

SUP MAR 13

PROJECT ID: 8160-14-71

COUNTY: BAYFIELD

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 = 212



DESIGN DESIGNATION

BAYFIELD TO RED CLIFF SEGMENT			RED CLIFF SEGMENT			BAYFIELD SEGMENT		
A.D.T. 2009	=	4100	A.D.T. 2009	=	920	A.D.T. 2009	=	4600
A.D.T. 2023	=	4800	A.D.T. 2023	=	1060	A.D.T. 2023	=	5300
D.H.V.	=	647						
D.D.	=	61/39						
T.	=	6.5%						
DESIGN SPEED	=	55 MPH						
ESALS	=	1,153,400						

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BAYFIELD - CORNUCOPIA

7th Street - Old CTH K

S.T.H. 13

BAYFIELD COUNTY

STATE PROJECT NUMBER
8160-14-71

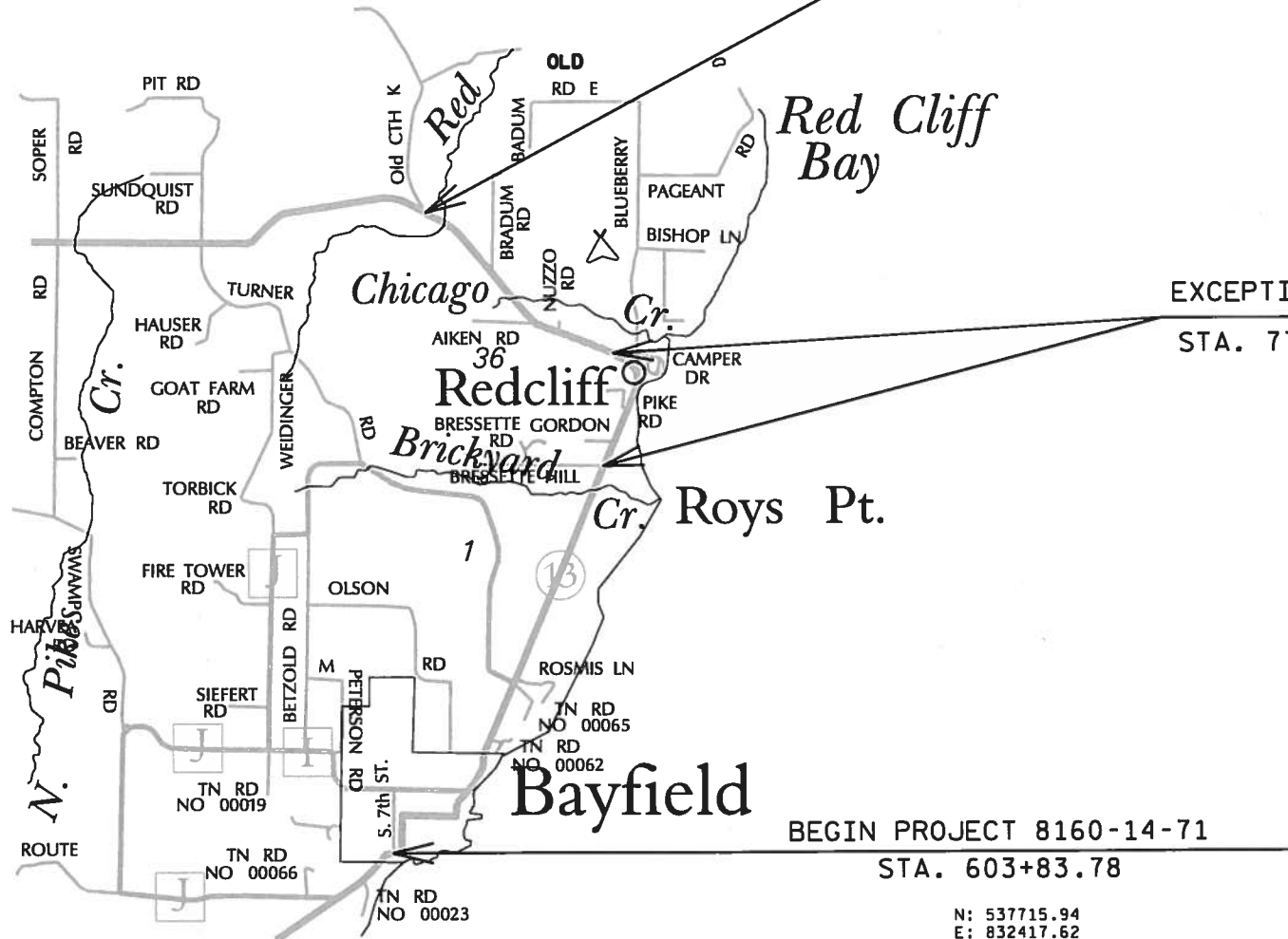
END PROJECT 8160-14-71

STA. 915+50

N: 561095.96
E: 832924.45

EXCEPTION TO NET CL LENGTH

STA. 777+32.7 - STA. 828+49.4



BEGIN PROJECT 8160-14-71
STA. 603+83.78

N: 537715.94
E: 832417.62

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

TOTAL NET LENGTH OF CENTERLINE = 4.933 MI.

ACCEPTED FOR

THE CITY OF BAYFIELD

10-30-12

(Date)

(Signature & Title of Official)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	BARBARA KERBER
Project Manager	PHIL KEPPERS PE
District Examiner	DAN OJIBWAY
District Supervisor	DAVID J. OSTROWSKI P.E.
C.O. Examiner	JE

APPROVED FOR DISTRICT OFFICE

10/31/2012

DATE:

(Signature)

E

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE

UTILITIES

Jim Arquette CenturyTel TeleVideo - Communications Line PO Box 13 Sheldon, WI 54766 (715) 452-5168 jim.arquette@centurylink.com
Thomas Haase Charter Communications - Communication Line 2304 S. Main St. Rice Lake, WI 54868 (715) 370-1601 thomas.haase@chartercomm.com
Murray Smerer Xcel Energy - Gas/Electric 2400 Farm Road Ashland, WI 54806 (715) 682-6928 murray.j.smerer@xcelenergy.com
Thomas Kovachewich Bayfield Water Utility 125 S. First St. P.O. Box 1170 Bayfield, WI 54814-1170
Guy Folsom Norvado-Communications Line - Fiber Optic 43750 USH 63 P.O. Box 67 Cable, WI 54821 715-798-7123 gfolsom@norvado.com
Gary Tarasewicz Bayfield Electric Co-Op Inc - Electricity P.O. Box 68 Iron River, WI 54602 (715) 492-0725 gary.tarasewicz@bayfieldelectric.com
Edward J. Sindelar Public Works Administrator - water and sanitary Red Cliff Band of Lake Superior Chippewa 88385 Pike Rd., Hwy 13 Bayfield, WI 54814 ed.sindelar@redcliff-nsn.gov 715-779-9788 Phone 715-209-3867 Cell
WISCONSIN DNR WI DEPARTMENT OF NATURAL RESOURCES NW District Headquarters ATTN: Andrew Barta 810 West Maple Street Spooner, WI 54801 (715) 635-4071 ANDREWH.BARTA@Wisconsin.Gov

GENERAL NOTES

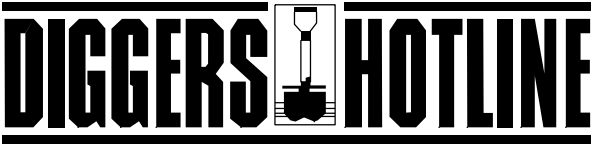
NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE SALVAGE TOPSOILED OR TOPSOILED, FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

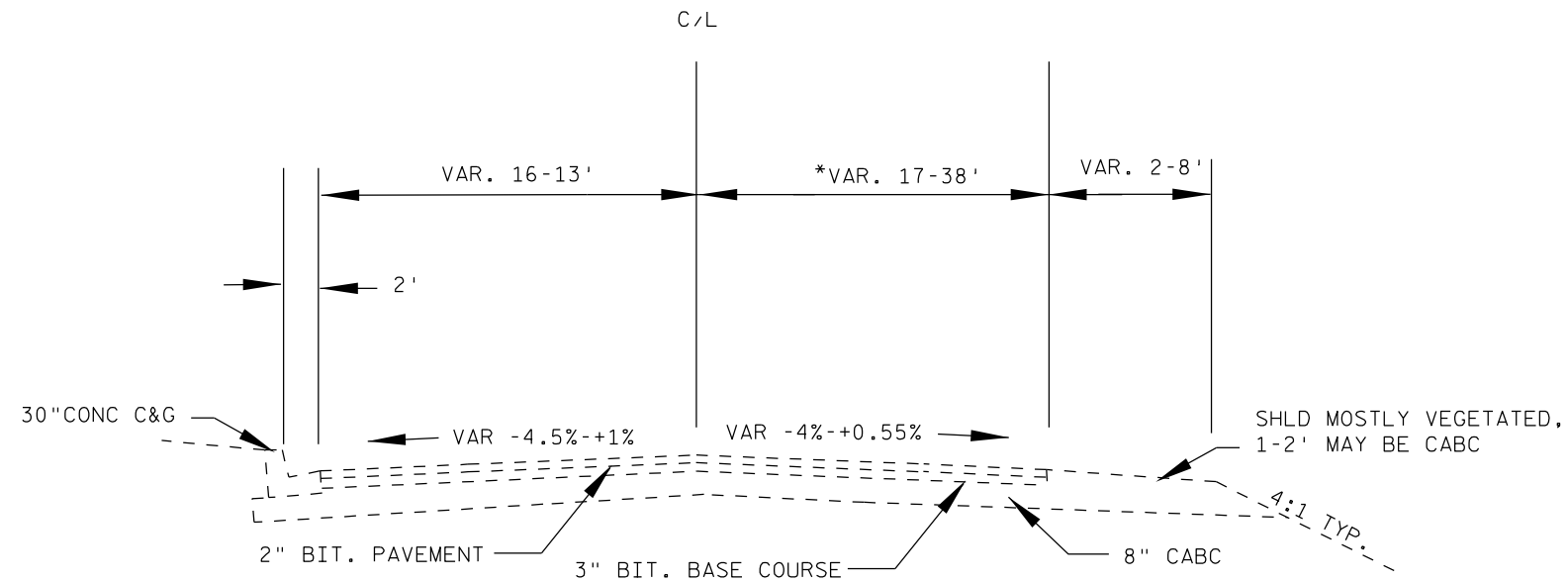
A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

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.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.



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or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com



EXISTING TYPICAL SECTION

STA. 603+38 - 608+50

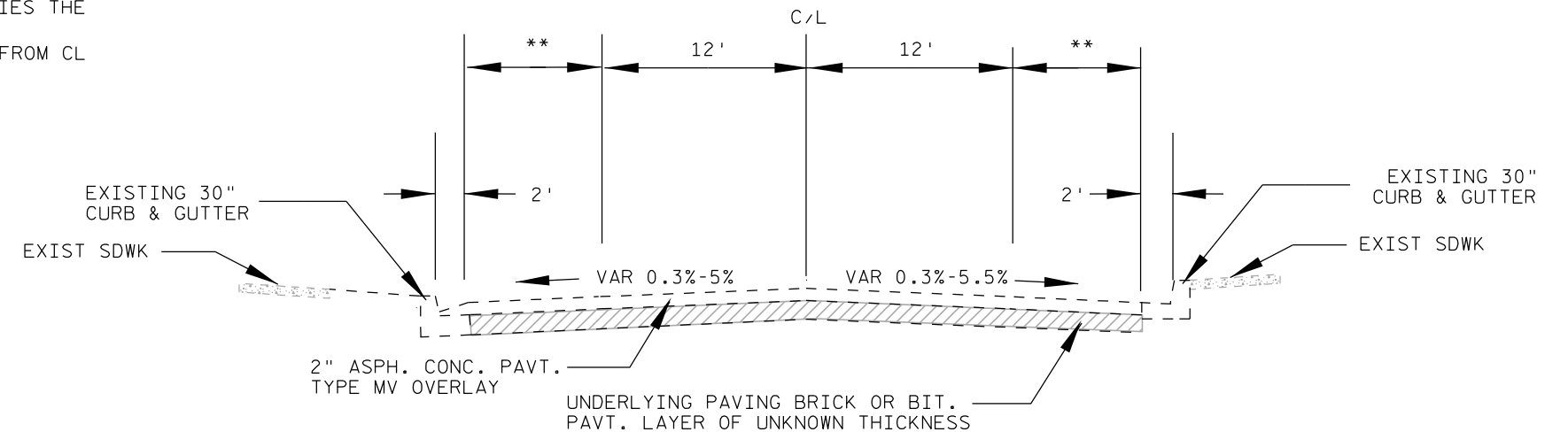
*NOTES: -FROM 603+38 - 605+40, BITUMINOUS PAVEMENT UNDERLIES THE TOP 2" LAYER, EXACT DEPTH IS UNKNOWN
 -606+40 - 606+90 RETAINING WALL ON RIGHT, 28-38' FROM CL
 -606+90 - 608+50 CONC C&G RT, 32-13' TO FLAG

EXIST BRICK PAVER LOCATIONS

STA. 608+50 - 614+00
 STA. 616+10 - 620+25
 STA. 629+95 - 631+22
 STA. 633+30 - 634+00
 STA. 635+00 - 641+50

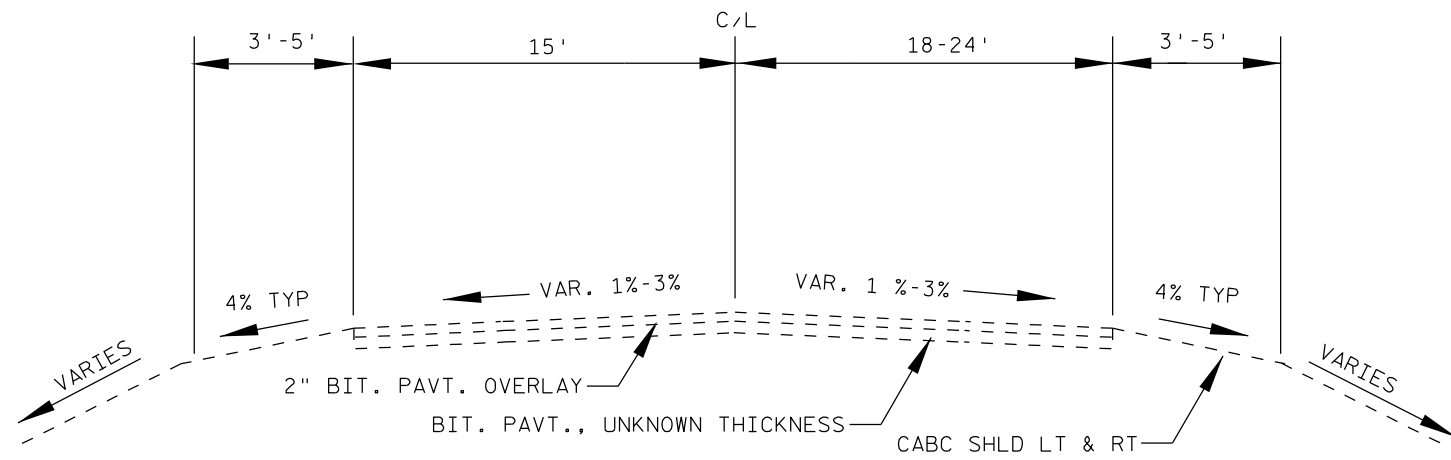
IN TERRACE SECTIONS, SIDEWALK WIDTH VARIES 4-5'.
 SIDEWALK IS ADJACENT TO BACK OF CURB AT THE
 LOCATIONS NOTED BELOW AND VARIES 4-6' IN WIDTH.

STA. 619+60 - 620+00 RT
 STA. 623+60 - 624+40 RT
 STA. 629+80 - 632+60 RT
 STA. 632+60 - 639+37 LT & RT WIDTH VARIES 7-10'
 STA. 639+37 - 644+00 LT
 STA. 644+00 - 655+50 LT
 STA. 658+40 - 659+75 LT



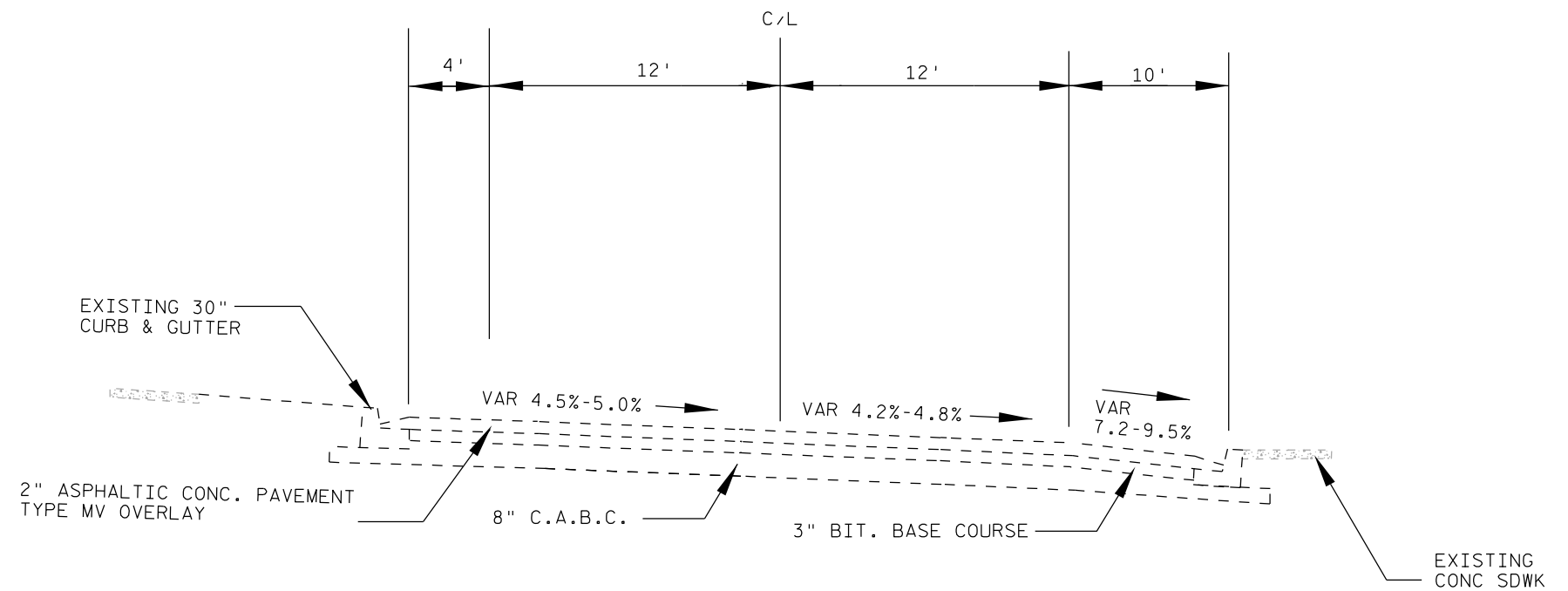
EXISTING TYPICAL SECTION

	**
608+50 - 614+05	1'
614+05 - 615+75	1-9.5' RT
615+75 - 620+25	1'
626+75 - 629+60	4'
629+60 - 631+22	4' LT, 8' RT
633+26 - 639+40	8' LT & RT
639+40 - 641+50	3.5' LT, 6.5' RT



EXISTING TYPICAL SECTION

620+25 - 623+27
 623+27 - 624+65 30" CONC C&G RT, 24-16' TO FLAG
 624+65 - 626+75 30" CONC C&G RT, 16' TO FLAG

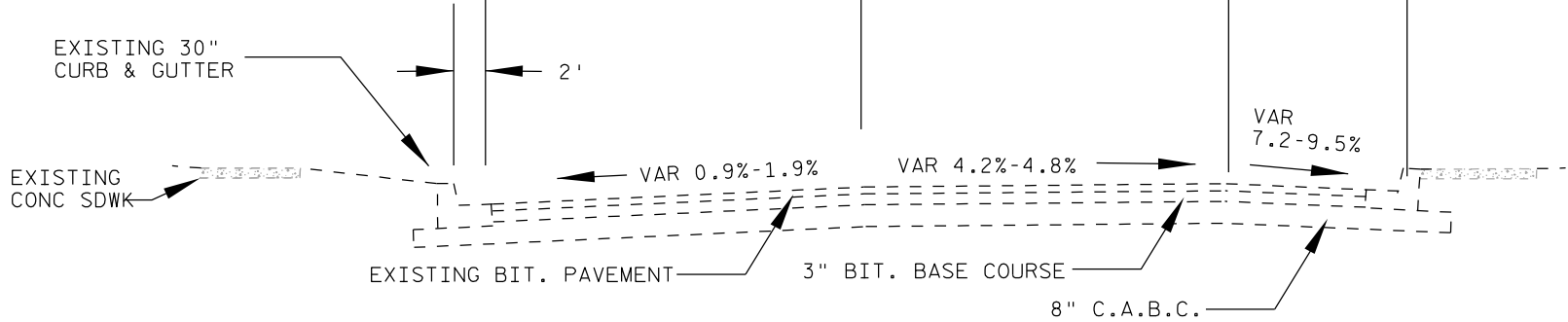


EXISTING TYPICAL SECTION

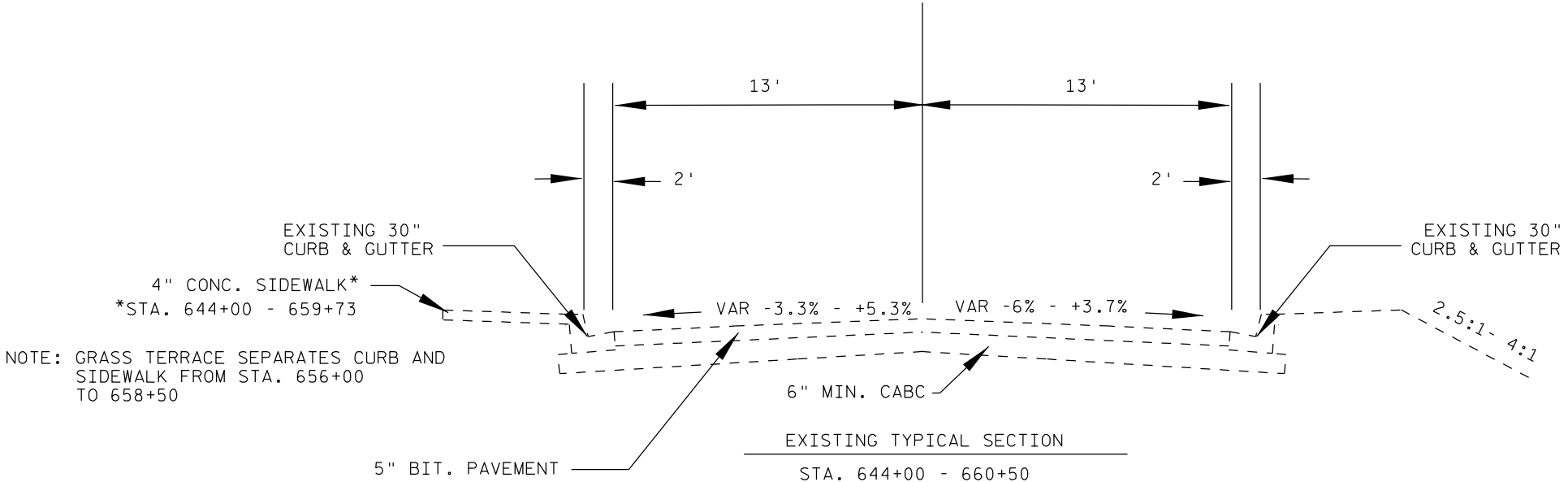
STA. 631+20 - 633+26

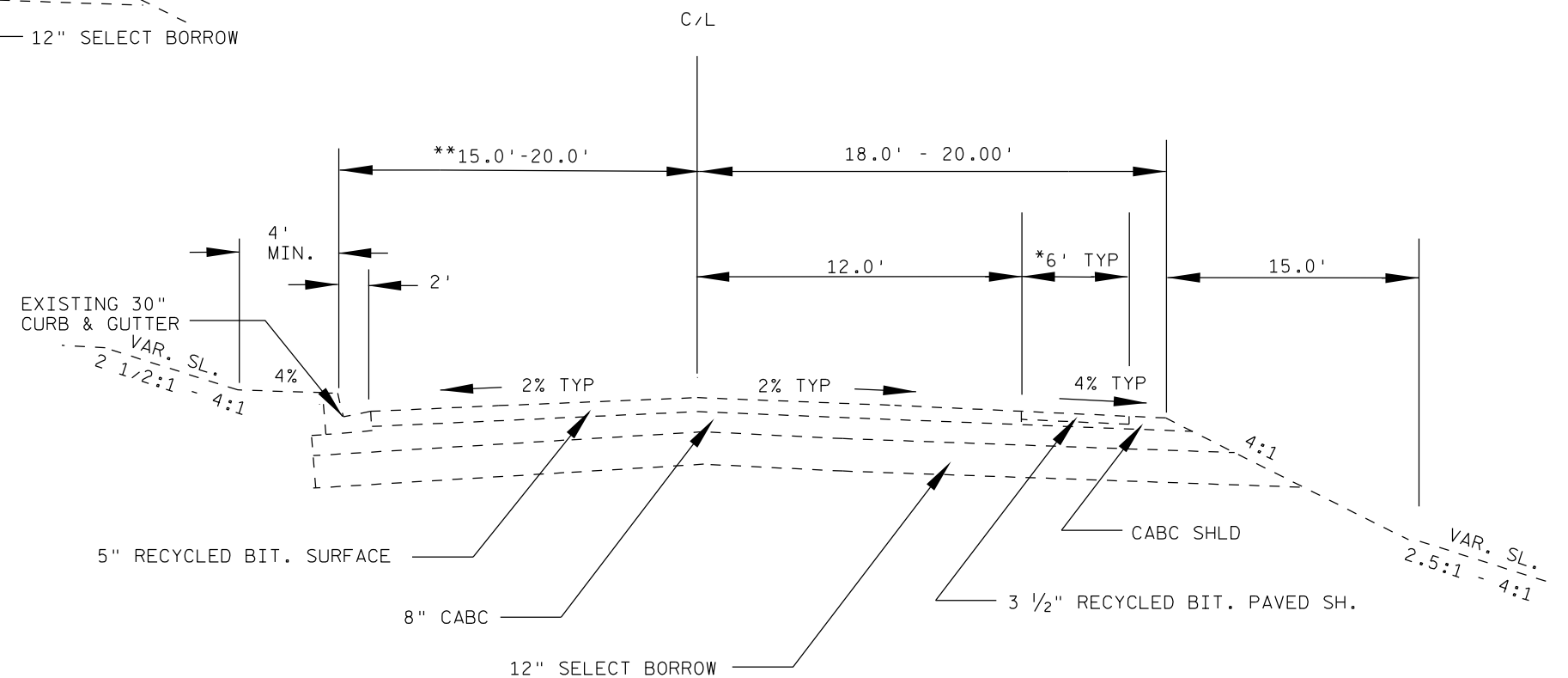
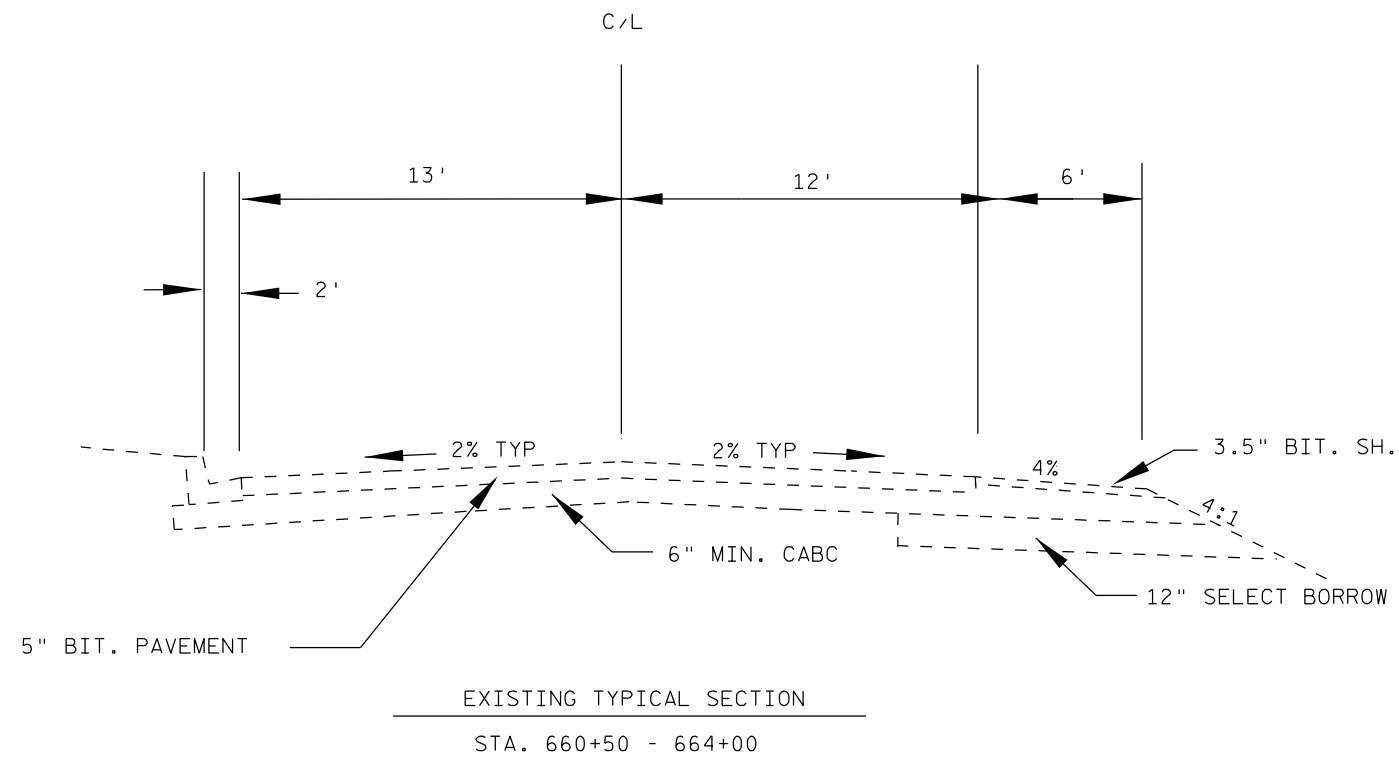
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2

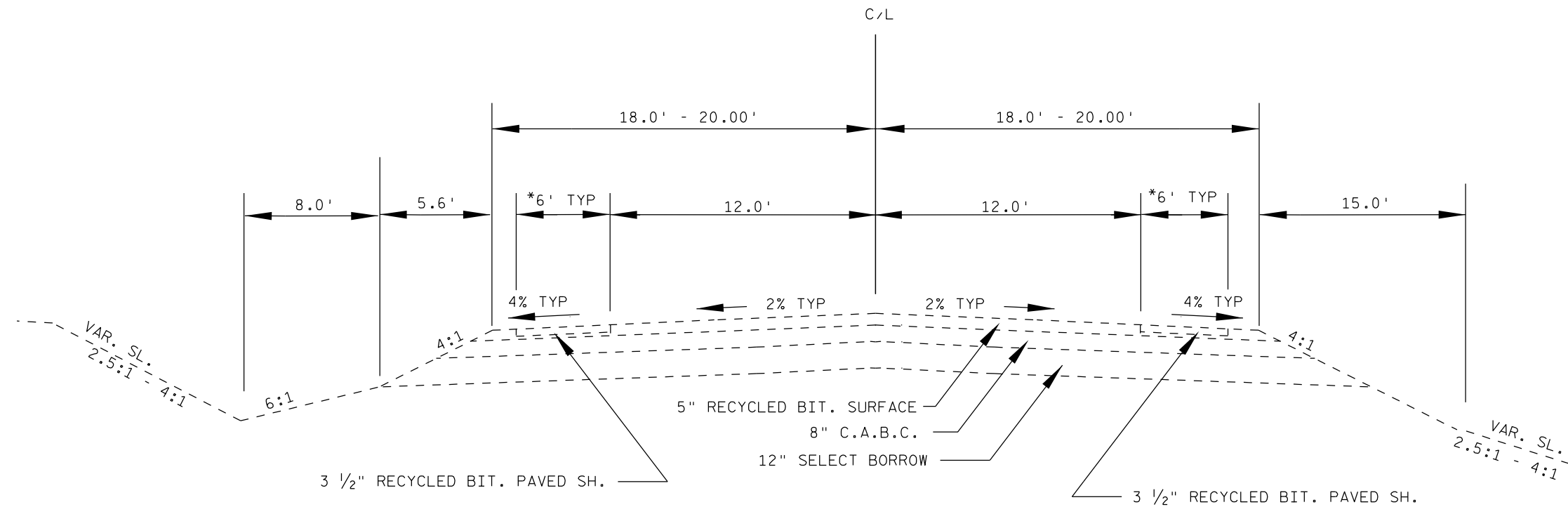


EXISTING TYPICAL SECTION
STA. 641+50 - 644+00



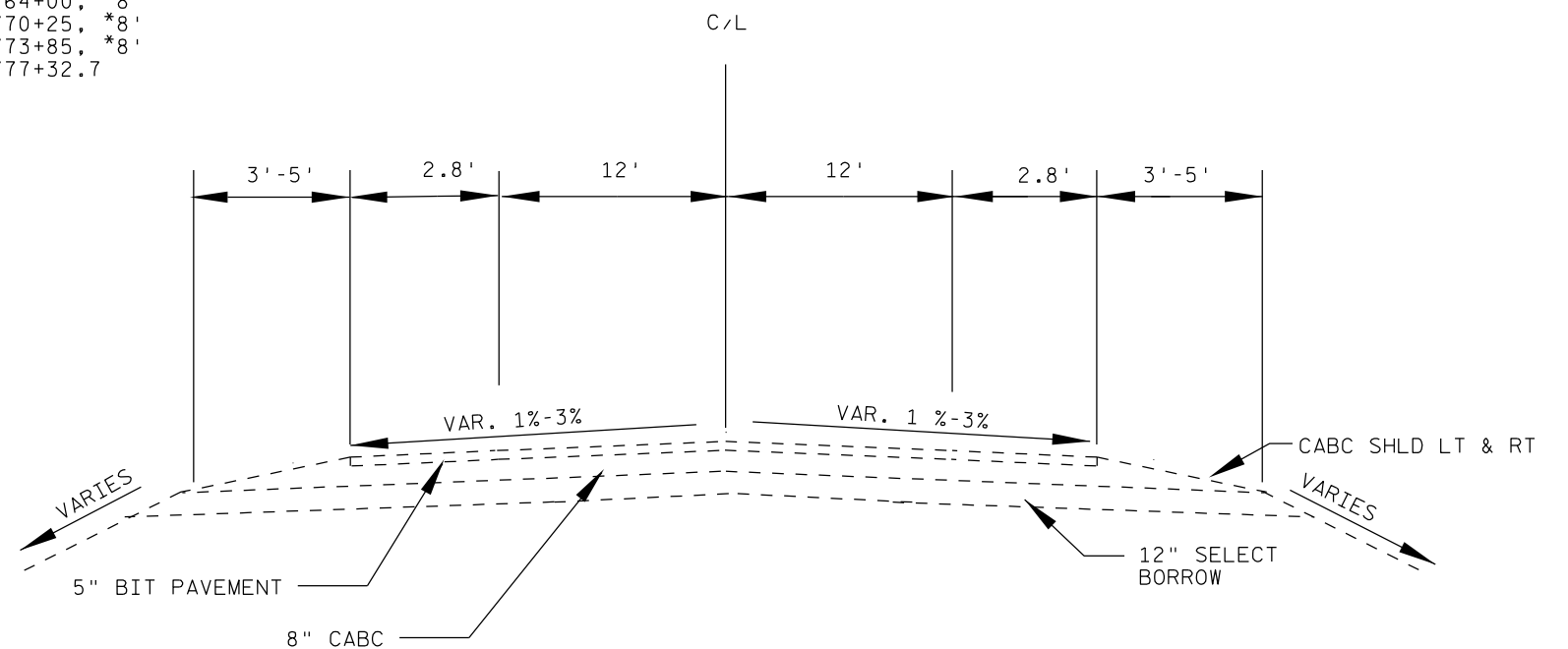


STA. 664+00	- 665+50 C&G LT, **15'	STA. 758+40	- 758+55 C&G RT, *8'
STA. 665+50	- 672+25 C&G LT	STA. 760+75	- 762+25 C&G RT, *8'
STA. 674+00	- 685+50 C&G LT	STA. 764+00	- 764+90 C&G RT, *8'
STA. 687+65	- 690+40 C&G LT	STA. 764+90	- 767+40 C&G LT&RT
STA. 703+00	- 723+55 C&G LT	STA. 767+40	- 768+00 C&G RT, *8'
STA. 744+00	- 747+00 C&G RT	STA. 770+25	- 771+50 C&G LT, *8'
STA. 750+70	- 754+00 C&G LT, *8'	STA. 773+85	- 775+50 C&G RT, *8'
STA. 755+45	- 758+40 C&G LT&RT		



EXISTING TYPICAL SECTION

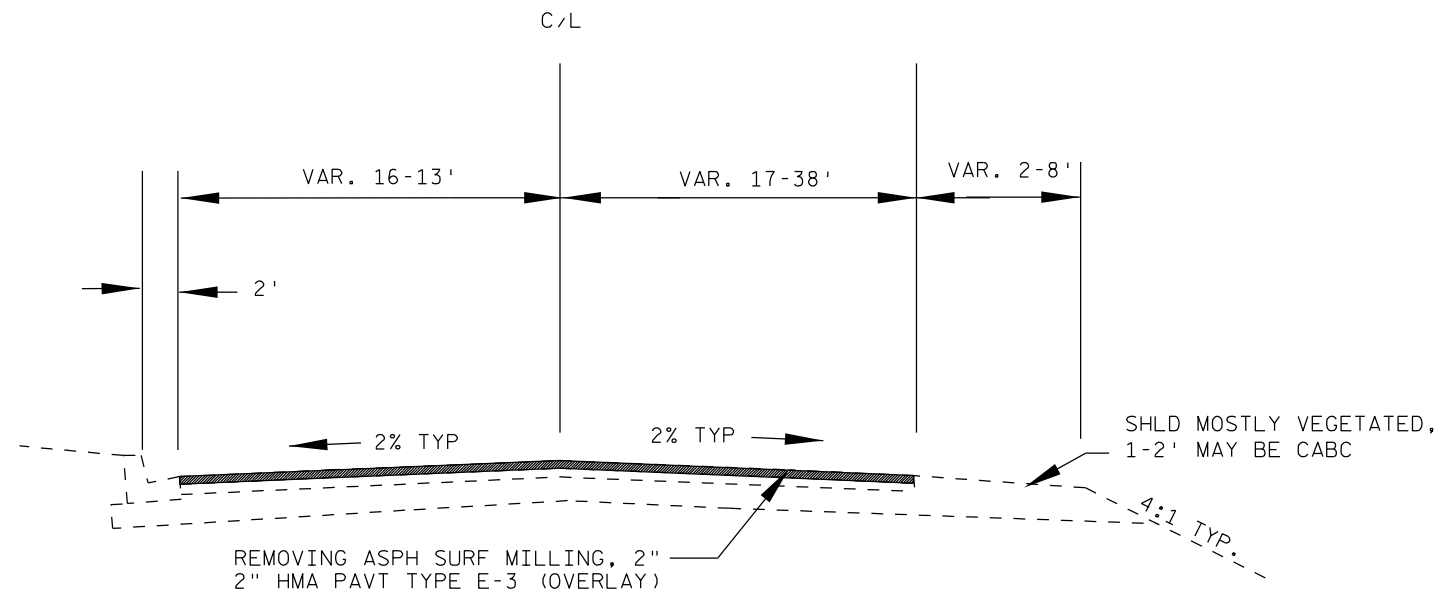
STA. 672+25 - 674+00
 STA. 685+50 - 687+65
 STA. 690+40 - 703+00
 STA. 723+55 - 744+00
 STA. 747+00 - 750+70, *8' RT SIDE ONLY
 STA. 754+00 - 755+45, *8'
 STA. 758+55 - 760+75, *8'
 STA. 762+25 - 764+00, *8'
 STA. 768+00 - 770+25, *8'
 STA. 771+50 - 773+85, *8'
 STA. 775+50 - 777+32.7



EXISTING TYPICAL SECTION

STA. 828+49.9 - 915+50

NOTE: CURB AND GUTTER EXISTS AT STA. 868+80 TO 871+75 RT.

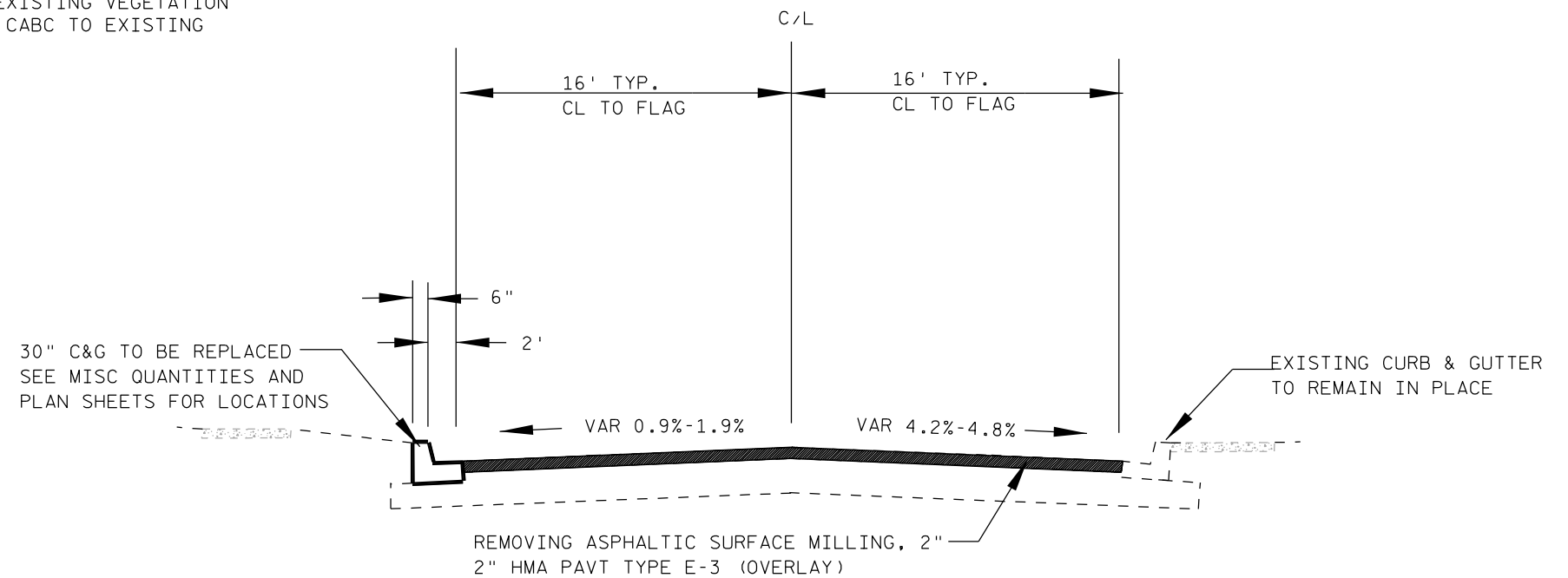


FINISHED TYPICAL SECTION

STA. 603+38 - 608+50

NOTES: MILL AND OVERLAY TO FACE OF RETAINING WALL AND FLAG OF EXISTING C&G. IF GUTTER IS PAVED IN AND C&G IS NOT TO BE REPLACED, M&O PAVEMENT IN GUTTER AREA ALSO. DO NOT REMOVE OR COVER EXISTING VEGETATION IN SHOULDER AREAS. ONLY ADD ENOUGH CABC TO EXISTING CABC AREAS TO FILL LOW AREAS.

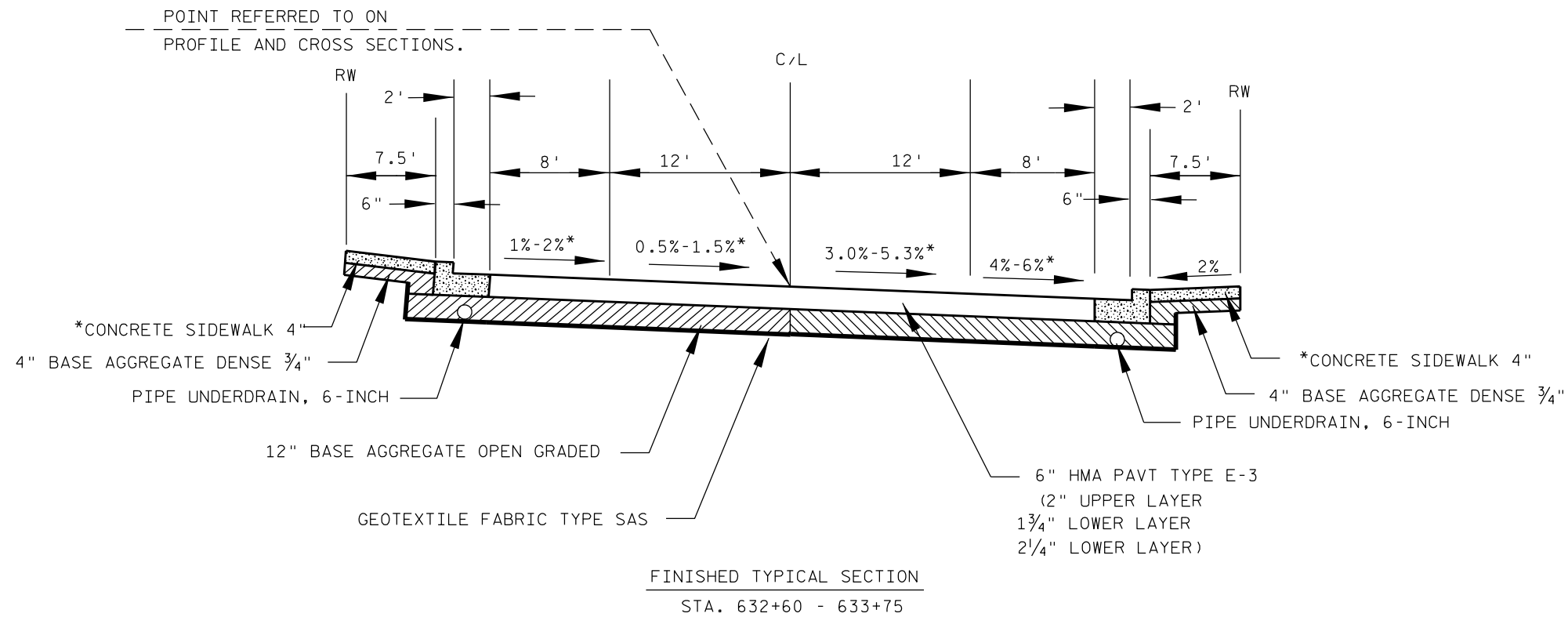
NOTE: IN MILL AND OVERLAY AREAS, THE REFERENCE LINE SHOWN ON THE PLAN SHEETS MAY NOT HIT THE EXACT CENTER OF THE EXISTING HIGHWAY. IN THESE AREAS, WORK IS TO BE COMPLETED USING THE EXISTING CENTER OF THE HIGHWAY. DISTANCES SHOWN IN THE FINISHED TYPICALS ARE THE DESIRED WIDTHS TO BE USED IN THE FIELD.



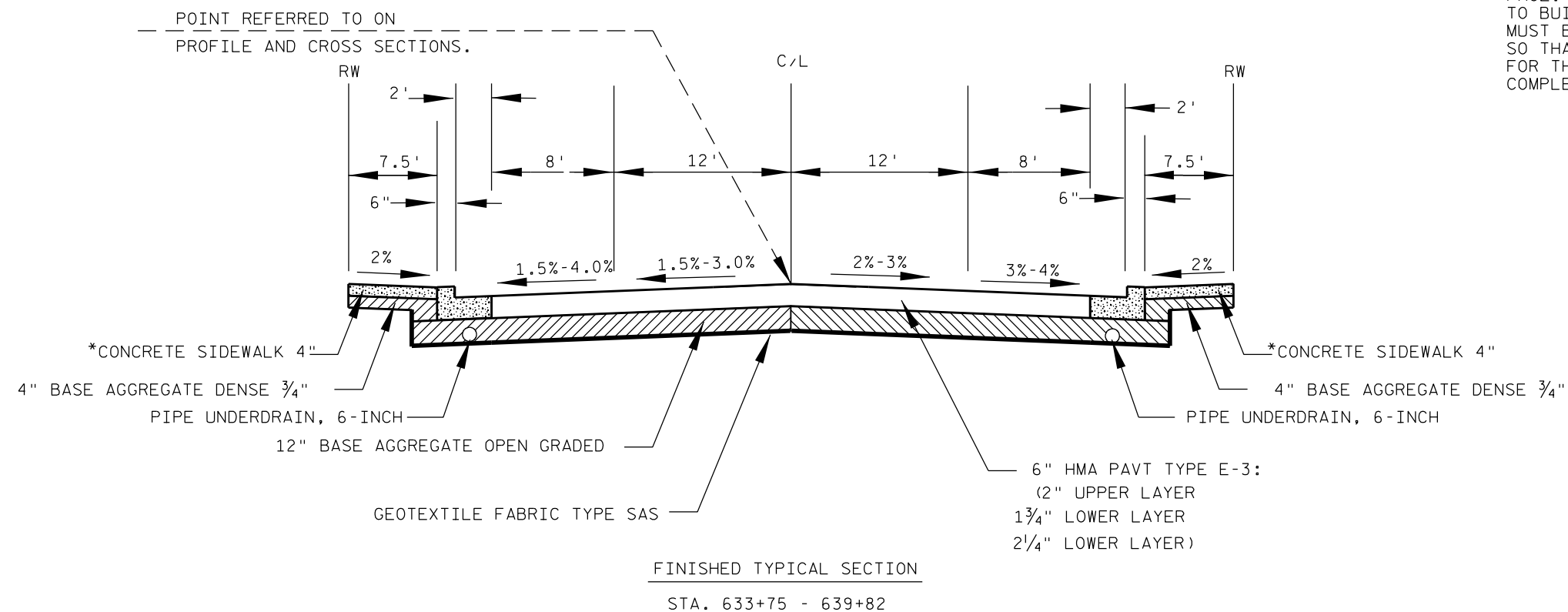
FINISHED TYPICAL SECTION

STA. 608+50 - 632+60

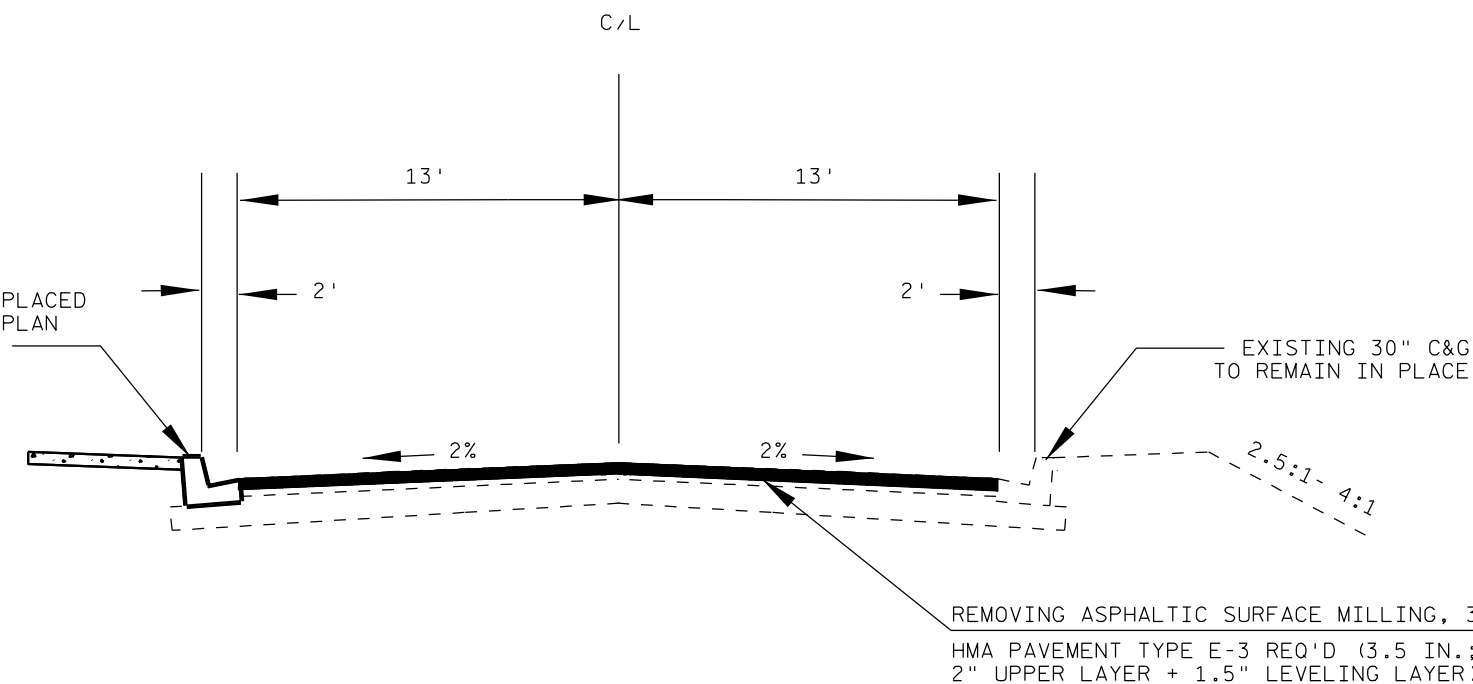
STA. 639+82 - 643+52



*CONCRETE SIDEWALK MAY EXTEND PAST RW LIMITS UP TO BUILDING FACE. AT SOME LOCATIONS, SDWK IS TO BE REMOVED AND REPLACED TO BUILDING FACES. SAWCUTS MAY BE REQUIRED AND EXTREME CARE MUST BE TAKEN WHEN WORKING AROUND BUILDINGS AND FOUNDATIONS SO THAT NONE ARE DAMAGED. SEE PLAN SHEETS AND CROSS SECTIONS FOR THESE LOCATIONS. CONSTRUCTION PERMITS ARE ON FILE TO COMPLETE THIS WORK OFF THE RW.



30" C&G AND SDWK TO BE REPLACED
SEE MISC QUANTITIES AND PLAN
SHEETS FOR LOCATIONS



FINISHED TYPICAL SECTION
STA. 643+52 - 660+50

CONC C&G 6" SLOPED 36" TYPE D REQ'D
SEE MISC QUANTITIES AND PLAN SHEETS
FOR LOCATIONS

STA 660+50-665+50
REMOVING ASPH SURF MILLING, 3.5"
HMA PAVEMENT TYPE E-3 REQ'D (3.5 IN.;
2" UPPER LAYER + 1.5" LEVELING LAYER)

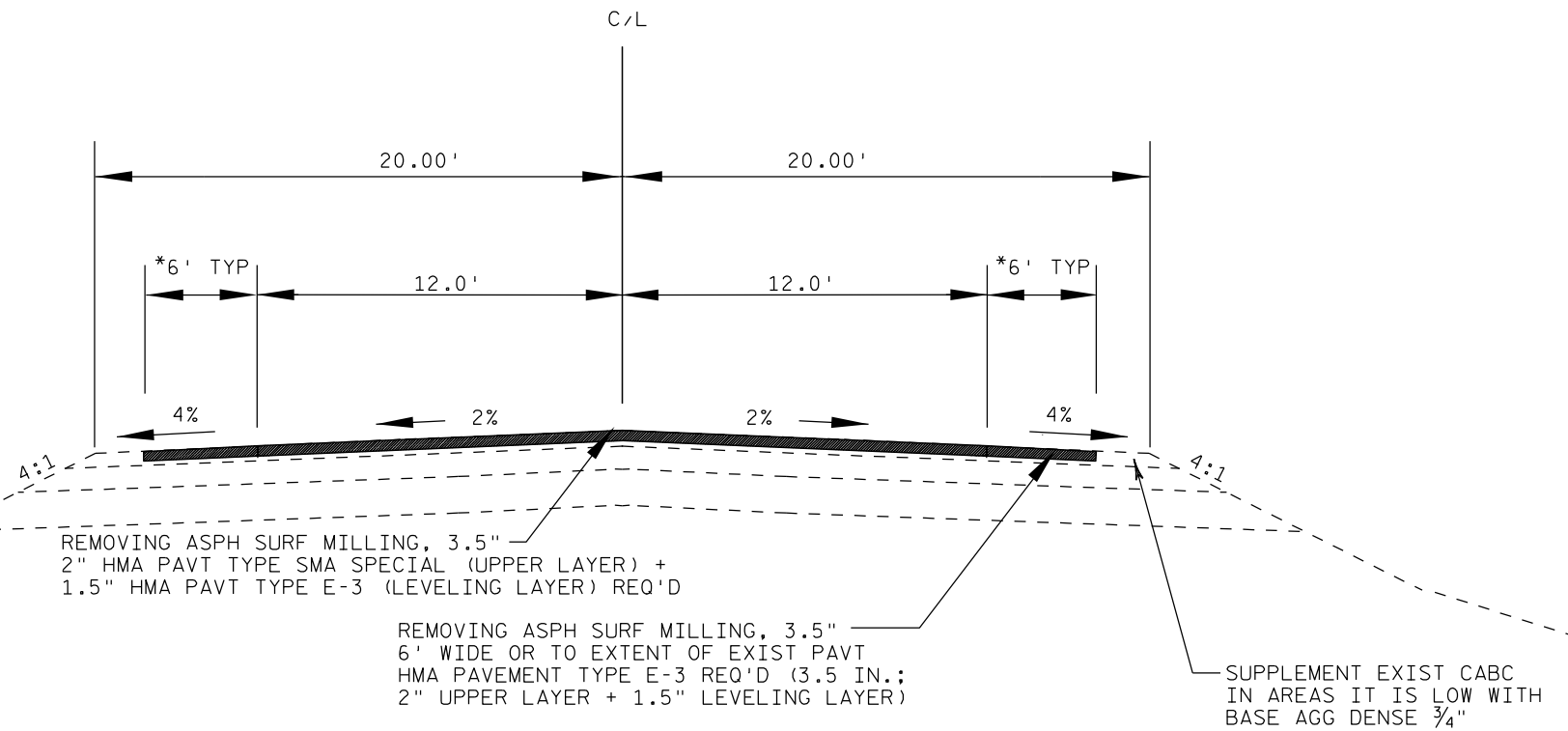
PAST STA 665+50
REMOVING ASPH SURF MILLING, 3.5"
2" HMA PAVT TYPE SMA SPECIAL (UPPER LAYER) +
1.5" HMA PAVT TYPE E-3 (LEVELING LAYER) REQ'D

REMOVING ASPH SURF MILLING, 3.5"
6' WIDE OR TO EXTENT OF EXIST PAVT
HMA PAVEMENT TYPE E-3 REQ'D (3.5 IN.;
2" UPPER LAYER + 1.5" LEVELING LAYER)

SUPPLEMENT EXIST CABG
IN AREAS IT IS LOW WITH
BASE AGG DENSE 3/4"

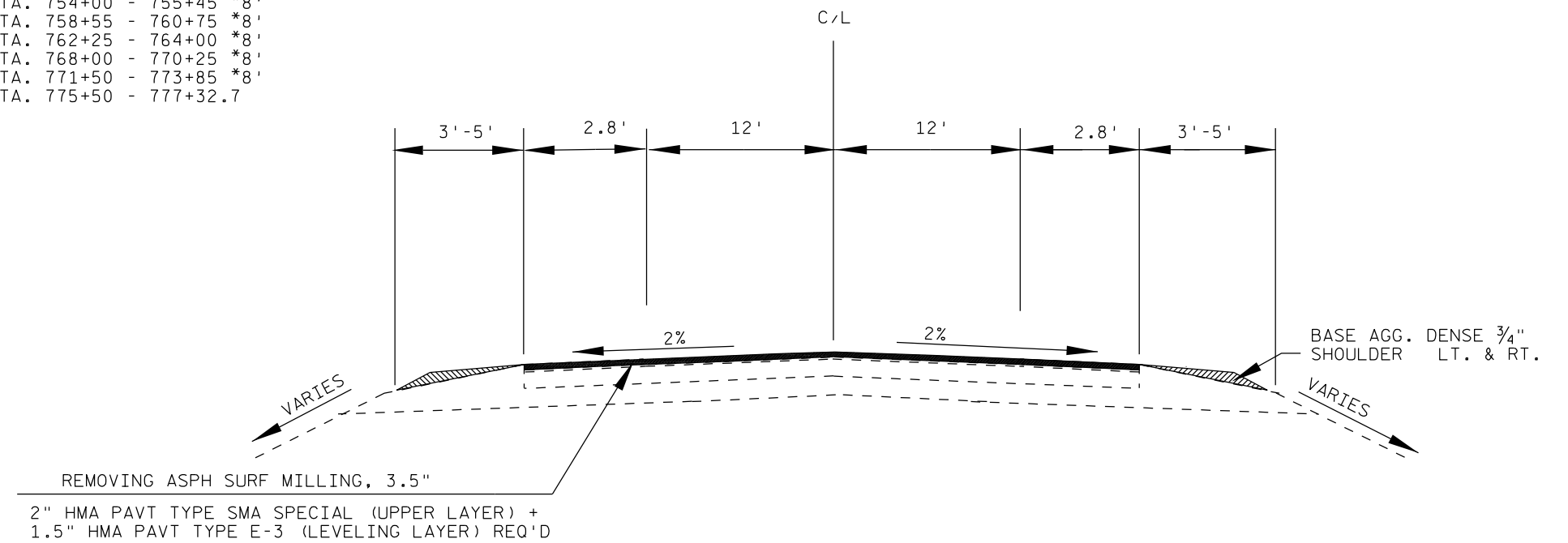
EXISTING TYPICAL SECTION

STA. 660+50 - 664+00 C&G LT, **13'	STA. 755+45 - 758+40 C&G LT&RT
STA. 664+00 - 665+50 C&G LT, **13'	STA. 758+40 - 758+55 C&G RT, *8'
STA. 665+50 - 672+25 C&G LT	STA. 760+75 - 762+25 C&G RT, *8'
STA. 674+00 - 685+50 C&G LT	STA. 764+00 - 764+90 C&G RT, *8'
STA. 687+65 - 690+40 C&G LT	STA. 764+90 - 767+40 C&G LT&RT
STA. 703+00 - 723+55 C&G LT	STA. 767+40 - 768+00 C&G RT, *8'
STA. 744+00 - 747+00 C&G RT	STA. 770+25 - 771+50 C&G LT, *8'
STA. 750+70 - 754+00 C&G LT, *8'	STA. 773+85 - 775+50 C&G RT, *8'



FINISHED TYPICAL SECTION

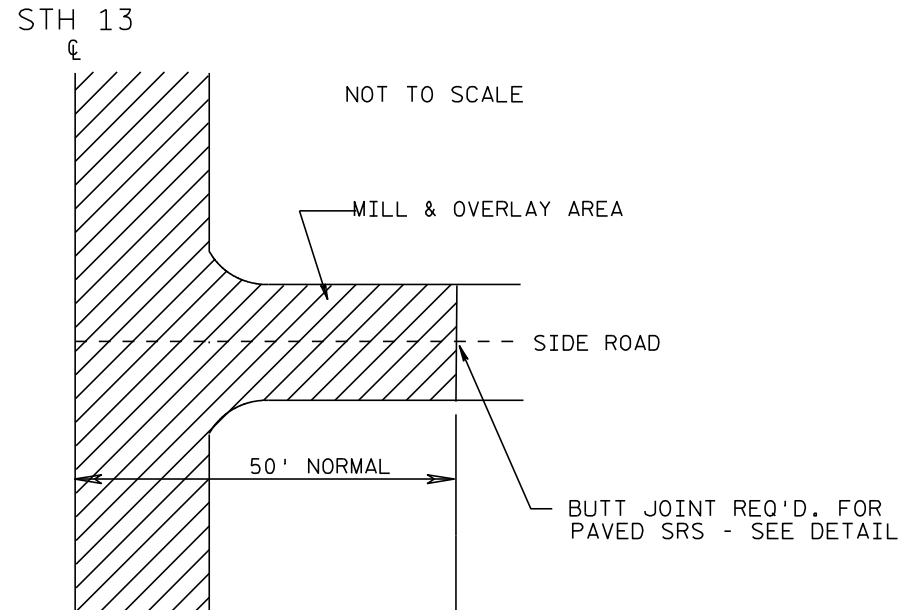
STA. 672+25 - 674+00
 STA. 685+50 - 687+65
 STA. 690+40 - 703+00
 STA. 723+55 - 744+00
 STA. 747+00 - 750+70 *8' RT SIDE ONLY
 STA. 754+00 - 755+45 *8'
 STA. 758+55 - 760+75 *8'
 STA. 762+25 - 764+00 *8'
 STA. 768+00 - 770+25 *8'
 STA. 771+50 - 773+85 *8'
 STA. 775+50 - 777+32.7



FINISHED TYPICAL SECTION

STA. 828+49.9 - 915+50

NOTE: REMOVE EXIST C&G STA. 868+80 TO 871+75 RT,
 REPLACE WITH CONC C&G 6" SLOPED 36" TYPE D

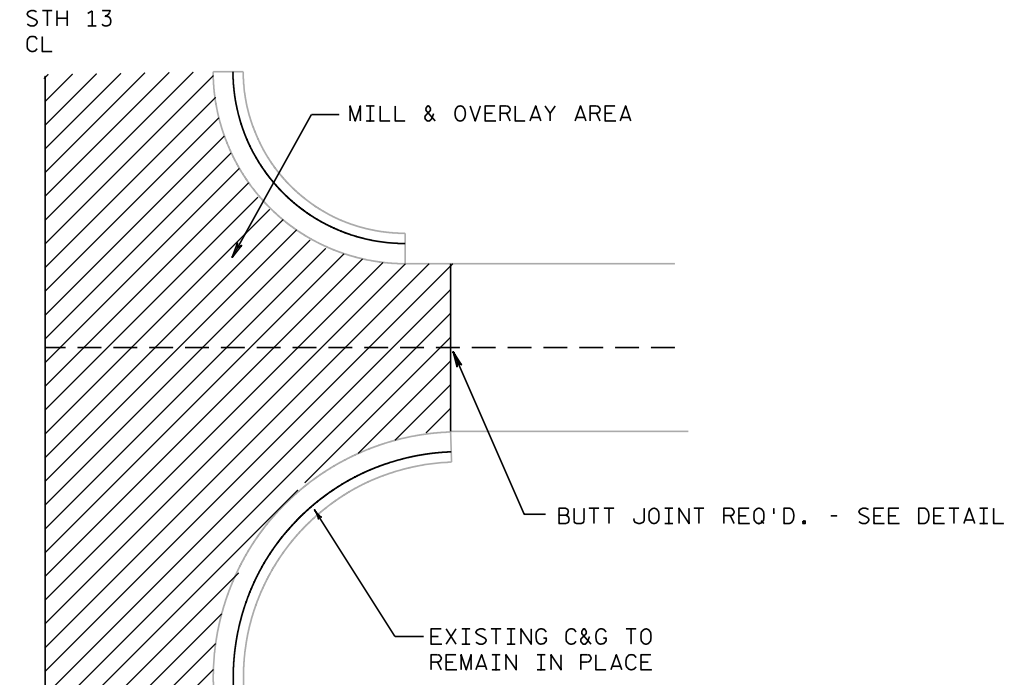


SIDE ROAD DETAIL - NO CURB & GUTTER

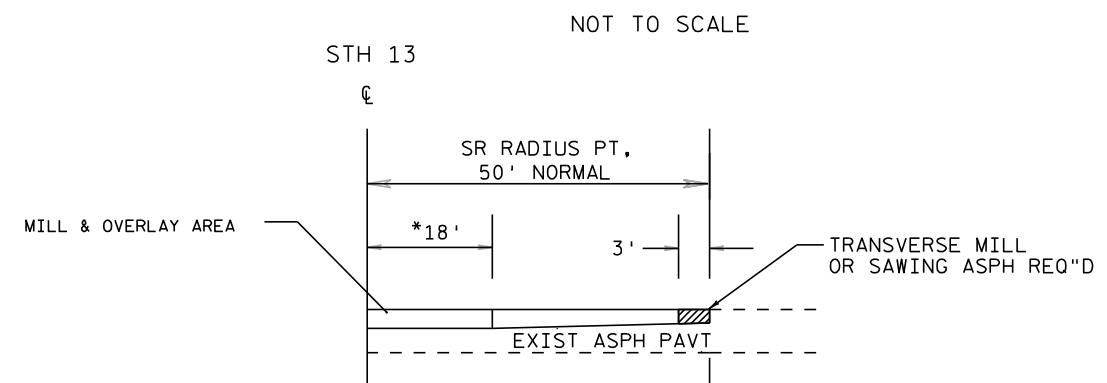
NOTE: IF THE EXISTING SIDEROAD CONSISTS OF A BASE COURSE SURFACE, THE NEW ASPHALT SHALL BE PLACED TO THE END OF THE FARTHER EXISTING SIDEROAD RADIUS.

SIDE ROAD LOCATION'S REQUIRING BUTT JOINTS

WILSON AVE STA. 149+64 LT	MANYPENNY AVE STA. 202+98 LT
RITTENHOUSE AVE STA. 364+13 RT	6TH STR STA. 383+91 RT
5TH STR STA. 413+49 LT	4TH STR STA. 413+49 RT
3RD STR STA. 149+64 LT	1ST STR STA. 202+98 LT
RITTENHOUSE AVE STA. 364+13 RT	WASHINGTON AVE STA. 383+91 RT
RICE AVE STA. 413+49 LT	SWEENEY AVE STA. 413+49 RT
LYNDE AVE STA. 149+64 LT	N LIMITS ROAD STA. 202+98 LT
DALRYMPLE RD STA. 670+85 RT	CTH J STA. 693+40 LT
CONNIES LANE STA. 694+80 RT	ISLAND VIEW LANE STA. 699+80 RT
APOSTLE BAY RD STA. 719+90 RT	LINDQUIST RD STA. 743+00 RT
TOWN RD STA. 765+20 RT	



SIDEROAD DETAIL, URBAN & RURAL - CURB & GUTTER

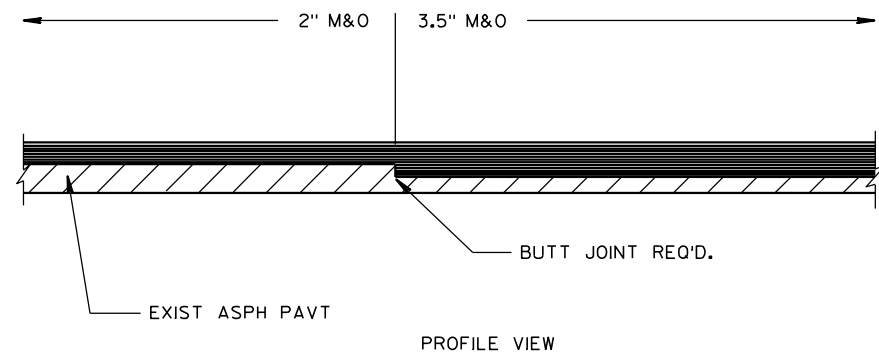


SIDE ROAD BUTT JOINT DETAIL

REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALT SURFACE, BUTT JOINTS' MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE SIDEROAD PAVING.

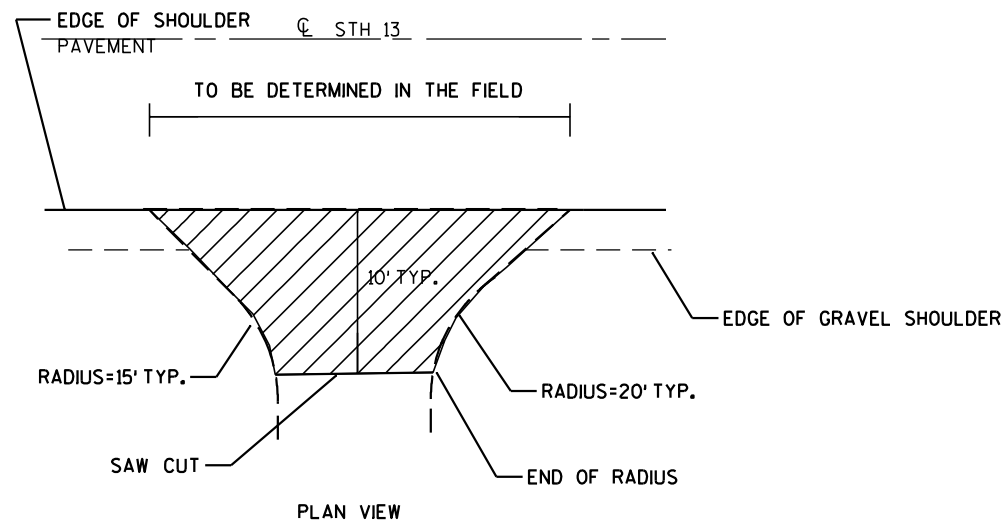
SIDEROAD PAVEMENT DEPTH SHALL MATCH AT MAINLINE PAVEMENT EDGE AND BE TAPERED TO 2" MINIMUM AT JOINT

*EDGE OF PAVED SHOULDER OR FLAG TO FLAG ALONG ML



DETAIL OF BUTT JOINT

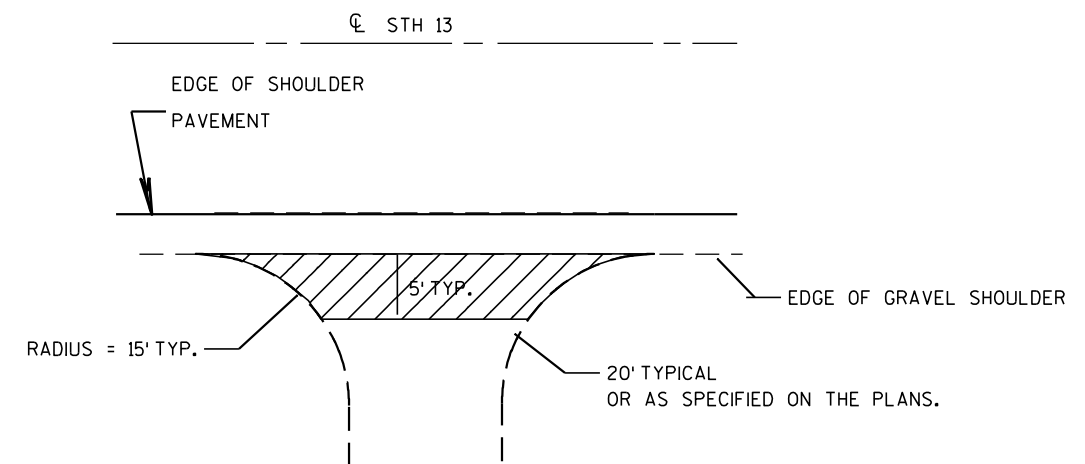
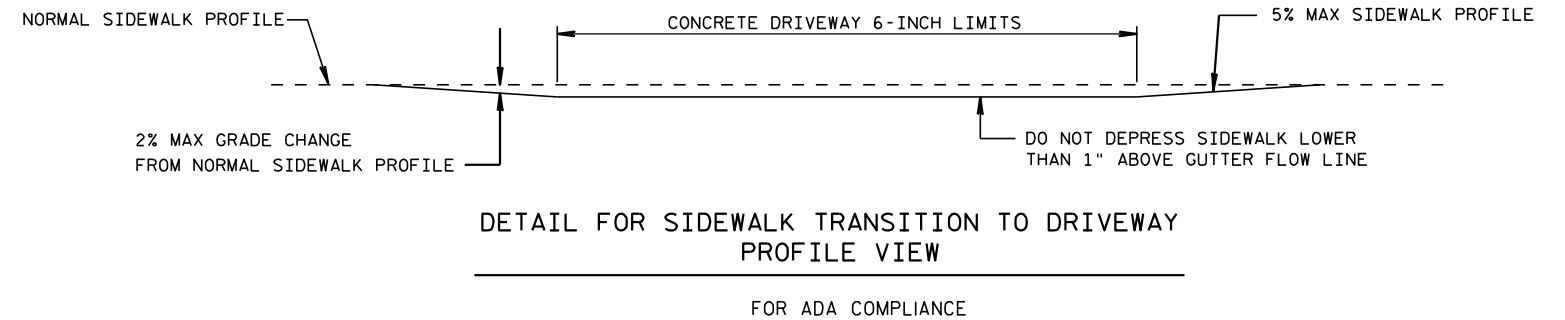
REQ'D AT TRANSITION FROM 2" M&O TO 3.5" M&O
STA 643+49



RURAL PAVED DRIVEWAY DETAIL

REMOVE EXISTING ASPHALTIC SURFACE, REPLACE WITH ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. MATCH EXISTING WIDTH AND RADIUS OF DRIVEWAY. PREPARE SUBSURFACE FOR PAVING WITH BASE AGG DENSE 3/4-INCH AS NECESSARY.

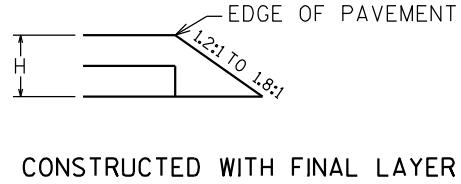
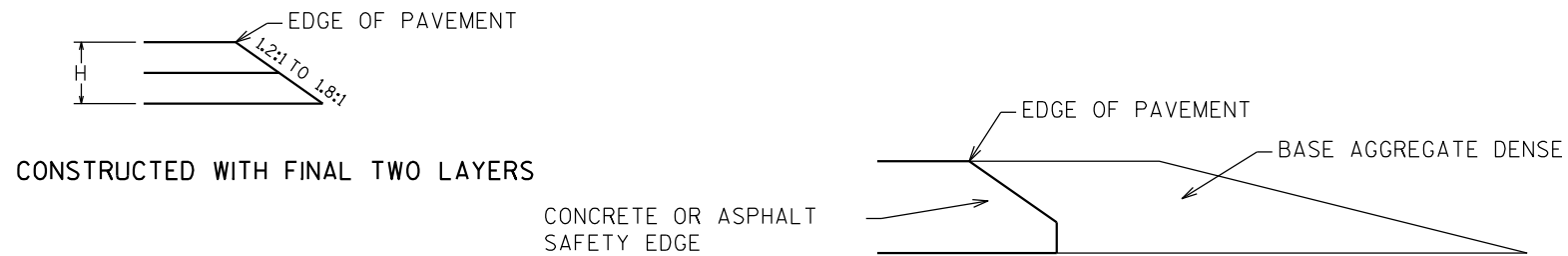
STA. 659+87 LT	STA. 669+25 LT
STA. 670+10 LT	STA. 674+38 LT
STA. 676+30 LT	STA. 687+96 LT
STA. 745+27 RT	



RURAL AGGREGATE DRIVEWAY DETAIL

EACH ENTRANCE SHALL RECEIVE ADEQUATE 3/4-INCH BASE AGG. DENSE AFTER MAINLINE PAVING TO BRING ENTRANCE UP TO SHOULDER PAVEMENT GRADE. MATCH EXISTING DRIVEWAY WIDTHS AND RADII.

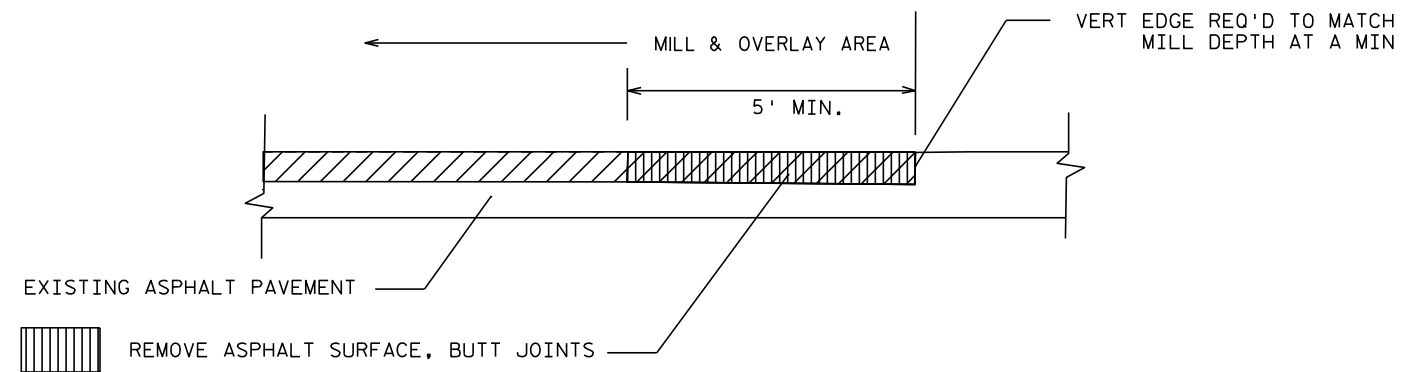
STA. 621+85 LT	STA. 657+30 LT	STA. 672+08 LT
STA. 675+55 LT	STA. 679+20 LT	STA. 681+70 LT
STA. 689+44 LT	STA. 755+64 RT	STA. 757+58 LT
STA. 758+30 RT	STA. 763+88 RT	STA. 764+72 LT
STA. 770+20 LT	STA. 774+00 RT	STA. 774+58 LT
STA. 775+30 RT	STA. 869+90 RT	



FOR H 5" OR LESS

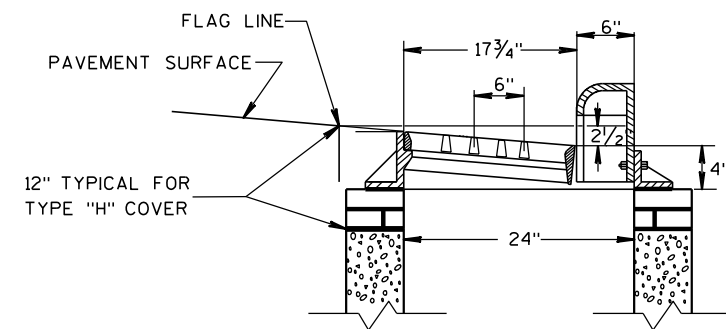
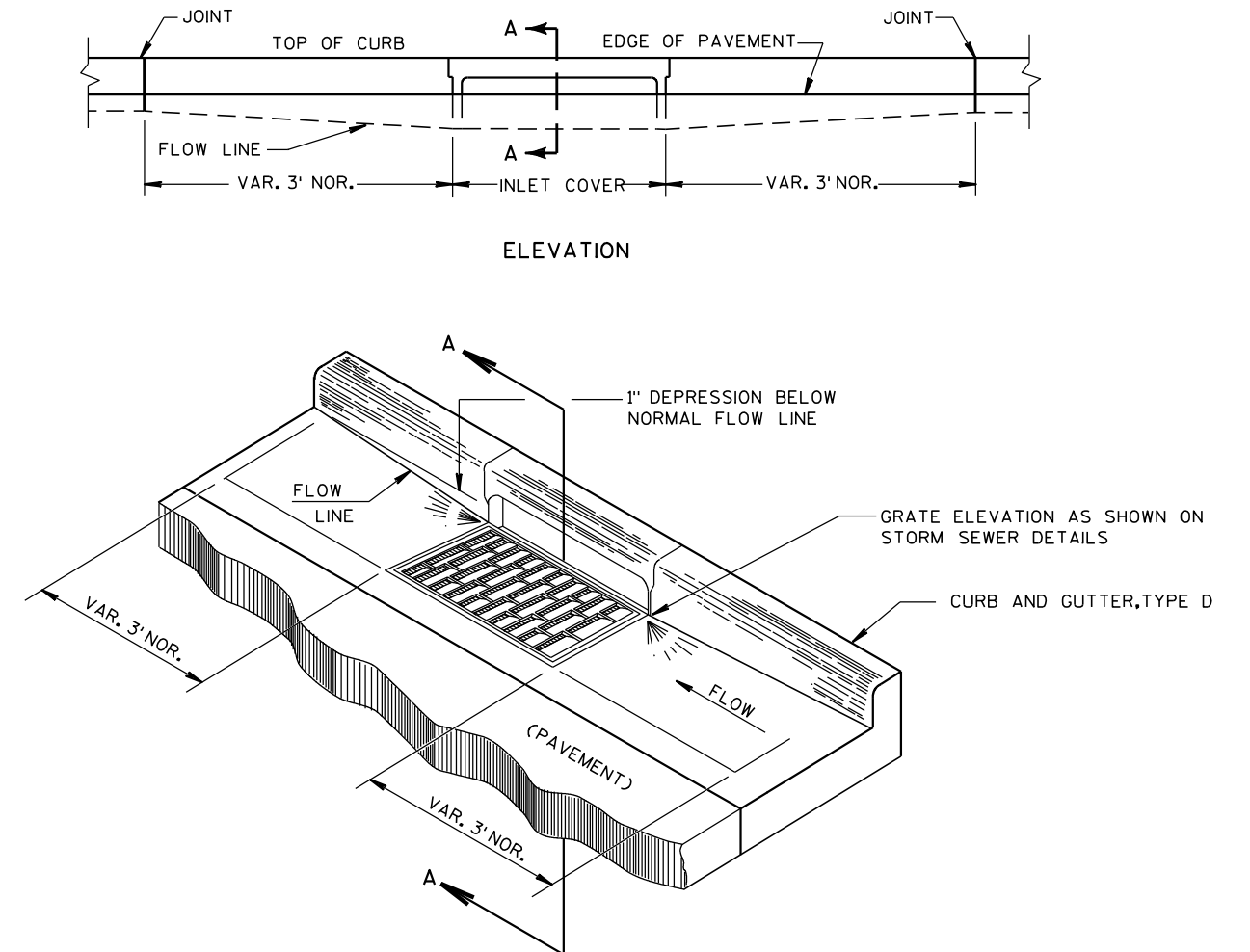
DETAILS FOR SAFETY EDGE FOR ASPHALTIC OVERLAY

USED IN RURAL SECTIONS

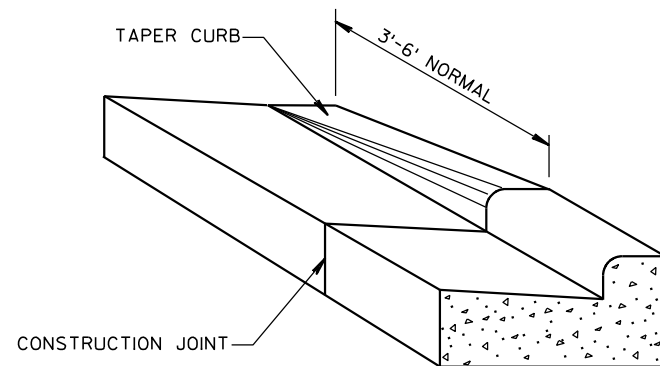


DETAIL FOR BUTT JOINTS AT ENDS OF WORK AREAS

STA 603+38
STA 777+32.7
STA 828+49.9
STA 915+50

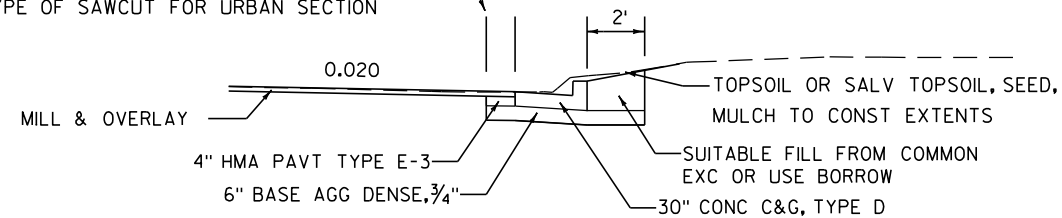


DETAIL OF CURB AND GUTTER AT INLETS

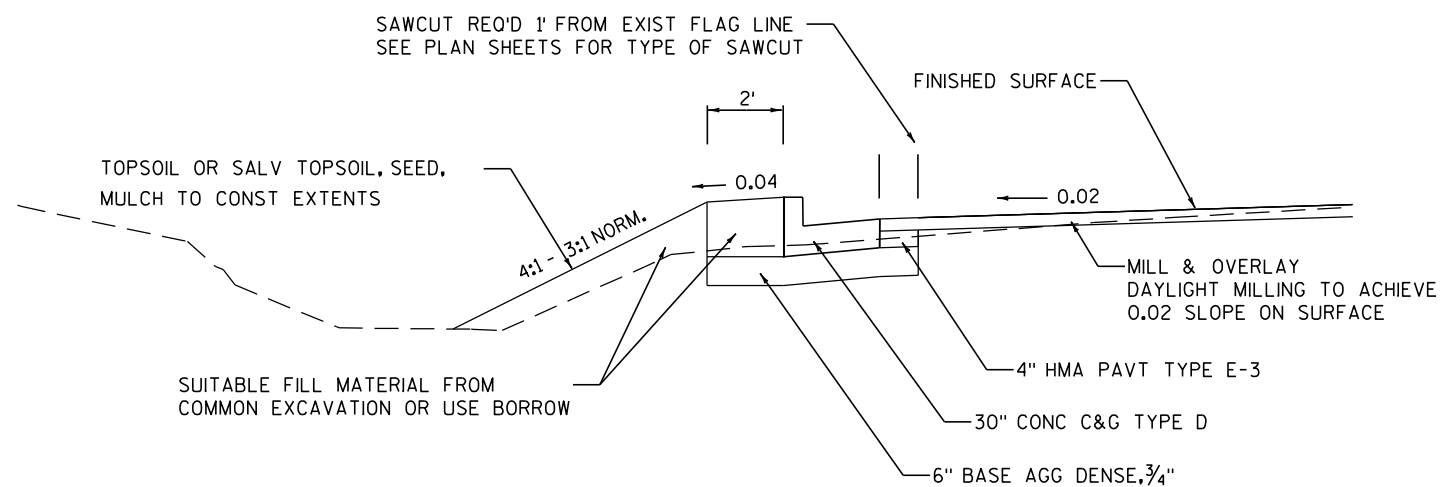


DETAIL OF CURB & GUTTER TERMINI

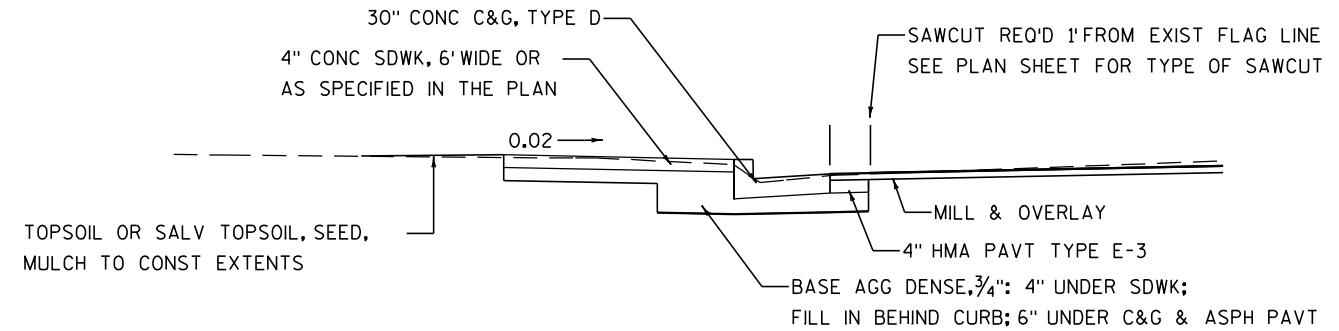
SAWCUT REQ'D 1' FROM EXIST FLAG LINE
SAWING ASPH IN RURAL ARES, SEE PLAN SHEETS
FOR TYPE OF SAWCUT FOR URBAN SECTION



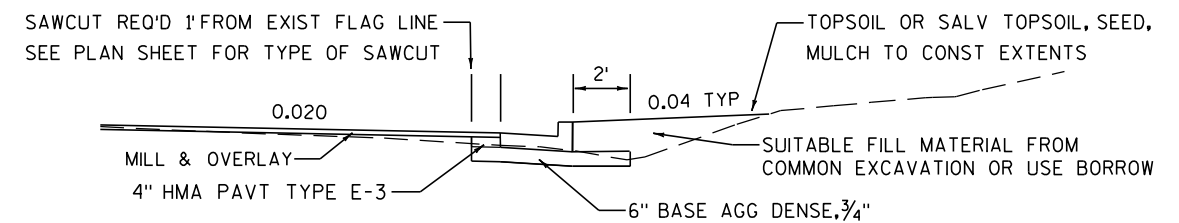
**DETAIL FOR C&G REPLACEMENT WHEN C&G
IS ADJACENT TO TERRACE IN URBAN SECTION
OR FOR C&G REPLACEMENT IN RURAL AREAS**



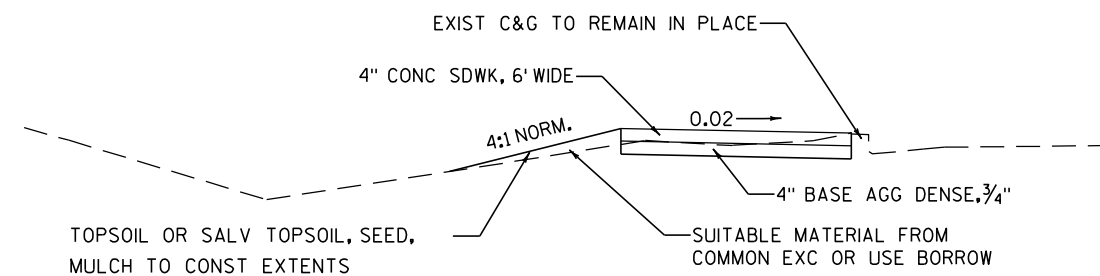
**DETAIL FOR NEW CURB & GUTTER AREA
SEE CROSS SECTIONS ALSO**



**DETAIL FOR NEW SDWK AREA, C&G TO BE REPLACED (SEE CROSS SECTIONS ALSO)
OR FOR C&G REPLACEMENT WHEN C&G IS ADJACENT TO EXIST SDWK**



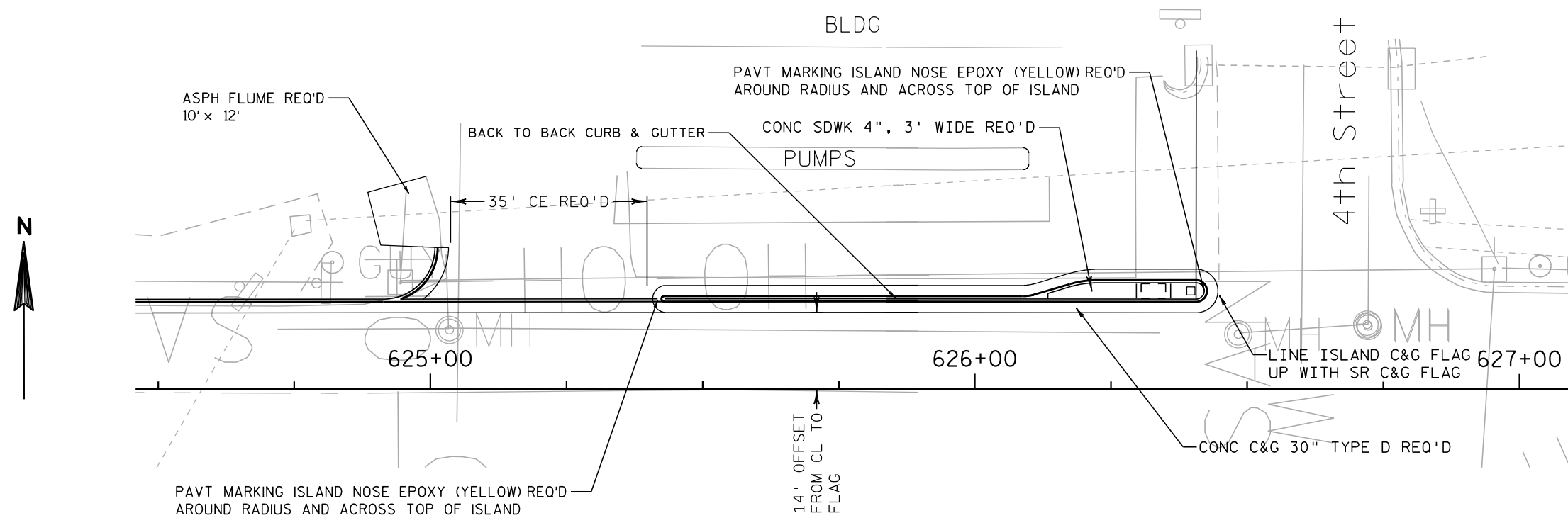
**DETAIL FOR NEW C&G WHEN ADJACENT TO TERRACE
SEE CROSS SECTIONS ALSO**



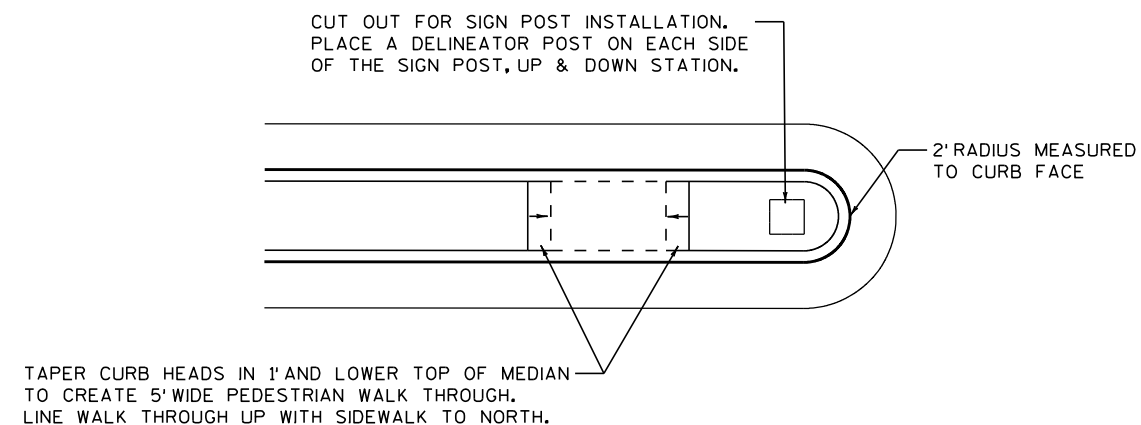
**DETAIL FOR NEW SDWK AREA, EXIST C&G TO REMAIN IN PLACE
SEE CROSS SECTIONS ALSO**

2

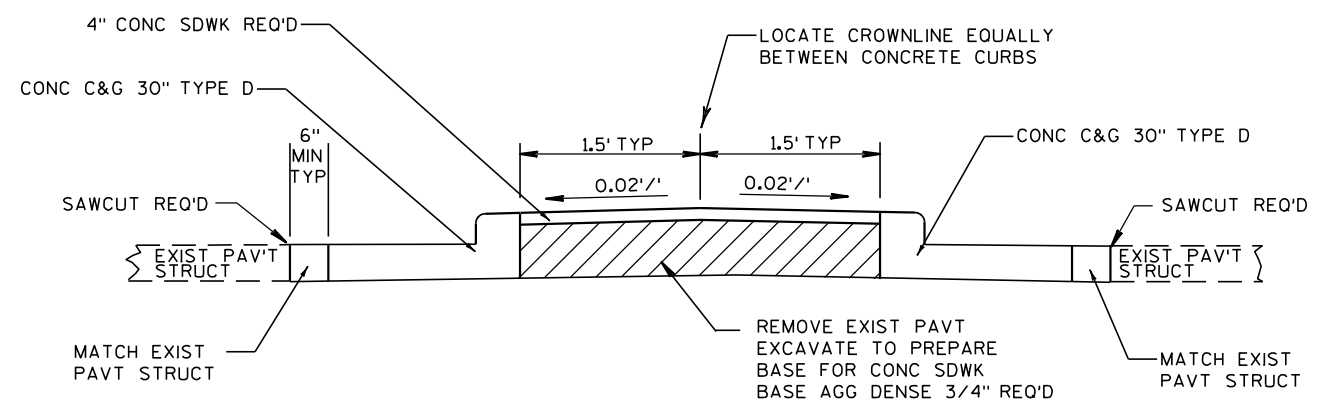
2 |



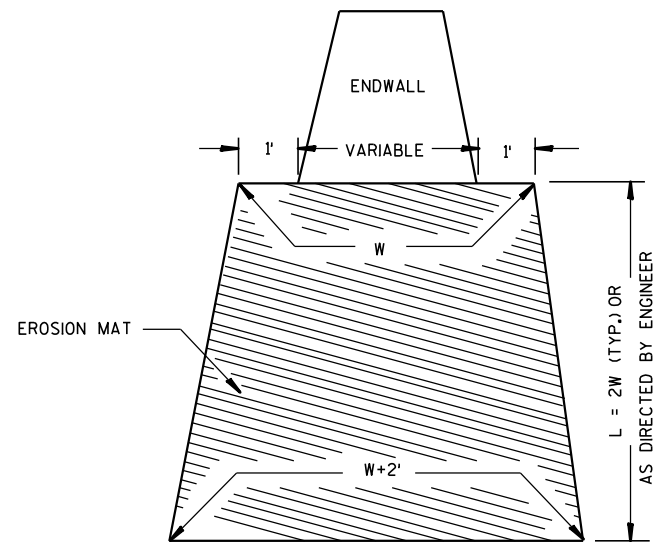
DETAIL FOR CURBED ISLAND



CURBED ISLAND,
DETAIL FOR EAST END

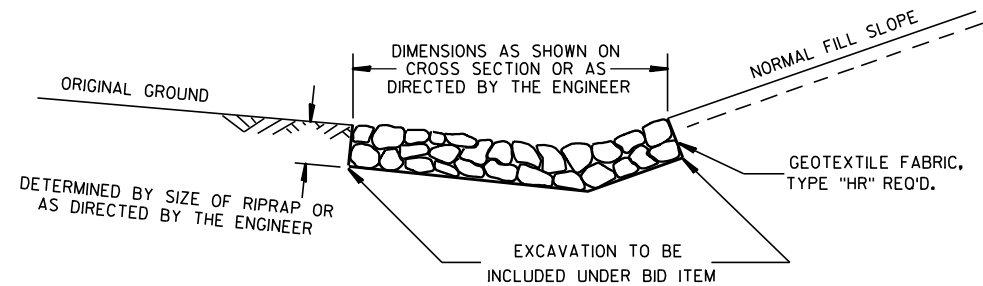


CONCRETE CURB ISLAND



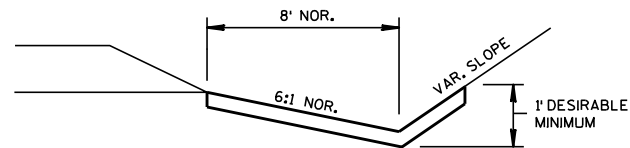
EROSION MAT TREATMENT AT CULVERTS

STA. 76+45 LT,RT
STA. 92+72 RT
STA. 109+29 LT
STA. 185+86 RT
STA. 188+22 LT,RT
STA. 208+75 RT
STA. 240+60 RT
STA. 279+25 LT,RT
STA. 303+30 LT,RT
STA. 316+60 LT,RT
STA. 407+19 LT
STA. 432+94 LT,RT
STA. 432+94 LT,RT

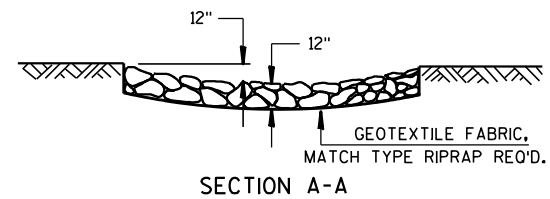


DETAIL FOR RIPRAP IN DITCHES

STA. 660+75-685+00 LT
STA. 754+30-754+80 LT
STA. 867+40-868+40 LT

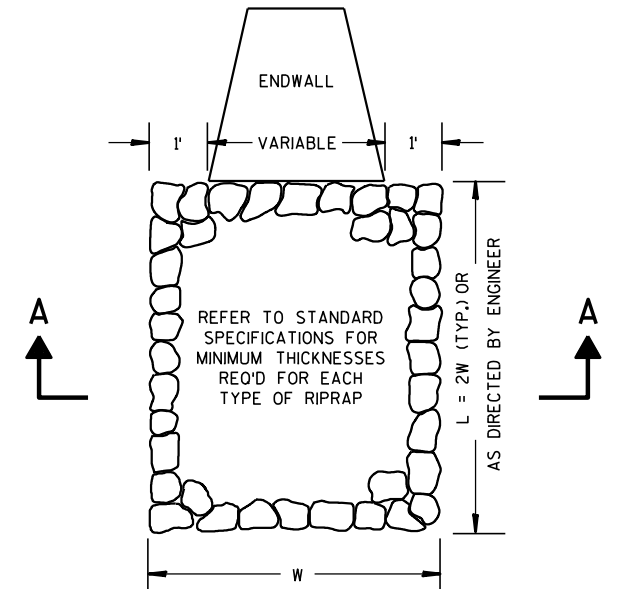


EROSION MAT DETAIL FOR DITCHES



RIPRAP TREATMENT AT CULVERTS

STA. 660+60 LT -- RIPRAP MEDIUM
STA. 672+25 LT -- RIPRAP LIGHT
STA. 769+00 LT & RT -- RIPRAP EXTRA HEAVY
STA. 863+67 RT -- RIPRAP MEDIUM

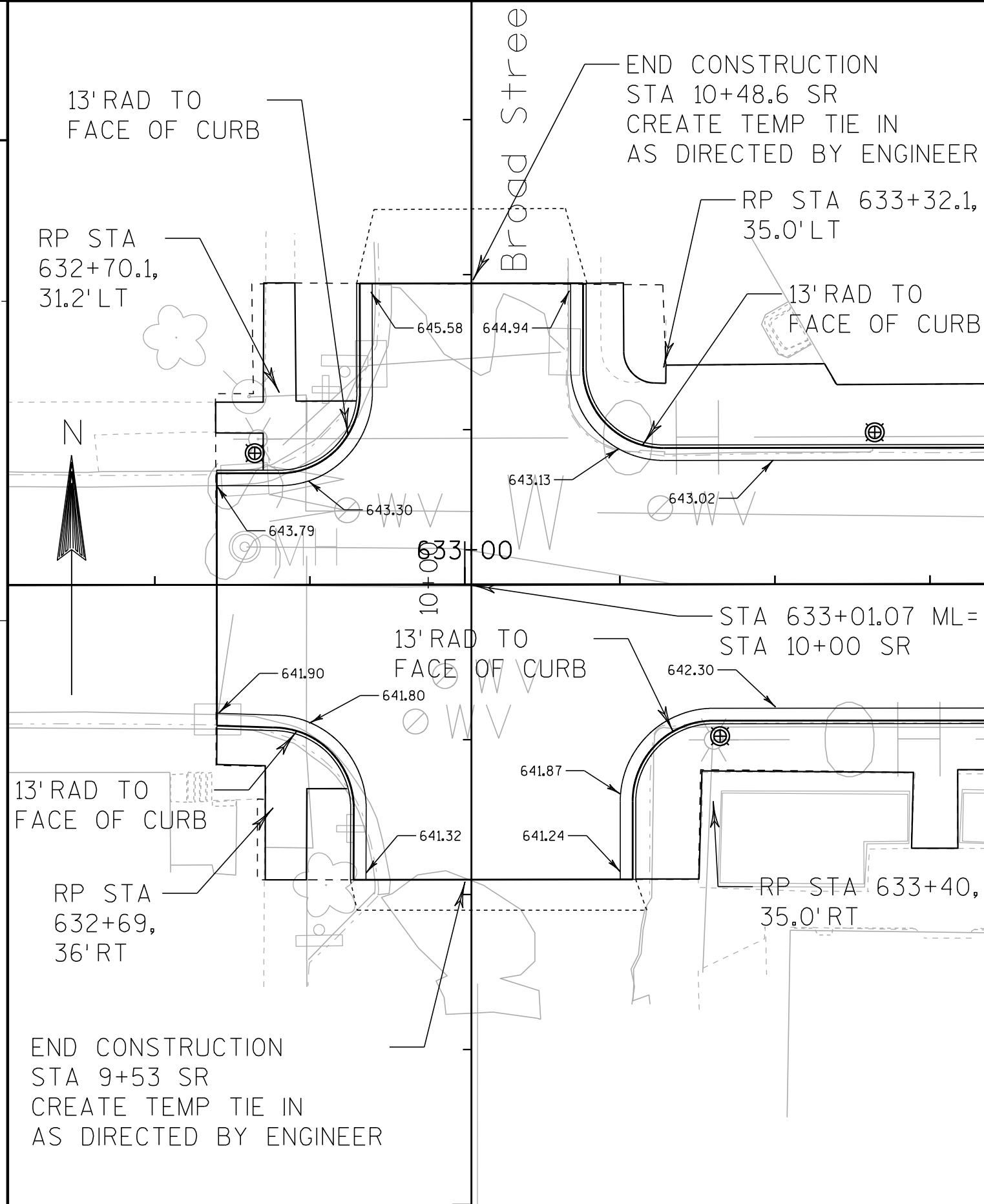


RUNOFF COEFFICIENT TABLE

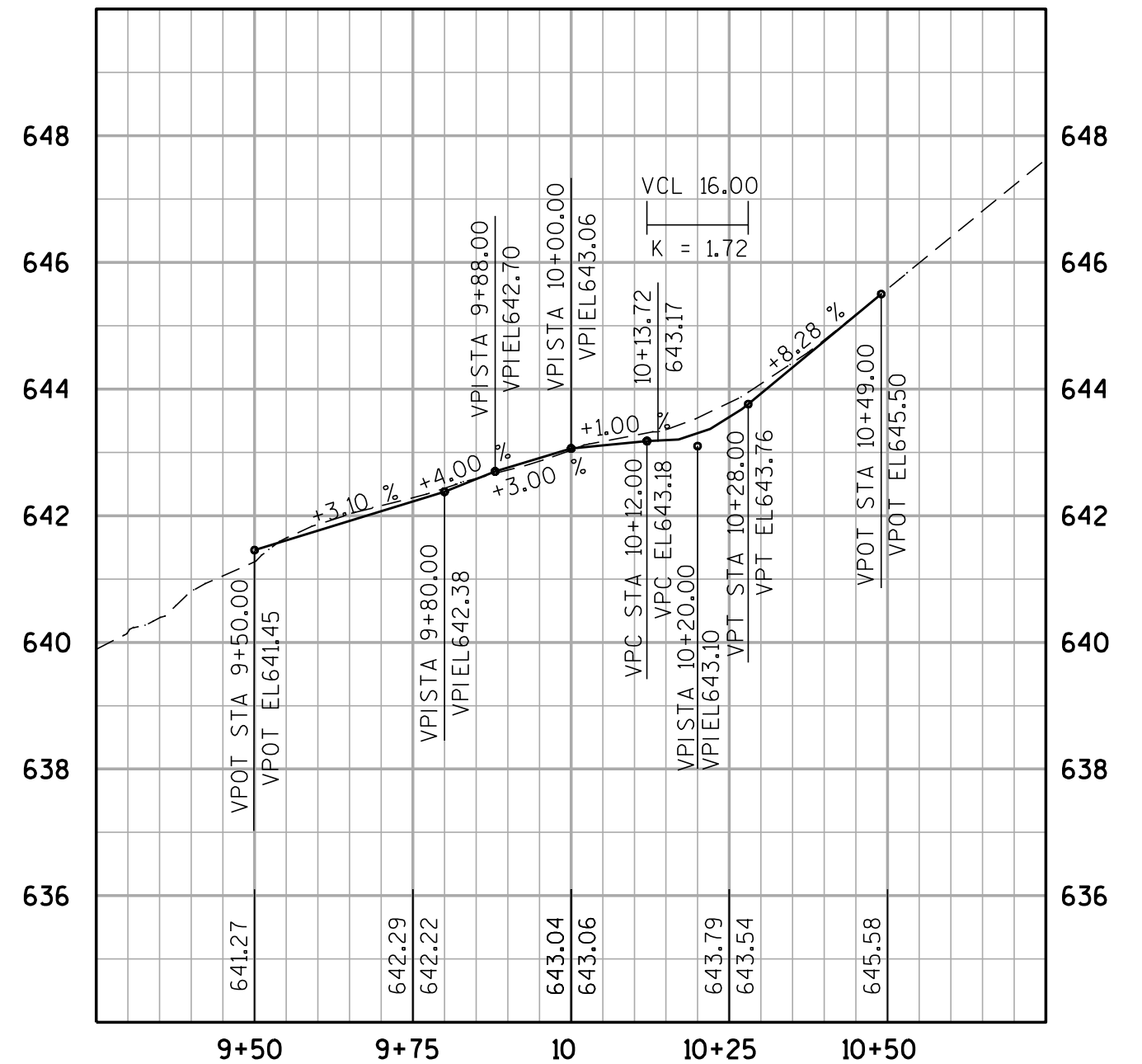
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 72 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.7 ACRES

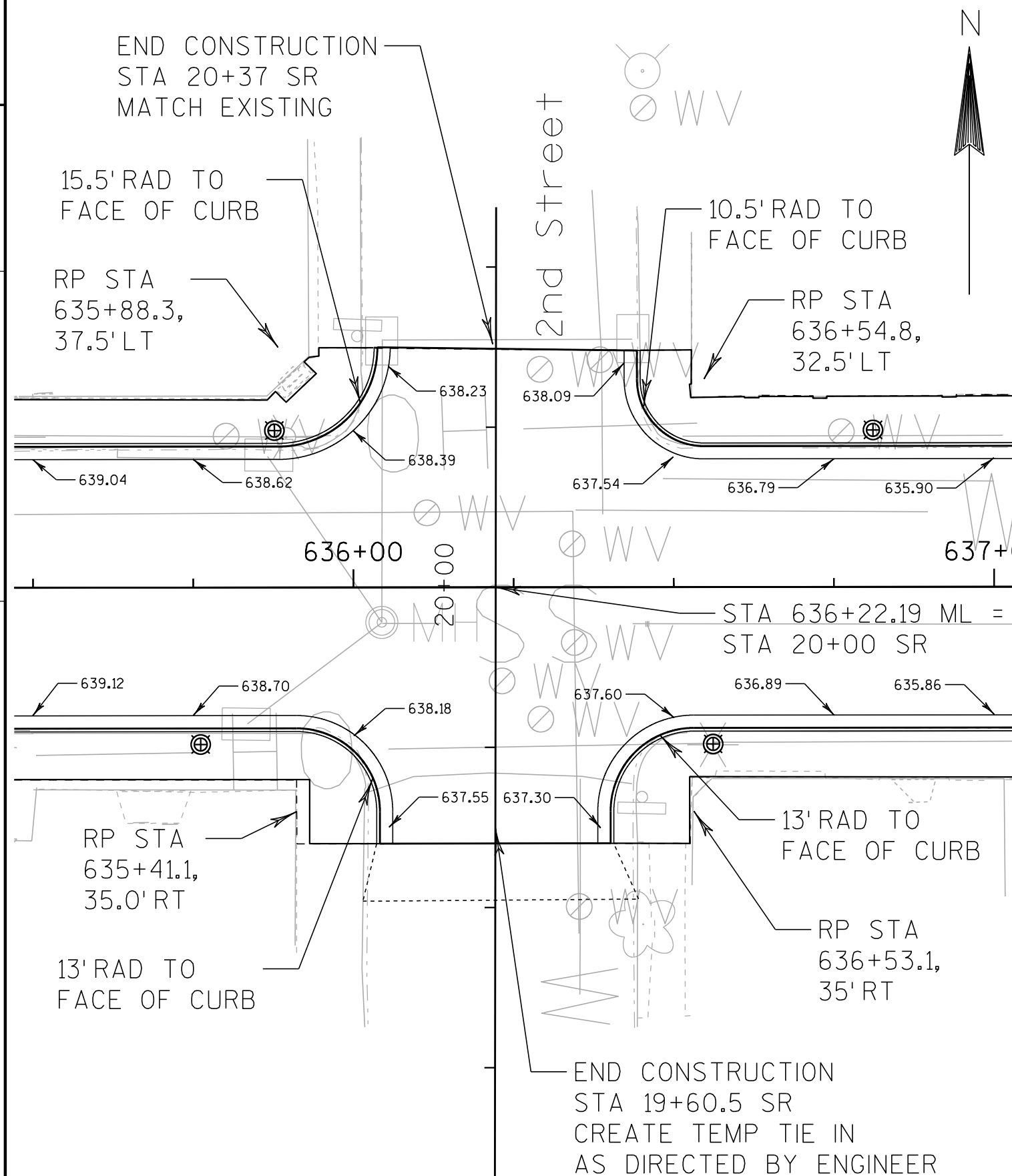
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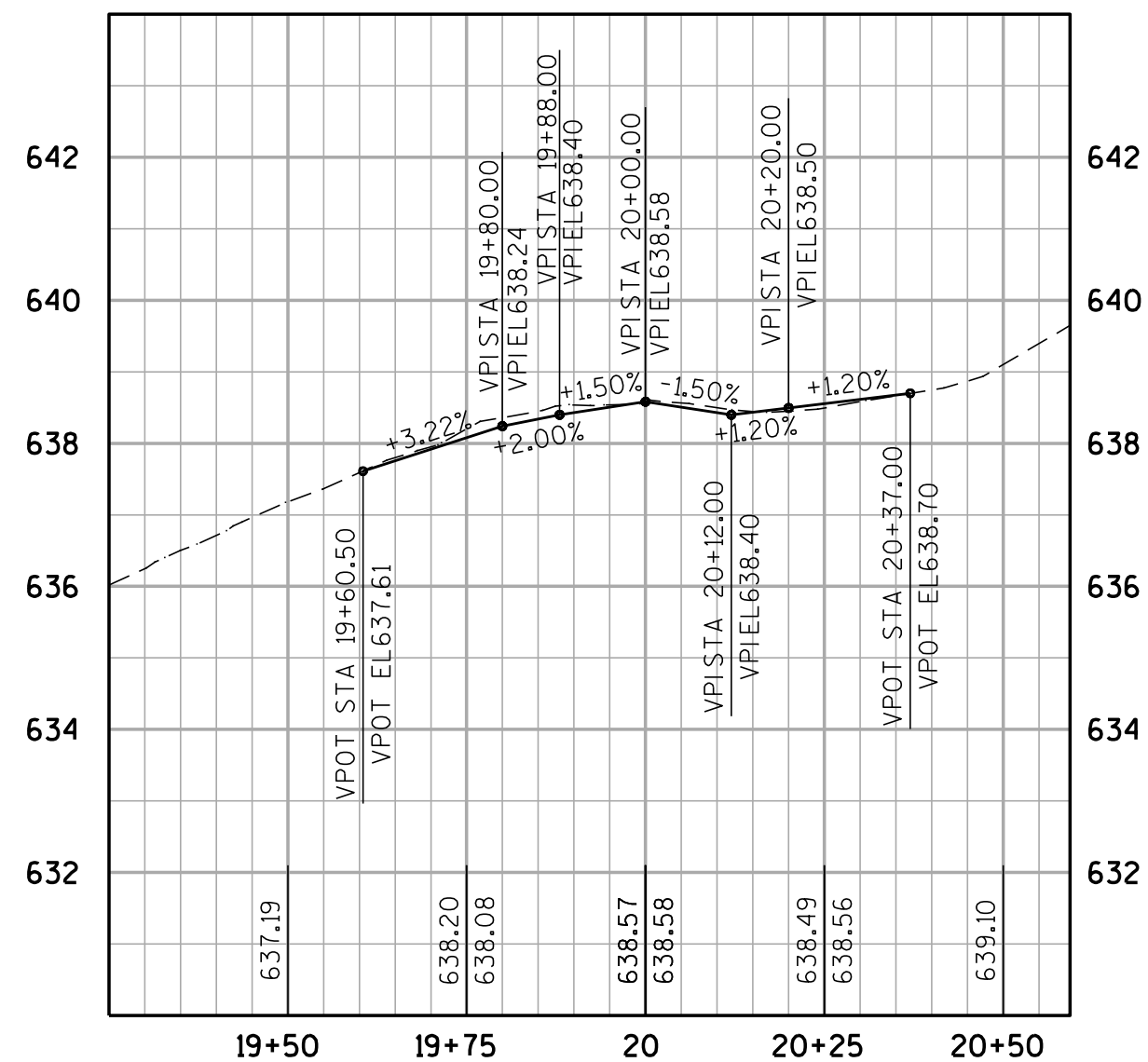
STH 13 (RITTENHOUSE)
& BROAD STREET



2 |



STH 13 (RITTENHOUSE)
& 2ND STREET



STA 620+05, 25' LT
EXISTING INLET

①

621+00

622+00

623+00

624+00

62

EXISTING TO
REMAIN IN PLACE

②

STA 620+88, 20' RT
MANHOLE 4-FT DIAM,
J COVER

③

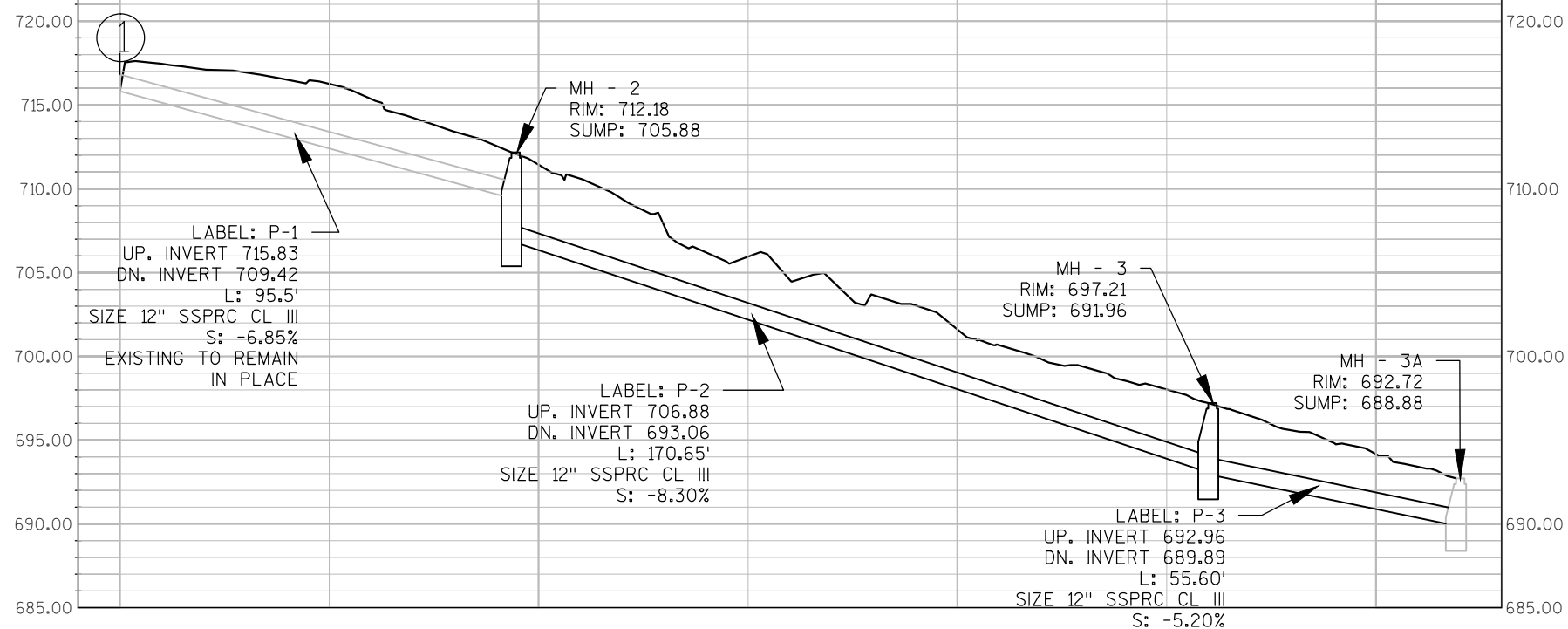
STA 622+59, 18' RT
INLET 2X2.5-FT,
H COVER

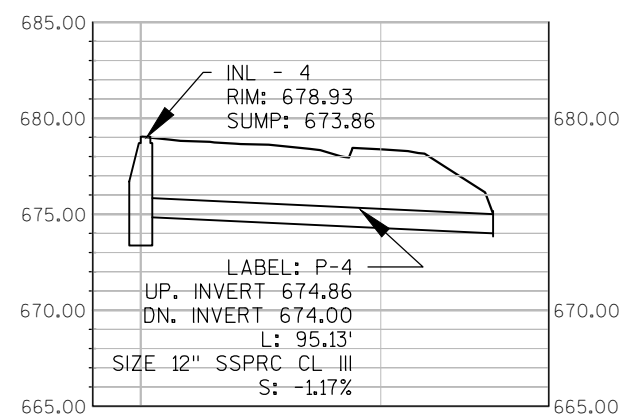
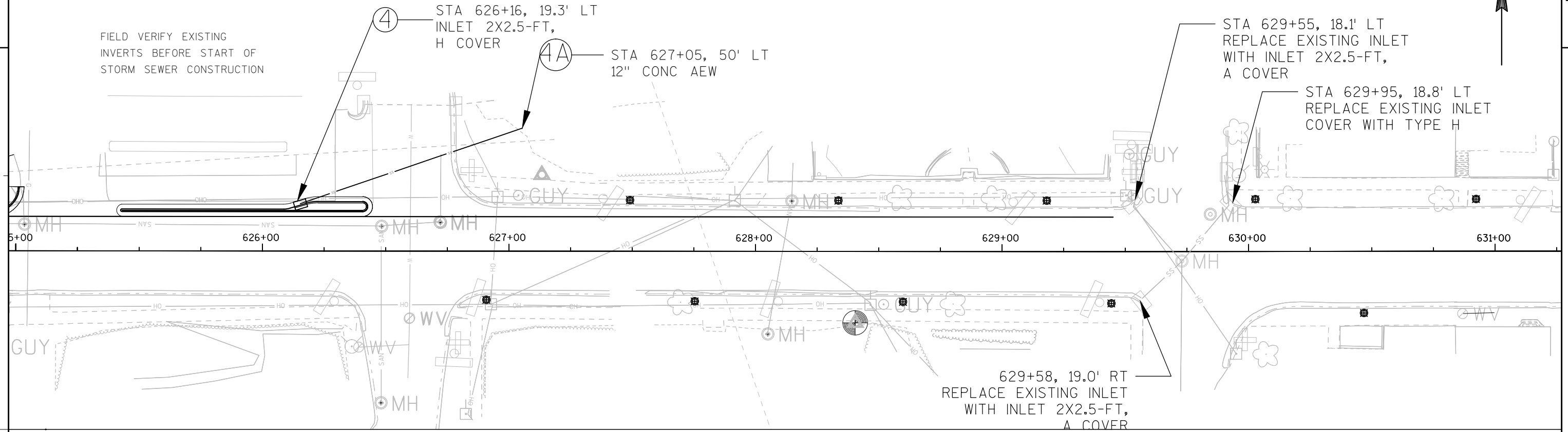
3A

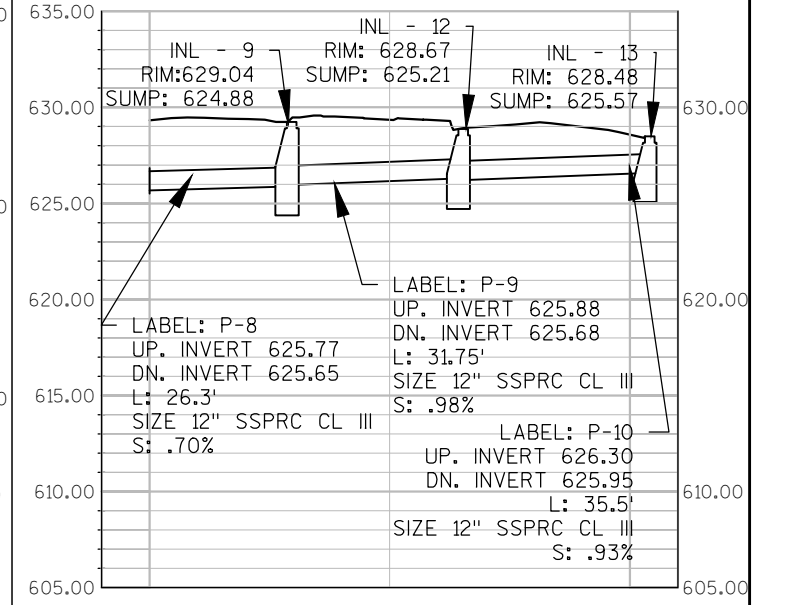
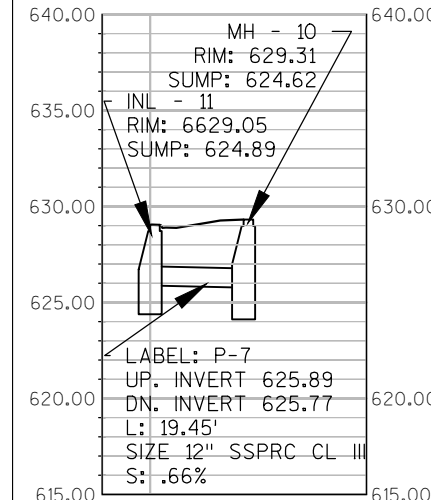
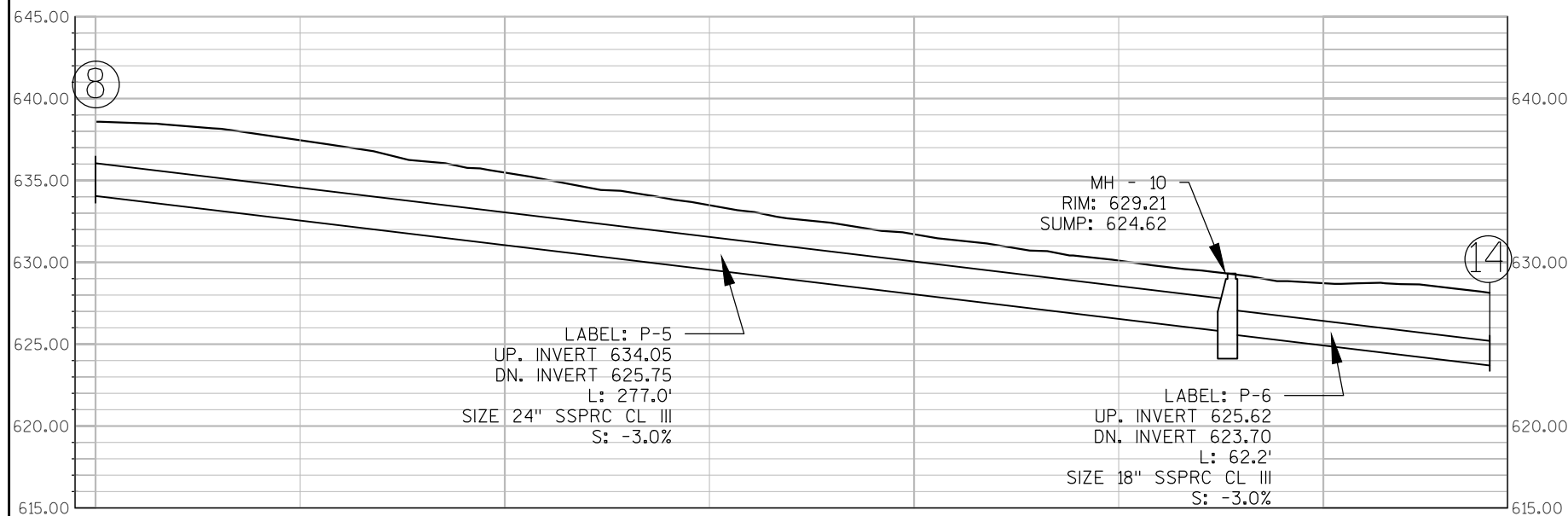
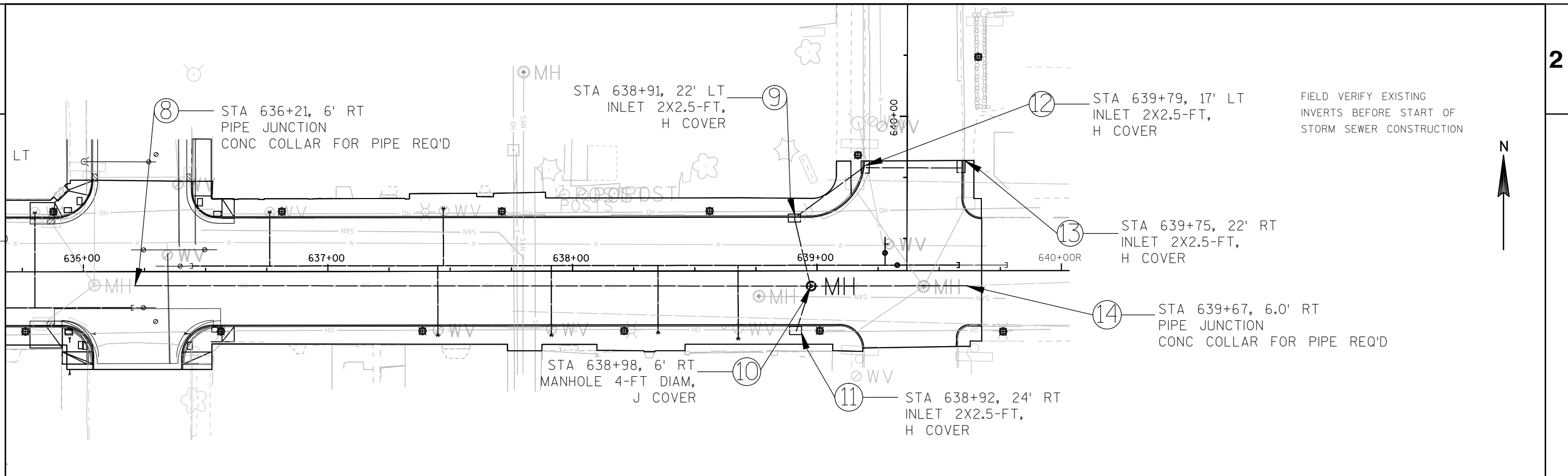
STA 623+16, 21.7' RT
EXISTING INLET TO REMAIN
IN PLACE

FIELD VERIFY EXISTING
INVERTS BEFORE START OF
STORM SEWER CONSTRUCTION

N







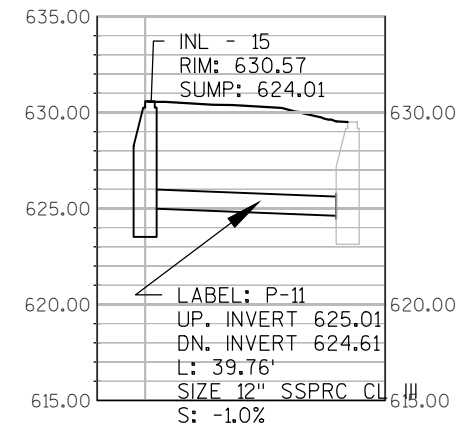
FIELD VERIFY EXISTING
INVERTS BEFORE START OF
STORM SEWER CONSTRUCTION

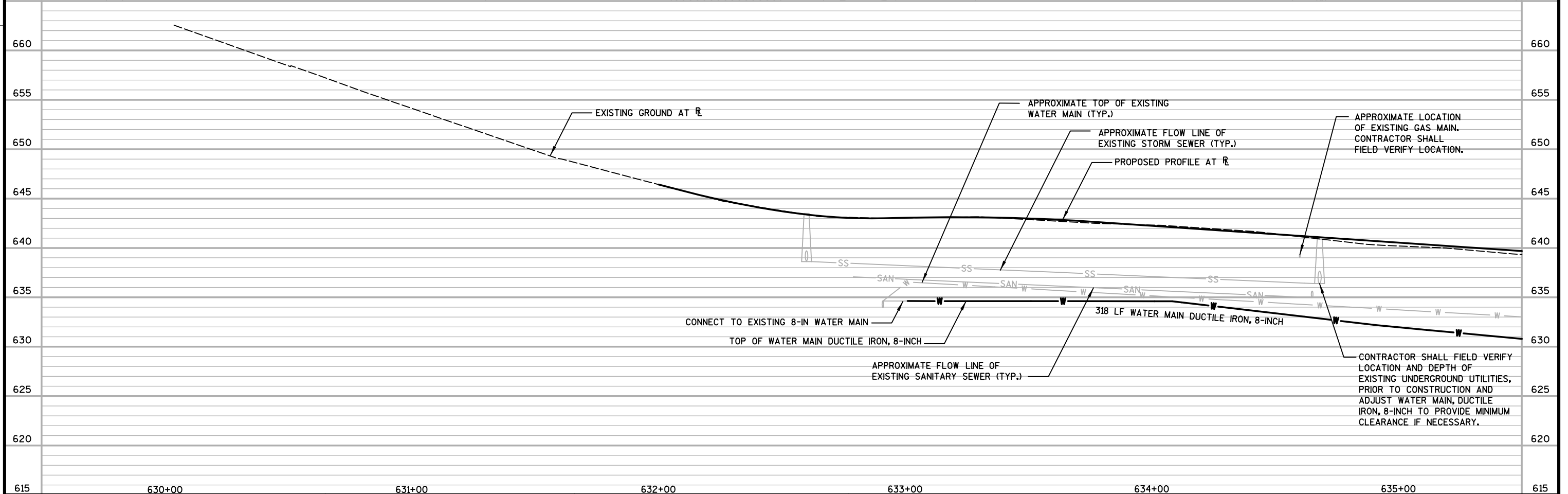
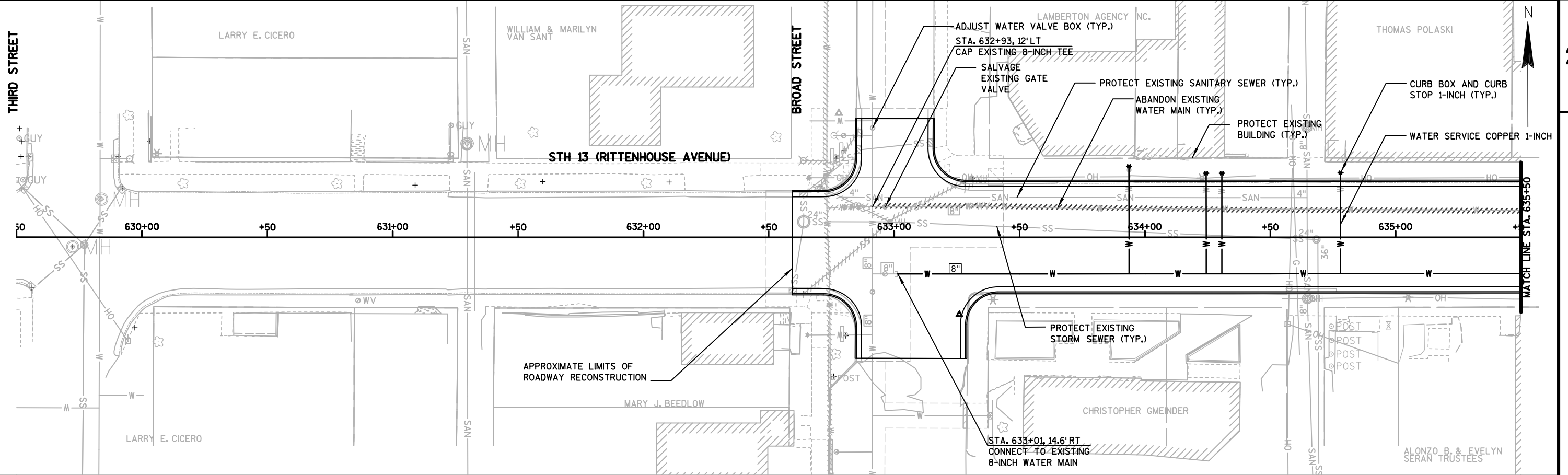
STA 642+47, 19.5' LT
INLET 2X2.5-FT,
H COVER

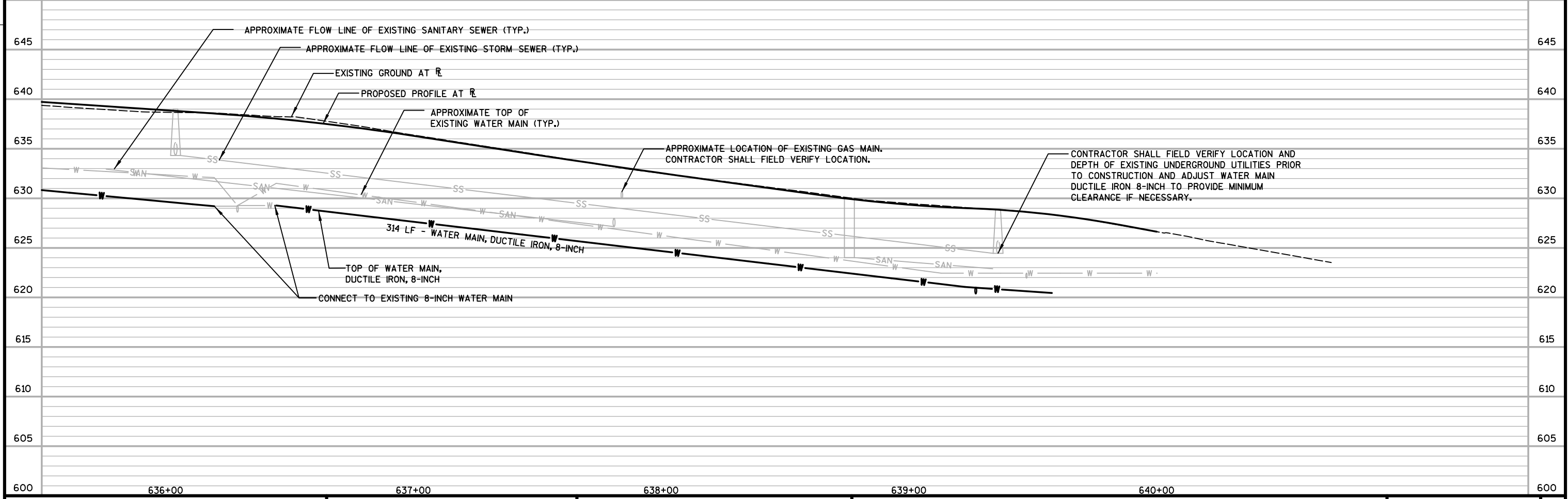
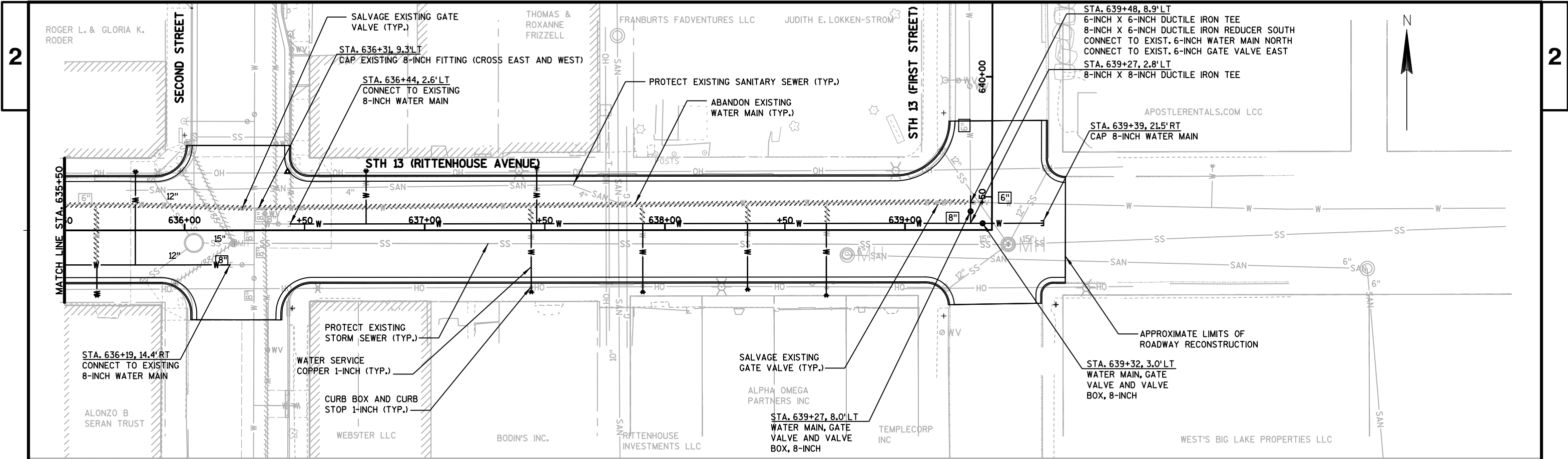
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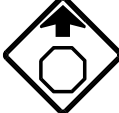
16

STA 642+53, 20.5' RT
EXISTING INLET TO BE REPLACED
INLET 2X2.5-FT,
H COVER
MATCH EXISTING ELEVATIONS



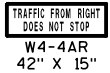




ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING								BILL OF MATERIALS							
SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D
 R1-1 30" X 30"	R1-1	30"×30"	38	 R7-1D 18" X 24"	R7-1D	18"×24"	46	 W1-6 48" X 24"	W1-6	48"×24"	5	 S1-1 36" X 36"	S1-1	36"×36"	4
 R7-1L 18" X 24"	R7-1L	18"×24"	8	 W16-6L 24" X 18"	W16-6L	24"×18"	1	 W4-4A 42" X 15"	W4-4AL	42"×15"	2	 WF16-9P 30" X 18"	WF16-9P	30"×18"	2
 R7-1R 18" X 24"	R7-1R	18"×24"	9	 W13-1 18" X 18"	W13-1	18"×18"	1	 D7-59L 54" X 36"	D7-59L	54"×36"	1	 W16-9P 24" X 8"	W16-9P	24"×8"	3
 W1-1L 36" X 36"	W1-1L	36"×36"	3	 W13-1 18" X 18"	W13-1	18"×18"	2	 D7-59R 54" X 36"	D7-59R	54"×36"	1	 R2-6P 24" X 18"	R2-6P	24"×18"	2
 W13-1 24" X 24"	W13-1	24"×24"	3	 W13-1 18" X 18"	W13-1	18"×18"	2	 R2-1 24" X 30"	R2-1	24"×30"	11	 WF16-7L 24" X 12"	WF16-7L	24"×12"	2
 W13-1 24" X 24"	W13-1	24"×24"	1	 W13-1 18" X 18"	W13-1	18"×18"	2	 R2-1 24" X 30"	R2-1	24"×30"	1	 W1-1R 36" X 36"	W1-1R	36"×36"	2
 W4-4B 30" X 12"	W4-4B	30"×12"	1	 W1-8 18" X 24"	W1-8	18"×24"	6	 W3-1 36" X 36"	W3-1	36"×36"	1	 R4-7 24" X 30"	R4-7	24"×30"	1

ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING

BILL OF MATERIALS

SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D
 W12-1D 24" X 24"	W12-1D	24"x24"	1	 W1-2R 30" X 30"	W1-2R	30"x30"	3	 W4-4AR 42" X 15"	W4-4AR	42"x15"	1				1
 W1-2L 30" X 30"	W1-2L	30"x30"	2	 D1-3 84" X 36"	D1-3	72"x36"	2	 M1-85 24" X 24"	M1-85	24"x24"	5	 J4-1 24" X 36"	J4-1	24"x36"	6
 J4-1 24" X 36"	J4-1	24"x36"	6	 D1-3 84" X 36"	D1-3	72"x36"	1					 R2-1 24" X 30"	R2-1	24"x30"	3
 R1-2 36" X 31"	R1-2	36"x31"	1	 I55-56 30" X 36" SEE MISC Q SHEETS FOR MESSAGE	I55-56	30"x36"	3	 M1-85-C 24" X 12"	M1-85C	24"x12"	1	 I2-3 60" X 24"	I2-3	60"x24"	1
 R5-1 30" X 30"	R5-1	30"x30"	1	 J3-1 24" X 57"	J3-1	24"x57"	1	 M1-85-C 24" X 12"	M1-85C	24"x12"	1	 W1-4L 30" X 30"	W1-4L	30"x30"	2
 D7-53L (MOD) 60"x42"	D7-53L (MOD)	60"x42"	1	 D7-53R (MOD) 60"x42"	D7-53R (MOD)	60"x42"	1	 S3-1 30" X 30"	S3-1	30"x30"	1	 W3-5 36" X 36"	W3-5	36"x36"	1
 D7-68R (MOD) 72" X 36"	D7-68R (MOD)	72"x36"	1	 R1-10P 24" X 18"	R1-10P	24"x18"	1	 I2-3 60" X 24"	I2-3	60"x24"	2	 D2-1 84" X 15"	D2-1	84"x15"	1

ESTIMATE OF QUANTITIES FOR PERMANENT SIGNING								BILL OF MATERIALS							
SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D
 M1-94 60" X 15"	M1-94	60"×15"	1	 J13-1 24" X 45"	J13-1	24"×45"	1								
 R1-1 36" X 36"	R1-1	36"×36"	2	 D1-2 66" X 24"	D1-2	66"×24"	1								
 R2-1 24" X 30"	R2-1	24"×30"	6	 W3-5 36" X 36"	W3-5	36"×36"	2								
 W14-3 48" X 36"	W14-3	48"×36"	9	 D1-4 72" X 42"	D1-4	72"×42"	1								
 J1-1 24" X 39"	J1-1	24"×39"	2	 W11-2 30" X 30"	W11-2	30"×30"	5								
 J13-1 24" X 45"	J13-1	24"×45"	1												
 D1-2 66" X 24"	D1-2	66"×24"	1	 J3-1 24" X 57"	J3-1	24"×57"	1								

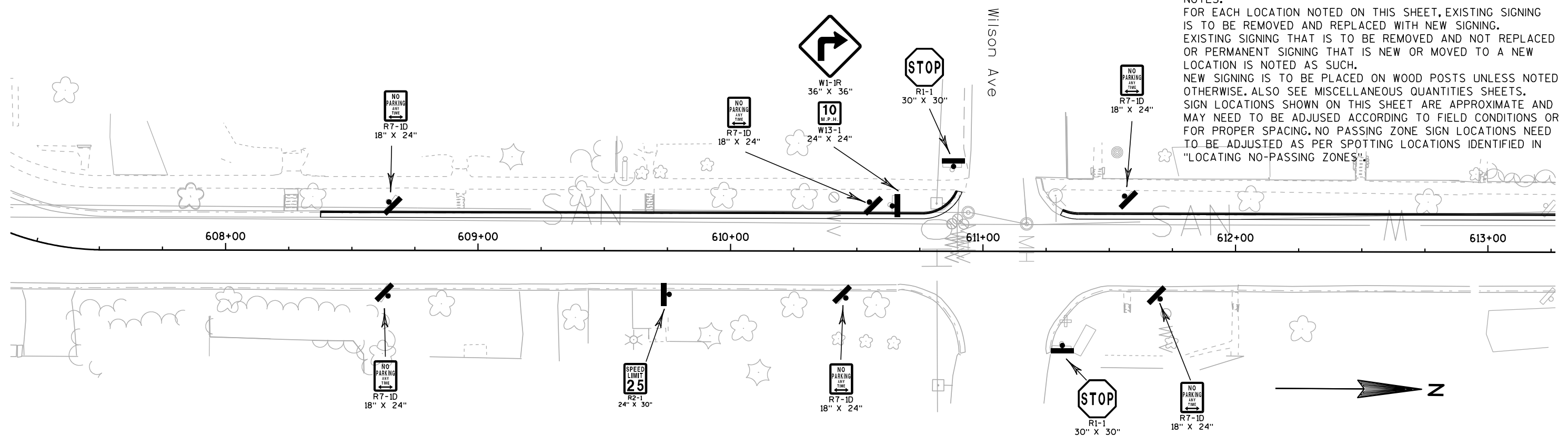
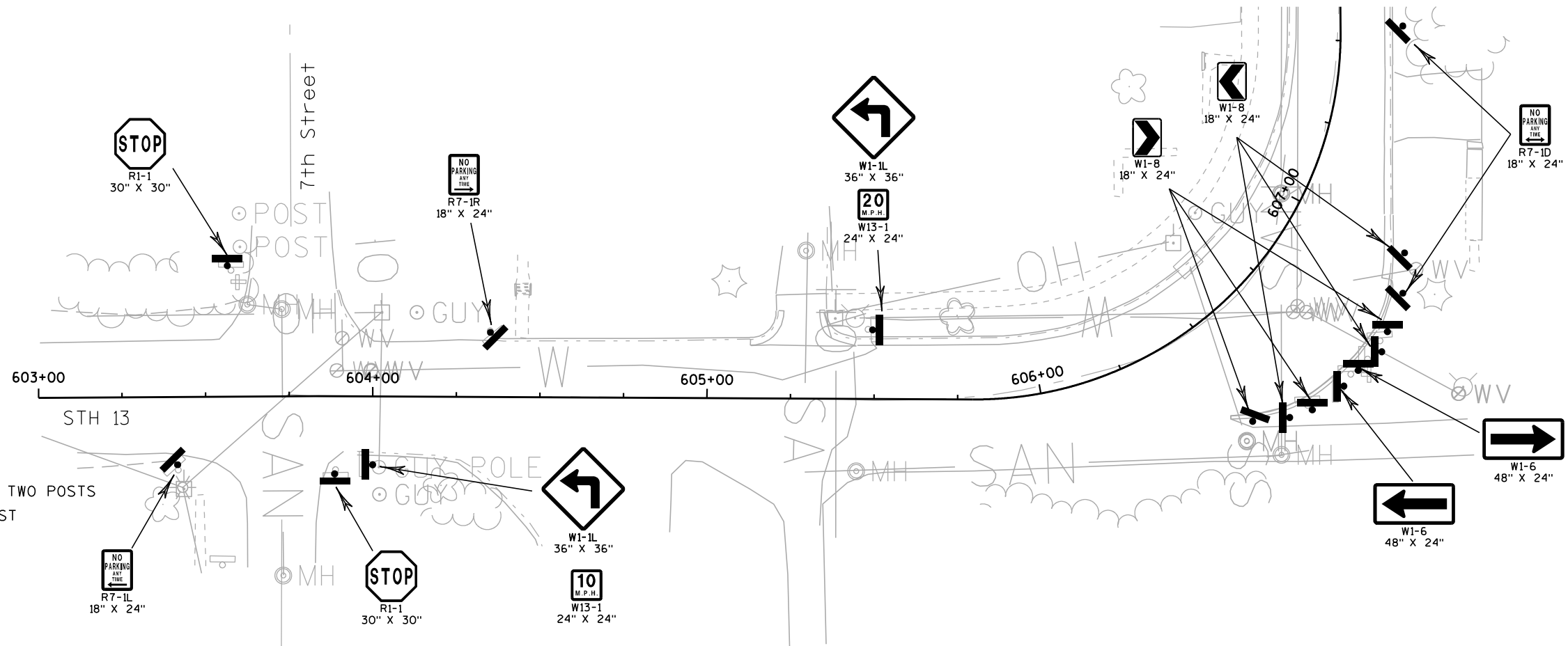
LEGEND

 SIGN

 SIGN ON SINGLE POST

 SIGN OR ASSEMBLY ON TWO POSTS

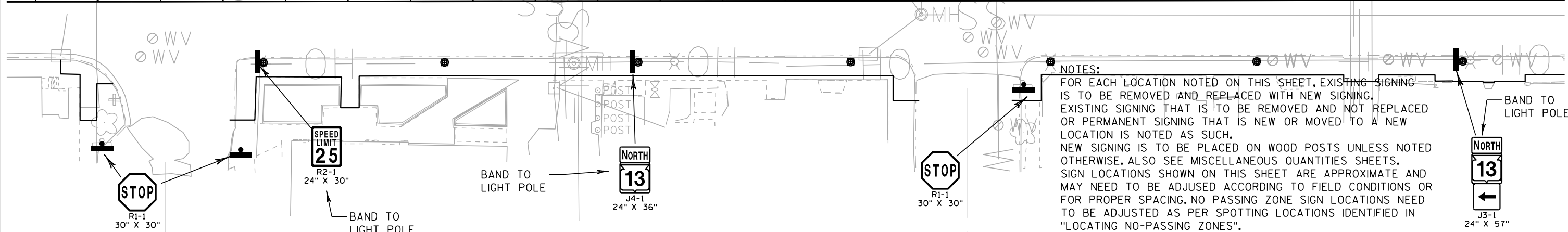
 TWO SIGNS ON ONE POST



NOTES:

FOR EACH LOCATION NOTED ON THIS SHEET, EXISTING SIGNING IS TO BE REMOVED AND REPLACED WITH NEW SIGNING. EXISTING SIGNING THAT IS TO BE REMOVED AND NOT REPLACED OR PERMANENT SIGNING THAT IS NEW OR MOVED TO A NEW LOCATION IS NOTED AS SUCH. NEW SIGNING IS TO BE PLACED ON WOOD POSTS UNLESS NOTED OTHERWISE. ALSO SEE MISCELLANEOUS QUANTITIES SHEETS. SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED ACCORDING TO FIELD CONDITIONS OR FOR PROPER SPACING. NO PASSING ZONE SIGN LOCATIONS NEED TO BE ADJUSTED AS PER SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO-PASSING ZONES".

WISDOT/CADDS SHEET 42



NOTES:

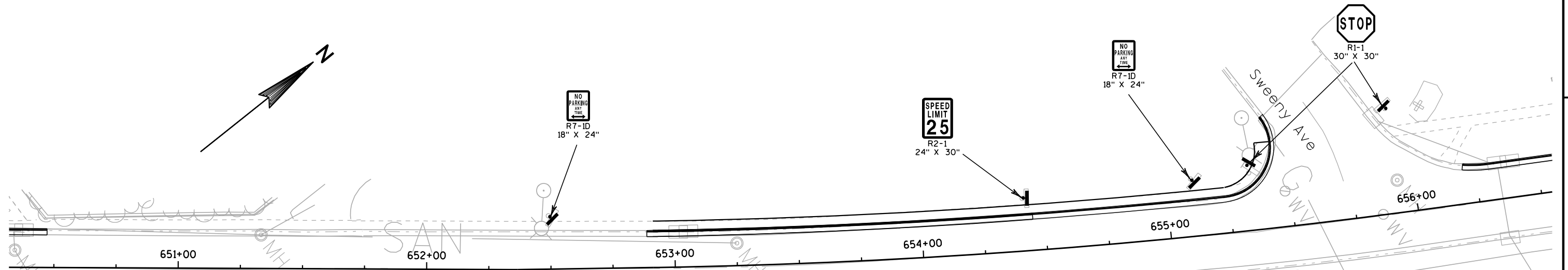
FOR EACH LOCATION NOTED ON THIS SHEET, EXISTING SIGNING IS TO BE REMOVED AND REPLACED WITH NEW SIGNING. EXISTING SIGNING THAT IS TO BE REMOVED AND NOT REPLACED OR PERMANENT SIGNING THAT IS NEW OR MOVED TO A NEW LOCATION IS NOTED AS SUCH.

NEW SIGNING IS TO BE PLACED ON WOOD POSTS UNLESS NOTED OTHERWISE. ALSO SEE MISCELLANEOUS QUANTITIES SHEETS.

SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED ACCORDING TO FIELD CONDITIONS OR FOR PROPER SPACING. NO PASSING ZONE SIGN LOCATIONS NEED TO BE ADJUSTED AS PER SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO-PASSING ZONES".

BAND TO LIGHT POLE

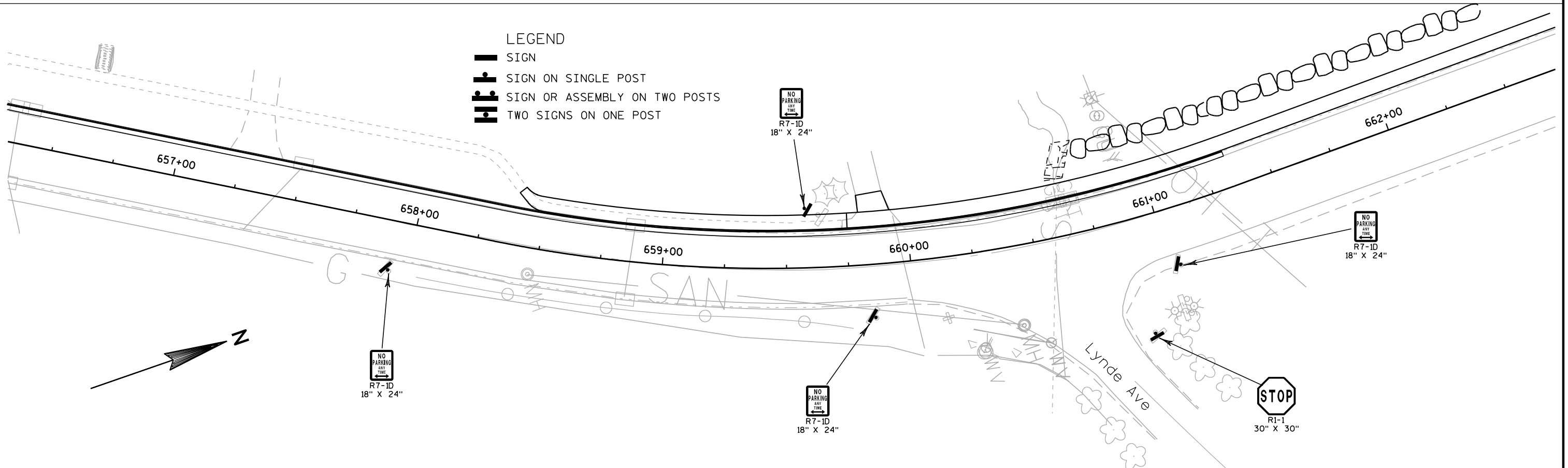
J3-1
24" X 57"

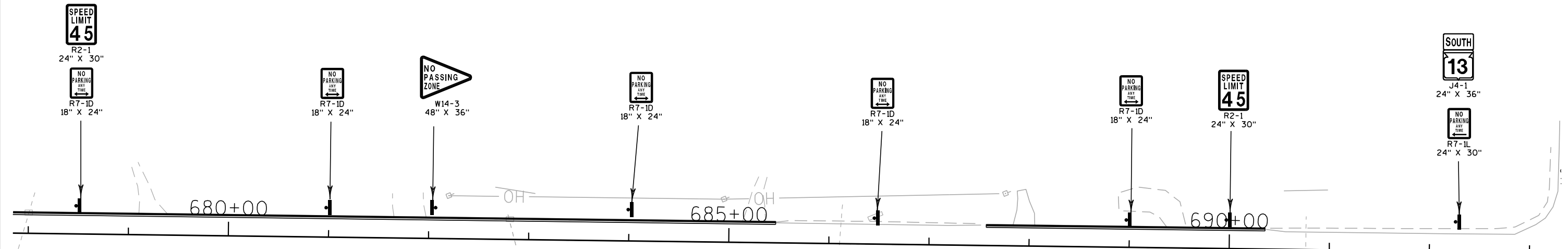
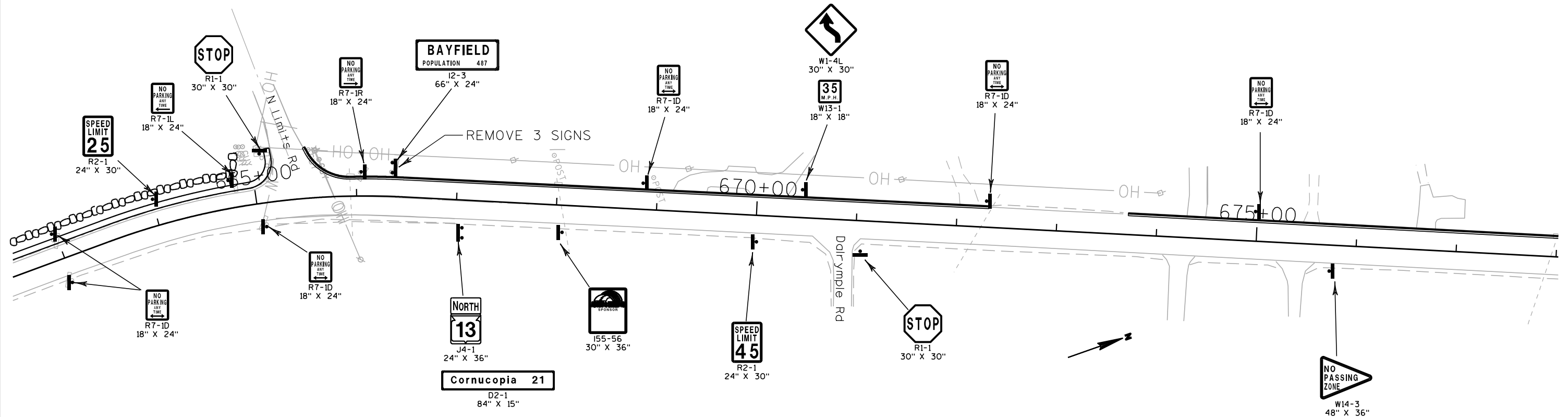


NOTES:
FOR EACH LOCATION NOTED ON THIS SHEET, EXISTING SIGNING IS TO BE REMOVED AND REPLACED WITH NEW SIGNING. EXISTING SIGNING THAT IS TO BE REMOVED AND NOT REPLACED OR PERMANENT SIGNING THAT IS NEW OR MOVED TO A NEW LOCATION IS NOTED AS SUCH.
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SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED ACCORDING TO FIELD CONDITIONS OR FOR PROPER SPACING. NO PASSING ZONE SIGN LOCATIONS NEED TO BE ADJUSTED AS PER SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO-PASSING ZONES".

LEGEND

- SIGN
- SIGN ON SINGLE POST
- SIGN OR ASSEMBLY ON TWO POSTS
- TWO SIGNS ON ONE POST





NOTES:
FOR EACH LOCATION NOTED ON THIS SHEET, EXISTING SIGNING IS TO BE REMOVED AND REPLACED WITH NEW SIGNING. EXISTING SIGNING THAT IS TO BE REMOVED AND NOT REPLACED OR PERMANENT SIGNING THAT IS NEW OR MOVED TO A NEW LOCATION IS NOTED AS SUCH. NEW SIGNING IS TO BE PLACED ON WOOD POSTS UNLESS NOTED OTHERWISE. ALSO SEE MISCELLANEOUS QUANTITIES SHEETS. SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED ACCORDING TO FIELD CONDITIONS OR FOR PROPER SPACING. NO PASSING ZONE SIGN LOCATIONS NEED TO BE ADJUSTED AS PER SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO-PASSING ZONES".

LEGEND
— SIGN
— SIGN ON SINGLE POST
— SIGN OR ASSEMBLY ON TWO POSTS
— TWO SIGNS ON ONE POST

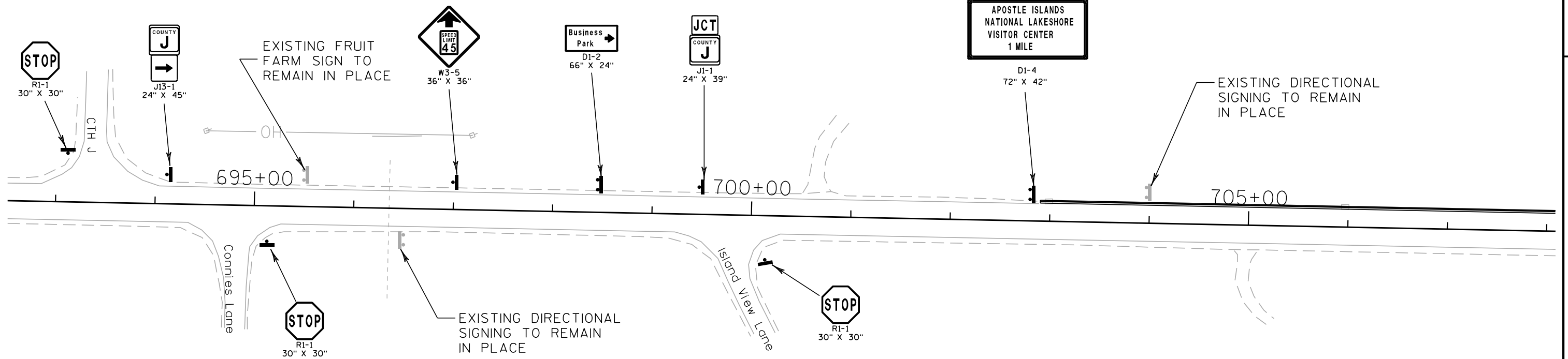
JCT
COUNTY
J
J1-1
24" X 39"

Business
Park
D1-2
66" X 24"

EXISTING FRUIT
FARM SIGN TO
REMAIN IN PLACE

SPEED
LIMIT
55
R2-1
24" X 30"

COUNTY
J
J13-1
24" X 45"

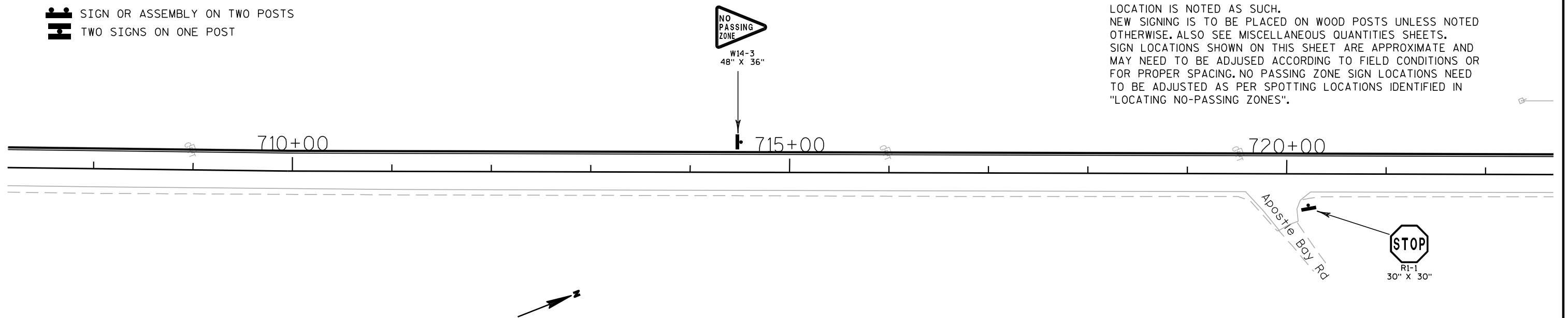


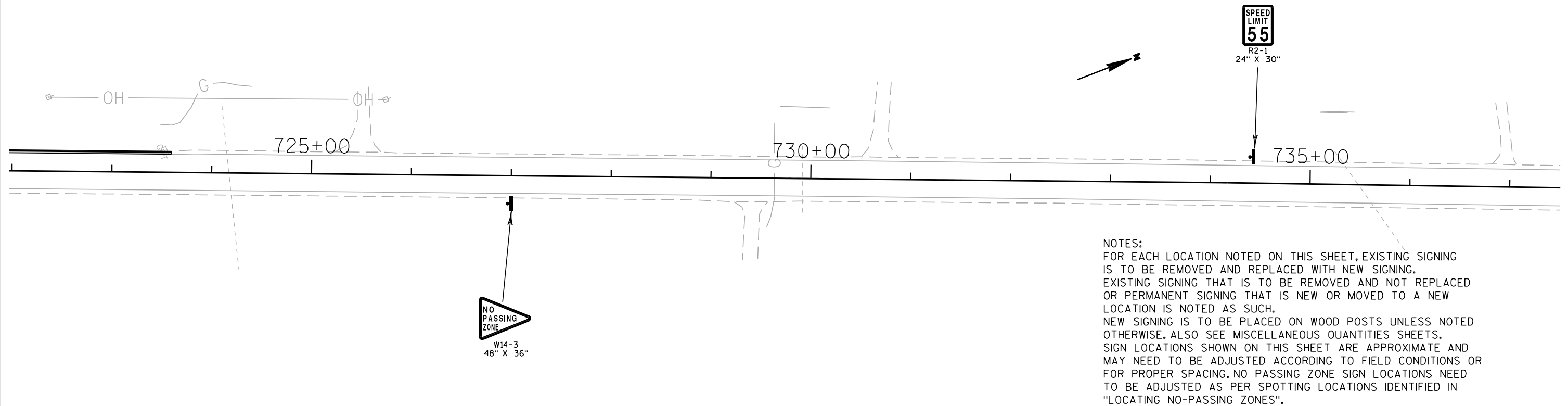
LEGEND

-  SIGN
-  SIGN ON SINGLE POST
-  SIGN OR ASSEMBLY ON TWO POSTS
-  TWO SIGNS ON ONE POST

NOTES:

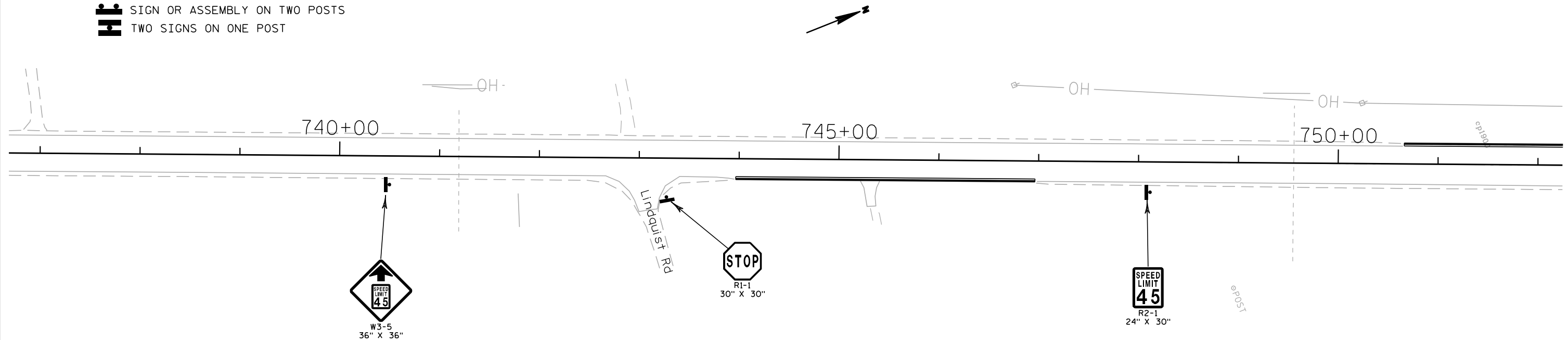
FOR EACH LOCATION NOTED ON THIS SHEET, EXISTING SIGNING IS TO BE REMOVED AND REPLACED WITH NEW SIGNING. EXISTING SIGNING THAT IS TO BE REMOVED AND NOT REPLACED OR PERMANENT SIGNING THAT IS NEW OR MOVED TO A NEW LOCATION IS NOTED AS SUCH. NEW SIGNING IS TO BE PLACED ON WOOD POSTS UNLESS NOTED OTHERWISE. ALSO SEE MISCELLANEOUS QUANTITIES SHEETS. SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED ACCORDING TO FIELD CONDITIONS OR FOR PROPER SPACING. NO PASSING ZONE SIGN LOCATIONS NEED TO BE ADJUSTED AS PER SPOTTING LOCATIONS IDENTIFIED IN "LOCATING NO-PASSING ZONES".

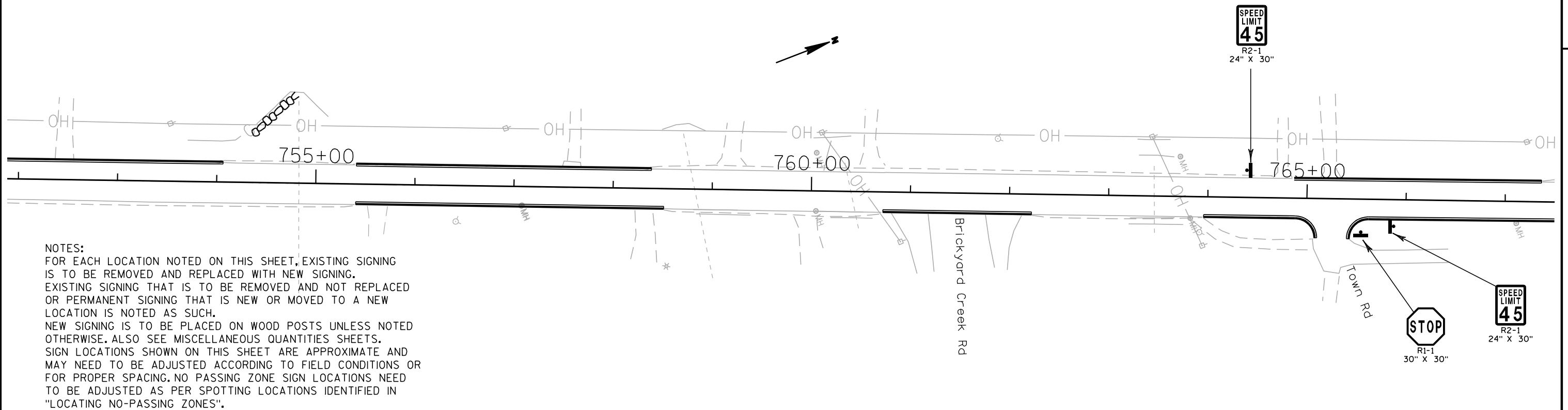




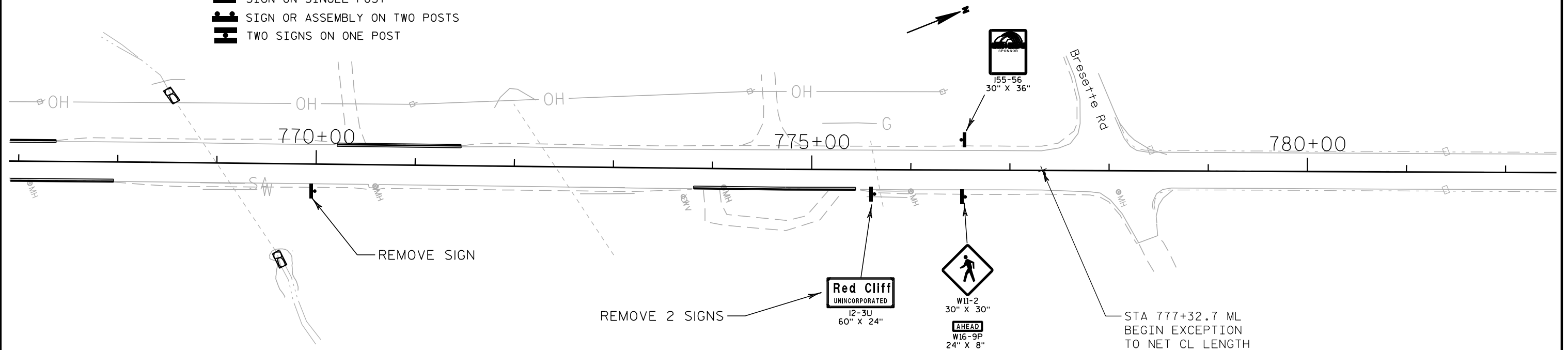
LEGEND

- SIGN
- SIGN ON SINGLE POST
- SIGN OR ASSEMBLY ON TWO POSTS
- TWO SIGNS ON ONE POST





- LEGEND
- SIGN
 - SIGN ON SINGLE POST
 - SIGN OR ASSEMBLY ON TWO POSTS
 - TWO SIGNS ON ONE POST



STA 828+49.9
END EXCEPTION TO NET CL LENGTH



W1-2R
30" X 30"



W13-1
18" X 18"



R2-1
24" X 30"

REMOVE AND REINSTALL EXISTING FLASHER,
INCIDENTAL TO SIGN INSTALLATION



W3-5
36" X 36"



W14-3
48" X 36"



12-3U
60" X 24"

LEGEND

- SIGN
- SIGN ON SINGLE POST
- SIGN OR ASSEMBLY ON TWO POSTS
- TWO SIGNS ON ONE POST

825+00

830+00

835+00

STH 13

840+00

845+00

850+00



R2-1
24" X 30"



J4-1
24" X 36"



W14-3
48" X 36"



R1-1
30" X 30"

NUZZO RD
STA 845+64



W1-2R
30" X 30"



W13-1
18" X 18"



S3-1
30" X 30"



R1-1
30" X 30"

AIKEN RD

860+00



W1-2L
30" X 30"



W13-1
18" X 18"

865+00

870+00

STH 13

875+00

880+00



W14-3
48" X 36"



W14-3
48" X 36"



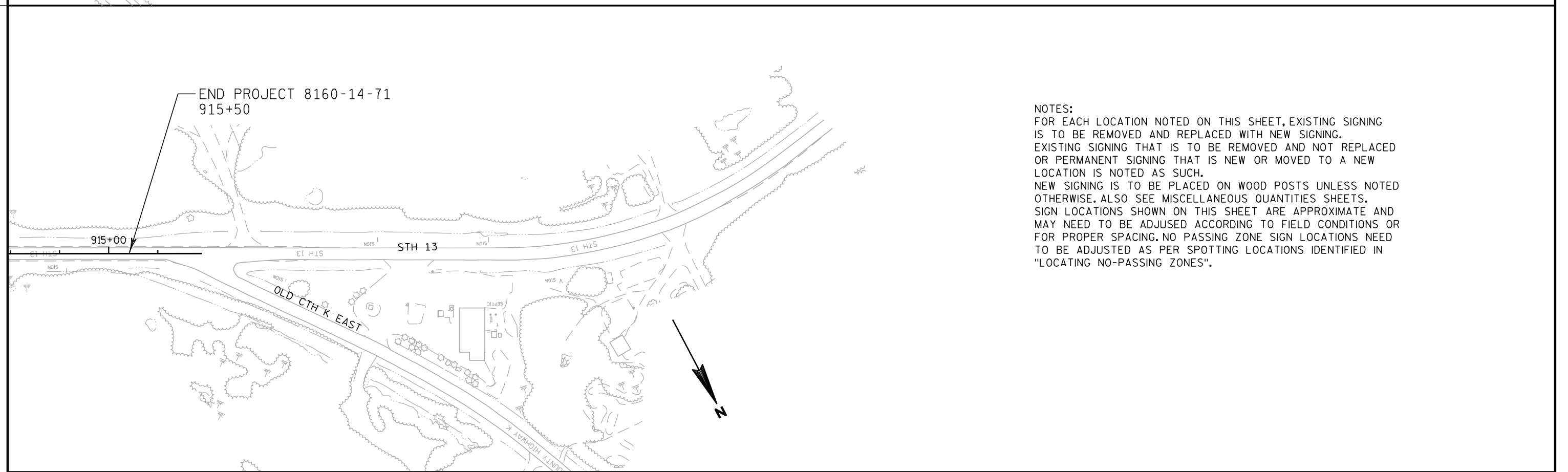
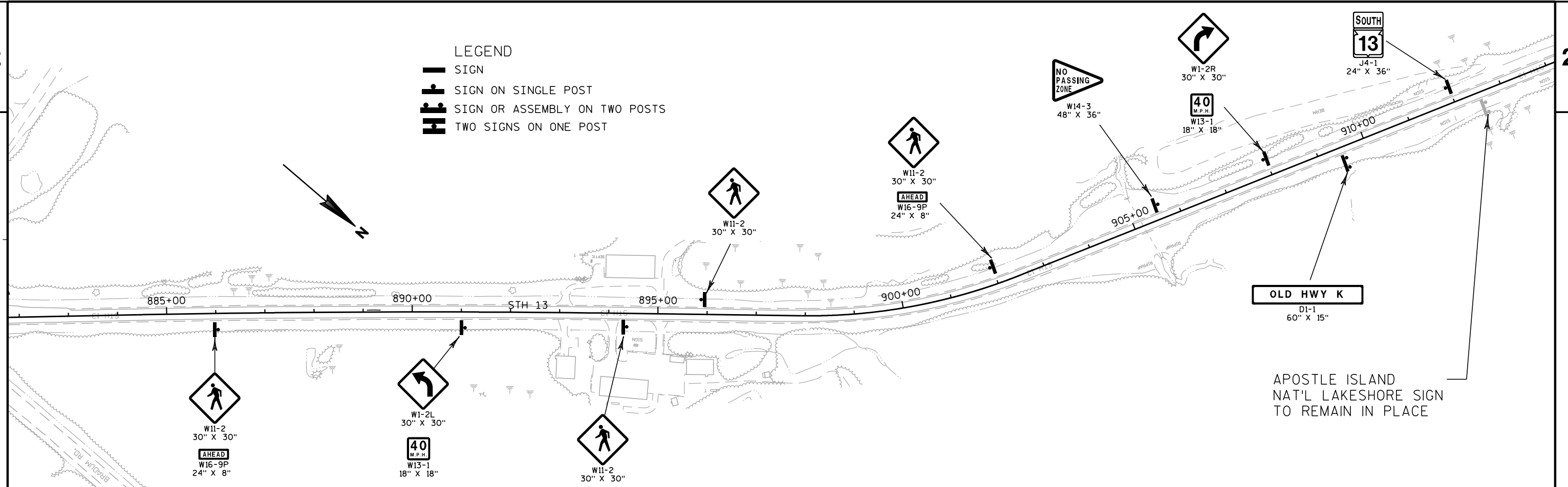
R1-1
30" X 30"

BRADUM RD

NOTES:
FOR EACH LOCATION NOTED ON THIS SHEET, EXISTING SIGNING
IS TO BE REMOVED AND REPLACED WITH NEW SIGNING.
EXISTING SIGNING THAT IS TO BE REMOVED AND NOT REPLACED
OR PERMANENT SIGNING THAT IS NEW OR MOVED TO A NEW
LOCATION IS NOTED AS SUCH.
NEW SIGNING IS TO BE PLACED ON WOOD POSTS UNLESS NOTED
OTHERWISE. ALSO SEE MISCELLANEOUS QUANTITIES SHEETS.
SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND
MAY NEED TO BE ADJUSTED ACCORDING TO FIELD CONDITIONS OR
FOR PROPER SPACING. NO PASSING ZONE SIGN LOCATIONS NEED
TO BE ADJUSTED AS PER SPOTTING LOCATIONS IDENTIFIED IN
"LOCATING NO-PASSING ZONES".

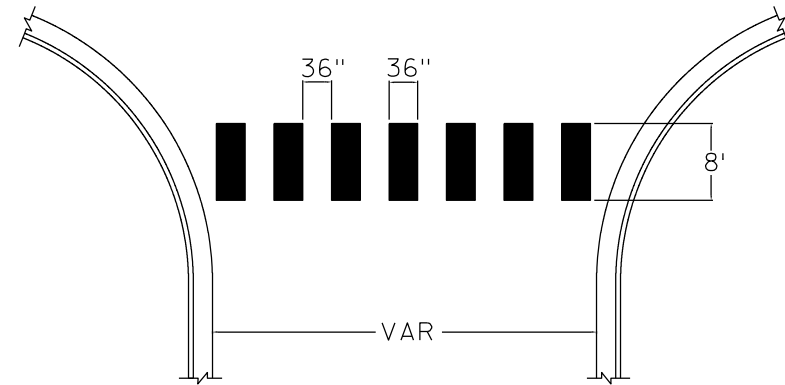
LEGEND

- SIGN
- SIGN ON SINGLE POST
- SIGN OR ASSEMBLY ON TWO POSTS
- TWO SIGNS ON ONE POST



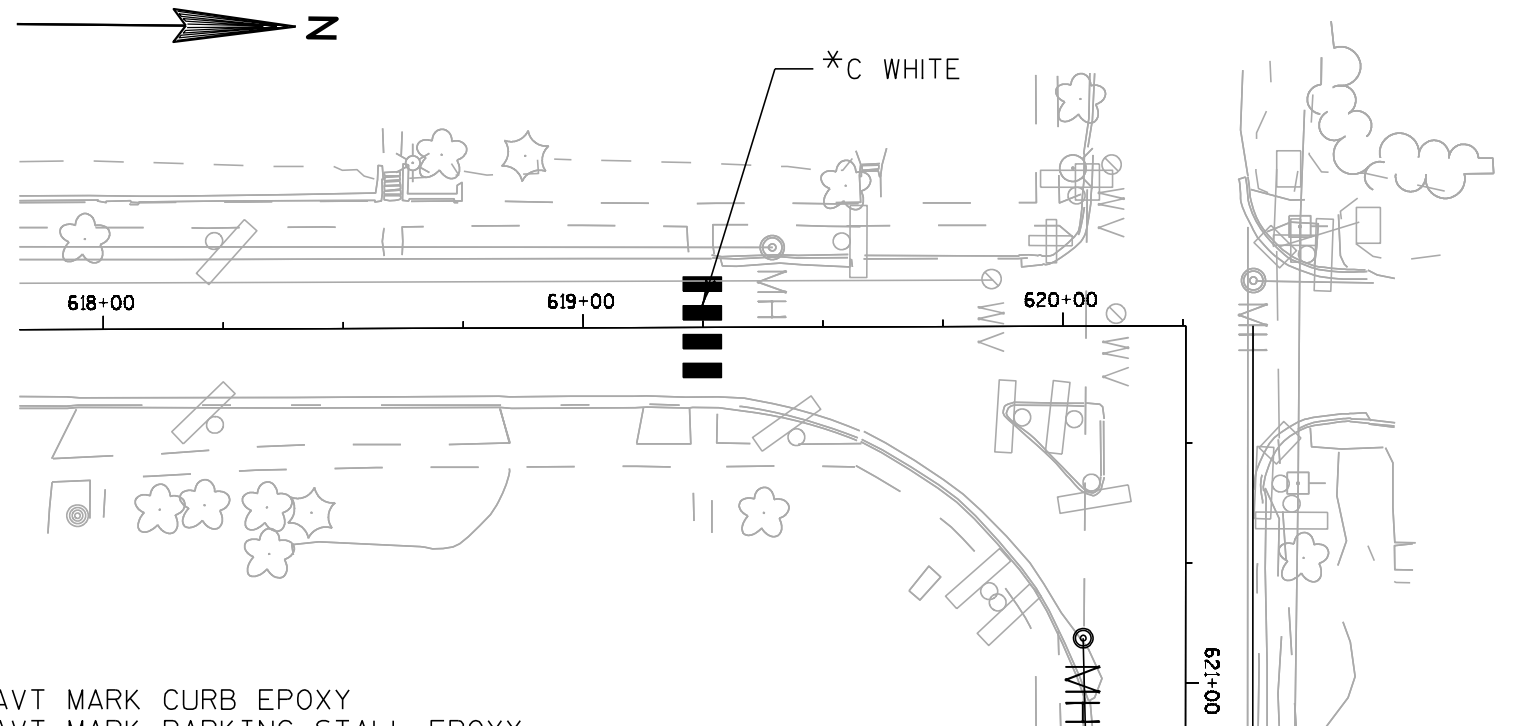
NOTES:

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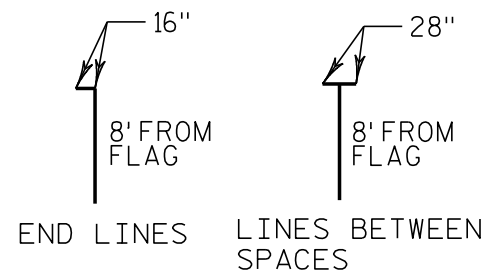
PAVEMENT MARKING CROSSWALK DETAIL

- 1 - PAINTED AREAS TO BE CENTERED ON CENTERLINE AND LANE LINES.
- 2 - A MINIMUM OF 1.5 FEET CLEAR DISTANCE SHALL BE LEFT ADJACENT TO THE FLAG. IF THE LAST PAINTED AREA FALLS WITHIN THIS DISTANCE, IT MUST BE OMITTED.
- 3 - THE BLOCKS SHALL BE PLACED SO THAT THEY ARE NOT LOCATED IN THE WHEEL PATH OF THE VEHICLES.



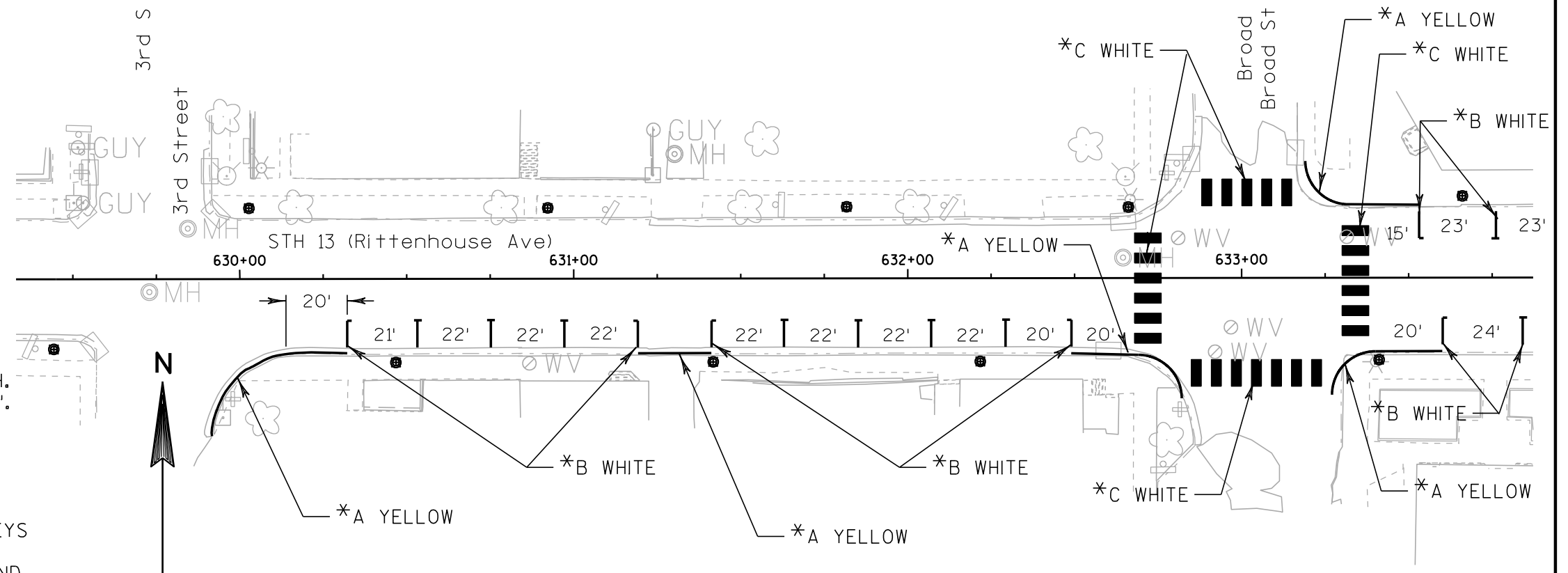
LEGEND

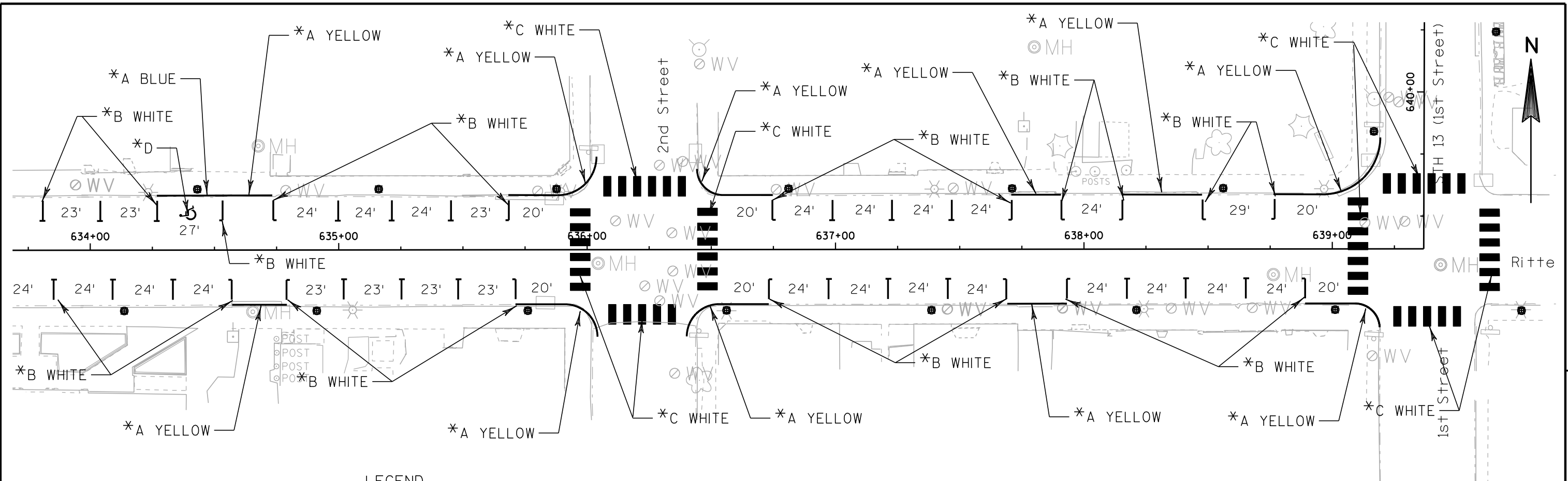
- *A PAVT MARK CURB EPOXY
- *B PAVT MARK PARKING STALL EPOXY
- *C PAVT MARK CROSSWALK EPOXY 36-INCH SPECIAL
- *D PAVT MARK SYMBOL



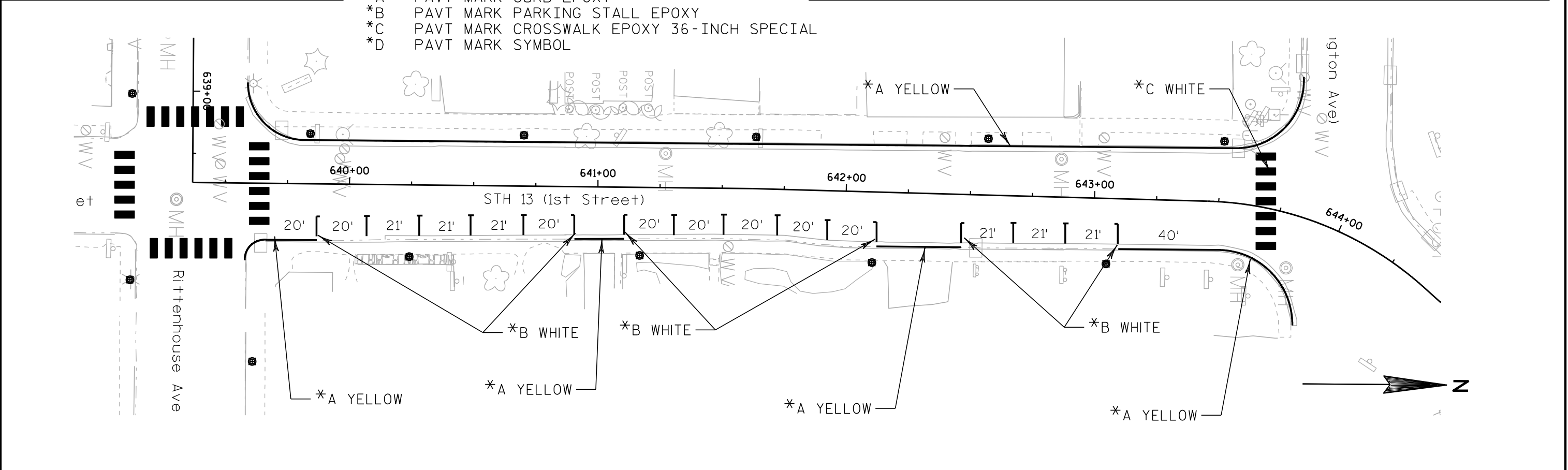
PAVEMENT MARKING PARKING STALL DETAIL

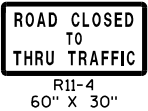
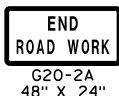
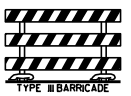
NOTES:
 PARKING SPACES ARE TYPICALLY 20-22' IN LENGTH. MINIMUM LENGTH IS 20', HANDICAP SPACES ARE 27'. PLACE SHORTER SPACES AT THE ENDS. REMAINING USEABLE LENGTH CAN BE SPLIT EVENLY BETWEEN THE OTHER SPACES.
 PARKING SPACES MUST BE 20' MINIMUM FROM THE RADIUS POINT OF INTERSECTIONS, 15' FROM CROSS WALKS AND MUST BE A MINIMUM OF 4' FROM ALLEYS OR ENTRANCES.
 CONFIGURATION SHOWN IS ONE POSSIBLE LAYOUT AND MAY NEED TO BE ADJUSTED TO FIT FIELD CONDITIONS.

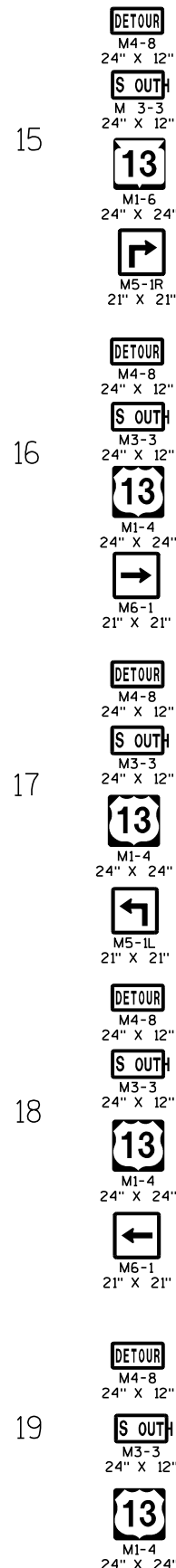
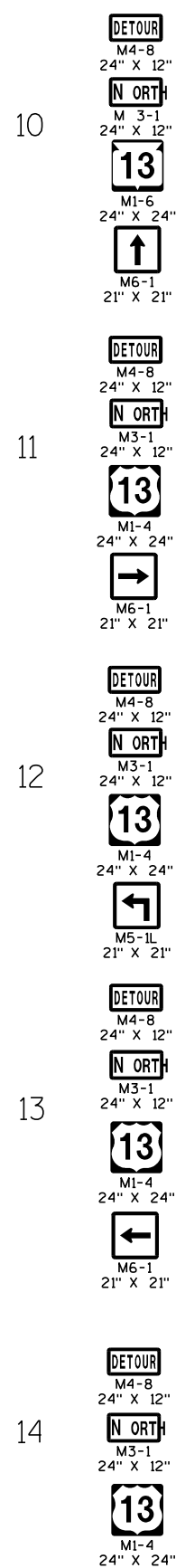
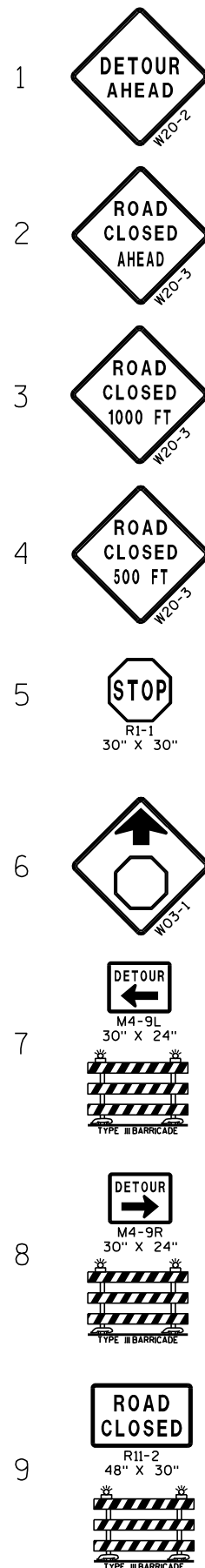




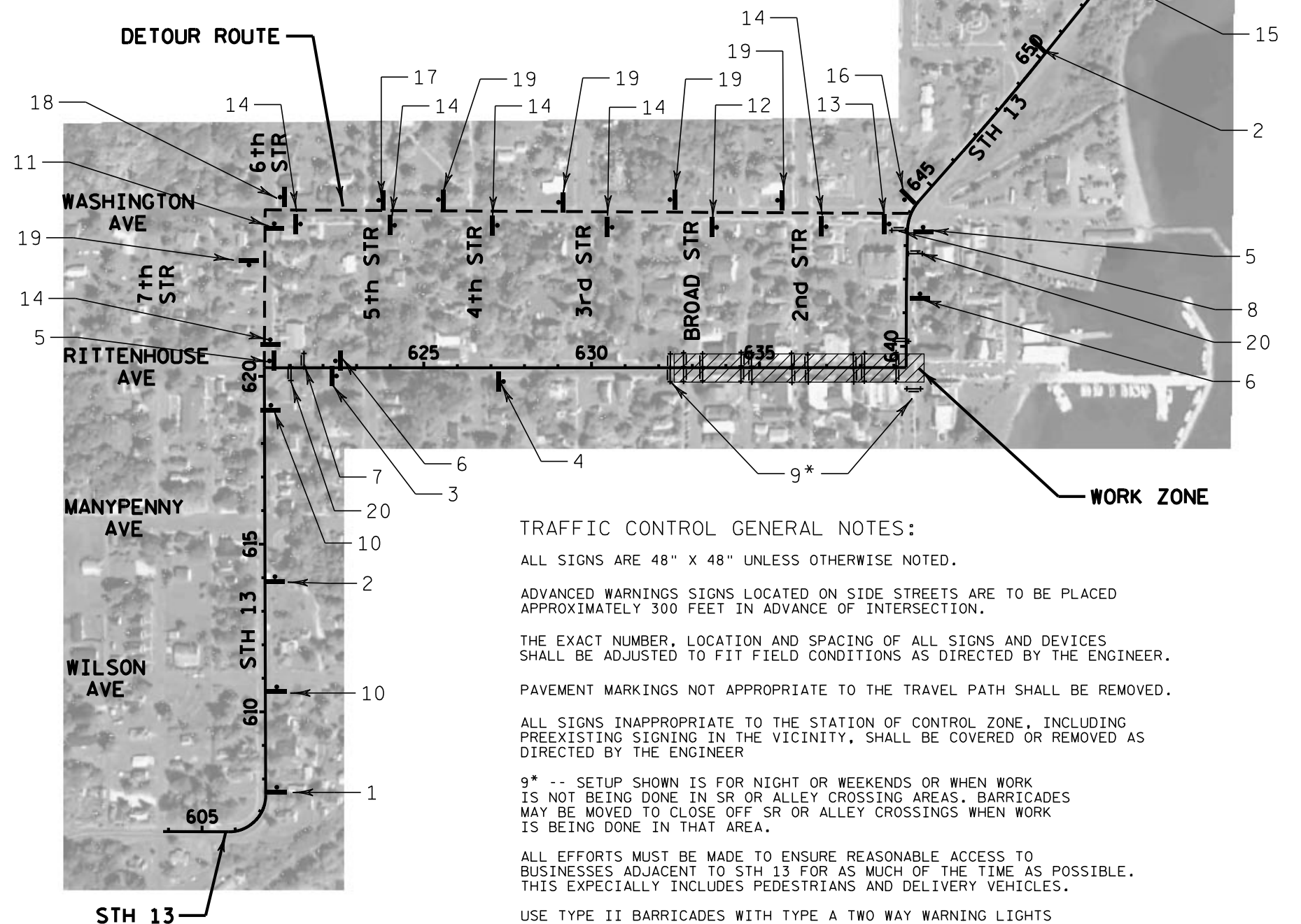
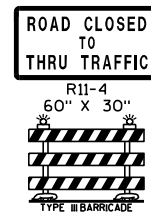
- LEGEND
- *A PAVT MARK CURB EPOXY
 - *B PAVT MARK PARKING STALL EPOXY
 - *C PAVT MARK CROSSWALK EPOXY 36-INCH SPECIAL
 - *D PAVT MARK SYMBOL



ESTIMATE OF QUANTITIES FOR TRAFFIC CONTROL								BILL OF MATERIALS							
SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D	SIGN	SIGN CODE	SIGN SIZE	NO. REQ'D
	W20-1	24" x 24"	6		W20-4	24" x 24"	4		R11-4	60" x 30"	2		W03-1	24" x 24"	2
	W20-1	24" x 24"	2		W20-2	24" x 24"	2		M4-9L	30" x 24"	1		M3-1	24" x 12"	9
	W20-1	24" x 24"	2		M4-8	24" x 12"	20		M4-9R	30" x 24"	1		M6-1	21" x 21"	2
					M3-1	24" x 12"	11								
	G20-1	60" x 24"	2			TYPE II BARRICADE	20		W20-3	24" x 24"	1		M5-1L	21" x 21"	2
	G20-2A	48" x 24"	2		M1-4	24" x 24"	20		W20-3	24" x 24"	1		M6-1	21" x 21"	2
	W20-4	24" x 24"	4		M6-1	21" x 21"	2		R11-2	48" x 30"	10		M5-1R	21" x 21"	1
	W20-7A	24" x 24"	4		W20-3	24" x 24"	2			16" x 16" MIN	8			TYPE A WARNING LIGHT	88
									R1-1	30" x 30"	2			TYPE III BARRICADE	24



20

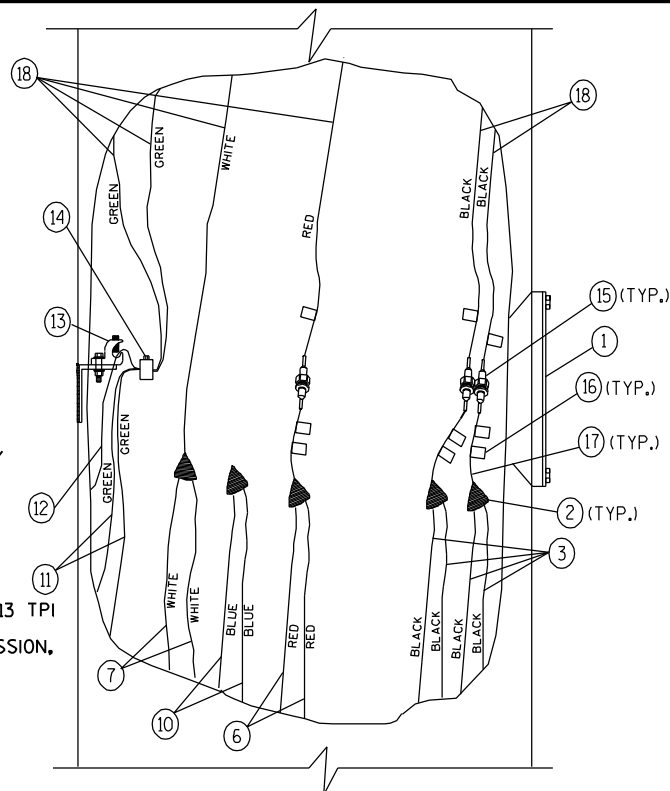


- ① HANDHOLE AND COVER
- ② APPROVED INSULATED MULTITAP TERMINAL BLOCK TYPE CONNECTORS. COMPRESSION, CRIMP OR WIRE NUT CONNECTORS ARE NOT ALLOWED.
- ③ INSULATED UNGROUNDED LIGHTING CKT CONDUCTORS FROM SYSTEM RACEWAY (240V)
- ④ NOT USED
- ⑤ NOT USED
- ⑥ INSULATED UNGROUNDED RECEPTACLE CKT CONDUCTORS FROM SYSTEM RACEWAY (120V)
- ⑦ RECEPTACLE CKT GROUNDED CONDUCTORS FROM SYSTEM RACEWAY
- ⑧ NOT USED
- ⑨ NOT USED
- ⑩ ALTERNATE INSULATED UNGROUNDED RECEPTACLE CKT CONDUCTORS FROM SYSTEM RACEWAY PASSING THROUGH THIS POLE (120V)
- ⑪ SHARED SYSTEM INSULATED EQUIPMENT GROUNDING CONDUCTORS FROM SYSTEM RACEWAY
- ⑫ #4 BARE EQUIPMENT GROUNDING CONDUCTOR TO GROUND ROD (SEE S.D.D. FOR ADDITIONAL INFORMATION)
- ⑬ TYPICAL GROUNDING CONNECTION STAINLESS STEEL BOLT, NUT AND WASHERS 1/2" X 1 1/2" X 13 TPI
- ⑭ APPROVED MECHANICAL TYPE CONNECTOR FOR EQUIPMENT GROUNDING CONDUCTORS. COMPRESSION, CRIMP OR WIRE NUT CONNECTORS ARE NOT ALLOWED.
- ⑮ FUSE ASSEMBLY, (SEE S.D.D. FOR ADDITIONAL INFORMATION)
- ⑯ CIRCUIT TAG, BOTH SIDES OF ALL FUSES (TYP.)
- ⑰ 18" PIGTAIL BETWEEN SPLICE AND FUSE ASSEMBLY
- ⑱ #12 AWG CONDUCTORS TO LUMINAIRE & RECEPTACLE (SEE S.D.D. FOR ADDITIONAL INFORMATION)

NOTE:

SEE SDD "NON FREEWAY
LIGHTING UNIT POLE WIRING"
FOR ADDITIONAL INFORMATION
NOT SHOWN ON THIS DETAIL.

POLE WIRING DETAIL
NO SCALE



2 WIRE - 240 VAC (UNGROUND CONDUCTOR)
AND
3 WIRE - 120 VAC (UNGROUND CONDUCTOR)
WITH GROUNDED CONDUCTOR AND
WITH EQUIPMENT GROUNDING CONDUCTOR
FOR GFCI RECEPTACLES

GENERAL STREET LIGHTING NOTES:

1. ALL PROPOSED LUMINAIRES SHALL BE LED, EXCEPT AS NOTED.
2. COORDINATE ALL MODIFICATIONS OF EXISTING LIGHTING CIRCUITS WITH THE OPERATING MUNICIPALITY OR UTILITY.
3. PERFORM CIRCUIT CONDUCTOR SPLICES IN PULLBOXES USING APPROVED SUBMERSIBLE MULTI-TAP TERMINAL BLOCK TYPE CONNECTORS. CONNECTORS SHALL BE CONSIDERED INCIDENTAL TO THE ELECTRICAL WIRE LIGHTING BID ITEM. TYPICAL SPLICES SHALL BE MADE WITHIN LIGHT POLE HAND HOLES.
4. THE UTILITY SHALL REMOVE EXISTING POLES AND WIRING. REMOVAL OF ANY REMAINING AERIAL CABLE AND ABANDONMENT OF BELOW GRADE WIRING SHALL BE INCIDENTAL TO THE REMOVING CONCRETE BASES BID ITEMS.
5. CHECK FOR OVERHEAD UTILITY CONFLICTS PRIOR TO CONSTRUCTING CONCRETE BASES.
6. INSTALL CONDUIT BY BORING WHEN CROSSING ROADWAYS ONLY IF NECESSARY. CONDUITS CROSSING ROADWAYS MAY BE INSTALLED BY TRENCHING IF THE ENGINEER DETERMINES BORING TO BE UNNECESSARY.
7. THE EXACT LOCATION OF THE LIGHTING CONTROL CABINET SHALL BE DETERMINED IN THE FIELD BY THE CITY OF BAYFIELD AND THE ENGINEER.
8. CLEARLY LABEL UNUSED CONDUCTORS AS "SPARE" IN ALL CONDUIT RUNS CONTAINING UNUSED CONDUCTORS.

CIRCUIT WIRING LEGEND (FOR TYPICAL CASES):

① =	1,3	2	#6
	17,19	2	#4
	G,N	2	#4

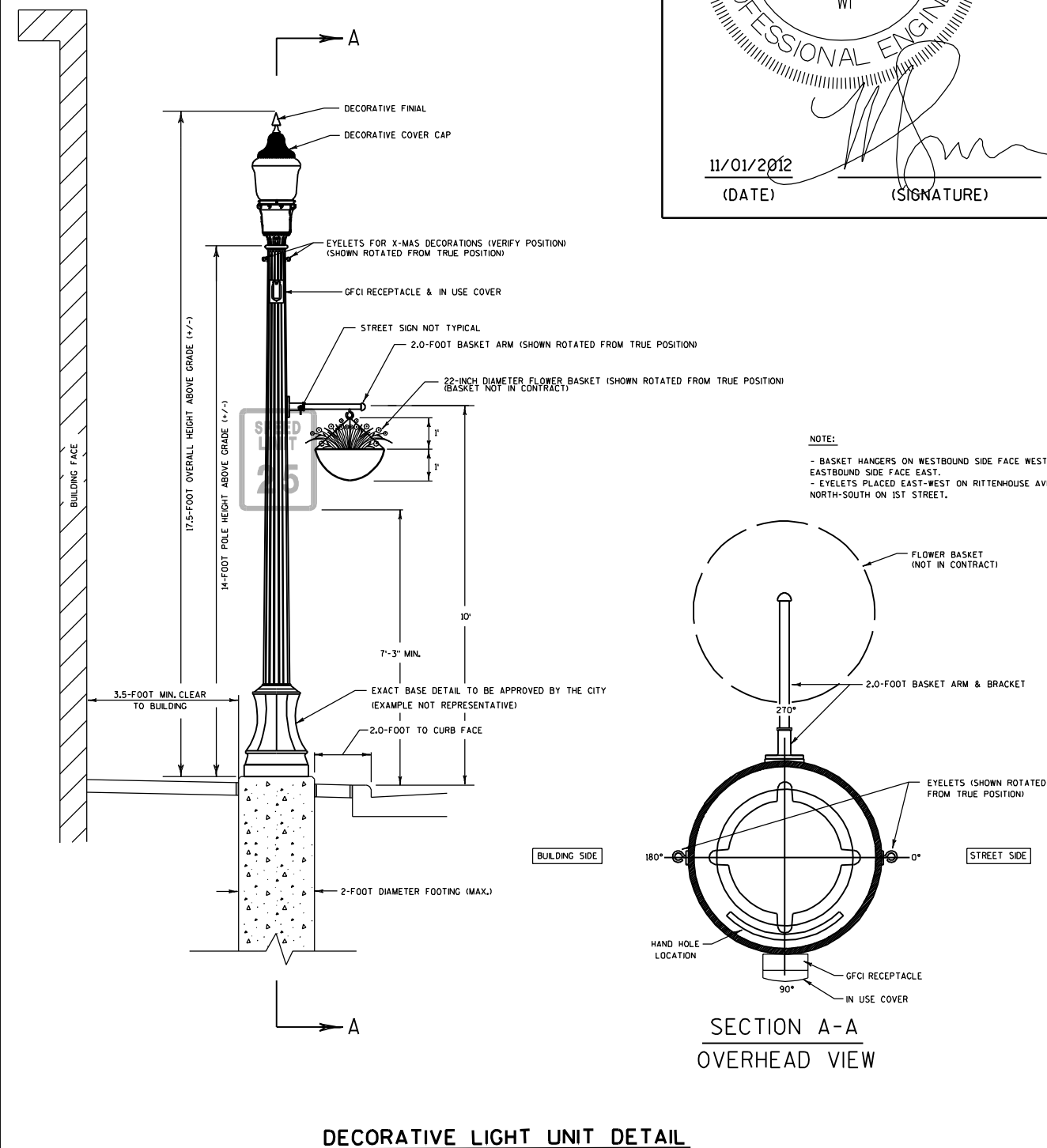
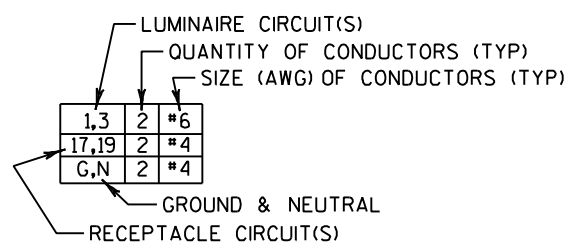
④ =	6,8	2	#8
	22,24	2	#4
	G,N	2	#4

② =	2,4	2	#6
	18,20	2	#4
	G,N	2	#4

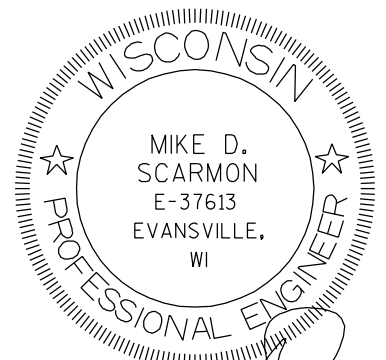
⑤ =	9,11	2	#8
	25,27	2	#4
	G,N	2	#4

③ =	5,7	2	#8
	21,23	2	#4
	G,N	2	#4

⑥ =	13,15	2	#12
	14,16	2	#12
	29,31	2	#4
	G,N	2	#4

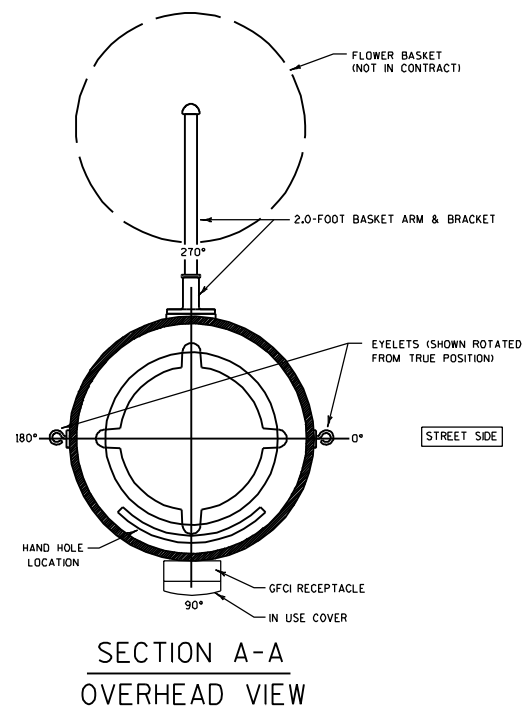


STREET LIGHTING PLANS PREPARED BY



11/01/2012
(DATE) (SIGNATURE)

NOTE:
- BASKET HANGERS ON WESTBOUND SIDE FACE WEST; ON
EASTBOUND SIDE FACE EAST.
- EYELETS PLACED EAST-WEST ON RITTENHOUSE AVENUE;
NORTH-SOUTH ON 1ST STREET.



The diagram illustrates a beam-column joint. The horizontal dimension of the joint is labeled X . The horizontal distance from the left face of the column to the center of the joint is labeled $X/2$. The vertical dimension of the joint is labeled C/L . The maximum moment on the left side of the joint is labeled $2'' \text{ MAX.}$ and the maximum moment on the right side is labeled $3'' \text{ MAX.}$. The joint is shown with a cross-section of a column and a beam, with a diagonal crack pattern indicating the location of maximum moment.

Diagram illustrating a cross-section of a wall and footing connection. The wall is shown on the left, and the footing is on the right. A 4 inch gap is indicated between the wall and the footing. The maximum dimension of the gap is labeled as 1.5 inch MAX.

LIGHT BASE INSTALLATION DETAIL
NO SCALE

Technical cross-section diagram of a utility installation. The diagram shows the removal of existing pavement and base course, and the installation of a new concrete base, sidewalk, and conduit.

Existing Structure (Left):

- 3' wide existing pavement.
- 2" surface lift (match milled surface).
- 12" base aggregate dense 3/4-inch.
- 24" min. cover.
- Existing existing base course.

New Installation (Right):

- 4" sidewalk.
- CONCRETE BASE.
- 1" CHAMFER.
- 1/4" EXPANSION MATERIAL.
- EXISTING SIDEWALK (4" thick).
- 2" SCHEDULE 80 PVC conduit.
- 2" x 2" x 0.5" conduit bedding material.
- EXCAVATION OF EXISTING MATERIAL PAID AS COMMON EXCAVATION.

REMOVAL NOTES:

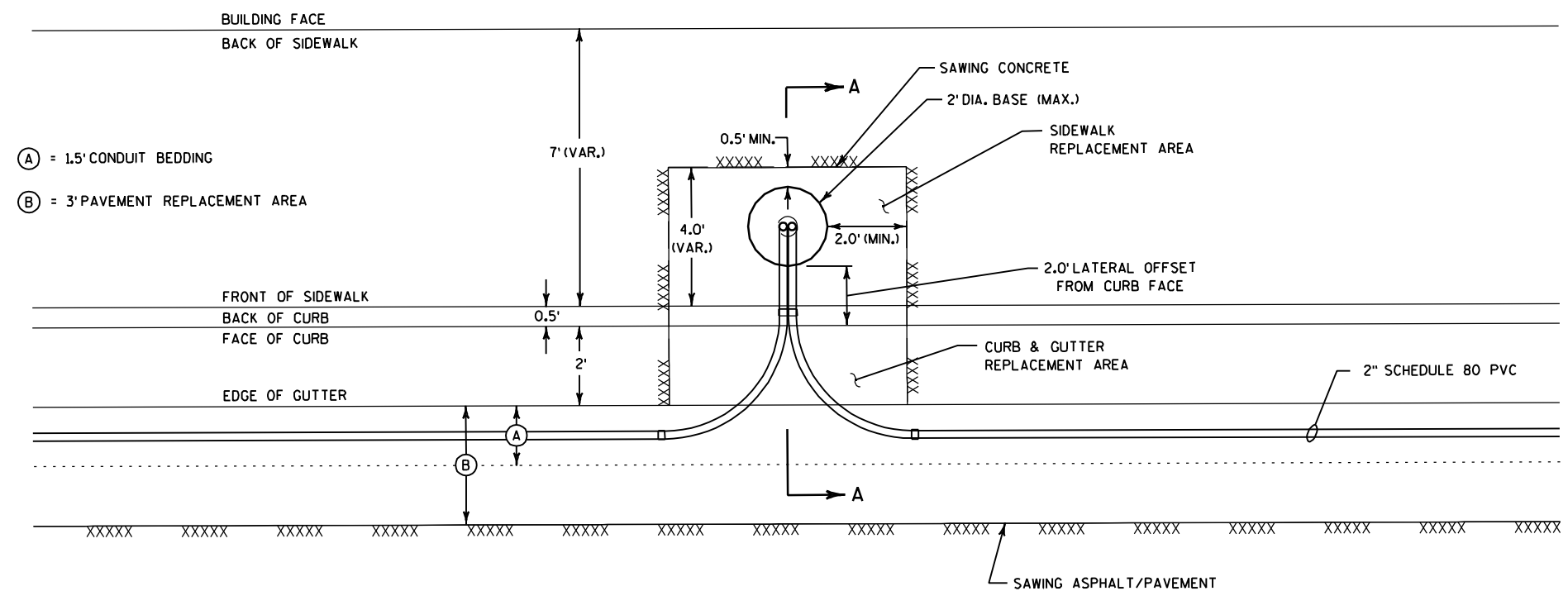
- REMOVE SIDEWALK AND CURB TO THE NEAREST JOINT AND AS SHOWN
- SAWCUT AND REMOVE BRICK IN LOCATIONS AS DESCRIBED IN THE TYPICAL SECTIONS
- REMOVE ASPHALTIC SURFACE FOR

PAVEMENT NOTES:

- USE 4" HMA PAVEMENT (LIFT) WITH ALLOWANCE FOR SURFACE LIFT FROM 3RD STREET TO BROAD STREET
- USE 4" TOTAL HMA PAVEMENT (LIFT) FROM 1ST STREET TO FRONT STREET

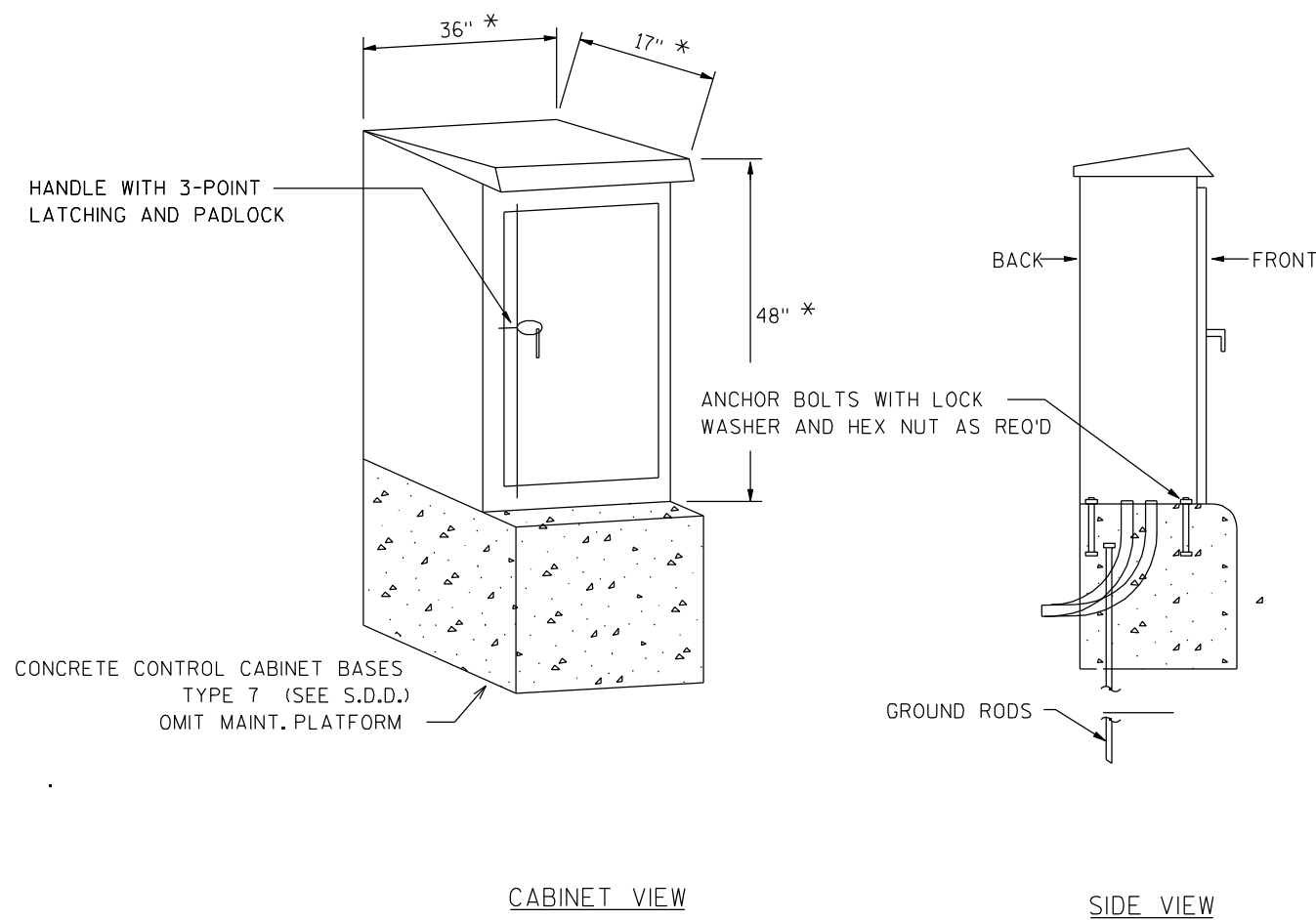
REMOVAL NOTES:

- REMOVE SIDEWALK AND CURB TO THE NEAREST JOINT AND AS SHOWN
- SAWCUT AND REMOVE BRICK IN LOCATIONS AS DESCRIBED IN THE TYPICAL SECTIONS
- REMOVE ASPHALTIC SURFACE FOR ROAD TRENCH
- REMOVE ALL TUBE FORM MATERIAL PRIOR TO POURING SIDEWALK



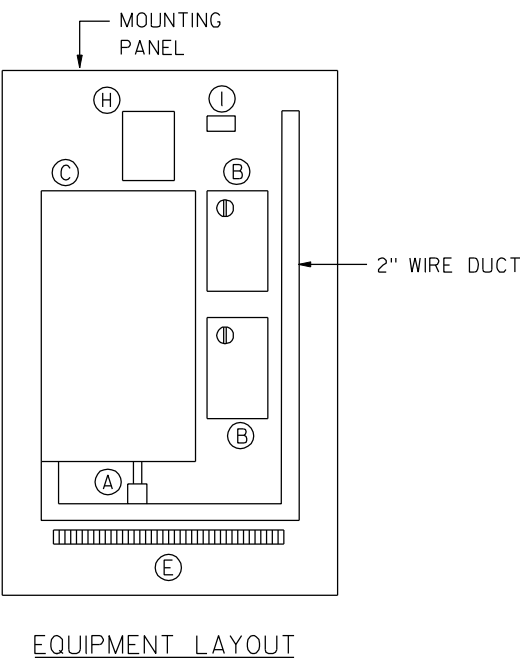
ROAD TRENCH CONDUIT INSTALLATION DETAIL

* NOTE: ENCLOSURE DIMENSIONS MAY VARY AND SHALL BE SIZED TO MAINTAIN WORKING CLEARANCES TO ALL COMPONENTS.



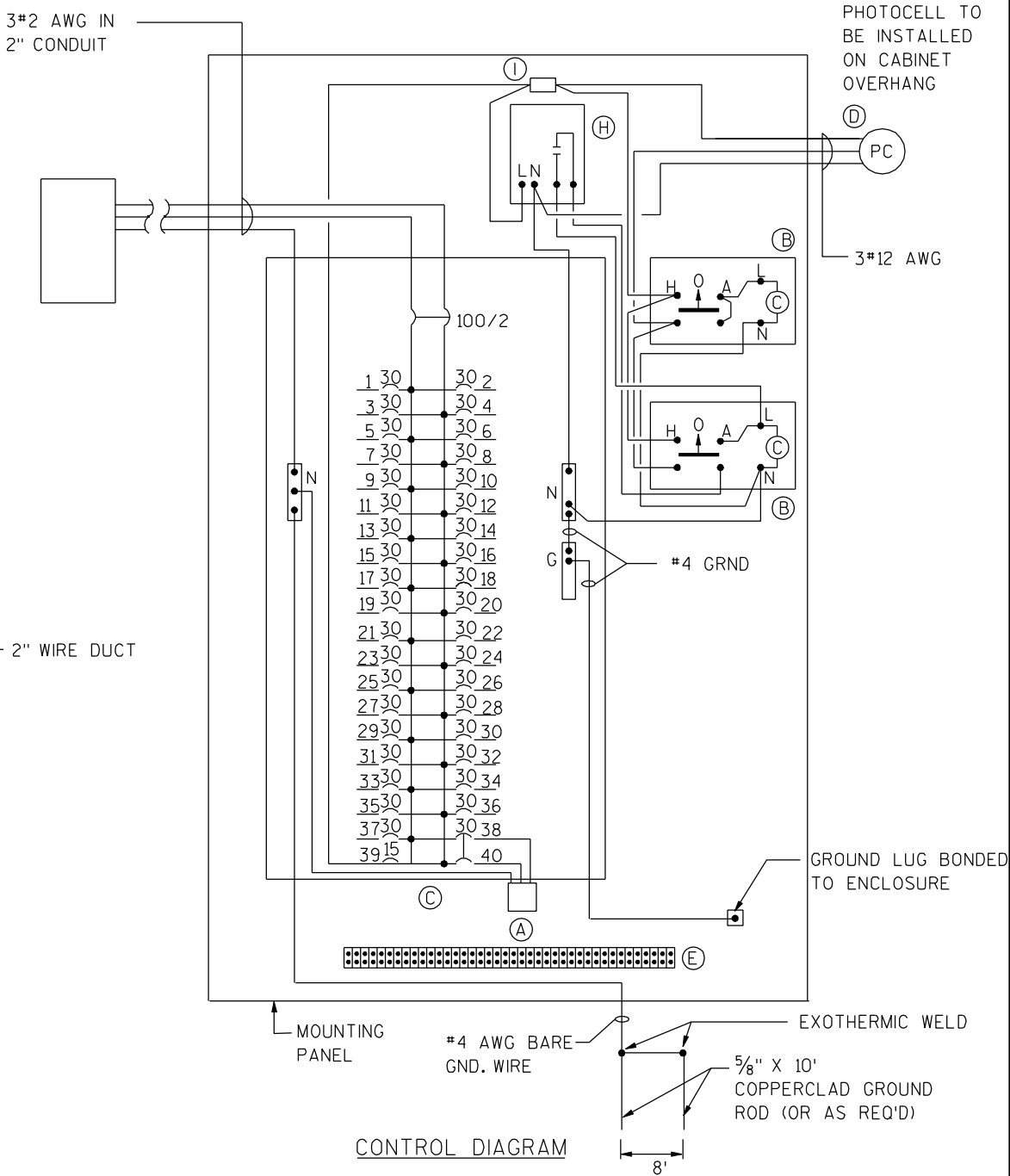
NOTES:

- ALL CONTROL WIRING SHALL BE COLOR CODED #12 AWG, XLP UNLESS OTHERWISE NOTED.
- ALL POWER AND CONTROL WIRING SHALL BE NEATLY ROUTED, LABELED AND SUPPORTED.
- THE LIGHTING CONTROL CABINET SHALL BE COMPLETELY WIRED UP TO THE FIELD WIRING TERMINATION STRIP IN THE CONTRACTOR'S SHOP AND TESTED PRIOR TO THE INSTALLATION AT SITE.
- A COPY OF THIS SHEET WITH AS-BUILT (RECORD) CONDITIONS SHALL BE PUT IN A PLASTIC PROTECTOR IN THE CABINET.
- THE CONTRACTOR SHALL COMPLY WITH LOCAL UTILITY INSTALLATION REQUIREMENTS.
- USE #10 AWG XLP CONDUCTORS FROM THE 30A CB'S TO THE FIELD WIRING TERMINATION STRIP. PROVIDE A GROUND WIRE AND NEUTRAL WIRE TO FIELD WIRING TERMINATION STRIP FROM PANELBOARD FOR EACH UNDERGROUND CABLE RUN TO LIGHTING UNITS AS REQUIRED.
- THE TIME CLOCK SHALL BE SET AS THE CITY OF BAYFIELD DIRECTS.
- CABINET SHALL NOT OVERLAP THE CONCRETE BASE.
- CABINET FEEDER AND PHOTOCELL WIRING TO CABINET TO BE INCIDENTAL TO LIGHTING CONTROL CABINET BID ITEM.

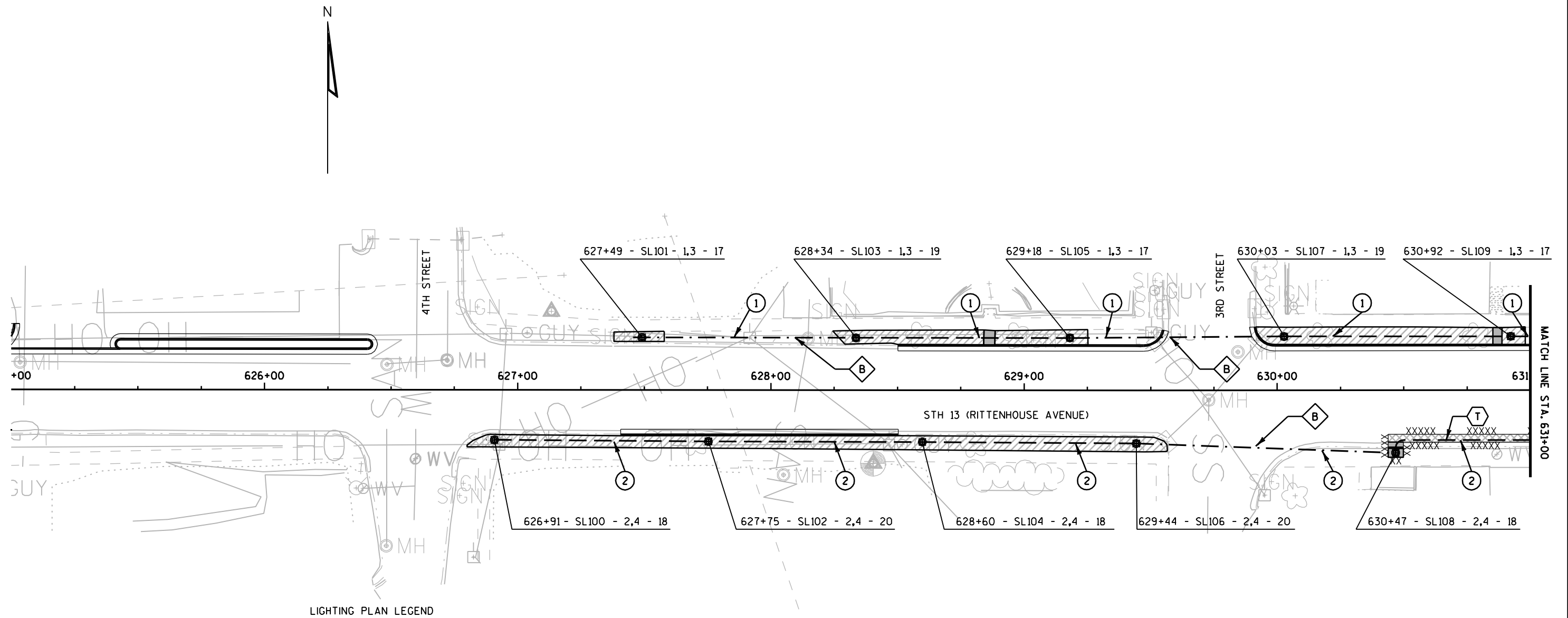


EQUIPMENT

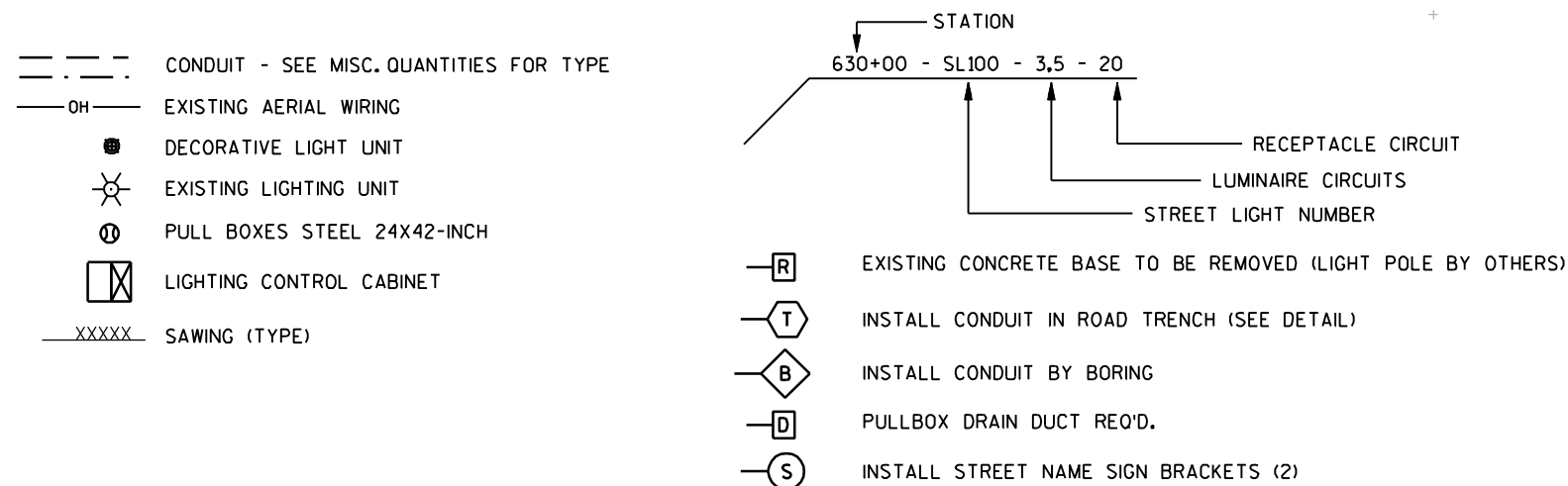
- (A) SURGE ARRESTOR
- (B) MULTI-POLE, ELECTRICALLY HELD CONTACTOR, 120V CONTROL COIL, H-O-A SWITCH, NEMA 1 ENCLOSURE
- (C) 200A MCB, 120/240V, 1PH, 3W, 42 CKT., PANELBOARD WITH BOLT-ON BRANCH BREAKERS, 22000 A RMS INTERRUPTING CAPACITY.
- (D) BUTTON TYPE PHOTOCELL, 120V.
- (E) FIELD WIRING TERMINATION STRIP (50 BLOCKS MIN.)
- (F) NOT USED
- (G) NOT USED
- (H) ASTRONOMIC TIME CLOCK, 120V
- (I) CONTROL TERMINAL BLOCK



LIGHTING CONTROL CABINET
NO SCALE

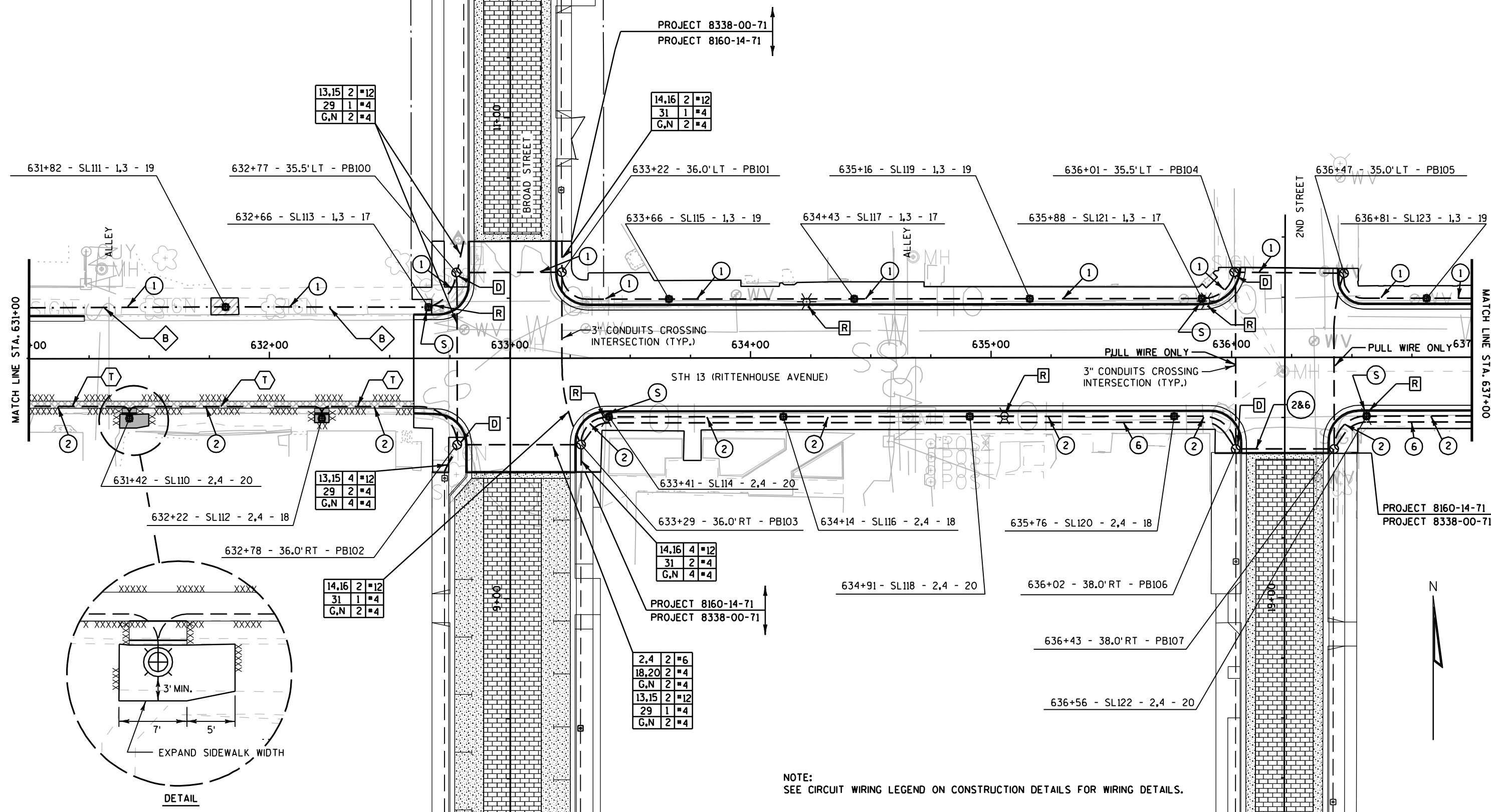


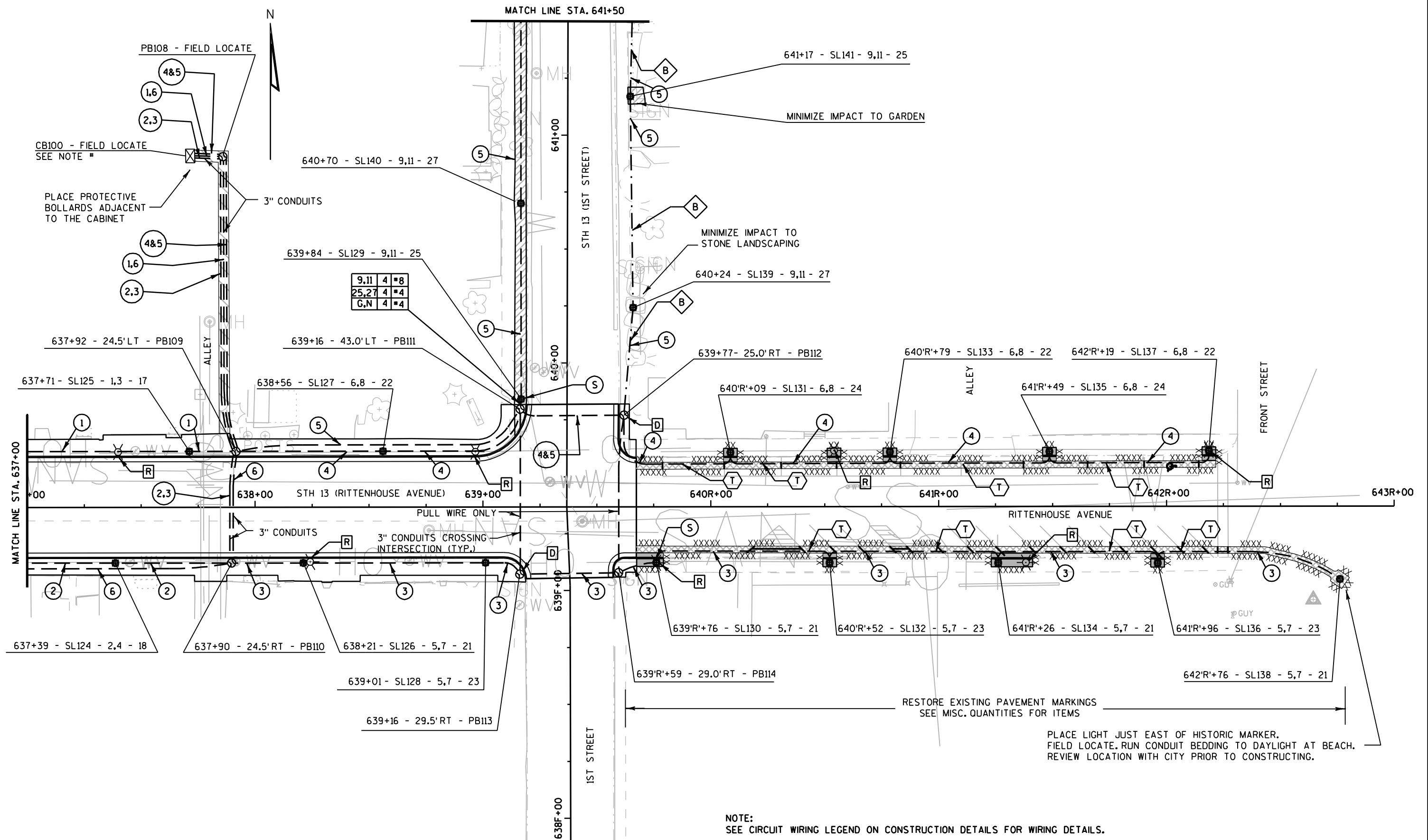
LIGHTING PLAN LEGEND

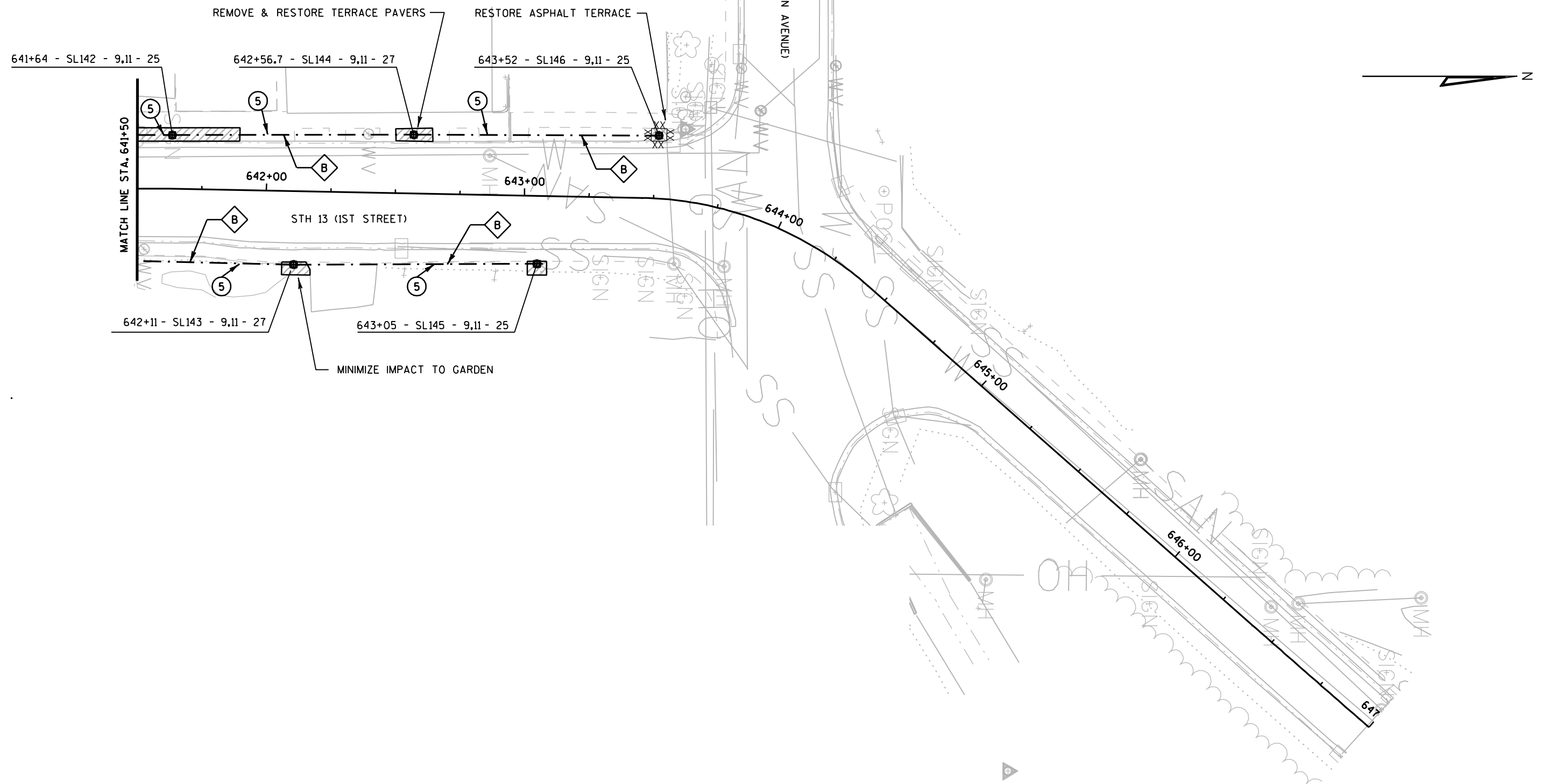


- ROAD TRENCH RESTORATION (SEE DETAIL)
- GRASS TERRACE RESTORATION (SALVAGED TOPSOIL/MULCHING/FERTILIZER TYPE B/SEED #40)
- GRAVEL ALLEY RESTORATION (4" DEPTH, ¾" BASE AGGREGATE DENSE)
- CONCRETE CURB & GUTTER & SIDEWALK RESTORATION (SEE DETAIL)

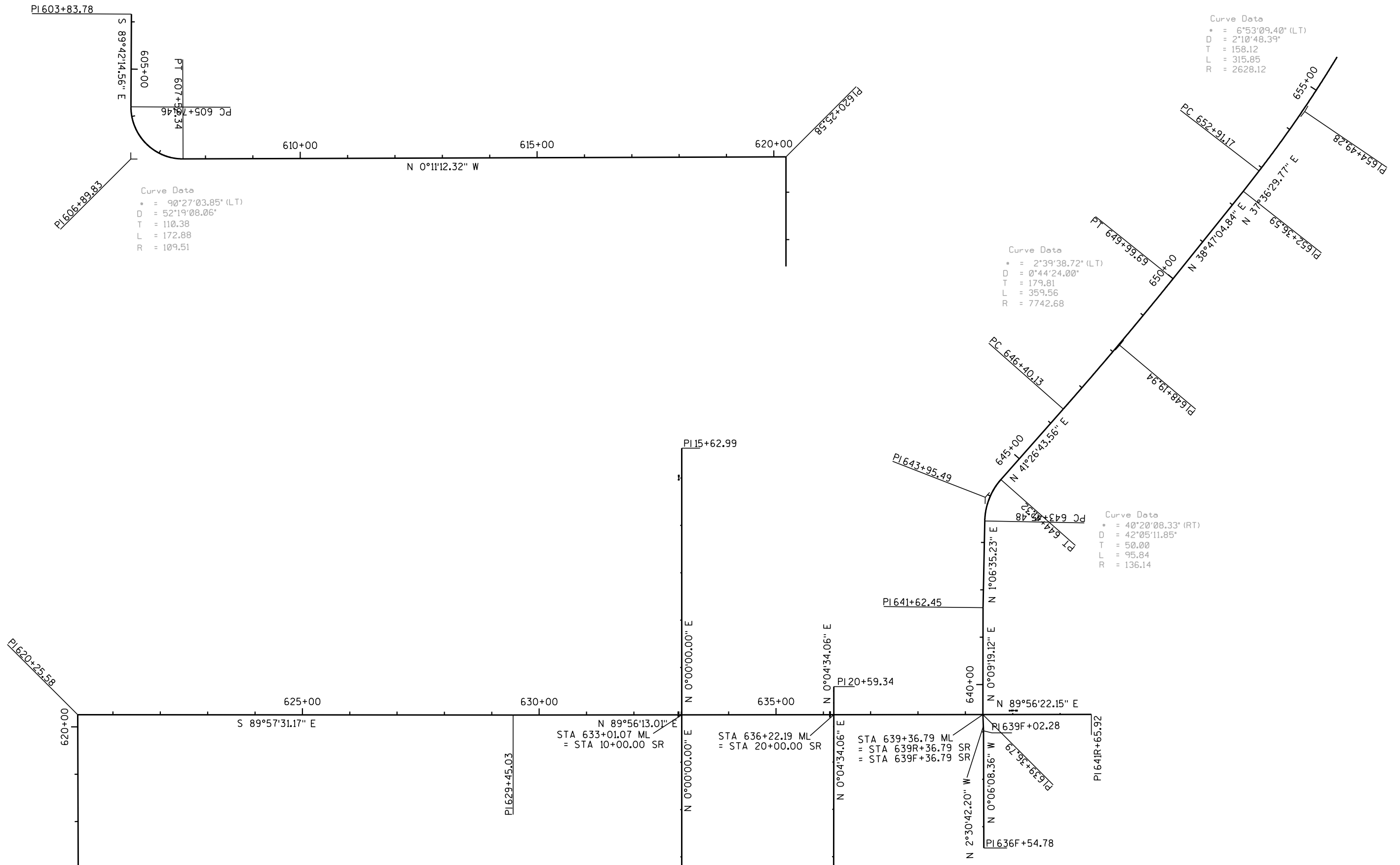
NOTE:
SEE CIRCUIT WIRING LEGEND ON CONSTRUCTION DETAILS FOR WIRING DETAILS.

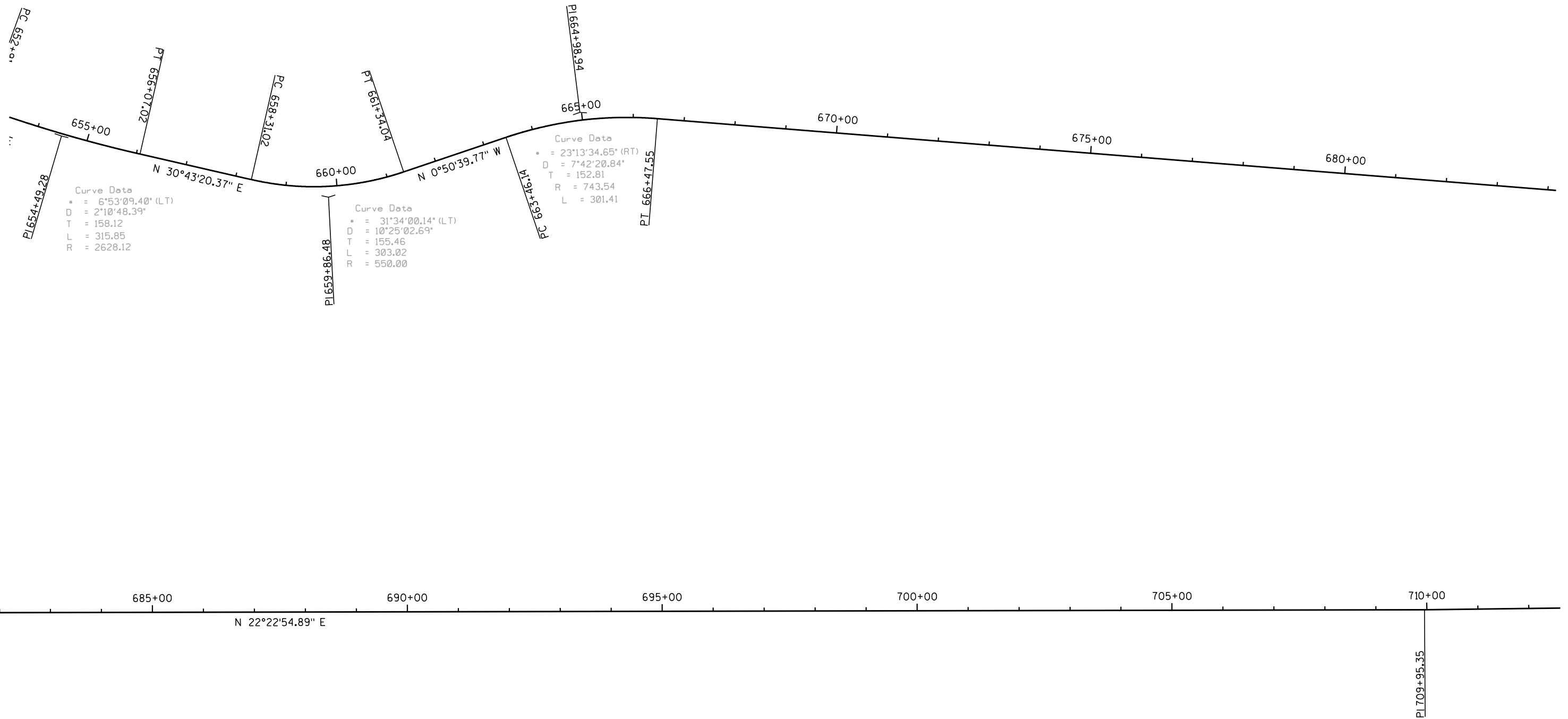






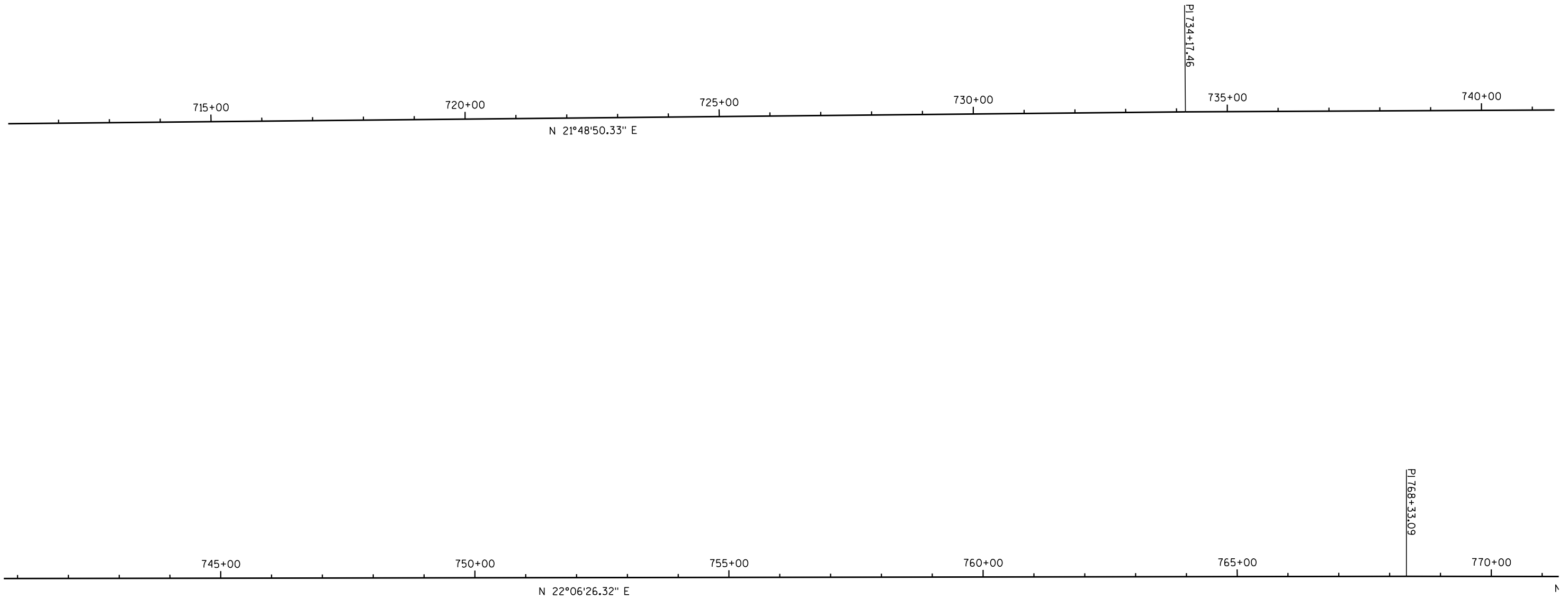
NOTE:
SEE CIRCUIT WIRING LEGEND ON CONSTRUCTION DETAILS FOR WIRING DETAILS.

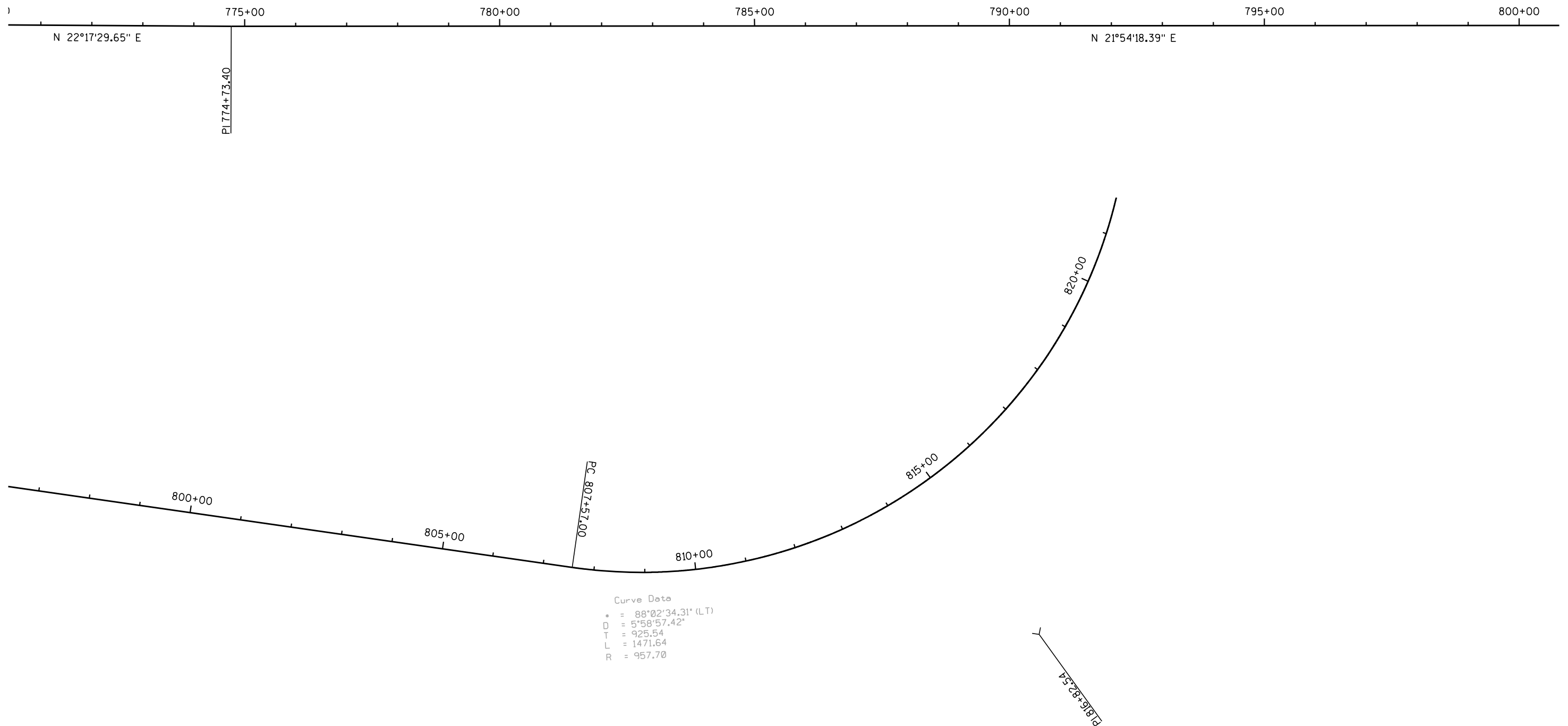




2

2





Curve Data
* = 4°28'59.71" (LT)
D = 1°38'59.61"
T = 135.93
L = 271.73
R = 3472.70

PC 830+43.60

PT 833+15.33

PI 831+79.54

N 66°08'15.92" W

N 70°37'15.63" W

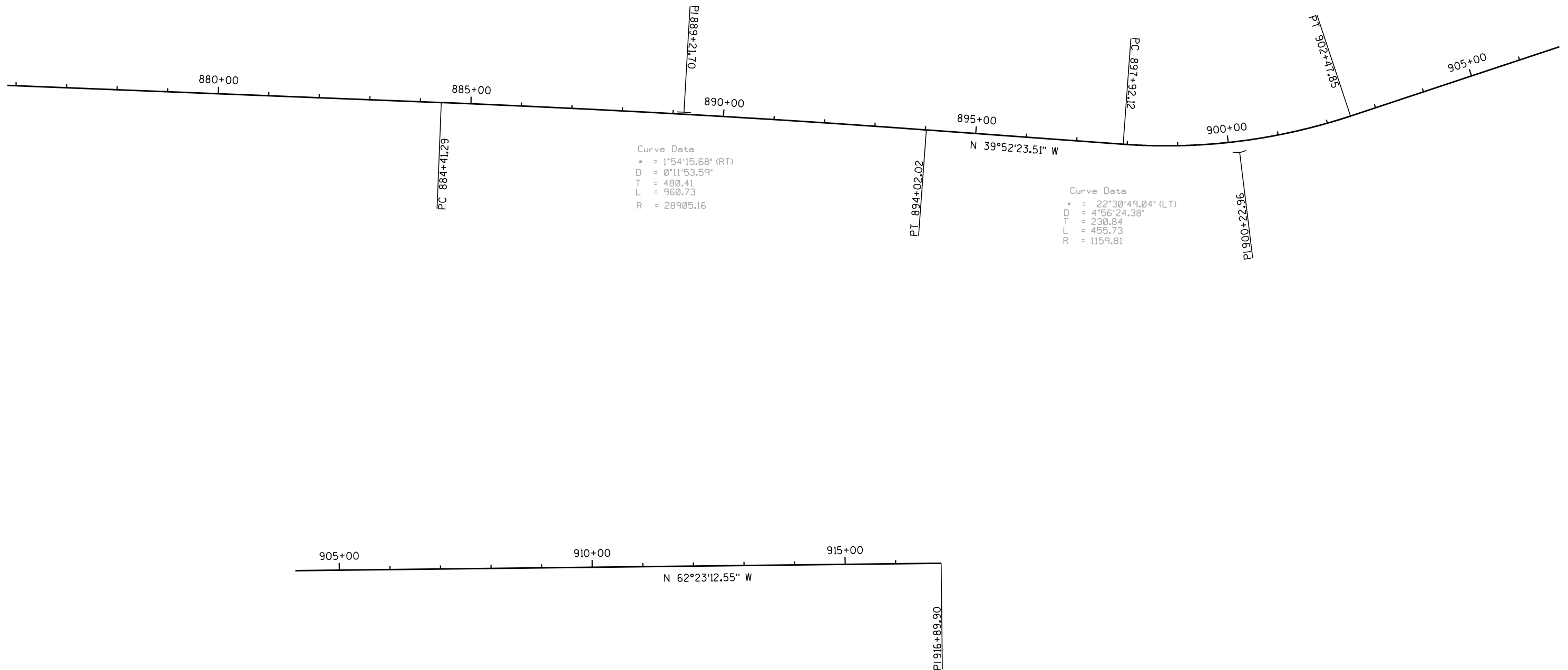
Curve Data
* = 28°50'36.43" (RT)
D = 4°28'29.63"
T = 329.26
L = 644.56
R = 1280.38

PI 856+01.94

PT 859+17.23

PC 852+12.67

N 41°46'39.20" W



3

DATE 15JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE		8160-14-71			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	6.000	6.000
0020	201.0205	GRUBBING	STA	6.000	6.000
0030	204.0110	REMOVING ASPHALTIC SURFACE	SY	524.000	524.000
0040	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	633.000	633.000
0050	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	100,550.000	100,550.000
0060	204.0150	REMOVING CURB & GUTTER	LF	12,419.000	12,419.000
0070	204.0155	REMOVING CONCRETE SIDEWALK	SY	1,473.000	1,473.000
0080	204.0195	REMOVING CONCRETE BASES	EACH	13.000	13.000
0090	204.0245	REMOVING STORM SEWER (SIZE) 01. 12-INCH	LF	124.000	124.000
0100	204.0245	REMOVING STORM SEWER (SIZE) 02. 15-INCH	LF	24.000	24.000
0110	204.0245	REMOVING STORM SEWER (SIZE) 03. 24-INCH	LF	492.000	492.000
0120	205.0100	EXCAVATION COMMON	CY	2,466.000	2,466.000
0130	209.0100	BACKFILL GRANULAR	CY	1,275.000	1,275.000
0140	213.0100	FINISHING ROADWAY (PROJECT) 01.	EACH	1.000	1.000
0150	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	11,539.000	11,539.000
0160	305.0500	SHAPING SHOULDERS	STA	331.000	331.000
0170	310.0110	BASE AGGREGATE OPEN GRADED	TON	2,846.000	2,846.000
0180	390.0203	BASE PATCHING ASPHALTIC	SY	3,500.000	3,500.000
0190	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	118.000	118.000
0200	455.0145	ASPHALTIC MATERIAL PG64-34P	TON	730.900	730.900
0210	455.0605	TACK COAT	GAL	2,369.000	2,369.000
0220	460.1103	HMA PAVEMENT TYPE E-3	TON	12,102.000	12,102.000
0230	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	8,380.000	8,380.000
0240	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD	TON	52.000	52.000
0250	465.0315	ENTRANCES ASPHALTIC FLUMES	SY	24.000	24.000
0260	520.7000	CLEANING CULVERT PIPES	EACH	3.000	3.000
0270	520.8000	CONCRETE COLLARS FOR PIPE	EACH	3.000	3.000
0280	522.1012	APRON ENDWALLS FOR CULVERT PIPE	EACH	1.000	1.000
0290	525.0124	REINFORCED CONCRETE 12-INCH CULVERT PIPE CORRUGATED ALUMINUM 24-INCH	LF	8.000	8.000
0300	525.0424	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 24-INCH	EACH	13.000	13.000
0310	525.0430	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 30-INCH	EACH	2.000	2.000
0320	525.0436	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 36-INCH	EACH	5.000	5.000
0330	525.0448	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 48-INCH	EACH	1.000	1.000
0340	525.0454	STEEL APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 54-INCH	EACH	1.000	1.000
0350	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	4,652.000	4,652.000
0360	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	6,680.000	6,680.000
0370	602.0405	CONCRETE SIDEWALK 4-INCH	SF	20,324.000	20,324.000
0380	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	224.000	224.000
0390	606.0100	RIPRAP LIGHT	CY	2.000	2.000
0400	606.0200	RIPRAP MEDIUM	CY	242.000	242.000
0410	606.0400	RIPRAP EXTRA-HEAVY	CY	74.000	74.000
0420	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	490.000	490.000
0430	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	62.000	62.000

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DATE 15JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE				8160-14-71	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0440	608.0324	STORM SEWER PIPE REINFORCED CONCRETE	LF	453.000	453.000
		CLASS III 24-INCH			
0450	611.0430	RECONSTRUCTING INLETS	EACH	4.000	4.000
0460	611.0530	MANHOLE COVERS TYPE J	EACH	4.000	4.000
0470	611.0600	INLET COVERS TYPE A	EACH	2.000	2.000
0480	611.0624	INLET COVERS TYPE H	EACH	8.000	8.000
0490	611.0627	INLET COVERS TYPE HM	EACH	10.000	10.000
0500	611.0636	INLET COVERS TYPE HM-S	EACH	9.000	9.000
0510	611.2004	MANHOLES 4-FT DIAMETER	EACH	4.000	4.000
0520	611.3225	INLETS 2X2.5-FT	EACH	11.000	11.000
0530	611.8110	ADJUSTING MANHOLE COVERS	EACH	32.000	32.000
0540	611.8115	ADJUSTING INLET COVERS	EACH	10.000	10.000
0550	612.0106	PIPE UNDERDRAIN 6-INCH	LF	1,394.000	1,394.000
0560	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS	EACH	1.000	1.000
		(PROJECT) 01. 8160-14-71			
0570	619.1000	MOBILIZATION	EACH	1.000	1.000
0580	624.0100	WATER	MGAL	5.000	5.000
0590	625.0100	TOPSOIL	SY	2,352.000	2,352.000
0600	625.0500	SALVAGED TOPSOIL	SY	2,185.000	2,185.000
0610	627.0200	MULCHING	SY	4,537.000	4,537.000
0620	628.1104	EROSION BALES	EACH	50.000	50.000
0630	628.1504	SILT FENCE	LF	500.000	500.000
0640	628.1520	SILT FENCE MAINTENANCE	LF	500.000	500.000
0650	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0660	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	3.000	3.000
0670	628.2027	EROSION MAT CLASS II TYPE C	SY	2,876.000	2,876.000
0680	629.0210	FERTILIZER TYPE B	CWT	3.170	3.170
0690	630.0120	SEEDING MIXTURE NO. 20	LB	97.000	97.000
0700	630.0140	SEEDING MIXTURE NO. 40	LB	53.330	53.330
0710	630.0200	SEEDING TEMPORARY	LB	50.000	50.000
0720	633.0200	DELINEATORS FLEXIBLE	EACH	2.000	2.000
0730	633.5200	MARKERS CULVERT END	EACH	53.000	53.000
0740	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	1.000	1.000
0750	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	155.000	155.000
0760	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	51.000	51.000
0770	634.0812	POSTS TUBULAR STEEL 2X2-INCH X 12-FT	EACH	5.000	5.000
0780	637.0202	SIGNS REFLECTIVE TYPE II	SF	1,352.070	1,352.070
0790	638.2602	REMOVING SIGNS TYPE II	EACH	250.000	250.000
0800	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	209.000	209.000
0810	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
0820	643.0200	TRAFFIC CONTROL SURVEILLANCE AND	DAY	90.000	90.000
		MAINTENANCE (PROJECT) 01. 8160-14-71			
0830	643.0300	TRAFFIC CONTROL DRUMS	DAY	1,000.000	1,000.000
0840	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	750.000	750.000
0850	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	1,520.000	1,520.000
0860	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	5,450.000	5,450.000
0870	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,540.000	2,540.000
0880	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01.	EACH	1.000	1.000
		8160-14-71			
0890	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	7,260.000	7,260.000
0900	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	90.000	90.000
0910	645.0130	GEOTEXTILE FABRIC TYPE R	SY	490.000	490.000
0920	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	3,200.000	3,200.000
0930	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	51,064.000	51,064.000

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DATE 15JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE				8160-14-71	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0940	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	75.000	75.000
0950	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	43,615.000	43,615.000
0960	647.0256	PAVEMENT MARKING SYMBOLS EPOXY	EACH	2.000	2.000
0970	647.0456	PAVEMENT MARKING CURB EPOXY	LF	1,243.000	1,243.000
0980	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	2.000	2.000
0990	647.0656	PAVEMENT MARKING PARKING STALL EPOXY	LF	843.000	843.000
1000	648.0100	LOCATING NO-PASSING ZONES	MI	5.000	5.000
1010	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	41,860.000	41,860.000
1020	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	17.000	17.000
1030	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	800.000	800.000
1040	650.5000	CONSTRUCTION STAKING BASE	LF	800.000	800.000
1050	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	14,284.000	14,284.000
1060	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	27,000.000	27,000.000
1070	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 8160-14-71	LS	1.000	1.000
1080	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	2,416.000	2,416.000
1090	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	1,289.000	1,289.000
1100	652.0325	CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	LF	880.000	880.000
1110	652.0605	CONDUIT SPECIAL 2-INCH	LF	967.000	967.000
1120	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	15.000	15.000
1130	654.0205	CONCRETE CONTROL CABINET BASES TYPE 7	EACH	1.000	1.000
1140	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	8,603.000	8,603.000
1150	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	5,616.000	5,616.000
1160	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	6,066.000	6,066.000
1170	655.0630	ELECTRICAL WIRE LIGHTING 4 AWG	LF	27,378.000	27,378.000
1180	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. 637+70	LS	1.000	1.000
1190	690.0150	SAWING ASPHALT	LF	9,193.000	9,193.000
1200	690.0250	SAWING CONCRETE	LF	504.000	504.000
1210	999.1000.S	SEISMOGRAPH	LS	1.000	1.000
1220	999.1500.S	CRACK AND DAMAGE SURVEY	LS	1.000	1.000
1230	SPV.0035	SPECIAL 01. CONDUIT BEDDING MATERIAL	CY	25.000	25.000
1240	SPV.0060	SPECIAL 01. WATER MAIN, GATE VALVE AND VALVE BOX, 8-INCH	EACH	2.000	2.000
1250	SPV.0060	SPECIAL 02. SALVAGE EXISTING GATE VALVE	EACH	4.000	4.000
1260	SPV.0060	SPECIAL 03. ADJUSTING WATERVALVE BOX	EACH	23.000	23.000
1270	SPV.0060	SPECIAL 04. DECORATIVE LIGHT UNIT	EACH	47.000	47.000
1280	SPV.0060	SPECIAL 05. LIGHT POLE RECEPTACLE	EACH	47.000	47.000
1290	SPV.0060	SPECIAL 06. LIGHT POLE BASKET HANGER	EACH	47.000	47.000
1300	SPV.0060	SPECIAL 07. DECORATIVE STREET NAME SIGN BRACKET	EACH	6.000	6.000
1310	SPV.0060	SPECIAL 08. LIGHTING CONTROL CABINET	EACH	1.000	1.000
1320	SPV.0060	SPECIAL 09. PROTECTIVE BOLLARDS	EACH	3.000	3.000
1330	SPV.0060	SPECIAL 10. CLEANING CULVERT PIPES MINIMAL	EACH	21.000	21.000
1340	SPV.0060	SPECIAL 11. CLEANING CULVERT PIPES FULL	EACH	15.000	15.000
1350	SPV.0090	SPECIAL 01. WATER MAIN DUCTILE IRON 8-INCH	LF	643.000	643.000
1360	SPV.0090	SPECIAL 02. WATER SERVICE COPPER 1-INCH	LF	377.000	377.000

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DATE 15JAN13		E S T I M A T E O F Q U A N T I T I E S			
LINE				8160-14-71	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
1370	SPV.0090	SPECIAL 03. SAWING PAVEMENT	LF	2,342.000	2,342.000
1380	SPV.0090	SPECIAL 04. PULLBOX DRAIN DUCT	LF	115.000	115.000
1390	SPV.0090	SPECIAL 05. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT	LF	11,242.000	11,242.000
1400	SPV.0105	SPECIAL 01. ABANDONING WATER MAIN	LS	1.000	1.000
1410	SPV.0105	SPECIAL 02. PREPARE FOUNDATION FOR ASPHALTIC PAVING SPECIAL	LS	1.000	1.000
1420	SPV.0105	SPECIAL 03. MATERIAL TRANSFER VEHICLE	LS	1.000	1.000
1430	SPV.0105	SPECIAL 04. TEMPORARY WEDGE JOINT	LS	1.000	1.000
1440	SPV.0165	SPECIAL 01. REMOVE AND RESTORE TERRACE PAVERS	SF	70.000	70.000
1450	SPV.0165	SPECIAL 02. CONCRETE SIDEWALK CURE AND SEAL TREATMENT	SF	20,576.000	20,576.000
1460	SPV.0165	SPECIAL 03. PAVEMENT MARKING CROSSWALK EPOXY 36-INCH SPECIAL	SF	1,968.000	1,968.000
1470	SPV.0170	SPECIAL 01. REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL	STA	250.000	250.000
1480	SPV.0195	SPECIAL 01. HMA PAVEMENT TYPE SMA SPECIAL	TON	5,834.000	5,834.000
1490	SPV.0195	SPECIAL 02. SMA PAVEMENT COMPACTION ACCEPTANCE	TON	5,834.000	5,834.000

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201 CL&GR				
		201.0105	201.0205	
CATEGORY	LOCATION	STA	STA	REMARKS
0010		6	6	
TOTAL 0010		6	6	

REMOVING ASPHALTIC SURFACE BUTT JOINTS			
		204.0115	
CATEGORY	STATION	SY	REMARKS
0010	603+38	19	
0010	643+39	19	
0010	777+32	22	
0010	828+50	17	
0010	915+50	18	
0010	7th St L	10	
0010	7th St R	8	
0010	Wilson L	12	
0010	Wilson R	13	
0010	Manypenny L	12	
0010	Manypenny R	13	
0010	5th St L	13	
0010	5th St R	13	
0010	4th St L	11	
0010	4th St R	11	
0010	3rd St L	12	
0010	3rd St R	13	
0010	Broad L	10	
0010	Broad R	15	
0010	2nd St L	15	
0010	2nd St R	14	
0010	1st St L	28	
0010	1st St R	27	
0010	Washington L	15	
0010	Washington R	26	
0010	Rice/Front	27	
0010	Sweeny	20	
0010	Lynde	20	
0010	N Limits	16	
0010	Dalrymple	11	
0010	Cty J	22	
0010	Connies	19	
0010	Island View	20	
0010	Apostle Bay	15	
0010	Lindquist	10	
0010	Brickyard	10	
0010	Town Rd	15	
0010	Nuzzo	14	
0010	Aiken	15	
0010	Bradum	13	
		633	

REMOVING ASPHALTIC SURFACE MILLING				
		204.0120		
CATEGORY	STATION TO STATION	SY	REMARKS	
0010	603+38 - 605+25	706		
0010	605+25 - 607+00	778		
0010	607+00 - 614+00	2022		
0010	614+00 - 615+50	533		
0010	615+50 - 619+25	1083		
0010	619+25 - 621+25	889		
0010	621+25 - 623+50	875		
0010	623+50 - 624+65	511		
0010	624+65 - 626+50	658		
0010	626+50 - 632+60	2237	DNI Parking	
0010	632+60 - 633+34	238	DNI Parking	
0010	633+34 - 639+67	1688	DNI Parking	
0010	639+82 - 641+75	751	DNI Parking	
0010	641+75 - 642+00	100	DNI Parking	
0010	642+00 - 643+49	579	DNI Parking	
0010	643+49 - 644+50	415		
0010	644+50 - 645+10	220		
0010	645+10 - 660+00	4304		
0010	660+00 - 665+00	1722		
0010	665+00 - 665+75	283		
0010	665+75 - 693+50	11408		
0010	693+50 - 746+90	21360		
0010	746+90 - 755+00	3420		
0010	755+00 - 777+32	9920		
0010	828+50 - 879+40	16967		
0010	879+40 - 883+00	1400		
0010	883+00 - 915+50	10833		
0010	7th St L	57		
0010	7th St R	42		
0010	Wilson L	66		
0010	Wilson R	117		
0010	Manypenny L	36		
0010	Manypenny R	160		
0010	5th St L	68		
0010	5th St R	89		
0010	4th St L	76		
0010	4th St R	68		
0010	3rd St L	43		

REMOVING ASPHALTIC SURFACE			
		204.0110	
CATEGORY	LOCATION	SY	REMARKS
0010	PAVED DRIVEWAYS	260	26 @ 10 SY
TOTAL 0010		260	
ADDITIONAL QUANTITIES LISTED ELSEWHERE			

REMOVING ASPHALTIC SURFACE MILLING				
		204.0120		
CATEGORY	STATION TO STATION	SY	REMARKS	
0010	3rd St R	114		
0010	Broad L	103		
0010	Broad R	135		
0010	Alley	43		
0010	2nd St L	83		
0010	2nd St R	93		
0010	Alley	37		
0010	1st St L	482		
0010	1st St R	196		
0010	Washington L	150		
0010	Washington R	163		
0010	Rice/Front	234		
0010	Sweeny	153		
0010	Lynde	140		
0010	N Limits	117		
0010	Dalrymple	50		
0010	Cty J	220		
0010	Connies	236		
0010	Island View	260		
0010	Apostle Bay	87		
0010	Lindquist	113		
0010	Brickyard	80		
0010	Town Rd	103		
0010	Nuzzo	89		
0010	Aiken	205		
0010	Bradum	142		
TOTAL 0010		100550		
0040	626+50 - 632+60	173	Parking	
0040	639+60 - 641+75	150	Parking	
0040	641+75 - 642+00	31	Parking	
0040	642+00 - 643+49	64	Parking	
TOTAL 0040		418		

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REMOVING CURB & GUTTER				
CATEGORY	STATION TO	STATION	LOCATION	204.0150 LF
0010	608+38	- 610+94	LEFT	256
0010	611+30	- 614+65	LEFT	335
0010	616+12	- 619+91	LEFT	379
0010	619+12	- 621+04	RIGHT	192
0010	627+41	- 628+51	RIGHT	110
0010	628+50	- 629+56	LEFT	106
0010	629+89	- 631+23	LEFT	134
0010	632+60	- 639+82	LEFT	722
0010	632+60	- 639+82	RIGHT	722
0010	640+39	- 641+23	RIGHT	84
0010	645+10	- 645+60	RIGHT	50
0010	646+89	- 647+23	RIGHT	34
0010	650+19	- 650+47	LEFT	28
0010	650+36	- 650+68	RIGHT	32
0010	652+88	- 655+85	LEFT	297
0010	656+20	- 661+34	LEFT	514
0010	665+54	- 672+32	LEFT	678
0010	673+71	- 685+47	LEFT	1176
0010	687+57	- 690+36	LEFT	279
0010	702+90	- 723+59	LEFT	2069
0010	743+96	- 746+96	RIGHT	300
0010	750+66	- 754+06	LEFT	340
0010	755+41	- 758+38	LEFT	297
0010	755+40	- 758+52	RIGHT	312
0010	760+72	- 762+22	RIGHT	150
0010	763+96	- 767+96	RIGHT	400
0010	764+88	- 767+38	LEFT	250
0010	770+21	- 771+46	LEFT	125
0010	773+81	- 775+44	RIGHT	163
0010	868+80	- 871+75	RIGHT	295
0010		UNDISTRIBUTED		1500
TOTAL 0010				12329
ADDITIONAL QUANTITIES SHOWN ELSEWHERE				

REMOVING CONCRETE SIDEWALK				
CATEGORY	STATION TO	STATION	LOCATION	204.0155 SY
0010	619+50	- 621+00	RIGHT	38
0010	625+40	- 626+45	LEFT	67
0010	632+60	- 632+82	LEFT	24
0010	632+60	- 632+81	RIGHT	25
0010	633+17	- 635+00	LEFT	213
0010	633+30	- 635+00	RIGHT	157
0010	635+00	- 636+02	LEFT	90
0010	635+00	- 636+02	RIGHT	89
0010	636+44	- 637+50	RIGHT	88
0010	636+45	- 637+50	LEFT	94
0010	637+50	- 639+19	LEFT	151
0010	637+50	- 639+29	RIGHT	146
0010	639+58R	- 639+67R	RIGHT	7
0010	639+59	- 639+82	RIGHT	12
0010	640+40	- 641+23	RIGHT	42
0010	650+20	- 650+47	LEFT	12
0010	652+89	- 655+44	LEFT	118
0010	658+39	- 659+73	LEFT	60
TOTAL 0010				1433
ADDITIONAL QUANTITIES SHOWN ELSEWHERE				

EXCAVATION COMMON					
CATEGORY	STATION TO	STATION	LOC	205.0100 CY	REMARKS
0010	620+60	- 625+00	LT	69	New C&G area
0010	621+00	- 623+15	RT	25	New C&G area
0010	632+60	- 639R+67		2106	Pavt replacement area
0010	660+00	- 665+25	LT	90	New SDWK area
TOTAL 0010				2290	
ADDITIONAL QUANTITIES SHOWN ELSEWHERE					

REMOVING STORM SEWER (12-INCH)				
CATEGORY	STATION TO	STATION	LOCATION	204.0245 LF
0010	639+16	- 639+43	LEFT	49
0010	639+16	- 639+43	RIGHT	39
0010	639+43	- 639+60		36
TOTAL 0010				124

REMOVING STORM SEWER (15-INCH)				
CATEGORY	STATION TO	STATION	LOCATION	204.0245(01) LF
0010	639+43	- 639+67	RIGHT	24
TOTAL 0010				24

REMOVING STORM SEWER (24-INCH)				
CATEGORY	STATION TO	STATION	LOCATION	204.0245(02) LF
0010	632+99	- 634+69	LEFT	170
0010	636+21	- 639+43	RIGHT	322
TOTAL 0010				492

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BASE AGGREGATE DENSE 3/4-INCH						
CAT	STATION	TO	STATION	LOC	305.0110 TON	REMARKS
0010	619+50	-	621+00	RT	22	Under SDWK
0010	625+40	-	626+45	LT	25	Curbed Island
0010	640+35	-	641+25	RT	11	Under SDWK
0010	650+20	-	650+70	LT	6	Under SDWK
0010	652+85	-	655+60	LT	34	Under SDWK
0010			PEs		150	
0010			SHLDs		8000	
0010	608+38	-	610+94	LT	57	C&G work
0010	611+21	-	614+00	LT	62	C&G work
0010	616+12	-	619+91	LT	84	C&G work
0010	619+19	-	623+26	RT	90	C&G work
0010	620+60	-	623+26	LT	59	C&G work
0010	623+60	-	626+45	LT	63	C&G work
0010	627+41	-	628+51	RT	24	C&G work
0010	628+50	-	629+56	LT	24	C&G work
0010	630+89	-	631+23	LT	8	C&G work
0010	640+34	-	641+24	RT	20	C&G work
0010	645+10	-	645+60	RT	11	C&G work
0010	646+89	-	647+23	RT	8	C&G work
0010	650+19	-	650+47	LT	6	C&G work
0010	650+36	-	650+68	RT	7	C&G work
0010	652+88	-	654+45	LT	35	C&G work
0010	656+20	-	661+30	LT	113	C&G work
0010	665+54	-	672+32	LT	151	C&G work
0010	673+71	-	685+47	LT	261	C&G work
0010	687+57	-	690+36	LT	62	C&G work
0010	702+90	-	723+59	LT	460	C&G work
0010	743+96	-	746+96	RT	67	C&G work
0010	750+60	-	754+06	LT	77	C&G work
0010	755+41	-	758+38	LT	66	C&G work
0010	755+41	-	758+51	RT	69	C&G work
0010	760+80	-	762+20	RT	31	C&G work
0010	763+96	-	767+96	RT	89	C&G work
0010	764+90	-	767+38	LT	55	C&G work
0010	770+21	-	771+46	LT	28	C&G work
0010	773+81	-	775+44	RT	36	C&G work
0010	868+80	-	871+75	RT	66	C&G work
TOTAL 0010					10,437	
0030	632+60	-	633+75	LT	24	Under SDWK
0030	632+60	-	633+75	RT	24	Under SDWK
0030	634+00	-	639+82	LT	396	Under SDWK
0030	634+00	-	639+82	RT	396	Under SDWK
0030	658+39	-	665+30	LT	102	Under SDWK
TOTAL 0030					942	

SHAPING SHOULDERS					
CATEGORY	STATION TO	STATION	LOC	305.0500 STA	
0010	672+32	-	673+71	LT	1
0010	685+47	-	687+57	LT	2
0010	690+36	-	702+90	LT	13
0010	723+59	-	751+75	LT	28
0010	754+06	-	755+41	LT	1
0010	758+38	-	764+90	LT	7
0010	767+38	-	770+21	LT	3
0010	771+46	-	777+33	LT	6
0010	669+75	-	743+96	RT	74
0010	746+96	-	755+41	RT	8
0010	758+51	-	760+75	RT	2
0010	762+20	-	763+96	RT	2
0010	767+96	-	773+81	RT	6
0010	775+44	-	777+33	RT	2
0010	828+50	-	859+34	LT	31
0010	828+50	-	859+34	RT	31
0010	859+41	-	903+17	LT	44
0010	859+41	-	903+17	RT	44
0010	903+19	-	916+00	LT	13
0010	903+19	-	915+50	RT	13
TOTAL 0010					331

BASE AGGREGATE OPEN GRADED					
CATEGORY	STATION TO	STATION	LOCATION	310.0110 TON	REMARKS
0010	632+60	-	633+75	177	DNI Park Lanes
0010	632+60	-	633+75	177	DNI Park Lanes
0010	634+00	-	639+82	897	DNI Park Lanes
0010	634+00	-	639+82	897	DNI Park Lanes
TOTAL 0010				2148	
0040	632+60	-	633+75	58	Parking
0040	632+60	-	633+75	58	Parking
0040	634+00	-	639+82	291	Parking
0040	634+00	-	639+82	291	Parking
TOTAL 0040				698	
ADDITIONAL QUANTITIES LISTED ELSEWHERE					

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BASE PATCHING ASPHALTIC

		390.0203	
CATEGORY	STATION	SY	REMARKS
0010	Misc Areas	3500	Est 5% of lane area
		3500	

TACK COAT

		455.0605	
CATEGORY	STATION TO STATION	LOCATION	GAL
0010	603+38 - 605+25		18
0010	605+25 - 607+00		19
0010	607+00 - 614+00		51
0010	614+00 - 615+50		13
0010	615+50 - 619+25		27
0010	619+25 - 621+25		22
0010	621+25 - 623+50		19.00
0010	623+50 - 624+65		13
0010	624+65 - 626+50		15
0010	626+50 - 632+60		56
0010	639+60 - 641+75		21
0010	641+75 - 642+00		3
0010	642+00 - 643+49		15
0010	643+49 - 644+50		10
0010	644+50 - 645+10		6
0010	645+10 - 660+00		108
0010	660+00 - 665+00		43
0010	665+00 - 665+75		7
0010	665+75 - 693+50		285
0010	693+50 - 746+90		534
0010	746+90 - 755+00		86
0010	755+00 - 777+32		248
0010	828+50 - 879+40		424
0010	879+40 - 883+00		35
0010	883+00 - 915+50		271
		TOTAL 0010	2349
0040	630+30 643+30	LT & RT	20
		PARK LANES	
		TOTAL 0040	20

CONCRETE DRIVEWAY 6-INCH

		416.0160	
CATEGORY	STATION TO STATION	LOCATION	SY
0010	634+60 - 634+76		16
0010	634+56 - 634+72		16
0010	637+71 - 637+87		19
0010	637+72 - 637+90		16
0010	638+22 - 638+46		20
0010	640+95 - 641+15		16
0010	659+80 - 659+95		16
		TOTAL 0010	118

HMA PAVEMENT TYPE SMA-SPECIAL

		SPV.0195(01)	
CATEGORY	STATION TO STATION	TON	REMARKS
0010	665+50 - 672+30	199	LANES - RURAL SECTION
0010	672+30 - 673+70	41	LANES - RURAL SECTION
0010	673+70 - 685+45	345	LANES - RURAL SECTION
0010	685+45 - 687+60	63	LANES - RURAL SECTION
0010	687+60 - 690+35	81	LANES - RURAL SECTION
0010	690+35 - 702+90	368	LANES - RURAL SECTION
0010	702+90 - 723+59	607	LANES - RURAL SECTION
0010	723+59 - 743+95	597	LANES - RURAL SECTION
0010	743+95 - 746+95	88	LANES - RURAL SECTION
0010	746+95 - 750+65	109	LANES - RURAL SECTION
0010	750+65 - 754+05	100	LANES - RURAL SECTION
0010	754+05 - 755+40	40	LANES - RURAL SECTION
0010	755+40 - 758+50	91	LANES - RURAL SECTION
0010	758+50 - 760+60	62	LANES - RURAL SECTION
0010	760+60 - 762+25	48	LANES - RURAL SECTION
0010	762+25 - 763+95	50	LANES - RURAL SECTION
0010	763+95 - 764+85	26	LANES - RURAL SECTION
0010	764+85 - 767+40	75	LANES - RURAL SECTION
0010	767+40 - 767+98	17	LANES - RURAL SECTION
0010	767+98 - 770+25	67	LANES - RURAL SECTION
0010	770+25 - 771+50	37	LANES - RURAL SECTION
0010	771+50 - 773+75	66	LANES - RURAL SECTION
0010	773+75 - 775+40	48	LANES - RURAL SECTION
0010	775+40 - 777+33	57	LANES - RURAL SECTION
0010	828+50 - 868+75	1181	RURAL SECTION SURFACE
0010	868+75 - 871+75	88	RURAL SECTION SURFACE
0010	871+75 - 915+50	1283	RURAL SECTION SURFACE
		5834	

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ASPHALTIC MATERIAL PG64-34P

CAT	STATION TO	STATION	455.0145 TON	REMARKS
0010	603+38 -	605+25	4.7	FOR HMA PAVT TYPE E-3 LAYERS
0010	605+25 -	607+00	5.2	FOR HMA PAVT TYPE E-3 LAYERS
0010	607+00 -	614+00	13.3	FOR HMA PAVT TYPE E-3 LAYERS
0010	614+00 -	615+50	3.5	FOR HMA PAVT TYPE E-3 LAYERS
0010	615+50 -	619+25	7.1	FOR HMA PAVT TYPE E-3 LAYERS
0010	619+25 -	621+25	5.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	621+25 -	623+50	5.0	FOR HMA PAVT TYPE E-3 LAYERS
0010	623+50 -	624+65	3.4	FOR HMA PAVT TYPE E-3 LAYERS
0010	624+65 -	626+50	4.1	FOR HMA PAVT TYPE E-3 LAYERS
0010	626+50 -	632+60	14.8	FOR HMA PAVT TYPE E-3 LAYERS
0010	632+60 -	639+82	63.6	FOR HMA PAVT TYPE E-3 LAYERS
0010	639+82 -	641+75	5.0	FOR HMA PAVT TYPE E-3 LAYERS
0010	641+75 -	642+00	0.7	FOR HMA PAVT TYPE E-3 LAYERS
0010	642+00 -	643+49	4.0	FOR HMA PAVT TYPE E-3 LAYERS
0010	643+49 -	644+50	4.8	FOR HMA PAVT TYPE E-3 LAYERS
0010	644+50 -	645+10	2.5	FOR HMA PAVT TYPE E-3 LAYERS
0010	645+10 -	660+00	49.7	FOR HMA PAVT TYPE E-3 LAYERS
0010	660+00 -	661+00	4.0	FOR HMA PAVT TYPE E-3 LAYERS
0010	661+00 -	665+50	17.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	665+50 -	672+30	19.5	FOR HMA PAVT TYPE E-3 LAYERS
0010	672+30 -	673+70	4.2	FOR HMA PAVT TYPE E-3 LAYERS
0010	673+70 -	685+45	35.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	685+45 -	687+60	6.5	FOR HMA PAVT TYPE E-3 LAYERS
0010	687+60 -	690+35	7.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	690+35 -	702+90	35.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	702+90 -	723+59	59.0	FOR HMA PAVT TYPE E-3 LAYERS
0010	723+55 -	743+95	58.4	FOR HMA PAVT TYPE E-3 LAYERS
0010	743+95 -	746+95	8.6	FOR HMA PAVT TYPE E-3 LAYERS
0010	746+95 -	750+65	11.5	FOR HMA PAVT TYPE E-3 LAYERS
0010	750+65 -	754+05	10.6	FOR HMA PAVT TYPE E-3 LAYERS
0010	754+05 -	755+40	4.4	FOR HMA PAVT TYPE E-3 LAYERS
0010	755+40 -	758+50	8.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	758+50 -	760+60	7.0	FOR HMA PAVT TYPE E-3 LAYERS
0010	760+60 -	762+25	5.0	FOR HMA PAVT TYPE E-3 LAYERS
0010	762+25 -	763+95	5.6	FOR HMA PAVT TYPE E-3 LAYERS
0010	763+95 -	764+85	2.8	FOR HMA PAVT TYPE E-3 LAYERS
0010	764+85 -	767+40	7.3	FOR HMA PAVT TYPE E-3 LAYERS
0010	767+40 -	767+98	1.8	FOR HMA PAVT TYPE E-3 LAYERS
0010	767+98 -	770+25	7.7	FOR HMA PAVT TYPE E-3 LAYERS
0010	770+25 -	771+50	3.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	771+50 -	773+75	7.4	FOR HMA PAVT TYPE E-3 LAYERS
0010	773+75 -	775+40	4.9	FOR HMA PAVT TYPE E-3 LAYERS
0010	775+40 -	777+33	6.5	FOR HMA PAVT TYPE E-3 LAYERS
0010	828+50 -	868+75	66.5	FOR HMA PAVT TYPE E-3 LAYERS
0010	868+75 -	871+75	5.3	FOR HMA PAVT TYPE E-3 LAYERS
0010	871+75 -	915+50	72.2	FOR HMA PAVT TYPE E-3 LAYERS

0010	608+38 -	610+94	0.4	C&G work
0010	611+21 -	614+00	0.4	C&G work
0010	616+12 -	619+91	0.6	C&G work
0010	619+19 -	623+26	0.6	C&G work
0010	620+60 -	623+26	0.4	C&G work
0010	623+60 -	626+45	0.4	C&G work
0010	627+41 -	628+51	0.2	C&G work
0010	628+50 -	629+56	0.2	C&G work
0010	630+89 -	631+23	0.1	C&G work
0010	640+34 -	641+24	0.1	C&G work
0010	645+10 -	645+60	0.1	C&G work
0010	646+89 -	647+23	0.1	C&G work
0010	650+19 -	650+47	0.0	C&G work
0010	650+36 -	650+68	0.0	C&G work
0010	652+88 -	654+45	0.2	C&G work
0010	656+20 -	661+30	0.8	C&G work
0010	665+54 -	672+32	1.0	C&G work
0010	673+71 -	685+47	1.7	C&G work
0010	687+57 -	690+36	0.4	C&G work
0010	702+90 -	723+59	3.1	C&G work
0010	743+96 -	746+96	0.4	C&G work
0010	750+60 -	754+06	0.5	C&G work
0010	755+41 -	758+38	0.4	C&G work
0010	755+41 -	758+51	0.5	C&G work
0010	760+80 -	762+20	0.2	C&G work
0010	763+96 -	767+96	0.6	C&G work
0010	764+90 -	767+38	0.4	C&G work
0010	770+21 -	771+46	0.2	C&G work
0010	773+81 -	775+44	0.2	C&G work
0010	868+80 -	871+75	0.4	C&G work
0010		SRs	9.6	
TOTAL 0010			718.4	
0040	630+32 -	631+19	0.4	Parking Lanes
0040	631+42 -	632+49	0.5	Parking Lanes
0040	633+53 -	634+53	1.3	Parking Lanes
0040	633+60 -	634+57	1.3	Parking Lanes
0040	634+74 -	635+68	1.3	Parking Lanes
0040	634+79 -	635+71	1.2	Parking Lanes
0040	636+75 -	637+71	1.3	Parking Lanes
0040	636+73 -	637+69	1.3	Parking Lanes
0040	637+91 -	638+15	0.3	Parking Lanes
0040	637+93 -	638+89	1.3	Parking Lanes
0040	638+48 -	638+77	0.4	Parking Lanes
0040	639+87 -	640+90	0.5	Parking Lanes
0040	641+10 -	642+10	0.4	Parking Lanes
0040	642+47 -	643+10	0.3	Parking Lanes
TOTAL 0040			11.5	

ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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HMA PAVEMENT TYPE E-3

		460.1103					
CATEGORY	STATION TO	STATION	TON	TON	TON	REMARKS	
0010	603+38 -	605+25		78			
0010	605+25 -	607+00		86			
0010	607+00 -	614+00		222			
0010	614+00 -	615+50		59			
0010	615+50 -	619+25		119			
0010	619+25 -	621+25		98			
0010	621+25 -	623+50		83			
0010	623+50 -	624+65		56			
0010	624+65 -	626+50		68			
0010	626+50 -	632+60		232		DNI Park Lanes	
0010	632+60 -	639+82		901		DNI Park Lanes	
0010	639+82 -	641+75		63		DNI Park Lanes	
0010	641+75 -	642+00		11			
0010	642+00 -	643+49		67			
0010	643+49 -	644+50		80			
0010	644+50 -	645+10		42			
0010	645+10 -	660+00		829			
0010	660+00 -	661+00		66			
0010	661+00 -	665+50		365			
			LT SHLD	LANES	RT SHLD		
0010	665+50 -	672+30	102	150	73	C&G LT	
0010	672+30 -	673+70	24	31	15		
0010	673+70 -	685+45	188	259	151	C&G LT	
0010	685+45 -	687+60	34	47	28		
0010	687+60 -	690+35	35	61	35	C&G LT	
0010	690+35 -	702+90	161	276	161		
0010	702+90 -	723+55	265	454	265	C&G LT	
0010	723+55 -	743+95	262	449	262		
0010	743+95 -	746+95	39	66	39	C&G RT	
0010	746+95 -	750+65	47	81	63		
0010	750+65 -	754+05	44	75	58	C&G LT	
0010	754+05 -	755+40	20	30	23		
0010	755+40 -	758+50	40	68	40	C&G LT & RT	
0010	758+50 -	760+60	34	46	36		
0010	760+60 -	762+25	26	36	21	C&G RT	
0010	762+25 -	763+95	27	37	29		
0010	763+95 -	764+85	14	20	12	C&G RT	
0010	764+85 -	767+40	33	56	33		
0010	767+40 -	767+98	10	13	7	C&G RT	
0010	767+98 -	770+25	39	50	39		
0010	770+25 -	771+50	16	28	21	C&G LT	
0010	771+50 -	773+75	34	50	39		
0010	773+75 -	775+40	25	36	21	C&G RT	
0010	775+40 -	777+33	33	42	33		
0010	828+50 -	868+75	111	886	111		
0010	868+75 -	871+75	8	66	14	C&G RT	
0010	871+75 -	915+50	120	963	120		

ADDITIONAL QUANTITIES LISTED ELSEWHERE

		460.1103					
CATEGORY	STATION TO	STATION	LOCATION	TON	REMARKS		
0010	608+38 -	610+94	LT	6	C&G work		
0010	611+21 -	614+00	LT	7	C&G work		
0010	616+12 -	619+91	LT	9	C&G work		
0010	619+19 -	623+26	RT	10	C&G work		
0010	620+60 -	623+26	LT	7	C&G work		
0010	623+60 -	626+45	LT	7	C&G work		
0010	627+41 -	628+51	RT	3	C&G work		
0010	628+50 -	629+56	LT	3	C&G work		
0010	630+89 -	631+23	LT	1	C&G work		
0010	640+34 -	641+24	RT	2	C&G work		
0010	645+10 -	645+60	RT	1	C&G work		
0010	646+89 -	647+23	RT	1	C&G work		
0010	650+19 -	650+47	LT	1	C&G work		
0010	650+36 -	650+68	RT	1	C&G work		
0010	652+88 -	654+45	LT	4	C&G work		
0010	656+20 -	661+30	LT	13	C&G work		
0010	665+54 -	672+32	LT	17	C&G work		
0010	673+71 -	685+47	LT	29	C&G work		
0010	687+57 -	690+36	LT	7	C&G work		
0010	702+90 -	723+59	LT	51	C&G work		
0010	743+96 -	746+96	RT	7	C&G work		
0010	750+60 -	754+06	LT	9	C&G work		
0010	755+41 -	758+38	LT	7	C&G work		
0010	755+41 -	758+51	RT	8	C&G work		
0010	760+80 -	762+20	RT	3	C&G work		
0010	763+96 -	767+96	RT	10	C&G work		
0010	764+90 -	767+38	LT	6	C&G work		
0010	770+21 -	771+46	LT	3	C&G work		
0010	773+81 -	775+44	RT	4	C&G work		
0010	868+80 -	871+75	RT	7	C&G work		
			SRs	160	32 @ 5T each		
TOTAL 0010				11844			
0040	630+32 -	631+19	RT	6	Parking Lane		
0040	631+42 -	632+49	RT	8	Parking Lane		
0040	633+53 -	634+53	LT	22	Parking Lane		
0040	633+60 -	634+57	RT	21	Parking Lane		
0040	634+74 -	635+68	LT	21	Parking Lane		
0040	634+79 -	635+71	RT	20	Parking Lane		
0040	636+75 -	637+71	LT	21	Parking Lane		
0040	636+73 -	637+69	RT	21	Parking Lane		
0040	637+91 -	638+15	LT	5	Parking Lane		
0040	637+93 -	638+89	RT	21	Parking Lane		
0040	638+48 -	638+77	LT	6	Parking Lane		
0040	639+87 -	640+90	RT	8	Parking Lane		
0040	641+10 -	642+10	RT	7	Parking Lane		
0040	642+47 -	643+10	RT	5	Parking Lane		

TOT 0040 192

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<u>ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES</u>				
465.0120				
CATEGORY	LOCATION		TON	REMARKS
0010	Driveways		52	26 @ 2 T
TOTAL 0010			52	

<u>ASPHALTIC FLUMES</u>				
465.0315				
CATEGORY	STATION	LOCATION	SY	REMARKS
0010	623+20	RT	3	5'x5'
0010	624+95	LT	13	10'x12'
0010	702+90	LT	8	6'x12'
TOTAL 0010			24	

CONCRETE CURB & GUTTER 30-INCH TYPE D				
CATEGORY	STATION TO	STATION	LOCATION	601.0411 LF
0010	608+38 -	610+94	LT	256
0010	611+21 -	614+60	LT	339
0010	616+12 -	619+91	LT	379
0010	619+19 -	621+02	RT	183
0010	620+60 -	623+26	LT	266
0010	621+02 -	623+26	RT	224
0010	623+60 -	625+02	LT	142
0010	625+40 -	626+45	LT	215
0010	627+41 -	628+51	RT	110
0010	628+50 -	629+56	LT	106
0010	630+89 -	631+23	LT	34
0010	632+60 -	639+67	LT	707
0010	632+60 -	639+67	RT	707
0010	640+40	641+23	RT	83
0010	645+10 -	645+60	RT	50
0010	646+89 -	647+23	RT	34
0010	650+19 -	650+47	LT	28
0010	650+36 -	650+68	RT	32
0010	652+88 -	654+45	LT	157
0010	656+20 -	661+30	LT	510
TOTAL 0010				4562

CURBED ISLAND				
ADDITIONAL QUANTITIES LISTED ELSEWHERE				

		525.0124 CPCA 24"	525.0424 STEEL AEW 24"	525.0430 STEEL AEW 30"	525.0436 STEEL AEW 36"	525.0448 STEEL AEW 48"	525.0454 STEEL AEW 54"		
CATEGORY	STATION	MIN THICK ALUM	LOCATION	LF	EACH	EACH	EACH	EACH	REMARKS
0010	690+76		LT			1			
0010	690+76		RT			1			
0010	724+17		LT					1	
0010	729+92		LT		1				
0010	729+92		RT		1				
0010	735+49		LT				1		
0010	735+49		RT			1			
0010	741+20		LT		1				
0010	741+20		RT		1				
0010	749+55		LT		1				
0010	749+55		RT		1				
0010	754+83		LT				1		
0010	754+83		RT				1		
0010	758+83		LT				1		
0010	763+46		LT		1				
0010	763+46		RT		1				
0010	772+42		LT					1	
0010	836+46		LT		1				
0010	836+46		RT		1				
0010	855+42	0.075	LT	8	1				EXT EXIST CULV 8' LT
0010	855+42		RT		1				
0010	863+67		LT		1				
TOTAL 0010				8	13	2	5	1	1

CLEANING CULVERT PIPES				
CATEGORY	STATION	LOCATION	520.7000 EACH	REMARKS
0010	672+25		1	
0010	690+76		1	
0010	868+02		1	
TOTAL 0010			3	

CONCRETE COLLARS FOR PIPE				
CATEGORY	STATION	LOCATION	520.8000 EACH	
0010	632+99		1	
0010	636+21		1	
0010	639+67		1	
TOTAL 0010			3	
APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH				
CATEGORY	STATION TO	STATION	LOCATION	522.1012 EACH
0010	627+05			1
TOTAL 0010				1

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CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D					
CATEGORY	STATION TO	STATION	LOCATION	601.0557 LF	
0010	665+54	- 672+32		678	
0010	673+71	- 685+47		1176	
0010	687+57	- 690+36		279	
0010	702+90	- 723+59		2069	
0010	743+96	- 746+96		300	
0010	750+66	- 754+06		340	
0010	755+41	- 758+38		297	
0010	755+41	- 758+51		310	
0010	763+96	- 767+96		400	
0010	764+90	- 767+38		248	
0010	770+21	- 771+46		125	
0010	773+81	- 775+44		163	
0010	868+80	- 871+75		295	
TOTAL 0010				6680	
CONCRETE SIDEWALK 4-INCH					
CATEGORY	STATION TO	STATION	LOCATION	602.0405 SF	REMARKS
0010	619+50	- 621+00	RIGHT	900	
0010	625+40	- 626+45	LEFT	630	
0010	640+30	- 641+25	RIGHT	570	
0010	650+15	- 650+50	LEFT	210	
0010	658+30	- 659+75	LEFT	870	
0010	652+85	- 655+50	LEFT	1590	
0010		CURB RAMPS	- MISC LOCS	840	14 @ 60 SF
TOTAL 0010				5610	
0030	632+60	- 632+82		228	
0030	632+60	- 632+81		216	
0030	633+20	- 635+00		1967	
0030	633+30	- 635+00		1411	
0030	635+00	- 636+01		800	
0030	635+00	- 636+03		798	
0030	636+44	- 637+50		827	
0030	636+45	- 637+50		849	
0030	637+50	- 639+15		1312	
0030	637+50	- 639+20		1390	
0030	639+58R	- 639+68R		68	
0030	639+60	- 639+85		121	
0030	658+39	- 662+75		2570	
0030	662+75	- 665+22		1747	
TOTAL 0030				14303	
ADDITIONAL QUANTITIES LISTED ELSEWHERE					

CURB RAMP DETECTABLE WARNING FIELD YELLOW					
CATEGORY	LOCATION		602.0505 SF	REMARKS	
0010	MISC LOCS		224	28 @ 8SF	
TOTAL 0010			224		
RIPRAP LIGHT					
CATEGORY	STATION	LOCATION	606.0100 CY		
0010	672+25	LT	2		
TOTAL 0010			2		
RIPRAP MEDIUM					
CATEGORY	STATION TO	STATION	LOCATION	606.0200 CY	
0010	660+00		LT	2	
0010	660+67	- 664+89	LT	218	
0010	863+67		RT	2	
0010	867+40	- 868+35	LT	20	
TOTAL 0010				242	
RIPRAP EXTRA-HEAVY					
CATEGORY	STATION TO	STATION	LOCATION	606.0400 CY	REMARKS
0010	723+59	724+09	LT	27	
0010	754+36	- 754+80	LT	27	
0010	769+00		LT & RT	20	10 CY each side
TOTAL 0010				74	

STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH				
CATEGORY	STATION TO	STATION		608.0312 LF
0010	620+88	- 622+59		171
0010	622+59	- 623+16		56
0010	626+16	- 627+05		93
0010	634+71	- 634+75		18
0010	638+91	- 638+98		26
0010	638+91	- 639+79		32
0010	638+92	- 638+98		19
0010	639+79	- 639+75		36
0010	642+47	- 642+53		40
TOTAL 0010				490
STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH				
CATEGORY	STATION TO	STATION	LOCATION	608.0318 LF
0010	638+98	- 639+67		62
TOTAL 0010				62
STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH				
CATEGORY	STATION TO	STATION	LOCATION	608.0324 LF
0010	632+99	- 634+75		171
0010	634+69	- 634+71		5
0010	636+21	- 638+98		277
TOTAL 0010				453
MANHOLES 4-FT DIAMETER				
CATEGORY	STATION			611.2004 EACH
0010	620+88			1
0010	634+69			1
0010	634+75			1
0010	638+98			1
TOTAL 0010				4

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MANHOLE COVERS TYPE J			
CATEGORY	STATION	LOCATION	611.0530 EACH
0010	620+88		1
0010	634+69		1
0010	634+75		1
0010	638+98		1
TOTAL 0010			4

INLET COVERS TYPE A			
CATEGORY	STATION	LOCATION	611.0600 EACH
0010	629+58		1
0010	629+55		1
TOTAL 0010			2

INLET COVERS TYPE HM				
CATEGORY	STATION TO	STATION	LOCATION	611.0627 EACH
0010	659+82		LT	1
0010	660+65		LT	1
0010	665+95		LT	1
0010	668+05		LT	1
0010	703+00		LT	1
0010	706+00		LT	1
0010	709+00		LT	1
0010	716+00		LT	1
0010	719+50		LT	1
0010	723+50		LT	1
TOTAL 0010				10

INLET COVERS TYPE H			
CATEGORY	STATION	LOCATION	611.0624 EACH
0010	622+59		1
0010	626+16		1
0010	629+95		1
0010	634+71		1
0010	638+91		1
0010	638+92		1
0010	639+79		1
0010	639+75		1
0010	642+47		1
0010	642+53		1
TOTAL 0010			10

INLET COVERS TYPE HM-S			
CATEGORY	STATION	LOCATION	611.0636 EACH
0010	666+00	LT	1
0010	668+00	LT	1
0010	678+00	LT	1
0010	703+00	LT	1
0010	706+00	LT	1
0010	709+00	LT	1
0010	716+00	LT	1
0010	719+55	LT	1
0010	723+50	LT	1
TOTAL 0010			9

ADJUSTING INLET COVERS			
CATEGORY	STATION	LOCATION	611.8115 EACH
0010	632+67	RT	1
0010	632+72	LT	1
0010	645+56	RT	1
0010	647+00	RT	1
0010	650+30	LT	1
0010	650+40	LT	1
0010	656+35	LT	1
0010	657+50	LT	1
0010	658+87	LT	1
0010	660+66	LT	1
TOTAL 0010			10

INLETS 2X2.5-FT		
CATEGORY	STATION	611.3225 EACH
0010	622+59	1
0010	626+16	1
0010	629+55	1
0010	629+58	1
0010	634+71	1
0010	638+91	1
0010	638+92	1
0010	639+79	1
0010	639+75	1
0010	642+47	1
0010	642+53	1
TOTAL 0010		11

RECONSTRUCTING INLETS			
CATEGORY	STATION	LOCATION	611.0430 EACH
0010	642+50	RT	1
0010	650+45	RT	1
0010	653+05	LT	1
0010	682+84	LT	1
TOTAL 0010			4

ADJUSTING MANHOLE COVERS				
CATEGORY	STATION	LOCATION	611.8110 EACH	REMARKS
0010	606+37	37' RT	1	STORM
0010	632+65	6' LT	1	STORM
0010	636+04	6' RT	1	STORM
0010	646+41	10' LT	1	STORM
0010	646+99	8' LT	1	STORM
0010	650+34	7' LT	1	STORM
0010	629+73	4' LT	1	STORM
TOTAL 0010			7	
0040	603+63	27' LT	1	SAN
0040	603+73	26' LT	1	SAN
0040	605+45	21' RT	1	SAN
0040	606+97	6' LT	1	SAN
0040	610+94	15' LT	1	SAN
0040	611+17	11' LT	1	SAN
0040	613+31	16' LT	1	SAN
0040	616+42	17' LT	1	SAN
0040	619+40	17' LT	1	SAN
0040	620+26	17' LT	1	SAN
0040	621+89	13' LT	1	SAN
0040	623+46	11' LT	1	SAN
0040	625+03	12; LT	1	SAN
0040	626+49	9' LT	1	SAN
0040	626+72	12' LT	1	SAN
0040	629+84	15' LT	1	SAN
0040	634+66	25' RT	1	SAN
0040	638+76	10' RT	1	SAN
0040	641+27	14' LT	1	SAN
0040	642+86	15' LT	1	SAN
0040	643+77	21' RT	1	SAN
0040	653+25	9' LT	1	SAN
0040	655+93	13' LT	1	SAN
0040	658+47	11' RT	1	SAN
0040	660+43	32' RT	1	SAN
TOTAL 0040			25	

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PIPE UNDERDRAIN 6-INCH				
				612.0106
CATEGORY	STATION TO	STATION	LOCATION	LF
0010	632+60	633+75	LEFT	115
0010	632+60	633+75	RIGHT	115
0010	634+00	639+82	LEFT	582
0010	634+00	639+82	RIGHT	582
TOTAL 0010				1394

TOPSOIL					
					625.0100
CATEGORY	STATION TO	STATION	LOCATION	SY	REMARKS
0010	608+38 -	610+94	LT	29	C&G WORK
0010	611+21 -	614+60	LT	38	C&G WORK
0010	616+12 -	619+91	LT	42	C&G WORK
0010	619+19 -	621+02	RT	21	C&G WORK
0010	620+60 -	623+26	LT	288	C&G WORK
0010	623+60 -	625+02	LT	107	C&G WORK
0010	627+41 -	628+51	RT	12	C&G WORK
0010	628+50 -	629+56	LT	12	C&G WORK
0010	630+89 -	631+23	LT	4	C&G WORK
0010	633+20 -	633+30	LT	90	C&G WORK
0010	645+10 -	645+60	RT	6	C&G WORK
0010	646+89 -	647+23	RT	4	C&G WORK
0010	650+19 -	650+47	LT	3	C&G WORK
0010	650+36 -	650+68	RT	4	C&G WORK
0010	652+88 -	655+50	LT	18	C&G WORK
0010	656+20 -	661+30	LT	57	C&G WORK
0010	658+39 -	665+47	LT	157	C&G WORK
0010	665+54 -	672+32	LT	76	C&G WORK
0010	673+71 -	685+47	LT	131	C&G WORK
0010	687+57 -	690+36	LT	31	C&G WORK
0010	702+90 -	723+59	LT	230	C&G WORK
0010	743+96 -	746+96	RT	34	C&G WORK
0010	750+66 -	754+06	LT	38	C&G WORK
0010	755+41 -	758+38	LT	33	C&G WORK
0010	755+41 -	758+51	RT	35	C&G WORK
0010	763+96 -	767+96	RT	45	C&G WORK
0010	764+90 -	767+38	LT	28	C&G WORK
0010	770+21 -	771+46	LT	14	C&G WORK
0010	773+81 -	775+44	RT	18	C&G WORK
0010	868+80 -	871+75	RT	33	C&G WORK
0010	CLEAN CULV MIN AREAS			189	21 @9 SY
0010	CLEAN CULV FULL AREAS			525	15 @ 35 sy
TOTAL 0010				2352	

WATER					
624.0100					
CATEGORY	STATION TO	STATION	MGAL	REMARKS	
0010	632+60 -	639+82	5	FOR DUST CONTROL	
			<u>5</u>		

SALVAGED TOPSOIL					
625.0500					
CATEGORY	STATION TO	STATION	LOCATION	SY	REMARKS
0010	608+38 -	610+94		29	C&G WORK
0010	611+21 -	614+60		38	C&G WORK
0010	616+12 -	619+91		42	C&G WORK
0010	619+19 -	621+02		21	C&G WORK
0010	627+41 -	628+51		12	C&G WORK
0010	628+50 -	629+56		12	C&G WORK
0010	630+89 -	631+23		4	C&G WORK
0010	645+10 -	645+60		6	C&G WORK
0010	646+89 -	647+23		4	C&G WORK
0010	650+19 -	650+47		3	C&G WORK
0010	650+36 -	650+68		4	C&G WORK
0010	652+88 -	654+45		18	C&G WORK
0010	656+20 -	661+30		57	C&G WORK
0010	665+54 -	672+32		76	C&G WORK
0010	673+71 -	685+47		131	C&G WORK
0010	687+57 -	690+36		31	C&G WORK
0010	702+90 -	723+59		230	C&G WORK
0010	743+96 -	746+96		34	C&G WORK
0010	750+66 -	754+06		38	C&G WORK
0010	755+41 -	758+38		33	C&G WORK
0010	755+41 -	758+51		35	C&G WORK
0010	763+96 -	767+96		45	C&G WORK
0010	764+90 -	767+38		28	C&G WORK
0010	770+21 -	771+46		14	C&G WORK
0010	773+81 -	775+44		18	C&G WORK
0010	868+80 -	871+75		33	C&G WORK
0010	MIN CLEAN CULV AREAS			189	21 @9 SY
0010	FULL CLEAN CULV AREAS			525	15 @ 35 sy
TOTAL 0010				<u>1710</u>	
ADDITIONAL QUANTITIES LISTED ELSEWHERE					

MULCHING						
627.0200						
CATEGORY	STATION TO	STATION	LOCATION	SY	REMARKS	
0010	608+38	-	610+94	LT	58	C&G WORK
0010	611+21	-	614+60	LT	76	C&G WORK
0010	616+12	-	619+91	LT	84	C&G WORK
0010	619+19	-	621+02	RT	42	C&G WORK
0010	620+60	-	623+26	LT	288	C&G WORK
0010	623+60	-	625+02	LT	107	C&G WORK
0010	627+41	-	628+51	RT	24	C&G WORK
0010	628+50	-	629+56	LT	24	C&G WORK
0010	630+89	-	631+23	LT	8	C&G WORK
0010	633+20	-	633+30	LT	90	C&G WORK
0010	645+10	-	645+60	RT	12	C&G WORK
0010	646+89	-	647+23	RT	8	C&G WORK
0010	650+19	-	650+47	LT	6	C&G WORK
0010	650+36	-	650+68	RT	8	C&G WORK
0010	652+88	-	655+50	LT	36	C&G WORK
0010	656+20	-	661+30	LT	114	C&G WORK
0010	658+39	-	665+47	LT	157	C&G WORK
0010	665+54	-	672+32	LT	152	C&G WORK
0010	673+71	-	685+47	LT	262	C&G WORK
0010	687+57	-	690+36	LT	62	C&G WORK
0010	702+90	-	723+59	LT	460	C&G WORK
0010	743+96	-	746+96	RT	68	C&G WORK
0010	750+66	-	754+06	LT	76	C&G WORK
0010	755+41	-	758+38	LT	66	C&G WORK
0010	755+41	-	758+51	RT	70	C&G WORK
0010	763+96	-	767+96	RT	90	C&G WORK
0010	764+90	-	767+38	LT	56	C&G WORK
0010	770+21	-	771+46	LT	28	C&G WORK
0010	773+81	-	775+44	RT	36	C&G WORK
0010	868+80	-	871+75	RT	66	C&G WORK
0010	CLEAN CULV MIN AREAS				378	21 @ 18 SY
0010	CLEAN CULV FULL AREAS				1050	15 @ 70 sy
TOTAL 0010					4062	
ADDITIONAL QUANTITIES LISTED ELSEWHERE						

EROSION BALES			
628.1104			
CATEGORY	LOCATION	EACH	REMARKS
0010	UNDISTRIBUTED	50	
TOTAL 0010		50	

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3	<u>SILT FENCE</u>				<u>SILT FENCE MAINTENANCE</u>				<u>EROSION MAT CLASS II TYPE C</u>								
	628.1504				628.1520				628.2027								
	LF				LF				SY								
	CATEGORY	LOCATION			CATEGORY	LOCATION			CATEGORY	STATION TO	STATION	LOCATION	REMARKS				
	0010	UNDISTRIBUTED			0010	UNDISTRIBUTED			0010	622+00 -	623+26		288				
									0010	623+60 -	625+02		160				
									0010	CLEAN CULV MIN AREAS			378	21 @18 SY			
									0010	CLEAN CULV FULL AREAS			1050	15 @ 70 sy			
									0010	UNDISTRIBUTED			1000				
	TOTAL 0010				TOTAL 0010				TOTAL 0010				2876				
<u>FERTILIZER TYPE B</u>						<u>SEEDING MIXTURE NO. 20</u>						<u>SEEDING MIXTURE NO. 40</u>					
629.0210						630.0120						630.0140					
CATEGORY	STATION TO	STATION	LOCATION	CWT	REMARKS	CATEGORY	STATION TO	STATION	LOCATION	LB	REMARKS	CATEGORY	STATION TO	STATION	LOCATION	LB	
0010	608+38 -	610+94	LT	0.05	C&G WORK	0010	608+38 -	610+94	LT	2	C&G WORK	0010	608+38 -	610+94		2.00	
0010	611+21 -	614+60	LT	0.05	C&G WORK	0010	611+21 -	614+60	LT	2	C&G WORK	0010	611+21 -	614+60		2.00	
0010	616+12 -	619+91	LT	0.05	C&G WORK	0010	616+12 -	619+91	LT	2	C&G WORK	0010	616+12 -	619+91		2.00	
0010	619+19 -	621+02	RT	0.05	C&G WORK	0010	619+19 -	621+02	RT	2	C&G WORK	0010	619+19 -	621+02		2.00	
0010	620+60 -	623+26	LT	0.18	C&G WORK	0010	620+60 -	623+26	LT	8	C&G WORK	0010	627+41 -	628+51		2.00	
0010	623+60 -	625+02	LT	0.07	C&G WORK	0010	623+60 -	625+02	LT	3	C&G WORK	0010	628+50 -	629+56		2.00	
0010	627+41 -	628+51	RT	0.05	C&G WORK	0010	627+41 -	628+51	RT	1	C&G WORK	0010	630+89 -	631+23		2.00	
0010	628+50 -	629+56	LT	0.05	C&G WORK	0010	628+50 -	629+56	LT	1	C&G WORK	0010	632+60 -	639+67		2.00	
0010	630+89 -	631+23	LT	0.05	C&G WORK	0010	629+56	LT				0010	632+60 -	639+67		2.00	
0010	633+20 -	633+30	LT	0.05	C&G WORK	0010	630+89 -	631+23	LT	2	C&G WORK	0010	645+10 -	645+60		2.00	
0010	645+10 -	645+60	RT	0.05	C&G WORK	0010	633+20 -	633+30	LT	2	C&G WORK	0010	646+89 -	647+23		2.00	
0010	646+89 -	647+23	RT	0.05	C&G WORK	0010	645+10 -	645+60	RT	2	C&G WORK	0010	650+19 -	650+47		2.00	
0010	650+19 -	650+47	LT	0.05	C&G WORK	0010	646+89 -	647+23	RT	2	C&G WORK	0010	650+36 -	650+68		2.00	
0010	650+36 -	650+68	RT	0.05	C&G WORK	0010	650+19 -	650+47	LT	2	C&G WORK	0010	652+88 -	654+45		2.00	
0010	652+88 -	655+50	LT	0.05	C&G WORK	0010	650+36 -	650+68	RT	2	C&G WORK	0010	656+20 -	661+30		2.00	
0010	656+20 -	661+30	LT	0.05	C&G WORK	0010	652+88 -	655+50	LT	2	C&G WORK	0010	665+54 -	672+32		2.00	
0010	658+39 -	665+47	LT	0.05	C&G WORK	0010	656+20 -	661+30	LT	2	C&G WORK	0010	673+71 -	685+47		2.00	
0010	665+54 -	672+32	LT	0.05	C&G WORK	0010	658+39 -	665+47	LT	2	C&G WORK	0010	687+57 -	690+36		2.00	
0010	673+71 -	685+47	LT	0.10	C&G WORK	0010	665+54 -	672+32	LT	2	C&G WORK	0010	702+90 -	723+59		2.00	
0010	687+57 -	690+36	LT	0.10	C&G WORK	0010	673+71 -	685+47	LT	2	C&G WORK	0010	743+96 -	746+96		2.00	
0010	702+90 -	723+59	LT	0.10	C&G WORK	0010	687+57 -	690+36	LT	2	C&G WORK	0010	750+66 -	754+06		2.00	
0010	743+96 -	746+96	RT	0.10	C&G WORK	0010	702+90 -	723+59	LT	2	C&G WORK	0010	755+41 -	758+38		2.00	
0010	750+66 -	754+06	LT	0.10	C&G WORK	0010	743+96 -	746+96	RT	2	C&G WORK	0010	755+41 -	758+38		2.00	
0010	755+41 -	758+38	LT	0.10	C&G WORK	0010	750+66 -	754+06	LT	2	C&G WORK	0010	755+41 -	758+51		1.00	
0010	755+41 -	758+51	RT	0.10	C&G WORK	0010	755+41 -	758+38	LT	2	C&G WORK	0010	763+96 -	767+96		1.00	
0010	763+96 -	767+96	RT	0.10	C&G WORK	0010	755+41 -	758+51	RT	1	C&G WORK	0010	764+90 -	767+38		1.00	
0010	764+90 -	767+38	LT	0.10	C&G WORK	0010	763+96 -	767+96	RT	1	C&G WORK	0010	770+21 -	771+46		1.00	
0010	770+21 -	771+46	LT	0.10	C&G WORK	0010	764+90 -	767+38	LT	1	C&G WORK	0010	773+81 -	775+44		1.00	
0010	773+81 -	775+44	RT	0.10	C&G WORK	0010	770+21 -	771+46	LT	1	C&G WORK	0010	868+80 -	871+75		1.00	
0010	868+80 -	871+75	RT	0.10	C&G WORK	0010	773+81 -	775+44	RT	1	C&G WORK						
0010	CLEAN CULV MIN AREAS			0.23		0010	868+80 -	871+75	RT	1	C&G WORK	TOTAL 0010				50.00	
0010	CLEAN CULV FULL AREAS			0.66		0010	CLEAN CULV MIN AREAS			10		ADDITIONAL QUANTITIES LISTED ELSEWHERE					
	TOTAL 0010				3.14	0010	CLEAN CULV FULL AREAS			28							
ADDITIONAL QUANTITIES LISTED ELSEWHERE						TOTAL 0010						97					
PROJECT NO: 8160-14-71				HWY: STH 13		COUNTY: BAYFIELD				MISCELLANEOUS QUANTITIES				SHEET: 73		E	

SEEDING TEMPORARY <table><tr><th>CATEGORY</th><th>LOCATION</th><th>630.0200 LB</th><th colspan="2">REMARKS</th></tr><tr><td>0010</td><td>UNDISTRIBUTED</td><td>50</td><td colspan="2"></td></tr><tr><td colspan="2">TOTAL 0010</td><td>50</td><td colspan="2"></td></tr></table>					CATEGORY	LOCATION	630.0200 LB	REMARKS		0010	UNDISTRIBUTED	50			TOTAL 0010		50			TRAFFIC CONTROL BARRICADES TYPE II <table><tr><th>CATEGORY</th><th>STATION TO</th><th>STATION</th><th>LOCATION</th><th>643.0410 DAYS</th></tr><tr><td>0010</td><td colspan="2">SIDEWALK CLOSURES</td><td></td><td>750</td></tr><tr><td colspan="3">TOTAL 0010</td><td></td><td>750</td></tr></table>					CATEGORY	STATION TO	STATION	LOCATION	643.0410 DAYS	0010	SIDEWALK CLOSURES			750	TOTAL 0010				750	TRAFFIC CONTROL WARNING LIGHTS TYPE A <table><tr><th>CATEGORY</th><th>STATION TO</th><th>STATION</th><th>LOCATION</th><th>643.0705 DAYS</th></tr><tr><td>0010</td><td colspan="2"></td><td>PROJECT</td><td>5280</td></tr><tr><td colspan="3">TOTAL 0010</td><td></td><td>5280</td></tr></table>					CATEGORY	STATION TO	STATION	LOCATION	643.0705 DAYS	0010			PROJECT	5280	TOTAL 0010				5280																																																																																																																																																																																																																												
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EACH</th></tr><tr><td>0010</td><td>660+60</td><td>RIGHT</td><td>1</td><td>0010</td><td>741+20</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>660+66</td><td>LEFT</td><td>1</td><td>0010</td><td>741+20</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>665+91</td><td>RIGHT</td><td>1</td><td>0010</td><td>749+55</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>665+95</td><td>LEFT</td><td>1</td><td>0010</td><td>749+55</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>668+03</td><td>LEFT</td><td>1</td><td>0010</td><td>754+83</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>668+05</td><td>LEFT</td><td>1</td><td>0010</td><td>754+84</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>672+25</td><td>LEFT</td><td>1</td><td>0010</td><td>758+83</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>672+25</td><td>RIGHT</td><td>1</td><td>0010</td><td>763+46</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>677+97</td><td>RIGHT</td><td>1</td><td>0010</td><td>763+46</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>682+84</td><td>RIGHT</td><td>1</td><td>0010</td><td>768+80</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>686+12</td><td>LEFT</td><td>1</td><td>0010</td><td>769+50</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>686+12</td><td>RIGHT</td><td>1</td><td>0010</td><td>772+00</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>690+76</td><td>LEFT</td><td>1</td><td>0010</td><td>773+00</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>690+76</td><td>RIGHT</td><td>1</td><td>0010</td><td>775+60</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>696+35</td><td>LEFT</td><td>1</td><td>0010</td><td>775+60</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>696+35</td><td>RIGHT</td><td>1</td><td>0010</td><td>836+46</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>702+98</td><td>LEFT</td><td>1</td><td>0010</td><td>836+46</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>705+95</td><td>LEFT</td><td>1</td><td>0010</td><td>855+42</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>708+95</td><td>LEFT</td><td>1</td><td>0010</td><td>855+42</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>715+95</td><td>LEFT</td><td>1</td><td>0010</td><td>863+67</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>719+50</td><td>LEFT</td><td>1</td><td>0010</td><td>863+67</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>723+50</td><td>LEFT</td><td>1</td><td>0010</td><td>868+02</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>724+17</td><td>LEFT</td><td>1</td><td>0010</td><td>868+02</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>724+17</td><td>RIGHT</td><td>1</td><td>0010</td><td>874+00</td><td>LEFT</td><td>1</td></tr><tr><td>0010</td><td>729+92</td><td>LEFT</td><td>1</td><td>0010</td><td>874+00</td><td>RIGHT</td><td>1</td></tr><tr><td>0010</td><td>729+92</td><td>RIGHT</td><td>1</td><td colspan="3">TOTAL 0010</td><td>53</td></tr><tr><td>0010</td><td>735+49</td><td>LEFT</td><td>1</td><td colspan="3"></td><td></td></tr><tr><td>0010</td><td>735+49</td><td>RIGHT</td><td>1</td><td colspan="3"></td><td></td></tr></table>					CATEGORY	STATION	LOCATION	633.5200 EACH	CATEGORY	STATION	LOCATION	633.5200 EACH	0010	660+60	RIGHT	1	0010	741+20	LEFT	1	0010	660+66	LEFT	1	0010	741+20	RIGHT	1	0010	665+91	RIGHT	1	0010	749+55	LEFT	1	0010	665+95	LEFT	1	0010	749+55	RIGHT	1	0010	668+03	LEFT	1	0010	754+83	LEFT	1	0010	668+05	LEFT	1	0010	754+84	RIGHT	1	0010	672+25	LEFT	1	0010	758+83	LEFT	1	0010	672+25	RIGHT	1	0010	763+46	LEFT	1	0010	677+97	RIGHT	1	0010	763+46	RIGHT	1	0010	682+84	RIGHT	1	0010	768+80	LEFT	1	0010	686+12	LEFT	1	0010	769+50	RIGHT	1	0010	686+12	RIGHT	1	0010	772+00	LEFT	1	0010	690+76	LEFT	1	0010	773+00	RIGHT	1	0010	690+76	RIGHT	1	0010	775+60	LEFT	1	0010	696+35	LEFT	1	0010	775+60	RIGHT	1	0010	696+35	RIGHT	1	0010	836+46	LEFT	1	0010	702+98	LEFT	1	0010	836+46	RIGHT	1	0010	705+95	LEFT	1	0010	855+42	LEFT	1	0010	708+95	LEFT	1	0010	855+42	RIGHT	1	0010	715+95	LEFT	1	0010	863+67	LEFT	1	0010	719+50	LEFT	1	0010	863+67	RIGHT	1	0010	723+50	LEFT	1	0010	868+02	LEFT	1	0010	724+17	LEFT	1	0010	868+02	RIGHT	1	0010	724+17	RIGHT	1	0010	874+00	LEFT	1	0010	729+92	LEFT	1	0010	874+00	RIGHT	1	0010	729+92	RIGHT	1	TOTAL 0010			53	0010	735+49	LEFT	1					0010	735+49	RIGHT	1					TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) <table><tr><th>CATEGORY</th><th>STATION TO</th><th>STATION</th><th>LOCATION</th><th>643.0200 DAYS</th><th>REMARKS</th></tr><tr><td>0010</td><td colspan="2"></td><td>PROJECT</td><td>90</td><td></td></tr><tr><td colspan="3">TOTAL 0010</td><td></td><td>90</td><td></td></tr></table>					CATEGORY	STATION TO	STATION	LOCATION	643.0200 DAYS	REMARKS	0010			PROJECT	90		TOTAL 0010				90		TRAFFIC CONTROL DETOUR SIGNS <table><tr><th>CATEGORY</th><th>STATION TO</th><th>STATION</th><th>LOCATION</th><th>643.3000 DAYS</th></tr><tr><td>0010</td><td colspan="2"></td><td>PROJECT</td><td>7260</td></tr><tr><td colspan="3">TOTAL 0010</td><td></td><td>7260</td></tr></table>					CATEGORY	STATION TO	STATION	LOCATION	643.3000 DAYS	0010			PROJECT	7260	TOTAL 0010				7260
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					GEOTEXTILE FABRIC TYPE R <table><tr><th>CATEGORY</th><th>STATION TO</th><th>STATION</th><th>LOCATION</th><th>645.0130 SY</th></tr><tr><td>0010</td><td>660+60</td><td></td><td>LEFT</td><td>4</td></tr><tr><td>0010</td><td>660+67</td><td>- 664+89</td><td>LEFT</td><td>435</td></tr><tr><td>0010</td><td>672+25</td><td></td><td>LEFT</td><td>6</td></tr><tr><td>0010</td><td>863+67</td><td></td><td>RIGHT</td><td>4</td></tr><tr><td>0010</td><td>867+40</td><td>- 868+35</td><td>LEFT</td><td>41</td></tr><tr><td colspan="3">TOTAL 0010</td><td></td><td>490</td></tr></table>					CATEGORY	STATION TO	STATION	LOCATION	645.0130 SY	0010	660+60		LEFT	4	0010	660+67	- 664+89	LEFT	435	0010	672+25		LEFT	6	0010	863+67		RIGHT	4	0010	867+40	- 868+35	LEFT	41	TOTAL 0010				490																																																																																																																																																																																																																																											
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TOTAL 0010				490																																																																																																																																																																																																																																																																																			

PROJECT NO: 8160-14-71

HWY: STH 13

COUNTY: BAYFIELD

MISCELLANEOUS QUANTITIES

SHEET: 74

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GEOTEXTILE FABRIC TYPE SAS				
CATEGORY	STATION TO	STATION	645.0140 SY	
0010	632+69	- 639R+67	3200	
TOTAL 0010			3200	

PAVEMENT MARKING EPOXY 4-INCH					
CATEGORY	STATION TO	STATION	LOCATION	646.0106 LF	REMARKS
0010	603+38	605+15	LEFT	177	EDGE LINE
0010	603+38	606+75	RIGHT	337	EDGE LINE
0010	660+00	915+50	RIGHT	25550	EDGE LINE
0010	665+50	915+50	LEFT	25000	EDGE LINE
TOTAL 0010				51064	

PAVEMENT MARKING EPOXY 8-INCH					
CATEGORY	STATION TO	STATION	LOCATION	646.0126 LF	REMARKS
0010	614+50	- 615+25	RIGHT	75	TURN LANE
TOTAL 0010				75	

PAVEMENT MARKING SAME DAY EPOXY 4-INCH				
CATEGORY	STATION TO	STATION	LOCATION	646.0406 LF
0010	603+38	777+33	CENTERLINE	30585
0010	828+50	915+50	CENTERLINE	13030
TOTAL 0010				43615

PAVEMENT MARKING SYMBOLS EPOXY				
CATEGORY	STATION	LOCATION	647.0256 EACH	REMARKS
0010	634+40	LEFT	1	HANDICAP
TOTAL 0010			1	
ADDITIONAL QUANTITIES LISTED ELSEWHERE				

PAVEMENT MARKING CURB EPOXY					
CATEGORY	STATION TO	STATION	LOCATION	647.0456 LF	REMARKS
0010	629+80	630+30	RIGHT	55	YELLOW
0010	631+20	631+40	RIGHT	22	YELLOW
0010	632+50	632+80	RIGHT	40	YELLOW
0010	633+20	633+55	LEFT	41	YELLOW
0010	633+25	633+60	RIGHT	40	YELLOW
0010	634+25	634+52	LEFT	27	BLUE
0010	634+52	634+72	LEFT	20	YELLOW
0010	634+55	634+77	RIGHT	22	YELLOW
0010	635+70	636+10	LEFT	44	YELLOW
0010	635+70	636+10	RIGHT	41	YELLOW
0010	636+40	636+75	RIGHT	40	YELLOW
0010	636+45	636+75	LEFT	37	YELLOW
0010	637+65	637+89	RIGHT	24	YELLOW
0010	637+70	637+90	LEFT	20	YELLOW
0010	638+15	638+47	LEFT	32	YELLOW
0010	638+75	639+20	LEFT	56	YELLOW
0010	638+85	639+20	RIGHT	35	YELLOW
0010	639+00	643+80	LEFT	456	YELLOW
0010	639+55	639+85	RIGHT	34	YELLOW
0010	640+90	641+10	RIGHT	20	YELLOW
0010	642+10	642+44	RIGHT	34	YELLOW
0010	643+25	644+00	RIGHT	68	YELLOW
TOTAL 0010				1208	
ADDITIONAL QUANTITIES LISTED ELSEWHERE					

PAVEMENT MARKING ISLAND NOSE EPOXY				
CATEGORY	STATION TO	STATION	LOCATION	647.0606 EACH
0010	625+40		LEFT	1
0010	626+45		LEFT	1
TOTAL 0010				2

PAVEMENT MARKING PARKING STALL EPOXY				
CATEGORY	STATION TO	STATION	LOCATION	647.0656 LF
0040	630+30	631+20	RIGHT	50
0040	631+45	632+50	RIGHT	60
0040	633+50	- 634+55	LEFT	50
0040	633+55	- 634+55	RIGHT	50
0040	634+75	- 635+70	LEFT	50
0040	634+80	- 635+70	RIGHT	50
0040	636+75	- 637+70	LEFT	50
0040	636+75	- 637+70	RIGHT	50
0040	637+90	- 637+15	LEFT	19
0040	637+90	- 638+90	RIGHT	50
0040	638+50	- 638+75	LEFT	19
0040	639+85	- 640+90	RIGHT	60
0040	641+15	- 642+15	RIGHT	60
0040	642+45	- 643+30	RIGHT	50
TOT 0040				668
ADDITIONAL QUANTITIES SHOWN ELSEWHERE				

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH				
CATEGORY	STATION TO	STATION	LOCATION	649.0200 LF
0010			PROJECT	41860
TOTAL 0010				41860

CONSTRUCTION STAKING STORM SEWER			
CATEGORY	LOCATION	650.4000 EACH	
0010	INLETS & MHS	17	
TOTAL 0010		17	

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CONSTRUCTION STAKING SUBGRADE

CATEGORY	STATION TO	STATION	LOCATION	650.4500 LF
0010	632+60	- 639+82		800
TOTAL 0010				800

CONSTRUCTION STAKING BASE

CATEGORY	STATION TO	STATION	LOCATION	650.5000 LF
0010	632+60	- 639+82		800
TOTAL 0010				800

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

CATEGORY	LOCATION	650.5500 LF	REMARKS
0010	30" & 36" C&G LOCS	14284	
TOTAL 0010		14284	

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	LOCATION	650.8000 LF	REMARKS
0010	PROJECT	27000	
TOTAL 0010		27000	

ADJUSTING WATERVALVE BOX

CATEGORY	STATION	LOCATION	SPV.0060(03) EACH
0040	603+89	7' LT	1
0040	603+91	14' LT	1
0040	606+73	16' RT	1
0040	606+76	17' RT	1
0040	606+76	20' RT	1
0040	619+86	11' LT	1
0040	620+11	3' LT	1
0040	623+32	15' RT	1
0040	623+35	12' RT	1
0040	626+60	27' RT	1
0040	630+87	25' RT	1
0040	649+38	CL	1
0040	649+44	4' LT	1
0040	649+50	CL	1
0040	655+47	14' LT	1
0040	655+86	CL	1
TOT 0040			16
ADDITIONAL QUANTITIES SHOWN ELSEWHERE			

SAWING ASPHALT

CATEGORY	STATION TO	STATION	LOCATION	690.0150 LF	REMARKS
0010	614+00	- 614+60	LEFT	60	C&G
0010	620+60	- 623+26	LEFT	266	C&G
0010	621+02	- 623+26	RIGHT	224	C&G
0010	623+60	- 625+02	LEFT	142	C&G
0010	625+40	- 626+45	LEFT	108	C&G Superieur Petrol
0010	627+41	- 628+51	RIGHT	110	C&G
0010	628+50	- 629+56	LEFT	106	C&G
0010	629+89	- 630+89	LEFT	100	C&G
0010	645+10	- 645+60	RIGHT	50	C&G
0010	646+89	- 647+23	RIGHT	34	C&G
0010	650+19	- 650+47	LEFT	28	C&G
0010	650+36	- 650+68	RIGHT	32	C&G
0010	652+88	- 654+45	LEFT	157	C&G
0010	656+20	- 661+30	LEFT	510	C&G
0010	659+85		LEFT	11	Driveway
0010	665+54	- 672+32	LEFT	678	C&G
0010	669+82		LEFT	35	Driveway
0010	670+15		LEFT	47	Driveway
0010	673+71	- 685+47	LEFT	1176	C&G
0010	676+70		LEFT	19	Driveway
0010	687+57	- 690+36	LEFT	279	C&G
0010	687+95		LEFT	19	Driveway
0010	702+90	- 723+59	LEFT	2069	C&G
0010	743+96	- 746+96	RIGHT	300	C&G
0010	745+30		RIGHT	13	Driveway
0010	750+66	- 754+06	LEFT	340	C&G
0010	755+41	- 758+38	LEFT	297	C&G
0010	755+41	- 758+51	RIGHT	310	C&G
0010	764+90	- 767+38	LEFT	248	C&G
0010	763+96	- 767+96	RIGHT	400	C&G
0010	770+21	- 771+46	LEFT	125	C&G
0010	773+81	- 775+44	RIGHT	163	C&G
0010	868+80	- 871+75	RIGHT	295	C&G
TOTAL 0010				8751	
ADDITIONAL QUANTITIES SHOWN ELSEWHERE					

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SAWING CONCRETE					
690.0250					
CATEGORY	STATION TO	STATION	LOCATION	LF	REMARKS
0010	619+51		26' RT	5.0	SIDEWALK
0010	619+97		71' RT	5.0	SIDEWALK
0010	632+60		26' LT	5.0	SIDEWALK
0010	632+60	632+68	26' - 32' RT	19.0	SIDEWALK
0010	632+68		49' LT	5.0	SIDEWALK
0010	632+68		47' RT	6.0	SIDEWALK
0010	608+38		13' LT	2.5	CURB/GUTTER
0010	611+31		14' LT	2.5	CURB/GUTTER
0010	614+65		13' LT	2.5	CURB/GUTTER
0010	616+12		12' LT	2.5	CURB/GUTTER
0010	619+91		12' LT	2.5	CURB/GUTTER
0010	620+60		14' LT	2.5	CURB/GUTTER
0010	625+40	626+45	LEFT	108.0	C&G ISLAND
0010	627+41		18' RT	2.5	CURB/GUTTER
0010	628+50		16' RT	2.5	CURB/GUTTER
0010	628+50		16' LT	2.5	CURB/GUTTER
0010	629+55		24' LT	2.5	CURB/GUTTER
0010	629+89		25' LT	2.5	CURB/GUTTER
0010	631+23		16' LT	2.5	CURB/GUTTER
0010	639+82		23' LT	6.0	SIDEWALK
0010	639+14		33' RT	5.0	SIDEWALK
0010	639+58		31' RT	5.0	SIDEWALK
0010	639+05		19' RT	6.0	SIDEWALK
0010	639+82		23' RT	5.0	SIDEWALK
0010	639+67		28' RT	5.0	SIDEWALK
0010	645+10		12' RT	2.5	CURB/GUTTER
0010	645+60		12' RT	2.5	CURB/GUTTER
0010	646+89		13' RT	2.5	CURB/GUTTER
0010	647+23		13' RT	2.5	CURB/GUTTER
0010	650+19		13' LT	2.5	CURB/GUTTER
0010	650+19		16' LT	4.0	SIDEWALK
0010	650+47		13' LT	2.5	CURB/GUTTER
0010	650+47		16' LT	4.0	SIDEWALK
0010	650+68		13' RT	2.5	CURB/GUTTER
0010	652+88		13' LT	2.5	CURB/GUTTER
0010	652+88		15' LT	4.0	SIDEWALK
0010	655+40		45' LT	2.5	CURB/GUTTER
0010	656+20		14' LT	2.5	CURB/GUTTER
0010	658+38		21' LT	4.0	SIDEWALK
0010	661+33		13' LT	2.5	CURB/GUTTER
TOTAL 0010				259	
REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL					
SPV.0170(01)					
CATEGORY	LOCATION			STA	
0010	SMA PAVT AREAS			250	
TOTAL 0010				250	

CLEANING CULVERT PIPES MINIMAL			
CATEGORY	STATION	LOCATION	SPV.0060(10) EACH
0010	660+60	RT	1
0010	682+84	RT	1
0010	690+76	LT & RT	2
0010	696+35	RT	1
0010	724+17	LT	1
0010	729+92	LT & RT	2
0010	741+20	LT	1
0010	749+55	LT & RT	2
0010	754+83	RT	1
0010	760+39	LT	1
0010	763+46	LT & RT	2
0010	836+46	LT & RT	2
0010	863+67	LT & RT	2
0010	868+02	RT	1
0010	874+00	LT	1
TOTAL 0010			21

CLEANING CULVERT PIPES FULL			
CATEGORY	STATION	LOCATION	SPV.0060(11) EACH
0010	665+91	RT	1
0010	668+05	LT	1
0010	672+75	LT & RT	2
0010	686+12	LT & RT	2
0010	696+35	LT	1
0010	724+17	RT	1
0010	741+20	RT	1
0010	772+42	LT	1
0010	775+75	LT & RT	2
0010	855+42	RT	1
0010	868+02	LT	1
0010	874+00	RT	1
TOTAL 0010			15

CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT			
CATEGORY	LOCATION	SPV.0090(05) LF	
0010	30-INCH C&G LOCATIONS	4562	
0010	36-INCH C&G LOCATIONS	6680	
TOTAL 0010		11242	

SAWING PAVEMENT						
CATEGORY	STATION TO	STATION	LOCATION	SPV.0090(03) LF	REMARKS	
0010	608+38	610+94	LEFT	258	C&G	
0010	611+21	614+00	LEFT	275	C&G	
0010	616+13	621+02	LEFT	380	C&G	
0010	619+20	620+06	RIGHT	100	C&G	
0010	629+89	631+23	LEFT	139	C&G	
TOTAL 0010				1152		
ADDITIONAL QUANTITIES SHOWN ELSEWHERE						
CONCRETE SIDEWALK CURE AND SEAL TREATMENT						
				SPV.0165(02) SF		
CATEGORY	LOCATION					
0010	NEW SDWK		5610			
TOTAL 0010				5610		
0030	NEW SDWK		14303			
TOTAL 0030				14303		
PAVEMENT MARKING CROSSWALK EPOXY 36-INCH SPECIAL						
				SPV.0165(03) SF		
CATEGORY	STATION TO	STATION	LOCATION			
0010	619+25			96		
0010	632+75			144		
0010	632+85	-	633+20 LEFT	120		
0010	632+80	-	633+25 RIGHT	168		
0010	633+30			144		
0010	635+95			144		
0010	636+10	-	636+40 LEFT	144		
0010	636+10	-	636+30 RIGHT	120		
0010	636+50			144		
0010	639+10			168		
0010			1ST STREET SOUTH	120		
0010			RITTENHOUST AVE EAST	144		
0010	639+60			144		
0010	643+70			168		
SMA PAVEMENT COMPACTION ACCEPTANCE				TOTAL 0010	1968	
				SPV.0195(02) TON		
CATEGORY	LOCATION					
0010	SMA PAVT AREAS		5834			
TOTAL 0010				5834		

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STATION	North Bound LOC.	Code	Code Description	MESSAGE			W	H	637.0202 SIGNS REFLECTIVE TYPE II (SF)	634.0612 POSTS WOOD 4X6- INCHX12-FT (EACH)	634.0614 POSTS WOOD 4X6- INCHX14-FT (EACH)	634.0616 POSTS WOOD 4X6- INCHX16-FT (EACH)	634.0812 POSTS TUBULAR STEEL 2X2- INCHX12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
603+50	Right	R7-1-L	No Parking Any Time - LEFT Arrow				18	24	3.00		1			1	1	
603+90	Right	R1-1	Stop				30	30	5.18		1			1	1	
604+07	Right	W1-1-L	Left Turn				36	36	9.00							
		W13-1	Advisory Speed Plate (Yellow Back)	10			24	24	4.00			1		2	1	
606+50	Right	W1-8	Chevron				18	24	3.00		1					1
606+68	Right	W1-6	Night Arrow (Single)				48	24	8.00			1		1	1	
606+75	Right	W1-8	Chevron				18	24	3.00		1			1	1	
606+80	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1				1	
606+85	Right	W1-8	Chevron				18	24	3.00		1				1	
607+55	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1				1	
608+65	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
609+75	Right	R2-1	Speed Limit_ MPH	25			24	30	5.00		1				1	
610+46	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
611+31	Right	R1-1	Stop				30	30	5.18		1			1	1	
611+70	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
613+25	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
614+43	Right	D7-59-R	Tourist Information/Arrow Right	Tourist Info (RA)			54	36	13.50			1		1	1	
615+85	Right	R1-1	Stop				30	30	5.18		1			1	1	
616+00	Right	W3-1	Stop Ahead				36	36	9.00		1			1	1	
616+25	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
616+70	Right	S1-1	School Advance				36	36	9.00							
		WF16-9P	Ahead				30	18	3.75			1		3	1	
		R2-6P	Fines Higher				24	18	3.00							
617+18	Right	W1-1-R	Right Turn				36	36	9.00			1		1	1	
618+23	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
619+20	Right	S1-1	School Advance				36	36	9.00							
		W16-7L	Left Diagonal Downward Pointing Arrow (Yellow)				24	12	2.00			1				
619+45	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00		1			1	1	
620+58	Island	R4-7	Keep Right				24	30	5.00				1	1	1	
619+95	Island	W12-1-D	Double Down Arrows				24	24	4.00	1				1	1	
620+10	Island	R1-1	Stop				36	36	9.00							
		W4-4AR	Traffic From Right Does Not Stop				42	15	4.38				1	1	1	
620+80	Right	R1-2	Yield				36	31	7.75			1		1	1	
620+82	Right	R5-1	Do Not Enter				30	30	6.25		1			1	1	
621+25	Right	R7-1-L	No Parking Any Time - LEFT Arrow				18	24	3.00		1			1	1	
621+65	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	NORTH	13		24	36	6.00			1		1	1	M3-1,M1-6
622+05	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
622+97	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00		1			1	1	
623+60	Right	R1-1	Stop				30	30	6.25		1			1	1	
624+63	Right	R2-1	Speed Limit_ MPH	25			24	30	5.00		1			1	1	
624+73	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
626+27	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00		1			1	1	
626+25	Right	D1-3	Triple Destination/Arrow	Apostle Islands Nat'l Lakeshore Visitor Center (LA)			84	36	21.00			2		1	2	
626+77	Right	R1-1	Stop				30	30	5.18		1			1	1	
626+87	Right	R7-1-L	No Parking Any Time - LEFT Arrow				18	24	3.00					1		Band to light pole
628+10	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
629+33	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00					1		Band to light pole
629+92	Right	R1-1	Stop				30	30	5.18		1			1	1	
632+76	Right	R1-1	Stop				30	30	5.18		1			1	1	
633+28	Right	R1-1	Stop				30	30	5.18				1	1	1	
633+40	Right	R2-1	Speed Limit_ MPH	25			24	30	5.00		1			1	1	
635+15	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	NORTH	13		24	36	6.00					1		M3-1,M1-4, Band to light pole
636+45	Right	R1-1	Stop				30	30	5.18				1	1	1	
638+22	Right	J3-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	NORTH	13	LEFT ARROW	24	57	9.50					2		M3-1,M1-6,M6-1 Band to light pole
639+18	Right	J3-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	SOUTH	13	RIGHT	24	57	9.50			1		2	1	

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STATION	North Bound LOC.	Code	Code Description	MESSAGE			W	H	637.0202 SIGNS REFLECTIVE TYPE II (SF)	634.0612 POSTS WOOD 4X6-INCHX12-FT (EACH)	634.0614 POSTS WOOD 4X6-INCHX14-FT (EACH)	634.0616 POSTS WOOD 4X6-INCHX16-FT (EACH)	634.0812 POSTS TUBULAR STEEL 2X2-INCHX12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS		
N 1ST ST	Crossroad	R1-1	Stop				30	30	5.18									
		W4-4AL	Traffic From Left Does Not Stop				42	15	4.38		1			1	1			
640+35	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	NORTH	13		24	36	6.00		1			1	1	M3-1,M1-4		
642+53	Right	D7-53-R	[Name State Park]/Arrow Right	Big Bay	State Park	Via Ferry	60	42	17.50									
		M1-85	Wisconsin Heritage Trail Sign				24	24	4.00			2		2	2			
643+28	Right	D7-68R(MOD)	[Name County Park]/Arrow Right	Madeline Island Ferry			72	36	18.00					1	1	Replace sign only, install on existing pole		
643+63	Right	D1-3	Triple Destination/Arrow	Apostle Islands Nat'l Lakeshore Visitor Center (LA)			84	34	17.47		2			1	2			
643+63	Right	M1-85	Wisconsin Heritage Trail Sign				24	24	4.00									
		M1-85-C	Fill in Name/Number - ARROW	Madeline	Island Museum	#153	24	12	2.00			1		2	1			
644+70	Right	R1-0	Stop				30	30	5.18					1		Mount sign on existing post and base		
644+87	Right	R1-1	Stop				30	30	5.18		1			1	1			
645+17	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00		1			1	1			
645+37	Right	R7-1-L	No Parking Any Time - LEFT Arrow				18	24	3.00		1			1	1			
646+05	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	NORTH	13		24	36	6.00			1		2	1	M3-1,M1-6		
647+68	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1			
650+28	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1			
651+82	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00		1			1	1			
654+48	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1			
655+50	Right	W13-1	Advisory Speed Plate (Yellow Back)	25			18	18	2.25									
		W1-4-L	Left Reverse Curve				30	30	6.25			1		2	1			
657+92	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1			
659+82	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1			
660+90	Right	R1-1	Stop				30	30	5.18			1		1	1			
661+03	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1			
663+00	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1			
665+15	Right	R7-1-D	No Parking Any Time - DOUBLE Arrow				18	24	3.00		1			1	1			
667+05	Right	D2-1	Destination/Distance (One) with Die Cut Letters	Cornucopia 21			84	15	8.50									
		J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	NORTH	13		24	36	6.00		1	1		3	1	M3-1,M1-6		
668+12	Right	I-55-56	Adopt-A-Highway [Sponsor]	Post 49	AMERICAN	Legion	30	36	7.50			1		1	1			
670+08	Right	R2-1	Speed Limit _ MPH	45			24	30	5.00		1			1	1			
671+15	Right	R1-1	Stop				30	30	5.18		1			1	1			
675+80	Left	W14-3	No Passing Zone				48	36	6.00		1			1	1			
	Right	J1-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	JCT	COUNTY J		24	39	6.50			1		2	1			
686+96	Right	D1-2	Two Destinations (Arrows	Business	Park	(LA)	66	24	11.00		2			1	2			
687+98	Right	E10-82	Tourist-Oriented Directional Signs (TODS)	Fruit Farm & Orchard					---							To remain in place		
690+62	Right	R2-1	Speed Limit _ MPH	55			24	30	5.00		1			1	1			
692+97	Right	J13-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	COUNTY J	LEFT ARROW		24	45	7.50			1		2	1	M1-5A,M6-1		
695+15	Right	R1-1	Stop				30	30	5.18		1			1	1			
700+20	Right	R1-1	Stop				30	30	5.18		1			1	1			
720+23	Right	R1-1	Stop				30	30	5.18		1			1	1			
726+01	Left	W14-3	No Passing Zone				48	36	6.00		1			1	1			
740+55	Right	W3-5	Speed Limit _ Ahead [Arrow]	45			36	36	9.00			1		1	1			
743+28	Right	R1-1	Stop				30	30	5.18		1			1	1			
748+13	Right	R2-1	Speed Limit _ MPH	45			24	30	5.00		1			1	1			
765+60	Right	R1-1	Stop				30	30	5.18		1			1	1			
765+90	Right	R2-1	Speed Limit _ MPH	45			24	30	5.00		1			1	1			
775+82	Right	I-2-3-U	Community Population Name Sign (UNINCORPORATED)	Red Cliff	Unincorporated		60	24	9.00		2			1	2			
776+77	Right	W11-2	Pedestrian Crossing Symbol				30	30	6.25									
		W16-9P	AHEAD Plaque (Yellow)				24	8	1.33			1		2	1			
830+10	Right	R2-1	Speed Limit _ MPH	55			24	30	5.00		1			1	1			
835+12	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	NORTH	13		24	36	6.00			1		2	1			
835+12	Left	W14-3	No Passing Zone				48	36	6.00		1			1	1			
844+80	Right	R1-1	Stop				30	30	5.18		1			1	1			
PROJECT NO: 8160-14-71				HWY: STH 13		COUNTY: BAYFIELD			MISCELLANEOUS QUANTITIES							SHEET: 79		E

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STATION	North Bound LOC.	Code	Code Description	MESSAGE			W	H	637.0202 SIGNS REFLECTIVE TYPE II (SF)	634.0612 POSTS WOOD 4X6- INCHX12-FT (EACH)	634.0614 POSTS WOOD 4X6- INCHX14-FT (EACH)	634.0616 POSTS WOOD 4X6- INCHX16-FT (EACH)	634.0812 POSTS TUBULAR STEEL 2X2- INCHX12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
846+20	Right	W1-2-R	Right Curve				30	30	6.25			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	45				18	18							
850+15	Right	S3-1	School Bus Stop Ahead				30	30	6.25		1			1	1	
870+90	Left	W14-3	No Passing Zone				48	36	6.00		1			1	1	
881+10	Right	R1-1	Stop				30	30	5.18		1			1	1	
886+15	Right	W11-2	Pedestrian Crossing Symbol				30	30	6.25		1			2	1	
		W16-9P	AHEAD PLAQUE (YELLOW)				24	8	1.33							
891+10	Right	W1-2-L	Left Curve				30	30	6.25			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	40				18	18							
894+45	Right	W11-2	Pedestrian Crossing Symbol				30	30	6.25		1			1	1	
909+70	Right	D1-1	Crossroad Name	OLD HWY K			60	15	6.25		2			1	1	
NORTHBOUND TOTALS									648.23	1	74	26	4	116	102	
STATION	South Bound LOC.	Code	Code Description	MESSAGE			W	H	637.0202 SIGNS REFLECTIVE TYPE II (SF)	634.0612 POSTS WOOD 4X6- INCHX12-FT (EACH)	634.0614 POSTS WOOD 4X6- INCHX14-FT (EACH)	634.0616 POSTS WOOD 4X6- INCHX16-FT (EACH)	634.0812 POSTS TUBULAR STEEL 2X2- INCHX12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
911+95	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	SOUTH	13		24	36	6.00			1		2	1	M3-3, M1-6
907+90	Right	W1-2-R	Right Curve				30	30	6.25			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	40				18	18							
905+50	Left	W14-3	No Passing Zone				48	36	12.00		1			1	1	
901+90	Right	W11-2	Pedestrian Crossing Symbol				30	30	6.25			1		2	1	
		W16-9P	Ahead				24	8	1.33							
895+85	Right	W11-2	Pedestrian Crossing Symbol				30	30	6.25		1			1	1	
872+60	Left	w14-3	No Passing Zone				48	36	12.00		1			1	1	
866+35	Right	W1-2-L	Left Curve				30	30	6.25			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	45				18	18							
857+65	Right	R1-1	Stop				30	30	5.18		1			1	1	
839+90	Right	I-2-3-U	Community Population Name Sign (UNINCORPORATED)	Red Cliff			60	24	10.00		1			2	1	
	Left	W14-3	No Passing Zone				48	36	12.00							
836+40	Right	W3-5	Speed Limit _ Ahead [Arrow]	35			36	36	9.00			1		1	1	
830+85	Right	R2-1	Speed Limit _ MPH	35			24	30	5.00		1			1	1	
828+95	Right	W1-2-R	Right Curve				30	30	6.25			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	35				18	18							
776+55	Right	I-55-56	Adopt-A-Highway [Sponsor]	Post 49	AMERICAN	Legion	30	36	7.50			1		1	1	
764+40	Right	R2-1	Speed Limit _ MPH	45			24	30	5.00		1			1	1	
734+40	Right	R2-1	Speed Limit _ MPH	55			24	30	5.00		1			1	1	
714+60	Left	W14-3	No Passing Zone				48	36	12.00		1			1	1	
702+88	Right	D1-4	Four Destination (Arrow)	Apostle Islands Nat'l Lakeshore Visitor Center 1 Mile (NA)			72	42	21.00		2			1	2	
699+40	Right	J1-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	JCT	J		24	39	6.50			1		2	1	M2-1,M1-5A
698+30	Right	D1-2	Two Destinations (Arrows)	BUSINESS PARK	(RA)		66	24	11.00		2			1	2	
696+97	Right	W3-5	Speed Limit _ Ahead [Arrow]	45			36	36	9.00			1		1	1	
695+45	Right	E10-82	Tourist-Oriented Directional Signs (TODS)	Fruit Farm & Orchard					---							To remain in place
694+05	Right	J13-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	County J	RA		24	45	7.50			1		2	1	M1-5A,M6-1
693+07	Right	R1-1	Stop				30	30	6.25		1			1	1	
692+20	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	SOUTH	13		24	36	6.00			1		3	1	
		R7-1-L	No Parking Any Time - LEFT Arrow				24	30	5.00							
690+00	Right	R2-1	Speed Limit _ MPH	45			24	30	5.00		1			1	1	
689+00	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
686+50	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
683+95	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
682+00	Right	W14-3	No Passing Zone				48	36	12.00		1			1	1	
680+97	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
678+50	Right	R2-1	Speed Limit _ MPH	45			24	30	5.00			1		2	1	
		R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00							
PROJECT NO: 8160-14-71			HWY: STH 13			COUNTY: BAYFIELD			MISCELLANEOUS QUANTITIES					SHEET: 80		E

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STATION	South Bound LOC.	Code	Code Description	MESSAGE			W	H	637.0202 SIGNS REFLECTIVE TYPE II (SF)	634.0612 POSTS WOOD 4X6- INCHX12-FT (EACH)	634.0614 POSTS WOOD 4X6- INCHX14-FT (EACH)	634.0616 POSTS WOOD 4X6- INCHX16-FT (EACH)	634.0812 POSTS TUBULAR STEEL 2X2- INCHX12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
674+98	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
672+13	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
670+50	Right	W13-1	Advisory Speed Plate (Yellow Back)	35			18	18	2.25			1		2	1	
		W1-4-L	Left Reverse Curve				30	30	6.25							
668+95	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
666+85	Right	I-2-3	Community Population Name Sign (With Number)	Bayfield	Population 487		66	24	11.00		2			1	2	
665+95	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00		1			1	1	
665+08	Right	R1-1	Stop				30	30	5.18		1			1	1	
664+78	Right	R7-1-L	No Parking Any Time - LEFT Arrow				18	24	3.00		1			1	1	
663+99	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00		1			1	1	
662+45	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
659+68	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
655+90	Right	R1-1	Stop				30	30	5.18		1			1	1	
655+32	Right	R1-1	Stop				30	30	5.18		1			1	1	
655+10	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
654+42	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00		1			1	1	
652+50	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
650+28	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00		1			1	1	
649+97	Right	R1-1	Stop				30	30	5.18		1			1	1	
649+12	Right	R1-1	Stop				30	30	5.18		1			1	1	
648+85	Right	R7-1-L	No Parking Any Time - LEFT Arrow				18	24	3.00		1			1	1	
646+90	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
645+75	Right	D7-53-L	[Name State Park]/Arrow Left	Big Bay	State Park	Via Ferry	60	42	17.50			2		2	2	
		M1-85	Wisconsin Heritage Trail Sign				24	24	4.00							
645+25	Right	D1-3	Triple Destination/Arrow	Apostle Islands Nat'l Lakeshore Visitor Center (LA)			84	36	21.00			2		2	2	
		M1-85	Wisconsin Heritage Trail Sign				24	24	4.00							
644+86	Right	M1-85-C	Fill in Name/Number - ARROW	Madeline	Island Museum	(LA) #153	24	12	2.00		1			2	1	
		M1-85	Wisconsin Heritage Trail Sign				24	24	4.00							
644+45	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00		1			1	1	
643+75	Right	R1-1	Stop				30	30	6.25		1			1	1	
643+70	Right	W1-6	Night Arrow (Single)				48	24	8.00		1			1	1	
643+60	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00					1	1	Band to light pole
641+12	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
639+82	Right	R1-1	Stop				36	36	9.00		1			2	1	
		R1-10P	EXCEPT RIGHT TURN				24	18	3.00							
637+43	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	SOUTH	13		24	36	6.00					1		M3-3,M1-6 Band to light pole
636+02	Right	R1-1	Stop				30	30	5.18		1			1	1	
635+80	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00					1		Band to light pole
633+95	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	SOUTH	13		24	36	6.00					1		M3-3,M1-6 Band to light pole
632+80	Right	R1-1	Stop				30	30	5.18		1			1	1	
632+62	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00					1		Band to light pole
631+97	Right	R7-1-L	No Parking Any Time - LEFT Arrow				18	24	3.00		1			1	1	
631+55	Right	I-55-56	Adopt-A-Highway [Sponsor]	Bayfield High School	Honor society		30	36	7.50		1			1	1	
631+12	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
630+13	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00					1		Band to light pole
629+50	Right	R1-1	Stop				30	30	5.18		1			1	1	
629+07	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
627+35	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
626+40	Right	R1-1	Stop				30	30	5.18				1	1	1	
624+80	RIGHT	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	SOUTH	13		24	36	6.00		1		1	2	1	M3-3, M1-6
624+68	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
623+82	Right	S1-1	School Advance				36	36	9.00			1		4	1	
		WF16-9P	Ahead				30	18	3.75							
		W16-6L	LEFT ARROW				24	12	2.00							
		R2-6P	Fines Higher Plaque				24	18	3.00							

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STATION	South Bound LOC.	Code	Code Description	MESSAGE			W	H	637.0202 SIGNS REFLECTIVE TYPE II (SF)	634.0612 POSTS WOOD 4X6- INCHX12-FT (EACH)	634.0614 POSTS WOOD 4X6- INCHX14-FT (EACH)	634.0616 POSTS WOOD 4X6- INCHX16-FT (EACH)	634.0812 POSTS TUBULAR STEEL 2X2- INCHX12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
623+20	Right	R1-1	Stop				30	30	5.18		1			1	1	
623+70	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
622+38	Right	W1-1-L	Left Turn				36	36	9.00			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	10			24	24	4.00							
	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
	Right	W1-6	Night Arrow (Single)				48	24	8.00		1			1	1	
	Right	W1-6	Night Arrow (Single)				48	24	8.00		1			1	1	
NW 6th and Rittenhouse	Right	R1-1	Stop				30	30	5.18		1			2	1	
		W4-4A	Traffic From Left Does Not Stop				42	15	4.38							
620+05	Right	R1-1	Stop				30	30	5.18		1			2	1	
		W4-4B	Oncoming Traffic Does Not Stop				30	12	2.50							
619+58	Right	J4-1	REASSURANCE ASSEMBLY (1 HEADED ROUT PANEL)	SOUTH	13		24	36	6.00			1		2	1	M3-3,M1-6
619+30	Right	S1-1	School Advance				36	36	9.00			1		2	1	
		W16-7L	LEFT ARROW				24	12	2.00							
618+22	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
617+48	Right	R2-1	Speed Limit _ MPH	25			24	30	5.00		1			1	1	
616+50	Right	D7-59-L	Tourist Information/Arrow Left	Tourist Info (LA)			54	36	13.50			2		1	1	
616+12	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
615+42	Right	R1-1	Stop				30	30	5.18		1			1	1	
615+20	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
613+23	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
611+55	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
610+81	Right	R1-1	Stop				30	30	5.18		1			1	1	
610+66	Right	W1-1-R	Right Turn				36	36	9.00			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	10			24	24	4.00							
610+55	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
608+66	Right	R7-1-D	No Parking Any Time - Double Arrow				18	24	3.00		1			1	1	
606+80	Left	W1-8	Chevron				18	24	3.00		1			1	1	
606+75	Left	W1-6	Night Arrow (Single)				48	24	8.00		1			1	1	
606+73	Left	W1-8	Chevron				18	24	3.00		1			1	1	
606+58	Left	W1-8	Chevron				18	24	3.00		1			1	1	
605+50	Right	W1-1-L	Left Turn				36	36	9.00			1		2	1	
		W13-1	Advisory Speed Plate (Yellow Back)	20			24	24	4.00							
604+32	Right	R7-1-R	No Parking Any Time - RIGHT Arrow				18	24	3.00		1			1	1	
603+54	Right	R1-1	Stop				30	30	5.18		1			1	1	
SOUTHBOUND TOTALS									696.84	0	81	25	1	134	107	

Summary of Permanent Signing Totals for Project 8160-14-71	637.0202 SIGNS REFLECTIVE TYPE II (SF)	634.0612 POSTS WOOD 4X6-INCHX12- FT (EACH)	634.0614 POSTS WOOD 4X6-INCHX14- FT (EACH)	634.0616 POSTS WOOD 4X6-INCHX16- FT (EACH)	634.0812 POSTS TUBULAR STEEL 2X2- INCHX12-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
Northbound STH 13	651.23	1	74	26	4	116	102
Southbound STH 13	700.84	0	81	25	1	134	107
TOTALS	1352.07	1	155	51	5	250	209

3

BACKFILL GRANULAR		
CATEGORY	LOCATION	CY
0040	UNDISTRIBUTED	1,275

* ACTUAL QUANTITY AND LOCATION TO BE FIELD DETERMINED BY ENGINEER

*209.0100

WATER MAIN, GATE VALVE AND VALVE BOX, 8-INCH					
SPV.0060.01					
CATEGORY	STATION	OFFSET		EACH	
0040	639+27	8.0	LT	1	
	639+32	3.0	LT	1	
	TOTAL				2

WATER MAIN DUCTILE IRON 8-INCH			
SPV.0090.01			
CATEGORY	FROM STA.	TO STA.	LF
0040	633+01	636+19	318
	636+44	639+39	314
	639+27	CONNECT TO EXIST.LT	12
	TOTAL		643

3

ABANDONING WATER MAIN		
CATEGORY	PROJECT	LS
0040	8160-14-71	1

SPV.0105.01

SALVAGE EXISTING GATE VALVE					
SPV.0060.02					
CATEGORY	STATION	OFFSET		EACH	
0040	632+96	12.2	LT	1	
	636+24	9.4	LT	1	
	636+49	9.0	LT	1	
	639+13	11.4	LT	1	
	TOTAL				4

WATER SERVICE COPPER 1-INCH			
SPV.0090.02			
CATEGORY	STATION	LATERAL DIRECTION	LF
0040	633+94	NORTH	43
	634+24	NORTH	40
	634+31	NORTH	40
	634+78	NORTH	40
	635+64	SOUTH	13
	635+80	NORTH	39
	636+76	NORTH	22
	637+44	SOUTH	29
	637+47	NORTH	24
	637+91	SOUTH	29
	638+34	SOUTH	28
	638+67	SOUTH	30
	TOTAL		377

ADJUSTING WATER VALVE BOX					
SPV.0060.03					
CATEGORY	STATION	OFFSET		EACH	
0040	632+91	21.8	RT, 43.7 LT	2	
	632+96.5	14.6	RT	1	
	636+24	14.4	RT	1	
	636+29	20.0	RT	1	
	636+39	2.6	LT	1	
	639+29	11.6	LT	1	
	TOTAL				7

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING REMOVAL ITEMS										
LOCATION		204.0150 * REMOVING CURB AND GUTTER	204.0155 * REMOVING CONCRETE SIDEWALK	204.0110 * REMOVING ASPHALTIC SURFACE	204.0195 * REMOVING CONCRETE BASES	205.0100 * EXCAVATION COMMON	690.0150 * SAWING ASPHALT	690.0250 * SAWING CONCRETE	SPV.0090.03 * SAWING PAVEMENT	SPV.0165.01 REMOVE AND RESTORE TERRACE PAVERS
		LF	SY	SY	EACH	CY	LF	LF	LF	SF
ALL ITEMS CATEGORY 0010										
632+66	LT	--	--	--	1	--	--	--	--	--
633+40	RT	--	--	--	1	--	--	--	--	--
634+24	LT	--	--	--	1	--	--	--	--	--
635+06	RT	--	--	--	1	--	--	--	--	--
635+88	LT	--	--	--	1	--	--	--	--	--
636+56	RT	--	--	--	1	--	--	--	--	--
637+40	LT	--	--	--	1	--	--	--	--	--
638+25	RT	--	--	--	1	--	--	--	--	--
638+98	LT	--	--	--	1	--	--	--	--	--
CATEGORY 0010 TOTALS		--	--	--	9	--	--	--	--	--
ALL ITEMS CATEGORY 0040										
639R+76	RT	--	--	--	1	--	--	--	--	--
640R+54	LT	--	--	--	1	--	--	--	--	--
641R+38	RT	--	--	--	1	--	--	--	--	--
642R+20	LT	--	--	--	1	--	--	--	--	--
639R+50	640R+25	RT	12	4.6	19.3	13	--	19	107	--
639R+50	640R+25	LT	6	2.3	19.3	--	--	18	113	--
640R+25	641R+00	RT	6	2.3	25	--	--	18	144	--
640R+25	641R+00	LT	12	4.6	25	--	--	36	138	--
641R+00	641R+75	RT	18	7	25	--	--	30	132	--
641R+00	641R+75	LT	6	2.3	25	--	--	18	144	--
641R+75	643R+00	RT	6	2.3	37.6	--	--	18	215	--
641R+75	643R+00	LT	6	2.3	15.6	--	--	18	88	--
CATEGORY 0040 TOTALS		72	28	192	4	128	--	175	1,081	--
ALL ITEMS CATEGORY 0050										
630+25	631+00	RT	6	2.3	18.7	--	12	18	109	--
631+00	631+75	RT	6	7.5	25	--	17	34	--	--
631+75	632+60	RT	6	2.3	28.3	--	19	18	--	--
641+50	644+00	LT	--	--	--	--	22	--	--	70
CATEGORY 0050 TOTALS		18	12	72	--	48	333	70	109	70

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING CONDUIT, ELECTRICAL WIRE AND CONDUIT TRENCH RESTORATION ITEMS																		
		652.0225	652.0235	652.0325	652.0605	655.0610	655.0620	655.0625	655.0630	SPV.0035.01	305.0110 *	455.0140 *	460.1103 *	625.0500 *	627.0200 *	629.0210 *	630.0140 *	
		CONDUIT RIGID NONMETALLIC								CONDUIT	CONDUIT	BASE					SEEDING	
		SCHEDULE 40	SCHEDULE 40	SCHEDULE 80	CONDUIT	ELECTRICAL WIRE LIGHTING				BEDDING	AGGREGATE	ASPHALTIC	HMA PAVEMENT	SALVAGED	MULCHING	FERTILIZER	MIXTURE	
		2-INCH	3-INCH	2-INCH	SPECIAL 2-INCH	12 AWG	8 AWG	6 AWG	4 AWG	MATERIAL	DENSE 3/4-INCH	MATERIAL PB64-28P	TYPE E-3	TOPSOIL		TYPE B	NO. 40	
FROM	-	TO	LF	LF	LF	LF	LF	LF	LF	CY	TON	TON	TON	SY	SY	CWT	LB	
ALL ITEMS CATEGORY 0020																		
STUB	-	SL100	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SL100	-	SL102	85	--	--	--	--	194	388	--	--	--	--	--	--	--	--	
SL102	-	SL104	85	--	--	--	--	194	388	--	--	--	--	--	--	--	--	
SL104	-	SL106	85	--	--	--	--	194	388	--	--	--	--	--	--	--	--	
SL106	-	SL108	--	--	--	103	--	230	460	--	--	--	--	--	--	--	--	
SL108	-	SL110	--	--	89	--	--	202	404	--	--	--	--	--	--	--	--	
SL110	-	SL112	--	--	89	--	--	202	404	--	--	--	--	--	--	--	--	
SL112	-	PB102	--	--	69	--	--	162	324	--	--	--	--	--	--	--	--	
PB102	-	PB103	--	52	--	--	--	128	256	--	--	--	--	--	--	--	--	
PB103	-	SL114	20	--	--	--	--	64	128	--	--	--	--	--	--	--	--	
SL114	-	SL116	73	--	--	--	--	170	340	--	--	--	--	--	--	--	--	
SL116	-	SL118	78	--	--	--	--	180	360	--	--	--	--	--	--	--	--	
SL118	-	SL120	85	--	--	--	--	194	388	--	--	--	--	--	--	--	--	
SL120	-	PB106	34	--	--	--	--	92	184	--	--	--	--	--	--	--	--	
PB106	-	PB107	--	41	--	--	--	106	212	--	--	--	--	--	--	--	--	
PB107	-	SL122	22	--	--	--	--	68	136	--	--	--	--	--	--	--	--	
SL122	-	SL124	83	--	--	--	--	190	380	--	--	--	--	--	--	--	--	
SL124	-	PB110	52	--	--	--	--	128	256	--	--	--	--	--	--	--	--	
PB110	-	SL126	32	--	--	--	88	--	176	--	--	--	--	--	--	--	--	
SL126	-	SL128	80	--	--	--	184	--	368	--	--	--	--	--	--	--	--	
SL128	-	PB113	--	18	--	--	60	--	120	--	--	--	--	--	--	--	--	
PB113	-	PB114	--	44	--	--	--	112	224	--	--	--	--	--	--	--	--	
STUB	-	SL101	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SL101	-	SL103	--	--	--	85	--	194	388	--	--	--	--	--	--	--	--	
SL103	-	SL105	85	--	--	--	--	194	388	--	--	--	--	--	--	--	--	
SL105	-	SL107	--	--	--	85	--	194	388	--	--	--	--	--	--	--	--	
SL107	-	SL109	90	--	--	--	--	204	408	--	--	--	--	--	--	--	--	
SL109	-	SL111	--	--	--	90	--	204	408	--	--	--	--	--	--	--	--	
SL111	-	SL113	--	--	--	85	--	194	388	--	--	--	--	--	--	--	--	
SL113	-	PB100	21	--	--	--	--	66	132	--	--	--	--	--	--	--	--	
PB100	-	PB102	--	72	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB100	-	PB101	--	44	--	--	--	112	224	--	--	--	--	--	--	--	--	
PB101	-	PB103	--	73	--	--	--	--	--	--	--	--	--	--	--	--	--	
PB101	-	SL115	52	--	--	--	--	128	256	--	--	--	--	--	--	--	--	
SL115	-	SL117	78	--	--	--	--	180	360	--	--	--	--	--	--	--	--	
SL117	-	SL119	73	--	--	--	--	170	340	--	--	--	--	--	--	--	--	
CATEGORY 0020 SUB-TOTALS		1,223	344	247	448	--	444	4,538	9,964	--	--	--	--	--	--	--	--	

LIGHTING CONDUIT, ELECTRICAL WIRE AND CONDUIT TRENCH RESTORATION ITEMS (CONTINUED)																		
		652.0225	652.0235	652.0325	652.0605	655.0610	655.0620	655.0625	655.0630	SPV.0035.01	305.0110 *	455.0140 *	460.1103 *	625.0500 *	627.0200 *	629.0210 *	630.0140 *	
		CONDUIT RIGID NONMETALLIC			CONDUIT		ELECTRICAL WIRE LIGHTING				CONDUIT	BASE		ASPHALTIC		HMA PAVEMENT	SALVAGED	SEEDING
		SCHEDULE 40	SCHEDULE 40	SCHEDULE 80	SPECIAL 2-INCH	12 AWG	8 AWG	6 AWG	4 AWG	BEDDING	AGGREGATE	DENSE 3/4-INCH	MATERIAL PB64-28P	TYPE E-3	TOPSOIL	MULCHING	FERTILIZER	MIXTURE
FROM	- TO	2-INCH	3-INCH	2-INCH	SPECIAL 2-INCH	LF	LF	LF	LF	MATERIAL	TON	TON	TON	TON	SY	SY	TYPE B	NO. 40
LF	LF	LF	LF	LF	LF					CY							CWT	LB
ALL ITEMS CATEGORY 0020 (CONTINUED)																		
SL119	- SL121	72	--	--	--	--	--	168	336	--	--	--	--	--	--	--	--	--
SL121	- PB104	19	--	--	--	--	--	62	124	--	--	--	--	--	--	--	--	--
PB104	- PB106	--	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB104	- PB105	--	46	--	--	--	--	116	232	--	--	--	--	--	--	--	--	--
PB105	- PB107	--	74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB105	- SL123	42	--	--	--	--	--	108	216	--	--	--	--	--	--	--	--	--
SL123	- SL125	90	--	--	--	--	--	204	408	--	--	--	--	--	--	--	--	--
SL125	- PB109	21	--	--	--	--	--	66	132	--	--	--	--	--	--	--	--	--
PB109	- PB110	--	50	--	--	--	124	124	496	--	--	--	--	--	--	--	--	--
PB109	- PB108	--	131	--	--	--	286	286	1,144	--	--	--	--	--	--	--	--	--
PB109	- PB108	--	131	--	--	--	572	286	1,716	--	--	--	--	--	--	--	--	--
PB108	- CB100	--	15	--	--	--	54	54	216	--	--	--	--	--	--	--	--	--
PB108	- CB100	--	15	--	--	--	108	54	324	--	--	--	--	--	--	--	--	--
PB109	- PB111	135	--	--	--	--	294	--	588	--	--	--	--	--	--	--	--	--
PB109	- SL127	65	--	--	--	--	154	--	308	--	--	--	--	--	--	--	--	--
SL127	- PB111	71	--	--	--	--	166	--	332	--	--	--	--	--	--	--	--	--
PB111	- PB113	--	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB111	- SL129	--	5	--	--	--	68	--	136	--	--	--	--	--	--	--	--	--
SL129	- SL140	87	--	--	--	--	198	--	396	--	--	--	--	--	--	--	--	--
SL140	- SL142	94	--	--	--	--	212	--	424	--	--	--	--	--	--	--	--	--
SL142	- SL144	--	--	--	94	--	212	--	424	--	--	--	--	--	--	--	--	--
SL144	- SL146	--	--	--	95	--	214	--	428	--	--	--	--	--	--	--	--	--
SL146	- STUB	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB111	- PB112	--	47	--	--	--	236	--	472	--	--	--	--	--	--	--	--	--
PB112	- PB114	--	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PB112	- SL139	--	--	--	48	--	120	--	240	--	--	--	--	--	--	--	--	--
SL139	- SL141	--	--	--	93	--	210	--	420	--	--	--	--	--	--	--	--	--
SL141	- SL143	--	--	--	94	--	212	--	424	--	--	--	--	--	--	--	--	--
SL143	- SL145	--	--	--	95	--	214	--	428	--	--	--	--	--	--	--	--	--
SL145	- STUB	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CATEGORY 0020 TOTALS		1,929	1,075	247	967	--	4,098	6,066	20,328	--	--	--	--	--	--	--	--	--

LIGHTING CONDUIT, ELECTRICAL WIRE AND CONDUIT TRENCH RESTORATION ITEMS (CONTINUED)																		
		652.0225	652.0235	652.0325	652.0605	655.0610	655.0620	655.0625	655.0630	SPV.0035.01	305.0110 *	455.0140 *	460.1103 *	625.0500 *	627.0200 *	629.0210 *	630.0140 *	
		CONDUIT RIGID NONMETALLIC			CONDUIT		ELECTRICAL WIRE LIGHTING				CONDUIT	BASE		ASPHALTIC		HMA PAVEMENT	SALVAGED	SEEDING
		SCHEDULE 40	SCHEDULE 40	SCHEDULE 80	SPECIAL 2-INCH	12 AWG	8 AWG	6 AWG	4 AWG	BEDDING	AGGREGATE	DENSE 3/4-INCH	MATERIAL PB64-28P	TYPE E-3	TOPSOIL	MULCHING	FERTILIZER	MIXTURE
FROM	- TO	2-INCH	3-INCH	2-INCH	SPECIAL 2-INCH	LF	LF	LF	LF	MATERIAL	TON	TON	TON	TON	SY	SY	CWT	LB
LF	LF	LF	LF	LF	LF					CY								
ALL ITEMS CATEGORY 0040																		
PB102	- LP-5	13	--	--	--	76	--	--	114	--	--	--	--	--	--	--	--	--
PB102	- PB103	--	--	--	--	128	--	--	192	--	--	--	--	--	--	--	--	--
PB103	- LP-4	12	--	--	--	72	--	--	108	--	--	--	--	--	--	--	--	--
PB103	- PB106	282	--	--	--	1,176	--	--	1,176	--	--	--	--	--	--	--	--	--
PB106	- PB107	--	--	--	--	212	--	--	212	--	--	--	--	--	--	--	--	--
PB107	- PB110	153	--	--	--	660	--	--	660	--	--	--	--	--	--	--	--	--
PB114	- SL130	--	18	--	--	60	--	--	120	0.5	2.5	0.1	1.3	--	--	--	--	--
SL130	- SL132	--	--	84	--	192	--	--	384	2.3	11.6	0.4	6.2	--	--	--	--	--
SL132	- SL134	--	--	82	--	188	--	--	376	2.3	11.4	0.4	6.0	--	--	--	--	--
SL134	- SL136	--	--	78	--	180	--	--	360	2.2	10.8	0.3	5.7	--	--	--	--	--
SL136	- SL138	--	--	87	--	198	--	--	396	2.4	12.1	0.4	6.4	--	--	--	--	--
PB100	- LP-7	14	--	--	--	40	--	--	60	--	--	--	--	--	--	--	--	--
PB100	- PB102	--	--	--	--	168	--	--	252	--	--	--	--	--	--	--	--	--
PB101	- LP-6	13	--	--	--	38	--	--	57	--	--	--	--	--	--	--	--	--
PB101	- PB103	--	--	--	--	170	--	--	255	--	--	--	--	--	--	--	--	--
PB109	- PB110	--	50	--	--	248	--	--	248	--	--	--	--	--	--	--	--	--
PB109	- PB108	--	131	--	--	572	--	--	572	--	10.9	--	--	--	--	--	--	--
PB108	- CB100	--	15	--	--	108	--	--	108	--	1.2	--	--	--	--	--	--	--
PB112	- SL131	--	--	68	--	160	--	--	320	1.9	9.4	0.3	5.0	--	--	--	--	--
SL131	- SL133	--	--	78	--	180	--	--	360	2.2	10.8	0.3	5.7	--	--	--	--	--
SL133	- SL135	--	--	78	--	180	--	--	360	2.2	10.8	0.3	5.7	--	--	--	--	--
SL135	- SL137	--	--	78	--	180	--	--	360	2.2	10.8	0.3	5.7	--	--	--	--	--
CATEGORY 0040 TOTALS		487	214	633	--	3,668	1,518	--	7,050	18	102	3	48	--	--	--	--	--
ALL ITEMS CATEGORY 0050																		
SL100	- SL102	--	--	--	--	--	--	--	--	--	--	--	55	55	0.004	0.39		
SL102	- SL104	--	--	--	--	--	--	--	--	--	--	--	50	50	0.004	0.35		
SL104	- SL106	--	--	--	--	--	--	--	--	--	--	--	60	60	0.004	0.42		
SL108	- SL110	--	--	--	--	--	--	--	2.5	12.3	0.4	6.5	--	--	--	--		
SL110	- SL112	--	--	--	--	--	--	--	2.5	12.3	0.4	6.5	--	--	--	--		
SL112	- PB102	--	--	--	--	--	--	--	1.9	9.6	0.3	5.1	--	--	--	--		
SL101	- SL103	--	--	--	--	--	--	--	--	--	--	--	10	10	0.001	0.07		
SL103	- SL105	--	--	--	--	--	--	--	--	--	--	--	60	60	0.004	0.42		
SL107	- SL109	--	--	--	--	--	--	--	--	--	--	--	80	80	0.006	0.56		
SL109	- SL111	--	--	--	--	--	--	--	--	--	--	--	10	10	0.001	0.07		
SL129	- SL140	--	--	--	--	--	--	--	--	--	--	--	50	50	0.004	0.35		
SL140	- SL142	--	--	--	--	--	--	--	--	--	--	--	45	45	0.003	0.32		
SL142	- SL144	--	--	--	--	--	--	--	--	--	--	--	25	25	0.002	0.18		
SL144	- SL146	--	--	--	--	--	--	--	--	0.1	0.7	0.0	0.4	--	--	--		
SL139	- SL141	--	--	--	--	--	--	--	--	--	--	--	10	10	0.001	0.07		
SL141	- SL143	--	--	--	--	--	--	--	--	--	--	--	10	10	0.001	0.07		
SL143	- SL145	--	--	--	--	--	--	--	--	--	--	--	10	10	0.001	0.07		
CATEGORY 0050 TOTALS		--	--	--	--	--	--	--	--	7	35	1	18	475	475	.03	3.33	

LIGHTING PULLBOX ITEMS					
				653.0140	SPV.0090.04
				PULL BOXES STEEL	PULL BOX
				24X42-INCH	DRAIN DUCT
PULLBOX	STATION	OFFSET	R/L	EACH	LF
NUMBER					
ALL ITEMS CATEGORY 0020					
PB100	632+77	36.0'	LT	1	15
PB101	633+22	36.0'	LT	1	--
PB102	632+78	36.0'	RT	1	25
PB103	633+29	36.0'	RT	1	--
PB104	636+01	35.5'	LT	1	10
PB105	636+47	35.0'	LT	1	--
PB106	636+02	38.0'	RT	1	25
PB107	636+43	38.0'	RT	1	--
PB108	FIELD LOCATE		LT	1	--
PB109	637+92	24.5'	LT	1	--
PB110	637+90	24.5'	RT	1	--
PB111	639+16	43.0'	LT	1	--
PB112	639+77	25.0'	RT	1	15
PB113	639+16	29.5'	RT	1	25
PB114	639'R'+59	29.0'	RT	1	--
CATEGORY 0020 TOTALS				15	115

LIGHTING CONTROL AND CABINET ITEMS						
		654.0205	656.0200.01	SPV.0060.08	SPV.0060.09	650.8500.01
		CONCRETE CONTROL CABINET BASES TYPE 7	ELECTRICAL SERVICE METER BREAKER PEDESTAL (CB100)	LIGHTING CONTROL CABINET	PROTECTIVE BOLLARDS	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (8160-14-71)
STATION	R/L	EACH	LS	EACH	EACH	LS
ALL ITEMS CATEGORY 0020						
637+70	LT	1	1	1	3	--
8160-14-71		--	--	--	--	1
CATEGORY 0020 TOTALS		1	1	1	3	1

PAVEMENT MARKING RESTORATION FOR LIGHTING AND TRAFFIC CONTROL ITEMS							
LOCATION	643.0300 *	643.0420 *	643.0705 *	643.0900 *	647.0256 *	647.0456 *	647.0656 *
	DRUMS DAY	TRAFFIC CONTROL		SIGNS DAY	PAVEMENT MARKING SYMBOLS EPOXY EACH	PAVEMENT MARKING CURB EPOXY LF	PAVEMENT MARKING PARKING STALL EPOXY LF
		BARRICADES TYPE III DAY	WARNING LIGHTS TYPE A DAY				
ALL ITEMS CATEGORY 0040 639R +37 - 643R +00	1000	80	170	200	1	35	175
CATEGORY 0040 TOTALS	1,000	80	170	200	1	35	175
* ADDITIONAL QUANTITIES LISTED ELSEWHERE							

LIGHTING UNITS AND TERRACE RESTORATION ITEMS											
LIGHT UNIT	STATION	R/L	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.07	655.0610	601.0411 *	602.0405 *	SPV.0165.02 *	305.0110 *
			DECORATIVE LIGHT UNIT EACH	LIGHT POLE RECEPTACLE EACH	LIGHT POLE BASKET HANGAR EACH	DECORATIVE STREET NAME SIGN BRACKET EACH	ELECTRICAL WIRE LIGHTING 12 AWG LF	CONCRETE CURB AND GUTTER 30-INCH TYPE D LF	CONCRETE SIDEWALK 4-INCH SF	CONCRETE SIDEWALK CURE AND SEAL TREATMENT SF	BASE AGGREGATE DENSE 3/4-INCH TON
ALL ITEMS CATEGORY 0020											
SL100	626+91	RT	1	--	--	--	57	--	--	--	--
SL101	627+49	LT	1	--	--	--	57	--	--	--	--
SL102	627+75	RT	1	--	--	--	57	--	--	--	--
SL103	628+34	LT	1	--	--	--	57	--	--	--	--
SL104	628+60	RT	1	--	--	--	57	--	--	--	--
SL105	629+18	LT	1	--	--	--	57	--	--	--	--
SL106	629+44	RT	1	--	--	--	57	--	--	--	--
SL107	630+03	LT	1	--	--	--	57	--	--	--	--
SL108	630+47	RT	1	--	--	--	57	--	--	--	--
SL109	630+92	LT	1	--	--	--	57	--	--	--	--
SL110	631+42	RT	1	--	--	--	57	--	--	--	--
SL111	631+82	LT	1	--	--	--	57	--	--	--	--
SL112	632+22	RT	1	--	--	--	57	--	--	--	--
SL113	632+66	LT	1	--	--	--	57	--	--	--	--
SL114	633+41	RT	1	--	--	--	57	--	--	--	--
SL115	633+66	LT	1	--	--	--	57	--	--	--	--
SL116	634+14	RT	1	--	--	--	57	--	--	--	--
SL117	634+43	LT	1	--	--	--	57	--	--	--	--
SL118	634+91	RT	1	--	--	--	57	--	--	--	--
SL119	635+16	LT	1	--	--	--	57	--	--	--	--
SL120	635+76	RT	1	--	--	--	57	--	--	--	--
SL121	635+88	LT	1	--	--	--	57	--	--	--	--
SL122	636+56	RT	1	--	--	--	57	--	--	--	--
SL123	636+81	LT	1	--	--	--	57	--	--	--	--
SL124	637+39	RT	1	--	--	--	57	--	--	--	--
SL125	637+71	LT	1	--	--	--	57	--	--	--	--
SL126	638+21	RT	1	--	--	--	57	--	--	--	--
SL127	638+56	LT	1	--	--	--	57	--	--	--	--
SL128	639+01	RT	1	--	--	--	57	--	--	--	--
SL129	639+84	LT	1	--	--	--	57	--	--	--	--
SL139	640+24	RT	1	--	--	--	57	--	--	--	--
SL140	640+70	LT	1	--	--	--	57	--	--	--	--
SL141	641+17	RT	1	--	--	--	57	--	--	--	--
SL142	641+64	LT	1	--	--	--	57	--	--	--	--
SL143	642+11	RT	1	--	--	--	57	--	--	--	--
SL144	642+56.7	LT	1	--	--	--	57	--	--	--	--
SL145	643+05	RT	1	--	--	--	57	--	--	--	--
SL146	643+52	LT	1	--	--	--	57	--	--	--	--
CATEGORY 0020 TOTALS			38	--	--	--	2,166	--	--	--	--

LIGHTING UNITS AND TERRACE RESTORATION ITEMS (CONTINUED)											
LIGHT UNIT	STATION	R/L	SPV.0060.04 DECORATIVE LIGHT UNIT EACH	SPV.0060.05 LIGHT POLE RECEPTACLE EACH	SPV.0060.06 LIGHT POLE BASKET HANGAR EACH	SPV.0060.07 DECORATIVE STREET NAME SIGN BRACKET EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	601.0411 * CONCRETE CURB AND GUTTER 30-INCH TYPE D LF	602.0405 * CONCRETE SIDEWALK 4-INCH SF	SPV.0165.02 * CONCRETE SIDEWALK CURE AND SEAL TREATMENT SF	305.0110 * BASE AGGREGATE DENSE 3/4-INCH TON
ALL ITEMS CATEGORY 0040											
SL100	626+91	RT	--	1	1	--	48	--	--	--	--
SL101	627+49	LT	--	1	1	--	48	--	--	--	--
SL102	627+75	RT	--	1	1	--	48	--	--	--	--
SL103	628+34	LT	--	1	1	--	48	--	--	--	--
SL104	628+60	RT	--	1	1	--	48	--	--	--	--
SL105	629+18	LT	--	1	1	--	48	--	--	--	--
SL106	629+44	RT	--	1	1	--	48	--	--	--	--
SL107	630+03	LT	--	1	1	--	48	--	--	--	--
SL108	630+47	RT	--	1	1	--	48	--	--	--	--
SL109	630+92	LT	--	1	1	--	48	--	--	--	--
SL110	631+42	RT	--	1	1	--	48	--	--	--	--
SL111	631+82	LT	--	1	1	--	48	--	--	--	--
SL112	632+22	RT	--	1	1	--	48	--	--	--	--
SL113	632+66	LT	--	1	1	1	48	--	--	--	--
SL114	633+41	RT	--	1	1	1	48	--	--	--	--
SL115	633+66	LT	--	1	1	--	48	--	--	--	--
SL116	634+14	RT	--	1	1	--	48	--	--	--	--
SL117	634+43	LT	--	1	1	--	48	--	--	--	--
SL118	634+91	RT	--	1	1	--	48	--	--	--	--
SL119	635+16	LT	--	1	1	--	48	--	--	--	--
SL120	635+76	RT	--	1	1	--	48	--	--	--	--
SL121	635+88	LT	--	1	1	1	48	--	--	--	--
SL122	636+56	RT	--	1	1	1	48	--	--	--	--
SL123	636+81	LT	--	1	1	--	48	--	--	--	--
SL124	637+39	RT	--	1	1	--	48	--	--	--	--
SL125	637+71	LT	--	1	1	--	48	--	--	--	--
SL126	638+21	RT	--	1	1	--	48	--	--	--	--
SL127	638+56	LT	--	1	1	--	48	--	--	--	--
SL128	639+01	RT	--	1	1	--	48	--	--	--	--
SL129	639+84	LT	--	1	1	1	48	--	--	--	--
SL130	639'R'+76	RT	1	1	1	1	105	12	42	42	2.3
SL131	640'R'+09	LT	1	1	1	--	105	6	21	21	1.2
SL132	640'R'+52	RT	1	1	1	--	105	6	21	21	1.2
SL133	640'R'+79	LT	1	1	1	--	105	12	42	42	2.3
SL134	641'R'+26	RT	1	1	1	--	105	18	63	63	3.5
SL135	641'R'+49	LT	1	1	1	--	105	6	21	21	1.2
SL136	641'R'+96	RT	1	1	1	--	105	6	21	21	1.2
SL137	642'R'+19	LT	1	1	1	--	105	6	21	21	1.2
SL138	642'R'+76	RT	1	1	1	--	105	--	--	--	--
SL139	640+24	RT	--	1	1	--	48	--	--	--	--
SL140	640+70	LT	--	1	1	--	48	--	--	--	--
SL141	641+17	RT	--	1	1	--	48	--	--	--	--
SL142	641+64	LT	--	1	1	--	48	--	--	--	--
SL143	642+11	RT	--	1	1	--	48	--	--	--	--
SL144	642+56.7	LT	--	1	1	--	48	--	--	--	--
SL145	643+05	RT	--	1	1	--	48	--	--	--	--
SL146	643+52	LT	--	1	1	--	48	--	--	--	--
CATEGORY 0040 TOTALS			9	47	47	6	2,769	72	252	252	14
ALL ITEMS CATEGORY 0050											
SL105	629+18	LT	--	--	--	--	--	--	25	25	1.4
SL108	630+47	RT	--	--	--	--	--	6	21	21	1.2
SL109	630+92	LT	--	--	--	--	--	--	24	24	1.3
SL110	631+42	RT	--	--	--	--	--	6	68	68	3.8
SL112	632+22	RT	--	--	--	--	--	6	21	21	1.2
CATEGORY 0050 TOTALS			--	--	--	--	--	18	159	159	9
* ADDITIONAL QUANTITIES LISTED ELSEWHERE											

BEGIN PROJECT 8160-14-71
STATION 603+38
BUTT JOINT REQ'D
MATCH EXISTING

C.P. 99

603+00

STH 13

7th Street

ADJUST MH COVER

ADJUST MH COVER

ADJUST WVs

604+00

605+00

606+00

ADJUST MH COVER

ADJUST WVs



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP99	603+11.8	BERNSTEN NAIL 14.5' LT.	679.609

STA 608+38 - 608+50 LT
SAWING ASPHALT REQ'D, 1' FROM FLAG LINE
STA 608+50 - 610+94 LT
SAWING PAVEMENT REQ'D, 1' FROM FLAG LINE
REMOVE C&G TO NEAREST JOINT OR SAWING CONC REQ'D
30" CONC C&G TYPE D REQ'D
MATCH ELEVATIONS AS SET BY ENGINEER

REMOVE CONC SDWK BETWEEN
PUBLIC SDWK & BACK OF CURB
TOPSOIL, SEED & MULCH REQ'D

REMOVE CONC SDWK BETWEEN
PUBLIC SDWK & BACK OF CURB
TOPSOIL, SEED & MULCH REQ'D

RP 610+75.9, 29.9 LT

15' RAD TO
FACE OF CURB

Wilson Ave

ADJUST MH COVER

ADJUST MH COVER

RP STA 611+37.8, 29.9 LT

15' RAD TO
FACE OF CURB

608+00

609+00

610+00

611+00

612+00

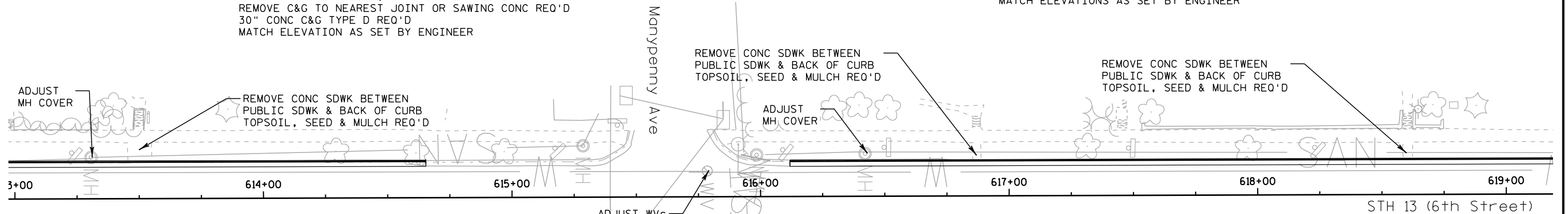
613+00

ADJUST WVs



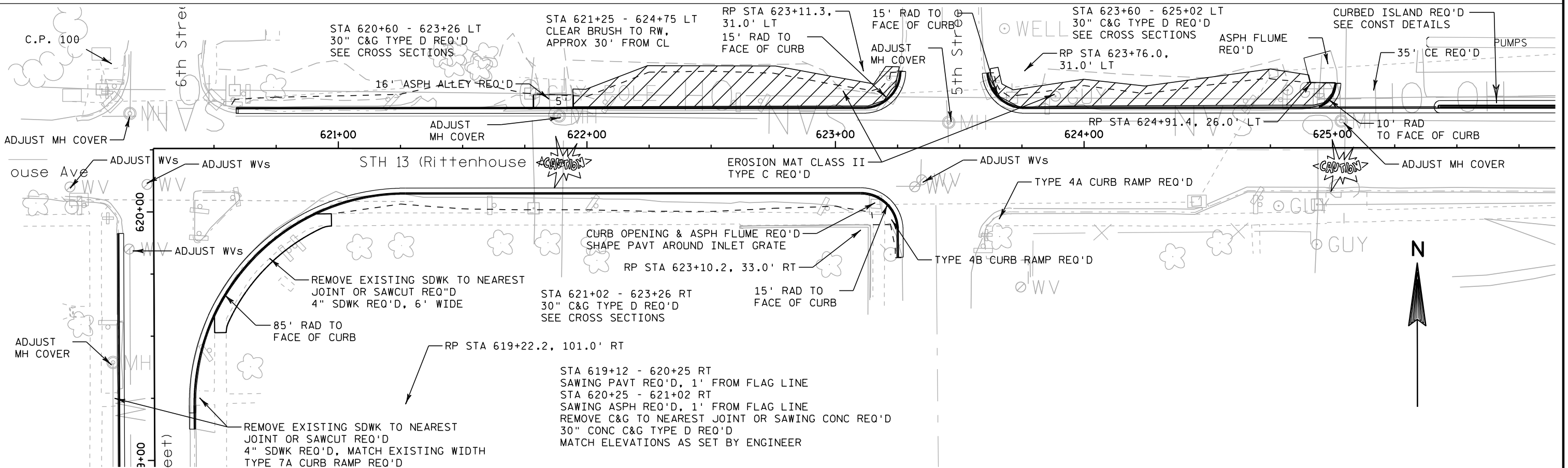
STA 611+30 - 614+00 LT
SAWING PAVEMENT REQ'D, 1' FROM FLAG LINE
STA 614+00 - 614+65 LT
SAWING ASPHALT REQ'D, 1' FROM FLAG LINE
REMOVE C&G TO NEAREST JOINT OR SAWING CONC REQ'D
30" CONC C&G TYPE D REQ'D
MATCH ELEVATION AS SET BY ENGINEER

STA 616+12 - 619+91 LT
SAWING PAVEMENT REQ'D, 1' FROM FLAG LINE
REMOVE C&G TO NEAREST JOINT OR SAWING CONC REQ'D
30" CONC C&G TYPE D REQ'D
MATCH ELEVATIONS AS SET BY ENGINEER

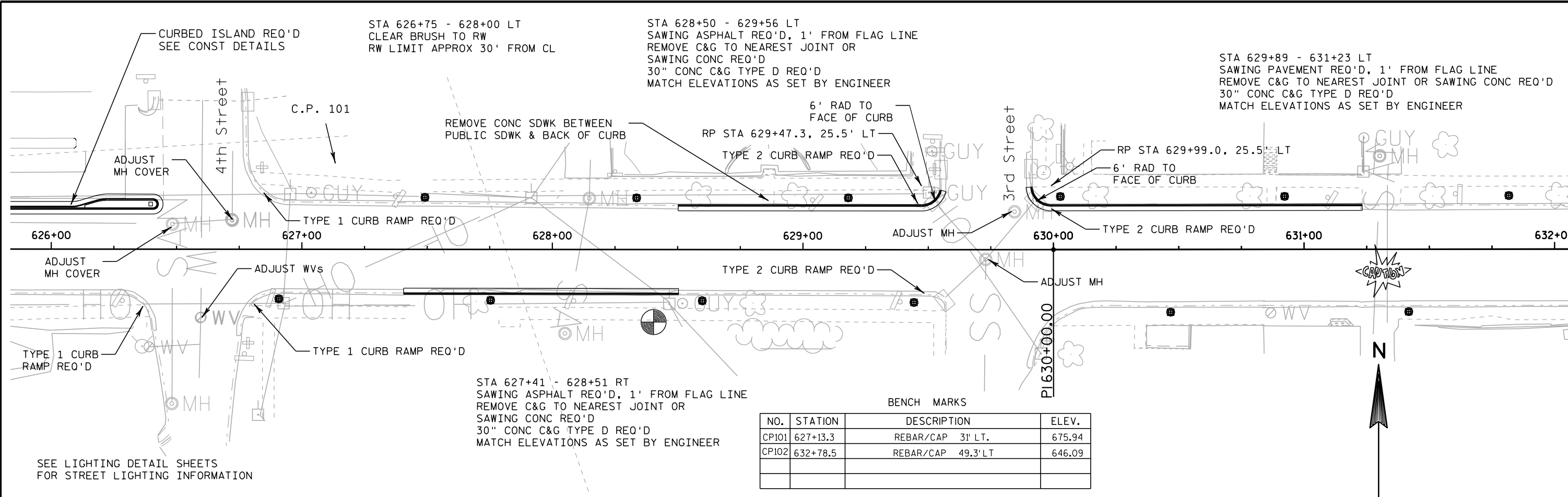


BENCH MARKS

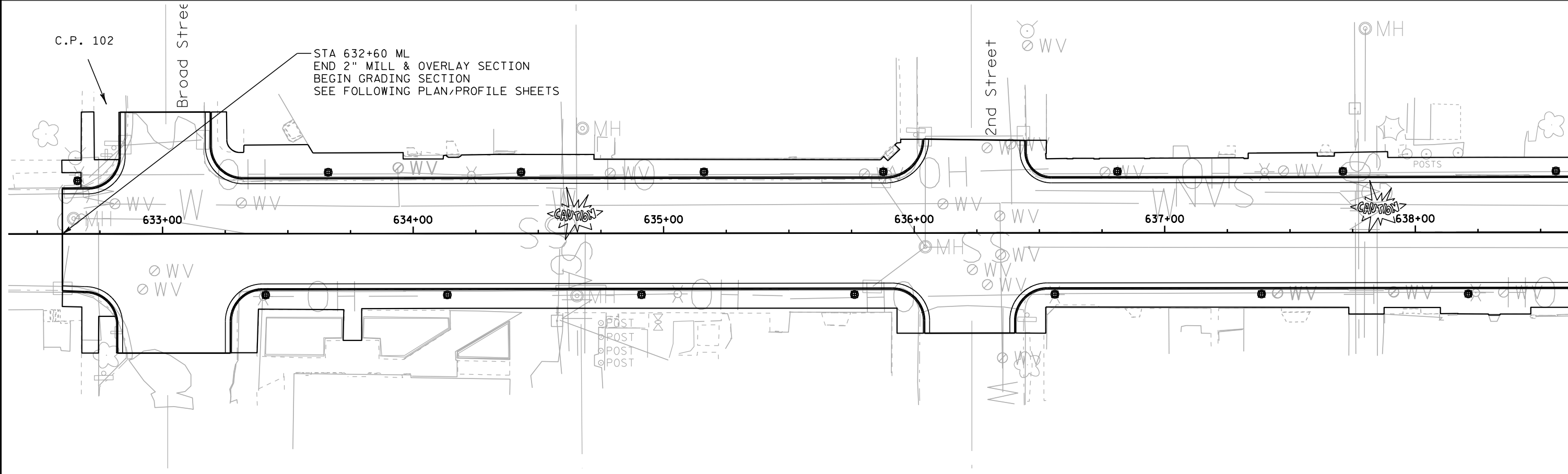
NO.	STATION	DESCRIPTION	ELEV.
CP100		REBAR/CAP NW COR. 6TH ST. AND RITTENHOUSE RD.	717.973

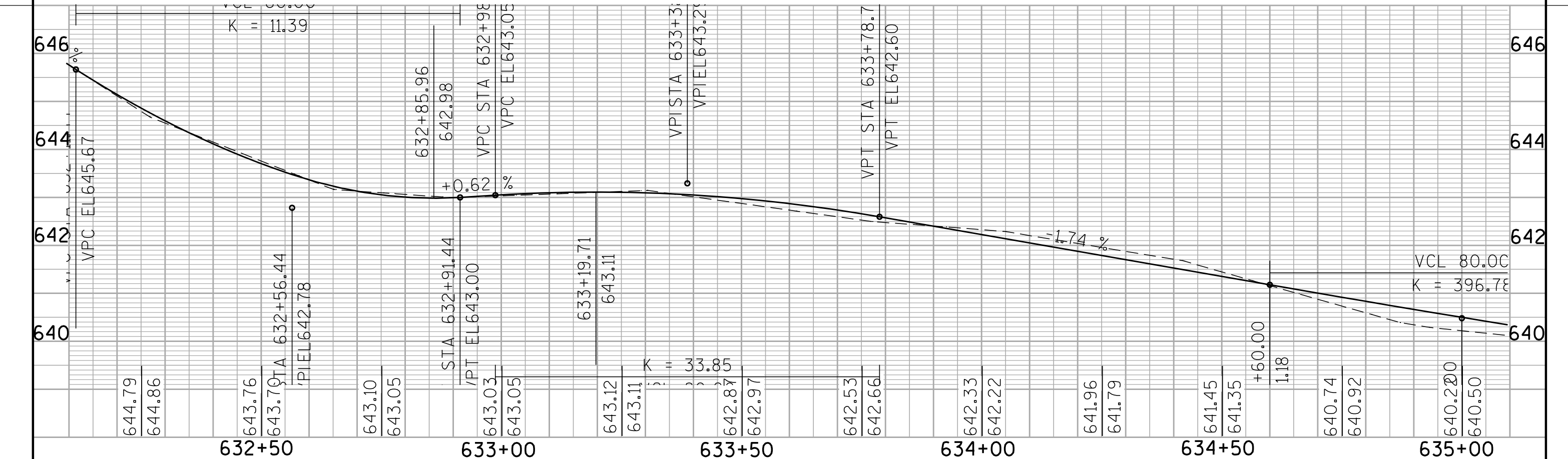
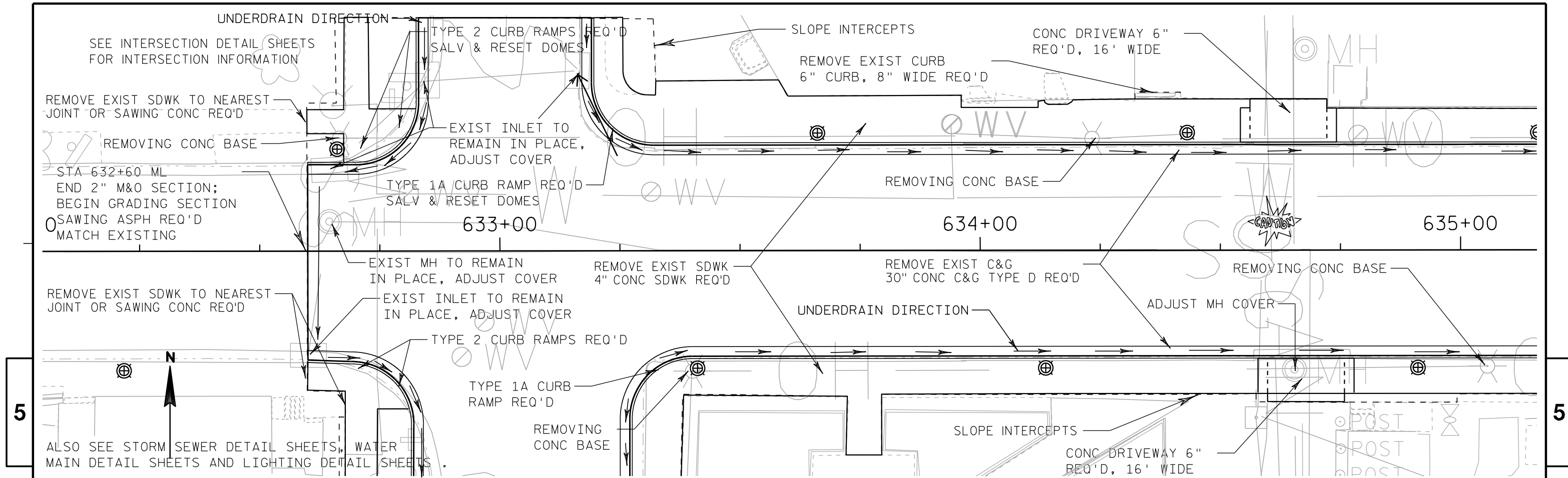


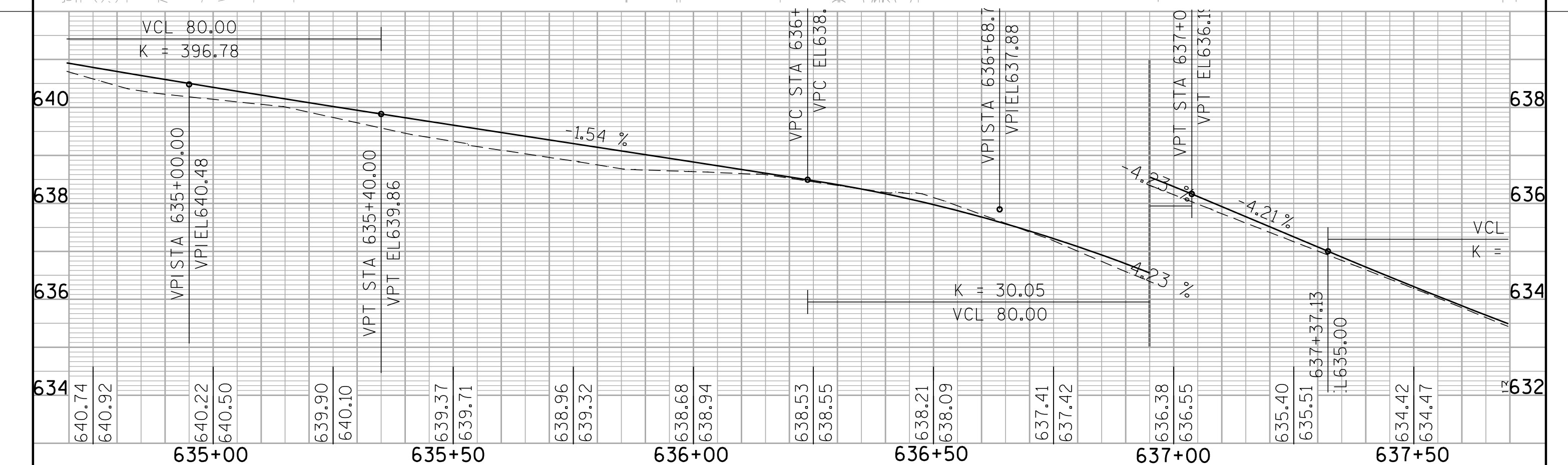
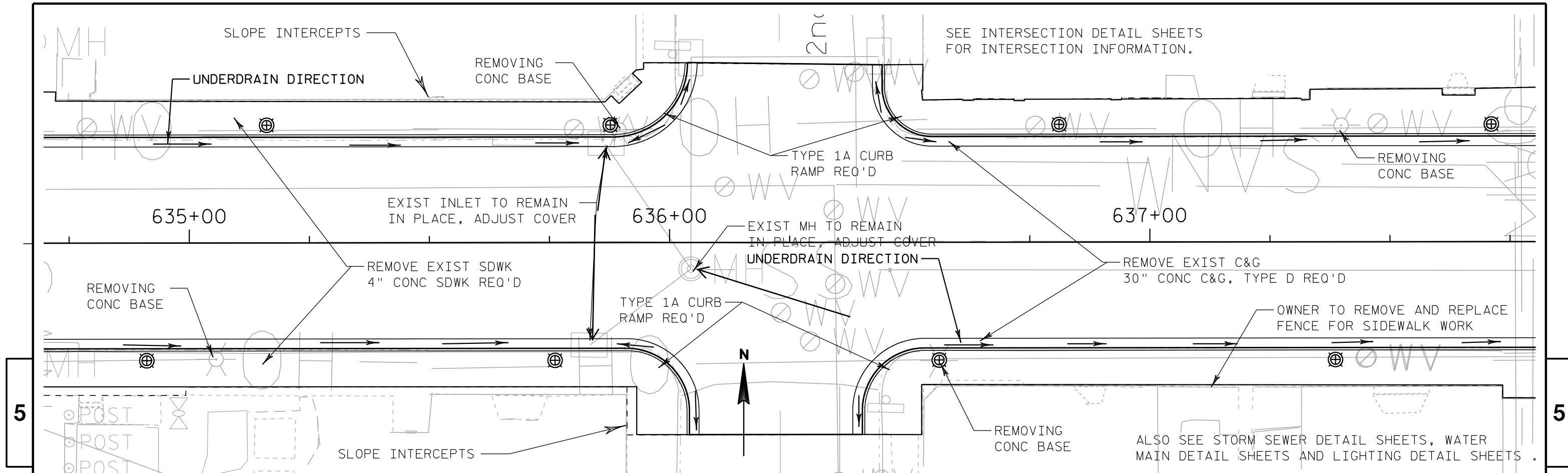
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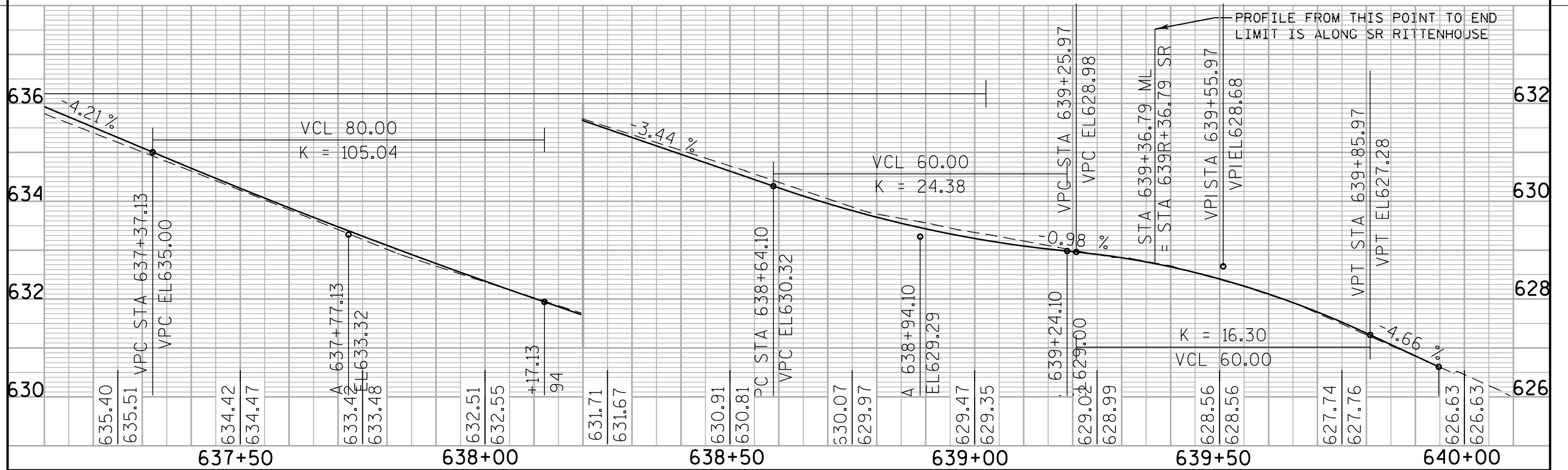
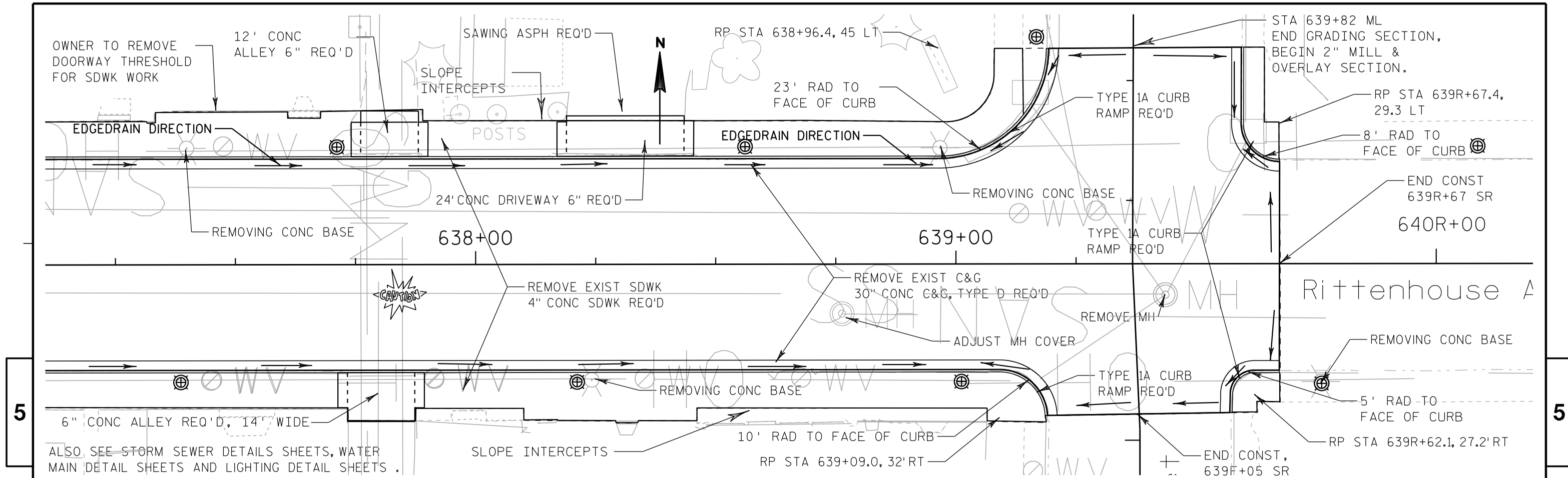


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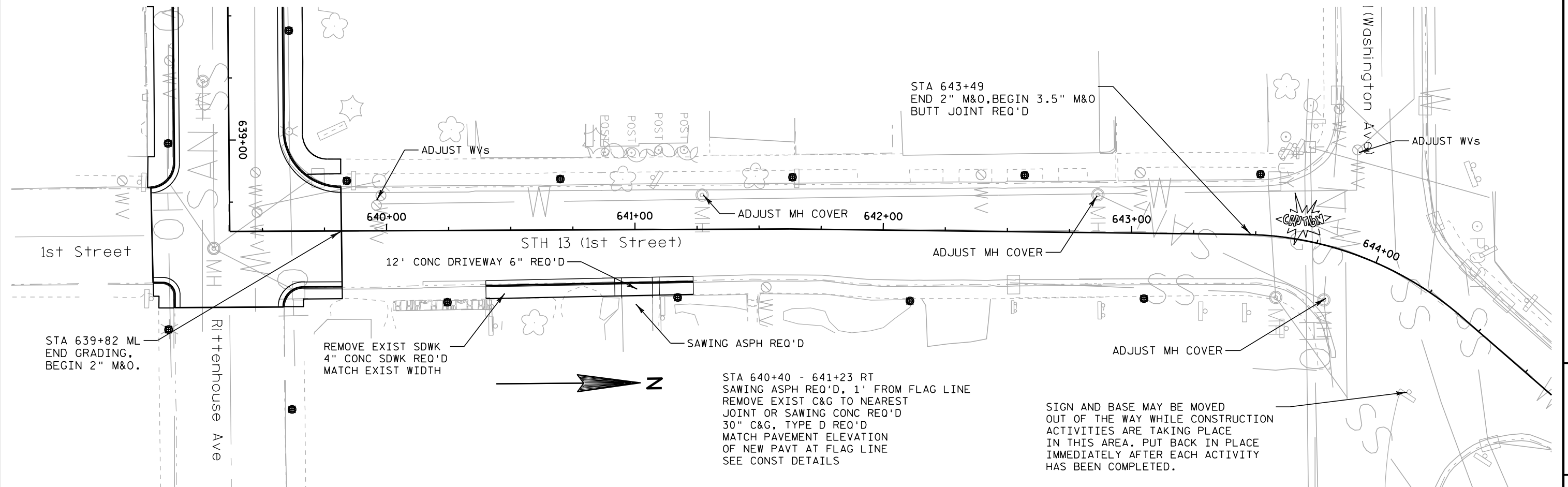




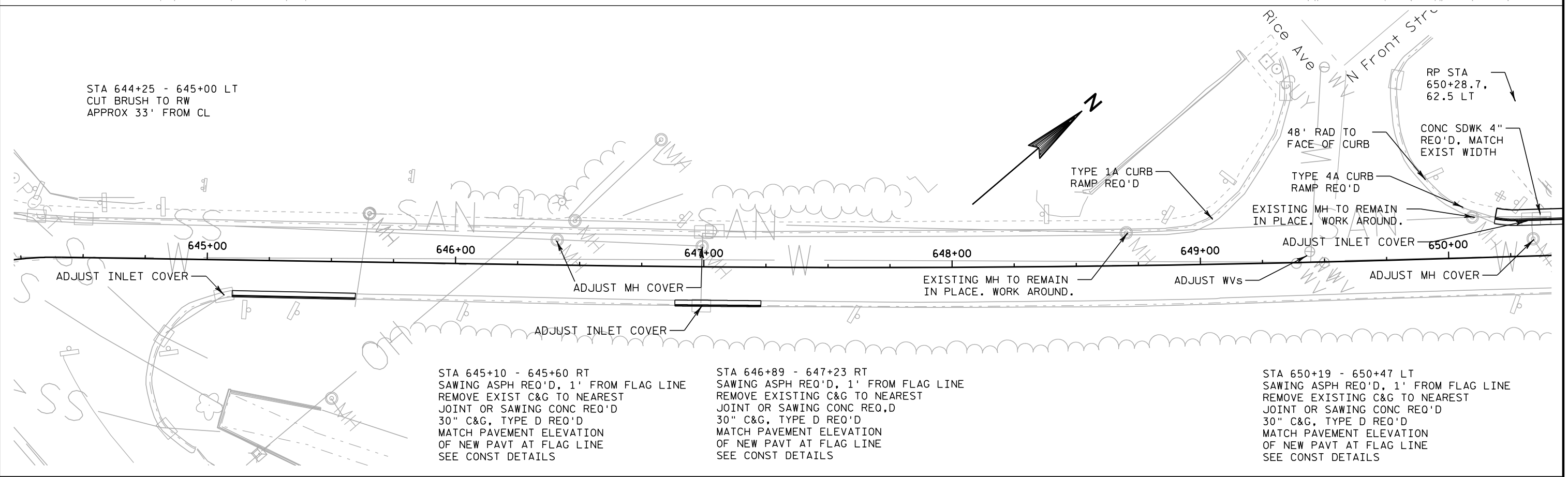




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PROJECT NO: 8160-14-71

HWY: STH 13

COUNTY: BAYFIELD

PLAN

SHEET SEVEN OF FOURTEEN

SHEET

94

E

FILE NAME : c:\aa_users\aa_Proj\STH13_Bay-K\DGNS\PlanShTs\050207.pn.DGN

PLOT DATE : 31-OCT-2012 07:13

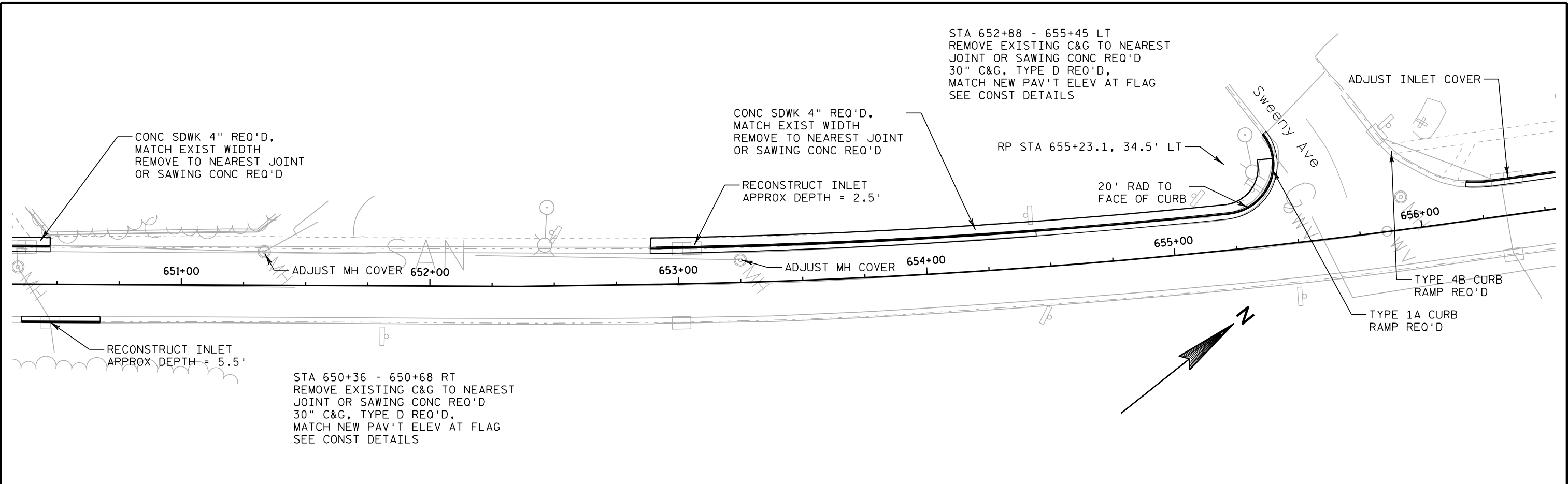
PLOT BY : dotbtk

PLOT NAME :

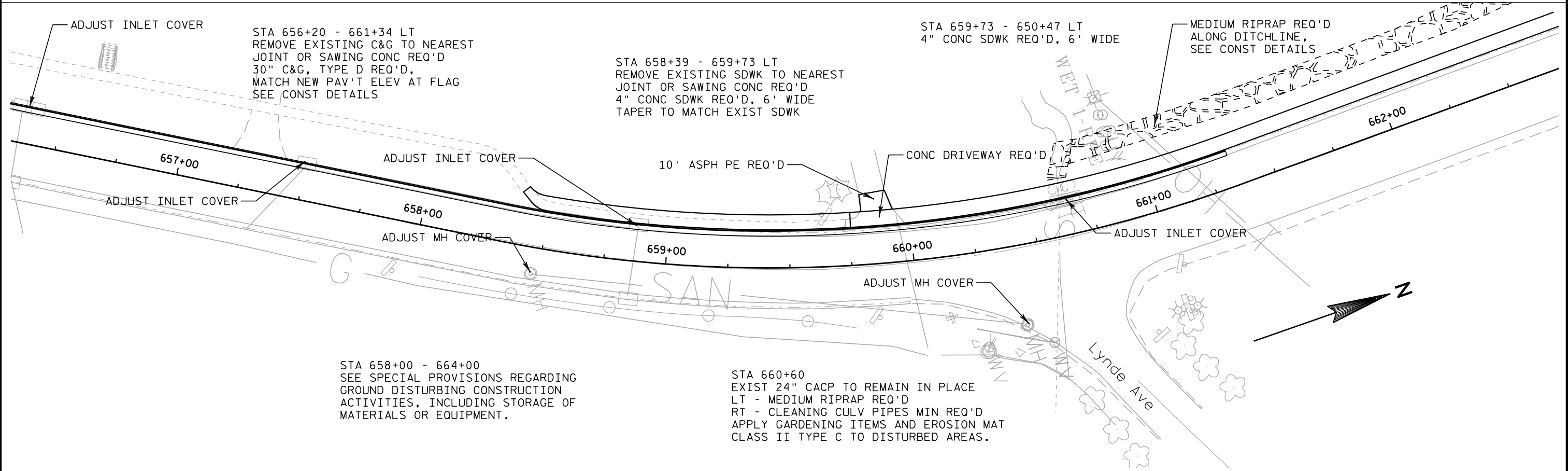
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WISDOT/CADDs SHEET 44

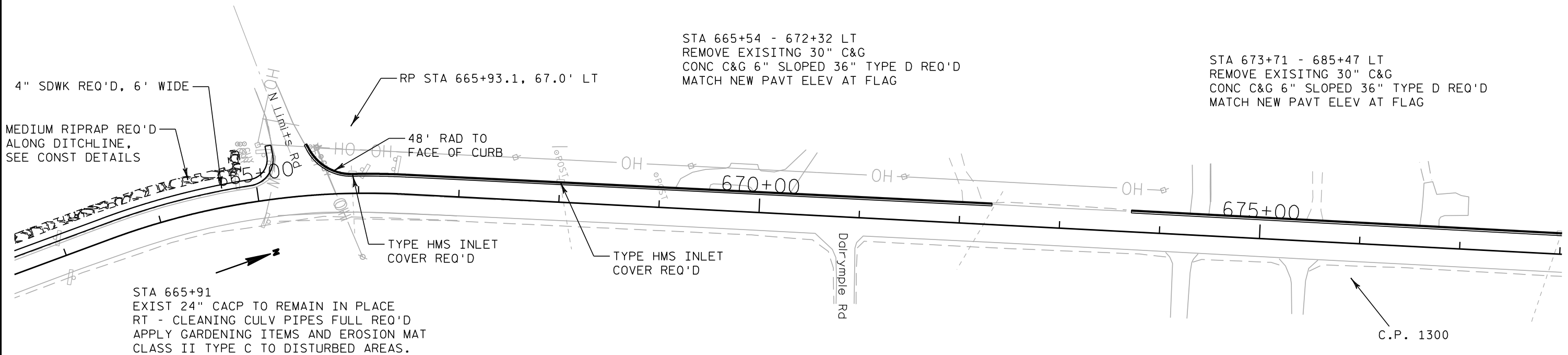
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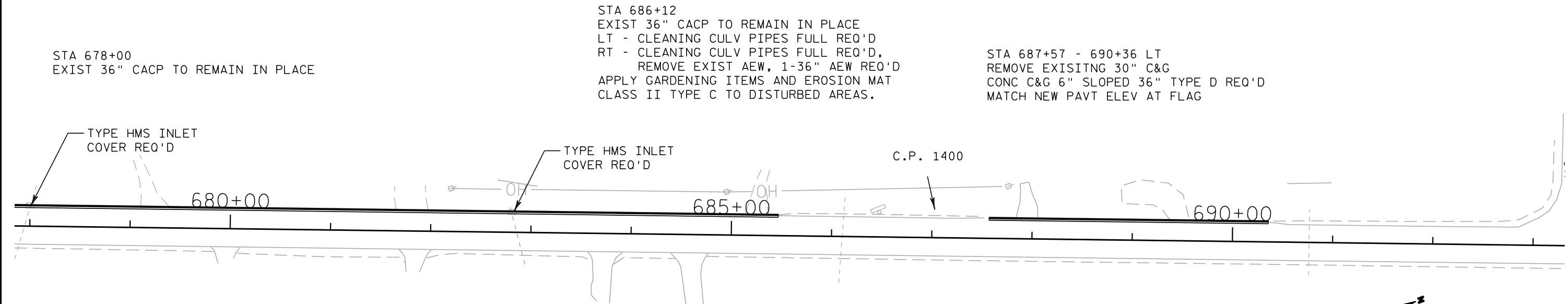


STA 658+00 - 664+00
SEE SPECIAL PROVISIONS REGARDING
GROUND DISTURBING CONSTRUCTION
ACTIVITIES, INCLUDING STORAGE OF
MATERIALS OR EQUIPMENT.

STA 668+05
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES FULL REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 672+25
EXIST 36" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES FULL & LIGHT
RIPRAP REQ'D
RT - CLEANING CULV PIPES FULL REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

5



STA 678+00
EXIST 36" CACP TO REMAIN IN PLACE

STA 686+12
EXIST 36" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES FULL REQ'D
RT - CLEANING CULV PIPES FULL REQ'D,
REMOVE EXIST AEW, 1-36" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 687+57 - 690+36 LT
REMOVE EXISTING 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP 1300	675+88.3	REBAR/RED CAP 29.5' RT.	741.10
CP 1400	687+02.8	REBAR/RED CAP 22.57' LT.	757.38

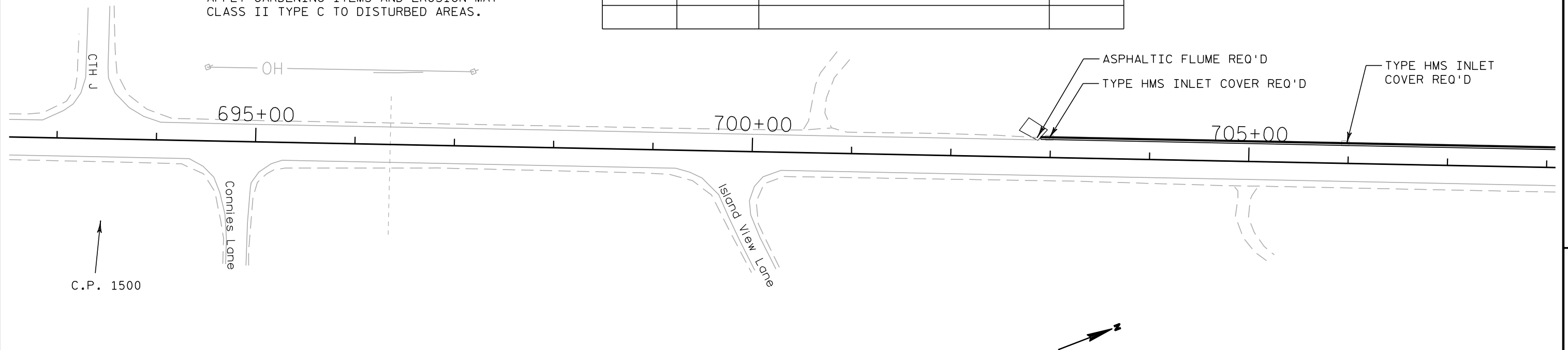
STA 682+84
EXIST 42" CACP TO REMAIN IN PLACE
LT - RECONST INLET REQ'D
RT - MIN CLEANING CULV REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 690+76
EXIST 30" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-30' AEW REQ'D
RT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-30" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

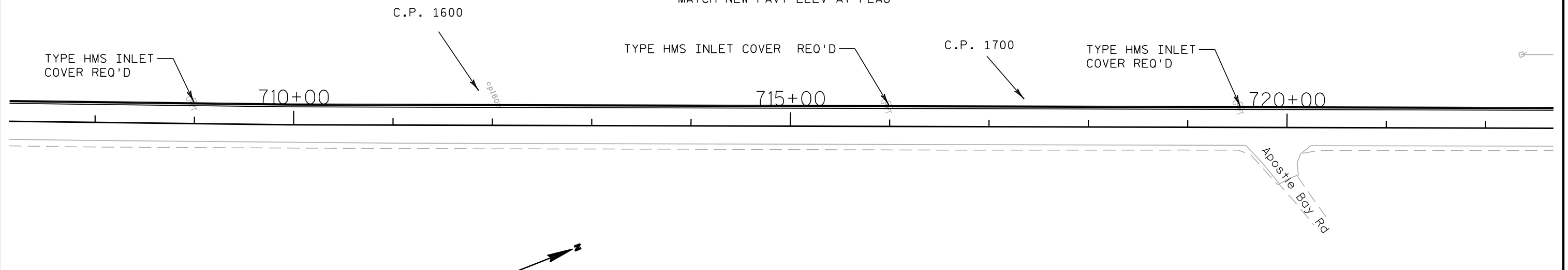
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
C.P. 1500	693+45	REBAR/RED CAP, 82.6' RT	762.972
C.P. 1600	711+92	REBAR/RED CAP, 27.1' LT	817.756
C.P. 1700	717+35	REBAR/RED CAP, 28.0' LT	808.042

STA 696+35
EXIST 60" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES FULL REQ'D
RT - CLEANING CULV PIPES MIN REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

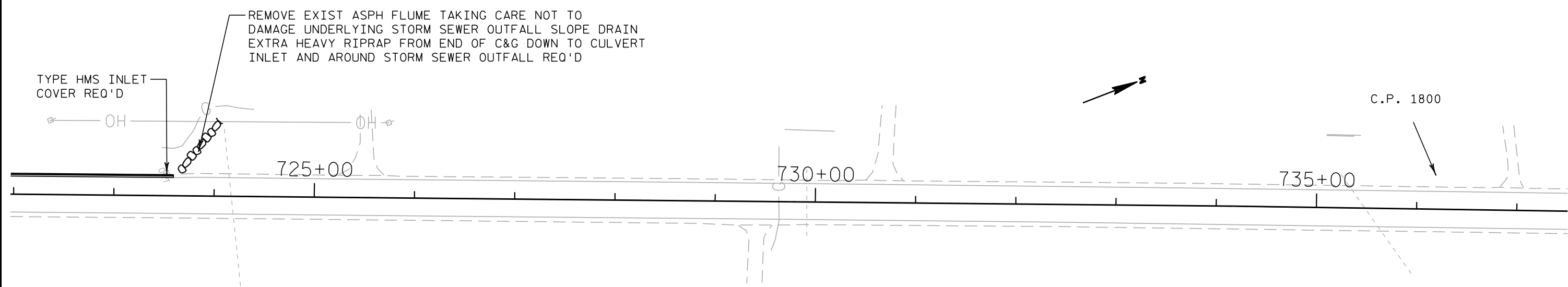


STA 702+90 - 723+59 LT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG



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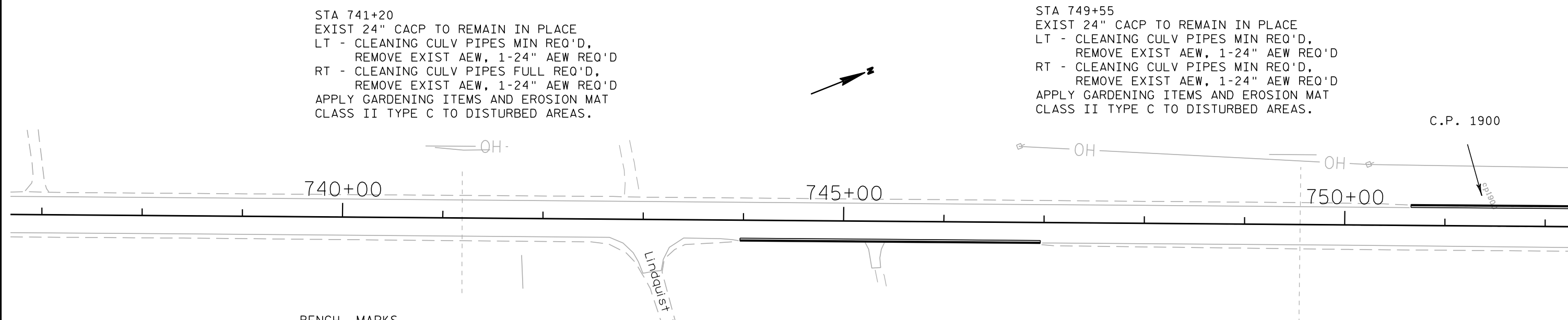
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STA 724+17
EXIST 54" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPE MIN REQ'D,
REMOVE EXIST AEW, 1-54" AEW REQ'D
RT - CLEANING CULV PIPES FULL REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 729+92
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES MIN REQ'D
REMOVE EXIST AEW, 1-24" AEW REQ'D
RT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 735+49
EXIST 36" CACP TO REMAIN IN PLACE
LT - REMOVE EXIST AEW, 1-36" AEW REQ'D
RT - REMOVE EXIST AEW, 1-36" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.



STA 741+20
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
RT - CLEANING CULV PIPES FULL REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 749+55
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
RT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 743+96 TO 746+96 RT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP1800	736+21.08	REBAR/RED CAP 31.21' LT.	763.55
CP1900	751+38.00	REBAR/RED CAP 27.02' LT.	729.38

STA 750+66 - 754+06 LT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

STA 755+41 - 758+38 LT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

STA 760+39
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEAN CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
RT - REMOVE EXIST AEW, 1-24" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 763+46
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEAN CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
RT - CLEAN CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 764+90 - 767+38 LT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

EXTRA HEAVY RIPRAP REQ'D
IN ERODED SWALE TO CULV INLET

EXISTING MH TO REMAIN
IN PLACE. WORK AROUND.

EXISTING MH TO REMAIN
IN PLACE. *WORK AROUND.

STA 755+41 - 758+51 RT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

STA 760+72 - 762+22 RT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

EXISTING MH TO REMAIN
IN PLACE. WORK AROUND. C.P. 2000
RP STA 764+88.5, 40.0' RT

20' RAD TO
FACE OF CURB

RP STA 765+62.3,
39.9' RT

EXISTING MH TO REMAIN
IN PLACE. WORK AROUND.

STA 763+96 - 767+96 RT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

STA 754+83
EXIST 36" CACP TO REMAIN IN PLACE
LT - CLEAN CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-36" AEW REQ'D
RT - REMOVE EXIST AEW, 1-36" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 758+83
EXIST 36" CACP TO REMAIN IN PLACE
LT - REMOVE EXIST AEW, 1-36" AEW REQ'D
RT - FILL REQ'D TO FILL HOLES IN SLOPE
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
CP2000	764+94.64	REBAR/RED CAP 24.64' RT.	695.27
CP299	780+09.6	REBAR/RED CAP 26.37' LT.	669.51

STA 770+21 - 771+46 LT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

STA 772+42
EXIST 48" CACP TO REMAIN IN PLACE
LT - CLEAN CULV PIPES FULL REQ'D,
REMOVE EXIST AEW, 1-48" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

EXISTING MH TO REMAIN
IN PLACE. WORK AROUND.

EXISTING MH TO REMAIN
IN PLACE. WORK AROUND.

EXISTING MH TO REMAIN
IN PLACE. WORK AROUND.

EXISTING MH TO REMAIN
IN PLACE. WORK AROUND.

STA 775+75
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEAN CULV PIPES FULL REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
RT - CLEAN CULV PIPES FULL REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 777+32.7 ML
END 3.5" M&O,
BEGIN EXCEPTION
TO NET CL LENGTH

STA 769+00
EXIST 72" CACP TO REMAIN IN PLACE
LT - EXTRA HEAVY RIPRAP REQ'D
RT - EXTRA HEAVY RIPRAP REQ'D

STA 773+81 - 775+44 RT
REMOVE EXIST 30" C&G
CONC C&G 6" SLOPED 36" TYPE D REQ'D
MATCH NEW PAVT ELEV AT FLAG

STA 828+49.9
END EXCEPTION TO NET CL LENGTH,
BEGIN 4.5" MILL & OVERLAY SECTION

C.P. 103



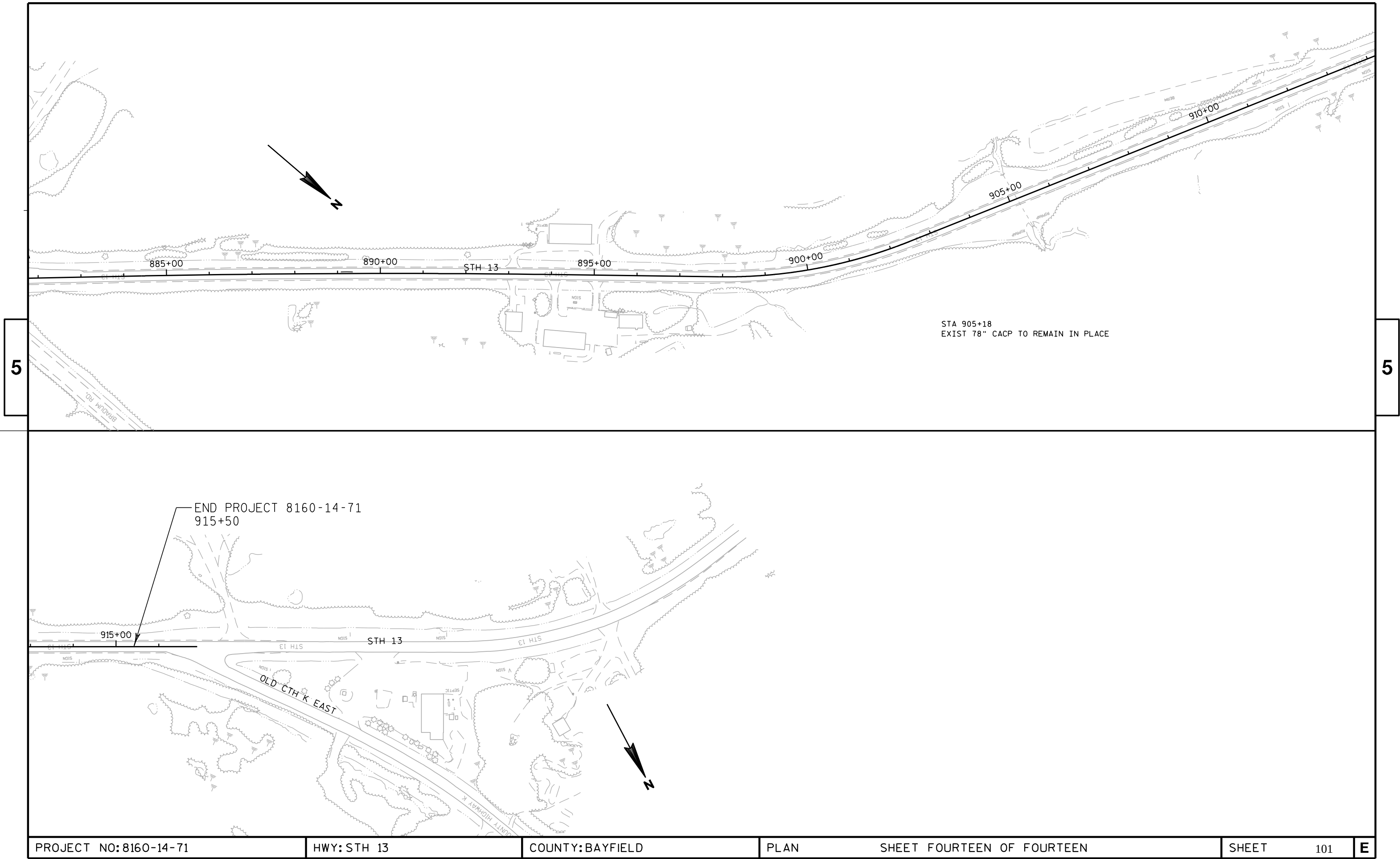
BENCH MARKS				
NO.	STATION	DESCRIPTION		ELEV.
CP103	828+02	CHISLED "X" ON CURB	23.8' LT.	690.01
CP104	856+78.6	REBAR/CAP	43.3' LT.	733.48
CP105	881+78	REBAR/CAP	49.6' LT.	756.20

STA 836+46
EXIST 24" CACP TO REMAIN IN PLACE
LT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
RT - CLEANING CULV PIPES MIN REQ'D,
REMOVE EXIST AEW, 1-24" AEW REQ'D
APPLY GARDENING ITEMS AND EROSION MAT
CLASS II TYPE C TO DISTURBED AREAS.

STA 844+00 - 847+00 RT
CLEAR FOR VISION

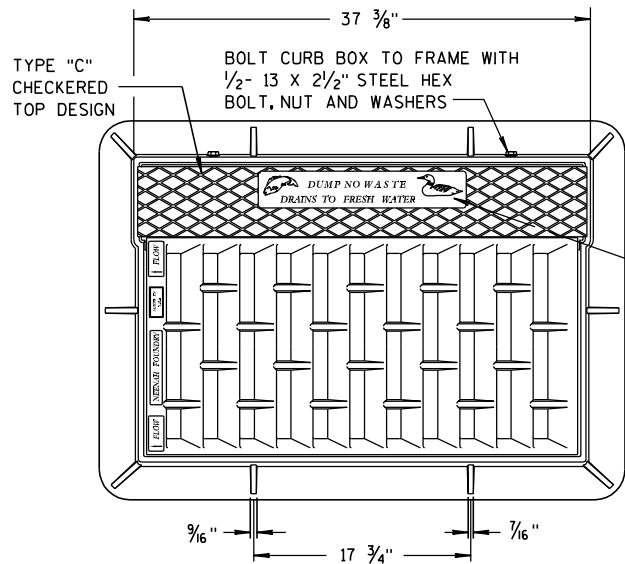
NUZZO RD
STA 845+64

PC 852+72.67

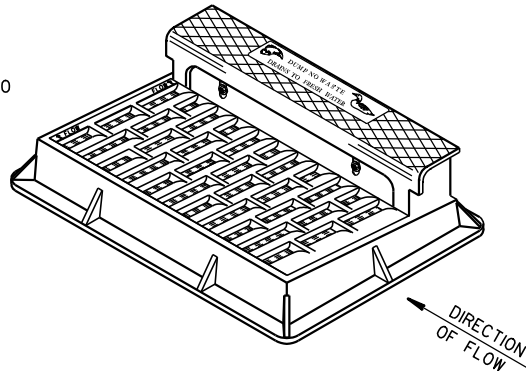


Standard Detail Drawing List

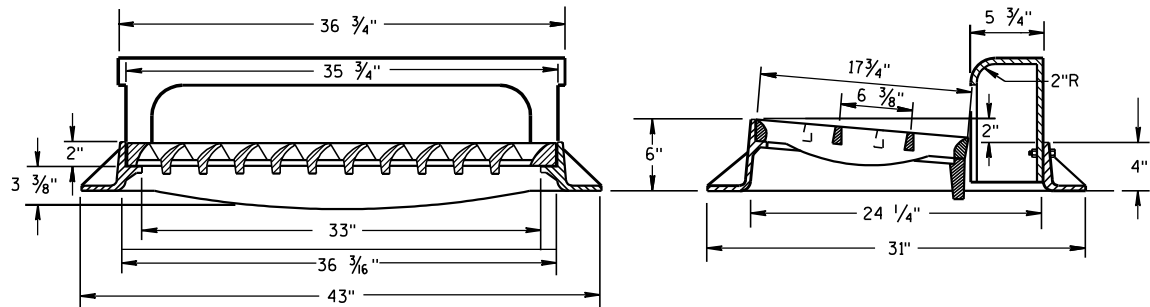
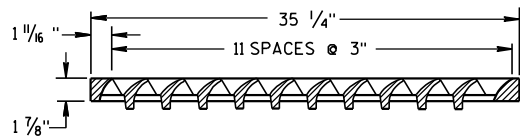
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-07	CONDUIT
09B04-09	PULL BOX
09C05-07	CONCRETE CONTROL CABINET BASES
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
10A01-02	ELECTRICAL HANDHOLE WIRING
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12A	PAVEMENT MARKING SYMBOLS
15C08-15A	PAVEMENT MARKING (MAINLINE)
15C08-15B	PAVEMENT MARKING (INTERSECTIONS)
15C08-15F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-01A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY



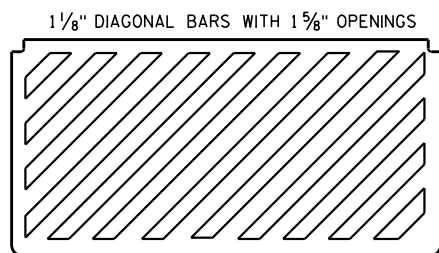
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

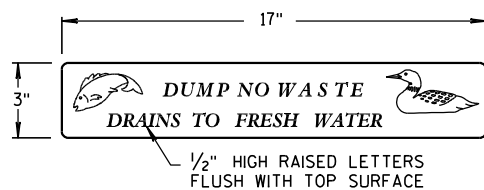


TYPE "H"
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.

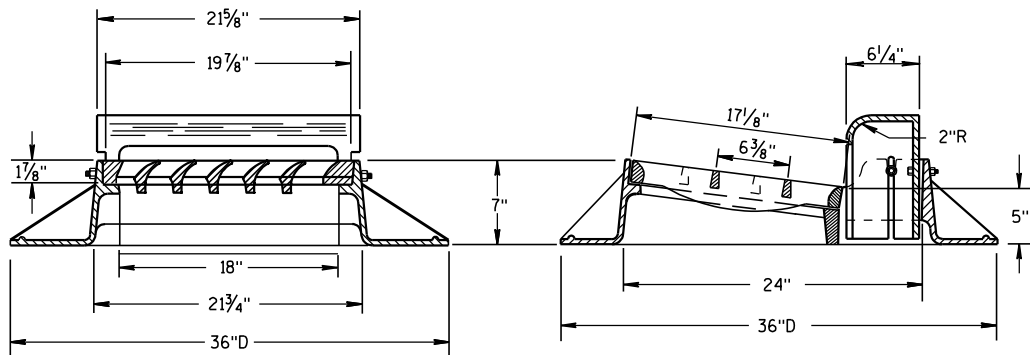
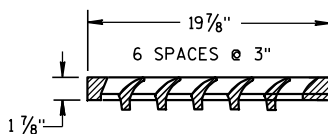
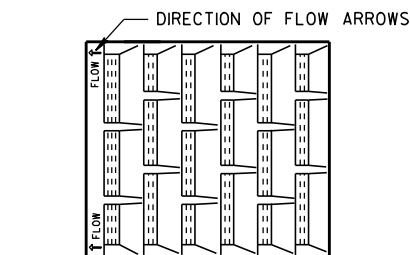


SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.

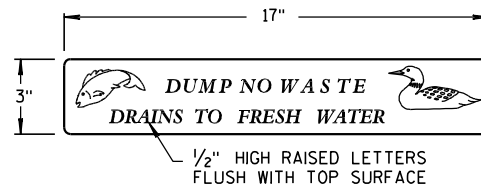
GENERAL NOTES

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.

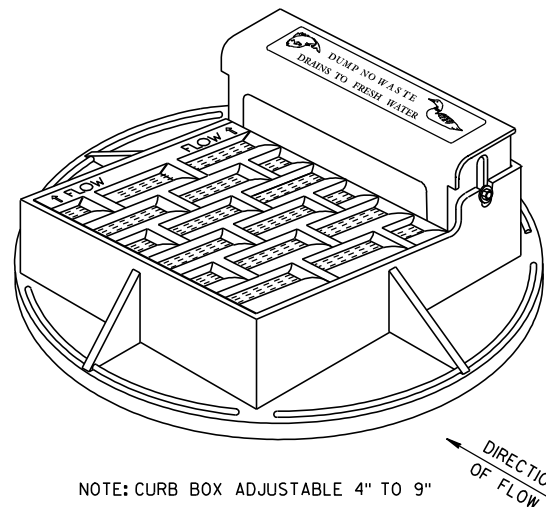
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

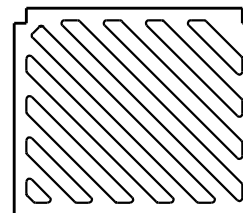


LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



1" DIAGONAL BARS WITH 1 1/2" OPENINGS



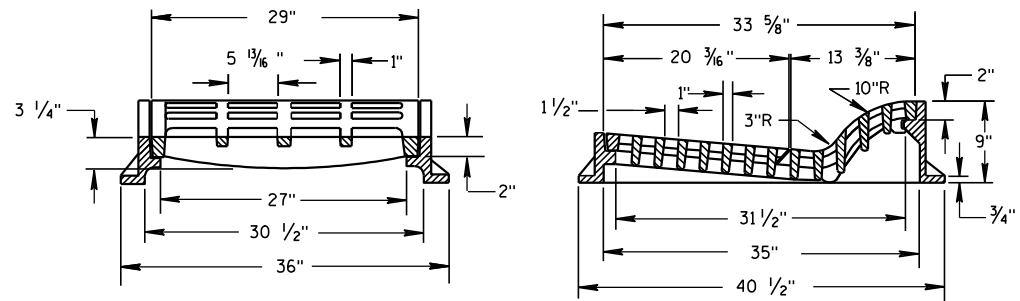
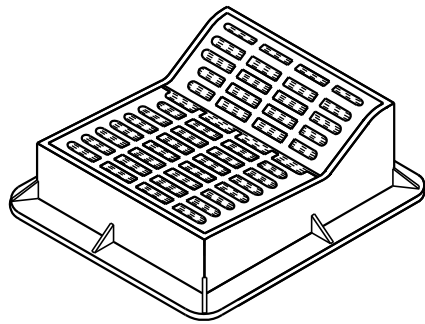
SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8")
GRATE..... 84 LBS.
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE /S/ Jerry H. Zocco ROADWAY STANDARDS 103 ENGINEER
FHWA

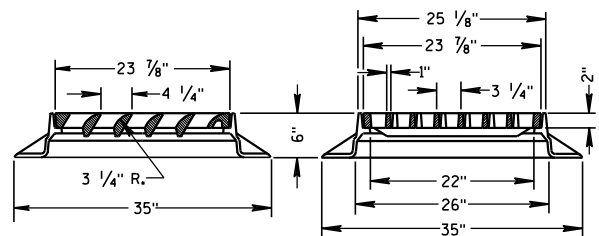
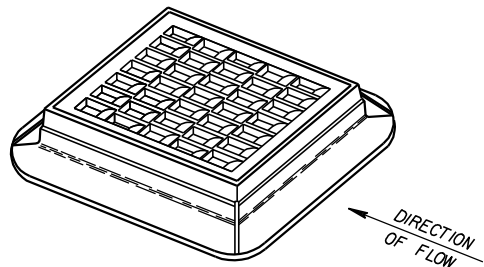


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

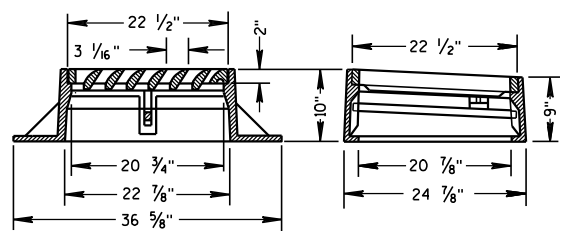
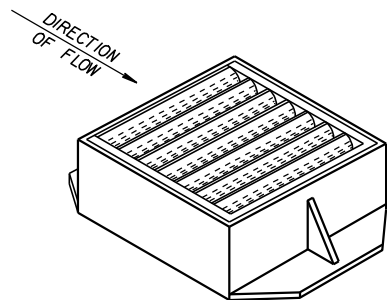
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE.....169 LBS.



TYPE "V"

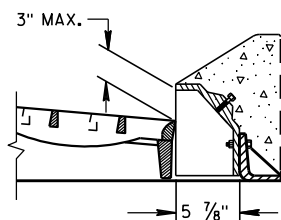
(APPROXIMATE WEIGHT 410 LBS.)

FRAME.....269 LBS.
GRATE.....136 LBS.
SAFETY BAR.....5 LBS.

**ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER**

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE



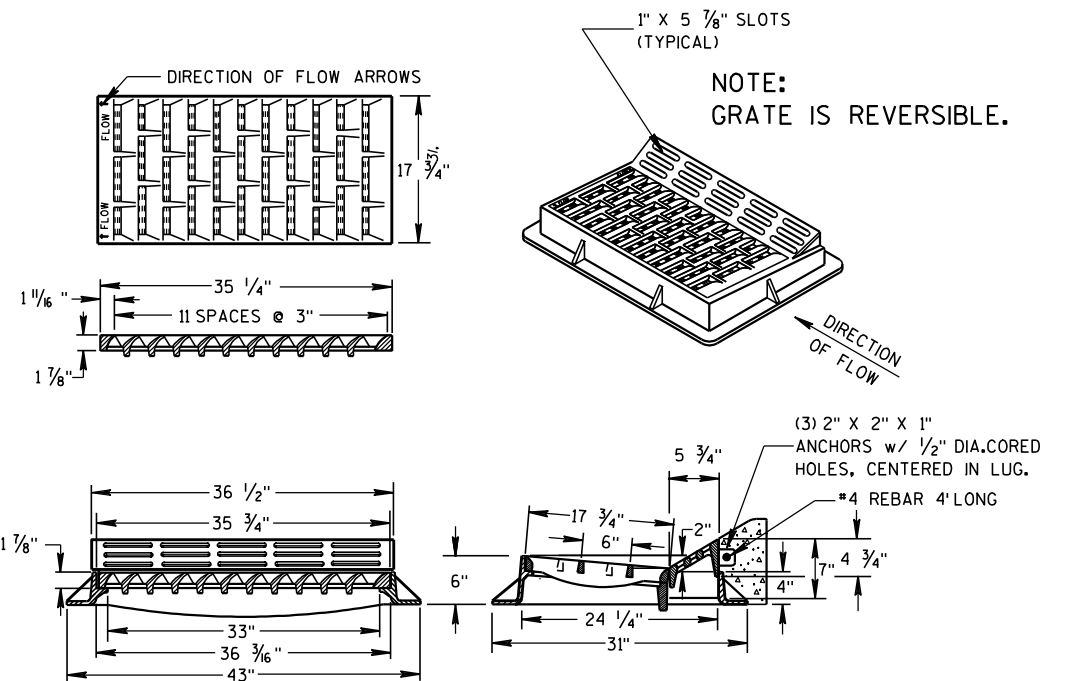
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



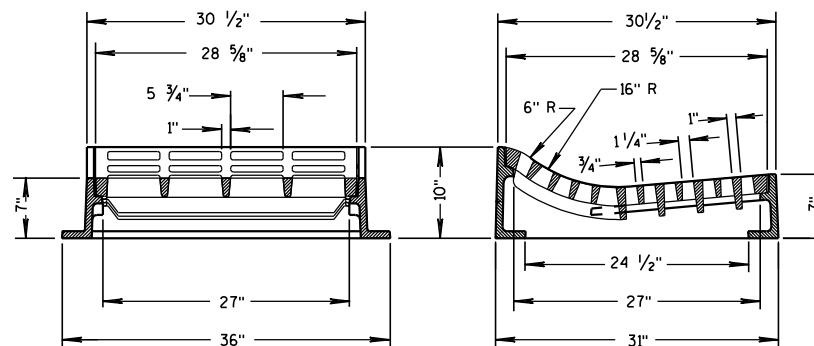
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)

FRAME.....181 LBS.
GRATE.....159 LBS.
CURB BOX.....74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

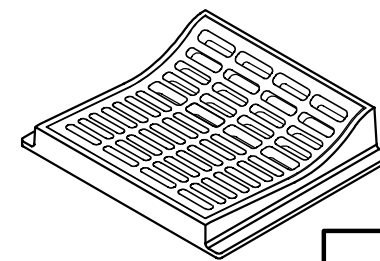


TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)

FRAME.....270 LBS.
GRATE.....260 LBS.

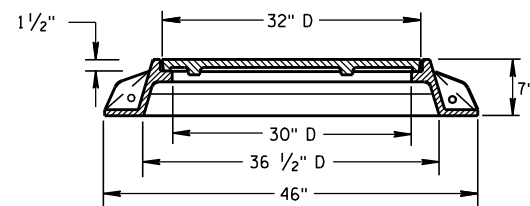
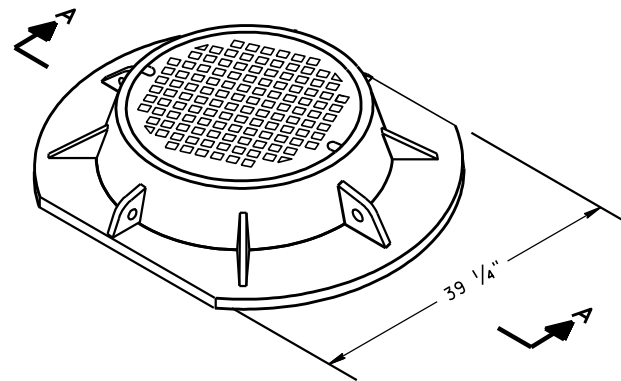
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



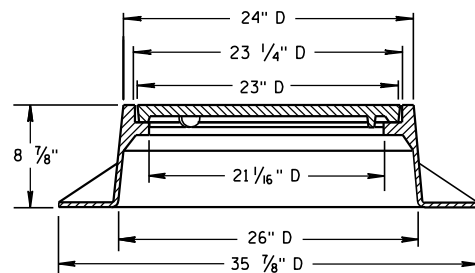
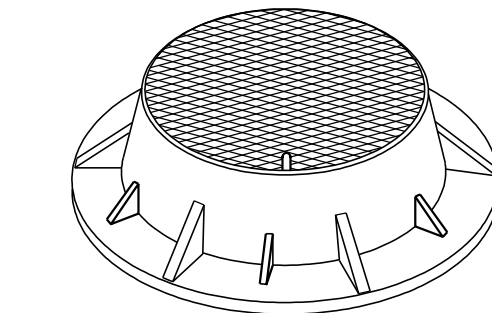
INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

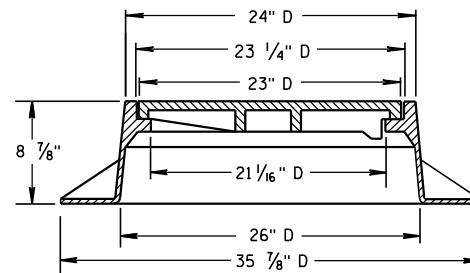
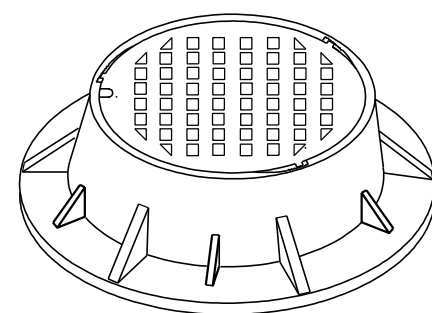
APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 104
FHWA ENGINEER



SECTION A-A
TYPE "K"
(APPROXIMATE WEIGHT 439 LBS.)
FRAME.....216 LBS.
LID.....223 LBS.



TYPE "J"
(APPROXIMATE WEIGHT 267 LBS.)
FRAME.....152 LBS.
LID.....115 LBS.



TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(APPROXIMATE WEIGHT 267 LBS.)
FRAME.....158 LBS.
LID.....109 LBS.
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

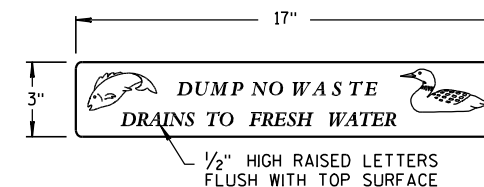
GENERAL NOTES

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.

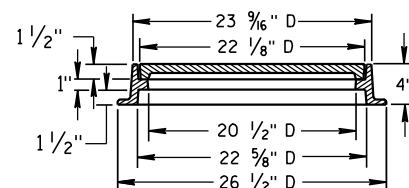
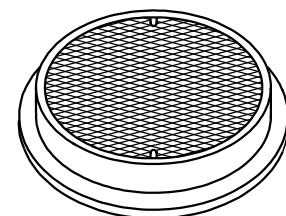
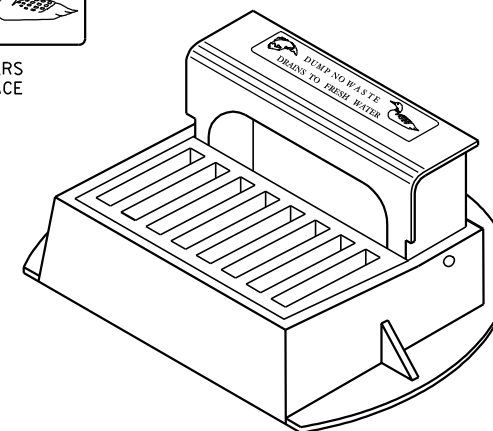
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

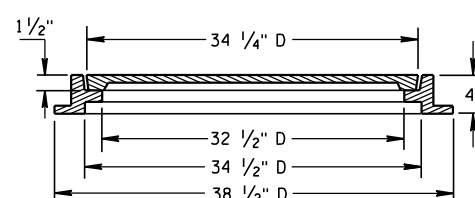
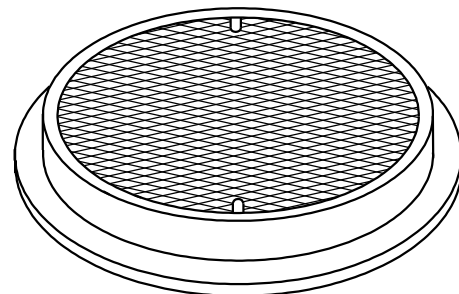
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



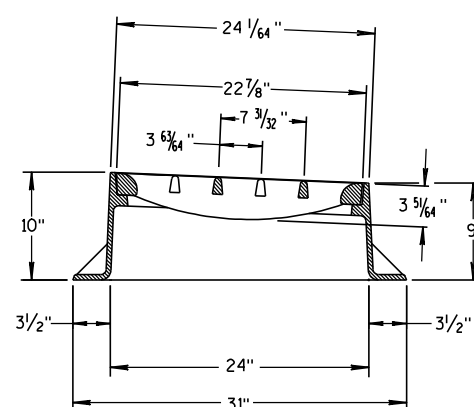
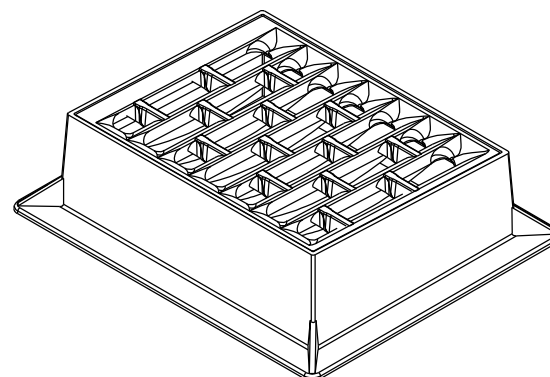
LOGO DETAIL



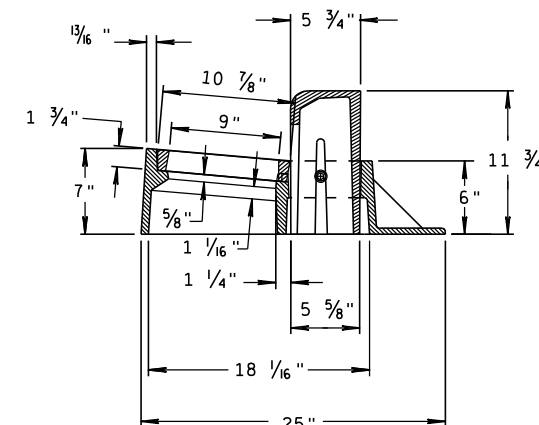
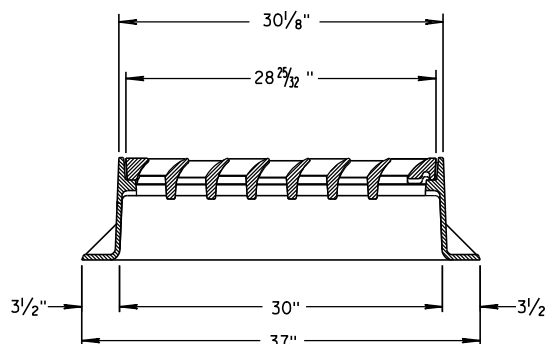
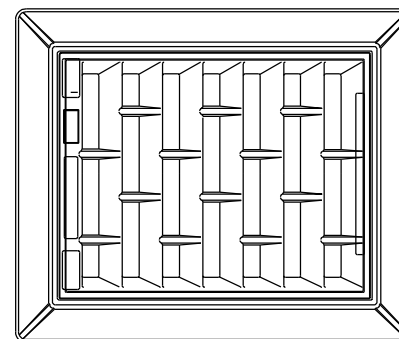
TYPE "L"
(APPROXIMATE WEIGHT 158 LBS.)
FRAME.....81 LBS.
LID.....77 LBS.



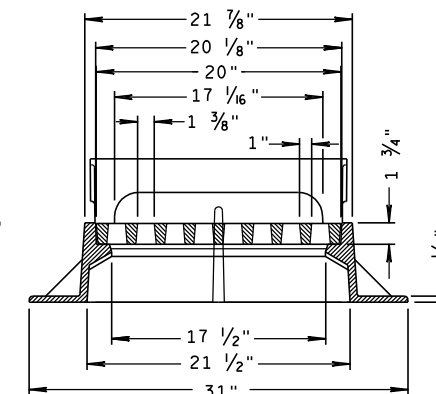
TYPE "M"
(APPROXIMATE WEIGHT 377 LBS.)
FRAME.....125 LBS.
LID.....252 LBS.



INLET COVER TYPE "BW"



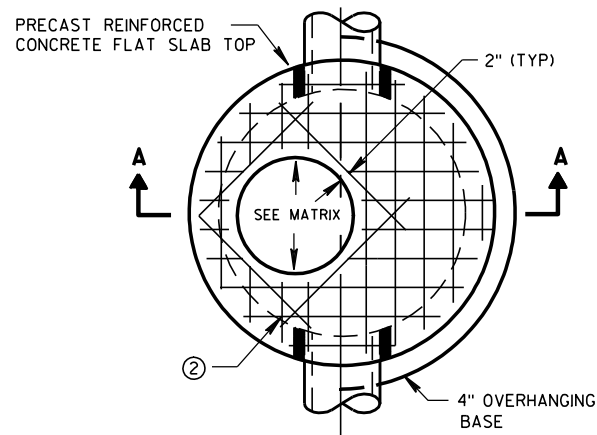
INLET COVER TYPE "Z"
(APPROXIMATE WEIGHT 344 LBS.)
FRAME.....206 LBS.
GRATE.....46 LBS.
CURB BOX.....92 LBS.



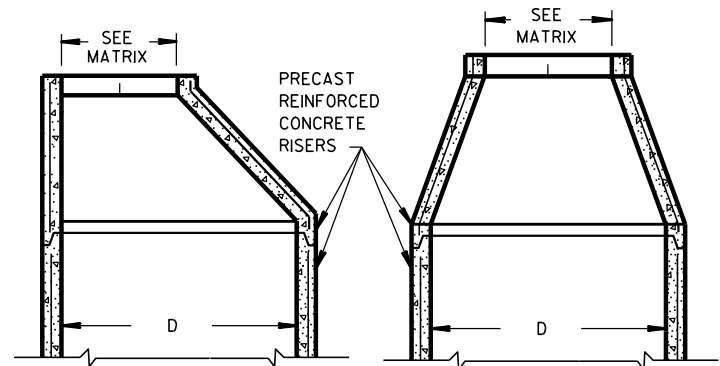
INLET COVERS, TYPE BW, Z
MANHOLE COVERS, TYPE
K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zopp
DATE ROADWAY STANDARDS 105 NT
FHWA ENGINEER

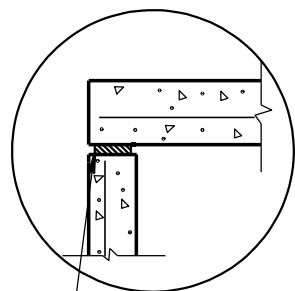


PLAN VIEW CIRCULAR OPENING

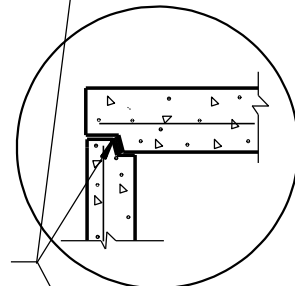


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

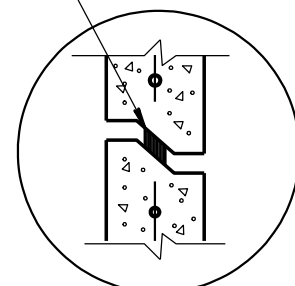
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

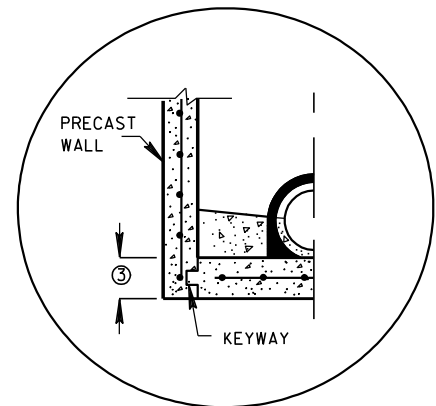


TOP WITH TONGUE AND GROOVE JOINT

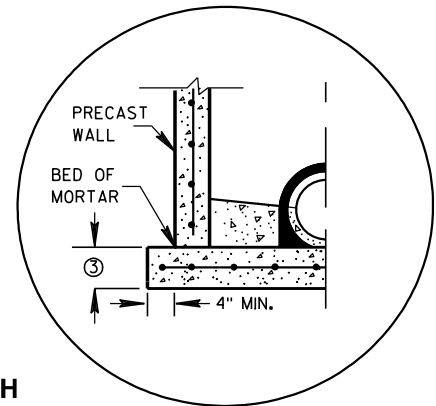


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



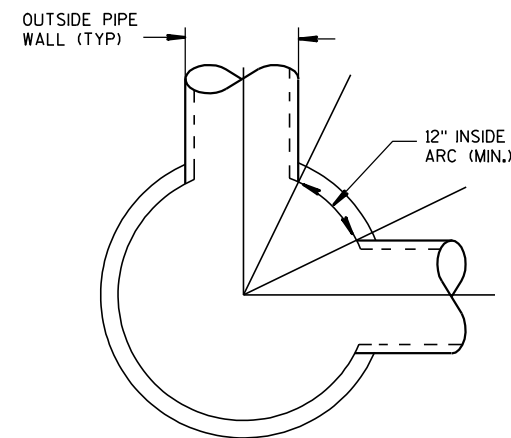
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



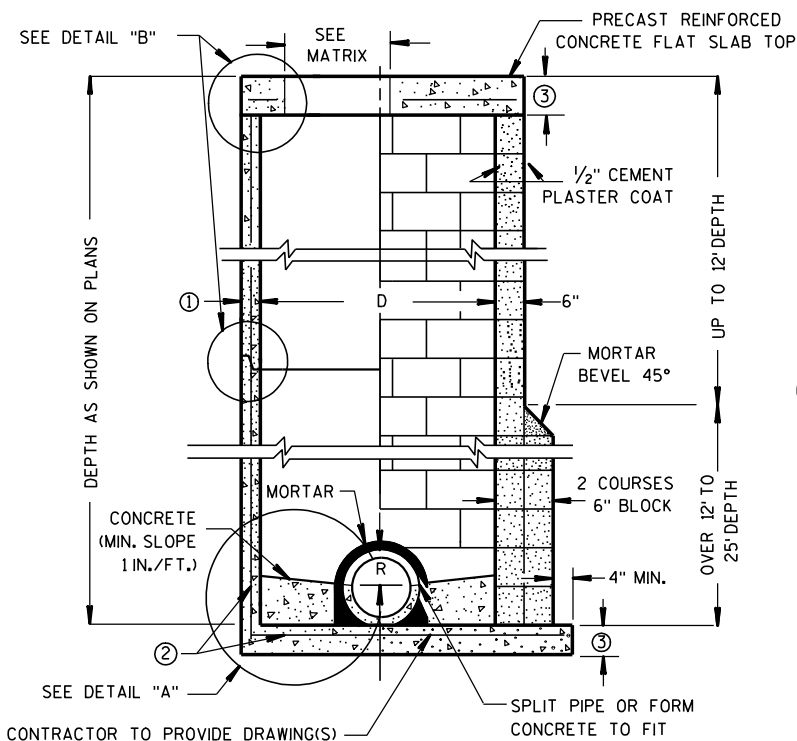
SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

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



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 GRANULAR 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. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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 SEPERATE 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

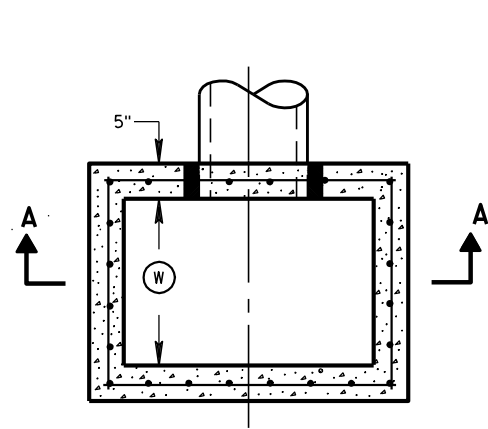
PIPE MATRIX

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

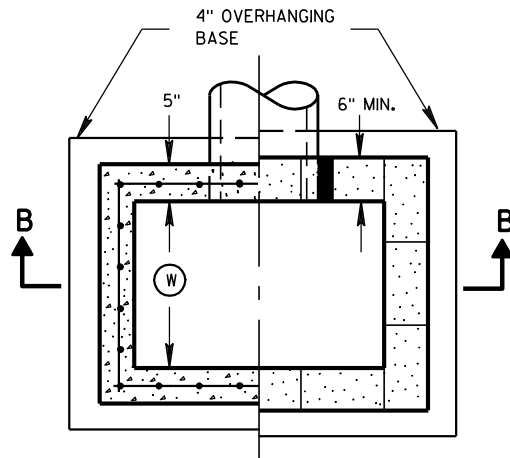
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER 106

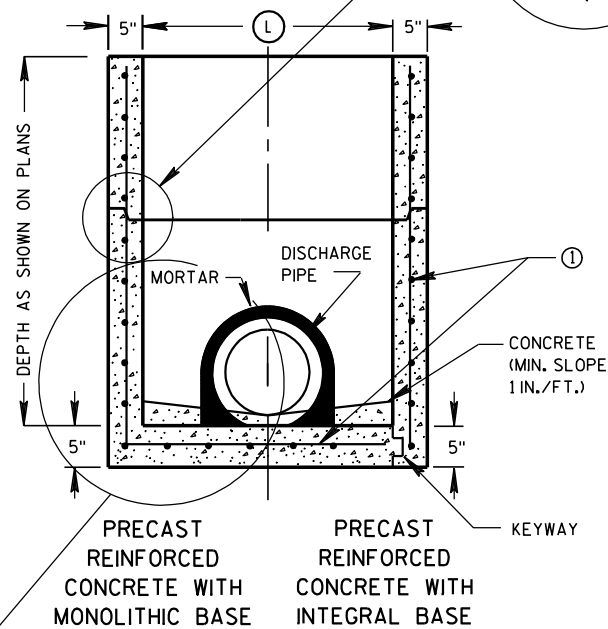


PLAN VIEW

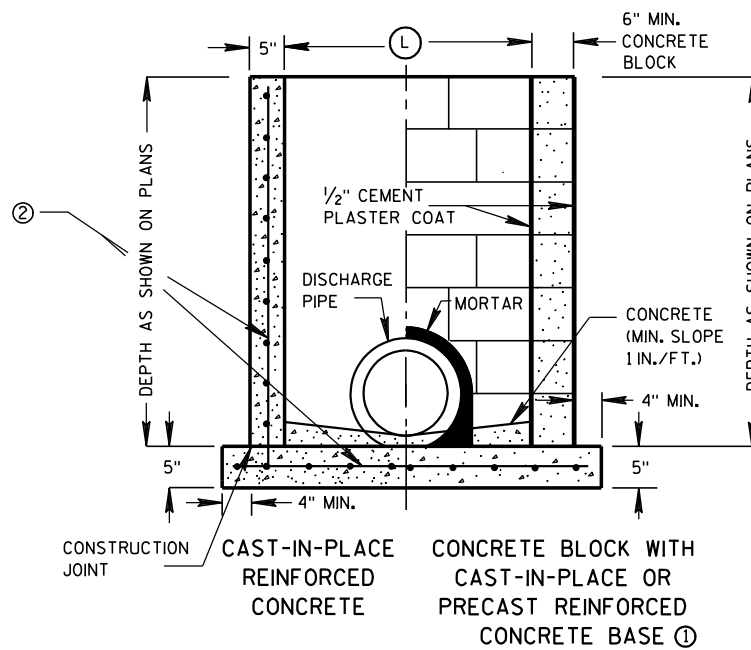


PLAN VIEW

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

SEPERATE 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 GRANULAR 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 SEPERATE 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.

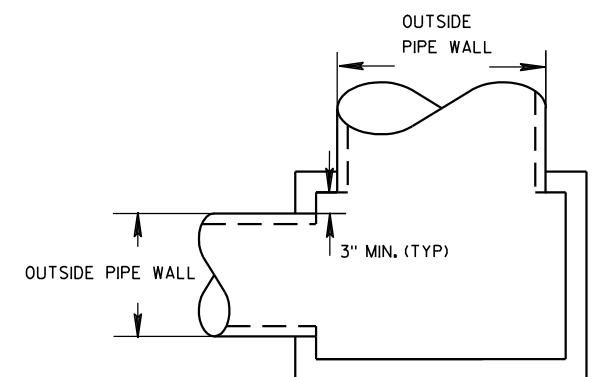
- FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (FT)	LENGTH (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

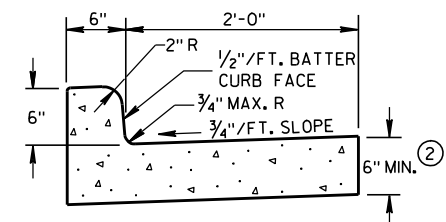


DETAIL "A"

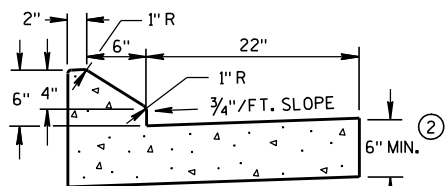
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

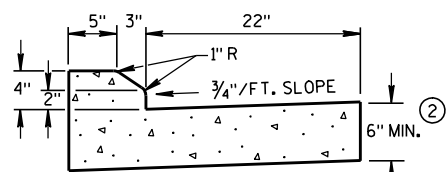
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zoaa
ROADWAY STANDARDS D 107
ENGINEER
FHWA



TYPES A & D ①

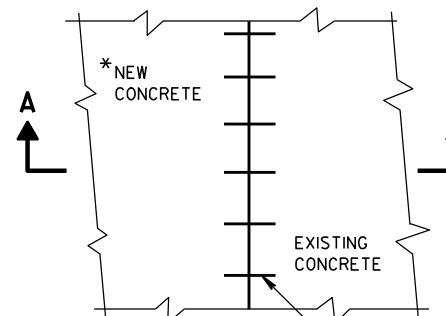


6" SLOPED CURB TYPES G & J ①



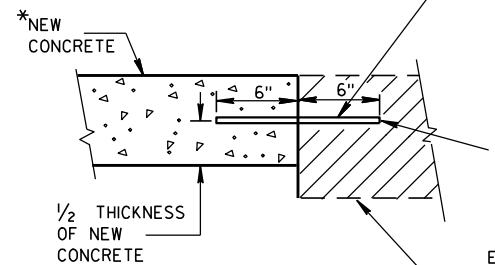
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

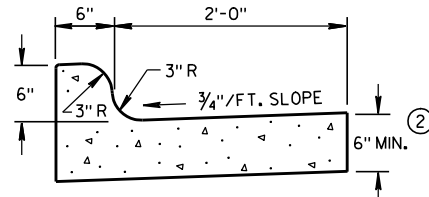


PLAN VIEW

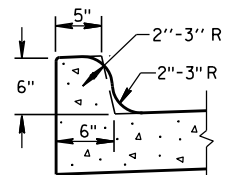
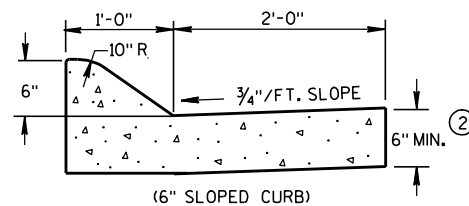
* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

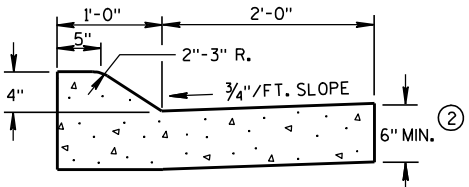
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.



TYPES K & L ①

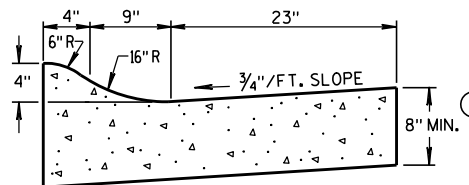
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

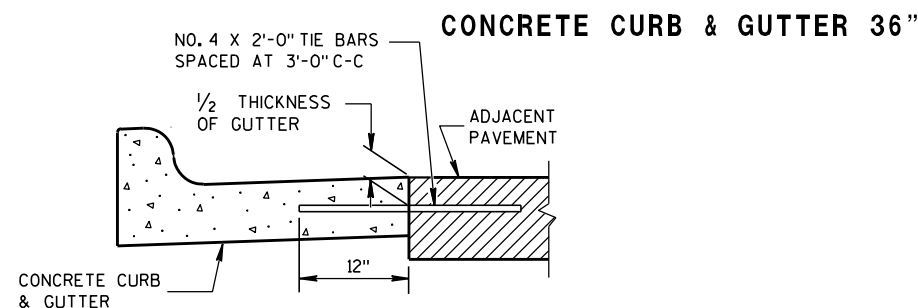


(4" SLOPED CURB)

TYPES A & D ①

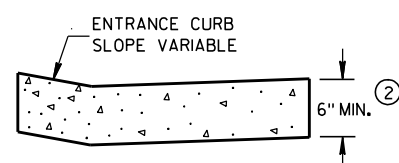


4" SLOPED CURB TYPES R & T ① ④



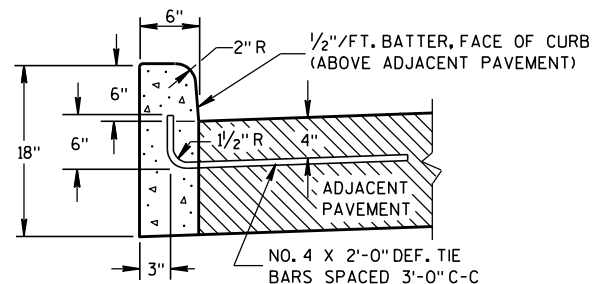
CONCRETE CURB & GUTTER 36"

TYPICAL TIE BAR LOCATION ①



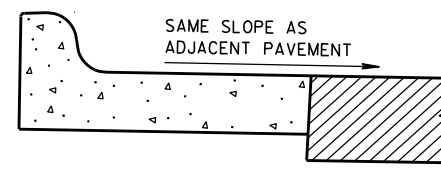
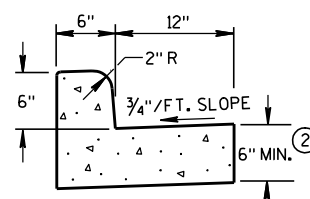
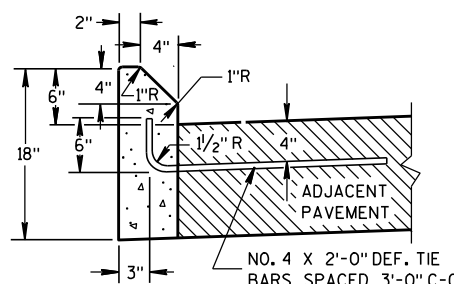
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

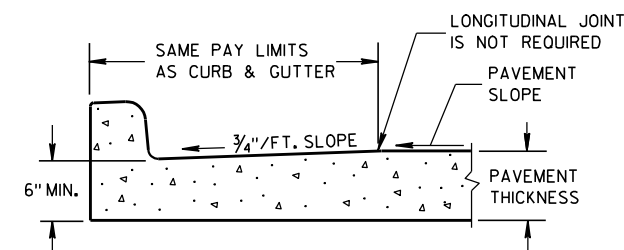
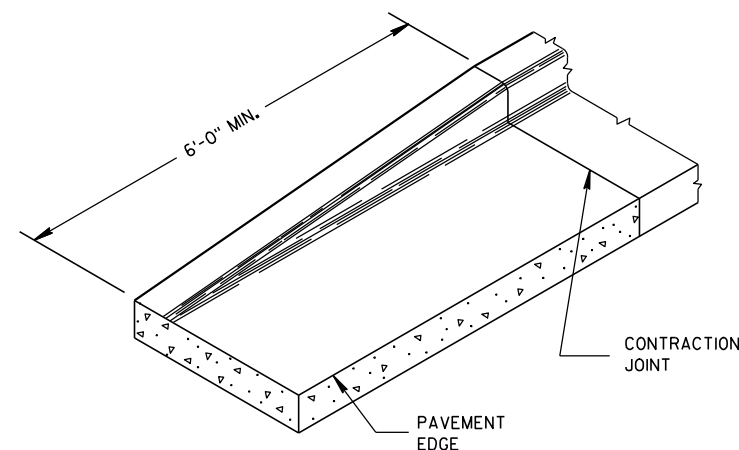
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

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

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

DATE

FHWA

/S/ Jerry H. 7

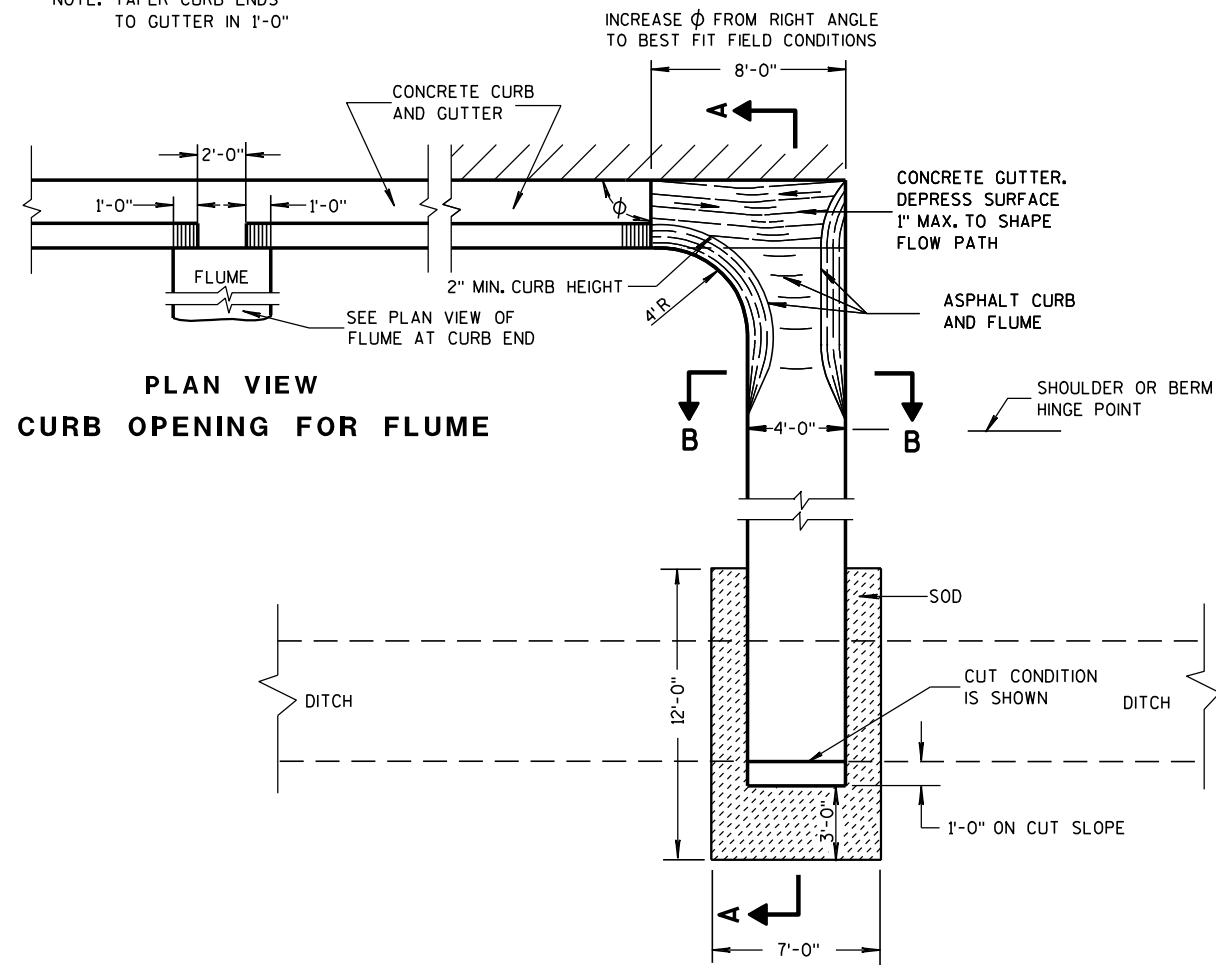
ROADWAY STANDARDS 108

ENGINEER

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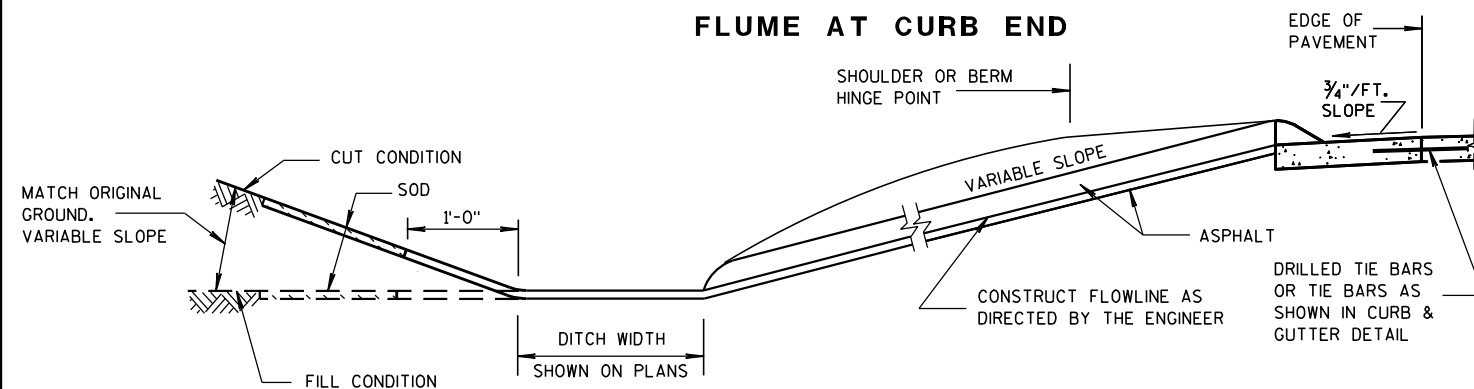
ASPHALTIC FLUME

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

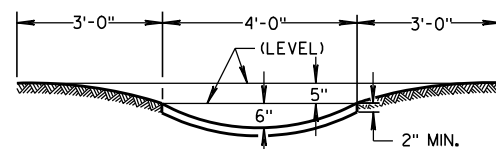


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

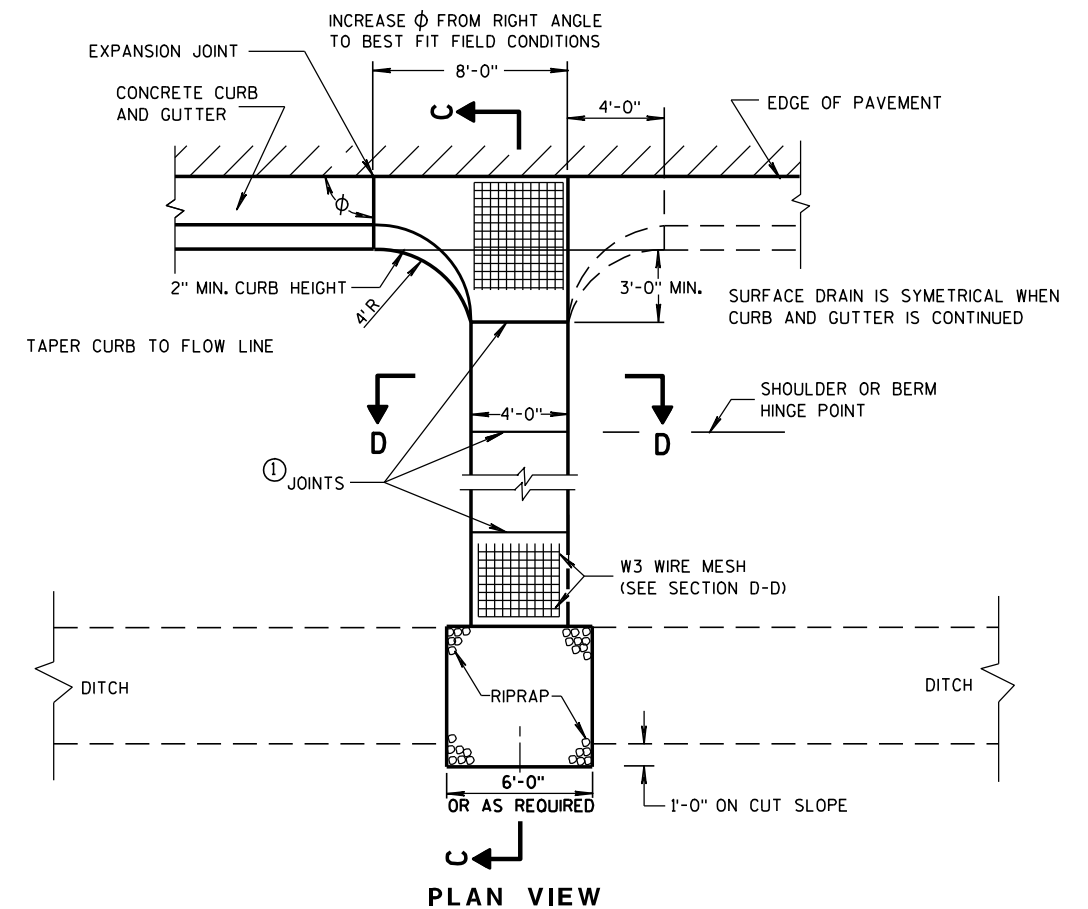
GENERAL NOTES

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

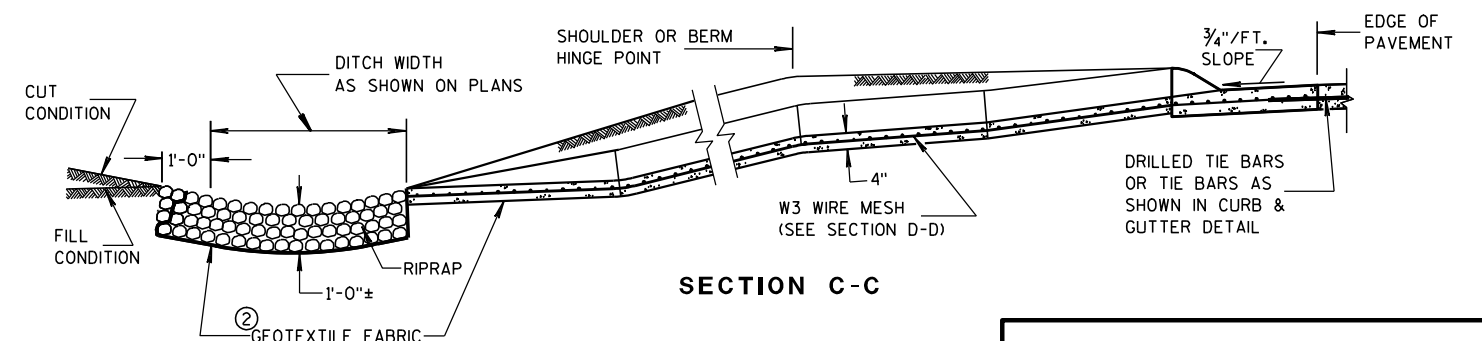
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- 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

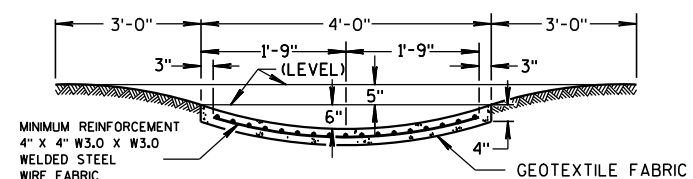
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08

DATE

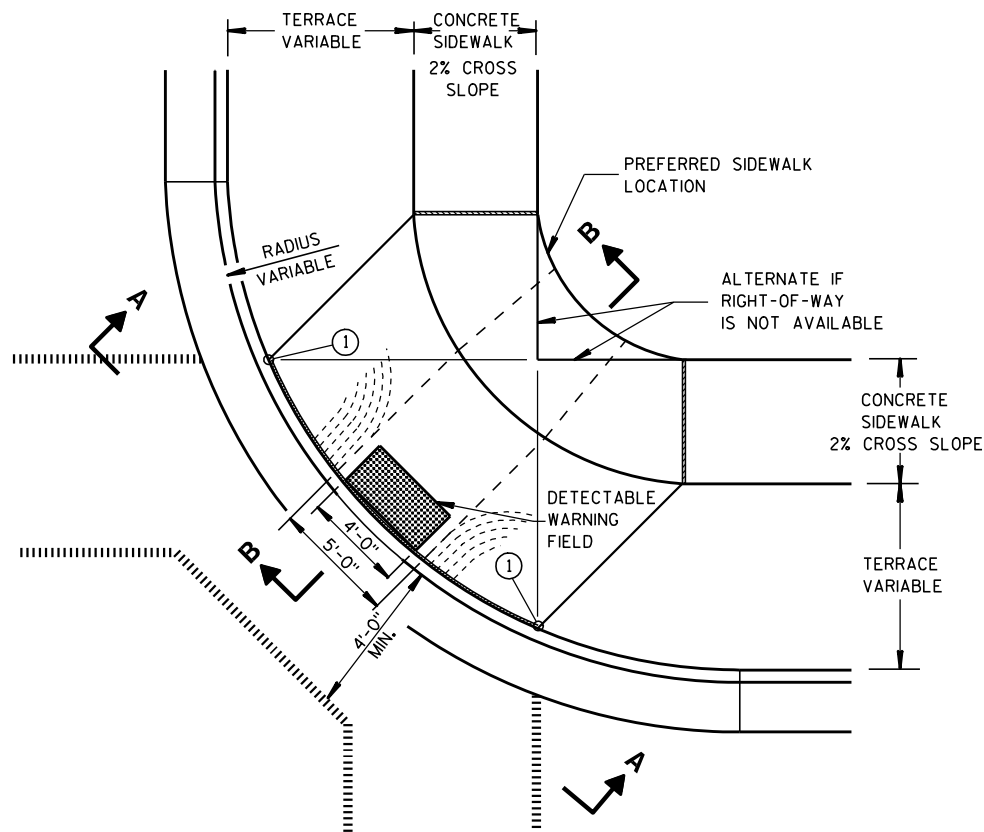
/S/ Jerry H. 7000

ROADWAY STANDARDS 109

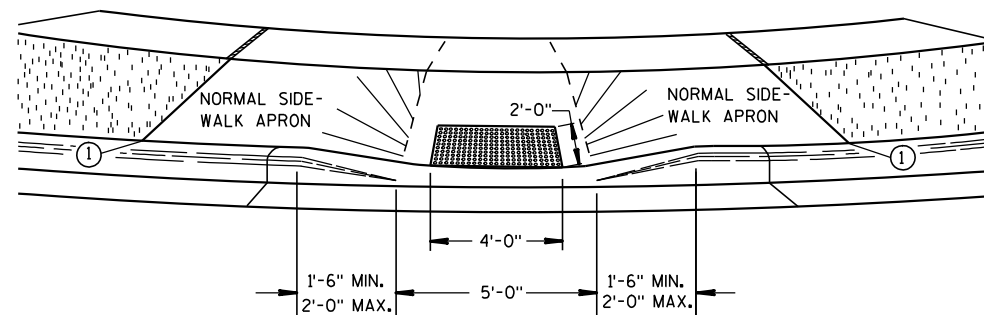
FHWA

ENGINEER

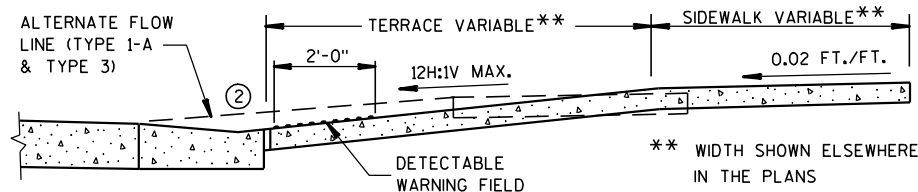
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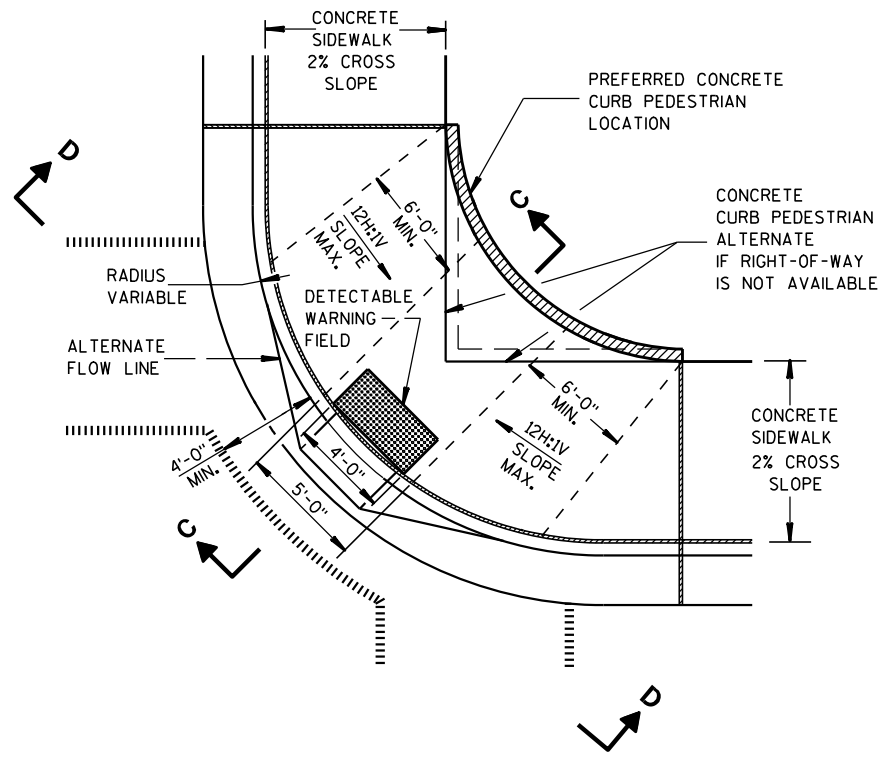
**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)



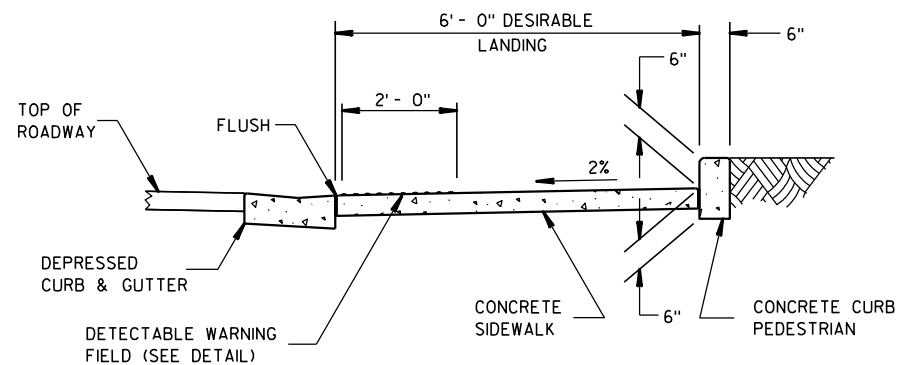
VIEW A-A



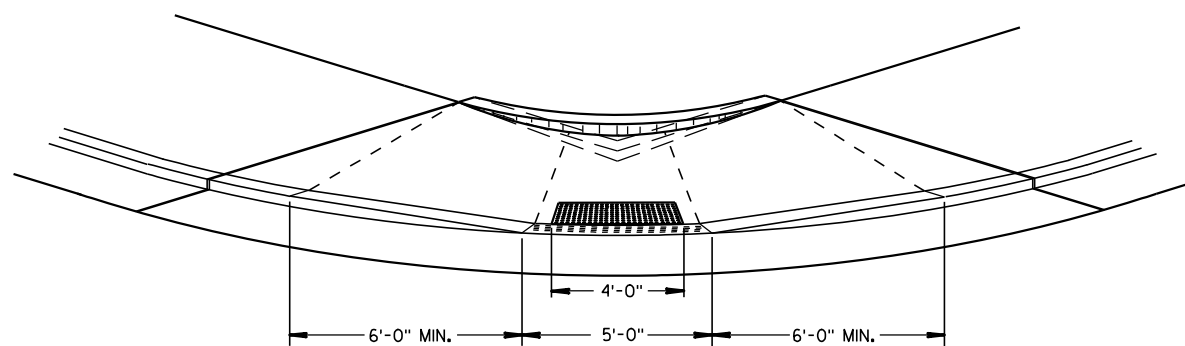
SECTION B-B



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



SECTION C-C



VIEW D-D

GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

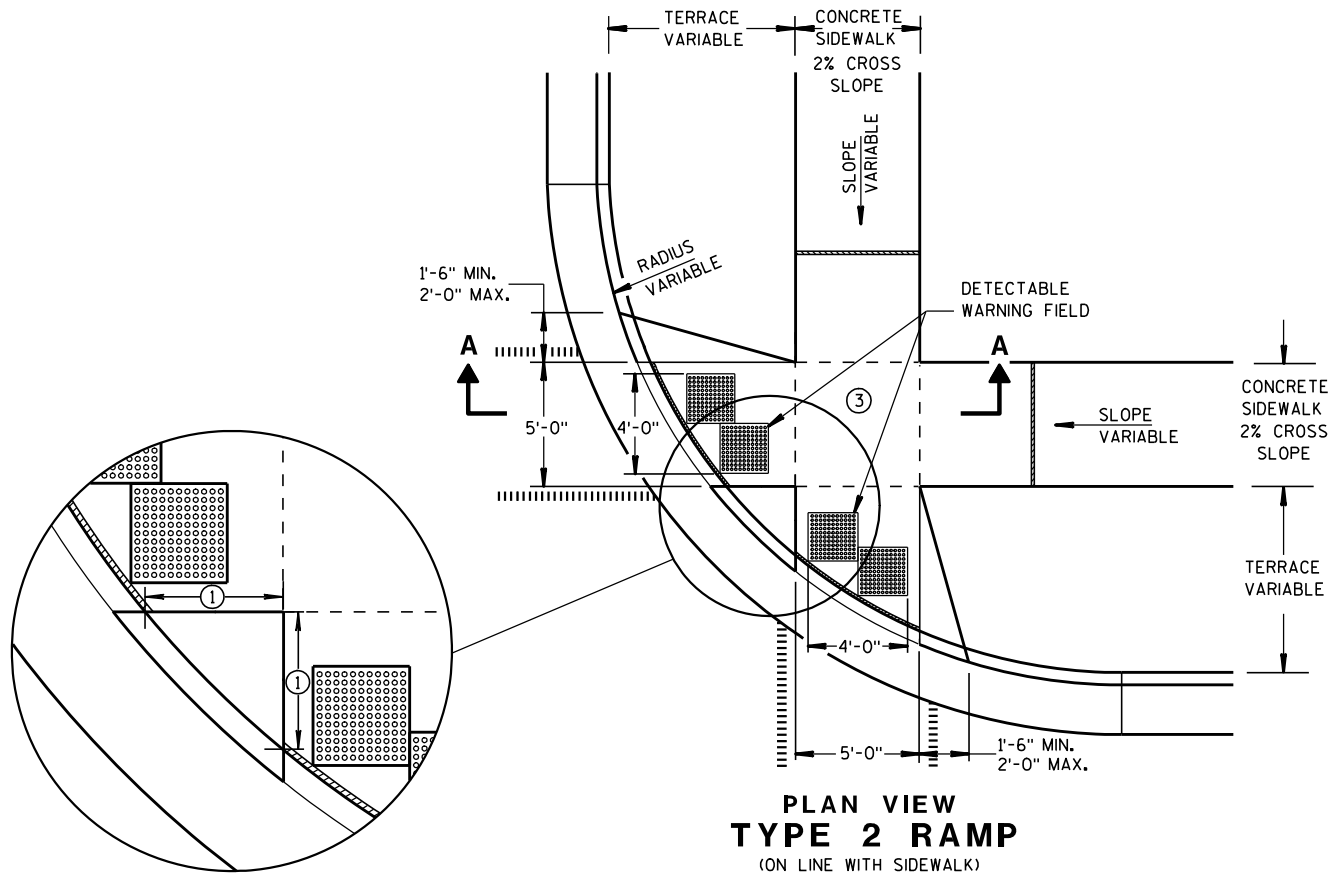
LEGEND

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

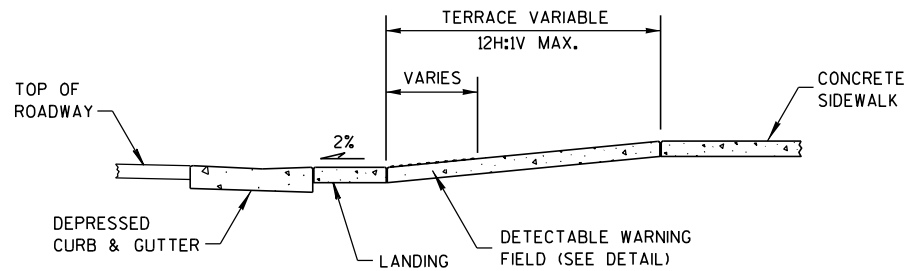
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

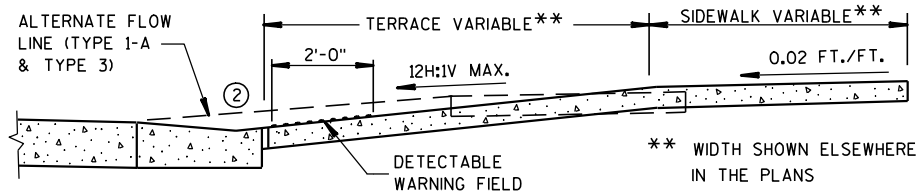
110



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

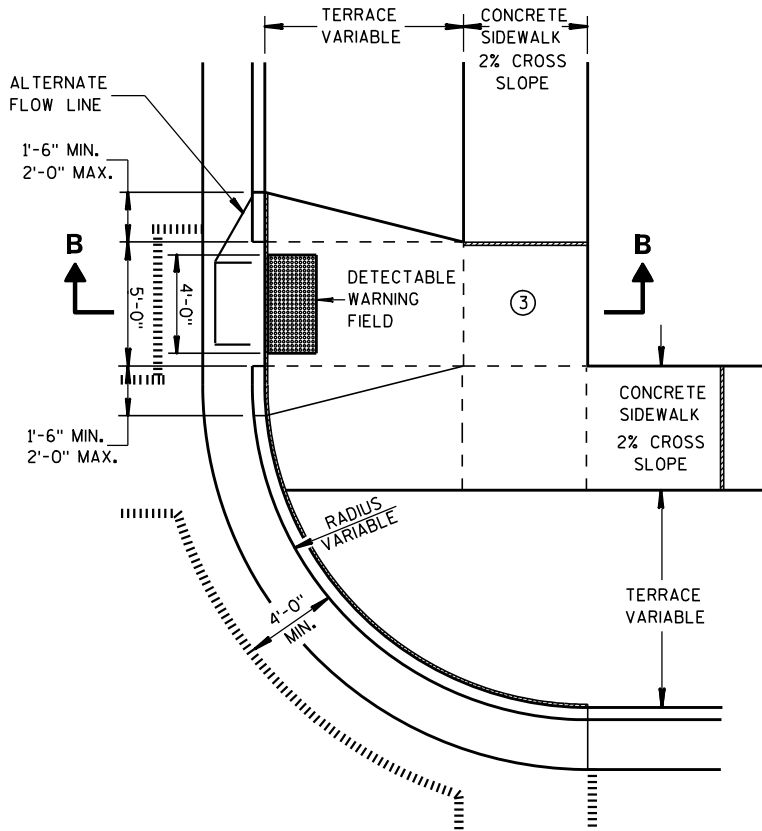
GENERAL NOTES

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

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

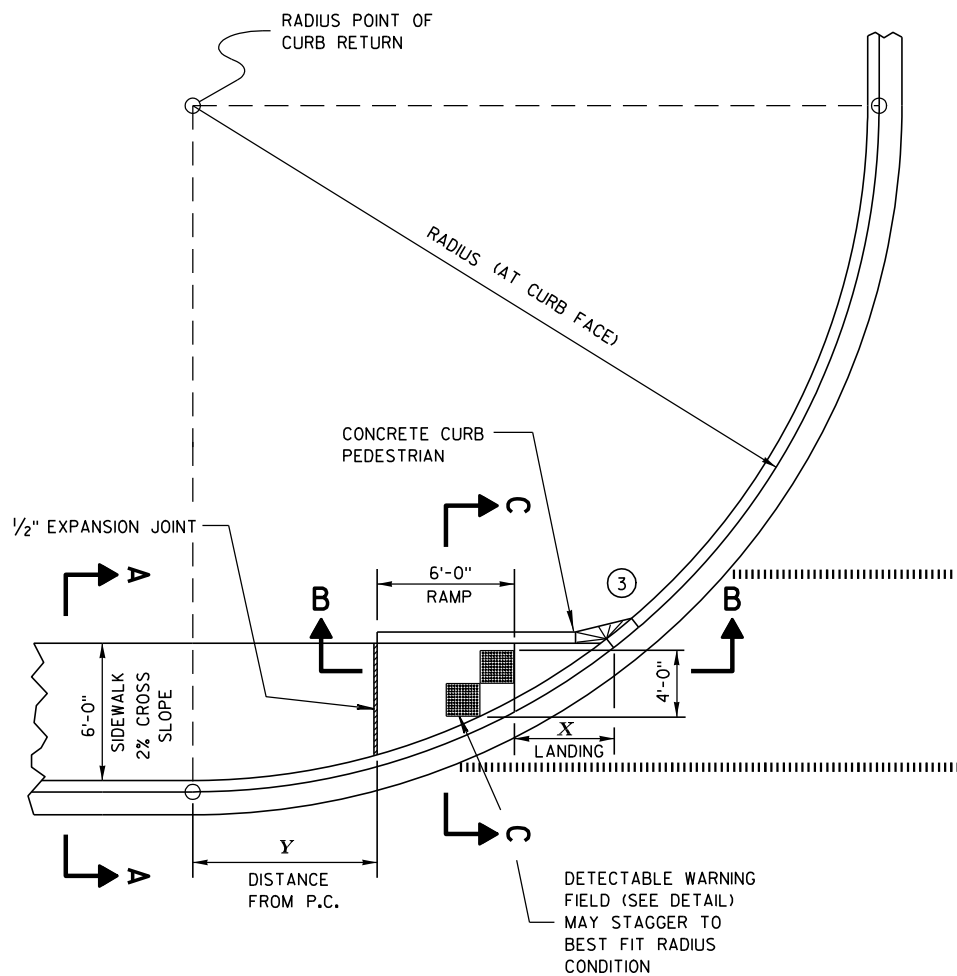
- ===== 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



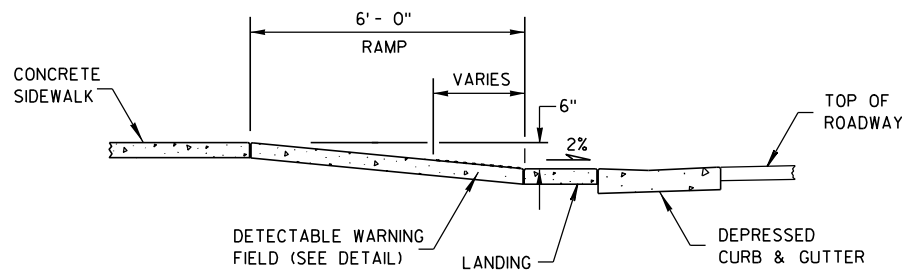
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

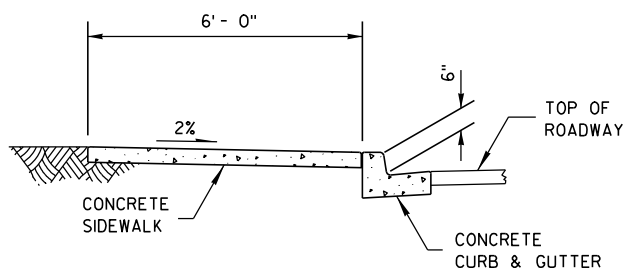
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



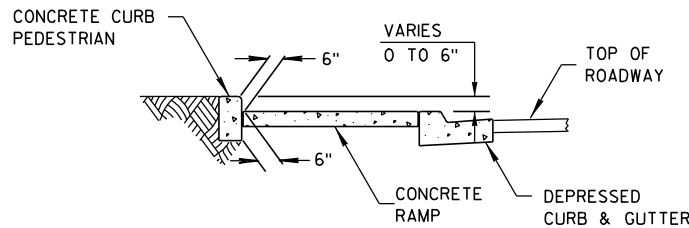
CURB RAMP TYPE 4A
PLAN VIEW



SECTION B-B



SECTION A-A



SECTION C-C

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-13/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"
50 FEET	10'-8 3/4"	7'-11 1/4"
60 FEET	11'-10 1/4"	9'-3 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED

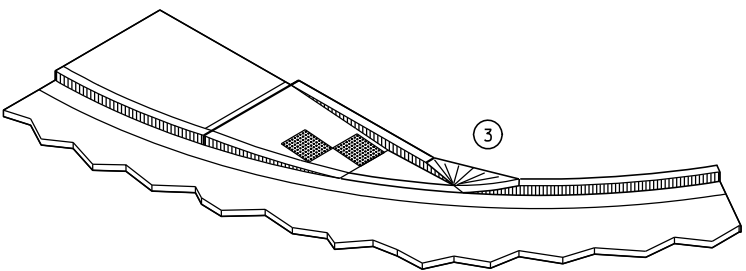
GENERAL NOTES

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

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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



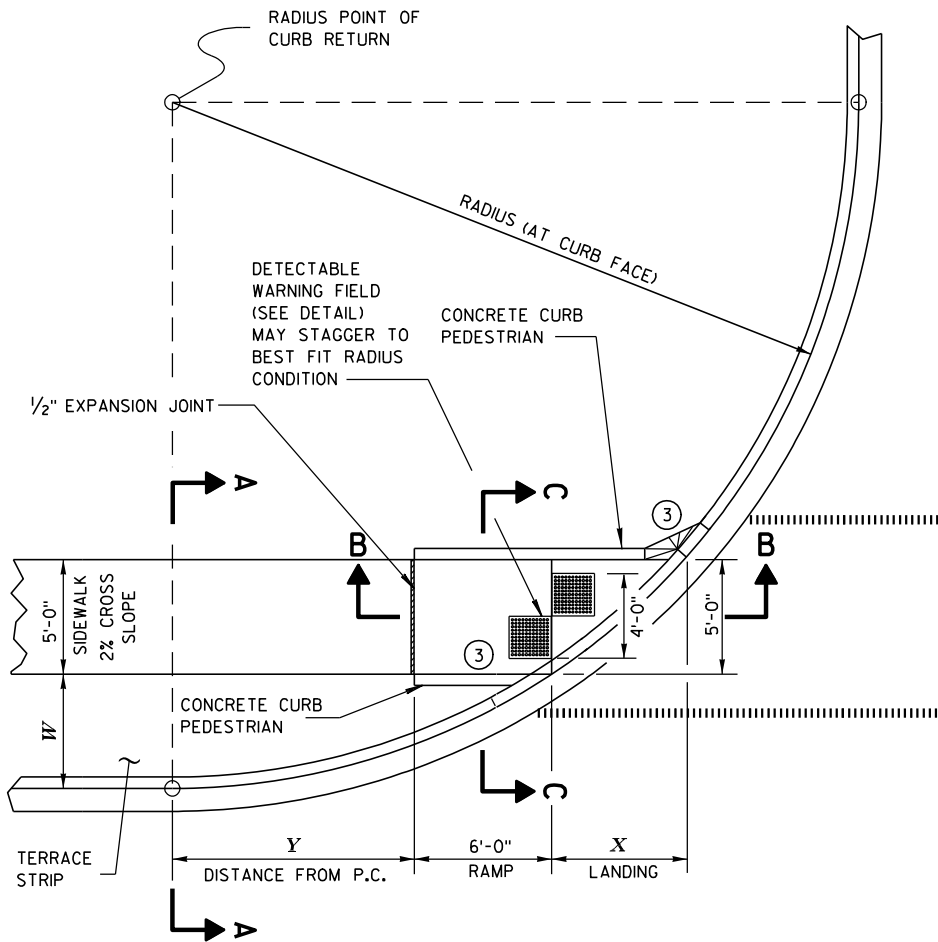
ISOMETRIC VIEW

LEGEND

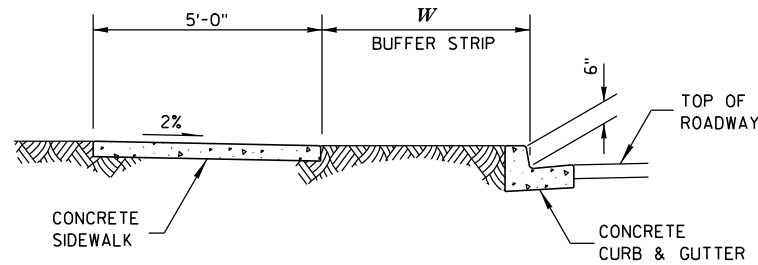
- 1/2" EXPANSION JOINT-SIDEWALK
CONTRACTION JOINT FIELD LOCATED
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A

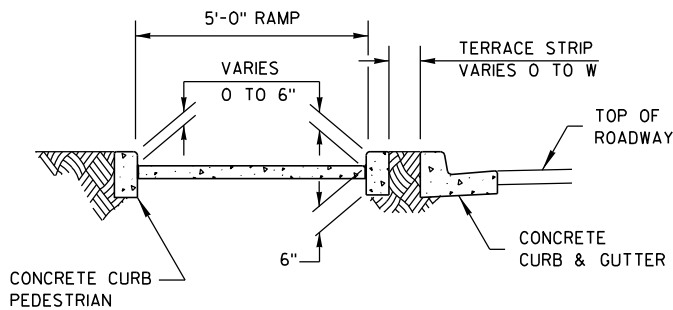
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



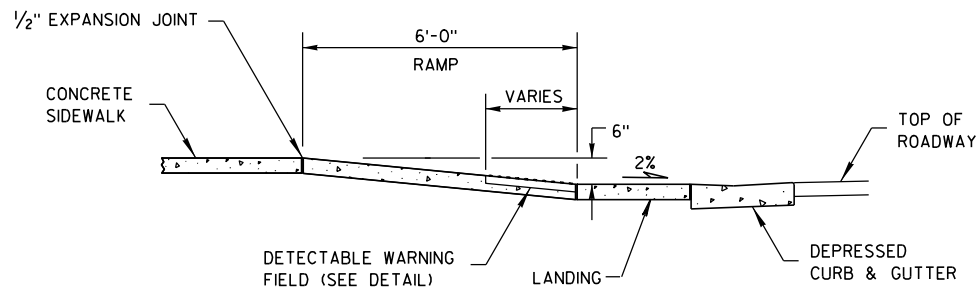
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A



SECTION C-C



SECTION B-B

GENERAL NOTES

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

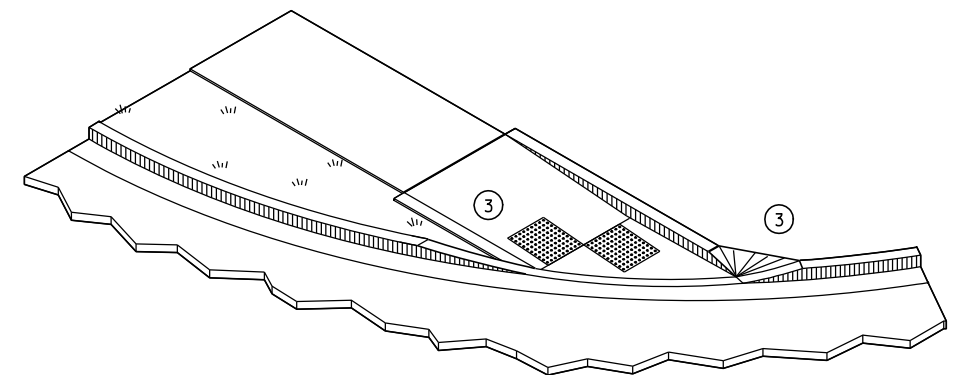
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

RADIUS (AT CURB FACE)	W = 3'- 0"		W = 4'- 0"		W = 5'- 0"		W = 6'- 0"		W = 7'- 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3 1/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3 1/4"	11'-3 1/4"	9'-1 1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3 1/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"
70 FEET	12'-2 3/4"	14'-3 1/4"	11'-1 1/4"	17'-4"	10'-1"	19'-11 3/4"	9'-3 3/4"	22'-4 1/4"	8'-8 1/4"	24'-6 1/4"
80 FEET	13'-2"	15'-8 1/2"	11'-10 1/2"	18'-11 3/4"	10'-10 3/4"	21'-10"	10'-1"	24'-4 3/4"	9'-5"	26'-8 3/4"
90 FEET	14'-1 1/2"	17'-1 1/2"	12'-8 1/4"	20'-6 1/2"	11'-7 3/4"	23'-7"	10'-9 3/4"	26'-3 3/4"	10'-1 1/4"	28'-9 1/2"
100 FEET	14'-10 1/2"	18'-3 3/4"	13'-5 1/2"	22'-0"	12'-4 1/4"	25'-2 3/4"	11'-5 3/4"	28'-1 1/2"	10'-9"	30'-9"

INTERMEDIATE RADII CAN BE INTERPOLATED



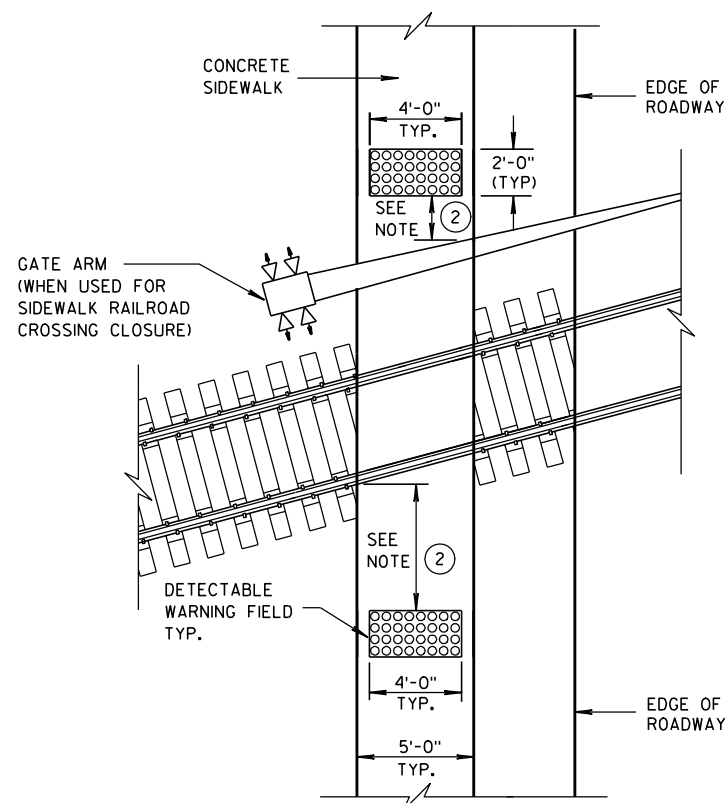
ISOMETRIC VIEW

LEGEND

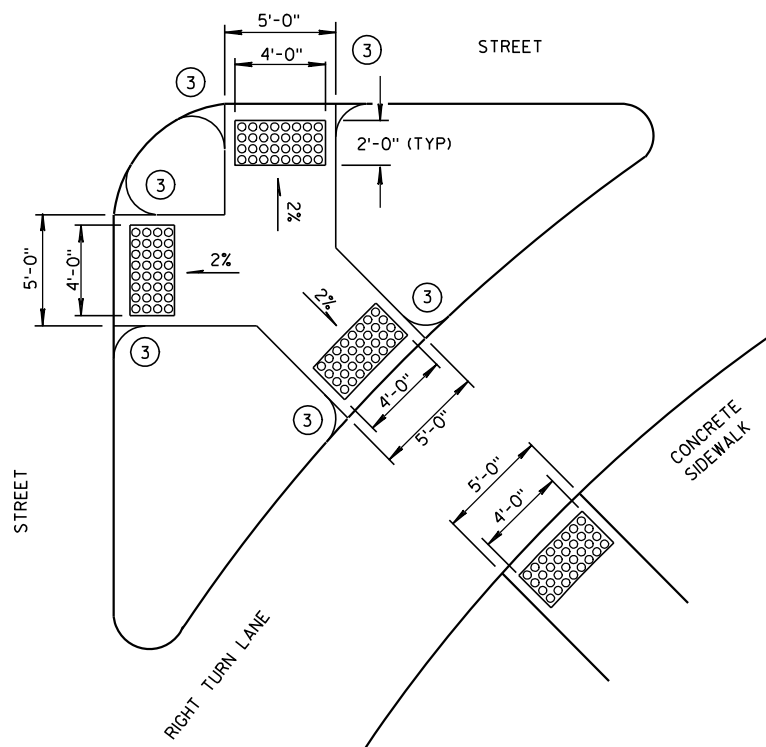
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4B

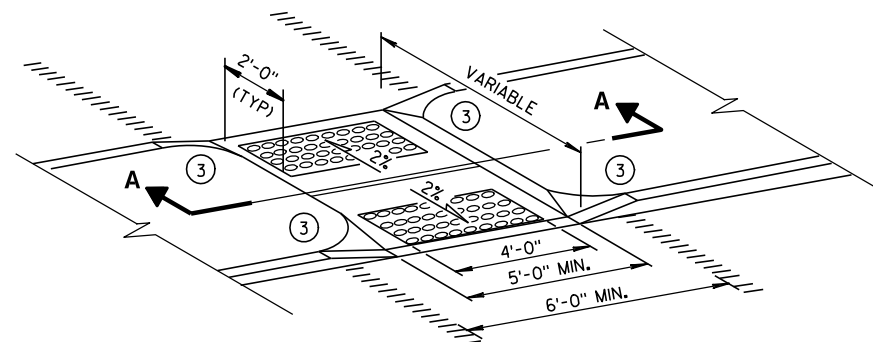
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



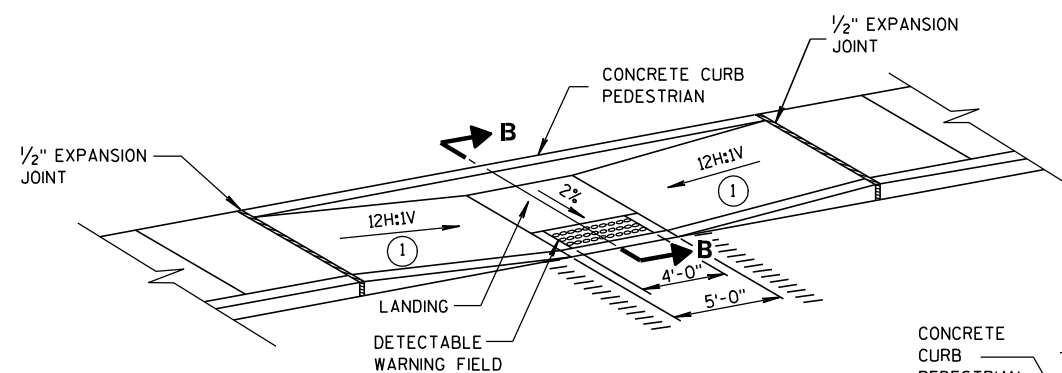
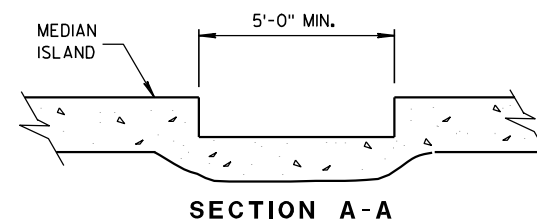
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



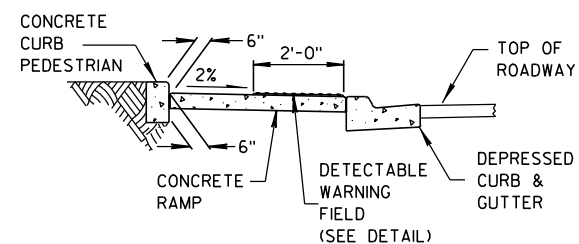
TYPE 6
DETECTABLE WARNING AT ISLANDS



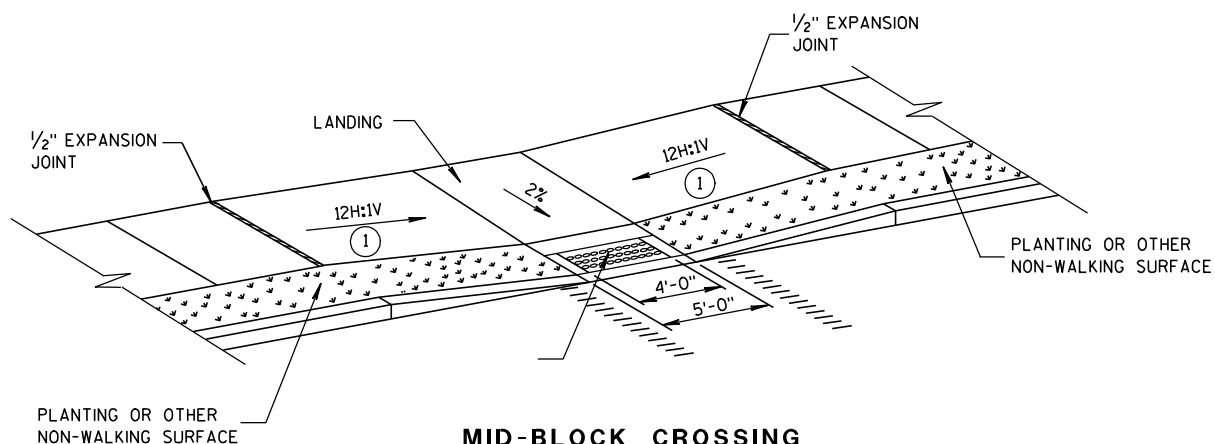
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

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

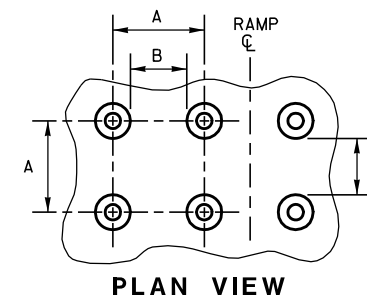
GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

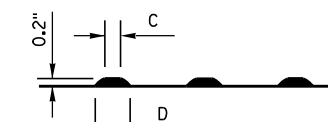
- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm$ 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

LEGEND

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



PLAN VIEW

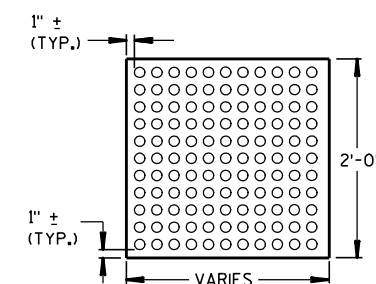


ELEVATION VIEW

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

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

TRUNCATED DOMES DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

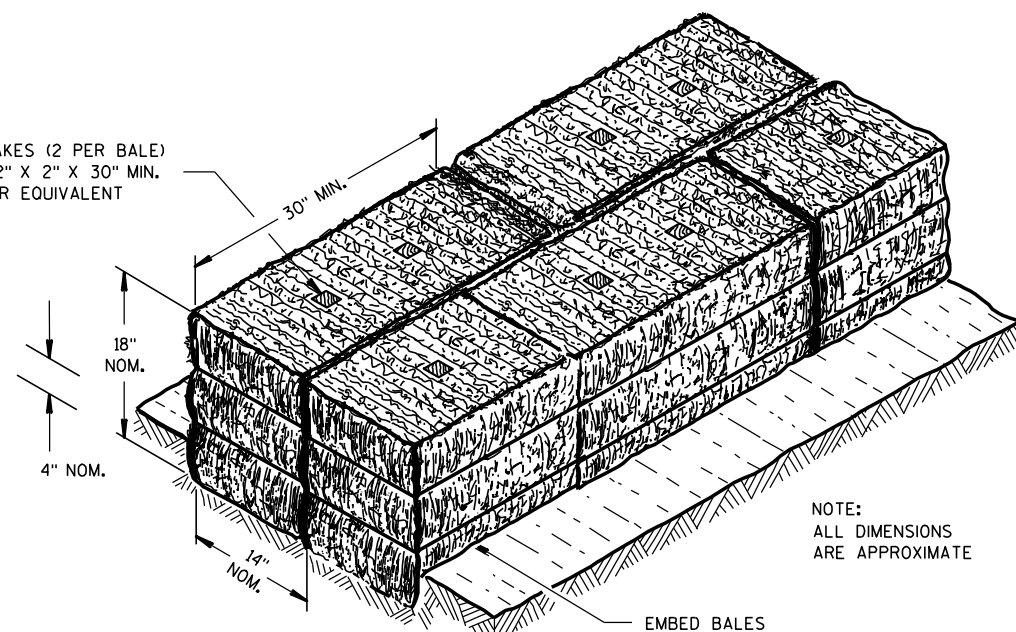
2-9-10
DATE

FHWA

/s/ Jerry H. Zogg

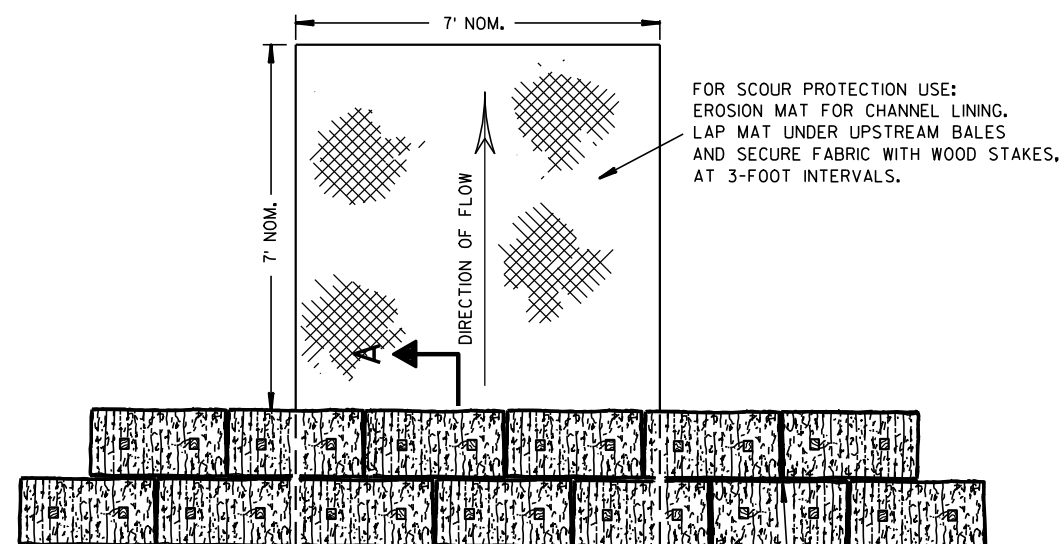
ROADWAY STANDARDS 114 ENT
ENGINEER

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

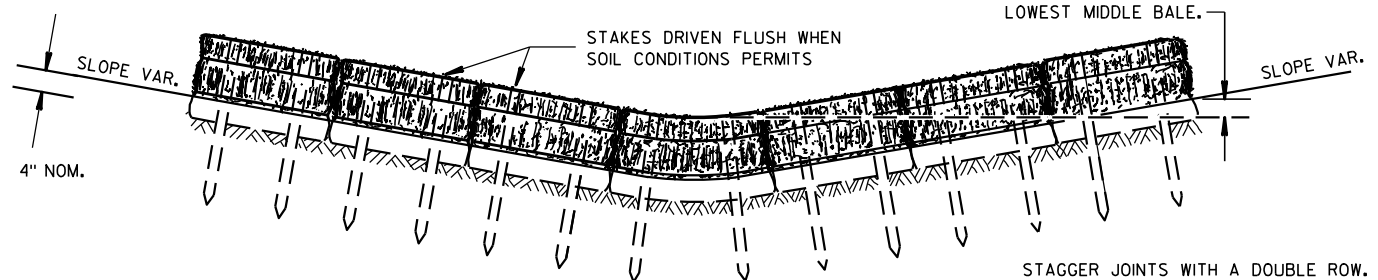


NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A



PLAN VIEW



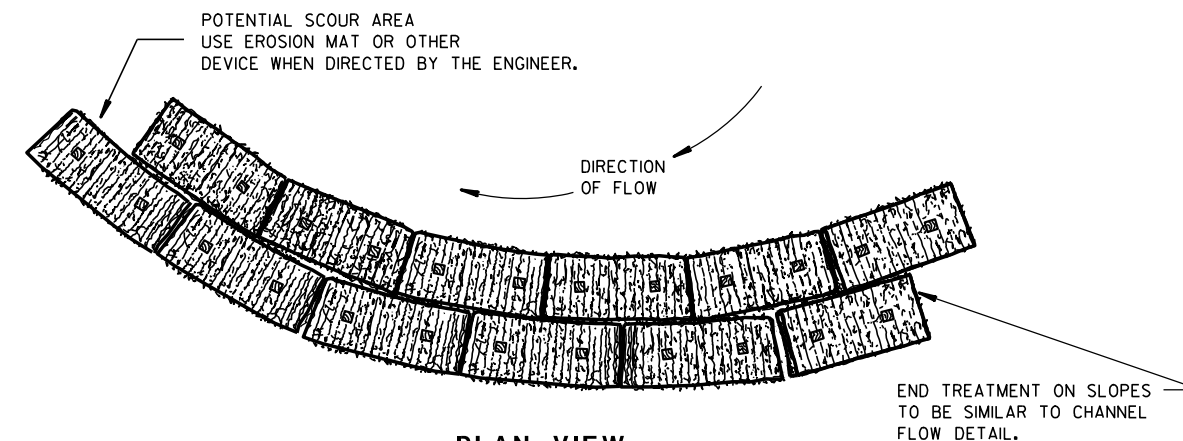
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

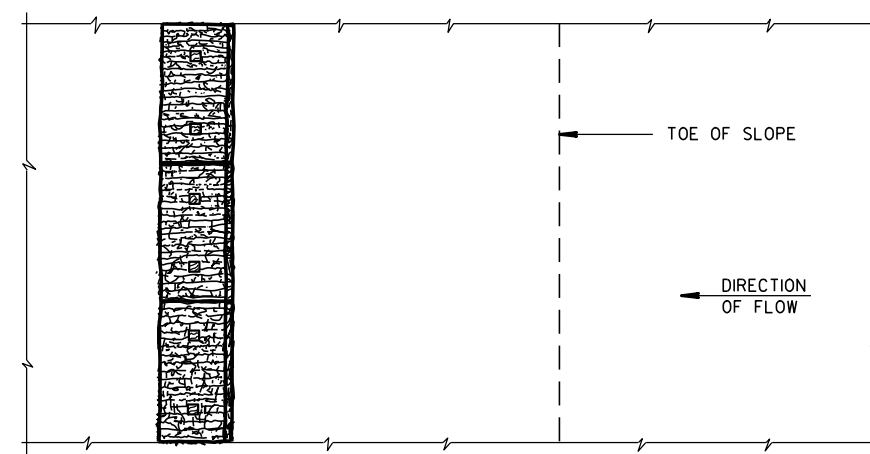
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

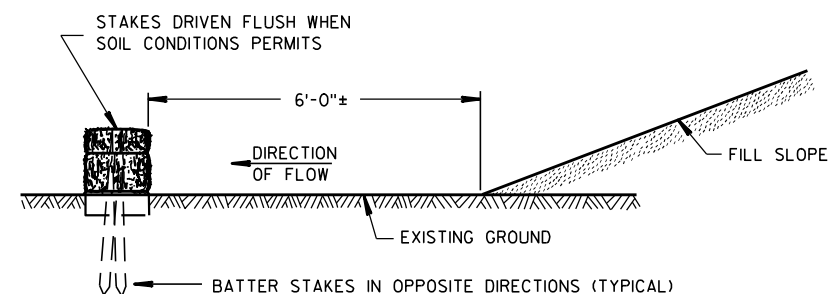


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

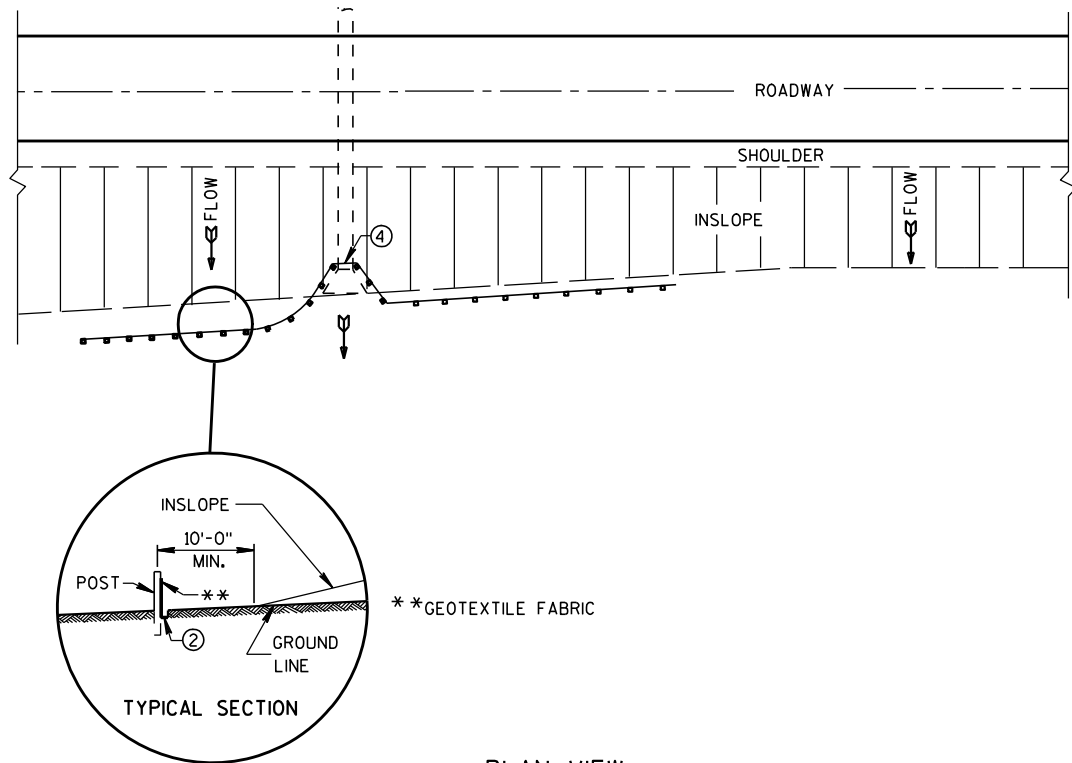
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

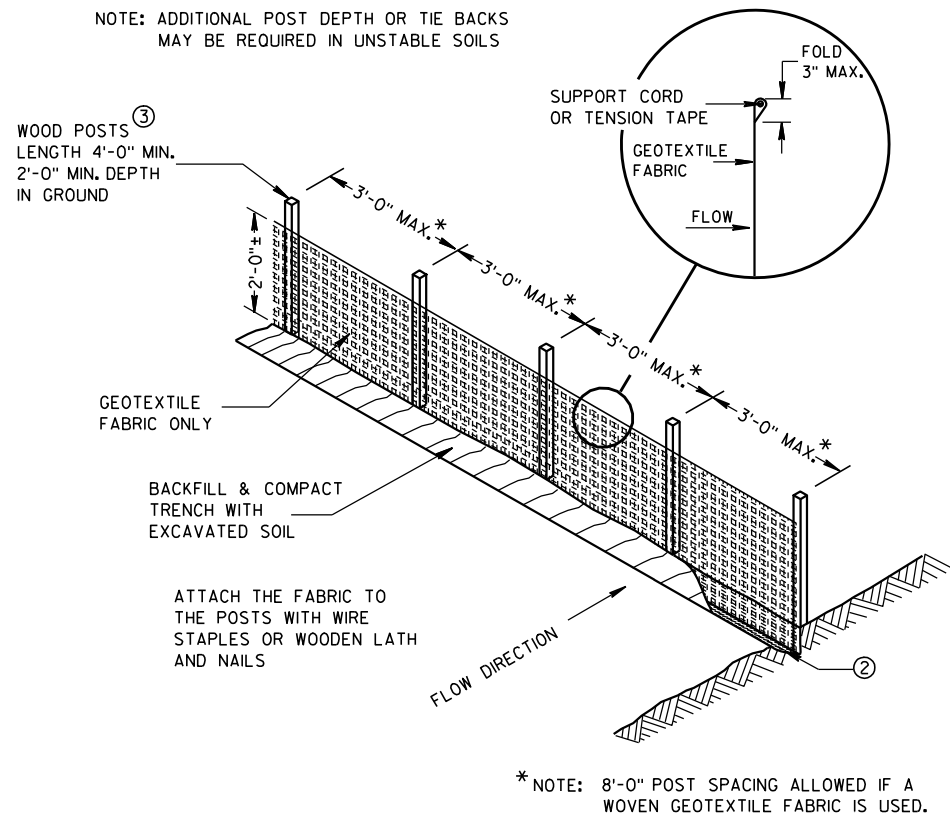
6/04/02
DATE

FHWA

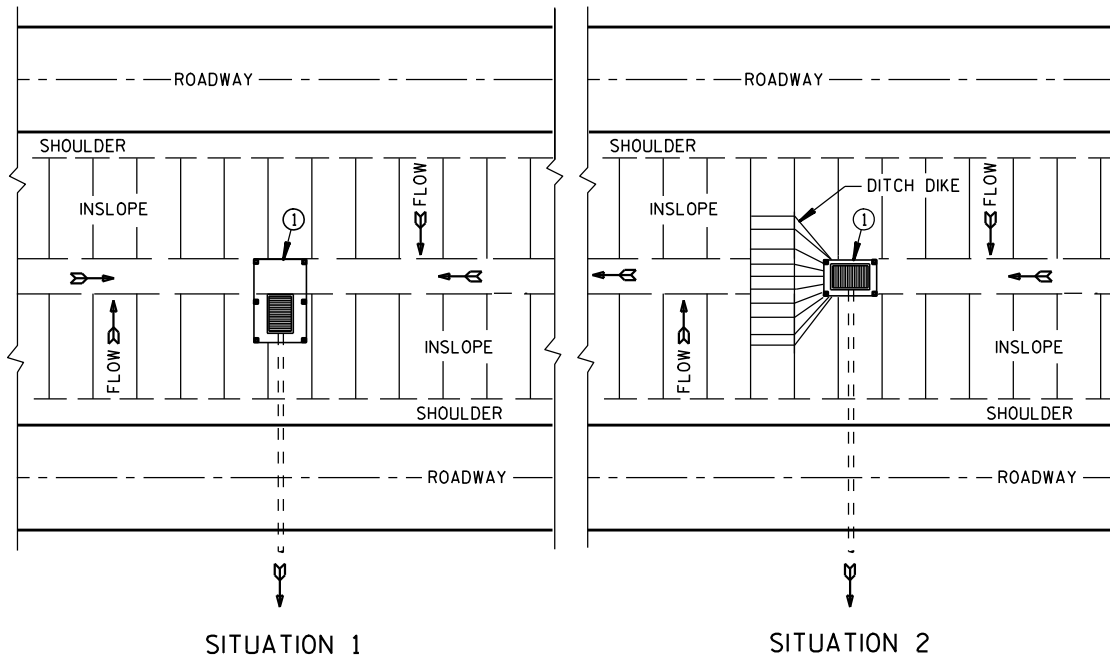
/S/ Beth Conn-----
CHIEF ROADWAY DEVELOP 115 ENGINEER



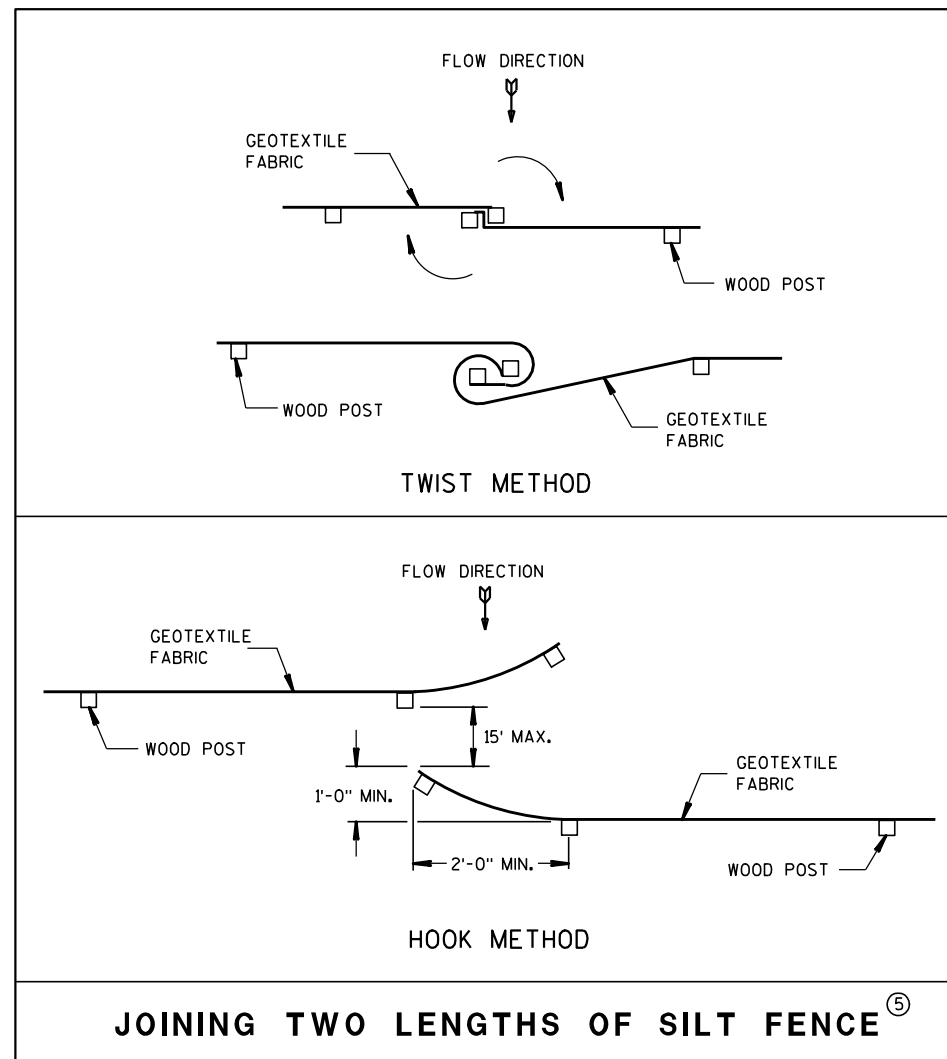
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

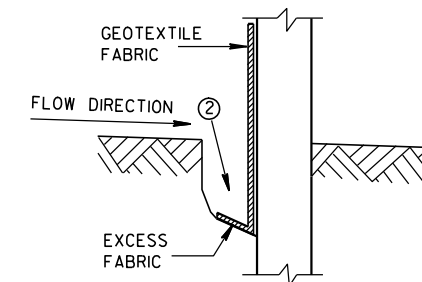


JOINING TWO LENGTHS OF SILT FENCE (5)

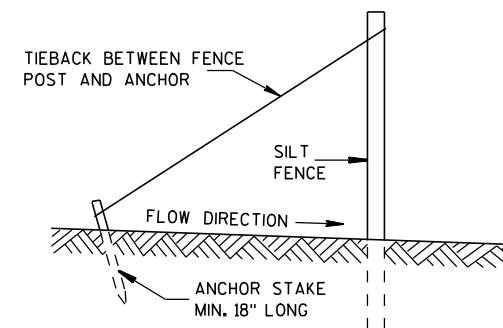
GENERAL NOTES

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

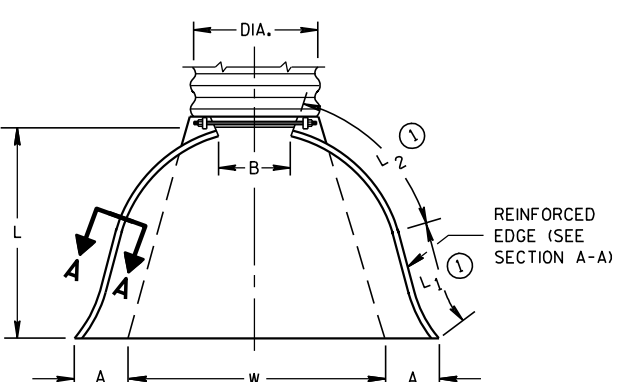


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Conn CHIEF ROADWAY DEVELOPER 116 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")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

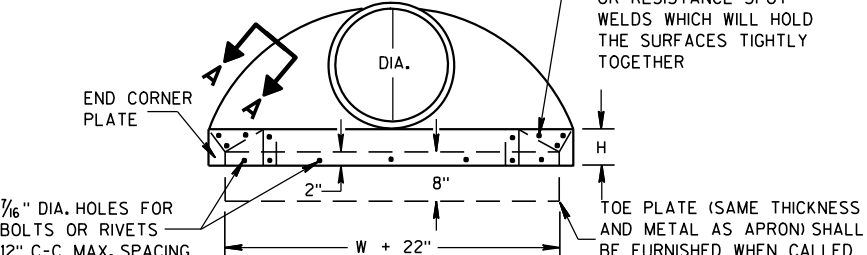
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



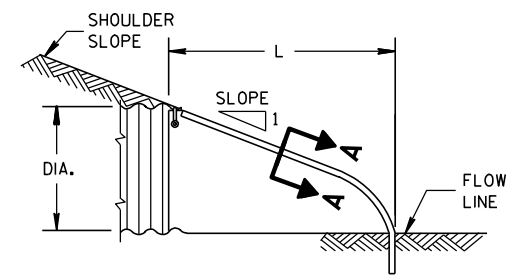
PLAN VIEW

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

TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



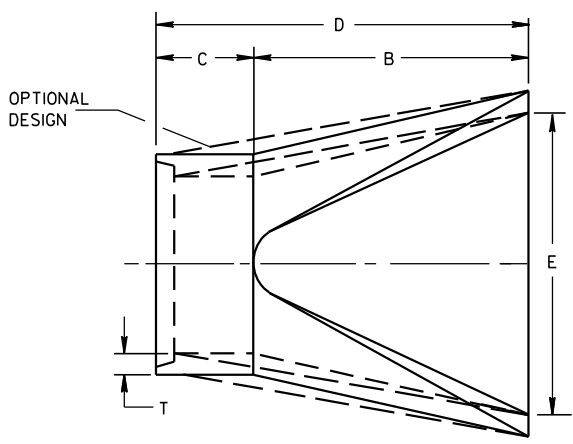
END VIEW



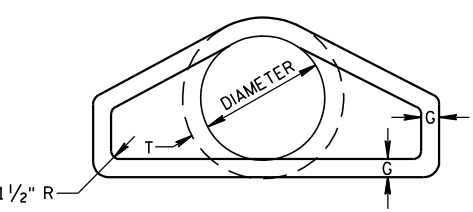
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 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			

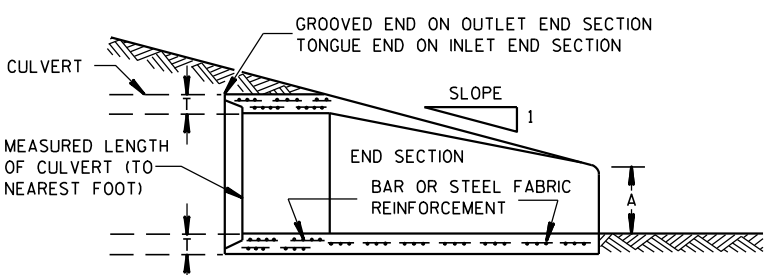
* MINIMUM
** MAXIMUM



PLAN

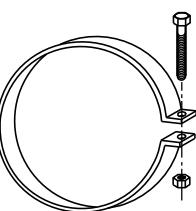


END VIEW



LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP

THREADED 3/16" DIA. ROD AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL)

PIPE

CONNECTOR LUG



TYPE 1

FOR 12" THRU 24" CORR. PIPE

THREADED 3/16" DIA. ROD OVER TOP OF APRON, SIDE LUGS TO BE RIVETED TO APRON

MEASURED LENGTH OF CULVERT

ROD HOLDER



TYPE 2

FOR 30" THRU 96" CORR. PIPE

MEASURED LENGTH OF CULVERT

CONNECTOR SECTION TO BE PAID FOR AS PART OF END SECTION

COUPLING BAND REQUIRED

12"

RIVETED OR BOLTED

TYPE 3

FOR 42" THRU 96" CORR. PIPE

DIMPLED OR CORRUGATED COUPLING BAND

2 - 1/2" X 6" BAND BOLTS

RIVETED OR BOLTED AT DIMPLES (6" C-C FOR CORRUGATED BAND)

MEASURED LENGTH OF CULVERT

TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

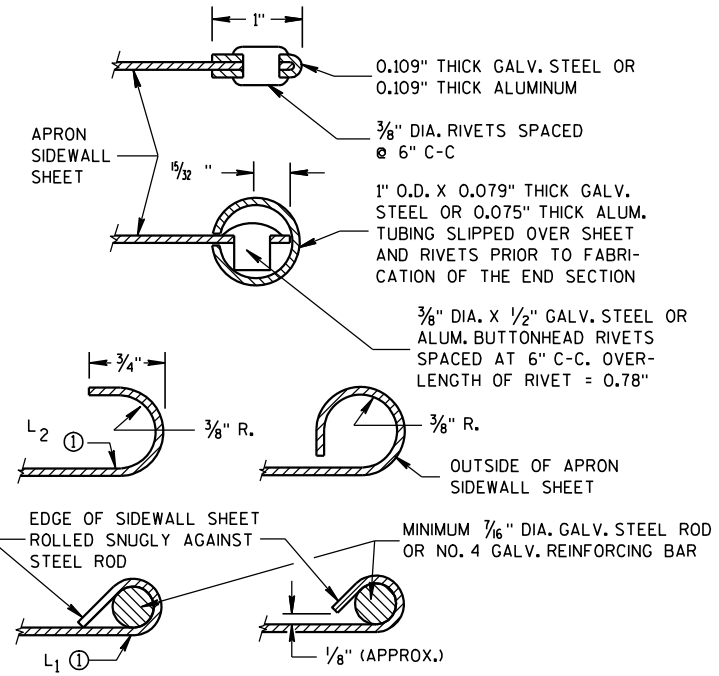
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

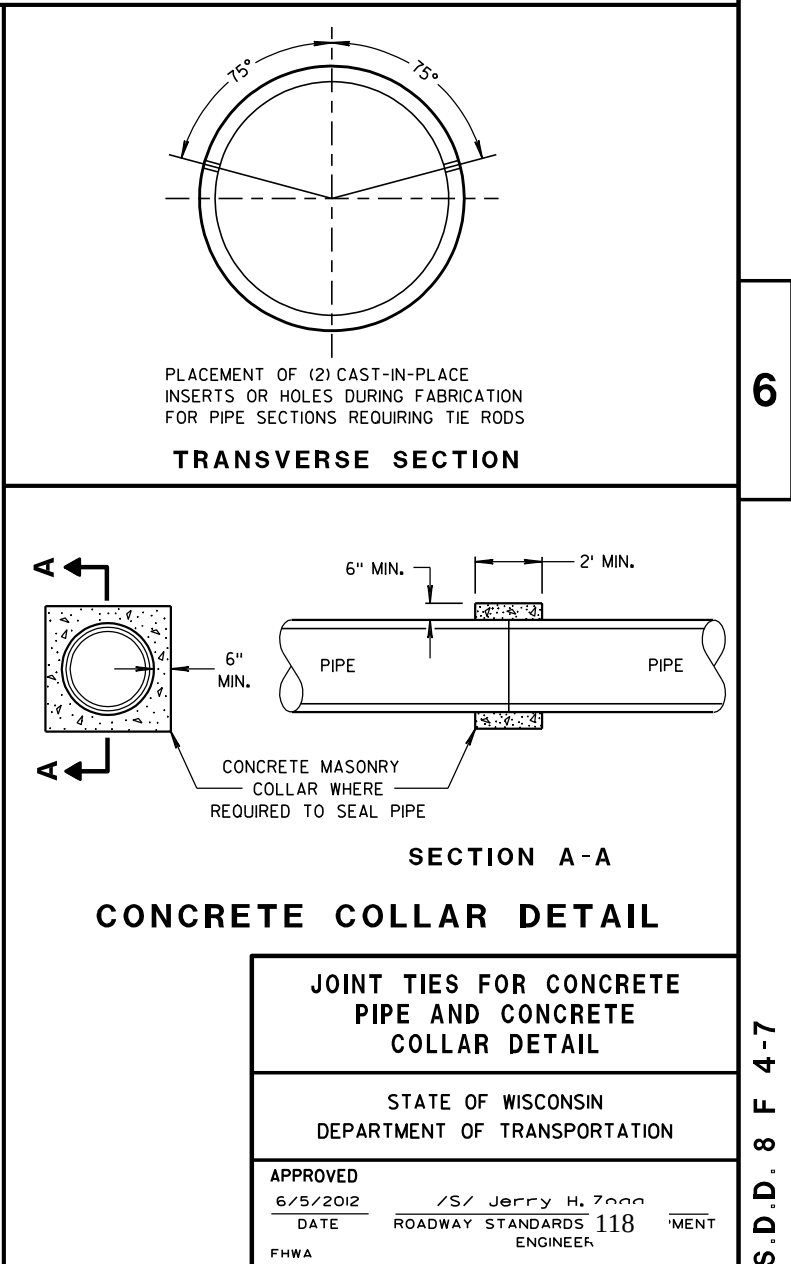
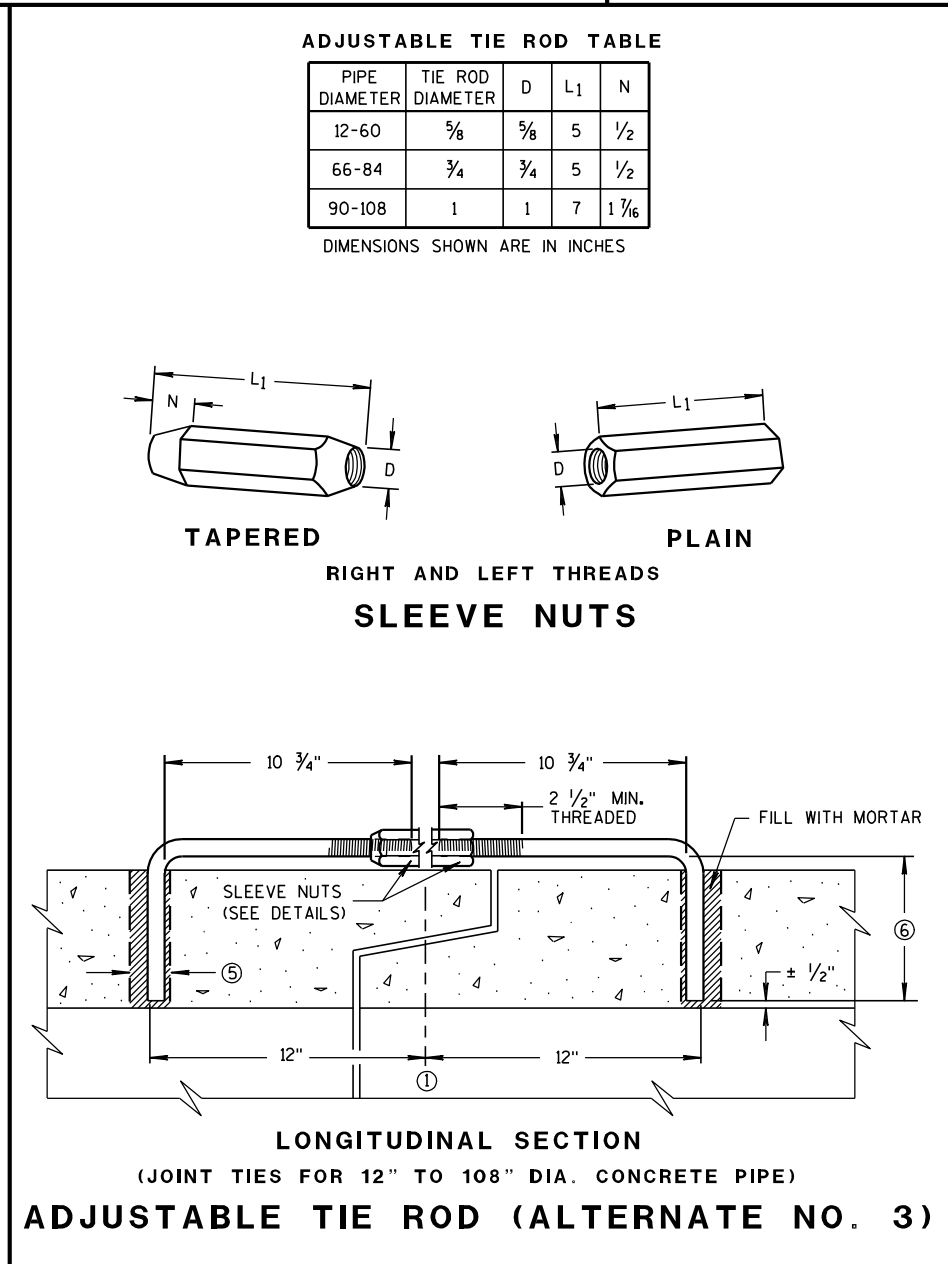
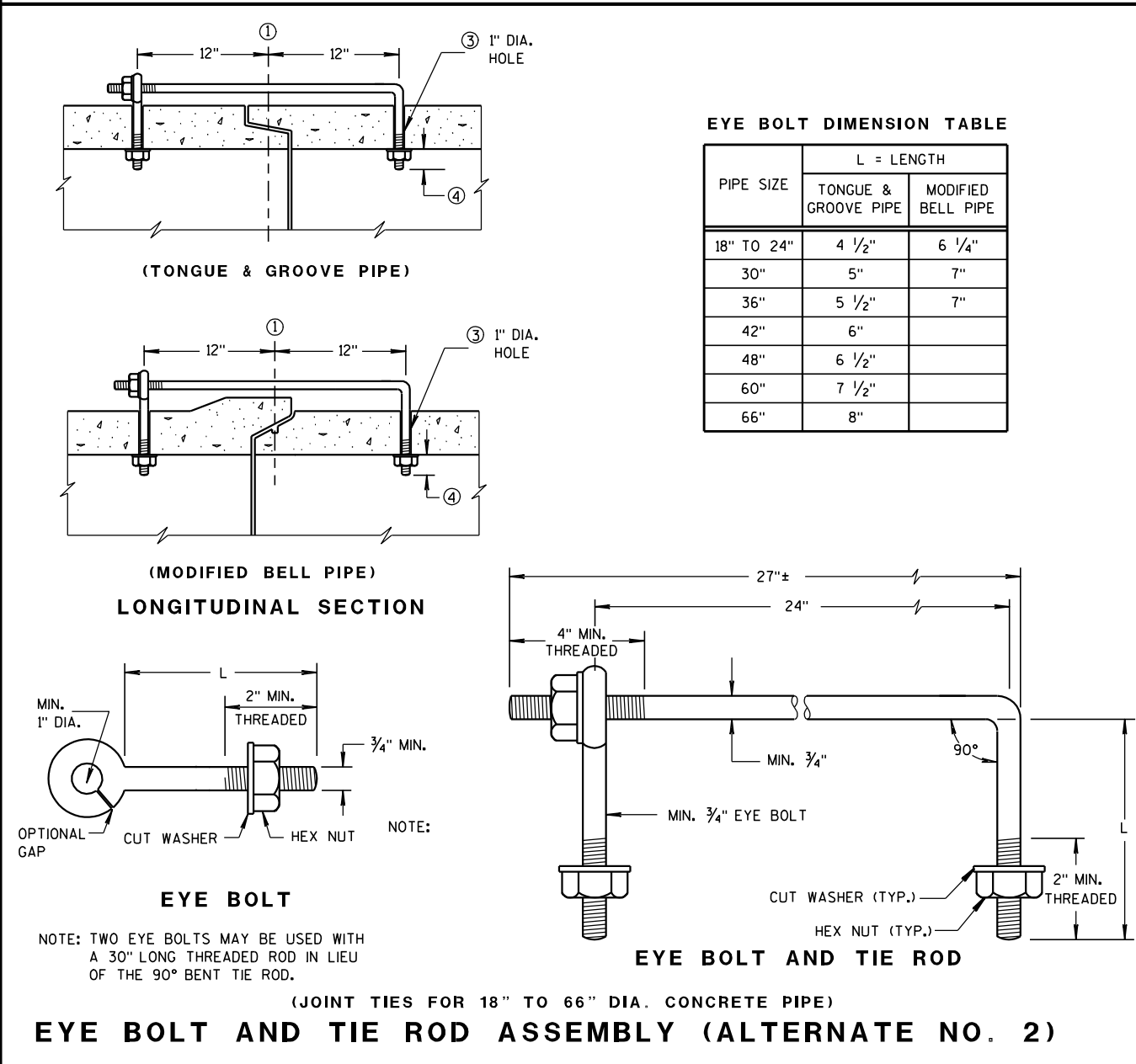
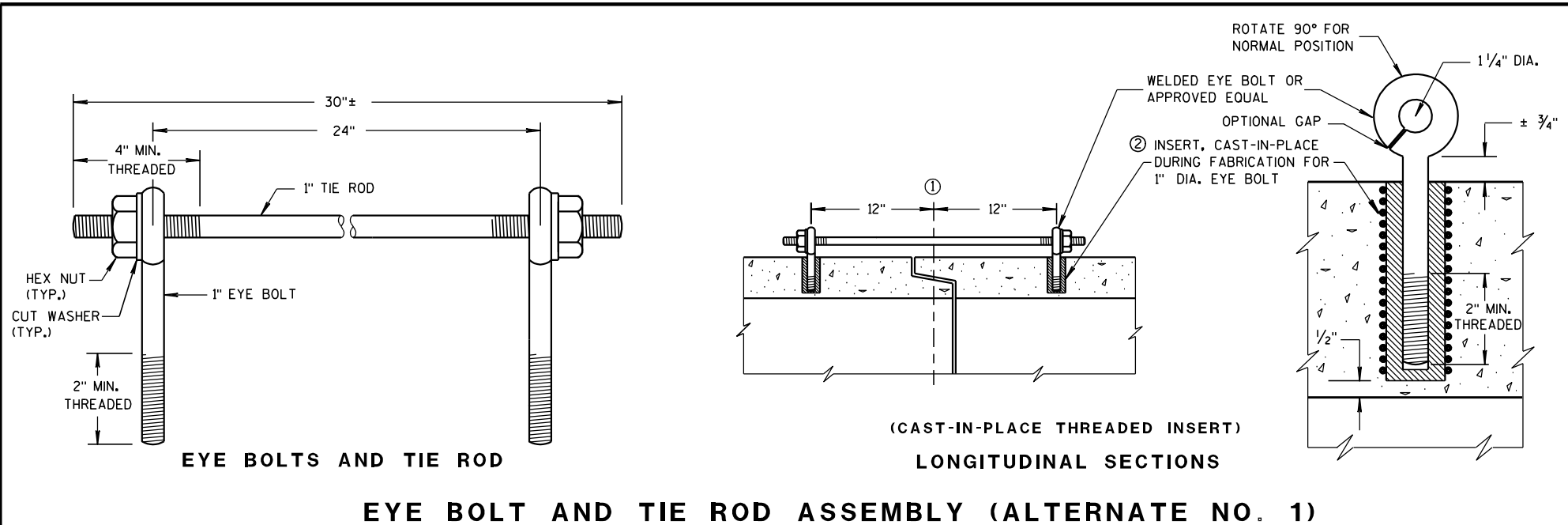
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

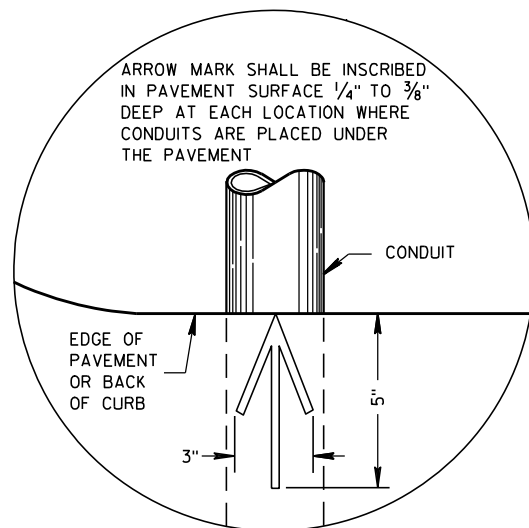
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

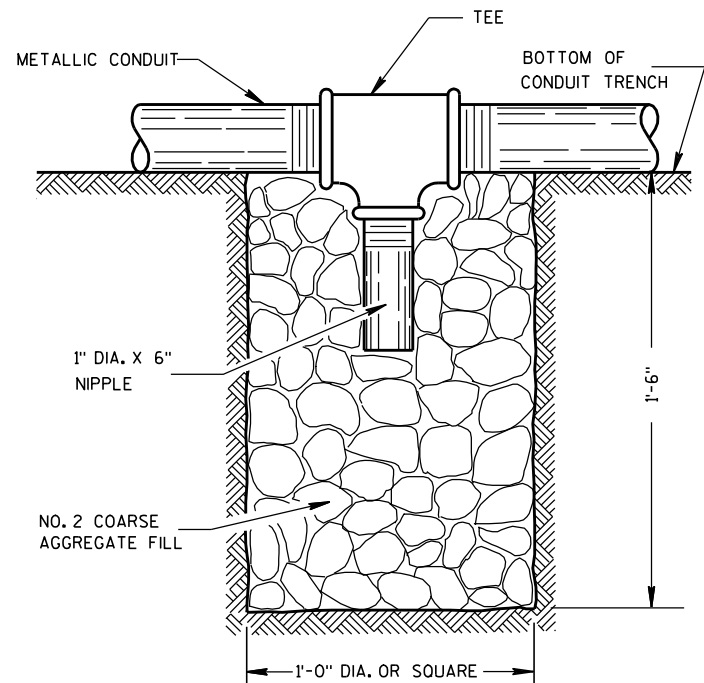
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT
NEER
FHWA



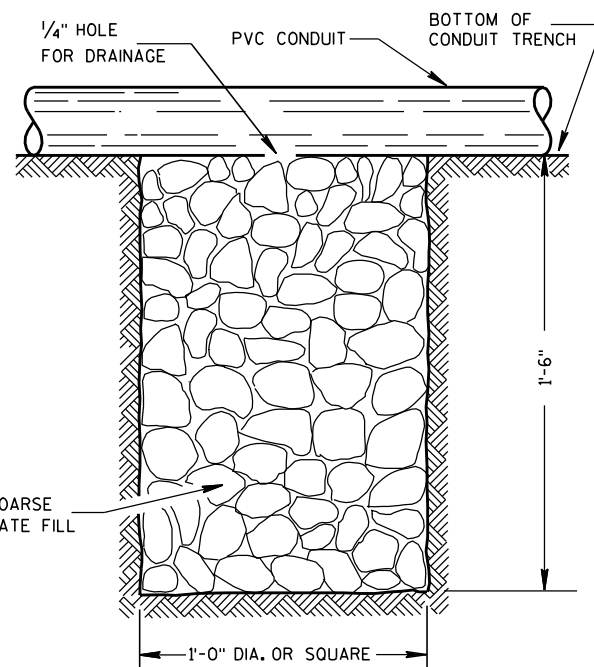


**PLAN VIEW
ARROW MARK**



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSON TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

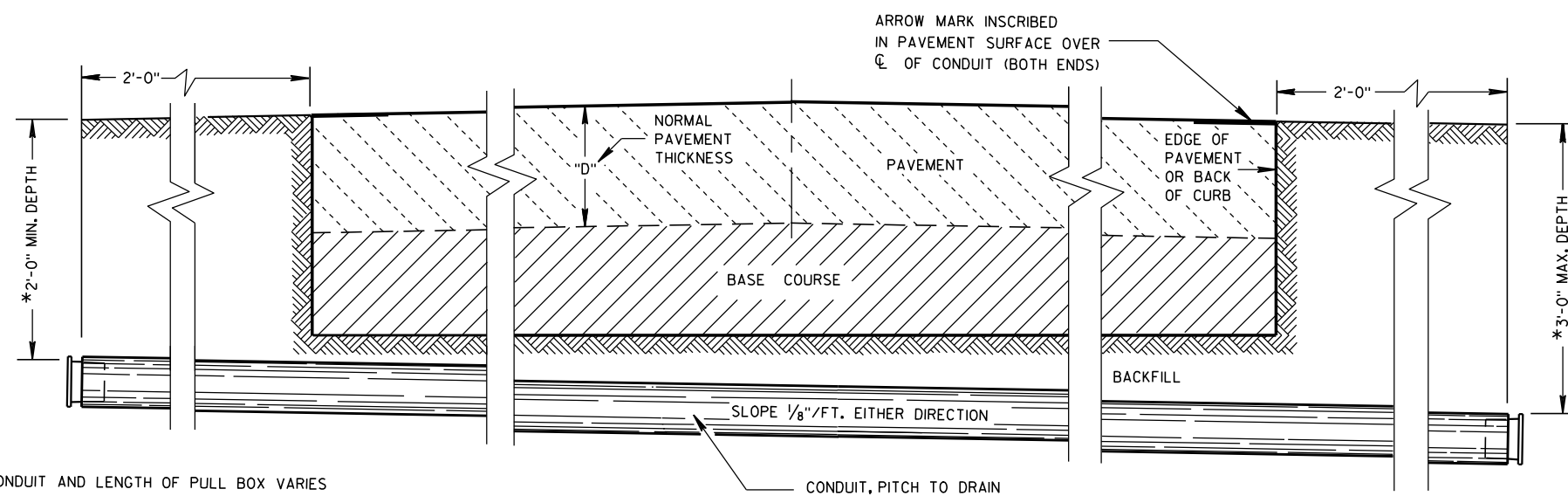
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

**SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS**

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03

DATE

FHWA

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 119 HWYS

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE. THE MECHANICAL CONNECTION (INSIDE AND OUTSIDE) TO THE PULL BOX, SHALL BE TOTALLY AND PERMANENTLY SEALED WITH A SILICONE OR RUBBERIZED CAULKING COMPOUND AS APPROVED BY THE ENGINEER.

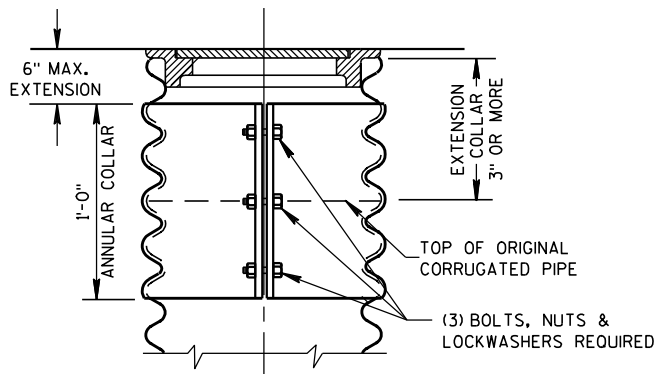
GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

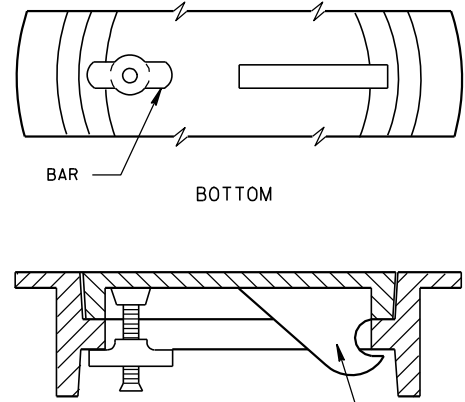
S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

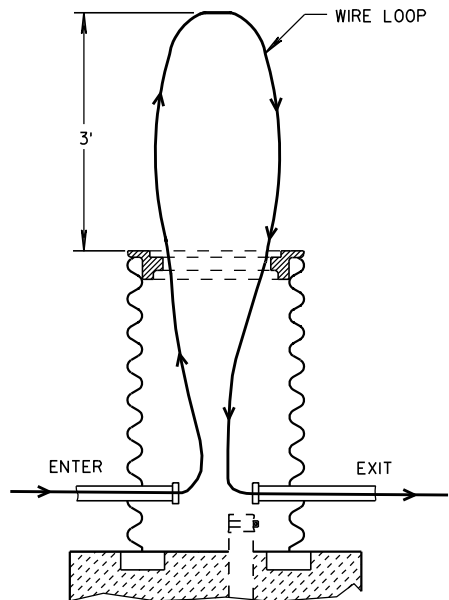
IF PULL BOX EQUIPMENT GROUNDING IS REQUIRED USING AN EQUIPMENT GROUNDING ELECTRODE IN EACH PULL BOX, THE EQUIPMENT GROUNDING ELECTRODE SHALL BE 5/8" X 8'-0", COPPERCLAD AND BE EXOTHERMICALLY WELDED TO A #4 AWG, COPPER, STRANDED WIRE (BARE OR GREEN INSULATED). THE #4 AWG WIRE SHALL BE 4 FEET IN LENGTH, NEATLY COILED, TAPED AND AVAILABLE FOR USE WHEN REQUIRED.



CORRUGATED PIPE EXTENDER

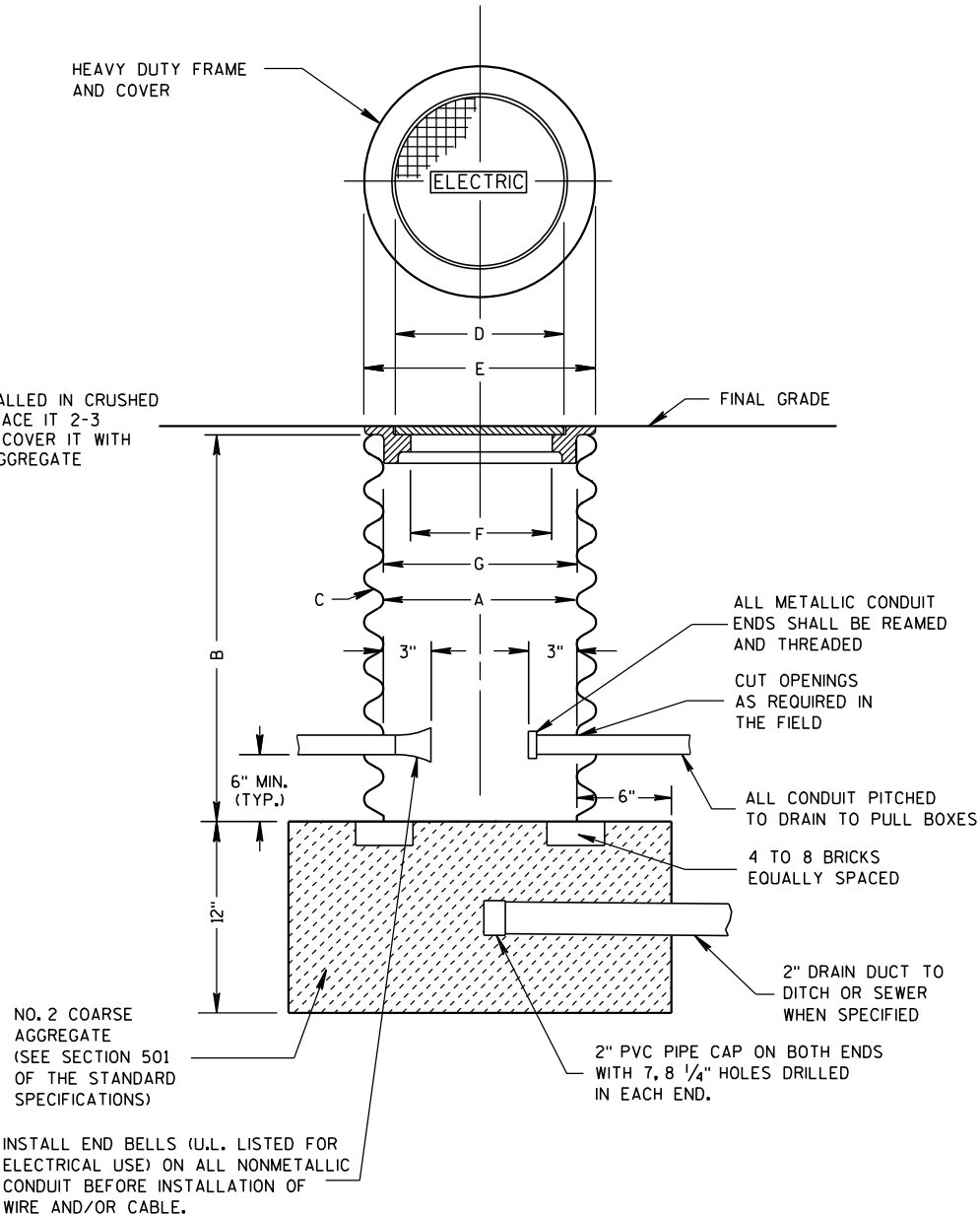


ALTERNATE COVER (LOCKING)

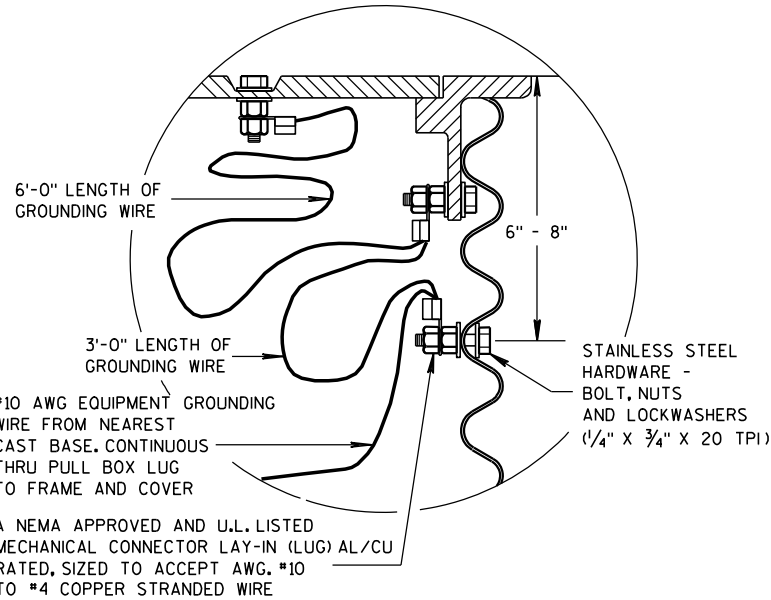


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE



PULL BOX



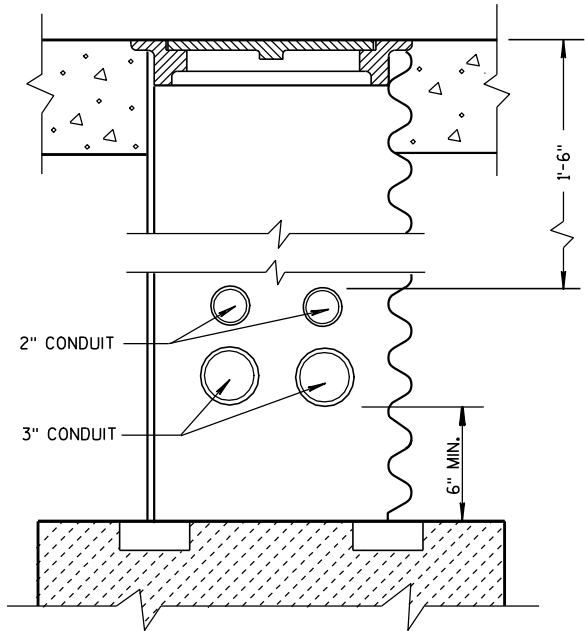
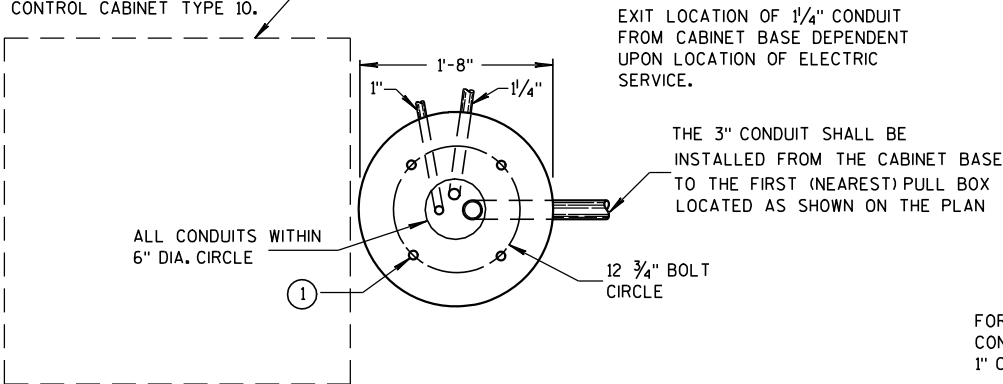
EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/27/06 DATE	/S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI 120 HWYS
FHWA	

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

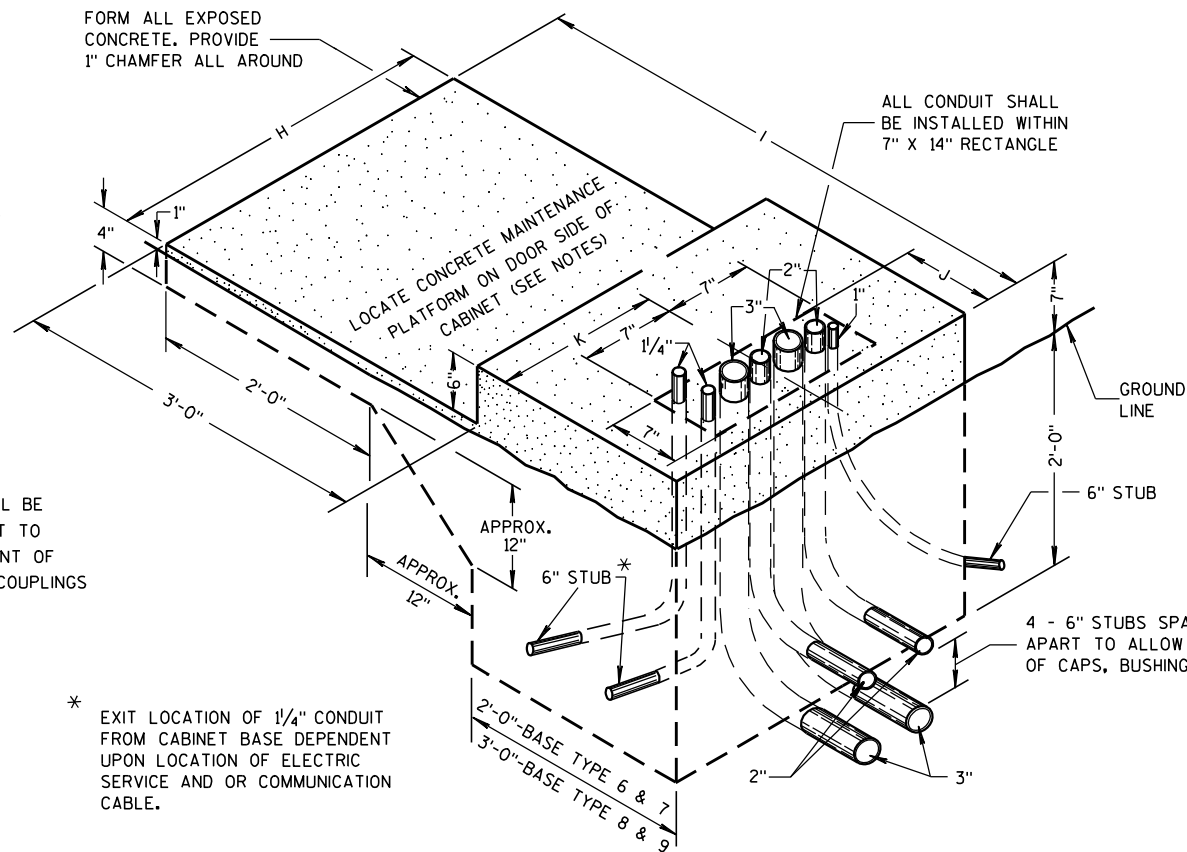
* INCLUDES MAINTENANCE PLATFORM.

TYPICAL 3'-0" X 3'-0" X 4" THICK
MAINTENANCE PLATFORM.
LOCATION TO BE DETERMINED
IN THE FIELD. COST TO BE
INCLUDED UNDER CONCRETE
CONTROL CABINET TYPE 10.



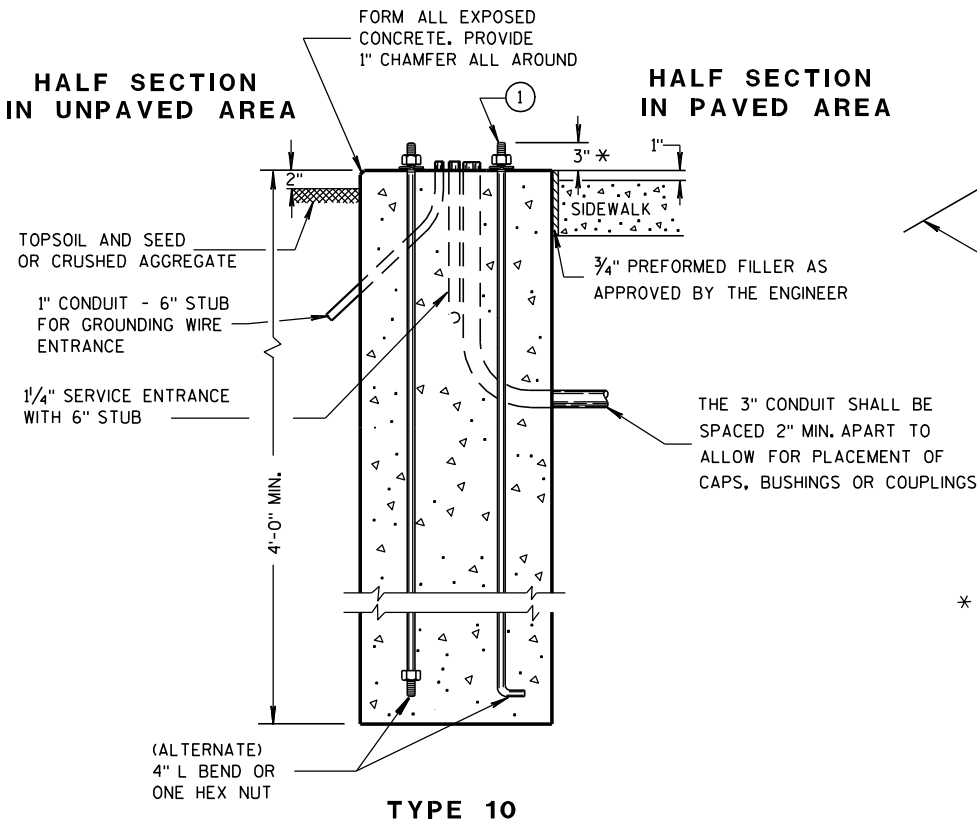
CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



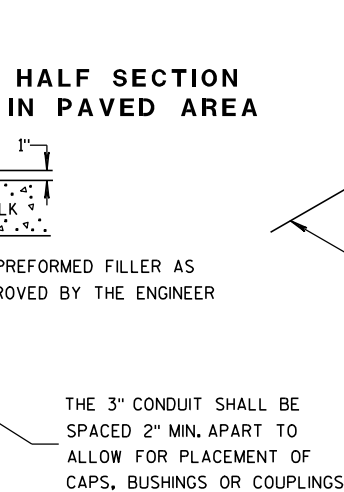
TYPE 6, 7, 8 AND 9
(ISOMETRIC VIEW)

HALF SECTION IN UNPAVED AREA



TYPE 10

HALF SECTION IN PAVED AREA



* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE
THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

CONCRETE CONTROL CABINET BASES

GENERAL NOTES

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

INSTALL FOUR 1/2" INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE
MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR
STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE
CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM
AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES
MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL
OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A
36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR
SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM
FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET
BASE TO THE FIRST (NEAREST) PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE
CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS
SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10
BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

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

WHEN THIS DRAWING IS USED FOR STREET LIGHTING CABINET BASES, CONDUIT MAY BE
DIFFERENT AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

- ① FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6"
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND
641.2.2 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

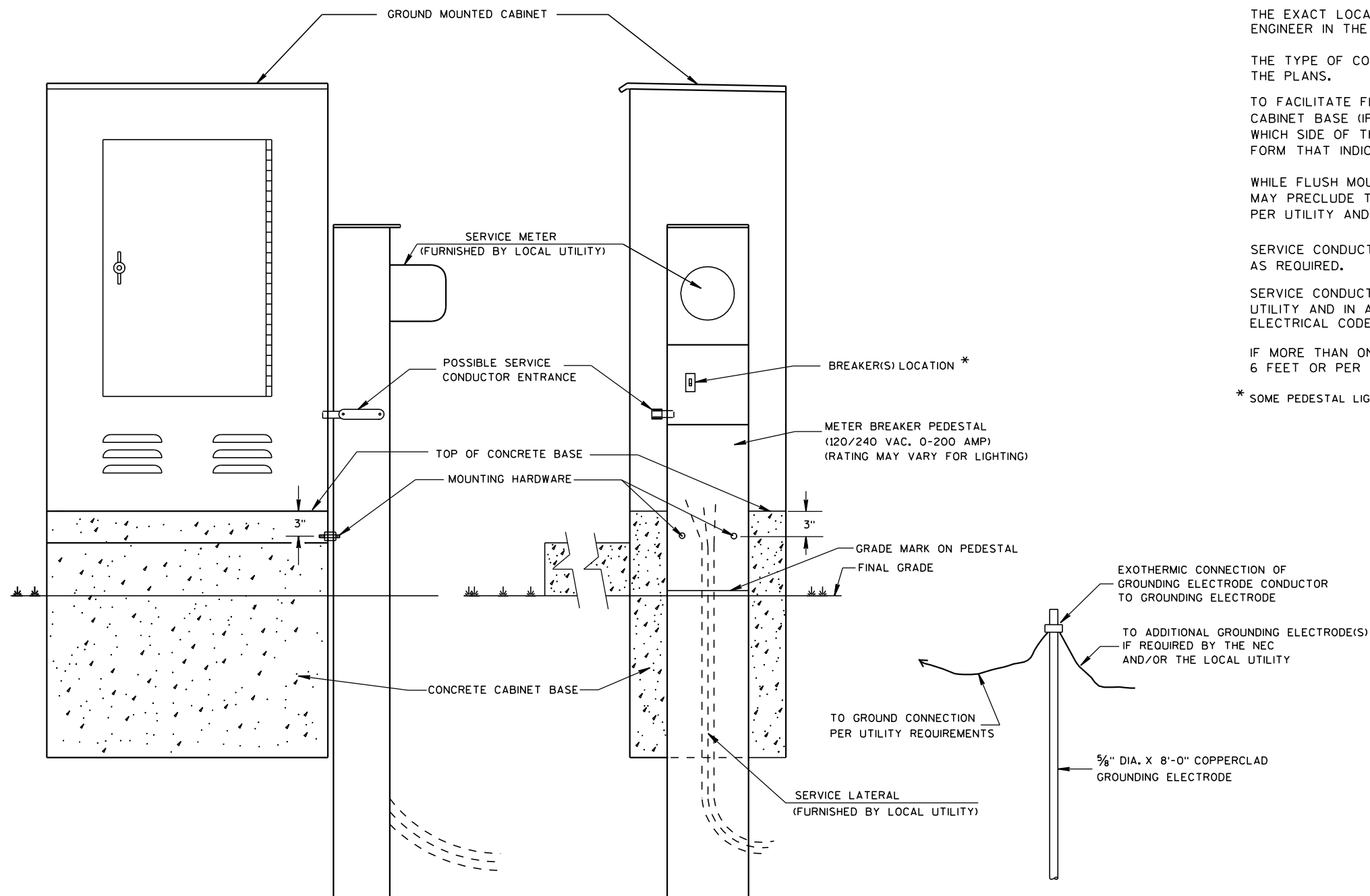
APPROVED

3/3/10
DATE

FHWA

/S/ Joanna L. ...
STATE ELECTRICAL ENGI 121

HWYS



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

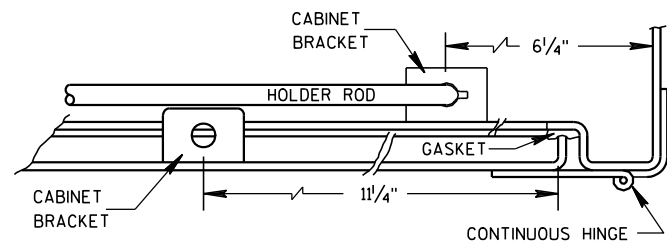
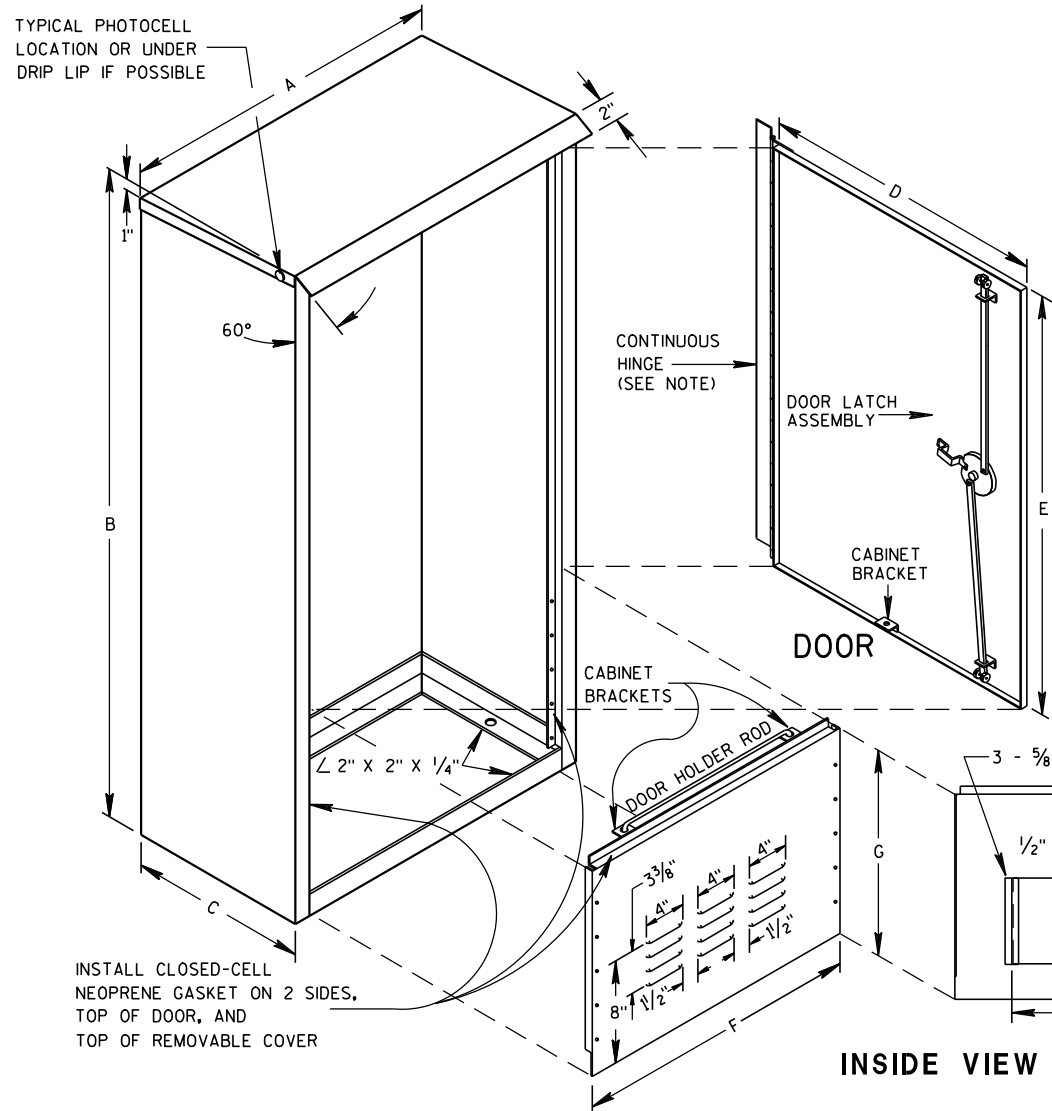
IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

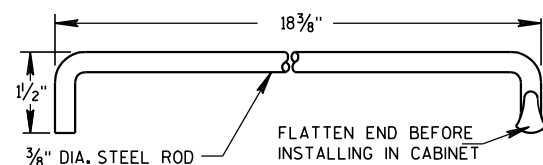
CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

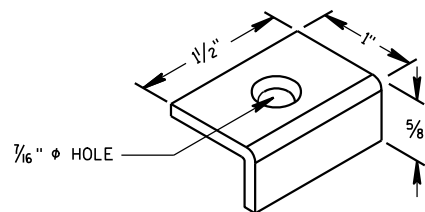
APPROVED
10/27/09
DATE
/S/ Joanna L. Bush
STATE ELECTRICAL ENGI 122
HWYS
FHWA



HINGE & DOOR HOLDER



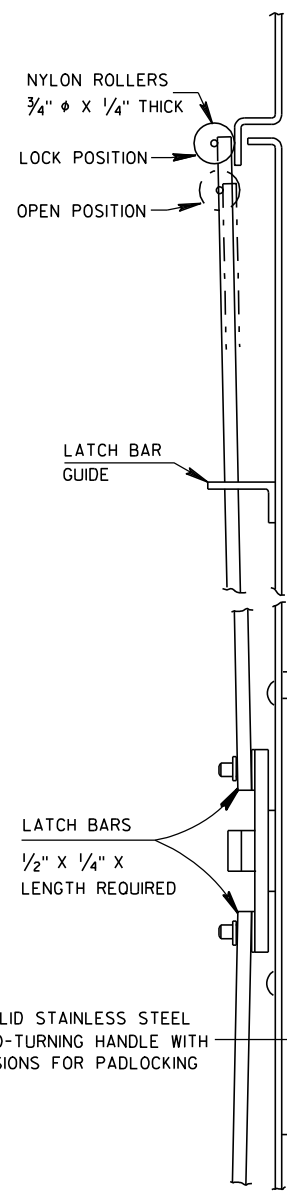
HOLDER ROD



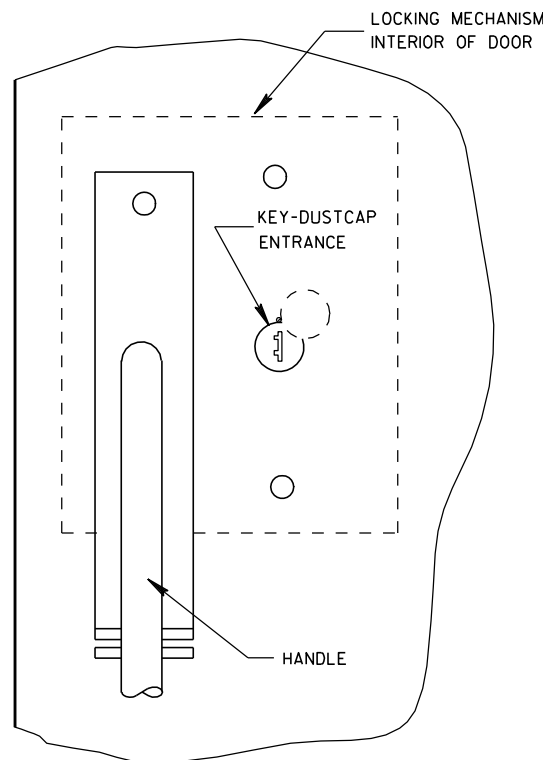
CABINET BRACKET

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

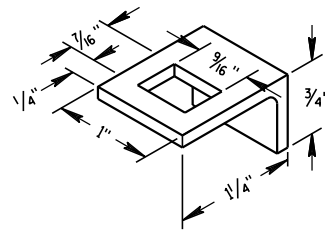


SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

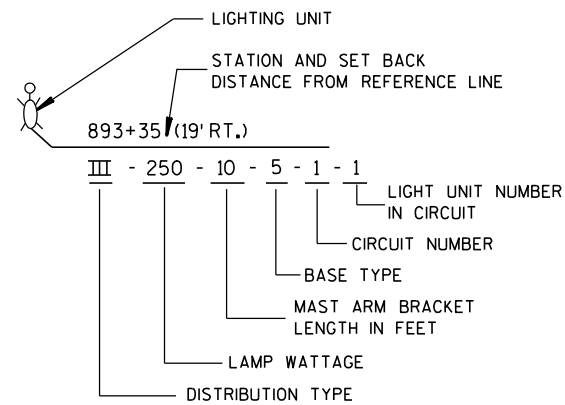
A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

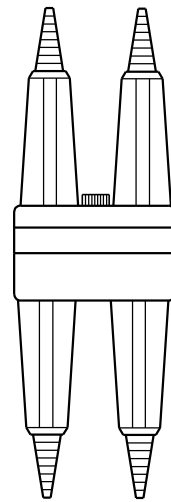
SIGNAL OR LIGHTING CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

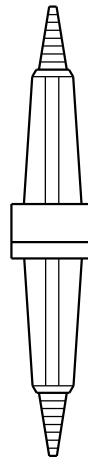
APPROVED
10/21/96
DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 123
HWYS
FHWA



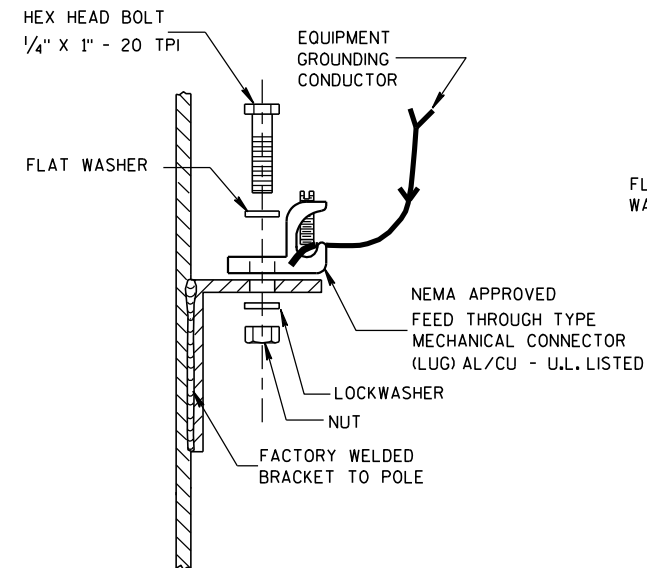
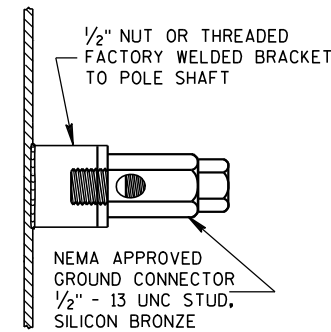
**LIGHTING UNIT CODE
(TYPICAL)**



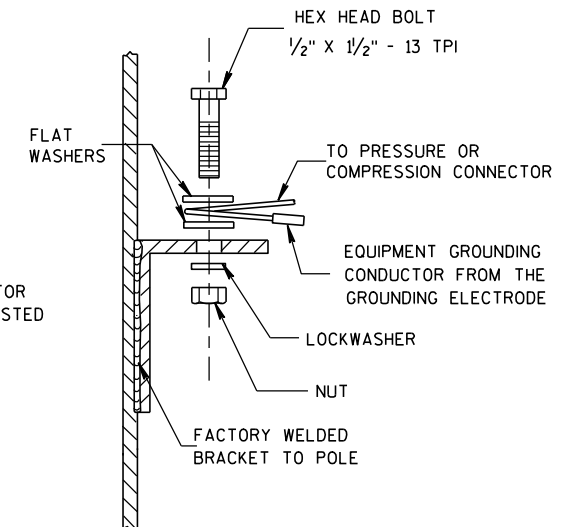
**DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT**



**DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT**



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

ADDITIONAL CONDUCTORS
AND FUSE FOR TWIN
LIGHTING UNITS

EQUIPMENT GROUNDING
CONDUCTOR(S) TO LUMINAIRE(S)

APPROVED MECHANICAL TYPE
CONNECTOR FOR EQUIPMENT
GROUNDING CONDUCTORS.
COMPRESSION, CRIMP OR
WIRE NUT CONNECTORS ARE
NOT ALLOWED.

TYPICAL GROUNDING CONNECTION -
STAINLESS STEEL BOLT,
NUT AND WASHERS
1/2" X 1/2" - 13 TPI

AWG #4 (MIN.) BARE EQUIPMENT
GROUNDING CONDUCTOR.
NOTE: THIS WIRE SHALL BE
CONTINUOUS WITHOUT SPLICES
FROM THE GROUNDING ELECTRODE
TO THE EQUIPMENT GROUNDING
CONDUCTOR SPLICE CONNECTOR.

INSULATED EQUIPMENT GROUNDING
CONDUCTORS FROM SYSTEM RACEWAY

EXOTHERMICALLY WELDED
TO GROUNDING ELECTRODE

CONDUCTORS TO
LUMINAIRES SHALL BE #12 AWG,
COPPER STRANDED, U.S.E. RATED,
XLP INSULATED. SINGLE
LIGHTING UNIT SHOWN

CIRCUIT TAGS, BOTH SIDES
OF ALL FUSES (TYPICAL)

IN LINE SINGLE POLE FUSE ASSEMBLY.
600 VAC, WITH 5 AMP FNO FUSE
(SEE DETAIL "B")
TAPE AND VARNISH
CRIMPED END FERRULES

HANDHOLE & COVER

18" PIGTAIL BETWEEN
CONNECTOR AND FUSEHOLDER

APPROVED INSULATED MULTITAP
TERMINAL BLOCK TYPE CONNECTORS.
COMPRESSION, CRIMP OR WIRE NUT
CONNECTORS ARE NOT ALLOWED.

INSULATED UNGROUNDED CIRCUIT
CONDUCTORS FROM SYSTEM RACEWAY

ALTERNATE PHASE UNGROUNDED
CIRCUIT CONDUCTOR PASSING
THROUGH THIS POLE

**3 WIRE - 120, 240 OR 480 VAC (UNGROUND CONDUCTOR)
WITH GROUNDED CONDUCTOR AND
WITH EQUIPMENT GROUNDING CONDUCTOR**

UNGROUND CONDUCTORS TO
LUMINAIRES SHALL BE #12 AWG,
COPPER STRANDED, U.S.E.
RATED, XLP INSULATED.
SINGLE LIGHTING UNIT SHOWN

TWIN LIGHTING UNITS REQUIRE
INDIVIDUAL SETS OF UNGROUNDED
CONDUCTORS AND FUSE ASSEMBLY.

AWG #4 (MIN.) BARE EQUIPMENT
GROUNDING CONDUCTOR.
NOTE: THIS WIRE SHALL BE
CONTINUOUS WITHOUT SPLICES
FROM THE GROUNDING ELECTRODE
TO THE EQUIPMENT GROUNDING
CONDUCTOR SPLICE CONNECTOR.

EQUIPMENT GROUNDING
CONDUCTOR(S) TO LUMINAIRE(S)

TYPICAL GROUNDING CONNECTION -
STAINLESS STEEL BOLT,
NUT AND WASHERS
1/2" X 1/2" - 13 TPI

APPROVED MECHANICAL TYPE
CONNECTOR FOR EQUIPMENT
GROUNDING CONDUCTORS.
COMPRESSION, CRIMP OR
WIRE NUT CONNECTORS ARE
NOT ALLOWED.

INSULATED EQUIPMENT GROUNDING
CONDUCTORS FROM SYSTEM RACEWAY

EXOTHERMICALLY WELDED
TO GROUNDING ELECTRODE

**2 WIRE - 240 OR 480 VAC (UNGROUND CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR**

CIRCUIT TAGS, BOTH SIDES
OF ALL FUSES (TYPICAL)

IN LINE FUSE ASSEMBLY
TWO POLE, 600 VAC,
WITH 5 AMP FNO FUSES
(SEE DETAIL "A")
TAPE AND VARNISH
CRIMPED END FERRULES

HANDHOLE & COVER

18" PIGTAIL BETWEEN
CONNECTORS AND FUSEHOLDERS

APPROVED INSULATED MULTITAP
TERMINAL BLOCK TYPE CONNECTORS.
COMPRESSION, CRIMP OR WIRE NUT
CONNECTORS ARE NOT ALLOWED.

INSULATED UNGROUNDED CIRCUIT
CONDUCTORS FROM SYSTEM RACEWAY

**NON-FREWAY LIGHTING UNIT
POLE WIRING**

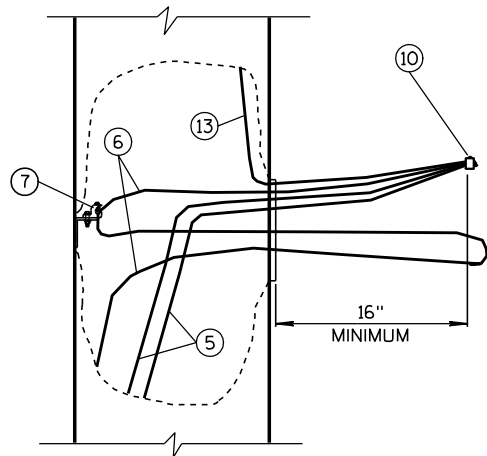
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

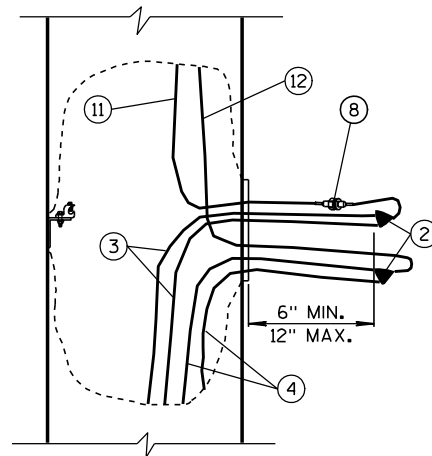
3/2/2011
DATE

FHWA

/S/ Thomas J. Gossion
STATE ELECTRICAL ENGI 124 HWYS

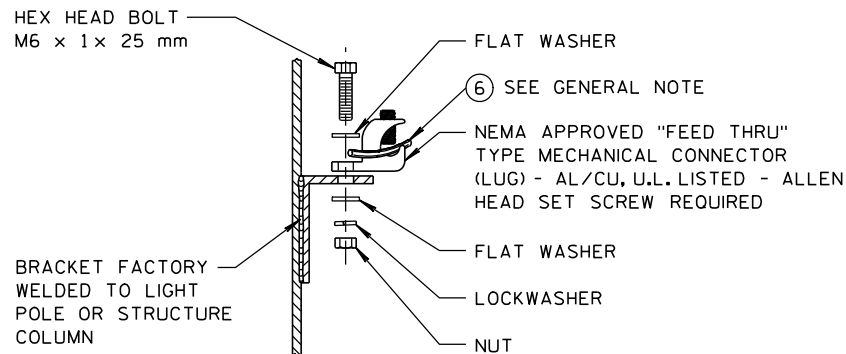


EQUIPMENT GROUNDING
CONDUCTOR SLACK



UNGROUND CONDUCTOR SLACK
(AND GROUNDED NEUTRAL SLACK
IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS
SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUND LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUND POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS.
WHERE THE PLANS DO NOT SHOW COLOR CODING,
USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK
AND RED FOR TWIN LUMINAIRE POLES.

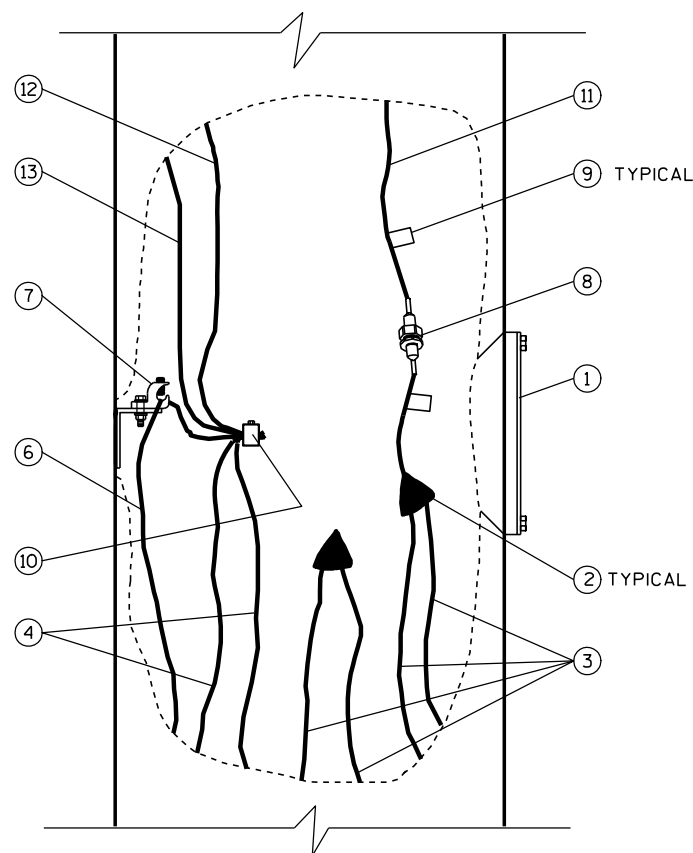


1 POLE (1P)



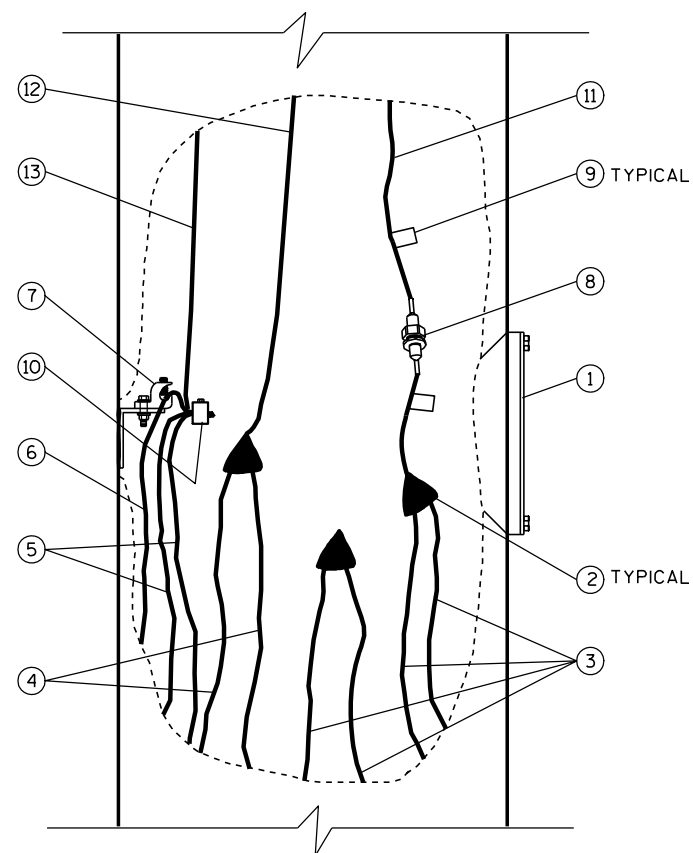
2 POLE (2P)

FUSE ASSEMBLIES



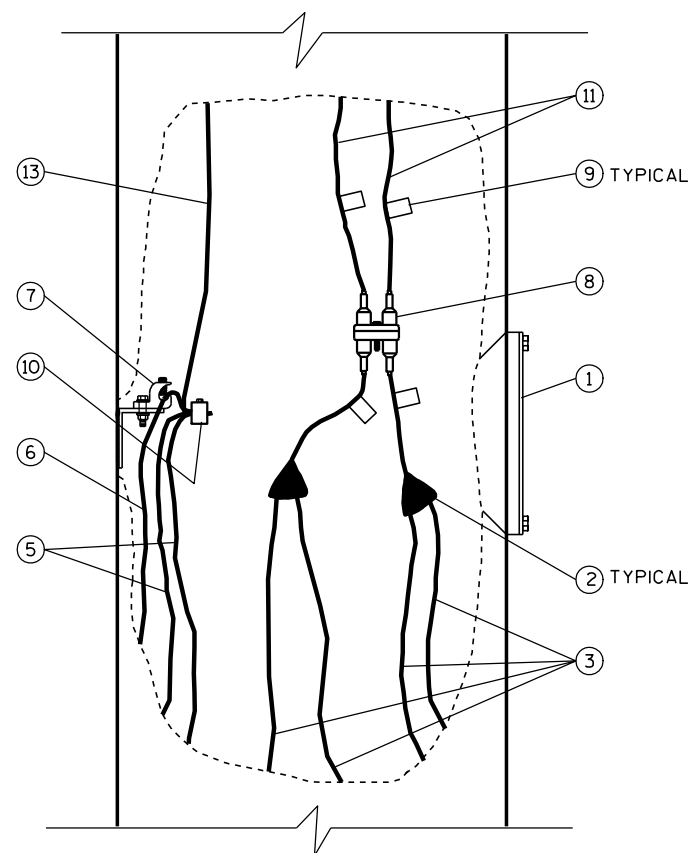
CUTAWAY HANDHOLE DETAIL

GROUND NEUTRAL SYSTEMS
1-φ



CUTAWAY HANDHOLE DETAIL

ISOLATED NEUTRAL SYSTEMS
1-φ SHOWN; 3-φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL

PHASE-TO-PHASE SYSTEMS
1-φ SHOWN; 3-φ DELTA SIMILAR
(SEE GENERAL NOTE)

GENERAL NOTES

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

USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE
APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT
SPICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING
LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE.
THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES
ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE,
BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE,
WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL
PROVISIONS.

- ① HANDHOLE AND COVER
- ② INSULATED SPLICE
- ③ UNGROUNDED LINE WIRE
- ④ GROUNDED LINE WIRE
- ⑤ SYSTEM GROUNDING LINE WIRE
- ⑥ GROUNDING ELECTRODE CONDUCTOR
- ⑦ HANDHOLE GROUNDING LUG
- ⑧ FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
- ⑨ CIRCUIT TAG (SEE GENERAL NOTE)
- ⑩ REVERSIBLE PRESSURE OR COMPRESSION
GROUNDING CONNECTOR (NOT INSULATED)
- ⑪ UNGROUNDED POLE WIRE
- ⑫ GROUNDED POLE WIRE
- ⑬ EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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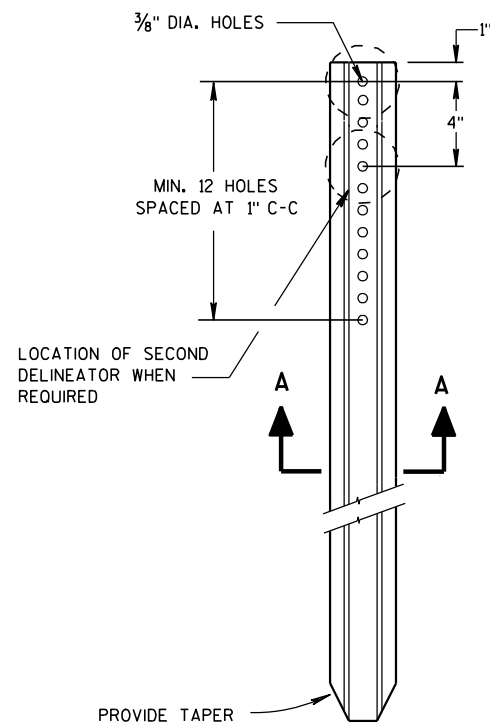
10/25/2010
DATE

/S/ John Co...
STATE ELECTRICAL ENGI 125

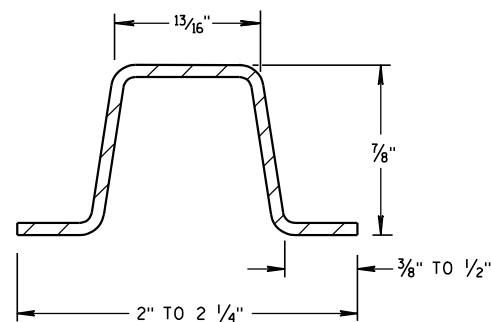
HWYS

FHWA

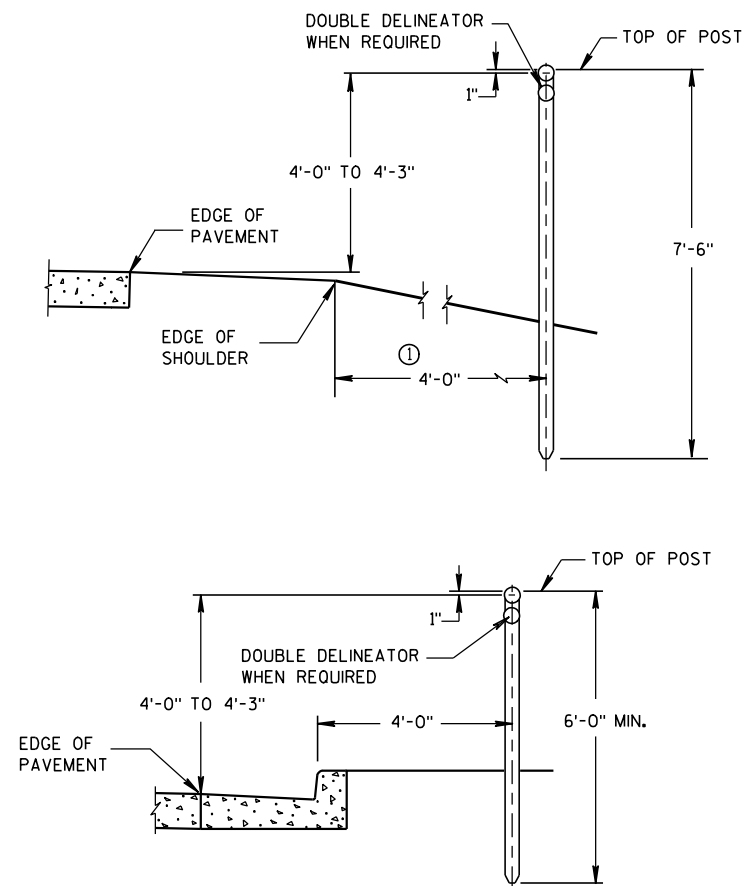
NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR
DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.



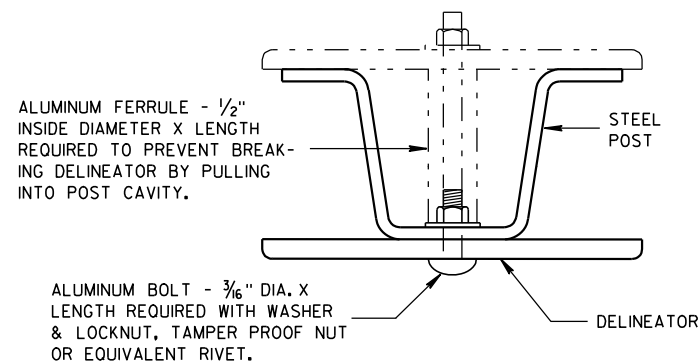
DELINEATOR POST



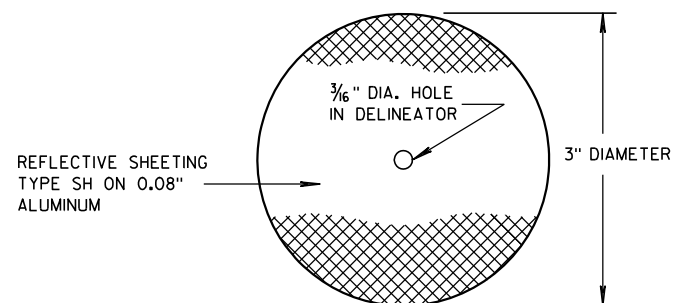
SECTION A-A

WEIGHT 1.12 LBS PER FT. $\pm$ 0.1 LB.

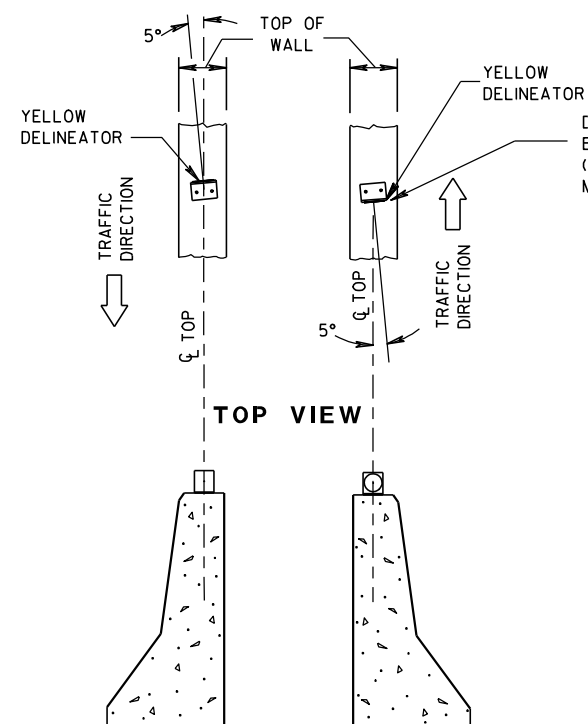
TYPICAL INSTALLATIONS OF DELINEATOR POSTS



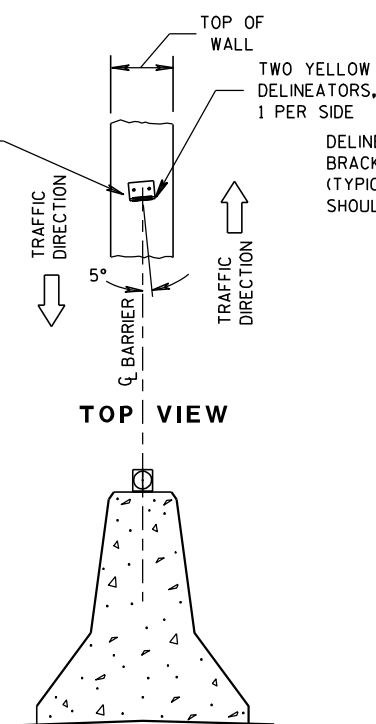
MOUNTING DETAIL FOR DELINEATOR



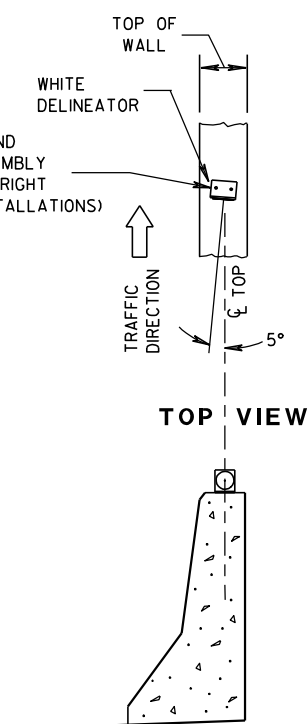
DELINEATOR



DOUBLE BARRIERS IN MEDIAN



MEDIAN BARRIER

BARRIER LOCATED
TO RT. OF TRAFFIC FLOW

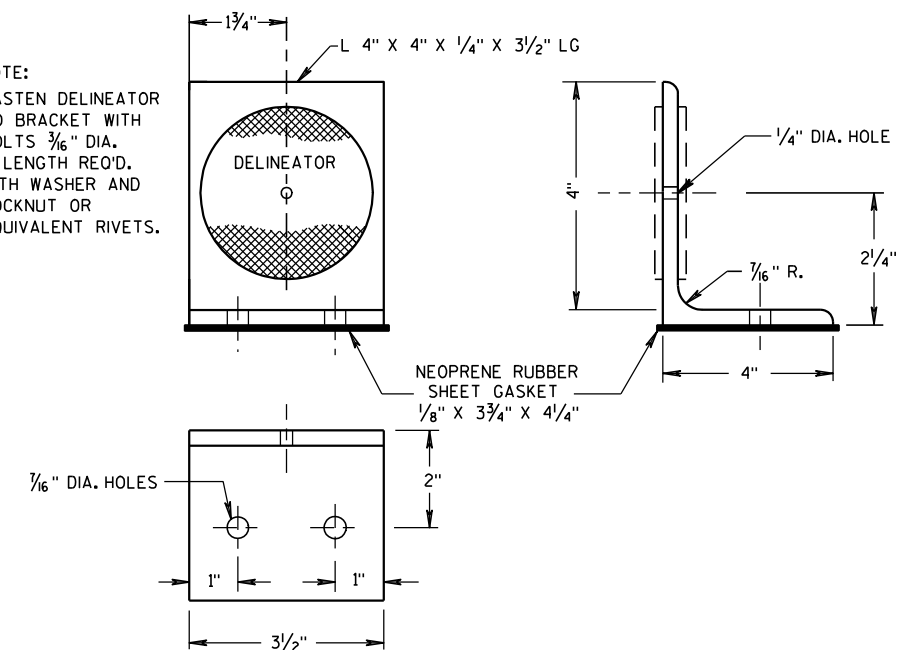
LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS

GENERAL NOTES

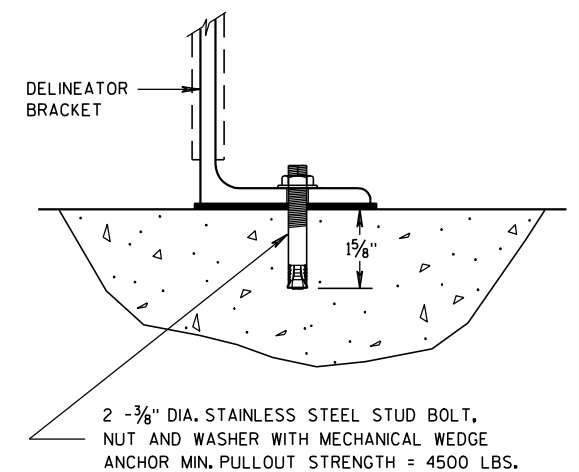
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

NOTE:
FASTEN DELINEATOR
TO BRACKET WITH
BOLTS $\frac{3}{16}$ " DIA.
X LENGTH REQ'D.
WITH WASHER AND
LOCKNUT OR
EQUIVALENT RIVETS.



DELINEATOR BRACKET



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR
BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

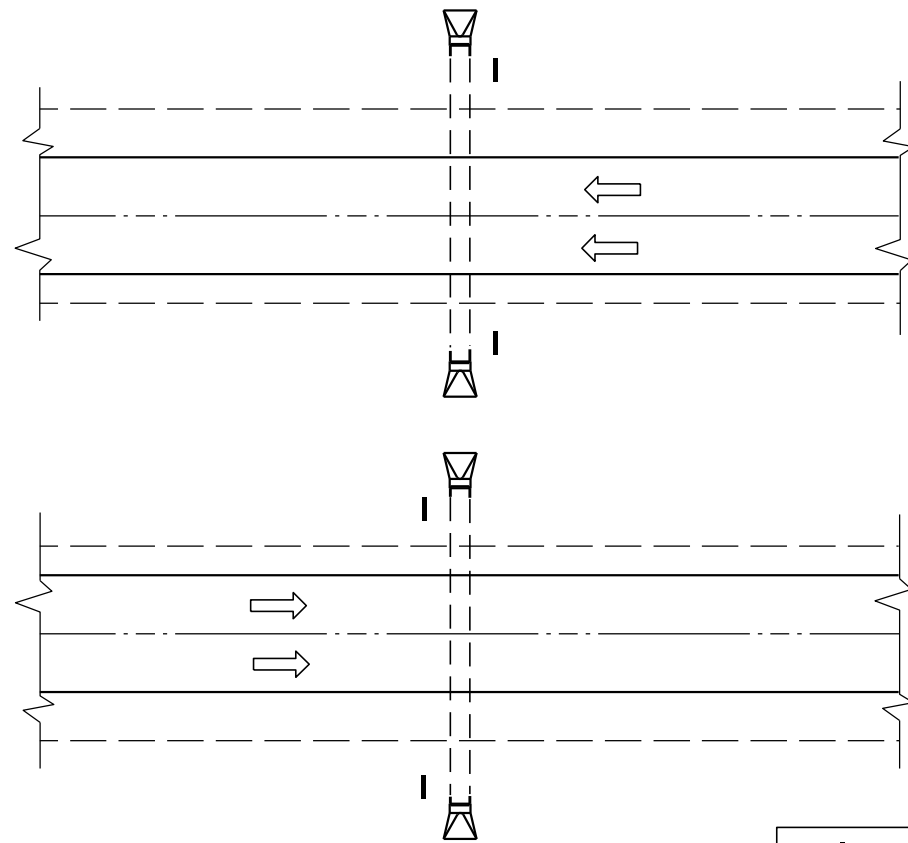
APPROVED

1/25/2011

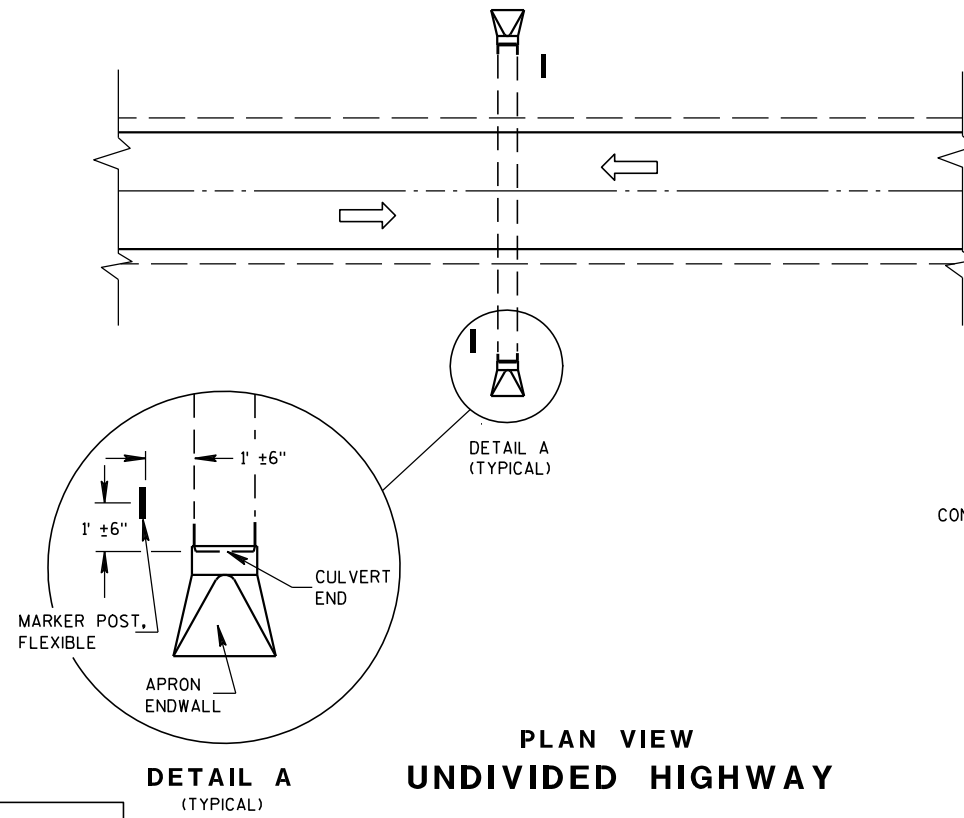
DATE

/S/ Thomas N. Nothmann
STATE TRAFFIC ENGINEER 126 DESIGN

FHWA

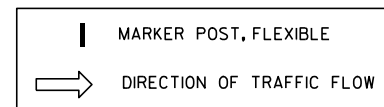


PLAN VIEW
DIVIDED HIGHWAY

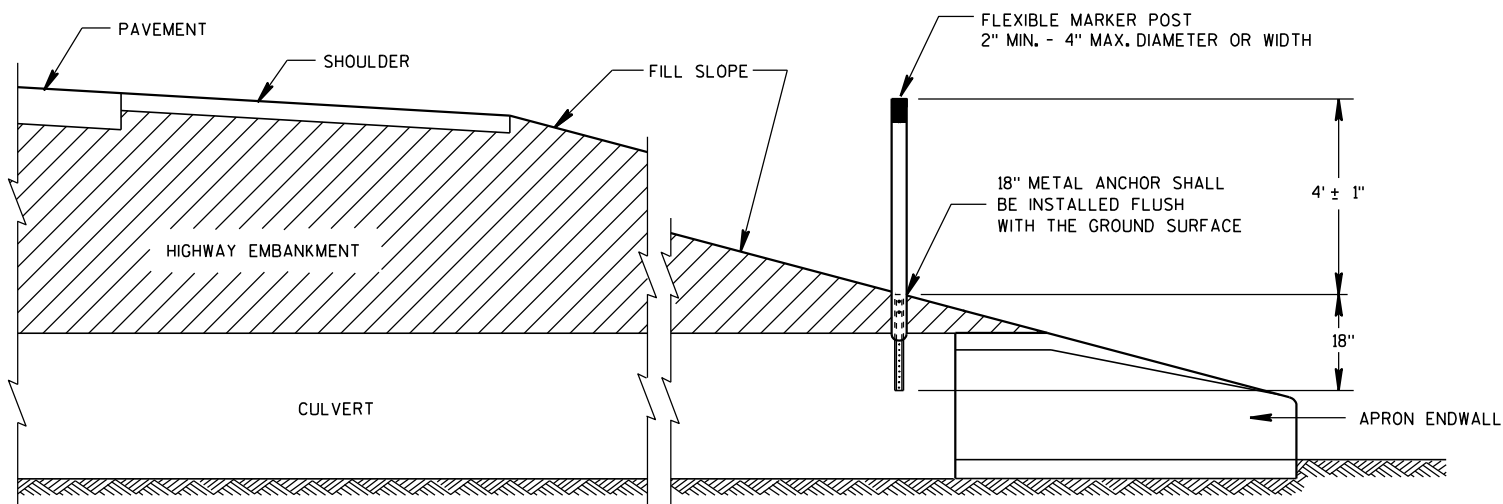


PLAN VIEW
UNDIVIDED HIGHWAY

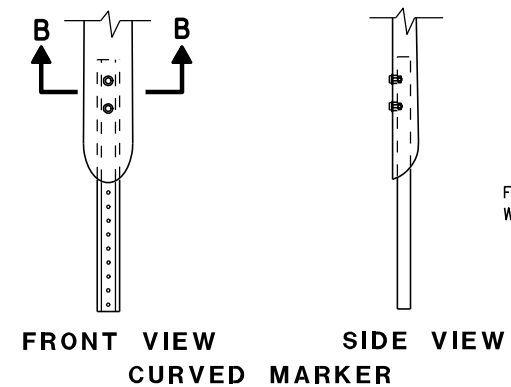
DETAIL A
(TYPICAL)



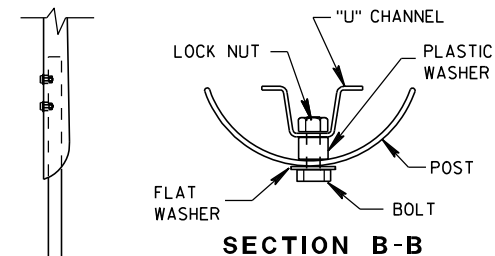
FLEXIBLE MARKER POST LOCATION



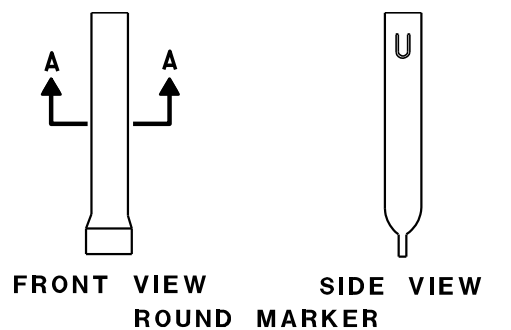
CROSS SECTION
FLEXIBLE MARKER POST



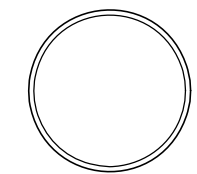
FRONT VIEW
CURVED MARKER



SECTION B-B



FRONT VIEW
ROUND MARKER

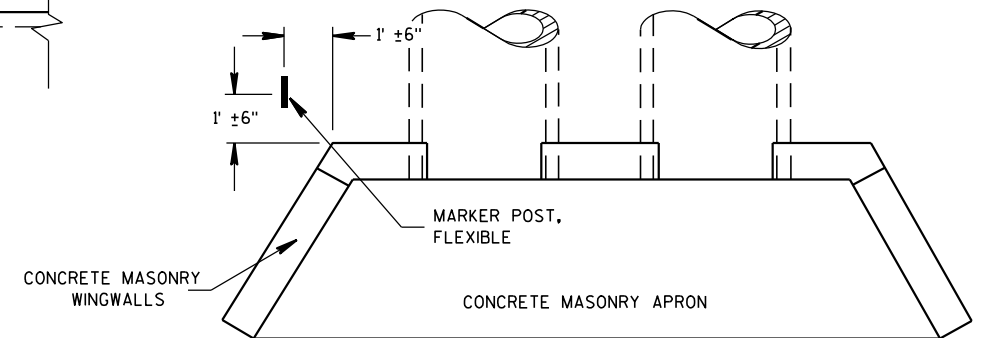


SECTION A-A

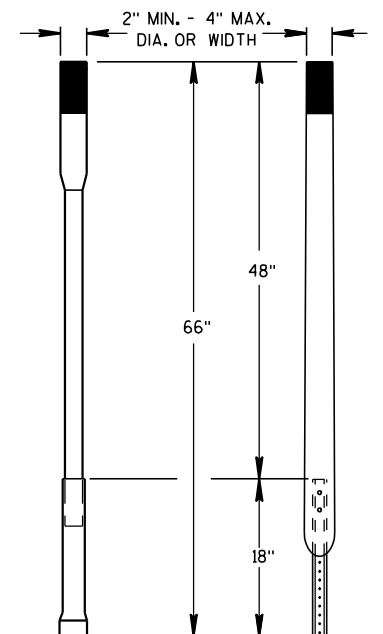
FLEXIBLE MARKER POST ANCHORS

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



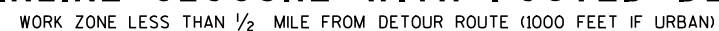
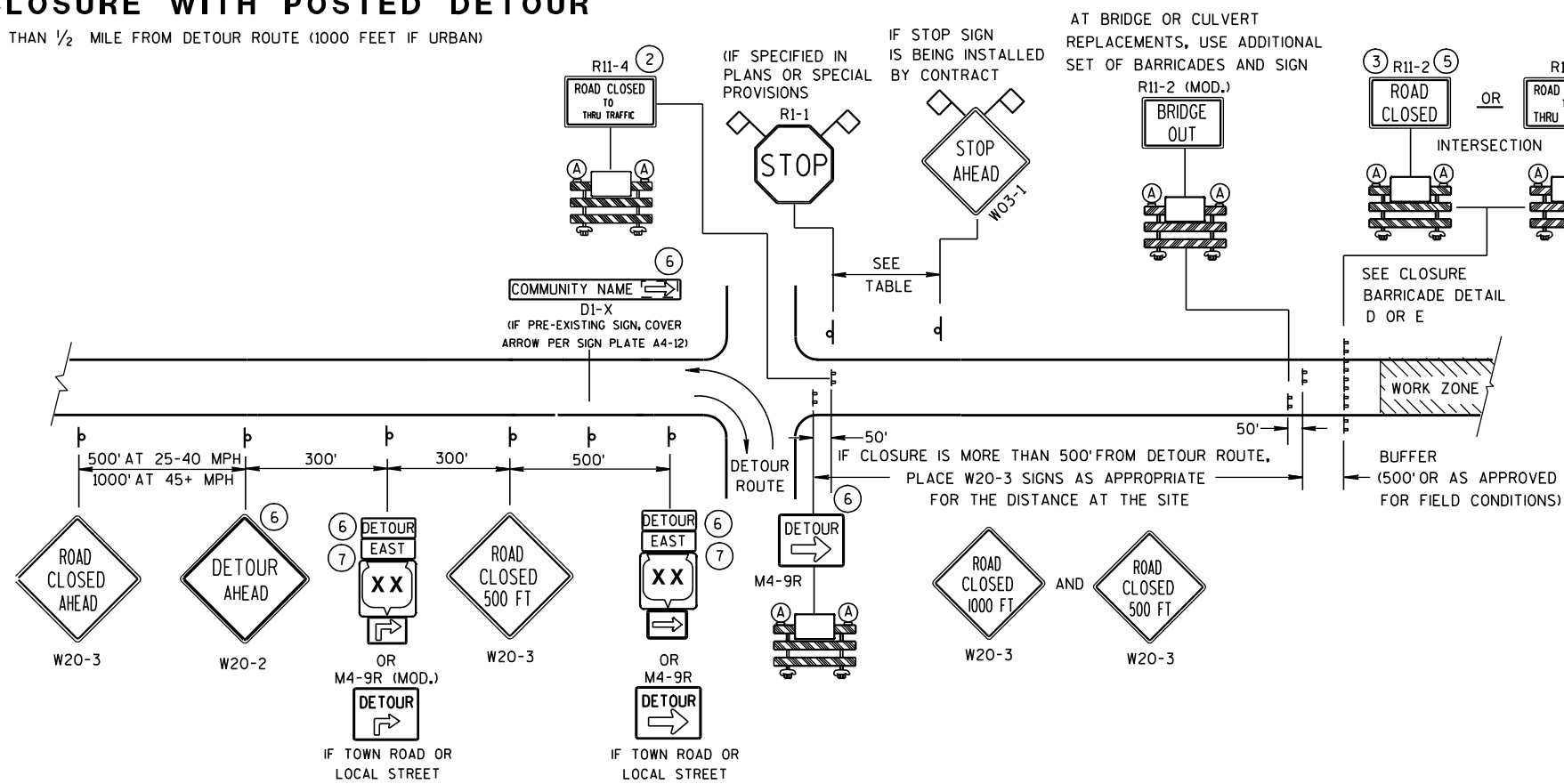
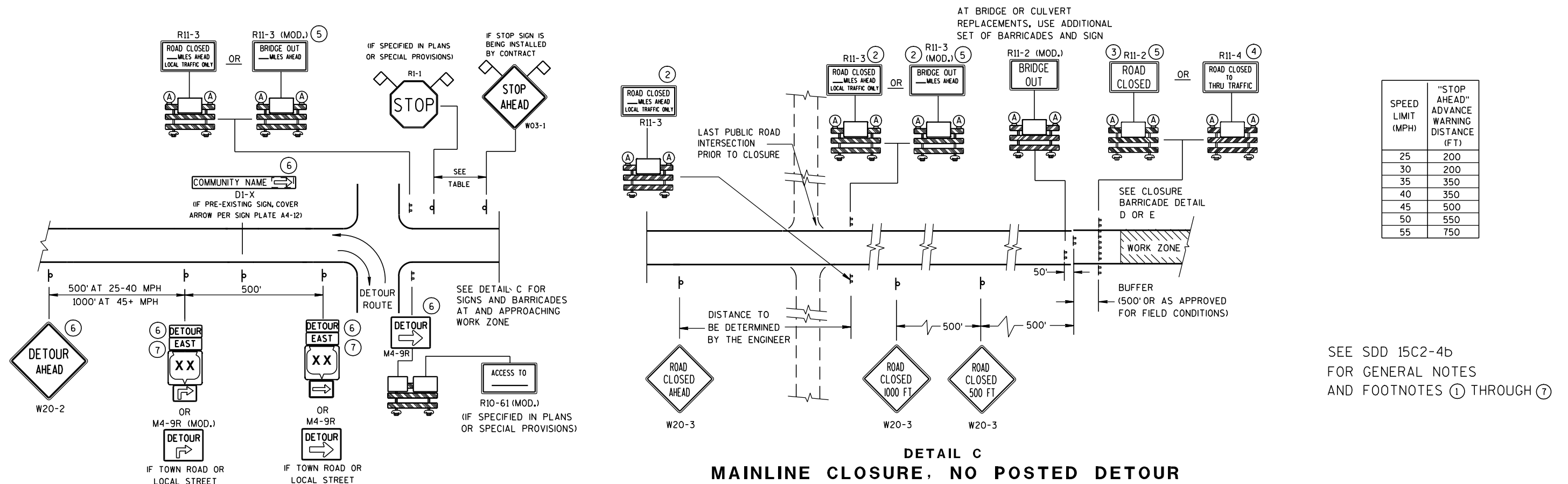
ALTERNATE 1 ALTERNATE 2
FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE,
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98 /S/ Rory L. Rhin...
DATE CHIEF ROADWAY DEVELOP 127 INEER
FHWA



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

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

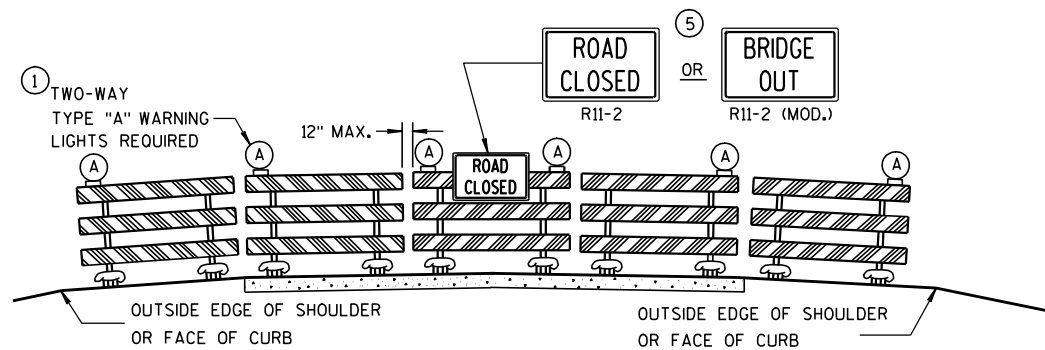
-  POST MOUNTED SIGN
 TYPE III BARRICADES
 (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
 WORK ZONE
 M4-8
 M3-X
 OR
 OR

 M1-4 M1-5A M1-6
 OR

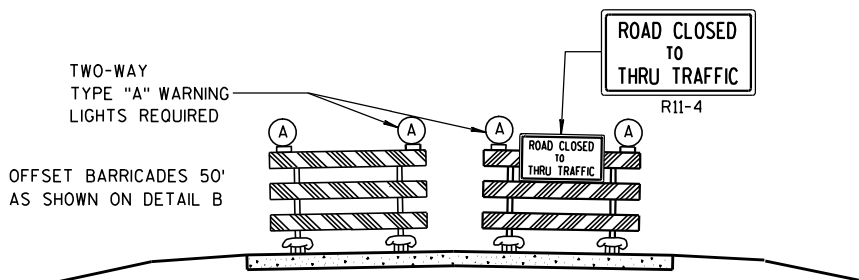
 M05-1 M06-1
 FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-4a 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

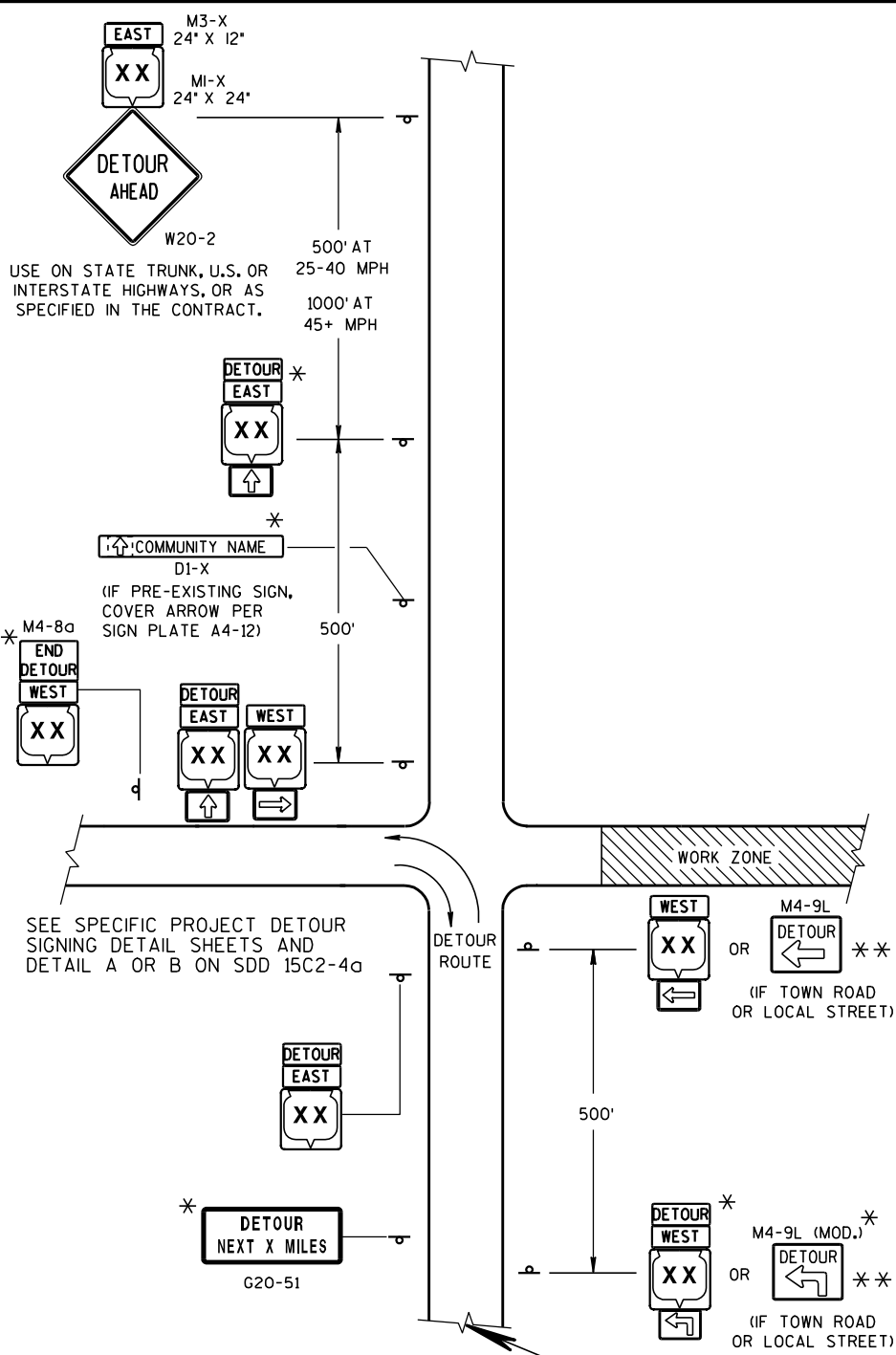
"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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 AND 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		
APPROVED		
9/16/03 DATE	/S/ Thomas N. N CHIEF SIGNS AND MAR 129	INEER
FHWA		



LEGEND

POST MOUNTED SIGN

WORK ZONE

DETOUR EAST M4-8 M3-X

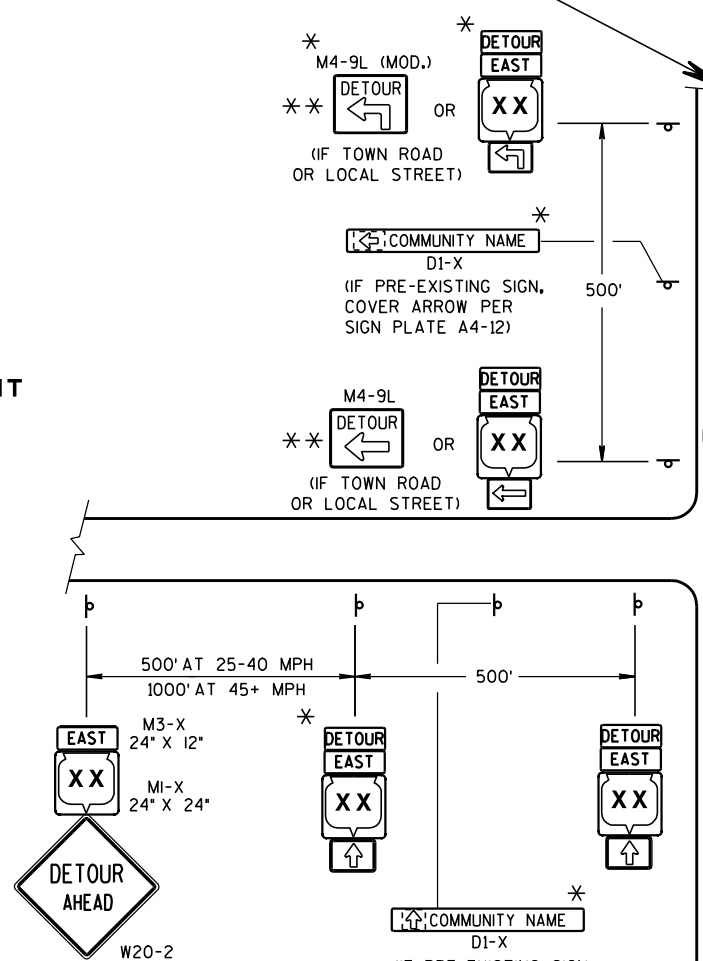
M1-4 OR COUNTY M1-5A OR M1-6

M05-1 OR M06-1 OR M06-1

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

DETAIL F
DETOUR SIGNING



USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT.

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X AND 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.)

M4-9 SHALL BE 30" X 24".

M4-8a SHALL BE 24" X 18".

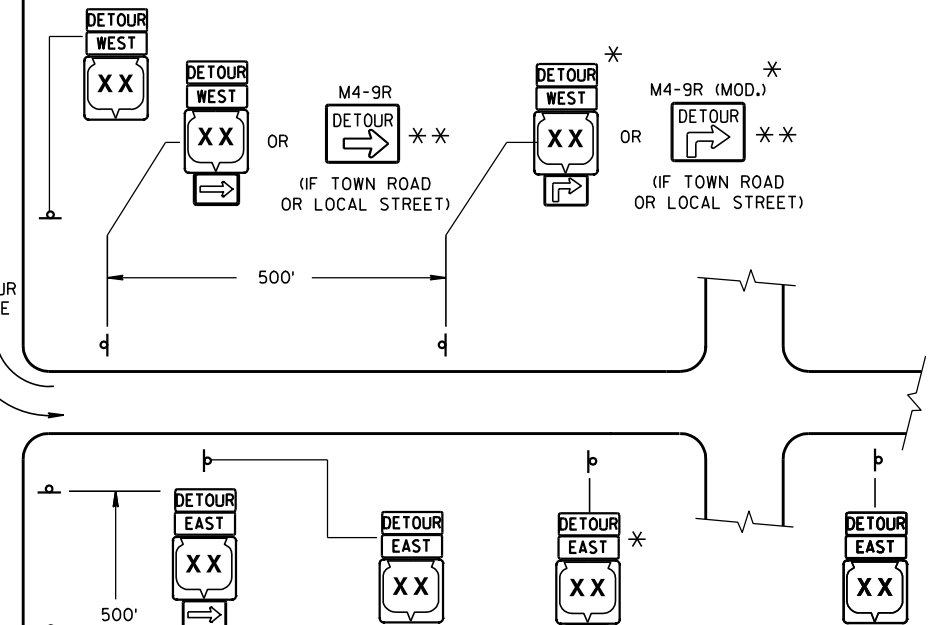
G20-51 SHALL BE 60" X 24".

W20-2 SHALL BE 48" X 48".

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

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

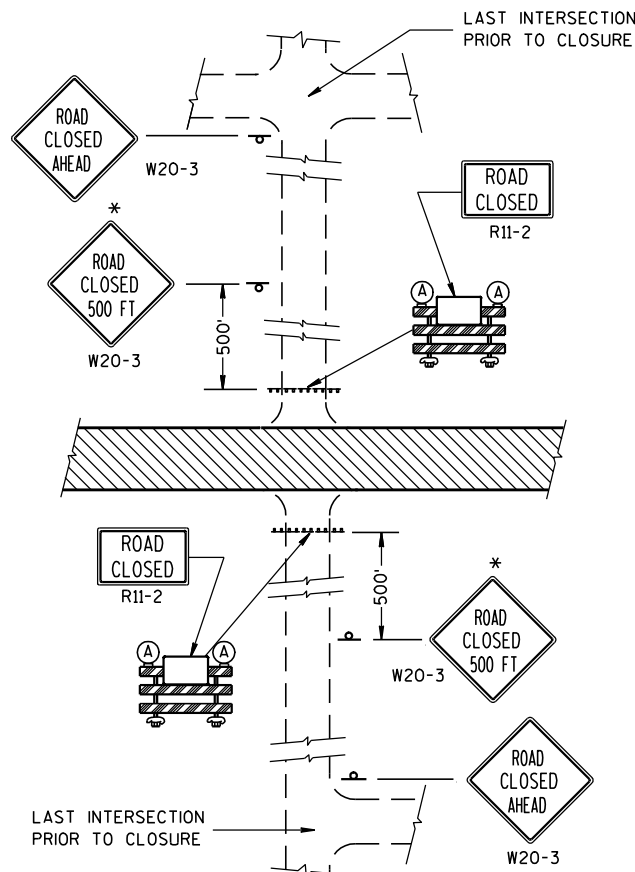


PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA.)

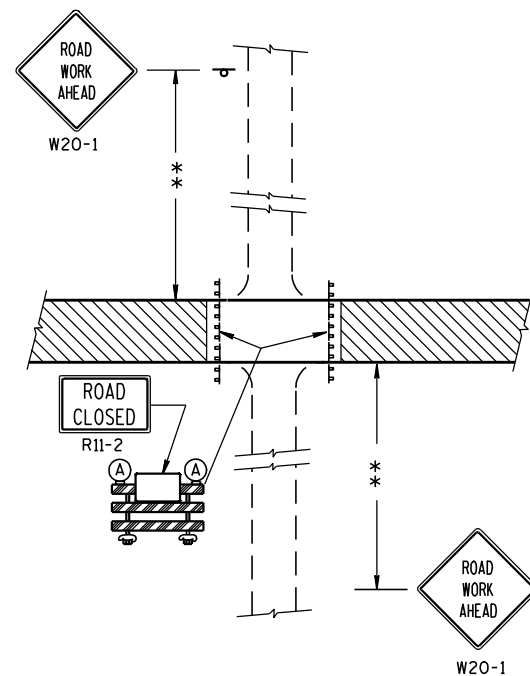
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

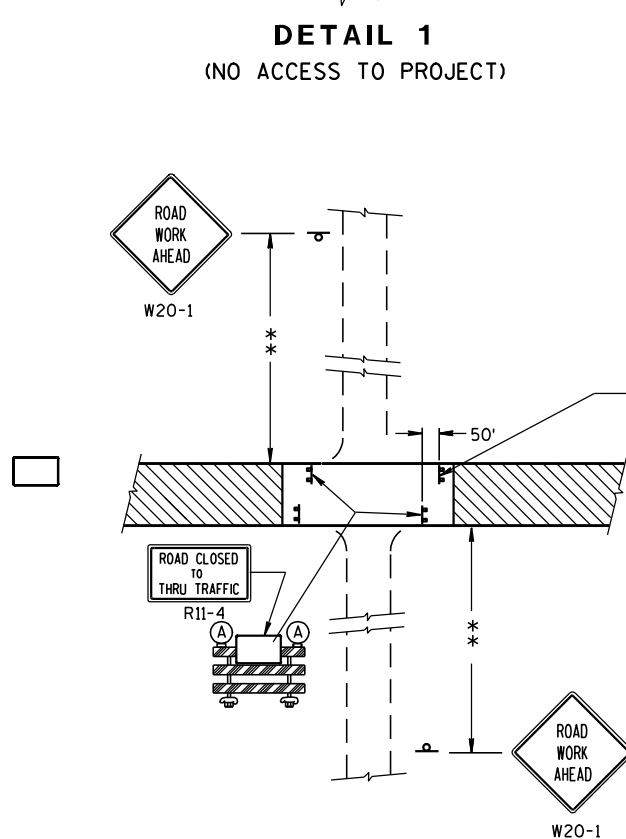
APPROVED
9-16-03 DATE /S/ Thomas N. N... CHIEF SIGNS AND MAR 130 INEER
FHWA



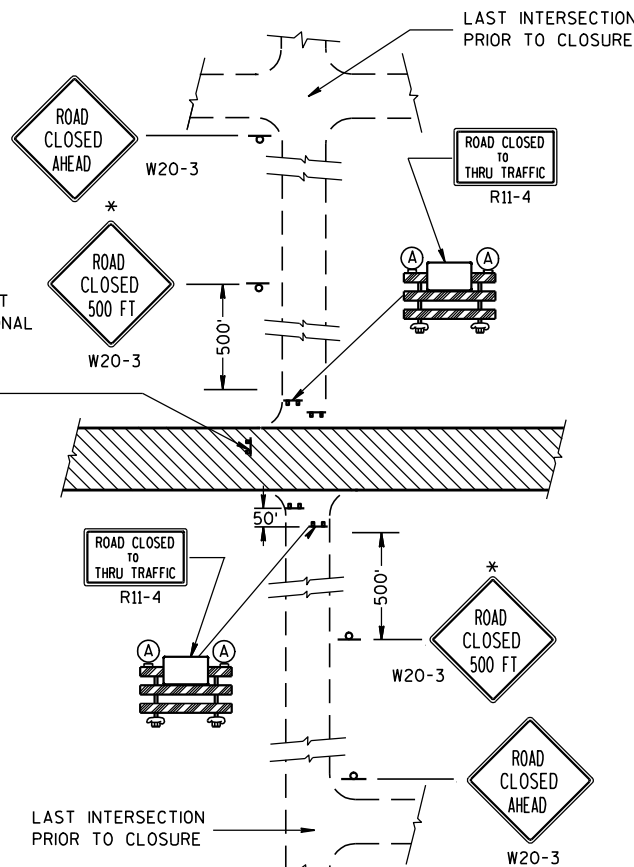
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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

⌋ POST MOUNTED WARNING SIGN

⌋ TYPE III BARRICADES

Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

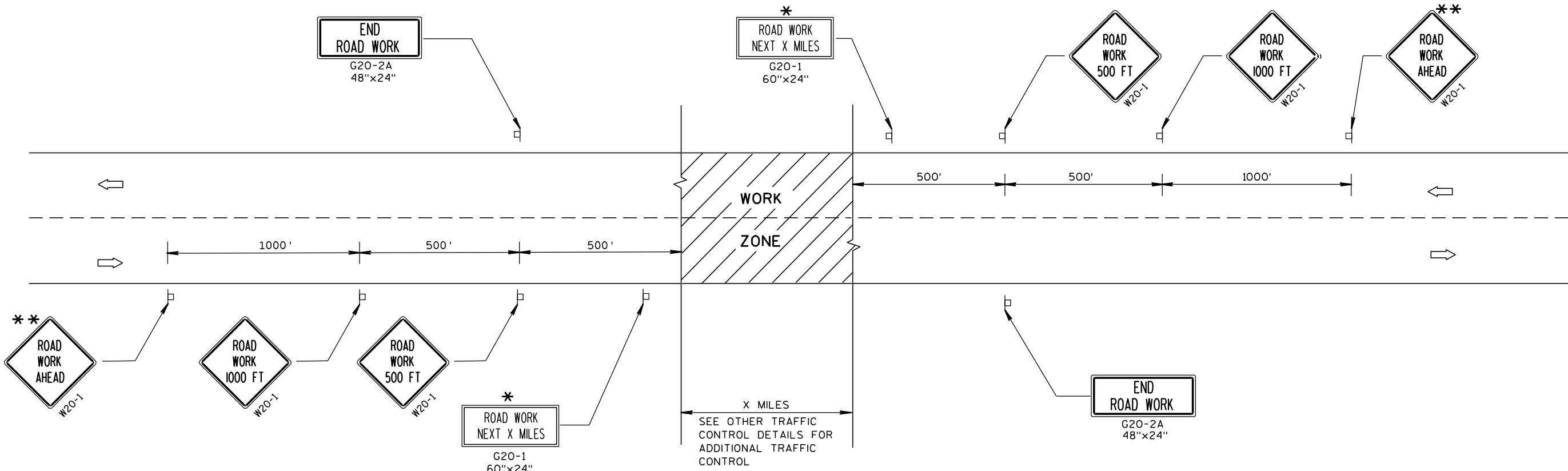
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03
DATE

/S/ Thomas N. N...
CHIEF SIGNS AND MAR 131 INEER

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.

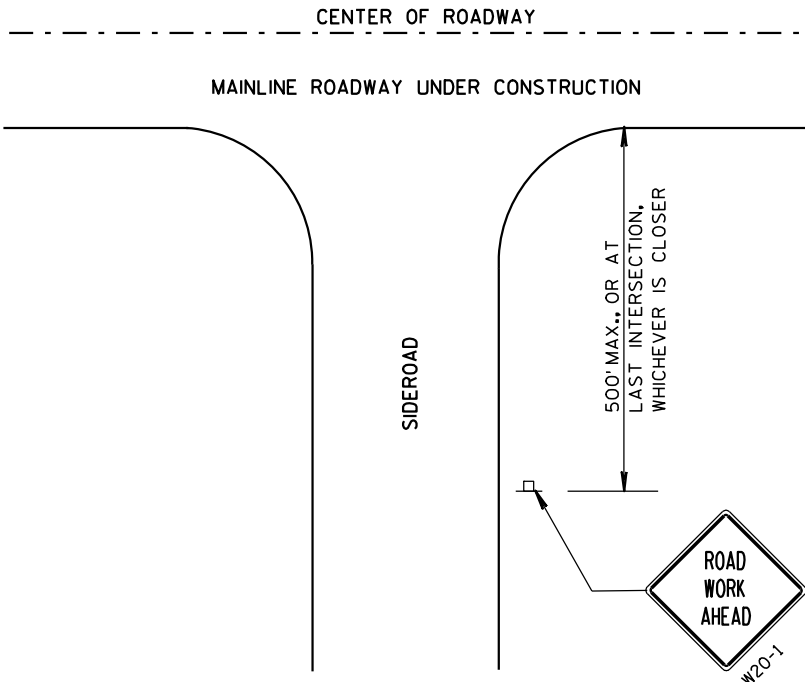
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

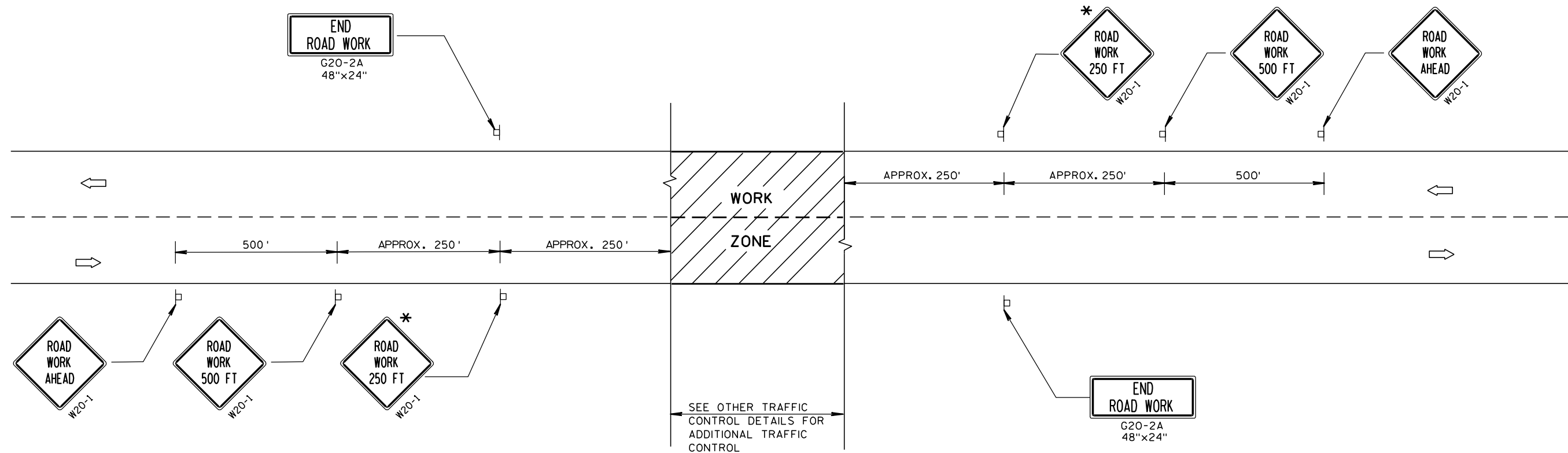
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING.



LEGEND

- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

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	5/23/00	/S/ Chester J. Neer	
DATE		CHIEF SIGNS AND MARKINGS	132
FHWA			



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

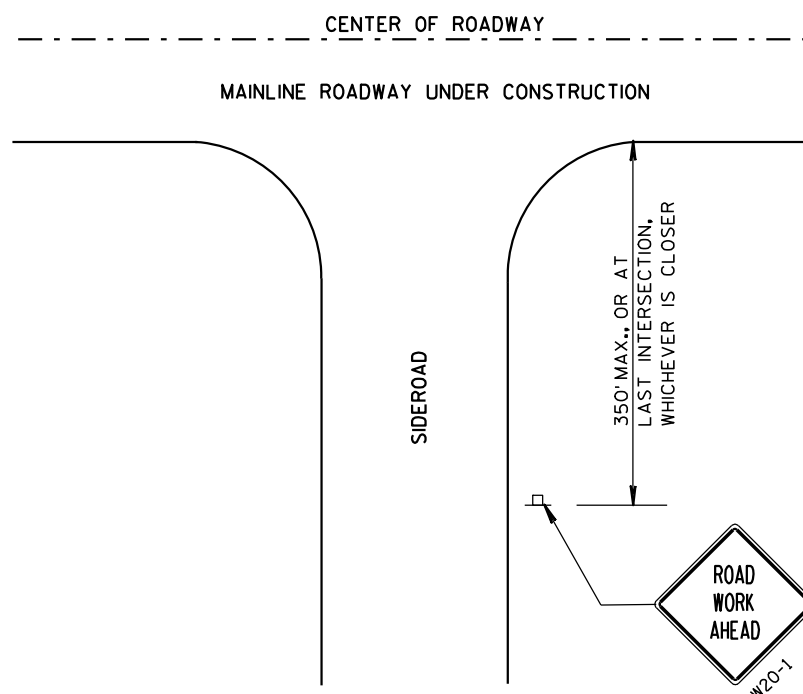
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

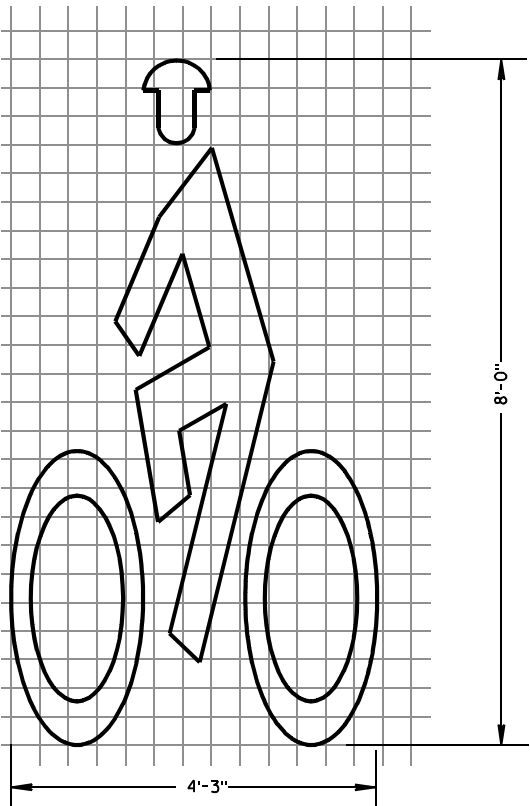
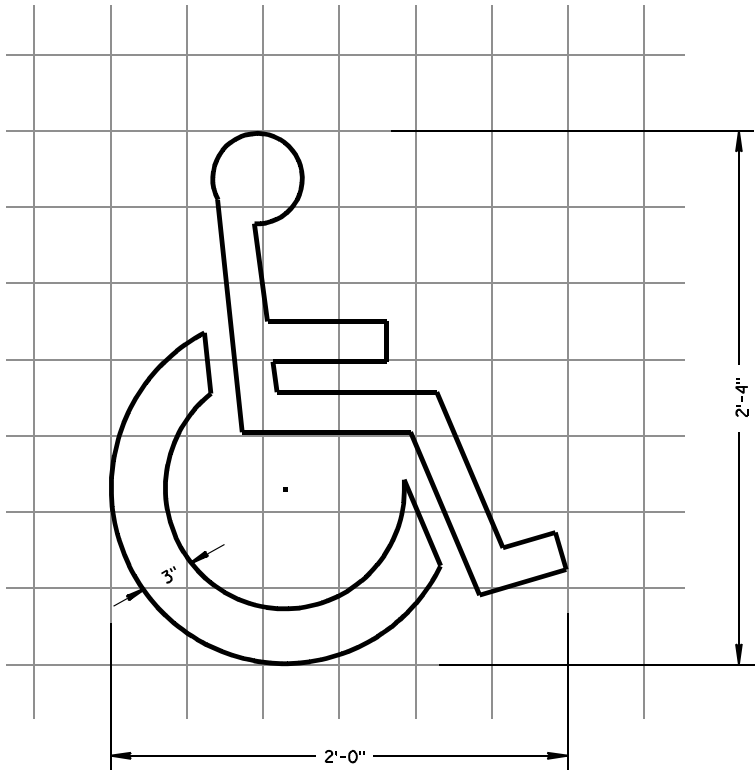
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



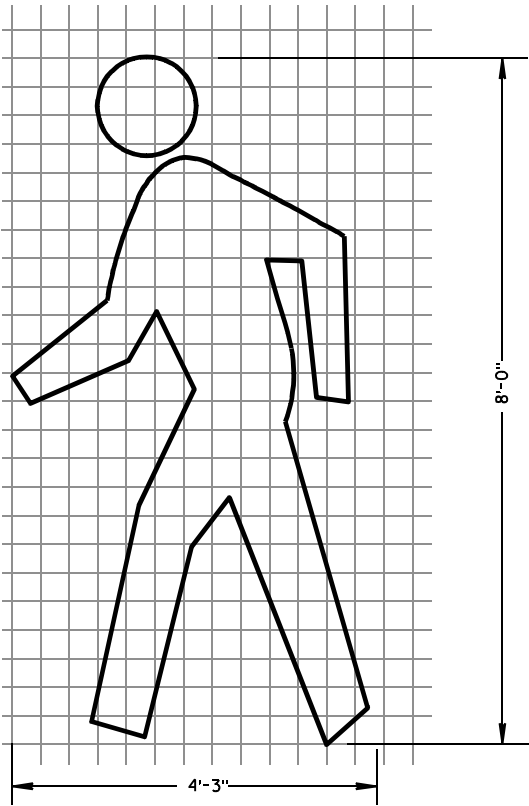
LEGEND

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

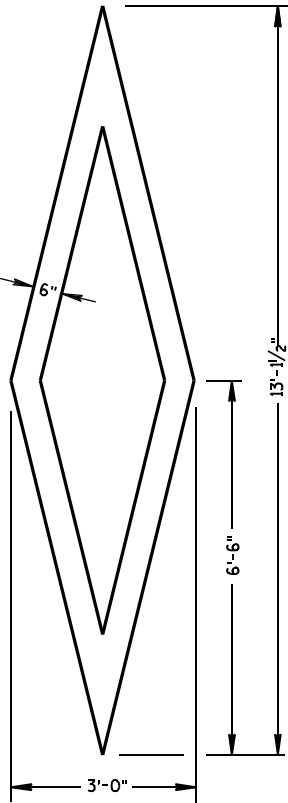
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	/S/ Chester J. 133 CHIEF SIGNS AND MARKING ENGINEER
FHWA	



BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL
LANE SYMBOL

GENERAL NOTES

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

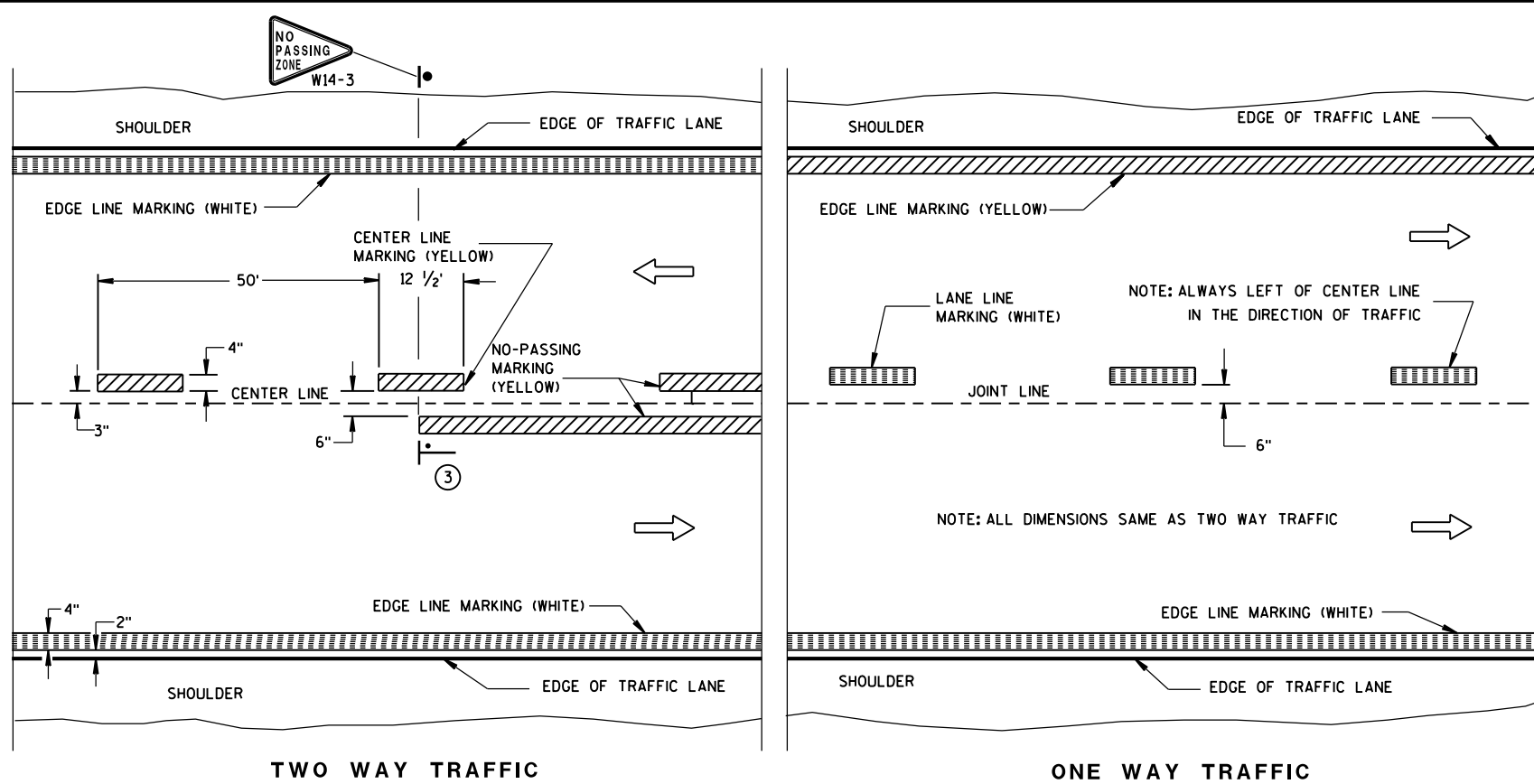
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

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

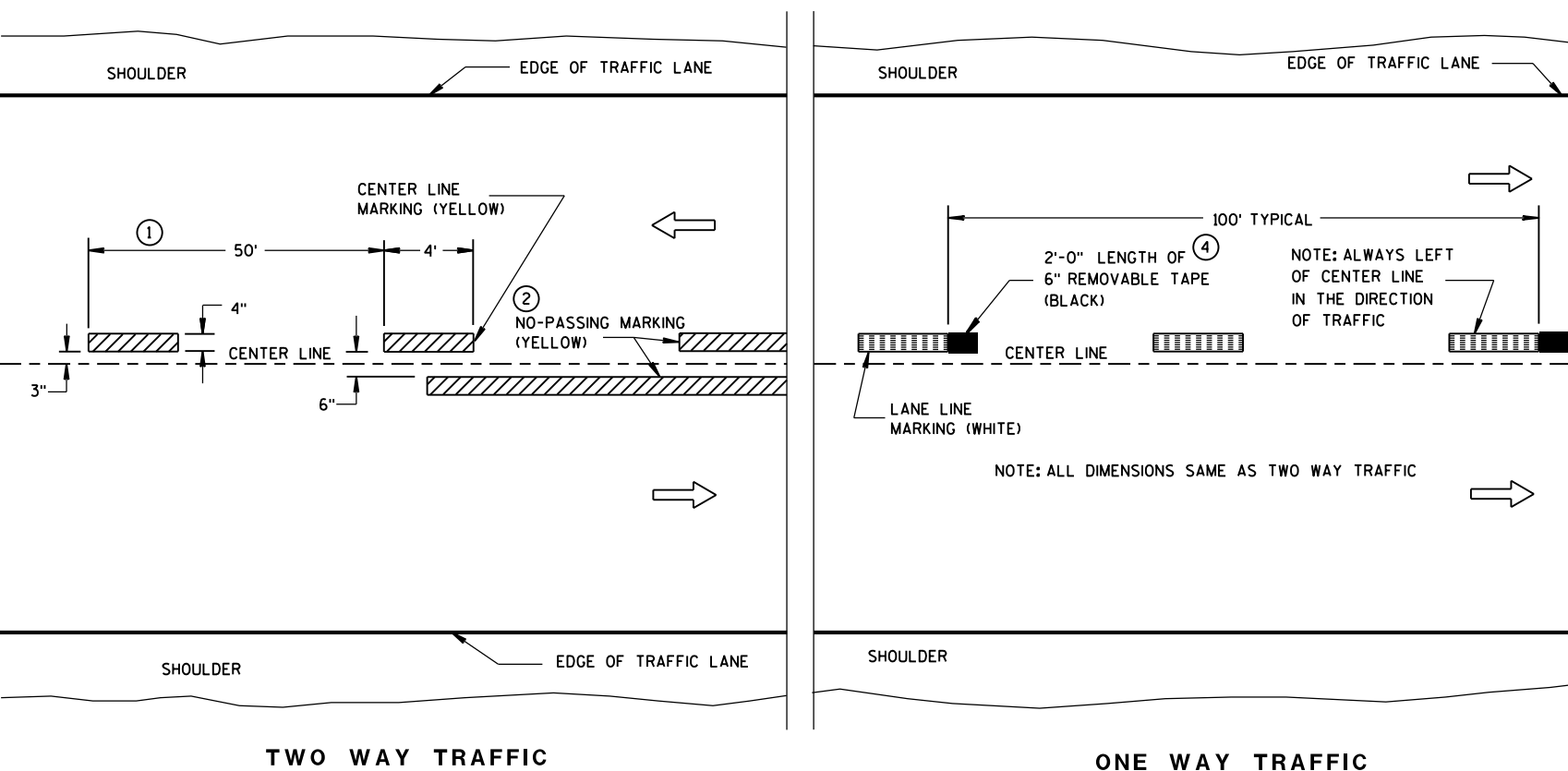
PAVEMENT MARKING SYMBOLS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/1/11 DATE	/S/ Thomas N. Nathan STATE TRAFFIC ENGINEER 134 IGN FHWA

6

S.D.D. 15 C 8-15a



PERMANENT PAVEMENT MARKING



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

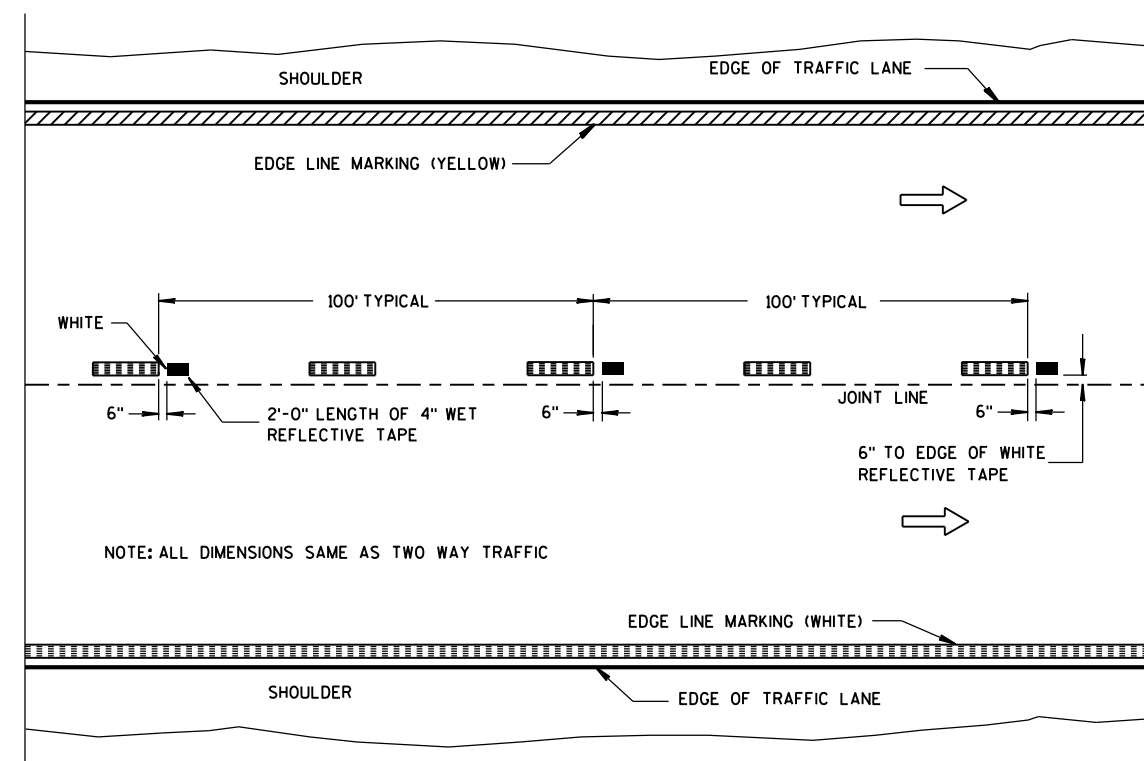
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

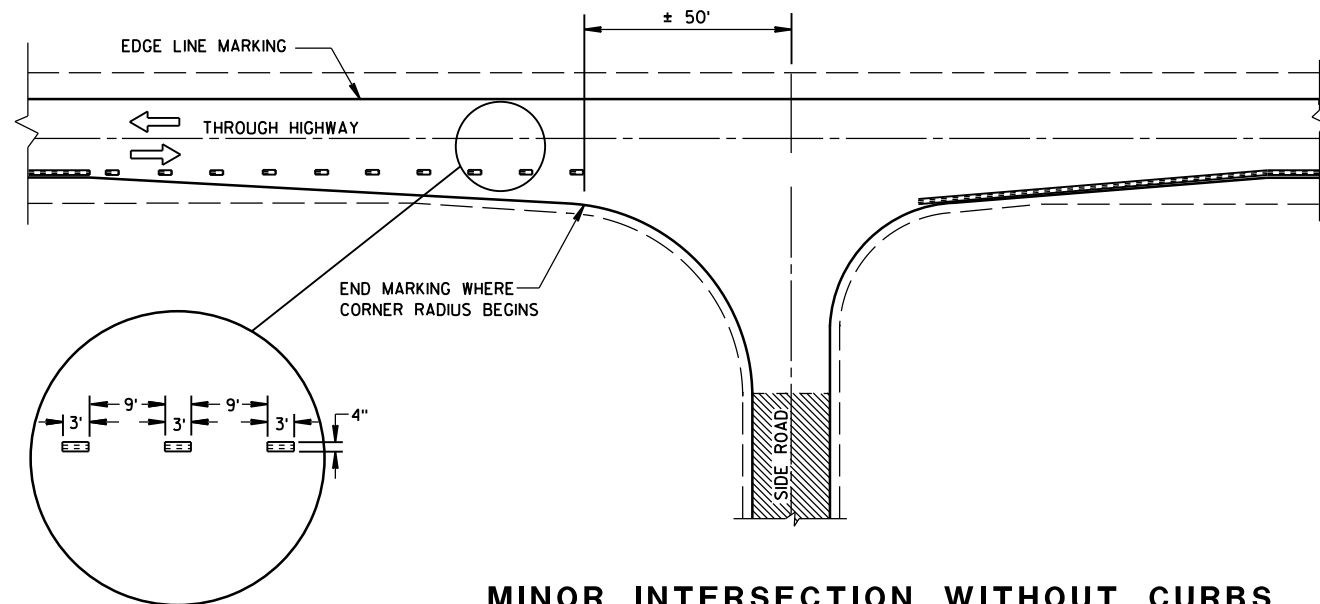
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10-1-2012 DATE	/S/ Travis Fettes STATE TRAFFIC ENGINE 135 SIGN
FHWA	

6

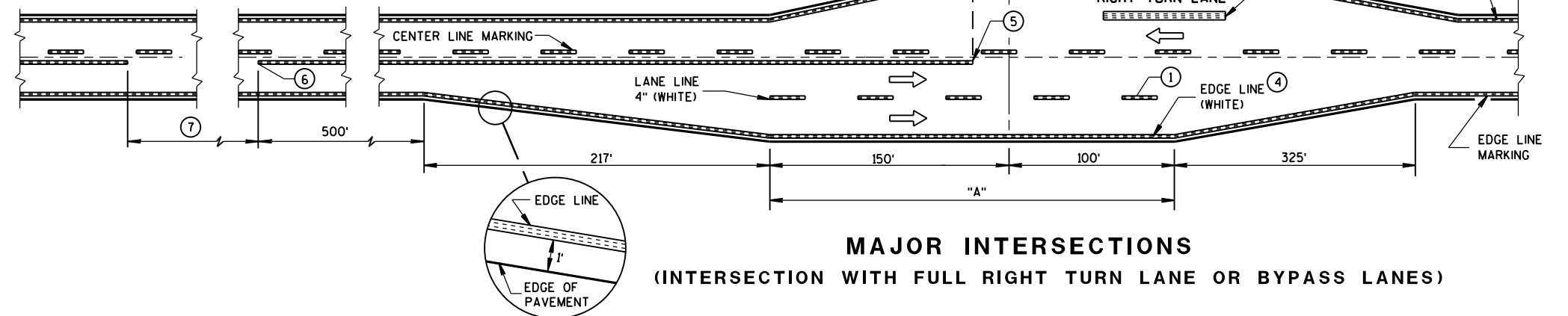
S.D.D. 15 C 8-15a



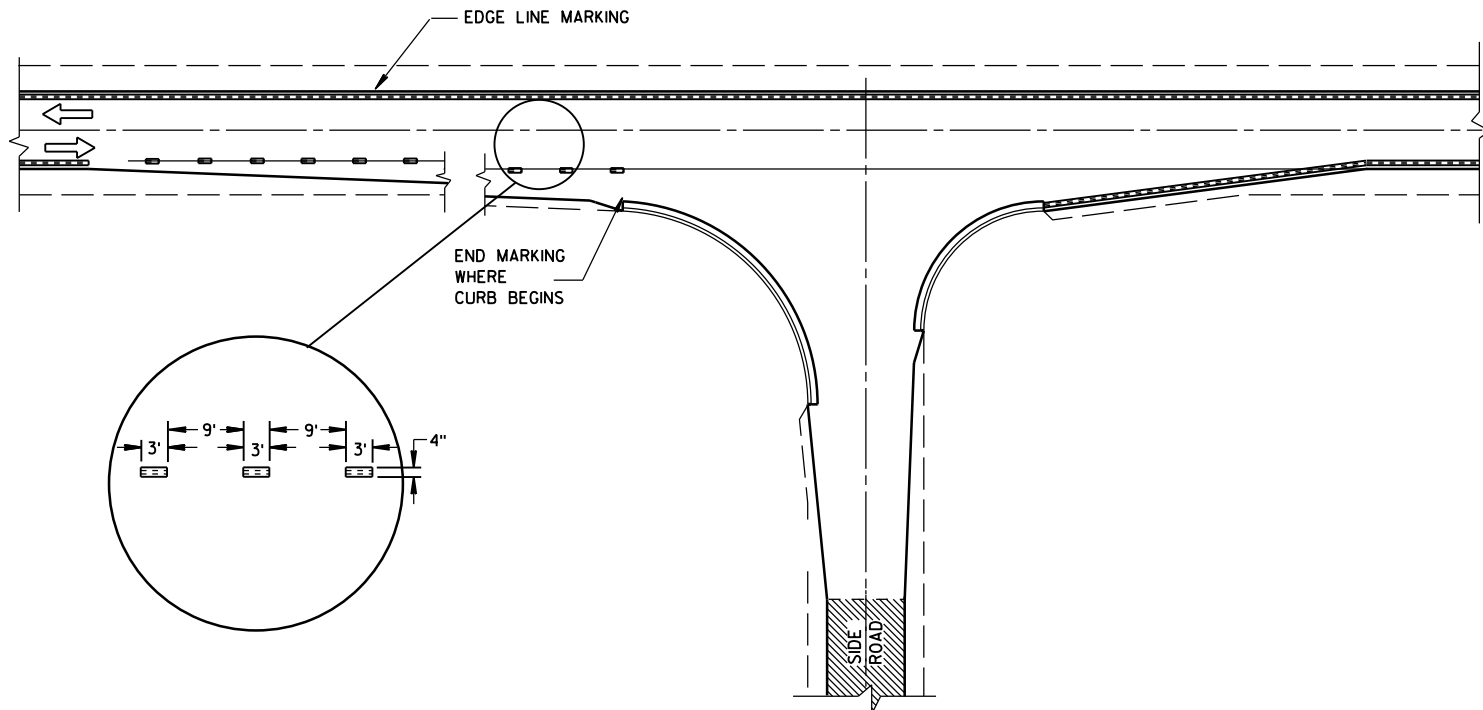
MINOR INTERSECTION WITHOUT CURBS

⑦

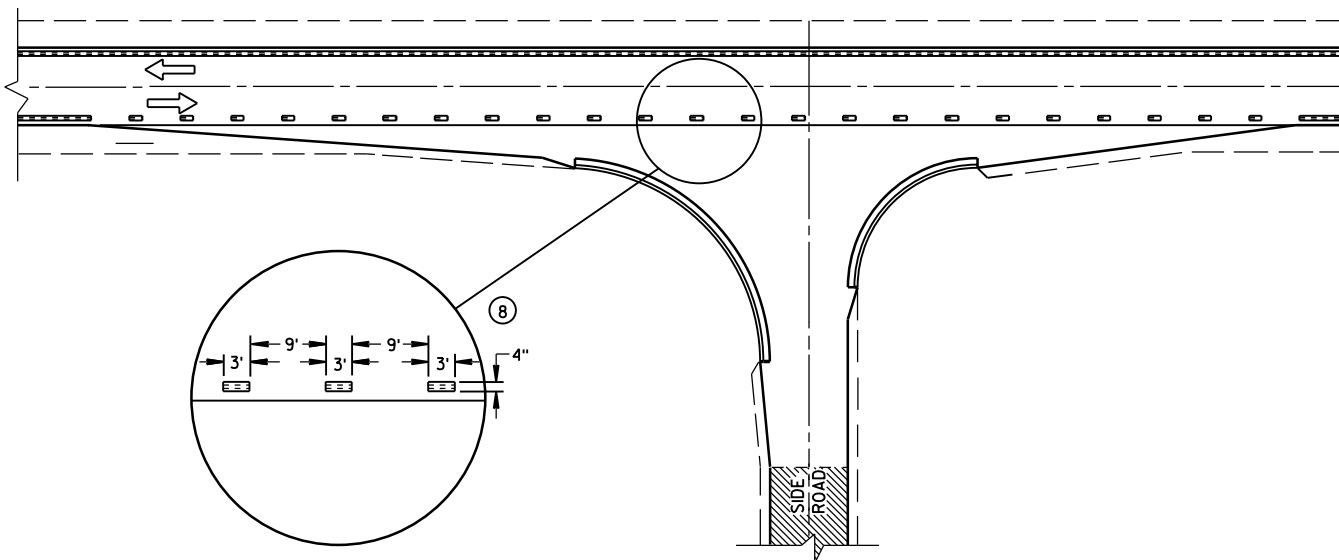
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

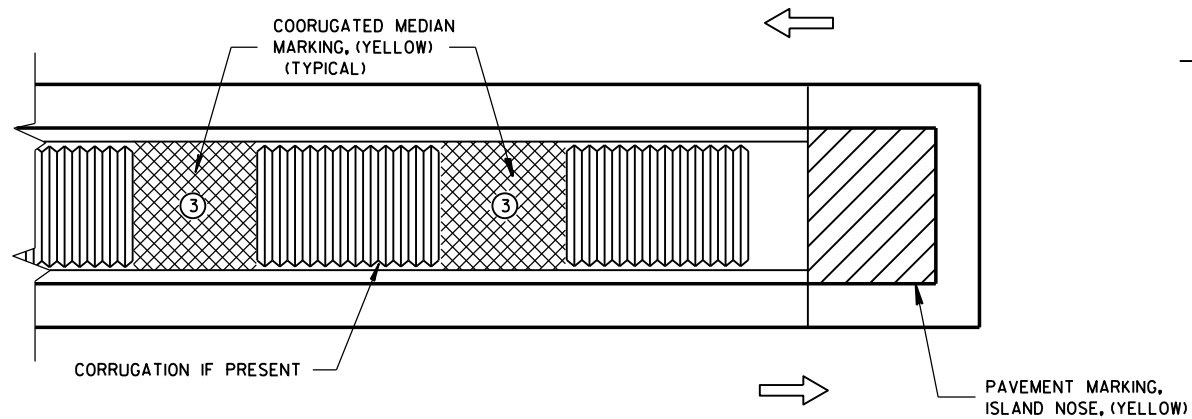
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
- ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

- ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
- ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

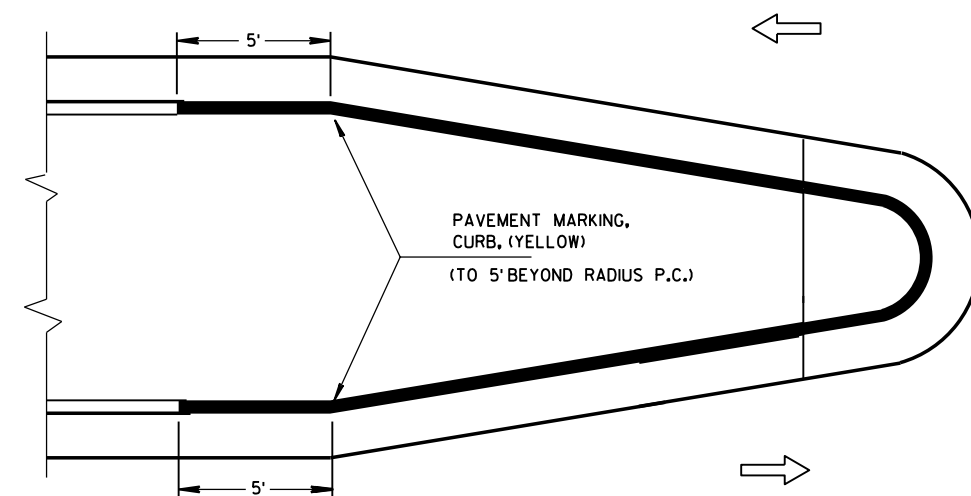
ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

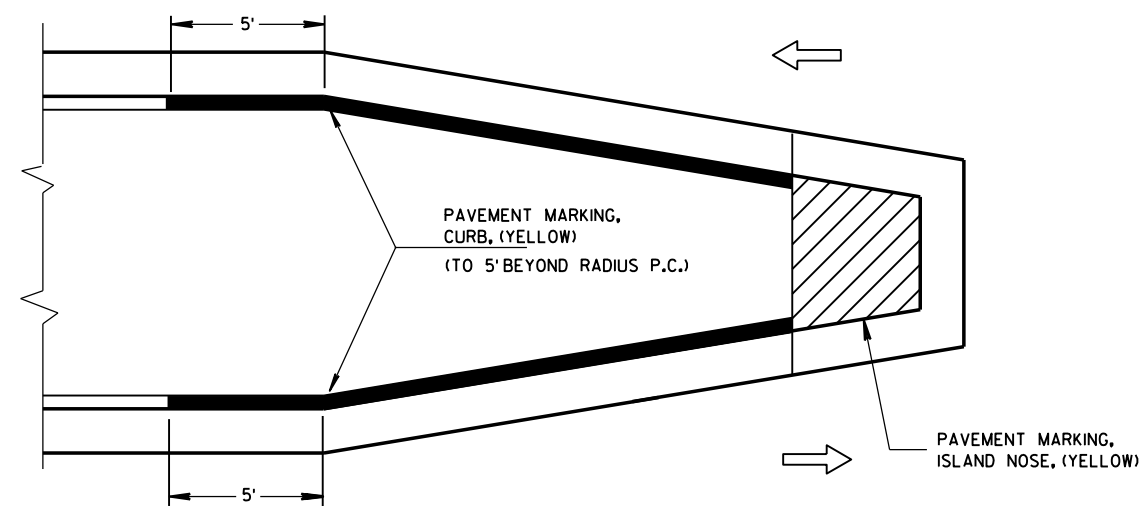
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 136



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

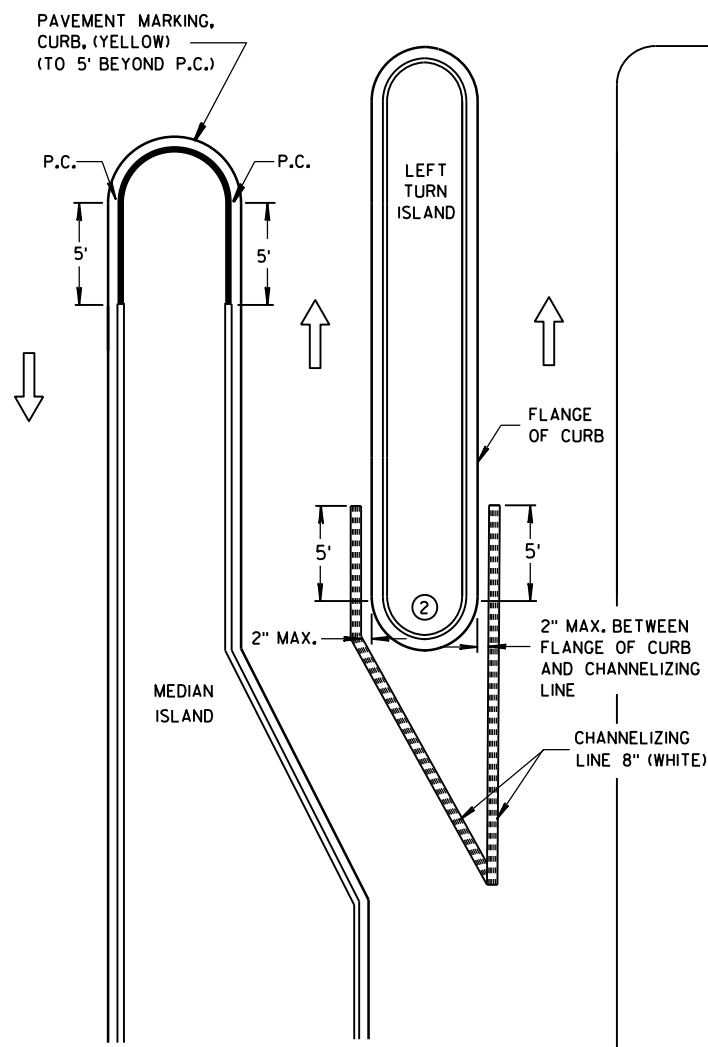


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

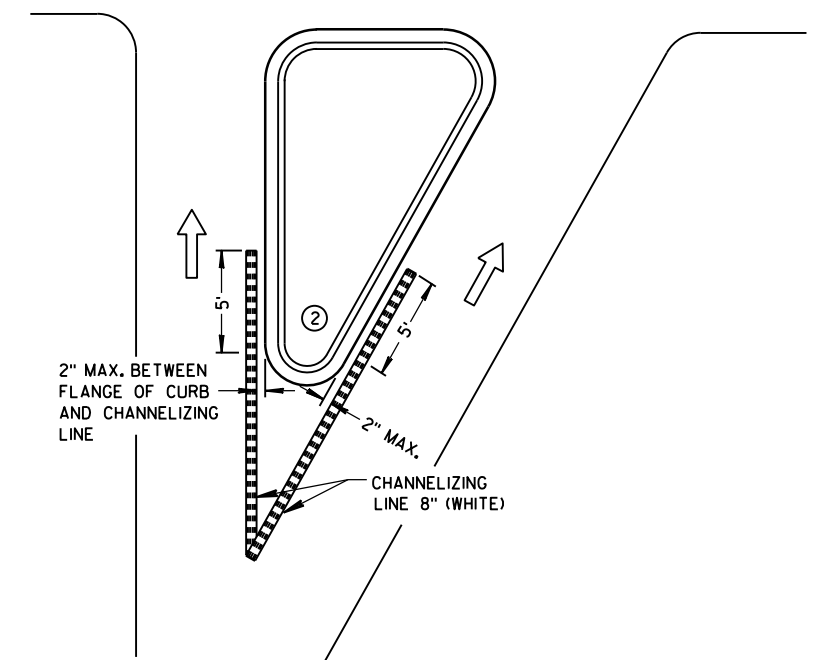
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

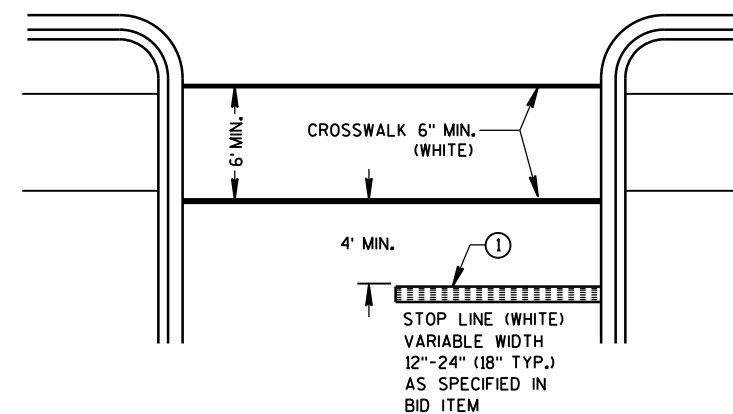
- ① STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- ③ WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN, THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

-  ISLAND NOSE MARKING
-  CURB MARKING
-  CORRUGATED MEDIAN MARKING
-  DIRECTION OF TRAVEL



STOP LINE AND CROSSWALK

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 137

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



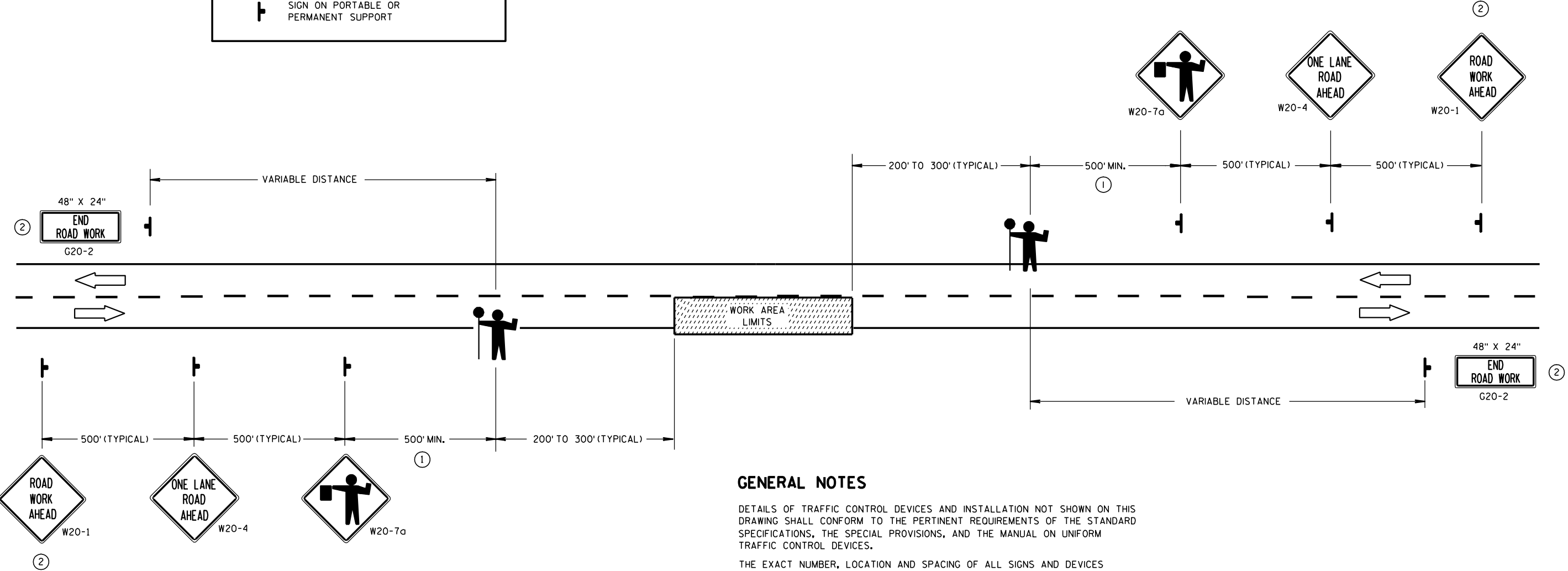
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



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.
- 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.
- 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, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

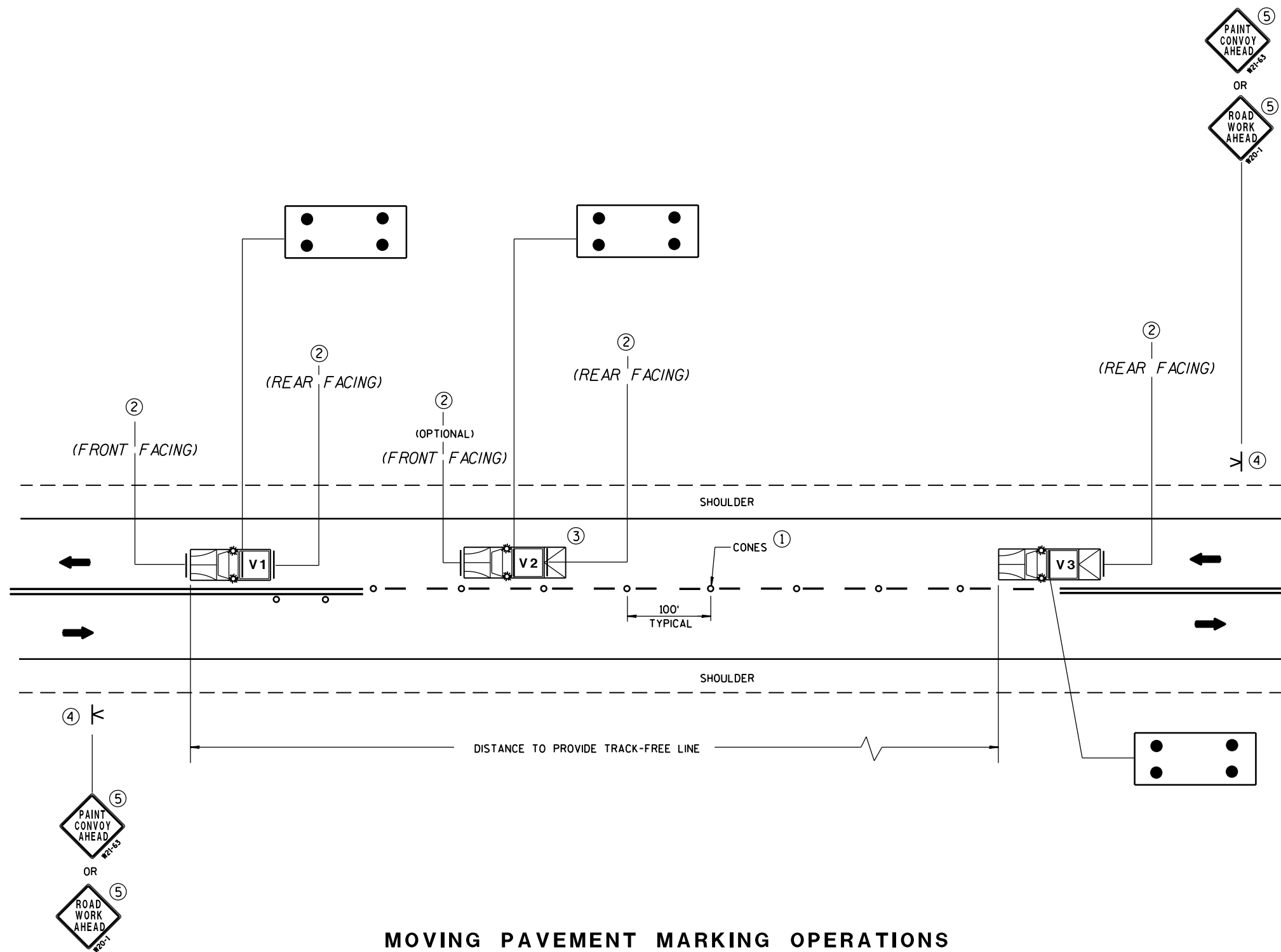
- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Thomas N. Nethehm
9/5/06	DATE
STATE TRAFFIC ENGINE 138	DESIGN

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.

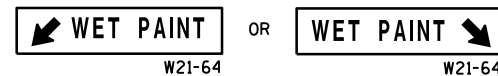
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

K SIGN ON PORTABLE SUPPORT

→ DIRECTION OF TRAVEL

o CONES

⋮ FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

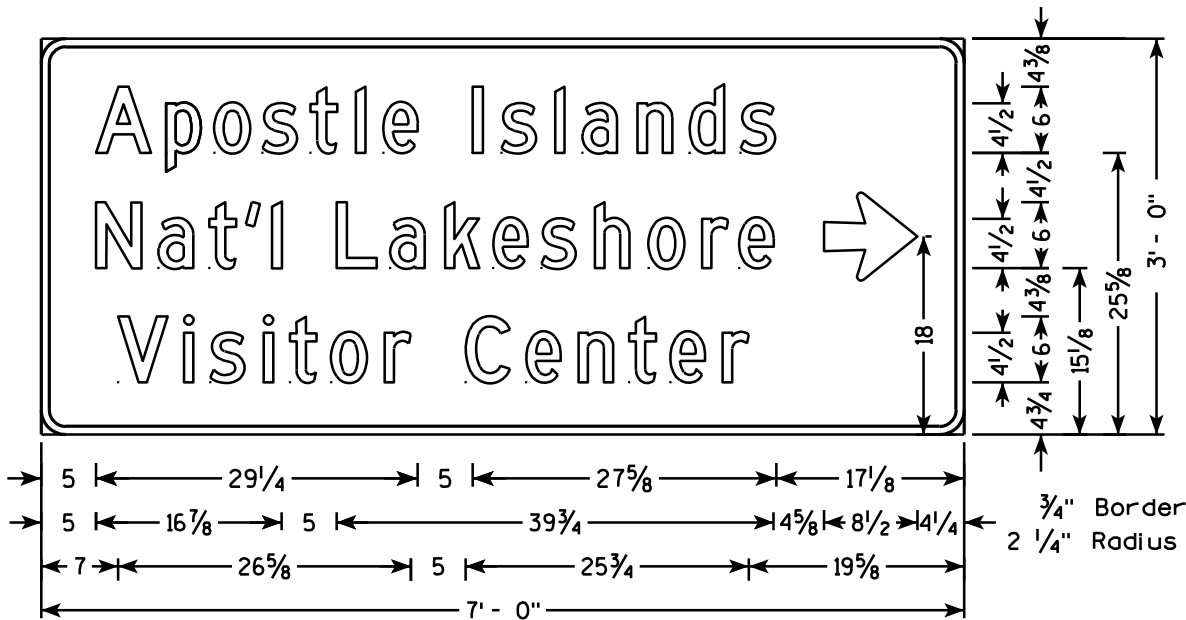
12/6/2011
DATE

/s/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER 139 SIGN

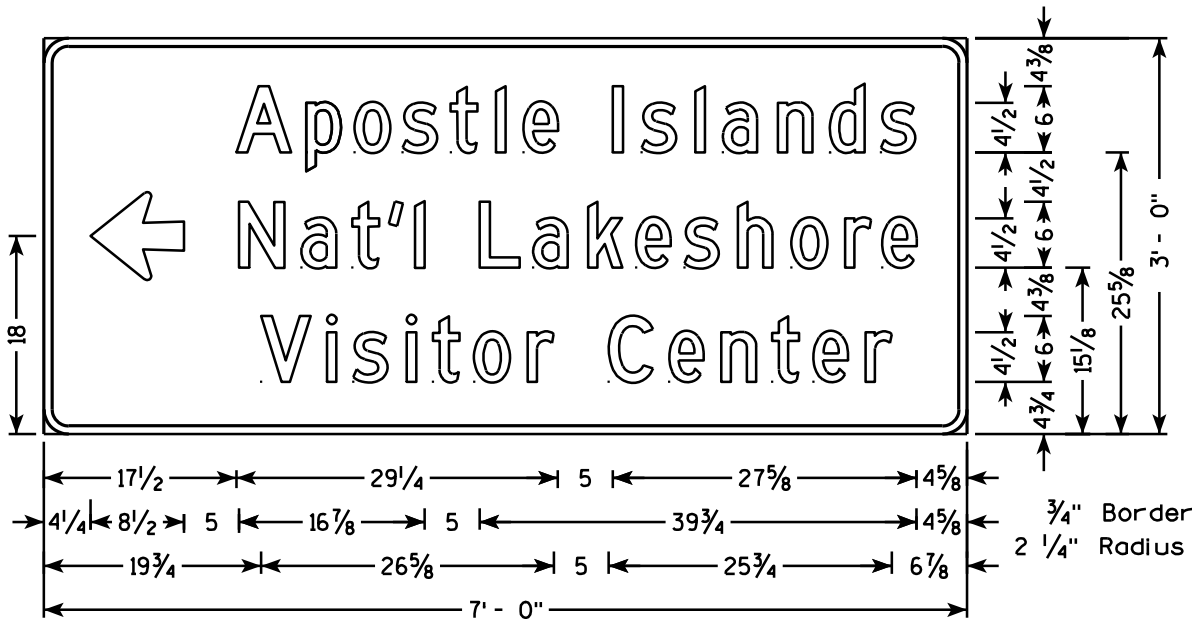
FHWA

NOTES

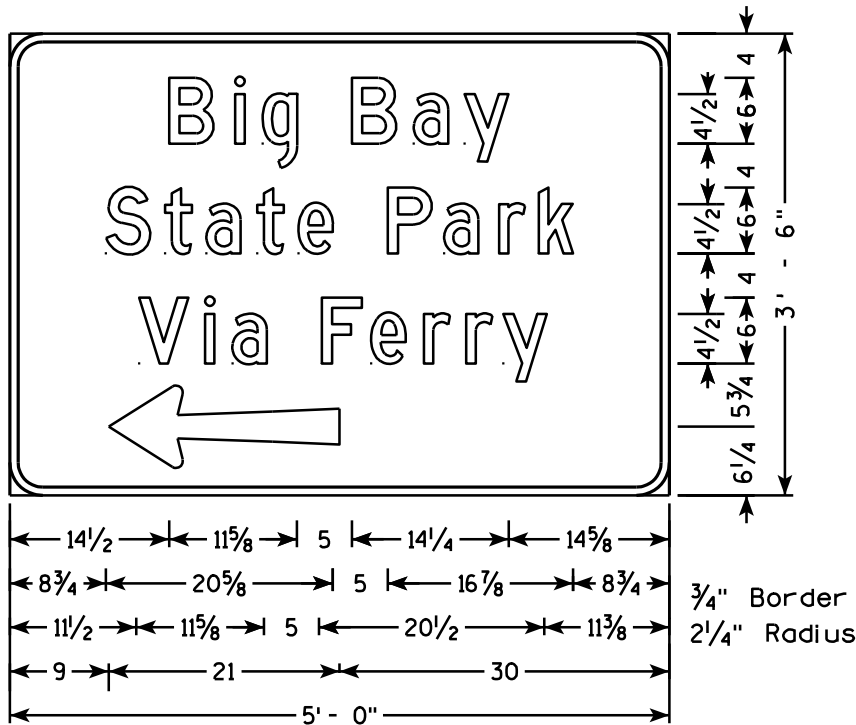
1. All Signs Type II - Type H Reflective - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - BROWN
Message - WHITE
3. Message Series - D



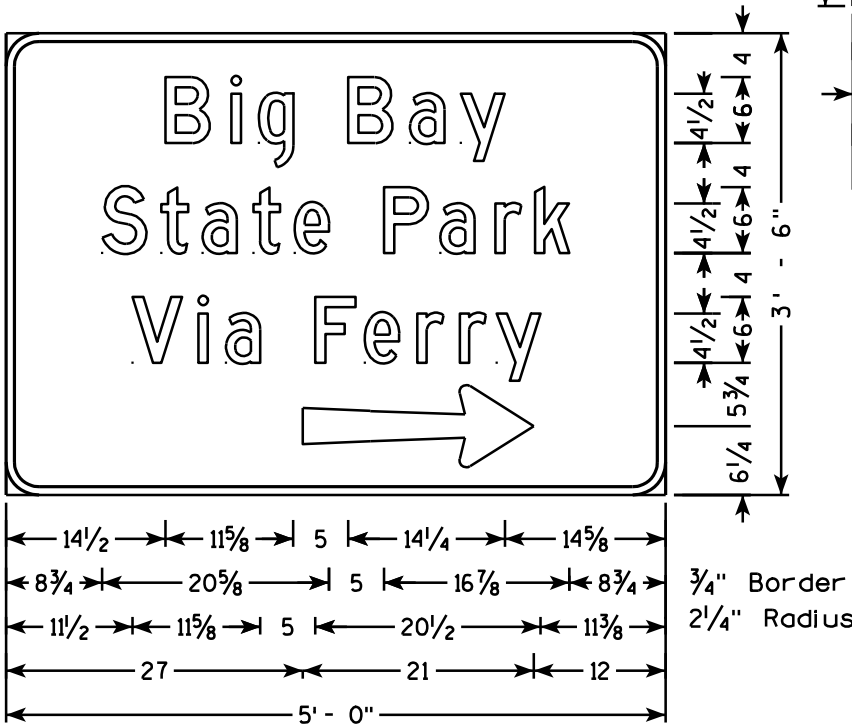
D1-3



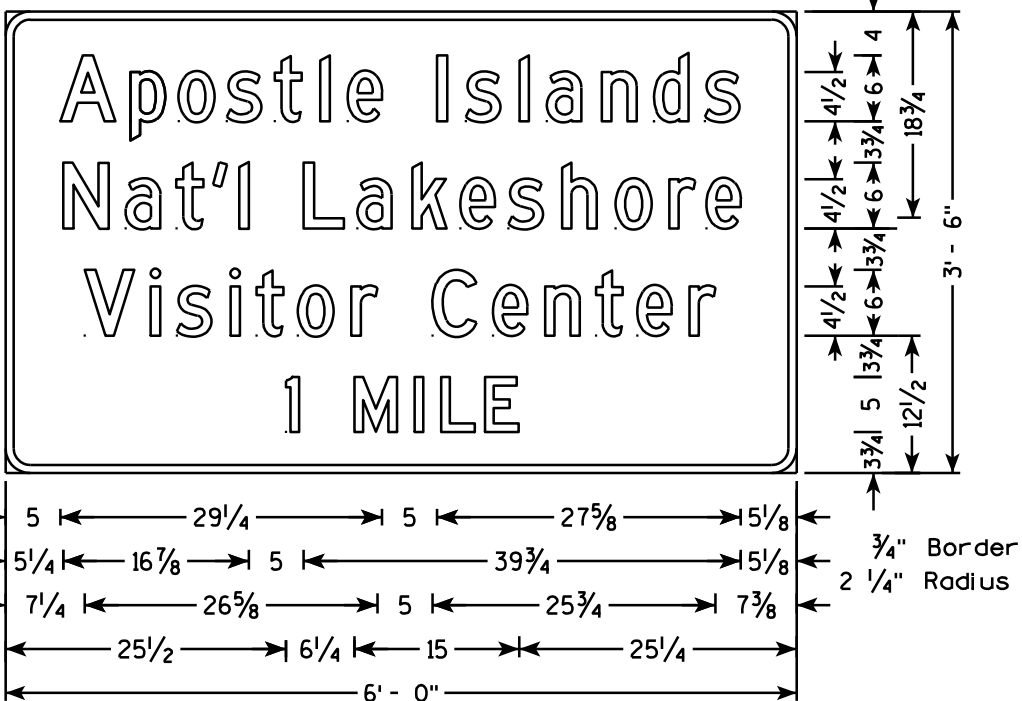
D1-3



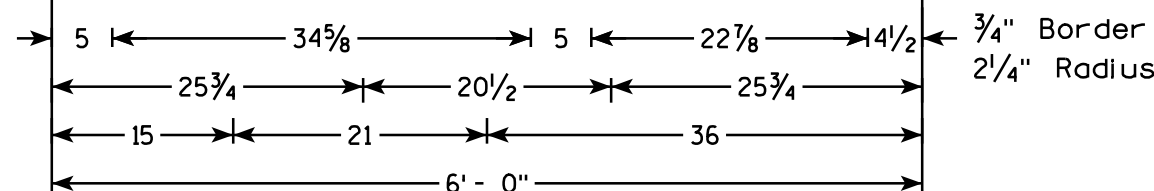
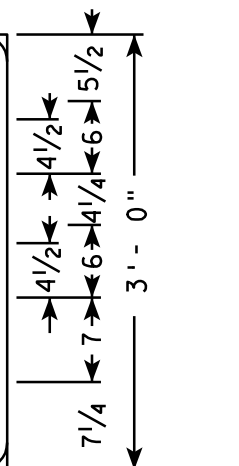
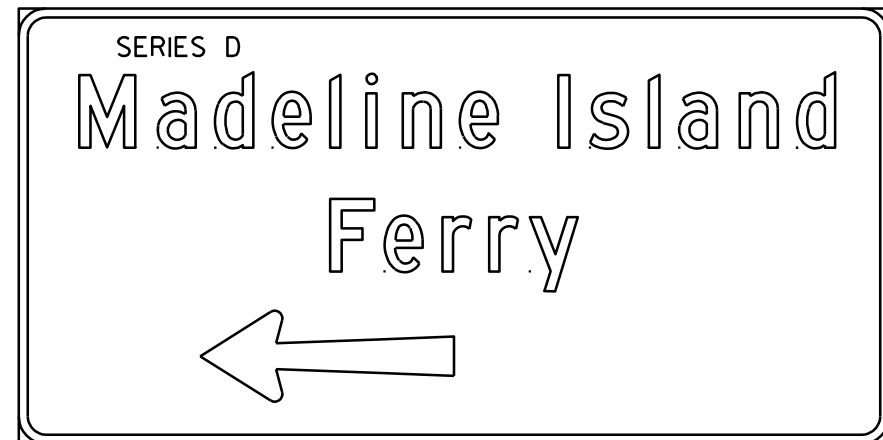
D7-53L(MOD)



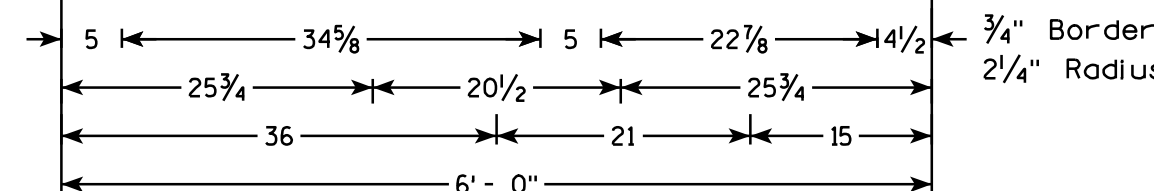
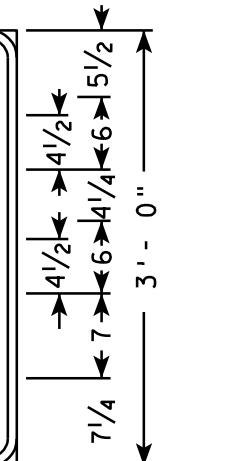
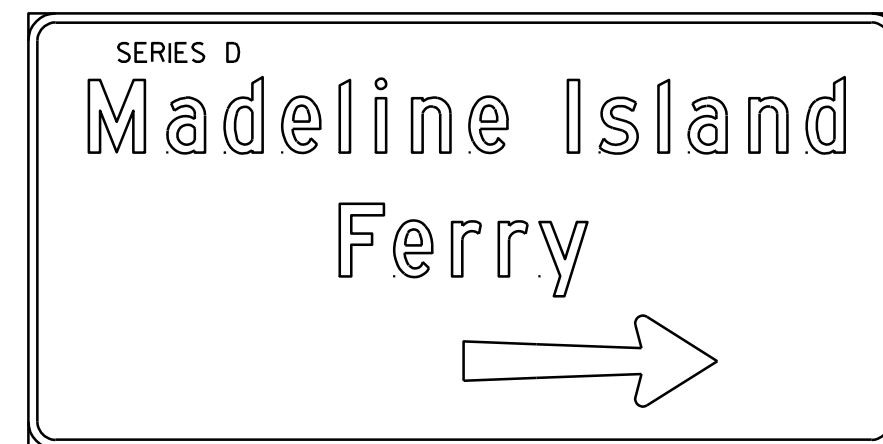
D7-53R(MOD)



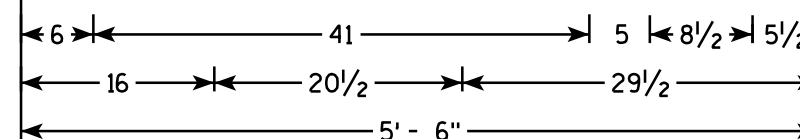
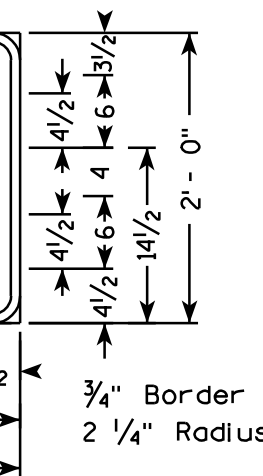
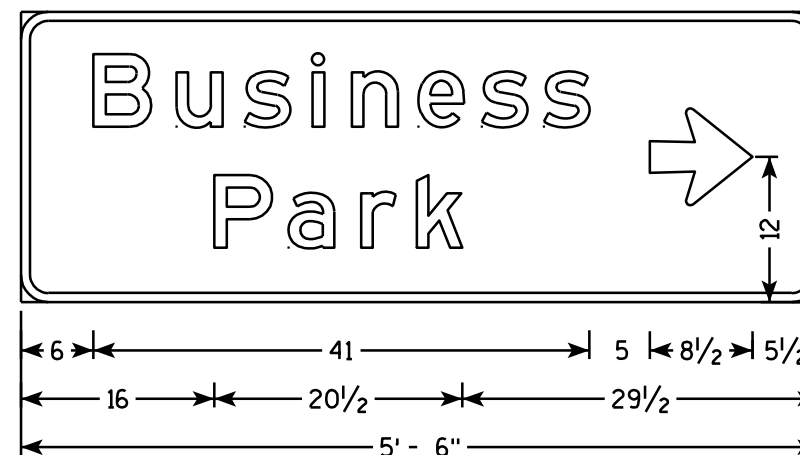
D1-4



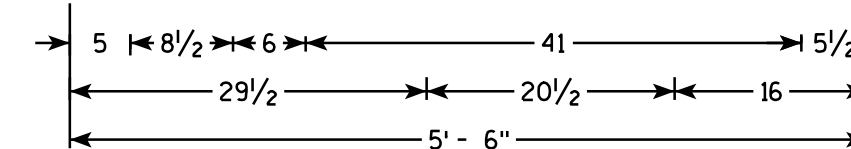
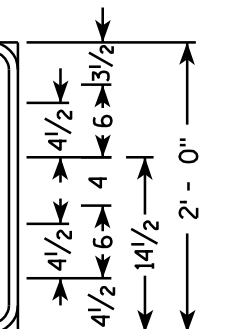
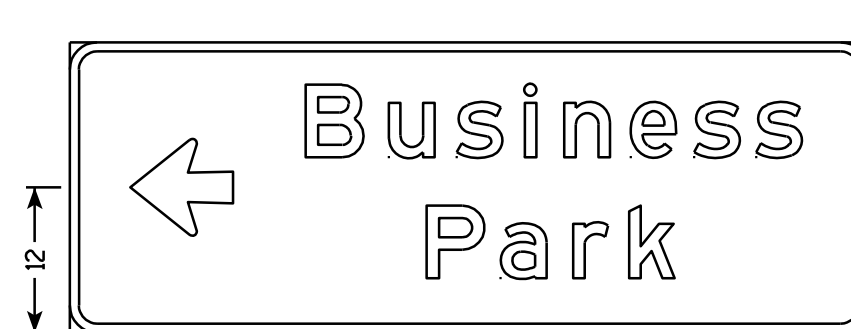
D7-68L(MOD)



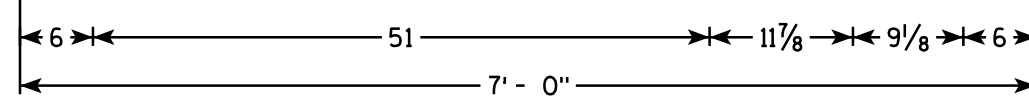
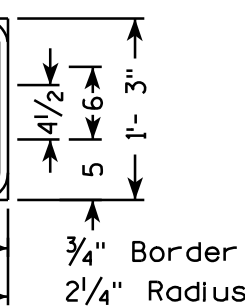
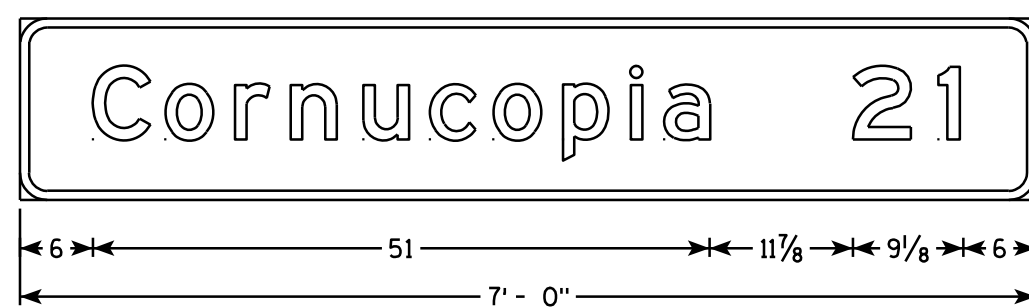
D7-68L(MOD)



D1-2



D1-2



D2-1

NOTES

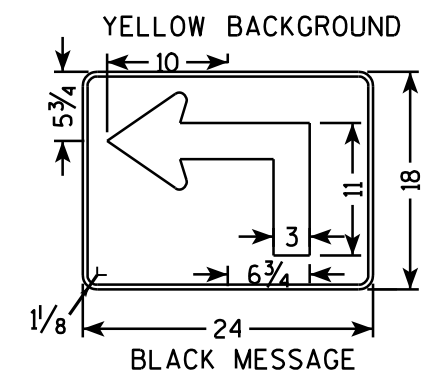
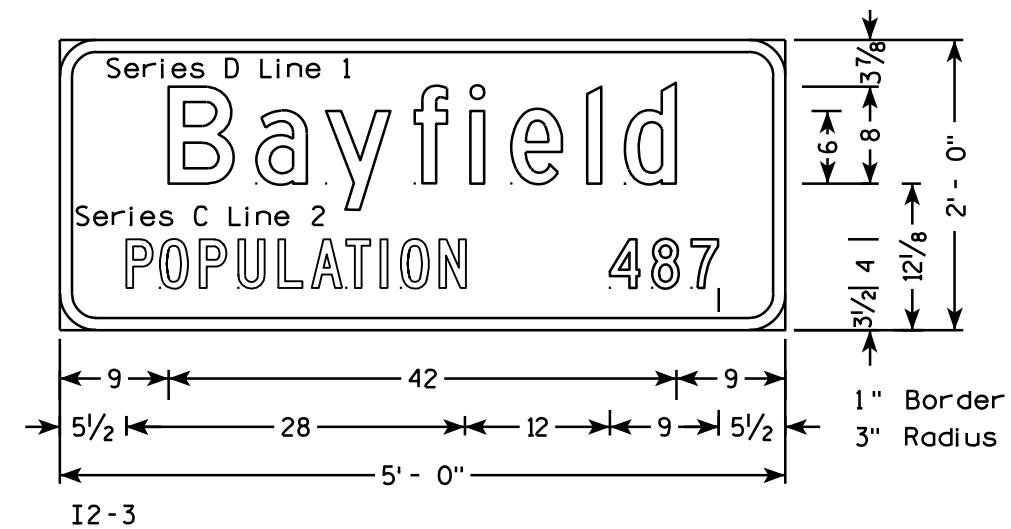
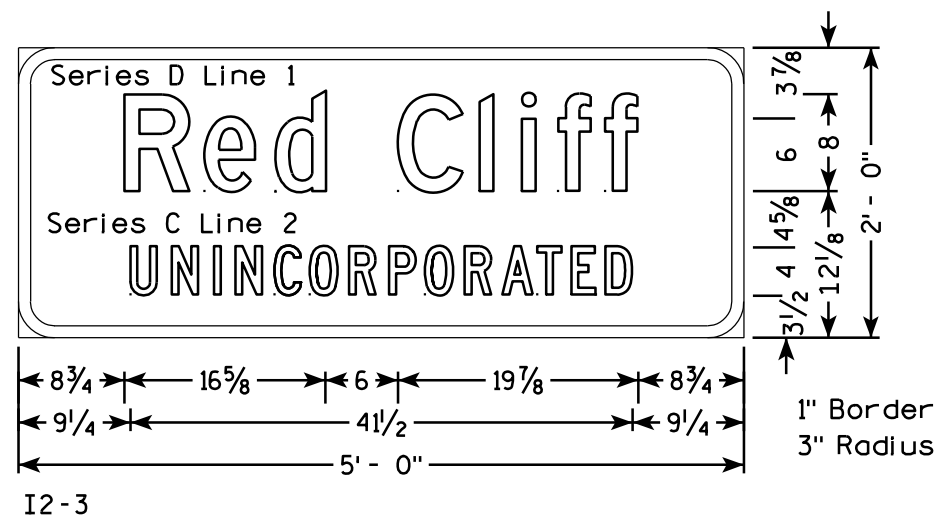
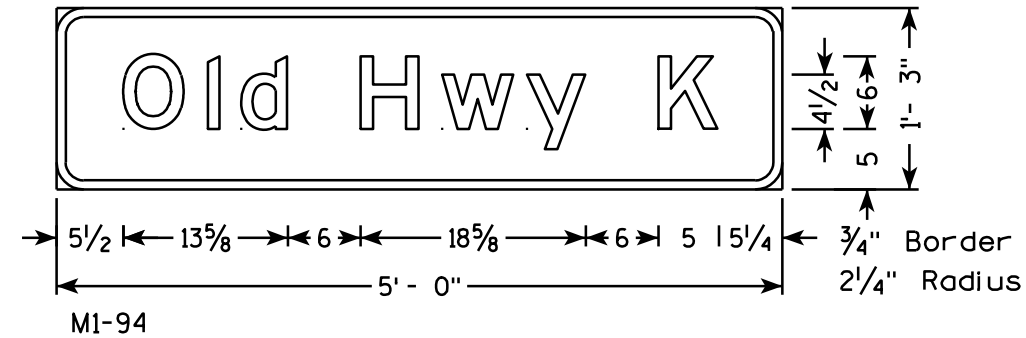
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E except as Shown

7

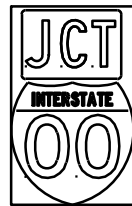
7

NOTES

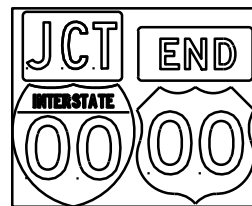
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2. Color:
Background - GREEN except as Shown
Message - WHITE except as Shown
3. Message Series - E except as Shown



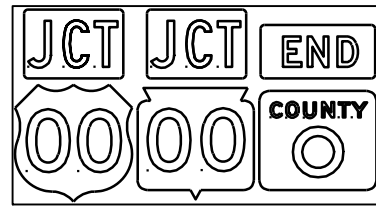
TYPICAL ASSEMBLIES



J1-1



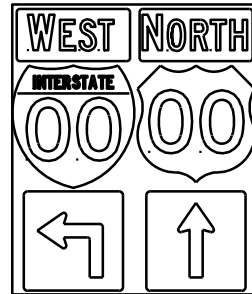
J1-2



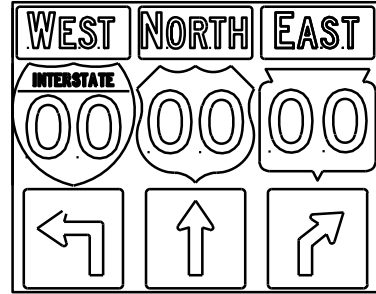
J1-3



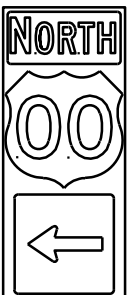
J2-1



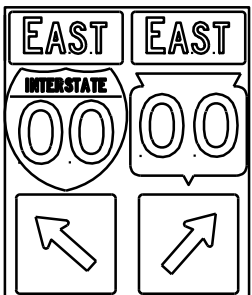
J2-2



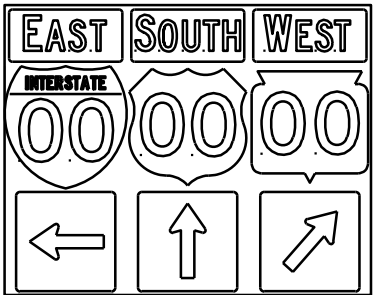
J2-3



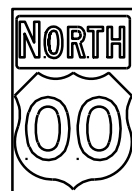
J3-1



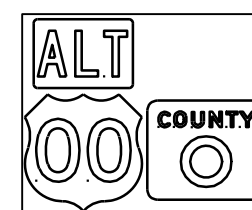
J3-2



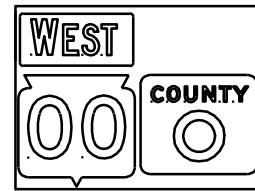
J3-3



J4-1



J4-2

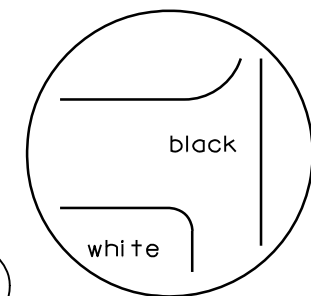
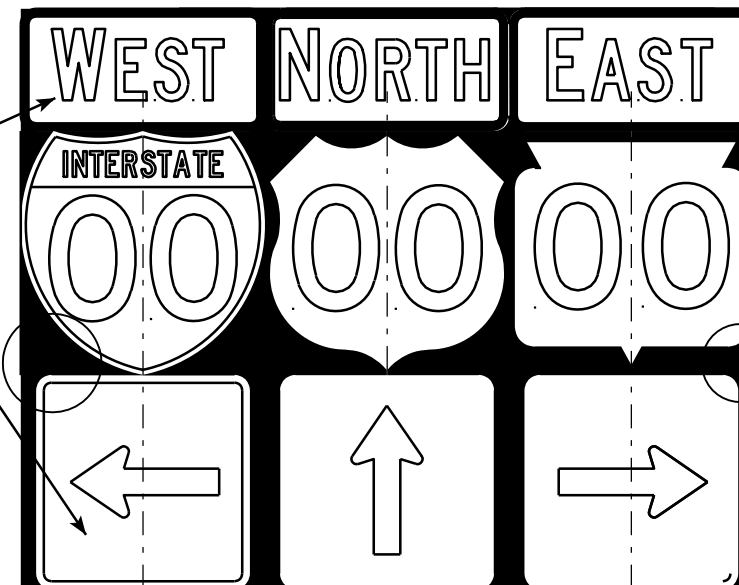
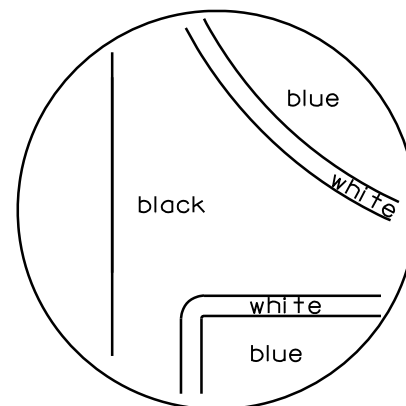


J4-2

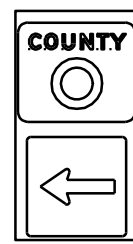


JV

[blue background with interstate]



[black background]



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

NOTES

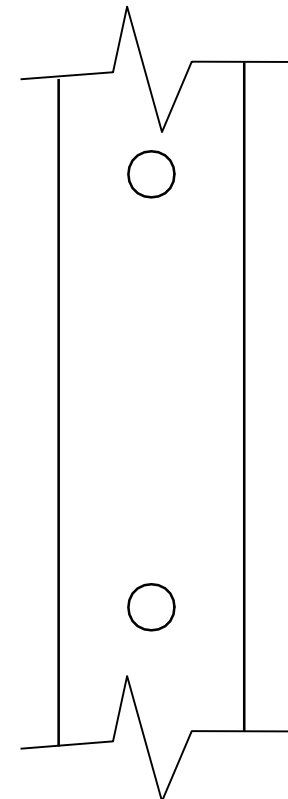
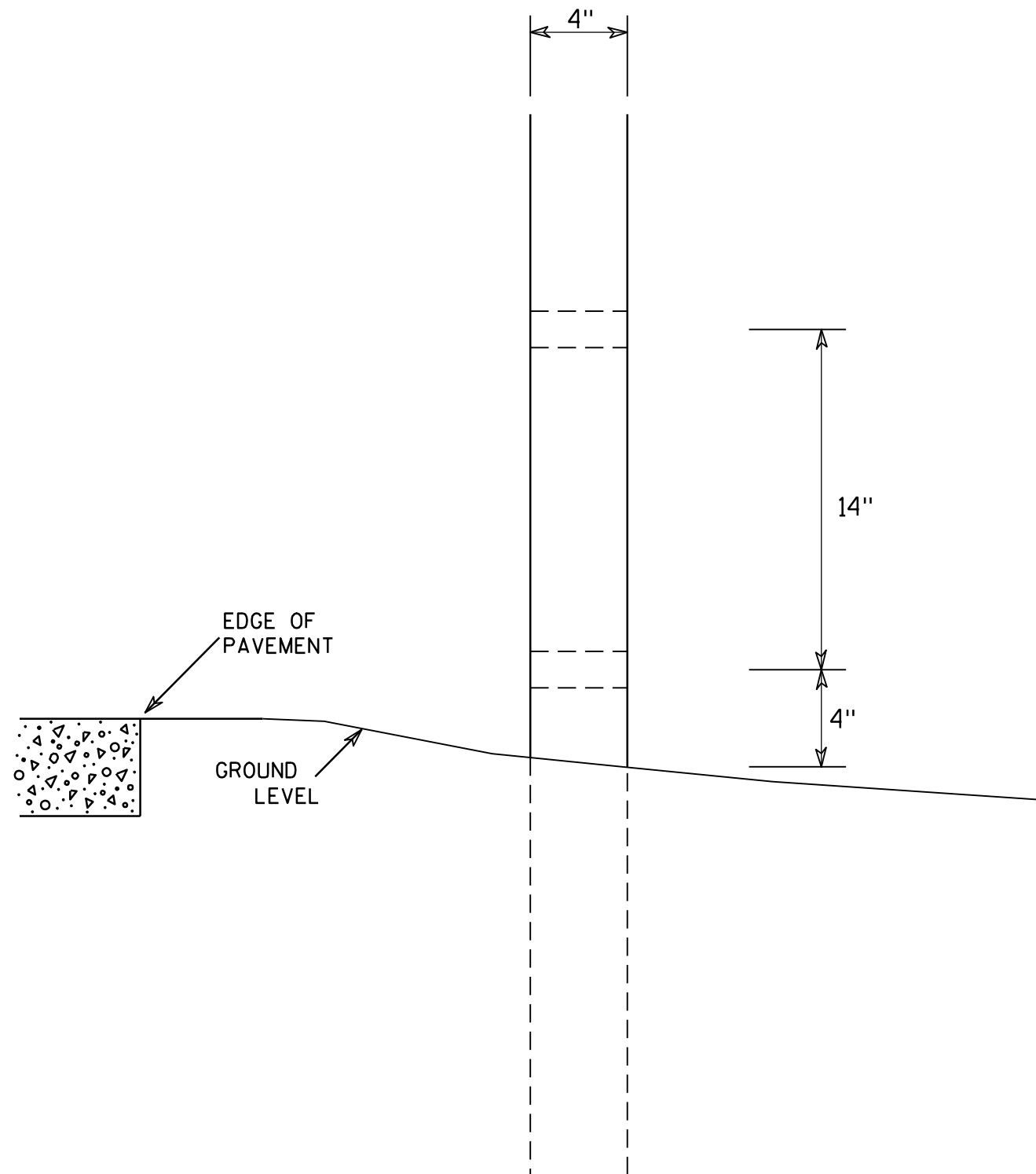
- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square since base material is plywood.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- 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.
- 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.
- 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.
- 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.

ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/21/09	PLATE NO. A2-1S.6

PROJECT NO:

SHEET NO: 143

E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

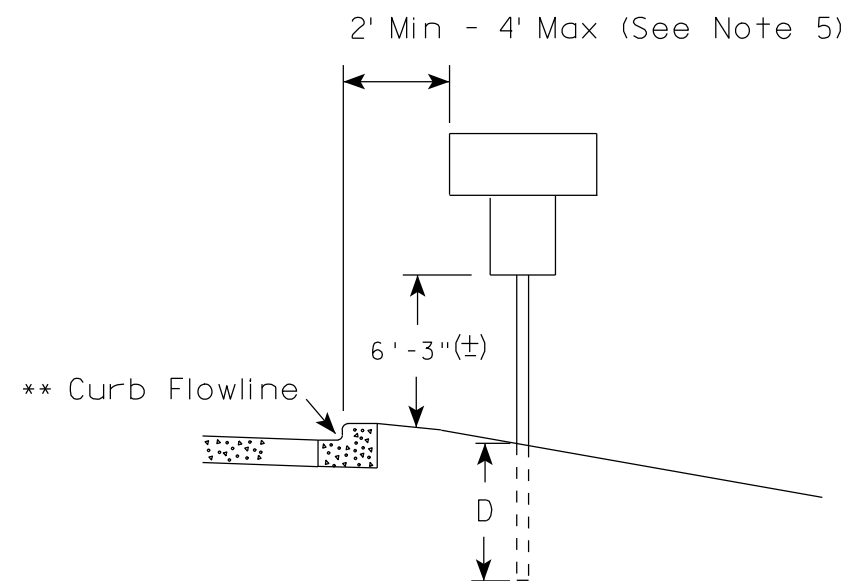
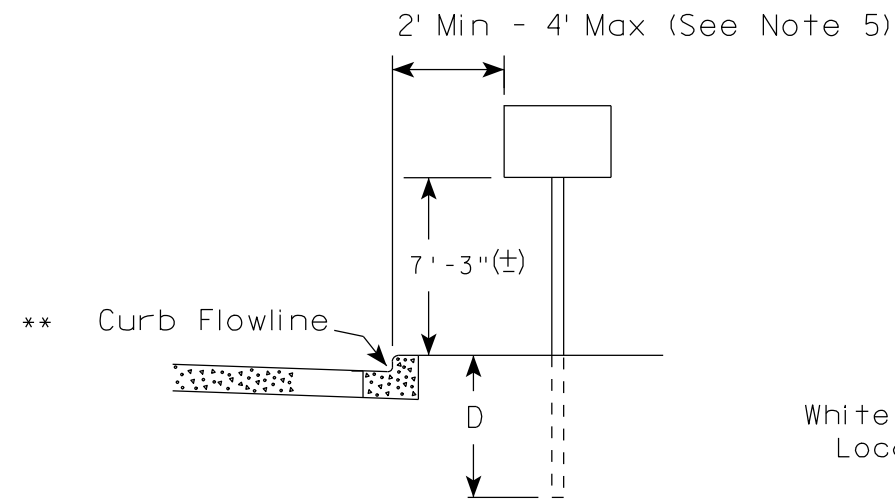
HWY:

COUNTY:

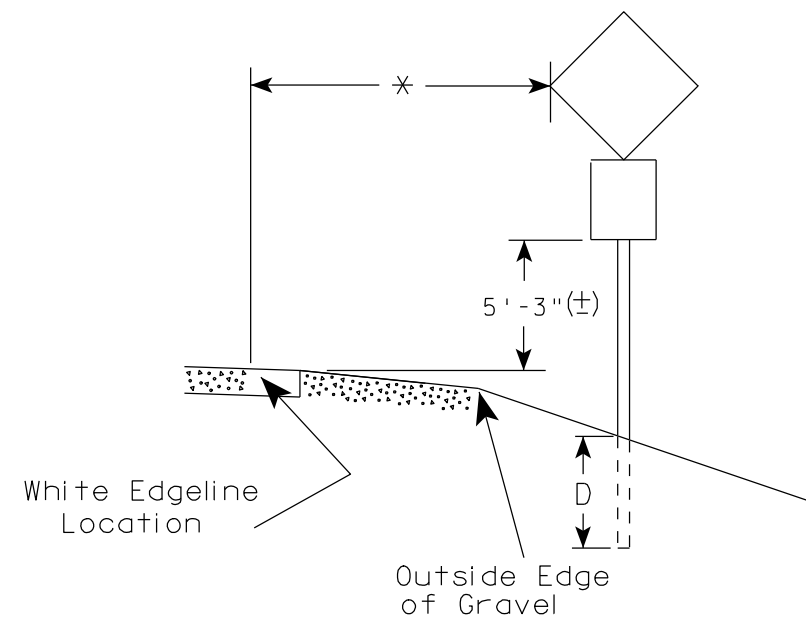
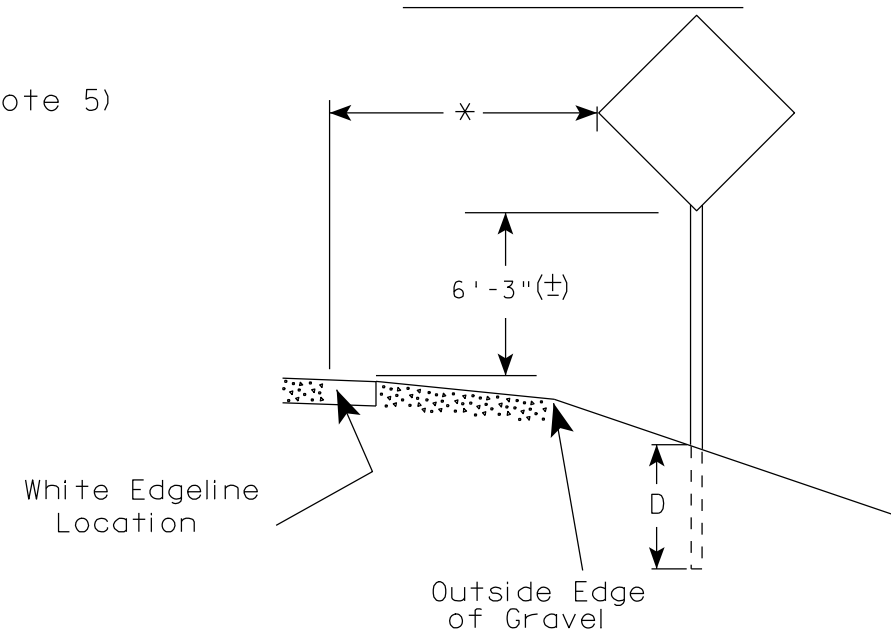
SHEET NO: 144

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 145

E

GENERAL NOTES

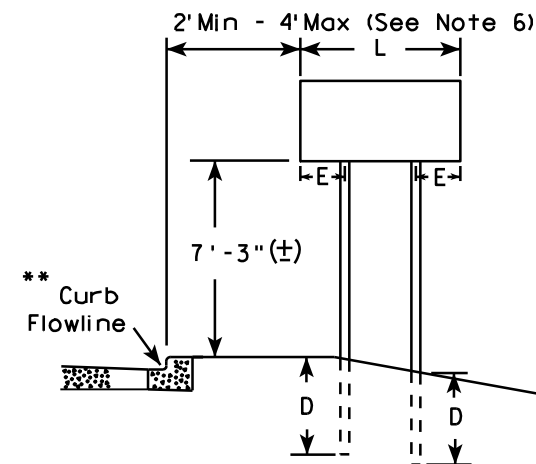
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

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

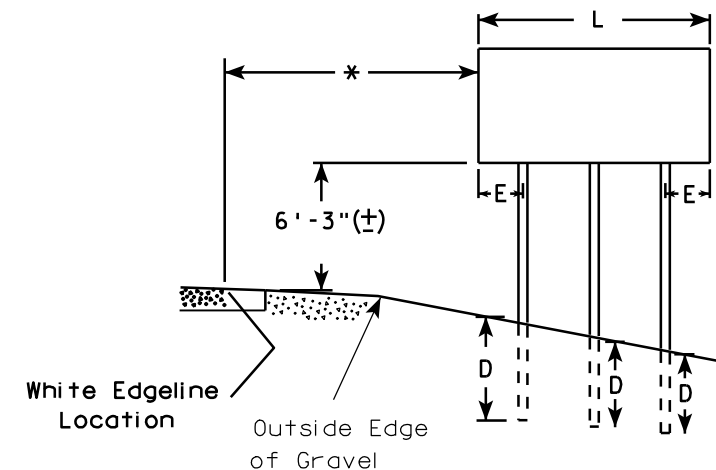
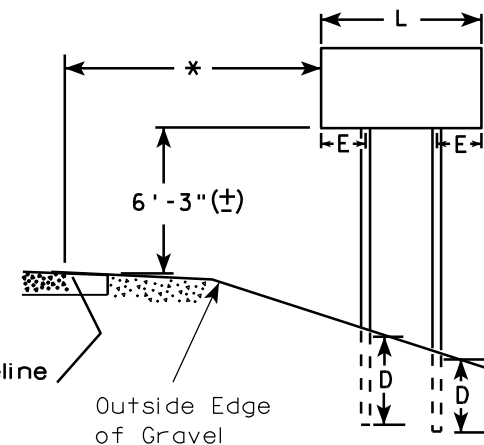
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

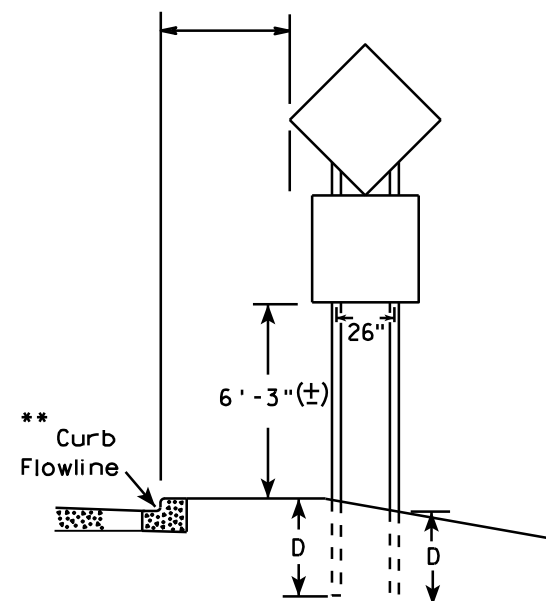
URBAN AREA



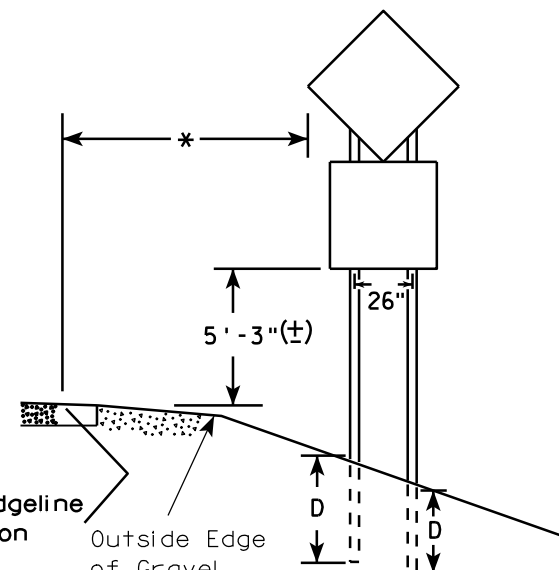
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

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

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

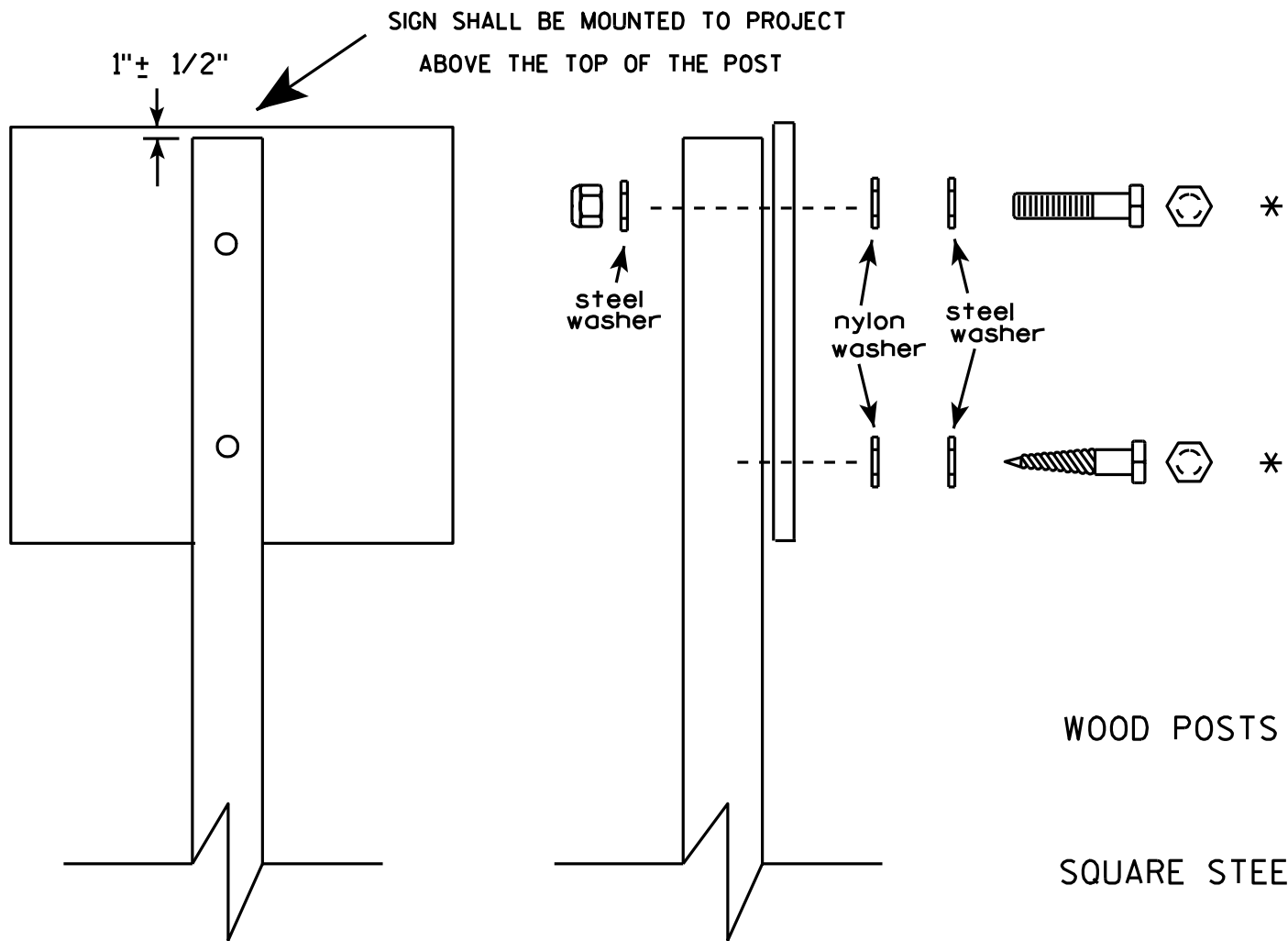
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 146

E

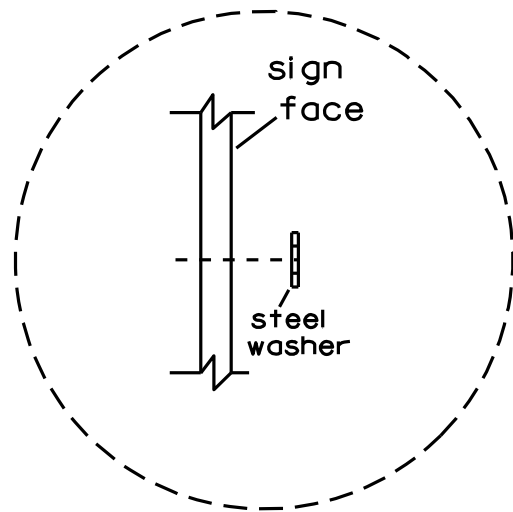


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



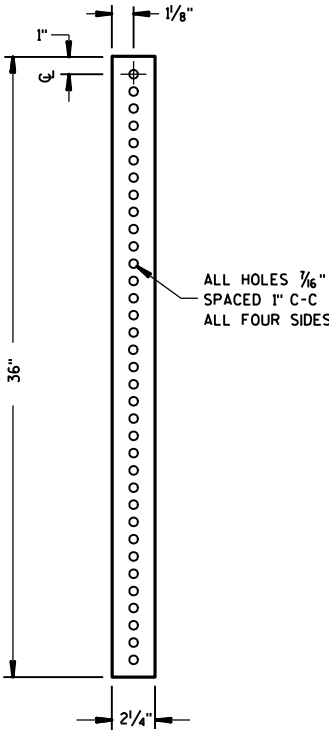
Washer Placement when Sign Has Other Than Type H or Type F Face

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

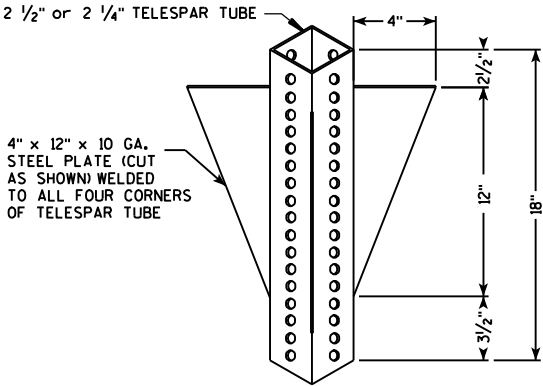
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

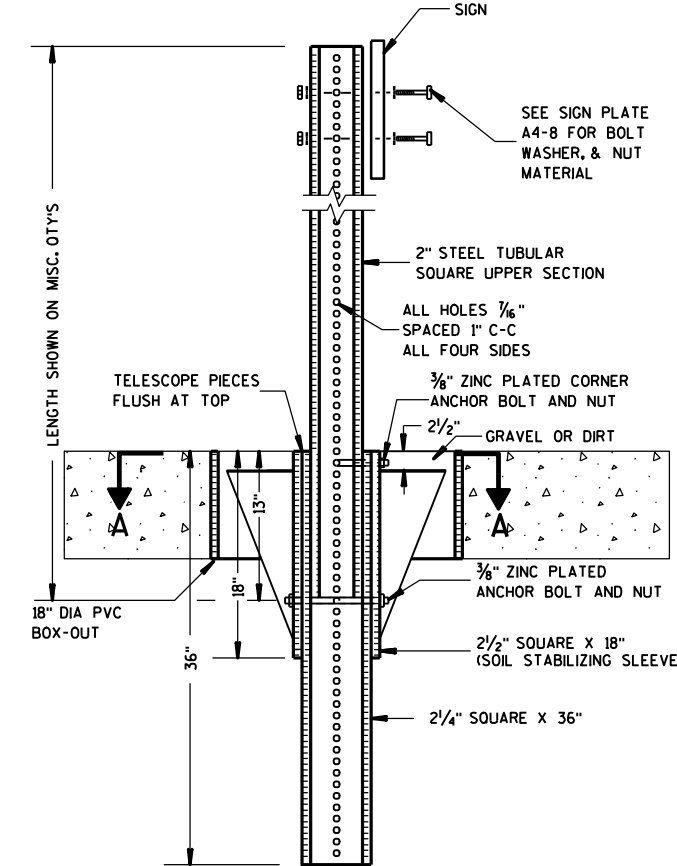
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



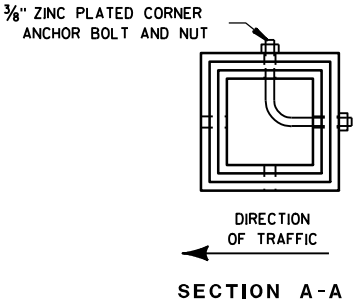
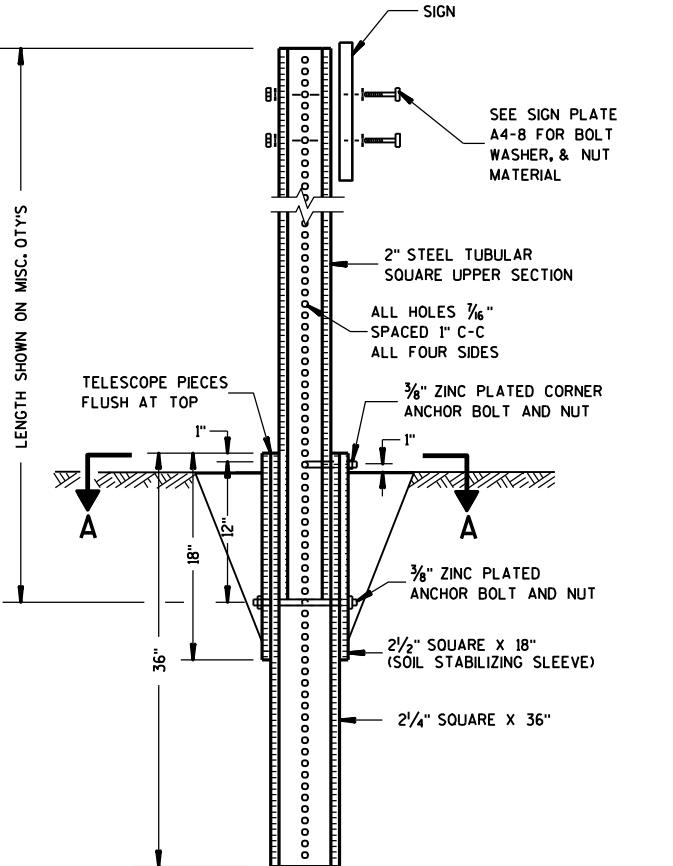
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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

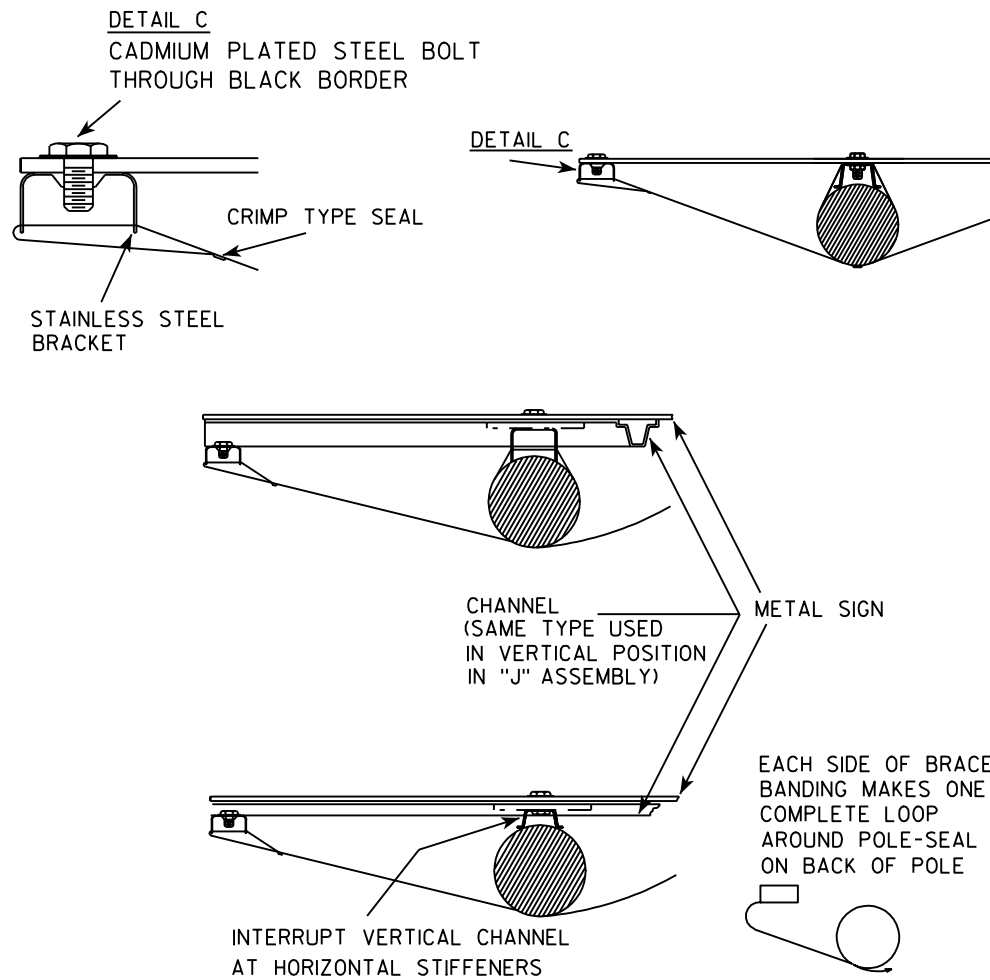


Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

TUBULAR STEEL SIGN POST A4-9	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i>
for State Traffic Engineer	
DATE 5/30/12	PLATE NO. A4-9.7

BRACE BANDING

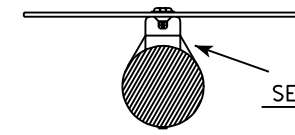
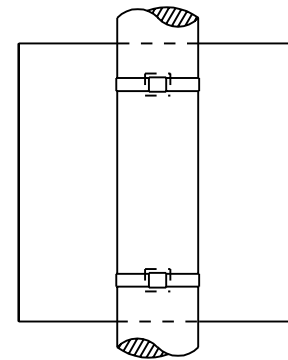


BRACE BANDING

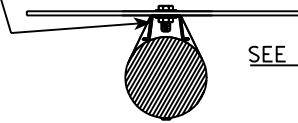
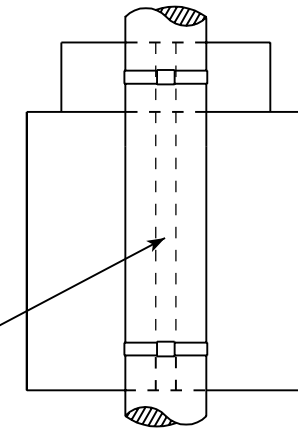
BRACE BANDING SHALL BE TIGHTENED FIRMLY
BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.

BRACKET BANDING

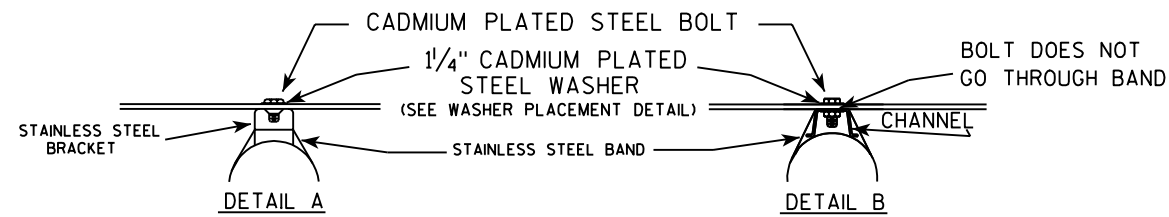
SINGLE SIGN



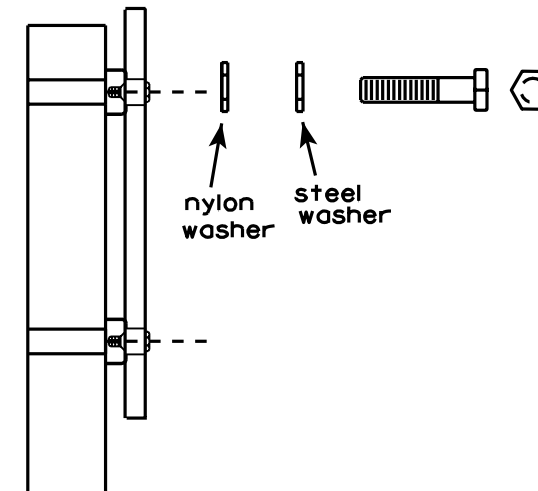
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



WASHERS (ALL POSTS) -

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

GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

STANDARD SIGN SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

PROJECT NO:

HWY:

COUNTY:

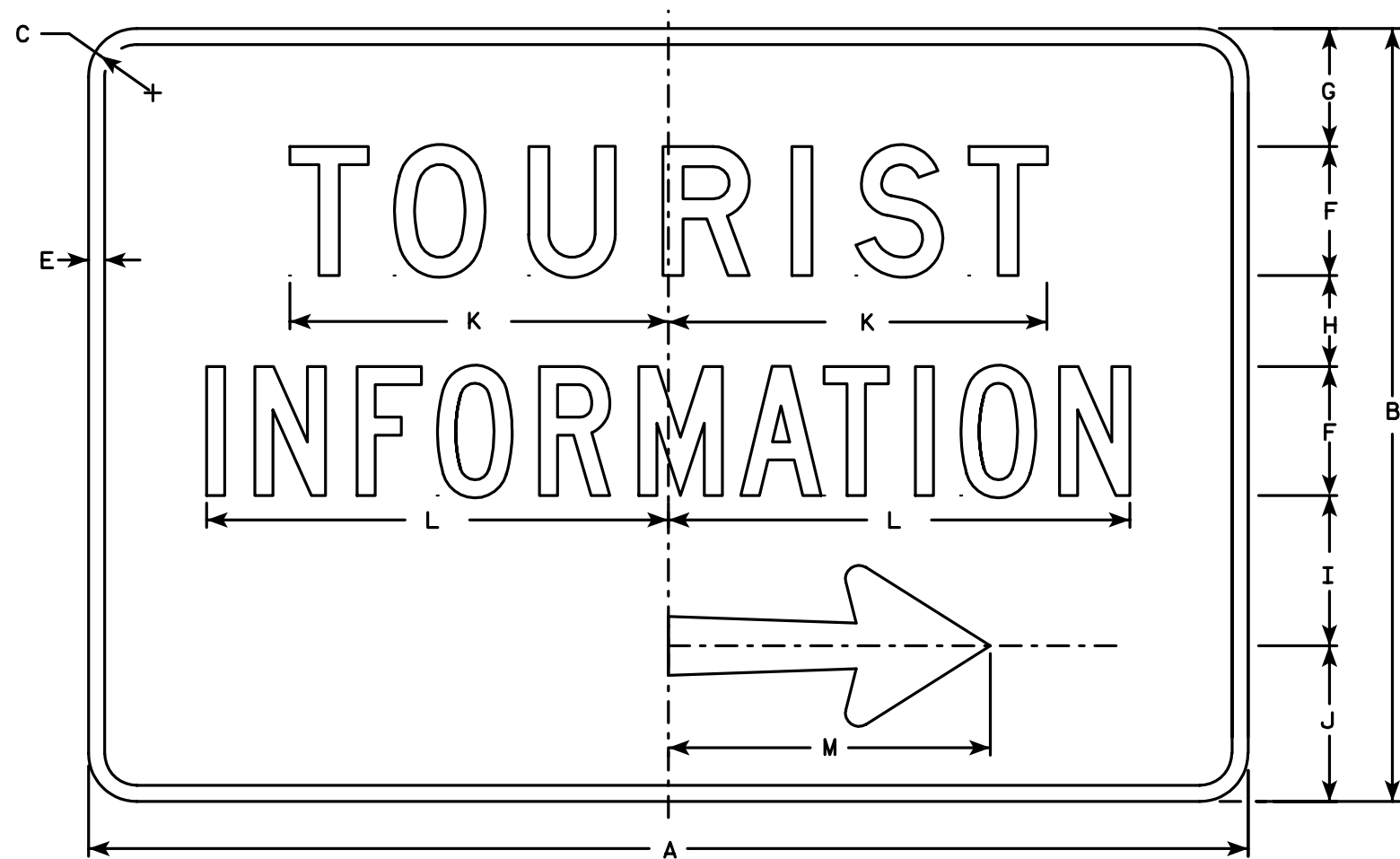
SHEET NO: 149

E

58, 59, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6, 10.



D7-59R

Metric equivalent for this sign is:

SIZE	
1	
2	1350 mm X 900 mm
3	
4	
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.	Area sq. m.
1																												
2	54	36	2 1/4		3/4	6	5 1/2	4 1/4	7	7 1/4	17 5/8	21 1/2	15	2 3/4	1/8	2 1/8	6 1/8	5/8	3 1/8								13.5	1.22
3																												
4																												
5																												

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_std\late\D759.DGN

PLOT DATE : 22-JAN-2002 08:12

ORG DATE : 5/21/97

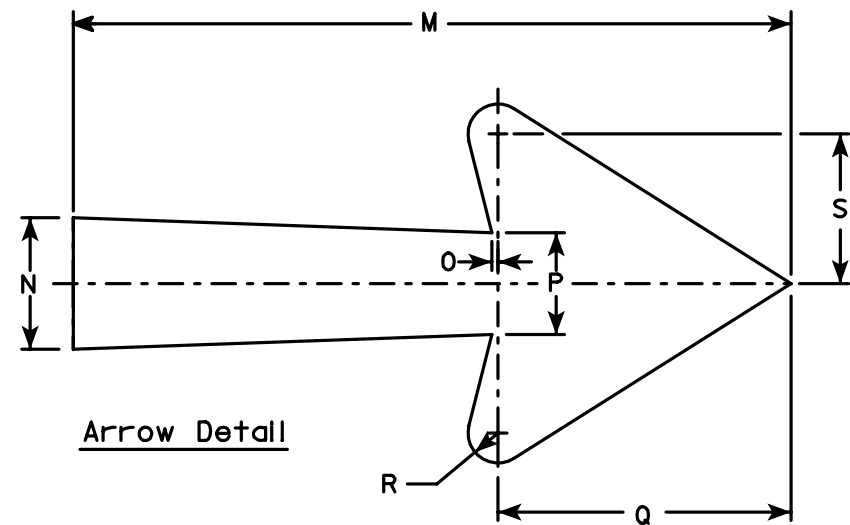
Originator : Don Kluever

SHEET NO: 150

E

NOTES

- Sign Is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Blue
Message - White - Type H Reflective
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Line 1 are series D
Line 2 is series C
- D7-59L is same as D7-59R except the arrow is reversed.



STANDARD SIGN
D7-59

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chita J. Spay
State Traffic Engineer

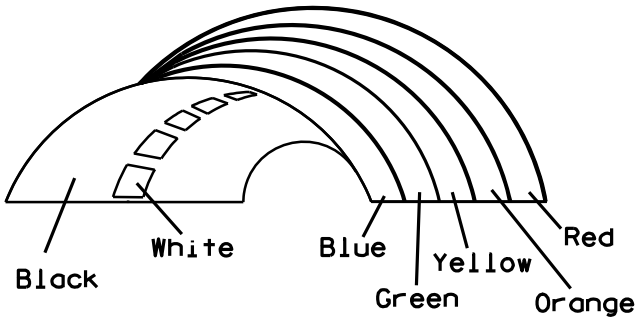
DATE 1/11/02

PLATE NO. D7-59.6



* VARIES

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 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. 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	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 151

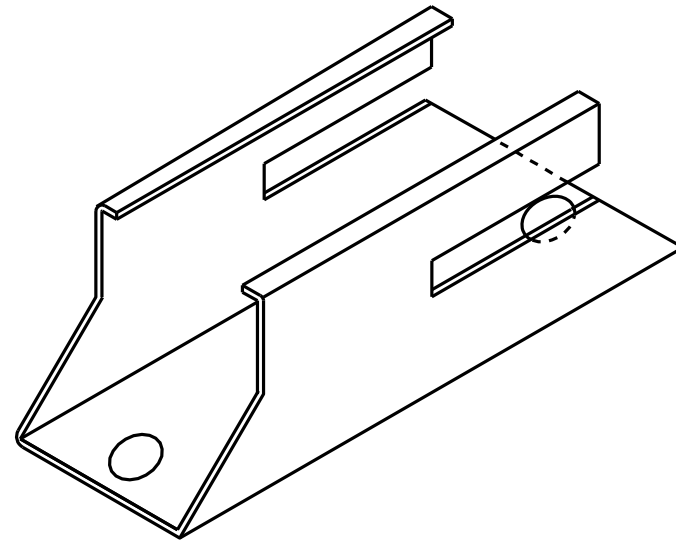
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

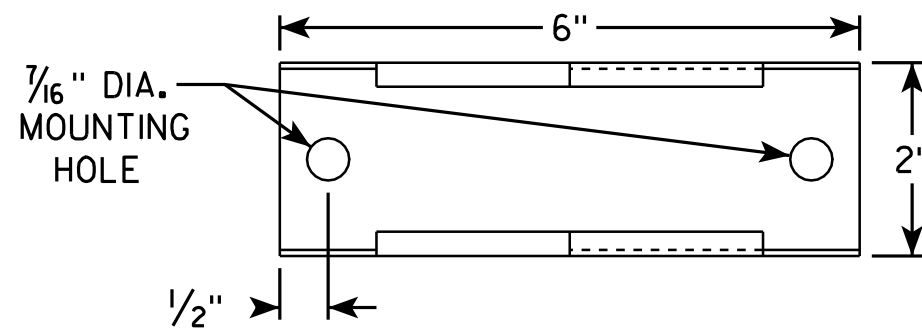
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

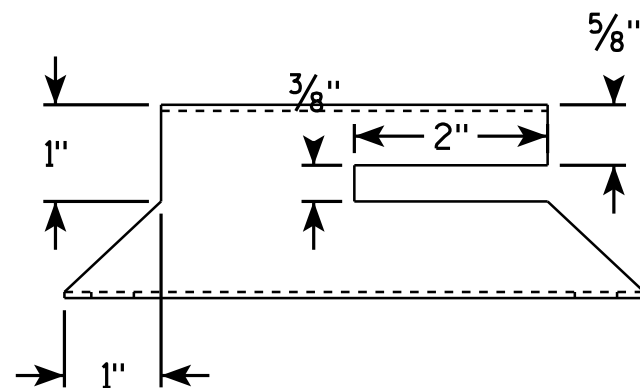
ISOMETRIC VIEW



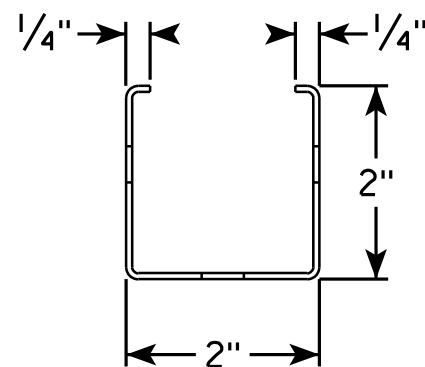
TOP VIEW



SIDE VIEW



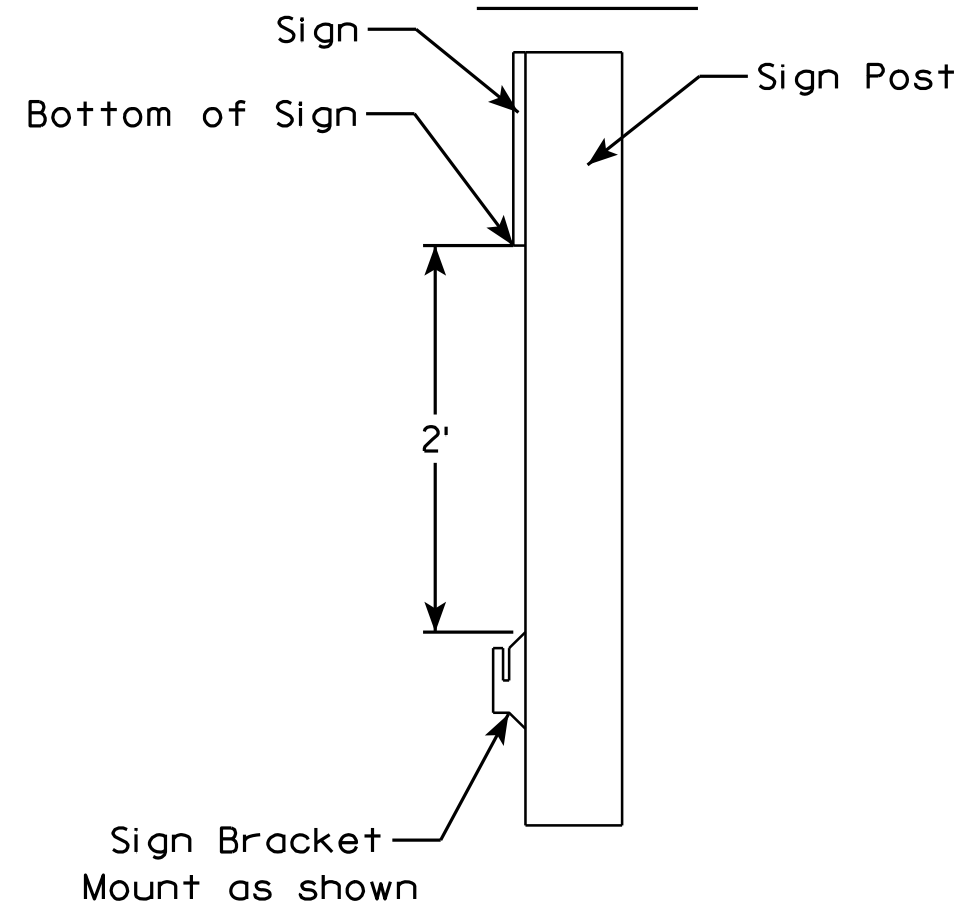
END VIEW



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 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:

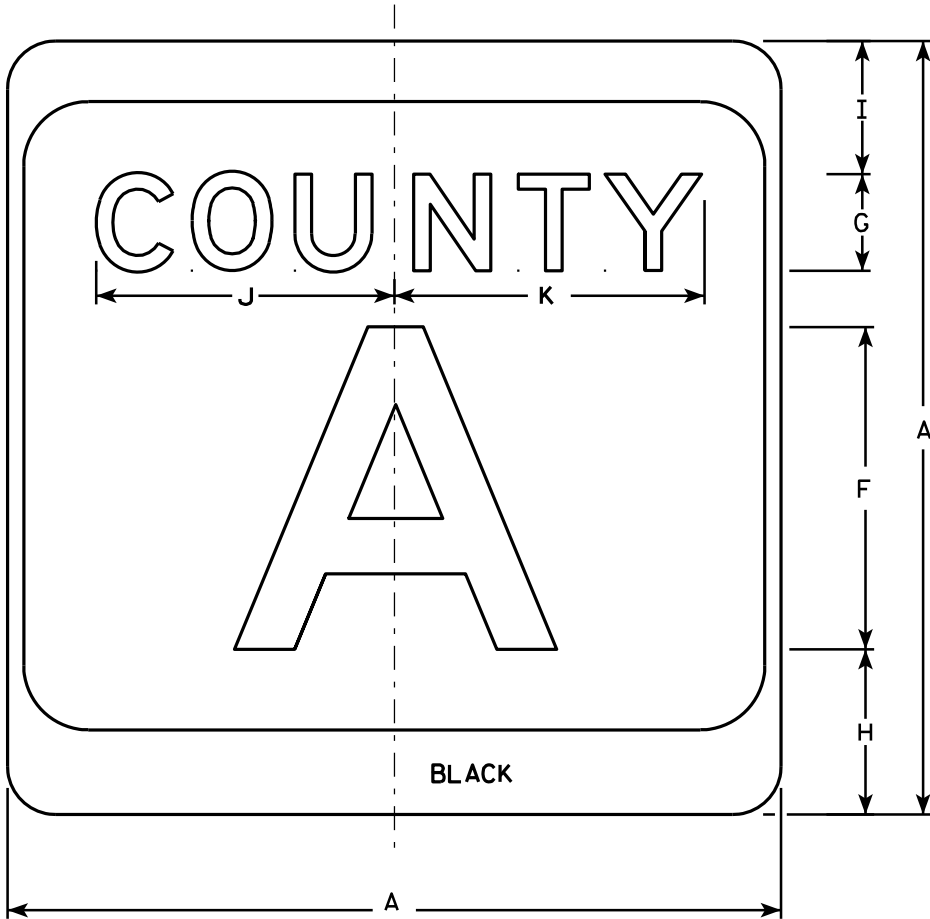
HWY:

COUNTY:

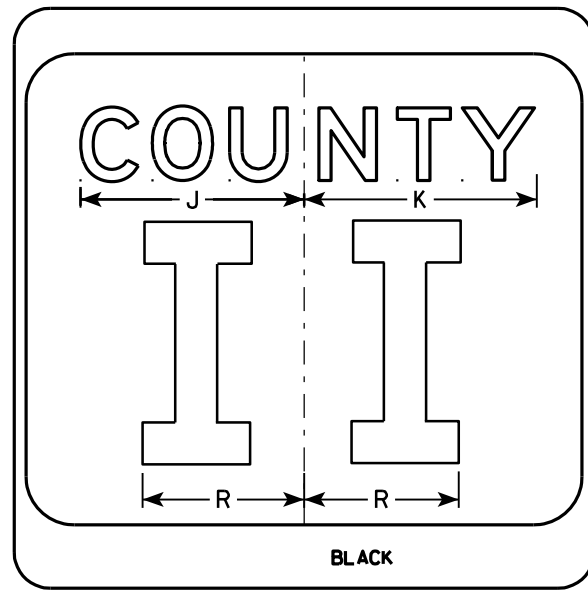
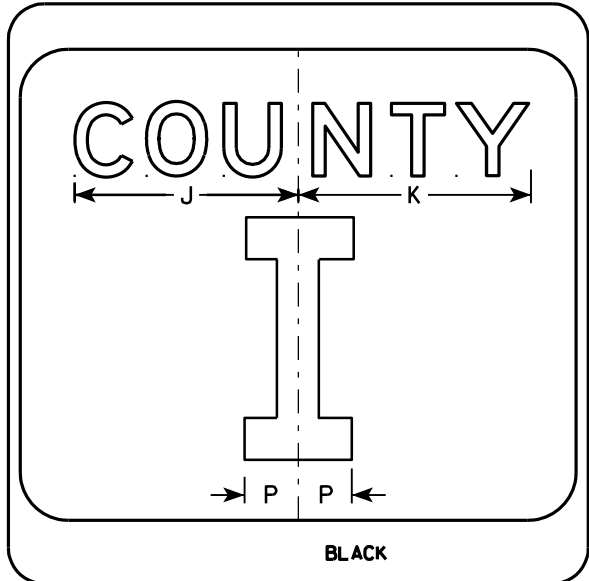
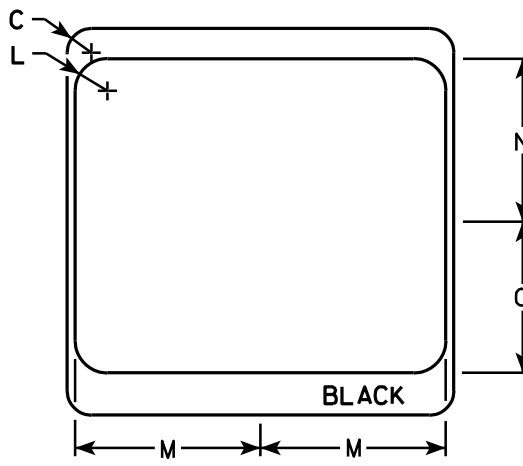
SHEET NO: 152

E

7



M1-5A



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
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. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

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

CTH MARKER

M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:

HWY:

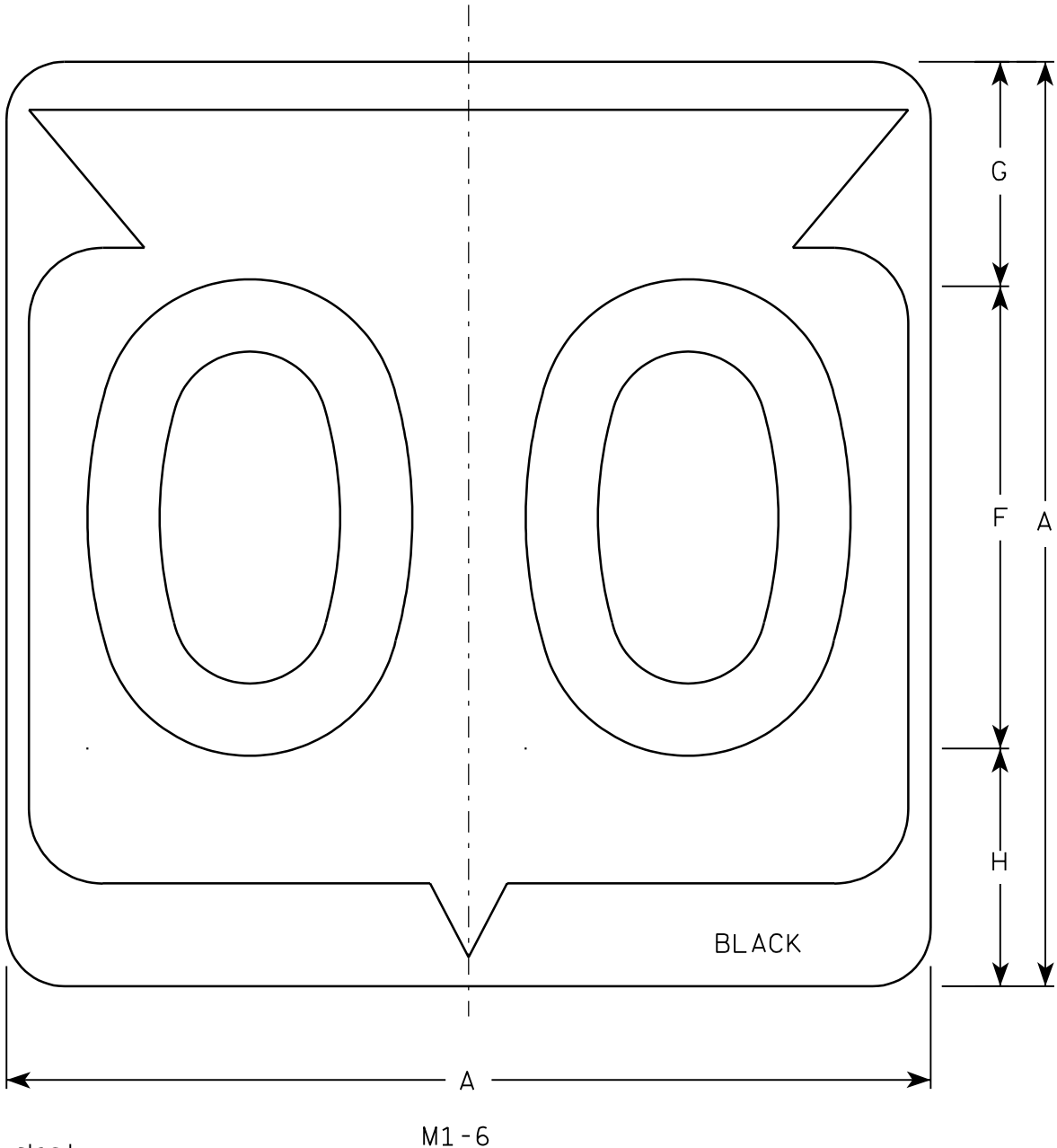
COUNTY:

SHEET NO: 153

E

7

7



Metric equivalent
for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 154

E

FILE NAME : C:\Users\Projects\tr_stdp\late\M16.DGN

PLOT DATE : 13-OCT-2005 14:55

PLOT BY : DITJPH

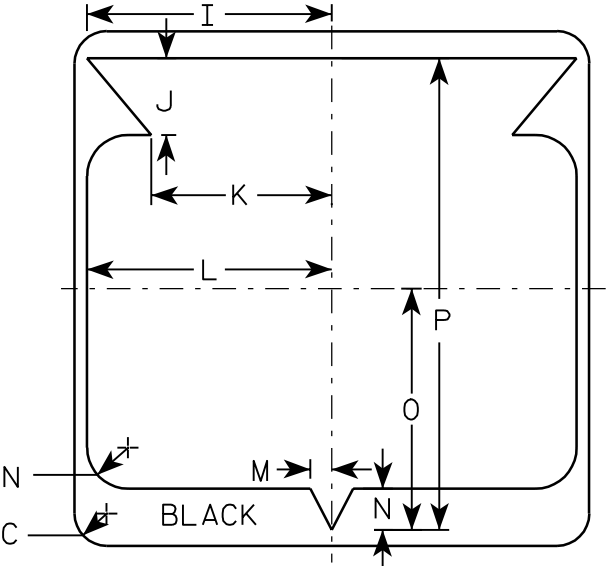
PLOT NAME :

PLOT SCALE : 6.715871:1.000000

WISDOT/CADDs SHEET 42

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

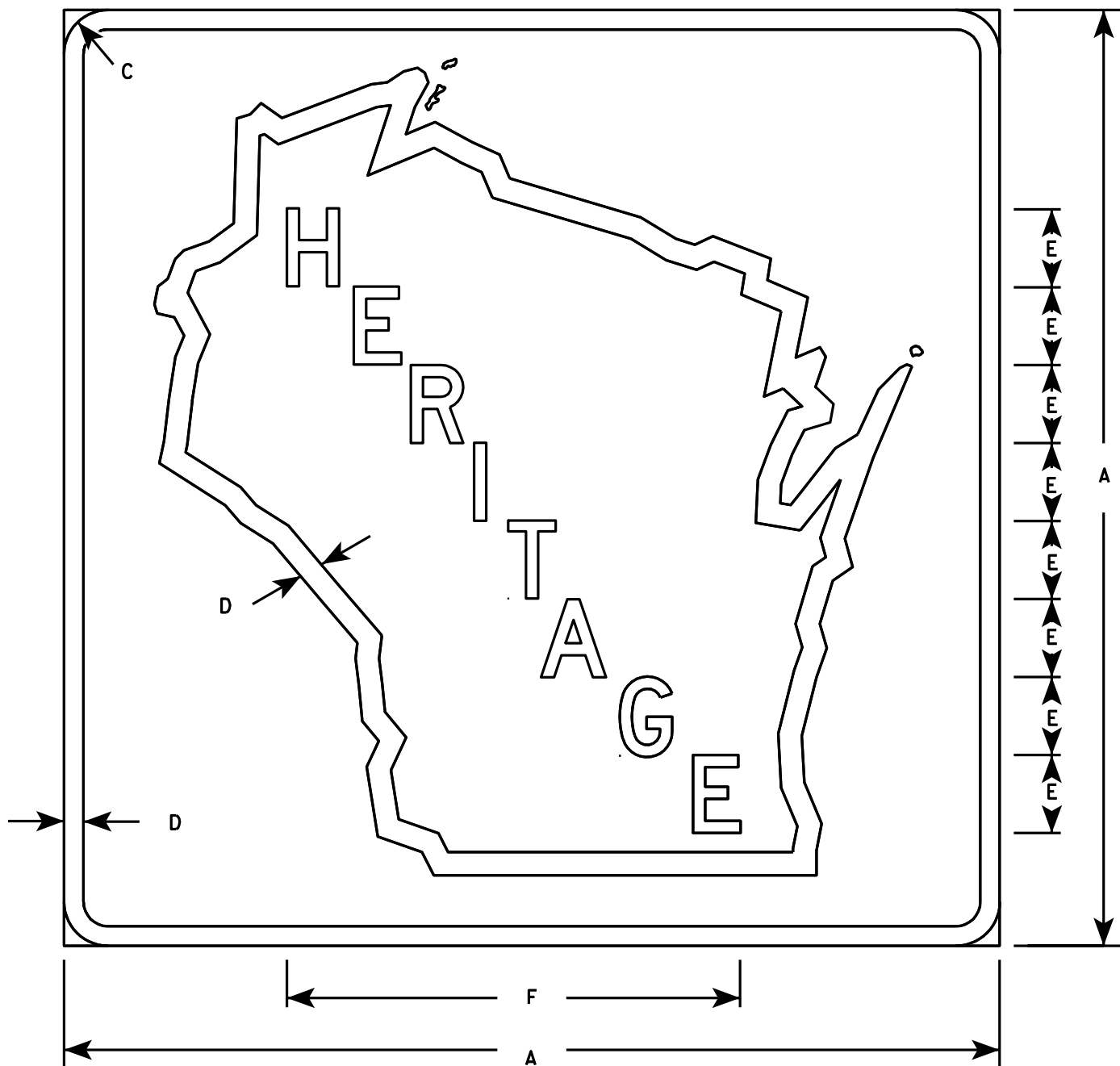
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

PLATE NO. M1-6.9



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

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm x 600 mm
3	
4	
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.	Area m ²
1																												
2	24		1 1/8	1/2	2	11 3/4																					4.0	0.36
3																												
4																												
5																												

STANDARD SIGN

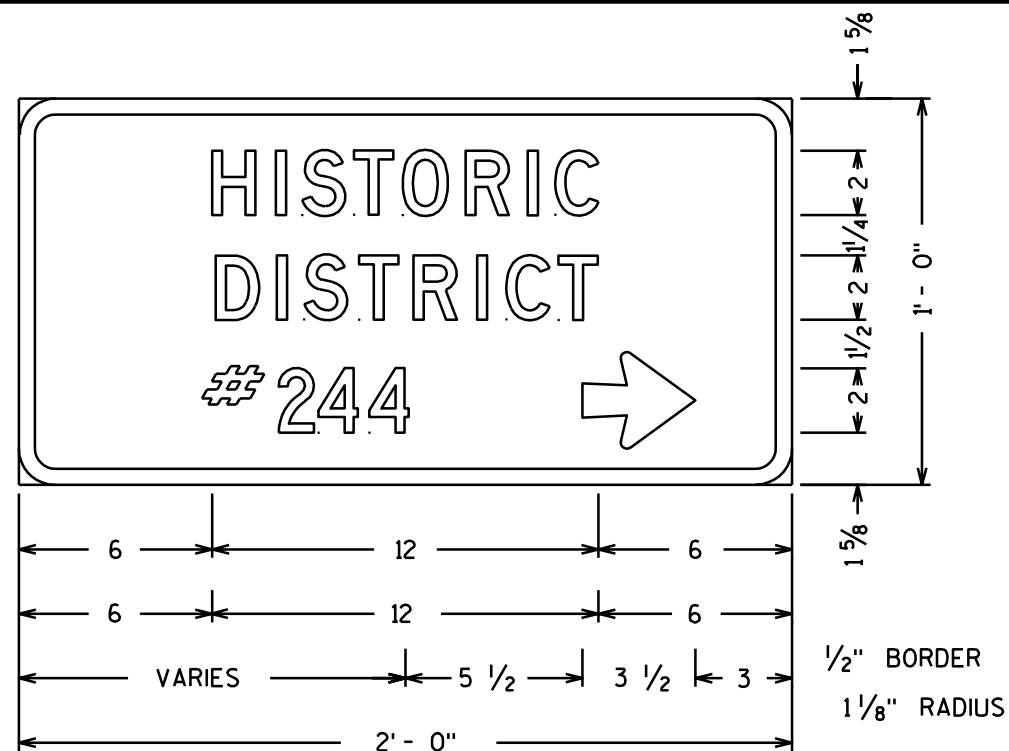
M1-85

WISCONSIN DEPT OF TRANSPORTATION

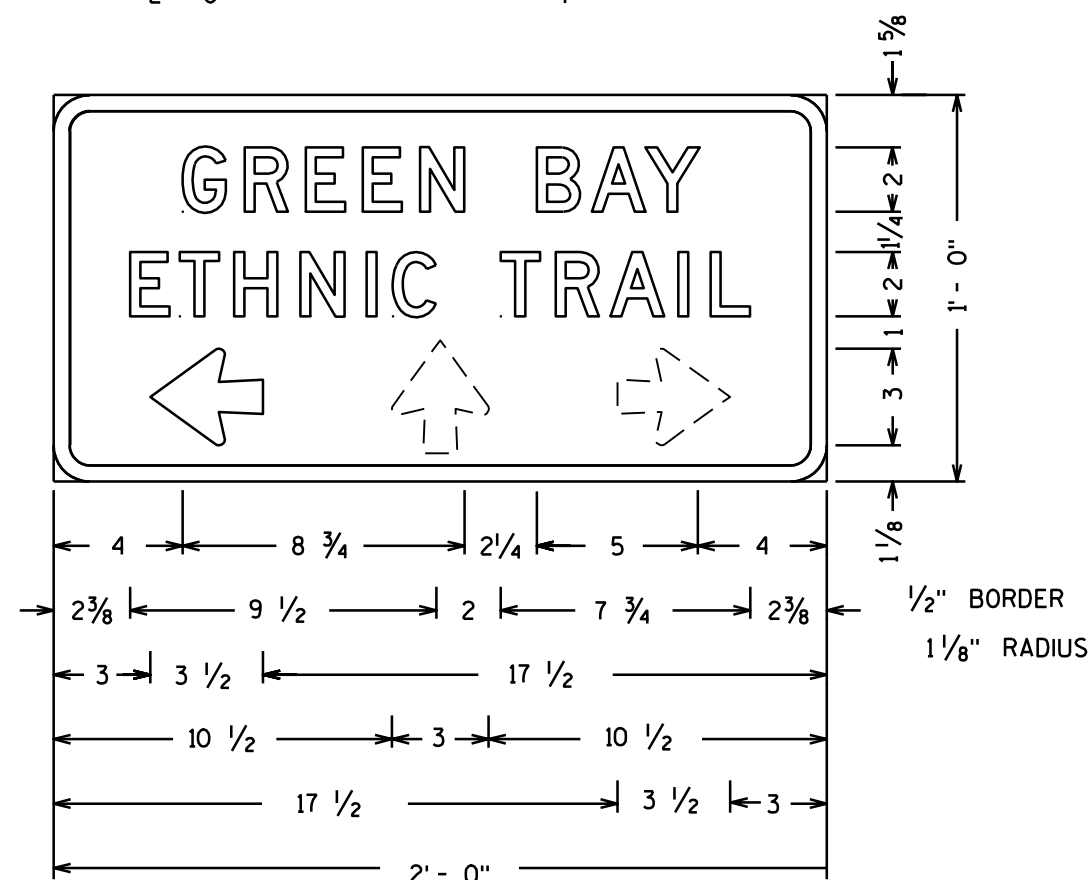
APPROVED 
for State Traffic Engineer

DATE 1/30/02 PLATE NO. M1-85.2

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 155	E
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M1-85 D



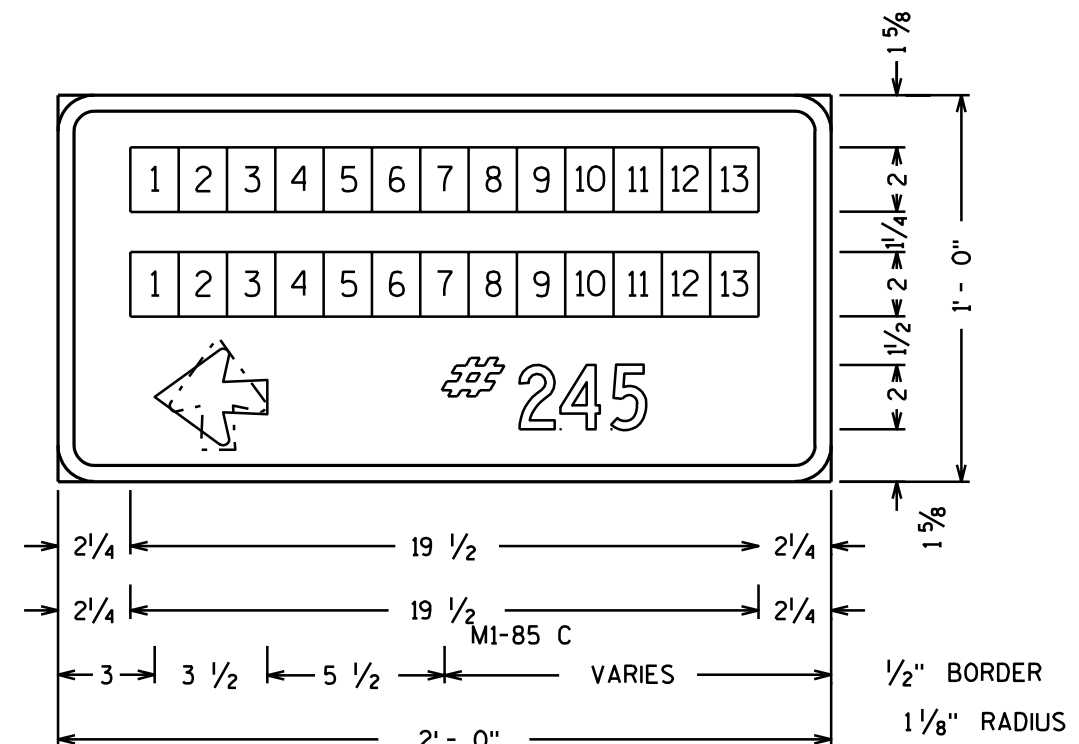
M1-85 B

Metric equivalent
for this sign is:

300 mm x 150 mm

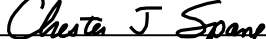
NOTES

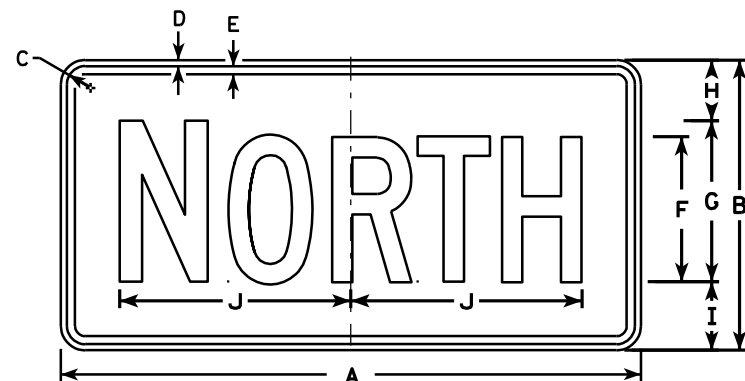
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - Brown
 - Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders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



M1-85 C

For good legibility, 2" Series D copy will allow approximately 13 letters/characters per message line. The message shall be optically balanced about the centerline of the sign.

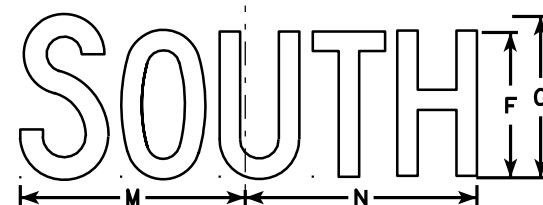
STANDARD SIGN	
M1-85 B, C & D	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	 for State Traffic Engineer
DATE 1/30/02	PLATE NO. M1-85B.2



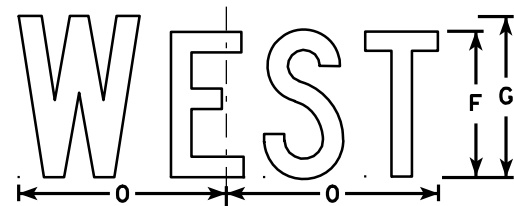
M3-1
MK3-1
M03-1



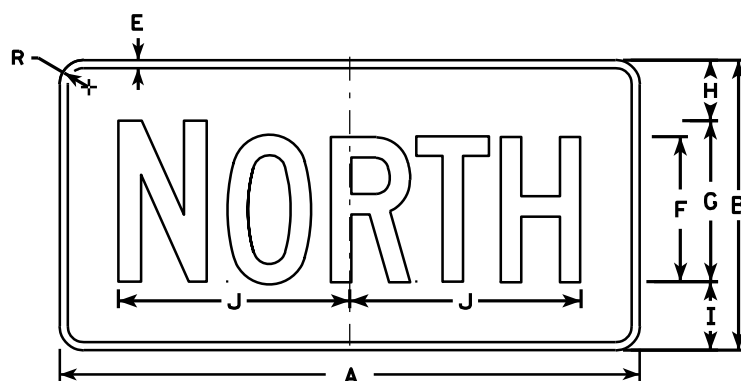
M3-2
MK3-2
M03-2



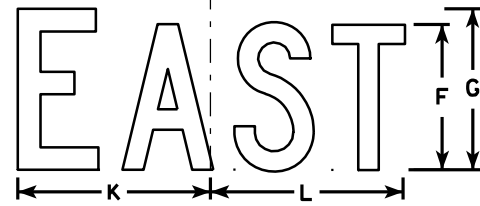
M3-3
MK3-3
M03-3



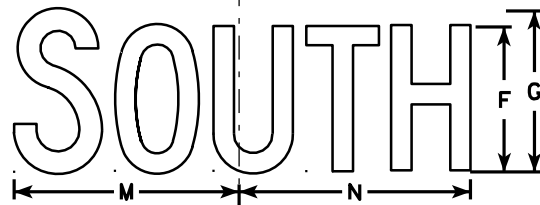
M3-4
MK3-4
M03-4



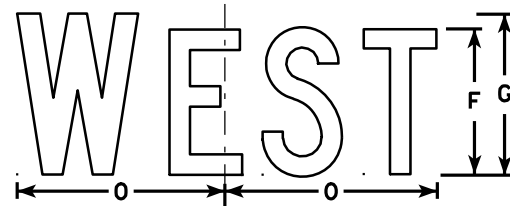
MB3-1
MG3-1
MM3-1
MN3-1



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



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



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

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

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

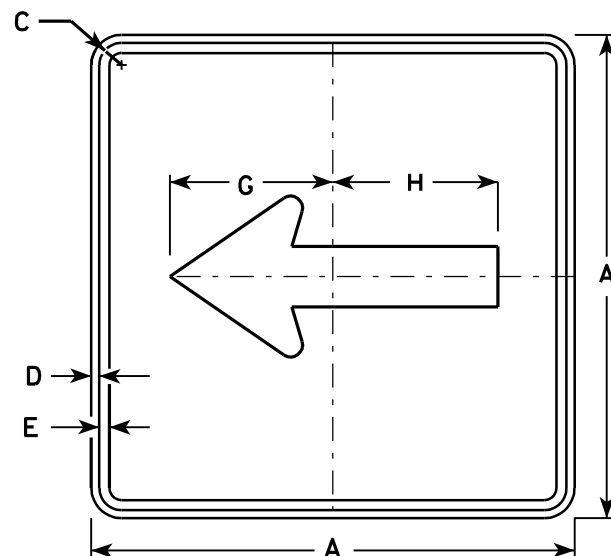
PROJECT NO: HWY: COUNTY: SHEET NO: 157 E

STANDARD SIGNS M3-1 thru M3-4 SERIES

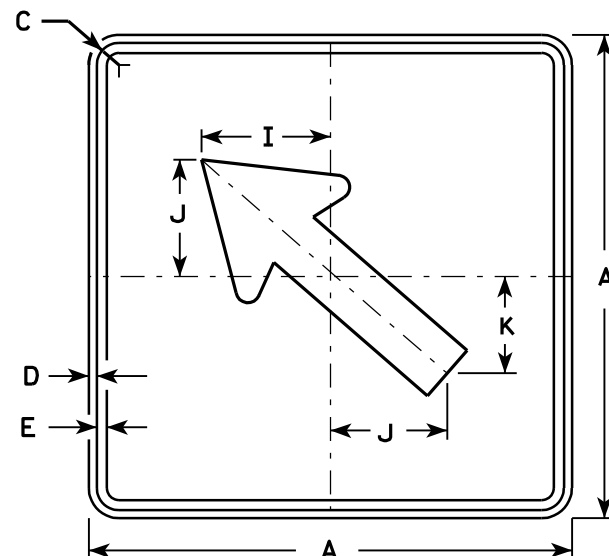
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

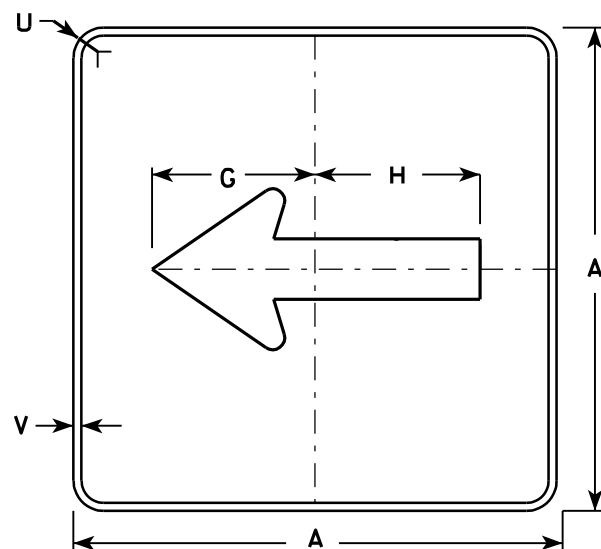
DATE 11/10/10 PLATE NO. M3-1.12



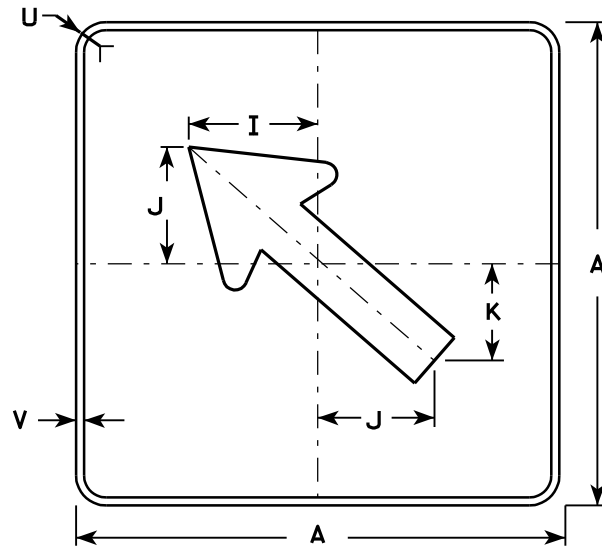
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



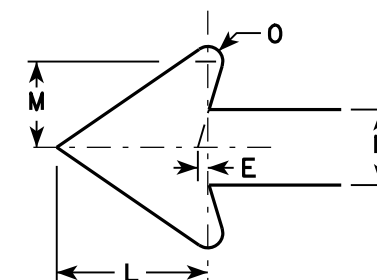
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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 - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Reflective
Message - Black
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



Metric equivalent
for this sign is:

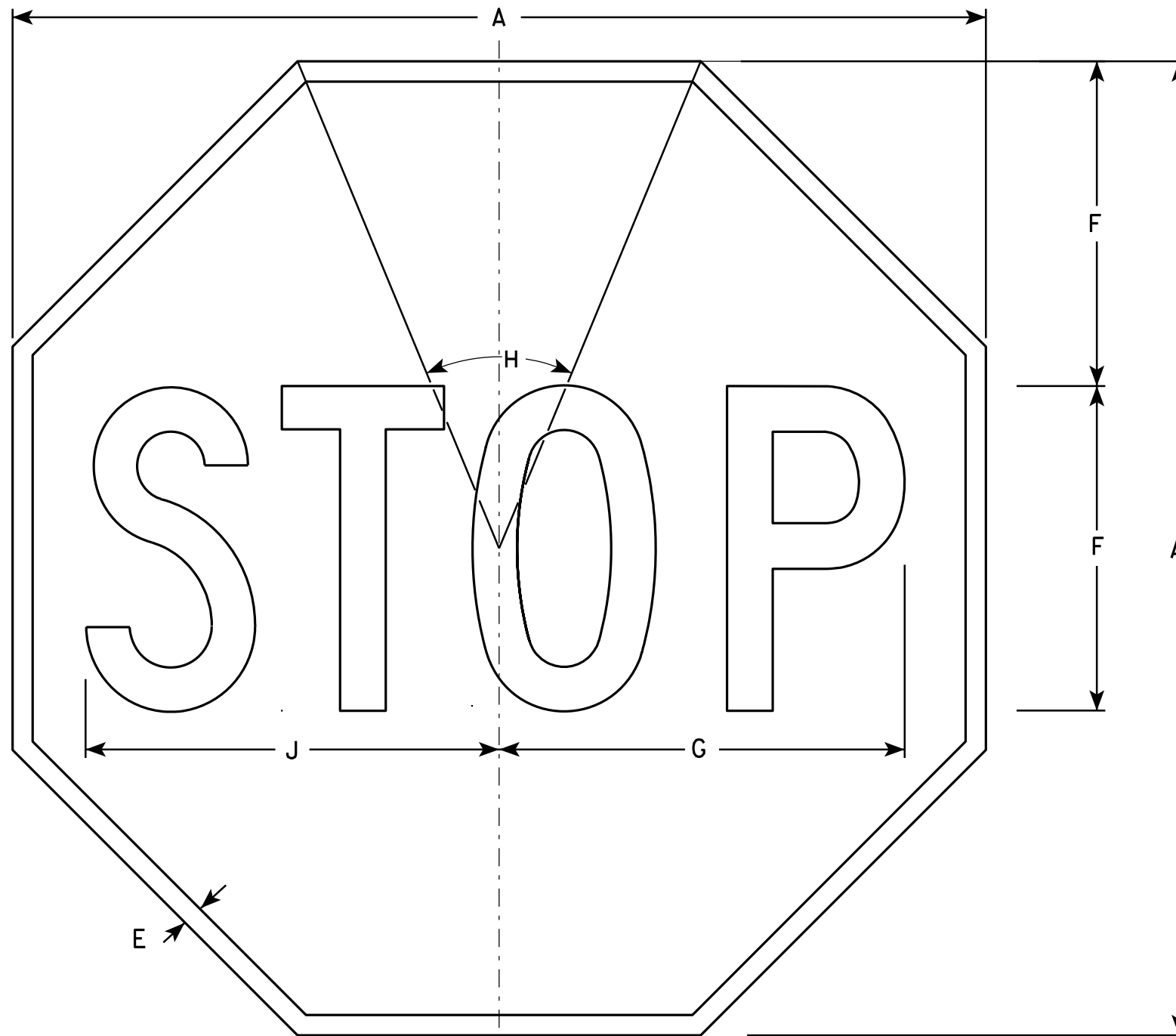
SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
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	0.28
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	0.56
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	0.56
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	0.56

PROJECT NO: HWY: COUNTY: SHEET NO: 158 E

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/16/10 PLATE NO. M6-1.12



NOTES

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

R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

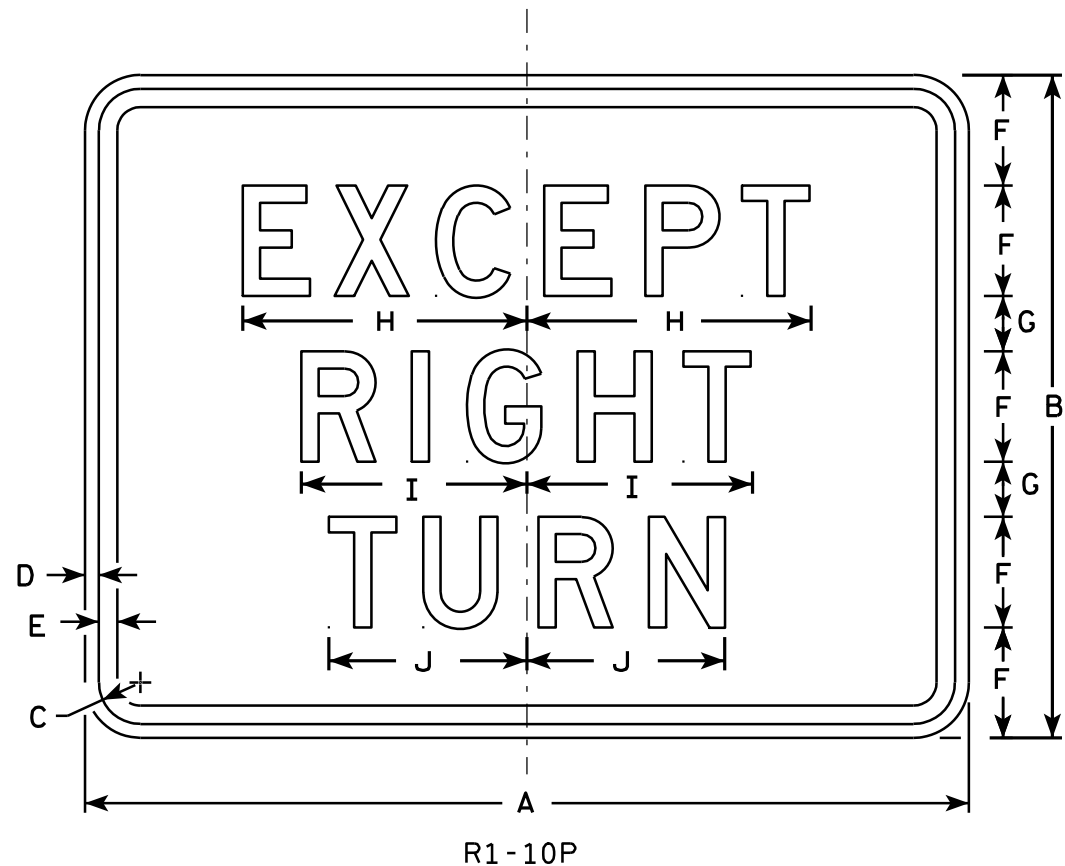
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 159

E



NOTES

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

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	18	1 1/8	3/8	1/2	3	1 1/2	7 3/4	6 1/8	5 3/8																	3.0
2M	24	18	1 1/8	3/8	1/2	3	1 1/2	7 3/4	6 1/8	5 3/8																	3.0
3																											
4																											
5																											

STANDARD SIGN

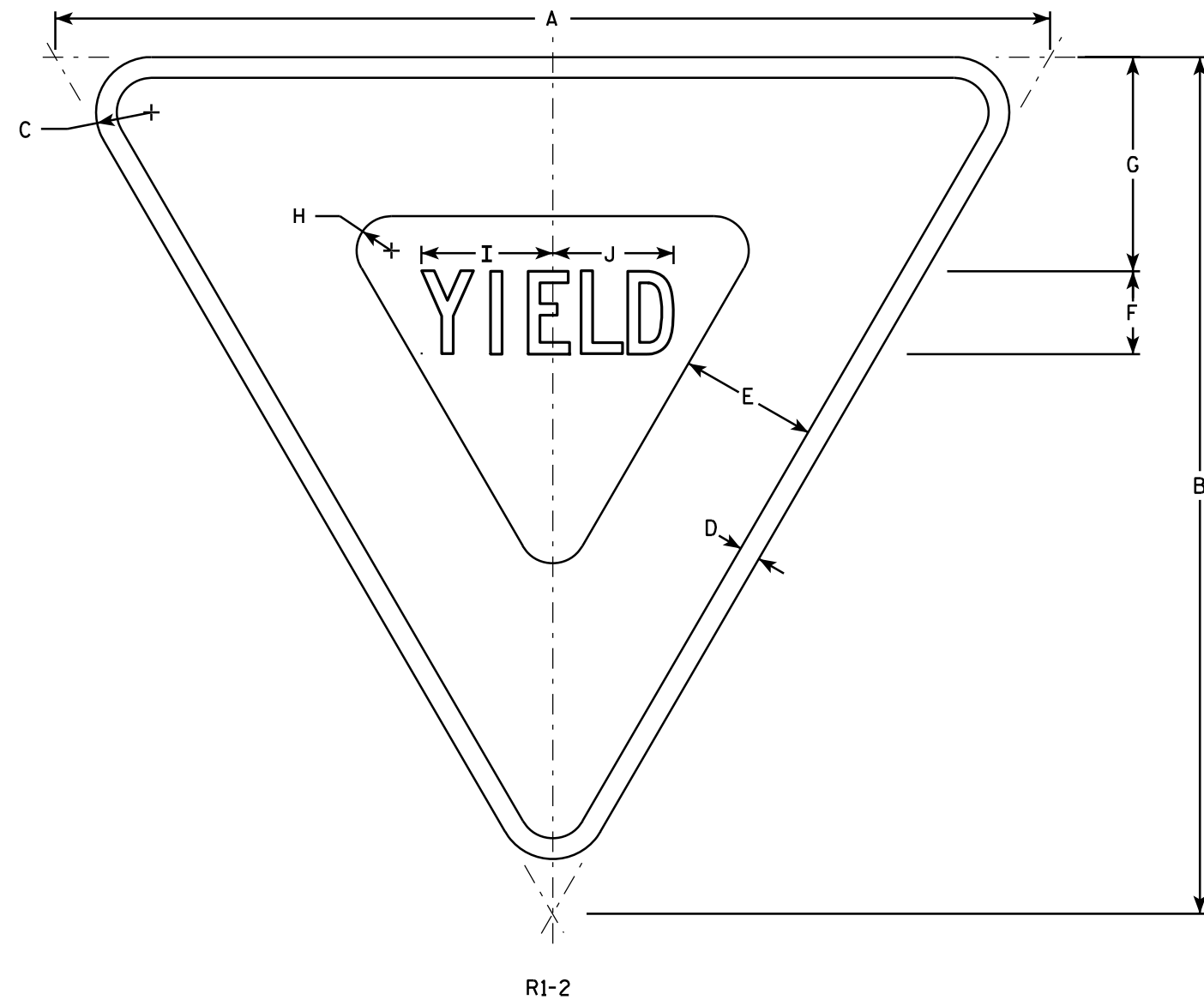
R1-10P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/2/10 PLATE NO. R1-10P.1

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 - White
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. The border strip and word message are reflectorized red.

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	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

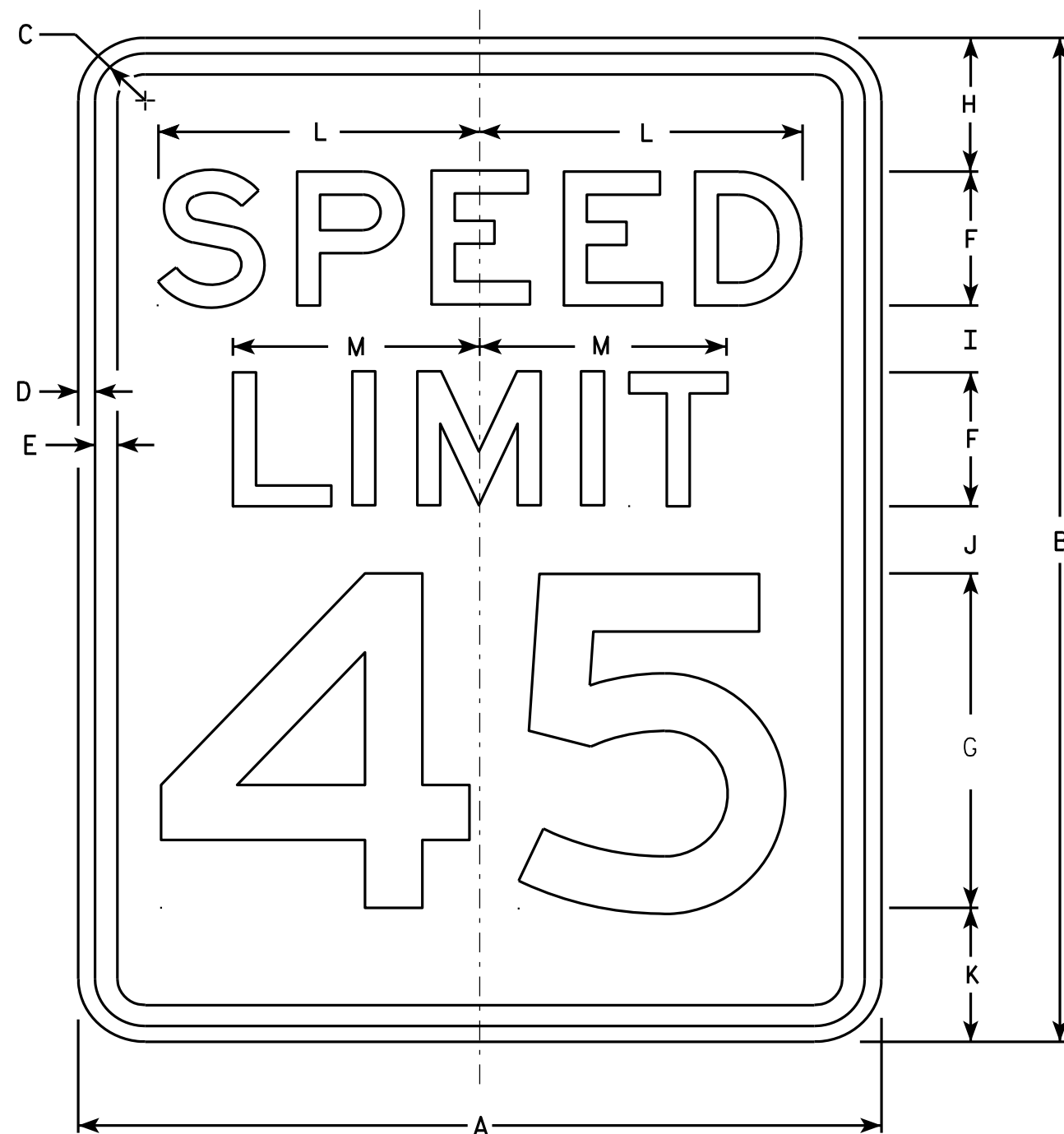
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 161		E
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R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

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

STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 162 E



R2-6P

NOTES

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

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	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

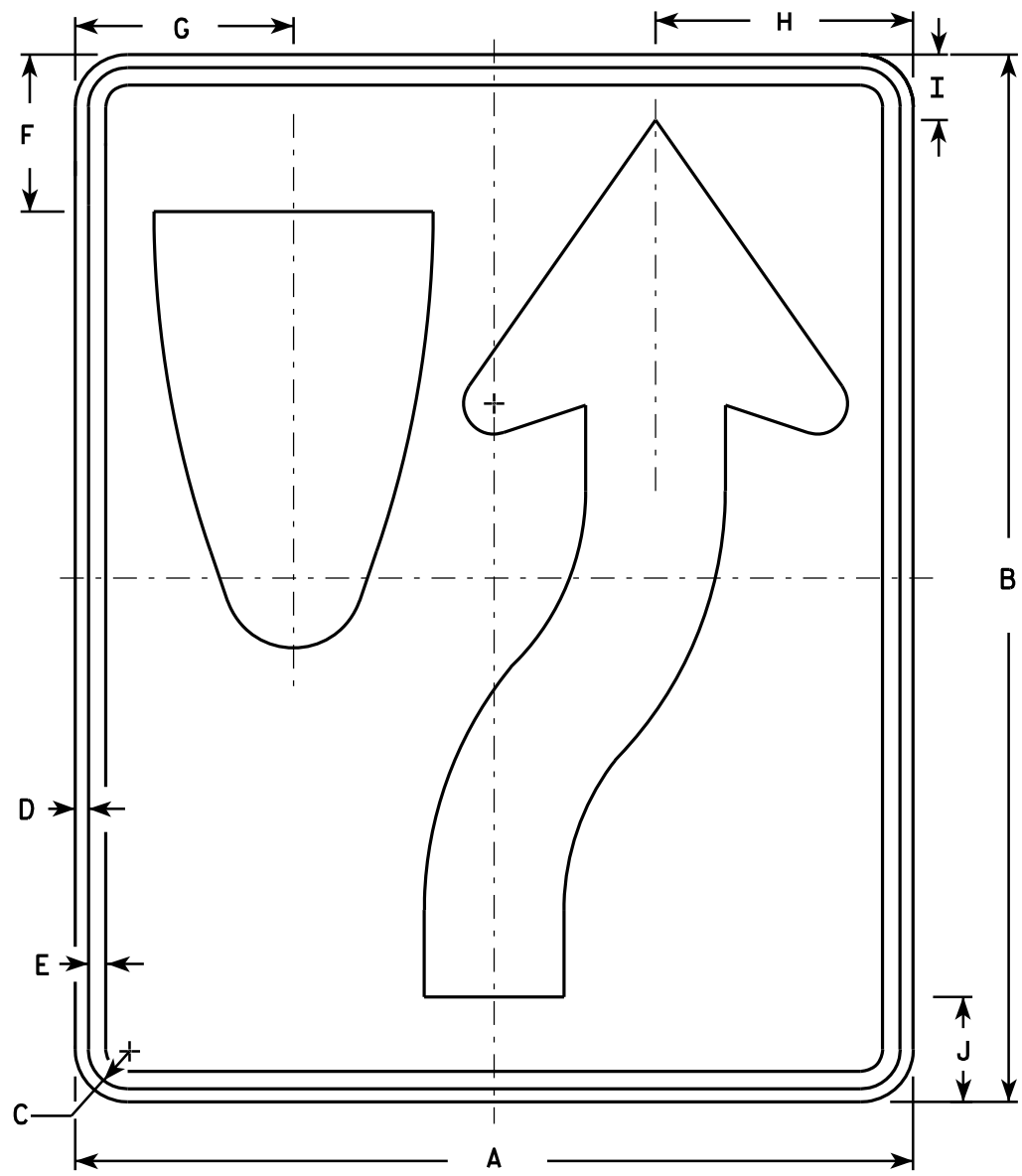
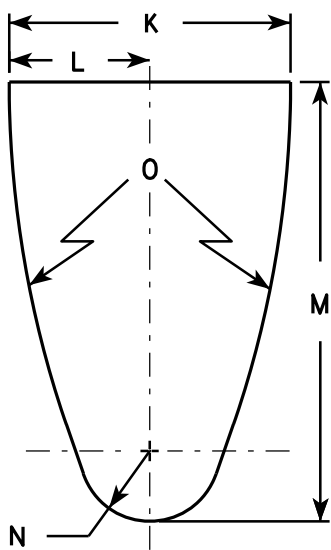
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

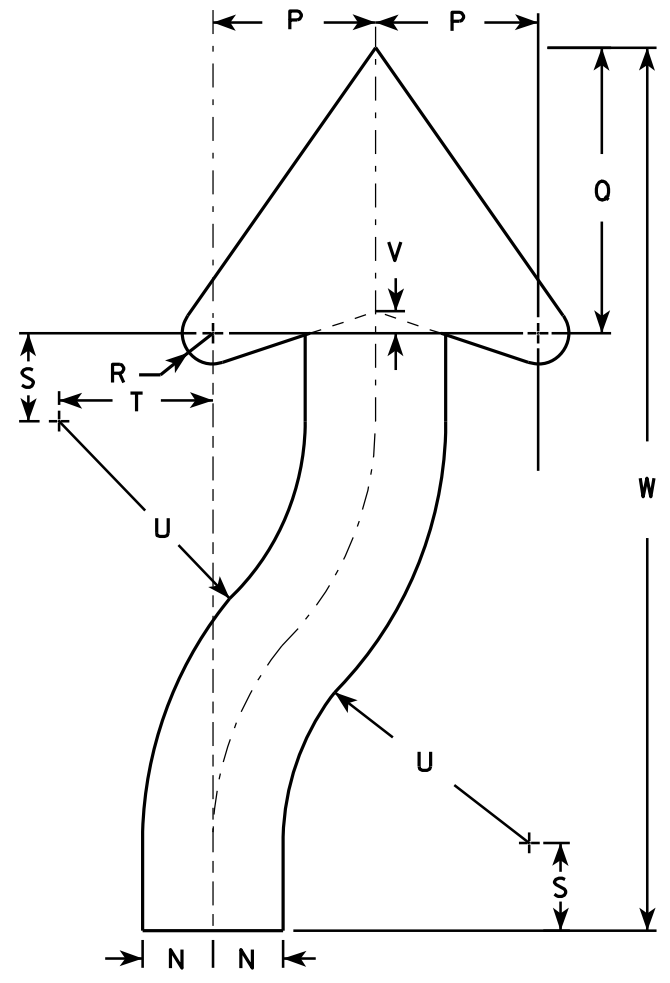
DATE 12/20/10 PLATE NO. R2-6P.2

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
- 2. Color:
Background - White
Message - Black
- 3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
- 4. R4-8 is the same as R4-7 except Legend is reversed.



R4-7



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:

HWY:

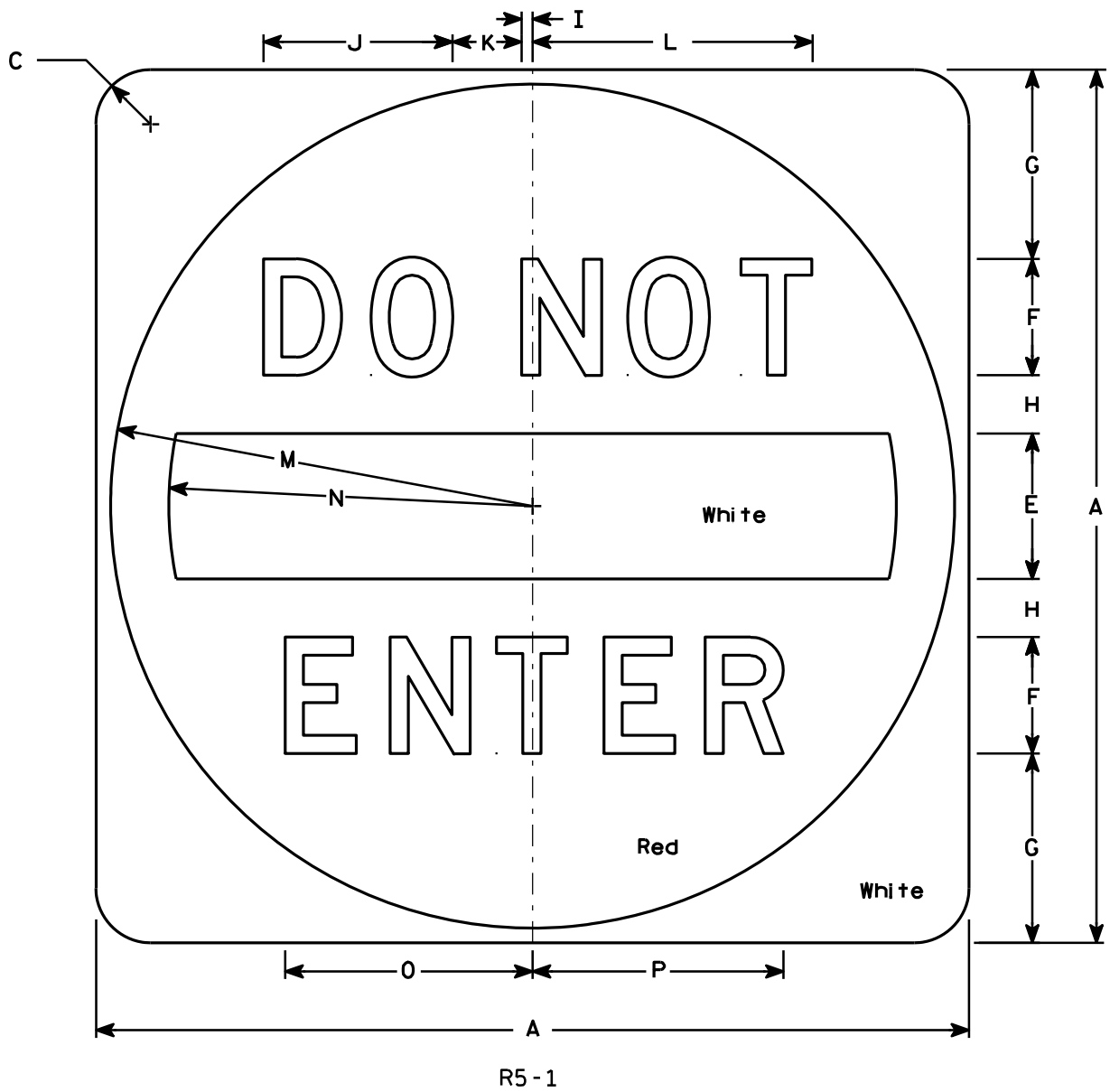
COUNTY:

SHEET NO: 164

E

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - See detail
 - Message - White - Type H Reflective
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but when base material is metal, the corners 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	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											6.26
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 *Matthew R. Rauch*
for State Traffic Engineer

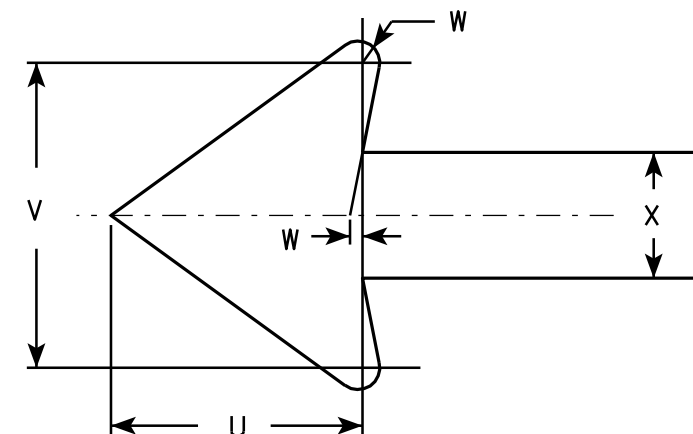
DATE 12/17/10 PLATE NO. R5-1.15



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
R7-1L (left arrow)
R7-1R (right arrow)



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

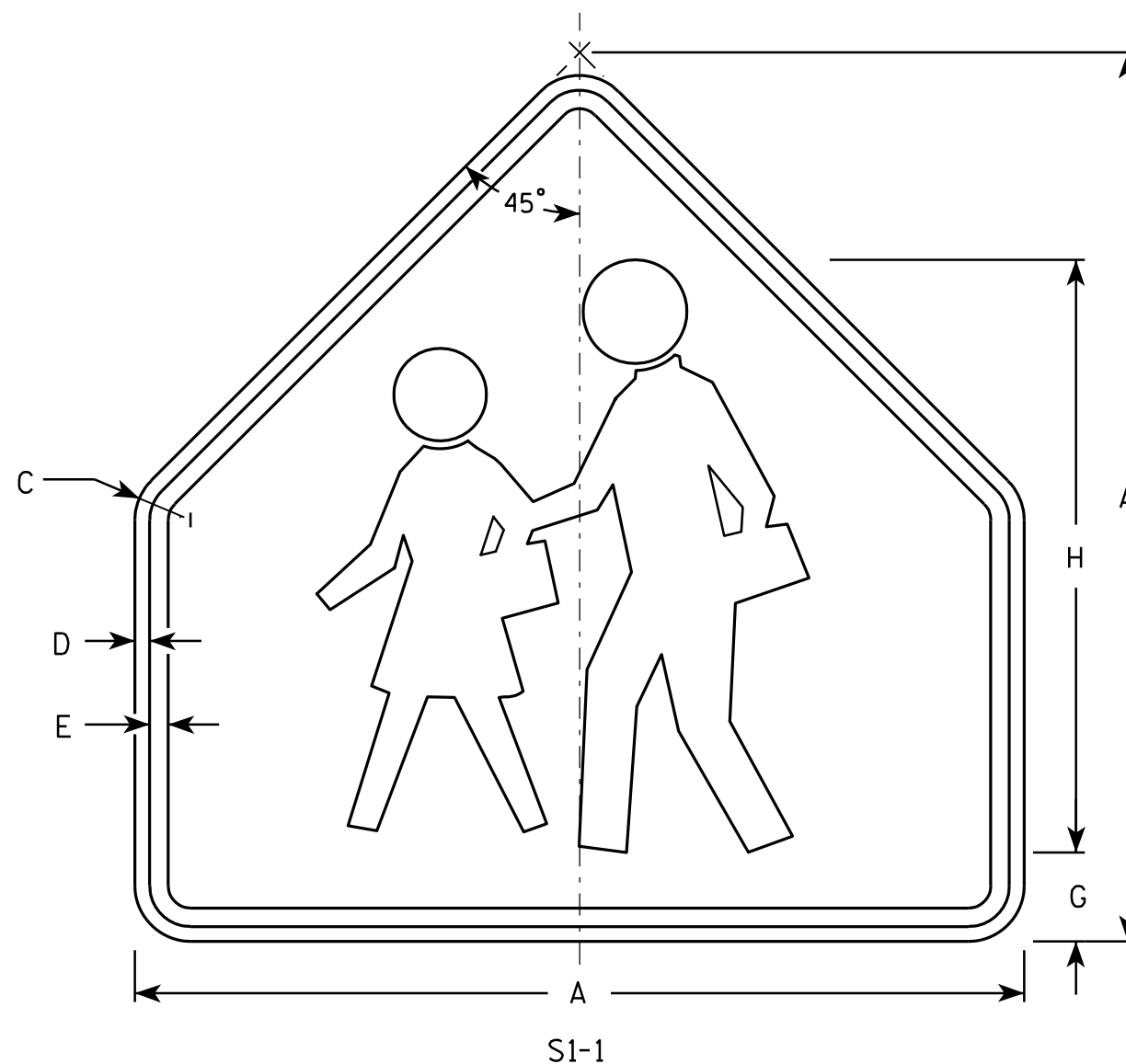
STANDARD SIGN R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: HWY: COUNTY: SHEET NO: 166 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-Green
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

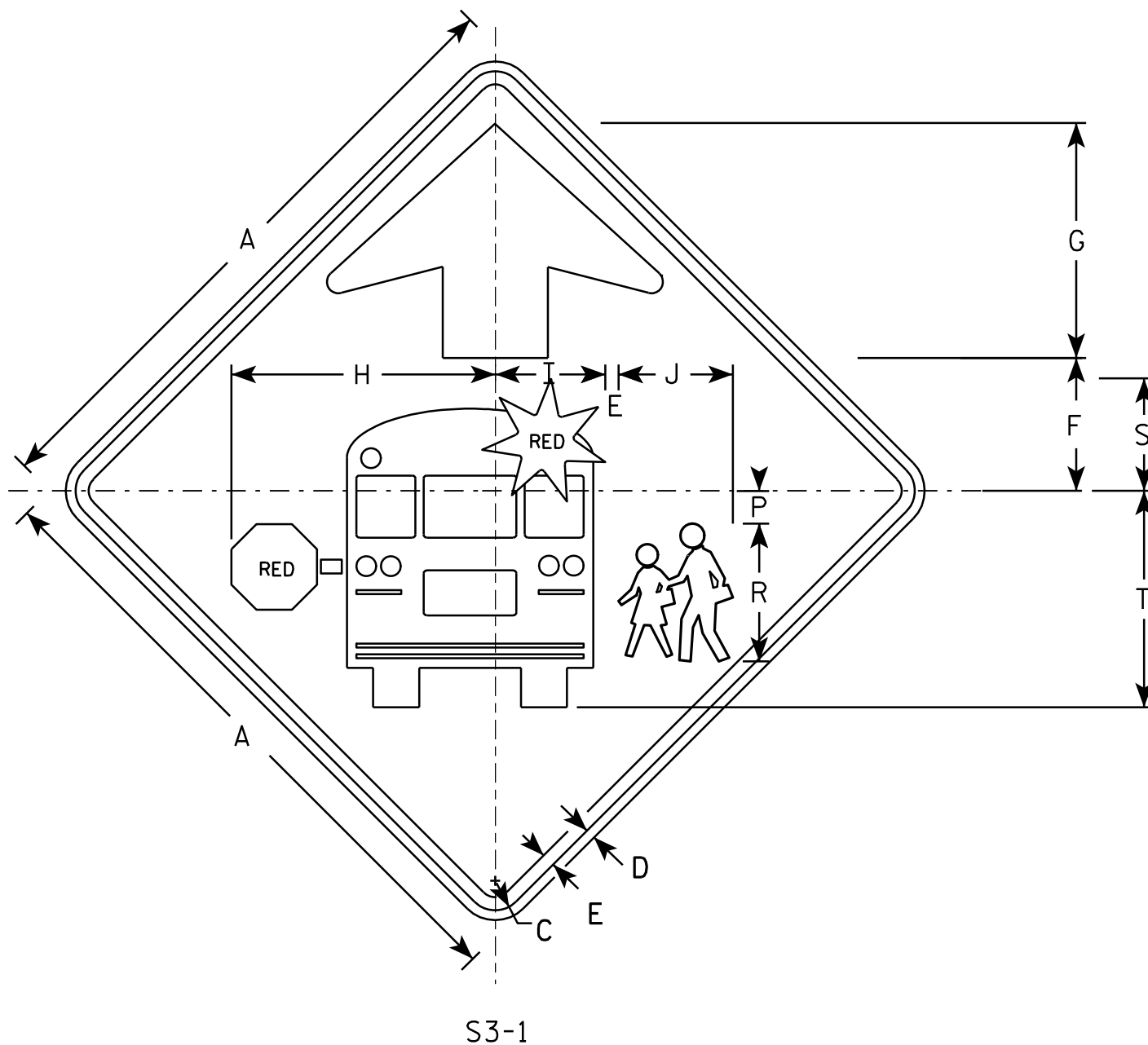
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 ³ / ₈	1/2	5/8		3	20																			4.69
2	36		1 ⁵ / ₈	5/8	3/4		3 1/2	24																			6.75
3	36		1 ⁵ / ₈	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN S1-1

WISCONSIN DEPT OF TRANSPORTATION

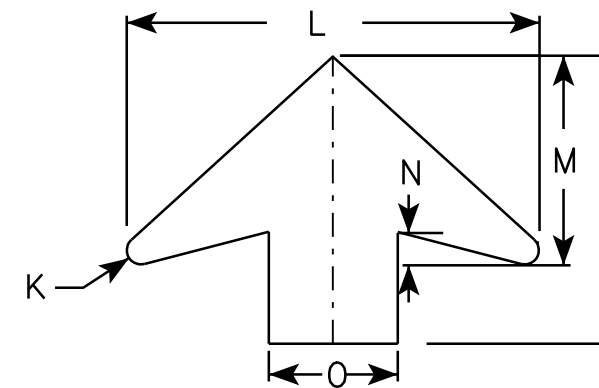
APPROVED Matthew R. Rauch
for State Traffic Engineer
DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 167 **E**

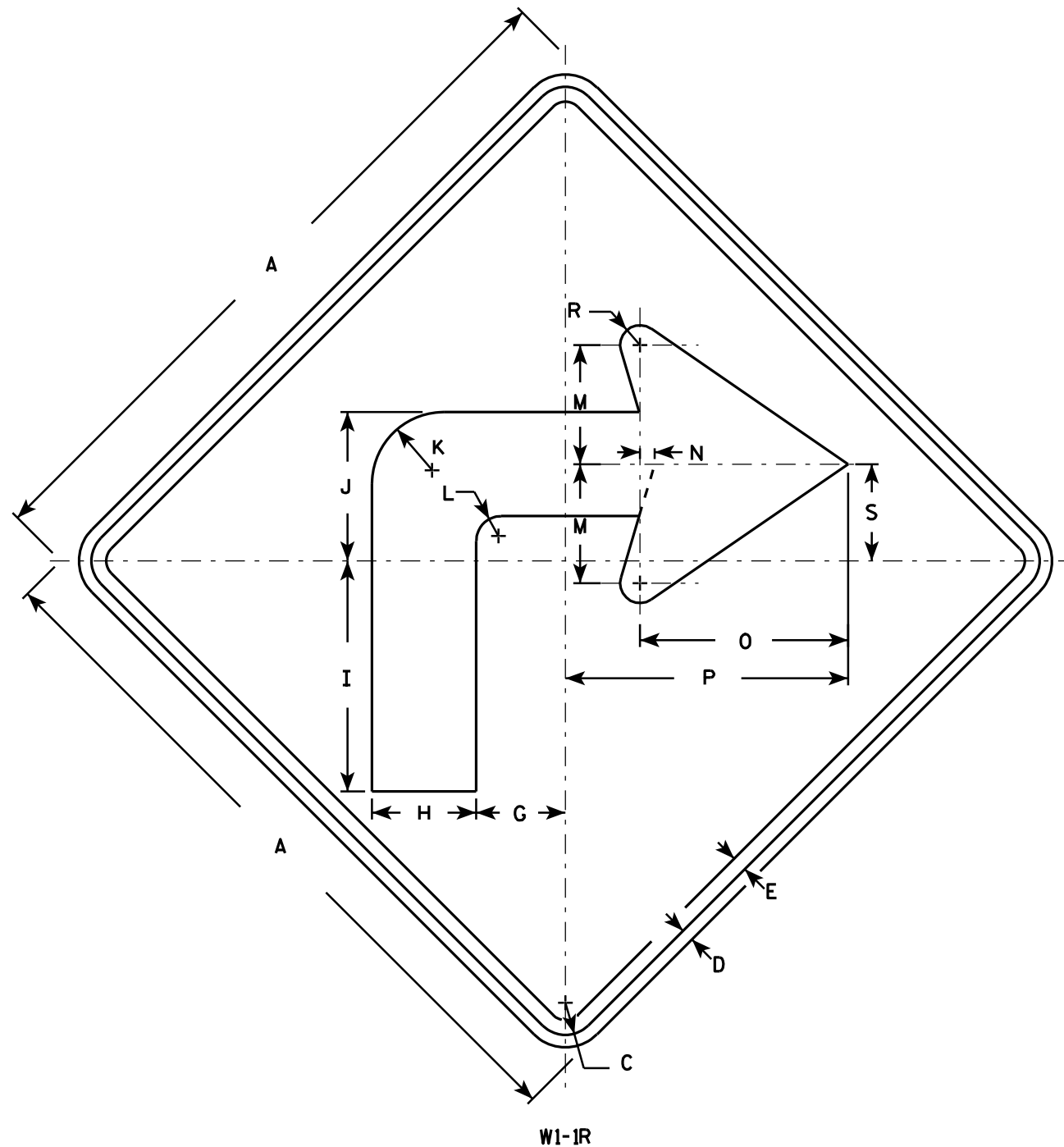


NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - YELLOW-GREEN
 - Message - BLACK except as noted
 - Circles except PEDS- RED BACKGROUND
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.

[illegible]

STANDARD SIGN	
S3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>6/8/10</u>	PLATE NO. <u>S3-16</u>



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

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

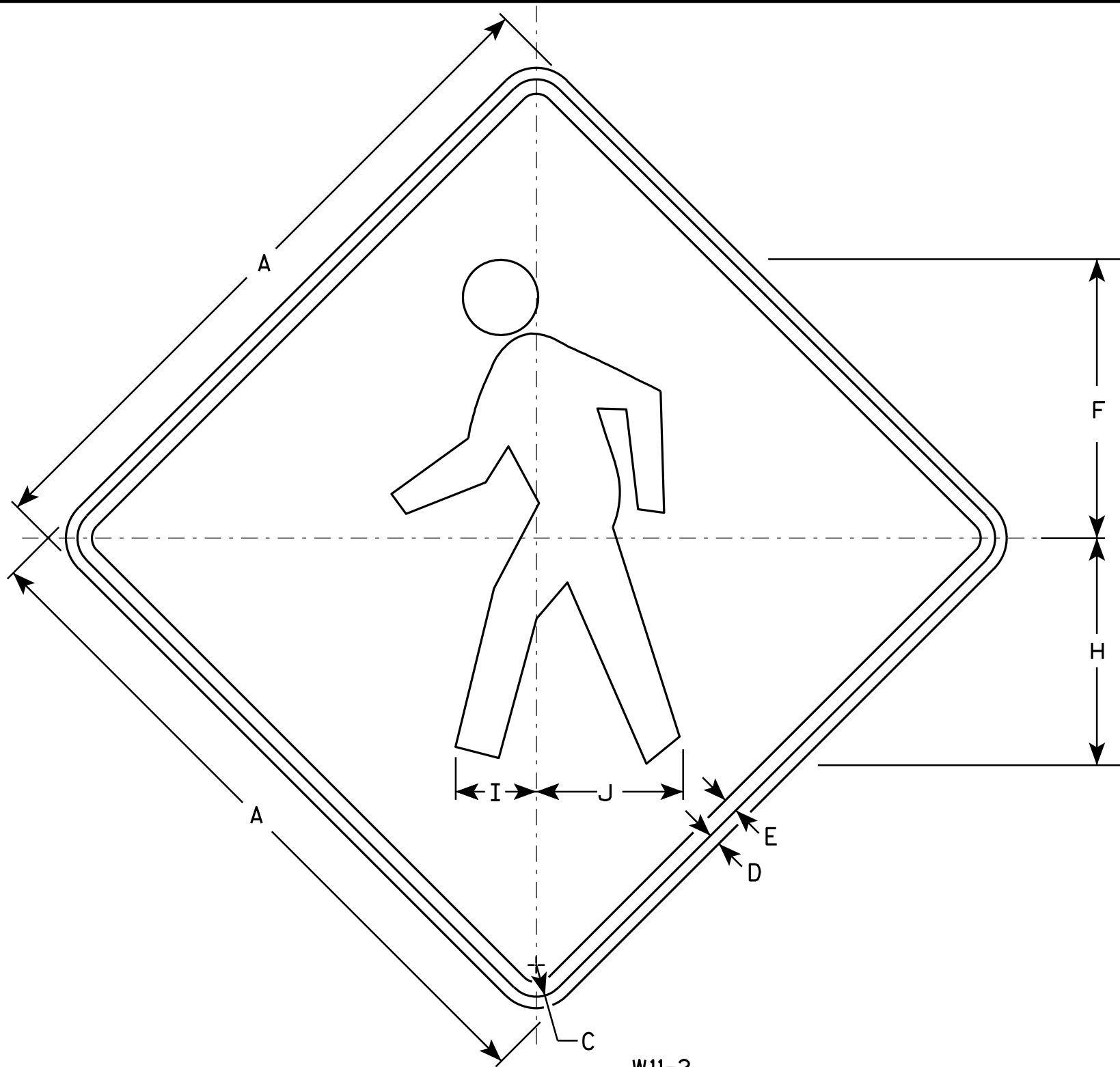
STANDARD SIGN

W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: HWY: COUNTY: SHEET NO: 169 E



W11-2

NOTES

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

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

STANDARD SIGN W11-2

WISCONSIN DEPT OF TRANSPORTATION

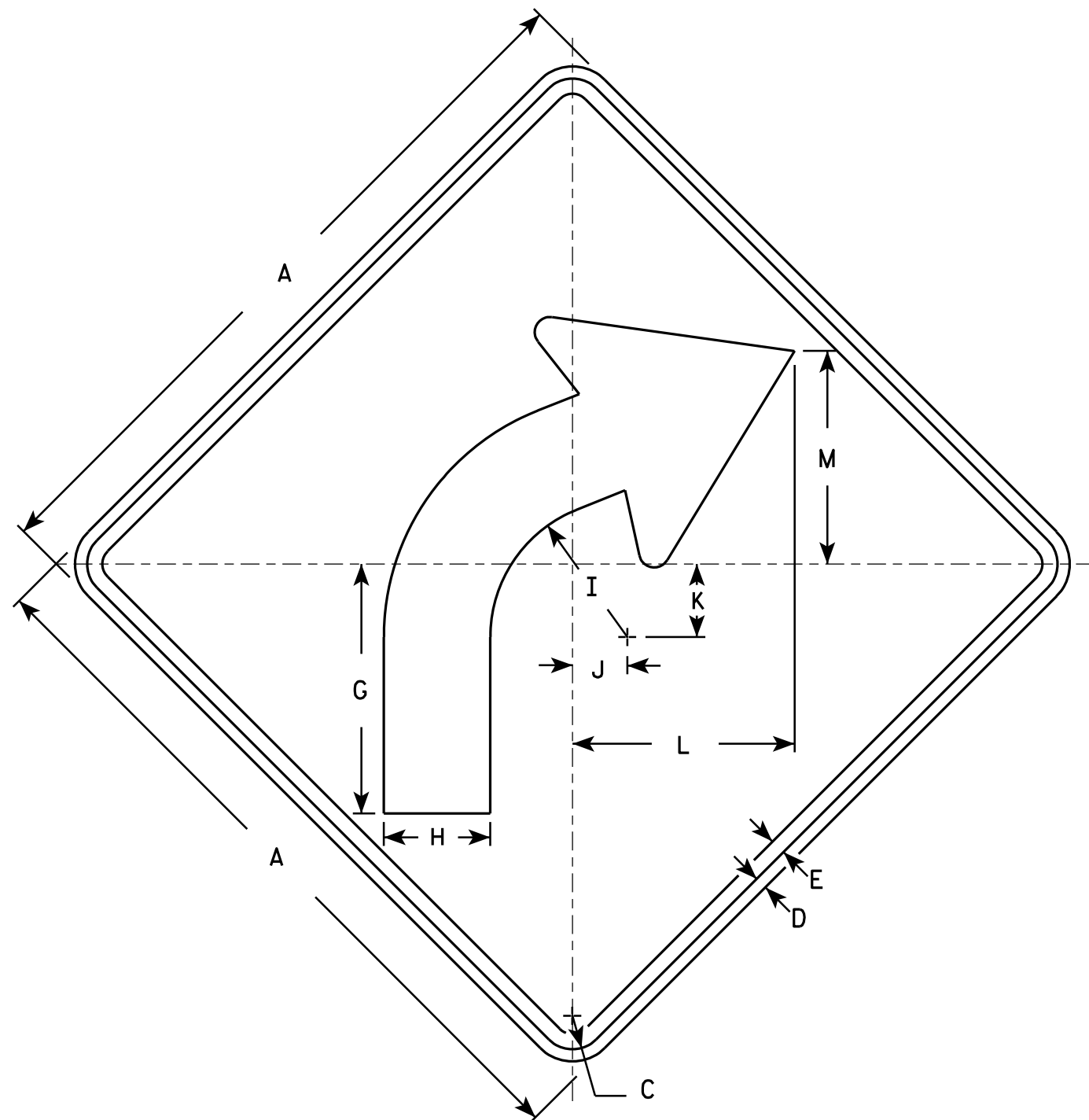
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

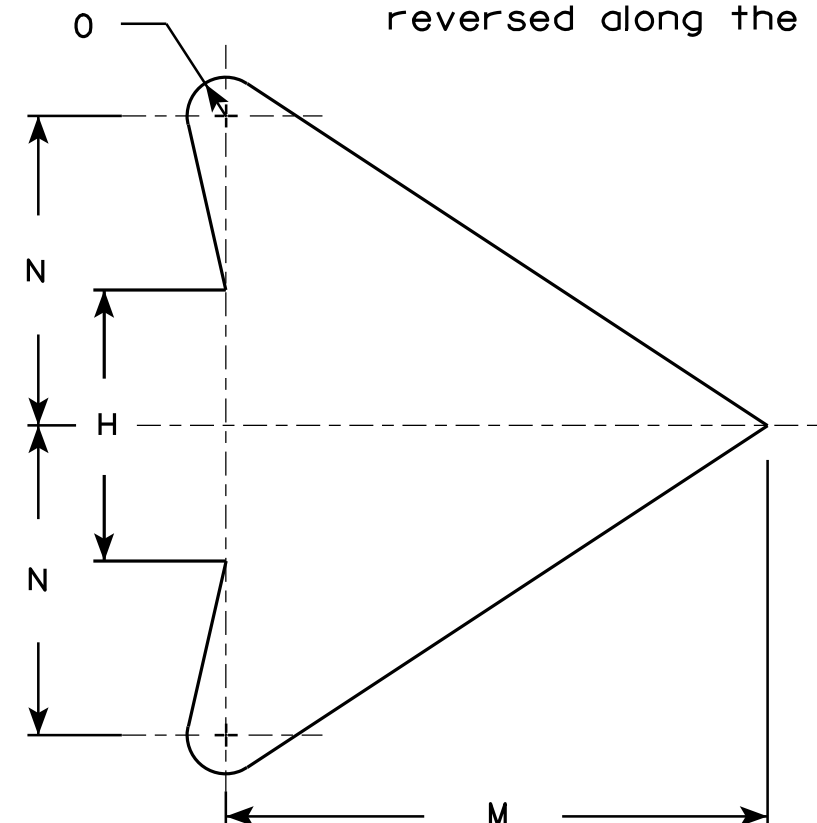
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 170 **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

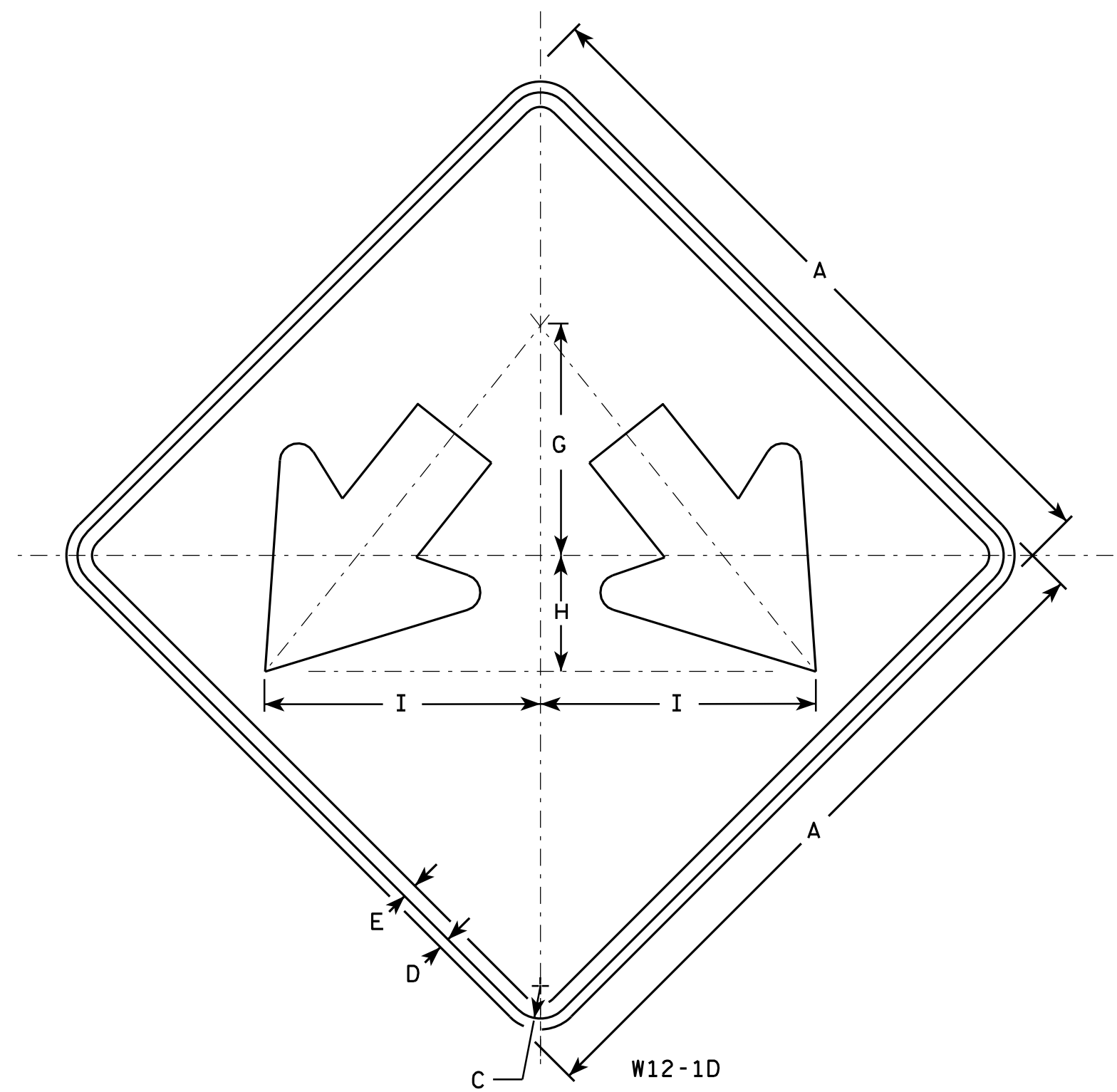
STANDARD SIGN W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

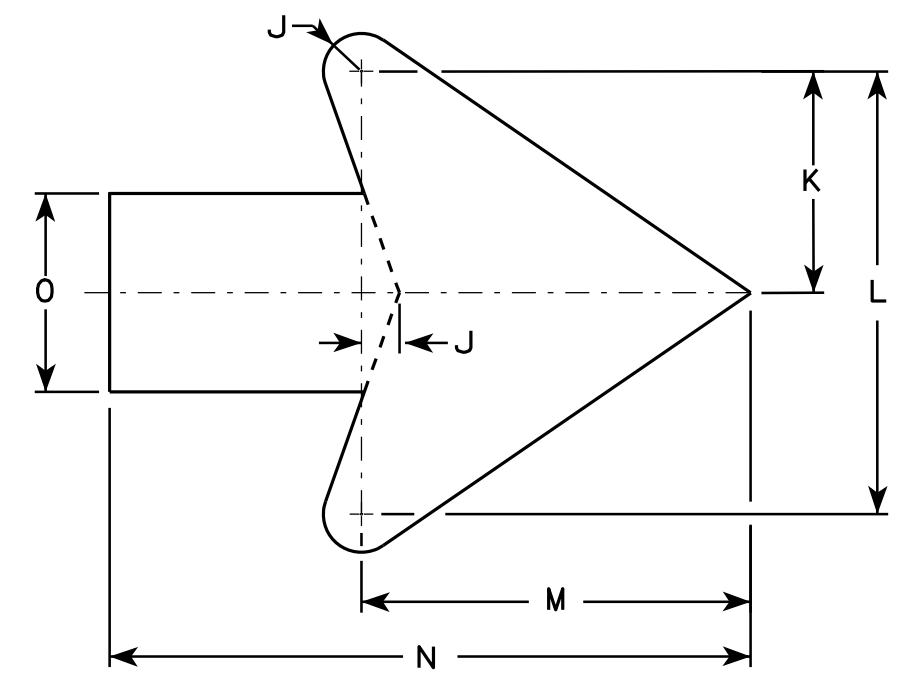
DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO: HWY: COUNTY: SHEET NO: 171 E



NOTES

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

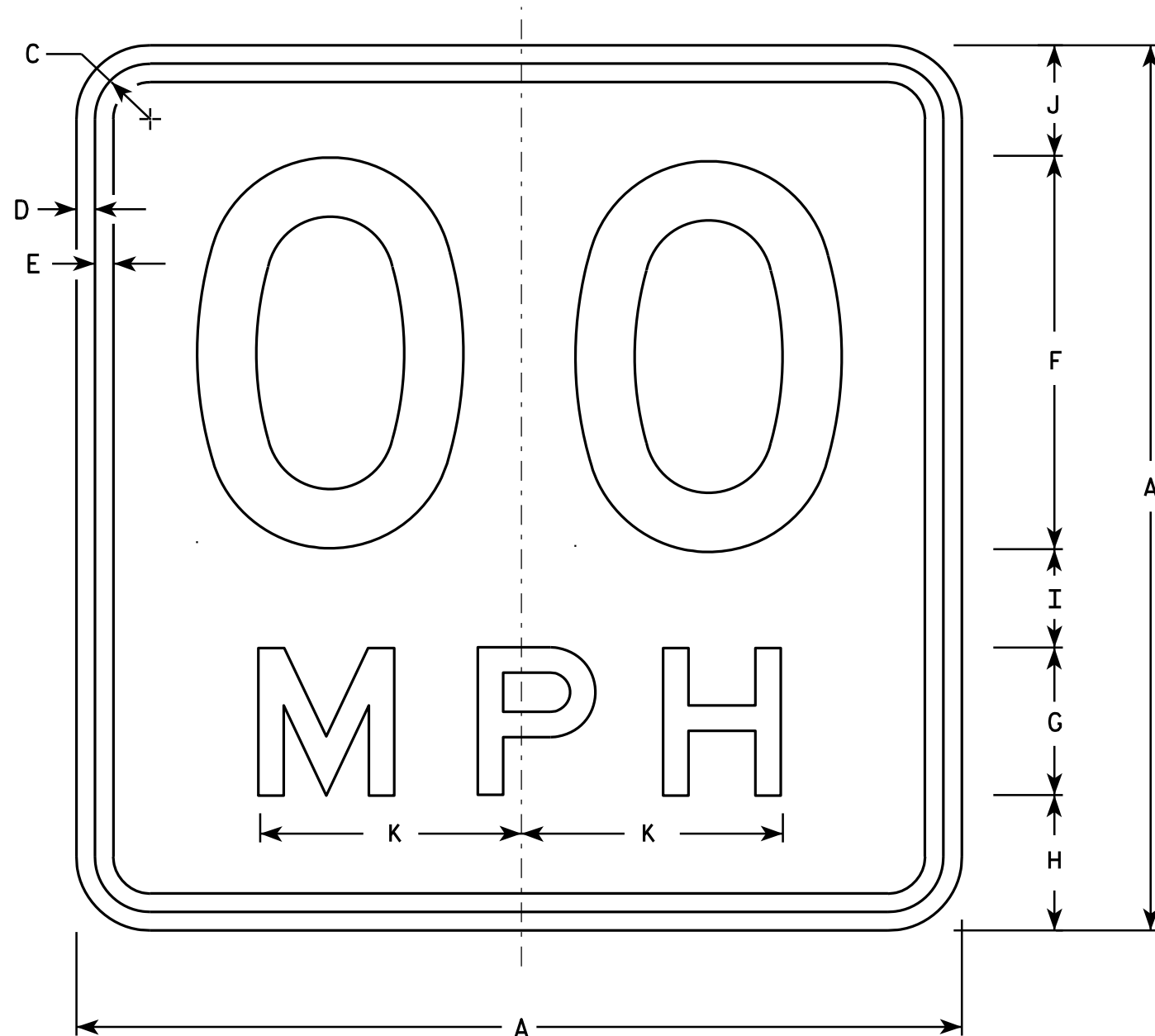


Arrow Detail

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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/11	PLATE NO. W12-1D.14

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 172	E
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NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area Sq. Ft.
1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

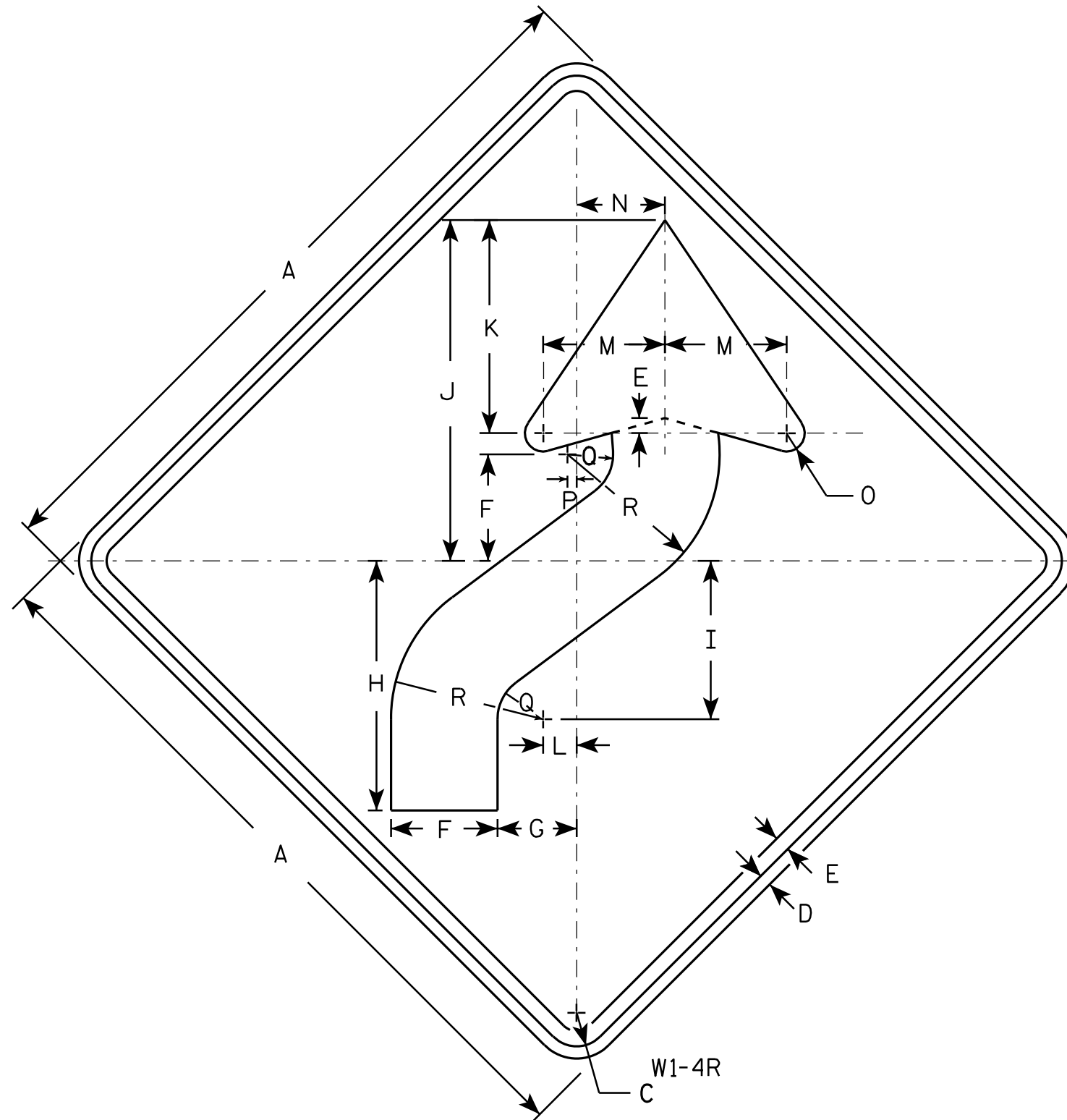
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 173

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R 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	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	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
3	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
4	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
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

W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO:

HWY:

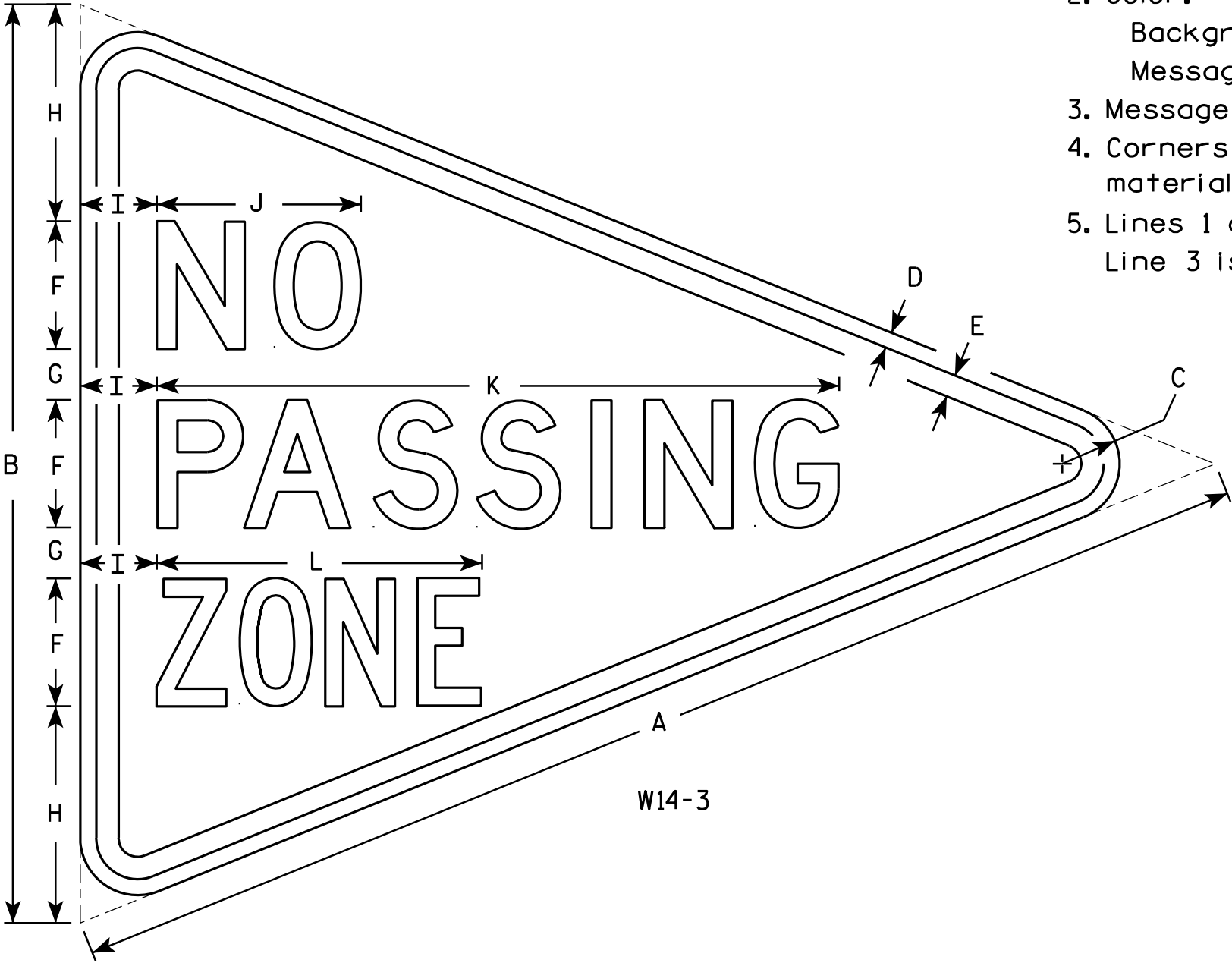
COUNTY:

SHEET NO: 174

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. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



W14-3

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															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

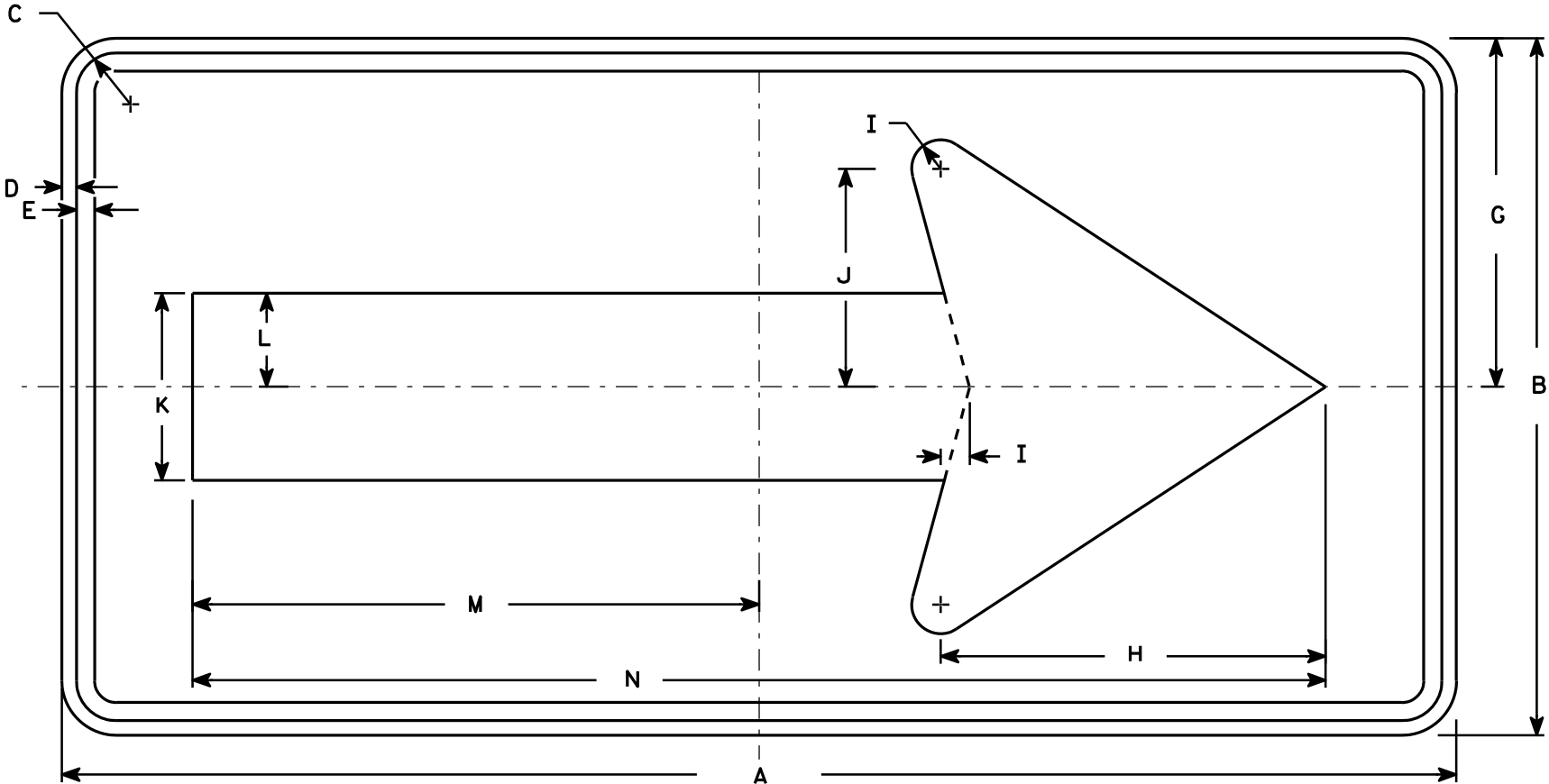
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

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.



W1-6

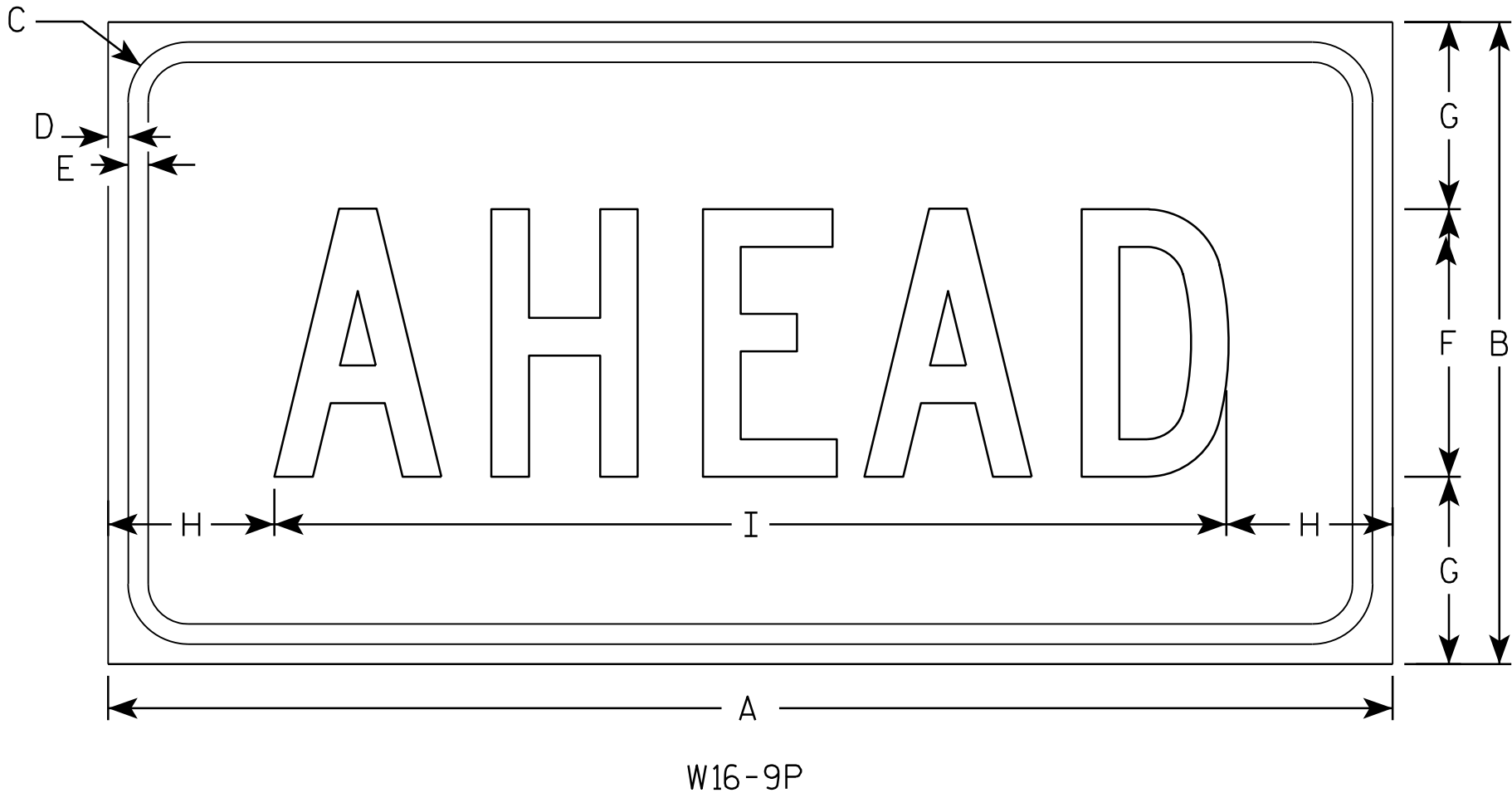
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

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

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 - Yellow
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.

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	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

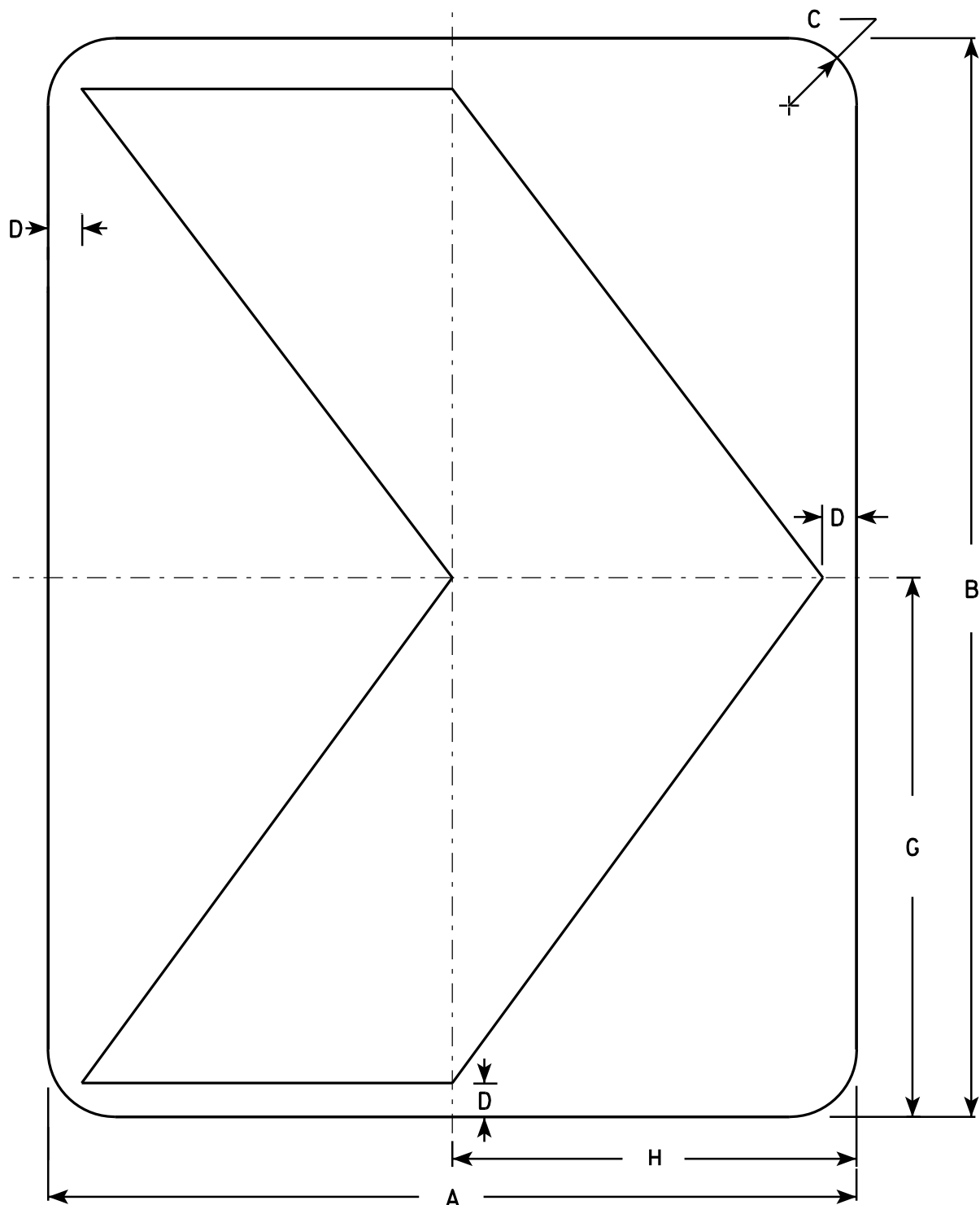
STANDARD SIGN

W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6



NOTES

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

W1-8

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	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

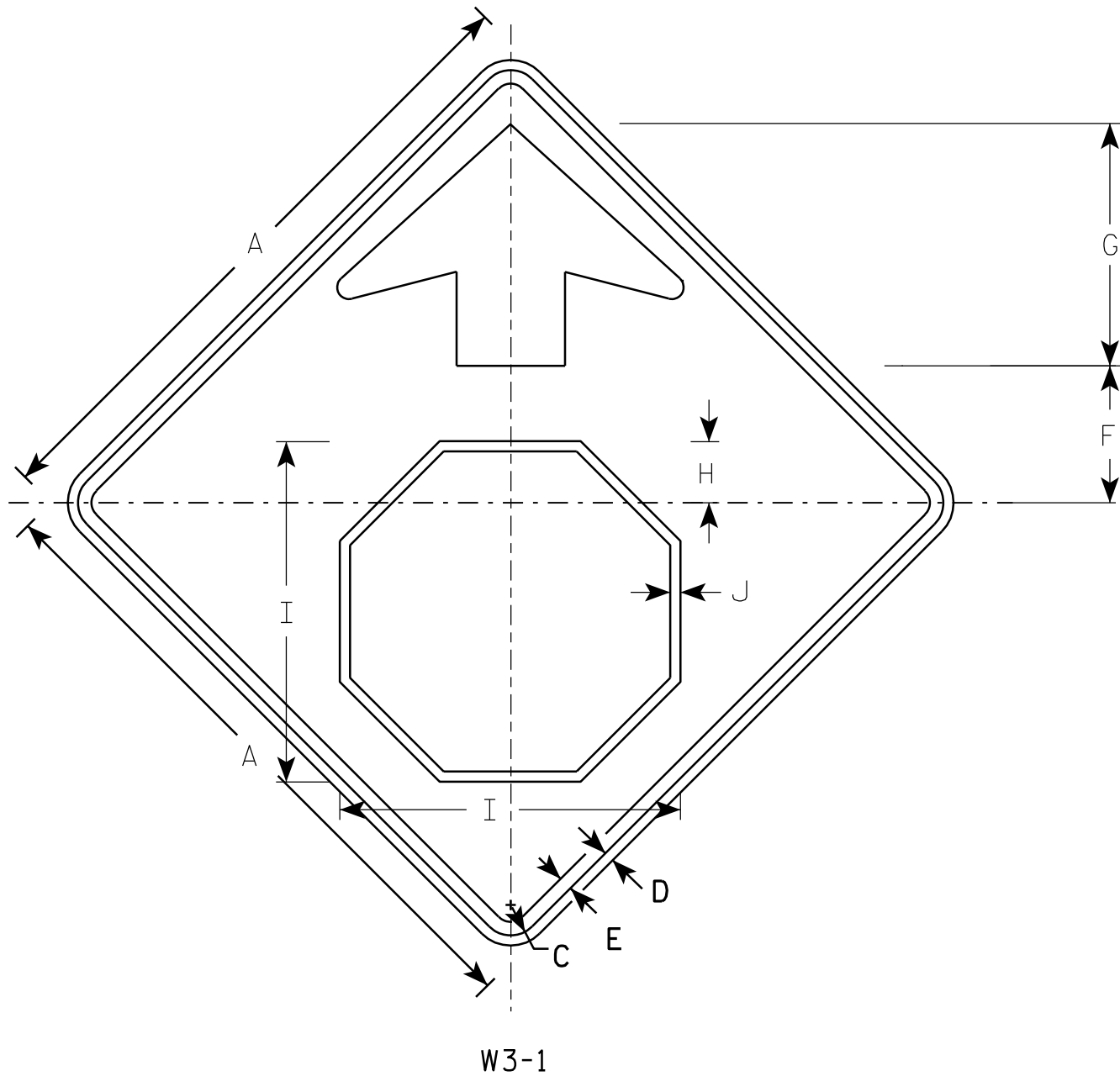
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

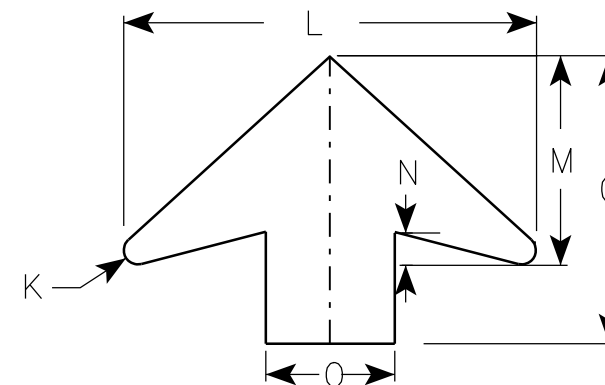
SHEET NO: 178

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

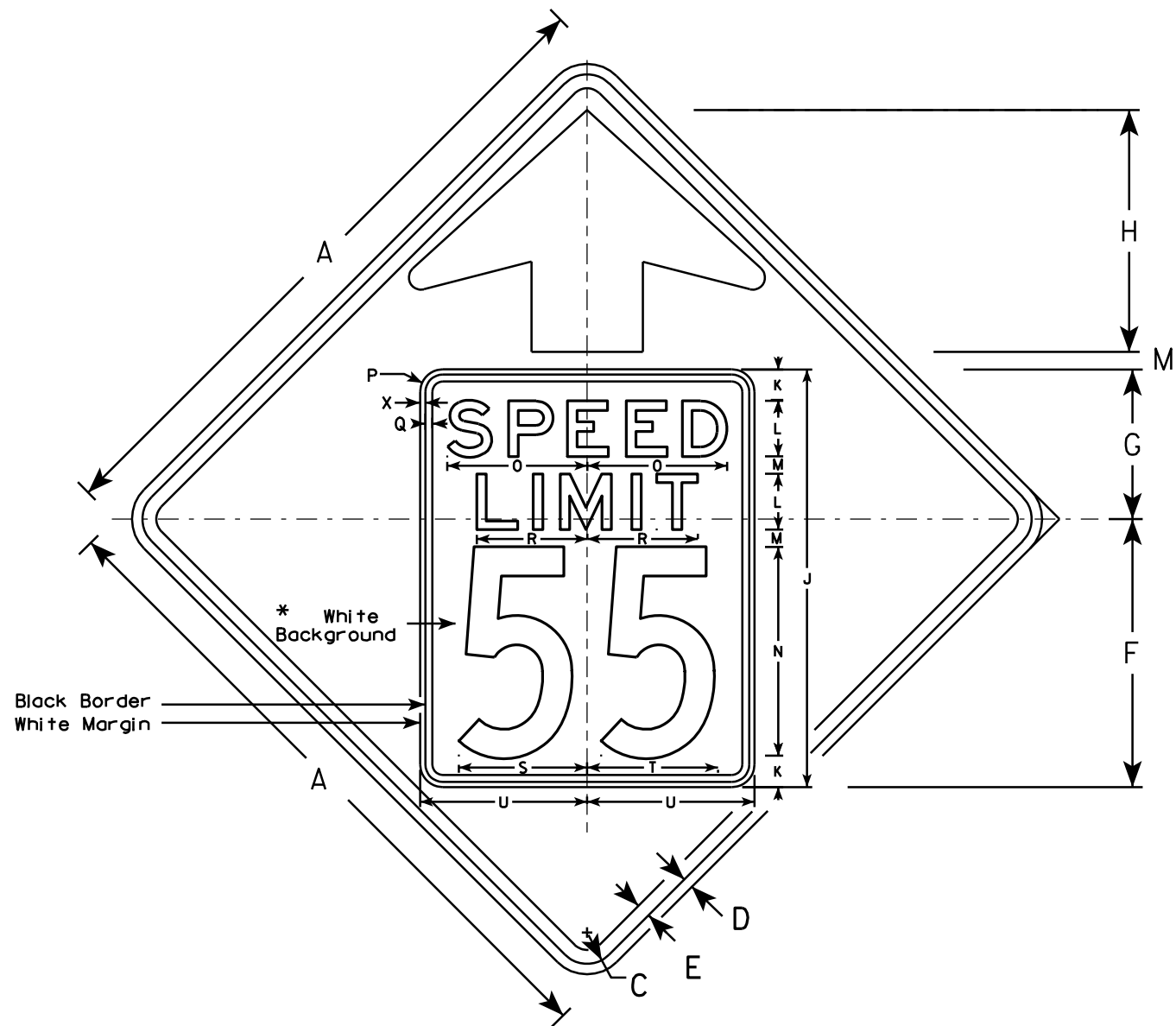
PROJECT NO:

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: 179

E

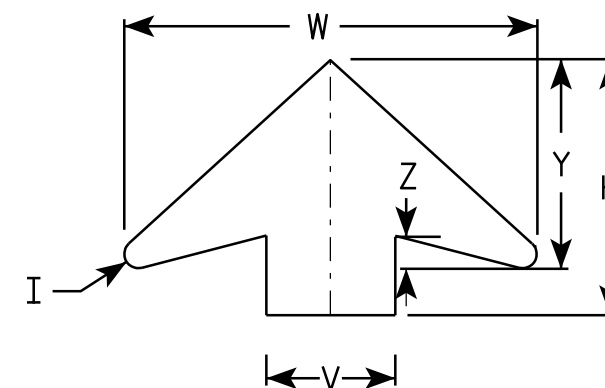


W3-5

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

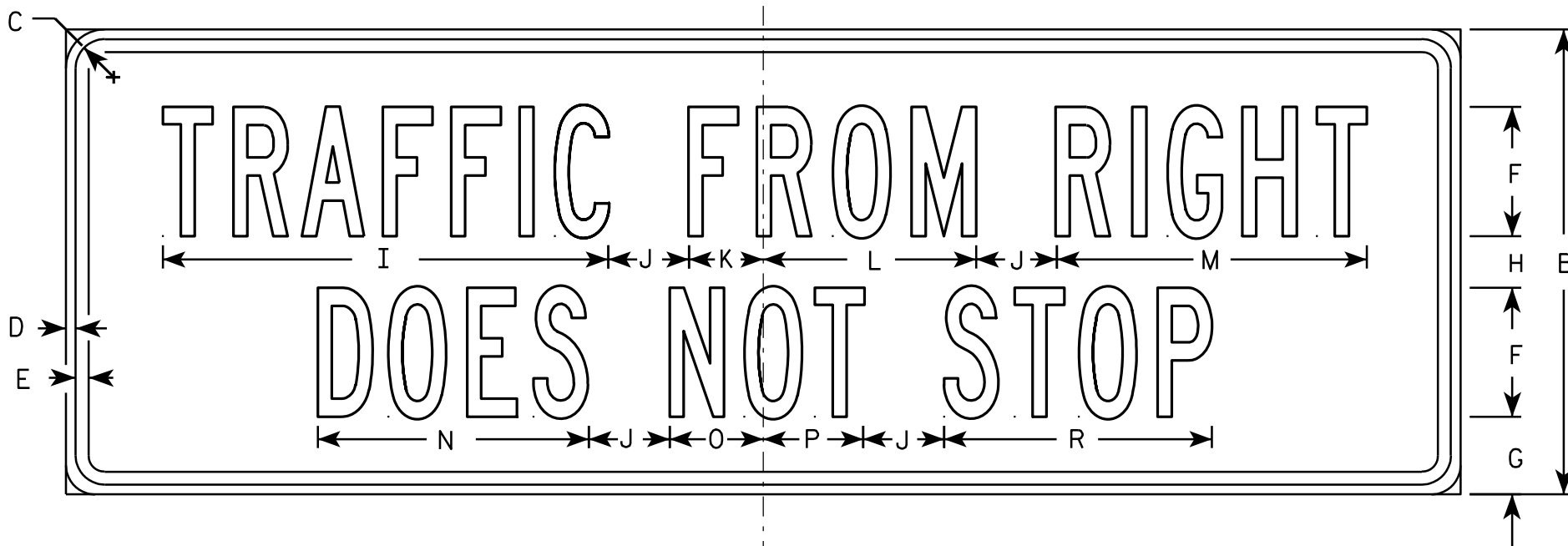
PROJECT NO:

SHEET NO: 180

E

TRAFFIC FROM LEFT

W4-4AL



W4-4AR

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
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.
5. R1-52L same as R1-52R except word LEFT replaces the word RIGHT and spacing is adjusted to achieve balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	1 3/4	4 7/8	7 1/4	6 1/4	2 1/4	2 1/4		6 1/4	1	5 5/8	5 3/4						2.5
2M	30	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	1 3/4	4 7/8	7 1/4	6 1/4	2 1/4	2 1/4		6 1/4	1	5 5/8	5 3/4						2.5
3	42	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	13 7/8	2 3/8	2 1/8	6 3/4	9 3/4	8 3/8	2 3/4	3 3/8		8 3/8	1 1/8	7 3/4	7 3/4						4.4
4	54	18	1 1/8	3/8	1/2	5	3	2	17 1/4	3 1/8	2 7/8	8 1/4	12	10 1/2	3 5/8	3 7/8		10 3/8	1 3/4	9 3/8	9 5/8						6.8
5																											

STANDARD SIGN
W4-4AL & W4-4AR

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/30/10 PLATE NO. W4-4A.1

PROJECT NO: HWY: COUNTY: SHEET NO: 181 E

NOTES

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



W4-4B

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	12	1 1/8	3/8	1/2	3	2 1/4	1 1/2	12 3/8	5/8	1 1/2	10 3/8	6 1/4	2 1/4	2 1/4	6 1/4											2.5
2M	30	12	1 1/8	3/8	1/2	3	2 1/4	1 1/2	12 3/8	5/8	1 1/2	10 3/8	6 1/4	2 1/4	2 1/4	6 1/4											2.5
3	42	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	16 7/8	5/8	2 3/8	13 7/8	8 3/8	3	3 1/8	8 3/8											4.17
4	48	18	1 1/8	3/8	1/2	5	3	2	21	5/8	3 1/8	17 1/4	10 1/2	3 5/8	3 7/8	10 3/8											6.0
5																											

STANDARD SIGN
W4-4B

WISCONSIN DEPT OF TRANSPORTATION

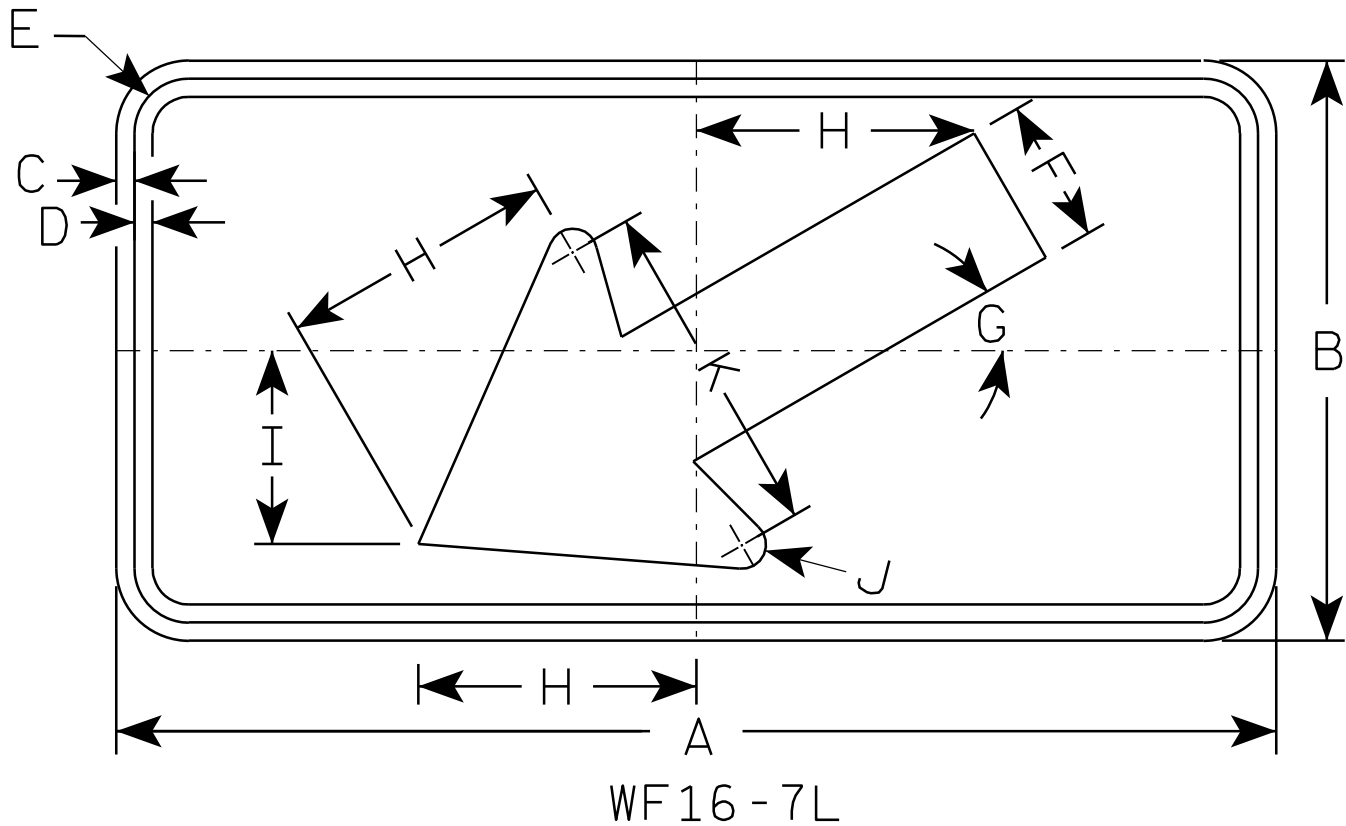
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/21/10 PLATE NO. W4-4B.1

PROJECT NO: HWY: COUNTY: SHEET NO: 182 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-Green
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. WF16-7R are the same as WF-16-7L except the arrow is reversed along the vertical centerline.

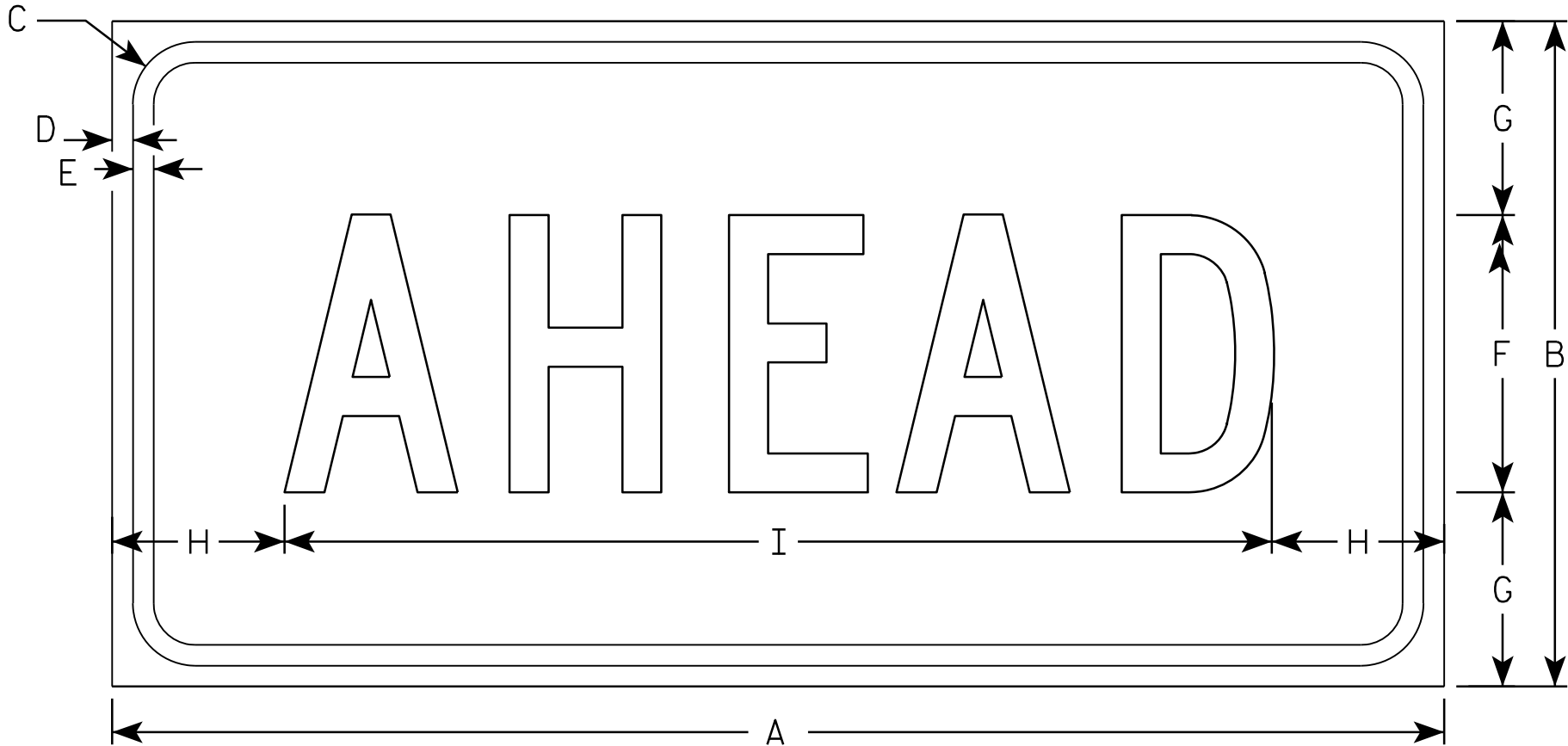


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2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

STANDARD SIGN	
WF16-7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/21/10	PLATE NO. WF16-7.3

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-Green
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.



WF16-9P

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN

WF16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/29/2012 PLATE NO. WF16-9P.4

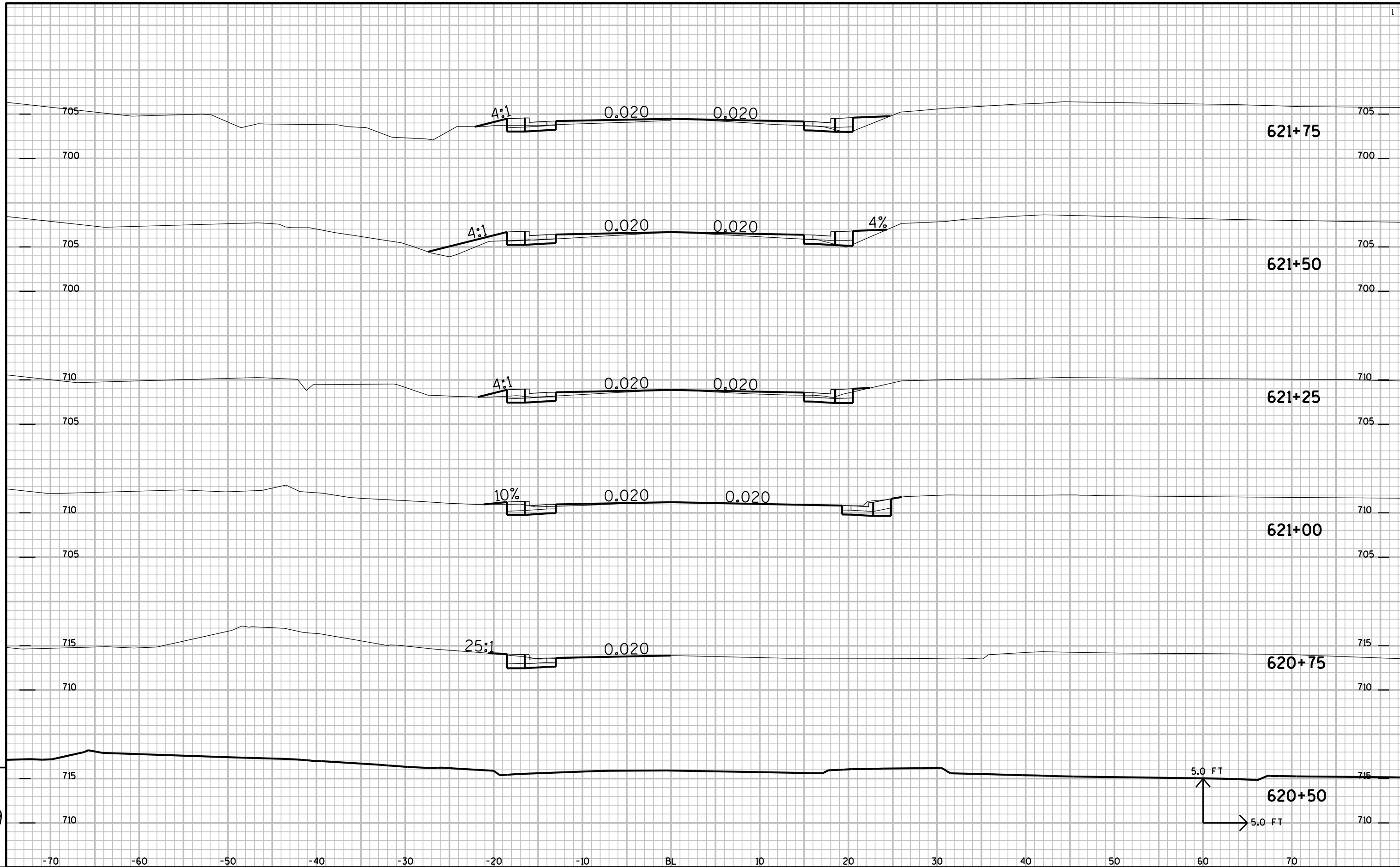
		END AREAS		INCREMENTAL VOLUMES		CUMULATIVE VOLUMES		
STATION	LOC	CUT	FILL	CUT	FILL	CUT	FILL	MASS HAUL
		NEW SIDEWALK AREA						
660+00	LT	6.1	1.6					
660+25	LT	8.3	0.5	7	1	7	1	6
660+50	LT	8.1	0.8	8	1	14	2	13
660+75	LT	7.2	2.8	7	2	21	3	18
661+00	LT	9.0	0.5	8	2	29	5	24
661+25	LT	7.7	0.6	8	1	37	5	31
661+50	LT	2.2	1.2	5	1	41	6	35
661+75	LT	2.2	1.9	2	1	43	8	36
662+00	LT	2.7	2.7	2	2	45	10	36
662+25	LT	2.9	0.3	3	1	48	11	37
662+50	LT	2.7	0.3	3	0	51	11	39
662+75	LT	2.6	0.6	2	0	53	12	41
663+00	LT	2.8	0.7	3	1	56	12	43
663+25	LT	2.9	0.8	3	1	58	13	45
663+50	LT	2.6	0.2	3	0	61	14	47
663+75	LT	4.3	0.0	3	0	64	14	50
664+00	LT	4.0	0.0	4	0	68	14	54
664+25	LT	4.3	0.0	4	0	72	14	58
664+50	LT	4.5	0.0	4	0	76	14	62
664+75	LT	5.5	0.0	5	0	80	14	67
665+00	LT	5.5	0.0	5	0	85	14	72
665+25	LT	4.0	0.0	4	0	90	14	76

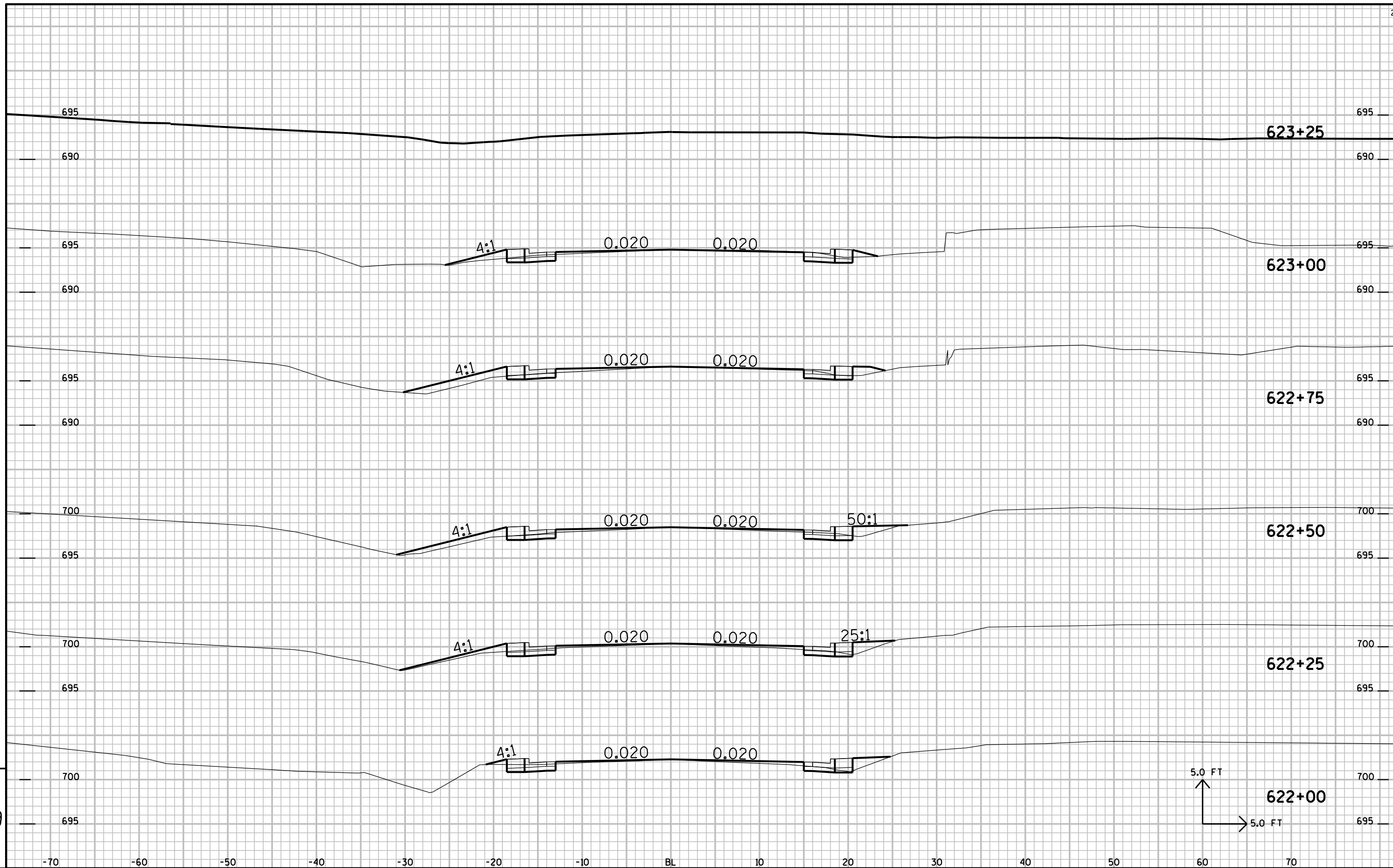
EARTHWORK VOLUMES

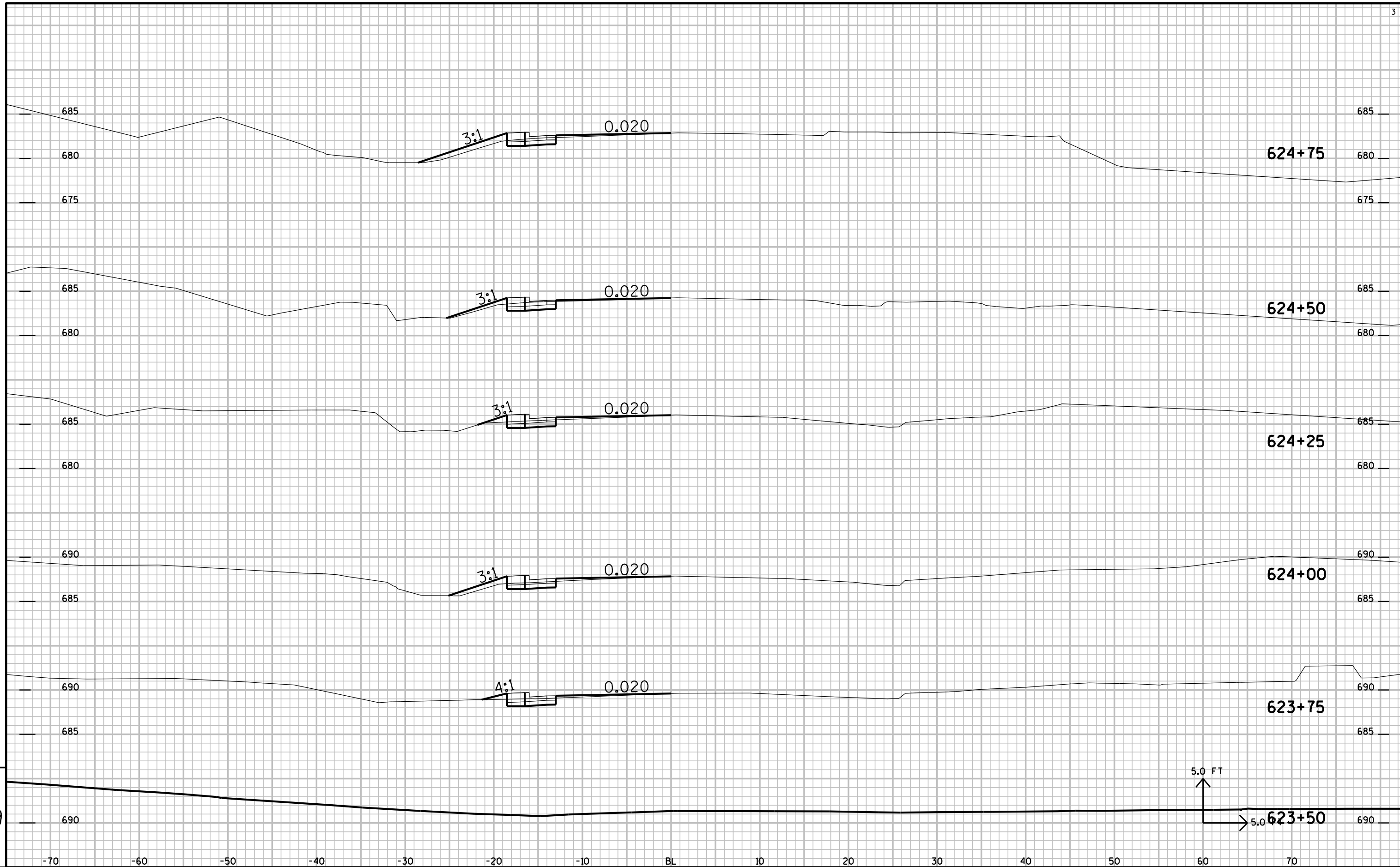
NOTES: CUT = COMMON EXCAVATION
CUMULATIVE VOLUMES AND MASS HAUL ARE BASED ON ASSUMPTION THAT 100% OF THE CUT MATERIALS ARE USABLE AS FILL

STATION	LOC	END AREAS		INCREMENTAL VOLUMES		CUMULATIVE VOLUMES		MASS HAUL
		CUT	FILL	CUT	FILL	CUT	FILL	
		NEW C&G AREAS						
620+60	LT	6.4	0.0					
620+75	LT	6.4	0.5	4	0	4	0	3
621+00	LT	5.4	0.9	5	1	9	1	8
621+25	LT	3.5	2.7	4	2	13	2	11
621+50	LT	2.7	9.0	3	5	16	8	8
621+75	LT	3.4	3.0	3	6	19	13	5
622+00	LT	4.4	1.9	4	2	22	16	7
622+25	LT	4.7	5.9	4	4	27	19	7
622+50	LT	3.0	9.2	4	7	30	26	4
622+75	LT	2.8	11.0	3	9	33	36	-3
623+00	LT	5.1	5.0	4	7	37	43	-7
623+20	LT	5.1	0.0	4	2	40	45	-5
623+60	LT	4.3	0.0	7	0	47	45	2
623+75	LT	4.3	2.4	2	1	50	46	4
624+00	LT	3.7	4.9	4	3	53	49	4
624+25	LT	4.0	2.6	4	3	57	53	4
624+50	LT	4.8	3.6	4	3	61	55	6
624+75	LT	4.0	7.2	4	5	65	60	5
625+00	LT	4.0	0.0	4	3	69	64	5
621+00	RT	7.3	0.0					
621+25	RT	4.2	1.5	5	1	5	1	5
621+50	RT	1.4	5.1	3	3	8	4	4
621+75	RT	3.4	3.0	2	4	10	8	3
622+00	RT	2.0	5.1	3	4	13	11	1
622+25	RT	2.7	5.5	2	5	15	16	-1
622+50	RT	3.6	5.6	3	5	18	21	-4
622+75	RT	3.6	4.6	3	5	21	26	-5
623+00	RT	2.7	3.3	3	4	24	30	-6
623+15	RT	2.7	0.0	2	1	25	31	-5

STATION	LOC	END AREAS		INCREMENTAL VOLUMES		CUMULATIVE VOLUMES		MASS HAUL
		CUT	FILL	CUT	FILL	CUT	FILL	
		PAVEMENT REPLACEMENT AREA						
632+60		65.7	0.0					
632+75		85.1	2.6	42	1	42	1	41
633+00		154.6	0.0	111	1	153	2	151
633+25		108.2	0.0	122	0	275	2	273
633+50		59.4	0.9	78	0	352	2	350
633+75		64.6	4.2	57	2	410	5	405
634+00		79.4	0.0	67	2	476	7	470
634+25		81.7	0.0	75	0	551	7	544
634+50		79.2	0.0	74	0	625	7	619
634+75		65.8	0.0	67	0	692	7	686
635+00		69.8	0.0	63	0	755	7	748
635+25		71.0	0.0	65	0	820	7	814
635+50		67.3	0.0	64	0	884	7	878
635+75		57.9	0.4	58	0	942	7	935
636+00		70.7	0.2	60	0	1002	7	995
636+25		117.7	0.0	87	0	1089	7	1082
636+50		91.9	0.0	97	0	1186	7	1179
636+75		74.5	0.0	77	0	1263	7	1256
637+00		69.0	0.0	66	0	1330	7	1322
637+25		66.8	0.0	63	0	1392	7	1385
637+50		70.0	0.0	63	0	1456	7	1449
637+75		71.8	0.0	66	0	1521	7	1514
638+00		71.8	0.0	66	0	1588	7	1581
638+25		74.1	0.0	68	0	1655	7	1648
638+50		77.1	0.0	70	0	1725	7	1718
638+75		77.0	0.0	71	0	1797	7	1790
639+00		74.8	0.0	70	0	1867	7	1860
639+37		118.3	0.0	132	0	1999	7	1992
639R+67		73.0	0.0	106	0	2106	7	2098

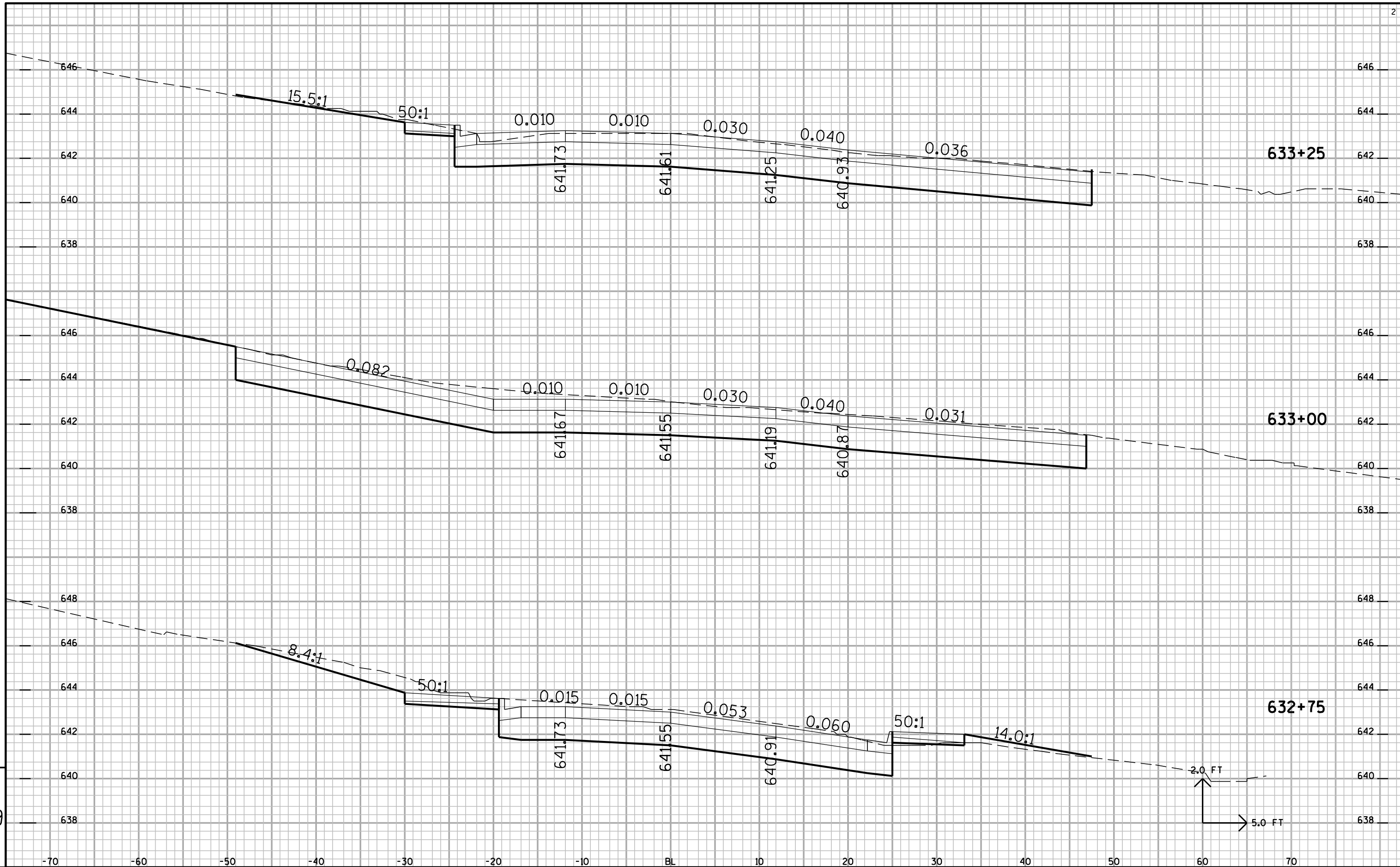


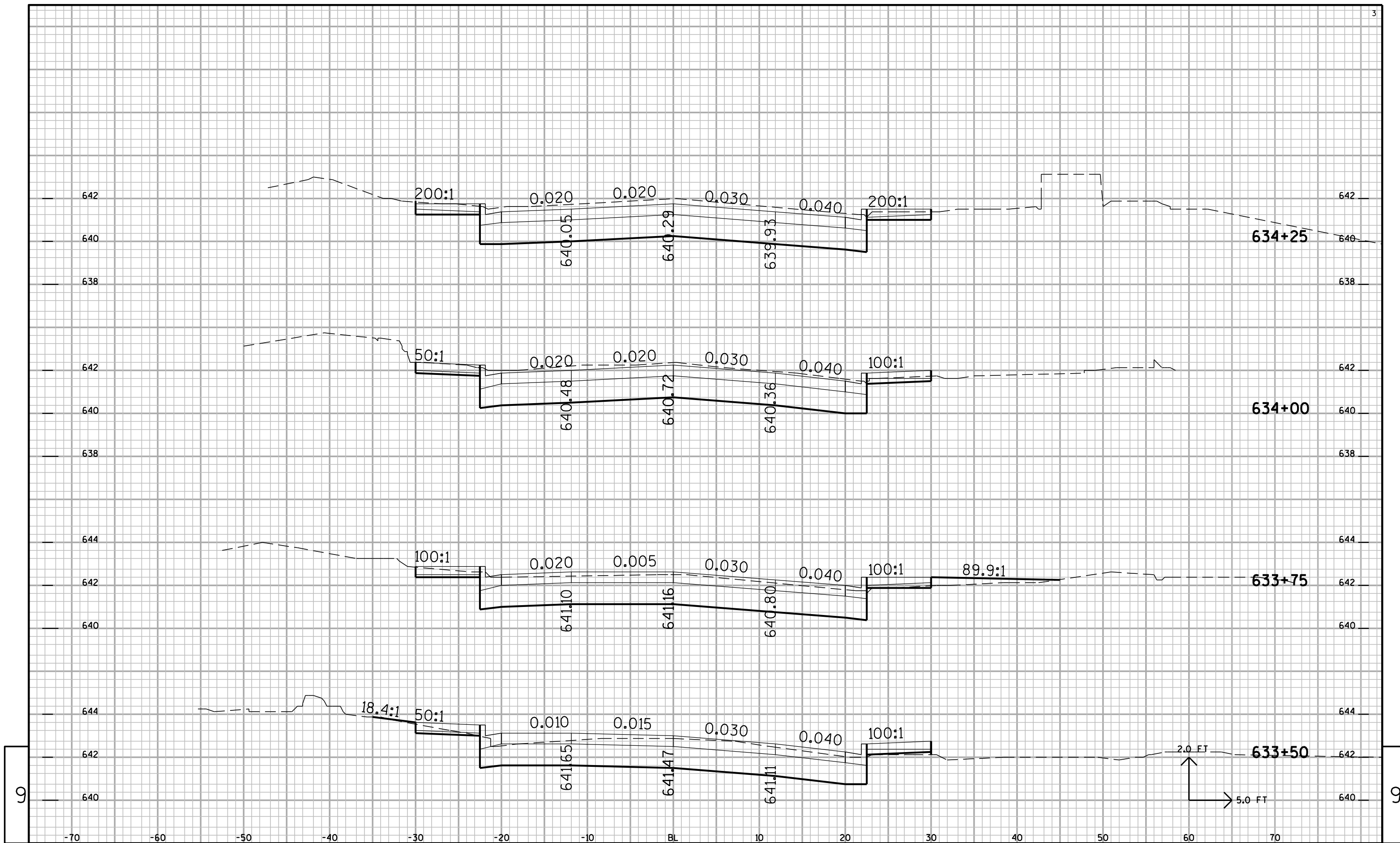


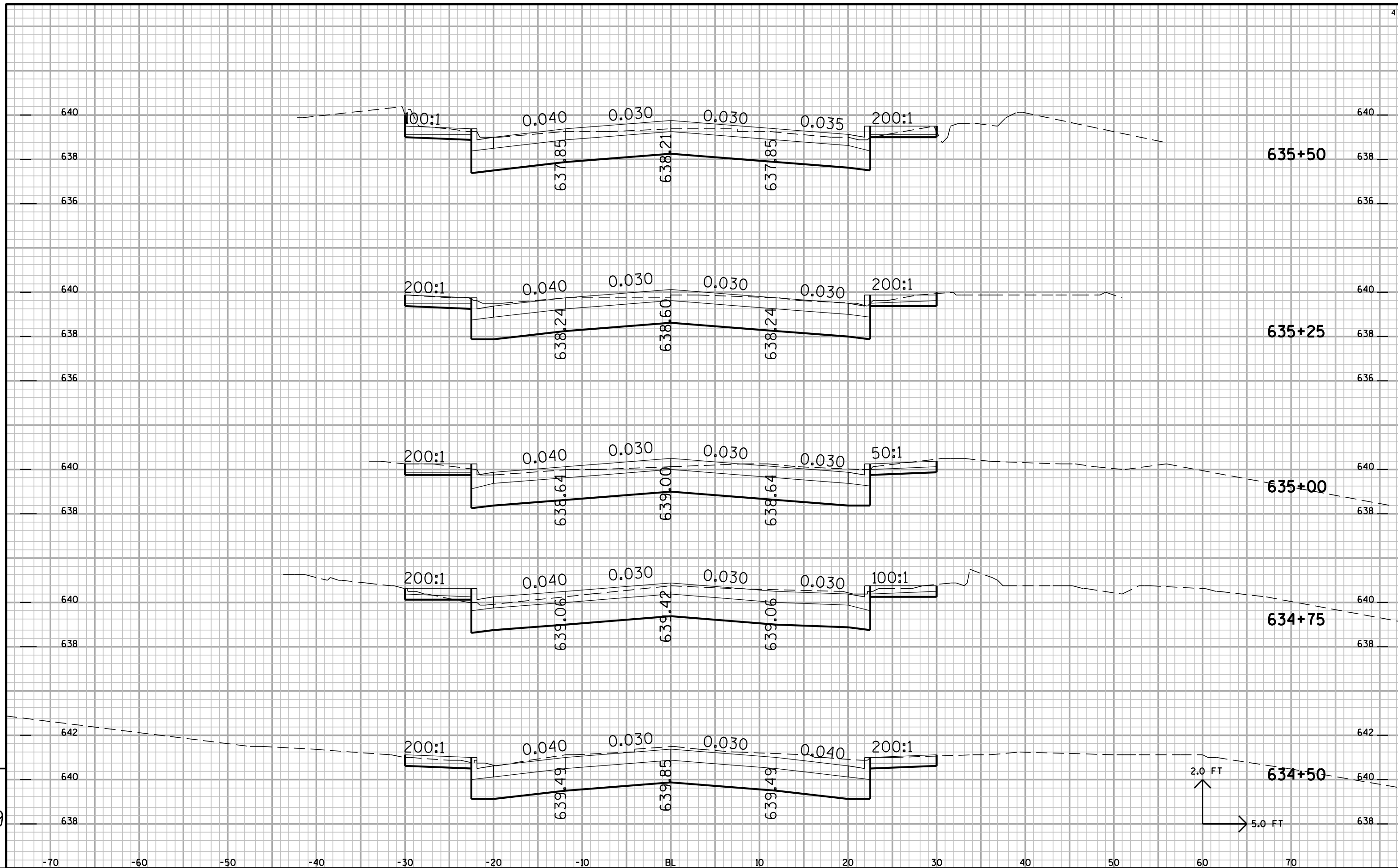












PROJECT NO: 8160-14-71

HWY: STH13/RITTENHOUSE

COUNTY: BAYFIELD

CROSS SECTIONS:

STH 13 (RITTENHOUSE)

SHEET NO: 194

E

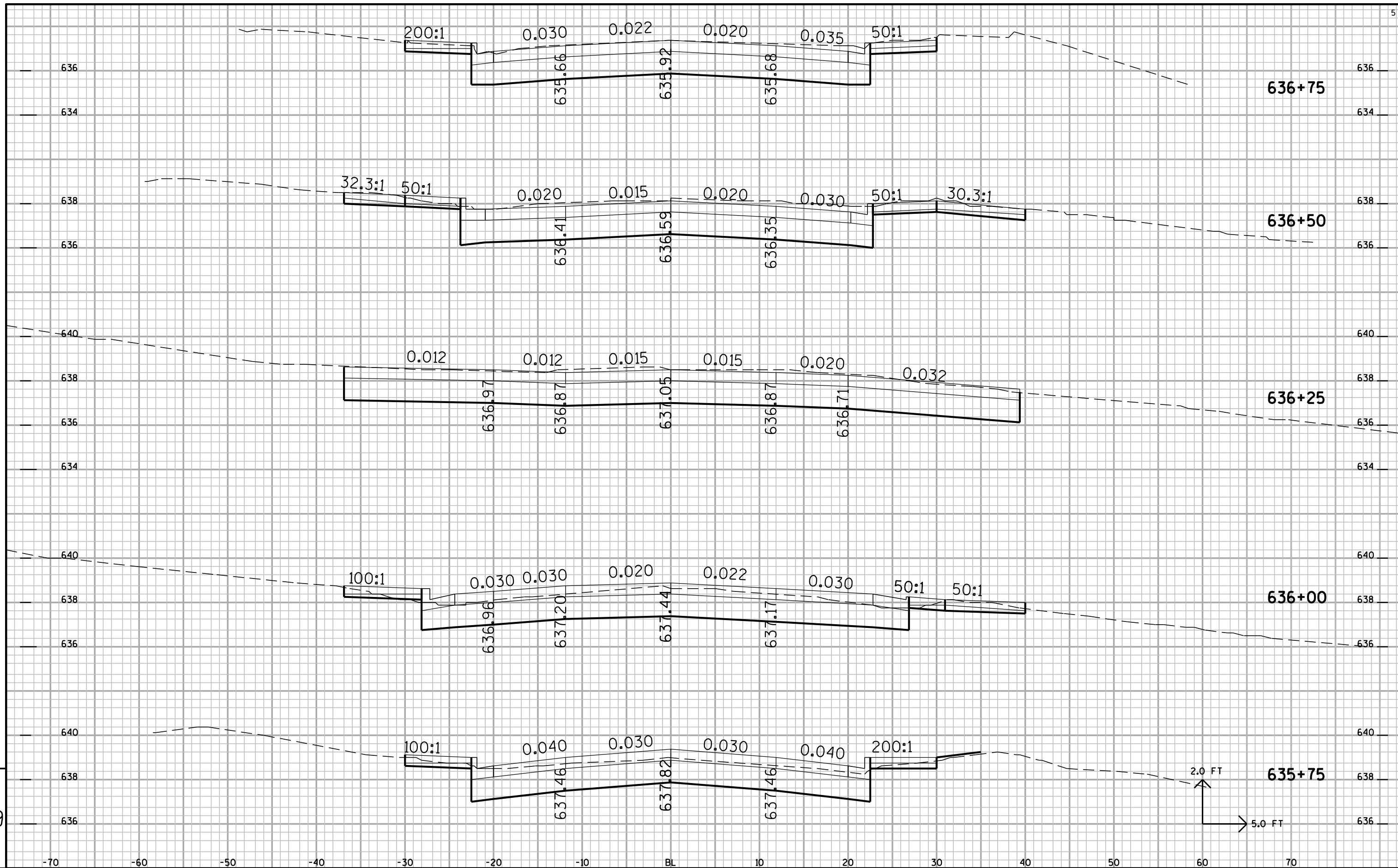
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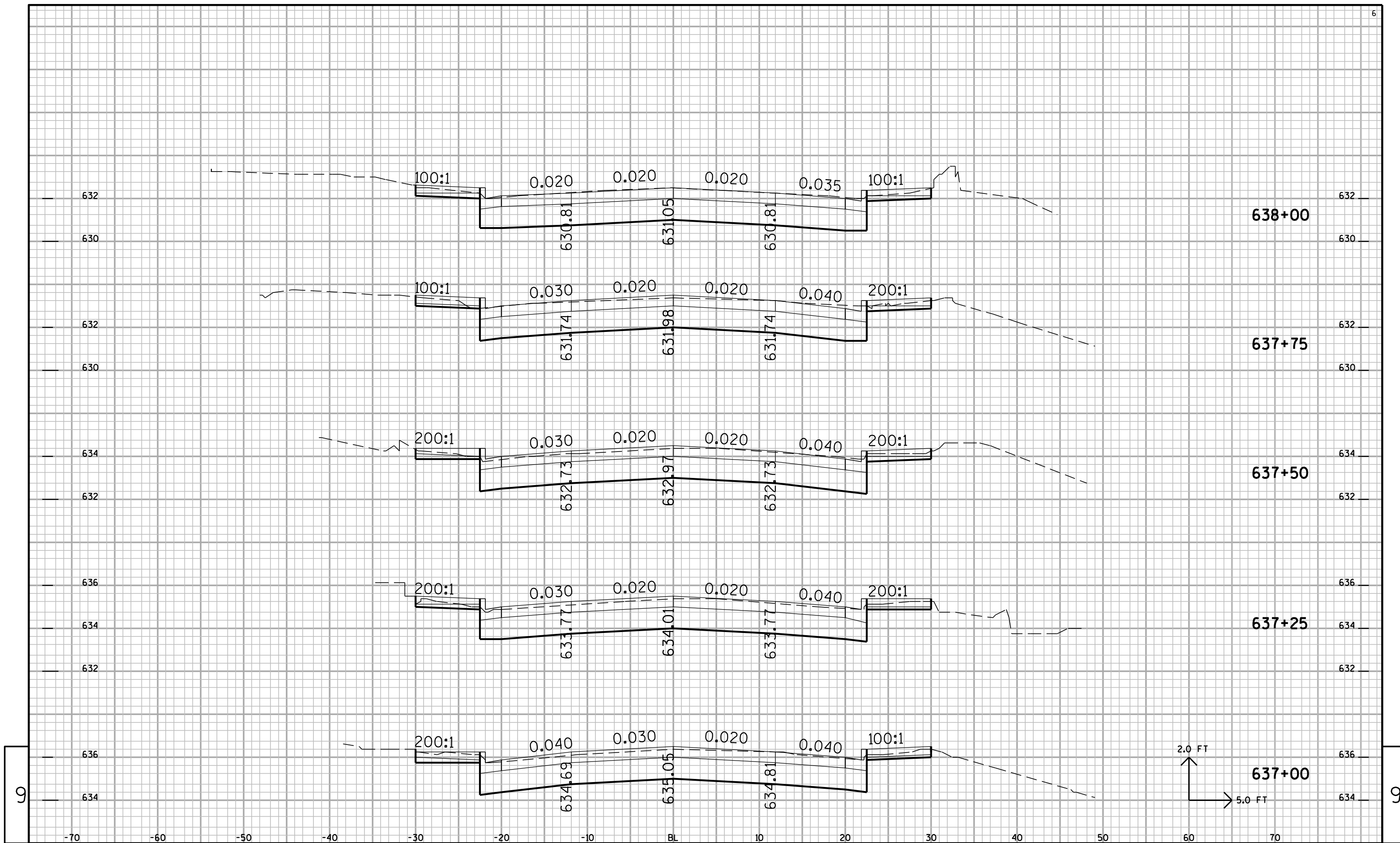
PLOT DATE : 29-OCT-2012 10:22

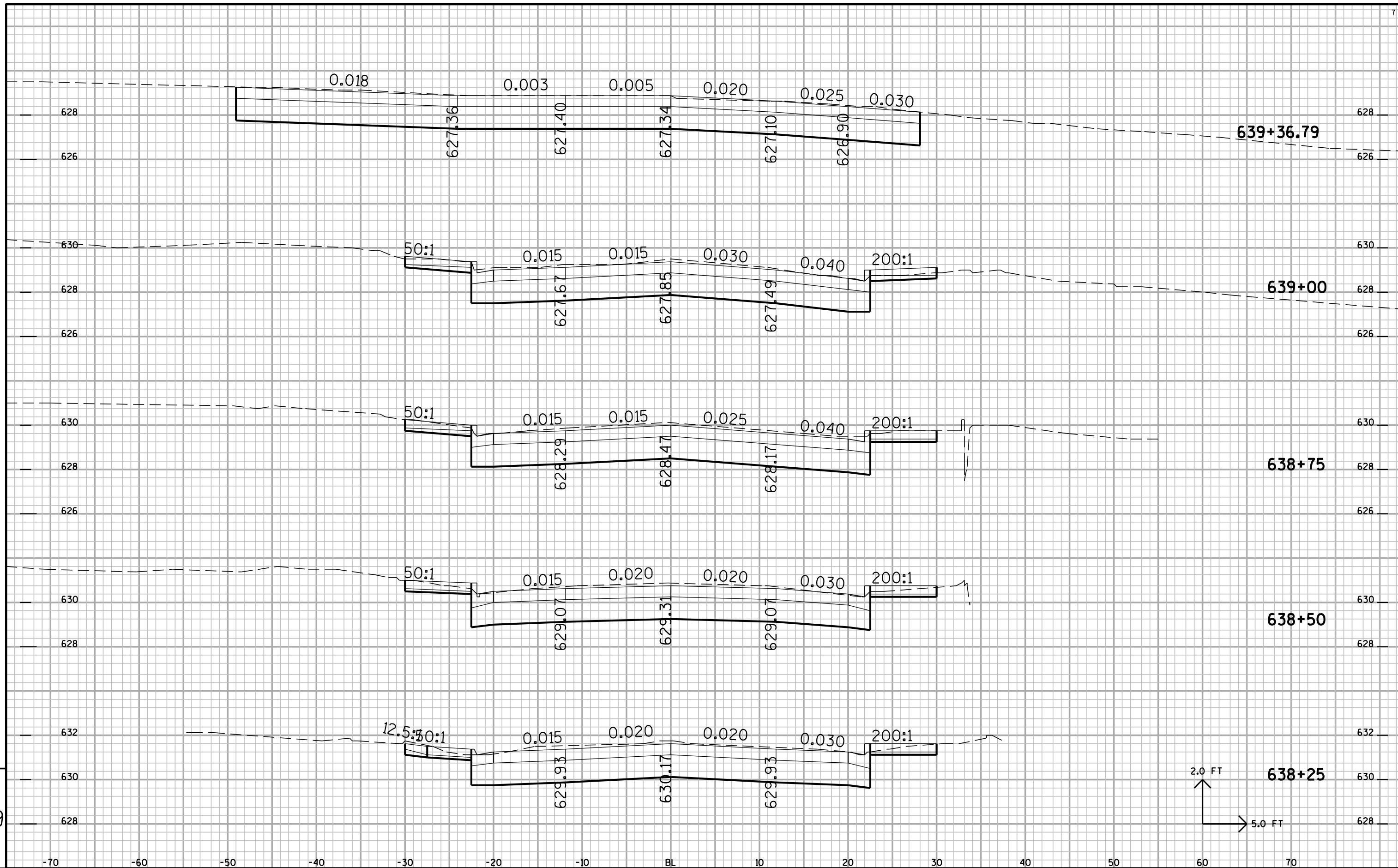
PLOT BY : dotbxx

PLOT NAME :

PLOT SCALE : 2:1







PROJECT NO: 8160-14-71

HWY: STH13/RITTENHOUSE

COUNTY: BAYFIELD

CROSS SECTIONS:

STH 13 (RITTENHOUSE)

SHEET NO: 197

E

FILE NAME : n:\PDS\Design\Projects\81601400_13_Bay-K\DGNS\PlanShts\090203_xs.DGN

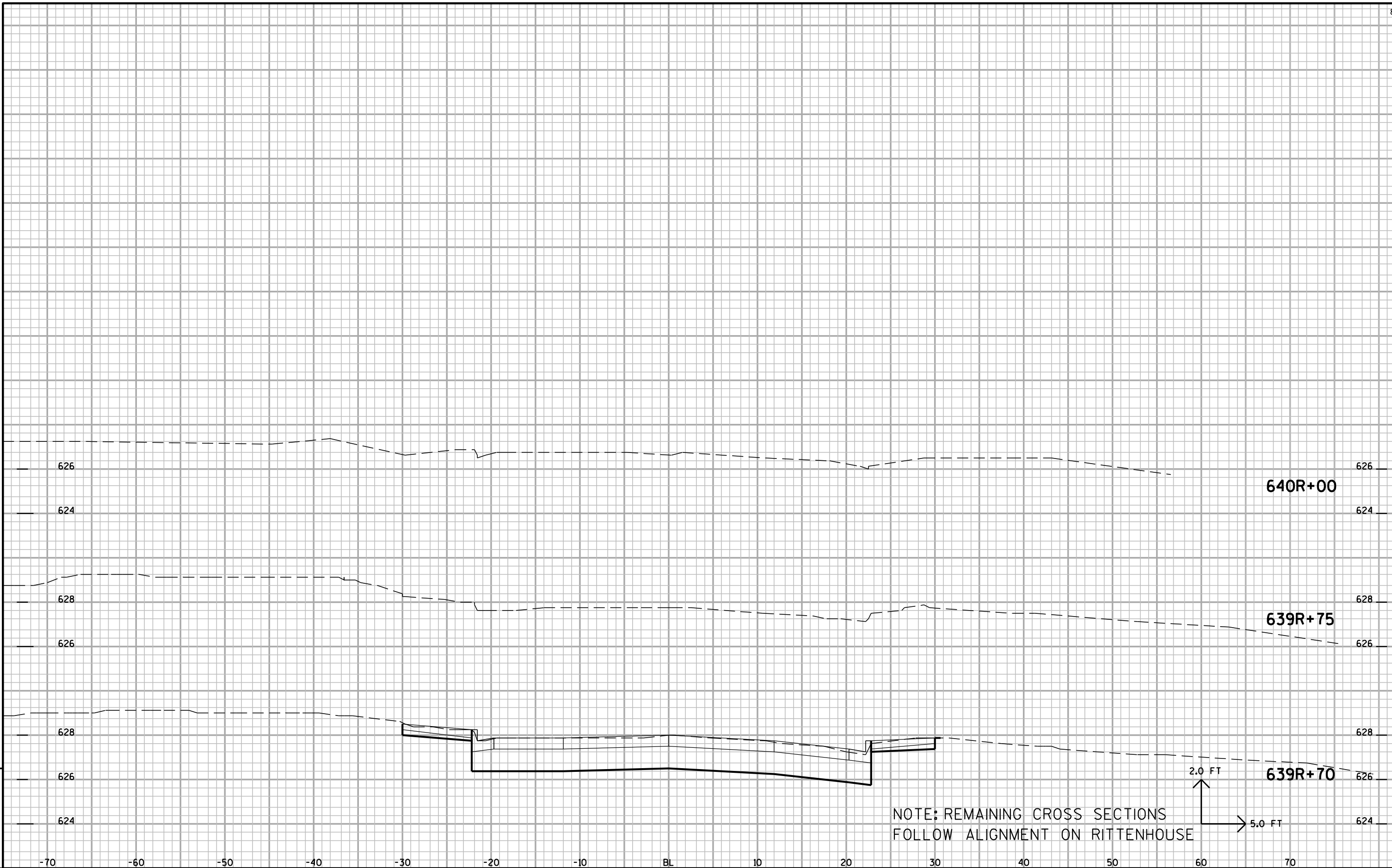
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PLOT BY : dotbxx

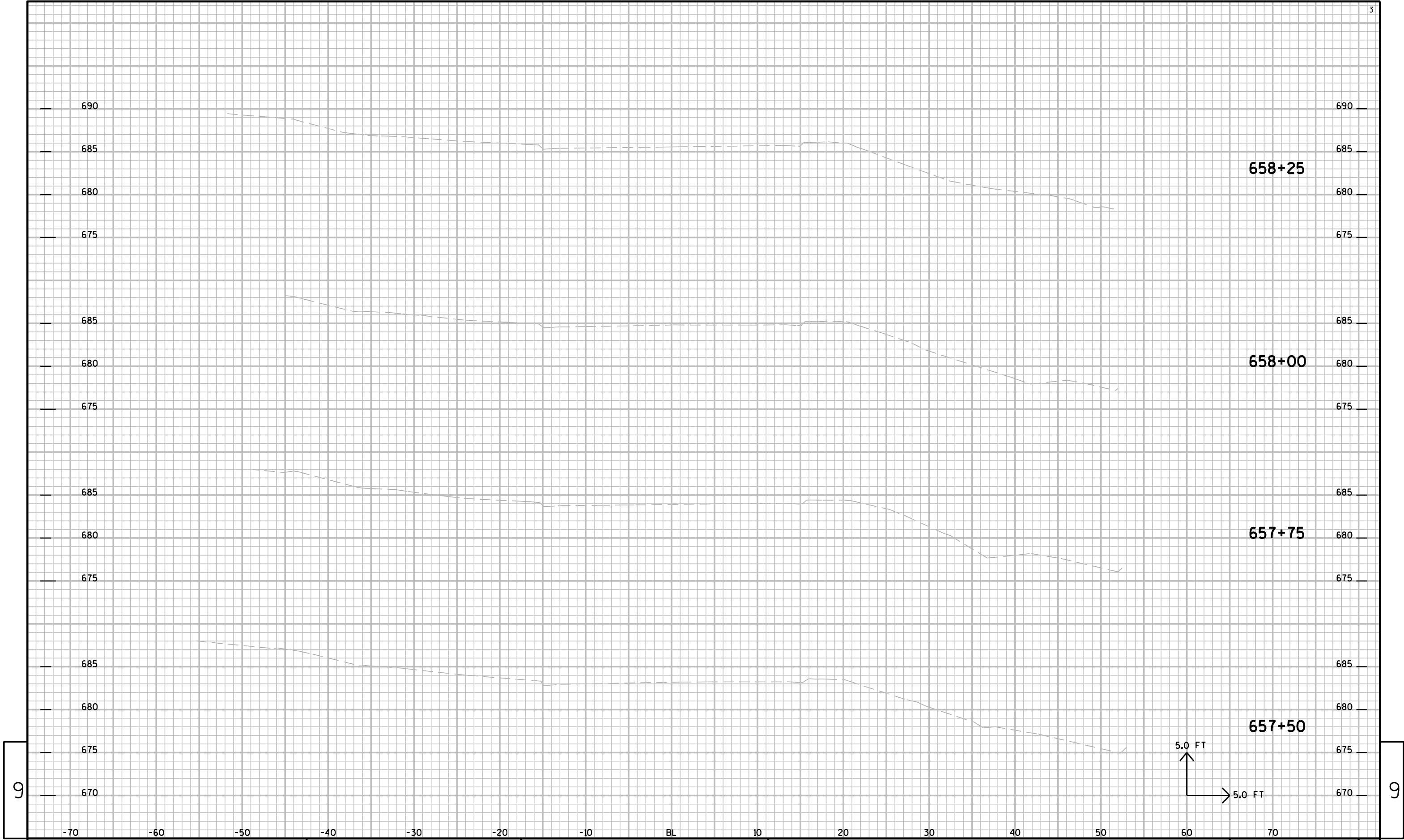
PLOT NAME :

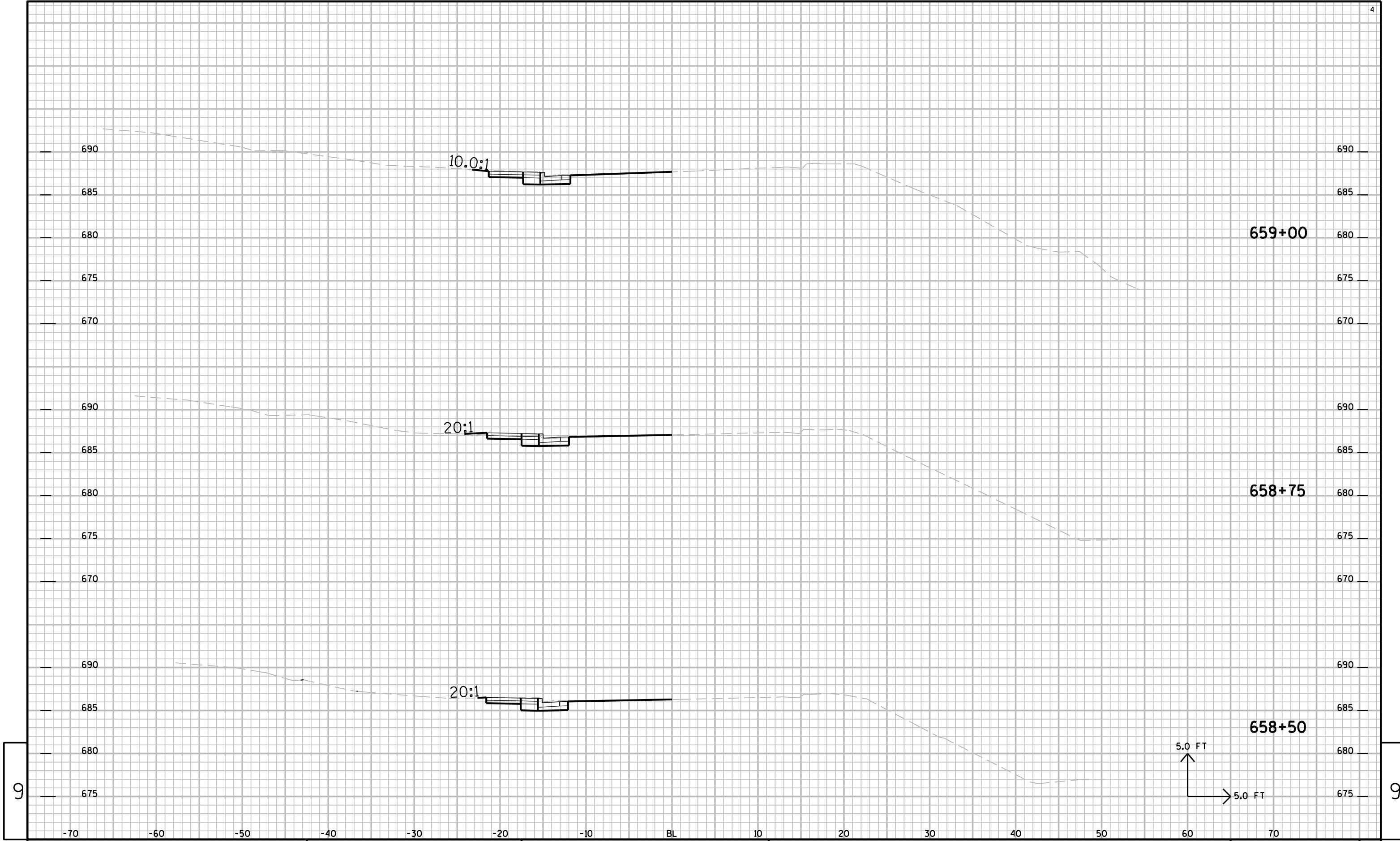
PLOT SCALE : 2:1

9



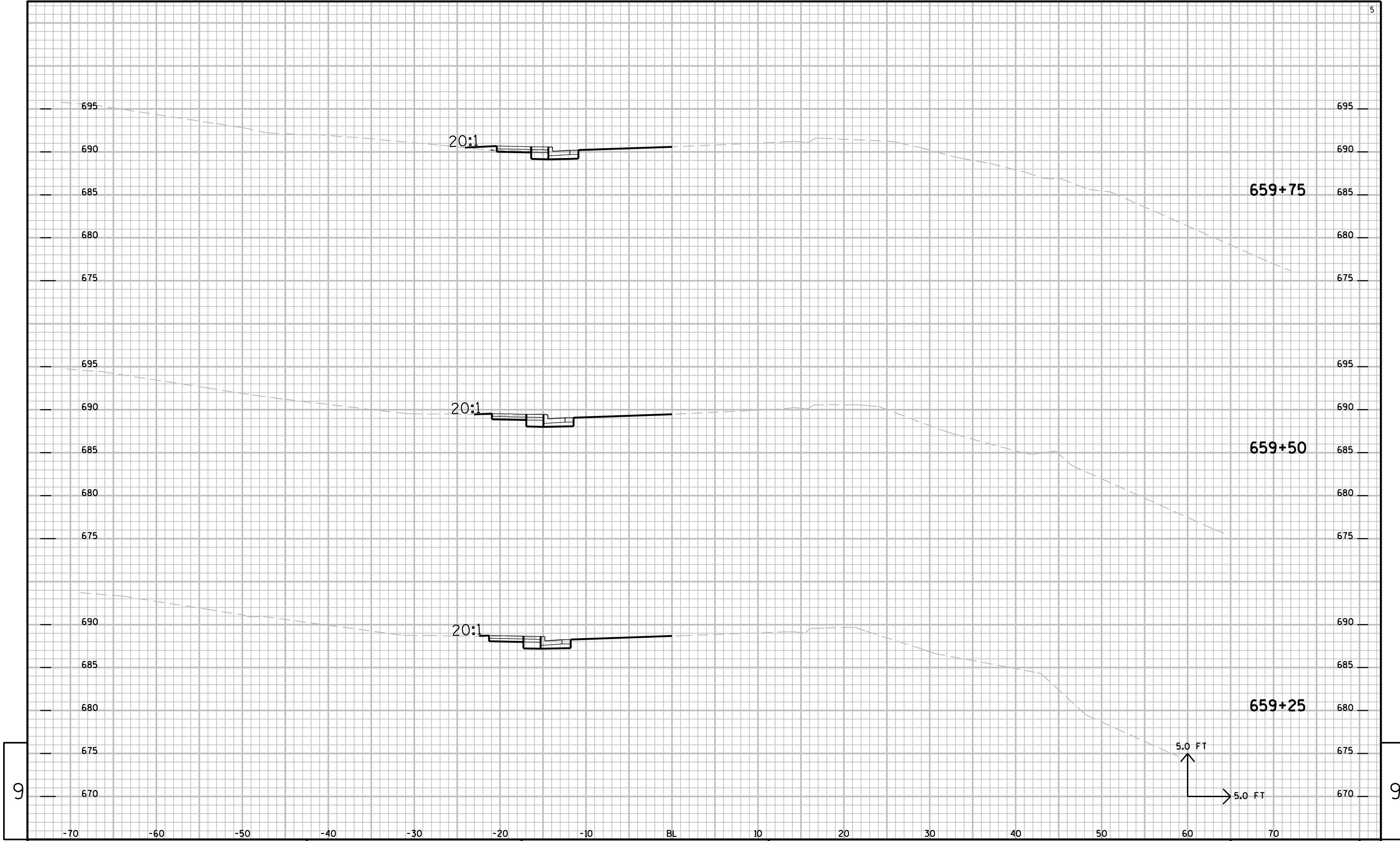
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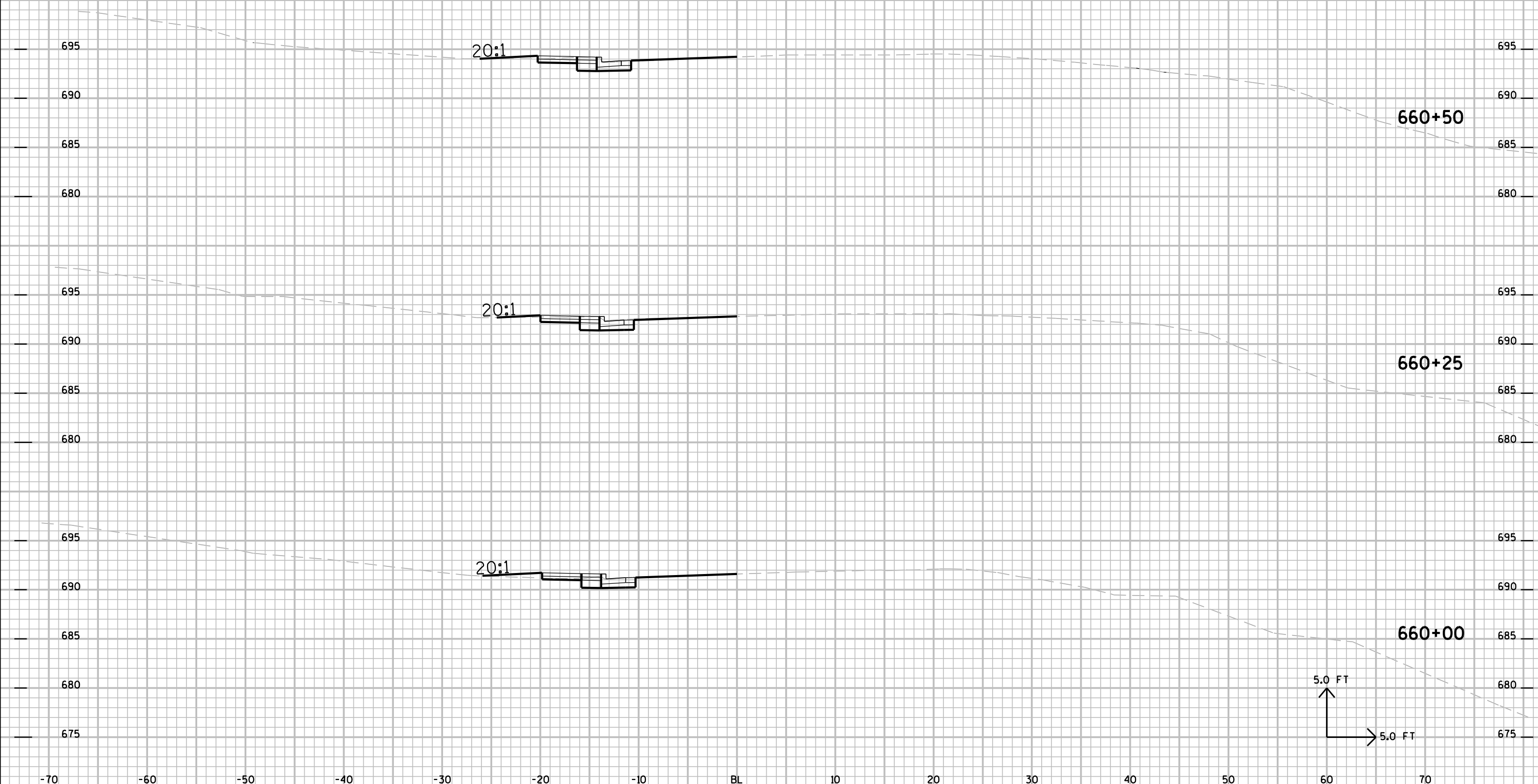
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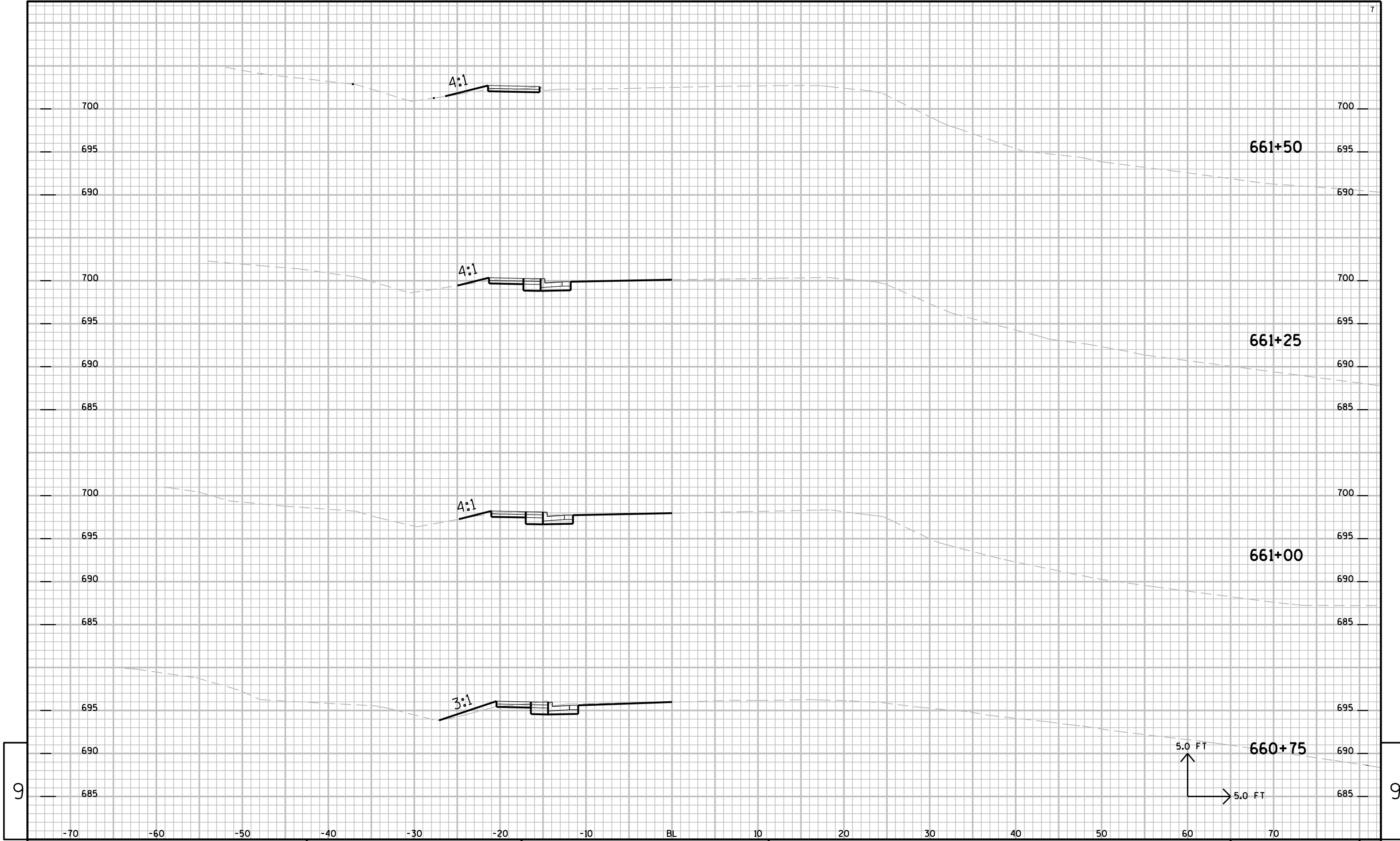
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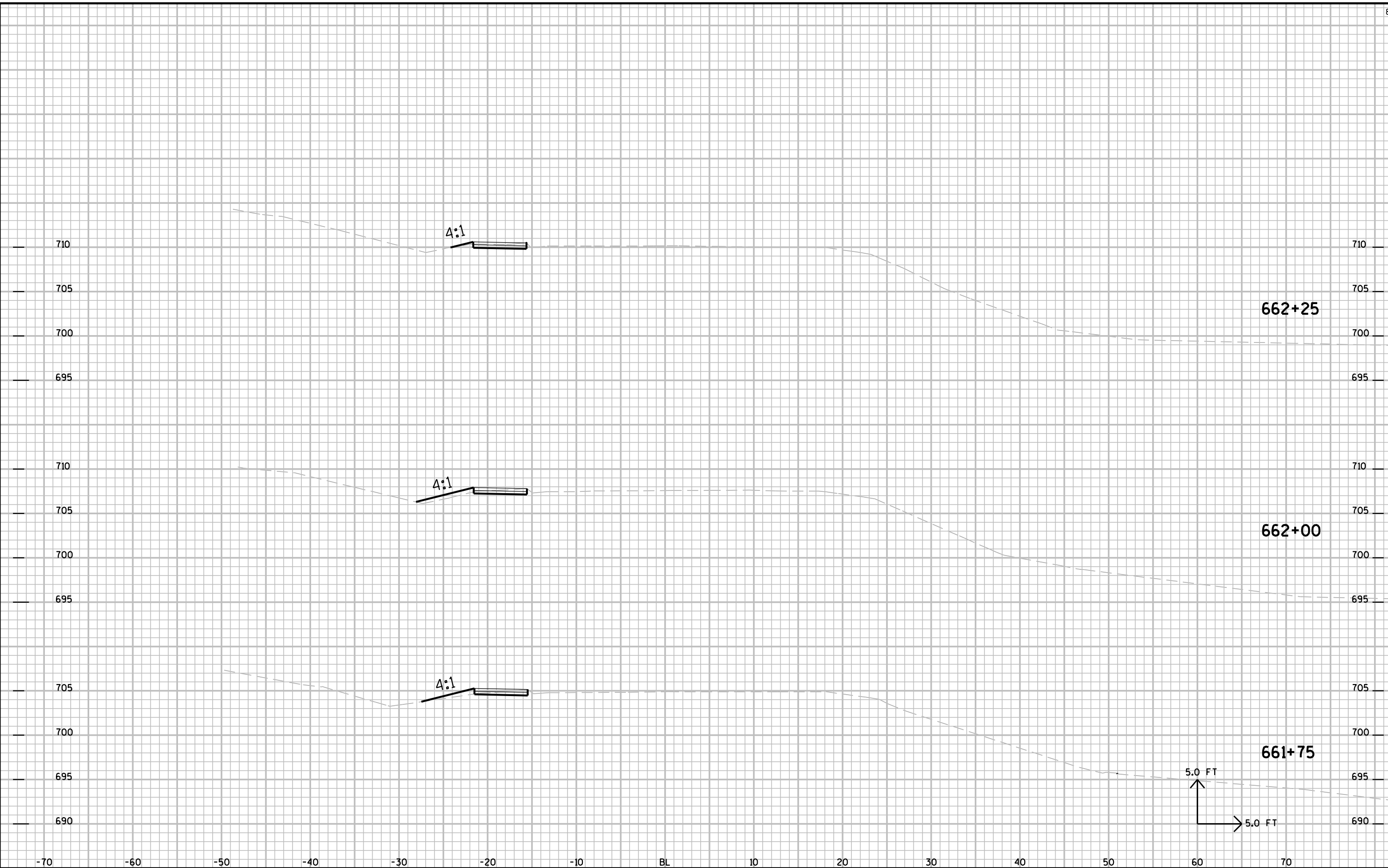
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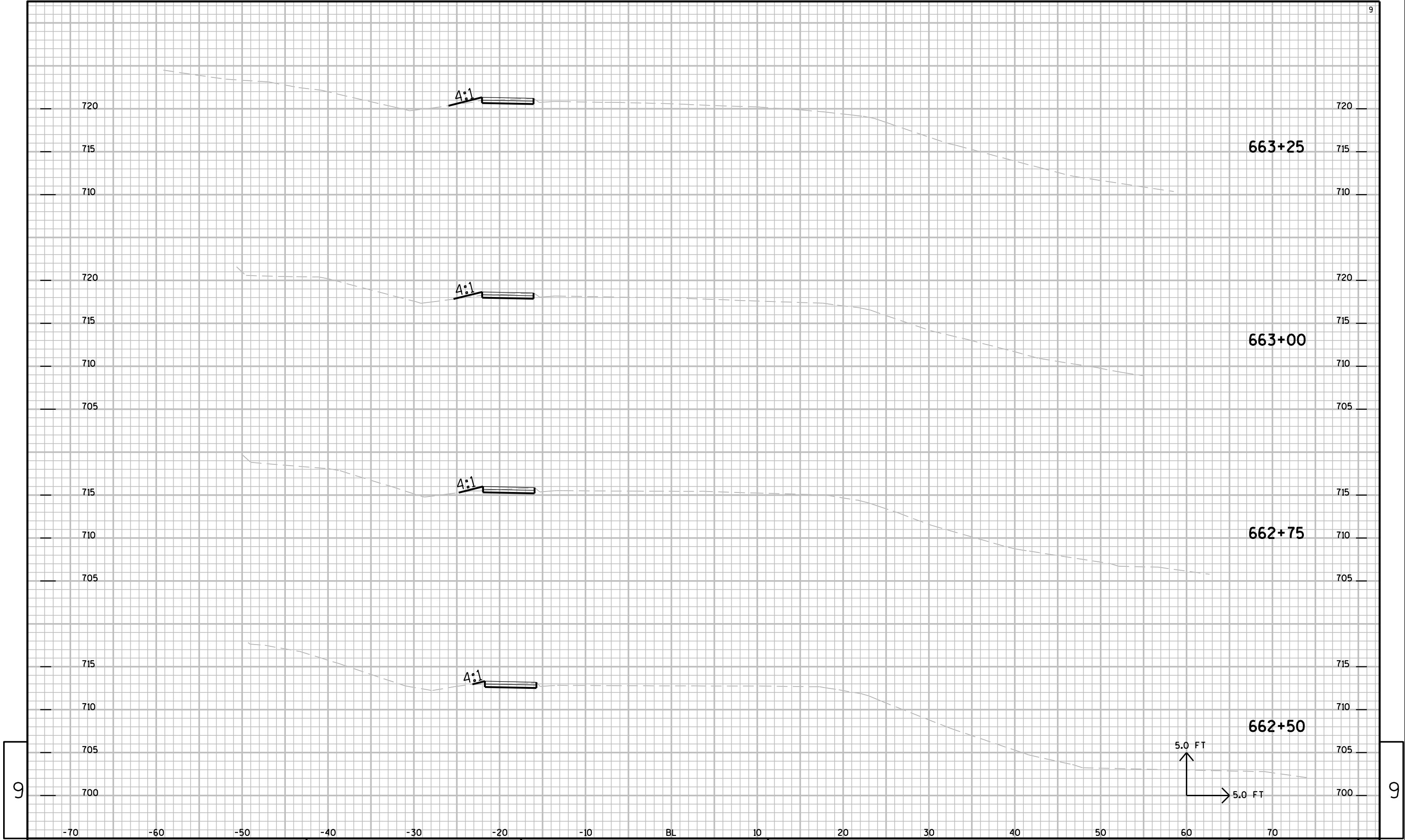




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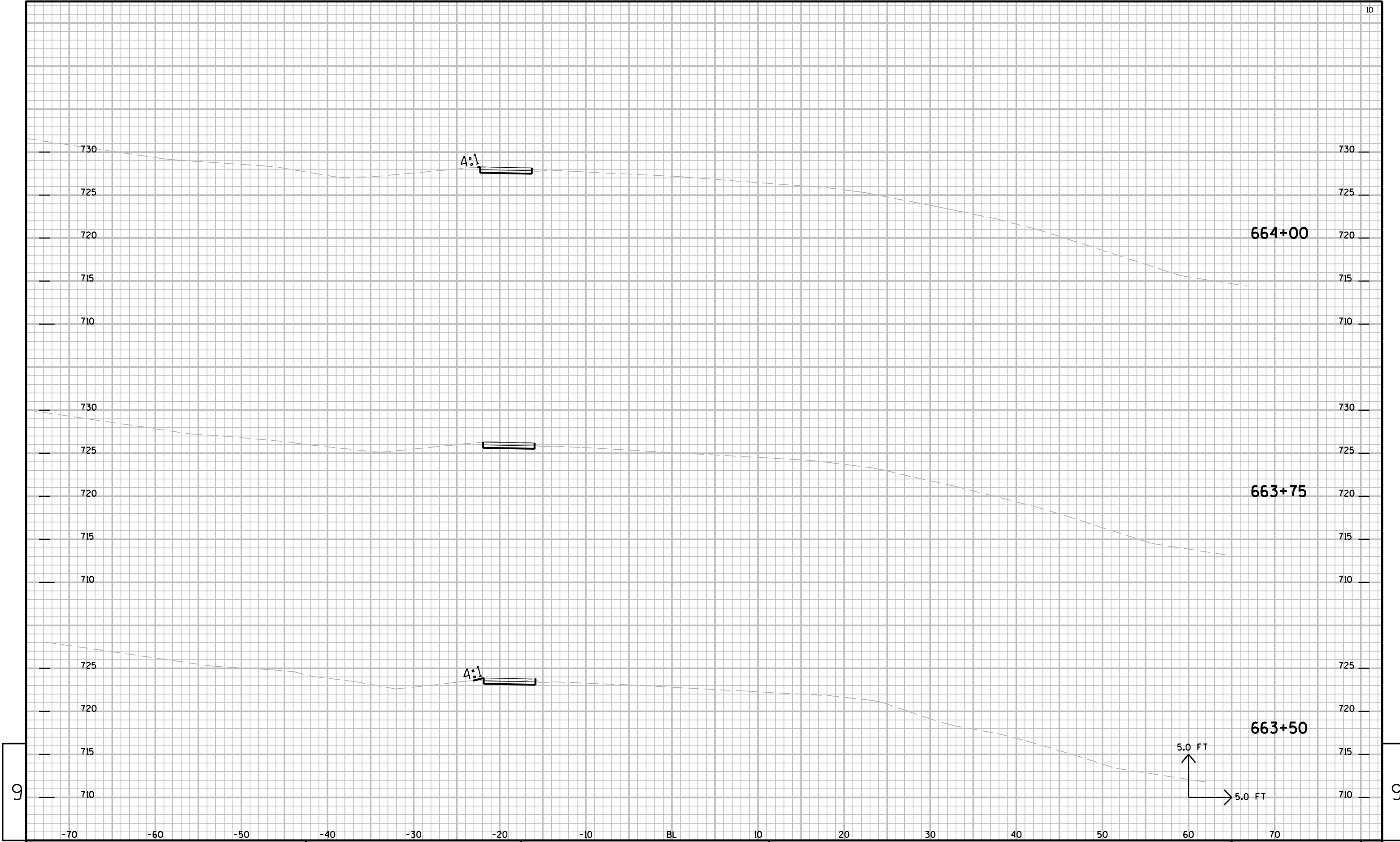


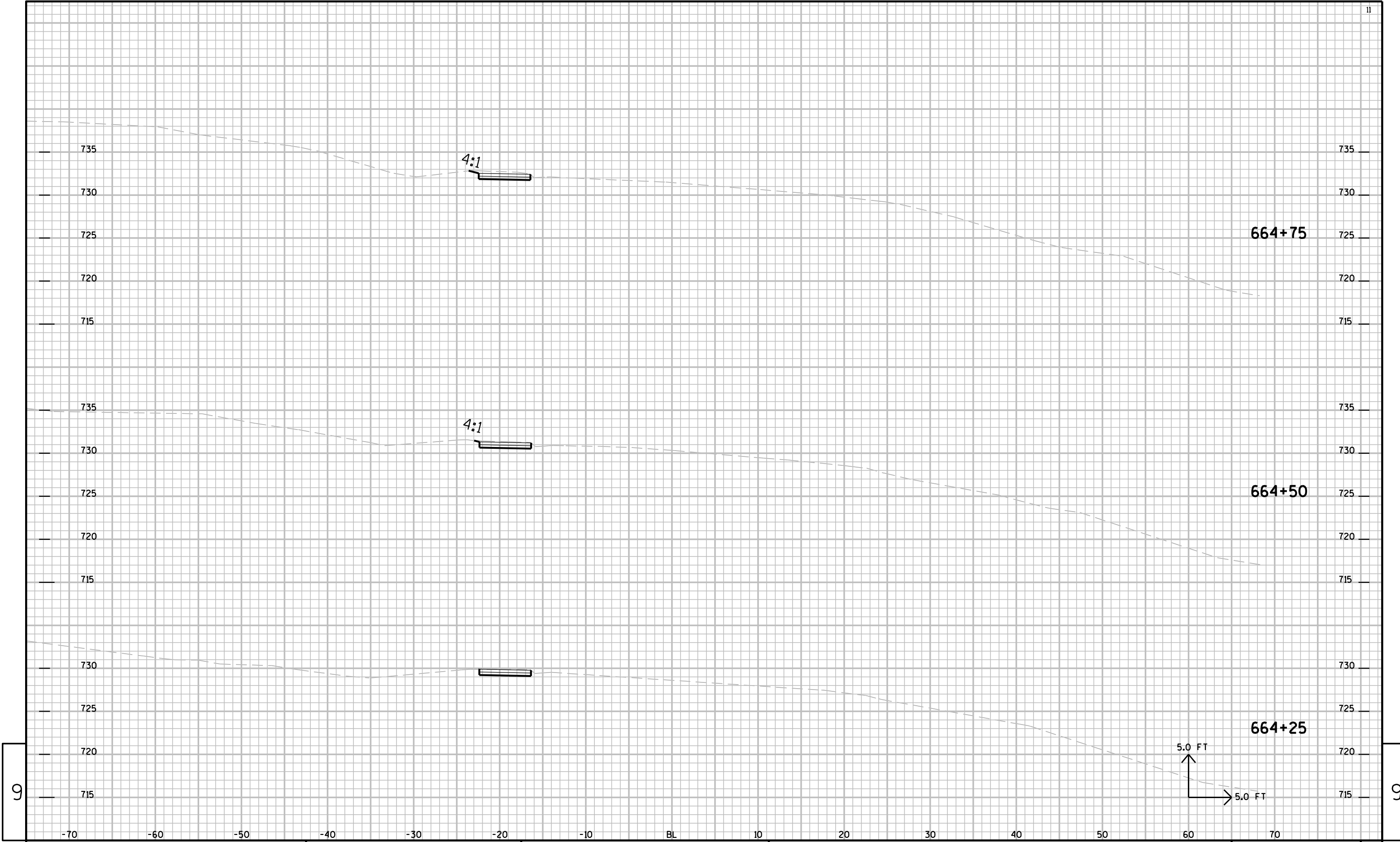
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9

9

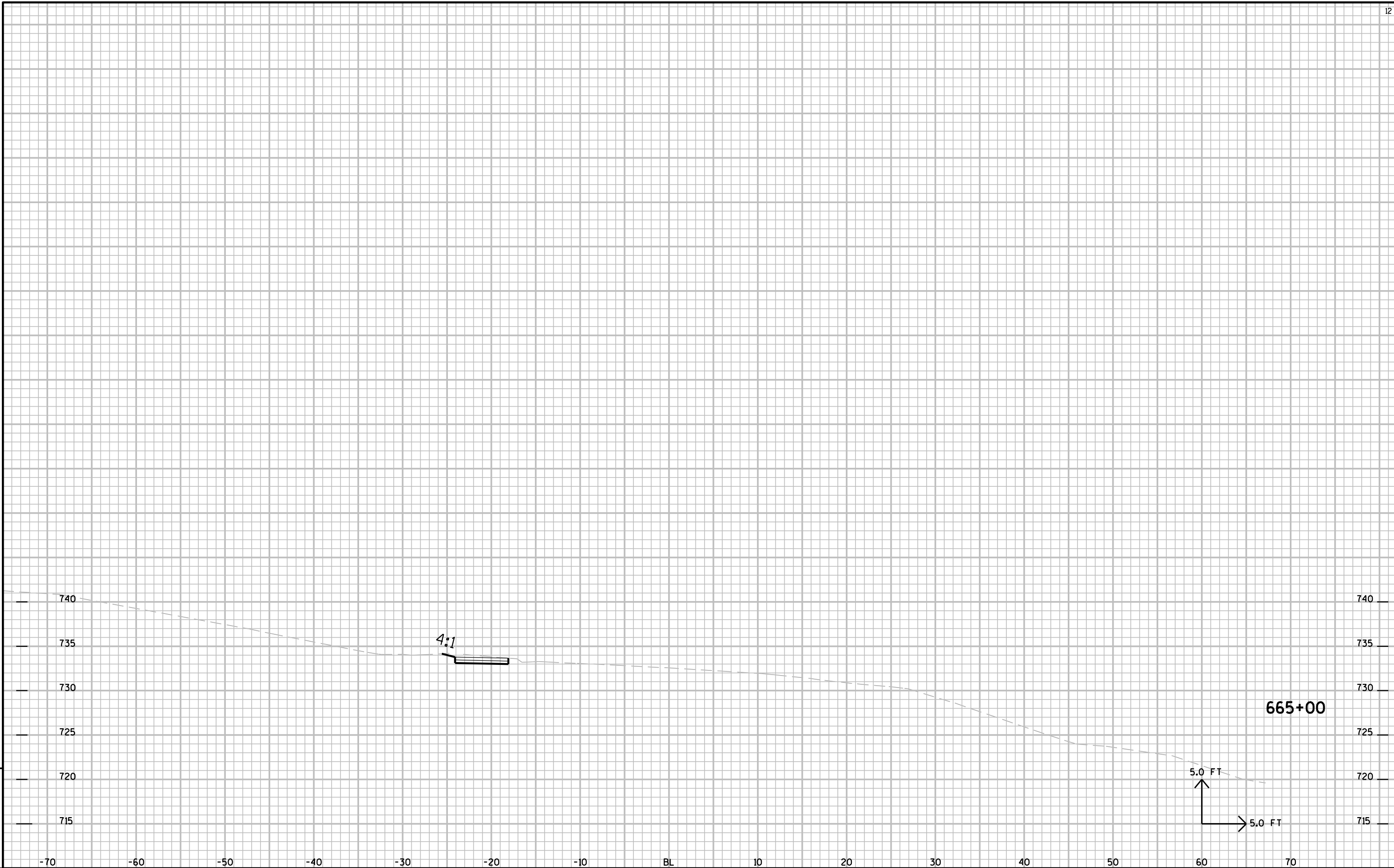




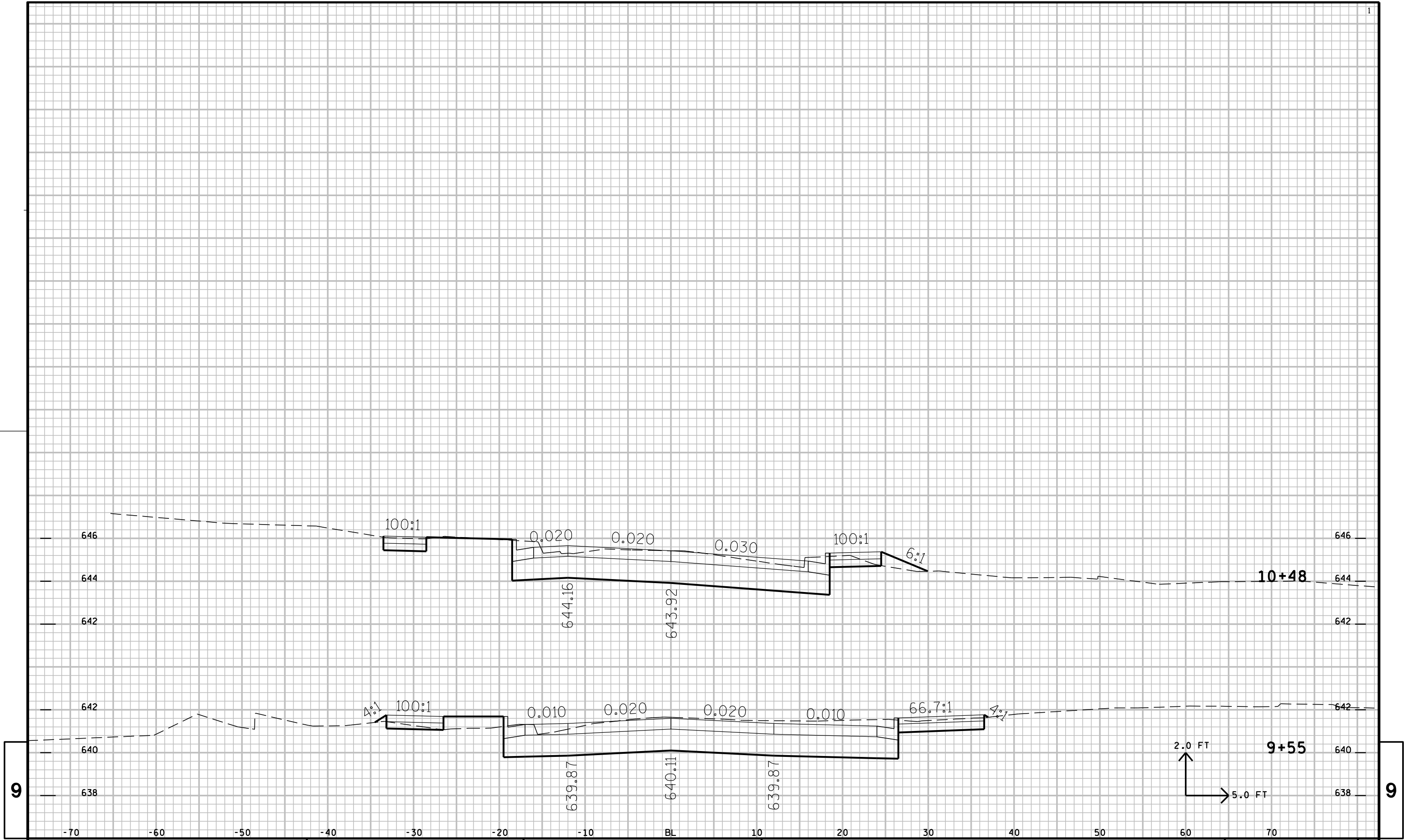
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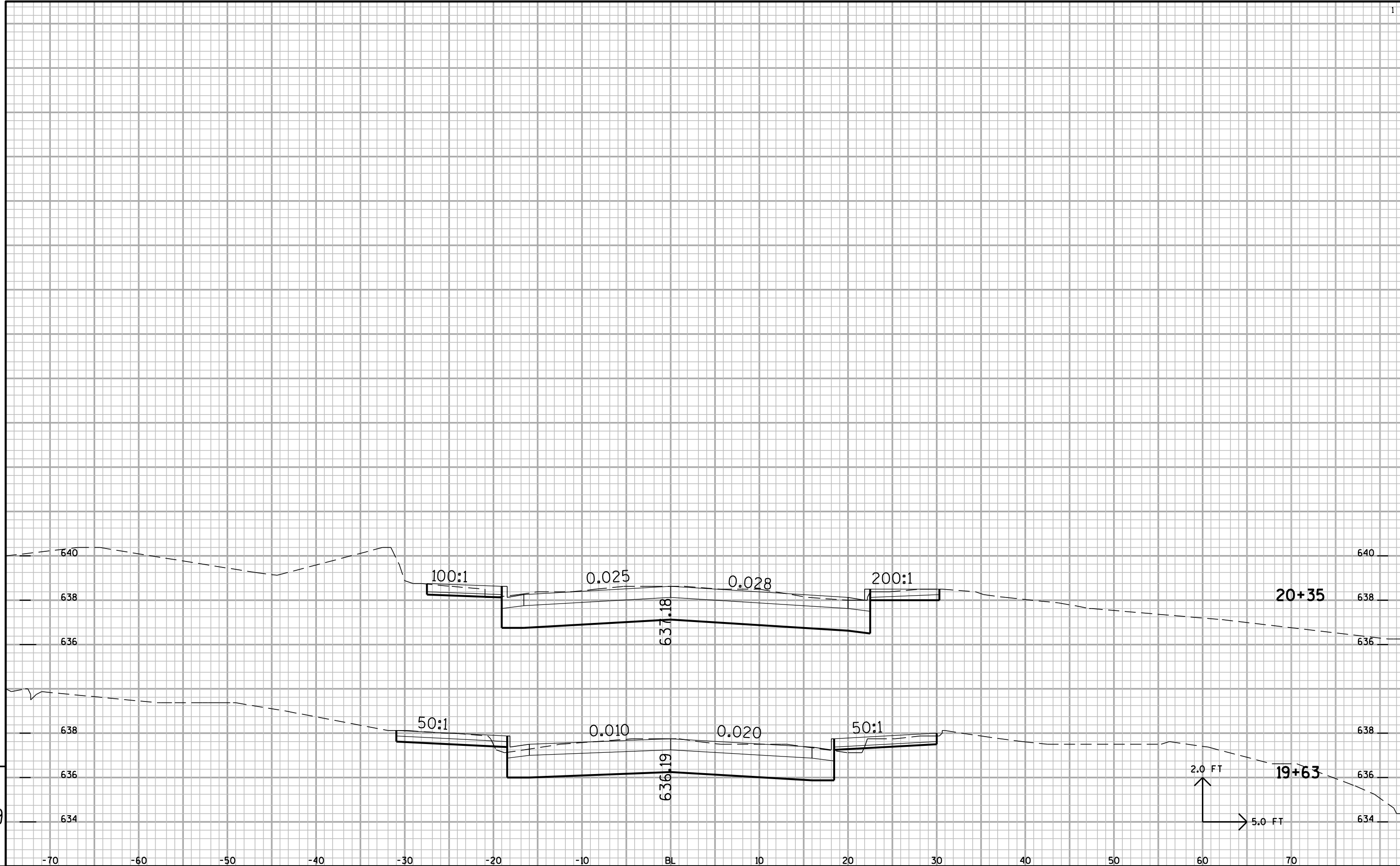
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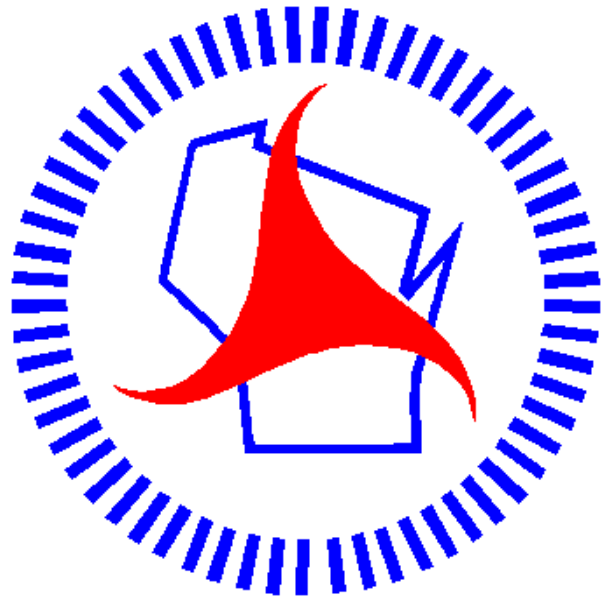


9





Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>