

LAX

APRIL 2019

PROJECT ID: 5530-03-71

COUNTY: JUNEAU

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 = 166



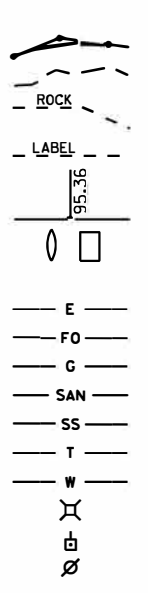
DESIGN DESIGNATION

- A.A.D.T. (2020) = 2500
- A.A.D.T. (2040) = 3000
- D.H.V. (2040) = 354
- D.D. = 60/40
- T. = 25.1%
- DESIGN SPEED = 60 MPH / 30 MPH
- ESALS = 1.200.000

CONVENTIONAL SYMBOLS

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

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

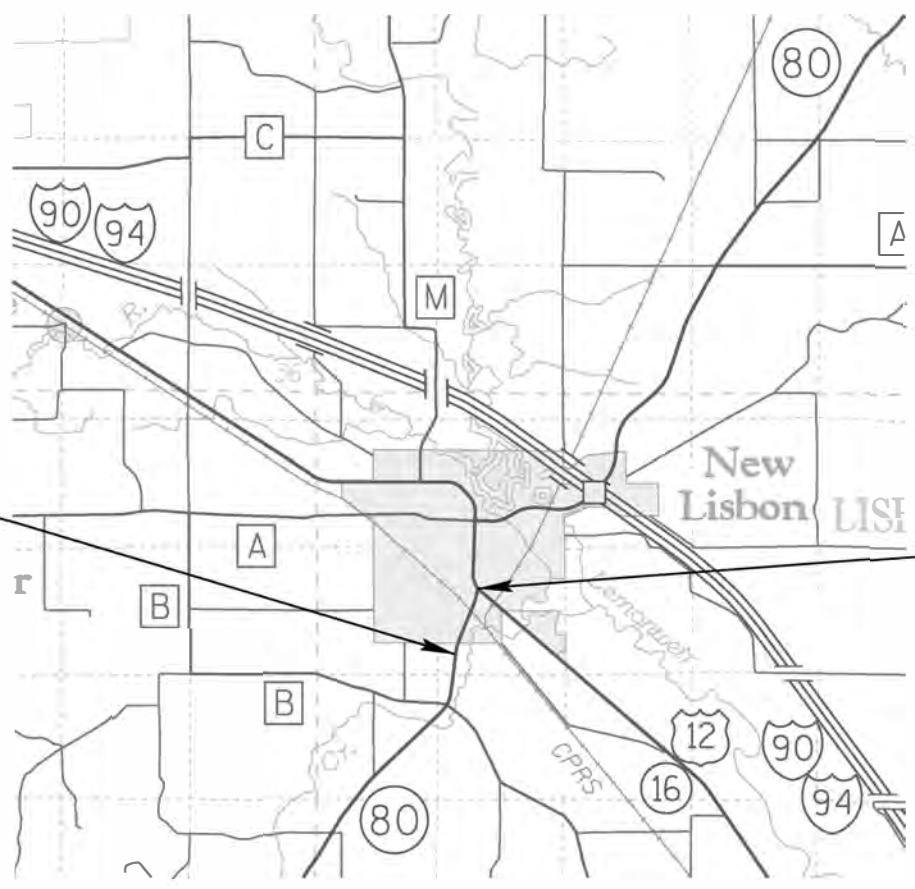


BEGIN PROJECT
STATION 101+00.00
X = 438483.9050
Y = 182017.1381

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5530-03-71	WISC 2019216	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
HILLSBORO - NEW LISBON
SOUTH CITY LIMITS - USH 12
STH 80
JUNEAU COUNTY

STATE PROJECT NUMBER
5530-03-71



END PROJECT
STATION 122+23.46

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.402 MI.

HORIZONTAL POSITIONS SHOWN ARE WISCONSIN COUNTY COORDINATES, JUNEAU COUNTY, NAD83 2011, IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (12) (NAVD 88 (12)).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MSA
Designer	PAUL VALENTI
Project Manager	TONY VANDER WIELEN
Regional Examiner	SW REGION
Regional Supervisor	JOE GREGAS
C.O. Examiner	

APPROVED FOR THE

DATE: 11/1/18

(Signature)

GENERAL NOTES

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
- THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH THE EXISTING UTILITY FACILITIES.
- D.O.T. BRIDGE BENCHMARK MONUMENT TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
- RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.
- ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTION AND CONSTRUCTED TO PREVENT HMA PAVEMENT LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.
- CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.
- SALVAGED TOPSOIL SHALL BE PLACED 1 INCH BELOW THE TOP OF ADJACENT CONCRETE CURBS OR SIDEWALKS.
- THE QUANTITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTRIBUTED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.

DNR LIAISON

KAREN KALVELAGE
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DEPT. OF NATURAL RESOURCES
WEST CENTRAL REGION
DNR SERVICE CENTER
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CITY OF NEW LISBON

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DIRECTOR OF PUBLIC WORKS
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PROJECT DESIGNER - C-29-662
JEWELL ASSOCIATES ENGINEERS, INC
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
(608) 588-7484

ORDER OF SECTION 2 SHEETS

GENERAL NOTES/WRITTEN MATERIAL
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
PLAN DETAILS - RAILROAD CROSSING
PLAN DETAILS - RETAINING WALL
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING & PAVEMENT MARKING
TRAFFIC CONTROL AND CONSTRUCTION STAGING
ALIGNMENT DETAILS



UTILITY CONTACTS

AT&T CORPORATION
COMMUNICATIONS LINE
ATTN: WILLIAM KOENIG
128 W SUNSET AVENUE
APPLETON, WI 54911
PHONE: (608) 628-0575
EMAIL: WEKOENIG@ATT.NET

LEMONMER VALLEY TELEPHONE CO
COMMUNICATIONS LINE
ATTN: BEN GRILLEY
127 US HWY 12
P.O. BOX 267
CAMP DOUGLAS, WI 54618
PHONE: (608) 542-0186
EMAIL: BEN.GRILLEY@GETLYNXX.COM

CITY OF NEW LISBON ELECTRIC & WATER UTILITY
ELECTRICITY
ATTN: NICK WYSS
232 W PLEASANT STREET
NEW LISBON, WI 53950-1378
PHONE: (608) 562-5213
EMAIL: NLDPW@MWT.NET

CITY OF NEW LISBON ELECTRIC & WATER UTILITY
WATER
ATTN: NICK WYSS
232 W PLEASANT STREET
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PHONE: (608) 562-5213
EMAIL: NLDPW@MWT.NET

AT&T WISCONSIN
COMMUNICATIONS LINE
ATTN: CAROL ANASON
316 W WASHINGTON AVENUE
MADISON, WI 53701
PHONE (608) 252-2385
EMAIL: CA2624@ATT.COM

MEDIA COM WISCONSIN
COMMUNICATIONS LINE
ATTN: CRAIG EGGERT
1240 HIGHWAY 52 SOUTH
CHATFIELD, MN 55923
PHONE (563) 419-5160
EMAIL: CEGGERT@MEDIACOMCC.COM

ALLIANT ENERGY
GAS/PETROLEUM
ATTN: PETER FRITZ
338 EAST STATE ST.
MAUSTON, WI 53948
PHONE (608) 847-1317
EMAIL: PETERFRITZ@ALLIANTENERGY.COM

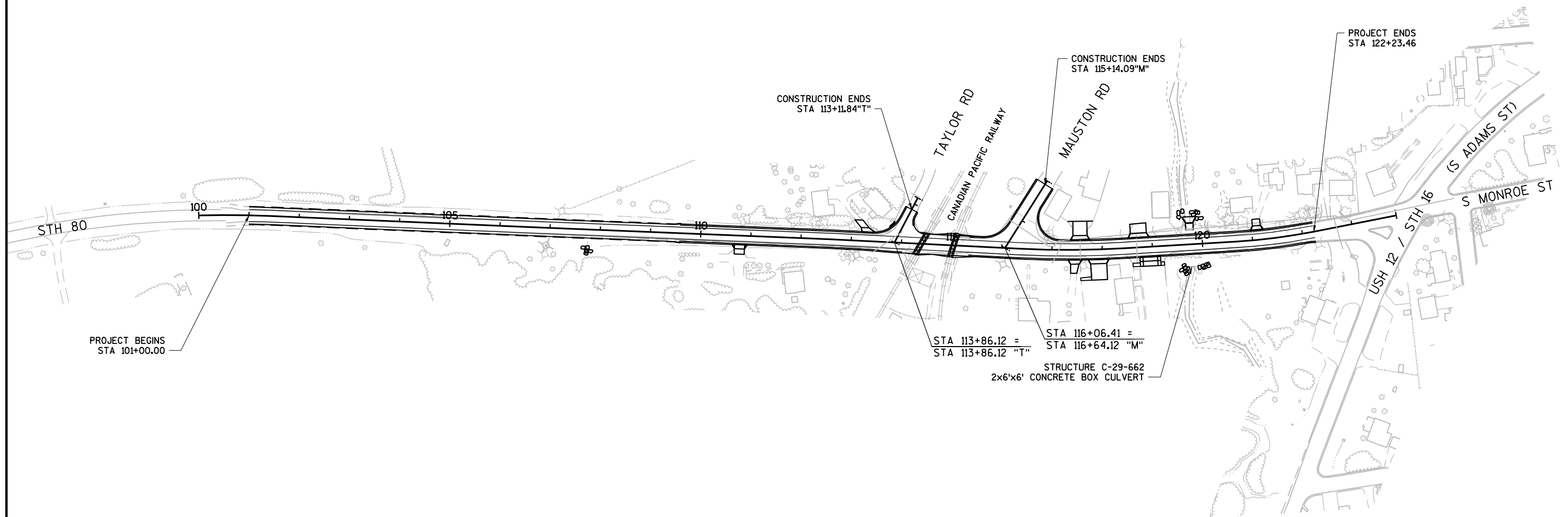
CHARTER COMMUNICATIONS
COMMUNICATIONS LINE
ATTN: GLEN JAKUSZ
2701 DANIELS STREET
MADISON, WI 53718
PHONE: (608) 209-3202
EMAIL: GLEN.JAKUSZ@CHARTER.COM

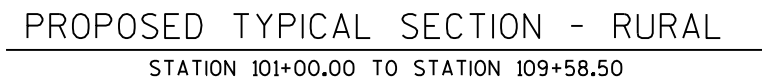
ROGERS TELECOM
COMMUNICATIONS LINE
ATTN: KETH JACKSON
4804 N 40TH STREET
SHEBOYGAN, WI 53083
PHONE: (920) 395-7121
EMAIL: KJACKSON@GABES.COM

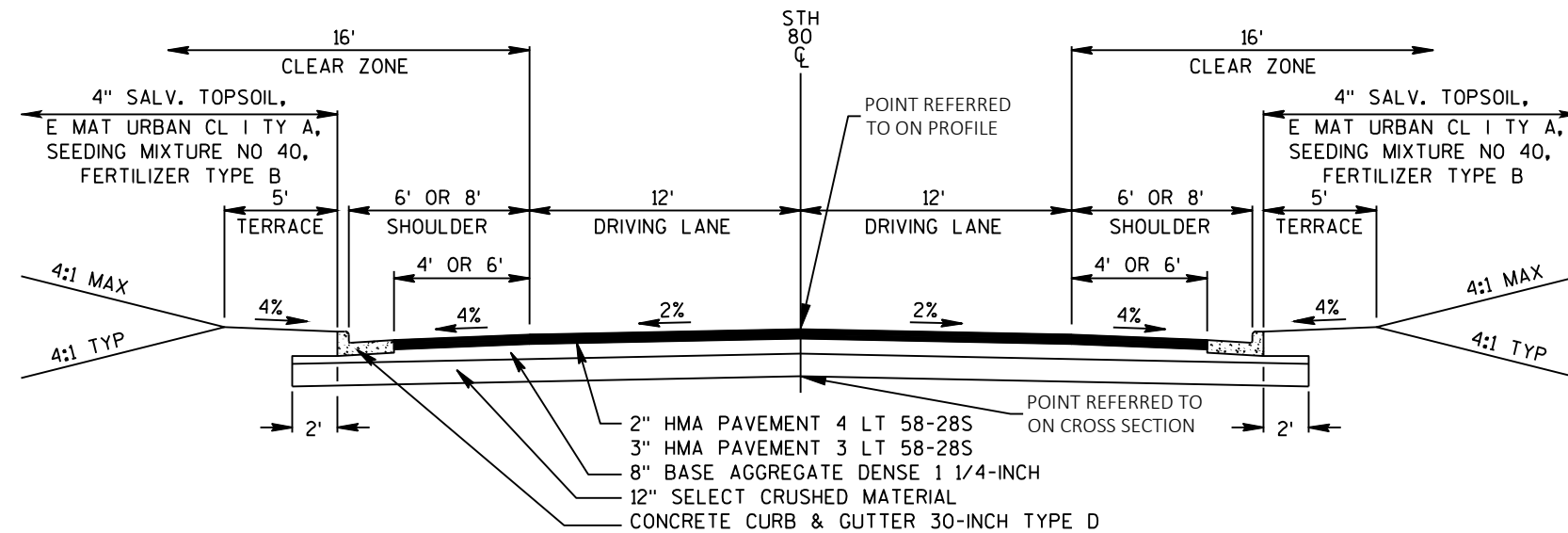
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STANDARD ABBREVIATIONS

AC	ACRE	LS	LUMP SUM
AGG	AGGREGATE	M.P.	MARKER POST
<	ANGLE	MGAL	1000 GALLONS
AE, AEW	APRON ENDWALL	N.C.	NORMAL CROWN
ASPH.	ASPHALTIC	N	NORTH
A.D.T.	AVERAGE DAILY TRAFFIC	NB	NORTHBOUND
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC	NOR	NORMAL
B.F.	BACK FACE	NO.	NUMBER
BM	BENCHMARK	PAV'T	PAVEMENT
BTWN	BETWEEN	P.L.E.	PERMANENT LIMITED EASEMENT
CTR.	CENTER	P.C.	POINT OF CURVATURE
C/L	CENTER LINE	P.I.	POINT OF INTERSECTION
Δ	CENTRAL ANGLE OR DELTA	P.T.	POINT OF TANGENCY
C.E.	COMMERCIAL ENTRANCE	PCC	PORTLAND CEMENT CONCRETE
CONST.	CONSTRUCTION	P.E.	PRIVATE ENTRANCE
CMCP	CORRUGATED METAL CULVERT PIPE	PGL	PROFILE GRADE LINE
CMP	CORRUGATED METAL PIPE	P.L.	PROPERTY LINE
CO.	COUNTY	PRC	PRECAST REINFORCED CONCRETE
CTH	COUNTY TRUNK HIGHWAY	R	RADIUS OR RANGE
CR	CREEK	R/L	REFERENCE LINE
CABC	CRUSHED AGGREGATE BASE COURSE	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
CY	CUBIC YARD	REQ'D	REQUIRED
CP	CONTROL POINT OR CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	R.H.F.	RIGHT HAND FORWARD
D	DEGREE OF CURVE	R/W	RIGHT OF WAY
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
DIA.	DIAMETER	SHLD.	SHOULDER(S)
D.D.	DIRECTIONAL DISTRIBUTION	SHR.	SHRINKAGE
DISCH.	DISCHARGE	S	SOUTH
DMS	DYNAMIC MESSAGE SIGN	SB	SOUTHBOUND
EA	EACH	S.F.	SQUARE FOOT (FEET)
E	EAST	SDD	STANDARD DETAIL DRAWING(S)
EB	EASTBOUND	STH	STATE TRUNK HIGHWAY
ELEC.	ELECTRIC(AL), ELEC. CABLE	STA.	STATION
EL., ELEV.	ELEVATION	S.E.	SUPERELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS	S/L	SURVEY LINE
EXC.	EXCAVATION	SS	STORM SEWER
EXIST	EXISTING	SYM	SYMMETRICAL
F.F.	FACE TO FACE	T.	PERCENT TRUCKS
FERT.	FERTILIZER	TEL.	TELEPHONE
F.E.	FIELD ENTRANCE	TEMP.	TEMPORARY
F/L, F.L.	FLOW LINE	T.L.E.	TEMPORARY LIMITED EASEMENT
GALV.	GALVANIZE	T.O.C.	TOP OF CURB
H.S.	HIGH STRENGTH	TYP	TYPICAL
CWT	HUNDRED WEIGHT	UNCL.	UNCLASSIFIED
INL	INLET	U.G.	UNDERGROUND (CABLE)
INTER.	INTERSECTION	VAR	VARIABLE
IH	INTERSTATE HIGHWAY	V.C.	VERTICAL CURVE
JT.	JOINT	V.P.C.	VERTICAL POINT OF CURVATURE
LT	LEFT	V.P.I.	VERTICAL POINT OF INTERSECTION
L.H.F.	LEFT HAND FORWARD	V.P.T.	VERTICAL POINT OF TANGENCY
L.	LENGTH OF CURVE	Wt.	WEIGHT
L.F.	LINEAR FOOT(FEET)	W	WEST
LC.	LONG CHORD	WB	WESTBOUND

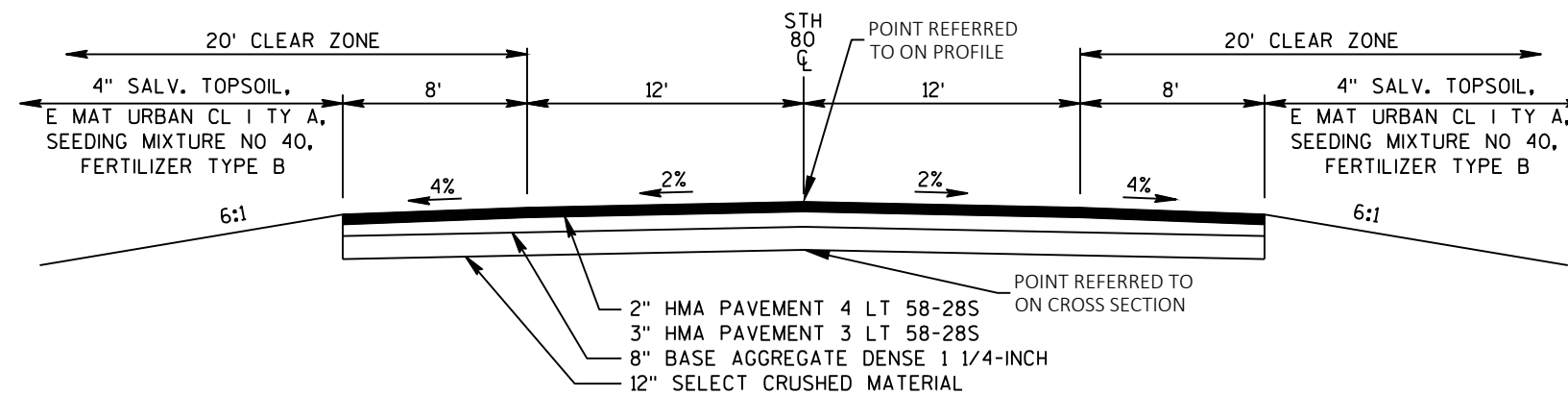






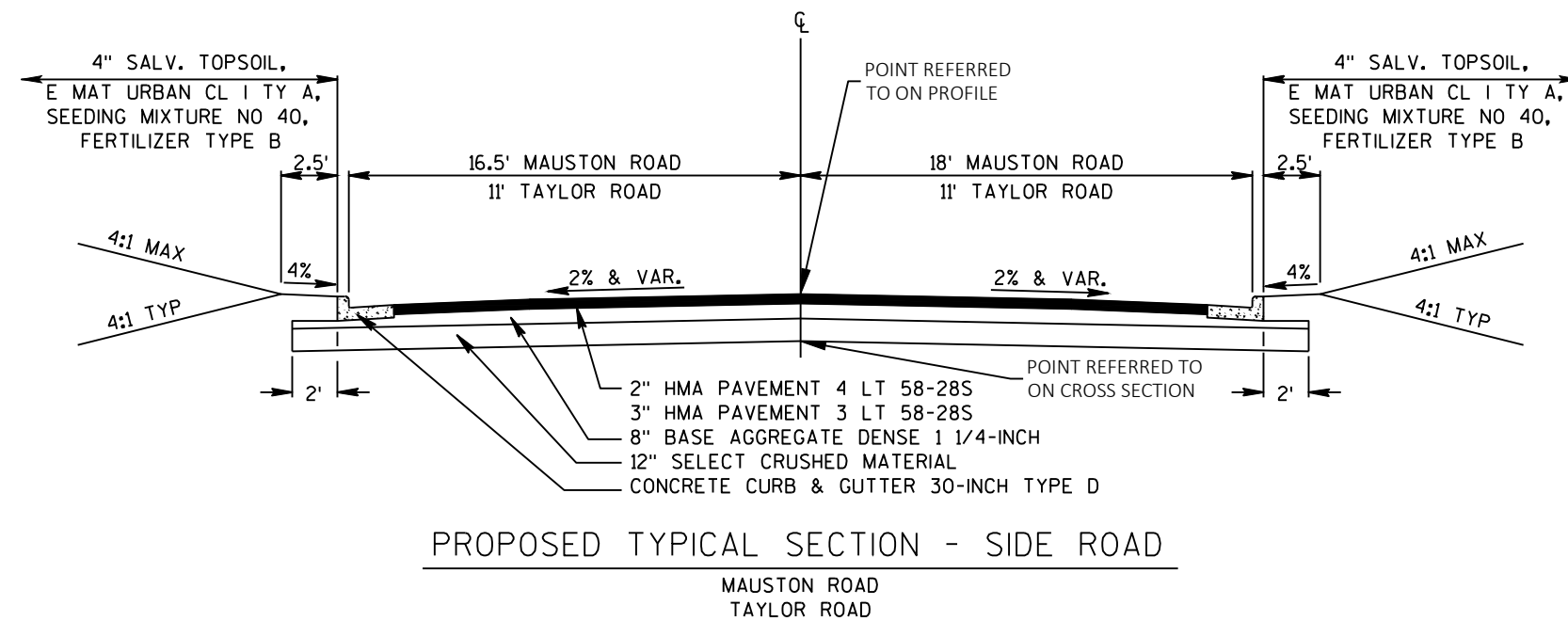
PROPOSED TYPICAL SECTION - URBAN

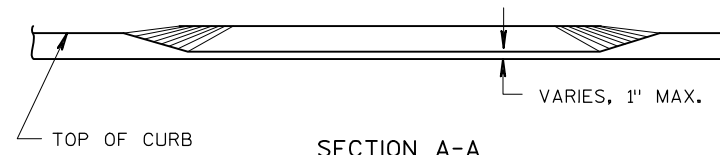
6' SHOULDERS - STATION 109+58.50 TO STATION 113+26.12
TRANSITION - STATION 113+26.12 TO STATION 113+86.12
8' SHOULDERS - STATION 113+86.12 TO STATION 114+01.21
8' SHOULDERS - STATION 115+34.89 TO STATION 122+23.46



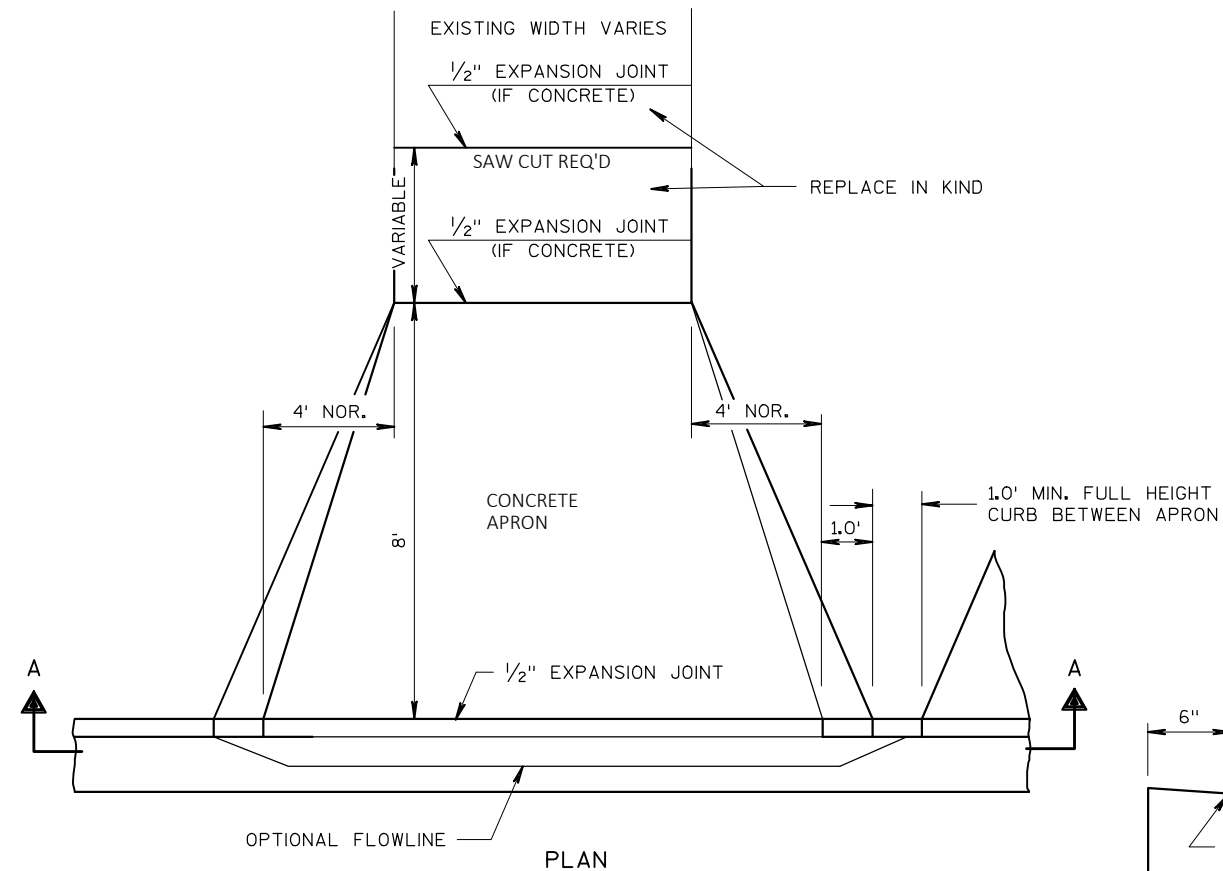
PROPOSED TYPICAL SECTION - RAILROAD CROSSING

STATION 114+01.21 TO STATION 115+34.89

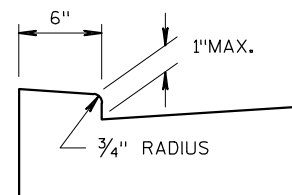
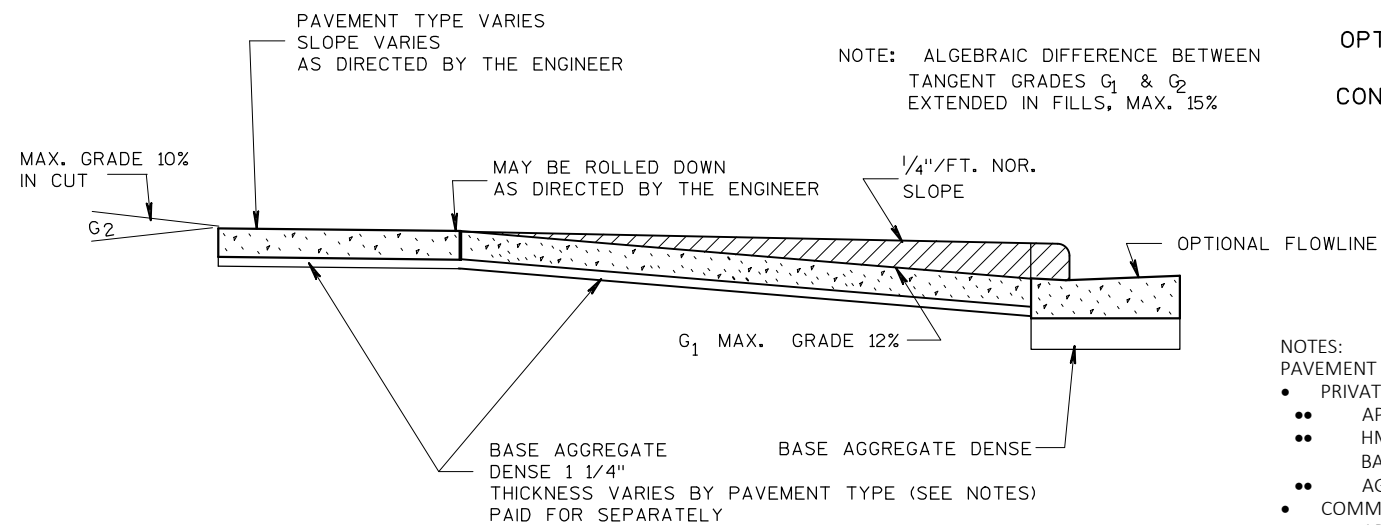
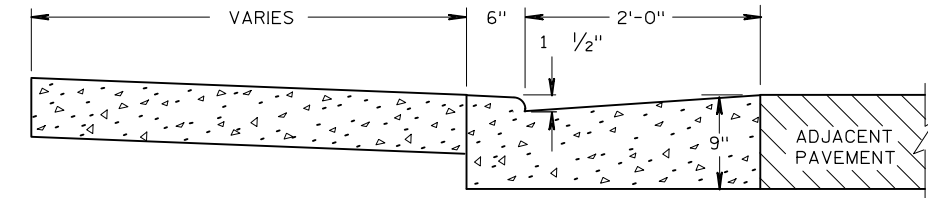




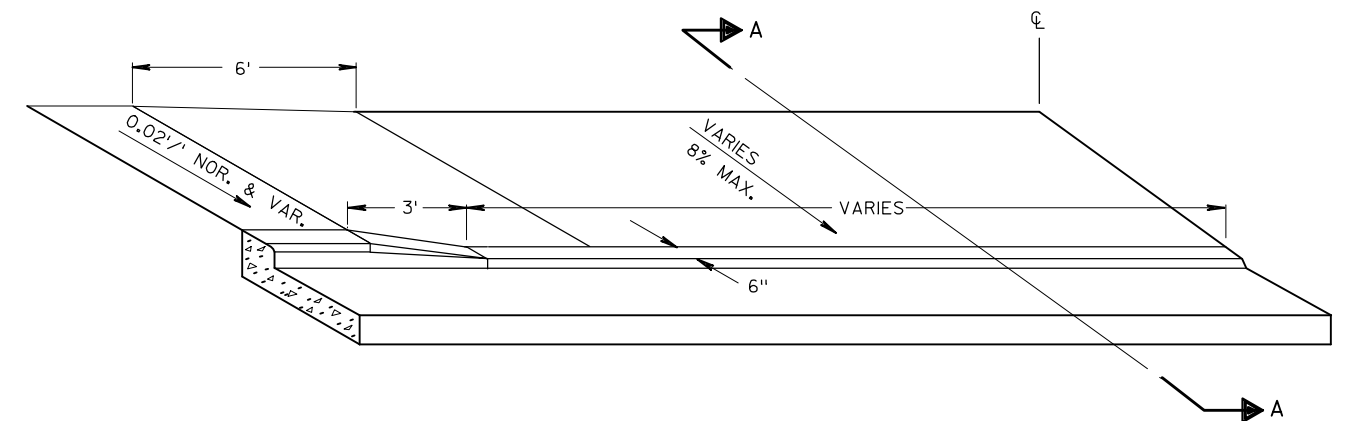
SECTION A-A



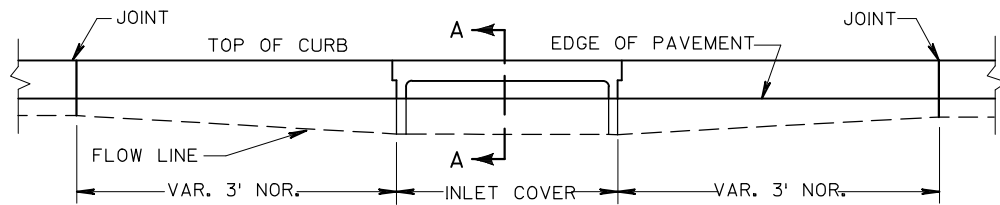
PLAN

OPTIONAL METHOD
FOR
CONCRETE GUTTERPROFILE
DRIVEWAY DETAIL

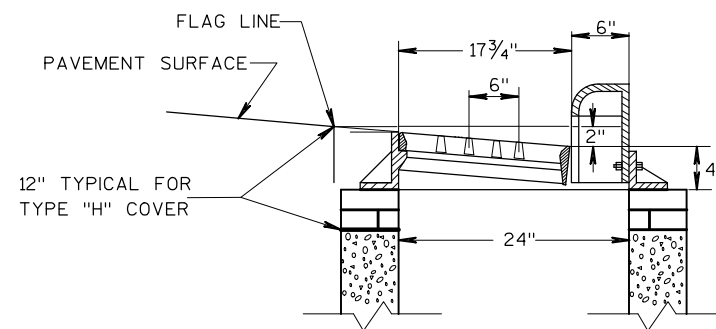
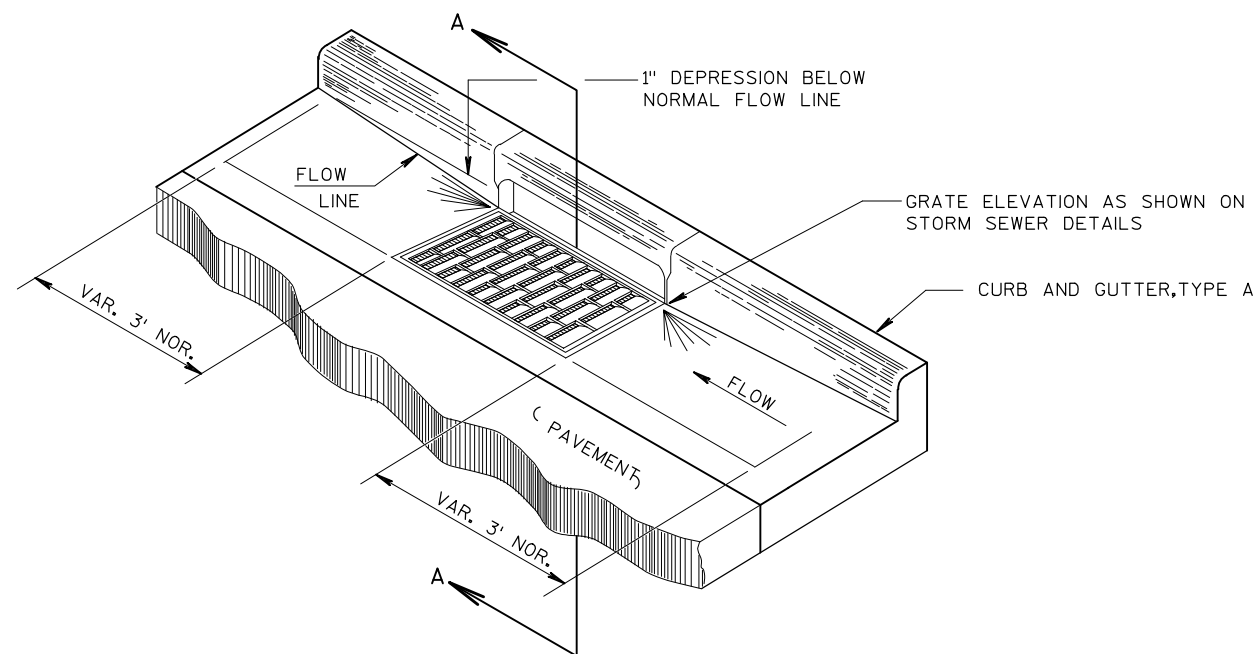
SECTION A-A

COMMERCIAL ENTRANCE (HALF SECTION)
USE WITH DRIVEWAYS WITH NO FLARES

- NOTES:
- PAVEMENT THICKNESS FOR DRIVEWAYS AS FOLLOWS:
- PRIVATE ENTRANCES:
 - APRONS & CONCRETE: 6" CONCRETE, 6" BASE AGGREGATE DENSE 1 1/4"
 - HMA: 2" ASPHALTIC SURFACE FOR DRIVEWAYS AND FIELD ENTRANCES, 6" BASE AGGREGATE DENSE 1 1/4"
 - AGGREGATE: 6" BASE AGGREGATE DENSE 3/4"
 - COMMERCIAL ENTRANCES:
 - APRONS & CONCRETE: 8" CONCRETE, 6" BASE AGGREGATE DENSE 1 1/4"
 - HMA: 3" ASPHALTIC SURFACE FOR DRIVEWAYS AND FIELD ENTRANCES, 8" BASE AGGREGATE DENSE 1 1/4"
 - FIELD ENTRANCES: NO CONCRETE; 6" BASE AGGREGATE DENSE 3/4"

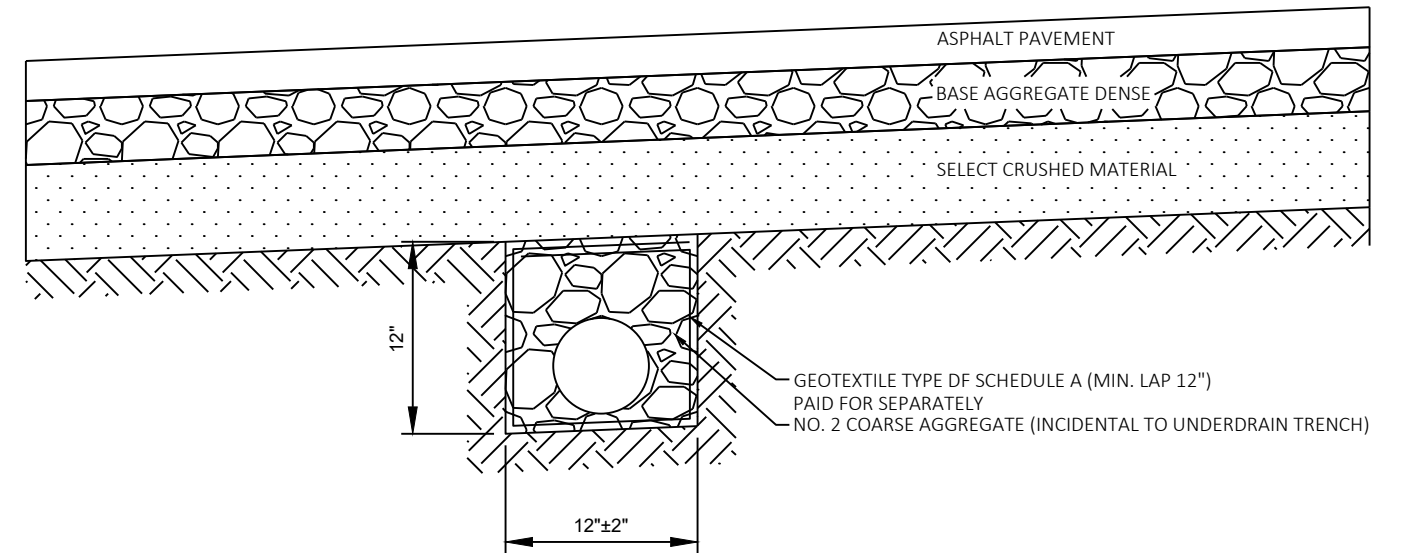


ELEVATION

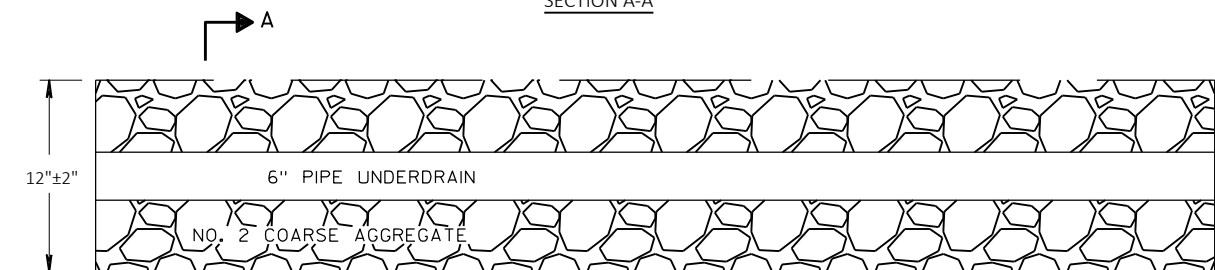


SECTION A-A

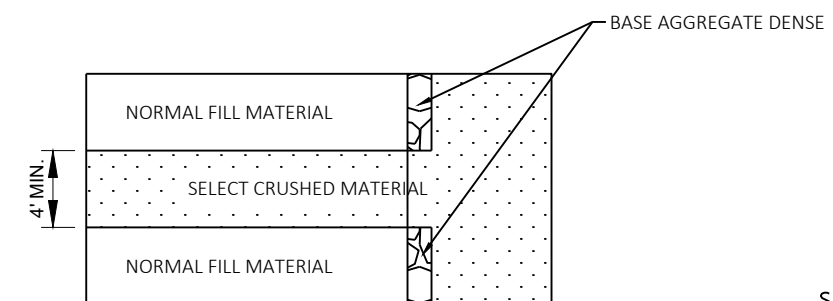
DETAIL OF CURB AND GUTTER AT INLETS
(CATCH BASIN 2'x3', TYPE H COVER SHOWN)



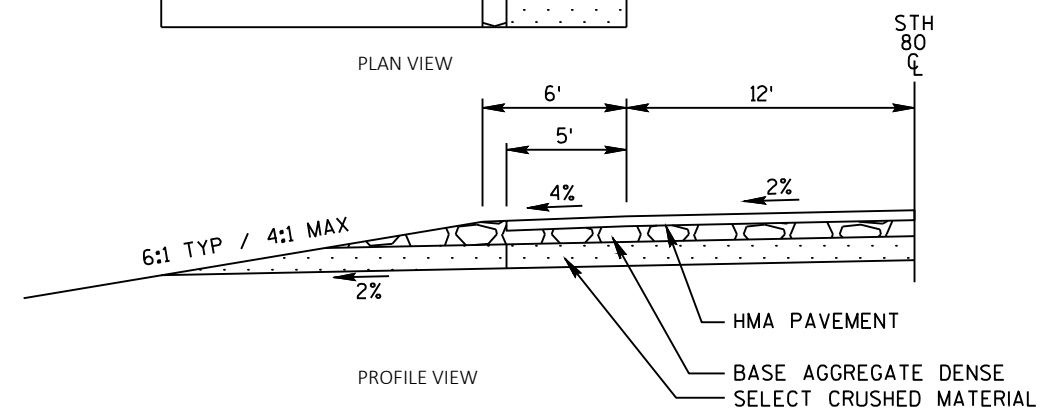
SECTION A-A



PLAN VIEW
UNDERDRAIN TRENCH DETAIL



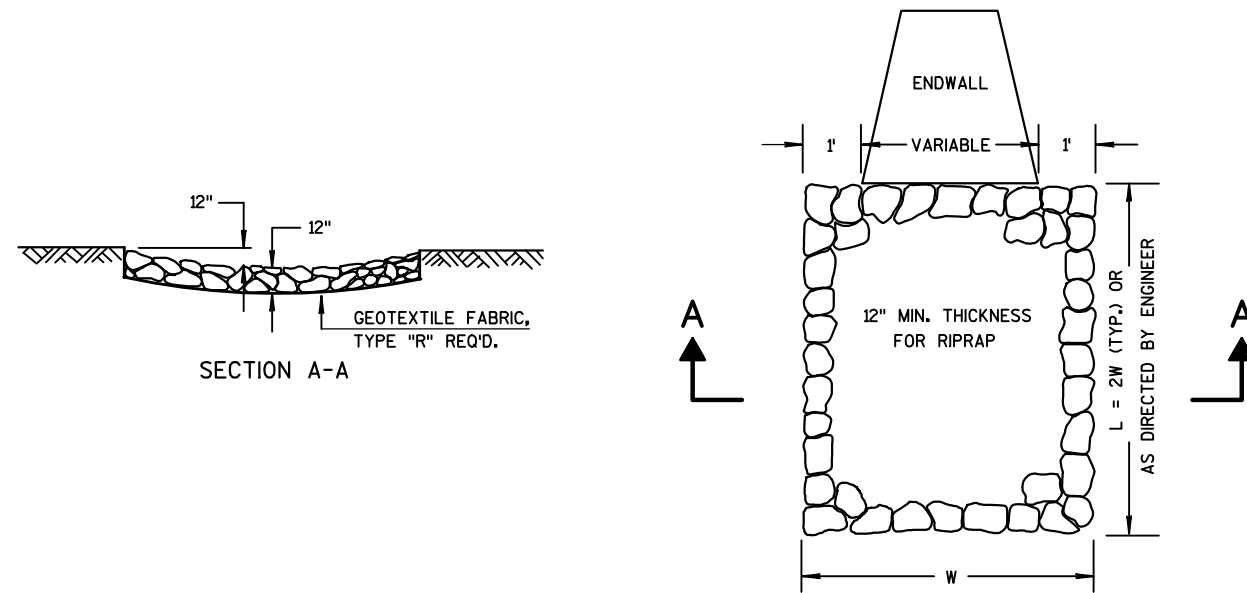
PLAN VIEW



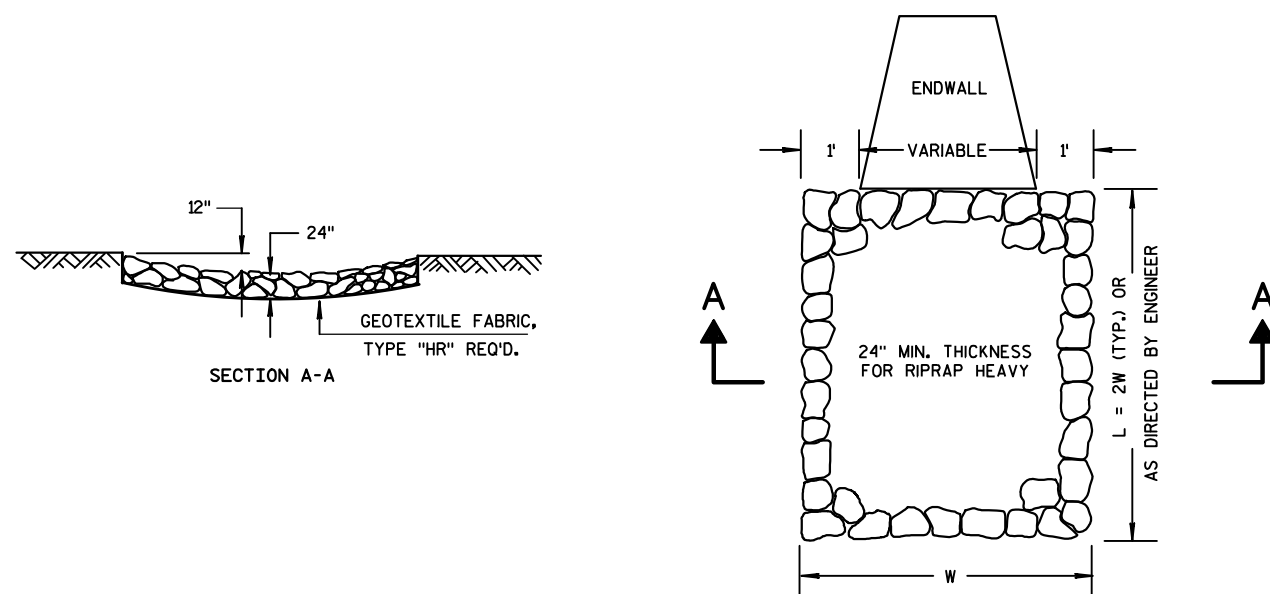
PROFILE VIEW

RELIEF TRENCH DETAIL

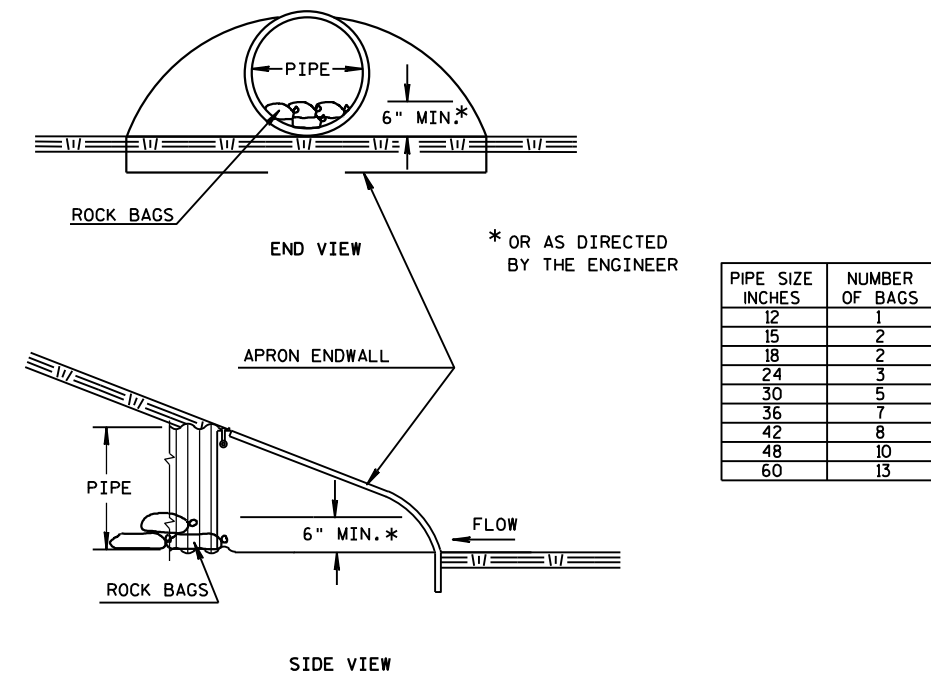
CONSTRUCT RELIEF TRENCH AT SAG POINTS OR EVERY 250 FEET



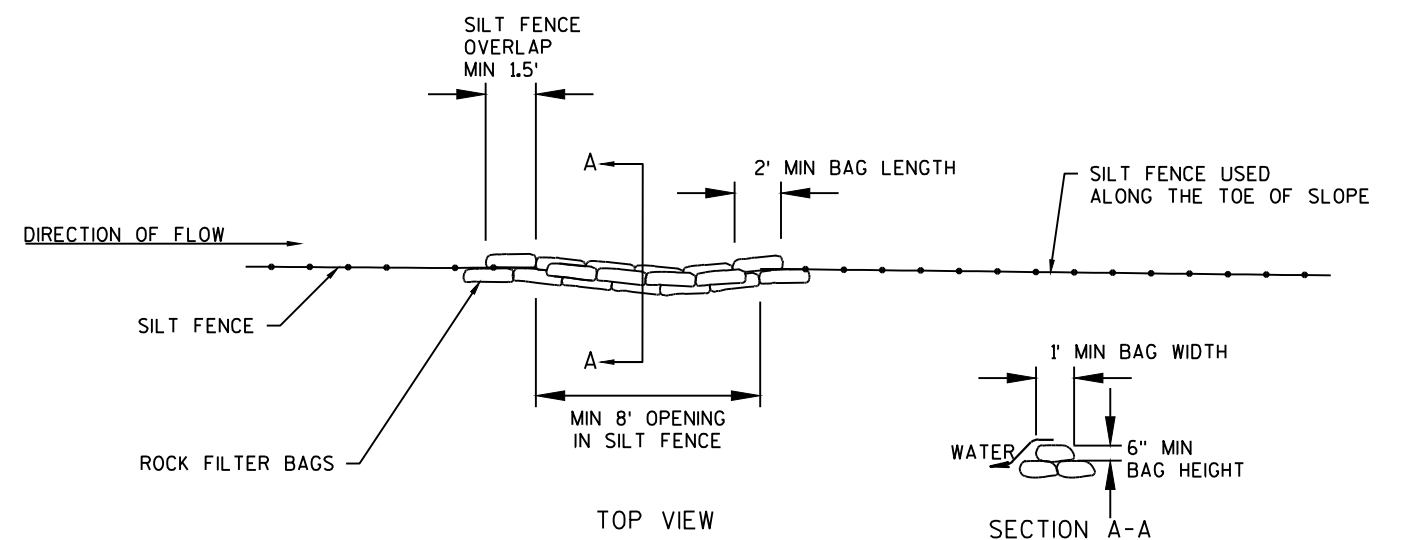
LIGHT RIPRAP TREATMENT AT CULVERTS OR APRON END WALLS



HEAVY RIPRAP TREATMENT AT CULVERTS OR APRON END WALLS



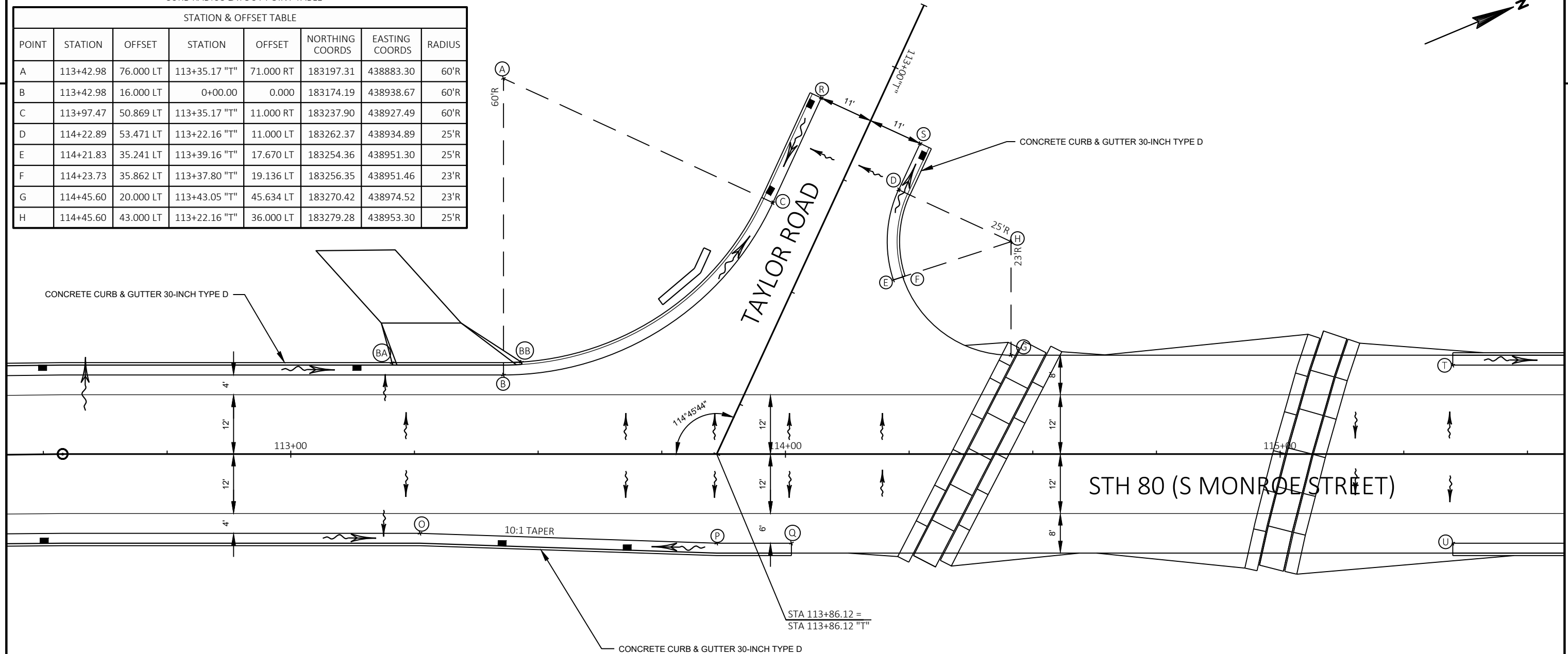
CULVERT PIPE CHECK



ROCK BAGS USED FOR SILT FENCE RELIEF

CURB RADIUS LAYOUT POINT TABLE

STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	NORTHING COORDS	EASTING COORDS	RADIUS
A	113+42.98	76.000 LT	113+35.17 "T"	71.000 RT	183197.31	438883.30	60'R
B	113+42.98	16.000 LT	0+00.00	0.000	183174.19	438938.67	60'R
C	113+97.47	50.869 LT	113+35.17 "T"	11.000 RT	183237.90	438927.49	60'R
D	114+22.89	53.471 LT	113+22.16 "T"	11.000 LT	183262.37	438934.89	25'R
E	114+21.83	35.241 LT	113+39.16 "T"	17.670 LT	183254.36	438951.30	25'R
F	114+23.73	35.862 LT	113+37.80 "T"	19.136 LT	183256.35	438951.46	23'R
G	114+45.60	20.000 LT	113+43.05 "T"	45.634 LT	183270.42	438974.52	23'R
H	114+45.60	43.000 LT	113+22.16 "T"	36.000 LT	183279.28	438953.30	25'R



CURB CUT LAYOUT POINT TABLE

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING COORDS	EASTING COORDS
BA	113+20.49	18.500 LT	183154.40	438927.69
BB	113+46.62	18.615 LT	183178.55	438937.66

CURB LAYOUT POINT TABLE

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING COORDS	EASTING COORDS
R	113+11.84 "T"	11.000 RT	183255.09	438911.70
S	113+11.84 "T"	11.000 LT	183269.97	438927.90

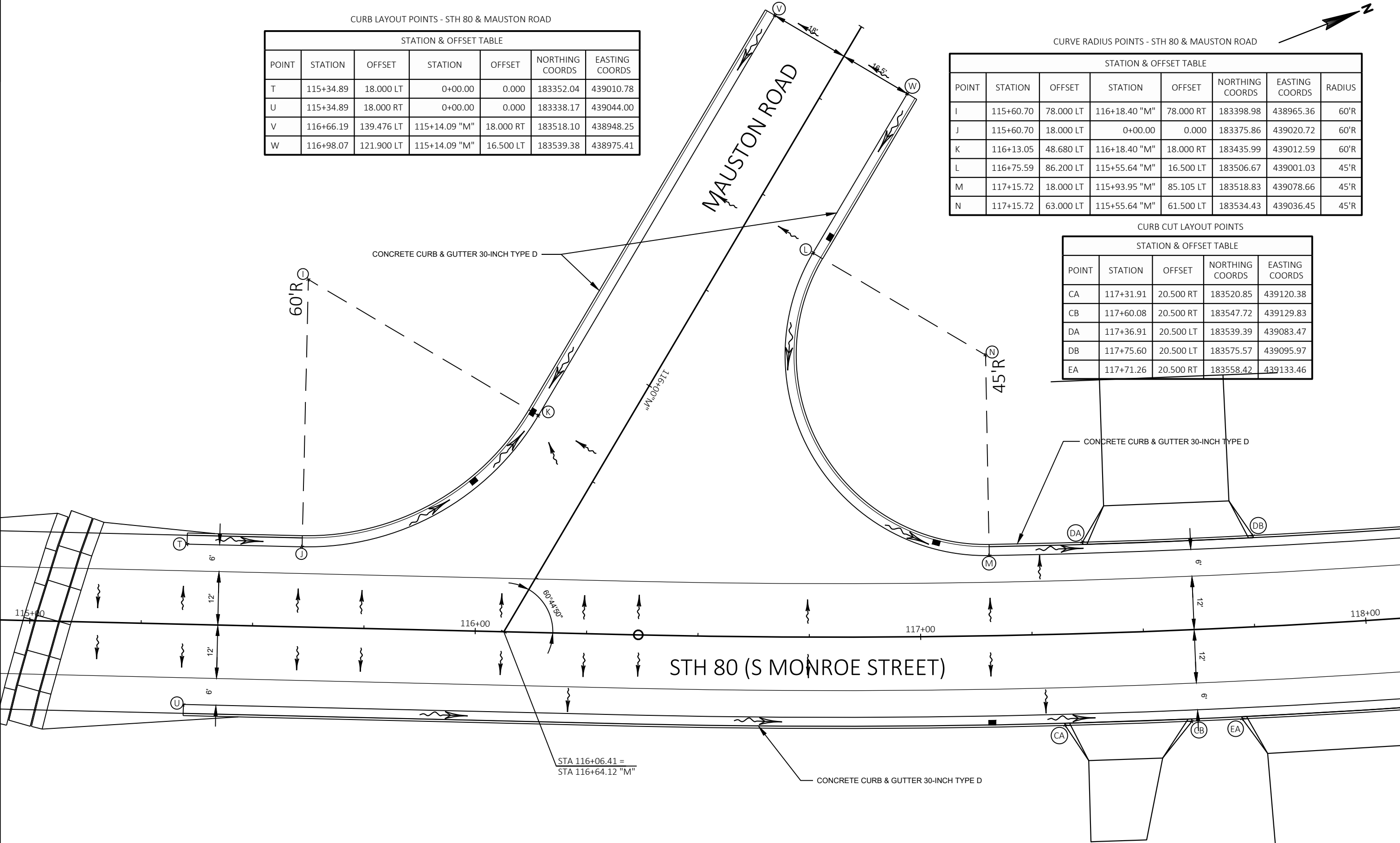
TAPER LAYOUT POINT TABLE

STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING COORDS	EASTING COORDS
O	113+26.12	16.000 RT	183146.29	438961.70
P	113+86.12	18.000 RT	183200.89	438986.66
Q	114+01.21	18.000 RT	183214.82	438992.48

CURB LAYOUT POINTS - STH 80 & MAUSTON ROAD						
STATION & OFFSET TABLE						
POINT	STATION	OFFSET	STATION	OFFSET	NORTHING COORDS	EASTING COORDS
T	115+34.89	18.000 LT	0+00.00	0.000	183352.04	439010.78
U	115+34.89	18.000 RT	0+00.00	0.000	183338.17	439044.00
V	116+66.19	139.476 LT	115+14.09 "M"	18.000 RT	183518.10	438948.25
W	116+98.07	121.900 LT	115+14.09 "M"	16.500 LT	183539.38	438975.41

CURVE RADIUS POINTS - STH 80 & MAUSTON ROAD							
STATION & OFFSET TABLE							
POINT	STATION	OFFSET	STATION	OFFSET	NORTHING COORDS	EASTING COORDS	RADIUS
I	115+60.70	78.000 LT	116+18.40 "M"	78.000 RT	183398.98	438965.36	60'R
J	115+60.70	18.000 LT	0+00.00	0.000	183375.86	439020.72	60'R
K	116+13.05	48.680 LT	116+18.40 "M"	18.000 RT	183435.99	439012.59	60'R
L	116+75.59	86.200 LT	115+55.64 "M"	16.500 LT	183506.67	439001.03	45'R
M	117+15.72	18.000 LT	115+93.95 "M"	85.105 LT	183518.83	439078.66	45'R
N	117+15.72	63.000 LT	115+55.64 "M"	61.500 LT	183534.43	439036.45	45'R

CURB CUT LAYOUT POINTS				
STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING COORDS	EASTING COORDS
CA	117+31.91	20.500 RT	183520.85	439120.38
CB	117+60.08	20.500 RT	183547.72	439129.83
DA	117+36.91	20.500 LT	183539.39	439083.47
DB	117+75.60	20.500 LT	183575.57	439095.97
EA	117+71.26	20.500 RT	183558.42	439133.46



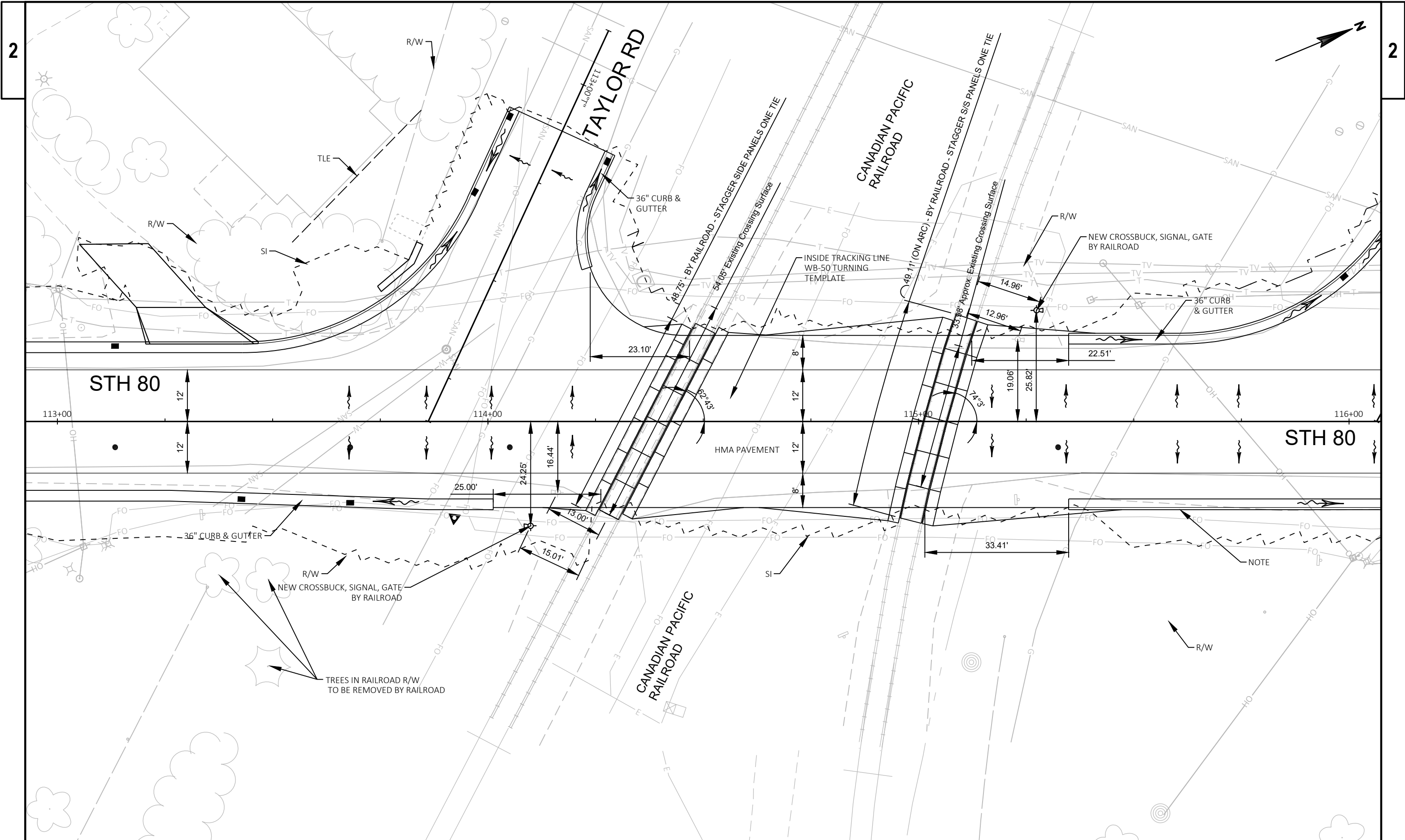


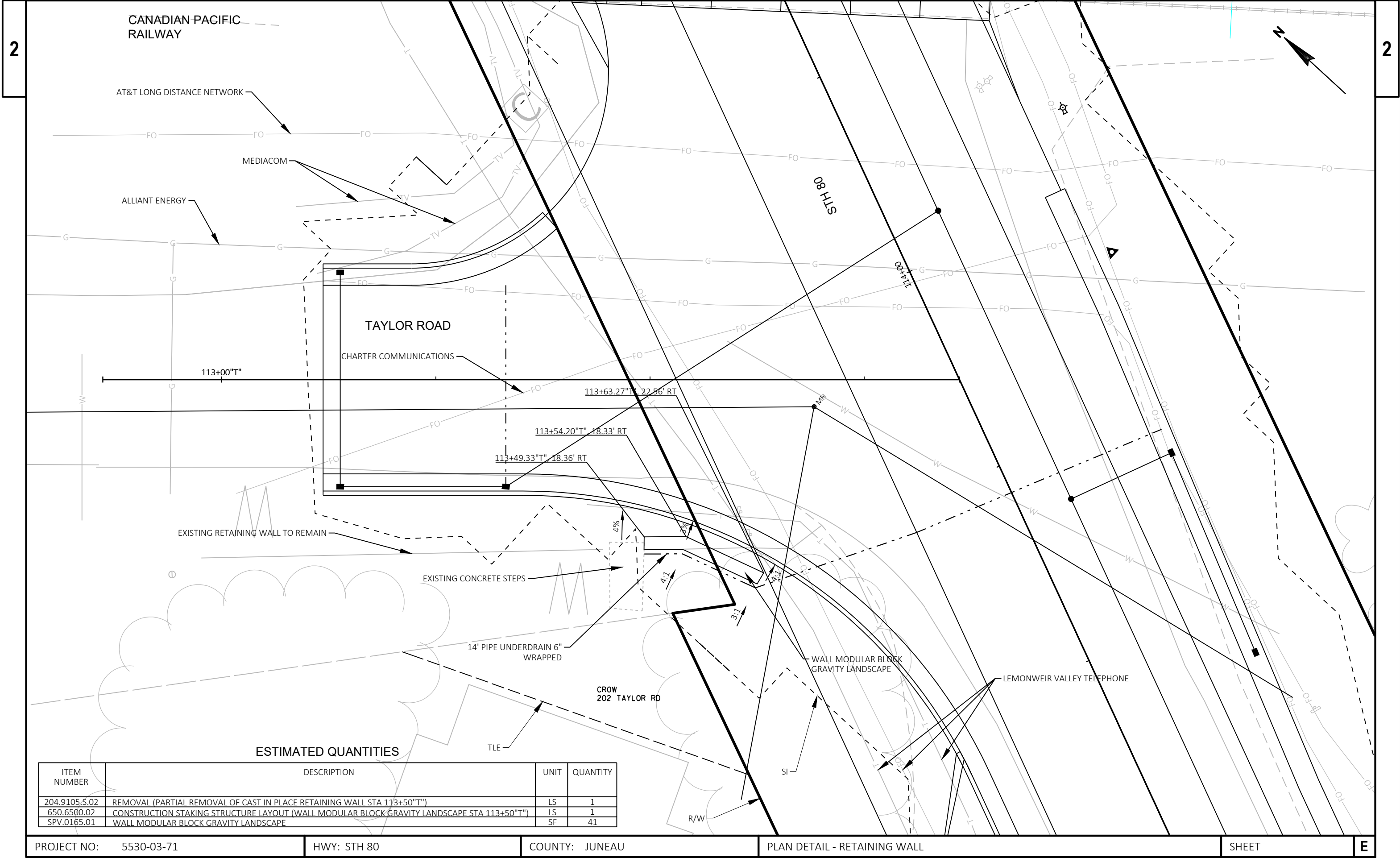
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3

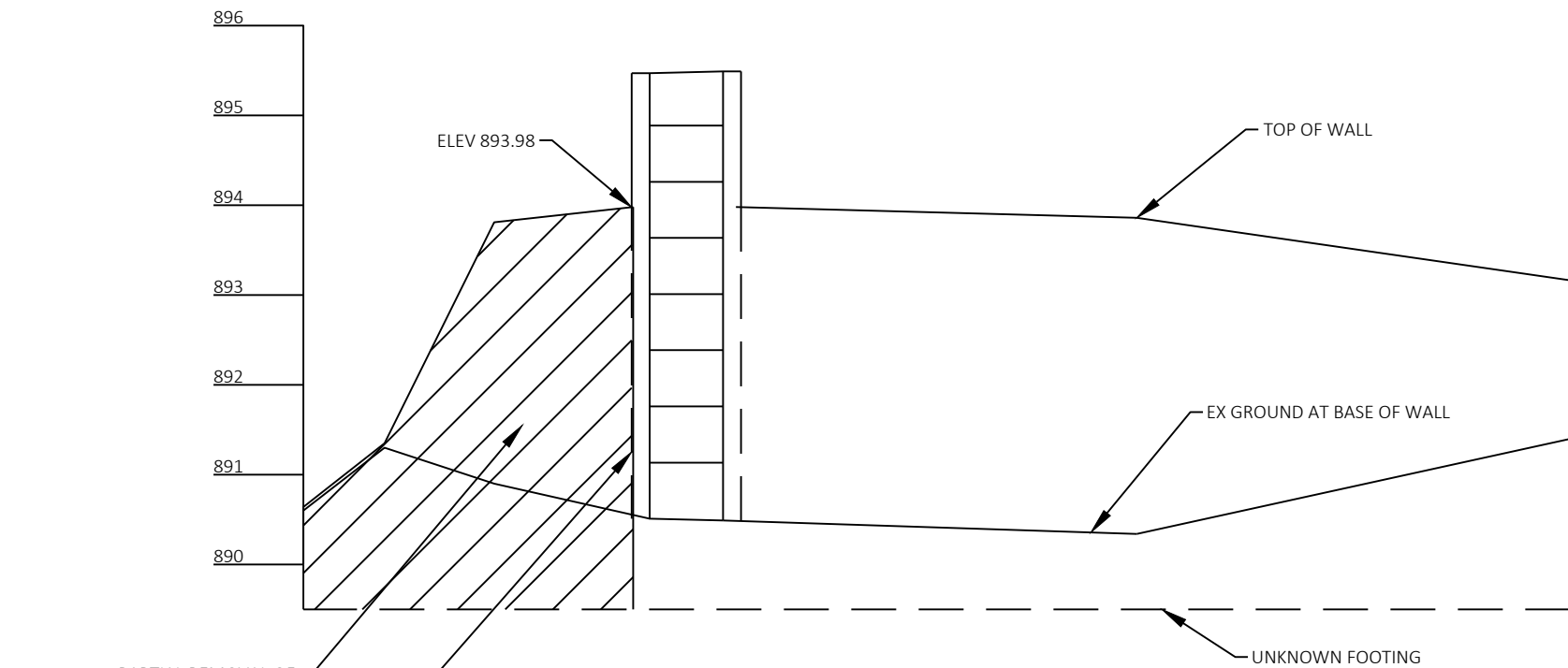
WISDOT/CADDS SHEET 42





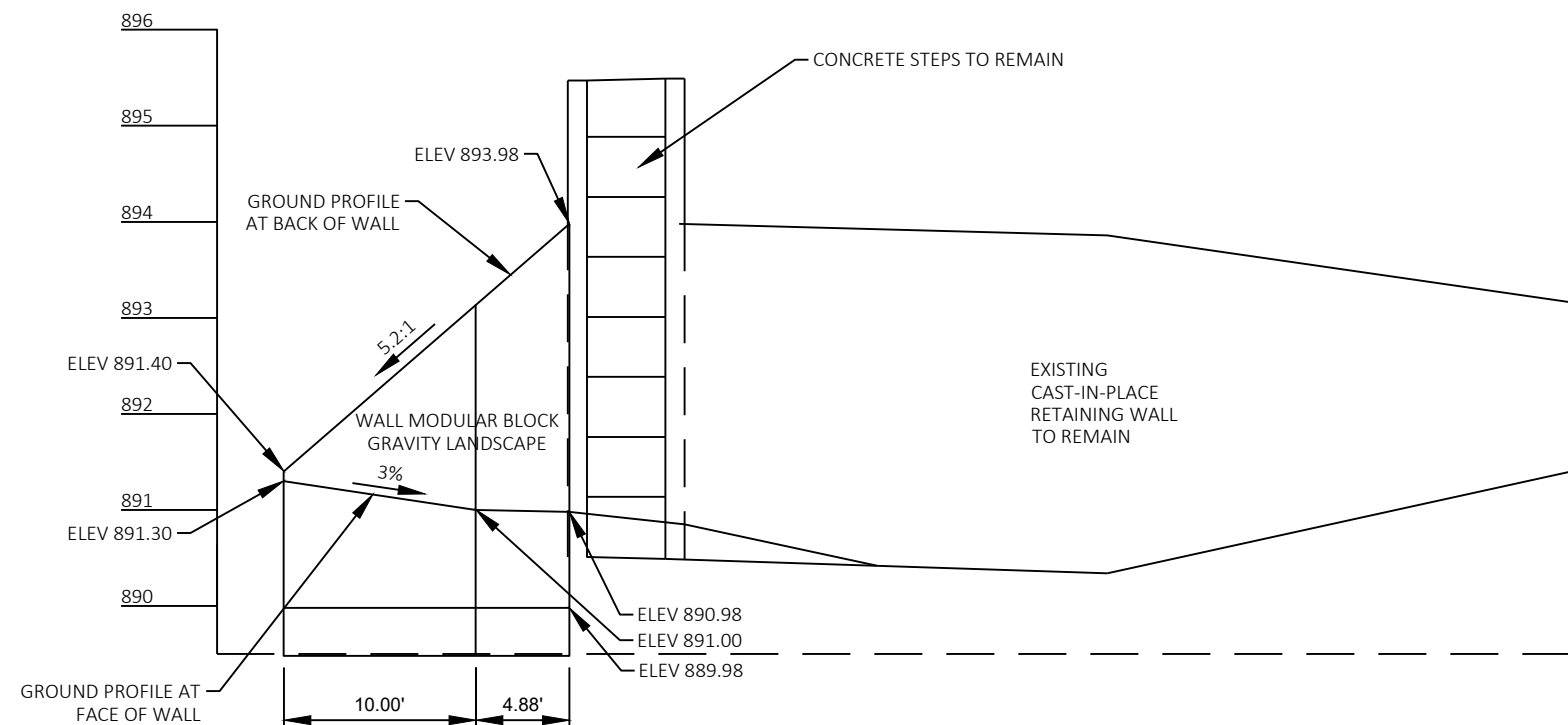
ESTIMATED QUANTITIES

ITEM NUMBER	DESCRIPTION	UNIT	QUANTITY
204.9105.S.02	REMOVAL (PARTIAL REMOVAL OF CAST IN PLACE RETAINING WALL STA 113+50" T")	LS	1
650.6500.02	CONSTRUCTION STAKING STRUCTURE LAYOUT (WALL MODULAR BLOCK GRAVITY LANDSCAPE STA 113+50" T")	LS	1
SPV.0165.01	WALL MODULAR BLOCK GRAVITY LANDSCAPE	SF	41

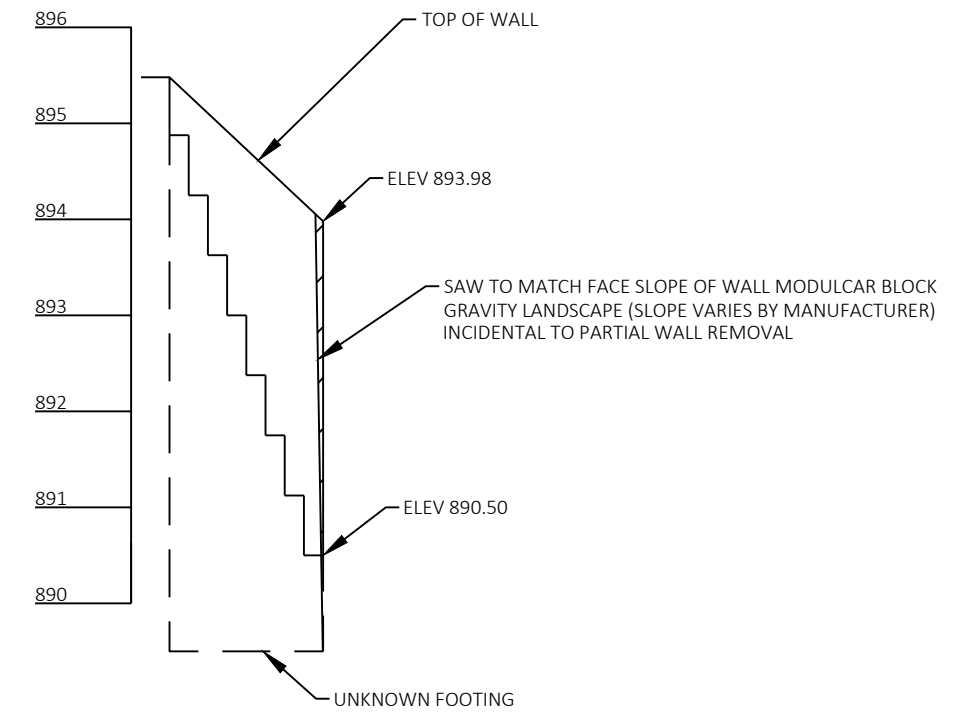


EXISTING RETAINING WALL ELEVATION

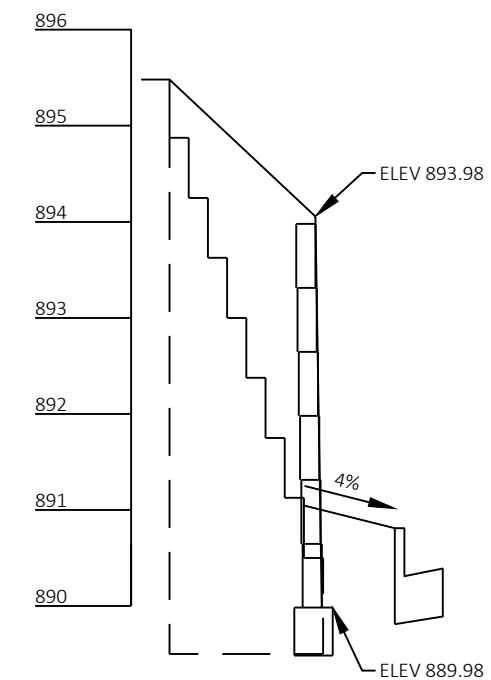
PARTIAL REMOVAL OF
CAST-IN-PLACE RETAINING
WALL STA 113+50"RT
SAW ALONG VERTICAL LINE TO ALLOW FOR
PLACEMENT OF ADJACENT WALL BLOCKS
(INCIDENTAL TO PARTIAL WALL REMOVAL)



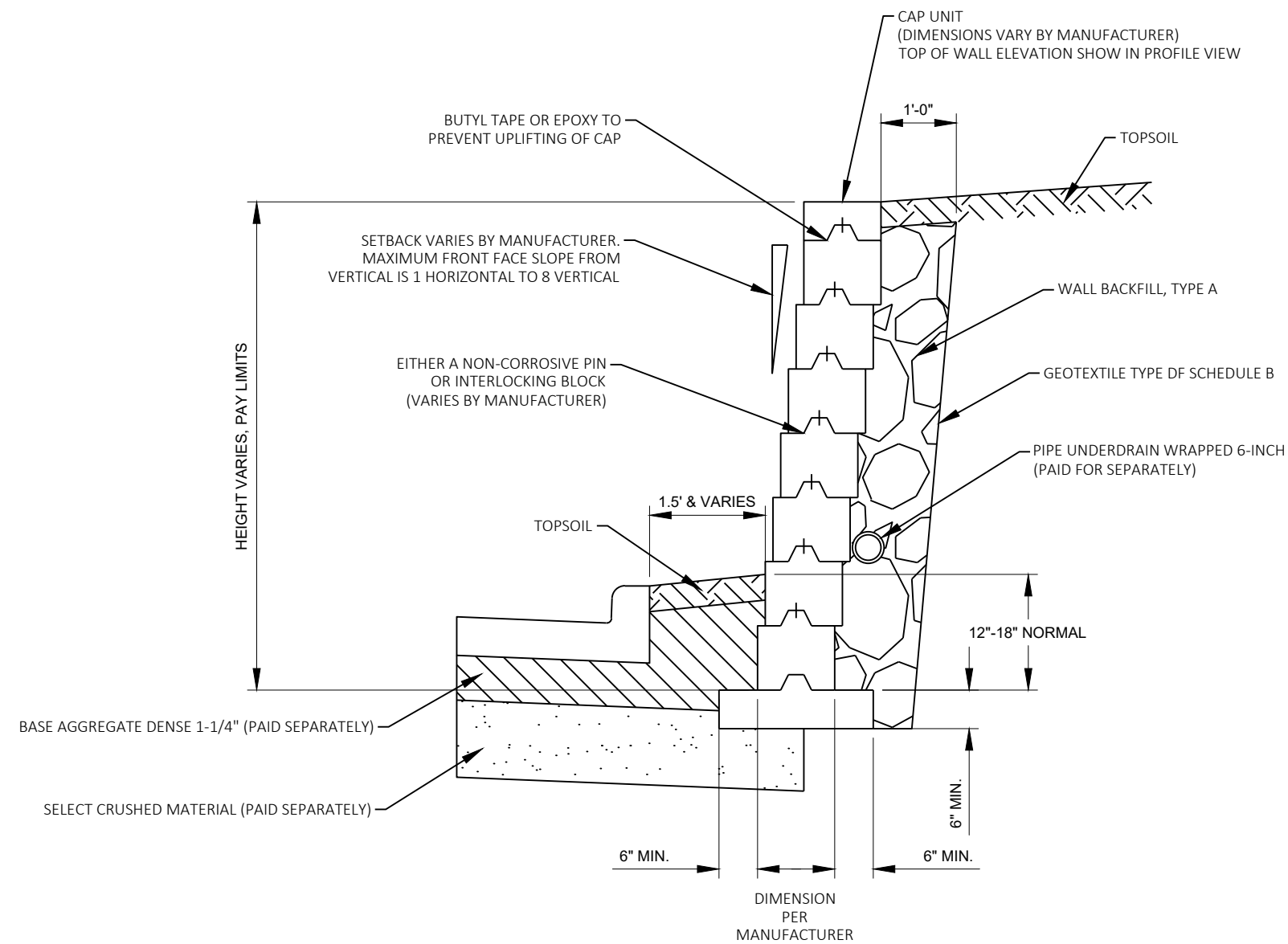
PROPOSED WALL MODULAR BLOCK GRAVITY LANDSCAPE
ELEVATION



EXISTING SECTION
THROUGH STAIRS



PROPOSED SECTION
THROUGH STAIRS



NOTES:

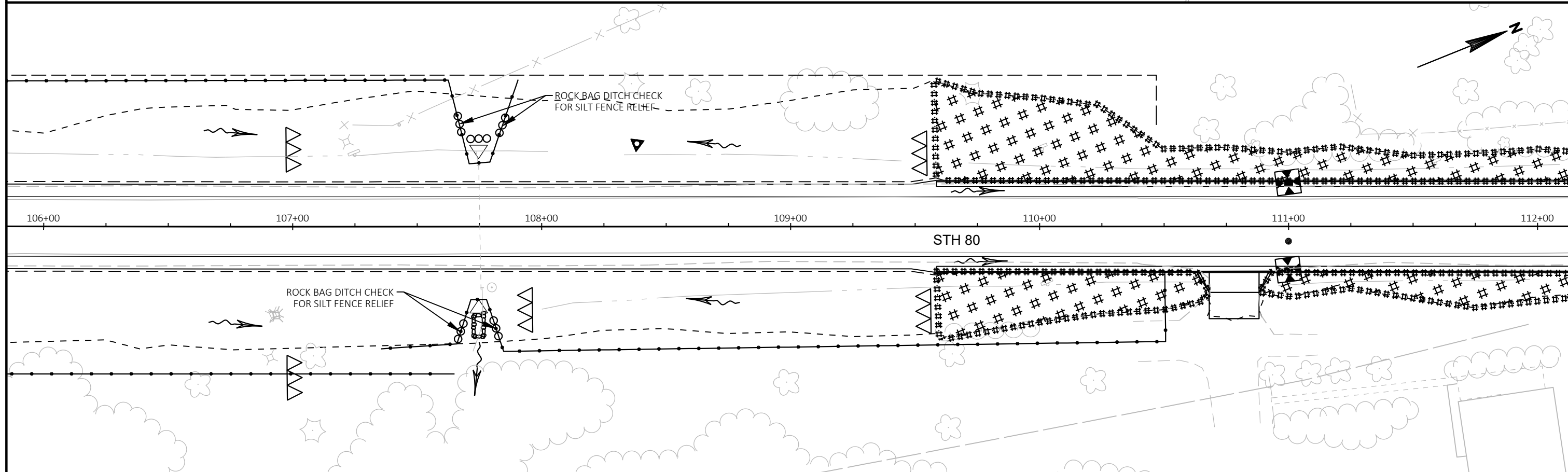
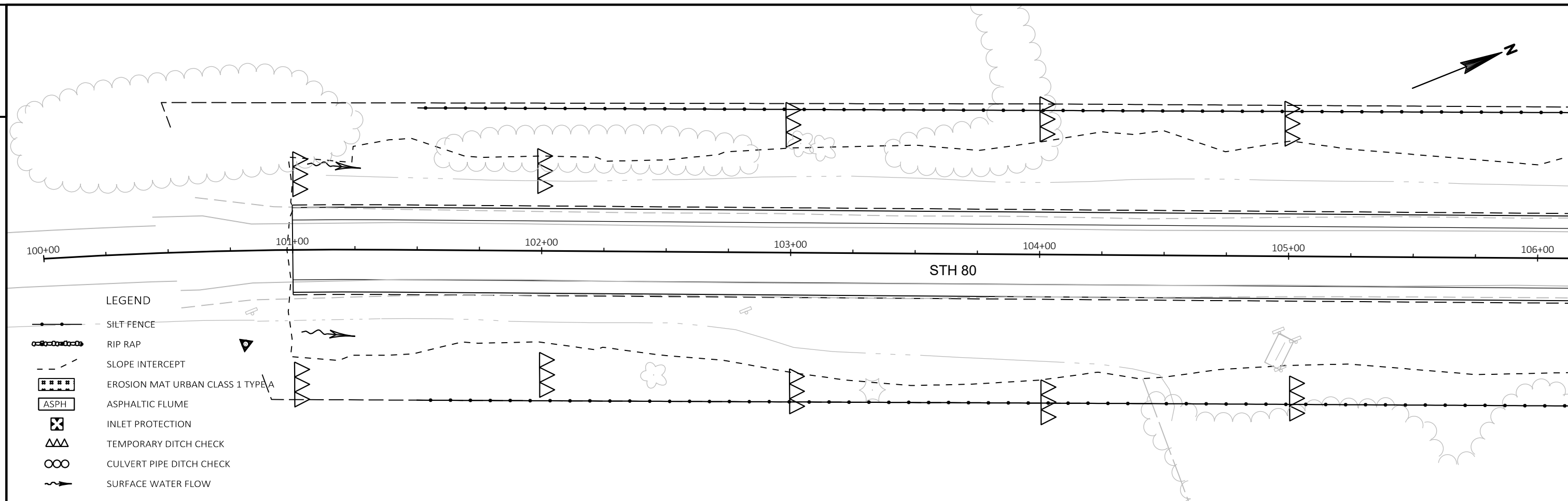
ELEVATIONS AND LENGTHS ARE APPROXIMATE.
CONSTRUCT TO FIT TERRAIN.

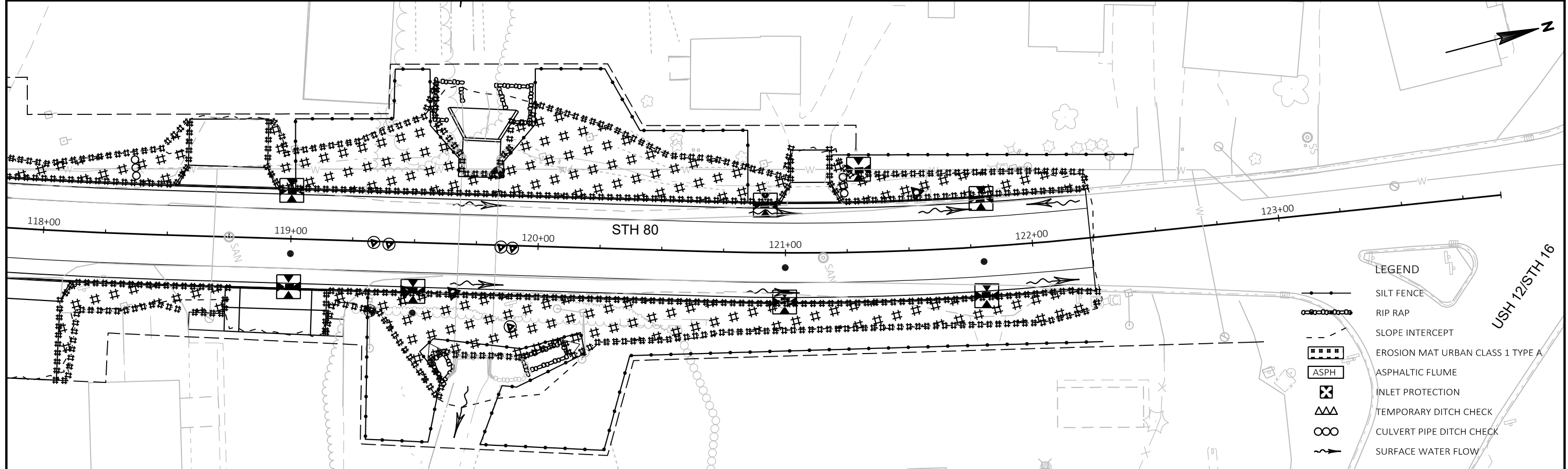
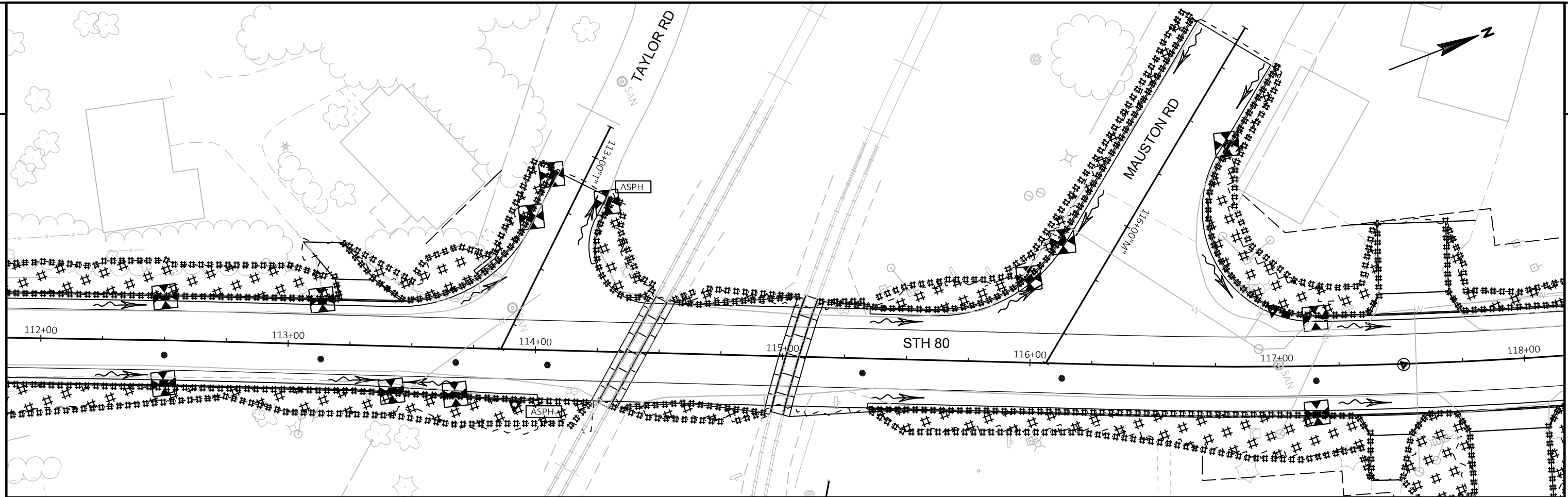
DRAWING NOT TO SCALE.

RETAINING WALL BLOCK DEPTH MIN 8" - MAX 12"

COLOR: GRAY (MATCH EXISTING WALL COLOR)

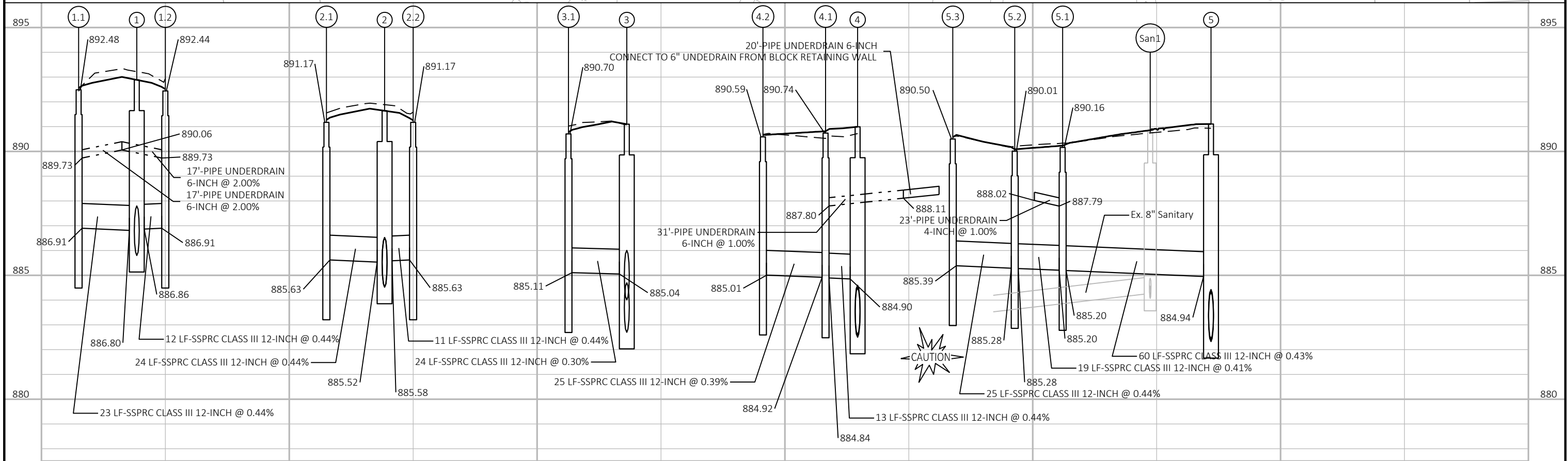
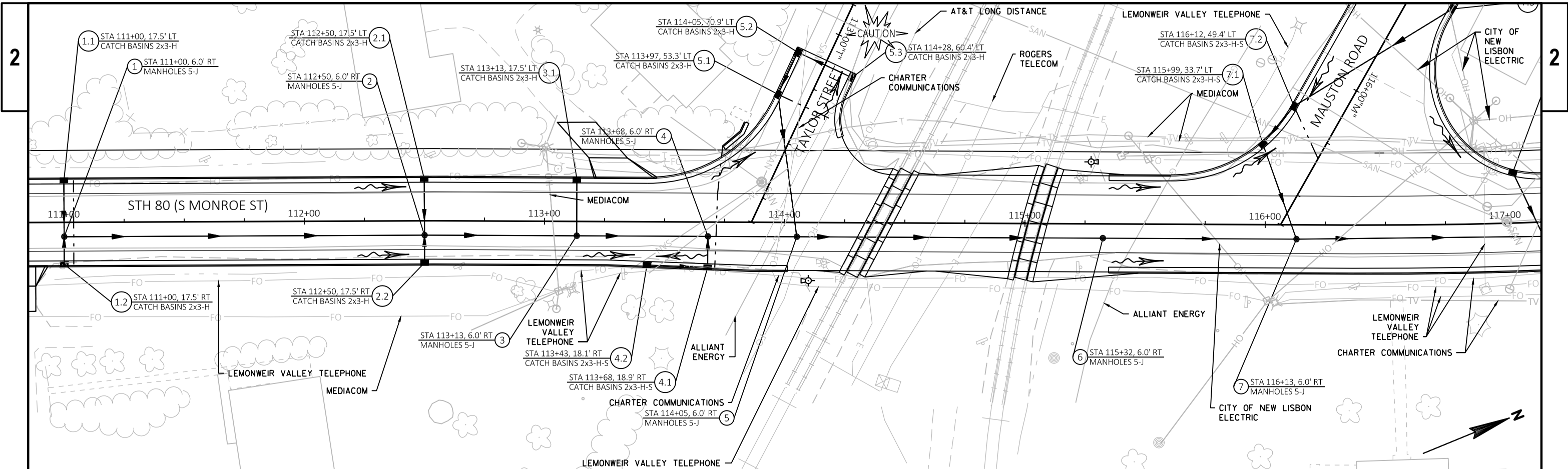
TYPICAL DETAIL FOR WALL MODULAR BLOCK GRAVITY LANDSCAPE

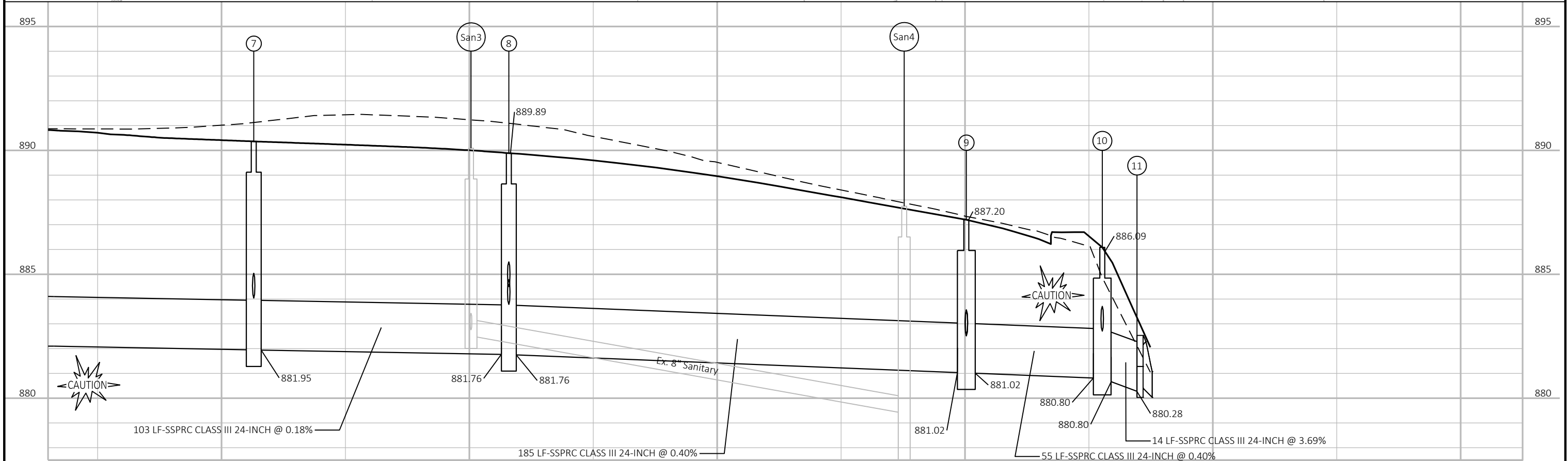
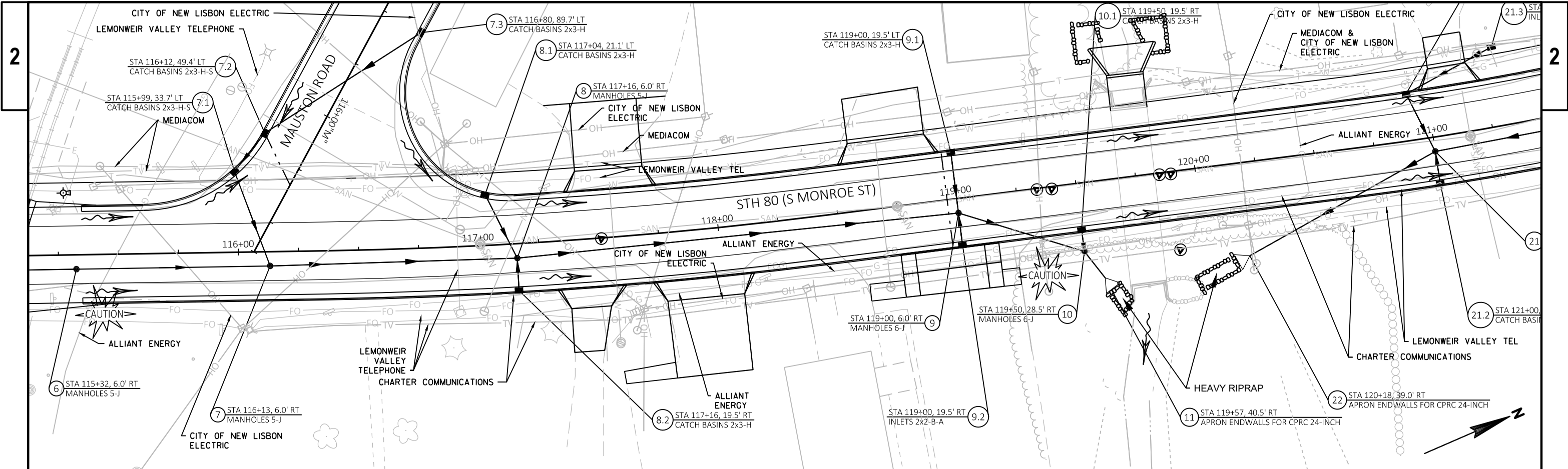


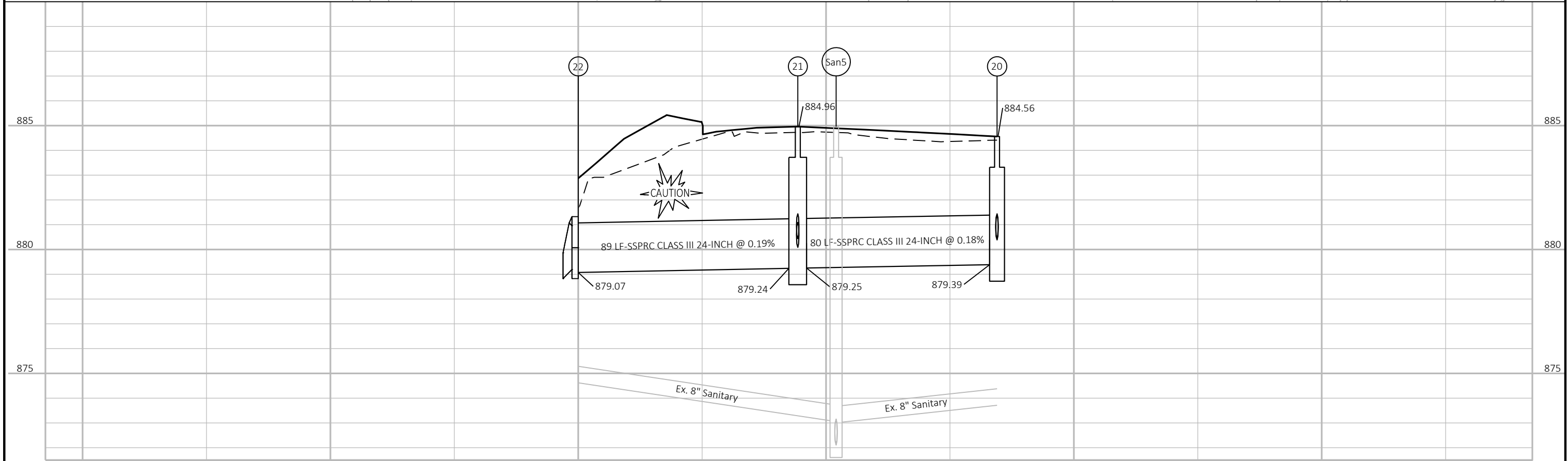
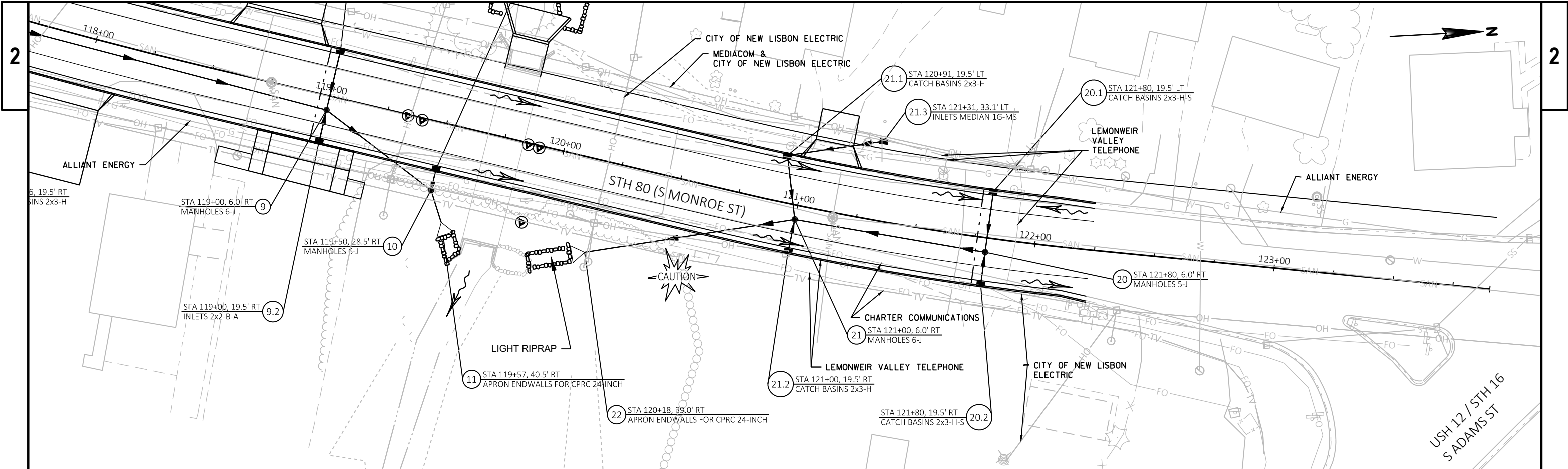


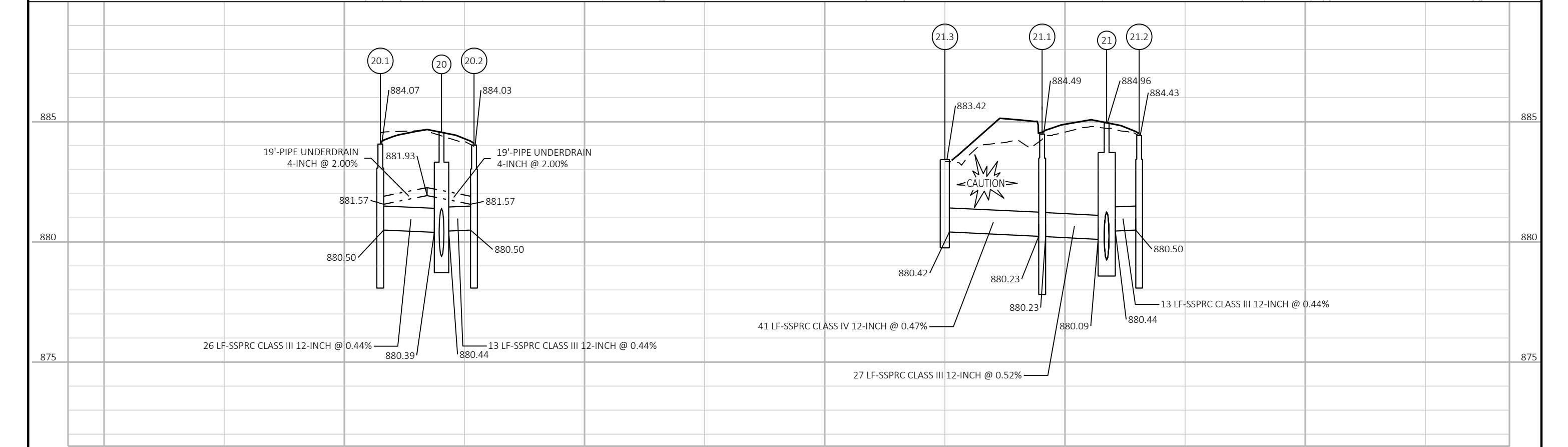
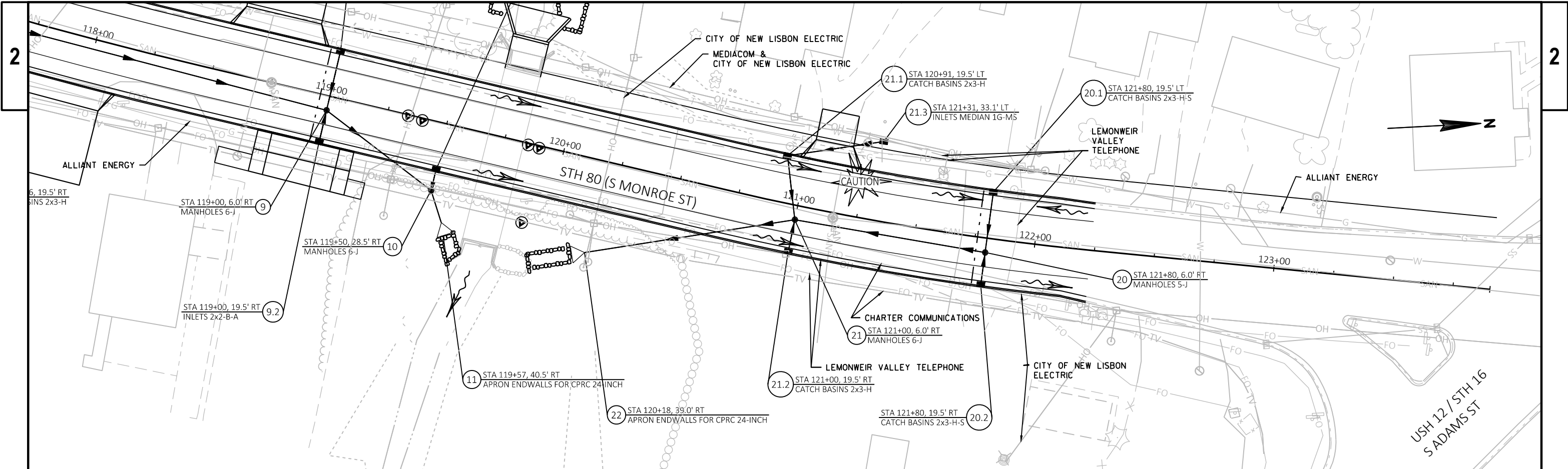
LEGEND

- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- EROSION MAT URBAN CLASS 1 TYPE A
- ASPH
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- SURFACE WATER FLOW







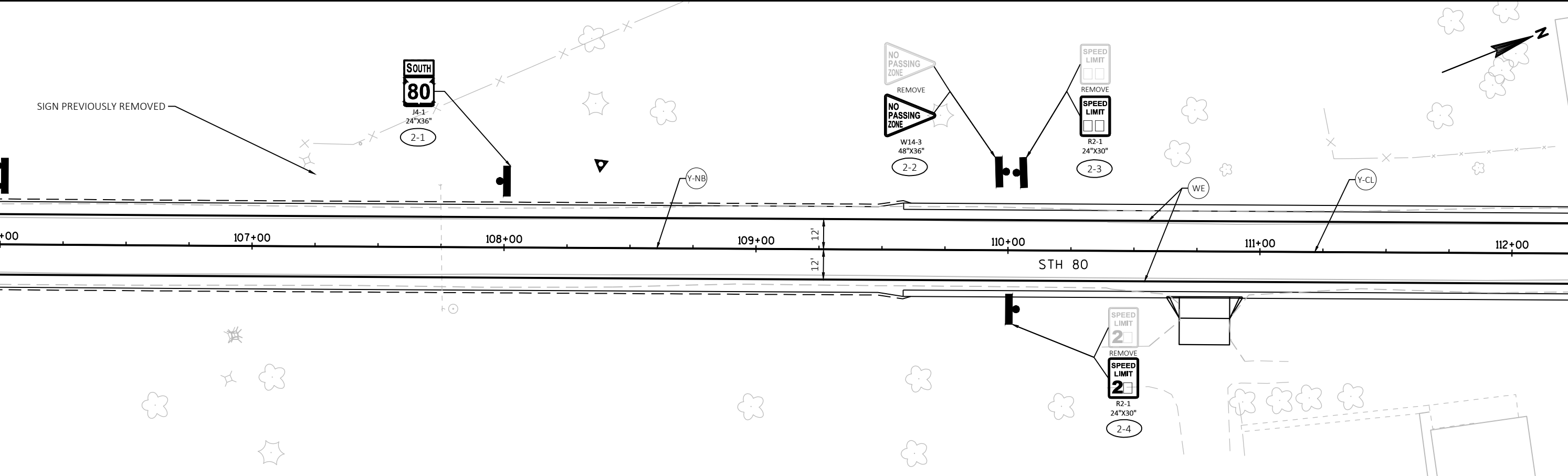
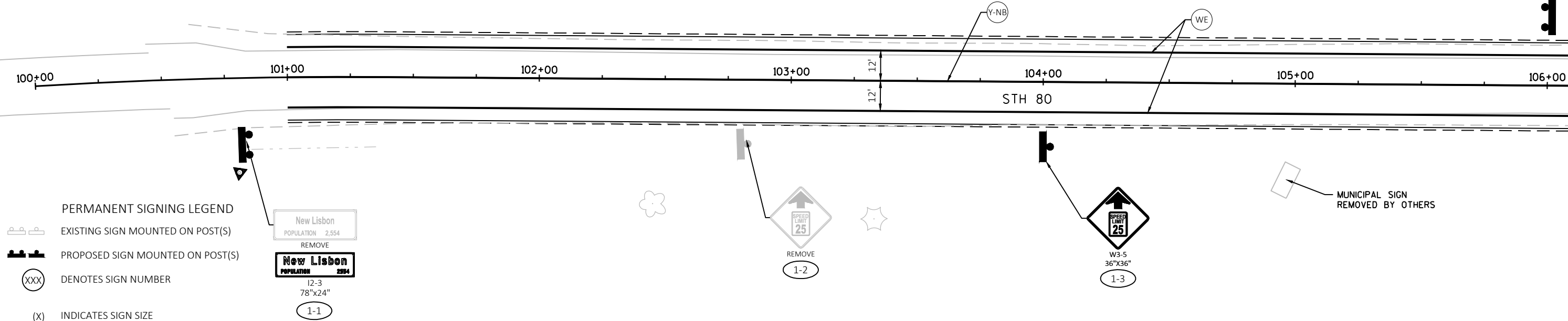


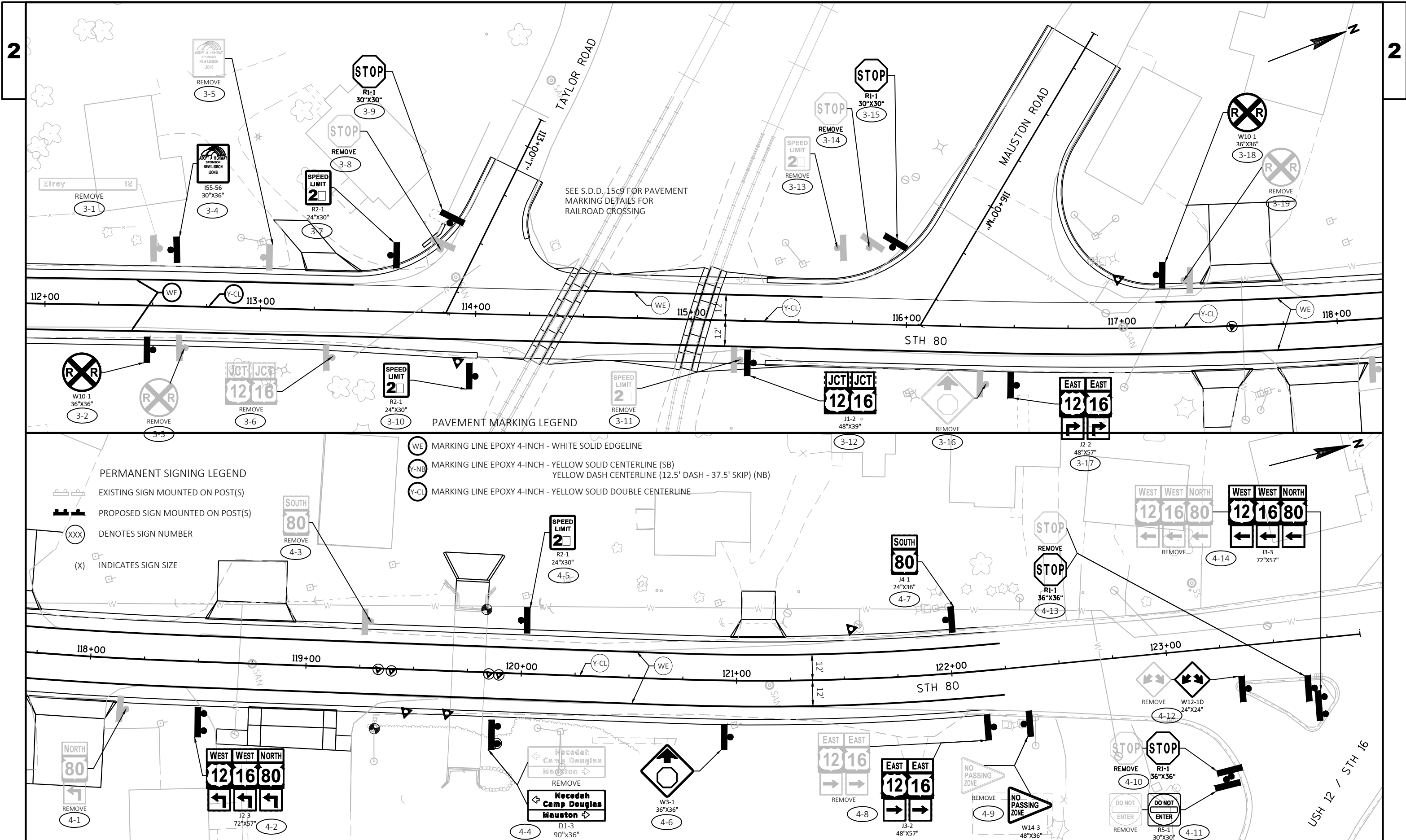
Note: Permanent Sign Locations are Approximate,
Final Locations Shall Be Placed in Accordance to
Details and the MUTCD.
No Passing Zone Pennants shall be Placed in
Accordance with the Results of the locating No
Passing Zone Item.

PAVEMENT MARKING LEGEND

- (WE) MARKING LINE EPOXY 4-INCH - WHITE SOLID EDGELINE
(Y-NB) MARKING LINE EPOXY 4-INCH - YELLOW SOLID CENTERLINE (SB)
YELLOW DASH CENTERLINE (12.5' DASH - 37.5' SKIP) (NB)
(Y-CL) MARKING LINE EPOXY 4-INCH - YELLOW SOLID DOUBLE CENTERLINE

Elroy
Richland Center 12
45
D2-2
114"x24"
1-4







ROAD CLOSED
TO
THRU TRAFFIC
R11-4
60"x30"

100+00 101+00 102+00 103+00 104+00 105+00 106+00
STH 80

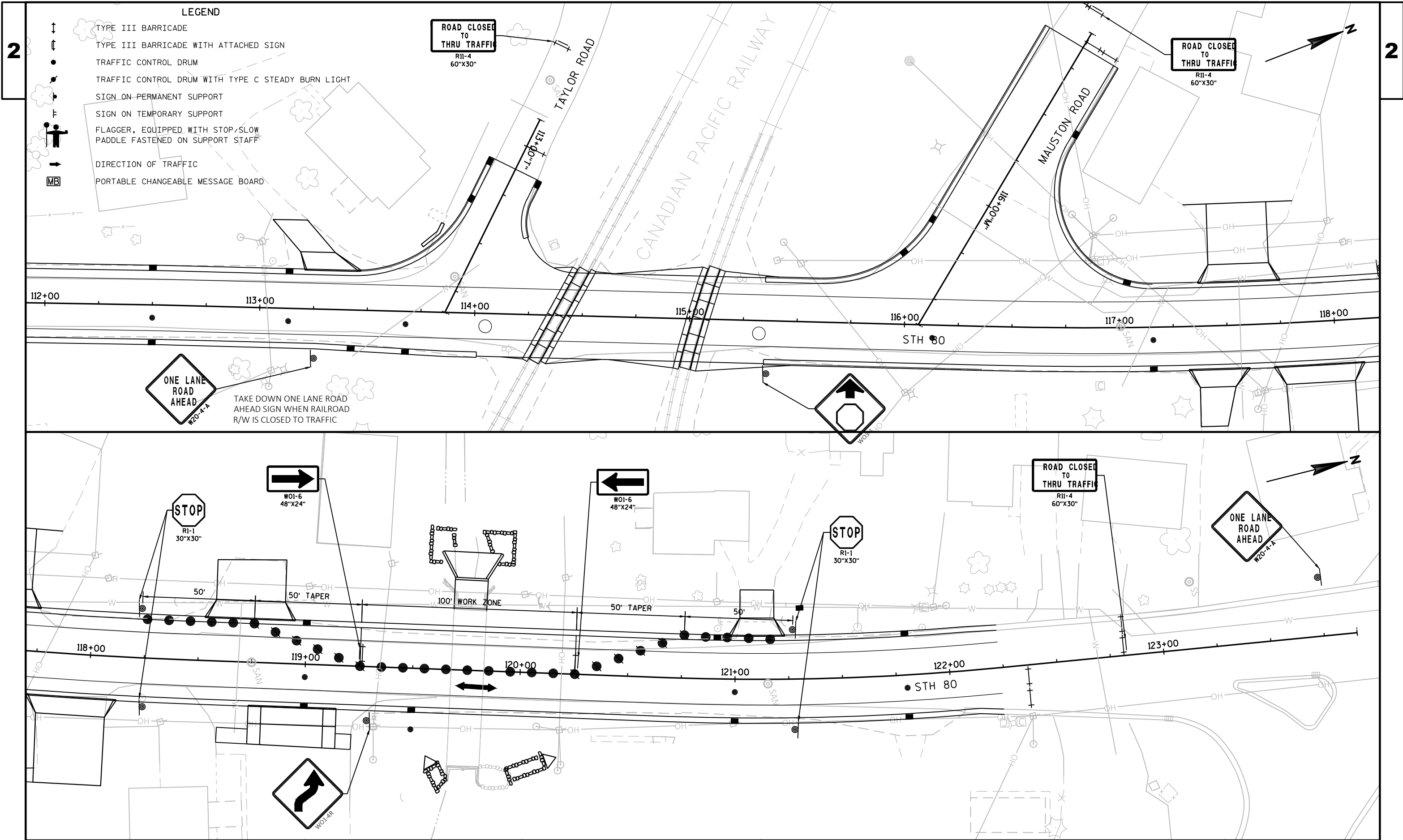
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT

- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD



+00 107+00 108+00 109+00 110+00 111+00 112+00
STH 80



PROJECT NO:5530-03-71

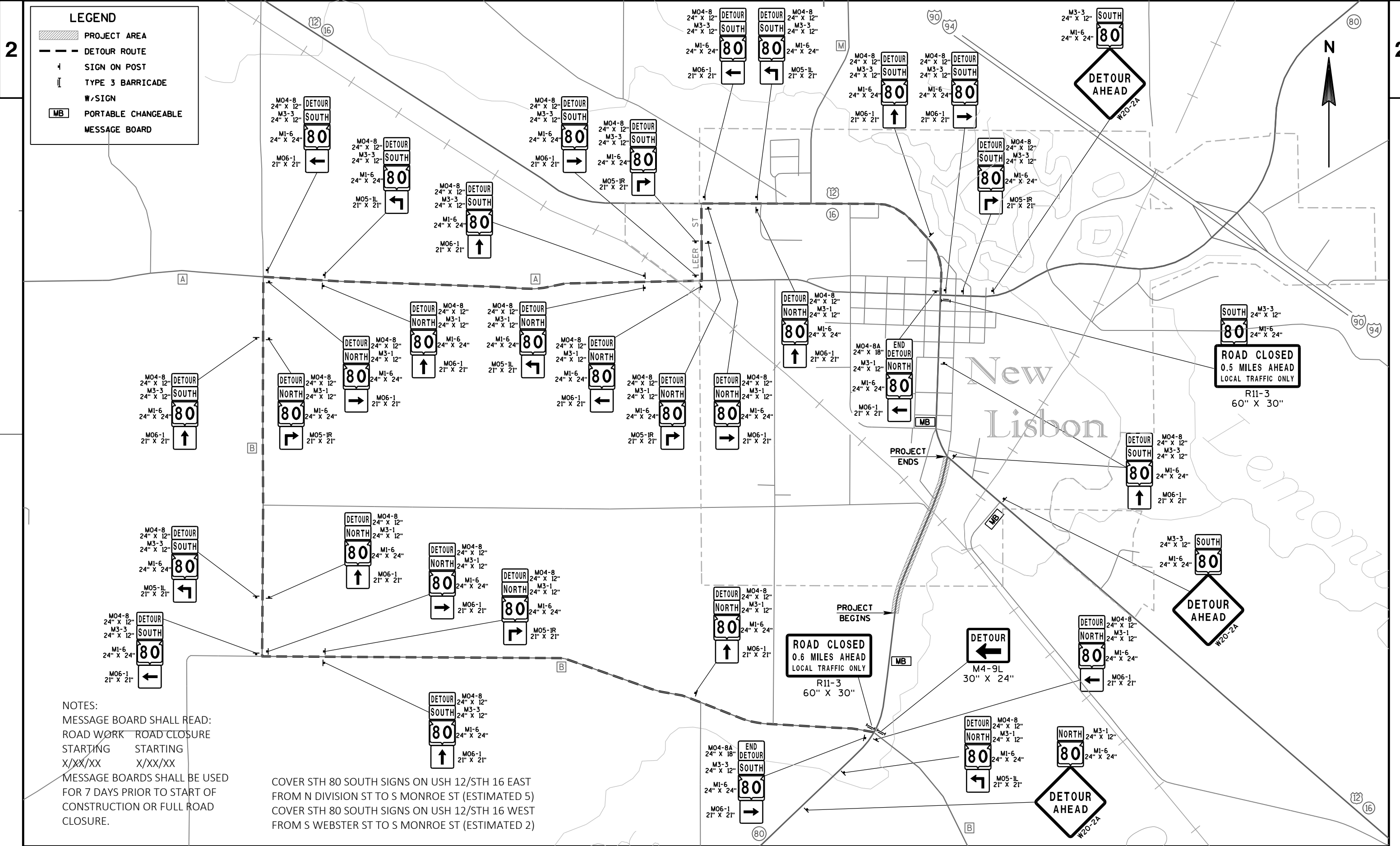
HWY:STH 80

COUNTY:JUNEAU

TRAFFIC CONTROL PLAN - STH 80

SHEET

E



LEGEND

- PROJECT AREA
- DETOUR ROUTE
- SIGN ON POST
- TYPE 3 BARRICADE
- W/SIGN
- PORTABLE CHANGEABLE MESSAGE BOARD

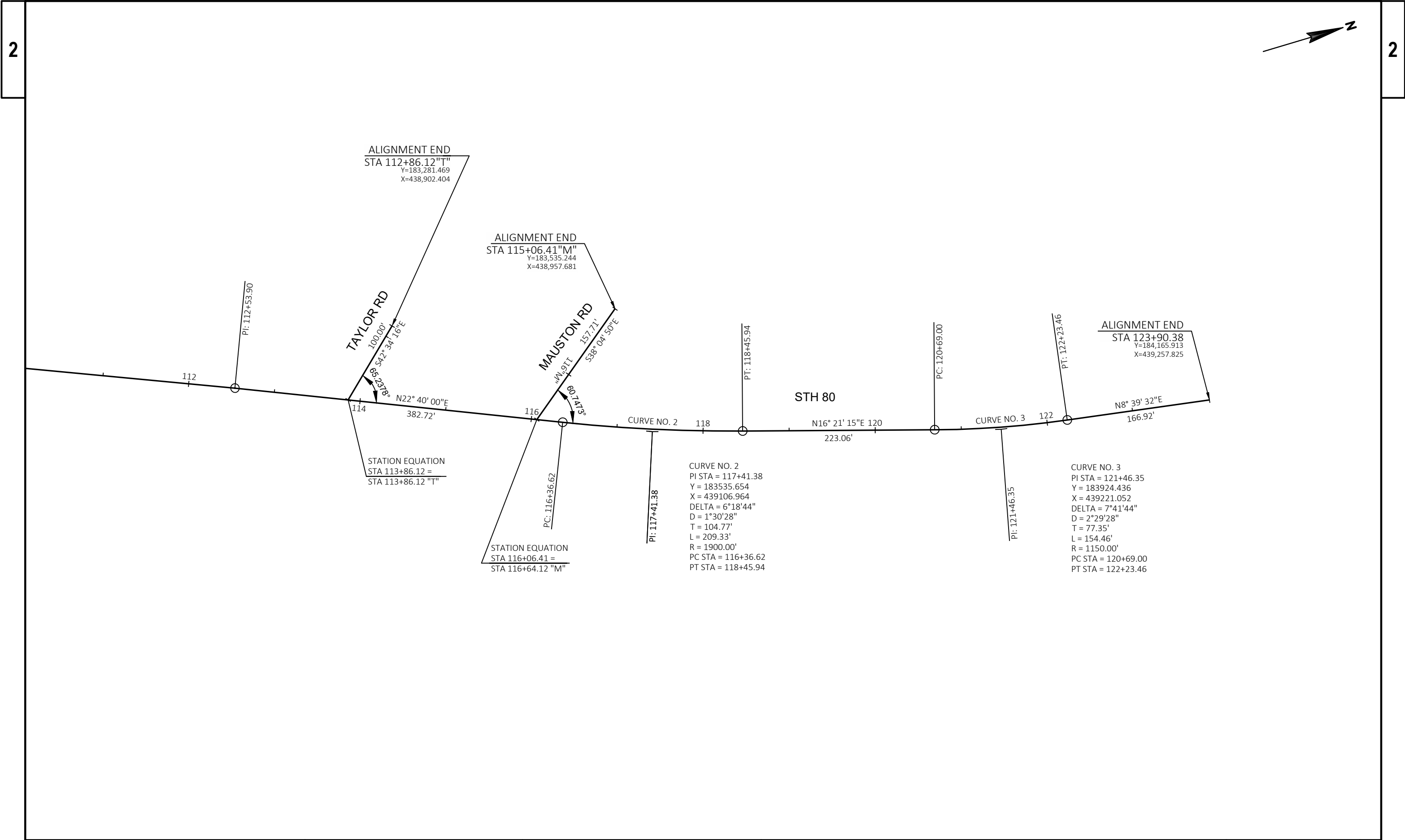
NOTES:
MESSAGE BOARD SHALL READ:
ROAD WORK ROAD CLOSURE
STARTING X/XX/XX STARTING X/XX/XX
MESSAGE BOARDS SHALL BE USED
FOR 7 DAYS PRIOR TO START OF
CONSTRUCTION OR FULL ROAD
CLOSURE.

COVER STH 80 SOUTH SIGNS ON USH 12/STH 16 EAST
FROM N DIVISION ST TO S MONROE ST (ESTIMATED 5)
COVER STH 80 SOUTH SIGNS ON USH 12/STH 16 WEST
FROM S WEBSTER ST TO S MONROE ST (ESTIMATED 2)

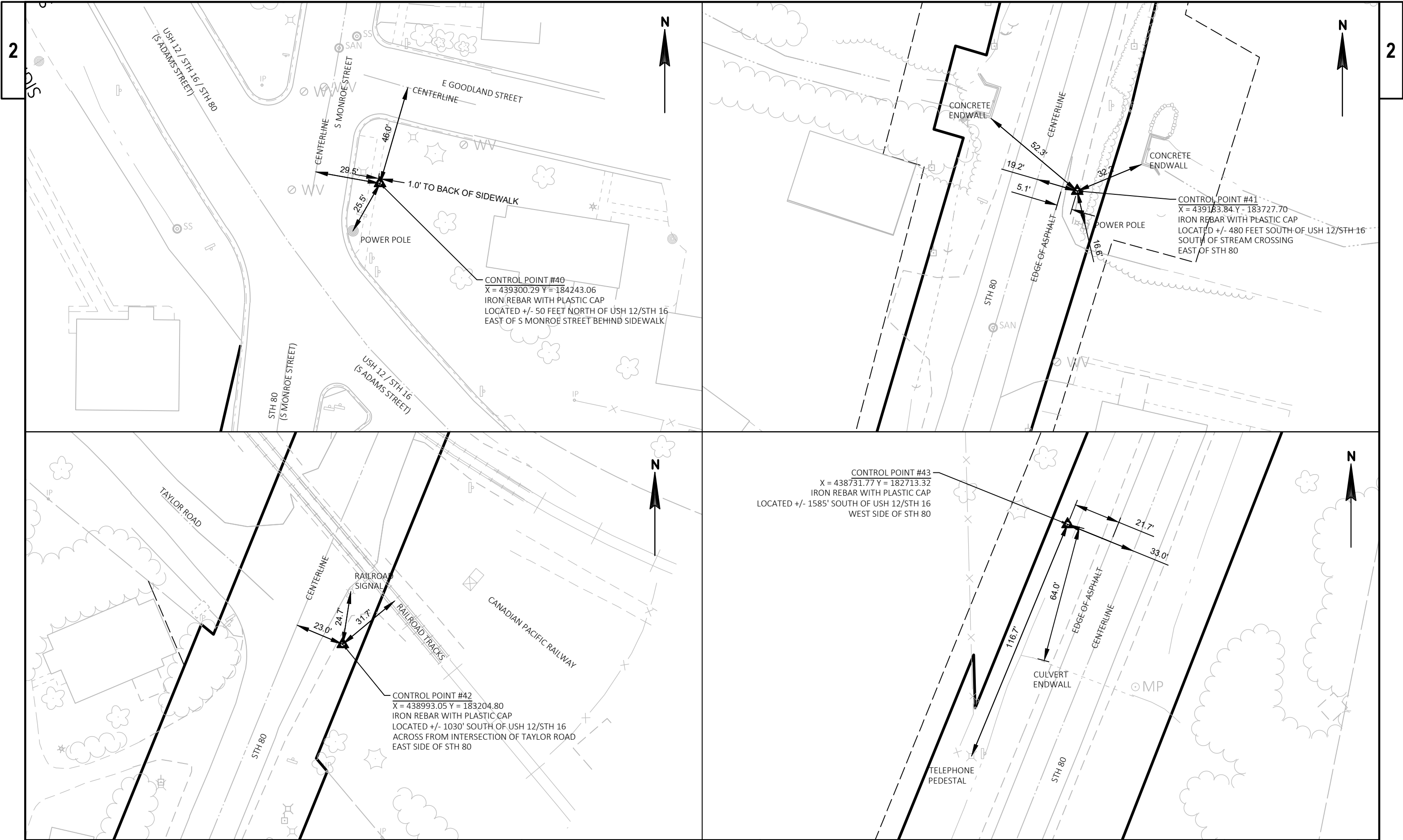


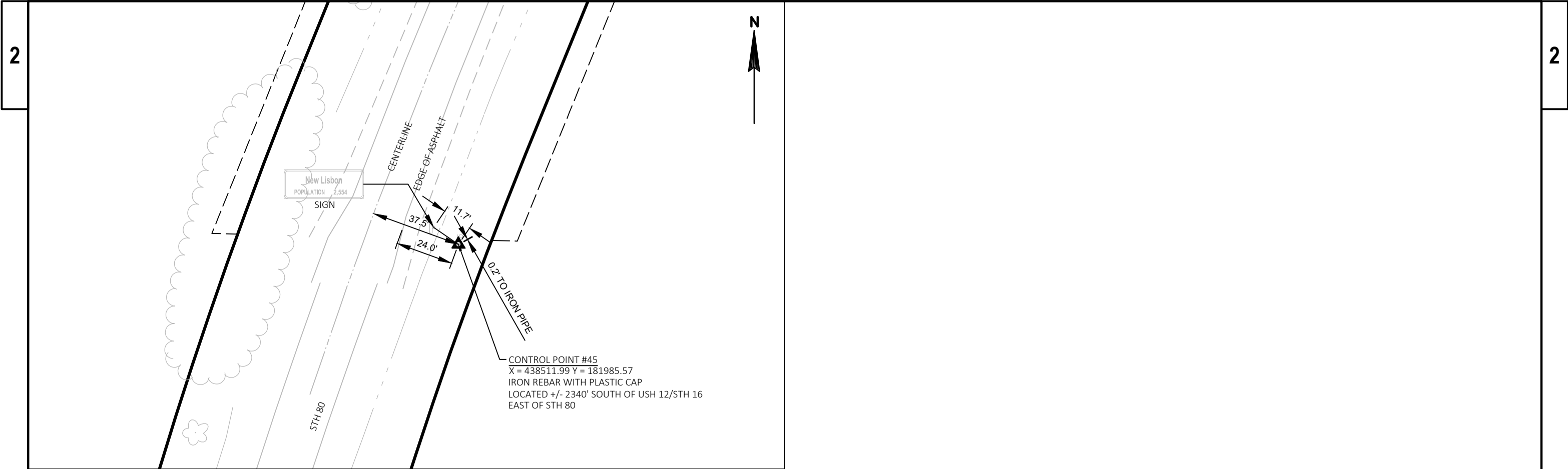
SUPERELEVATION TABLE

PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	ALIGNMENT DETAIL	SHEET	E
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Estimate Of Quantities

5530-03-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	12.000	12.000
0004	201.0205	Grubbing	STA	12.000	12.000
0006	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0008	203.0500.S	Removing Old Structure Over Waterway (station) 01. Sta 119+76	LS	1.000	1.000
0010	204.0100	Removing Pavement	SY	196.000	196.000
0012	204.0150	Removing Curb & Gutter	LF	59.000	59.000
0014	204.0155	Removing Concrete Sidewalk	SY	10.000	10.000
0016	204.0170	Removing Fence	LF	82.000	82.000
0018	204.9090.S	Removing (item description) 01. Sanitary Sewer From Box Culvert	LF	14.000	14.000
0020	204.9090.S	Removing (item description) 02. Water Main From Box Culvert	LF	14.000	14.000
0022	204.9105.S	Removing (item description) 01. Landscape Block Retaining Wall Sta 104+96 Rt	LS	1.000	1.000
0024	204.9105.S	Removing (item description) 02. Partial Removal Of Cast In Place Retaining Wall Sta 113+50"t" Rt	LS	1.000	1.000
0026	205.0100	Excavation Common	CY	8,151.000	8,151.000
0028	206.2000	Excavation for Structures Culverts (structure) 01. C-29-662	LS	1.000	1.000
0030	206.3000	Excavation for Structures Retaining Walls (structure) 01. Wall Modular Block Gravity Landscape Sta 113+50"t"	LS	1.000	1.000
0032	208.0100	Borrow	CY	231.000	231.000
0034	210.2500	Backfill Structure Type B	TON	175.000	175.000
0036	213.0100	Finishing Roadway (project) 01. 5530-01-71	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	158.000	158.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,409.000	5,409.000
0042	311.0115	Breaker Run	CY	30.000	30.000
0044	312.0110	Select Crushed Material	TON	6,914.000	6,914.000
0046	416.0160	Concrete Driveway 6-Inch	SY	81.000	81.000
0048	416.0180	Concrete Driveway 8-Inch	SY	226.000	226.000
0050	455.0605	Tack Coat	GAL	452.000	452.000
0052	460.2000	Incentive Density HMA Pavement	DOL	2,549.000	2,549.000
0054	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	2,548.000	2,548.000
0056	460.5223	HMA Pavement 3 LT 58-28 S	TON	1,533.000	1,533.000
0058	460.5224	HMA Pavement 4 LT 58-28 S	TON	1,016.000	1,016.000
0060	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	25.000	25.000
0062	465.0125	Asphaltic Surface Temporary	TON	225.000	225.000
0064	465.0315	Asphaltic Flumes	SY	13.000	13.000
0066	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	1,716.000	1,716.000

Estimate Of Quantities

5530-03-71

Line	Item	Item Description	Unit	Total	Qty
0068	502.4205	Adhesive Anchors No. 5 Bar	EACH	52.000	52.000
0070	504.0100	Concrete Masonry Culverts	CY	39.000	39.000
0072	505.0400	Bar Steel Reinforcement HS Structures	LB	3,960.000	3,960.000
0074	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	710.000	710.000
0076	516.0500	Rubberized Membrane Waterproofing	SY	17.000	17.000
0078	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	56.000	56.000
0080	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	4.000	4.000
0082	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2,455.000	2,455.000
0084	606.0100	Riprap Light	CY	3.000	3.000
0086	606.0300	Riprap Heavy	CY	35.000	35.000
0088	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	544.000	544.000
0090	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	912.000	912.000
0092	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	41.000	41.000
0094	611.0530	Manhole Covers Type J	EACH	12.000	12.000
0096	611.0609	Inlet Covers Type B-A	EACH	1.000	1.000
0098	611.0624	Inlet Covers Type H	EACH	15.000	15.000
0100	611.0639	Inlet Covers Type H-S	EACH	6.000	6.000
0102	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0104	611.1230	Catch Basins 2x3-FT	EACH	21.000	21.000
0106	611.2005	Manholes 5-FT Diameter	EACH	9.000	9.000
0108	611.2006	Manholes 6-FT Diameter	EACH	3.000	3.000
0110	611.3220	Inlets 2x2-FT	EACH	1.000	1.000
0112	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0114	611.8110	Adjusting Manhole Covers	EACH	4.000	4.000
0116	612.0104	Pipe Underdrain 4-Inch	LF	157.000	157.000
0118	612.0106	Pipe Underdrain 6-Inch	LF	51.000	51.000
0120	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	14.000	14.000
0122	612.0600	Underdrain Trench	LF	208.000	208.000
0124	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5530-03-71	EACH	1.000	1.000
0126	619.1000	Mobilization	EACH	1.000	1.000
0128	624.0100	Water	MGAL	148.400	148.400
0130	625.0500	Salvaged Topsoil	SY	10,840.000	10,840.000
0132	627.0200	Mulching	SY	3,891.000	3,891.000
0134	628.1504	Silt Fence	LF	3,085.000	3,085.000
0136	628.1520	Silt Fence Maintenance	LF	3,085.000	3,085.000
0138	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000

Estimate Of Quantities

5530-03-71

Line	Item	Item Description	Unit	Total	Qty
0140	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0142	628.2006	Erosion Mat Urban Class I Type A	SY	4,645.000	4,645.000
0144	628.7005	Inlet Protection Type A	EACH	2.000	2.000
0146	628.7020	Inlet Protection Type D	EACH	20.000	20.000
0148	628.7504	Temporary Ditch Checks	LF	300.000	300.000
0150	628.7555	Culvert Pipe Checks	EACH	6.000	6.000
0152	628.7560	Tracking Pads	EACH	2.000	2.000
0154	628.7570	Rock Bags	EACH	90.000	90.000
0156	629.0210	Fertilizer Type B	CWT	9.000	9.000
0158	630.0110	Seeding Mixture No. 10	LB	151.000	151.000
0160	630.0140	Seeding Mixture No. 40	LB	105.000	105.000
0162	633.5200	Markers Culvert End	EACH	2.000	2.000
0164	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	11.000	11.000
0166	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	16.000	16.000
0168	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	6.000	6.000
0170	637.2210	Signs Type II Reflective H	SF	238.530	238.530
0172	637.2230	Signs Type II Reflective F	SF	48.140	48.140
0174	638.2602	Removing Signs Type II	EACH	24.000	24.000
0176	638.3000	Removing Small Sign Supports	EACH	26.000	26.000
0178	642.5001	Field Office Type B	EACH	1.000	1.000
0180	643.0300	Traffic Control Drums	DAY	1,350.000	1,350.000
0182	643.0420	Traffic Control Barricades Type III	DAY	1,620.000	1,620.000
0184	643.0705	Traffic Control Warning Lights Type A	DAY	3,000.000	3,000.000
0186	643.0715	Traffic Control Warning Lights Type C	DAY	540.000	540.000
0188	643.0900	Traffic Control Signs	DAY	13,794.000	13,794.000
0190	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
0192	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	63.000	63.000
0194	643.5000	Traffic Control	EACH	1.000	1.000
0196	645.0105	Geotextile Type C	SY	70.000	70.000
0198	645.0111	Geotextile Type DF Schedule A	SY	139.000	139.000
0200	645.0120	Geotextile Type HR	SY	75.000	75.000
0202	645.0130	Geotextile Type R	SY	7.000	7.000
0204	646.1020	Marking Line Epoxy 4-Inch	LF	7,043.000	7,043.000
0206	646.5320	Marking Railroad Crossings Epoxy	EACH	1.000	1.000
0208	648.0100	Locating No-Passing Zones	MI	0.400	0.400
0210	650.4000	Construction Staking Storm Sewer	EACH	37.000	37.000
0212	650.5000	Construction Staking Base	LF	2,548.000	2,548.000
0214	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,455.000	2,455.000
0216	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000

Estimate Of Quantities

5530-03-71					
Line	Item	Item Description	Unit	Total	Qty
0218	650.6500	Construction Staking Structure Layout (structure) 01. C-29-662	LS	1.000	1.000
0220	650.6500	Construction Staking Structure Layout (structure) 02. Wall Modular Block Gravity Landscape Sta 113+50"T"	LS	1.000	1.000
0222	650.9910	Construction Staking Supplemental Control (project) 01. 5530-03-71	LS	1.000	1.000
0224	650.9920	Construction Staking Slope Stakes	LF	2,548.000	2,548.000
0226	690.0150	Sawing Asphalt	LF	231.000	231.000
0228	690.0250	Sawing Concrete	LF	59.000	59.000
0230	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0232	801.0117	Railroad Flagging Reimbursement	DOL	16,940.000	16,940.000
0234	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0236	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	200.000	200.000
0238	SPV.0060	Special 01. Adjust Water Valve Box	EACH	4.000	4.000
0240	SPV.0090	Special 01. Bore And Jack Storm Sewer Pipe Steel 24-inch	LF	127.000	127.000
0242	SPV.0090	Special 02. Removing Hma Pavement Notched Wedge Longitudinal Joint Milling	LF	2,548.000	2,548.000
0244	SPV.0165	Special 01. Wall Modular Block Gravity Landscape (STA 113+50"T")	SF	41.000	41.000

3

CLEARING AND GRUBBING SUMMARY							
CATEGORY	STATION	TO	STATION	LOCATION	CLEARING	GRUBBING	REMARKS
					201.0105 STA	201.0205 STA	
0010	101+00	-	104+00	LT & RT	3	3	
0010	108+00	-	114+00	LT & RT	6	6	
0010	119+00	-	121+00	LT & RT	2	2	
0010	113+00"T"	-	114+00"T"	LT & RT	1	1	
TOTAL 0010					12	12	

REMOVING CONCRETE SIDEWALK							
CATEGORY	STATION	TO	STATION	LOCATION	204.0155 SY	REMARKS	
0010	120+34	-	120+69	RT	10		
TOTAL 0010					10		

REMOVING PAVEMENT						
CATEGORY	STATION	TO	STATION	LOCATION	204.0100	REMARKS
					SY	
0010	117+80	-	118+09	RT	196	CE 117+90 RT
TOTAL 0010 REMOVING FENCE					196	

CATEGORY	STATION	TO	STATION	LOCATION	204.0170 LF	REMARKS	
0010	107+20	-	107+85	LT	60	WOODEN FENCE	
0010	113+75	-	113+85	LT	22	CHAIN LINK FENCE	
TOTAL 0010					82		

EARTHWORK SUMMARY											
		205.0100									
		EXCAVATION COMMON		UNUSABLE	AVAILABLE	REDUCED EBS	REDUCED EBS	UNEXPANDED	EXPANDED	MASS ORDINATE	WASTE
		CUT	SUBGRADE	MATERIAL	MATERIAL	IN FILL	BACKFILL	FILL	FILL	+/-	(SHORTAGE)
			IMPROVEMENT								
						FACTOR	FACTOR		FACTOR		
						0.7	1.43		1.43		
CATEGORY	LOCATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD		CU YD
0010	STH 80 100+99.12 TO 122+23.45	4109.87	3013.41	865	3244.87			2895.22	4140.16	-895.29	(895.29)
0010	TAYLOR ROAD 113+11.85 TO 113+50.00	59.6	86	0	59.6			1.76	2.52	57.08	57.08
0010	MAUSTON ROAD 115+14.09 TO 16+42.80	608.39	274	0	608.39			0.64	0.92	607.47	607.47
	CONSTRUCTION PROJECT TOTAL	4778	3373	865	3913	0	0	2898	4144	-231	(231.00)
	PROJECT 5530-03-71 TOTAL 0010	8151									

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REMOVING SMALL PIPE CULVERTS					
CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS	
0010	107+75	LT & RT	1	51' 24" RCCP	
0010	FE 118+70	LT	1	65' 12" CMCP	
0010	PE 121+12	LT	1	29' 12" CMCP	
TOTAL 0010			3		

REMOVING CURB & GUTTER						
CATEGORY	STATION	TO	STATION	LOCATION	204.0150 LF	REMARKS
0010	121+84	-	122+24	LT	40	
0010	122+05	-	122+24	RT	19	
TOTAL 0010					59	

SAWCUTTING SUMMARY							
CATEGORY	STATION	TO	STATION	LOCATION	ASPHALT 690.0150 LF	CONCRETE 690.0250 LF	REMARKS
0010	101+00			LT & RT	24		PROJECT BEGINS CONSTRUCTION BEGINS CONSTRUCTION BEGINS PROJECT ENDS
0010	113+25.02"T"			LT & RT	22		
0010	115+58.50"M"			LT & RT	34		
0010	122+23.46			LT & RT	37	6	
0010	CE 117+60			LT	51		
0010	CE 117+90			RT		53	
0010	CE 119+00			RT	63		
TOTAL 0010					231	59	

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PAVEMENT SUMMARY																			
CATEGORY	STATION	TO	STATION	LOCATION	BASE AGGREGATE DENSE 3/4-INCH 305.0110	BASE AGGREGATE DENSE 1 1/4-INCH 305.0120	SELECT CRUSHED MATERIAL 312.0110	CONCRETE DRIVEWAY		TACK COAT 455.0605	REHEATING HMA PAV'T LONGITUDINAL JOINTS 460.4110.S	REMOVING HMA PAV'T NOTCHED WEDGE MILL SPV.0090.02	HMA PAVEMENT		ASPHALTIC SURFACE DRIVEWAY FIELD ENT	ASPHALTIC SURFACE TEMPORARY 465.0125	CONSTRUCTION STAKING		
					3/4-INCH 305.0110	1 1/4-INCH 305.0120	312.0110	6-INCH 416.0160	8-INCH 416.0180				3 LT 58-28 S 460.5223	4 LT 58-28 S 460.5224			WATER 624.0100	BASE 650.5000	SLOPE STAKES 650.9920
					TON	TON	TON	SY	SY	GAL	LF	LF	TON	TON	TON	TON	MGAL	LF	LF
ROADWAY PAVEMENT					97	1908	2175			164	859	859	554	365			50.1	859	859
0010	101+00	-	109+58.50	LT & RT															
0010	109+58.50	-	113+26.12	LT & RT															
0010	113+26.12	-	113+86.12	LT & RT															
0010	113+86.12	-	114+01.21	LT & RT															
0010	114+01.21	-	114+45.60	LT & RT															
0010	114+45.60	-	115+34.89	LT & RT															
0010	115+34.89	-	115+60.70	LT & RT															
0010	115+60.70	-	117+15.72	LT & RT		159	226		16	89	89	60	40			4.6	89	89	
0010	117+15.72	-	122+12.82	LT & RT															
0010	122+12.82	-	122+23.46	LT & RT															
0010	113+11.85"T"	-	113+67.11"T"	LT & RT															
0010	115+58.50"M"	-	116+43.48"M"	LT & RT															
0010	115+58.50"M"	-	116+43.48"M"	LT & RT															
0010	115+58.50"M"	-	116+43.48"M"	LT & RT															
0010	115+58.50"M"	-	116+43.48"M"	LT & RT															
DRIVEWAYS					8	8		24									0.2		
0010	PE 110+80			RT															
0010	PE 113+35			LT															
0010	PE 117+40			RT															
0010	CE 117+60			LT	49			29									0.2		
0010	CE 117+60			LT															
0010	CE 117+90			RT															
0010	FE 118+70			LT															
0010	CE 119+00			RT	40			36									0.5		
0010	PE 121+12			LT															
0010	PE 121+12			LT															
0010	PE 121+12			LT															
TEMPORARY ACCESS					41	34	18												
0010	PE 110+80			RT															
0010	PE 113+35			LT															
0010	PE 117+40			RT															
0010	CE 117+60			LT															
0010	CE 117+90			RT															
0010	FE 118+70			LT															
0010	CE 119+00			RT															
0010	PE 121+12			LT	18														
0010	CE 117+60			LT															
0010	CE 117+90			RT															
0010	FE 118+70			LT															
0010	CE 119+00			RT	18														
0010	PE 121+12			LT															
0010	TAYLOR ROAD			LT & RT															
0010	MAUSTON ROAD			LT & RT															
RELIEF TRENCHES																			
0010	103+50			LT & RT															
0010	106+00			LT & RT															
0010	108+50			LT & RT															
0010	108+50			LT & RT															
0010	108+50			LT & RT															
0010	108+50			LT & RT															
0010	108+50			LT & RT															
TOTAL 0010					158	5251	6437	81	226	435	2548	2548	1473	977	25	225	138.6	2548	2548
0020	114+01.21	-	114+45.60	LT & RT		7	6			0			2	1			0.4		
0020	114+45.60	-	115+34.89	LT & RT															
0020	115+34.89	-	115+60.70	LT & RT															
0020	115+60.70	-	117+15.72	LT & RT															
0020	117+15.72	-	122+12.82	LT & RT															
0020	117+15.72	-	122+12.82	LT & RT															
0020	117+15.72	-	122+12.82	LT & RT															
0020	117+15.72	-	122+12.82	LT & RT															
TOTAL 0030					0	158	477	0	0	17	0	0	60	39	0	0	9.8	0	0
PROJECT TOTAL					158	5409	6914	81	226	452	2548	2548	1533	1016	25	225	148	2548	2548

STORM SEWER PIPE SUMMARY							
CATEGORY STRUCTURE TO STRUCTURE				REINFORCED CONCRETE PIPE			BORE & JACK STEEL 24-INCH SPV.0090.01 LF REMARKS
				CLASS III 12-INCH 608.0312 LF	CLASS III 24-INCH 608.0324 LF	CLASS IV 12-INCH 608.0412 LF	
0010	1.1	-	1	23			
0010	1.2	-	1	12			
0010	1	-	2		150		
0010	2.1	-	2	24			
0010	2.2	-	2	11			
0010	2	-	3		63		
0010	3.1	-	3	24			
0010	3	-	4		55		
0010	4.2	-	4.1	25			
0010	4.1	-	4	13			
0010	4	-	5		37		
0010	5.3	-	5.2	25			
0010	5.2	-	5.1	19			
0010	5.1	-	5	60			
0010	5	-	6				127
0010	6	-	7		81		
0010	7.3	-	7.2	77			
0010	7.2	-	7.1	20			
0010	7.1	-	7	42			
0010	7	-	8		103		
0010	8.1	-	8	30			
0010	8.2	-	8	13			
0010	8	-	9		185		
0010	9.1	-	9	25			
0010	9.2	-	9	13			
0010	9	-	10		55		
0010	10.1	-	10	9			
0010	10	-	11		14		JOINT TIES REQ'D
0010	20.1	-	20	26			
0010	20.2	-	20	13			
0010	20	-	21		80		
0010	21.3	-	21.1			41	
0010	21.1	-	21	27			
0010	21.2	-	21	13			
0010	21	-	22		89		JOINT TIES REQ'D
TOTAL 0010				544	912	41	127

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STORM STRUCTURE SUMMARY																
CATEGORY	STRUCTURE	STATION	LOCATION	MANHOLE COVERS TYPE J 611.0530 EACH	INLET COVERS				CATCH BASINS 2X3-FT 611.1230 EACH	MANHOLES		INLETS		STAKING STORM SEWER 650.4000 EACH	REMARKS	
					TYPE B-A 611.0609 EACH	TYPE H 611.0624 EACH	TYPE H-S 611.0639 EACH	TYPE MS 611.0642 EACH		5-FT DIA	6-FT DIA	2X2-FT	MEDIAN			
										611.2005 EACH	611.2006 EACH	611.3220 EACH	1 GRATE 611.3901 EACH			
0010	1	111+00	6' RT	1						1				1		
0010	1.1	111+00	17.5' LT			1			1					1		
0010	1.2	111+00	17.5' RT			1			1					1		
0010	2	112+50	6' RT	1						1				1		
0010	2.1	112+50	17.5' LT			1			1					1		
0010	2.2	112+50	17.5' RT			1			1					1		
0010	3	113+13	6' RT	1						1				1		
0010	3.1	113+13	17.5' LT			1			1					1		
0010	4	113+68	6' RT	1						1				1		
0010	4.1	113+68	18.9' RT				1		1					1		
0010	4.2	113+43	18.1' RT				1		1					1		
0010	5	114+05	6' RT	1						1				1		
0010	5.1	113+97	53.3' LT			1			1					1		
0010	5.2	114+05	70.9' LT			1			1					1		
0010	5.3	114+28	60.4' LT			1			1					1		
0010	6	115+32	6' RT	1						1				1		
0010	7	116+13	6' RT	1						1				1		
0010	7.1	115+99	33.7' LT				1		1					1		
0010	7.2	116+12	49.4' LT				1		1					1		
0010	7.3	116+80	89.7' LT			1			1					1		
0010	8	117+16	6' RT	1						1				1		
0010	8.1	117+04	21.1' LT			1			1					1		
0010	8.2	117+16	19.5' LT			1			1					1		
0010	9	119+00	6' RT	1							1			1		
0010	9.1	119+00	19.5' LT			1			1					1		
0010	9.2	119+00	19.5' RT		1							1		1		
0010	10	119+50	28.5' RT	1							1			1		
0010	10.1	119+50	19.5' RT			1			1					1		
0010	11	119+57	40.5' RT											1		
0010	20	121+80	6' RT	1						1				1		
0010	20.1	121+80	19.5' LT				1		1					1		
0010	20.2	121+80	19.5' RT				1		1					1		
0010	21	121+00	6' RT	1							1			1		
0010	21.1	120+91	19.5' LT			1			1					1		
0010	21.2	121+00	19.5' RT			1			1					1		
0010	21.3	121+31	33.1' LT					1					1	1		
0010	22	120+18	39.0' RT											1		
TOTAL 0010				12	1	15	6	1	21	9	3	1	1	37		
PROJECT NO: 5530-03-71			HWY: STH 80			COUNTY: JUNEAU			MISCELLANEOUS QUANTITIES					SHEET:		E

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PIPE UNDERDRAIN SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	PIPE UNDERDRAIN	PIPE UNDERDRAIN	PIPE UNDERDRAIN	UNDERDRAIN	GEOTEXTILE	REMARKS
					4-INCH 612.0104 LF	6-INCH 612.0106 LF	WRAPPED 6-INCH 612.0406 LF	TRENCH 612.0600 LF	TYPE DF SCHEDULE A 645.0111 SY	
0010	111+04	-	111+04	LT	17			17	11	
0010	111+04	-	11+04	RT	17			17	11	
0010	113+72	-	113+72	LT & RT		31		31	21	
0010	113+72	-	113+62"T"	LT & RT		20		20	13	
0010	113+49"T"	-	113+62"T"	RT			14			
0010	113+33"T"	-	113+33"T"	LT & RT	23			23	15	
0010	116+18"M"	-	116+32"M"	RT	24			24	16	
0010	118+96	-	118+96	LT	19			19	13	
0010	118+96	-	118+96	RT	19			19	13	
0010	121+76	-	121+76	LT	19			19	13	
0010	121+76	-	121+76	RT	19			19	13	
TOTAL 0010					157	51	14	208	139	

CURB SUMMARY

CATEGORY	STATION	TO	STATION	LOCATION	CONCRETE C & G 30-INCH TYPE D 601.0411	CONST. STAKING C, G C & G 650.5500	REMARKS
					LF	LF	
0010	109+58.50	-	113+42.98	LT	384	384	
0010	109+58.50	-	114+01.20	RT	443	443	
0010	115+34.89	-	115+60.70	LT	26	26	
0010	115+34.89	-	122+12.82	RT	678	678	
0010	117+15.72	-	122+23.46	LT	508	508	
0010	113+43	-	113+97	LT	66	66	SW TAYLOR INTERSECTION
0010	114+23	-	114+22	LT	18	18	NW TAYLOR INTERSECTION
0010	115+61	-	116+13	LT	62	62	SW MAUSTON INTERSECTION
0010	116+76	-	117+16	LT	91	91	NW MAUSTON INTERSECTION
0010	113+11.84"T"	-	113+35.17"T"	RT	23	23	
0010	113+11.84"T"	-	113+22.16"T"	LT	10	10	
0010	115+14.09"M"	-	116+18.40"M"	RT	104	104	
0010	115+14.09"M"	-	115+55.64"M"	LT	42	42	
TOTAL 0010					2455	2455	

ADJUSTING MANHOLE COVERS

CATEGORY	STATION	LOCATION	611.8110	REMARKS
			EACH	
0040	113+91	16' LT	1	SANITARY MANHOLE
0040	116+34	23' LT	1	SANITARY MANHOLE INSTALLED PRIOR TO PROJECT
0040	116+89	ON C/L	1	SANITARY MANHOLE INSTALLED PRIOR TO PROJECT
0040	118+93	ON C/L	1	SANITARY MANHOLE INSTALLED PRIOR TO PROJECT
TOTAL 0040			4	

ADJUST WATER VALVE BOX

CATEGORY	STATION	LOCATION	SPV.0060.01	REMARKS
			EACH	
0050	117+23	21' LT	1	INSTALLED PRIOR TO PROJECT
0050	117+31	11' LT	1	INSTALLED PRIOR TO PROJECT
0050	115+96"M"	4' RT	1	INSTALLED PRIOR TO PROJECT
0050	116+07"M"	2' LT	1	INSTALLED PRIOR TO PROJECT
TOTAL 0050			4	

RIPRAP SUMMARY									
CATEGORY	STATION	TO	STATION	LOCATION	RIPRAP LIGHT 606.0100 CY	RIPRAP HEAVY 606.0300 CY	GEOTEXTILE TYPE HR 645.0120 SY	GEOTEXTILE TYPE R 645.0130 SY	REMARKS
0010	107+75			RT	3			7	24" RCCP OUTLET
0010	119+52	-	119+67	RT		5	7		24" RCP STORM OUTLET
0010	119+95	-	120+14	RT		9	13		24" RCP STORM OUTLET
TOTAL 0010					3	14	20	7	
0020	119+55	-	119+95	LT		21	55		BOX CULVERT INLET
TOTAL 0020					0	21	55	0	
PROJECT TOTALS					3	35	75	7	

INLET PROTECTION SUMMARY									
CATEGORY	STATION	LOCATION	TYPE A 628.7005 EACH	TYPE D 628.7020 EACH	REMARKS				
0010	111+00	LT		1	STRUCTURE 1.1				
0010	111+00	RT		1	STRUCTURE 1.2				
0010	112+50	LT		1	STRUCTURE 2.1				
0010	112+50	RT		1	STRUCTURE 2.2				
0010	113+13	LT		1	STRUCTURE 3.1				
0010	113+43	RT		1	STRUCTURE 4.2				
0010	113+68	RT		1	STRUCTURE 4.1				
0010	113+97	LT		1	STRUCTURE 5.1				
0010	114+05	LT		1	STRUCTURE 5.2				
0010	114+28	LT		1	STRUCTURE 5.3				
0010	115+99	LT		1	STRUCTURE 7.1				
0010	116+12	LT		1	STRUCTURE 7.2				
0010	116+80	LT		1	STRUCTURE 7.3				
0010	117+16	LT		1	STRUCTURE 8.1				
0010	117+16	RT		1	STRUCTURE 8.2				
0010	119+00	LT		1	STRUCTURE 9.1				
0010	119+00	RT	1		STRUCTURE 9.2				
0010	121+00	LT		1	STRUCTURE 21.1				
0010	121+00	RT		1	STRUCTURE 21.2				
0010	121+31	LT	1		STRUCTURE 21.3				
0010	121+80	LT		1	STRUCTURE 20.1				
0010	121+80	RT		1	STRUCTURE 20.2				
TOTAL 0010			2	20					

TEMPORARY DITCH CHECKS									
CATEGORY	STATION	LOCATION	628.7504 LF	REMARKS					
0010	101+00	LT	20						
0010	101+00	RT	20						
0010	102+00	LT	20						
0010	102+00	RT	20						
0010	103+00	LT	20						
0010	103+00	RT	20						
0010	104+00	LT	20						
0010	104+00	RT	20						
0010	105+00	LT	20						
0010	105+00	RT	20						
0010	107+00	LT	20						
0010	107+00	RT	20						
0010	108+00	RT	20						
0010	109+50	LT	20						
0010	109+50	RT	20						
TOTAL 0010			300						

CULVERT PIPE CHECKS									
CATEGORY	STATION	TO	STATION	LOCATION	628.7555 EACH	REMARKS			
0010	107+75			LT	3	24" RCCP EXISTING			
0010	107+75			LT	3	24" RCCP PROPOSED			
TOTAL 0010					6				

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SILT FENCE SUMMARY							
CATEGORY	STATION	TO	STATION	LOCATION	FENCE	MAINTENANCE	REMARKS
					628.1504	628.1520	
					LF	LF	
0010	101+50	-	108+00	LT	700	700	
0010	101+50	-	107+75	RT	615	615	
0010	107+50	-	110+50	RT	370	370	
0010	119+00	-	120+75	LT	350	350	
0010	119+30	-	122+20	RT	550	550	
0010	UNDISTRIBUTED				500	500	
TOTAL 0010					3085	3085	

ROCK BAGS				
628.7570				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	107+75	LT	40	SILT FENCE RELIEF
0010	107+75	RT	40	SILT FENCE RELIEF
0010	UNDISTRIBUTED		10	
TOTAL 0010			90	

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RESTORATION SUMMARY											
CATEGORY	STATION	TO	STATION	LOCATION	SALVAGED	MULCHING	E MAT URBAN	FERTILIZER	SEEDING MIXTURE		
					TOPSOIL		CL I TY A	TYPE B	NO. 10	NO. 40	
					625.0500		627.0200	628.2006	629.0210	630.0110	630.0140
					SY		SY	SY	CWT	LB	LB
0010	101+00	-	109+60	LT	3072	194		1.9	41		
0010	101+00	-	109+60	RT	3123	197		2.0	42		
0010	109+60	-	113+20	LT	882		882	0.6		16	
0010	109+60	-	110+70	RT	289		289	0.2		5	
0010	110+90	-	114+23	RT	514		514	0.3		9	
0010	113+25	-	114+05	LT	146		146	0.1		3	
0010	114+25	-	114+50	LT	61		61	0.0		1	
0010	114+35	-	114+95	RT	63		63	0.0		1	
0010	114+55	-	115+05	LT	46		46	0.0		1	
0010	115+15	-	116+65	LT	216		216	0.1		4	
0010	115+35	-	117+35	RT	370		370	0.2		7	
0010	116+75	-	117+42	LT	208		208	0.1		4	
0010	117+50	-	117+75	RT	106		106	0.1		2	
0010	117+70	-	118+55	LT	158		158	0.1		3	
0010	118+10	-	118+75	RT	128		128	0.1		2	
0010	118+90	-	121+00	LT	614		614	0.4		11	
0010	119+15	-	122+23	RT	678		678	0.4		12	
0010	121+20	-	122+23	LT	166		166	0.1		3	
0010	WASTE SITE/SELECT SITE/YARD					3500		2.2	48		
0010	UNDISTRIBUTED								20	21	
TOTAL 0010					10840	3891	4645	9	151	105	

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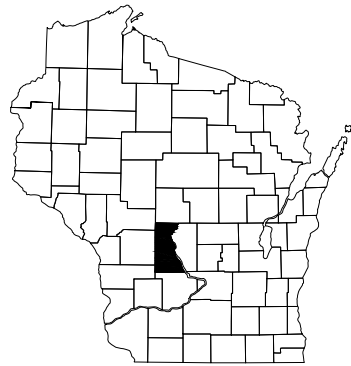
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PERMANENT SIGNING SUMMARY																
						SIGN SIZE (W X H) INCHES			SIGNS TYPE II		POSTS WOOD 4X6-INCH			REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
									REFLECTIVE H 637.2210 SF	REFLECTIVE F 637.2230 SF	14-FT 634.0614 EACH	16-FT 634.0616 EACH	18-FT 634.0618 EACH			
CATEGORY	SIGN NO	APPROX STATION	LOC.	SIGN CODE	SIGN MESSAGE											
0010	1-1	100+80	RT	I2-3	MUNICIPALITY POPULATION SIGN	78	X	24	13.00		1	1		1	2	NEW LISBON POPULATION 2554
0010	1-2	102+80	RT	W3-5	SPEED REDUCTION AHEAD _ MPH SYMBOL									1	1	25
0010	1-3	104+00	RT	W3-5	SPEED REDUCTION AHEAD _ MPH SYMBOL	36	X	36		9.00		1				25
0010	1-4	106+00	LT	D2-2	DESTINATION DISTANCE	114	X	24	19.00		1	1				ELROY 12 RICHLAND CENTER 45
0010	2-1	108+00	LT	J4-1	REASSURANCE ASSEMBLY	24	X	36	6.00			1				SOUTH 80
0010	2-2	110+00	LT	W14-3	NO PASSING ZONE	48	X	36		6.00		1		1	1	
0010	2-3	110+00	LT	R2-1	SPEED LIMIT __	24	X	30	5.00			1		1		55
0010	2-4	110+00	RT	R2-1	SPEED LIMIT __	24	X	30	5.00			1		1	1	25
0010	3-1	112+50	LT	D2-1	DESTINATION DISTANCE									1	1	ELROY 12
0010	3-2	112+50	RT	W10-1	RAILROAD CROSSING	36	X	36		7.07		1				
0010	3-3	112+65	RT	W10-1	RAILROAD CROSSING									1	1	
0010	3-4	112+50	LT	I55-56	ADOPT A HIGHWAY SPONSOR (NAME)	30	X	36	7.50			1				NEW LISBON LIONS
0010	3-5	113+00	LT	I55-56	ADOPT A HIGHWAY SPONSOR (NAME)									1	1	NEW LISBON LIONS
0010	3-6	113+32	RT	J1-2	JUNCTION ASSEMBLY									1	1	JCT 12 JCT 16
0010	3-7	113+60	LT	R2-1	SPEED LIMIT __	24	X	30	5.00		1					25
0010	3-8	113+80	LT	R1-1	STOP SIGN									1	1	
0010	3-9	113+87	LT	R1-1	STOP SIGN	30	X	30	5.18		1					
0010	3-10	114+00	RT	R2-1	SPEED LIMIT __	24	X	30	5.00		1					25
0010	3-11	115+25	RT	R2-1	SPEED LIMIT __									1	1	25
0010	3-12	115+30	RT	J1-2	JUNCTION ASSEMBLY	48	X	39	13.00			1				JCT 12 JCT 16
0010	3-13	115+65	LT	R2-1	SPEED LIMIT __									1	1	25
0010	3-14	115+80	LT	R1-1	STOP SIGN									1	1	
0010	3-15	115+93	LT	R1-1	STOP SIGN	30	X	30	5.18		1					
0010	3-16	116+35	RT	W3-1	STOP AHEAD									1	1	
0010	3-17	116+50	RT	J2-2	ROUTE TURN ASSEMBLY	48	X	57	19.00			1				EAST 12 RIGHT TURN ARROW
																EAST 16 RIGHT TURN ARROW
0010	3-18	117+25	LT	W10-1	RAILROAD CROSSING	36	X	36		7.07		1				
0010	3-19	117+30	LT	W10-1	RAILROAD CROSSING									1	1	
0010	4-1	118+20	RT	J2-1	ROUTE TURN ASSEMBLY									1	1	NORTH 80 LEFT TURN ARROW
0010	4-2	118+50	RT	J2-3	ROUTE TURN ASSEMBLY	72	X	57	28.50				2			WEST 12 LEFT TURN ARROW
																WEST 16 LEFT TURN ARROW
																NORTH 80 LEFT TURN ARROW
0010	4-3	119+25	LT	J4-1	REASSURANCE ASSEMBLY									1	1	SOUTH 80
0010	4-4	119+90	RT	D1-3	DESTINATION DIRECTION	90	X	36	22.50			1	1	1	2	LEFT ARROW NECEDAH
																LEFT ARROW CAMP DOUGLAS
																MAUSTON RIGHT ARROW
0010	4-5	120+00	LT	R2-1	SPEED LIMIT __	24	X	30	5.00		1					25
0010	4-6	121+00	RT	W3-1	STOP AHEAD	36	X	36		9.00		1				
0010	4-7	122+00	LT	J4-1	REASSURANCE ASSEMBLY	24	X	36	6.00			1				SOUTH 80
0010	4-8	122+15	RT	J3-2	DIRECTIONAL ASSEMBLY	48	X	57	19.00				1	1	1	EAST 12 RIGHT ARROW
																EAST 16 RIGHT ARROW
0010	4-9	122+30	RT	W14-3	NO PASSING ZONE	48	X	36		6.00		1		1	1	
0010	4-10	123+23	RT	R1-1	STOP SIGN	36	X	36	7.46		1			1	1	
0010	4-11	122+23	RT	R5-1	DO NOT ENTER	30	X	30	6.25		1			1	1	
0010	4-12	123+37	RT	W12-1D	DOUBLE DIAGONAL ARROW	24	X	24		4.00	1			1	1	
0010	4-13	123+67	RT	R1-1	STOP SIGN	36	X	36	7.46		1					
0010	4-14	123+72	RT	J3-3	DIRECTIONAL ASSEMBLY	72	X	57	28.50				2	1	2	WEST 12 LEFT ARROW
																WEST 16 LEFT ARROW
																NORTH 80 LEFT ARROW
TOTAL 0010									238.53	48.14	11	16	6	24	26	

3

3

TRAFFIC CONTROL SUMMARY																	
CATEGORYSTATIONTOSTATIONDURATION(DAYS)					DRUMS		BARRICADES TYPE III		WARNING LIGHTS				SIGNS		SIGNS PCMS		REMARKS
					643.0300		643.0420		TYPE A		TYPE C		643.0900		643.1051		
					EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	
0010	JOB START				7										3	21	
0010	RAILROAD CLOSURE				14										3	42	
0010	ADVANCE WARNING STH 80 NB				82							5	410				
0010	ADVANCE WARNING STH 80 SB				82							5	410				
0010	ADVANCE WARNING USH 12/STH 16 WB				82							4	328				
0010	ADVANCE WARNING TAYLOR ROAD				82							1	82				
0010	ADVANCE WARNING MAUSTON ROAD				82							1	82				
0010	SIGNS FOR DETOUR				82		3	246	6	492	142	11644					
0010	ROAD CLOSURE STH 80 NB				82		2	164	4	328	1	82					
0010	ROAD CLOSURE TAYLOR ROAD				82		2	164	4	328	1	82					
0010	ROAD CLOSURE MAUSTON ROAD				82		4	328	8	656	1	82					
0010	ROAD CLOSURE STH 80 SB				82		4	328	8	656	1	82					
0010	ROAD CLOSURE RAILROAD WORK				30		10	300	12	360	2	60					
0010	LANE CLOSURE FOR STRUCTURE WORK				45	30	2	90	4	180	12	540	10	450			
TOTAL 0010						1350		1620		3000		540		13794		63	
TRAFFIC CONTROL COVERING SIGNS TYPE II																	
643.0920																	
CATEGORY	STATION	TO	STATION	LOCATION	EACH	REMARKS											
0010	EB USH 12/STH 16																
	N DIVISION ST	-	S MONROE ST		5	1 CYCLE											
0010	WB USH 12/STH 16																
	S WEBSTER ST	-	S MONROE ST		2	1 CYCLE											
TOTAL 0010						7											
MARKING LINE EPOXY 4-INCH																	
646.1020																	
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS											
0010	101+00	-	110+00	ON C/L	1125	YELLOW SOLID/DASH											
0010	101+00	-	113+43	LT	1243	WHITE EDGELINE											
0010	101+00	-	122+24	RT	2124	WHITE EDGELINE											
0010	110+00	-	113+43	ON C/L	686	YELLOW DOUBLE SOLID											
0010	114+50	-	115+61	LT	111	WHITE EDGELINE											
0010	114+46	-	115+61	ON C/L	230	YELLOW DOUBLE SOLID											
0010	117+16	-	122+24	LT	508	WHTIE EDGELINE											
0010	117+16	-	122+24	ON C/L	1016	YELLOW DOUBLE SOLID											
TOTAL 0010						7043											
PROJECT NO: 5530-03-71				HWY: STH 80			COUNTY: JUNEAU			MISCELLANEOUS QUANTITIES				SHEET:		E	



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
5530-03-21
HILLSBORO - NEW LISBON

SOUTH CITY LIMITS TO USH 12

STH 80
JUNEAU COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	•
QUARTER LINE	---	NON-MONUMENTED R/W POINT	○	FOUND IRON PIN (1-INCH UNLESS NOTED)	IP
SIXTEENTH LINE	---	SECTION CORNER MONUMENT	⊕	OFF-PREMISE SIGN	
NEW REFERENCE LINE	---	GEODETIC SURVEY MONUMENT		NON-COMPENSABLE	
NEW R/W LINE	---	SIXTEENTH CORNER MONUMENT		ACCESS RESTRICTED BY ACQUISITION	
EXISTING R/W OR HE LINE	---	SIGN		NO ACCESS (BY STATUTORY AUTHORITY)	
PROPERTY LINE	---	OFF-PREMISE SIGN		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
LOT, TIE & OTHER MINOR LINES	---	COMPENSABLE		NO ACCESS (NEW HIGHWAY)	
SLOPE INTERCEPT	---	NON-COMPENSABLE		PARCEL NUMBER	25
CORPORATE LIMITS	---	ELECTRIC POLE		UTILITY NUMBER	40
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	---	TELEPHONE POLE		PARALLEL OFFSETS	
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
TEMPORARY LIMITED EASEMENT AREA	---	ACCESS RESTRICTED BY ACQUISITION			
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---	NO ACCESS (BY STATUTORY AUTHORITY)			
TRANSMISSION STRUCTURES	---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
BUILDING		NO ACCESS (NEW HIGHWAY)			
TO BE REMOVED					
BRIDGE					

CONVENTIONAL ABBREVIATIONS

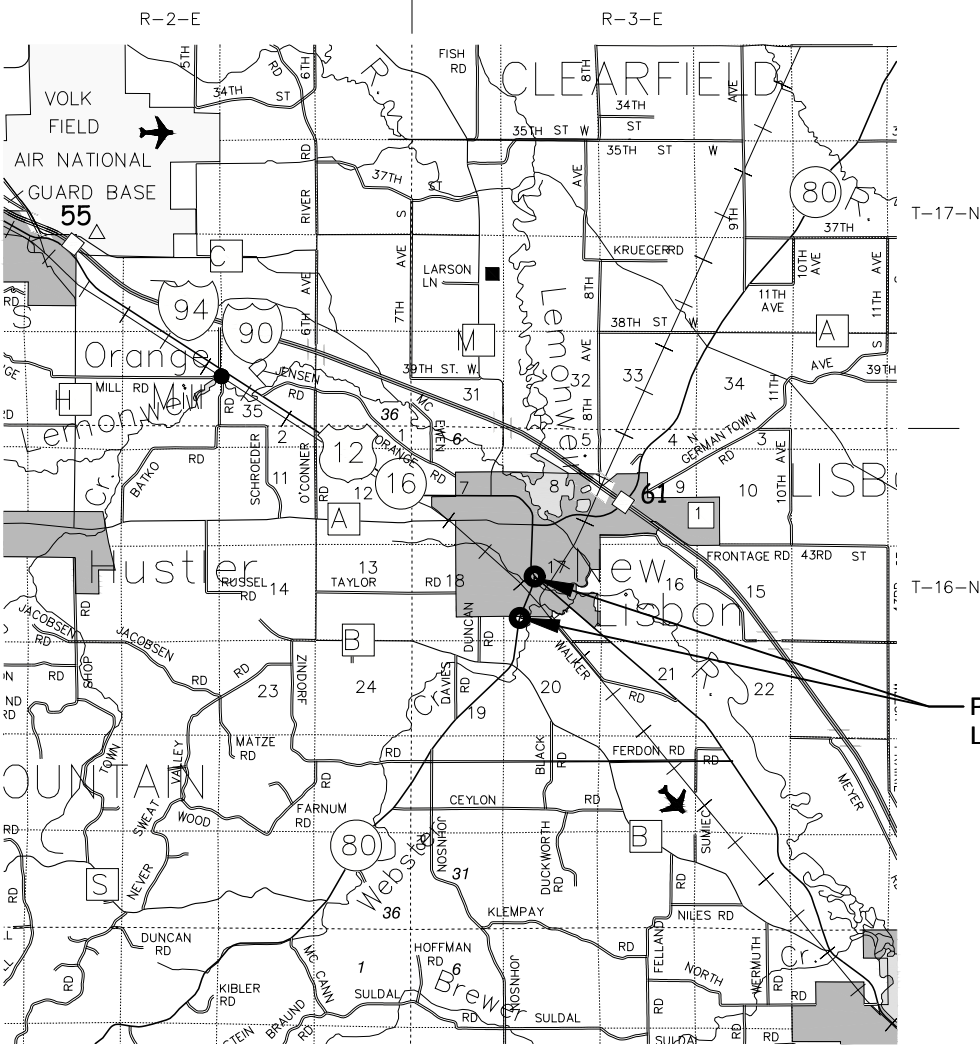
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT	RDE
CENTERLINE	C/L	EASEMENT	
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT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

CURVE DATA

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

CONVENTIONAL UTILITY SYMBOLS

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



LAYOUT
SCALE 0 1.0 MI.

THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 5530-03-21

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), JUNEAU COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

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

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

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, 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.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

FOR CURRENT ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN LACROSSE.

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

FOR CURRENT ACCESS CONTROL ALONG STH 80 CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGION IN LACROSSE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 80 ESTABLISHED FROM PREVIOUS PROJECT NO. 4696, THE PLAT OF THE MISCELLANEOUS ADDITION TO NEW LISBON RECORDED IN VOL. 3, PAGE 31, CSM NO. 173, CSM NO. 1630, CSM NO. 1617, CSM NO. 189, CSM NO. 777, CSM NO. 923, CSM NO. 409, CSM NO. 1290, AND CSM NO. 4186.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5530-03-21
SHEET 2 OF 2

PART OF OUTLOTS 86 AND 88 OF THE MISCELLANEOUS PLAT OF NEW LISBON RECORDED IN VOL. 3, PG. 31 AND CSM NO. 173 RECORDED IN VOL. 1, PG. 184 AS DOCUMENT NO. 226468 LOCATED IN THE NE 1/4 OF THE SW 1/4 AND THE NW 1/4 OF SW 1/4 OF SECTION 17, TOWNSHIP 16 NORTH, RANGE 3 EAST, CITY OF NEW LISBON, JUNEAU COUNTY, WISCONSIN

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, 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 OR 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.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING
POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 80 ESTABLISHED FROM PREVIOUS
PROJECT NO. 4696, CSM NO. 173, CSM NO. 1630, CSM NO. 1617, AND PLAT OF
THE MISCELLANEOUS ADDITION TO NEW LISBON RECORDED IN VOL. 3, PAGE 31.

FOR EXISTING ACCESS CONTROL ALONG STH 80 CONTACT THE WISCONSIN
DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN LACROSSE.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN
DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN LACROSSE.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE
WISCONSIN COUNTY COORDINATE SYSTEM, JUNEAU COUNTY ZONE, NAD 83 (2011).
THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID
OR GROUND VALUES ON THIS PLAT.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE
OFFICE OF THE REGISTER OF DEEDS IN JUNEAU COUNTY, AS SHEET 2 OF 2 OF
THIS DOCUMENT.

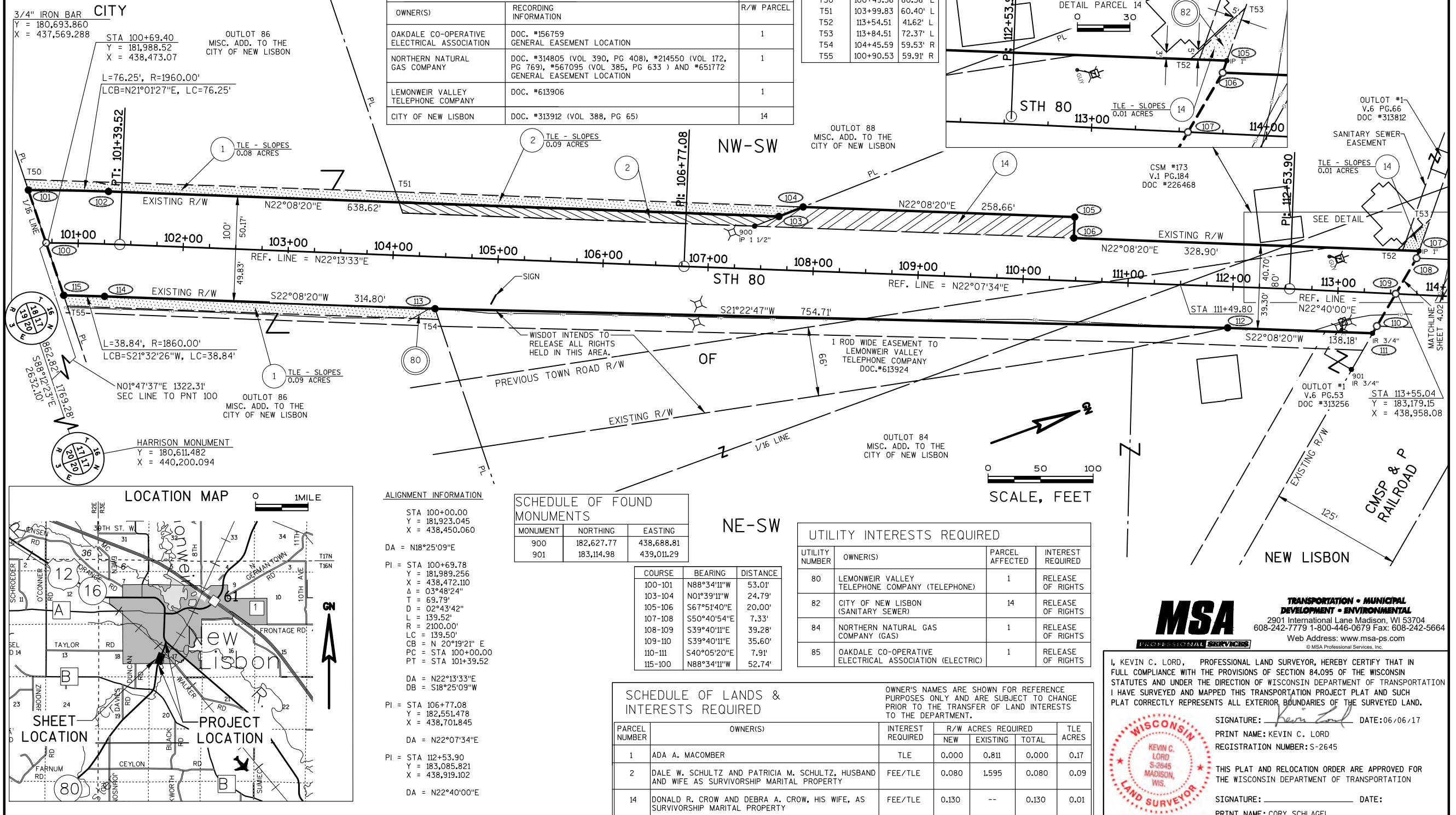
REFERENCE LINE IS NOT CENTER OF THE EXISTING ROADWAY OR RIGHT-OF-WAY.

R/W POINT	STATION	OFFSET	NORTHING	EASTING
101	100+52.64	50.23' L	181,989.84	438,420.08
102	101+27.12	50.02' L	182,061.01	438,447.43
103	107+65.53	50.80' L	182,652.55	438,688.10
104	107+88.21	60.80' L	182,677.32	438,687.38
105	110+46.87	60.74' L	182,916.91	438,784.86
106	110+46.86	40.74' L	182,909.38	438,803.38
107	113+75.38	41.81' L	183,214.03	438,927.33
108	113+73.28	34.79' L	183,209.39	438,933.00
110	113+38.51	31.53' R	183,151.74	438,980.80
111	113+34.89	38.56' R	183,145.69	438,985.90
112	111+96.34	39.29' R	183,017.70	438,933.82
113	104+41.78	49.54' R	182,314.92	438,658.70
114	101+26.67	49.98' R	182,023.33	438,540.06
115	100+86.88	49.84' R	181,987.20	438,525.80

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5530-03-21 4.01
SHEET 1 OF 2

EASEMENT TABLE		
OWNER(S)	RECORDING INFORMATION	R/W PARCE
OAKDALE CO-OPERATIVE ELECTRICAL ASSOCIATION	DOC. *156759 GENERAL EASEMENT LOCATION	1
NORTHERN NATURAL GAS COMPANY	DOC. *314805 (VOL 390, PG 408), *214550 (VOL 172, PG 769), *567095 (VOL 385, PG 633) AND *651772 GENERAL EASEMENT LOCATION	1
LEMONWEIR VALLEY TELEPHONE COMPANY	DOC. *613906	1
CITY OF NEW LISBON	DOC. *313912 (VOL 388, PG 65)	14

TLE POINT	STATION	OFFSET
T50	100+49.36	60.36' L
T51	103+99.83	60.40' L
T52	113+54.51	41.62' L
T53	113+84.51	72.37' L
T54	104+45.59	59.53' R
T55	100+90.53	59.91' R



TRANSPORTATION PROJECT PLAT NO: 5530-03-21 - 4.02

PART OF OUTLOTS 110, 115, 116, 117, 118, AND 119 OF THE MISCELLANEOUS PLAT OF NEW LISBON RECORDED IN VOL. 3, PG. 31, LOT 2 OF CSM NO. 4186 RECORDED IN VOL. 18, PG. 173 AS DOCUMENT NO. 687714, PARCEL 1 OF CSM NO. 923 RECORDED IN VOL. 4, PG. 39 AS DOCUMENT NO. 276257, AND PARCEL 1 OF CSM NO. 1290 RECORDED IN VOL. 5, PG. 67 AS DOCUMENT NO. 296784 LOCATED IN THE SE 1/4 OF THE NW 1/4 OF SECTION 17, TOWNSHIP 16 NORTH, RANGE 3 EAST, CITY OF NEW LISBON, JUNEAU COUNTY, WISCONSIN

RELOCATION ORDER STH 80, HILLSBORO - NEW LISBON, JUNEAU COUNTY (SOUTH CITY LIMITS TO USH 12)

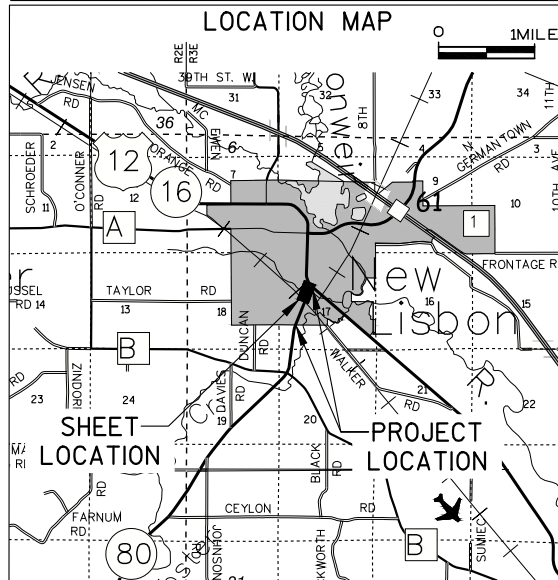
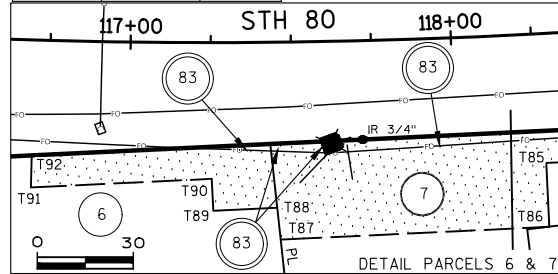
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, 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 OR 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 (4) OR (2), WISCONSIN STATUTES.

R/W POINT	STATION	OFFSET	NORTHING	EASTING
106	113+73.28	34.79' L	183,209.38	438,933.00
200	114+73.51	35.72' L	183,302.23	438,970.77
201	115+93.32	36.82' L	183,413.22	439,015.93
202	116+21.73	92.96' L	183,461.07	438,975.07
203	116+82.13	62.64' L	183,503.92	439,025.26
204	117+08.56	33.33' L	183,517.54	439,061.83
205	119+26.59	38.04' L	183,724.28	439,122.67
206	119+55.87	67.32' L	183,760.62	439,102.82
207	119+95.87	68.63' L	183,799.37	439,112.83
208	120+24.94	39.56' L	183,819.08	439,148.91
209	122+64.22	31.65' L	184,045.96	439,207.54
210	123+88.87	22.41' L	184,167.80	439,235.45
212	122+87.01	36.46' R	184,058.23	439,278.31
213	120+48.74	29.85' R	183,822.37	439,222.21
214	119+90.33	64.93' R	183,756.45	439,239.42
215	119+59.62	64.44' R	183,727.12	439,230.30
216	119+28.13	31.93' R	183,706.06	439,190.24
217	115+20.04	49.99' R	183,312.14	439,067.79
218	115+23.86	29.82' R	183,323.43	439,050.65
219	114+99.54	30.04' R	183,300.91	439,041.49
108	113+38.51	31.53' R	183,151.74	438,980.80

COURSE	BEARING	DISTANCE
107-106	N39°40'11"W	39.28'
201-202	N40°29'37"W	62.92'
202-203	N49°30'23"E	66.00'
213-214	S14°37'53"E	68.14'
214-215	S17°16'07"W	30.71'
215-216	S62°16'07"W	45.26'
218-219	S22°08'20"W	24.31'
219-108	S22°08'20"W	161.04'
108-107	N39°40'11"W	35.60'
200-220	S88°55'52"E	38.42'
219-220	N88°55'52"W	32.31'



HARRISON MONUMENT
Y = 183,328.606
X = 437,557.360

SCHEDULE OF FOUND MONUMENTS

MONUMENT	NORTHING	EASTING
902	183,854.60	439,157.98
903	183,856.55	439,158.59
904	183,918.20	439,174.62
905	183,981.49	439,192.16
906	184,094.49	439,218.65

ALIGNMENT INFORMATION
PI = STA 112+53.90
Y = 183,085.821
X = 438,919.102

DA = N22°40'00"E
PI = STA 117+41.38
Y = 183,535.654
X = 439,106.964

DA = 06°18'44"
T = 104.77'
D = 03°00'56"
L = 209.32'
R = 1900.00'
LC = 209.22'

CB = N 19°30'38" E
PC = STA 116+36.62
PT = STA 118+45.94

DA = N16°21'16"E
DB = S22°40'00"W
PI = STA 123+90.38
Y = 184,165.913
X = 439,257.825

TLE POINT	STATION	OFFSET	TLE POINT	STATION	OFFSET
T70	116+85.98	69.55' L	T82	120+30.65	83.57' R
T71	117+03.67	54.07' L	T83	119+30.61	81.98' R
T72	117+89.67	61.16' L	T84	119+29.92	41.96' R
T73	117+90.62	46.19' L	T85	118+27.67	40.41' R
T74	119+38.07	51.73' L	T86	118+27.55	60.41' R
T75	119+38.07	71.75' L	T87	117+46.15	61.68' R
T76	120+25.87	74.60' L	T88	117+45.20	51.71' R
T77	120+40.86	50.08' L	T89	117+25.75	52.56' R
T78	121+29.69	51.35' L	T90	117+25.29	42.57' R
T79	121+29.42	41.36' L	T91	116+70.12	46.07' R
T80	122+88.97	49.12' R	T92	116+70.09	36.05' R
T81	120+39.99	44.91' R			

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	PARCEL AFFECTED	INTEREST REQUIRED
80	LEMONWEIR VALLEY TELEPHONE COMPANY	8	RELEASE OF RIGHTS
82	CITY OF NEW LISBON (SANITARY SEWER)	8, 12	RELEASE OF RIGHTS
83	CHARTER COMMUNICATIONS (CABLE)	6, 7, 8	RELEASE OF RIGHTS
85	OAKDALE CO-OPERATIVE ELECTRICAL ASSOCIATION (ELECTRIC)	8	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES	NEW	EXISTING	TOTAL	TLE ACRES
6	ROBERT D. RAVENSCROFT AND PATSY J. RAVENSCROFT, HUSBAND AND WIFE AS SURVIVORSHIP MARITAL PROPERTY	TLE	0.00	--	0.00	0.02	
7	GTEK REAL ESTATES, LLC AND G-TEK REAL ESTATE, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	0.03	--	0.03	0.12	
8	MATTHEW M. BERNING, A SINGLE PERSON	FEE/TLE	0.02	--	0.02	0.11	
12	FREDDY M. PETTIS	FEE/TLE	0.02	--	0.02	0.04	
13	LYNN WILLARD	FEE/TLE	0.04	--	0.04	0.09	

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 80 ESTABLISHED FROM PREVIOUS PROJECT NO. 4696, CSM NO. 189, CSM NO. 409, CSM NO. 777, CSM NO. 923, CSM NO. 1290, CSM NO. 4186 AND PLAT OF THE MISCELLANEOUS ADDITION TO NEW LISBON RECORDED IN VOL. 3, PAGE 31.

FOR EXISTING ACCESS CONTROL ALONG STH 80 CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN LACROSSE.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN LACROSSE.

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, JUNEAU COUNTY ZONE, NAD 83 (2011). THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN JUNEAU COUNTY, AS SHEET 2 OF 2 OF DOCUMENT #720448 AND FILES IN VOL 2 PAGE 12.

REFERENCE LINE IS NOT THE CENTER OF THE EXISTING ROADWAY OR RIGHT-OF-WAY.

EASEMENT TABLE

OWNER(S)	INFORMATION	R/W PARCEL
OAKDALE CO-OPERATIVE ELECTRICAL ASSOCIATION	DOC. #156720 (VOL 21, PG 99) GENERAL EASEMENT LOCATION	8
CITY OF NEW LISBON (SEWER)	DOC. #313481 (VOL 386, PG 470), #10567 (VOL 98, PG 420), #10883 (VOL 98, PG 470), #314487 (VOL 389, PG 526)	8, 12
LEMONWEIR VALLEY TELEPHONE COMPANY	NO EASEMENT OF RECORD	8
CHARTER COMMUNICATION	NO EASEMENT OF RECORD	6, 7, 8
GEORGE LILLEHAMER AND LILLIAN LILLEHAMER	VOL 29, PG 506, VOL 115, PG 319 ACCESS EASEMENT	7

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 5530-03-21 4.02
SHEET 1 OF 2

COURSE	BEARING	DISTANCE
203-204	N69°34'28"E	39.02'
205-206	N28°38'44"W	41.41'
206-207	N14°29'21"E	40.02'
207-208	N61°21'15"E	41.11'
208-209	N14°29'21"E	234.33'
210-211	S21°21'51"E	44.78'
211-212	S21°21'51"E	72.87'

MISC. ADD. TO THE CITY OF NEW LISBON

USH 12 & 16

EP: 123+90.38

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

EXISTING R/W

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EXISTING R/W

EXISTING R/W

EXISTING R/W

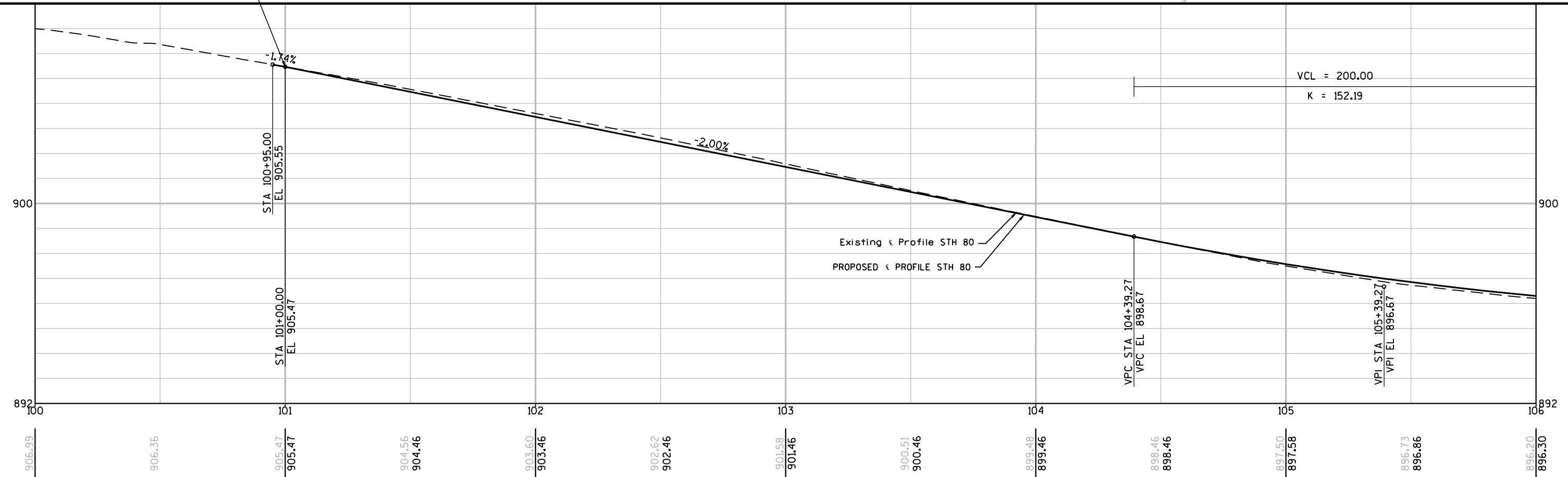
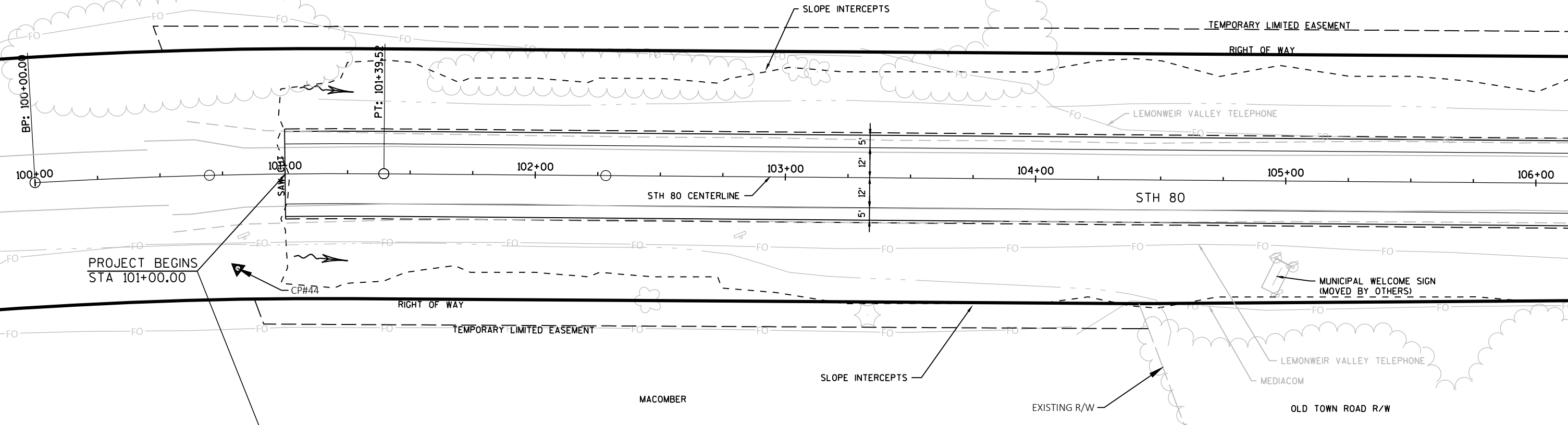
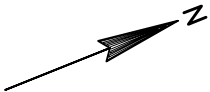
EXISTING R/W

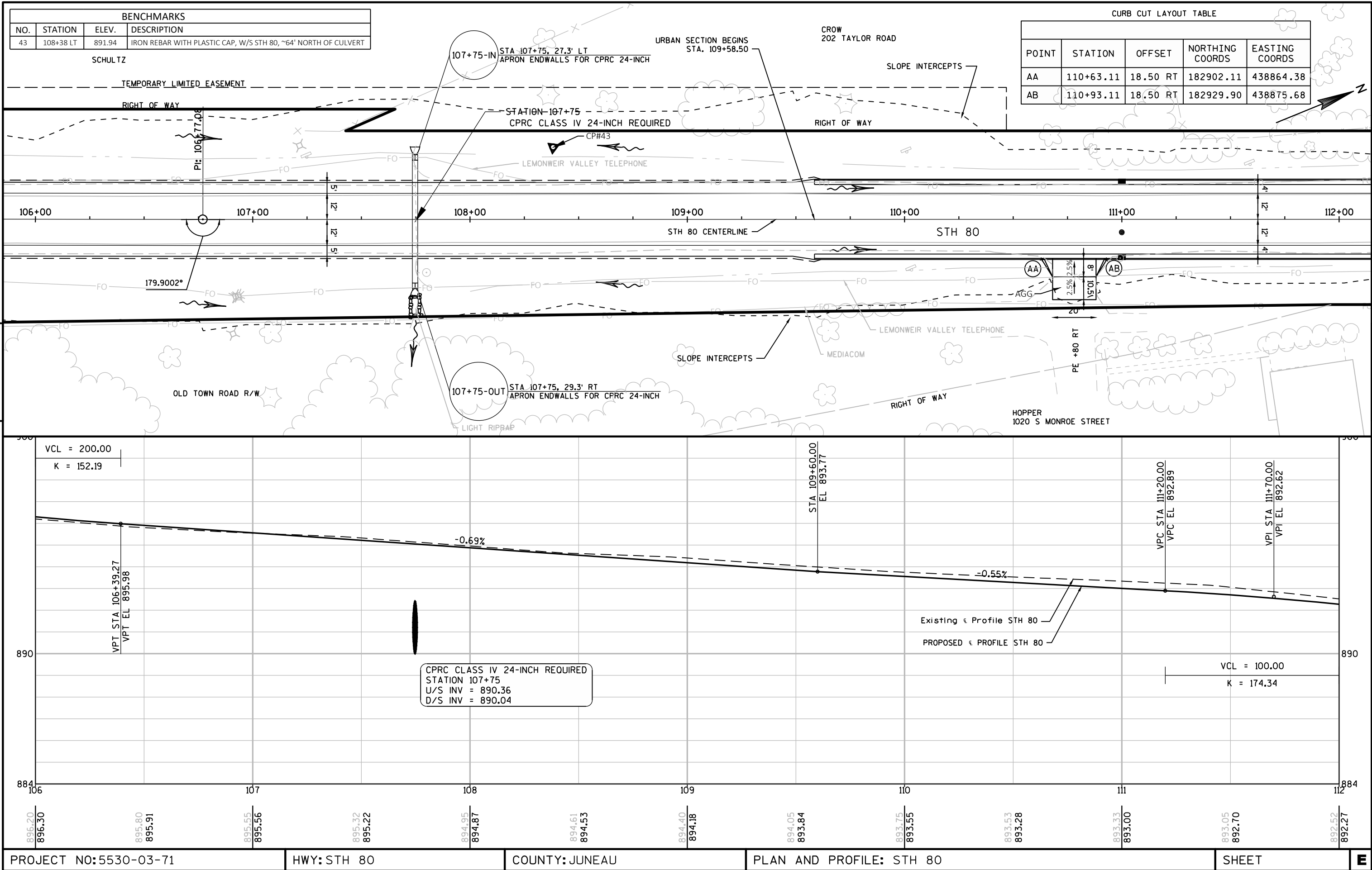
EXISTING R/W

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
44	100+80 RT	902.74	IRON REBAR WITH PLASTIC CAP, E/S STH 80, APPROX 200' SOUTH OF SPEED LIMIT SIGN

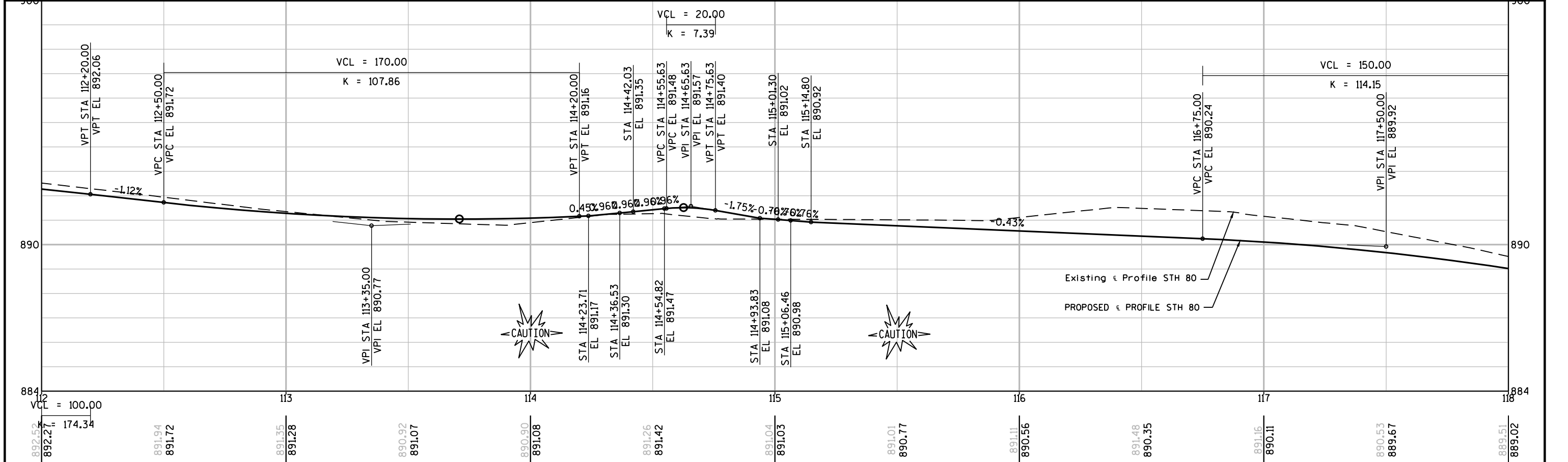
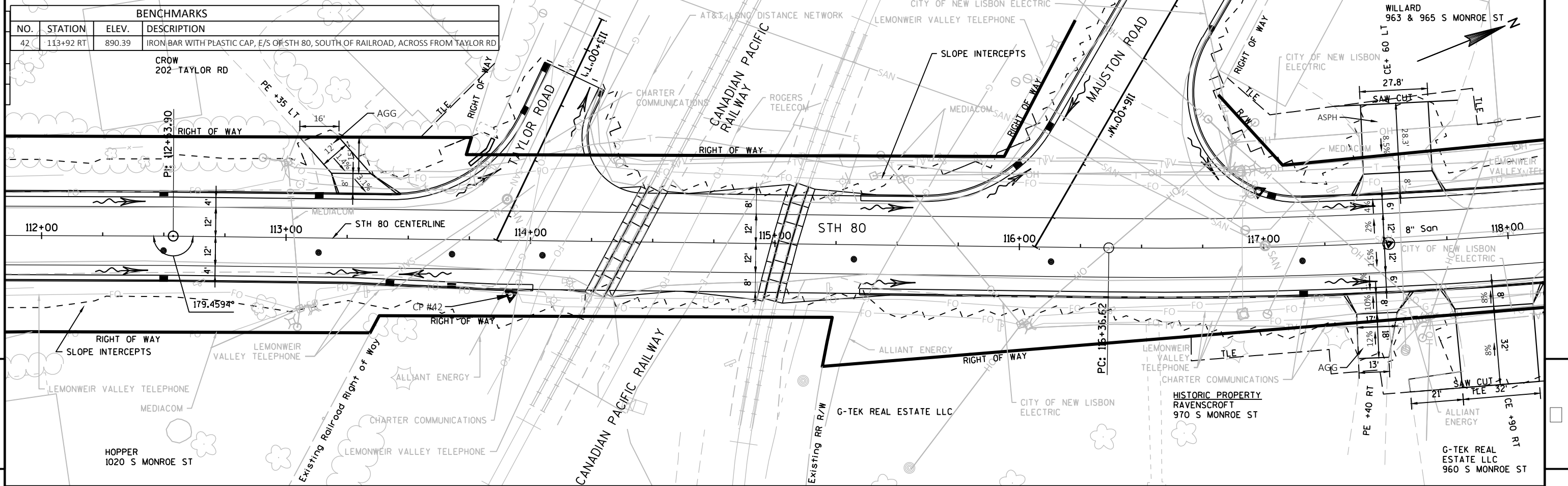
MACOMBER

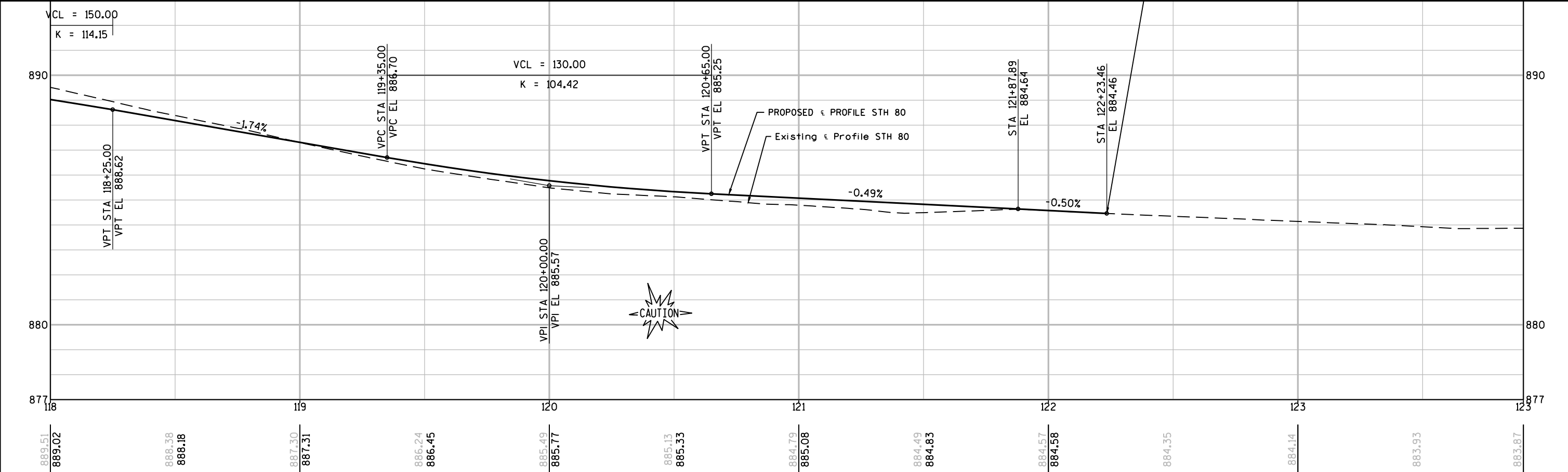
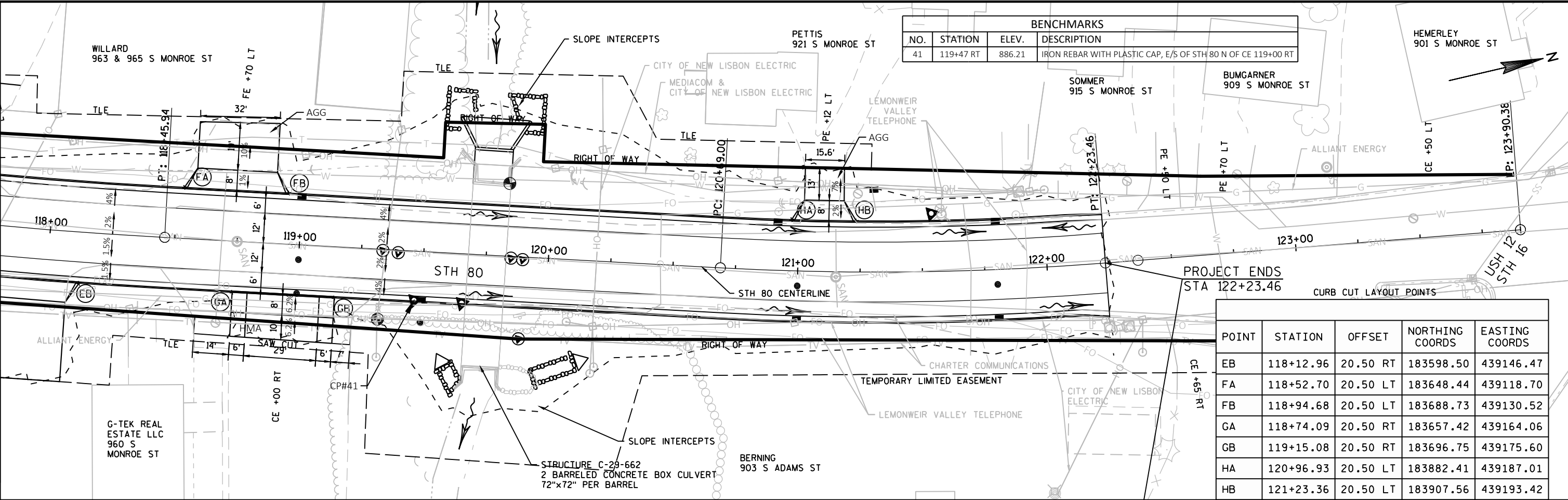
SCHULTZ

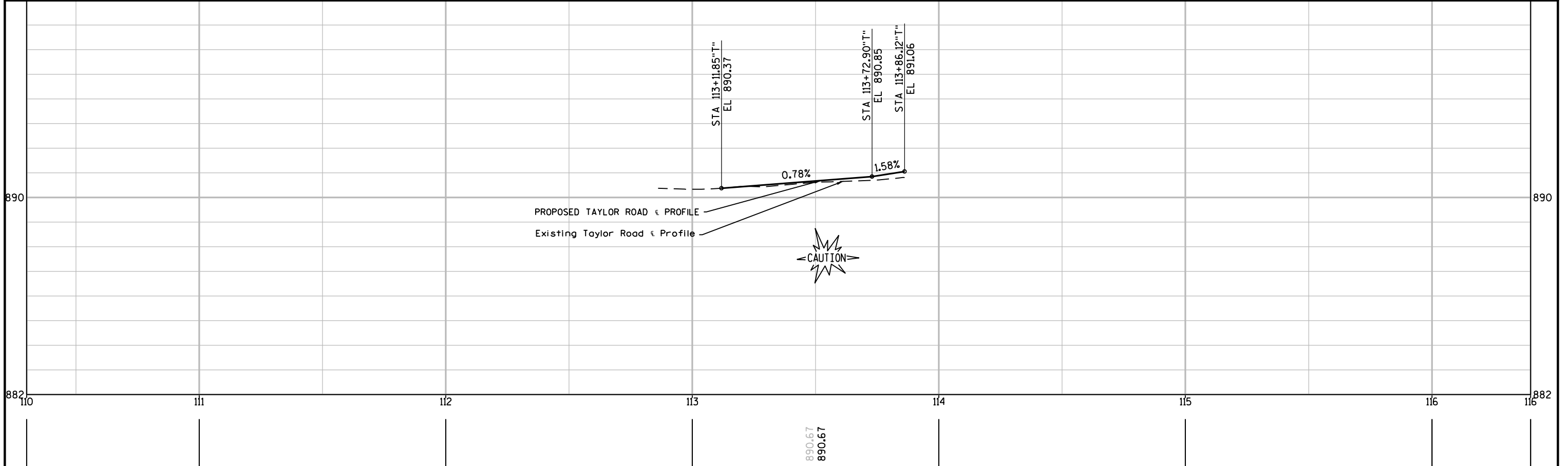
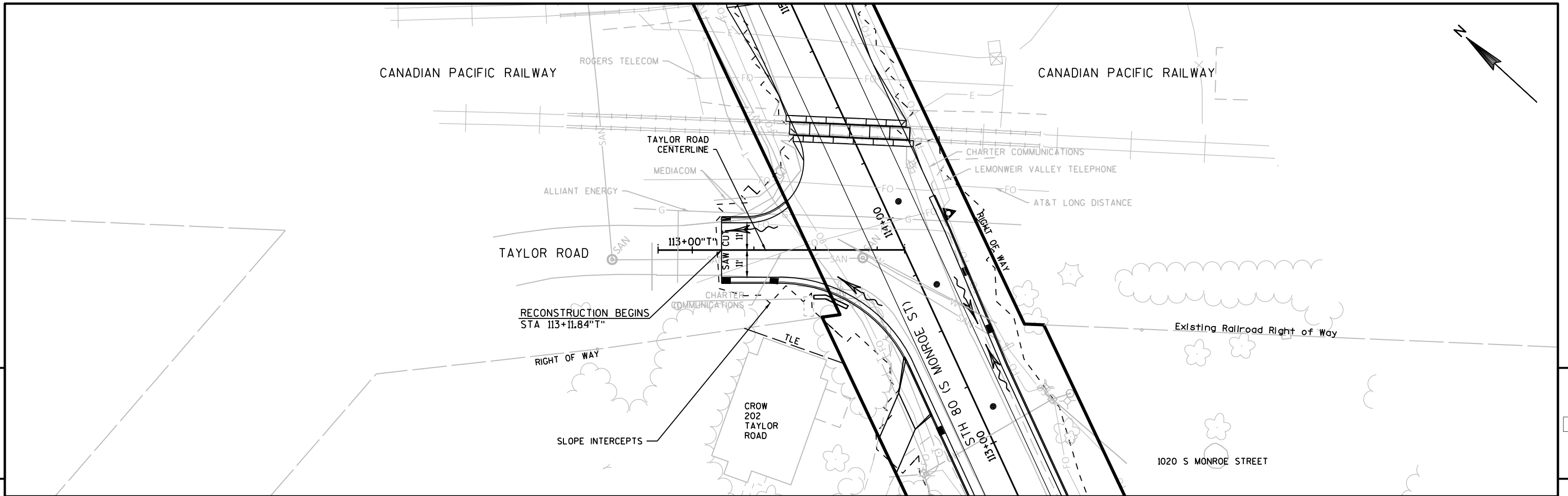


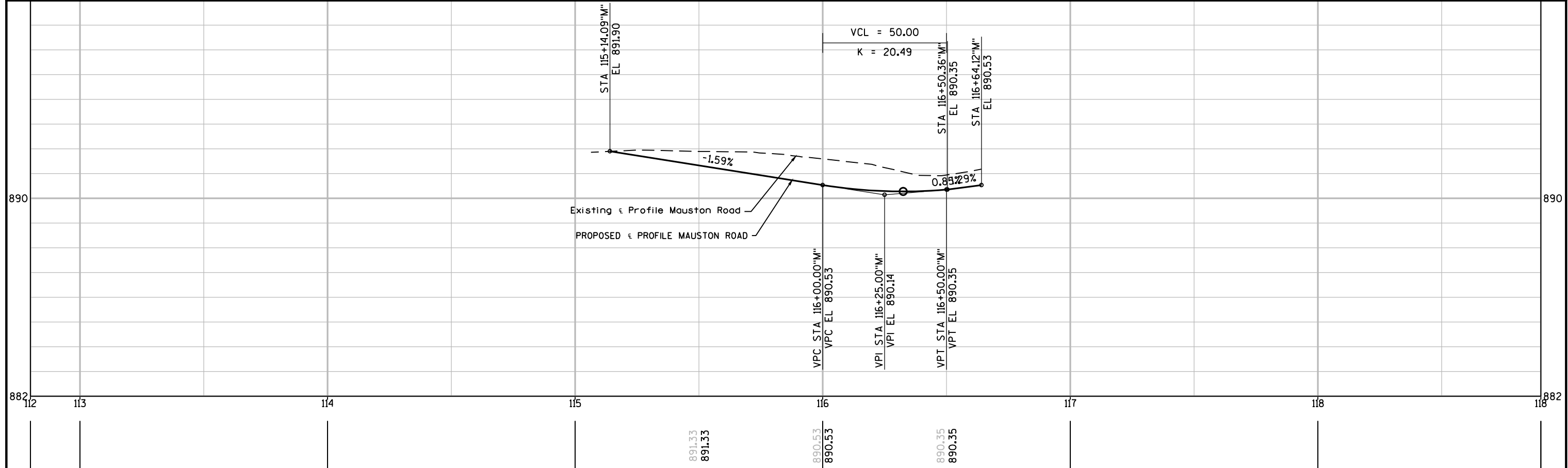
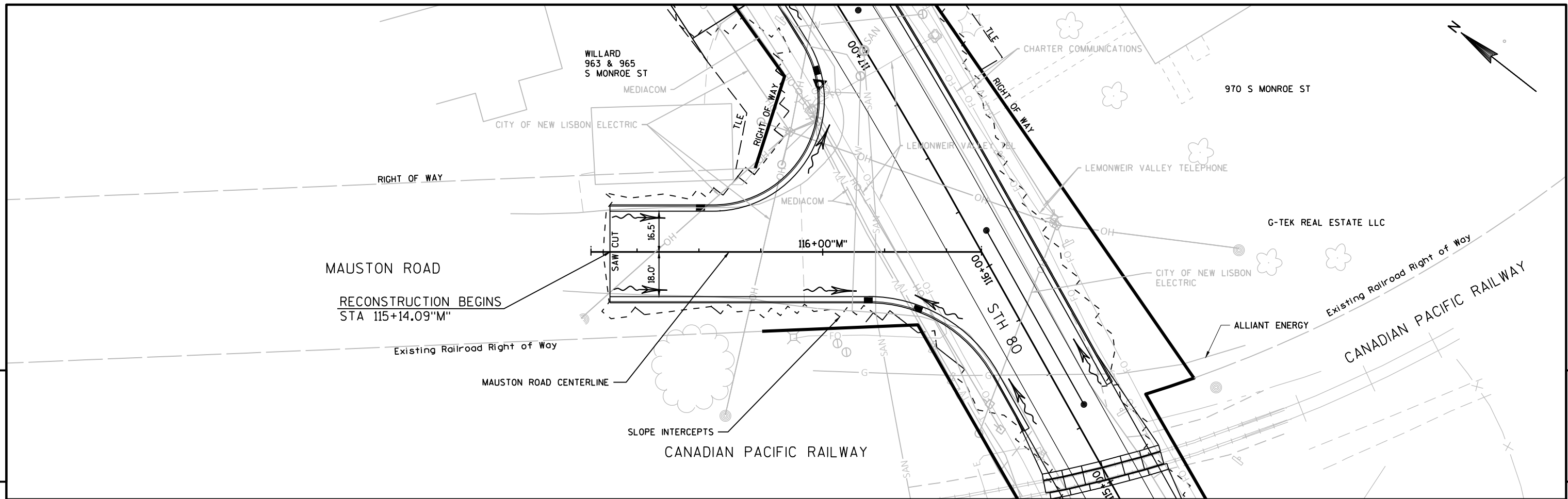


BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
42	113+92 RT	890.39	IRON BAR WITH PLASTIC CAP, E/S OF STH 80, SOUTH OF RAILROAD, ACROSS FROM TAYLOR RD





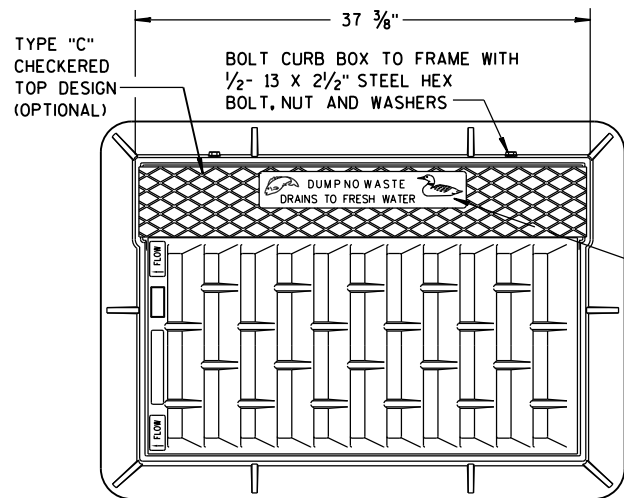




PROJECT NO:5530-03-71	HWY:STH 80	COUNTY:JUNEAU	PLAN AND PROFILE: MAUSTON ROAD	SHEET	E
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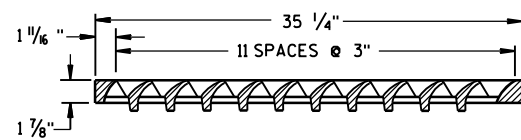
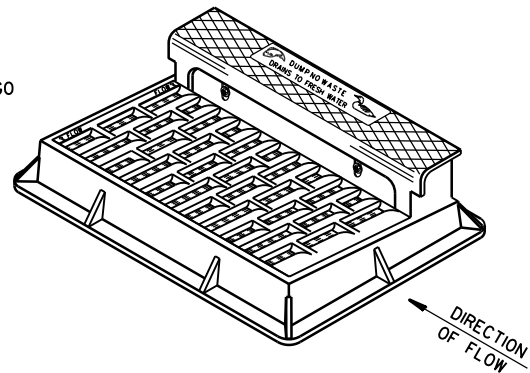
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A09-02	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D32-04	TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

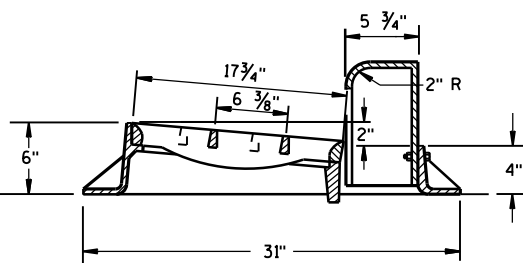
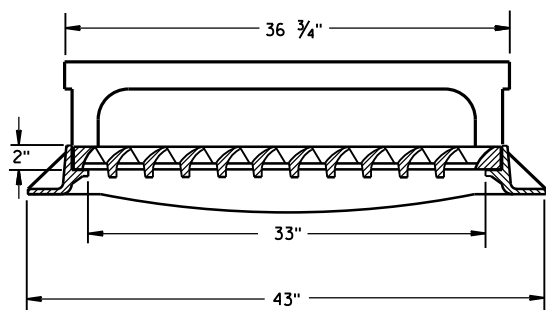
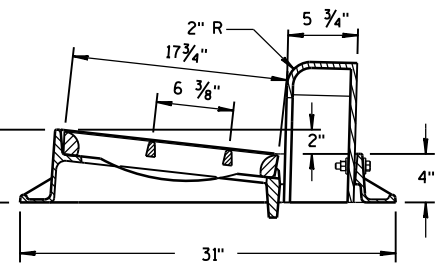
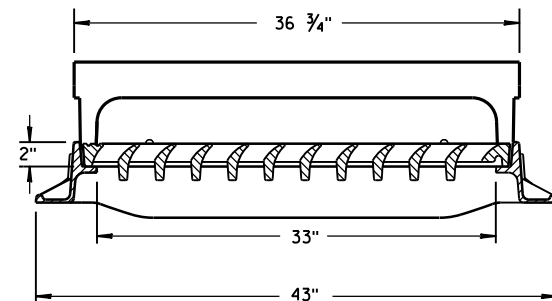


SEE LOGO
DETAIL

**NOTE:
GRATE IS REVERSIBLE.**

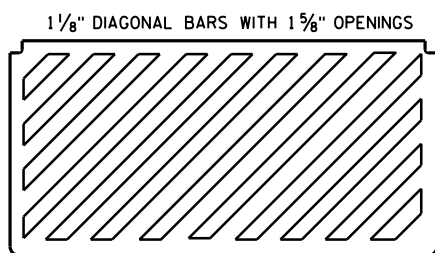


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

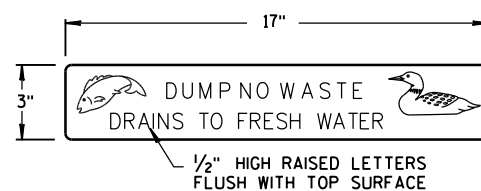


TYPE "H"

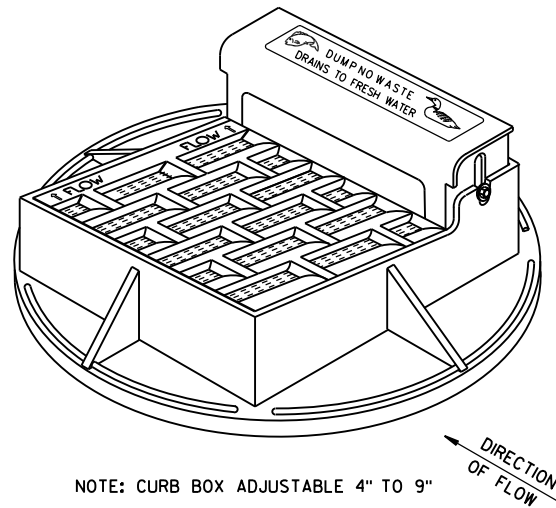
NOTE: EITHER CASTING IS ACCEPTABLE



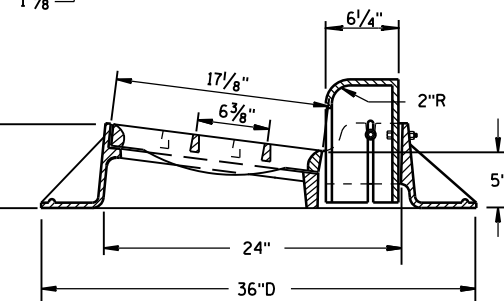
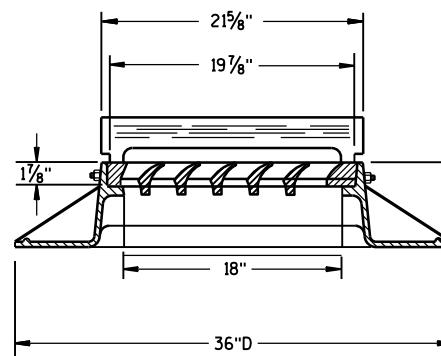
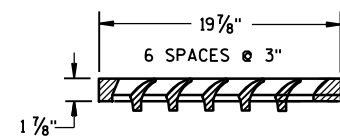
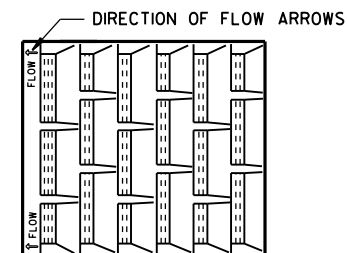
**SPECIAL GRATE FOR
TYPE "H" COVER**
(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



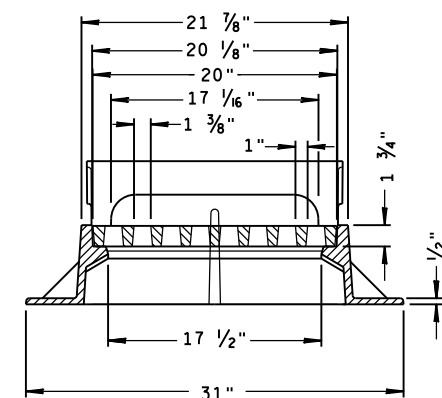
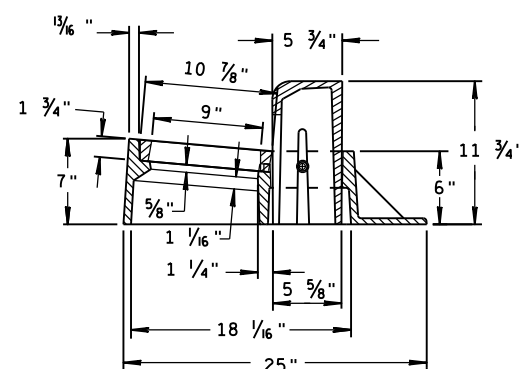
LOGO DETAIL



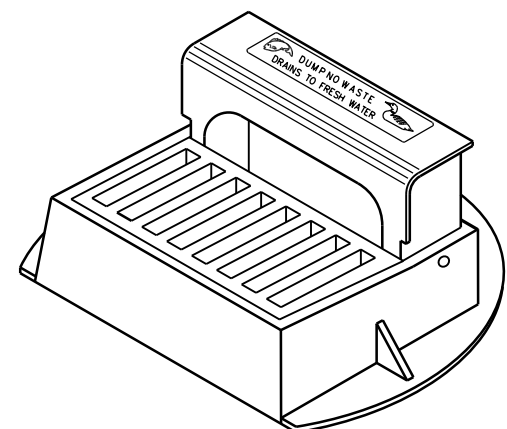
**NOTE:
GRATE IS REVERSIBLE.**



TYPE "A"



TYPE "Z"



**INLET COVERS
TYPE A, H, A-S, H-S & Z**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
11-27-13
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

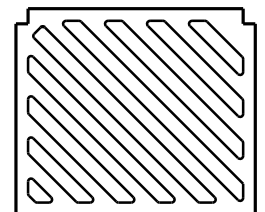
GENERAL NOTES

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

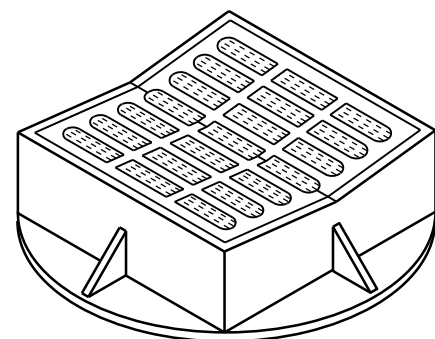
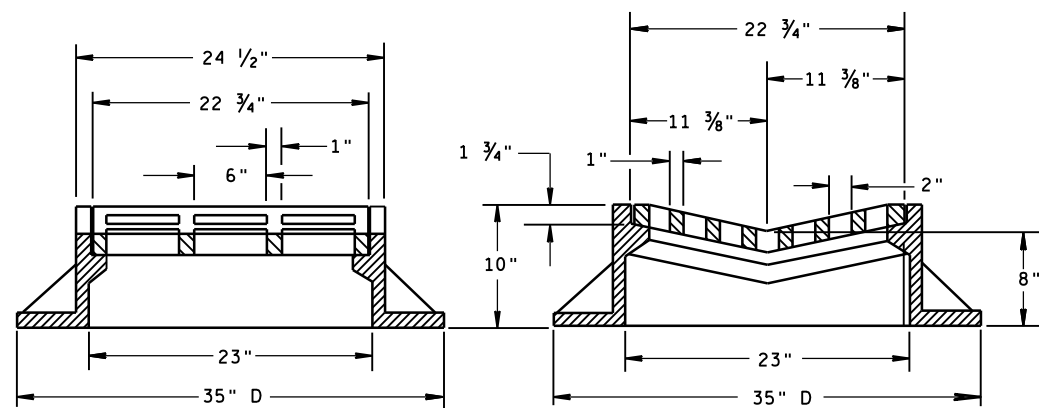
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

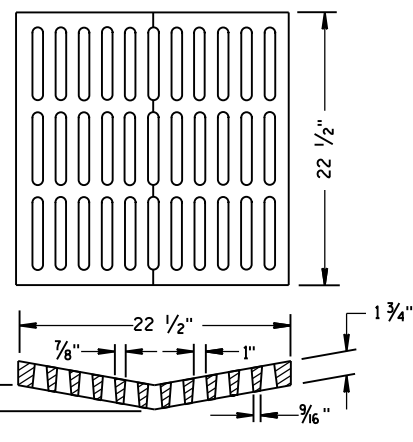
1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



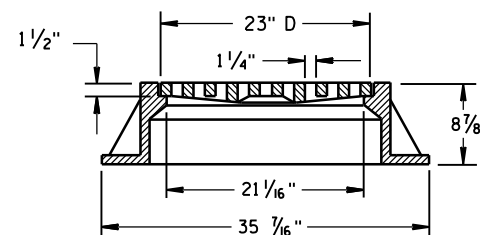
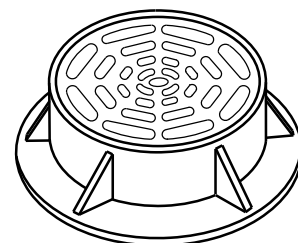
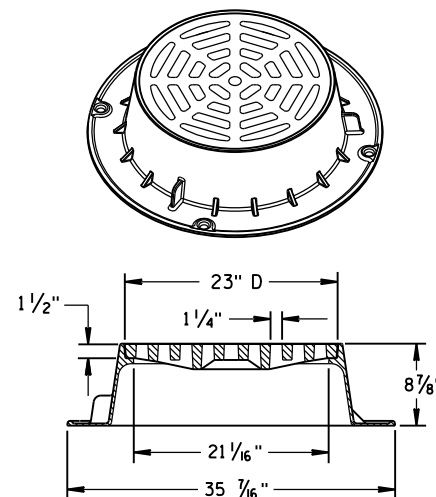
**SPECIAL GRATE FOR
TYPE "A" COVER**
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

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



TYPE "C"

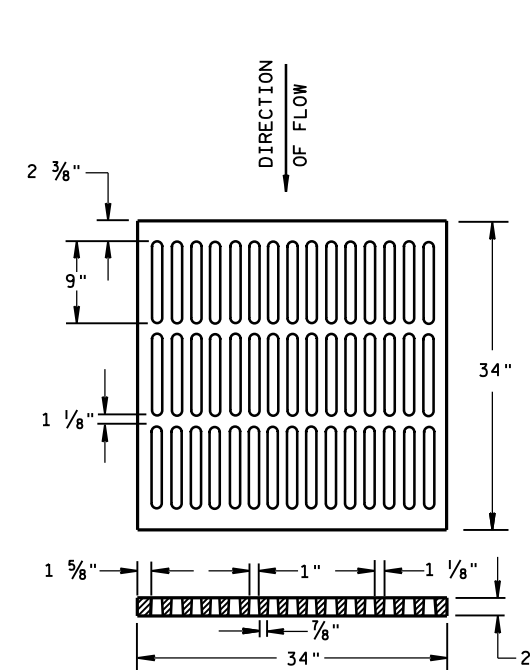
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

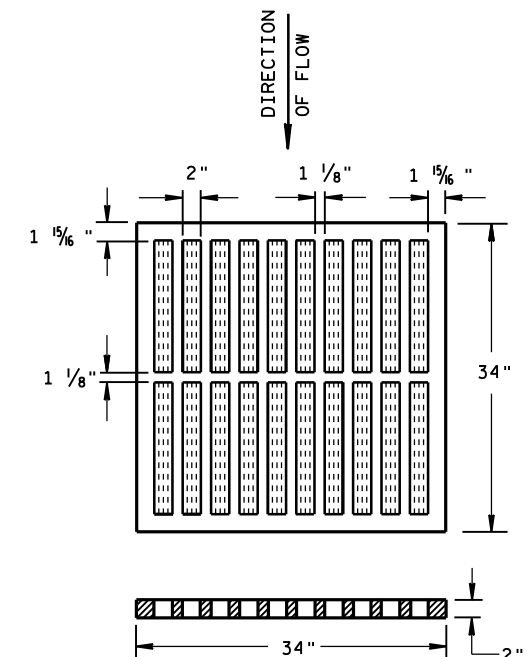
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



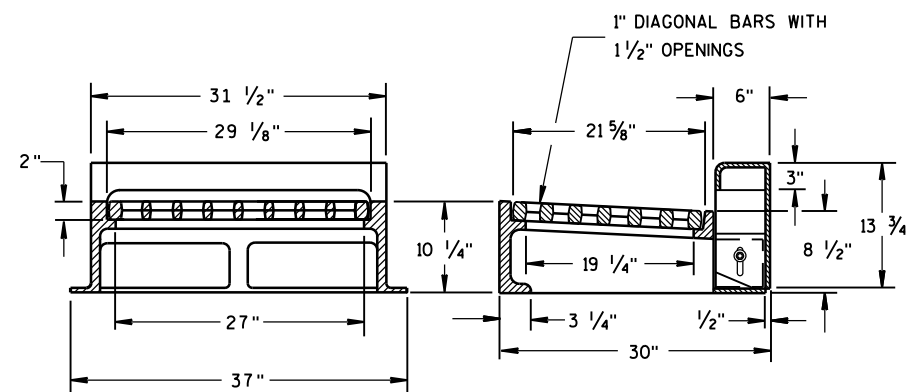
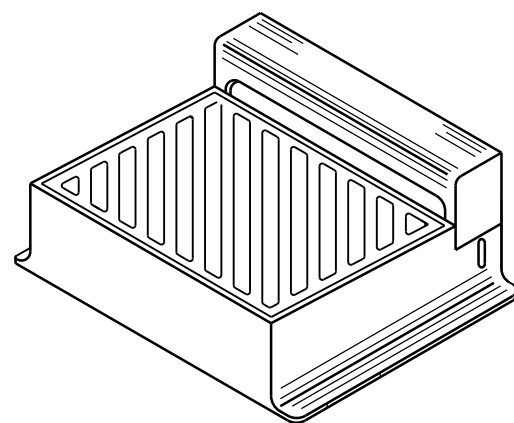
ALTERNATIVE TYPE "MS"

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



TYPE "MS"

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

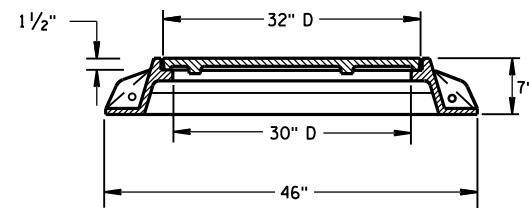
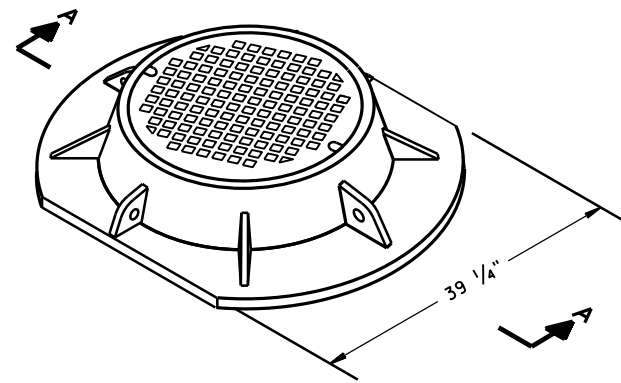
DIRECTION
OF FLOW

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

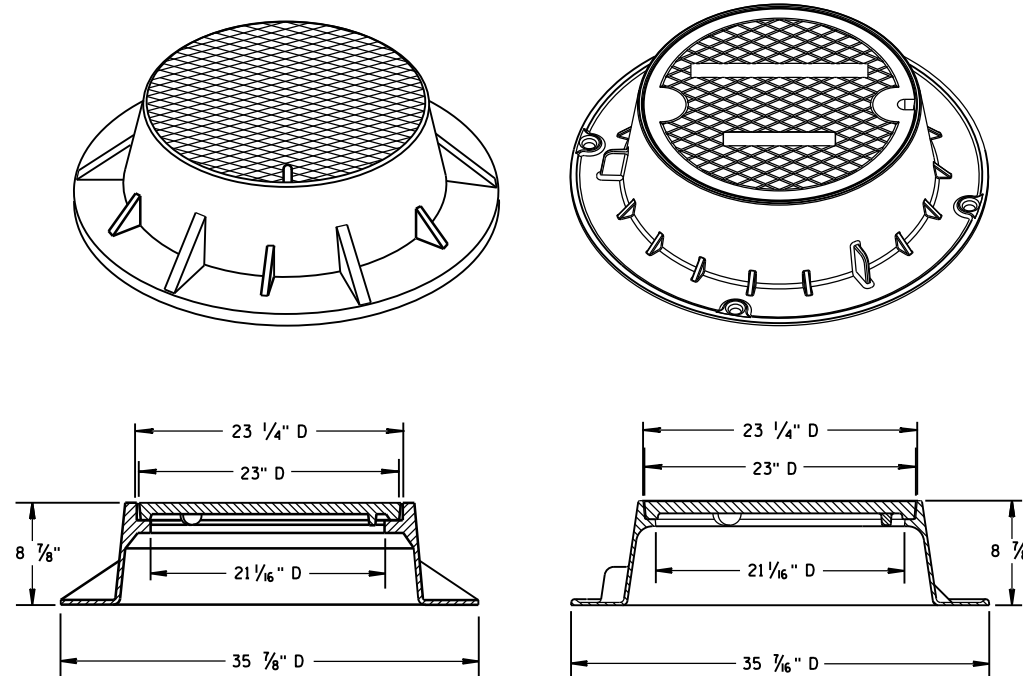
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 11/27/2013
 DATE
 FHWA

/S/ Jerry H. Zogg
 ROADWAY STANDARDS DEVELOPMENT
 ENGINEER

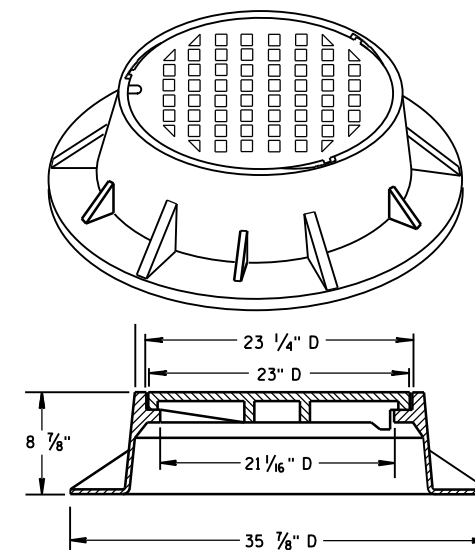
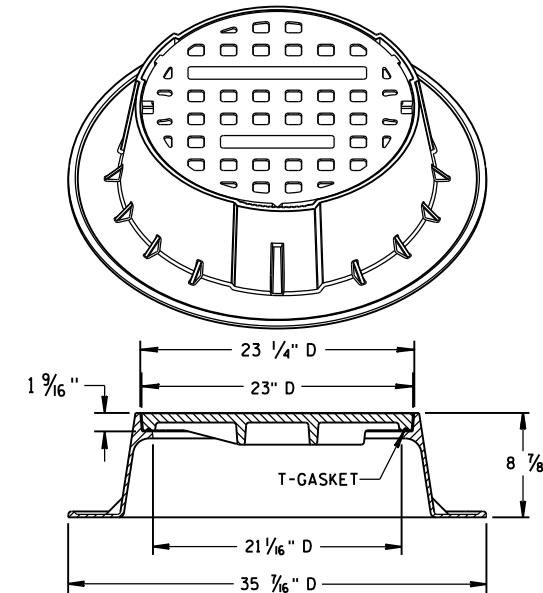


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

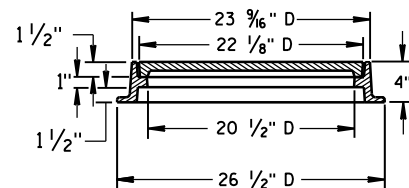
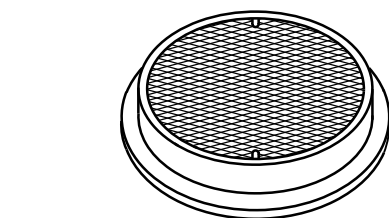


TYPE "J" SPECIAL

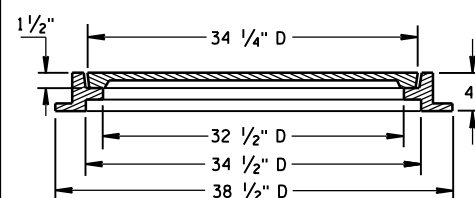
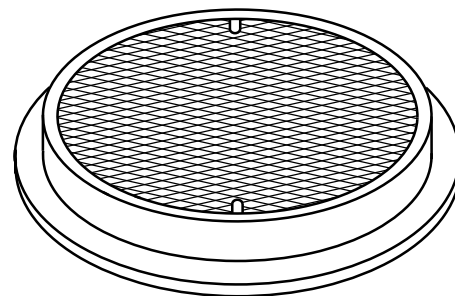
TYPE "B" NON-ROCKING SELF-SEAL LID

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

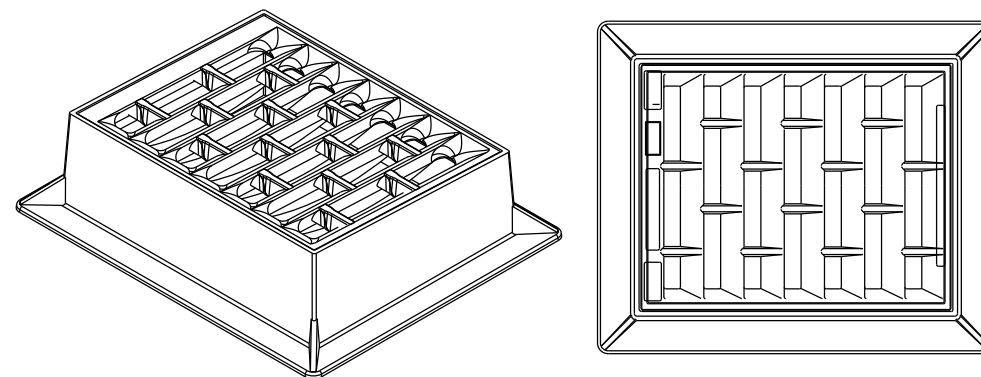
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

GENERAL NOTES

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

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

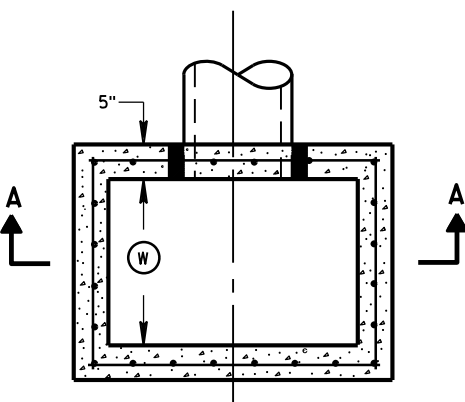
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K,
J, J-S, L & M

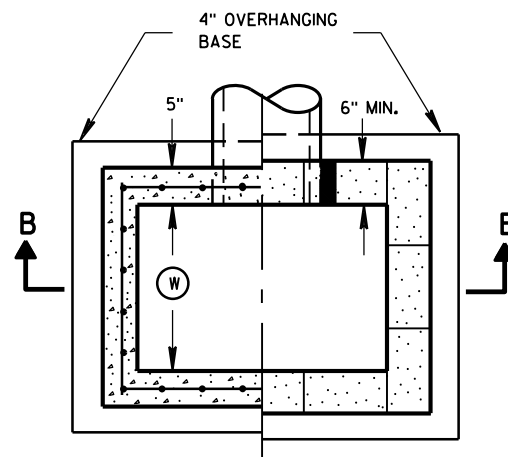
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

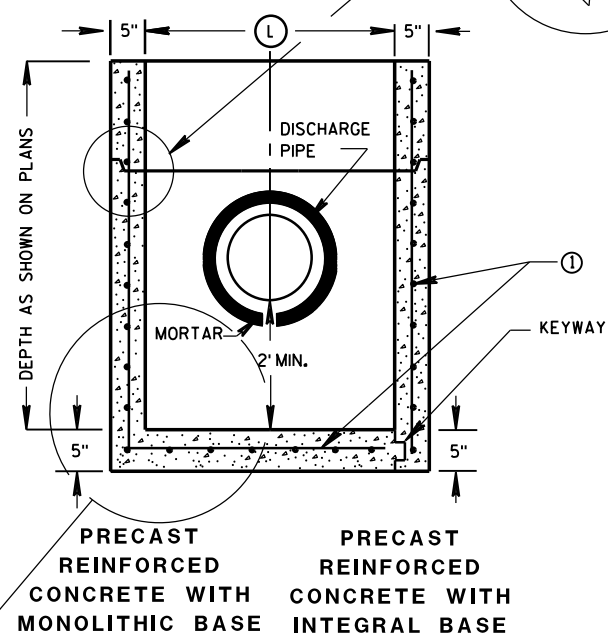
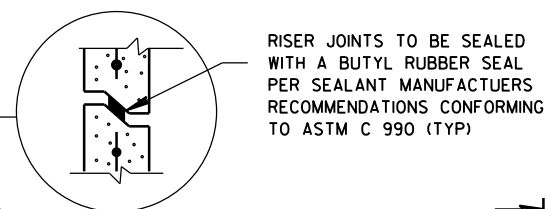
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



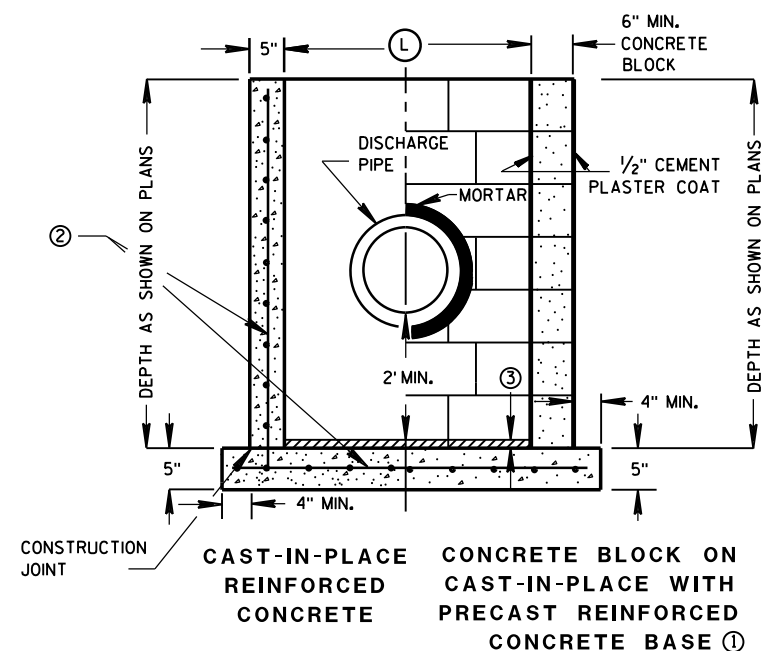
PLAN VIEW



PLAN VIEW



SECTION A-A



SECTION B-B

SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

CATCH BASINS 2X3-FT AND 2.5X3-FT

GENERAL NOTES

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

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

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

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

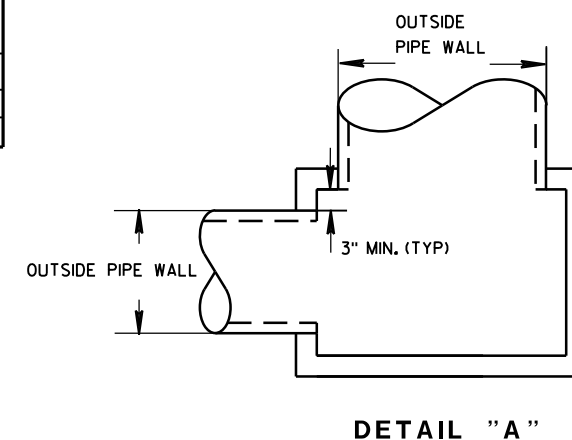
- ① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.
- ③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE	WIDTH ① (FT)	LENGTH ② (FT)	F	ALL H'S
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24

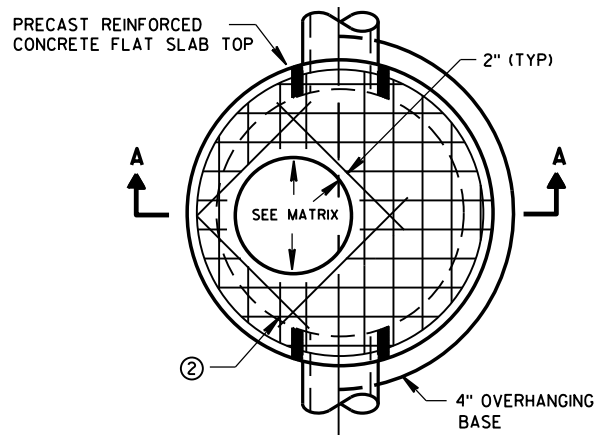


DETAIL "A"

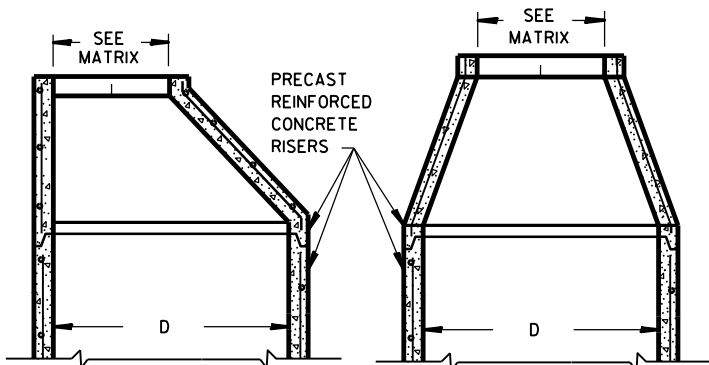
CATCH BASINS 2X3-FT
AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

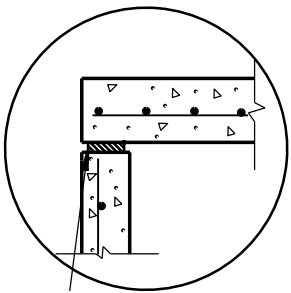


PLAN VIEW CIRCULAR OPENING

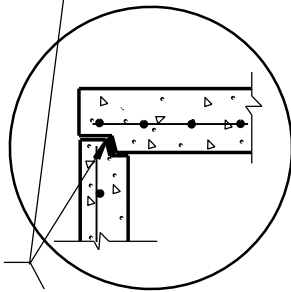


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

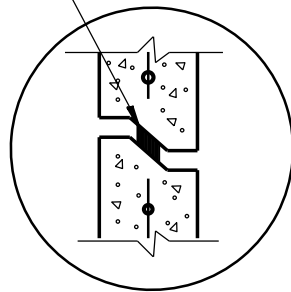
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

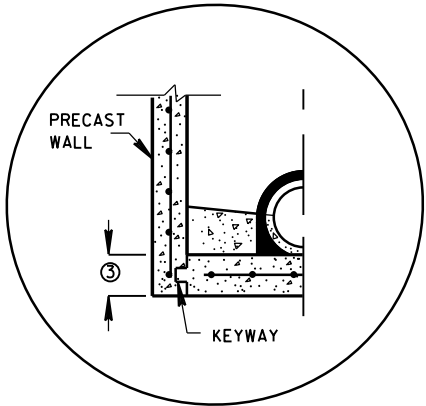


TOP WITH TONGUE AND GROOVE JOINT

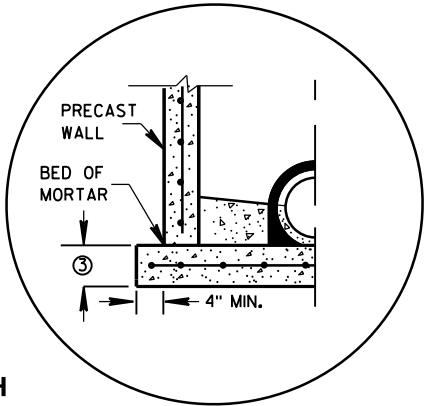


DETAIL "B"

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

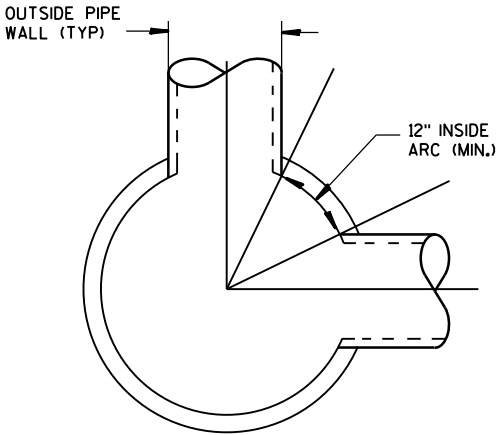


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

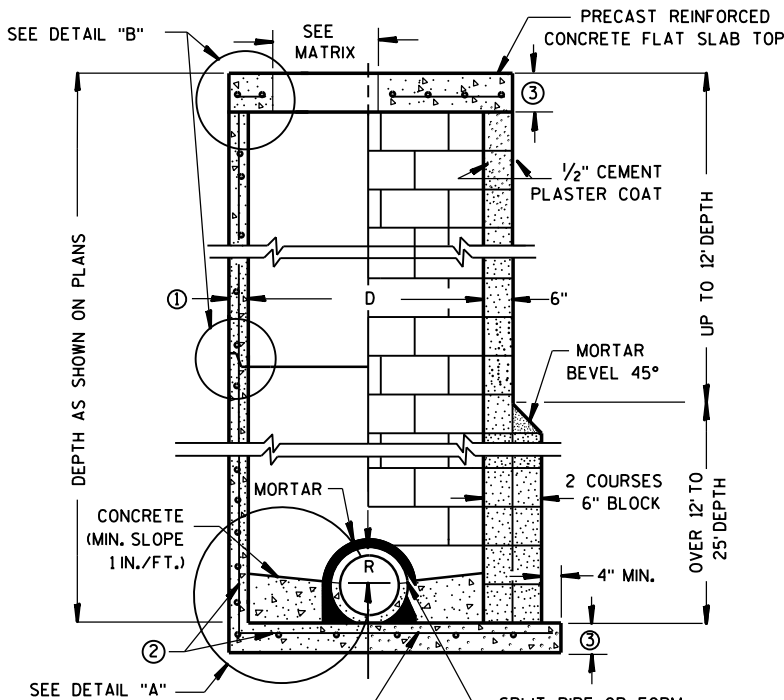


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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

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

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

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

MANHOLE COVER OPENING MATRIX

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

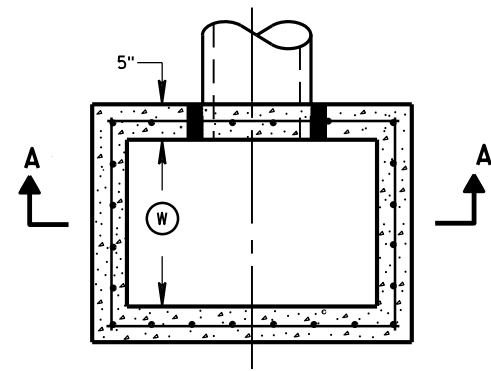
PIPE MATRIX

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

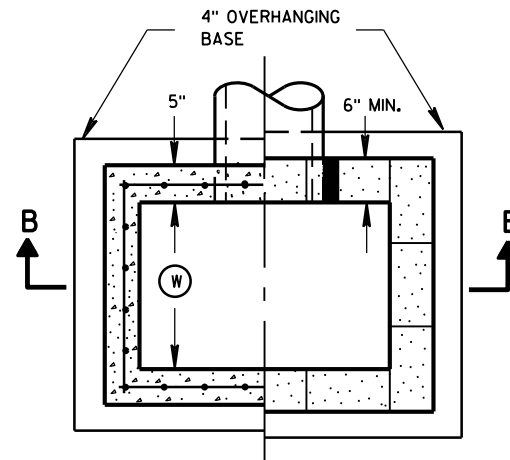
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

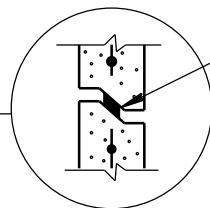
APPROVED
Sep 11, 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



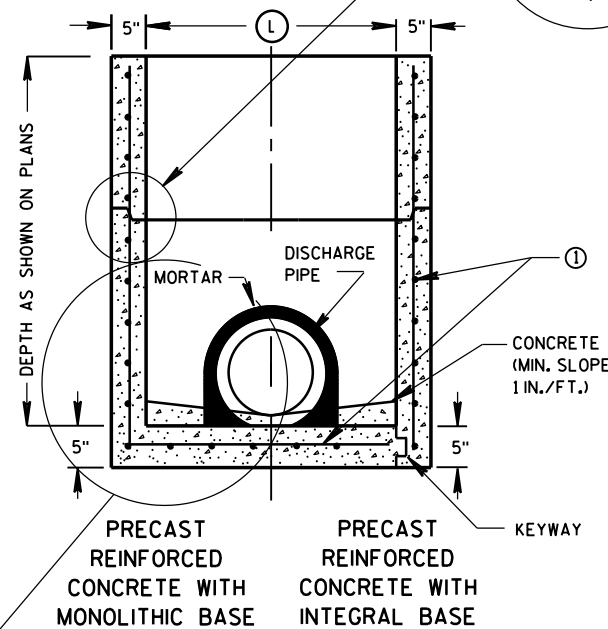
PLAN VIEW



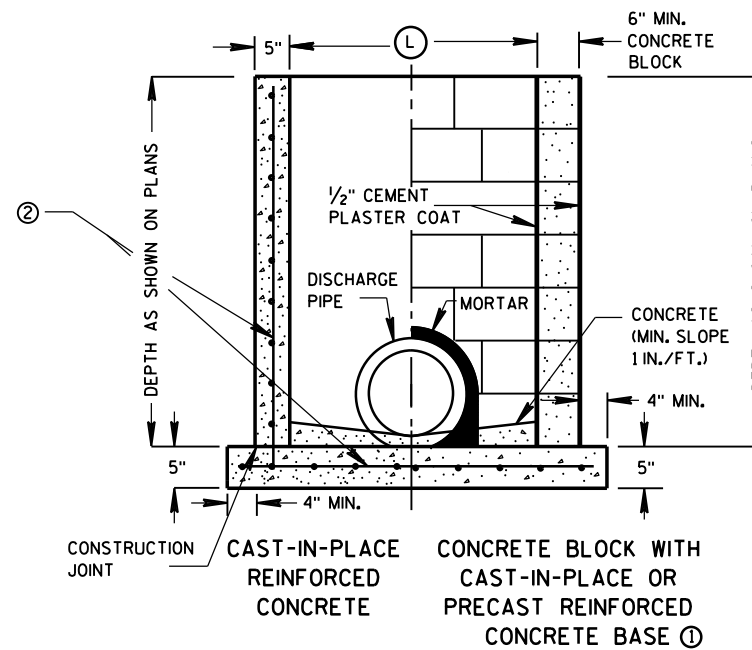
PLAN VIEW



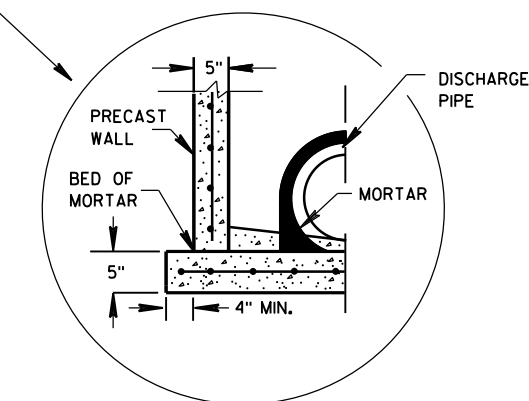
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

GENERAL NOTES

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

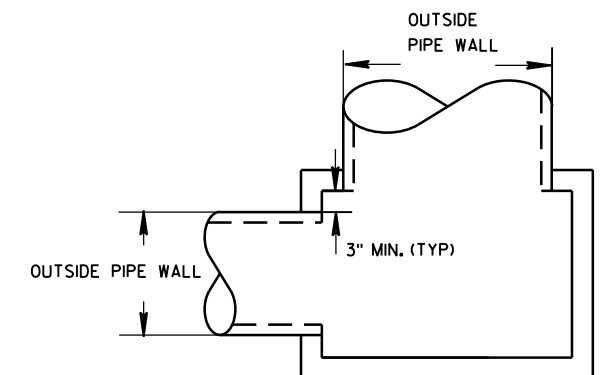
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	WIDTH ① (FT)	INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
		LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

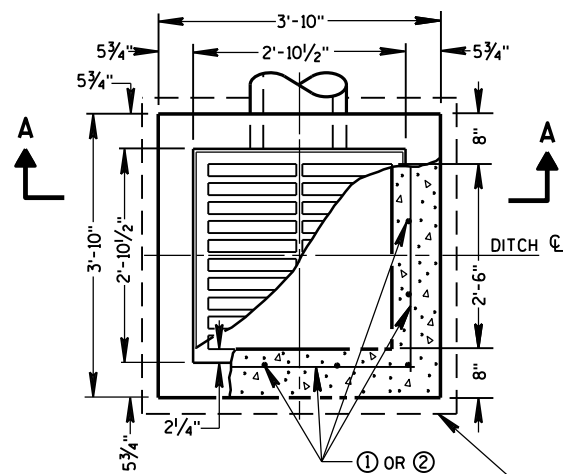


DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

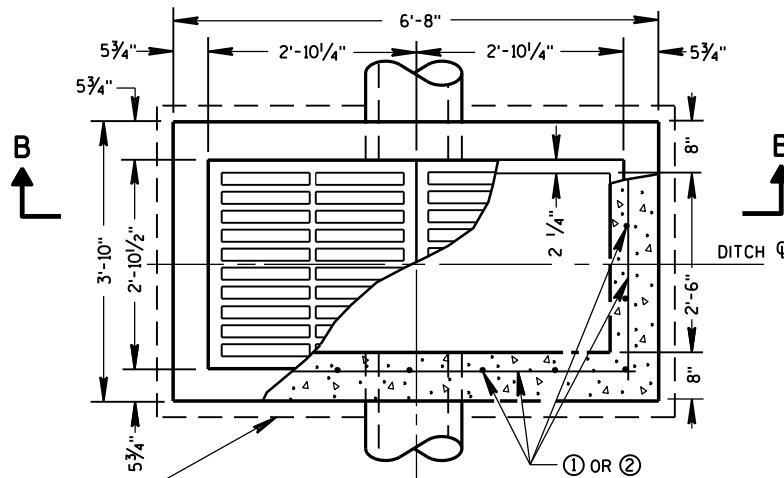
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

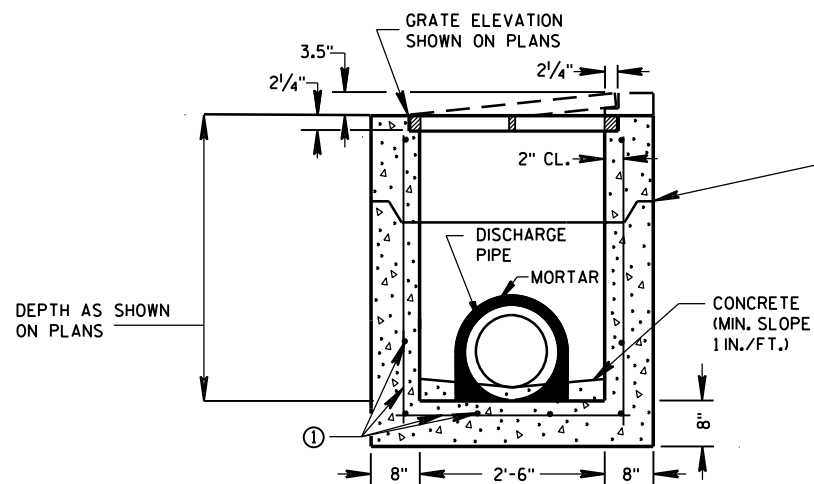


PLAN VIEW

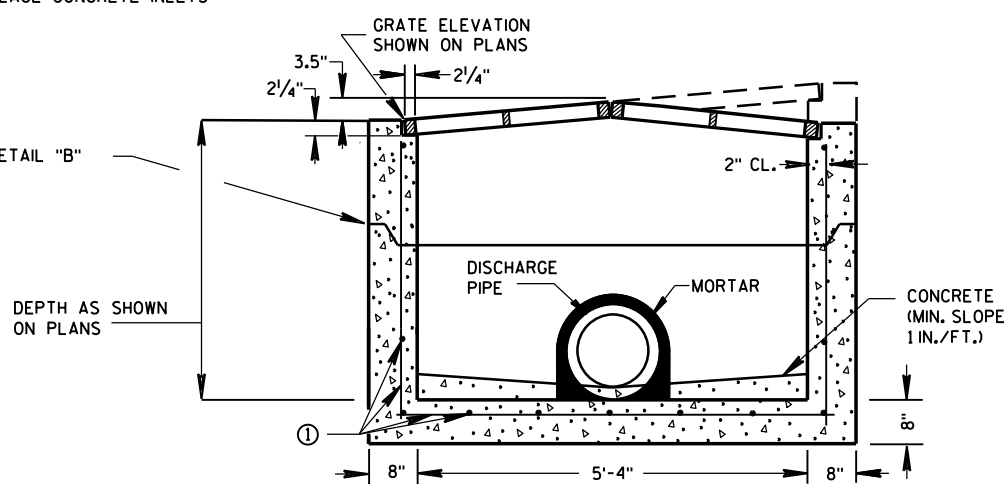
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



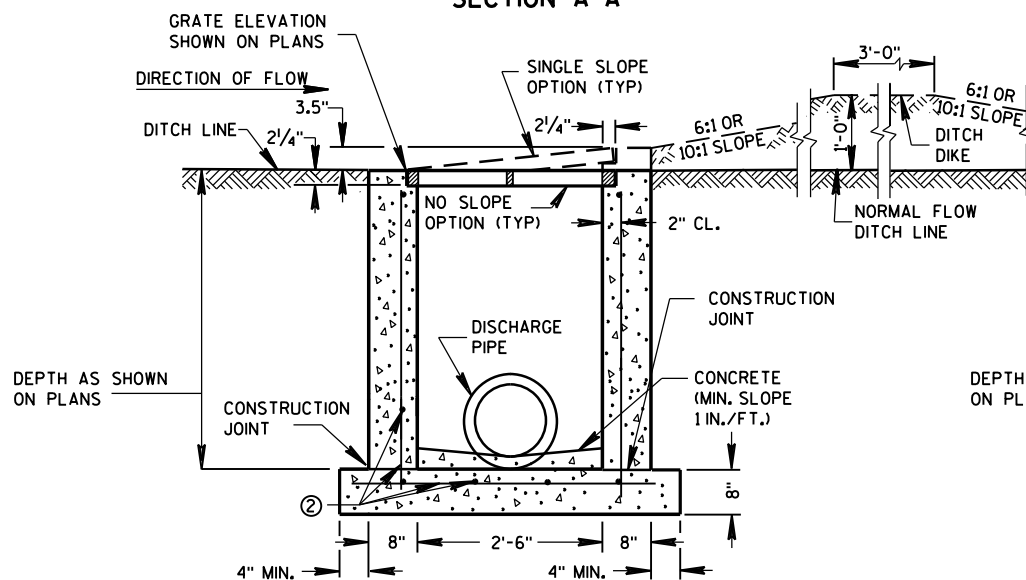
PLAN VIEW



PRECAST REINFORCED CONCRETE SECTION A-A

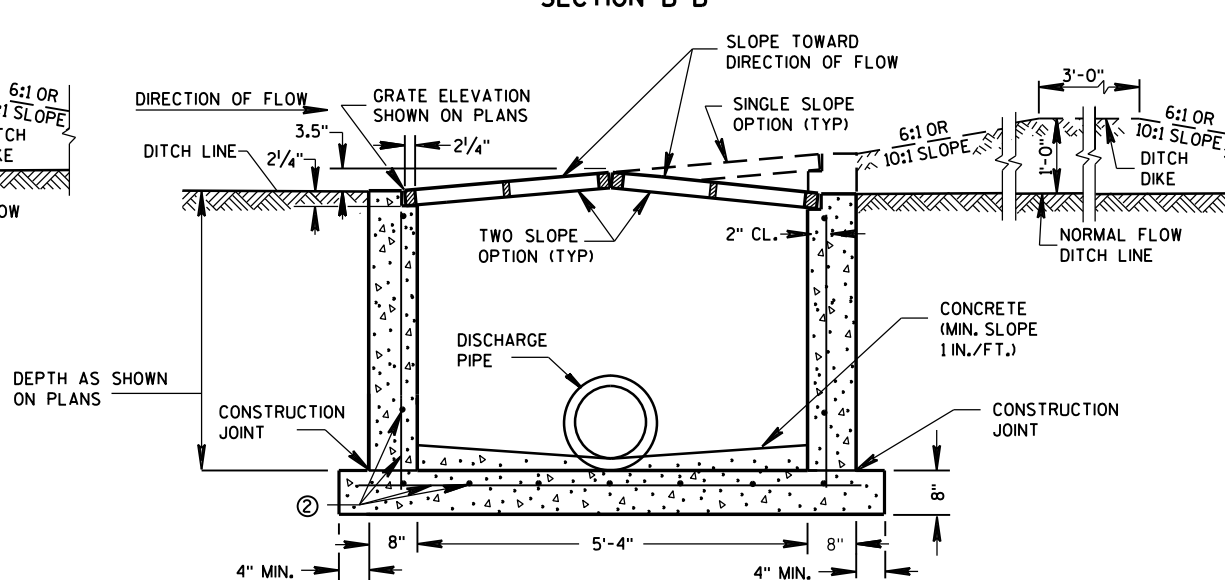


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT. BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

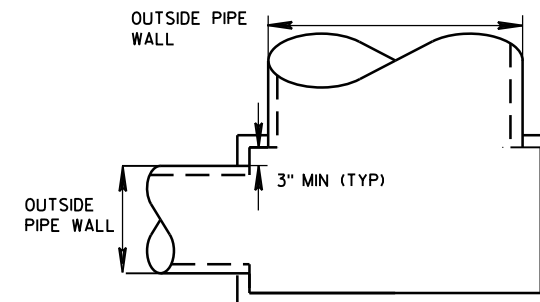
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

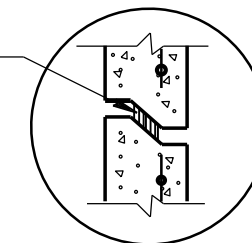
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



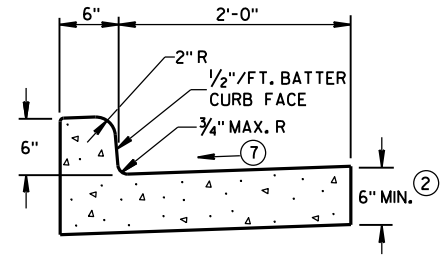
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

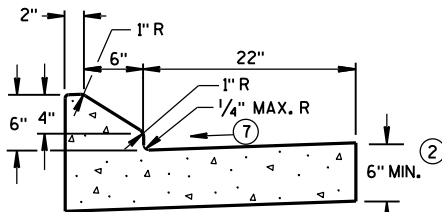
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

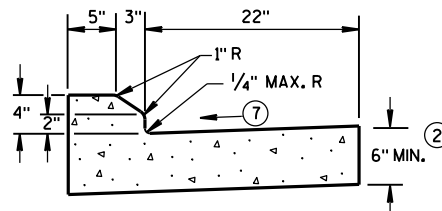
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



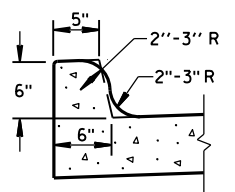
TYPES A^① & D



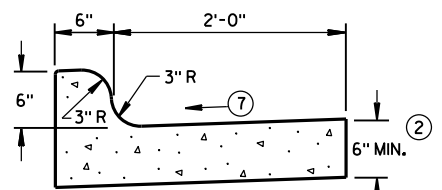
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

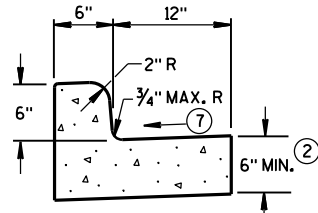


TYPES K^① & L
(OPTIONAL CURB SHAPE)



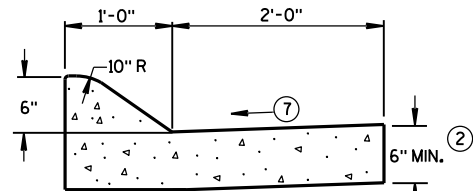
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

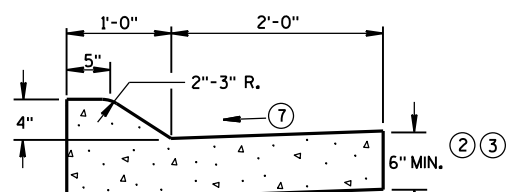


TYPES A^① & D

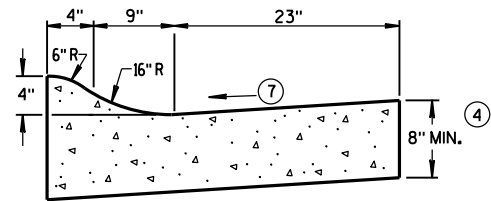
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

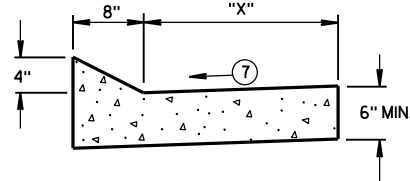


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

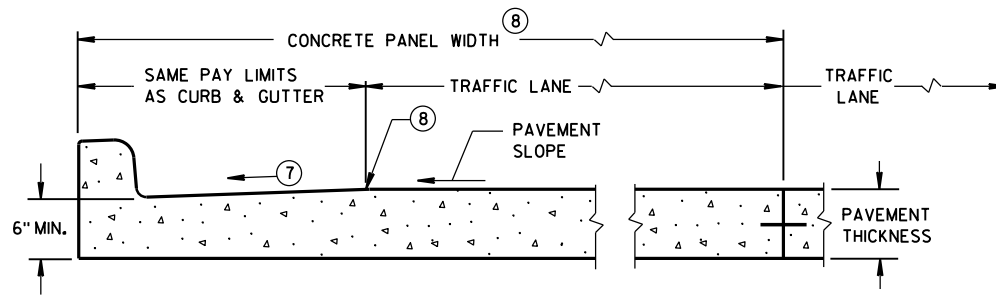
CONCRETE CURB & GUTTER 36"



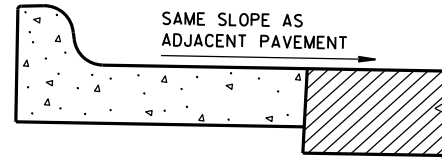
TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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

GENERAL NOTES

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

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

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

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

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

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

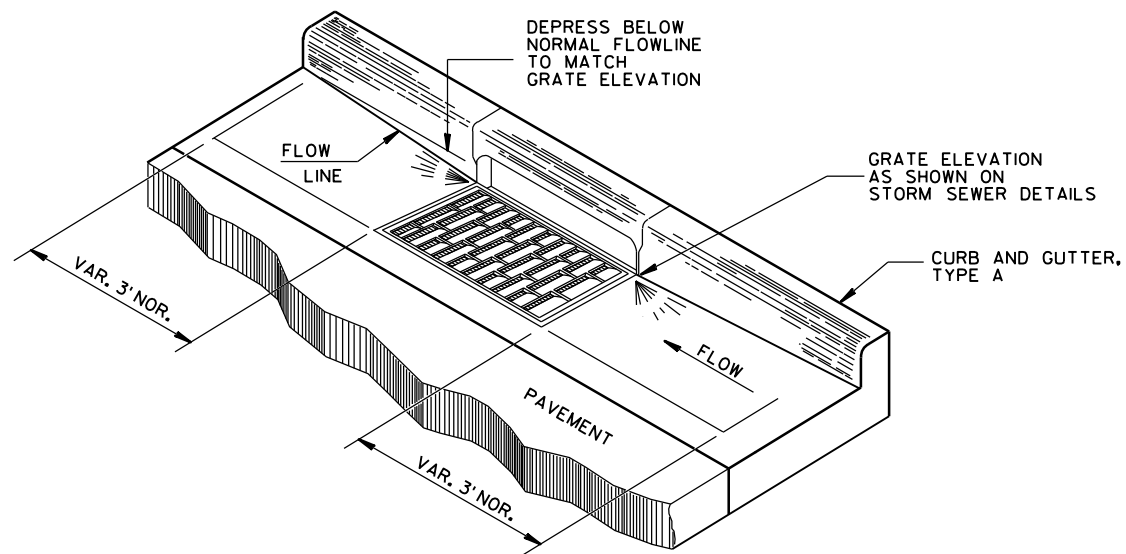
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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

* BIKE LANE IS NOT SHOWN.

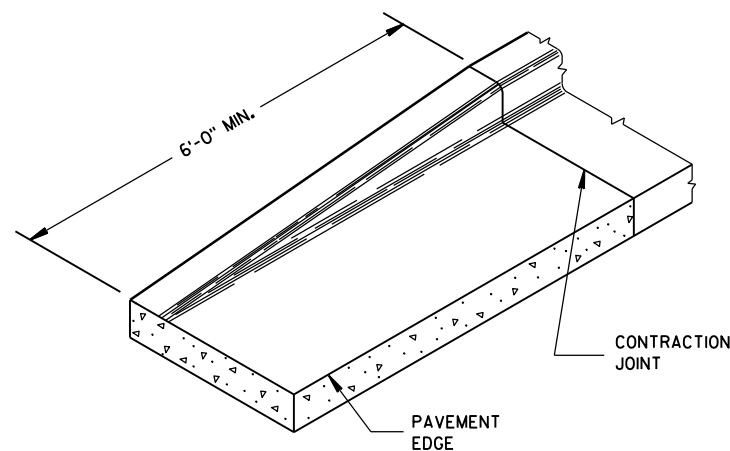
CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

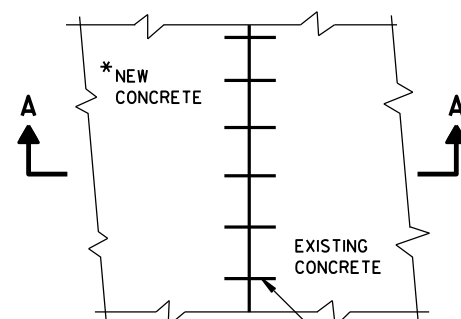


DETAIL OF CURB AND GUTTER AT INLETS

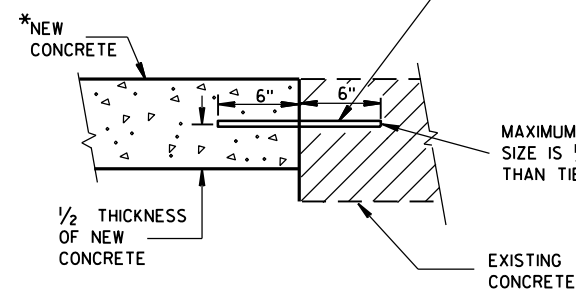
(TYPE H INLET COVER SHOWN)



END SECTION CURB & GUTTER



PLAN VIEW



**TIE BARS DRILLED
INTO EXISTING PAVEMENT**

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

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

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

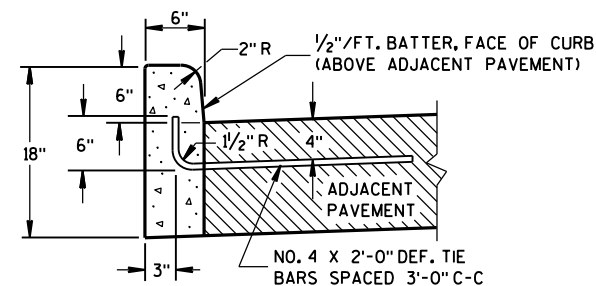
GENERAL NOTES

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

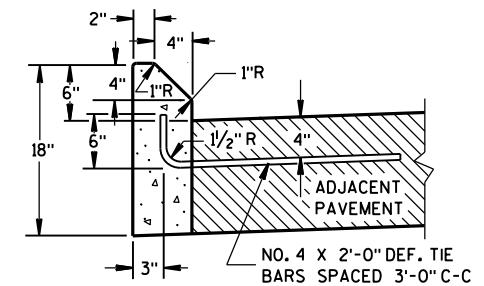
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

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

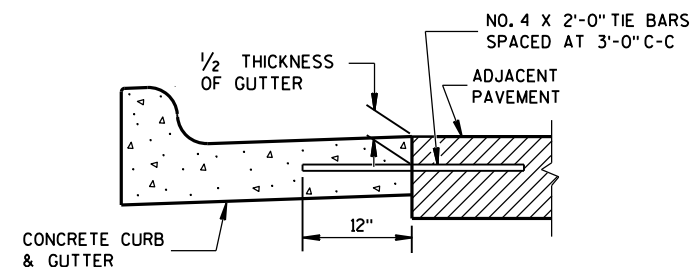


TYPES A^① & D

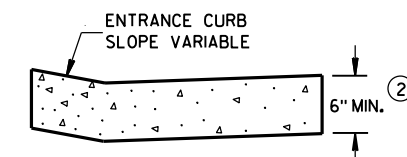


TYPES G^① & J

CONCRETE CURB



TYPICAL TIE BAR LOCATION^①



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

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2017

DATE

FHWA

/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

6



PLAN VIEW
FLUME AT CURB END



6

S.D.D. 8 D 4-5

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

EXPANSION JOINT

CONCRETE CURB AND GUTTER

2" MIN. CURB HEIGHT

4" R

8'-0"

4'-0"

EDGE OF PAVEMENT

3'-0" MIN.

SURFACE DRAIN IS SYMMETRICAL WHEN CURB AND GUTTER IS CONTINUED

SHOULDER OR BERM HINGE POINT

4'-0"

JOINTS

W3 WIRE MESH (SEE SECTION D-D)

RIPRAP

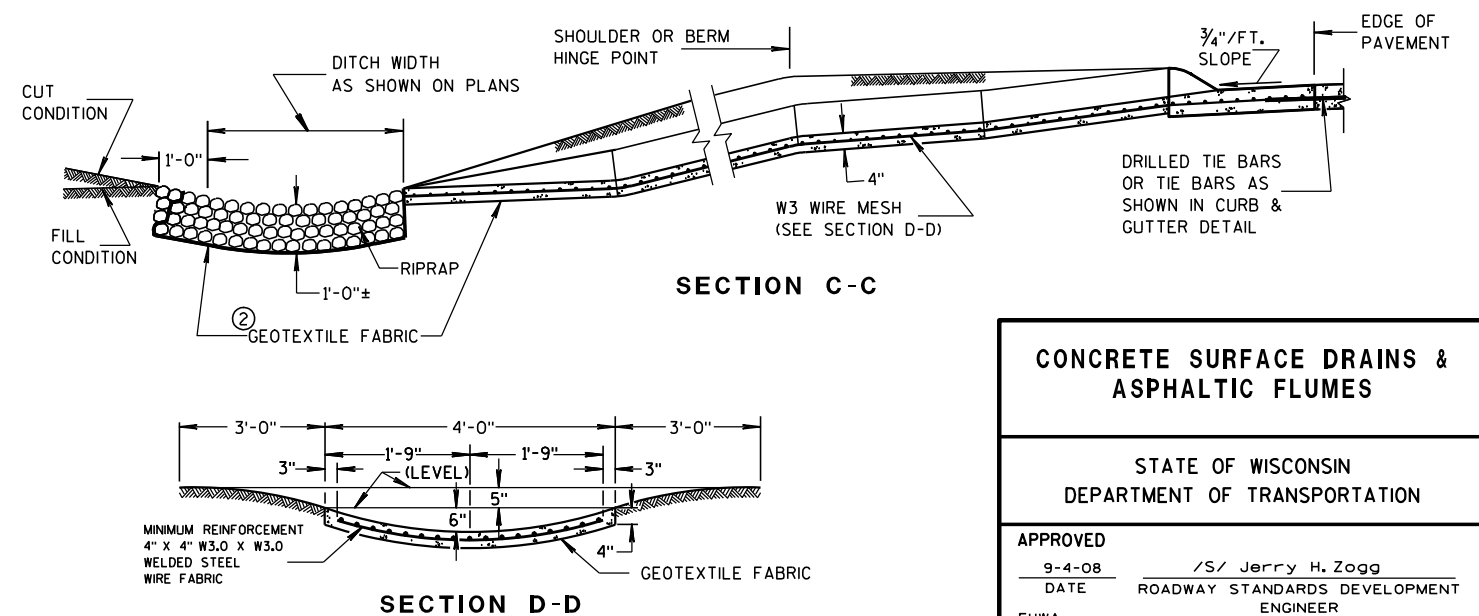
6'-0" OR AS REQUIRED

1'-0" ON CUT SLOPE

DITCH

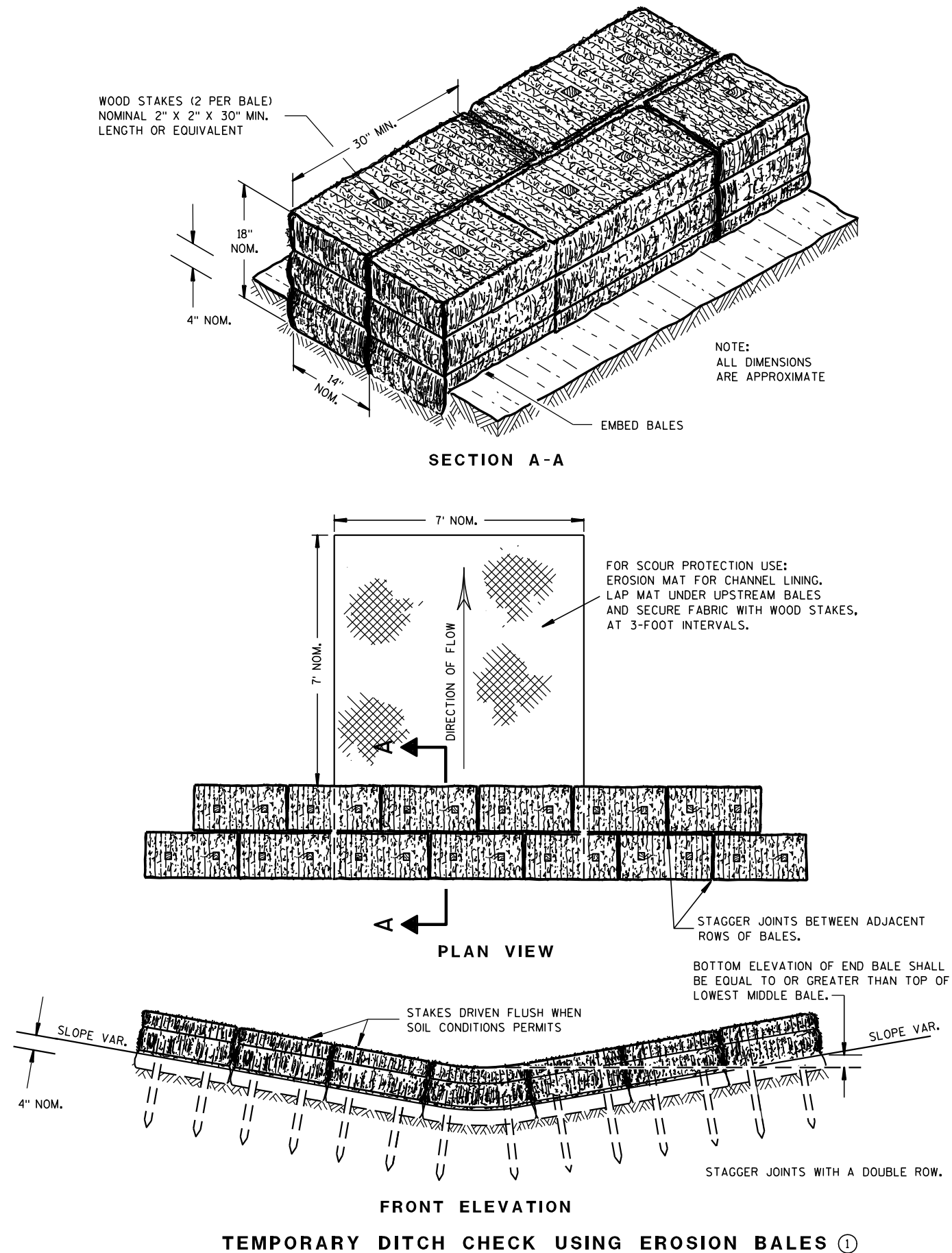
PLAN VIEW

PLAN VIEW



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

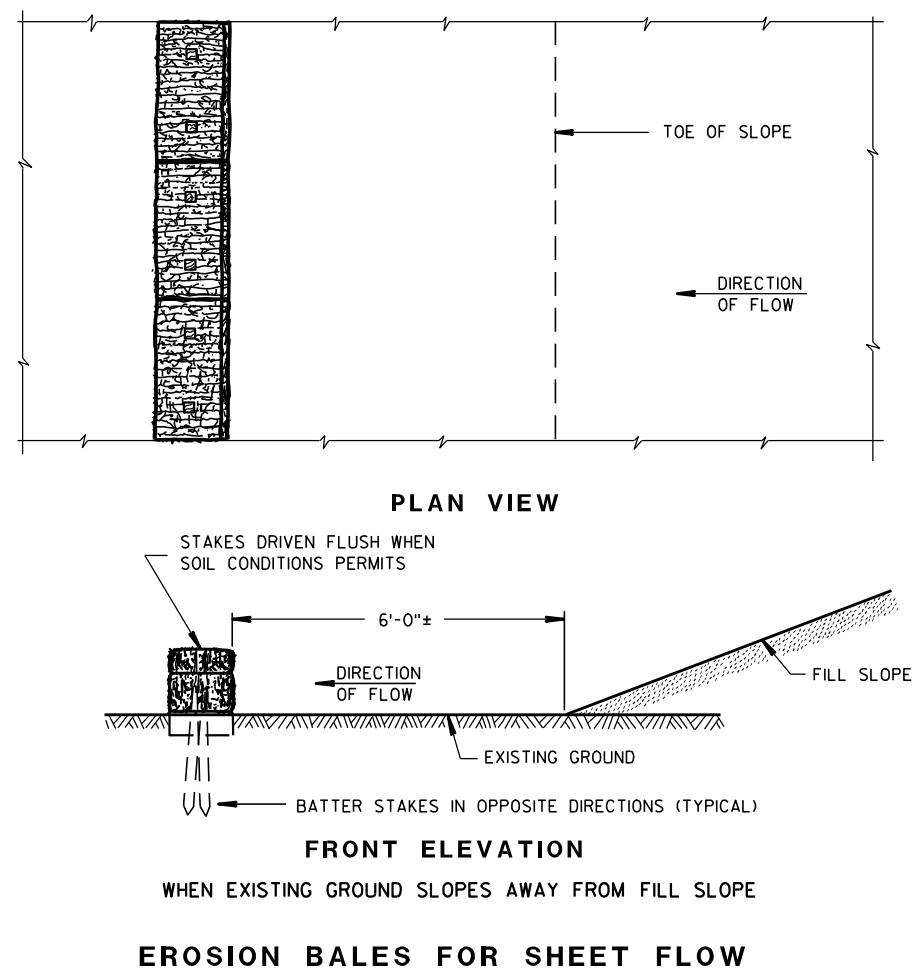
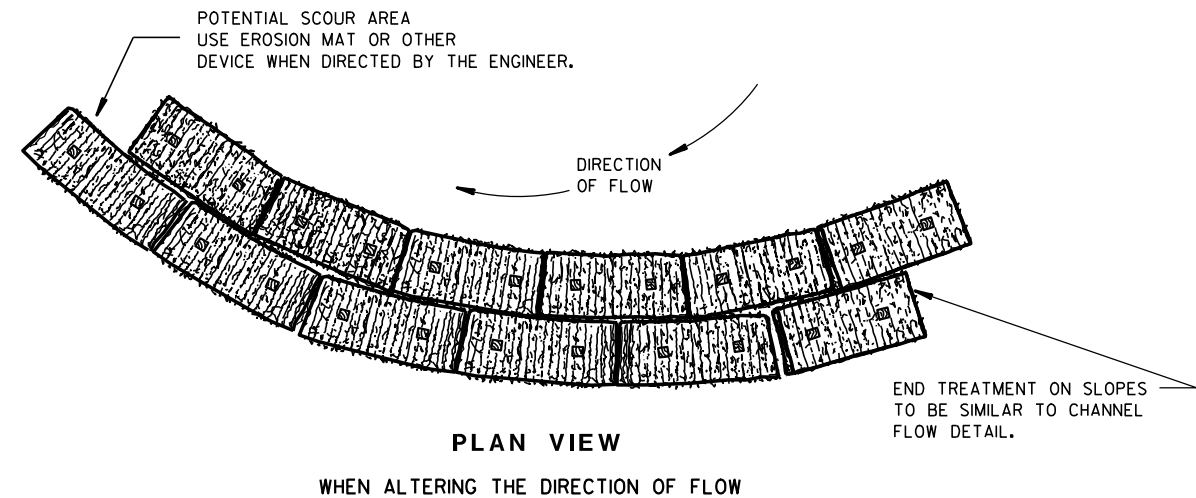
APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



GENERAL NOTES

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

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

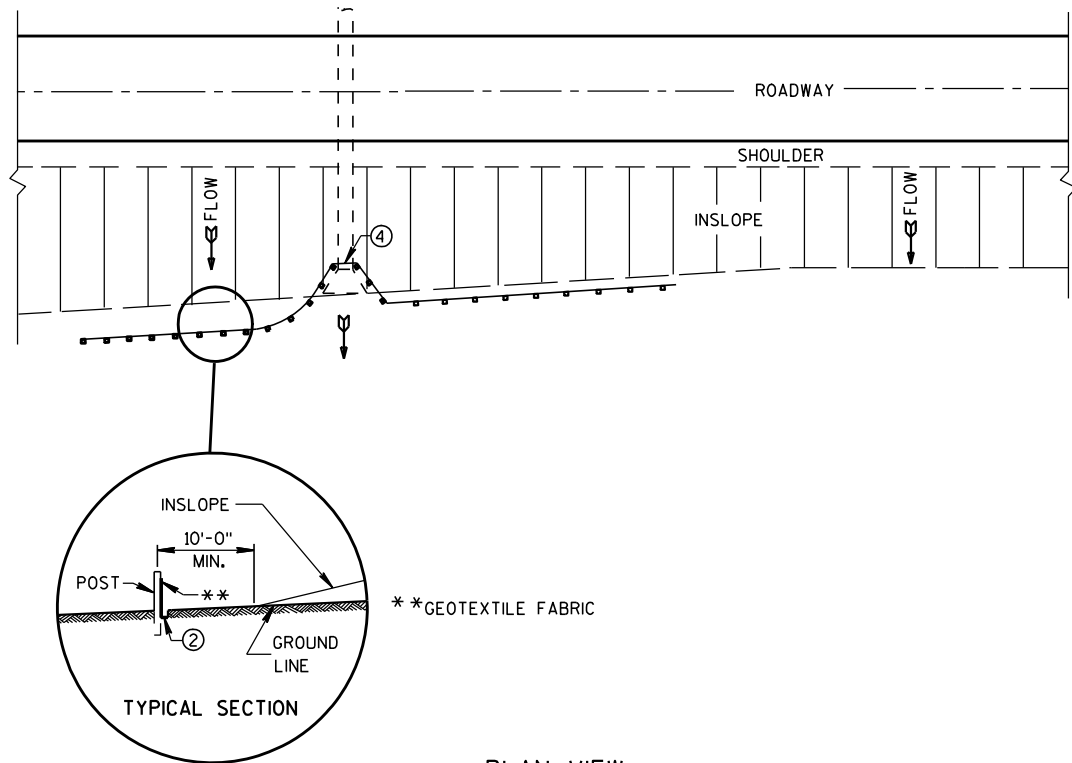
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

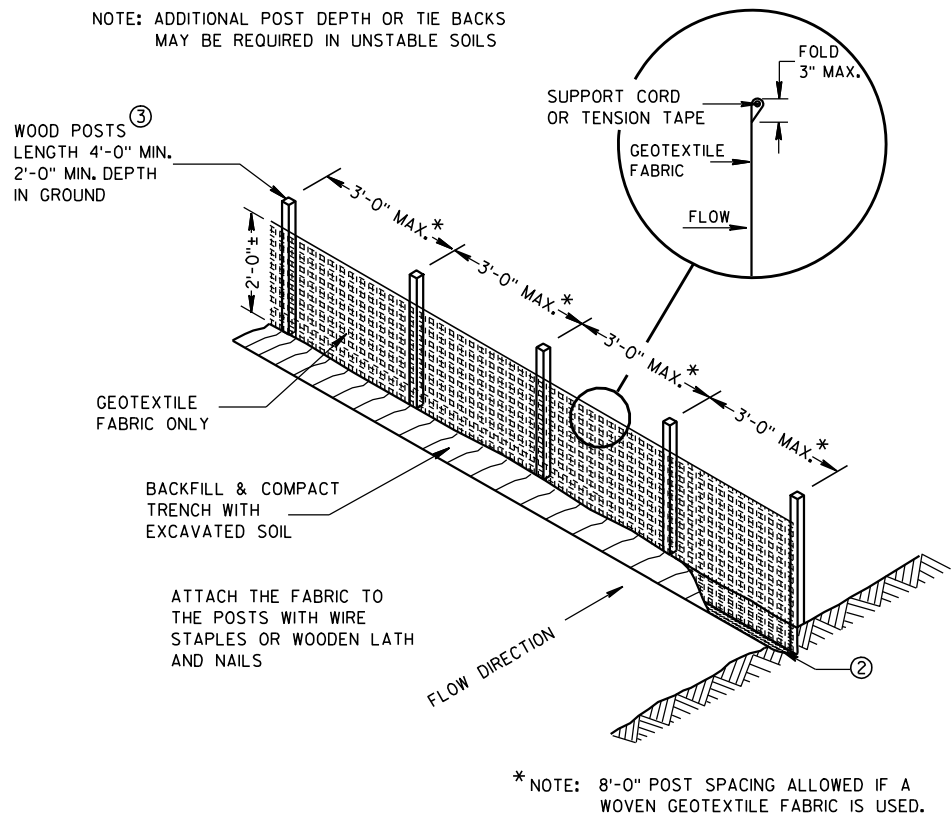
APPROVED

6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

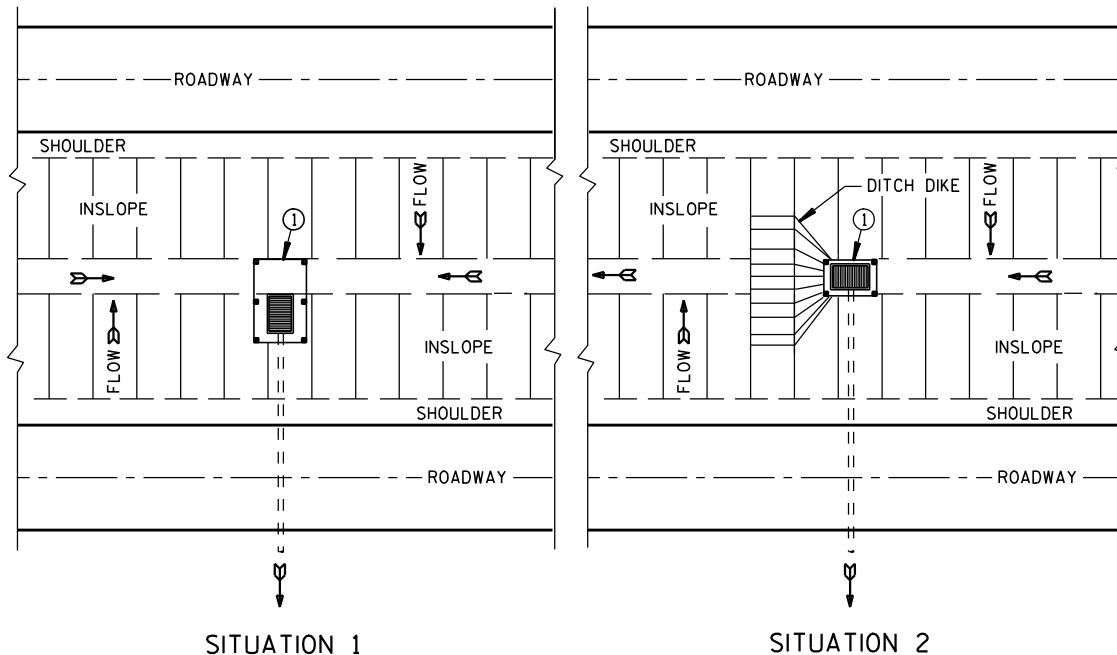
FHWA



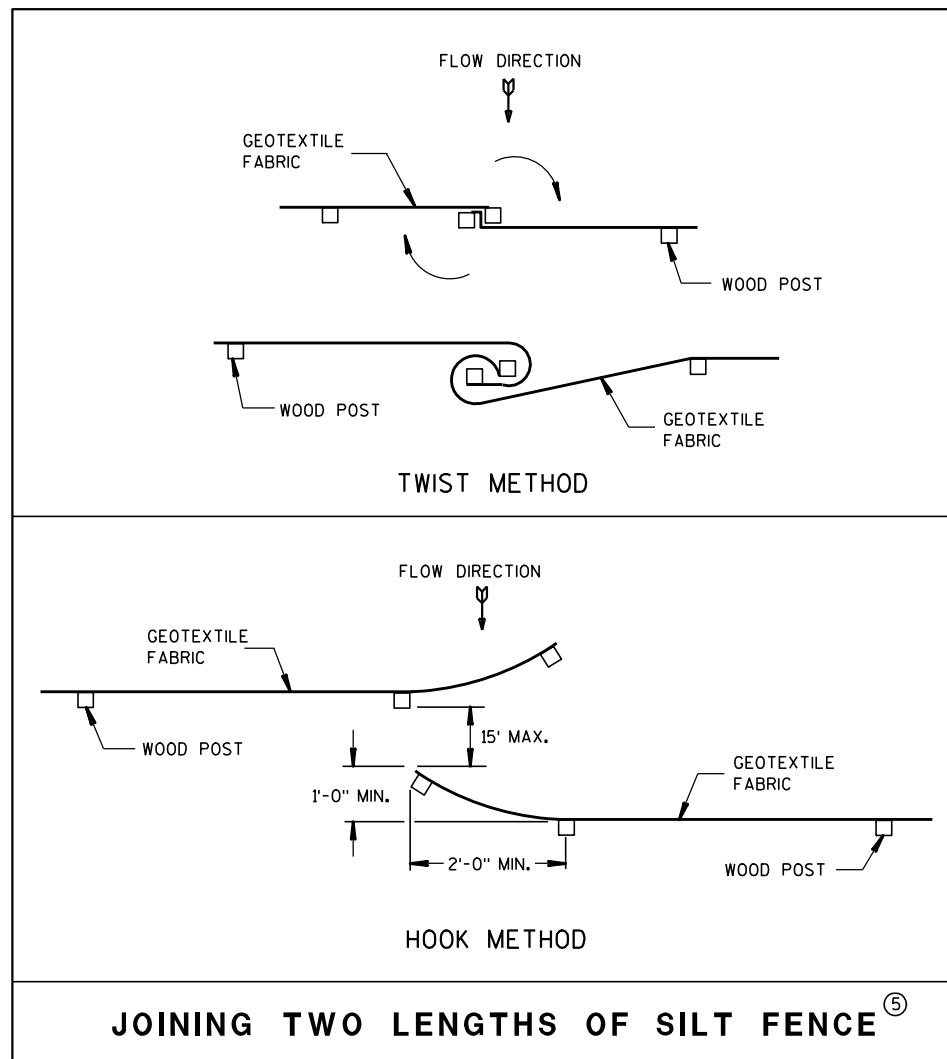
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

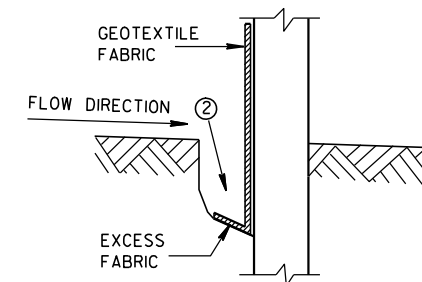


JOINING TWO LENGTHS OF SILT FENCE (5)

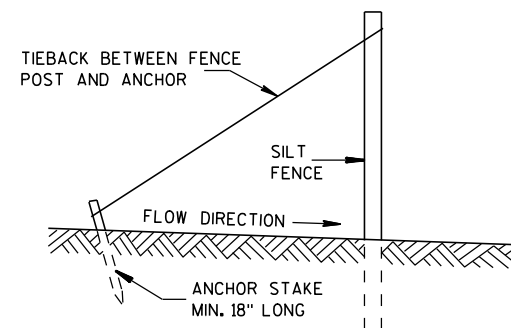
GENERAL NOTES

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

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

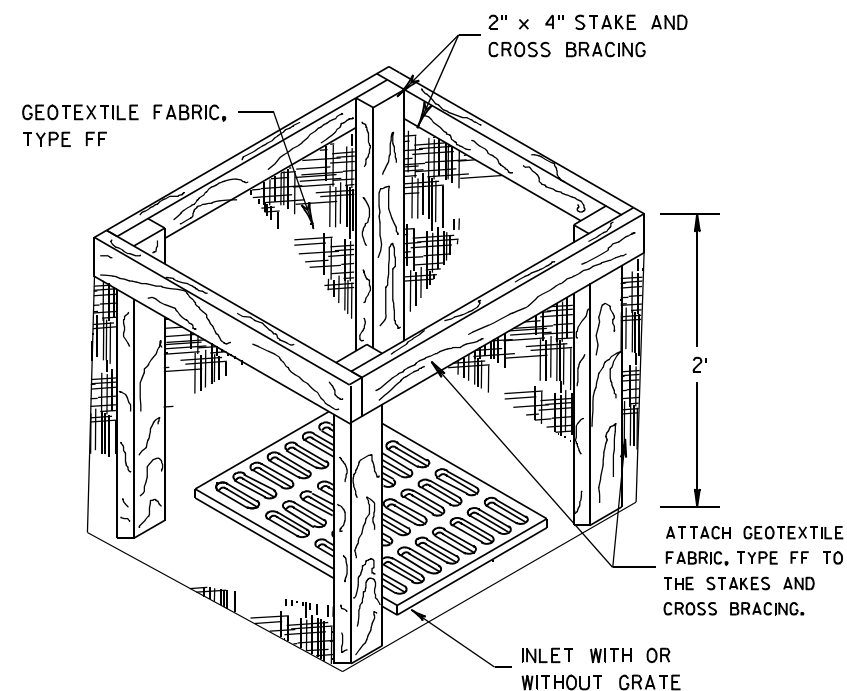
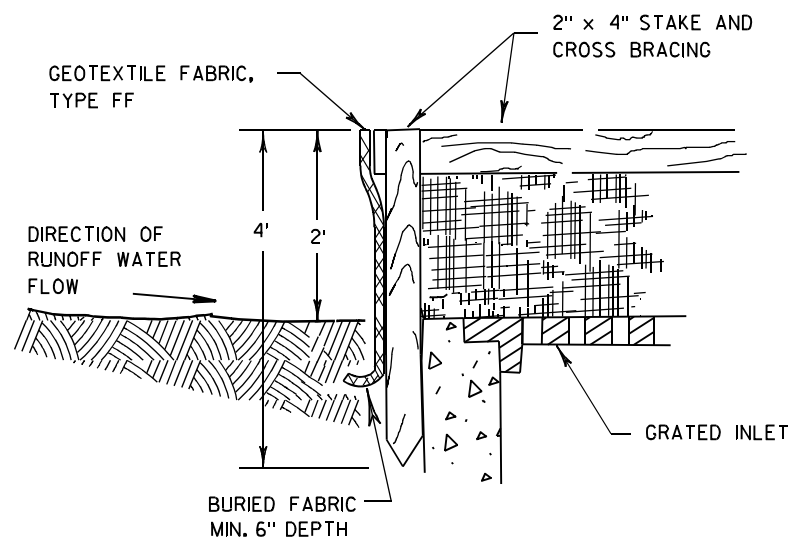


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

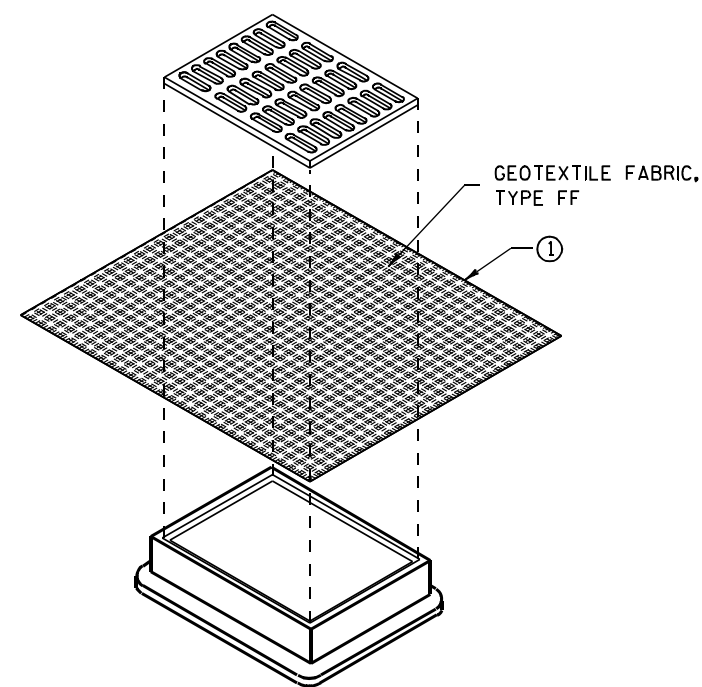
GENERAL NOTES

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

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

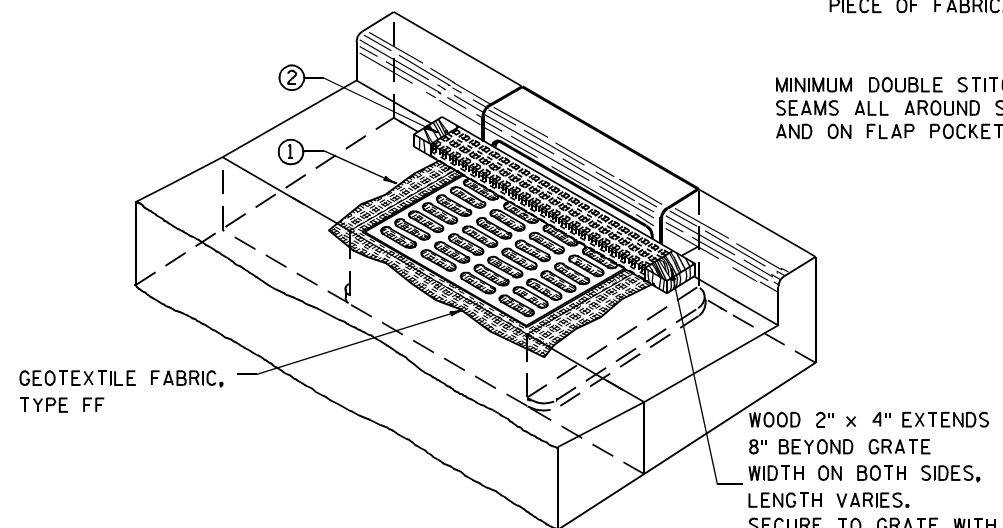
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

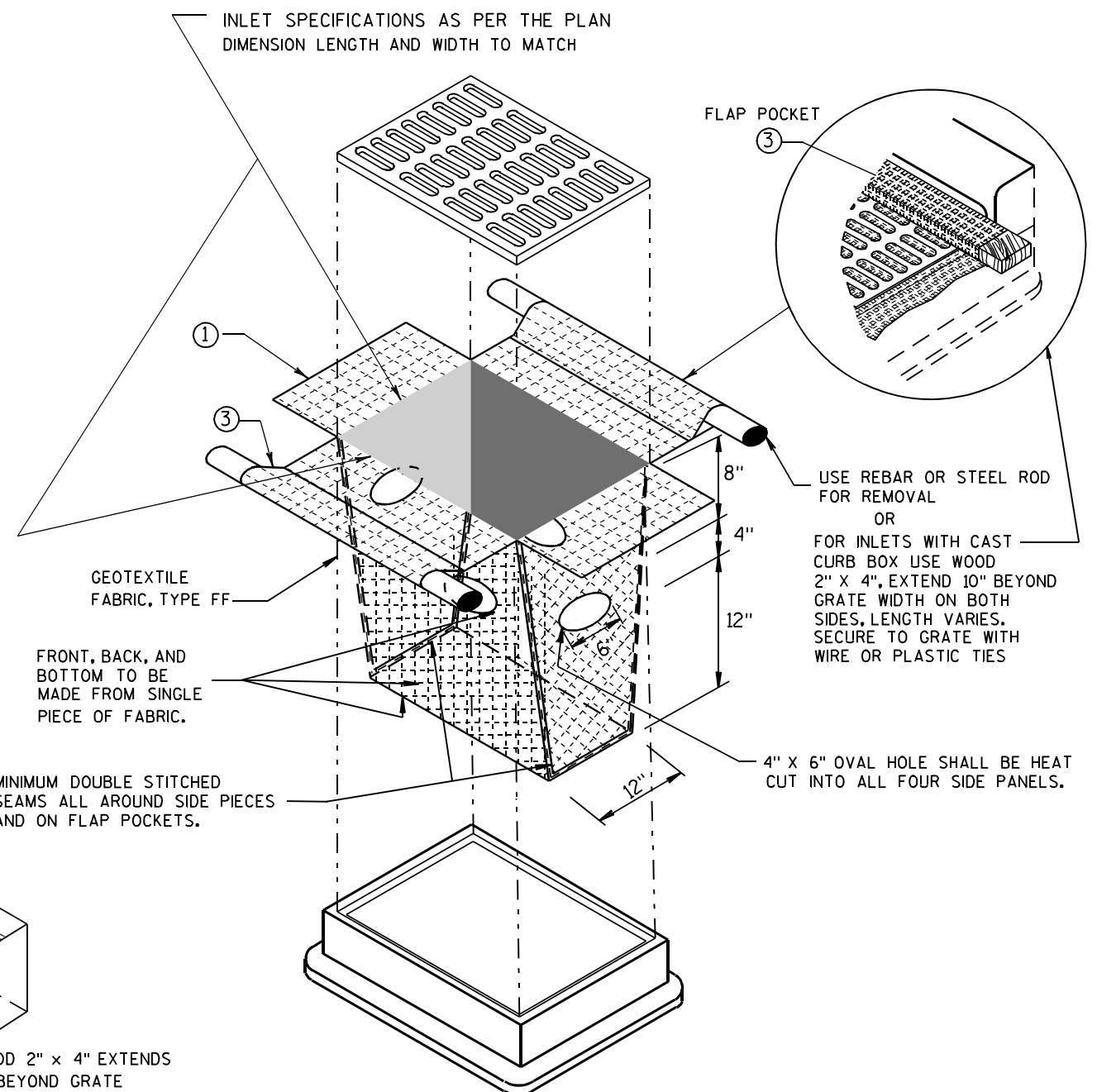
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



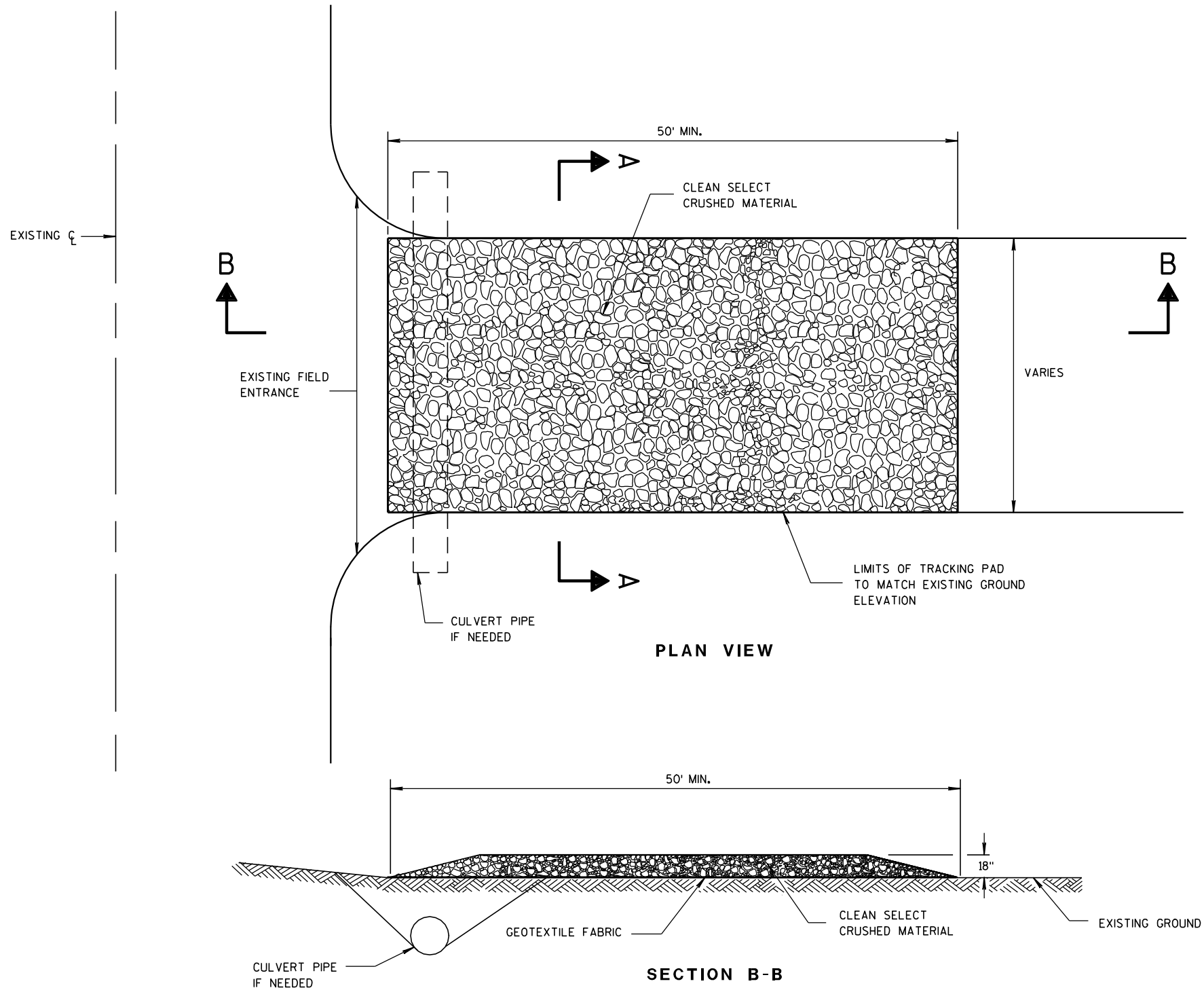
INLET PROTECTION, TYPE D

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



TRACKING PAD

GENERAL NOTES

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

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

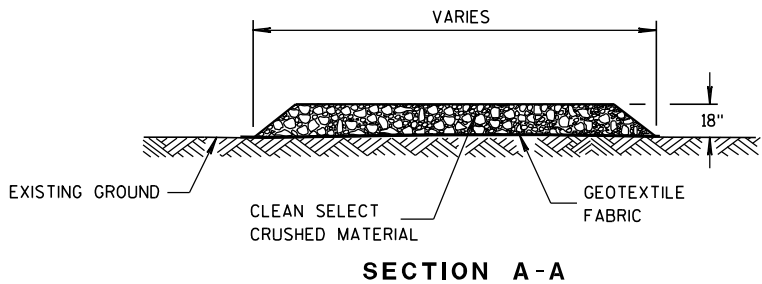
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



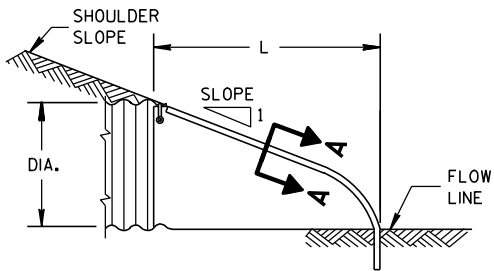
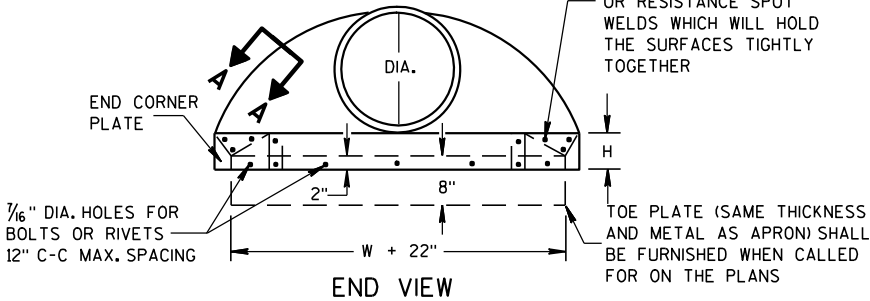
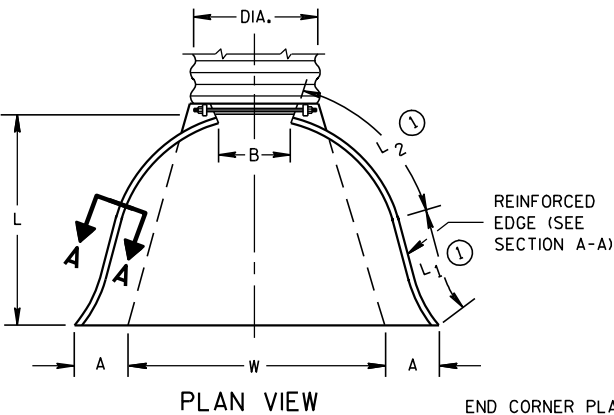
TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

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

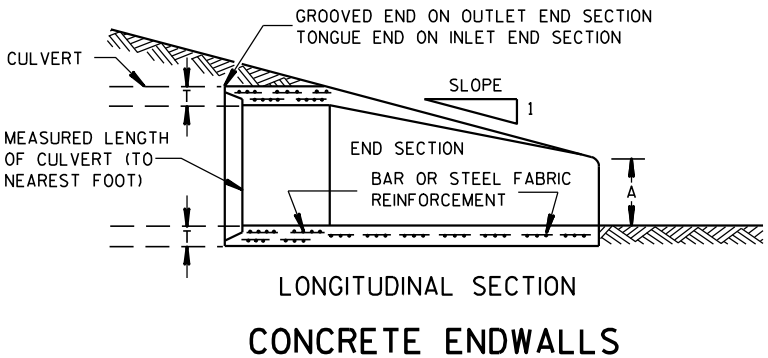
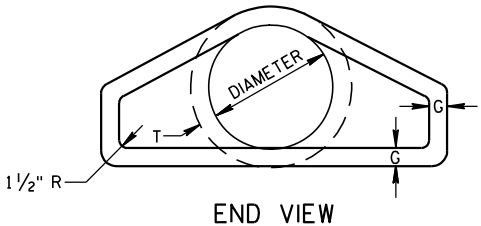
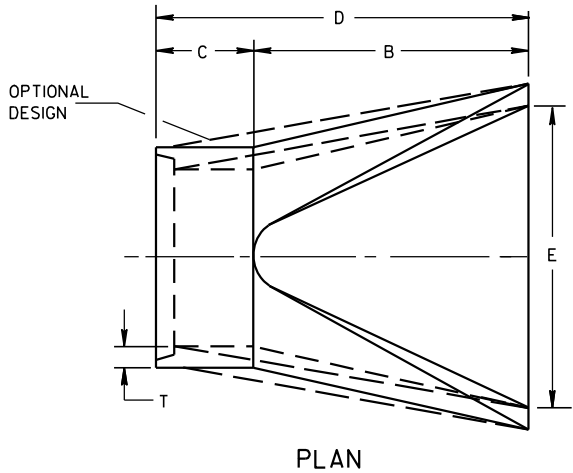
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



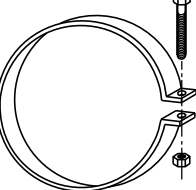
METAL ENDWALLS

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

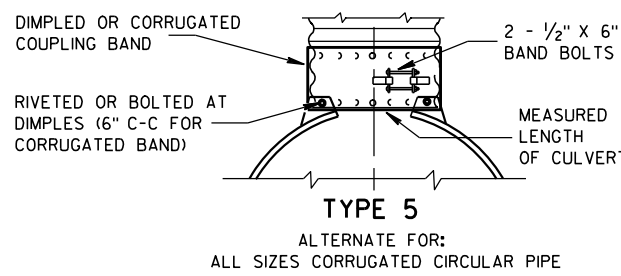
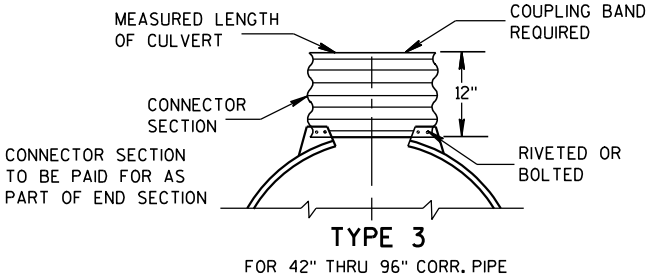
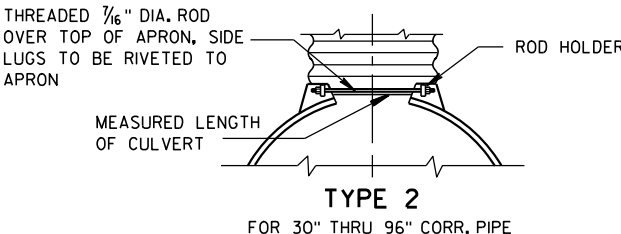
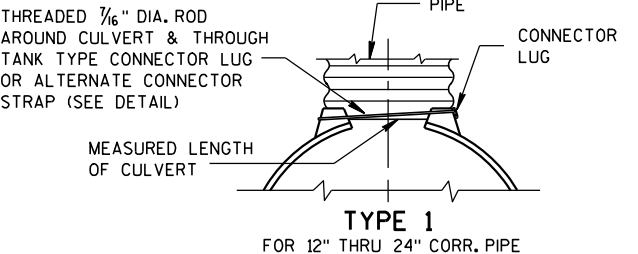
* MINIMUM
** MAXIMUM



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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



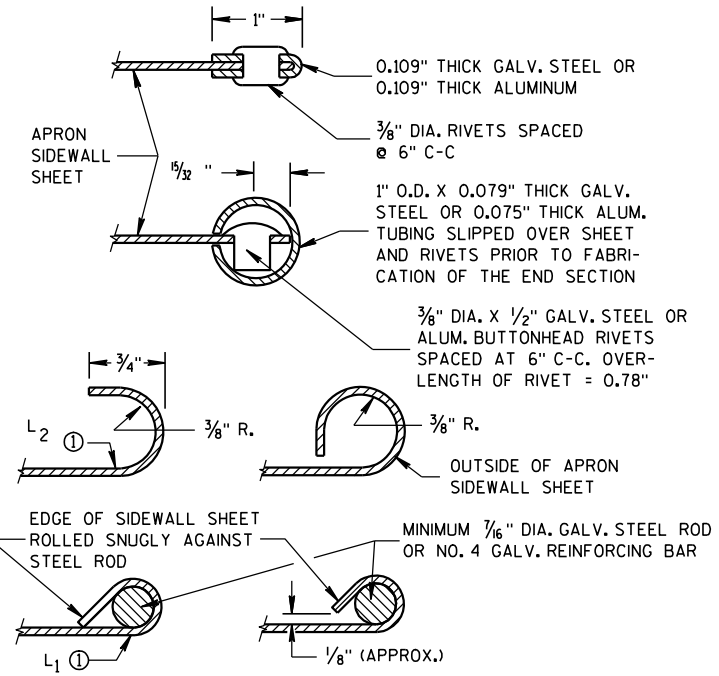
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

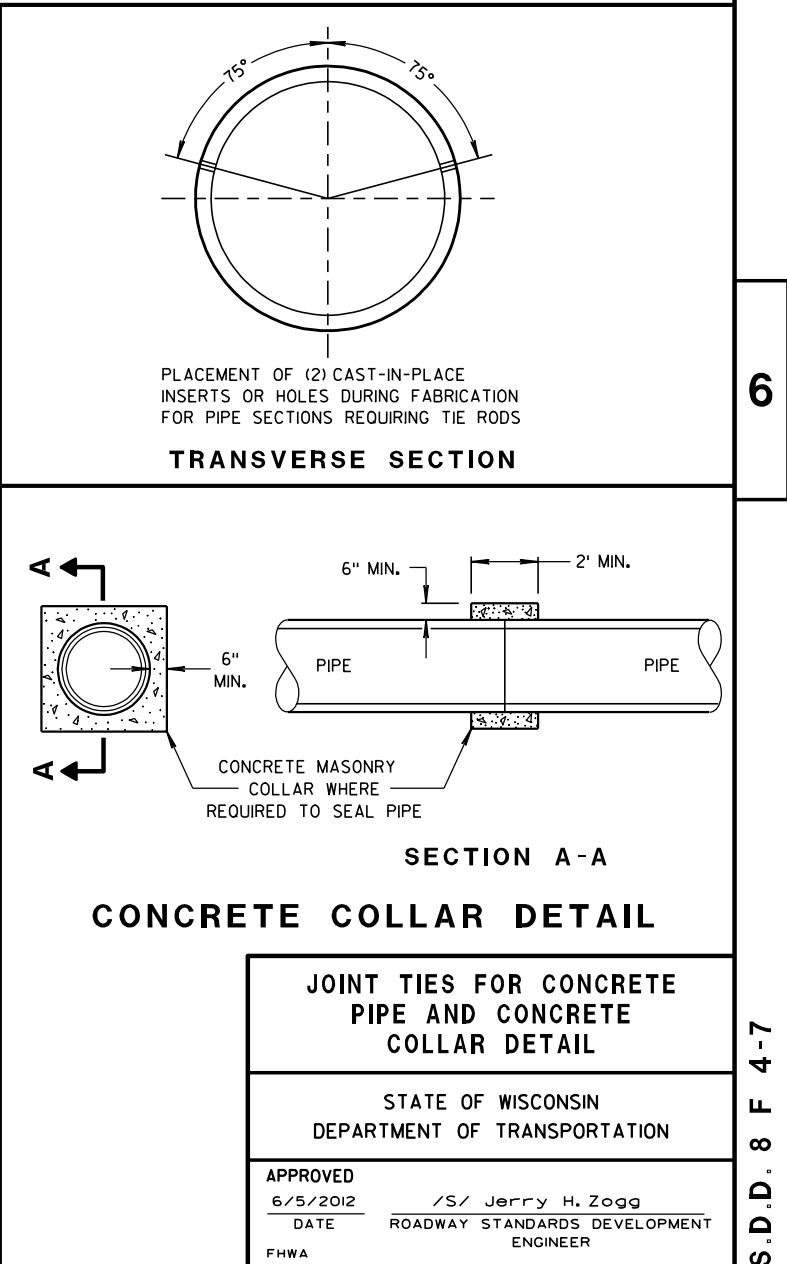
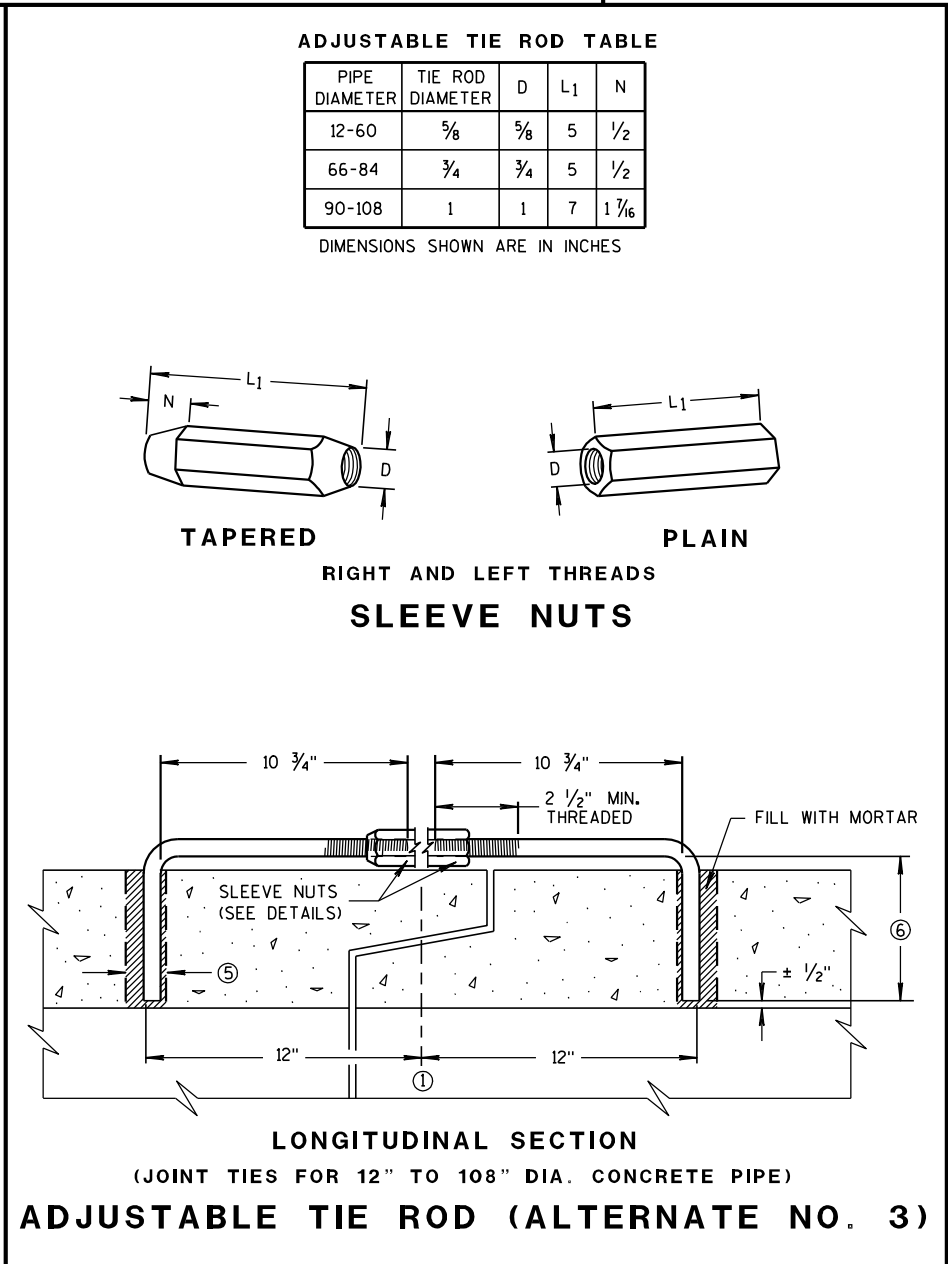
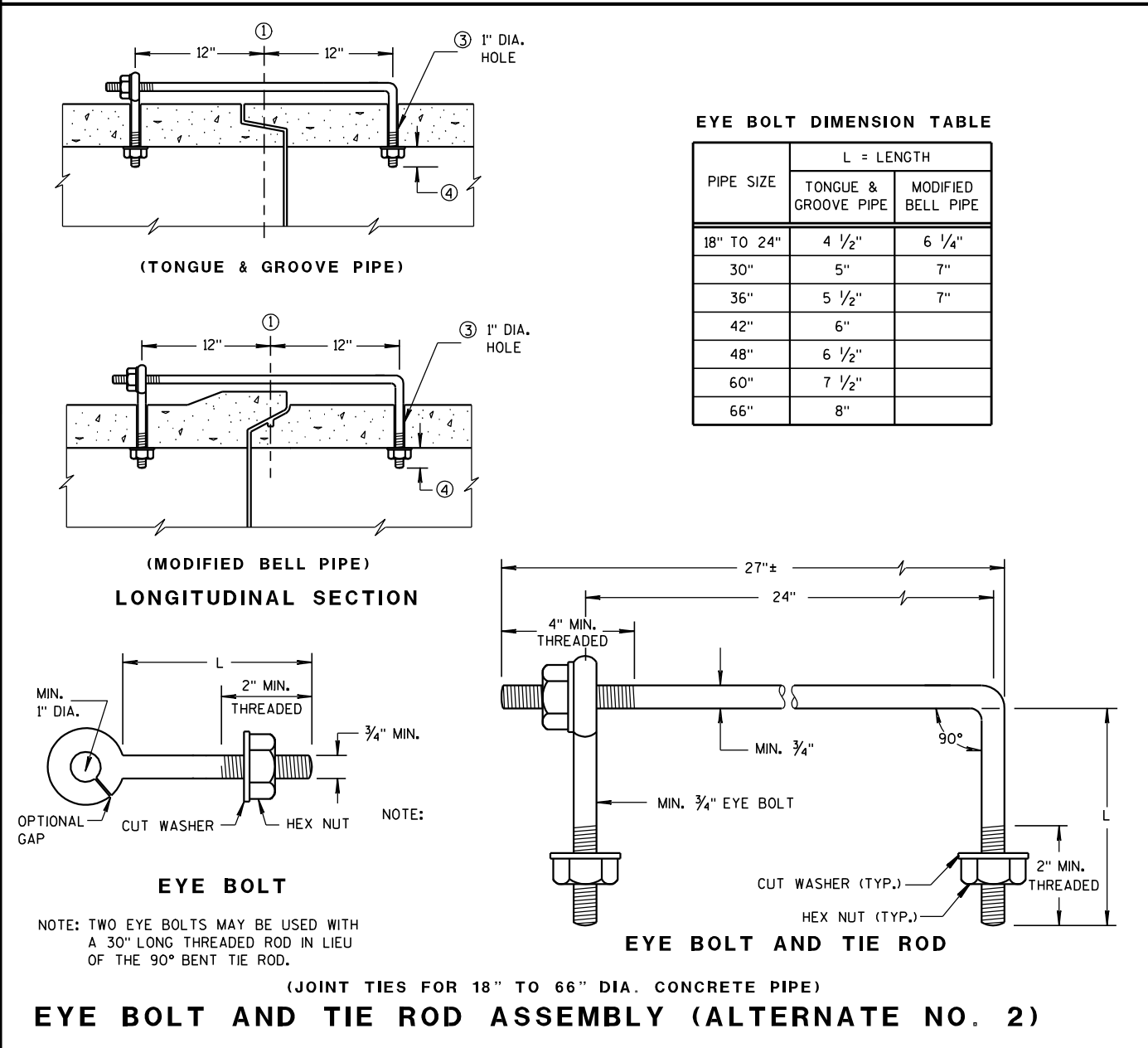
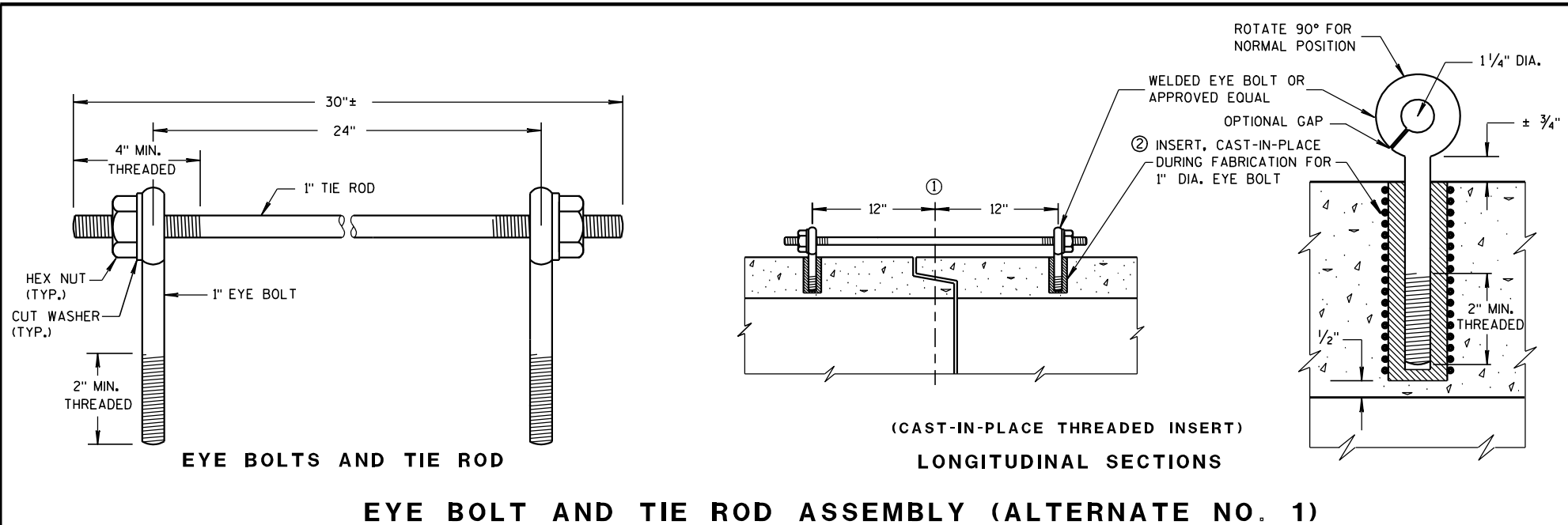
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

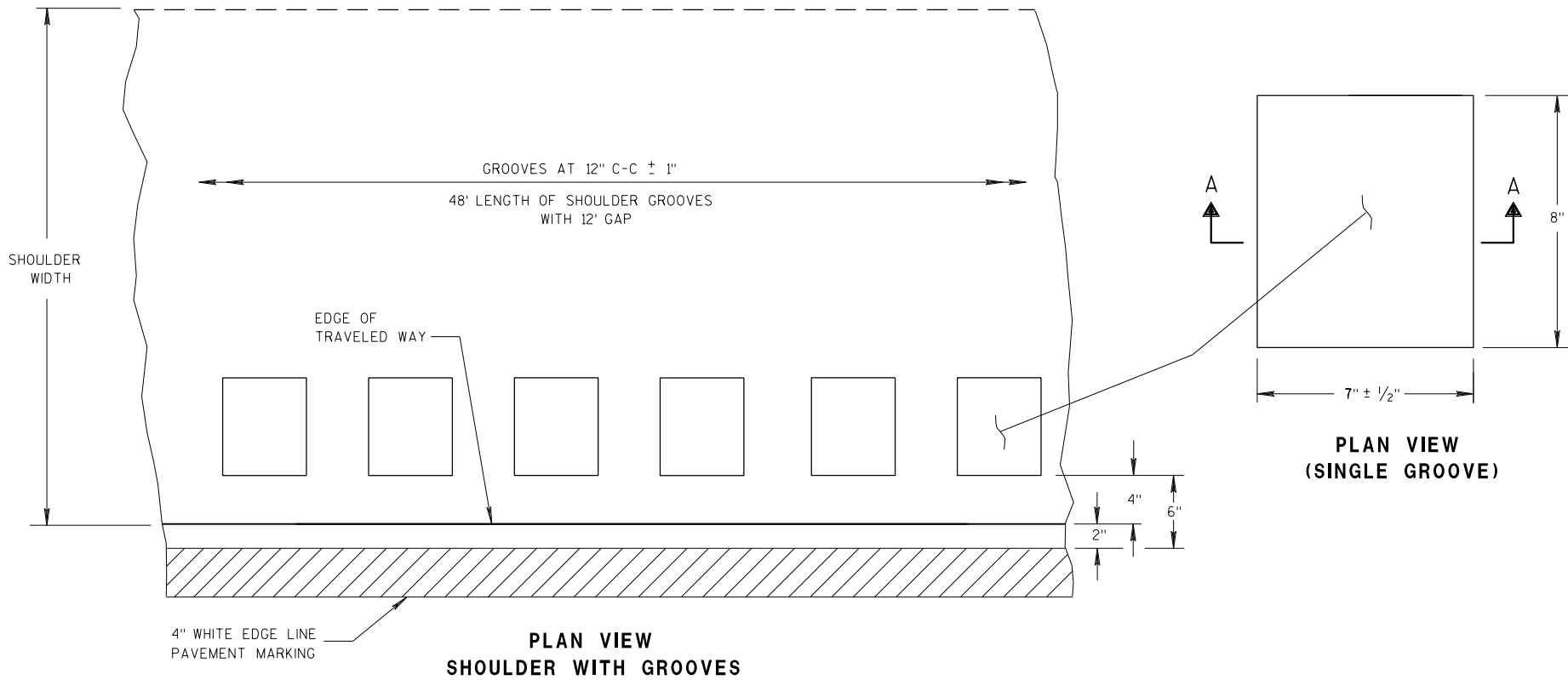
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

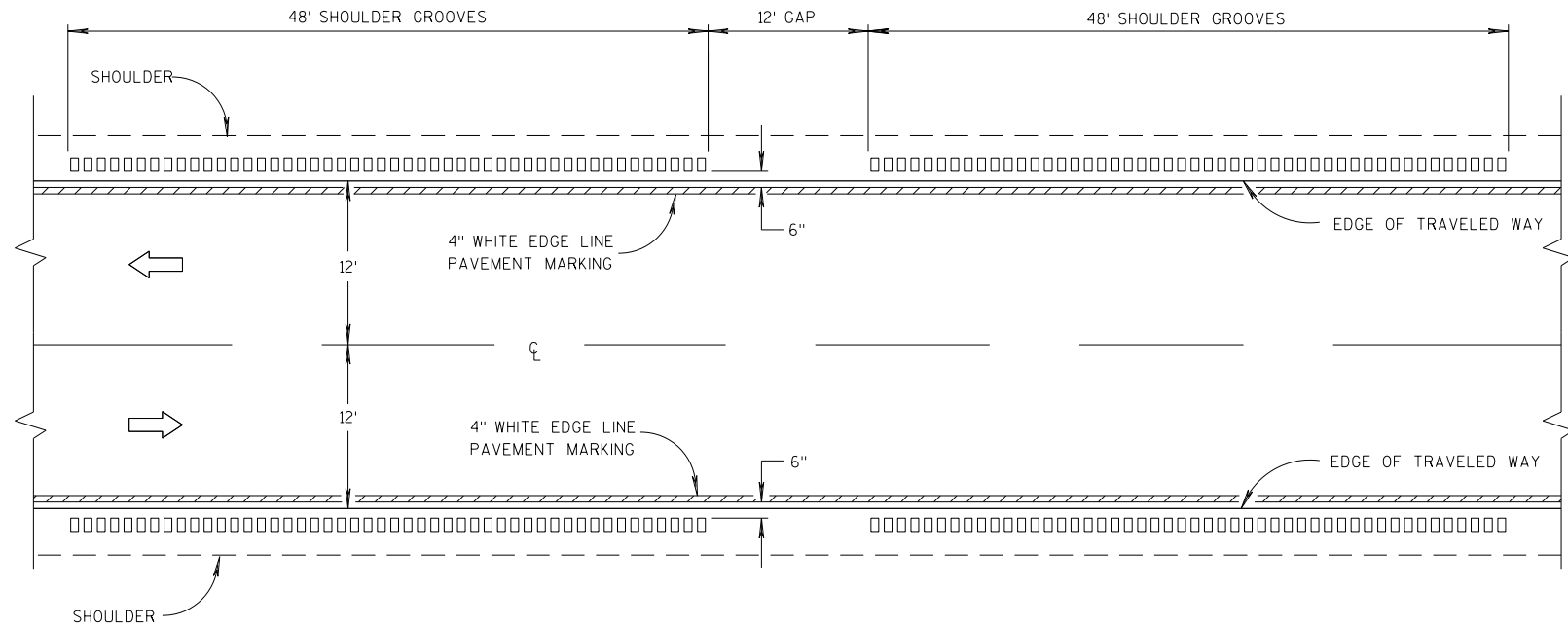




PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



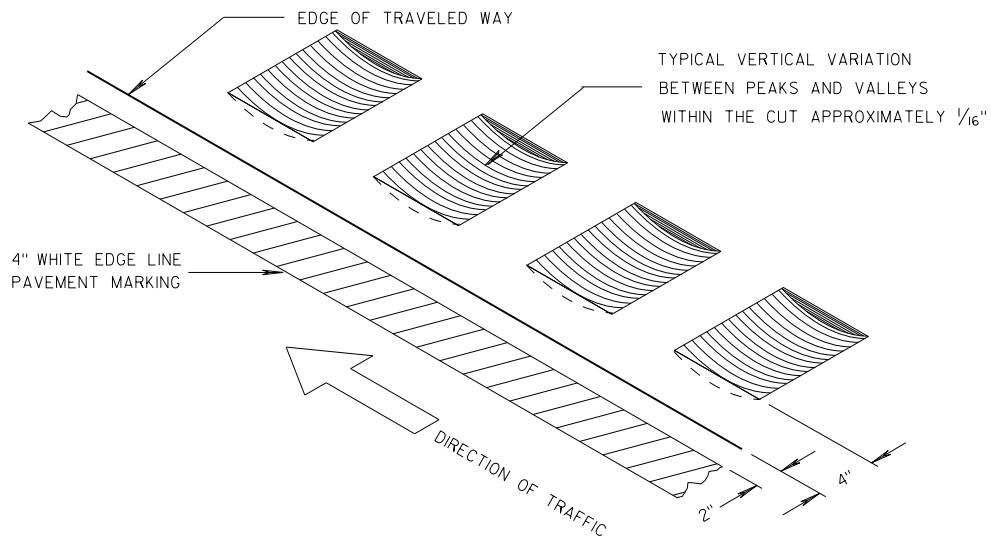
TYPE 1
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

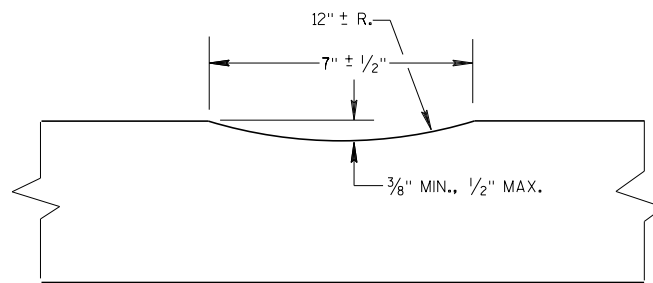
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



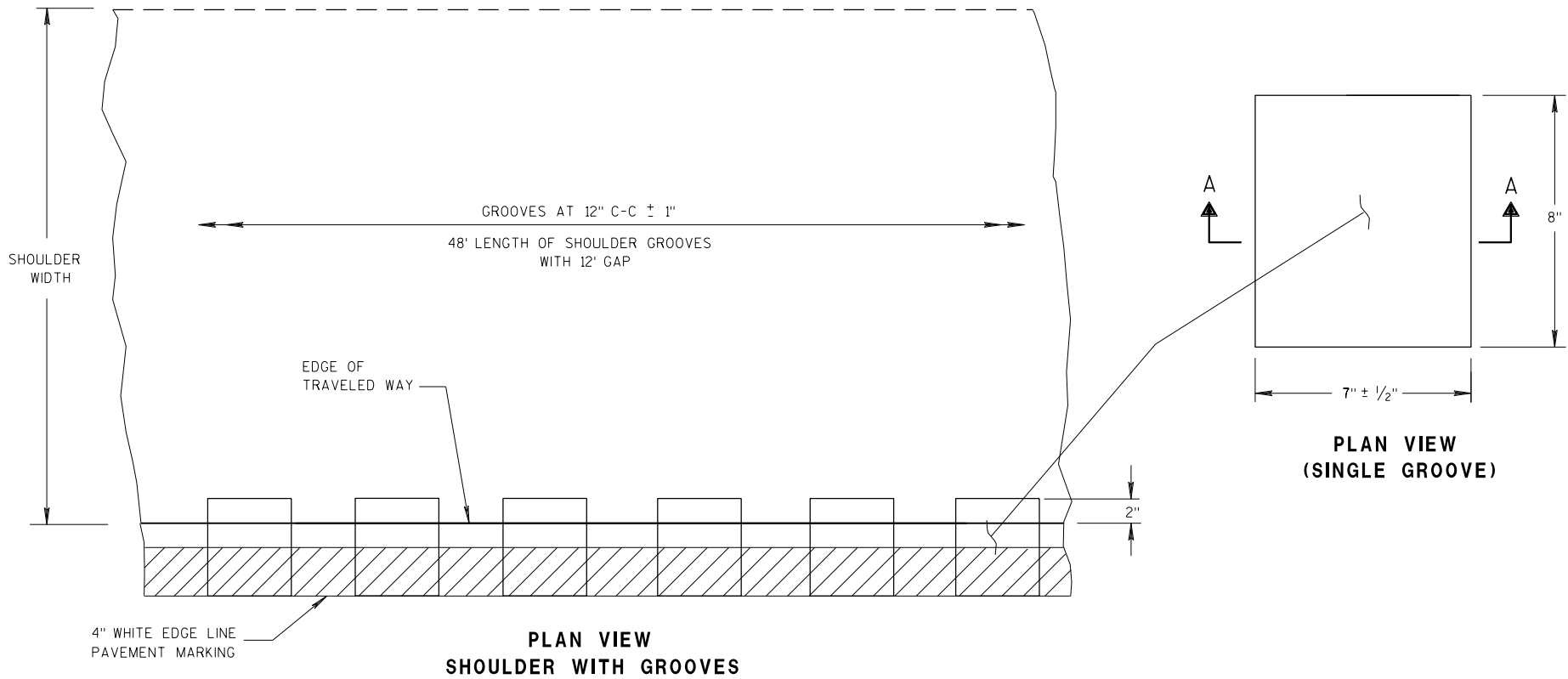
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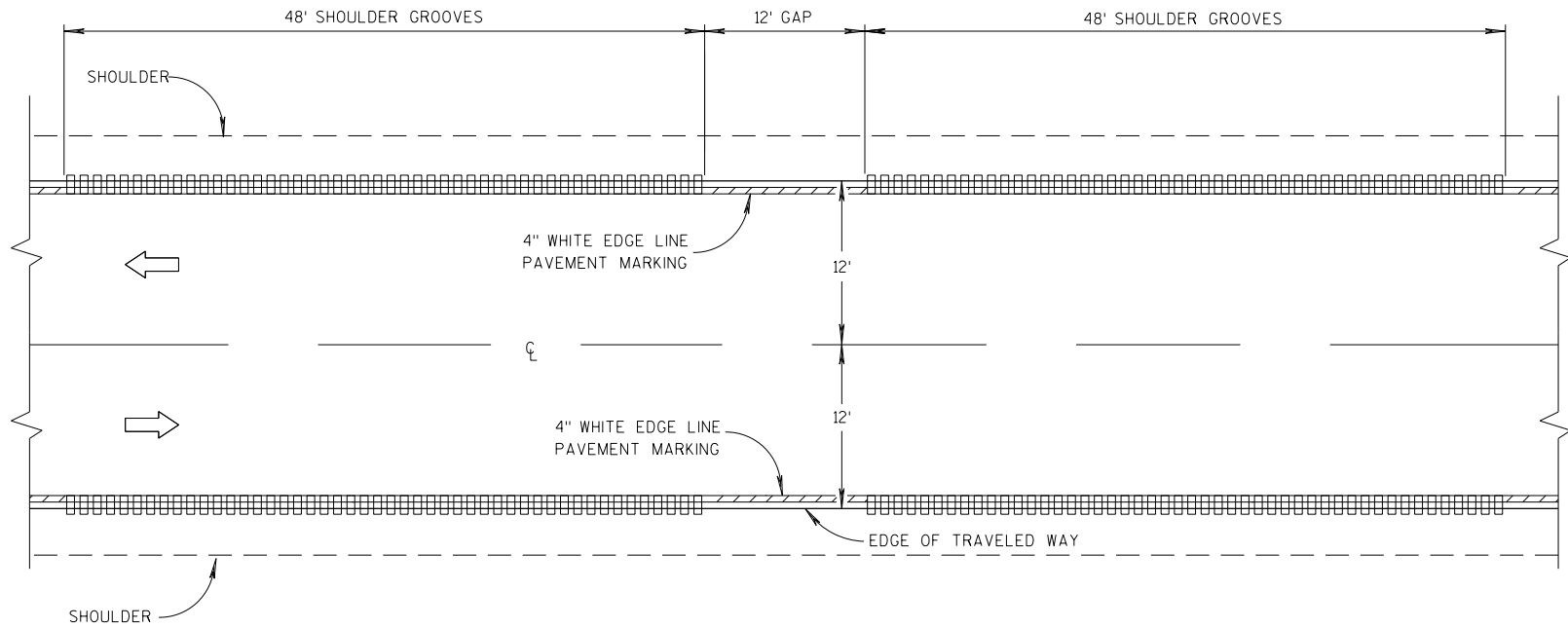
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



6
6
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



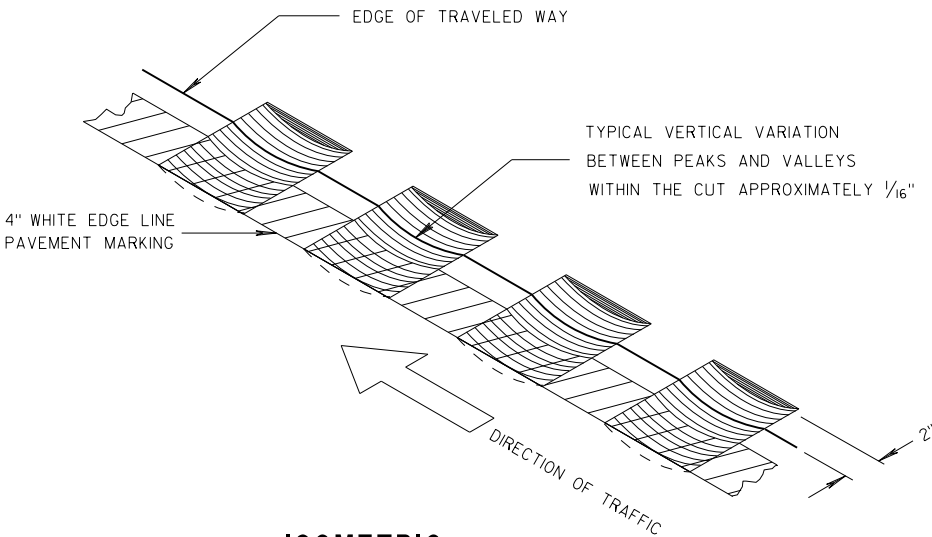
TYPE 2
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

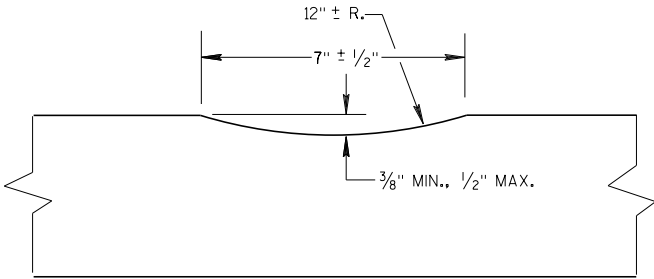
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



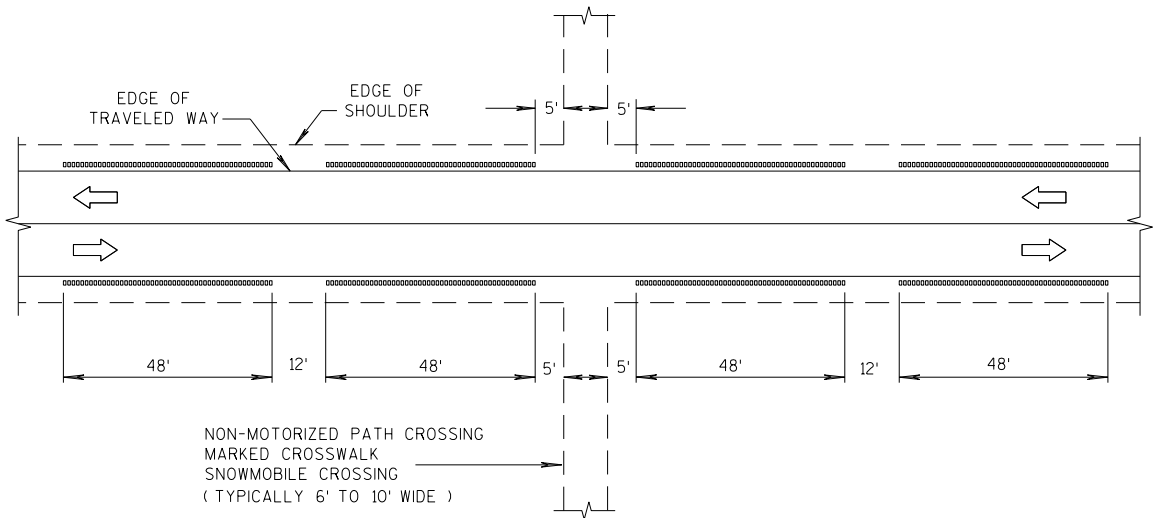
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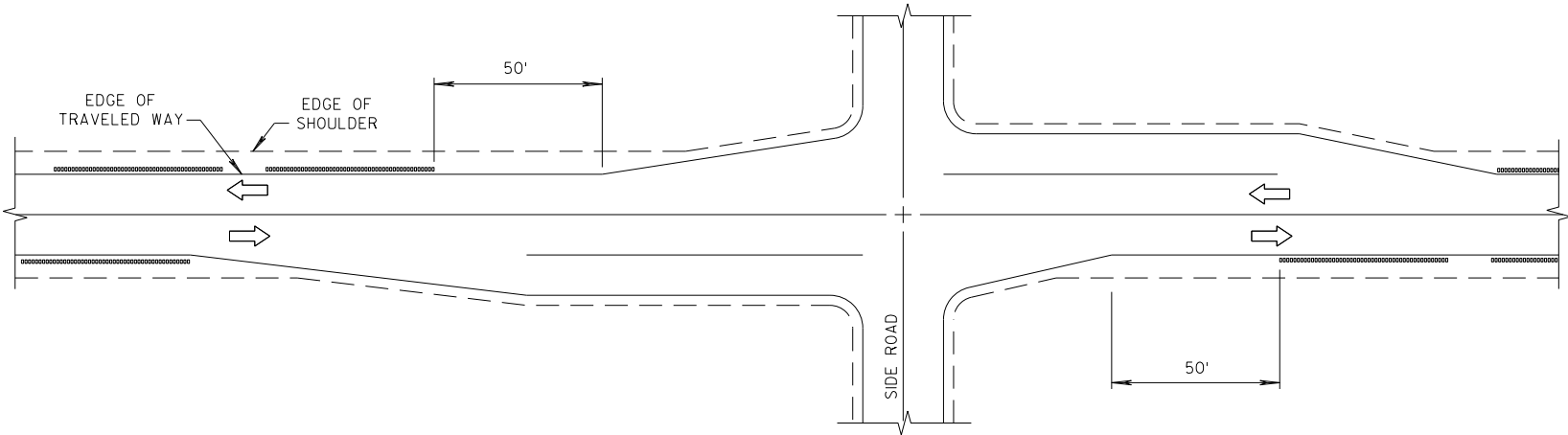
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

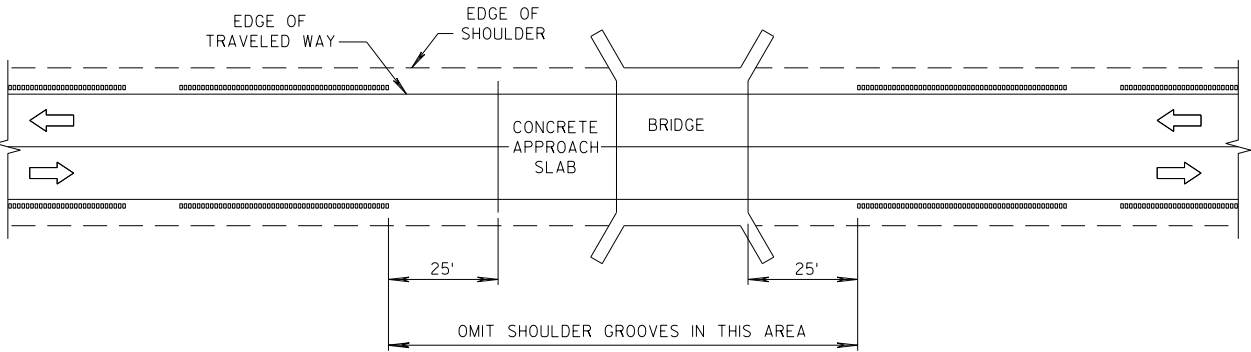
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



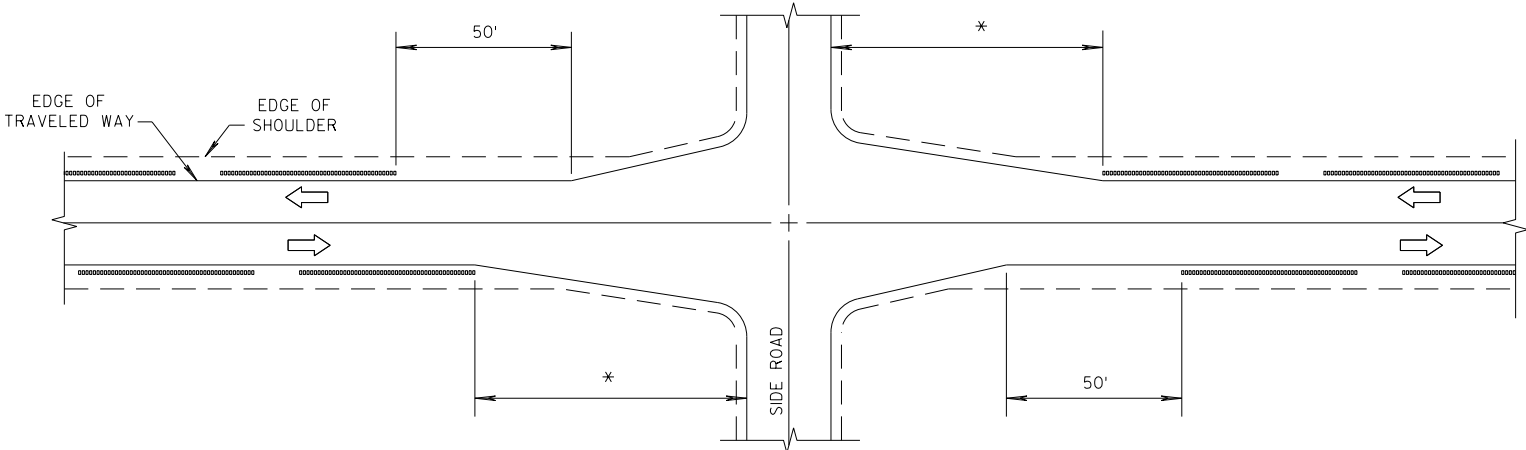
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT WITH RIGHT TURN LANE

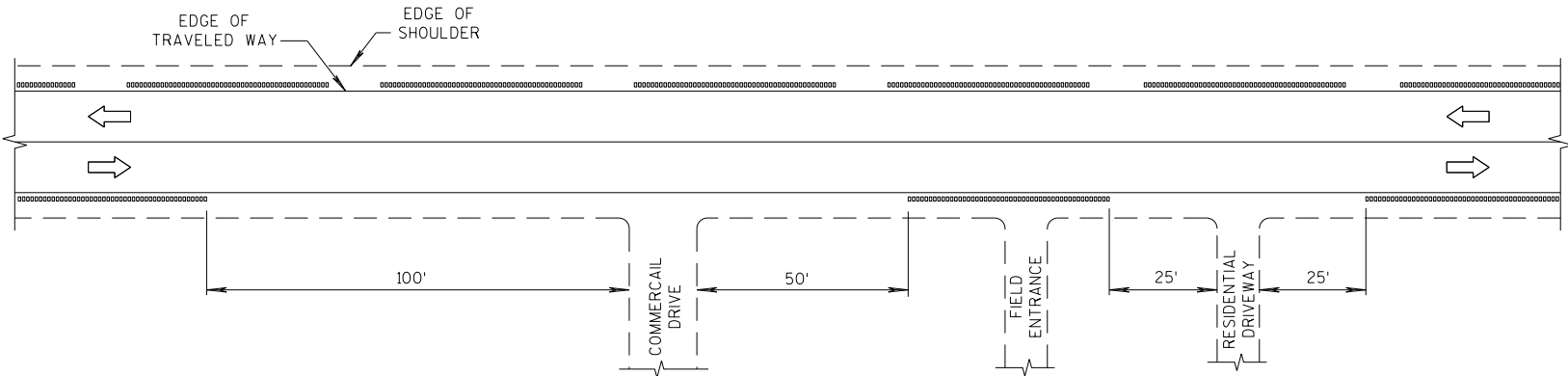


SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER

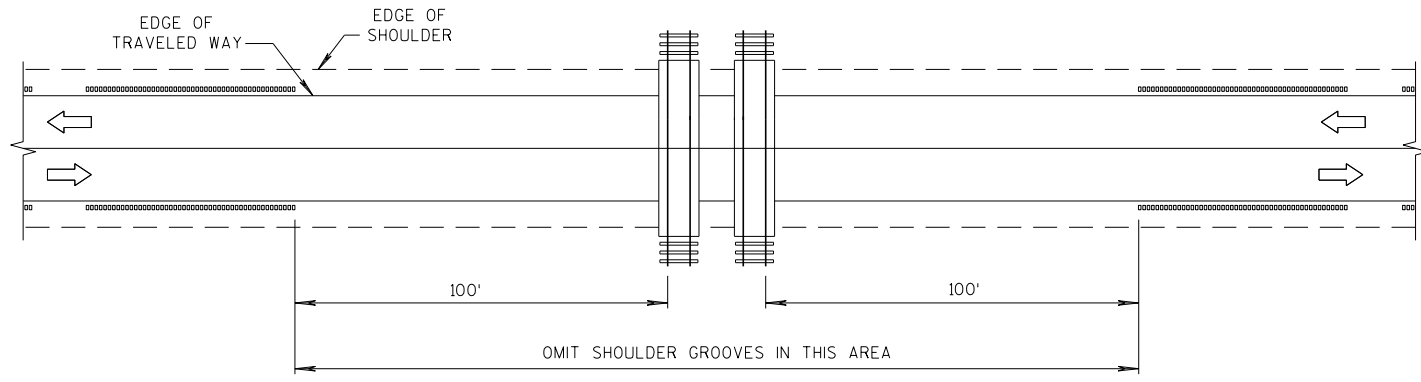
* GREATER OF 100' OR APPROACH TAPER LENGTH



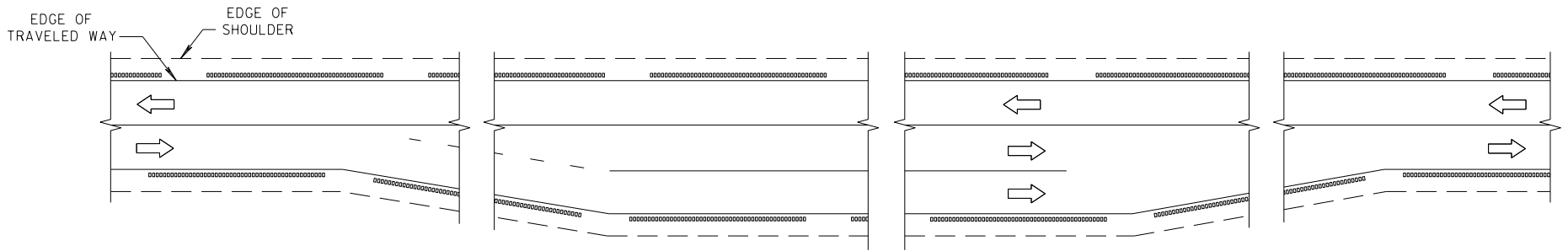
SHOULDER GROOVES AT DRIVEWAYS^①

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

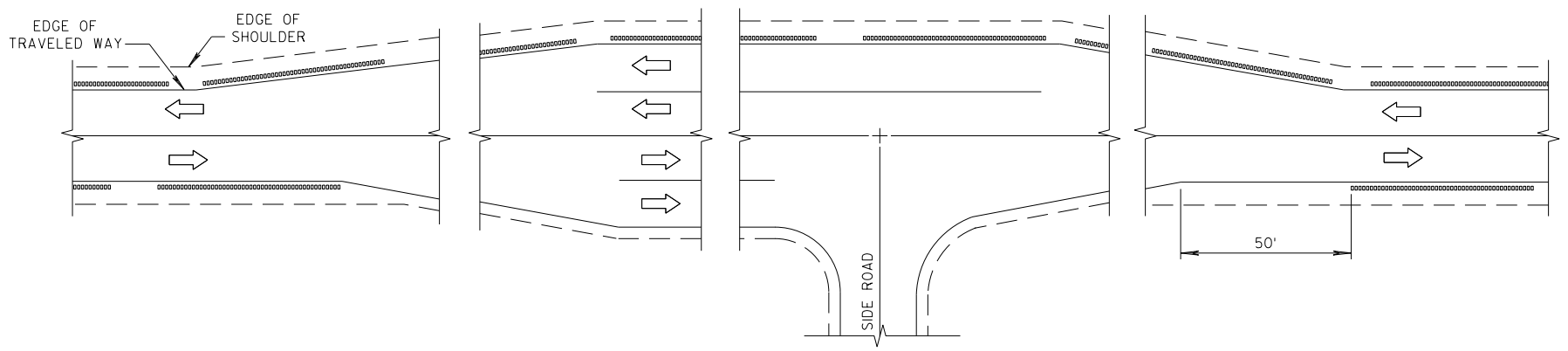
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT RAILROADS

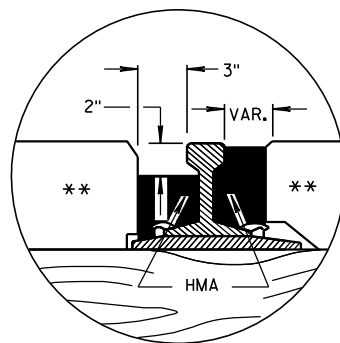
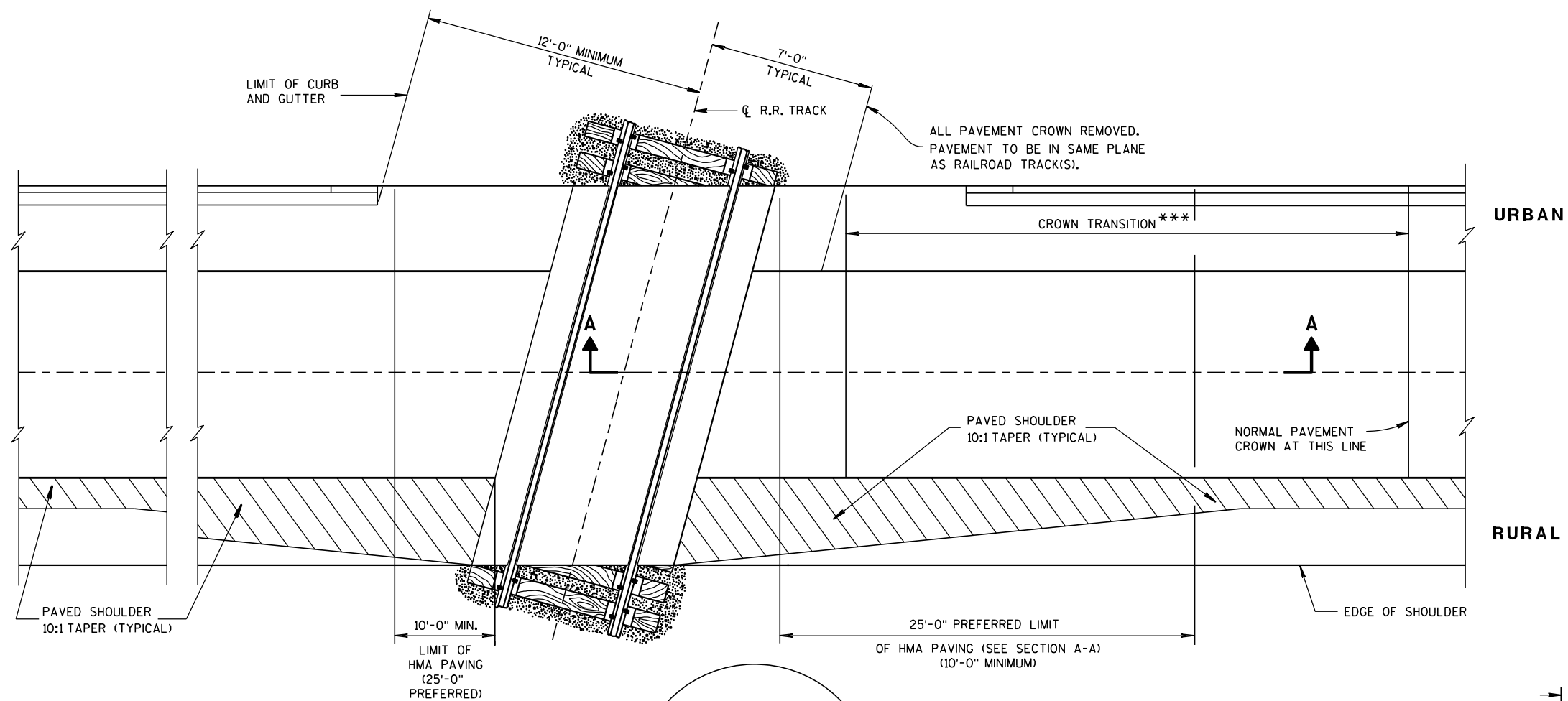


SHOULDER GROOVES AT PASSING AND CLIMBING LANES

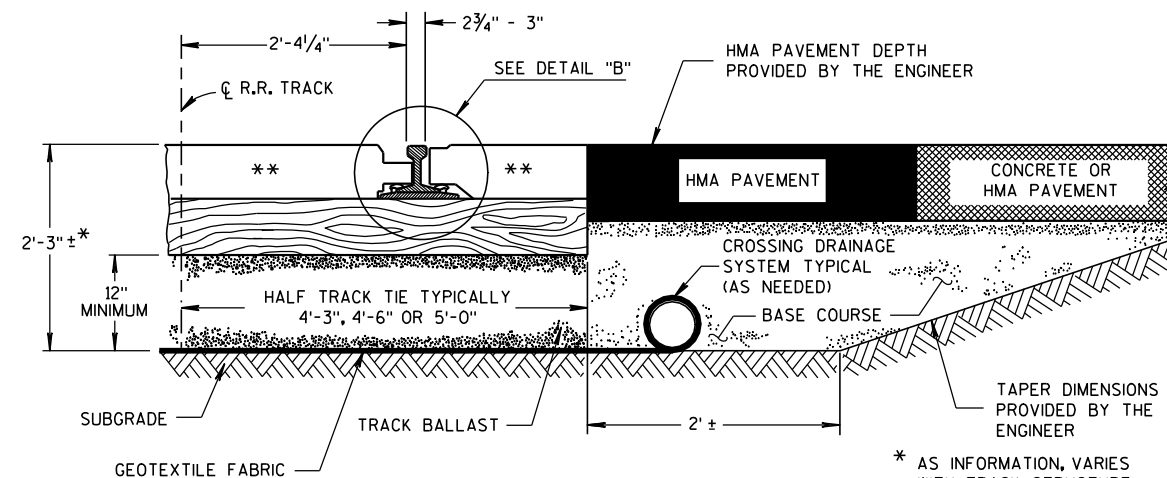


SHOULDER GROOVES AT BYPASS LANES

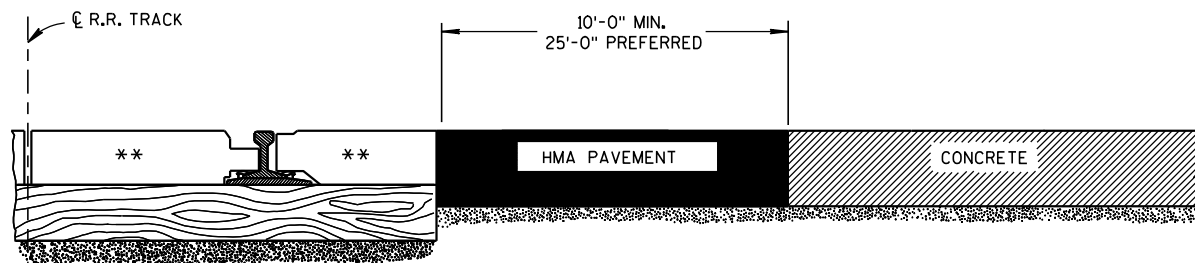
2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



DETAIL B
HMA FLANGEWAY
AND FIELD FILLERS



TYPICAL HALF SECTION



SECTION A-A
CONCRETE PAVEMENT APPROACH



SECTION A-A
HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

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.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

HMA PAVEMENT APPROACHES AND HMA PAVEMENT CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

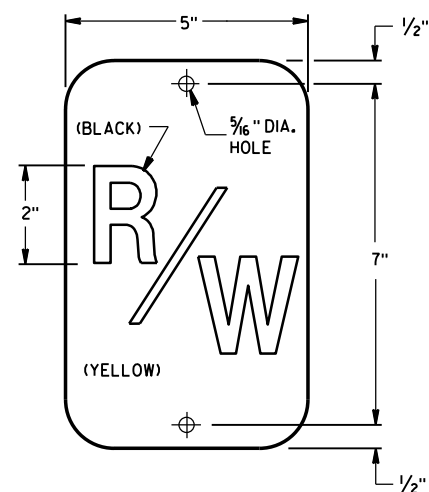
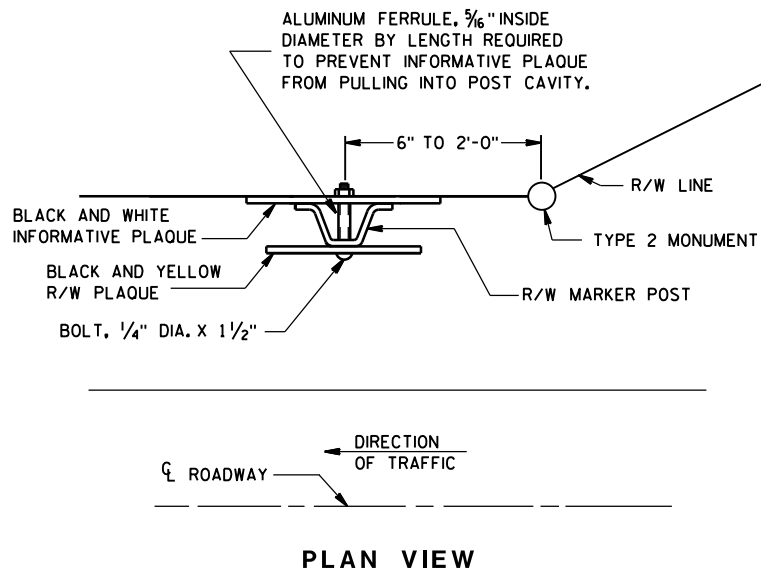
APPROVED

8-28-09

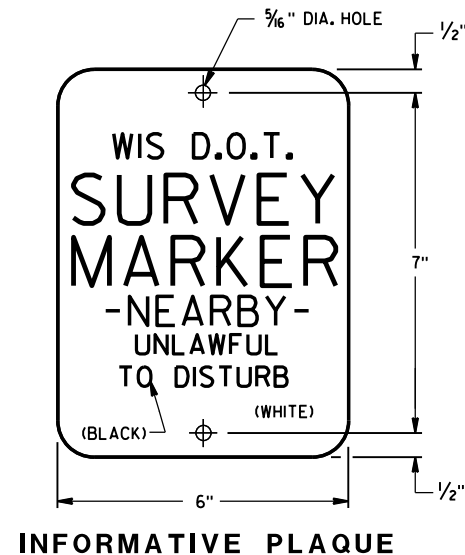
DATE

FHWA

/S/ Ronald E. Adams
CHIEF, RAILROADS & HARBORS SECTION



THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



GENERAL NOTES

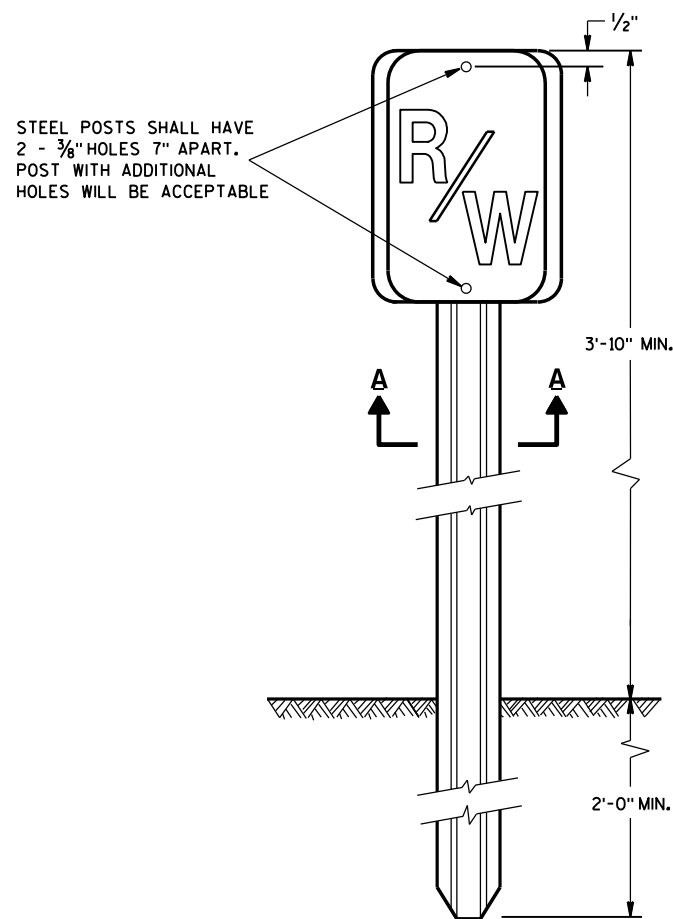
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

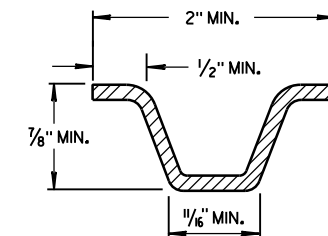
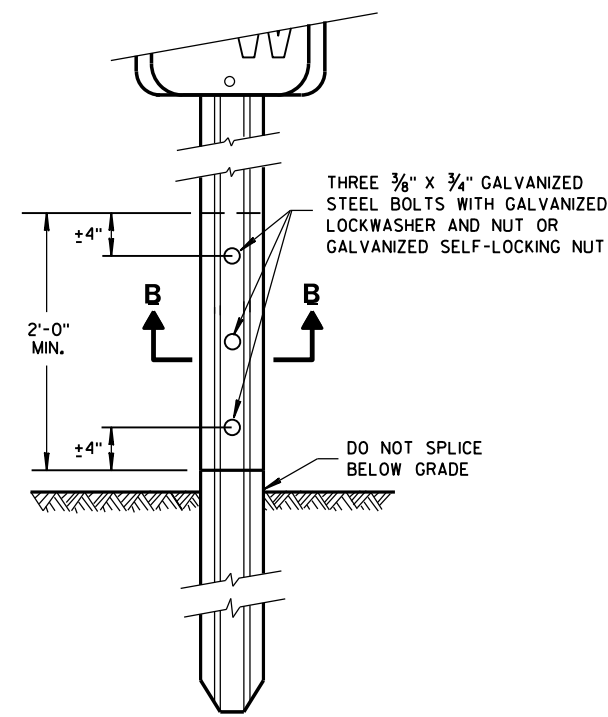
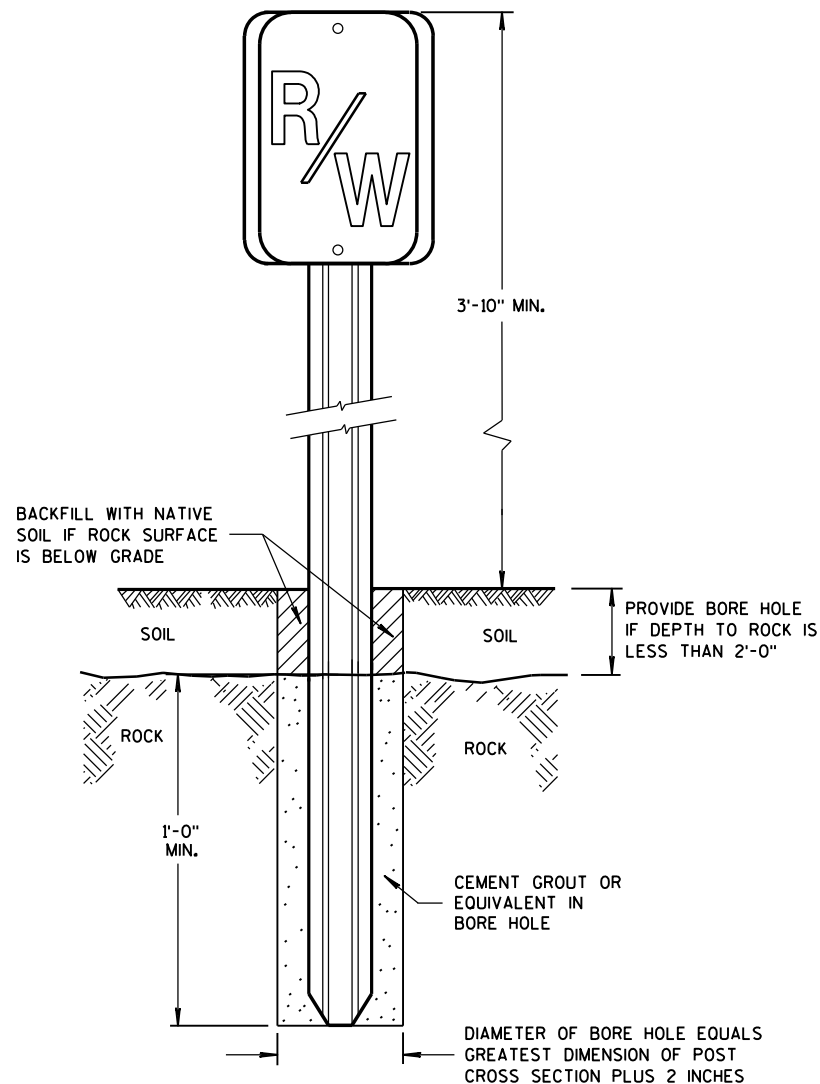
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

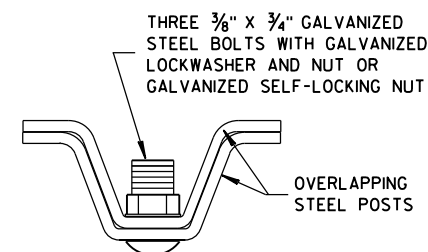
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



STEEL POSTS SHALL HAVE 2 - 5/8" HOLES 7" APART. POST WITH ADDITIONAL HOLES WILL BE ACCEPTABLE



MIN. WEIGHT 1.12 LB./FT.
SECTION A-A



SECTION B-B

**MARKER POST
FOR RIGHT-OF-WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

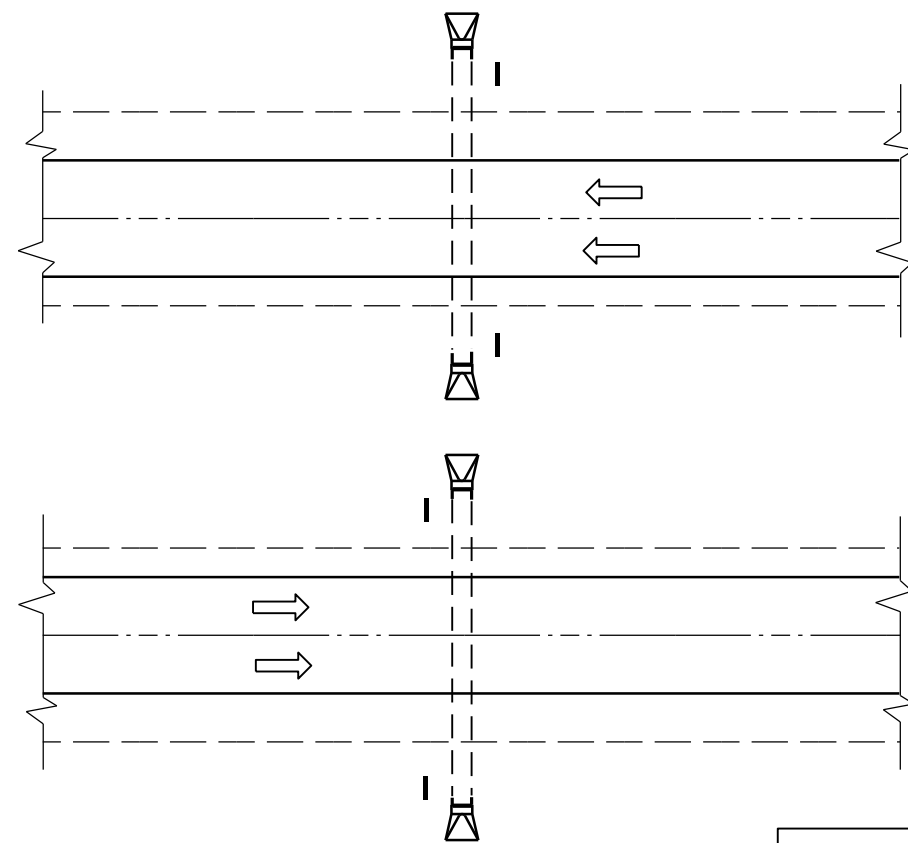
APPROVED

2/18/2016

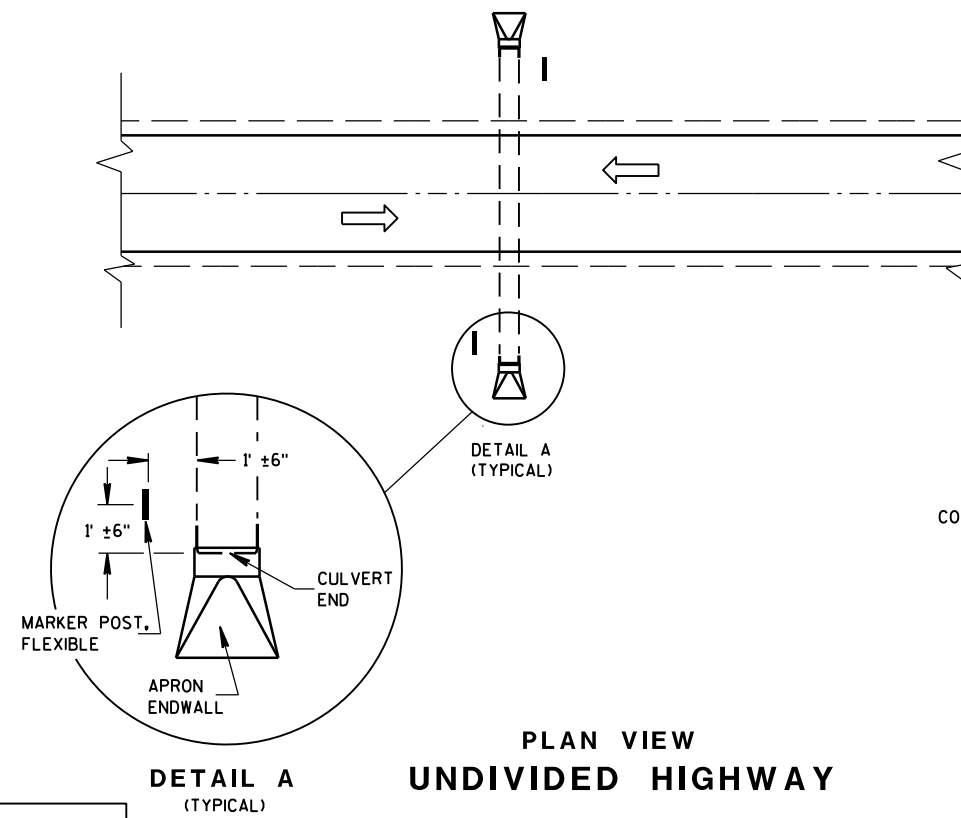
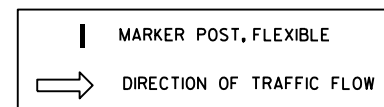
DATE

FHWA

/S/ Ray Kumapayi
CHIEF SURVEYING AND MAPPING ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

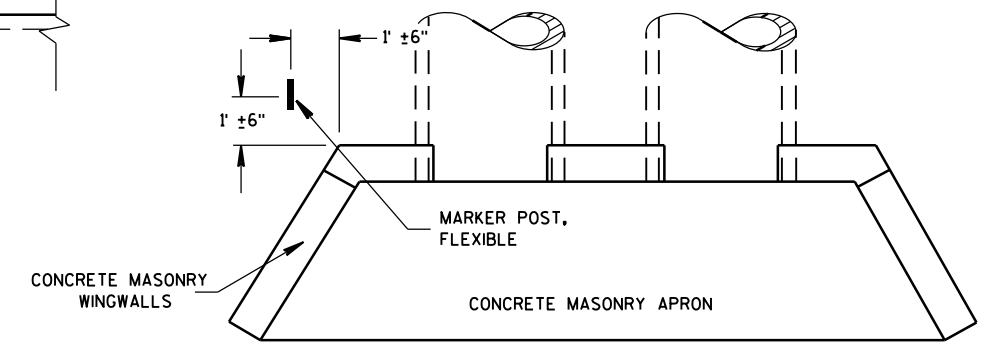


PLAN VIEW
UNDIVIDED HIGHWAY

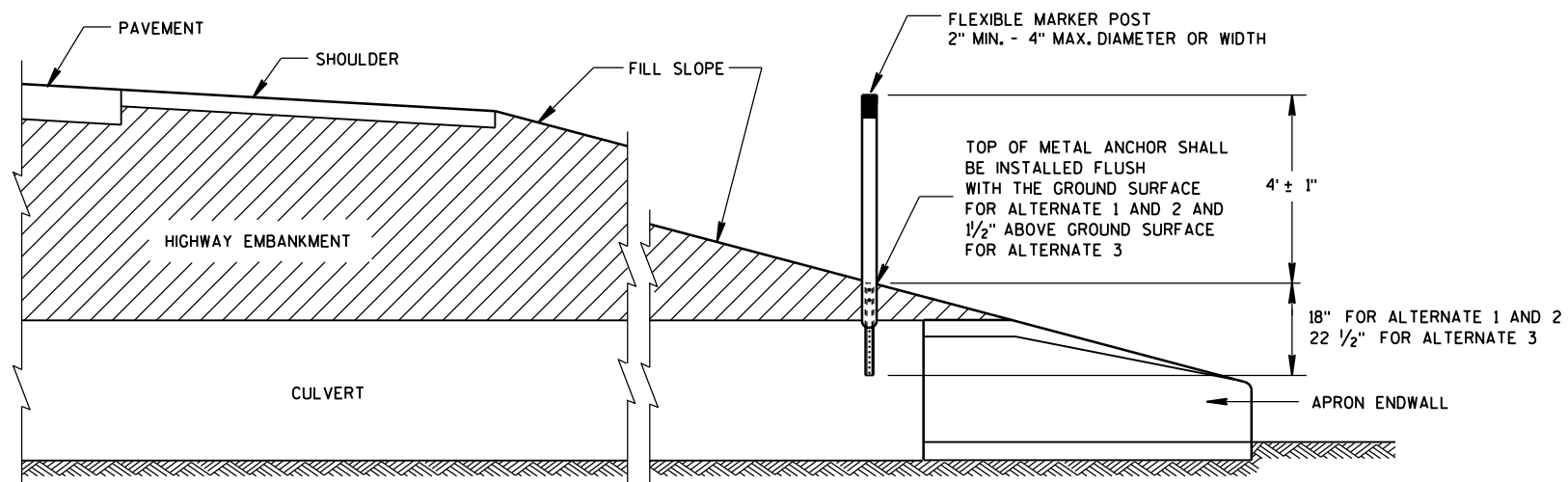
FLEXIBLE MARKER POST LOCATION

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.



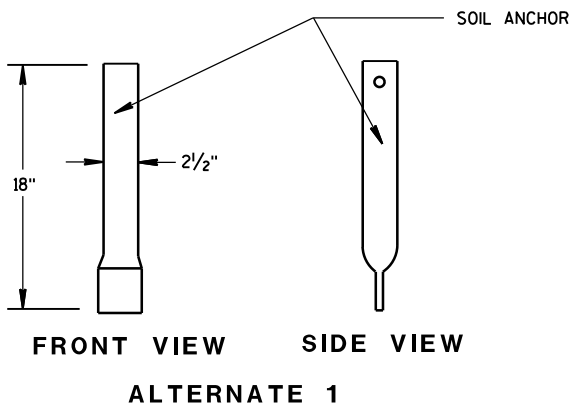
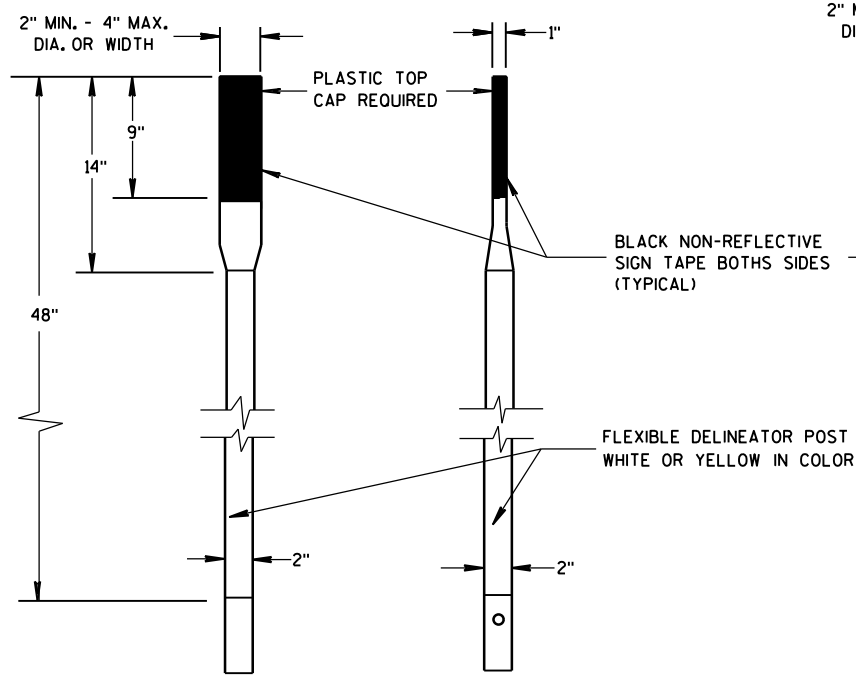
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



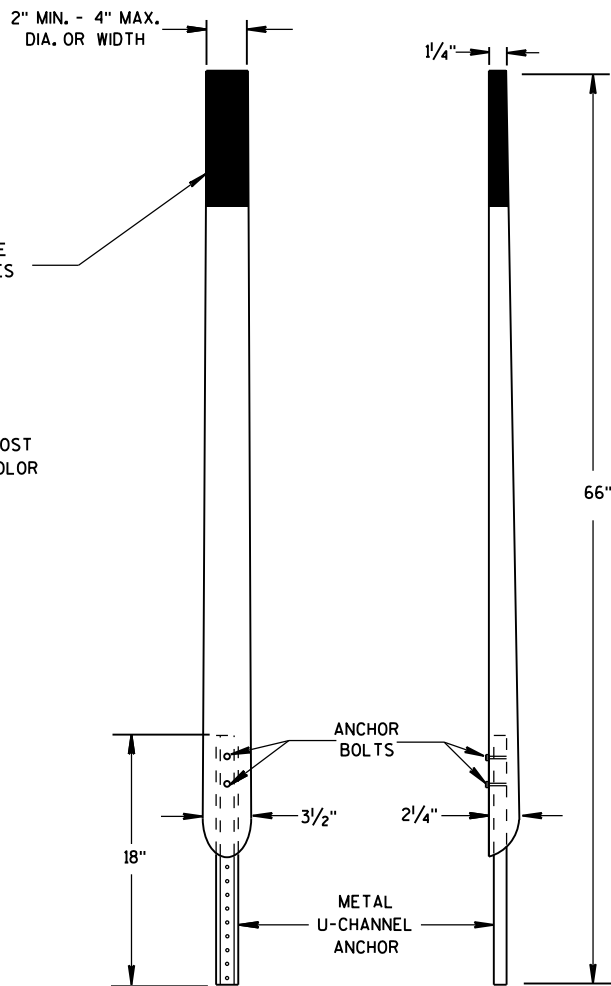
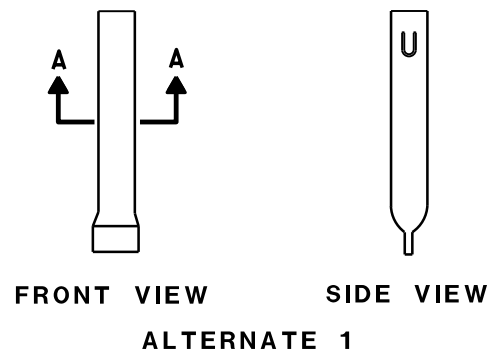
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

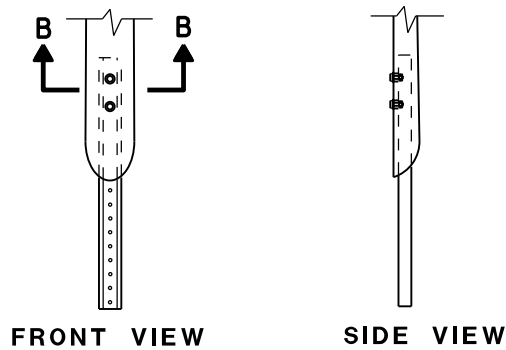
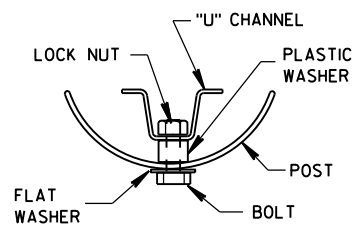


SECTION A-A

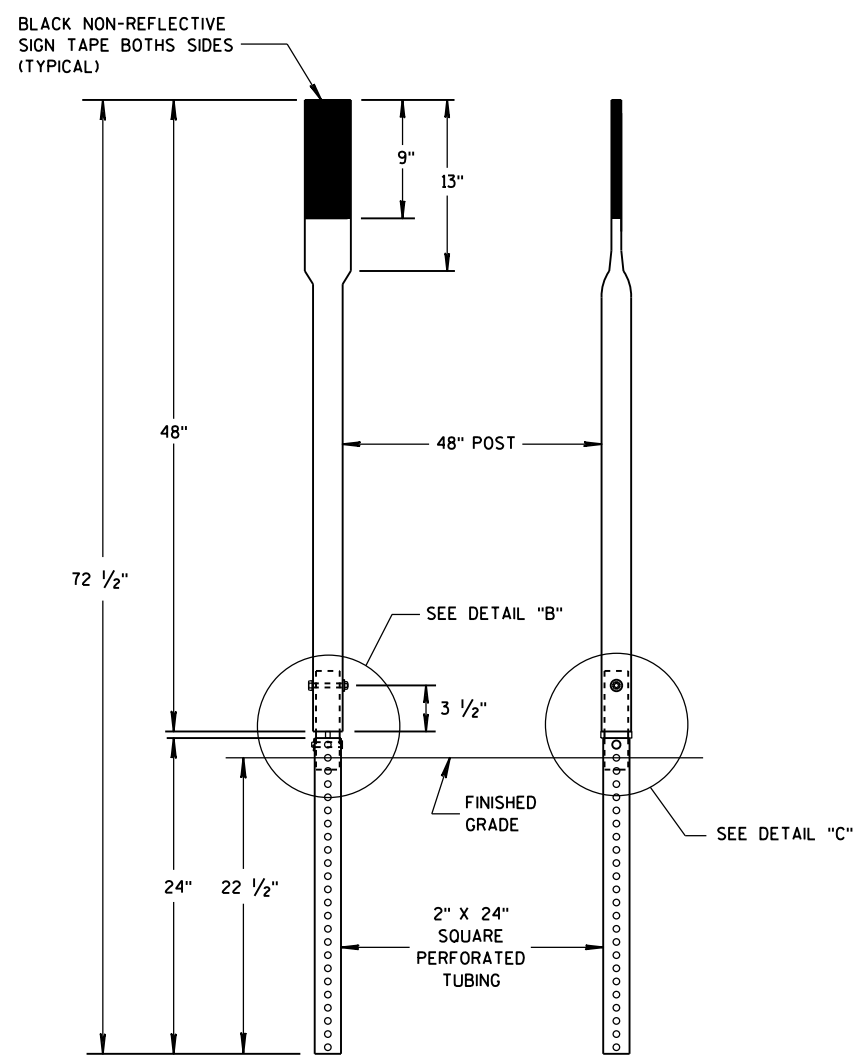


FRONT VIEW SIDE VIEW
ALTERNATE 2

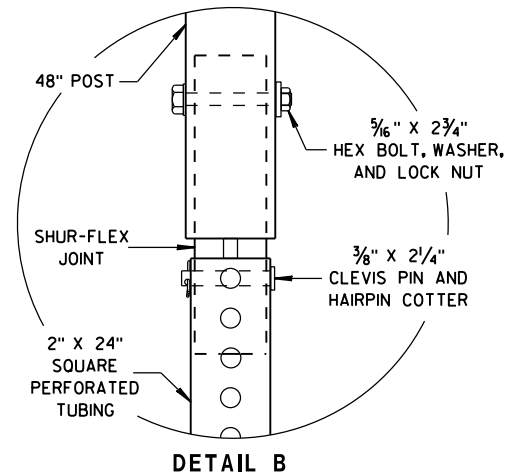
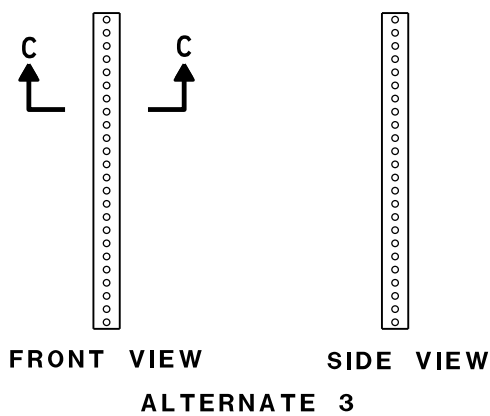
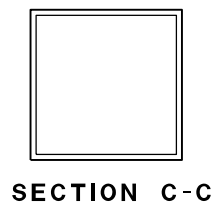
FLEXIBLE MARKER POSTS



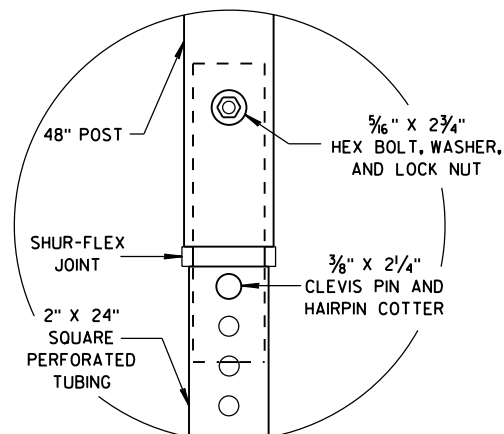
FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B

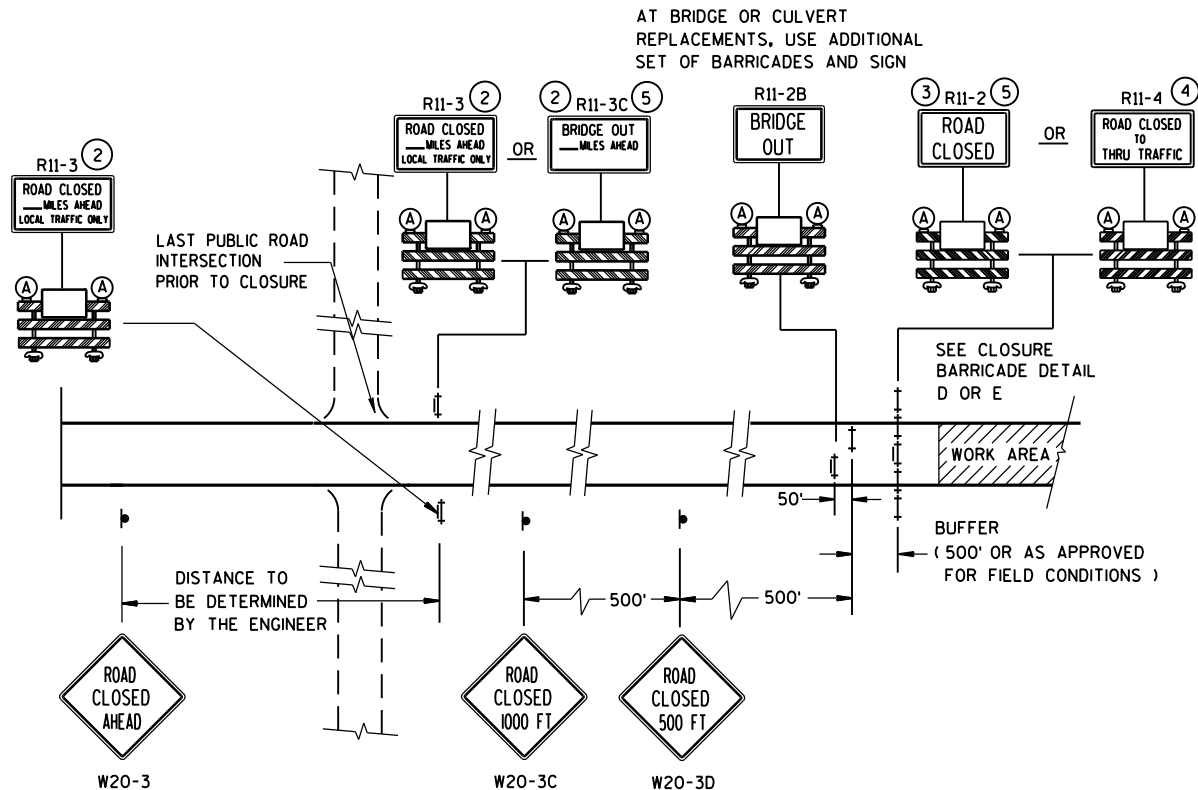
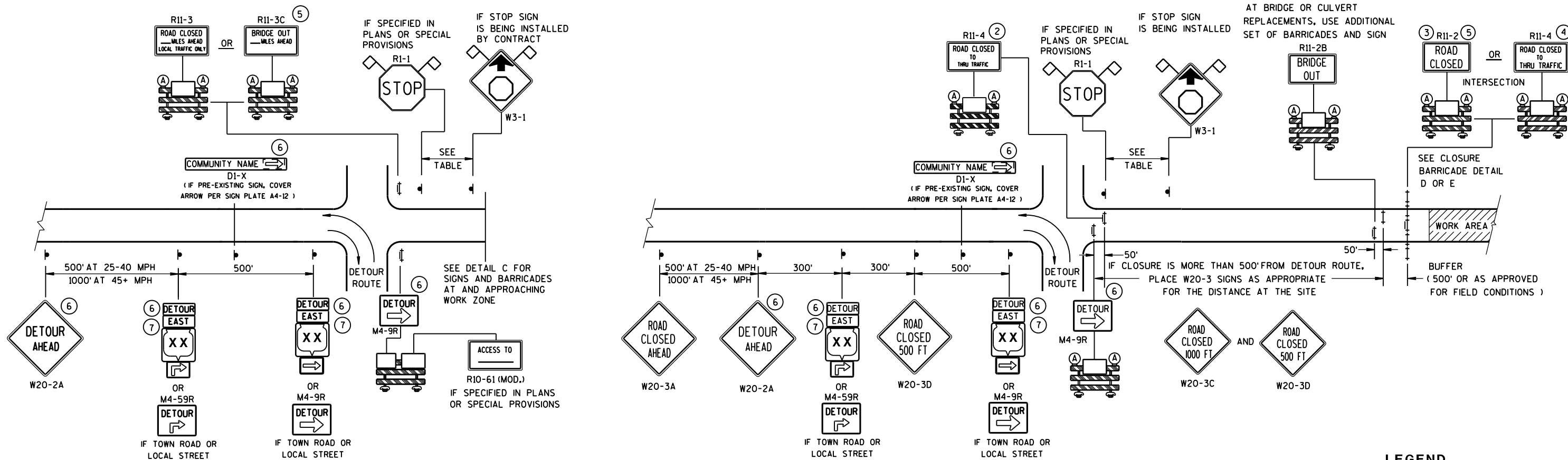


DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

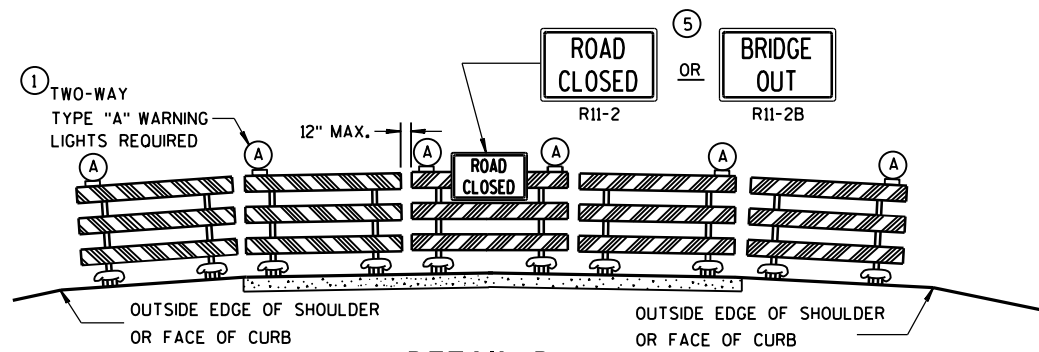
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

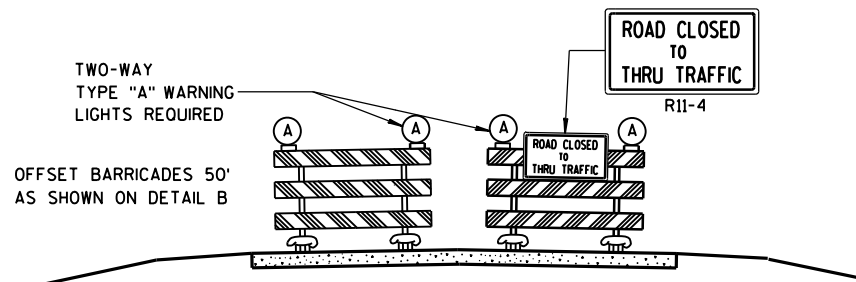


SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

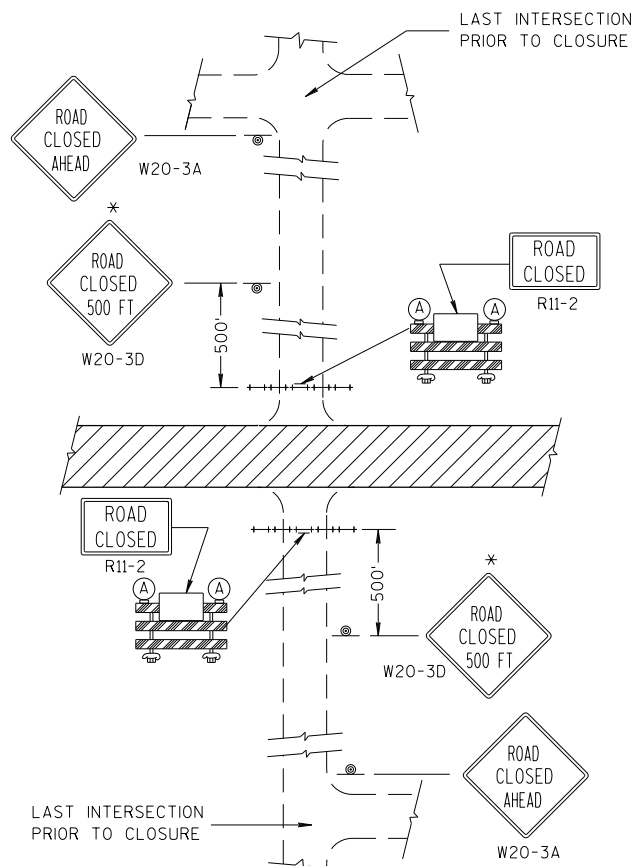
R1-1 SHALL BE 36" X 36".

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

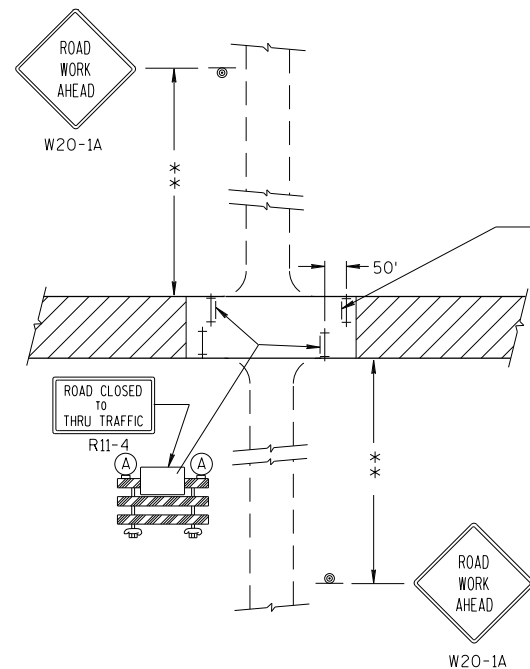
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

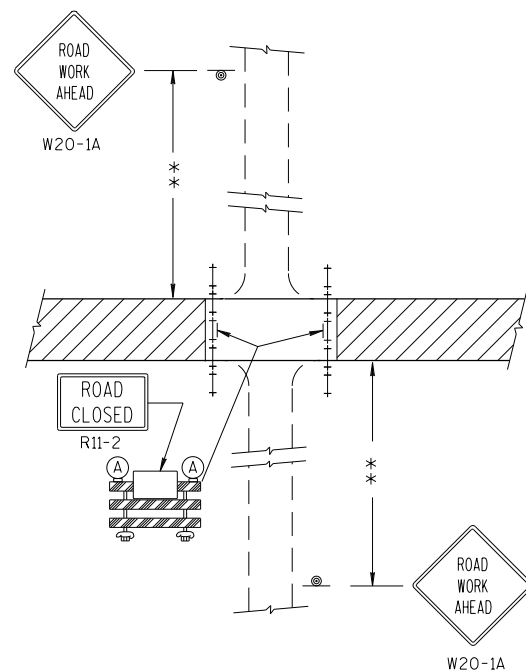
Sept. 2015 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



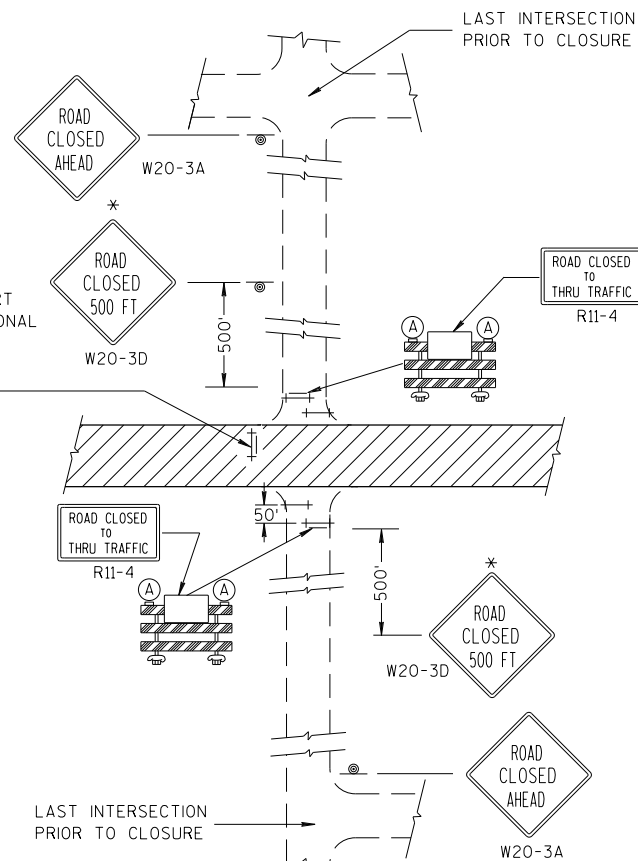
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

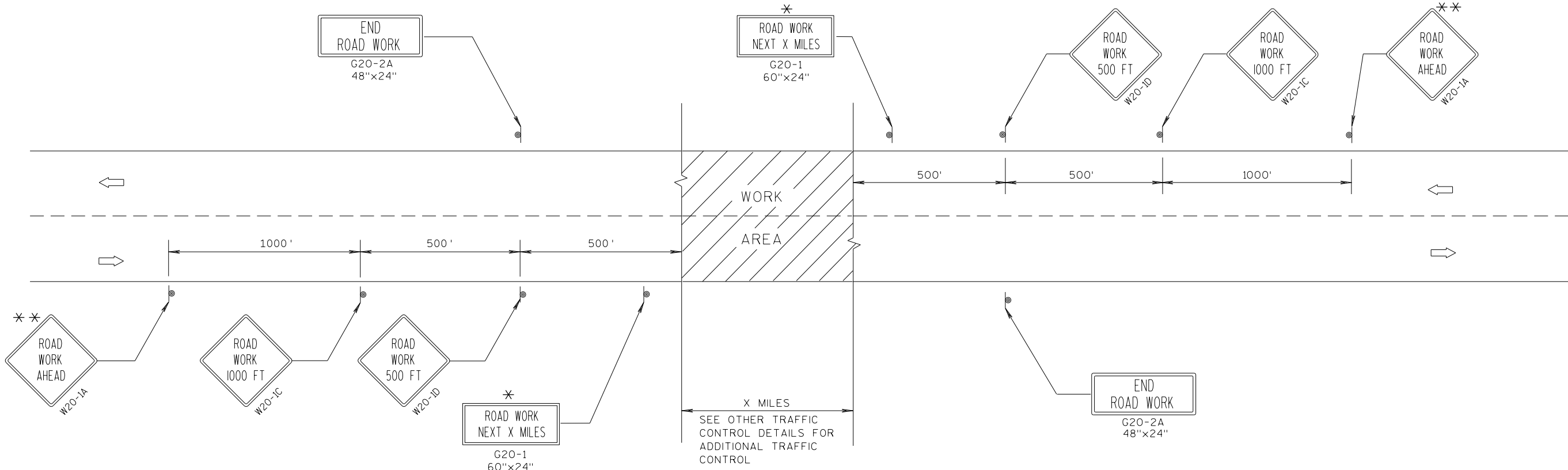
LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

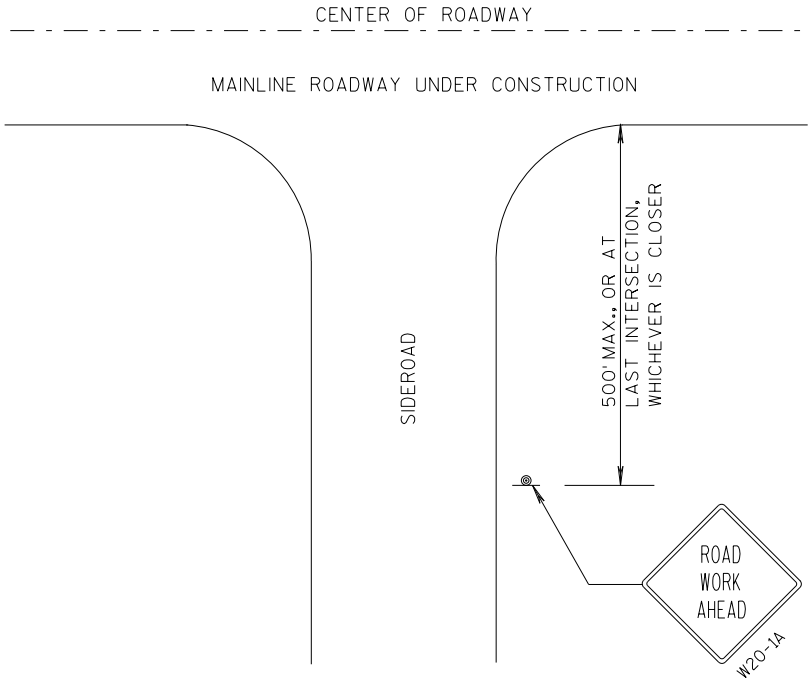
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.

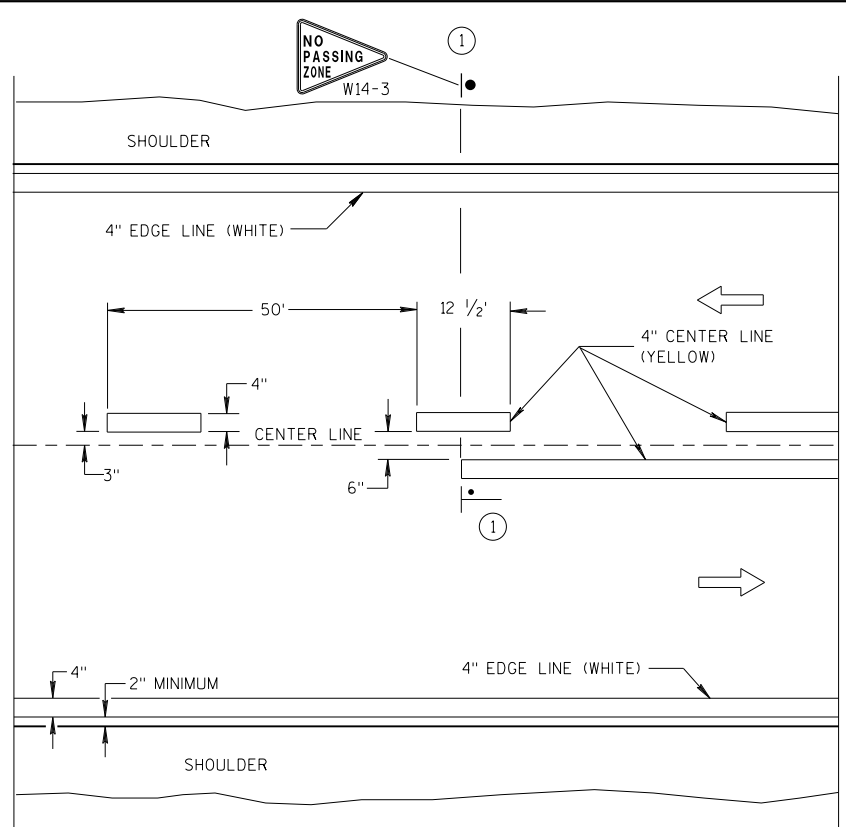
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



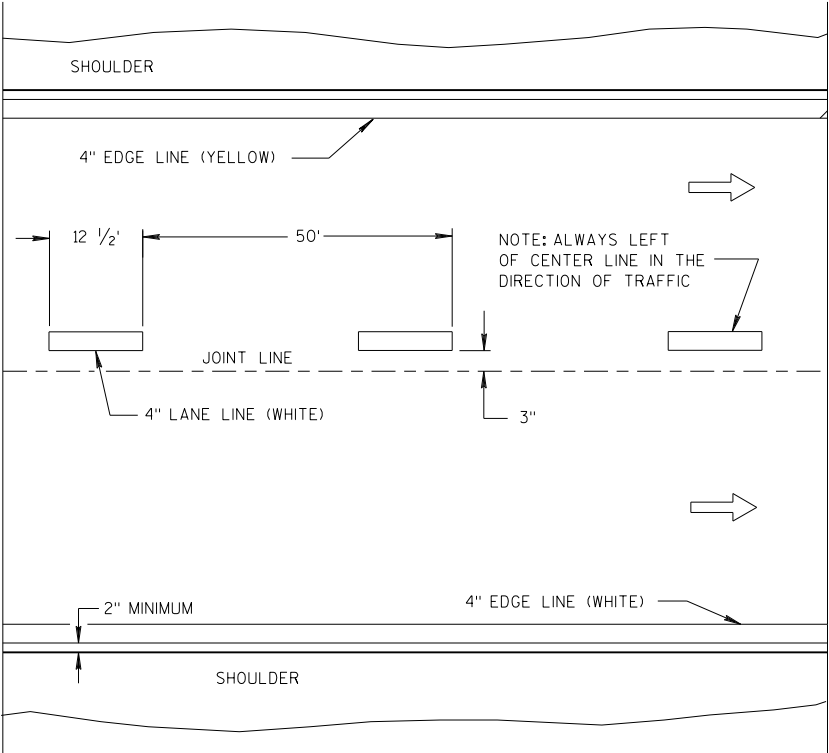
LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

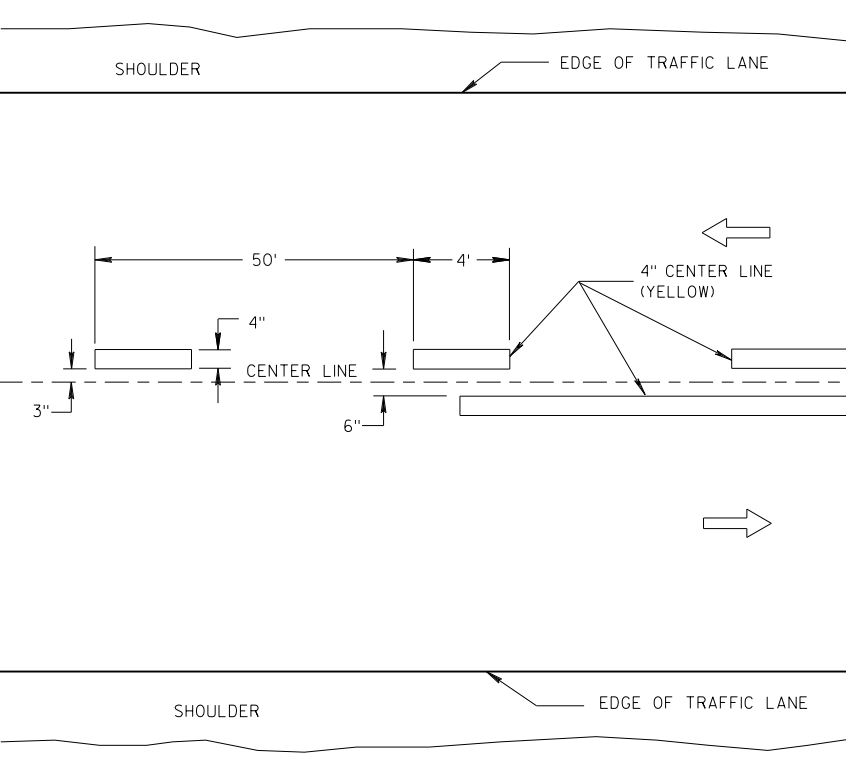


TWO WAY TRAFFIC

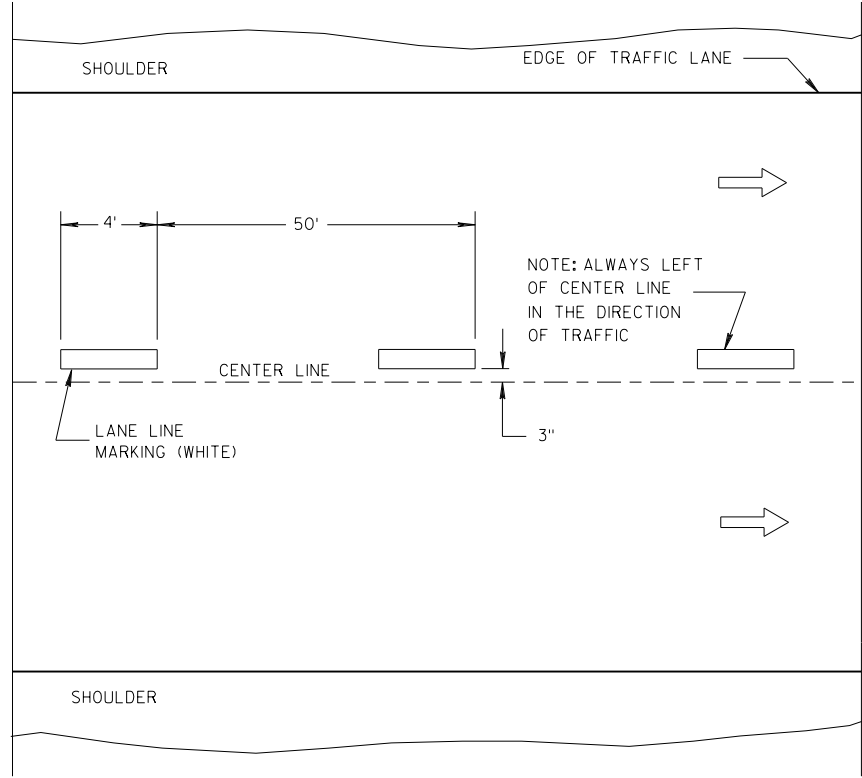


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



W14-3

500' MIN.

NO-PASSING
ZONE MARKING

PERPENDICULAR
TO ROADWAY



W10-1

PAVEMENT MARKING

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

- ① MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

TABLE BASED UPON 2C-4 WISCONSIN
SUPPLEMENT OF MANUAL ON UNIFORM
TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

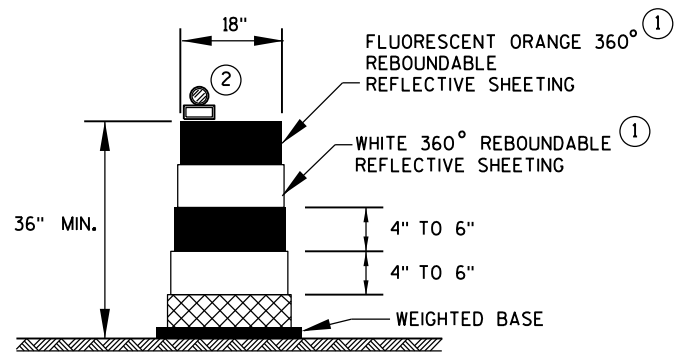
SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

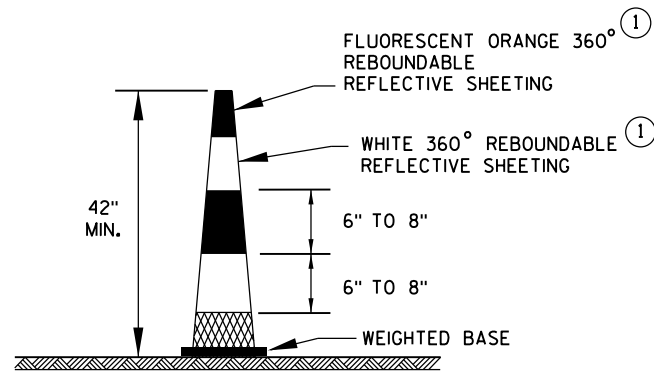
APPROVED

Sept., 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



DRUM

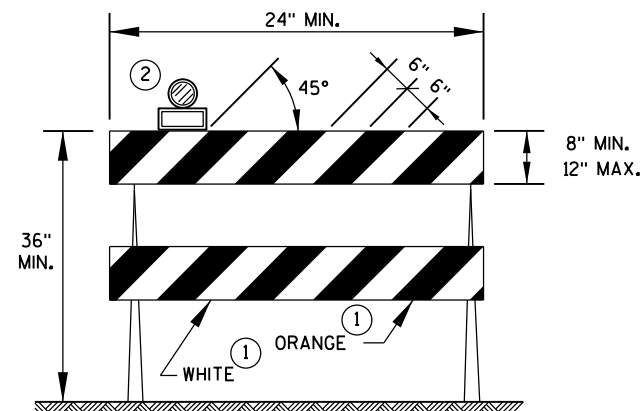


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

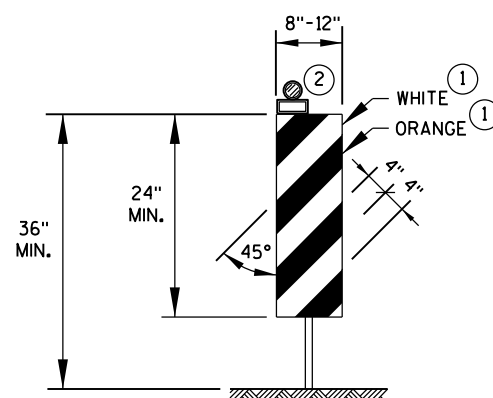
GENERAL NOTES

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



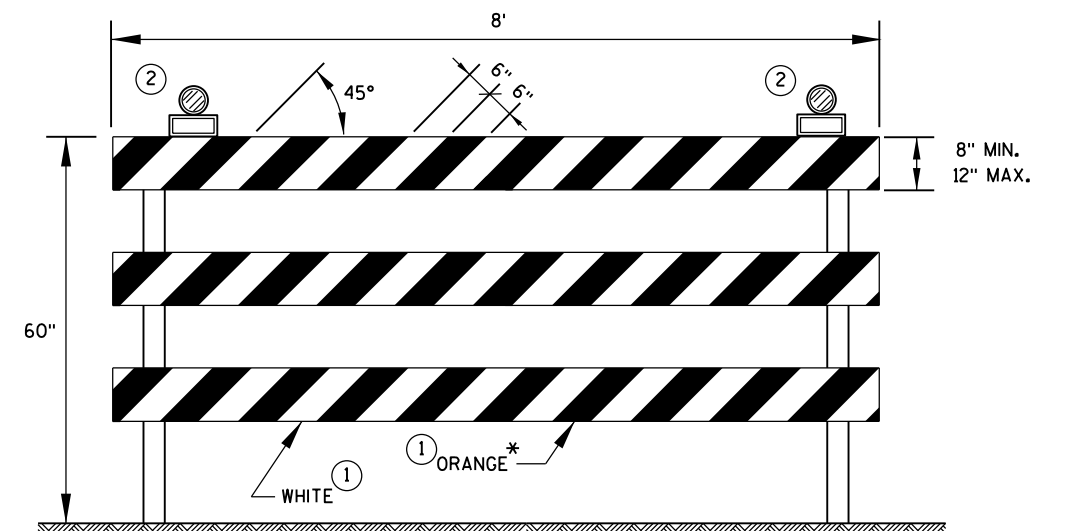
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

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

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

FHWA

/S/ Andrew Heidtke
WORK ZONE ENGINEER

LEGEND

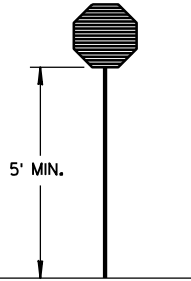
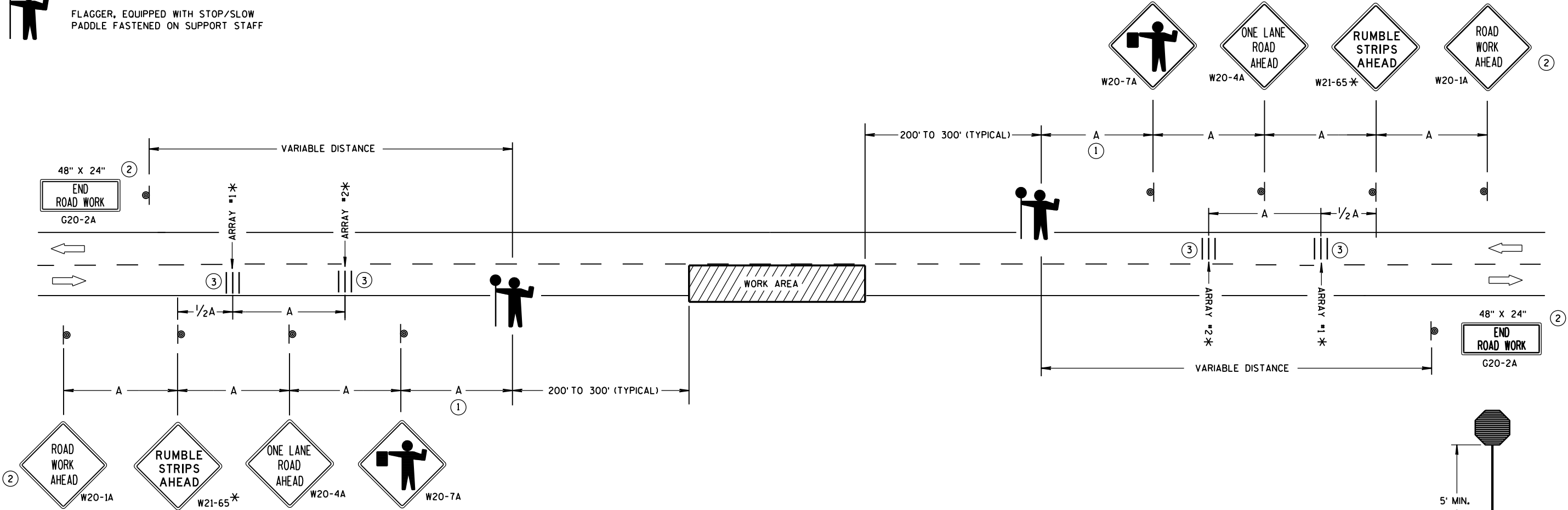
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING A.



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

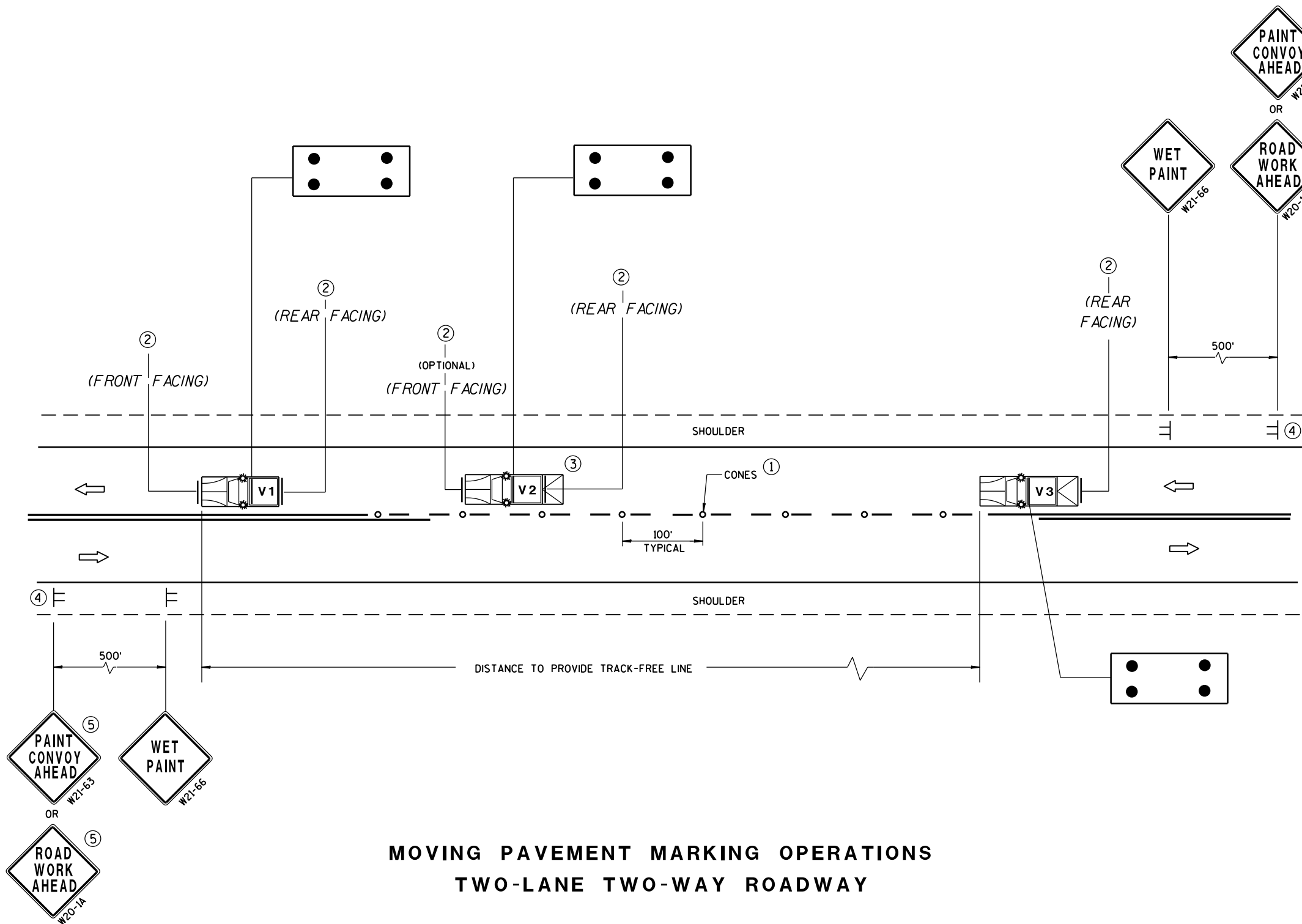
* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

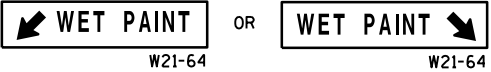
APPROVED
June 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.
- IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.
- ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.
- DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.
- THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.
- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.



OR



LEGEND

- V1** LEAD VEHICLE
- V2** SHADOW VEHICLE
- V3** TRAIL VEHICLE WITH TMA
- TMA** TRUCK-MOUNTED ATTENUATOR

≡ SIGN ON TEMPORARY SUPPORT

→ DIRECTION OF TRAFFIC

○ CONES

⬢ FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

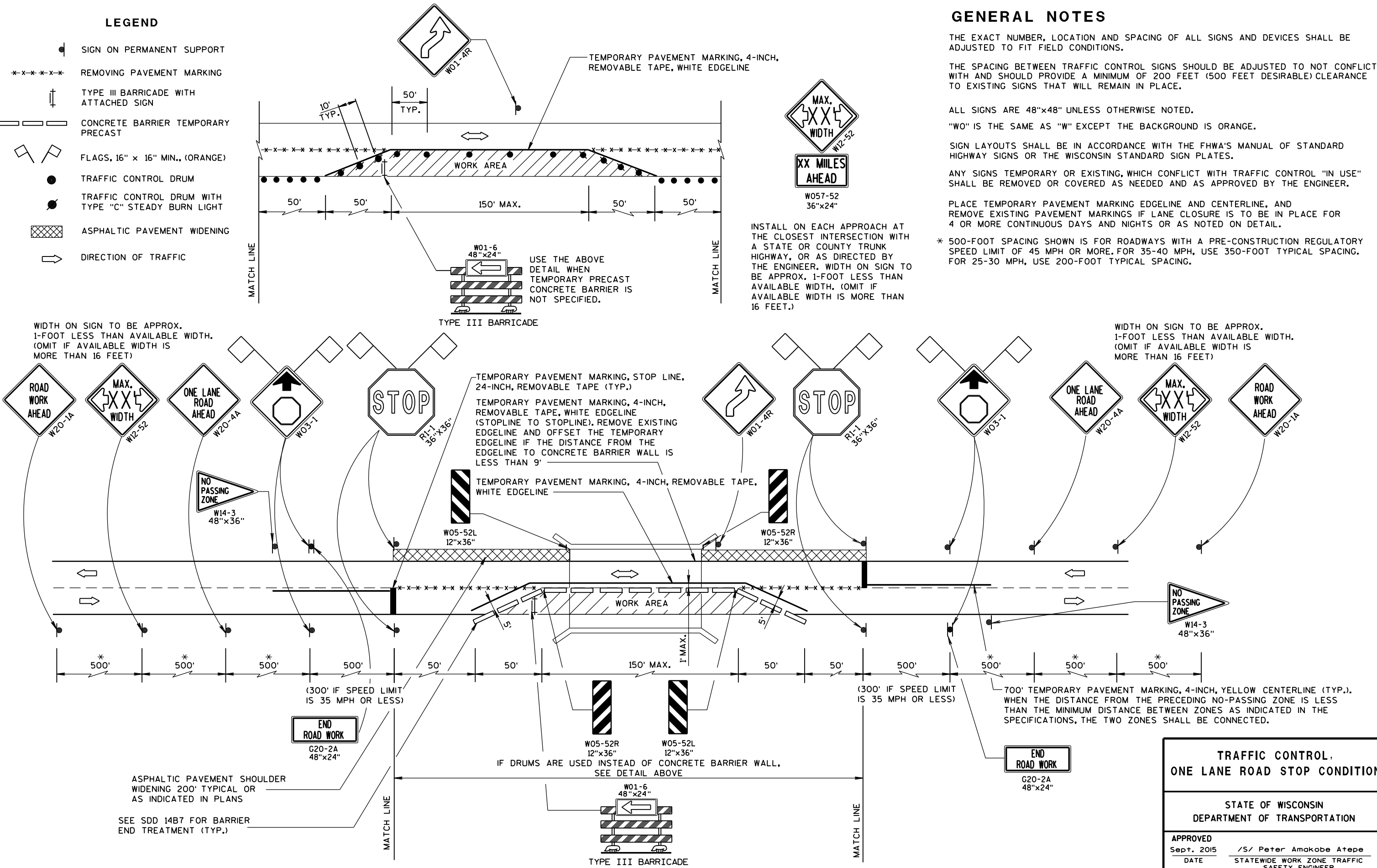
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

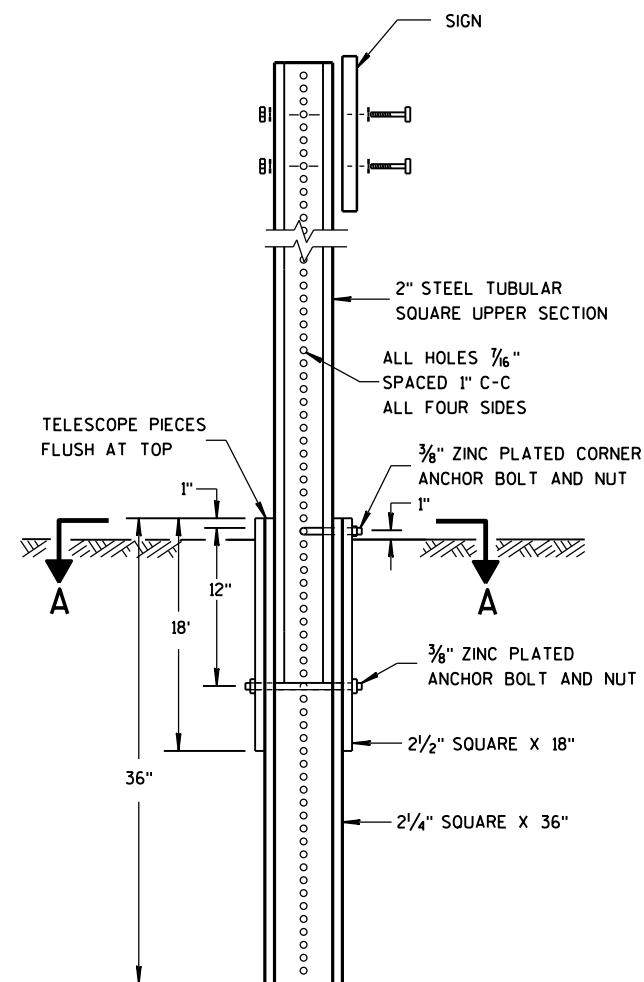
* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.



TRAFFIC CONTROL,
ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

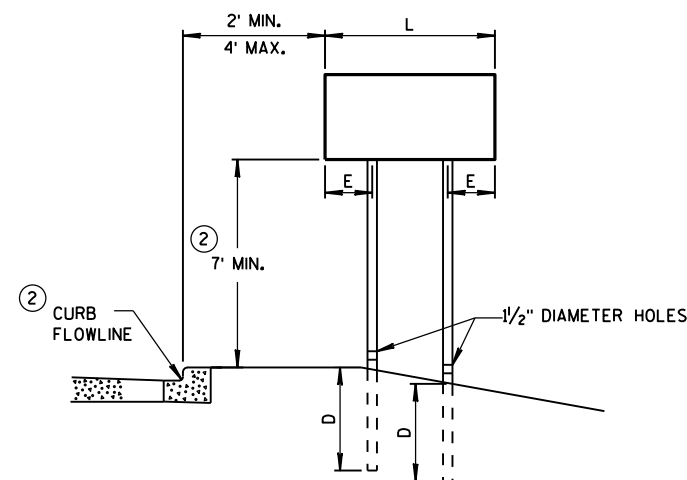
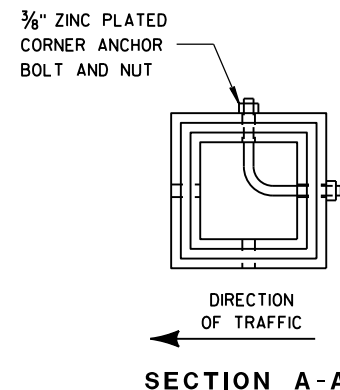


DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

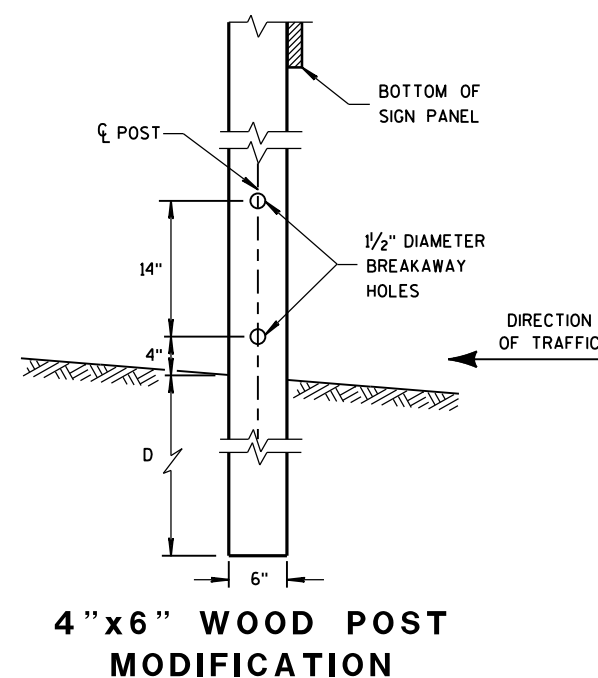
SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED
ON TUBULAR STEEL POSTS.



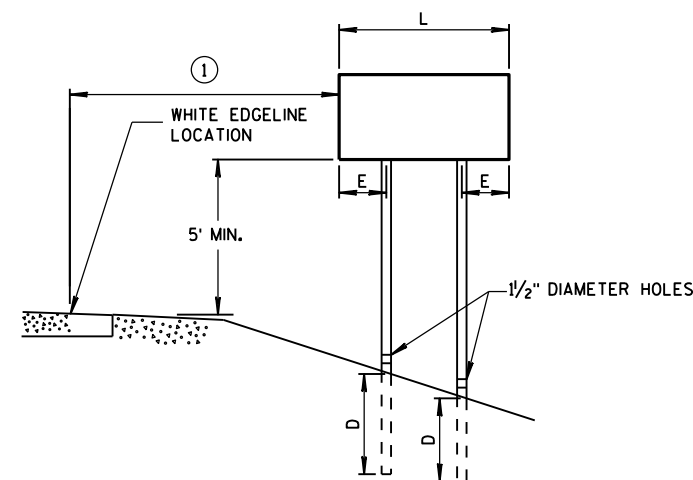
URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

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

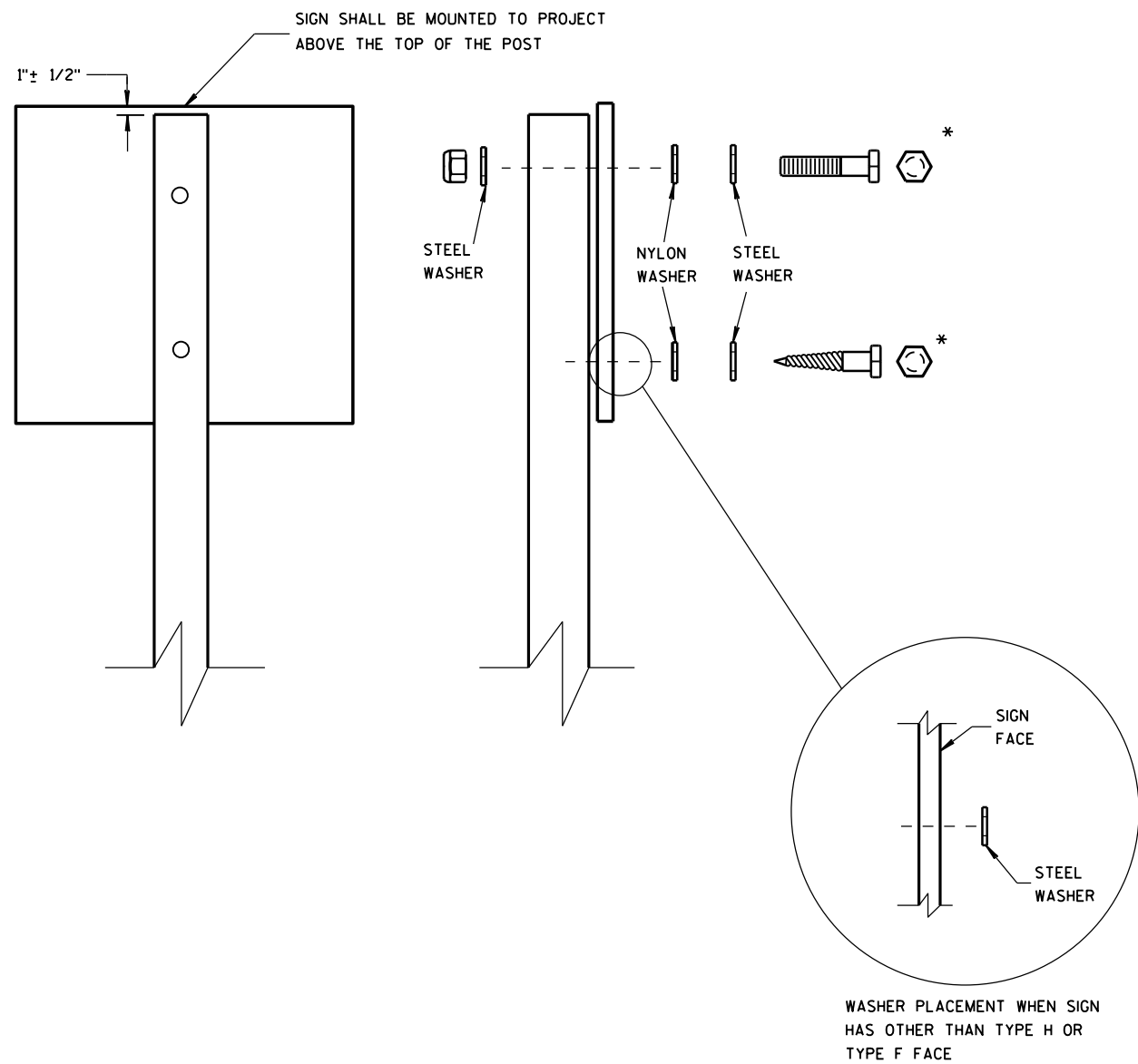
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

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

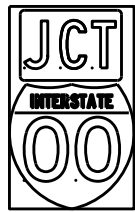
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

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

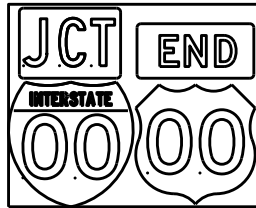
* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

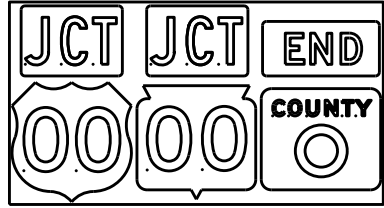
TYPICAL ASSEMBLIES



J1-1



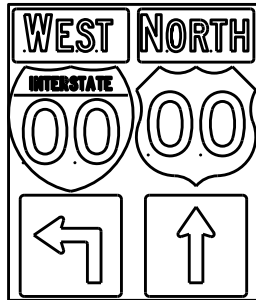
J1-2



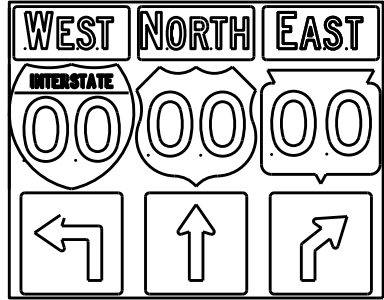
J1-3



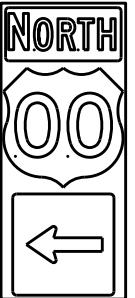
J2-1



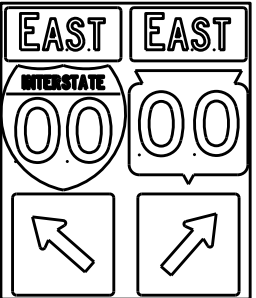
J2-2



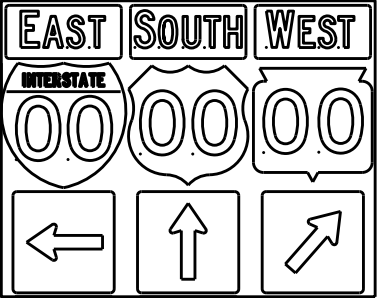
J2-3



J3-1



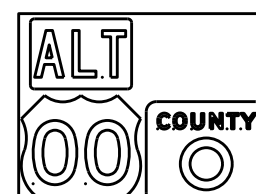
J3-2



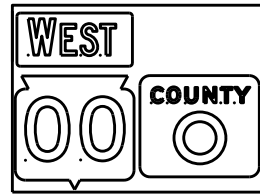
J3-3



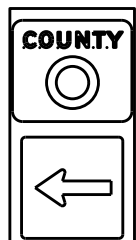
J4-1



J4-2



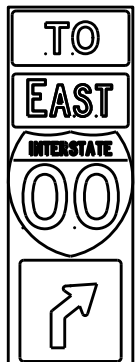
J4-2



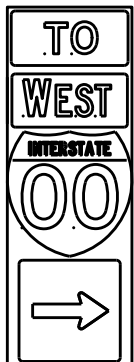
J13-1



J12-1



J32-1



J33-1



J23-1

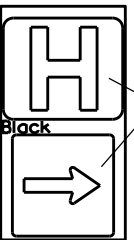


J22-1



JV

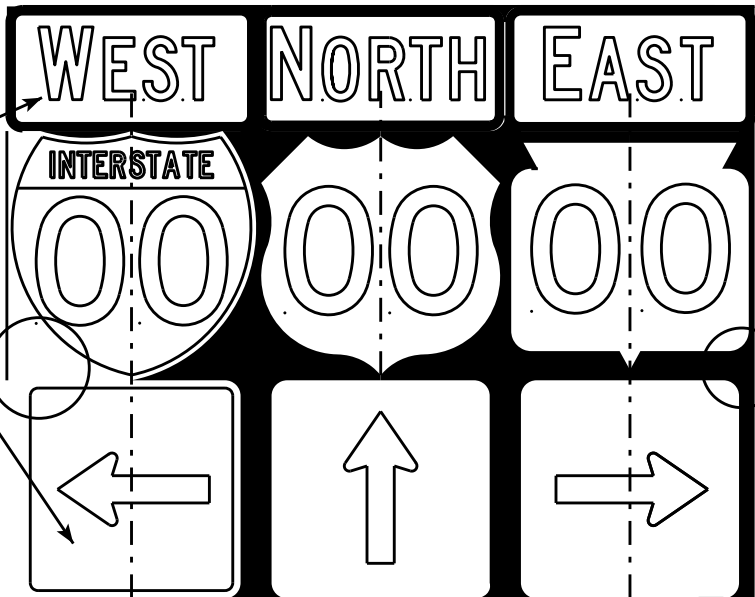
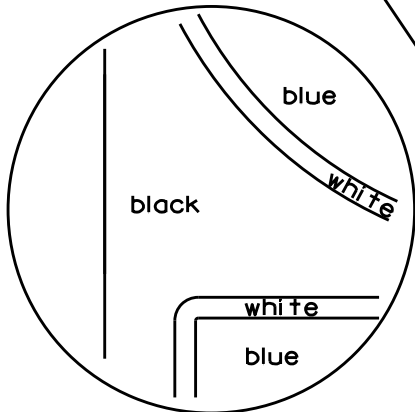
(Typical Vertical J-Assembly
See Note 10 and 11)



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 PLATE NO. A2-1S.8

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.

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

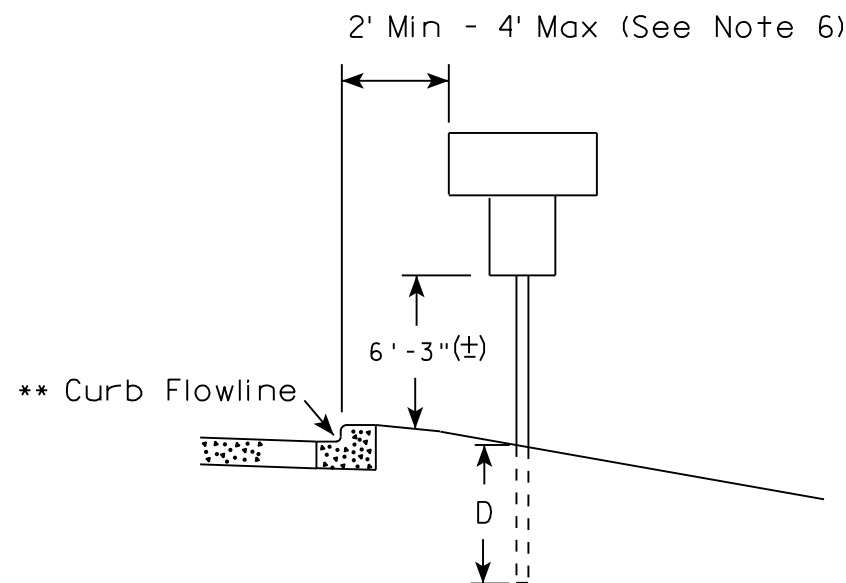
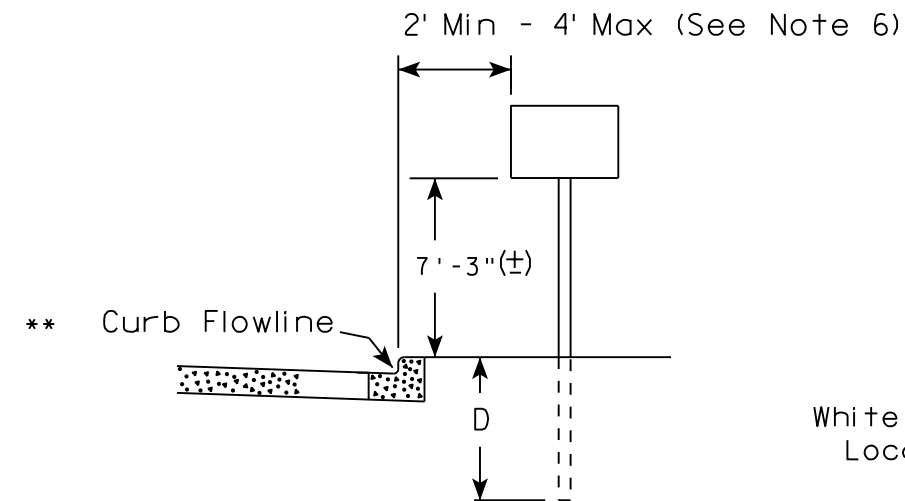
PLOT NAME :

SHEET NO:

E

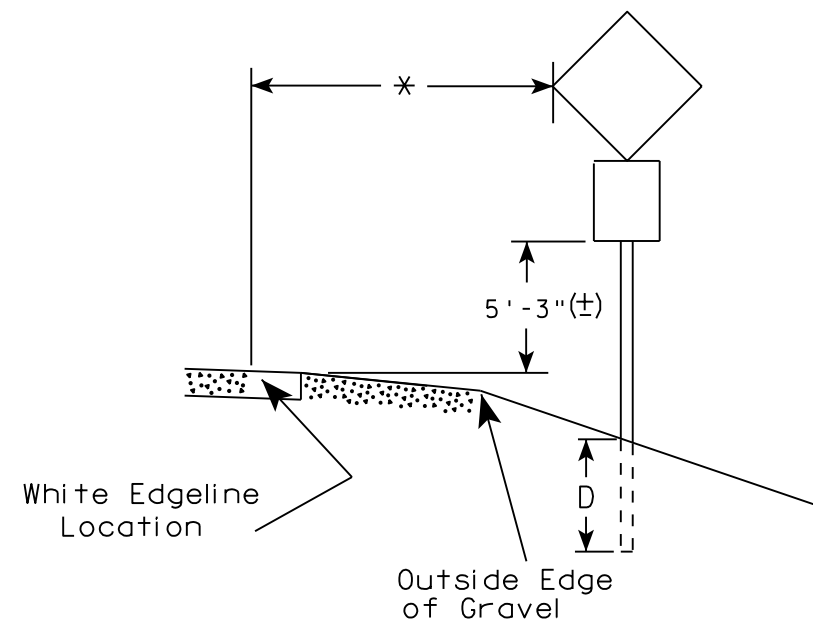
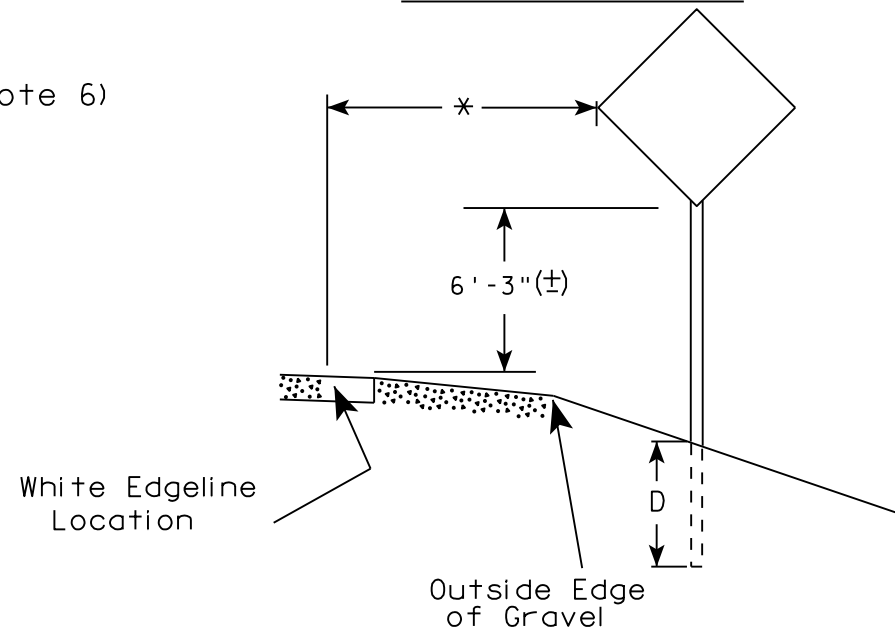
WISDOT/CADDs SHEET 42

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

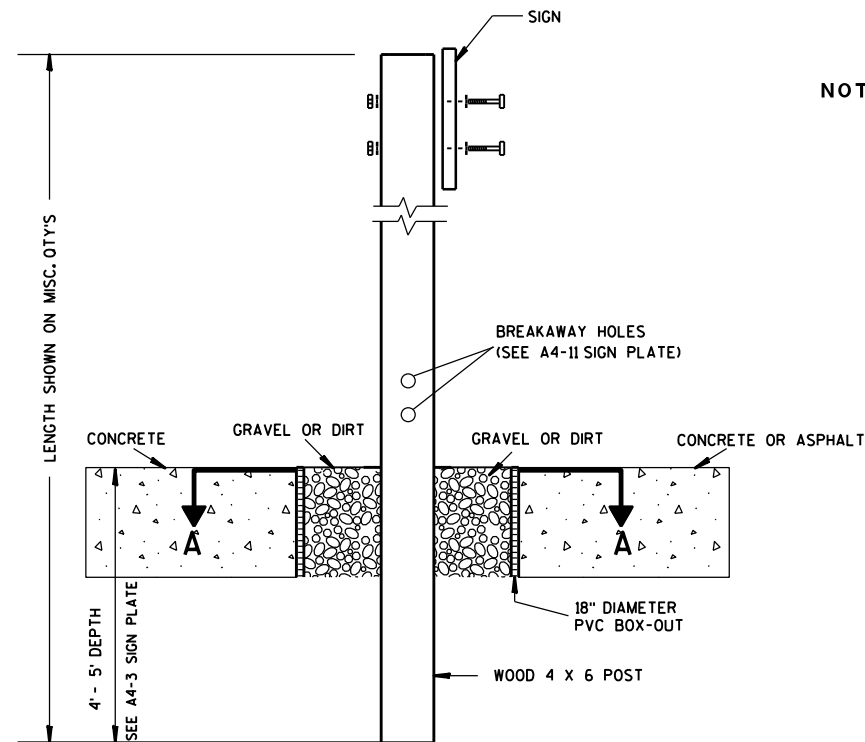
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

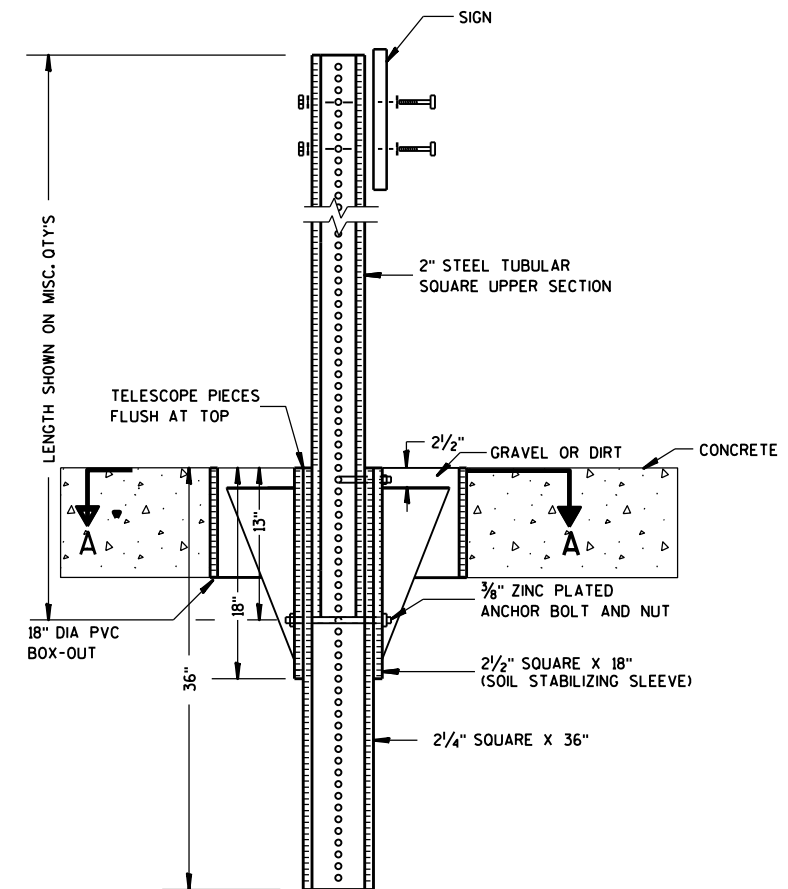
DATE 8/21/17 PLATE NO. A4-3.21



ELEVATION VIEW

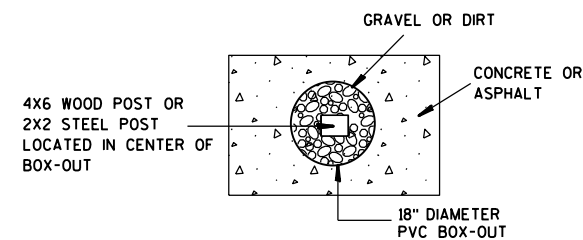
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

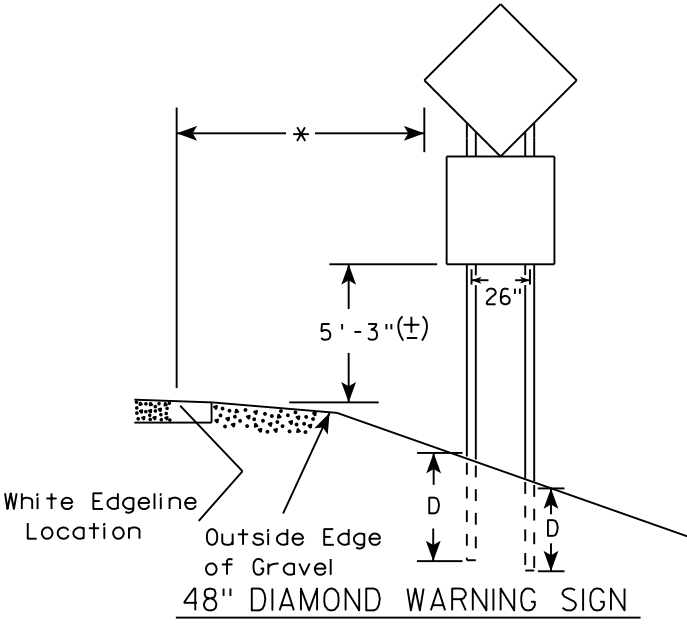
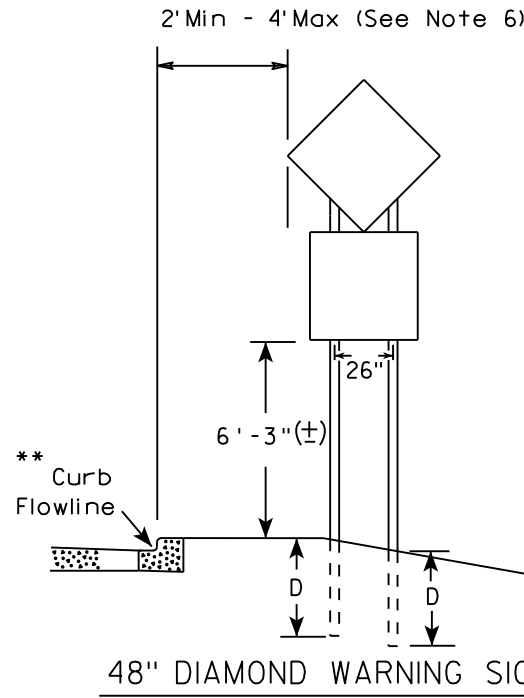
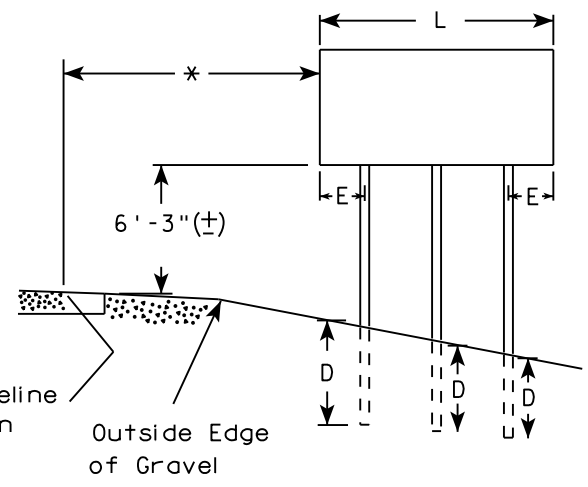
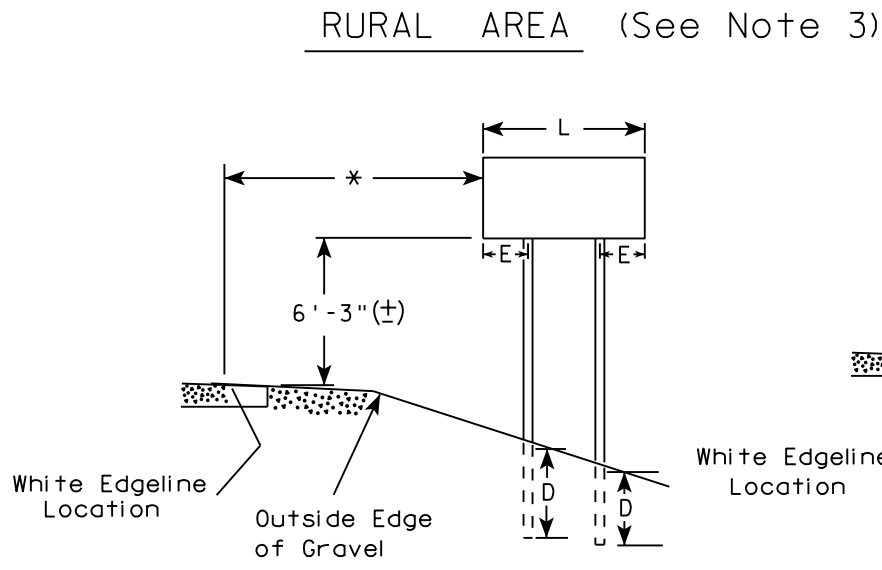
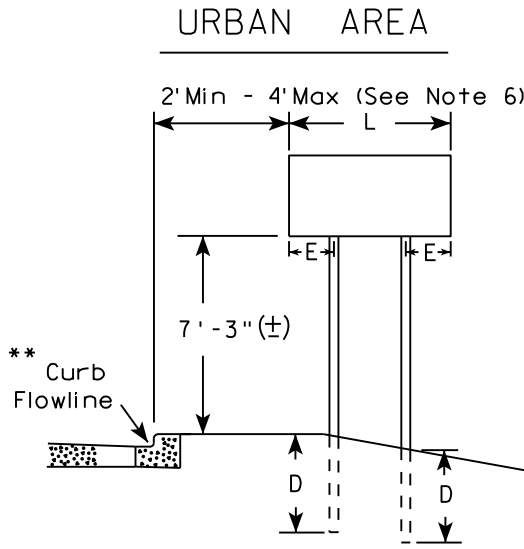
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

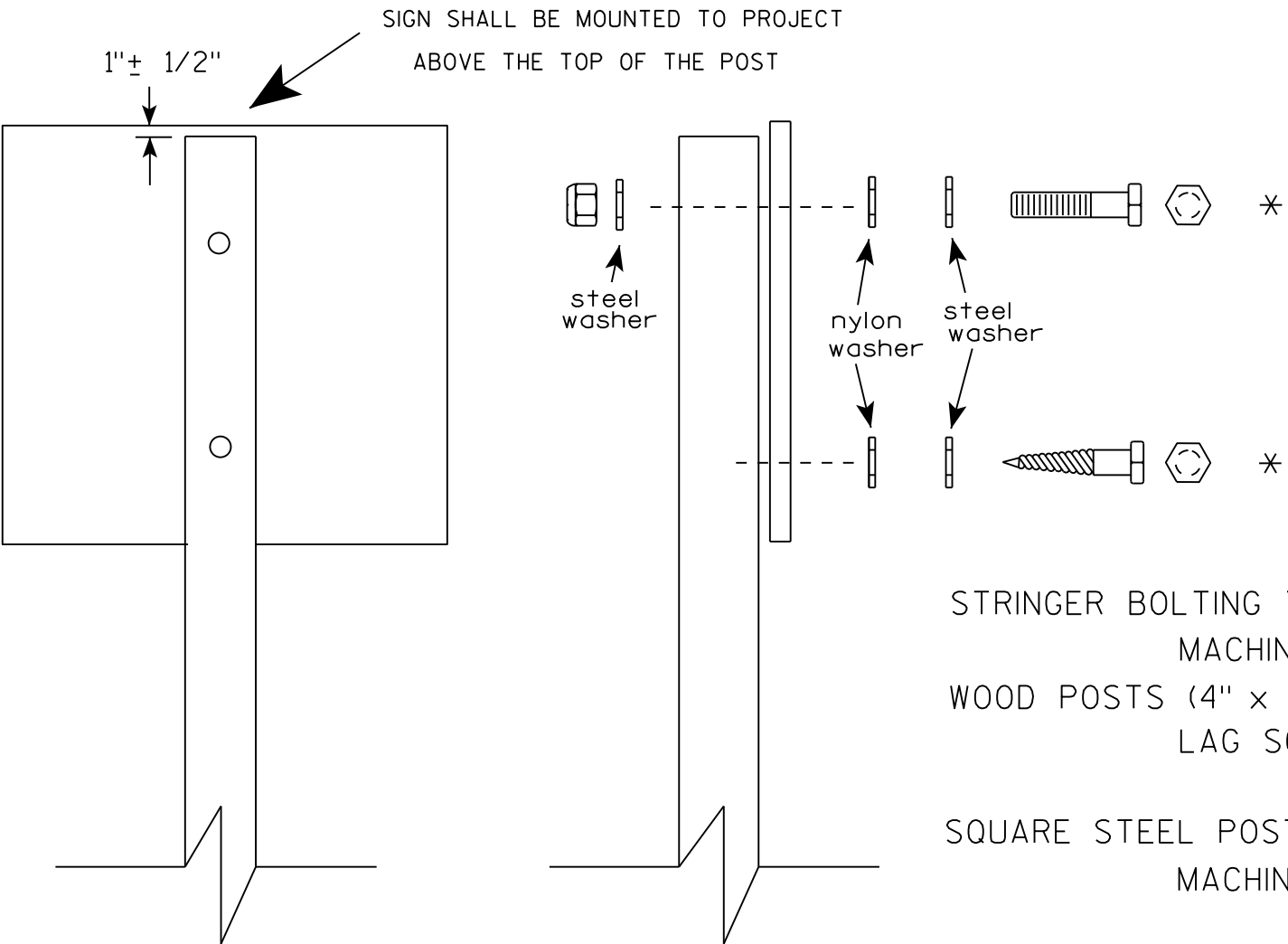
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 8/21/17	PLATE NO. A4-4.15

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

- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- *** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



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

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

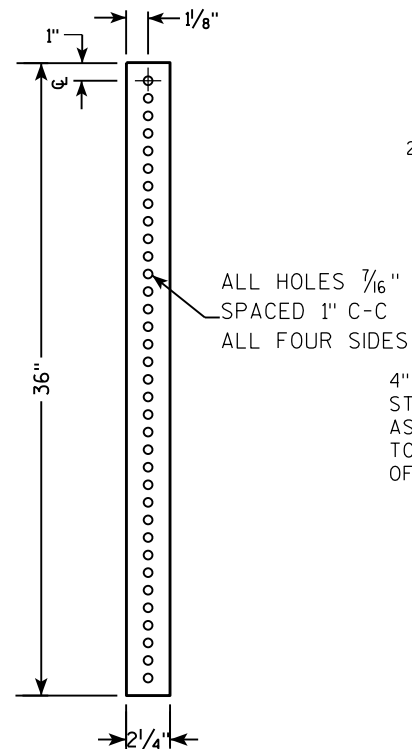
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- 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

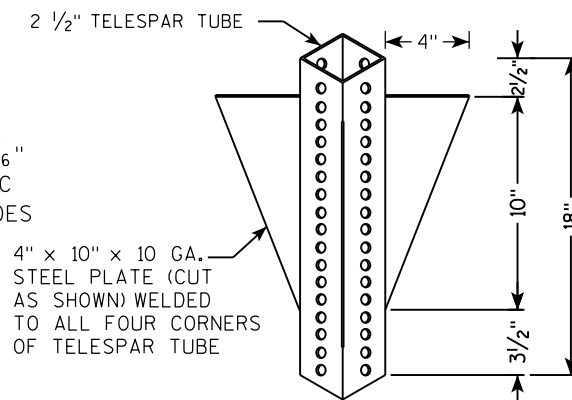
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require 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 8/11/16	PLATE NO. A4-8.8

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



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



LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 36"
 18"
 13"
 2 1/2"
 2 1/4" SQUARE X 36"
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 2 1/2" GRAVEL OR DIRT
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2" STEEL TUBULAR SQUARE UPPER SECTION
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

LENGTH SHOWN ON MISC. QTY'S

SIGN

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

1"

TELESCOPE PIECES FLUSH AT TOP

36"

18"

12"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

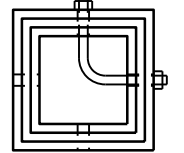
2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

A

A

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



DIRECTION
OF TRAFFIC

SECTION A-A

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

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

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

PROJECT NO:

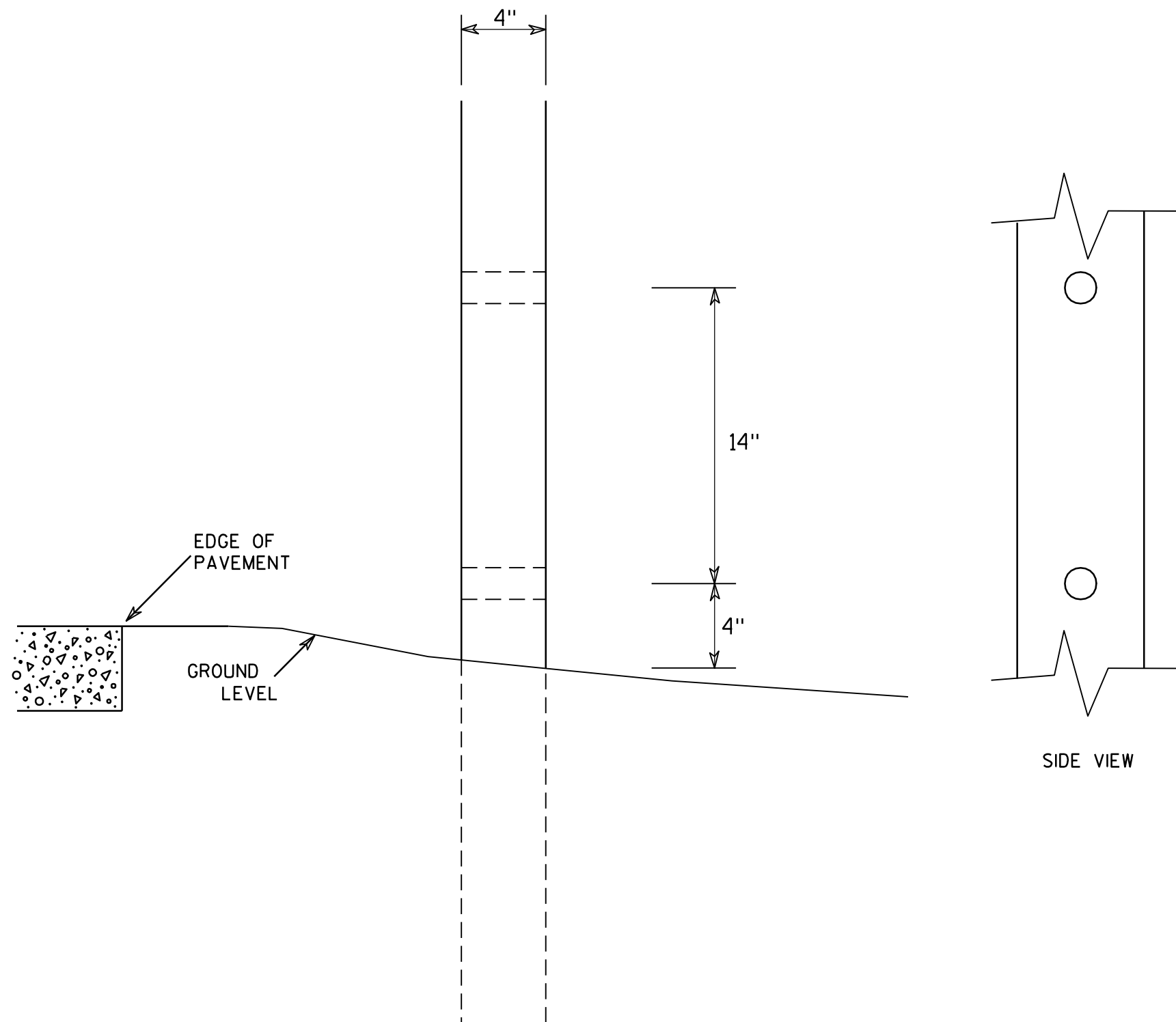
HWY:

COUNTY:

SHEET NO:

11

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

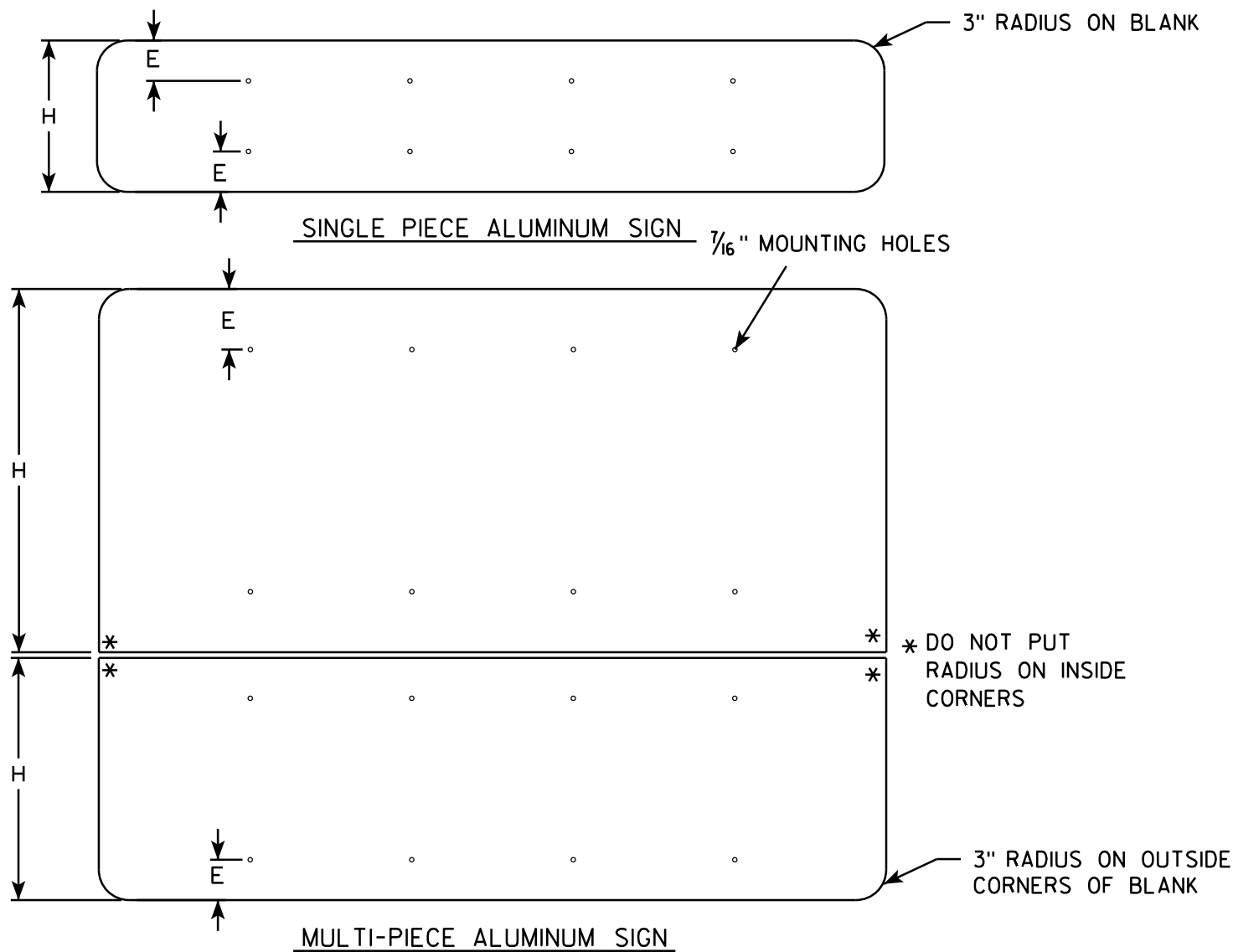
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

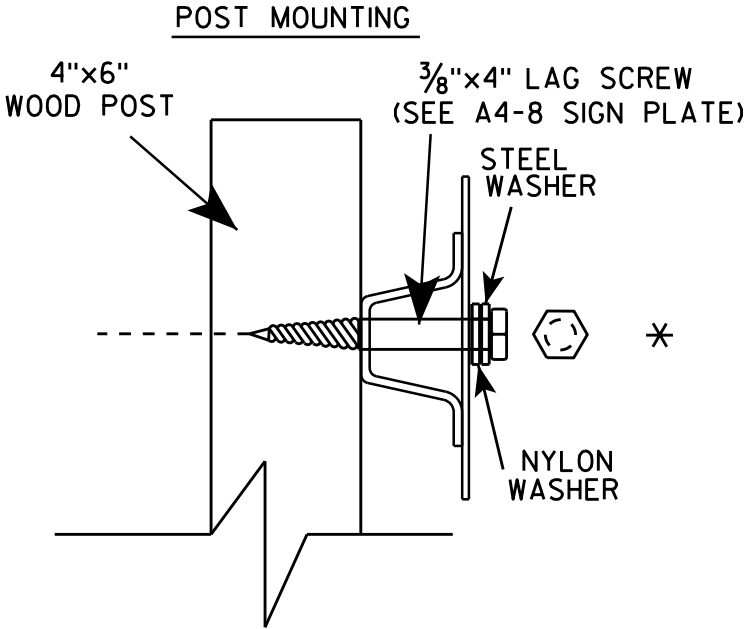
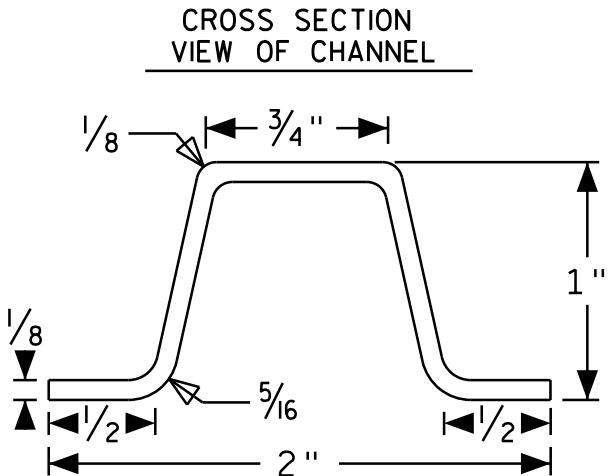
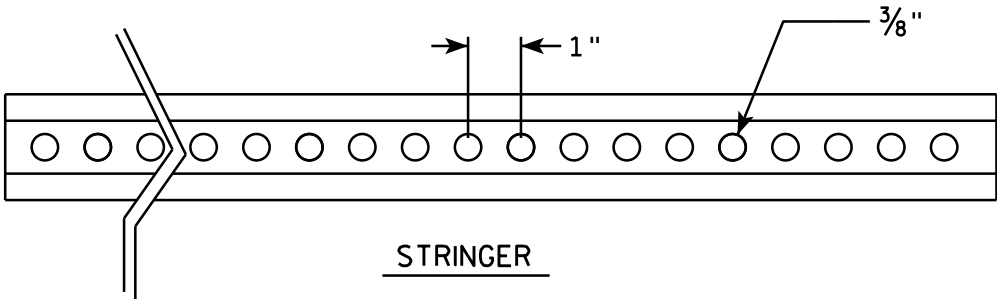
E



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"



SIGN STRINGER
MOUNTING REQUIREMENTS

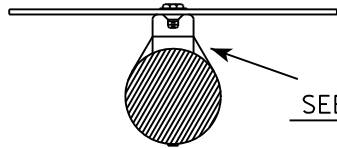
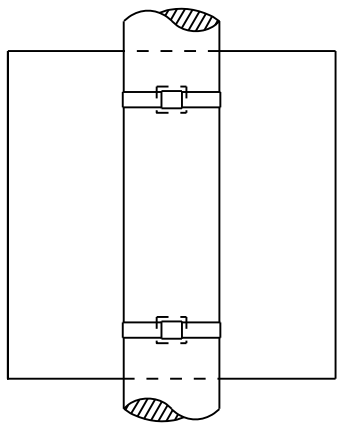
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

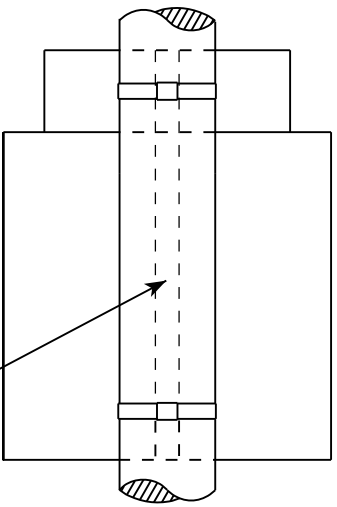
BANDING

SINGLE SIGN

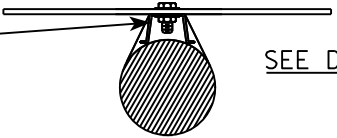


SEE DETAIL A

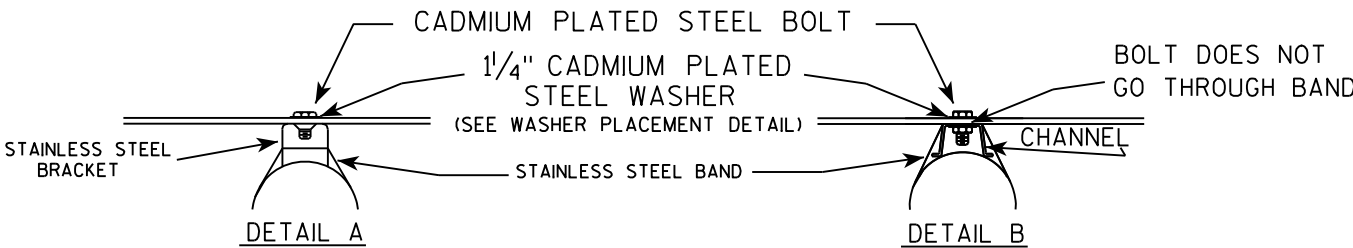
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



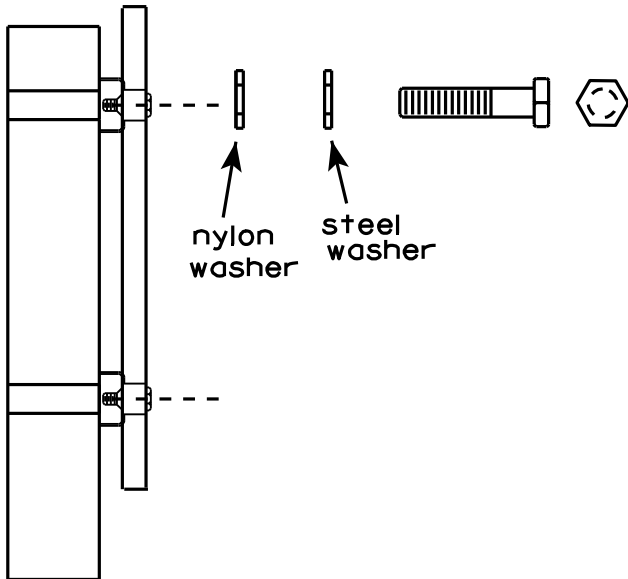
SEE DETAIL B



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



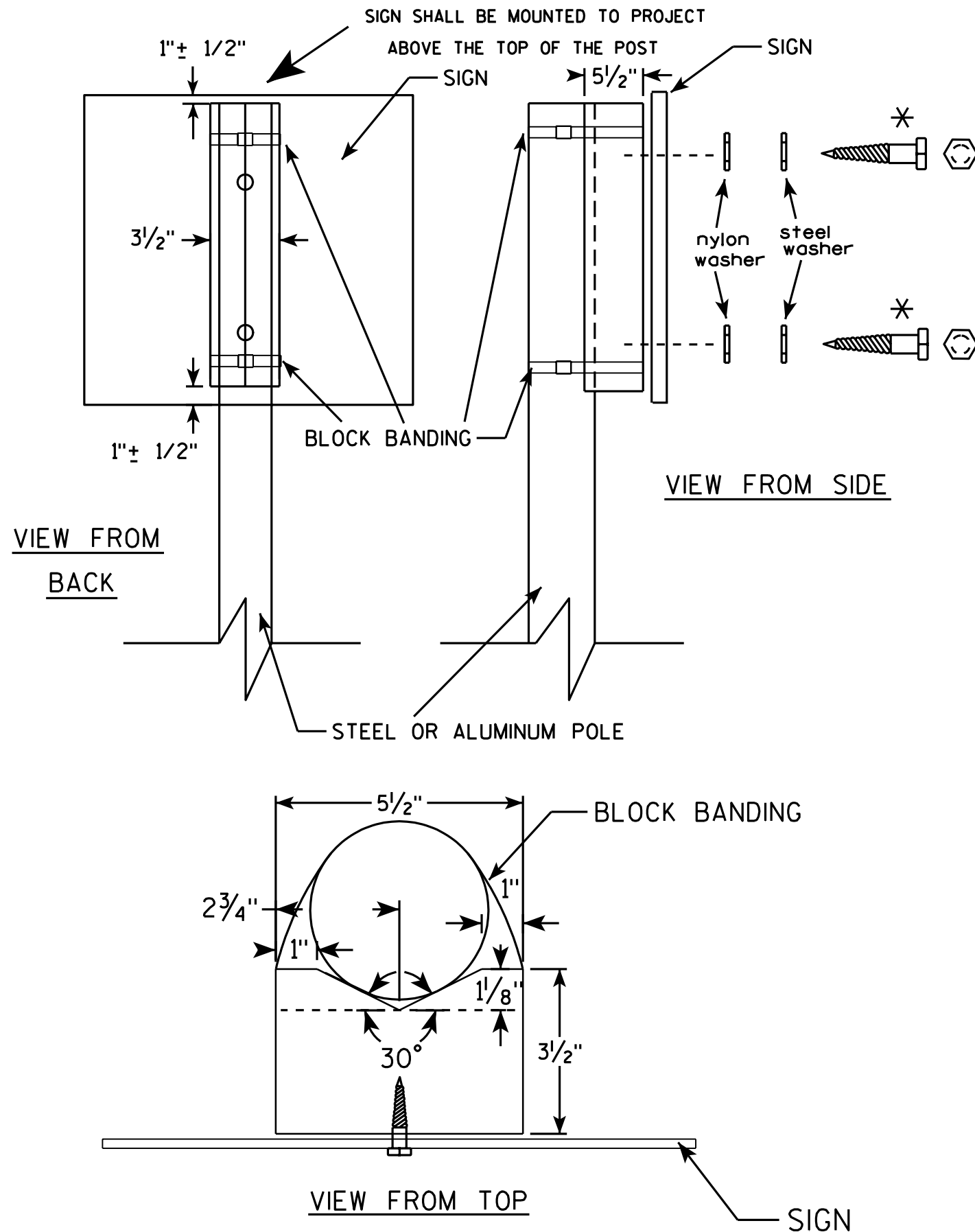
WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

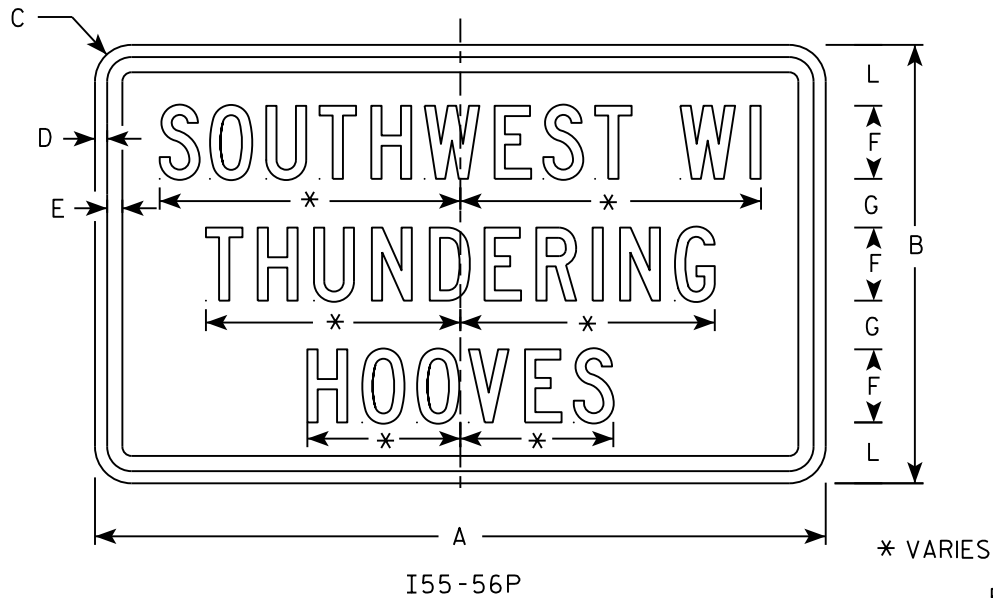
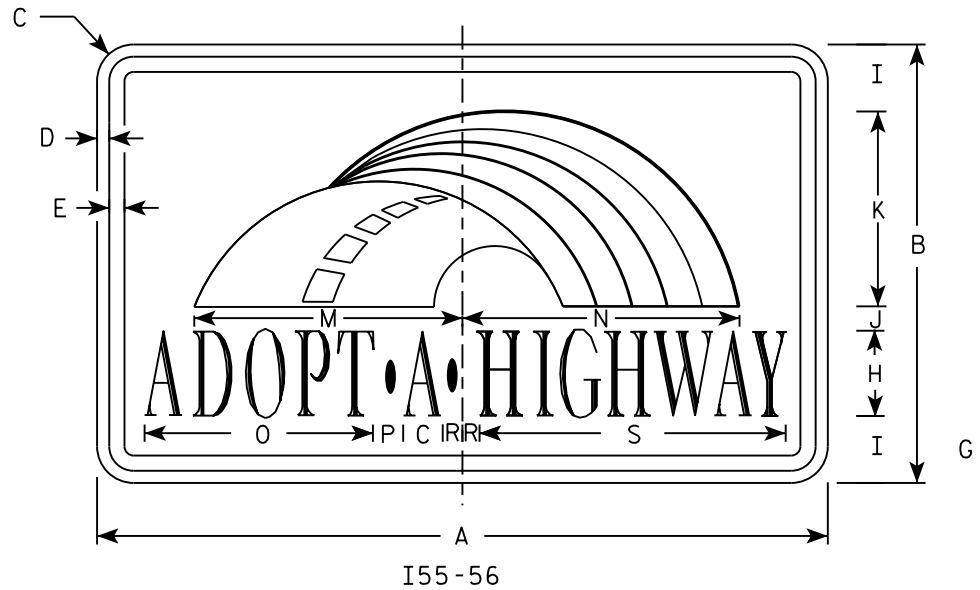
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

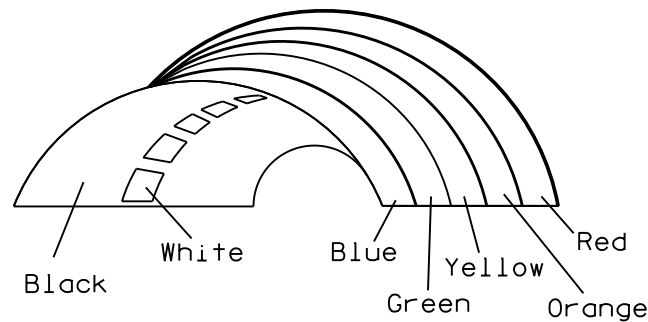
PROJECT NO:

SHEET NO:

E



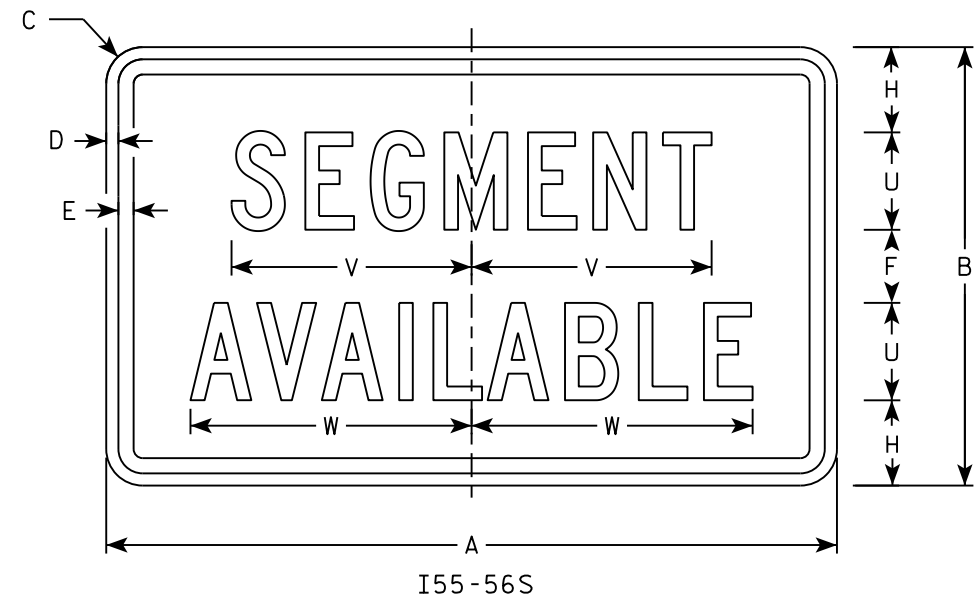
Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue
Adopt a Highway - Red
All other Text - Blue
5. Adopt a Highway - Dutch 8011L
All other Text - Series C
6. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	18	1 1/2	1/2	5/8	3	2	3 1/2	2 3/4	1	8	2 1/2	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2	4	9 7/8	11 1/2				3.75
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

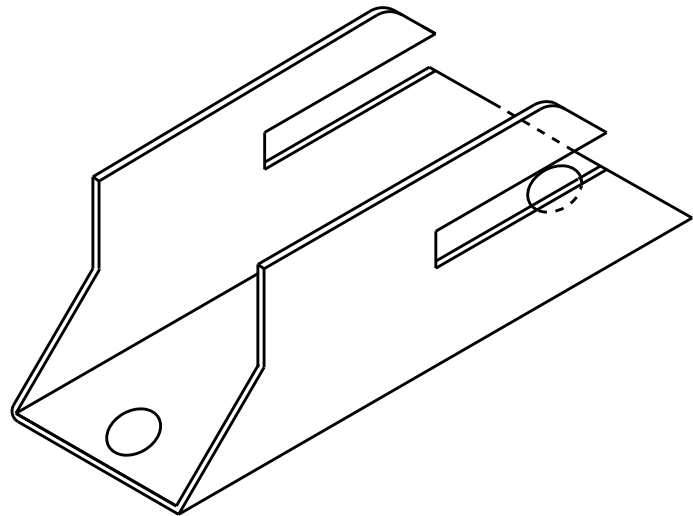
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

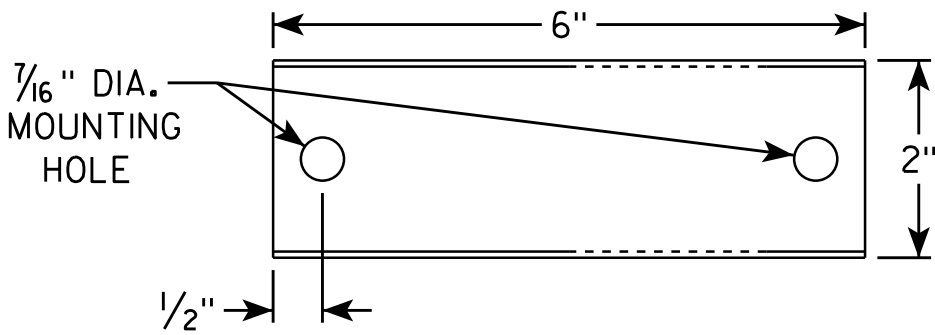
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/20/18 PLATE NO. I55-56.4

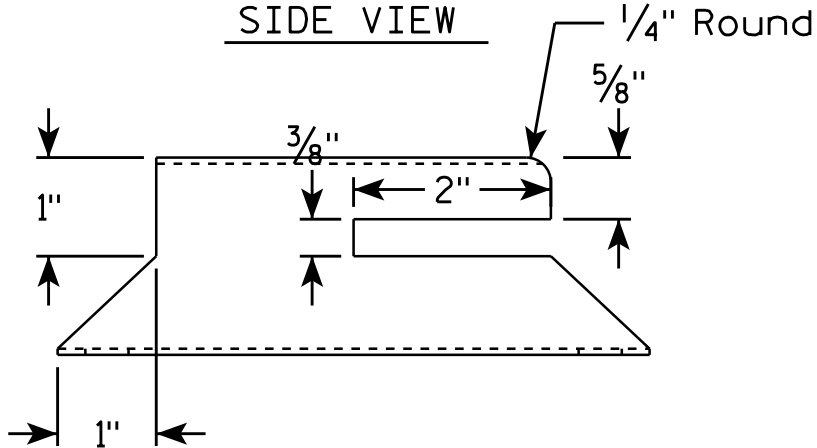
ISOMETRIC VIEW



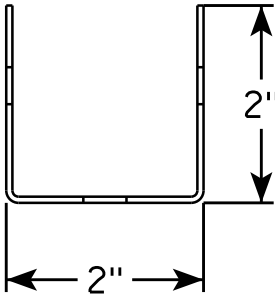
TOP VIEW



SIDE VIEW



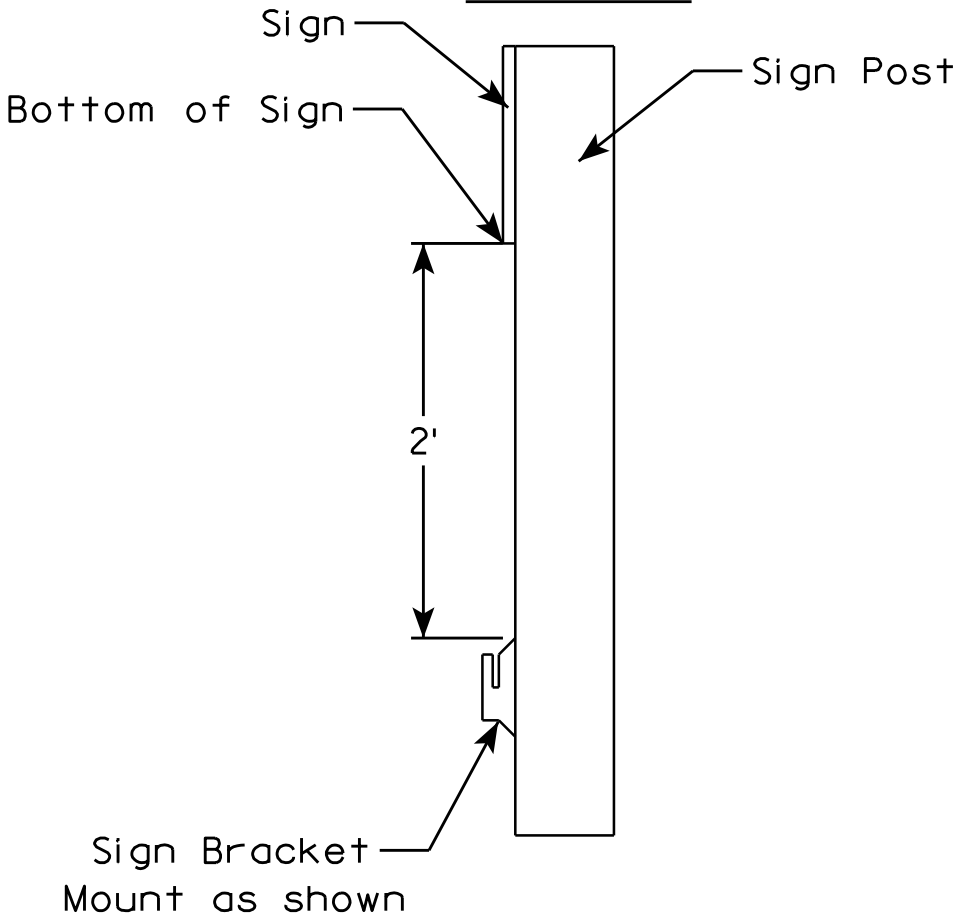
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW

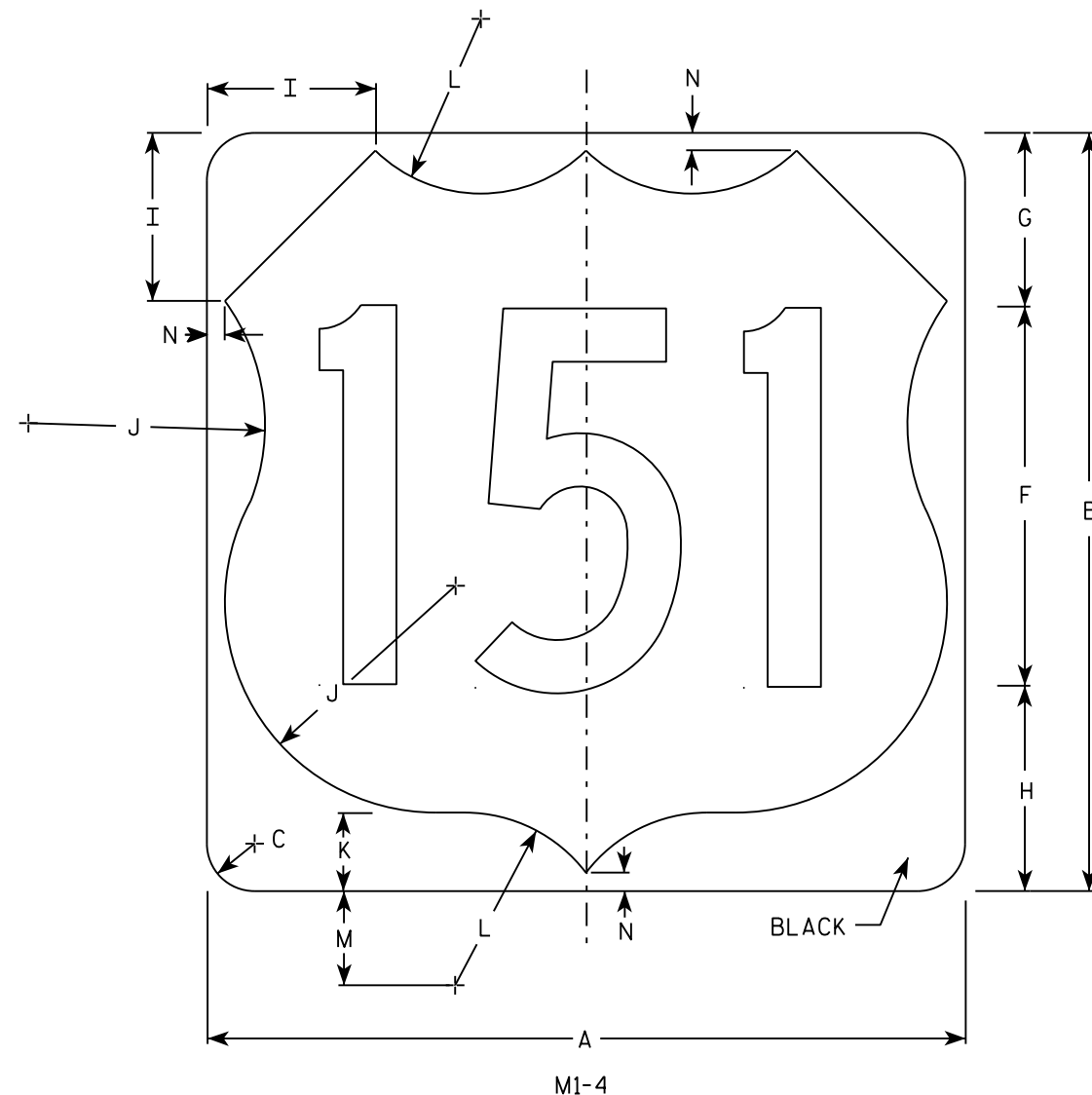
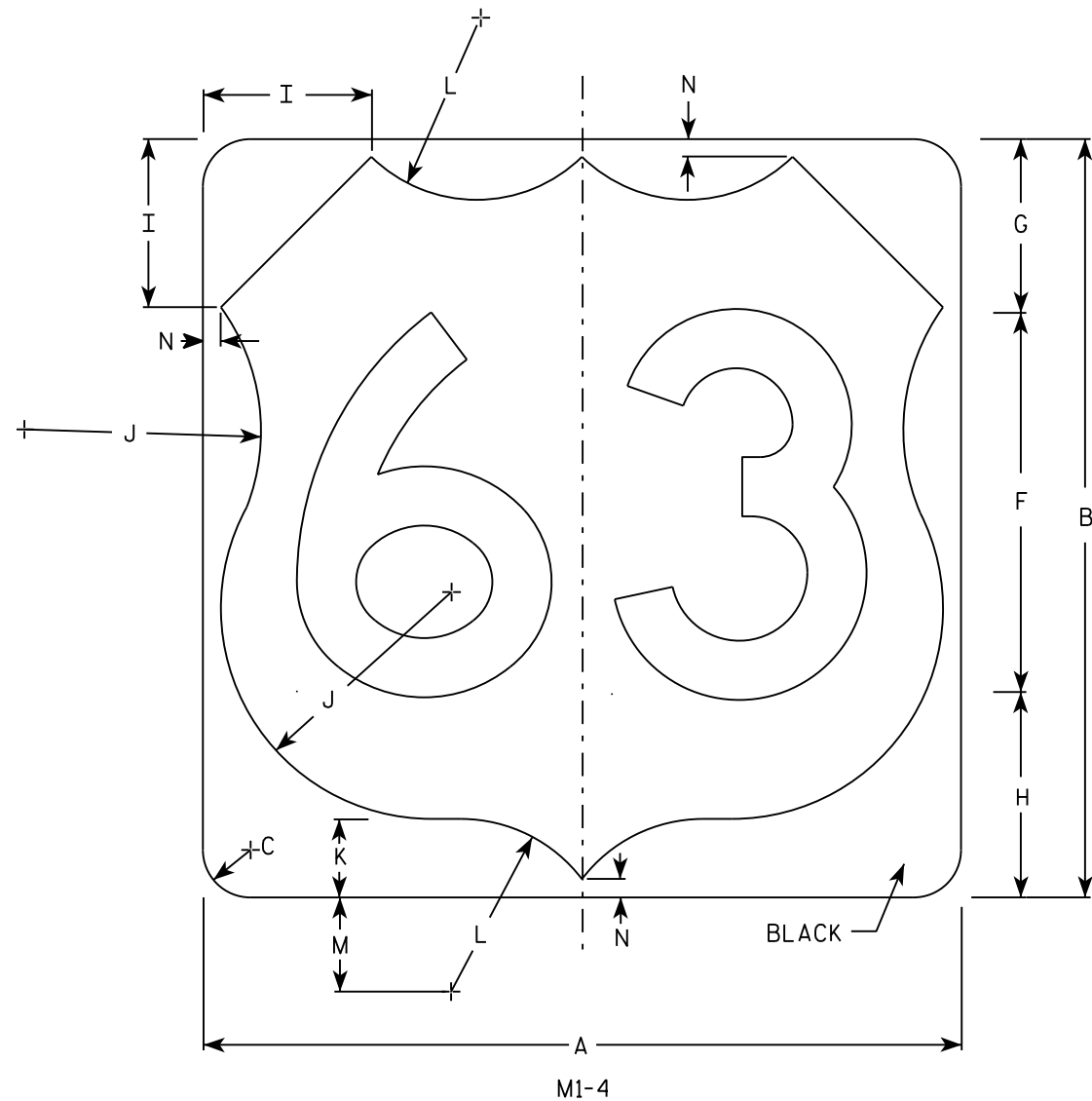


ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/26/16 PLATE NO. I55-56B.2

NOTES

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



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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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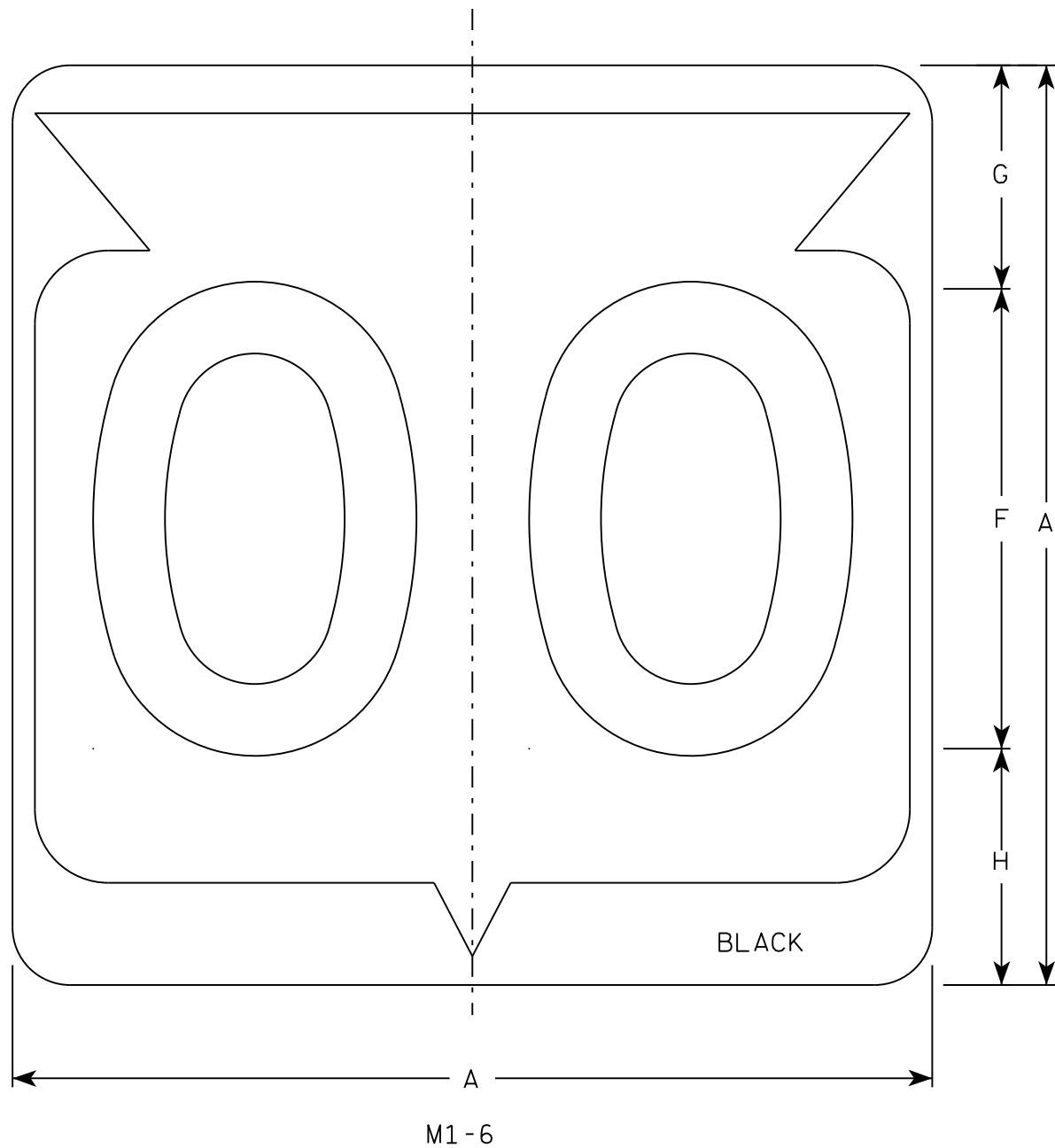
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

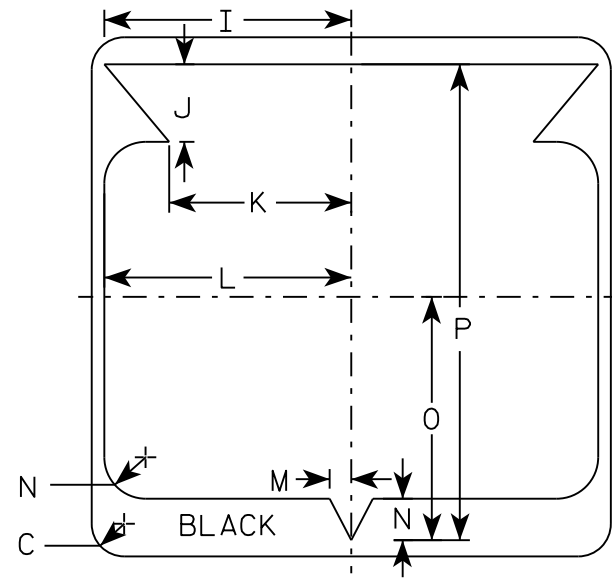
DATE 3/16/18 PLATE NO. M1-4.10

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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.

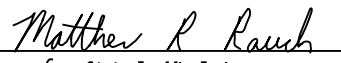


7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		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
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
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
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

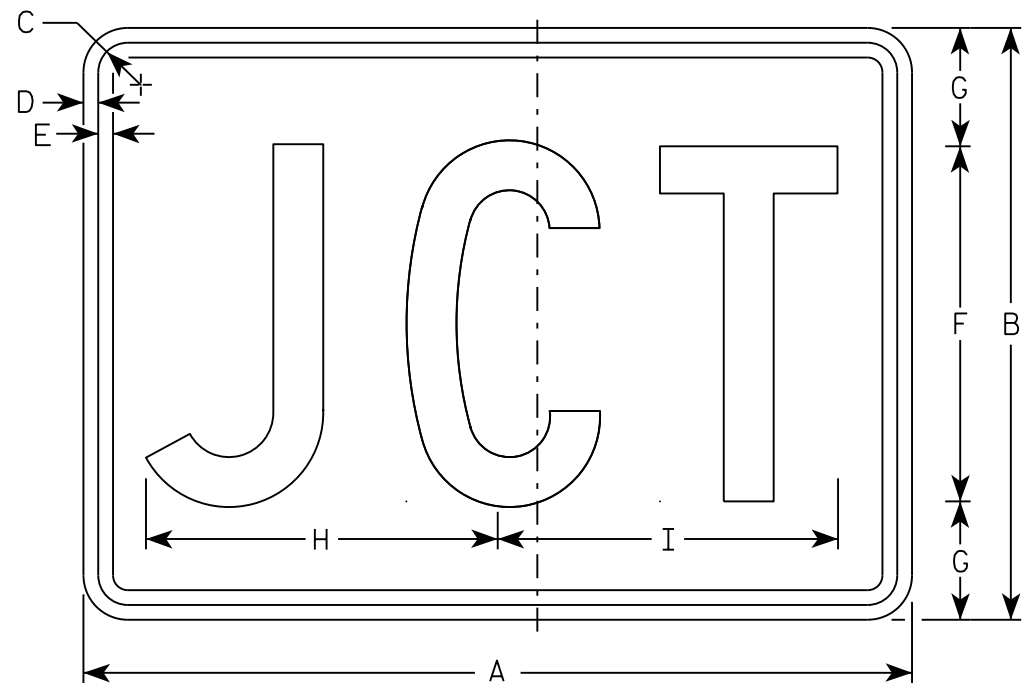
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

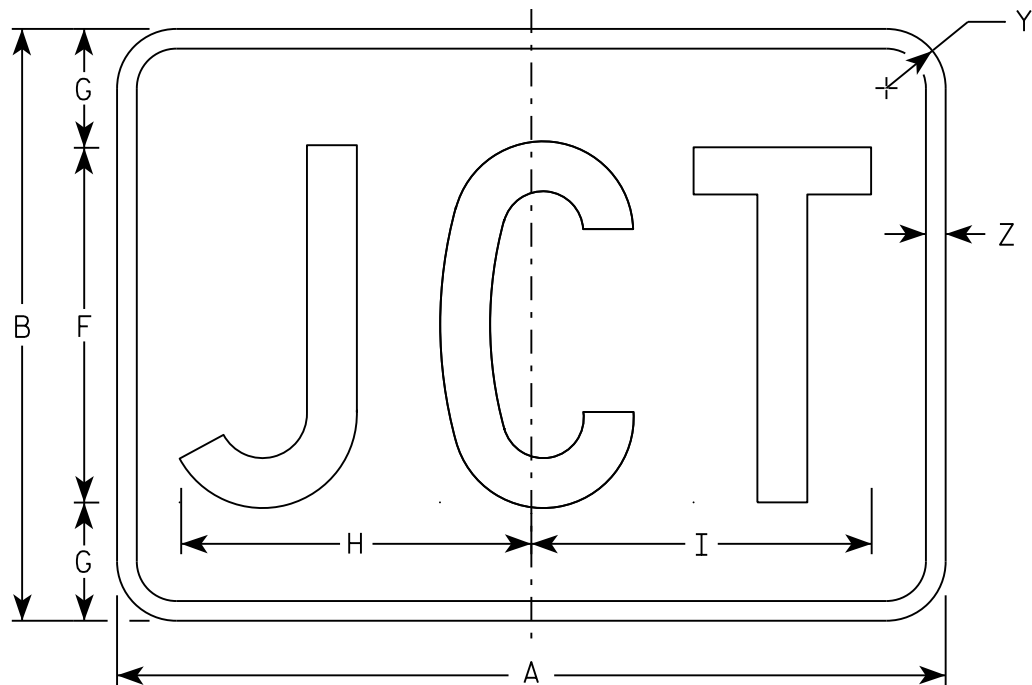
APPROVED 
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

SHEET NO: E



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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
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
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
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

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

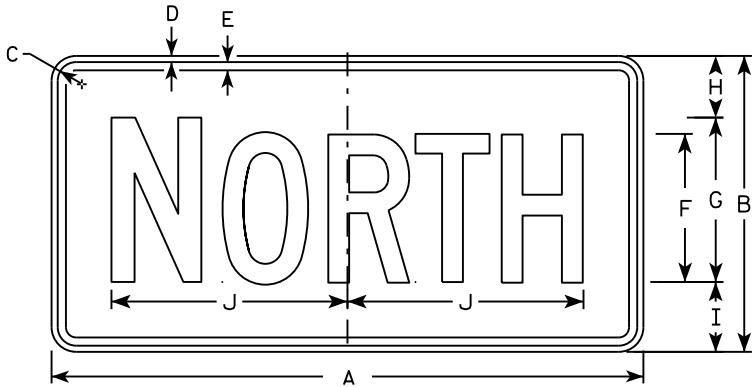
APPROVED

Matthew R. Rauch

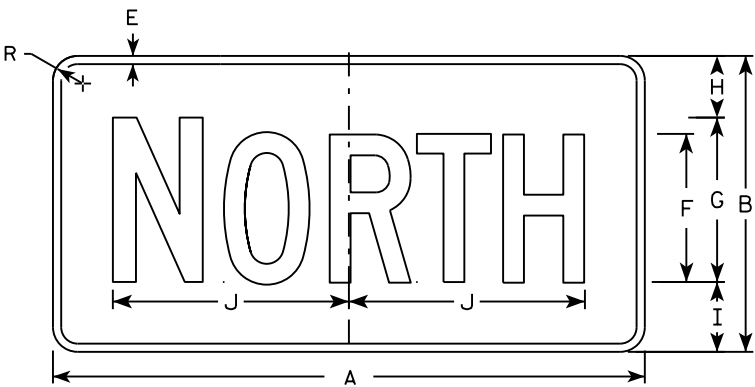
For State Traffic Engineer

DATE 10/15/15

PLATE NO. M2-1.12



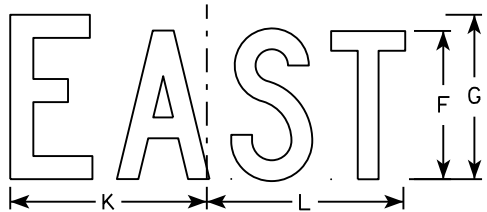
M3-1
MM3-1
MP3-1



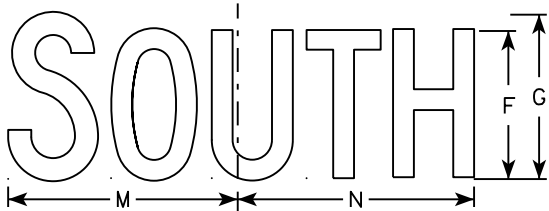
MB3-1
MK3-1
MN3-1



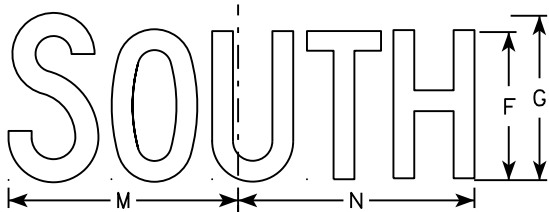
M3-2
MM3-2
MP3-2



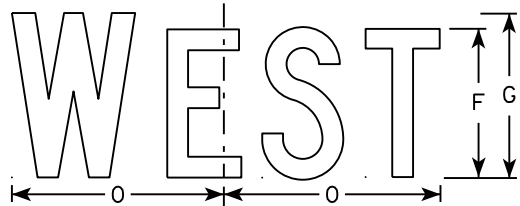
MB3-2
MK3-2
MN3-2



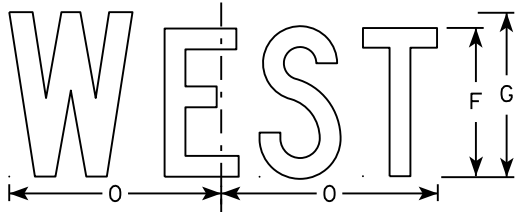
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

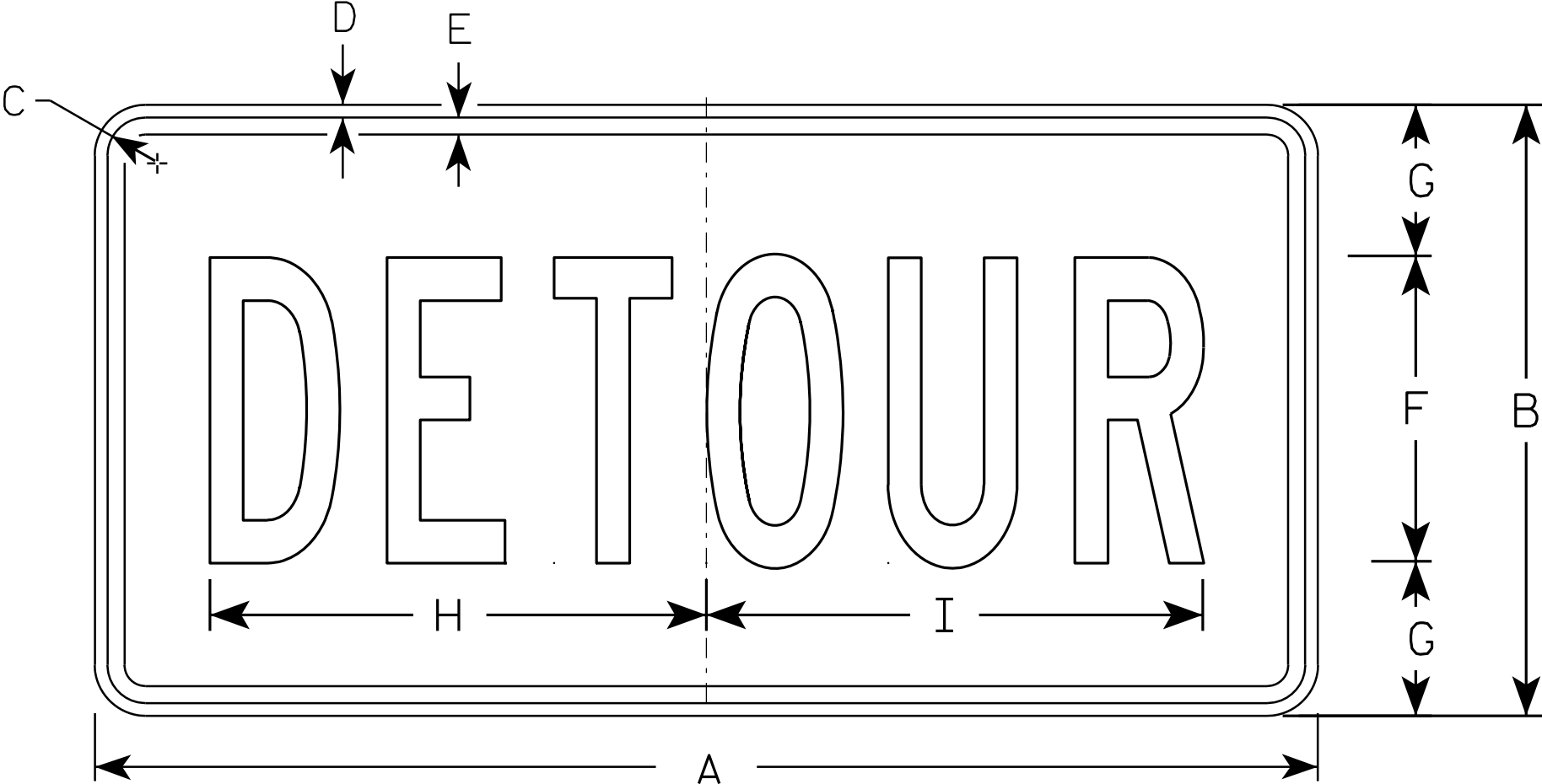
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4 - 8

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

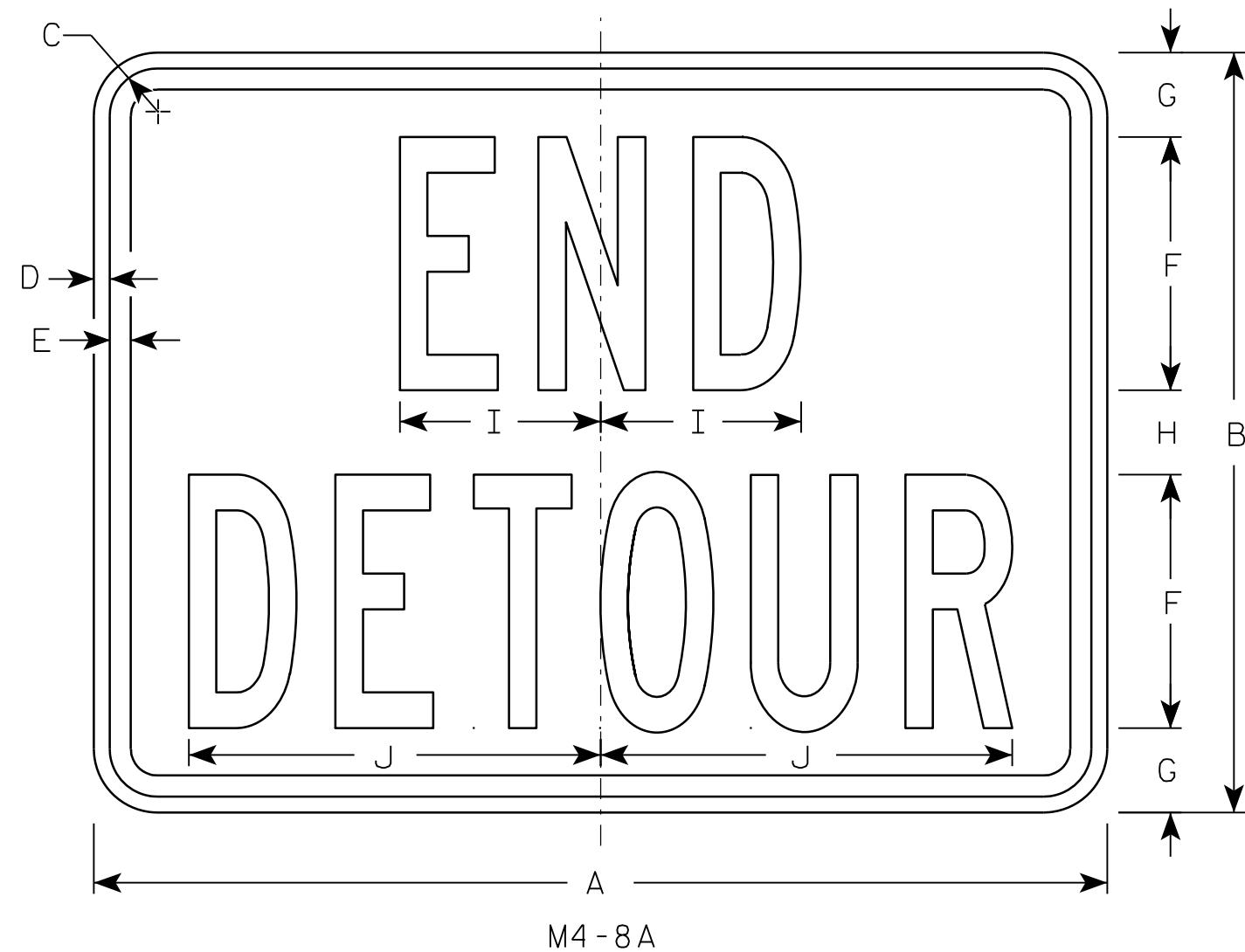
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

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

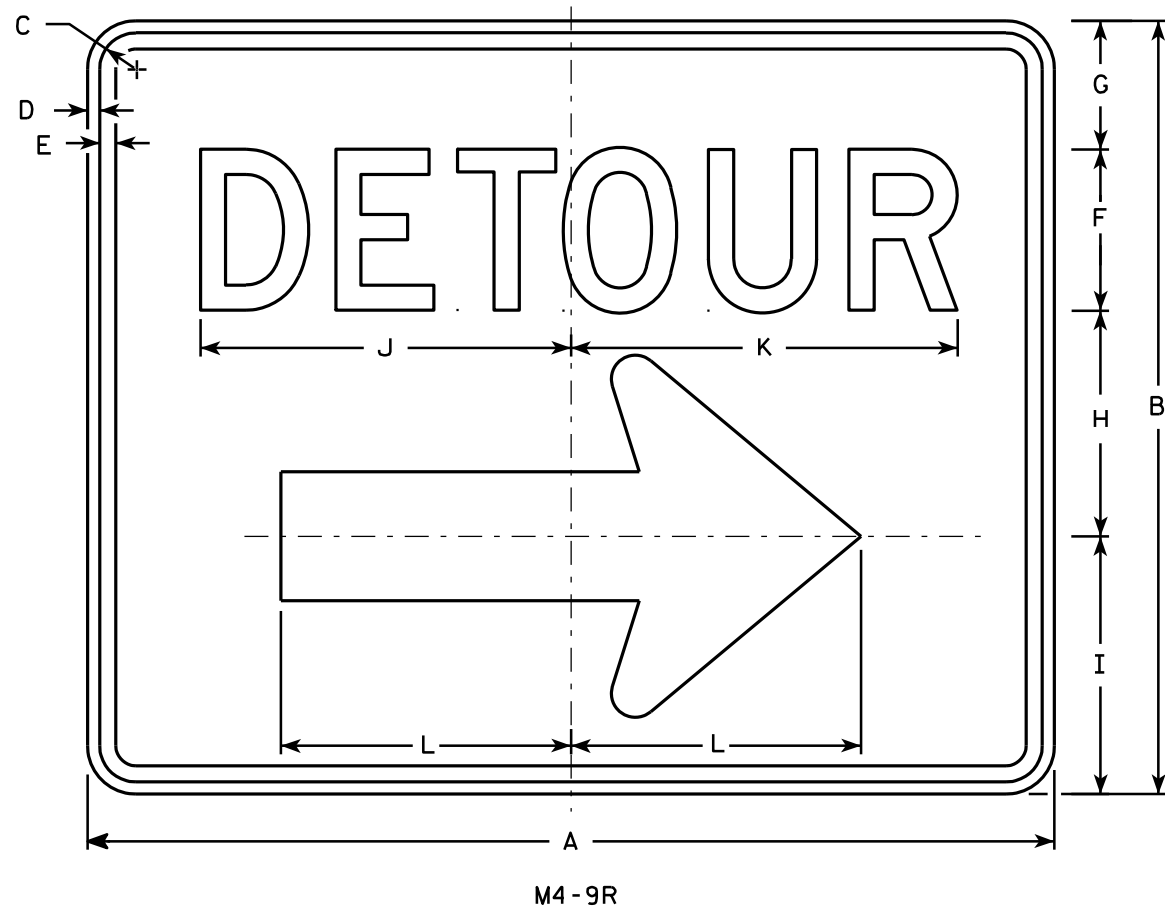
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M4-8A

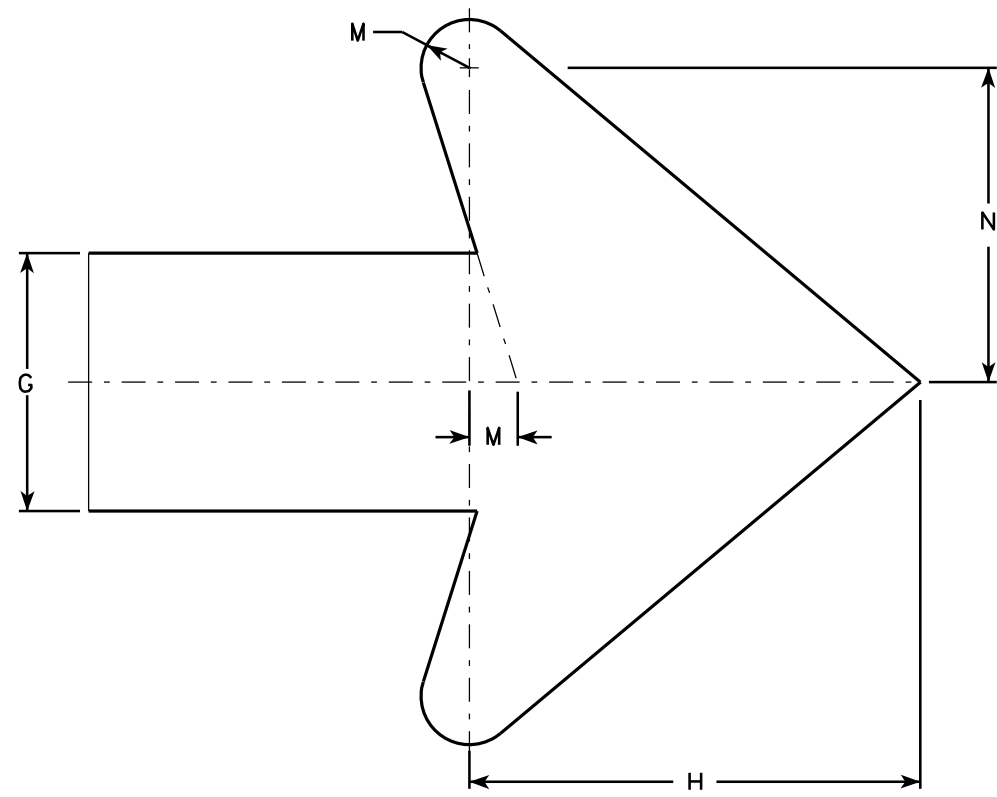
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

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

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

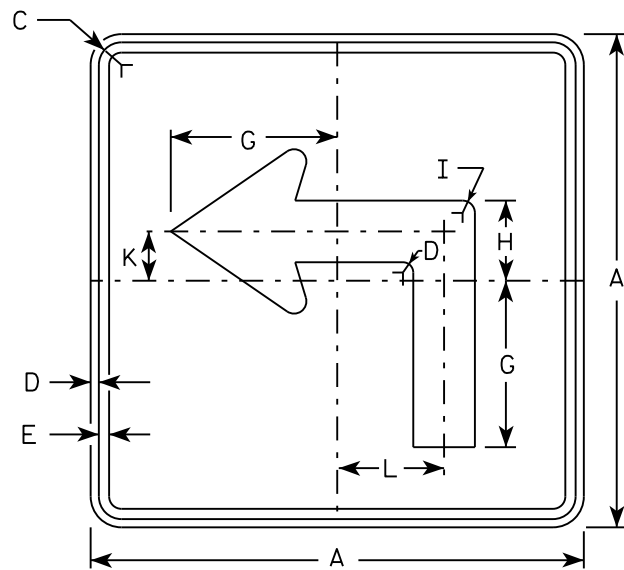
PROJECT NO:

HWY:

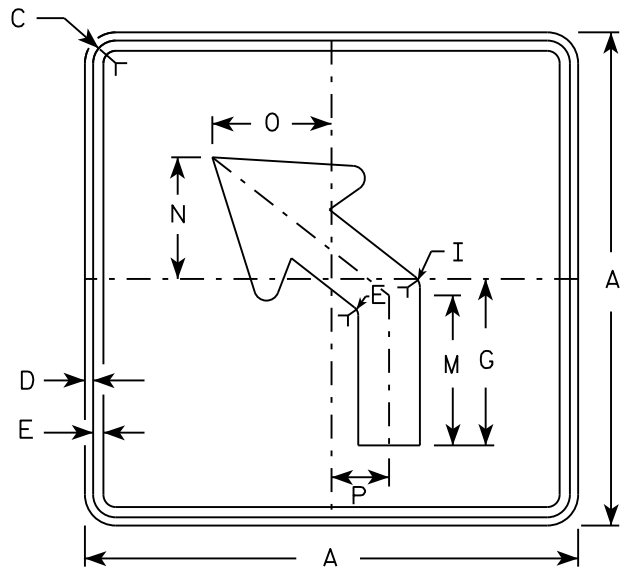
COUNTY:

SHEET NO:

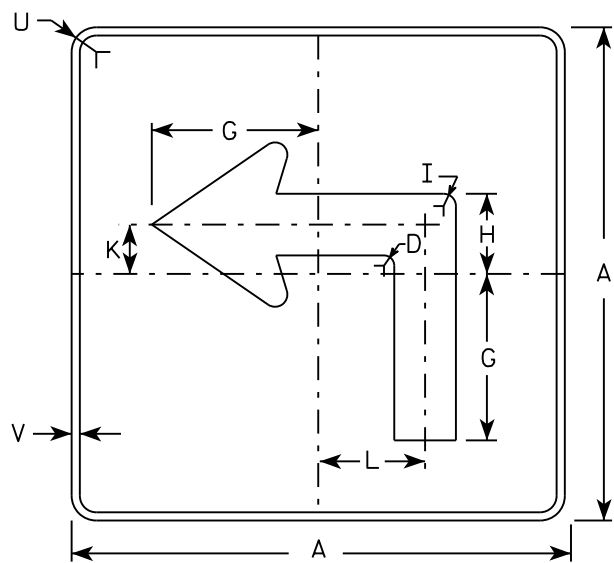
E



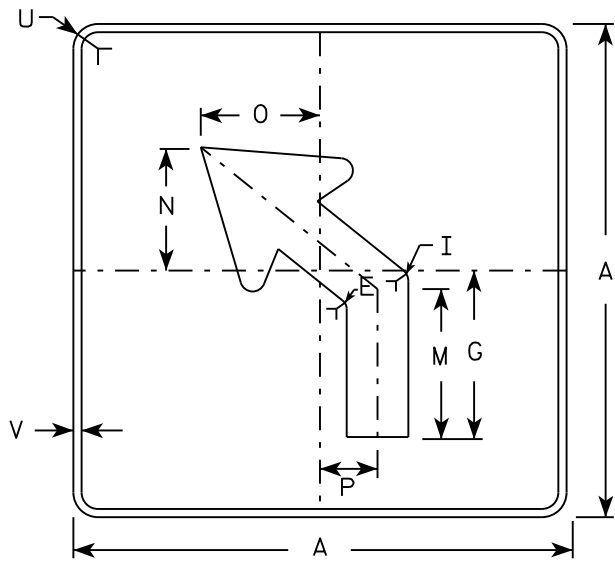
M5-1L
MM5-1L
M05-1L
MP5-1L



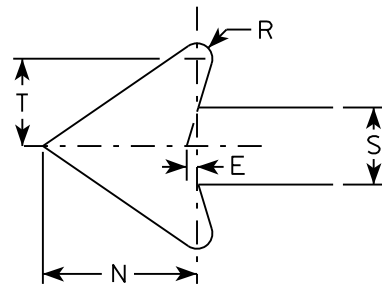
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

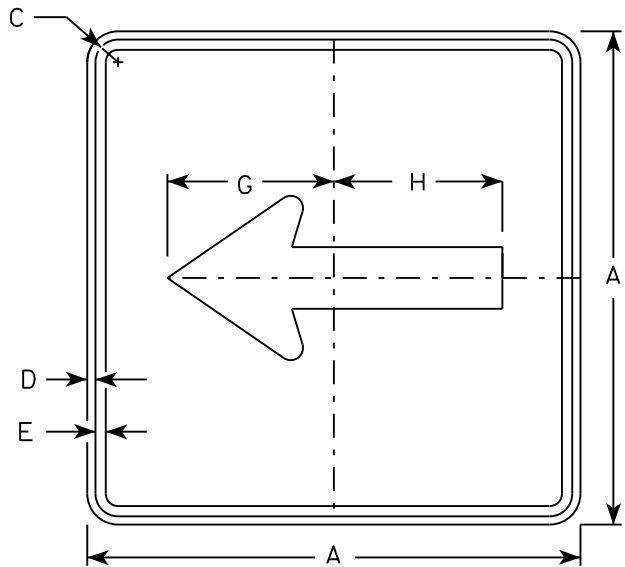
E

STANDARD SIGN
M5-1 & M5-2

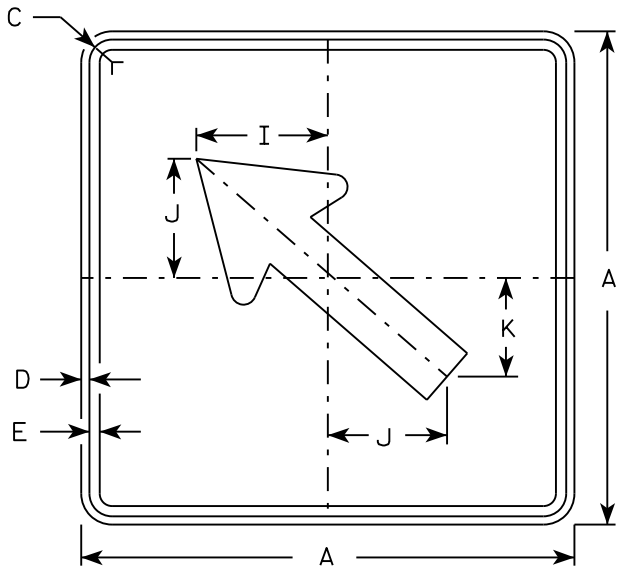
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

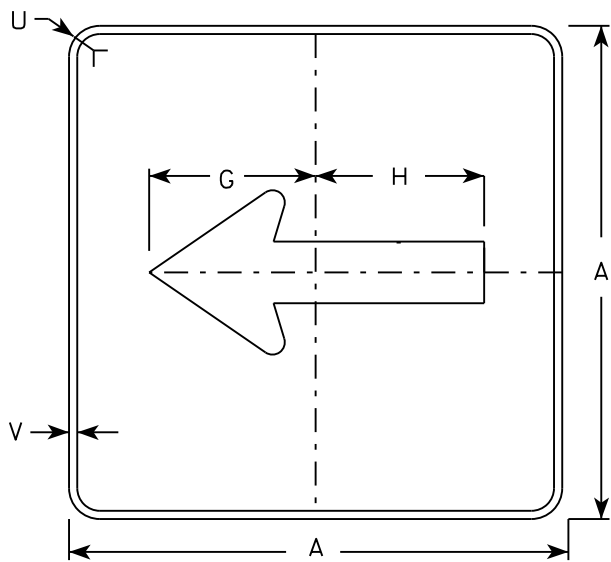
DATE 10/15/15 PLATE NO. M5-1.13



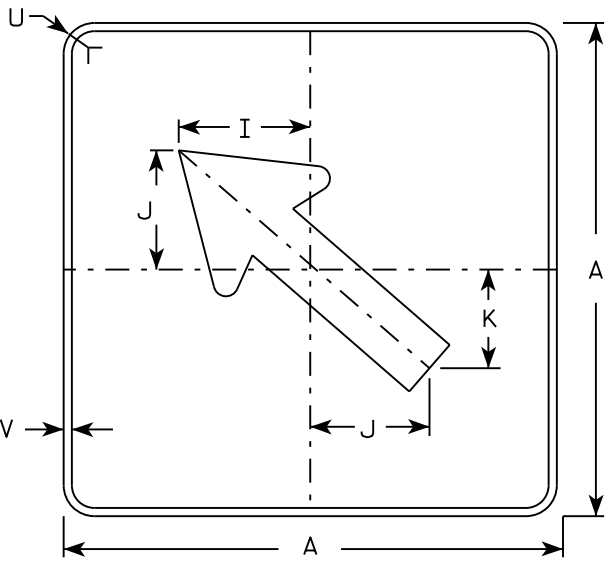
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



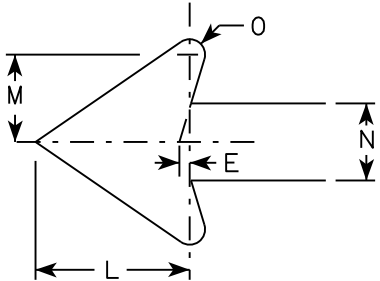
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



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



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



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

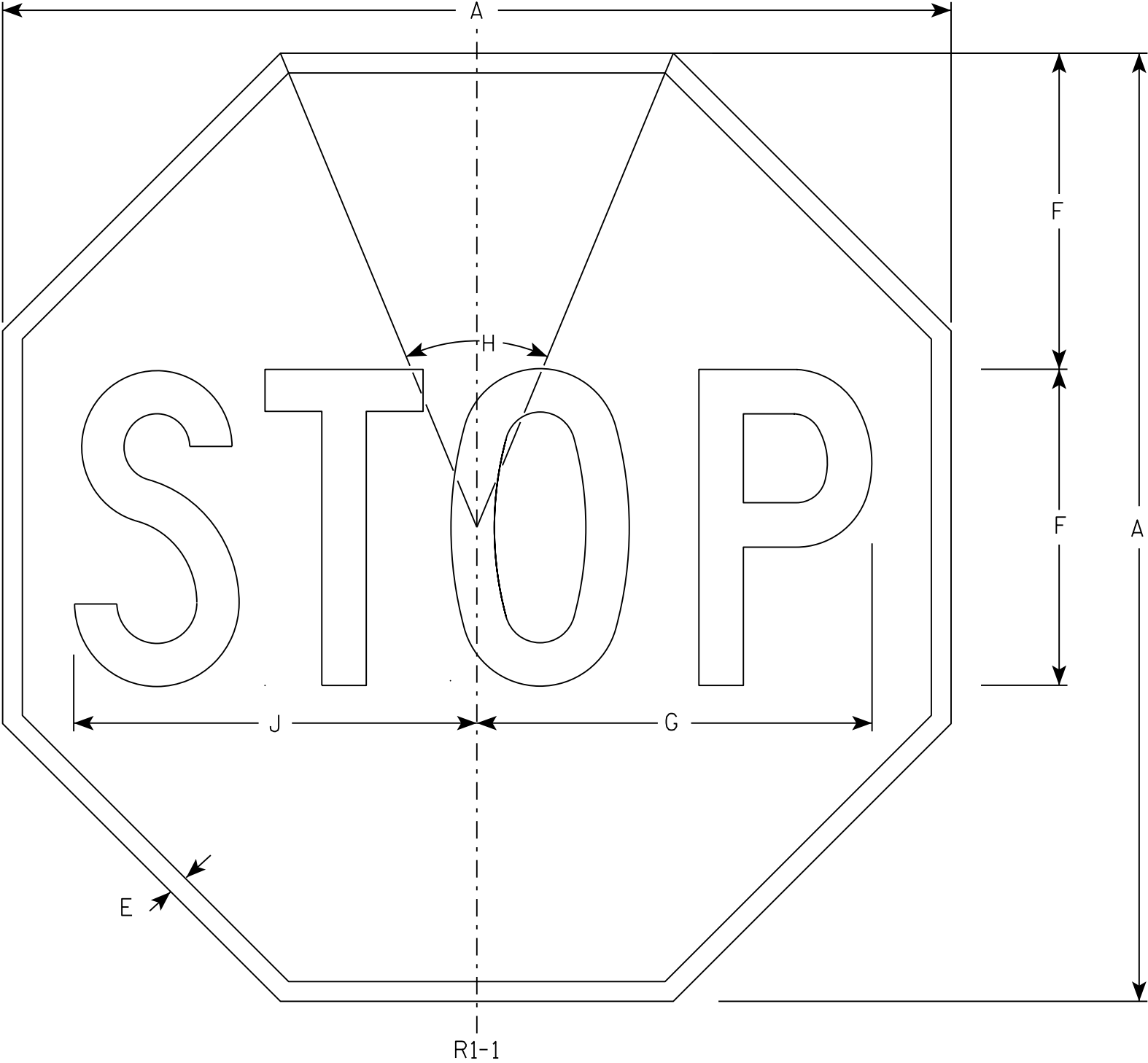
STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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

7



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

7

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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

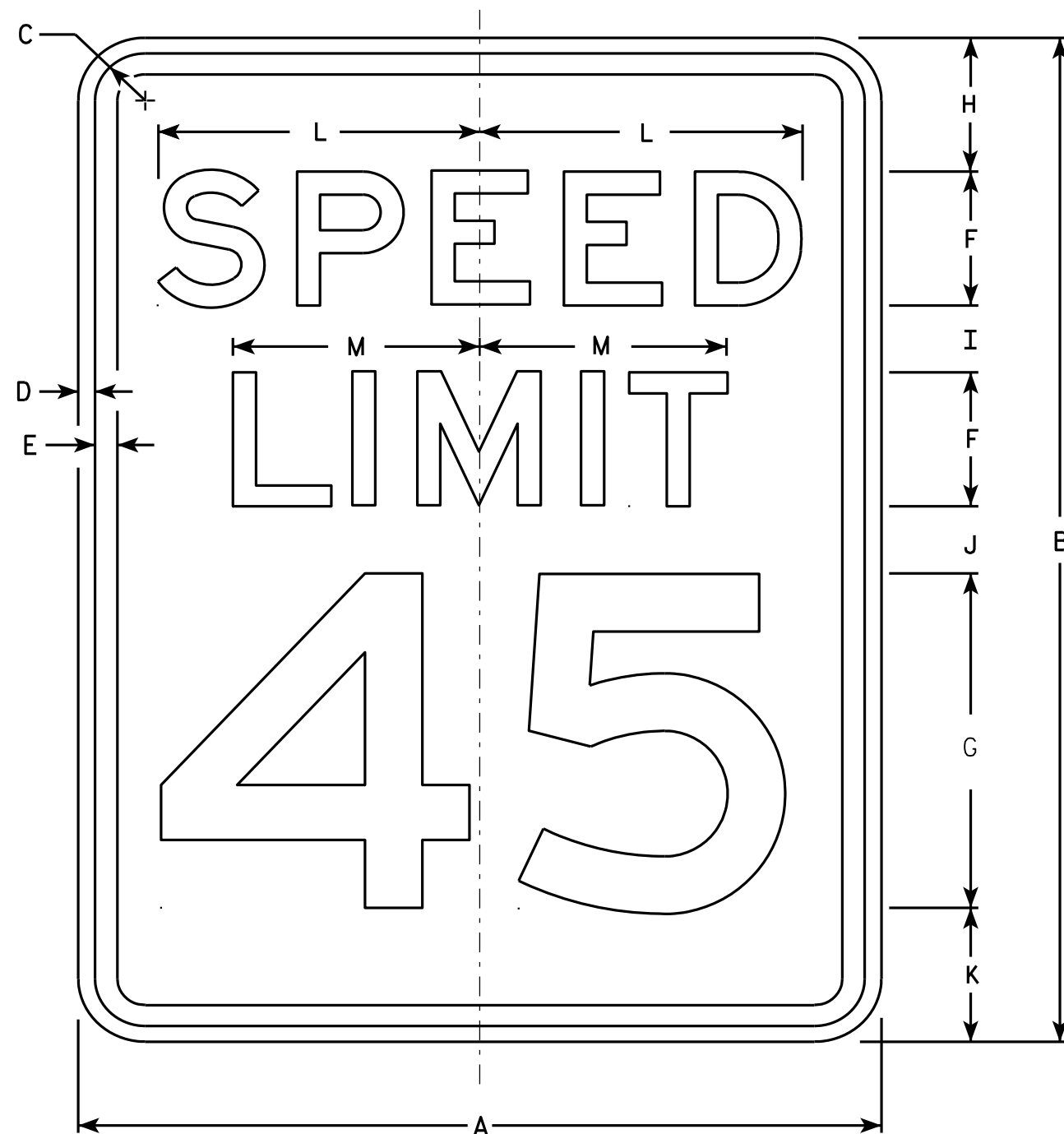
STANDARD SIGN

R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



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.

R2-1

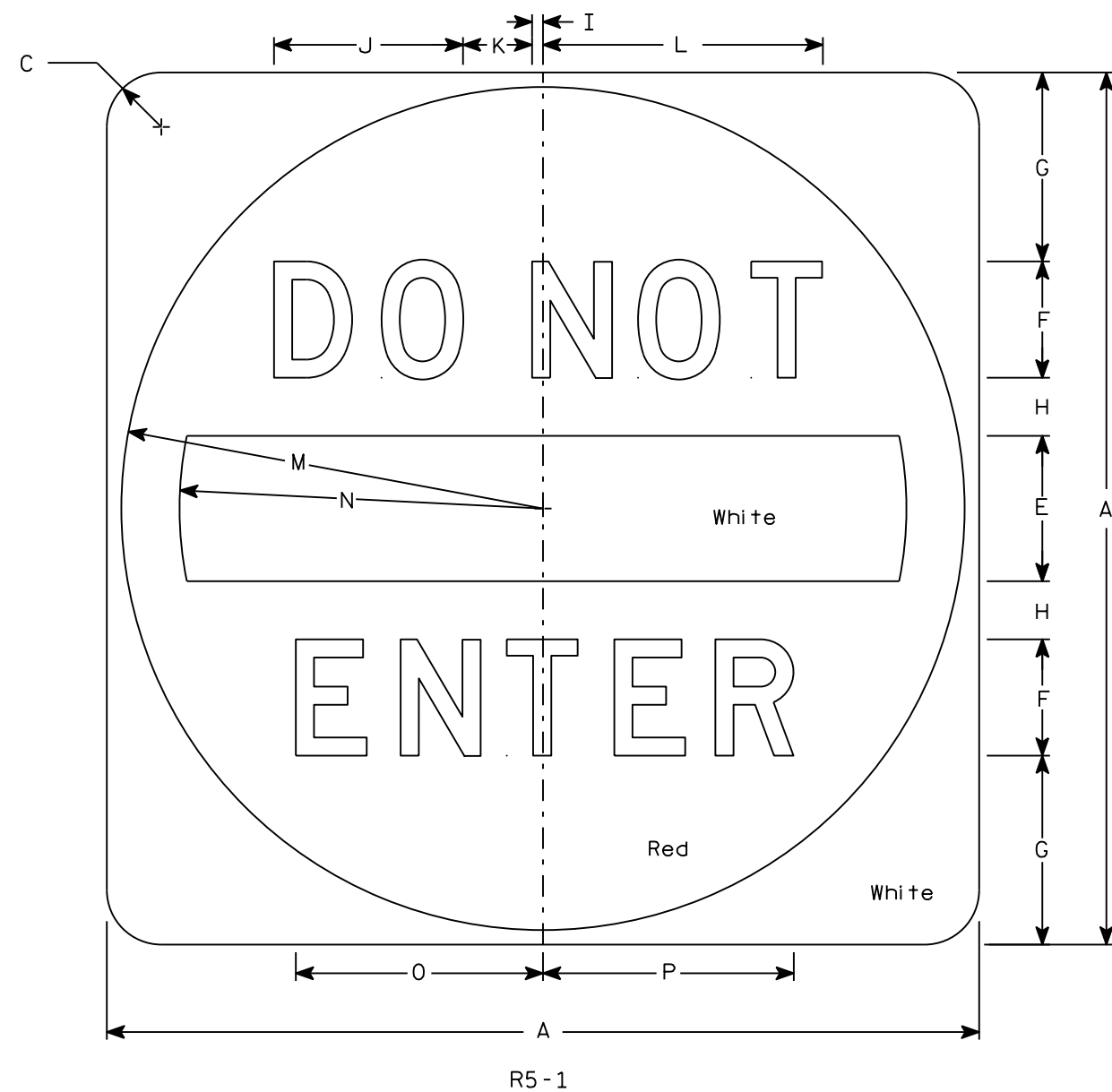
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8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

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See detail
Message - White
3. Message Series - D

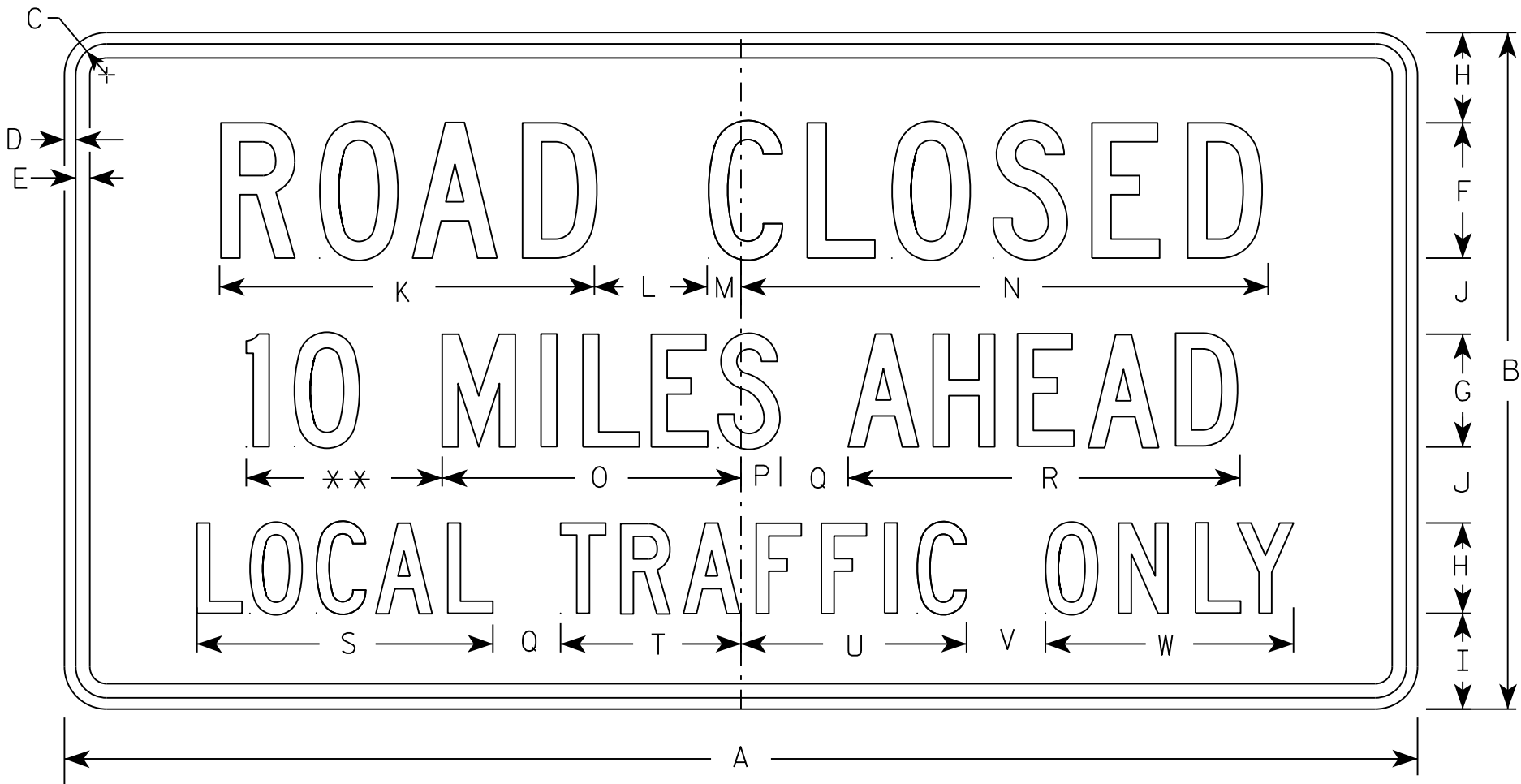
7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.25
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN R5-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/18	PLATE NO. R5-1.16

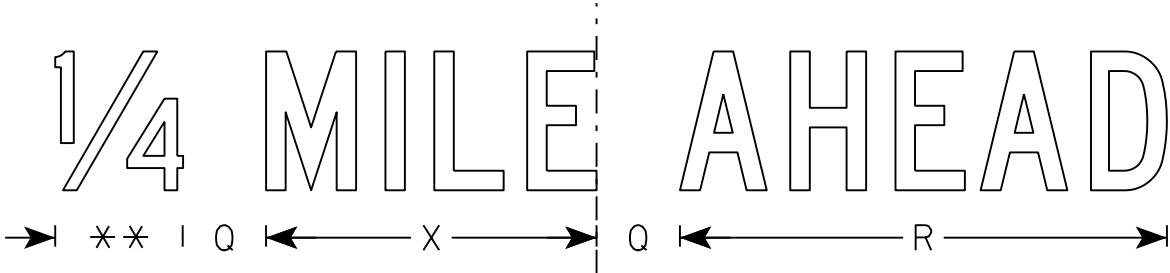
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5

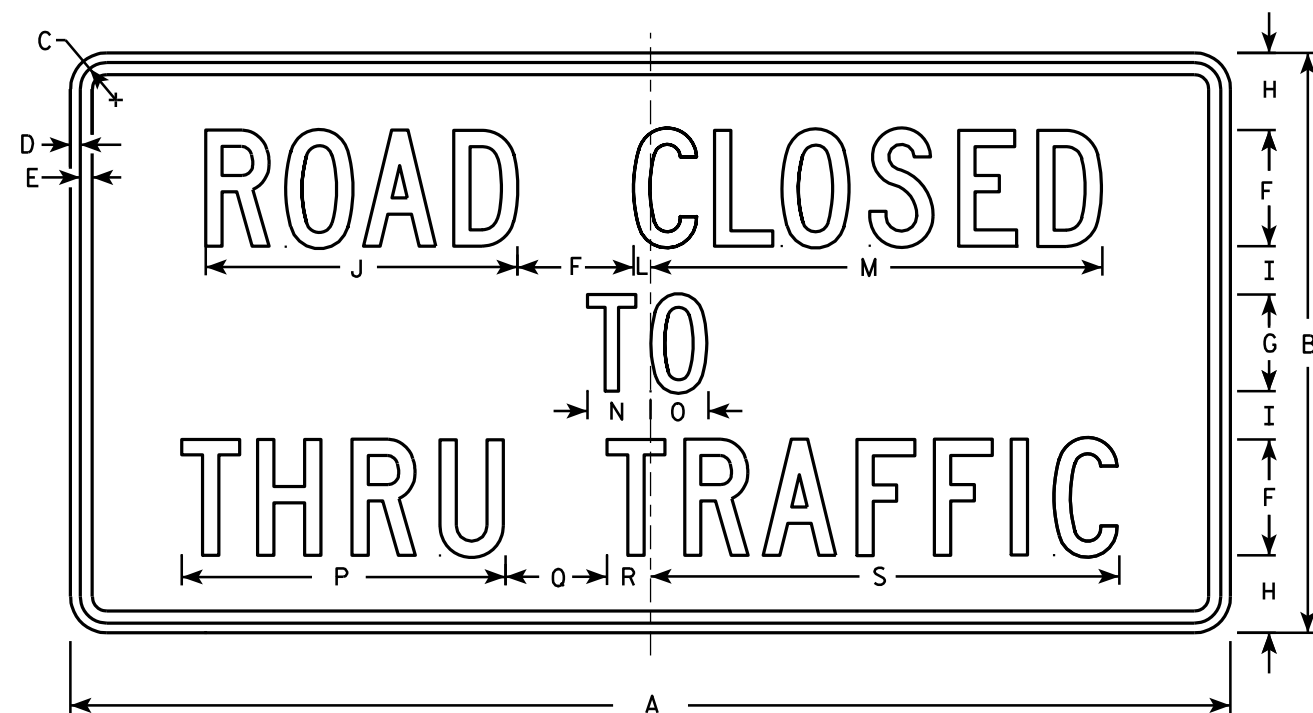


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3⁄8	1⁄2	5⁄8	4	3	2 1⁄2	2	2	11 1⁄8	3	1 1⁄8	15 1⁄4	8	1 1⁄2	2	10 3⁄4	8 3⁄8	4 3⁄4	6 1⁄2	2	6 3⁄4	7 1⁄8			4.5
2S	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	4 1⁄4	3 3⁄8	16 5⁄8	5	1 1⁄2	23	13 1⁄4	1 3⁄4	3	17 3⁄8	13 1⁄8	8	10	3 1⁄2	11	11 7⁄8			12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	4 1⁄4	3 3⁄8	16 5⁄8	5	1 1⁄2	23	13 1⁄4	1 3⁄4	3	17 3⁄8	13 1⁄8	8	10	3 1⁄2	11	11 7⁄8			12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/15/17 PLATE NO. R11-3.8



R11-4

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - White
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
2M	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

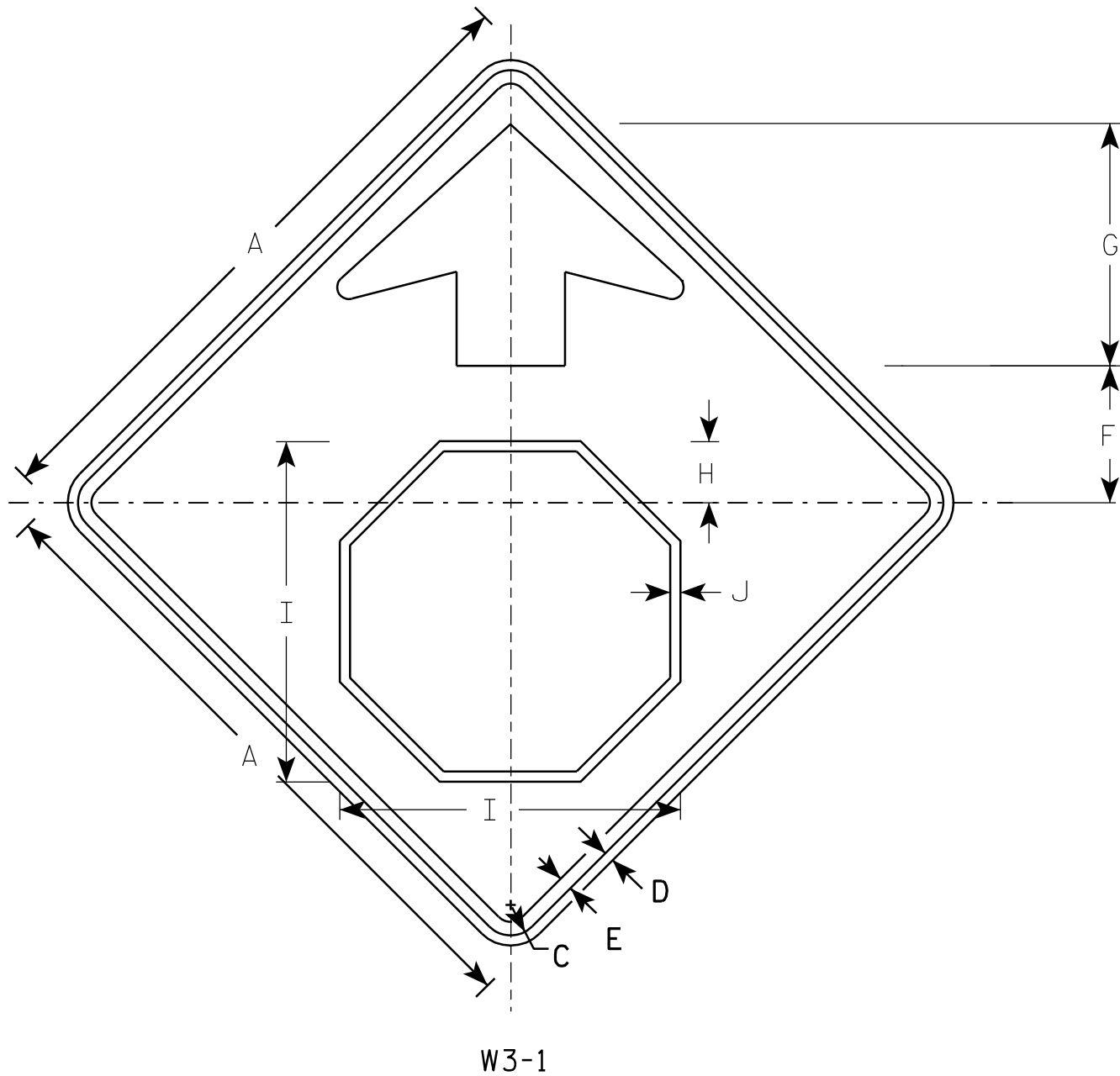
PROJECT NO:

HWY:

COUNTY:

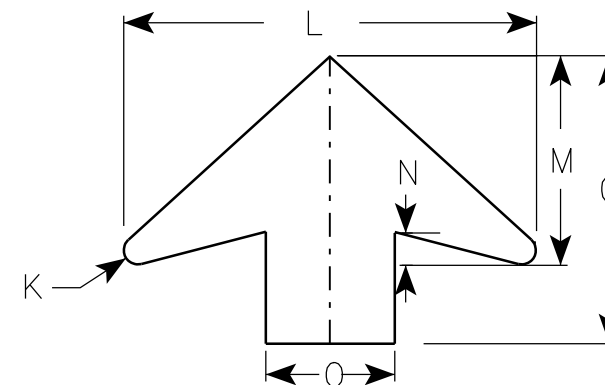
SHEET NO:

E



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

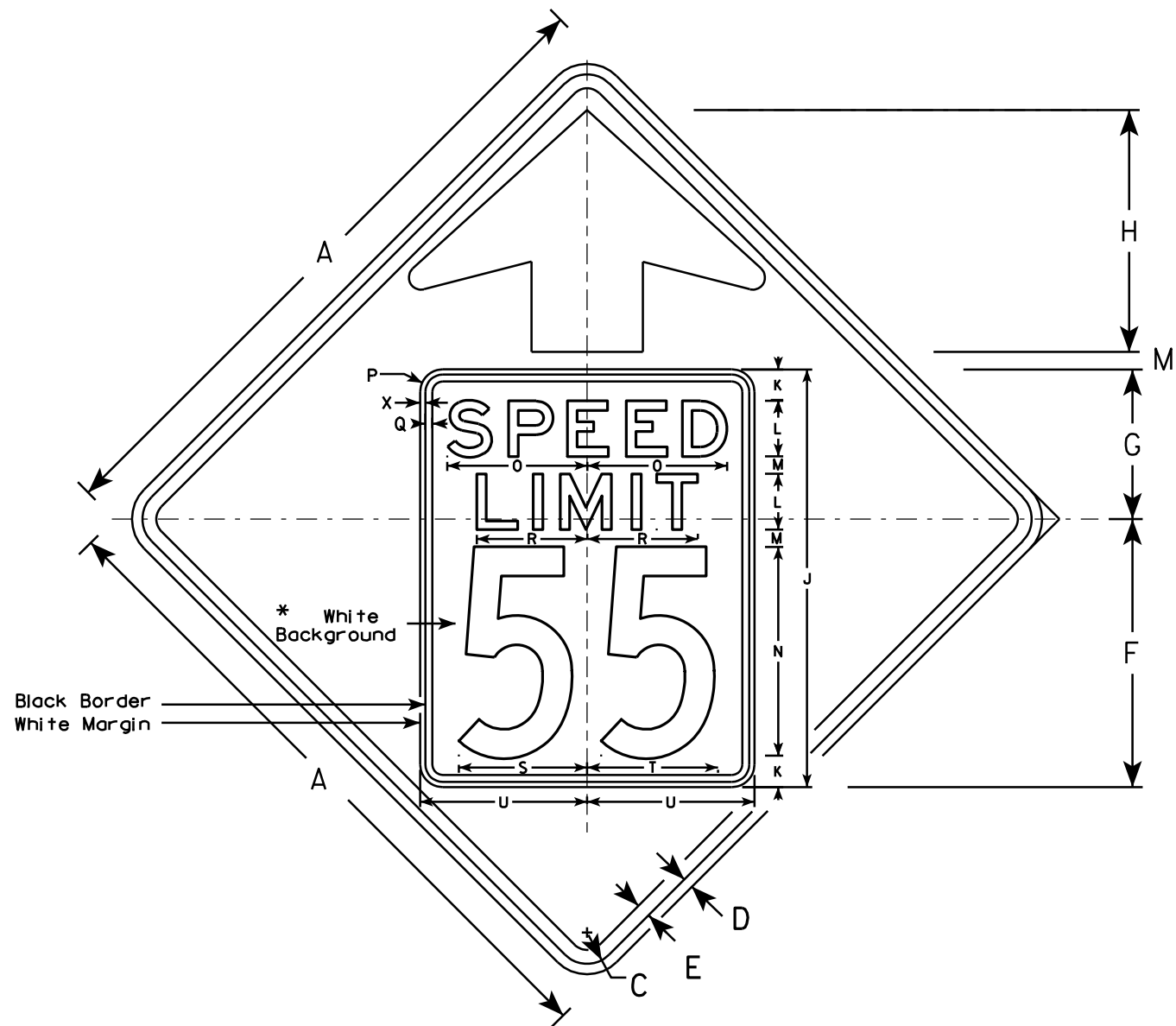
PROJECT NO:

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:

E

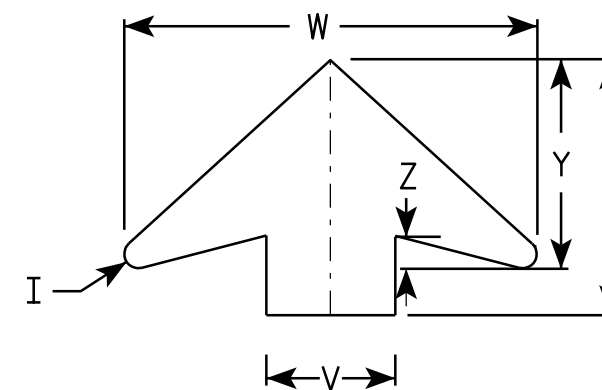


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White 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																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

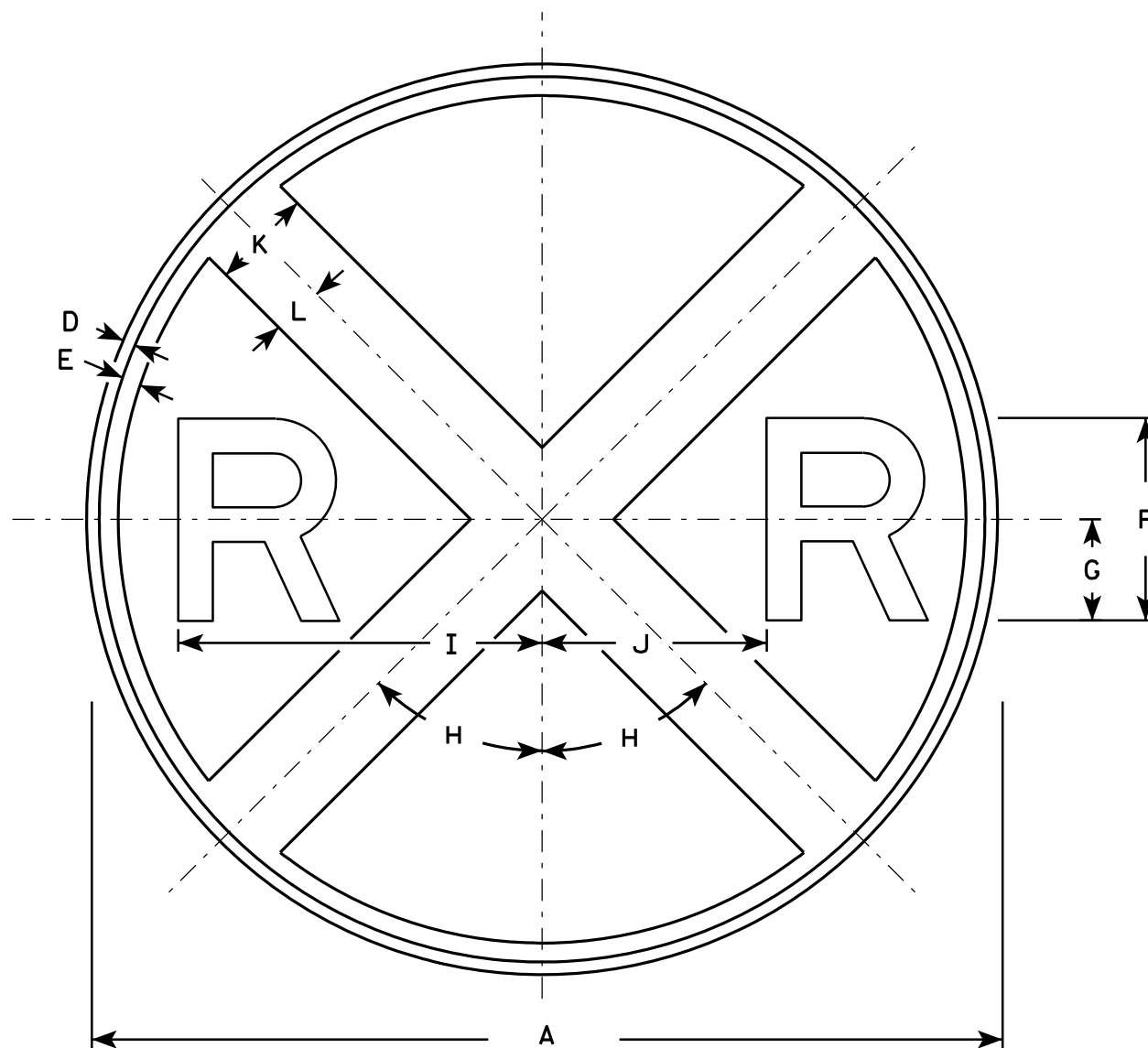
DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E



W10-1

NOTES

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

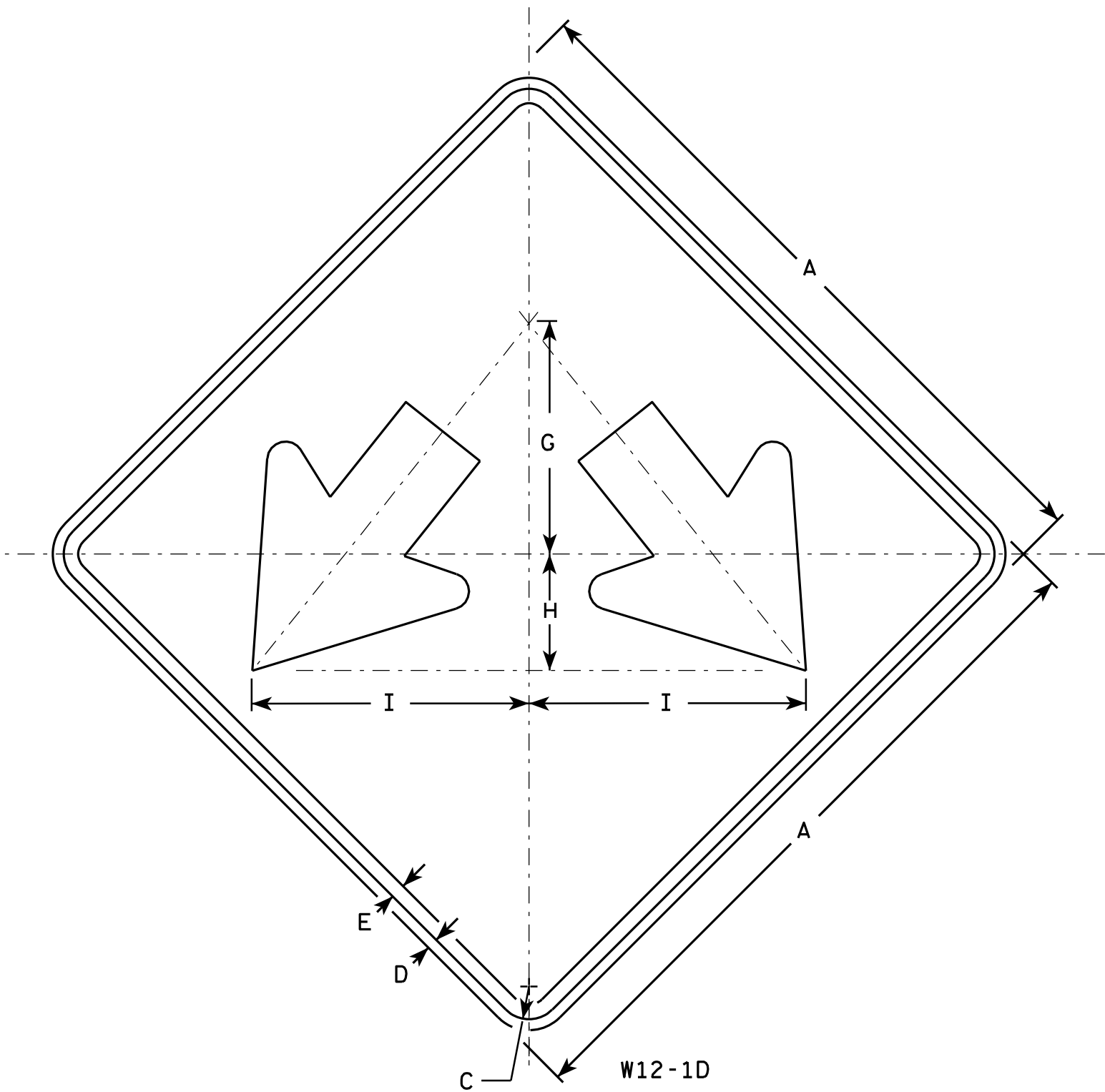
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30			3⁄8	5⁄8	7	3 1⁄2	45°	12 3⁄8	7 1⁄8	3	1 1⁄2															4.91
2S	36			5⁄8	3⁄4	8	4	45°	14 3⁄8	8 5⁄8	4	2															7.07
2M	36			5⁄8	3⁄4	8	4	45°	14 3⁄8	8 5⁄8	4	2															7.07
3																											
4	48			3⁄4	1 1⁄4	10	5	45°	18 3⁄8	11 5⁄8	5	2 1⁄2															12.5
5																											

STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

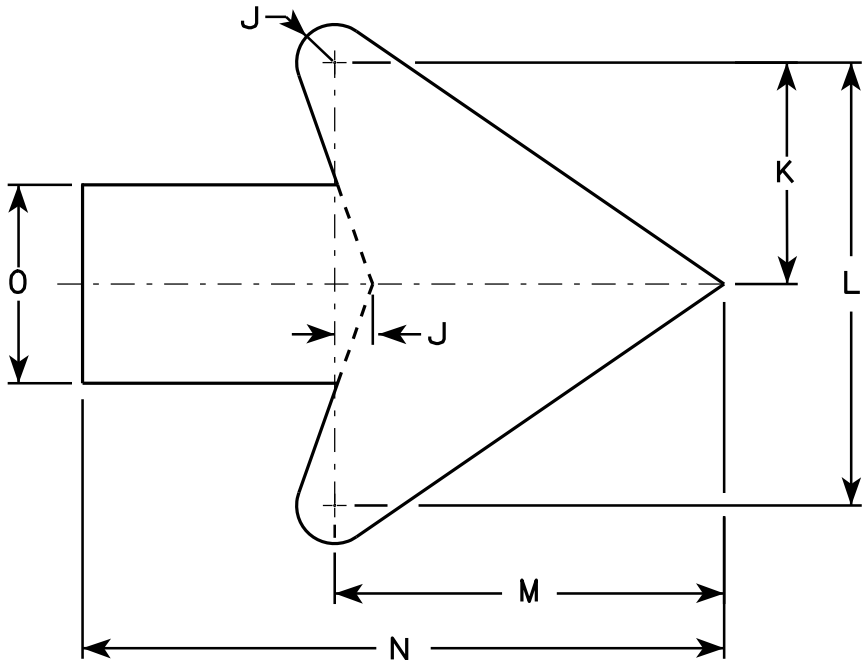
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W10-1.8

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

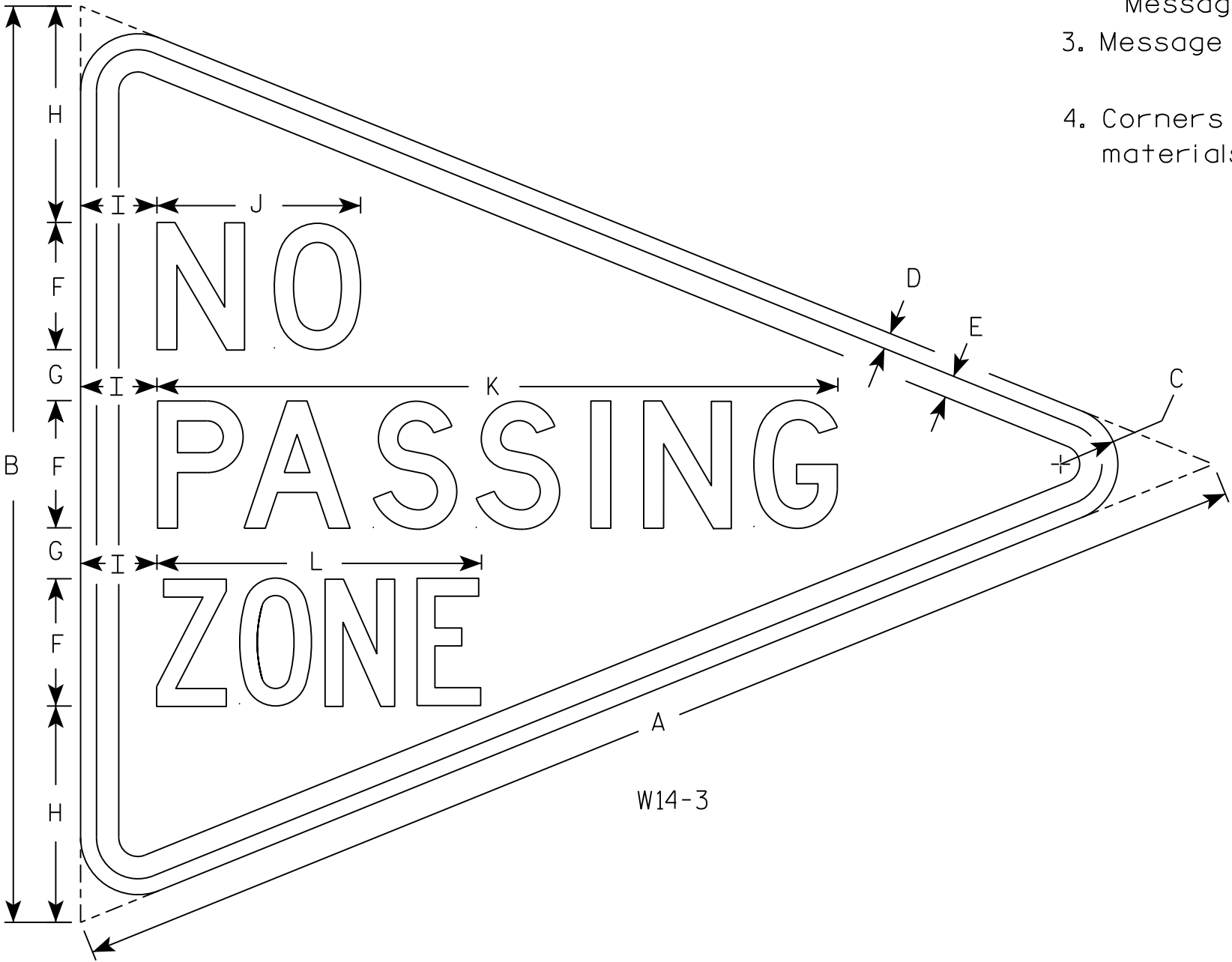
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

NOTES

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



7

7

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

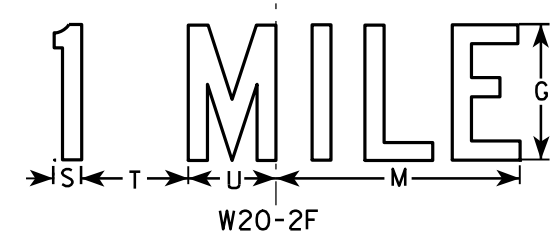
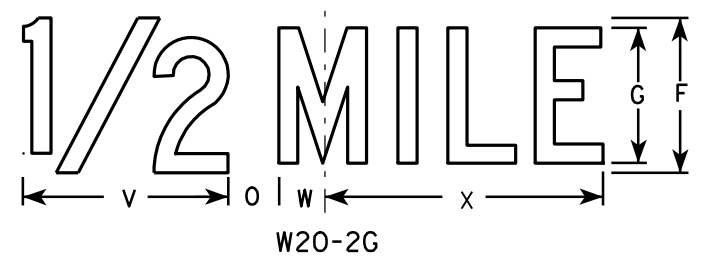
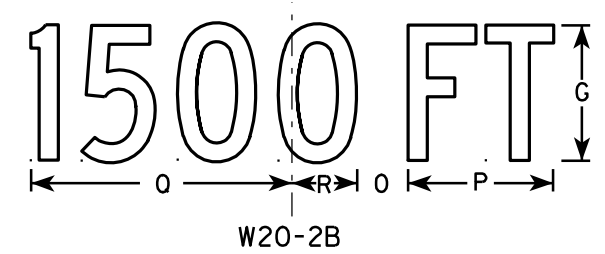
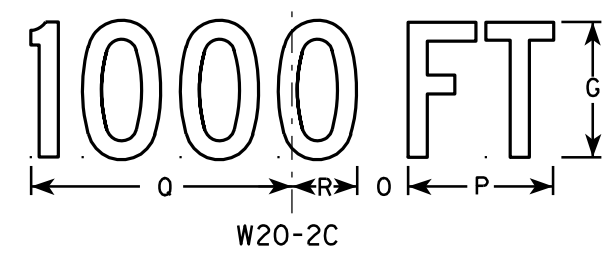
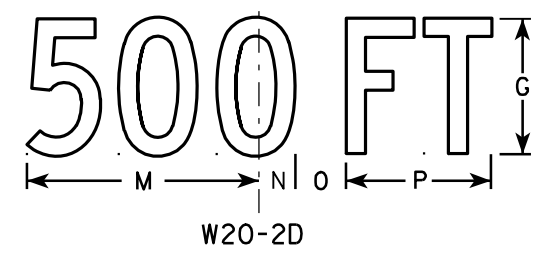
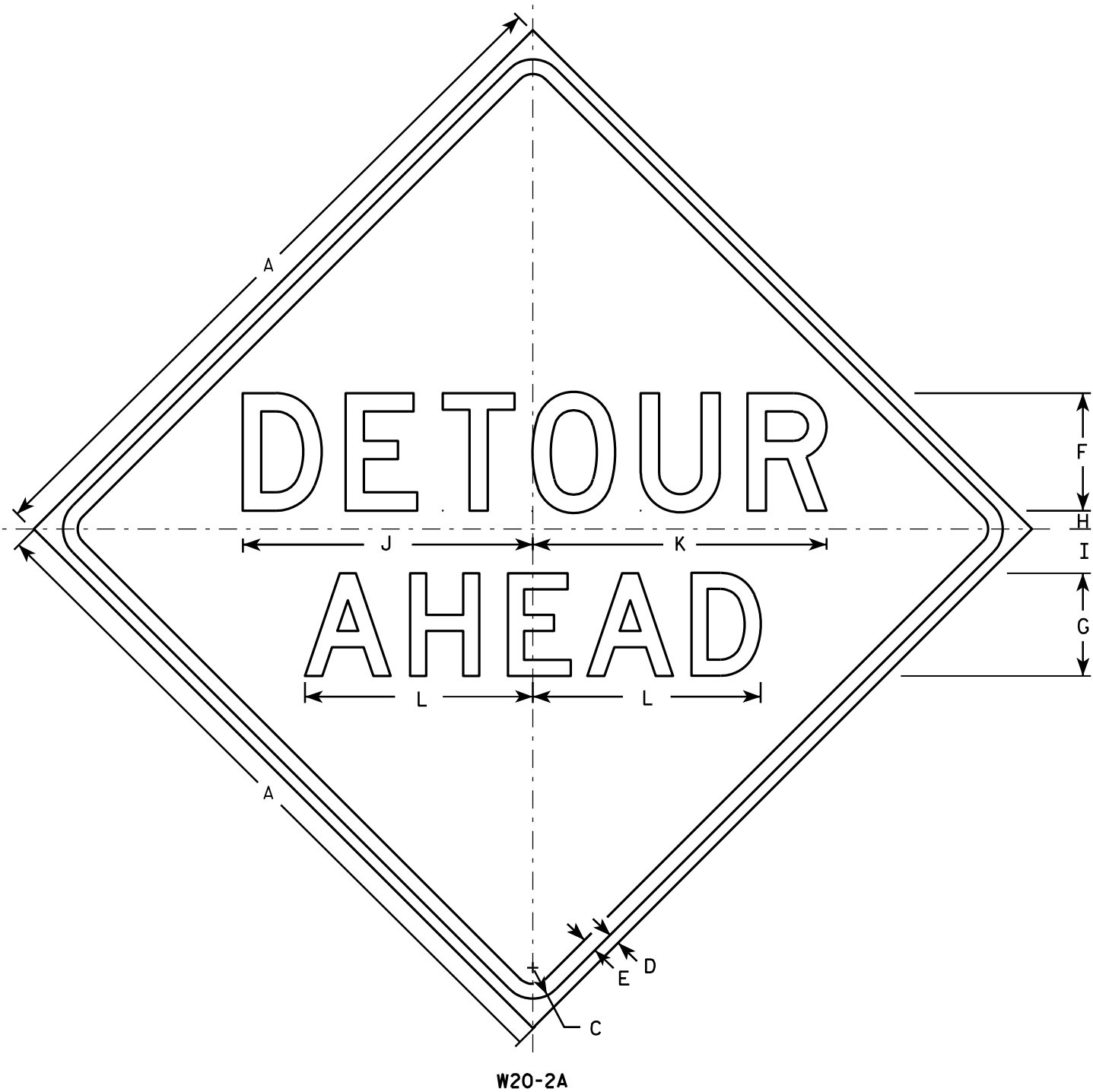
E

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



NOTES

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

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

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

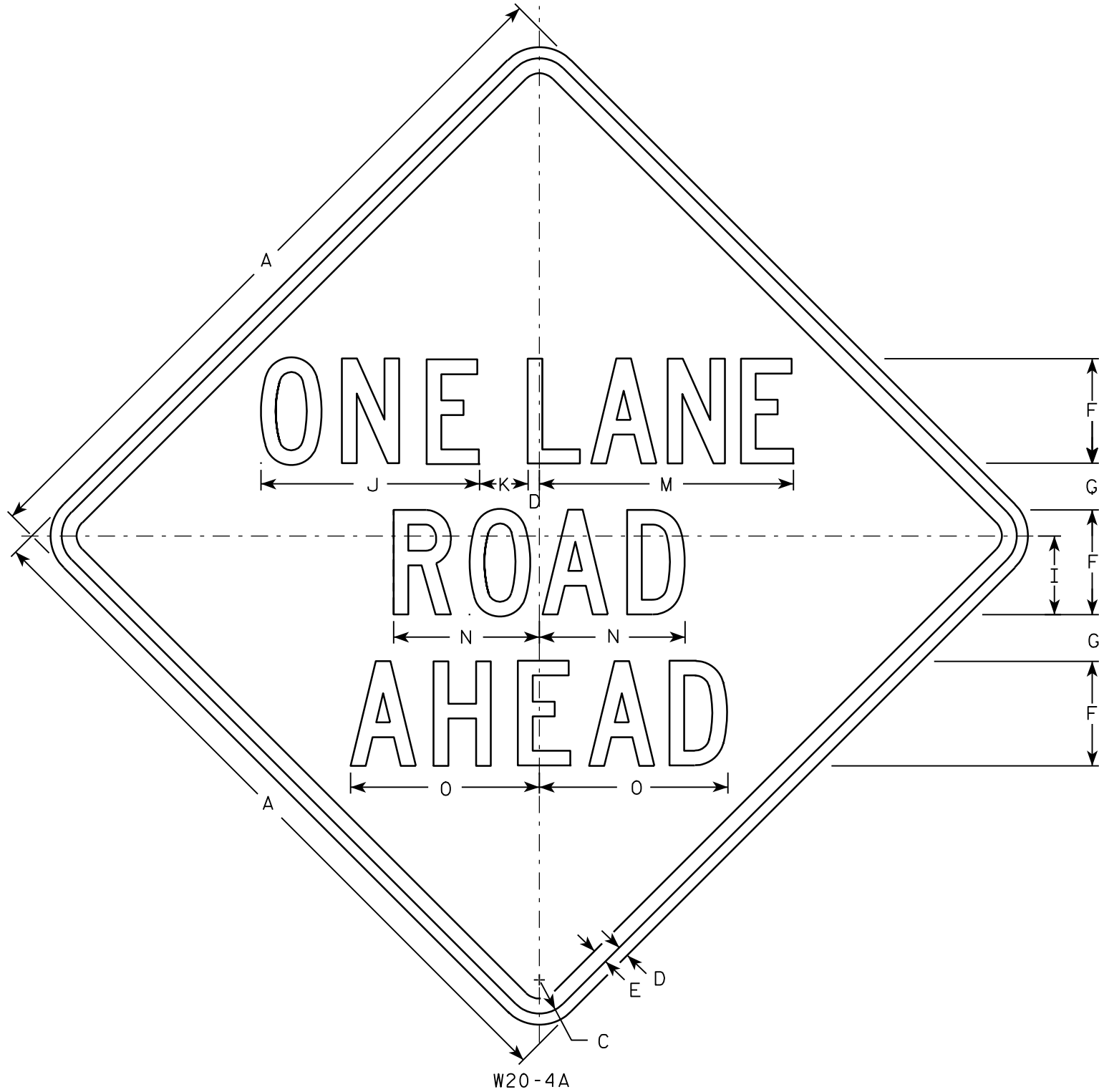
PROJECT NO:

HWY:

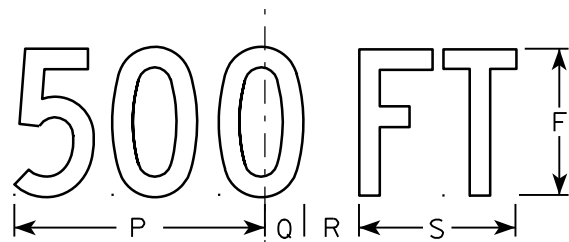
COUNTY:

SHEET NO:

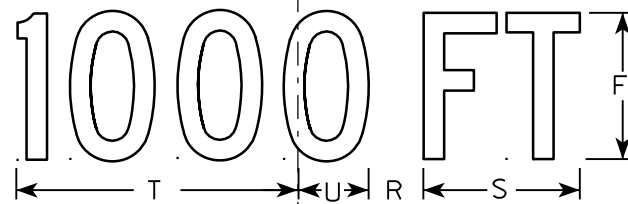
E



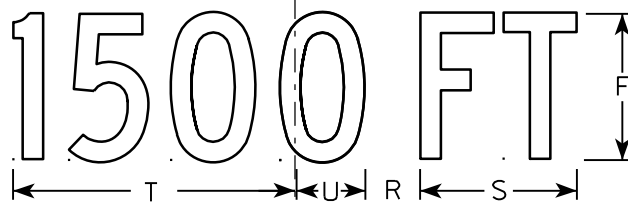
W20-4A



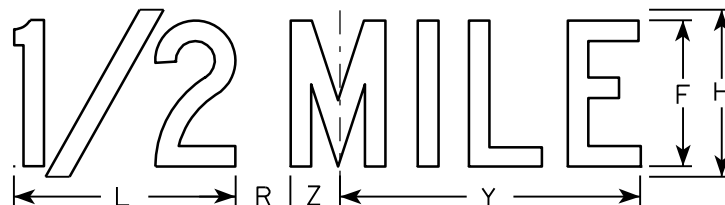
W20-4D



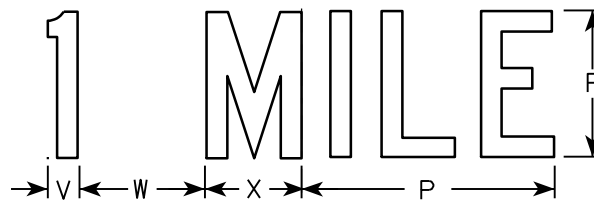
W20-4C



W20-4B



W20-4G



W20-4F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

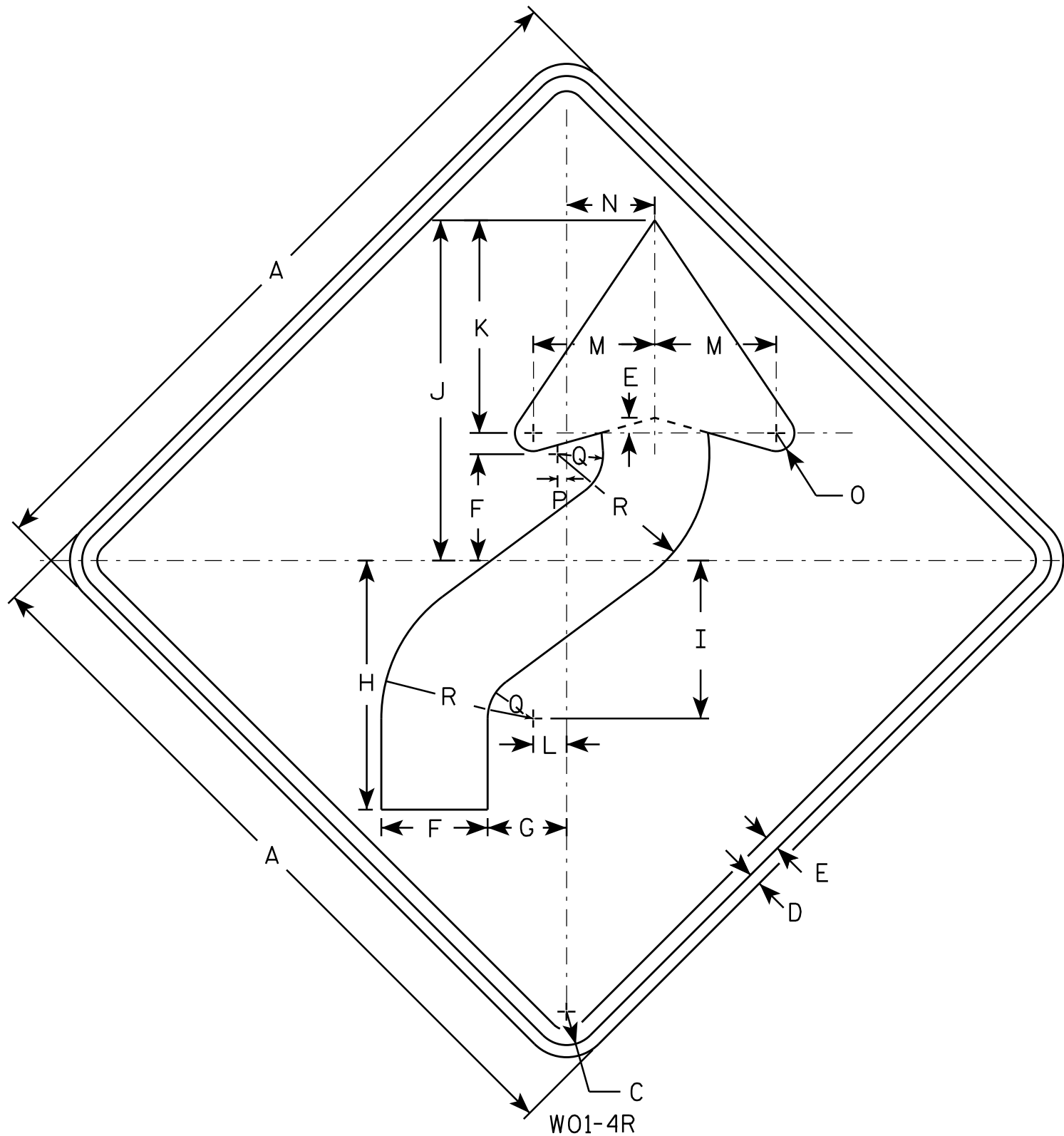
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-4.9

PROJECT NO:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4.1

PROJECT NO:

HWY:

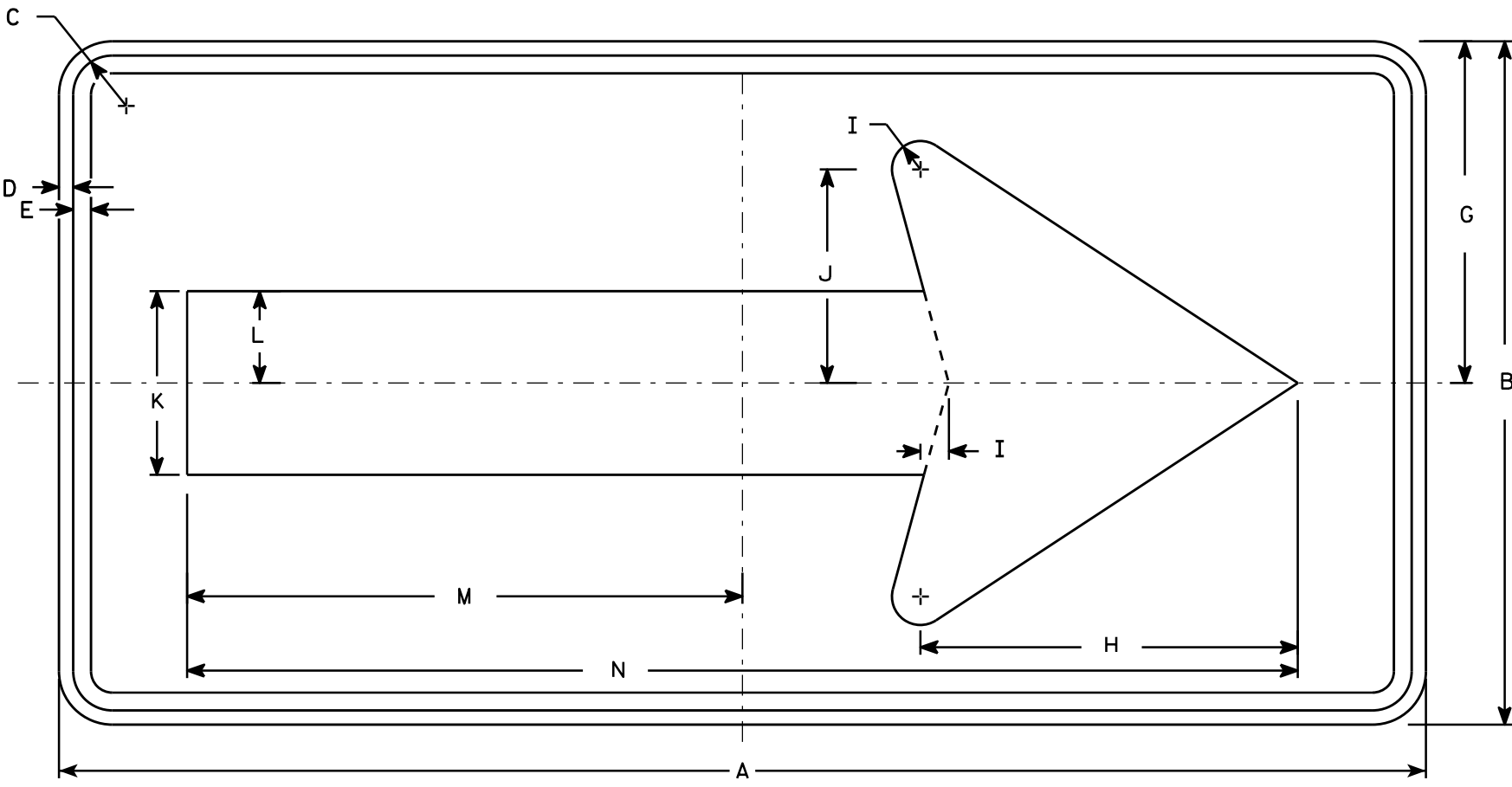
COUNTY:

SHEET NO:

E

NOTES

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



W01-6

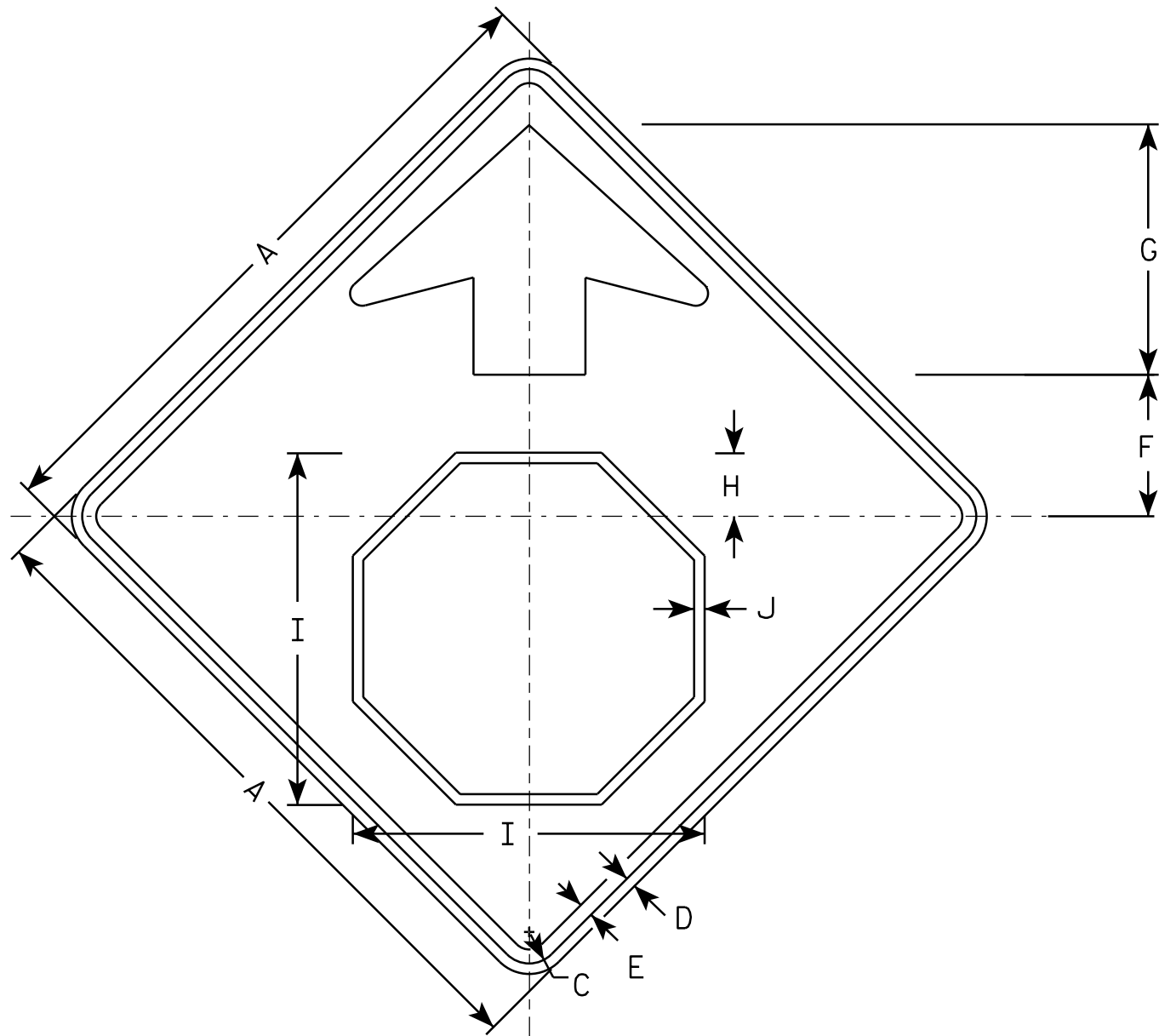
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

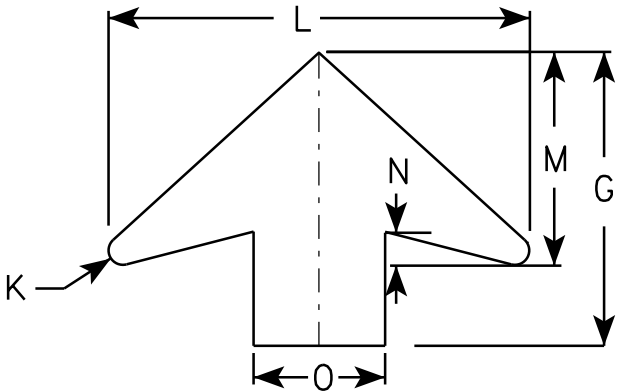
DATE 11/18/13 PLATE NO. W01-6.1



W03-1

NOTES

- 1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - ORANGE
 - 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	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
2S	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
2M	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
3	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
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:

SHEET NO:

E

STANDARD SIGN

W03-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch

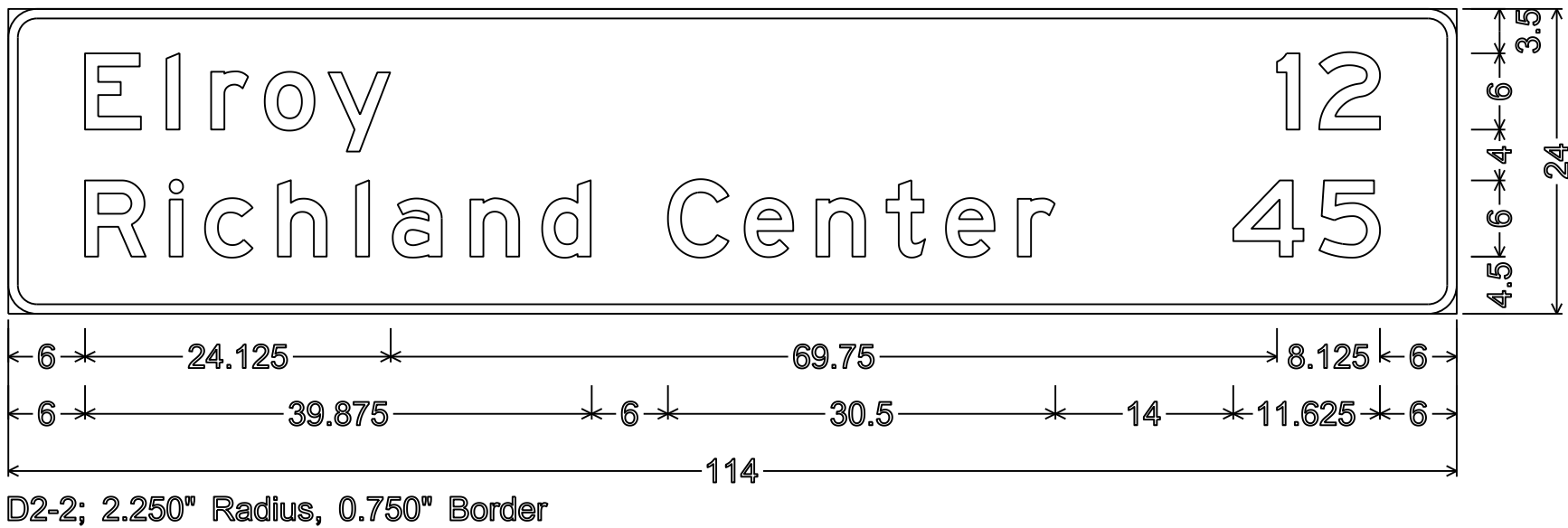
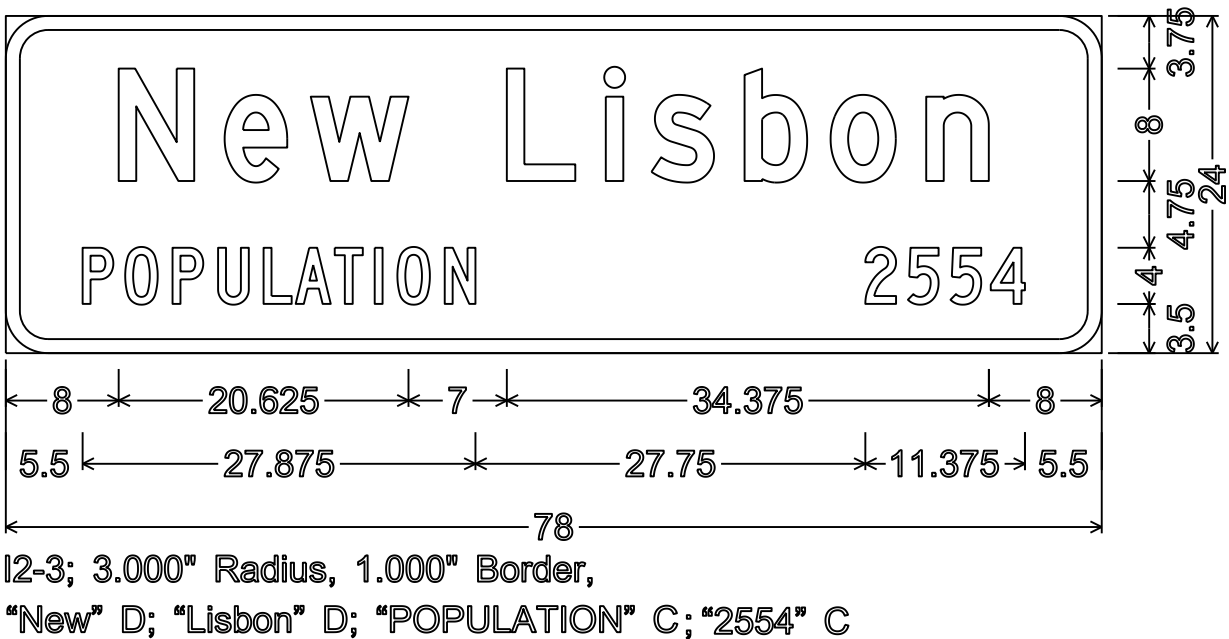
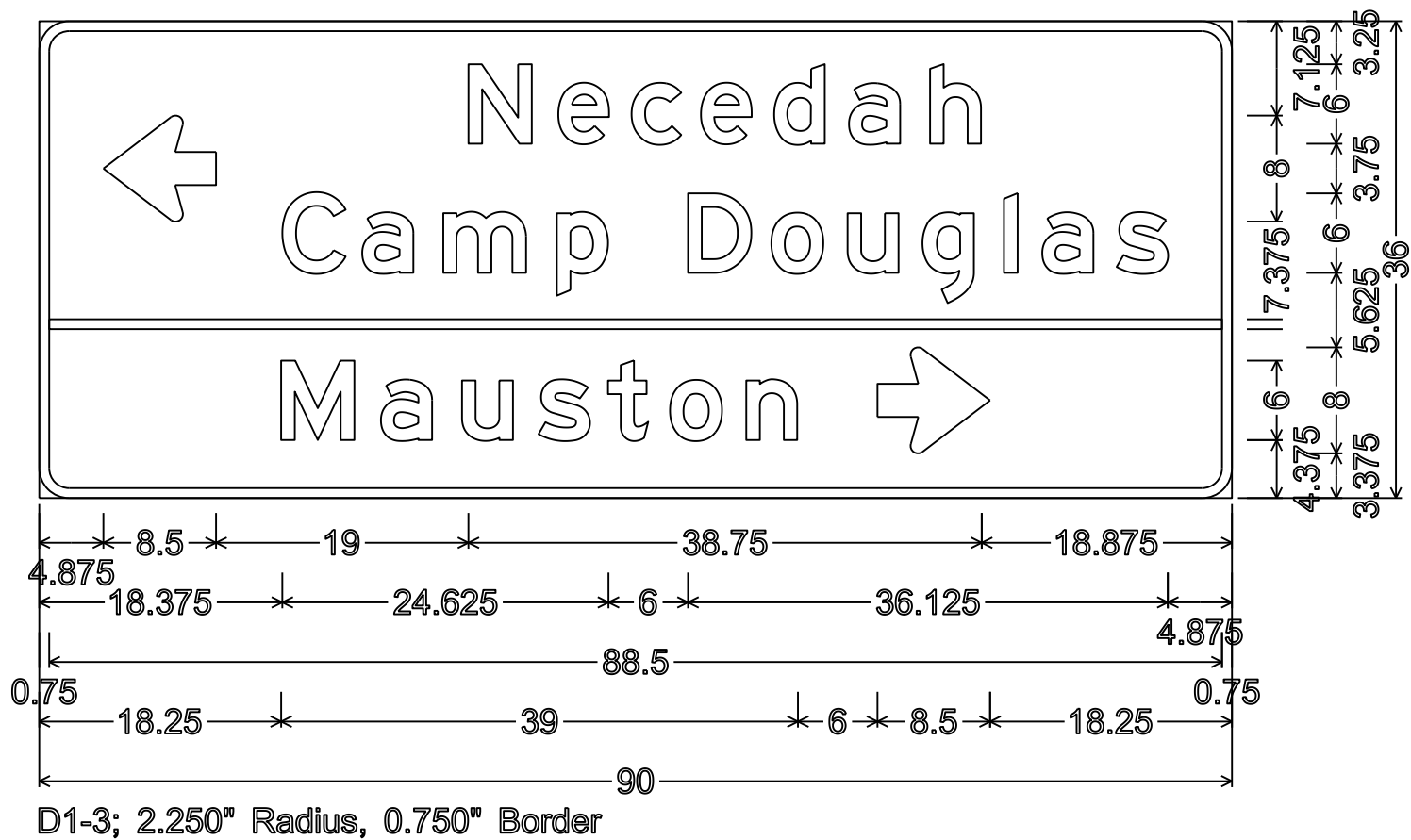
for State Traffic Engineer

DATE 11/20/13

PLATE NO. W03-1.1

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E except as noted



DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HL-93
INVENTORY RATING FACTOR _____ RF=1.00
OPERATING RATING FACTOR _____ RF=1.67
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 190 KIPS

STRUCTURE IS DESIGNED FOR 5 FEET OF FILL.

MATERIAL PROPERTIES:

CONCRETE MASONRY _____ $f'_c = 3,500$ P.S.I.
HIGH-STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60 _____ $f_y = 60,000$ P.S.I.

TRAFFIC DATA

A.D.T. (2020) _____ 2,500
A.D.T. (2040) _____ 3,000
DESIGN SPEED _____ 30 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA _____ 4.73 SQ. MI.
 Q_{100} _____ 500 C.F.S.
VELOCITY _____ 9.4 F.P.S.
WATERWAY AREA _____ 72 SQ. FT.
HIGH WATER₁₀₀ ELEVATION _____ 880.29
SCOUR CRITICAL CODE _____ 8

EROSION CONTROL

Q_2 _____ 175 C.F.S.
HIGH WATER₂ ELEVATION _____ 877.37

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (2011 ADJUSTMENT).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES. ALL VOLUME EXCAVATED BUT NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE B INCLUDING THE APRON WINGWALLS WITHIN THE LENGTH OF THE CULVERT. SEE SHEET 2 FOR BACKFILL STRUCTURE DETAIL.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACE UNDER WATER IF THE EXCAVATION CANNOT BE DEWATERED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE ALTERNATE CUT OFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUT OFF WALLS. PAYMENT SHALL BE BASED ON CONCRETE CUT OFF WALLS.

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAYBE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

LEGEND

⬡ INDICATES WING NUMBER

● UNDER CUT STRUCTURE (TO BE PAID FOR UNDER "EXCAVATION FOR STRUCTURES"), PLACE GEOTEXTILE TYPE C, AND BACKFILL WITH BREAKER RUN. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT.

▲ $\frac{3}{4}$ " FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WING WALL.

LIST OF DRAWINGS

GENERAL PLAN _____ 1.
BARREL SECTION & WALL STEEL _____ 2.
BOTTOM AND TOP INSIDE AND OUTSIDE STEEL _____ 3.
APRON DETAILS _____ 4.
WING WALL DETAILS _____ 5.

TOTAL ESTIMATED QUANTITIES

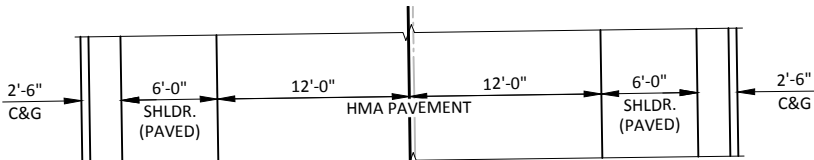
ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STA. 119+76	LS	1
204.9090.S.01	REMOVING SANITARY SEWER FROM BOX CULVERT	LF	14
204.9090.S.02	REMOVING WATER MAIN FROM BOX CULVERT	LF	14
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-29-662	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	175
311.0115	BREAKER RUN	CY	30
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	52
504.0100	CONCRETE MASONRY CULVERTS	CY	39
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3,960
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	710
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	17
606.0300	RIPRAP HEAVY	CY	21
645.0105	GEOTEXTILE TYPE C	SY	70
645.0120	GEOTEXTILE TYPE HR	SY	55
NON-BID ITEMS			
FILLER		SIZE	$\frac{3}{4}$ "

DESIGN CONSULTANT

ROBERT HANOLD, PE
(608) 588-7484

BRIDGE OFFICE CONTACT

WILLIAM DREHER, PE
(608) 266-8489

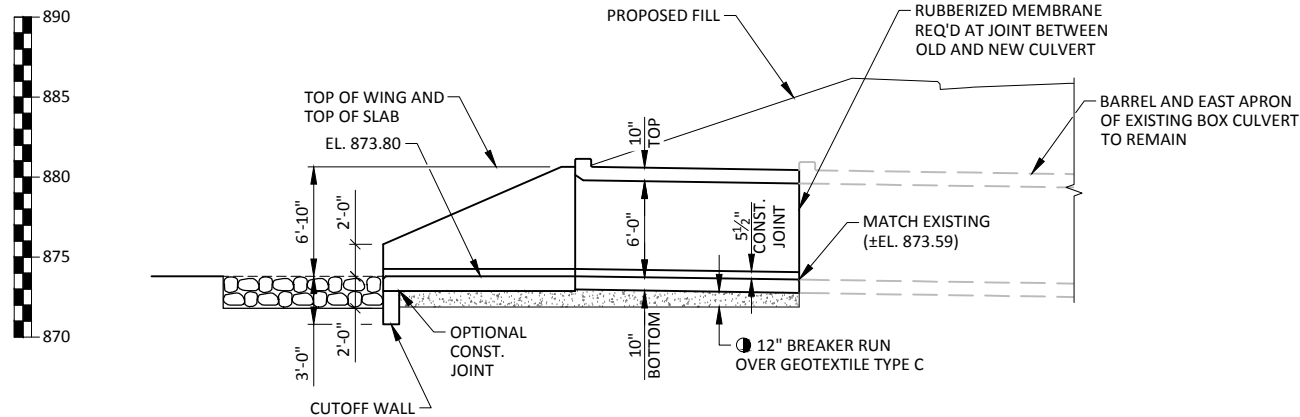


PLAN C-29-662

(TWO-CELL BOX CULVERT EXTENSION)

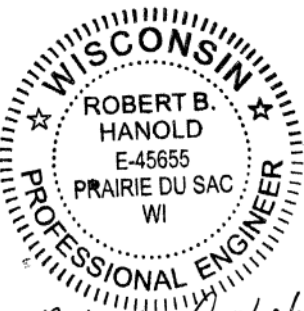
BENCH MARKS

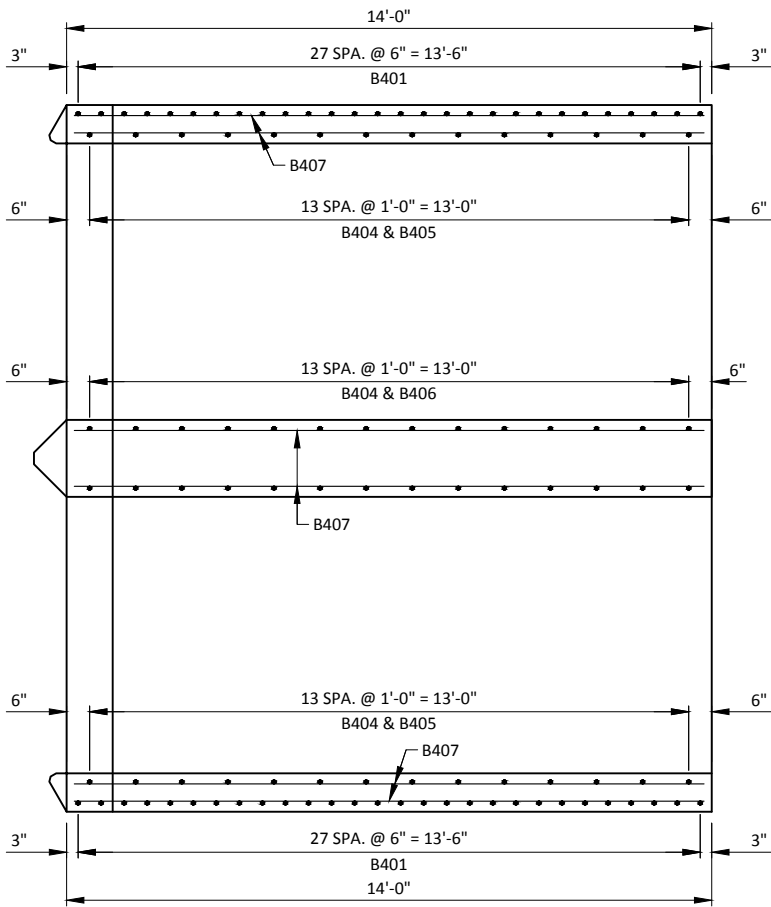
NO.	STA.	DESCRIPTION	ELEV.
4	119+32	COTTON GIN SPIKE SET IN POWER POLE, 28.1' RT.	887.62
5	119+83	CHISELED BOX NW CORNER OF STRUCTURE, 29.2' LT	881.34



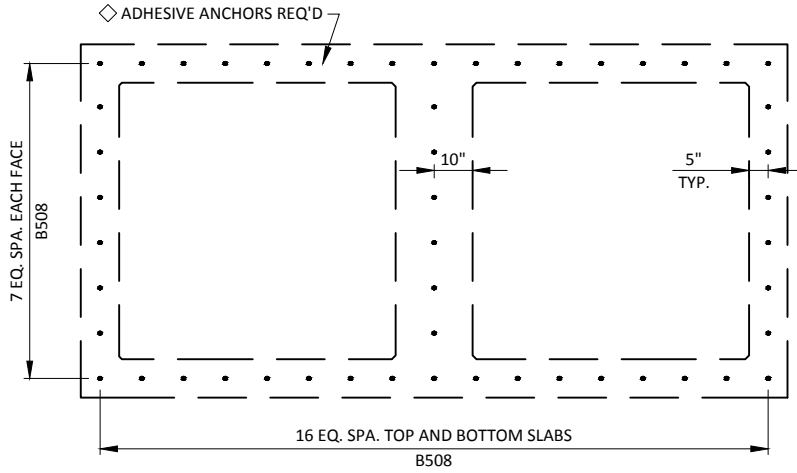
ELEVATION

(INTERIOR WALL NOT SHOWN)

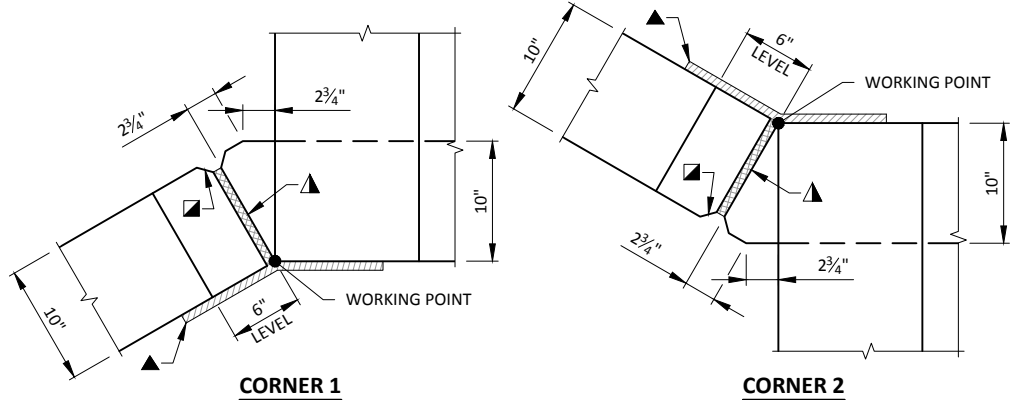




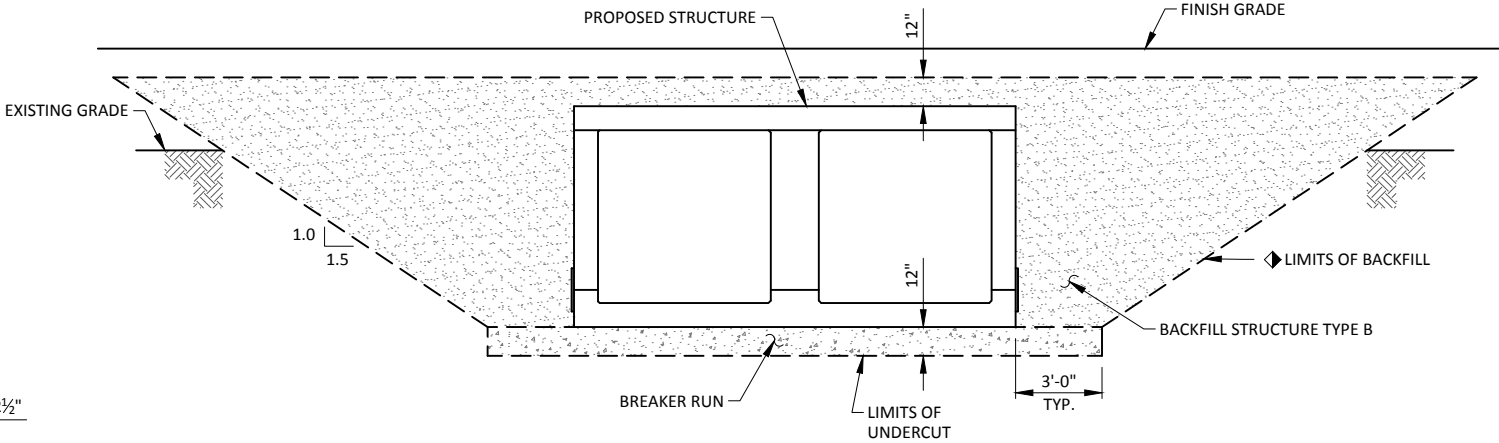
WALL STEEL



SECTION THROUGH EXISTING BARREL



CORNER DETAILS



BACKFILL STRUCTURE DETAIL

NOTES

UNLESS NOTED OTHERWISE, ALL BAR STEEL AND MEASUREMENTS SHOWN IN THE SECTION VIEW ARE SYMMETRICAL ABOUT THE C/L BOX CULVERT

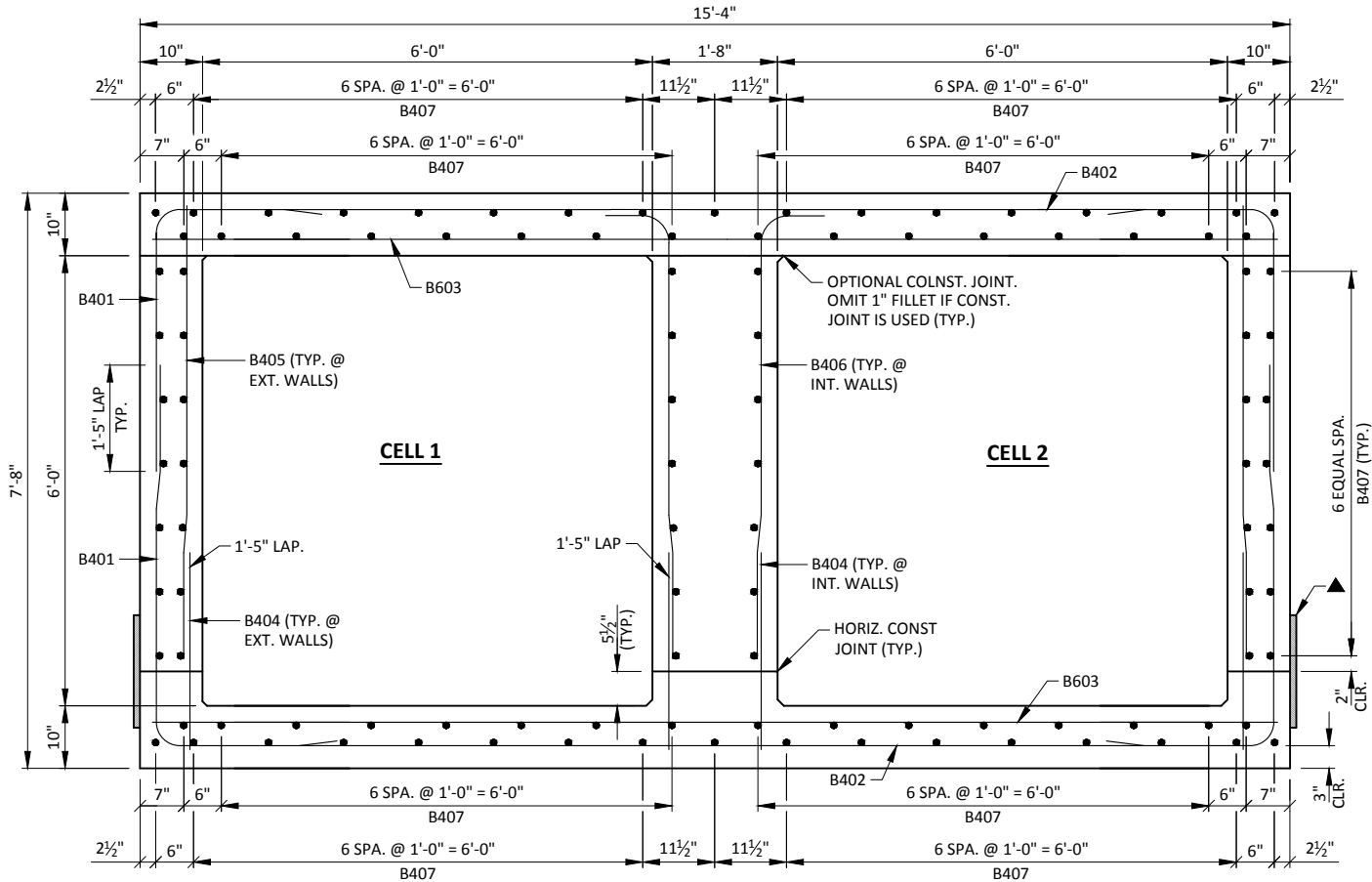
ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATION

SEE SHEET 5 FOR BILL OF BARS

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAYBE CONTACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

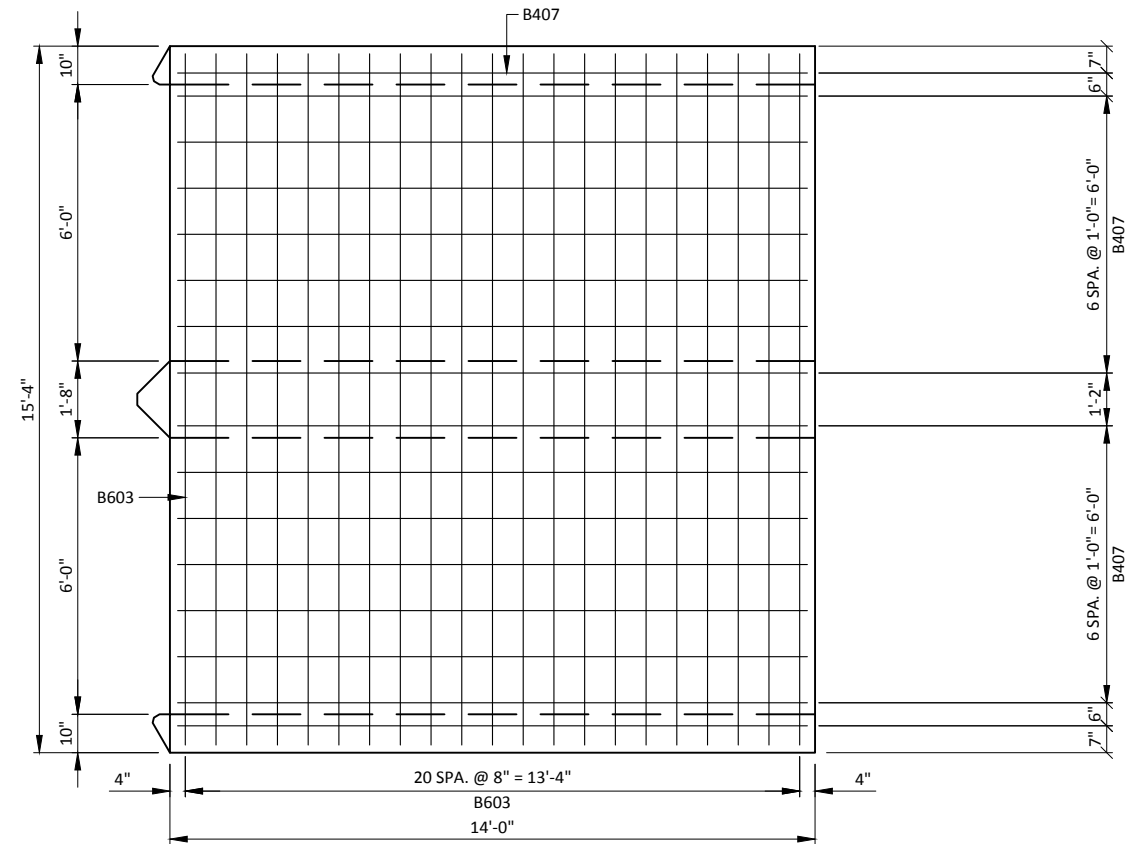
LEGEND

- ▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT TO TOP OF WALL.
- BAR LENGTH OR DISTANCE MEASURED ALONG SKEW.
- 1" BEVEL TYPICAL
- ▲ ¾" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.
- ◇ ADHESIVE ANCHORS NO. 4 BAR. EMBED 6" INTO EXISTING CONCRETE.

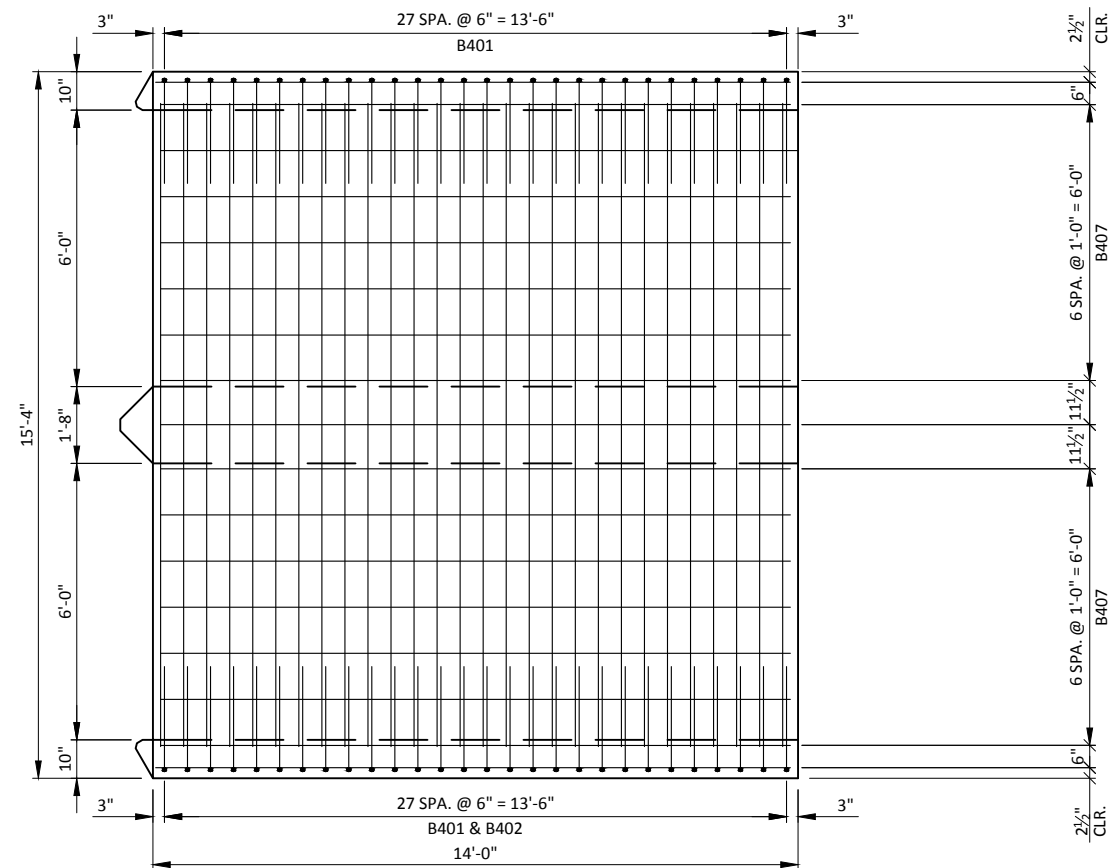


SECTION THROUGH BARREL
(LOOKING UPSTREAM)

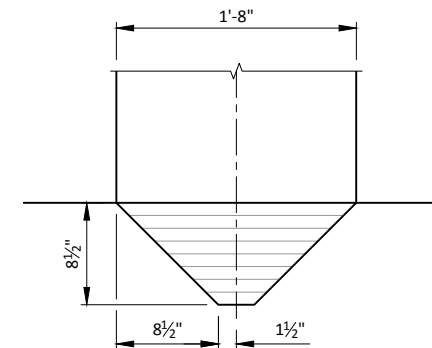
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-29-662			
DRAWN BY RBH		PLANS CK'D. PTB	
BARREL SECTION & WALL STEEL			SHEET 2 OF 5



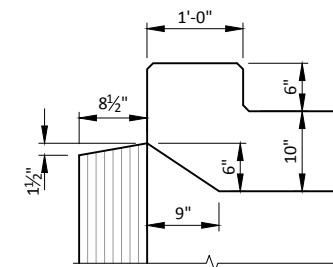
TOP AND BOTTOM SLAB INSIDE STEEL



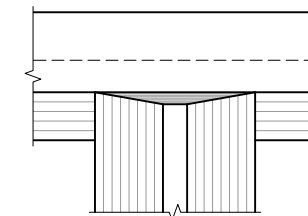
TOP AND BOTTOM SLAB OUTSIDE STEEL



PLAN



SECTION



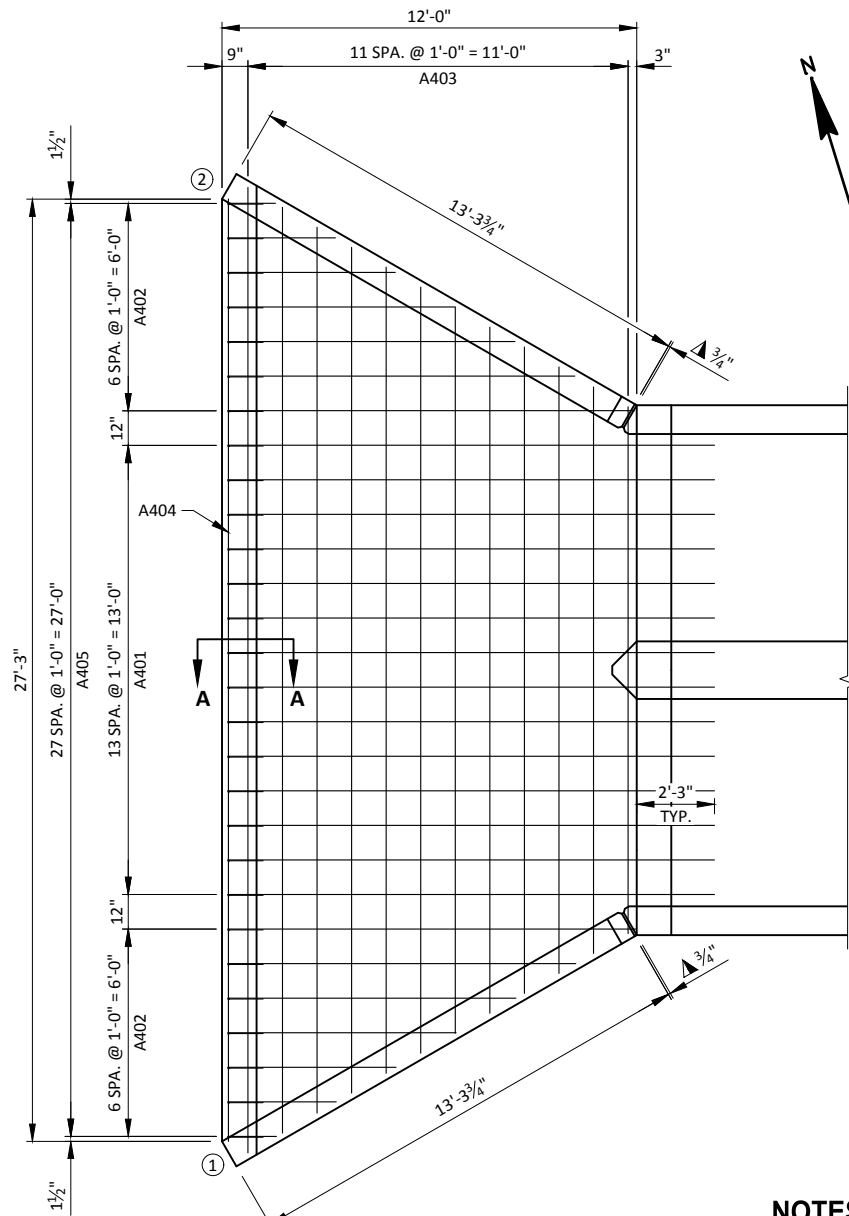
ELEVATION

INLET NOSE CENTERWALL DETAILS

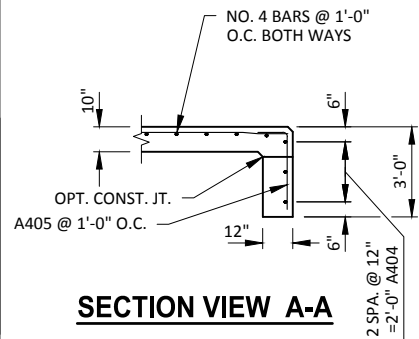
NOTES

SEE SHEET 5 FOR BILL OF BARS

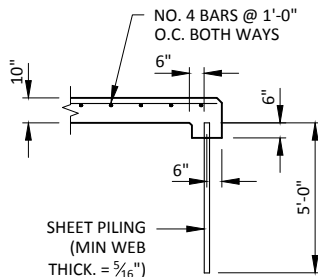
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-29-662			
DRAWN BY RBH		PLANS CK'D. PTB	
BOTTOM AND TOP INSIDE AND OUTSIDE STEEL		SHEET 3 OF 5	



PLAN VIEW - APRON STEEL

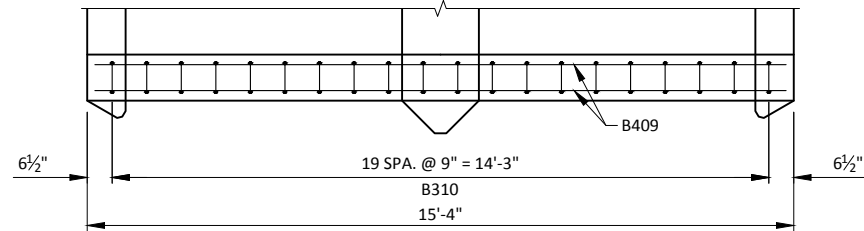


SECTION VIEW A-A

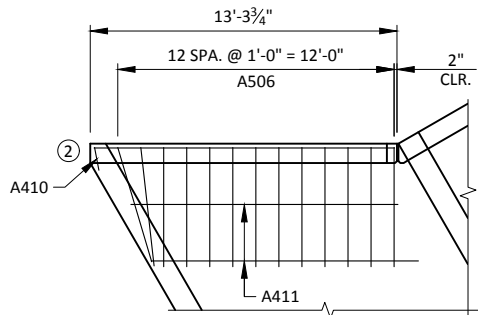


ALTERNATE CUT-OFF WALL

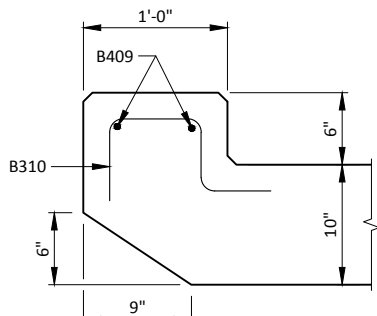
THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC CUT-OFF WALL. PAYMENT WILL BE BASED ON THE CONC. CUT OFF WALL.



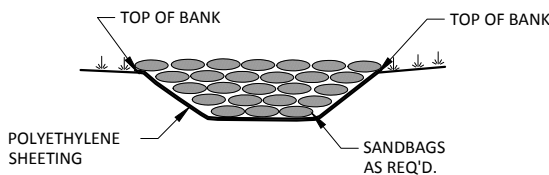
HEADER PLAN VIEW



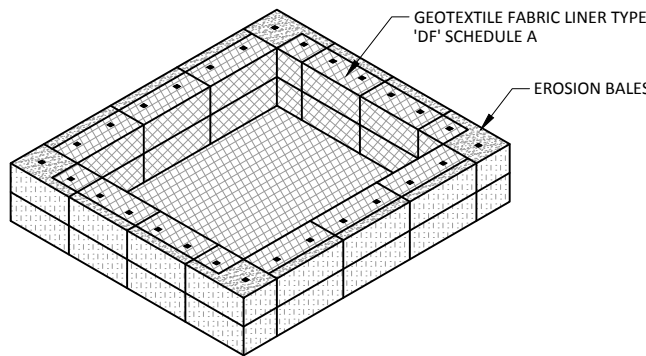
APRON BOTTOM STEEL



INLET TOP HEADER

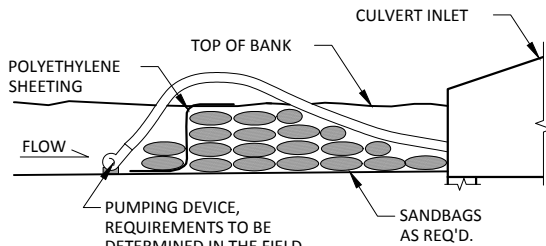


TYPICAL SANDBAG INSTALLATION IN EXISTING CHANNEL



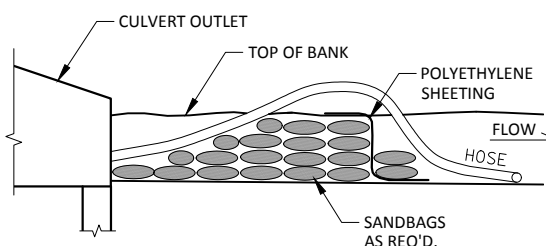
TEMPORARY SETTLING BASIN

SIZE TO BE DETERMINED BY WATER QUANTITY AND QUALITY



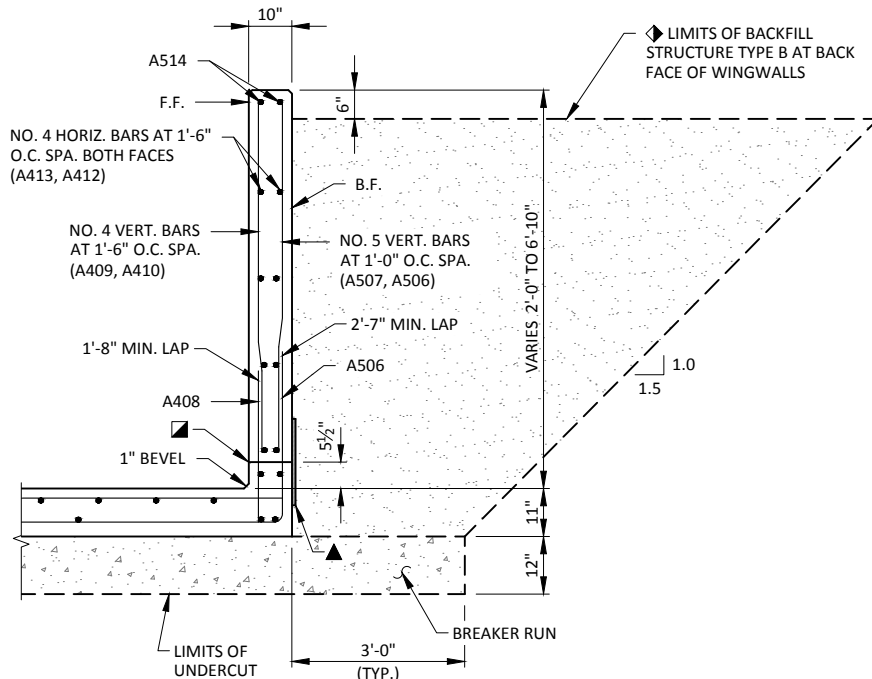
SANDBAG LOCATION INLET

(TO STOP FLOW INTO WORK AREA)



SANDBAG LOCATION OUTLET

(TO STOP BACKWASH INTO WORK AREA)



SECTION THROUGH WINGS

BACKFILL STRUCTURE TYPE B PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES C-29-662". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

PUMPING/DEWATERING OPERATION NOTES:

1. TEMPORARY SETTLING BASIN SIZE TO BE DETERMINED BY WATER QUANTITY AND QUALITY.
2. THE TEMPORARY SETTLING BASIN SHALL BE COMPLETED PRIOR TO BEGINNING OF PUMPING OPERATIONS. CONTRACTOR SHALL PUMP WATER FOR STRUCTURE EXCAVATION TO BASIN PRIOR TO DISCHARGE INTO THE STREAM.
3. BASIN SHALL BE KEPT LESS THAN 10% FULL OF SEDIMENT. GEOTEXTILE FABRIC TYPE DF AND SEDIMENTS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF OF THE PROJECT SITE.
4. THE COST OF ALL WORK AND MATERIAL ASSOCIATED WITH BYPASS PUMPING IS INCIDENTAL TO THE BID ITEM, "CONCRETE MASONRY CULVERTS." THE BYPASS PUMPING MEANS AND METHODS PROPOSED TO BE USED DURING CONSTRUCTION SHALL BE SUBMITTED FOR APPROVAL AS PART OF THE EROSION CONTROL IMPLEMENTATION PLAN.

NO.	DATE	REVISION	BY
		STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
		STRUCTURE C-29-662	
		DRAWN BY RBH PLANS CK'D. PTB	
		APRON DETAILS	SHEET 4 OF 5

BILL OF BARS
BARREL

3,470 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
B401	112	6-8	2-5			WALLS - EXT. - CORNERS
B402	56	15-0	--			SLAB - TOP & BOTTOM - OUTSIDE
B603	42	15-0	--			SLAB - TOP & BOTTOM - INSIDE
B404	56	2-8	--			WALLS - VERT. - BOTTOM
B405	28	6-0	--			WALLS - EXT. - VERT. - INSIDE
B406	28	6-10	1-0			WALLS - INT. - VERT.
B407	108	13-8	--			HORIZ. - TOP - BOTTOM
B508	52	1-11	--			HORIZ. - DOWELS
B409	2	15-0	--			HEADER - HORIZ.
B310	20	2-2				HEADER - STIRRUPS

BILL OF BARS
APRON

710 LB (COATED)

490 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
A401	14	14-1	--			APRON - TOP
A402	14	6-6	--		✱	APRON - TOP
A403	12	21-6	--		✱	APRON - TOP
A404	3	27-3	--			CUT OFF WALL - HORIZ.
A405	28	3-6	1-0			CUT OFF WALL - VERT.
A506	26	9-10	6-1	X		WINGS - VERT. - CORNERS
A507	20	4-2	--	X	✱	WINGS - VERT. - B.F.
A408	20	3-0	--	X		WINGS - VERT. - F.F. - BOTTOM
A409	16	4-1	--	X	✱	WINGS - VERT. - F.F.
A410	2	3-4	1-0	X		WINGS - VERT. - ENDS
A411	4	11-6	--	X		WINGS - HORIZ. - AT APRON
A412	12	13-0	--	X		WINGS - HORIZ. - BOTTOM
A413	12	8-6	--	X	✱	WINGS - HORIZ.
A514	4	13-10	--	X		WINGS - HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

THE DIMENSION IN THE BEND COLUMN ("D") IS THE OUT TO OUT HORIZONTAL LEG OF AN "L" SHAPED BAR. SEE TYPICAL BENDING DETAIL ON THIS SHEET.

✱ LENGTH SHOWN FOR BARS IN AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

■ SEE BENDING DETAILS.

◇ ADHESIVE ANCHORS NO. 5 BAR REQ'D.

◆ FIELD CUT BARS TO FIT AND TOUCH UP EPOXY REQ'D.

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A402	2 SERIES OF 7	11-8 TO 1-4
A403	1 SERIES OF 12	27-10 TO 15-2
A507	2 SERIES OF 10	6-0 TO 2-0
A409	2 SERIES OF 8	6-0 TO 1-8
A413	4 SERIES OF 3	12-6 TO 4-6

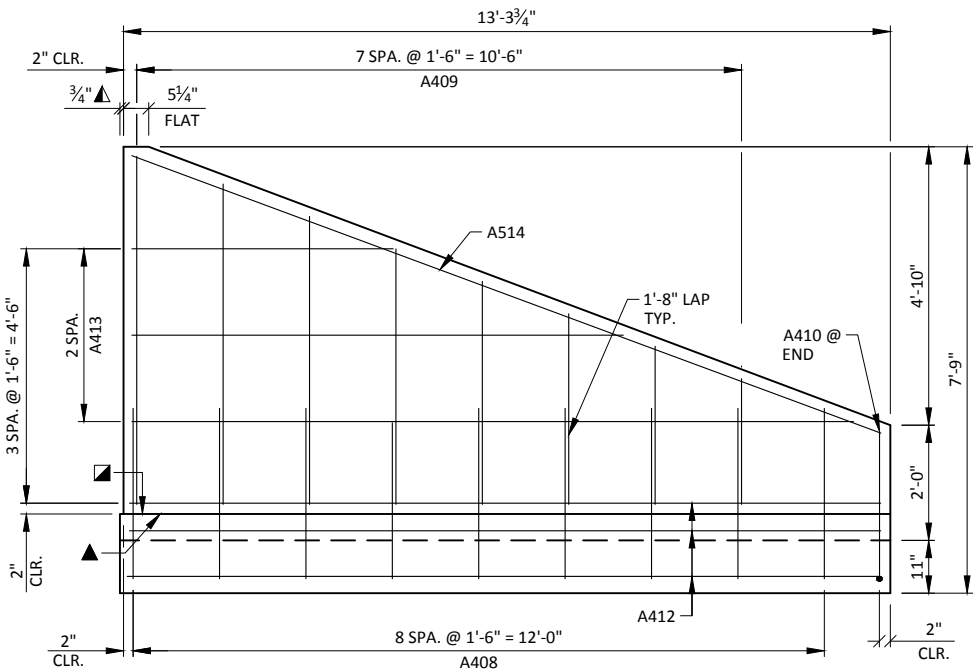
BUNDLE AND TAG EACH SERIES SEPARATELY.

LEGEND

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZONTAL CONSTRUCTION JOINT FOR ENTIRE WING LENGTH. (TYP.)

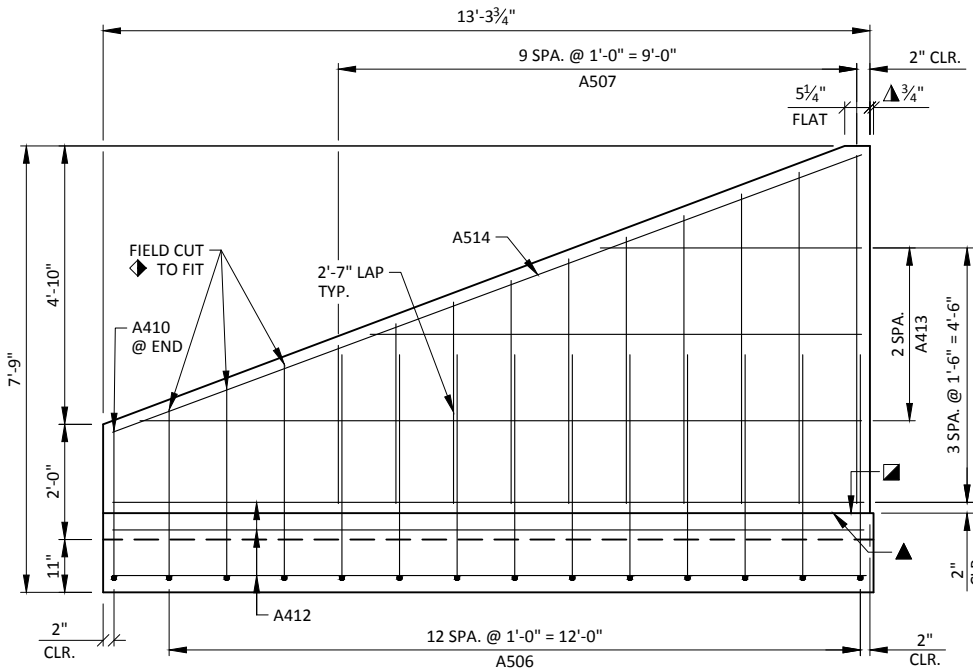
▣ HORIZONTAL CONSTRUCTION JOINT LOCATED 5½" ABOVE FLOOR OF APRON.

▲ ¾" FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING WALL.



FRONT FACE ELEVATION - WING 1

WING 1 SHOWN, WING 2 SIMILAR



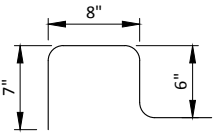
BACK FACE ELEVATION - WING 1

WING 1 SHOWN, WING 2 SIMILAR

TYP. BENDING DETAIL



B310



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-29-662			
DRAWN BY		RBH	PLANS CK'D. PTB
WING WALL DETAILS			SHEET 5 OF 5

EARTHWORK VOLUME REPORT - STH 80									
	Cut			Fill		Cumulative Volume			
			Reusable				Reusable		Mass
Station	End Area	Volume	Volume	End Area	Volume	Cut	Cut	Fill	Ordinate
	Sq. Ft.	Cu. Yd.	Cu. Yd.	Sq. Ft.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.
100+99.120	0	0	0	0	0	0	0	0	0
101+00.000	37.24	0.61	0.61	21.05	0.34	0.61	0.61	0.34	0.26
101+19.021	39.14	26.91	26.91	18.96	14.09	27.51	27.51	14.44	13.08
101+50.000	75.51	65.77	65.77	39.08	33.3	93.29	93.29	47.73	45.56
101+70.271	69.55	54.45	54.45	42.76	30.72	147.74	147.74	78.45	69.29
102+00.000	36.79	58.55	58.55	41.12	46.18	206.29	206.29	124.64	81.65
102+21.521	77.95	45.73	45.73	42.08	33.16	252.02	252.02	157.8	94.22
102+50.000	40.33	62.38	62.38	49.08	48.08	314.4	314.4	205.87	108.52
102+72.771	41.04	34.31	34.31	56.26	44.42	348.71	348.71	250.29	98.41
103+00.000	40.03	40.87	40.87	75.27	66.33	389.58	389.58	316.62	72.96
103+50.000	74.2	105.77	105.77	109.53	171.12	495.35	495.35	487.74	7.61
104+00.000	37.96	103.86	103.86	74.97	170.83	599.21	599.21	658.57	-59.36
104+50.000	35.36	67.89	67.89	76.82	140.54	667.1	667.1	799.11	-132.01
105+00.000	33.77	64.01	64.01	46.69	114.36	731.11	731.11	913.46	-182.36
105+50.000	32.65	61.51	61.51	41.25	81.42	792.61	792.61	994.88	-202.27
106+00.000	37.59	65.04	65.04	42.58	77.62	857.65	857.65	1072.5	-214.85
106+50.000	49.62	80.74	80.74	42.96	79.2	938.39	938.39	1151.71	-213.31
107+00.000	59.49	101.03	101.03	61.96	97.15	1039.42	1039.42	1248.86	-209.44
107+50.000	54.09	105.17	105.17	70.32	122.49	1144.59	1144.59	1371.34	-226.76
107+75.000	46.53	46.58	46.58	79.58	69.4	1191.17	1191.17	1440.75	-249.58
108+00.000	46.05	42.86	42.86	52.69	61.24	1234.03	1234.03	1501.98	-267.95
108+50.000	54.94	93.51	93.51	34.04	80.31	1327.54	1327.54	1582.29	-254.75
109+00.000	64.96	111.02	111.02	23.28	53.07	1438.56	1438.56	1635.36	-196.8
109+50.000	97.64	150.56	150.56	9.85	30.67	1589.12	1589.12	1666.04	-76.92
110+00.000	74.48	159.37	159.37	32.19	38.93	1748.49	1748.49	1704.97	43.52
110+50.000	48.09	113.5	113.5	22.69	50.82	1861.99	1861.99	1755.79	106.2
110+80.000	28.13	42.35	42.35	2.18	13.82	1904.34	1904.34	1769.61	134.72
111+00.000	54.18	30.49	30.49	16.54	6.93	1934.82	1934.82	1776.55	158.27
111+50.000	50.64	97.05	97.05	16.54	30.63	2031.88	2031.88	1807.17	224.7
112+00.000	52.7	95.68	95.68	14.31	28.56	2127.56	2127.56	1835.73	291.82
112+50.000	54.31	99.08	99.08	10.74	23.2	2226.64	2226.64	1858.93	367.71
113+00.000	54.37	100.63	100.63	7.64	17.03	2327.27	2327.27	1875.95	451.31
113+50.000	44.56	91.59	91.59	2.18	9.09	2418.86	2418.86	1885.05	533.82
113+50.173	31.54	0.24	0.24	2.17	0.01	2419.11	2419.11	1885.06	534.05
114+00.000	32.79	59.37	59.37	8.99	10.3	2478.47	2478.47	1895.36	583.11
114+50.000	36.44	64.11	64.11	0	8.33	2542.58	2542.58	1903.69	638.89
115+00.000	35.4	66.52	66.52	0	0	2609.1	2609.1	1903.69	705.41
115+50.000	54.85	83.56	83.56	5.76	5.33	2692.66	2692.66	1909.02	783.64
116+00.000	66.9	112.73	112.73	0.5	5.79	2805.39	2805.39	1914.81	890.58
116+50.000	96.91	151.68	151.68	0	0.46	2957.07	2957.07	1915.27	1041.8
117+00.000	105.87	188.11	188.11	0	0	3145.18	3145.18	1915.27	1229.92

PROJECT NO: 5530-03-71

HWY: STH 80

COUNTY: JUNEAU

EARTHWORK QUANTITIES

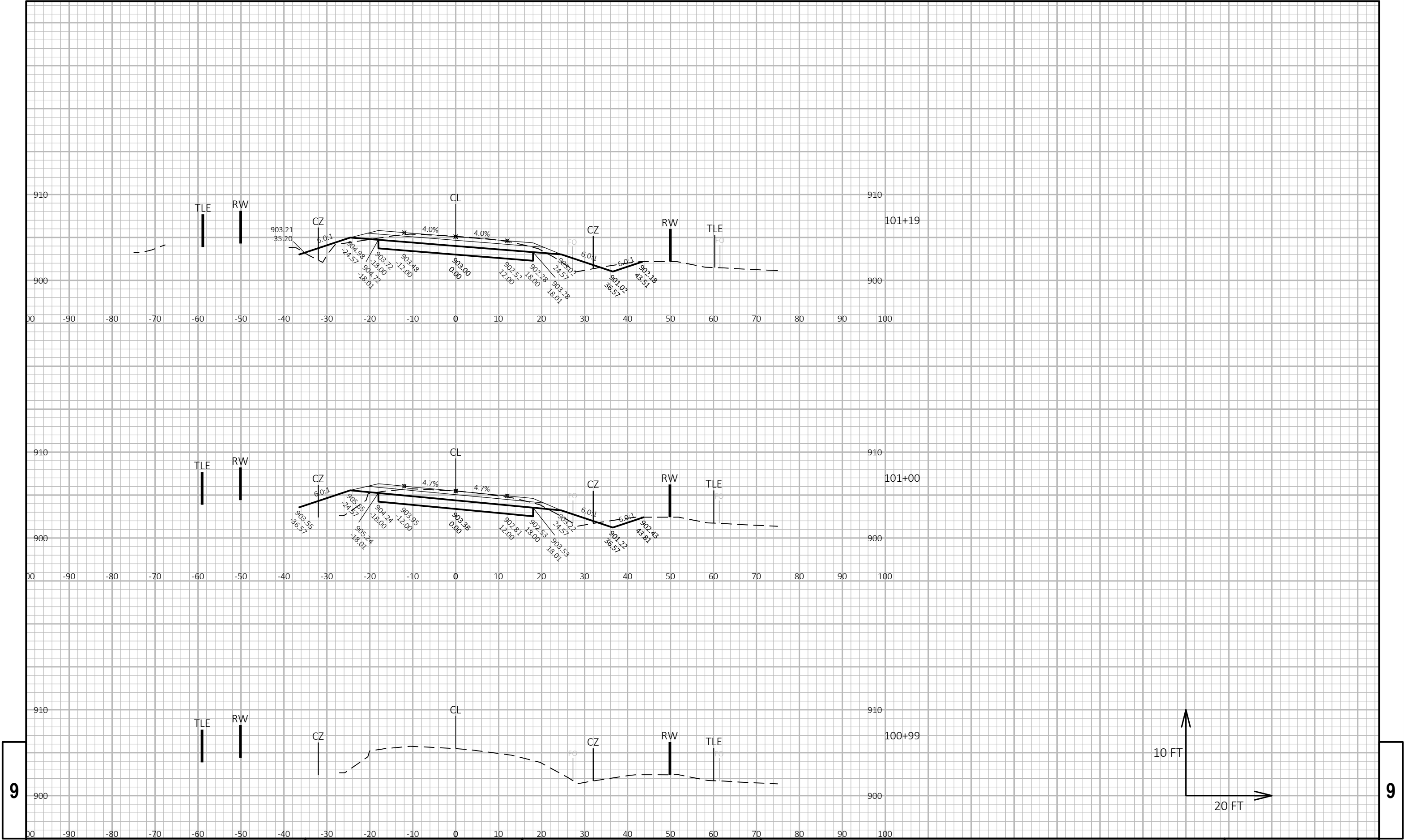
SHEET NO:

E

EARTHWORK VOLUME REPORT - STH 80									
	Cut			Fill		Cumulative Volume			
			Reusable				Reusable		Mass
Station	End Area	Volume	Volume	End Area	Volume	Cut	Cut	Fill	Ordinate
	Sq. Ft.	Cu. Yd.	Cu. Yd.	Sq. Ft.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.
117+40.000	58.24	122.07	122.07	0	0	3267.25	3267.25	1915.27	1351.98
117+50.000	104.8	30.19	30.19	0	0	3297.44	3297.44	1915.27	1382.18
118+00.000	75.95	167.47	167.47	2.12	1.94	3464.91	3464.91	1917.21	1547.71
118+50.000	59.25	125.37	125.37	10.16	11.23	3590.28	3590.28	1928.44	1661.84
118+70.000	23.26	30.56	30.56	8.36	6.86	3620.84	3620.84	1935.3	1685.54
119+00.000	47.91	39.54	39.54	21.22	16.43	3660.38	3660.38	1951.73	1708.65
119+50.000	36.67	78.32	78.32	161.86	169.52	3738.7	3738.7	2121.25	1617.45
119+75.000	35.47	33.4	33.4	295.04	211.53	3772.1	3772.1	2332.78	1439.32
120+00.000	30.52	30.55	30.55	191.85	225.41	3802.65	3802.65	2558.19	1244.46
120+50.000	33.93	59.68	59.68	59.91	233.11	3862.33	3862.33	2791.3	1071.03
121+00.000	37.6	66.29	66.29	12.77	66.82	3928.62	3928.62	2858.12	1070.49
121+12.000	18.09	12.37	12.37	5.13	3.98	3940.99	3940.99	2862.1	1078.89
121+50.000	38.72	39.83	39.83	12.76	12.53	3980.82	3980.82	2874.63	1106.19
122+00.000	51.91	83.83	83.83	5.69	17.2	4064.65	4064.65	2891.83	1172.82
122+23.450	52.23	45.22	45.22	2.03	3.39	4109.87	4109.87	2895.22	1214.65

EARTHWORK VOLUME REPORT - TAYLOR ROAD									
	Cut			Fill		Cumulative Volume			
			Reusable				Reusable		Mass
Station	End Area	Volume	Volume	End Area	Volume	Cut	Cut	Fill	Ordinate
	Sq. Ft.	Cu. Yd.	Cu. Yd.	Sq. Ft.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.
113+11.850	34.1	0	0	0.92	0	0	0	0	0
113+25.000	34.73	16.76	16.76	2.16	0.75	16.76	16.76	0.75	16.01
113+50.000	57.81	42.84	42.84	0	1	59.6	59.6	1.76	57.85

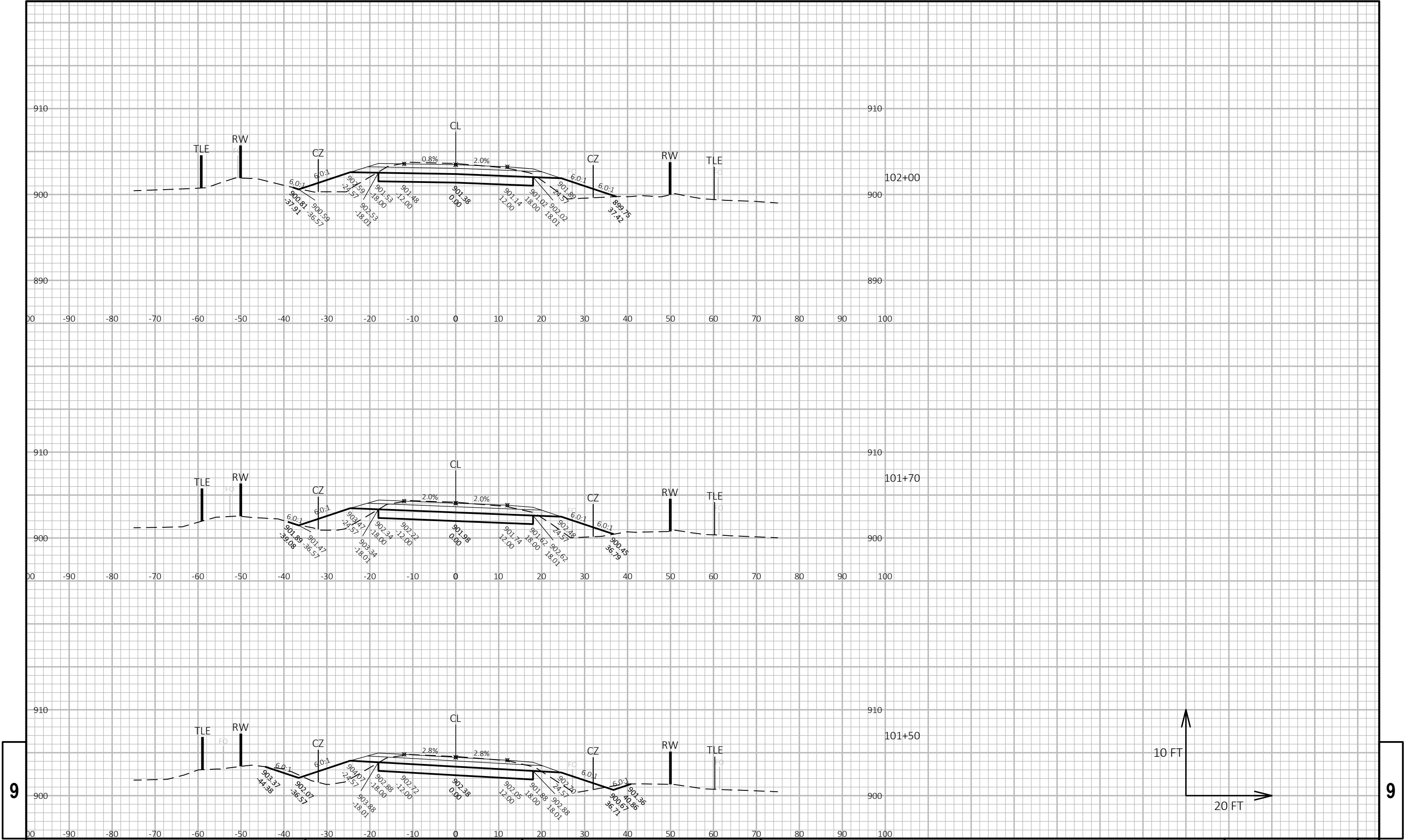
EARTHWORK VOLUME REPORT - MAUSTON ROAD									
	Cut			Fill		Cumulative Volume			
			Reusable				Reusable		Mass
Station	End Area	Volume	Volume	End Area	Volume	Cut	Cut	Fill	Ordinate
	Sq. Ft.	Cu. Yd.	Cu. Yd.	Sq. Ft.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.
115+14.090	48.26	0	0	0.81	0	0	0	0	0
115+50.000	76.32	82.85	82.85	0	0.54	82.85	82.85	0.54	82.31
116+00.000	242.02	294.76	294.76	0	0	377.61	377.61	0.54	377.07
116+42.800	49.15	230.78	230.78	0.14	0.11	608.39	608.39	0.64	607.75



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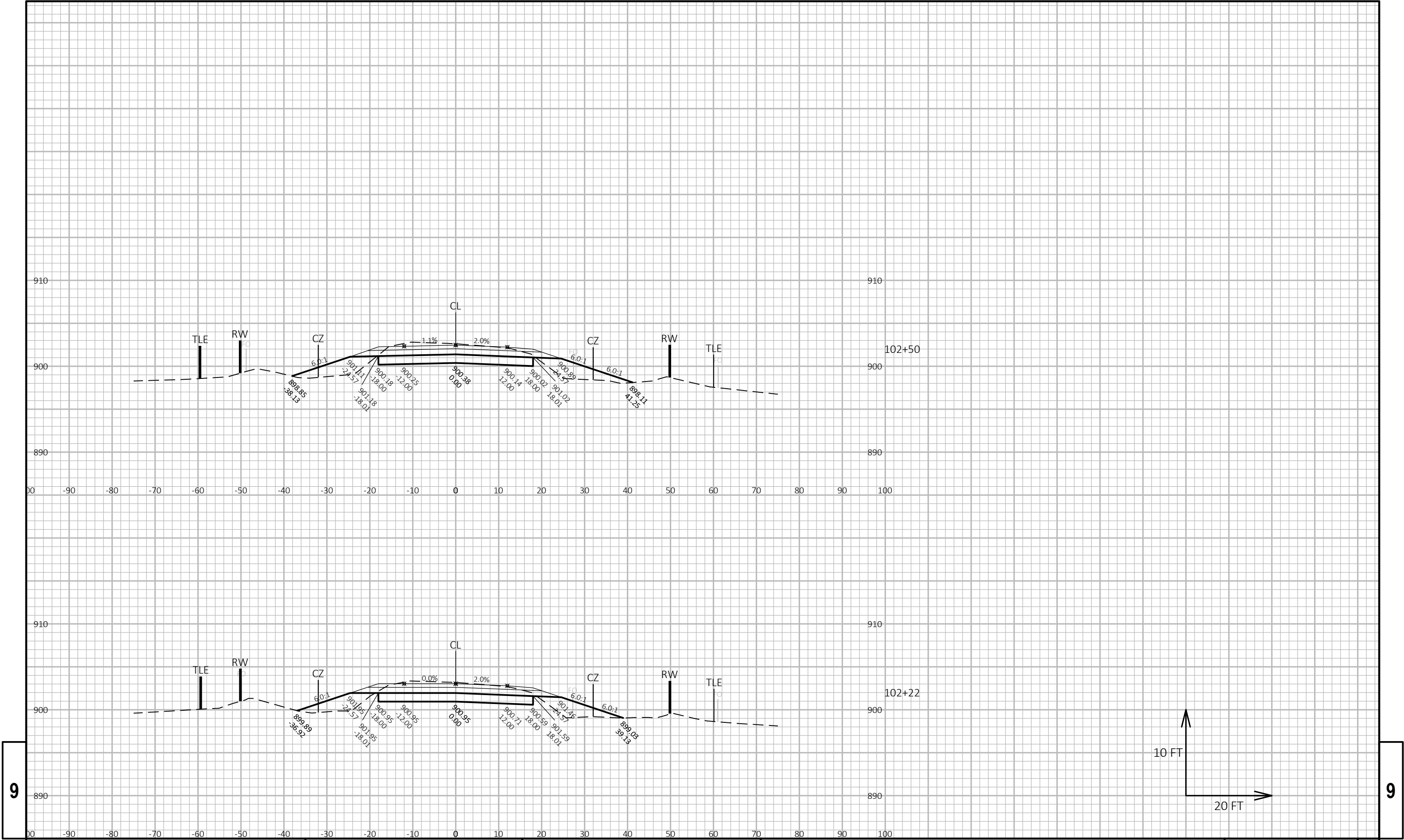
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PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS: STH 80	SHEET	E
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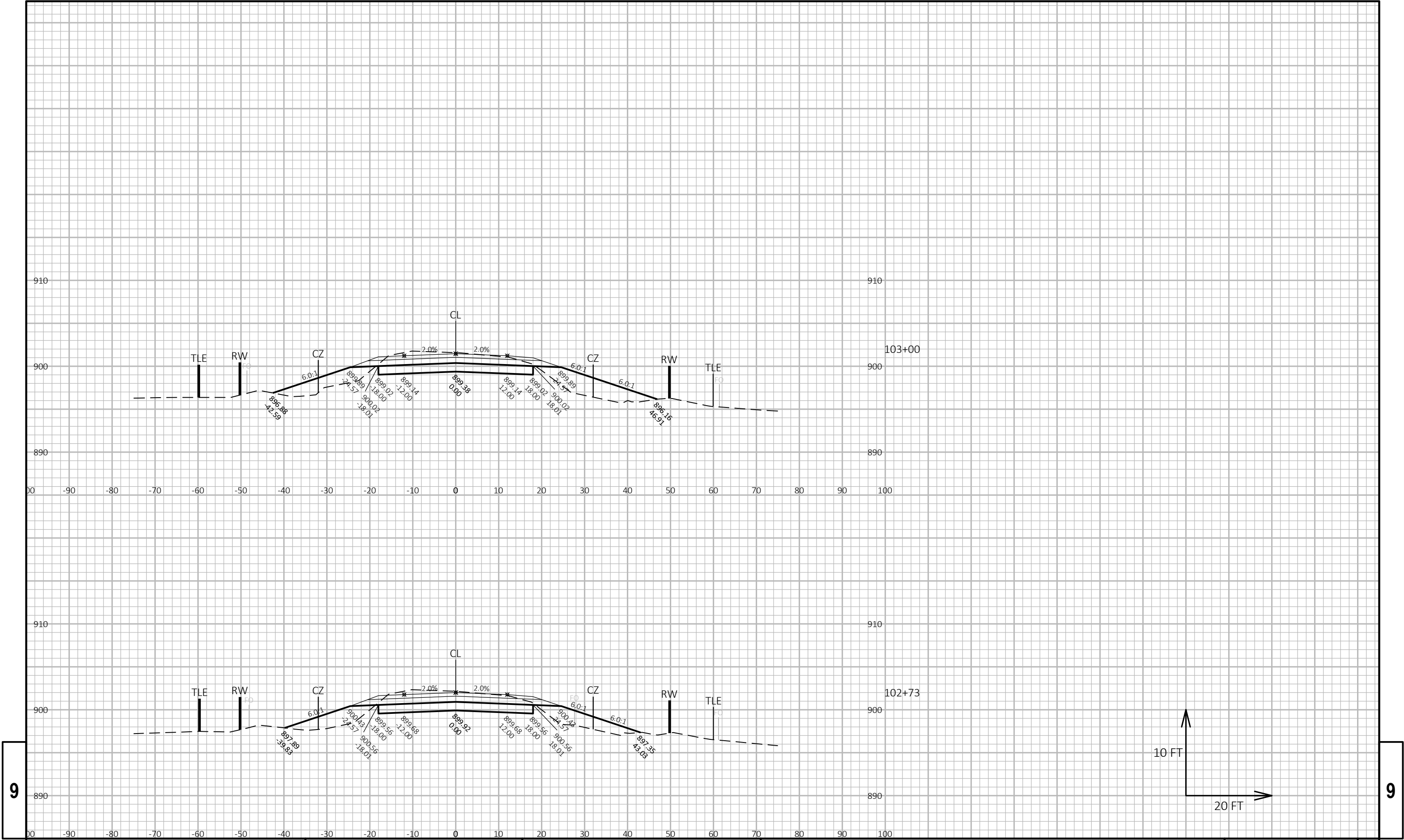
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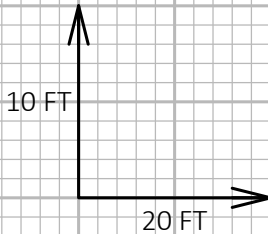
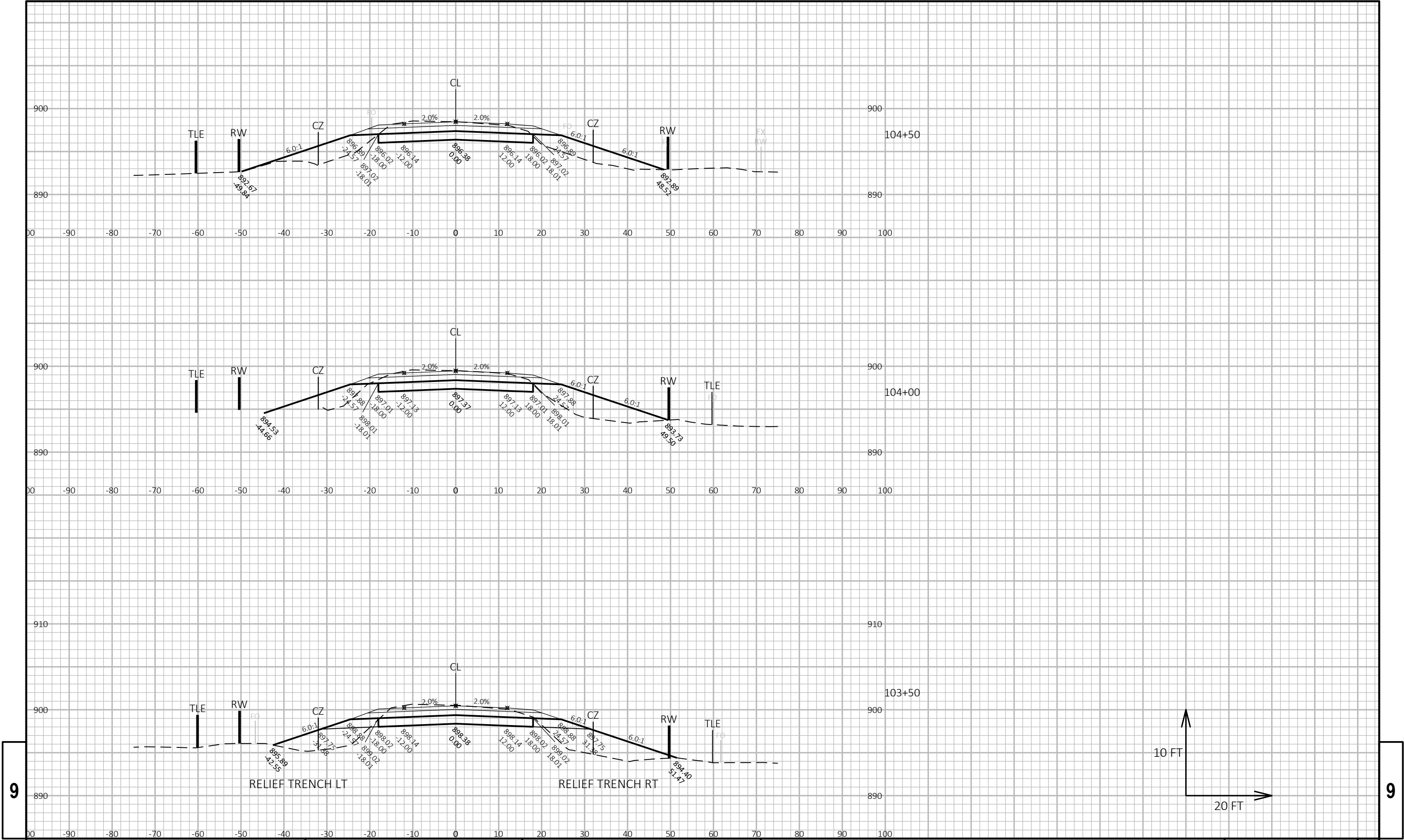
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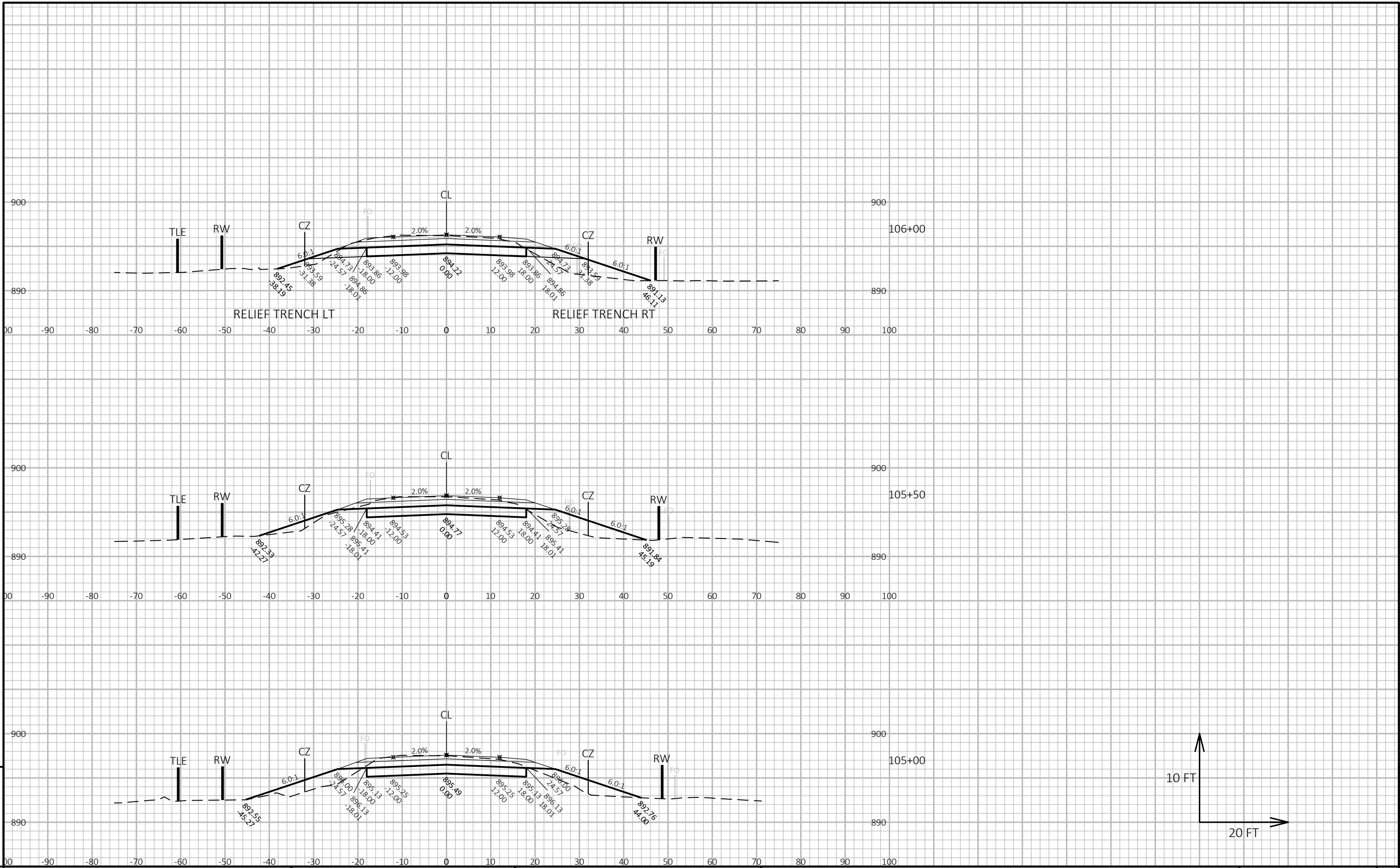


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PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS: STH 80	SHEET	E
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PROJECT NO: 5530-03-71

HWY: STH 80

COUNTY: JUNEAU

CROSS SECTIONS: STH 80

SHEET

E

FILE NAME : N:\PDS\C3D\55300301\SHEETS\PLAN\090100-XS.DWG
LAYOUT NAME - 090106-XS

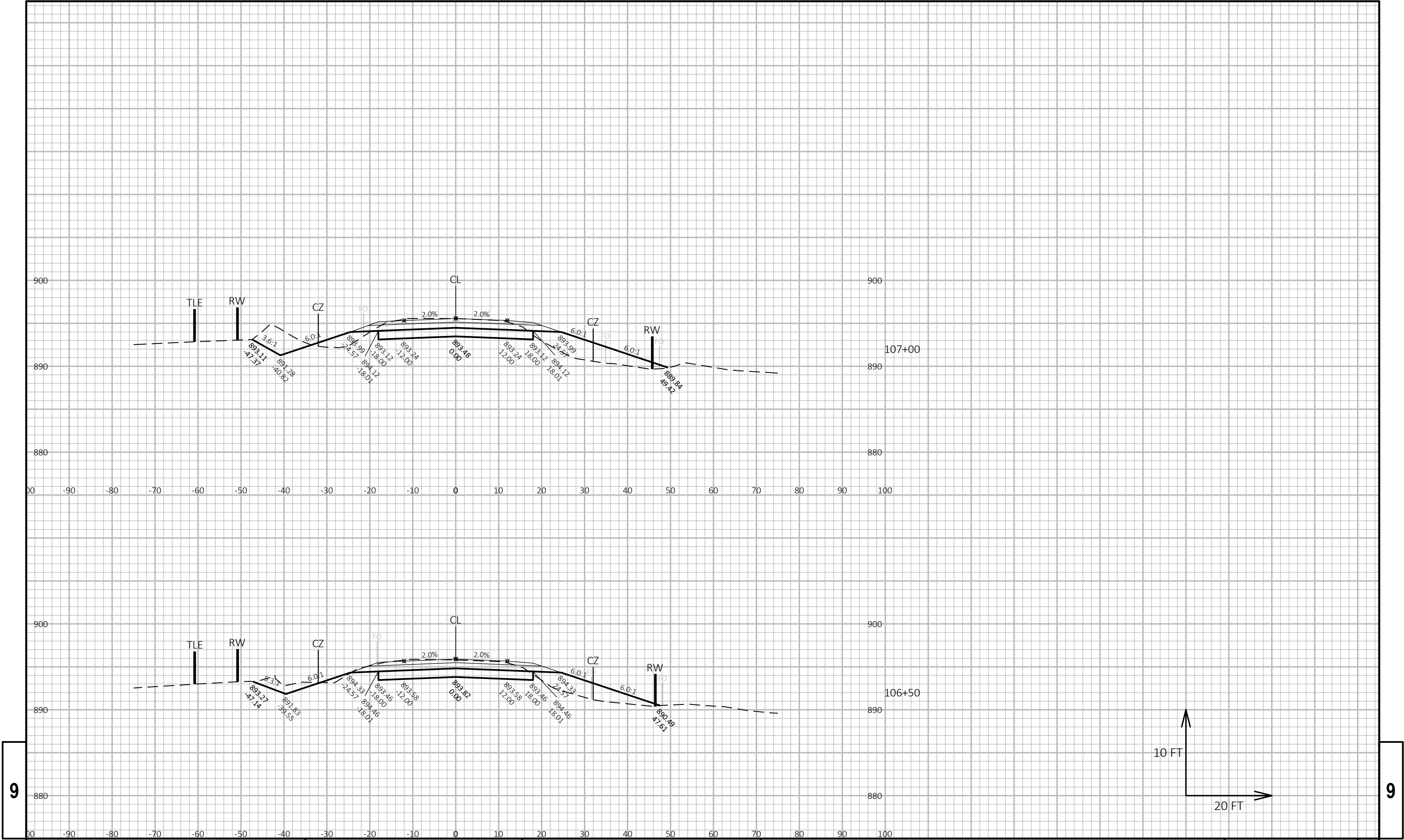
PLOT DATE : 10/31/2018 4:26 PM

PLOT BY : VALENTI, PAUL M

PLOT NAME :

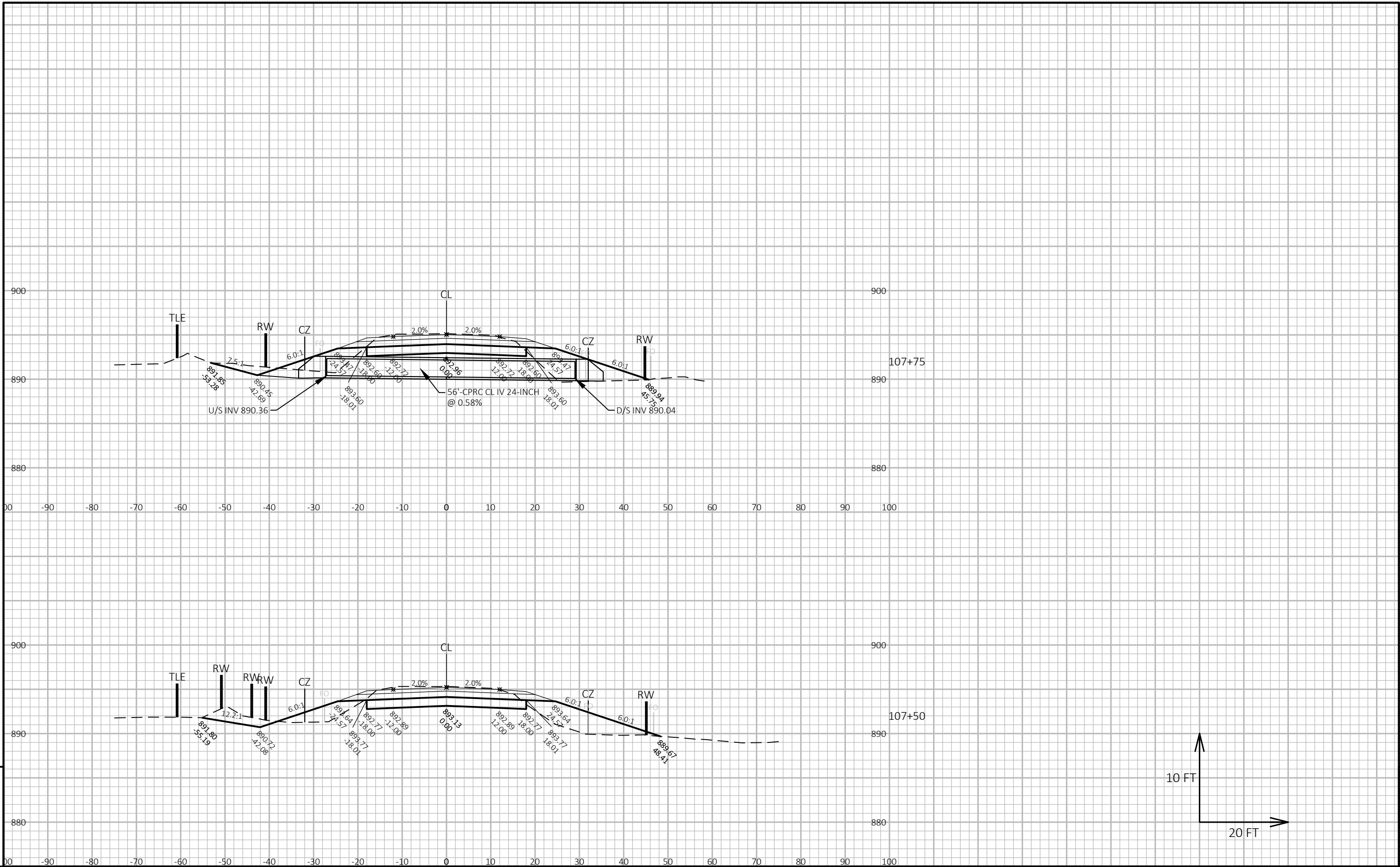
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD5 SHEET 49



9

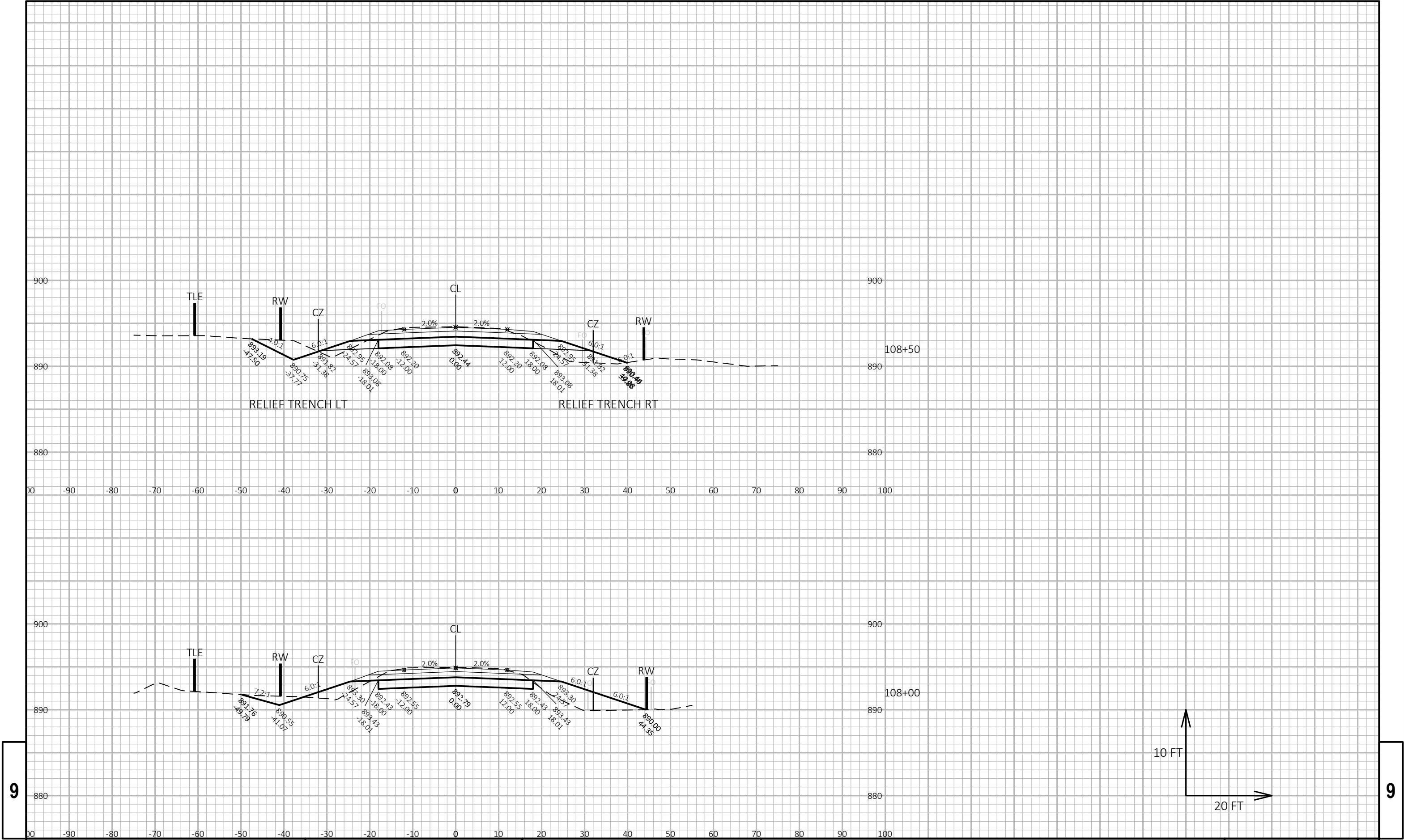
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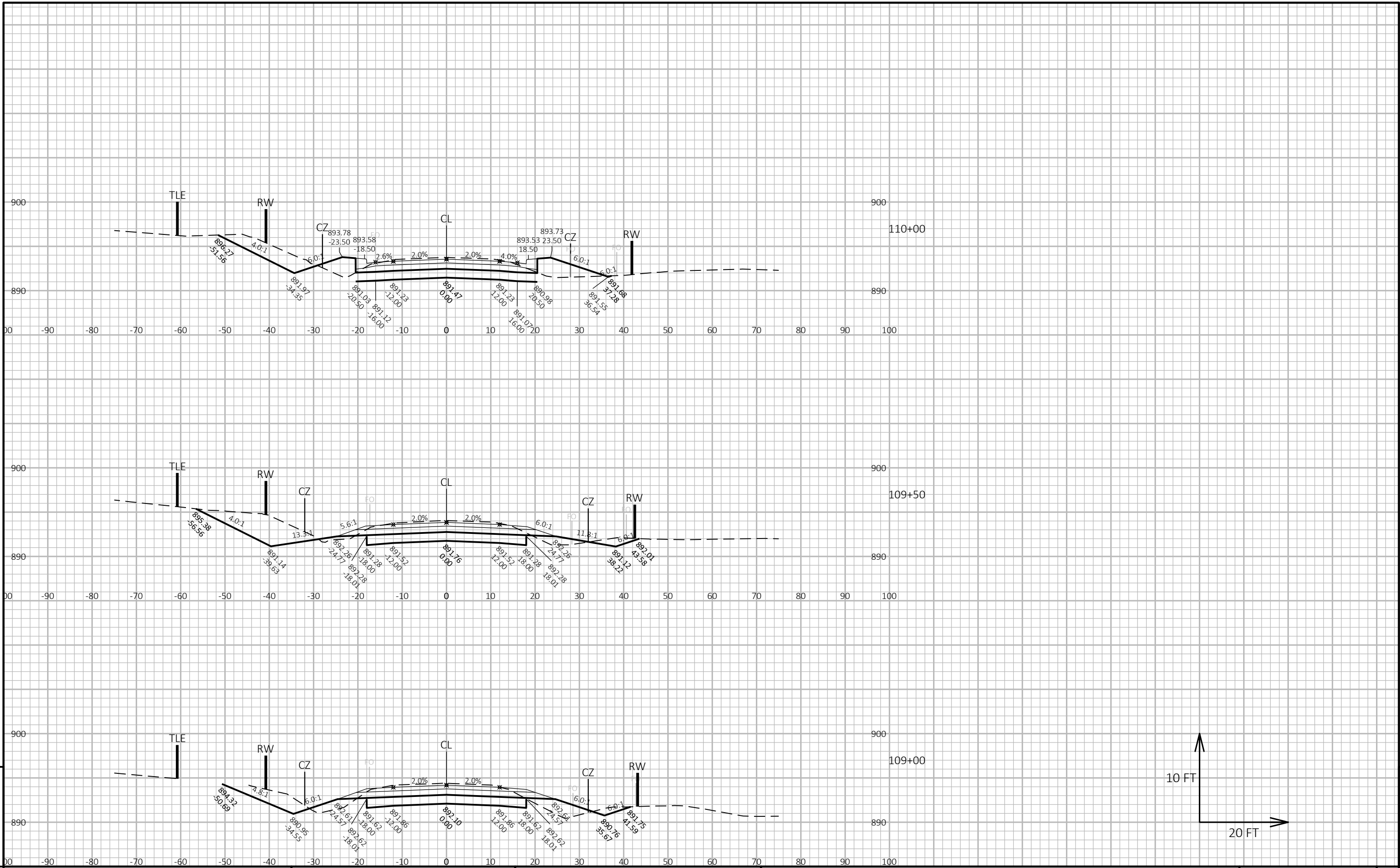
PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS: STH 80	SHEET	E
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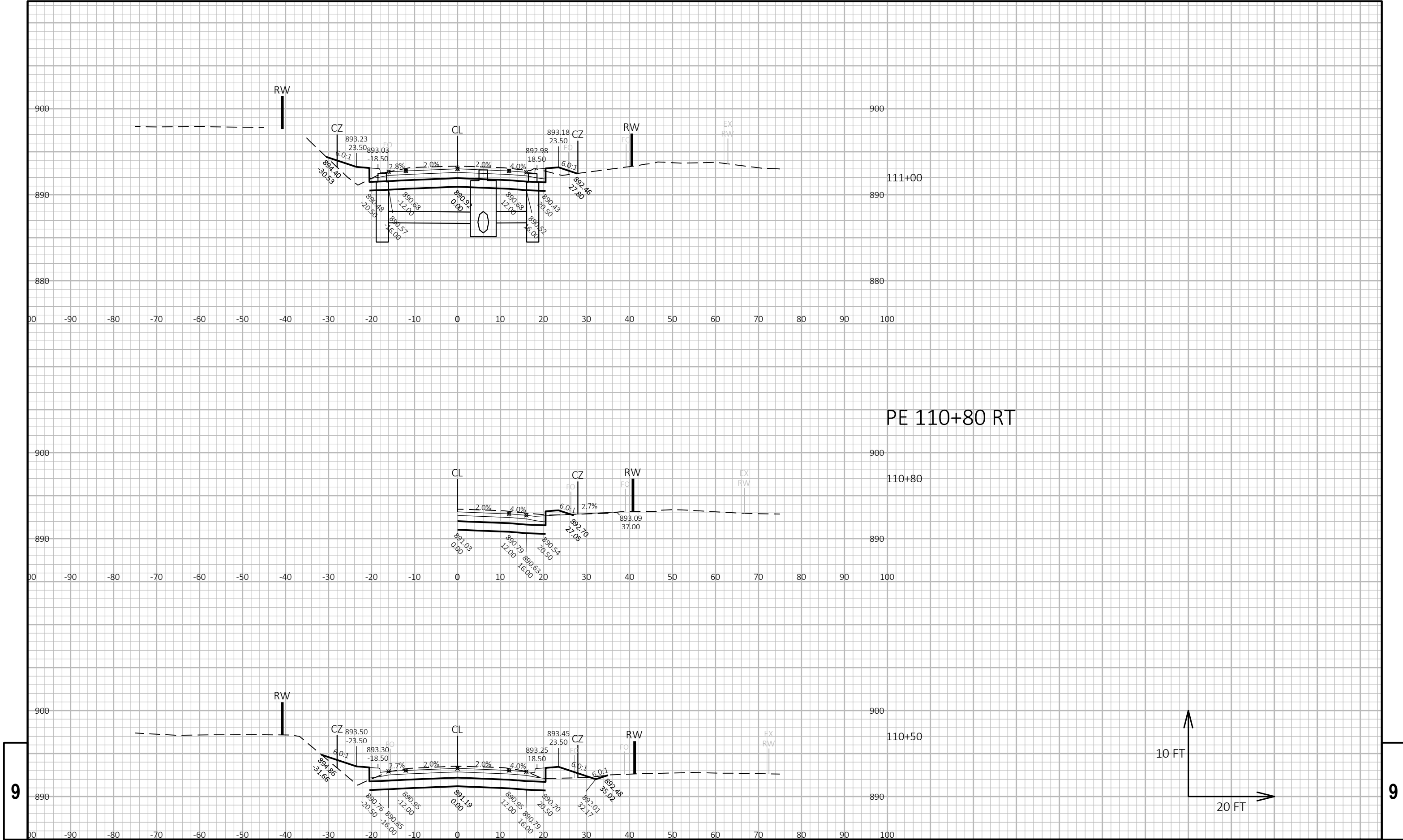


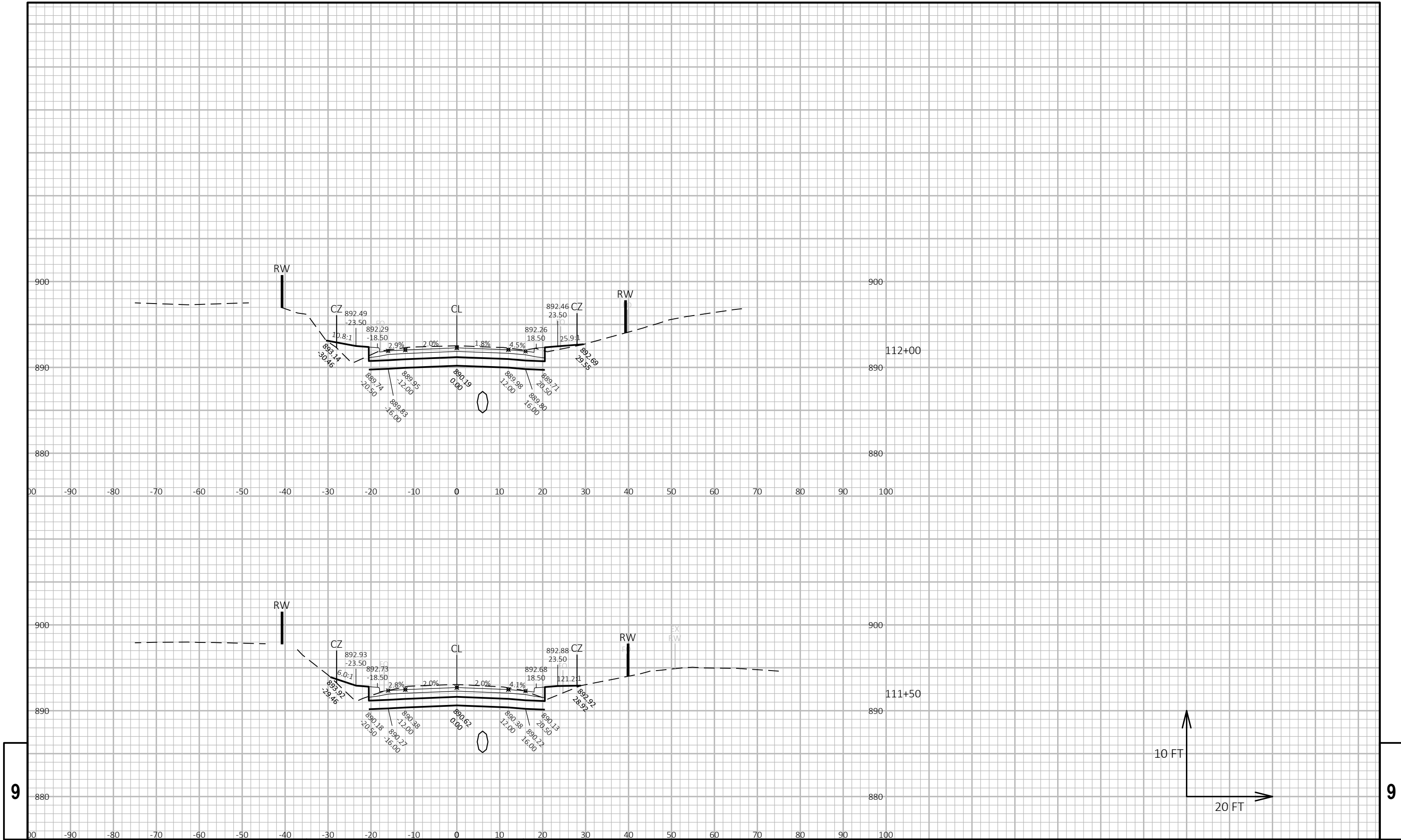
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PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS: STH 80	SHEET	E
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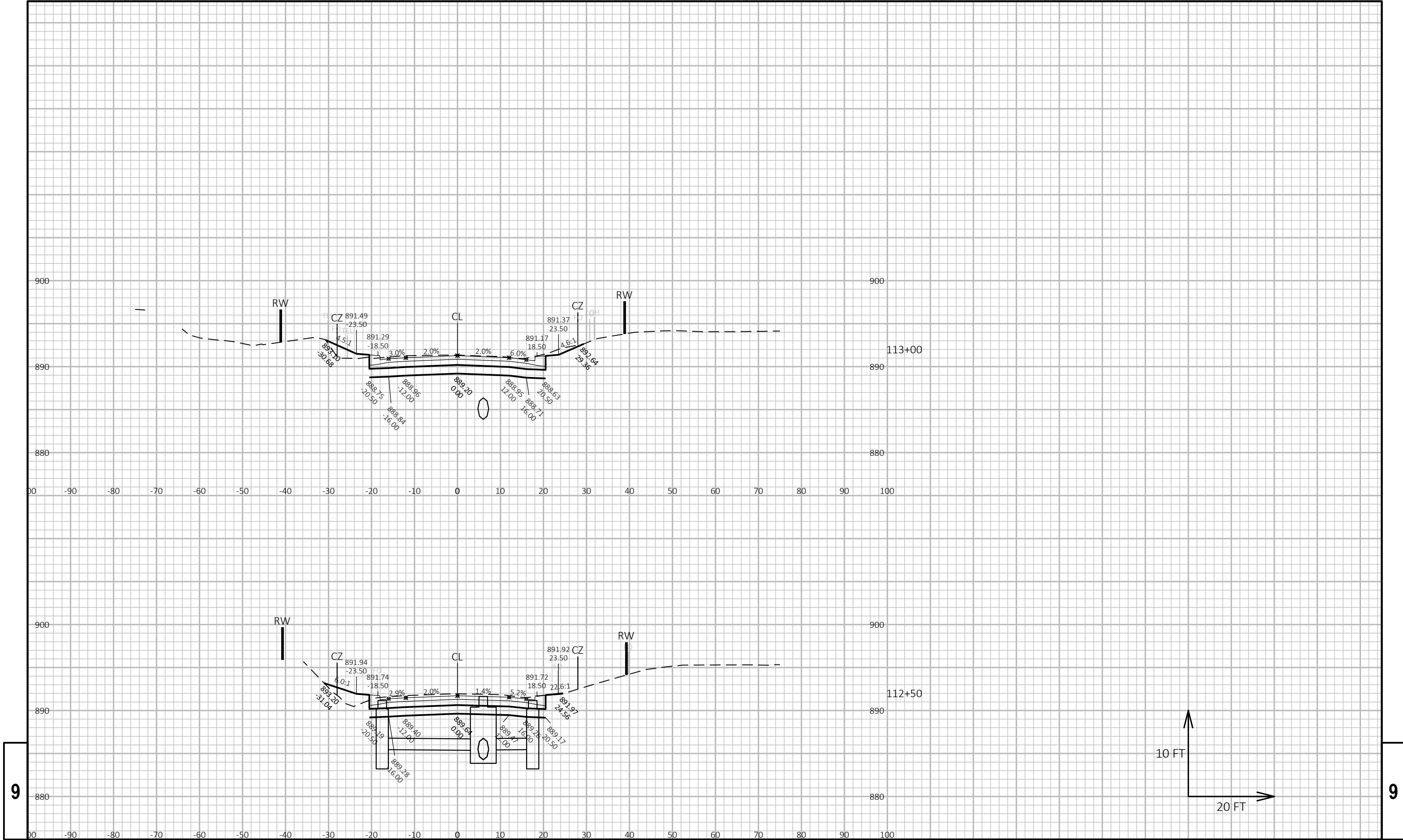






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PROJECT NO: 5530-03-71

HWY: STH 80

COUNTY: JUNEAU

CROSS SECTIONS: STH 80

SHEET

E

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LAYOUT NAME - 090113-XS

PLOT DATE : 10/31/2018 4:27 PM

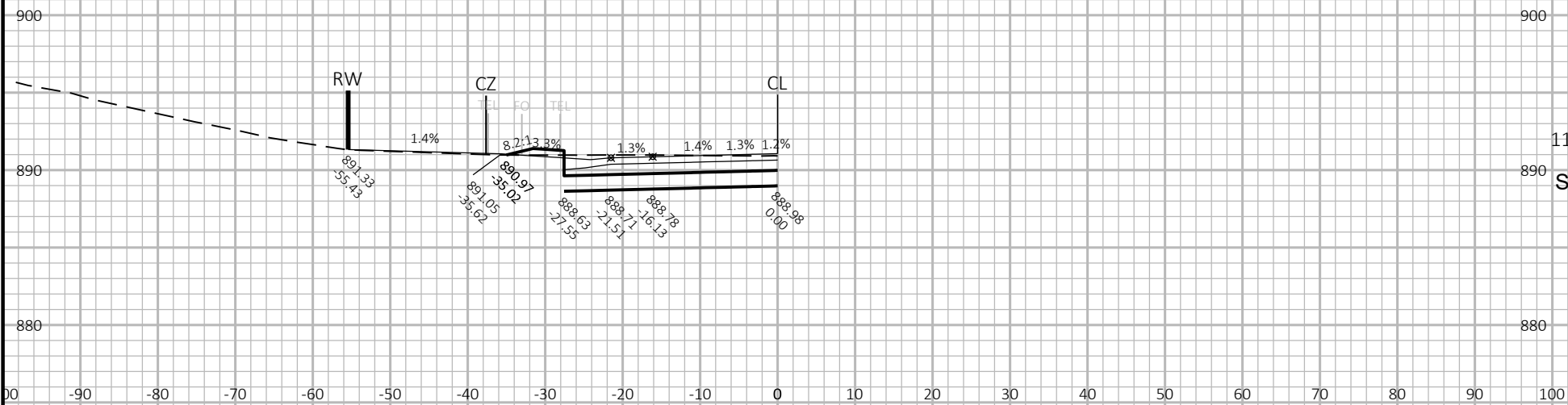
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PLOT NAME :

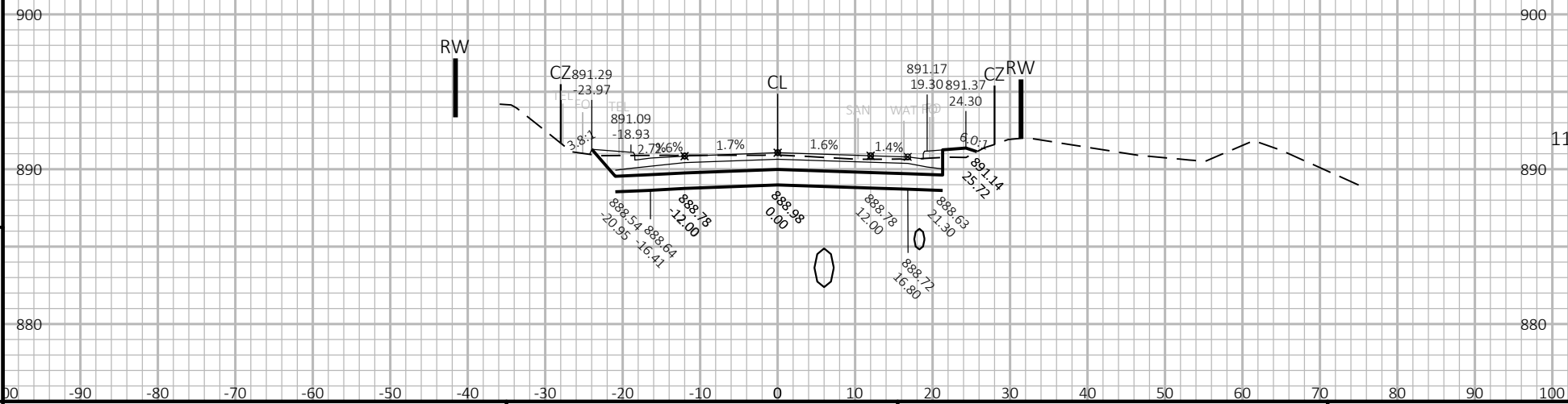
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WISDOT/CADD5 SHEET 49

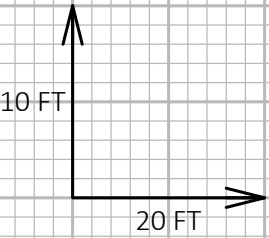
PE 113+35 LT



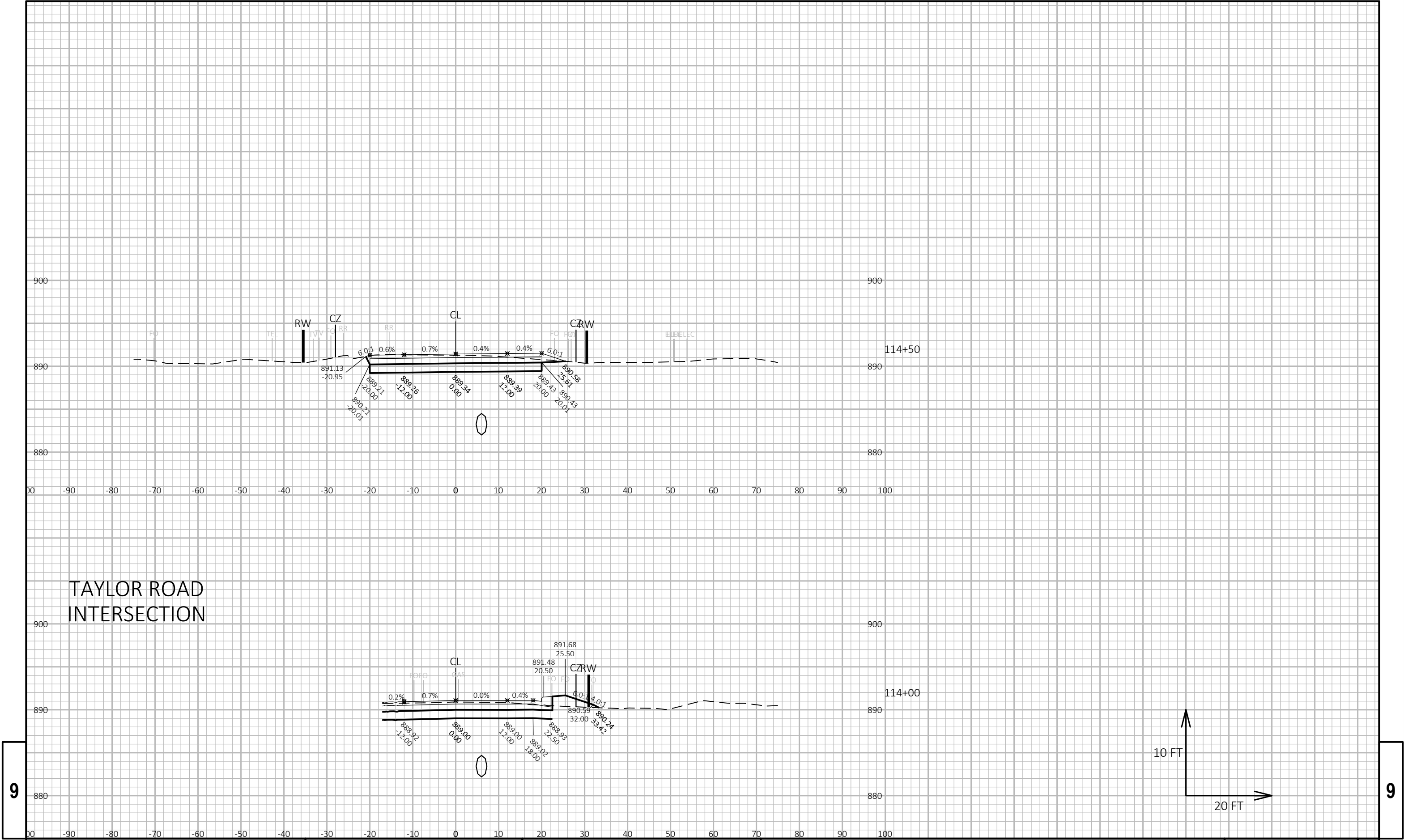
113+50
SKEW 41°47'41\"/>



113+50
SKEW 41°47'41\"/>



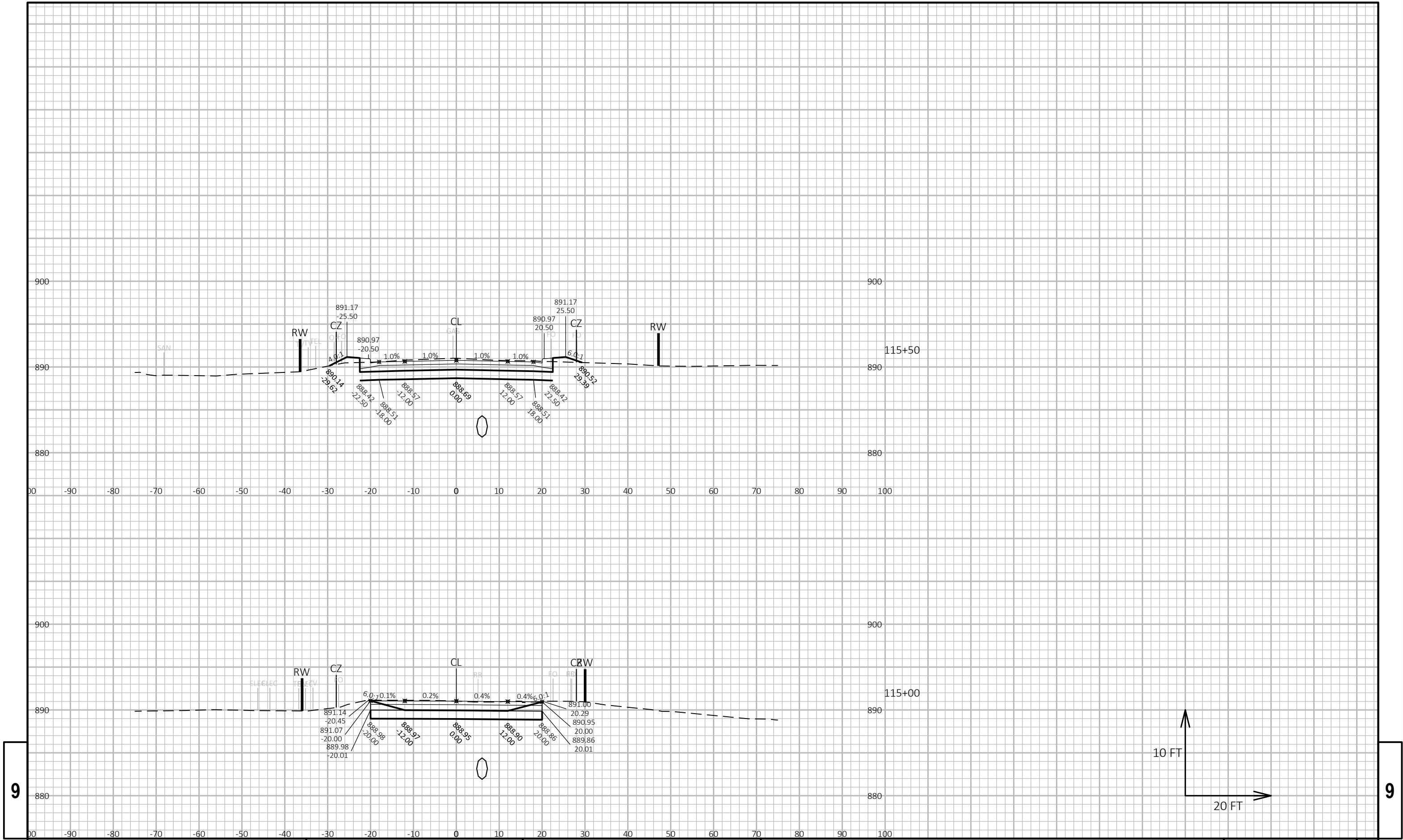
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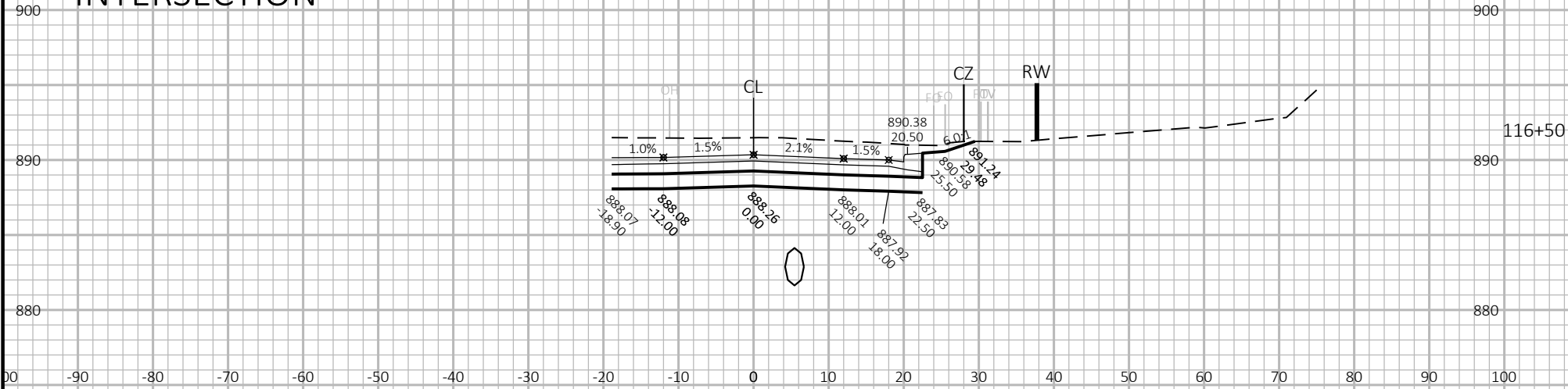
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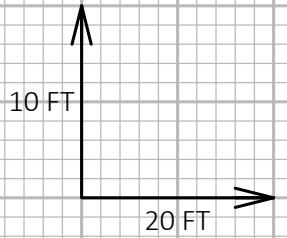
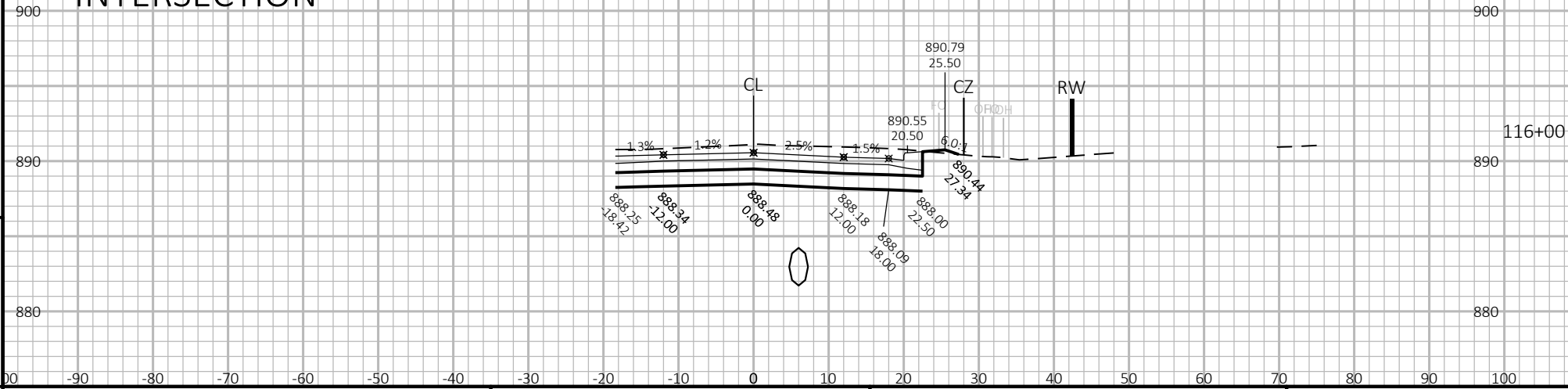
PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS: STH 80	SHEET	E
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MAUSTON ROAD
INTERSECTION

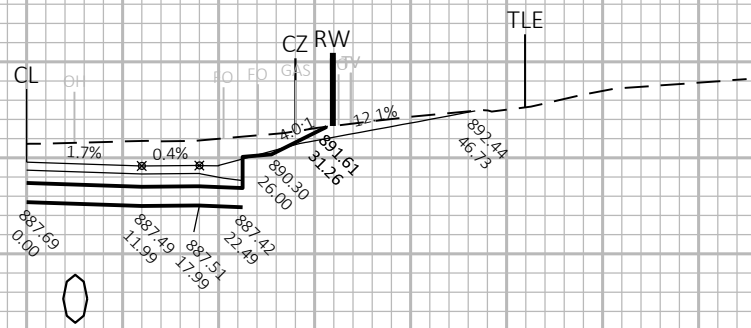


MAUSTON ROAD
INTERSECTION

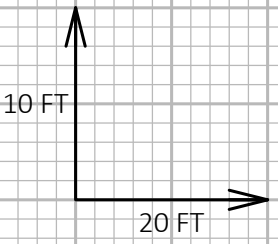
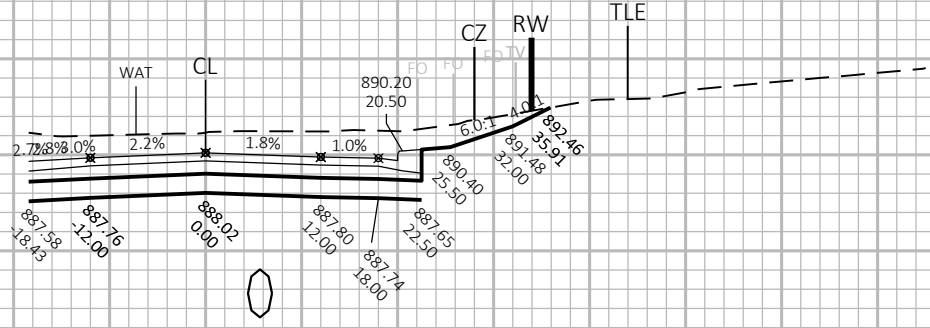


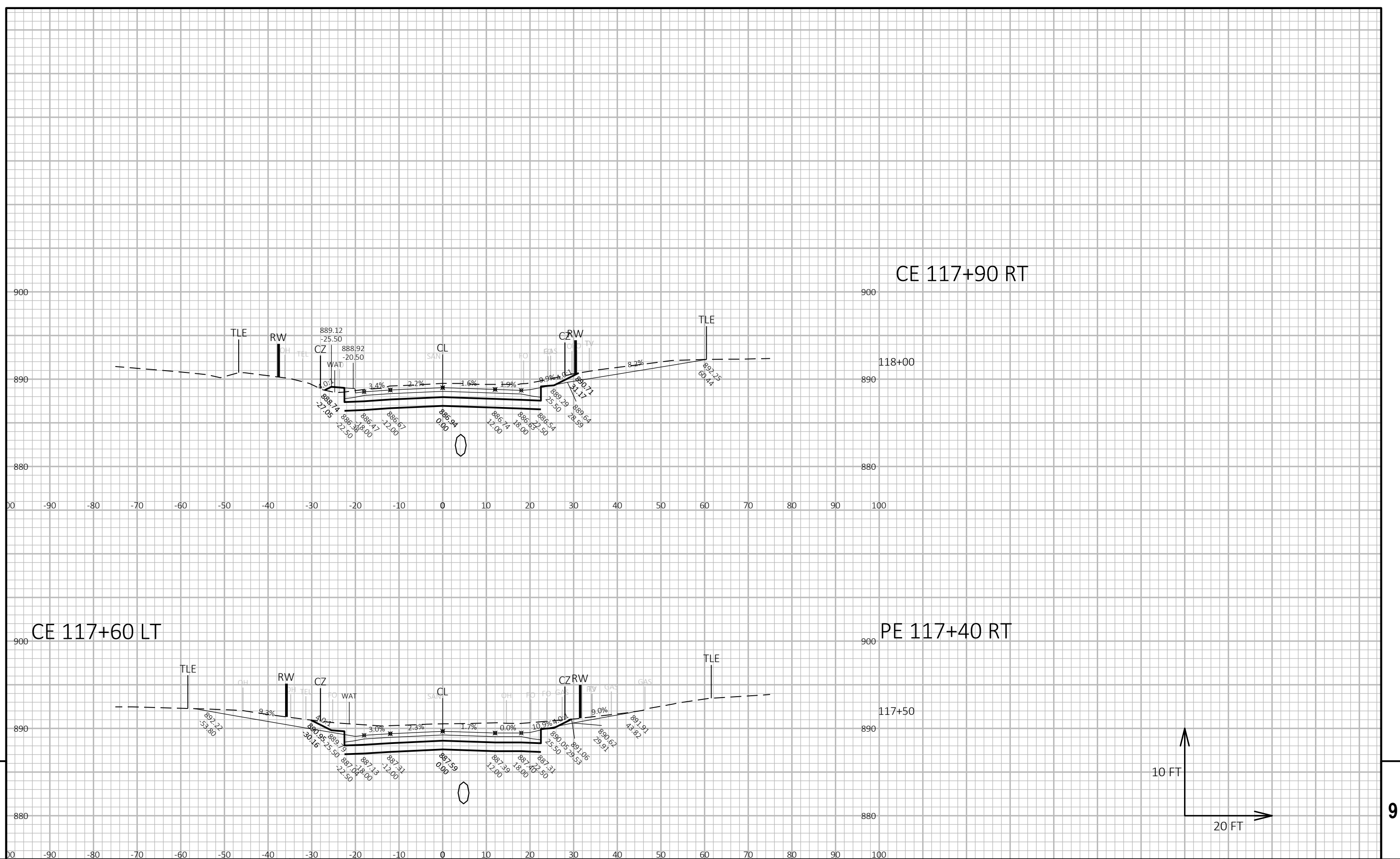
PE 117+40 RT

MAUSTON ROAD
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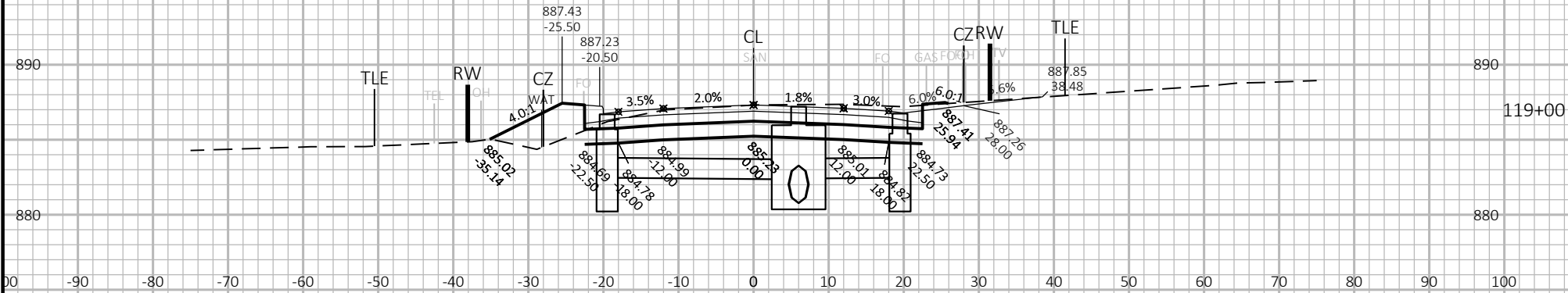


MAUSTON ROAD
INTERSECTION

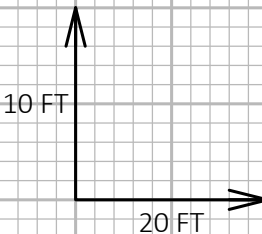
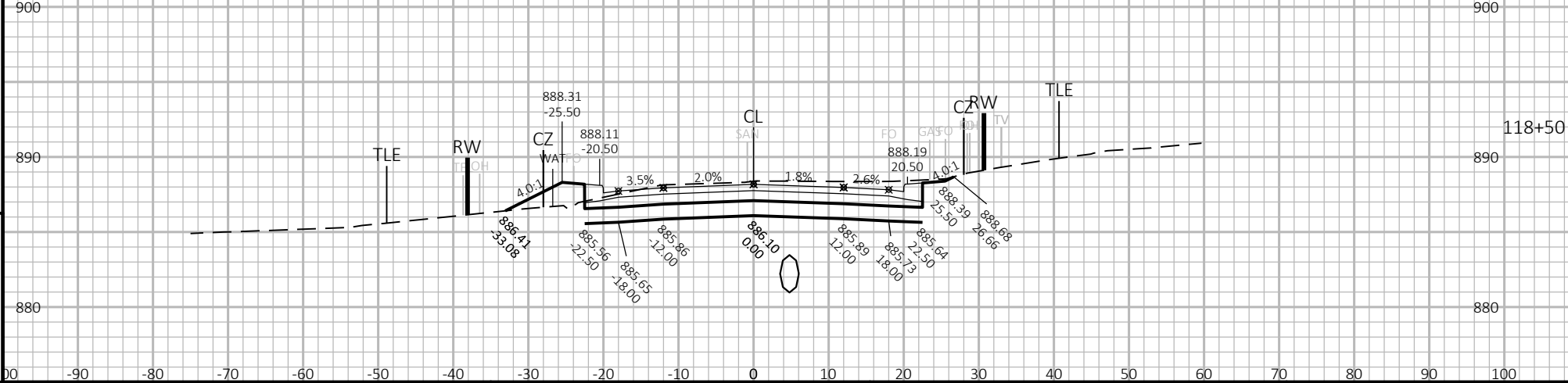
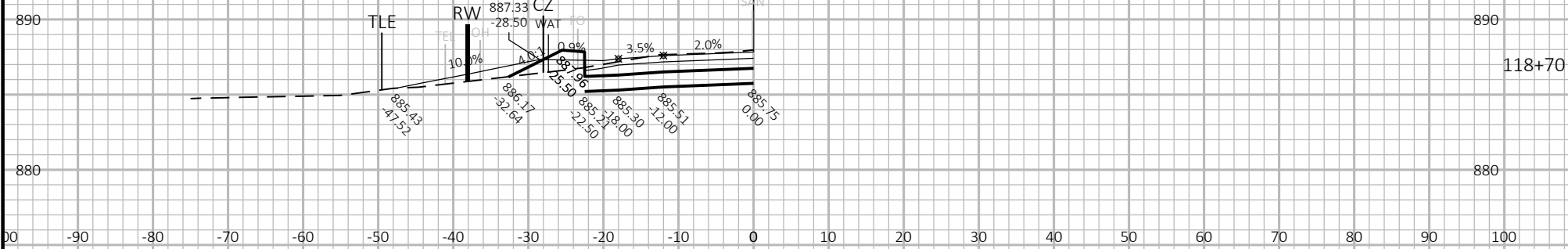




CE 119+00 RT



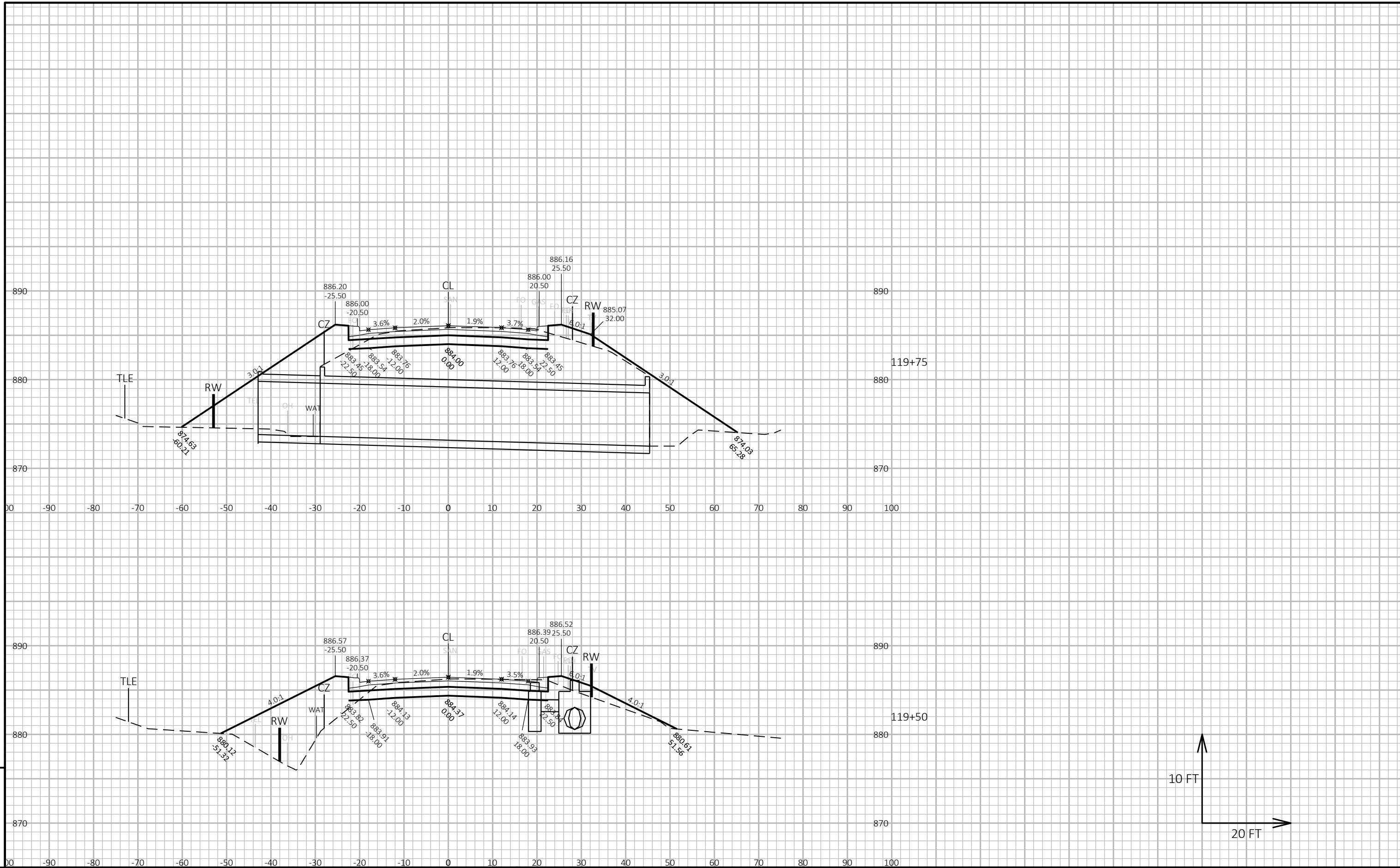
FE 118+70 LT



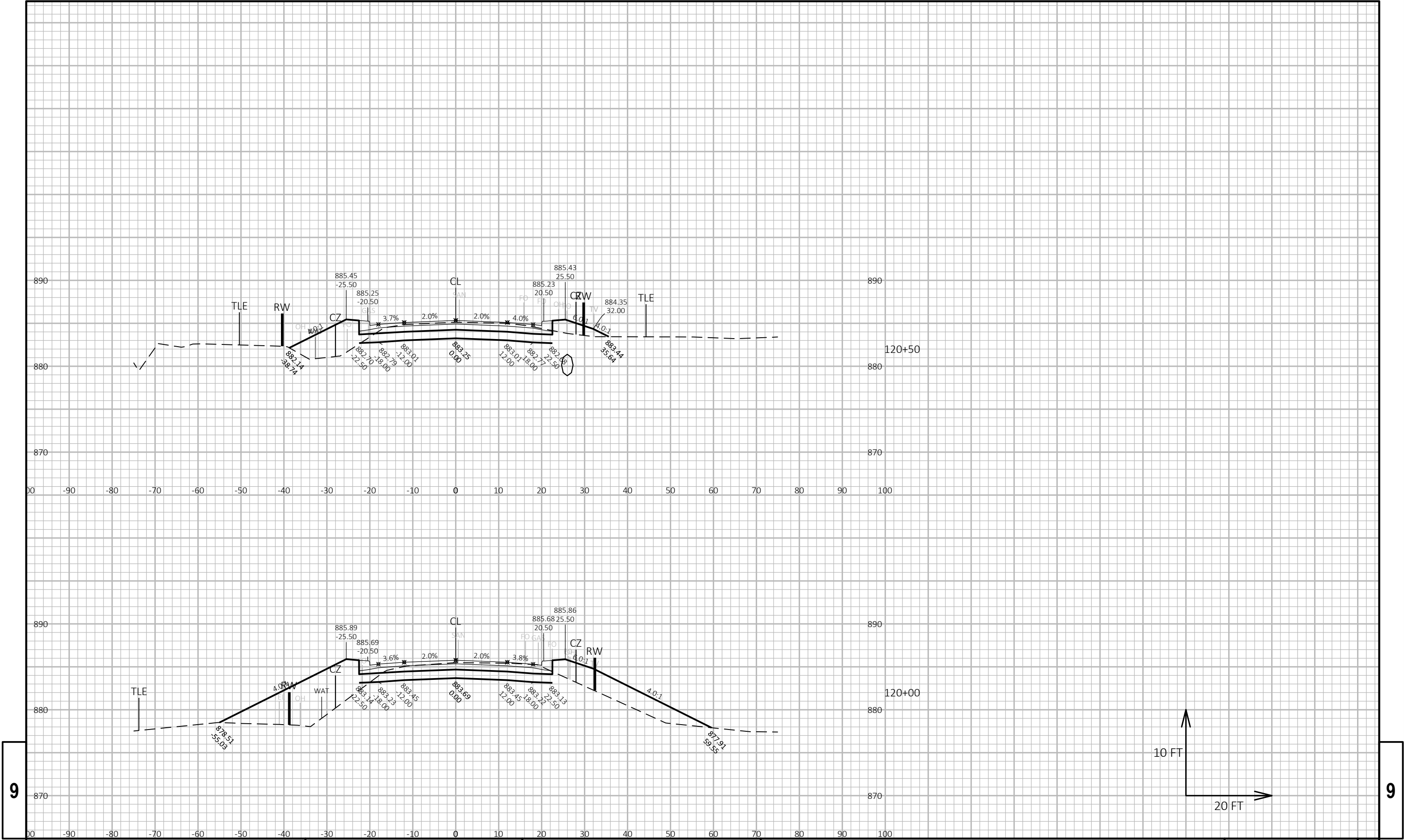
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PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS: STH 80	SHEET	E
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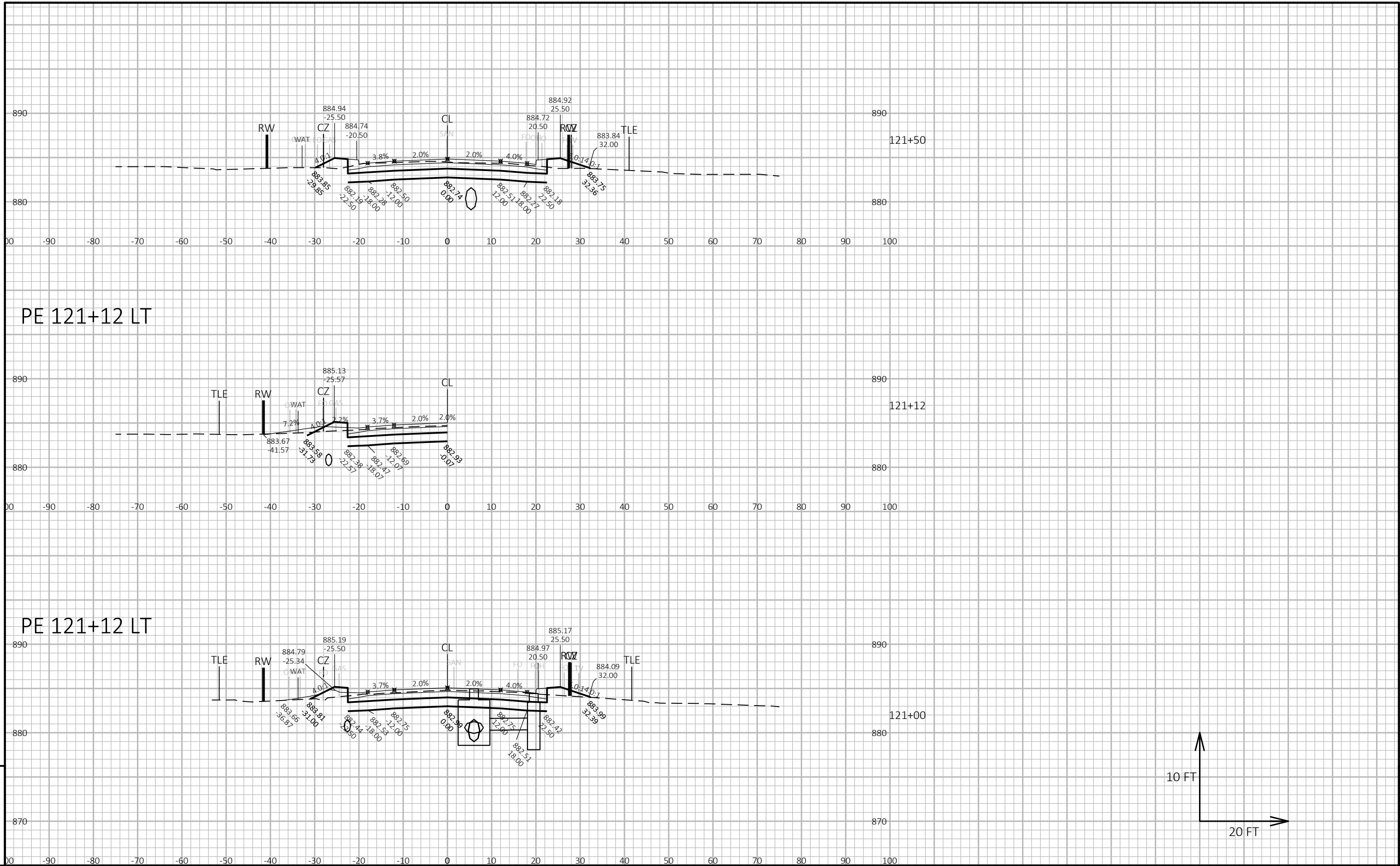
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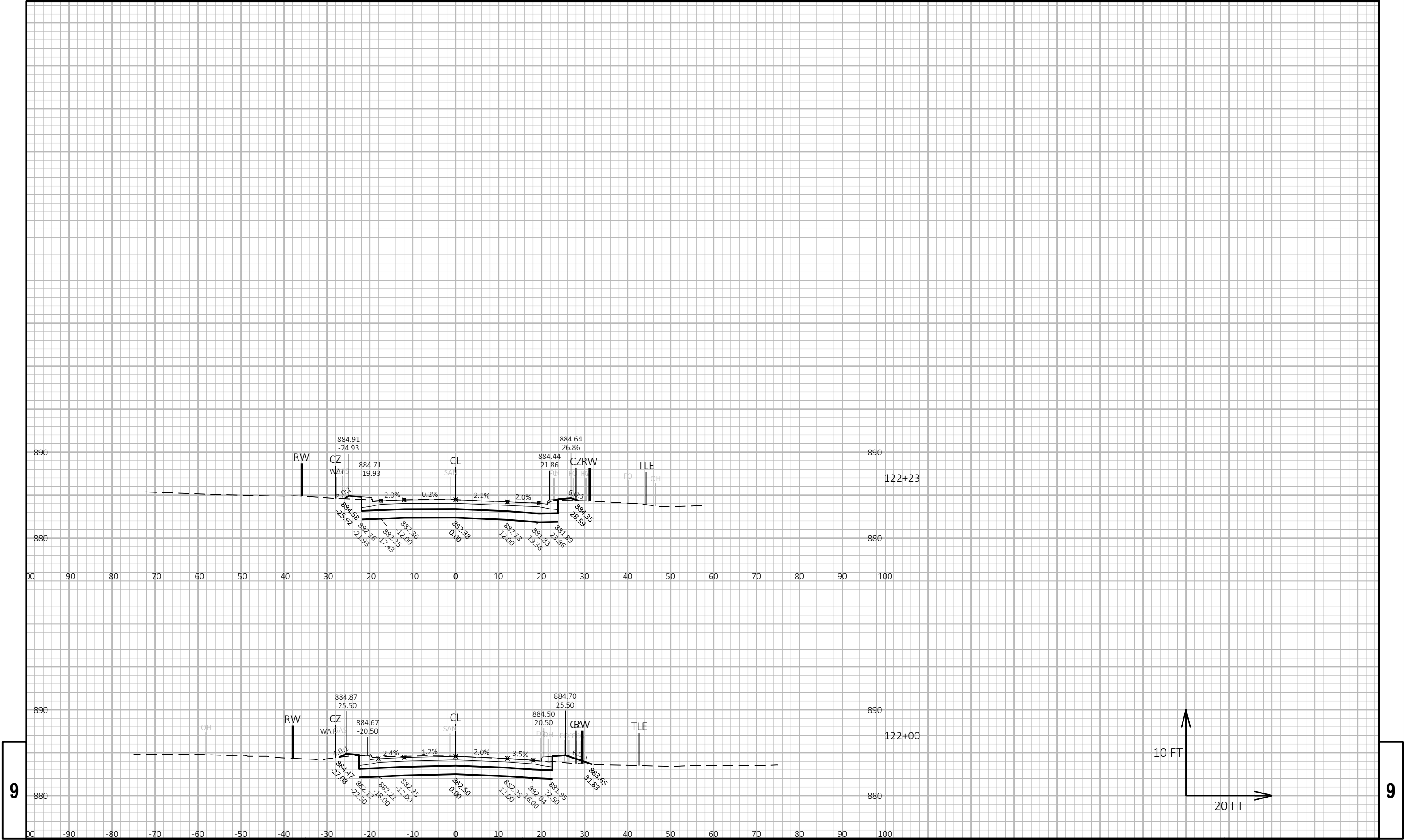
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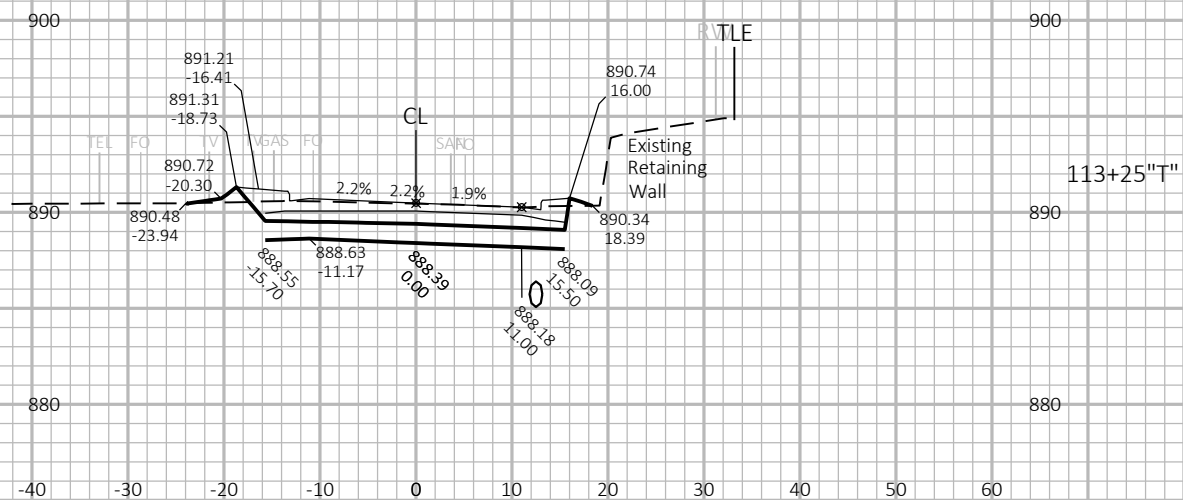
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PROJECT NO: 5530-03-71	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS: STH 80	SHEET	E
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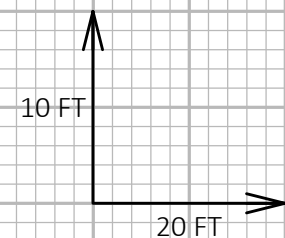
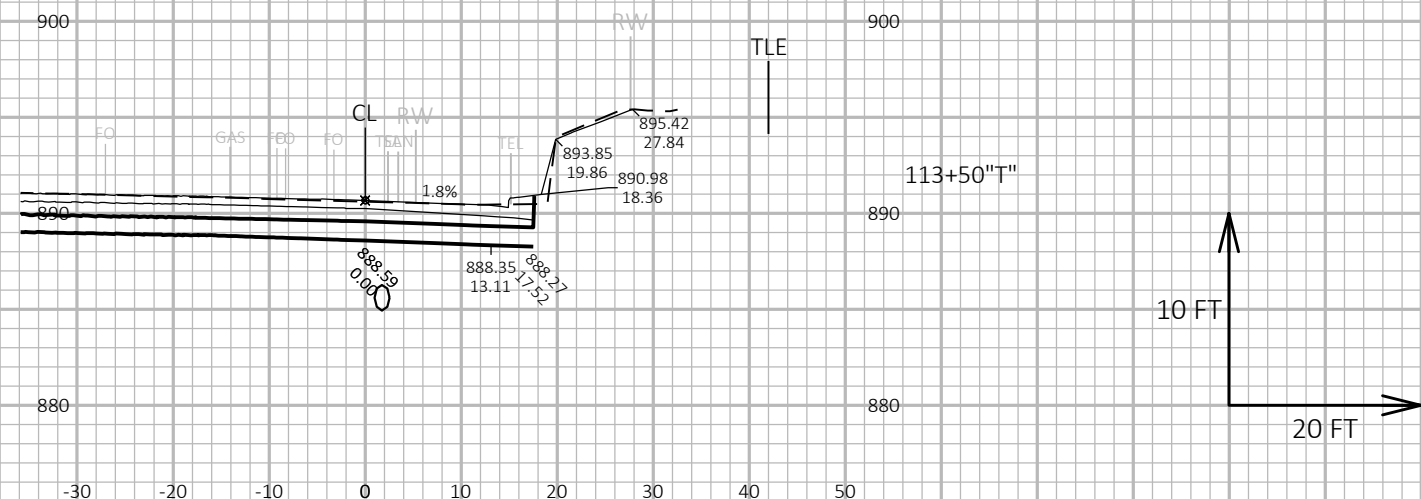
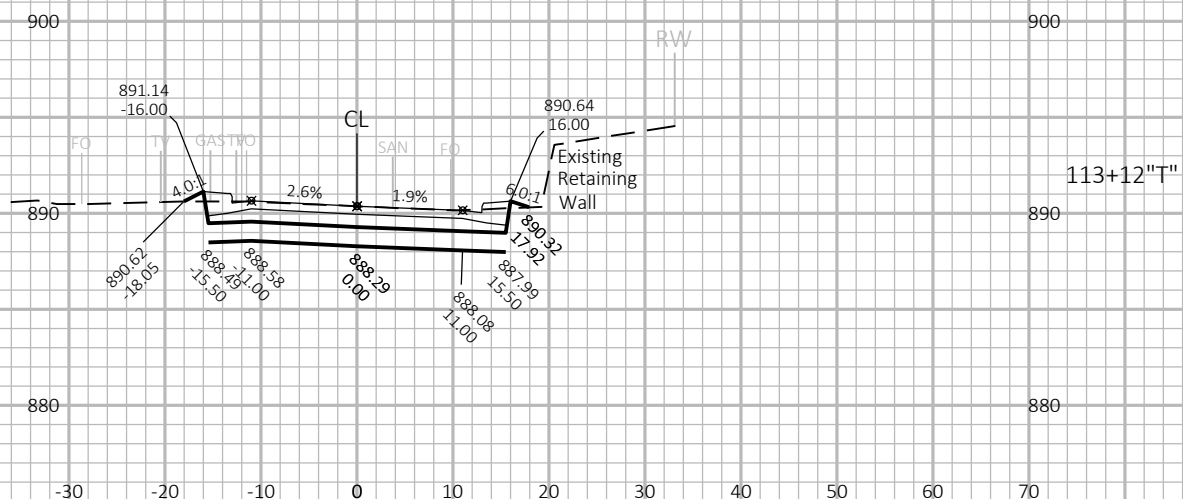


PROJECT NO:	5530-03-71	HWY:	STH 80	COUNTY:	JUNEAU	CROSS SECTIONS:	STH 80	SHEET	E
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STH 80 INTERSECTION



PROJECT NO: 5530-03-71

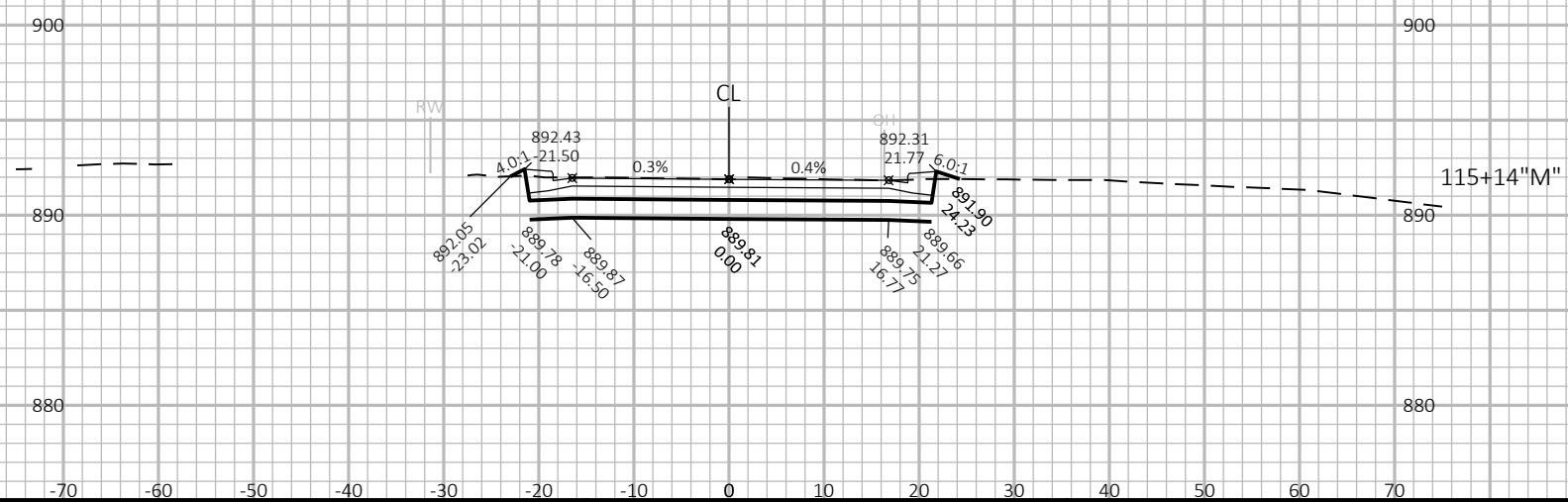
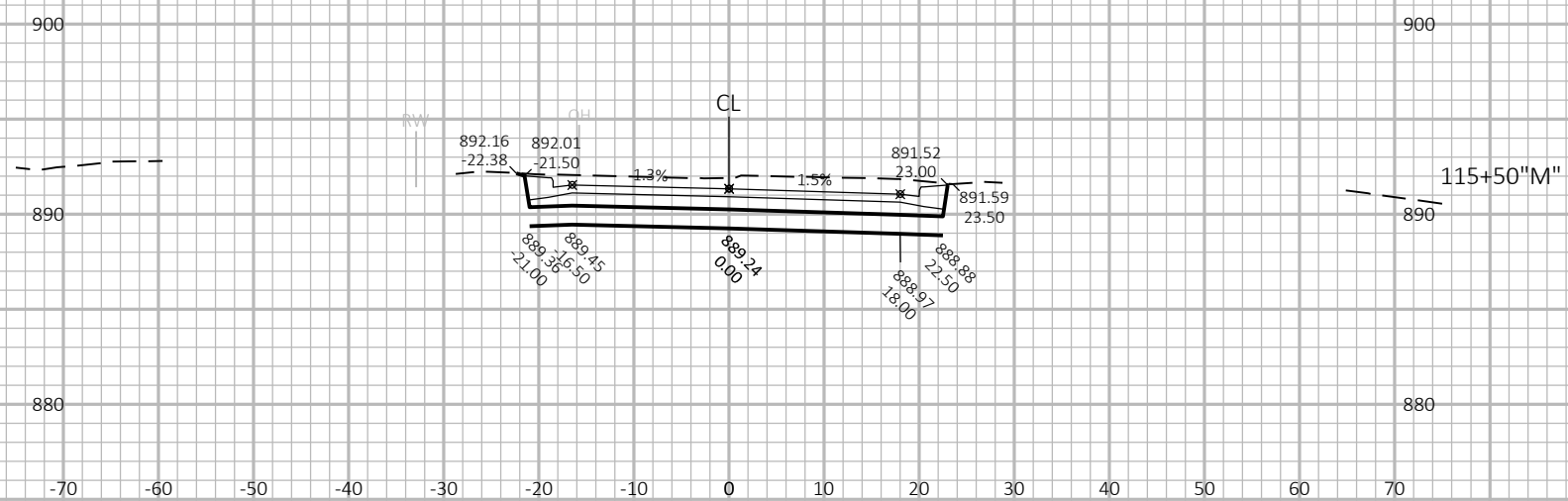
HWY: STH 80

COUNTY: JUNEAU

CROSS SECTIONS: TAYLOR ROAD

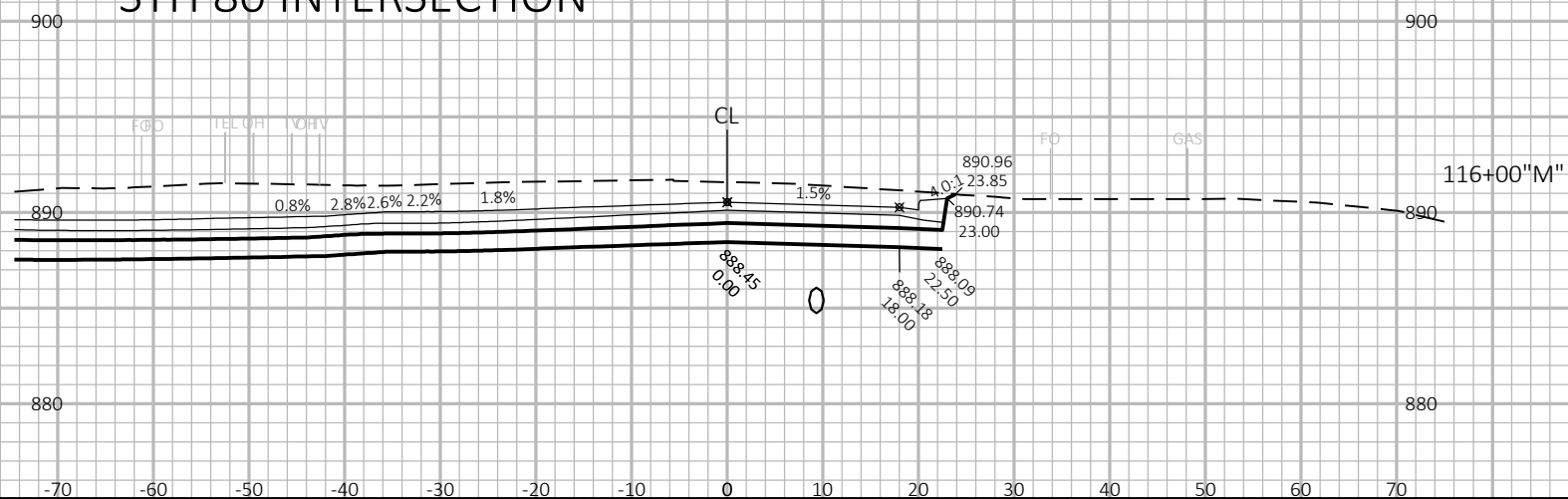
SHEET

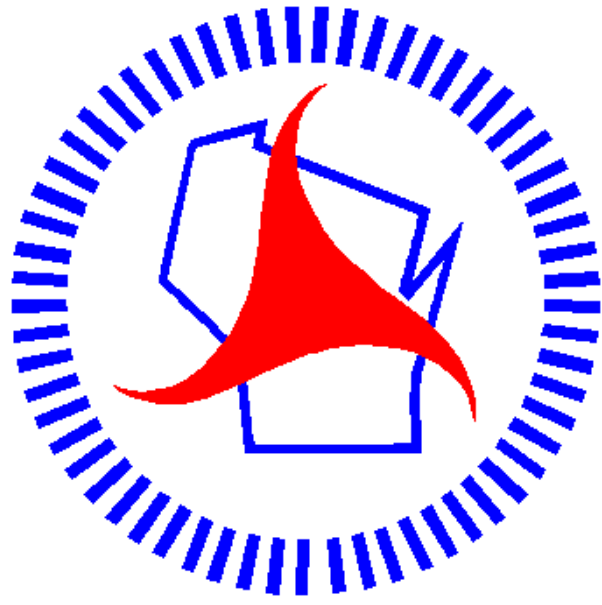
E





Profile view of the SH 160 Intersection. The vertical axis shows elevation in feet (880 to 900). The horizontal axis shows stationing from -70 to 70. The profile includes labels for 'FO' (Foot of Slope), 'TEL' (Top of Embankment), 'OHV' (Overhead Vehicle), 'CL' (Center Line), 'FO' (Foot of Slope), and 'GAS' (Gas). The profile shows a proposed road profile (solid line) and existing ground (dashed line). The proposed road profile has a grade of 0.8% from station -60 to -40, 2.8% from -40 to -30, 2.2% from -30 to -20, 1.8% from -20 to 0, and 1.5% from 0 to 20. The existing ground has a grade of 0.8% from station -60 to -40, 2.8% from -40 to -30, 2.2% from -30 to -20, 1.8% from -20 to 0, and 1.5% from 0 to 20. The proposed road profile has a vertical curve length of 23.85 feet, starting at station 0 and ending at station 23.85. The existing ground has a vertical curve length of 23.00 feet, starting at station 0 and ending at station 23.00. The proposed road profile has a vertical curve length of 23.00 feet, starting at station 0 and ending at station 23.00. The existing ground has a vertical curve length of 23.00 feet, starting at station 0 and ending at station 23.00. The proposed road profile has a vertical curve length of 23.00 feet, starting at station 0 and ending at station 23.00. The existing ground has a vertical curve length of 23.00 feet, starting at station 0 and ending at station 23.00.





Wisconsin Department of Transportation

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