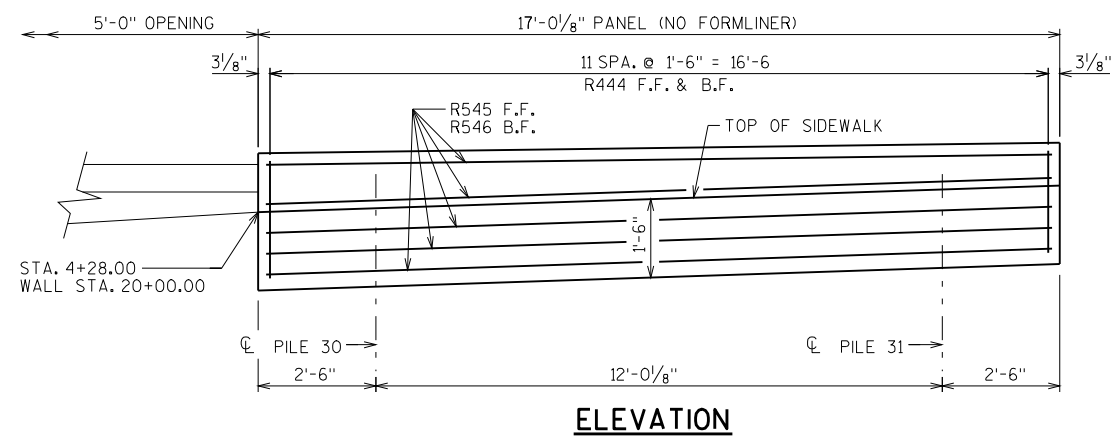
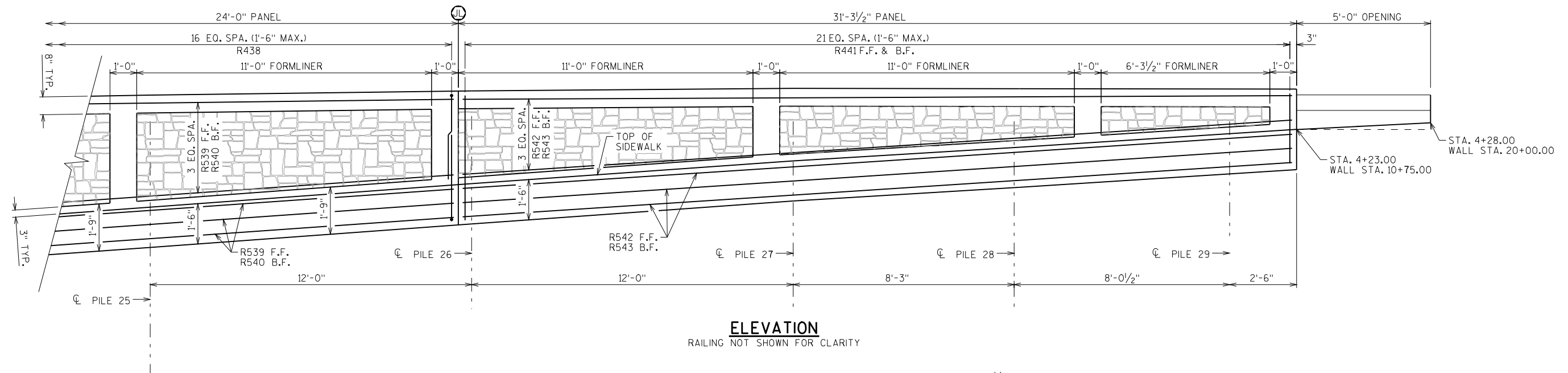
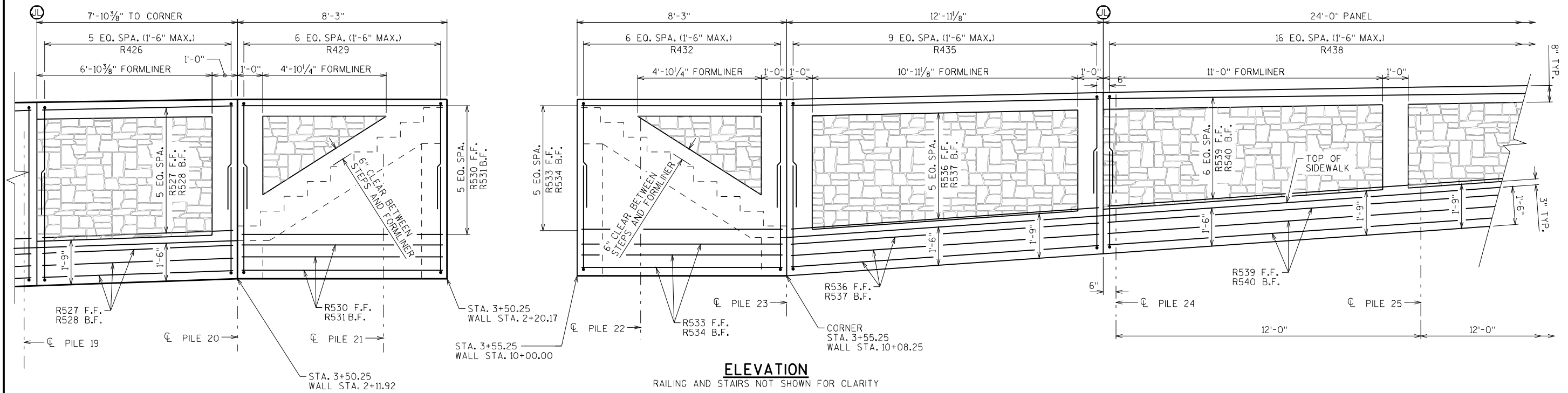
RAILING AND PLANTER NOT SHOWN FOR CLARITY

VERTICAL REINFORCEMENT SHALL HAVE
A 1'-8" MIN. LAP WHERE REQUIRED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
ELEVATION PILES 10 THRU 20			SHEET 13 124

SCALE =

Ⓜ = EXPANSION JOINT LOCATION
JOINT AT EDGE OF FORMLINER



VERTICAL REINFORCEMENT SHALL HAVE
A 1'-8" MIN. LAP WHERE REQUIRED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
ELEVATION PILES 19 THRU 31			SHEET 14 125

FORMLINER WALL STATIONING FOR S.T.H. 64
STARTS AT 3" ABOVE SIDEWALK



Diagram illustrating the cross-section of a drainage system with dimensions and components:

- Overall width: 12'-0"
- Dimensions from left edge: 6'-0" (to first rail post), 6'-0" (between rail posts), 6'-0" (to second rail post).
- Component labels: RAIL POST SPA., TIMBER LAGGING TYP., GEOCOMPOSITE DRAIN BOARD, PLANTER.
- Dimensions from bottom edge: 1'-0" TYP. (to first rail post), 11'-0" FORMLINER TYP. (between rail posts), 1'-0" TYP. (to second rail post).
- Vertical dimensions on the right: 1" (geocomposite), 1'-3" (planter), 2'-0" (planter).

PLAN

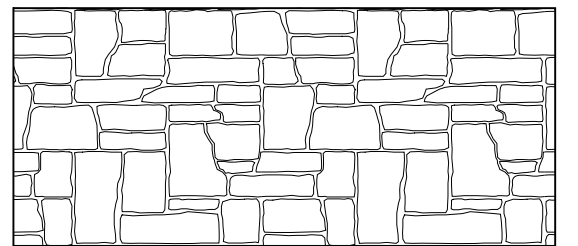
CORNER DETAIL - SOLDIER PILE #2

SHOWING PILE/RAILING ORIENTATION



A cross-sectional diagram of a vertical formwork assembly. On the left is a hatched vertical line labeled "FORM BOARD". To its right is a vertical channel labeled "FORMLINER". Above the formliner, a dimension line indicates a width of "3\" MAX.". To the right of the formliner is a vertical line labeled "BAR STEEL". A dimension line between the right edge of the formliner and the bar steel indicates a distance of "1/2\" CL.". The diagram shows the formliner and bar steel extending vertically, with break lines indicating they continue above and below the shown section.

SECTION THRU FORMLINER



RUSTIC ASHLAR
SIZE = 8" TO 32"
RELIEF = 2"

FORMLINER DETAILS



APPROX. WALL STA. 0+00.00 TO WALL STA. 0+27.00
WALL DETAILS NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
		DRAWN BY	DDS PLANS CK'D. CHK
FORMLINER AND POST DETAILS		SHEET 15	
		126	



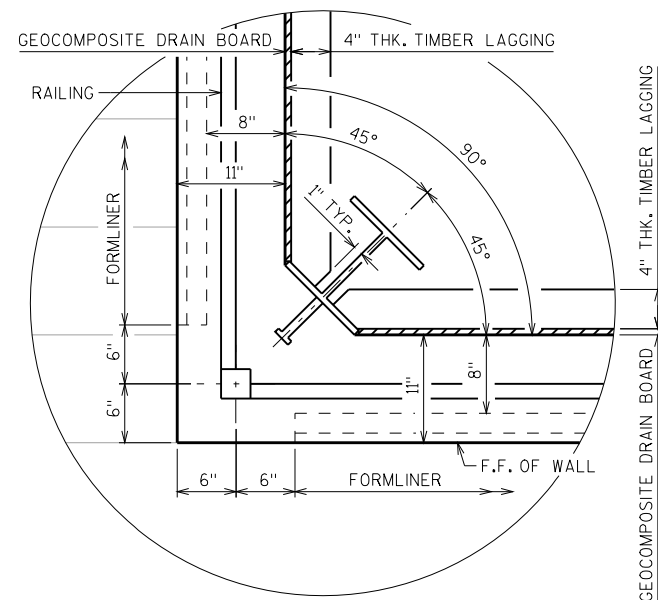
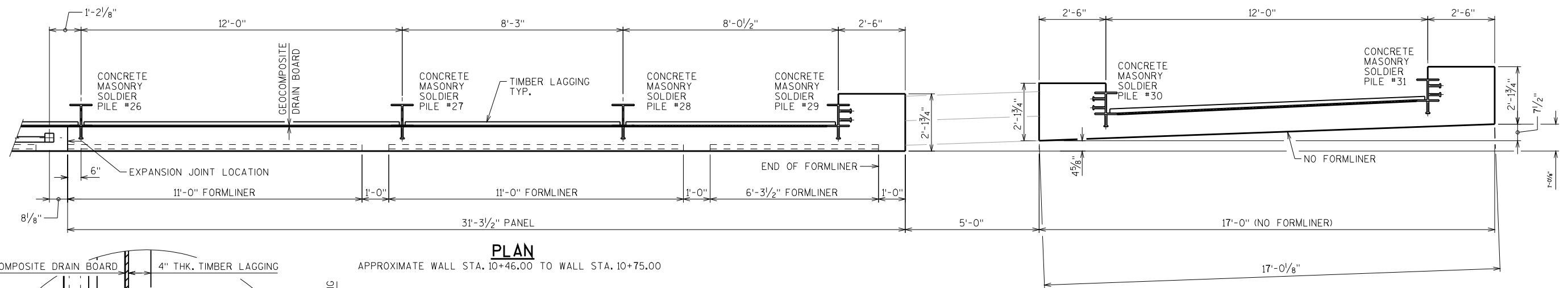
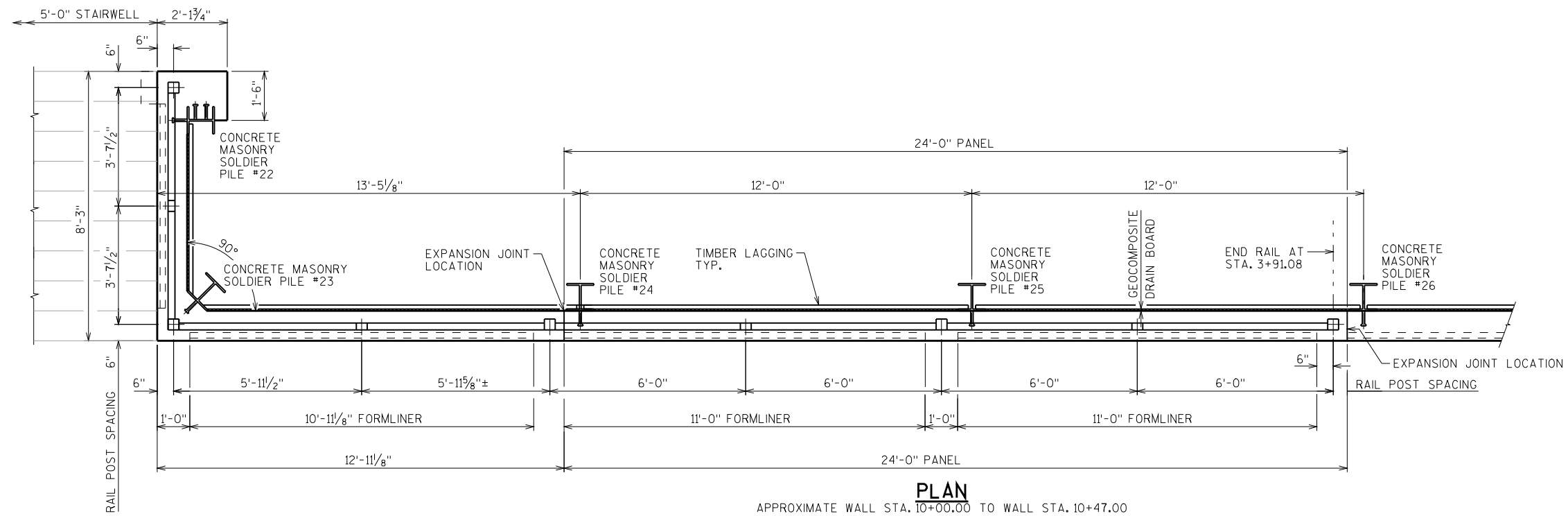
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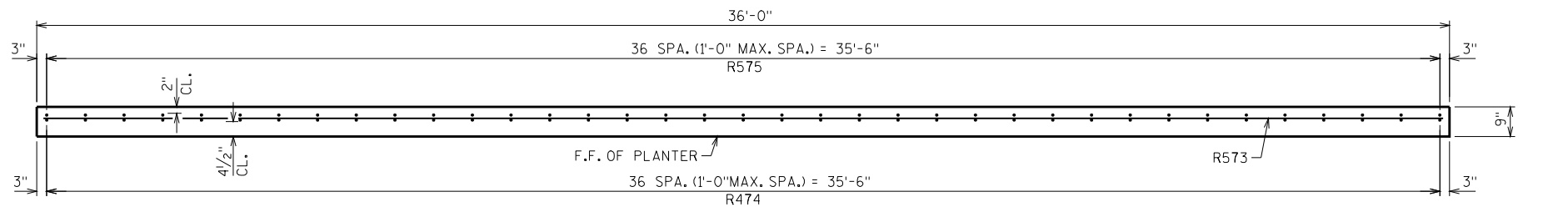
8 |

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
FORMLINER AND POST DETAILS		SHEET 16 127	

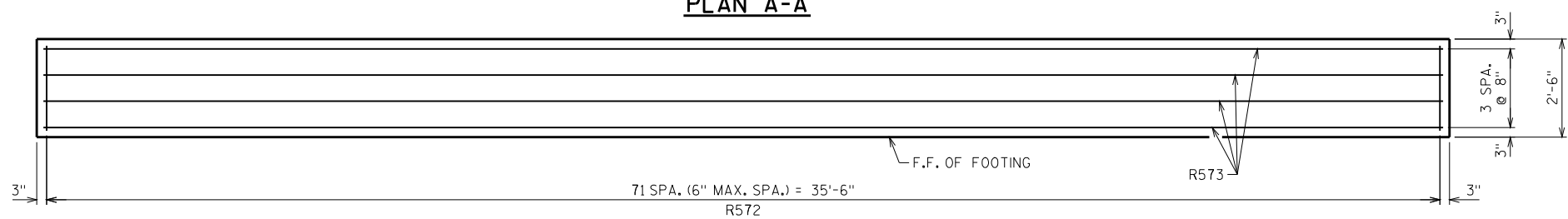
FORMLINER IS MEASURED ALONG THE F.F. OF WALL



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
FORMLINER AND POST DETAILS		SHEET 17	
		128	

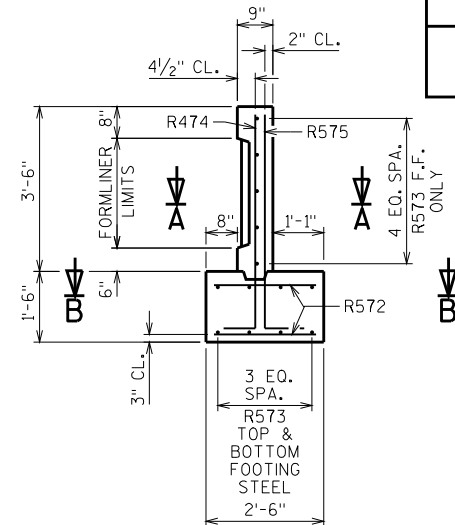


PLAN A-A



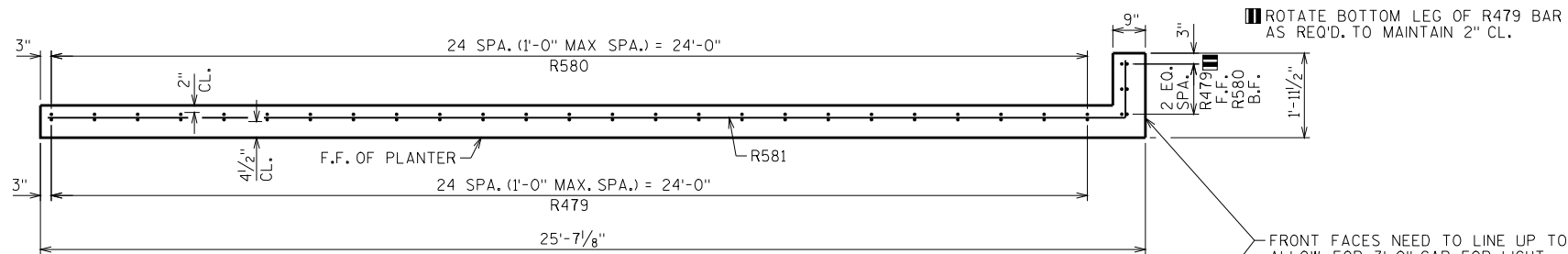
PLAN B-B

TYP. - ALL 36'-0" LONG PANELS

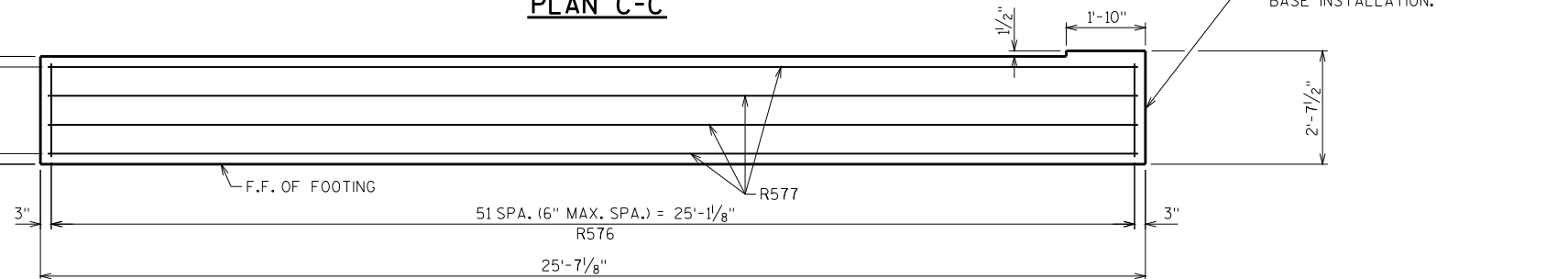


SECTION THRU PLANTER

WALL STA. 0+13.31 TO WALL STA. 0+49.31
WALL STA. 0+49.31 TO WALL STA. 0+85.31
WALL STA. 1+21.31 TO WALL STA. 1+57.31



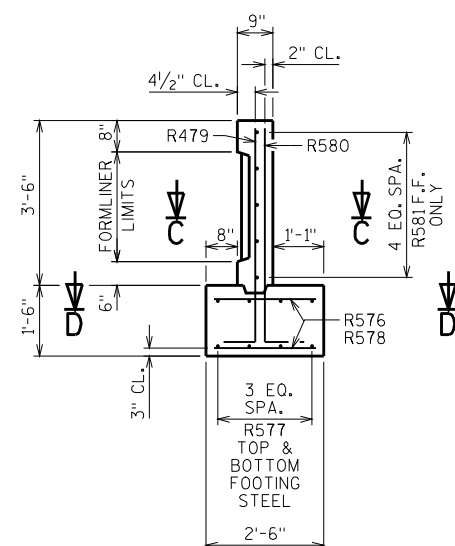
PLAN C-C



PLAN D-D

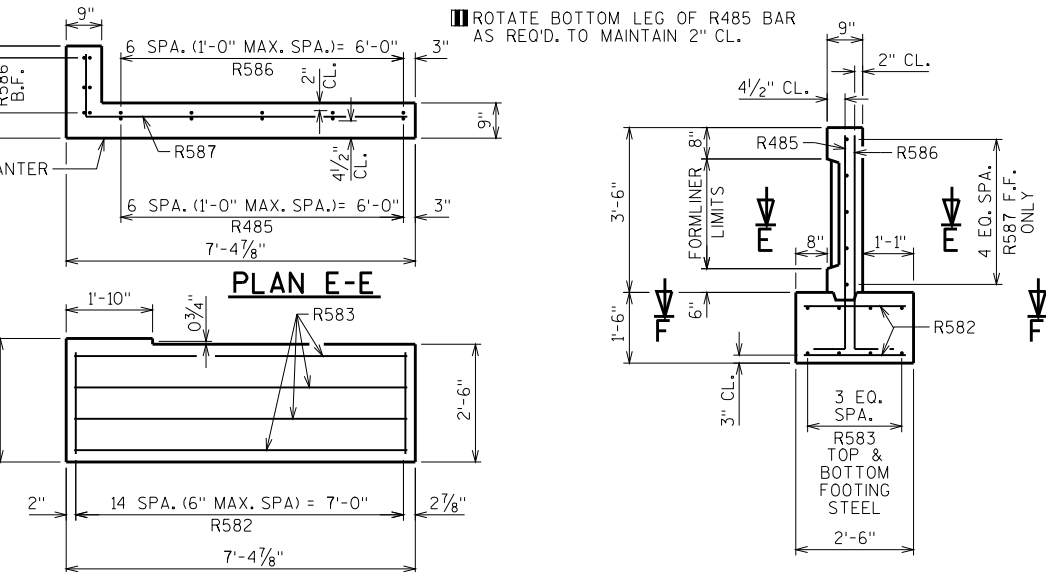
■ ROTATE BOTTOM LEG OF R479 BAR AS REQ'D. TO MAINTAIN 2" CL.

FRONT FACES NEED TO LINE UP TO ALLOW FOR 3'-0" GAP FOR LIGHT BASE INSTALLATION.



SECTION THRU PLANTER

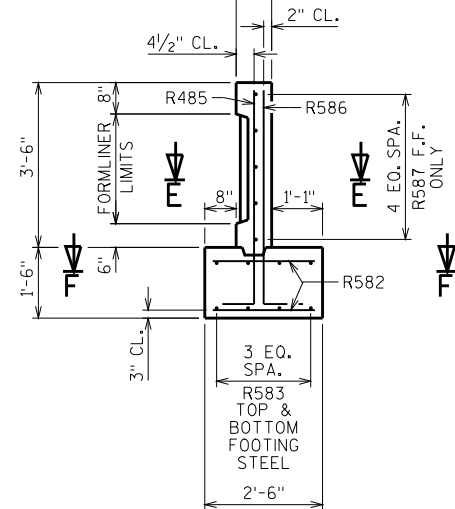
WALL STA. 0+85.31 TO WALL STA. 1+10.90



PLAN E-E

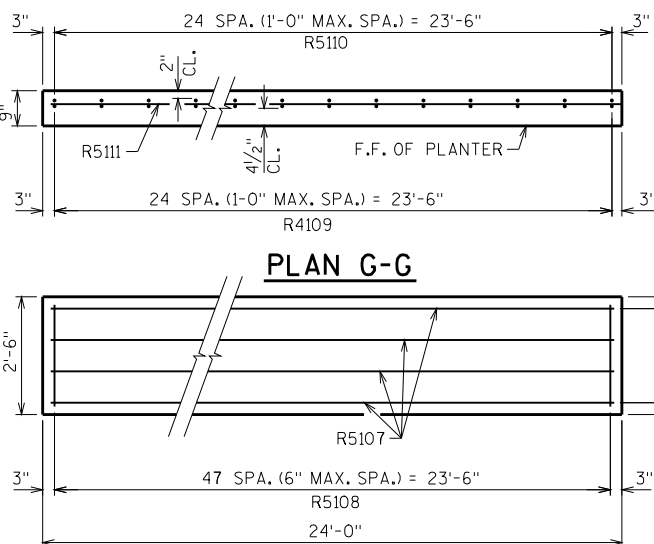
PLAN F-F

■ ROTATE BOTTOM LEG OF R485 BAR AS REQ'D. TO MAINTAIN 2" CL.



SECTION THRU PLANTER

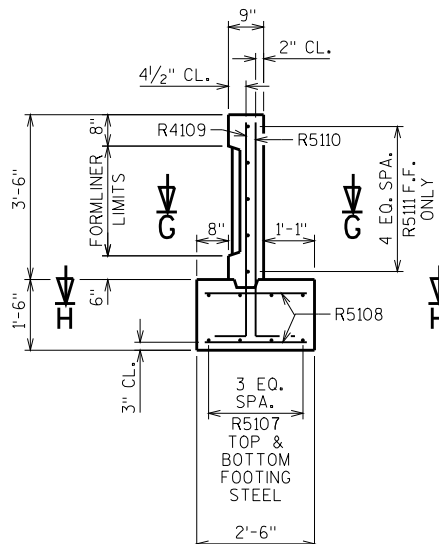
WALL STA. 1+13.90 TO WALL STA. 1+21.31



PLAN G-G

PLAN H-H

24'-0" LONG PANEL



SECTION THRU PLANTER

WALL STA. 1+57.31 TO WALL STA. 1+81.31

STATE PROJECT NUMBER

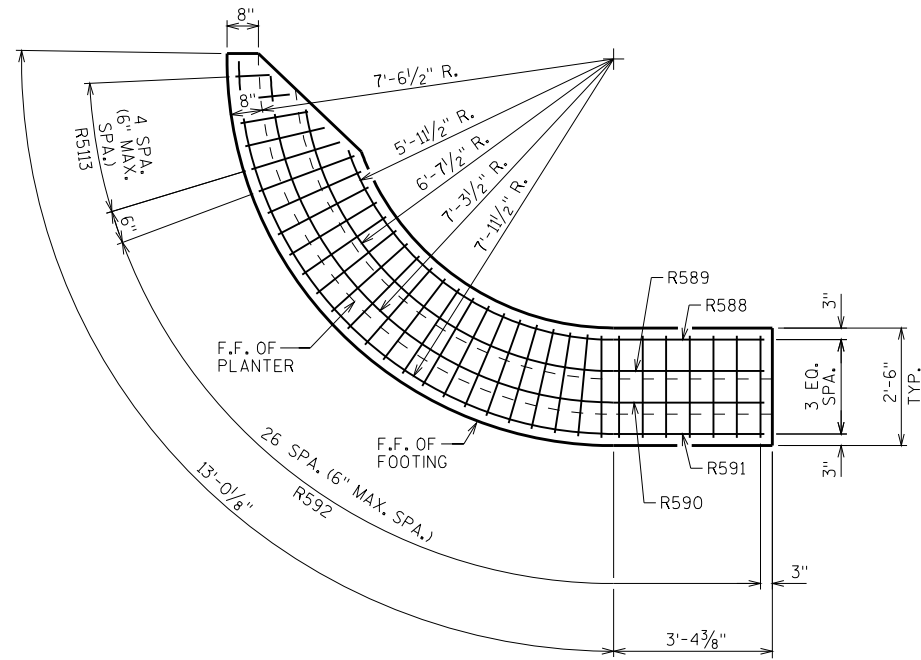
9000-10-70

8

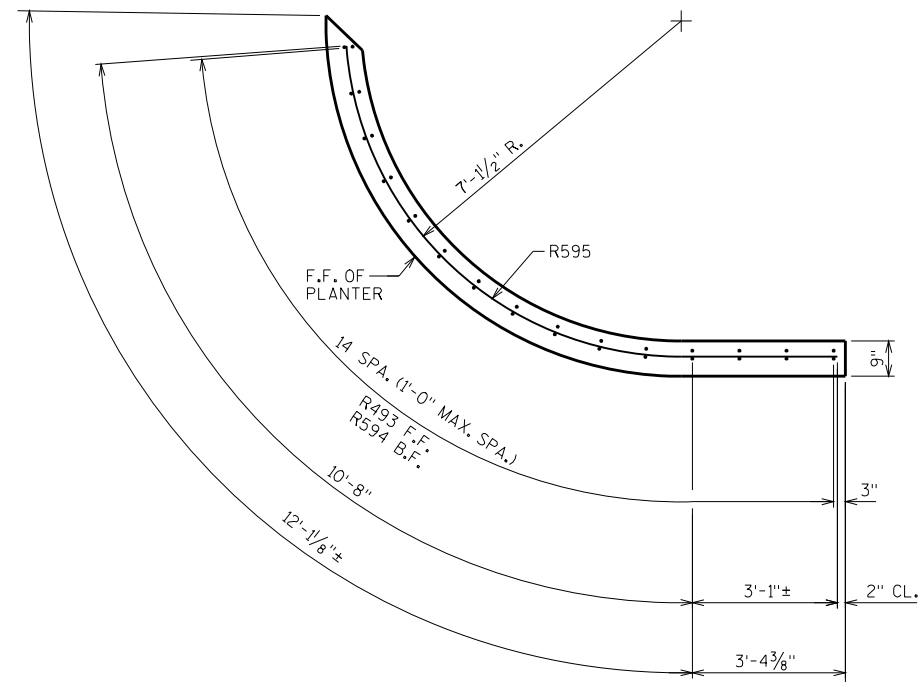
8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-35-06			
DRAWN BY		DDS	PLANS CK'D. CHK
PLANter REINFORCEMENT DETAILS		SHEET 18	
		129	

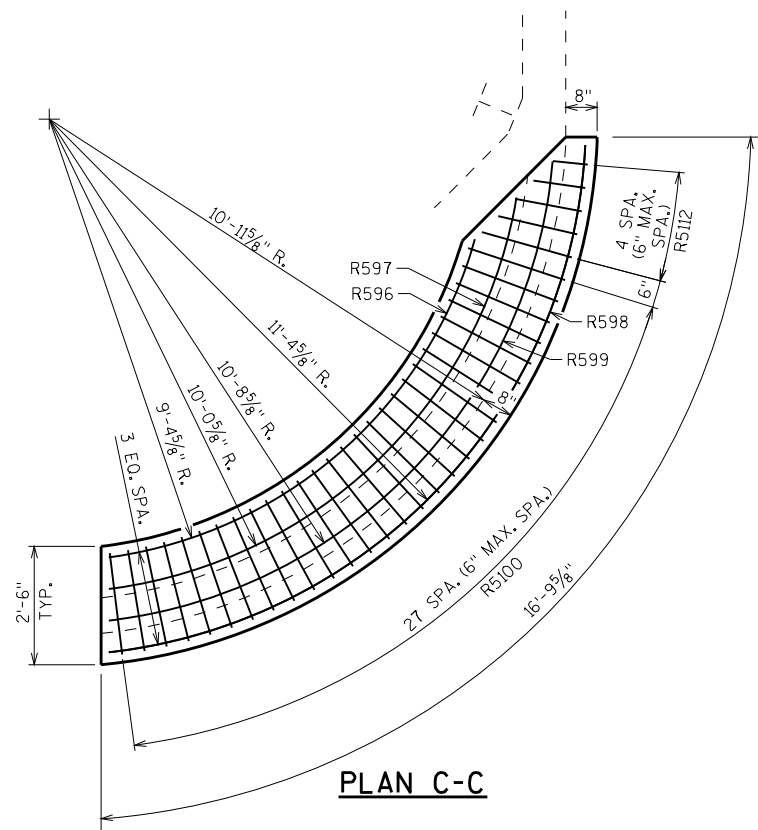
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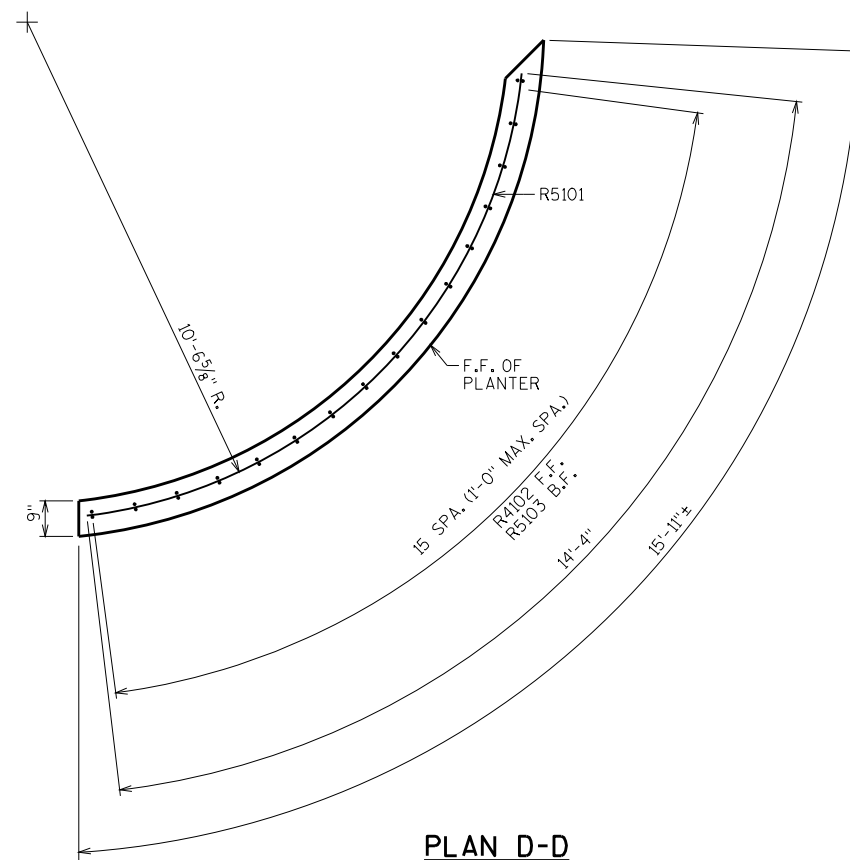
PLAN A-A



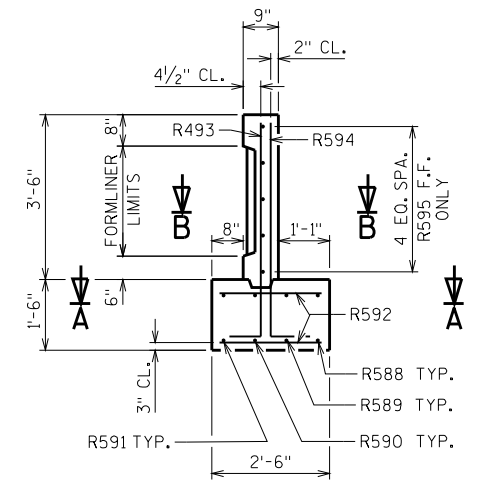
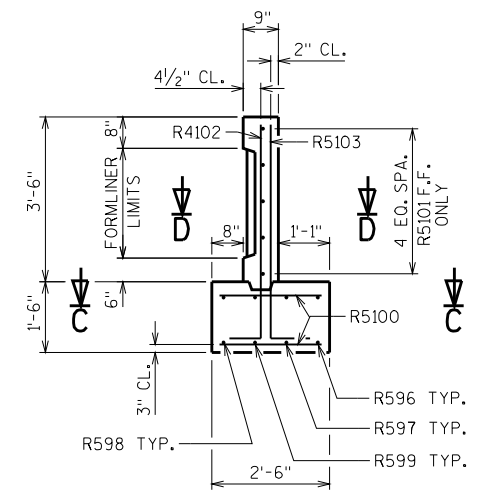
PLAN B-B



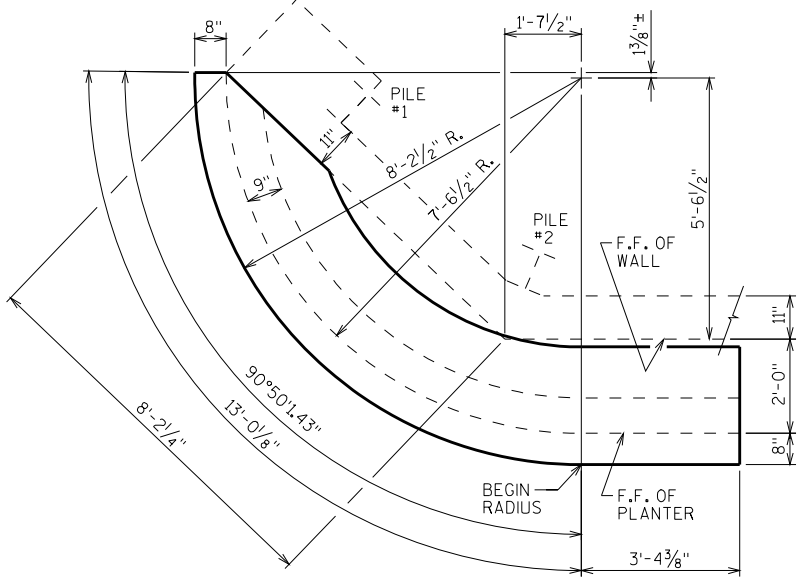
PLAN C-C



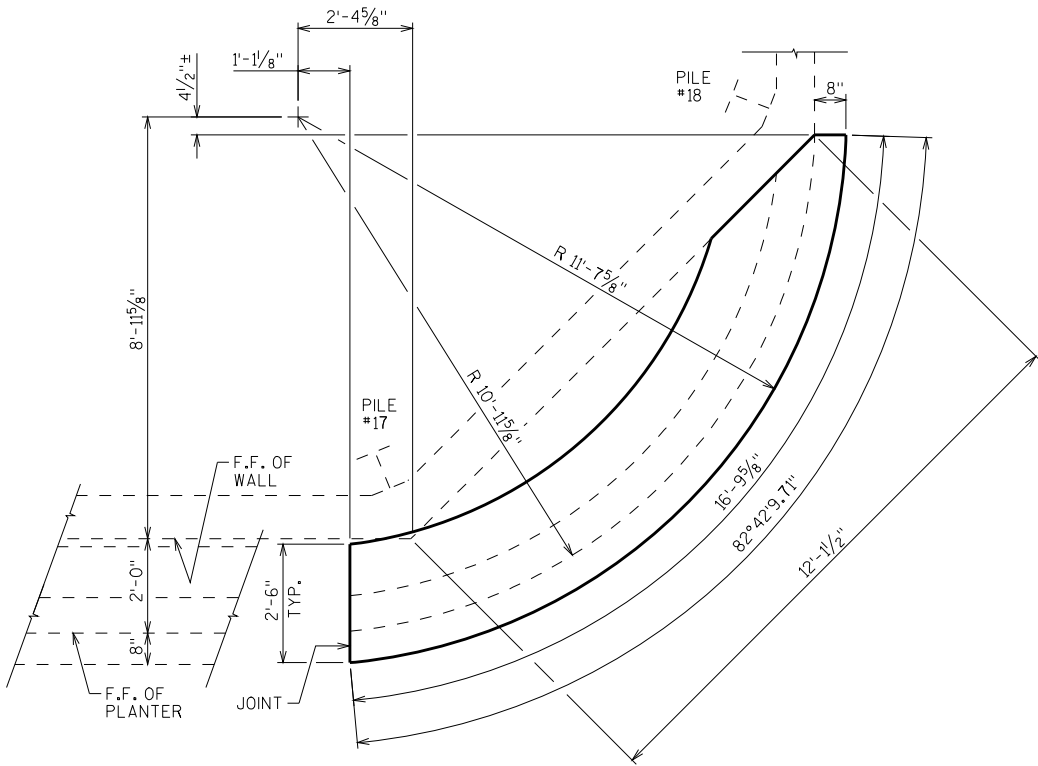
PLAN D-D

SECTION THRU PLANTER
WALL STA. 0+00.00 TO WALL STA. 0+13.31SECTION THRU PLANTER
WALL STA. 1+81.31 TO WALL STA. 1+94.76

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-35-06			
DRAWN BY		DDS	PLANS CK'D. CHK
PLANTER REINFORCEMENT DETAILS		SHEET 19	
		130	



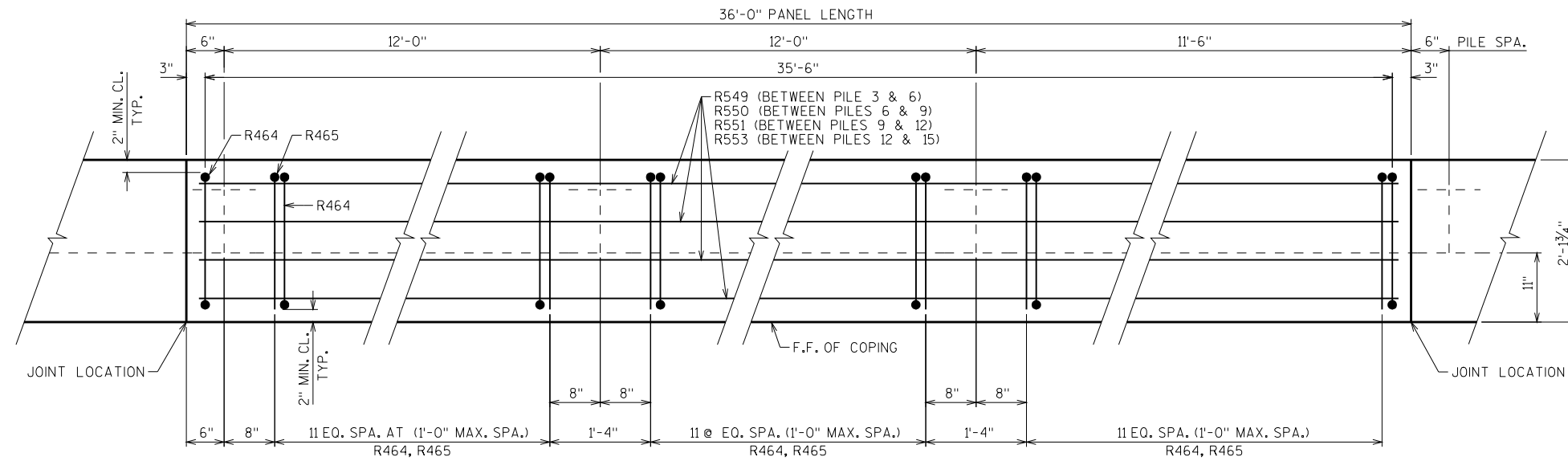
PLAN
AT CORNER NEAR PILES 1 AND 2



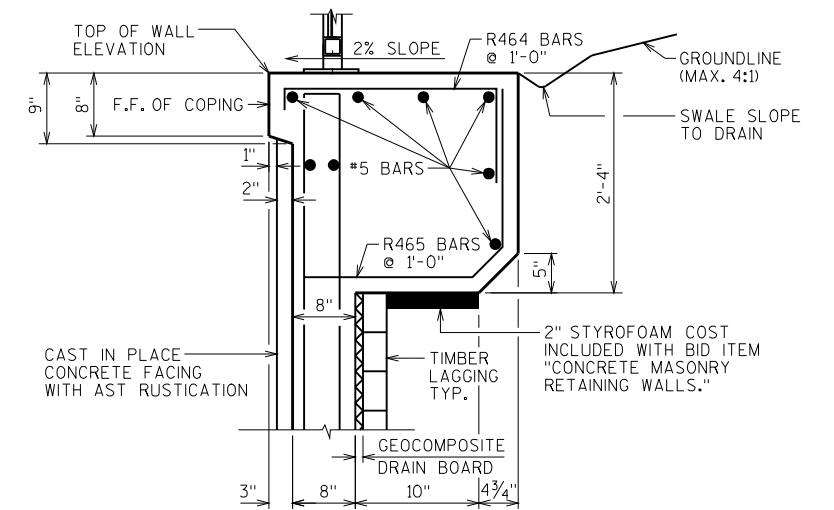
PLAN
AT CORNER NEAR PILES 17 AND 18

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		R-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
PLANTER FOOTING ORIENTATIONS		SHEET 19A	
		131	

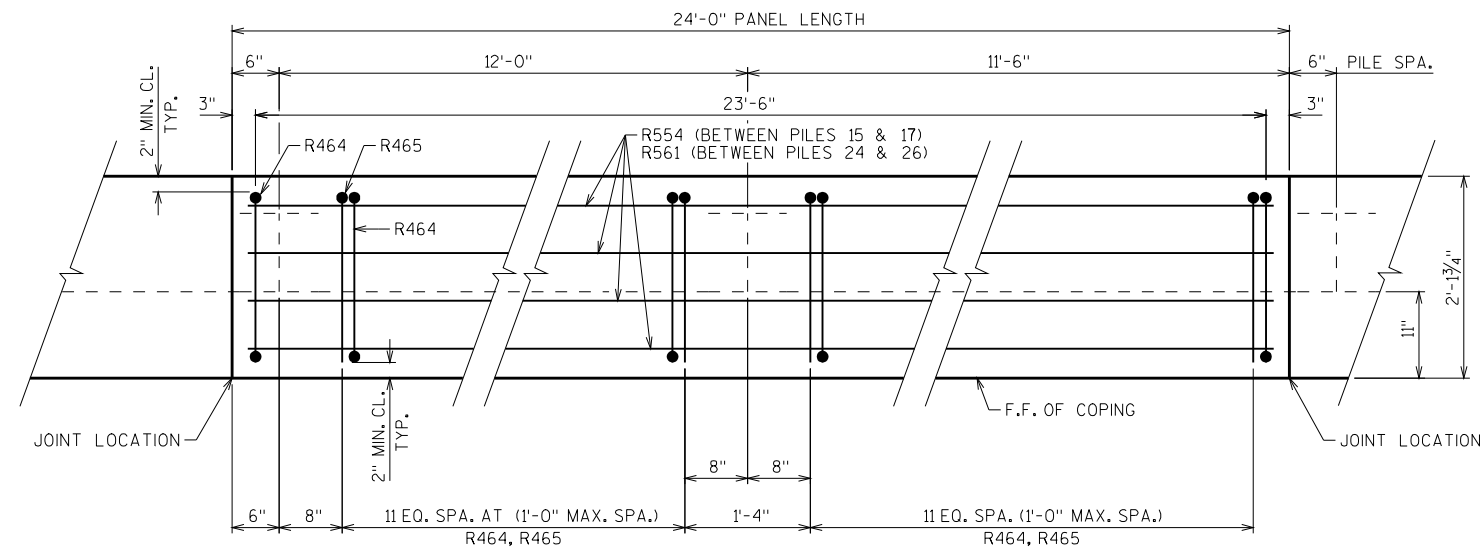
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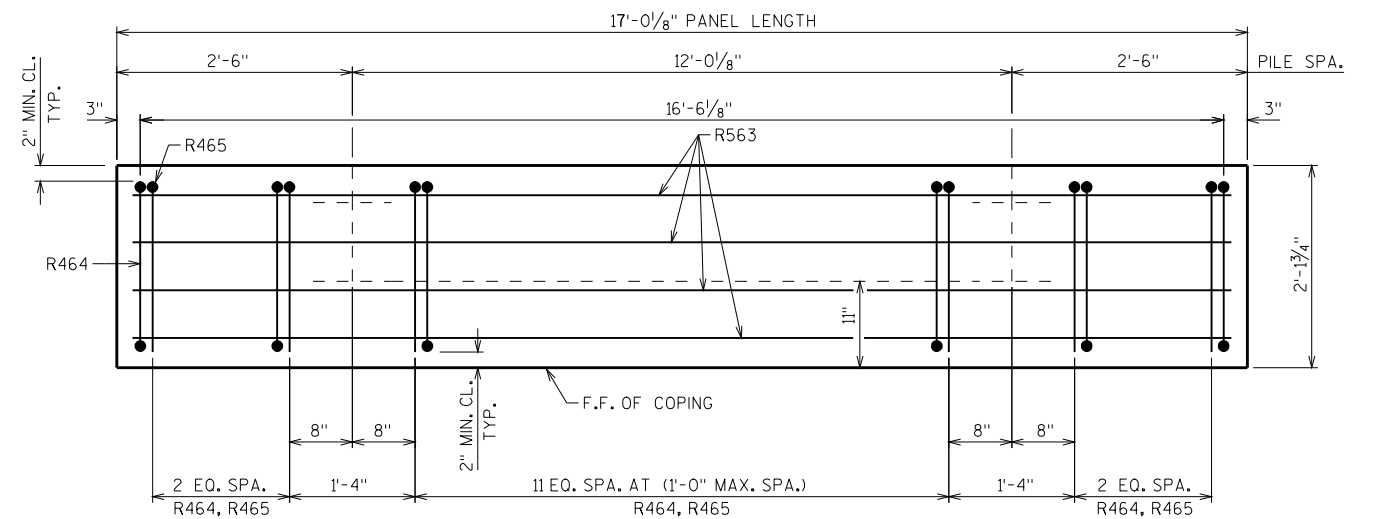
PLAN - TYP. COPING DETAIL
SHOWING REINFORCEMENT



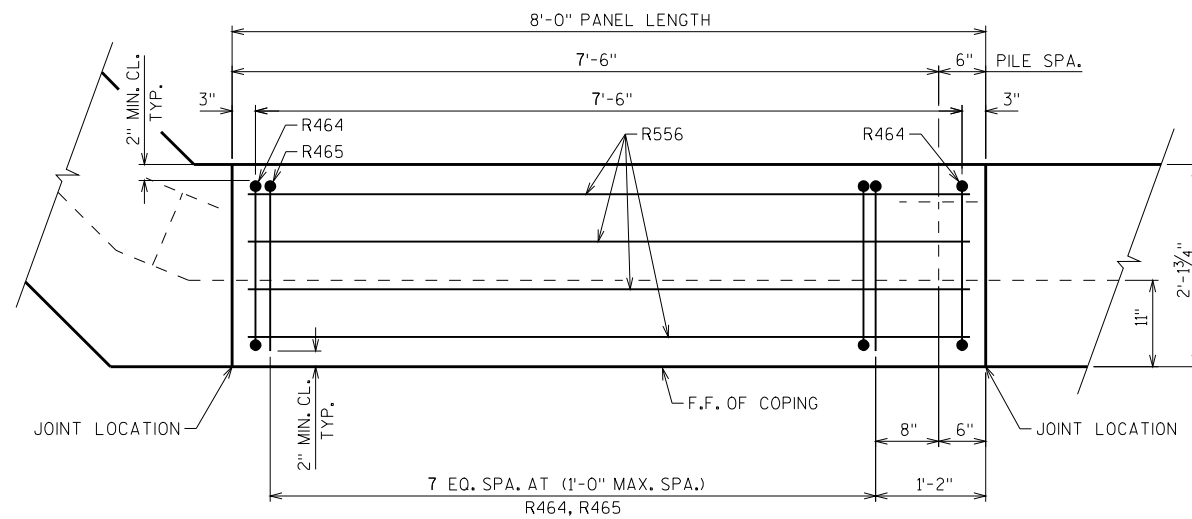
SOLDIER PILE WALL SECTION (BETWEEN PILES)



PLAN - COPING DETAIL
SHOWING REINFORCEMENT
BETWEEN PILES 15 & 17 AND PILES 24 & 26

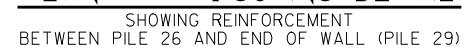


PLAN - COPING DETAIL
SHOWING REINFORCEMENT
BETWEEN PILES 30 & 31

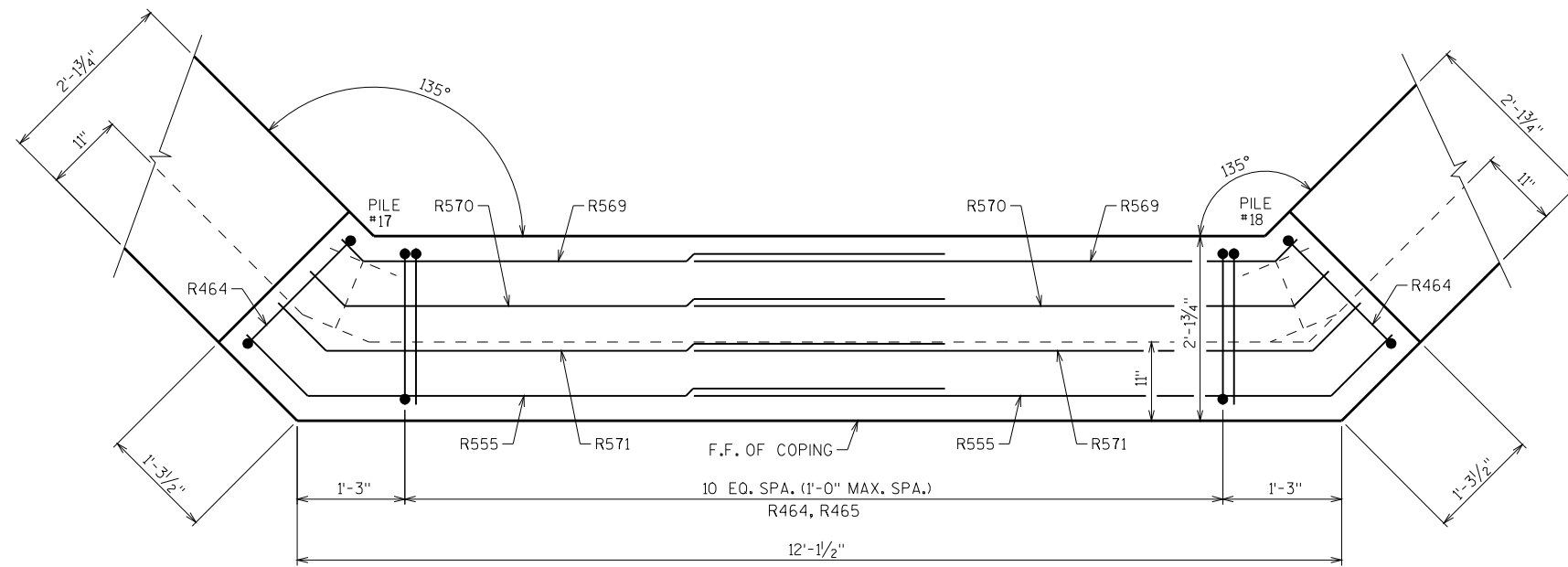


PLAN - COPING DETAIL
SHOWING REINFORCEMENT
BETWEEN PILES 18 & 19

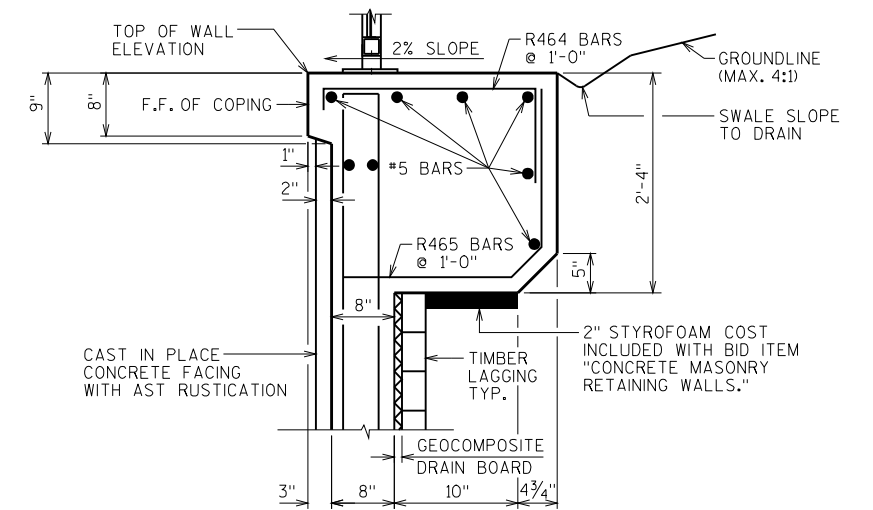
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
COPING DETAILS		SHEET 20	
		132	



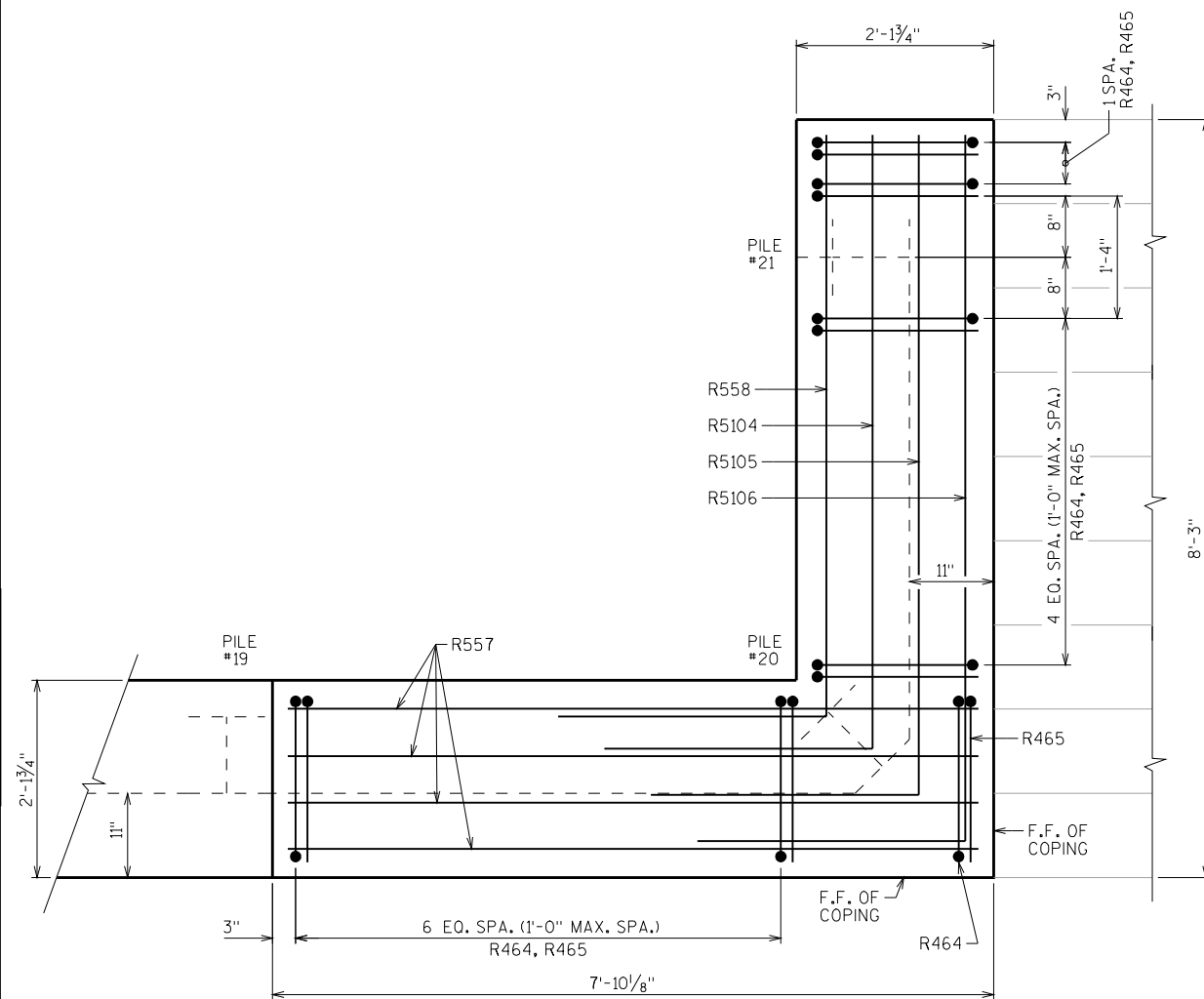
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
COPING DETAILS		SHEET 21	
		133	



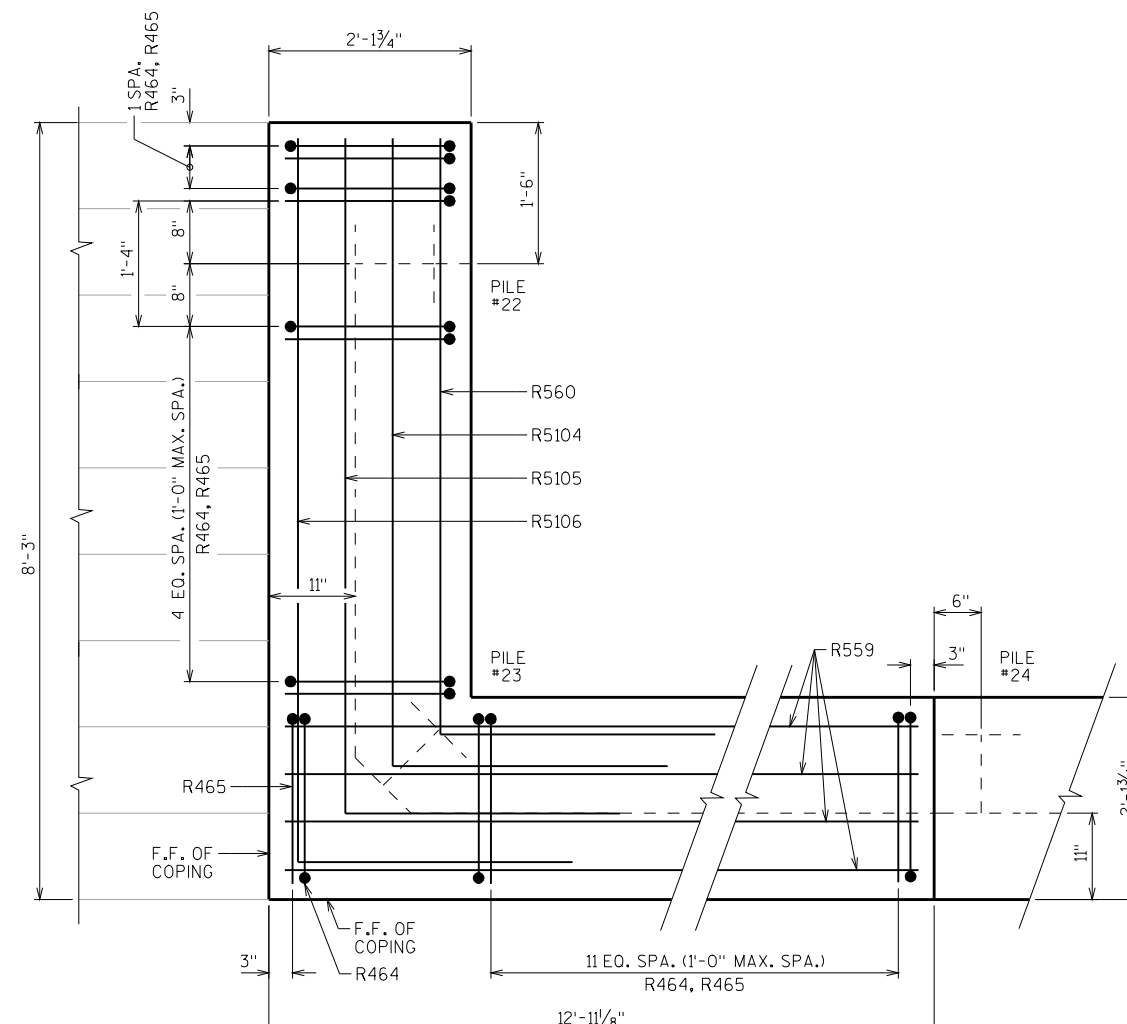
PLAN - TYP. COPING DETAIL

SHOWING REINFORCEMENT
PILE 17 TO PILE 18

SOLDIER PILE WALL SECTION (BETWEEN PILES)



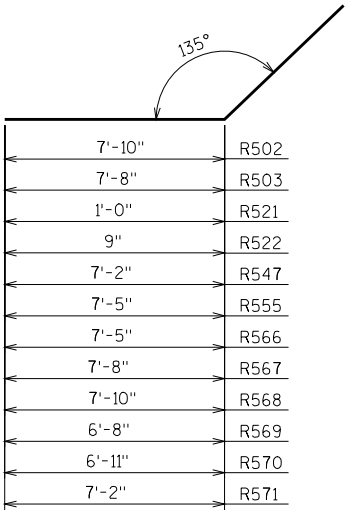
PLAN - COPING DETAIL

SHOWING REINFORCEMENT
PILE 19 TO END OF WALL (PILE 21)

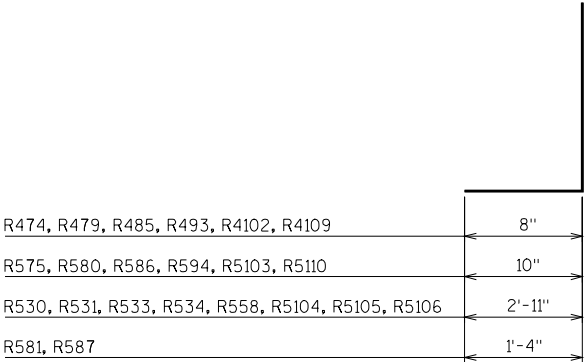
PLAN - COPING DETAIL

SHOWING REINFORCEMENT
START OF WALL (PILE 22) TO PILE 24

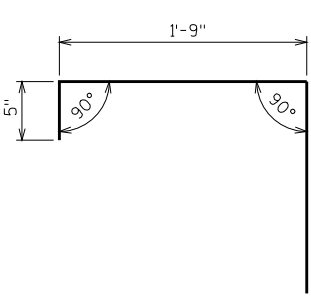
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE		B-35-06	
DRAWN BY		DDS	PLANS CK'D. CHK
COPING DETAILS		SHEET 22	
		134	



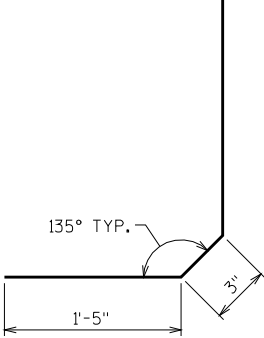
R502, R503, R521, R522, R547, R555
R566, R567, R568, R569, R570, R571



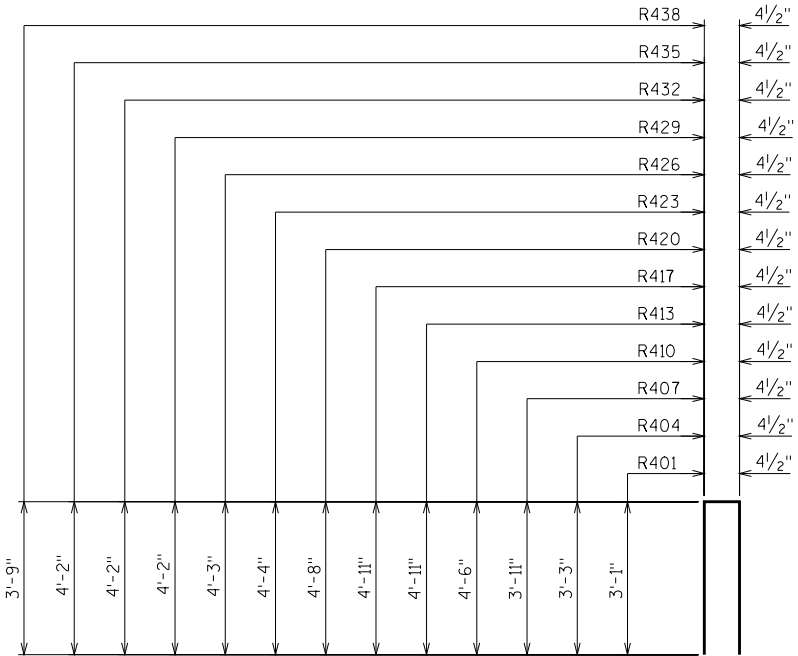
R530, R531, R533, R534, R558, R474,
R575, R479, R580, R485, R586, R581,
R587, R493, R594, R4102, R5103,
R5104, R5105, R5106, R4109, R5110



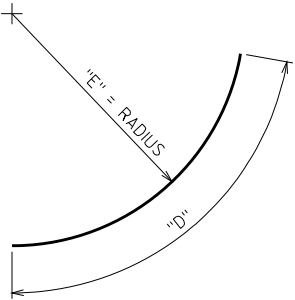
R464



R465

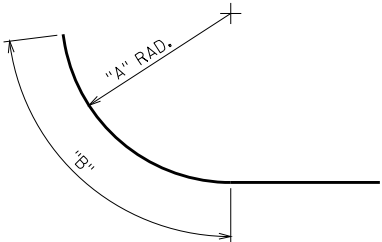


R401, R404, R407, R410, R413, R417, R420,
R423, R426, R429, R432, R435 & R438



R596, R597, R598,
R599, R5101

BAR MARK	"D"	"E"
R596	10'-10"	9'-4 ⁵ / ₈ "
R597	12'-10"	10'-0 ⁵ / ₈ "
R598	16'-1"	11'-4 ⁵ / ₈ "
R599	14'-8"	10'-8 ⁵ / ₈ "
R5101	14'-4"	10'-6 ⁵ / ₈ "



R588, R589, R590,
R591, R595

BAR MARK	"A"	"B"
R588	5'-11 ¹ / ₂ "	7'-4"
R589	6'-7 ¹ / ₂ "	9'-4"
R590	7'-3 ¹ / ₂ "	11'-1"
R591	7'-11 ¹ / ₂ "	12'-5"
R595	7'-1 ¹ / ₂ "	10'-8"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-35-06			
DRAWN BY		DDS	PLANS CK'D. CHK
REINFORCEMENT DETAILS		SHEET 23	
		135	

SCALE =

BILL OF BARS

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R401	X	22	6'-4"	X		WALL - VERT. - START OF WALL PILE 1 TO PILE 3
R502	X	7	12'-6"	X		WALL - HORIZ. - START OF WALL PILE 1 TO PILE 3 - F.F.
R503	X	7	12'-2"	X		WALL - HORIZ. - START OF WALL PILE 1 TO PILE 3 - B.F.
R404	X	50	6'-8"	X		WALL - VERT. - BETWEEN PILES 3 THRU 6
R505	X	7	35'-8"			WALL - HORIZ. - BETWEEN PILES 3 THRU 6 - F.F.
R506	X	7	35'-8"			WALL - HORIZ. - BETWEEN PILES 3 THRU 6 - B.F.
R407	X	50	8'-1"	X		WALL - VERT. - BETWEEN PILES 6 THRU 9
R508	X	9	35'-8"			WALL - HORIZ. - BETWEEN PILES 6 THRU 9 - F.F.
R509	X	9	35'-8"			WALL - HORIZ. - BETWEEN PILES 6 THRU 9 - B.F.
R410	X	50	9'-3"	X		WALL - VERT. - BETWEEN PILES 9 THRU 12
R511	X	10	35'-8"			WALL - HORIZ. - BETWEEN PILES 9 THRU 12 - F.F.
R512	X	10	35'-8"			WALL - HORIZ. - BETWEEN PILES 9 THRU 12 - B.F.
R413	X	50	10'-0"	X		WALL - VERT. - BETWEEN PILES 12 THRU 15
R514	X	11	35'-8"			WALL - HORIZ. - BETWEEN PILES 12 THRU 15 - F.F.
R515	X	11	35'-8"			WALL - HORIZ. - BETWEEN PILES 12 THRU 15 - B.F.
R616	X	37	1'-6"			DOWEL BARS - AT JOINTS
R417	X	34	10'-0"	X		WALL - VERT. - BETWEEN PILES 15 THRU 17
R518	X	10	23'-8"			WALL - HORIZ. - BETWEEN PILES 15 THRU 17 - F.F.
R519	X	10	23'-8"			WALL - HORIZ. - BETWEEN PILES 15 THRU 17 - B.F.
R420	X	26	9'-7"	X		WALL - VERT. - BETWEEN PILES 17 THRU 18
R521	X	20	8'-4"	X		WALL - HORIZ. - BETWEEN PILES 17 THRU 18 - F.F.
R522	X	20	8'-1"	X		WALL - HORIZ. - BETWEEN PILES 17 THRU 18 - B.F.
R423	X	12	8'-11"	X		WALL - VERT. - BETWEEN PILES 18 THRU 19
R524	X	10	7'-8"			WALL - HORIZ. - BETWEEN PILES 18 THRU 19 - F.F.
R525	X	10	7'-8"			WALL - HORIZ. - BETWEEN PILES 18 THRU 19 - B.F.
R426	X	12	8'-9"	X		WALL - VERT. - PILE 19 TO CORNER (PILE 20)
R527	X	9	7'-6"			WALL - HORIZ. - PILE 19 TO CORNER (PILE 20) - F.F.
R528	X	9	7'-6"			WALL - HORIZ. - PILE 19 TO CORNER (PILE 20) - B.F.
R429	X	14	8'-7"	X		WALL - VERT. - CORNER (PILE 20) TO END OF WALL (PILE 21)
R530	X	9	10'-1"	X		WALL - HORIZ. - CORNER (PILE 20) TO END OF WALL (PILE 21) - F.F.
R531	X	9	9'-9"	X		WALL - HORIZ. - CORNER (PILE 20) TO END OF WALL (PILE 21) - B.F.
R432	X	14	8'-7"	X		WALL - VERT. - END OF WALL (PILE 22) TO CORNER (PILE 23)
R533	X	9	10'-5"	X		WALL - HORIZ. - END OF WALL (PILE 22) TO CORNER (PILE 23) - F.F.
R534	X	9	10'-2"	X		WALL - HORIZ. - END OF WALL (PILE 22) TO CORNER (PILE 23) - B.F.
R435	X	20	8'-7"	X		WALL - VERT. - BETWEEN PILE 23 AND PILE 24
R536	X	9	12'-7"			WALL - HORIZ. - BETWEEN PILE 23 AND PILE 24 - F.F.
R537	X	9	12'-7"			WALL - HORIZ. - BETWEEN PILE 23 AND PILE 24 - B.F.
R438	X	34	7'-11"	X		WALL - VERT. - BETWEEN PILE 24 AND PILE 26
R539	X	9	23'-8"			WALL - HORIZ. - BETWEEN PILE 24 AND PILE 26 - F.F.
R540	X	9	23'-8"			WALL - HORIZ. - BETWEEN PILE 24 AND PILE 26 - B.F.
R441	X	44	3'-7"		▲	WALL - VERT. - PILE 26 TO END OF WALL (PILE 29) - F.F. & B.F.
R542	X	7	30'-11"			WALL - HORIZ. - PILE 26 TO END OF WALL (PILE 29) - F.F.
R543	X	7	30'-11"			WALL - HORIZ. - PILE 26 TO END OF WALL (PILE 29) - B.F.
R444	X	24	2'-4"		▲	WALL - VERT. - END OF WALL (PILE 30) TO END OF WALL (PILE 31) - F.F. & B.F.
R545	X	5	16'-8"			WALL - HORIZ. - END OF WALL (PILE 30) TO END OF WALL (PILE 31) - F.F.
R546	X	5	16'-8"			WALL - HORIZ. - END OF WALL (PILE 30) TO END OF WALL (PILE 31) - B.F.
R547	X	3	11'-3"	X		WALL - HORIZ. - COPING - CORNER (PILE 1) TO (PILE 3) B.F.
R548	X	NOT USED				
R549	X	6	35'-8"			WALL - HORIZ. - COPING - BETWEEN PILE 3 THRU PILE 6
R550	X	6	35'-8"			WALL - HORIZ. - COPING - BETWEEN PILE 6 THRU PILE 9
R551	X	6	35'-8"			WALL - HORIZ. - COPING - BETWEEN PILE 9 THRU PILE 12
R552	X	NOT USED				
R553	X	6	35'-8"			WALL - HORIZ. - COPING - BETWEEN PILE 12 THRU PILE 15
R554	X	6	23'-8"			WALL - HORIZ. - COPING - BETWEEN PILE 15 THRU PILE 17
R555	X	2	8'-5"	X		WALL - HORIZ. - COPING - BETWEEN PILE 17 THRU PILE 18 - F.F.
R556	X	6	7'-8"			WALL - HORIZ. - COPING - BETWEEN PILE 18 TO PILE 19
R557	X	6	7'-6"			WALL - HORIZ. - COPING - PILE 19 TO CORNER (PILE 20)
R558	X	3	8'-11"	X		WALL - HORIZ. - COPING - CORNER (PILE 20) TO END OF WALL (PILE 21) - B.F.
R559	X	6	12'-7"			WALL - HORIZ. - COPING - BETWEEN PILE 23 AND PILE 24
R560	X	3	8'-11"	X		WALL - HORIZ. - COPING - PILE 23 TO PILE 24
R561	X	6	23'-8"			WALL - HORIZ. - COPING - PILE 24 TO PILE 26
R562	X	6	30'-11"			WALL - HORIZ. - COPING - PILE 26 TO END OF WALL (PILE 29)
R563	X	6	16'-8"			WALL - HORIZ. - COPING - END OF WALL (PILE 30) TO END OF WALL (PILE 31)
R464	X	318	3'-8"	X		WALL - VERT. - COPING - TOP
R465	X	308	3'-2"	X		WALL - VERT. - BACK SIDE OF COPING

BILL OF BARS

NOTE: THE FIRST DIGIT OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R566	X	1	11'-9"	X		WALL - HORIZ. - COPING - TOP - START OF WALL (PILE 1) TO (PILE 3)
R567	X	1	12'-2"	X		WALL - HORIZ. - COPING - TOP - START OF WALL (PILE 1) TO (PILE 3)
R568	X	1	12'-7"	X		WALL - HORIZ. - COPING - TOP - START OF WALL (PILE 1) TO (PILE 3) - F.F.
R569	X	6	6'-11"	X		WALL - HORIZ. - COPING - TOP - BETWEEN PILE 17 THRU PILE 18 - B.F.
R570	X	2	7'-7"	X		WALL - HORIZ. - COPING - TOP - BETWEEN PILE 17 THRU PILE 18
R571	X	2	7'-11"	X		WALL - HORIZ. - COPING - TOP - BETWEEN PILE 17 THRU PILE 18
R572	X	216	2'-2"			PLANTER FOOTING - HORIZ. - F.F. - BETWEEN PILES 3 AND 6, 6 AND 9, 12 AND 15
R573	X	39	35'-8"			PLANTER/PLANTER FOOTING - HORIZ. - BETWEEN PILES 3 AND 6, 6 AND 9, 12 AND 15
R474	X	111	5'-1"	X		PLANTER - VERT. - BETWEEN PILES 3 AND 6, 6 AND 9, 12 AND 15 - F.F.
R575	X	111	5'-3"	X		PLANTER - VERT. - BETWEEN PILES 3AND 6, 6 AND 9, 12 AND 15 - B.F.
R576	X	52	2'-2"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 9 AND PILE 11
R577	X	8	25'-3"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 9 AND PILE 11
R578	X	NOT USED				
R479	X	28	5'-1"	X		PLANTER - VERT. - BETWEEN PILE 9 AND PILE 11 - F.F.
R580	X	28	5'-3"	X		PLANTER - VERT. - BETWEEN PILE 9 AND PILE 11 - B.F.
R581	X	5	26'-3"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 9 AND PILE 11
R582	X	15	2'-2"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 11AND PILE 12
R583	X	8	7'-0"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 11AND PILE 12
R584	X	NOT USED				
R485	X	10	5'-1"	X		PLANTER - VERT. - BETWEEN PILE 11AND PILE 12 - F.F.
R586	X	10	5'-3"	X		PLANTER - VERT. - BETWEEN PILE 11AND PILE 12 - B.F.
R587	X	5	8'-3"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 11AND PILE 12
R588	X	2	10'-6"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 1AND PILE 3
R589	X	2	12'-6"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 1AND PILE 3
R590	X	2	14'-3"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 1AND PILE 3
R591	X	2	15'-7"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 1AND PILE 3
R592	X	27	2'-2"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 1AND PILE 3
R493	X	15	5'-1"	X		PLANTER - VERT. - BETWEEN PILE 1AND PILE 3 - F.F.
R594	X	15	5'-3"	X		PLANTER - VERT. - BETWEEN PILE 1AND PILE 3 - B.F.
R595	X	5	14'-0"	X		PLANTER - HORIZ. - BETWEEN PILE 1AND PILE 3
R596	X	2	10'-10"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 17 AND PILE 18
R597	X	2	12'-10"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 17 AND PILE 18
R598	X	2	16'-1"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 17 AND PILE 18
R599	X	2	14'-8"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 17 AND PILE 18
R5100	X	28	2'-2"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 17 AND PILE 18
R5101	X	5	14'-4"	X		PLANTER FOOTING - HORIZ. - BETWEEN PILE 17 AND PILE 18
R4102	X	16	5'-1"	X		PLANTER/PLANTER FOOTING - VERT. - BETWEEN PILE 17 AND PILE 18 - F.F.
R5103	X	16	5'-3"	X		PLANTER/PLANTER FOOTING - VERT. - BETWEEN PILE 17 AND PILE 18 - B.F
R5104	X	2	9'-6"	X		COPING - HORIZ. - CORNER (PILE 20) TO END OF WALL (PILE 21) AND (PILE 22) AND (PILE 23)
R5105	X	2	10'-1"	X		COPING - HORIZ. - CORNER (PILE 20) TO END OF WALL (PILE 21) AND (PILE 22) AND (PILE 23)
R5106	X	2	10'-6"	X		COPING - HORIZ. - CORNER (PILE 20) TO END OF WALL (PILE 21) AND (PILE 22) AND (PILE 23)
R5107	X	8	23'-8"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 15 AND PILES 17
R5108	X	48	2'-2"			PLANTER FOOTING - HORIZ. - BETWEEN PILE 15 AND PILE 17
R4109	X	25	5'-1"	X		PLANTER - VERT. - F.F. - BETWEEN PILE 15 AND PILE 17
R5110	X	25	5'-3"	X		PLANTER - VERT. - B.F. - BETWEEN PILE 15 AND PILE 17
R5111	X	5	23'-8"			PLANTER - HORIZ. - BETWEEN PILE 15 AND PILE 17
R5112	X	5	1'-4"		▲	PLANTER FOOTING - HORIZ. - BETWEEN PILE 17 AND PILE 18
R5113	X	5	1'-4"		▲	PLANTER FOOTING - HORIZ. - BETWEEN PILE 1AND PILE 3

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
R441	2 SERIES OF 22	2'-9" TO 4'-6"
R444	2 SERIES OF 12	2'-2" TO 2'-6"
R5112	2 SERIES OF 5	0'-9" TO 1'-11"
R5113	2 SERIES OF 5	0'-9" TO 1'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.

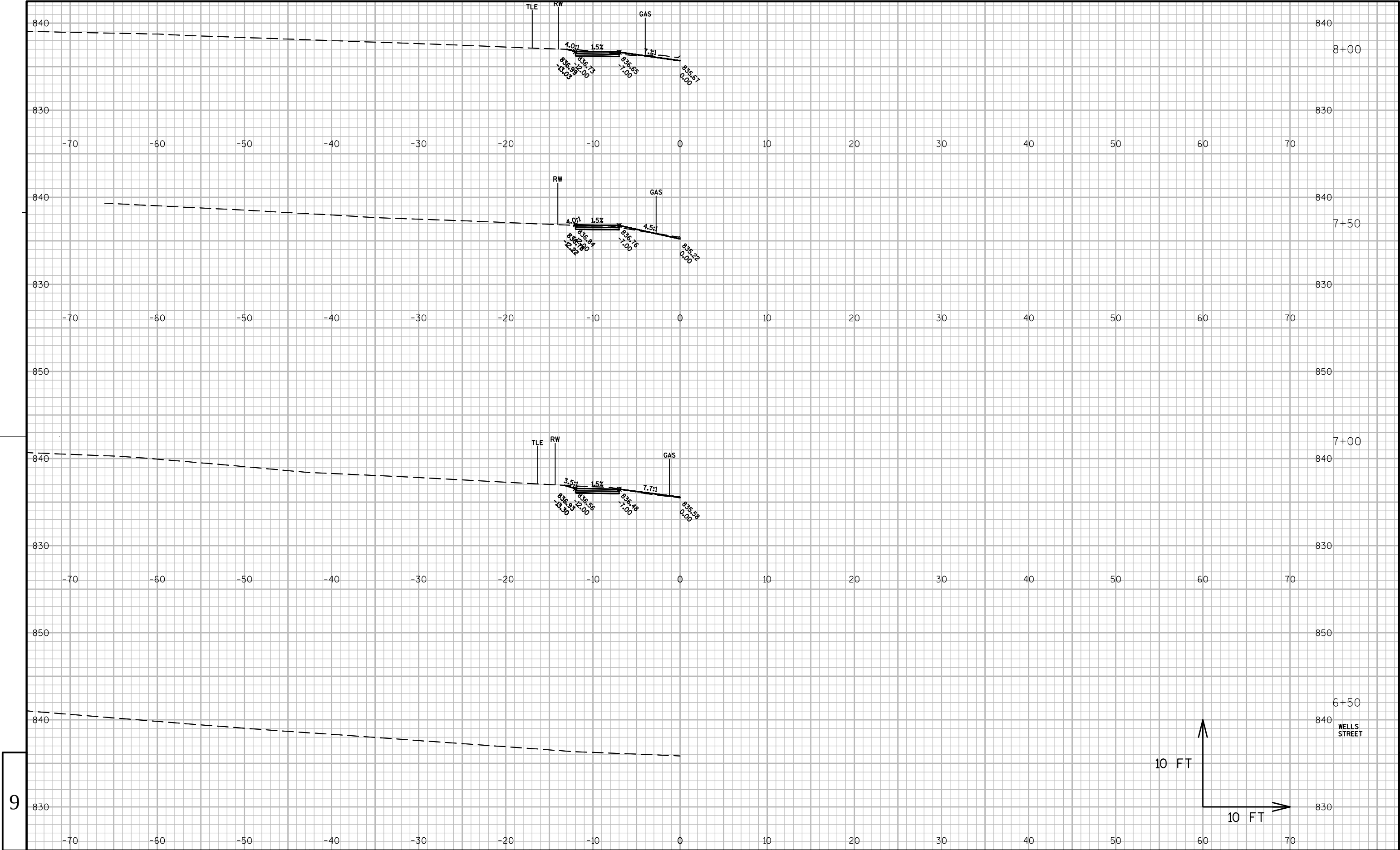
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

STATE PROJECT NUMBER

9000-10-70

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE R-35-06			
		DRAWN BY DDS	PLANS CK'D. CHK
REINFORCEMENT DETAILS		SHEET 24	
		136	

SCALE =



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PROJECT NO:5944-03-84

HWY: STH 81

COUNTY: LAFAYETTE

CROSS SECTIONS: CROSS SECTION

SHEET

137

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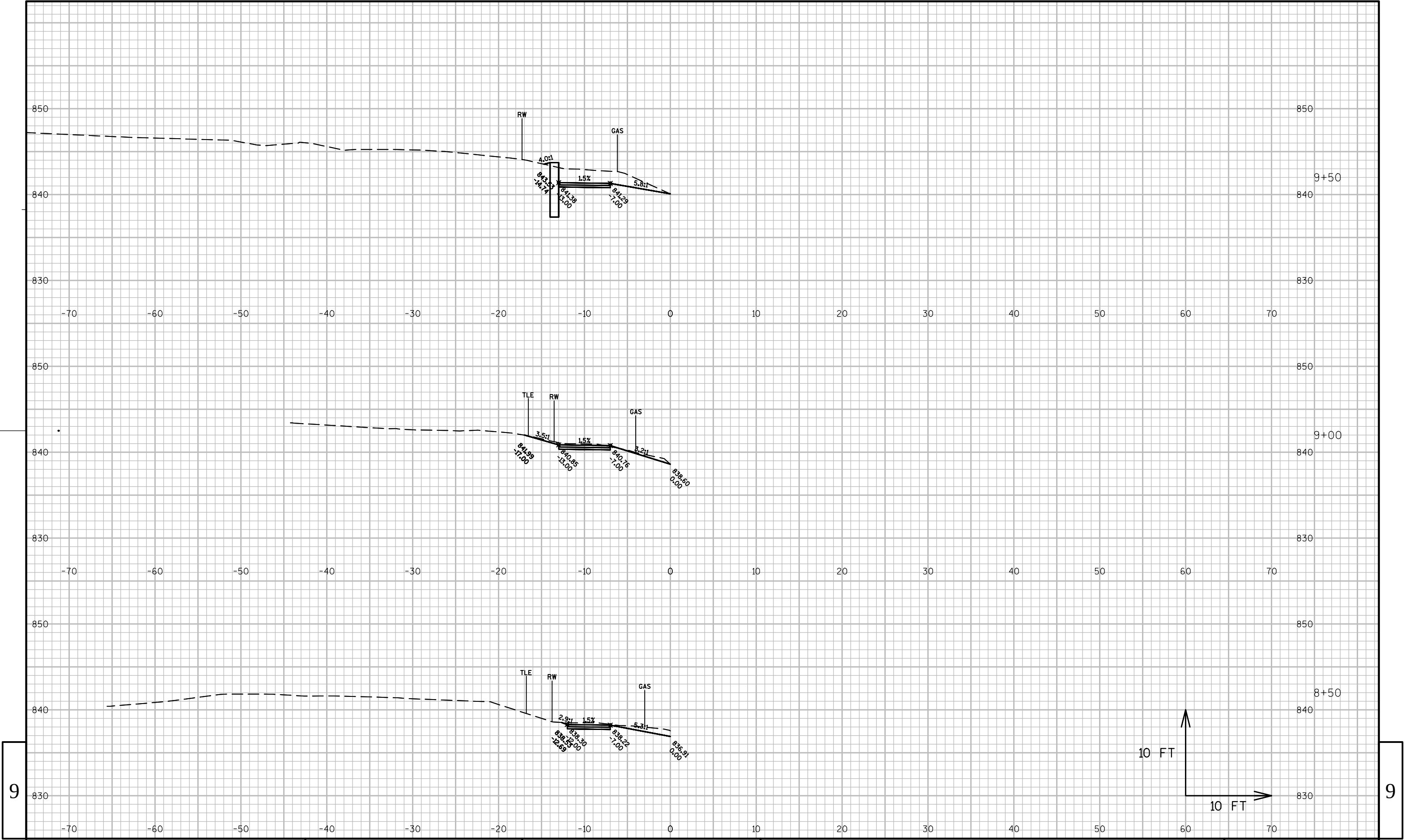
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PLOT BY : SCHWARZ, HEIDI

PLOT NAME :

PLOT SCALE : 1" = 10' _XREF

WISDOT/CADDs SHEET 49



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PROJECT NO:5944-03-84

HWY: STH 81

COUNTY: LAFAYETTE

CROSS SECTIONS: CROSS SECTION

SHEET

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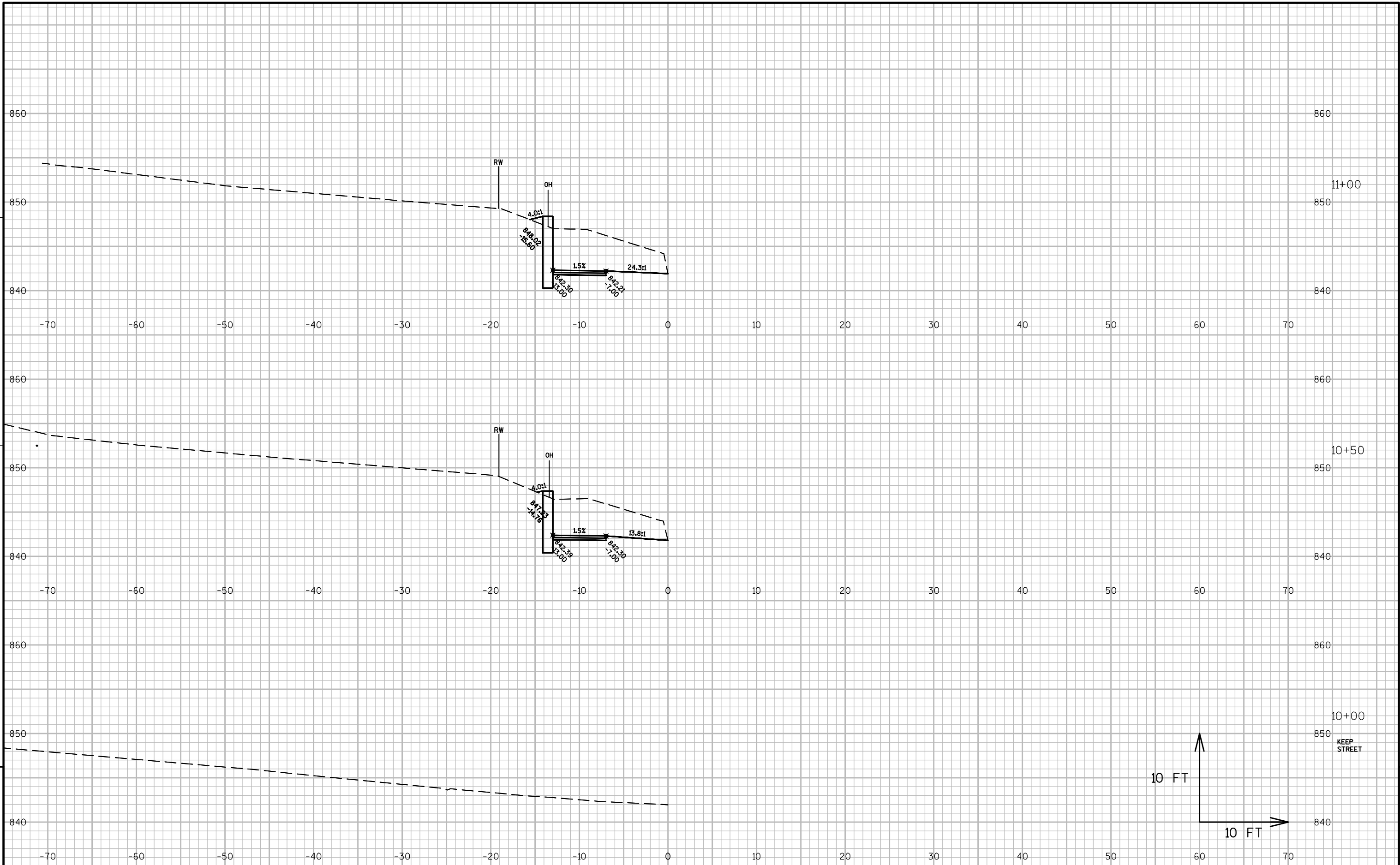
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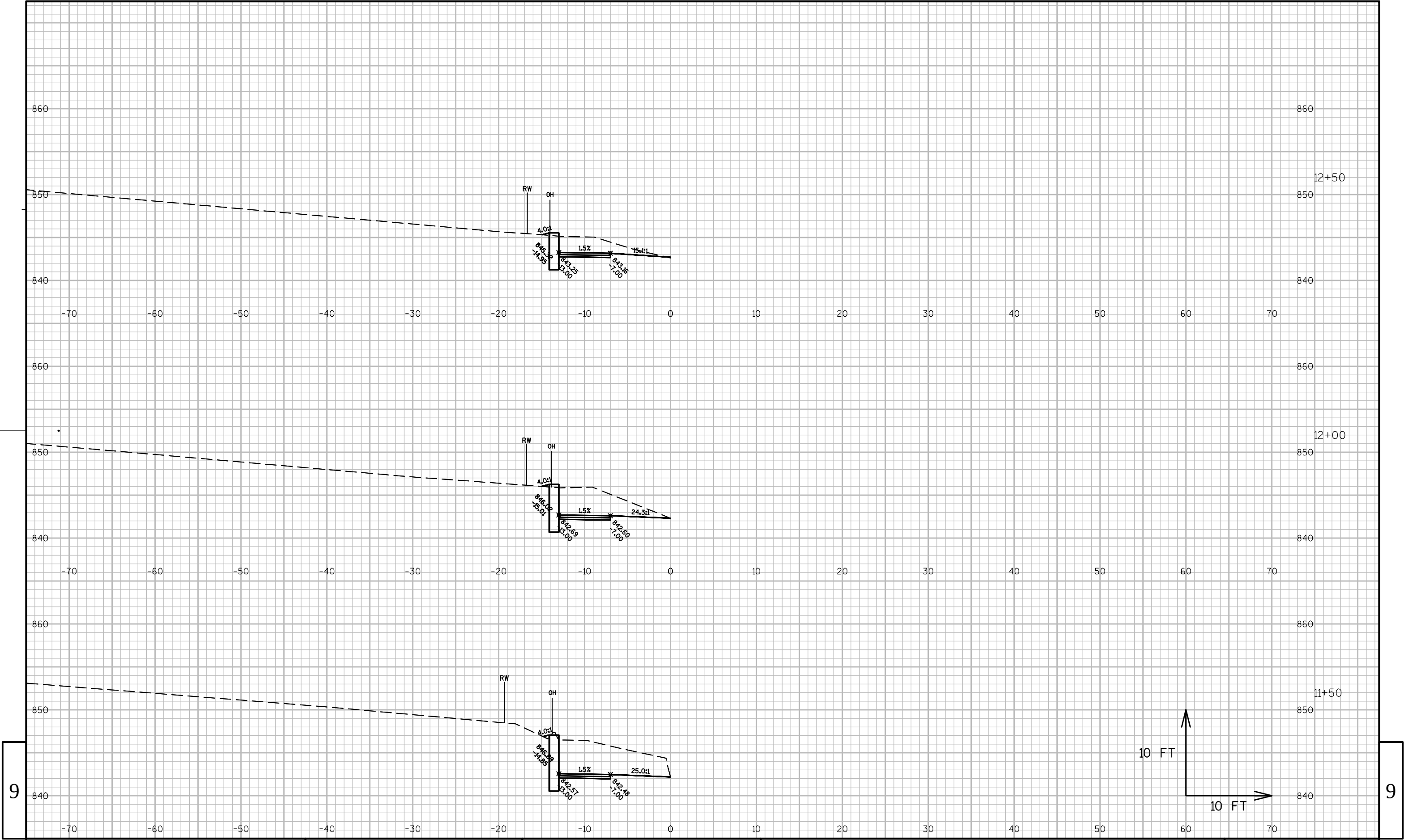
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CROSS SECTIONS: CROSS SECTION

SHEET

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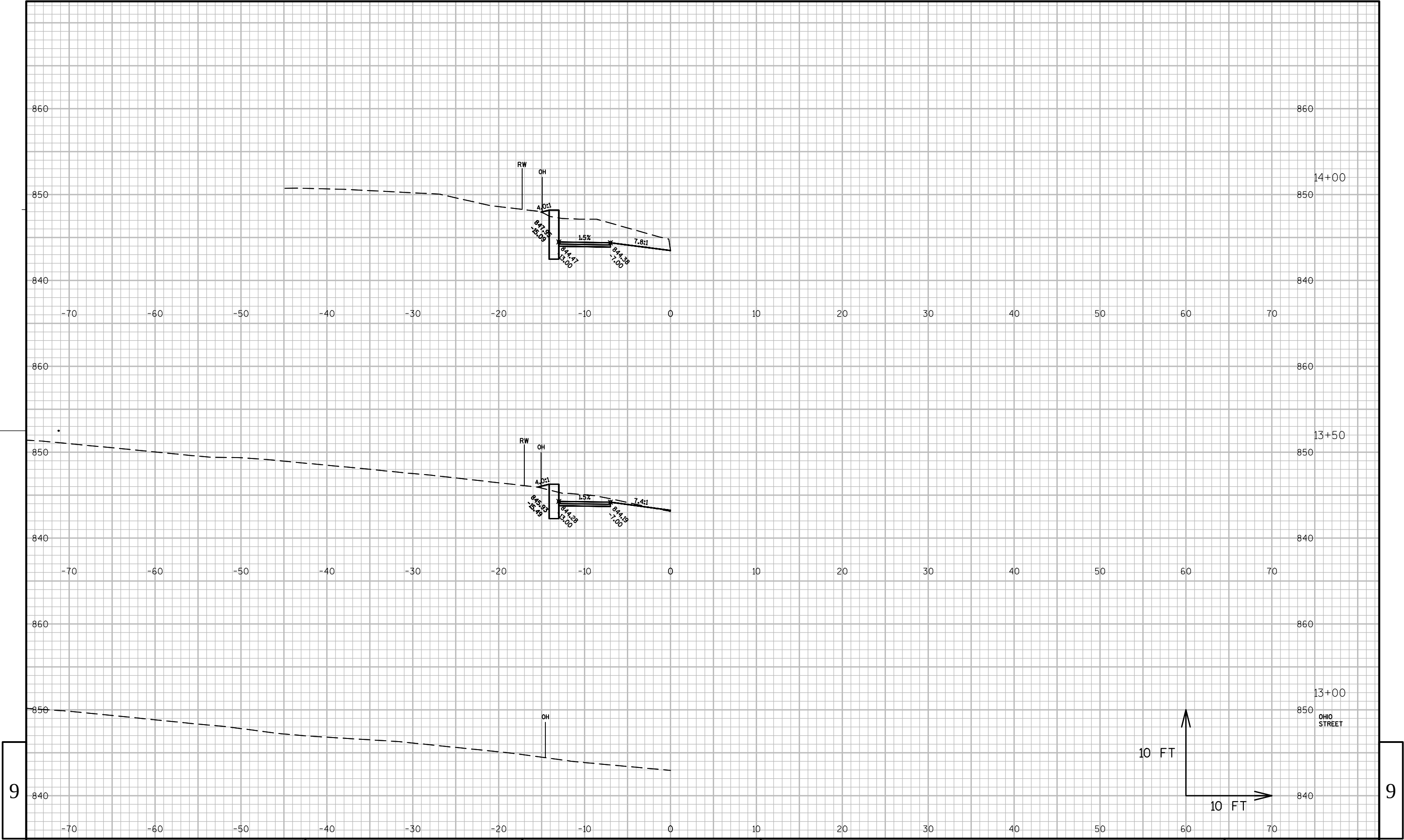
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PLOT NAME :

PLOT SCALE : 1" = 10' - XREF

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CROSS SECTIONS: CROSS SECTION

SHEET

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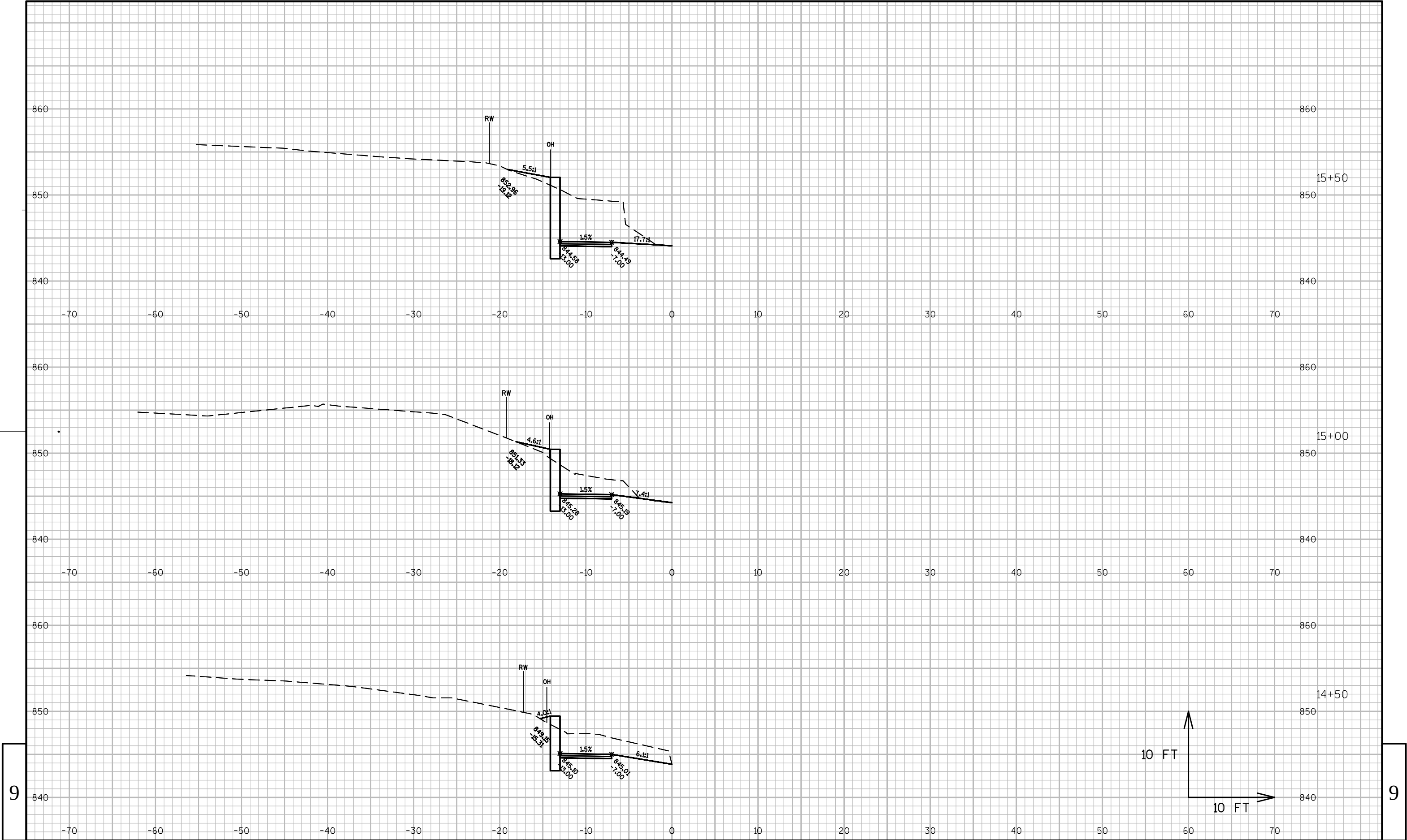
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PLOT NAME :

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CROSS SECTIONS: CROSS SECTION

SHEET

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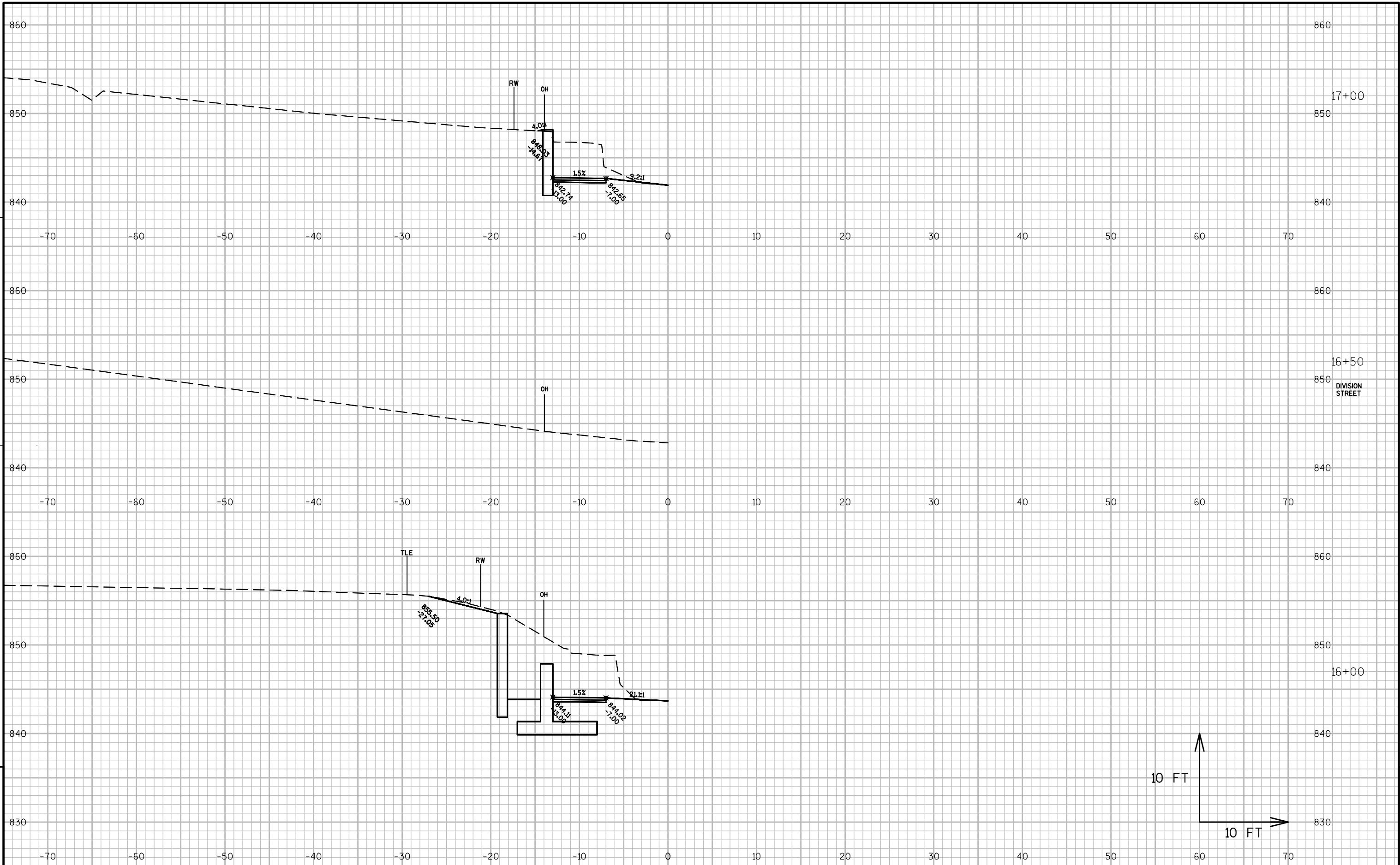
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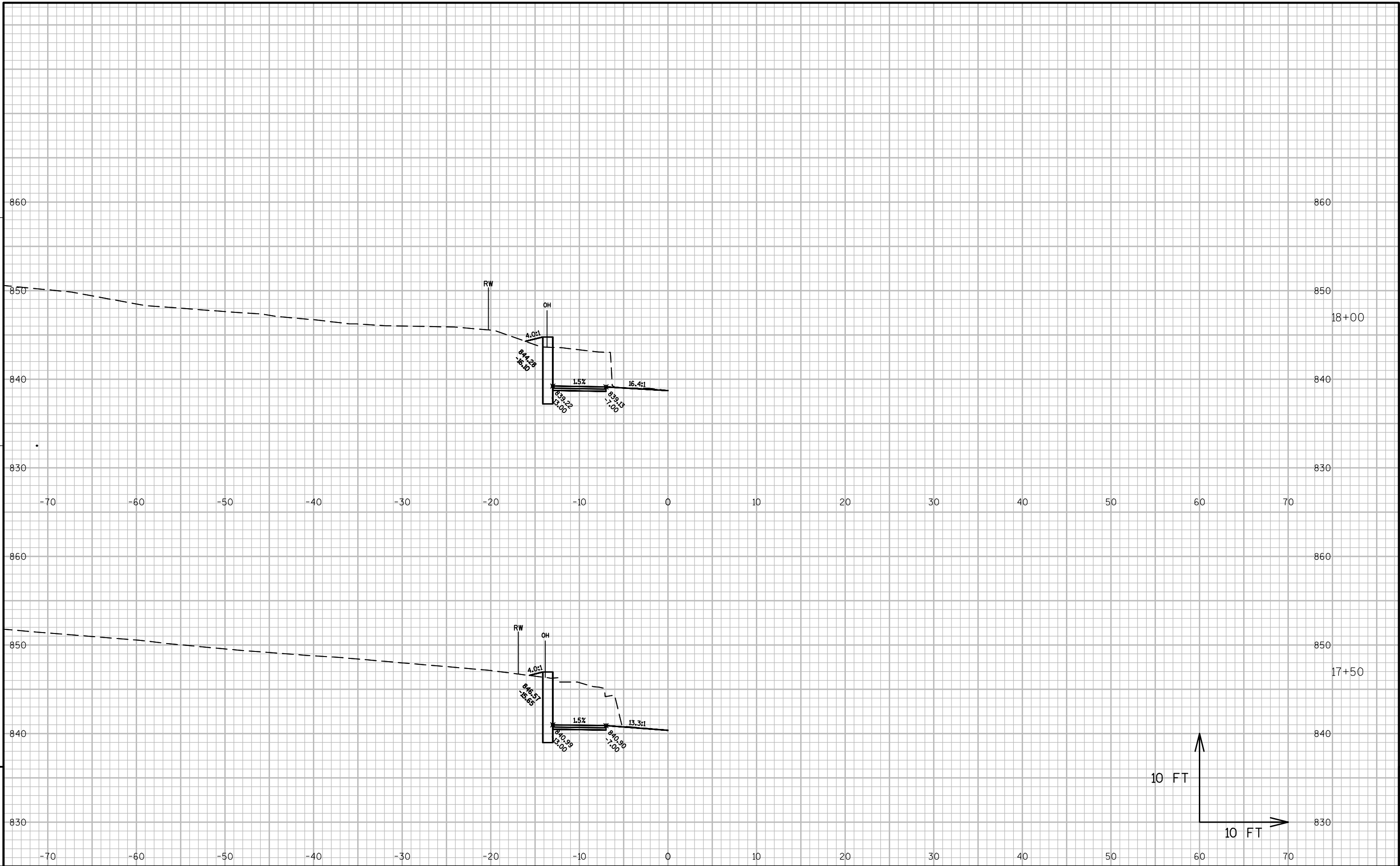
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PLOT NAME :

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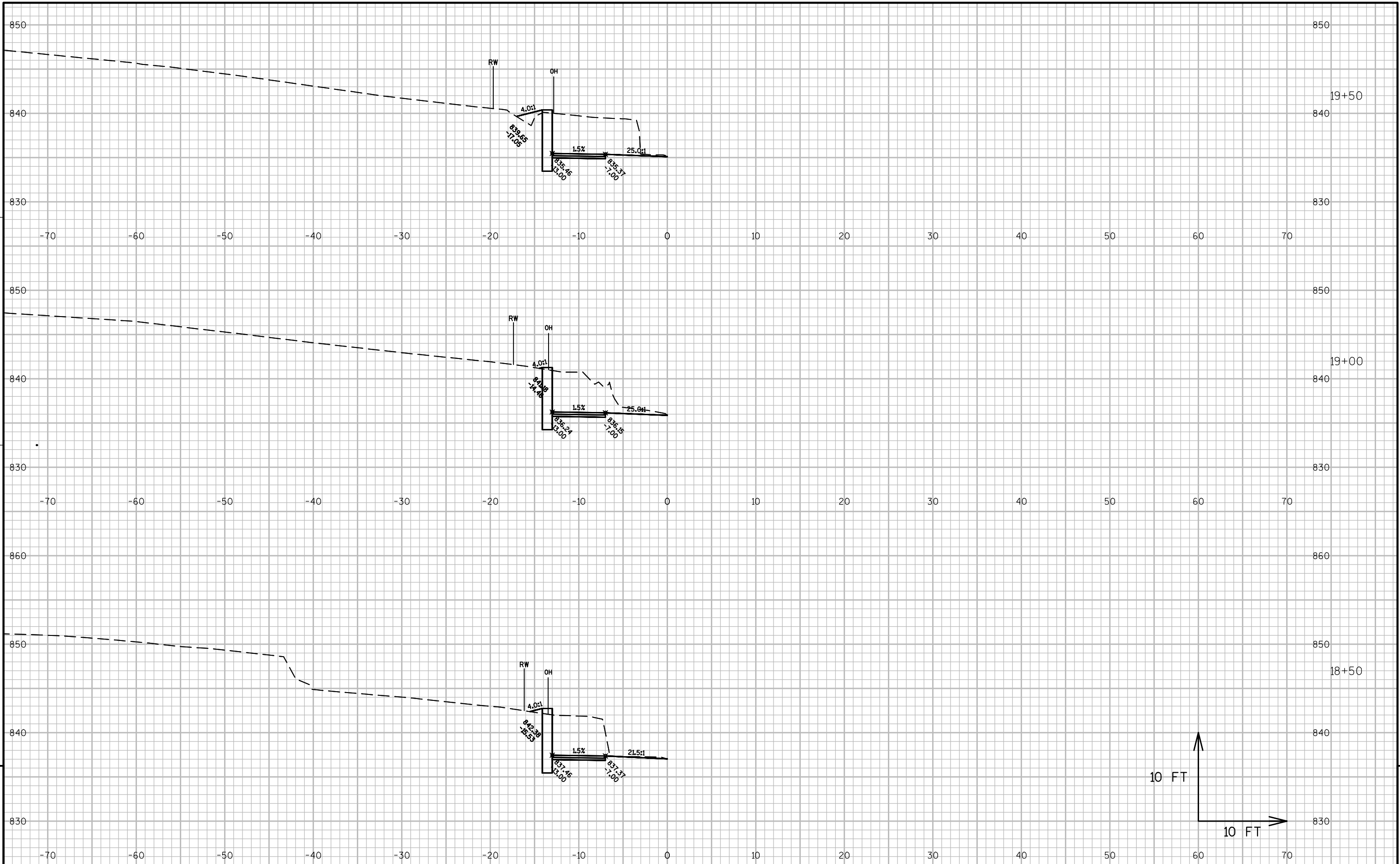
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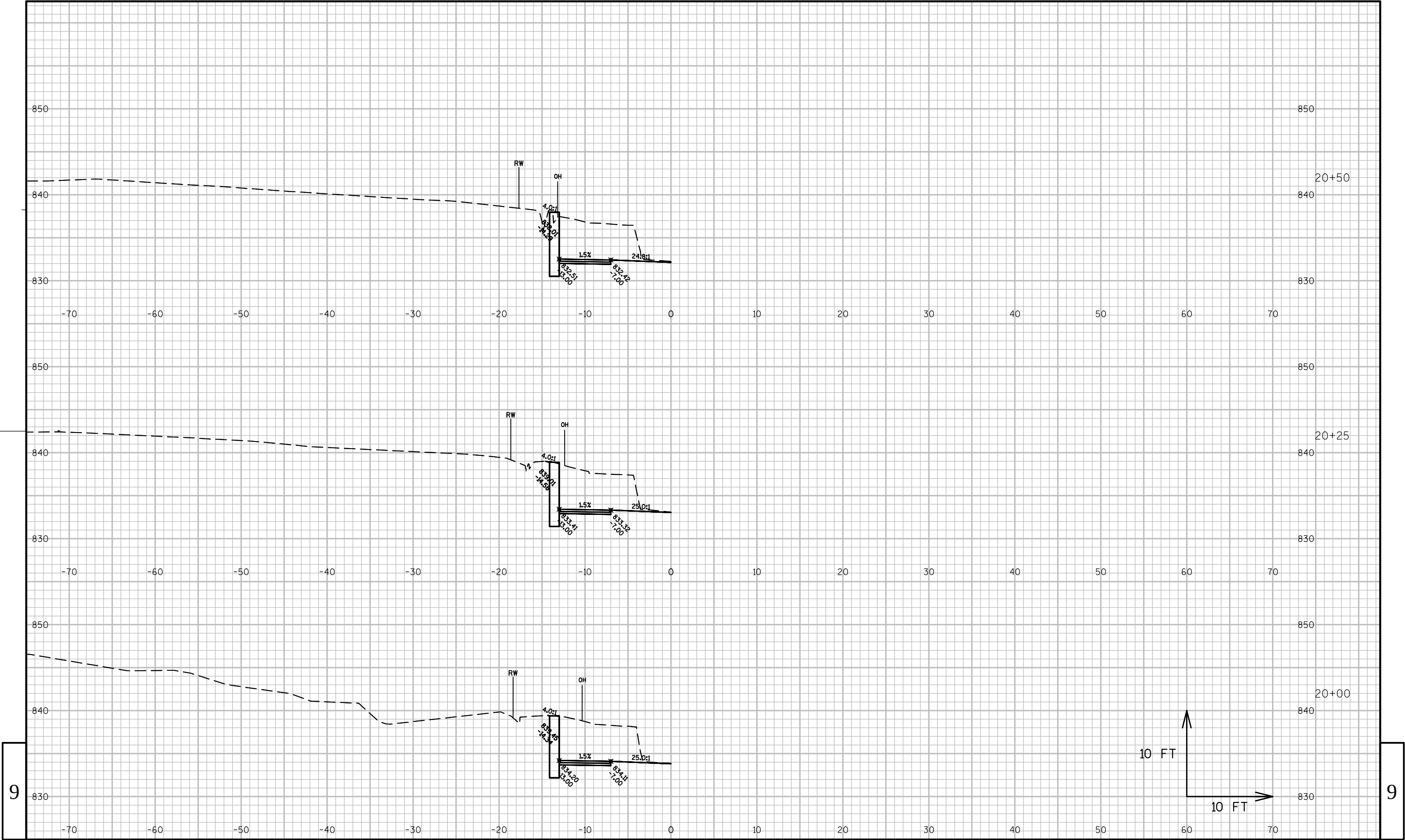
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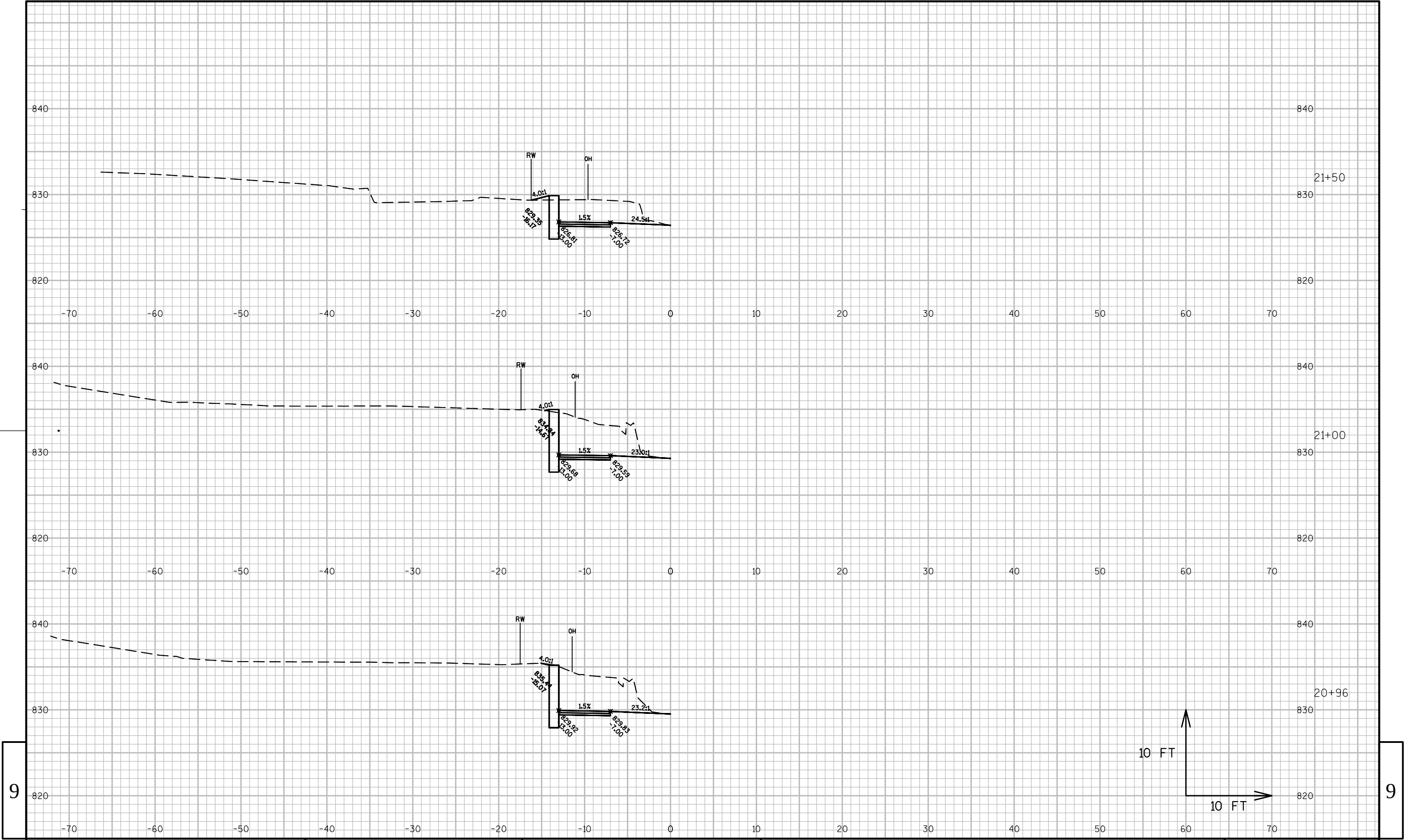
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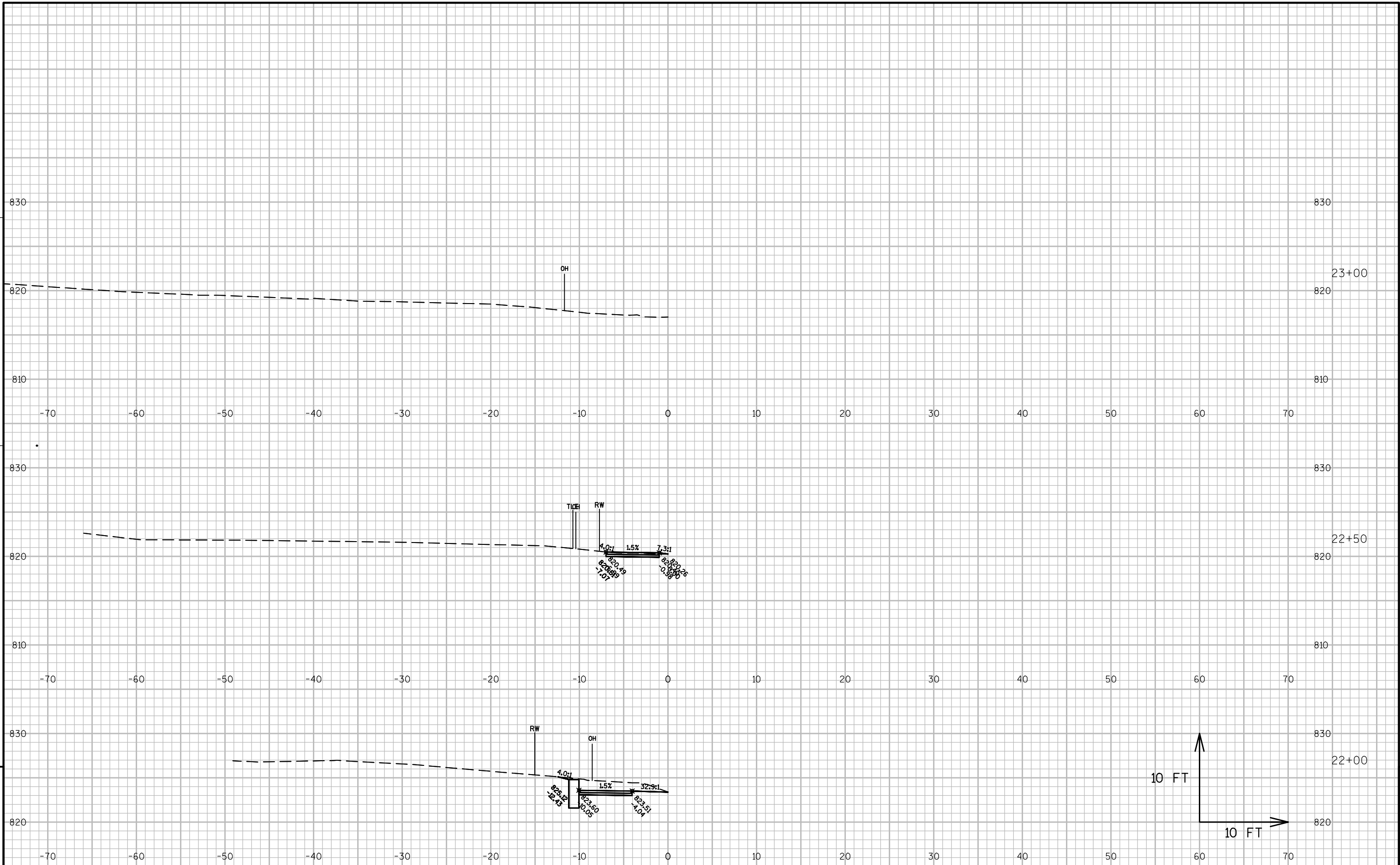
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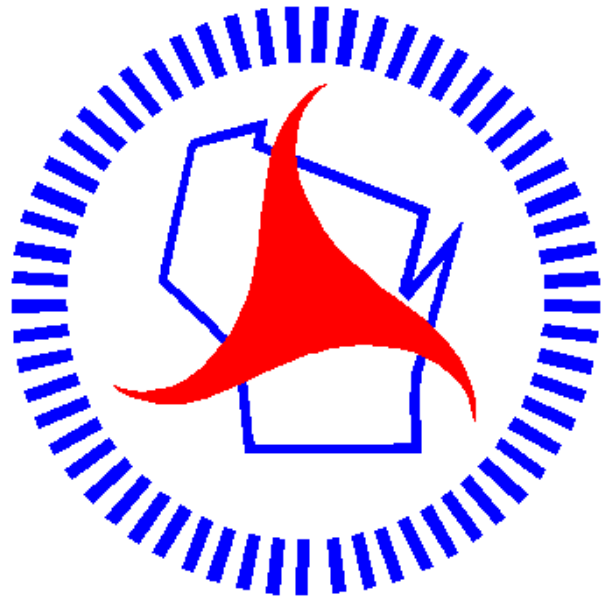
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PLOT NAME :

PLOT SCALE : 1" = 10' _XREF

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Notes



Wisconsin Department of Transportation

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