EAU NOVEMBER 2015

PROJECT ID: 7170-00-72
WITH: 7180-01-75

COUNTY: BUFFALO

ORDER OF SHEETS

Section No. 1 Title
Section No. 2 Typical Sections and Details (Includes Erosion Control Plan)
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 = 114

32

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WABASHA - DURAND

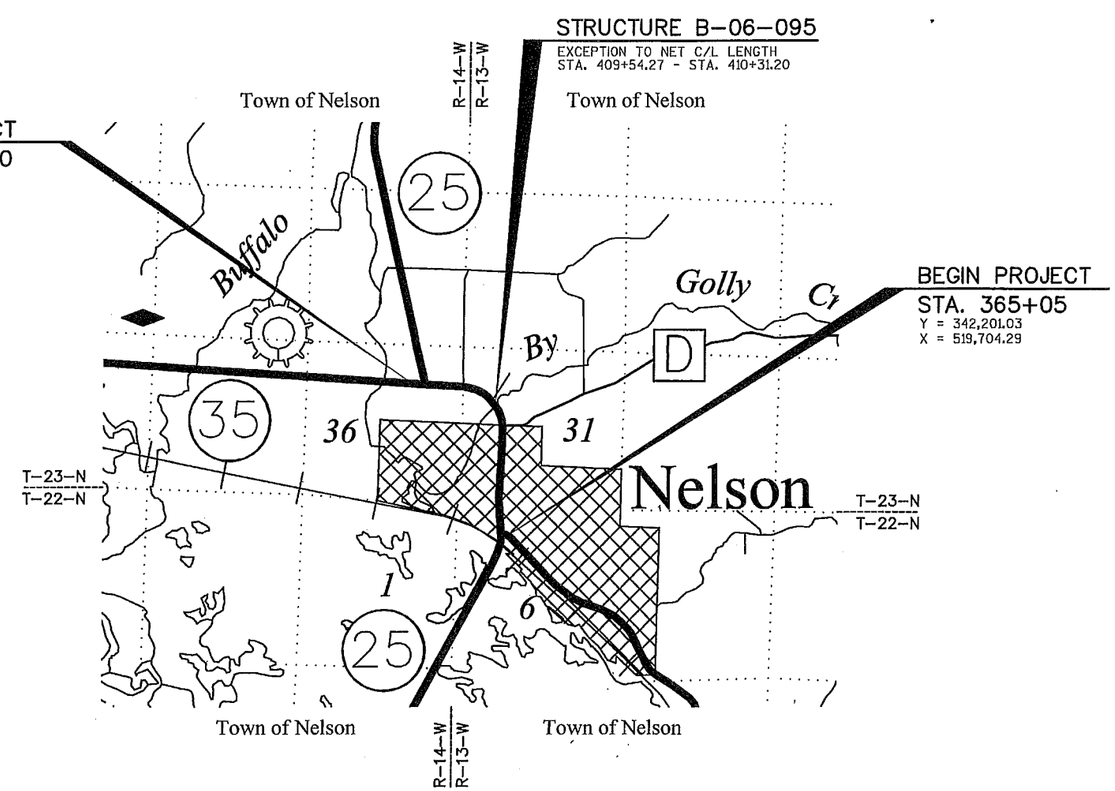
STH 35 SOUTH TO STH 35 NORTH

STH 25

BUFFALO COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7170-00-72	WISC 2015588	1

STATE PROJECT NUMBER
7170-00-72



LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.386 MI.

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

DESIGN DESIGNATION

A.A.D.T.	2015	=	7,250
A.A.D.T.	2035	=	8,850
D.H.V.	2035	=	905
D.D.		=	60/40
T.		=	12.0%
DESIGN SPEED		=	45 MPH
ESALS		=	2,496,600

CONVENTIONAL SYMBOLS

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

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ORIGINAL PLANS PREPARED BY

JEWELL associates engineers, Inc.
Engineers - Planners - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE: (608) 588-7484
FAX: (608) 588-9322

WISCONSIN PROFESSIONAL ENGINEER
PATRICK A. ECKELBERG
E-38776
WISCONSIN RAPIDS, WIS.

04/20/2015 (Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
- Surveyor: JEWELL ASSOCIATES ENGINEERS, INC./ WIS. DEPT. OF TRANSPORTATION
- Designer: JEWELL ASSOCIATES ENGINEERS, INC.
- Project Manager: D. KOEPP
- Regional Examiner: D. OJIBWAY
- Regional Supervisor: T. MASON
- C.O. Examiner:

APPROVED FOR THE DEPARTMENT

DATE: 4/22/2015

(Signature)

E

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment	INV	Invert	SALV	Salvaged
AC	Acre	IP	Iron Pipe or Pin	SAN S	Sanitary Sewer
AGG	Aggregate	IRS	Iron Rod Set	SEC	Section
AH	Ahead	JT	Joint	SHLDR	Shoulder
<	Angle	JCT	Junction	SHR	Shrinkage
ASPH	Asphaltic	LHF	Left-Hand Forward	SW	Sidewalk
AVG	Average	L	Length of Curve	S	South
ADT	Average Daily Traffic	LIN FT or LF	Linear Foot	SQ	Square
B.A.D.	Base Aggregate Dense	LC	Long Chord of Curve	SF or SQ FT	Square Feet
BK	Back	MH	Manhole	SY or SQ YD	Square Yard
BF	Back Face	MB	Mailbox	STD	Standard
BM	Bench Mark	ML or M/L	Match Line	SDD	Standard Detail Drawings
BR	Bridge	N	North	STH	State Trunk Highways
C or C/L	Center Line	Y	North Grid Coordinate	STA	Station
CC	Center to Center	OD	Outside Diameter	SS	Storm Sewer
CTH	County Trunk Highway	PLE	Permanent Limited Easement	SG	Subgrade
CR	Creek			SE	Superelevation
CR	Crushed	PT	Point	SL or S/L	Survey Line
CY or CU YD	Cubic Yard	PC	Point of Curvature	SV	Septic Vent
CP	Culvert Pipe	PI	Point of Intersection	T	Tangent
C & G	Curb and Gutter	PRC	Point of Reverse Curvature	TEL	Telephone
D	Degree of Curve	PT	Point of Tangency	TEMP	Temporary
DHV	Design Hour Volume	POC	Point On Curve	TI	Temporary Interest
DIA	Diameter	POT	Point on Tangent	TLE	Temporary Limited Easement
E	East	PVC	Polyvinyl Chloride		
X	East Grid Coordinate	PCC	Portland Cement Concrete	t	Ton
ELEC	Electric (al)	LB	Pound	T or TN	Town
EL or ELEV	Elevation	PSI	Pounds Per Square Inch	TRANS	Transition
ESALS	Equivalent Single Axle Loads	PE	Private Entrance	TL or T/L	Transit Line
		R	Radius	T	Trucks (percent of)
EBS	Excavation Below Subgrade	RR	Railroad	TYP	Typical
FF	Face to Face	R	Range	UNCL	Unclassified
FE	Field Entrance	RL or R/L	Reference Line	UG	Underground Cable
F	Fill	RP	Reference Point	USH	United States Highway
FG	Finished Grade	RCCP	Reinforced Concrete Culvert Pipe	VAR	Variable
FL or F/L	Flow Line			V	Velocity or Design Speed
FT	Foot	REQ'D	Required	VERT	Vertical
FTG	Footing	RES	Residence or Residential	VC	Vertical Curve
GN	Grid North	RW	Retaining Wall	VOL	Volume
HT	Height	RT	Right	WM	Water Main
CWT	Hundredweight	RHF	Right-Hand Forward	WV	Water Valve
HYD	Hydrant	R/W	Right-of-Way	W	West
INL	Inlet	R	River	WB	Westbound
ID	Inside Diameter	RD	Road	YD	Yard
		RDWY	Roadway		

	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											

GENERAL NOTES

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

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CURVE DATA IS BASED ON THE ARC DEFINITION

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (MIX NO. 20), AND MULCHED AS DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

ALL RADII DIMENSIONS ON THE PLAN FOR CURB & GUTTER ARE TO THE FLANGE OF THE CURB & GUTTER, UNLESS NOTED ON THE PLANS.

CURB & GUTTER GRADES ARE GIVEN ON THE FLANGE LINE, UNLESS INDICATED OTHERWISE. CURB & GUTTER JOINT SPACING SHALL MATCH ABUTTING PAVEMENT JOINTS (WHERE APPLICABLE) UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. FIELD LOCATES WILL BE REQUIRED PRIOR TO CONSTRUCTION.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

THE EXACT LOCATION AND WIDTH OF PRIVATE, COMMERCIAL, AND FIELD ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

ACCESS TO ALL ENTRANCES SHALL BE MAINTAINED DURING CONSTRUCTION.

INLET AND OUTLET ELEVATIONS FOR CULVERT PIPES AS SHOWN ON THE PLAN MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS.

INLET AND OUTLET ELEVATIONS FOR CULVERT PIPES AS SHOWN ON THE PLAN MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD SUCH THAT REMOVAL OF THE ASPHALT MAY BE ACCOMPLISHED WITHOUT DAMAGE TO THE REMAINING PORTIONS.

MILL AND PAVE URBAN PAVEMENT SECTIONS (STA. 366+05 – STA. 386+14) IN A FASHION TO PREVENT PONDING WATER DURING MAJOR RAIN EVENTS. PAVE MILLED AREAS WITHIN 48 HOURS OF MILLING OR PRIOR TO A MAJOR RAIN EVENT.

CONTACTS

DESIGN CONSULTANT:

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patrick.eckelberg@jewellassoc.com

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DNR SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: KAREN KALVELAGE
PH: (608) 785-9115
FAX: (608) 785-9990
karen.kalvelage@wisconsin.gov

UTILITIES

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PH: (715) 672-4204
dale@nelson-tel.net

MIDCONTINENT COMMUNICATIONS
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FAIRMONT, MN 56031
ATTN: GEORGE MARTINEZ
PH: (507) 749-2000
CELL: (507) 848-5809
george_martinez@mmi.net

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NELSON, WI 54756
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PH: (715) 495-7585
EMAIL: grillninja@hotmail.com

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ARCADIA, WI 54612-0277
ATTN: DOUG GERRITTS
PH: (608) 323-3381
CELL: (608) 797-0757
EMAIL: dgerritts@reverlandenergy.com

RAILROAD:

*BNSF RAILWAY COMPANY
80 44TH AVENUE NE
MINNEAPOLIS, MN 55421
ATTN: CALVIN NUTT, MANAGER OF PUBLIC PROJECTS
PH: (763) 782-3495
FAX: (763) 782 3495
EMAIL: calvin.nutt@BNSF.com

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ORDER OF DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVEMENT-BEAMGUARD LAYOUT DETAILS
DRAINAGE DETAILS
PERMANENT SIGNING
PAVEMENT MARKING
ALIGNMENT DETAILS

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PLOT TIME : 8:17:52 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PROJECT OVERVIEW	SHEET 3	E

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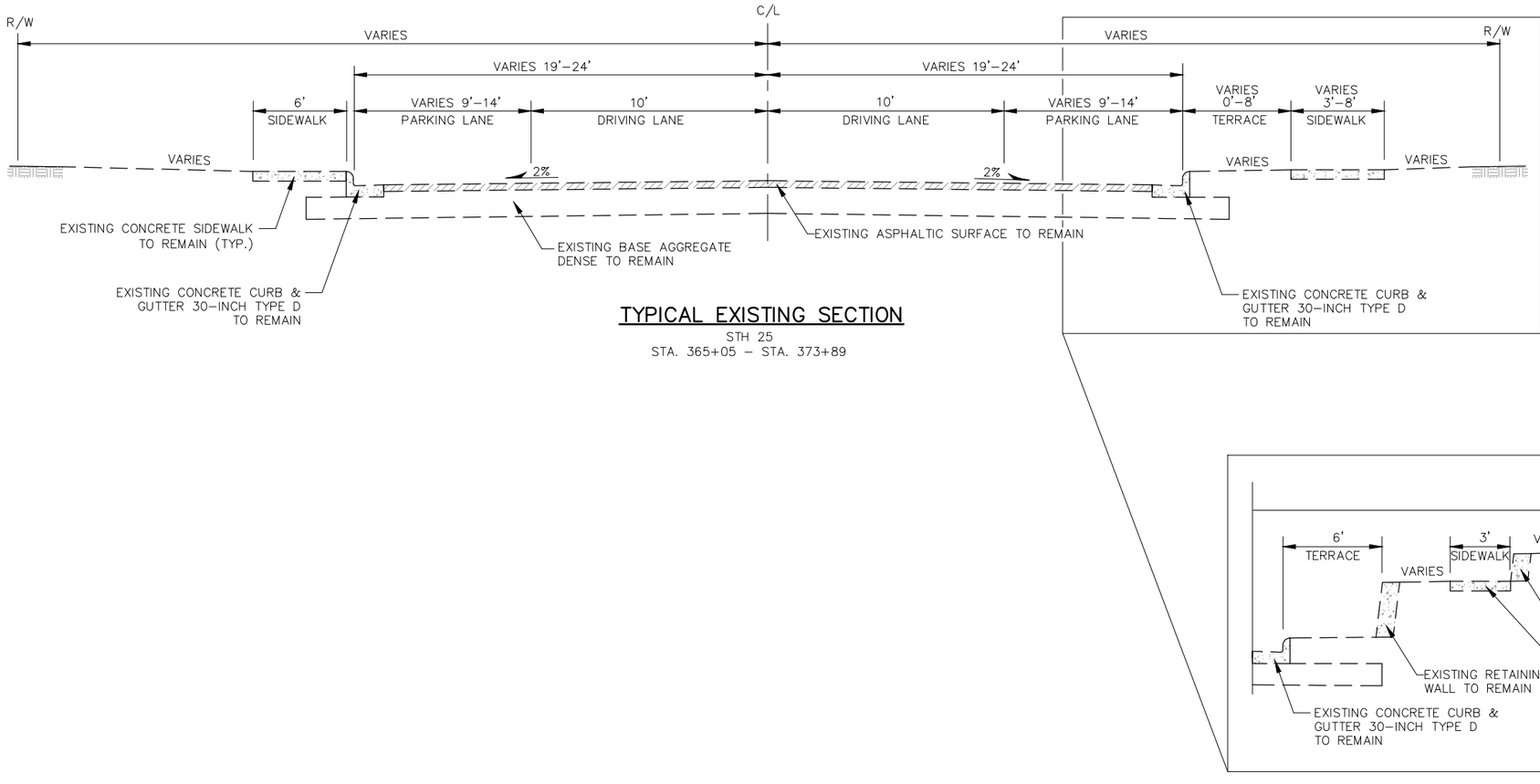
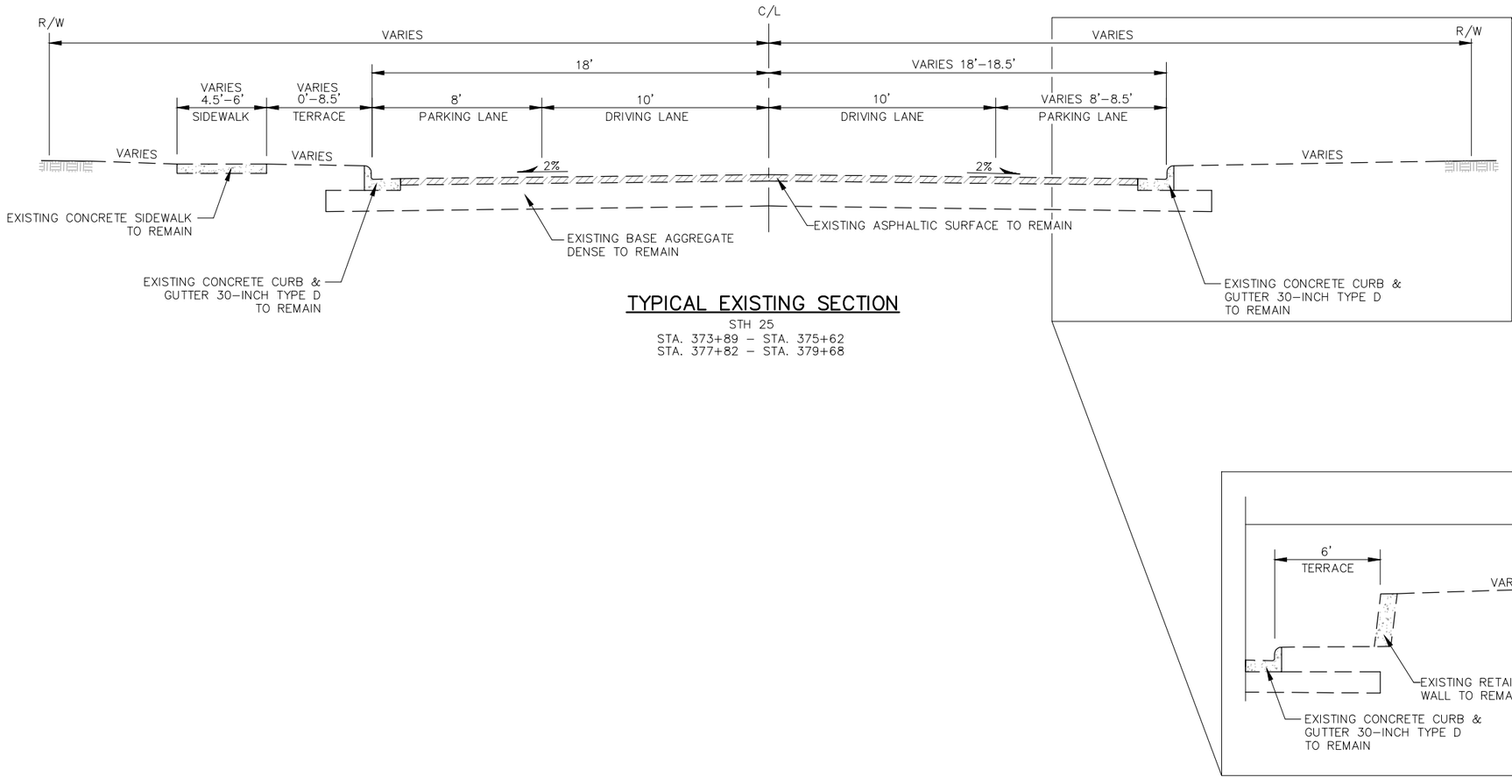


TYPICAL EXISTING SECTION

STH 25
STA. 365+05 – STA. 373+89

PARTIAL TYPICAL EXISTING SECTION

STH 25
STA. 373+56 – STA. 373+89



TYPICAL EXISTING SECTION

STH 25
STA. 373+89 – STA. 375+62
STA. 377+82 – STA. 379+68

PARTIAL TYPICAL EXISTING SECTION

STH 25
STA. 373+89 – STA. 375+25

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	TYPICAL SECTIONS - EXISTING	SHEET 5	E

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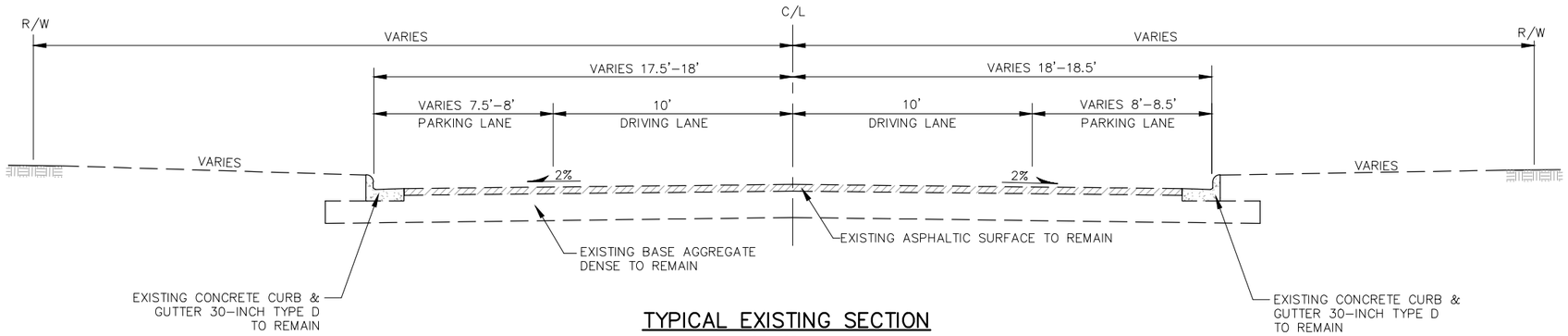

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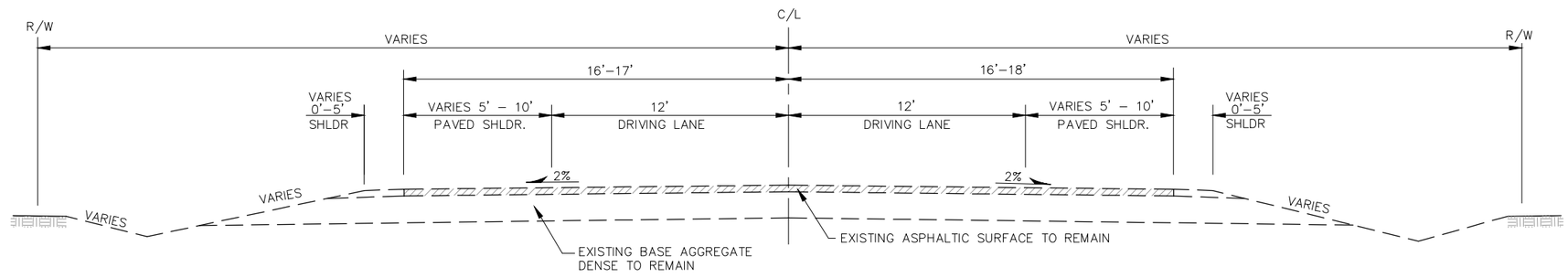
STA. 379+68 – STA. 386+14



TYPICAL EXISTING SECTION

STH 25
STA. 386+14 – STA. 399+05
STA. 425+22 – STA. 439+00

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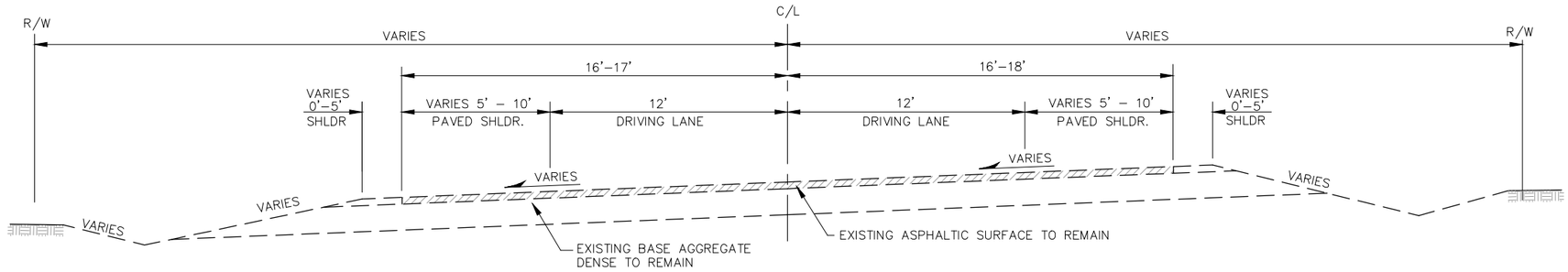

TYPICAL EXISTING SUPERELEVATED SECTION

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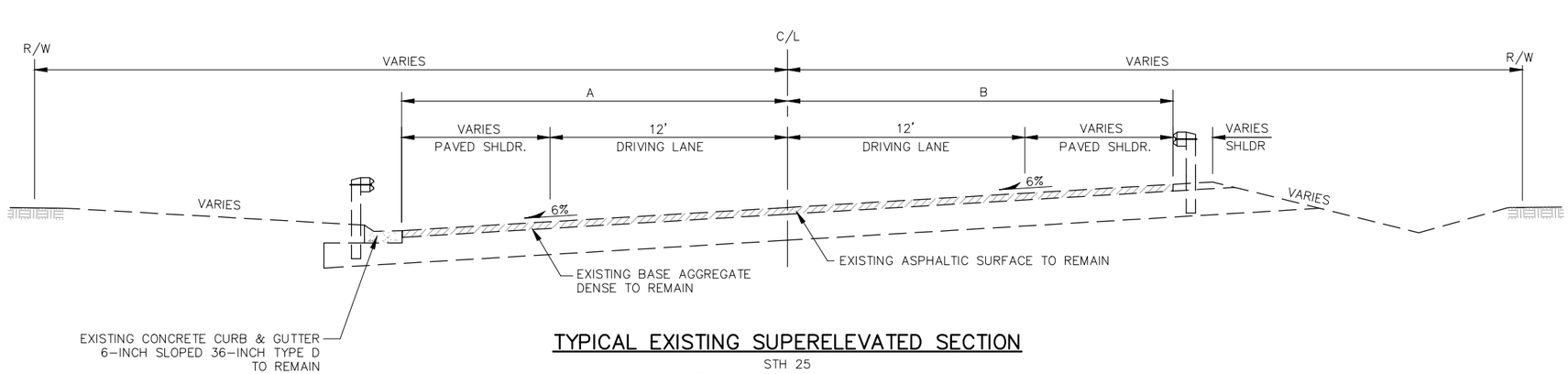
STA. 399+05 – STA. 408+12
STA. 413+39 – STA. 425+22



TYPICAL EXISTING SUPERELEVATED SECTION

STH 25
STA. 408+12 – STA. 409+54
STA. 410+31 – STA. 413+39
(SEE TABLE BELOW FOR DIMENSION AND BEAMGUARD LOCATIONS)

STA.–STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
408+12 – 409+54	18.5'–19'	23'	X	X
410+31 – 411+13	18.5'	23–25'	X	X
411+13 – 413+39	19.5'	17'–17.5'	X	

*BEAM GUARD OCCURS WHEN INDICATED BY "X"

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	TYPICAL SECTIONS - EXISTING	SHEET 7	E

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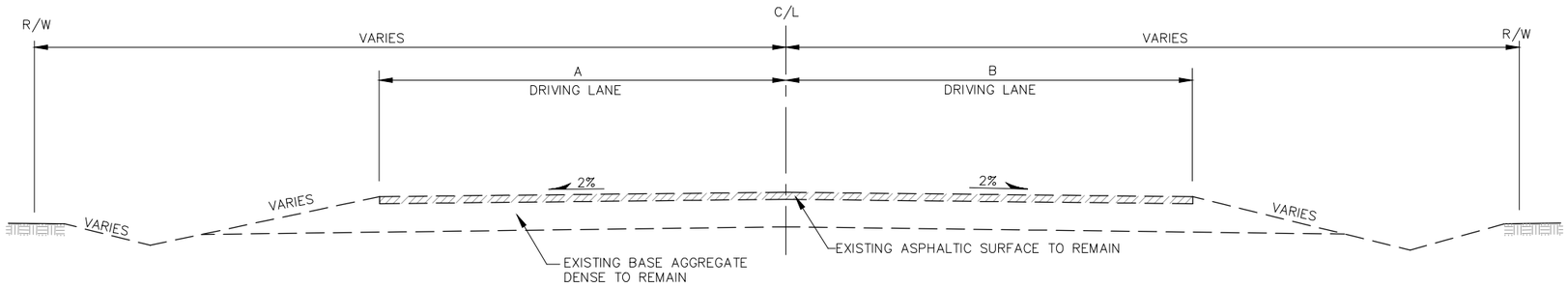
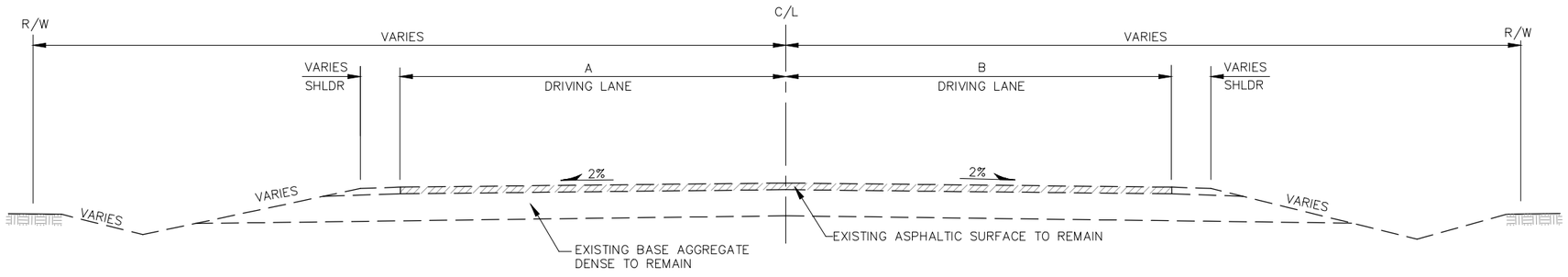


TYPICAL EXISTING SECTION – SIDEROAD

(SEE LOCATION AND DIMENSIONS OF SIDEROADS BELOW)

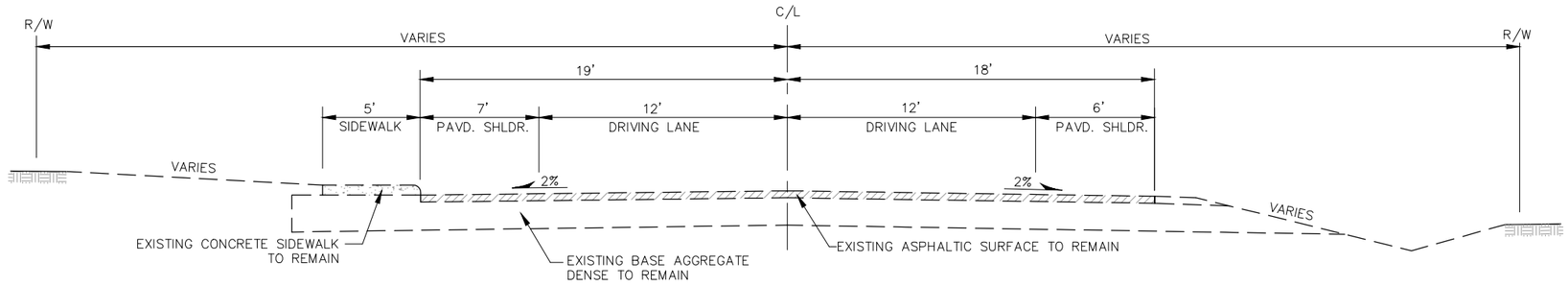
SIDEROAD	STA.	A	B	PAVEMENT TYPE
CLEVELAND ST	368+30, LT.	11'	12'	ASPHALT
JEFFERSON ST	371+29, RT.	15'	17'	ASPHALT
A ST	374+21, LT.	8'	8'	ASPHALT
1ST ST	377+65, LT.	10'	10'	ASPHALT
2ND ST	382+00, LT.	10'	10'	ASPHALT
LINCOLN ST	382+06, RT.	12'	12'	ASPHALT



TYPICAL EXISTING SECTION – SIDEROAD

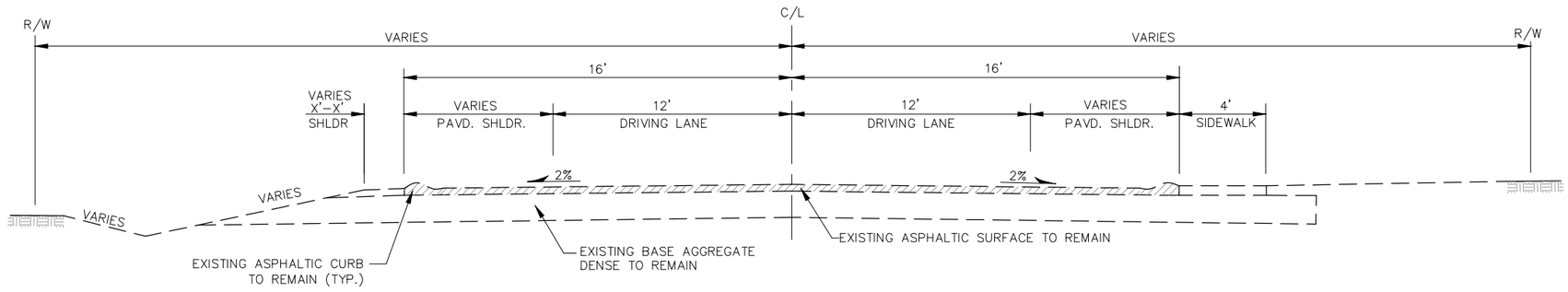
(SEE LOCATION AND DIMENSIONS OF SIDEROADS BELOW)

SIDEROAD	STA.	A	B	PAVEMENT TYPE
CTH D	402+95, RT.	11'	10'	ASPHALT
KNABE RD	420+82, RT.	8'	8'	AGGREGATE
MILL RD	423+05, RT.	8'	10'	ASPHALT
STH 25	435+65, RT.	17'	17'	ASPHALT



TYPICAL EXISTING SECTION – SIDEROAD

STA. 368+20, RT. (CLEVELAND ST)



TYPICAL EXISTING SECTION – SIDEROAD

STA. 371+28, LT. (JEFFERSON ST)

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	TYPICAL SECTIONS - EXISTING	SHEET 9	E

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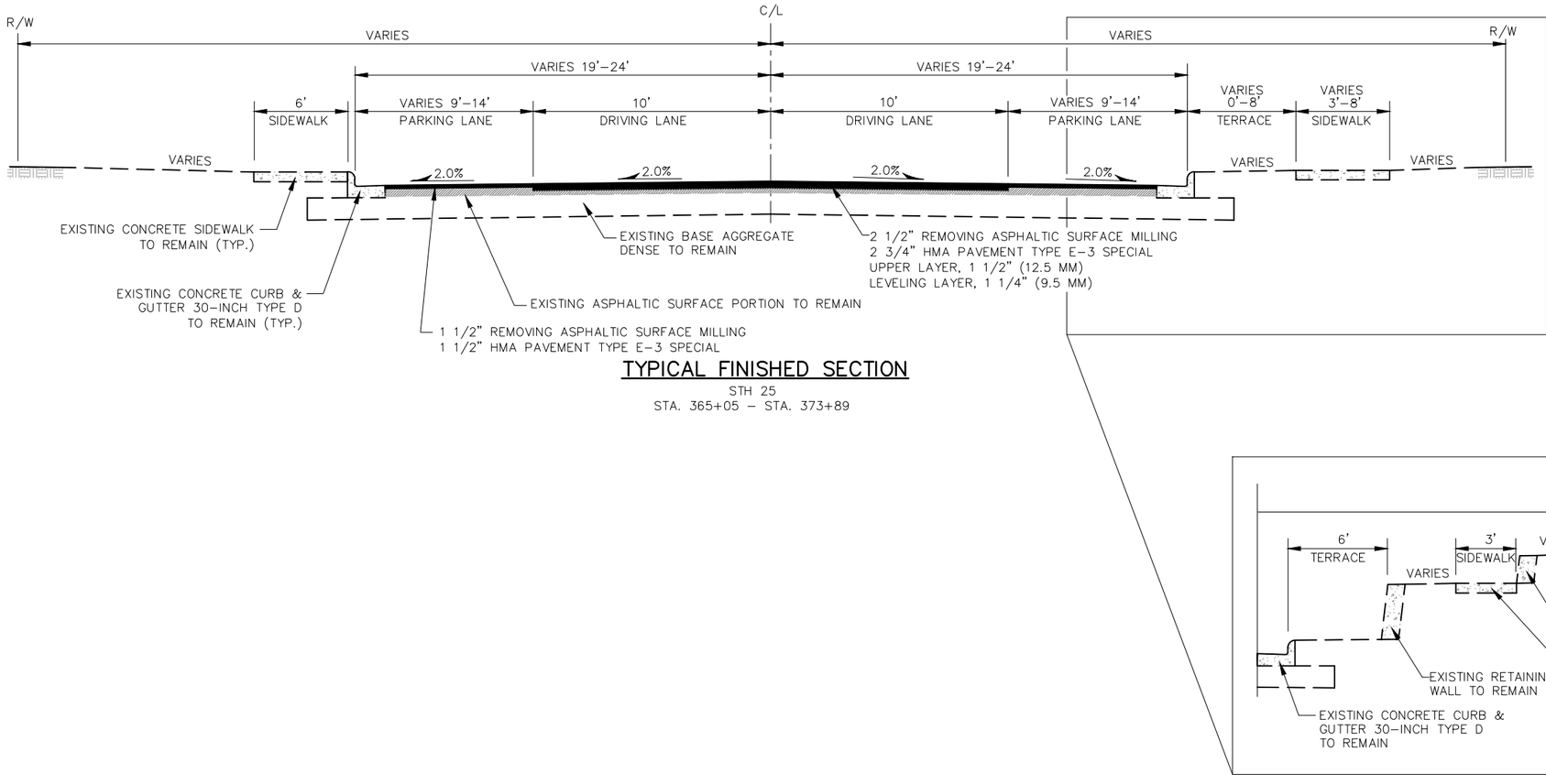
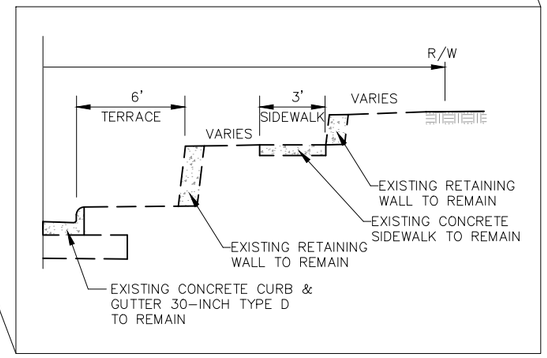


TYPICAL FINISHED SECTION

STH 25
STA. 365+05 – STA. 373+89



PARTIAL TYPICAL FINISHED SECTION

STH 25
STA. 373+56 – STA. 373+89

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 10	E

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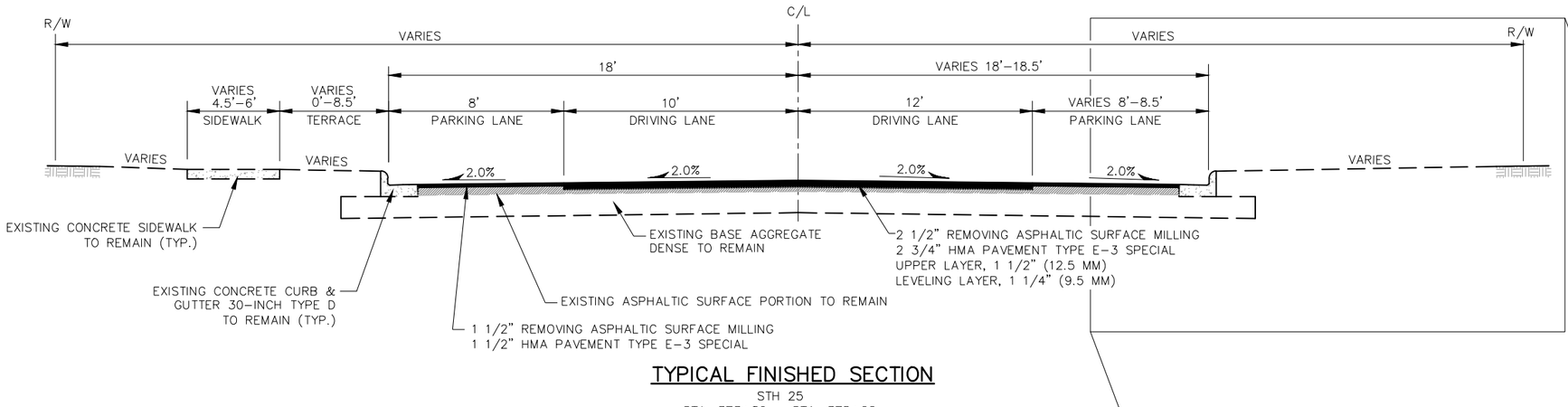
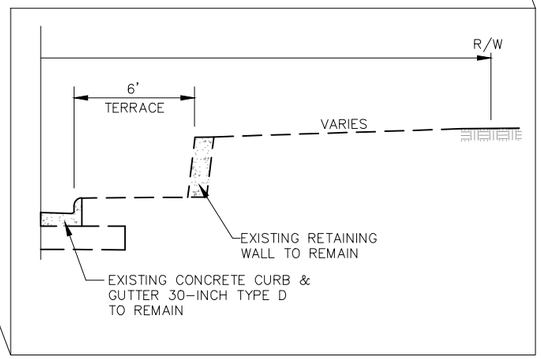
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



TYPICAL FINISHED SECTION

STH 25
STA. 373+89 – STA. 375+62
STA. 377+82 – STA. 379+68

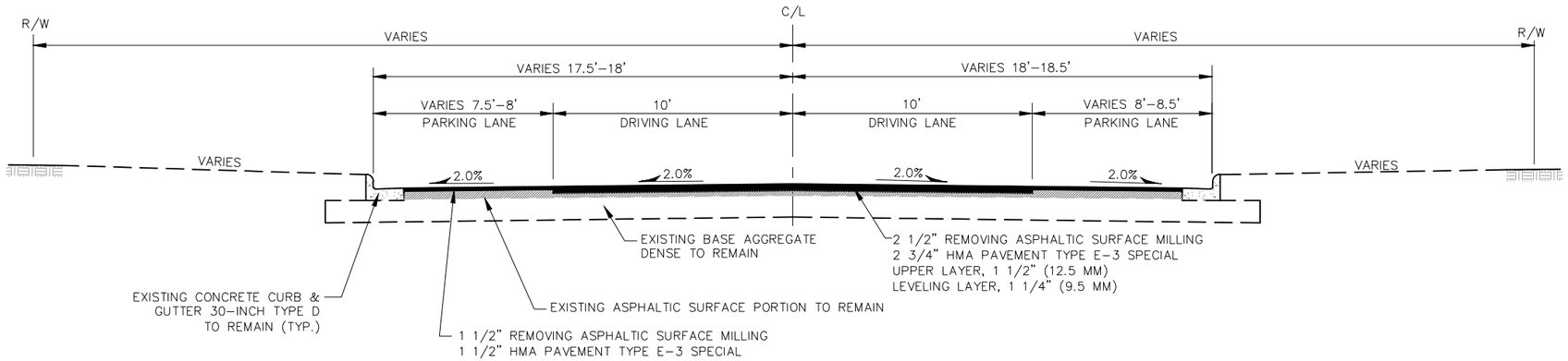


PARTIAL TYPICAL FINISHED SECTION

STH 25
STA. 373+89 – STA. 375+25

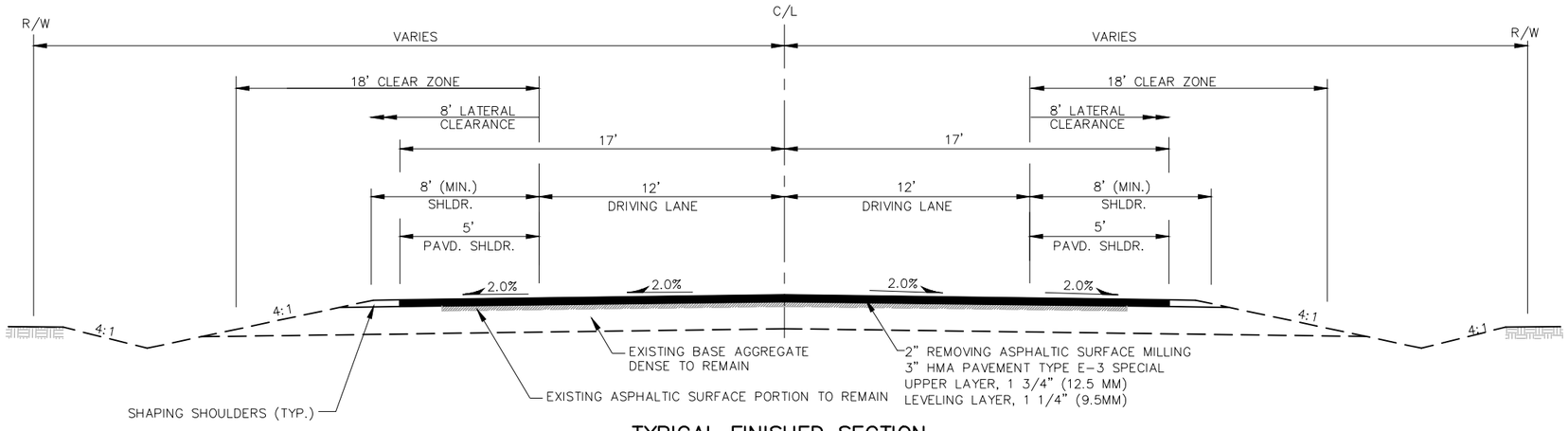
PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 11	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\TYPICALS\PROPOSED TYPICALS.DWG
LAYOUT : 2
PLOT DATE : 4/16/2015
PLOT TIME : 4:36:13 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



TYPICAL FINISHED SECTION

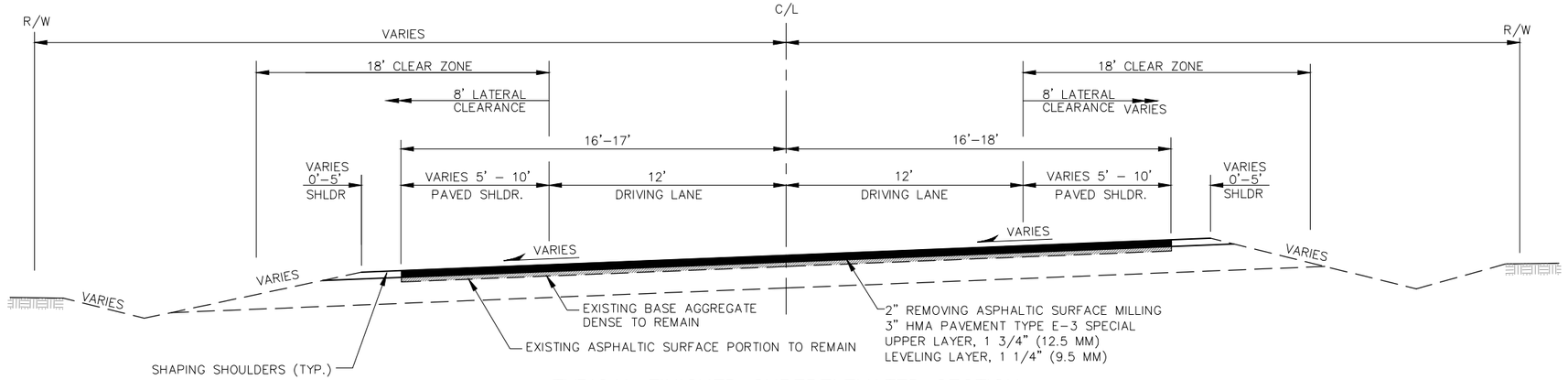
STH 25
STA. 375+62 – STA. 377+82
STA. 379+68 – STA. 386+14



TYPICAL FINISHED SECTION

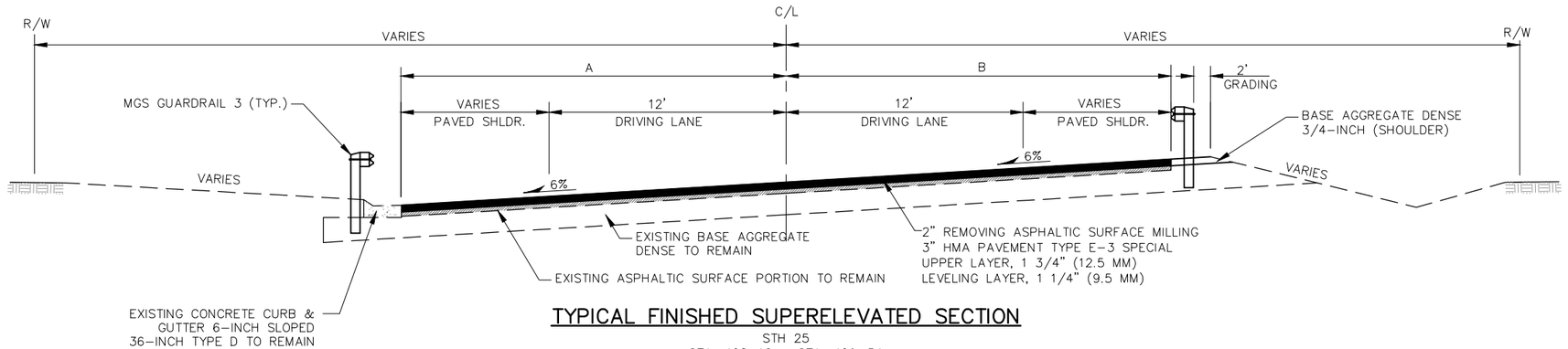
STH 25
STA. 386+14 – STA. 399+05
STA. 425+22 – STA. 439+00

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 12	E



TYPICAL FINISHED SUPERELEVATED SECTION

STH 25
STA. 399+05 – STA. 408+12
STA. 413+39 – STA. 425+22

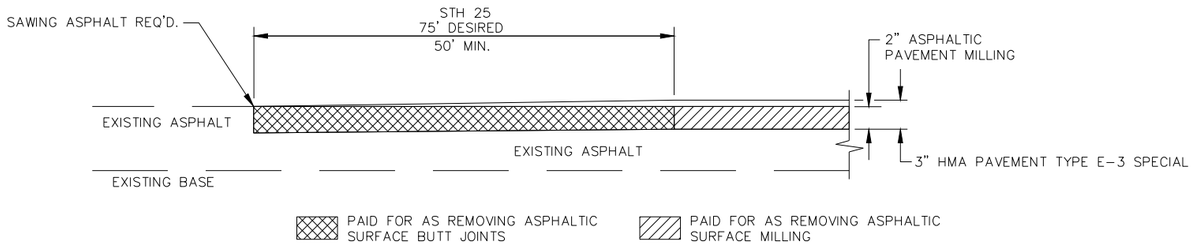


TYPICAL FINISHED SUPERELEVATED SECTION

STH 25
STA. 408+12 – STA. 409+54
STA. 410+31 – STA. 413+39
(SEE TABLE BELOW FOR DIMENSION AND BEAMGUARD LOCATIONS)

STA.–STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
408+12 – 409+54	18.5'–19'	23'	X	X
410+31 – 411+13	18.5'	23–25'	X	X
411+13 – 413+39	19.5'	17'–17.5'	X	

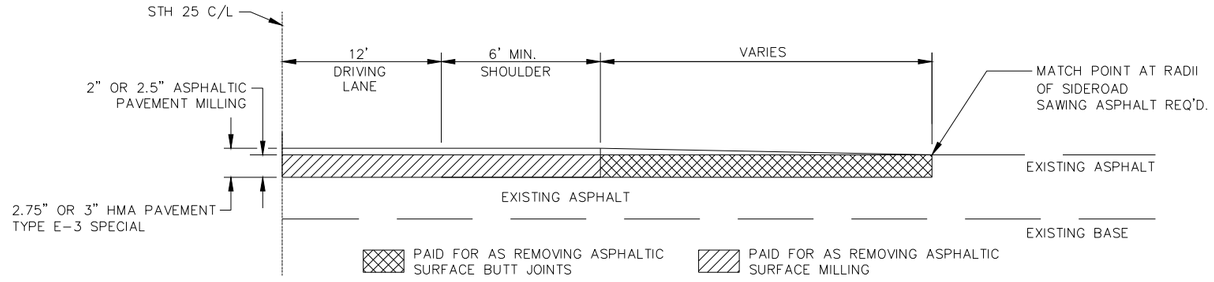
*BEAM GUARD OCCURS WHEN INDICATED BY "X"



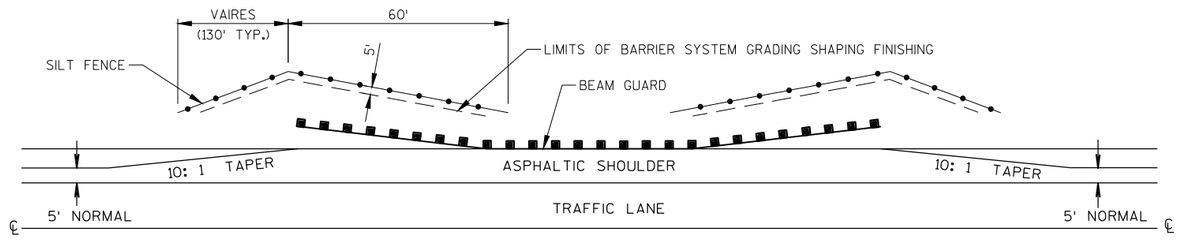
NOTE: REQUIRED AT BEGIN AND END OF PAVING LOCATIONS

DETAILS OF TRANSVERSE JOINT

STA. 365+05 – STA. 365+55
STA. 408+79 – STA. 409+54
STA. 410+31 – STA. 411+06
STA. 438+25 – STA. 439+00



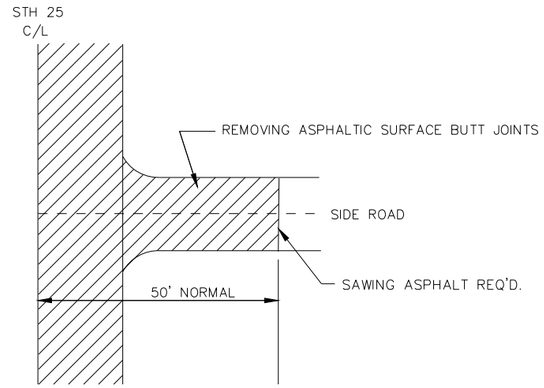
BUTT JOINT DETAILS OF HMA PAVEMENT AT SIDEROADS



DETAIL FOR ASPHALTIC SHOULDER AND SILT FENCE AT BEAM GUARD

STH 25

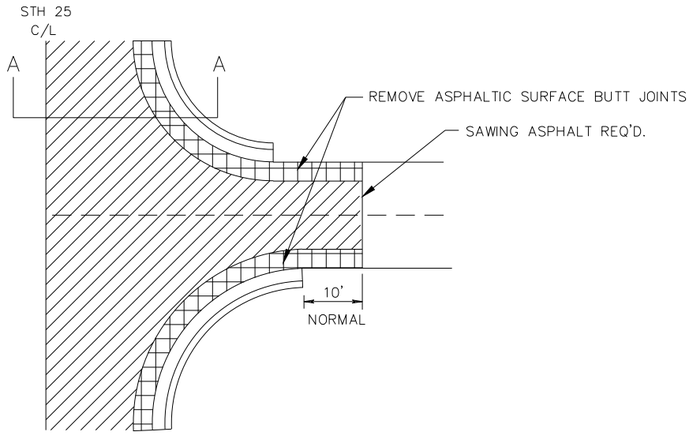
SEE SDD "MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)" FOR GRADING DETAILS



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

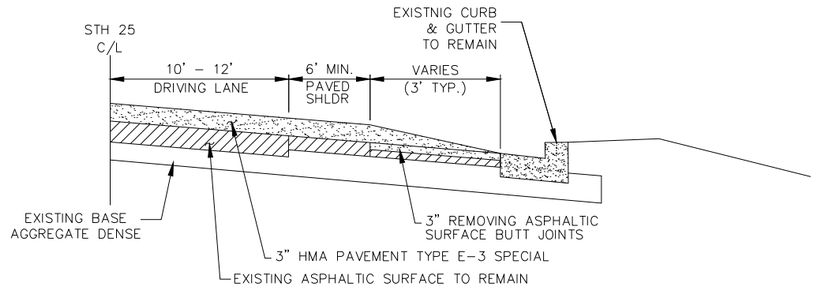
SIDE ROAD DETAIL – NO CURB & GUTTER

NOT TO SCALE



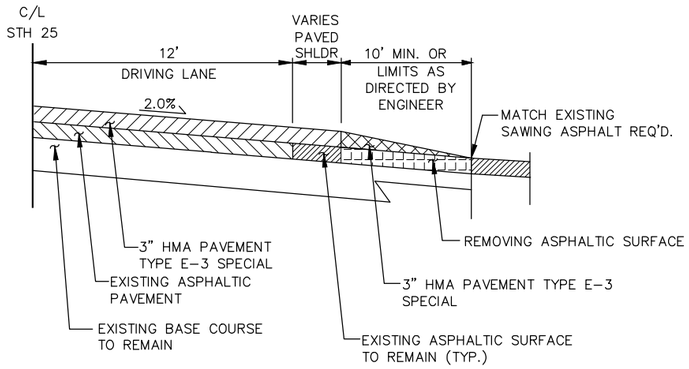
SIDEROAD DETAIL – CURB & GUTTER TO REMAIN

NOT TO SCALE

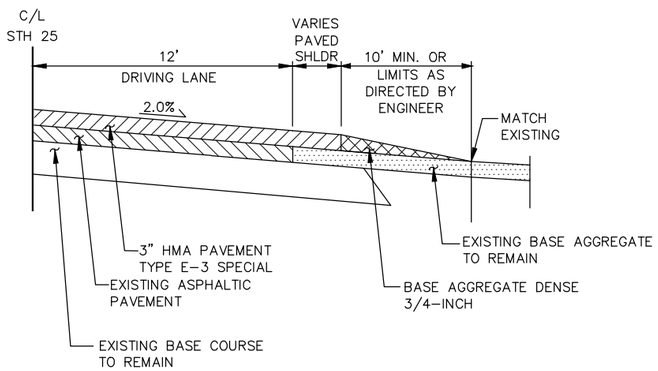


SECTION A–A

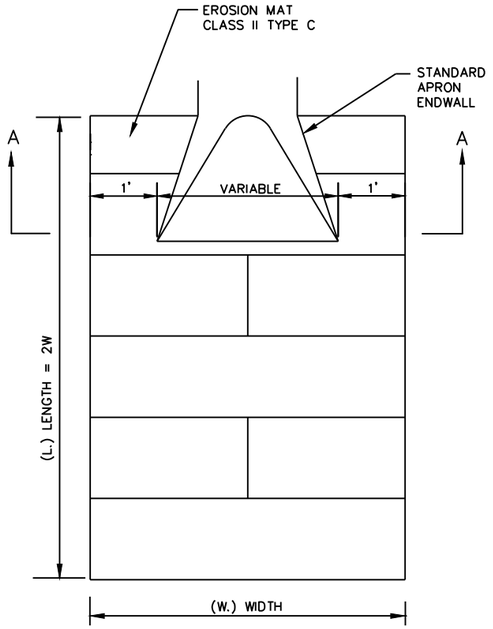
PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	CONSTRUCTION DETAILS - 1	SHEET 14	E



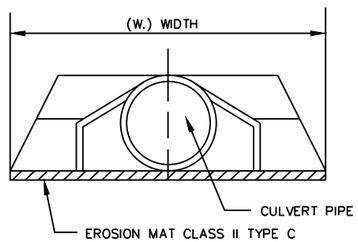
TYPICAL ASPHALT DRIVEWAY PROFILE



TYPICAL BASE AGGREGATE DENSE DRIVEWAY PROFILE



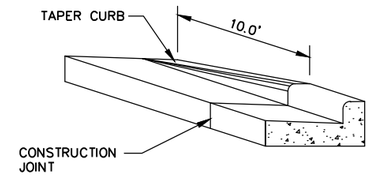
PLAN VIEW



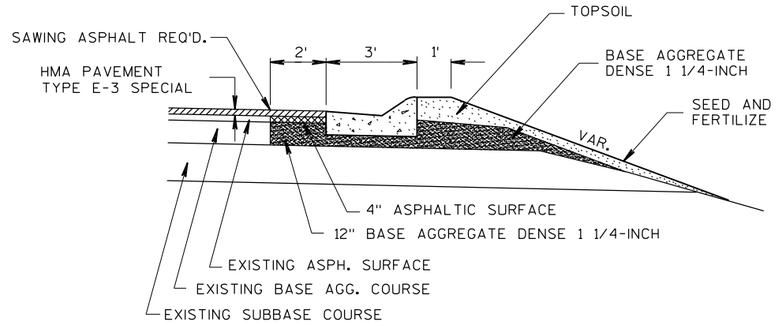
SECTION A–A

EROSION MAT CLASS II
TYPE C DISCHARGE APRON

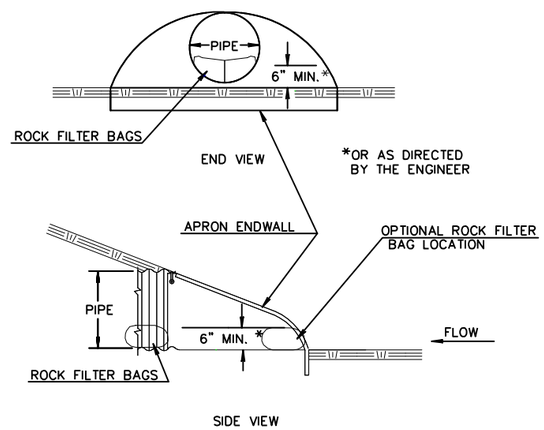
SEE MISCELLANEOUS QUANTITIES
FOR LOCATIONS AND DIMENSIONS



DETAIL OF CURB & GUTTER TERMINI



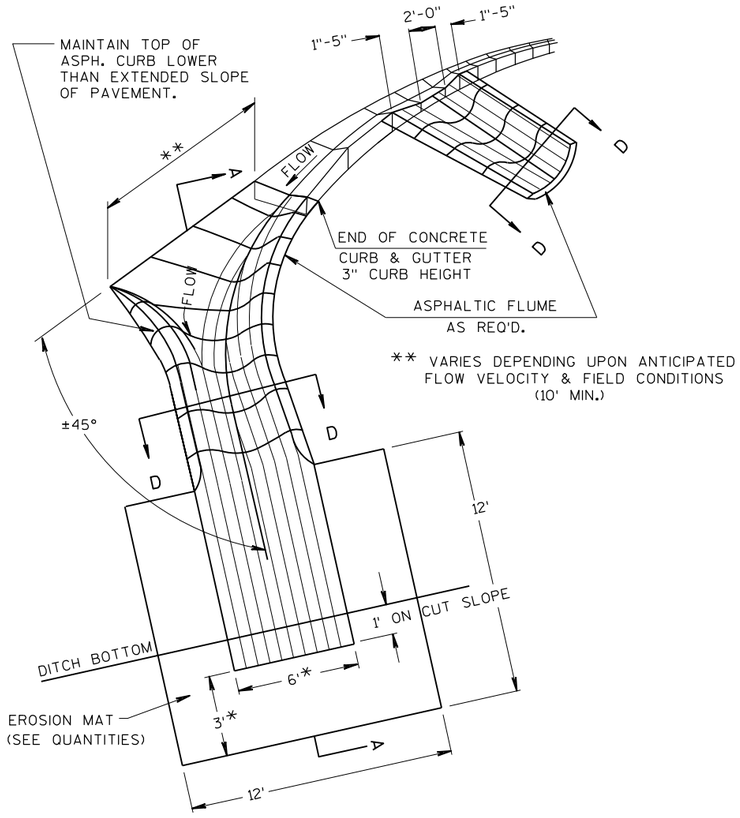
DETAIL OF CURB & GUTTER INSTALLATION

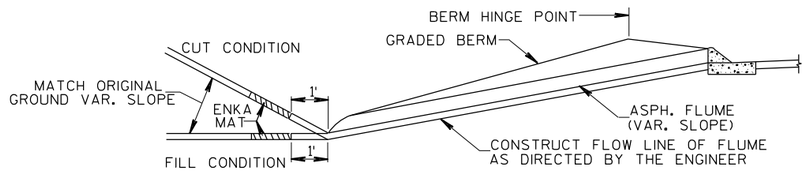


ROCK BAGS USED FOR CULVERT PIPE CHECKS DETAIL
(INSTALL ON INLET END ONLY)

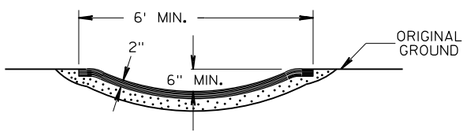
PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	CONSTRUCTION DETAILS - 2	SHEET 15	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\DETAILS\CONSTRUCTION DETAILS.DWG
LAYOUT : 2
PLOT DATE : 8/3/2015
PLOT TIME : 10:22:58 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



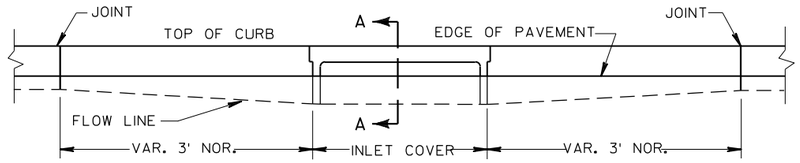


SECTION A-A

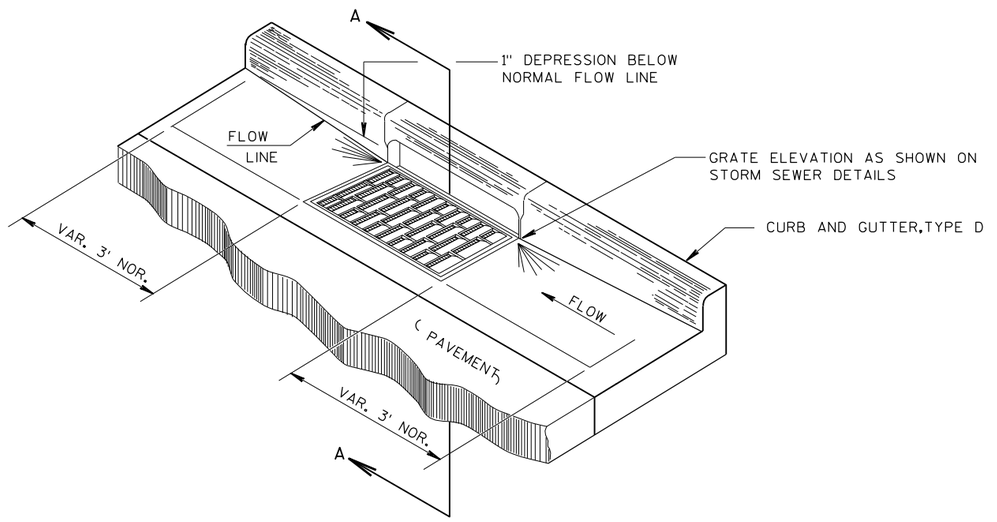


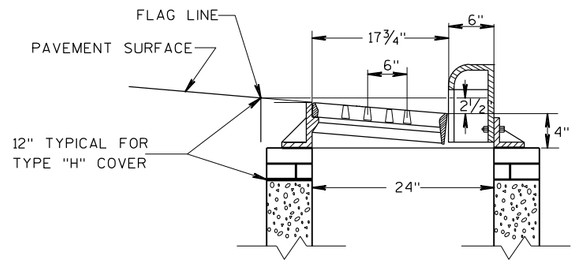
SECTION D-D

ASPHALTIC FLUME DETAIL
AT RURAL INTERSECTIONS



ELEVATION



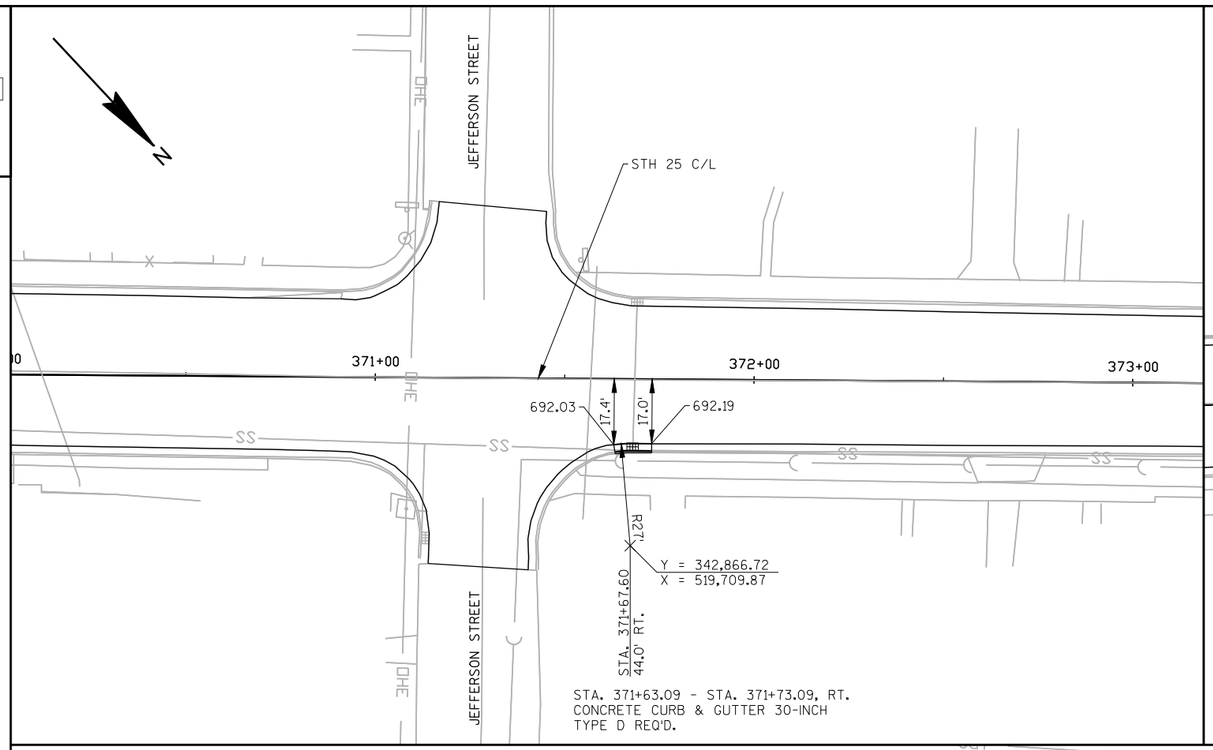


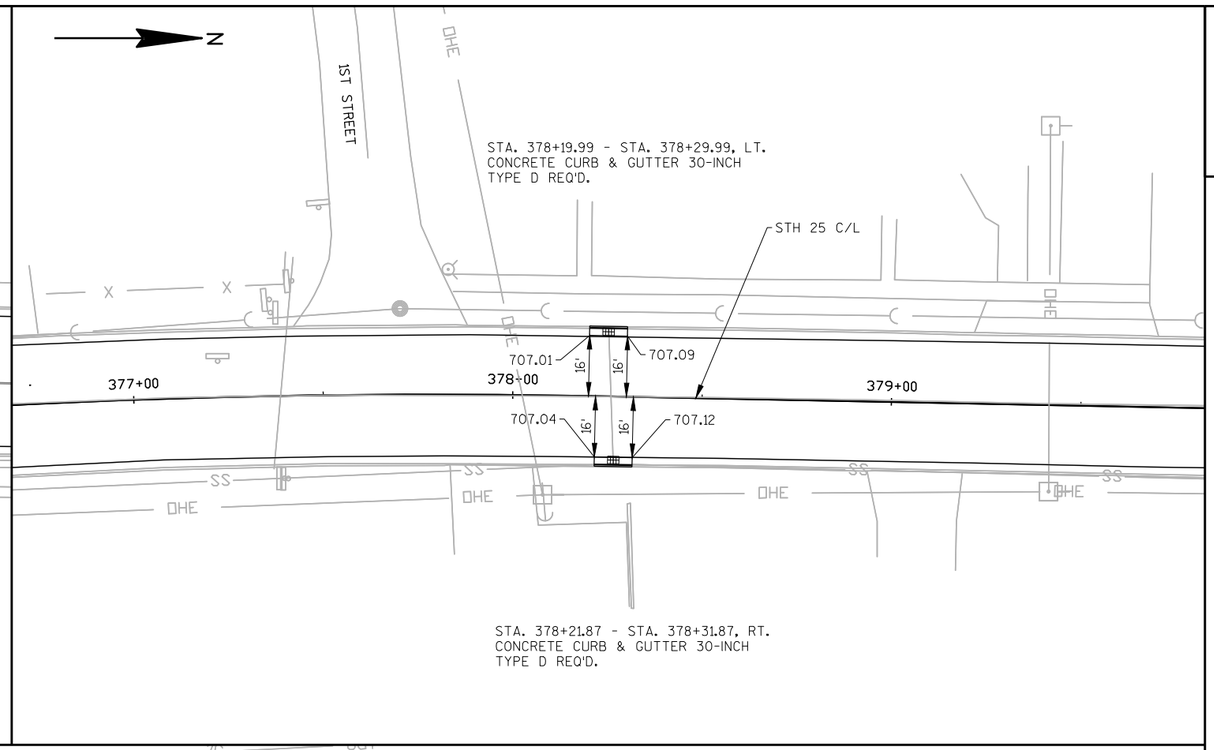
SECTION A-A

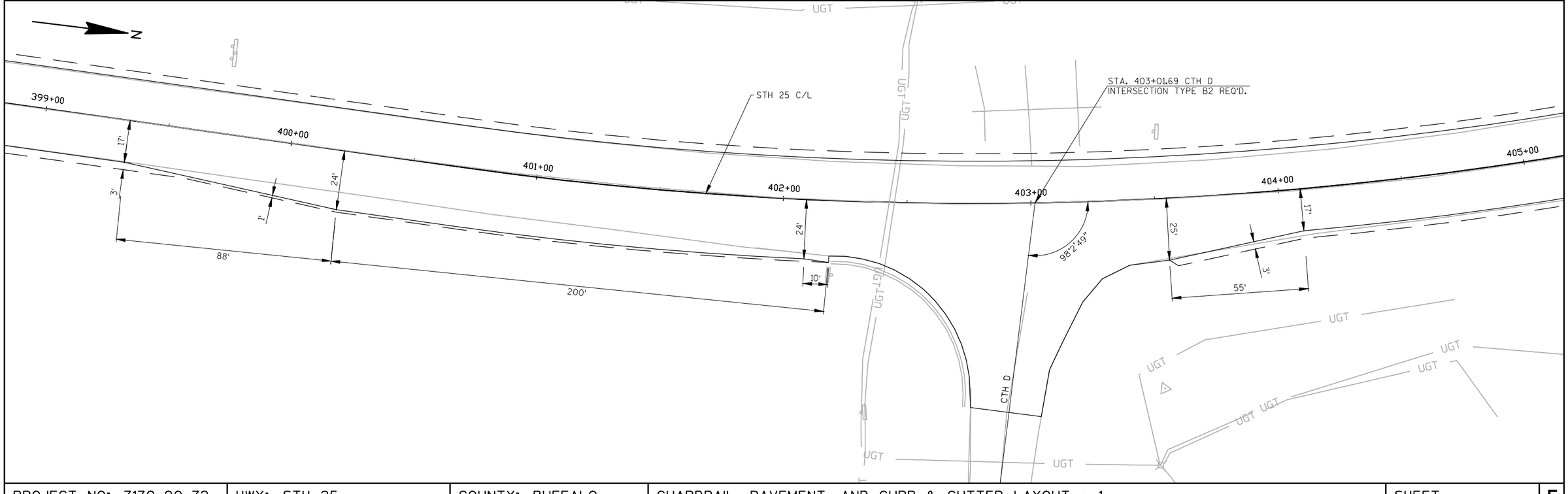
DETAIL OF CURB AND GUTTER AT INLETS
(INLET 2X3-FT - H SHOWN)

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	CONSTRUCTION DETAILS - 3	SHEET 16	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\DETAILS\CONSTRUCTION DETAILS.DWG
LAYOUT : 3
PLOT DATE : 8/3/2015
PLOT TIME : 10:23:07 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'







PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 1	SHEET 17	E

STA. 408+25.00 - STA. 408+46.00, LT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J WITH
DRIVEWAY ENTRANCE CURB HEAD REQ'D.

STA. 408+26.65 - STA. 408+77.14, LT.
MGS GUARDRAIL TERMINAL EAT REQ'D.
STA. 408+77.14 - STA. 409+15.47, LT.
MGS GUARDRAIL 3 REQ'D.
STA. 409+15.47 - STA. 409+53.54, LT.
MGS THRIE BEAM TRANSITION REQ'D.

STA. 408+26, LT.
ASPHALTIC FLUME REQ'D.

STRUCTURE B-06-095

STH 25 C/L

STA. 410+31.82 - STA. 410+69.89, LT.
MGS THRIE BEAM TRANSITION REQ'D.
STA. 410+69.89 - STA. 412+85.60, LT.
MGS GUARDRAIL 3REQ'D.
STA. 412+85.80 - STA. 413+36.35, LT.
MGS GUARDRAIL TERMINAL EAT REQ'D.

STA. 413+20.00 - STA. 413+40.00, LT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J WITH
DRIVEWAY ENTRANCE CURB HEAD REQ'D.

STA. 413+37, LT.
ASPHALTIC FLUME REQ'D.

STA. 408+06.91 - STA. 408+66.18, RT.
MGS GUARDRAIL TERMINAL EAT REQ'D.
STA. 408+66.18 - STA. 409+17.76, RT.
MGS GUARDRAIL 3 REQ'D.
STA. 409+17.76 - STA. 409+04.71, RT.
MGS THRIE BEAM TRANSITION REQ'D.

STA. 410+31.08 - STA. 410+68.04, RT.
MGS THRIE BEAM TRANSITION REQ'D.
STA. 410+68.04 - STA. 411+17.30, RT.
MGS GUARDRAIL TERMINAL EAT REQ'D.

KNABE ROAD

STA. 435+90.70

STH 25 C/L

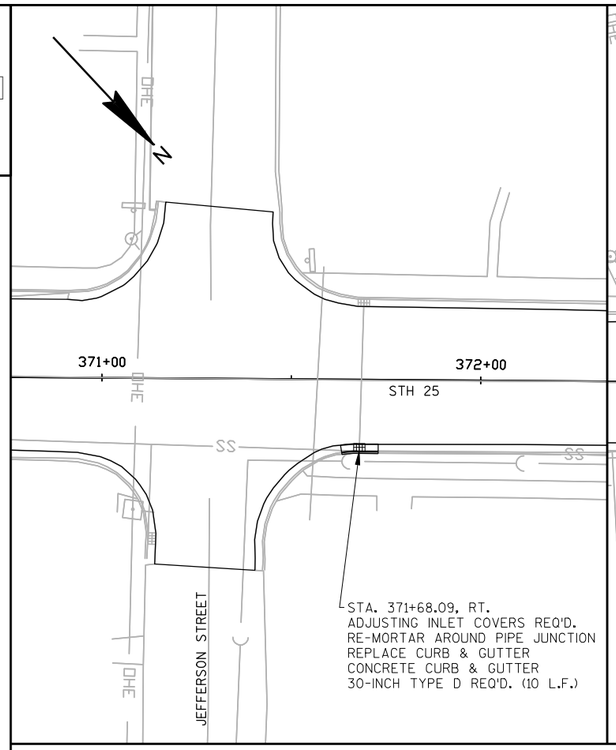
STH 35 C/L

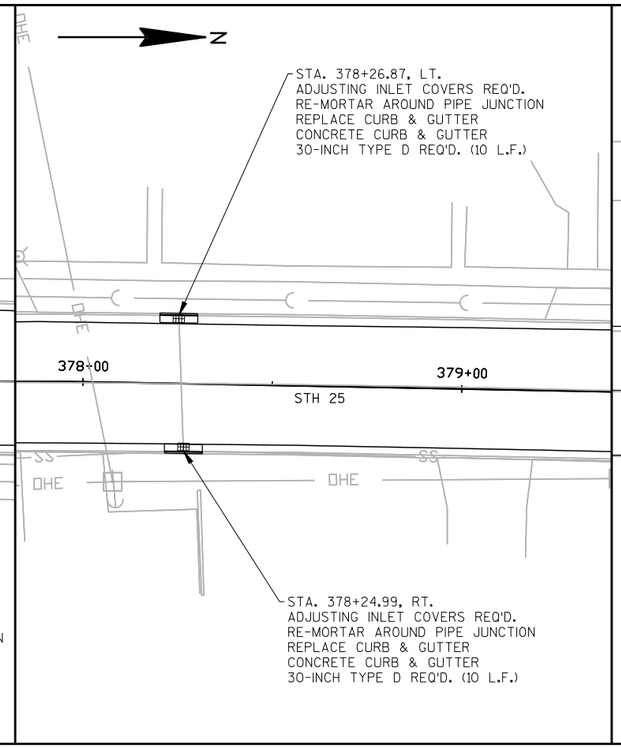
STH 25

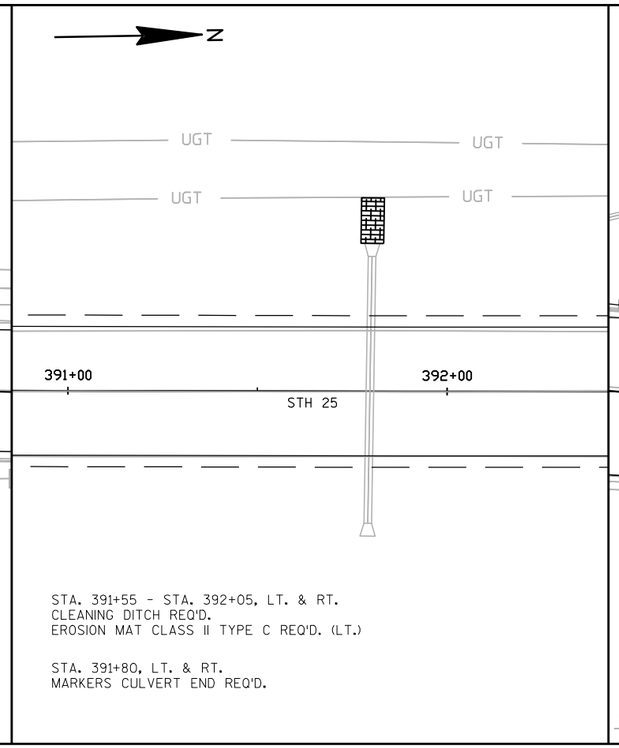
STH 25

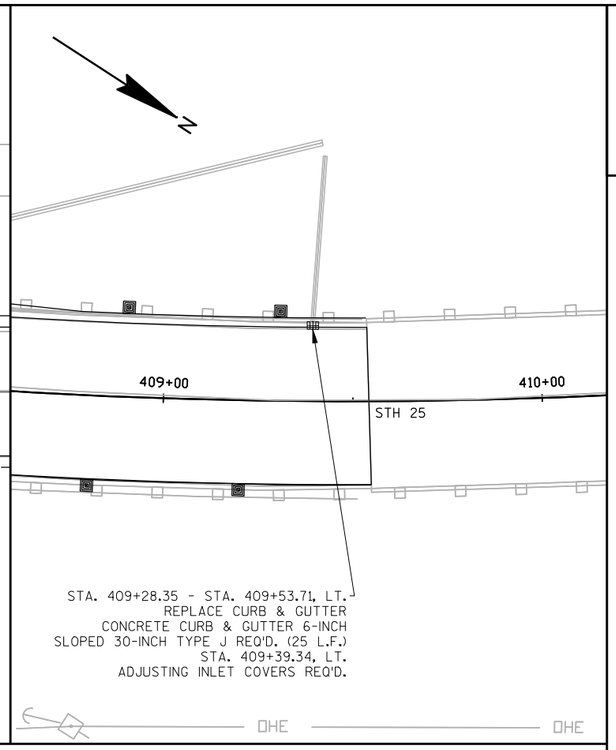
PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 2	SHEET 18	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\DETAILS\GUARDRAIL-PAVEMENT LAYOUT.DWG
LAYOUT : 2
PLOT DATE : 7/25/2014
PLOT TIME : 3:30:13 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'









PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	DRAINAGE DETAILS - 1	SHEET 19	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\DETAILS\DRAINAGE DETAILS.DWG
LAYOUT : 1
PLOT DATE : 8/3/2015
PLOT TIME : 11:01:58 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN

N

D6-4 (1-07R) M3-1 (1-09R) M1-6 (1-10R) M6-1 (1-11R) M3-1 (1-12R) M1-96 (1-13R) M6-1 (1-14R) REMOVE

J3-3 72" X 57" (1-15)

(1-16R) D6-4

J3-2 REMOVE (1-18R)

J3-3 72" X 57" (1-19)

M3-3 (1-35R) M1-96 (1-36R) M5-1L (1-37R) D6-4 (1-30R) M3-3 (1-32R) M3-3 (1-38R) M1-6 (1-33R) M1-6 (1-39R) M5-1L (1-34R) M6-1 (1-40R) REMOVE

J3-4 96" X 57" (1-41)

J4-1 REMOVE (1-03R) R7-1D REMOVE (1-05R) (1-06) R7-1D 18" X 24" (1-04) J4-1 24" X 36"

D1-2 REMOVE (1-20R) D1-2 42" X 24" (1-21)

R1-1 REMOVE (1-42R) R1-1 30" X 30" (1-43)

R2-1 REMOVE (1-48R) R2-1 24" X 30" (1-49)

R1-1 REMOVE (1-50R) R1-1 30" X 30" (1-51)

ESTR MAIN ST JEFFERSON ST (1-52R)

(1-55R) W11-2 REMOVE AHEAD W16-9P REMOVE (1-57R)

(1-59) ESTR A ST

(1-60) R1-1 ESTR

(1-61R) R2-1 REMOVE

(1-62) R2-1 24" X 30"

(1-65) ESTR 1ST ST

R1-1 ESTR (1-66R) R1-1 30" X 30" (1-67)

CLEVELAND STREET

JEFFERSON STREET

1ST STREET

STH 35

℄ STH 25

365+05 366+00 367+00 368+00 369+00 370+00 371+00 372+00 373+00 374+00 375+00 376+00 377+00 378+00 379+00 380

MATCH LINE STA. 380+00

ESTR MAIN ST CLEVELAND ST (1-29)

R2-1 REMOVE (1-44R) R2-1 24" X 30" (1-45)

R1-1 REMOVE (1-53R) R1-1 30" X 30" (1-54)

R2-1 REMOVE (1-63R) R2-1 24" X 30" (1-64)

(1-22R) M3-1 (1-23R) M1-6 (1-24R) M1-6 (1-25R) M1-96 (1-27R) D6-4

JV 48" X 60" (1-26)

R1-1 REMOVE (1-46R) R1-1 30" X 30" (1-47)

J3-2 REMOVE (1-01R) J3-2 48" X 57" (1-02)

BEGIN PROJECT
STA. 365+05

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PERMANENT SIGNING - 1	SHEET 20	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 1

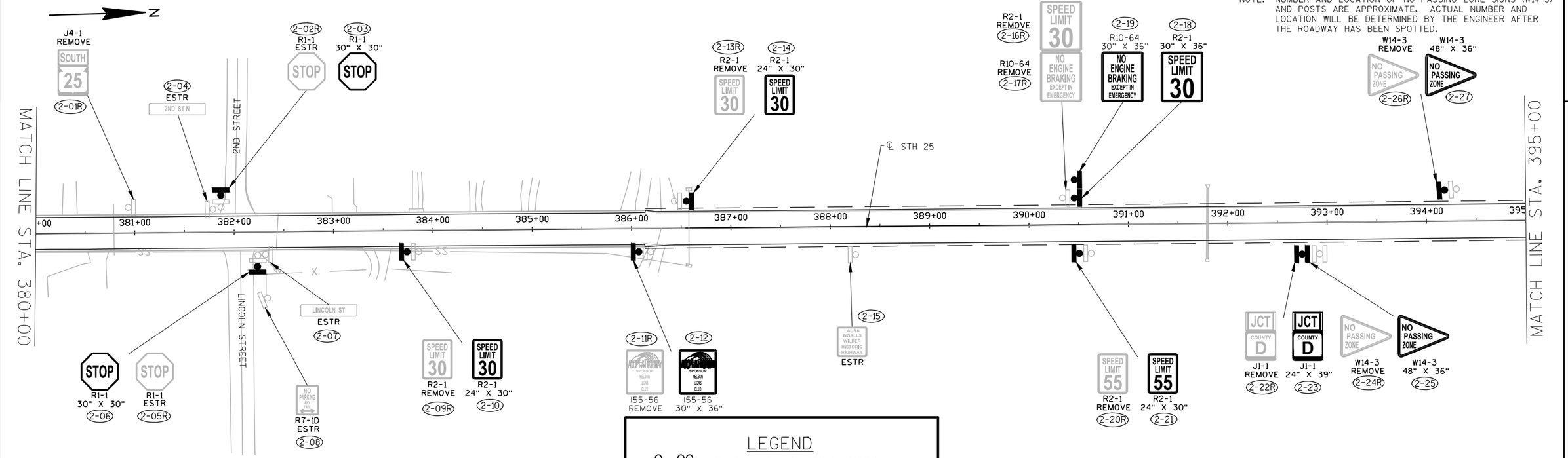
PLOT DATE : 4/17/2015
PLOT TIME : 9:53:39 AM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'

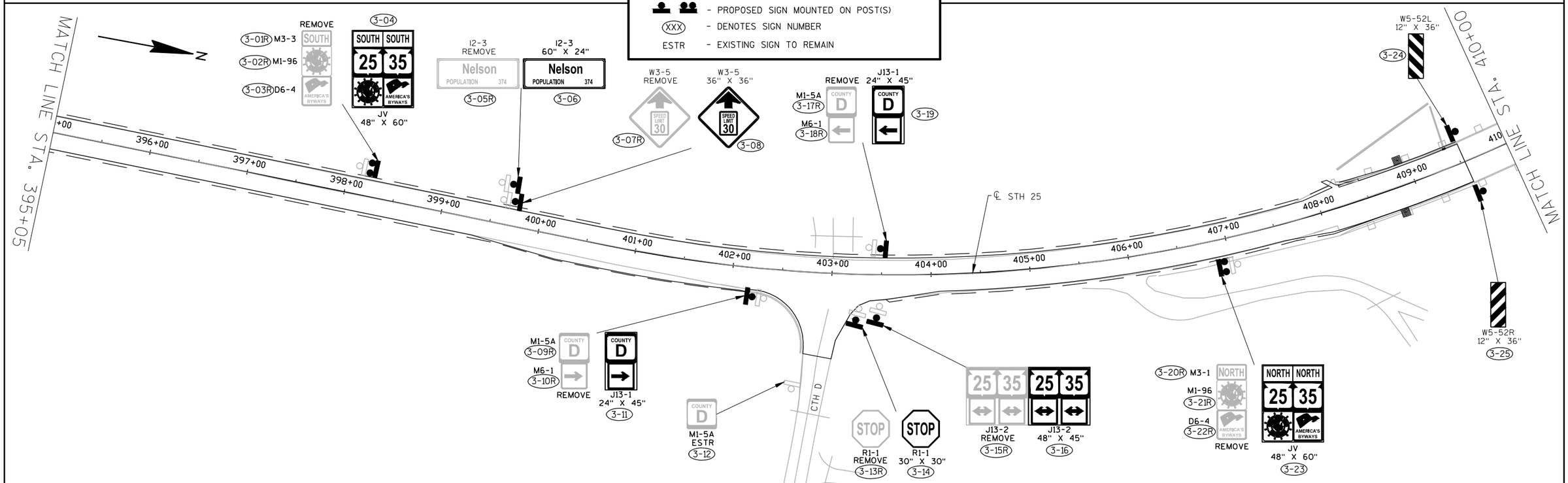
2

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



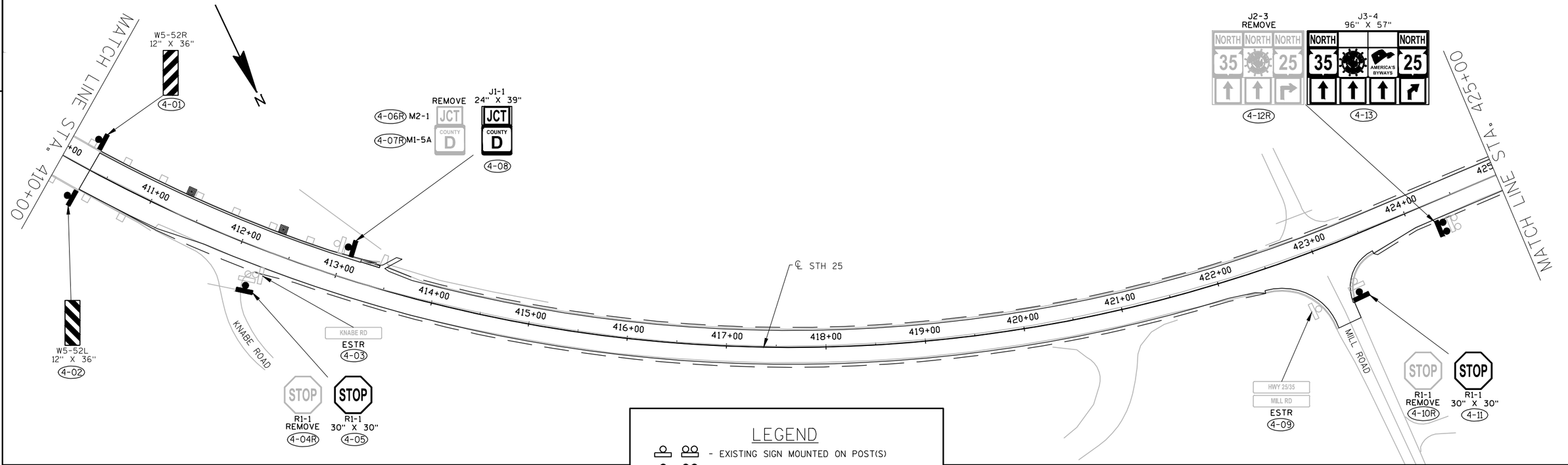
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- XXX - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PERMANENT SIGNING - 2	SHEET 21	E

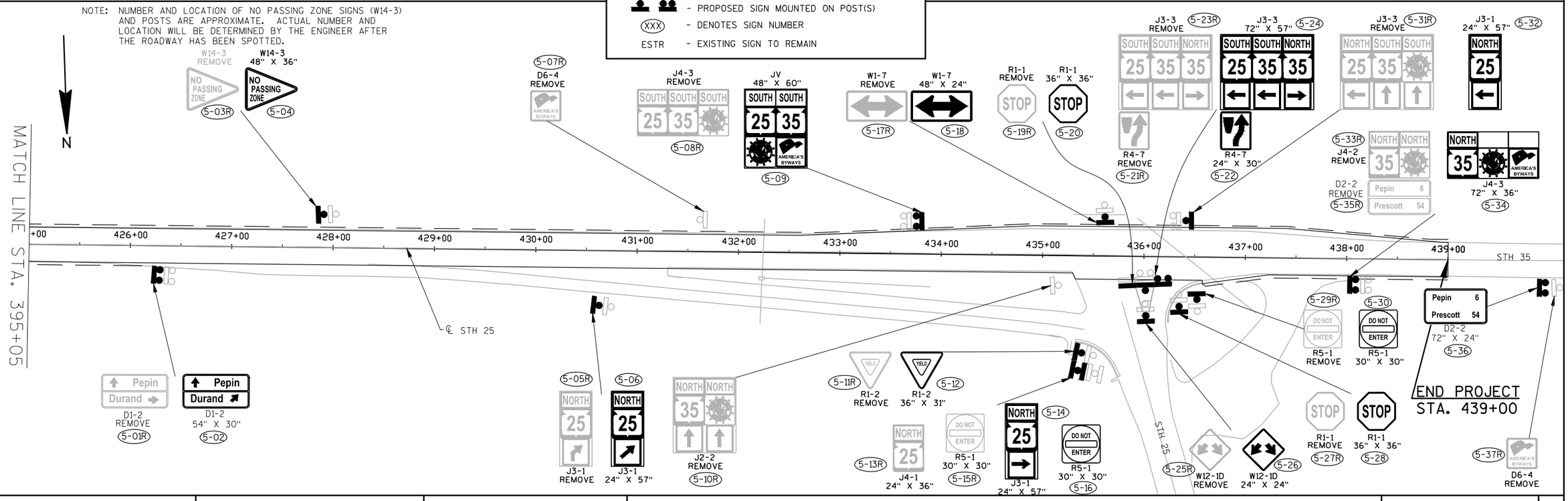
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 2
PLOT DATE : 3/30/2015
PLOT TIME : 12:02:17 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- XXX - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.

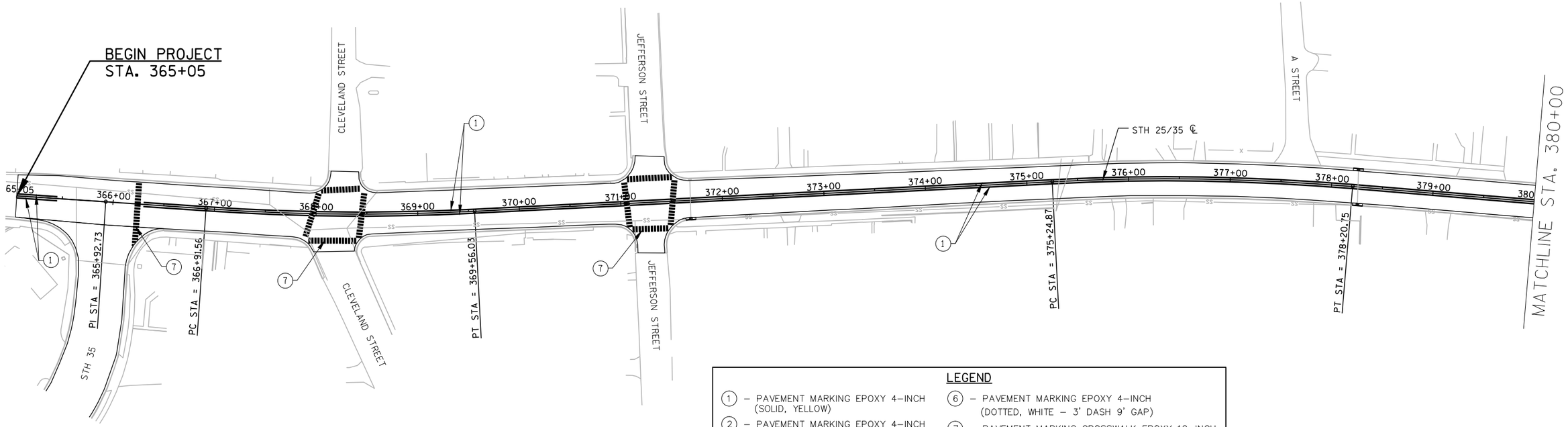


PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PERMANENT SIGNING - 3	SHEET 22	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 3
PLOT DATE : 4/17/2015
PLOT TIME : 9:59:12 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

2

CENTERLINE PAVEMENT MARKING SHALL BE DOUBLE BARRIER LINE FROM STH 35 TO 1ST STREET (STA. 365+05 - STA. 384+08).

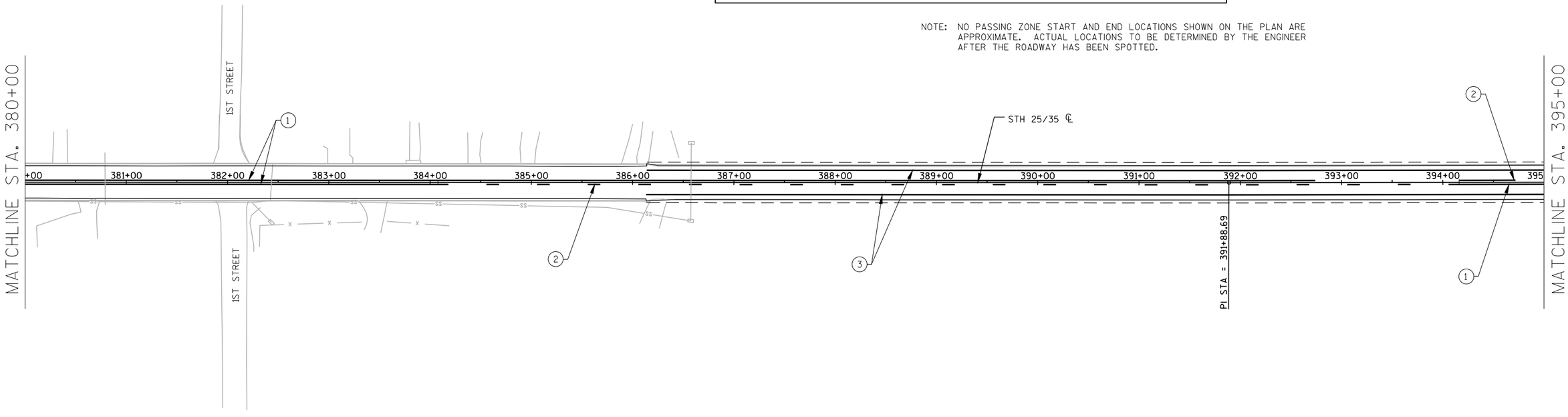


LEGEND

1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH

CENTERLINE PAVEMENT MARKING SHALL BE DOUBLE BARRIER LINE FROM STH 35 TO 1ST STREET (STA. 365+05 - STA. 384+08).

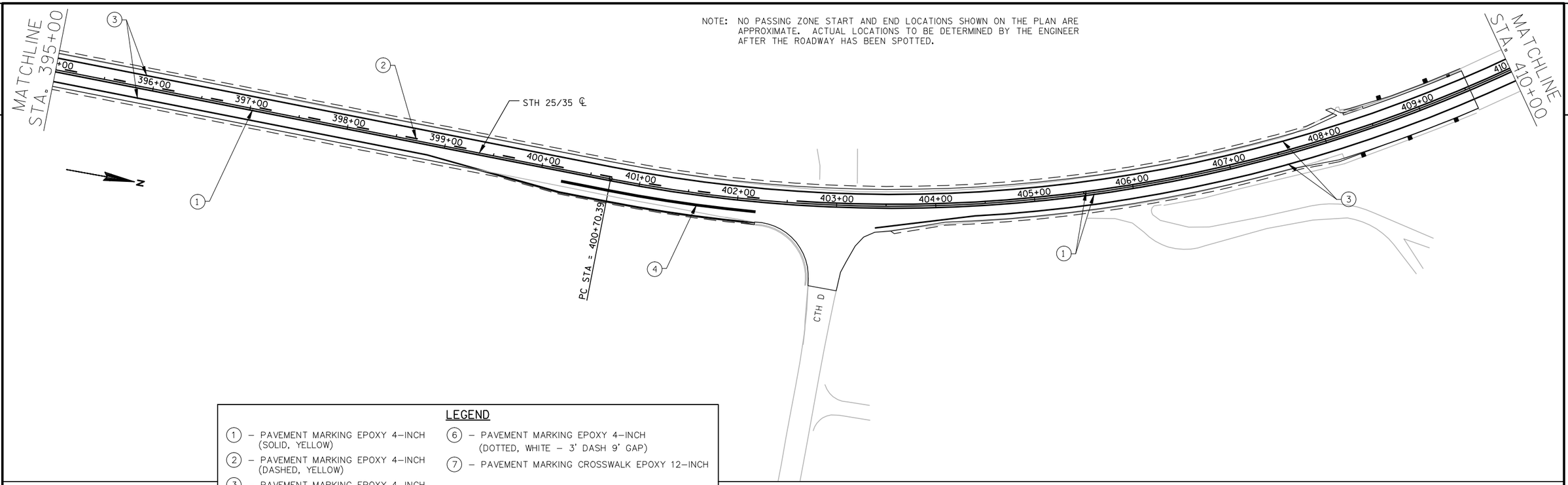
NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 23	E

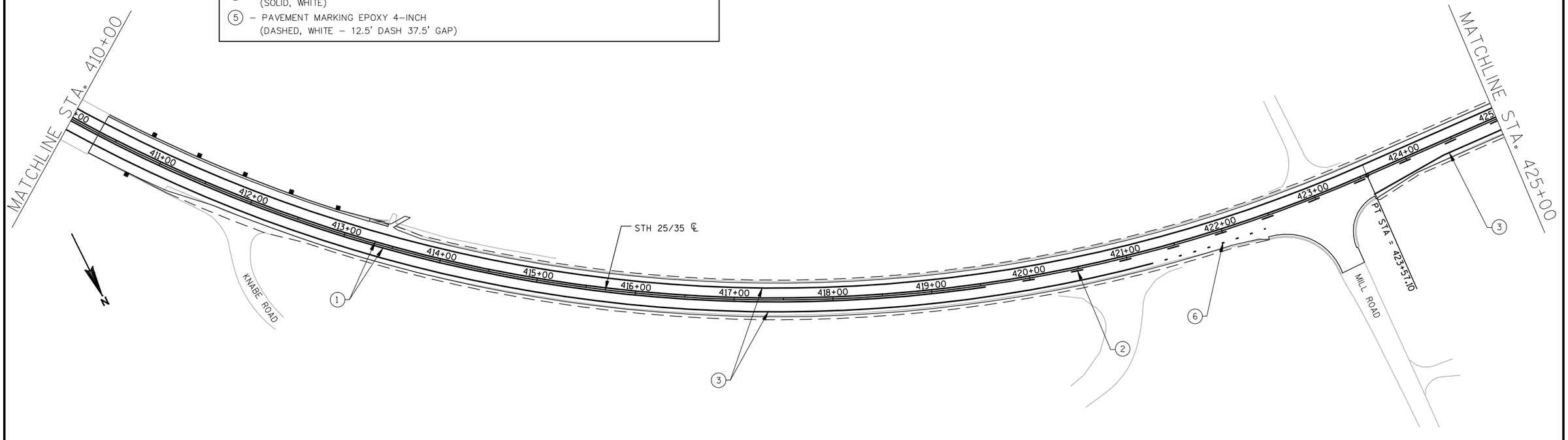
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 1
PLOT DATE : 8/3/2015
PLOT TIME : 3:34:48 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 24	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 2
PLOT DATE : 8/3/2015
PLOT TIME : 3:39:44 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

2

LEGEND

(1) – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)

(2) – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)

(3) – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)

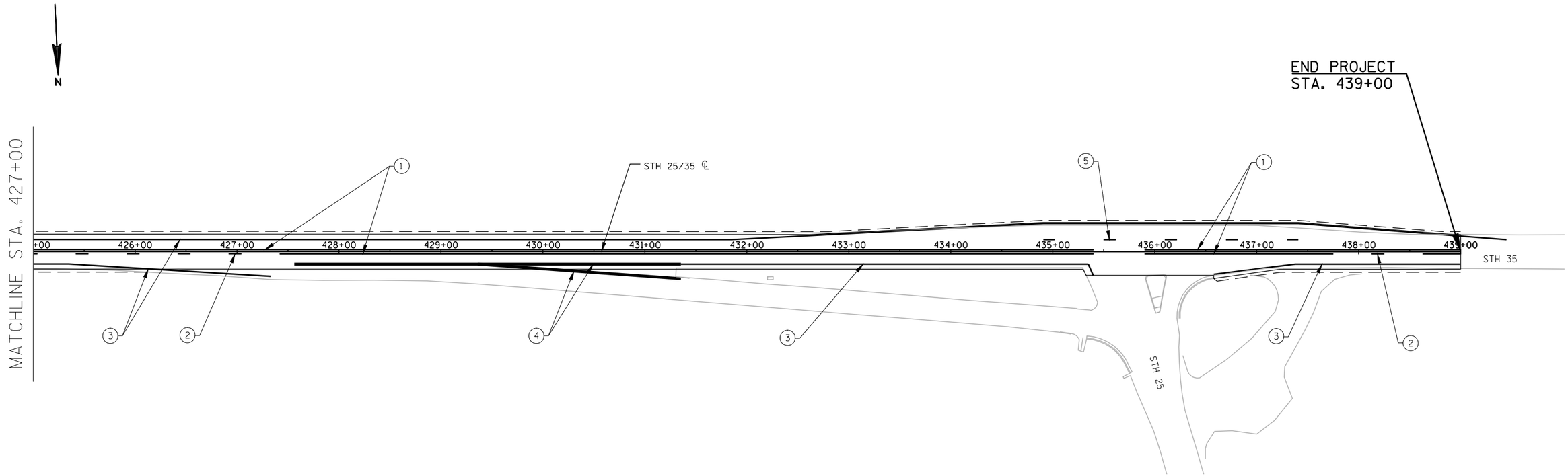
(4) – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)

(5) – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)

(6) – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)

(7) – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



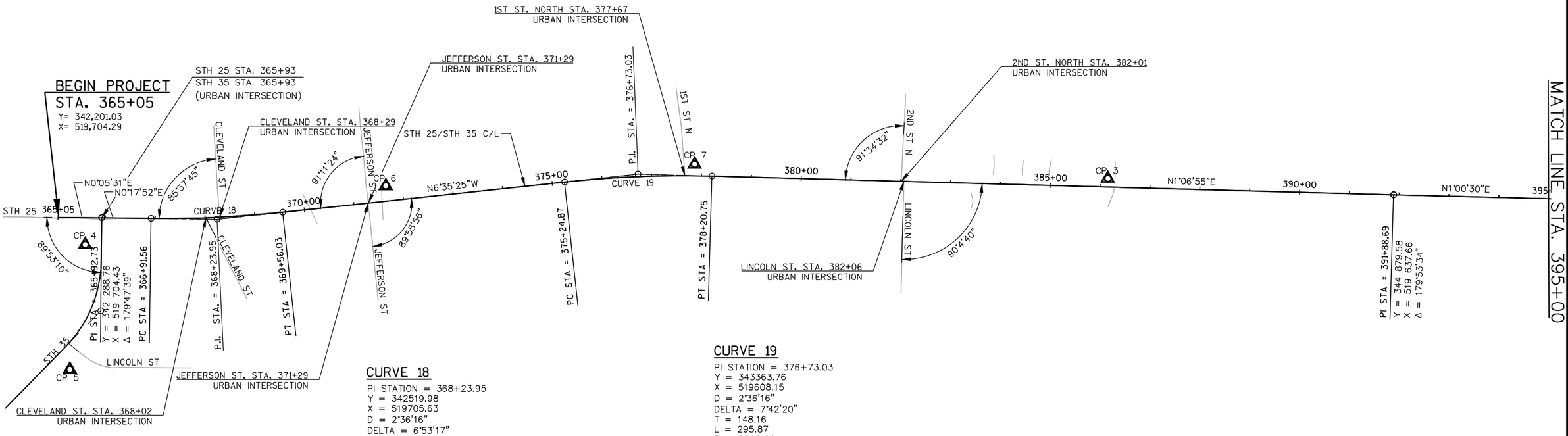
PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 25	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 3
PLOT DATE : 8/3/2015
PLOT TIME : 3:42:52 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

▲ CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X	ELEV.
3	386+15	MAG NAIL SET, 17.0' LT. OF STH 25	344,306.21	519,609.47	724.49
4	365+38	MAG NAIL SET, 32.9' LT. OF STH 35	342,255.71	519,758.89	689.98
5	362+88	NAIL SET, 37.8' RT. OF STH 35	342,226.90	520,009.43	691.24
6	371+67	NAIL SET, 30.4' LT. OF STH 25	342,857.80	519636.05	692.26
7	377+86	MAG NAIL SET, 22.9' LT. OF STH 25	343,477.01	519,587.76	707.13

NORTH



CURVE 18

PI STATION = 368+23.95
Y = 342519.98
X = 519705.63
D = 2°36'16"
DELTA = 6°53'17"
T = 132.40
L = 264.48
R = 2200.00
PC STATION = 366+91.56
Y = 342387.58
X = 519704.95
PT STATION = 369+56.03
Y = 342651.50
X = 519690.44
S.E. = N.C.
R.O. = N/A
TRANS. = N/A

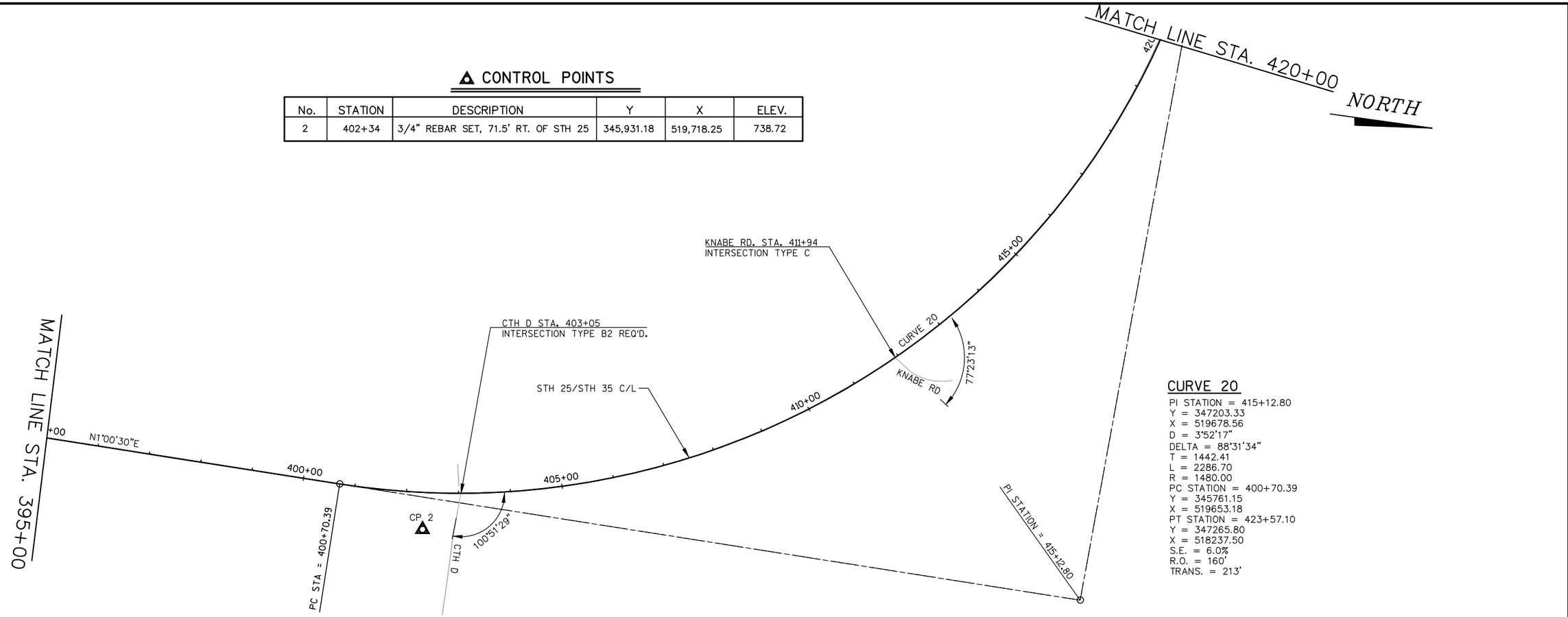
CURVE 19

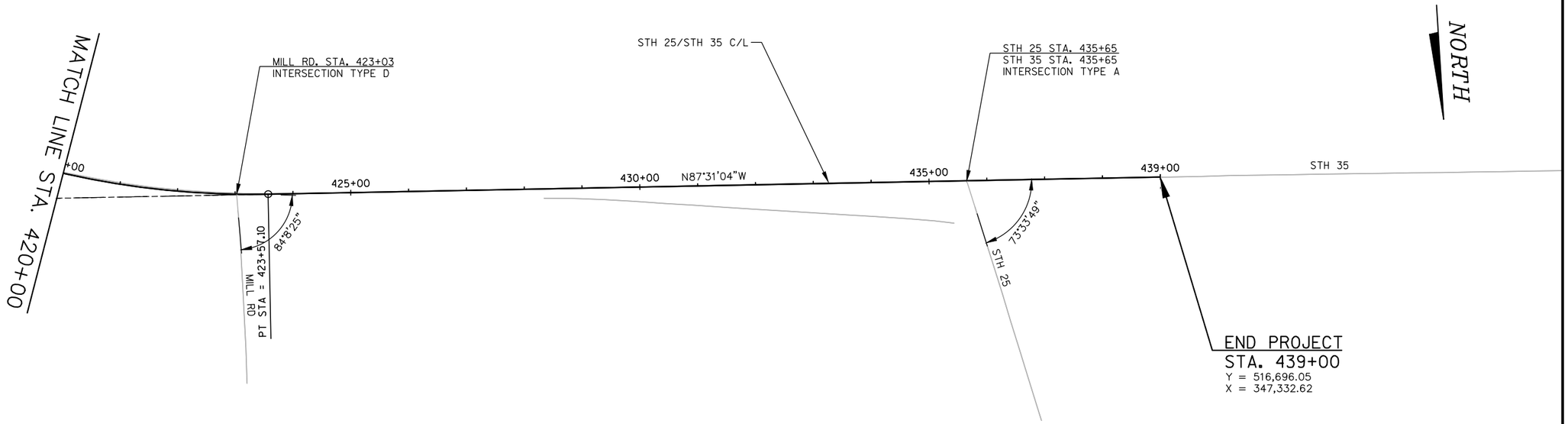
PI STATION = 376+73.03
Y = 343363.76
X = 519608.15
D = 2°36'16"
DELTA = 7°42'20"
T = 148.16
L = 295.87
R = 2200.00
PC STATION = 375+24.87
Y = 343216.58
X = 519625.15
PT STATION = 378+20.75
Y = 343511.90
X = 519611.03
S.E. = N.C.
R.O. = N/A
TRANS. = N/A

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	ALIGNMENT DETAILS	SHEET 26	E

▲ CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X	ELEV.
2	402+34	3/4" REBAR SET, 71.5' RT. OF STH 25	345,931.18	519,718.25	738.72





PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	ALIGNMENT DETAILS	SHEET 27	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\DETAILS\ALIGNMENT DETAILS.DWG
LAYOUT : 2
PLOT DATE : 4/16/2015
PLOT TIME : 11:26:02 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

STH 72

STATION	Y	X	REMARKS
365+05.00	342 201.03	519 704.29	BEGIN PROJECT
365+50.00	342 246.03	519 704.36	
365+92.73	342 288.76	519 704.43	P.I. STATION
366+00.00	342 296.03	519 704.47	
366+50.00	342 346.03	519 704.73	
366+91.56	342 387.58	519 704.95	P.C. STATION
367+00.00	342 396.03	519 704.97	
367+50.00	342 446.02	519 704.47	
368+00.00	342 495.99	519 702.84	
368+23.95	342 519.98	519 705.63	P.I. STATION
368+50.00	342 545.92	519 700.07	
369+00.00	342 595.76	519 696.16	
369+50.00	342 645.51	519 691.12	
369+56.03	342 651.50	519 690.44	P.T. STATION
370+00.00	342 695.18	519 685.39	
370+50.00	342 744.85	519 679.66	
371+00.00	342 794.52	519 673.92	
371+50.00	342 844.19	519 668.18	
372+00.00	342 893.86	519 662.44	
372+50.00	342 943.53	519 656.70	
373+00.00	342 993.20	519 650.96	
373+50.00	343 042.87	519 645.22	
374+00.00	343 092.53	519 639.49	
374+50.00	343 142.20	519 633.75	
375+00.00	343 191.87	519 628.01	
375+24.87	343 216.58	519 625.15	P.C. STATION
375+50.00	343 241.56	519 622.41	
376+00.00	343 291.35	519 617.81	
376+50.00	343 341.22	519 614.34	
376+73.03	343 363.76	519 608.15	P.I. STATION
377+00.00	343 391.17	519 612.00	
377+50.00	343 441.15	519 610.79	
378+00.00	343 491.15	519 610.73	
378+20.75	343 511.90	519 611.03	P.T. STATION
378+50.00	343 541.14	519 611.60	
379+00.00	343 591.13	519 612.58	
379+50.00	343 641.12	519 613.55	
380+00.00	343 691.12	519 614.52	
380+50.00	343 741.11	519 615.50	
381+00.00	343 791.10	519 616.47	
381+50.00	343 841.09	519 617.44	
382+00.00	343 891.08	519 618.42	
382+50.00	343 941.07	519 619.39	
383+00.00	343 991.06	519 620.36	
383+50.00	344 041.05	519 621.34	
384+00.00	344 091.04	519 622.31	
384+50.00	344 141.03	519 623.28	
385+00.00	344 191.02	519 624.26	
385+50.00	344 241.01	519 625.23	
386+00.00	344 291.00	519 626.20	
386+50.00	344 340.99	519 627.18	
387+00.00	344 390.98	519 628.15	
387+50.00	344 440.97	519 629.12	
388+00.00	344 490.96	519 630.10	
388+50.00	344 540.95	519 631.07	
389+00.00	344 590.94	519 632.04	
389+50.00	344 640.94	519 633.02	
390+00.00	344 690.93	519 633.99	
390+50.00	344 740.92	519 634.96	
391+00.00	344 790.91	519 635.94	
391+50.00	344 840.90	519 636.91	
391+88.69	344 879.58	519 637.66	P.I. STATION
392+00.00	344 890.89	519 637.86	
392+50.00	344 940.88	519 638.74	
393+00.00	344 990.87	519 639.62	
393+50.00	345 040.87	519 640.50	
394+00.00	345 090.86	519 641.38	
394+50.00	345 140.85	519 642.26	
395+00.00	345 190.84	519 643.14	
395+50.00	345 240.83	519 644.02	
396+00.00	345 290.83	519 644.90	

STH 72

STATION	Y	X	REMARKS
396+50.00	345 340.82	519 645.78	
397+00.00	345 390.81	519 646.66	
397+50.00	345 440.80	519 647.54	
398+00.00	345 490.80	519 648.42	
398+50.00	345 540.79	519 649.30	
399+00.00	345 590.78	519 650.18	
399+50.00	345 640.77	519 651.06	
400+00.00	345 690.76	519 651.94	
400+50.00	345 740.76	519 652.82	
400+70.39	345 761.15	519 653.18	P.C. STATION
401+00.00	345 790.75	519 653.40	
401+50.00	345 840.74	519 652.44	
402+00.00	345 890.67	519 649.78	
402+50.00	345 940.48	519 645.45	
403+00.00	345 990.11	519 639.43	
403+50.00	346 039.51	519 631.74	
404+00.00	346 088.63	519 622.38	
404+50.00	346 137.40	519 611.37	
405+00.00	346 185.77	519 598.72	
405+50.00	346 233.69	519 584.45	
406+00.00	346 281.09	519 568.56	
406+50.00	346 327.94	519 551.08	
407+00.00	346 374.16	519 532.03	
407+50.00	346 419.72	519 511.43	
408+00.00	346 464.55	519 489.30	
408+50.00	346 508.61	519 465.67	
409+00.00	346 551.85	519 440.56	
409+50.00	346 594.21	519 414.01	
409+54.27	346 597.79	519 411.68	END OF DECK
410+00.00	346 635.66	519 386.05	
410+31.20	346 661.03	519 367.89	END OF DECK
410+50.00	346 676.13	519 356.69	
411+00.00	346 715.59	519 325.99	
411+50.00	346 754.00	519 293.98	
412+00.00	346 791.29	519 260.68	
412+50.00	346 827.45	519 226.14	
413+00.00	346 862.41	519 190.41	
413+50.00	346 896.15	519 153.51	
414+00.00	346 928.62	519 115.49	
414+50.00	346 959.79	519 076.40	
415+00.00	346 989.62	519 036.28	
415+12.80	347 203.33	519 678.56	P.I. STATION
415+50.00	347 018.08	518 995.17	
416+00.00	347 045.14	518 953.12	
416+50.00	347 070.76	518 910.19	
417+00.00	347 094.91	518 866.41	
417+50.00	347 117.57	518 821.84	
418+00.00	347 138.72	518 776.54	
418+50.00	347 158.32	518 730.54	
419+00.00	347 176.35	518 683.91	
419+50.00	347 192.80	518 636.70	
420+00.00	347 207.65	518 588.96	
420+50.00	347 220.88	518 540.74	
421+00.00	347 232.47	518 492.10	
421+50.00	347 242.41	518 443.10	
422+00.00	347 250.69	518 393.80	
422+50.00	347 257.29	518 344.24	
423+00.00	347 262.23	518 294.48	
423+50.00	347 265.47	518 244.59	
423+57.10	347 265.80	518 237.50	P.T. STATION
424+00.00	347 267.66	518 194.64	
424+50.00	347 269.82	518 144.69	
425+00.00	347 271.99	518 094.73	
425+50.00	347 274.15	518 044.78	
426+00.00	347 276.32	517 994.83	
426+50.00	347 278.48	517 944.87	
427+00.00	347 280.65	517 894.92	
427+50.00	347 282.82	517 844.97	
428+00.00	347 284.98	517 795.01	
428+50.00	347 287.15	517 745.06	
429+00.00	347 289.31	517 695.11	

STH 72

STATION	Y	X	REMARKS
429+50.00	347 291.48	517 645.16	
430+00.00	347 293.64	517 595.20	
430+50.00	347 295.81	517 545.25	
431+00.00	347 297.97	517 495.30	
431+50.00	347 300.14	517 445.34	
432+00.00	347 302.30	517 395.39	
432+50.00	347 304.47	517 345.44	
433+00.00	347 306.64	517 295.48	
433+50.00	347 308.80	517 245.53	
434+00.00	347 310.97	517 195.58	
434+50.00	347 313.13	517 145.62	
435+00.00	347 315.30	517 095.67	
435+50.00	347 317.46	517 045.72	
436+00.00	347 319.63	516 995.76	
436+50.00	347 321.79	516 945.81	
437+00.00	347 323.96	516 895.86	
437+50.00	347 326.12	516 845.91	
438+00.00	347 328.29	516 795.95	
438+50.00	347 330.46	516 746.00	
439+00.00	347 332.62	516 696.05	END PROJECT

CURVE 20

STATION	LEFT	RIGHT	COMMENT
399+10.72	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
399+50.00	2.00% <--	0.52% -->	
399+63.72	2.00% <--	0.00% --	
400+00.00	2.00% <--	1.36% <--	
400+17.06	2.00% <--	2.00% <--	R.C.
400+50.00	3.24% <--	3.24% <--	
400+70.39	4.00% <--	4.00% <--	P.C. STATION
401+00.00	5.11% <--	5.11% <--	
401+23.72	6.00% <--	6.00% <--	BEGIN FULL SUPER
401+50.00	6.00% <--	6.00% <--	
402+00.00	6.00% <--	6.00% <--	
402+50.00	6.00% <--	6.00% <--	
403+00.00	6.00% <--	6.00% <--	
403+50.00	6.00% <--	6.00% <--	
404+00.00	6.00% <--	6.00% <--	
404+50.00	6.00% <--	6.00% <--	
405+00.00	6.00% <--	6.00% <--	
405+50.00	6.00% <--	6.00% <--	
406+00.00	6.00% <--	6.00% <--	
406+50.00	6.00% <--	6.00% <--	
407+00.00	6.00% <--	6.00% <--	
407+50.00	6.00% <--	6.00% <--	
408+00.00	6.00% <--	6.00% <--	
408+50.00	6.00% <--	6.00% <--	
409+00.00	6.00% <--	6.00% <--	
409+50.00	6.00% <--	6.00% <--	
410+00.00	6.00% <--	6.00% <--	
410+50.00	6.00% <--	6.00% <--	
411+00.00	6.00% <--	6.00% <--	
411+50.00	6.00% <--	6.00% <--	
412+00.00	6.00% <--	6.00% <--	
412+50.00	6.00% <--	6.00% <--	
413+00.00	6.00% <--	6.00% <--	
413+50.00	6.00% <--	6.00% <--	
414+00.00	6.00% <--	6.00% <--	
414+50.00	6.00% <--	6.00% <--	
415+00.00	6.00% <--	6.00% <--	
415+50.00	6.00% <--	6.00% <--	
416+00.00	6.00% <--	6.00% <--	
416+50.00	6.00% <--	6.00% <--	
417+00.00	6.00% <--	6.00% <--	
417+50.00	6.00% <--	6.00% <--	
418+00.00	6.00% <--	6.00% <--	
418+50.00	6.00% <--	6.00% <--	
419+00.00	6.00% <--	6.00% <--	
419+50.00	6.00% <--	6.00% <--	
420+00.00	6.00% <--	6.00% <--	
420+50.00	6.00% <--	6.00% <--	
421+00.00	6.00% <--	6.00% <--	
421+50.00	6.00% <--	6.00% <--	
422+00.00	6.00% <--	6.00% <--	
422+50.00	6.00% <--	6.00% <--	
423+00.00	6.00% <--	6.00% <--	
423+03.76	6.00% <--	6.00% <--	END FULL SUPER
423+50.00	4.27% <--	4.27% <--	
423+57.09	4.00% <--	4.00% <--	P.T. STATION
424+00.00	2.39% <--	2.39% <--	
424+10.42	2.00% <--	2.00% <--	R.C.
424+50.00	2.00% <--	0.52% <--	
424+63.76	2.00% <--	0.00% --	
425+00.00	2.00% <--	1.37% -->	
425+16.76	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

DATE 11AUG15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7170-00-72 QUANTITY
0030	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,430.000	1,430.000
0040	204.0120	Removing Asphaltic Surface Milling	SY	30,500.000	30,500.000
0050	204.0150	Removing Curb & Gutter	LF	96.000	96.000
0100	205.9015.S	Grading Shaping and Finishing Intersection (location) 01. STH 25 & CTH D	LS	1.000	1.000
0110	205.9015.S	Grading Shaping and Finishing Intersection (location) 02. STH 25 & STH 35	LS	1.000	1.000
0150	213.0100	Finishing Roadway (project) 01. 7170-00-72	EACH	1.000	1.000
0170	305.0110	Base Aggregate Dense 3/4-Inch	TON	710.000	710.000
0180	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	290.000	290.000
0190	305.0500	Shaping Shoulders	STA	81.000	81.000
0200	440.4410.S	Incentive IRI Ride	DOL	5,600.000	5,600.000
0210	455.0605	Tack Coat	GAL	2,940.000	2,940.000
0220	460.2000	Incentive Density HMA Pavement	DOL	2,830.000	2,830.000
0230	465.0105	Asphaltic Surface	TON	150.000	150.000
0240	465.0110	Asphaltic Surface Patching	TON	50.000	50.000
0260	465.0315	Asphaltic Flumes	SY	15.000	15.000
0270	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	3,050.000	3,050.000
0360	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	30.000	30.000
0370	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	66.000	66.000
0410	611.8110	Adjusting Manhole Covers	EACH	6.000	6.000
0420	611.8115	Adjusting Inlet Covers	EACH	4.000	4.000
0430	611.8120.S	Cover Plates Temporary	EACH	3.000	3.000
0440	614.0010	Barrier System Grading Shaping Finishing	EACH	4.000	4.000
0500	614.0920	Salvaged Rail	LF	645.000	645.000
0510	614.2300	MGS Guardrail 3	LF	301.000	301.000
0530	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0540	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0550	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7170-00-72	EACH	1.000	1.000
0570	619.1000	Mobilization	EACH	0.150	0.150
0580	624.0100	Water	MGAL	15.000	15.000
0610	628.1504	Silt Fence	LF	800.000	800.000
0620	628.1520	Silt Fence Maintenance	LF	1,600.000	1,600.000
0630	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0640	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0650	628.2027	Erosion Mat Class II Type C	SY	30.000	30.000
0660	628.7555	Culvert Pipe Checks	EACH	5.000	5.000
0690	633.5200	Markers Culvert End	EACH	2.000	2.000
0700	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	29.000	29.000
0710	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	21.000	21.000
0720	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	21.000	21.000
0730	637.2210	Signs Type II Reflective H	SF	532.850	532.850
0740	637.2230	Signs Type II Reflective F	SF	51.000	51.000
0750	638.2602	Removing Signs Type II	EACH	58.000	58.000
0760	638.3000	Removing Small Sign Supports	EACH	63.000	63.000
0770	642.5001	Field Office Type B	EACH	1.000	1.000
0780	643.0100	Traffic Control (project) 01. 7170-00-72	EACH	1.000	1.000
0820	646.0106	Pavement Marking Epoxy 4-Inch	LF	9,835.000	9,835.000
0830	646.0126	Pavement Marking Epoxy 8-Inch	LF	780.000	780.000

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DATE 11AUG15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7170-00-72 QUANTITY
0840	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	17,150.000	17,150.000
0880	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	750.000	750.000
0890	648.0100	Locating No-Passing Zones	MI	1.400	1.400
0900	649.0100	Temporary Pavement Marking 4-Inch	LF	24,430.000	24,430.000
0940	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	71.000	71.000
0960	650.8000	Construction Staking Resurfacing Reference	LF	7,400.000	7,400.000
0970	650.9910	Construction Staking Supplemental Control (project) 01. 7170-00-72	LS	1.000	1.000
0990	690.0150	Sawing Asphalt	LF	445.000	445.000
1000	690.0250	Sawing Concrete	LF	24.000	24.000
1070	SPV.0090	Special 01. Cleaning Ditches	LF	100.000	100.000
1080	SPV.0090	Special 02. Concrete Curb & Gutter Cure And Seal Treatment	LF	71.000	71.000
1090	SPV.0105	Special 01. Preparation Of Foundation For Asphaltic Paving Special 7170-00-72	LS	1.000	1.000
1110	SPV.0170	Special 01. Reheating HMA Pavement Longitudinal Joints Special	STA	73.000	73.000
1120	SPV.0195	Special 01. HMA Pavement Type E-3 Special Lower STH 25	TON	1,950.000	1,950.000
1130	SPV.0195	Special 02. HMA Pavement Type E-3 Special Upper STH 25	TON	2,695.000	2,695.000

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REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION - STATION	LOCATION	204.0115 (SY)
0010	365+05 - 366+55	STH 25	244
0010	438+25 - 439+00	STH 25	285
0010	408+79 - 409+54	STH 25	343
0010	410+31 - 411+06	STH 25	342
0010	402+95	CTH D, RT	57
0010	423+05	MILL ROAD, RT	54
		SUBTOTAL =	1325
0020	368+20	CLEVLAND ST, RT	20
0020	368+27	CLEVLAND ST, LT	24
0020	371+28	JEFFERSON ST, RT	33
0020	371+28	JEFFERSON ST, LT	28
		SUBTOTAL =	105
		PROJECT TOTAL =	1430

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION - STATION	LOCATION	204.0120 (SY)
0010	365+05 - 386+14	STH 25	6160
0010	386+14 - 408+79	STH 25	9560
0010	411+06 - 439+00	STH 25	11930
		SUBTOTAL =	27650
0020	365+05 - 386+14	STH 25	2850
		SUBTOTAL =	2850
		PROJECT TOTAL =	30500

REMOVING CURB & GUTTER

STATION - STATION	LOCATION	204.0150 (LF)
371+63.09 - 371+73.09	STH 25, RT	10
378+19.99 - 378+29.99	STH 25, RT	10
378+21.87 - 378+31.87	STH 25, LT	10
408+25.00 - 408+46.00	STH 25, LT	21
409+28.35 - 409+53.71	STH 25, LT	25
413+20.00 - 413+40.00	STH 25, LT	20
	TOTAL =	96

FINISHING ROADWAY

PROJECT	LOCATION	213.0100 (EACH)
7170-00-72	STH 25	1
	TOTAL =	1

BASE AGGREGATE DENSE 3/4-INCH

STATION - STATION	LOCATION	305.0110 (TON)
386+14 - 409+54	STH 25, LT & RT	312
410+31 - 439+00	STH 25, LT & RT	313
--	DRIVEWAYS	63
--	UNDISTRIBUTED	22
	TOTAL =	710

GRADING, SHAPING AND FINISHING INTERSECTION

STATION - STATION	LOCATION	205.9015.S (LS)	FOR INFORMATION ONLY: EXCAVATION COMMON (CY)	UNEXPANDED FILL (CY)	EXPANDED FILL (25%) (CY)	WASTE (CY)	BORROW (CY)	TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO. 20 (LB)	CONSTRUCTION STAKING SLOPE STAKES (LF)
399+34 - 402+19	01. STH 25 AND CTH D	1	50	0	0	50	0	200	200	0.1	5	285
432+61 - 439+00	02. STH 25 AND STH 35	1	70	136	170	0	100	500	500	0.3	15	635
			120	136	170	50	100	700	700	0.4	20	920

BASE AGGREGATE DENSE 1 1/4-INCH

STATION - STATION	LOCATION	305.0120 (TON)
371+63.09 - 371+73.09	STH 25, RT	4
378+19.99 - 378+29.99	STH 25, LT	4
378+21.87 - 378+31.87	STH 25, RT	4
399+34 - 402+19	STH 25, RT	147
408+25.00 - 408+46.00	STH 25, LT	10
413+20.00 - 413+40.00	STH 25, LT	9
432+61 - 439+00	STH 25, LT	100
--	UNDISTRIBUTED	12
	TOTAL =	290

SHAPING SHOULDERS

STATION-STATION	LOCATION	305.0500 (STA)
386+14 - 408+25	STH 25, LT	22
386+14 - 426+12	STH 25, RT	37
413+40 - 432+61	STH 25, LT	19
436+58 - 439+00	STH 25, RT	3
	TOTAL =	81

ADJUSTING STRUCTURE COVERS

CATEGORY	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8115 ADJUSTING INLET COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)
0010	365+63	STH 25, LT	1	-	1
0010	367+54	STH 25, LT	1	-	1
0010	368+30	STH 25, RT	1	-	1
0010	371+68.09	STH 25, RT	-	1	-
0010	378+24.99	STH 25, LT	-	1	-
0010	378+26.87	STH 25, RT	-	1	-
0010	409+39.34	STH 25, LT	-	1	-
		SUBTOTALS =	3	4	3
0020	367+90	STH 25, RT	1	-	-
0020	371+13	STH 25, RT	1	-	-
0020	371+39	STH 25, RT	1	-	-
		SUBTOTALS =	3	0	0
		PROJECT TOTALS =	6	4	3

ASPHALT ITEMS

CATEGORY	STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)	465.0110 ASPHALTIC SURFACE PATCHING (TON)	SPV.0195.01 HMA PAVEMENT TYPE E-3 SPECIAL LOWER, STH 25 (TON)	SPV.0195.02 HMA PAVEMENT TYPE E-3 SPECIAL UPPER, STH 25 (TON)
0010	365+05 - 386+14	STH 25	542	-	-	337	530
0010	386+14 - 409+54	STH 25	960	-	-	691	829
0010	410+31 - 439+00	STH 25	1208	-	-	868	1042
0010	--	UNDISTRIBUTED	90	*140	45	54	69
		SUBTOTALS =	2800	140	45	1950	2470
0020	365+05 - 386+14	STH 25	126	-	-	--	219
0020	--	UNDISTRIBUTED	14	*10	5	--	6
		SUBTOTALS =	140	10	5	0	225
		PROJECT TOTALS =	2940	150	50	1950	2695

* UNDISTRIBUTED FOR LEVELING AND WEDGING

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 (SY)
408+26	STH 25, LT	7
413+40	STH 25, LT	8
	TOTAL=	15

ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL

STATION - STATION	LOCATION	465.0475 (LF)
387+30 - 401+00	STH 25	1050
406+92 - 409+05	STH 25	410
412+92 - 419+90	STH 25	590
425+00 - 433+64	STH 25	860
437+60 - 439+00	STH 25	140
	TOTAL =	3050

CONCRETE CURB & GUTTER

STATION - STATION	LOCATION	601.0411 30-INCH TYPE D (LF)	601.0415 6-INCH SLOPED 30-INCH TYPE J (LF)	SPV.0090.02 CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT (LF)
371+63.09 - 371+73.09	STH 25, RT	10	-	10
378+19.99 - 378+29.99	STH 25, LT	10	-	10
378+21.87 - 378+31.87	STH 25, RT	10	-	10
408+25.00 - 408+46.00	STH 25, LT	-	21	21
409+28.35 - 409+53.71	STH 25, LT	-	25	25
413+20.00 - 413+40.00	STH 25, LT	-	20	20
	TOTALS =	30	66	96

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

BARRIER SYSTEM GRADING SHAPING FINISHING

STATION - STATION	LOCATION	614.0010 (EACH)	FOR INFORMATION ONLY: EXCAVATION COMMON (CY)	UNEXPANDED FILL (CY)	EXPANDED FILL (25% EXP.) (CY)	WASTE (CY)	BORROW (CY)	TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO. 20 (LB)	EROSION MAT CLASS II TYPE B (SY)	CONSTRUCTION STAKING SLOPE STAKES (LF)
406+89 - 408+56	STH 25, RT	1	0	0	0	0	0	75	75	0.05	2.0	0	170
407+05 - 408+52	STH 25, LT	1	0	20	25	0	25	155	100	0.10	4.0	55	150
410+68 - 411+49	STH 25, RT	1	0	0	0	0	0	30	30	0.02	1.0	0	80
412+86 - 414+58	STH 25, LT	1	0	28	35	0	35	45	45	0.03	1.0	0	170
	TOTALS =	4	0	48	60	0	60	305	250	0.2	8	55	570

SALVAGE RAIL

STATION - STATION	LOCATION	614.0920 (LF)
408+12 - 409+55	STH 35, LT.	143
408+32 - 409+54	STH 35, RT.	122
410+32 - 413+31	STH 35, RT.	299
410+31 - 411+12	STH 35, RT.	81
	TOTAL =	645

BEAM GUARD

STATION - STATION	LOCATION	MGS 614.2300 GUARDRAIL 3 (LF)	MGS 614.2500 THRIE BEAM TRANSITION (LF)	MGS 614.2610 GUARDRAIL TERMINAL EAT (LF)
408+06.91 - 408+66.18	STH 25, RT	-	-	1
408+66.18 - 409+17.76	STH 25, RT	50	-	-
409+17.76 - 409+04.71	STH 25, RT	-	39	-
408+26.65 - 408+77.14	STH 25, LT	-	-	1
408+77.14 - 409+15.47	STH 25, LT	38	-	-
409+15.47 - 409+53.54	STH 25, LT	-	39	-
410+31.08 - 410+68.04	STH 25, RT	-	39	-
410+68.04 - 411+17.30	STH 25, RT	-	-	1
410+31.82 - 410+69.89	STH 25, LT	-	39	-
410+69.89 - 412+85.60	STH 25, LT	213	-	-
412+85.60 - 413+36.35	STH 25, LT	-	-	1
	TOTALS =	301	156	4

MOBILIZATION

PROJECT	LOCATION	619.1000 (EACH)
7170-00-72	STH 25	0.15
	TOTAL =	0.15

WATER

STATION-STATION	LOCATION	624.0100 (MGAL)
365+05 - 439+00	STH 25	15
	TOTAL =	15

SILT FENCE

STATION-STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
406+77 - 408+67	STH 35, RT	190	380
406+97 - 408+87	STH 35, LT	190	380
410+57 - 411+57	STH 35, RT	100	200
412+76 - 414+66	STH 35, LT	190	380
--	UNDISTRIBUTED	130	260
	TOTALS =	800	1600

MOBILIZATIONS EROSION CONTROL & MOBILIZATIONS EMERGENCY EROSION CONTROL

STATION - STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
365+05 - 439+00	STH 25	2	1
	TOTALS =	2	1

EROSION MAT CLASS II TYPE C

STATION	LOCATION	628.2027 (SY)
391+80	STH 25, LT	8
408+20	STH 25, LT	8
413+45	STH 25, LT	8
-	UNDISTRIBUTED	6
	TOTAL =	30

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 EACH
391+80	STH 25, RT	3
-	UNDISTRIBUTED	2
	TOTAL =	5

MARKERS CULVERT END

STATION	LOCATION	633.5200 (EACH)
391+80	STH 25, LT & RT	2
	TOTAL =	2

FIELD OFFICE TYPE B

LOCATION	642.5001 (EACH)
STH 25	1
TOTAL =	1

TRAFFIC CONTROL

PROJECT	LOCATION	643.0100 (EACH)
7170-00-72	STH 25	1
	TOTAL =	1

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
1-01R	365+20	STH 25, RT	J3-2	M3-1	NORTH		-	-	1	-	-	1	1		
				M1-6	35										
				M6-1	[UP ARROW]										
				M3-3	SOUTH										
				M1-6	35										
				M6-1	[RIGHT ARROW]										
1-02	365+20	STH 25, RT	J3-2	M3-1	NORTH	48 X 57	19.00	-	-	1	-	-	-		
				M1-6	35										
				M6-1	[UP ARROW]										
				M3-3	SOUTH										
				M1-6	35										
				M6-1	[RIGHT ARROW]										
1-03R	365+05	STH 25, LT	J4-1	M3-3	SOUTH		-	-	-	-	-	1	1		
				M1-6	25										
1-04	365+05	STH 25, LT	J4-1	M3-3	SOUTH	24 X 36	6.00	-	-	1	-	-	-		
				M1-6	25										
1-05R	365+05	STH 25, LT	R7-1D		NO PARKING ANY TIME - DOUBLE ARROW		-	-	-	-	-	-	-		REMOVE WITH 1-03R
1-06	365+05	STH 25, LT	R7-1D		NO PARKING ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
1-07R	366+30	STH 25, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	1		
1-09R	366+30	STH 25, LT	M3-1		NORTH		-	-	-	-	-	-	-		REMOVIE WITH 1-07R
1-10R	366+30	STH 25, LT	M1-6		35		-	-	-	-	-	-	-		REMOVIE WITH 1-07R
1-11R	366+30	STH 25, LT	M6-1		[RIGHT ARROW]		-	-	-	-	-	-	-		REMOVIE WITH 1-07R
1-12R	366+30	STH 25, LT	M3-1		NORTH		-	-	-	-	-	-	-		REMOVIE WITH 1-07R
1-13R	366+30	STH 25, LT	M1-96		GREAT RIVER ROAD		-	-	-	-	-	-	-		REMOVIE WITH 1-07R
1-14R	366+30	STH 25, LT	M6-1		[RIGHT ARROW]		-	-	-	-	-	-	-		REMOVIE WITH 1-07R
1-15	366+30	STH 25, LT	J3-3	M3-1	NORTH	72 X 57	28.50	-	-	-	2	-	-		
				M1-6	35										
				M6-1	[RIGHT ARROW]										
				M1-96	GREAT RIVER ROAD										
				M6-1	[RIGHT ARROW]										
				D6-4	AMERICA'S BYWAYS										
				M6-1	[RIGHT ARROW]										
1-16R	366+55	STH 25, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	1		
1-18R	366+55	STH 25, LT	J3-2	M3-3	SOUTH		-	-	-	-	-	-	-		REMOVE WITH 1-16R
				M1-6	35										
				M6-1	[LEFT ARROW]										
				M3-3	SOUTH										
				M1-96	GREAT RIVER ROAD										
				M6-1	[LEFT ARROW]										
1-19	366+55	STH 25, RT	J3-3	M3-3	SOUTH	48 X 57	28.50	-	-	-	2	-	-		
				M1-6	35										
				M6-1	[LEFT ARROW]										
				M1-96	GREAT RIVER ROAD										
				M6-1	[LEFT ARROW]										
				D6-4	AMERICA'S BYWAYS										
				M6-1	[LEFT ARROW]										
1-20R	367+05	STH 25, LT	D1-2	TWO DESTINATIONS (ARROWS)	[UP ARROW] WABASHA [LEFT ARROW] ALMA		-	-	-	-	-	1	1		
1-21	367+05	STH 25, LT	D1-2	TWO DESTINATIONS (ARROWS)	[UP ARROW] WABASHA [LEFT ARROW] ALMA	42 X 24	7.00	-	1	-	-	-	-		
1-22R	367+47	STH 25, RT	M3-1		NORTH		-	-	-	-	-	1	1		
1-23R	367+47	STH 25, RT	M1-6		25		-	-	-	-	-	-	-		REMOVIE WITH 1-22R
1-24R	367+47	STH 25, RT	M1-6		35		-	-	-	-	-	-	-		REMOVIE WITH 1-22R
1-25R	367+47	STH 25, RT	M1-96		GREAT RIVER ROAD		-	-	-	-	-	-	-		REMOVIE WITH 1-22R
1-26	367+47	STH 25, RT	JV		NORTH 25 GREAT RIVER ROAD NORTH 35 AMERICA'S BYWAYS	48 X 60	20.00	-	-	-	2	-	-		
1-27R	367+47	STH 25, RT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	1		
1-29	367+91	STH 25, RT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
1-30R	368+02	STH 25, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	2		
1-32R	368+02	STH 25, LT	M3-3		SOUTH		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-33R	368+02	STH 25, LT	M1-6		35		-	-	-	-	-	-	-		REMOVE WITH 1-30R
						SHEET TOTALS =	112.00	0.00	3	2	6	8	9		

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
1-34R	368+02	STH 25, LT	M5-1L		[ADVANCE ARROW LEFT]		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-35R	368+02	STH 25, LT	M3-3		SOUTH		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-36R	368+02	STH 25, LT	M1-96		GREAT RIVER ROAD		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-37R	368+02	STH 25, LT	M5-1L		[ADVANCE ARROW LEFT]		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-38R	368+02	STH 25, LT	M3-3		SOUTH		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-39R	368+02	STH 25, LT	M1-6		25		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-40R	368+02	STH 25, LT	M6-1		[UP ARROW]		-	-	-	-	-	-	-		REMOVE WITH 1-30R
1-41	368+02	STH 25, LT	J3-3	M3-3	SOUTH	96 X 57	38.00	-	-	-	2	-	-		
				M1-6	35										
				M5-1L	[ADVANCE ARROW LEFT]										
				M1-96	GREAT RIVER ROAD										
				M5-1L	[ADVANCE ARROW LEFT]										
				D6-4	AMERICA'S BYWAYS										
				M5-1L	[ADVANCE ARROW LEFT]										
				M3-3	SOUTH										
				M1-6	25										
				M6-1	[UP ARROW]										
1-42R	368+09	STH 25, LT (CLEVELAND ST)	R1-1	STOP			-	-	-	-	-	1	1		
1-43	368+09	STH 25, LT (CLEVELAND ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
1-44R	368+55	STH 25, RT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
1-45	368+55	STH 25, RT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
1-46R	368+46	STH 25, RT (CLEVELAND ST)	R1-1	STOP			-	-	-	-	-	1	1		
1-47	368+46	STH 25, RT (CLEVELAND ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
1-48R	369+69	STH 25, LT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
1-49	369+69	STH 25, LT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
1-50R	371+08	STH 25, LT (JEFFERSON ST)	R1-1	STOP			-	-	-	-	-	1	1		
1-51	371+08	STH 25, LT (JEFFERSON ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
1-52	371+54	STH 25, LT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
1-53R	371+50	STH 25, RT (JEFFERSON ST)	R1-1	STOP			-	-	-	-	-	1	1		
1-54	371+50	STH 25, RT (JEFFERSON ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
1-55R	373+41	STH 25, LT	W11-2	PEDESTRIAN CROSSING			-	-	-	-	-	1	1		
1-56	373+41	STH 25, LT	W11-2	PEDESTRIAN CROSSING		30 X 30	-	6.25	-	1	-	-	-		
1-57R	373+41	STH 25, LT	W16-9P	AHEAD			-	-	-	-	-	-	-		REMOVE WITH 1-55R
1-58	373+41	STH 25, LT	W16-9P	AHEAD		24 x 12	-	2.00	-	-	-	-	-	1-56	
1-59	374+07	STH 25, LT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
1-60	374+08	STH 25, LT (A ST)	R1-1	STOP			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
1-61R	377+36	STH 25, LT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
1-62	377+36	STH 25, LT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
1-63R	377+40	STH 25, RT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
1-64	377+40	STH 25, RT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
1-65	377+42	STH 25, LT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
1-66R	377+49	STH 25, LT (1ST ST)	R1-1	STOP			-	-	-	-	-	1	1		
1-67	377+49	STH 25, LT (1ST ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
2-01R	381+08	STH 25, LT	J4-1	M3-3	SOUTH		-	-	-	-	-	1	1		
				M1-6	25										
2-02R	381+85	STH 25, LT (2ND ST)	R1-1	STOP			-	-	-	-	-	1	1		
2-03	381+85	STH 25, LT (2ND ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
2-04	381+86	STH 25, LT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-05R	382+23	STH 25, RT (LINCOLN ST)	R1-1	STOP			-	-	-	-	-	1	1		
2-06	382+23	STH 25, RT (LINCOLN ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
2-07	382+23	STH 25, RT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-08	382+31	STH 25, RT (LINCOLN ST)	R7-1D		NO PARKING ANYTIME - DOUBLE ARROW		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-09R	383+71	STH 25, RT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
2-10	383+71	STH 25, RT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
2-11R	386+05	STH 25, RT	I55-56	ADOPT-A-HIGHWAY	NELSON LIONS CLUB		-	-	-	-	-	1	1		
2-12	386+05	STH 25, RT	I55-56	ADOPT-A-HIGHWAY	NELSON LIONS CLUB	30 X 36	7.50	-	-	1	-	-	-		
2-13R	386+57	STH 25, LT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
2-14	386+57	STH 25, LT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
2-15	388+13	STH 25, RT	-		LAURA INGALLS WILDER HISTORIC HIGHWAY		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-16R	390+50	STH 25, LT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
2-17R	390+50	STH 25, LT	R10-64	NO ENGINE BRAKING			-	-	-	-	-	-	-		REMOVE WITH 2-16R
2-18	390+50	STH 25, LT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	-	1	-	-	-		
2-19	390+50	STH 25, LT	R10-64	NO ENGINE BRAKING		30 X 36	7.50	-	1	-	-	-	-		
2-20R	390+50	STH 25, RT	R2-1	SPEED LIMIT	55		-	-	-	-	-	1	1		
2-21	390+50	STH 25, RT	R2-1	SPEED LIMIT	55	24 X 30	5.00	-	-	1	-	-	-		
						SHEET TOTALS =	129.26	8.25	14	4	2	18	18		

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
2-22R	392+75	STH 25, RT	J1-1	M2-1	JCT		-	-	-	-	-	1	1		
				M1-5A	D										
2-23	392+75	STH 25, RT	J1-1	M2-1	JCT	24 X 39	6.50	-	-	1	-	-	-		
				M1-5A	D										
2-24R	392+75	STH 25, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	-	-		REMOVE WITH 2-22R
2-25	392+75	STH 25, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	-	-	-	-	2-23	
2-26R	394+16	STH 25, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
2-27	394+16	STH 25, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
3-01R	398+24	STH 25, LT	M3-3		SOUTH		-	-	-	-	-	1	1		
3-02R	398+24	STH 25, LT	M1-96		GREAT RIVER ROAD		-	-	-	-	-	-	-		REMOVE WITH 3-01R
3-03R	398+24	STH 25, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	-	-		REMOVE WITH 3-01R
3-04	398+24	STH 25, LT	JV	M3-3	SOUTH	48 X 60	20.00	-	-	-	2	-	-		
				M1-6	25										
				M1-96	GREAT RIVER ROAD										
				M3-3	SOUTH										
				M1-6	35										
				D6-4	AMERICA'S BYWAYS										
3-05R	399+75	STH 25, LT	I2-3	COMMUNITY POPULATION SIGN	NELSON, 374		-	-	-	-	-	1	1		
3-06	399+75	STH 25, LT	I2-3	COMMUNITY POPULATION SIGN	NELSON, 374	60 X 24	10.00	-	-	-	1	-	-		
3-07R	399+75	STH 25, LT	W3-5	SPEED REDUCTION AHEAD	30		-	-	-	-	-	1	1		
3-08	399+75	STH 25, LT	W3-5	SPEED REDUCTION AHEAD	30	36 X 36	-	9.00	-	-	1	-	-		
3-09R	402+20	STH 25, RT	M1-5A		D		-	-	-	-	-	1	1		
3-10R	402+20	STH 25, RT	M6-1		[RIGHT ARROW]		-	-	-	-	-	-	-		REMOVE WITH 3-09R
3-11	402+20	STH 25, RT	J13-1	M1-5A	D	24 X 45	7.50	-	-	1	-	-	-		
				M6-1	[RIGHT ARROW]										
3-12	402+67	STH 25, RT (CTH D)	M1-5A		D		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
3-13R	403+20	STH 25, RT (CTH D)	R1-1	STOP			-	-	-	-	-	1	1		
3-14	403+20	STH 25, RT (CTH D)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
3-15R	403+24	STH 25, RT (CTH D)	J13-2	M1-6	25		-	-	-	-	-	1	1		
				M6-4	[DOUBLE ARROW]										
				M1-6	35										
				M6-4	[DOUBLE ARROW]										
3-16	403+24	STH 25, RT (CTH D)	J13-2	M1-6	25	48 X 45	15.00	-	-	1	-	-	-		
				M6-4	[DOUBLE ARROW]										
				M1-6	35										
				M6-4	[DOUBLE ARROW]										
3-17R	403+51	STH 25, LT	M1-5A		D		-	-	-	-	-	1	1		
3-18R	403+51	STH 25, LT	M6-1		[LEFT ARROW]		-	-	-	-	-	-	-		REMOVE WITH 3-17R
3-19	403+51	STH 25, LT	J13-1	M1-5A	D	24 X 45	7.50	-	-	1	-	-	-		
				M6-1	[LEFT ARROW]										
3-20R	406+92	STH 25, RT	M3-1		NORTH		-	-	-	-	-	1	1		
3-21R	406+92	STH 25, RT	M1-96		GREAT RIVER ROAD		-	-	-	-	-	-	-		REMOVE WITH 3-20R
3-22R	406+92	STH 25, RT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	-	-		REMOVE WITH 3-20R
3-23	406+92	STH 25, RT	JV	M3-1	NORTH	48 X 60	20.00	-	-	-	2	-	-		
				M1-6	25										
				M1-96	GREAT RIVER ROAD										
				M3-1	NORTH										
				M1-6	35										
				D6-4	AMERICA'S BYWAYS										
3-24	409+55	STH 25, LT	W5-52L	BRIDGE HASH MARKS - LEFT		12 X 36	-	3.00	1	-	-	-	-		
3-25	409+60	STH 25, RT	W5-52R	BRIDGE HASH MARKS - RIGHT		12 X 36	-	3.00	1	-	-	-	-		
4-01	410+32	STH 25, LT	W5-52R	BRIDGE HASH MARKS - RIGHT		12 X 36	-	3.00	1	-	-	-	-		
4-02	410+31	STH 25, RT	W5-52L	BRIDGE HASH MARKS - LEFT		12 X 36	-	3.00	1	-	-	-	-		
4-03	412+19	STH 25, RT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
4-04R	412+19	STH 25, RT (KNABE RD)	R1-1	STOP			-	-	-	-	-	1	1		
4-05	412+19	STH 25, RT (KNABE RD)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
4-06R	413+04	STH 25, LT	M2-1		JCT		-	-	-	-	-	1	1		
4-07R	413+04	STH 25, LT	M1-5A		D		-	-	-	-	-	-	-		REMOVE WITH 4-06R
4-08	413+04	STH 25, LT	J1-1	M2-1	JCT	24 X 39	6.50	-	-	1	-	-	-		
				M1-5A	D										
4-09	422+83	STH 25, RT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
4-10R	423+28	STH 25, RT (MILL RD)	R1-1	STOP			-	-	-	-	-	1	1		
4-11	423+28	STH 25, RT (MILL RD)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
						SHEET TOTALS =	108.54	33.00	7	6	6	13	13		

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
4-12R	424+30	STH 25, RT	J2-3	M3-1	NORTH		-	-	-	-	-	1	2		
				M1-6	35										
				M6-1	[UP ARROW]										
				M3-1	NORTH										
				M1-96	GREAT RIVER ROAD										
				M6-1	[UP ARROW]										
				M3-1	NORTH										
				M1-6	25										
				M5-1R	[ADVANCE ARROW RIGHT]										
4-13	424+30	STH 25, RT	J2-3	M3-1	NORTH	72 X 57	28.50	-	-	-	2	-	-		
				M1-6	35										
				M6-1	[AHEAD ARROW]										
				M1-96	GREAT RIVER ROAD										
				M6-1	[AHEAD ARROW]										
				D6-4	AMERICA'S BYWAYS										
				M6-1	[AHEAD ARROW]										
				M3-1	NORTH										
				M1-6	25										
				M5-1R	[ADVANCE BENT ARROW RIGHT]										
5-01R	426+28	STH 25, RT	D2-1	TWO DESTINATIONS (ARROWS)	[UP ARROW] PEPIN DURAND [RIGHT ARROW]		-	-	-	-	-	1	2		
5-02	426+28	STH 25, RT	D2-1	TWO DESTINATIONS (ARROWS)	[UP ARROW] PEPIN DURAND [RIGHT DIAGONAL ARROW]	54 X 30	11.25	-	-	2	-	-	-		
5-03R	427+89	STH 25, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
5-04	427+89	STH 25, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
5-05R	430+61	STH 25, RT	J1-3	M3-1	NORTH		-	-	-	-	-	1	1		
				M1-6	25										
				M5-2R	[ADVANCE ARROW RIGHT BENT]										
5-06	430+61	STH 25, RT	J1-3	M3-1	NORTH	24 X 57	9.50	-	-	-	1	-	-		
				M1-6	25										
				M5-2R	[ADVANCE ARROW RIGHT DIAGONAL]										
5-07R	431+74	STH 25, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	1		
5-08R	433+76	STH 25, LT	J4-3	M3-3	SOUTH		-	-	-	-	-	1	2		
				M1-6	25										
				M3-3	SOUTH										
				M1-6	35										
				M3-3	SOUTH										
				M1-96	GREAT RIVER ROAD										
5-09	433+76	STH 25, LT	JV	M3-3	SOUTH	48 X 60	20.00	-	-	-	2	-	-		
				M1-6	25										
				M1-96	GREAT RIVER ROAD										
				M3-3	SOUTH										
				M1-6	35										
				D6-4	AMERICA'S BYWAYS										
5-10R	435+08	STH 25, RT	J2-2	M3-1	NORTH		-	-	-	-	-	1	1		
				M1-6	35										
				M6-1	[UP ARROW]										
				M3-1	NORTH										
				M1-96	GREAT RIVER ROAD										
				M6-1	[UP ARROW]										
5-11R	435+44	STH 25, RT	R2-1	YIELD			-	-	-	-	-	1	1		
5-12	435+44	STH 25, RT	R2-1	YIELD		36 X 31	3.88	-	1	-	-	-	-		
5-13R	435+44	STH 25, RT	J4-1	M3-1	NORTH		-	-	-	-	-	1	1		
				M1-6	25										
5-14	435+44	STH 25, RT	J4-1	M3-1	NORTH	24 X 36	6.00	-	-	1	-	-	-		
				M1-6	25										
5-15R	435+45	STH 25, RT	R5-1	DO NOT ENTER			-	-	-	-	-	-	-		REMOVE WITH 5-13R
5-16	435+45	STH 25, RT	R5-1	DO NOT ENTER		30 X 30	6.25	-	-	-	-	-	-	5-14	
5-17R	435+61	STH 25, LT	W1-7	TWO DIRECTION LARGE ARROW			-	-	-	-	-	1	1		
5-18	435+61	STH 25, LT	W1-7	TWO DIRECTION LARGE ARROW		48 X 24	-	8.00	1	-	-	-	-		
5-19R	435+94	STH 25, RT	R1-1	STOP			-	-	-	-	-	1	-		EXISTING POLE TO REMAIN
5-20	435+94	STH 25, RT	R1-1	STOP		36 X 36	7.46	-	-	-	-	-	-		MOUNT ON EXISTING POLE
5-21R	435+98	STH 25, RT	R4-7	KEEP RIGHT			-	-	-	-	-	1	-		
5-22	435+98	STH 25, RT	R4-7	KEEP RIGHT		24 X 30	5.00	-	1	-	-	-	-		
						SHEET TOTALS =	97.84	14.00	3	4	5	12	13		

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
5-23R	435+98	STH 25, RT	J3-3	M3-3 M1-6 M6-1 M3-3 M1-6 M6-1 M3-1 M1-6 M6-1	SOUTH 25 [LEFT ARROW] SOUTH 35 [LEFT ARROW] NORTH 35 [RIGHT ARROW]		-	-	-	-	-	1	2		
5-24	435+98	STH 25, RT	J3-3	M3-3 M1-6 M6-1 M3-3 M1-6 M6-1 M3-1 M1-6 M6-1	SOUTH 25 [LEFT ARROW] SOUTH 35 [LEFT ARROW] NORTH 35 [RIGHT ARROW]	72 X 57	28.50	-	-	2	-	-	-		
5-25R	436+02	STH 25, RT	W12-1D	DOUBLE DIAGONAL ARROW			-	-	-	-	-	1	1		
5-26	436+02	STH 25, RT	W12-1D	DOUBLE DIAGONAL ARROW		24 X 24	-	4.00	1	-	-	-	-		
5-27R	436+35	STH 25, RT	R1-1	STOP			-	-	-	-	-	1	1		
5-28	436+35	STH 25, RT	R1-1	STOP		36 X 36	7.46	-	-	1	-	-	-		
5-29R	436+39	STH 25, RT	R5-1	DO NOT ENTER			-	-	-	-	-	1	1		
5-30	436+39	STH 25, RT	R5-1	DO NOT ENTER		30 X 30	6.25	-	1	-	-	-	-		
5-31R	436+43	STH 35, LT	J3-3	M3-1 M1-6 M6-1 M3-3 M1-6 M6-1 M3-1 M1-96 M6-1	NORTH 25 [LEFT ARROW] SOUTH 35 [UP ARROW] SOUTH GREAT RIVER ROAD [UP ARROW]		-	-	-	-	-	1	2		
5-32	436+43	STH 35, LT	JV	M3-1 M1-6 M6-1	NORTH 25 [LEFT ARROW]	24 X 57	9.50	-	-	-	1	-	-		
5-33R	438+20	STH 35, RT	J4-2	M3-1 M1-6 M3-1 M1-96	NORTH 35 NORTH GREAT RIVER ROAD		-	-	-	-	-	1	2		
5-34	438+20	STH 35, RT	J4-3	M3-1 M1-6 M3-1 M1-96 M3-1 D6-4	NORTH 35 NORTH GREAT RIVER ROAD NORTH AMERICA'S BYWAYS	72 X 36	18.00	-	-	2	-	-	-		
5-35R	438+20	STH 35, RT	D2-2	DESTINATION/DISTANCE	PEPIN 6 PRESCOTT 54		-	-	-	-	-	-	-		REMOVE WITH 5-33R
5-36	440+10	STH 35, RT	D2-2	DESTINATION/DISTANCE	PEPIN 6 PRESCOTT 54	72 X 24	12.00	-	-	2	-	-	-		
5-37R	440+10	STH 35, RT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	1		
						SHEET TOTALS =	81.71	4.00	2	7	1	7	10		
						PROJECT TOTALS =	532.85	51.00	29	21	21	58	63		

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) ARE APPROXIMATE.
ACTUAL NUMBER AND LOCATION WILL BE DETERMINED AFTER THE ROADWAY HAS BEEN SPOTTED.

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PAVEMENT MARKING

STATION - STATION	LOCATION	646.0106 EPOXY 4-INCH SOLID WHITE (LF)	646.0106 EPOXY 4-INCH DASHED WHITE (LF)	646.0106 EPOXY 4-INCH DOTTED WHITE (LF)	646.0406 SAME DAY EPOXY 4-INCH SOLID YELLOW (LF)	646.0406 SAME DAY EPOXY 4-INCH DASHED YELLOW (LF)	646.0126 EPOXY 8-INCH SOLID WHITE (LF)	647.0776 CROSSWALK EPOXY 12-INCH WHITE (LF)
365+05 - 365+45	STH 25, C/L	-	-	-	80	-	-	-
366+24	STH 25	-	-	-	-	-	-	111
366+30 - 367+93	STH 25, C/L	-	-	-	326	-	-	-
367+93 - 368+39	STH 25, RT	-	-	-	-	-	-	88
367+97	STH 25	-	-	-	-	-	-	83
368+00 - 368+42	STH 25, C/L	-	-	-	84	-	-	-
368+07 - 368+45	STH 25, LT	-	-	-	-	-	-	70
368+45	STH 25	-	-	-	-	-	-	83
368+48 - 371+03	STH 25, C/L	-	-	-	510	-	-	-
371+06	STH 25	-	-	-	-	-	-	83
371+08 - 371+51	STH 25, LT	-	-	-	-	-	-	83
371+09 - 371+48	STH 25, C/L	-	-	-	78	-	-	-
371+11 - 371+45	STH 25, RT	-	-	-	-	-	-	66
371+51	STH 25	-	-	-	-	-	-	83
371+54 - 384+08	STH 25, C/L	-	-	-	2508	-	-	-
384+08 - 392+74	STH 25, C/L	-	-	-	1410	350	-	-
392+74 - 394+16	STH 25, C/L	-	-	-	-	75	-	-
394+16 - 403+15	STH 25, C/L	-	-	-	1583	400	-	-
403+15 - 419+08	STH 25, C/L	-	-	-	4844	-	-	-
419+08 - 427+89	STH 25, C/L	-	-	-	1252	312.5	-	-
427+89 - 435+40	STH 25, C/L	-	-	-	2652	-	-	-
435+90 - 437+38	STH 25, C/L	-	-	-	296	-	-	-
437+38 - 439+00	STH 25, C/L	-	-	-	302	87.5	-	-
386+14 - 439+60	STH 25, LT	5311	-	-	-	-	-	-
386+13 - 402+70	STH 25, RT	1609	-	-	-	-	-	-
400+20 - 402+20	STH 25, RT	-	-	-	-	-	200	-
403+39 - 421+23	STH 25, RT	1799	-	-	-	-	-	-
421+23 - 422+43	STH 25, RT	-	-	30	-	-	-	-
423+56 - 427+33	STH 25, RT	378	-	-	-	-	-	-
427+56 - 431+35	STH 25, RT	-	-	-	-	-	380	-
429+36 - 431+35	STH 25, RT	-	-	-	-	-	200	-
431+35 - 435+35	STH 25, RT	400	-	-	-	-	-	-
436+58 - 439+00	STH 25, RT	243	-	-	-	-	-	-
434+91 - 437+41	STH 25, LT	-	65	-	-	-	-	-
	SUBTOTALS =	9740	65	30	15925	1225		
	TOTALS =		9835		17150		780	750

CONSTRUCTION STAKING

STATION -STATION	LOCATION	650.5500 CURB GUTTER AND CURB & GUTTER (LF)	650.8000 RESURFACING REFERENCE (LF)	650.9910 SUPPLEMENTAL CONTROL (LS)
365+05 - 439+00	STH 25	-	7400	1
371+63.09 - 371+73.09	STH 25, RT	10	-	-
378+21.87 - 378+31.87	STH 25, LT	10	-	-
378+19.99 - 378+29.99	STH 25, RT	10	-	-
408+25.00 - 408+46.00	STH 25, LT	21	-	-
413+20.00 - 413+40.00	STH 25, LT	20	-	-
	TOTALS =	71	7400	1

SAWING ASPHALT & CONCRETE

STATION	LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
365+05	STH 25	42	-
368+02	STH 25, RT (CLEVELAND ST)	40	-
368+29	STH 25, LT (CLEVELAND ST)	27	-
371+29	STH 25, LT (JEFFERSON ST)	28	-
371+29	STH 25, RT (JEFFERSON ST)	26	-
371+63.09 - 371+73.09	STH 25, RT	10	-
371+63.09	STH 25, RT	-	3
371+73.09	STH 25, RT	-	3
378+19.99 - 378+29.99	STH 25, LT	10	-
378+19.99	STH 25, LT	-	3
378+21.87 - 378+31.87	STH 25, RT	10	-
378+21.87	STH 25, RT	-	3
378+29.99	STH 25, LT	-	3
378+31.87	STH 25, RT	-	3
403+05	STH 25, RT (CTH D)	29	-
408+25 - 408+46	STH 25, LT	21	-
408+25	STH 25, LT	-	3
413+20 - 413+40	STH 25, LT	20	-
413+40	STH 25, LT	-	3
423+03	STH 25, RT (MILL ROAD)	25	-
435+65	STH 25, RT (STH 25)	123	-
439+00	STH 35	34	-
	TOTALS =	445	24

CLEANING DITCHES

STATION-STATION	LOCATION	SPV.0090.01 (LF)
391+55 - 392+05	STH 25, LT	50
391+55 - 392+05	STH 25, RT	50
	TOTAL =	100

PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL

STATION - STATION	LOCATION	SPV.0105.01 (LS)
365+05 - 439+00	STH 25	1

LOCATING NO PASSING ZONES

STATION - STATION	LOCATION	648.0100 (MI)
365+05 - 439+00	STH 25	1.40
	TOTAL =	1.40

TEMPORARY PAVEMENT MARKING 4-INCH

STATION - STATION	LOCATION	649.0100 (LF)
365+05 - 439+00	STH 25 (MILLING)	12215
365+05 - 439+01	STH 25 (BINDER)	12215
	TOTAL =	24430

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL

STATION - STATION	LOCATION	SPV.0170.01 (STA)
365+05 - 439+00	STH 25	73
	TOTAL =	73

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

BEGIN PROJECT
ID 7170-00-72
STA. 365+05
Y= 342,201.03
X= 519,704.29

STH 25 STA. 365+93
STH 35 STA. 365+93
(URBAN INTERSECTION)

BP STA = 365+05.00
PI STA = 365+92.73
PC STA = 366+91.56
PT STA = 369+56.03
PC STA = 375+24.87
PI STA = 378+20.75

STA. 366+16 LT
ASPHALT C.E.

STA. 366+77 LT
ASPHALT C.E.

CLEVELAND ST. STA. 368+29
URBAN INTERSECTION

NELSON TELEPHONE
COOPERATIVE

CLEVELAND STREET

JEFFERSON STREET

JEFFERSON ST. STA. 371+29
URBAN INTERSECTION

STA. 372+63 LT
CONCRETE P.E.

STA. 375+01 LT
CONCRETE P.E.

STA. 375+71 LT
ASPHALT P.E.

STA. 376+32 LT
B.A.D. P.E.

STA. 376+70 LT
B.A.D. P.E.

STA. 378+26.87, LT.
ADJUSTING INLET COVERS REQ'D.
RE-MORTAR AROUND PIPE JUNCTION
REPLACE CURB & GUTTER
CONCRETE CURB & GUTTER
30-INCH TYPE D REQ'D. (10 L.F.)

1ST ST. NORTH STA. 377+67
URBAN INTERSECTION

1ST STREET

STA. 379+31 LT
ASPHALT P.E.

STA. 379+56 LT
B.A.D. P.E.

CP 4

365+05
365+00
366+00
367+00
368+00
369+00
370+00
371+00
372+00
373+00
374+00
375+00
376+00
377+00
378+00
379+00
380

N0°05'31"E
N0°17'52"E
N6°35'25"W
N1°06'55"E

CURVE 18
CURVE 19

MATCH LINE STA. 380+00

CP 4

365+00
364+00
363+00

STH 35

CLEVELAND ST. STA. 368+02
URBAN INTERSECTION

CLEVELAND STREET

STA. 367+03 RT
ASPHALT C.E.

STA. 367+53 RT
ASPHALT P.E.

END PROJECT
ID 7180-01-75
STA. 365+70

VILLAGE OF NELSON
(SANITARY SEWER)

JEFFERSON STREET

STA. 372+66 RT
B.A.D. P.E.

STA. 371+68.09, RT.
ADJUSTING INLET COVERS REQ'D.
RE-MORTAR AROUND PIPE JUNCTION
REPLACE CURB & GUTTER
CONCRETE CURB & GUTTER
30-INCH TYPE D REQ'D. (10 L.F.)

℄ STH 25/35

XCEL ENERGY

STA. 375+91 RT
B.A.D. P.E.

STA. 376+39 RT
CONCRETE P.E.

STA. 378+24.99, RT.
ADJUSTING INLET COVERS REQ'D.
RE-MORTAR AROUND PIPE JUNCTION
REPLACE CURB & GUTTER
CONCRETE CURB & GUTTER
30-INCH TYPE D REQ'D. (10 L.F.)

STA. 377+96 RT
CONCRETE P.E.

STA. 379+07 RT
ASPHALT P.E.

CURVE 18
P.I. STA. = 368+23.95
Y = 342519.98
X = 519705.63
Δ = 06°53'17"
D = 02°36'16"
T = 132.40
L = 264.48
R = 2200.00
P.C. STA. = 366+91.56
Y = 342387.58
X = 519704.95
P.T. STA. = 369+56.03
Y = 342651.50
X = 519690.44
S.E. = N.C.
R.O. = N/A
TRANS. = N/A

CURVE 19
P.I. STA. = 376+73.03
Y = 343363.76
X = 519608.15
Δ = 07°42'20"
D = 02°36'16"
T = 148.16
L = 295.87
R = 2200.00
P.C. STA. = 375+24.87
Y = 343216.58
X = 519625.15
P.T. STA. = 378+20.75
Y = 343511.90
X = 519611.03
S.E. = N.C.
R.O. = N/A
TRANS. = N/A

LEGEND
- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT

5

5

N

N

2ND ST. NORTH STA. 382+01
URBAN INTERSECTION

LINCOLN STREET

STA. 380+35 LT
B.A.D. P.E.

STA. 383+85 LT
B.A.D. P.E.

STA. 383+10 LT
CONCRETE P.E.

STA. 384+43 LT
B.A.D. P.E.

STA. 384+97 LT
B.A.D. P.E.

STA. 386+00 LT
B.A.D. P.E.

STA. 386+30 LT
B.A.D. P.E.

℄ STH 25/35

NELSON TELEPHONE COOPERATIVE

PI STA = 391+88.69

CP 4

380+00
381+00
382+00
383+00
384+00
385+00
386+00
387+00
388+00
389+00
390+00
391+00
392+00
393+00
394+00
395+00

N1°06'55"E
N1°00'30"E

MATCH LINE STA. 380+00

MATCH LINE STA. 395+00

STA. 380+63 RT
CONCRETE P.E.

XCEL ENERGY

LINCOLN ST. STA. 382+06
URBAN INTERSECTION

STA. 383+46 RT
B.A.D. P.E.

EXISTING FENCE TO REMAIN

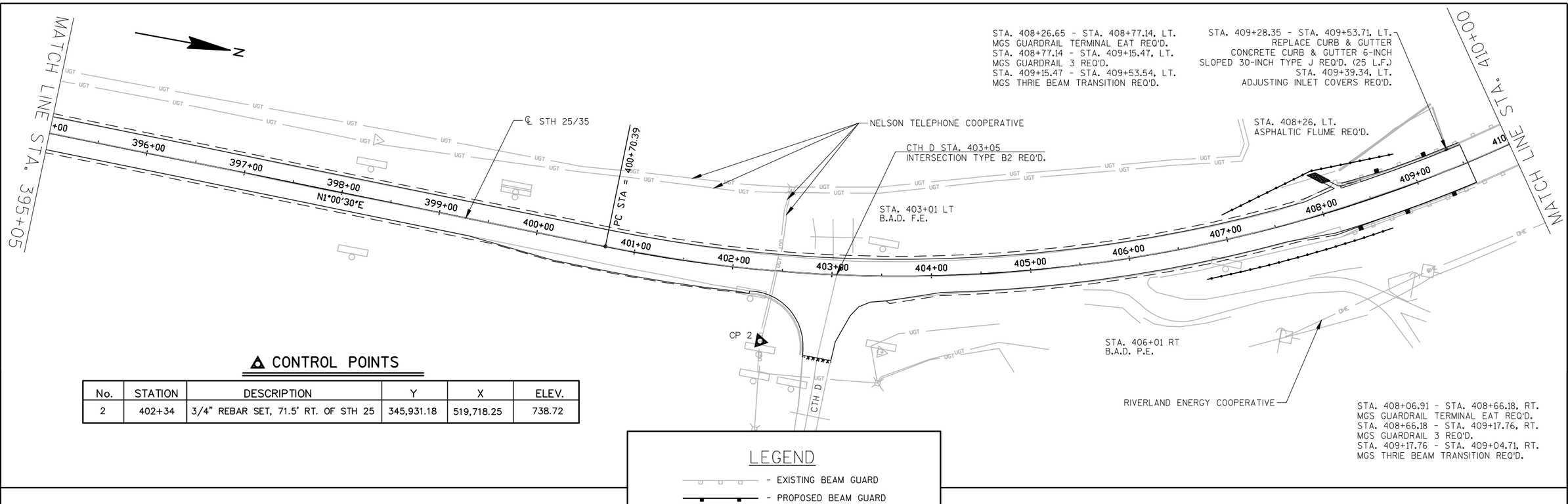
STA. 386+20 RT
GRASS F.E.

STA. 391+55 - STA. 392+05, LT. & RT.
CLEANING DITCH REQ'D.
EROSION MAT CLASS II TYPE C REQ'D. (LT.)

STA. 391+80, LT. & RT.
MARKERS CULVERT END REQ'D.

▲ CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X	ELEV.
5	362+88	NAIL SET, 37.8' RT. OF STH 35	342,226.90	520,009.43	691.24
6	371+67	NAIL SET, 30.4' LT. OF STH 25	342,857.80	519636.05	692.26
7	377+86	MAG NAIL SET, 22.9' LT. OF STH 25	343,477.01	519,587.76	707.13
3	386+15	MAG NAIL SET, 17.0' LT. OF STH 25	344,306.21	519,609.47	724.49

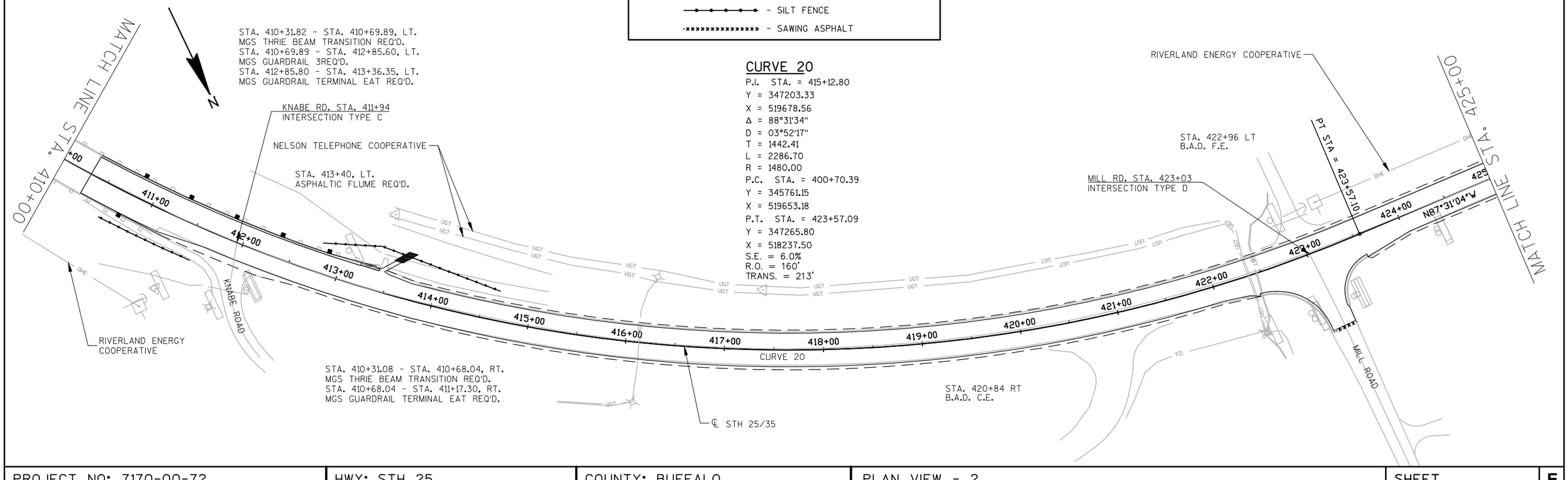


▲ CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X	ELEV.
2	402+34	3/4" REBAR SET, 71.5' RT. OF STH 25	345,931.18	519,718.25	738.72

LEGEND

- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT

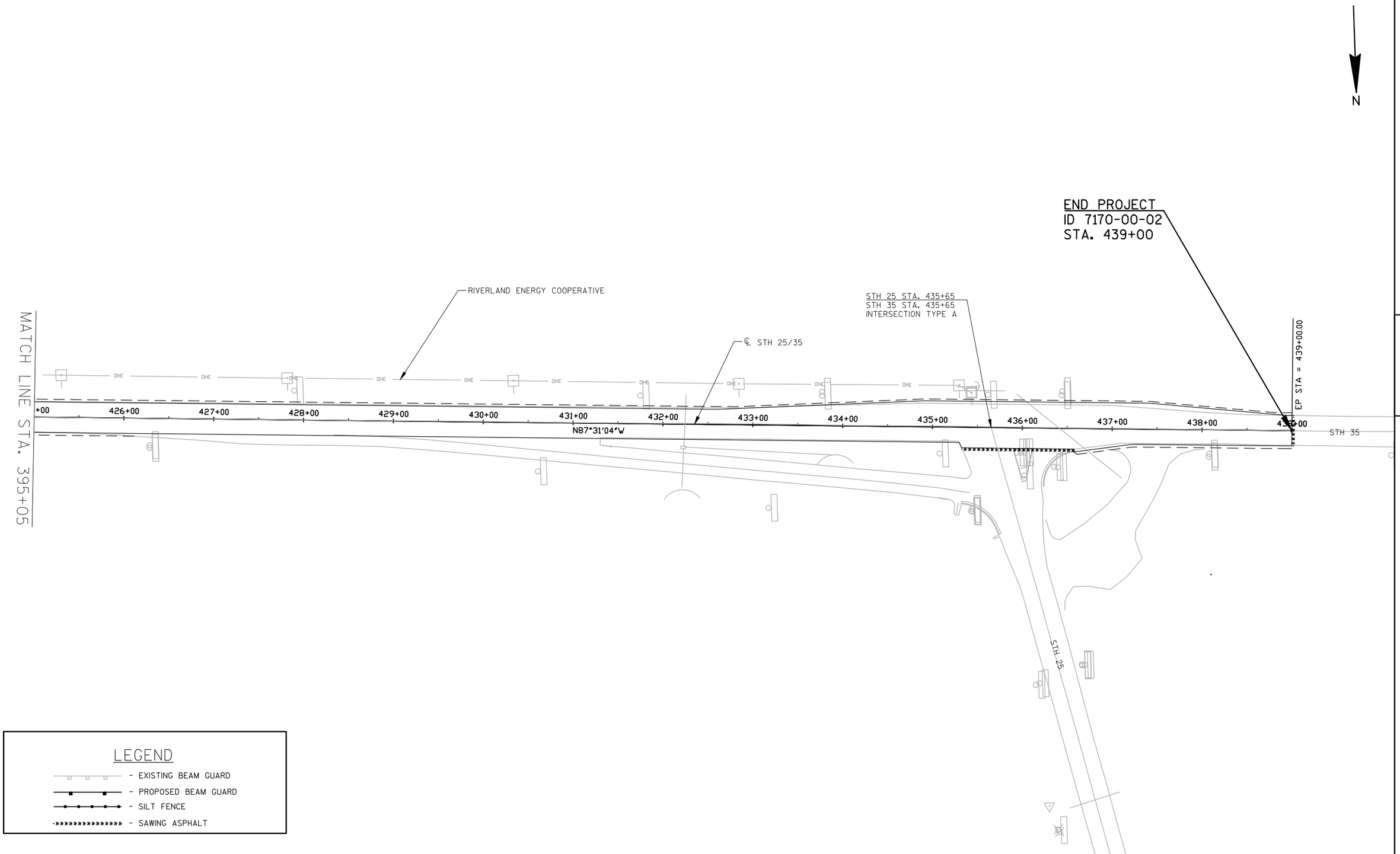


CURVE 20

P.I. STA. = 415+12.80
Y = 347203.33
X = 519678.56
Δ = 88°31'34"
D = 03°52'17"
T = 1442.41
L = 2286.70
R = 1480.00
P.C. STA. = 400+70.39
Y = 345761.15
X = 519653.18
P.T. STA. = 423+57.09
Y = 347265.80
X = 518237.50
S.E. = 6.0%
R.O. = 160'
TRANS. = 213'

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PLAN VIEW - 2	SHEET 40	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PLAN PROFILES\PLAN VIEW.DWG
LAYOUT : 2
PLOT DATE : 8/3/2015
PLOT TIME : 1:32:21 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PLAN VIEW - 3	SHEET 41	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 25\PLAN PROFILES\PLAN VIEW.DWG
LAYOUT : 3

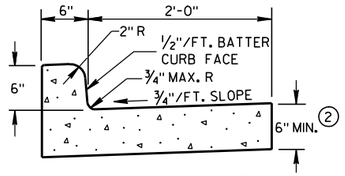
PLOT DATE : 7/29/2014
PLOT TIME : 10:35:53 AM

PLOT BY : ECKELBERG, PATRICK

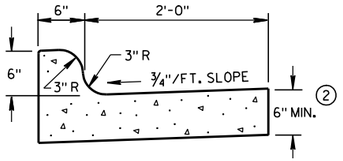
PLOT SCALE : 1" = 1'

Standard Detail Drawing List

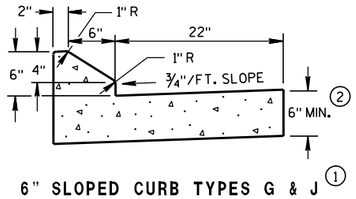
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



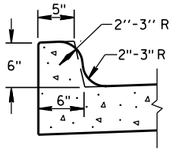
TYPES A & D (1)



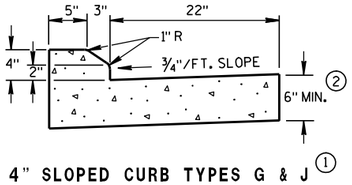
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

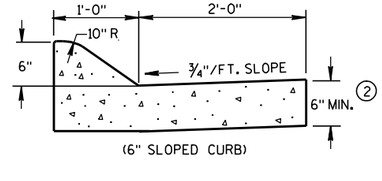


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

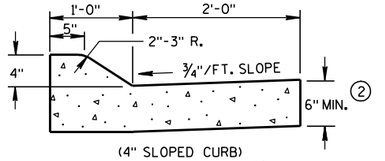


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

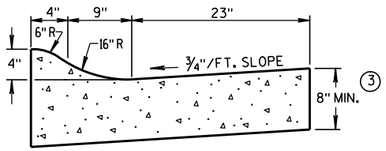


(6" SLOPED CURB)



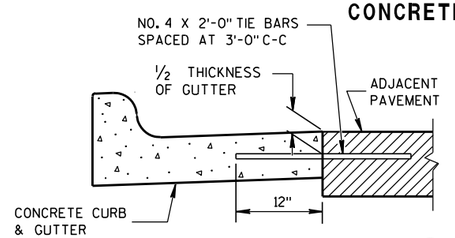
(4" SLOPED CURB)

TYPES A & D (1)

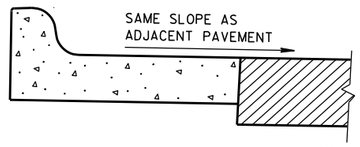


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

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

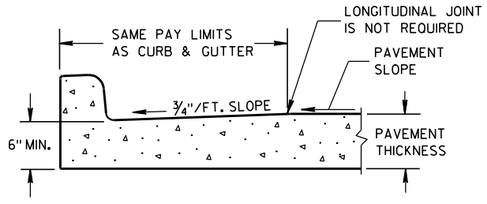
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

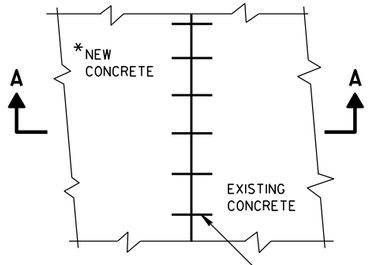
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

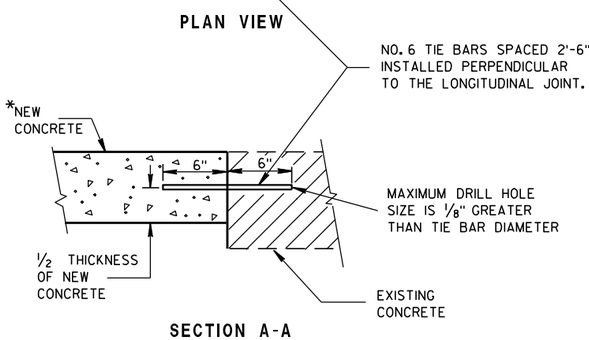


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



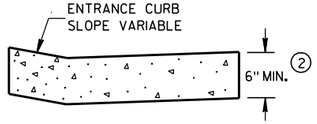
PLAN VIEW

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

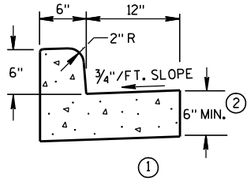


SECTION A-A

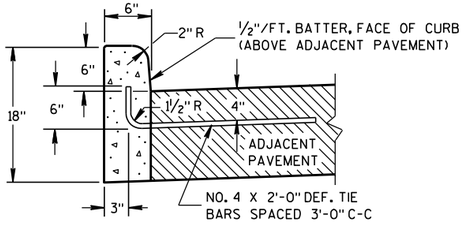
TIE BARS DRILLED INTO EXISTING PAVEMENT



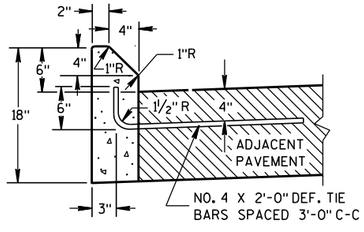
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



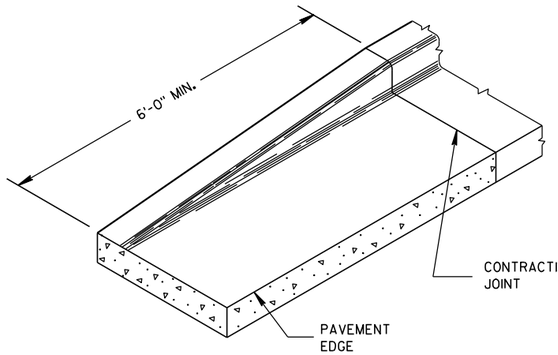
(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

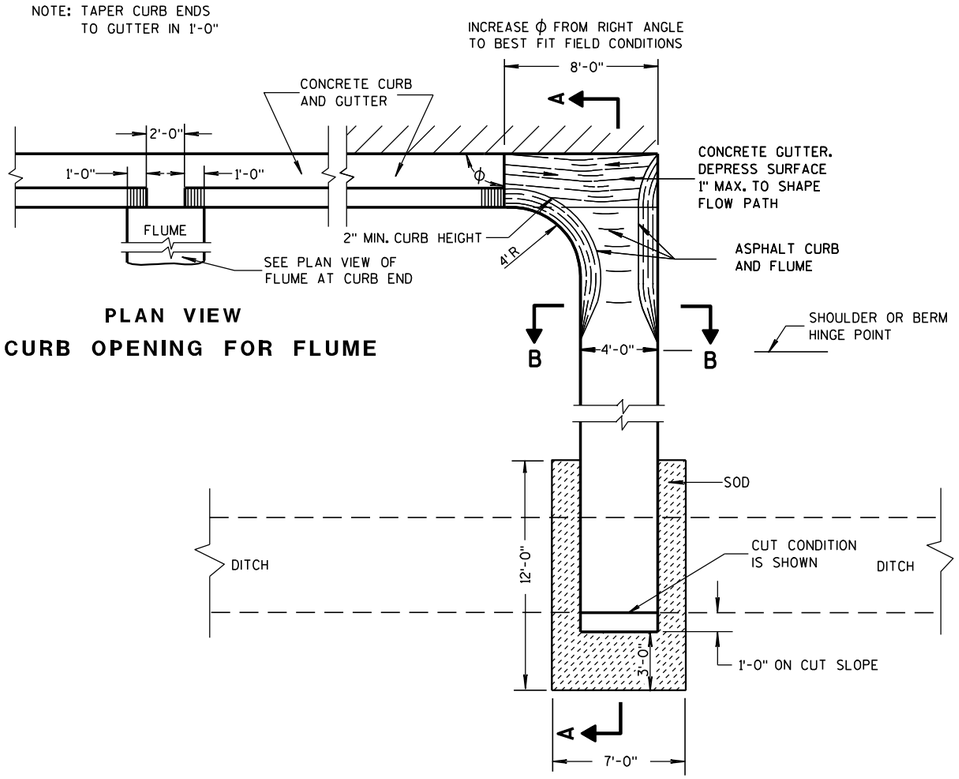
APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

6

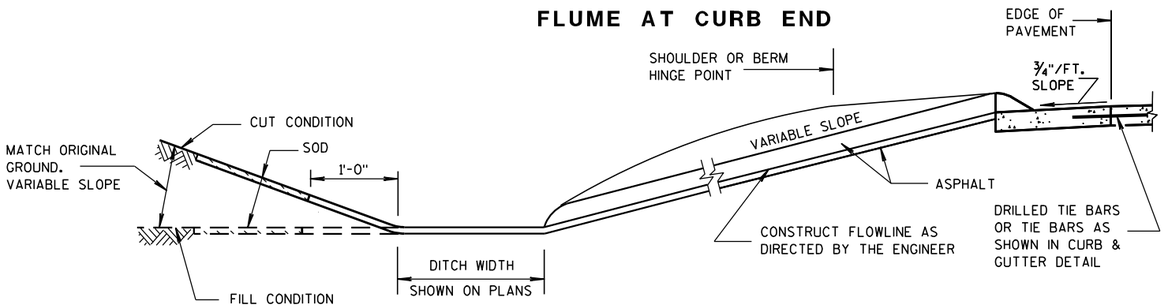
S.D.D. 8 D 1-17

ASPHALTIC FLUME

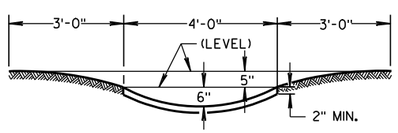


PLAN VIEW
CURB OPENING FOR FLUME

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.

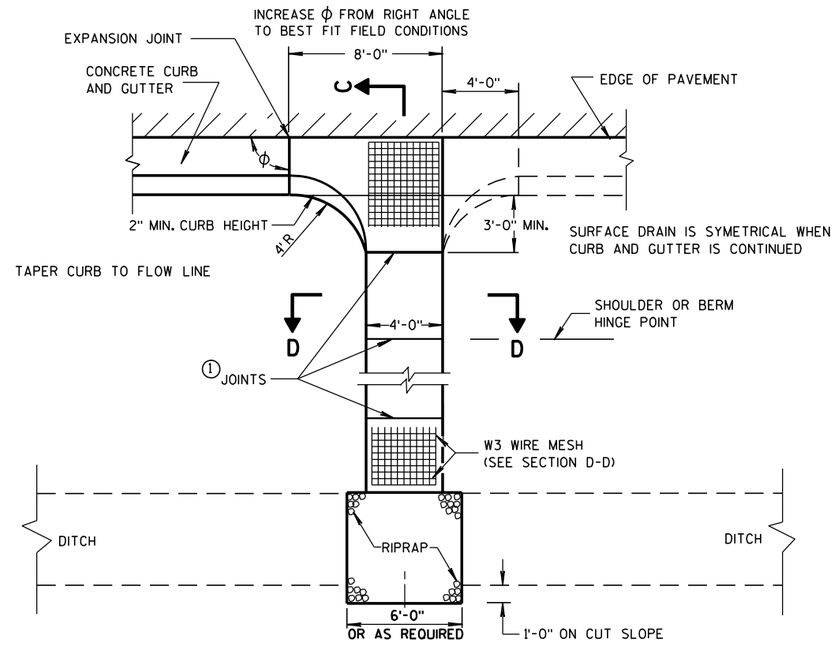
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

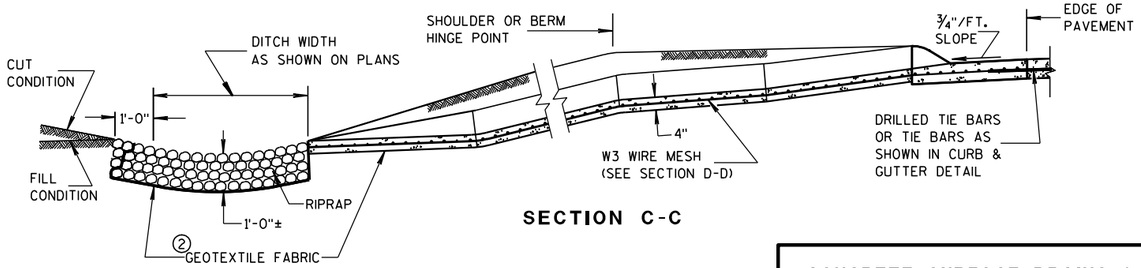
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

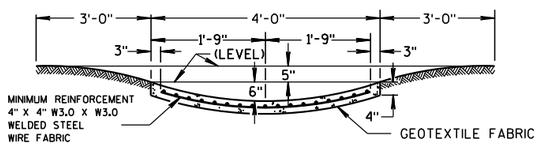
③ CONCRETE SURFACE DRAIN



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. Zogg
ROADWAY STANDARDS ENGINEER
MENT

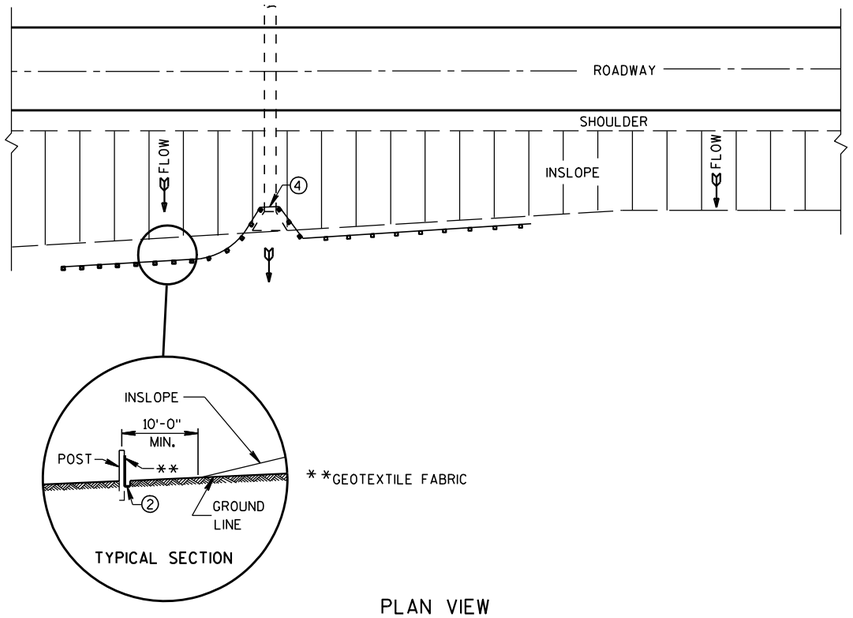
FHWA

6

S.D.D. 8 D 4-5

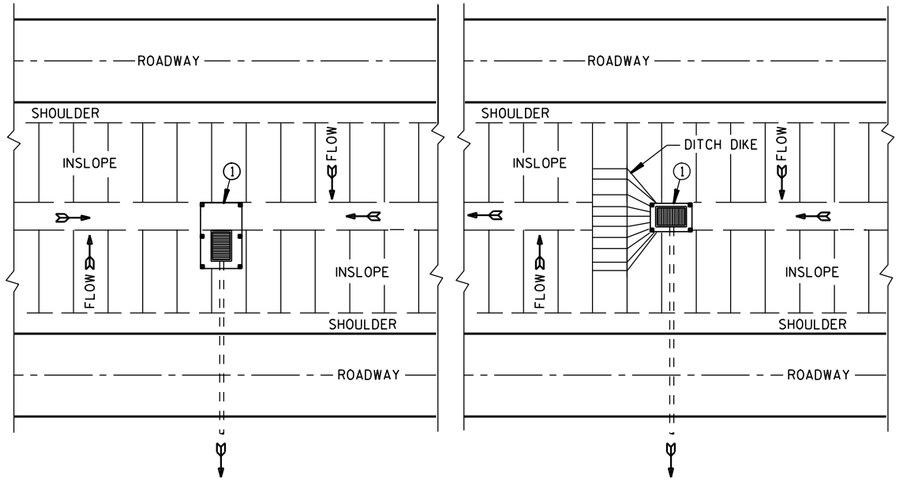
6

S.D.D. 8 D 4-5



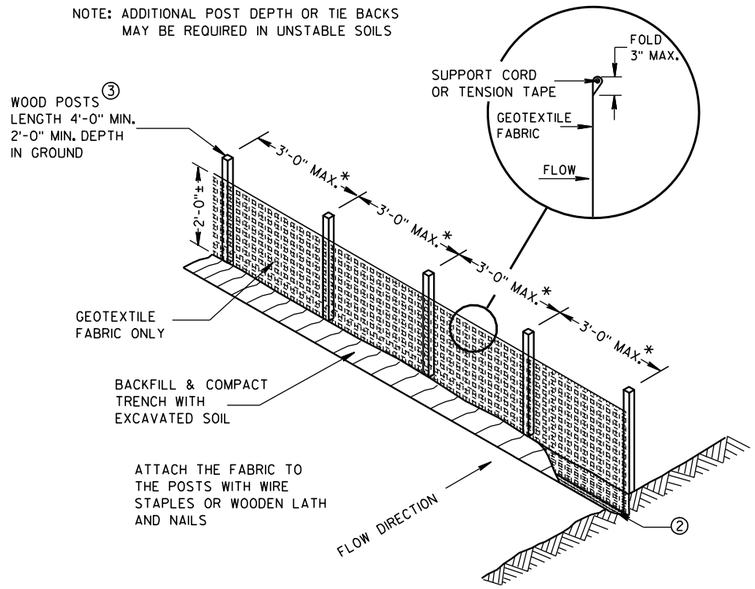
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



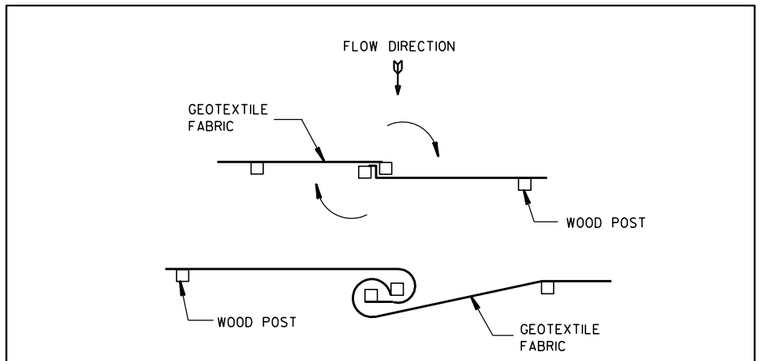
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

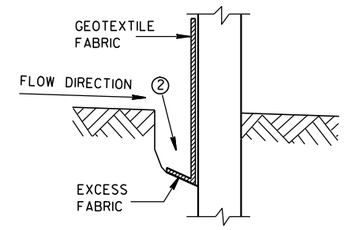


JOINING TWO LENGTHS OF SILT FENCE 5

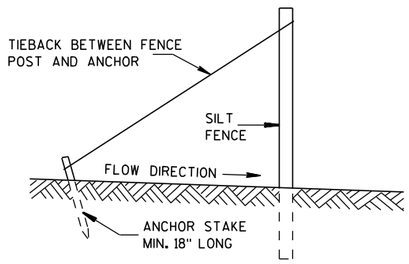
GENERAL NOTES

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 1⅛" X 1⅛" 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

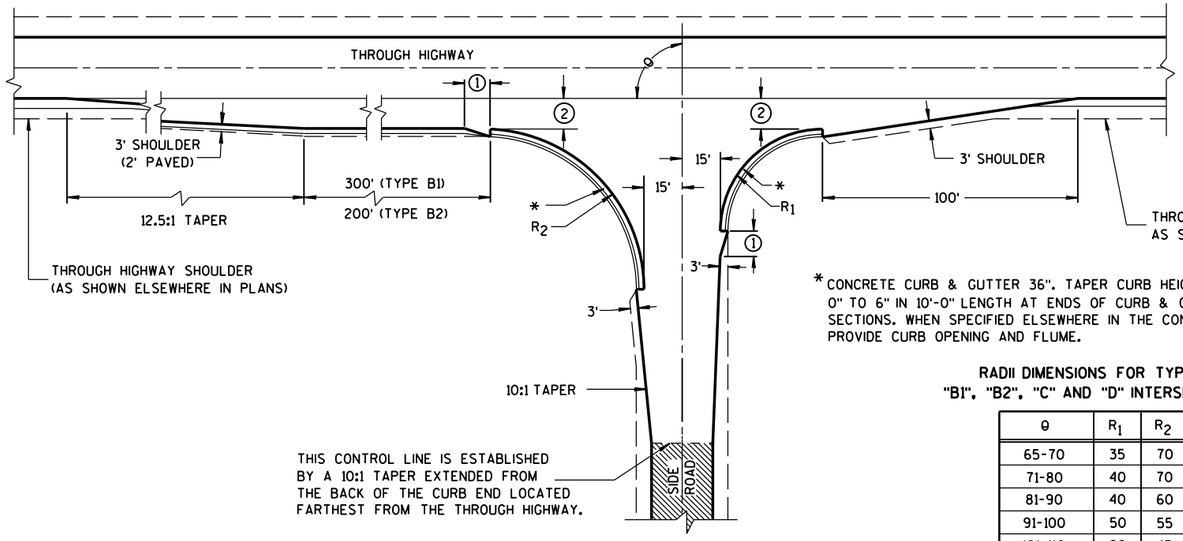
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

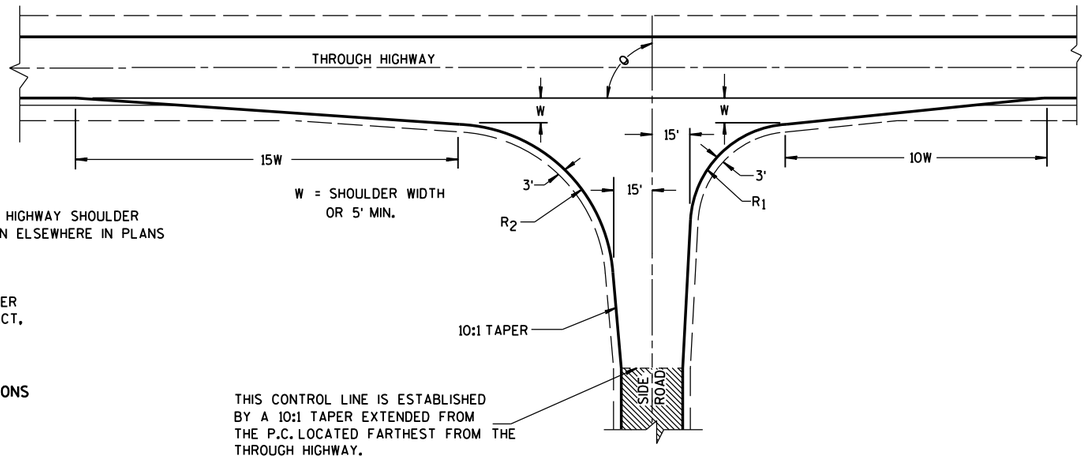


TYPE "B1" AND "B2"

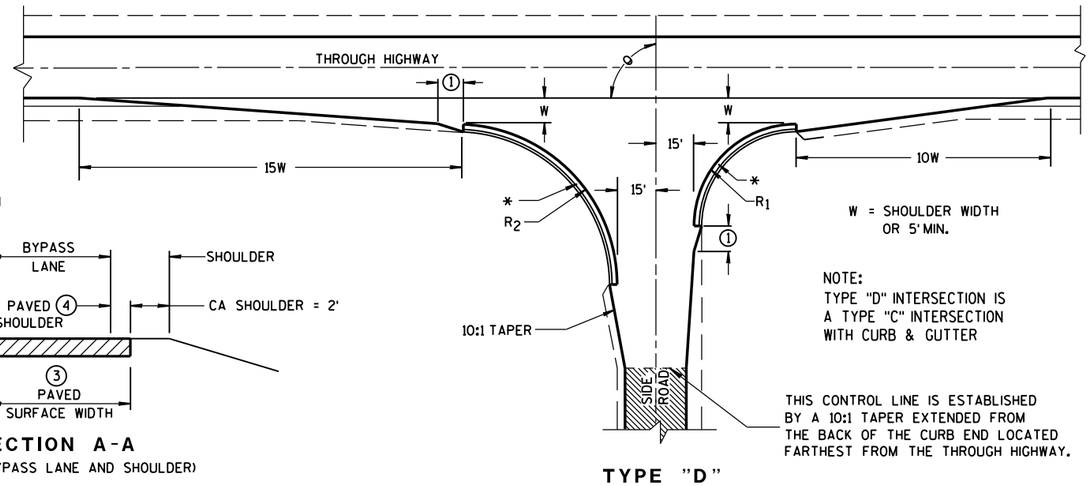
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

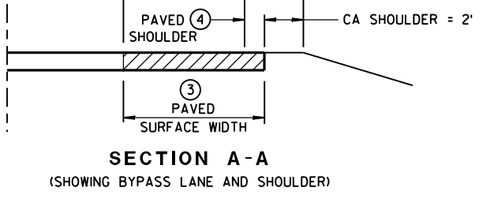
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

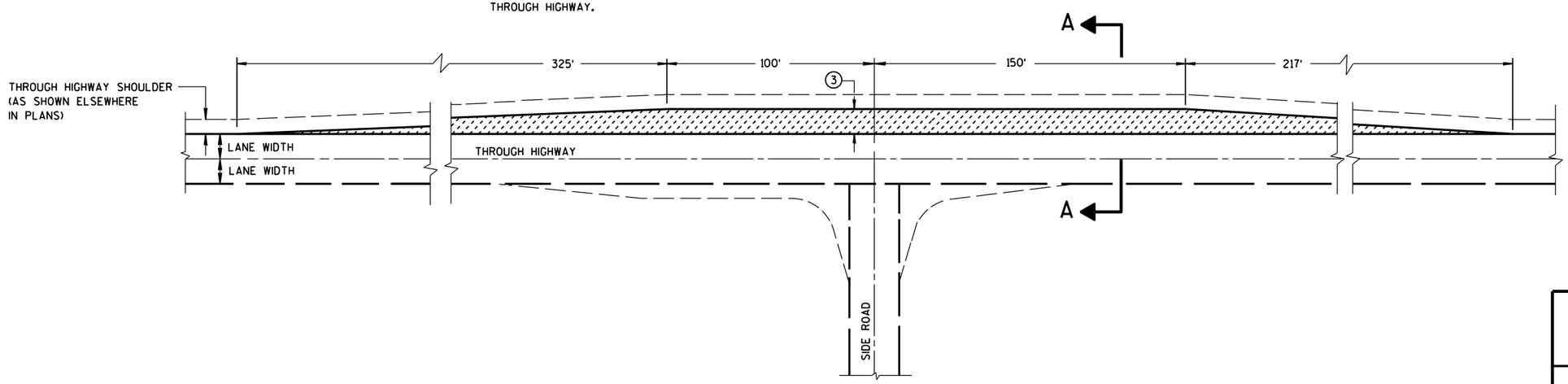
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



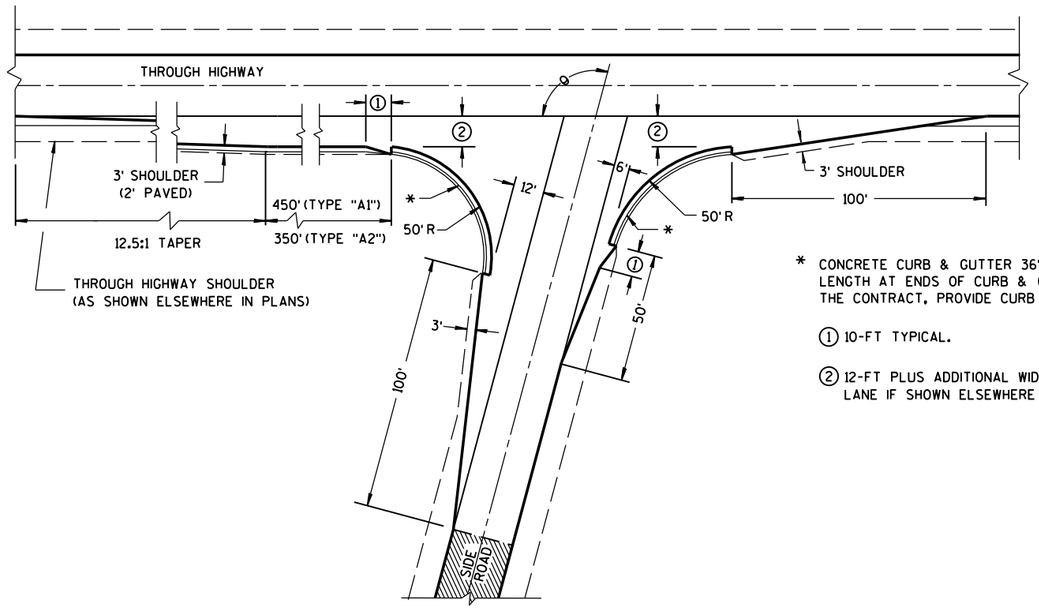
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 9 A 1-13a



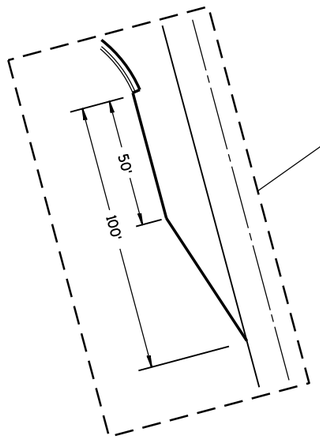
θ = MORE THAN 80°

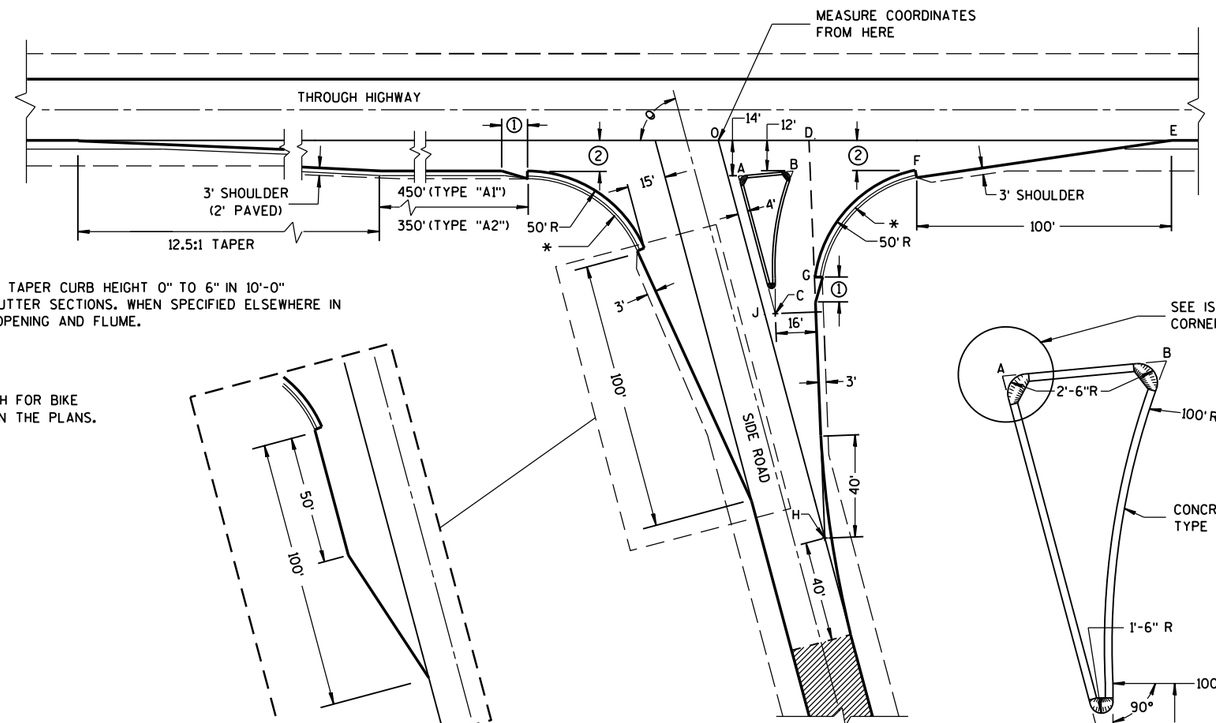
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

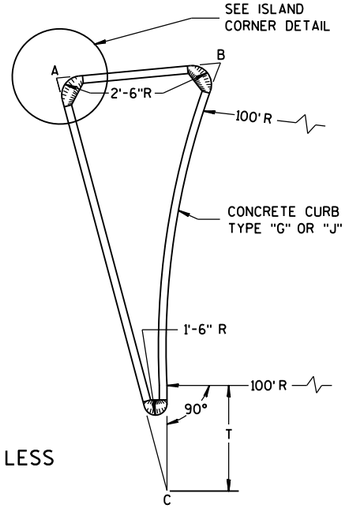
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE

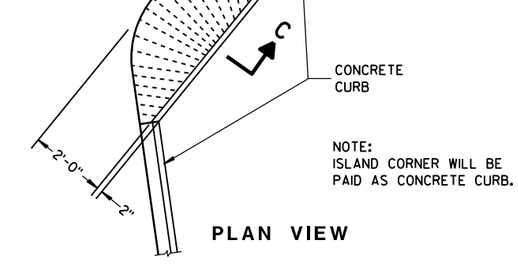




θ = ACUTE ANGLES 80° OR LESS

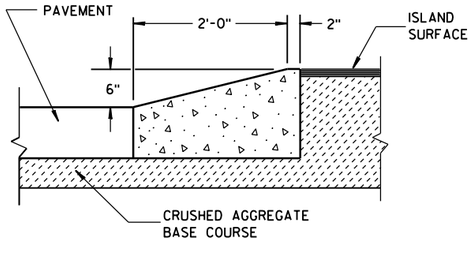


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

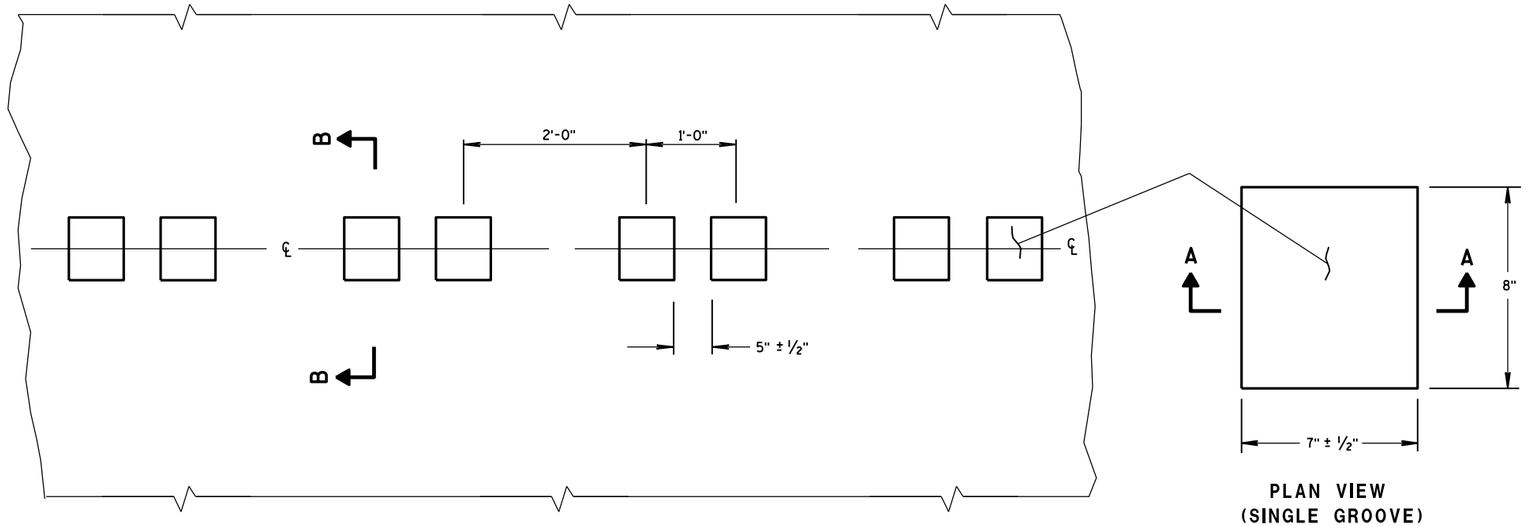
AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 9 A 1-13b



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

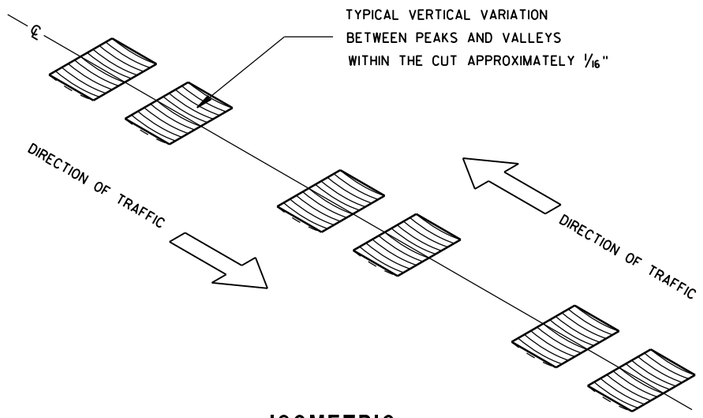
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

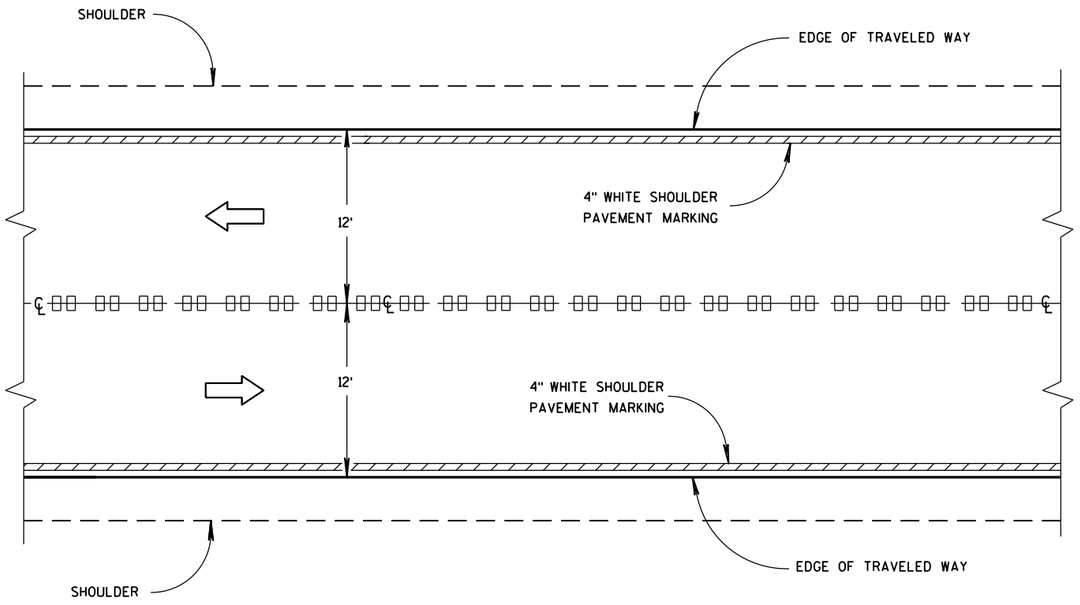
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

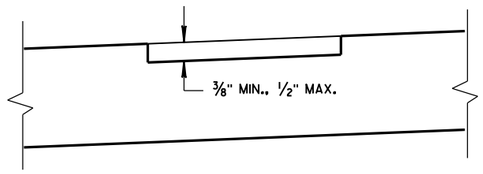
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



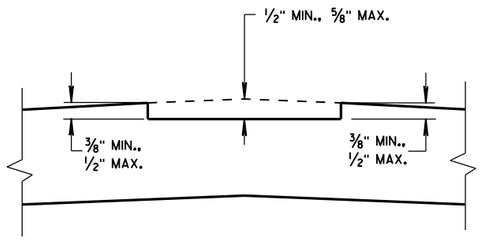
ISOMETRIC



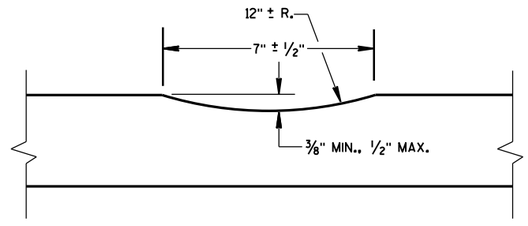
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

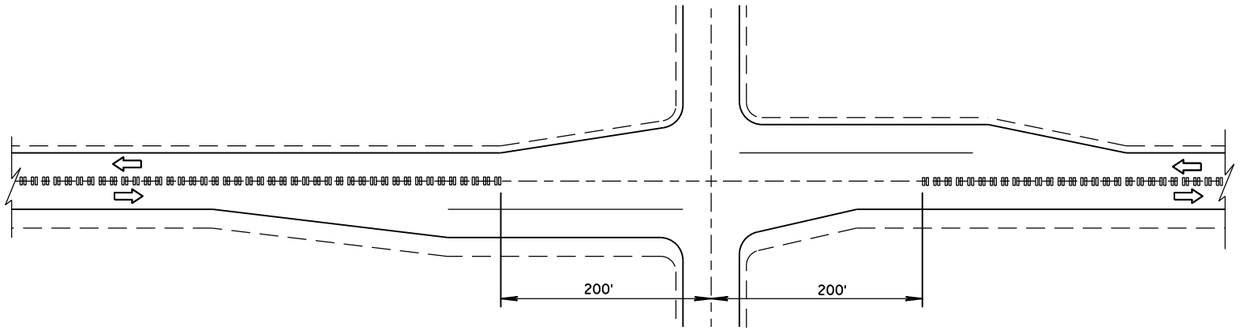
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

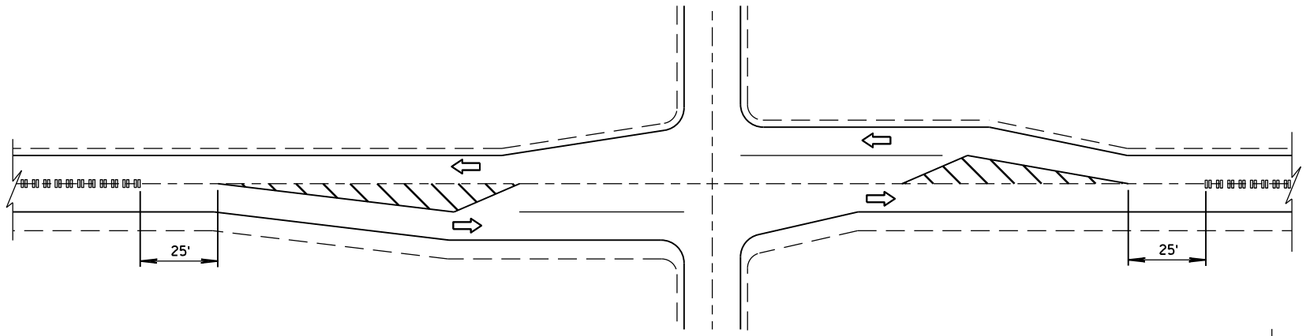
S.D.D. 13 A 11-2a

6

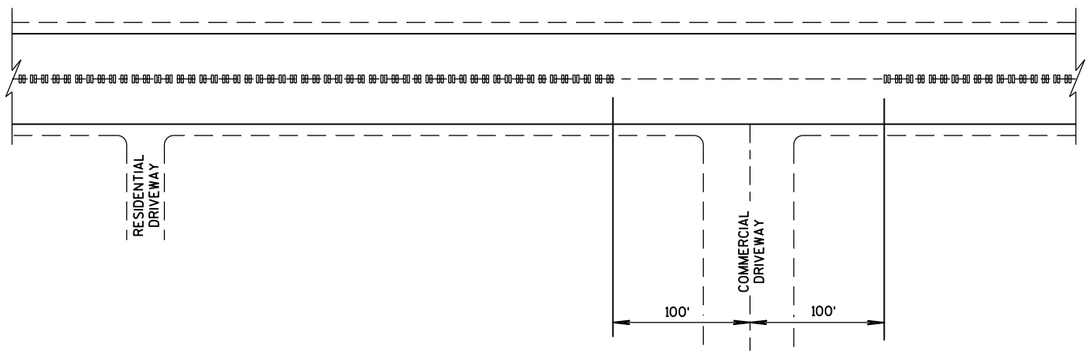
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

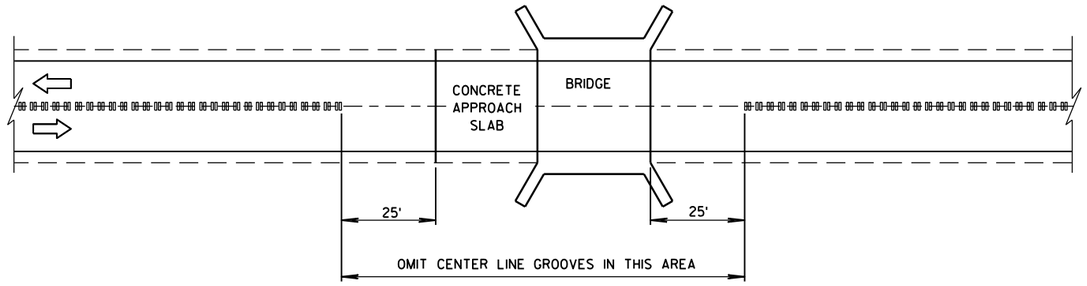


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

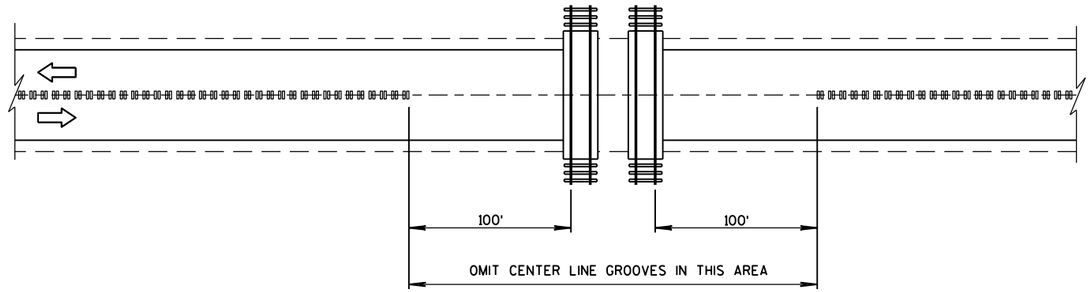


CENTER LINE GROOVES AT DRIVEWAYS (1)

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

6

S.D.D. 13 A 11-2b

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

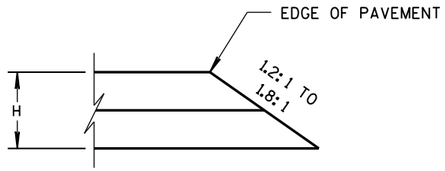
APPROVED

5/15/2013 — DATE

/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER

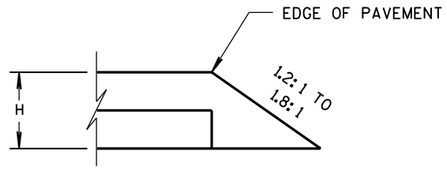
NT

FHWA



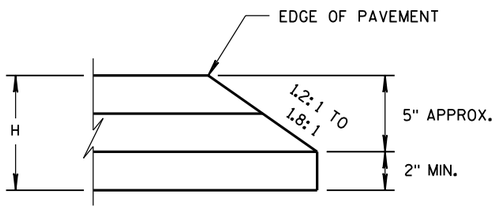
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



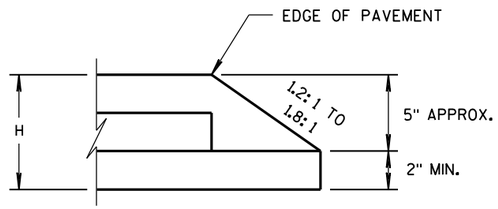
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

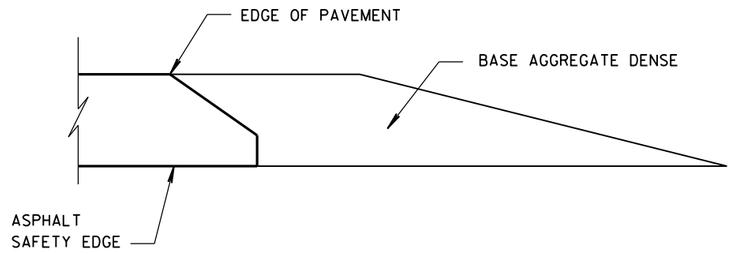
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

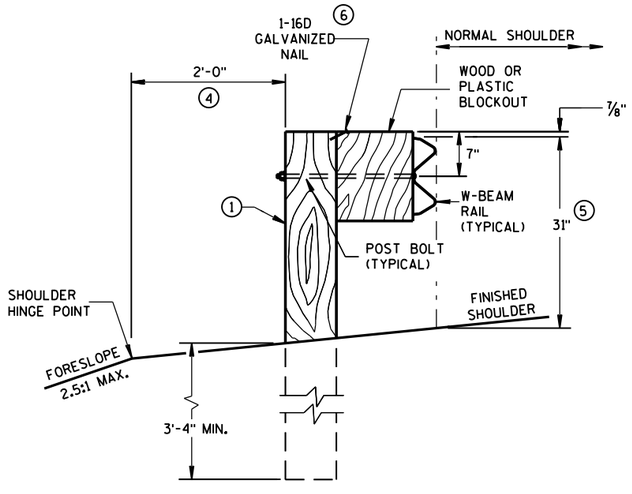
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

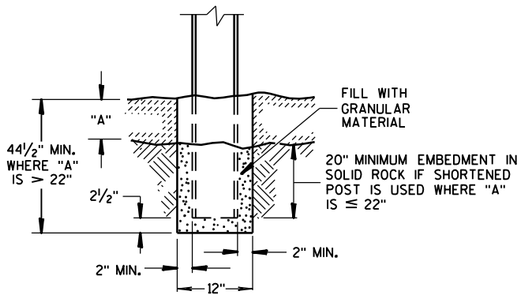
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



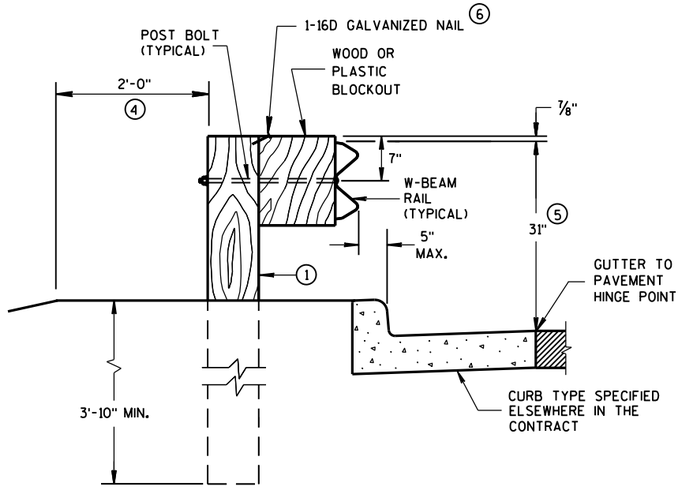
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



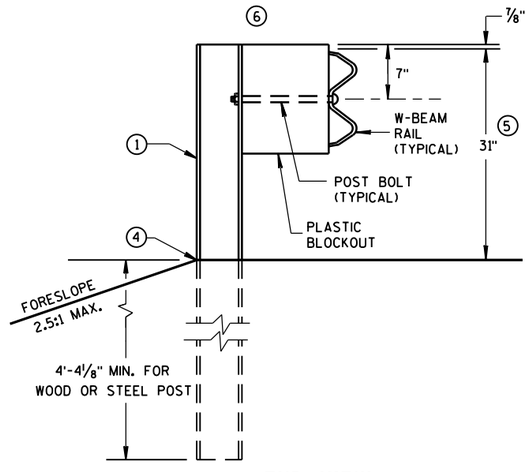
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



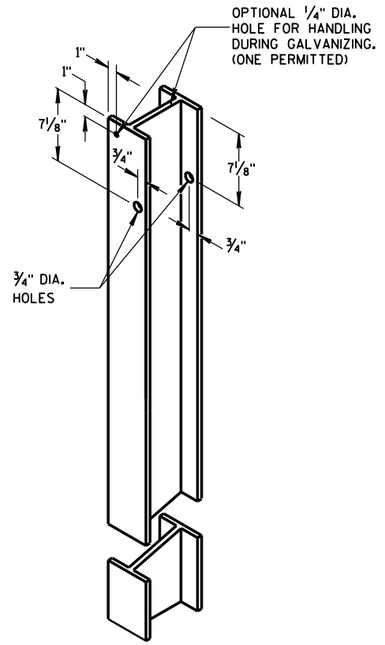
END VIEW

LOCATED ALONG A CURBED ROADWAY

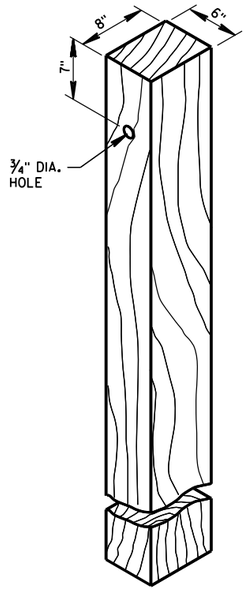


END VIEW

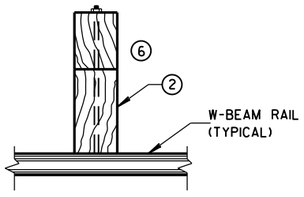
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



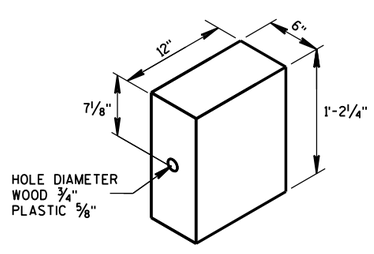
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



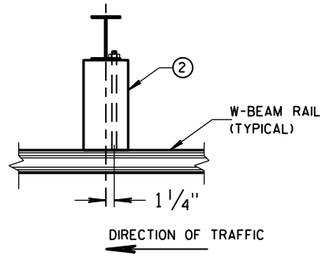
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)

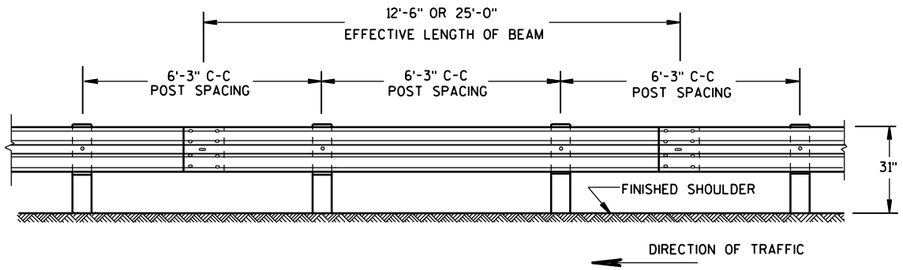


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

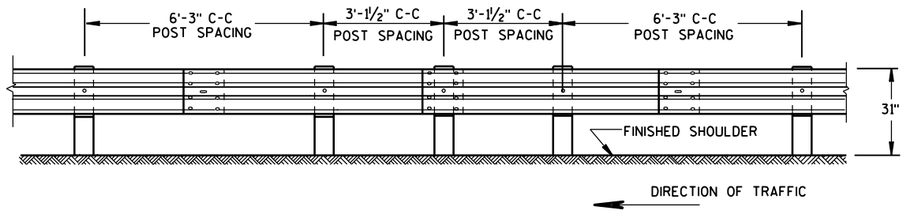
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-3a



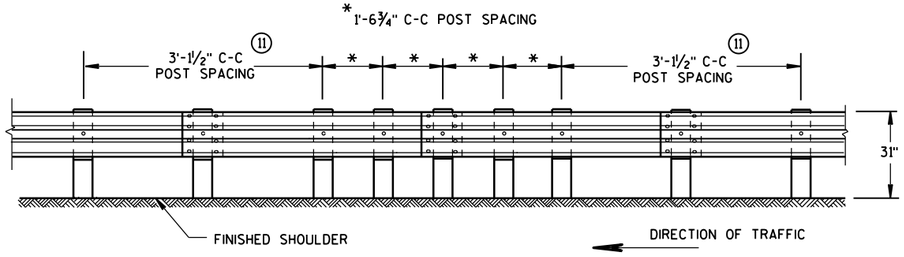
FRONT VIEW

POST SPACING STANDARD INSTALLATION



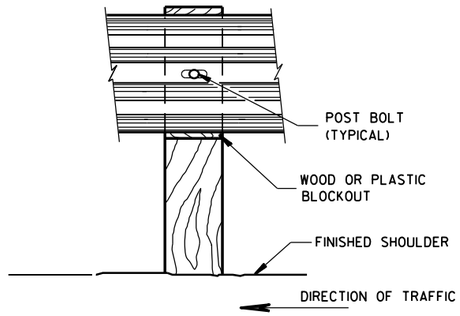
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

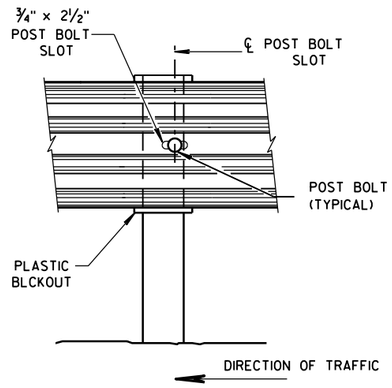


FRONT VIEW

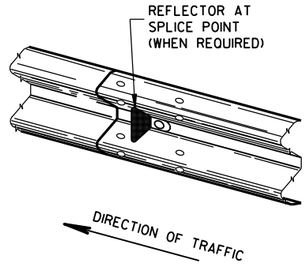
QUARTER POST SPACING (QS)

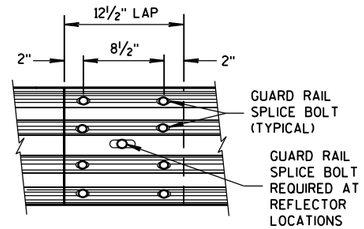


FRONT VIEW AT WOOD POST



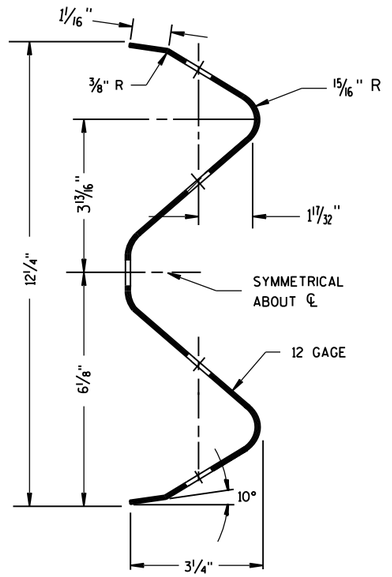
FRONT VIEW AT STEEL POST



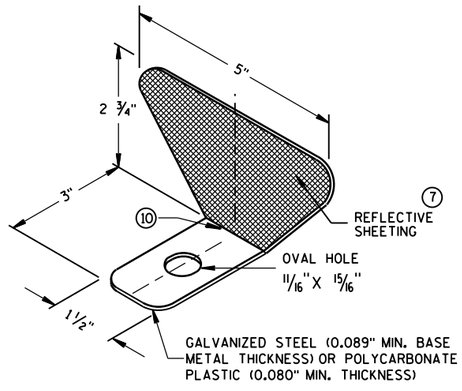


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

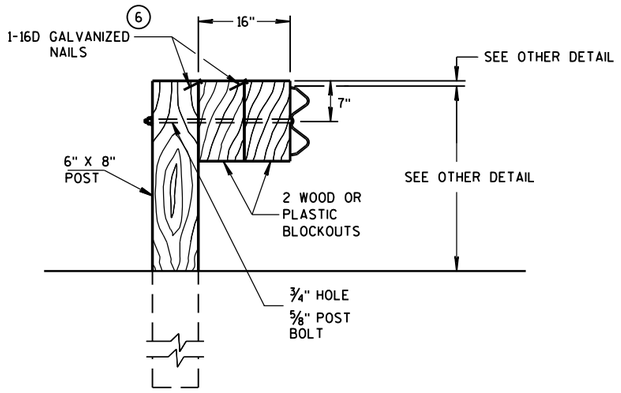
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

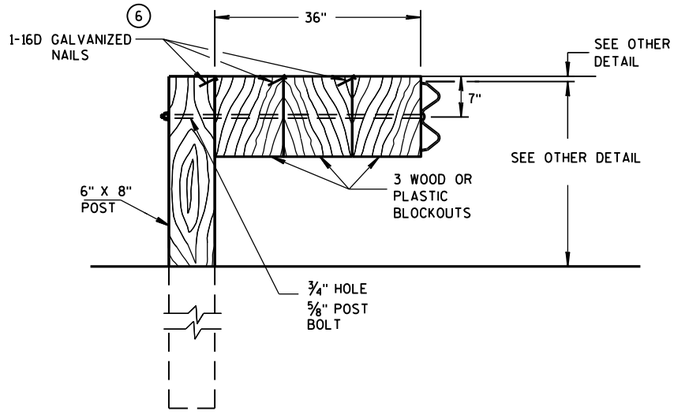
6

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

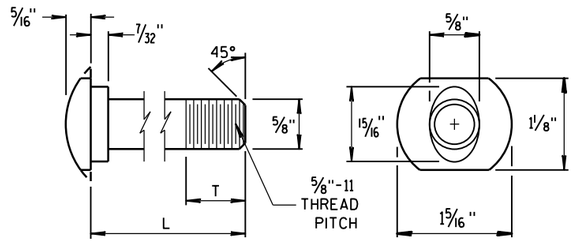


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

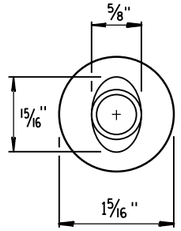
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

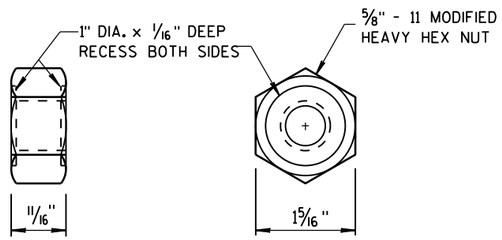


POST BOLT TABLE

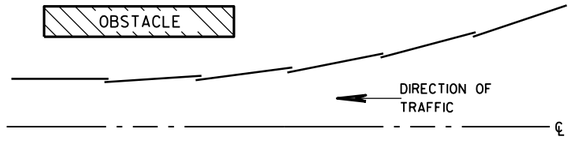
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

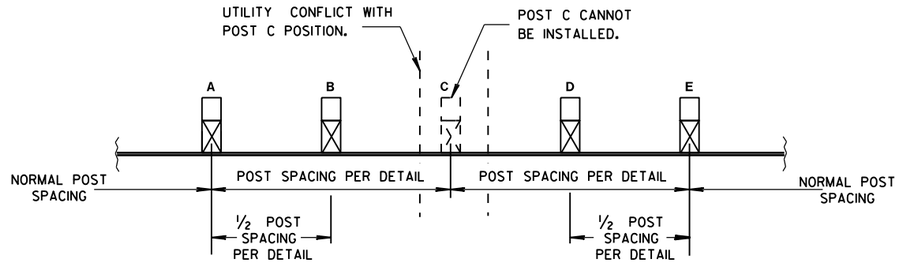


POST BOLT AND RECESS NUT

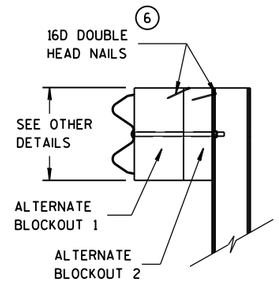


PLAN VIEW

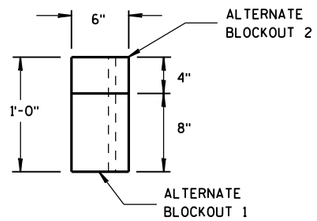
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

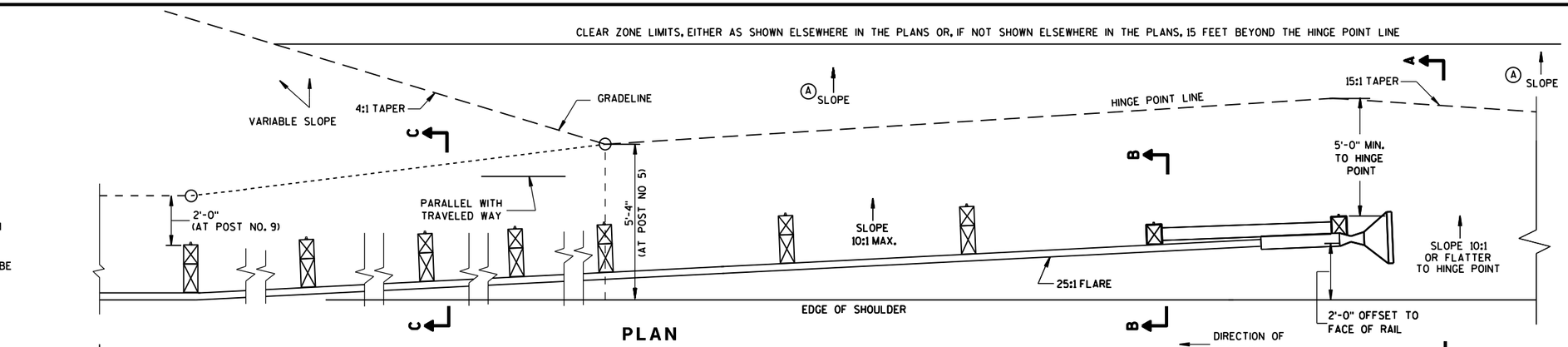
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

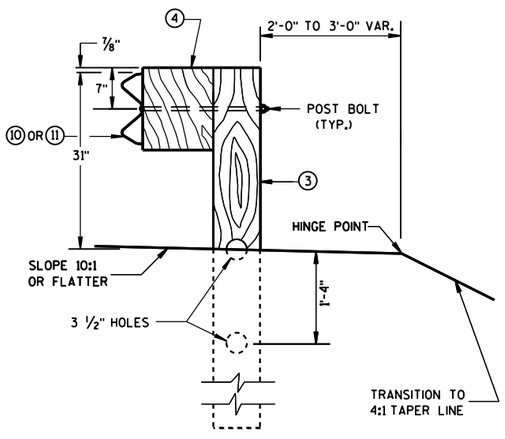
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

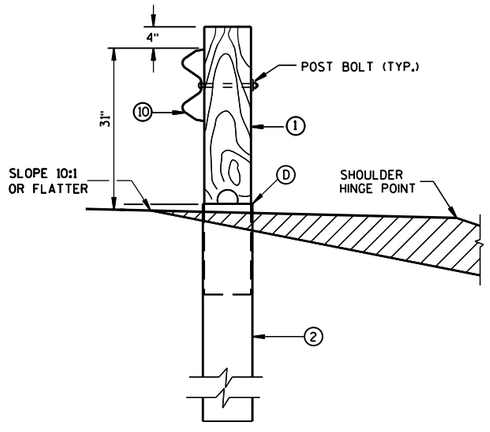
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



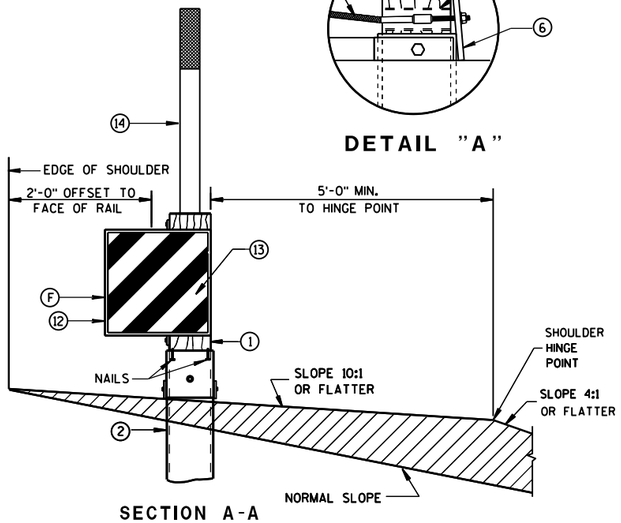
ELEVATION



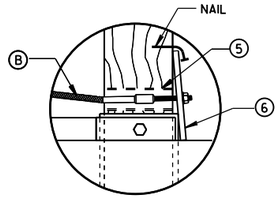
SECTION C-C
TYPICAL AT POST NOS. 3-9



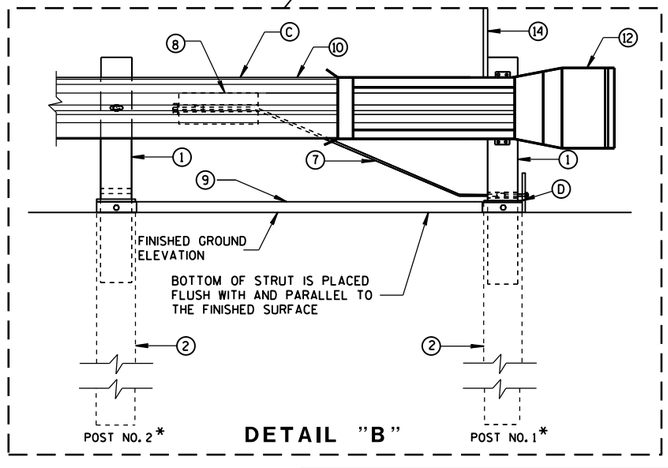
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

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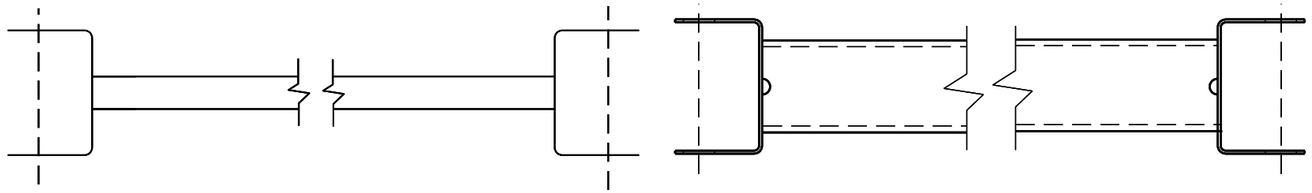
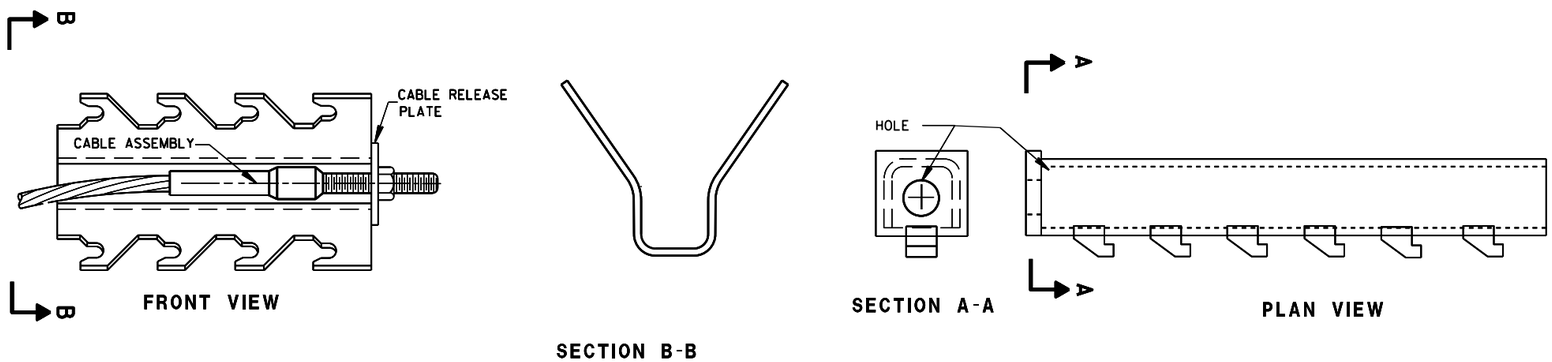


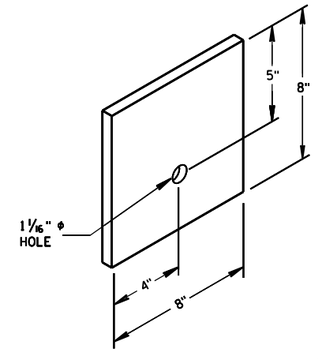
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



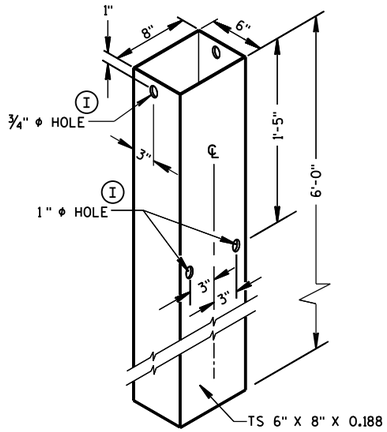
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

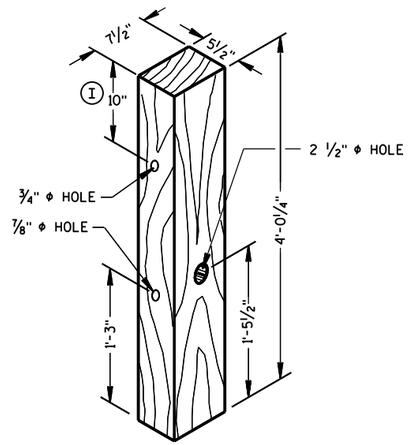
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 44-2b

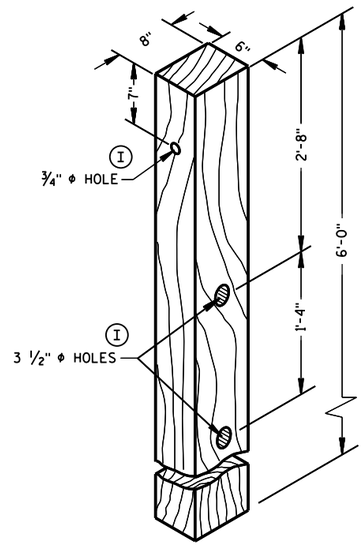


FOUNDATION TUBE (2)



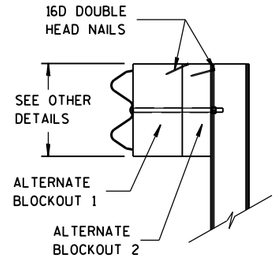
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

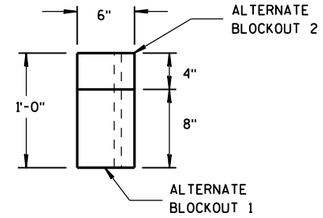


POSTS NUMBER 3-9

WOOD CRT POST (3)

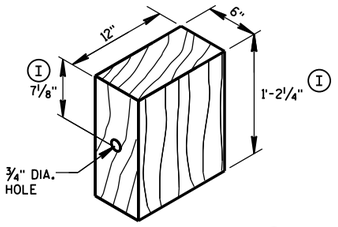


SIDE VIEW



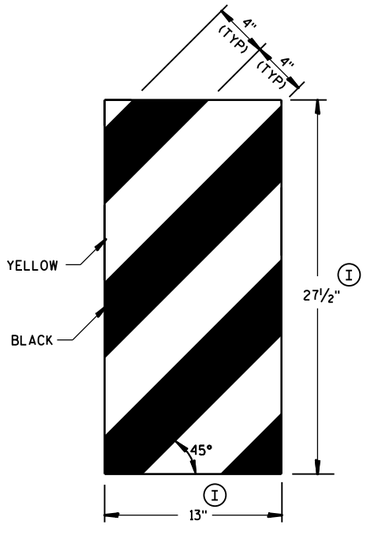
TOP VIEW

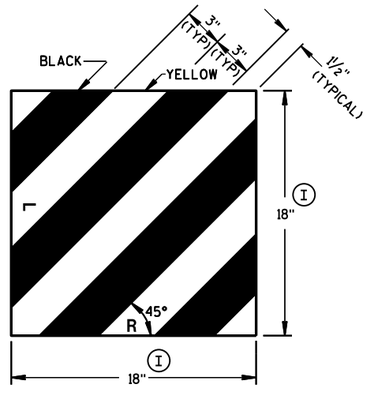
ALTERNATE WOOD BLOCKOUT DETAIL



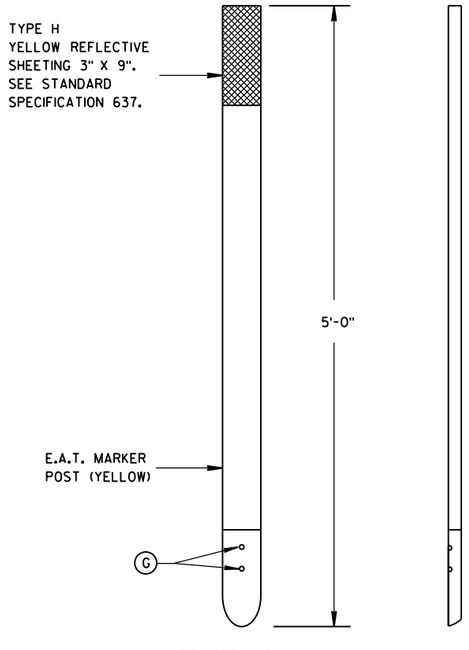
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





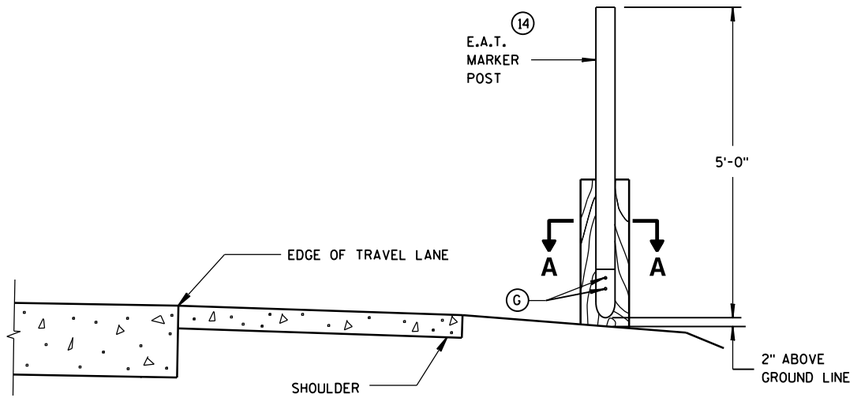
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

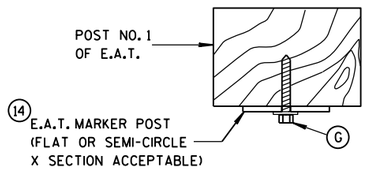
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

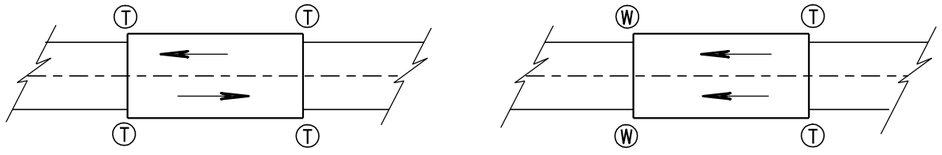
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

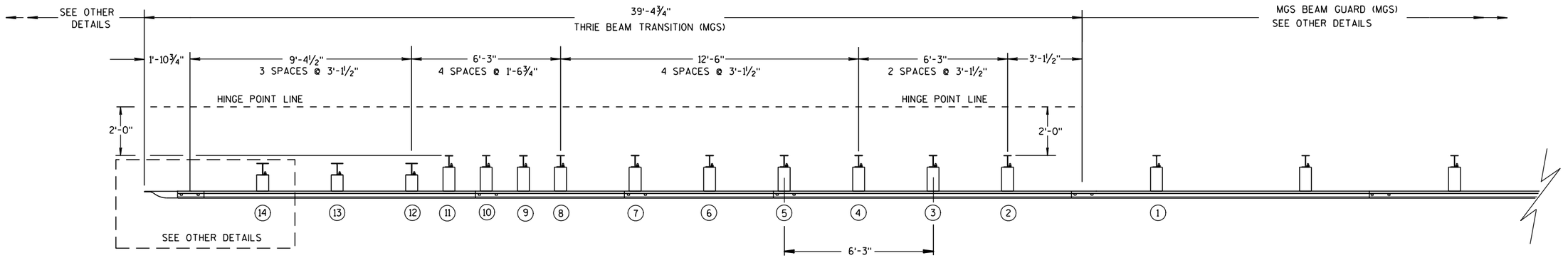
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

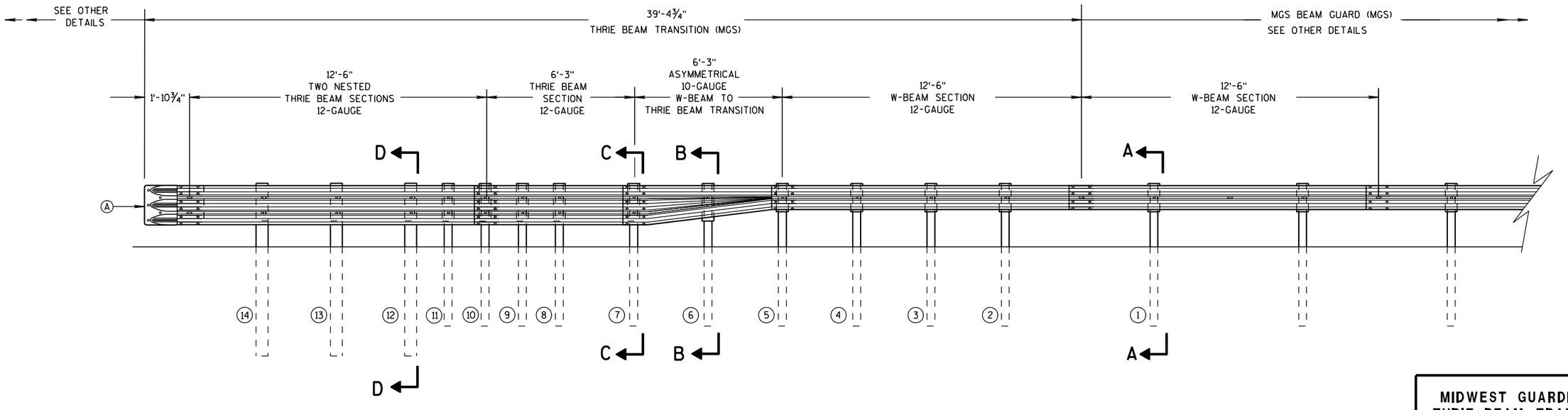
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

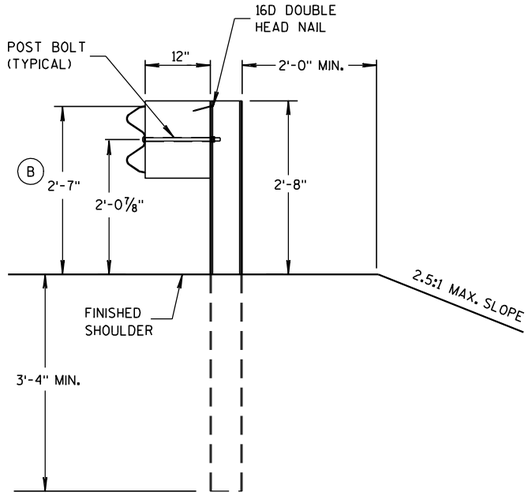
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

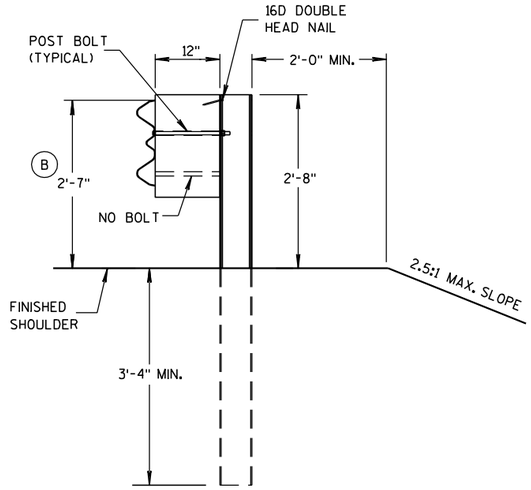
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



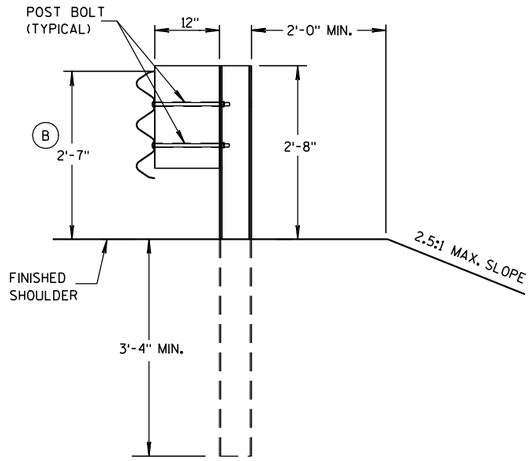
SECTION A-A

POSTS 1-5



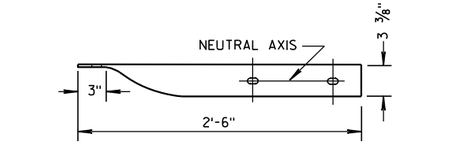
SECTION B-B

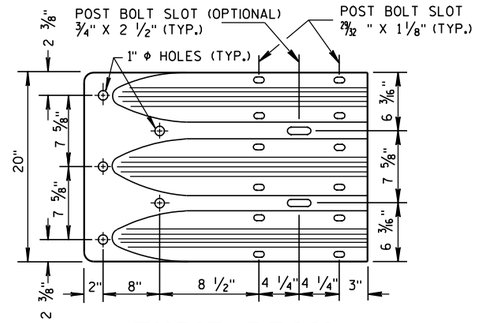
POST 6



SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR

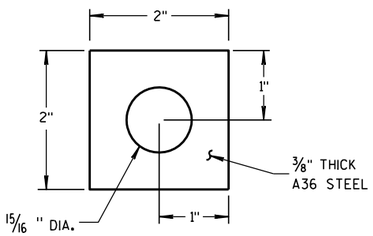
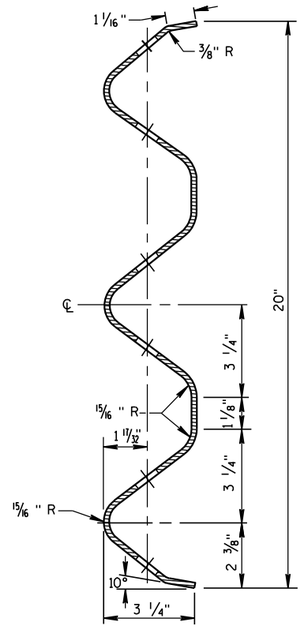
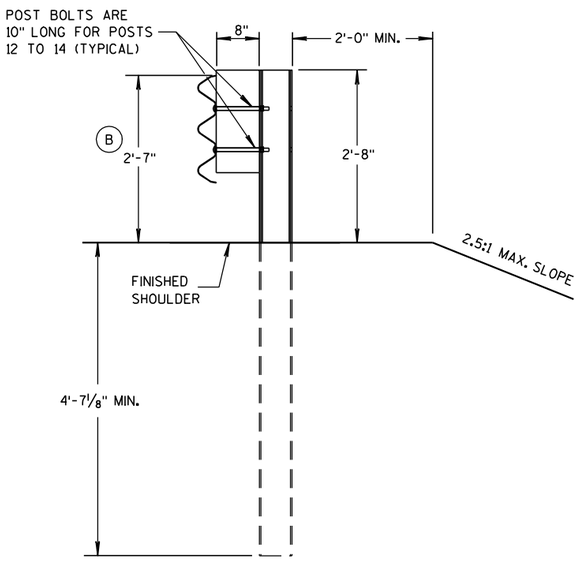


PLATE WASHER DETAIL

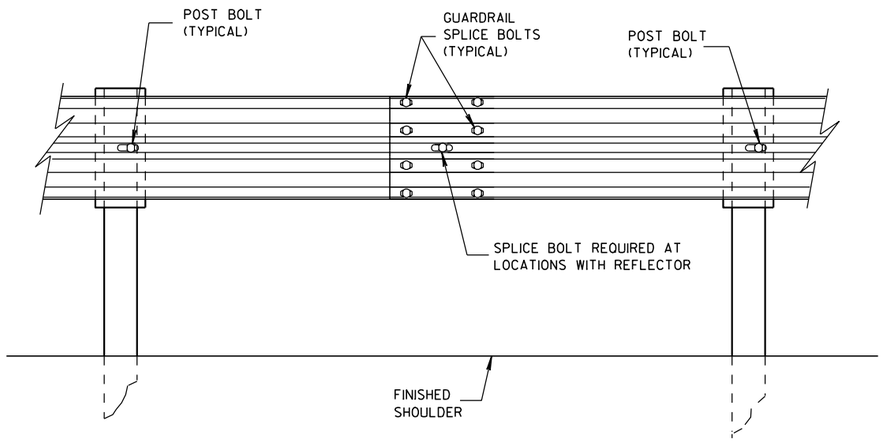


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-14



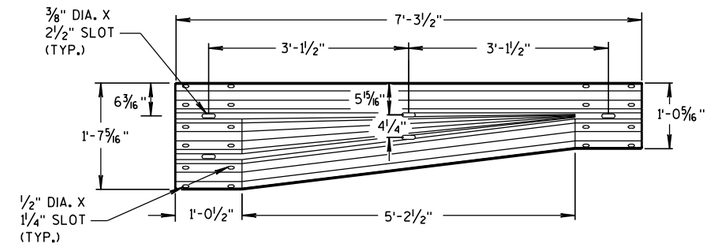
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

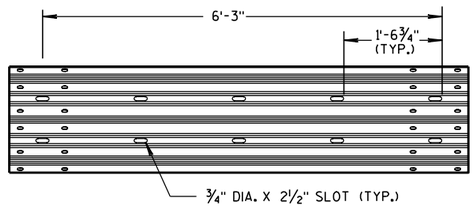
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

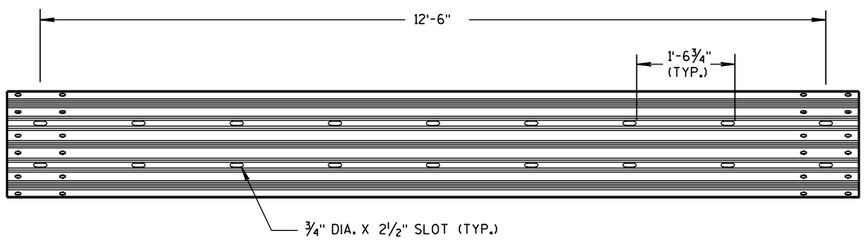
S.D.D. 14 B 45-3b



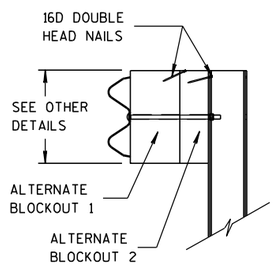
W-BEAM TO THRIE BEAM TRANSITION SECTION



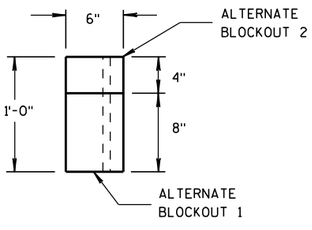
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

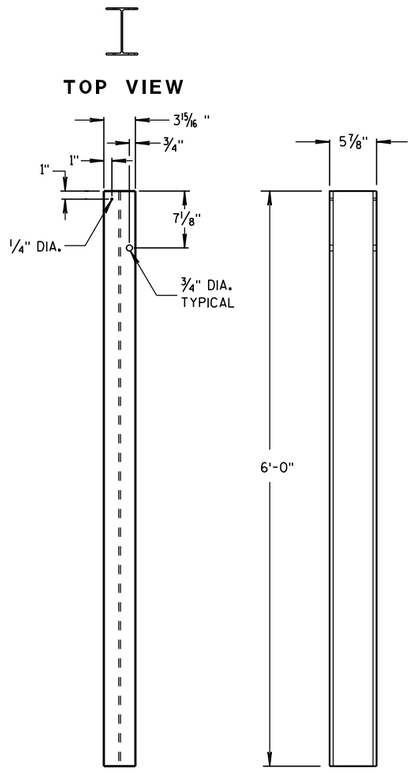


SIDE VIEW



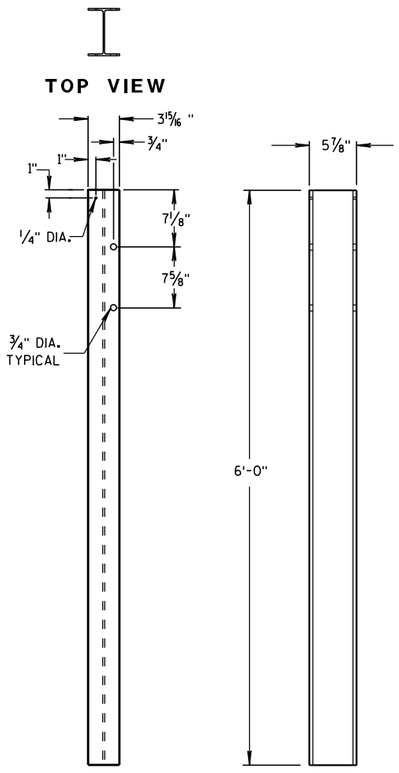
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



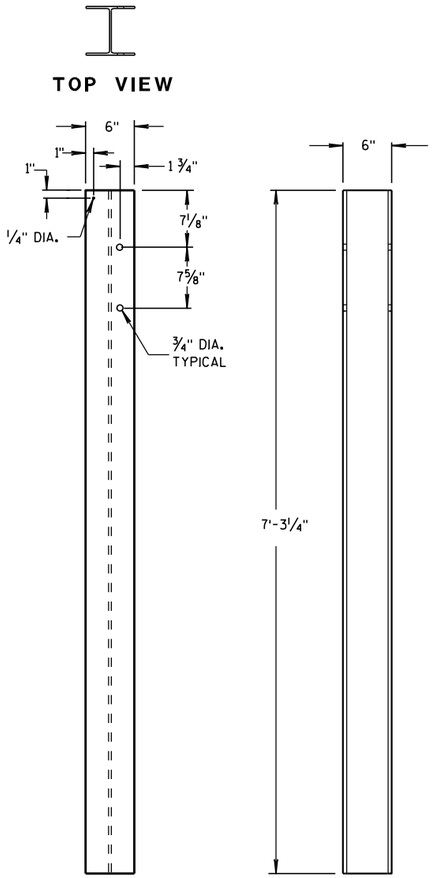
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5



FRONT VIEW SIDE VIEW

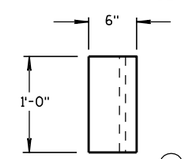
STEEL POSTS 6-11



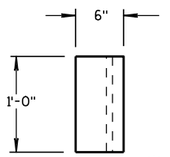
FRONT VIEW SIDE VIEW

STEEL POSTS 12-14

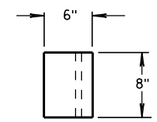
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



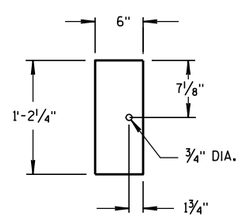
TOP VIEW (1)



TOP VIEW (1)

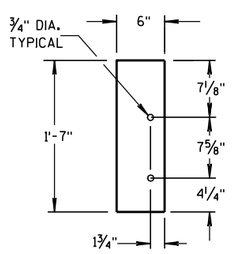


TOP VIEW



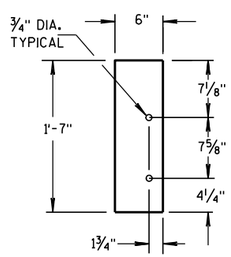
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

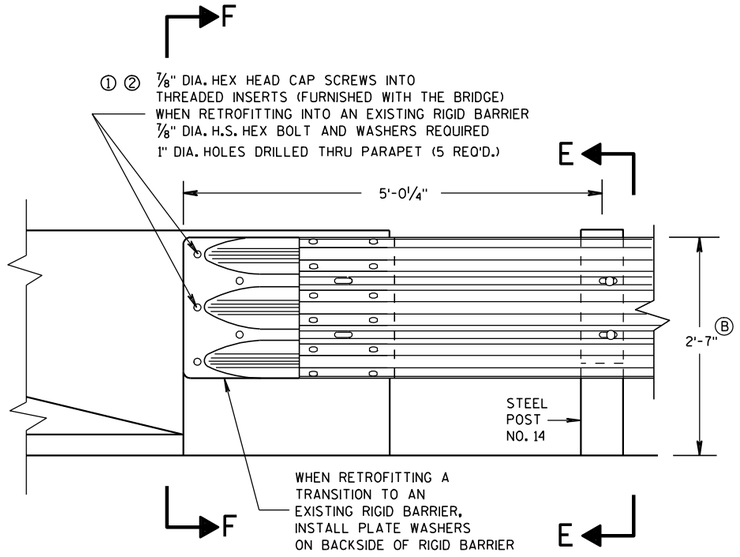
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

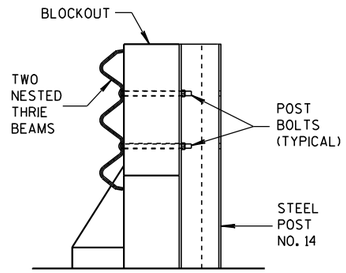
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

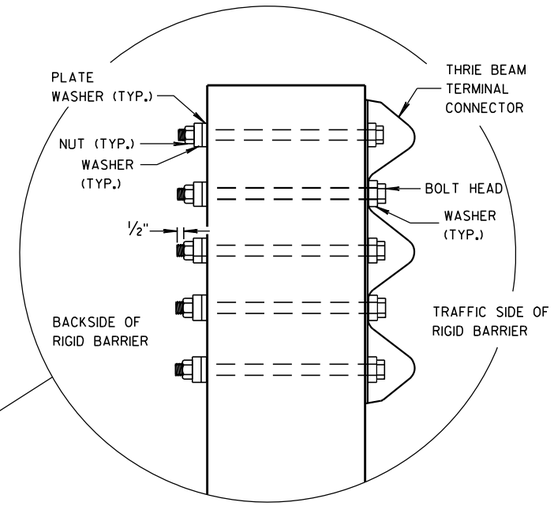
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

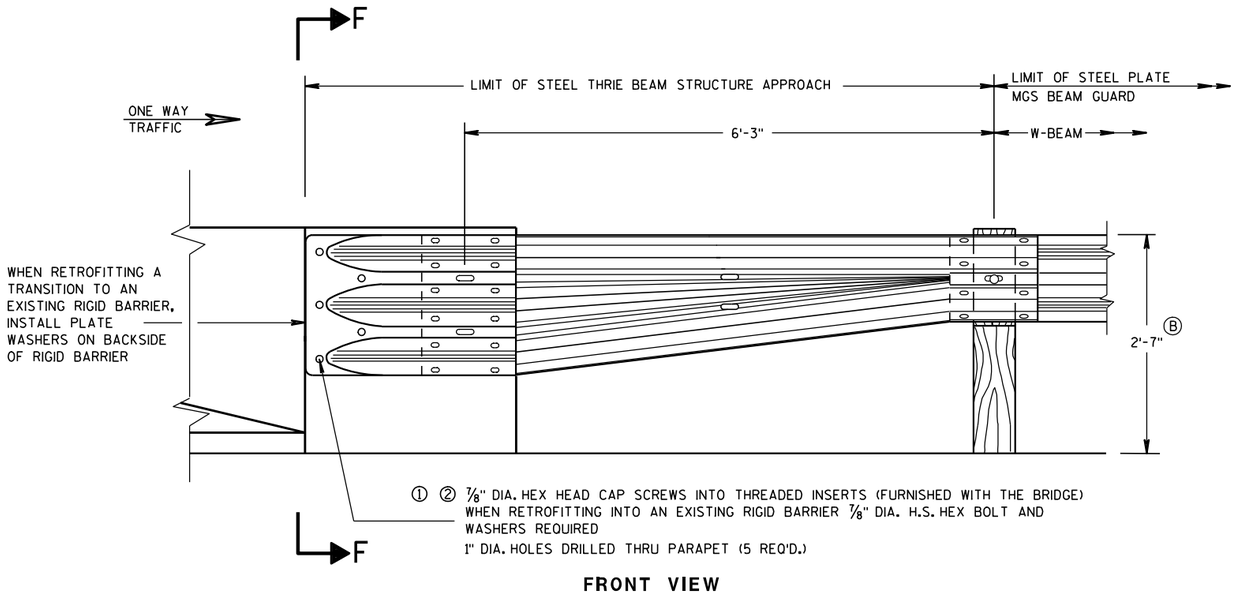
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

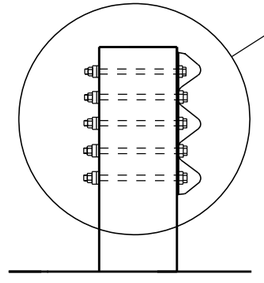
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

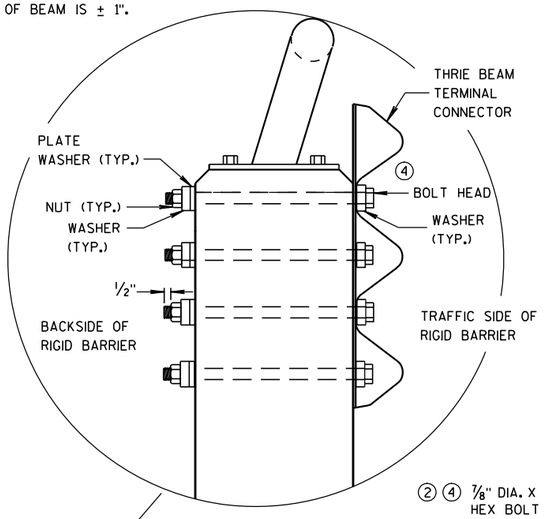
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

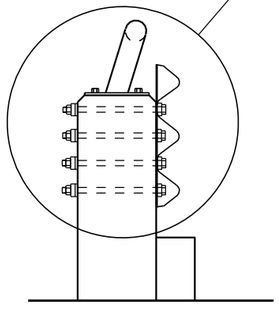
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

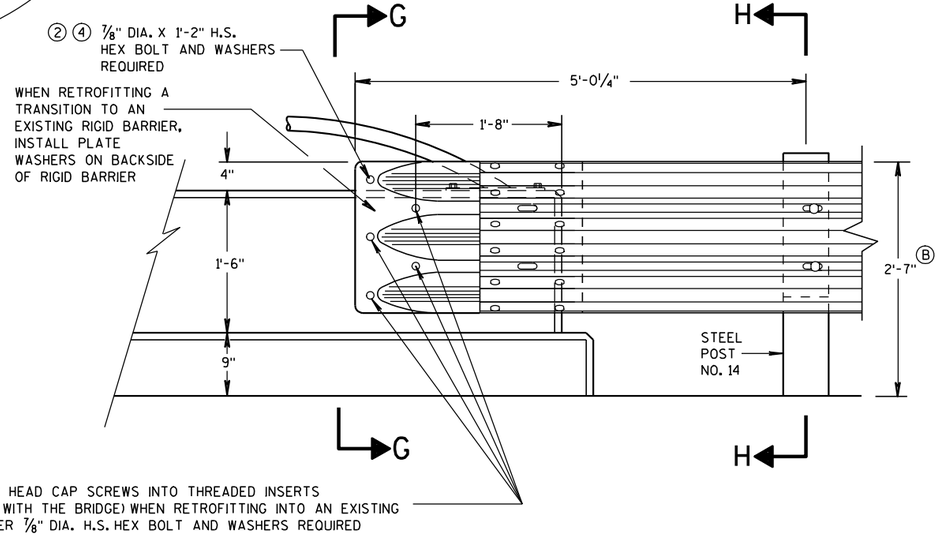
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

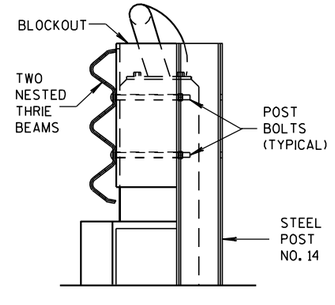




SECTION G-G

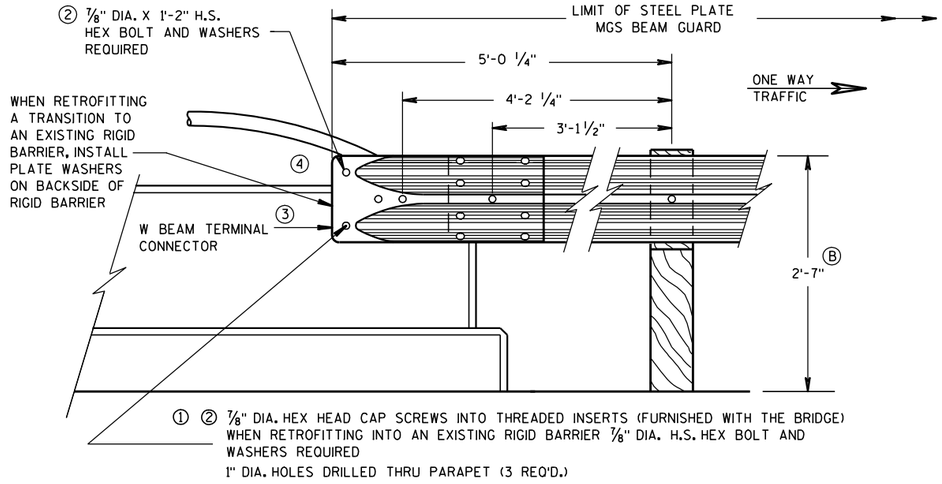


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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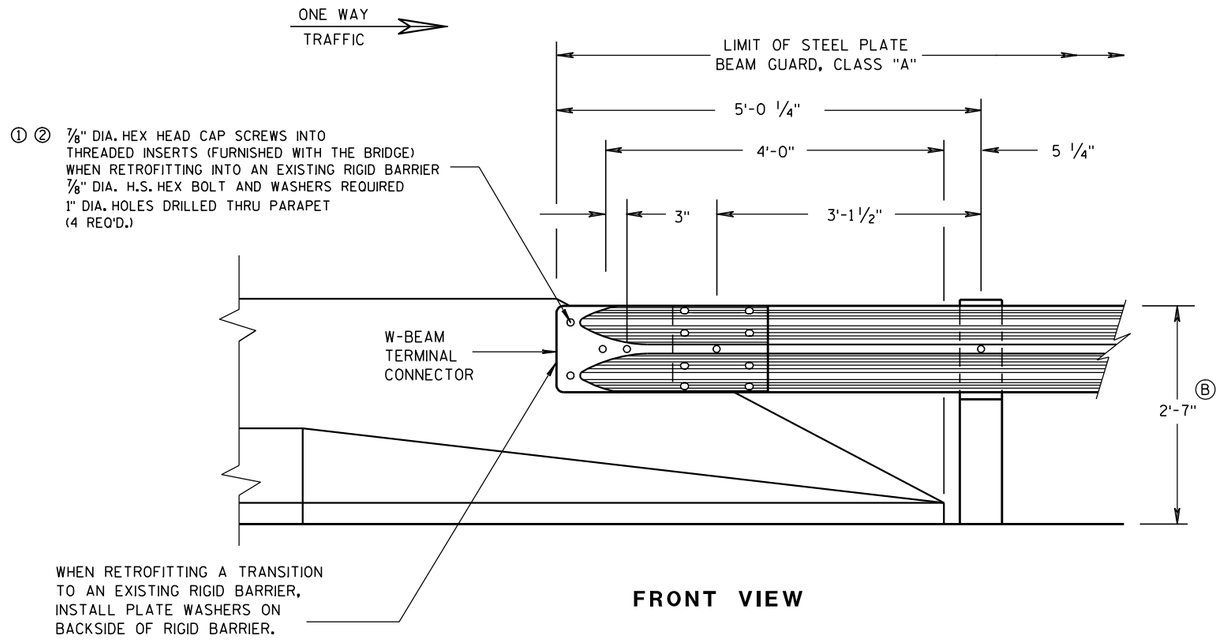
S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

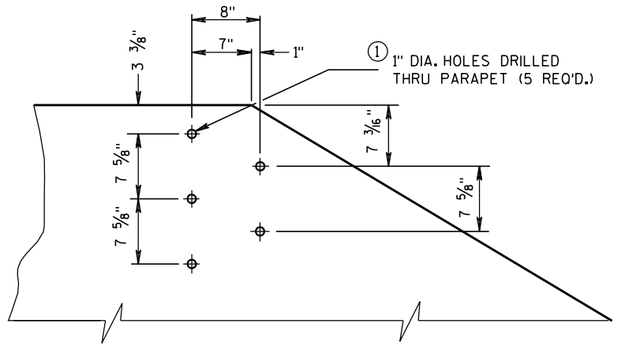
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

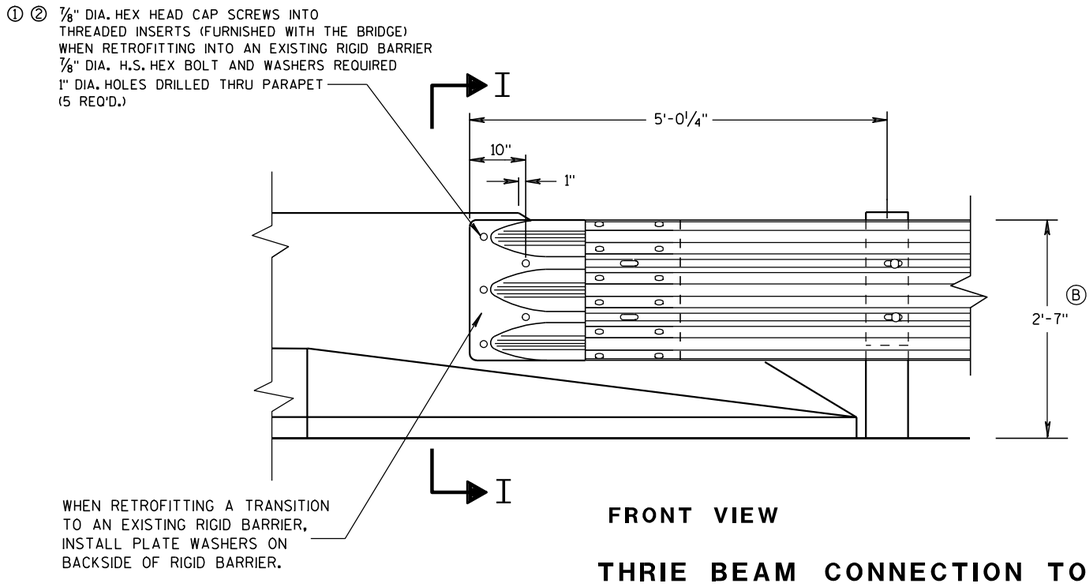
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

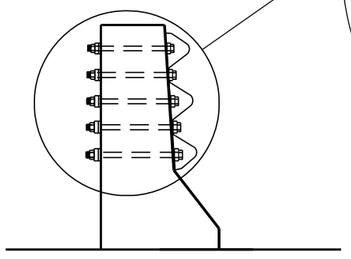
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



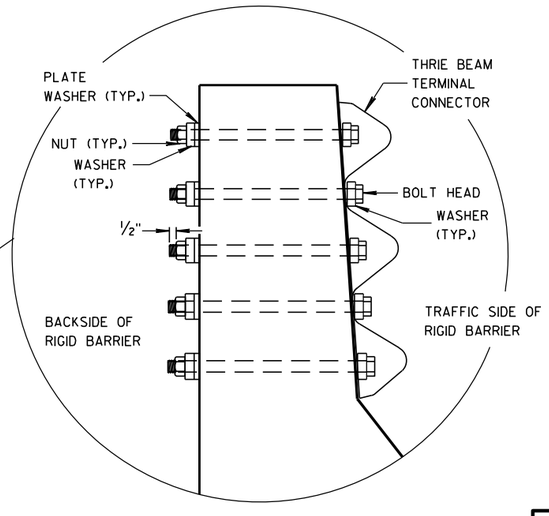
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

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FHWA

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S.D.D. 14 B 45-3f

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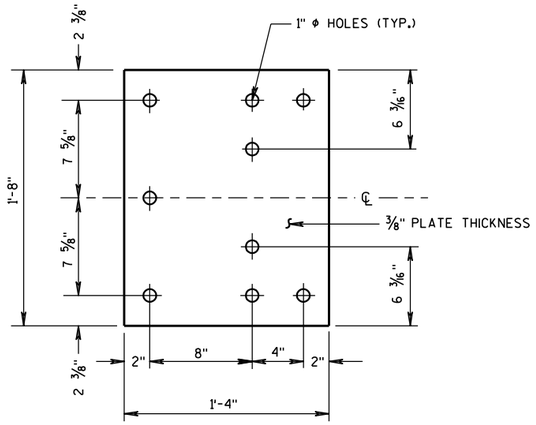
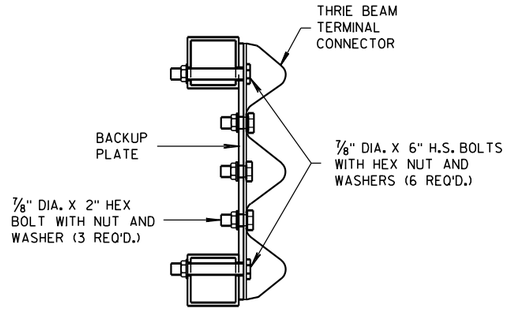
S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

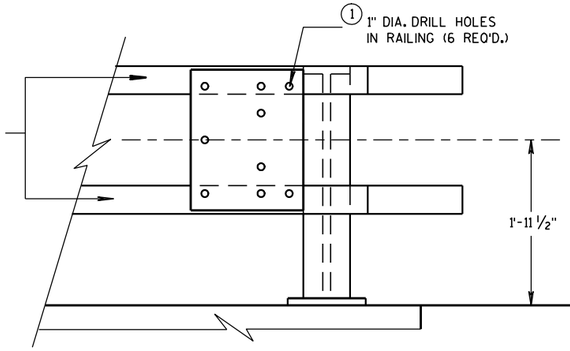


SECTION J-J

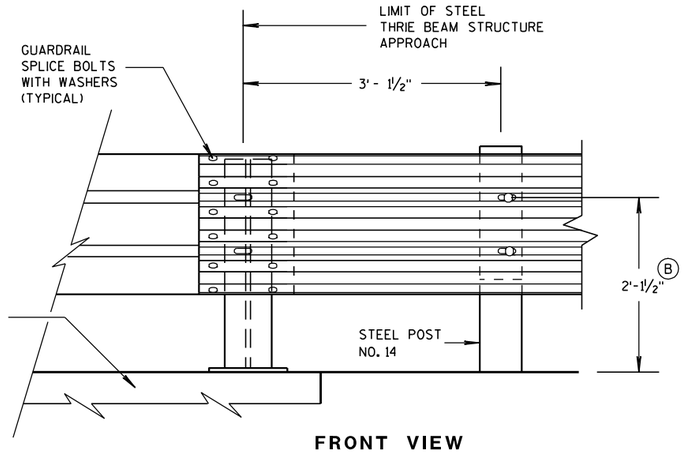
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

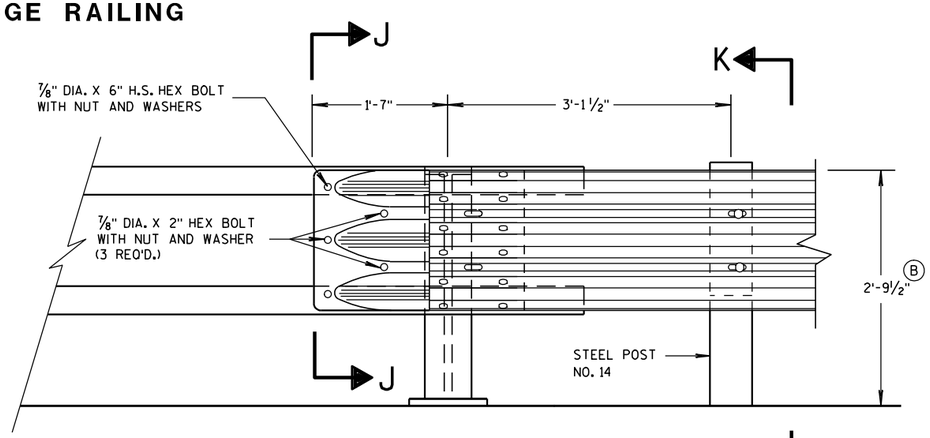


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

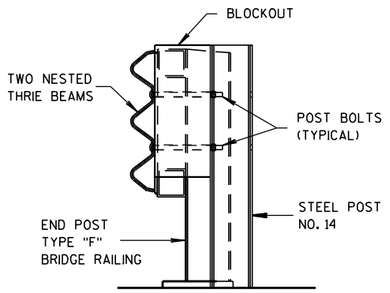


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 45-3g

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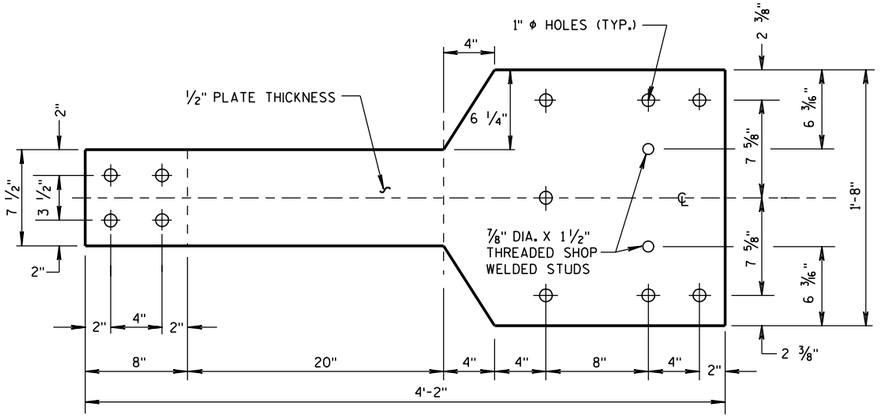
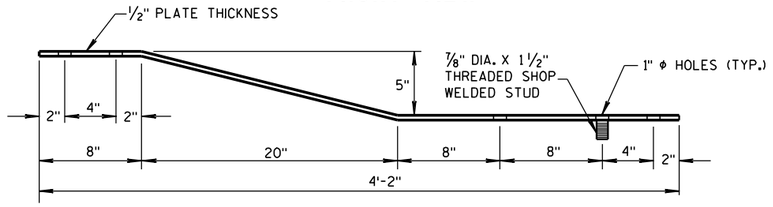
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

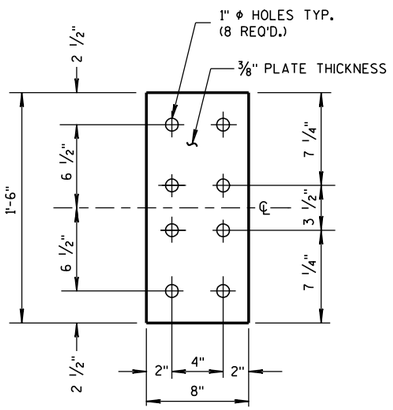


FRONT VIEW



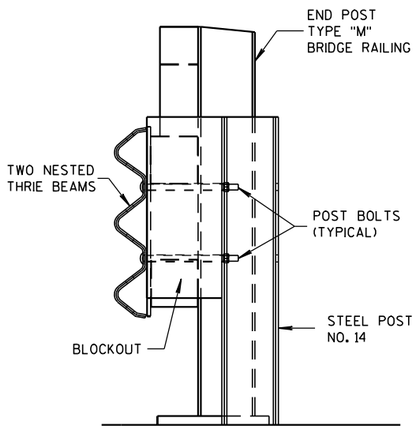
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

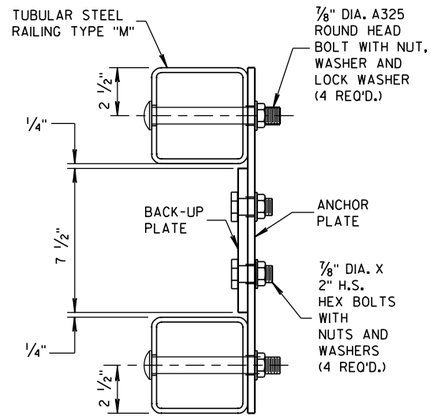


FRONT VIEW

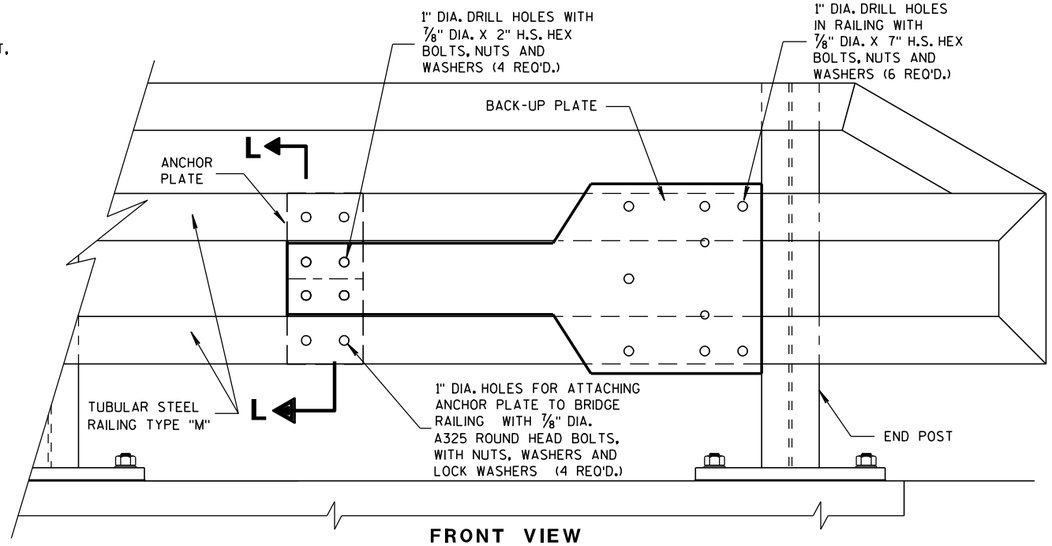
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

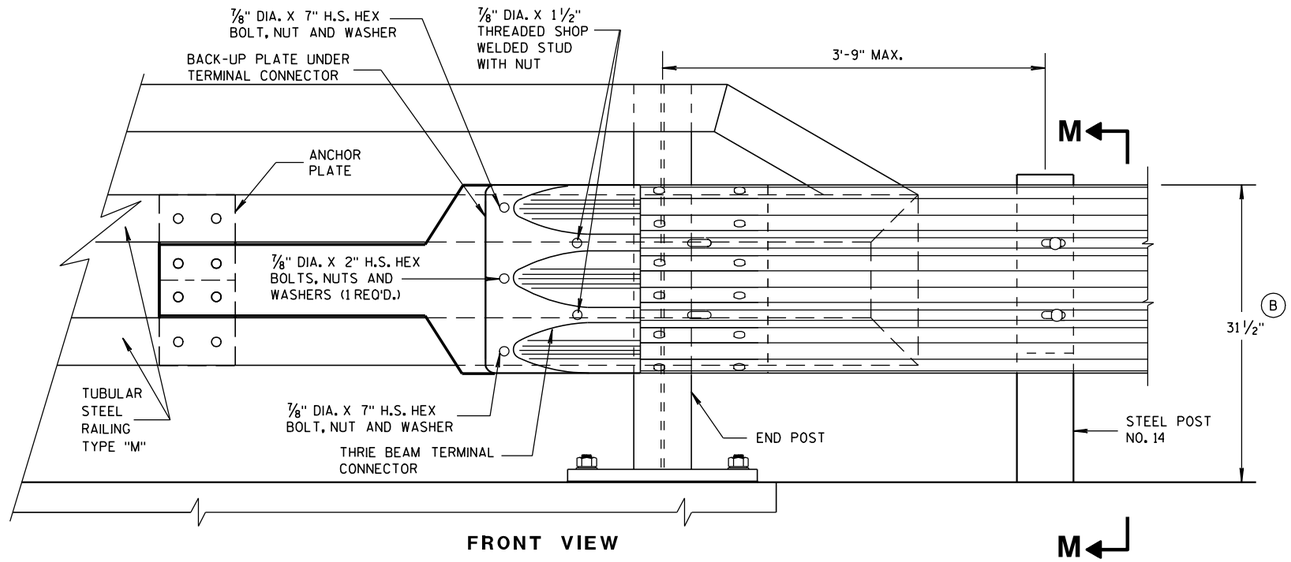


SECTION L-L

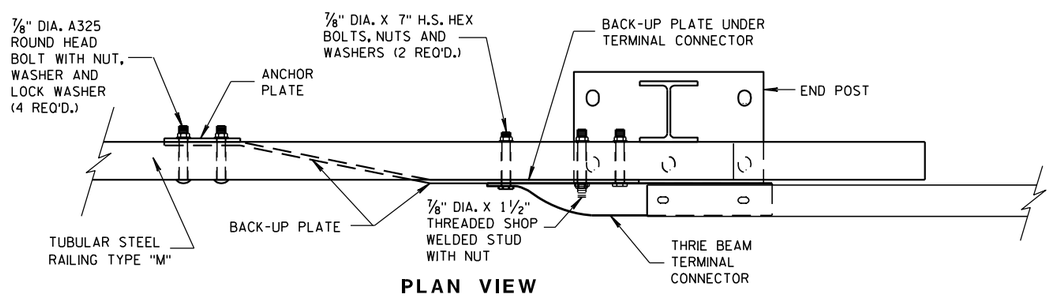


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	64 ENT

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S.D. 14 B 45-3h

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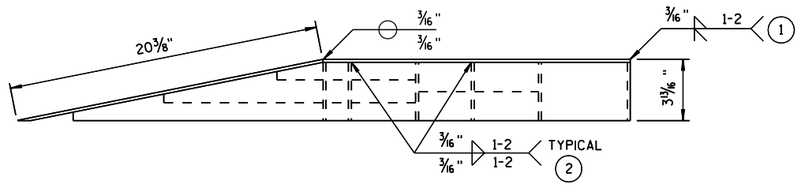
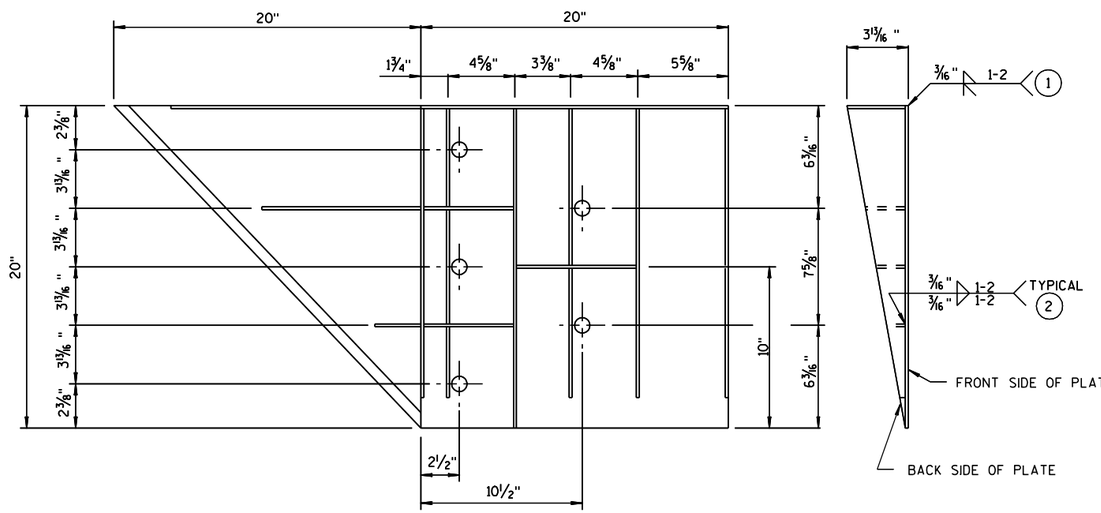
S.D. 14 B 45-3h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

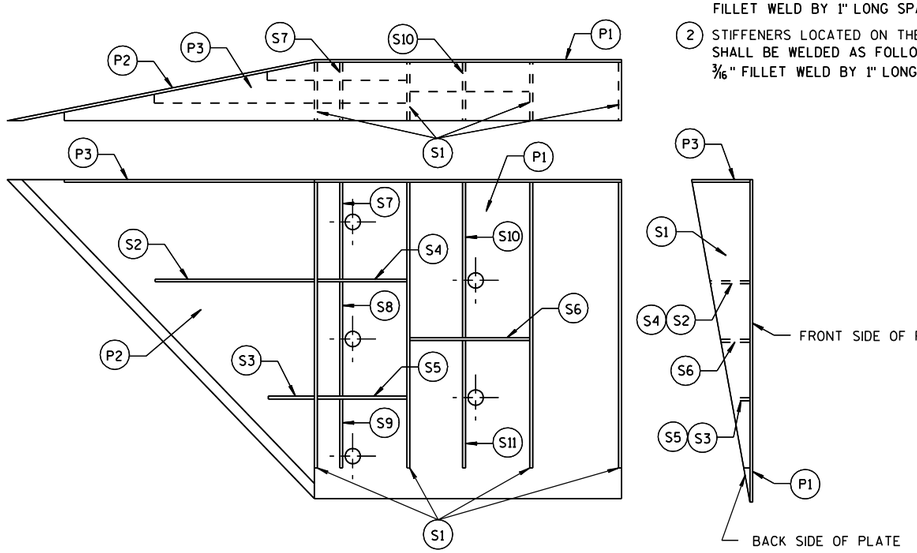


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H ----
ROADWAY STANDARDS ENGINEER
65
FHWA

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S.D.D. 14 B 45-3i

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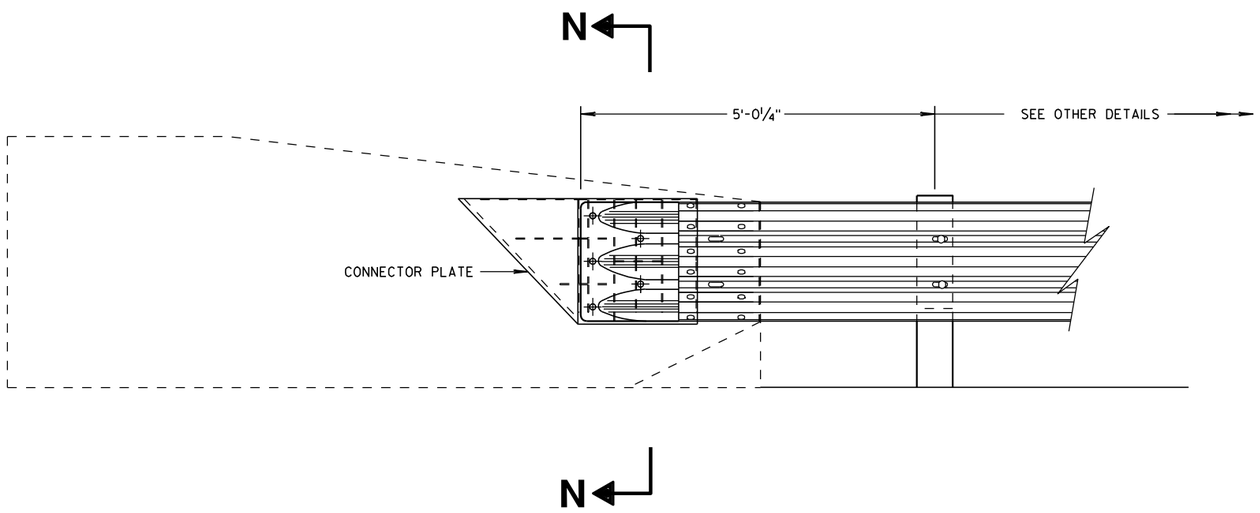
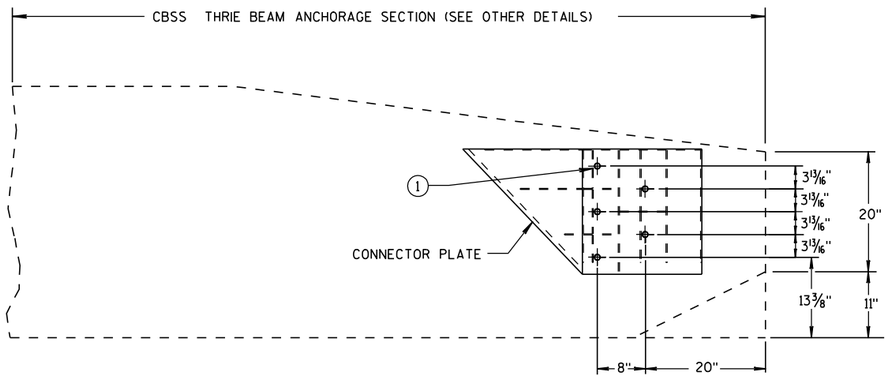
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

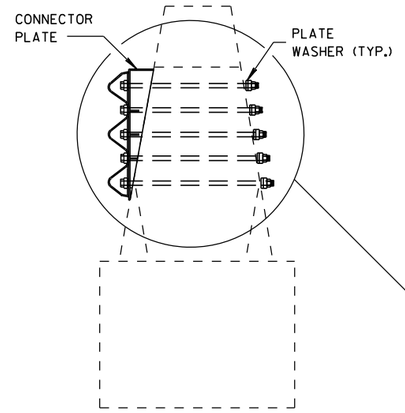


SINGLE SLOPE CONNECTION PLATE PLACEMENT

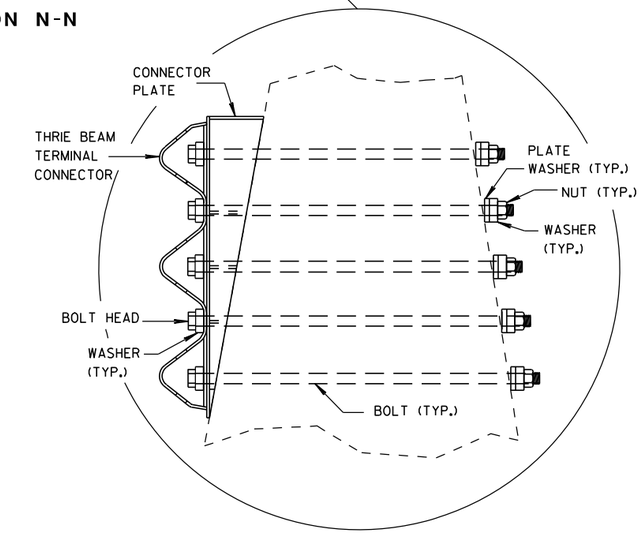
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 45-3j

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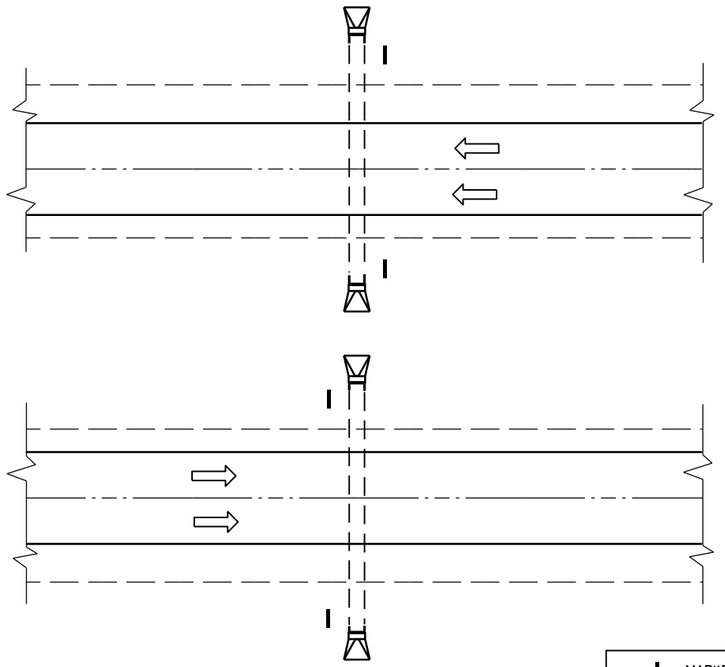
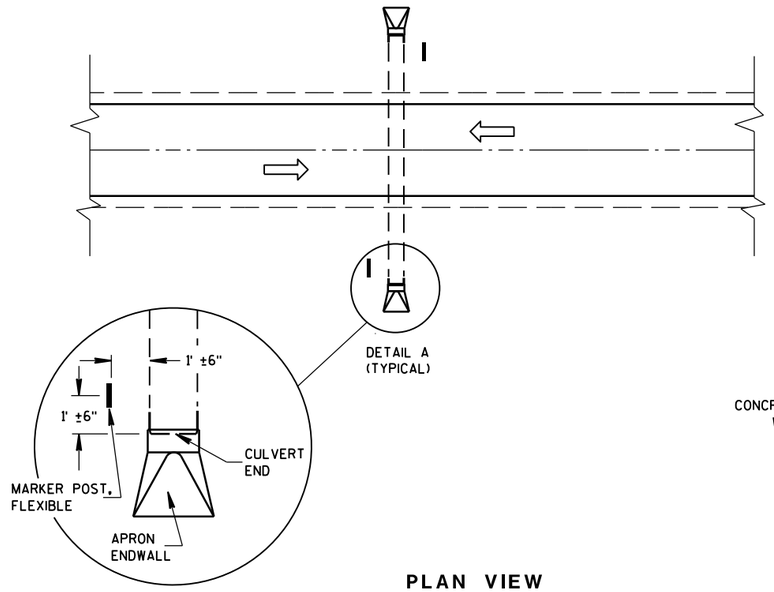
S.D.D. 14 B 45-3j



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

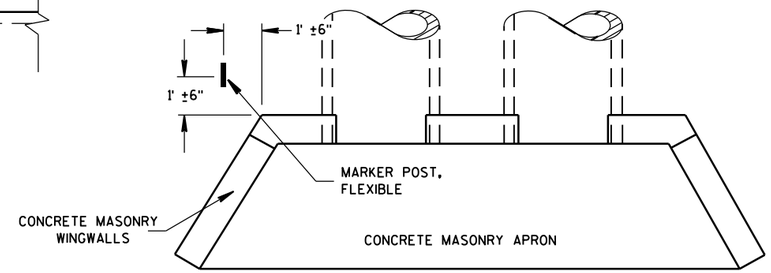
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

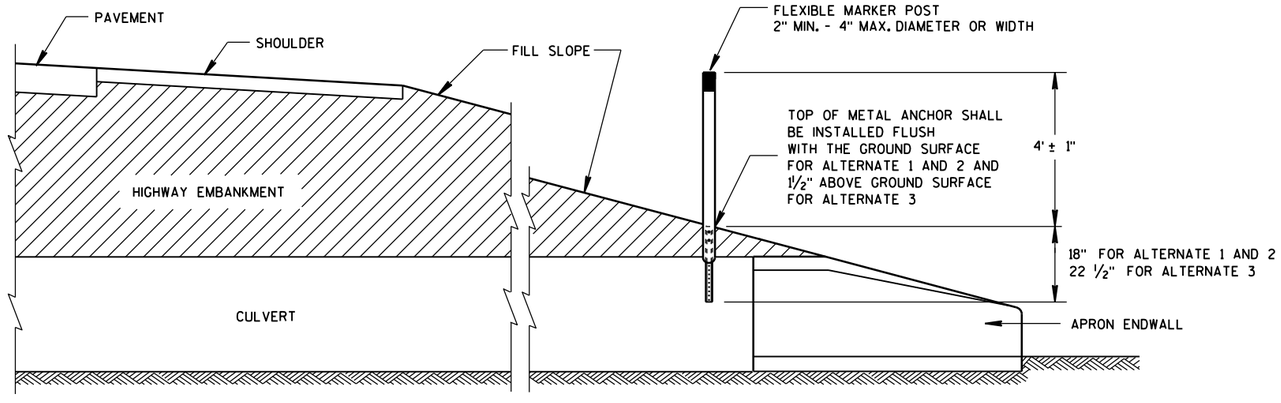
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 A 3-2a

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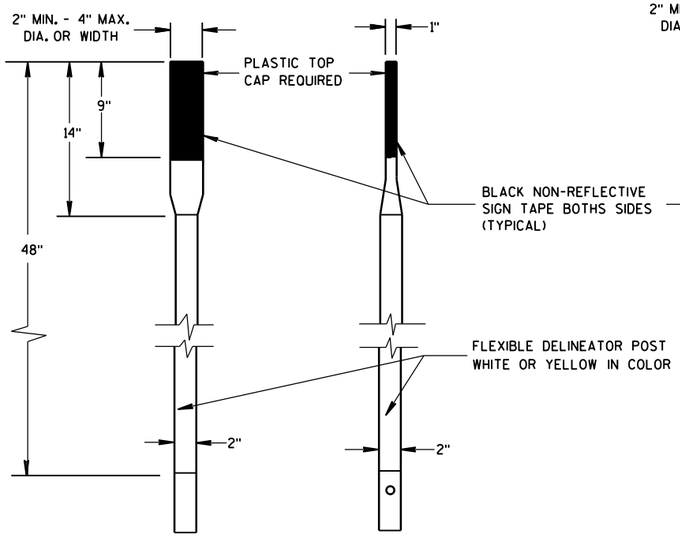
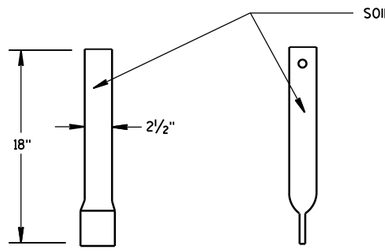
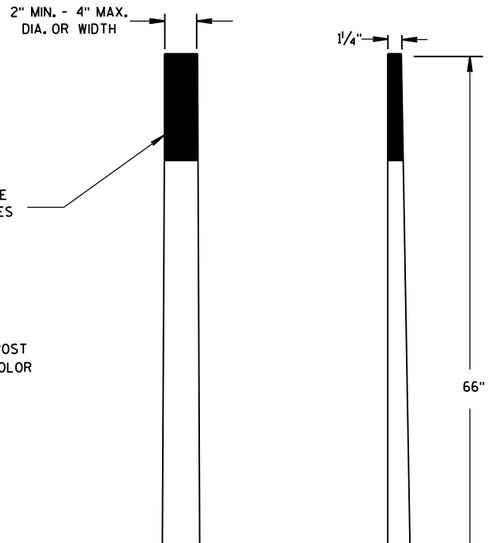
S.D.D. 15 A 3-2a





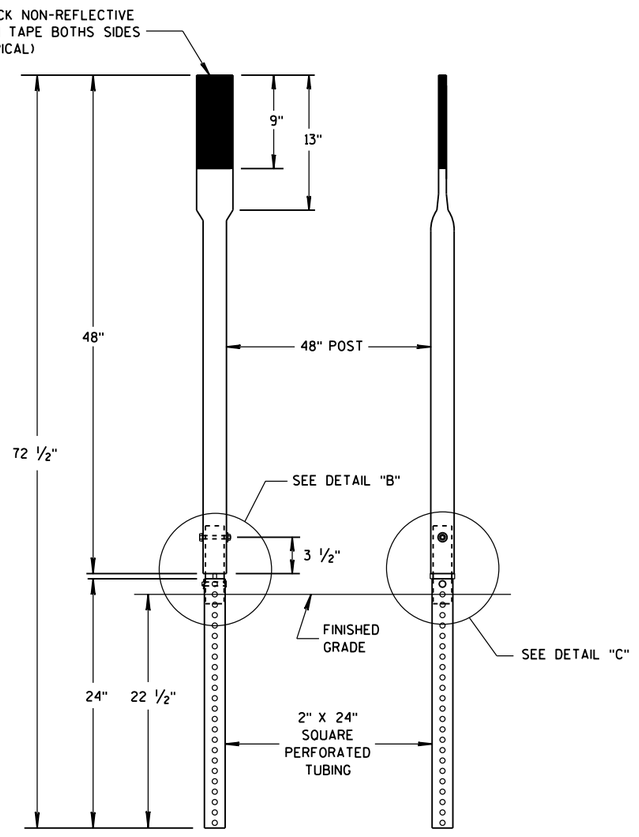
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

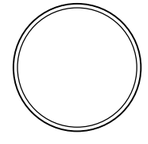
ALTERNATE 2



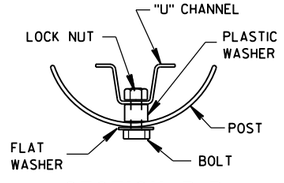
FRONT VIEW SIDE VIEW

ALTERNATE 3

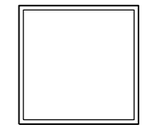
FLEXIBLE MARKER POSTS



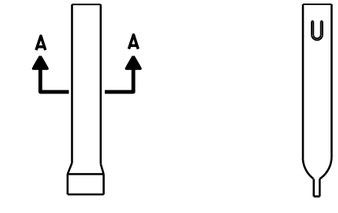
SECTION A-A



SECTION B-B

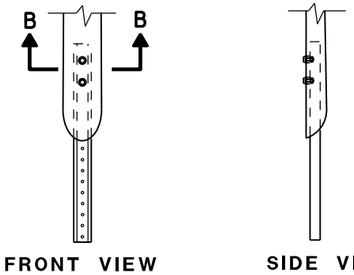


SECTION C-C



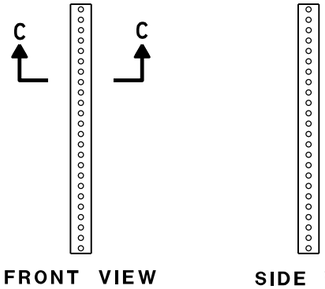
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

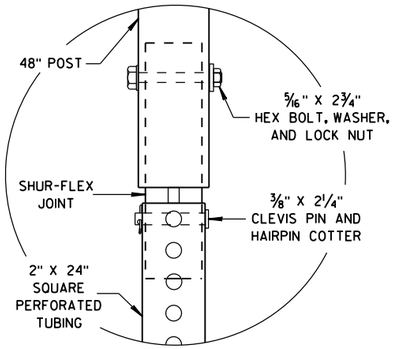
ALTERNATE 2



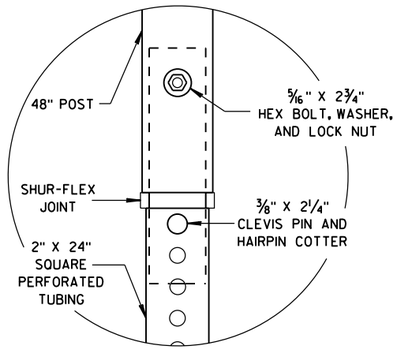
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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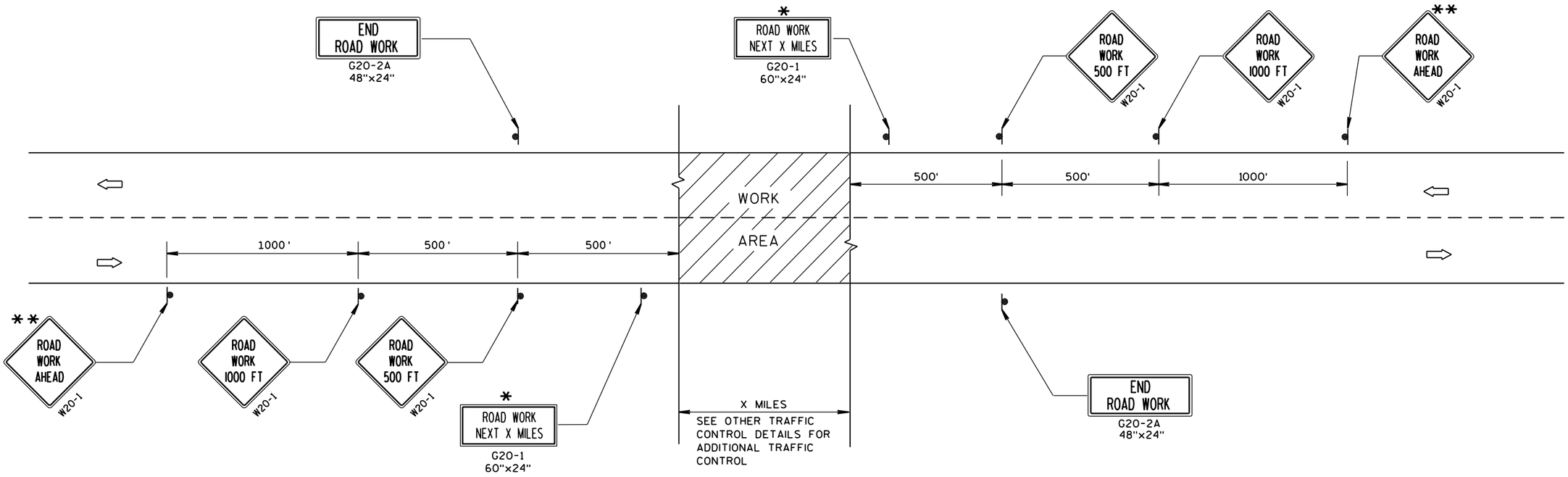
S.D.D. 15 A 3-2b



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.

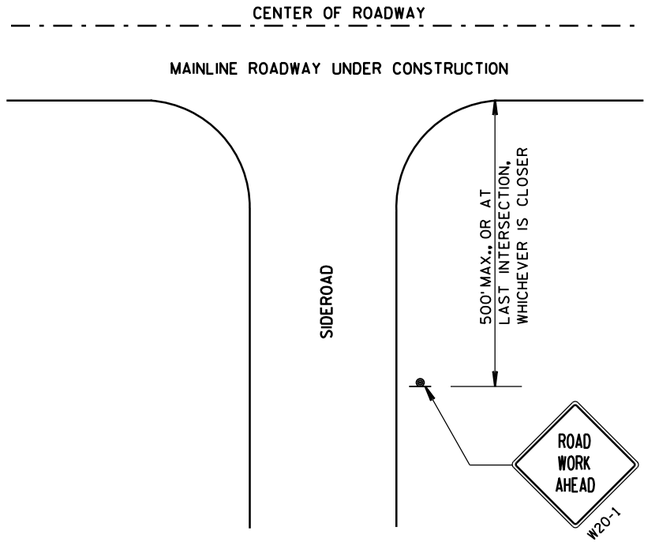
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

SIGN

FHWA

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S.D.D. 15 C 4-2

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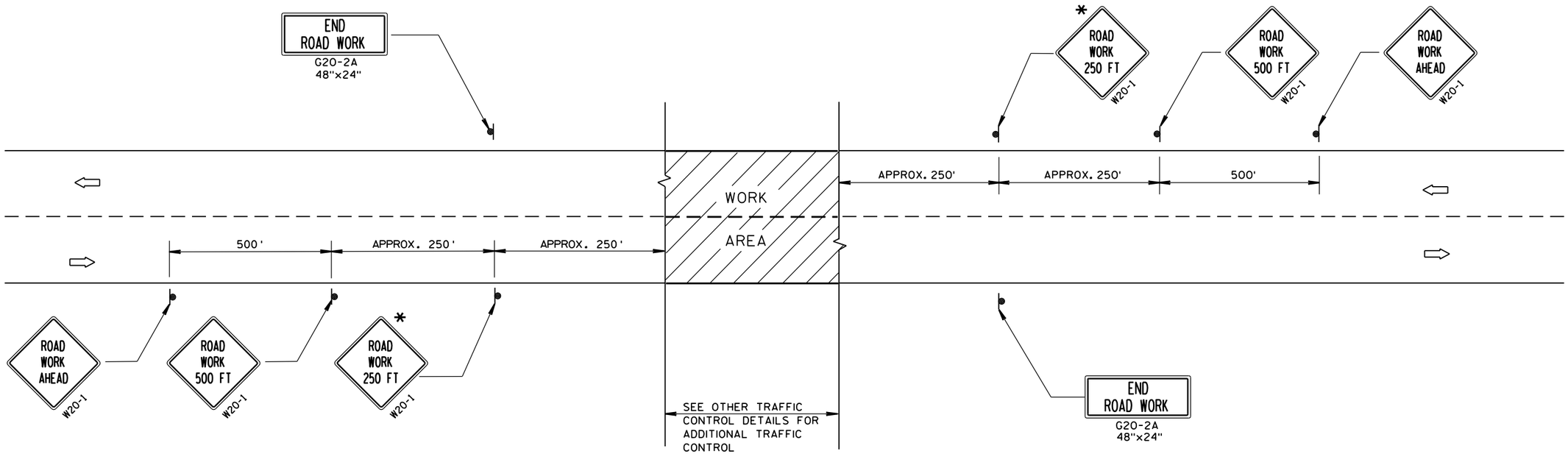
S.D.D. 15 C 4-2

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

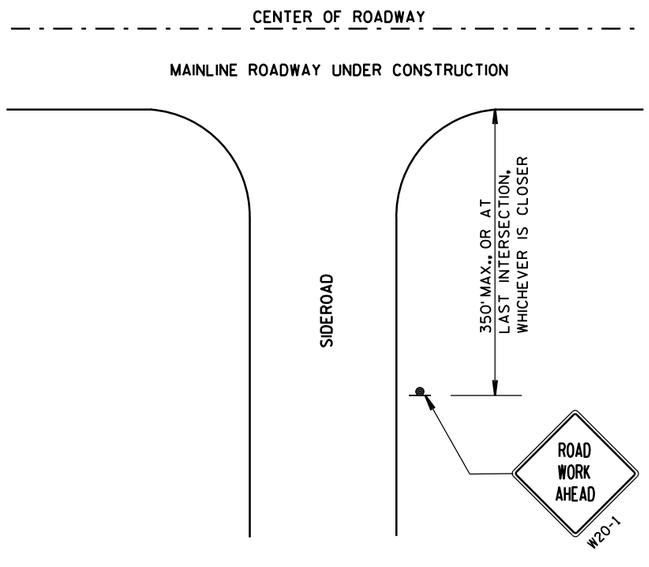
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

SIGN

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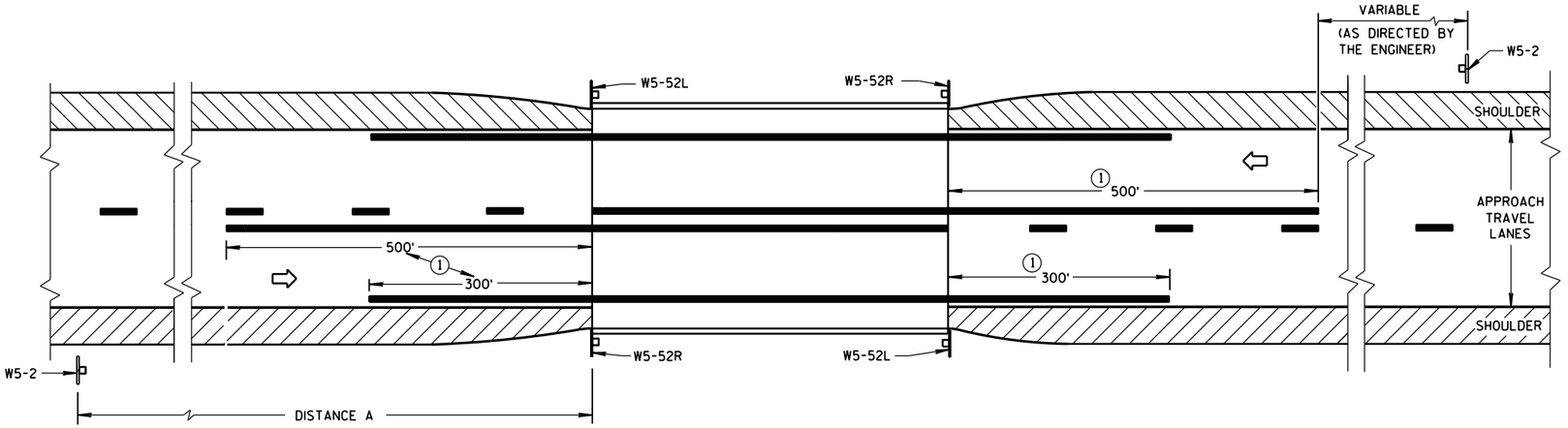
S.D.D. 15 C 5-2



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.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

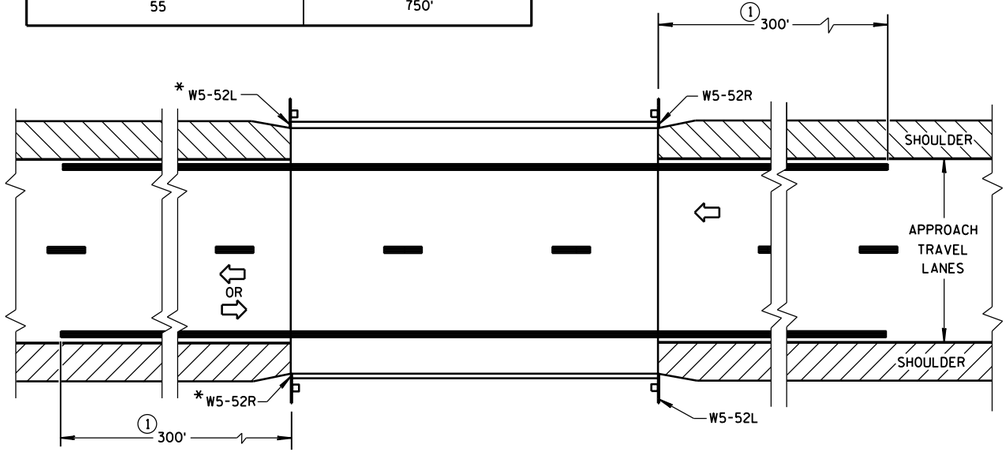
DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

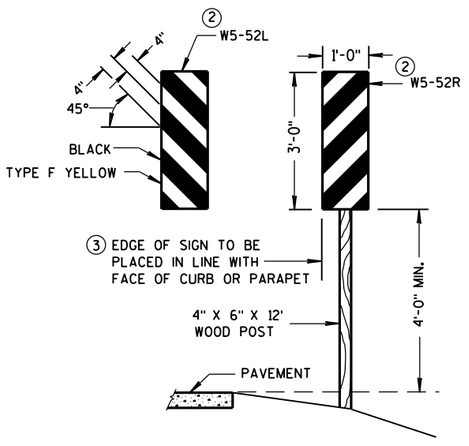


*OMIT ON ONE-WAY TRAVELLED WAYS

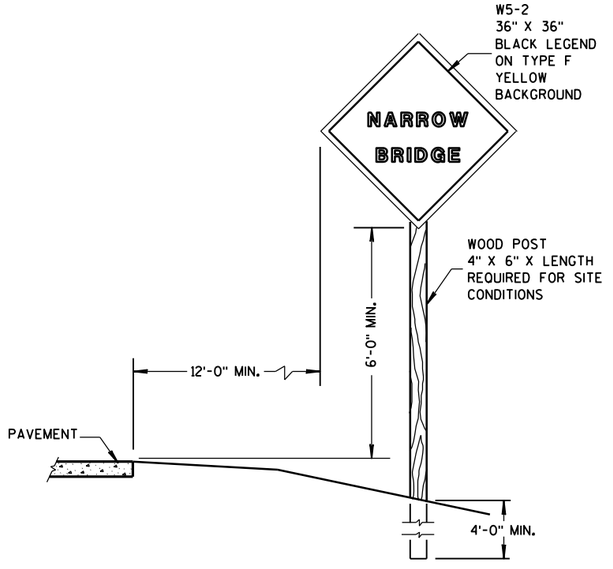
SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

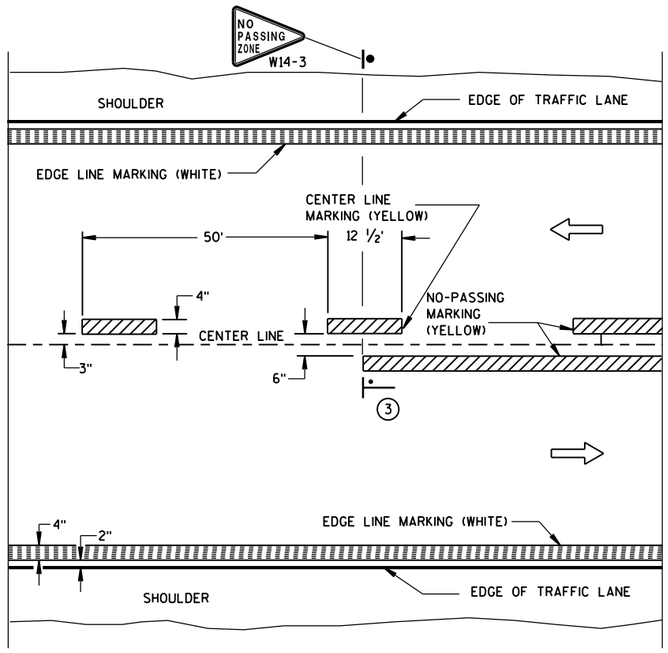
3-2014 DATE

/S/ Travis Feltes STATE TRAFFIC ENGINEER

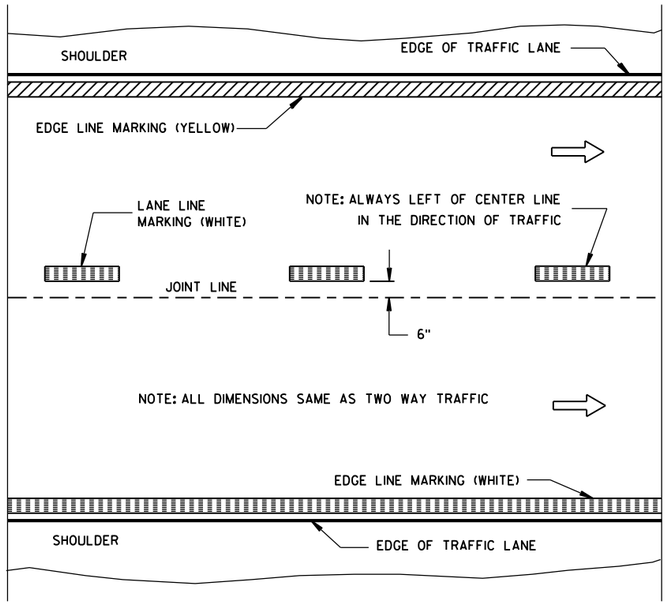
FHWA

6

S.D.D. 15 C 6-7

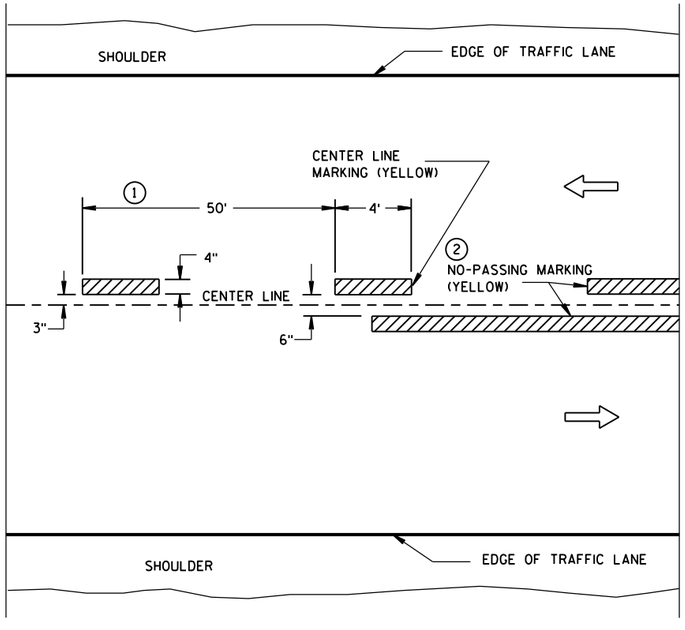


TWO WAY TRAFFIC

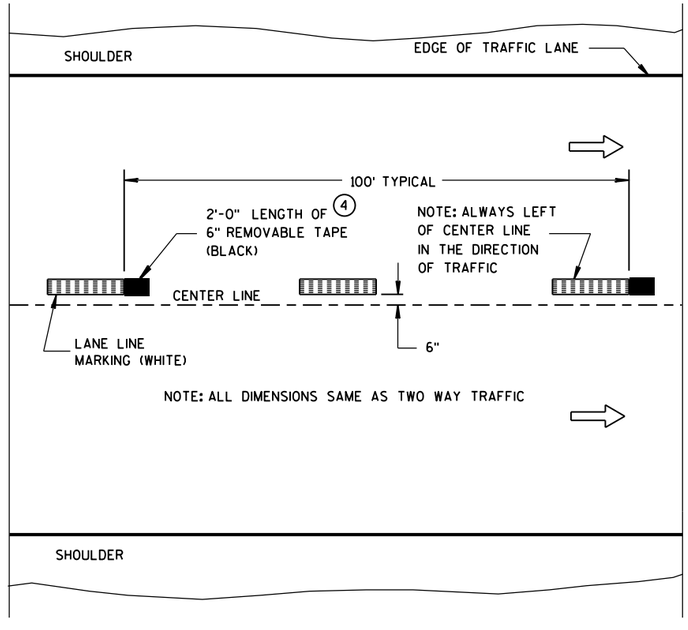


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

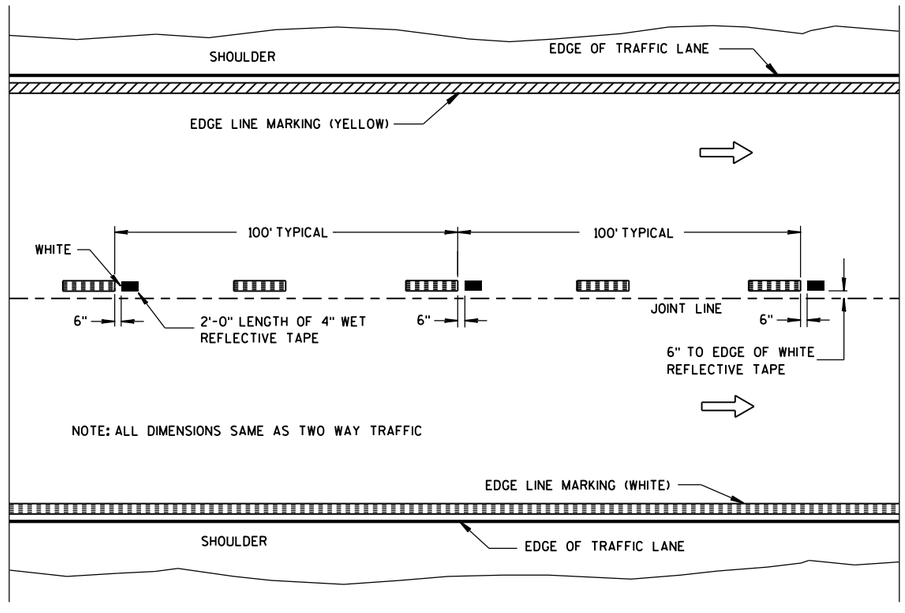
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

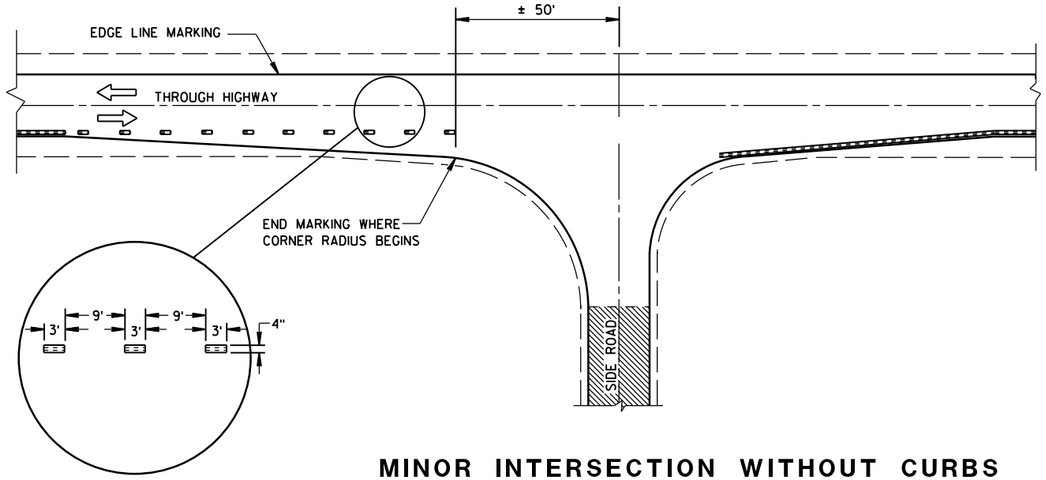
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

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.

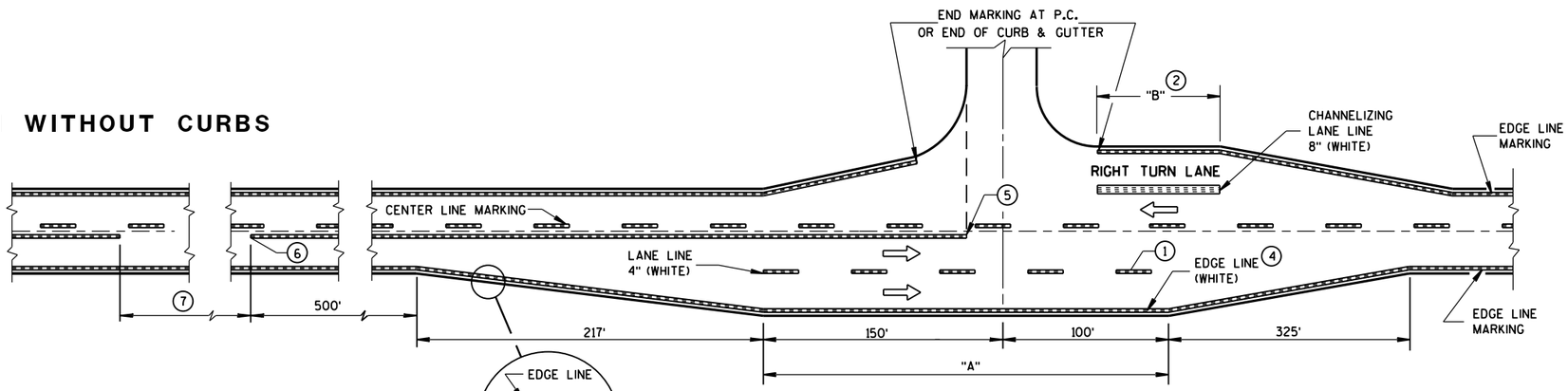
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

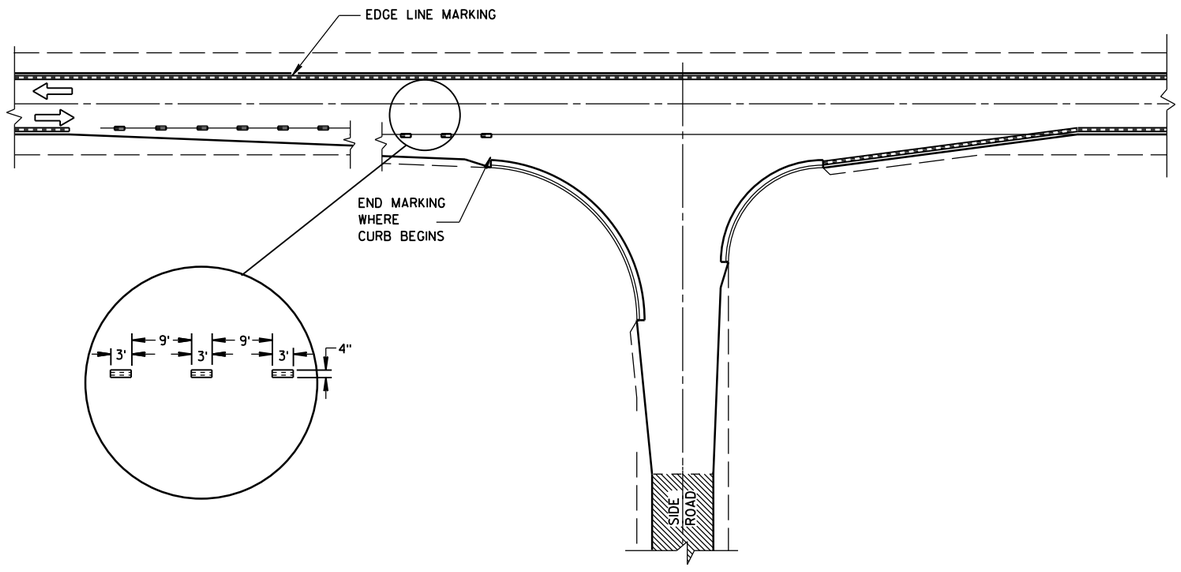
(7)

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



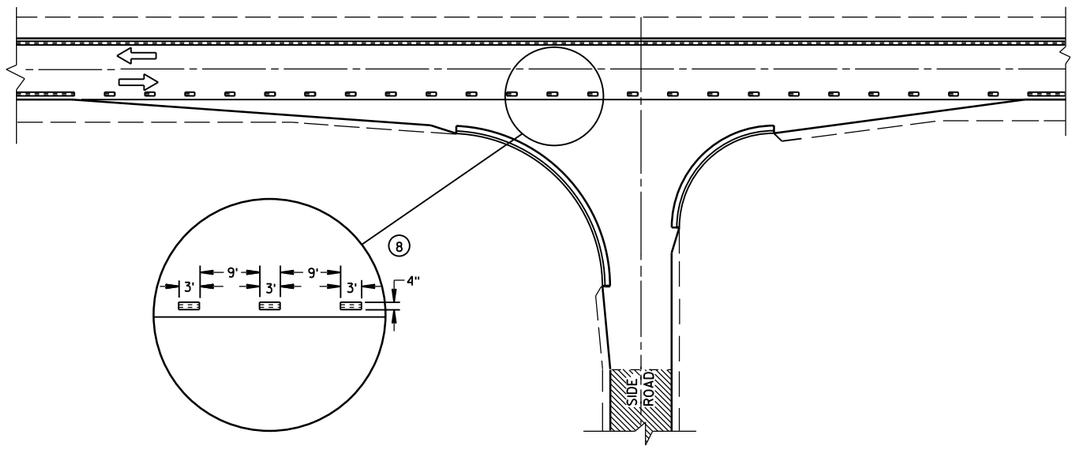
MAJOR INTERSECTIONS

(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)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

S.D.D. 15 C 8-16b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

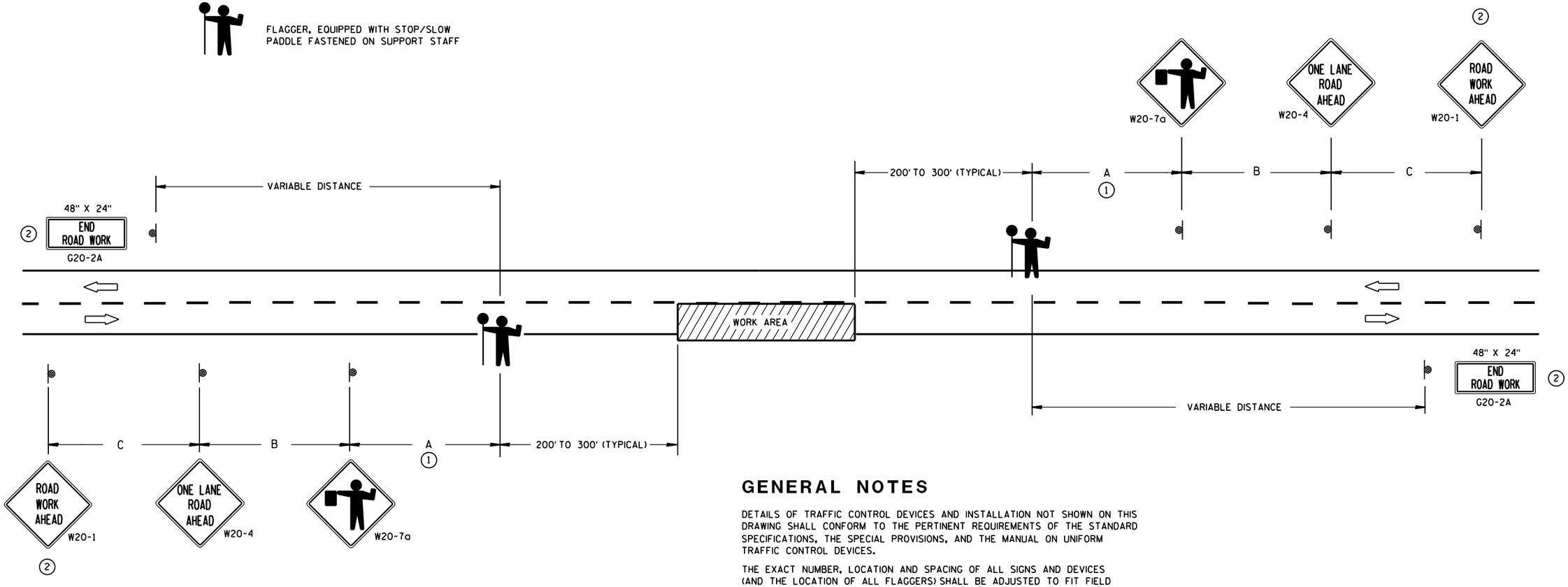
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

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.



(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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

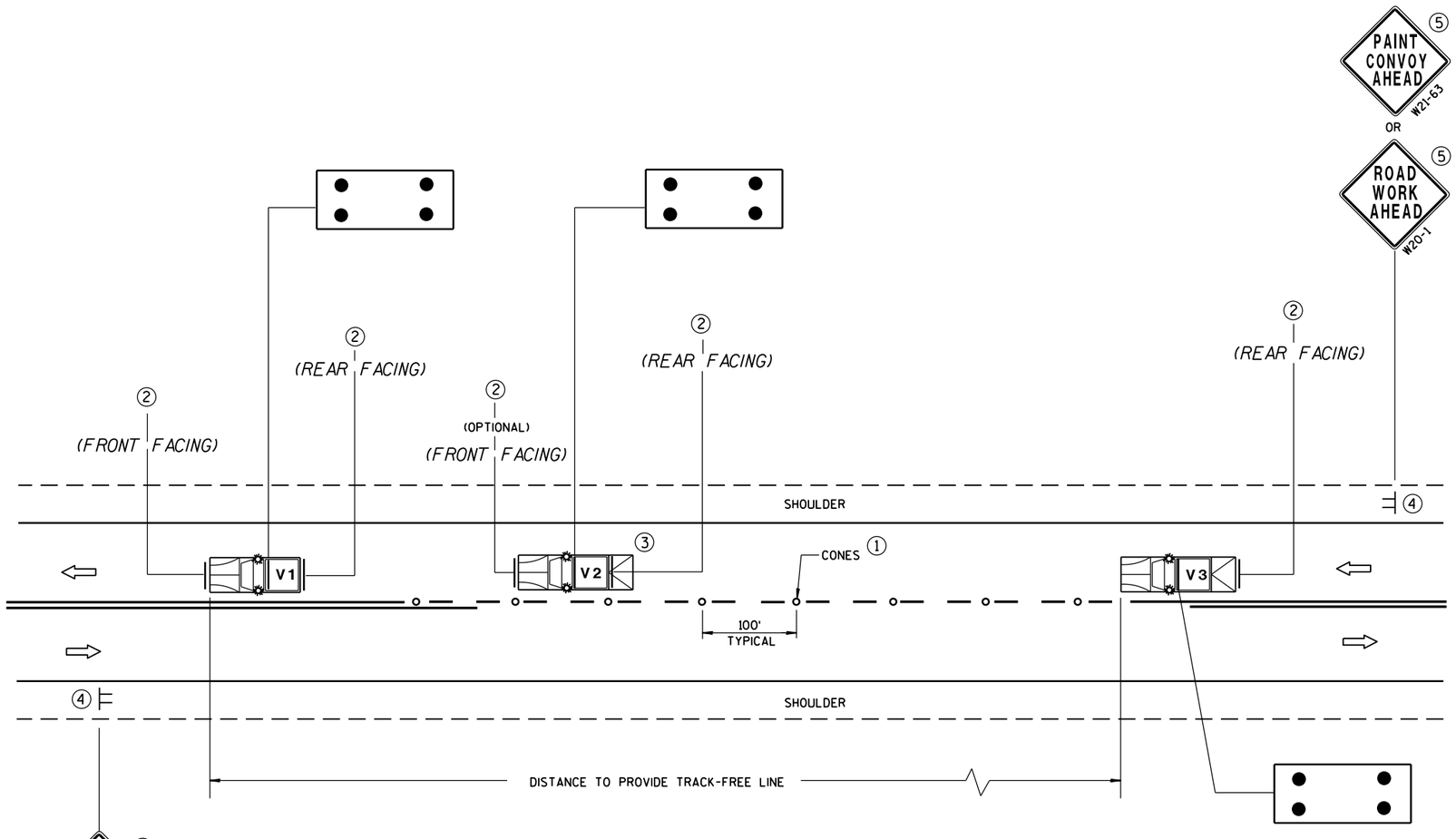
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4



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.

WET PAINT W21-64 OR WET PAINT W21-64

(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
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (CAUTION)

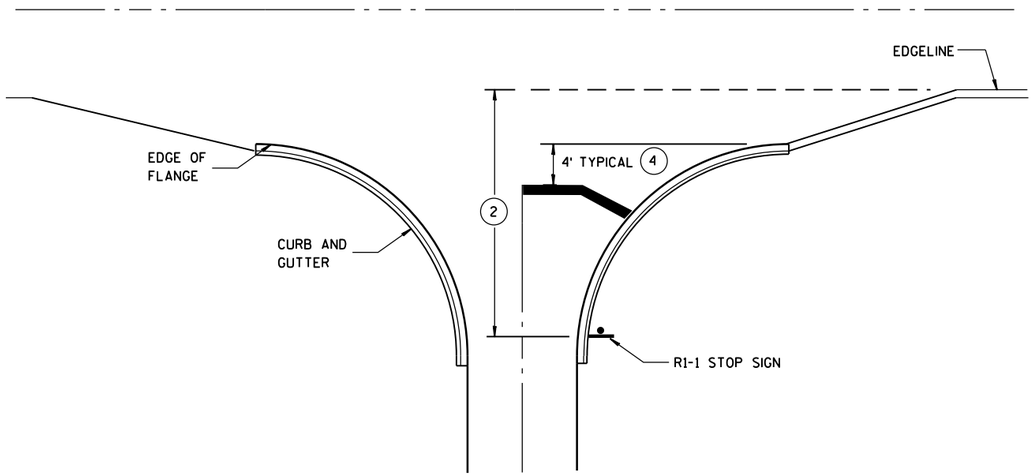
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
5/3/2013 DATE	/S/ Travis Feltes STATE TRAFFIC E
FHWA	

6

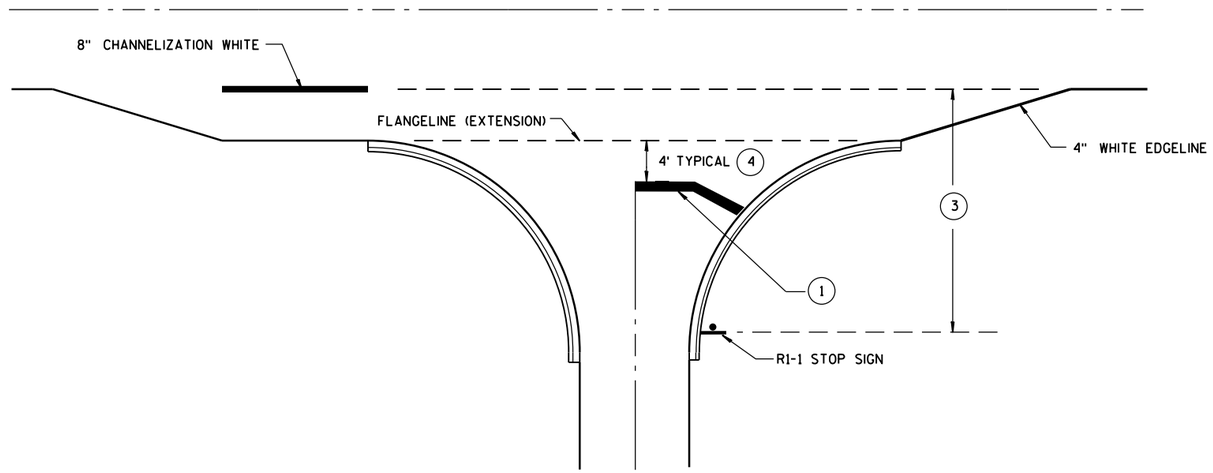
S.D.D. 15 C 19-2a

6

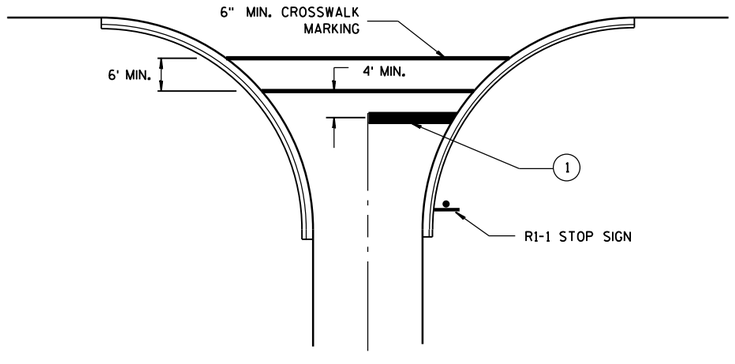
S.D.D. 15 C 19-2a



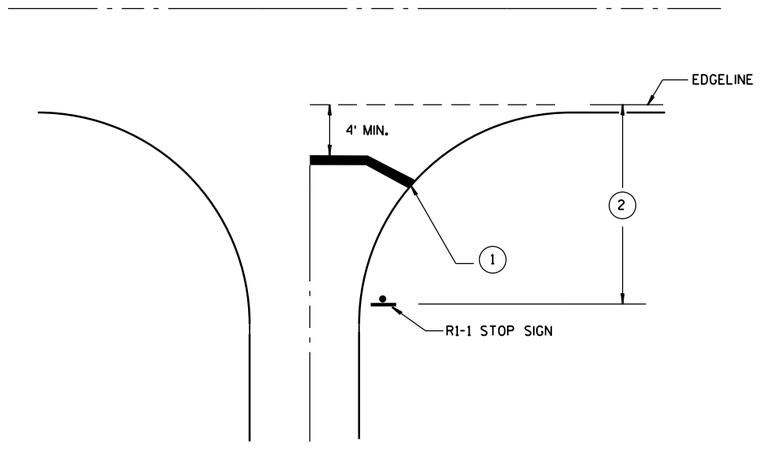
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1
S.D.D. 15 C 33-1

GENERAL NOTES

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

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

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

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

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

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

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

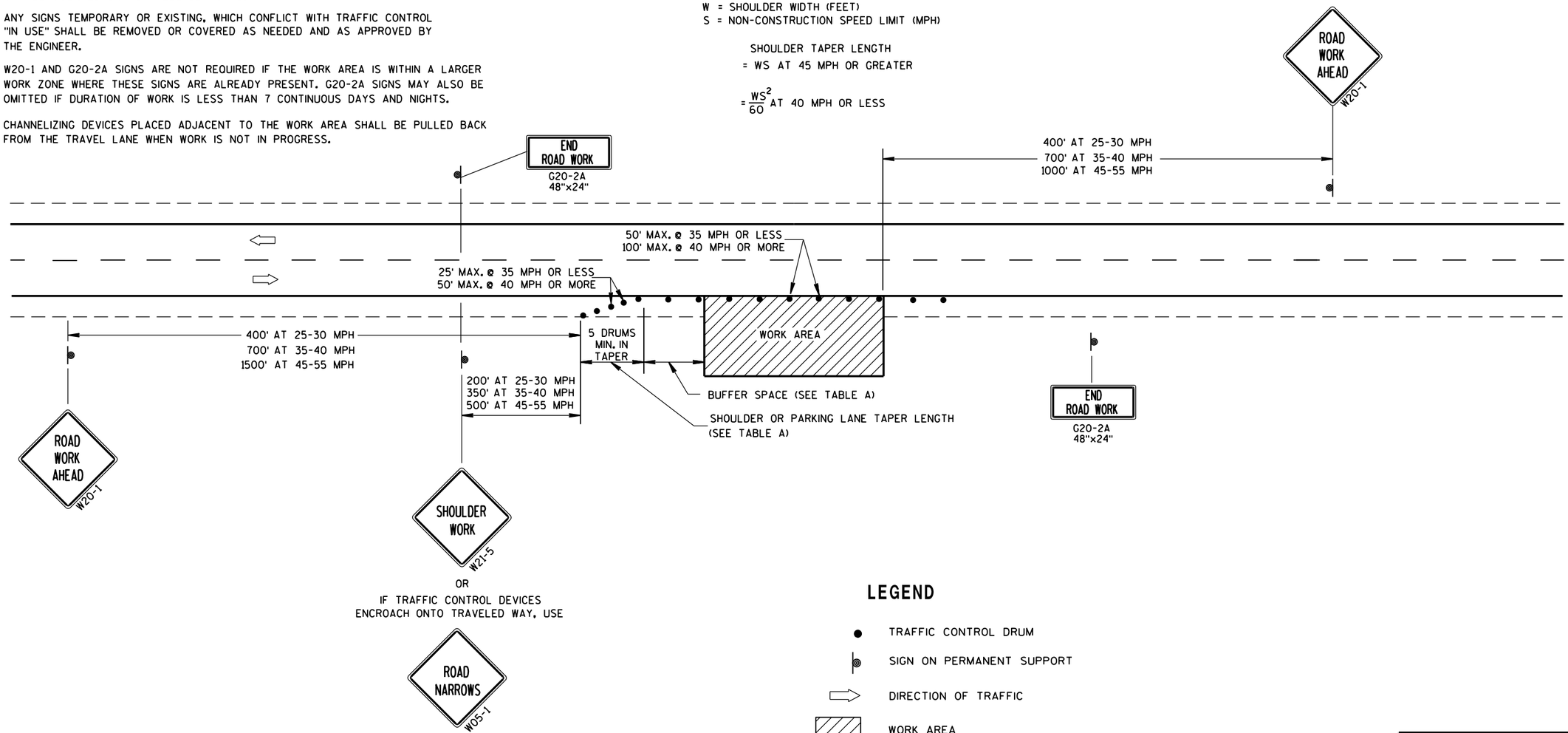
TABLE A

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

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

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

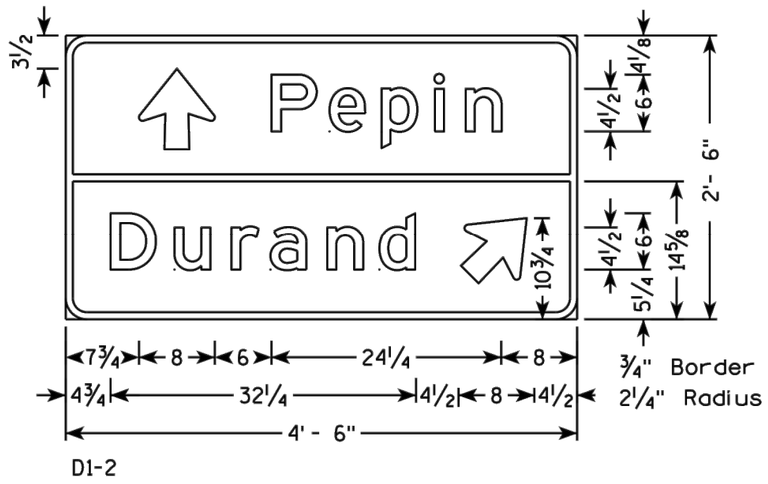
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

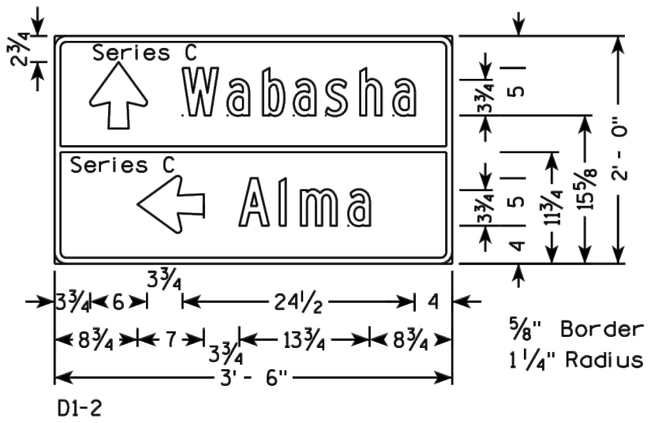
S.D.D. 15 D 28-2



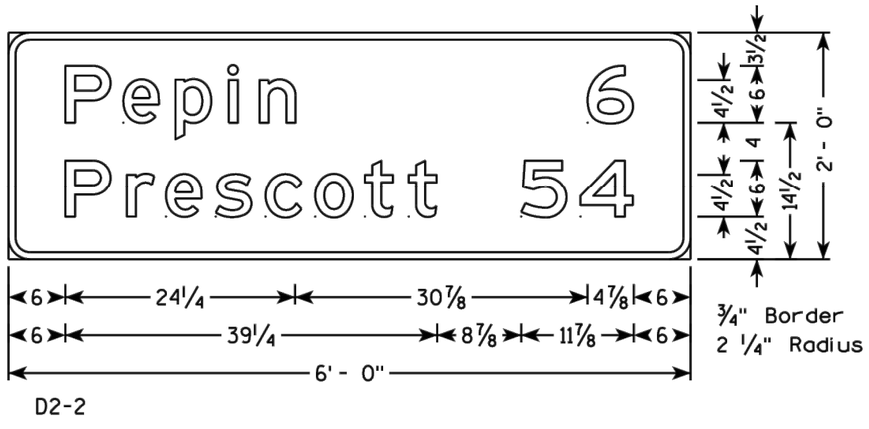
D1-2

NOTES

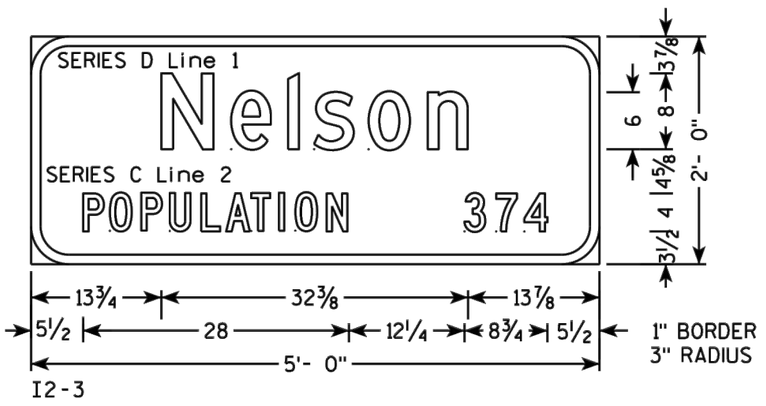
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D1-2



D2-2



I2-3

7

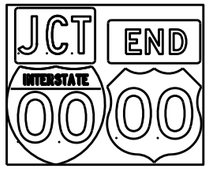
7

PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: BUFFALO	PERMANENT SIGNING	SHEET NO:	E

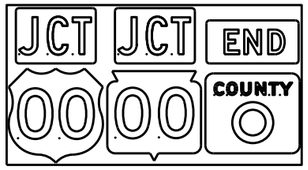
FILE NAME : C:\CAEfiles\Projects\tr_d5\5061A514.DGN PLOT DATE : 01-APR-2015 17:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 15.566735:1.000000
WISDOT/CADDS SHEET 42

TYPICAL ASSEMBLIES

J1-1

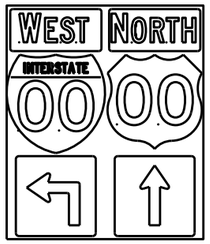


J1-2

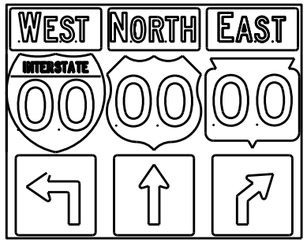


J1-3

J2-1



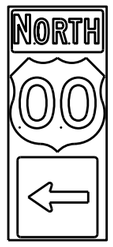
J2-2



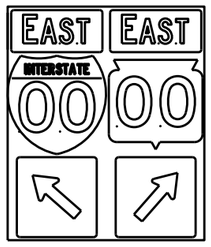
J2-3

JV

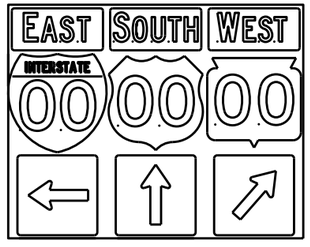
(Typical Vertical J-Assembly
See Note 10 and 11)



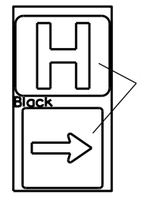
J3-1



J3-2

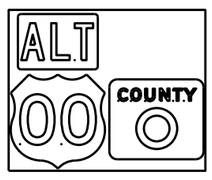


J3-3

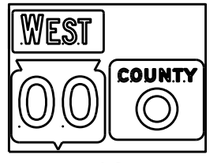


JH-1

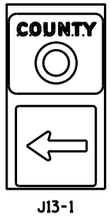
J4-1



J4-2



J4-2



J13-1

J12-1

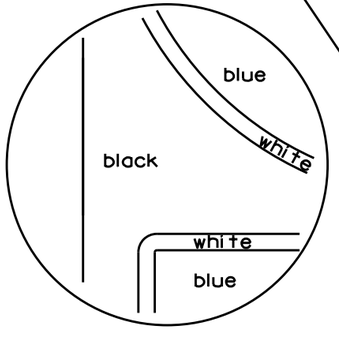
J32-1

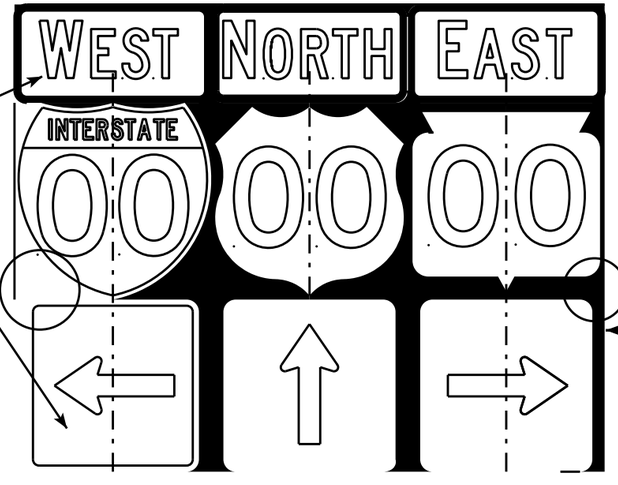
J33-1

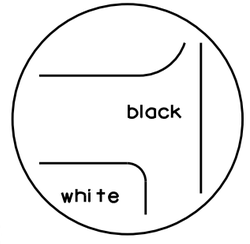
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

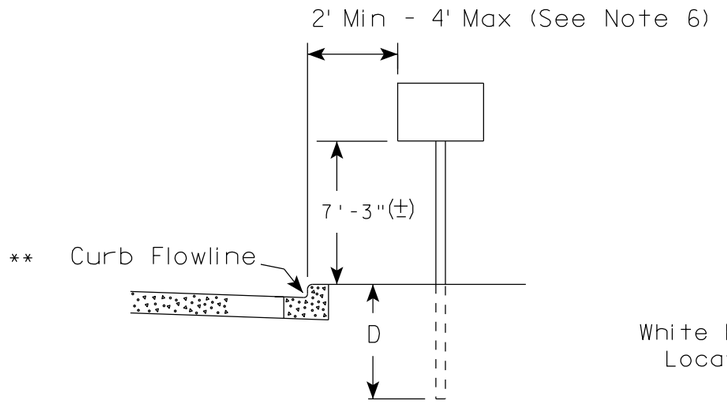
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

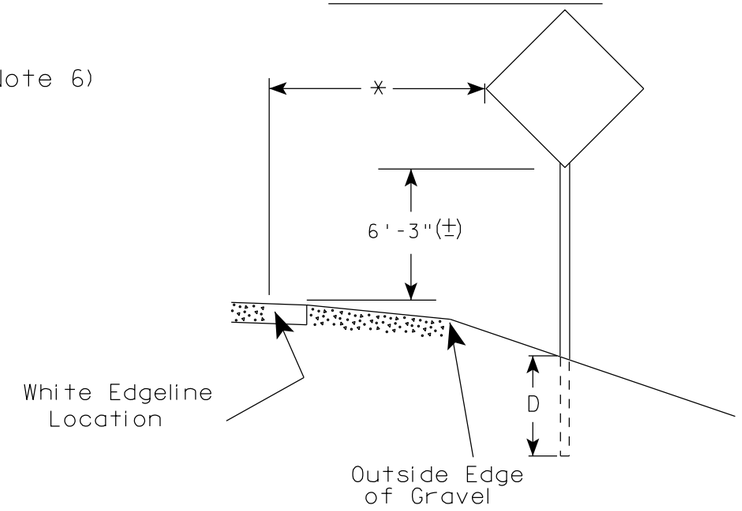
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

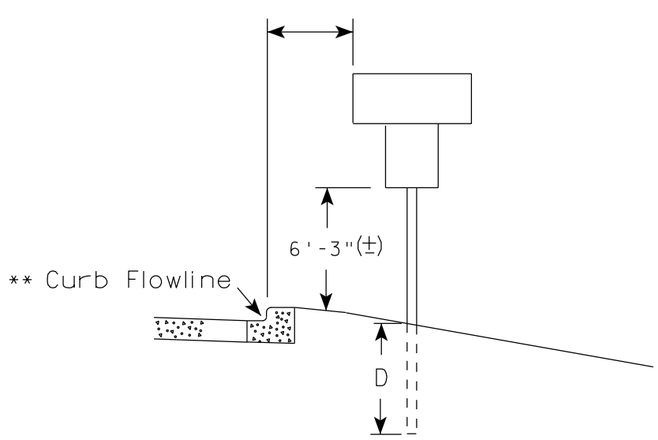
WISDOT/CADDS SHEET 42

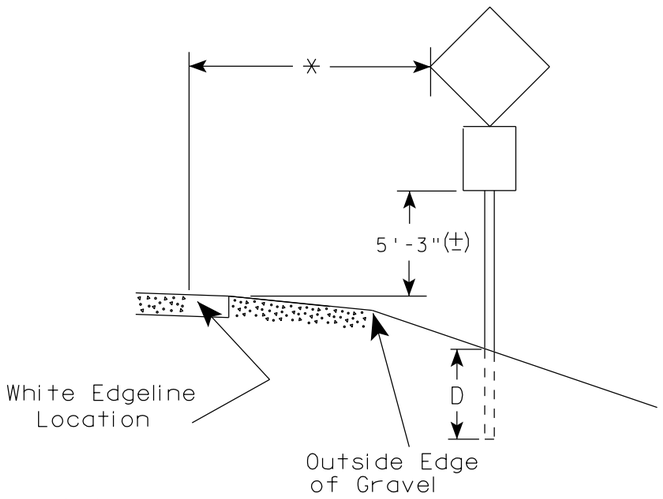
URBAN AREA



RURAL AREA (See Note 2)







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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

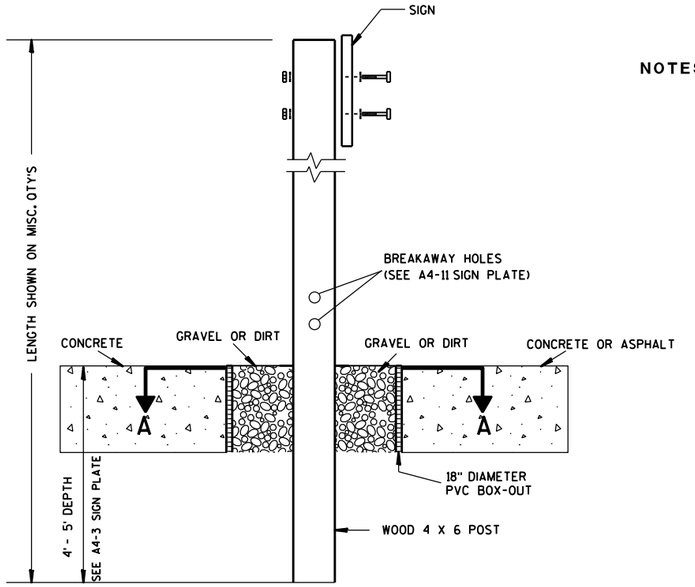
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

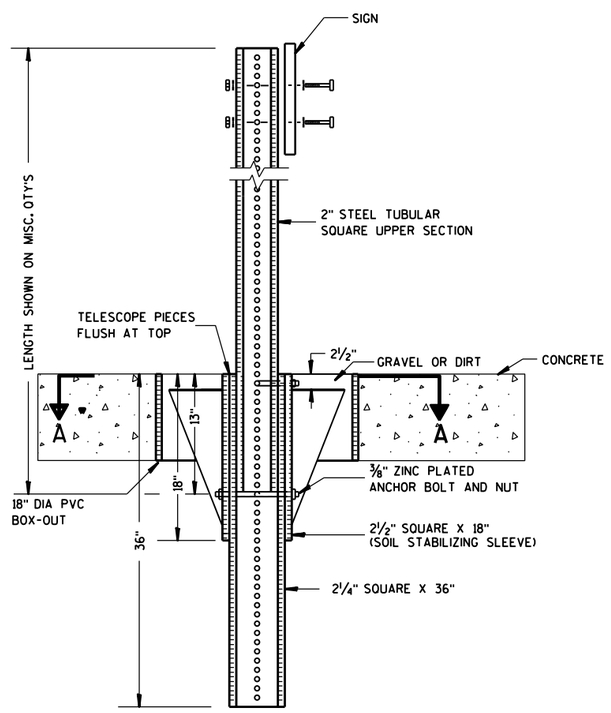
7



ELEVATION VIEW

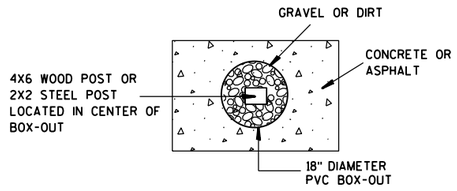
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

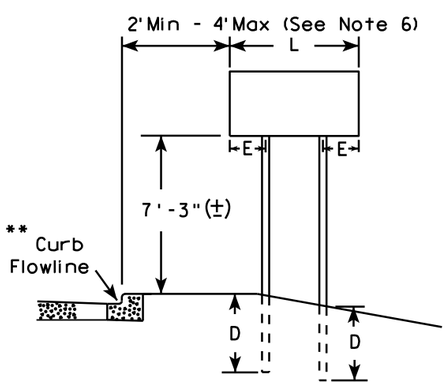
APPROVED Matthew R Rauch
for State Traffic Engineer

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

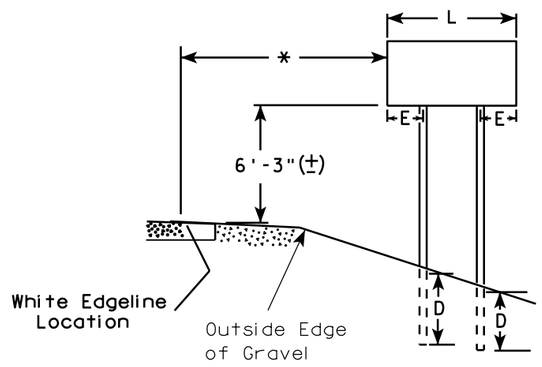
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

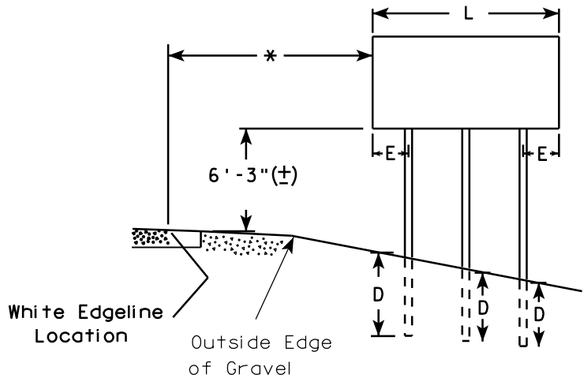
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

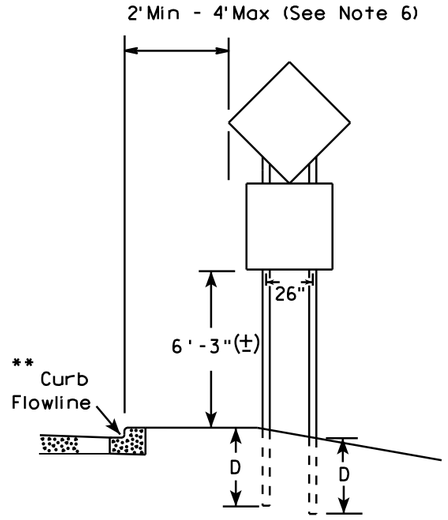
URBAN AREA



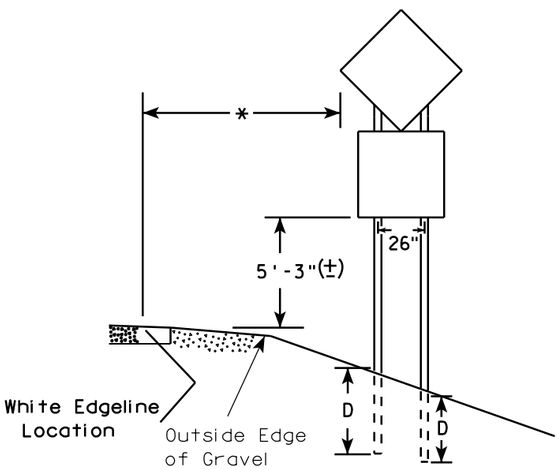
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

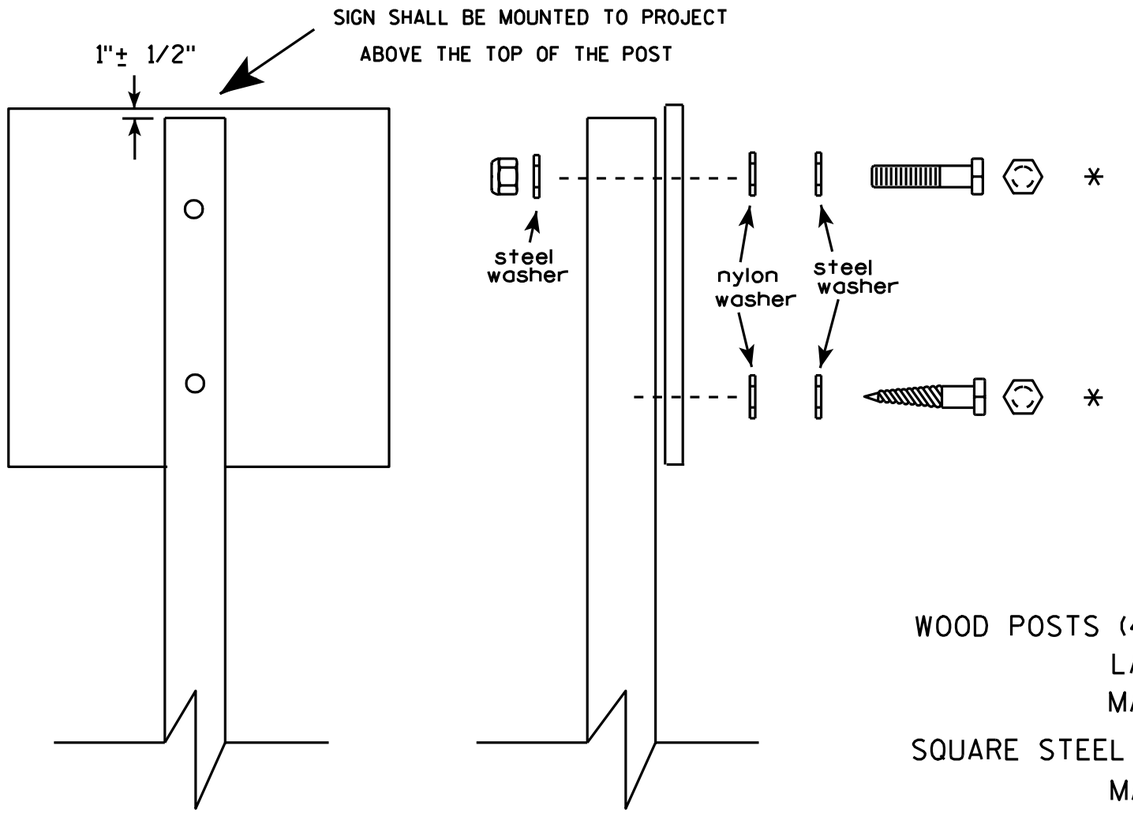
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 82 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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

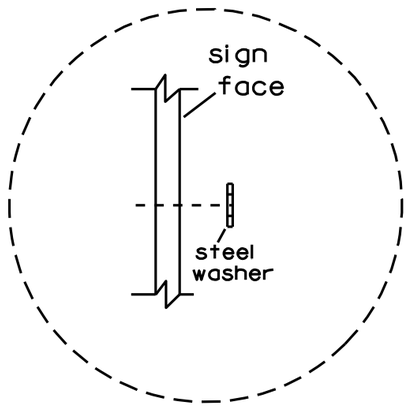
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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 Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

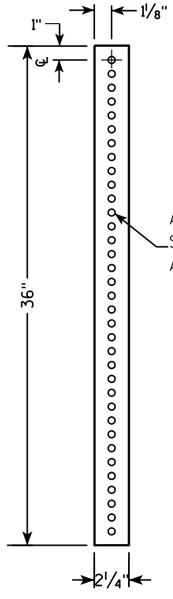
7

PROJECT NO:

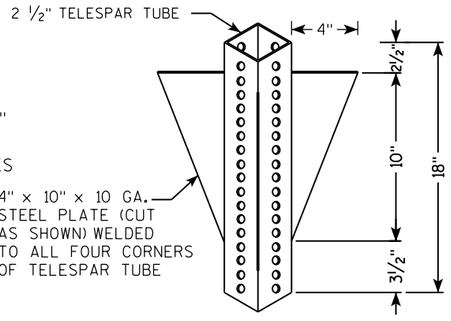
SHEET NO: 83 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

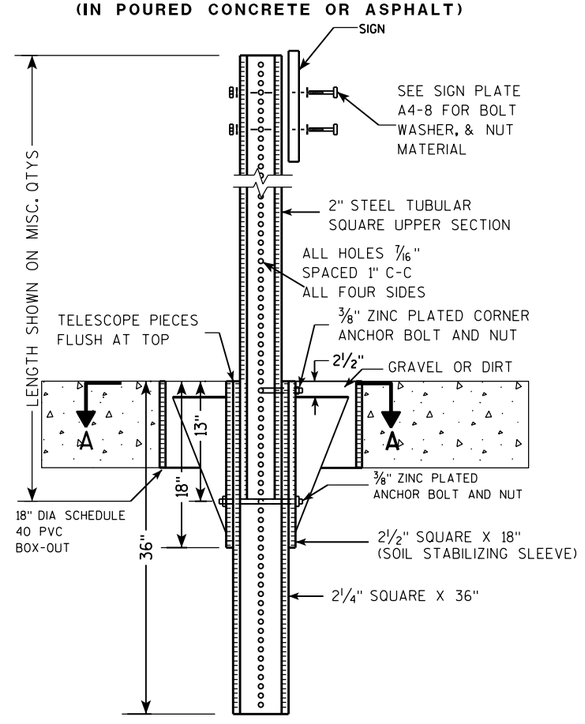
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



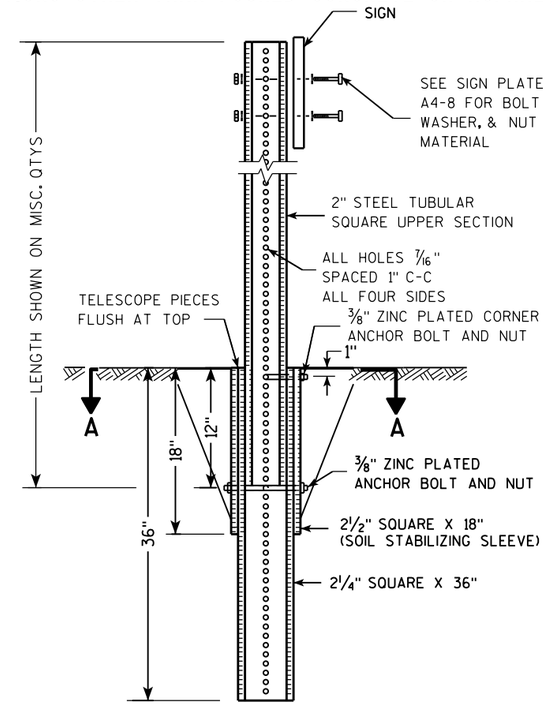
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

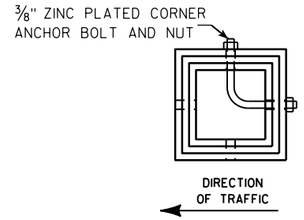


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

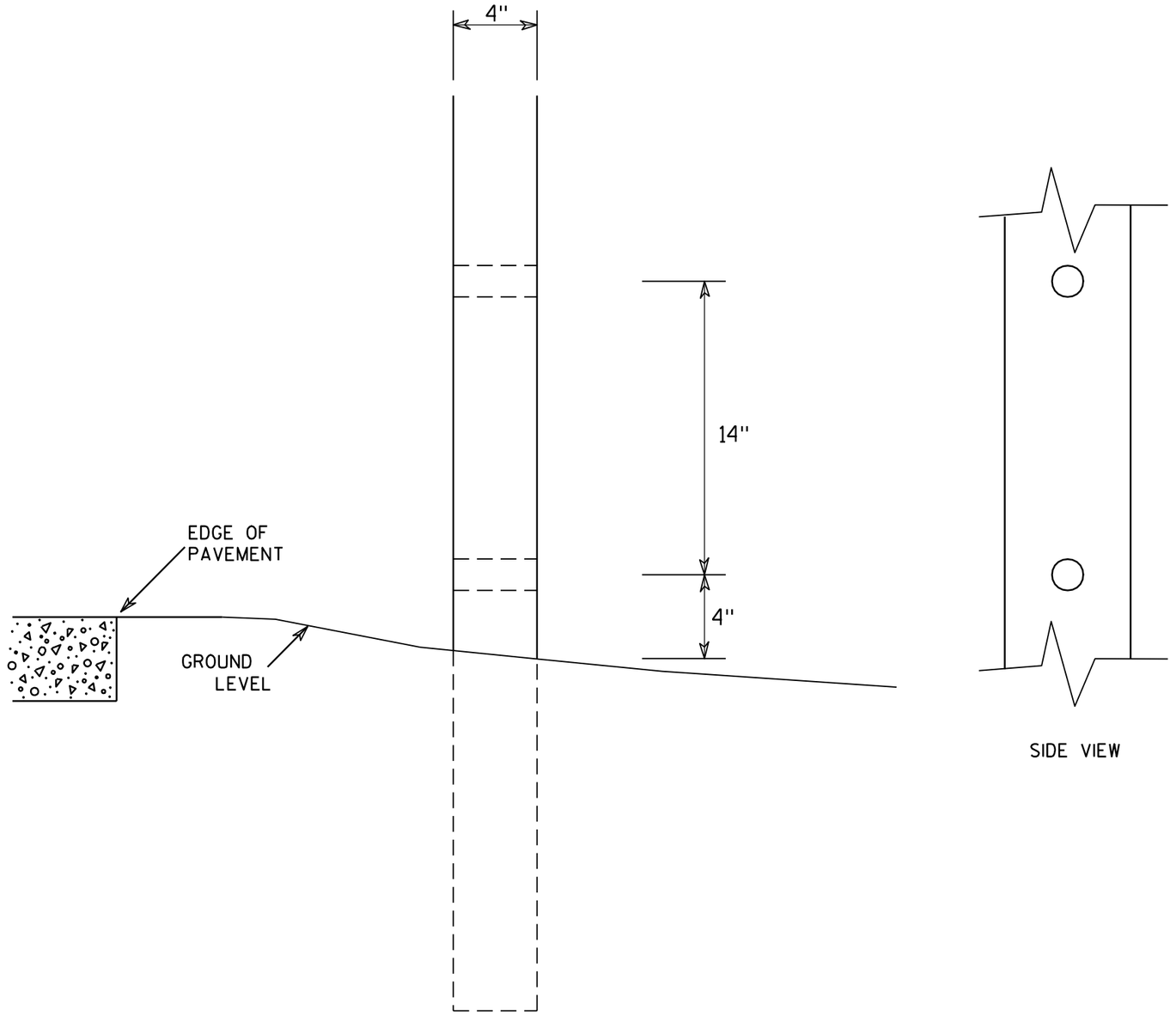
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 84 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

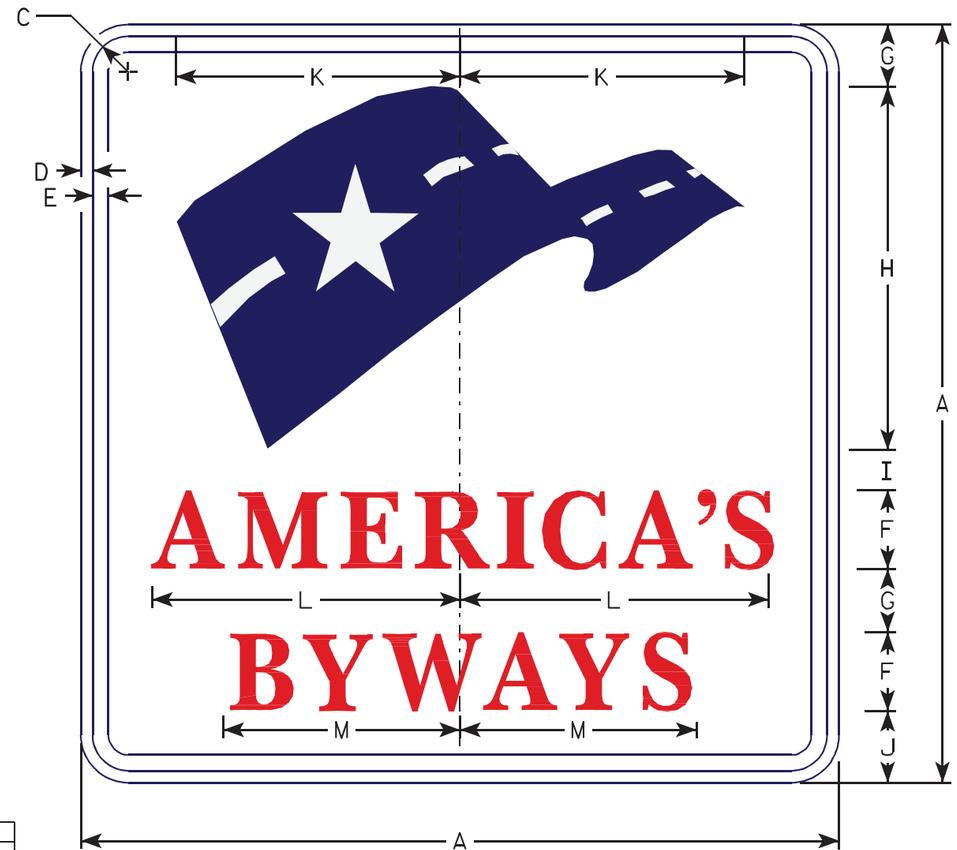
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 85	E



D6-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - RED Logo is Blue with White dashes and Star.
3. Message Series - SPECIAL FONT (See MUTCD Standard Highway Signs Manual)
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	900 mm X 900 mm
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
1																												
2	24		1 1/8	3/8	1/2	2 1/2	2	11 1/2	1 1/4	2 1/4	9	9 3/4	7 1/2														4.0	0.36
3																												
4	36		1 5/8	3/4	5/8	3 3/4	3	17 1/4	1 7/8	3 3/8	13 1/2	14 5/8	11 1/4														9.0	0.81
5																												

STANDARD SIGN
D6-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 4/30/10 PLATE NO. D6-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\D64.DGN PLOT DATE : 30-APR-2010 13:33 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 3.972696:1.000000

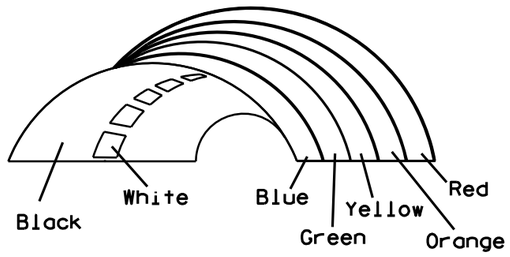
WISDOT/CADDS SHEET 42

* VARIES

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.

Background Colors of Symbol*



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

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																											

STANDARD SIGN
I55-56

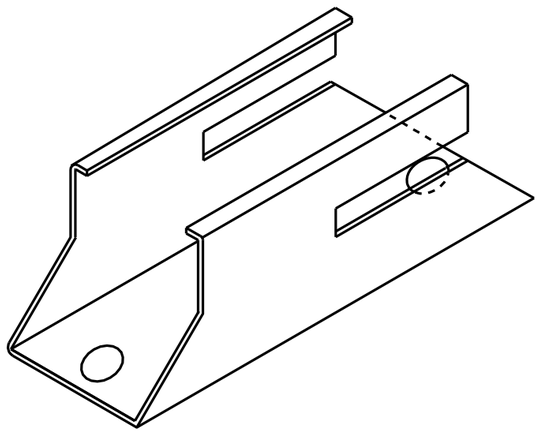
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

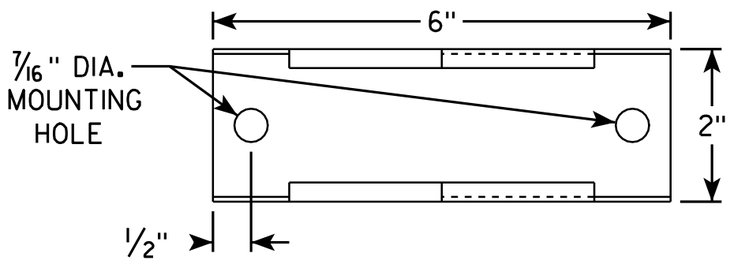
DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 87

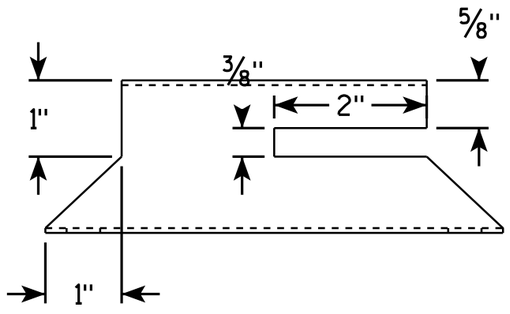
ISOMETRIC VIEW



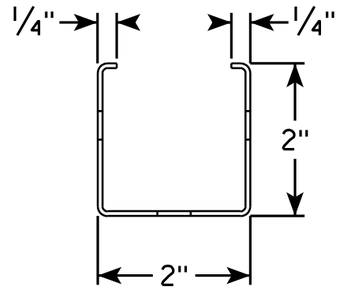
TOP VIEW



SIDE VIEW



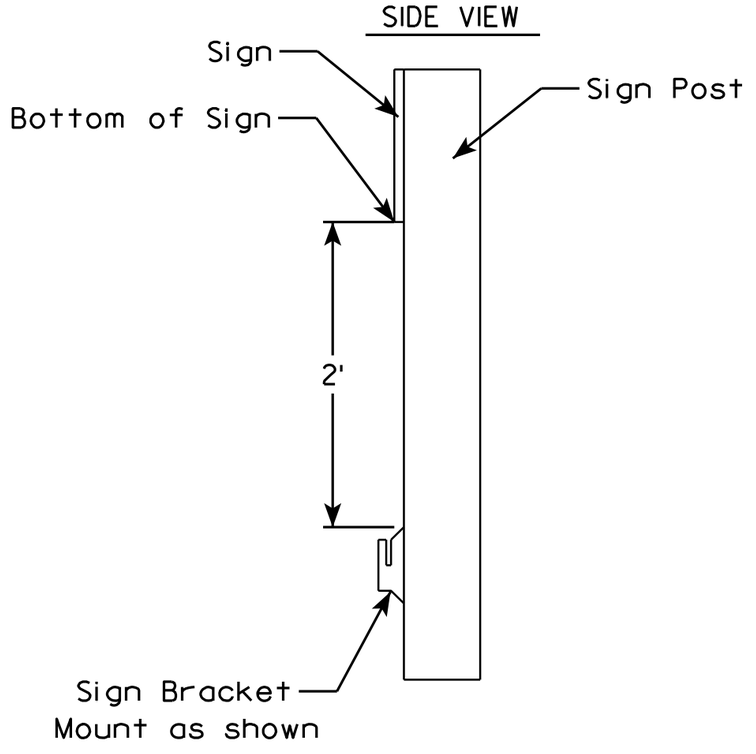
END VIEW



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



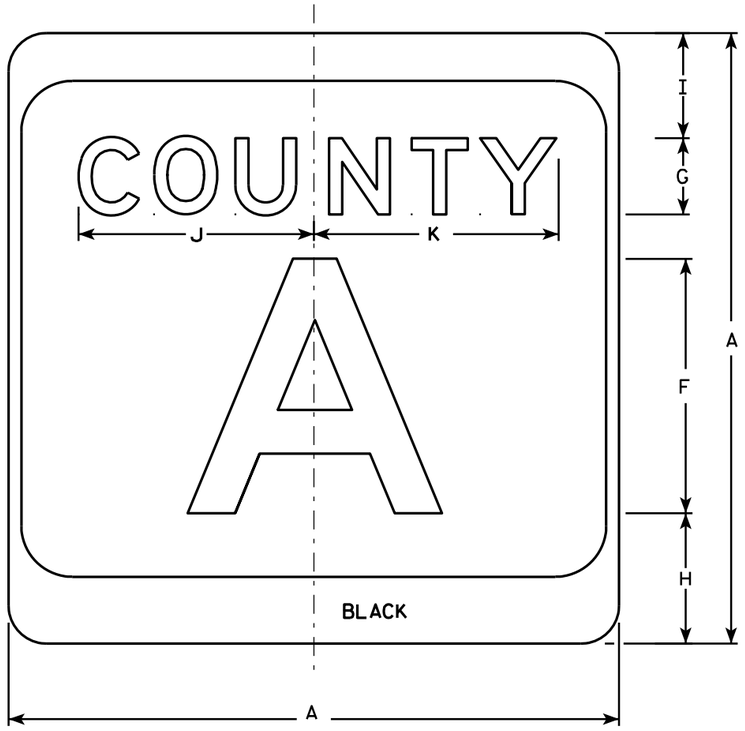
ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

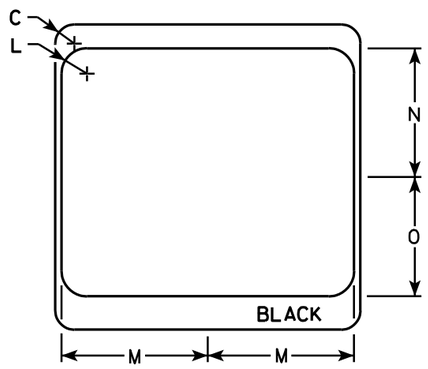
APPROVED Matthew R Rauch
for State Traffic Engineer

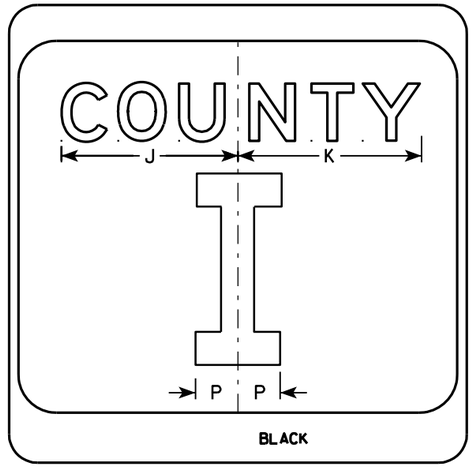
DATE 2/5/10 PLATE NO. I55-56B.1

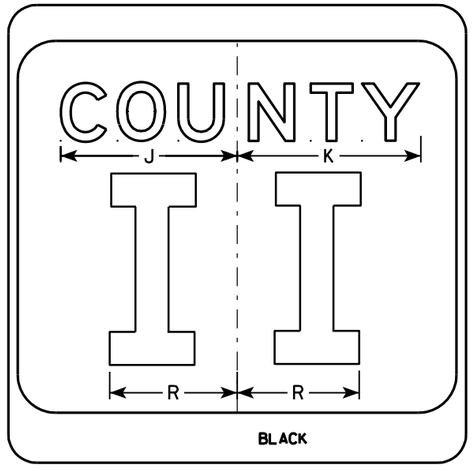
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 88	E



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

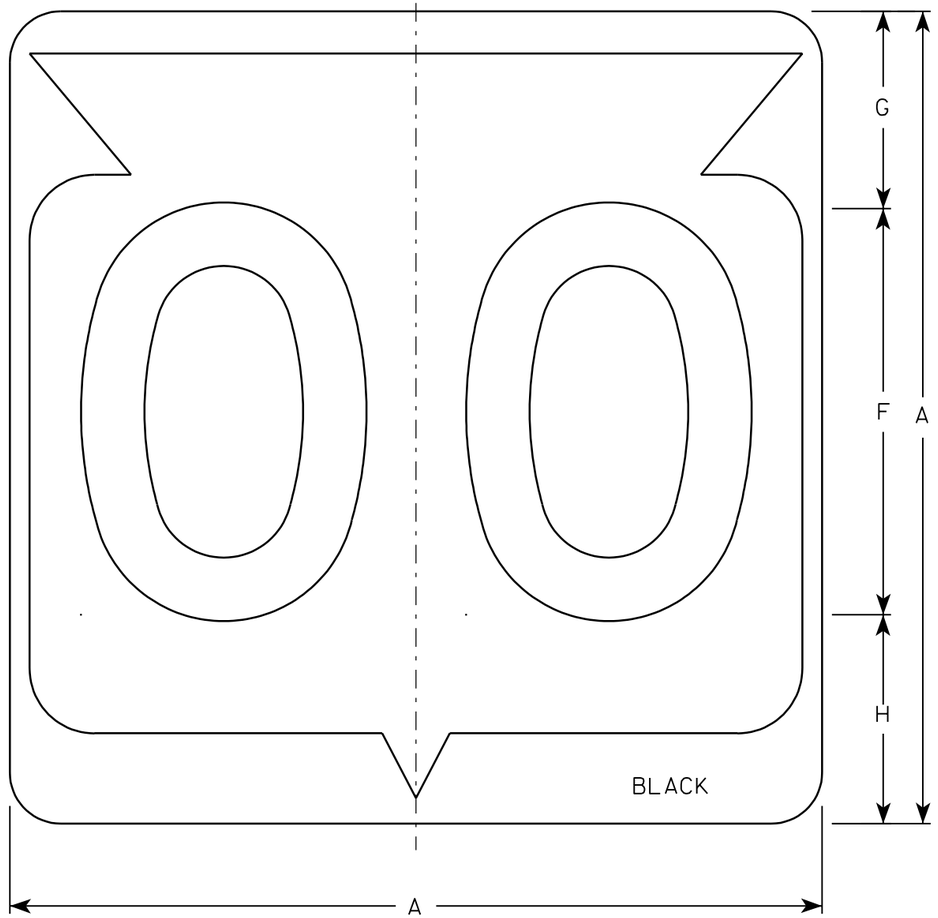
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

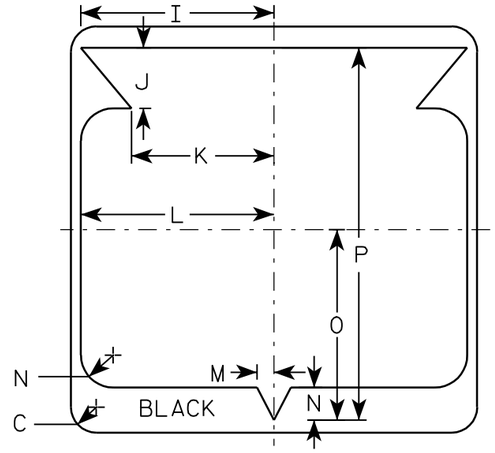
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 89 | E



M1-6

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



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 m2
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

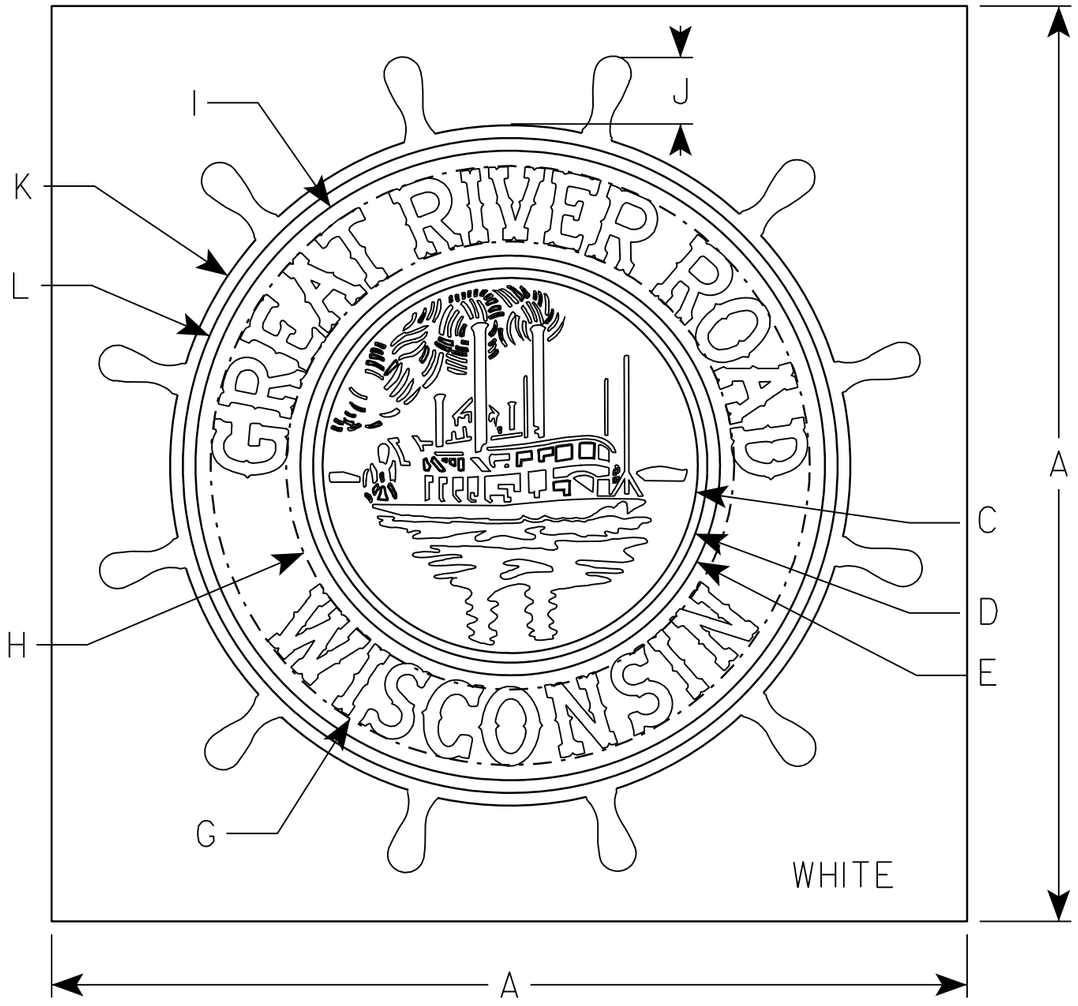
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

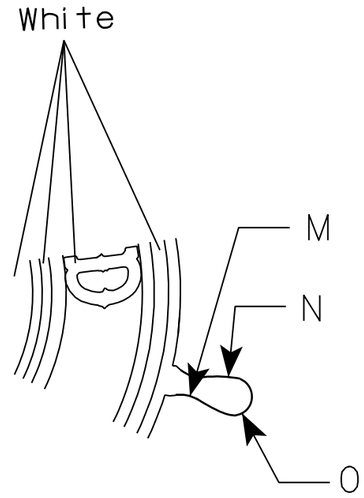
DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 90	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 - Words - White - Graphics - Green
3. Message Series - Special
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		R 5	R 5 1/4	R 5 1/2		R 7 7/8	R 5 7/8	R 8 1/2	1 3/4	R 4 1/2	R 8 1/2	R 7/8	R 3 1/2	R 1/2												4.0
3																											
4	36		R 7 3/8	R 7 3/4	R 8 1/4		R 11 3/4	R 8 3/4	R 12 3/8	2 5/8	R 13 3/8	R 12 7/8	R 1 3/8	R 5 1/4	R 3/4												9.0
5																											

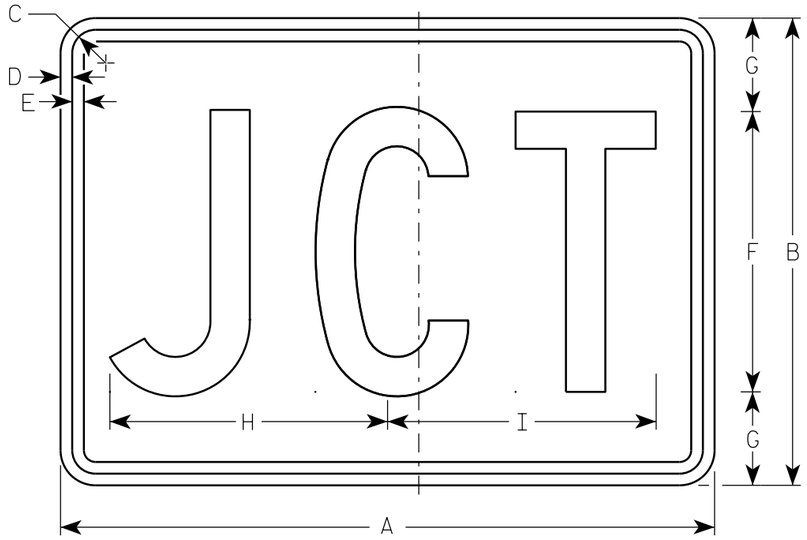
STANDARD SIGN
M1-96

WISCONSIN DEPT OF TRANSPORTATION

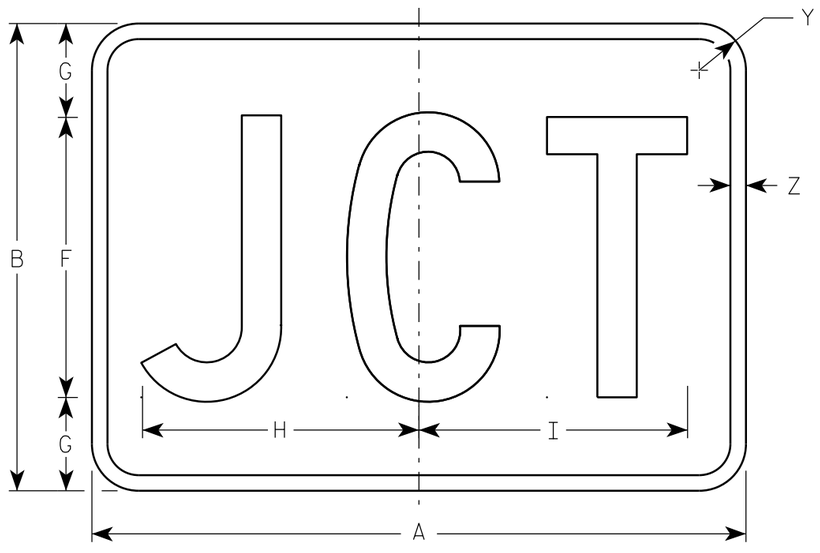
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/10 PLATE NO. M1-96.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 91	E



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

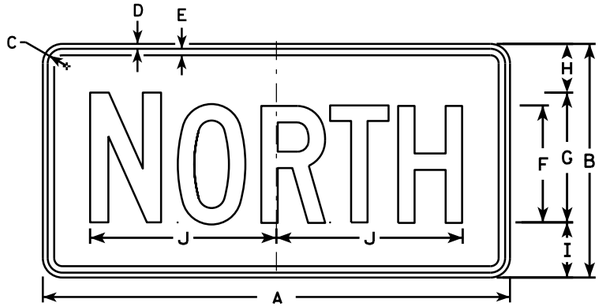
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

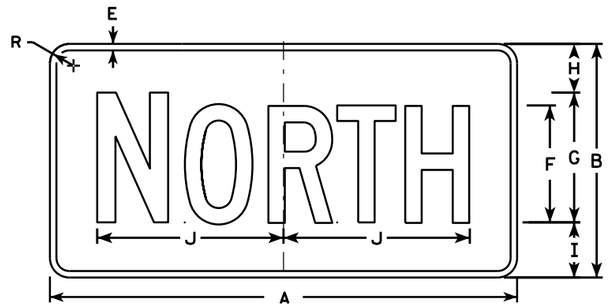
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 92 12-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

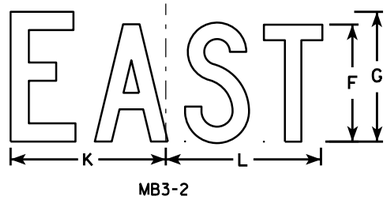


M3-1
MK3-1
MM3-1
MN3-1

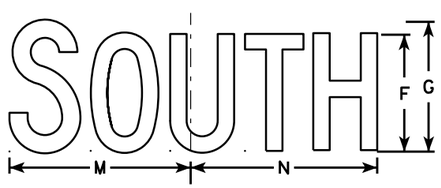


MB3-1

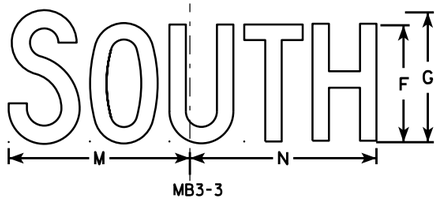
M3-2
MK3-2
MM3-2
MN3-2



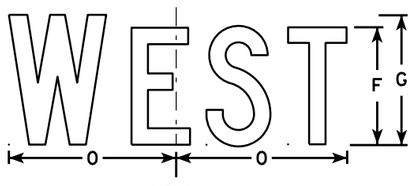
MB3-2



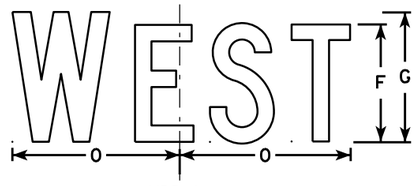
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

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

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

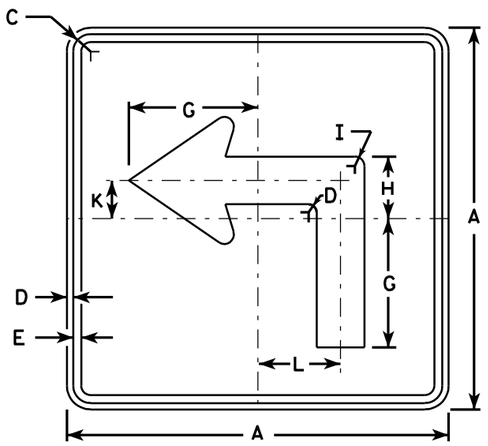
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

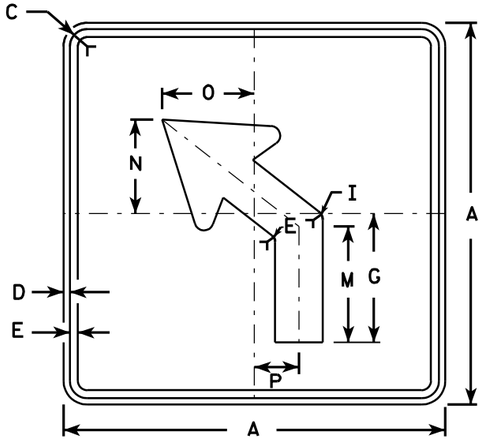
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

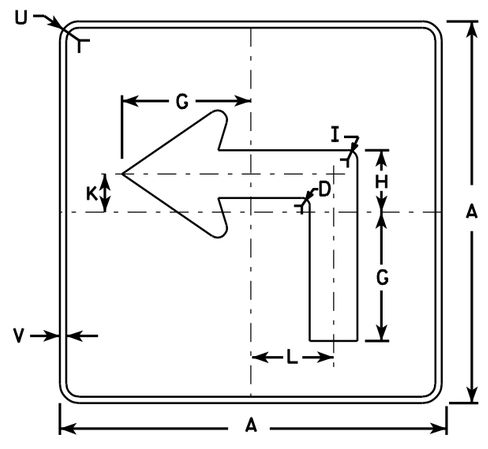
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



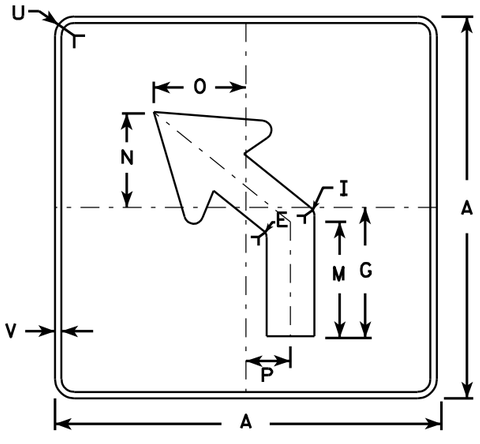
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



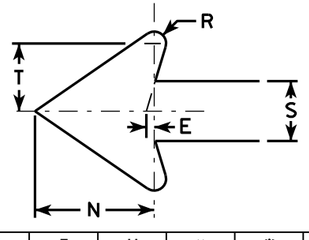
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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



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



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

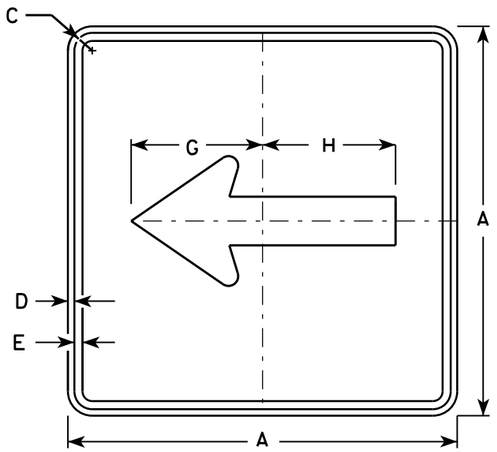
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

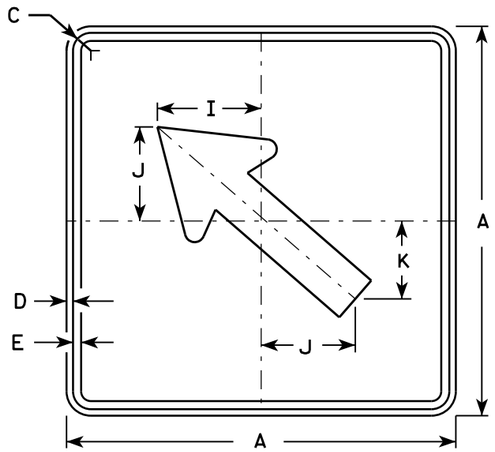
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 94 | E



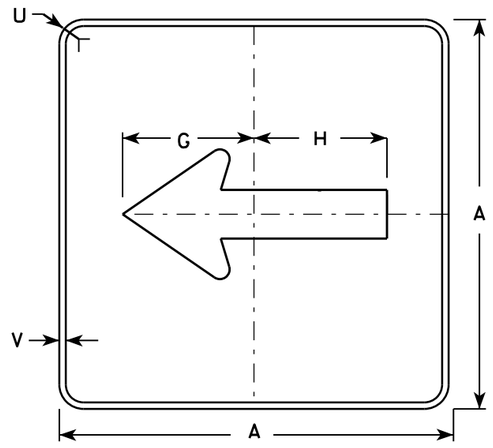
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



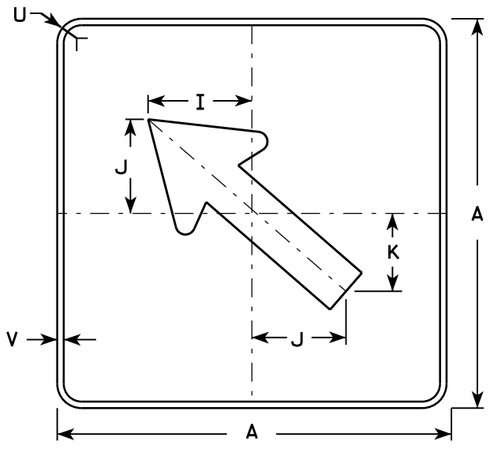
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

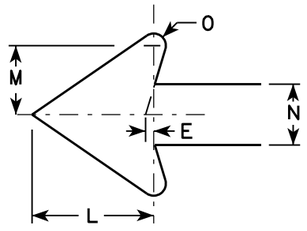
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

STANDARD SIGN M6-1 & M6-2 SERIES

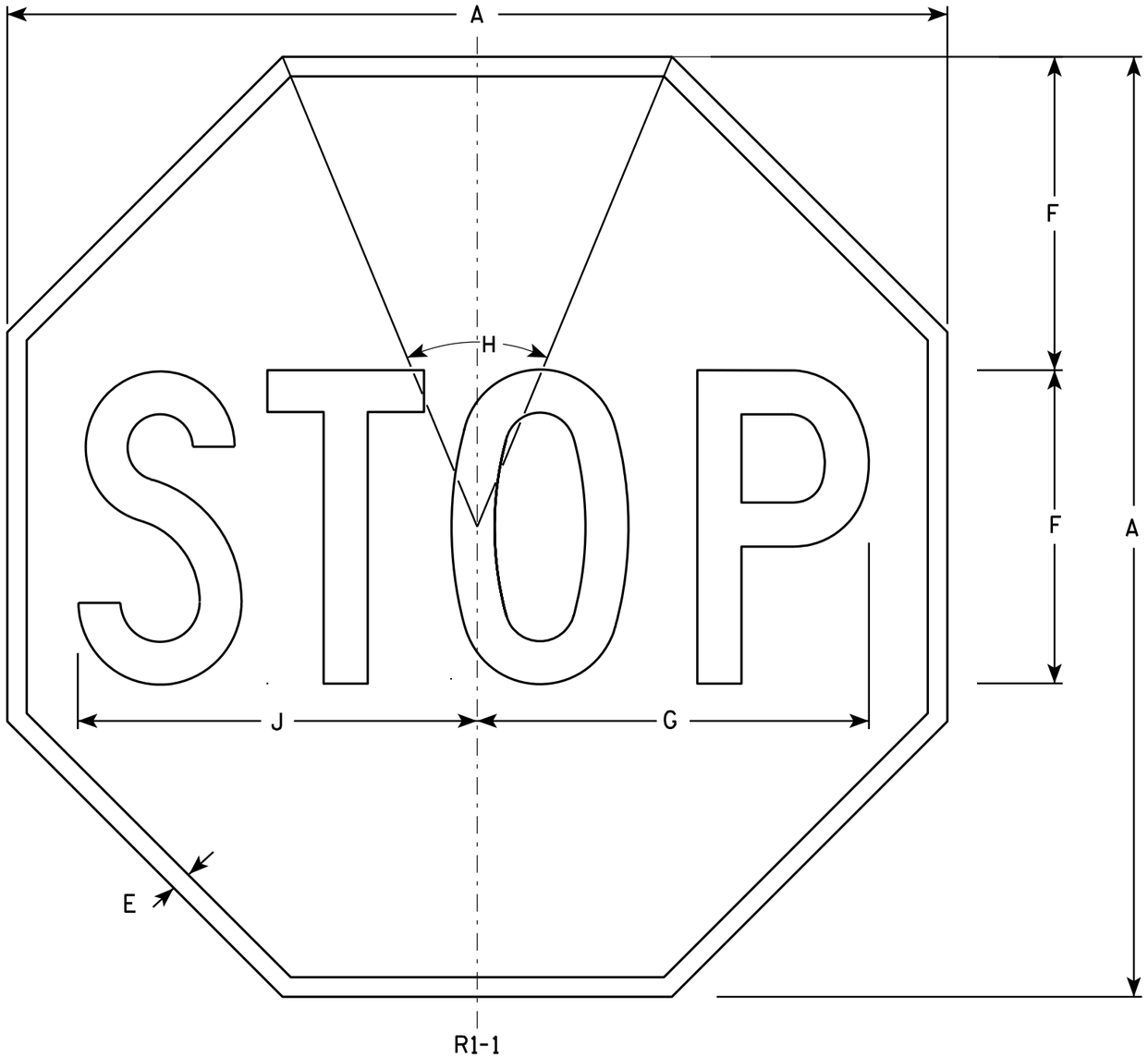
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 95 M6-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 03-JUL-2014 14:28 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

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

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

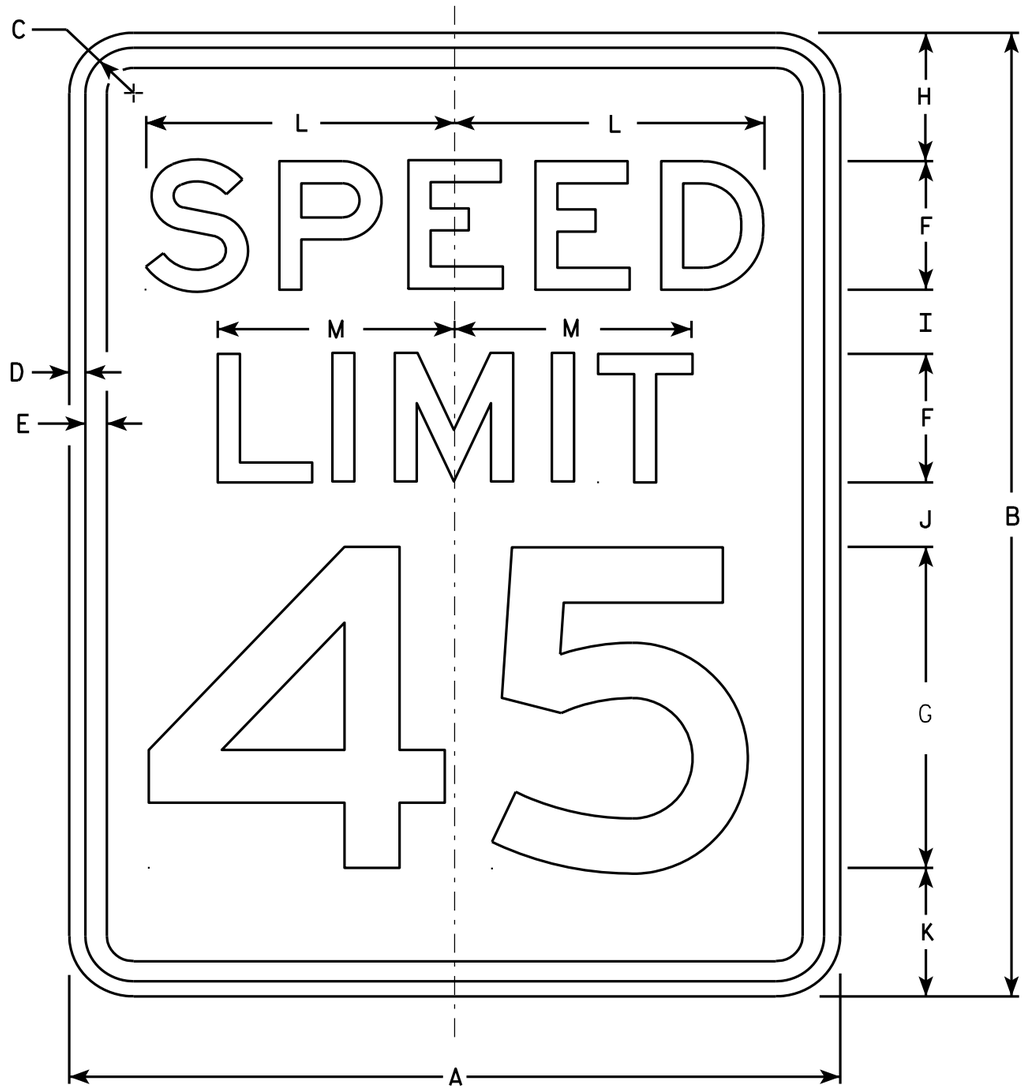
STANDARD SIGN
R1-1

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: 96	E



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

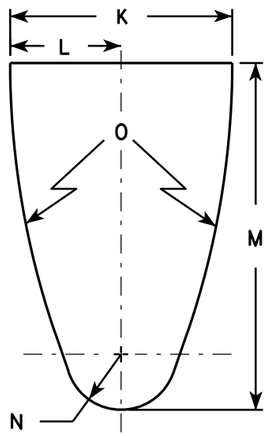
STANDARD SIGN
R2-1

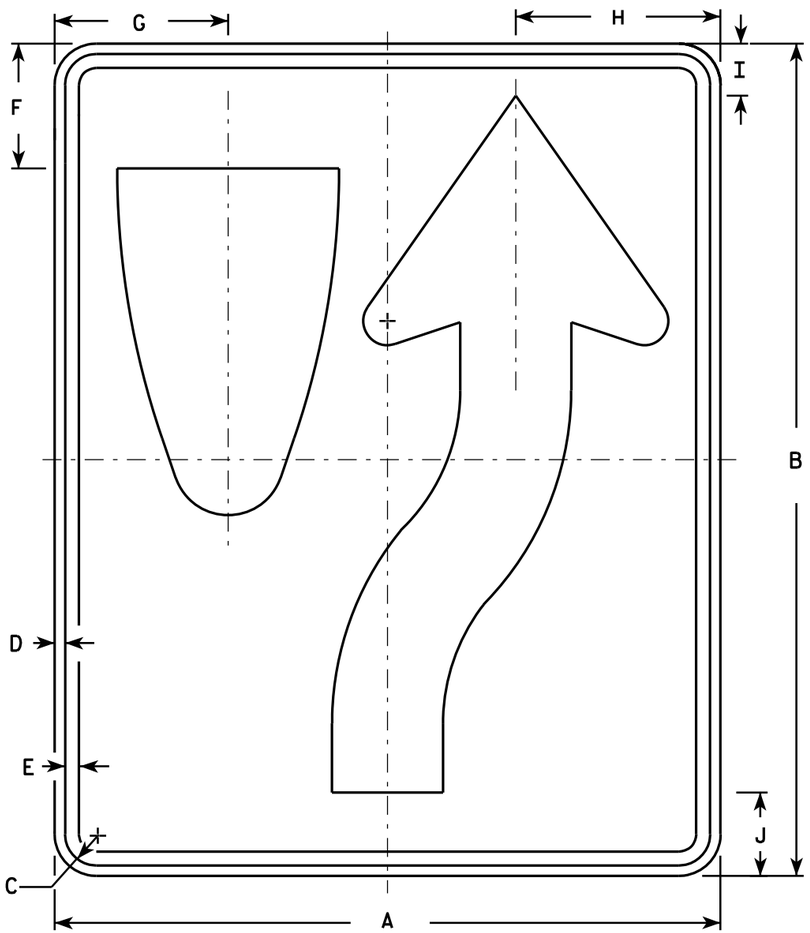
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 97 | E

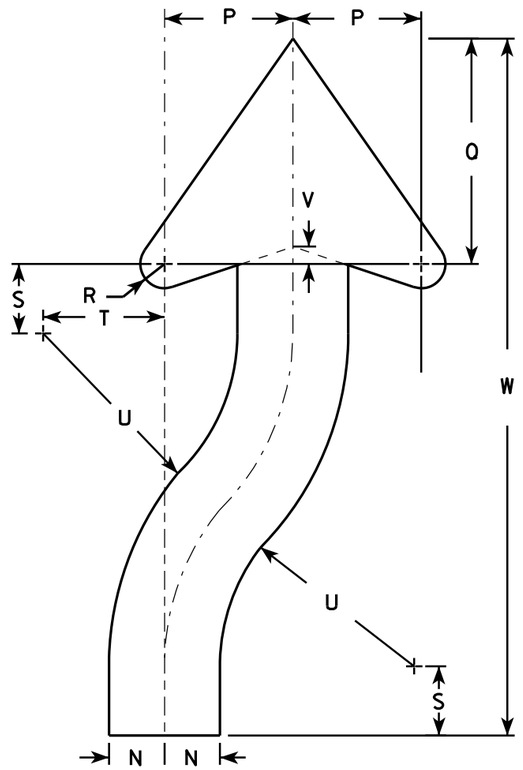




R4-7

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.



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

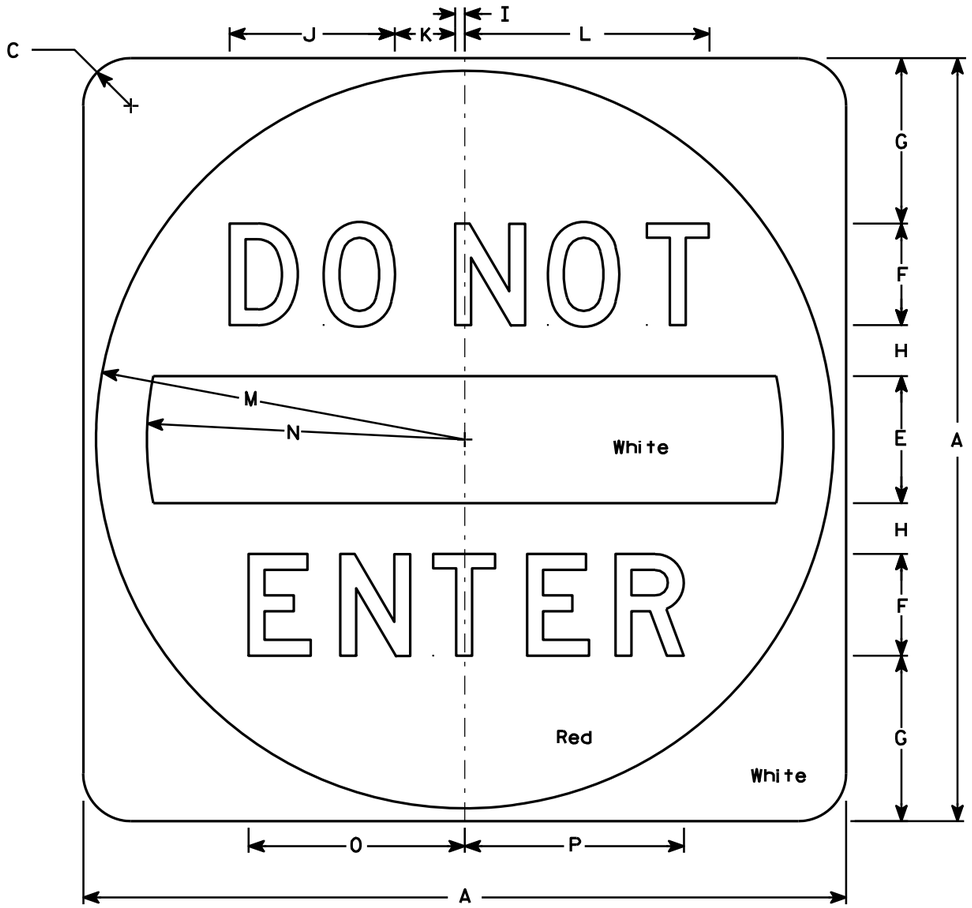
STANDARD SIGN
R4-7 & R4-8

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: 98	E



R5-1

NOTES

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

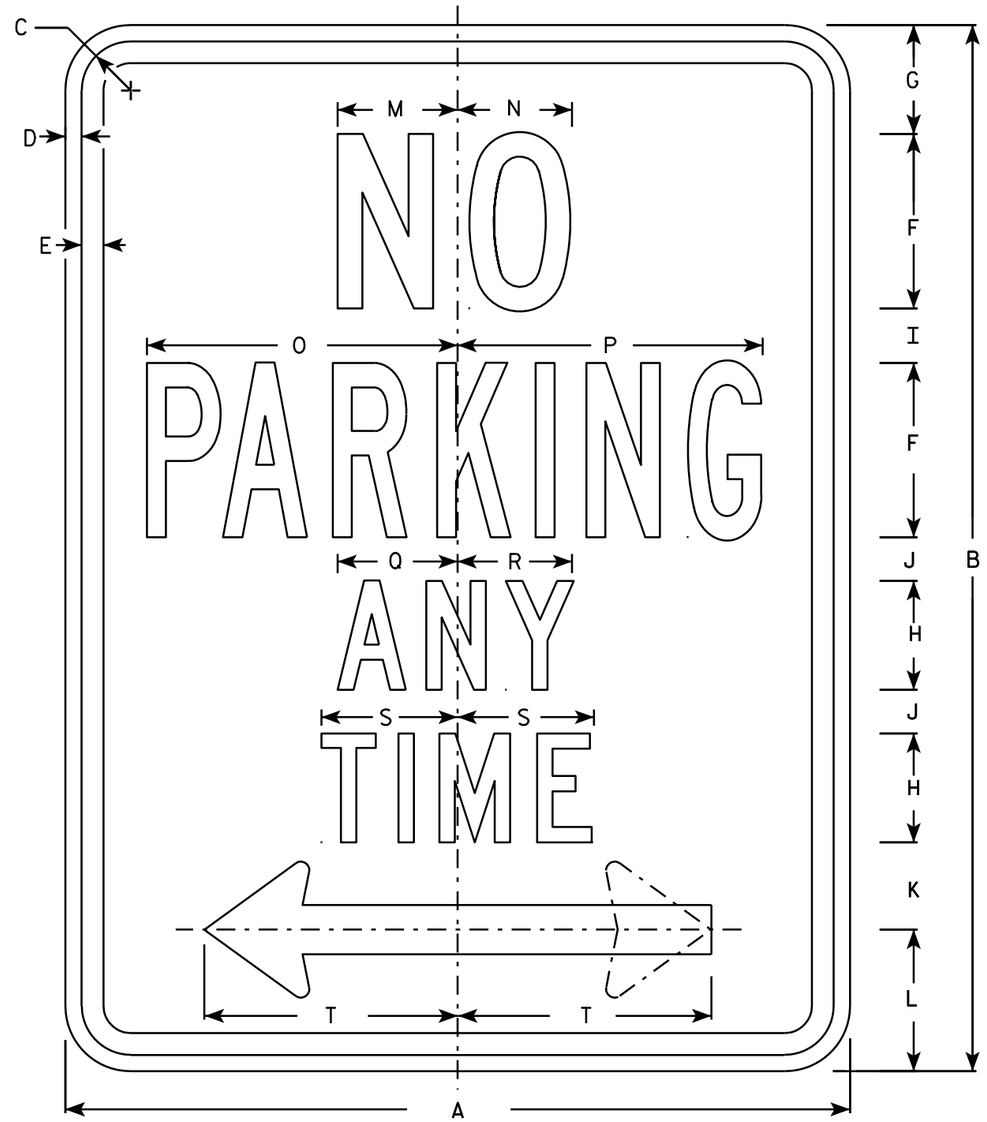
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

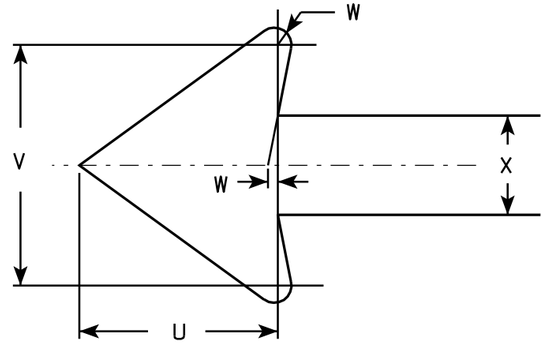
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 99 | E



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

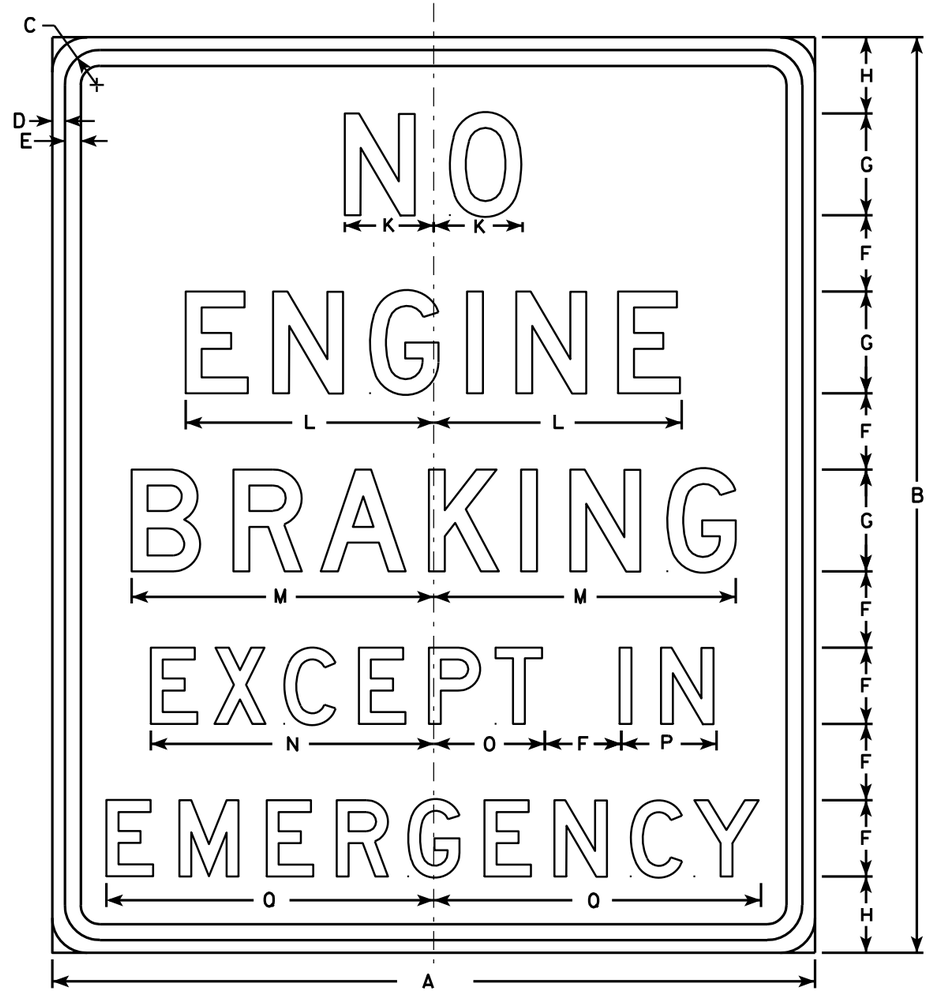
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 100	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

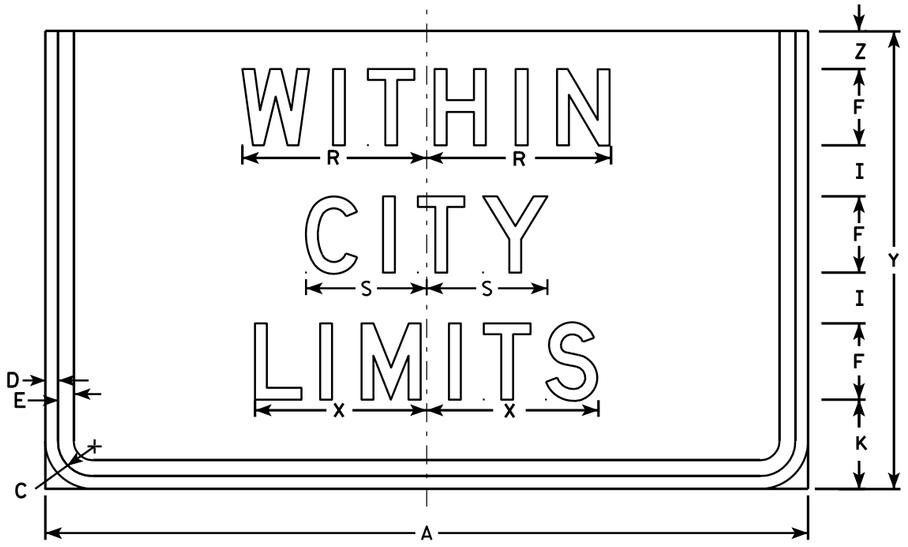
WISDOT/CADDS SHEET 42



R10-64

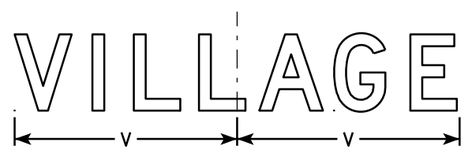
NOTES

1. Signs are 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 See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 2 of R10-64F is Series C for "TOWNSHIP" Only



R10-64F

Area sq. ft.
3.75
7.0



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	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

STANDARD SIGN
R10-64 & R10-64F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-64.7

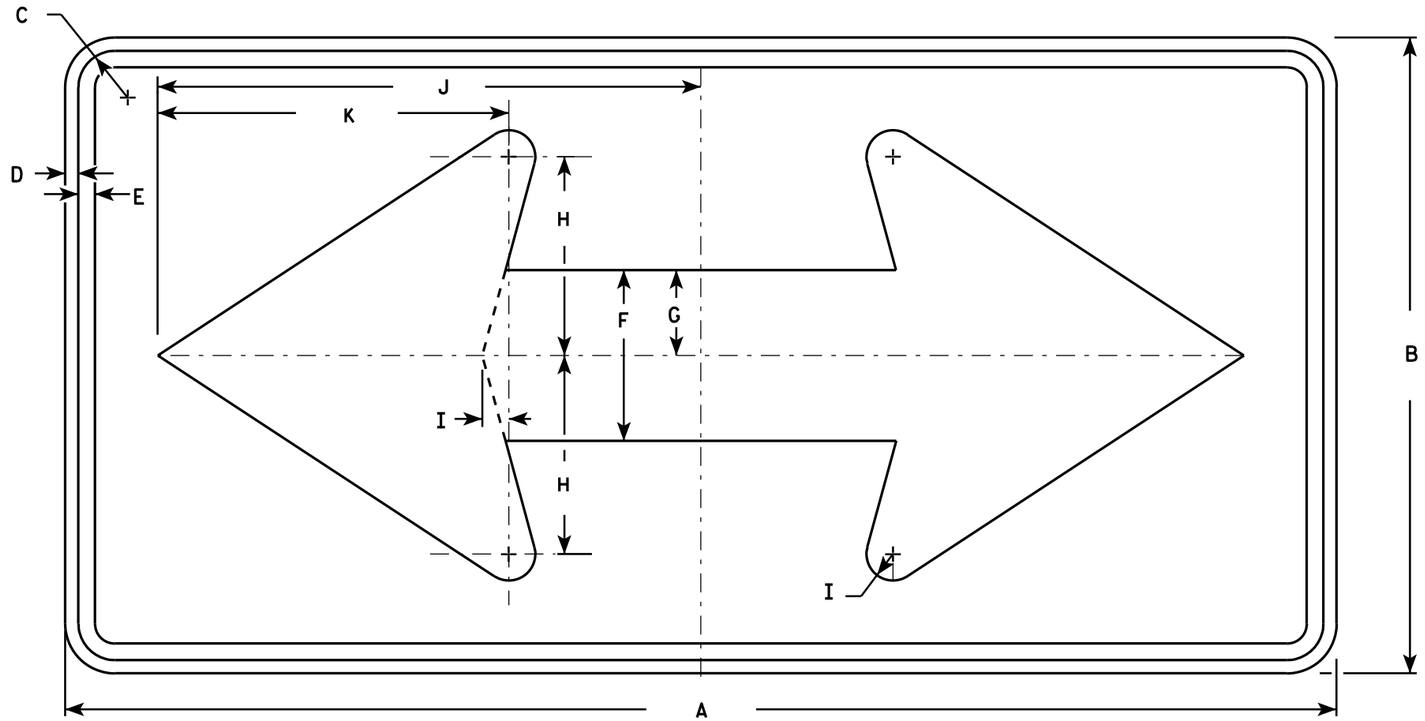
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R1064.DGN PLOT DATE : 04-APR-2011 14:49 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



W1-7

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. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

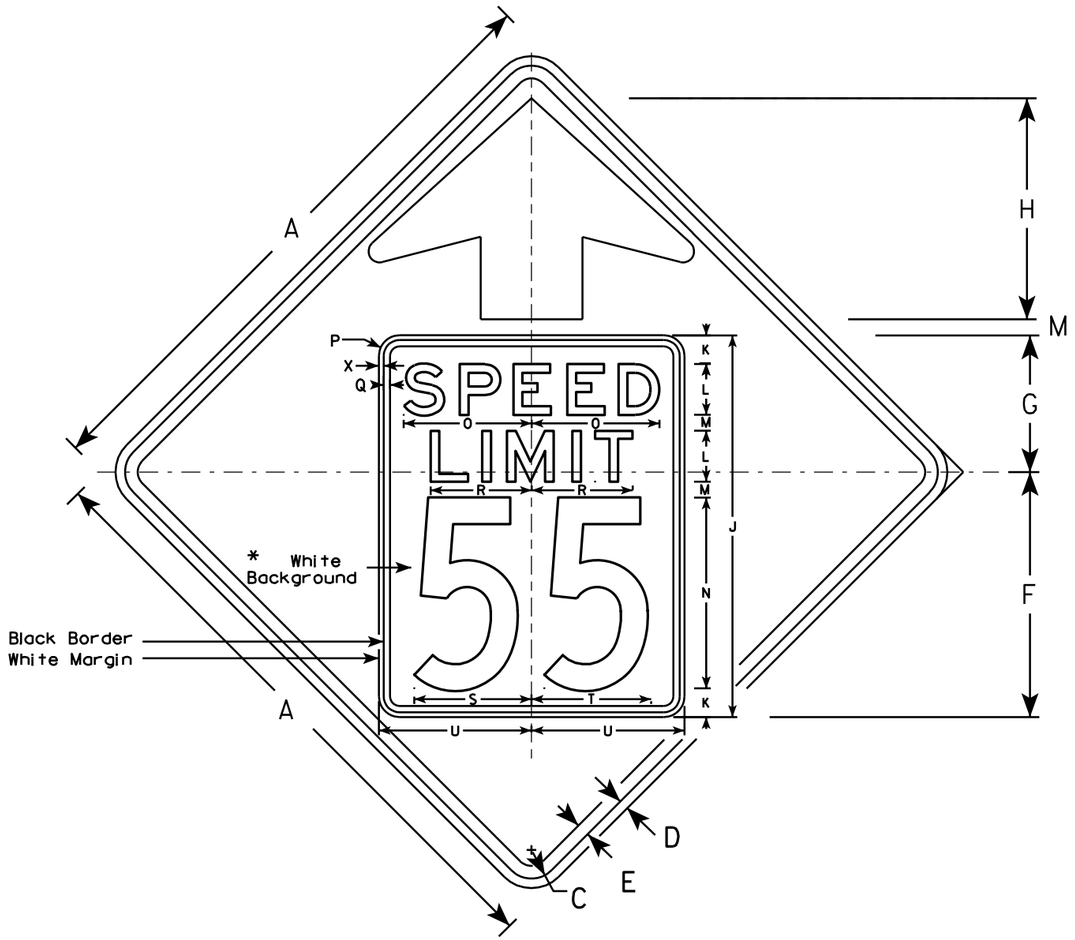
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 102 | E

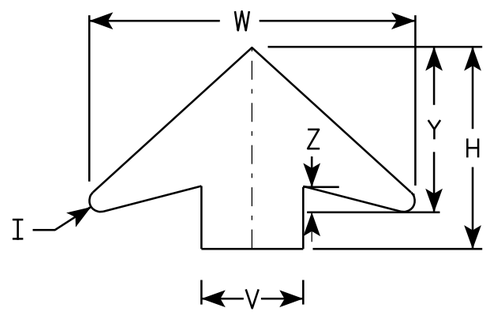


W3-5

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	O	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

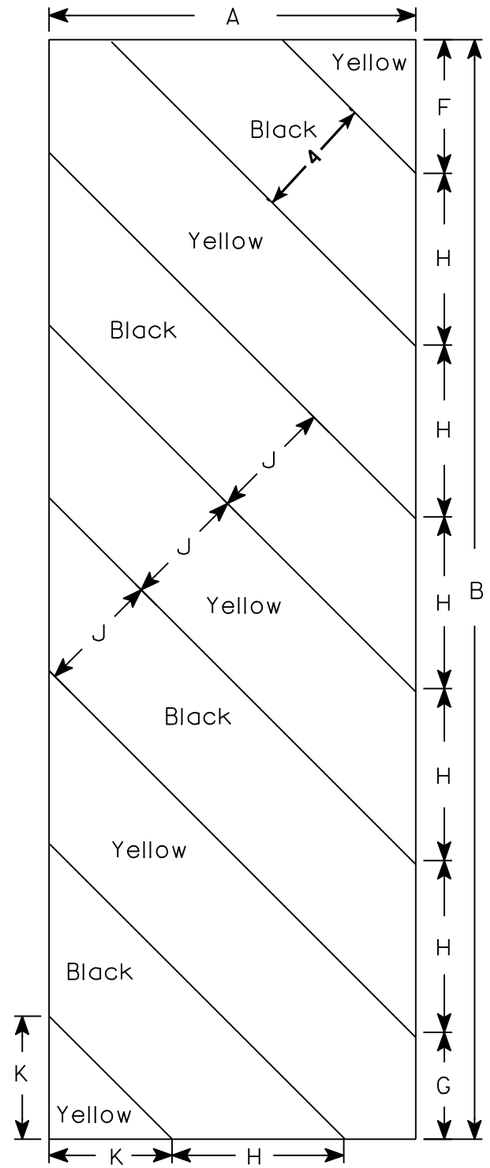
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

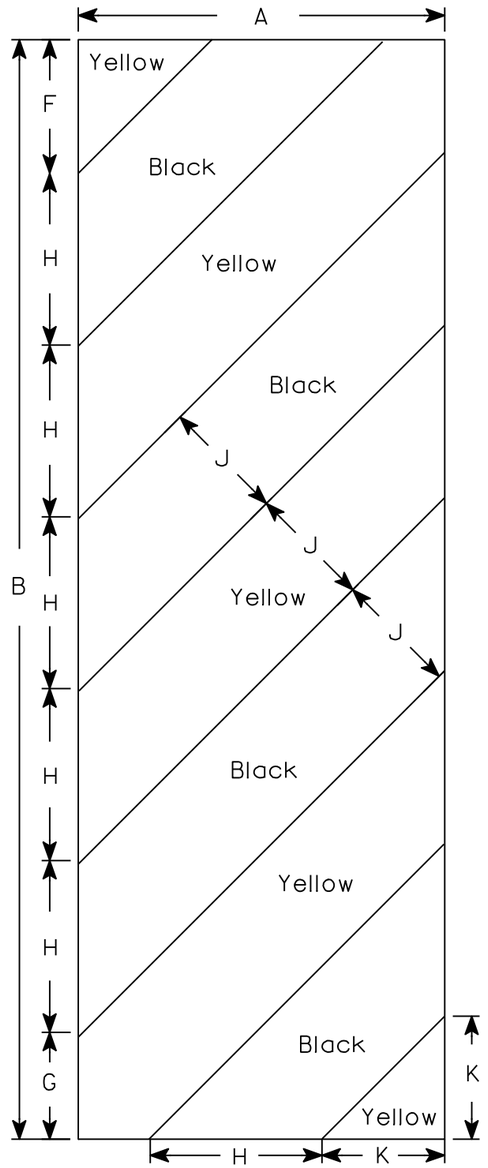
DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 103 E



W5-52L



W5-52R

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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

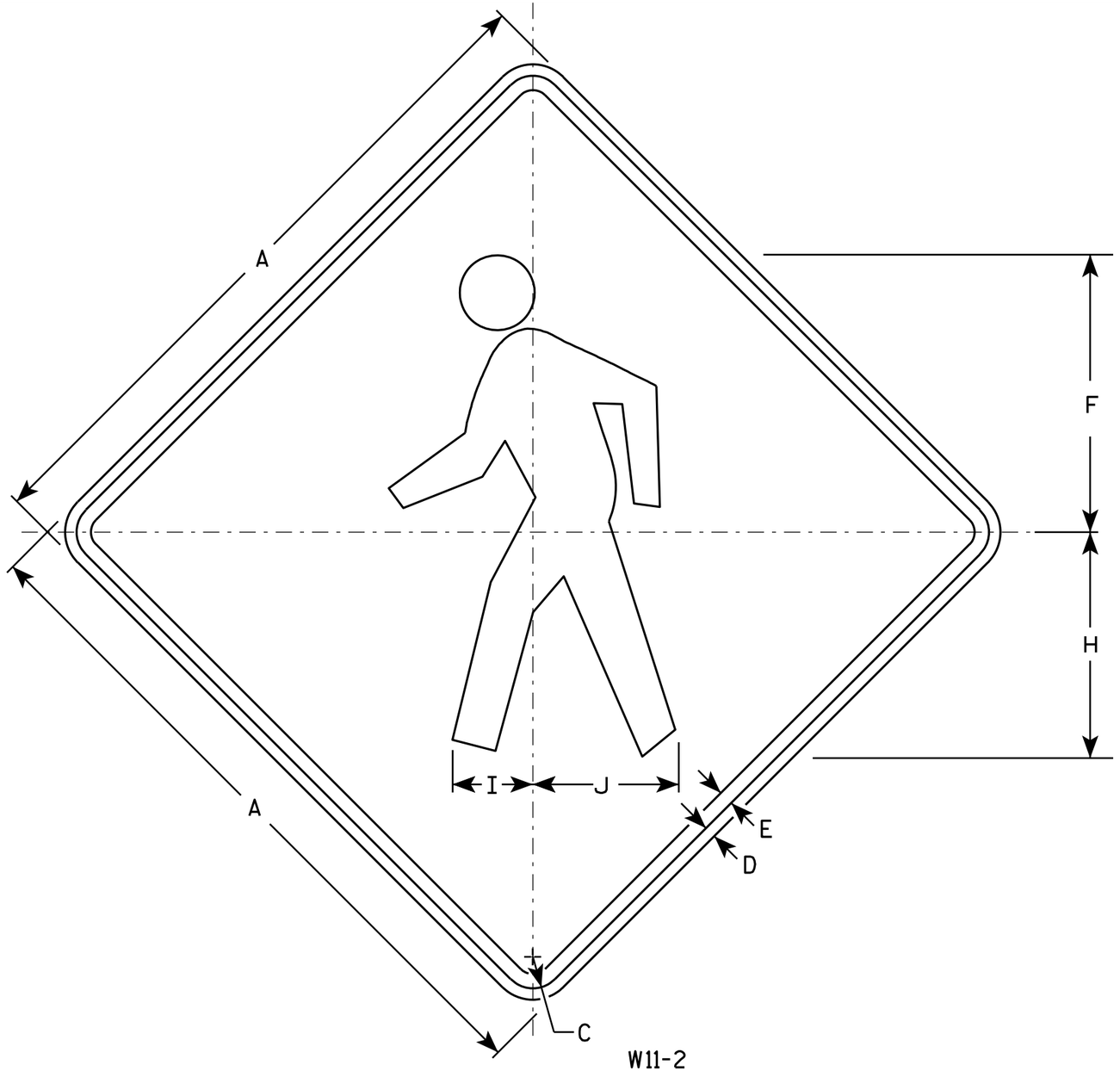
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 104 | 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																											

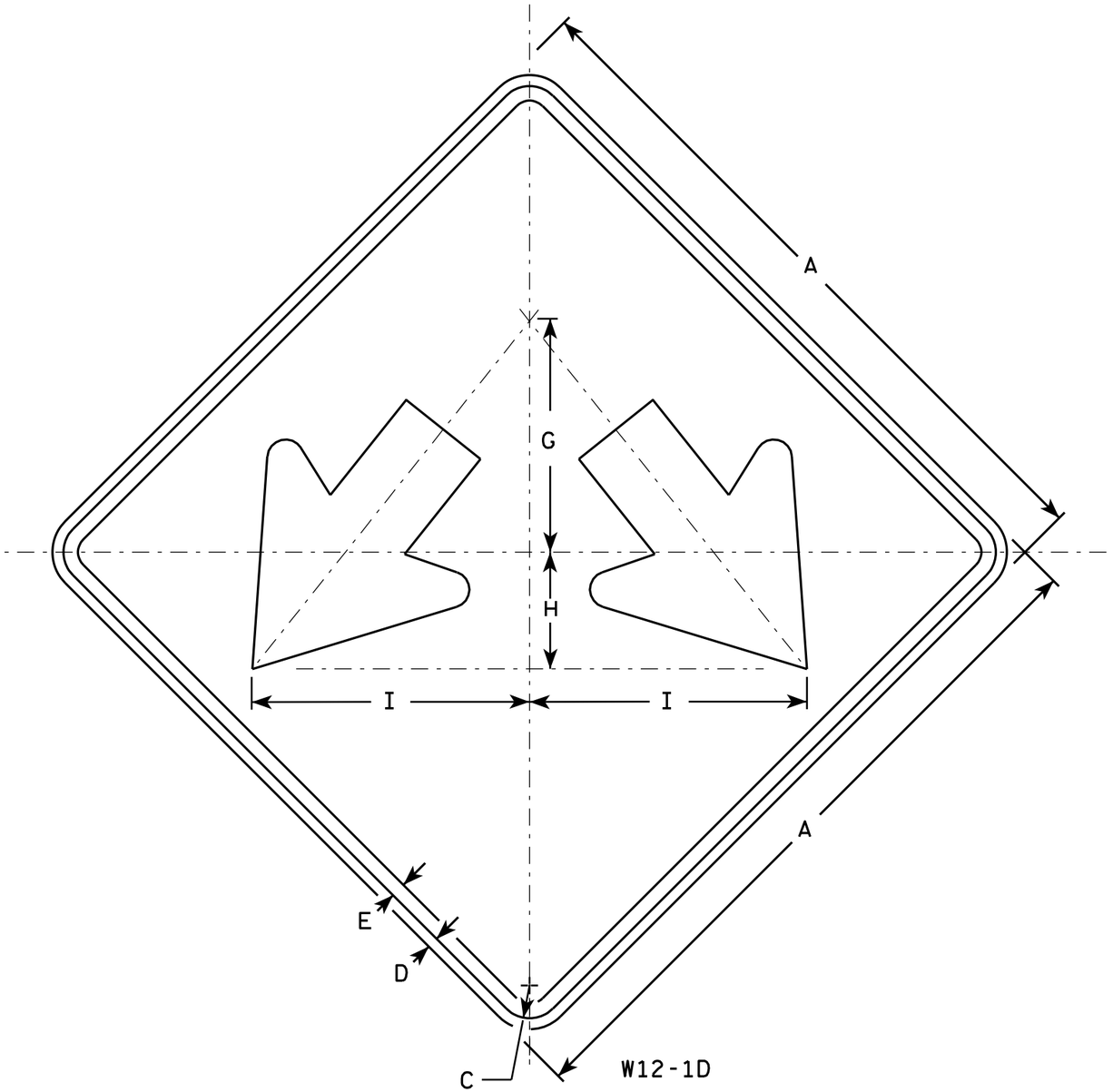
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

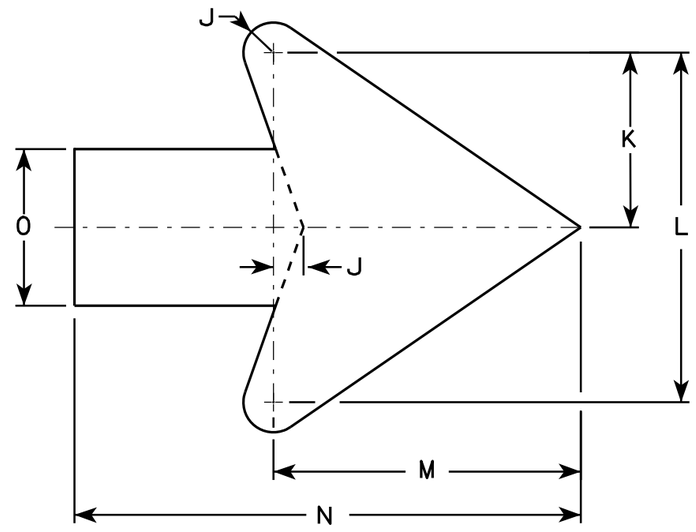
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	E



NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

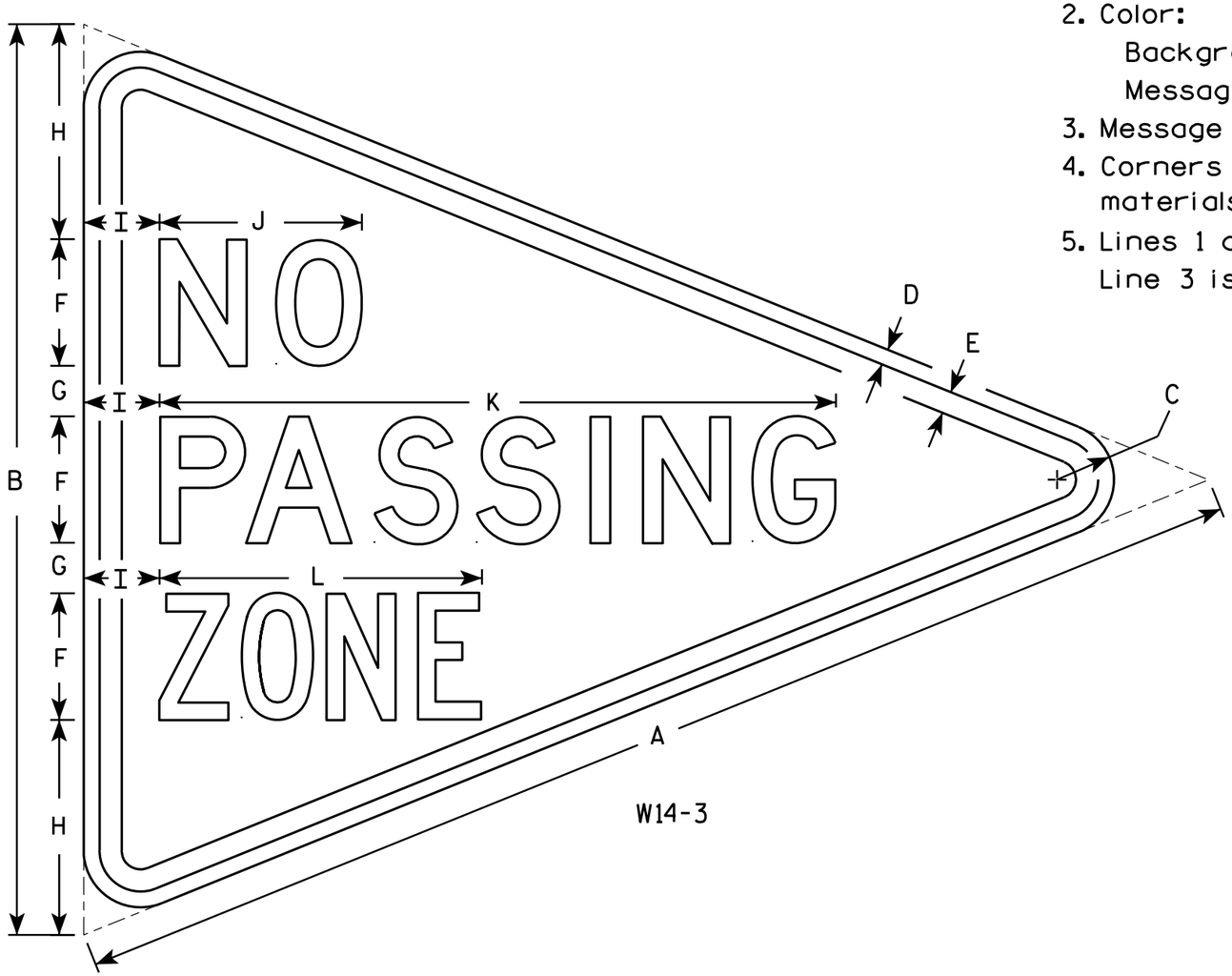
WISDOT/CADDS SHEET 42

7

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 - 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																											

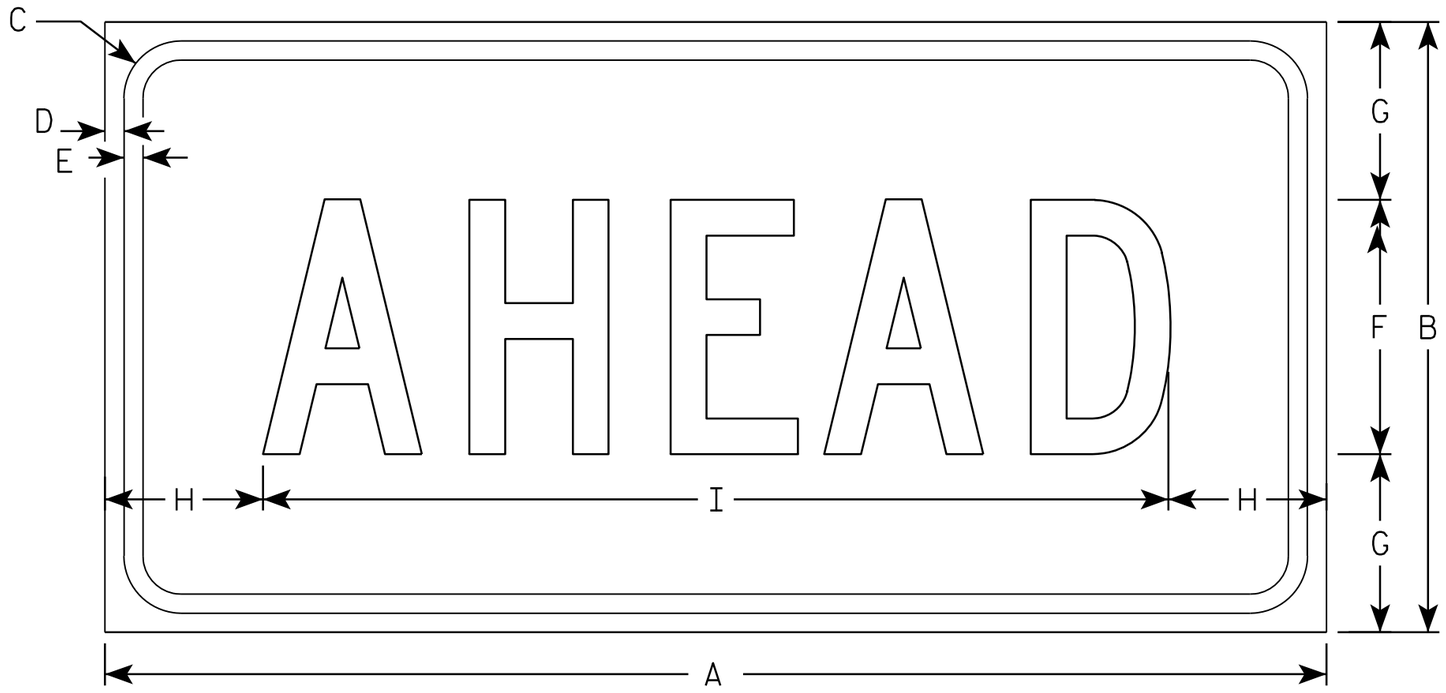
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E



W16-9P

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.

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

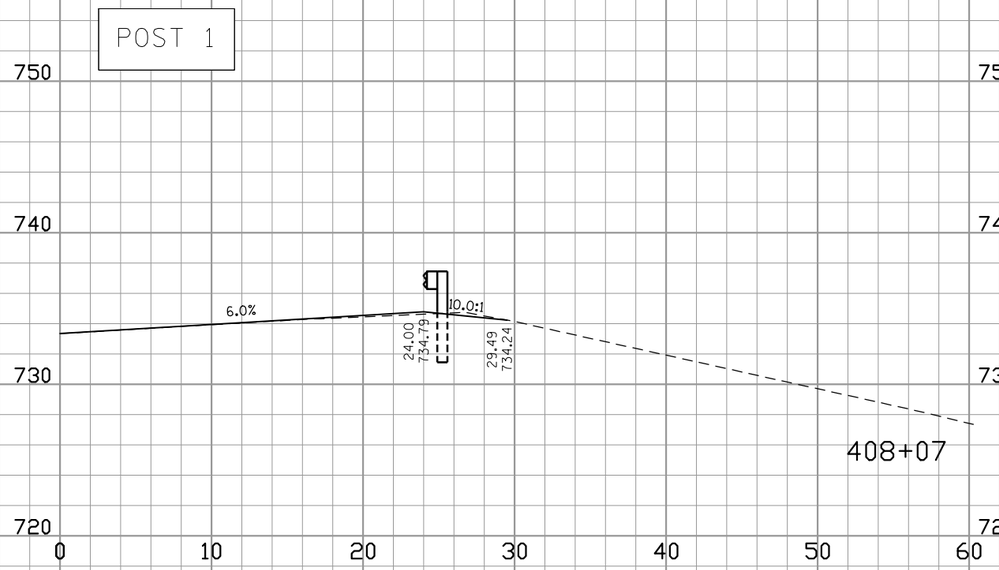
DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 108 | E

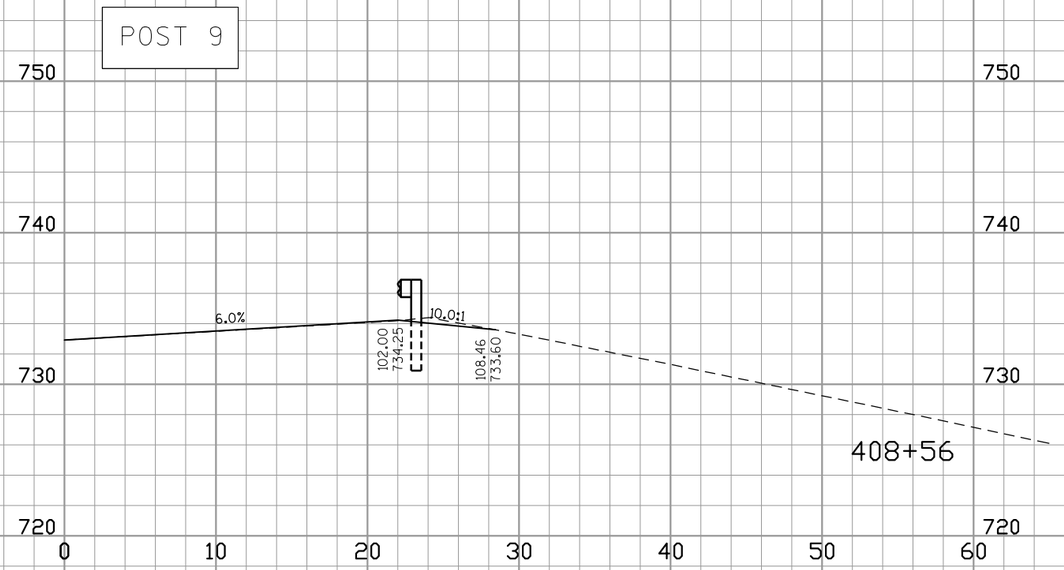
7

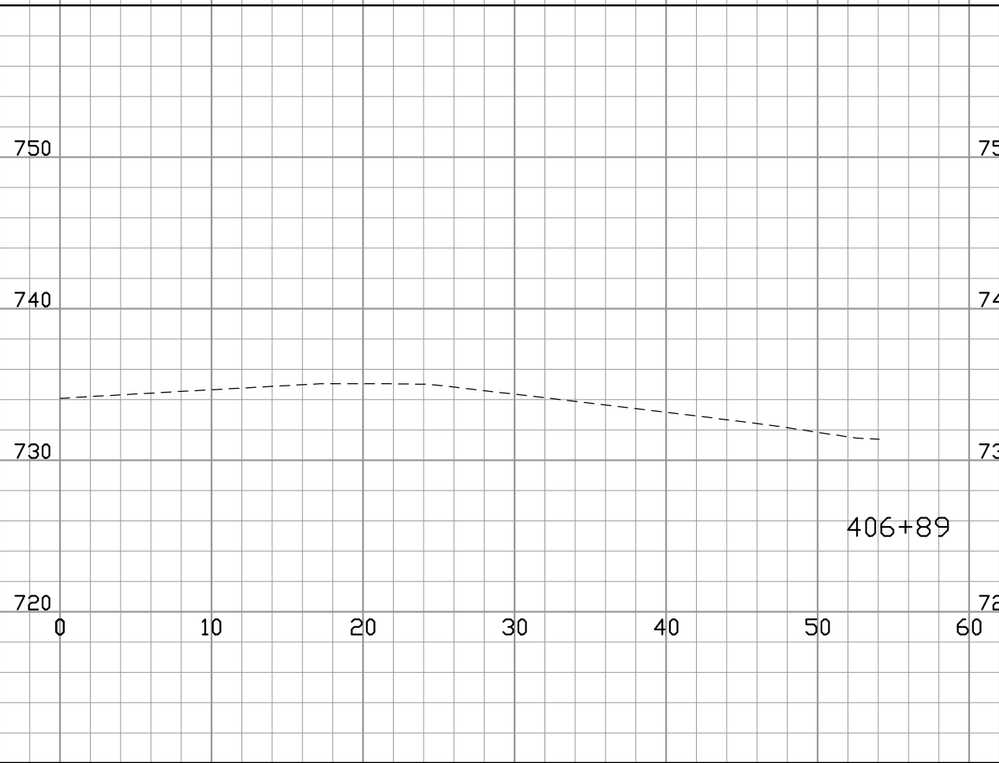
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
WISDOT/CADDS SHEET 42

POST 1

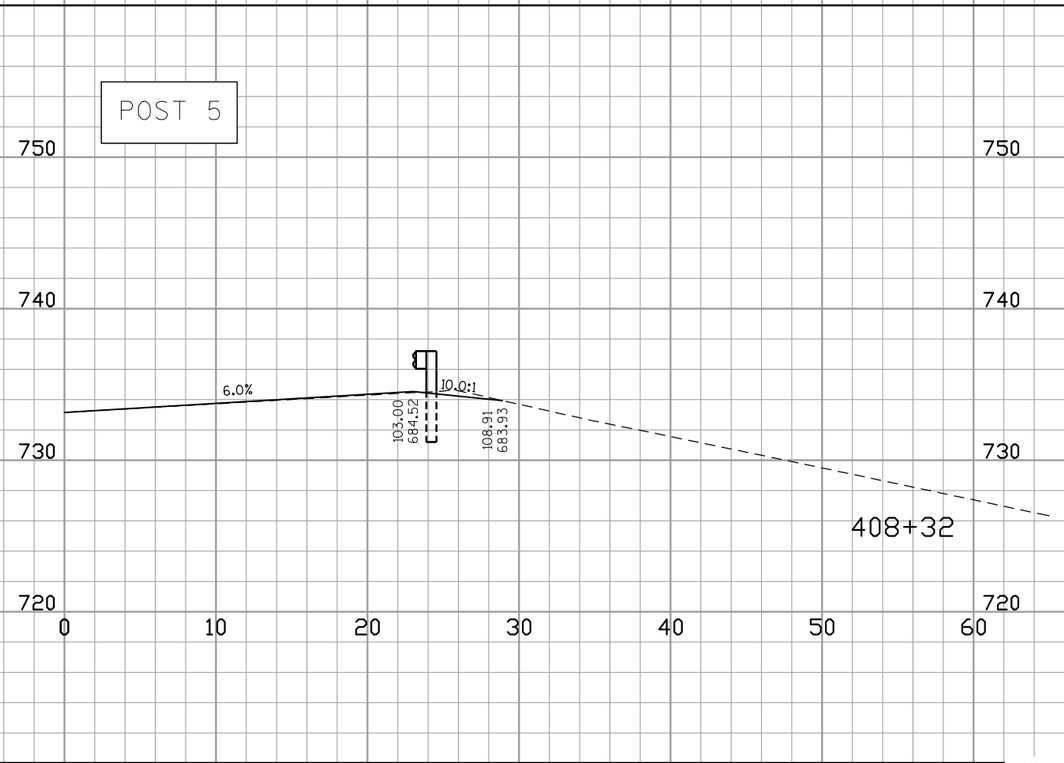


POST 9





POST 5



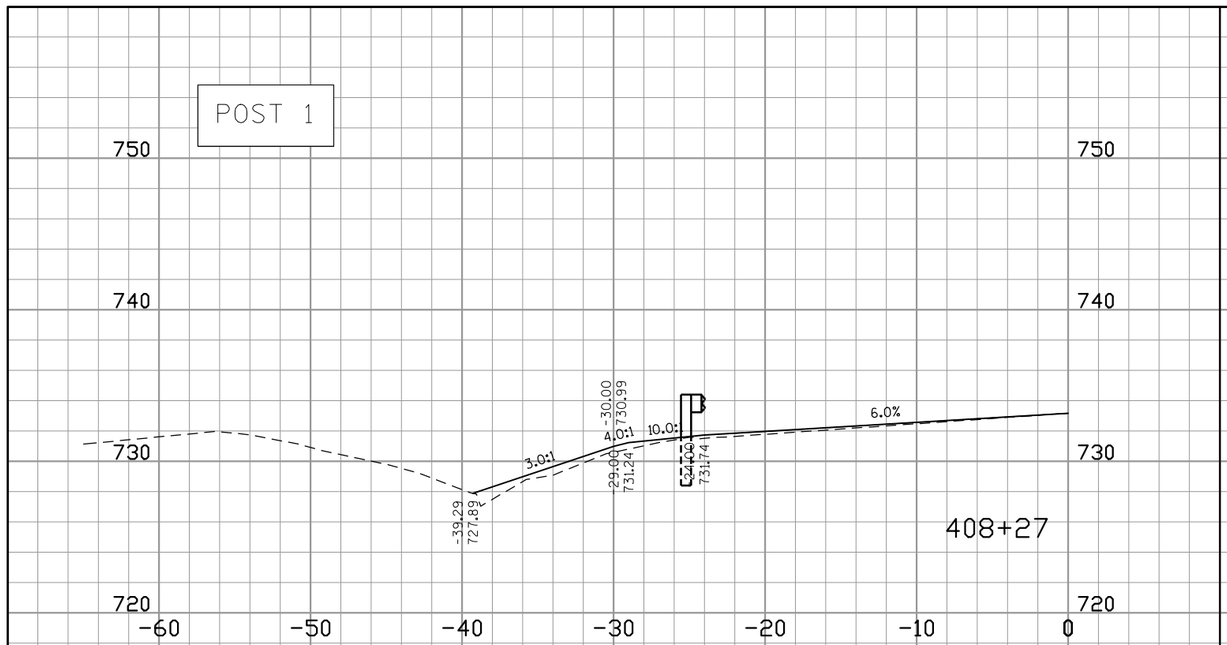
PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: Buffalo	Cross Sections	SHEET

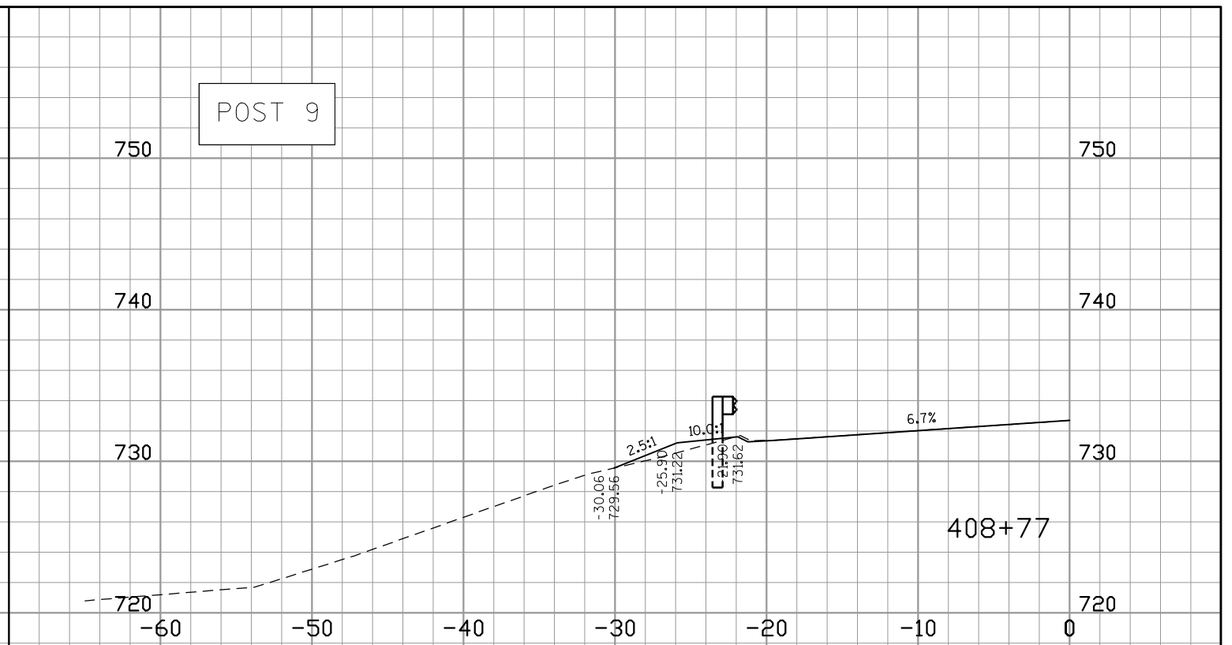
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 408+10 RT

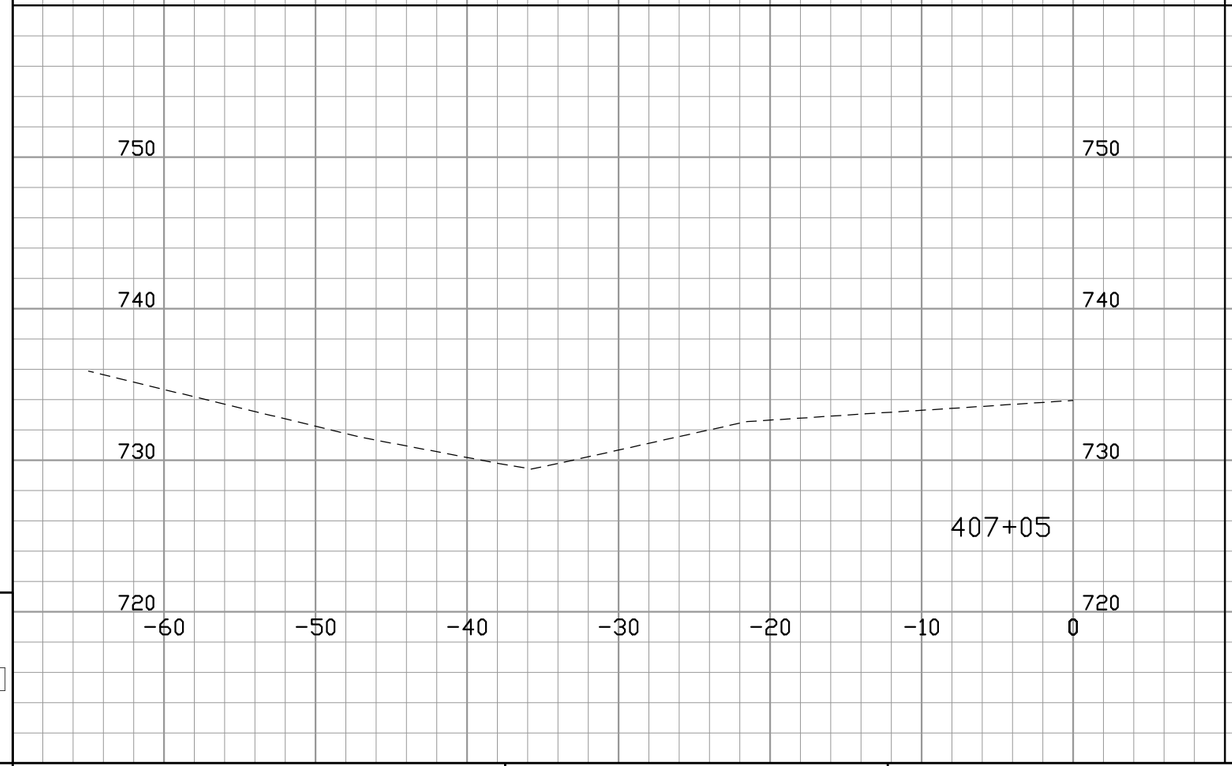
PLOT DATE : 7/28/2014
PLOT TIME : 2:44:42 PM

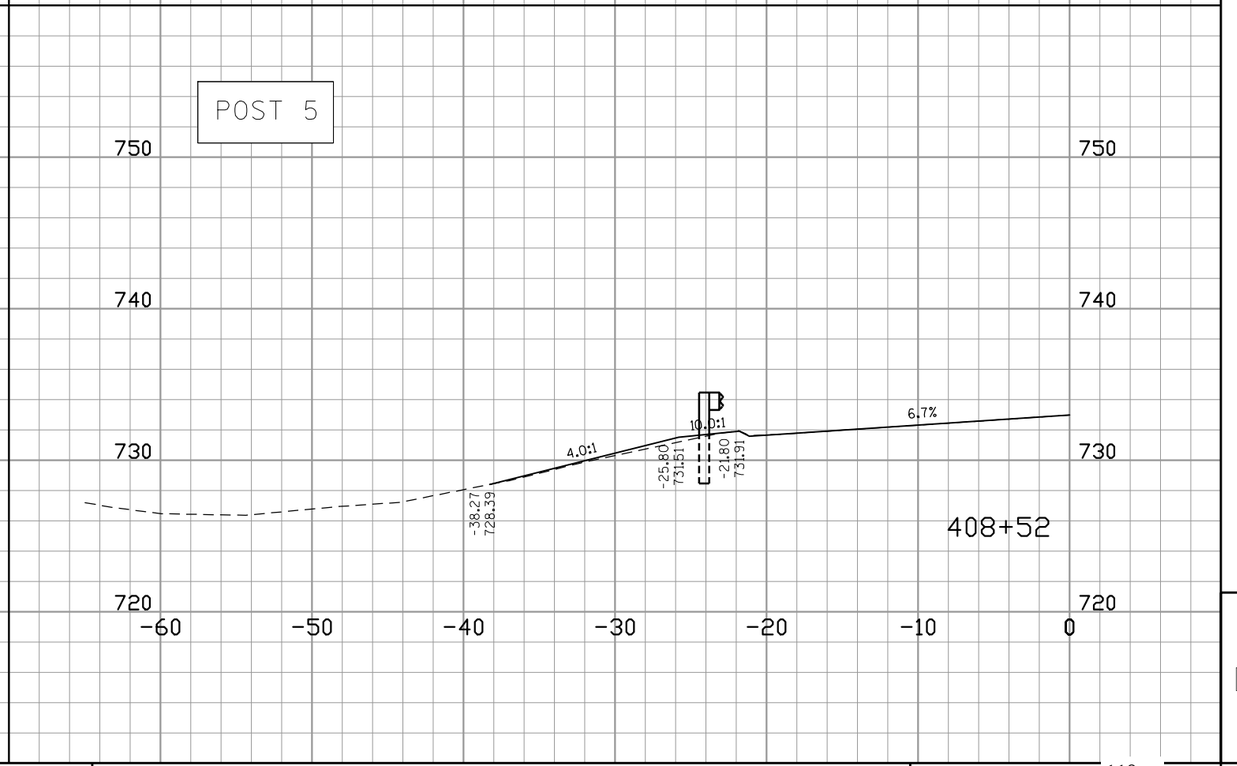
PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'









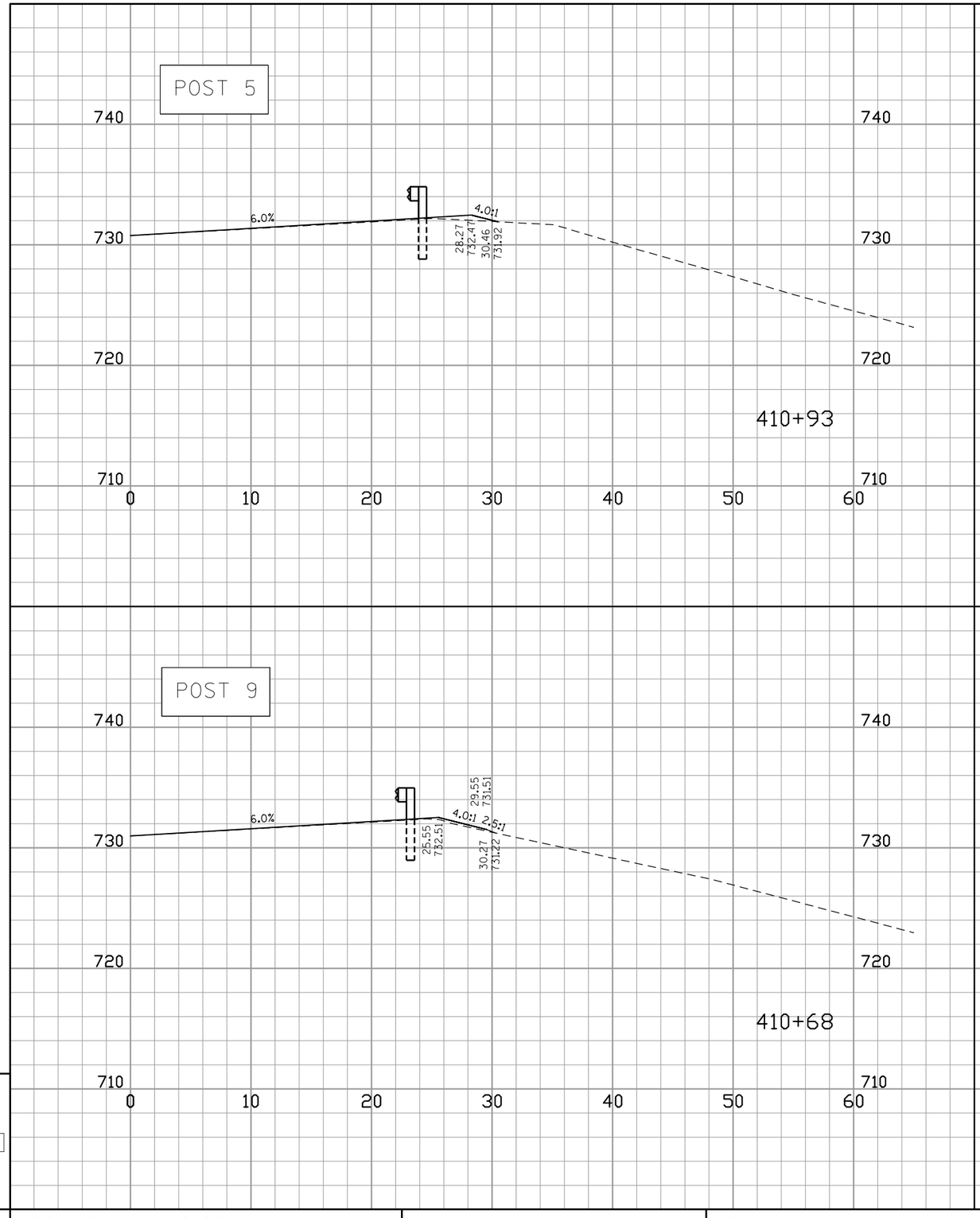
PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: Buffalo	Cross Sections	SHEET

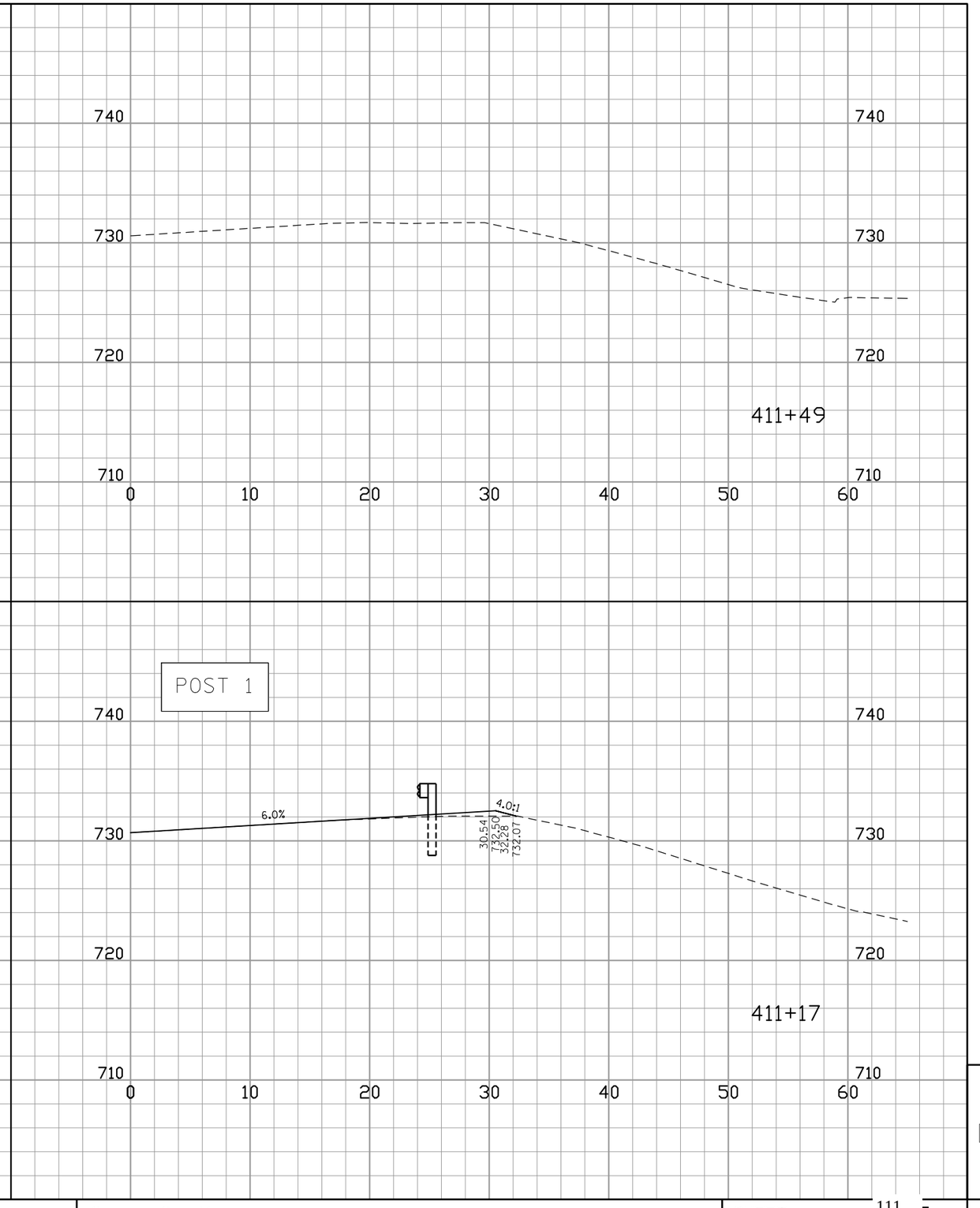
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 408+30 LT

PLOT DATE : 7/28/2014
PLOT TIME : 2:46:18 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: Buffalo	Cross Sections	SHEET

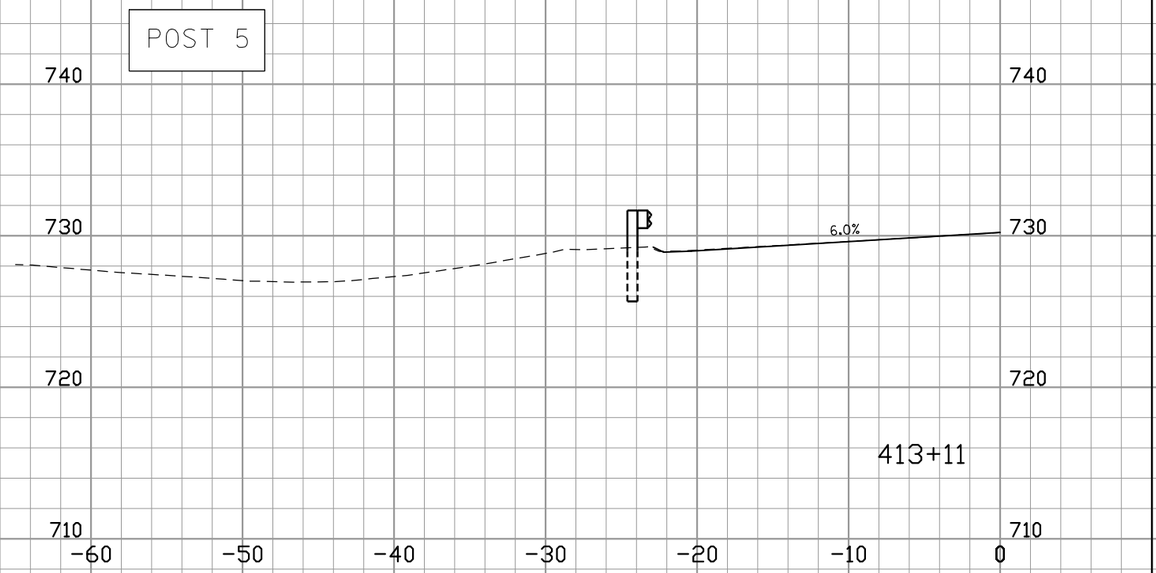
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 411+10 RT

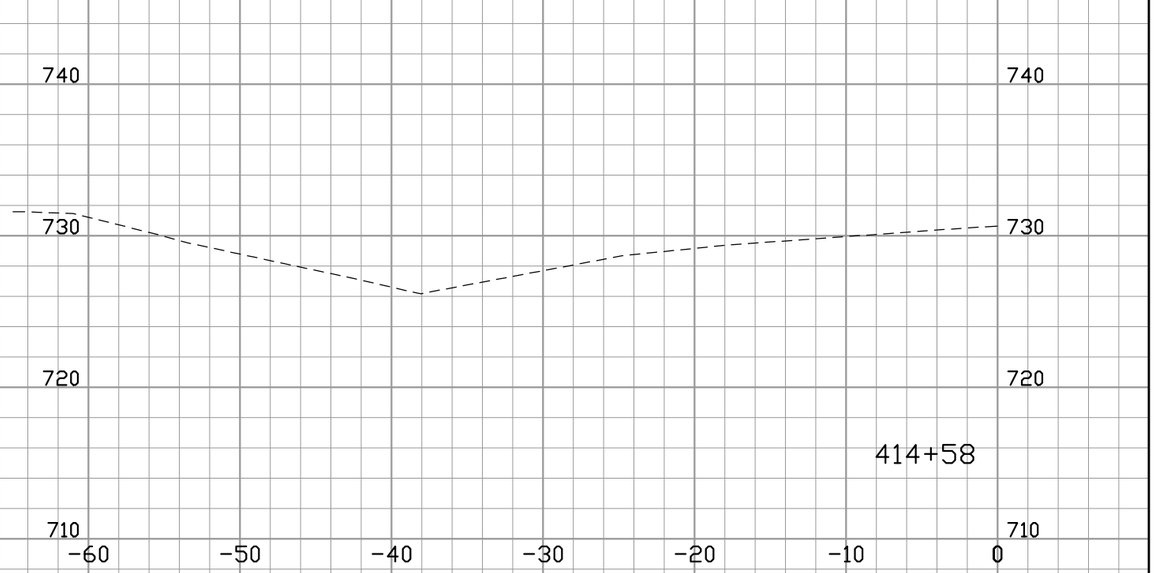
PLOT DATE : 7/28/2014
PLOT TIME : 2:47:46 PM

PLOT BY : ECKELBERG, PATRICK

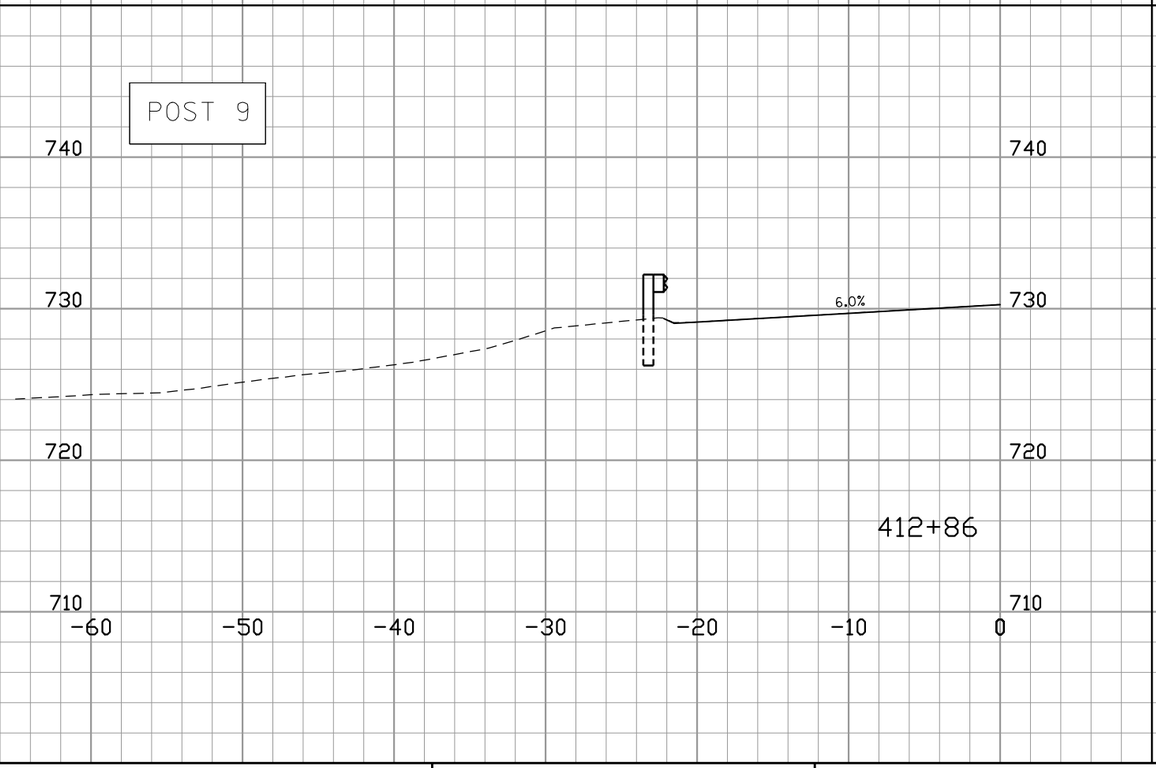
PLOT SCALE : 1" = 1'

POST 5

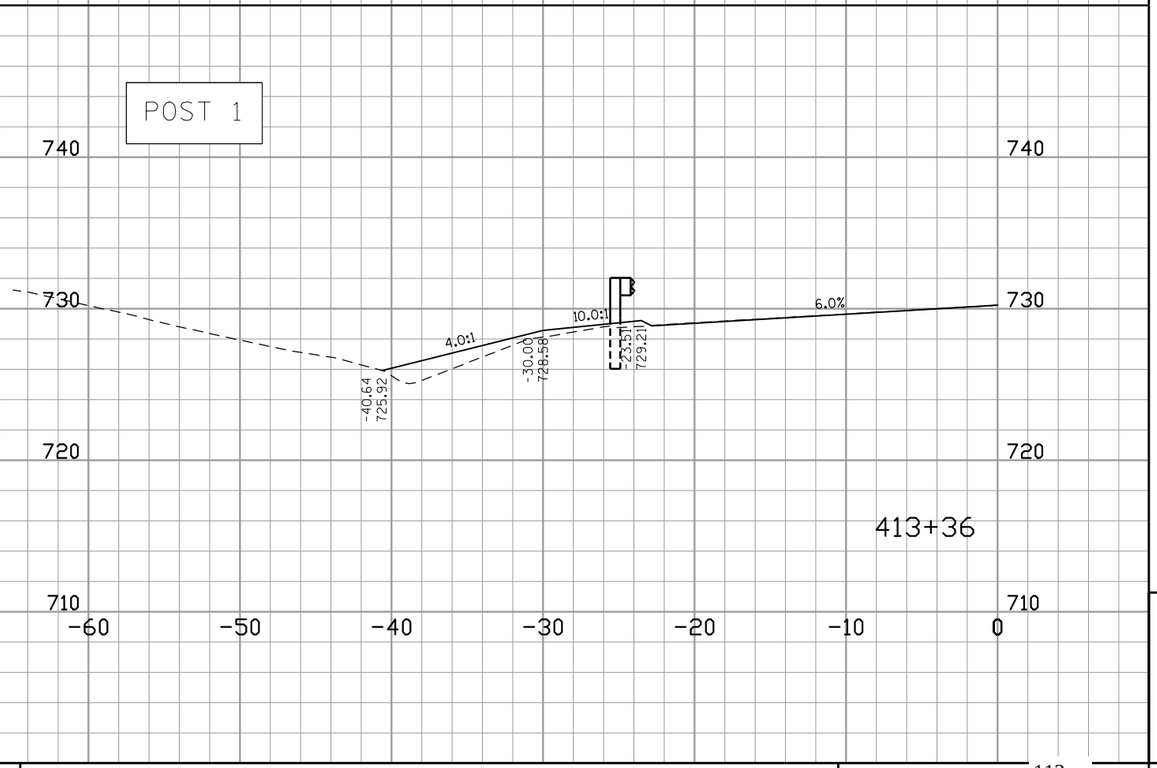




POST 9



POST 1



PROJECT NO: 7170-00-72	HWY: STH 25	COUNTY: Buffalo	Cross Sections	SHEET

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 413+30 LT

PLOT DATE : 7/28/2014
PLOT TIME : 2:49:48 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

EAU NOVEMBER 2015

PROJECT ID: 7180-01-75
WITH: 7170-00-02

COUNTY: BUFFALO

ORDER OF SHEETS

Section No. 1 Title
Section No. 2 Typical Sections and Details (Includes Erosion Control Plan)
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 = 216

32

DESIGN DESIGNATION

A.A.D.T.	2015	=	3,700
A.A.D.T.	2035	=	4,400
D.H.V.	2035	=	460
D.D.		=	60/40
T.		=	7.2%
DESIGN SPEED		=	55 MPH
ESALS		=	934,400

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 (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ALMA - PEPIN

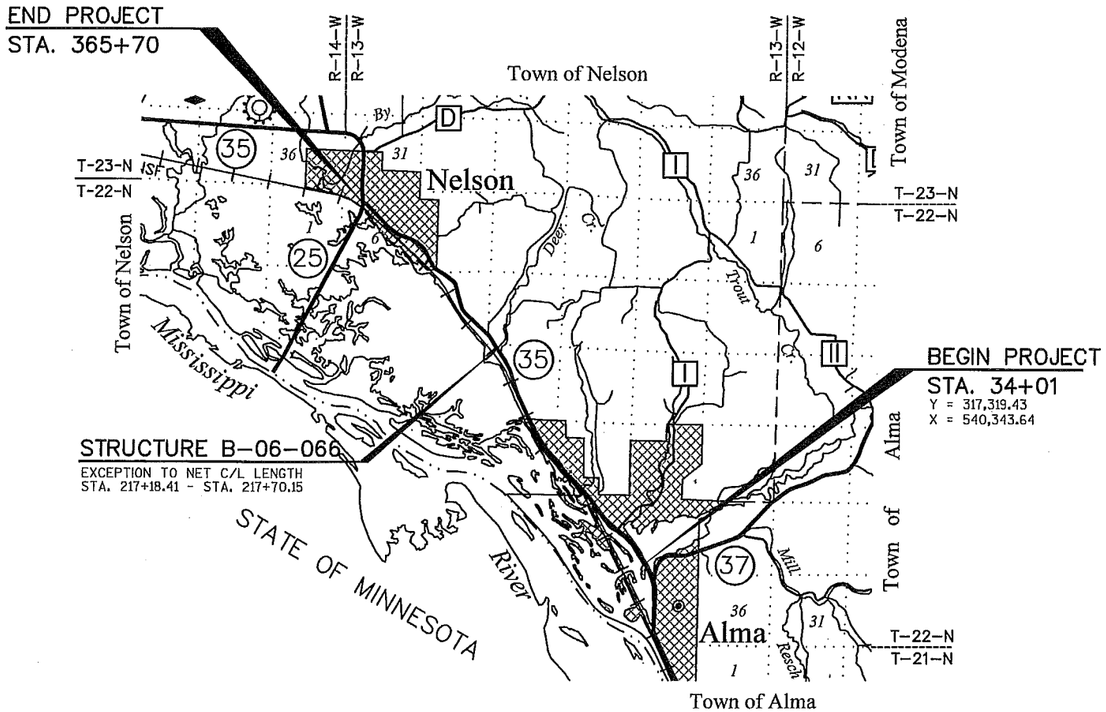
STH 37 TO STH 25 SOUTH

STH 35

BUFFALO COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7180-01-75	WISC 2015589	1

STATE PROJECT NUMBER
7180-01-75



N

LAYOUT
SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 6.272 MI.

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

ORIGINAL PLANS PREPARED BY

JEWELL associates engineers, inc.
Engineers - Planners - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE: (608) 588-7484
FAX: (608) 588-9322

WISCONSIN
PATRICK A. ECKELBERG
E-38776
WISCONSIN RAPIDS, WIS.
PROFESSIONAL ENGINEER

04/20/2015 (Date)
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
- Surveyor: JEWELL ASSOCIATES ENGINEERS, INC./ WIS. DEPT. OF TRANSPORTATION
- Designer: JEWELL ASSOCIATES ENGINEERS, INC.
- Project Manager: D. KOEPP
- Regional Examiner: D. OJIBWAY
- Regional Supervisor: T. MASON
- C.O. Examiner:

APPROVED FOR THE DEPARTMENT

DATE: 4/22/2015
(Signature)

E

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment
AC	Acre
AGG	Aggregate
AH	Ahead
<	Angle
ASPH	Asphaltic
AVG	Average
ADT	Average Daily Traffic
B.A.D.	Base Aggregate Dense
BK	Back
BF	Back Face
BM	Bench Mark
BR	Bridge
C or ℄	Center Line
CC	Center to Center
CTH	County Trunk Highway
CR	Creek
CR	Crushed
CY or CU YD	Cubic Yard
CP	Culvert Pipe
C & G	Curb and Gutter
D	Degree of Curve
DHV	Design Hour Volume
DIA	Diameter
E	East
X	East Grid Coordinate
ELEC	Electric (al)
EL or ELEV	Elevation
ESALS	Equivalent Single Axle Loads
EBS	Excavation Below Subgrade
FF	Face to Face
FE	Field Entrance
F	Fill
FG	Finished Grade
FL or F/L	Flow Line
FT	Foot
FTG	Footing
GN	Grid North
HT	Height
CWT	Hundredweight
HYD	Hydrant
INL	Inlet
ID	Inside Diameter
INV	Invert
IP	Iron Pipe or Pin
IRS	Iron Rod Set
JT	Joint
JCT	Junction
LHF	Left-Hand Forward
L	Length of Curve
LIN FT or LF	Linear Foot
LC	Long Chord of Curve
MH	Manhole
MB	Mailbox
ML or M/L	Match Line
N	North
Y	North Grid Coordinate
OD	Outside Diameter
PLE	Permanent Limited Easement
PT	Point
PC	Point of Curvature
PI	Point of Intersection
PRC	Point of Reverse Curvature
PT	Point of Tangency
POC	Point On Curve
POT	Point on Tangent
PVC	Polyvinyl Chloride
PCC	Portland Cement Concrete
LB	Pound
PSI	Pounds Per Square Inch
PE	Private Entrance
R	Radius
RR	Railroad
R	Range
RL or R/L	Reference Line
RP	Reference Point
RCCP	Reinforced Concrete Culvert Pipe
REQ'D	Required
RES	Residence or Residential
RW	Retaining Wall
RT	Right
RHF	Right-Hand Forward
R/W	Right-of-Way
R	River
RD	Road
RDWY	Roadway
SALV	Salvaged
SAN S	Sanitary Sewer
SEC	Section
SHLDR	Shoulder
SHR	Shrinkage
SW	Sidewalk
S	South
SQ	Square
SF or SQ FT	Square Feet
SY or SQ YD	Square Yard
STD	Standard
SDD	Standard Detail
STH	Drawings
STA	State Trunk Highways
SS	Station
SG	Storm Sewer
SE	Subgrade
SL or S/L	Superelevation
SV	Survey Line
T	Septic Vent
TEL	Tangent
TEMP	Telephone
TI	Temporary
TLE	Temporary Interest
	Temporary Limited Easement
†	
T or TN	Ton
TRANS	Town
TL or T/L	Transition
T	Transit Line
TYP	Trucks (percent of)
UNCL	Typical
UG	Unclassified
USH	Underground Cable
VAR	United States Highway
V	Variable
VERT	Velocity or Design
VC	Speed
VOL	Vertical
WM	Vertical Curve
WV	Volume
W	Water Main
WB	Water Valve
YD	West
	Westbound
	Yard

	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											

GENERAL NOTES

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

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

CURVE DATA IS BASED ON THE ARC DEFINITION

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (MIX NO. 20), AND MULCHED AS DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

ALL RADII DIMENSIONS ON THE PLAN FOR CURB & GUTTER ARE TO THE FLANGE OF THE CURB & GUTTER, UNLESS NOTED ON THE PLANS.

CURB & GUTTER GRADES ARE GIVEN ON THE FLANGE LINE, UNLESS INDICATED OTHERWISE. CURB & GUTTER JOINT SPACING SHALL MATCH ABUTTING PAVEMENT JOINTS (WHERE APPLICABLE) UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. FIELD LOCATES WILL BE REQUIRED PRIOR TO CONSTRUCTION.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

THE EXACT LOCATION AND WIDTH OF PRIVATE, COMMERCIAL, AND FIELD ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

ACCESS TO ALL ENTRANCES SHALL BE MAINTAINED DURING CONSTRUCTION.

INLET AND OUTLET ELEVATIONS FOR CULVERT PIPES AS SHOWN ON THE PLAN MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD SUCH THAT REMOVAL OF THE ASPHALT MAY BE ACCOMPLISHED WITHOUT DAMAGE TO THE REMAINING PORTIONS.

ORDER OF DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVEMENT-GUARDRAIL LAYOUT DETAILS
DRAINAGE DETAILS
PERMANENT SIGNING
PAVEMENT MARKING
ALIGNMENT DETAILS

CONTACTS

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patrick.eckelberg@jewellassoc.com

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STATE OF WISCONSIN
DNR SERVICE CENTER
3550 MORMON COULEE ROAD
LACROSSE, WI 54601
ATTN: KAREN KALVELAGE
PH: (608) 785-9115
FAX: (608) 785-9990
karen.kalvelage@wisconsin.gov

UTILITIES

COMMUNICATION:

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318 3RD AVE W
P.O. BOX 228
DURAND, WI 54736
ATTN: DALE GOSS
PH: (715) 672-4204
EMAIL: dale@nelson-tel.net

TDS TELECOM
10 COLLEGE AVE, SUITE 218A
APPLETON, WI 54115
ATTN: STEVE JAKUBIEC
PH: (920) 882-4166
CELL: (920) 562-7221
EMAIL: steve.jakubiec@tdstelecom.com

MIDCONTINENT COMMUNICATIONS
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FAIRMONT, MN 56031
ATTN: GEORGE MARTINEZ
PH: (507) 749-2000
CELL: (507) 848-5809
EMAIL: george_martinez@mmi.net

WATER/SEWER:

CITY OF ALMA
314 NORTH MAIN ST
P.O. BOX 277
ALMA, WI 54610
ATTN: CALVIN LOEWENHAGEN
PH: (608) 685-4529
CELL: (715) 495-0839
EMAIL: almawwtp@tds.net

NELSON WATER AND SEWER DEPT.
128 WEST JEFFERSON ST
P.O. BOX 18
NELSON, WI 54756
ATTN: BRUCE BROMMER
PH: (715) 495-7585
EMAIL: grillninja@hotmail.com

ELECTRIC

DISTRIBUTION
RIVERLAND ENERGY COOPERATIVE
625 W MAIN ST
P.O. BOX 277
ARCADIA, WI 54612-0277
ATTN: DOUG GERRITTS
PH: (608) 323-3381
CELL: (608) 797-0757
EMAIL: dgerritts@reverlandenergy.com

DISTRIBUTION
XCEL ENERGY
320 HELLAR RD
MENOMONIE, WI 54751
ATTN: MEGAN BOLDIG
PH: (715) 232-7512
EMAIL: megan.boldig@xcelenergy.com

TRANSMISSION
EXCEL ENERGY
414 NICOLLET MALL, MP8-B
MINNEAPOLIS, MN 55401
ATTN: BRUCE ZEMKE
PH: (612) 330-7815
EMAIL: bruce.m.zemke@xcelenergy.com

COPY ALL CORRESPONDENCE TO:
XCEL ENERGY
1414 WEST HAMILTON AVE
EAU CLAIRE, WI 54702
ATTN: DAWN SCHULTZ
PH: (715) 737-2482
EMAIL: dawn.schultz@xcelenergy.com

RAILROAD:

*BNSF RAILWAY COMPANY
80 44TH AVENUE NE
MINNEAPOLIS, MN 55421
ATTN: CALVIN NUTT, MANAGER OF PUBLIC PROJECTS
PH: (763) 782-3495
FAX: (763) 782 3495
EMAIL: calvin.nutt@BNSF.com

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www.DiggersHotline.com

* DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	STD. ABBREV., GENERAL NOTES, CONTACTS, & UTILITIES	SHEET 2	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\GENERAL NOTES.DWG
LAYOUT : GEN NOTES
PLOT DATE : 4/16/2015
PLOT TIME : 3:33:56 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PROJECT OVERVIEW	SHEET 3 E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\PROJECT OVERVIEW.DWG
LAYOUT : 1
PLOT DATE : 7/29/2014
PLOT TIME : 2:28:39 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

MATCH LINE STA. 164+00

MATCH LINE STA. 235+00

BURLINGTON NORTHERN-SANTA FE RAILROAD

STRUCTURE B-06-0066

165 170 175 180 185 190 195 200 205 210 215 220 225 230 235

PC: 172+76.07

PT: 186+52.86

STH 35

PC: 200+17.89

PT: 207+59.52

MIKE VARENICK RD

PC: 225+48.94

DEER CREEK RD

PT: 233+20.80

MATCH LINE STA. 235+00

BURLINGTON NORTHERN-SANTA FE RAILROAD

240 245 250 255 260 265 270 275 280 285 290 295 300 305 310

PC: 248+48.72

STH 35

PT: 259+40.78

PC: 271+20.61

PT: 280+37.44

PC: 291+42.85

PT: 298+10.86

PC: 305+04.02

MARKEY BLUFF RD

MATCH LINE STA. 310+00

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\PROJECT OVERVIEW.DWG
LAYOUT : 2

PLOT DATE : 7/29/2014
PLOT TIME : 2:30:58 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PROJECT OVERVIEW	SHEET 5	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\PROJECT OVERVIEW.DWG
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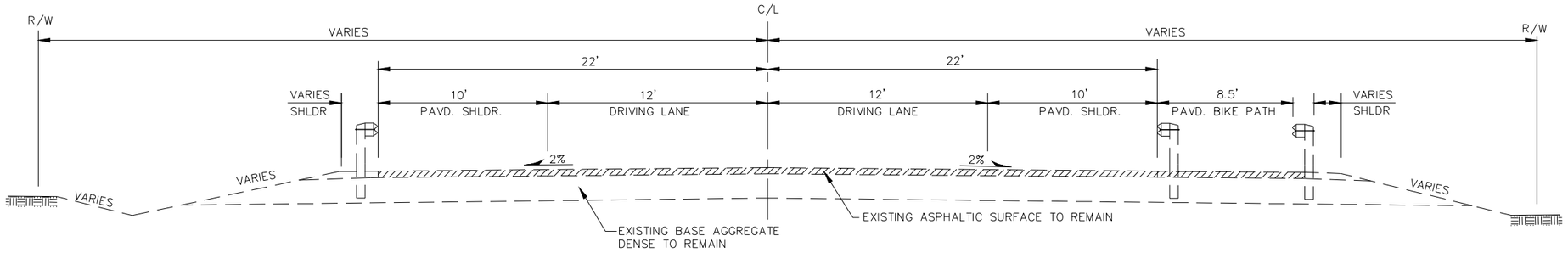
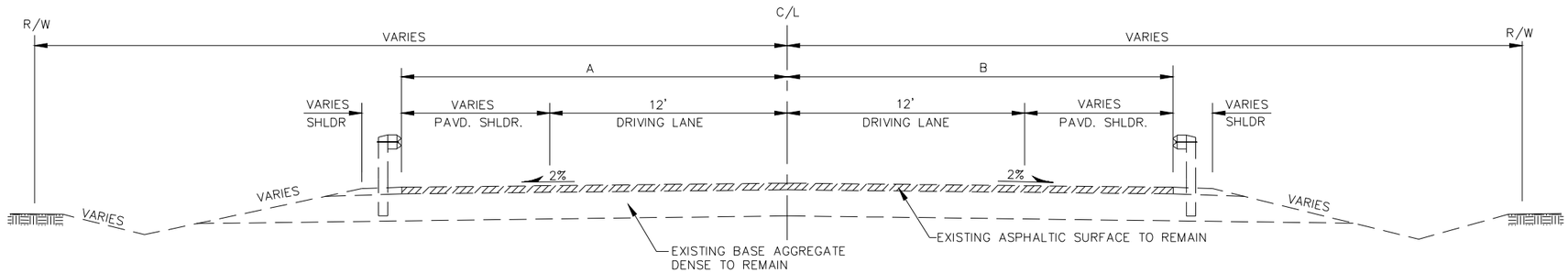
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



TYPICAL EXISTING SECTION

STH 35
STA. 34+01 – STA. 34+91



TYPICAL EXISTING SECTION

STH 35

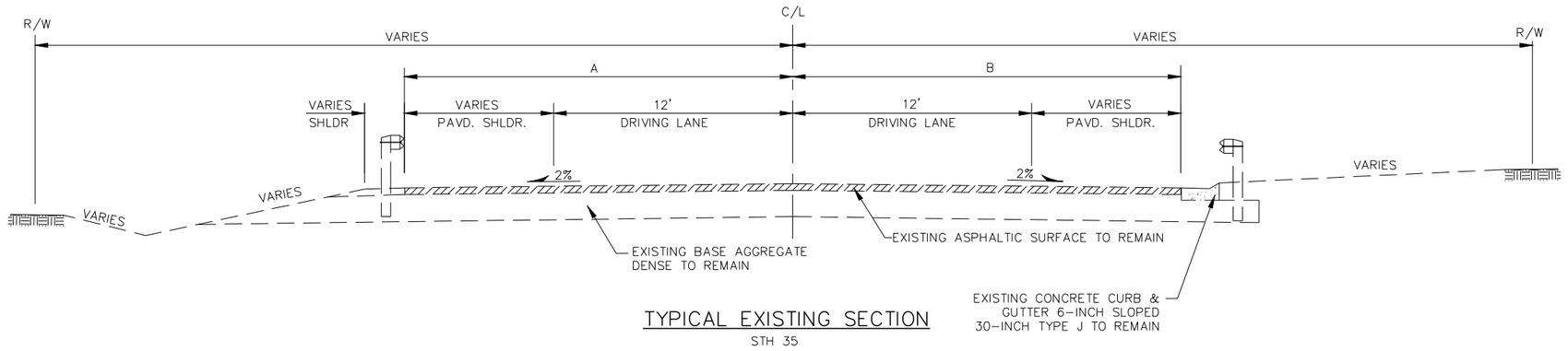
STA.–STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
34+91 – 36+18	15'	18'–30'(1)		X
36+18 – 36+45	14'–15'	18'		X
55+20 – 55+87	20'–22'	14'		
55+87 – 58+44	20'–22'	14'–19'(2)	X	
119+47 – 121+12	17'–18'	15'	X	
133+78 – 143+86	17'–18'	15'	X	
154+81 – 159+54	18'	15'	X	
159+54 – 171+49	15'	15'		
171+49 – 171+86	17'	15'–16'	X	
187+43 – 188+18	15'	16'		

STA.–STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
192+99 – 193+98	17'	18'	X	X
193+98 – 198+51	14'–15'	14'–16'		
209+27 – 213+68	14'–15'	14'–16'		
213+68 – 215+48	15'	15'–21'(3)		
215+48 – 216+26	15'–18'	19'	X	
216+26 – 217+18	18'	17'	X	X
217+70 – 219+49	18'	17'	X	X
219+49 – 223+87	14'–16'	14'–15'		
234+83 – 243+15	14'–16'	14'–15'		
243+15 – 246+60	18'	15'	X	

STA.–STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
261+30 – 265+86	18'	15'	X	
282+27 – 289+43	15'	15'		
301+01 – 303+24	15'	15'		
324+98 – 326+40	15'–16'	15'–16'		
338+76 – 338+92	15'–16'	15'–16'		
338+92 – 339+35	15'–18'	15'–18'		
339+35 – 346+96	18'–19'	17'–18'		

*BEAM GUARD OCCURS WHEN INDICATED BY "X"

(1) BIKE LANE TAPER ENDS
(2) INTERSECTION AT CTH I
(3) INTERSECTION AT MIKE VAREICK RD



TYPICAL EXISTING SECTION

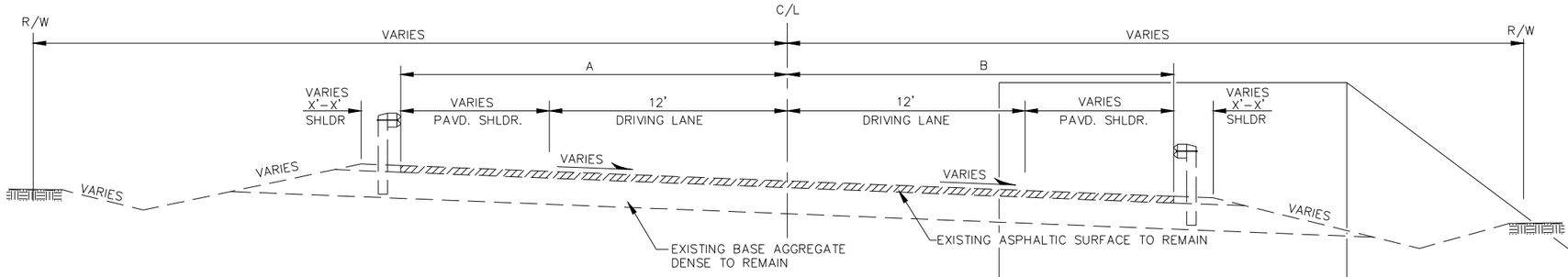
STH 35

STA.–STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
58+44 – 61+04	15'–16'	16'–18'		
74+30 – 76+98	15'–16'	16'–18'		
76+98 – 78+71	16'	17'–23' (4)		
80+79 – 89+26	15'	18'		
89+26 – 93+76	15'–23' (5)	18'		
93+76 – 94+44	18'–22' (5)	18'	X	X
94+44 – 97+34	17'–18'	18'–19'	X	X
97+34 – 119+47	17'–18'	18'–19'	X	
188+18 – 192+49	15'	18'–19'		
192+49 – 192+99	15'	18'	X	X
265+86 – 269+31	16'	17'		

*BEAM GUARD OCCURS WHEN INDICATED BY "X"

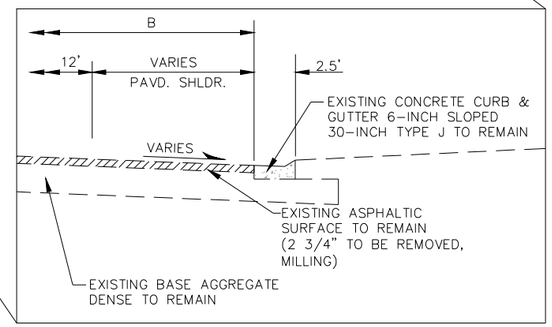
(4) RIGHT TURN LANE AT HIGH SCHOOL ROAD

(5) BYPASS LANE AT SPRING CREEK RD



TYPICAL EXISTING SUPERELEVATED SECTION

STH 35



STA.-STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
36+45 - 49+13	14'-15'	18'		X
49+13 - 54+77	15'	15'		
54+77 - 55+20	20'-22'	14'		
121+12 - 133+78	17'-18'	15'	X	
143+86 - 148+12	17'-18'	15'	X	
150+45 - 154+81	18'	15'	X	
171+86 - 186+95	17'	15'-16'	X	
186+95 - 187+43	15'	16'		
198+51 - 209+27	14'-15'	14'-16'		
223+87 - 234+83	14'-16'	14'-15'		
246+60 - 261+30	18'	15'	X	
269+31 - 275+06	15'-16'	14'-16'		

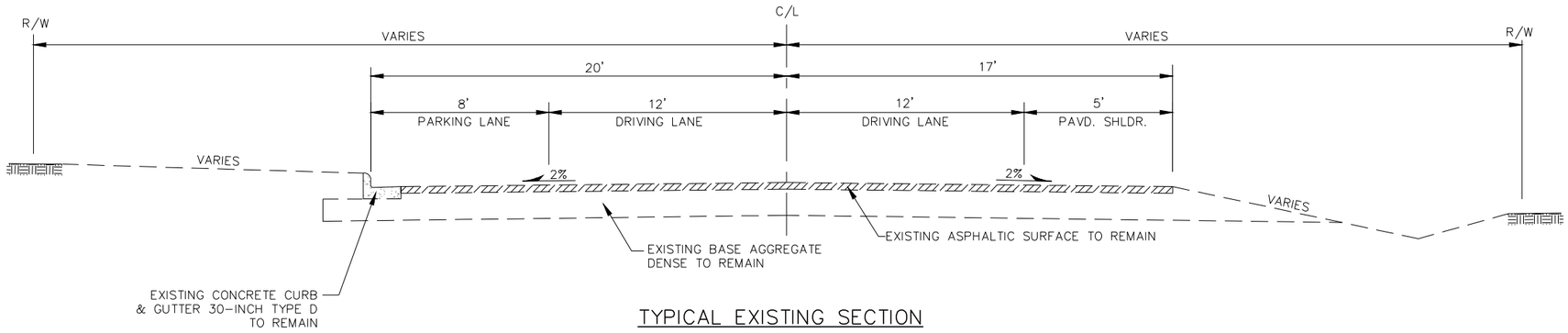
STA.-STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
275+06 - 277+56	17'	16'	X	
277+56 - 280+47	17'	18'	X	X
280+47 - 281+82	17'-18'	16'	X	
281+82 - 282+27	15'	15'		
289+43 - 290+01	15'	15'		
290+01 - 299+45	18'-19'	15'	X	
299+45 - 301+01	15'	15'		
303+24 - 311+66	15'	15'		
311+66 - 312+85	15'-18'	15'-18'	X	X
312+85 - 324+98	15'-16'	15'-16'		
326+40 - 338+76	15'-16'	15'-16'		

STA.-STA.	A	B	BEAM GUARD*	
			LT SIDE	RT SIDE
61+04 - 74+30	15'-16'	16'-18'		
78+71 - 80+79	16'	17'-23'(4)		
148+12 - 150+45	18'	18'	X	
269+31 - 269+56	16'	17'		

*BEAM GUARD OCCURS WHEN INDICATED BY "X"

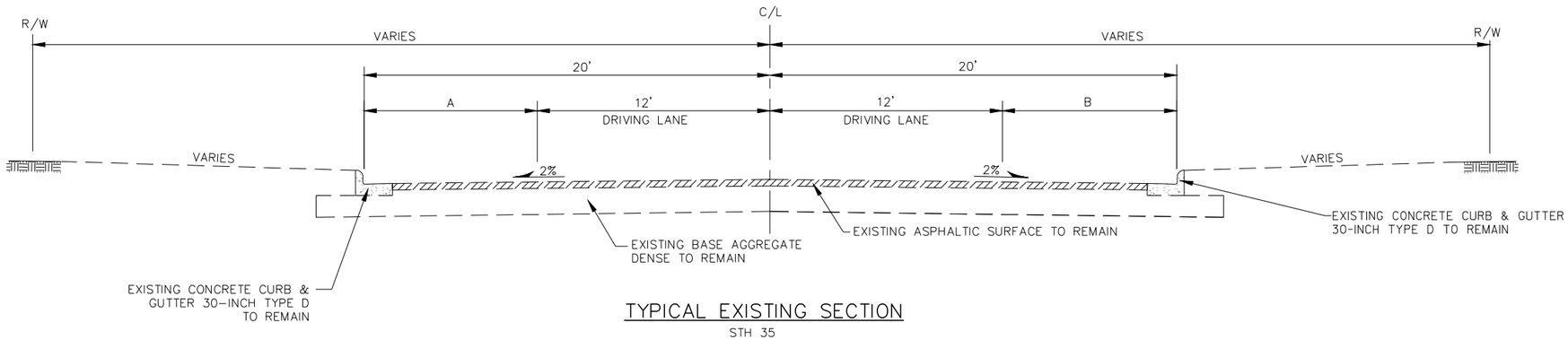
(4) RIGHT TURN LANE AT HIGH SCHOOL ROAD

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\EXISTING TYPICALS.DWG
LAYOUT : 3
PLOT DATE : 4/16/2015
PLOT TIME : 3:39:40 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



TYPICAL EXISTING SECTION

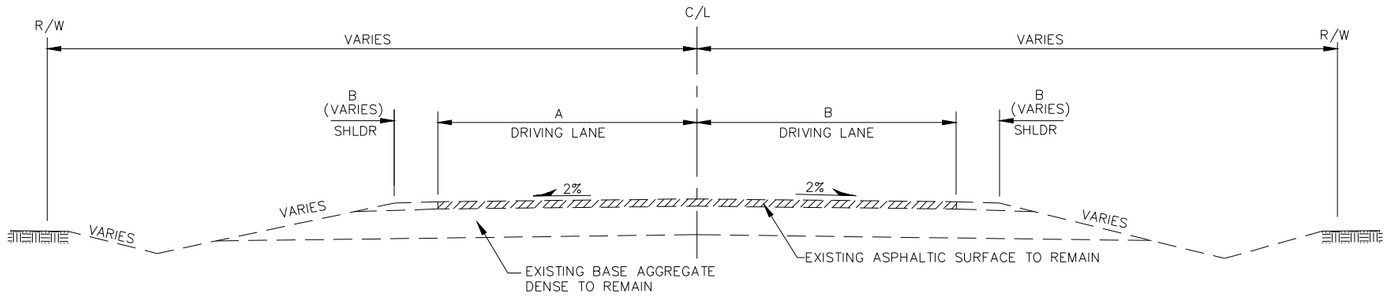
STH 35
STA. 346+96 – STA. 350+93



TYPICAL EXISTING SECTION

STH 35
STA. 350+93 – STA. 365+70

STA.–STA.	A		B	
	WIDTH (FT.)	TYPE	WIDTH (FT.)	TYPE
350+93 – 352+47	8	PARKING	8	PARKING
352+47 – 362+48	8 – 12	PARKING	8 – 12	PARKING
362+48 – 365+70	10 – 11	AUXILLARY	13 – 17	TURN

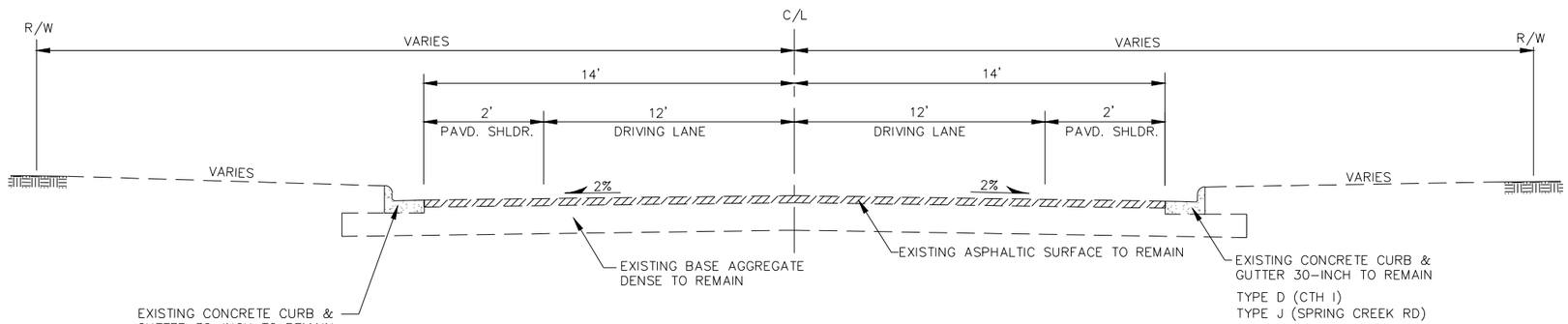


TYPICAL EXISTING SECTION – SIDEROAD

(SEE LOCATION AND DIMENSIONS OF SIDEROADS BELOW)

SIDEROAD	STA.	A	B	PAVEMENT TYPE
HIGH SCHOOL RD	79+48, RT.	12'	2'	ASPHALT
HILL VIEW ST	106+17, RT.	10'	0'	ASPHALT
HILL VIEW ST	113+30, RT.	10'	0'	ASPHALT
MIKE VARENICK RD	215+25, RT.	11'	2'	ASPHALT
DEER CREEK RD	230+65, RT.	10'	2'	ASPHALT
MARKEY BLUFF RD	307+10, RT.	9'	0'	ASPHALT
IST ST (SOUTH)	336+18, LT.	6'	0'	ASPHALT

SIDEROAD	STA.	A	B	PAVEMENT TYPE
1ST ST (NORTH)	336+26, RT.	10'	0'	ASPHALT
2ND ST	340+00, LT.	10'	0'	ASPHALT
3RD ST (NORTH)	343+68, RT.	10'	0'	ASPHALT
3RD ST (SOUTH)	343+70, LT.	12'	0'	ASPHALT
4TH ST	347+47, RT.	10'	0'	ASPHALT
LINCOLN ST	363+25, RT.	10'	0'	ASPHALT



TYPICAL EXISTING SECTION – SIDEROAD

STA. 58+62, RT. (CTH I)
STA. 92+34, RT. (SPRING CREEK RD)

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	TYPICAL SECTIONS - EXISTING	SHEET 10	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\EXISTING TYPICALS.DWG
LAYOUT : 5
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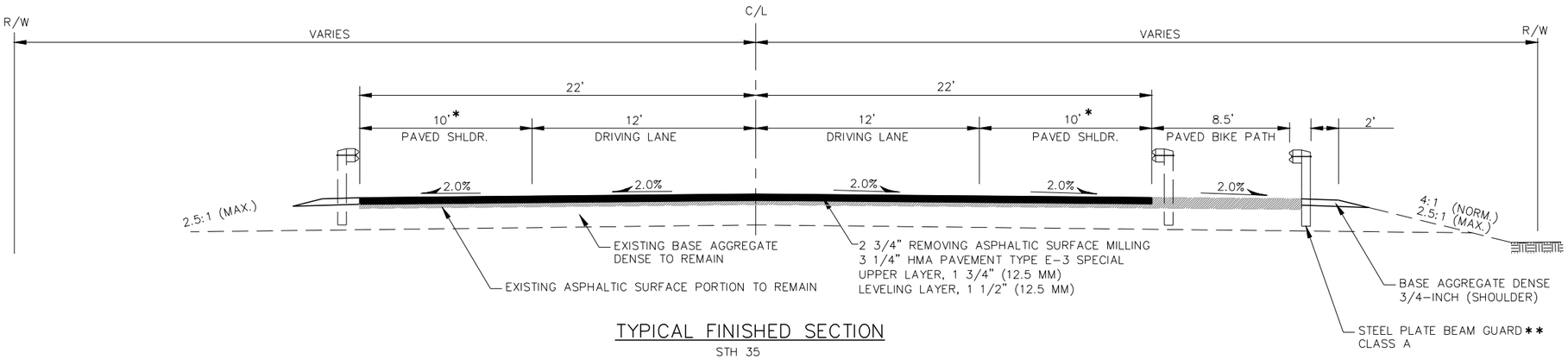
PLOT TIME : 3:39:58 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

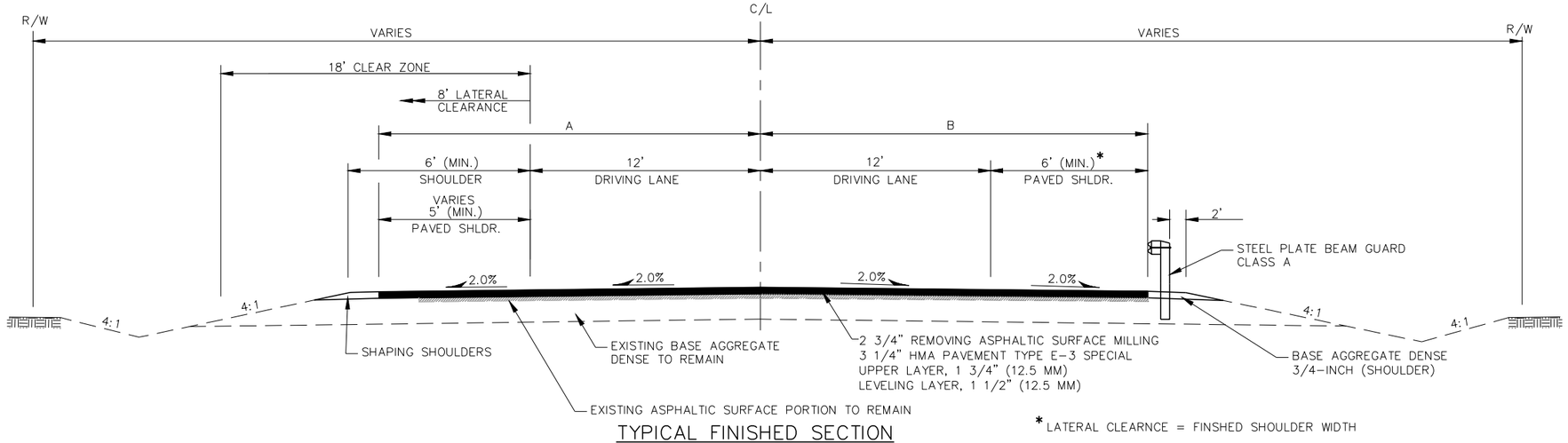


TYPICAL FINISHED SECTION

STH 35
STA. 34+01 – STA. 34+91

*LATERAL CLEARNCE = FINSHED SHOULDER WIDTH

**STA. 34+47 – STA. 34+91



TYPICAL FINISHED SECTION

STH 35

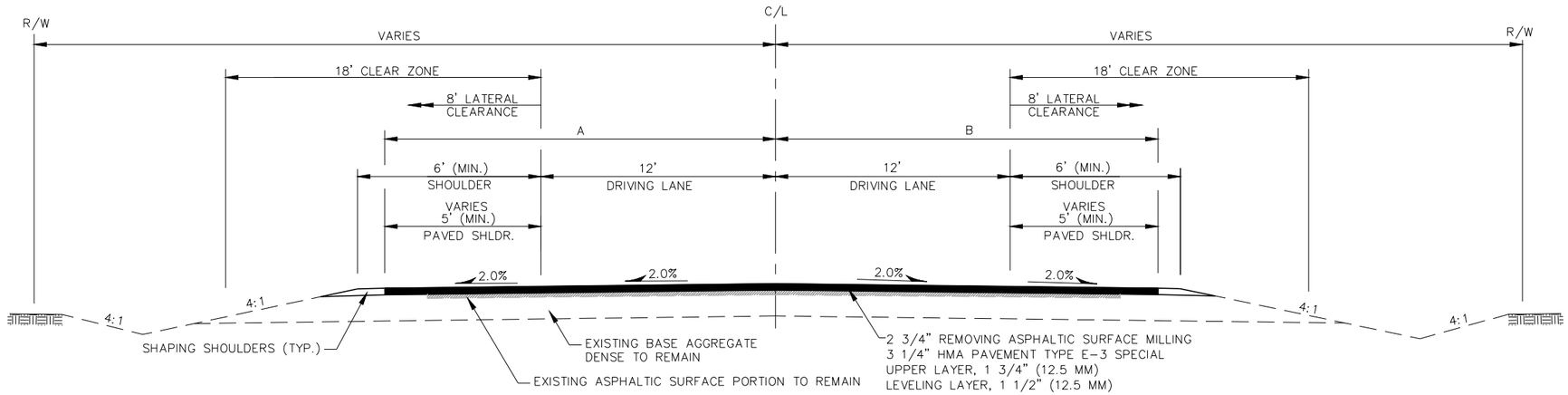
*LATERAL CLEARNCE = FINSHED SHOULDER WIDTH

STA.–STA.	A	B
34+91 – 36+18	17'	18'–30' (1)
36+18 – 49+13	17'	18'

(1) BIKE LANE TAPER ENDS

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 11	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\PROPOSED TYPICALS.DWG
LAYOUT : 1
PLOT DATE : 4/16/2015
PLOT TIME : 4:33:13 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



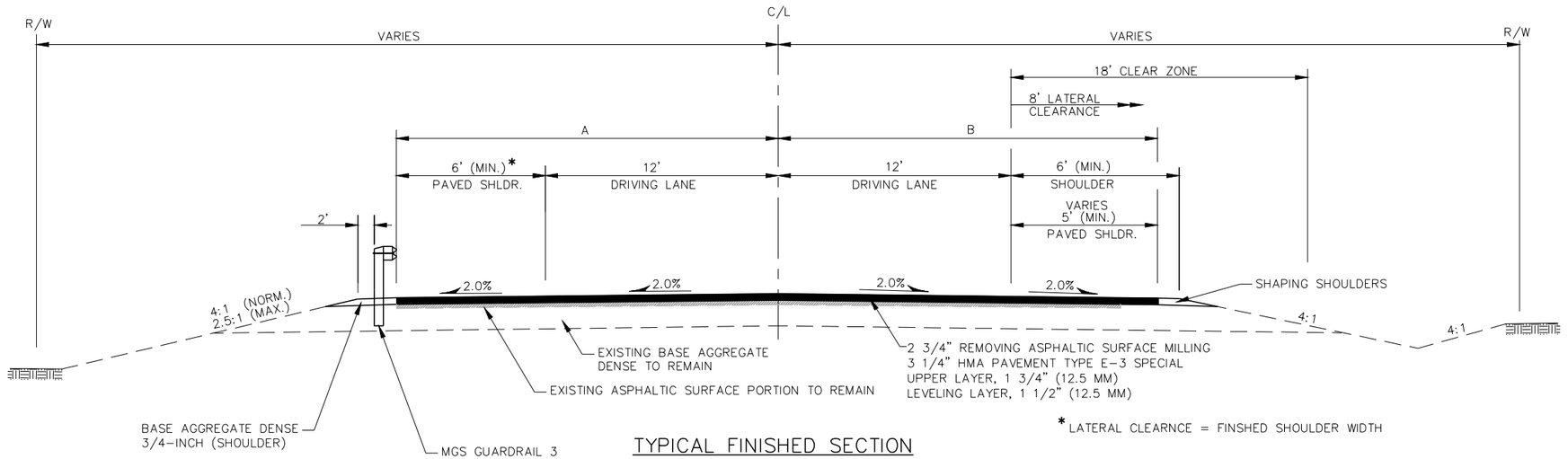
TYPICAL FINISHED SECTION

STH 35

STA.–STA.	A	B
49+13 – 54+77	17'	17'
54+77 – 55+87	20'–22'	17'
159+54 – 171+49	17'	17'
186+95 – 188+18	17'	17'
193+98 – 213+68	17'	17'
213+68 – 215+48	17'	17'–21' (2)
219+49 – 243+15	17'	17'
269+56 – 275+06	17'	17'
281+82 – 290+01	17'	17'
299+45 – 311+66	17'	17'
312+85 – 338+92	17'	17'
338+92 – 339+35	17'–18'	17'–18'
339+35 – 346+96	18'	18'

(2) INTERSECTION AT MIKE VAREICK RD

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\PROPOSED TYPICALS.DWG
LAYOUT : 2
PLOT DATE : 4/16/2015
PLOT TIME : 4:33:21 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



TYPICAL FINISHED SECTION

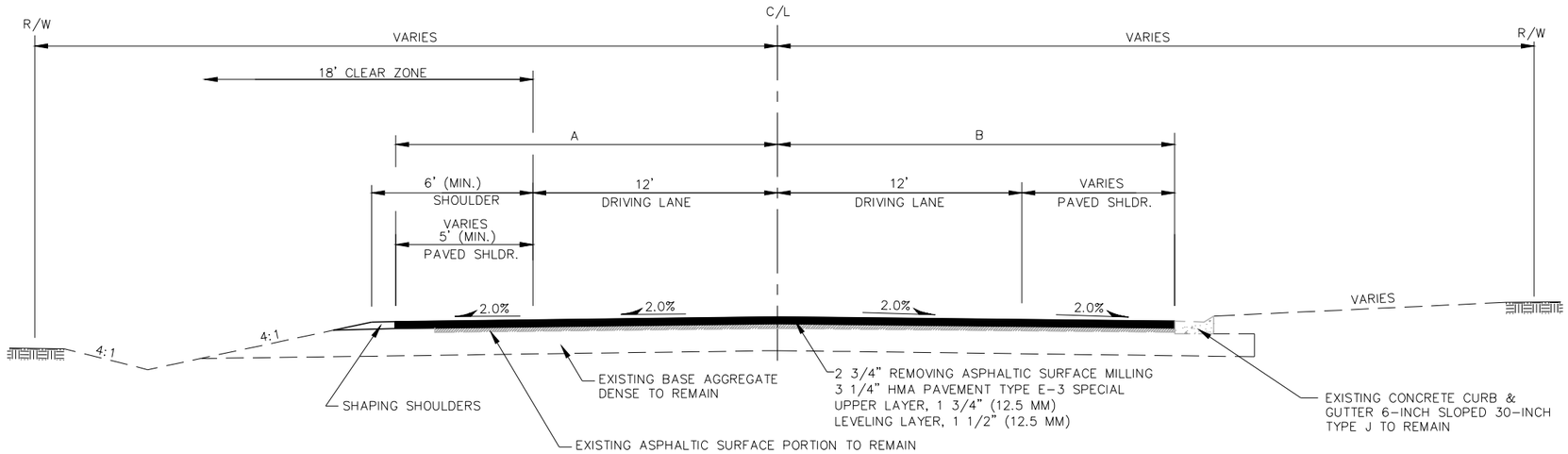
STH 35

STA.–STA.	A	B	REPLACE BEAM GUARD
55+87 – 58+44	19'–20'	17'–19' (3)	
119+47 – 148+12	18'	17'	X
150+45 – 159+54	18'	17'	X
171+49 – 186+95	18'	17'	X
215+48 – 216+26	18'	19'	X
243+15 – 265+86	18'	17'	X
275+06 – 277+56	18'	17'	X
280+47 – 281+82	18'	17'	X
290+01 – 299+45	18'	17'	X

(3) INTERSECTION AT CTH I

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 13	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\PROPOSED TYPICALS.DWG
LAYOUT : 3
PLOT DATE : 4/16/2015
PLOT TIME : 4:33:30 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



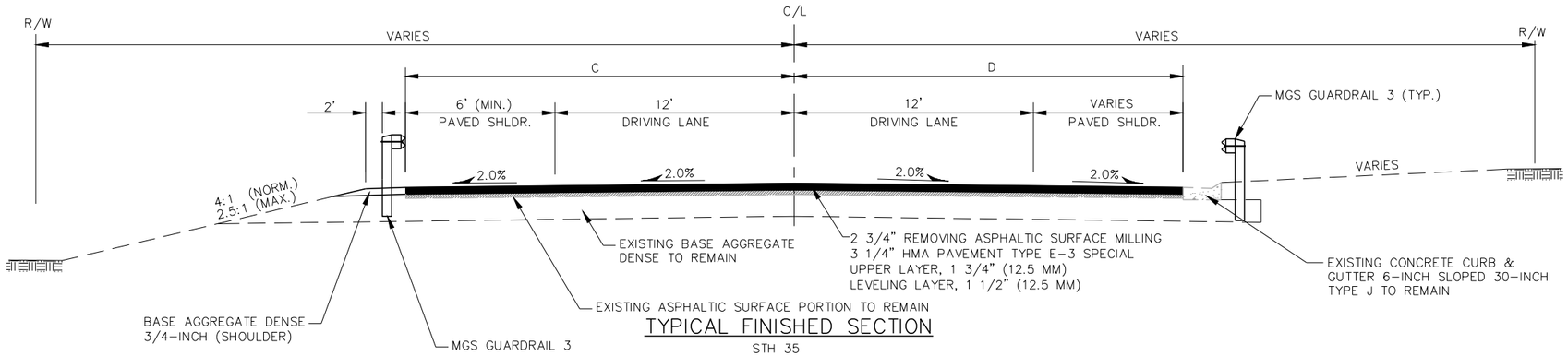
TYPICAL FINISHED SECTION

STH 35

STA.–STA.	A	B
58+44 – 76+98	17'	17'–18'
76+98 – 80+79	17'	17'–23' (4)
80+79 – 89+26	17'	18'
89+26 – 93+76	17'–25' (5)	18'
188+18 – 192+49	17'	18'–19'
265+86 – 269+56	17'	17'

(4) RIGHT TURN LANE AT HIGH SCHOOL ROAD

(5) BYPASS LANE AT SPRING CREEK RD

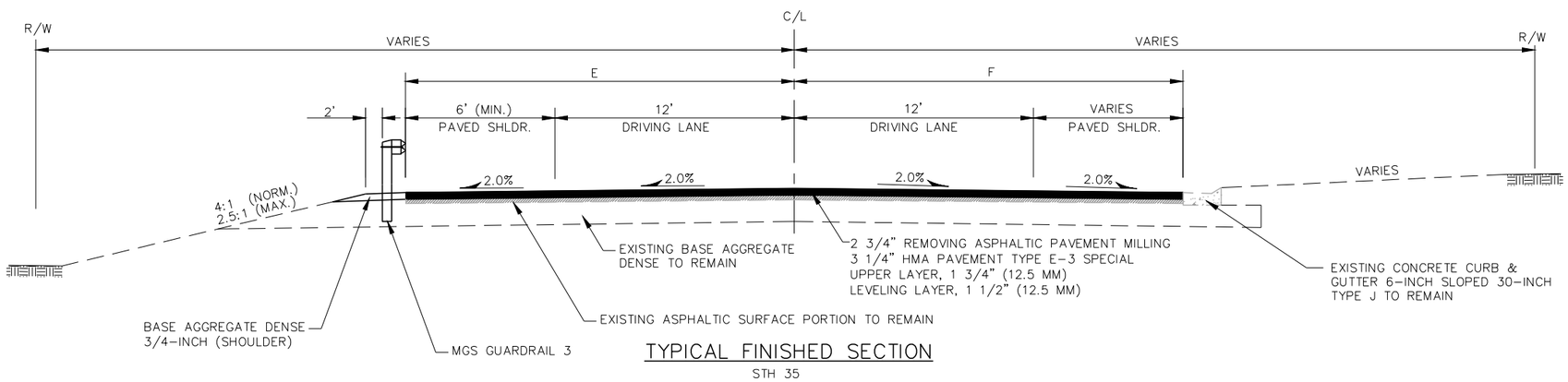


TYPICAL FINISHED SECTION

STH 35

STA.–STA.	C	D	REPLACE BEAM GUARD	
			LT SIDE	RT SIDE
93+76 – 94+44	18'–22' (5)	18'	X	X
94+44 – 97+34	18'	18'–19'	X	X
192+49 – 192+99	18'	18'	X	

(5) BYPASS LANE AT SPRING CREEK RD



TYPICAL FINISHED SECTION

STH 35

STA.–STA.	E	F	REPLACE BEAM GUARD
97+34 – 119+47	18'	18'–19'	X
148+12 – 150+45	18'	18'	X

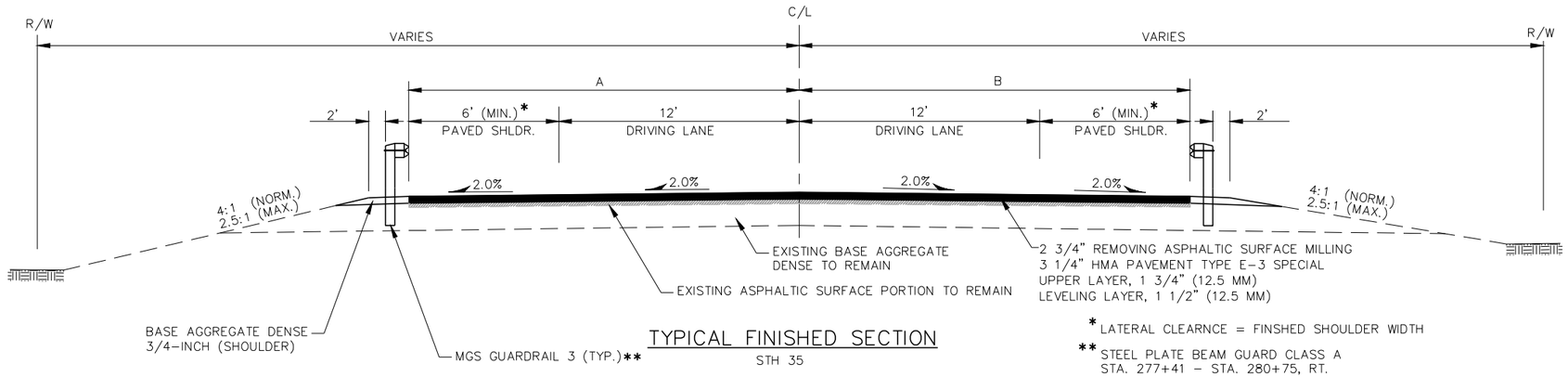
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 14	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\PROPOSED TYPICALS.DWG
LAYOUT : 4

PLOT DATE : 4/16/2015
PLOT TIME : 4:33:38 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'



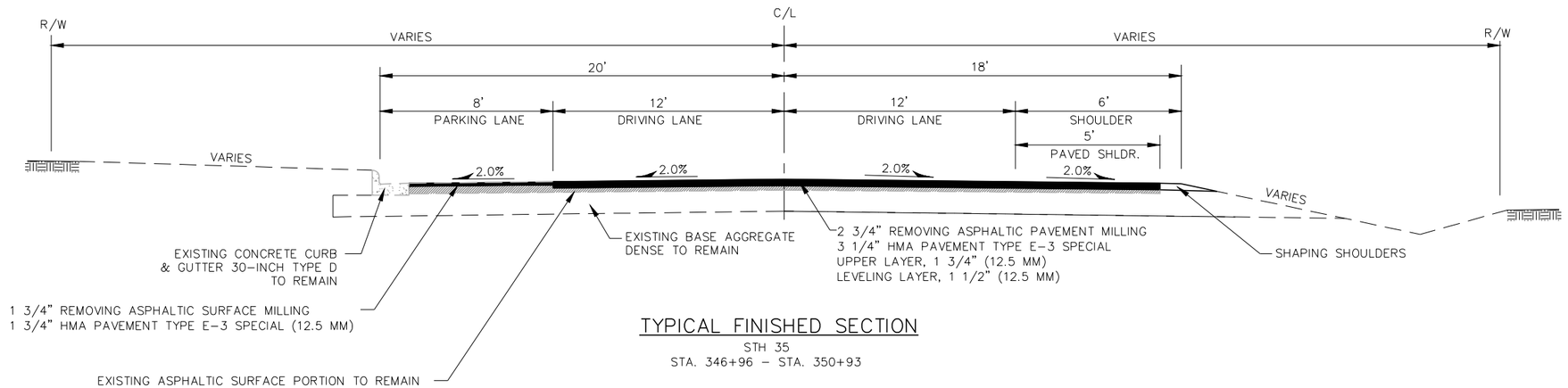
TYPICAL FINISHED SECTION

STH 35

* LATERAL CLEARNCE = FINSHED SHOULDER WIDTH

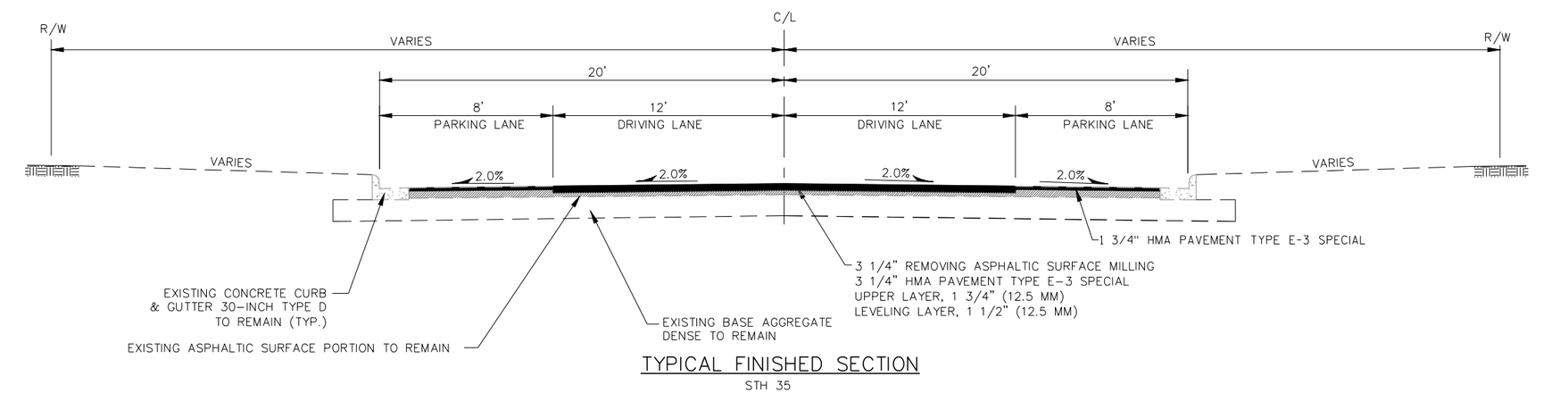
** STEEL PLATE BEAM GUARD CLASS A
STA. 277+41 – STA. 280+75, RT.

STA.–STA.	A	B	REPLACE BEAM GUARD	
			LT SIDE	RT SIDE
192+99 – 193+98	18'	18'	X	
216+26 – 217+18	18'	18'		X
217+70 – 219+49	18'	18'		X
277+56 – 280+47	18'	18'	X	X
311+66 – 312+85	18'	18'	X	X



TYPICAL FINISHED SECTION

STH 35
STA. 346+96 – STA. 350+93



TYPICAL FINISHED SECTION

STH 35
STA. 350+93 – STA. 352+47

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 15	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\PROPOSED TYPICALS.DWG
LAYOUT : 5
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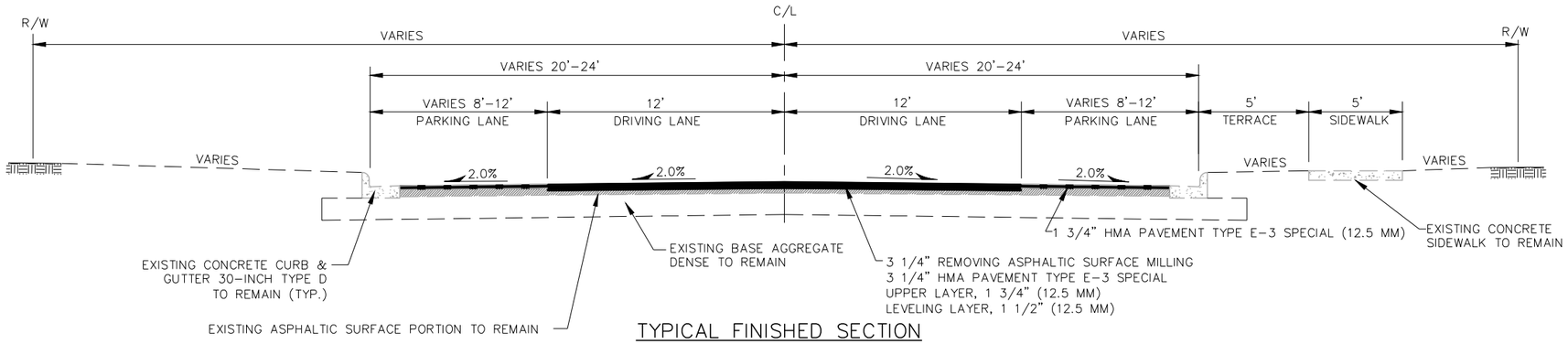
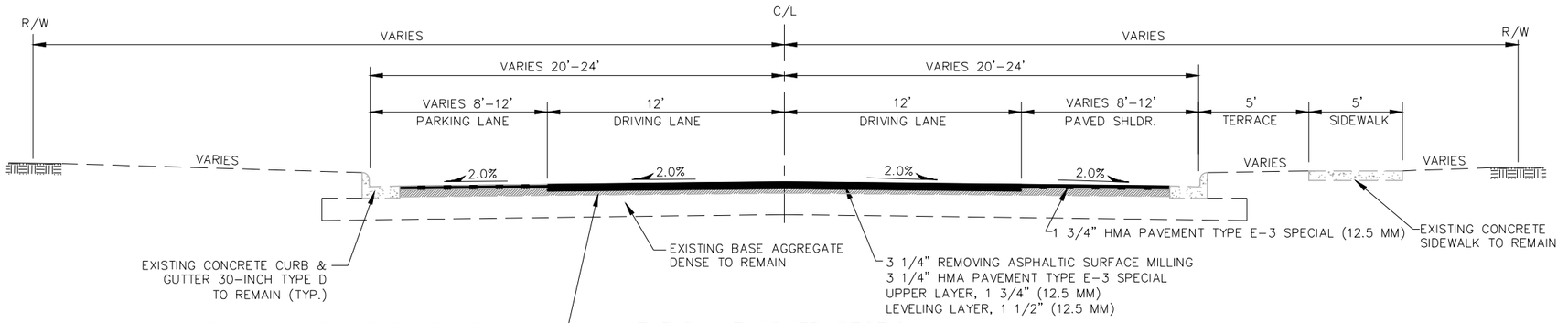
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



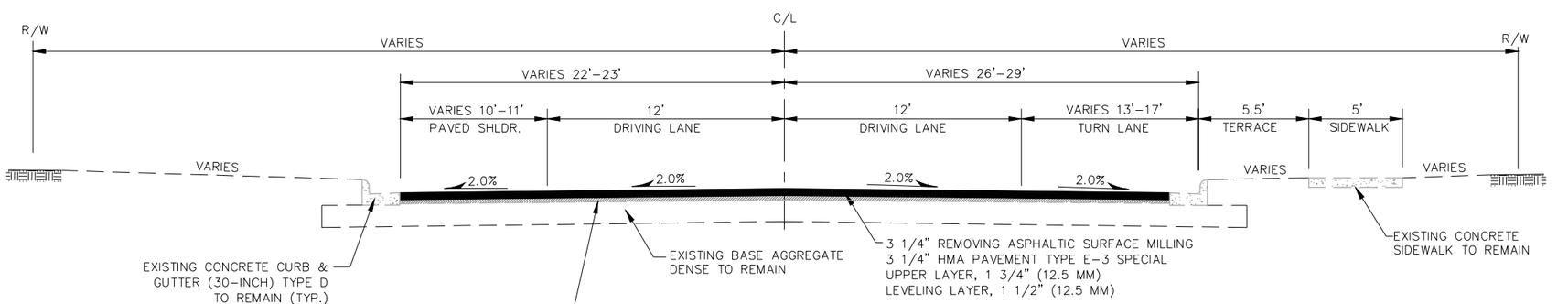
TYPICAL FINISHED SECTION

STH 35
STA. 352+47 – STA. 355+85
STA. 358+75 – STA. 363+25



TYPICAL FINISHED SECTION

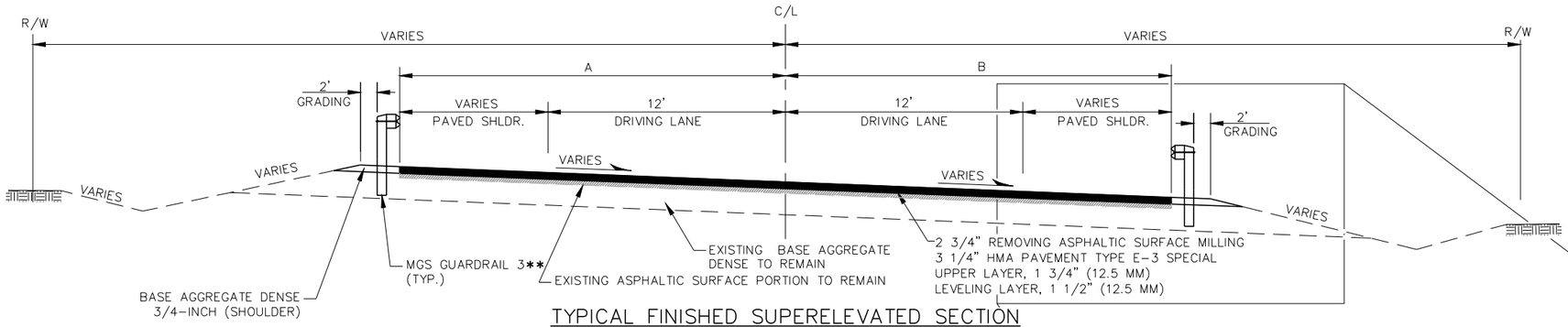
STH 35
STA. 355+85 – STA. 358+75



TYPICAL FINISHED SECTION

STH 35
STA. 363+25 – STA. 365+70

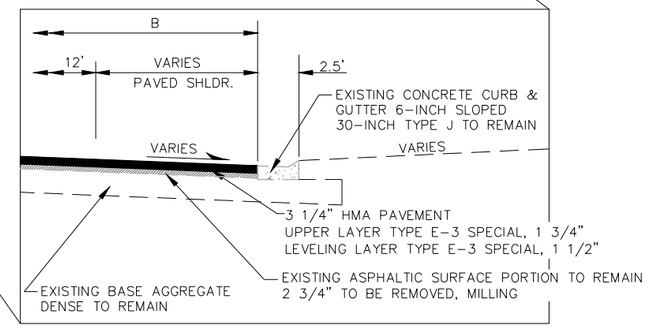
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 16	E



TYPICAL FINISHED SUPERELEVATED SECTION

STH 35

** STEEL PLATE BEAM GUARD CLASS A
STA. 277+41 – STA. 280+75, RT.
STA. 294+72 – STA. 299+45, LT.

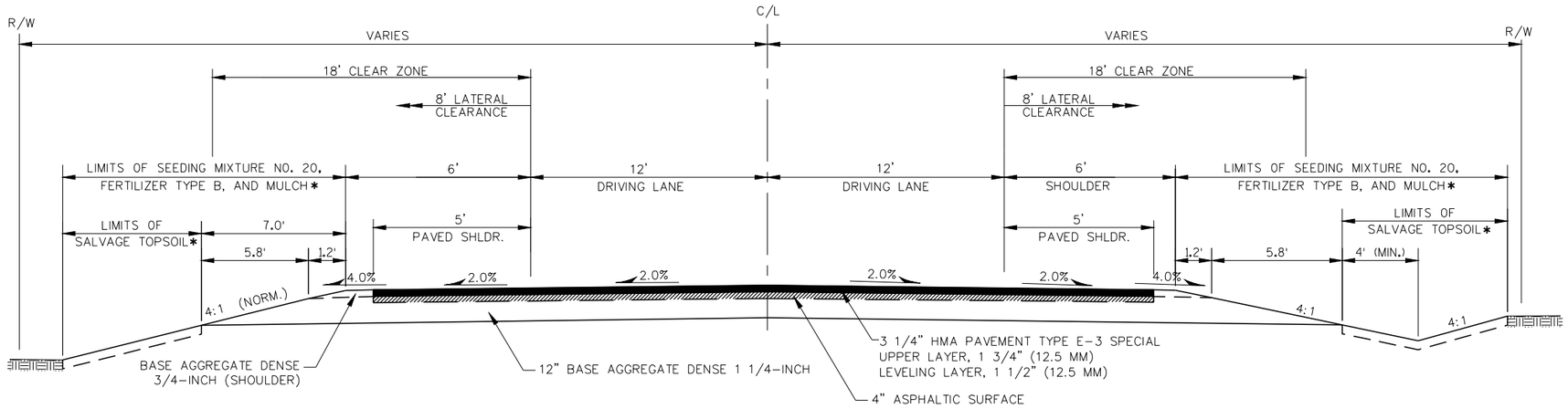


STA.–STA.	A	B	REPLACE BEAM GUARD	
			LT SIDE	RT SIDE
36+45 – 49+13	14'–15'	18'		X
49+13 – 54+77	15'	15'		
54+77 – 55+20	20'–22'	14'		
121+12 – 133+78	17'–18'	15'	X	
143+86 – 148+12	17'–18'	15'	X	
150+45 – 154+81	18'	15'	X	
171+86 – 186+95	17'	15'–16'	X	
186+95 – 187+43	15'	16'		
198+51 – 209+27	14'–15'	14'–16'		
223+87 – 234+83	14'–16'	14'–15'		
246+60 – 261+30	18'	15'	X	
269+31 – 275+06	15'–16'	14'–16'		

STA.–STA.	A	B	REPLACE BEAM GUARD	
			LT SIDE	RT SIDE
275+06 – 277+56	17'	16'	X	
277+56 – 280+47	17'	18'	X	X
280+47 – 281+82	17'–18'	16'	X	X
281+82 – 282+27	15'	15'		
289+43 – 290+01	15'	15'		
290+01 – 299+45	18'–19'	15'	X	
299+45 – 301+01	15'	15'		
303+24 – 311+66	15'	15'		
311+66 – 312+85	15'–18'	15'–18'	X	X
312+85 – 324+98	15'–16'	15'–16'		
326+40 – 338+76	15'–16'	15'–16'		

STA.–STA.	A	B	REPLACE BEAM GUARD	
			LT SIDE	RT SIDE
61+04 – 74+30	15'–16'	16'–18'		
78+71 – 80+79	16'	17'–23'(4)		
148+12 – 150+45	18'	18'	X	
269+31 – 269+56	16'	17'		

(4) RIGHT TURN LANE AT HIGH SCHOOL ROAD



TYPICAL FINISHED SECTION

STH 35
STA. 163+07 – STA. 164+17
(CULVERT PIPE REPLACEMENT)

* INCIDENTAL TO BID ITEM "FILL SLOPE GRADING SHAPING FINISHING"

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	TYPICAL SECTIONS - FINISHED	SHEET 18	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\TYPICALS\PROPOSED TYPICALS.DWG
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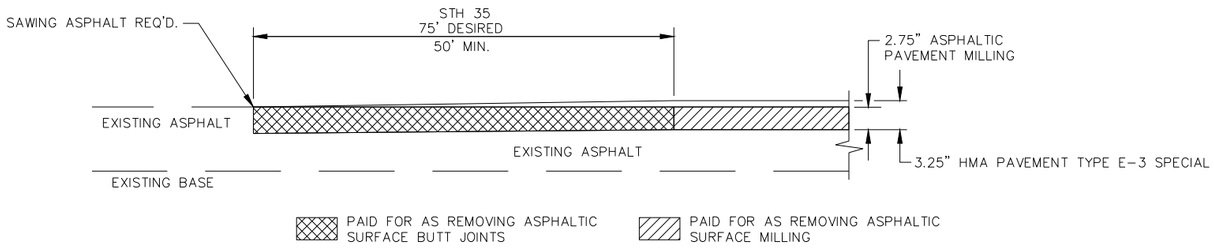
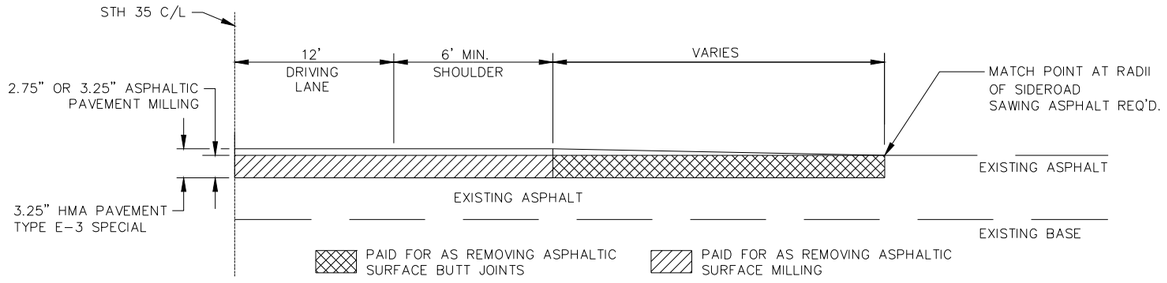
PLOT DATE : 8/4/2015
PLOT TIME : 7:56:56 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



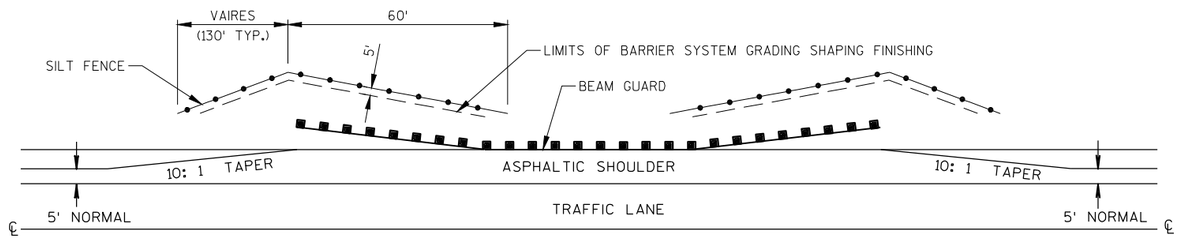
NOTE: REQUIRED AT BEGIN AND END OF PAVING LOCATIONS

DETAILS OF TRANSVERSE JOINT

STA. 34+01 – STA. 34+76
STA. 216+43 – STA. 217+18
STA. 217+70 – STA. 218+45



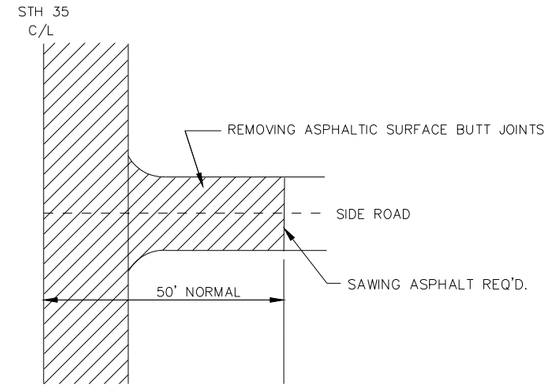
BUTT JOINT DETAILS OF HMA PAVEMENT AT SIDEROADS



DETAIL FOR ASPHALTIC SHOULDER AND SILT FENCE AT BEAM GUARD

STH 35

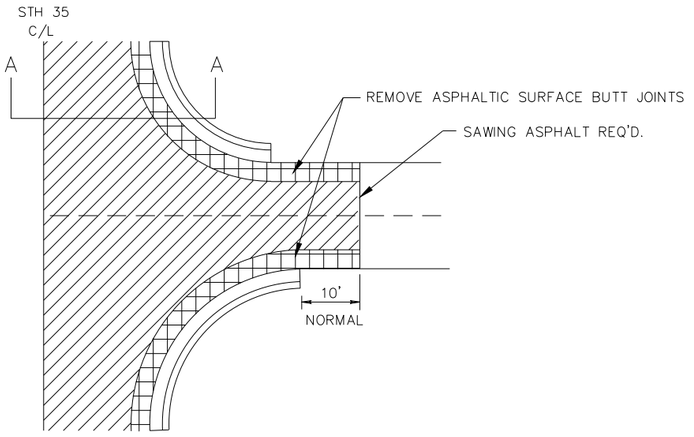
SEE SDD "MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)" FOR GRADING DETAILS



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

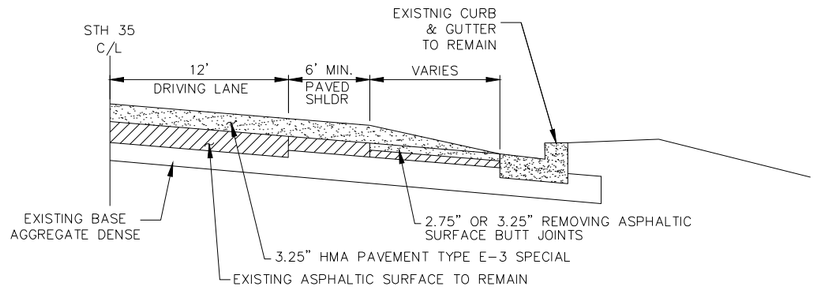
SIDE ROAD DETAIL – NO CURB & GUTTER

NOT TO SCALE

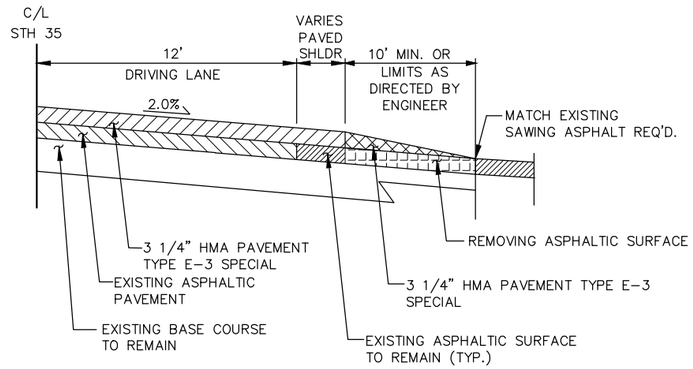


SIDEROAD DETAIL – CURB & GUTTER TO REMAIN

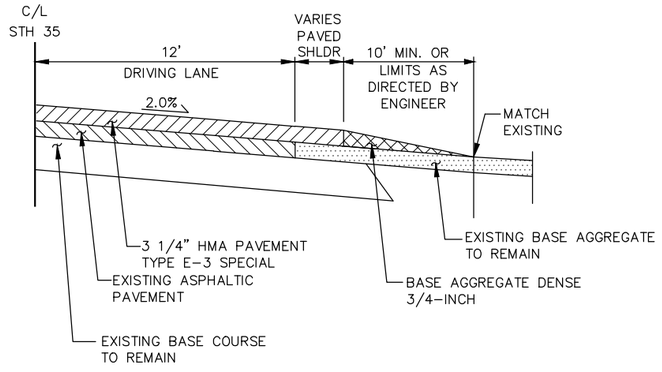
NOT TO SCALE



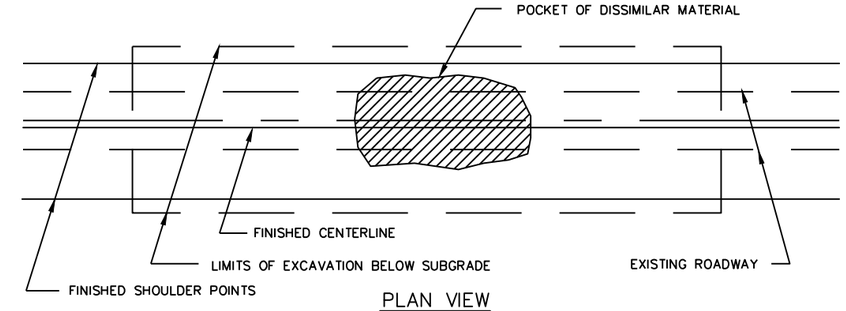
SECTION A–A



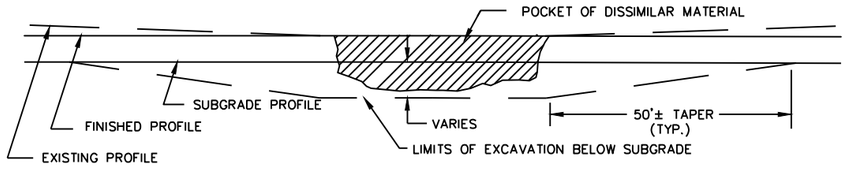
TYPICAL ASPHALT DRIVEWAY PROFILE



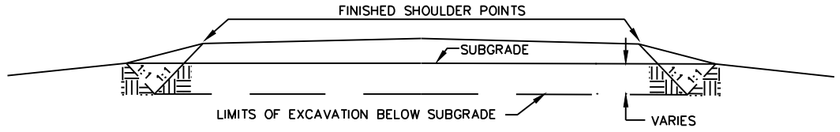
TYPICAL BASE AGGREGATE DENSE DRIVEWAY PROFILE



PLAN VIEW



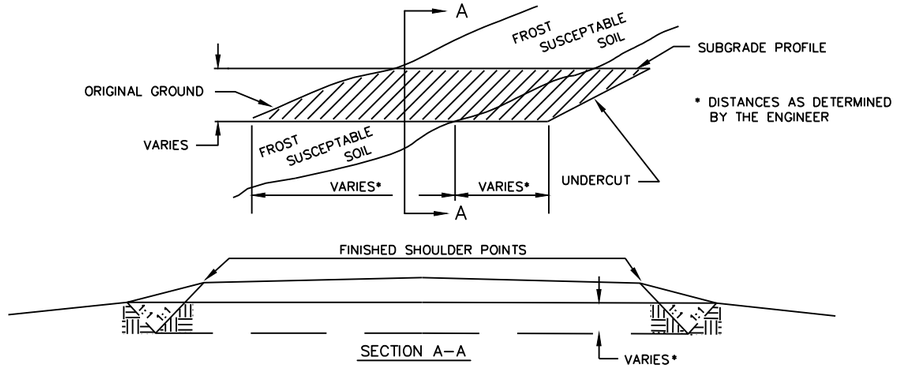
PROFILE VIEW



CROSS SECTION VIEW

1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.

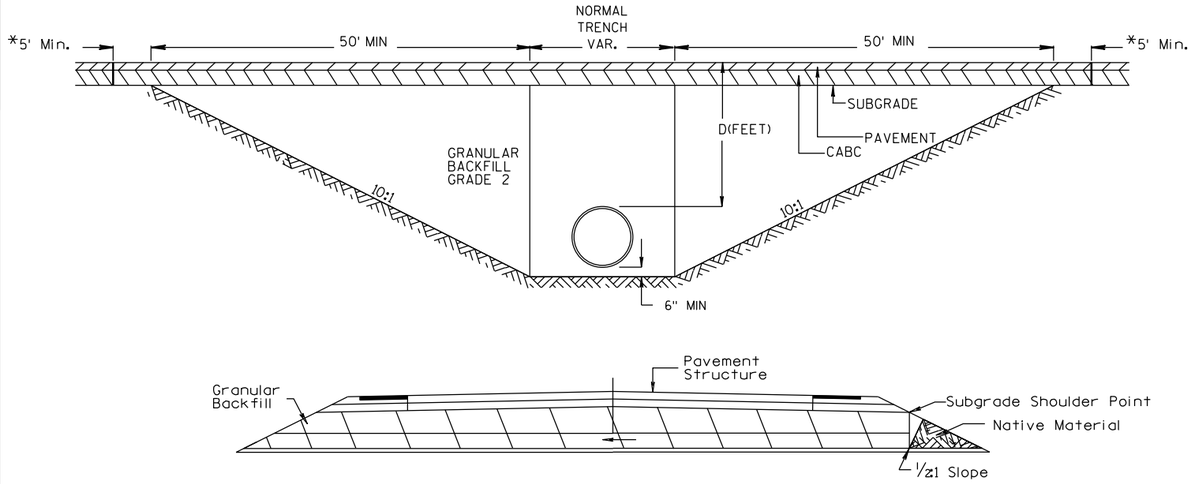
EXCAVATION BELOW SUBGRADE (E.B.S.)



DETAIL FOR EXCAVATION
AT MOUTH OF CUTS

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	CONSTRUCTION DETAILS - 2	SHEET 20	E

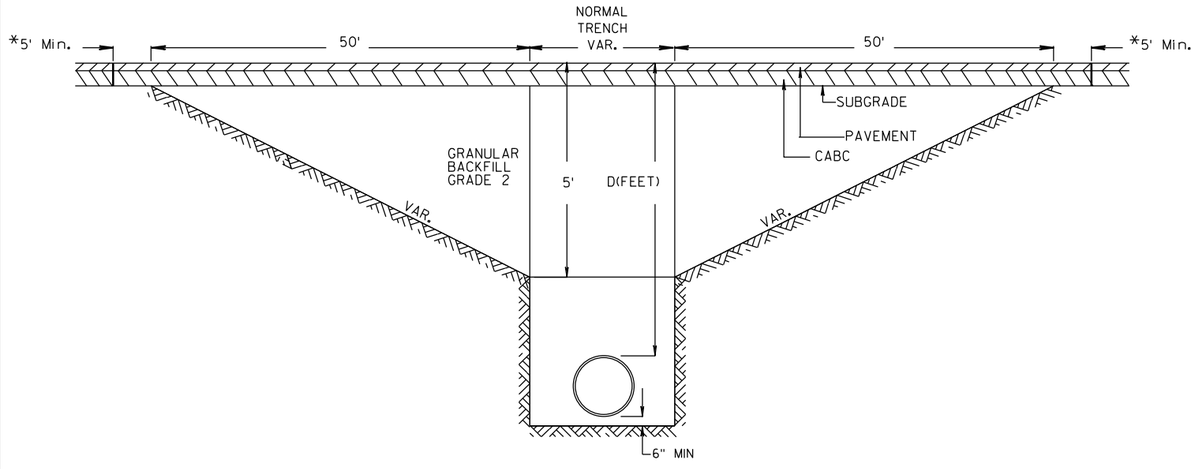
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\CONSTRUCTION DETAILS.DWG
LAYOUT : 2
PLOT DATE : 8/4/2015
PLOT TIME : 8:09:07 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

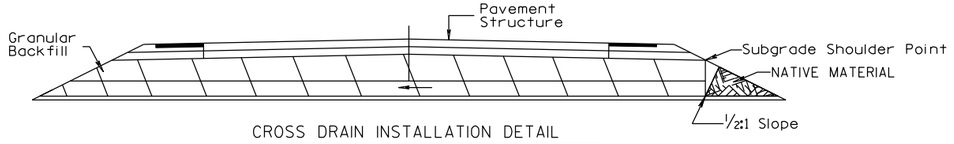


CROSS DRAIN INSTALLATION DETAIL

FOR D ≤ 5'

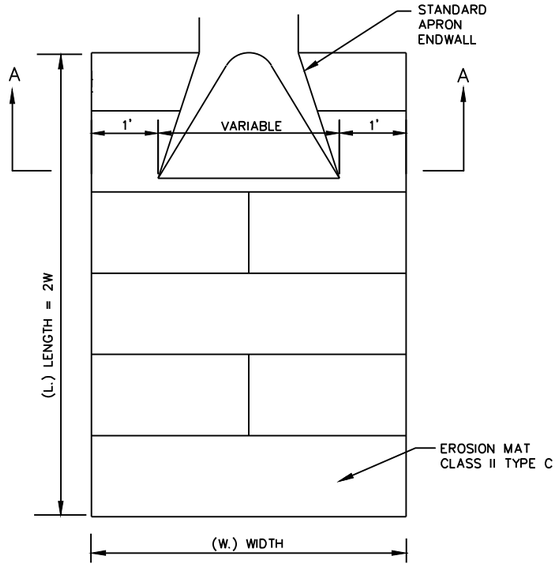
* Pavement Removal Limits (Typical)



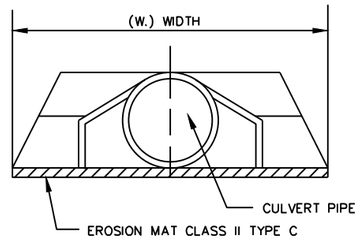


CROSS DRAIN INSTALLATION DETAIL

FOR D ≥ 5'



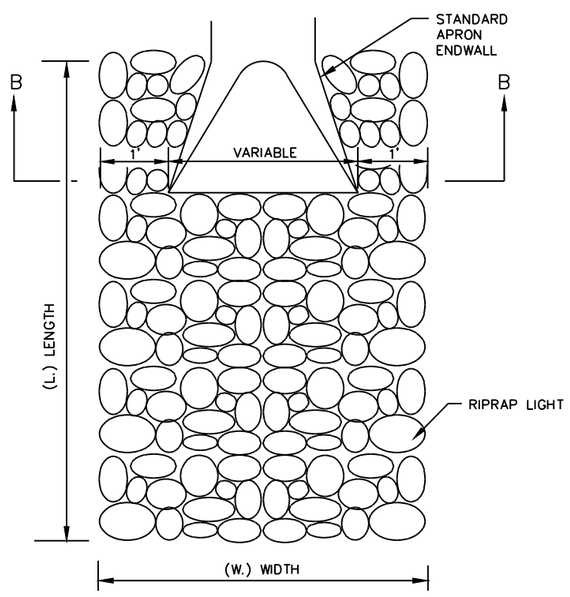
PLAN VIEW



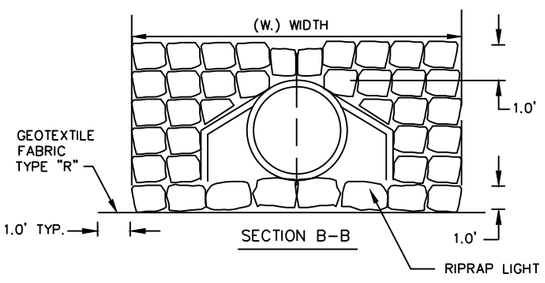
SECTION A–A

EROSION MAT CLASS II
TYPE C DISCHARGE APRON

SEE MISCELLANEOUS QUANTITIES
FOR LOCATIONS AND DIMENSIONS



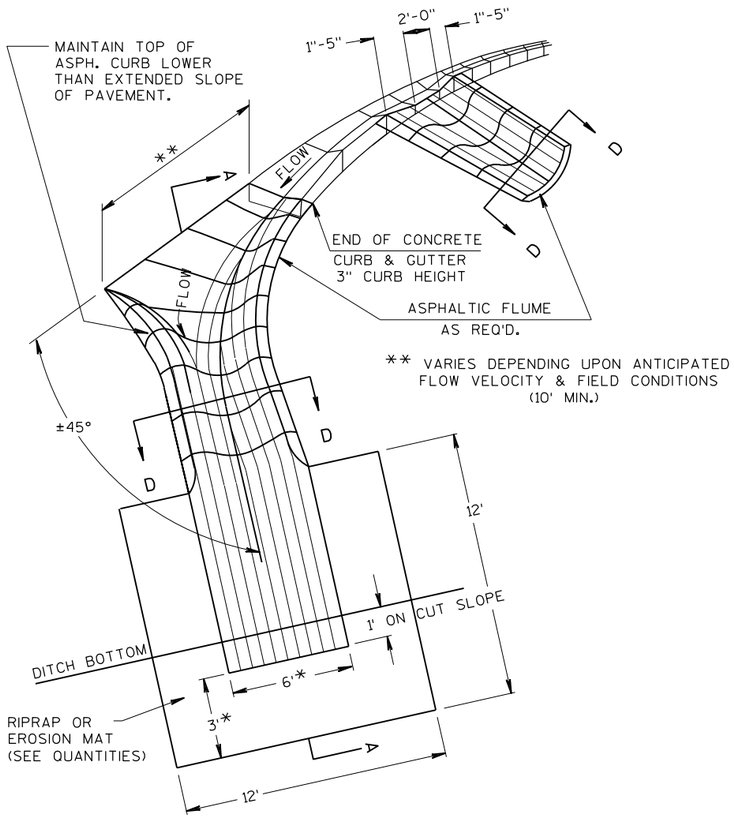
PLAN VIEW



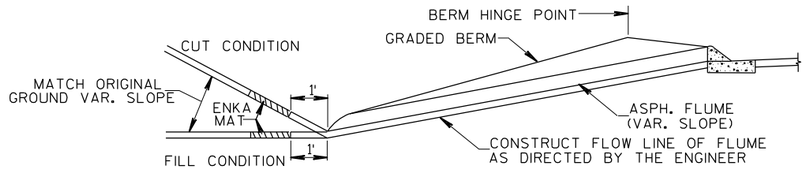
SECTION B–B

RIPRAP LIGHT DISCHARGE APRON

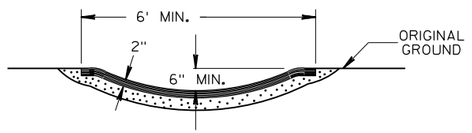
SEE MISCELLANEOUS QUANTITIES
FOR LOCATIONS AND DIMENSIONS



** VARIES DEPENDING UPON ANTICIPATED FLOW VELOCITY & FIELD CONDITIONS (10' MIN.)

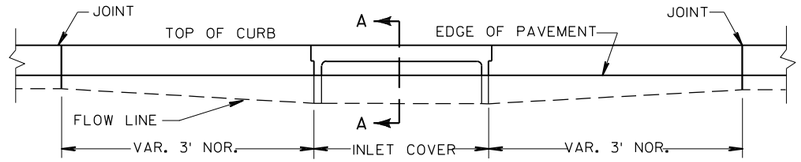


SECTION A-A

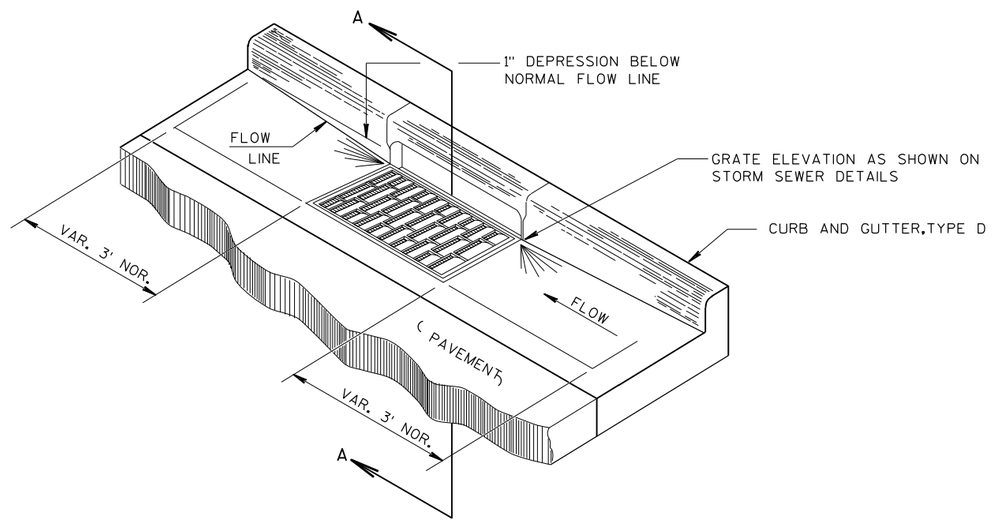


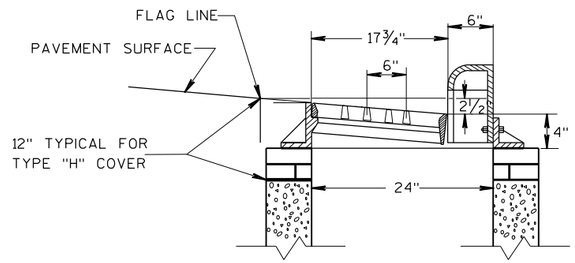
SECTION D-D

ASPHALTIC FLUME DETAIL AT RURAL INTERSECTIONS



ELEVATION

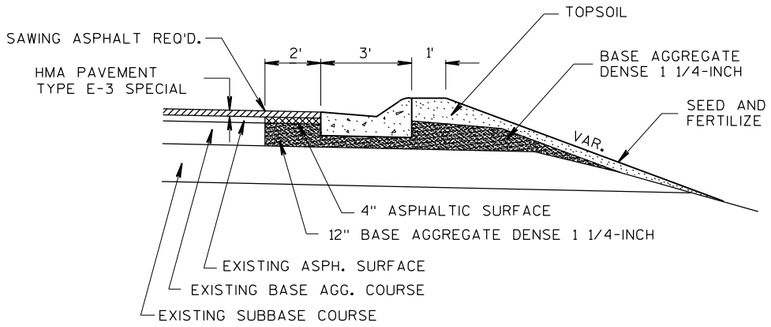




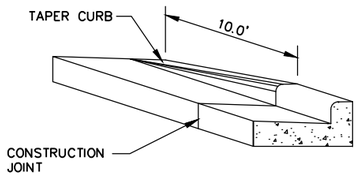
SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

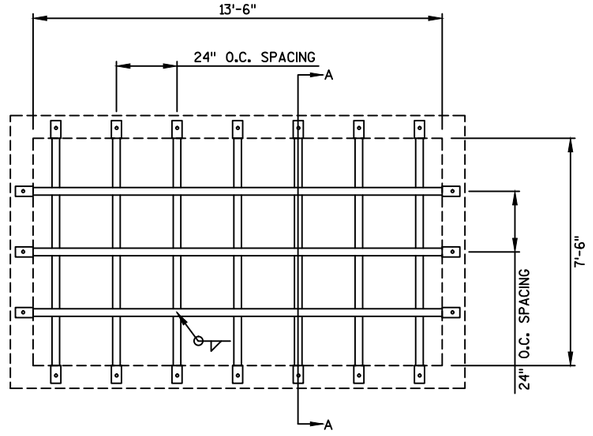
(INLET 2X3-FT - H SHOWN)

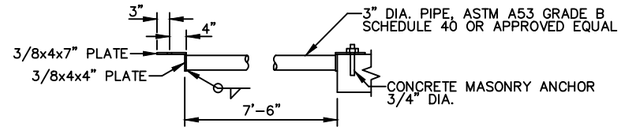


DETAIL OF CURB & GUTTER INSTALLATION

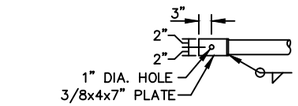


DETAIL OF CURB & GUTTER TERMINI

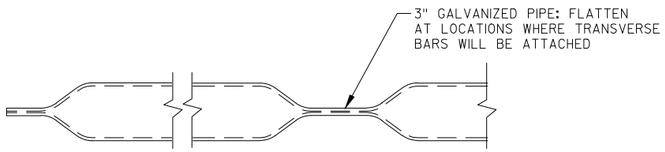




SECTION A–A

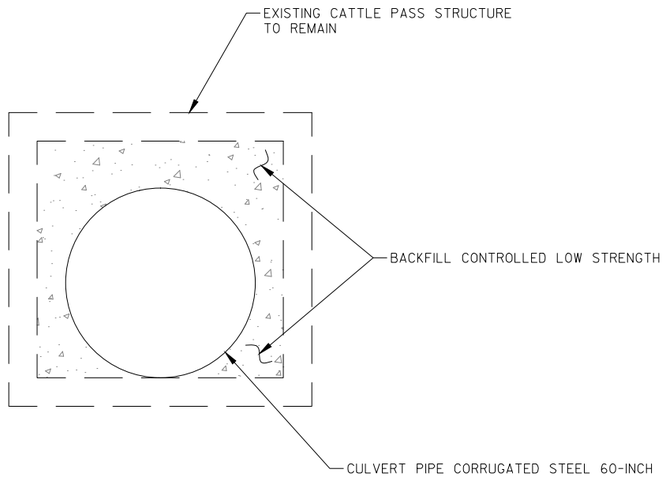


NOTE: ALL STEEL AND HARDWARE SHALL BE GALVANIZED

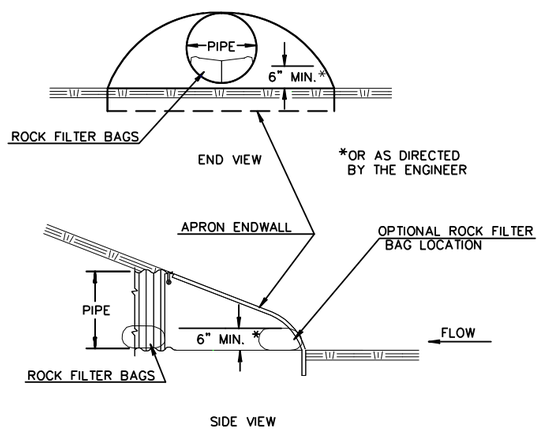


LONGITUDINAL SAFETY BAR DETAIL

INLET SAFETY BARS
STRUCTURE C–06–026
STA. 193+48, RT.



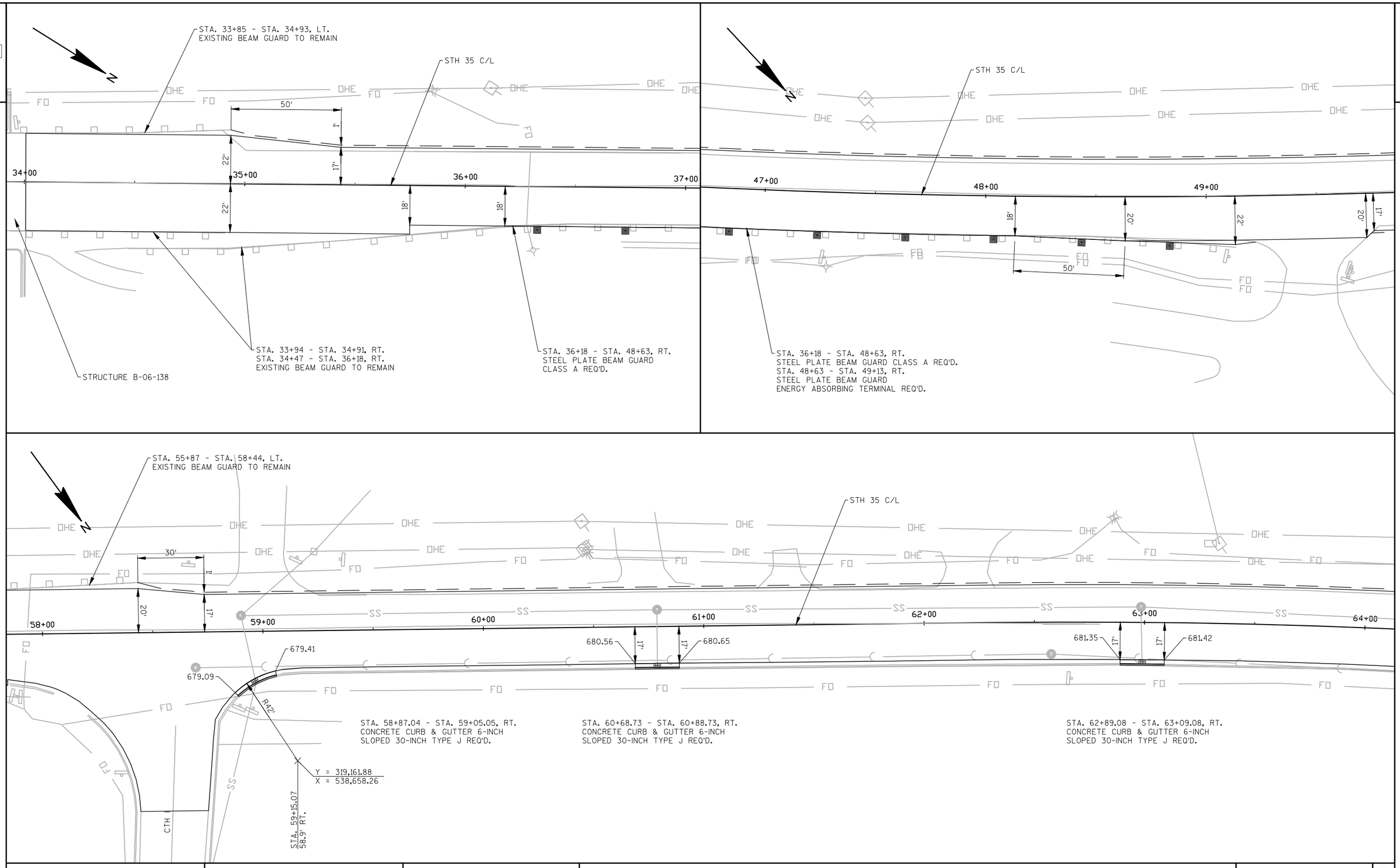
CATTLE PASS LINER DETAILS
STA. 312+72



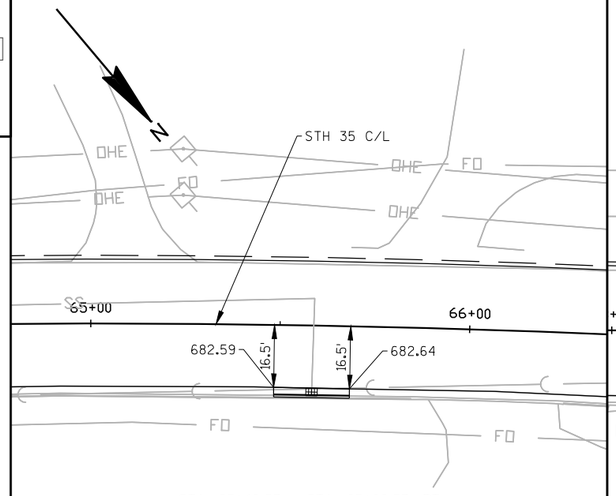
ROCK BAGS USED FOR CULVERT PIPE CHECKS DETAIL
(INSTALL ON INLET END ONLY)

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	CONSTRUCTION DETAILS - 5	SHEET 23	E

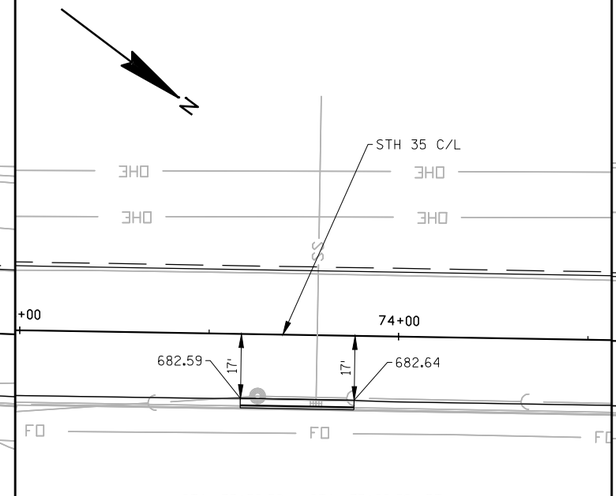
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\CONSTRUCTION DETAILS.DWG
LAYOUT : 5
PLOT DATE : 4/17/2015
PLOT TIME : 8:21:59 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



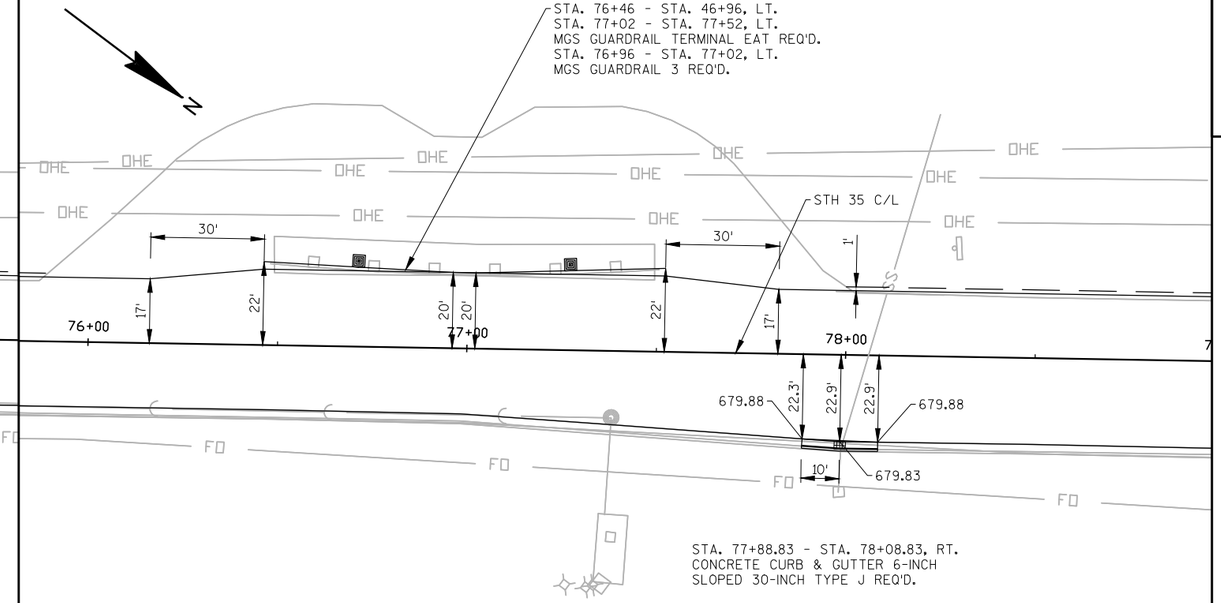
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 1	SHEET 24	E



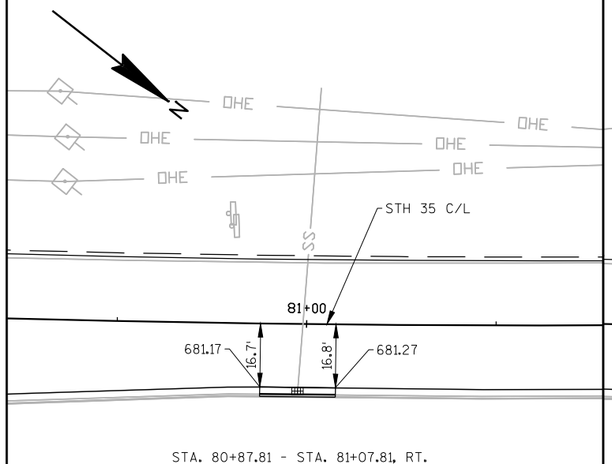
STA. 65+48.57 - STA. 65+68.57, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.



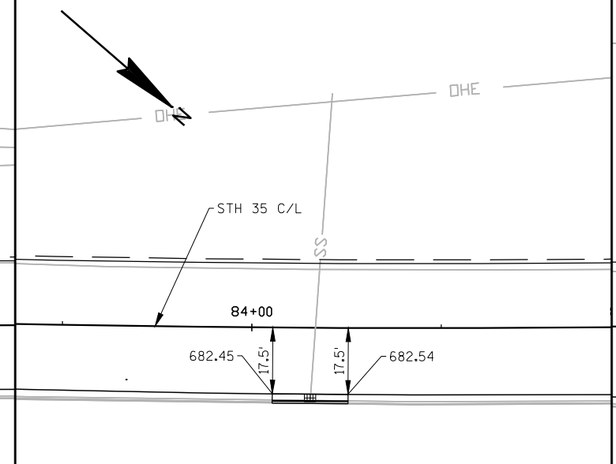
STA. 73+58.52 - STA. 73+88.52, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.



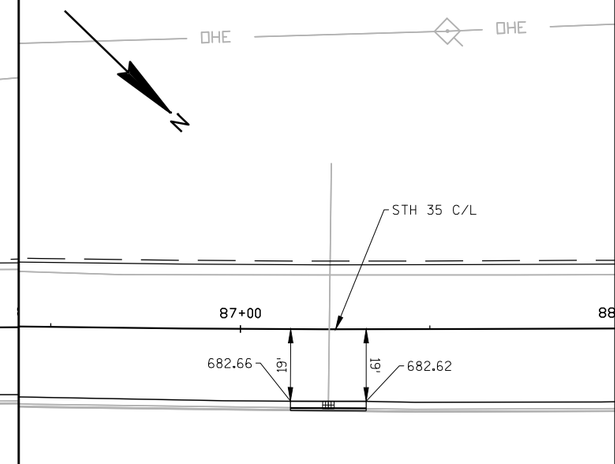
STA. 77+88.83 - STA. 78+08.83, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.



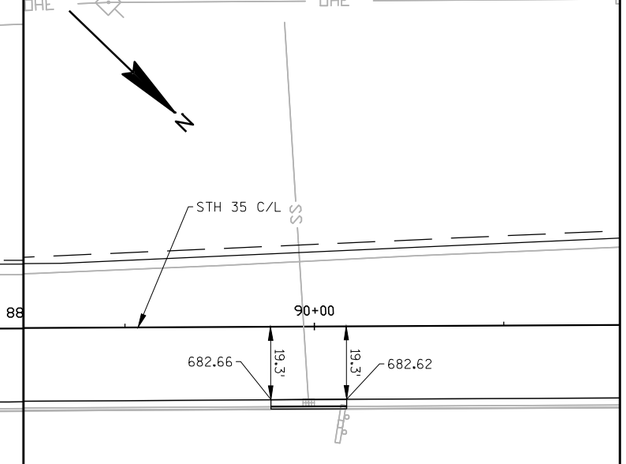
STA. 80+87.81 - STA. 81+07.81, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.



STA. 84+05.50 - STA. 84+25.50, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.



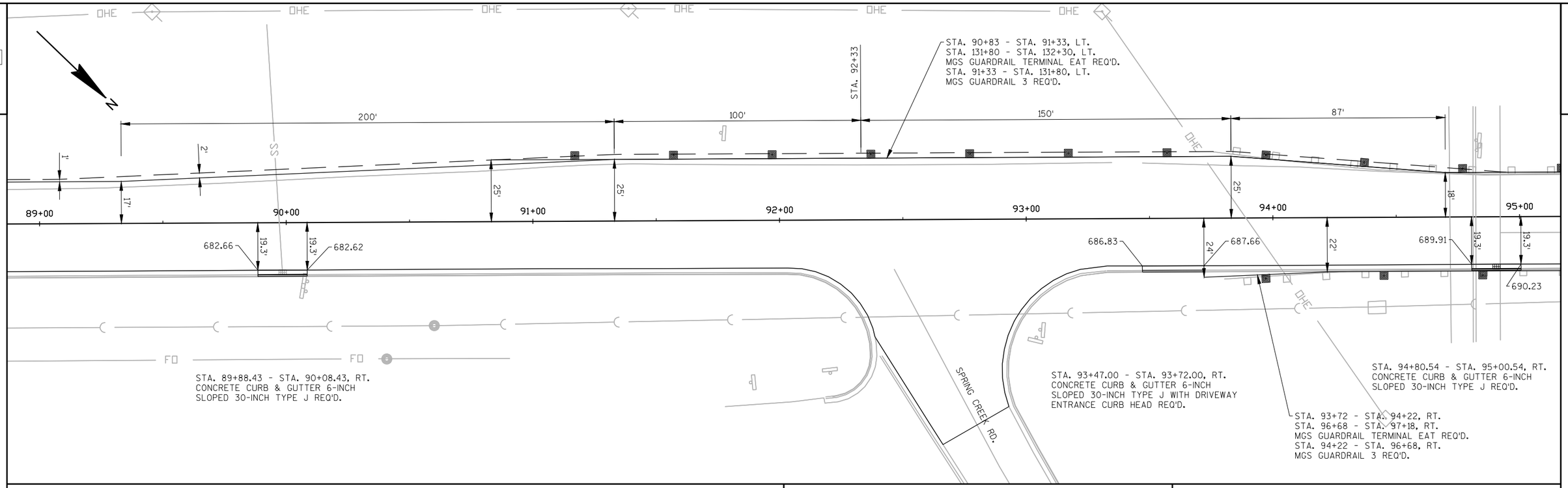
STA. 87+13.25 - STA. 87+33.25, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.



STA. 89+88.43 - STA. 90+08.43, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 2	SHEET 25	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\GUARDRAIL-PAVEMENT LAYOUT.DWG
LAYOUT : 2
PLOT DATE : 7/30/2014
PLOT TIME : 8:11:42 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



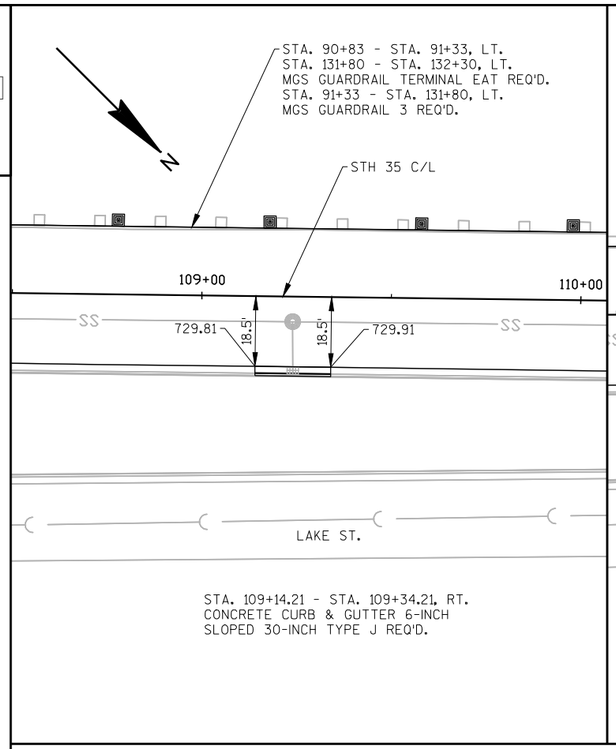
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 3	SHEET 26	E

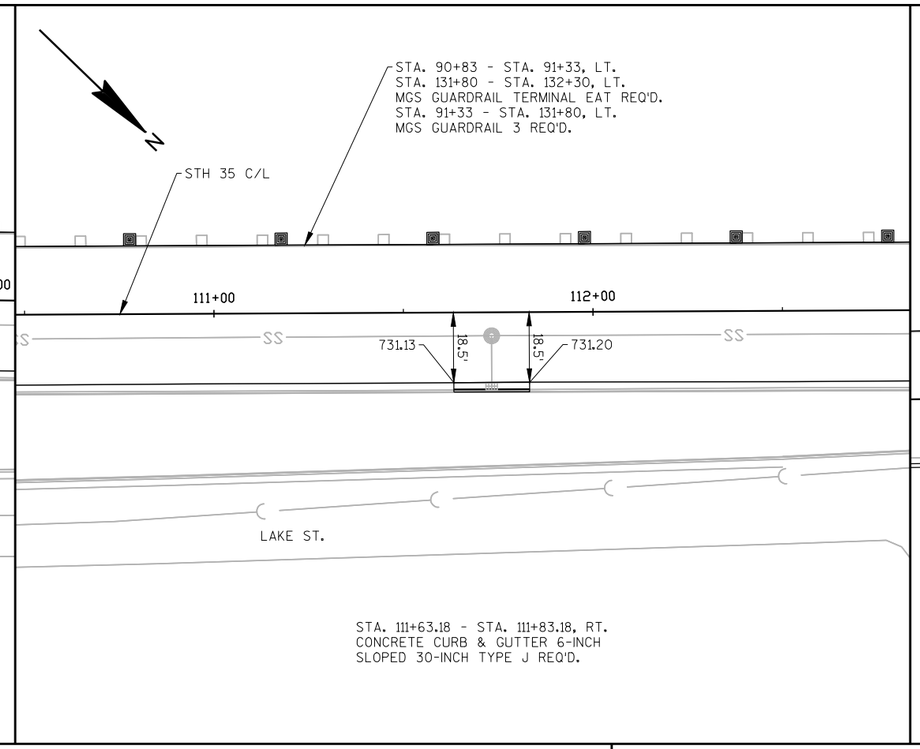
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\GUARDRAIL-PAVEMENT LAYOUT.DWG
LAYOUT : 3

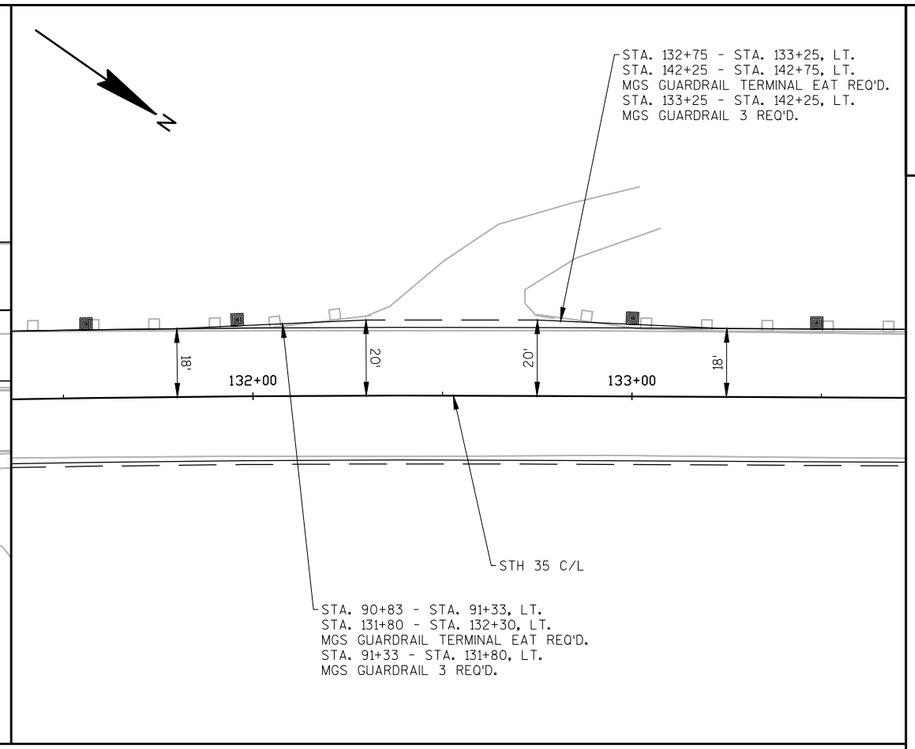
PLOT DATE : 7/30/2014
PLOT TIME : 8:13:45 AM

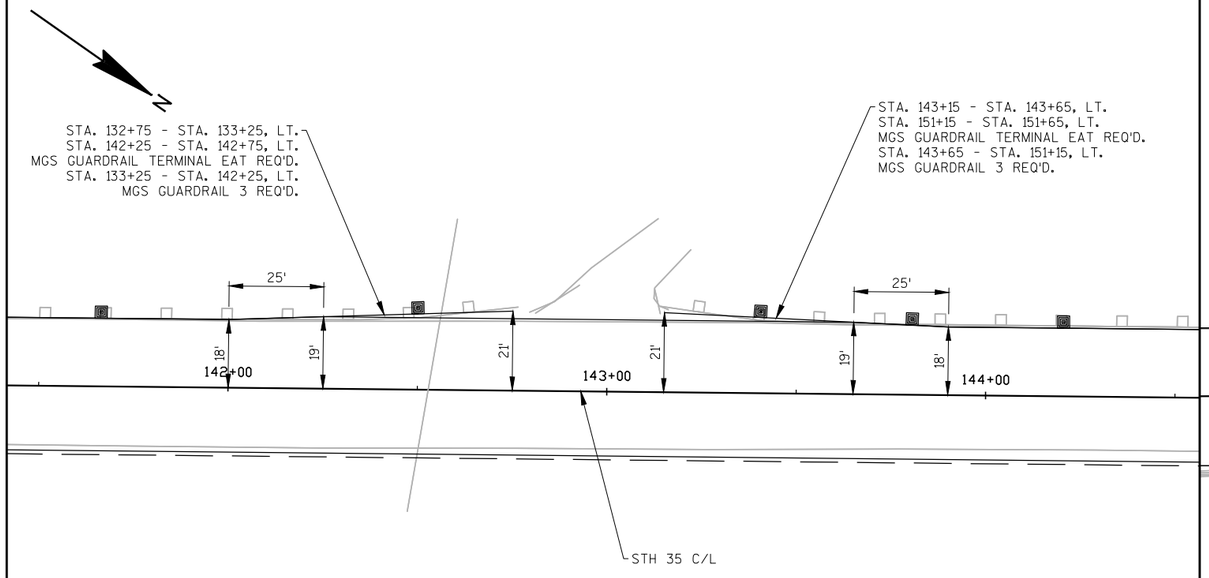
PLOT BY : ECKELBERG, PATRICK

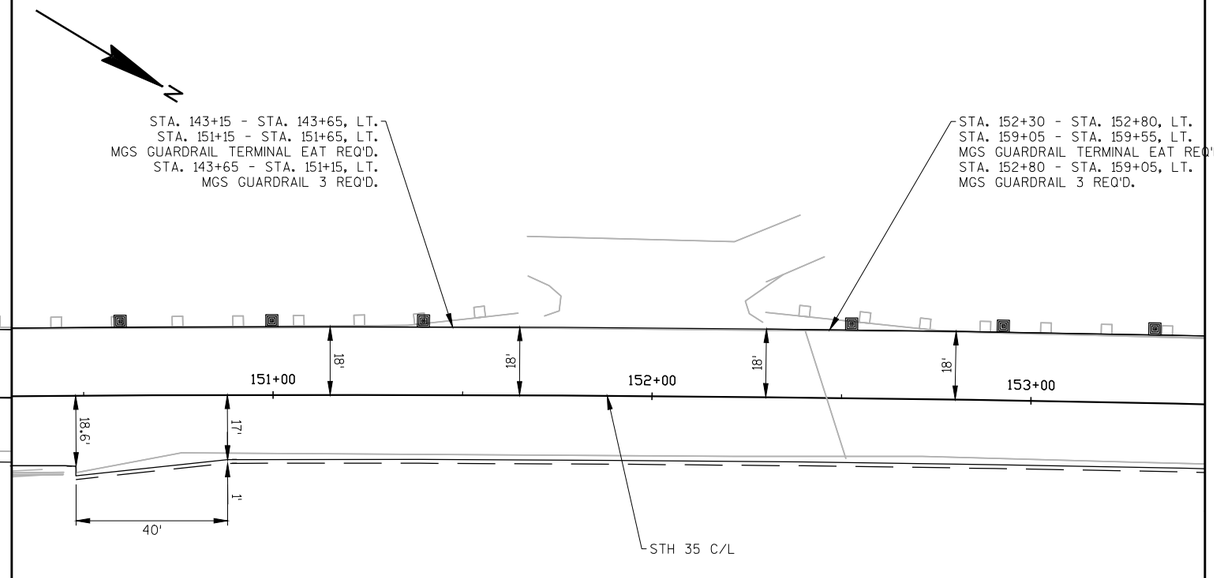
PLOT SCALE : 1" = 1'



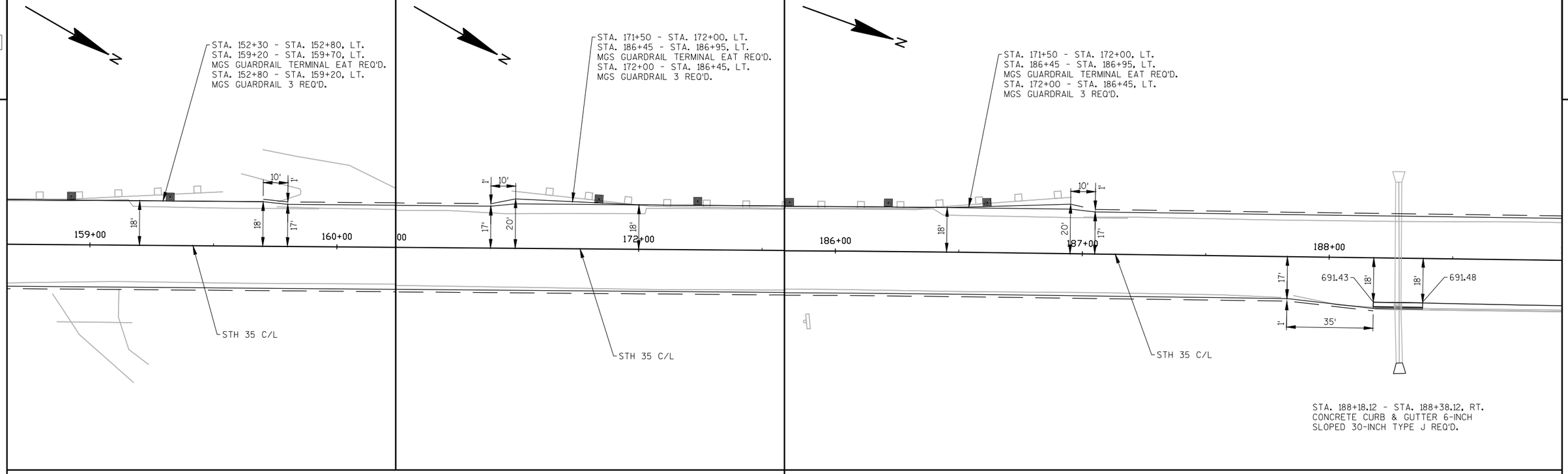








PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 4	SHEET 27	E



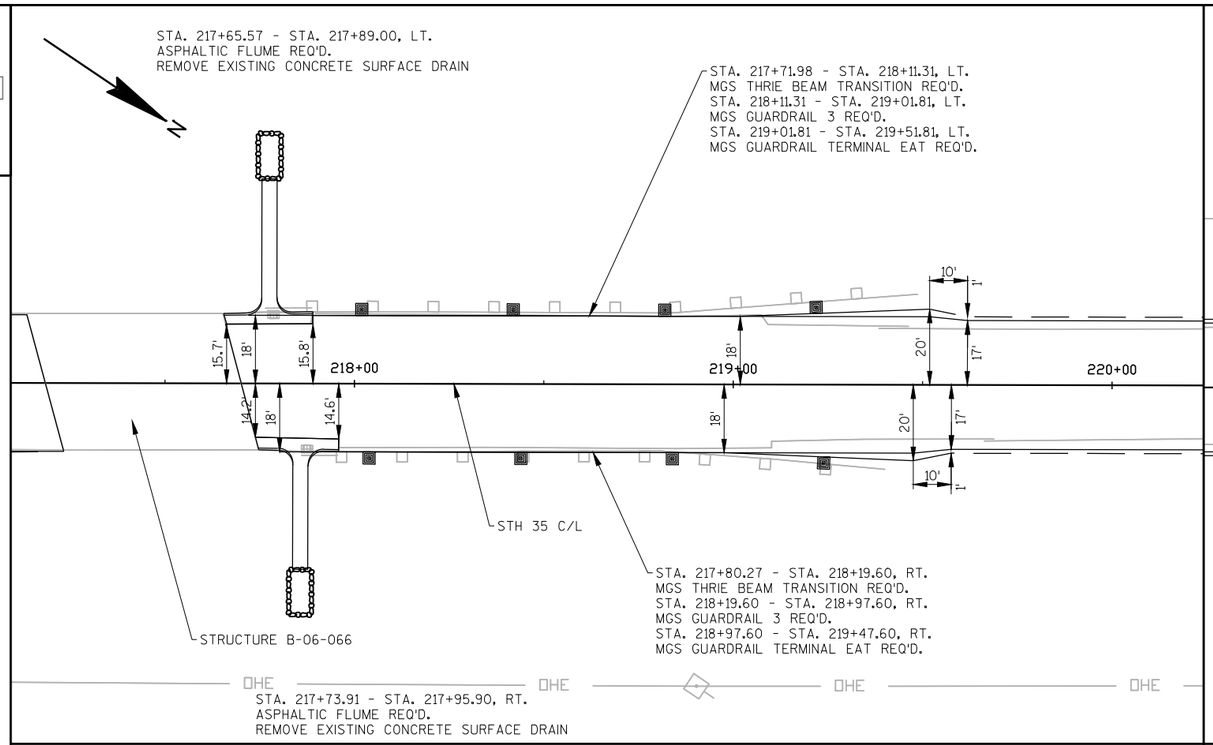
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 5	SHEET 28	E

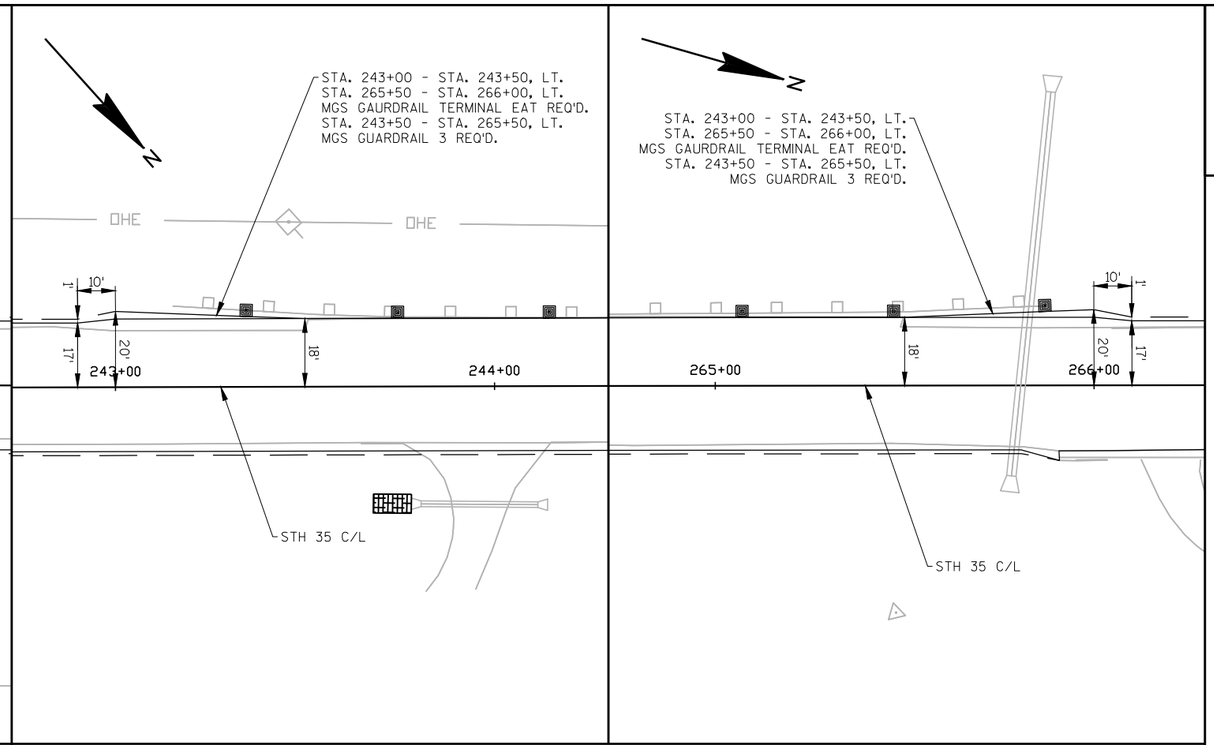
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\GUARDRAIL-PAVEMENT LAYOUT.DWG
LAYOUT : 5

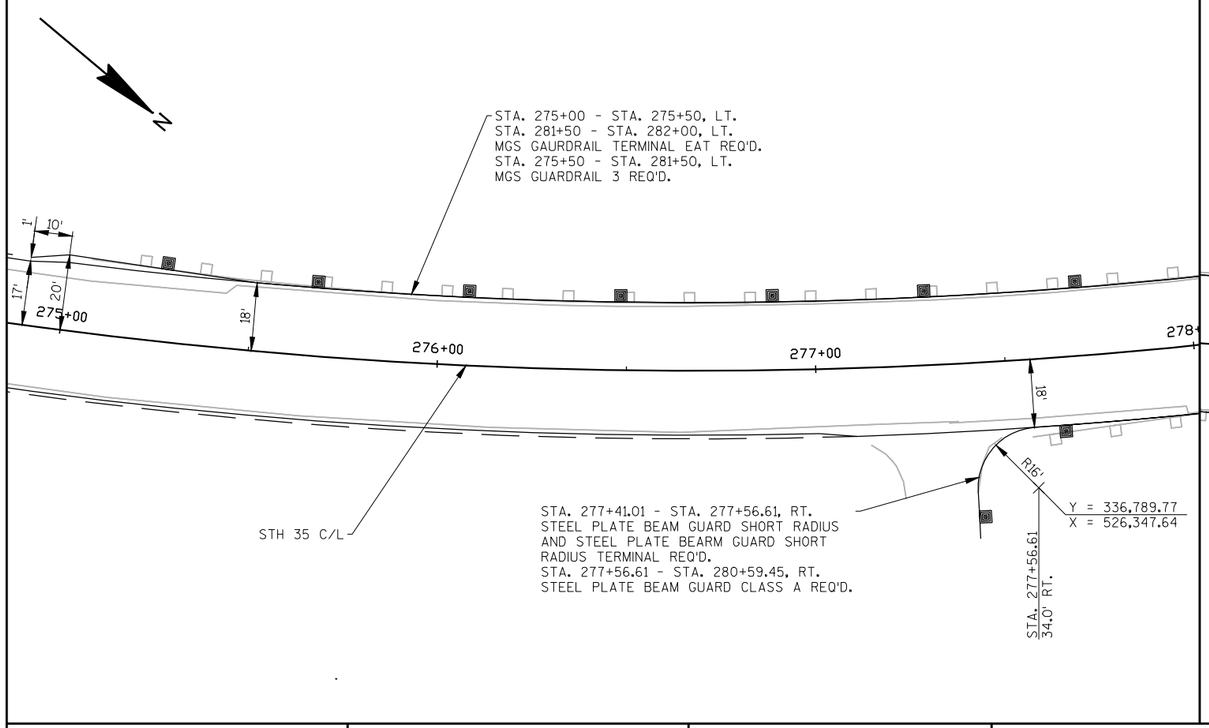
PLOT DATE : 7/31/2014
PLOT TIME : 4:37:11 PM

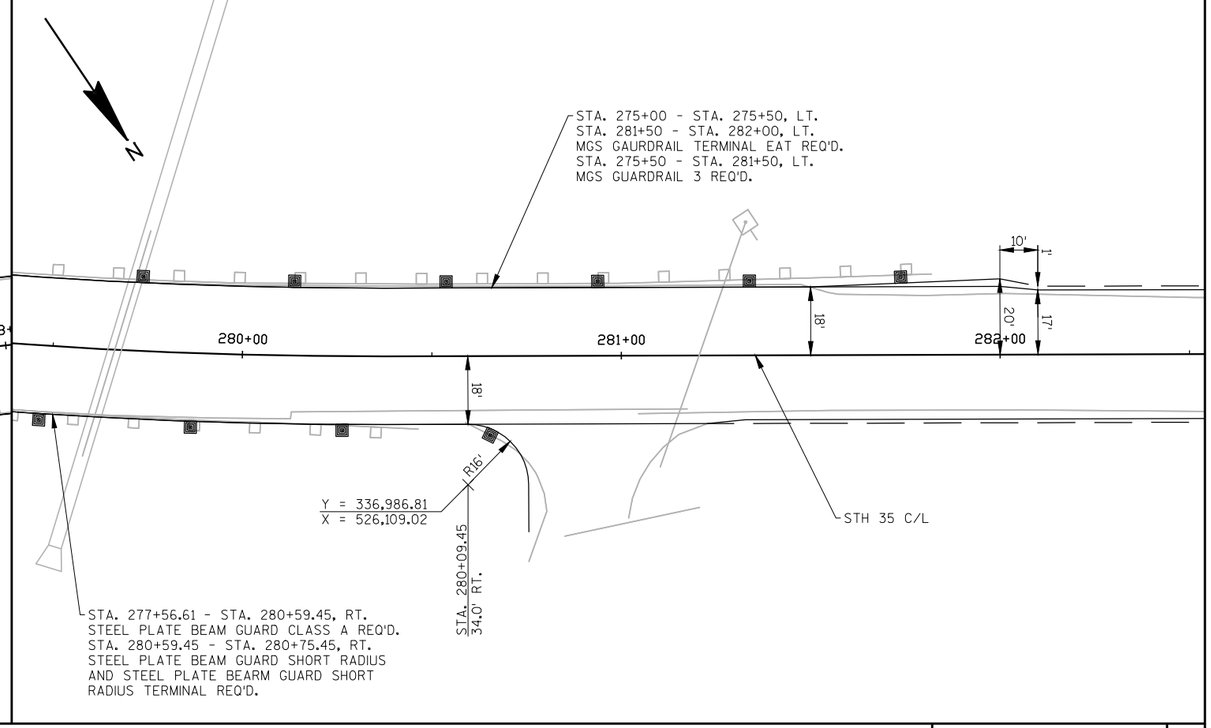
PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'









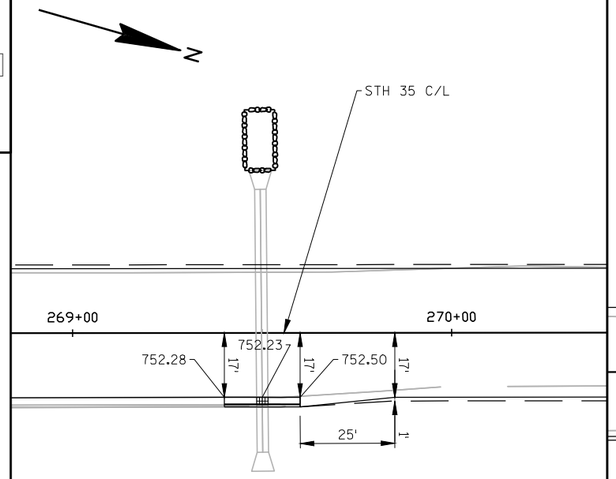
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 6	SHEET 29	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\GUARDRAIL-PAVEMENT LAYOUT.DWG
LAYOUT : 6

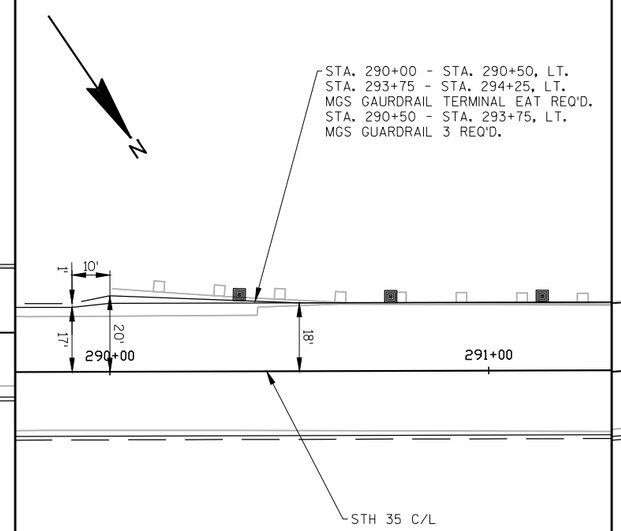
PLOT DATE : 7/30/2014
PLOT TIME : 8:37:44 AM

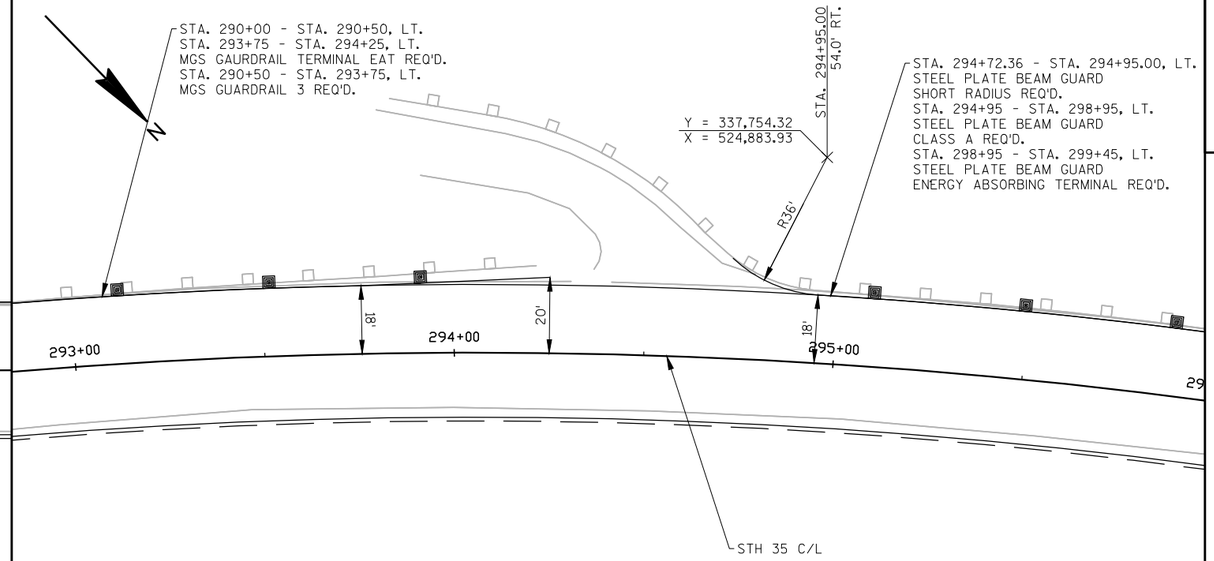
PLOT BY : ECKELBERG, PATRICK

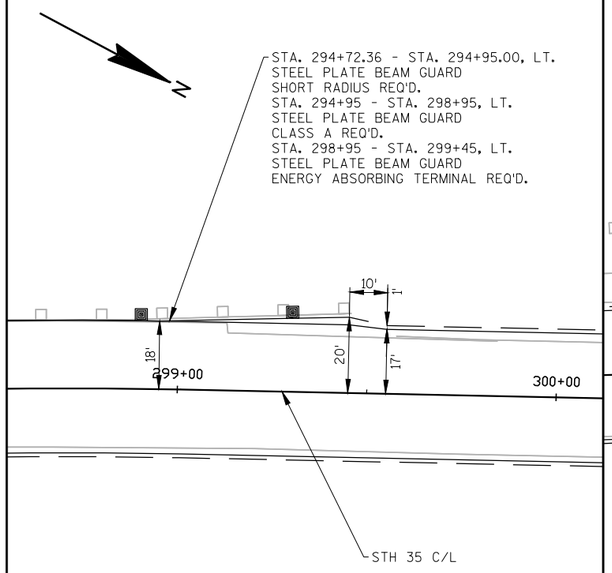
PLOT SCALE : 1" = 1'

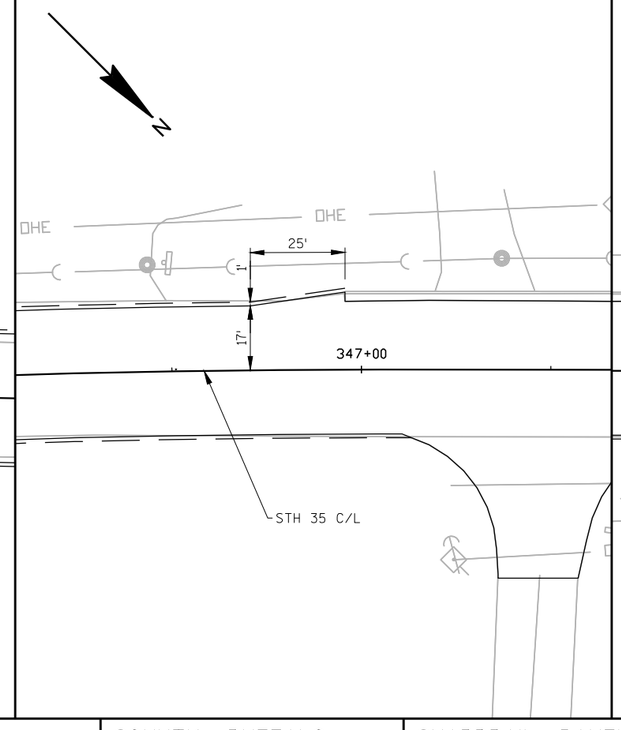


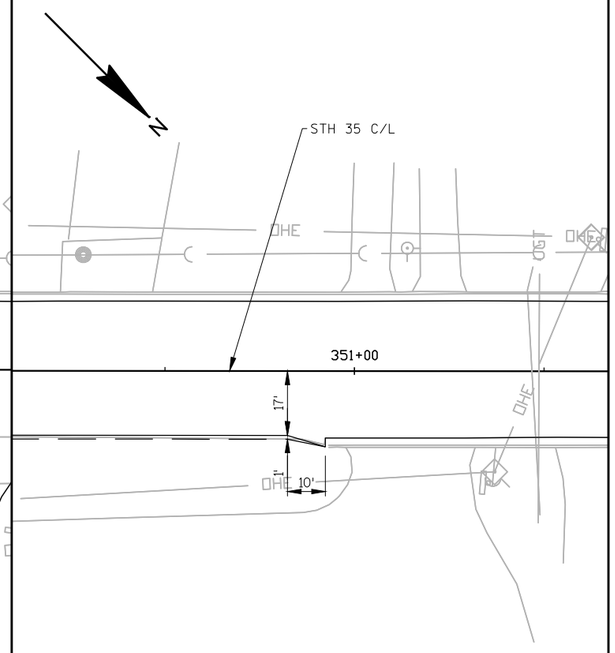
STA. 269+40.03 - STA. 269+60.03, RT.
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D.





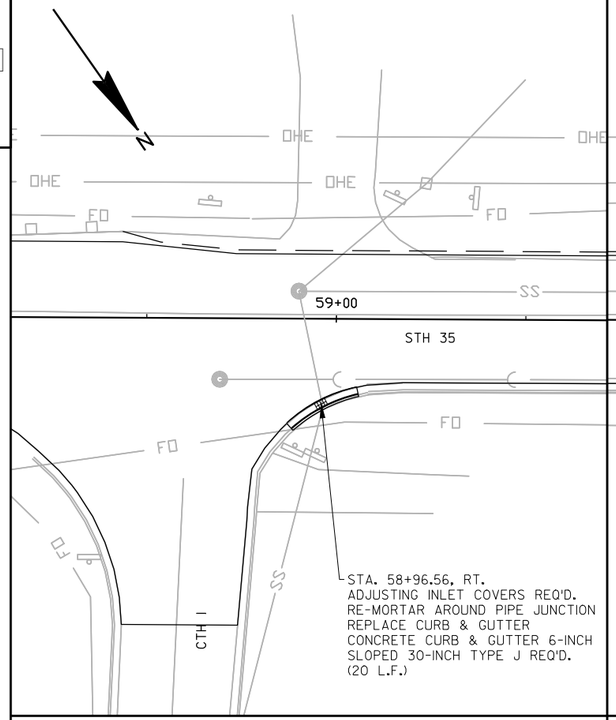


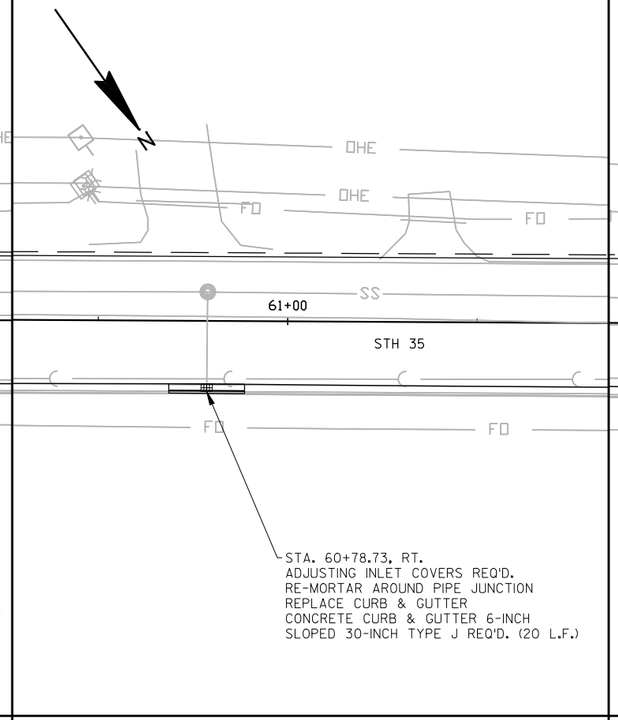


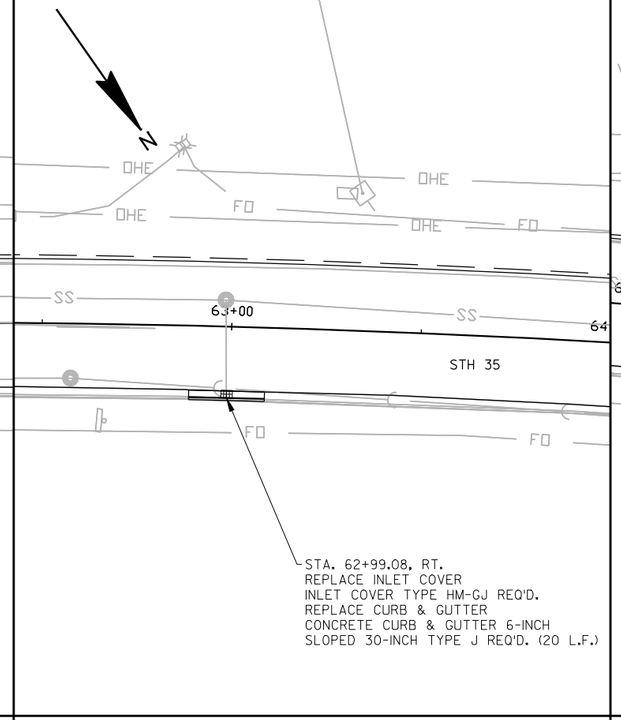


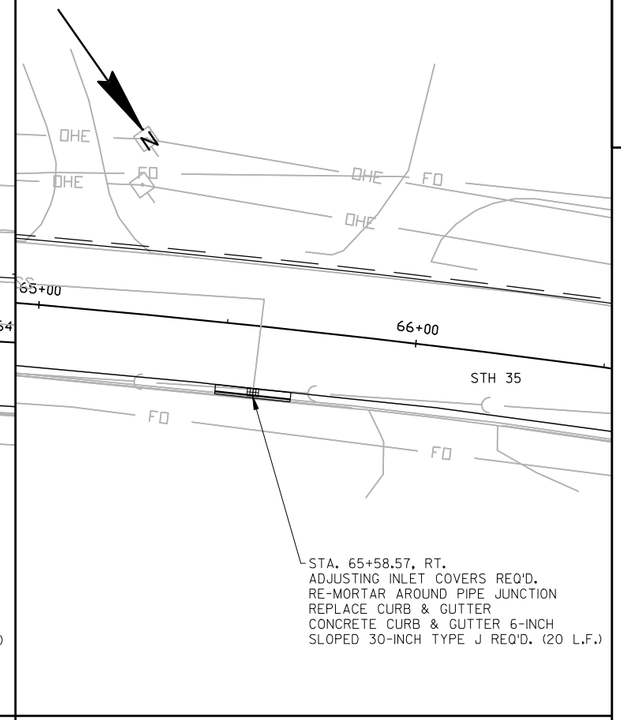
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	GUARDRAIL, PAVEMENT, AND CURB & GUTTER LAYOUT - 7	SHEET 30	E

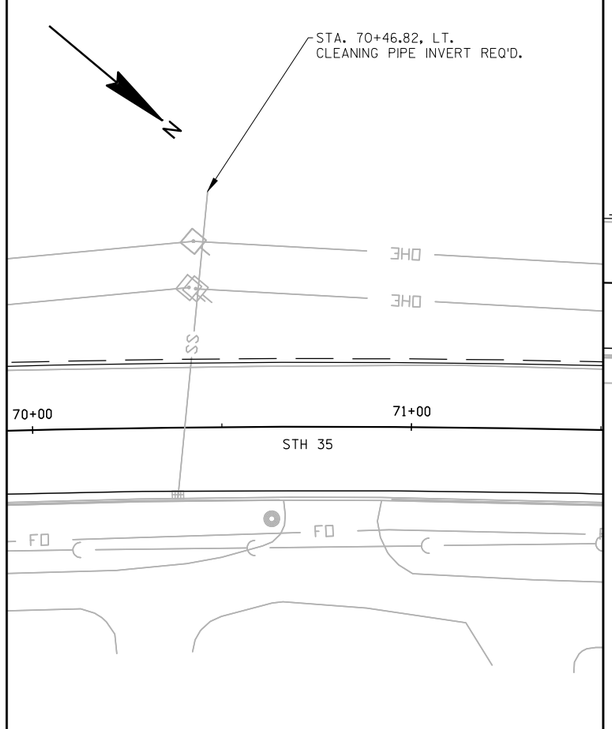
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\GUARDRAIL-PAVEMENT LAYOUT.DWG
LAYOUT : 7
PLOT DATE : 7/30/2014
PLOT TIME : 8:50:41 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

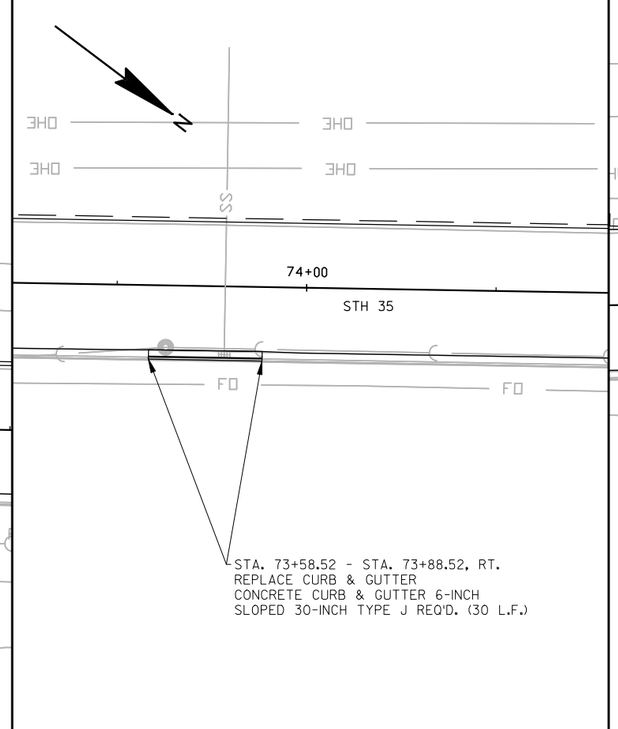


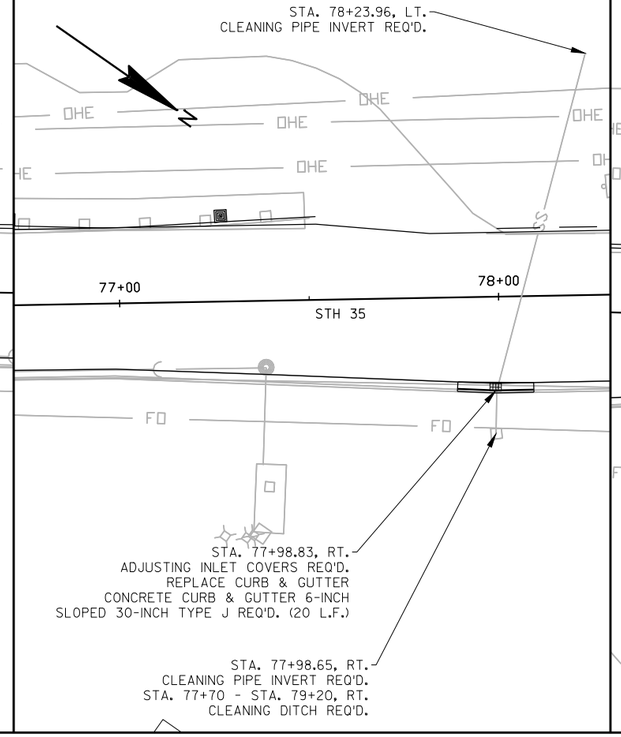


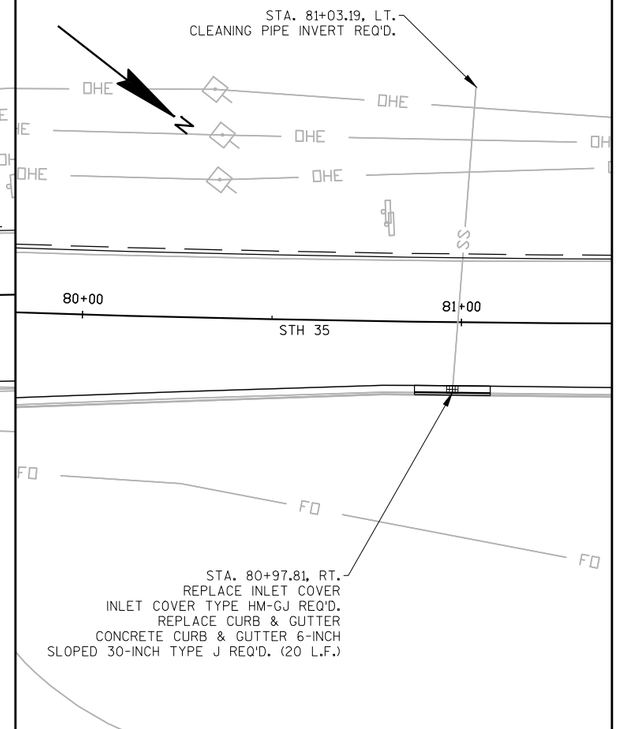






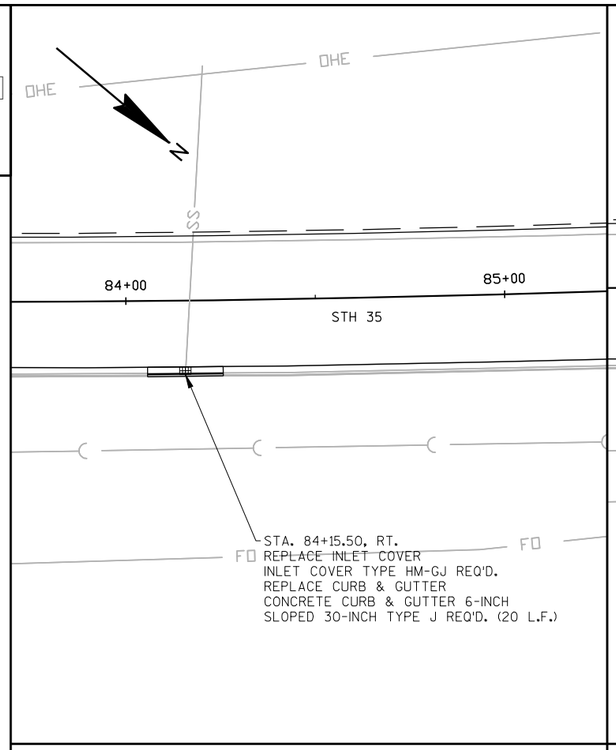


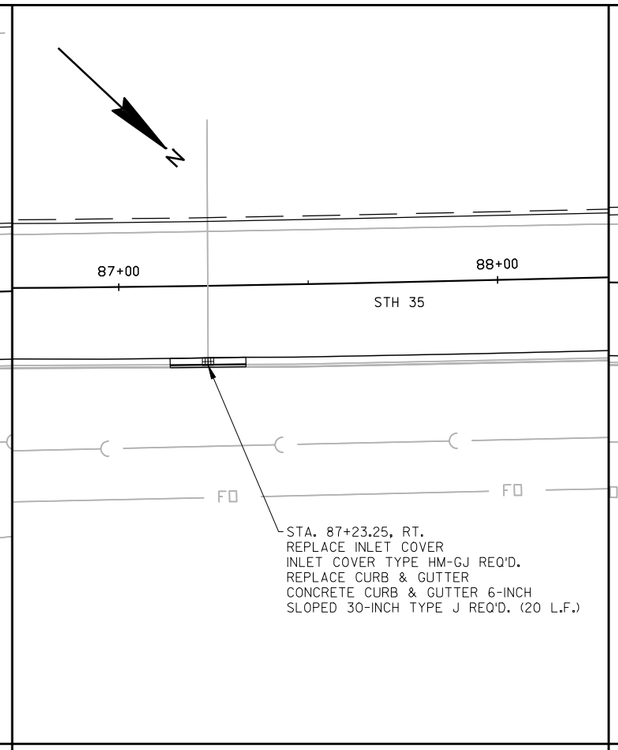


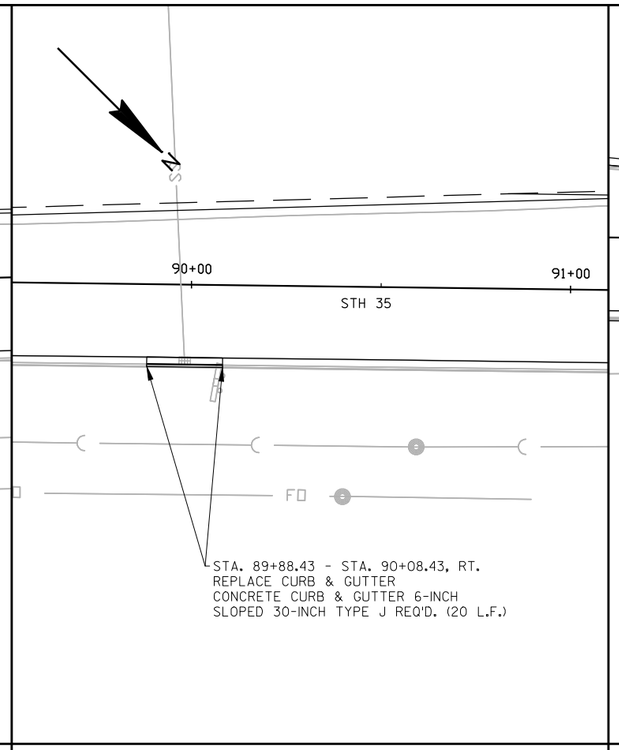


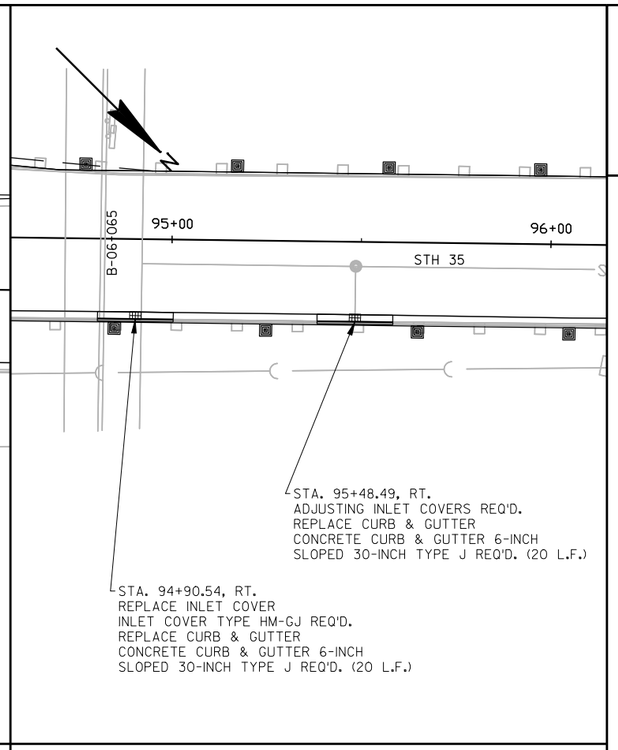
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	DRAINAGE DETAILS - 1	SHEET 31	E

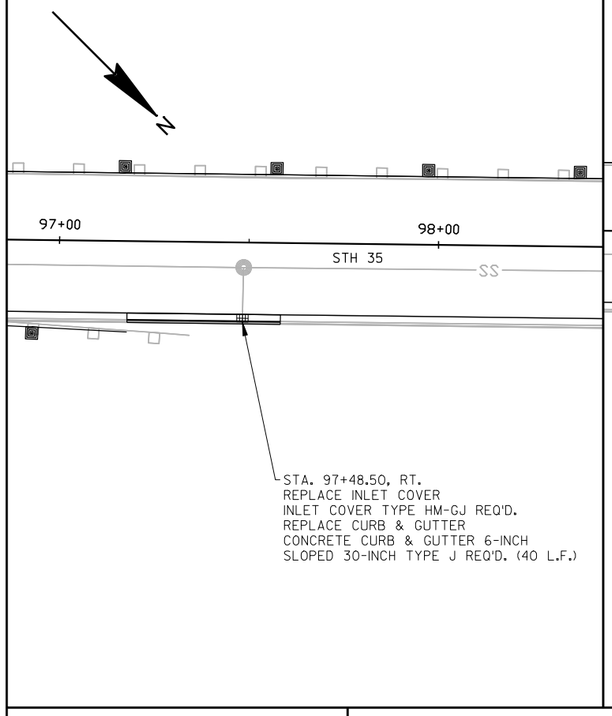
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\DRAINAGE DETAILS.DWG
LAYOUT : 1
PLOT DATE : 7/30/2014
PLOT TIME : 9:47:10 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

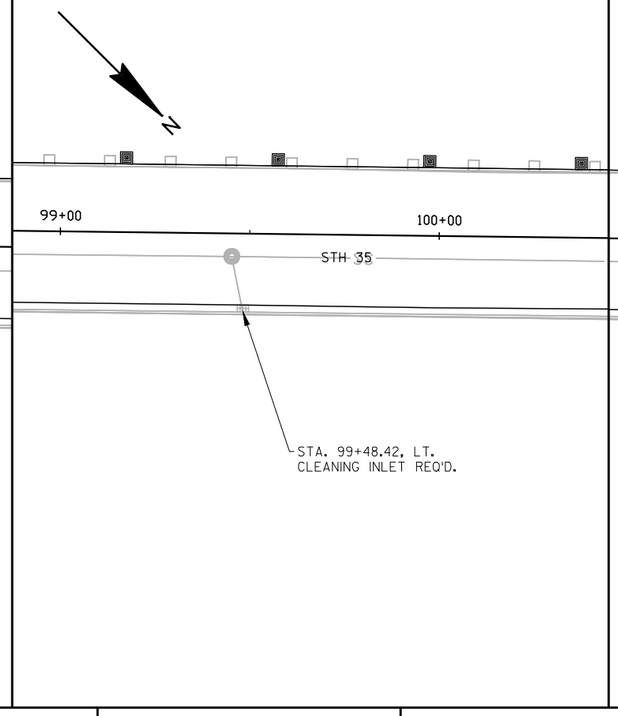


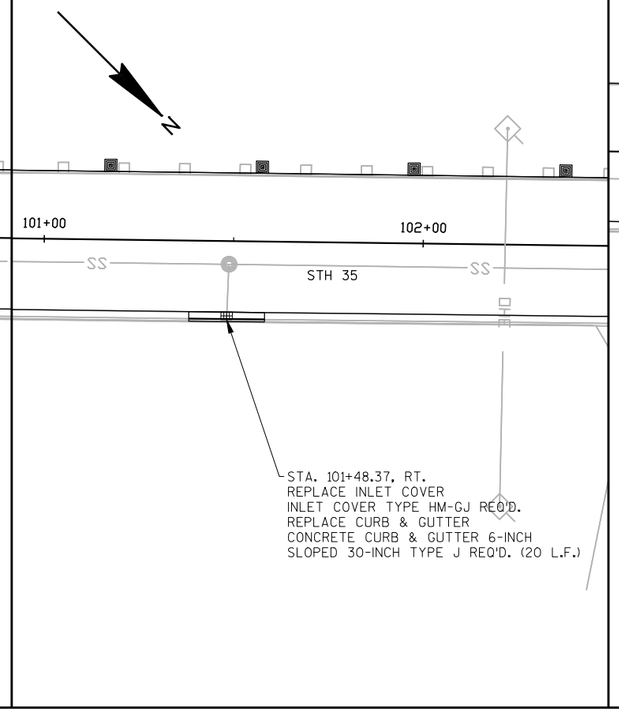


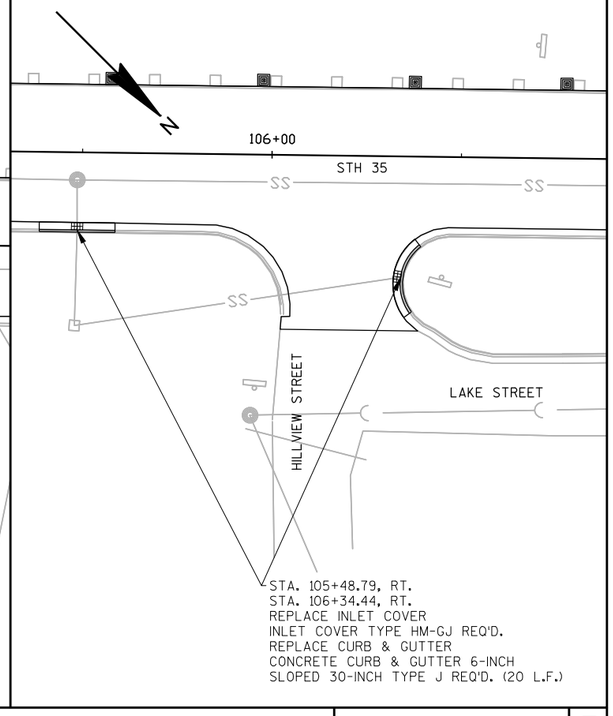






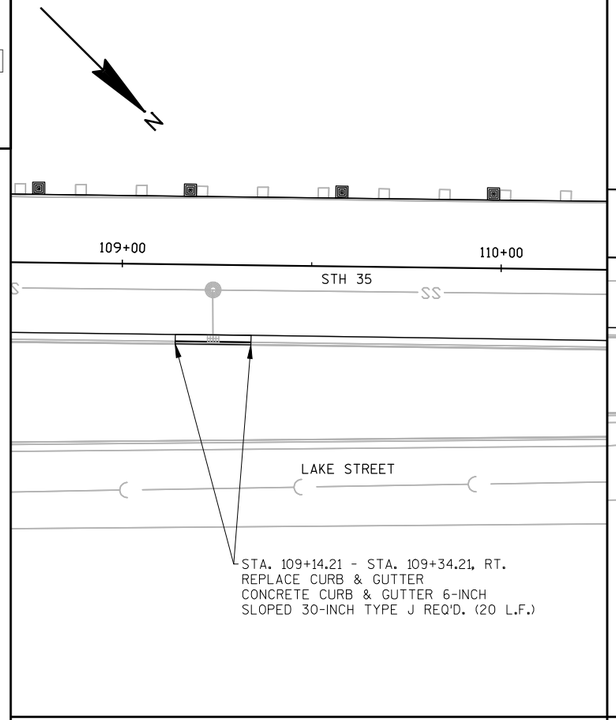


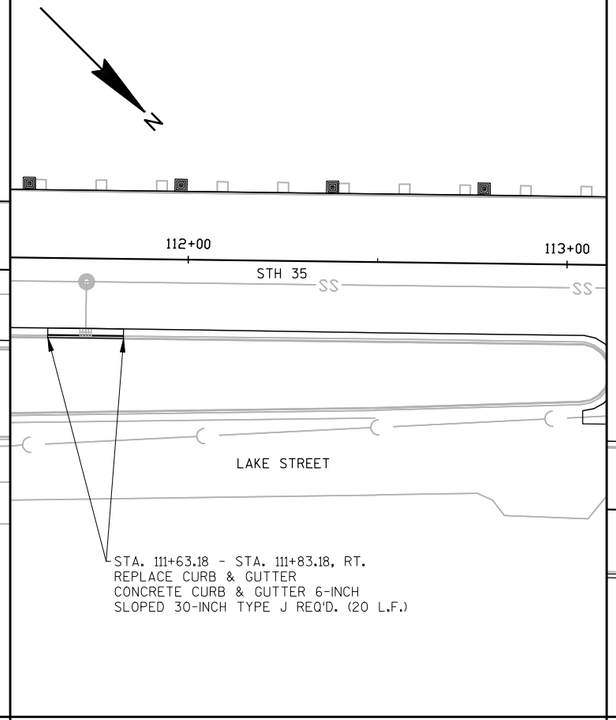


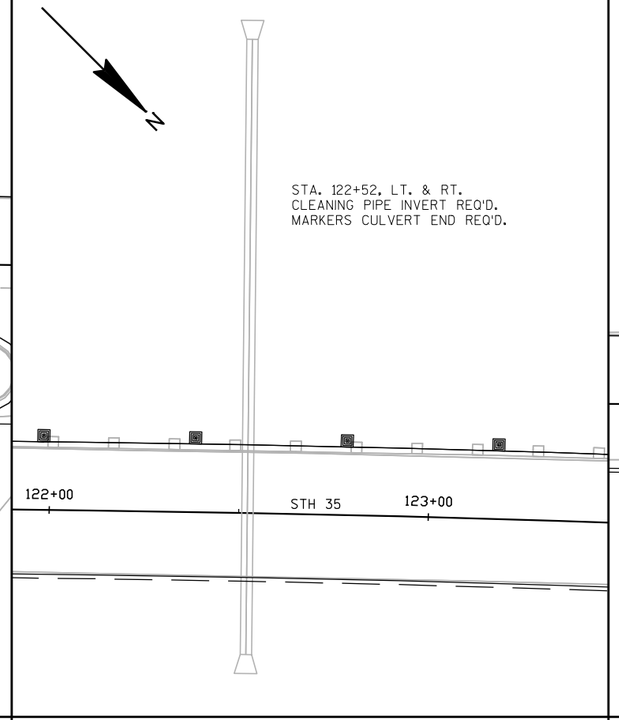


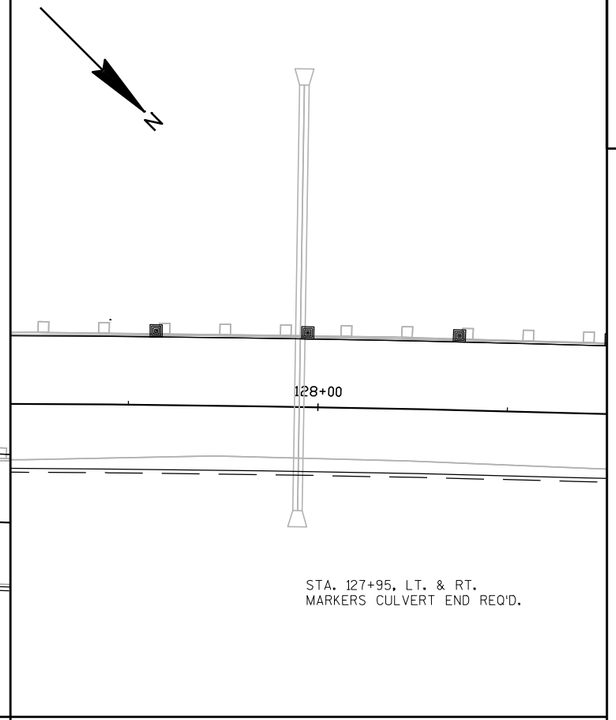
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	DRAINAGE DETAILS - 2	SHEET 32	E

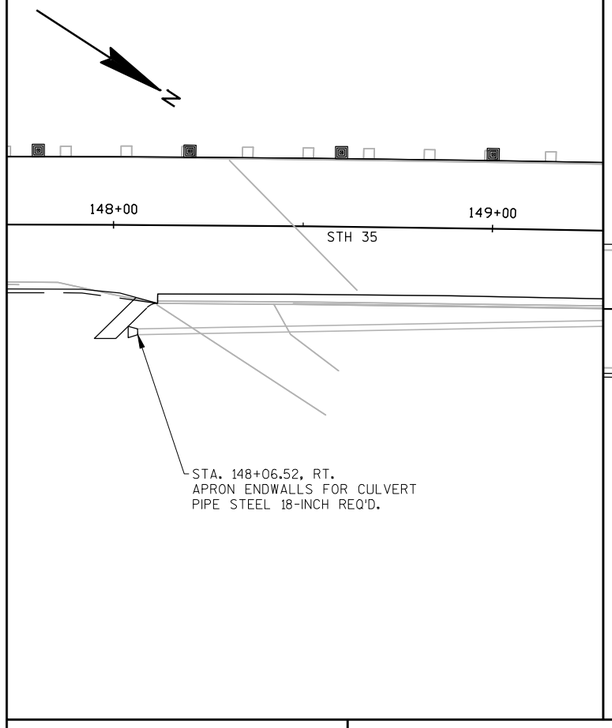
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\DRAINAGE DETAILS.DWG
LAYOUT : 2
PLOT DATE : 7/30/2014
PLOT TIME : 10:32:29 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

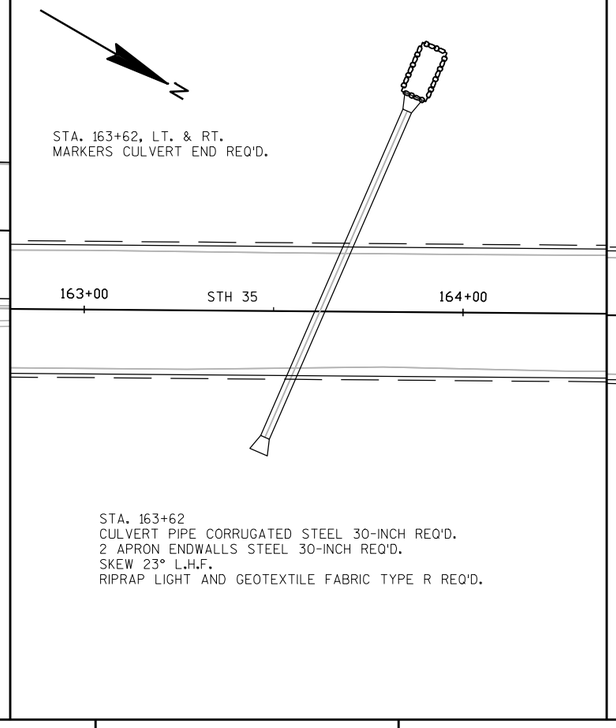


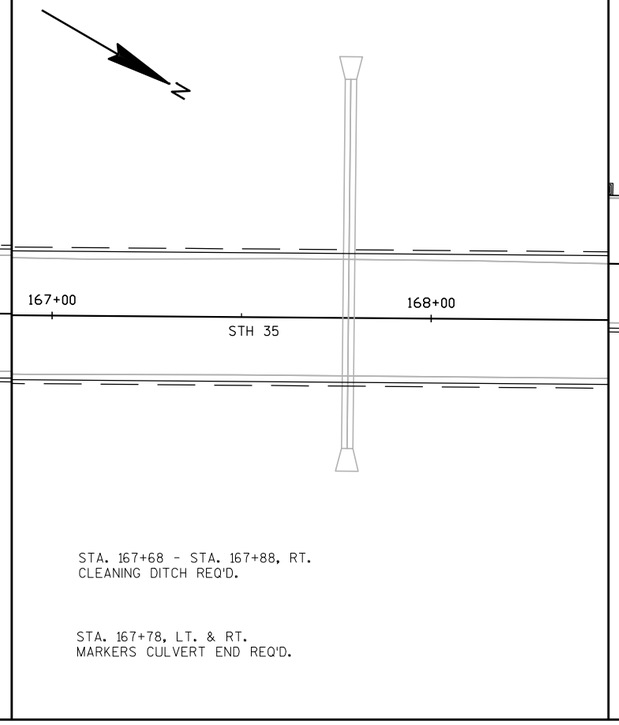


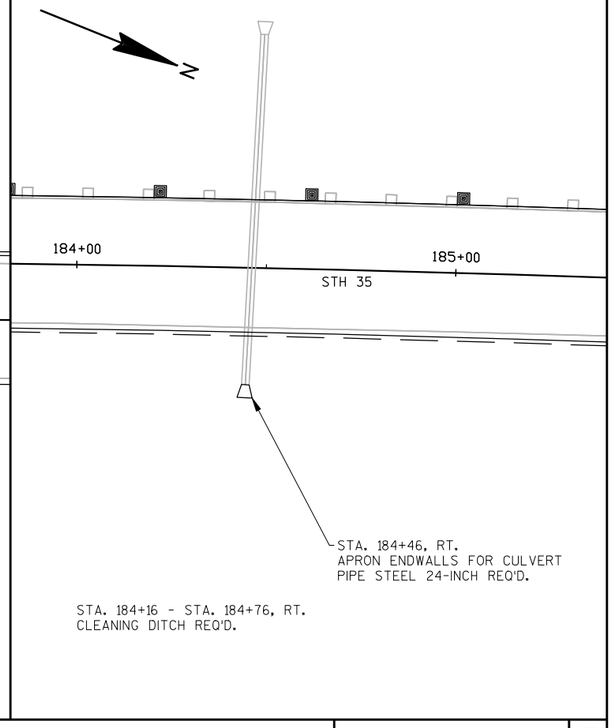






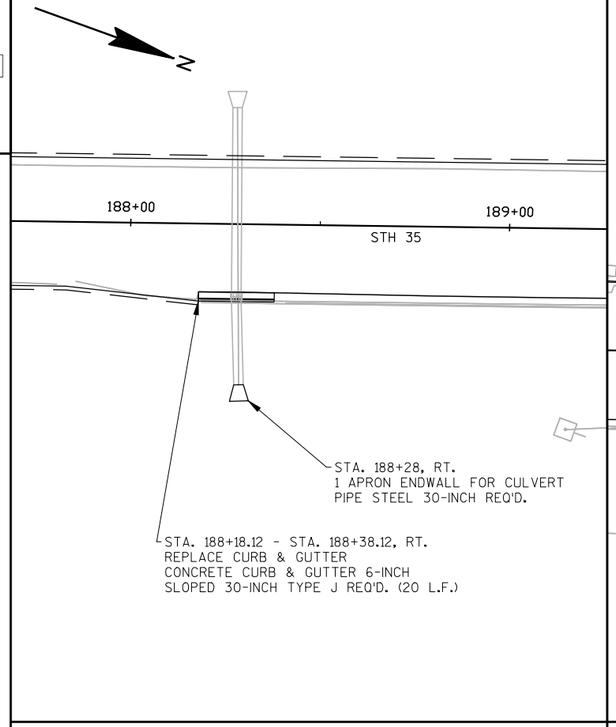


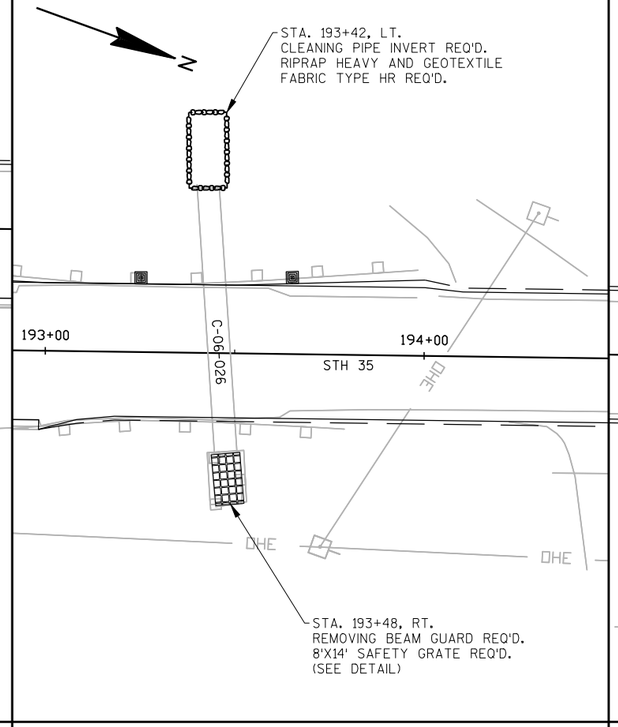


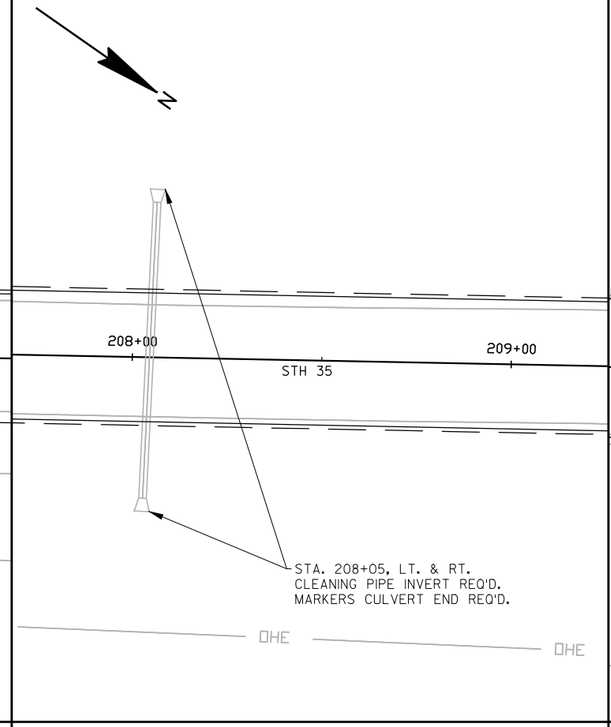


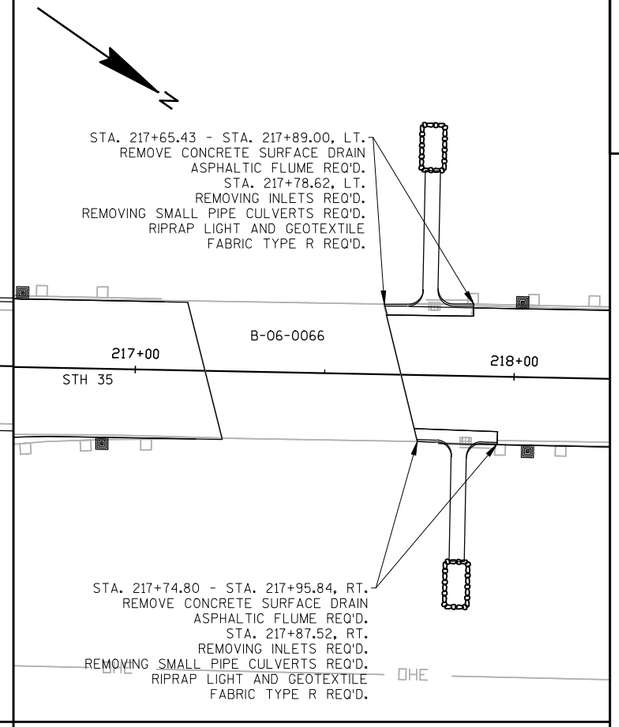
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	DRAINAGE DETAILS - 3	SHEET 33	E

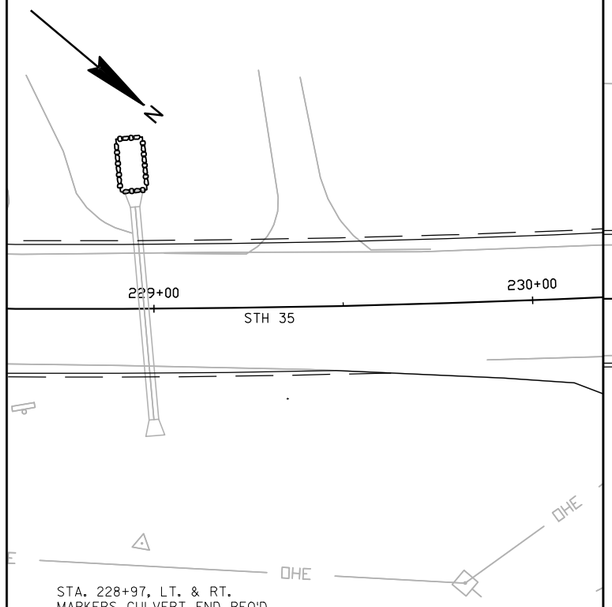
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\DRAINAGE DETAILS.DWG
LAYOUT : 3
PLOT DATE : 7/30/2014
PLOT TIME : 11:29:07 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



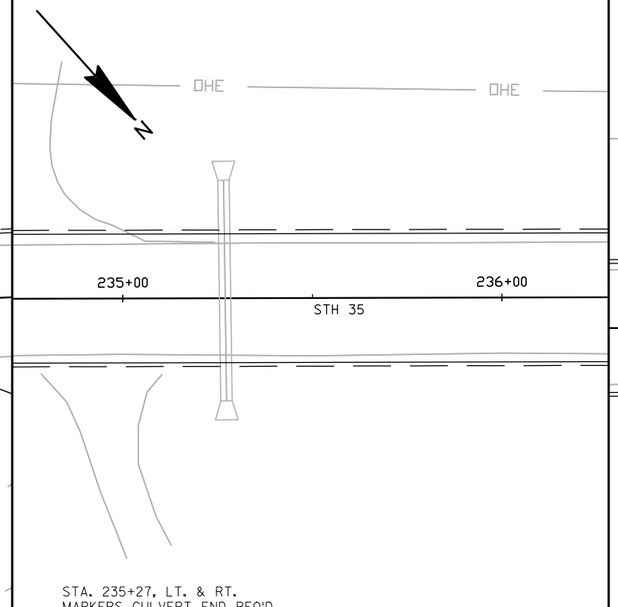




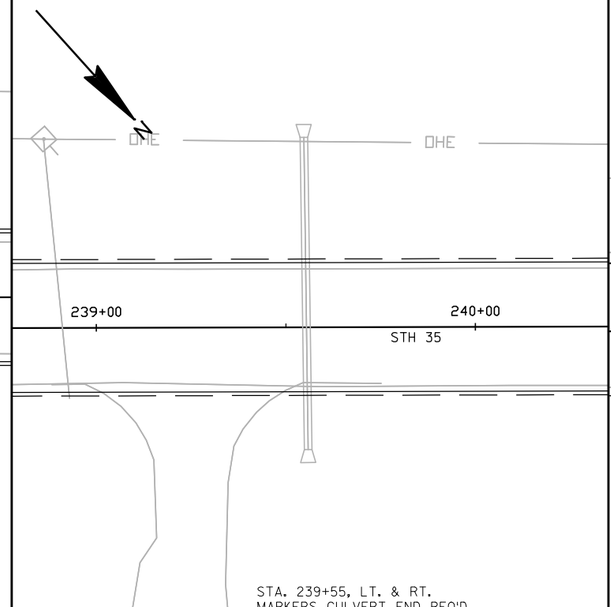




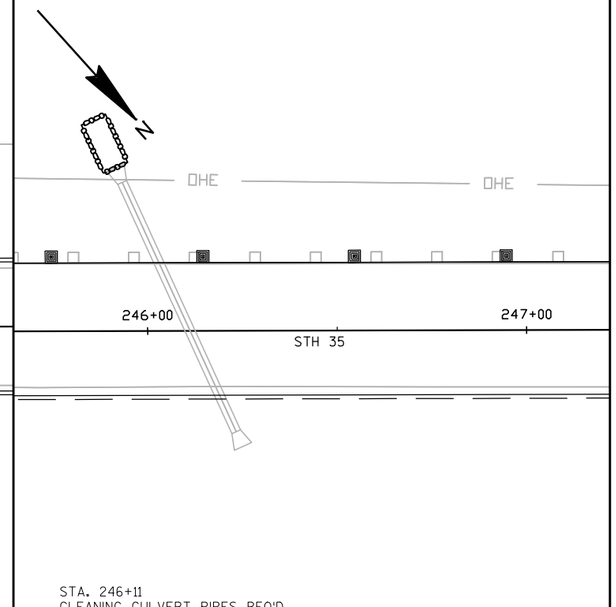
STA. 228+97, LT. & RT.
MARKERS CULVERT END REQ'D.
STA. 228+97, LT.
RIPRAP LIGHT AND GEOTEXTILE FABRIC TYPE R REQ'D.
STA. 228+97, RT.
CLEANING PIPE INVERT REQ'D.



STA. 235+27, LT. & RT.
MARKERS CULVERT END REQ'D.



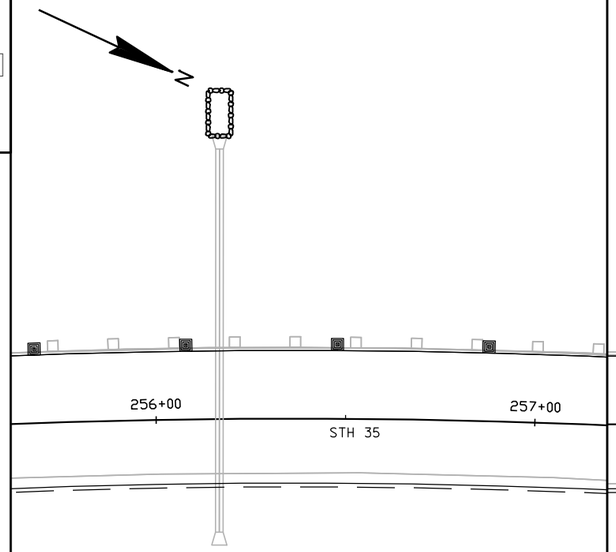
STA. 239+55, LT. & RT.
MARKERS CULVERT END REQ'D.
CLEANING PIPE INVERT REQ'D.



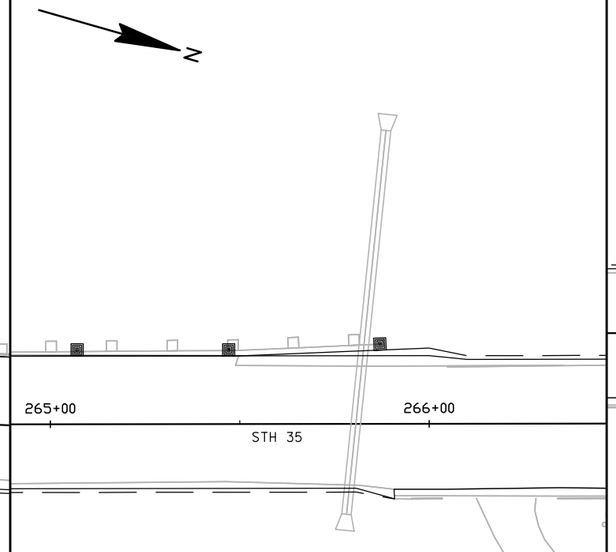
STA. 246+11
CLEANING CULVERT PIPES REQ'D.
STA. 246+11, LT. & RT.
CLEANING PIPE INVERT REQ'D.
STA. 246+11, LT.
RIPRAP LIGHT AND GEOTEXTILE FABRIC TYPE R REQ'D.

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	DRAINAGE DETAILS - 4	SHEET 34	E

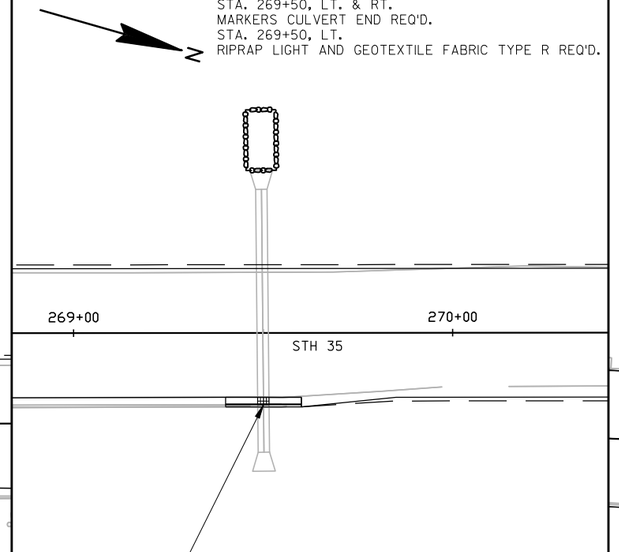
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\DRAINAGE DETAILS.DWG
LAYOUT : 4
PLOT DATE : 7/30/2014
PLOT TIME : 11:49:03 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



STA. 256+17
CLEANING CULVERT PIPES REQ'D.
STA. 256+17, LT.
CLEANING PIPE INVERT REQ'D.
RIPRAP LIGHT AND GEOTEXTILE FABRIC TYPE R REQ'D.
STA. 255+92 - STA. 256+42, RT.
CLEANING DITCH REQ'D.

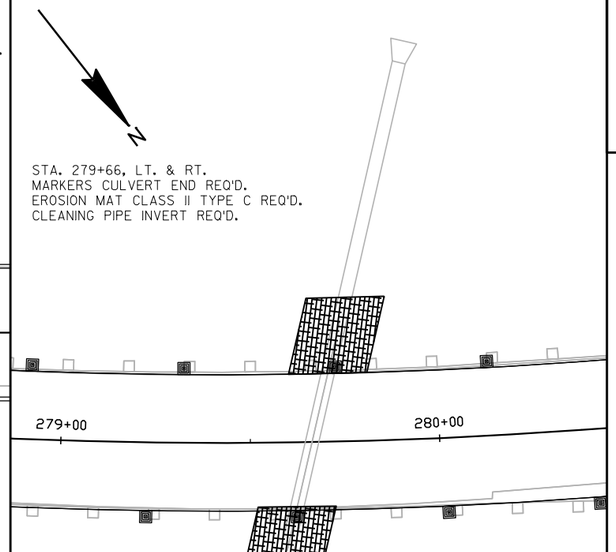


STA. 265+81
CLEANING CULVERT PIPES REQ'D.
STA. 265+64 - STA. 265+94, LT.
CLEANING DITCH REQ'D.

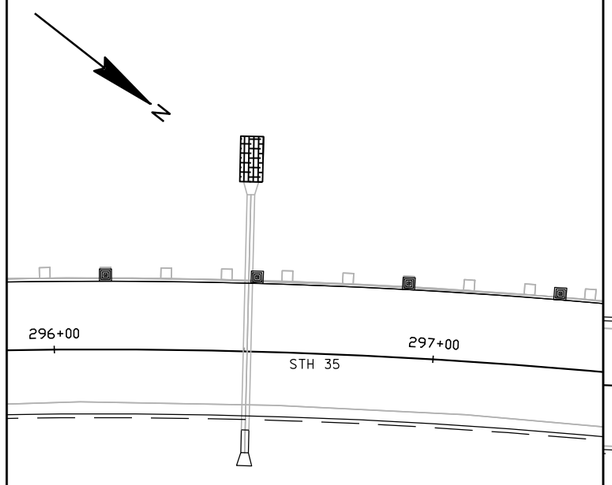


STA. 269+50, LT. & RT.
MARKERS CULVERT END REQ'D.
STA. 269+50, LT.
RIPRAP LIGHT AND GEOTEXTILE FABRIC TYPE R REQ'D.

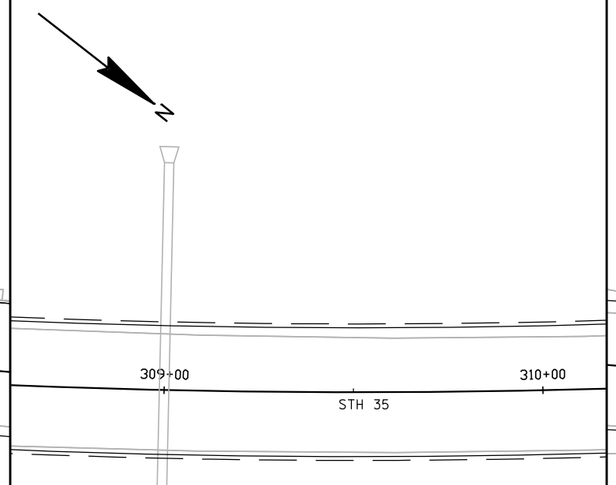
STA. 269+50.03, RT.
ADJUSTING INLET COVERS REQ'D.
RE-MORTAR AROUND PIPE JUNCTION
REPLACE CURB & GUTTER
CONCRETE CURB & GUTTER 6-INCH
SLOPED 30-INCH TYPE J REQ'D. (20 L.F.)



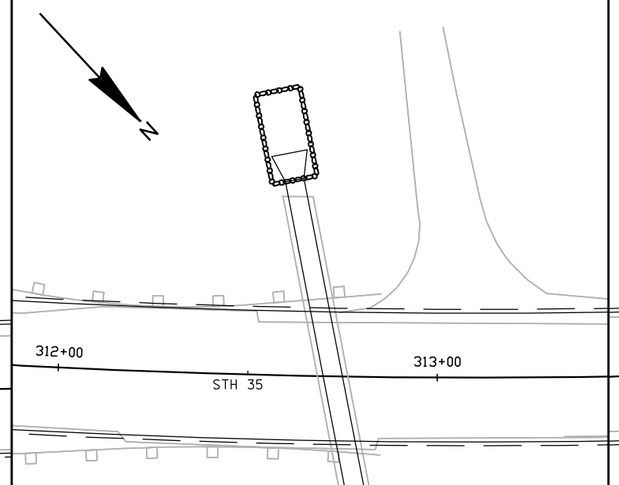
STA. 279+66, LT. & RT.
MARKERS CULVERT END REQ'D.
EROSION MAT CLASS II TYPE C REQ'D.
CLEANING PIPE INVERT REQ'D.



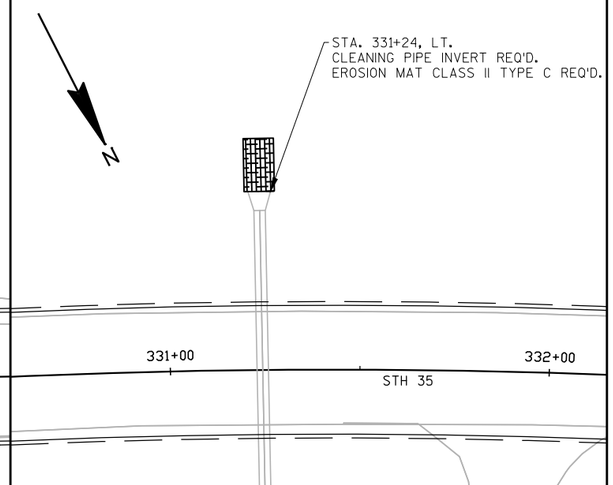
STA. 296+51, LT. & RT.
MARKERS CULVERT END REQ'D.
STA. 296+51, LT.
CLEANING PIPE INVERT REQ'D.
EROSION MAT CLASS II TYPE C REQ'D.
STA. 296+51, RT.
REPLACE DAMAGED CULVERT PIPE AND APRON ENDWALL
CULVERT PIPE CORRUGATED STEEL 24-INCH (6 L.F.) AND
APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH REQ'D.



STA. 309+00, LT. & RT.
MARKERS CULVERT END REQ'D.



STA. 312+72
RE-LINE EXISTING CATTLE PASS
CULVERT PIPE CORRUGATED STEEL 60-INCH (104 L.F.) AND
APRON ENDWALLS FOR CULVERT STEEL 60-INCH REQ'D.
HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE HR REQ'D.
MARKERS CULVERT END REQ'D.

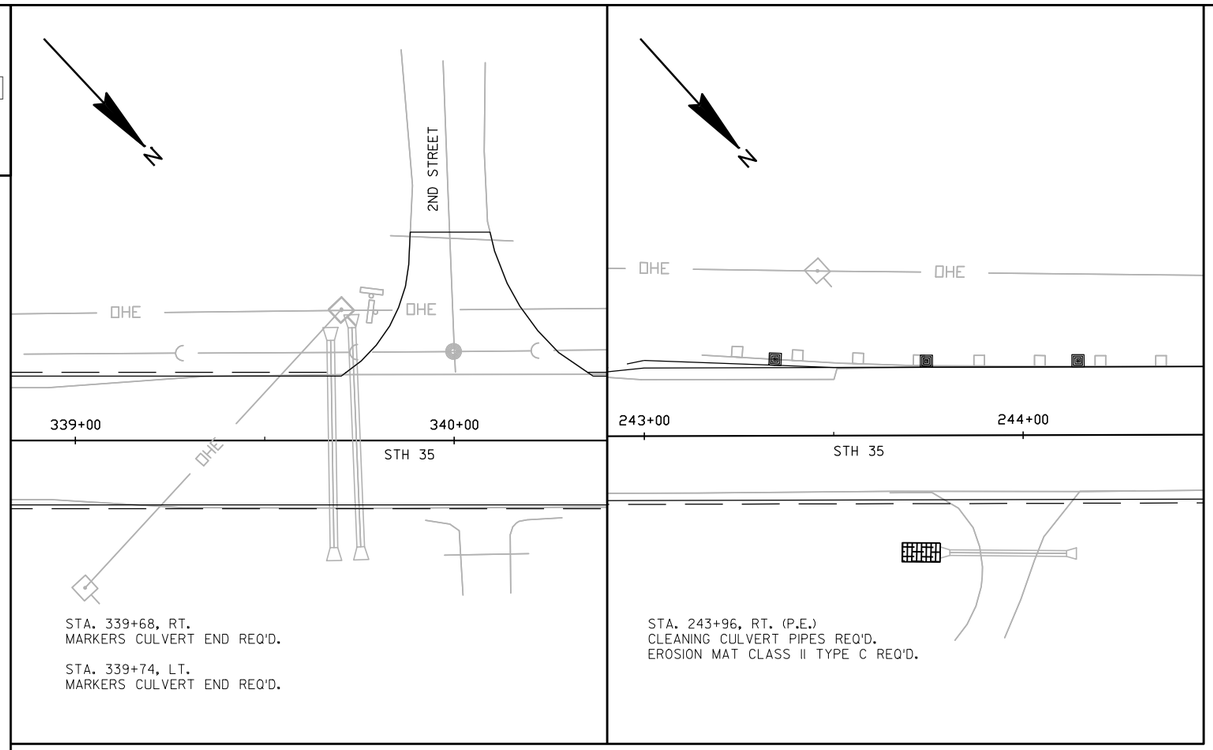


STA. 331+24, LT.
CLEANING PIPE INVERT REQ'D.
EROSION MAT CLASS II TYPE C REQ'D.

STA. 331+24, LT. & RT.
MARKERS CULVERT END REQ'D.

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	DRAINAGE DETAILS - 5	SHEET 35	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\DRAINAGE DETAILS.DWG
LAYOUT : 5
PLOT DATE : 7/30/2014
PLOT TIME : 11:58:34 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



STA. 339+68, RT.
MARKERS CULVERT END REQ'D.

STA. 339+74, LT.
MARKERS CULVERT END REQ'D.

STA. 243+96, RT. (P.E.)
CLEANING CULVERT PIPES REQ'D.
EROSION MAT CLASS II TYPE C REQ'D.

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	DRAINAGE DETAILS - 6	SHEET 36	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\DRAINAGE DETAILS.DWG
LAYOUT : 6
PLOT DATE : 8/4/2015
PLOT TIME : 8:21:18 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.

BEGIN PROJECT
STA. 34+01

(1-01R) NO PASSING ZONE W14-3 REMOVE
(1-02) NO PASSING ZONE W14-3 48" X 36"

STH 35 ℄

MATCH LINE STA. 45+00

HISTORICAL MARKER 1/2 MILE D5-63 REMOVE (1-03R)
HISTORICAL MARKER 1/2 MILE D5-63 60" X 36" (1-04)

STRUCTURE B-06-0138

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN

MATCH LINE STA. 45+00

(2-09R) D7-53L (MOD.) REMOVE Riecks Lake Park
(2-10) D7-68L (MOD.) 60" X 36" Riecks Lake Park

STH 35 ℄

REMOVE
M3-3 (2-11R)
M1-96 (2-12R)
D6-4 (2-13R)

(2-14) J4-3 72" X 36" SOUTH 35 AMERICA'S BYWAYS

(2-18) ONE WAY TRAFFIC ENTER HERE ESTR

(2-19R) NO PASSING ZONE W14-3 REMOVE
(2-20) NO PASSING ZONE W14-3 48" X 36"

(2-21) RIECK'S LAKE PARK MOVE

M1-6 REMOVE (2-29R) 35 W1-7 REMOVE (2-31R)

(2-32) W1-7 48" X 24"

(2-36) ONE WAY DO NOT ENTER ESTR

J13-1 REMOVE (2-37R)
J13-1 24" X 45" (2-39)

(2-08) RIECKS LAKE PARK ESTR

(2-03) JCT COUNTY I J1-1 24" X 39"
M2-1 (2-01R) JCT COUNTY I (2-02R) M1-5A REMOVE

(2-04R) Riecks Lake Park D7-53R REMOVE
(2-05) Riecks Lake Park D7-68R (MOD.) 60" X 36"

RIECK LAKE PARK

(2-06R) STOP R1-1 REMOVE
(2-07) STOP R1-1 30" X 30"

(2-15R) STOP R1-1 REMOVE
(2-16) STOP R1-1 30" X 30"

RIECK LAKE PARK
(2-17) RIECKS LAKE PARK ESTR

(2-22R) COUNTY I J13-1 REMOVE
(2-24) COUNTY I J13-1 24" X 45"

(2-25R) NO PASSING ZONE W14-3 REMOVE
(2-26) NO PASSING ZONE W14-3 48" X 36"

(2-27) COUNTY I M1-5A Memorial Cemetery (2-28) ESTR

CTH I (IRON CREEK ROAD)

(2-35) IRON CREEK RD ESTR

35 J13-1 24" X 45" (2-30)

(2-33R) STOP R1-1 REMOVE
(2-34) STOP R1-1 30" X 30"

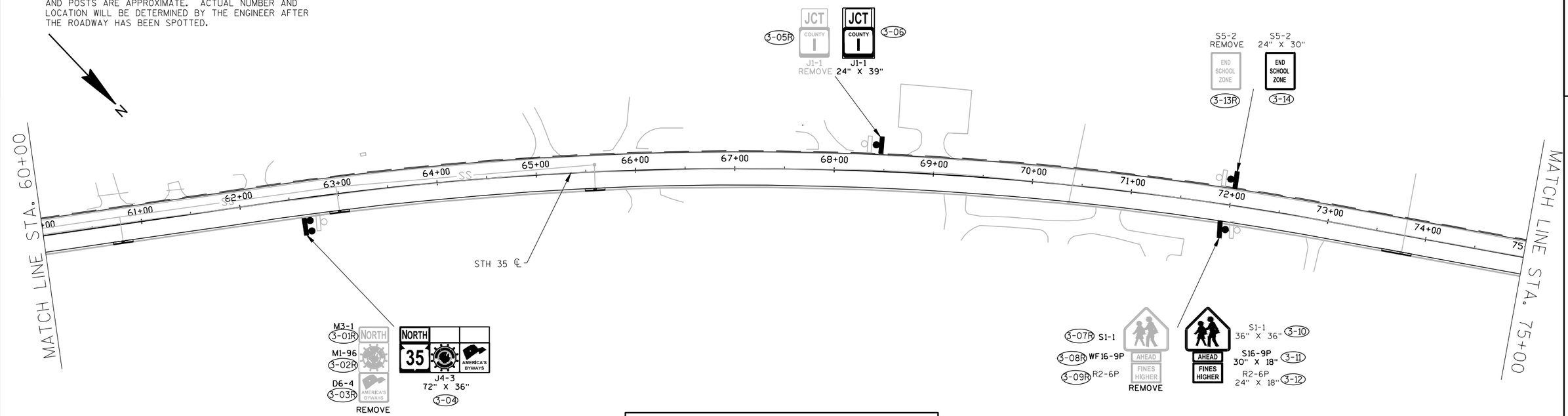
MATCH LINE STA. 60+00

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 1	SHEET 37	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 1
PLOT DATE : 3/30/2015
PLOT TIME : 4:14:28 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

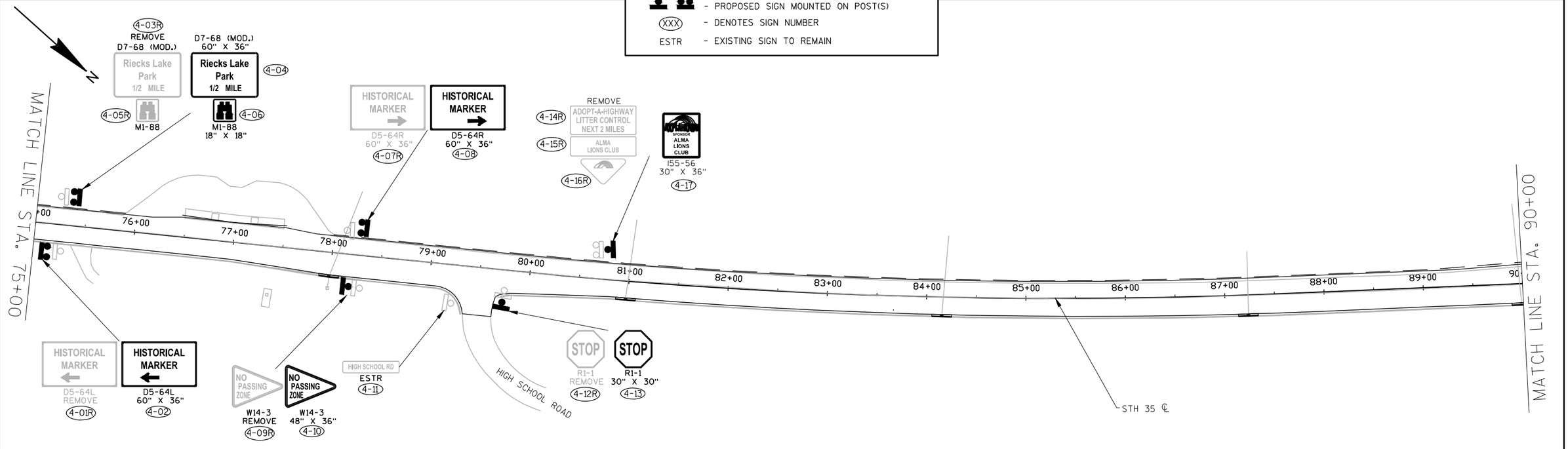
2

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

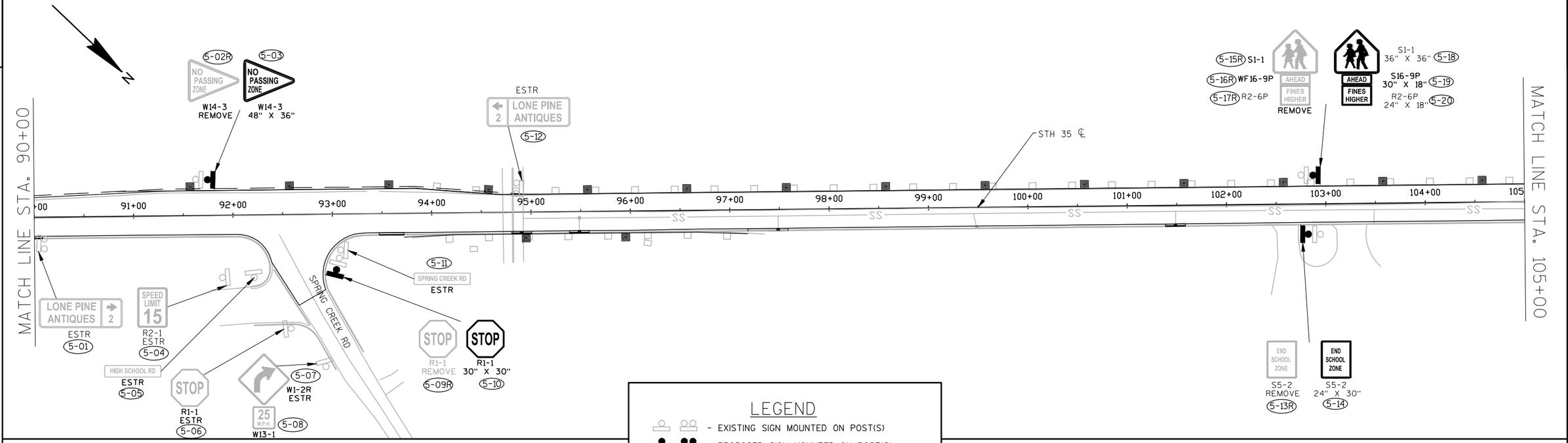
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- XXX - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 2	SHEET 38	E

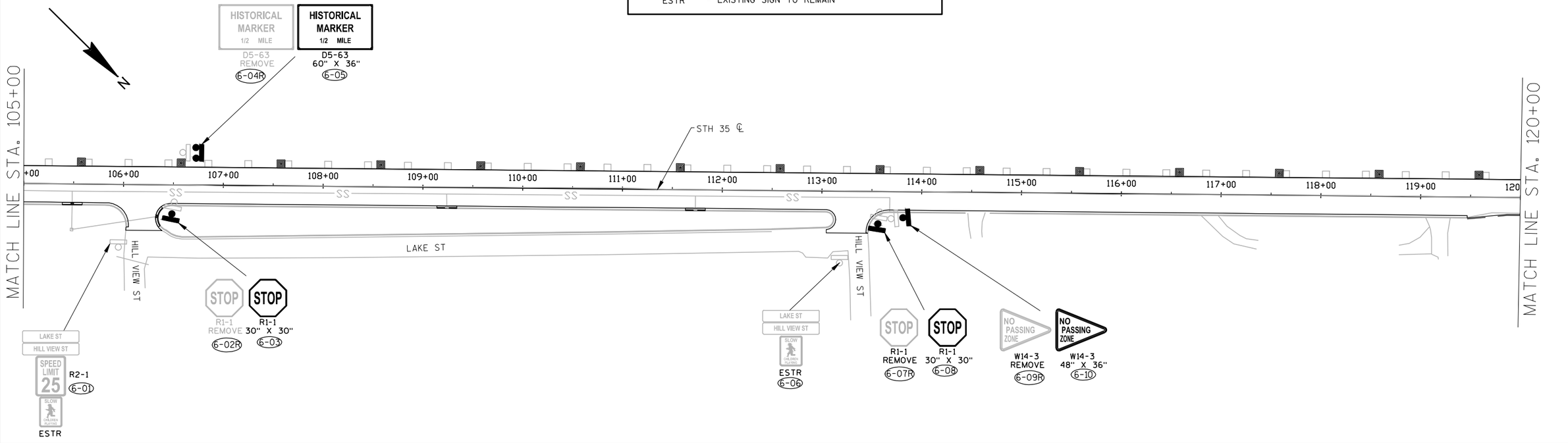
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 2
PLOT DATE : 3/30/2015
PLOT TIME : 4:15:25 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

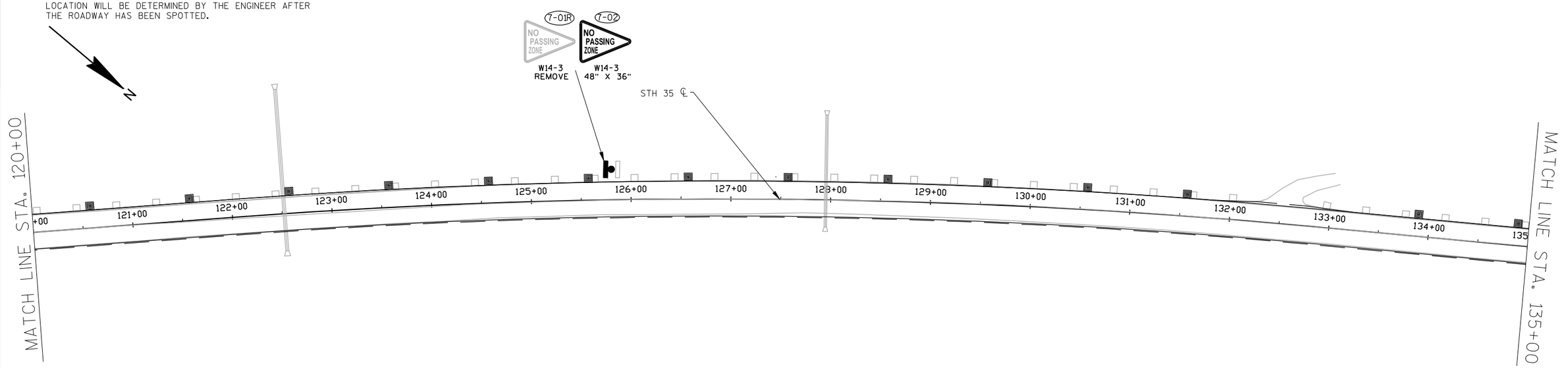
- (symbol) - EXISTING SIGN MOUNTED ON POST(S)
- (symbol) - PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 3	SHEET 39	E

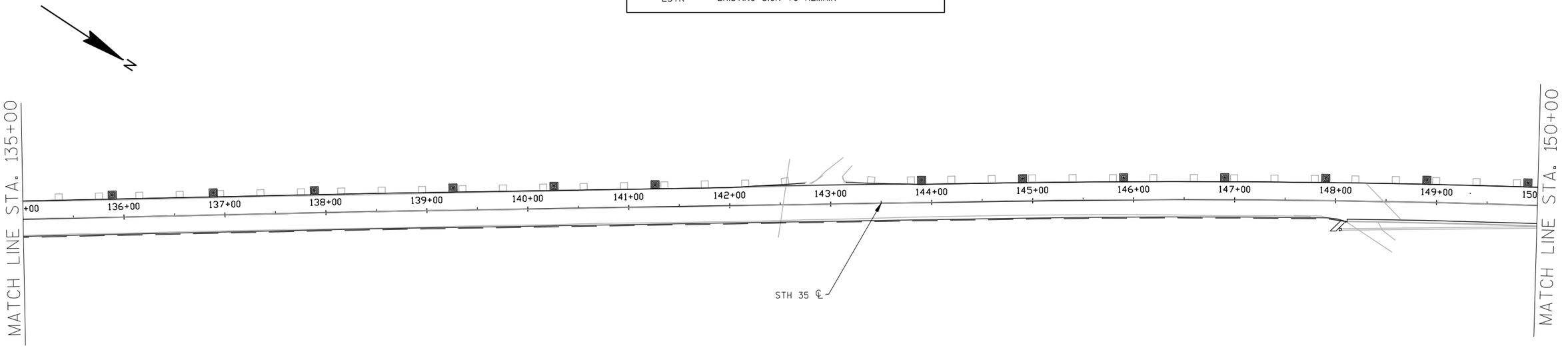
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 3
PLOT DATE : 3/30/2015
PLOT TIME : 4:28:08 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

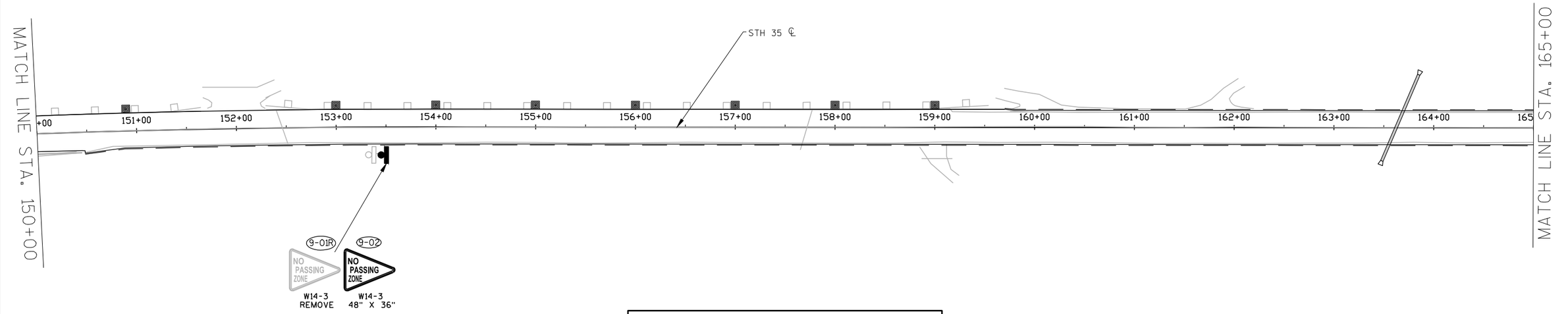
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- XXX - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 4	SHEET 40	E

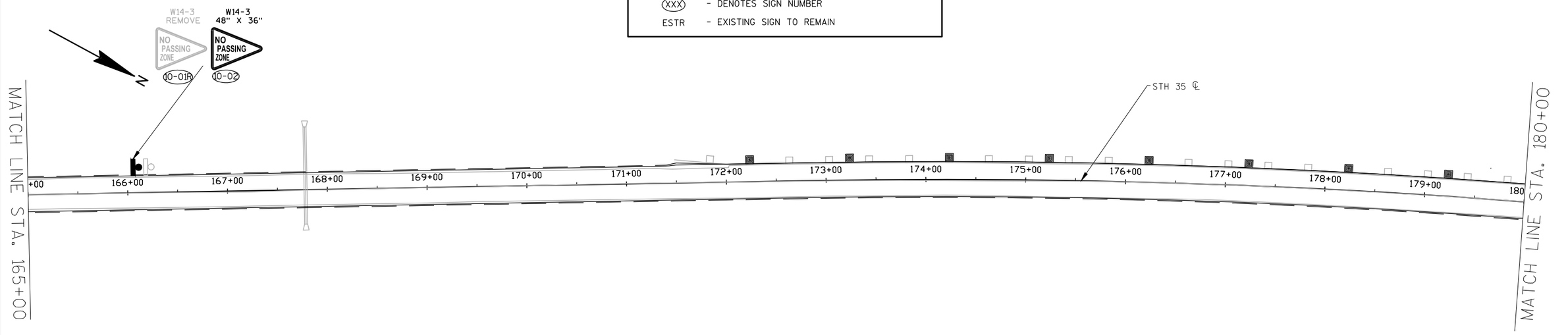
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 4
PLOT DATE : 3/30/2015
PLOT TIME : 4:43:20 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

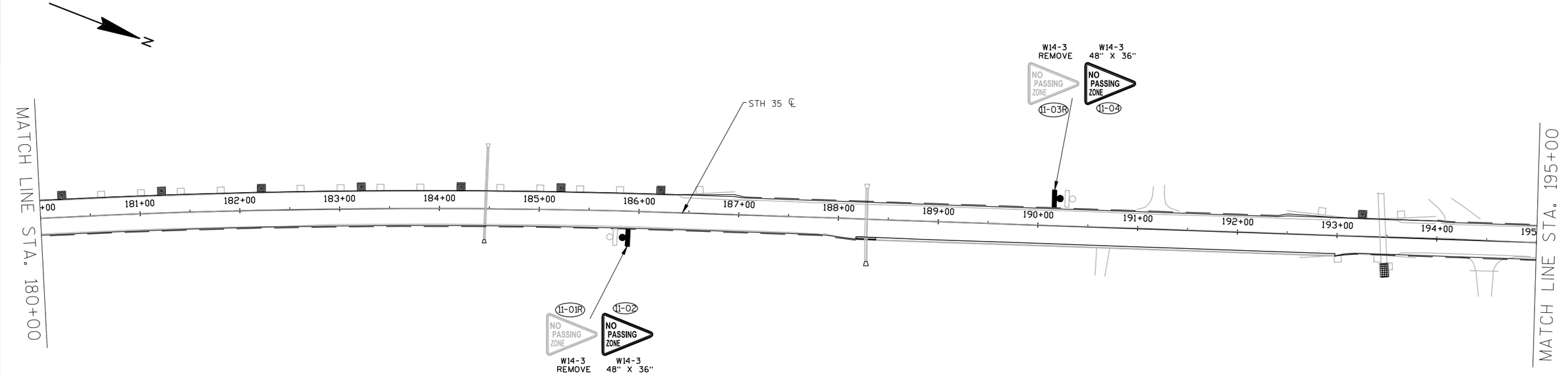
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 5	SHEET 41	E

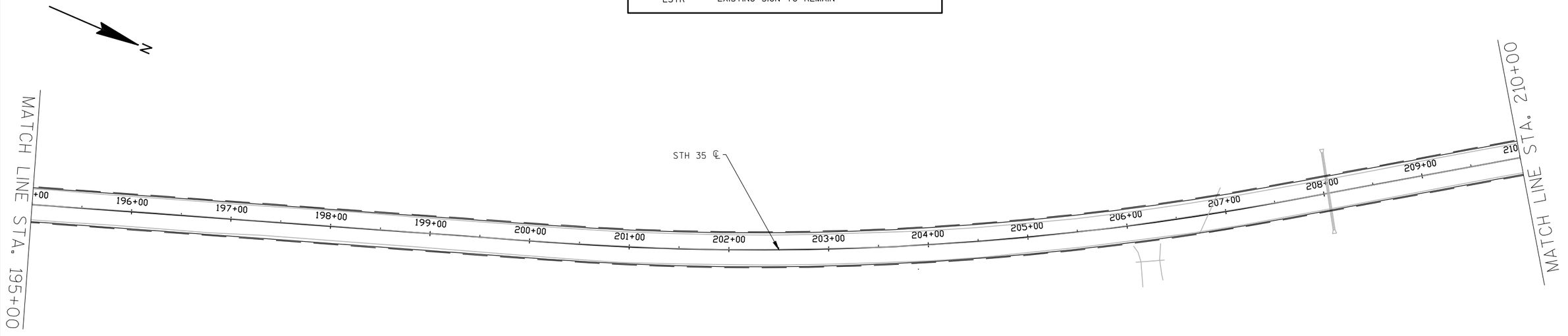
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 5
PLOT DATE : 3/31/2015
PLOT TIME : 7:47:46 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

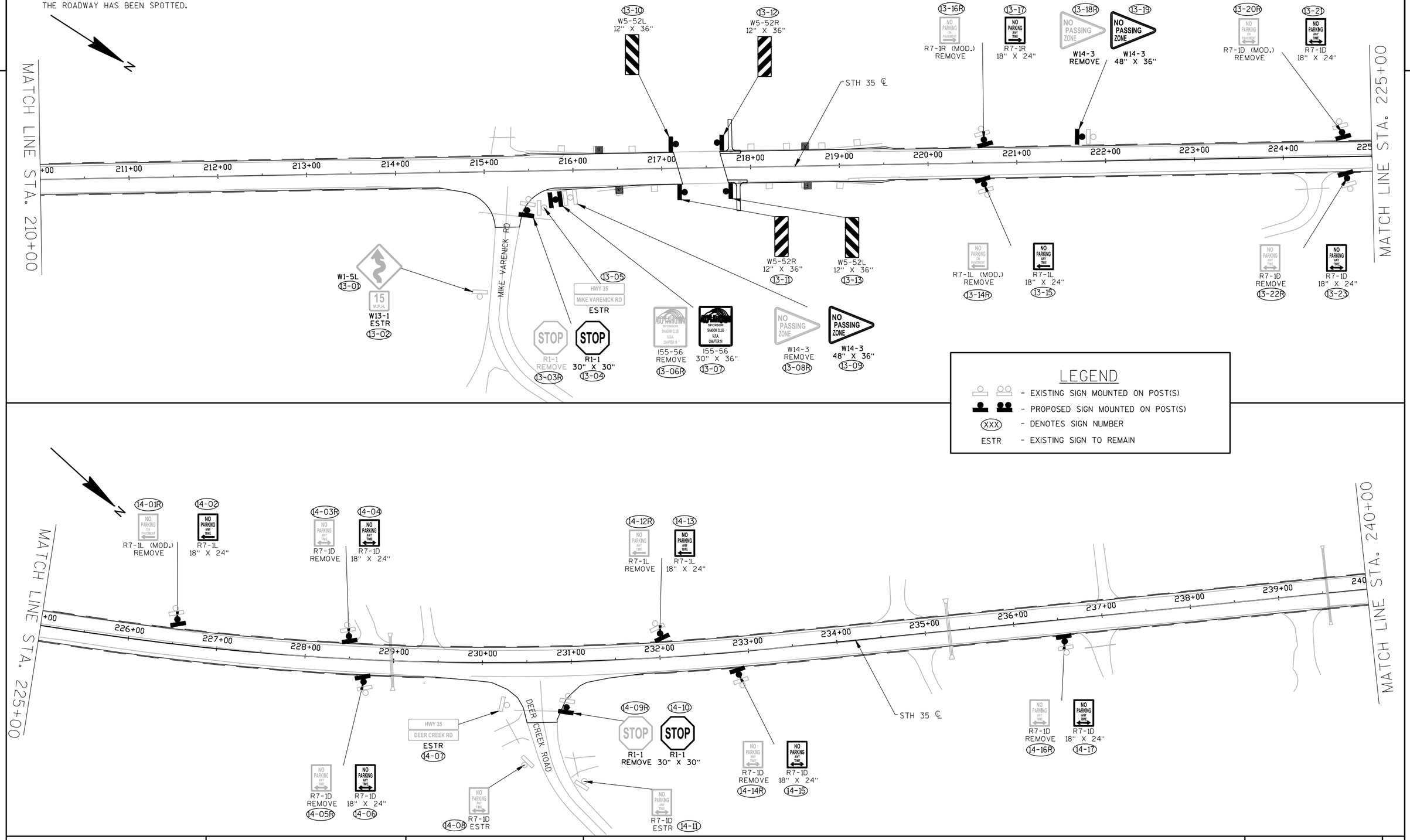
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 6	SHEET 42	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 6
PLOT DATE : 3/31/2015
PLOT TIME : 7:49:21 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

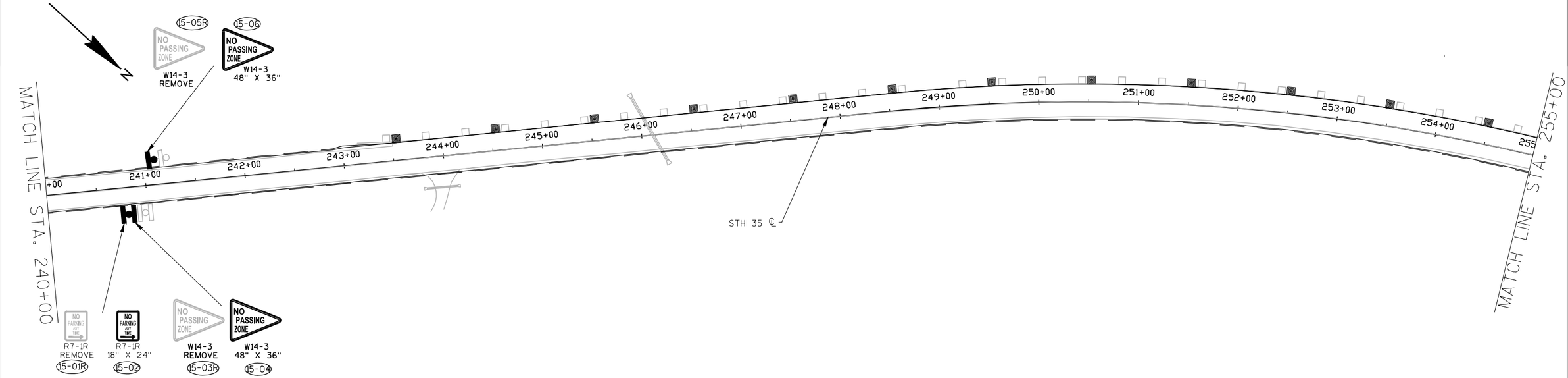
NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 7	SHEET 43	E

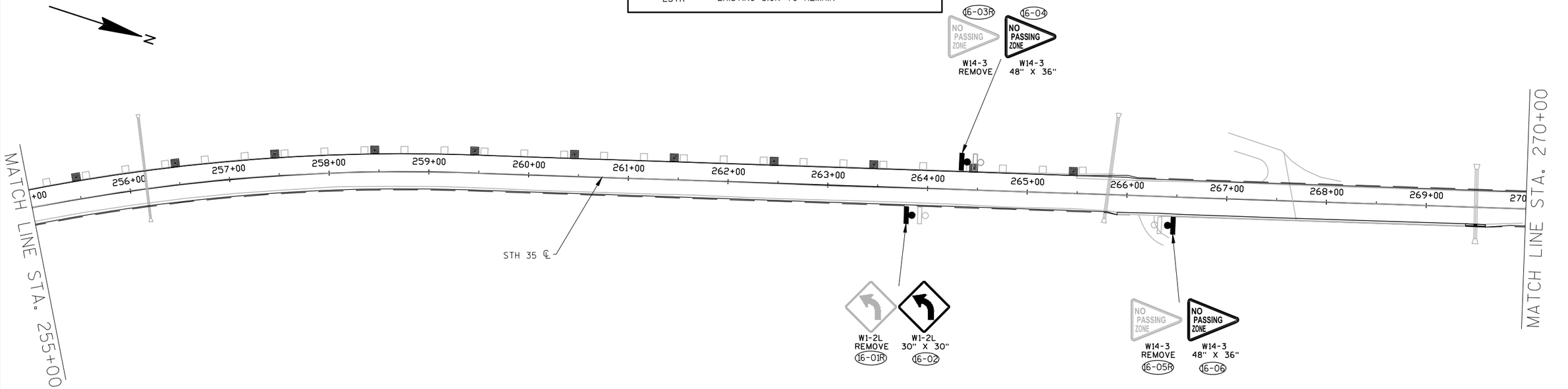
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 7
PLOT DATE : 3/31/2015
PLOT TIME : 7:56:09 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

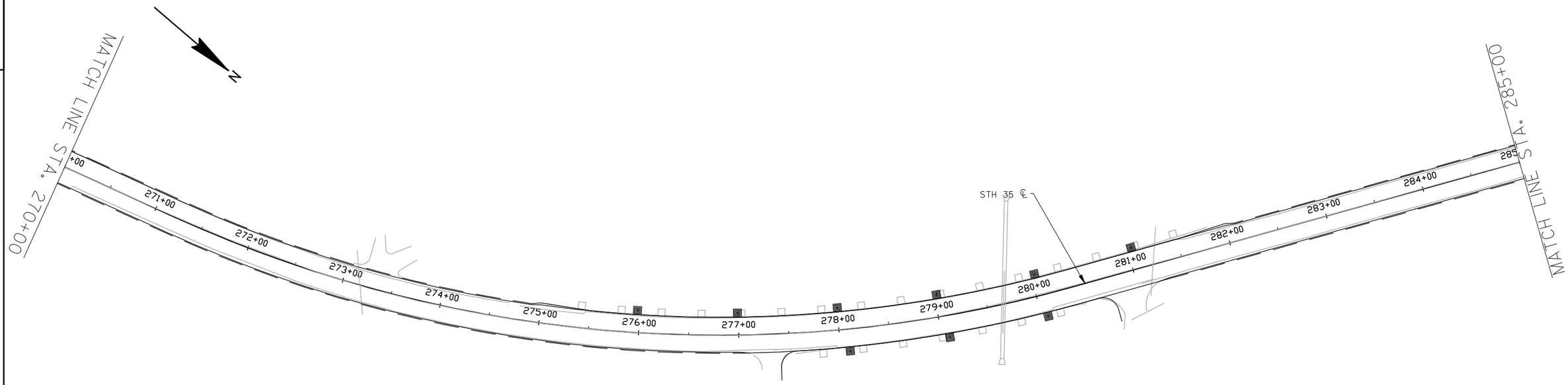
- (○ ○) - EXISTING SIGN MOUNTED ON POST(S)
- (● ●) - PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 8	SHEET 44	E

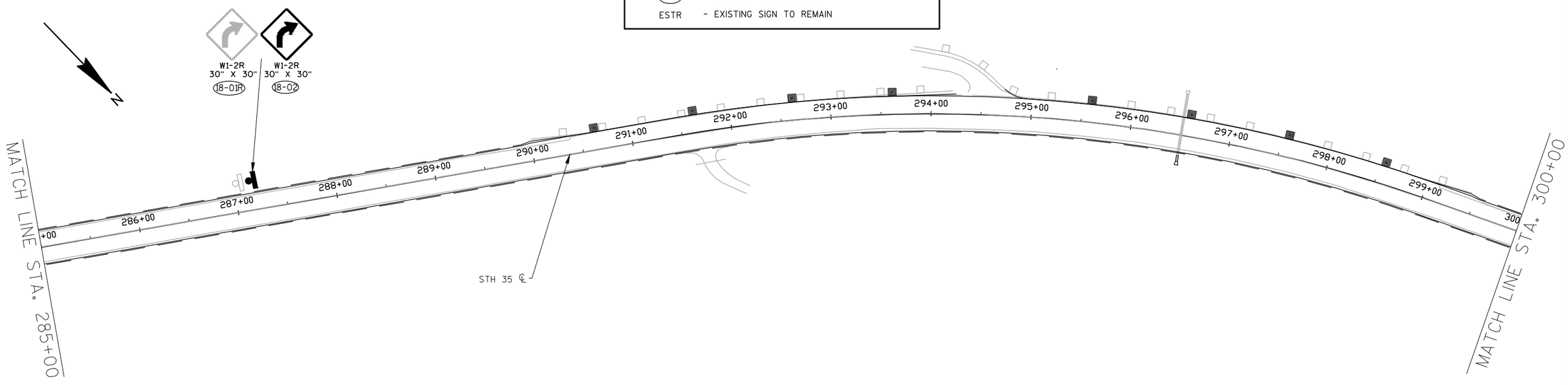
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 8
PLOT DATE : 3/31/2015
PLOT TIME : 8:09:19 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

2



LEGEND

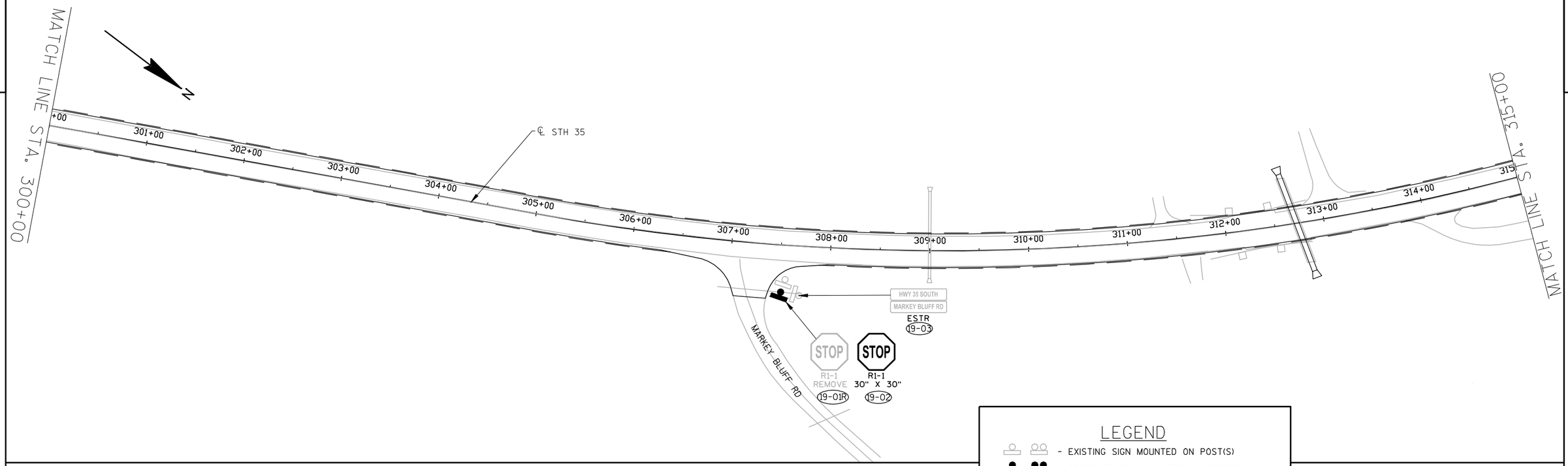
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 9	SHEET 45	E

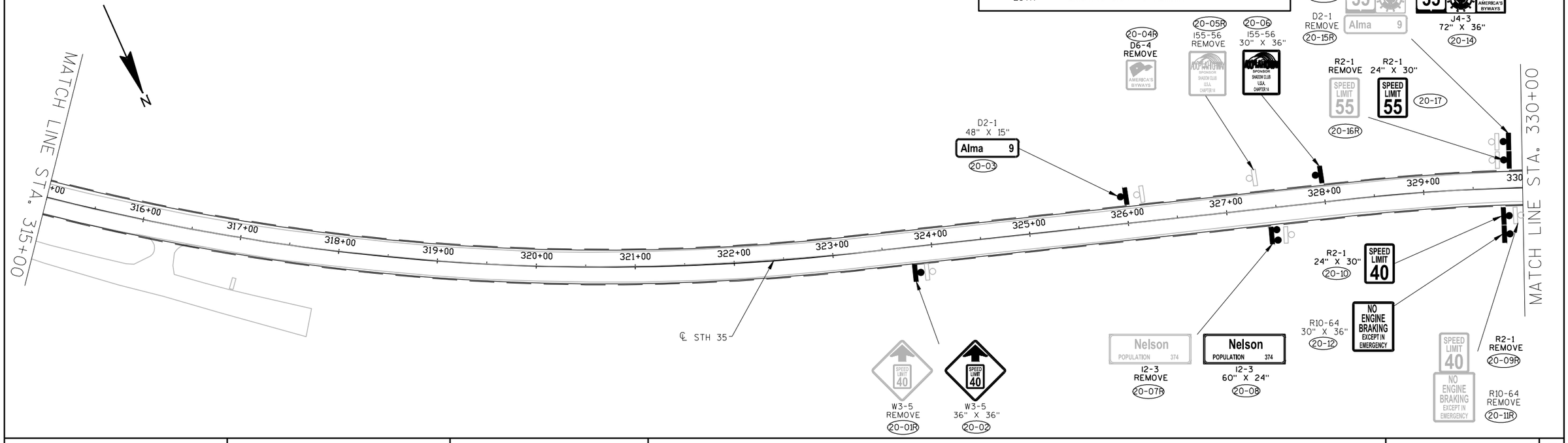
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 9
PLOT DATE : 3/31/2015
PLOT TIME : 12:00:14 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

2



LEGEND

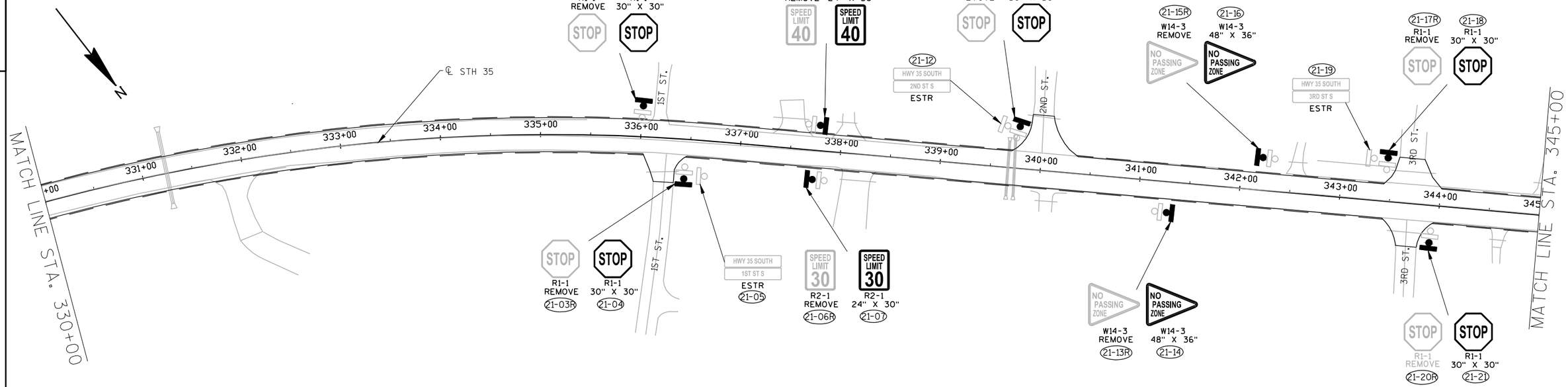
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 10	SHEET 46	E

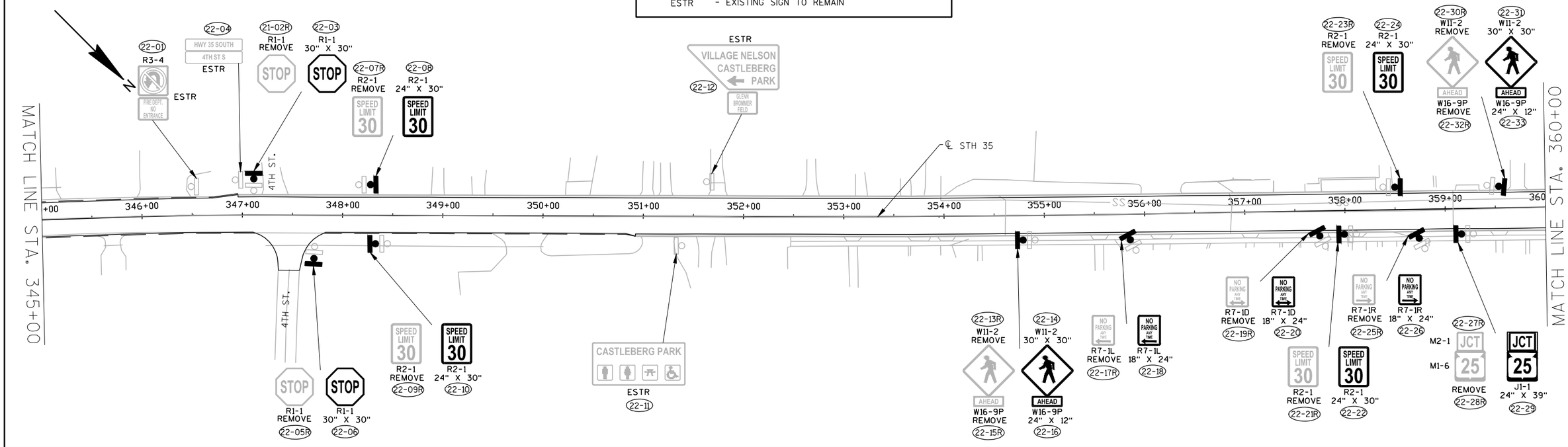
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 10
PLOT DATE : 3/31/2015
PLOT TIME : 9:03:22 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) AND POSTS ARE APPROXIMATE. ACTUAL NUMBER AND LOCATION WILL BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



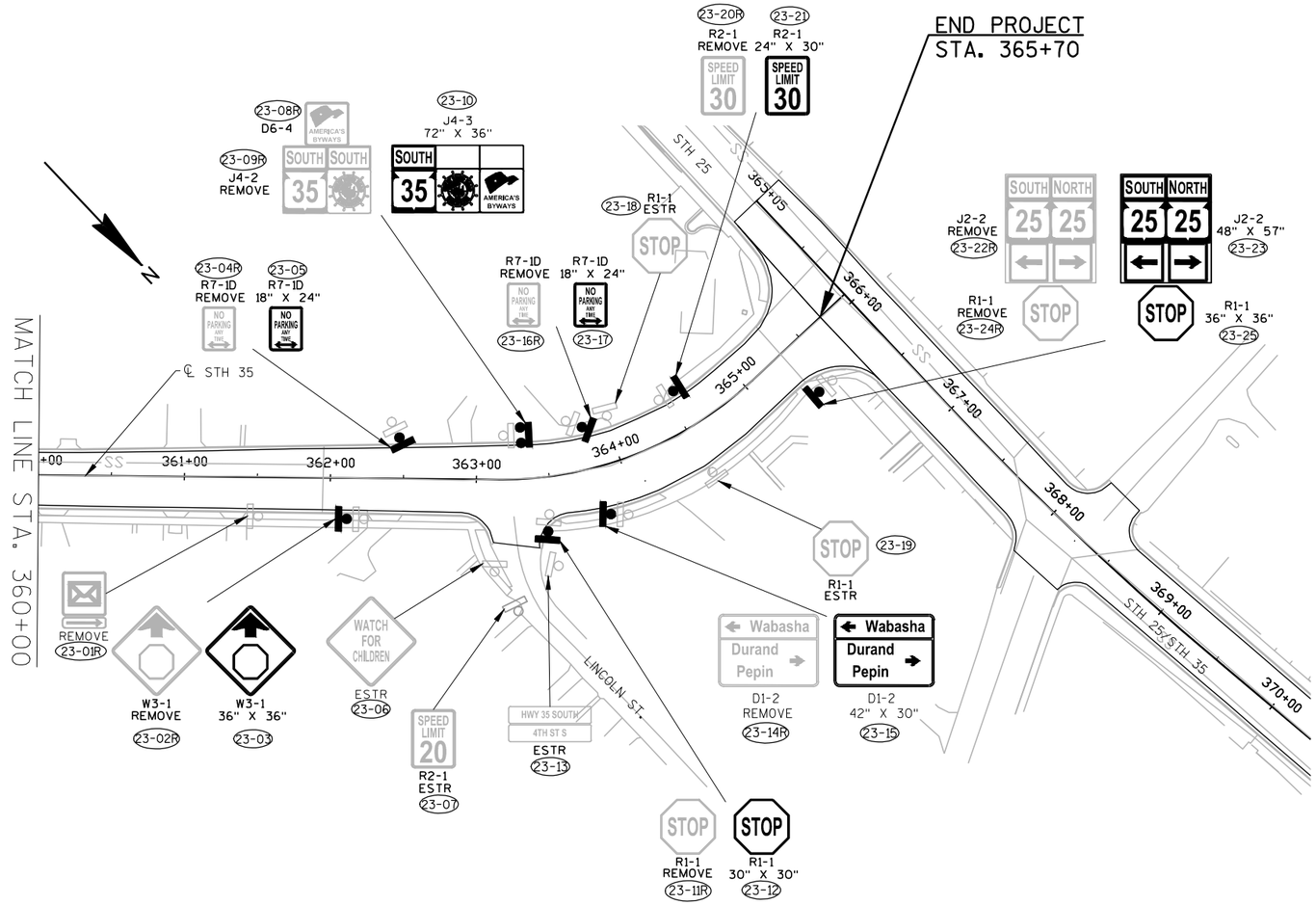
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 11	SHEET 47	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 11
PLOT DATE : 3/31/2015
PLOT TIME : 10:55:00 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

2

LEGEND

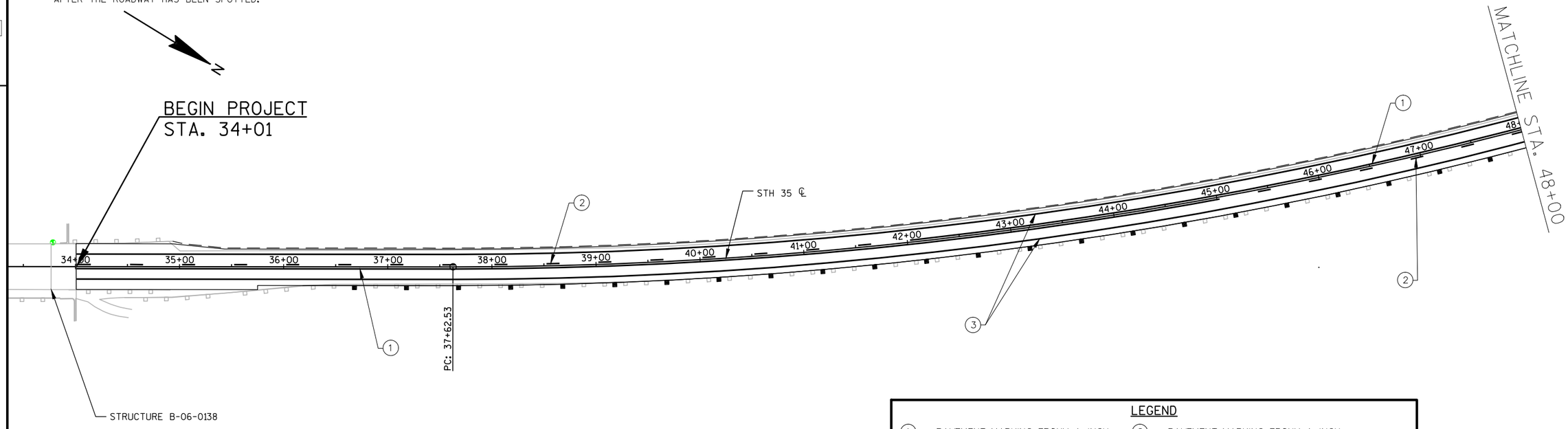
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- (XXX) - DENOTES SIGN NUMBER
- ESTR - EXISTING SIGN TO REMAIN



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING - 12	SHEET 48	E

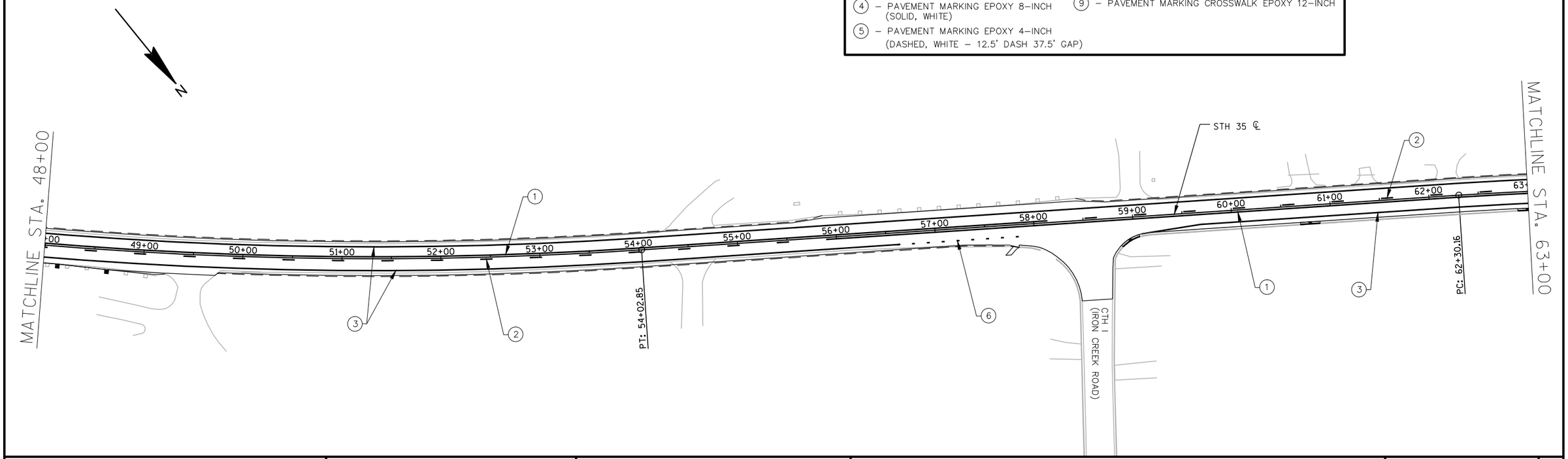
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PERMANENT SIGNING\PERMANENT SIGNING.DWG
LAYOUT : 12
PLOT DATE : 4/1/2015
PLOT TIME : 7:54:36 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

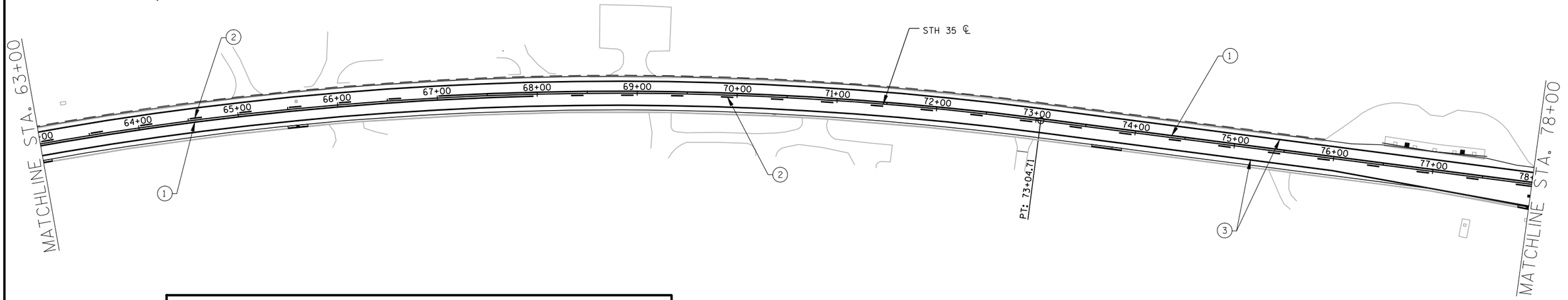
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 49	E

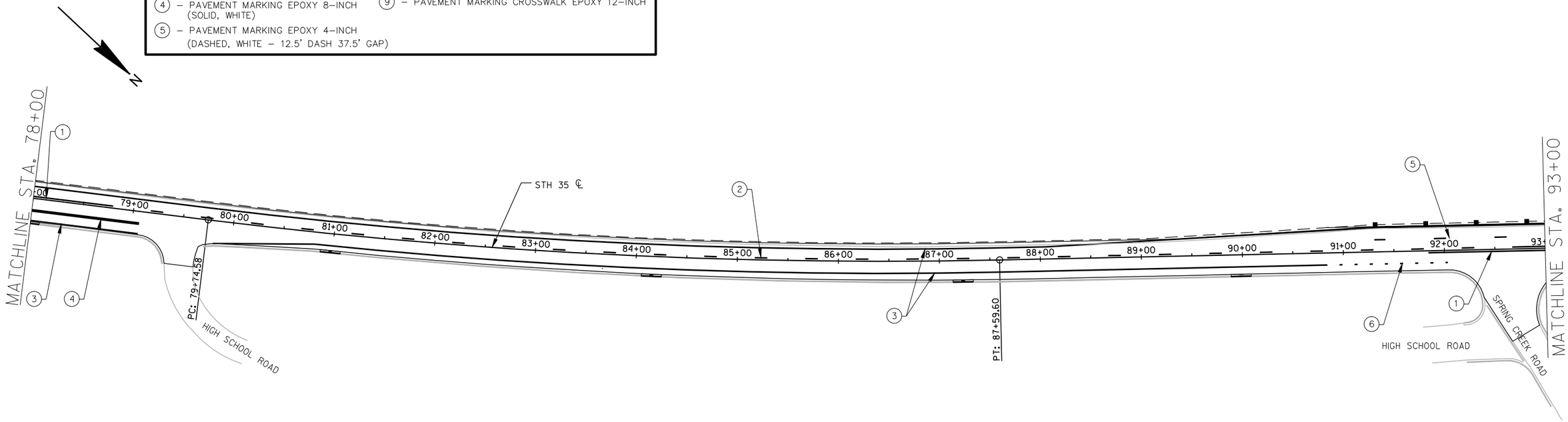
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 1
PLOT DATE : 7/31/2014
PLOT TIME : 8:02:12 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

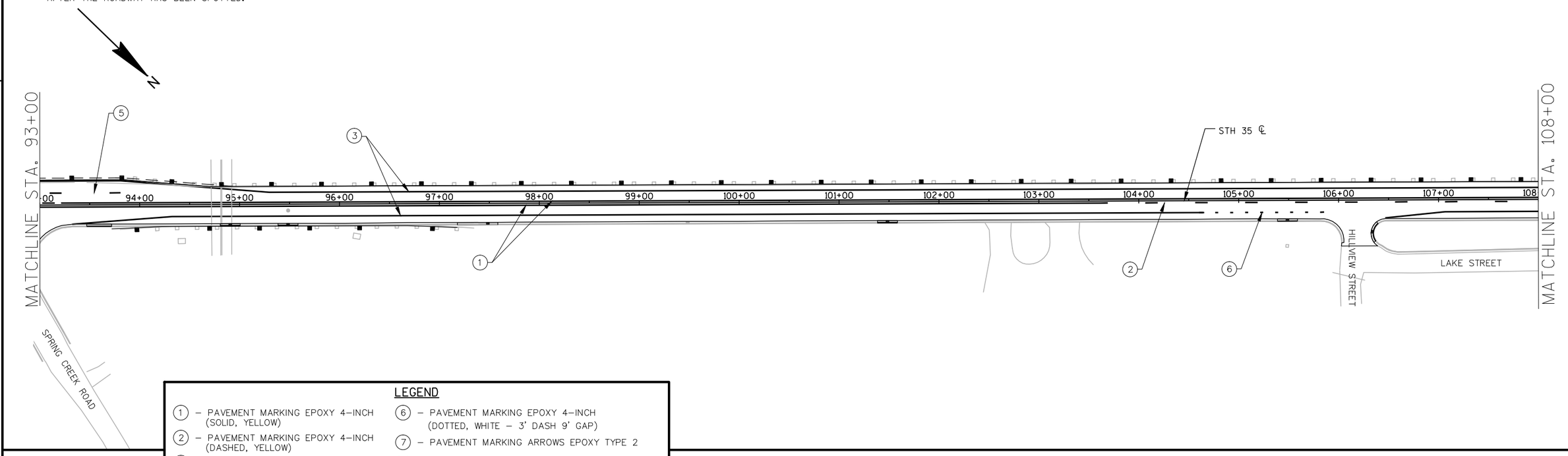
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 50	E

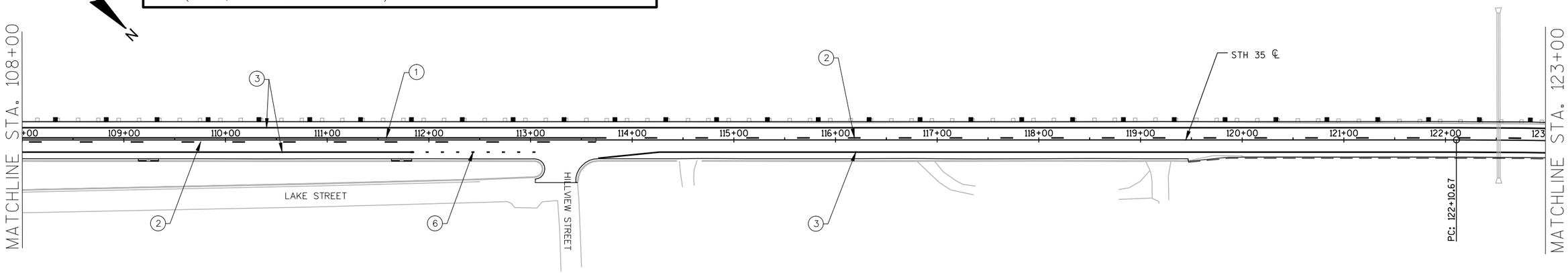
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 2
PLOT DATE : 7/31/2014
PLOT TIME : 8:16:24 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

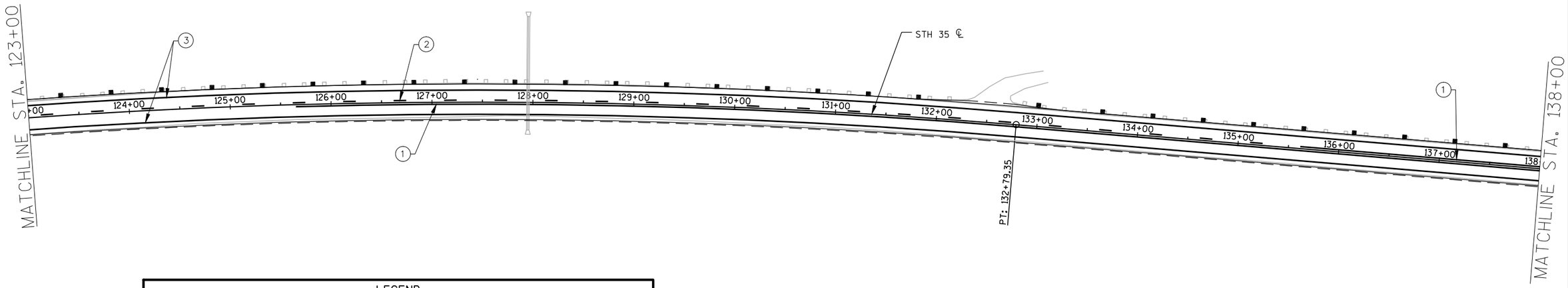
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 51	E

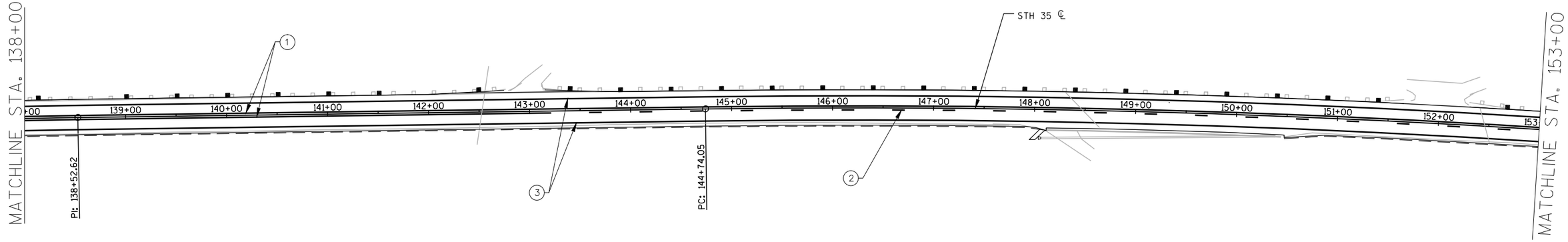
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 3
PLOT DATE : 7/31/2014
PLOT TIME : 8:23:08 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

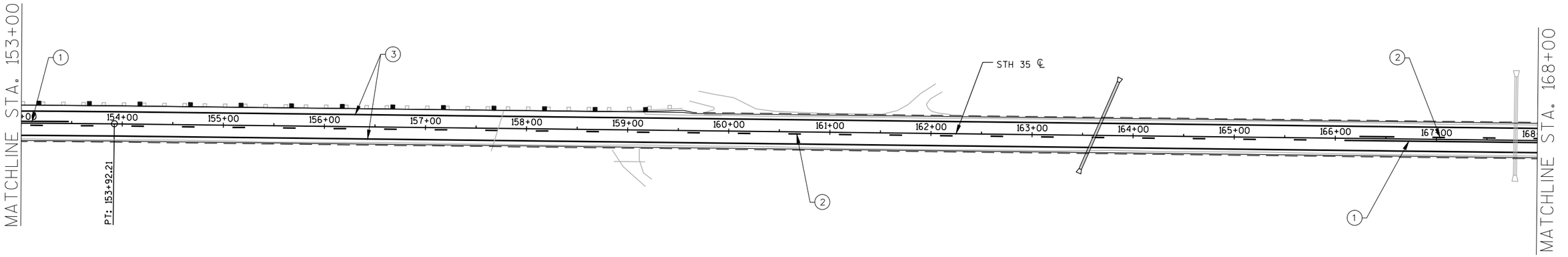
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 52	E

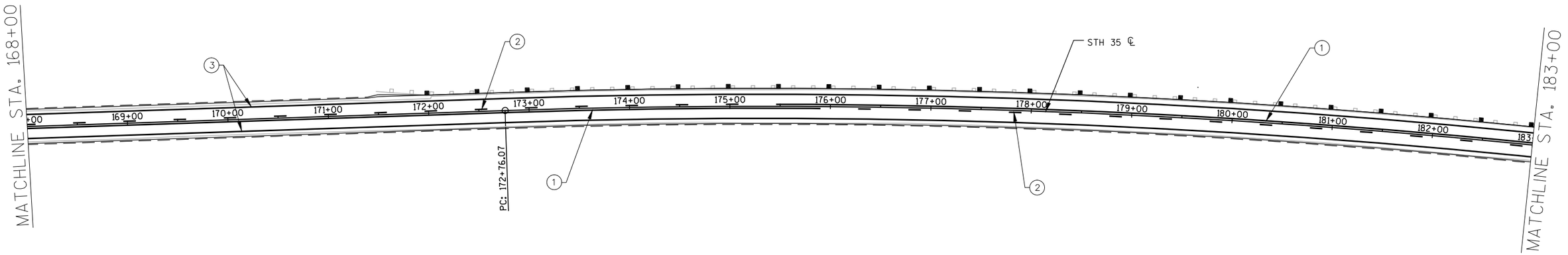
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 4
PLOT DATE : 7/31/2014
PLOT TIME : 8:26:14 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

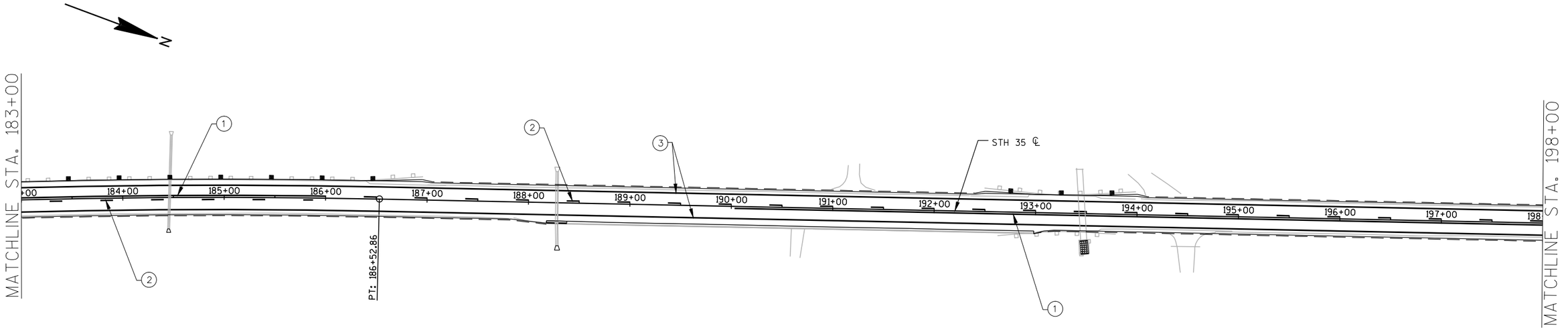
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 53	E

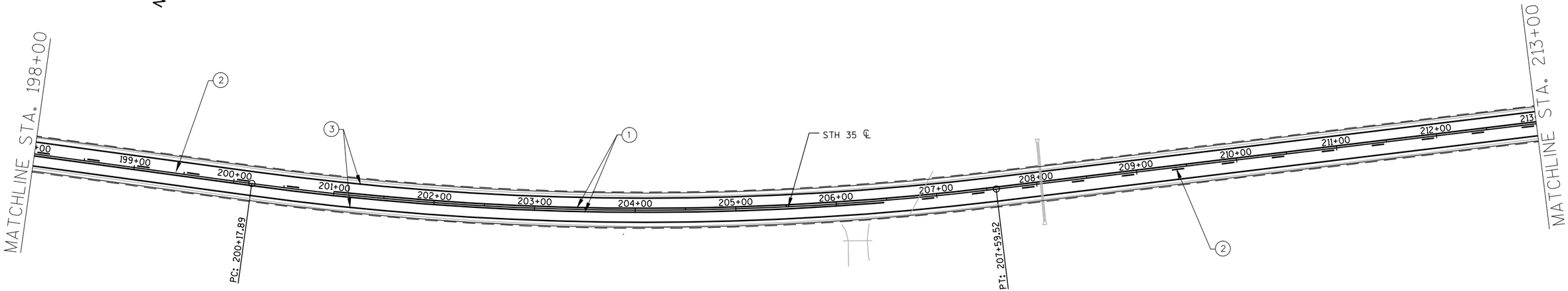
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 5
PLOT DATE : 7/31/2014
PLOT TIME : 8:27:49 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

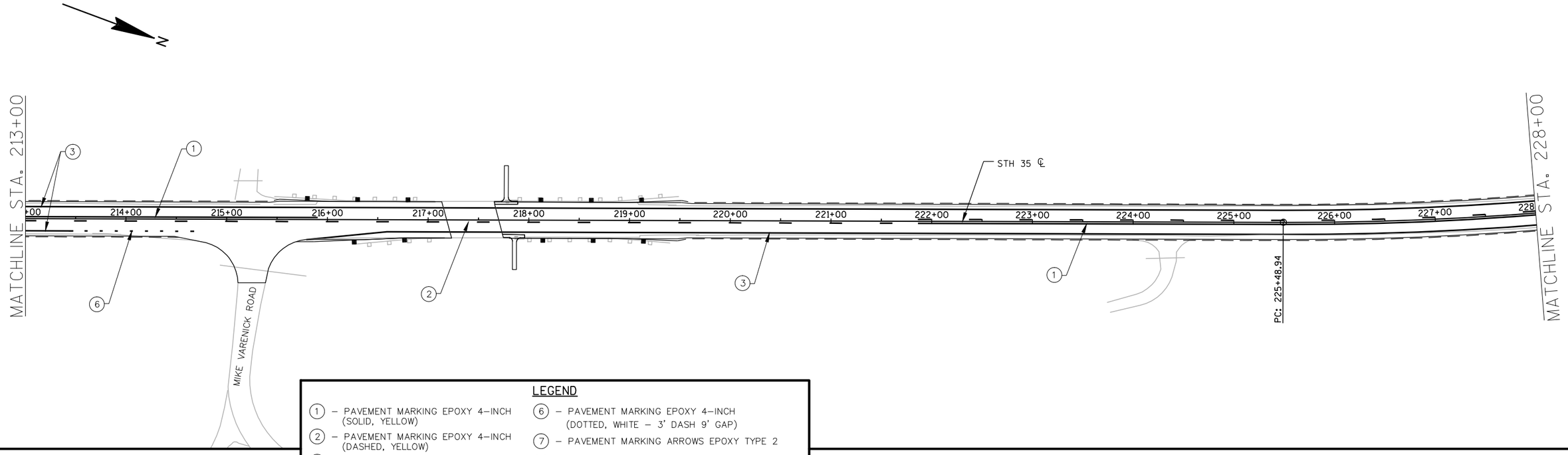
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 54	E

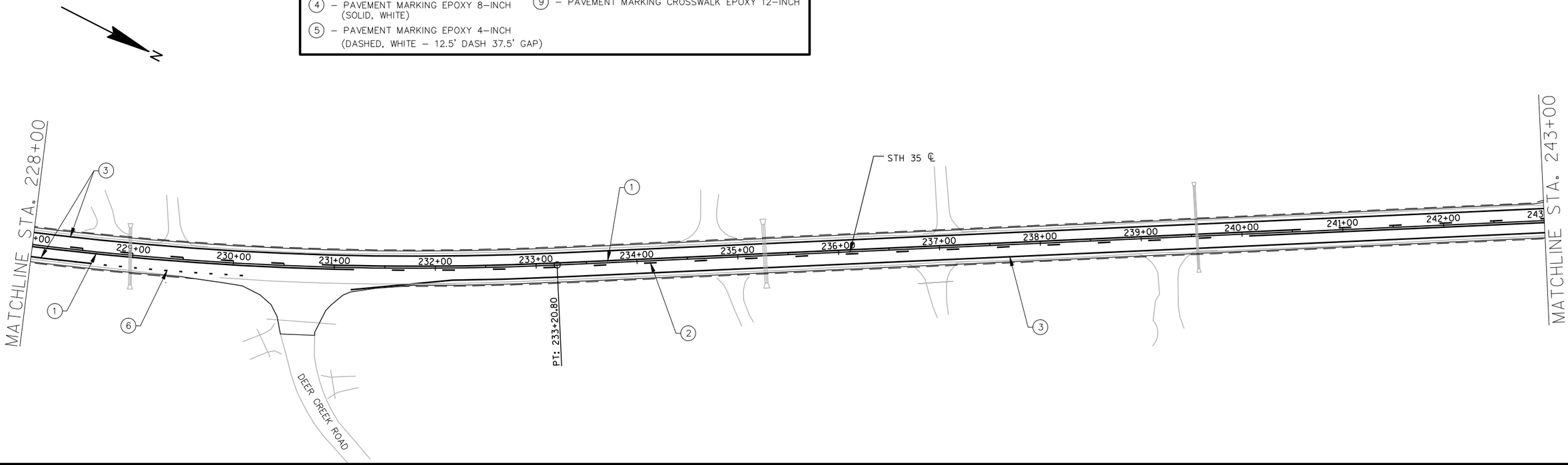
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 6
PLOT DATE : 7/31/2014
PLOT TIME : 8:30:37 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

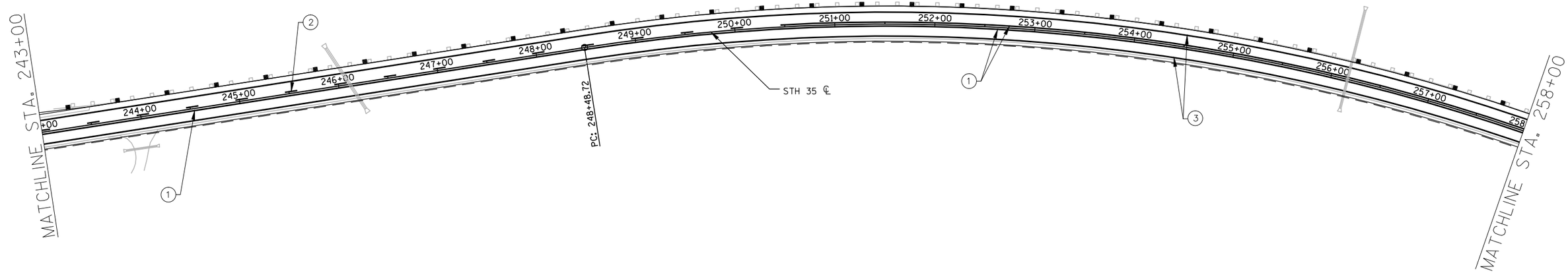
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 55	E

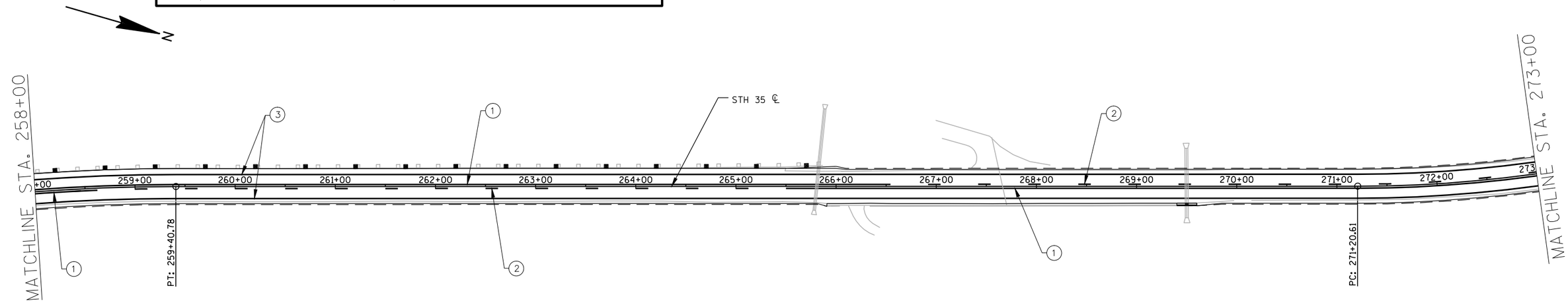
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 7
PLOT DATE : 7/31/2014
PLOT TIME : 8:36:50 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

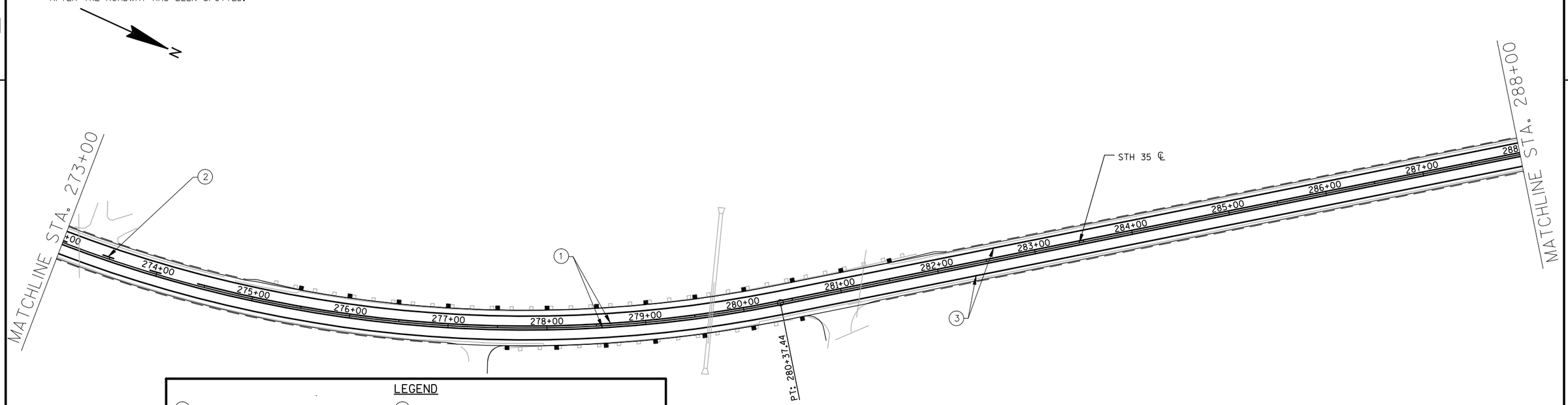
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 56	E

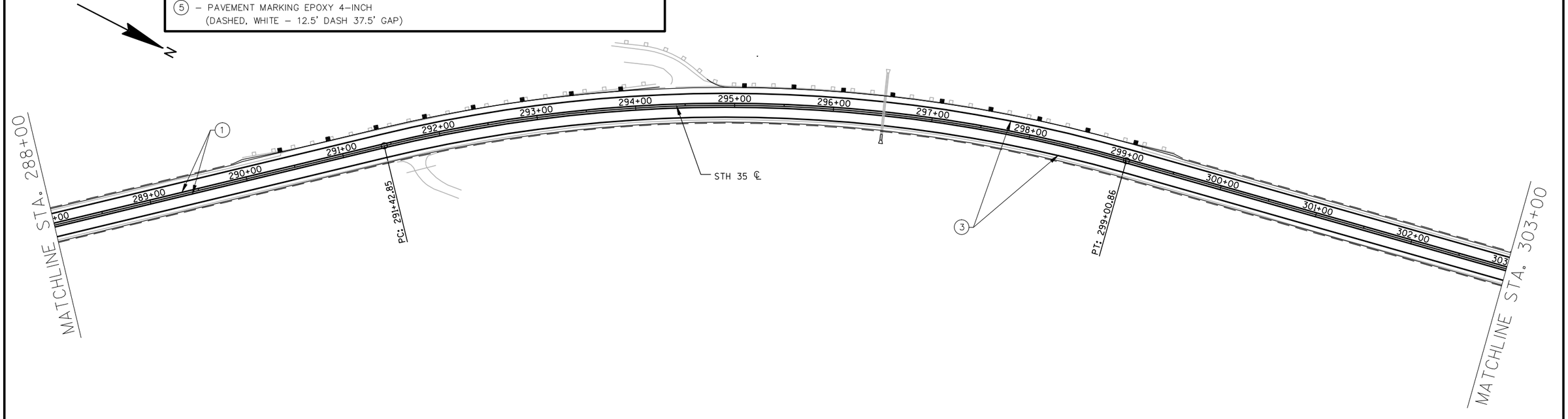
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 8
PLOT DATE : 7/31/2014
PLOT TIME : 8:37:33 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

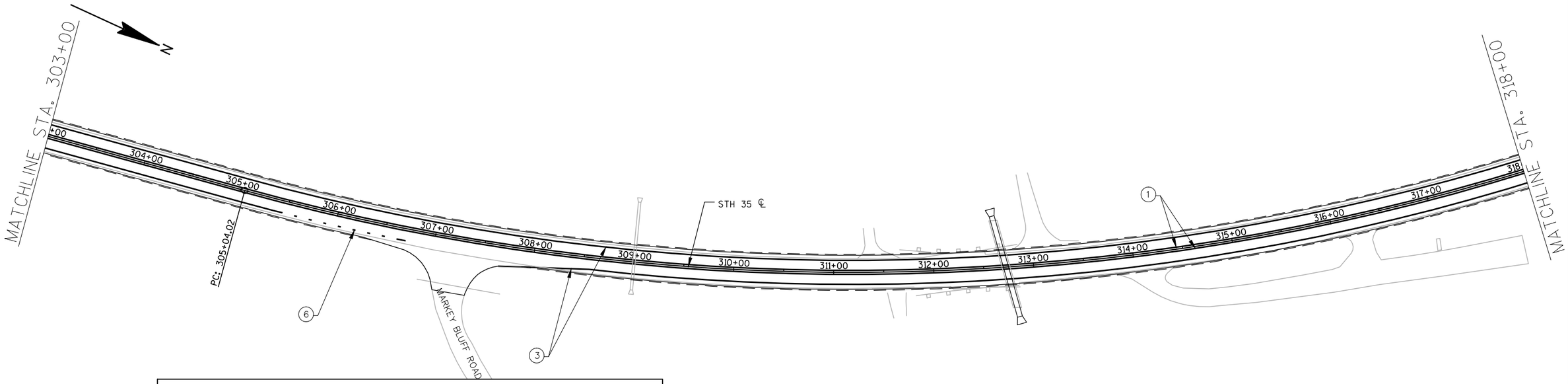
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 57	E

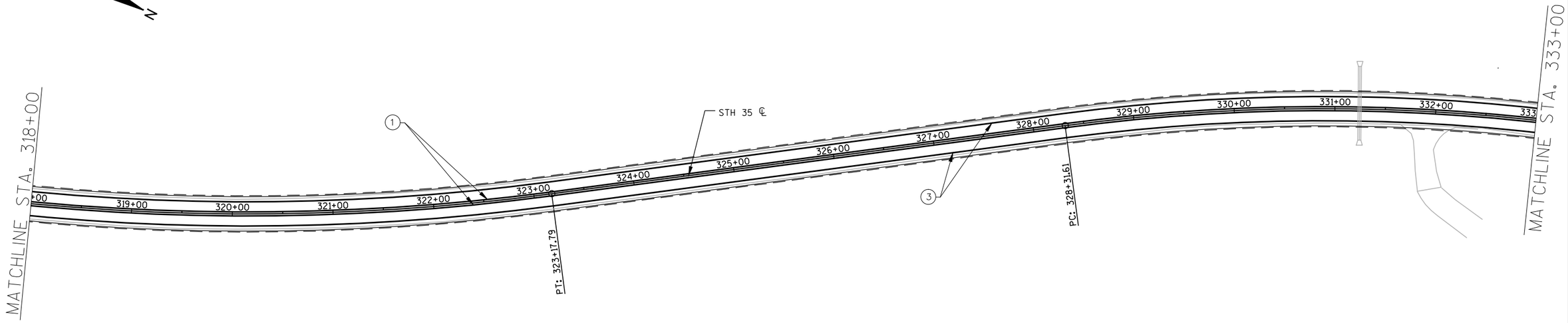
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 9
PLOT DATE : 7/31/2014
PLOT TIME : 8:39:44 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

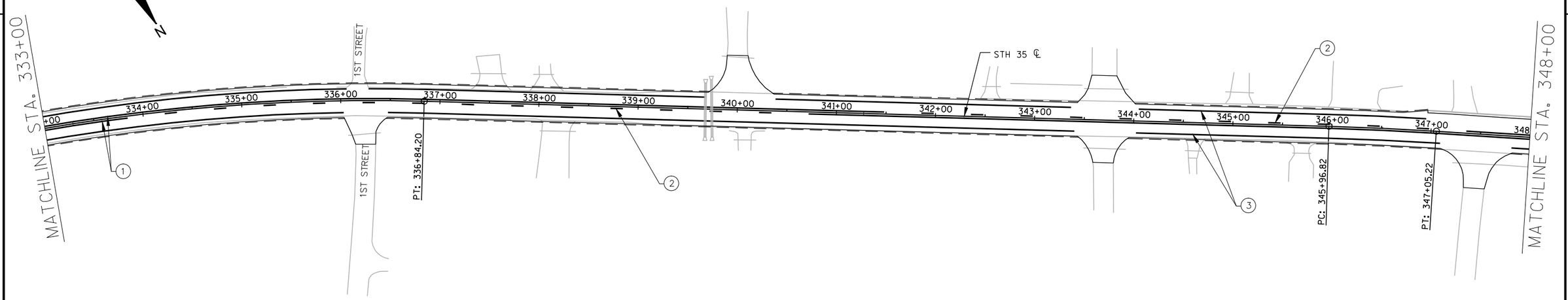
1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 58	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 10
PLOT DATE : 7/31/2014
PLOT TIME : 8:42:28 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

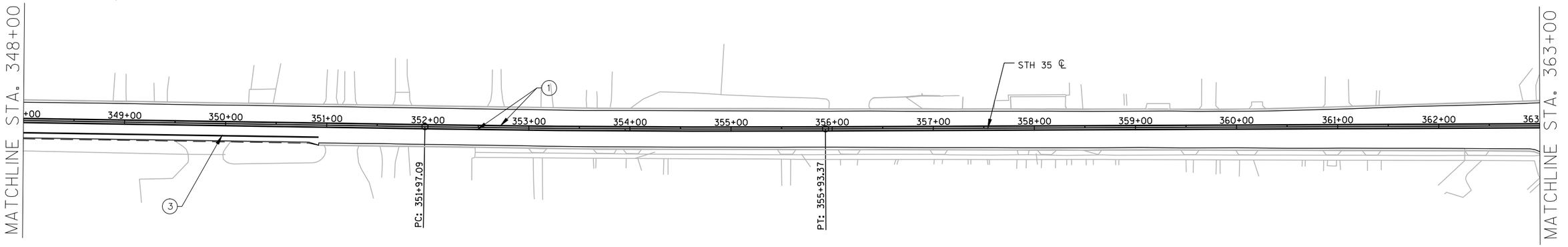
NOTE: NO PASSING ZONE START AND END LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED BY THE ENGINEER AFTER THE ROADWAY HAS BEEN SPOTTED.



LEGEND

1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH

CENTERLINE PAVEMENT MARKING SHALL BE DOUBLE BARRIER LINE FROM 4TH STREET TO STH 25 (STA. 347+35 - STA. 365+45)



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 59	E

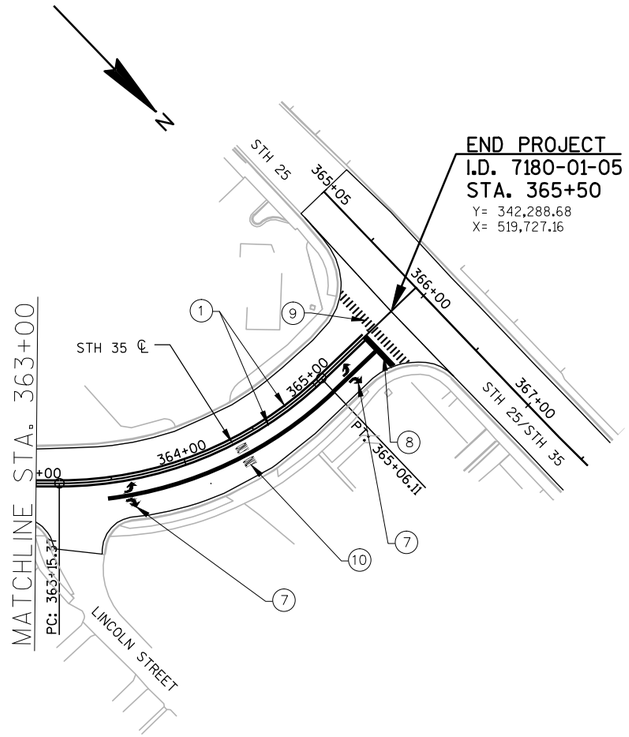
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 11
PLOT DATE : 7/31/2014
PLOT TIME : 8:44:01 AM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

2

LEGEND

1. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, YELLOW)
2. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, YELLOW)
3. – PAVEMENT MARKING EPOXY 4–INCH (SOLID, WHITE)
4. – PAVEMENT MARKING EPOXY 8–INCH (SOLID, WHITE)
5. – PAVEMENT MARKING EPOXY 4–INCH (DASHED, WHITE – 12.5' DASH 37.5' GAP)
6. – PAVEMENT MARKING EPOXY 4–INCH (DOTTED, WHITE – 3' DASH 9' GAP)
7. – PAVEMENT MARKING ARROWS EPOXY TYPE 2
8. – PAVEMENT MARKING STOP LINE EPOXY 18–INCH
9. – PAVEMENT MARKING CROSSWALK EPOXY 12–INCH
10. – PAVEMENT MARKING WORDS EPOXY (ONLY)

CENTERLINE PAVEMENT MARKING SHALL BE DOUBLE BARRIER LINE FROM 4TH STREET TO STH 25 (STA. 347+35 - STA. 365+45)

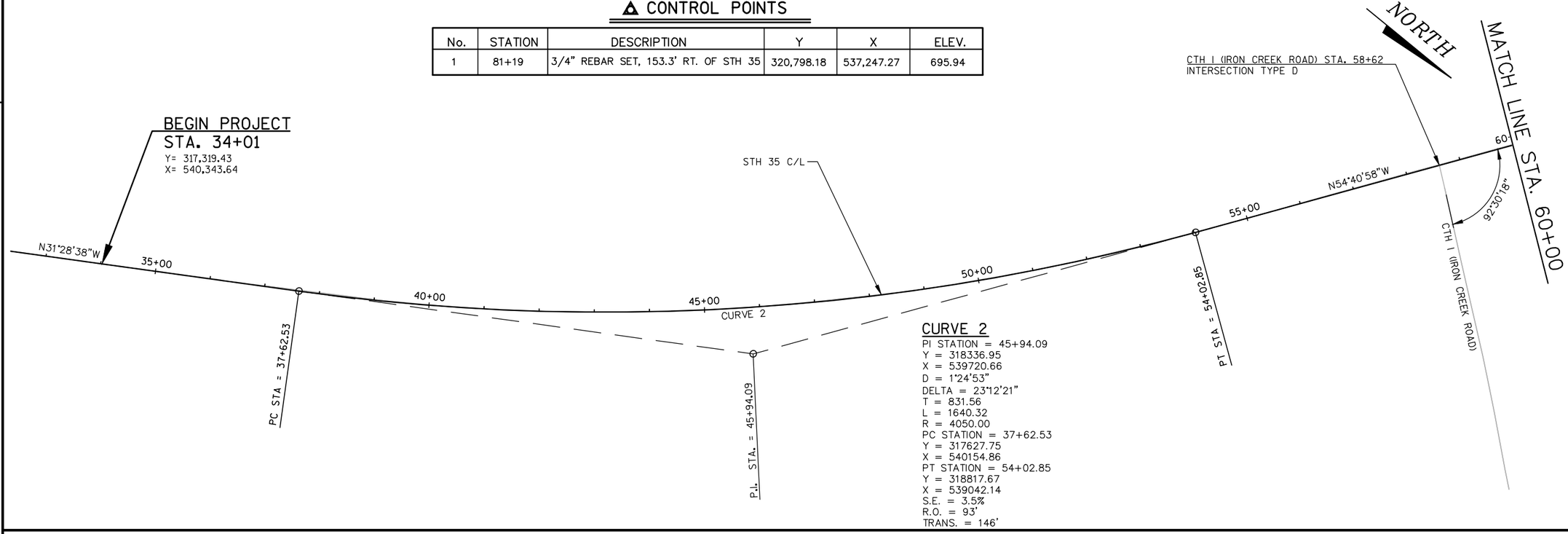


PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PAVEMENT MARKING PLAN	SHEET 60	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PAVEMENT MARKING\PAVEMENT MARKING.DWG
LAYOUT : 12
PLOT DATE : 3/31/2015
PLOT TIME : 4:38:04 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 0.500000

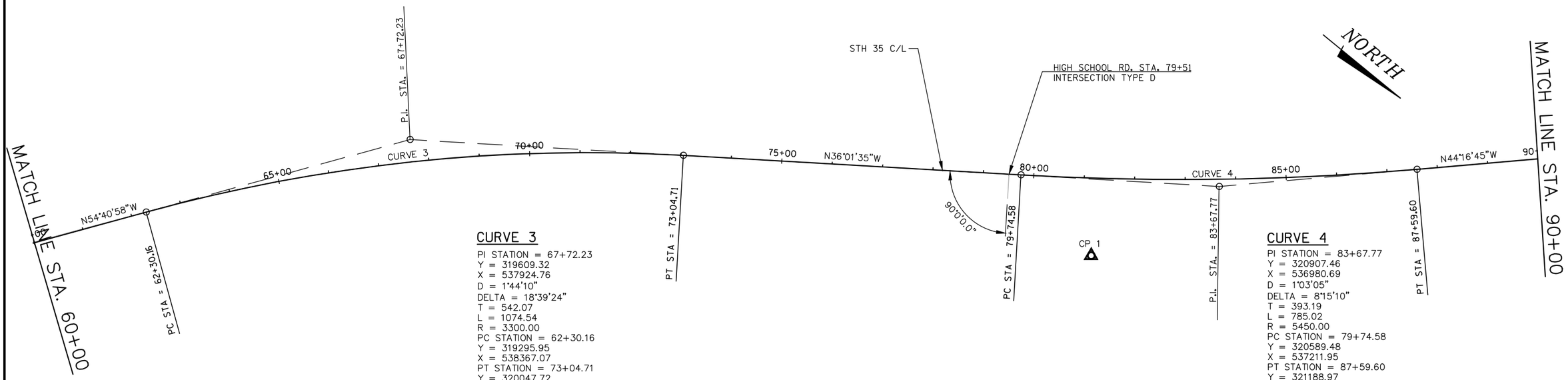
▲ CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X	ELEV.
1	81+19	3/4" REBAR SET, 153.3' RT. OF STH 35	320,798.18	537,247.27	695.94



CURVE 2

PI STATION = 45+94.09
Y = 318336.95
X = 539720.66
D = 1°24'53"
DELTA = 23°12'21"
T = 831.56
L = 1640.32
R = 4050.00
PC STATION = 37+62.53
Y = 317627.75
X = 540154.86
PT STATION = 54+02.85
Y = 318817.67
X = 539042.14
S.E. = 3.5%
R.O. = 93'
TRANS. = 146'

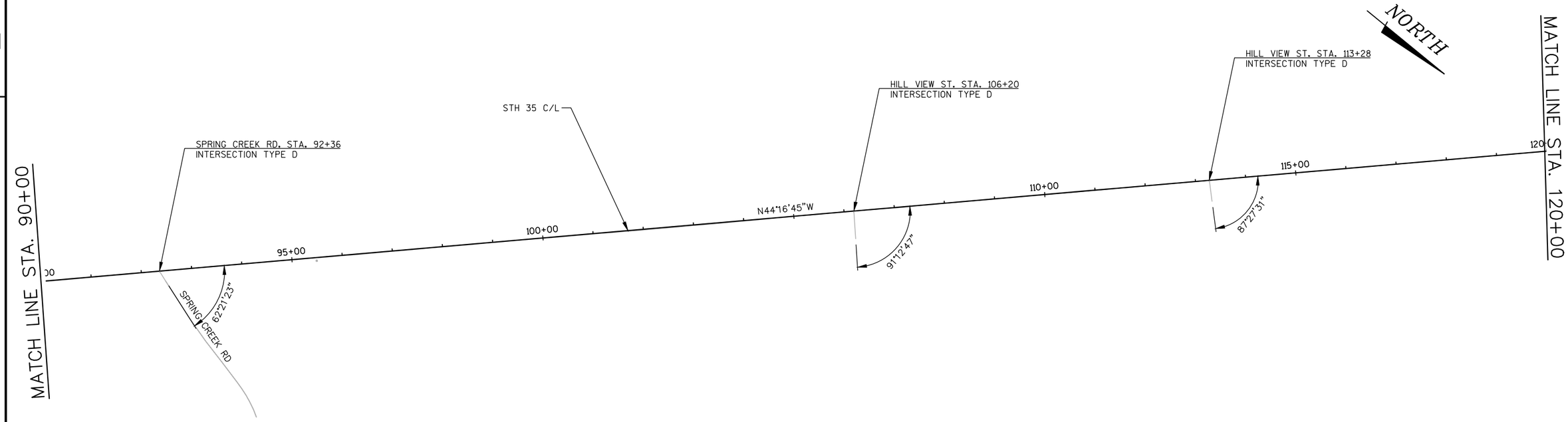


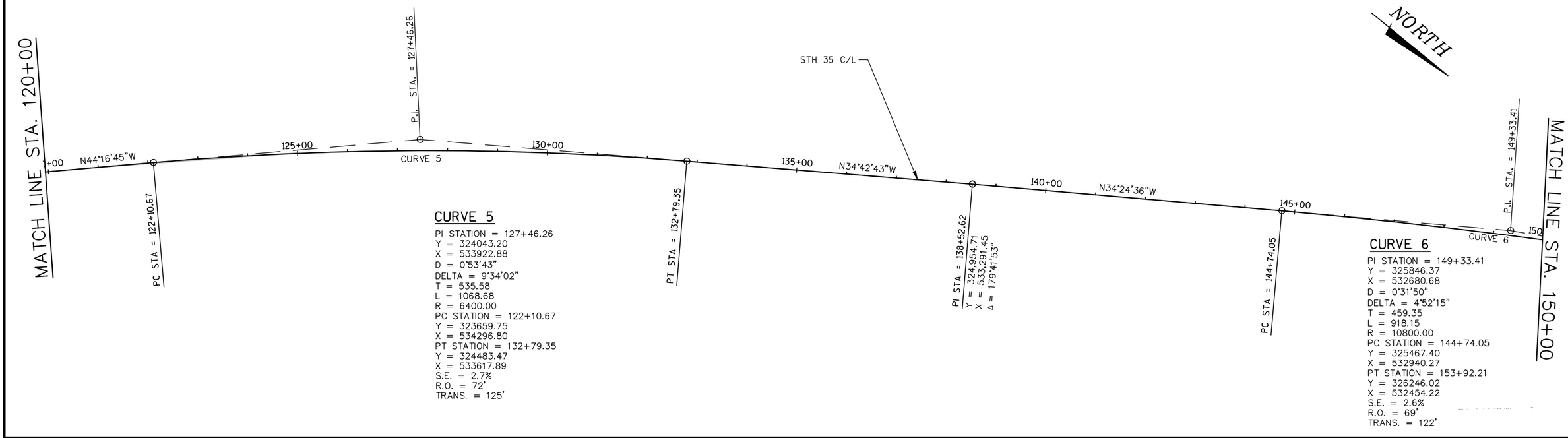
CURVE 3

PI STATION = 67+72.23
Y = 319609.32
X = 537924.76
D = 1°44'10"
DELTA = 18°39'24"
T = 542.07
L = 1074.54
R = 3300.00
PC STATION = 62+30.16
Y = 319295.95
X = 538367.07
PT STATION = 73+04.71
Y = 320047.72
X = 537605.94
S.E. = 4.2%
R.O. = 112'
TRANS. = 165'

CURVE 4

PI STATION = 83+67.77
Y = 320907.46
X = 536980.69
D = 1°03'05"
DELTA = 8°15'10"
T = 393.19
L = 785.02
R = 5450.00
PC STATION = 79+74.58
Y = 320589.48
X = 537211.95
PT STATION = 87+59.60
Y = 321188.97
X = 536706.19
S.E. = 5.0%
R.O. = 133'
TRANS. = 186'





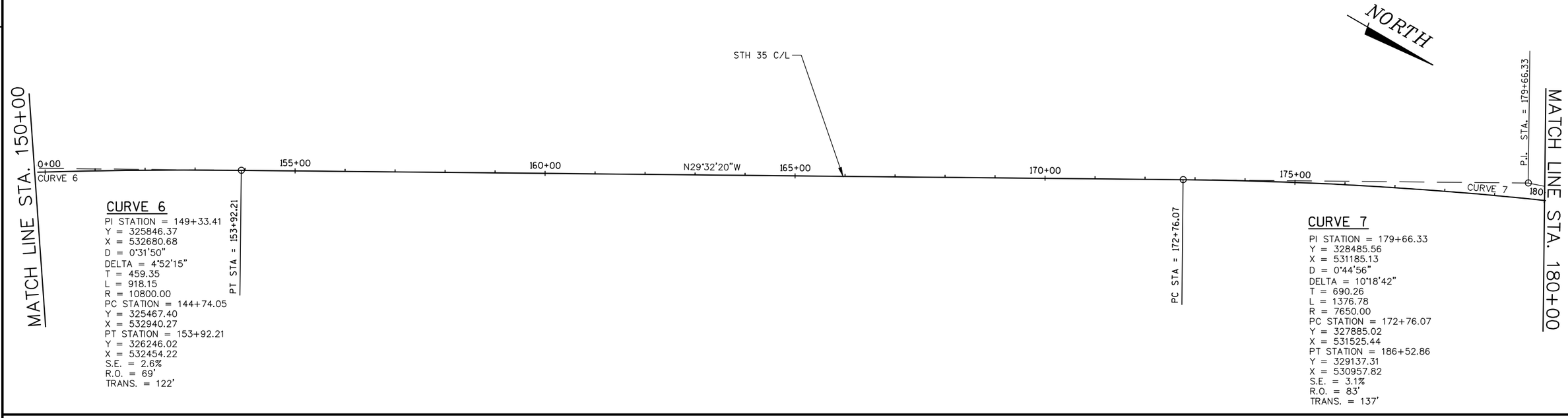
CURVE 5

PI STATION = 127+46.26
Y = 324043.20
X = 533922.88
D = 0°53'43"
DELTA = 9°34'02"
T = 535.58
L = 1068.68
R = 6400.00
PC STATION = 122+10.67
Y = 323659.75
X = 534296.80
PT STATION = 132+79.35
Y = 324483.47
X = 533617.89
S.E. = 2.7%
R.O. = 72'
TRANS. = 125'

CURVE 6

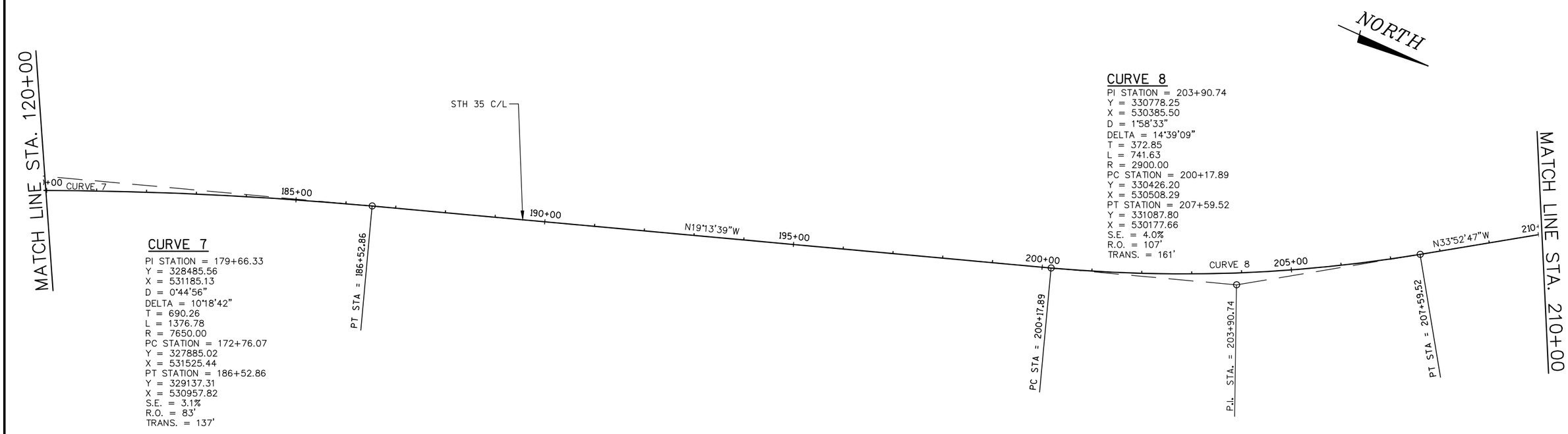
PI STATION = 149+33.41
Y = 325846.37
X = 532680.68
D = 0°31'50"
DELTA = 4°52'15"
T = 459.35
L = 918.15
R = 10800.00
PC STATION = 144+74.05
Y = 325467.40
X = 532940.27
PT STATION = 153+92.21
Y = 326246.02
X = 532454.22
S.E. = 2.6%
R.O. = 69'
TRANS. = 122'

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	ALIGNMENT DETAIL	SHEET 62	E



CURVE 6
PI STATION = 149+33.41
Y = 325846.37
X = 532680.68
D = 0°31'50"
DELTA = 4°52'15"
T = 459.35
L = 918.15
R = 10800.00
PC STATION = 144+74.05
Y = 325467.40
X = 532940.27
PT STATION = 153+92.21
Y = 326246.02
X = 532454.22
S.E. = 2.6%
R.O. = 69'
TRANS. = 122'

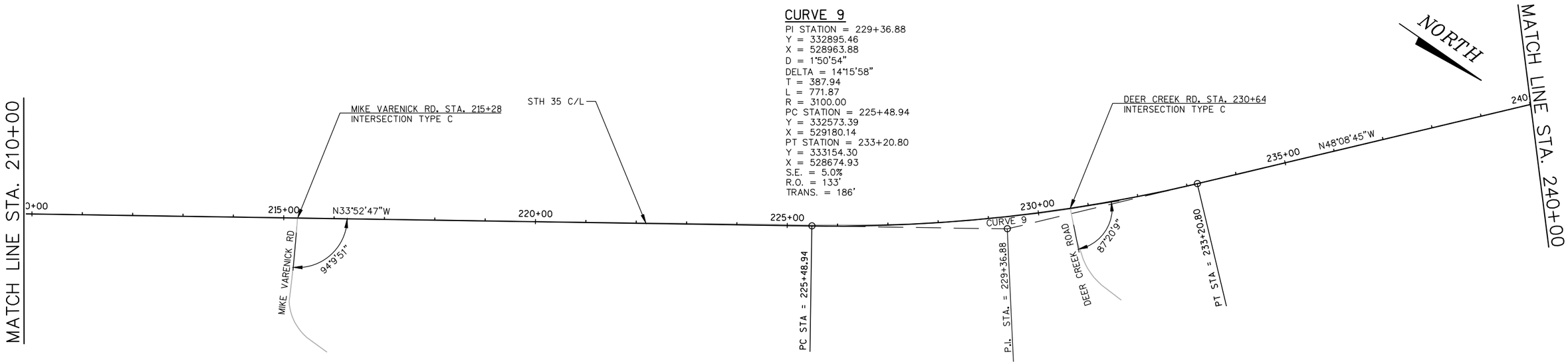
CURVE 7
PI STATION = 179+66.33
Y = 328485.56
X = 531185.13
D = 0°44'56"
DELTA = 10°18'42"
T = 690.26
L = 1376.78
R = 7650.00
PC STATION = 172+76.07
Y = 327885.02
X = 531525.44
PT STATION = 186+52.86
Y = 329137.31
X = 530957.82
S.E. = 3.1%
R.O. = 83'
TRANS. = 137'

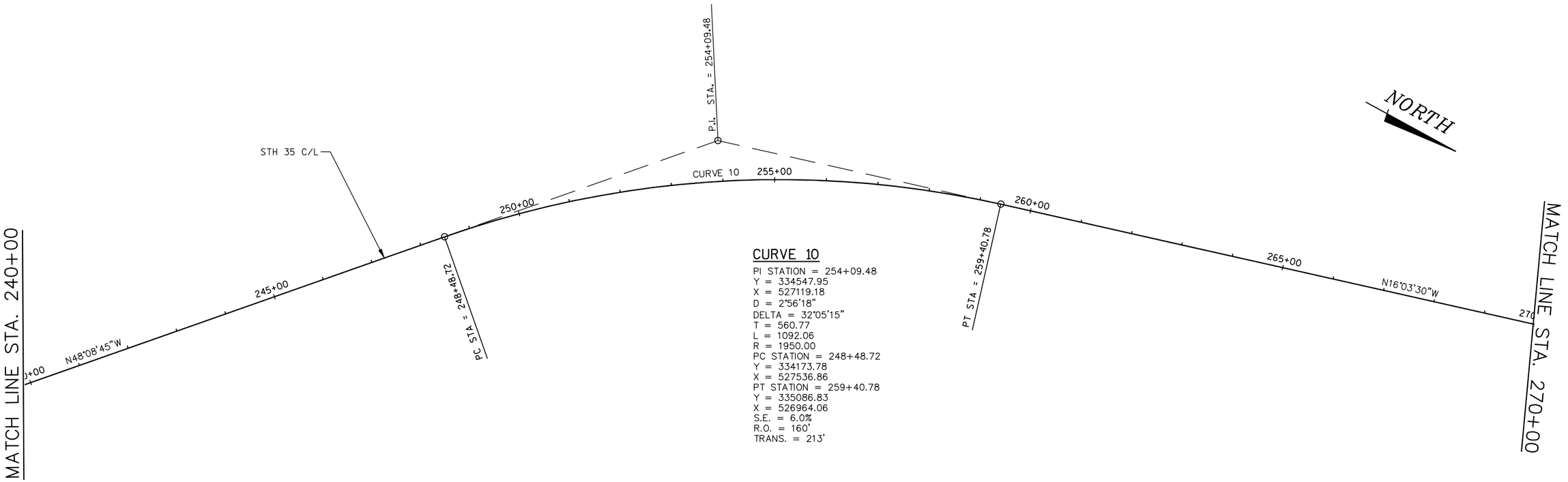


CURVE 7
PI STATION = 179+66.33
Y = 328485.56
X = 531185.13
D = 0°44'56"
DELTA = 10°18'42"
T = 690.26
L = 1376.78
R = 7650.00
PC STATION = 172+76.07
Y = 327885.02
X = 531525.44
PT STATION = 186+52.86
Y = 329137.31
X = 530957.82
S.E. = 3.1%
R.O. = 83'
TRANS. = 137'

CURVE 8
PI STATION = 203+90.74
Y = 330778.25
X = 530385.50
D = 1°58'33"
DELTA = 14°39'09"
T = 372.85
L = 741.63
R = 2900.00
PC STATION = 200+17.89
Y = 330426.20
X = 530508.29
PT STATION = 207+59.52
Y = 331087.80
X = 530177.66
S.E. = 4.0%
R.O. = 107'
TRANS. = 161'

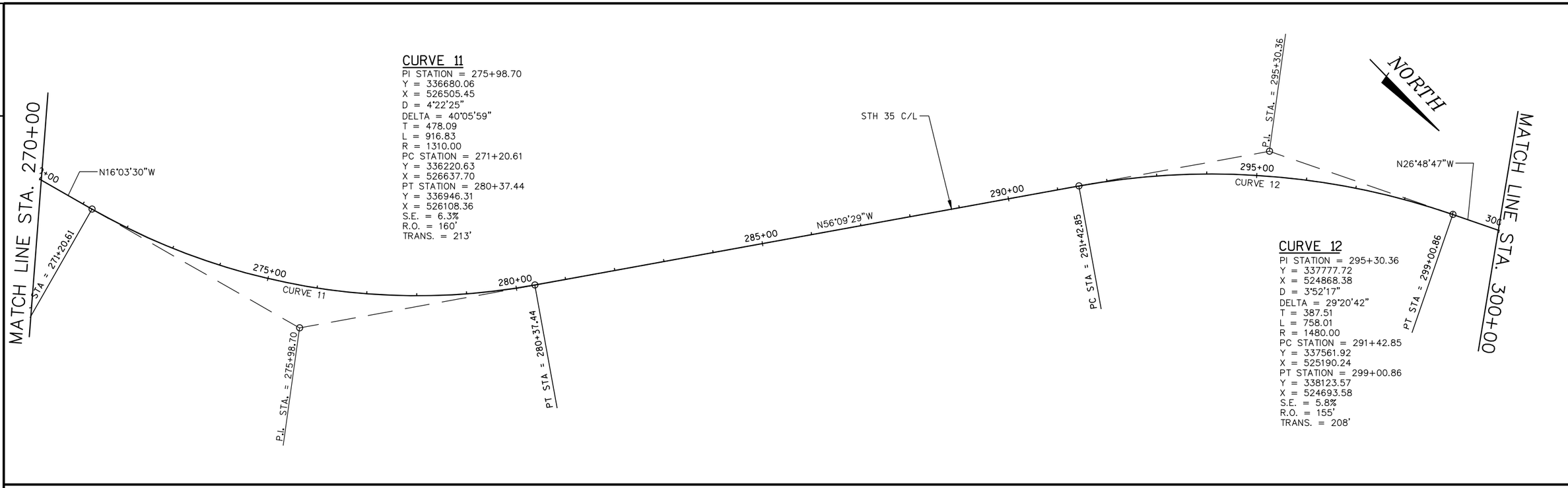
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	ALIGNMENT DETAIL	SHEET 63	E



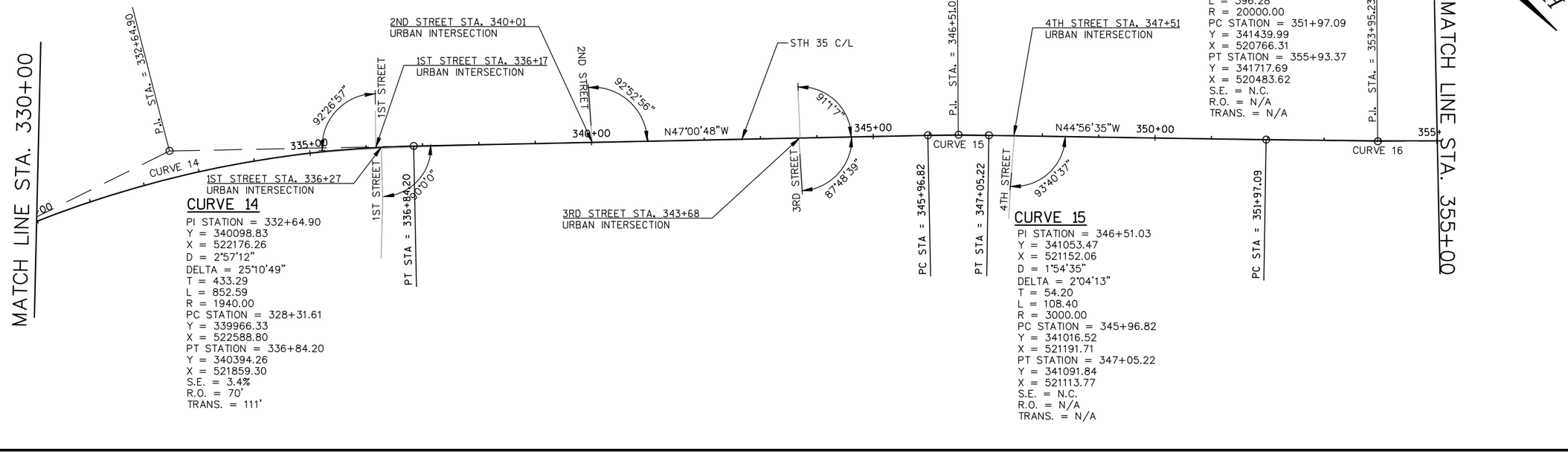


PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	ALIGNMENT DETAIL	SHEET 64	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\DETAILS\ALIGNMENT DETAILS.DWG
LAYOUT : 4
PLOT DATE : 7/31/2014
PLOT TIME : 1:39:01 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	ALIGNMENT DETAIL	SHEET 65	E



CURVE 14

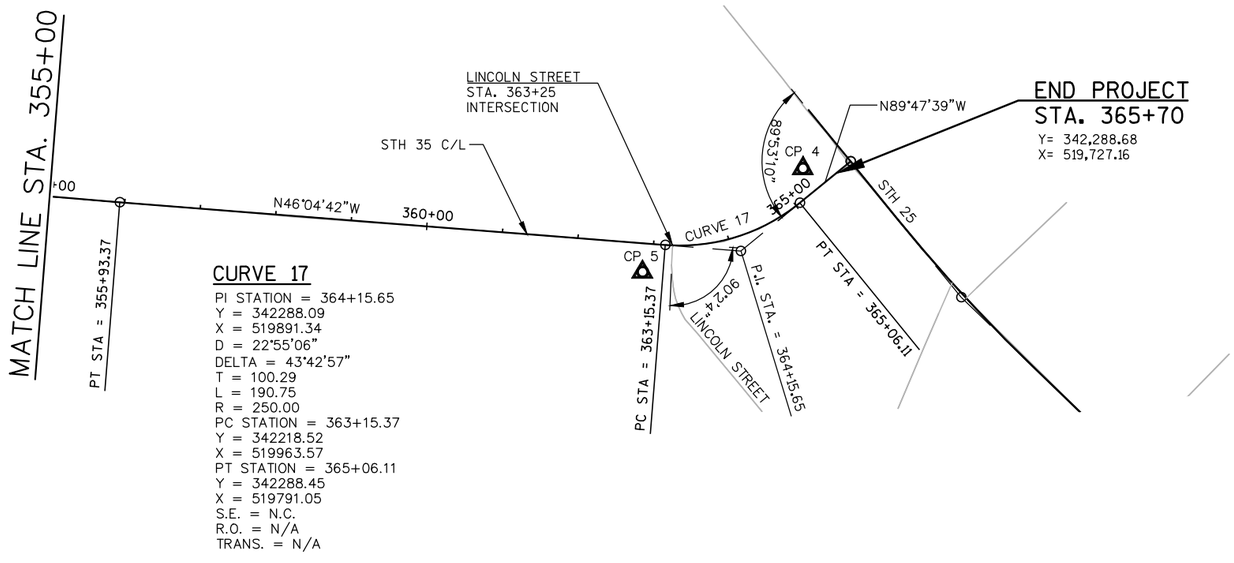
PI STATION = 332+64.90
Y = 340098.83
X = 522176.26
D = 2°57'12"
DELTA = 25°10'49"
T = 433.29
L = 852.59
R = 1940.00
PC STATION = 328+31.61
Y = 339966.33
X = 522588.80
PT STATION = 336+84.20
Y = 340394.26
X = 521859.30
S.E. = 3.4%
R.O. = 70'
TRANS. = 111'

CURVE 15

PI STATION = 346+51.03
Y = 341053.47
X = 521152.06
D = 1°54'35"
DELTA = 2°04'13"
T = 54.20
L = 108.40
R = 3000.00
PC STATION = 345+96.82
Y = 341016.52
X = 521191.71
PT STATION = 347+05.22
Y = 341091.84
X = 521113.77
S.E. = N.C.
R.O. = N/A
TRANS. = N/A

CURVE 16

PI STATION = 353+95.23
Y = 341580.24
X = 520626.34
D = 0°17'11"
DELTA = 1°08'07"
T = 198.15
L = 396.28
R = 20000.00
PC STATION = 351+97.09
Y = 341439.99
X = 520766.31
PT STATION = 355+93.37
Y = 341717.69
X = 520483.62
S.E. = N.C.
R.O. = N/A
TRANS. = N/A



CURVE 17

PI STATION = 364+15.65
Y = 342288.09
X = 519891.34
D = 22°55'06"
DELTA = 43°42'57"
T = 100.29
L = 190.75
R = 250.00
PC STATION = 363+15.37
Y = 342218.52
X = 519963.57
PT STATION = 365+06.11
Y = 342288.45
X = 519791.05
S.E. = N.C.
R.O. = N/A
TRANS. = N/A

CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X	ELEV.
4	365+38	MAG NAIL SET, 32.9' LT. OF STH 35	342,255.71	519,758.89	689.98
5	362+88	NAIL SET, 37.8' RT. OF STH 35	342,226.90	520,009.43	691.24

STH 35

STATION	Y	X	REMARKS
34+01.00	317 319.43	540 343.64	BEGIN PROJECT
34+50.00	317 361.22	540 318.05	
35+00.00	317 403.86	540 291.94	
35+50.00	317 446.50	540 265.83	
36+00.00	317 489.14	540 239.73	
36+50.00	317 531.79	540 213.62	
37+00.00	317 574.43	540 187.51	
37+50.00	317 617.07	540 161.40	
37+62.53	317 627.75	540 154.86	P.C. STATION
38+00.00	317 659.62	540 135.15	
38+50.00	317 701.86	540 108.39	
39+00.00	317 743.76	540 081.10	
39+50.00	317 785.32	540 053.31	
40+00.00	317 826.53	540 025.00	
40+50.00	317 867.39	539 996.18	
41+00.00	317 907.90	539 966.87	
41+50.00	317 948.03	539 937.05	
42+00.00	317 987.80	539 906.74	
42+50.00	318 027.19	539 875.96	
43+00.00	318 066.20	539 844.67	
43+50.00	318 104.82	539 812.91	
44+00.00	318 143.04	539 780.67	
44+50.00	318 180.86	539 747.97	
45+00.00	318 218.27	539 714.80	
45+50.00	318 255.28	539 681.18	
45+94.09	318 336.95	539 720.66	P.I. STATION
46+00.00	318 291.86	539 647.09	
46+50.00	318 328.02	539 612.56	
47+00.00	318 363.75	539 577.59	
47+50.00	318 399.05	539 542.18	
48+00.00	318 433.91	539 506.33	
48+50.00	318 468.32	539 470.06	
49+00.00	318 502.28	539 433.36	
49+50.00	318 535.79	539 396.25	
50+00.00	318 568.84	539 358.73	
50+50.00	318 601.42	539 320.80	
51+00.00	318 633.52	539 282.47	
51+50.00	318 665.16	539 243.75	
52+00.00	318 696.31	539 204.65	
52+50.00	318 726.98	539 165.16	
53+00.00	318 757.16	539 125.29	
53+50.00	318 786.84	539 085.05	
54+00.00	318 816.03	539 044.46	
54+02.85	318 817.67	539 042.14	P.T. STATION
54+50.00	318 844.93	539 003.66	
55+00.00	318 873.84	538 962.86	
55+50.00	318 902.74	538 922.06	
56+00.00	318 931.65	538 881.26	
56+50.00	318 960.55	538 840.47	
57+00.00	318 989.46	538 799.67	
57+50.00	319 018.36	538 758.87	
58+00.00	319 047.27	538 718.07	
58+50.00	319 076.17	538 677.27	
59+00.00	319 105.08	538 636.47	
59+50.00	319 133.98	538 595.68	
60+00.00	319 162.89	538 554.88	
60+50.00	319 191.79	538 514.08	
61+00.00	319 220.70	538 473.28	
61+50.00	319 249.60	538 432.48	
62+00.00	319 278.51	538 391.69	
62+30.16	319 295.95	538 367.07	P.C. STATION
62+50.00	319 307.46	538 350.92	
63+00.00	319 336.92	538 310.52	
63+50.00	319 366.98	538 270.57	
64+00.00	319 397.65	538 231.08	
64+50.00	319 428.91	538 192.06	
65+00.00	319 460.76	538 153.52	
65+50.00	319 493.19	538 115.46	
66+00.00	319 526.19	538 077.90	
66+50.00	319 559.76	538 040.84	
67+00.00	319 593.89	538 004.30	
67+50.00	319 628.56	537 968.28	

STH 35

STATION	Y	X	REMARKS
67+72.23	319 609.32	537 924.76	P.I. STATION
68+00.00	319 663.78	537 932.78	
68+50.00	319 699.53	537 897.83	
69+00.00	319 735.81	537 863.42	
69+50.00	319 772.60	537 829.57	
70+00.00	319 809.90	537 796.27	
70+50.00	319 847.70	537 763.55	
71+00.00	319 886.00	537 731.40	
71+50.00	319 924.77	537 699.83	
72+00.00	319 964.02	537 668.86	
72+50.00	320 003.74	537 638.48	
73+00.00	320 043.91	537 608.71	
73+04.71	320 047.72	537 605.94	P.T. STATION
73+50.00	320 084.34	537 579.30	
74+00.00	320 124.78	537 549.89	
74+50.00	320 165.22	537 520.49	
75+00.00	320 205.66	537 491.08	
75+50.00	320 246.09	537 461.67	
76+00.00	320 286.53	537 432.26	
76+50.00	320 326.97	537 402.85	
77+00.00	320 367.41	537 373.45	
77+50.00	320 407.84	537 344.04	
78+00.00	320 448.28	537 314.63	
78+50.00	320 488.72	537 285.22	
79+00.00	320 529.16	537 255.82	
79+50.00	320 569.59	537 226.41	
79+74.58	320 589.48	537 211.95	P.C. STATION
80+00.00	320 610.00	537 196.95	
80+50.00	320 650.16	537 167.17	
81+00.00	320 690.05	537 137.02	
81+50.00	320 729.66	537 106.51	
82+00.00	320 768.99	537 075.64	
82+50.00	320 808.03	537 044.40	
83+00.00	320 846.79	537 012.81	
83+50.00	320 885.25	536 980.87	
83+67.77	320 907.46	536 980.69	P.I. STATION
84+00.00	320 923.42	536 948.57	
84+50.00	320 961.29	536 915.92	
85+00.00	320 998.86	536 882.93	
85+50.00	321 036.13	536 849.60	
86+00.00	321 073.09	536 815.92	
86+50.00	321 109.73	536 781.91	
87+00.00	321 146.07	536 747.56	
87+50.00	321 182.09	536 712.88	
87+59.60	321 188.97	536 706.19	P.T. STATION
88+00.00	321 217.89	536 677.98	
88+50.00	321 253.69	536 643.07	
89+00.00	321 289.49	536 608.17	
89+50.00	321 325.28	536 573.26	
90+00.00	321 361.08	536 538.35	
90+50.00	321 396.88	536 503.44	
91+00.00	321 432.67	536 468.53	
91+50.00	321 468.47	536 433.63	
92+00.00	321 504.27	536 398.72	
92+50.00	321 540.07	536 363.81	
93+00.00	321 575.86	536 328.90	
93+50.00	321 611.66	536 294.00	
94+00.00	321 647.46	536 259.09	
94+50.00	321 683.26	536 224.18	
95+00.00	321 719.05	536 189.27	
95+50.00	321 754.85	536 154.37	
96+00.00	321 790.65	536 119.46	
96+50.00	321 826.45	536 084.55	
97+00.00	321 862.24	536 049.64	
97+50.00	321 898.04	536 014.73	
98+00.00	321 933.84	535 979.83	
98+50.00	321 969.64	535 944.92	
99+00.00	322 005.43	535 910.01	
99+50.00	322 041.23	535 875.10	
100+00.00	322 077.03	535 840.20	
100+50.00	322 112.82	535 805.29	
101+00.00	322 148.62	535 770.38	

STH 35

STATION	Y	X	REMARKS
101+50.00	322 184.42	535 735.47	
102+00.00	322 220.22	535 700.56	
102+50.00	322 256.01	535 665.66	
103+00.00	322 291.81	535 630.75	
103+50.00	322 327.61	535 595.84	
104+00.00	322 363.41	535 560.93	
104+50.00	322 399.20	535 526.03	
105+00.00	322 435.00	535 491.12	
105+50.00	322 470.80	535 456.21	
106+00.00	322 506.60	535 421.30	
106+50.00	322 542.39	535 386.40	
107+00.00	322 578.19	535 351.49	
107+50.00	322 613.99	535 316.58	
108+00.00	322 649.78	535 281.67	
108+50.00	322 685.58	535 246.76	
109+00.00	322 721.38	535 211.86	
109+50.00	322 757.18	535 176.95	
110+00.00	322 792.97	535 142.04	
110+50.00	322 828.77	535 107.13	
111+00.00	322 864.57	535 072.23	
111+50.00	322 900.37	535 037.32	
112+00.00	322 936.16	535 002.41	
112+50.00	322 971.96	534 967.50	
113+00.00	323 007.76	534 932.59	
113+50.00	323 043.56	534 897.69	
114+00.00	323 079.35	534 862.78	
114+50.00	323 115.15	534 827.87	
115+00.00	323 150.95	534 792.96	
115+50.00	323 186.75	534 758.06	
116+00.00	323 222.54	534 723.15	
116+50.00	323 258.34	534 688.24	
117+00.00	323 294.14	534 653.33	
117+50.00	323 329.93	534 618.43	
118+00.00	323 365.73	534 583.52	
118+50.00	323 401.53	534 548.61	
119+00.00	323 437.33	534 513.70	
119+50.00	323 473.12	534 478.79	
120+00.00	323 508.92	534 443.89	
120+50.00	323 544.72	534 408.98	
121+00.00	323 580.52	534 374.07	
121+50.00	323 616.31	534 339.16	
122+00.00	323 652.11	534 304.26	
122+10.67	323 659.75	534 296.80	P.C. STATION
122+50.00	323 687.99	534 269.43	
123+00.00	323 724.14	534 234.89	
123+50.00	323 760.55	534 200.63	
124+00.00	323 797.24	534 166.65	
124+50.00	323 834.18	534 132.96	
125+00.00	323 871.39	534 099.56	
125+50.00	323 908.86	534 066.45	
126+00.00	323 946.58	534 033.64	
126+50.00	323 984.56	534 001.12	
127+00.00	324 022.80	533 968.90	
127+46.26	324 043.20	533 922.88	P.I. STATION
127+50.00	324 061.28	533 936.98	
128+00.00	324 100.01	533 905.36	
128+50.00	324 138.99	533 874.04	
129+00.00	324 178.21	533 843.03	
129+50.00	324 217.67	533 812.33	
130+00.00	324 257.38	533 781.93	
130+50.00	324 297.31	533 751.85	
131+00.00	324 337.48	533 722.08	
131+50.00	324 377.89	533 692.62	
132+00.00	324 418.52	533 663.49	
132+50.00	324 459.38	533 634.66	
132+79.35	324 483.47	533 617.89	P.T. STATION
133+00.00	324 500.44	533 606.14	
133+50.00	324 541.54	533 577.66	
134+00.00	324 582.64	533 549.19	
134+50.00	324 623.74	533 520.72	
135+00.00	324 664.85	533 492.25	
135+50.00	324 705.95	533 463.77	

STH 35

STATION	Y	X	REMARKS
136+00.00	324 747.05	533 435.30	
136+50.00	324 788.15	533 406.83	
137+00.00	324 829.25	533 378.36	
137+50.00	324 870.35	533 349.89	
138+00.00	324 911.45	533 321.41	
138+50.00	324 952.55	533 292.94	
138+52.62	324 954.71	533 291.45	P.I. STATION
139+00.00	324 993.80	533 264.67	
139+50.00	325 035.05	533 236.42	
140+00.00	325 076.30	533 208.16	
140+50.00	325 117.55	533 179.91	
141+00.00	325 158.80	533 151.65	
141+50.00	325 200.05	533 123.40	
142+00.00	325 241.30	533 095.14	
142+50.00	325 282.55	533 066.88	
143+00.00	325 323.80	533 038.63	
143+50.00	325 365.05	533 010.37	
144+00.00	325 406.31	532 982.12	
144+50.00	325 447.56	532 953.86	
144+74.05	325 467.40	532 940.27	P.C. STATION
145+00.00	325 488.82	532 925.63	
145+50.00	325 530.21	532 897.57	
146+00.00	325 571.72	532 869.70	
146+50.00	325 613.36	532 842.03	
147+00.00	325 655.13	532 814.54	
147+50.00	325 697.03	532 787.25	
148+00.00	325 739.05	532 760.16	
148+50.00	325 781.20	532 733.26	
149+00.00	325 823.47	532 706.55	
149+33.41	325 846.37	532 680.68	P.I. STATION
149+50.00	325 865.86	532 680.05	
150+00.00	325 908.38	532 653.73	
150+50.00	325 951.02	532 627.62	
151+00.00	325 993.77	532 601.70	
151+50.00	326 036.65	532 575.98	
152+00.00	326 079.65	532 550.46	
152+50.00	326 122.76	532 525.14	
153+00.00	326 165.99	532 500.02	
153+50.00	326 209.34	532 475.10	
153+92.21	326 246.02	532 454.22	P.T. STATION
154+00.00	326 252.80	532 450.37	
154+50.00	326 296.30	532 425.72	
155+00.00	326 339.80	532 401.07	
155+50.00	326 383.30	532 376.42	
156+00.00	326 426.81	532 351.77	
156+50.00	326 470.31	532 327.12	
157+00.00	326 513.81	532 302.47	
157+50.00	326 557.31	532 277.82	
158+00.00	326 600.81	532 253.17	
158+50.00	326 644.31	532 228.52	
159+00.00	326 687.81	532 203.87	
159+50.00	326 731.31	532 179.22	
160+00.00	326 774.81	532 154.56	
160+50.00	326 818.31	532 129.91	
161+00.00	326 861.82	532 105.26	
161+50.00	326 905.32	532 080.61	
162+00.00	326 948.82	532 055.96	
162+50.00	326 992.32	532 031.31	
163+00.00	327 035.82	532 006.66	
163+50.00	327 079.32	531 982.01	
164+00.00	327 122.82	531 957.36	
164+50.00	327 166.32	531 932.71	
165+00.00	327 209.82	531 908.06	
165+50.00	327 253.32	531 883.41	
166+00.00	327 296.83	531 858.75	
166+50.00	327 340.33	531 834.10	
167+00.00	327 383.83	531 809.45	
167+50.00	327 427.33	531 784.80	
168+00.00	327 470.83	531 760.15	
168+50.00	327 514.33	531 735.50	
169+00.00	327 557.83	531 710.85	
169+50.00	327 601.33	531 686.20	

STH 35

STATION	Y	X	REMARKS
170+00.00	327 644.83	531 661.55	
170+50.00	327 688.33	531 636.90	
171+00.00	327 731.84	531 612.25	
171+50.00	327 775.34	531 587.60	
172+00.00	327 818.84	531 562.95	
172+50.00	327 862.34	531 538.29	
172+76.07	327 885.02	531 525.44	P.C. STATION
173+00.00	327 905.86	531 513.68	
173+50.00	327 949.52	531 489.30	
174+00.00	327 993.33	531 465.22	
174+50.00	328 037.30	531 441.42	
175+00.00	328 081.43	531 417.91	
175+50.00	328 125.71	531 394.69	
176+00.00	328 170.14	531 371.75	
176+50.00	328 214.72	531 349.11	
177+00.00	328 259.45	531 326.76	
177+50.00	328 304.32	531 304.70	
178+00.00	328 349.34	531 282.94	
178+50.00	328 394.49	531 261.47	
179+00.00	328 439.79	531 240.30	
179+50.00	328 485.22	531 219.42	
179+66.33	328 485.56	531 185.13	P.I. STATION
180+00.00	328 530.79	531 198.84	
180+50.00	328 576.49	531 178.56	
181+00.00	328 622.32	531 158.58	
181+50.00	328 668.29	531 138.90	
182+00.00	328 714.38	531 119.52	
182+50.00	328 760.60	531 100.44	
183+00.00	328 806.94	531 081.66	
183+50.00	328 853.40	531 063.19	
184+00.00	328 899.98	531 045.02	
184+50.00	328 946.68	531 027.16	
185+00.00	328 993.49	531 009.60	
185+50.00	329 040.42	530 992.34	
186+00.00	329 087.46	530 975.40	
186+50.00	329 134.62	530 958.76	
186+52.86	329 137.31	530 957.82	P.T. STATION
187+00.00	329 181.83	530 942.29	
187+50.00	329 229.04	530 925.83	
188+00.00	329 276.25	530 909.36	
188+50.00	329 323.46	530 892.90	
189+00.00	329 370.67	530 876.43	
189+50.00	329 417.88	530 859.96	
190+00.00	329 465.09	530 843.50	
190+50.00	329 512.30	530 827.03	
191+00.00	329 559.51	530 810.57	
191+50.00	329 606.72	530 794.10	
192+00.00	329 653.94	530 777.64	
192+50.00	329 701.15	530 761.17	
193+00.00	329 748.36	530 744.70	
193+50.00	329 795.57	530 728.24	
194+00.00	329 842.78	530 711.77	
194+50.00	329 889.99	530 695.31	
195+00.00	329 937.20	530 678.84	
195+50.00	329 984.41	530 662.37	
196+00.00	330 031.62	530 645.91	
196+50.00	330 078.83	530 629.44	
197+00.00	330 126.05	530 612.98	
197+50.00	330 173.26	530 596.51	
198+00.00	330 220.47	530 580.04	
198+50.00	330 267.68	530 563.58	
199+00.00	330 314.89	530 547.11	
199+50.00	330 362.10	530 530.65	
200+00.00	330 409.31	530 514.18	
200+17.89	330 426.20	530 508.29	P.C. STATION
200+50.00	330 456.46	530 497.55	
201+00.00	330 503.34	530 480.16	
201+50.00	330 549.91	530 461.96	
202+00.00	330 596.16	530 442.96	
202+50.00	330 642.07	530 423.17	
203+00.00	330 687.64	530 402.59	
203+50.00	330 732.85	530 381.22	

STH 35

STATION	Y	X	REMARKS
203+90.74	330 778.25	530 385.50	P.I. STATION
204+00.00	330 777.68	530 359.08	
204+50.00	330 822.12	530 336.17	
205+00.00	330 866.16	530 312.50	
205+50.00	330 909.79	530 288.07	
206+00.00	330 952.98	530 262.90	
206+50.00	330 995.74	530 236.98	
207+00.00	331 038.05	530 210.33	
207+50.00	331 079.88	530 182.95	
207+59.52	331 087.80	530 177.66	P.T. STATION
208+00.00	331 121.40	530 155.09	
208+50.00	331 162.91	530 127.22	
209+00.00	331 204.42	530 099.35	
209+50.00	331 245.93	530 071.47	
210+00.00	331 287.45	530 043.60	
210+50.00	331 328.96	530 015.73	
211+00.00	331 370.47	529 987.86	
211+50.00	331 411.98	529 959.98	
212+00.00	331 453.49	529 932.11	
212+50.00	331 495.00	529 904.24	
213+00.00	331 536.51	529 876.36	
213+50.00	331 578.02	529 848.49	
214+00.00	331 619.53	529 820.62	
214+50.00	331 661.04	529 792.75	
215+00.00	331 702.55	529 764.87	
215+50.00	331 744.06	529 737.00	
216+00.00	331 785.57	529 709.13	
216+50.00	331 827.08	529 681.26	
217+00.00	331 868.59	529 653.38	
217+50.00	331 910.10	529 625.51	
218+00.00	331 951.61	529 597.64	
218+50.00	331 993.12	529 569.77	
219+00.00	332 034.63	529 541.89	
219+50.00	332 076.14	529 514.02	
220+00.00	332 117.65	529 486.15	
220+50.00	332 159.16	529 458.28	
221+00.00	332 200.67	529 430.40	
221+50.00	332 242.18	529 402.53	
222+00.00	332 283.70	529 374.66	
222+50.00	332 325.21	529 346.78	
223+00.00	332 366.72	529 318.91	
223+50.00	332 408.23	529 291.04	
224+00.00	332 449.74	529 263.17	
224+50.00	332 491.25	529 235.29	
225+00.00	332 532.76	529 207.42	
225+48.94	332 573.39	529 180.14	P.C. STATION
225+50.00	332 574.27	529 179.55	
226+00.00	332 615.54	529 151.33	
226+50.00	332 656.36	529 122.45	
227+00.00	332 696.70	529 092.91	
227+50.00	332 736.56	529 062.72	
228+00.00	332 775.93	529 031.90	
228+50.00	332 814.79	529 000.45	
229+00.00	332 853.15	528 968.37	
229+36.88	332 895.46	528 963.88	P.I. STATION
229+50.00	332 890.98	528 935.68	
230+00.00	332 928.28	528 902.38	
230+50.00	332 965.04	528 868.49	
231+00.00	333 001.25	528 834.01	
231+50.00	333 036.89	528 798.95	
232+00.00	333 071.97	528 763.31	
232+50.00	333 106.46	528 727.12	
233+00.00	333 140.37	528 690.38	
233+20.80	333 154.30	528 674.93	P.T. STATION
233+50.00	333 173.78	528 653.18	
234+00.00	333 207.15	528 615.94	
234+50.00	333 240.51	528 578.70	
235+00.00	333 273.87	528 541.45	
235+50.00	333 307.23	528 504.21	
236+00.00	333 340.59	528 466.97	
236+50.00	333 373.96	528 429.73	
237+00.00	333 407.32	528 392.48	

STH 35

STATION	Y	X	REMARKS
237+50.00	333 440.68	528 355.24	
238+00.00	333 474.04	528 318.00	
238+50.00	333 507.40	528 280.76	
239+00.00	333 540.76	528 243.51	
239+50.00	333 574.13	528 206.27	
240+00.00	333 607.49	528 169.03	
240+50.00	333 640.85	528 131.79	
241+00.00	333 674.21	528 094.55	
241+50.00	333 707.57	528 057.30	
242+00.00	333 740.93	528 020.06	
242+50.00	333 774.30	527 982.82	
243+00.00	333 807.66	527 945.58	
243+50.00	333 841.02	527 908.33	
244+00.00	333 874.38	527 871.09	
244+50.00	333 907.74	527 833.85	
245+00.00	333 941.11	527 796.61	
245+50.00	333 974.47	527 759.36	
246+00.00	334 007.83	527 722.12	
246+50.00	334 041.19	527 684.88	
247+00.00	334 074.55	527 647.64	
247+50.00	334 107.91	527 610.40	
248+00.00	334 141.28	527 573.15	
248+48.72	334 173.78	527 536.86	P.C. STATION
248+50.00	334 174.64	527 535.91	
249+00.00	334 208.50	527 499.12	
249+50.00	334 243.29	527 463.21	
250+00.00	334 278.99	527 428.21	
250+50.00	334 315.58	527 394.13	
251+00.00	334 353.03	527 361.00	
251+50.00	334 391.31	527 328.85	
252+00.00	334 430.41	527 297.68	
252+50.00	334 470.29	527 267.53	
253+00.00	334 510.94	527 238.41	
253+50.00	334 552.31	527 210.34	
254+00.00	334 594.39	527 183.34	
254+09.48	334 547.95	527 119.18	P.I. STATION
254+50.00	334 637.16	527 157.43	
255+00.00	334 680.57	527 132.63	
255+50.00	334 724.60	527 108.94	
256+00.00	334 769.23	527 086.39	
256+50.00	334 814.41	527 065.00	
257+00.00	334 860.14	527 044.77	
257+50.00	334 906.36	527 025.71	
258+00.00	334 953.06	527 007.85	
258+50.00	335 000.21	526 991.20	
259+00.00	335 047.76	526 975.75	
259+40.78	335 086.83	526 964.09	P.T. STATION
259+50.00	335 095.69	526 961.51	
260+00.00	335 143.74	526 947.68	
260+50.00	335 191.79	526 933.85	
261+00.00	335 239.84	526 920.02	
261+50.00	335 287.88	526 906.19	
262+00.00	335 335.93	526 892.36	
262+50.00	335 383.98	526 878.53	
263+00.00	335 432.03	526 864.70	
263+50.00	335 480.08	526 850.87	
264+00.00	335 528.13	526 837.04	
264+50.00	335 576.18	526 823.21	
265+00.00	335 624.23	526 809.37	
265+50.00	335 672.28	526 795.54	
266+00.00	335 720.33	526 781.71	
266+50.00	335 768.37	526 767.88	
267+00.00	335 816.42	526 754.05	
267+50.00	335 864.47	526 740.22	
268+00.00	335 912.52	526 726.39	
268+50.00	335 960.57	526 712.56	
269+00.00	336 008.62	526 698.73	
269+50.00	336 056.67	526 684.90	
270+00.00	336 104.72	526 671.07	
270+50.00	336 152.77	526 657.23	
271+00.00	336 200.82	526 643.40	
271+20.61	336 220.63	526 637.70	P.C. STATION

STH 35

STATION	Y	X	REMARKS
271+50.00	336 248.77	526 629.26	
272+00.00	336 296.20	526 613.44	
272+50.00	336 342.99	526 595.83	
273+00.00	336 389.08	526 576.45	
273+50.00	336 434.39	526 555.32	
274+00.00	336 478.87	526 532.48	
274+50.00	336 522.44	526 507.96	
275+00.00	336 565.04	526 481.79	
275+50.00	336 606.62	526 454.02	
275+98.70	336 680.06	526 505.45	P.I. STATION
276+00.00	336 647.10	526 424.68	
276+50.00	336 686.43	526 393.82	
277+00.00	336 724.56	526 361.48	
277+50.00	336 761.43	526 327.70	
278+00.00	336 796.98	526 292.55	
278+50.00	336 831.16	526 256.06	
279+00.00	336 863.93	526 218.30	
279+50.00	336 895.23	526 179.31	
280+00.00	336 925.02	526 139.16	
280+37.44	336 946.31	526 108.36	P.T. STATION
280+50.00	336 953.30	526 097.93	
281+00.00	336 981.15	526 056.40	
281+50.00	337 009.00	526 014.88	
282+00.00	337 036.84	525 973.35	
282+50.00	337 064.69	525 931.82	
283+00.00	337 092.53	525 890.29	
283+50.00	337 120.38	525 848.76	
284+00.00	337 148.22	525 807.23	
284+50.00	337 176.07	525 765.70	
285+00.00	337 203.91	525 724.17	
285+50.00	337 231.76	525 682.65	
286+00.00	337 259.60	525 641.12	
286+50.00	337 287.45	525 599.59	
287+00.00	337 315.29	525 558.06	
287+50.00	337 343.14	525 516.53	
288+00.00	337 370.98	525 475.00	
288+50.00	337 398.83	525 433.47	
289+00.00	337 426.67	525 391.94	
289+50.00	337 454.52	525 350.41	
290+00.00	337 482.36	525 308.89	
290+50.00	337 510.21	525 267.36	
291+00.00	337 538.05	525 225.83	
291+42.85	337 561.92	525 190.24	P.C. STATION
291+50.00	337 565.91	525 184.31	
292+00.00	337 594.65	525 143.40	
292+50.00	337 624.76	525 103.48	
293+00.00	337 656.19	525 064.60	
293+50.00	337 688.93	525 026.81	
294+00.00	337 722.91	524 990.14	
294+50.00	337 758.12	524 954.64	
295+00.00	337 794.51	524 920.35	
295+30.36	337 777.72	524 868.38	P.I. STATION
295+50.00	337 832.03	524 887.31	
296+00.00	337 870.65	524 855.56	
296+50.00	337 910.32	524 825.13	
297+00.00	337 951.00	524 796.05	
297+50.00	337 992.63	524 768.37	
298+00.00	338 035.18	524 742.11	
298+50.00	338 078.59	524 717.30	
299+00.00	338 122.81	524 693.97	
299+00.86	338 123.57	524 693.58	P.T. STATION
299+50.00	338 167.43	524 671.41	
300+00.00	338 212.06	524 648.86	
300+50.00	338 256.68	524 626.31	
301+00.00	338 301.30	524 603.75	
301+50.00	338 345.93	524 581.20	
302+00.00	338 390.55	524 558.64	
302+50.00	338 435.18	524 536.09	
303+00.00	338 479.80	524 513.53	
303+50.00	338 524.42	524 490.98	
304+00.00	338 569.05	524 468.43	
304+50.00	338 613.67	524 445.87	

STH 35

STATION	Y	X	REMARKS
305+00.00	338 658.30	524 423.32	
305+04.02	338 661.88	524 421.51	P.C. STATION
305+50.00	338 702.71	524 400.35	
306+00.00	338 746.61	524 376.43	
306+50.00	338 789.98	524 351.55	
307+00.00	338 832.80	524 325.73	
307+50.00	338 875.04	524 298.98	
308+00.00	338 916.69	524 271.32	
308+50.00	338 957.73	524 242.75	
309+00.00	338 998.13	524 213.30	
309+50.00	339 037.88	524 182.96	
310+00.00	339 076.95	524 151.77	
310+50.00	339 115.34	524 119.74	
311+00.00	339 153.02	524 086.87	
311+50.00	339 189.97	524 053.19	
312+00.00	339 226.18	524 018.71	
312+50.00	339 261.62	523 983.44	
313+00.00	339 296.29	523 947.41	
313+50.00	339 330.16	523 910.64	
314+00.00	339 363.22	523 873.13	
314+50.00	339 395.46	523 834.91	
314+61.49	339 516.41	523 989.61	P.I. STATION
315+00.00	339 426.85	523 795.99	
315+50.00	339 457.39	523 756.40	
316+00.00	339 487.05	523 716.15	
316+50.00	339 515.83	523 675.27	
317+00.00	339 543.71	523 633.76	
317+50.00	339 570.67	523 591.66	
318+00.00	339 596.71	523 548.98	
318+50.00	339 621.82	523 505.73	
319+00.00	339 645.97	523 461.96	
319+50.00	339 669.16	523 417.66	
320+00.00	339 691.38	523 372.87	
320+50.00	339 712.61	523 327.60	
321+00.00	339 732.85	523 281.88	
321+50.00	339 752.09	523 235.73	
322+00.00	339 770.32	523 189.18	
322+50.00	339 787.52	523 142.23	
323+00.00	339 803.70	523 094.92	
323+17.79	339 809.20	523 078.01	P.T. STATION
323+50.00	339 819.05	523 047.34	
324+00.00	339 834.34	522 999.73	
324+50.00	339 849.63	522 952.13	
325+00.00	339 864.92	522 904.52	
325+50.00	339 880.22	522 856.92	
326+00.00	339 895.51	522 809.31	
326+50.00	339 910.80	522 761.71	
327+00.00	339 926.09	522 714.10	
327+50.00	339 941.38	522 666.50	
328+00.00	339 956.67	522 618.89	
328+31.61	339 966.33	522 588.80	P.C. STATION
328+50.00	339 972.04	522 571.32	
329+00.00	339 988.39	522 524.07	
329+50.00	340 005.95	522 477.25	
330+00.00	340 024.71	522 430.91	
330+50.00	340 044.67	522 385.06	
331+00.00	340 065.79	522 339.75	
331+50.00	340 088.08	522 294.99	
332+00.00	340 111.51	522 250.82	
332+50.00	340 136.07	522 207.28	
332+64.90	340 098.83	522 176.26	P.I. STATION
333+00.00	340 161.75	522 164.37	
333+50.00	340 188.53	522 122.15	
334+00.00	340 216.38	522 080.63	
334+50.00	340 245.29	522 039.84	
335+00.00	340 275.25	521 999.81	
335+50.00	340 306.23	521 960.56	
336+00.00	340 338.21	521 922.13	
336+50.00	340 371.17	521 884.53	
336+84.20	340 394.26	521 859.30	P.T. STATION
337+00.00	340 405.04	521 847.75	
337+50.00	340 439.13	521 811.17	

STH 35

STATION	Y	X	REMARKS
338+00.00	340 473.22	521 774.60	
338+50.00	340 507.31	521 738.02	
339+00.00	340 541.40	521 701.45	
339+50.00	340 575.49	521 664.87	
340+00.00	340 609.58	521 628.29	
340+50.00	340 643.68	521 591.72	
341+00.00	340 677.77	521 555.14	
341+50.00	340 711.86	521 518.57	
342+00.00	340 745.95	521 481.99	
342+50.00	340 780.04	521 445.42	
343+00.00	340 814.13	521 408.84	
343+50.00	340 848.22	521 372.27	
344+00.00	340 882.32	521 335.69	
344+50.00	340 916.41	521 299.11	
345+00.00	340 950.50	521 262.54	
345+50.00	340 984.59	521 225.96	
345+96.82	341 016.52	521 191.71	P.C. STATION
346+00.00	341 018.68	521 189.39	
346+50.00	341 053.12	521 153.14	
346+51.03	341 053.47	521 152.06	P.I. STATION
347+00.00	341 088.15	521 117.46	
347+05.22	341 091.84	521 113.77	P.T. STATION
347+50.00	341 123.54	521 082.14	
348+00.00	341 158.93	521 046.82	
348+50.00	341 194.32	521 011.50	
349+00.00	341 229.71	520 976.18	
349+50.00	341 265.10	520 940.86	
350+00.00	341 300.49	520 905.54	
350+50.00	341 335.88	520 870.22	
351+00.00	341 371.27	520 834.90	
351+50.00	341 406.66	520 799.58	
351+97.09	341 439.99	520 766.31	P.C. STATION
352+00.00	341 442.05	520 764.26	
352+50.00	341 477.39	520 728.89	
353+00.00	341 512.64	520 693.43	
353+50.00	341 547.81	520 657.88	
353+95.23	341 580.24	520 626.34	P.I. STATION
354+00.00	341 582.88	520 622.25	
354+50.00	341 617.87	520 586.53	
355+00.00	341 652.76	520 550.72	
355+50.00	341 687.57	520 514.82	
355+93.37	341 717.69	520 483.62	P.T. STATION
356+00.00	341 722.29	520 478.84	
356+50.00	341 756.97	520 442.83	
357+00.00	341 791.66	520 406.81	
357+50.00	341 826.34	520 370.80	
358+00.00	341 861.02	520 334.78	
358+50.00	341 895.71	520 298.77	
359+00.00	341 930.39	520 262.76	
359+50.00	341 965.07	520 226.74	
360+00.00	341 999.76	520 190.73	
360+50.00	342 034.44	520 154.71	
361+00.00	342 069.13	520 118.70	
361+50.00	342 103.81	520 082.68	
362+00.00	342 138.49	520 046.67	
362+50.00	342 173.18	520 010.65	
363+00.00	342 207.86	519 974.64	
363+15.37	342 218.52	519 963.57	P.C. STATION
363+50.00	342 240.74	519 937.04	
364+00.00	342 265.89	519 893.93	
364+15.65	342 288.09	519 891.34	P.I. STATION
364+50.00	342 281.98	519 846.67	
365+00.00	342 288.35	519 797.16	
365+06.11	342 288.45	519 791.05	P.T. STATION
365+50.00	342 288.61	519 747.16	
365+70.00	342 288.68	519 727.16	END PROJECT
365+92.71	342 288.76	519 704.46	C/L & C/L

CURVE 2

STATION	LEFT	RIGHT	COMMENT
36+47.53	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
36+50.00	2.00% <--	1.91% -->	
37+00.00	2.00% <--	0.02% -->	
37+00.53	2.00% <--	0.00% --	R.C.
37+50.00	2.00% <--	1.86% <--	
37+53.67	2.00% <--	2.00% <--	
37+62.53	2.33% <--	2.33% <--	P.C. STATION
37+93.53	3.50% <--	3.50% <--	BEGIN FULL SUPER
38+00.00	3.50% <--	3.50% <--	
38+50.00	3.50% <--	3.50% <--	
39+00.00	3.50% <--	3.50% <--	
39+50.00	3.50% <--	3.50% <--	
40+00.00	3.50% <--	3.50% <--	
40+50.00	3.50% <--	3.50% <--	
41+00.00	3.50% <--	3.50% <--	
41+50.00	3.50% <--	3.50% <--	
42+00.00	3.50% <--	3.50% <--	
42+50.00	3.50% <--	3.50% <--	
43+00.00	3.50% <--	3.50% <--	
43+50.00	3.50% <--	3.50% <--	
44+00.00	3.50% <--	3.50% <--	
44+50.00	3.50% <--	3.50% <--	
45+00.00	3.50% <--	3.50% <--	
45+50.00	3.50% <--	3.50% <--	
46+00.00	3.50% <--	3.50% <--	
46+50.00	3.50% <--	3.50% <--	
47+00.00	3.50% <--	3.50% <--	
47+50.00	3.50% <--	3.50% <--	
48+00.00	3.50% <--	3.50% <--	
48+50.00	3.50% <--	3.50% <--	
49+00.00	3.50% <--	3.50% <--	
49+50.00	3.50% <--	3.50% <--	
50+00.00	3.50% <--	3.50% <--	
50+50.00	3.50% <--	3.50% <--	
51+00.00	3.50% <--	3.50% <--	
51+50.00	3.50% <--	3.50% <--	
52+00.00	3.50% <--	3.50% <--	
52+50.00	3.50% <--	3.50% <--	
53+00.00	3.50% <--	3.50% <--	
53+50.00	3.50% <--	3.50% <--	END FULL SUPER
53+71.85	3.50% <--	3.50% <--	
54+00.00	2.44% <--	2.44% <--	P.T. STATION
54+02.85	2.33% <--	2.33% <--	
54+11.71	2.00% <--	2.00% <--	R.C.
54+50.00	2.00% <--	0.56% <--	
54+64.85	2.00% <--	0.00% --	
55+00.00	2.00% <--	1.33% -->	
55+17.85	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 3

STATION	LEFT	RIGHT	COMMENT
61+02.49	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
61+50.00	0.21% <--	2.00% -->	
61+55.49	0.00% --	2.00% -->	
62+00.00	1.67% -->	2.00% -->	
62+08.83	2.00% -->	2.00% -->	R.C.
62+30.16	2.80% -->	2.80% -->	P.C. STATION
62+50.00	3.54% -->	3.54% -->	
62+67.49	4.20% -->	4.20% -->	BEGIN FULL SUPER
63+00.00	4.20% -->	4.20% -->	
63+50.00	4.20% -->	4.20% -->	
64+00.00	4.20% -->	4.20% -->	
64+50.00	4.20% -->	4.20% -->	
65+00.00	4.20% -->	4.20% -->	
65+50.00	4.20% -->	4.20% -->	
66+00.00	4.20% -->	4.20% -->	
66+50.00	4.20% -->	4.20% -->	
67+00.00	4.20% -->	4.20% -->	
67+50.00	4.20% -->	4.20% -->	
68+00.00	4.20% -->	4.20% -->	
68+50.00	4.20% -->	4.20% -->	
69+00.00	4.20% -->	4.20% -->	
69+50.00	4.20% -->	4.20% -->	
70+00.00	4.20% -->	4.20% -->	
70+50.00	4.20% -->	4.20% -->	
71+00.00	4.20% -->	4.20% -->	
71+50.00	4.20% -->	4.20% -->	
72+00.00	4.20% -->	4.20% -->	
72+50.00	4.20% -->	4.20% -->	
72+67.38	4.20% -->	4.20% -->	END FULL SUPER
73+00.00	2.98% -->	2.98% -->	
73+04.71	2.80% -->	2.80% -->	P.T. STATION
73+26.04	2.00% -->	2.00% -->	R.C.
73+50.00	1.10% -->	2.00% -->	
73+79.38	0.00% --	2.00% -->	
74+32.38	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 4

STATION	LEFT	RIGHT	COMMENT
78+32.91	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
78+50.00	2.00% <--	2.00% -->	
78+85.91	2.00% <--	0.00% --	
79+00.00	2.00% <--	0.53% <--	
79+39.11	2.00% <--	2.00% <--	R.C.
79+50.00	2.41% <--	2.41% <--	
79+74.58	3.33% <--	3.33% <--	P.C. STATION
80+00.00	4.29% <--	4.29% <--	
80+18.91	5.00% <--	5.00% <--	BEGIN FULL SUPER
80+50.00	5.00% <--	5.00% <--	
81+00.00	5.00% <--	5.00% <--	
81+50.00	5.00% <--	5.00% <--	
82+00.00	5.00% <--	5.00% <--	
82+50.00	5.00% <--	5.00% <--	
83+00.00	5.00% <--	5.00% <--	
83+50.00	5.00% <--	5.00% <--	
84+00.00	5.00% <--	5.00% <--	
84+50.00	5.00% <--	5.00% <--	
85+00.00	5.00% <--	5.00% <--	
85+50.00	5.00% <--	5.00% <--	
86+00.00	5.00% <--	5.00% <--	
86+50.00	5.00% <--	5.00% <--	
87+00.00	5.00% <--	5.00% <--	
87+15.27	5.00% <--	5.00% <--	END FULL SUPER
87+50.00	3.69% <--	3.69% <--	
87+59.60	3.33% <--	3.33% <--	P.T. STATION
87+95.07	2.00% <--	2.00% <--	R.C.
88+00.00	2.00% <--	1.81% <--	
88+48.27	2.00% <--	0.00% --	
88+50.00	2.00% <--	0.07% -->	
89+00.00	2.00% <--	1.95% -->	
89+01.27	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 5

STATION	LEFT	RIGHT	COMMENT
121+09.67	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
121+50.00	0.48% <--	2.00% -->	
121+62.67	0.00% --	2.00% -->	
1+22.00	1.40% -->	2.00% -->	
122+10.67	1.80% -->	2.00% -->	P.C. STATION
122+16.00	2.00% -->	2.00% -->	R.C.
122+34.67	2.70% -->	2.70% -->	BEGIN FULL SUPER
122+50.00	2.70% -->	2.70% -->	
123+00.00	2.70% -->	2.70% -->	
123+50.00	2.70% -->	2.70% -->	
124+00.00	2.70% -->	2.70% -->	
124+50.00	2.70% -->	2.70% -->	
125+00.00	2.70% -->	2.70% -->	
125+50.00	2.70% -->	2.70% -->	
126+00.00	2.70% -->	2.70% -->	
126+50.00	2.70% -->	2.70% -->	
127+00.00	2.70% -->	2.70% -->	
127+50.00	2.70% -->	2.70% -->	
128+00.00	2.70% -->	2.70% -->	
128+50.00	2.70% -->	2.70% -->	
129+00.00	2.70% -->	2.70% -->	
129+50.00	2.70% -->	2.70% -->	
130+00.00	2.70% -->	2.70% -->	
130+50.00	2.70% -->	2.70% -->	
131+00.00	2.70% -->	2.70% -->	
131+50.00	2.70% -->	2.70% -->	
132+00.00	2.70% -->	2.70% -->	
132+50.00	2.70% -->	2.70% -->	
132+55.35	2.70% -->	2.70% -->	END FULL SUPER
132+74.02	2.00% -->	2.00% -->	R.C.
132+79.35	1.80% -->	2.00% -->	P.T. STATION
133+00.00	1.03% -->	2.00% -->	
133+27.35	0.00% --	2.00% -->	
133+50.00	0.85% <--	2.00% -->	
133+80.35	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 6

STATION	LEFT	RIGHT	COMMENT
143+85.72	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
144+00.00	1.46% <--	2.00% -->	
144+38.72	0.00% --	2.00% -->	
144+50.00	0.43% -->	2.00% -->	
144+74.05	1.33% -->	2.00% -->	P.C. STATION
144+91.72	2.00% -->	2.00% -->	R.C. & BEGIN FULL SUPER
145+00.00	2.00% -->	2.00% -->	
145+50.00	2.00% -->	2.00% -->	
146+00.00	2.00% -->	2.00% -->	
146+50.00	2.00% -->	2.00% -->	
147+00.00	2.00% -->	2.00% -->	
147+50.00	2.00% -->	2.00% -->	
148+00.00	2.00% -->	2.00% -->	
148+50.00	2.00% -->	2.00% -->	
149+00.00	2.00% -->	2.00% -->	
149+50.00	2.00% -->	2.00% -->	
150+00.00	2.00% -->	2.00% -->	
150+50.00	2.00% -->	2.00% -->	
151+00.00	2.00% -->	2.00% -->	
151+50.00	2.00% -->	2.00% -->	
152+00.00	2.00% -->	2.00% -->	
152+50.00	2.00% -->	2.00% -->	
153+00.00	2.00% -->	2.00% -->	
153+50.00	2.00% -->	2.00% -->	
153+74.54	2.00% -->	2.00% -->	R.C. & END FULL SUPER
153+92.21	1.33% -->	2.00% -->	P.T. STATION
154+00.00	1.04% -->	2.00% -->	
154+27.54	0.00% --	2.00% -->	
154+50.00	0.85% <--	2.00% -->	
154+80.54	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 7

STATION	LEFT	RIGHT	COMMENT
171+66.74	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
172+00.00	0.77% <--	2.00% -->	
172+20.74	0.00% --	2.00% -->	
172+50.00	1.09% -->	2.00% -->	
172+74.29	2.00% -->	2.00% -->	R.C.
172+76.07	2.07% -->	2.07% -->	P.C. STATION
173+00.00	2.96% -->	2.96% -->	
173+03.74	3.10% -->	3.10% -->	BEGIN FULL SUPER
173+50.00	3.10% -->	3.10% -->	
174+00.00	3.10% -->	3.10% -->	
174+50.00	3.10% -->	3.10% -->	
175+00.00	3.10% -->	3.10% -->	
175+50.00	3.10% -->	3.10% -->	
176+00.00	3.10% -->	3.10% -->	
176+50.00	3.10% -->	3.10% -->	
177+00.00	3.10% -->	3.10% -->	
177+50.00	3.10% -->	3.10% -->	
178+00.00	3.10% -->	3.10% -->	
178+50.00	3.10% -->	3.10% -->	
179+00.00	3.10% -->	3.10% -->	
179+50.00	3.10% -->	3.10% -->	
180+00.00	3.10% -->	3.10% -->	
180+50.00	3.10% -->	3.10% -->	
181+00.00	3.10% -->	3.10% -->	
181+50.00	3.10% -->	3.10% -->	
182+00.00	3.10% -->	3.10% -->	
182+50.00	3.10% -->	3.10% -->	
183+00.00	3.10% -->	3.10% -->	
183+50.00	3.10% -->	3.10% -->	
184+00.00	3.10% -->	3.10% -->	
184+50.00	3.10% -->	3.10% -->	
185+00.00	3.10% -->	3.10% -->	
185+50.00	3.10% -->	3.10% -->	
186+00.00	3.10% -->	3.10% -->	
186+25.19	3.10% -->	3.10% -->	END FULL SUPER
186+50.00	2.17% -->	2.17% -->	
186+52.86	2.07% -->	2.07% -->	P.T. STATION
186+54.64	2.00% -->	2.00% -->	R.C.
187+00.00	0.31% -->	2.00% -->	
187+08.19	0.00% --	2.00% -->	
187+50.00	1.55% <--	2.00% -->	
187+62.19	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 8

STATION	LEFT	RIGHT	COMMENT
198+92.56	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
199+00.00	2.00% <--	1.72% -->	
199+46.56	2.00% <--	0.00% --	
199+50.00	2.00% <--	0.13% <--	
200+00.00	2.00% <--	2.00% <--	
200+00.06	2.00% <--	2.00% <--	R.C.
200+17.89	2.67% <--	2.67% <--	P.C. STATION
200+50.00	3.87% <--	3.87% <--	
200+53.56	4.00% <--	4.00% <--	BEGIN FULL SUPER
201+00.00	4.00% <--	4.00% <--	
201+50.00	4.00% <--	4.00% <--	
202+00.00	4.00% <--	4.00% <--	
202+50.00	4.00% <--	4.00% <--	
203+00.00	4.00% <--	4.00% <--	
203+50.00	4.00% <--	4.00% <--	
204+00.00	4.00% <--	4.00% <--	
204+50.00	4.00% <--	4.00% <--	
205+00.00	4.00% <--	4.00% <--	
205+50.00	4.00% <--	4.00% <--	
206+00.00	4.00% <--	4.00% <--	
206+50.00	4.00% <--	4.00% <--	
207+00.00	4.00% <--	4.00% <--	
207+23.85	4.00% <--	4.00% <--	END FULL SUPER
207+50.00	3.02% <--	3.02% <--	
207+59.52	2.67% <--	2.67% <--	P.T. STATION
207+77.35	2.00% <--	2.00% <--	R.C.
208+00.00	2.00% <--	1.15% <--	
208+30.85	2.00% <--	0.00% --	
208+50.00	2.00% <--	0.71% -->	
208+84.85	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 9

STATION	LEFT	RIGHT	COMMENT
224+07.27	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
224+50.00	2.00% <--	0.39% -->	
224+60.27	2.00% <--	0.00% --	
225+00.00	2.00% <--	1.49% <--	
225+13.47	2.00% <--	2.00% <--	R.C.
225+48.94	3.33% <--	3.33% <--	P.C. STATION
225+50.00	3.37% <--	3.37% <--	
225+93.27	5.00% <--	5.00% <--	BEGIN FULL SUPER
226+00.00	5.00% <--	5.00% <--	
226+50.00	5.00% <--	5.00% <--	
227+00.00	5.00% <--	5.00% <--	
227+50.00	5.00% <--	5.00% <--	
228+00.00	5.00% <--	5.00% <--	
228+50.00	5.00% <--	5.00% <--	
229+00.00	5.00% <--	5.00% <--	
229+50.00	5.00% <--	5.00% <--	
230+00.00	5.00% <--	5.00% <--	
230+50.00	5.00% <--	5.00% <--	
231+00.00	5.00% <--	5.00% <--	
231+50.00	5.00% <--	5.00% <--	
232+00.00	5.00% <--	5.00% <--	
232+50.00	5.00% <--	5.00% <--	
232+76.47	5.00% <--	5.00% <--	END FULL SUPER
233+00.00	4.12% <--	4.12% <--	
233+20.80	3.33% <--	3.33% <--	P.T. STATION
233+50.00	2.24% <--	2.24% <--	
233+56.27	2.00% <--	2.00% <--	R.C.
234+00.00	2.00% <--	0.36% <--	
234+09.47	2.00% <--	0.00% --	
234+50.00	2.00% <--	1.53% -->	
234+62.47	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 10

STATION	LEFT	RIGHT	COMMENT
246+89.05	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
247+00.00	1.59% <--	2.00% -->	
247+42.05	0.00% --	2.00% -->	
247+50.00	0.30% -->	2.00% -->	
247+95.39	2.00% -->	2.00% -->	R.C.
248+00.00	2.17% -->	2.17% -->	
248+48.72	4.00% -->	4.00% -->	P.C. STATION
248+50.00	4.05% -->	4.05% -->	
249+00.00	5.92% -->	5.92% -->	
249+02.05	6.00% -->	6.00% -->	BEGIN FULL SUPER
249+50.00	6.00% -->	6.00% -->	
250+00.00	6.00% -->	6.00% -->	
250+50.00	6.00% -->	6.00% -->	
251+00.00	6.00% -->	6.00% -->	
251+50.00	6.00% -->	6.00% -->	
252+00.00	6.00% -->	6.00% -->	
252+50.00	6.00% -->	6.00% -->	
253+00.00	6.00% -->	6.00% -->	
253+50.00	6.00% -->	6.00% -->	
254+00.00	6.00% -->	6.00% -->	
254+50.00	6.00% -->	6.00% -->	
255+00.00	6.00% -->	6.00% -->	
255+50.00	6.00% -->	6.00% -->	
256+00.00	6.00% -->	6.00% -->	
256+50.00	6.00% -->	6.00% -->	
257+00.00	6.00% -->	6.00% -->	
257+50.00	6.00% -->	6.00% -->	
258+00.00	6.00% -->	6.00% -->	
258+50.00	6.00% -->	6.00% -->	
258+87.45	6.00% -->	6.00% -->	END FULL SUPER
259+00.00	5.53% -->	5.53% -->	
259+40.78	4.00% -->	4.00% -->	P.T. STATION
259+50.00	3.65% -->	3.65% -->	
259+94.11	2.00% -->	2.00% -->	R.C.
260+00.00	1.78% -->	2.00% -->	
260+47.45	0.00% --	2.00% -->	
260+50.00	0.10% <--	2.00% -->	
261+00.00	1.98% <--	2.00% -->	
261+00.45	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 11

STATION	LEFT	RIGHT	COMMENT
269+60.94	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
270+00.00	2.00% <--	0.53% -->	
270+13.94	2.00% <--	0.00% --	
270+50.00	2.00% <--	1.35% <--	
270+67.28	2.00% -->	2.00% <--	R.C.
271+00.00	3.23% <--	3.23% <--	
271+20.61	4.00% <--	4.00% <--	P.C. STATION
271+50.00	5.10% <--	5.10% <--	
271+73.94	6.00% <--	6.00% <--	BEGIN FULL SUPER
272+00.00	6.00% <--	6.00% <--	
272+50.00	6.00% <--	6.00% <--	
273+00.00	6.00% <--	6.00% <--	
273+50.00	6.00% <--	6.00% <--	
274+00.00	6.00% <--	6.00% <--	
274+50.00	6.00% <--	6.00% <--	
275+00.00	6.00% <--	6.00% <--	
275+50.00	6.00% <--	6.00% <--	
276+00.00	6.00% <--	6.00% <--	
276+50.00	6.00% <--	6.00% <--	
277+00.00	6.00% <--	6.00% <--	
277+50.00	6.00% <--	6.00% <--	
278+00.00	6.00% <--	6.00% <--	
278+50.00	6.00% <--	6.00% <--	
279+00.00	6.00% <--	6.00% <--	
279+50.00	6.00% <--	6.00% <--	
279+84.11	6.00% <--	6.00% <--	END FULL SUPER
280+00.00	5.40% <--	5.40% <--	
280+37.44	4.00% <--	4.00% <--	P.T. STATION
280+50.00	3.53% <--	3.53% <--	
280+90.77	2.00% <--	2.00% <--	R.C.
281+00.00	2.00% <--	1.65% <--	
281+44.11	2.00% <--	0.00% --	
281+50.00	2.00% <--	0.22% -->	
281+97.11	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 12

STATION	LEFT	RIGHT	COMMENT
289+86.52	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
290+00.00	1.49% <--	2.00% -->	
290+39.52	0.00% --	2.00% -->	
290+50.00	0.39% -->	2.00% -->	
290+92.96	2.00% -->	2.00% -->	R.C.
291+00.00	2.26% -->	2.26% -->	
291+42.85	3.87% -->	3.87% -->	P.C. STATION
291+50.00	4.13% -->	4.13% -->	
291+94.52	5.80% -->	5.80% -->	BEGIN FULL SUPER
292+00.00	5.80% -->	5.80% -->	
292+50.00	5.80% -->	5.80% -->	
293+00.00	5.80% -->	5.80% -->	
293+50.00	5.80% -->	5.80% -->	
294+00.00	5.80% -->	5.80% -->	
294+50.00	5.80% -->	5.80% -->	
295+00.00	5.80% -->	5.80% -->	
295+50.00	5.80% -->	5.80% -->	
296+00.00	5.80% -->	5.80% -->	
296+50.00	5.80% -->	5.80% -->	
297+00.00	5.80% -->	5.80% -->	
297+50.00	5.80% -->	5.80% -->	
298+00.00	5.80% -->	5.80% -->	
298+49.19	5.80% -->	5.80% -->	END FULL SUPER
298+50.00	5.77% -->	5.77% -->	
299+00.00	3.90% -->	3.90% -->	
299+00.86	3.87% -->	3.87% -->	P.T. STATION
299+50.00	2.03% -->	2.03% -->	
299+50.75	2.00% -->	2.00% -->	R.C.
300+00.00	0.16% -->	2.00% -->	
300+04.19	0.00% --	2.00% -->	
300+50.00	1.73% <--	2.00% -->	
300+57.19	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 13

STATION	LEFT	RIGHT	COMMENT
303+60.35	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
304+00.00	2.00% <--	0.50% -->	
304+13.35	2.00% <--	0.00% --	
304+50.00	2.00% <--	1.37% <--	
304+66.69	2.00% <--	2.00% <--	R.C.
305+00.00	3.25% <--	3.25% <--	
305+04.02	3.40% <--	3.40% <--	P.C. STATION
305+49.35	5.10% <--	5.10% <--	BEGIN FULL SUPER
305+50.00	5.10% <--	5.10% <--	
306+00.00	5.10% <--	5.10% <--	
306+50.00	5.10% <--	5.10% <--	
307+00.00	5.10% <--	5.10% <--	
307+50.00	5.10% <--	5.10% <--	
308+00.00	5.10% <--	5.10% <--	
308+50.00	5.10% <--	5.10% <--	
309+00.00	5.10% <--	5.10% <--	
309+50.00	5.10% <--	5.10% <--	
310+00.00	5.10% <--	5.10% <--	
310+50.00	5.10% <--	5.10% <--	
311+00.00	5.10% <--	5.10% <--	
311+50.00	5.10% <--	5.10% <--	
312+00.00	5.10% <--	5.10% <--	
312+50.00	5.10% <--	5.10% <--	
313+00.00	5.10% <--	5.10% <--	
313+50.00	5.10% <--	5.10% <--	
314+00.00	5.10% <--	5.10% <--	
314+50.00	5.10% <--	5.10% <--	
315+00.00	5.10% <--	5.10% <--	
315+50.00	5.10% <--	5.10% <--	
316+00.00	5.10% <--	5.10% <--	
316+50.00	5.10% <--	5.10% <--	
317+00.00	5.10% <--	5.10% <--	
317+50.00	5.10% <--	5.10% <--	
318+00.00	5.10% <--	5.10% <--	
318+50.00	5.10% <--	5.10% <--	
319+00.00	5.10% <--	5.10% <--	
319+50.00	5.10% <--	5.10% <--	
320+00.00	5.10% <--	5.10% <--	
320+50.00	5.10% <--	5.10% <--	
321+00.00	5.10% <--	5.10% <--	
321+50.00	5.10% <--	5.10% <--	
322+00.00	5.10% <--	5.10% <--	
322+50.00	5.10% <--	5.10% <--	
322+72.46	5.10% <--	5.10% <--	END FULL SUPER
323+00.00	4.07% <--	4.07% <--	
323+17.79	3.40% <--	3.40% <--	P.T. STATION
323+50.00	2.19% <--	2.19% <--	
323+55.12	2.00% <--	2.00% <--	R.C.
324+00.00	2.00% <--	0.32% <--	
324+08.06	2.00% <--	0.00% --	
324+50.00	2.00% <--	1.57% -->	
324+61.46	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

CURVE 14

STATION	LEFT	RIGHT	COMMENT
327+43.94	2.00% <--	2.00% -->	END NORMAL CROWN - BEGIN SUPER
327+50.00	1.70% <--	2.00% -->	
327+84.94	0.00% --	2.00% -->	
328+00.00	0.73% -->	2.00% -->	
328+26.12	2.00% -->	2.00% -->	R.C.
328+31.61	2.27% -->	2.27% -->	P.C. STATION
328+50.00	3.16% -->	3.16% -->	
328+54.94	3.40% -->	3.40% -->	BEGIN FULL SUPER
329+00.00	3.40% -->	3.40% -->	
329+50.00	3.40% -->	3.40% -->	
330+00.00	3.40% -->	3.40% -->	
330+50.00	3.40% -->	3.40% -->	
331+00.00	3.40% -->	3.40% -->	
331+50.00	3.40% -->	3.40% -->	
332+00.00	3.40% -->	3.40% -->	
332+50.00	3.40% -->	3.40% -->	
333+00.00	3.40% -->	3.40% -->	
333+50.00	3.40% -->	3.40% -->	
334+00.00	3.40% -->	3.40% -->	
334+50.00	3.40% -->	3.40% -->	
335+00.00	3.40% -->	3.40% -->	
335+50.00	3.40% -->	3.40% -->	
336+00.00	3.40% -->	3.40% -->	
336+50.00	3.40% -->	3.40% -->	
336+60.87	3.40% -->	3.40% -->	END FULL SUPER
336+84.20	2.27% -->	2.27% -->	P.T. STATION
336+89.69	2.00% -->	2.00% -->	R.C.
337+00.00	1.50% -->	2.00% -->	
337+30.87	0.00% --	2.00% -->	
337+50.00	0.93% <--	2.00% -->	
337+71.87	2.00% <--	2.00% -->	BEGIN NORMAL CROWN - END SUPER

DATE 11AUG15 — E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7180-01-75 QUANTITY
0010	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0020	204.0110	Removing Asphaltic Surface	SY	430.000	430.000
0030	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,200.000	1,200.000
0040	204.0120	Removing Asphaltic Surface Milling	SY	120,200.000	120,200.000
0050	204.0150	Removing Curb & Gutter	LF	456.000	456.000
0060	204.0190	Removing Surface Drains	EACH	2.000	2.000
0070	204.0220	Removing Inlets	EACH	2.000	2.000
0080	204.9060.S	Removing (item description) 01. Inlet Covers	EACH	9.000	9.000
0090	205.0100	Excavation Common	CY	700.000	700.000
0120	205.9015.S	Grading Shaping and Finishing Intersection (location) 03. STH 35 & Spring Creek Road	LS	1.000	1.000
0130	209.0100	Backfill Granular	CY	840.000	840.000
0140	209.0200.S	Backfill Controlled Low Strength	CY	71.000	71.000
0160	213.0100	Finishing Roadway (project) 02. 7180-01-75	EACH	1.000	1.000
0170	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,000.000	3,000.000
0180	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	870.000	870.000
0190	305.0500	Shaping Shoulders	STA	535.000	535.000
0200	440.4410.S	Incentive IRI Ride	DOL	25,130.000	25,130.000
0210	455.0605	Tack Coat	GAL	13,500.000	13,500.000
0220	460.2000	Incentive Density HMA Pavement	DOL	15,400.000	15,400.000
0230	465.0105	Asphaltic Surface	TON	950.000	950.000
0240	465.0110	Asphaltic Surface Patching	TON	300.000	300.000
0250	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	240.000	240.000
0260	465.0315	Asphaltic Flumes	SY	45.000	45.000
0270	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	25,600.000	25,600.000
0280	520.7000	Cleaning Culvert Pipes	EACH	5.000	5.000
0290	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	6.000	6.000
0300	521.0130	Culvert Pipe Corrugated Steel 30-Inch	LF	94.000	94.000
0310	521.0160	Culvert Pipe Corrugated Steel 60-Inch	LF	104.000	104.000
0320	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	1.000	1.000
0330	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0340	521.1030	Apron Endwalls for Culvert Pipe Steel 30-Inch	EACH	3.000	3.000
0350	521.1060	Apron Endwalls for Culvert Pipe Steel 60-Inch	EACH	2.000	2.000
0370	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	456.000	456.000
0380	606.0100	Riprap Light	CY	26.000	26.000
0390	606.0300	Riprap Heavy	CY	36.000	36.000
0400	611.0630	Inlet Covers Type HM-GJ	EACH	9.000	9.000
0410	611.8110	Adjusting Manhole Covers	EACH	27.000	27.000
0420	611.8115	Adjusting Inlet Covers	EACH	6.000	6.000
0430	611.8120.S	Cover Plates Temporary	EACH	23.000	23.000
0440	614.0010	Barrier System Grading Shaping Finishing	EACH	27.000	27.000
0450	614.0305	Steel Plate Beam Guard Class A	LF	1,750.000	1,750.000
0460	614.0345	Steel Plate Beam Guard Short Radius	LF	113.000	113.000
0470	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000

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DATE 11AUG15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7180-01-75 QUANTITY
0480	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	2.000	2.000
0490	614.0515	Guardrail Stifened LHW	LF	200.000	200.000
0500	614.0920	Salvaged Rail	LF	15,000.000	15,000.000
0510	614.2300	MGS Guardrail 3	LF	7,460.000	7,460.000
0520	614.2330	MGS Guardrail 3 K	LF	4,013.000	4,013.000
0530	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0540	614.2610	MGS Guardrail Terminal EAT	EACH	26.000	26.000
0560	618.0100	Maintenance And Repair of Haul Roads (project) 02. 7180-01-75	EACH	1.000	1.000
0570	619.1000	Mobilization	EACH	0.850	0.850
0580	624.0100	Water	MGAL	60.000	60.000
0590	625.0100	Topsoil	SY	650.000	650.000
0600	627.0200	Mulching	SY	875.000	875.000
0610	628.1504	Silt Fence	LF	5,300.000	5,300.000
0620	628.1520	Silt Fence Maintenance	LF	10,600.000	10,600.000
0630	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0640	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0650	628.2027	Erosion Mat Class II Type C	SY	140.000	140.000
0660	628.7555	Culvert Pipe Checks	EACH	70.000	70.000
0670	629.0210	Fertilizer Type B	CWT	0.500	0.500
0680	630.0120	Seeding Mixture No. 20	LB	25.000	25.000
0690	633.5200	Markers Culvert End	EACH	30.000	30.000
0700	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	51.000	51.000
0710	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	51.000	51.000
0720	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	8.000	8.000
0730	637.2210	Signs Type II Reflective H	SF	503.700	503.700
0740	637.2230	Signs Type II Reflective F	SF	202.000	202.000
0750	638.2602	Removing Signs Type II	EACH	97.000	97.000
0760	638.3000	Removing Small Sign Supports	EACH	95.000	95.000
0790	643.0100	Traffic Control (project) 02. 7180-01-75	EACH	1.000	1.000
0800	645.0120	Geotextile Fabric Type HR	SY	90.000	90.000
0810	645.0130	Geotextile Fabric Type R	SY	105.000	105.000
0820	646.0106	Pavement Marking Epoxy 4-Inch	LF	61,285.000	61,285.000
0830	646.0126	Pavement Marking Epoxy 8-Inch	LF	310.000	310.000
0840	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	79,150.000	79,150.000
0850	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	4.000	4.000
0860	647.0356	Pavement Marking Words Epoxy	EACH	2.000	2.000
0870	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	27.000	27.000
0880	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	126.000	126.000
0890	648.0100	Locating No-Passing Zones	MI	6.280	6.280
0900	649.0100	Temporary Pavement Marking 4-Inch	LF	212,400.000	212,400.000
0910	650.4000	Construction Staking Storm Sewer	EACH	9.000	9.000
0920	650.4500	Construction Staking Subgrade	LF	115.000	115.000
0930	650.5000	Construction Staking Base	LF	115.000	115.000
0940	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	456.000	456.000
0950	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0960	650.8000	Construction Staking Resurfacing Reference	LF	33,170.000	33,170.000
0980	650.9910	Construction Staking Supplemental Control (project) 02. 7180-01-75	LS	1.000	1.000
0990	690.0150	Sawing Asphalt	LF	1,550.000	1,550.000
1000	690.0250	Sawing Concrete	LF	120.000	120.000

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DATE 11AUG15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	7180-01-75 QUANTITY
1010	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
1020	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
1030	SPV.0060	Special 01. Inlet Safety Bars	EACH	1.000	1.000
1040	SPV.0060	Special 02. Cleaning Pipe Inverts	EACH	18.000	18.000
1050	SPV.0060	Special 03. Adjusting Water Valve Boxes	EACH	3.000	3.000
1060	SPV.0060	Special 04. Fill Slope Grading Shaping Finishing	EACH	1.000	1.000
1070	SPV.0090	Special 01. Cleaning Ditches	LF	310.000	310.000
1080	SPV.0090	Special 02. Concrete Curb & Gutter Cure And Seal Treatment	LF	456.000	456.000
1100	SPV.0105	Special 02. Preparation Of Foundation For Asphaltic Paving Special 7180-01-75	LS	1.000	1.000
1110	SPV.0170	Special 01. Reheating HMA Pavement Longitudinal Joints Special	STA	331.000	331.000
1140	SPV.0195	Special 03. HMA Pavement Type E-3 Special Lower STH 35	TON	11,550.000	11,550.000
1150	SPV.0195	Special 04. HMA Pavement Type E-3 Special Upper STH 35	TON	13,400.000	13,400.000

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REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	TYPE	203.0100 (EACH)
163+62	STH 35	18" X 24' C.P.C.S.	1
217+79	STH 35, LT	12" X 30' C.P.C.S.	1
217+88	STH 35, RT	12" X 34' C.P.C.S.	1
296+51	STH 35, RT	24" X 6' C.P.C.S.	1
		TOTAL =	4

REMOVING ASPHALTIC SURFACE

STATION	LOCATION	204.0110 (SY)
-	DRIVEWAYS	430
	TOTAL =	430

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION	LOCATION	204.0115 (SY)
34+01 - 34+76	STH 35	367
216+43 - 217+18	STH 35	300
217+70 - 218+45	STH 35	300
58+60	STH 35, RT (CTH I)	65
79+48	STH 35, RT (HIGH SCHOOL RD)	27
92+53	STH 35, RT (SPRING CREEK RD)	65
106+18	STH 35, RT (HILL VIEW ST)	28
113+29	STH 35, RT (HILL VIEW ST)	25
363+23	STH 35, RT (LINCOLN ST)	23
	TOTAL =	1200

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION - STATION	LOCATION	204.0120 (SY)
0010	34+76 - 216+43	STH 35	66398
0010	218+45 - 346+96	STH 35	45167
0010	346+96 - 365+70	STH 35	4615
0010	58+60	STH 35, RT (CTH I)	300
0010	79+48	STH 35, RT (HIGH SCHOOL RD)	85
0010	92+53	STH 35, RT (SPRING CREEK RD)	340
0010	106+18	STH 35, RT (HILL VIEW ST)	75
0010	113+29	STH 35, RT (HILL VIEW ST)	75
0010	215+25	STH 35, RT (MIKE VARENICK RD)	255
0010	230+68	STH 35, RT (DEER CREEK RD)	315
0010	307+09	STH 35, RT (MARKEY BLUFF RD)	250
0010	336+23	STH 35, RT (FIRST ST)	90
0010	340+00	STH 35, LT (SECOND ST)	155
0010	343+68	STH 35, LT (THIRD ST)	125
0010	343+68	STH 35, RT (THIRD ST)	100
0010	347+46	STH 35, RT (FOURTH ST)	150
0010	363+23	STH 35, RT (LINCOLN ST)	85
		SUBTOTAL =	118580
0020	346+96 - 363+50	STH 35	1620
		SUBTOTAL =	1620
		PROJECT TOTAL =	120200

REMOVING CURB AND GUTTER

STATION - STATION	LOCATION	204.0150 (LF)
58+87.04 - 59+05.05	STH 35, RT	20
60+68.73 - 60+88.73	STH 35, RT	20
62+89.08 - 63+09.08	STH 35, RT	20
65+48.57 - 65+68.57	STH 35, RT	20
73+58.52 - 73+88.52	STH 35, RT	30
77+88.83 - 78+08.83	STH 35, RT	20
80+87.81 - 81+07.81	STH 35, RT	20
84+05.50 - 84+25.50	STH 35, RT	20
87+13.25 - 87+33.25	STH 35, RT	20
89+88.43 - 90+08.43	STH 35, RT	20
93+47.00 - 93+72.00	STH 35, RT	25
94+80.54 - 95+00.54	STH 35, RT	20
95+38.49 - 95+58.49	STH 35, RT	20
97+18.00 - 97+58.50	STH 35, RT	41
101+38.37 - 101+58.37	STH 35, RT	20
105+38.79 - 105+58.79	STH 35, RT	20
106+35.25 - 106+38.03	STH 35, RT	20
109+14.21 - 109+34.21	STH 35, RT	20
111+63.18 - 111+83.18	STH 35, RT	20
188+18.12 - 188+38.12	STH 35, RT	20
269+40.03 - 269+60.03	STH 35, RT	20
	TOTAL =	456

REMOVING SURFACE DRAINS

STATION - STATION	LOCATION	204.0190 (EACH)
217+65.43 -217+89.00	STH 35, LT	1
217+73.91 - 217+95.90	STH 35, RT	1
	TOTAL =	2

REMOVING INLETS

STATION	LOCATION	204.0220 (EACH)
217+79	STH 35, LT	1
217+88	STH 35, RT	1
	TOTAL =	2

REMOVING INLET COVERS

STATION	LOCATION	204.9060.01 (EACH)
62+99.08	STH 35, RT	1
80+97.81	STH 35, RT	1
84+15.50	STH 35, RT	1
87+23.25	STH 35, RT	1
94+90.54	STH 35, RT	1
97+48.50	STH 35, RT	1
101+48.37	STH 35, RT	1
105+48.79	STH 35, RT	1
106+34.44	STH 35, RT	1
	TOTAL =	9

BACKFILL CONTROLLED LOW STRENGTH

STATION	LOCATION	209.0200.S (CY)
312+72	STH 35	71
	TOTAL =	71

FINISHING ROADWAY

PROJECT	LOCATION	213.0100 (EACH)
7180-01-75	STH 35	1
	TOTAL =	1

EXCAVATION COMMON

STATION - STATION	LOCATION	205.0100 (CY)
163+12 - 164+12	STH 35	700
	TOTAL =	700

BACKFILL GRANULAR

STATION - STATION	LOCATION	209.0100 (CY)
163+12 - 164+12	STH 35	840
	TOTAL =	840

BASE AGGREGATE DENSE 3/4-INCH

STATION	LOCATION	305.0110 (TON)
34+01 - 217+18	STH 35, LT & RT	1574
217+70 - 346+96	STH 35, LT & RT	1103
346+96 - 350+92	STH 35, RT	13
--	SIDEROADS	51
--	DRIVEWAYS	196
--	UNDISTRIBUTED	63
	TOTAL =	3000

BASE AGGREGATE DENSE 1 1/4-INCH

STATION	LOCATION	305.0120 (TON)
58+87.04 - 59+05.05	STH 35, RT	9
60+68.73 - 60+88.73	STH 35, RT	9
62+89.08 - 63+09.08	STH 35, RT	9
65+48.57 - 65+68.57	STH 35, RT	9
73+58.52 - 73+88.52	STH 35, RT	14
77+88.83 - 78+08.83	STH 35, RT	9
80+87.81 - 81+07.81	STH 35, RT	9
84+05.50 - 84+25.50	STH 35, RT	9
87+13.25 - 87+33.25	STH 35, RT	9
89+33 - 94+70	STH 35, LT	250
89+88.43 - 90+08.43	STH 35, RT	9
93+47.00 - 93+72.00	STH 35, RT	12
94+80.54 - 95+00.54	STH 35, RT	9
95+38.49 - 95+58.49	STH 35, RT	9
97+18.00 - 97+58.50	STH 35, RT	19
101+38.37 - 101+58.37	STH 35, RT	9
105+38.79 - 105+58.79	STH 35, RT	9
106+35.25 - 106+38.03	STH 35, RT	9
109+14.21 - 109+34.21	STH 35, RT	9
111+63.18 - 111+83.18	STH 35, RT	9
163+05 - 164+20	STH 35, RT	385
188+18.12 - 188+38.12	STH 35, RT	9
269+40.03 - 269+60.03	STH 35, RT	9
--	UNDISTRIBUTED	28
	TOTAL =	870

SHAPING SHOULDERS

STATION - STATION	LOCATION	305.0500 (STA)
34+93 - 346+96	STH 35, LT	298
36+18 - 57+84	STH, 35, RT	21
119+47 - 148+12	STH, 35, RT	29
150+48 - 188+18	STH, 35, RT	38
192+98 - 265+91	STH, 35, RT	70
269+60 - 350+92	STH, 35, RT	79
	TOTALS =	535

GRADING SHAPING FINISHING INTERSECTION

STATION - STATION	LOCATION	205.9015.S (LS)	FOR INFORMATION ONLY: EXCAVATION COMMON (CY)	UNEXPANDED FILL (CY)	EXPANDED FILL (25%) (CY)	WASTE (CY)	BORROW (CY)	TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO. 20 (LB)	CONSTRUCTION STAKING SLOPE STAKES (LF)
89+30 - 95+00	03. STH 25 & SPRING CREEK RD.	1	0	16	20	0	20	300	300	0.2	8	570

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

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HMA PAVEMENT

CATEGORY	STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)	465.0110 ASPHALTIC SURFACE PATCHING (TON)	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (TON)	SPV.0195.03 HMA PAVEMENT TYPE E-3 SPECIAL LOWER, STH 35 (TON)	SPV.0195.04 HMA PAVEMENT TYPE E-3 SPECIAL UPPER, STH 35 (TON)
0010	34+01 - 217+18	STH 35	7336	-	-	76	6328	7383
0010	217+70 - 346+96	STH 35	5044	-	-	120	4351	5076
0010	346+96 - 365+70	STH 35	654	-	-	32	551	373
		UNDISTRIBUTED	386	*940	295	12	320	398
		SUBTOTALS =	13420	940	295	240	11550	13230
0020	346+96 - 363+25	STH 35	80	-	-	-	-	162
0020	-	UNDISTRIBUTED	-	*10	5	-	-	8
		SUBTOTALS=	80	10	5	0	0	170
		PROJECT TOTALS=	13500	950	300	240	11550	13400

* UNDISTRIBUTED FOR LEVELING AND WEDGING

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 (SY)
57+78	STH 35, RT	5
148+06	STH 35, RT	7
217+77	STH 35, LT	17
217+86	STH, 35, RT	16
	TOTALS =	45

ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

STATION - STATION	LOCATION	465.0475 (LF)
34+25 - 48+50	STH 35	1425
50+50 - 53+55	STH 35	305
60+60 - 77+45	STH 35	1685
81+45 - 90+35	STH 35	890
94+35 - 101+60	STH 35	985
108+20 - 111+30	STH 35	310
115+30 - 213+25	STH 35	9795
217+95 - 228+65	STH 35	1070
232+65 - 238+25	STH 35	560
240+25 - 305+10	STH 35	6485
309+10 - 330+00	STH 35	2090
	TOTAL =	25600

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CULVERT QUANTITIES

		CULVERT PIPE CORRUGATED STEEL			APRON ENDWALLS FOR CULVERT PIPE CORRUGATED STEEL								
STATION	LOCATION	521.0124 24-INCH (LF)	521.0130 30-INCH (LF)	521.0160 60-INCH (LF)	521.1018 18-INCH (EACH)	521.1024 24-INCH (EACH)	521.1030 30-INCH (EACH)	521.1060 60-INCH (EACH)	650.6000 CULVERT STAKING PIPE CULVERTS (EACH)	SPV.0060.01 INLET SAFETY BARS (EACH)	INLET ELEVATION (FT)	OUTLET ELEVATION (FT)	THICKNESS STEEL (IN)
148+06.52	STH 35, RT (P.E.)	-	-	-	1	-	-	-	-	-	-	-	-
163+62	STH 35	-	94	-	-	-	2	-	1	-	692.27	683.32	0.079
184+46	STH 35, RT	-	-	-	-	1	-	-	-	-	-	-	-
188+28	STH 35, RT	-	-	-	-	-	1	-	-	-	-	-	-
193+48	STH 35, RT	-	-	-	-	-	-	-	-	1	-	-	-
296+51	STH 35, RT	6	-	-	-	1	-	-	1	-	-	-	0.064
312+72	STH 35	-	-	104	-	-	-	2	1	-	717.11	709.91	0.109
	TOTALS =	6	94	104	1	2	3	2	3	1			

CLEANING CULVERT PIPES

STATION	LOCATION	520.7000 (EACH)
99+48	STH 35, RT (INLET)	1
243+96	STH 35, RT (P.E.)	1
246+11	STH 35	1
256+17	STH 35	1
265+81	STH 35	1
	TOTAL =	5

CONCRETE CURB AND GUTTER

STATION - STATION	LOCATION	601.0415 6-INCH SLOPED 30-INCH TYPE J (LF)	SPV.0090.02 CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT (LF)
58+87.04 - 59+05.05	STH 35, RT	20	20
60+68.73 - 60+88.73	STH 35, RT	20	20
62+89.08 - 63+09.08	STH 35, RT	20	20
65+48.57 - 65+68.57	STH 35, RT	20	20
73+58.52 - 73+88.52	STH 35, RT	30	30
77+88.83 - 78+08.83	STH 35, RT	20	20
80+87.81 - 81+07.81	STH 35, RT	20	20
84+05.50 - 84+25.50	STH 35, RT	20	20
87+13.25 - 87+33.25	STH 35, RT	20	20
89+88.43 - 90+08.43	STH 35, RT	20	20
93+47.00 - 93+72.00	STH 35, RT	25	25
94+80.54 - 95+00.54	STH 35, RT	20	20
95+38.49 - 95+58.49	STH 35, RT	20	20
97+18.00 - 97+58.50	STH 35, RT	41	41
101+38.37 - 101+58.37	STH 35, RT	20	20
105+38.79 - 105+58.79	STH 35, RT	20	20
106+35.25 - 106+38.03	STH 35, RT	20	20
109+14.21 - 109+34.21	STH 35, RT	20	20
111+63.18 - 111+83.18	STH 35, RT	20	20
188+18.12 - 188+38.12	STH 35, RT	20	20
269+40.03 - 269+60.03	STH 35, RT	20	20
	TOTALS =	456	456

RIPRAP & GEOTEXTILE FABRIC

STATION	LOCATION	RIPRAP DIMENSION WIDTH (FT)	RIPRAP DIMENSION LENGTH (FT)	606.0100 RIPRAP LIGHT (CY)	606.0300 RIPRAP HEAVY (CY)	645.0130 GEOTEXTILE FABRIC TYPE R (SY)	645.0120 GEOTEXTILE FABRIC TYPE HR (SY)
163+62	STH 35, LT	7	14	4	-	15	-
193+42	STH 35, LT	10	20	-	15	-	37
217+77	STH 35, RT	6	12	3	-	12	-
217+86	STH 35, LT	6	12	3	-	12	-
228+97	STH 35, LT	7	14	4	-	15	-
246+11	STH 35, LT	7	14	4	-	15	-
256+17	STH 35, LT	6	12	3	-	12	-
269+50	STH 35, LT	8	16	5	-	20	-
312+72	STH 35, LT	12	24	-	21	-	50
-	UNDISTRIBUTED			-	-	4	3
	TOTALS =			26	36	105	90

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

ADJUSTING STRUCTURE COVERS

CATEGORY	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8115 ADJUSTING INLET COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)	SPV.0060.03 ADJUSTING WATER VALVE BOXES (EACH)
0010	58+69	STH 35, RT	1	-	1	-
0010	58+90	STH 35, RT	1	-	1	-
0010	58+97	STH 35, RT	-	1	-	-
0010	60+79	STH 35, RT	-	1	-	-
0010	62+57	STH 35, RT	1	-	1	-
0010	62+98	STH 35, LT	1	-	1	-
0010	65+59	STH 35, RT	1	1	1	-
0010	66+63	STH 35, RT	1	-	1	-
0010	73+63	STH 35, RT	1	-	1	-
0010	77+38	STH 35, RT	1	-	1	-
0010	77+99	STH 35, RT	-	1	-	-
0010	95+48	STH 35, RT	1	1	1	-
0010	97+49	STH 35, RT	1	-	1	-
0010	99+45	STH 35, RT	1	-	1	-
0010	101+49	STH 35, RT	1	-	1	-
0010	103+49	STH 35, RT	1	-	1	-
0010	105+49	STH 35, RT	1	-	1	-
0010	109+24	STH 35, RT	1	-	1	-
0010	111+73	STH 35, RT	1	-	1	-
0010	113+38	STH 35, RT	1	-	1	-
0010	113+68	STH 35, RT	1	-	1	-
0010	269+50	STH 35, RT	-	1	-	-
0010	340+00	STH 35, LT	1	-	1	-
0010	353+97	STH 35, LT	1	-	1	-
0010	354+62	STH 35, LT	1	-	1	-
0010	356+87	STH 35, LT	1	-	1	-
		SUBTOTALS =	22	6	22	0

CATEGORY	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS (EACH)	611.8115 ADJUSTING INLET COVERS (EACH)	611.8120.S COVER PLATES TEMPORARY (EACH)	SPV.0060.03 ADJUSTING WATER VALVE BOXES (EACH)
0020	343+69	STH 35, LT	1	-	1	-
0020	353+17	STH 35, RT	1	-	-	-
0020	357+19	STH 35, RT	1	-	-	-
0020	361+25	STH 35, RT	1	-	-	-
0020	361+84	STH 35, LT	1	-	-	-
0020	361+84	STH 35, LT	-	-	-	3
		SUBTOTALS =	5	0	1	3
		PROJECT TOTALS =	27	6	23	3

NOTE: LOCATIONS OF WATER VALVES ARE APPROXIMATE. ENGINEER TO VERIFY LOCATIONS IN THE FIELD.

INLET COVERS TYPE HM-GJ

STATION	LOCATION	611.0630 (EACH)
62+99.08	STH 35, RT	1
80+97.81	STH 35, RT	1
84+15.50	STH 35, RT	1
87+23.25	STH 35, RT	1
94+90.54	STH 35, RT	1
97+48.50	STH 35, RT	1
101+48.37	STH 35, RT	1
105+48.79	STH 35, RT	1
106+34.44	STH 35, RT	1
	TOTAL =	9

SALVAGE RAIL

STATION - STATION	LOCATION	614.0920 (LF)
36+18 - 49+13	STH 35, RT	1300
76+48 - 77+50	STH 35, LT	102
93+76 - 132+31	STH 35, LT	3852
93+80 - 97+34	STH 35, RT	354
132+75 - 142+76	STH 35, LT	1002
143+14 - 151+65	STH 35, LT	852
152+30 - 159+54	STH 35, LT	724
171+48 - 186+95	STH 35, LT	1550
192+49 - 193+98	STH 35, LT	149
192+63 - 193+79	STH 35, RT	116
193+43 - 193+54	STH 35, RT	46
215+47 - 217+06	STH 35, LT	159
216+27 - 217+16	STH 35, RT	89
217+73 - 219+49	STH 35, LT	176
217+81 - 219+40	STH 35, RT	159
243+15 - 265+86	STH 35, LT	2282
275+06 - 281+82	STH 35, LT	668
277+56 - 280+46	STH 35, RT	294
290+01 - 294+21	STH 35, LT	424
294+72 - 299+45	STH 35, LT	480
311+66 - 312+85	STH 35, LT	118
311+82 - 312+85	STH 35, RT	104
	TOTALS =	15000

BARRIER SYSTEM GRADING SHAPING FINISHING

STATION - STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING (EACH)	FOR INFORMATION ONLY: EXCAVATION COMMON (CY)	UNEXPANDED FILL (CY)	EXPANDED FILL (25%) (CY)	WASTE (CY)	BORROW (CY)	TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO. 20 (LB)	E-MAT CLASS II TYPE B (SY)	CONSTRUCTION STAKING SLOPE STAKES (LF)
48+63 - 49+33	STH 35, RT	1	0	64	80	0	80	160	160	0.10	4	0	70
89+63 - 91+33	STH 35, LT	1	0	32	40	0	40	120	120	0.08	3	0	120
96+68 - 97+50	STH 35, RT	1	0	32	40	0	40	140	140	0.09	4	0	80
131+80 - 132+50	STH 35, LT	1	0	8	10	0	10	50	50	0.03	1	0	70
132+50 - 133+25	STH 35, LT	1	0	16	20	0	20	70	70	0.04	2	0	75
142+25 - 143+00	STH 35, LT	1	0	4	5	0	5	50	50	0.03	1	0	75
143+00 - 143+65	STH 35, LT	1	15	0	0	15	0	30	30	0.02	1	0	65
151+15 - 152+00	STH 35, LT	1	0	56	70	0	70	180	80	0.11	5	100	85
152+00 - 152+80	STH 35, LT	1	0	32	40	0	40	120	70	0.08	3	50	80
159+05 - 159+85	STH 35, LT	1	0	72	90	0	90	180	70	0.11	5	110	80
170+30 - 172+00	STH 35, LT	1	2	16	20	0	20	130	55	0.08	4	75	170
186+45 - 188+15	STH 35, LT	1	8	0	0	8	0	0	100	0.06	3	0	170
191+30 - 193+00	STH 35, LT	1	0	144	180	0	180	500	100	0.32	14	400	170
193+50 - 195+20	STH 35, LT	1	0	60	75	0	75	230	130	0.14	6	100	170
214+32 - 216+02	STH 35, LT	1	0	60	75	0	75	180	130	0.11	5	50	170
215+62 - 216+37	STH 35, RT	1	5	4	5	0	5	40	40	0.03	1	0	75
218+98 - 220+68	STH 35, RT	1	0	28	35	0	35	290	110	0.18	8	180	170
219+02 - 220+72	STH 35, LT	1	0	32	40	0	40	210	90	0.13	6	120	170
241+80 - 243+50	STH 35, LT	1	0	320	400	0	400	700	130	0.44	19	580	170
265+50 - 267+20	STH 35, LT	1	0	240	300	0	300	660	90	0.42	18	580	170
273+78 - 275+51	STH 35, LT	1	0	208	260	0	260	540	115	0.34	15	425	170
277+56 - 277+84	STH 35, RT	1	0	4	5	0	5	30	30	0.02	1	0	40
280+10 - 280+46	STH 35, RT	1	0	48	60	0	60	320	160	0.03	9	160	40
281+50 - 282+95	STH 35, LT	1	0	384	480	0	480	740	100	0.48	19	640	145
288+80 - 290+50	STH 35, LT	1	0	128	160	0	160	130	20	0.08	4	110	170
293+76 - 294+50	STH 35, LT	1	0	24	30	0	30	140	60	0.09	4	80	75
298+95 - 300+65	STH 35, LT	1	0	104	130	0	130	570	130	0.36	15	440	170
	TOTALS =	27	30	2120	2650	23	2650	6510	2430	4.00	180	4200	3215

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

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BEAM GUARD

		STEEL PLATE BEAM GUARD					MGS			
		614.0305 CLASS A	614.0345 SHORT RADIUS	614.0370 ENERGY ABSORBING TERMINAL	614.0390 SHORT RADIUS TERMINAL	614.0515 GUARDRAIL STIFFENED LHW	614.2300 GUARDRAIL 3	614.0233 GUARDRAIL 3K	614.2500 THRIE BEAM TRANSITION	614.2610 GUARDRAIL TERMINAL EAT
STATION - STATION	LOCATION	(LF)	(LF)	(EACH)	(EACH)	(LF)	(LF)	(LF)	(LF)	(EACH)
36+18 - 37+18	STH 35, RT	100	-	-	-	-	-	-	-	-
37+18 - 39+18	STH 35, RT	-	-	-	-	200	-	-	-	-
39+18 - 48+63	STH 35, RT	950	-	-	-	-	-	-	-	-
48+63 - 49+13	STH 35, RT	-	-	1	-	-	-	-	-	--
76+46 - 76+96	STH 35, LT	-	-	-	-	-	-	-	-	1
76+96 - 77+02	STH 35, LT	-	-	-	-	-	7	-	-	-
77+02 - 77+52	STH 35, LT	-	-	-	-	-	-	-	-	1
90+83 - 91+33	STH 35, LT	-	-	-	-	-	-	-	-	1
91+33 - 107+00	STH 35, LT	-	-	-	-	-	1570	-	-	-
107+00 - 113+00	STH 35, LT	-	-	-	-	-	-	600	-	-
113+00 - 118+00	STH 35, LT	-	-	-	-	-	500	-	-	-
118+00 - 125+00	STH 35, LT	-	-	-	-	-	-	700	-	-
125+00 - 131+80	STH 35, LT	-	-	-	-	-	680	-	-	-
131+80 - 132+30	STH 35, LT	-	-	-	-	-	-	-	-	1
93+72 - 94+22	STH 35, RT	-	-	-	-	-	-	-	-	1
94+22 - 96+68	STH 35, RT	-	-	-	-	-	250	-	-	-
96+68 - 97+18	STH 35, RT	-	-	-	-	-	-	-	-	1
132+75 - 133+25	STH 35, LT	-	-	-	-	-	-	-	-	1
133+25 - 142+25	STH 35, LT	-	-	-	-	-	900	-	-	-
142+25 - 142+75	STH 35, LT	-	-	-	-	-	-	-	-	1
143+15 - 143+65	STH 35, LT	-	-	-	-	-	-	-	-	1
143+65 - 144+50	STH 35, LT	-	-	-	-	-	87	-	-	-
144+50 - 150+00	STH 35, LT	-	-	-	-	-	-	550	-	-
150+00 - 151+15	STH 35, LT	-	-	-	-	-	115	-	-	-
151+15 - 151+65	STH 35, LT	-	-	-	-	-	-	-	-	1
152+30 - 152+80	STH 35, LT	-	-	-	-	-	-	-	-	1
152+80 - 159+05	STH 35, LT	-	-	-	-	-	625	-	-	-
159+05 - 159+55	STH 35, LT	-	-	-	-	-	-	-	-	1
171+50 - 172+00	STH 35, LT	-	-	-	-	-	-	-	-	1
172+00 - 176+00	STH 35, LT	-	-	-	-	-	-	400	-	-
176+00 - 186+45	STH 35, LT	-	-	-	-	-	1050	-	-	-
186+45 - 186+95	STH 35, LT	-	-	-	-	-	-	-	-	1
192+50 - 193+00	STH 35, LT	-	-	-	-	-	-	-	-	1
193+00 - 193+50	STH 35, LT	-	-	-	-	-	-	50	-	-
193+50 - 194+00	STH 35, LT	-	-	-	-	-	-	-	-	1
215+52.50 - 216+02.50	STH 35, LT	-	-	-	-	-	-	-	-	1
216+02.50 - 216+67.99	STH 35, LT	-	-	-	-	-	63	-	-	-
216+67.99 - 217+07.33	STH 35, LT	-	-	-	-	-	-	-	39	-
215+86.66 - 216+36.66	STH 35, RT	-	-	-	-	-	-	-	-	1
216+36.66 - 216+77.17	STH 35, RT	-	-	-	-	-	38	-	-	-
216+77.17 - 217+16.50	STH 35, RT	-	-	-	-	-	-	-	39	-
217+71.98 - 218+11.31	STH 35, LT	-	-	-	-	-	-	-	39	-
218+11.31 - 219+01.81	STH 35, LT	-	-	-	-	-	-	88	-	-
219+01.81 - 219+51.81	STH 35, LT	-	-	-	-	-	-	-	-	1
217+80.27 - 218+19.60	STH 35, RT	-	-	-	-	-	-	-	39	-
218+19.60 - 218+97.60	STH 35, RT	-	-	-	-	-	-	75	-	-
218+97.60 - 219+47.60	STH 35, RT	-	-	-	-	-	-	-	-	1
243+00 - 243+50	STH 35, LT	-	-	-	-	-	-	-	-	1
243+50 - 250+00	STH 35, LT	-	-	-	-	-	-	650	-	-
250+00 - 259+00	STH 35, LT	-	-	-	-	-	900	-	-	-
259+00 - 263+00	STH 35, LT	-	-	-	-	-	-	400	-	-
263+00 - 265+50	STH 35, LT	-	-	-	-	-	250	-	-	-
265+50 - 266+00	STH 35, LT	-	-	-	-	-	-	-	-	1
275+00 - 275+50	STH 35, LT	-	-	-	-	-	-	-	-	1
275+50 - 277+00	STH 35, LT	-	-	-	-	-	150	-	-	-
277+00 - 280+00	STH 35, LT	-	-	-	-	-	-	300	-	-
280+00 - 281+50	STH 35, LT	-	-	-	-	-	150	-	-	-
281+50 - 282+00	STH 35, LT	-	-	-	-	-	-	-	-	1
277+41.01 - 277+56.61	STH 35, RT	-	44	-	1	-	-	-	-	-
277+56.61 - 280+59.45	STH 35, RT	300	-	-	-	-	-	-	-	-
280+59.45 - 280+75.45	STH 35, RT	-	44	-	1	-	-	-	-	-
290+00 - 290+50	STH 35, LT	-	-	-	-	-	-	-	-	1
290+50 - 291+00	STH 35, LT	-	-	-	-	-	50	-	-	-
291+00 - 293+00	STH 35, LT	-	-	-	-	-	-	200	-	-
293+00 - 293+75	STH 35, LT	-	-	-	-	-	75	-	-	-
293+75 - 294+25	STH 35, LT	-	-	-	-	-	-	-	-	1
294+72.36 - 294+95	STH 35, LT	-	25	-	-	-	-	-	-	-
294+95 - 298+95	STH 35, LT	400	-	-	-	-	-	-	-	-
298+95 - 299+45	STH 35, LT	-	-	1	-	-	-	-	-	-
	TOTALS =	1750	113	2	2	200	7460	4013	156	26

MOBILIZATION

STATION - STATION	LOCATION	619.1000 (EACH)
34+01 - 365+70	STH 35	0.85
	TOTAL =	0.85

WATER

STATION - STATION	LOCATION	624.0100 (MGAL)
34+01 - 365+70	STH 35	55
-	UNDISTRIBUTED	5
	TOTAL =	60

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
48+55 - 49+40	STH 35, RT	90	180
89+30 - 94+70	STH 35, LT	550	1100
96+60 - 97+60	STH 35, RT	110	220
131+70 - 132+25	STH 35, LT	60	120
132+75 - 133+35	STH 35, LT	65	130
142+15 - 142+75	STH 35, LT	65	130
143+15 - 143+75	STH 35, LT	65	130
151+05 - 151+65	STH 35, LT	65	130
152+30 - 152+90	STH 35, LT	65	130
158+95 - 159+85	STH 35, LT	100	200
170+20 - 172+10	STH 35, LT	200	400
186+35 - 188+25	STH 35, LT	200	400
191+20 - 195+30	STH 35, LT	420	840
215+30 - 216+10	STH 35, LT	85	170
215+60 - 216+45	STH 35, RT	90	180
218+90 - 220+80	STH 35, RT	200	400
218+90 - 220+80	STH 35, LT	200	400
241+70 - 243+60	STH 35, LT	200	400
265+40 - 267+30	STH 35, LT	200	400
273+70 - 275+60	STH 35, LT	200	400
277+40 - 278+90	STH 35, RT	160	320
280+00 - 280+75	STH 35, RT	80	160
281+40 - 283+00	STH 35, LT	170	340
288+70 - 290+35	STH 35, LT	170	340
293+65 - 294+50	STH 35, LT	90	180
298+85 - 300+75	STH 35, LT	200	400
311+50 - 312+95	STH 35, LT	150	300
-	UNDISTRIBUTED	1050	2100
	TOTALS =	5300	10600

MOBILIZATIONS EROSION CONTROL

PROJECT	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
7180-01-75	2	3
TOTALS=	2	3

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

FINISHING ITEMS

STATION - STATION	LOCATION	625.0100 TOPSOIL (SY)	627.0200 MULCHING (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)
163+12 - 164+12	STH 35	600	810	0.5	22
--	UNDISTRIBUTED	50	65	0	3
	TOTAL =	650	875	0.5	25

EROSION MAT CLASS II TYPE C

STATION	LOCATION	DIMENSIONS WIDTH (FT)	DIMENSIONS LENGTH (FT)	628.2027 (SY)
243+96	STH 35, LT	5	10	6
279+66	STH 35, RT	20	20	44
279+66	STH 35, LT	20	20	44
296+51	STH 35, LT	6	12	8
331+24	STH 35, RT	8	16	14
-	UNDISTRIBUTED			24
	TOTAL =			140

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 (EACH)
122+52	STH 35, RT	4
148+07	STH 35, LT	3
163+62	STH 35, RT	4
167+68	STH 35, RT	4
184+46	STH 35, RT	3
188+25	STH 35, RT	4
208+05	STH 35, RT	3
228+97	STH 35, RT	4
239+55	STH 35, RT	3
243+96	STH 35, RT	3
246+11	STH 35, RT	4
256+17	STH 35, RT	3
279+66	STH 35, RT	4
296+51	STH 35, RT	3
312+72	STH 35, RT	8
-	UNDISTRIBUTED	13
	TOTAL =	70

MARKERS CULVERT END

STATION	LOCATION	633.5200 (EACH)
122+52	STH 35, LT & RT	2
127+95	STH 35, LT & RT	2
163+62	STH 35, LT & RT	2
167+78	STH 35, LT & RT	2
208+05	STH 35, LT & RT	2
228+97	STH 35, LT & RT	2
235+27	STH 35, LT & RT	2
239+55	STH 35, LT & RT	2
269+50	STH 35, LT & RT	2
279+66	STH 35, LT & RT	2
296+51	STH 35, LT & RT	2
309+00	STH 35, LT & RT	2
312+72	STH 35, LT & RT	2
331+24	STH 35, LT & RT	2
339+68	STH 35, RT	1
339+74	STH 35, LT	1
	TOTAL =	30

TRAFFIC CONTROL

PROJECT	643.0100 (EACH)
7180-01-75	1
TOTAL =	1

LOCATING NO PASSING ZONES

STATION - STATION	LOCATION	648.0100 (MI)
34+01 - 365+70	STH 35	6.28
	TOTAL =	6.28

TEMPORARY PAVEMENT MAKRING 4-INCH

STATION - STATION	LOCATION	649.0100 (LF)
34+01 - 365+70	STH 35, (MILLING)	106200
34+01 - 365+70	STH 35, (BINDER)	106200
	TOTAL =	212400

3

3

PROJECT NO: 7180-01-75 | HWY: STH 35 | COUNTY: BUFFALO | MISCELLANEOUS QUANTITIES | SHEET 80 | E

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN X IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
1-01R	33+97	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
1-02	33+97	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
1-03R	41+15	STH 35, RT	D5-63	HISTORICAL MARKER	1/2 MILE		-	-	-	-	-	1	1		
1-04	41+15	STH 35, RT	D5-63	HISTORICAL MARKER	1/2 MILE	60 X 36	15.00	-	-	2	-	-	-		
2-01R	47+28	STH 35, RT	M2-1		JCT		-	-	-	-	-	1	1		
2-02R	47+28	STH 35, RT	M1-5A		I		-	-	-	-	-	-	-		REMOVE WITH 2-01R
2-03	47+28	STH 35, RT	J1-1	M2-1	JCT	24 X 39	6.50	-	-	1	-	-	-		
				M1-5A	I										
2-04R	49+10	STH 35, RT	D7-53R (MOD)		RIECKS LAKE PARK [RIGTH ARROW]		-	-	-	-	-	1	1		
2-05	49+10	STH 35, RT	D7-53R (MOD)		RIECKS LAKE PARK [RIGTH ARROW]	60 X 36	15.00	-	-	2	-	-	-		
2-06R	49+64	STH 35, RT	R1-1	STOP			-	-	-	-	-	1	1		
2-07	49+64	STH 35, RT	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
2-08	49+65	STH 35, RT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-09R	49+95	STH 35, LT	D7-68L (MOD)		RIECKS LAKE PARK [LEFT ARROW]		-	-	-	-	-	1	1		
2-10	49+95	STH 35, LT	D7-68L (MOD)		RIECKS LAKE PARK [LEFT ARROW]	60 X 36	15.00	-	-	2	-	-	-		
2-11R	54+01	STH 35, LT	M3-3		SOUTH		-	-	-	-	-	1	1		
2-12R	54+01	STH 35, LT	M1-96		GREAT RIVER ROAD		-	-	-	-	-	-	-		REMOVIE WITH 2-11R
2-13R	54+01	STH 35, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	-	-		REMOVE WITH 2-11R
2-14	54+01	STH 35, LT	J1-3	M3-3	SOUTH	72 X 36	18.00	-	-	1	1	-	-		
				M1-6	35										
				M1-96	GREAT RIVER ROAD										
				D6-4	AMERICA'S BYWAYS										
2-15R	54+66	STH 35, RT	R1-1	STOP			-	-	-	-	-	1	1		
2-16	54+66	STH 35, RT	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
2-17	54+71	STH 35, RT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-18	54+87	STH 35, LT	-	ONE WAY TRAFFIC ENTER HERE			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-19R	56+04	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
2-20	56+04	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	-	1	-	-		
2-21	56+05	STH 35, LT	-	REICKS LAKE PARK [LEFT ARROW]			-	-	-	-	-	-	-	2-20	MOVE TO NEW POST
2-22R	57+87	STH 35, RT	J13-1	M1-5A	I		-	-	-	-	-	1	1		
				M6-1	[RIGHT ARROW]										
2-24	57+87	STH 35, RT	J13-1	M1-5A	I	24 X 45	7.50	-	-	1	-	-	-		
				M6-1	[RIGHT ARROW]										
2-25R	57+88	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	-	-		REMOVE WITH 2-22R
2-26	57+88	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	-	-	-	-	2-24	
2-27	58+35	STH 35, RT	M1-5A		I		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-28	58+35	STH 35, RT	-	MEMORIAL CEMETERY			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-29R	58+67	STH 35, LT	M1-6		35		-	-	-	-	-	1	1		
2-30	58+89	STH 35, RT (CTH I)	J13-1	M1-6	35	24 X 45	7.50	-	-	1	-	-	-		
				M6-4	[DOUBLE ARROW]										
2-31R	58+67	STH 35, LT	W1-7	TWO DIRECTION LARGE ARROW			-	-	-	-	-	-	-		REMOVE WITH 2-29R
2-32	58+67	STH 35, LT	W1-7	TWO DIRECTION LARGE ARROW		48 X 24	-	8.00	-	-	-	-	-	2-30	
2-33R	58+89	STH 35, RT (CTH I)	R1-1	STOP			-	-	-	-	-	1	1		
2-34	58+89	STH 35, RT (CTH I)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
2-35	58+95	STH 35, RT (CTH I)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-36	59+16	STH 35, LT	-	ONE WAY DO NOT ENTER			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
2-37R	59+35	STH 35, LT	J13-1	M1-5A	I		-	-	-	-	-	1	1		
				M6-1	[LEFT ARROW]										
2-39	59+35	STH 35, LT	J13-1	M1-5A	I	24 X 45	7.50	-	-	1	-	-	-		
				M6-1	[LEFT ARROW]										
3-01R	62+67	STH 35, RT	M3-1		NORTH		-	-	-	-	-	1	1		
3-02R	62+67	STH 35, RT	M1-96		GREAT RIVER ROAD		-	-	-	-	-	-	-		REMOVE WITH 3-01R
3-03R	62+67	STH 35, RT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	-	-		REMOVE WITH 3-01R
3-04	62+67	STH 35, RT	J4-3	M3-1	NORTH	72 X 36	18.00	-	-	-	2	-	-		
				M1-96	GREAT RIVER ROAD										
				D6-4	AMERICA'S BYWAYS										
3-05R	68+44	STH 35, LT	J1-1	M2-1	JCT		-	-	-	-	-	1	1		
				M1-5A	I										
3-06	68+44	STH 35, LT	J1-1	M2-1	JCT	24 X 39	6.50	-	-	1	-	-	-		
				M1-5A	I										
3-07R	71+97	STH 35, RT	S1-1	SCHOOL ZONE			-	-	-	-	-	1	1		
3-08R	71+97	STH 35, RT	WF16-9P	AHEAD			-	-	-	-	-	-	-		REMOVE WITH 3-07R
3-09R	71+97	STH 35, RT	R2-6P	FINES HIGHER			-	-	-	-	-	-	-		REMOVE WITH 3-07R
3-10	71+97	STH 35, RT	S1-1	SCHOOL ZONE		36 X 36	-	6.75	-	1	-	-	-		
						SHEET TOTALS =	132.04	32.75	3	14	4	16	16		

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
3-11	71+97	STH 35, RT	S16-9P	AHEAD		30 X 18	-	3.75	-	-	-	-	-	3-10	
3-12	71+97	STH 35, RT	R2-6P	FINES HIGHER		24 X 18	3.00	-	-	-	-	-	-	3-10	
3-13R	71+97	STH 35, LT	S5-2	END SCHOOL ZONE			-	-	-	-	-	1	1		
3-14	71+97	STH 35, LT	S5-2	END SCHOOL ZONE		24 X 30	5.00	-	1	-	-	-	-		
4-01R	75+14	STH 35, RT	D5-64L	HISTORICAL MARKER [LEFT ARROW]			-	-	-	-	-	1	1		
4-02	75+14	STH 35, RT	D5-64L	HISTORICAL MARKER [LEFT ARROW]		60 X 36	15.00	-	-	2	-	-	-		
4-03R	75+38	STH 35, LT	D7-68 (MOD)	REICKS LAKE PARK 1/2 MILE			-	-	-	-	-	1	1		
4-04	75+38	STH 35, LT	D7-68 (MOD)	REICKS LAKE PARK 1/2 MILE		60 X 36	15.00	-	-	2	-	-	-		
4-05R	75+38	STH 35, LT	M1-88	BINOCULARS			-	-	-	-	-	-	-		REMOVE WITH 4-03R
4-06	75+38	STH 35, LT	M1-88	BINOCULARS		18 X 18	2.25	-	-	-	-	-	-	4-04	
4-07R	78+28	STH 35, LT	D5-64R	HISTORICAL MARKER [RIGHT ARROW]			-	-	-	-	-	1	1		
4-08	78+28	STH 35, LT	D5-64R	HISTORICAL MARKER [RIGHT ARROW]		60 X 36	15.00	-	-	2	-	-	-		
4-09R	78+28	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
4-10	78+28	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
4-11	79+21	STH 35, RT	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
4-12R	79+74	STH 35, RT (HIGH SCHOOL RD)	R1-1	STOP			-	-	-	-	-	1	1		
4-13	79+74	STH 35, RT (HIGH SCHOOL RD)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
4-14R	80+78	STH 35, LT	-	ADOPT-A-HIGWAY			-	-	-	-	-	1	2		
4-15R	80+78	STH 35, LT	-	ALMA LIONS CLUB			-	-	-	-	-	-	-		REMOVE WITH 4-14R
4-16R	80+78	STH 35, LT	-	ADOPT A HIGHWAY SYMBOL			-	-	-	-	-	-	-		REMOVE WITH 4-14R
4-17	80+78	STH 35, LT	I55-56	ADOPT-A-HIGHWAY	ALMA LIONS CLUB	30 X 36	7.50	-	-	1	-	-	-		
5-01	90+08	STH 35, RT	-	LONE PINE ANTIQUES			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-02R	91+76	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
5-03	91+76	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
5-04	91+88	STH 35, RT (HIGH SCHOOL RD)	R2-1	SPEED LIMIT	15		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-05	92+20	STH 35, RT (HIGH SCHOOL RD)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-06	92+55	STH 35, RT (HIGH SCHOOL RD)	R1-1	STOP			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-07	92+92	STH 35, RT (SPRING CREEK RD)	W1-2R	ROAD CURVES AHEAD - RIGHT			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-08	92+92	STH 35, RT (SPRING CREEK RD)	W13-1	ADVISORY SPEED PLATE	25		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-09R	93+04	STH 35, RT (SPRING CREEK RD)	R1-1	STOP			-	-	-	-	-	1	1		
5-10	93+04	STH 35, RT (SPRING CREEK RD)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
5-11	93+05	STH 35, RT (SPRING CREEK RD)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-12	94+82	STH 35, LT	-	LONE PINE ANTIQUES			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
5-13R	102+95	STH 35, RT	S5-2	END SCHOOL ZONE			-	-	-	-	-	1	1		
5-14	102+95	STH 35, RT	S5-2	END SCHOOL ZONE		24 X 30	5.00	-	1	-	-	-	-		
5-15R	102+95	STH 35, LT	S1-1	SCHOOL ZONE			-	-	-	-	-	1	1		
5-16R	102+95	STH 35, LT	WF16-9P	AHEAD			-	-	-	-	-	-	-		REMOVE WITH 5-15R
5-17R	102+95	STH 35, LT	R2-6P	FINES HIGHER			-	-	-	-	-	-	-		REMOVE WITH 5-15R
5-18	102+95	STH 35, LT	S1-1	SCHOOL ZONE		36 X 36	-	6.75	-	1	-	-	-		
5-19	102+95	STH 35, LT	S16-9P	AHEAD		30 X 18	-	3.75	-	-	-	-	-	5-18	
5-20	102+95	STH 35, LT	R2-6P	FINES HIGHER		24 X 18	3.00	-	-	-	-	-	-	5-18	
6-01	105+96	STH 35, RT (HILL VIEW ST)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
			R2-1	SPEED LIMIT	25		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
			-	SLOW CHILDREN PLAYING			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
6-02R	106+45	STH 35, RT (HILL VIEW ST)	R1-1	STOP			-	-	-	-	-	1	1		
6-03	106+45	STH 35, RT (HILL VIEW ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
6-04R	106+70	STH 35, LT	D5-63	HISTORICAL MARKER	1/2 MILE		-	-	-	-	-	1	1		
6-05	106+70	STH 35, LT	D5-63	HISTORICAL MARKER	1/2 MILE	60 X 36	15.00	-	-	-	2	-	-		
6-06	113+18	STH 35, RT (HILL VIEW ST)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
			-	SLOW CHILDREN PLAYING			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
6-07R	113+59	STH 35, RT (HILL VIEW ST)	R1-1	STOP			-	-	-	-	-	1	1		
6-08	113+59	STH 35, RT (HILL VIEW ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
6-09R	113+83	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
6-10	113+83	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
7-01R	125+76	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
7-02	125+76	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
9-01R	153+47	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
9-02	153+47	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
10-01R	166+10	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
10-02	166+10	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
11-01R	185+88	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
11-02	185+88	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
11-03R	190+21	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
11-04	190+21	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
13-01	214+92	STH 35, RT (MIKE VARENICK RD)	W1-5L	ROAD SHARP CURVES			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
						SHEET TOTALS =	106.47	62.25	6	16	2	20	21		

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
13-02	214+92	STH 35, RT (MIKE VARENICK RD)	W13-1	ADVISORY SPEED	15		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
13-03R	215+57	STH 35, RT (MIKE VARENICK RD)	R1-1	STOP			-	-	-	-	-	1	1		
13-04	215+57	STH 35, RT (MIKE VARENICK RD)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
13-05	215+65	STH 35, RT (MIKE VARENICK RD)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
13-06R	215+80	STH 35, RT	I55-56	ADOPT-A-HIGHWAY	SHADOW CLUB U.S.A. CHAPTER 14		-	-	-	-	-	1	1		
13-07	215+80	STH 35, RT	I55-56	ADOPT-A-HIGHWAY	SHADOW CLUB U.S.A. CHAPTER 14	30 X 36	7.50	-	-	1	-	-	-		
13-08R	215+80	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	-	-		REMOVE WITH 13-06R
13-09	215+80	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	-	-	-	-	13-07	
13-10	217+15	STH 35, LT	W5-52L	BRIDGE HASH MARKS - LEFT		12 X 36	-	3.00	1	-	-	-	-		
13-11	217+21	STH 35, RT	W5-52R	BRIDGE HASH MARKS - RIGHT		12 X 36	-	3.00	1	-	-	-	-		
13-12	217+65	STH 35, LT	W5-52R	BRIDGE HASH MARKS - RIGHT		12 X 36	-	3.00	1	-	-	-	-		
13-13	217+77	STH 35, RT	W5-52L	BRIDGE HASH MARKS - LEFT		12 X 36	-	3.00	1	-	-	-	-		
13-14R	220+62	STH 35, LT	R7-1L (MOD)	NO PARKING	ON PAVEMENT - LEFT ARROW		-	-	-	-	-	1	1		
13-15	220+62	STH 35, LT	R7-1L	NO PARKING	ANY TIME - LEFT ARROW	18 X 24	3.00	-	1	-	-	-	-		
13-16R	220+64	STH 35, RT	R7-1R (MOD)	NO PARKING	ON PAVEMENT - RIGHT ARROW		-	-	-	-	-	1	1		
13-17	220+64	STH 35, RT	R7-1R	NO PARKING	ANY TIME - RIGHT ARROW	18 X 24	3.00	-	1	-	-	-	-		
13-18R	221+73	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
13-19	221+73	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
13-20R	224+66	STH 35, LT	R7-1D (MOD)	NO PARKING	ON PAVEMENT - DOUBLE ARROW		-	-	-	-	-	1	1		
13-21	224+66	STH 35, LT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
13-22R	224+70	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
13-23	224+70	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
14-01R	226+51	STH 35, LT	R7-1L (MOD)	NO PARKING	ON PAVEMENT - LEFT ARROW		-	-	-	-	-	1	1		
14-02	226+51	STH 35, LT	R7-1L	NO PARKING	ANY TIME - LEFT ARROW	18 X 24	3.00	-	1	-	-	-	-		
14-03R	228+48	STH 35, LT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
14-04	228+48	STH 35, LT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
14-05R	228+66	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
14-06	228+66	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
14-07	230+26	STH 35, RT (DEER CREEK RD)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
14-08	230+47	STH 35, RT (DEER CREEK RD)	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
14-09R	230+93	STH 35, RT (DEER CREEK RD)	R1-1	STOP			-	-	-	-	-	1	1		
14-10	230+93	STH 35, RT (DEER CREEK RD)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
14-11	231+10	STH 35, RT (DEER CREEK RD)	R7-1D	NO PARKING	ANY TIME - LEFT ARROW		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
14-12R	232+00	STH 35, LT	R7-1L	NO PARKING	ANY TIME - LEFT ARROW		-	-	-	-	-	1	1		
14-13	232+00	STH 35, LT	R7-1L	NO PARKING	ANY TIME - LEFT ARROW	18 X 24	3.00	-	1	-	-	-	-		
14-14R	232+87	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
14-15	232+87	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
14-16R	236+56	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
14-17	236+56	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
15-01R	240+79	STH 35, RT	R7-1R	NO PARKING	ANY TIME - RIGHT ARROW		-	-	-	-	-	1	1		
15-02	240+79	STH 35, RT	R7-1R	NO PARKING	ANY TIME - RIGHT ARROW	18 X 24	3.00	-	-	1	-	-	-		
15-03R	240+81	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	-		REMOVE WITH 15-01R
15-04	240+81	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	-	-	-	-	15-02	
15-05R	241+10	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
15-06	241+10	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
16-01R	263+85	STH 35, RT	W1-2L	ROAC CURVES AHEAD - LEFT			-	-	-	-	-	1	1		
16-02	263+85	STH 35, RT	W1-2L	ROAD CURVES AHEAD - LEFT		30 X 30	-	6.25	-	1	-	-	-		
16-03R	264+39	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
16-04	264+39	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
16-05R	266+46	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
16-06	266+46	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
18-01R	287+15	STH 35, LT	W1-2R	ROAD CURVES AHEAD - RIGHT			-	-	-	-	-	1	1		
18-02	287+15	STH 35, LT	W1-2R	ROAD CURVES AHEAD - RIGHT		30 X 30	-	6.25	-	1	-	-	-		
19-01R	307+51	STH 35, RT (MARKEY BLUFF RD)	R1-1	STOP			-	-	-	-	-	1	1		
19-02	307+51	STH 35, RT (MARKEY BLUFF RD)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
19-03	307+54	STH 35, RT (MARKEY BLUFF RD)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
20-01R	323+85	STH 35, RT	W3-5	SPEED REDUCTION AHEAD	40		-	-	-	-	-	1	1		
20-02	323+85	STH 35, RT	W3-5	SPEED REDUCTION AHEAD	40	36 X 36	-	9.00	1	-	-	-	-		
20-03	325+90	STH 35, LT	D2-1	DESTINATION/DISTANCE	ALMA 9	48 X 15	5.00	-	1	-	-	-	-		
20-04R	326+25	STH 35, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	1		
20-05R	327+42	STH 35, LT	I55-56	ADOPT-A-HIGHWAY	SHADOW CLUB U.S.A. CHAPTER 14		-	-	-	-	-	1	1		
20-06	327+90	STH 35, LT	I55-56	ADOPT-A-HIGHWAY	SHADOW CLUB U.S.A. CHAPTER 14	30 X 36	7.50	-	-	1	-	-	-		
20-07R	327+47	STH 35, RT	I2-3	COMMUNITY POPULATION SIGN	NELSON, 374		-	-	-	-	-	1	1		
20-08	327+47	STH 35, RT	I2-3	COMMUNITY POPULATION SIGN	NELSON, 374	60 X 24	10.00	-	-	2	-	-	-		
20-09R	329+82	STH 35, RT	R2-1	SPEED LIMIT	40		-	-	-	-	-	1	1		
						SHEET TOTALS =	78.54	69.50	19	11	0	27	26		

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
20-10	329+82	STH 35, RT	R2-1	SPEED LIMIT	40	24 X 30	5.00	-	1	-	-	-	-		
20-11R	329+82	STH 35, RT	R10-64	O ENGINE BRAKING EXCEPT IN EMERGENC			-	-	-	-	-	-	-		REMOVE WITH 20-09R
20-12	329+82	STH 35, RT	R10-64	O ENGINE BRAKING EXCEPT IN EMERGENC		30 X 36	7.50	-	-	1	-	-	-		
20-13R	329+85	STH 35, LT	J4-2	M3-3	SOUTH		-	-	-	-	-	1	1		
				M1-6	35										
				M3-3	SOUTH										
				M1-96	GREAT RIVER ROAD										
20-14	329+90	STH 35, LT	J4-3	M3-3	SOUTH	72 X 36	18.00	-	-	1	1	-	-		
				M1-6	35										
				M1-96	GREAT RIVER ROAD										
				D6-4	AMERICA'S BYWAYS										
20-15R	329+85	STH 35, LT	D2-1	DESTINATION/DISTANCE	ALMA 9		-	-	-	-	-	1	-		REMOVE WITH 20-13R
20-16R	329+86	STH 35, LT	R2-1	SPEED LIMIT	55		-	-	-	-	-	1	1		
20-17	329+90	STH 35, LT	R2-1	SPEED LIMIT	55	24 X 30	5.00	-	1	-	-	-	-		
21-01R	336+01	STH 35, LT (1ST ST)	R1-1	STOP			-	-	-	-	-	1	1		
21-02	336+01	STH 35, LT (1ST ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
21-03R	336+43	STH 35, RT (1ST ST)	R1-1	STOP			-	-	-	-	-	1	1		
21-04	336+43	STH 35, RT (1ST ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
21-05	336+45	STH 35, RT (1ST ST)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
21-06R	337+75	STH 35, LT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
21-07	337+75	STH 35, LT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
21-08R	337+75	STH 35, RT	R2-1	SPEED LIMIT	40		-	-	-	-	-	1	1		
21-09	337+75	STH 35, RT	R2-1	SPEED LIMIT	40	24 X 30	5.00	-	1	-	-	-	-		
21-10R	339+78	STH 35, LT (2ND ST)	R1-1	STOP			-	-	-	-	-	1	1		
21-11	339+78	STH 35, LT (2ND ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
21-12	339+79	STH 35, LT (2ND ST)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
21-13R	341+28	STH 35, RT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
21-14	341+28	STH 35, RT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
21-15R	342+23	STH 35, LT	W14-3	NO PASSING ZONE			-	-	-	-	-	1	1		
21-16	342+23	STH 35, LT	W14-3	NO PASSING ZONE		48 X 36	-	6.00	-	1	-	-	-		
21-17R	343+50	STH 35, LT (3RD ST)	R1-1	STOP			-	-	-	-	-	1	1		
21-18	343+50	STH 35, LT (3RD ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
21-19	343+51	STH 35, LT (3RD ST)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
21-20R	343+91	STH 35, RT (3RD ST)	R1-1	STOP			-	-	-	-	-	1	1		
21-21	343+91	STH 35, RT (3RD ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
22-01	346+48	STH 35, LT	R3-4	NO U TURN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
			-	FIRE DEPT. NO ENTRANCE			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
22-02R	347+05	STH 35, LT (4TH ST)	R1-1	STOP			-	-	-	-	-	1	1		
22-03	347+05	STH 35, LT (4TH ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
22-04	347+06	STH 35, LT (4TH ST)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
22-05R	347+67	STH 35, RT (4TH ST)	R1-1	STOP			-	-	-	-	-	1	1		
22-06	347+67	STH 35, RT (4TH ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
22-07R	348+30	STH 35, LT	R2-1	SPEED LIMIT	40		-	-	-	-	-	1	1		
22-08	348+30	STH 35, LT	R2-1	SPEED LIMIT	40	24 X 30	5.00	-	1	-	-	-	-		
22-09R	348+30	STH 35, RT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
22-10	348+30	STH 35, RT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
22-11	351+35	STH 35, RT	-	CASTLEBERG PARK			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
22-12	351+64	STH 35, LT	-	CASTLEBERG PARK			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
22-13R	354+77	STH 35, RT	W11-2	PEDESTRIAN CROSSING			-	-	-	-	-	1	1		
22-14	354+77	STH 35, RT	W11-2	PEDESTRIAN CROSSING		30 X 30	-	6.25	-	1	-	-	-		
22-15R	354+77	STH 35, RT	W16-9P	AHEAD			-	-	-	-	-	-	-		REMOVE WITH 22-13R
22-16	354+77	STH 35, RT	W16-9P	AHEAD		24 X 12	-	2.00	-	-	-	-	-	22-14	
22-17R	355+86	STH 35, RT	R7-1L	NO PARKING	ANY TIME - LEFT ARROW		-	-	-	-	-	1	1		
22-18	355+86	STH 35, RT	R7-1L	NO PARKING	ANY TIME - LEFT ARROW	18 X 24	3.00	-	1	-	-	-	-		
22-19R	357+75	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
22-20	357+75	STH 35, RT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
22-21R	357+97	STH 35, RT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
22-22	357+97	STH 35, RT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
22-23R	358+52	STH 35, LT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
22-24	358+52	STH 35, LT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
22-25R	358+73	STH 35, RT	R7-1R	NO PARKING	ANY TIME - RIGHT ARROW		-	-	-	-	-	1	1		
22-26	358+73	STH 35, RT	R7-1R	NO PARKING	ANY TIME - RIGHT ARROW	18 X 24	3.00	-	1	-	-	-	-		
22-27R	359+14	STH 35, RT	M2-1		JCT		-	-	-	-	-	1	1		
22-28R	359+14	STH 35, RT	M1-6		25		-	-	-	-	-	-	-		REMOVE WITH 22-27R
						SHEET TOTALS =	110.76	20.25	18	5	1	23	22		

PERMANENT SIGNING - CONTINUED

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (IN)	SIGNS TYPE II REFLECTIVE 637.2210 H (SF)	SIGNS TYPE II REFLECTIVE 637.2230 F (SF)	POSTS WOOD 4X6-INCH 634.0614 14-FT (EACH)	POSTS WOOD 4X6-INCH 634.0616 16-FT (EACH)	POSTS WOOD 4X6-INCH 634.0618 18-FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	SIGN MOUNTED ON SAME POST AS	REMARKS
22-29	359+14	STH 35, RT	J1-1	M2-1	JCT	24 X 39	6.50	-	-	1	-	-	-		
				M1-6	25										
22-30R	359+55	STH 35, LT	W11-2	PEDESTRIAN CROSSING			-	-	-	-	-	1	1		
22-31	359+55	STH 35, LT	W11-2	PEDESTRIAN CROSSING		30 X 30	-	6.25	-	1	-	-	-		
22-32R	359+55	STH 35, LT	W16-9P	AHEAD			-	-	-	-	-	-	-		REMOVE WITH 22-30R
22-33	359+55	STH 35, LT	W16-9P	AHEAD		24 X 12	-	2.00	-	-	-	-	-	22-31	
23-01R	361+48	STH 35, RT	-	POST OFFICE			-	-	-	-	-	1	1		
23-02R	362+10	STH 35, RT	W3-1	STOP AHEAD			-	-	-	-	-	1	1		
23-03	362+10	STH 35, RT	W3-1	STOP AHEAD		36 X 36	-	9.00	-	1	-	-	-		
23-04R	362+48	STH 35, LT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
23-05	362+48	STH 35, LT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
23-06	363+15	STH 35, RT (LINCOLN ST)	-	WATCH FOR CHILDREN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
23-07	363+26	STH 35, RT (LINCOLN ST)	R2-1	SPEED LIMIT	20		-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
23-08R	363+34	STH 35, LT	D6-4		AMERICA'S BYWAYS		-	-	-	-	-	1	1		
23-09R	363+34	STH 35, LT	J4-2	M3-3	SOUTH		-	-	-	-	-	-	-		REMOVE WITH 23-08R
				M1-6	35										
				M3-3	SOUTH										
				M1-96	GREAT RIVER ROAD										
23-10	363+34	STH 35, LT	J4-3	M3-3	SOUTH	72 X 36	18.00	-	-	2	-	-	-		
				M1-6	35										
				M1-96	GREAT RIVER ROAD										
				D6-4	AMERICA'S BYWAYS										
23-11R	363+46	STH 35, RT (LINCOLN ST)	R1-1	STOP			-	-	-	-	-	1	1		
23-12	363+46	STH 35, RT (LINCOLN ST)	R1-1	STOP		30 X 30	5.18	-	1	-	-	-	-		
23-13	363+48	STH 35, RT (LINCOLN ST)	-	STREET SIGN			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
23-14R	363+83	STH 35, RT	D1-2	TWO DESTINATIONS (ARROWS)	[LEFT ARROW] WABASHA DURAND, PEPIN [RIGHT ARROW]		-	-	-	-	-	1	1		
23-15	363+83	STH 35, RT	D1-2	TWO DESTINATIONS (ARROWS)	[LEFT ARROW] WABASHA DURAND, PEPIN [RIGHT ARROW]	42 X 30	8.75	-	1	-	-	-	-		
23-16R	363+85	STH 35, LT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW		-	-	-	-	-	1	1		
23-17	363+85	STH 35, LT	R7-1D	NO PARKING	ANY TIME - DOUBLE ARROW	18 X 24	3.00	-	1	-	-	-	-		
23-18	364+01	STH 35, LT (ALLEY)	R1-1	STOP			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
23-19	364+50	STH 35, RT (ALLEY)	R1-1	STOP			-	-	-	-	-	-	-		EXISTING SIGN TO REMAIN
23-20R	364+58	STH 35, LT	R2-1	SPEED LIMIT	30		-	-	-	-	-	1	1		
23-21	364+58	STH 35, LT	R2-1	SPEED LIMIT	30	24 X 30	5.00	-	1	-	-	-	-		
23-22R	365+42	STH 35, RT	J2-2	M3-3	SOUTH		-	-	-	-	-	1	1		
				M1-6	25										
				M6-1	[LEFT ARROW]										
				M3-1	NORTH										
				M1-6	25										
				M6-1	[RIGHT ARROW]										
23-23	365+42	STH 35, RT	J2-2	M3-3	SOUTH	48 X 57	19.00	-	-	-	1	-	-		
				M1-6	25										
				M6-1	[LEFT ARROW]										
				M3-1	NORTH										
				M1-6	25										
				M6-1	[RIGHT ARROW]										
23-24R	365+42	STH 35, RT	R1-1	STOP			-	-	-	-	-	1	-		REMOVE WITH 23-22R
23-25	365+42	STH 35, RT	R1-1	STOP		36 X 36	7.46	-	-	-	-	-	-	23-23	
						SHEET TOTALS =	75.89	17.25	5	5	1	11	10		
						PROJECT TOTALS =	503.70	202.00	51	51	8	97	95		

NOTE: NUMBER AND LOCATION OF NO PASSING ZONE SIGNS (W14-3) ARE APPROXIMATE.
ACTUAL NUMBER AND LOCATION WILL BE DETERMINED AFTER THE ROADWAY HAS BEEN SPOTTED.

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

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PAVEMENT MARKING

STATION - STATION	LOCATION	646.0106 EPOXY 4-INCH SOLID WHITE (LF)	646.0106 EPOXY 4-INCH DASHED WHITE (LF)	646.0106 EPOXY 4-INCH DOTTED WHITE (LF)	646.0406 SAME DAY EPOXY 4-INCH SOLID YELLOW (LF)	646.0406 SAME DAY EPOXY 4-INCH DASHED YELLOW (LF)	646.0126 EPOXY 8-INCH SOLID WHITE (LF)	647.0166 ARROWS EPOXY TYPE 2 WHITE (LF)	647.0356 WORDS EPOXY WHITE (LF)	647.0566 STOP LINE EPOXY 18-INCH WHITE (LF)	647.0776 CROSSWALK EPOXY 12-INCH WHITE (LF)
34+01 - 42+16	STH 35, C/L	-	-	-	1606	400	-	-	-	-	-
34+01 - 339+68	STH 35, LT	30204	-	-	-	-	-	-	-	-	-
34+01 - 56+64	STH 35, RT	2268	-	-	-	-	-	-	-	-	-
42+16 - 44+77	STH 35, C/L	-	-	-	1044	-	-	-	-	-	-
44+77 - 56+15	STH 35, C/L	-	-	-	1817	462.5	-	-	-	-	-
56+15 - 57+79	STH 35, C/L	-	-	-	328	-	-	-	-	-	-
56+64 - 57+84	STH 35, RT	-	-	30	-	-	-	-	-	-	-
58+15 - 67+36	STH 35, C/L	-	-	-	1597	400	-	-	-	-	-
59+08 - 79+07	STH 35, RT	1996	-	-	-	-	-	-	-	-	-
67+36 - 67+55	STH 35, C/L	-	-	-	76	-	-	-	-	-	-
67+97 - 78+25	STH 35, C/L	-	-	-	1976	500	-	-	-	-	-
77+97 - 79+07	STH 35, RT	-	-	-	-	-	110	-	-	-	-
78+25 - 91+84	STH 35, C/L	-	-	-	-	575	-	-	-	-	-
79+82 - 90+83	STH 35, RT	1104	-	-	-	-	-	-	-	-	-
90+83 - 92+03	STH 35, RT	-	-	30	-	-	-	-	-	-	-
91+33 - 93+83	STH 35, LT	-	63	-	-	-	-	-	-	-	-
91+84 - 93+21	STH 35, C/L	-	-	-	137	37.5	-	-	-	-	-
93+21 - 103+61	STH 35, C/L	-	-	-	4050	-	-	-	-	-	-
93+33 - 104+65	STH 35, RT	1133	-	-	-	-	-	-	-	-	-
103+80 - 113+64	STH 35, C/L	-	-	-	1294	325	-	-	-	-	-
104+65 - 105+85	STH 35, RT	-	-	30	-	-	-	-	-	-	-
106+47 - 111+85	STH 35, RT	538	-	-	-	-	-	-	-	-	-
111+85 - 113+05	STH 35, RT	-	-	30	-	-	-	-	-	-	-
113+67 - 213+48	STH 35, RT	9979	-	-	-	-	-	-	-	-	-
113+64 - 125+65	STH 35, C/L	-	-	-	-	600	-	-	-	-	-
125+65 - 135+77	STH 35, C/L	-	-	-	2014	500	-	-	-	-	-
135+77 - 143+07	STH 35, C/L	-	-	-	2936	-	-	-	-	-	-
143+07 - 153+47	STH 35, C/L	-	-	-	2082	525	-	-	-	-	-
153+47 - 166+24	STH 35, C/L	-	-	-	-	650	-	-	-	-	-
166+24 - 175+81	STH 35, C/L	-	-	-	1914	475	-	-	-	-	-
175+81 - 185+88	STH 35, C/L	-	-	-	2014	500	-	-	-	-	-
185+88 - 190+03	STH 35, C/L	-	-	-	-	200	-	-	-	-	-
190+03 - 201+00	STH 35, C/L	-	-	-	2194	550	-	-	-	-	-
201+00 - 205+96	STH 35, C/L	-	-	-	1984	-	-	-	-	-	-
205+96 - 215+90	STH 35, C/L	-	-	-	1723	450	-	-	-	-	-
213+48 - 214+68	STH 35, RT	-	-	30	-	-	-	-	-	-	-
215+79 - 228+60	STH 35, RT	1283	-	-	-	-	-	-	-	-	-
215+96 - 221+86	STH 35, C/L	-	-	-	-	250	-	-	-	-	-
221+86 - 231+01	STH 35, C/L	-	-	-	1594	387.5	-	-	-	-	-
228+60 - 230+10	STH 35, RT	-	-	38	-	-	-	-	-	-	-
231+01 - 240+26	STH 35, C/L	-	-	-	1485	375	-	-	-	-	-
231+17 - 305+37	STH 35, RT	7417	-	-	-	-	-	-	-	-	-
240+26 - 250+78	STH 35, C/L	-	-	-	2104	525	-	-	-	-	-
250+78 - 258+37	STH 35, C/L	-	-	-	3036	-	-	-	-	-	-
258+37 - 265+75	STH 35, C/L	-	-	-	1476	375	-	-	-	-	-
265+75 - 266+40	STH 35, C/L	-	-	-	260	-	-	-	-	-	-
266+40 - 274+57	STH 35, C/L	-	-	-	1634	400	-	-	-	-	-
274+57 - 333+29	STH 35, C/L	-	-	-	22028	-	-	-	-	-	-
305+37 - 306+72	STH 35, RT	-	-	34	-	-	-	-	-	-	-
307+66 - 336+03	STH 35, RT	2841	-	-	-	-	-	-	-	-	-
333+29 - 341+28	STH 35, C/L	-	-	-	799	200	-	-	-	-	-
336+27 - 339+68	STH 35, LT	340	-	-	-	-	-	-	-	-	-
336+48 - 343+40	STH 35, RT	692	-	-	-	-	-	-	-	-	-
340+38 - 343+35	STH 35, LT	298	-	-	-	-	-	-	-	-	-
341+88 - 347+56	STH 35, C/L	-	-	-	568	137.5	-	-	-	-	-
	SUBTOTALS =	60093	63	222	65770	9800	110	0	0	0	0

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

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PAVEMENT MARKING

STATION - STATION	LOCATION	646.0106 EPOXY 4-INCH SOLID WHITE (LF)	646.0106 EPOXY 4-INCH DASHED WHITE (LF)	646.0106 EPOXY 4-INCH DOTTED WHITE (LF)	646.0406 SAME DAY EPOXY 4-INCH SOLID YELLOW (LF)	646.0406 SAME DAY EPOXY 4-INCH DASHED YELLOW (LF)	646.0126 EPOXY 8-INCH SOLID WHITE (LF)	647.0166 ARROWS EPOXY TYPE 2 WHITE (LF)	647.0356 WORDS EPOXY WHITE (LF)	647.0566 STOP LINE EPOXY 18-INCH WHITE (LF)	647.0776 CROSSWALK EPOXY 12-INCH WHITE (LF)
344+03 - 347+10	STH 35, RT	307	-	-	-	-	-	-	-	-	-
344+05 - 346+95	STH 35, LT	290	-	-	-	-	-	-	-	-	-
347+56 - 365+46	STH 35, C/L	-	-	-	3580	-	-	-	-	-	-
347+82 - 350+92	STH 35, RT	310	-	-	-	-	-	-	-	-	-
363+46 - 365+46	STH 35, RT	-	-	-	-	-	200	-	-	-	-
363+61	STH 35	-	-	-	-	-	-	2	-	-	-
364+37	STH 35	-	-	-	-	-	-	-	2	-	-
365+22	STH 35	-	-	-	-	-	-	2	-	-	-
365+46	STH 35	-	-	-	-	-	-	-	-	27	-
365+51	STH 35	-	-	-	-	-	-	-	-	-	-
365+54	STH 35	-	-	-	-	-	-	-	-	-	126
365+57	STH 35	-	-	-	-	-	-	-	-	-	-
	SUBTOTALS =	907	0	0	3580	0	200	4	2	27	126
	TOTALS =		61285			79150	310	4	2	27	126

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4000 STORM SEWER SYSTEM (EACH)	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	650.5500 CURB GUTTER AND CURB & GUTTER (LF)	650.8000 RESURFACING REFERENCE (LF)	650.9910 SUPPLEMENTAL CONTROL (LS)
34+01 - 365+70	STH 35	-	-	-	-	33170	1
58+87.04 - 59+05.05	STH 35, RT	-	-	-	20	-	-
60+68.73 - 60+88.73	STH 35, RT	-	-	-	20	-	-
62+89.08 - 63+09.08	STH 35, RT	-	-	-	20	-	-
65+48.57 - 65+68.57	STH 35, RT	-	-	-	20	-	-
62+99.08	STH 35, RT	1	-	-	-	-	-
73+58.52 - 73+88.52	STH 35, RT	-	-	-	30	-	-
77+88.83 - 78+08.83	STH 35, RT	-	-	-	20	-	-
80+87.81 - 81+07.81	STH 35, RT	-	-	-	20	-	-
80+97.81	STH 35, RT	1	-	-	-	-	-
84+05.50 - 84+25.50	STH 35, RT	-	-	-	20	-	-
84+15.50	STH 35, RT	1	-	-	-	-	-
87+13.25 - 87+33.25	STH 35, RT	-	-	-	20	-	-
87+23.25	STH 35, RT	1	-	-	-	-	-
89+88.43 - 90+08.43	STH 35, RT	-	-	-	20	-	-
93+47.00 - 93+72.00	STH 35, RT	-	-	-	25	-	-
94+80.54 - 95+00.54	STH 35, RT	-	-	-	20	-	-
94+90.54	STH 35, RT	1	-	-	-	-	-
95+38.49 - 95+58.49	STH 35, RT	-	-	-	20	-	-
97+18.00 - 97+58.50	STH 35, RT	-	-	-	41	-	-
97+48.50	STH 35, RT	1	-	-	-	-	-
101+38.37 - 101+58.37	STH 35, RT	-	-	-	20	-	-
101+48.37	STH 35, RT	1	-	-	-	-	-
105+38.79 - 105+58.79	STH 35, RT	-	-	-	20	-	-
105+48.79	STH 35, RT	1	-	-	-	-	-
106+35.25 - 106+38.03	STH 35, RT	-	-	-	20	-	-
106+34.44	STH 35, RT	1	-	-	-	-	-
109+14.21 - 109+34.21	STH 35, RT	-	-	-	20	-	-
111+63.18 - 111+83.18	STH 35, RT	-	-	-	20	-	-
163+05 - 164+20	STH 35	-	115	115	-	-	-
188+18.12 - 188+38.12	STH 35, RT	-	-	-	20	-	-
269+40.03 - 269+60.03	STH 35, RT	-	-	-	20	-	-
	TOTALS =	9	115	115	456	33170	1

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

SAWING ASPHALT & CONCRETE

STATION	LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
34+01	STH 35	44	-
49+48	STH 35, RT (C.E.)	32	-
54+62	STH 35, LT (C.E.)	38	-
54+53	STH 35, RT (C.E.)	24	-
58+60	STH 35, RT (CTH I)	31	-
58+87.04 - 59+05.05	STH 35, RT	24	-
58+87.04	STH 35, RT	-	3
59+05.05	STH 35, RT	-	3
59+00	STH 35, LT (C.E.)	22	-
60+71	STH 35, LT (P.E.)	19	-
60+68.73 - 60+88.73	STH 35, RT	24	-
60+68.73	STH 35, RT	-	3
60+88.73	STH 35, RT	-	3
61+37	STH 35, LT (P.E.)	12	-
62+20	STH 35, LT (P.E.)	24	-
62+89.08 - 63+09.08	STH 35, RT	24	-
62+89.08	STH 35, RT	-	3
63+09.08	STH 35, RT	-	3
65+08	STH 35, LT (P.E.)	16	-
65+48.57 - 65+68.57	STH 35, RT	24	-
65+48.57	STH 35, RT	-	3
65+68.57	STH 35, RT	-	3
68+97	STH 35, LT (C.E.)	24	-
73+58.52 - 73+88.52	STH 35, RT	34	-
73+58.52	STH 35, RT	-	3
73+88.52	STH 35, RT	-	3
77+88.83 - 78+08.83	STH 35, RT	24	-
77+88.83	STH 35, RT	-	3
78+08.83	STH 35, RT	-	3
79+48	STH 35, RT (HIGH SCHOOL RD)	29	-
80+87.81 - 81+07.81	STH 35, RT	24	-
80+87.81	STH 35, RT	-	3
81+07.81	STH 35, RT	-	3
84+05.50 - 84+25.50	STH 35, RT	24	-
84+05.50	STH 35, RT	-	3
84+25.50	STH 35, RT	-	3
87+13.25 - 87+33.25	STH 35, RT	24	-
87+13.25	STH 35, RT	-	3
87+33.25	STH 35, RT	-	3
89+88.43 - 90+08.43	STH 35, RT	24	-
89+88.43	STH 35, RT	-	3
90+08.43	STH 35, RT	-	3
92+53	STH 35, RT (SPRING CREEK RD)	31	-
93+47.00 - 93+72.00	STH 35, RT	29	-
93+47	STH 35, RT	-	3
93+72	STH 35, RT	-	3
94+80.54 - 95+00.54	STH 35, RT	24	-
94+80.54	STH 35, RT	-	3
95+00.54	STH 35, RT	-	3
95+38.49 - 95+58.49	STH 35, RT	24	-
95+38.49	STH 35, RT	-	3
95+58.43	STH 35, RT	-	3
97+18.00 - 97+58.50	STH 35, RT	45	-
	SUBTOTALS =	718	78

STATION	LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
97+18	STH 35, RT	-	3
97+43	STH 35, RT	-	3
101+38.37 - 101+58.37	STH 35, RT	24	-
101+38.37	STH 35, RT	-	3
101+58.37	STH 35, RT	-	3
105+38.79 - 105+58.79	STH 35, RT	24	-
105+38.79	STH 35, RT	-	3
105+58.79	STH 35, RT	-	3
106+18	STH 35, RT (HILL VIEW ST)	36	-
106+35.25 - 106+38.03	STH 35, RT	24	-
106+35.25	STH 35, RT	-	3
106+38.03	STH 35, RT	-	3
109+14.21 - 109+34.21	STH 35, RT	24	-
109+14.21	STH 35, RT	-	3
109+34.21	STH 35, RT	-	3
111+63.18 - 111+83.18	STH 35, RT	24	-
111+63.18	STH 35, RT	-	3
111+83.18	STH 35, RT	-	3
113+29	STH 35, RT (HILL VIEW ST)	42	-
163+05	STH 35	30	-
164+20	STH 35	30	-
188+18.12 - 188+38.12	STH 35, RT	24	-
188+38.12	STH 35, RT	-	3
215+25	STH 35, RT (MIKE VARENICK RD)	27	-
229+41	STH 35, LT (P.E.)	13	-
230+68	STH 35, RT (DEER CREEK RD)	34	-
234+73	STH 35, LT (P.E.)	24	-
237+05	STH 35, LT (P.E.)	14	-
239+25	STH 35, RT (P.E.)	26	-
243+96	STH 35, RT (P.E.)	17	-
269+40.03 - 269+60.03	STH 35, RT	20	-
269+40.03	STH 35, RT	-	3
307+22	STH 35, RT (MARKE BLUFF RD)	33	-
311+38	STH 35, LT (P.E.)	12	-
314+13	STH 35, RT (C.E.)	28	-
316+25	STH 35, RT (C.E.)	21	-
331+90	STH 35, RT (P.E.)	24	-
336+18	STH 35, LT (1ST ST)	12	-
336+27	STH 35, RT (1ST ST)	20	-
337+50	STH 35, LT (P.E.)	22	-
338+07	STH 35, LT (P.E.)	13	-
338+17	STH 35, RT (P.E.)	28	-
340+01	STH 35, LT (2ND ST)	21	-
342+55	STH 35, LT (P.E.)	11	-
343+68	STH 35, LT (3RD ST)	25	-
343+68	STH 35, RT (3RD ST)	21	-
344+60	STH 35, RT (P.E.)	11	-
345+06	STH 35, LT (P.E.)	20	-
347+51	STH 35, RT (4TH ST)	21	-
363+25	STH 35, RT (LINCOLN ST)	32	-
	SUBTOTALS =	832	42
	TOTALS =	1550	120

FILL SLOPE GRADING SHAPING FINISHING

STATION - STATION	LOCATION	SPV.0060.04 FILL SLOPE GRADING SHAPING FINISHING (EACH)	FOR INFORMATION ONLY: EXCAVATION COMMON (CY)	UNEXPANDED FILL (CY)	EXPANDED FILL (25%) (CY)	WASTE (CY)	BORROW (CY)	TOPSOIL (SY)	MULCHING (SY)	FERTILIZER TYPE B (CWT)	SEEDING MIXTURE NO. 20 (LB)	CONSTRUCTION STAKING SLOPE STAKES (LF)
311+60 - 312+90	STH 35, LT	1	0	320	400	0	400	500	500	0.3	15	130

NOTE: ALL ITEMS ARE IN CATEGORY 0010 UNLESS NOTED OTHERWISE.

CLEANING PIPE INVERTS

STATION	LOCATION	SPV.00600.02 (EACH)
70+47	STH 35, LT	1
78+24	STH 35, LT	1
81+03	STH 35, LT	1
122+52	STH 35, LT & RT	2
193+42	STH 35, LT	1
208+05	STH 35, LT & RT	2
228+97	STH 35, RT	1
239+55	STH 35, LT & RT	2
246+11	STH 35, LT & RT	2
256+17	STH 35, LT	1
279+66	STH 35, LT & RT	2
296+51	STH 35, LT	1
331+24	STH 35, LT	1
	TOTAL =	18

CLEANING DITCHES

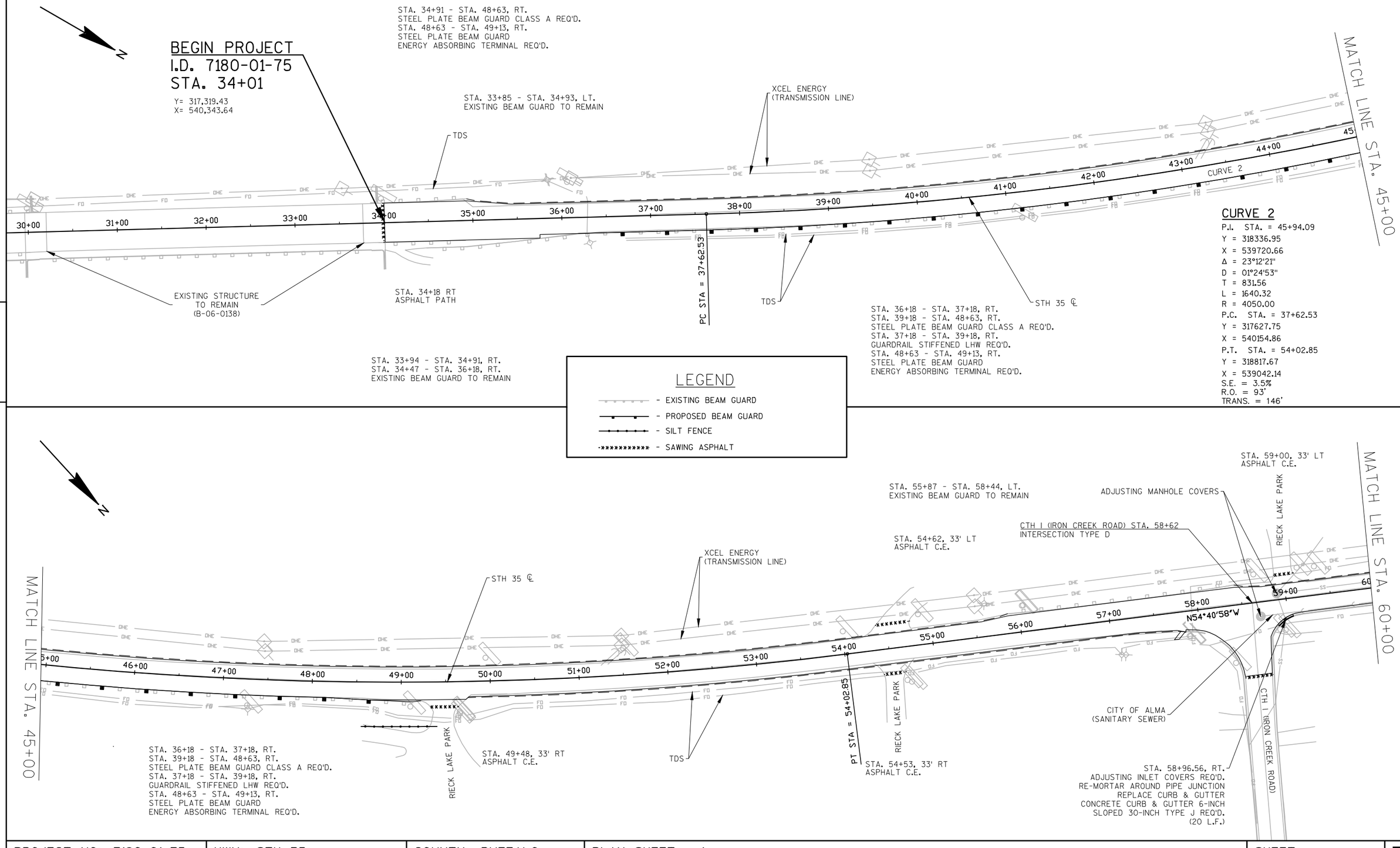
STATION - STATION	LOCATION	SPV.0090.01 (LF)
77+70 - 79+20	STH 35, RT	150
167+68 - 167+88	STH 35, RT	20
184+16 - 184+76	STH 35, RT	60
255+92 - 256+42	STH 35, RT	50
265+64 - 265+94	STH 35, LT	30
	TOTAL =	310

PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL

STATION - STATION	LOCATION	SPV.0105.02 (LS)
34+01 - 365+70	STH 35	1

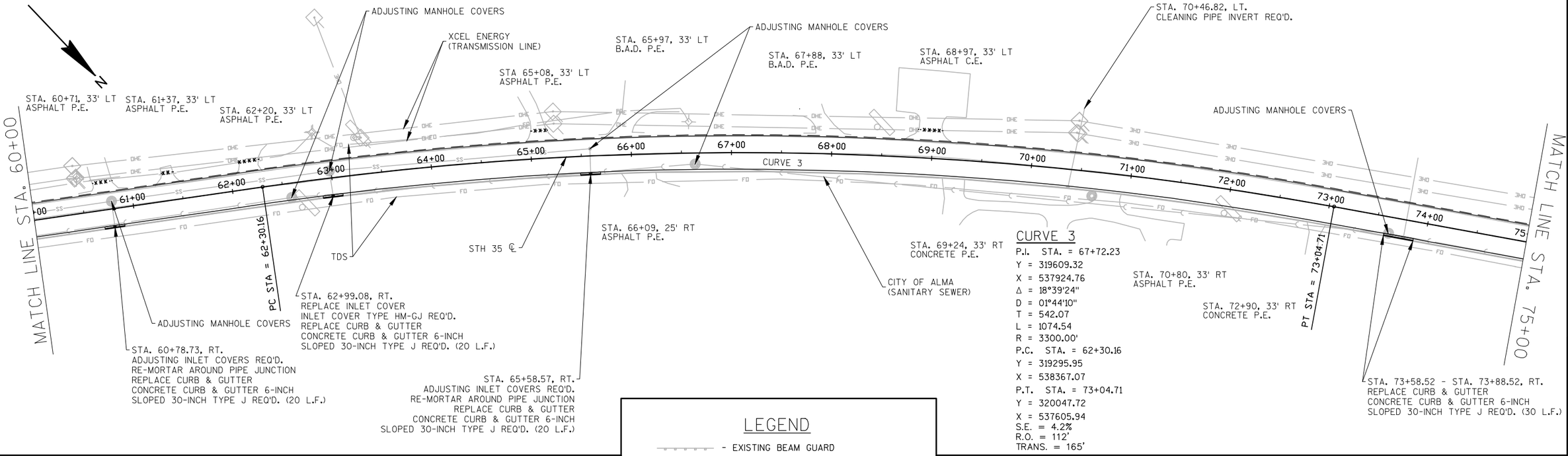
REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL

STATION - STATION	LOCATION	SPV.0170.01 (STA)
34+01 - 365+70	STH 35	331
	TOTAL =	331



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 1	SHEET 89	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 1
PLOT DATE : 8/4/2015
PLOT TIME : 1:09:02 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

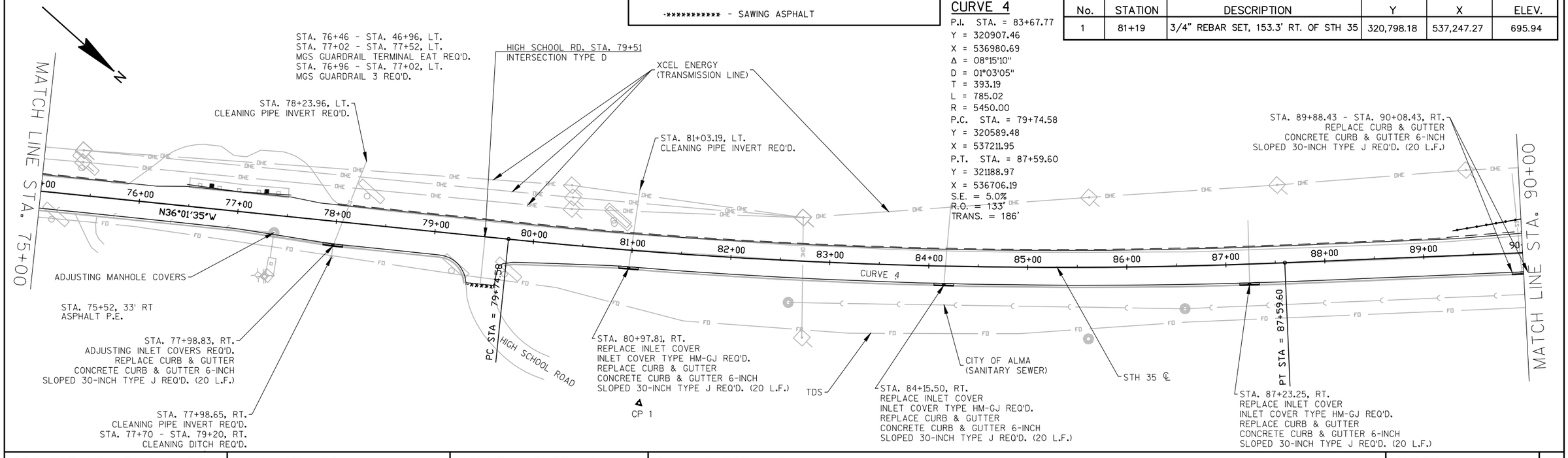


CURVE 3

P.I. STA. = 67+72.23
Y = 319609.32
X = 537924.76
Δ = 18°39'24"
D = 01°44'10"
T = 542.07
L = 1074.54
R = 3300.00'
P.C. STA. = 62+30.16
Y = 319295.95
X = 538367.07
P.T. STA. = 73+04.71
Y = 320047.72
X = 537605.94
S.E. = 4.2%
R.O. = 112'
TRANS. = 165'

LEGEND

- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT



CURVE 4

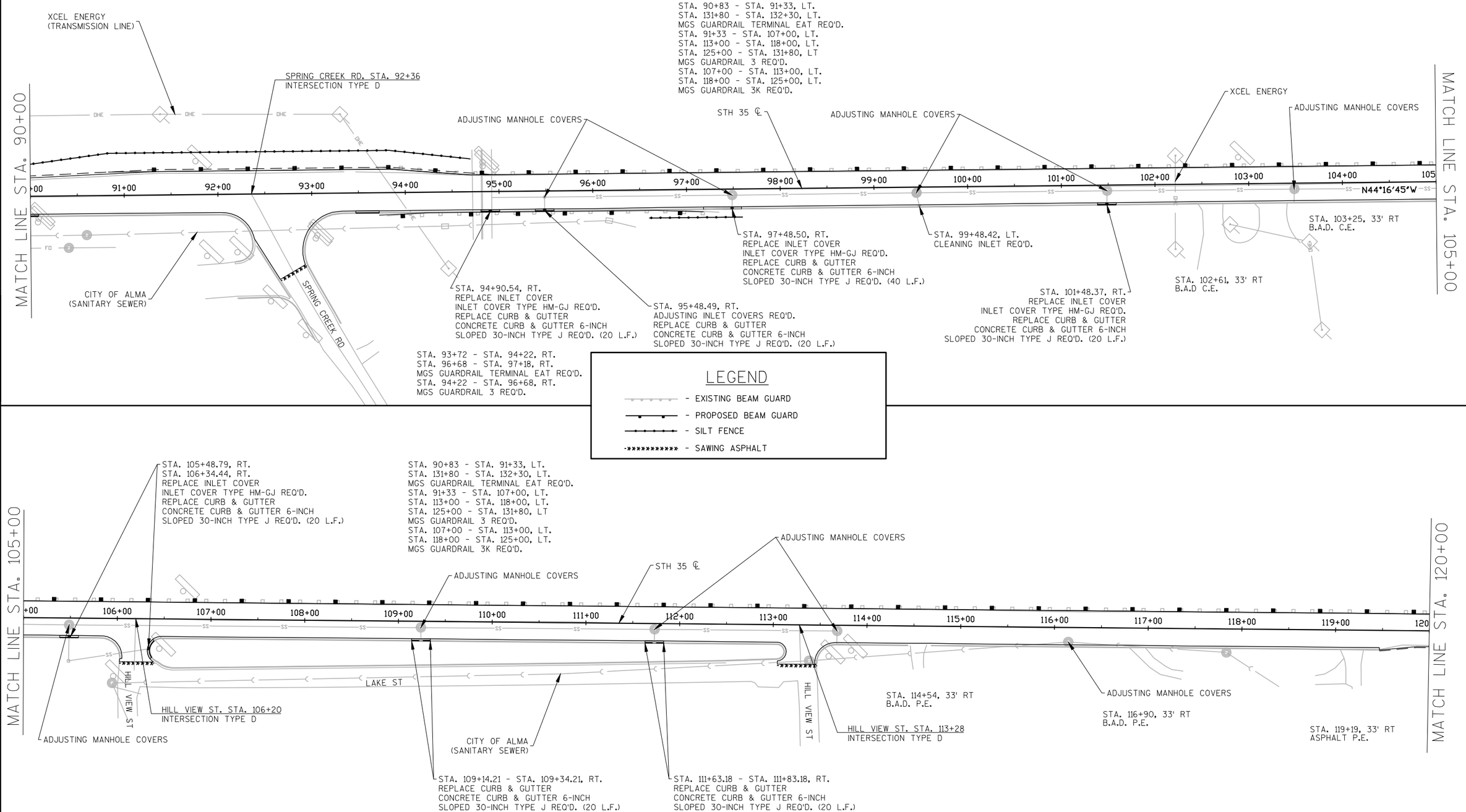
P.I. STA. = 83+67.77
Y = 320907.46
X = 536980.69
Δ = 08°15'10"
D = 01°03'05"
T = 393.19
L = 785.02
R = 5450.00
P.C. STA. = 79+74.58
Y = 320589.48
X = 537211.95
P.T. STA. = 87+59.60
Y = 321188.97
X = 536706.19
S.E. = 5.0%
R.O. = 133'
TRANS. = 186'

▲ CONTROL POINTS

No.	STATION	DESCRIPTION	Y	X	ELEV.
1	81+19	3/4" REBAR SET, 153.3' RT. OF STH 35	320,798.18	537,247.27	695.94

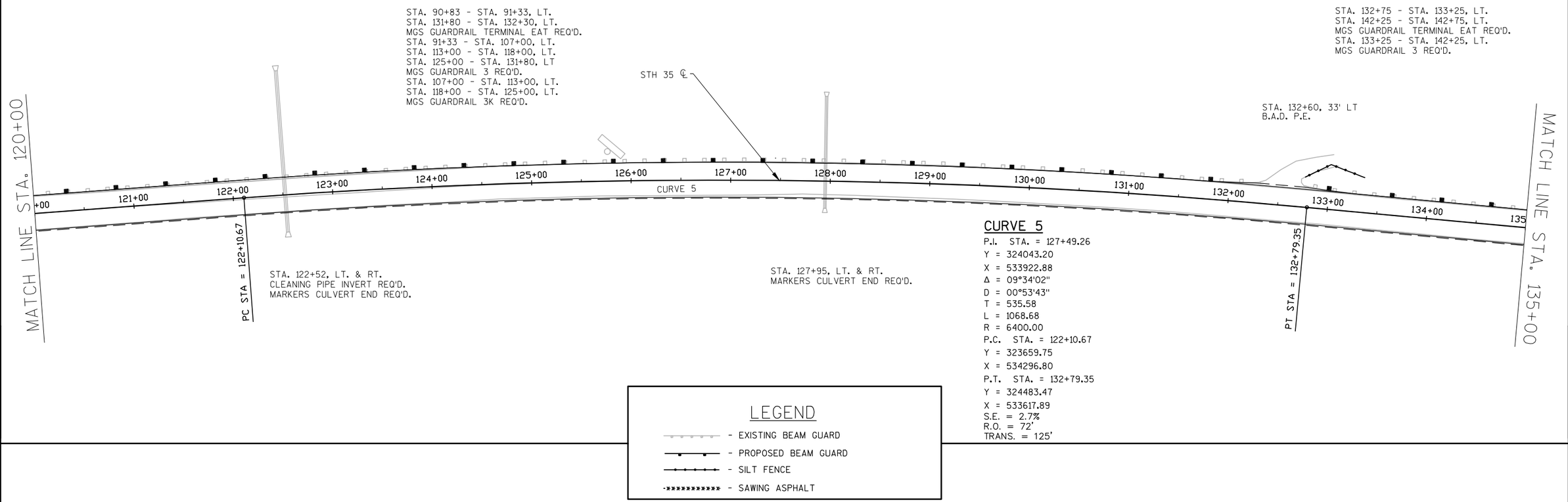
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 2	SHEET 90	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 2
PLOT DATE : 8/4/2015
PLOT TIME : 1:11:03 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 3	SHEET 91	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 3
PLOT DATE : 8/4/2015
PLOT TIME : 1:11:55 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

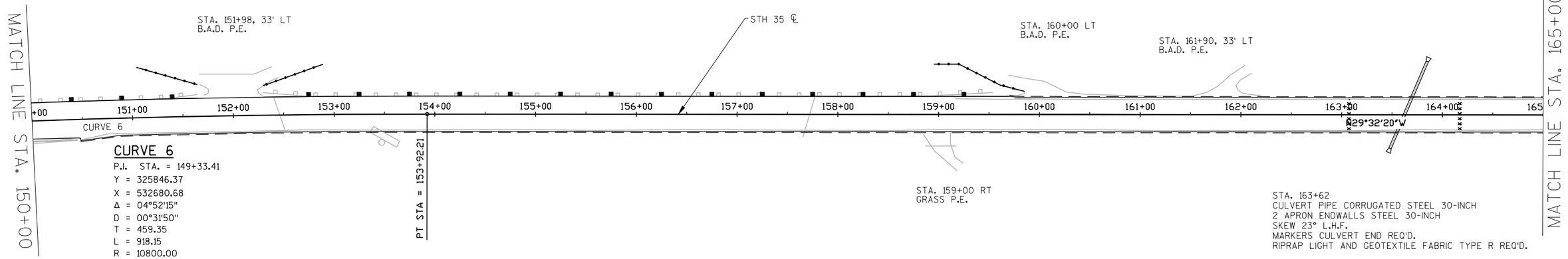


PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 4	SHEET 92	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 4
PLOT DATE : 8/4/2015
PLOT TIME : 1:13:37 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

STA. 143+15 - STA. 143+65, LT.
STA. 151+15 - STA. 151+65, LT.
MGS GUARDRAIL TERMINAL EAT REQ'D.
STA. 143+65 - STA. 144+50, LT.
STA. 150+00 - STA. 151+15, LT.
MGS GUARDRAIL 3 REQ'D.
STA. 144+50 - 150+00, LT.
MGS GUARDRAIL 3K REQ'D.

STA. 152+30 - STA. 152+80, LT.
STA. 159+05 - STA. 159+55, LT.
MGS GUARDRAIL TERMINAL EAT REQ'D.
STA. 152+80 - STA. 159+05, LT.
MGS GUARDRAIL 3 REQ'D.



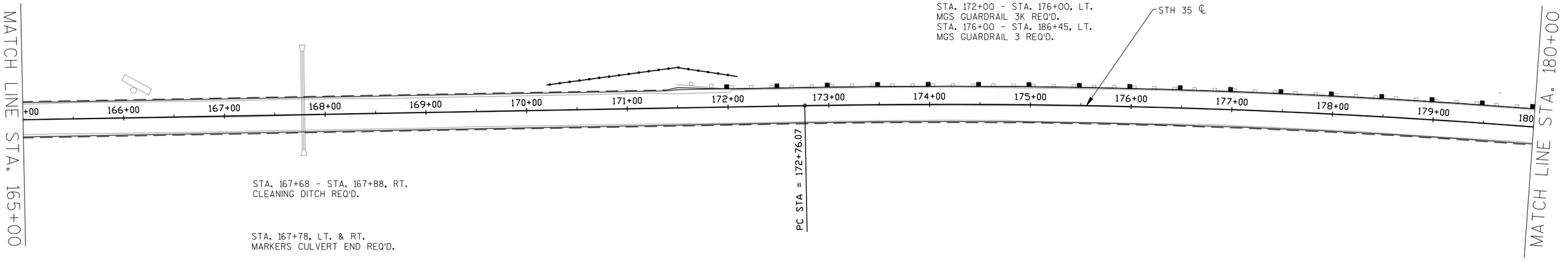
CURVE 6

P.I. STA. = 149+33.41
Y = 325846.37
X = 532680.68
Δ = 04°52'15"
D = 00°31'50"
T = 459.35
L = 918.15
R = 10800.00
P.C. STA. = 144+74.05
Y = 325467.40
X = 532940.27
P.T. STA. = 153+92.21
Y = 326246.02
X = 532454.22
S.E. = 2.6%
R.O. = 69'
TRANS. = 122'

LEGEND

- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT

STA. 171+50 - STA. 172+00, LT.
STA. 186+45 - STA. 186+95, LT.
MGS GUARDRAIL TERMINAL EAT REQ'D.
STA. 172+00 - STA. 176+00, LT.
MGS GUARDRAIL 3K REQ'D.
STA. 176+00 - STA. 186+45, LT.
MGS GUARDRAIL 3 REQ'D.

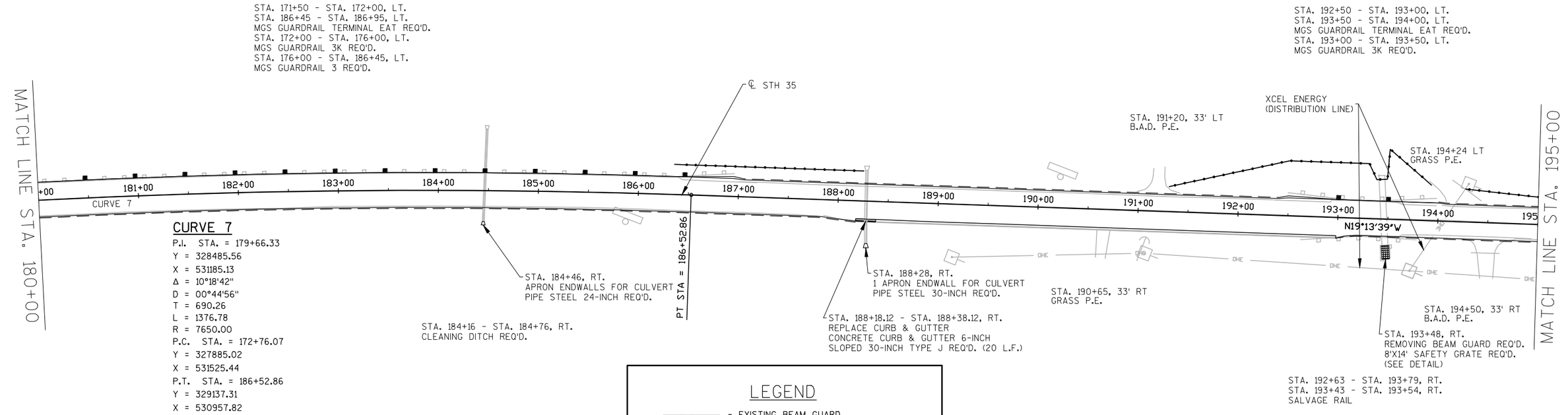


STA. 167+68 - STA. 167+88, RT.
CLEANING DITCH REQ'D.

STA. 167+78, LT. & RT.
MARKERS CULVERT END REQ'D.

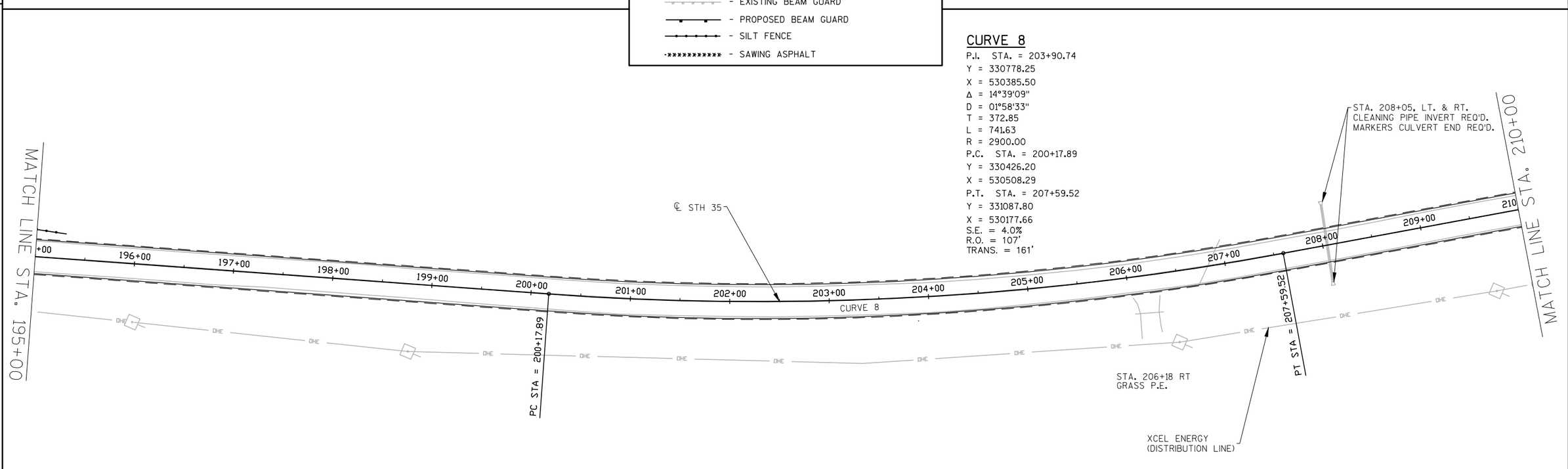
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 5	SHEET 93	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 5
PLOT DATE : 8/4/2015
PLOT TIME : 1:15:48 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

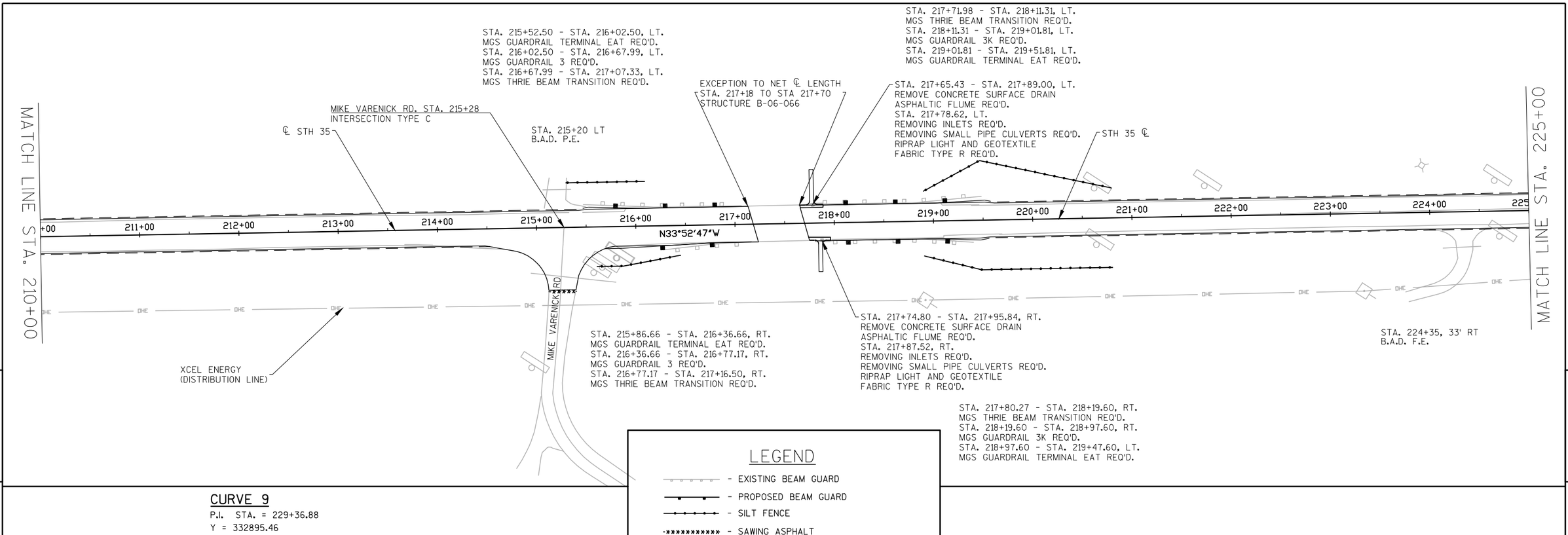


LEGEND

- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT

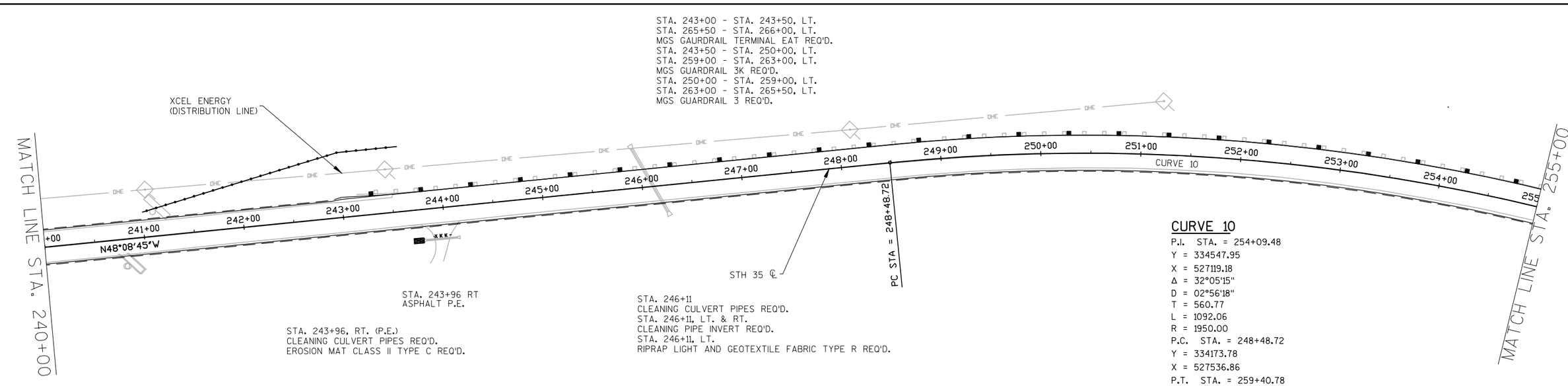


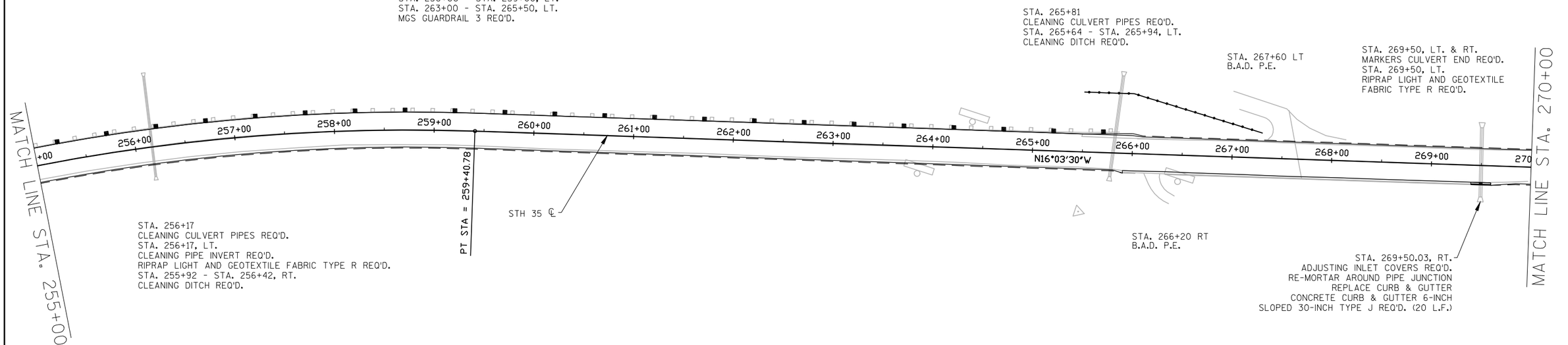
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 6	SHEET 94	E



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 7	SHEET 95	E

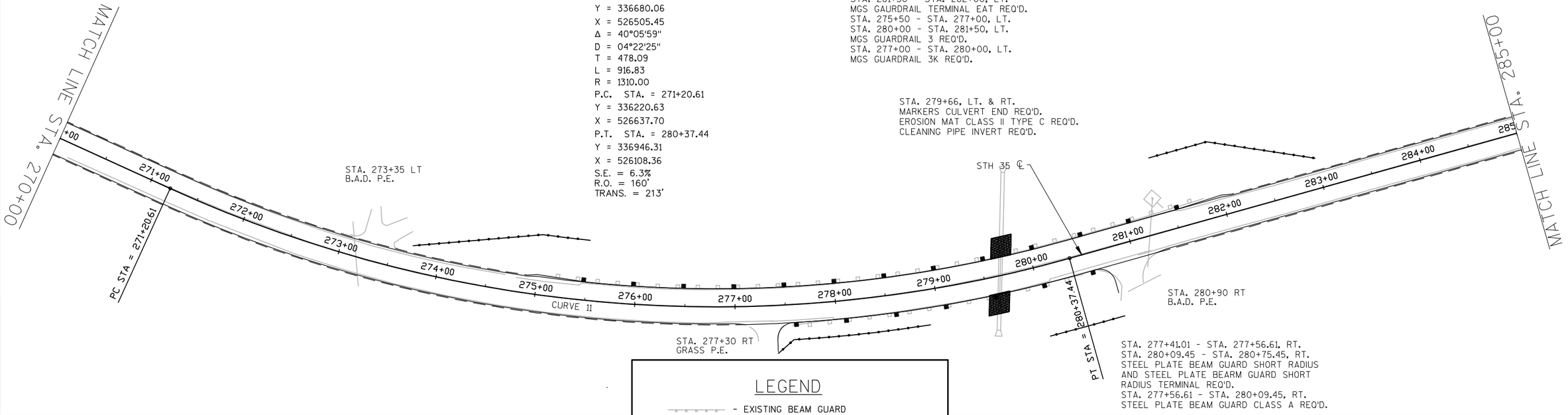
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 7
PLOT DATE : 8/4/2015
PLOT TIME : 2:17:21 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'





PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 8	SHEET 96	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 8
PLOT DATE : 8/4/2015
PLOT TIME : 1:22:18 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



CURVE 11

P.I. STA. = 275+98.70
Y = 336680.06
X = 526505.45
Δ = 40°05'59"
D = 04°22'25"
T = 478.09
L = 916.83
R = 1310.00
P.C. STA. = 271+20.61
Y = 336220.63
X = 526637.70
P.T. STA. = 280+37.44
Y = 336946.31
X = 526108.36
S.E. = 6.3%
R.O. = 160'
TRANS. = 213'

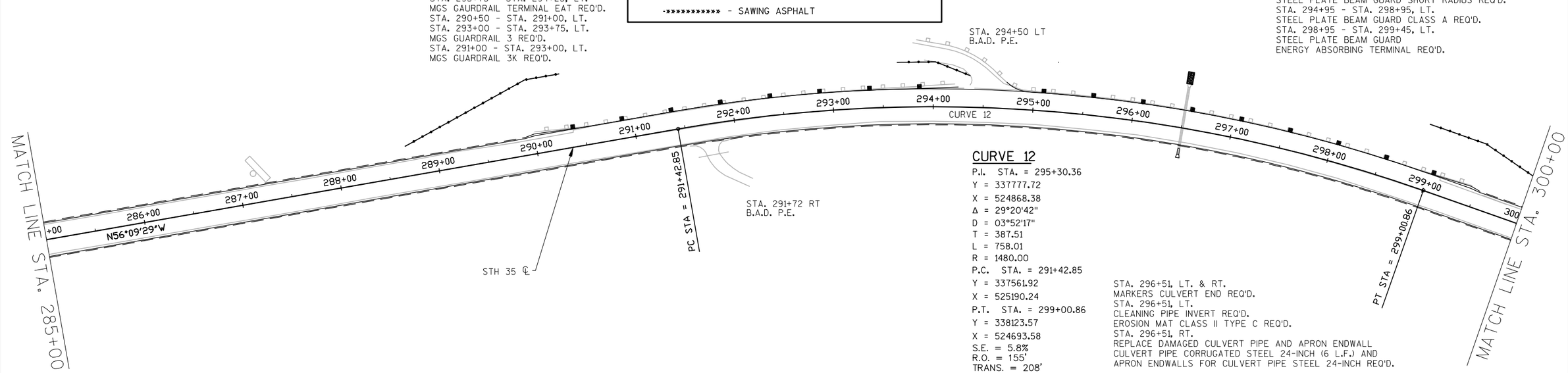
STA. 275+00 - STA. 275+50, LT.
STA. 281+50 - STA. 282+00, LT.
MGS GAURDRAIL TERMINAL EAT REQ'D.
STA. 275+50 - STA. 277+00, LT.
STA. 280+00 - STA. 281+50, LT.
MGS GUARDRAIL 3 REQ'D.
STA. 277+00 - STA. 280+00, LT.
MGS GUARDRAIL 3K REQ'D.

STA. 279+66, LT. & RT.
MARKERS CULVERT END REQ'D.
EROSION MAT CLASS II TYPE C REQ'D.
CLEANING PIPE INVERT REQ'D.

STA. 277+41.01 - STA. 277+56.61, RT.
STA. 280+09.45 - STA. 280+75.45, RT.
STEEL PLATE BEAM GUARD SHORT RADIUS
AND STEEL PLATE BEARM GUARD SHORT
RADIUS TERMINAL REQ'D.
STA. 277+56.61 - STA. 280+09.45, RT.
STEEL PLATE BEAM GUARD CLASS A REQ'D.

LEGEND

- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT



STA. 290+00 - STA. 290+50, LT.
STA. 293+75 - STA. 294+25, LT.
MGS GAURDRAIL TERMINAL EAT REQ'D.
STA. 290+50 - STA. 291+00, LT.
STA. 293+00 - STA. 293+75, LT.
MGS GUARDRAIL 3 REQ'D.
STA. 291+00 - STA. 293+00, LT.
MGS GUARDRAIL 3K REQ'D.

STA. 294+72.36 - STA. 294+95.00, LT.
STEEL PLATE BEAM GUARD SHORT RADIUS REQ'D.
STA. 294+95 - STA. 298+95, LT.
STEEL PLATE BEAM GUARD CLASS A REQ'D.
STA. 298+95 - STA. 299+45, LT.
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL REQ'D.

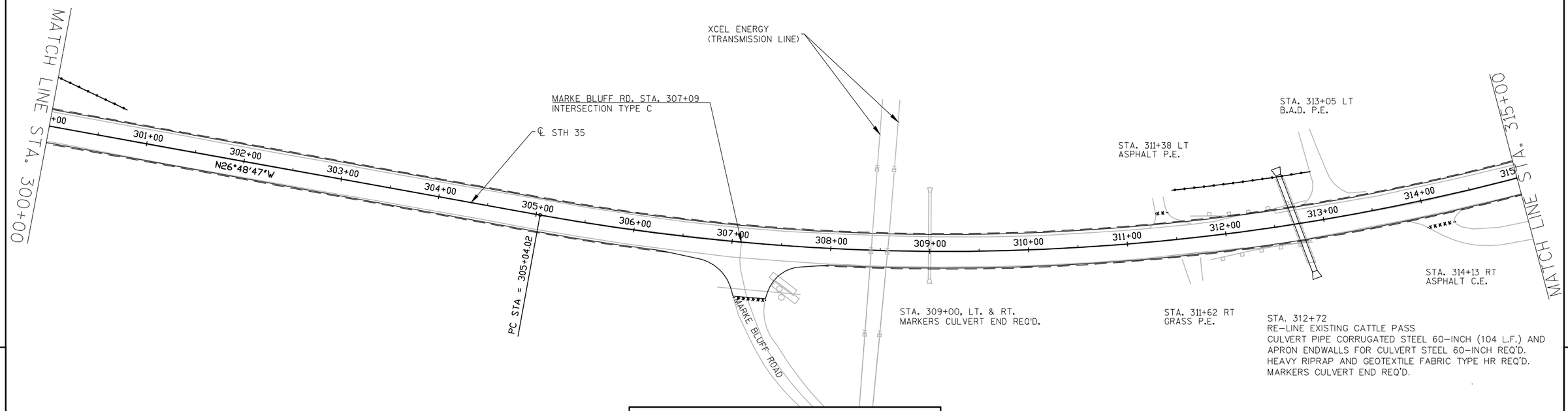
CURVE 12

P.I. STA. = 295+30.36
Y = 337777.72
X = 524868.38
Δ = 29°20'42"
D = 03°52'17"
T = 387.51
L = 758.01
R = 1480.00
P.C. STA. = 291+42.85
Y = 337561.92
X = 525190.24
P.T. STA. = 299+00.86
Y = 338123.57
X = 524693.58
S.E. = 5.8%
R.O. = 155'
TRANS. = 208'

STA. 296+51, LT. & RT.
MARKERS CULVERT END REQ'D.
STA. 296+51, LT.
CLEANING PIPE INVERT REQ'D.
EROSION MAT CLASS II TYPE C REQ'D.
STA. 296+51, RT.
REPLACE DAMAGED CULVERT PIPE AND APRON ENDWALL
CULVERT PIPE CORRUGATED STEEL 24-INCH (6 L.F.) AND
APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH REQ'D.

PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 9	SHEET 97	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 9
PLOT DATE : 8/4/2015
PLOT TIME : 2:20:49 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'



5

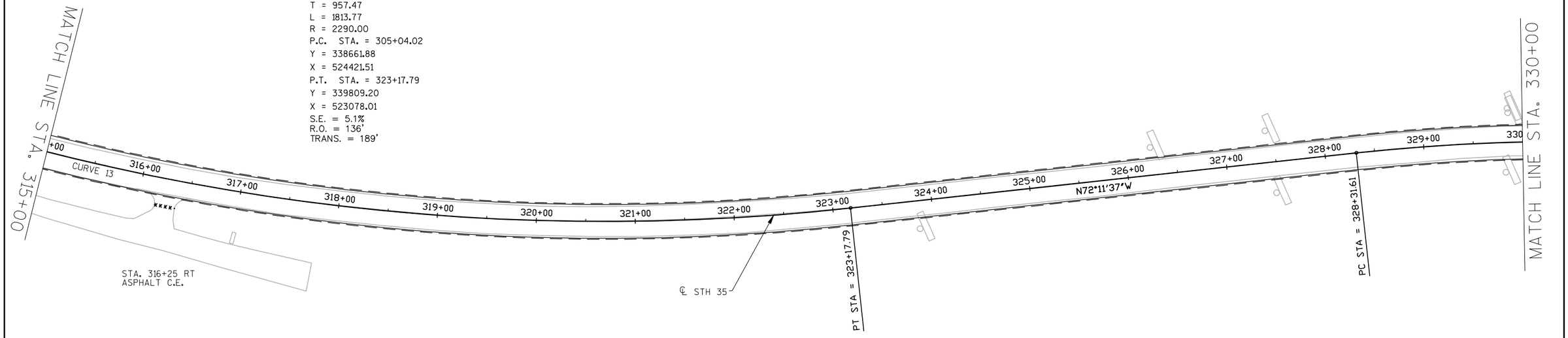
5

LEGEND

- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT

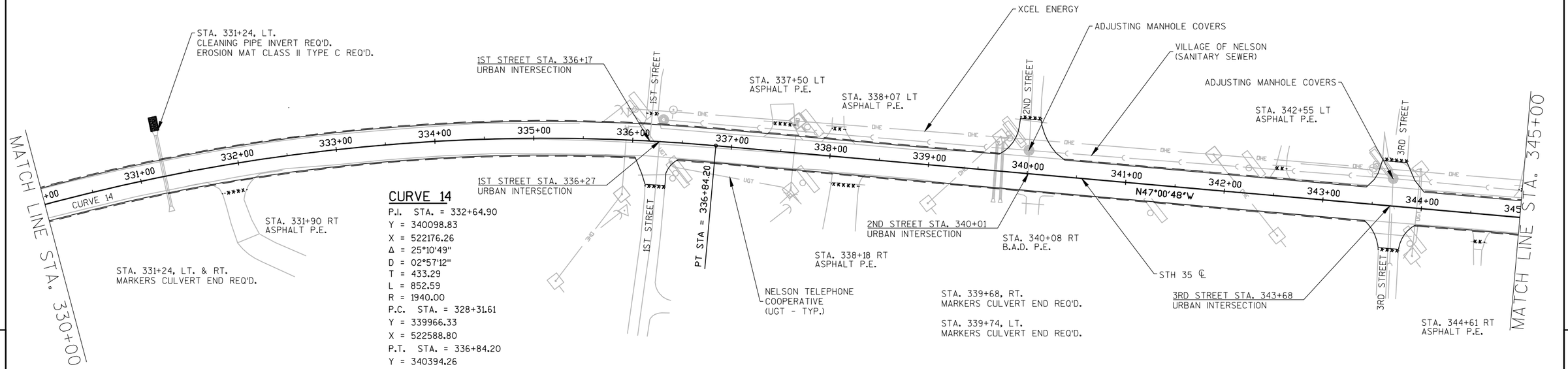
CURVE 13

P.I. STA. = 314+61.49
Y = 339516.41
X = 523989.61
Δ = 45°22'50"
D = 02°30'07"
T = 957.47
L = 1813.77
R = 2290.00
P.C. STA. = 305+04.02
Y = 338661.88
X = 524421.51
P.T. STA. = 323+17.79
Y = 339809.20
X = 523078.01
S.E. = 5.1%
R.O. = 136'
TRANS. = 189'



PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 10	SHEET 98	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 10
PLOT DATE : 8/4/2015
PLOT TIME : 1:25:30 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

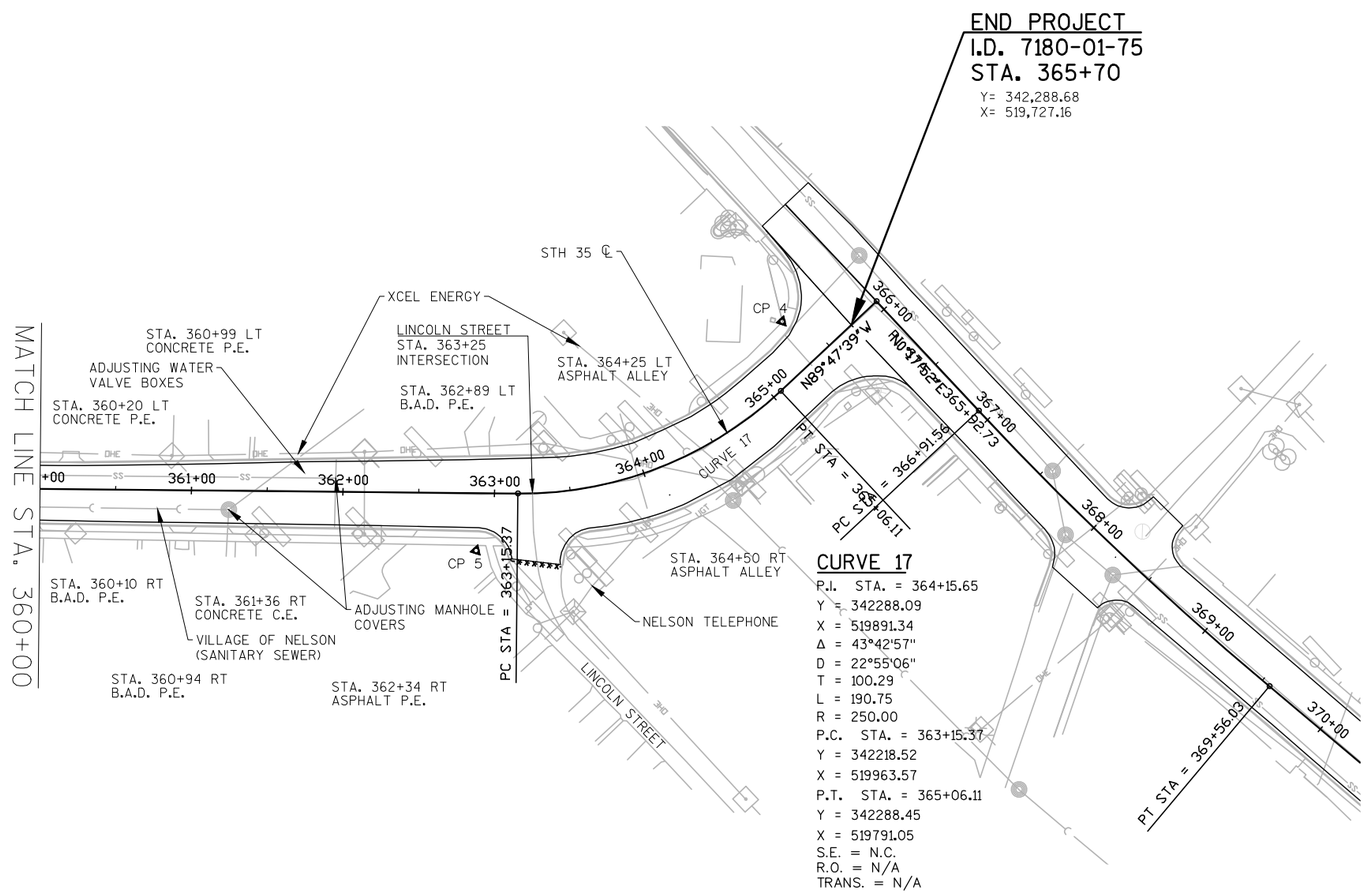


PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PLAN SHEET - 11	SHEET 99	E

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\CADD FILES\ROADWAY\STH 35\PLAN PROFILES\PLAN SHEET.DWG
LAYOUT : 11
PLOT DATE : 8/4/2015
PLOT TIME : 1:26:57 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'

LEGEND

- EXISTING BEAM GUARD
- PROPOSED BEAM GUARD
- SILT FENCE
- SAWING ASPHALT



CURVE 17

P.I. STA. = 364+15.65
Y = 342288.09
X = 519891.34
Δ = 43°42'57"
D = 22°55'06"
T = 100.29
L = 190.75
R = 250.00
P.C. STA. = 363+15.37
Y = 342218.52
X = 519963.57
P.T. STA. = 365+06.11
Y = 342288.45
X = 519791.05
S.E. = N.C.
R.O. = N/A
TRANS. = N/A

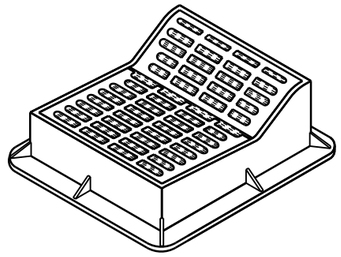
▲ CONTROL POINTS

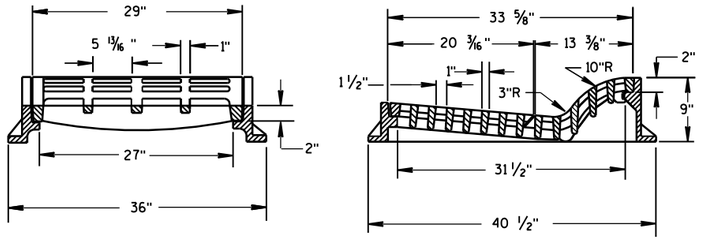
No.	STATION	DESCRIPTION	Y	X	ELEV.
4	365+38	MAG NAIL SET, 32.9' LT. OF STH 35	342,255.71	519,758.89	689.98
5	362+88	NAIL SET, 37.8' RT. OF STH 35	342,226.90	520,009.43	691.24

Standard Detail Drawing List

08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B15-08A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B24-08A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-03A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

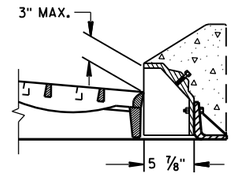
6





TYPE "F"

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



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

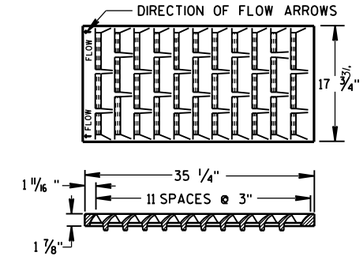
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

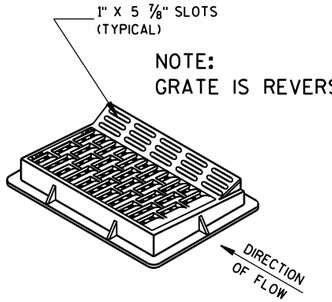
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

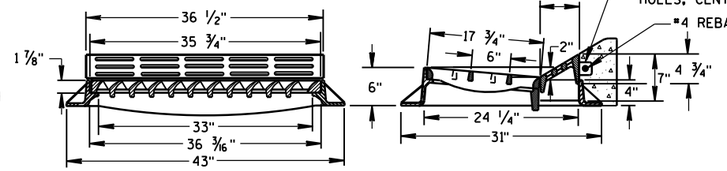
GENERAL NOTES

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.



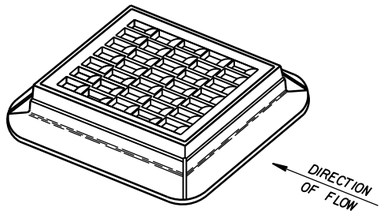


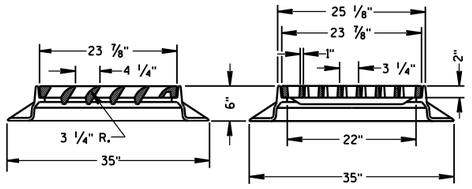


TYPE "HM"

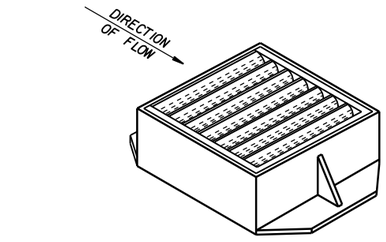
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

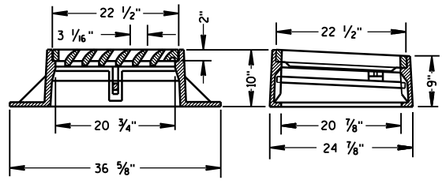
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



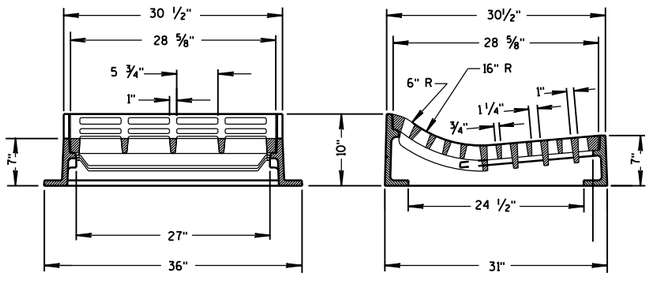


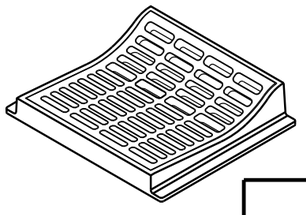
TYPE "S"





TYPE "V"





TYPE "T"

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

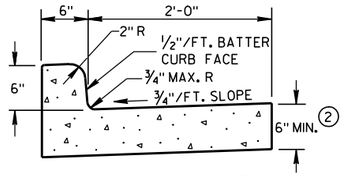
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

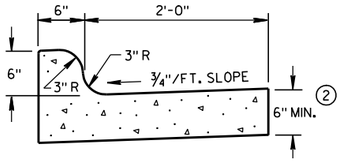
FHWA

6

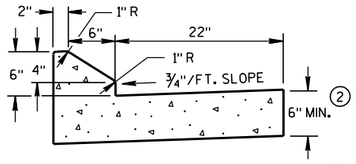
S.D.D. 8 A 5-19c



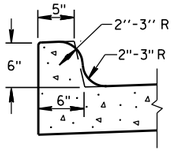
TYPES A & D (1)



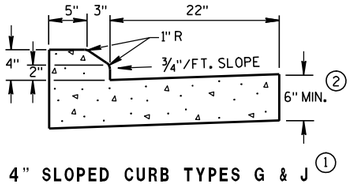
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

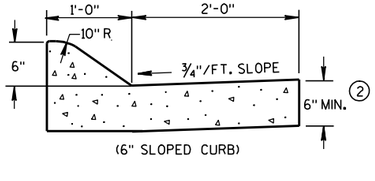


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

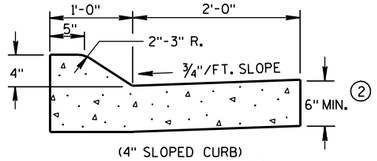


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

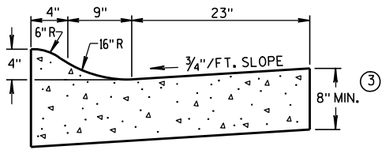


(6" SLOPED CURB)



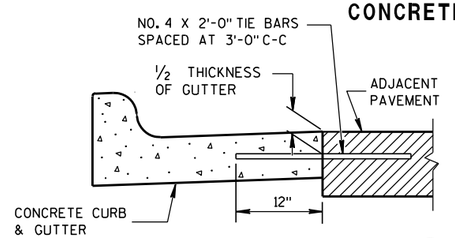
(4" SLOPED CURB)

TYPES A & D (1)

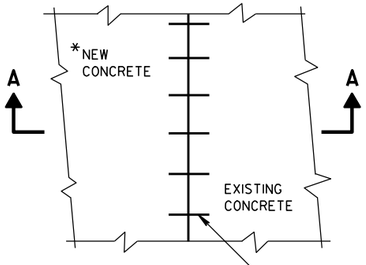


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

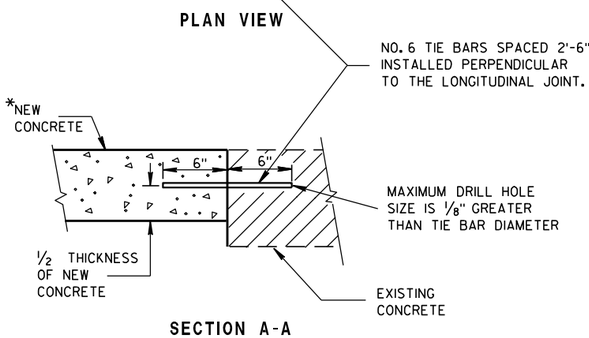


TYPICAL TIE BAR LOCATION (1)



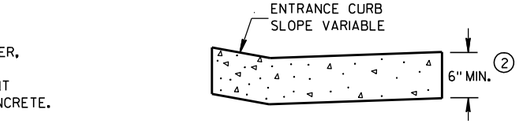
PLAN VIEW

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



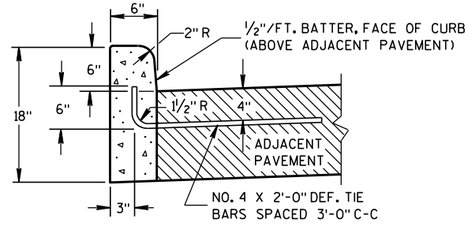
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



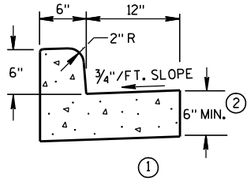
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



(1)

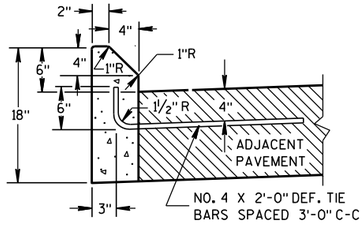
TYPES A & D



(1)

TYPES A & D

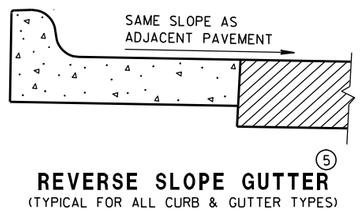
CONCRETE CURB & GUTTER 18"



(1)

TYPES G & J

CONCRETE CURB



(5)

REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

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

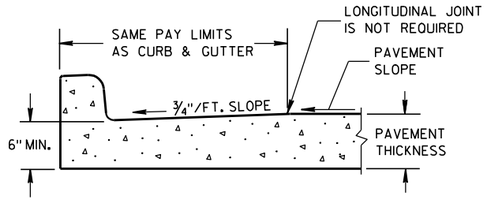
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

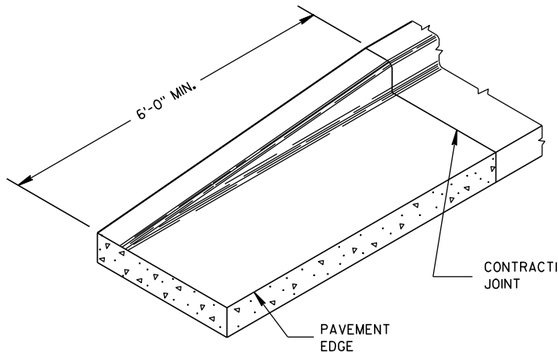
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

ENT

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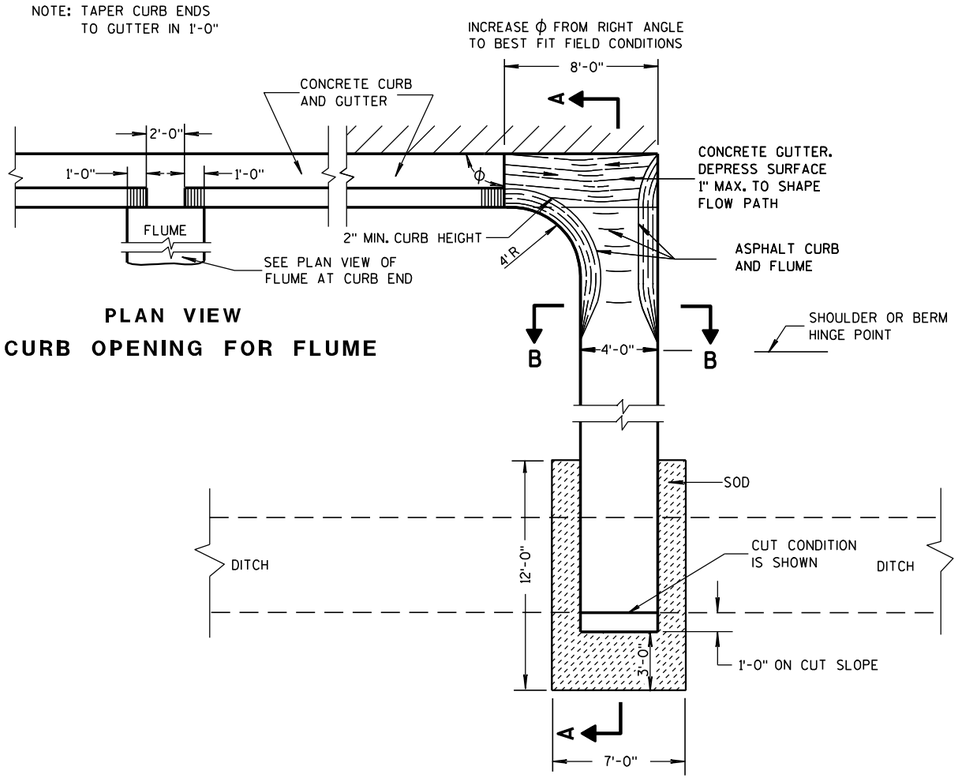
S.D.D. 8 D 1-17

6

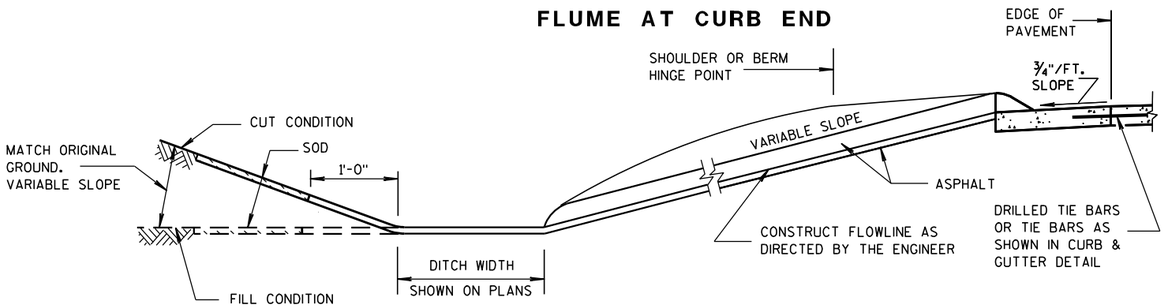
S.D.D. 8 D 1-17

ASPHALTIC FLUME

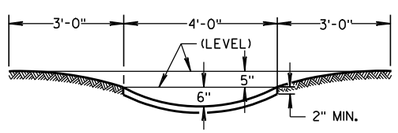


PLAN VIEW
CURB OPENING FOR FLUME

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.

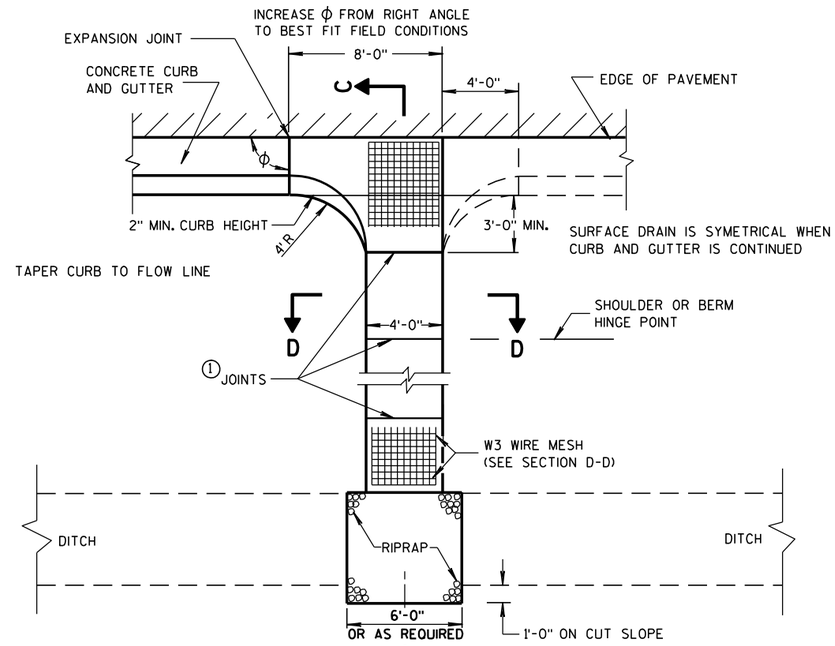
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

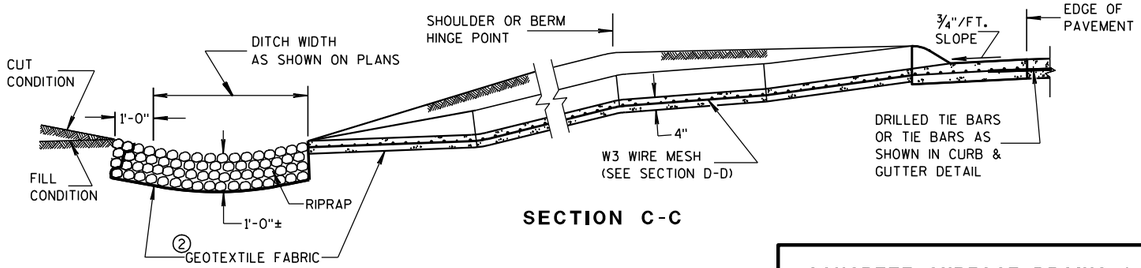
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

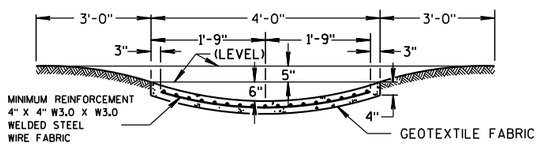
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

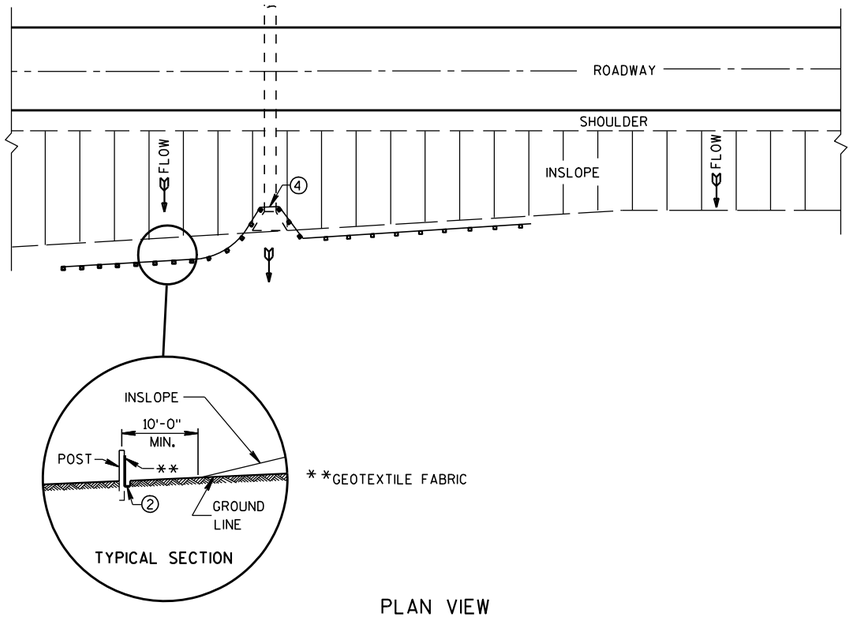
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

S.D.D. 8 D 4-5

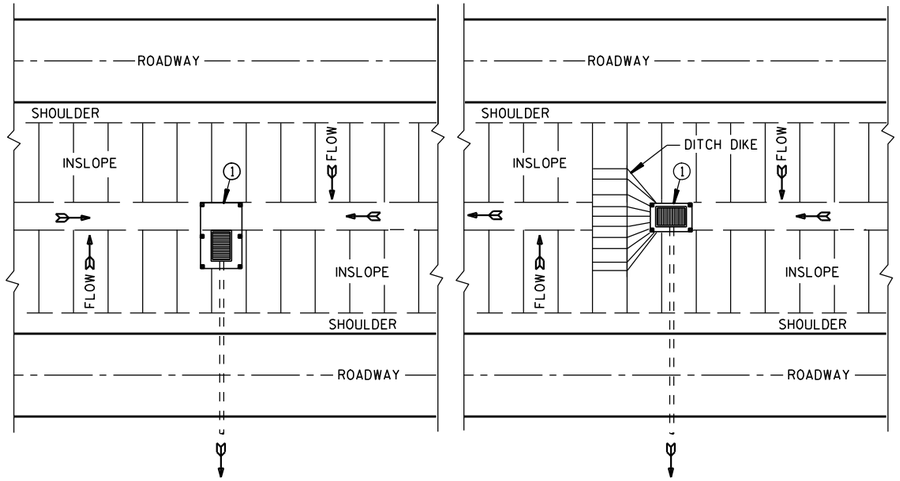
6

S.D.D. 8 D 4-5



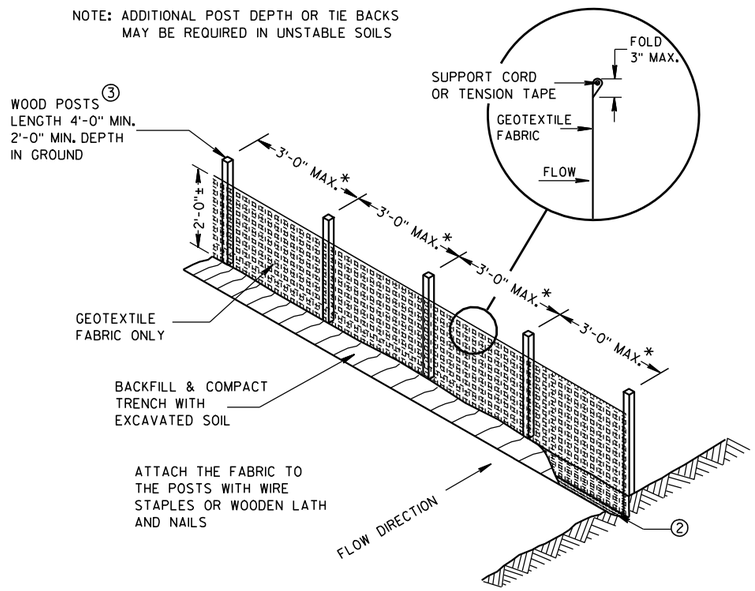
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE

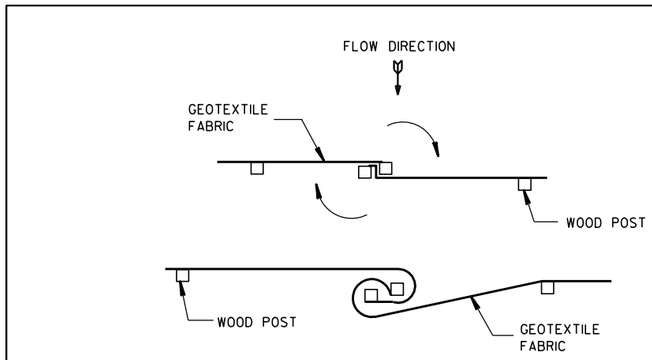


PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



SILT FENCE

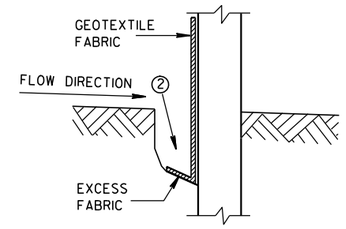


JOINING TWO LENGTHS OF SILT FENCE 5

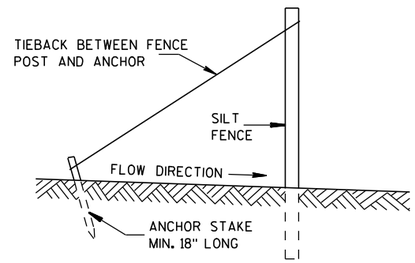
GENERAL NOTES

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 1⅛" X 1⅛" 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 Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

METAL APRON ENDWALLS

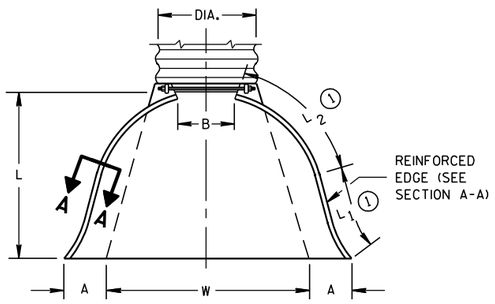
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 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	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

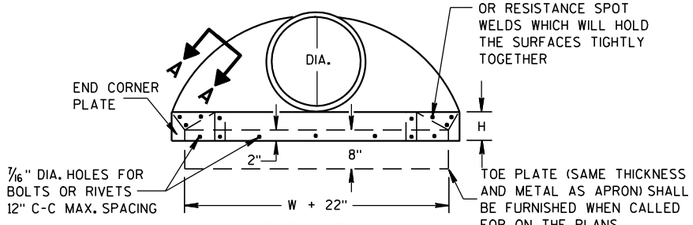
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 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

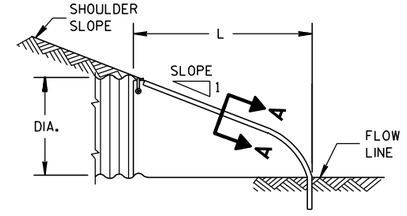
* MINIMUM
** MAXIMUM



PLAN VIEW

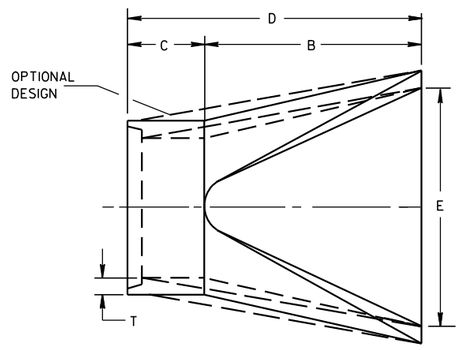


END VIEW

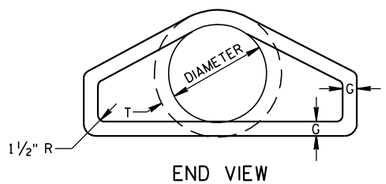


SIDE ELEVATION

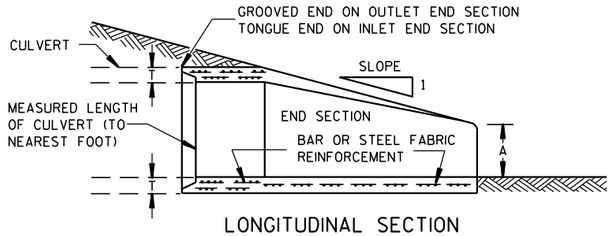
METAL ENDWALLS



PLAN

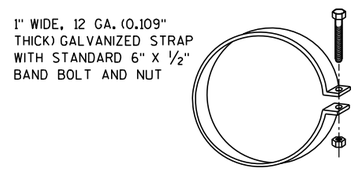


END VIEW



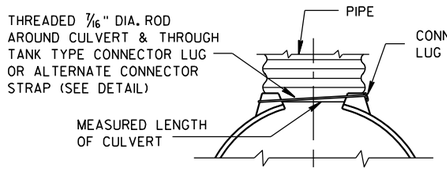
LONGITUDINAL SECTION

CONCRETE ENDWALLS

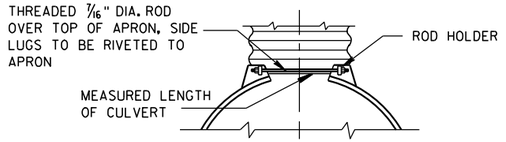


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

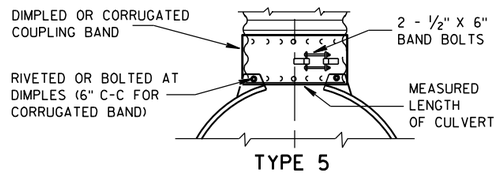


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

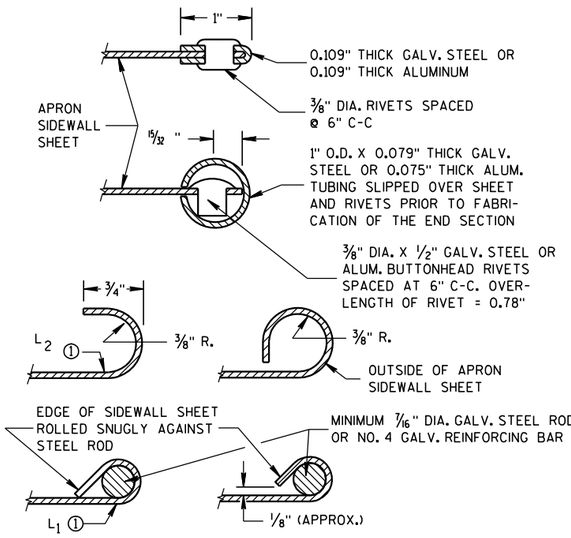
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

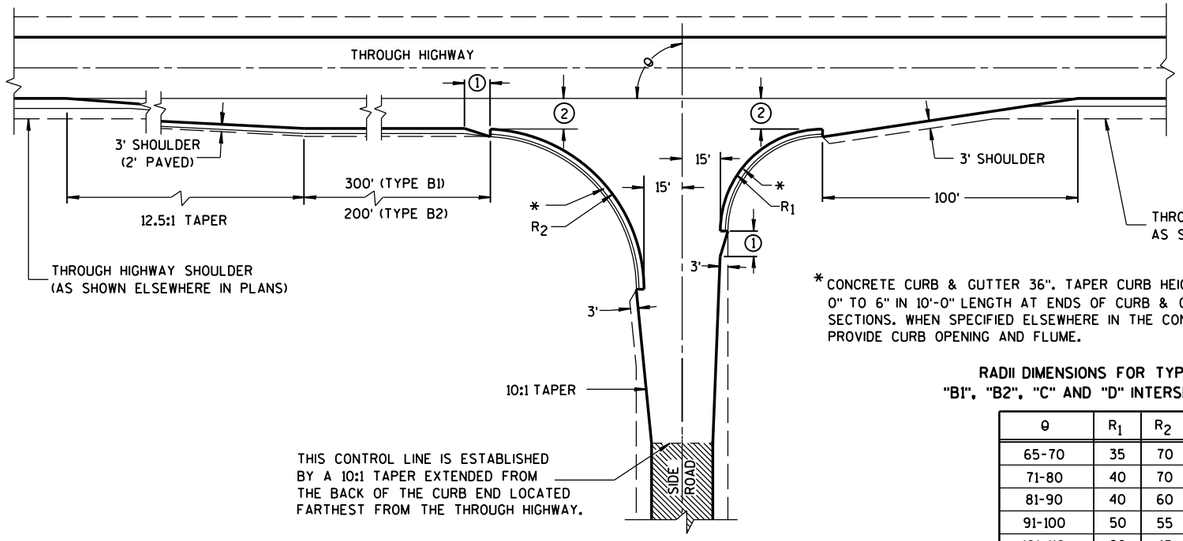
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 1-11

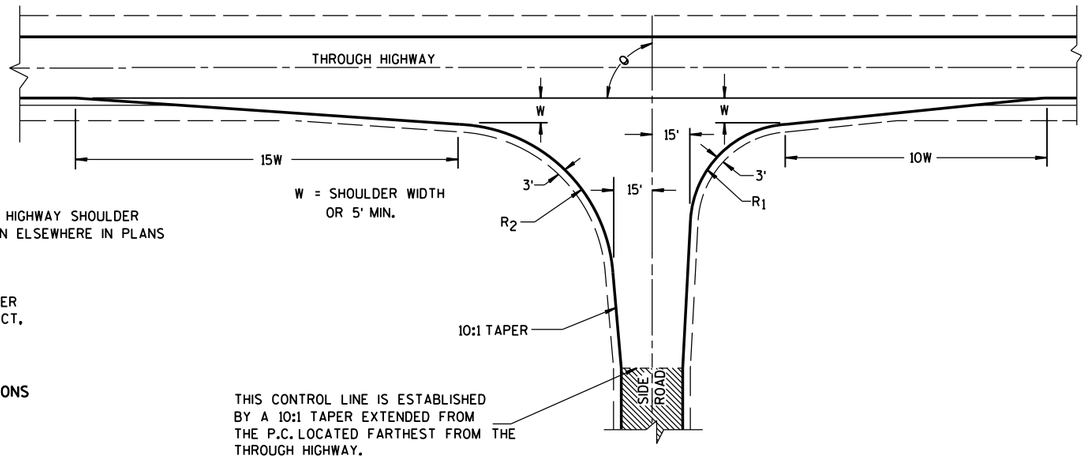


TYPE "B1" AND "B2"

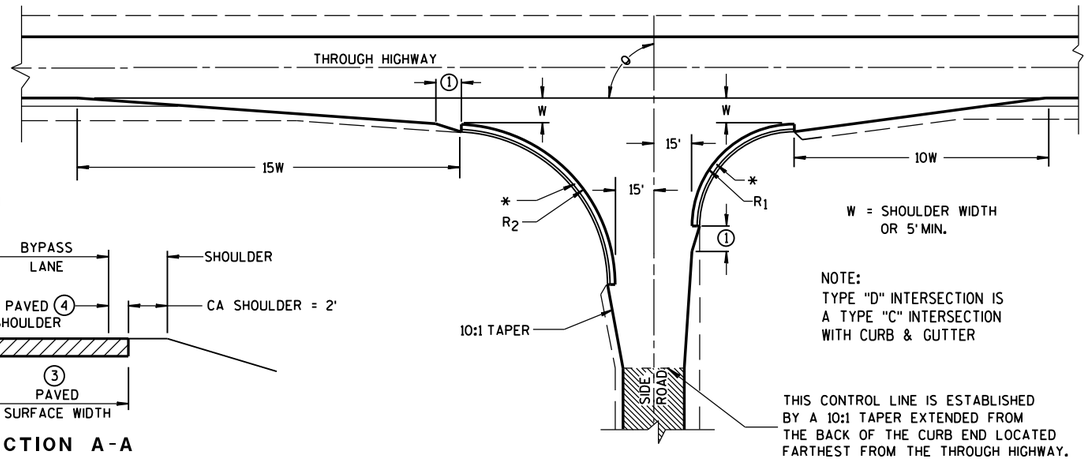
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

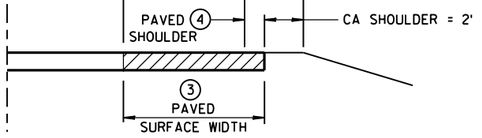
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

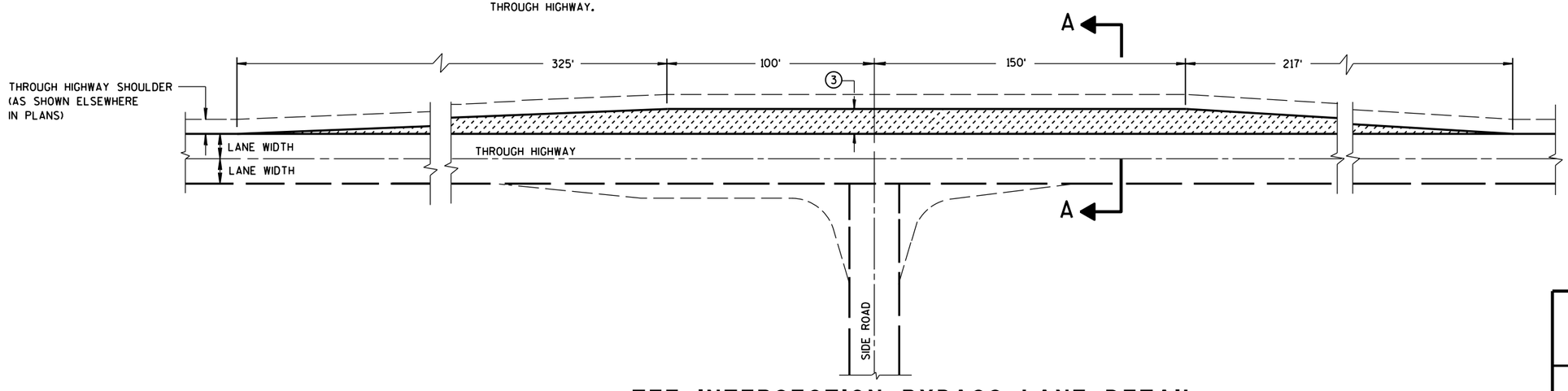
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



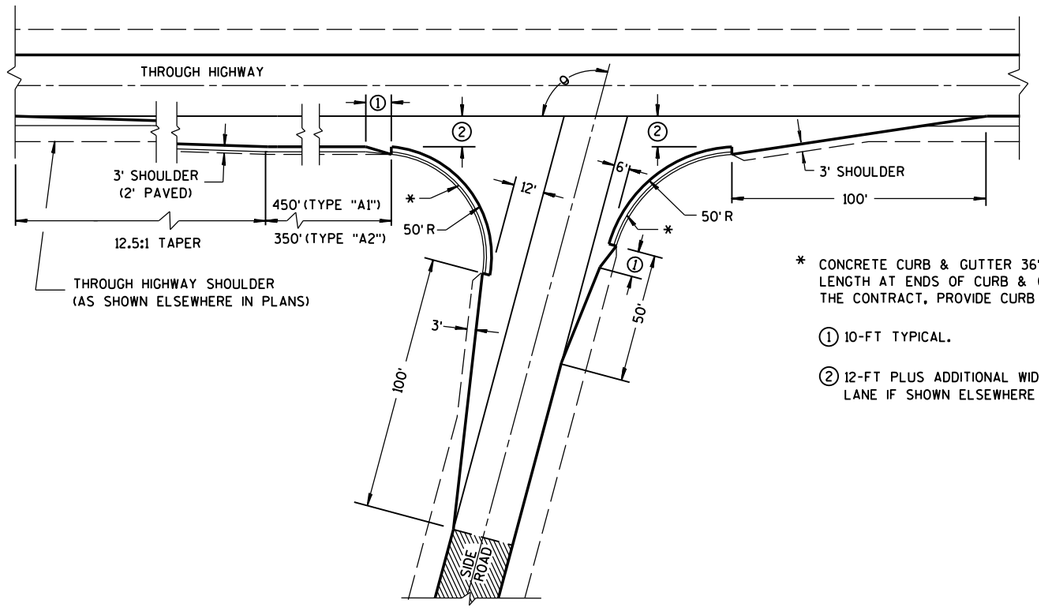
TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 9 A 1-13a



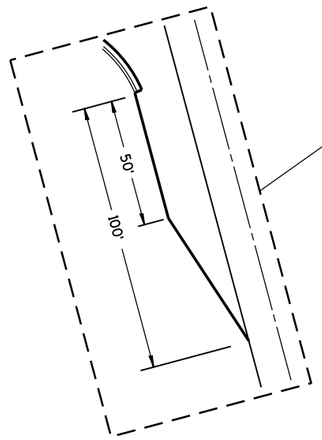
θ = MORE THAN 80°

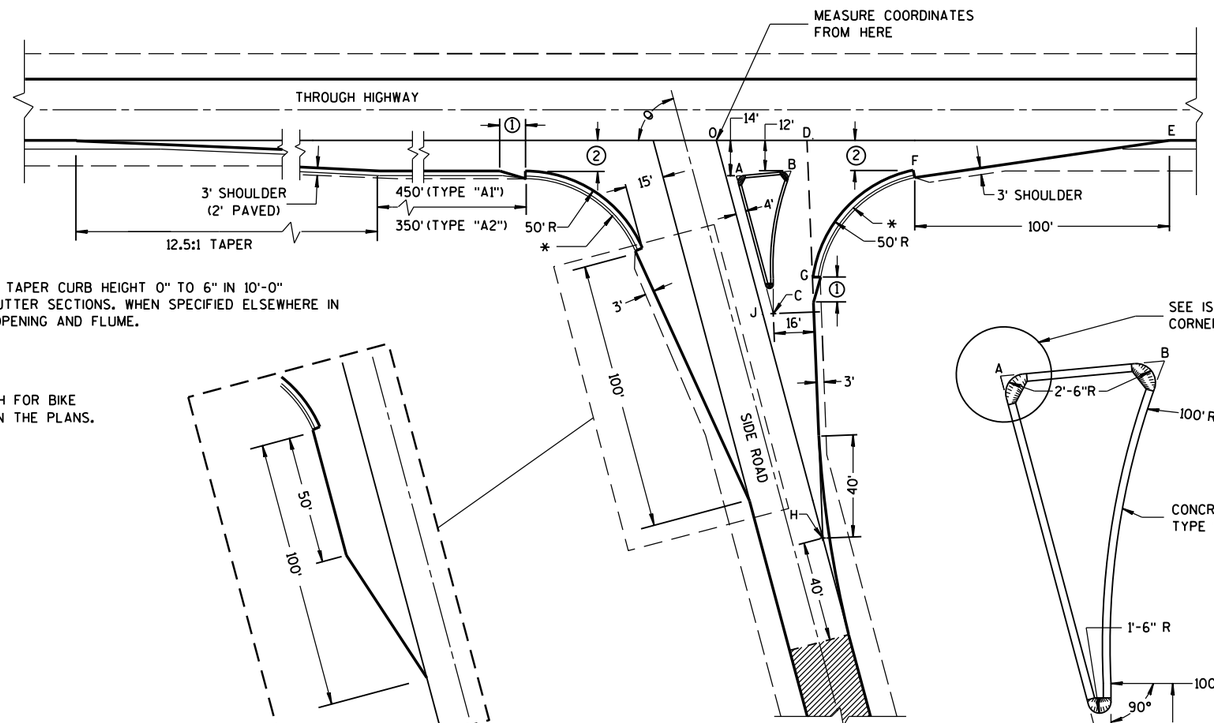
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

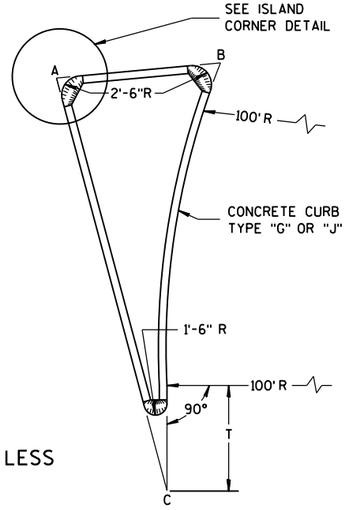
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE

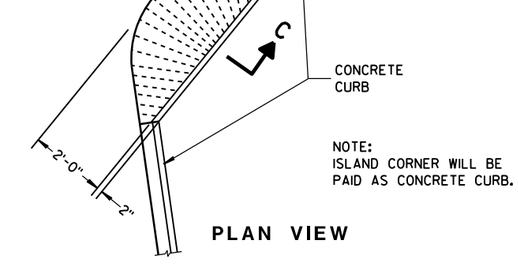




θ = ACUTE ANGLES 80° OR LESS

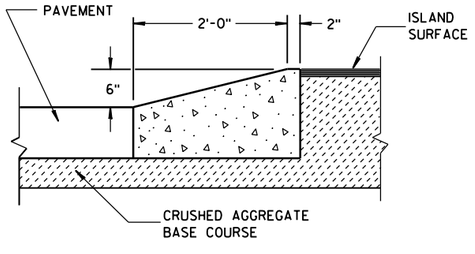


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

S.D.D. 9 A 1-13b

S.D.D. 9 A 1-13b

GENERAL NOTES

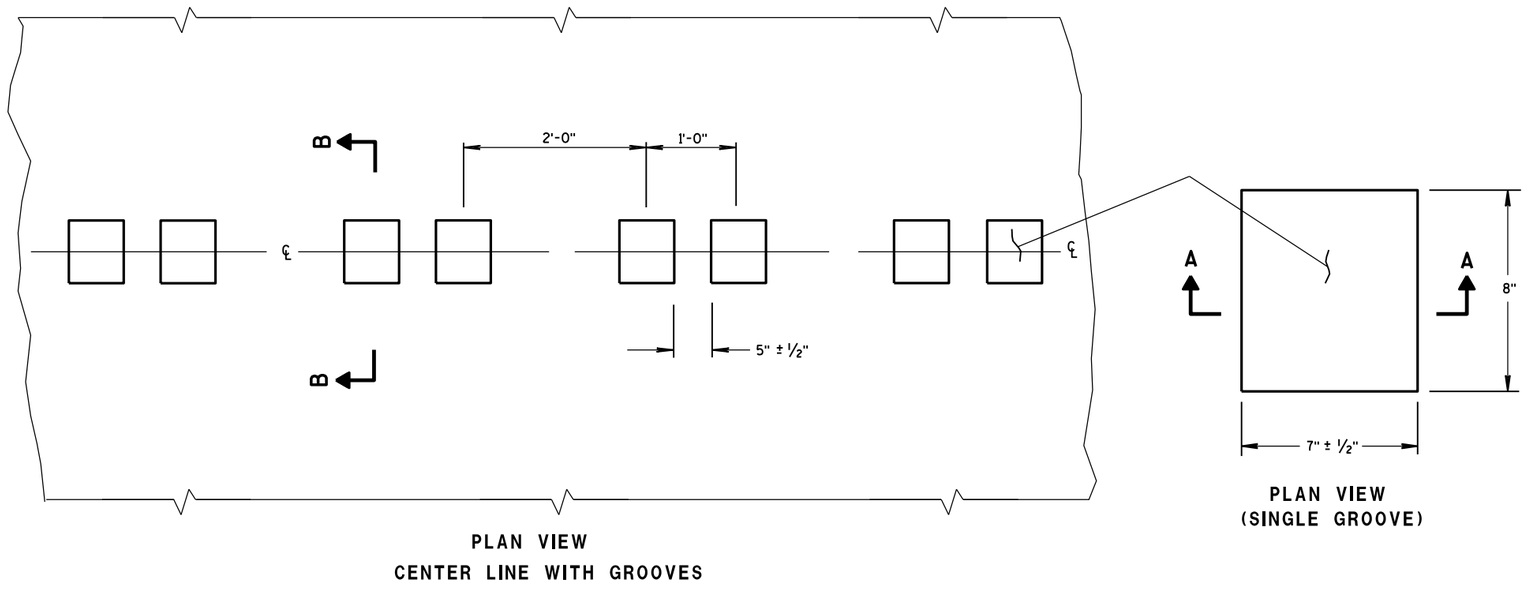
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

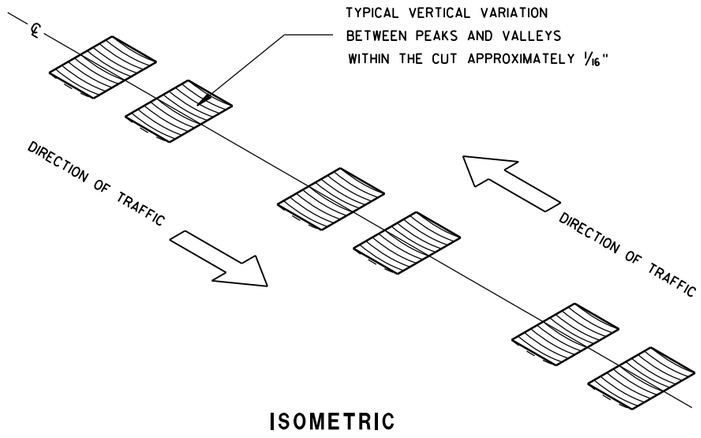
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



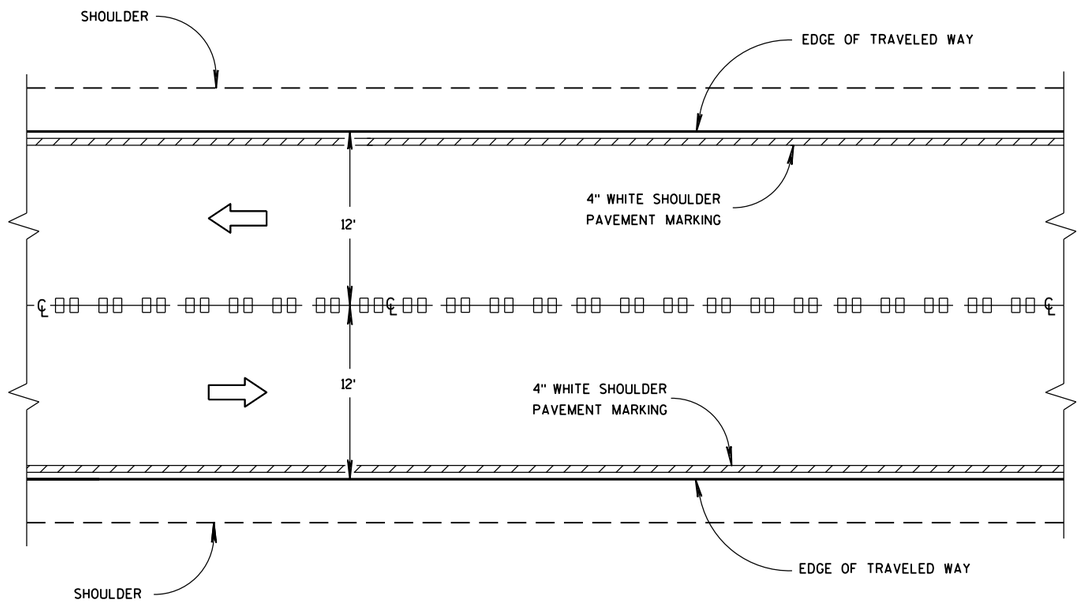
PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

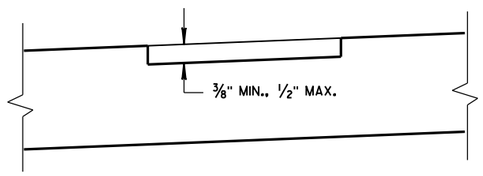
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



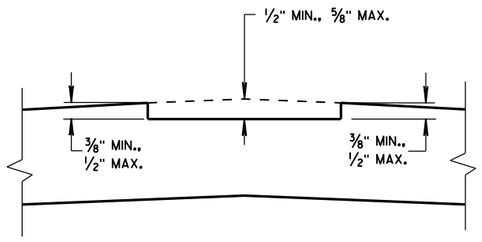
ISOMETRIC



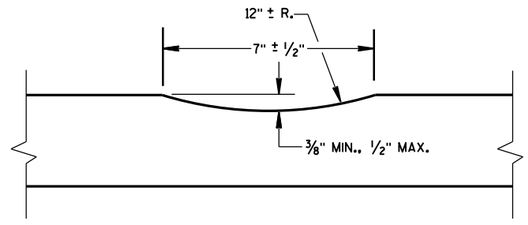
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

6

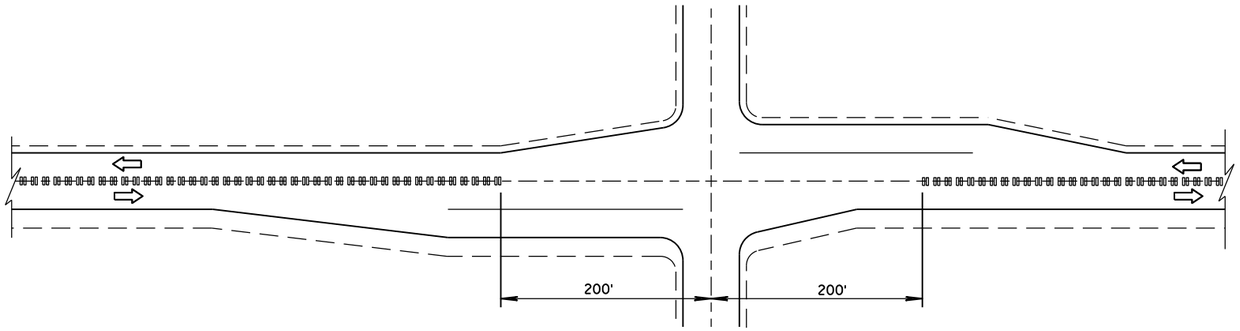
S.D.D. 13 A 11-2a

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

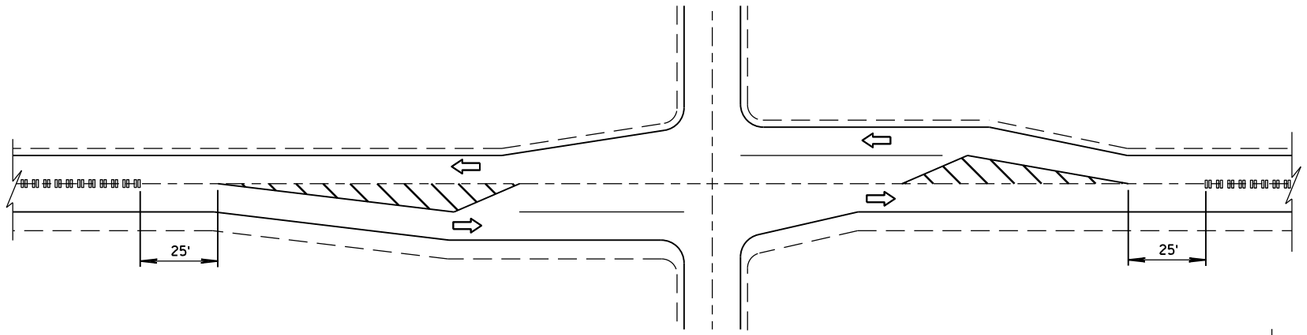
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

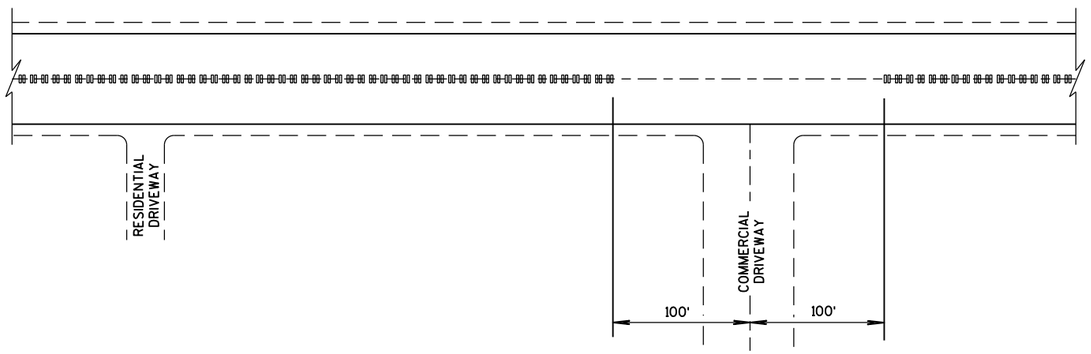
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

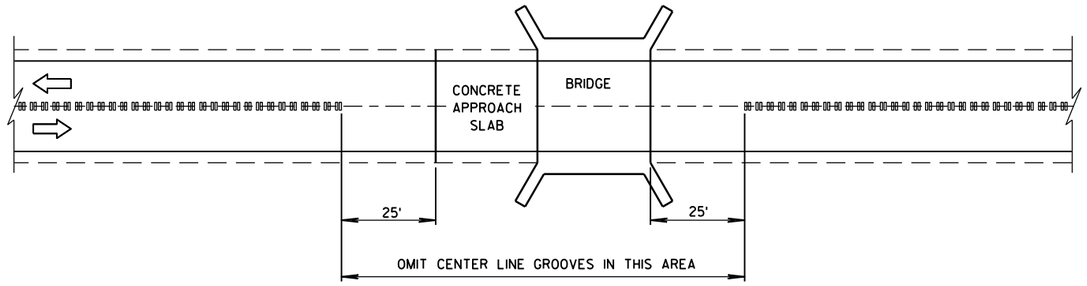


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

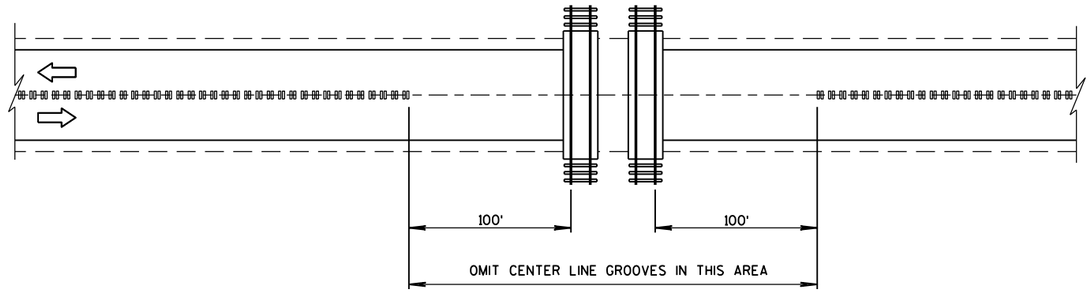


CENTER LINE GROOVES AT DRIVEWAYS (1)

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

6

S.D.D. 13 A 11-2b

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/15/2013
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

NT

FHWA

GENERAL NOTES

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

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

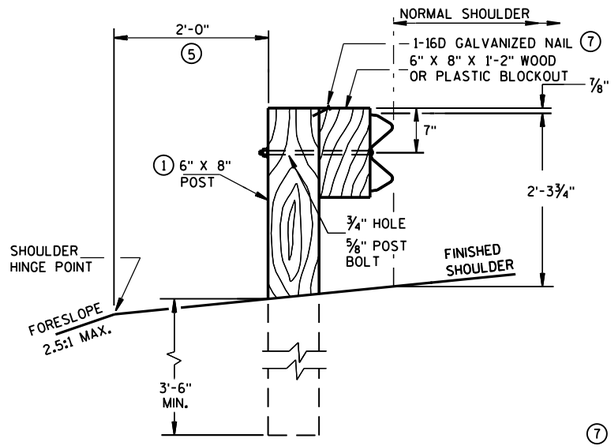
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

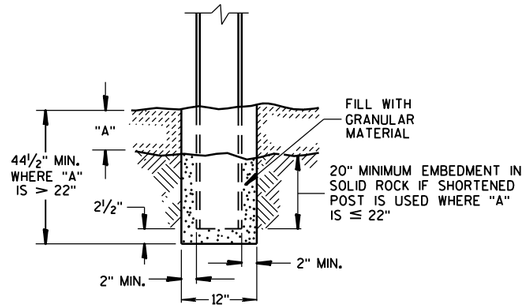
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

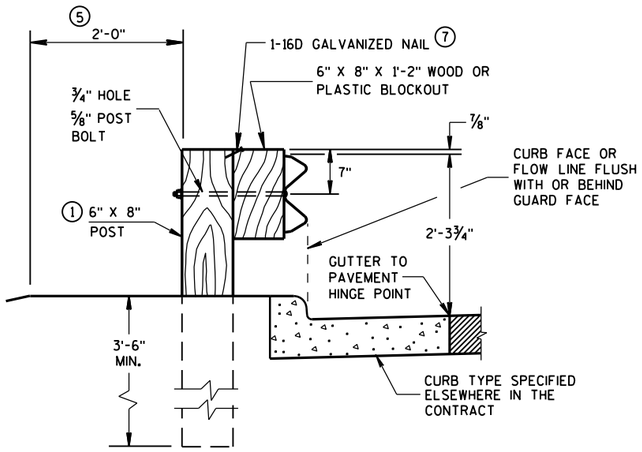
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



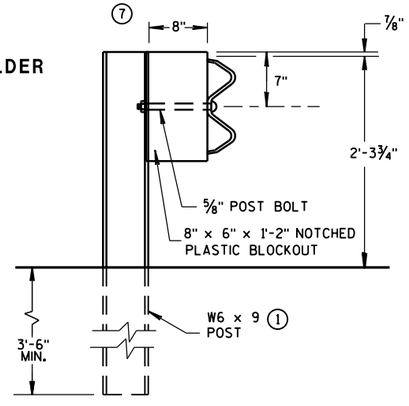
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



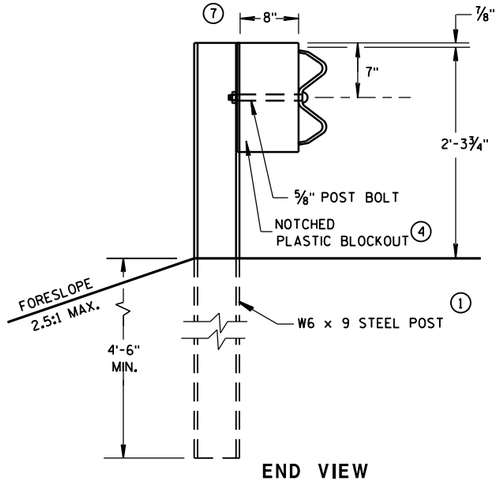
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



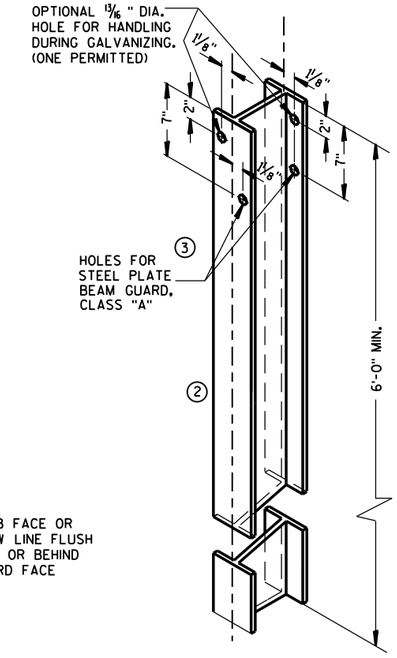
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION

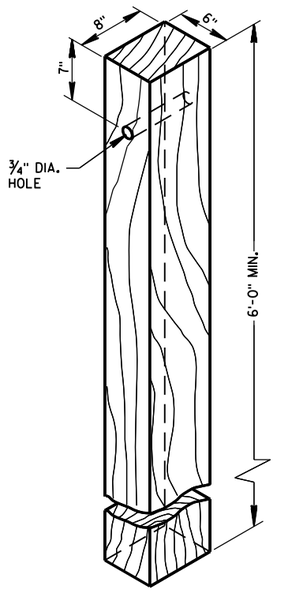


END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

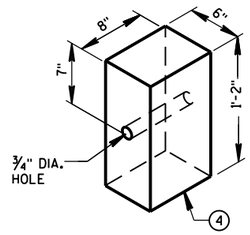


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

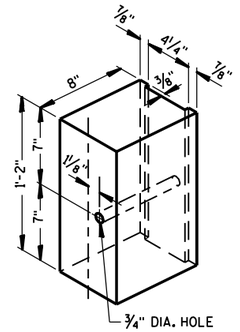
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



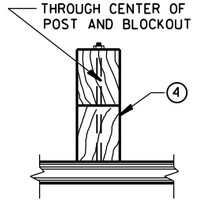
WOOD POST
(6"X8") NOMINAL



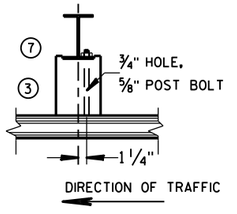
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



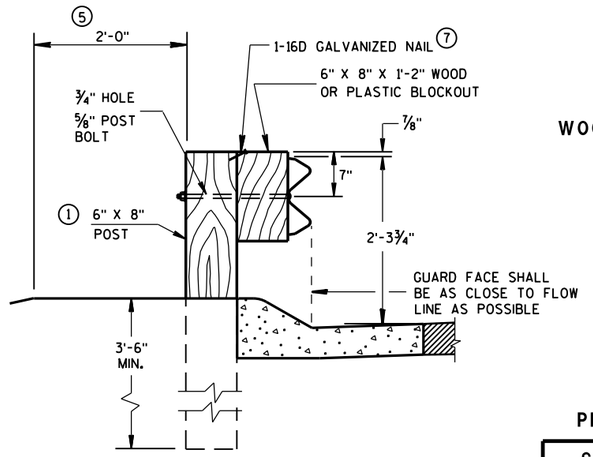
TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



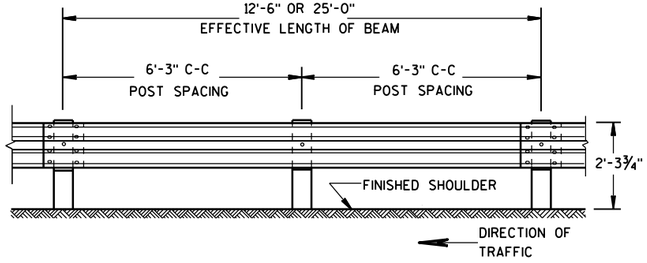
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

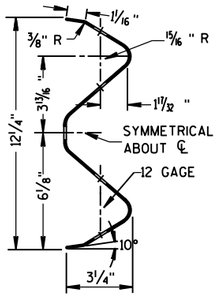
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 15-8a

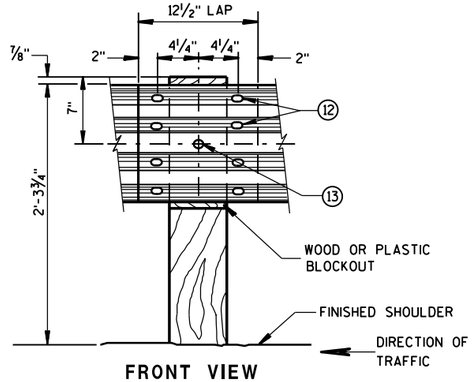


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

(8) PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

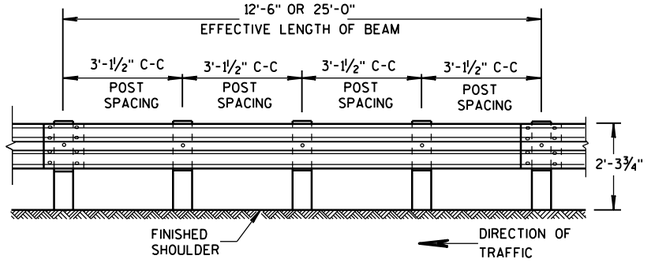
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

(10) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

(11) PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

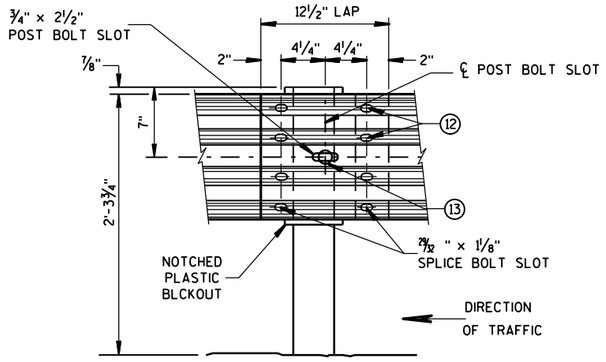
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



FRONT VIEW

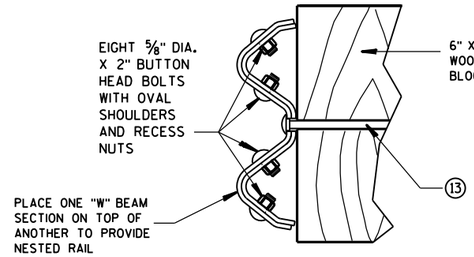
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

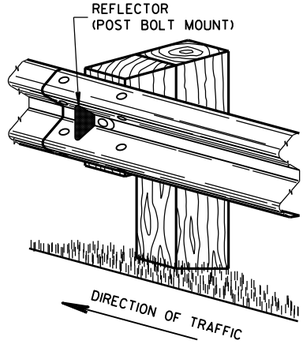


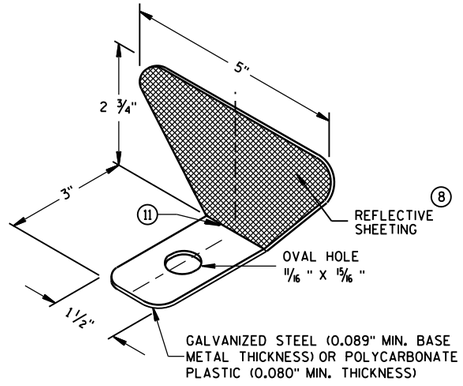
NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING (9)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 (10) 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 (11)	3



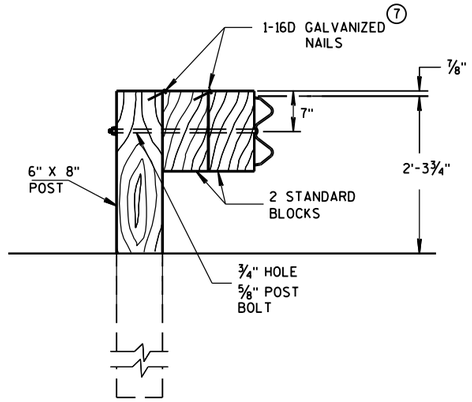


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (8)

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

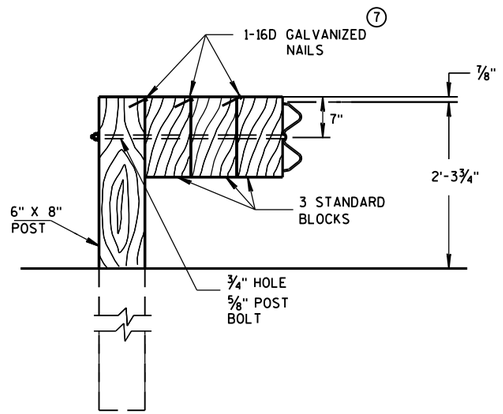
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 15-8b



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS WITHIN A BARRIER RUN IS UNLIMITED

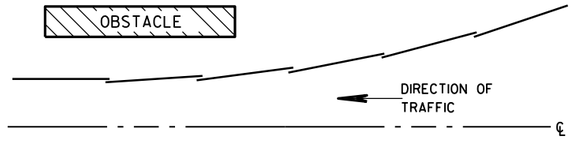


DETAIL FOR TRIPLE BLOCKS

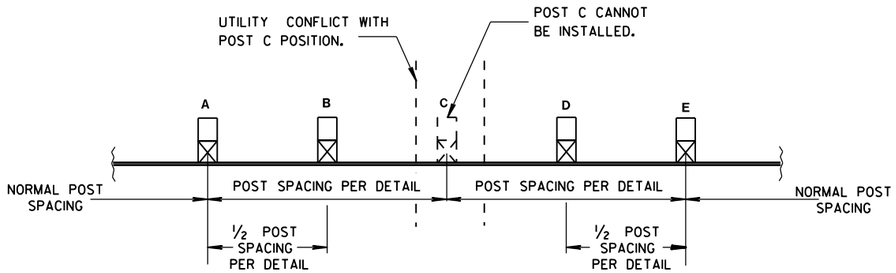
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

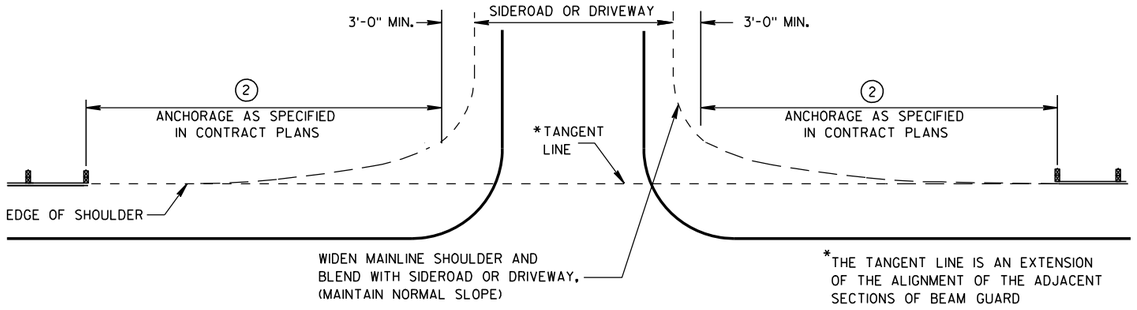
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

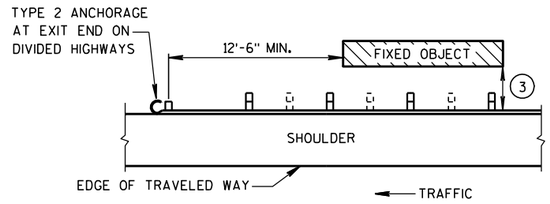
APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 15-8c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

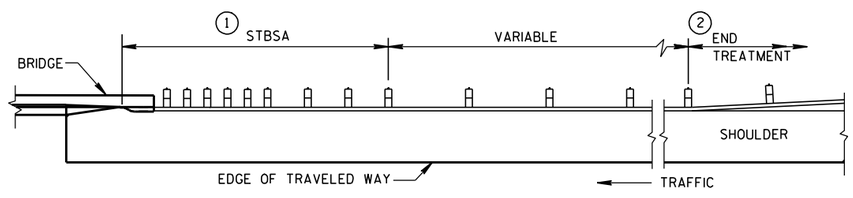
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

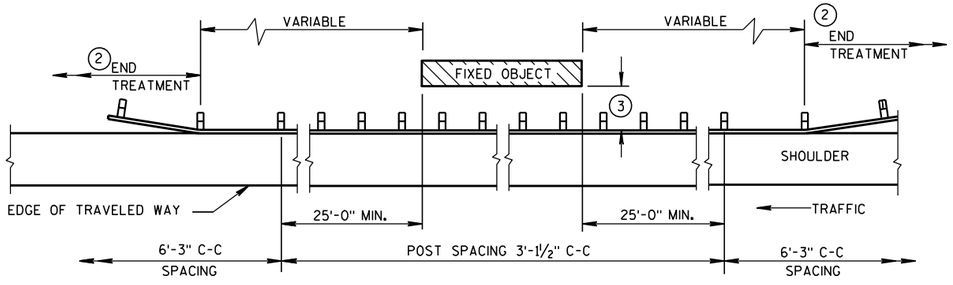
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

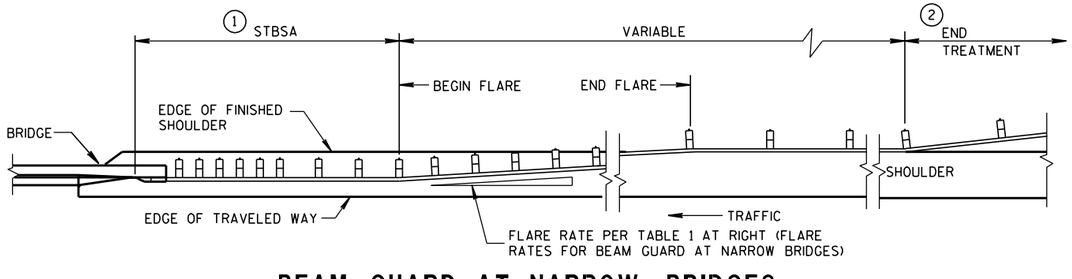


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 18-6a

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
(1)	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
(2)	**	STEEL TUBE: OPTION 1 - QUANITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
(3)	2	SOIL PLATE: 2'-0" X 1'-6" X ¼" **
(4)	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
(5)	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
(6)	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
(7)	1	BEARING PLATE
(8)	1	BCT CABLE ASSEMBLY
(9)	1	CABLE ANCHOR BOX
(10)	1	STRUT & YOKE
(11)	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
(12)	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
(13)	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
(14)	1	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(15)	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL ⅝" ø X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

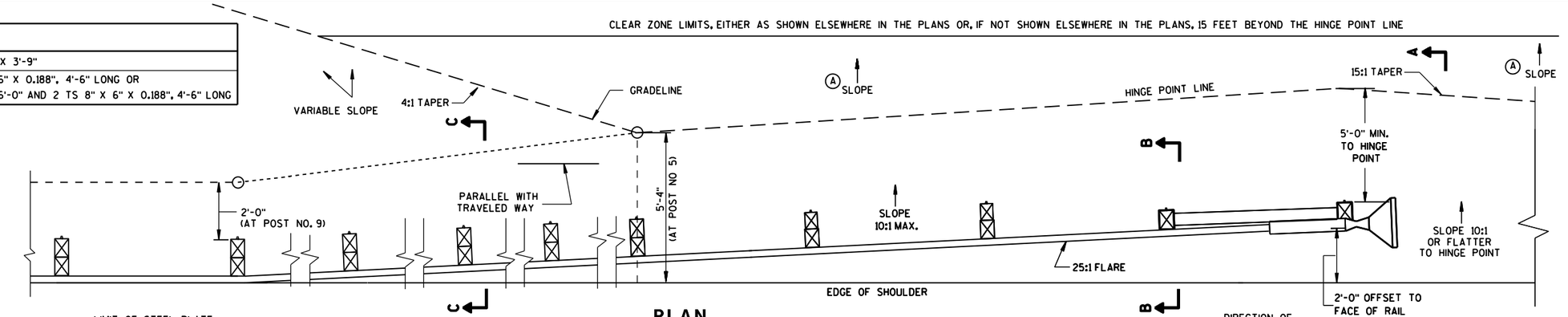
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

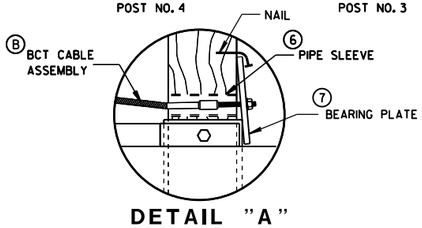
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

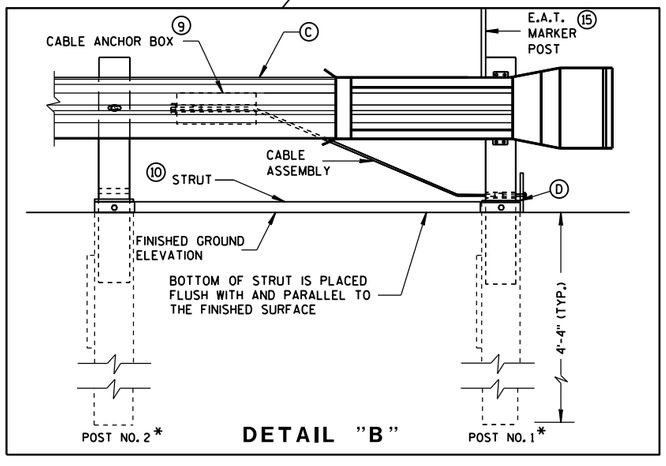
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



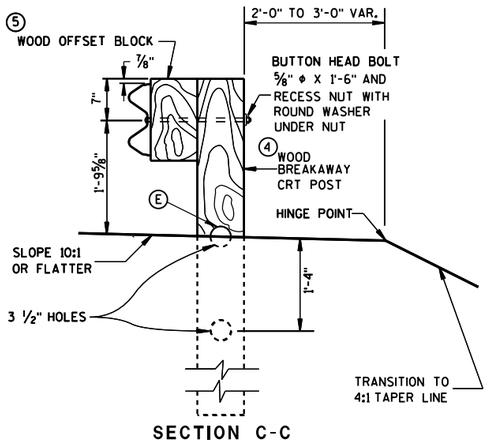
ELEVATION



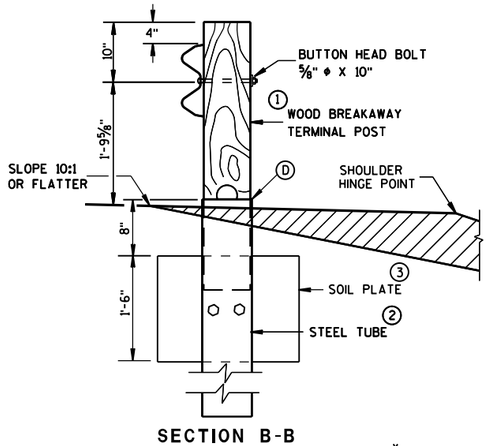
DETAIL "A"



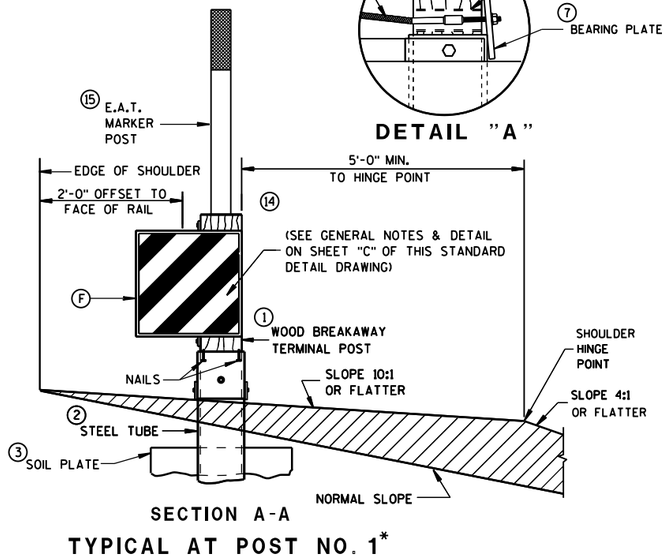
DETAIL "B"



SECTION C-C
TYPICAL AT POST NOS. 6, 8



SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

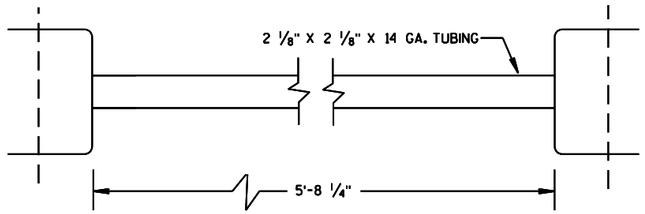
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

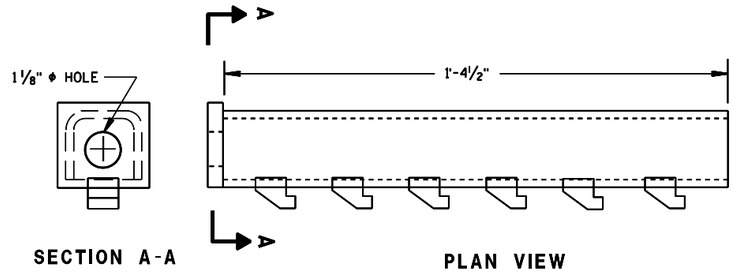
S.D.D. 14 B 24-8a

6

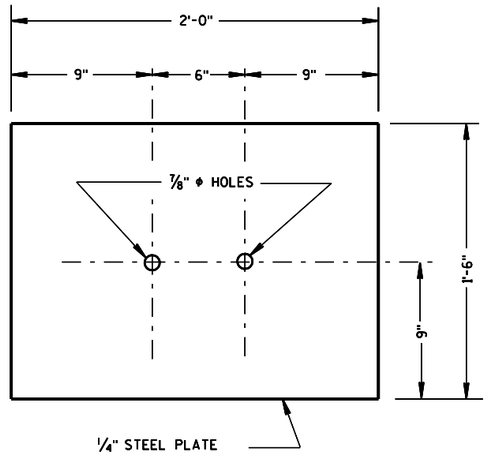
S.D.D. 14 B 24-8a



⑩ STRUT DETAIL (SKT-350)

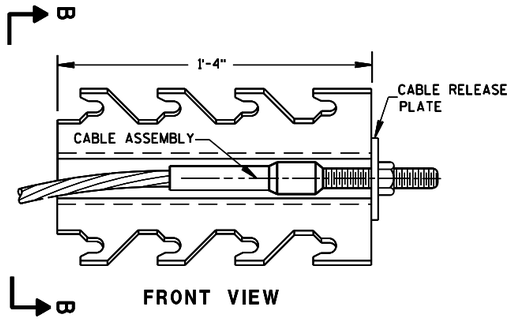


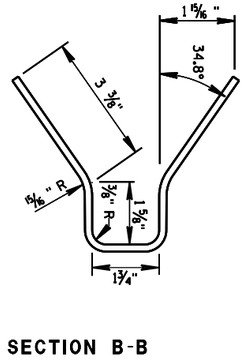
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



③ SOIL PLATE

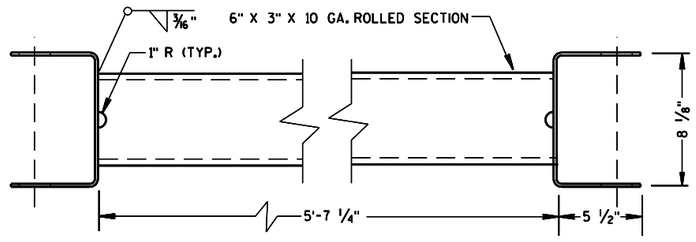
(SKT-350, ET-2000/ET-2000 PLUS)





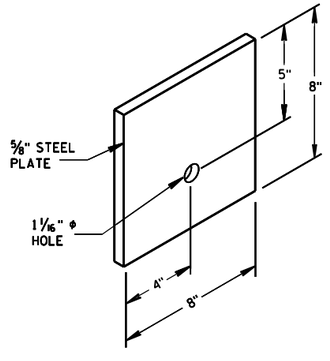
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



⑦ STEEL BEARING PLATE

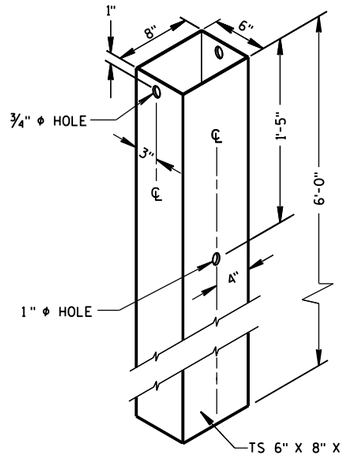
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

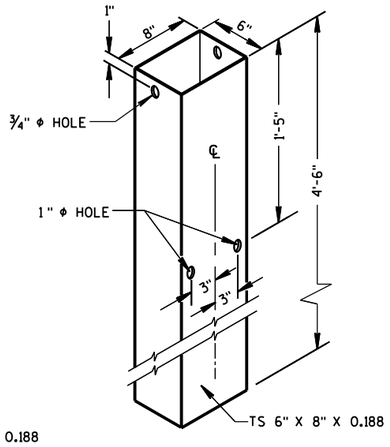
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

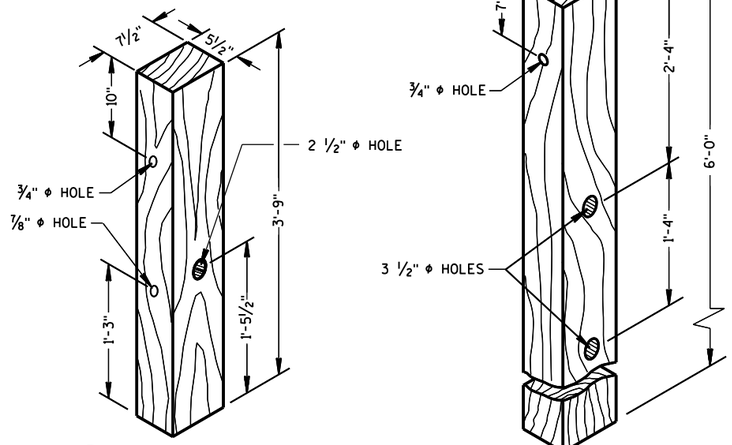
S.D.D. 14 B 24-8b



② 72" STEEL TUBE
(POSTS NO. 1-4



② 54" STEEL TUBE
(POSTS NO. 1-4



① TERMINAL POST
(POSTS NO. 1-4

④ CRT POST
(POSTS NO'S 5-8

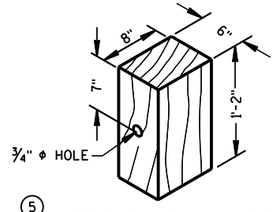
WOOD BREAKAWAY POSTS

GENERAL NOTES

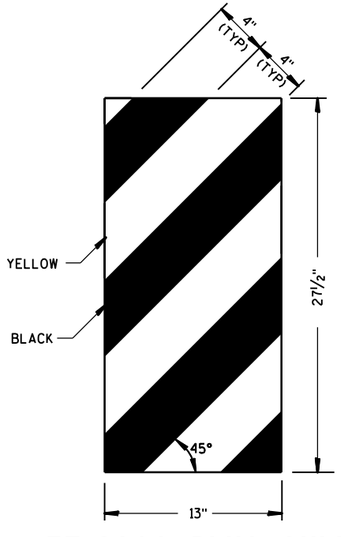
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

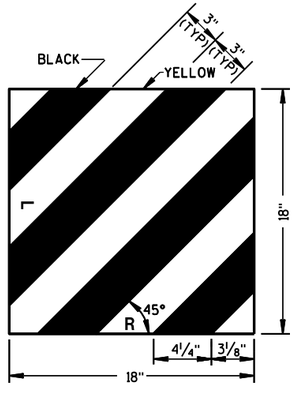
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

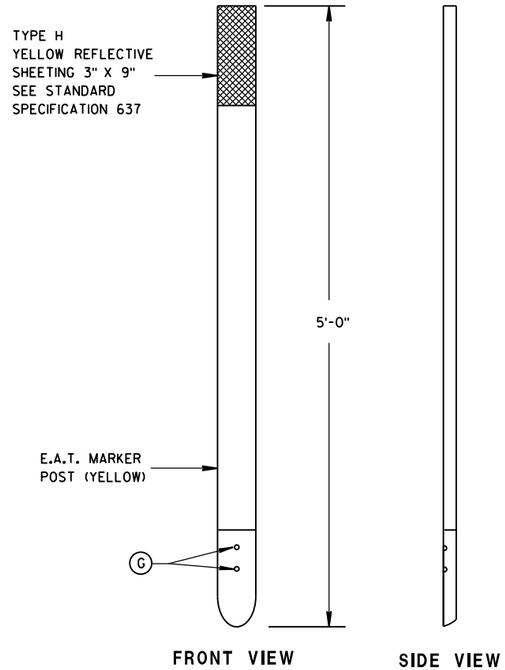


ET-2000 PLUS ONLY



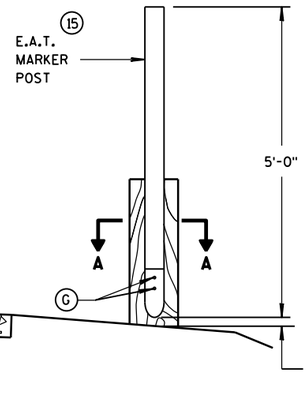
ET-2000 AND SKT-350

⑭ REFLECTIVE SHEETING DETAILS



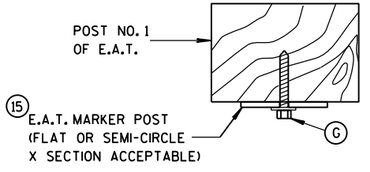
FRONT VIEW SIDE VIEW

⑮ E.A.T. MARKER POST



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

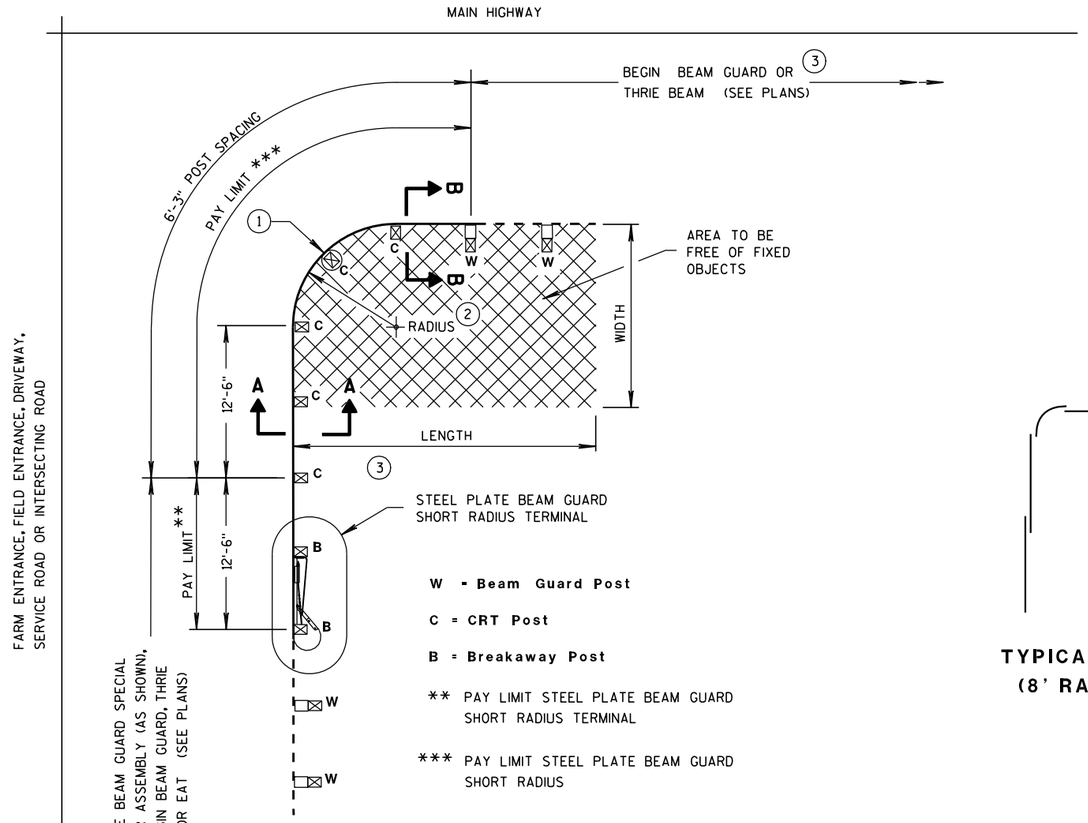
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

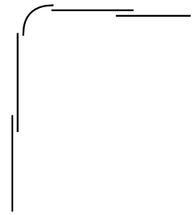
S.D.D. 14 B 24-8c

6

S.D.D. 14 B 24-8c



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

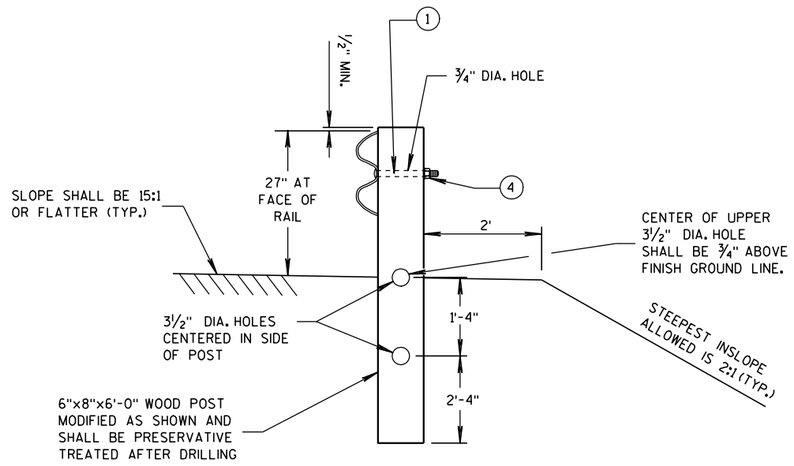
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

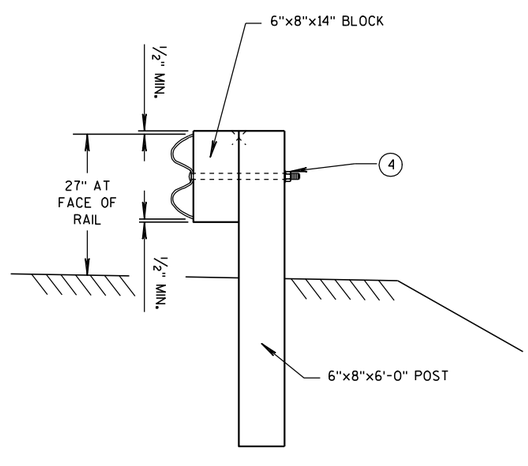
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

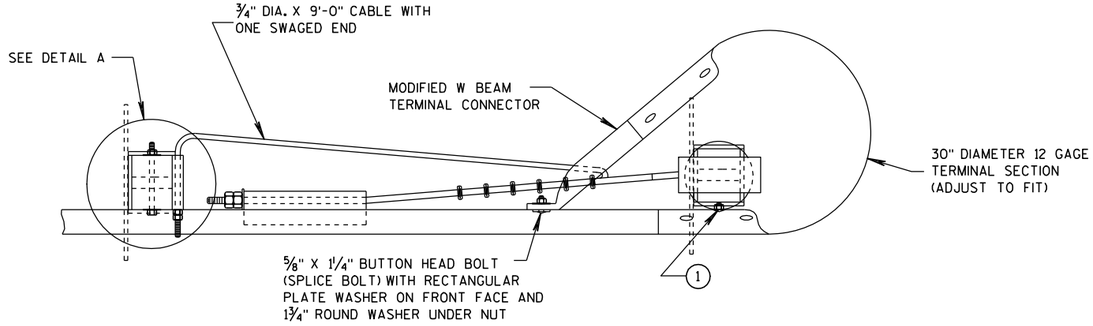
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

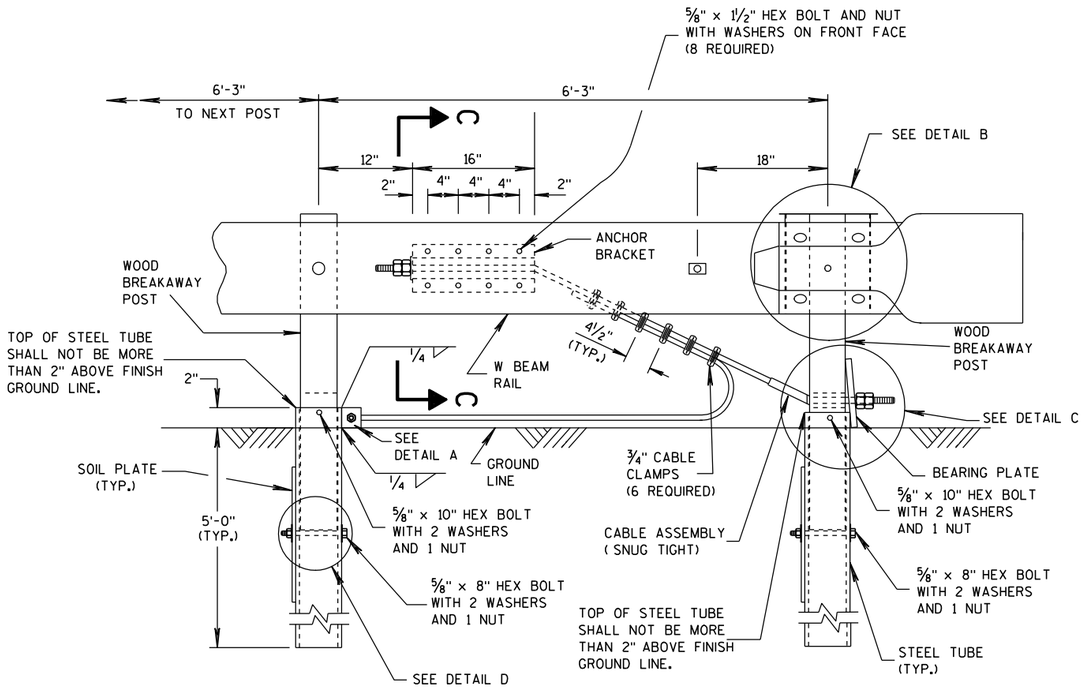
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



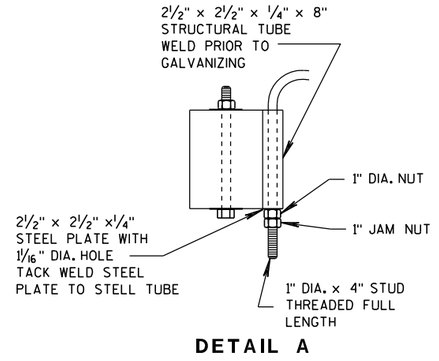
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

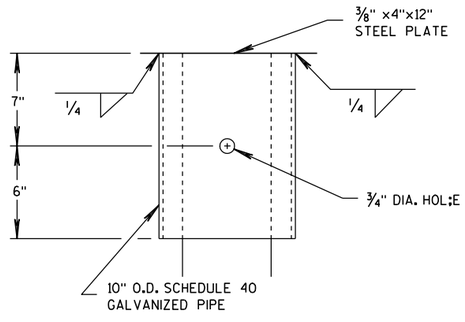
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

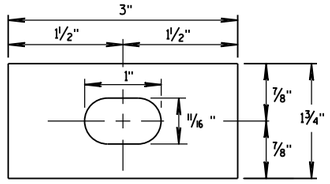
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

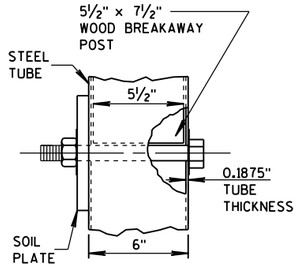
S.D.D. 14 B 27-1b

6

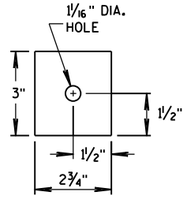
S.D.D. 14 B 27-1b



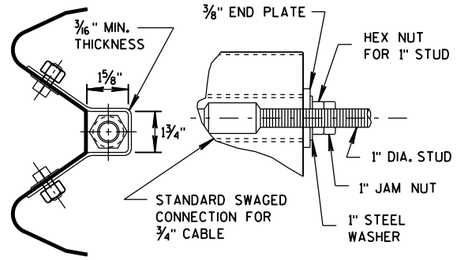
RECTANGULAR PLATE WASHER



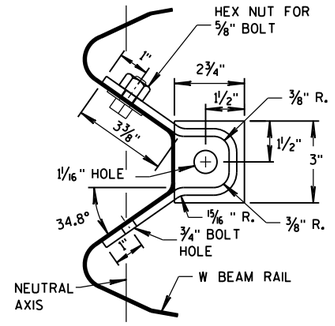
DETAIL D



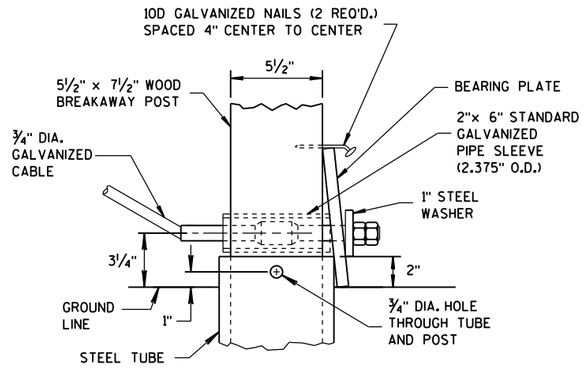
END PLATE



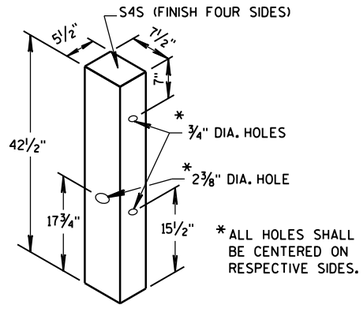
SECTION C-C
(END PLATE REMOVED)



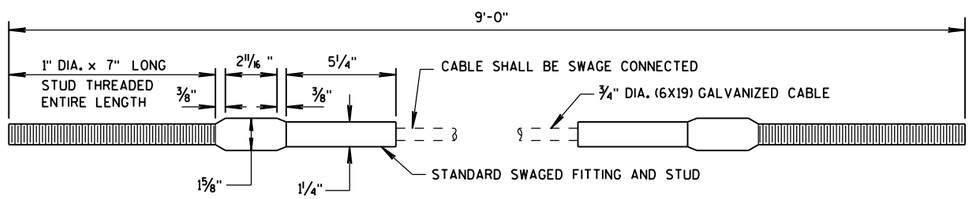
ANCHOR BRACKET



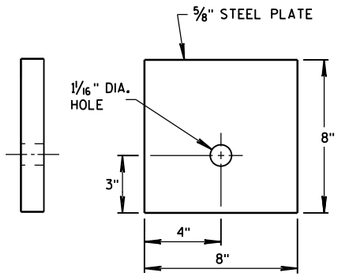
DETAIL C



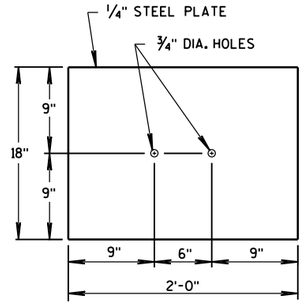
WOOD BREAKAWAY POST



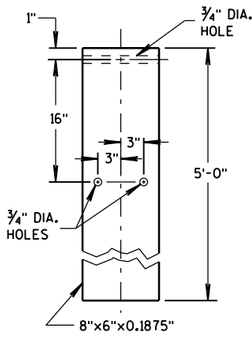
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 27-1c

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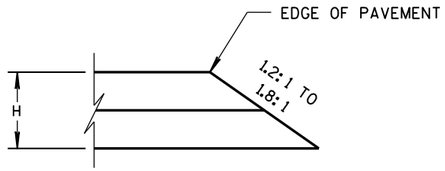
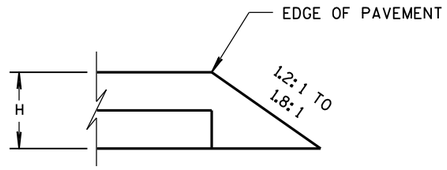
S.D.D. 14 B 27-1c



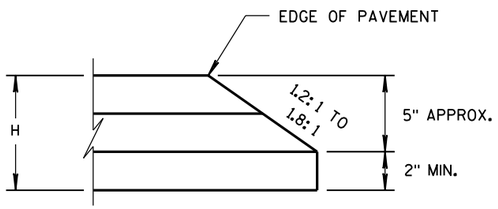
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



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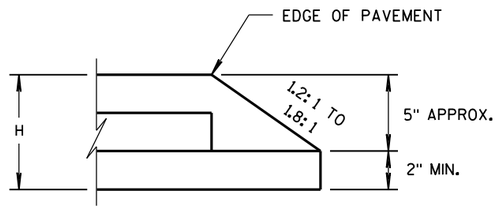
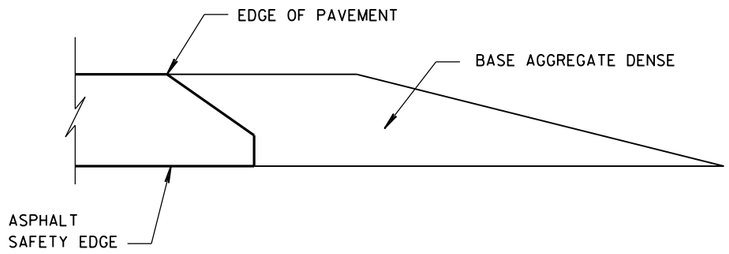
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

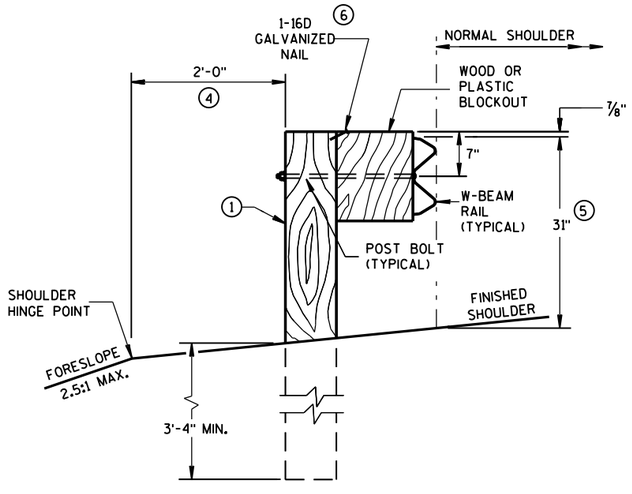
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

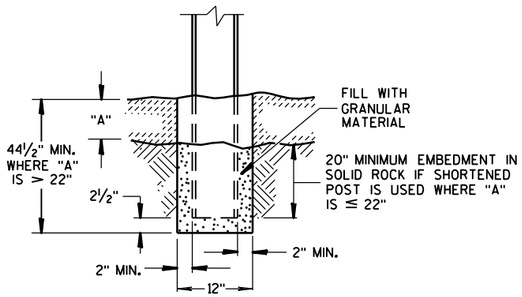
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



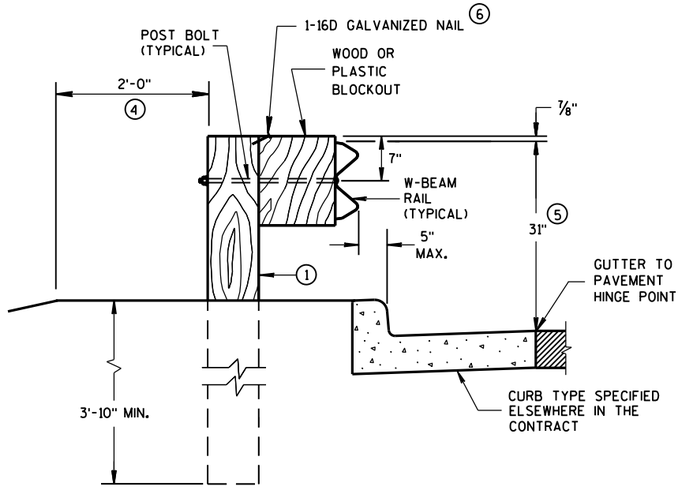
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



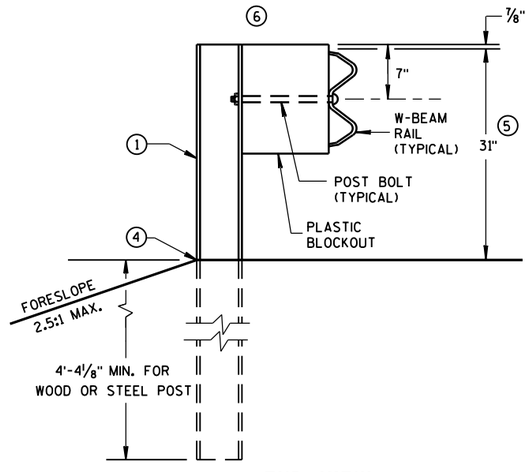
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



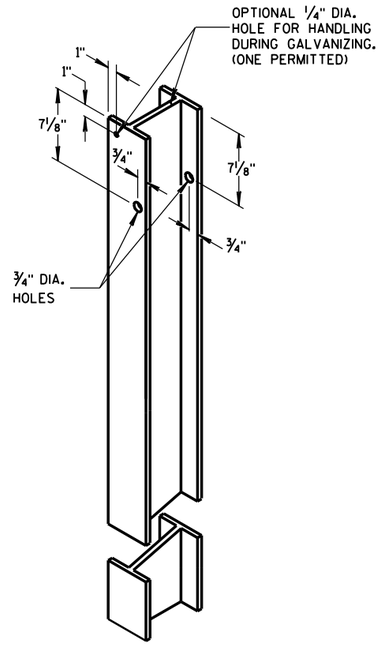
END VIEW

LOCATED ALONG A CURBED ROADWAY

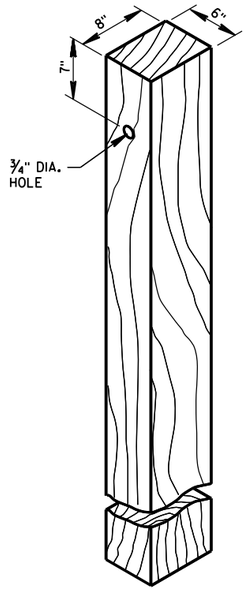


END VIEW

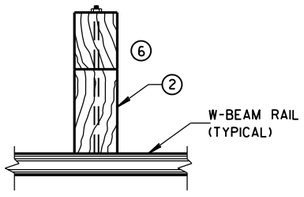
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



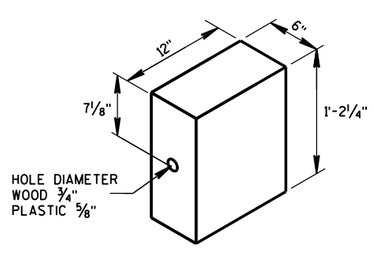
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



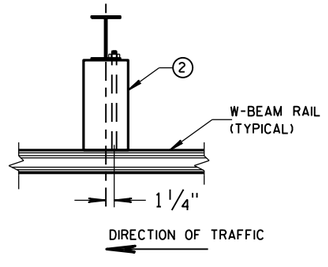
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)

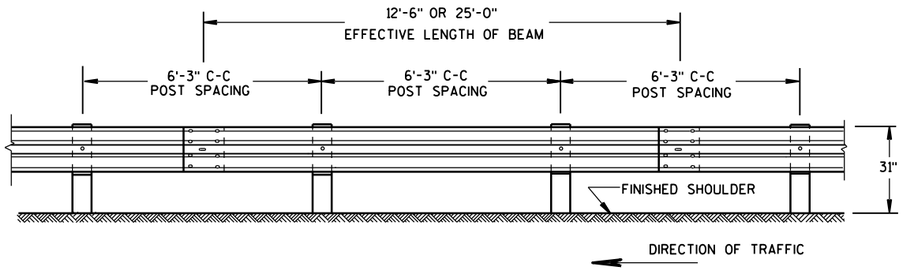


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

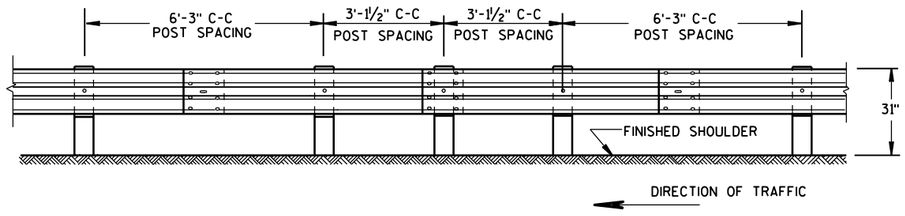
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-3a



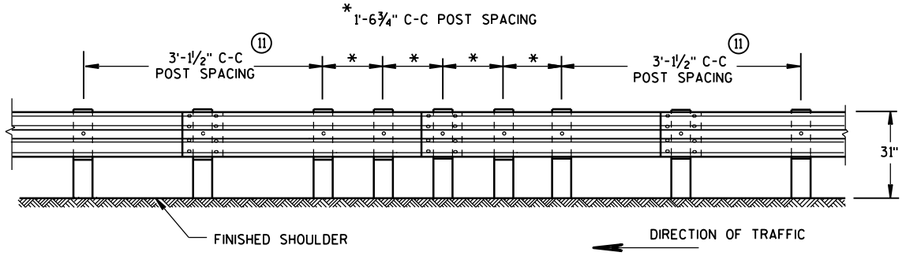
FRONT VIEW

POST SPACING STANDARD INSTALLATION



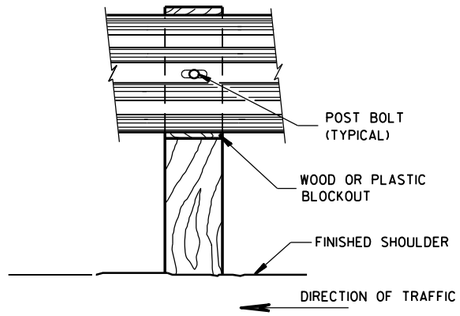
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

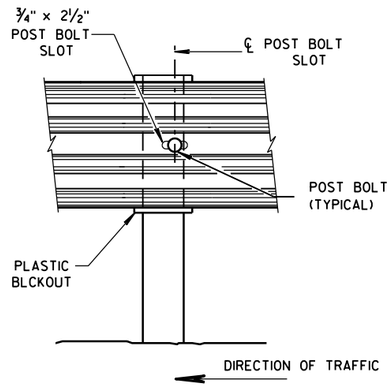


FRONT VIEW

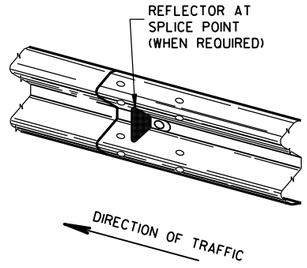
QUARTER POST SPACING (QS)

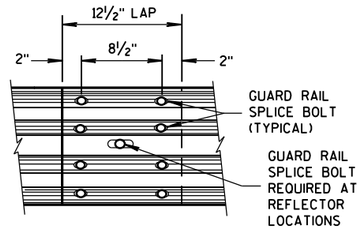


FRONT VIEW AT WOOD POST

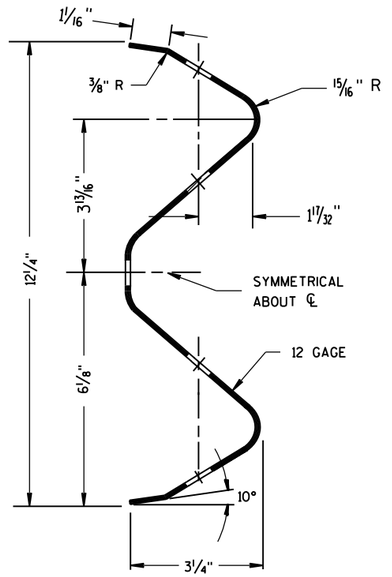


FRONT VIEW AT STEEL POST

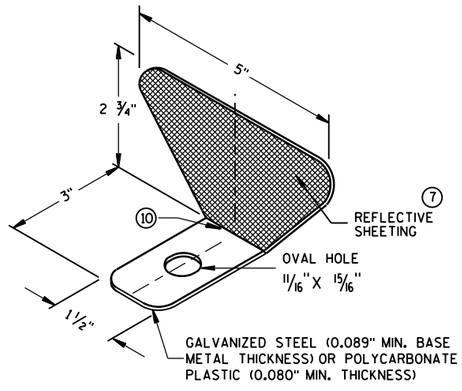




FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

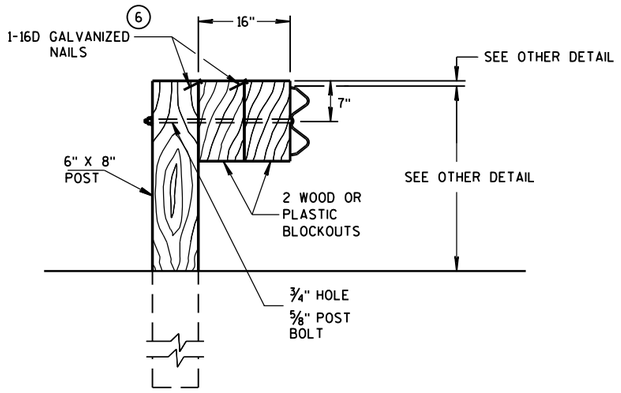
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ⑨ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⑩	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

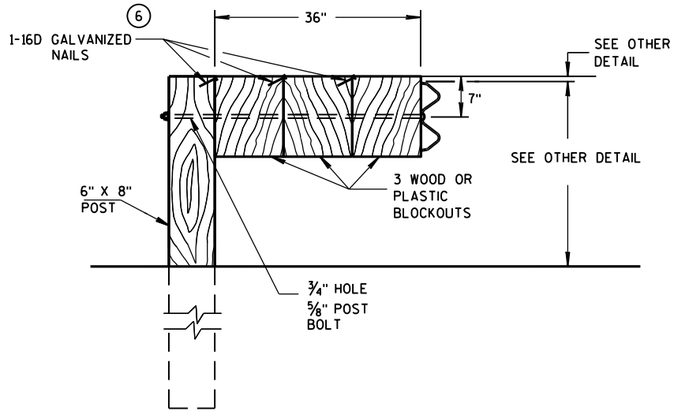
6

S.D.D. 14 B 42-3b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

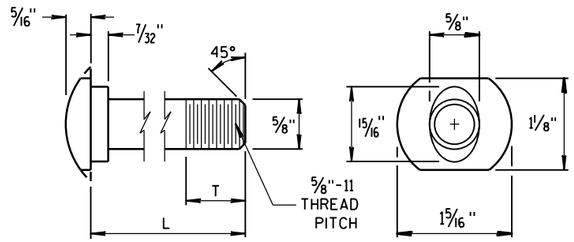


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

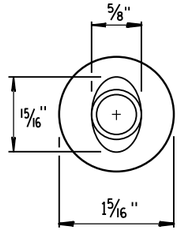
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

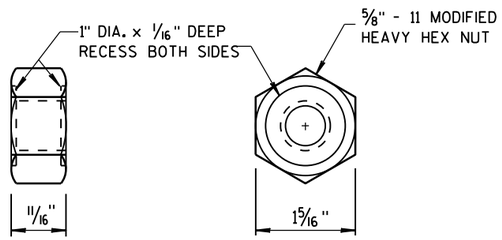


POST BOLT TABLE

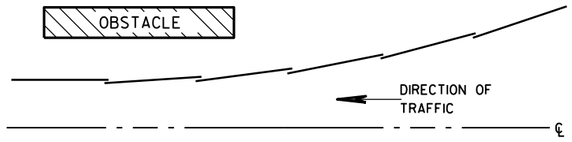
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

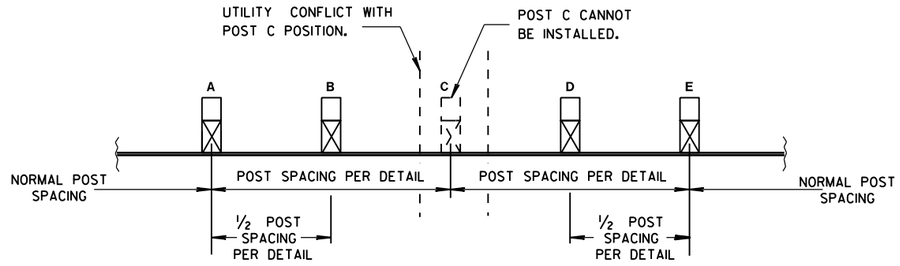


POST BOLT AND RECESS NUT

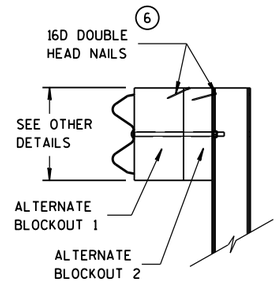


PLAN VIEW

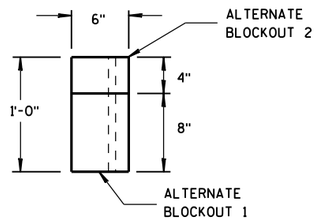
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 42-3c

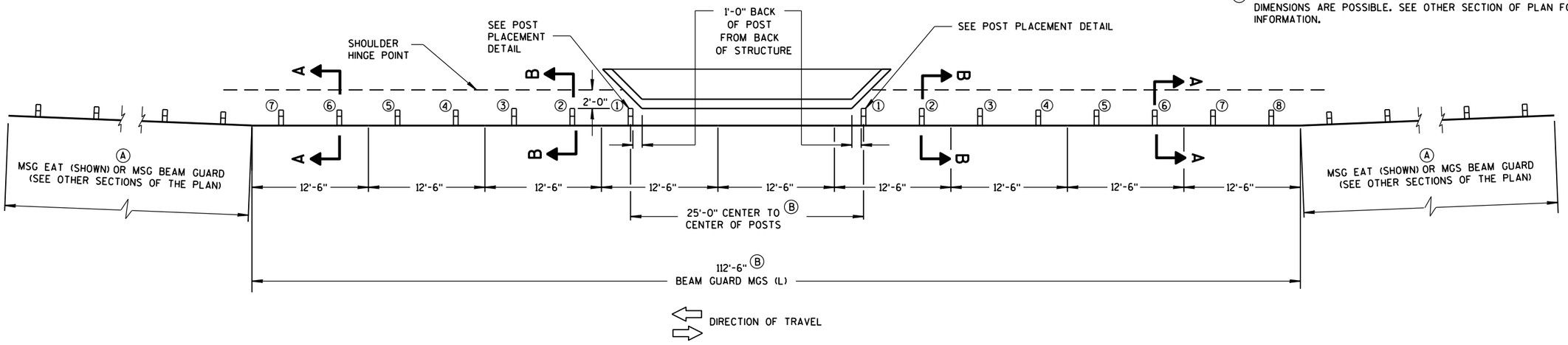
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

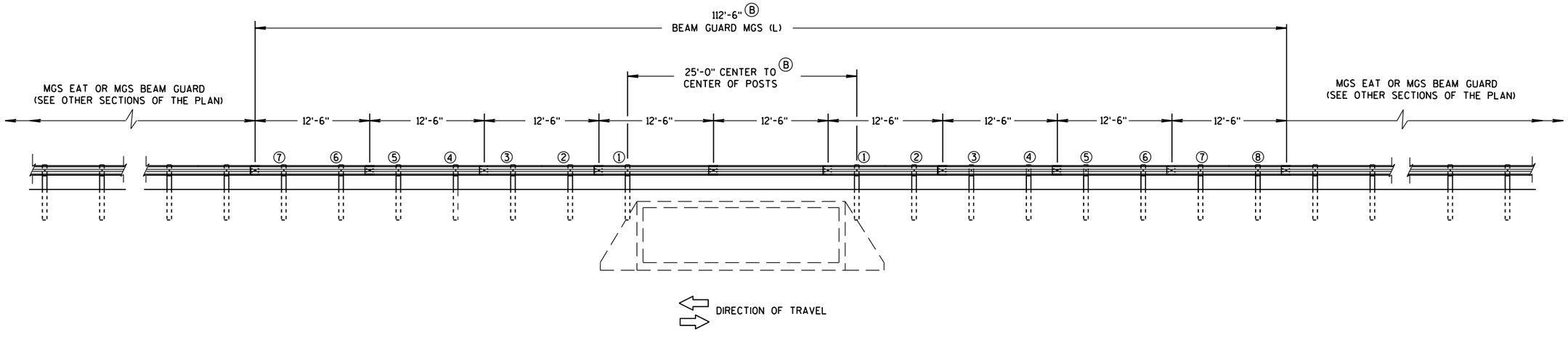
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
STATE OF WISCONSIN DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3a

6

S.D.D. 14 B 43-3a

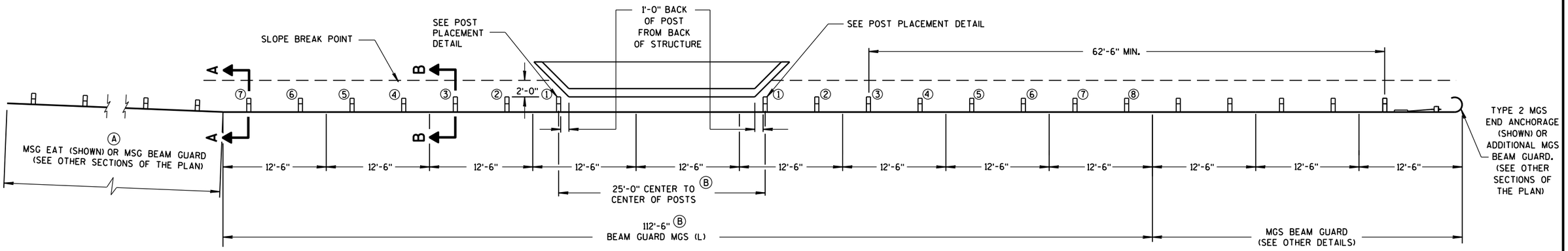
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

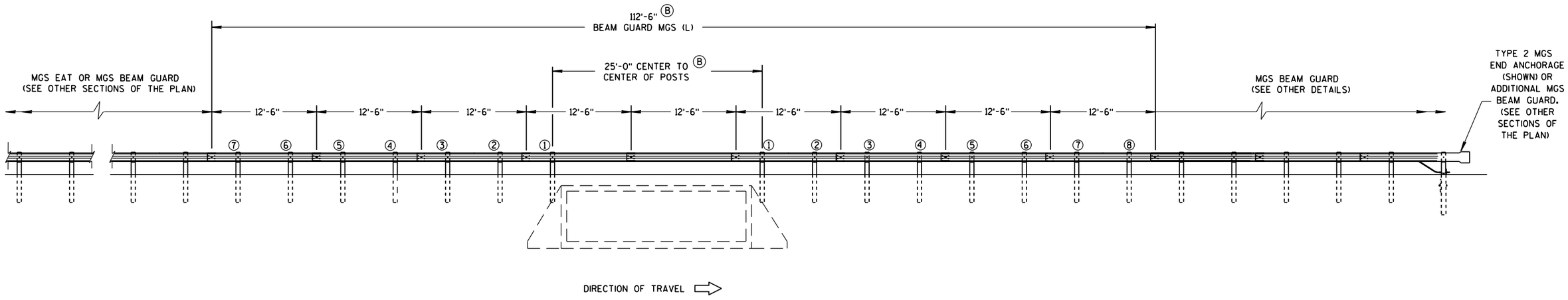
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



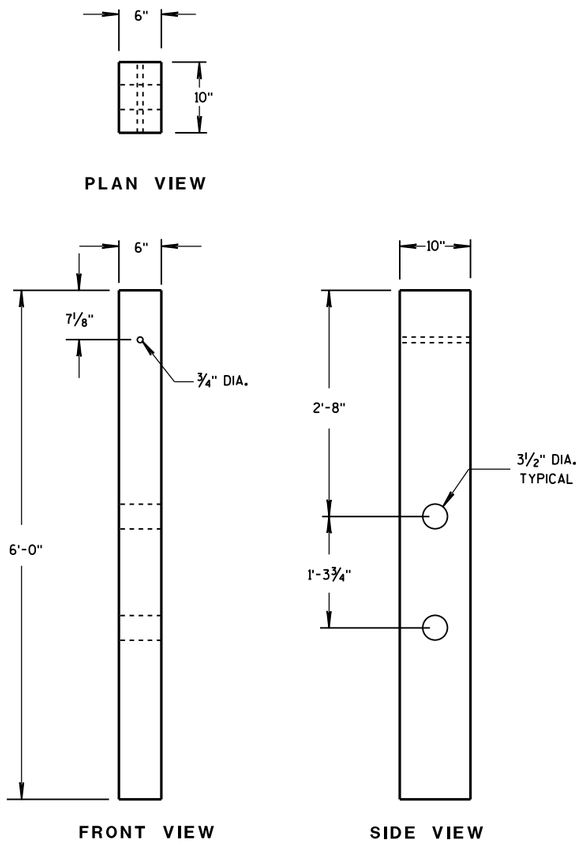
ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

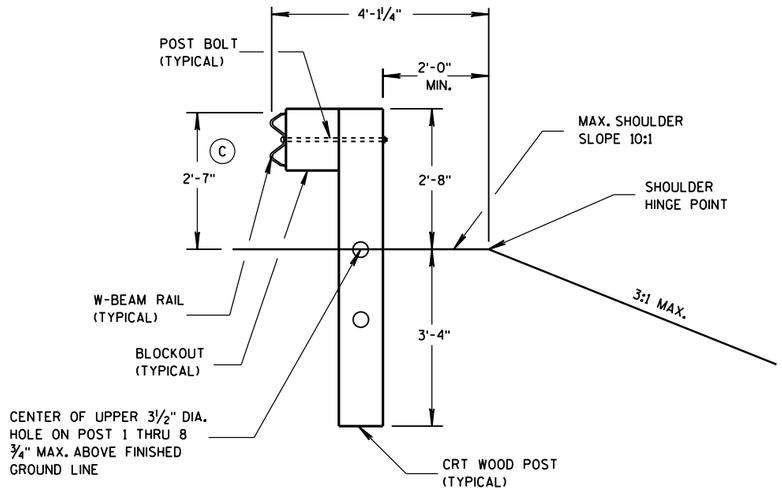
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
STATE OF WISCONSIN DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3b



CRT WOOD POST



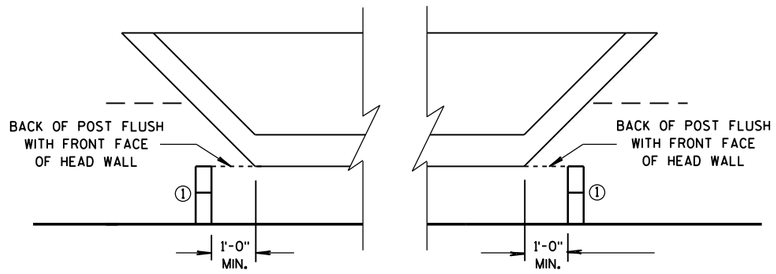
SECTION B-B

POSTS NO. 1-3

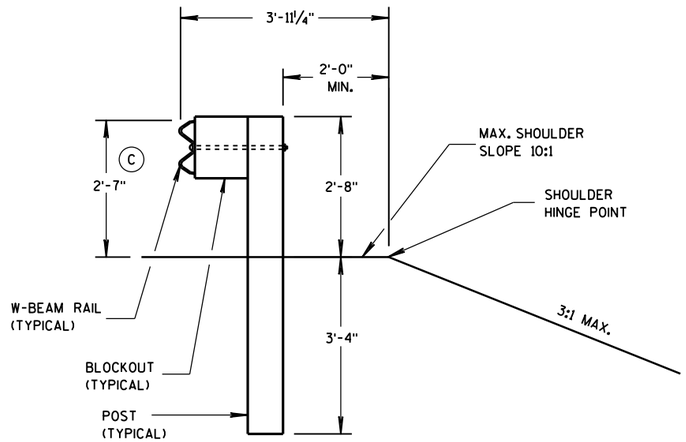
SEE OTHER DETAILS

GENERAL NOTES

(C) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



POST PLACEMENT DETAIL



SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/10/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 43-3c

6

S.D.D. 14 B 43-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

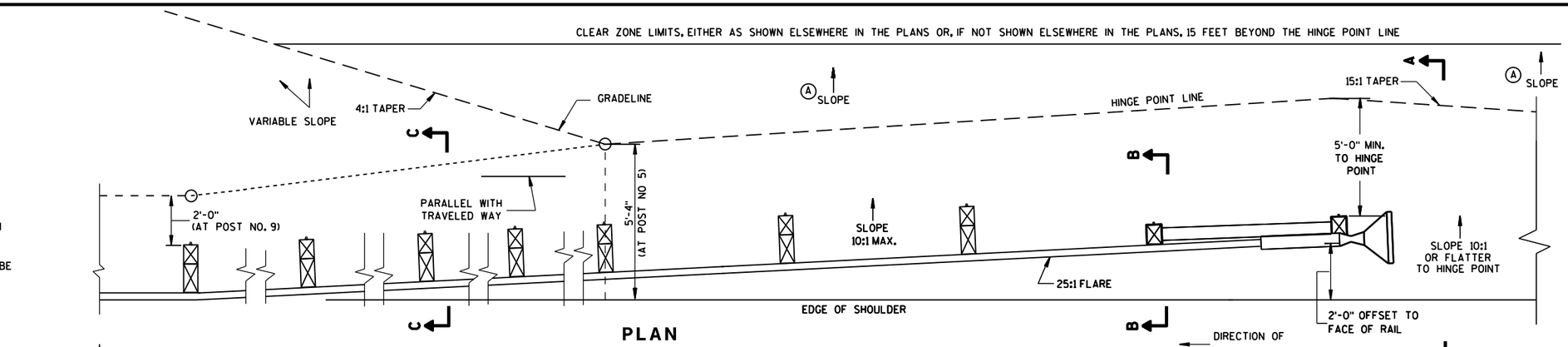
SEE SDD 14B42 FOR MORE INFORMATION.

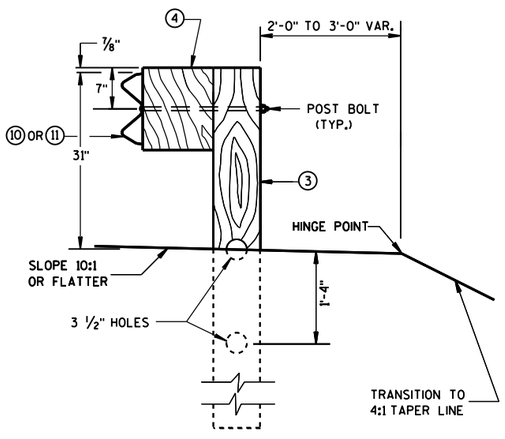
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

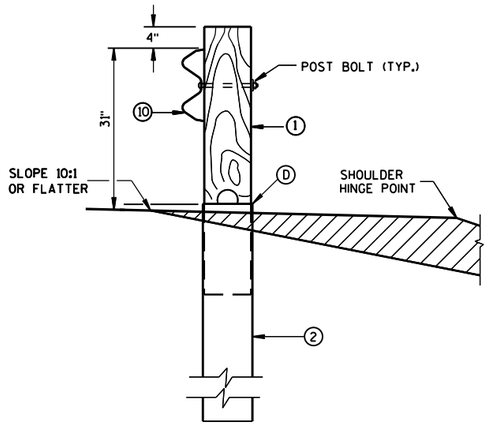
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

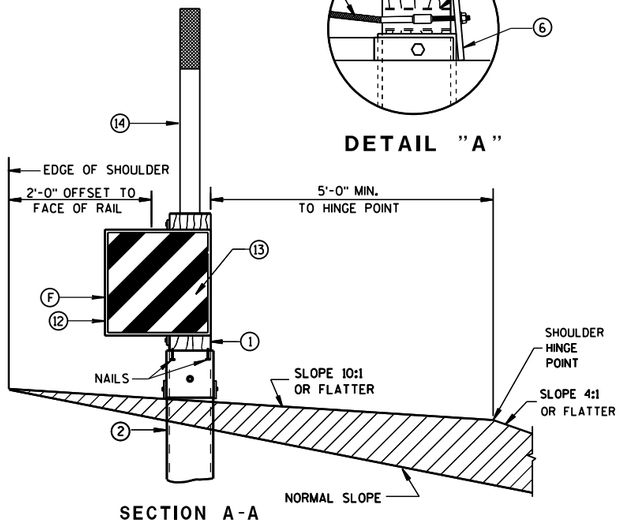




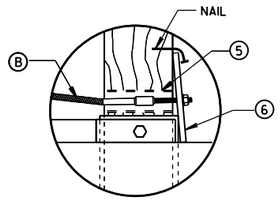
SECTION C-C
TYPICAL AT POST NOS. 3-9



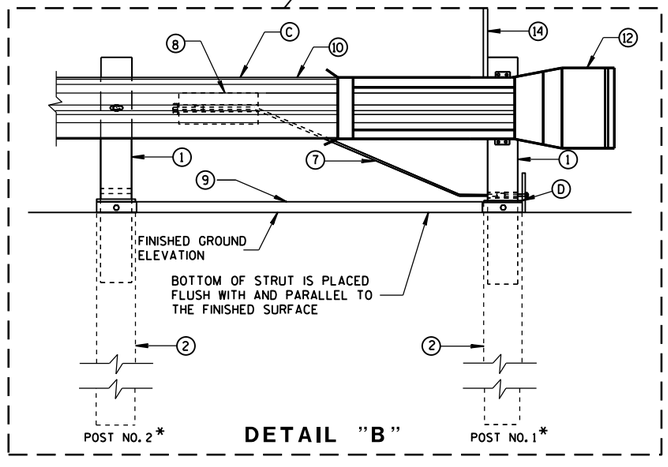
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



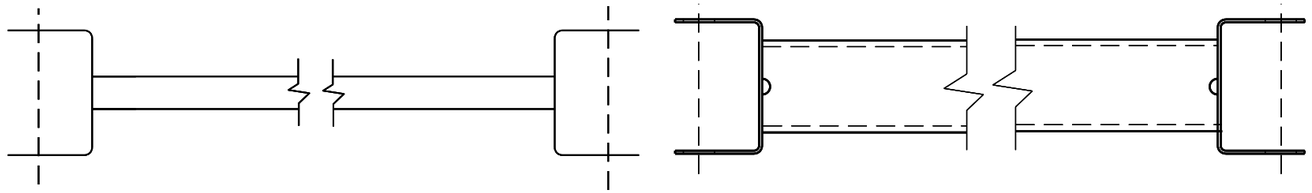
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

S.D.D. 14 B 44-2a

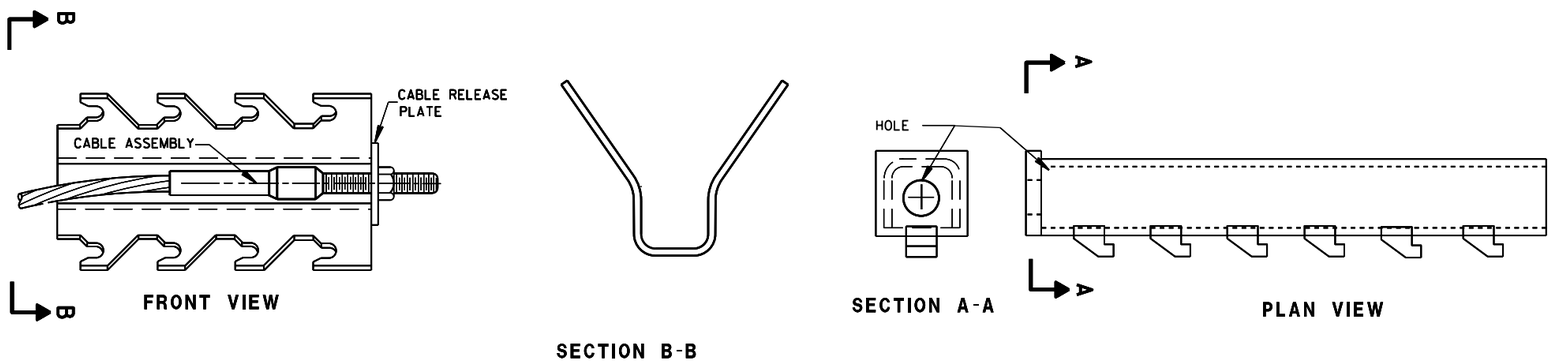
S.D.D. 14 B 44-2a



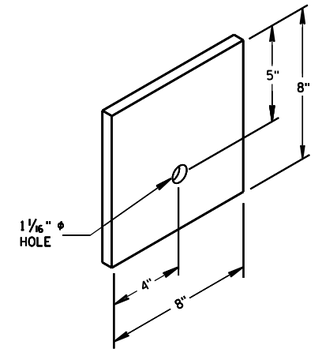
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)

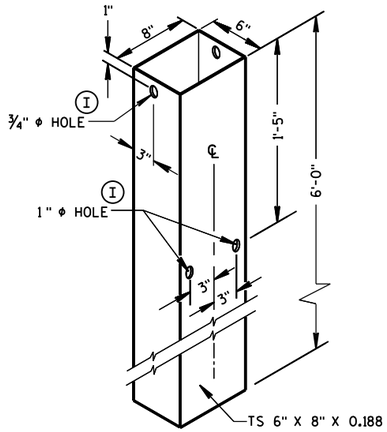


BEARING PLATE (6)

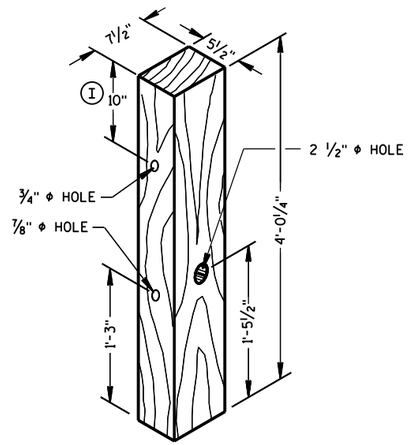
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 44-2b

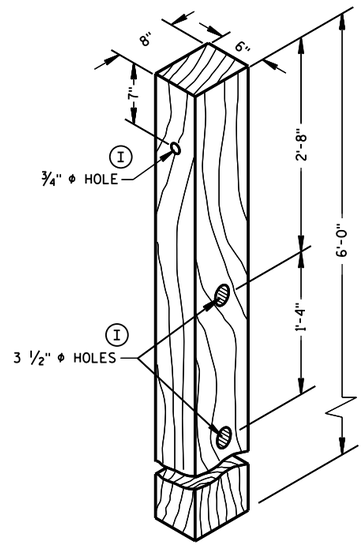


FOUNDATION TUBE (2)



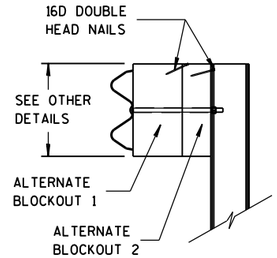
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

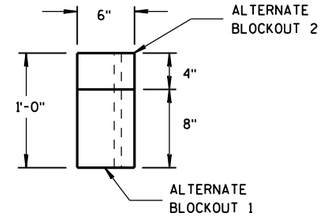


POSTS NUMBER 3-9

WOOD CRT POST (3)

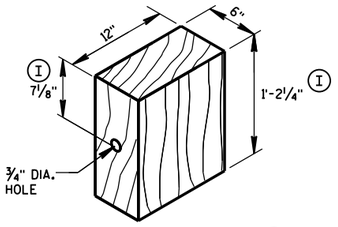


SIDE VIEW



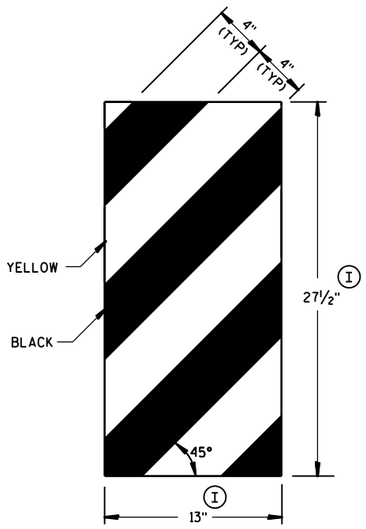
TOP VIEW

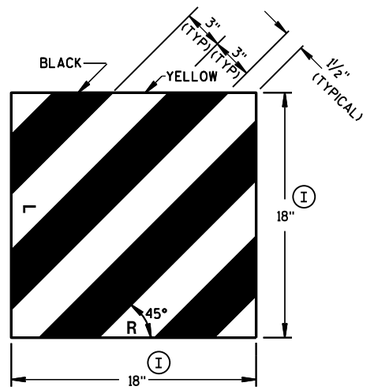
ALTERNATE WOOD BLOCKOUT DETAIL



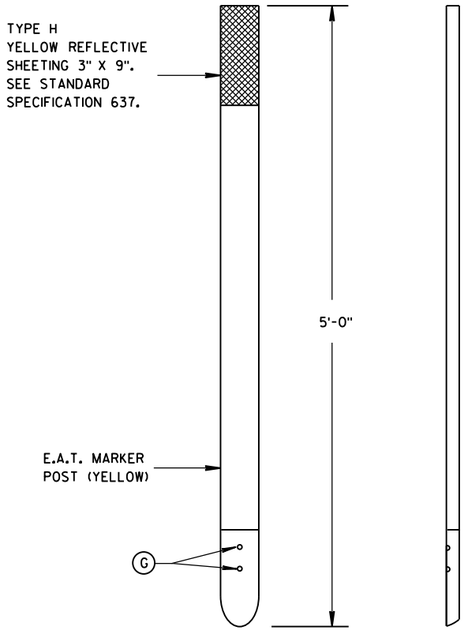
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





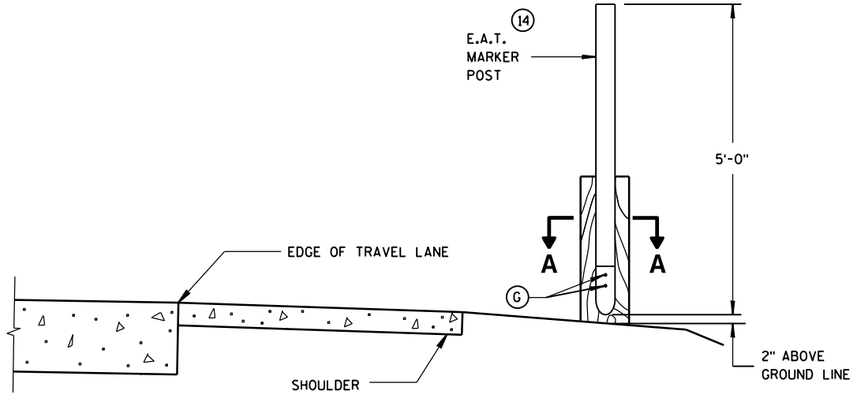
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

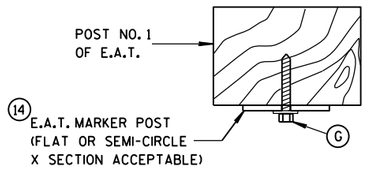
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

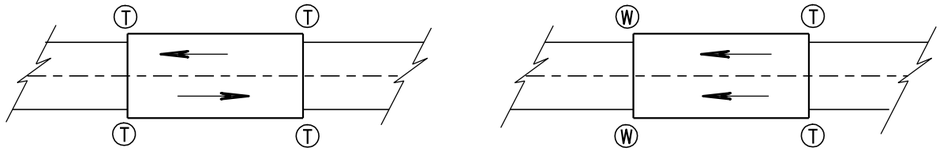
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

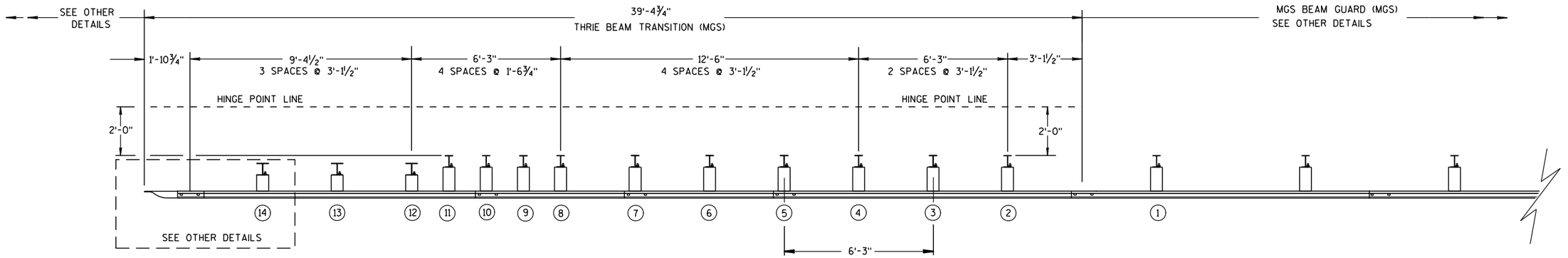
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

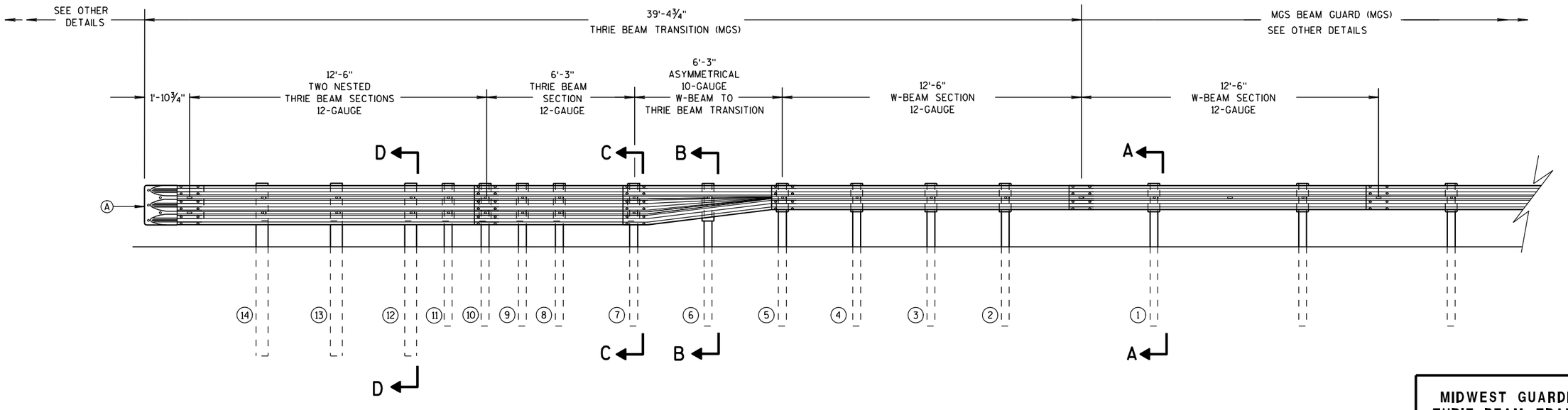
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

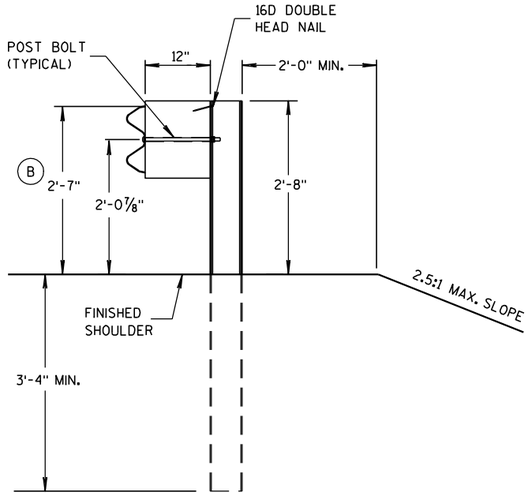
S.D.D. 14 B 45-3a

6

S.D.D. 14 B 45-3a

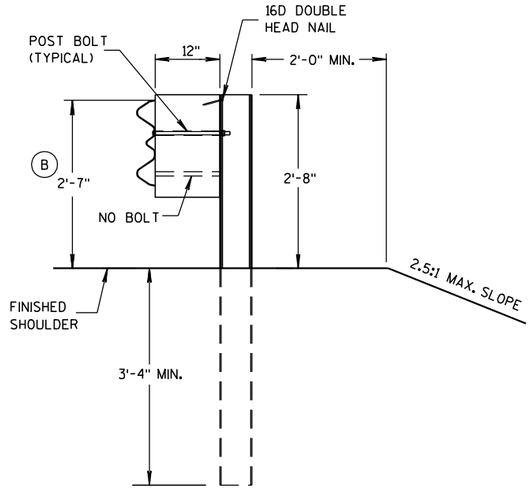
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



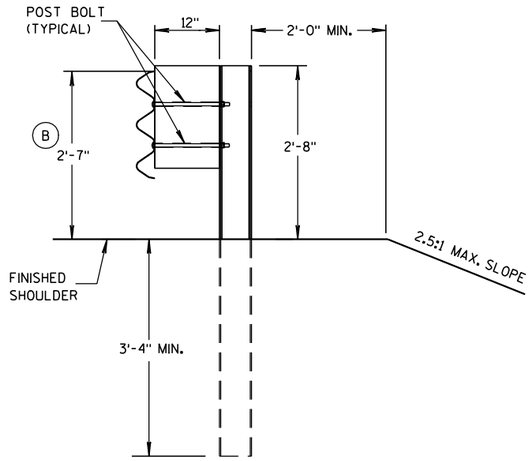
SECTION A-A

POSTS 1-5



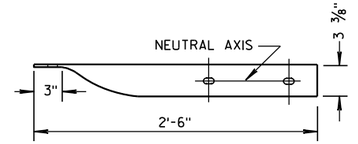
SECTION B-B

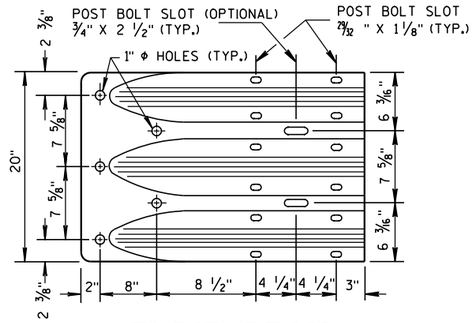
POST 6



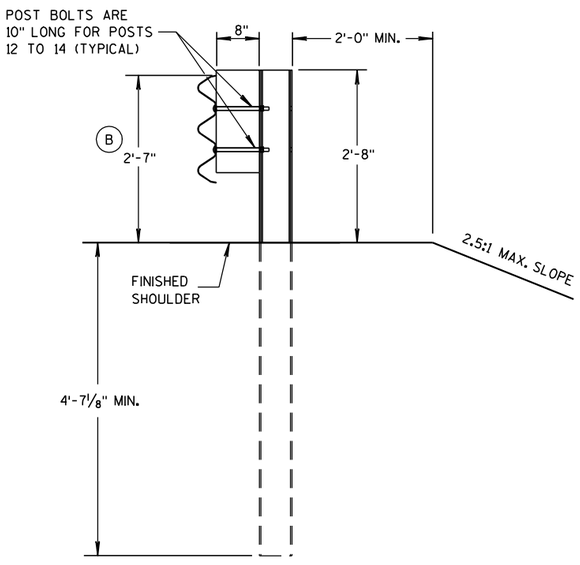
SECTION C-C

POSTS 7-11



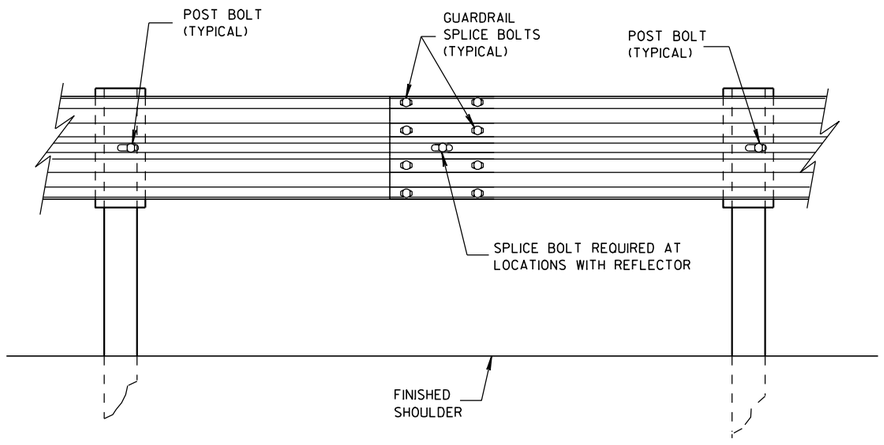


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

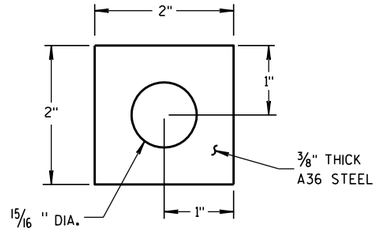
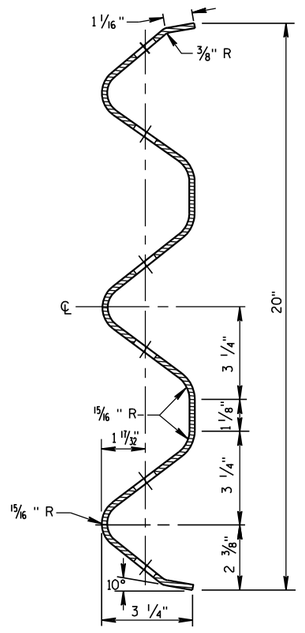


PLATE WASHER DETAIL



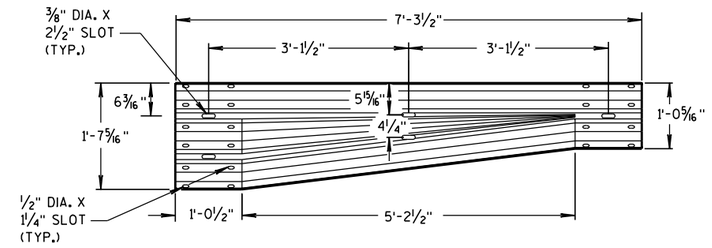
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

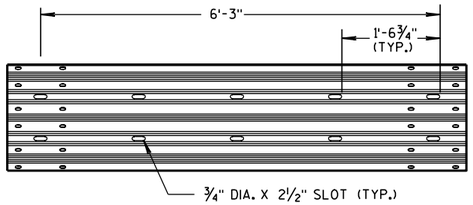
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

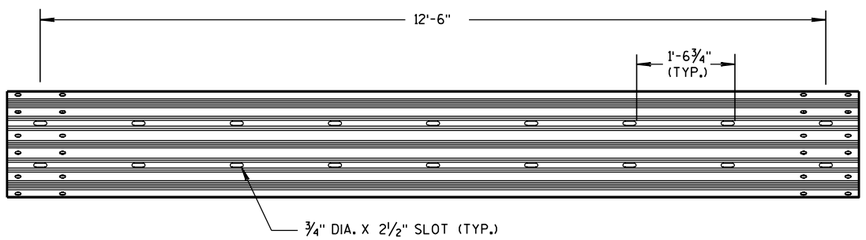
S.D.D. 14 B 45-3b



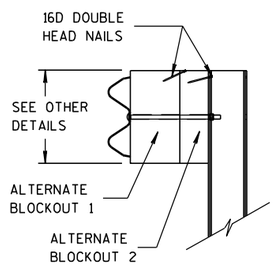
W-BEAM TO THRIE BEAM TRANSITION SECTION



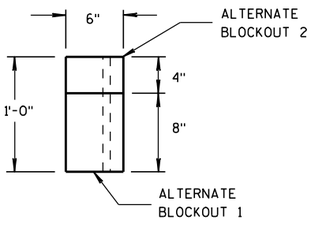
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

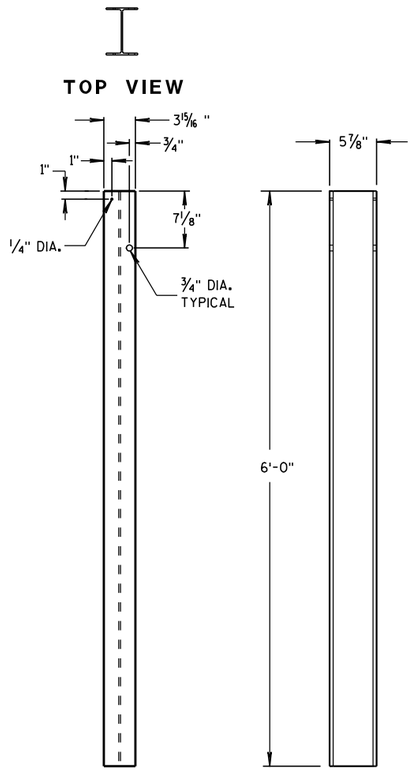


SIDE VIEW



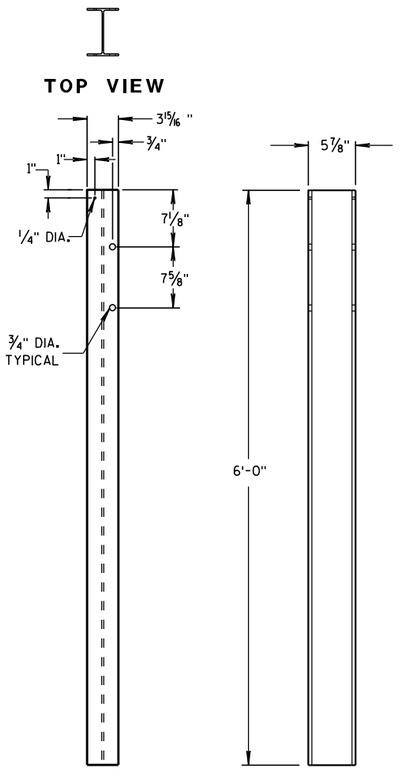
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



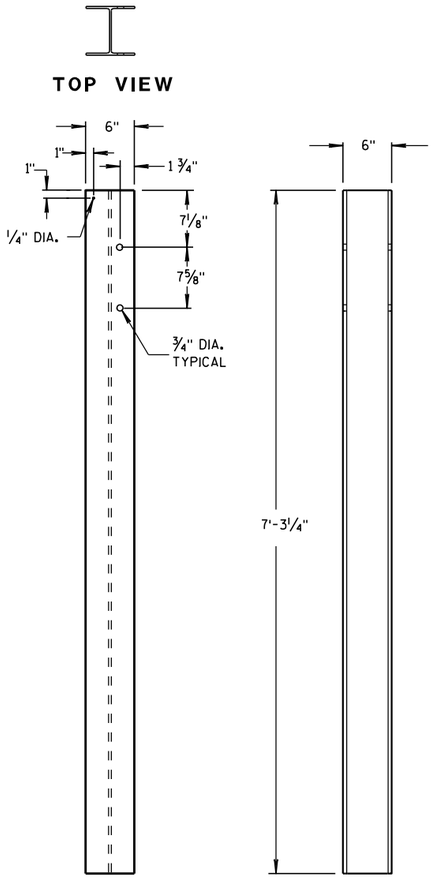
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5



FRONT VIEW SIDE VIEW

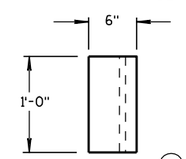
STEEL POSTS 6-11



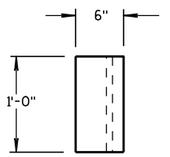
FRONT VIEW SIDE VIEW

STEEL POSTS 12-14

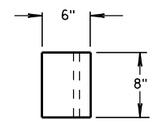
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



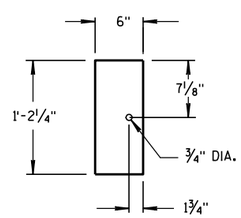
TOP VIEW (1)



TOP VIEW (1)

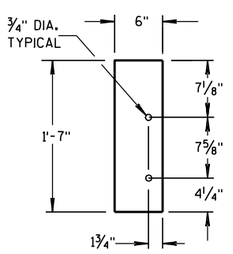


TOP VIEW



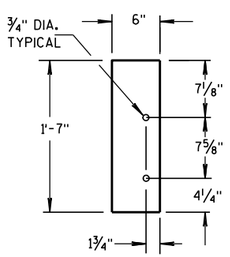
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

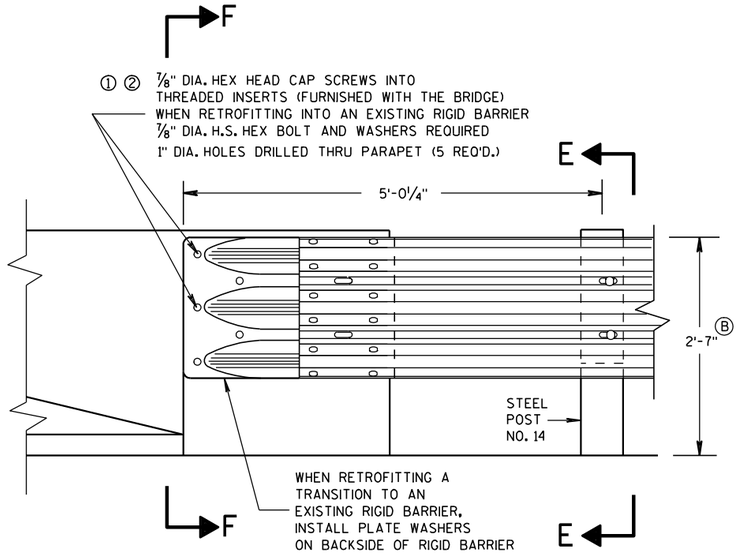
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
(1)	W6x9	72"
(2)	W6x9	72"
(3)	W6x9	72"
(4)	W6x9	72"
(5)	W6x9	72"
(6)	W6x9	72"
(7)	W6x9	72"
(8)	W6x9	72"
(9)	W6x9	72"
(10)	W6x9	72"
(11)	W6x9	72"
(12)	W6x15	87 1/8"
(13)	W6x15	87 1/8"
(14)	W6x15	87 1/8"

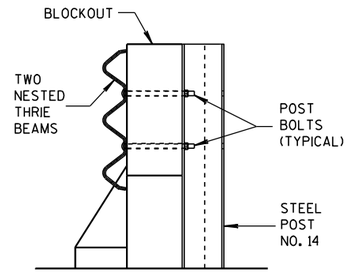
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

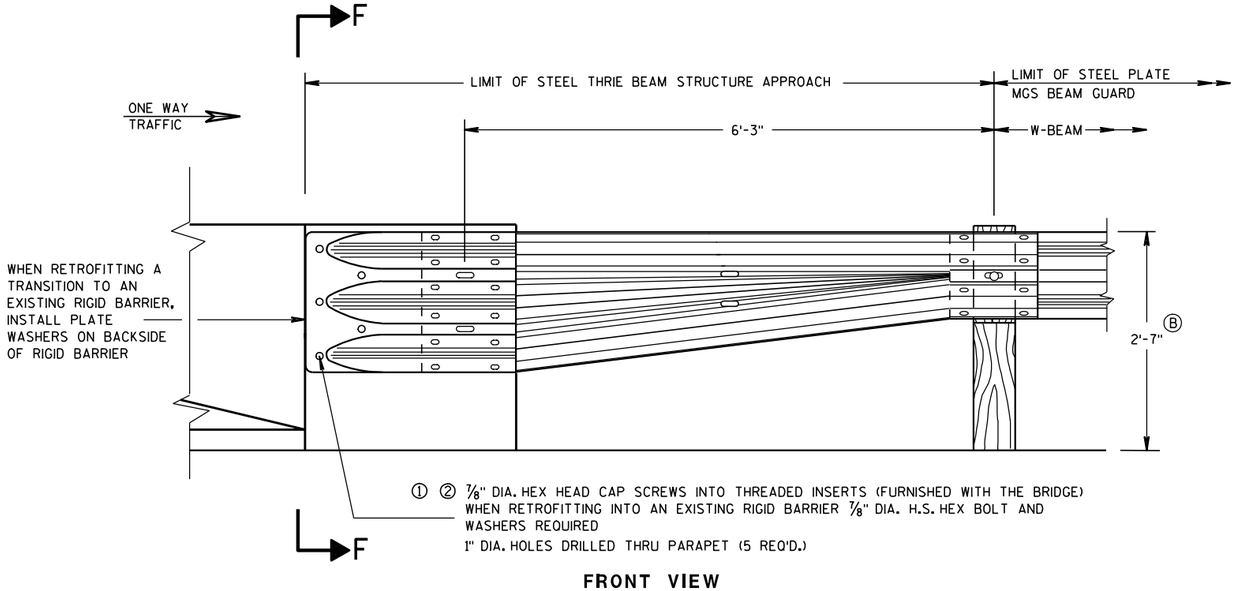
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

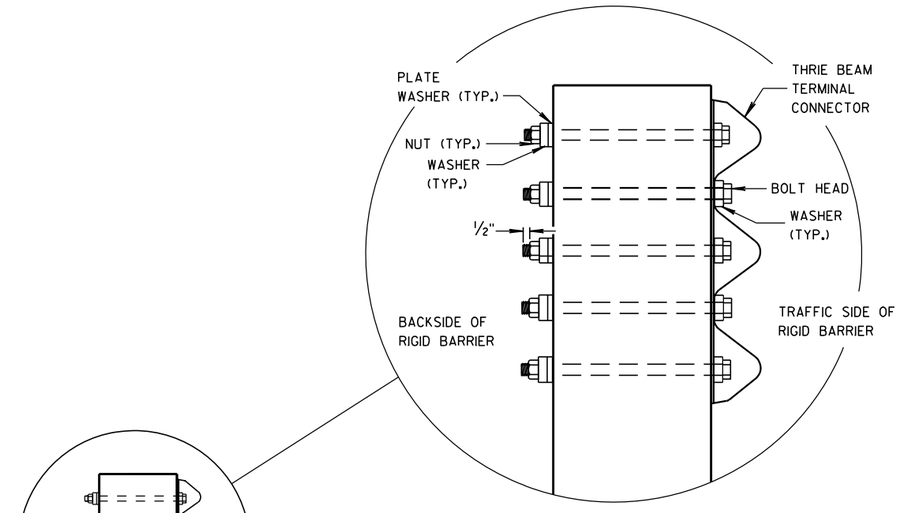
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

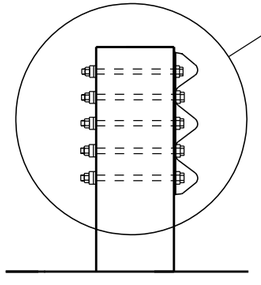
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible] ENGINEER

FHWA

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

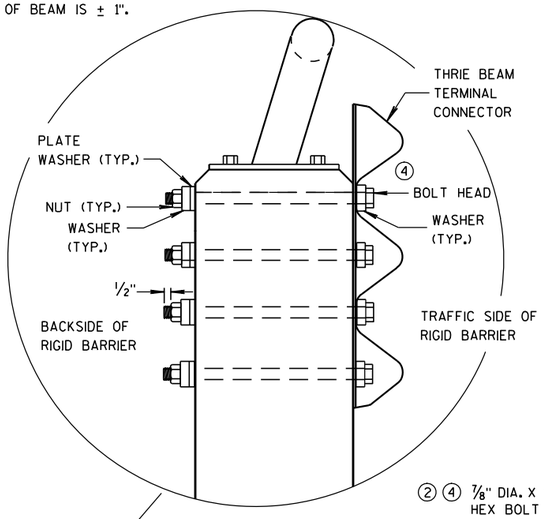
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

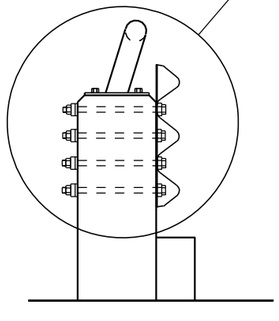
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

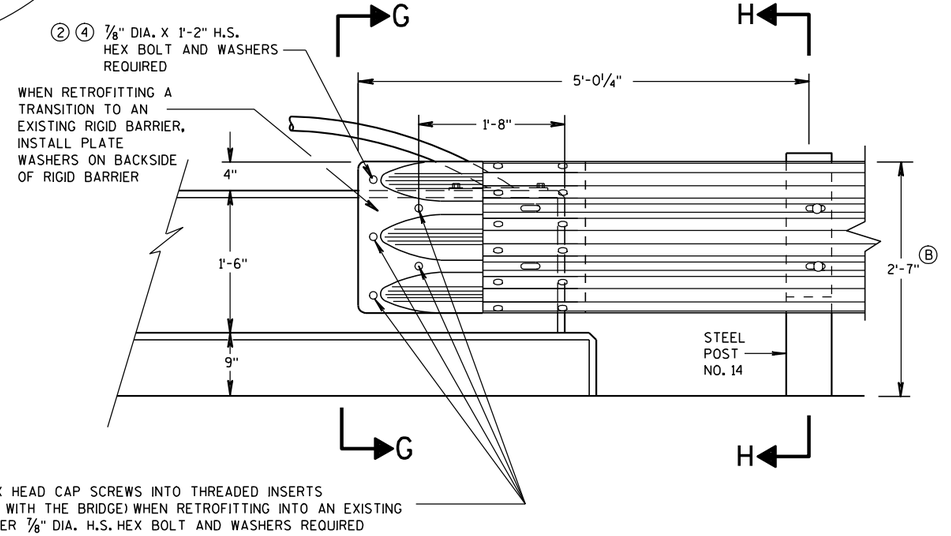
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

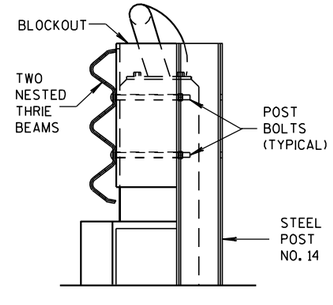




SECTION G-G

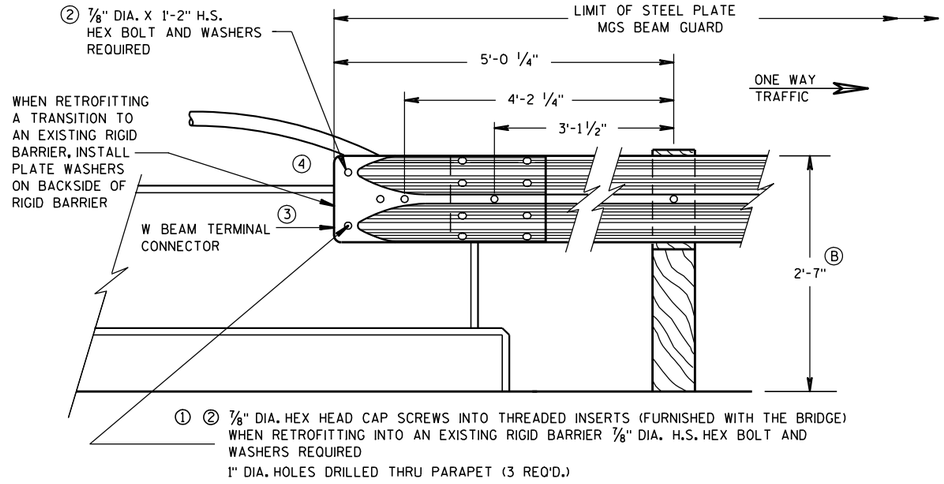


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 14 B 45-3e

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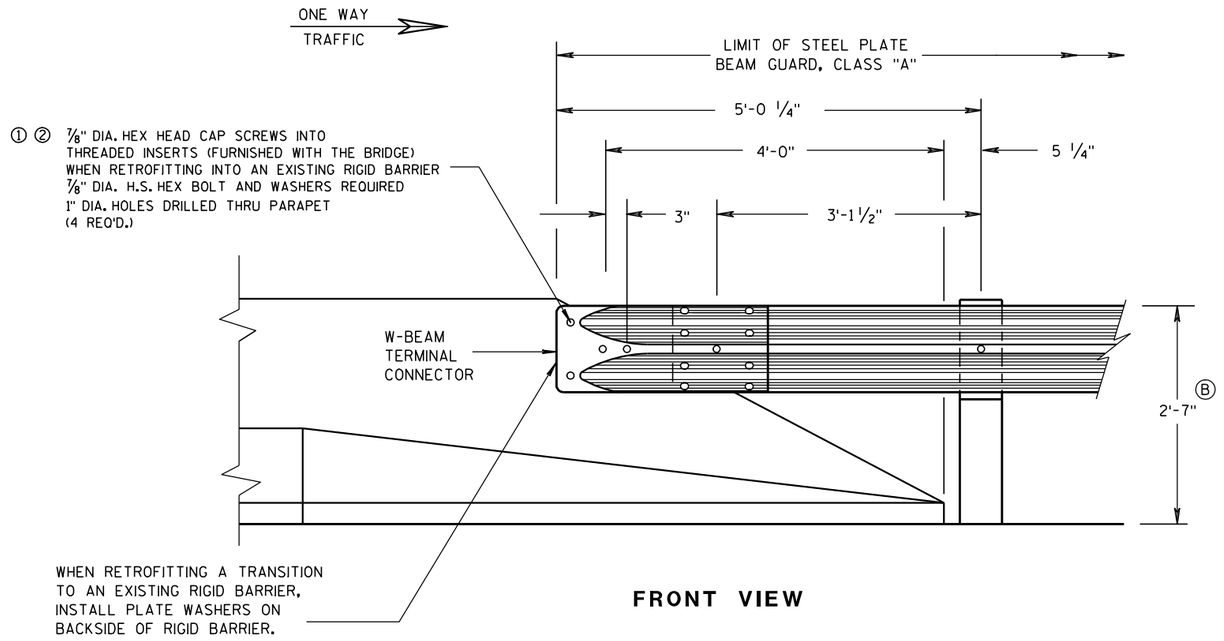
S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

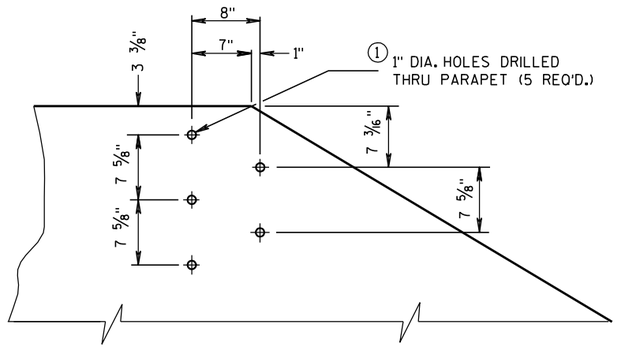
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

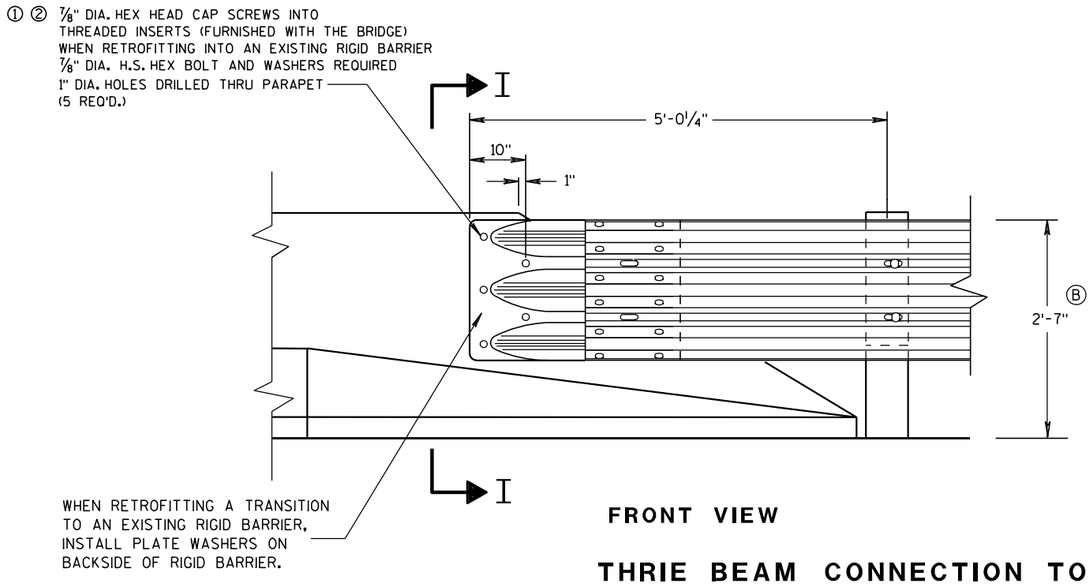
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

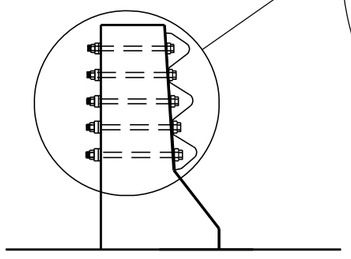
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



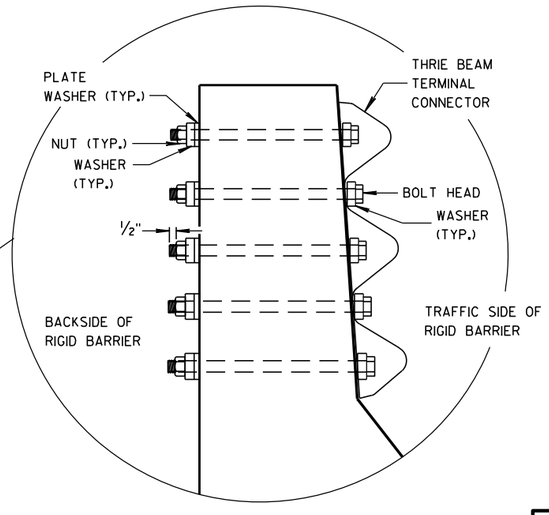
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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FHWA

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S.D.D. 14 B 45-3f

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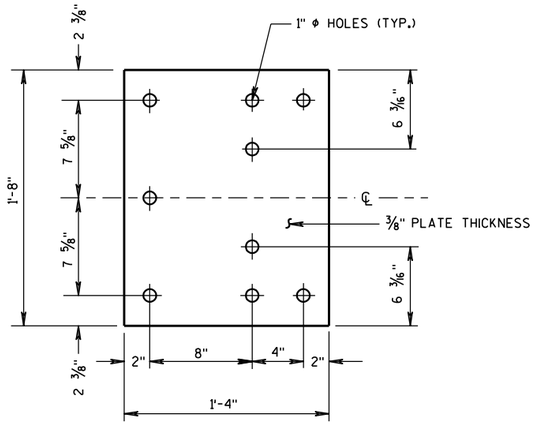
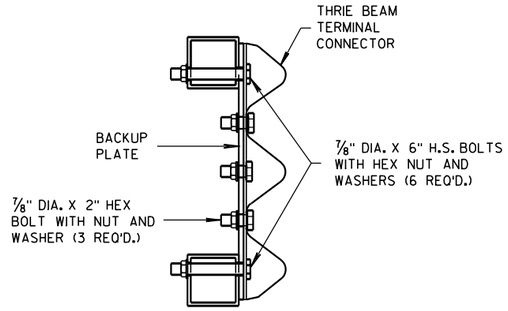
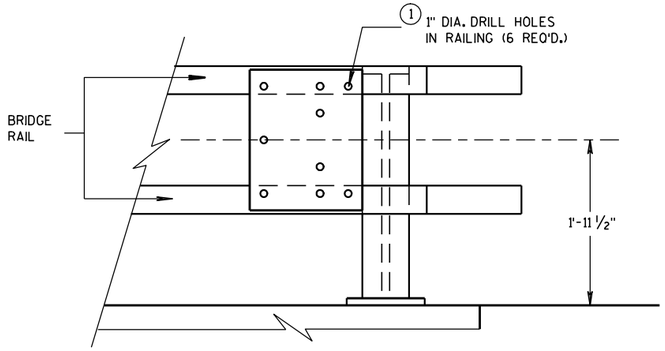
S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL



SECTION J-J

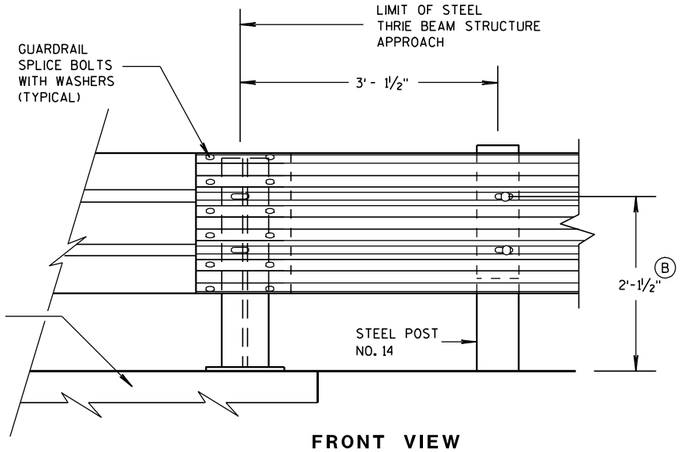


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

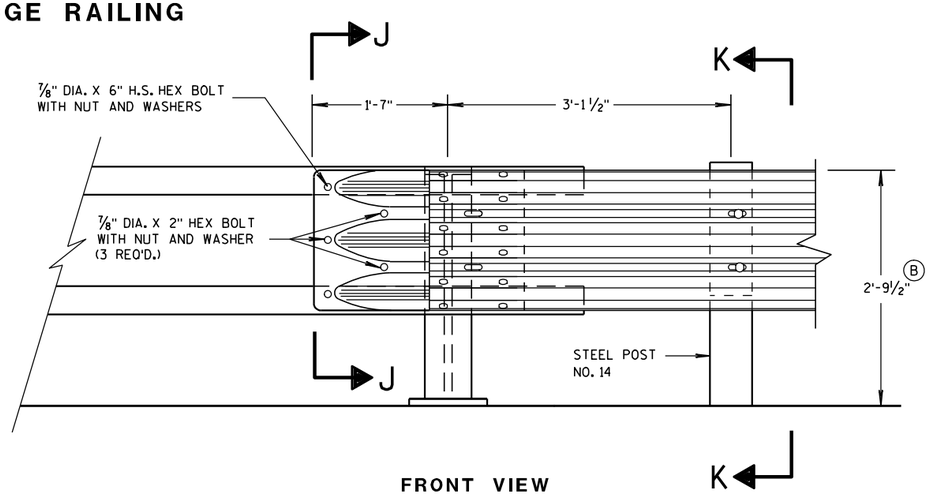
1. DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

B. TOLERANCE FOR TOP OF BEAM IS ± 1".

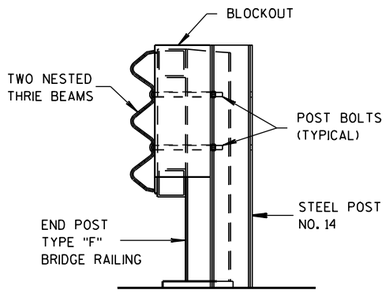


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 45-3g

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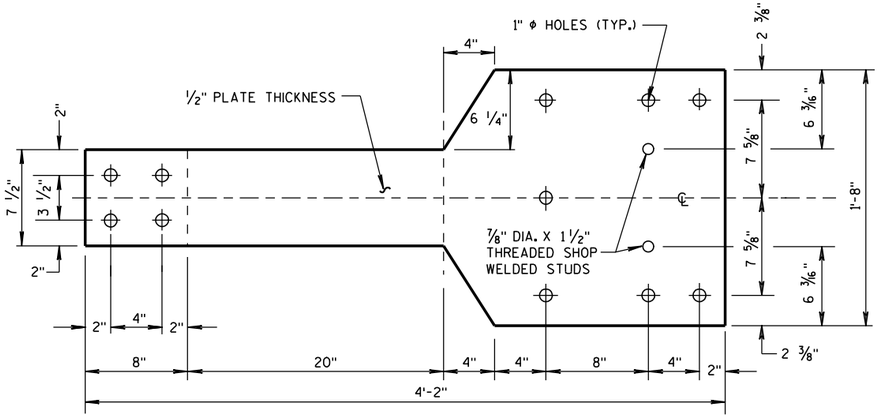
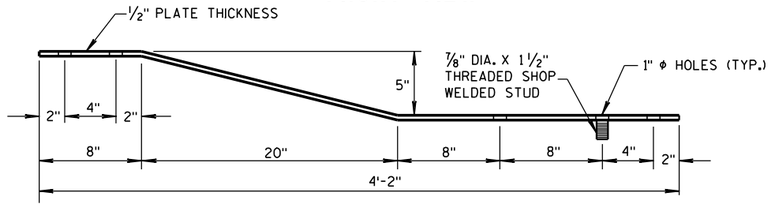
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

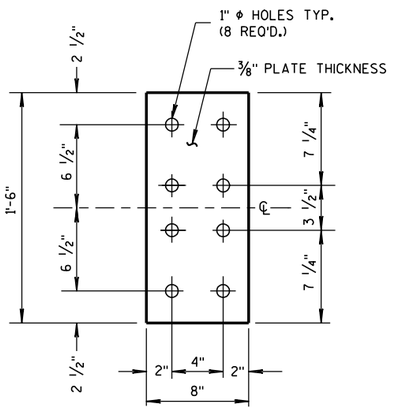


FRONT VIEW



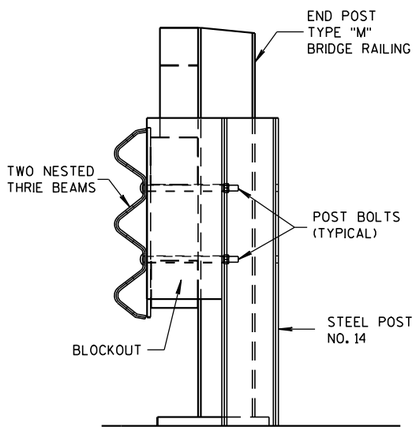
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

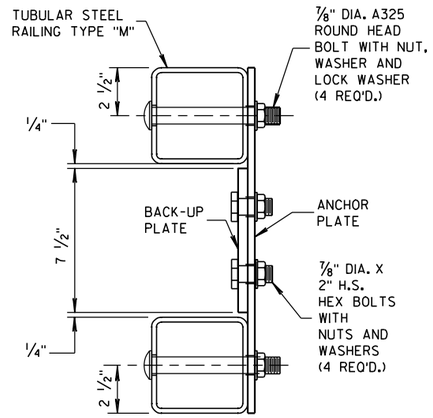


FRONT VIEW

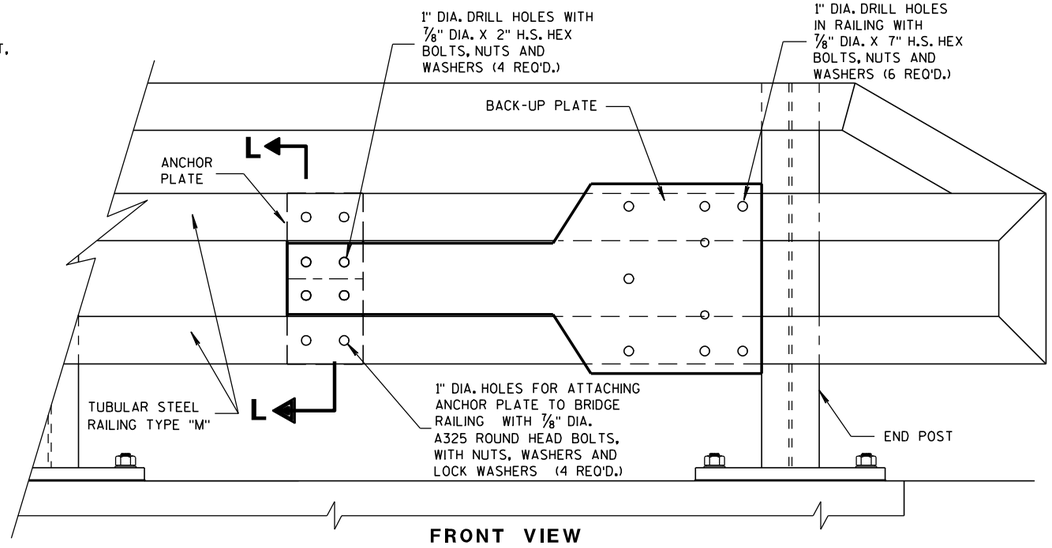
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

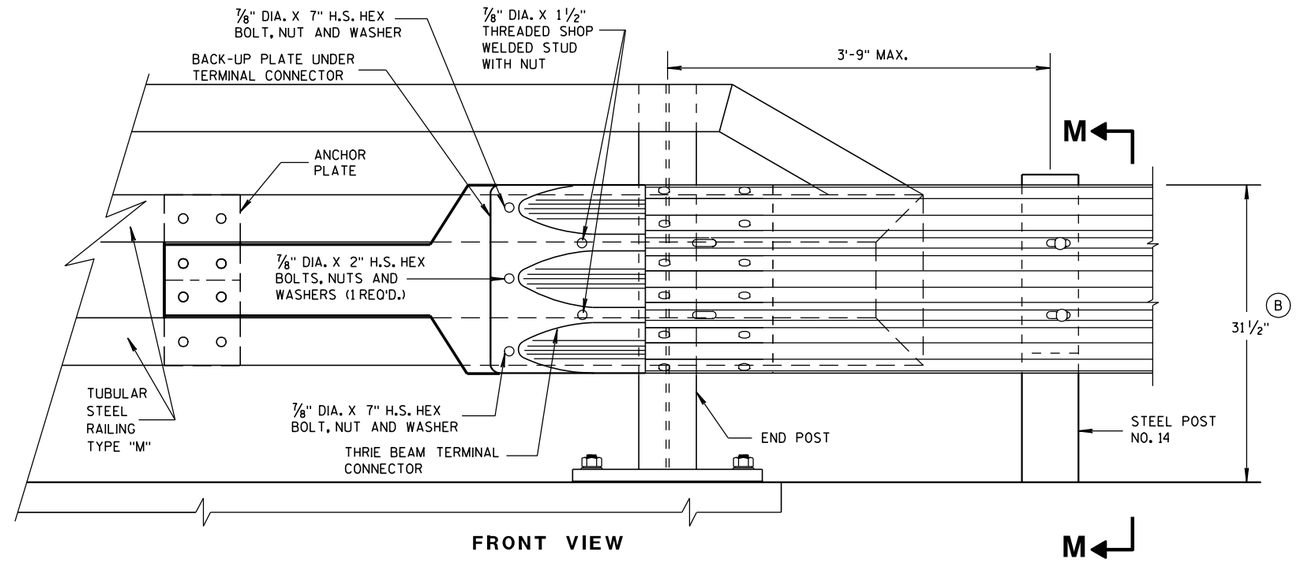


SECTION L-L

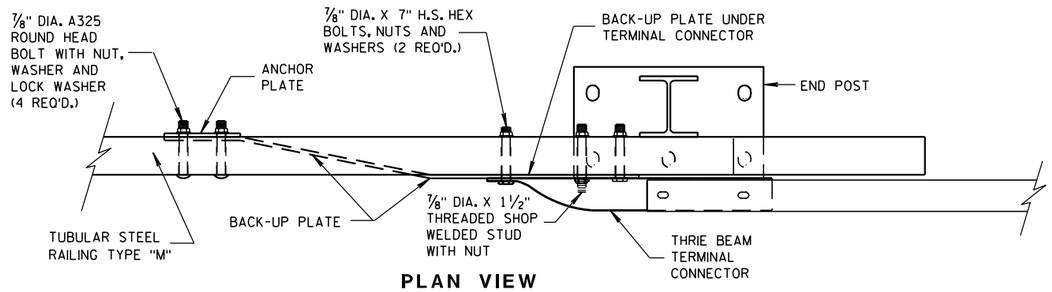


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	138 ENT

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S.D. 14 B 45-3h

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S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

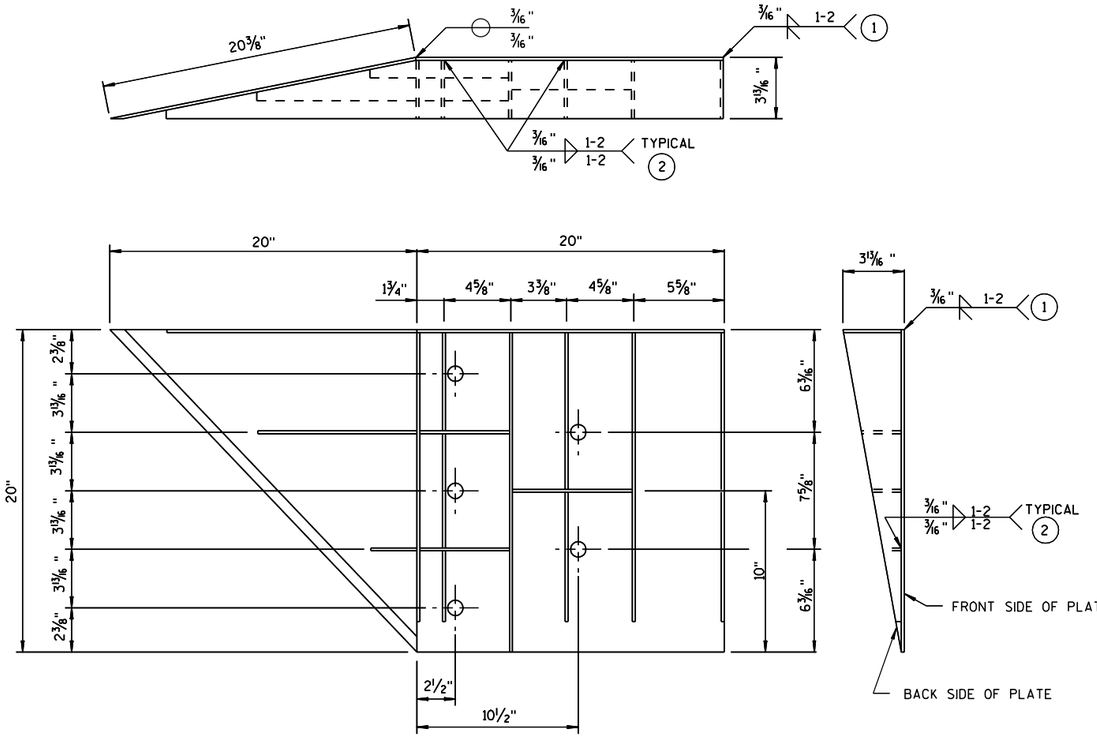
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

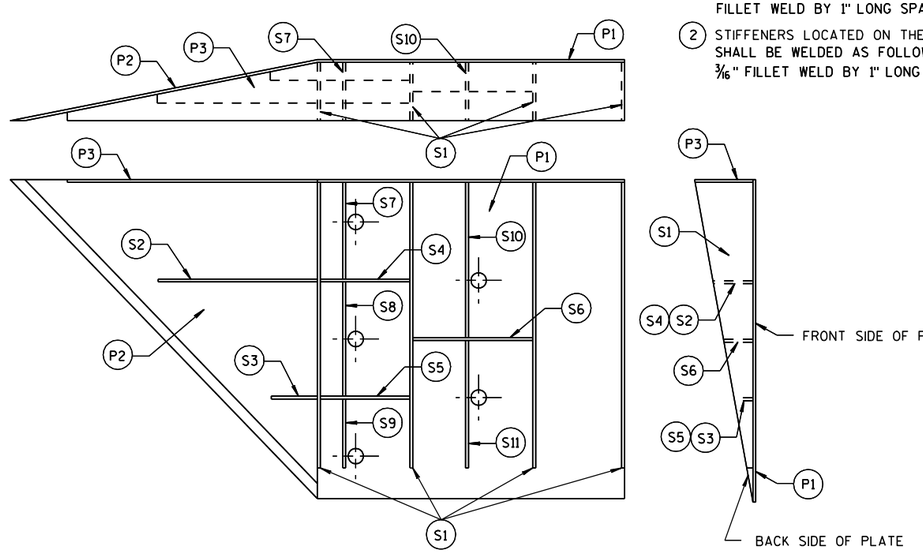


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS ENGINEER
FHWA

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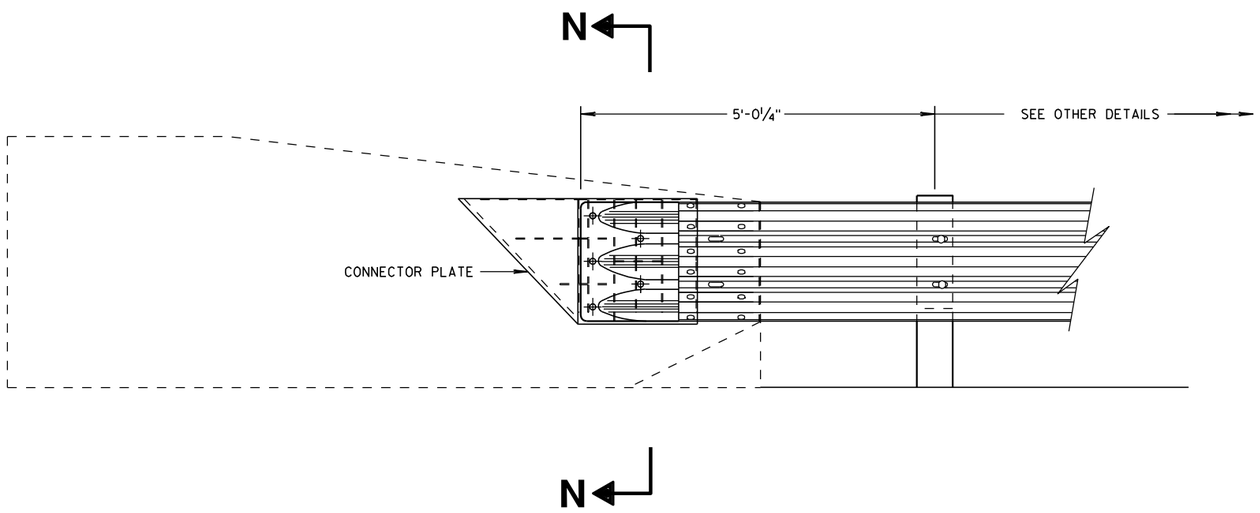
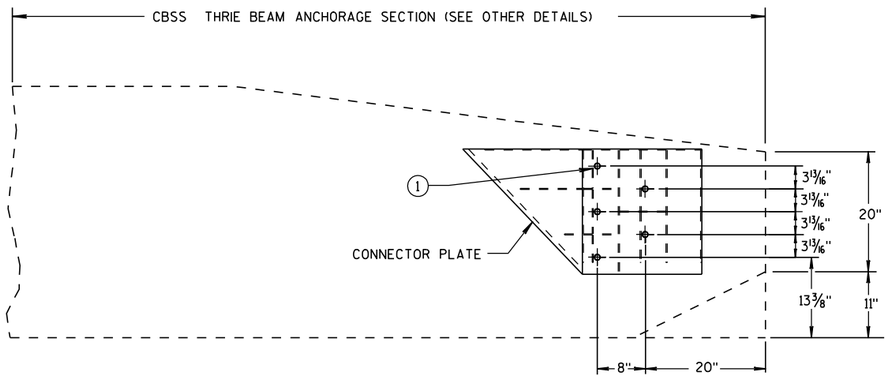
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

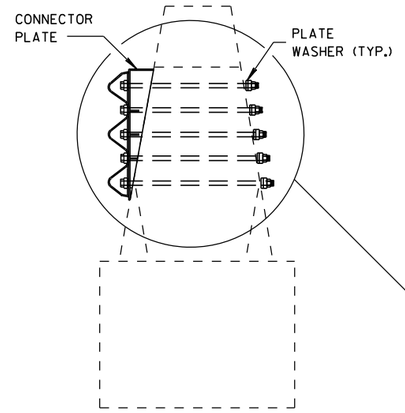


SINGLE SLOPE CONNECTION PLATE PLACEMENT

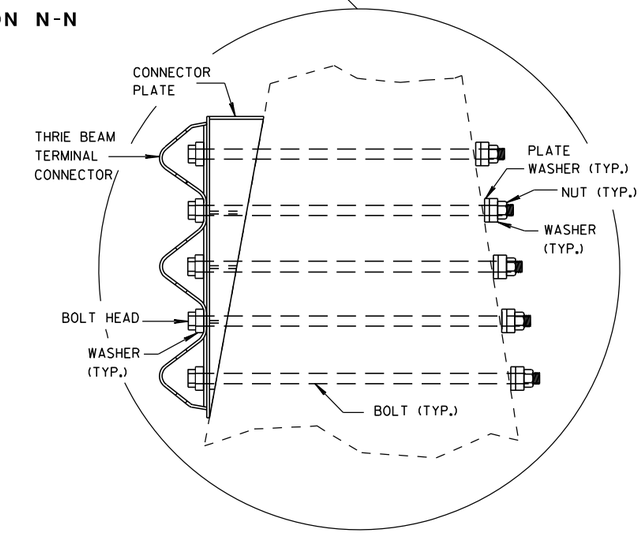
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible] ENGINEER

FHWA

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S.D.D. 14 B 45-3j

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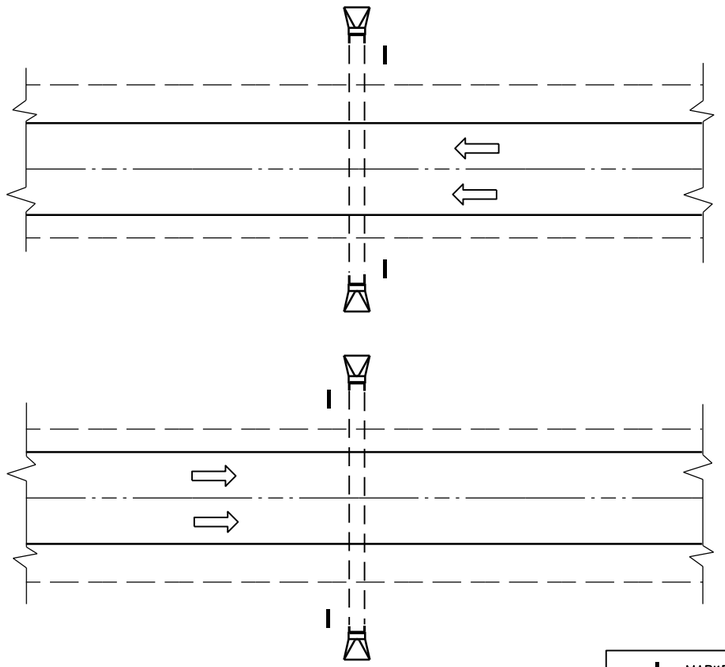
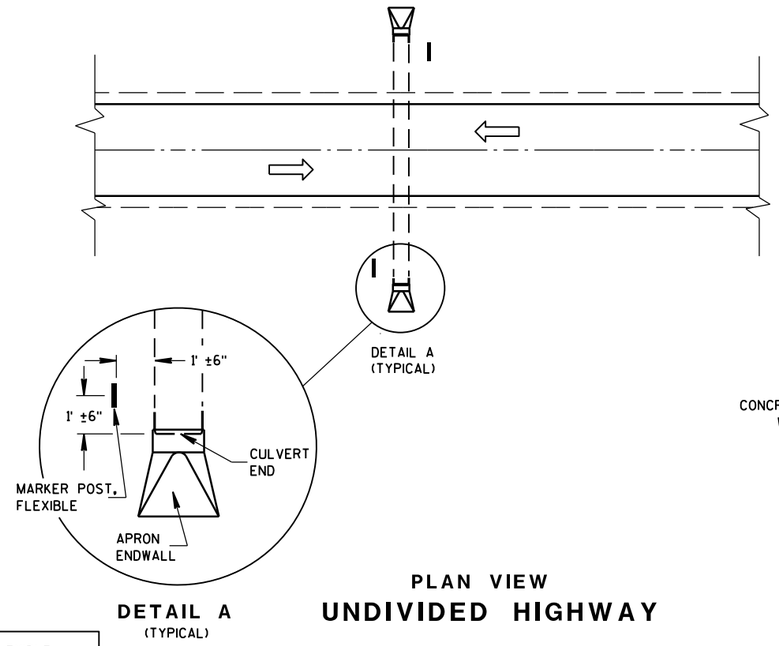
S.D.D. 14 B 45-3j



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

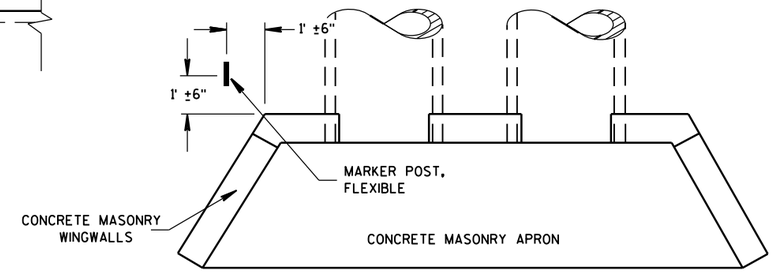
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

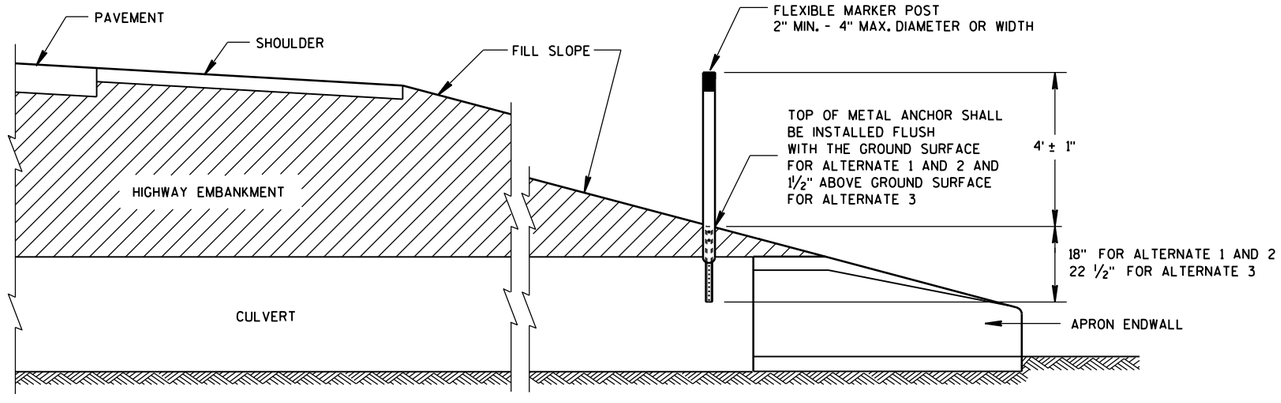
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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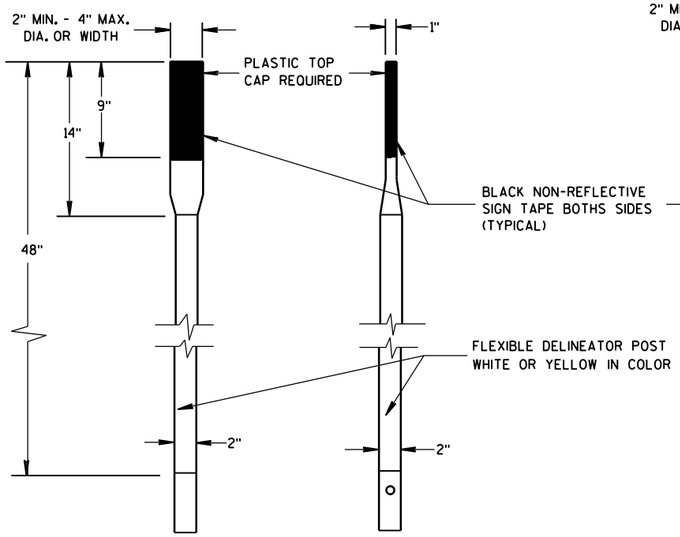
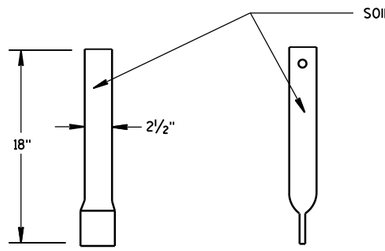
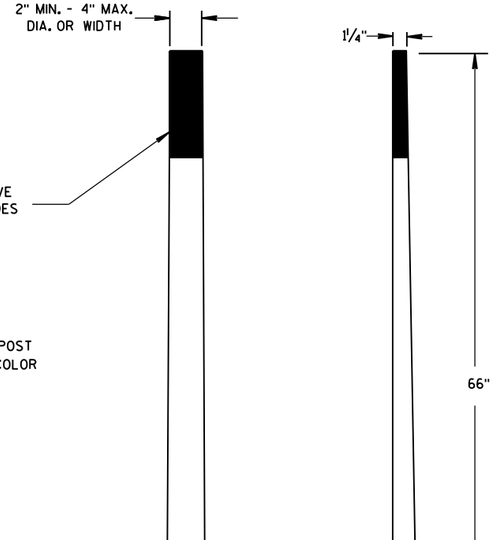
S.D.D. 15 A 3-2a





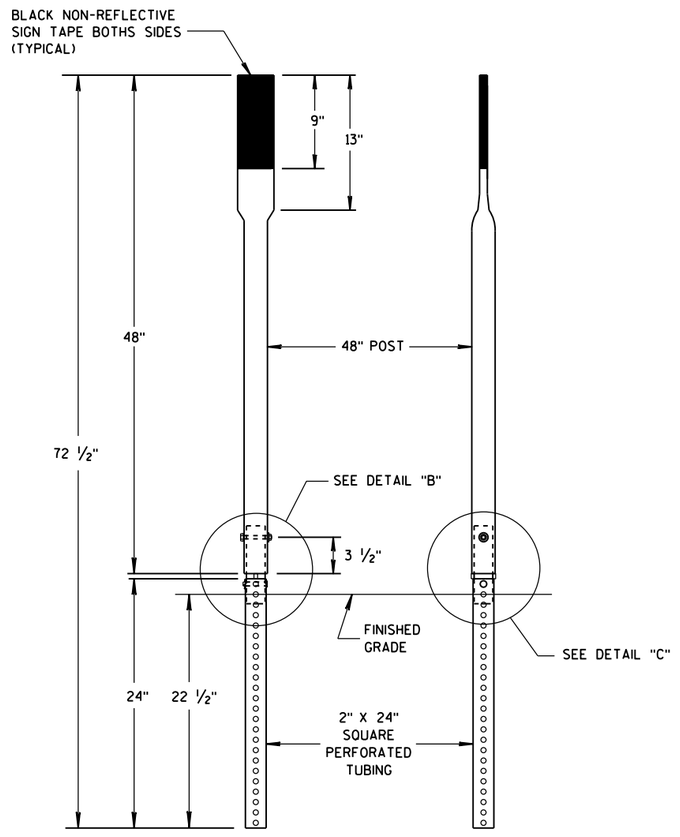
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

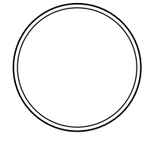
ALTERNATE 2



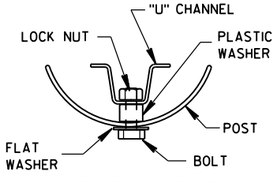
FRONT VIEW SIDE VIEW

ALTERNATE 3

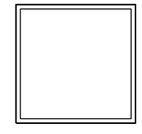
FLEXIBLE MARKER POSTS



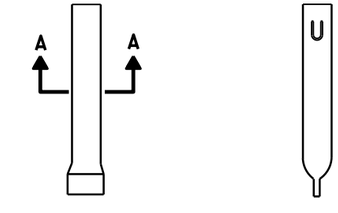
SECTION A-A



SECTION B-B

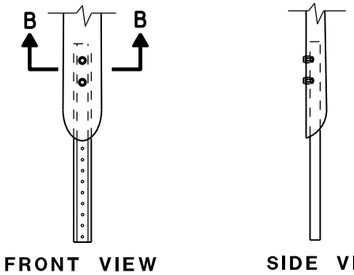


SECTION C-C



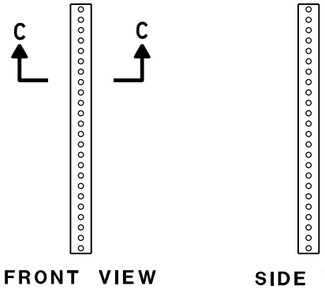
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

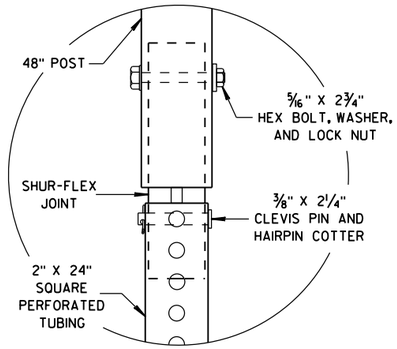
ALTERNATE 2



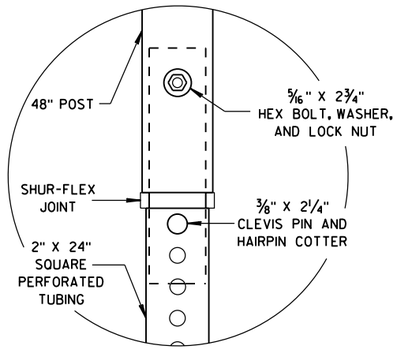
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 15 A 3-2b

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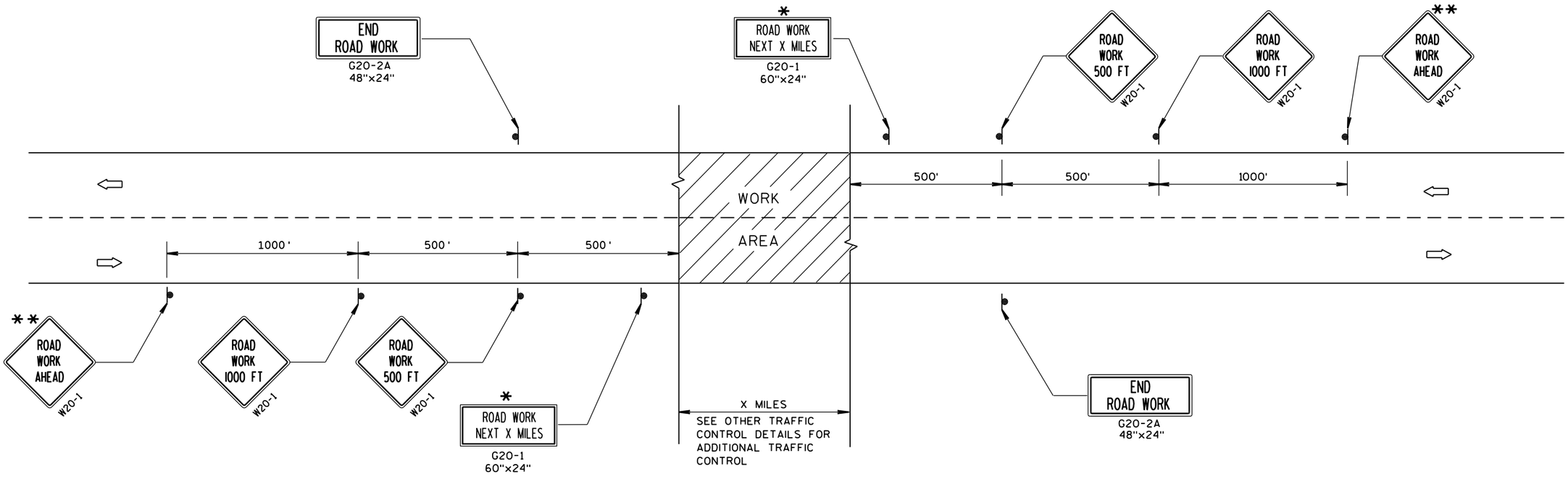
S.D.D. 15 A 3-2b

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.

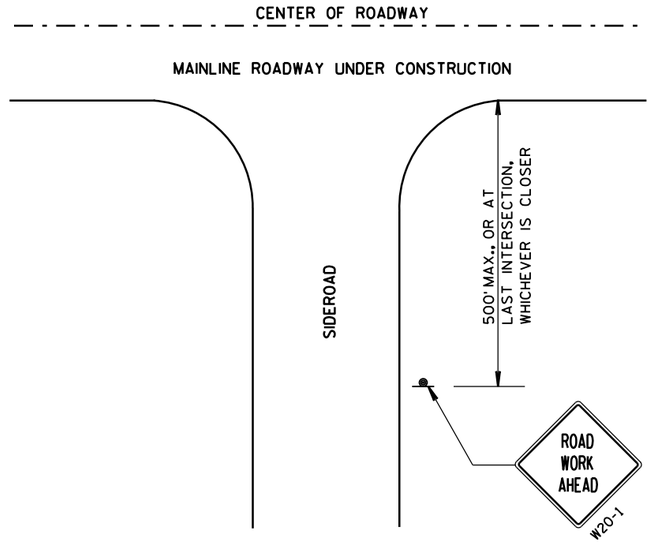
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.



LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

SIGN

FHWA

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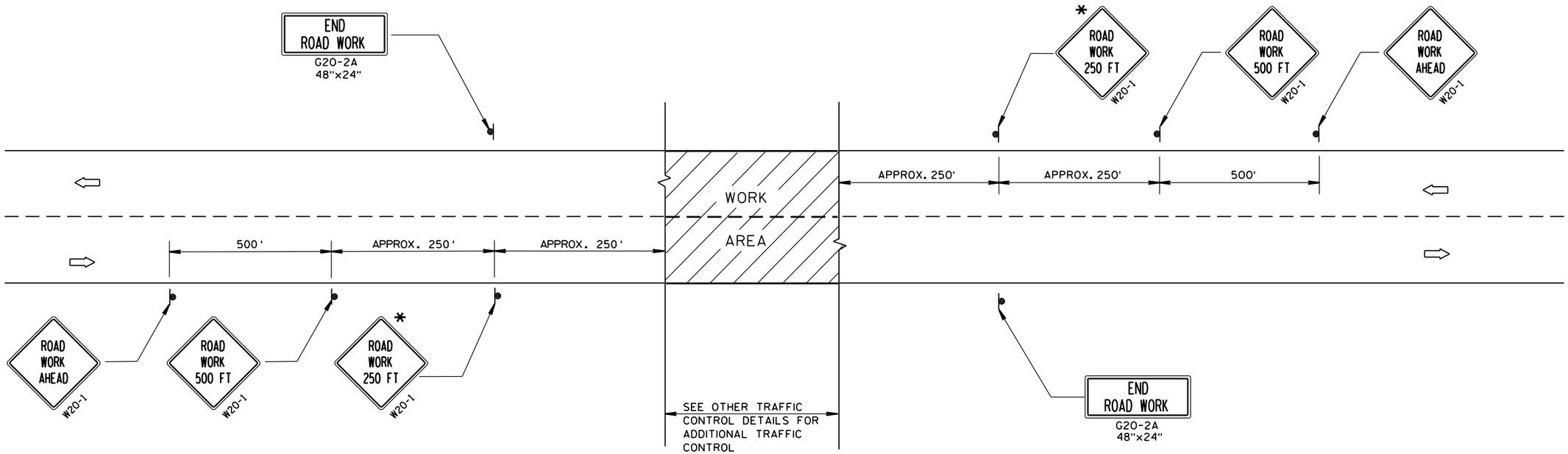
S.D.D. 15 C 4-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

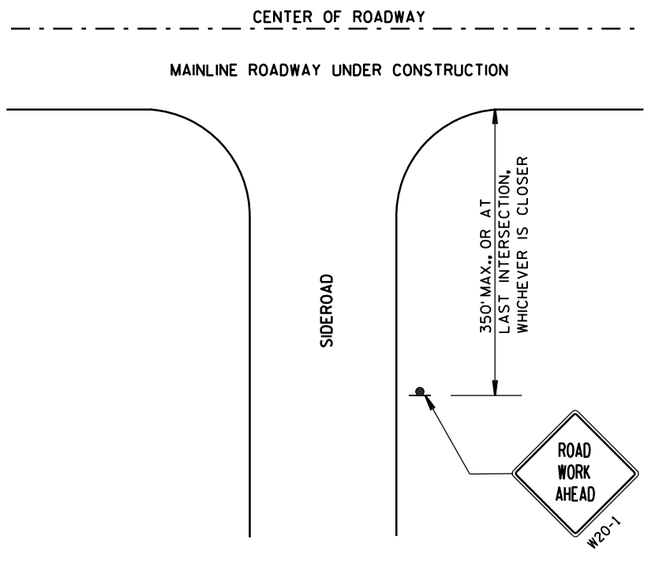
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

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SIGN

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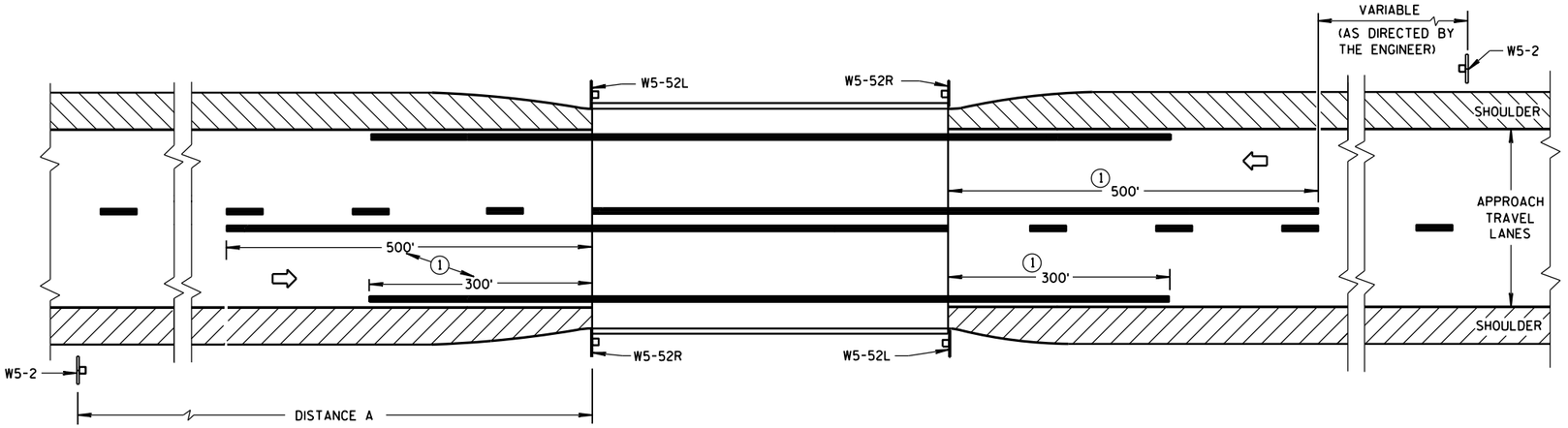
S.D.D. 15 C 5-2



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.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

(2) FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.

(3) LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

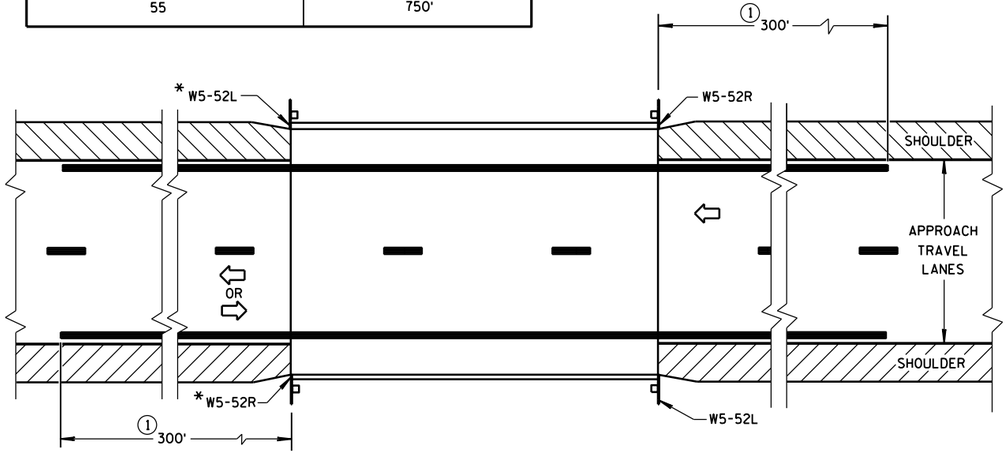
DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

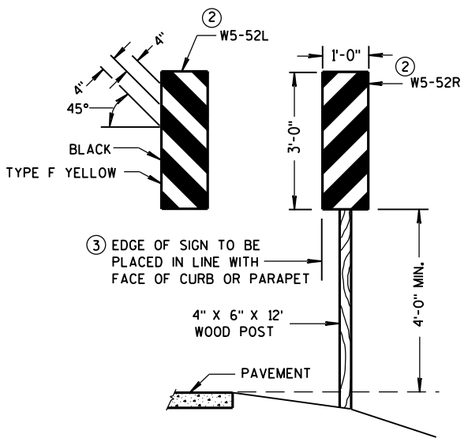


*OMIT ON ONE-WAY TRAVELLED WAYS

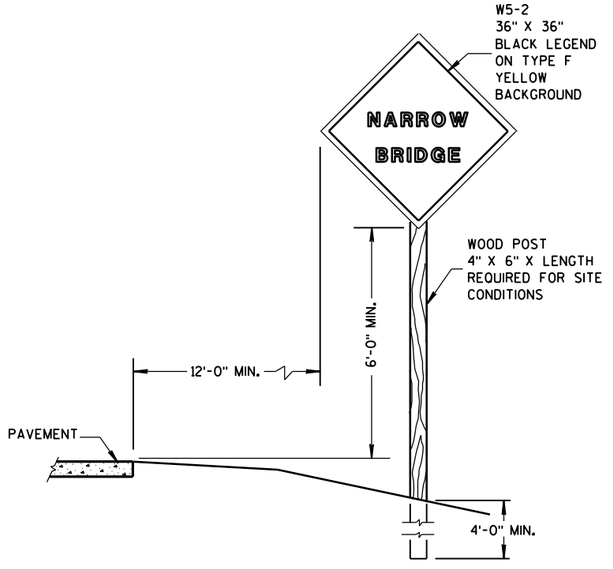
SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING
FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-2014 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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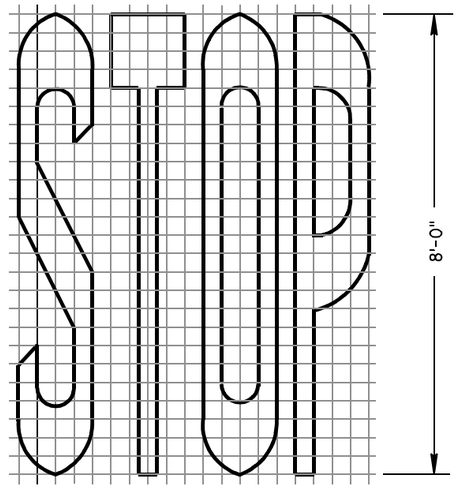
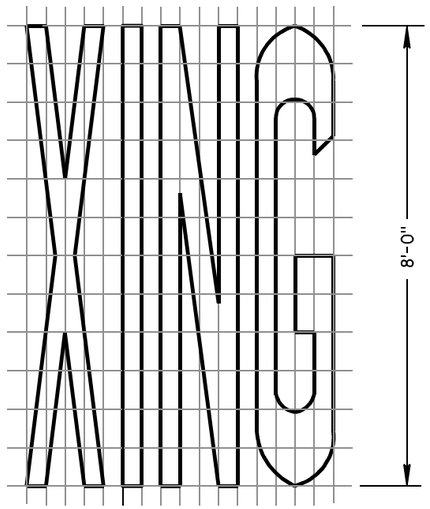
S.D.D. 15 C 6-7

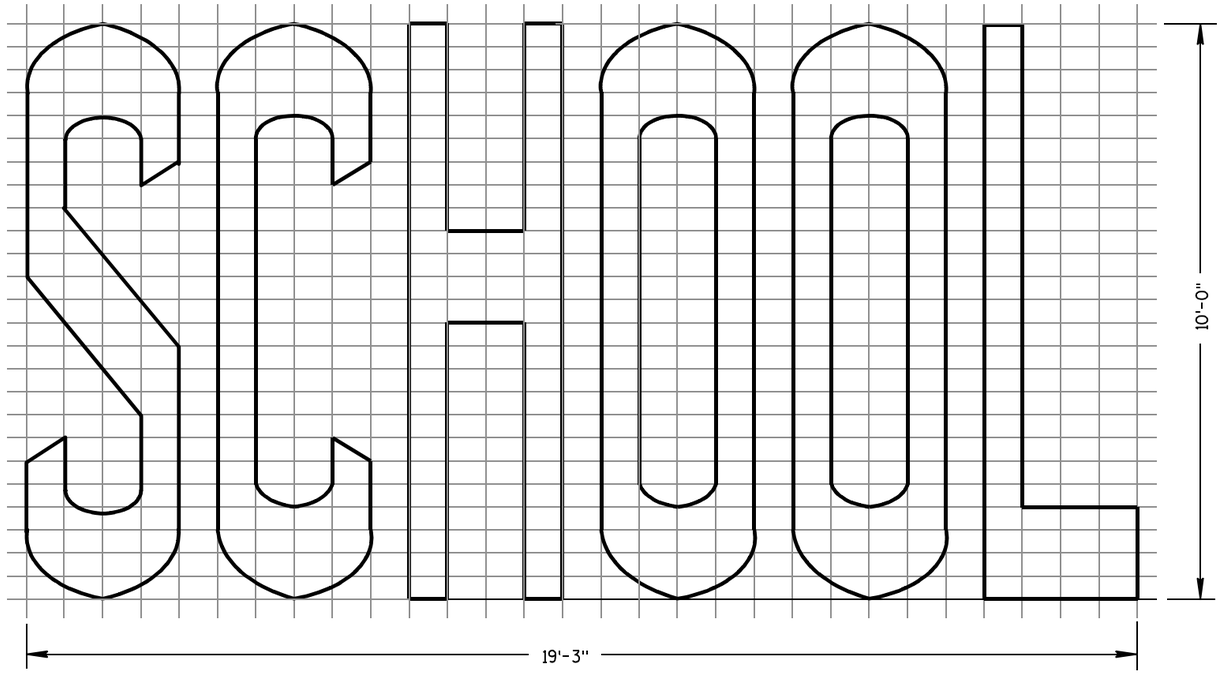
GENERAL NOTES

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.

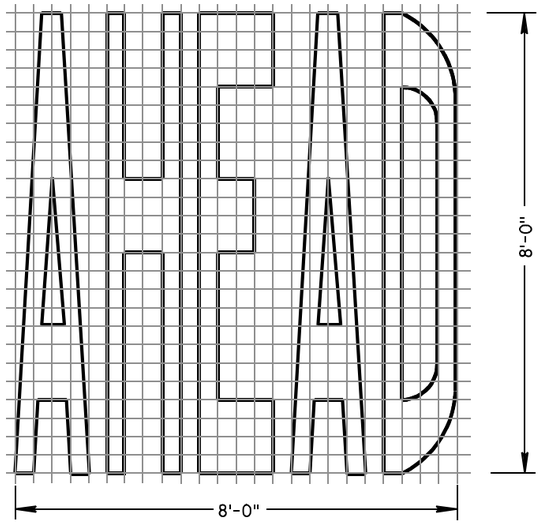
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

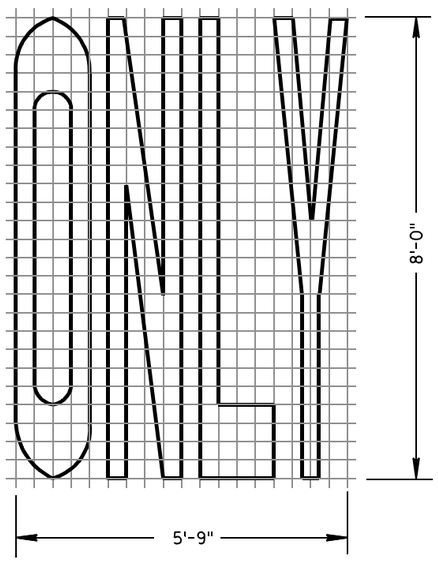


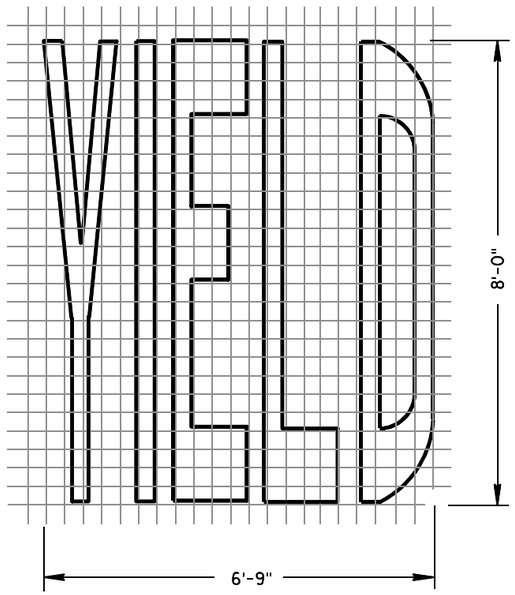


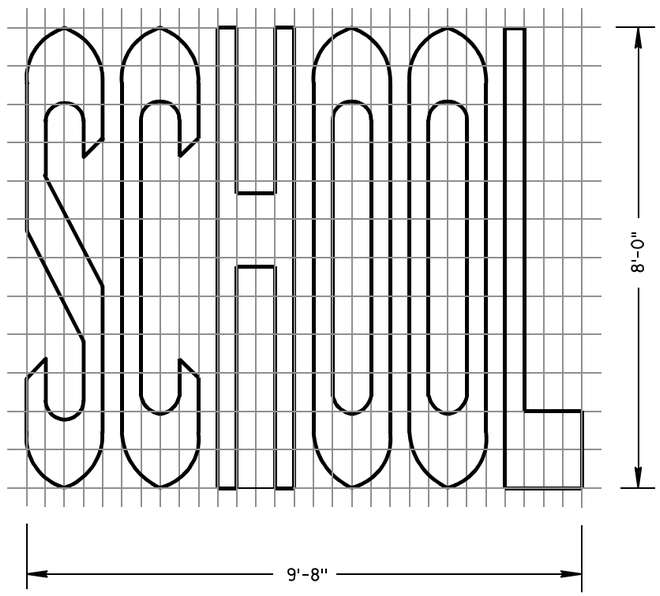


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

IGN

6

S.D.D. 15 C 7-12b

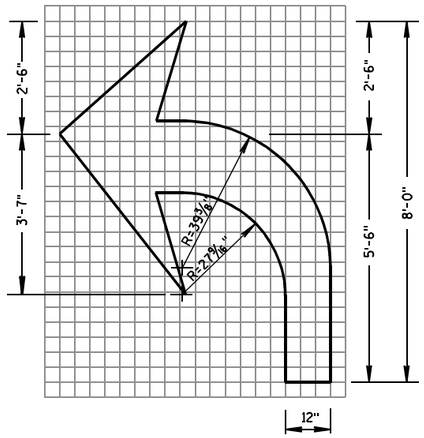
6

S.D.D. 15 C 7-12b

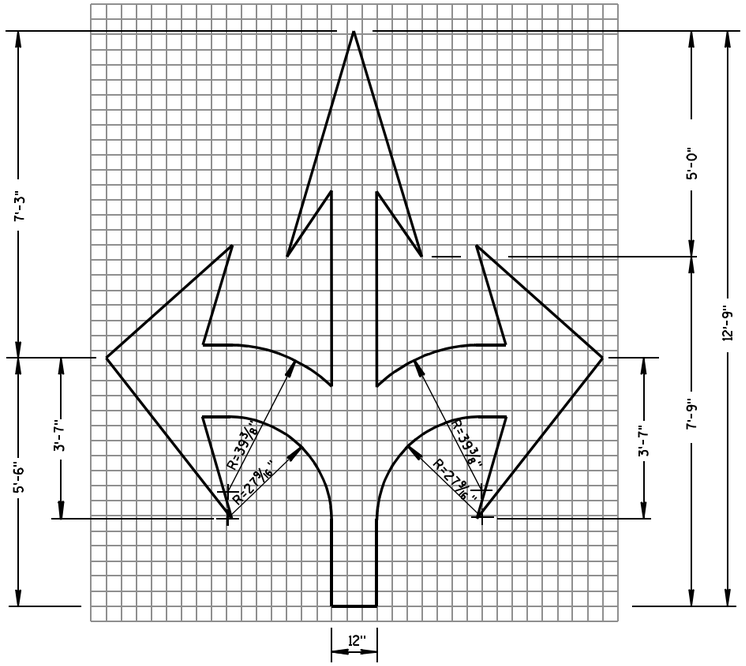
GENERAL NOTES

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.



TYPE 2



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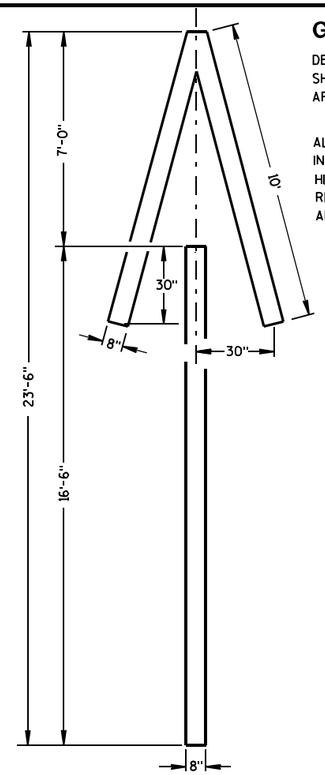

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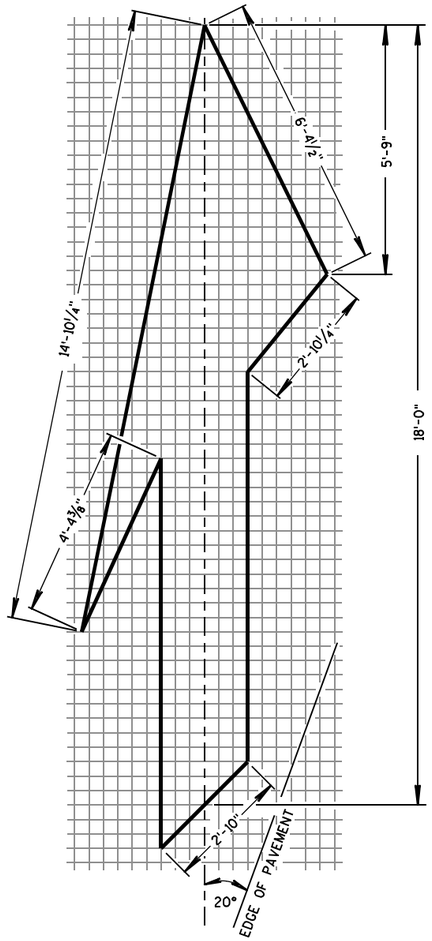
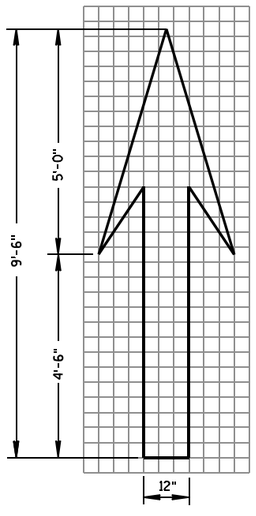
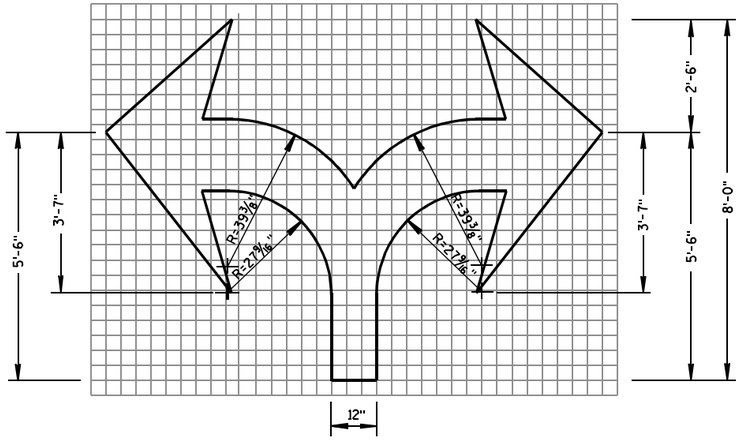


TYPE 5 LANE DROP ARROW



TYPE 1



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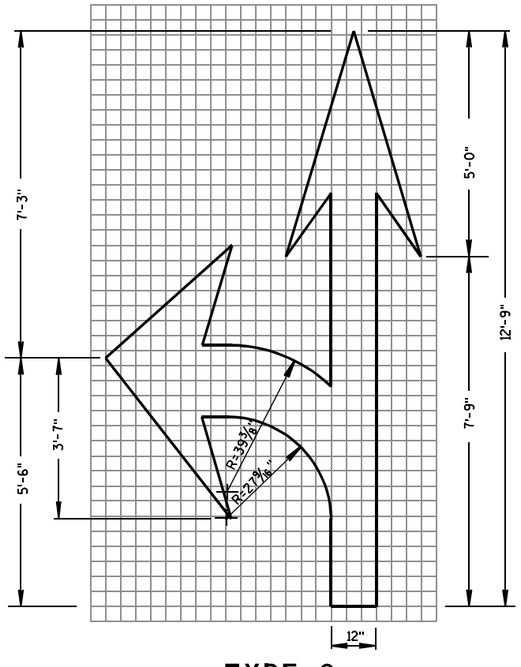

TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 7-12c

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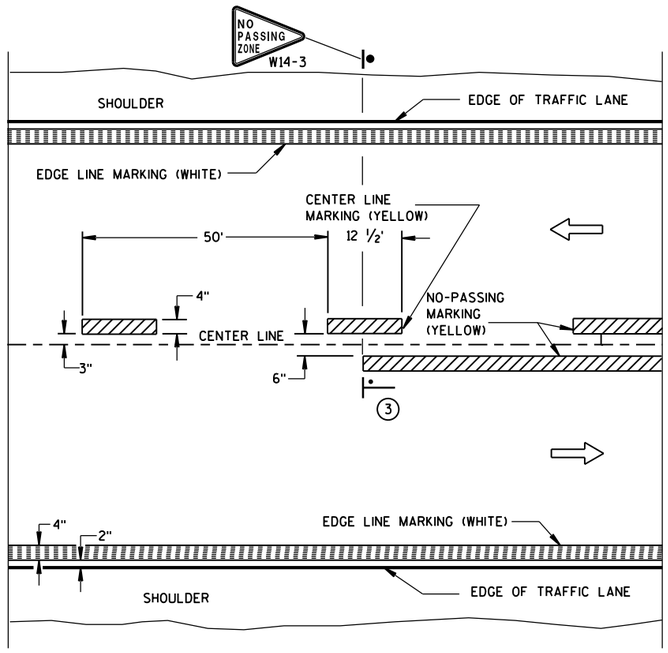
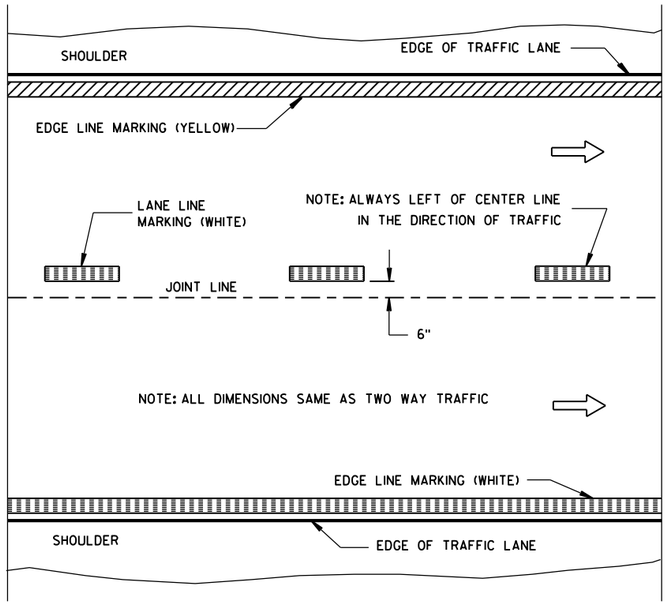
S.D.D. 15 C 7-12c

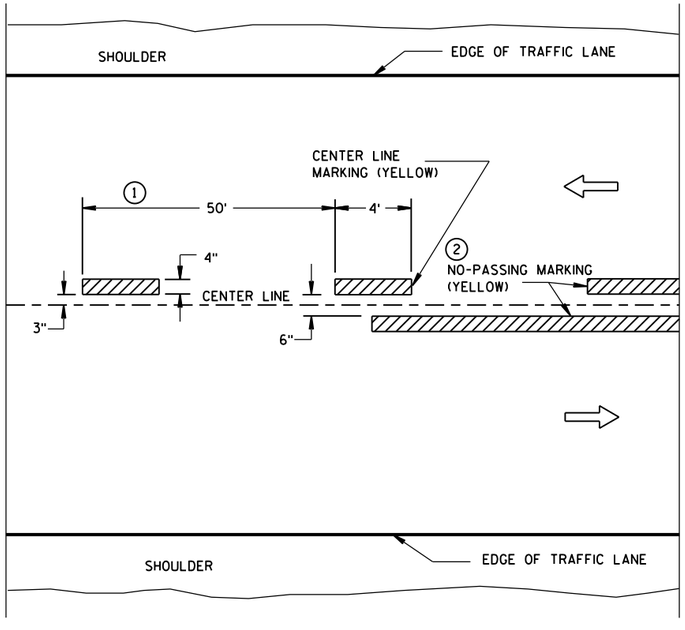


TWO WAY TRAFFIC

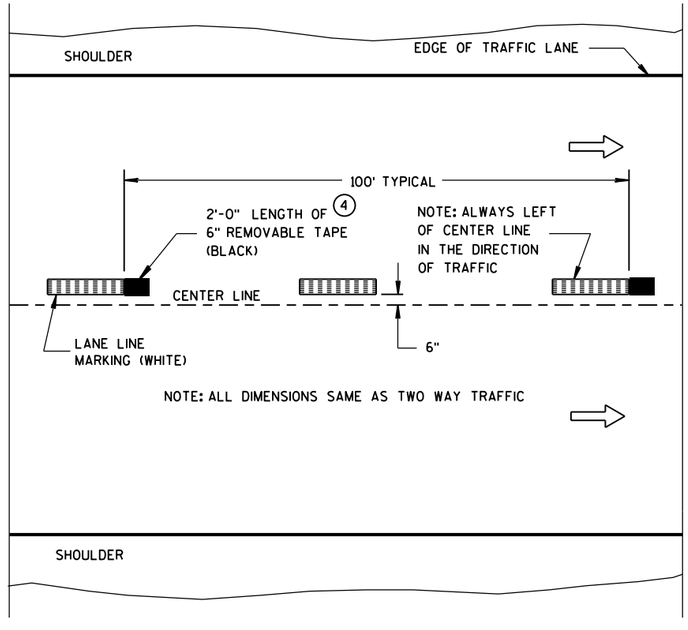


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

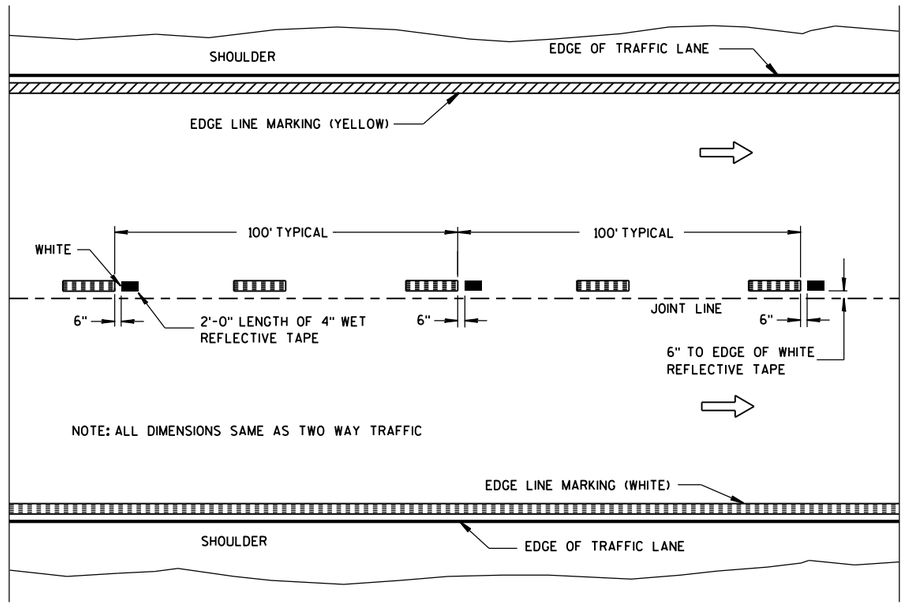
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 8-16a

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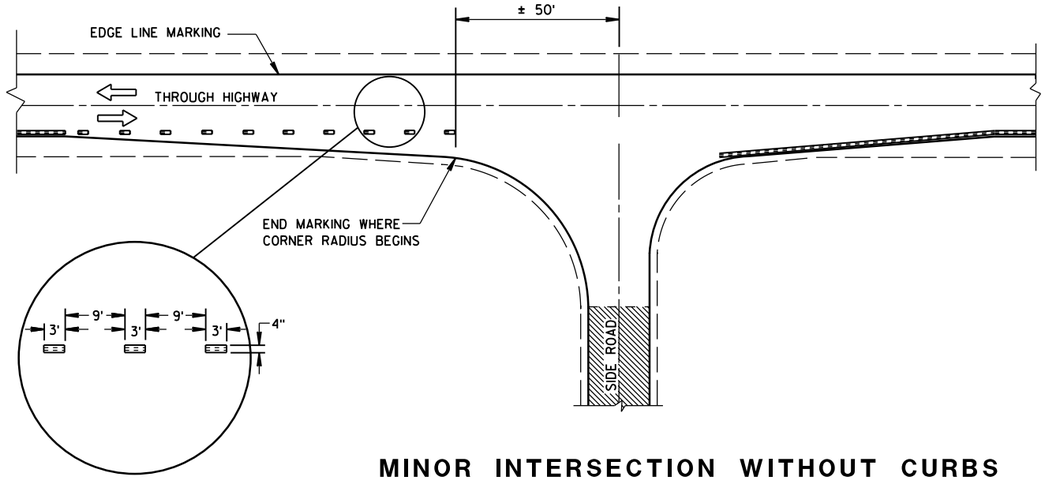
S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

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.

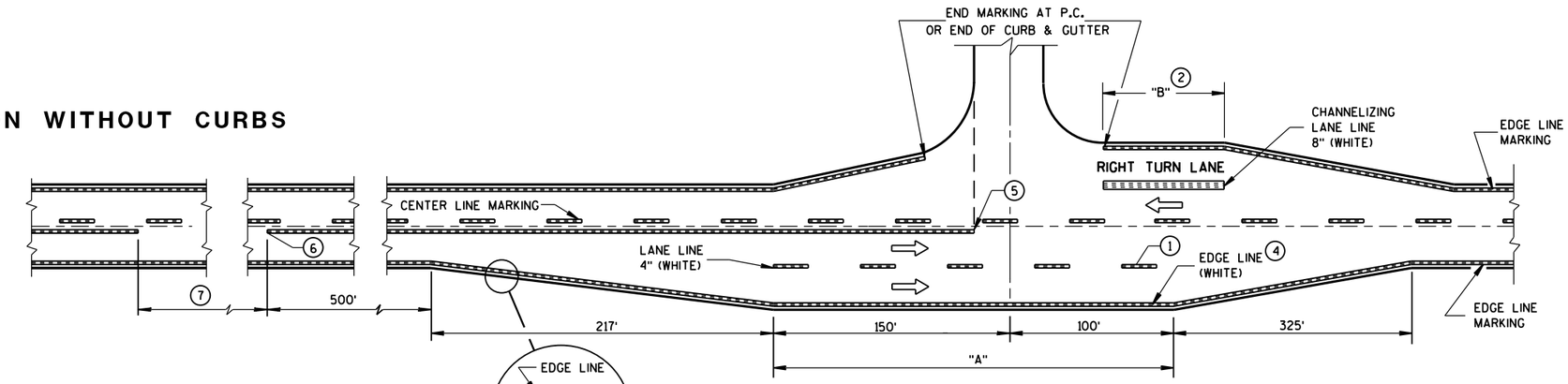
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

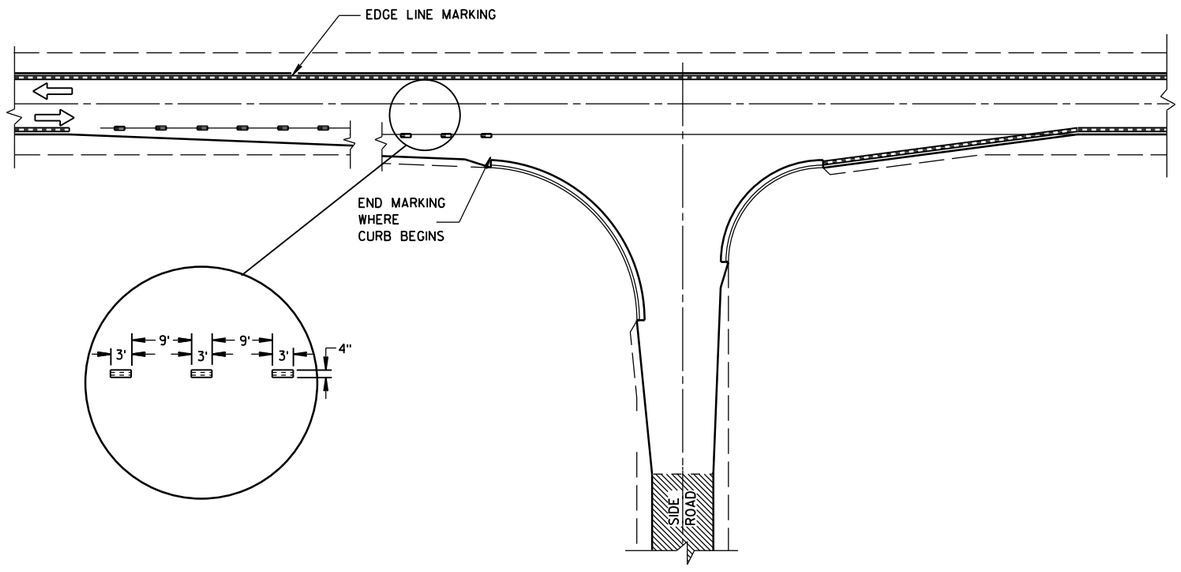
(7)

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



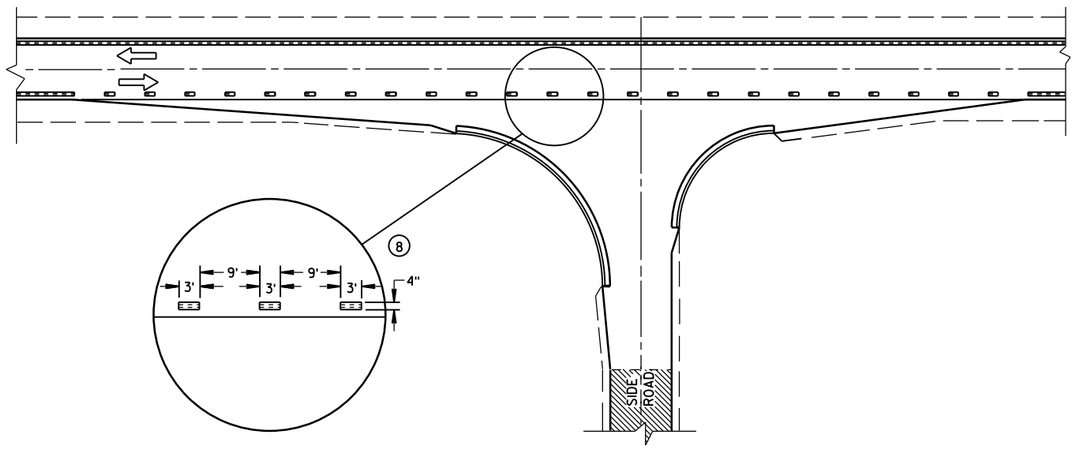
MAJOR INTERSECTIONS

(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)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

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S.D.D. 15 C 8-16b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

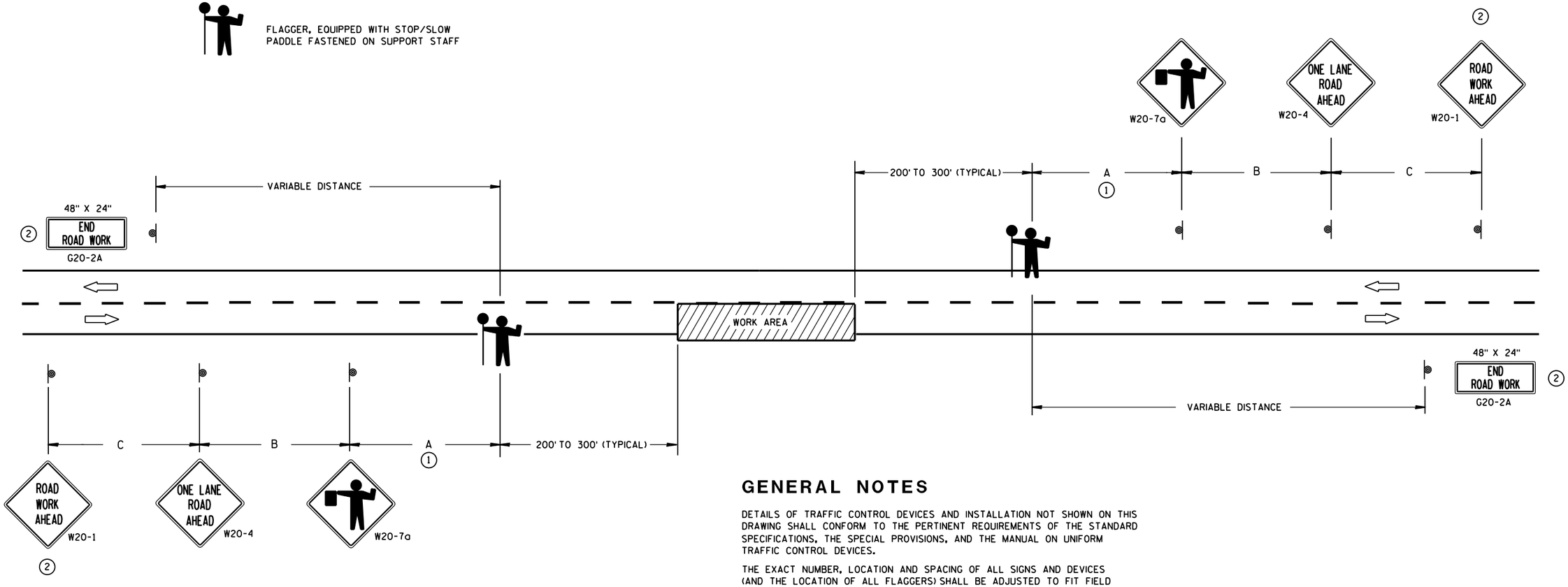
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

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.



(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.

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, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 C 12-4

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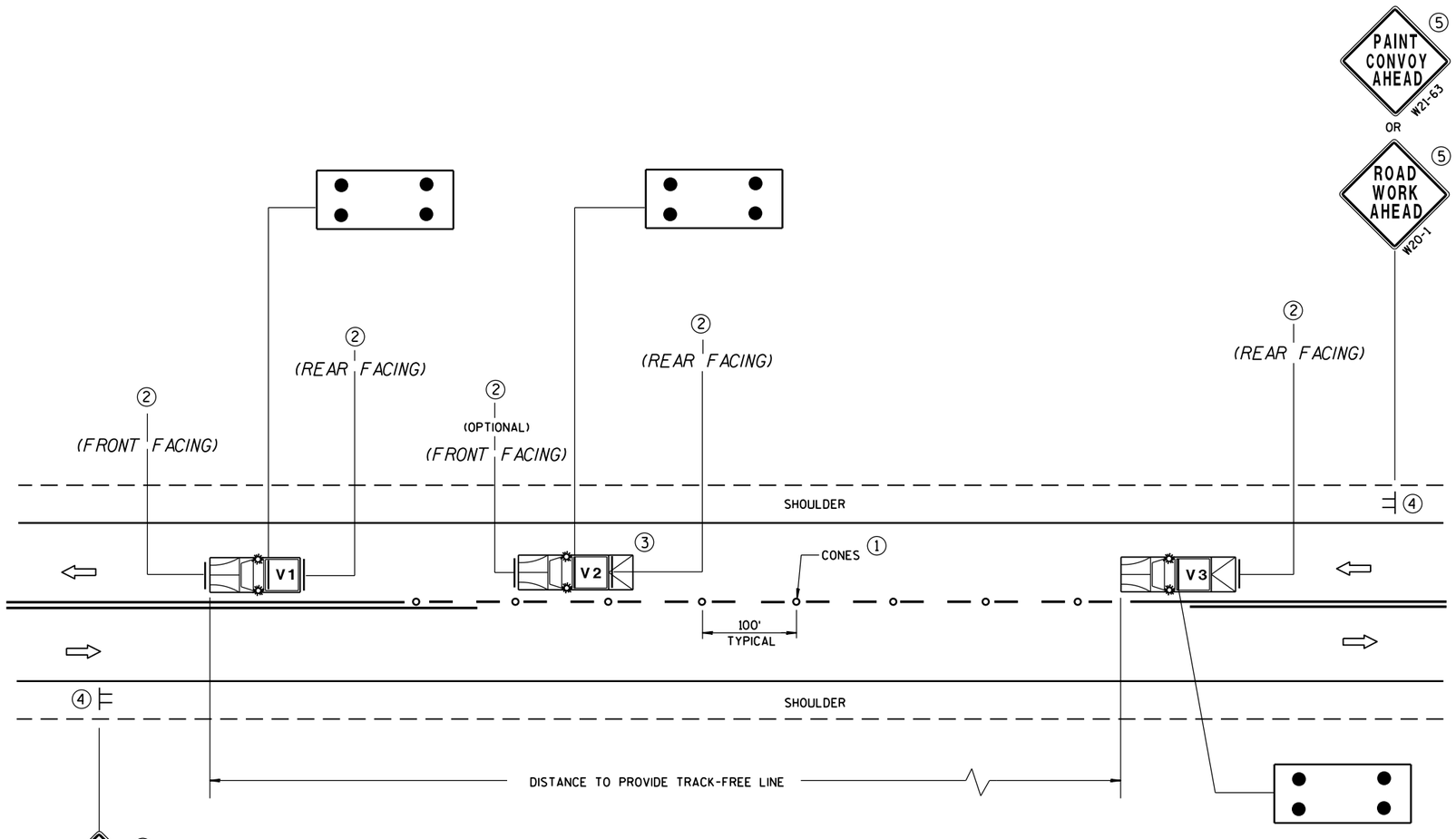
S.D.D. 15 C 12-4



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.

WET PAINT W21-64 OR WET PAINT W21-64

(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
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
5/3/2013 DATE	/S/ Travis Feltes STATE TRAFFIC E
FHWA	

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S.D.D. 15 C 19-2a

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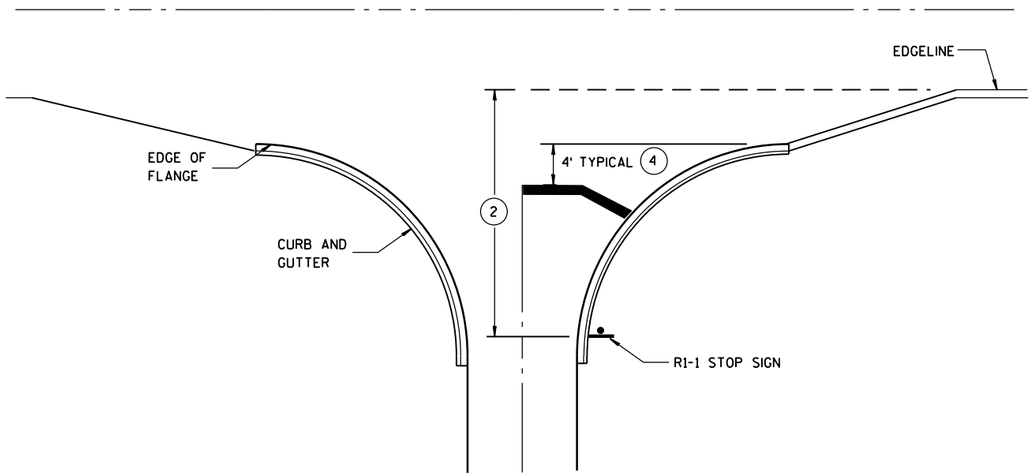
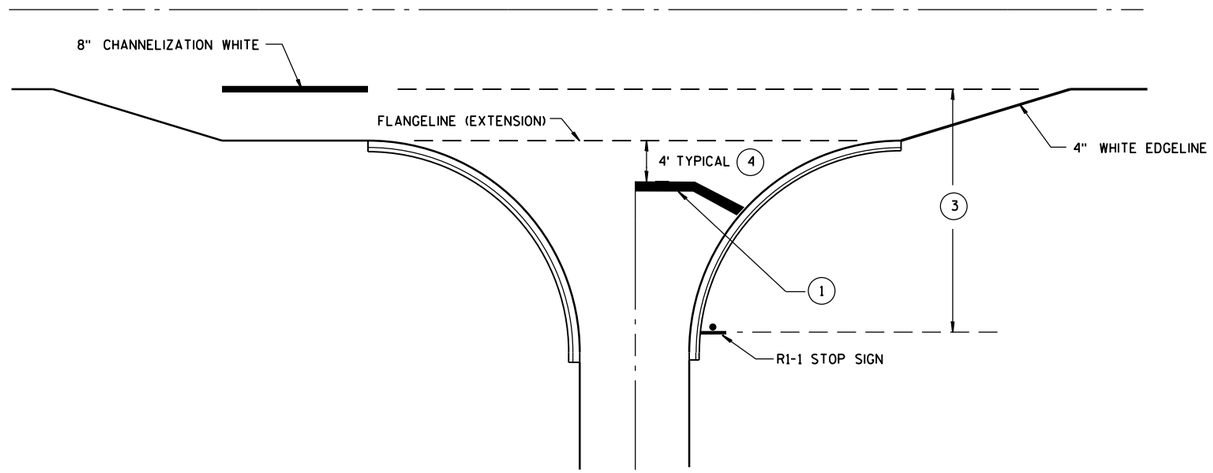
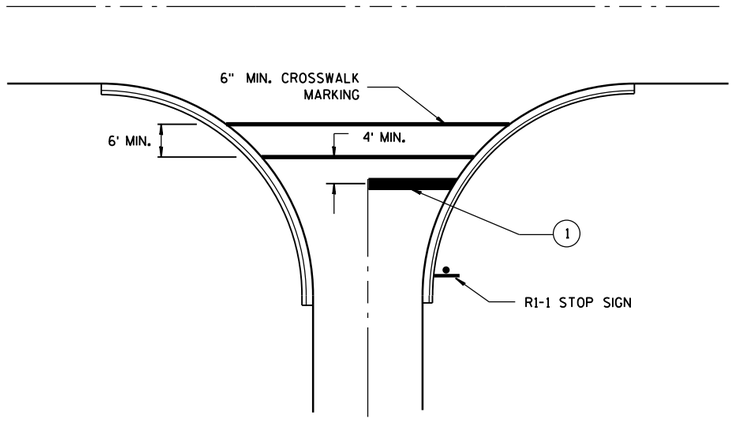
S.D.D. 15 C 19-2a



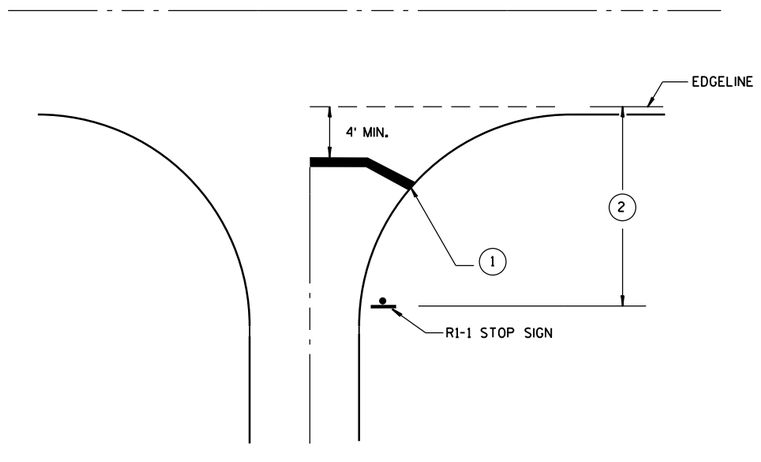
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

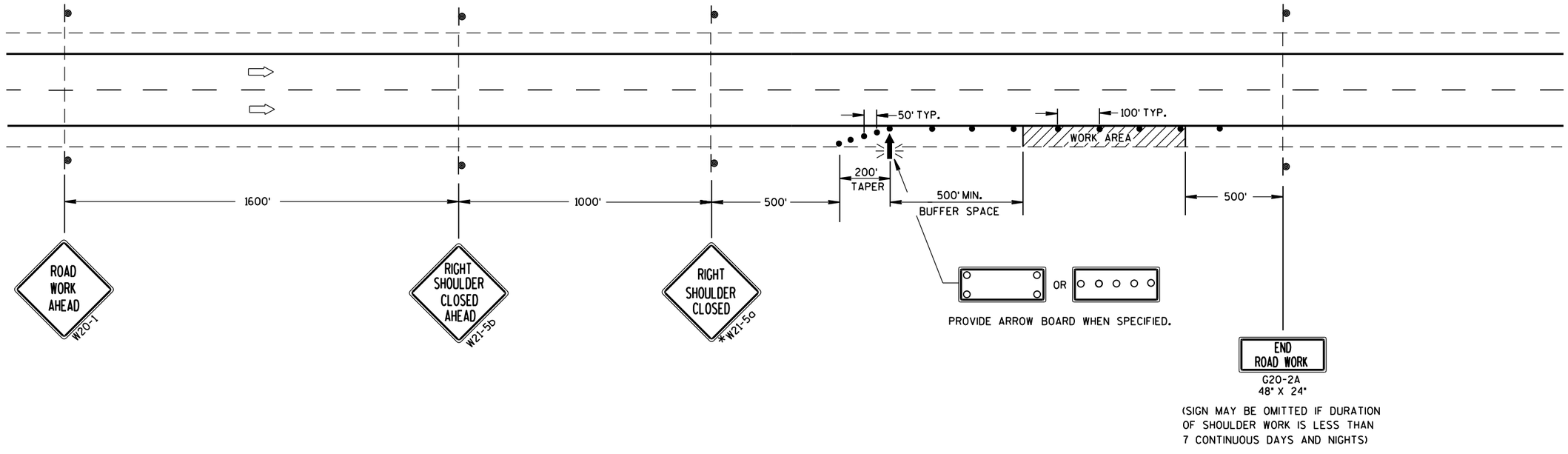
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

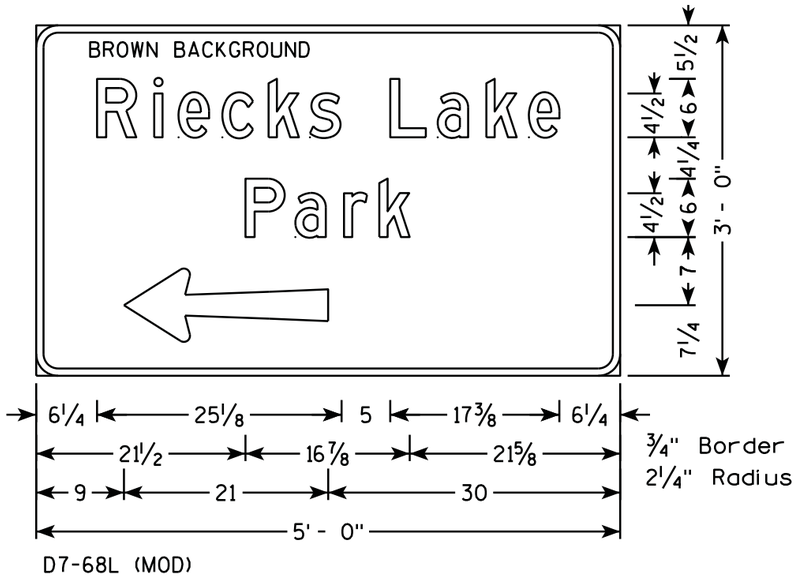
FHWA

6

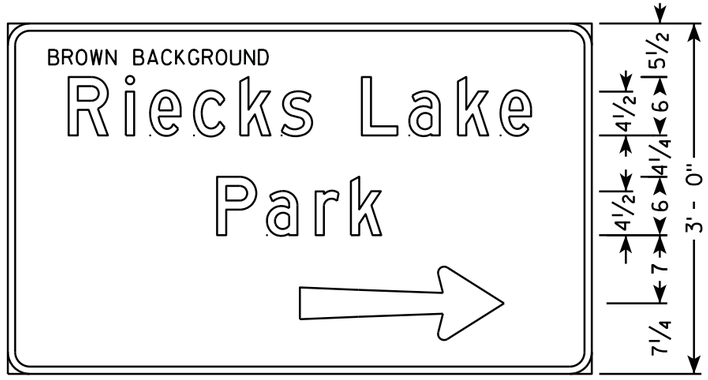
S.D.D. 15 D 27-2

NOTES

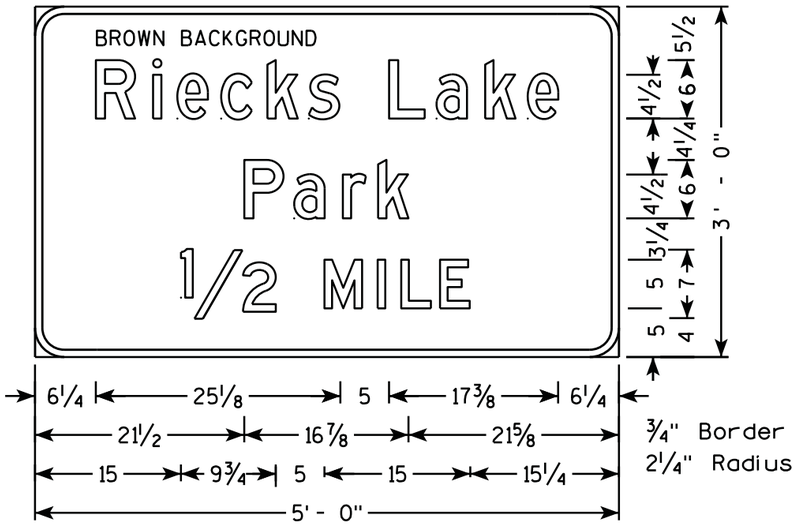
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN except as Shown
   Message - WHITE
3. Message Series - D except as Shown



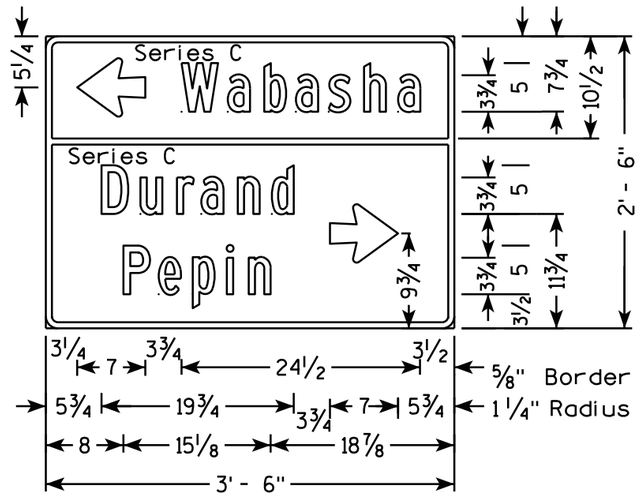
D7-68L (MOD)



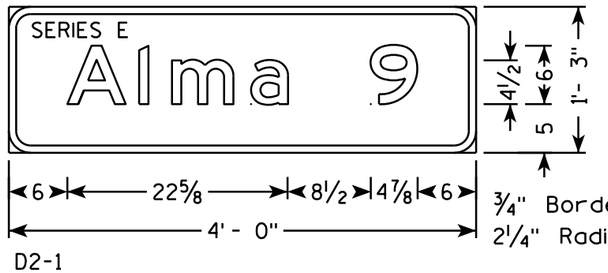
D7-68R (MOD)



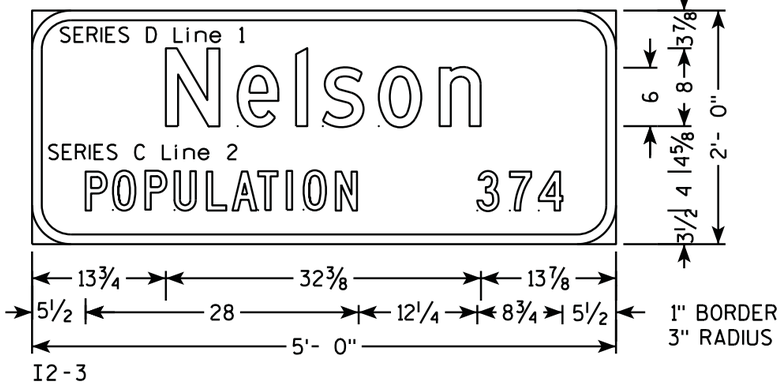
D7-68 (MOD)



D1-3



D2-1

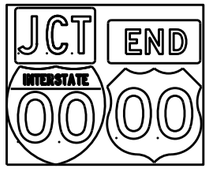


I2-3

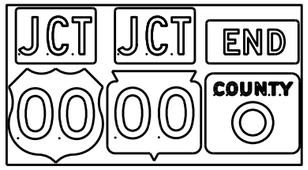
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: BUFFALO	PERMANENT SIGNING	SHEET NO: 154	E

TYPICAL ASSEMBLIES

J1-1

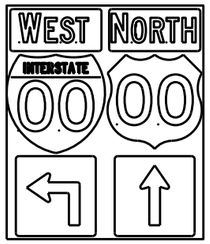


J1-2

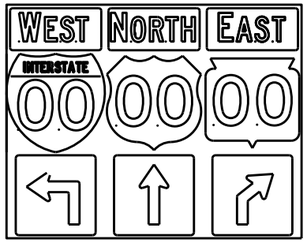


J1-3

J2-1



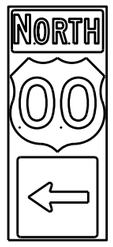
J2-2



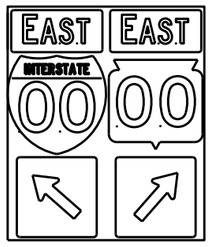
J2-3

JV

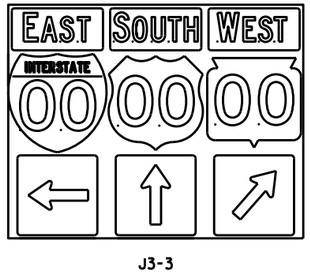
(Typical Vertical J-Assembly
See Note 10 and 11)



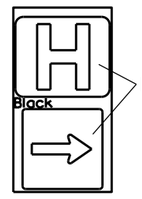
J3-1



J3-2



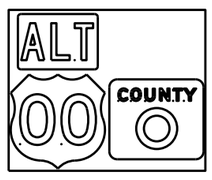
J3-3



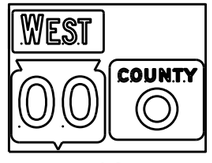
Blue Background

JH-1

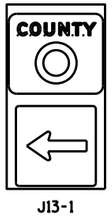
J4-1



J4-2



J4-2



J13-1

J12-1

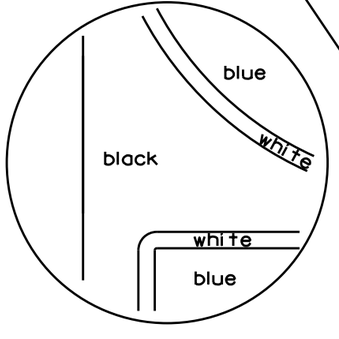
J32-1

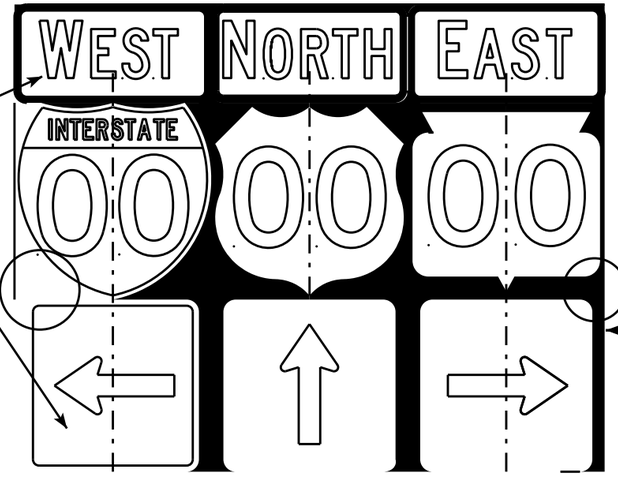
J33-1

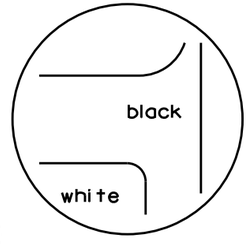
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

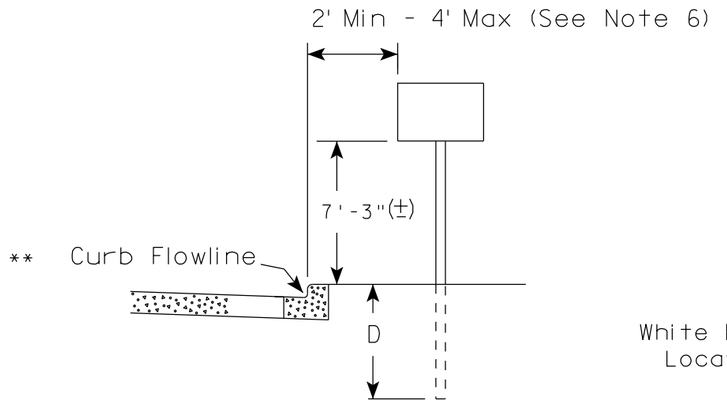
PROJECT NO:

SHEET NO: E

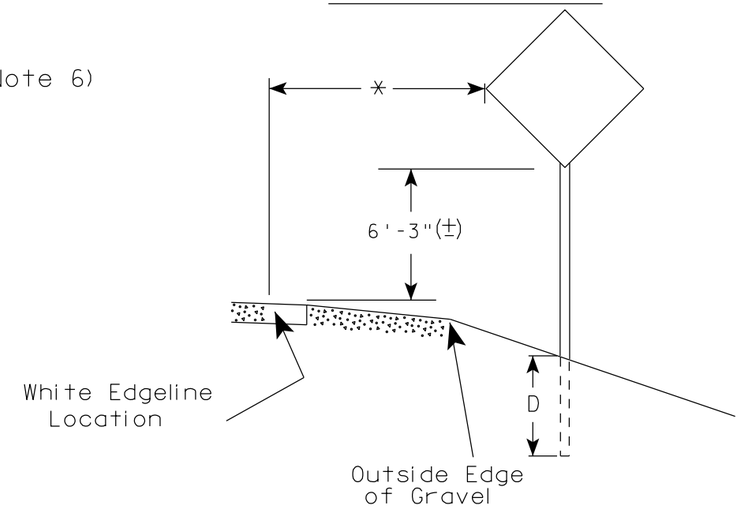
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

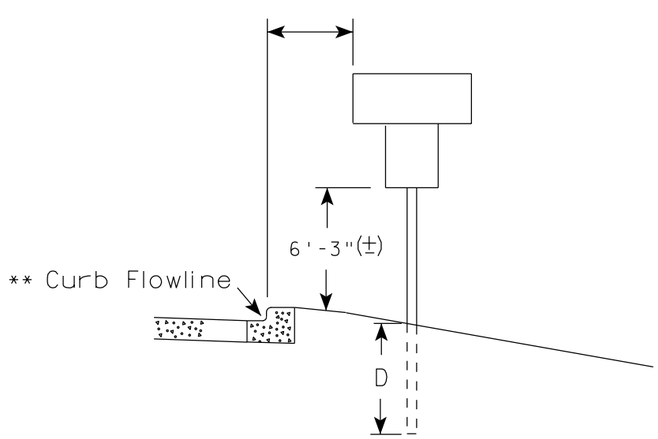
WISDOT/CADDS SHEET 42

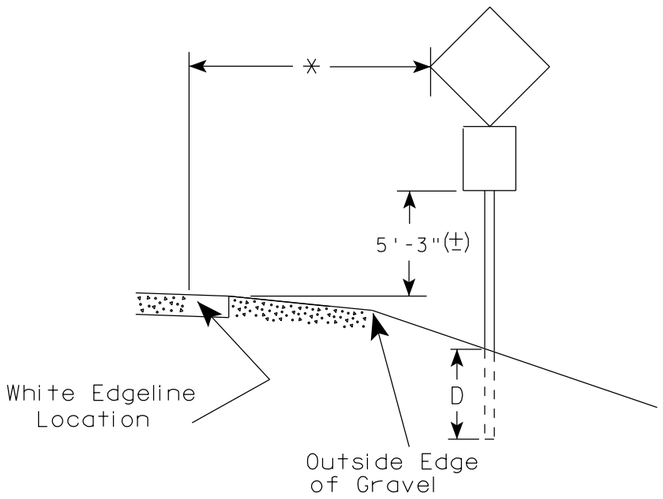
URBAN AREA



RURAL AREA (See Note 2)







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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

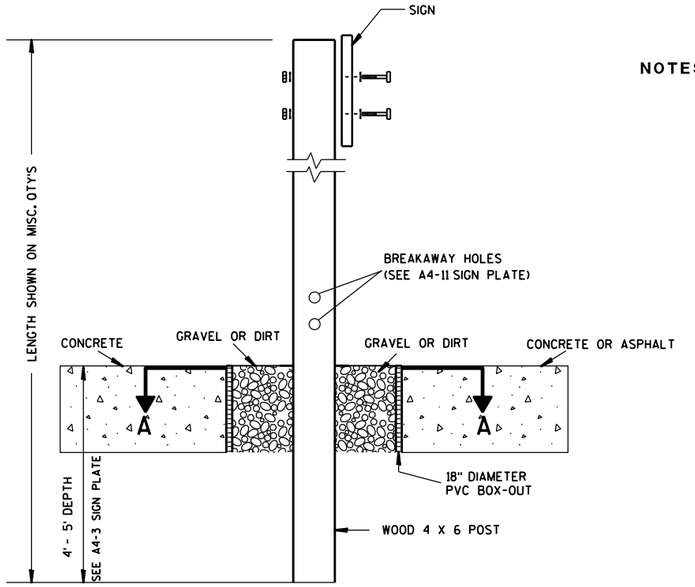
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

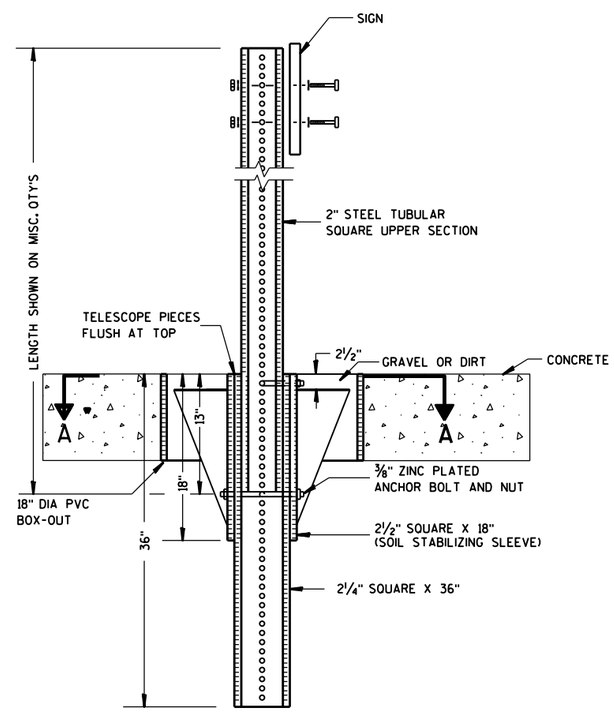
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

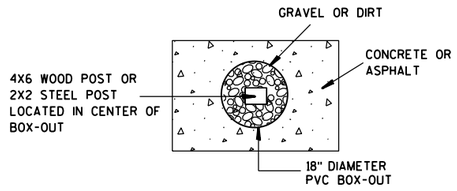
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

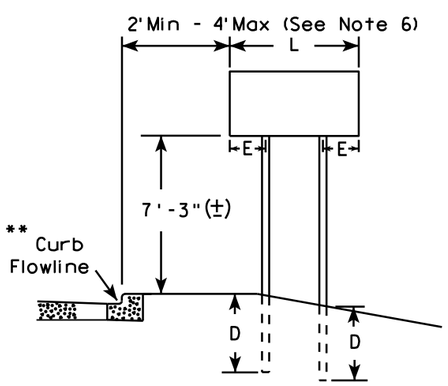
APPROVED Matthew R Rauch
for State Traffic Engineer

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

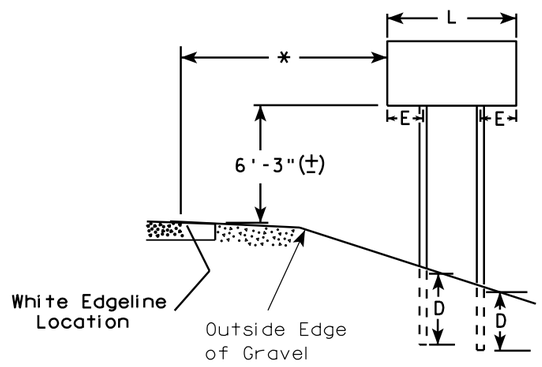
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

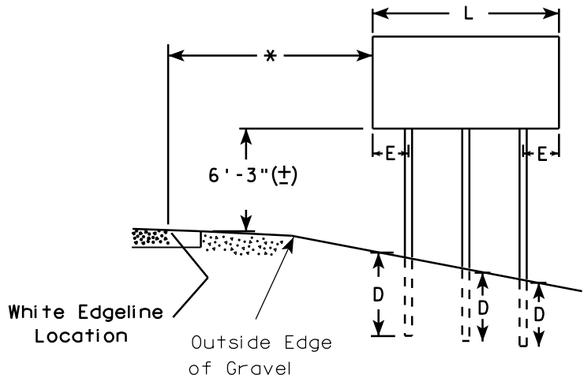
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

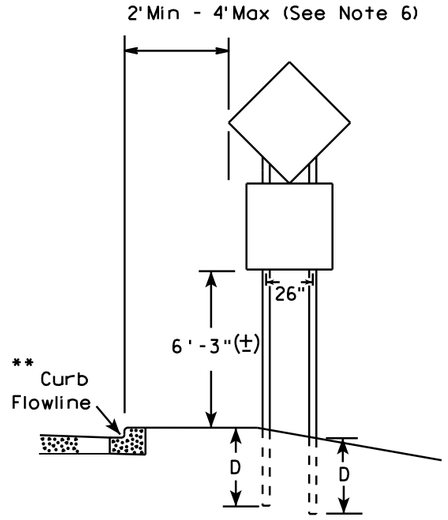
URBAN AREA



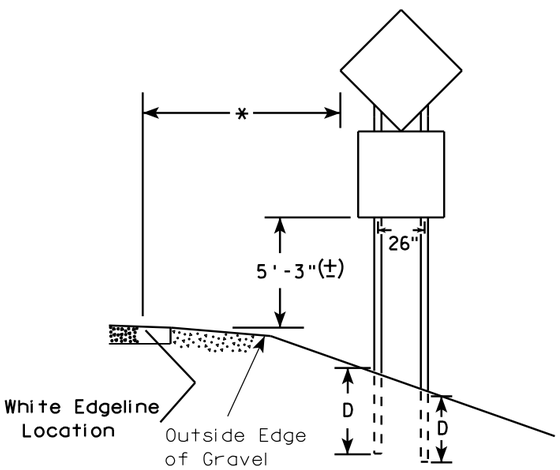
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

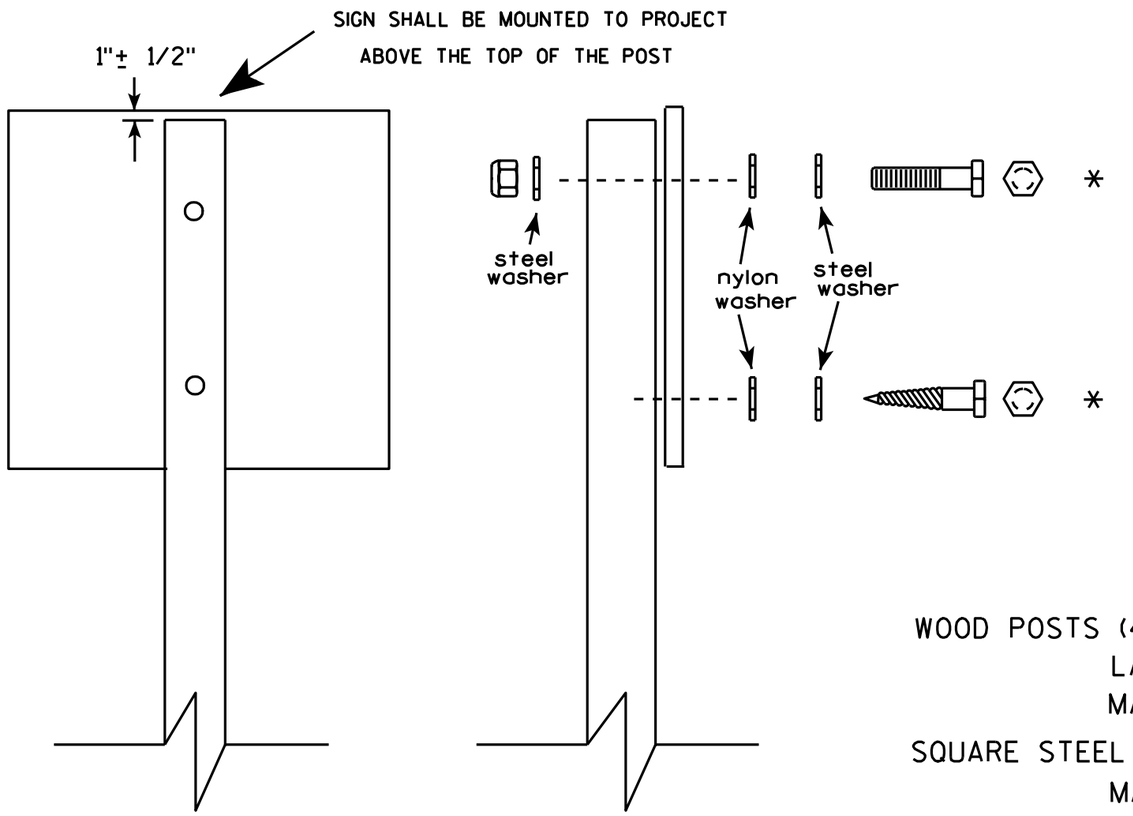
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

158

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42



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

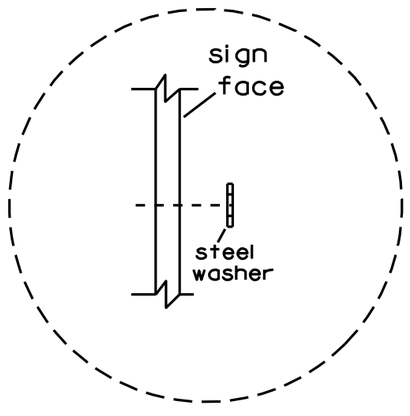
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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 Matthew R Rauch
for State Traffic Engineer

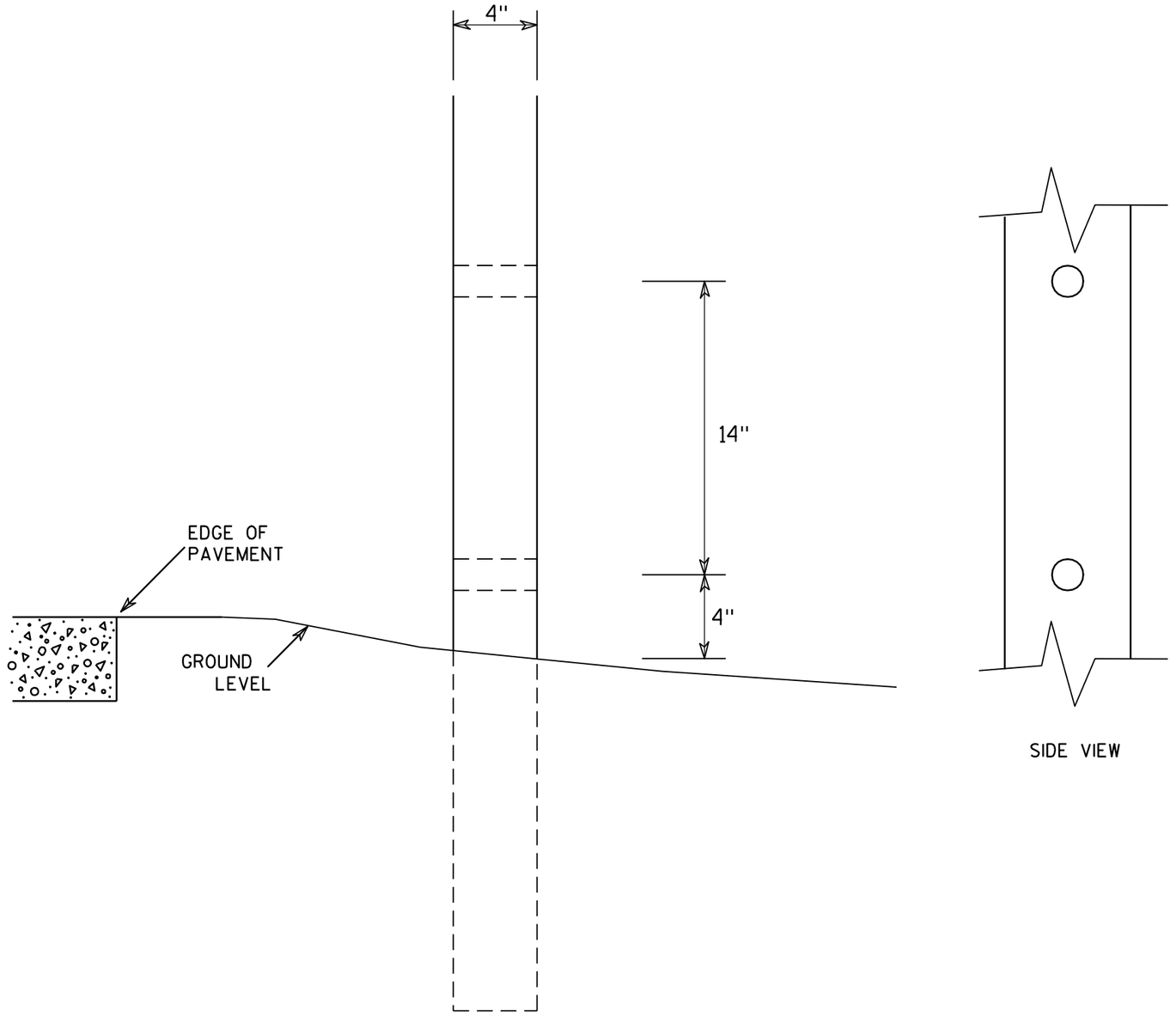
DATE 3/23/10 PLATE NO. A4-8.7

7

7

PROJECT NO:

SHEET NO: 159 E



SIDE VIEW

GENERAL NOTES

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

7

7

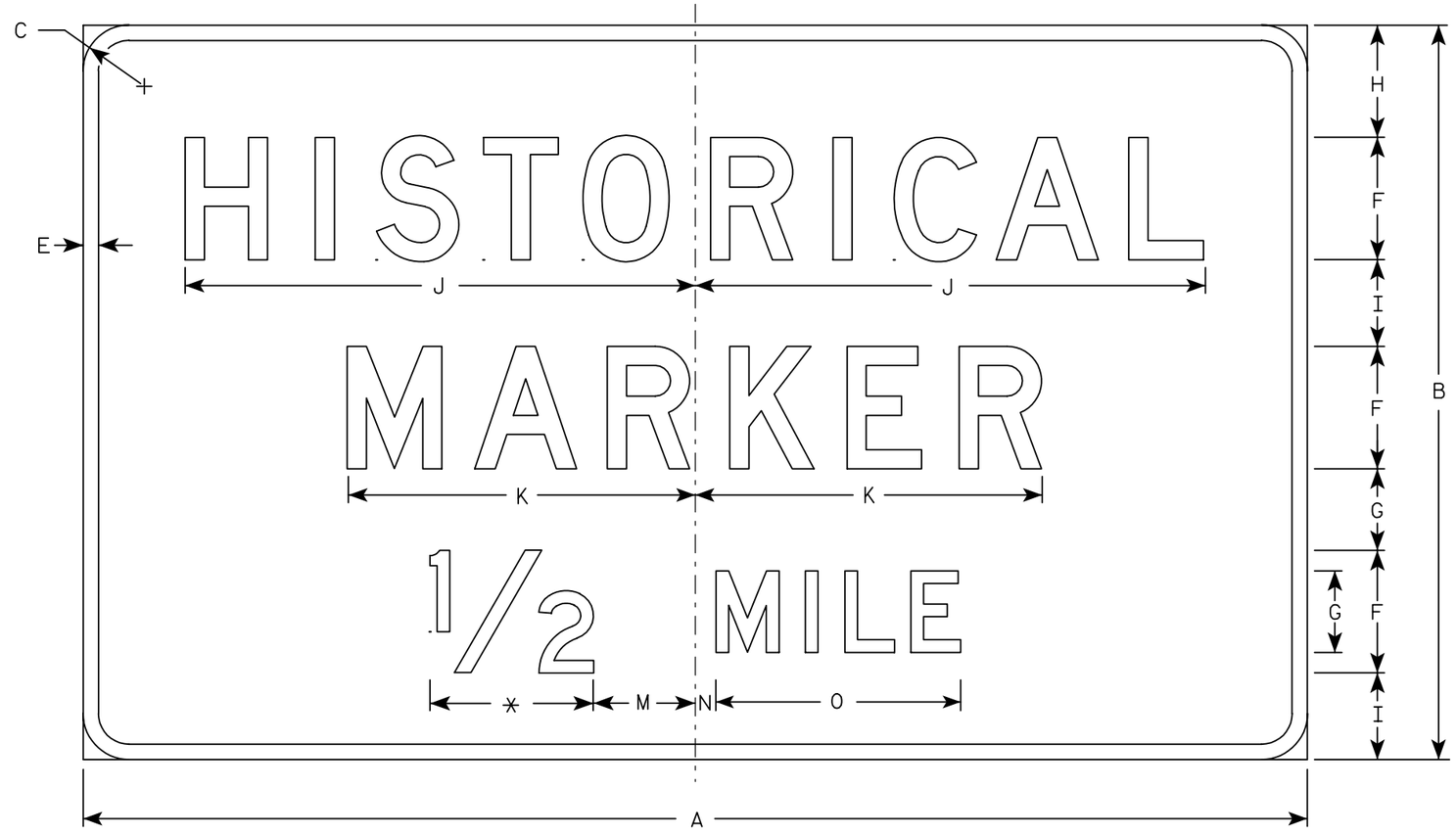
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 160	E



D5-63 * See Note 5

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
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	1500 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 m2
1																												
2	60	36	2 1/4		3/4	6	4	5 1/2	4 1/4	25	17		5	1	12												15.0	1.35
3																												
4																												
5																												

STANDARD SIGN
D5-63

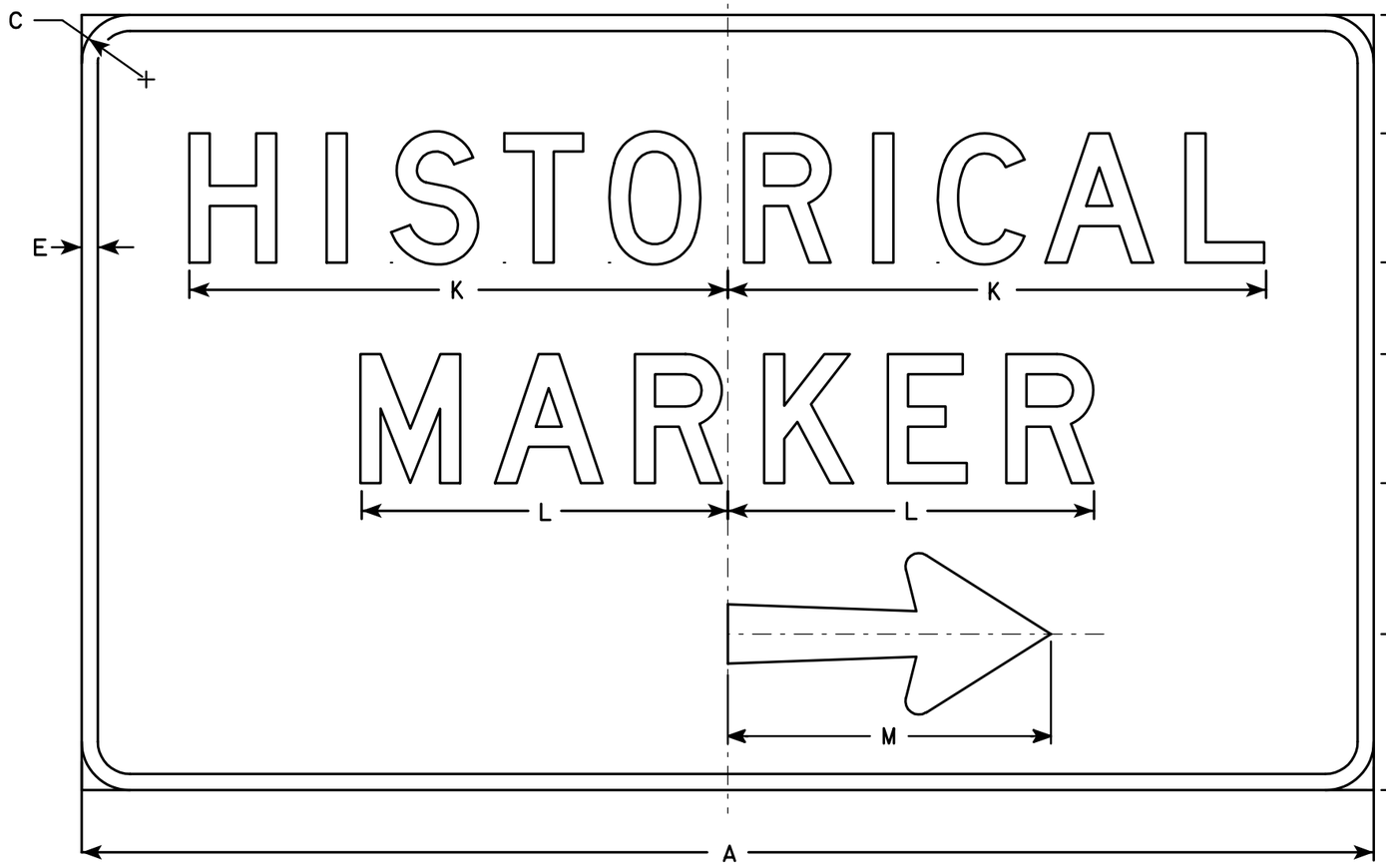
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/23/99 PLATE NO. D5-63.9

STATE PROJECT NUMBER:

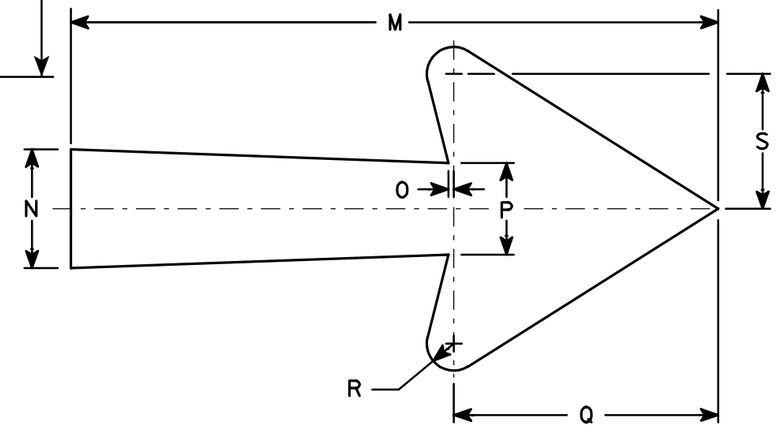
SHEET NO: 161 E



D5-64R

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
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-64L is the same as D5-64R except the arrow is reversed.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	1500 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 m2
1																												
2	60	36	2 1/4		3/4	6	5 1/2	4 1/4	7	7 1/4	25	17	15	2 3/4	1/8	2 1/8	6 1/8	5/8	3 1/8								15.0	1.35
3																												
4																												
5																												

STANDARD SIGN
D5-64

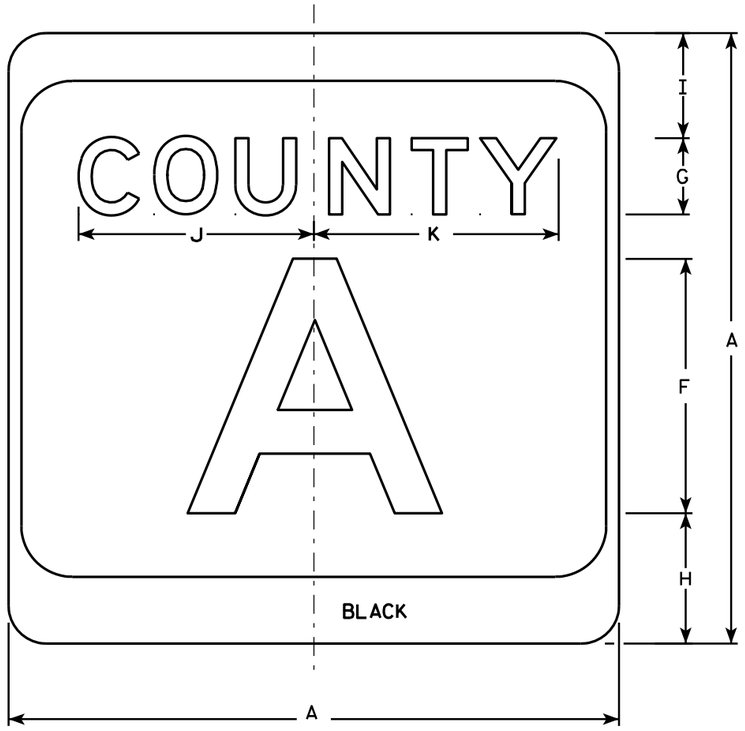
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Charles J Spay
for State Traffic Engineer

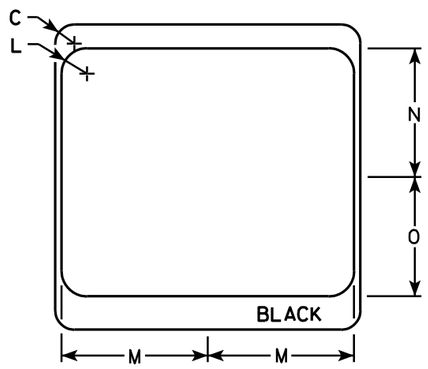
DATE 1/09/02 PLATE NO. D5-64.5

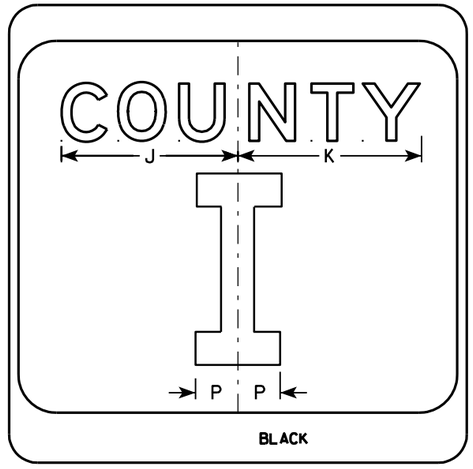
STATE PROJECT NUMBER:

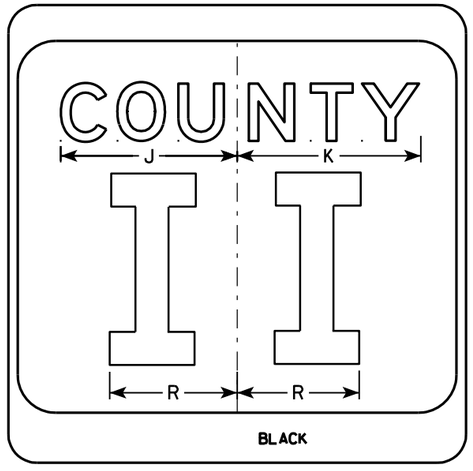
SHEET NO: 162 E



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

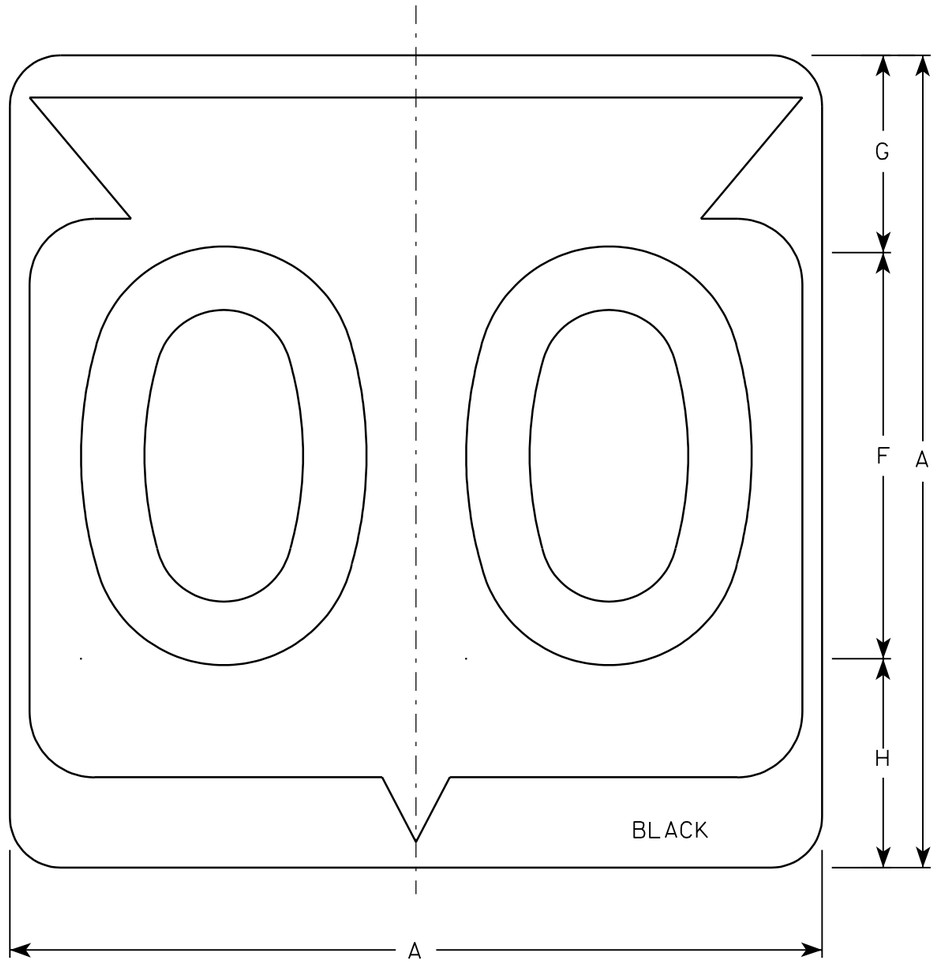
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

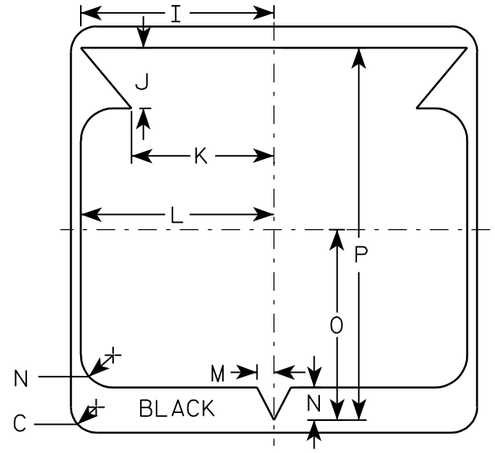
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 164	E



M1-6

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



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 m2
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

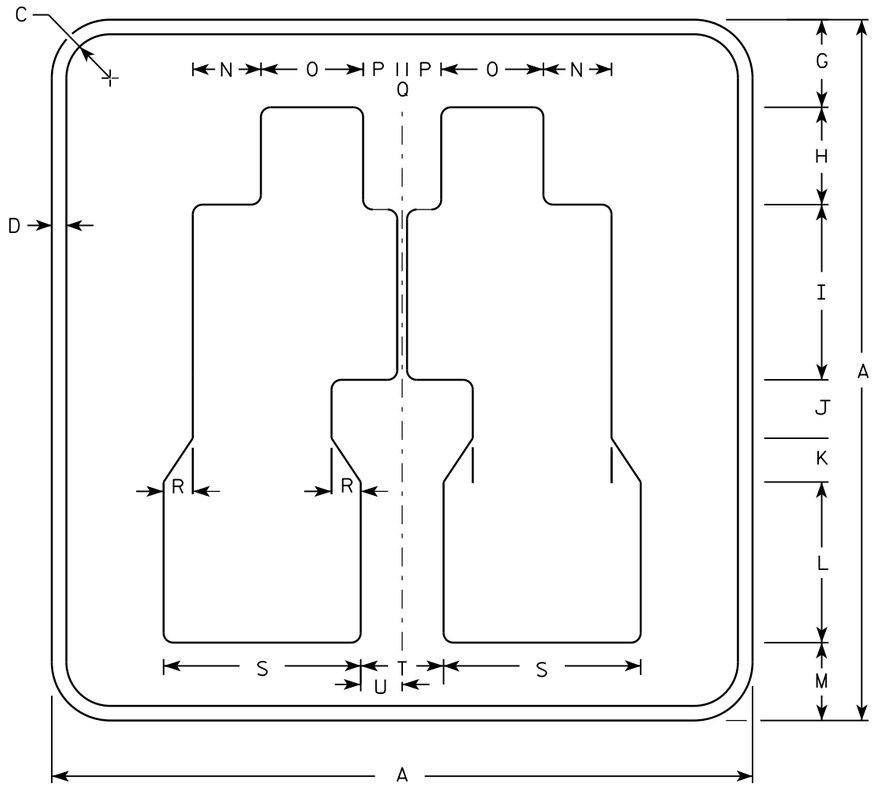
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165	E



M1-88

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
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	8		1 1/8	3/8			1	1 1/8	2	3/4	1/2	1 7/8	7/8	3/4	1 1/8	3/8	1/8	3/8	2 1/4	1							.44
2	18		1 1/8	3/8			2 1/4	2 1/2	4 1/2	1 1/2	1 1/8	4 1/8	2	1 3/4	2 5/8	7/8	1/4	3/4	5 1/8	2 1/8	1 1/16						2.25
3																											
4																											
5																											

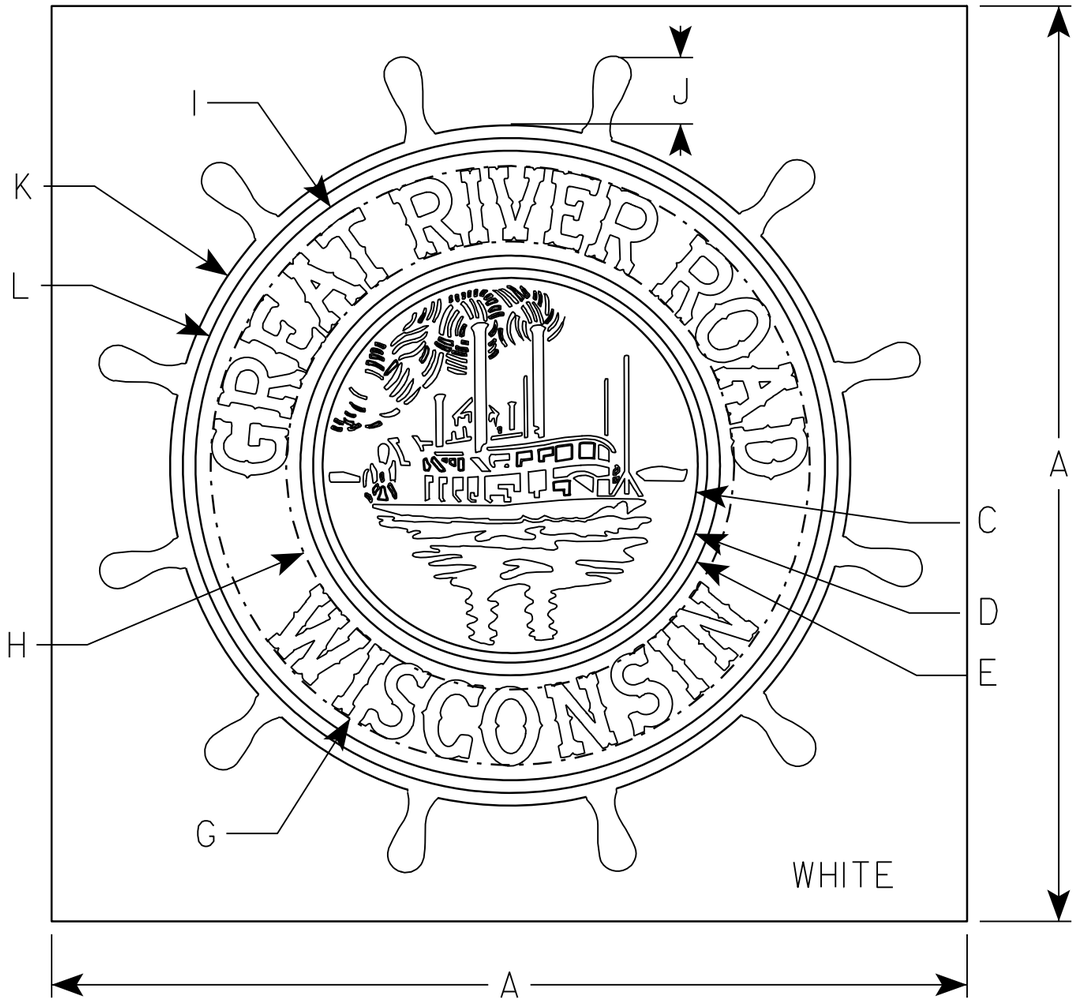
STANDARD SIGN
M1-88

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

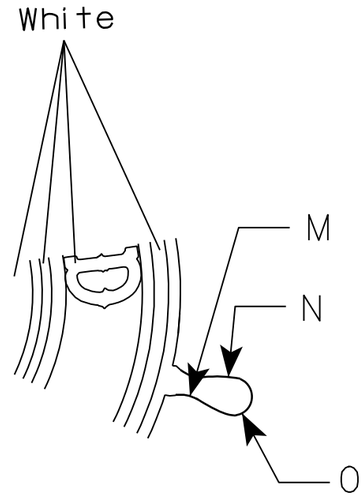
DATE 4/16/15 PLATE M1-88.3

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 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 - Words - White - Graphics - Green
3. Message Series - Special
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		R 5	R 5 1/4	R 5 1/2		R 7 7/8	R 5 7/8	R 8 1/2	1 3/4	R 4 1/2	R 8 1/2	R 7/8	R 3 1/2	R 1/2												4.0
3																											
4	36		R 7 3/8	R 7 3/4	R 8 1/4		R 11 3/4	R 8 3/4	R 12 3/8	2 5/8	R 13 3/8	R 12 7/8	R 1 3/8	R 5 1/4	R 3/4												9.0
5																											

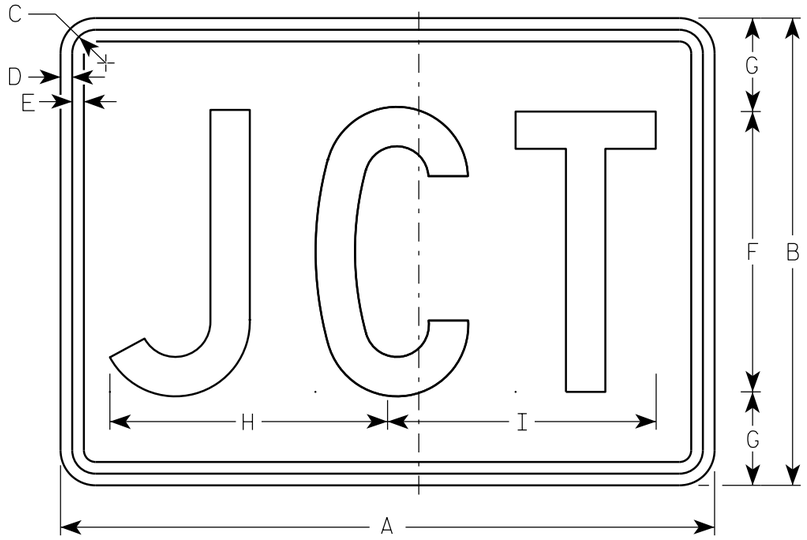
STANDARD SIGN
M1-96

WISCONSIN DEPT OF TRANSPORTATION

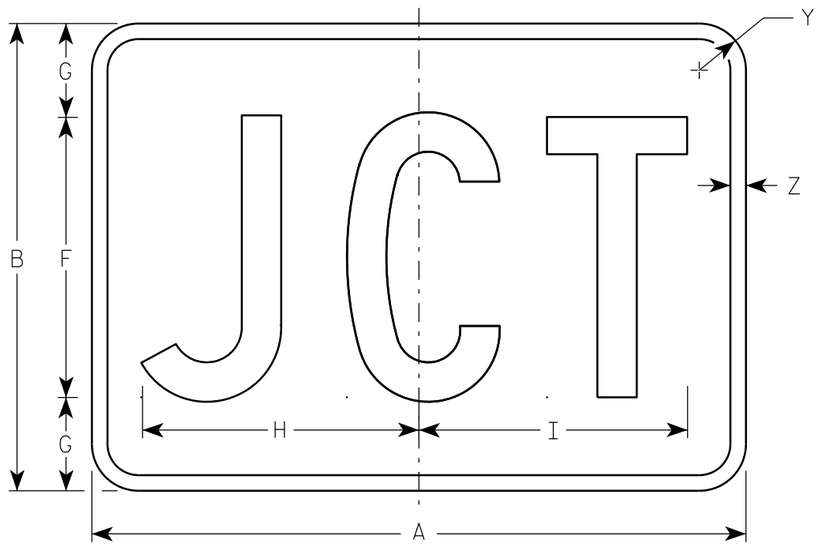
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/10 PLATE NO. M1-96.2

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



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

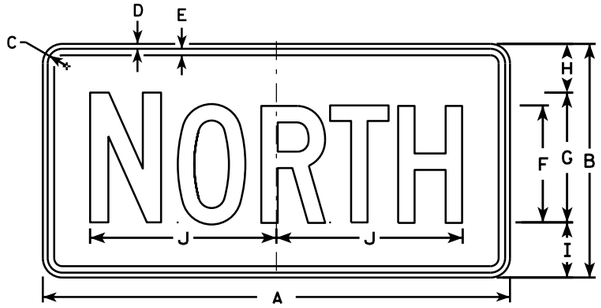
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

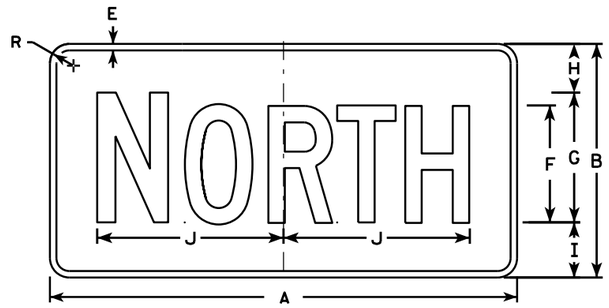
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 168 12-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

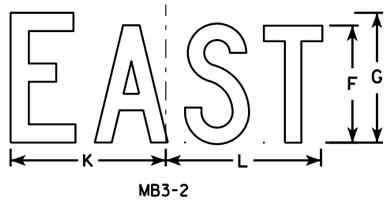


M3-1
MK3-1
MM3-1
MN3-1

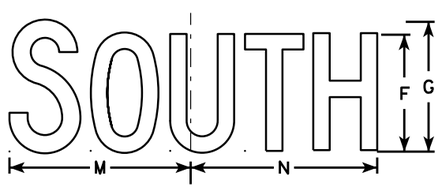


MB3-1

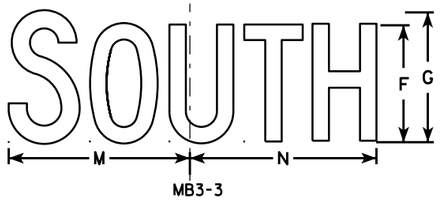
M3-2
MK3-2
MM3-2
MN3-2



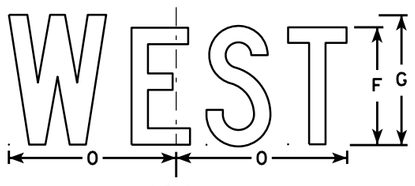
MB3-2



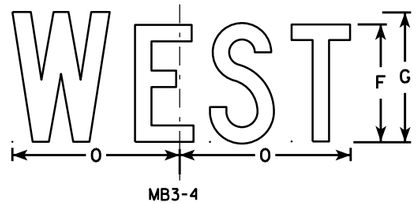
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

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

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

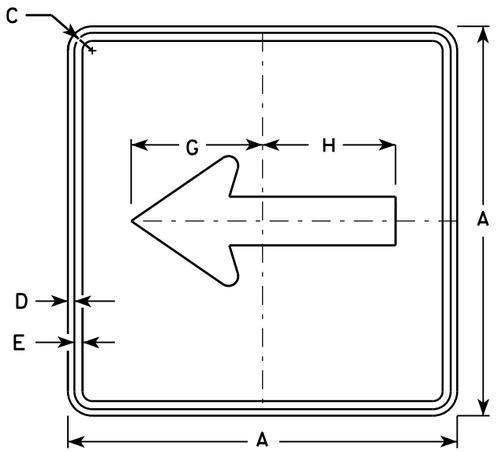
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

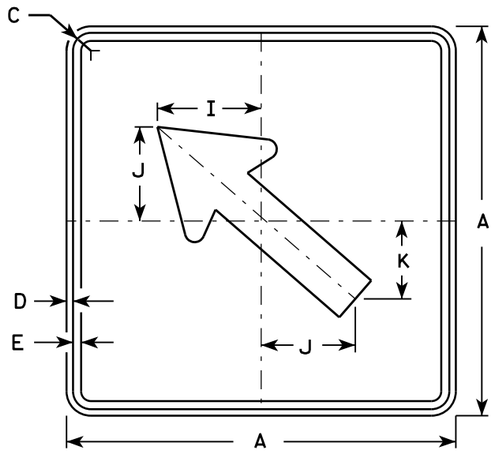
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



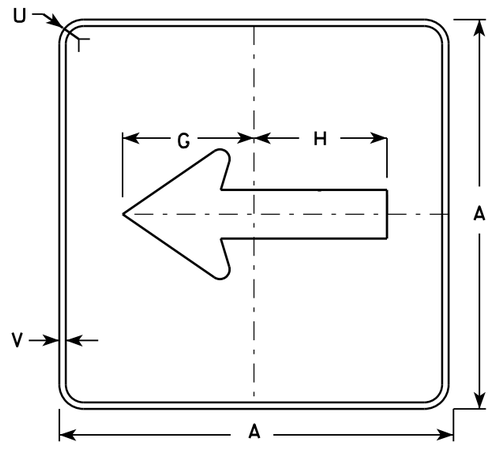
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



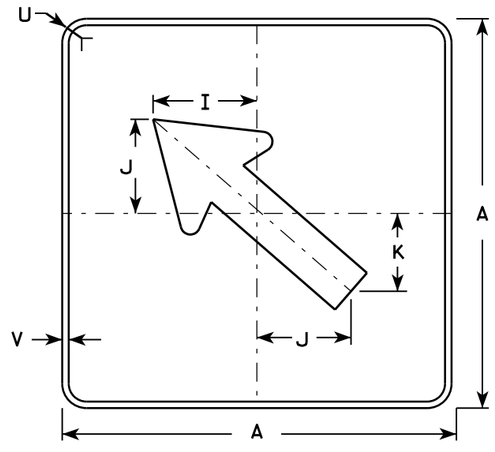
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

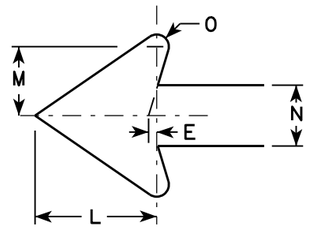
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

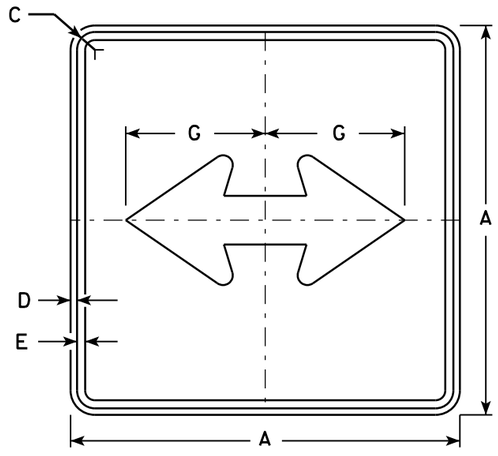
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

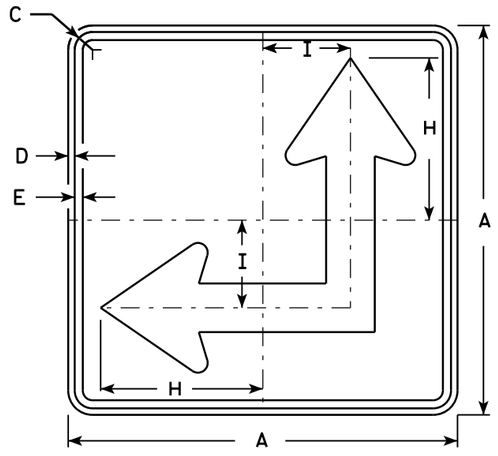
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/03/14 PLATE 170 M6-1.14

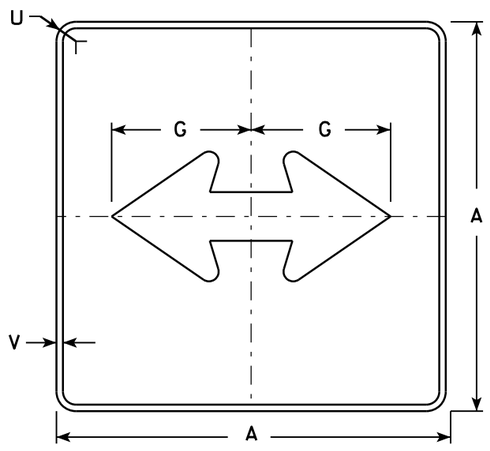
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



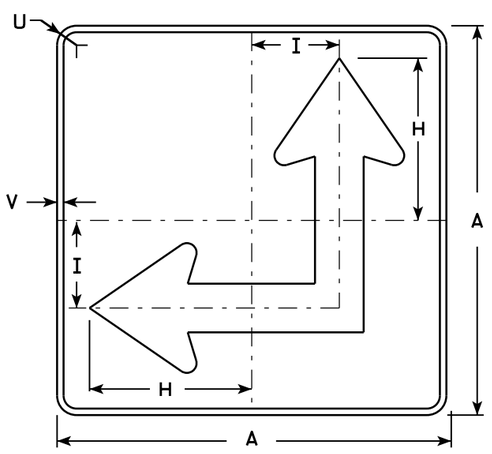
M6-4
MK6-4
MM6-4
MN6-4
MO6-4
MP6-4
MR6-4



M6-6
MK6-6
MM6-6
MN6-6
MO6-6
MP6-6
MR6-6



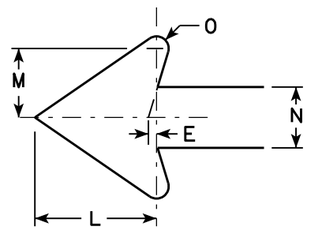
MB6-4



MB6-6

NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN M6-4 & M6-6 SERIES

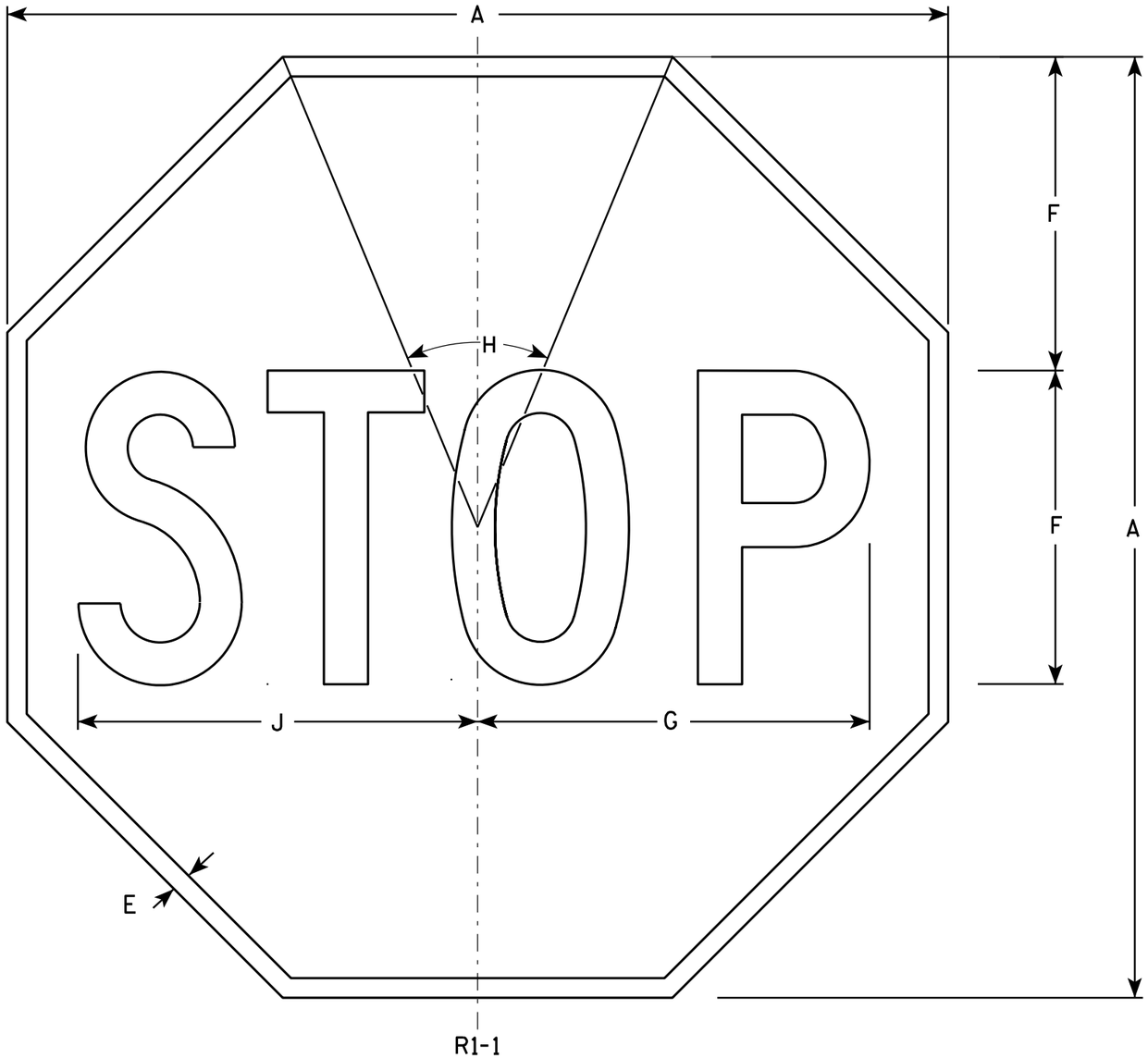
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/03/14 PLATE M6-4.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 03-JUL-2014 14:56 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000 WISDOT/CADDS SHEET 42



NOTES

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

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

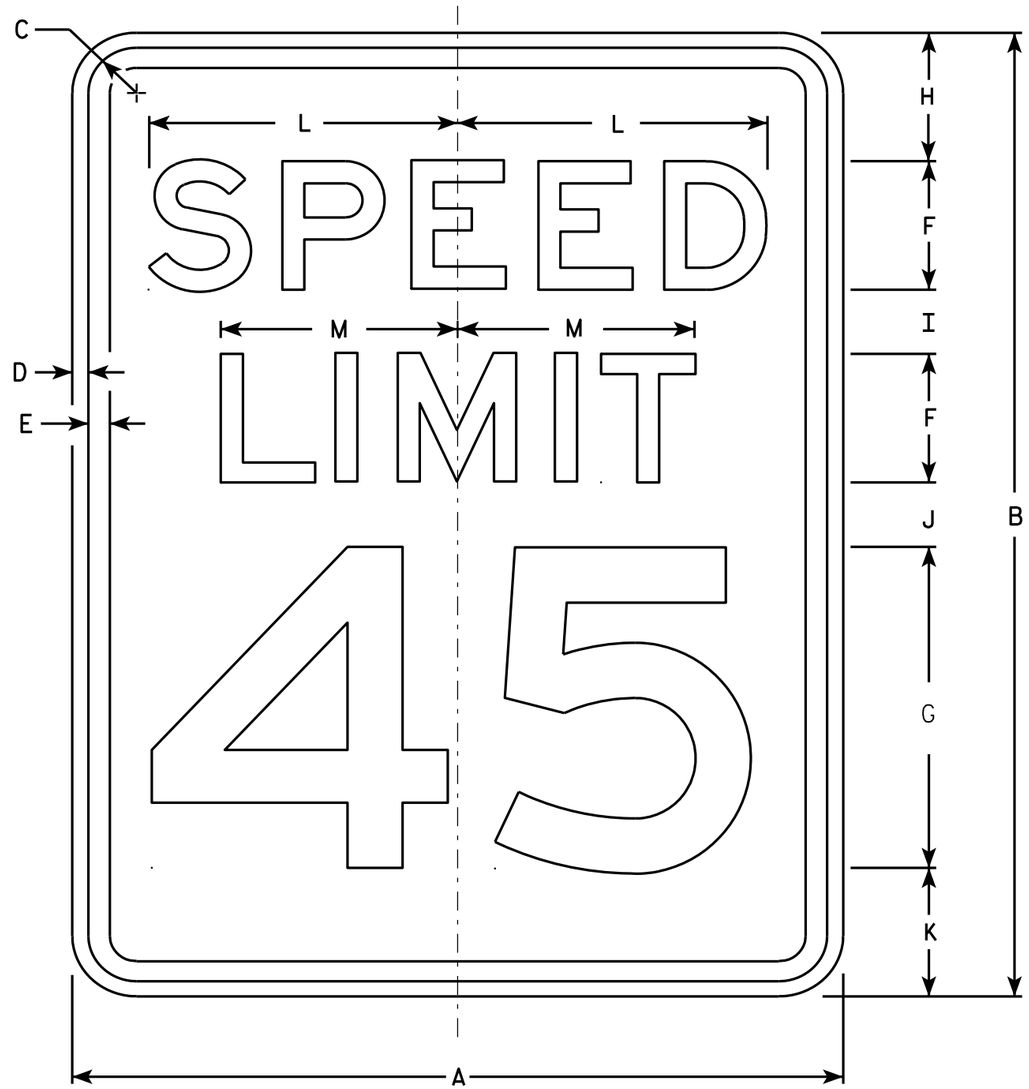
STANDARD SIGN
R1-1

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: 172	E



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

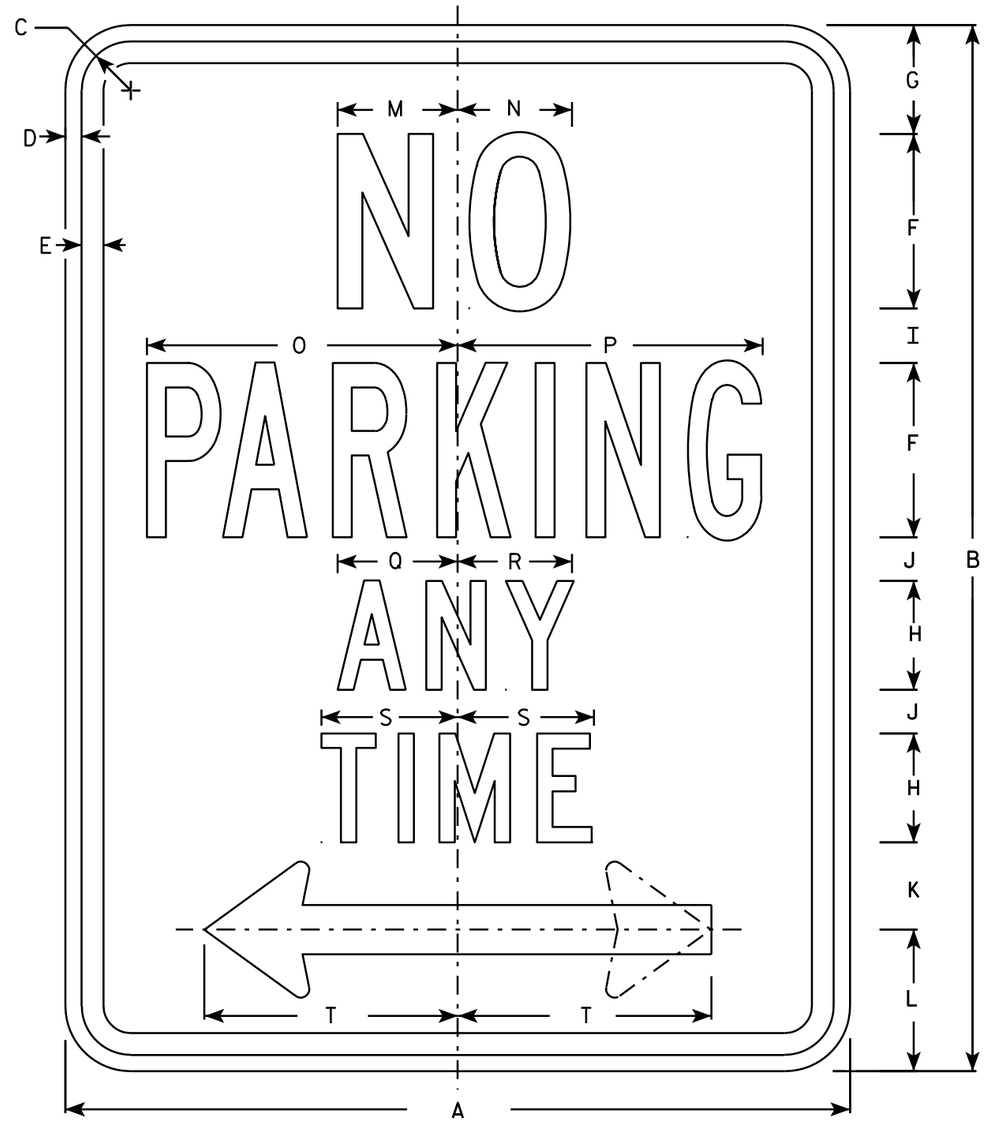
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

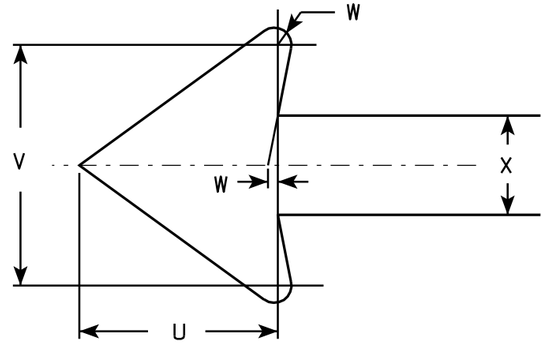
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 173 | E



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

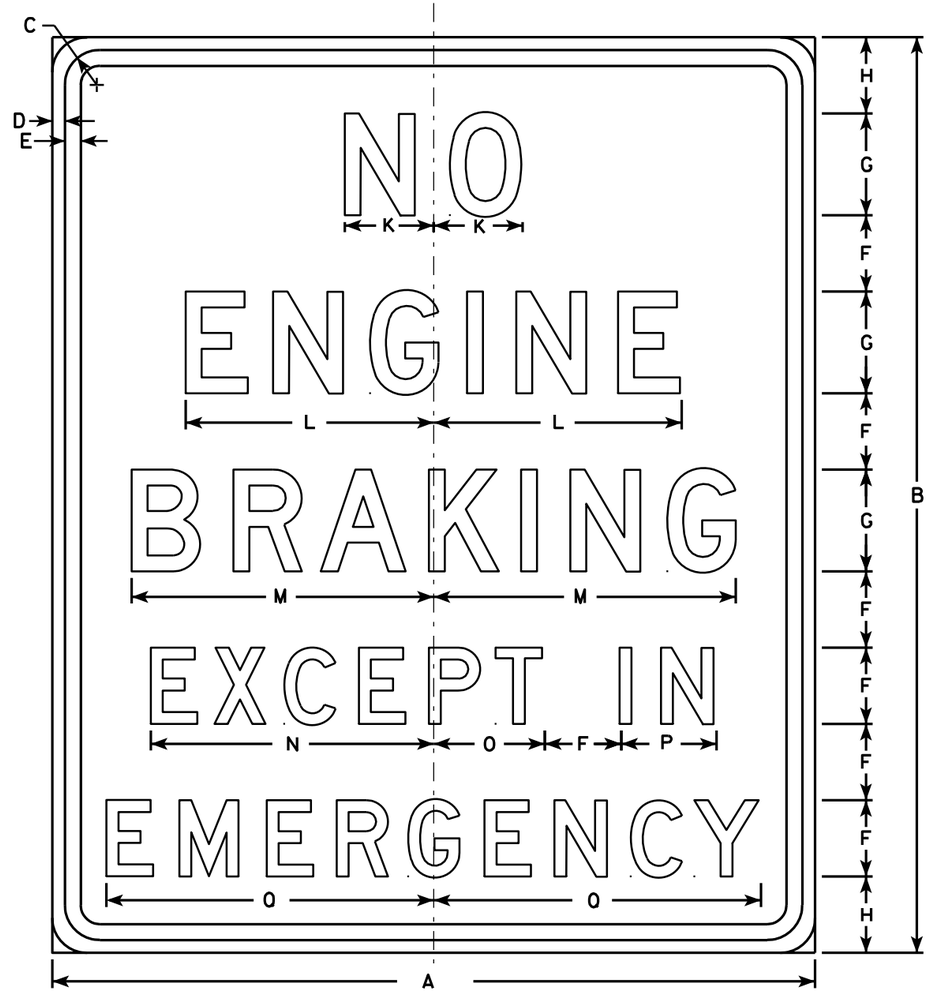
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 174	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

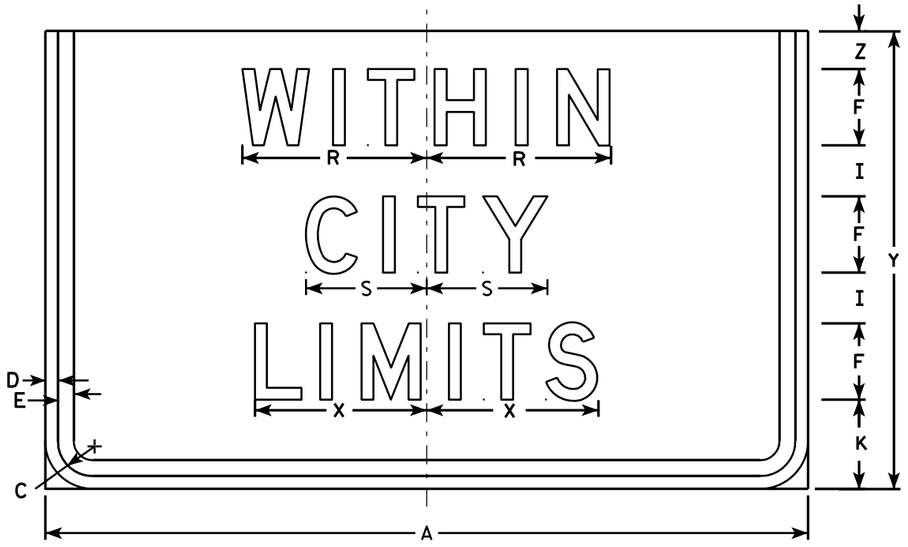
WISDOT/CADDS SHEET 42



R10-64

NOTES

1. Signs are 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 See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 2 of R10-64F is Series C for "TOWNSHIP" Only



R10-64F

Area sq. ft.
3.75
7.0

VILLAGE
V
V

TOWNSHIP
U
U

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	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

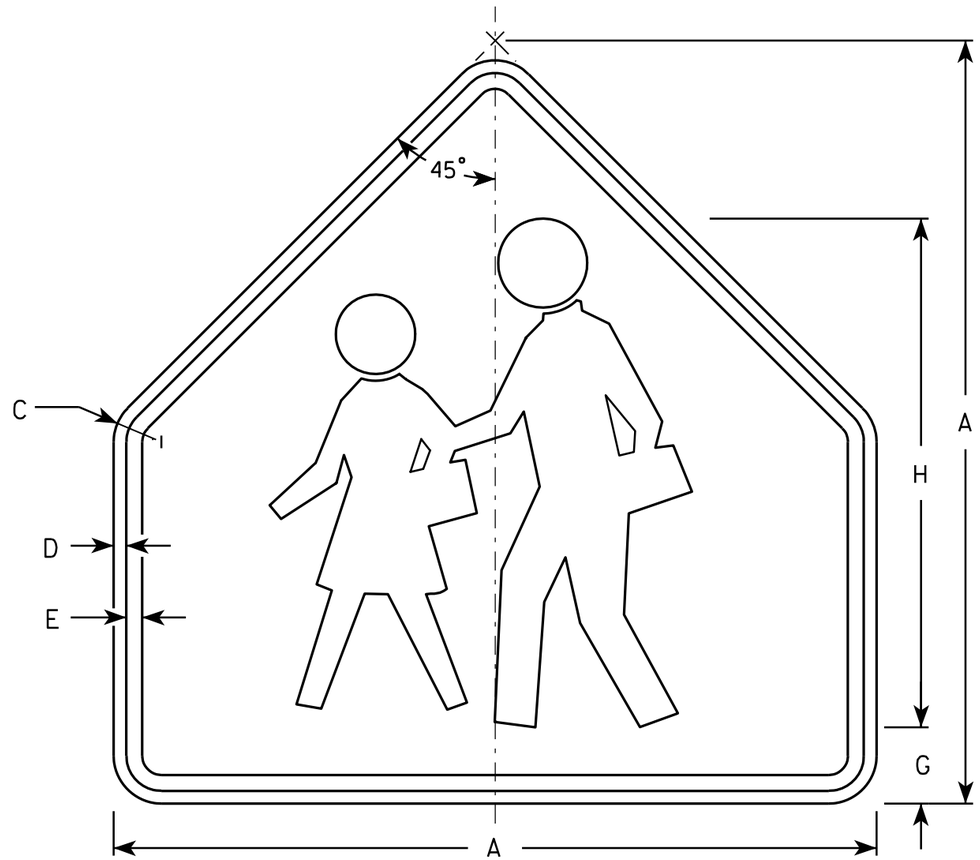
STANDARD SIGN
R10-64 & R10-64F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-64.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 175	E



S1-1

NOTES

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

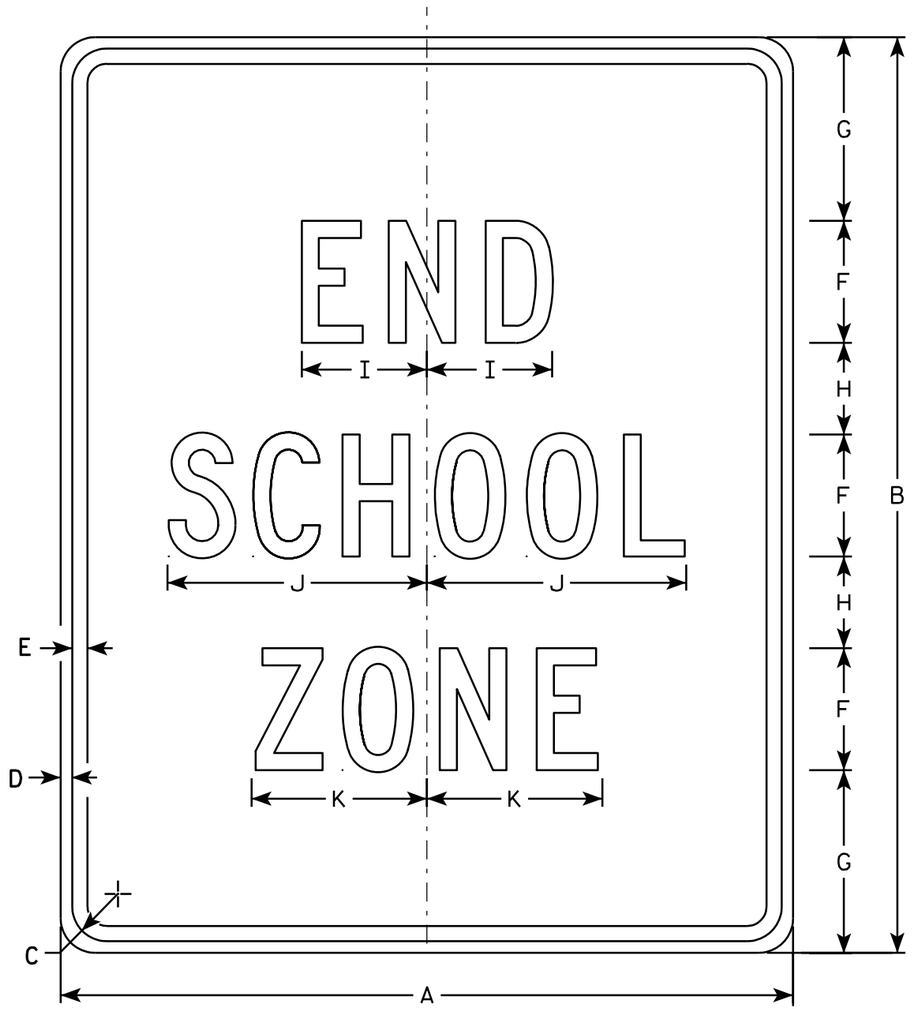
STANDARD SIGN
S1-1

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: 176	E



S5-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

STANDARD SIGN
S5-2

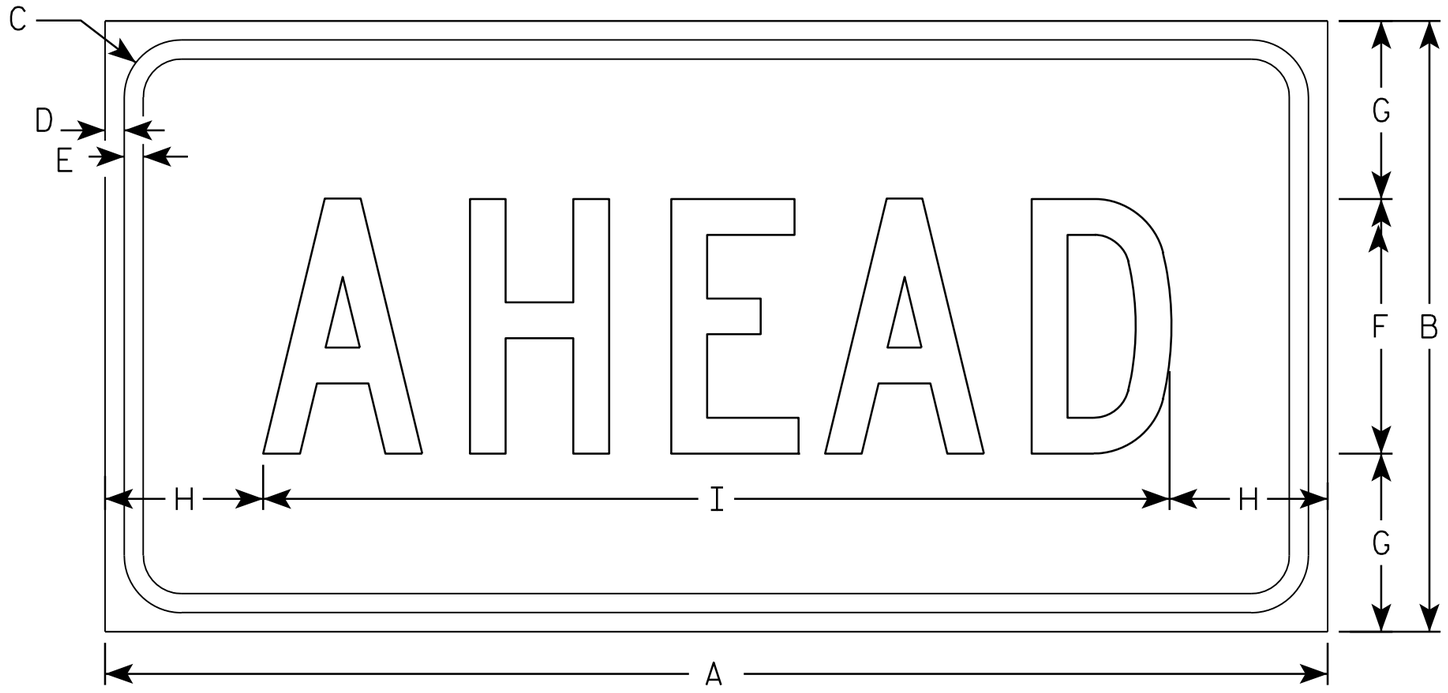
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 177 | E

7



S16-9P

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.

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
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

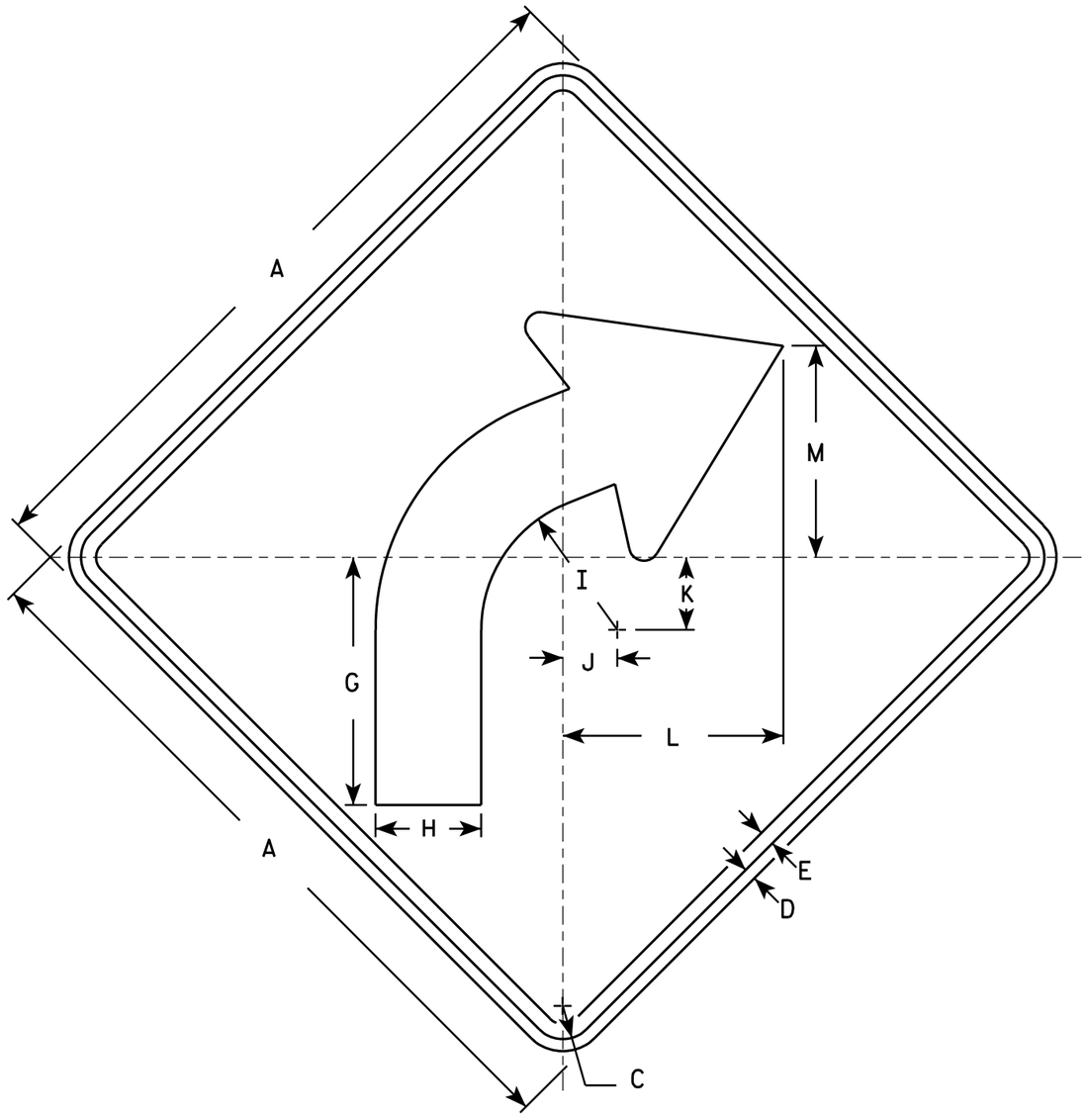
DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 178 | E

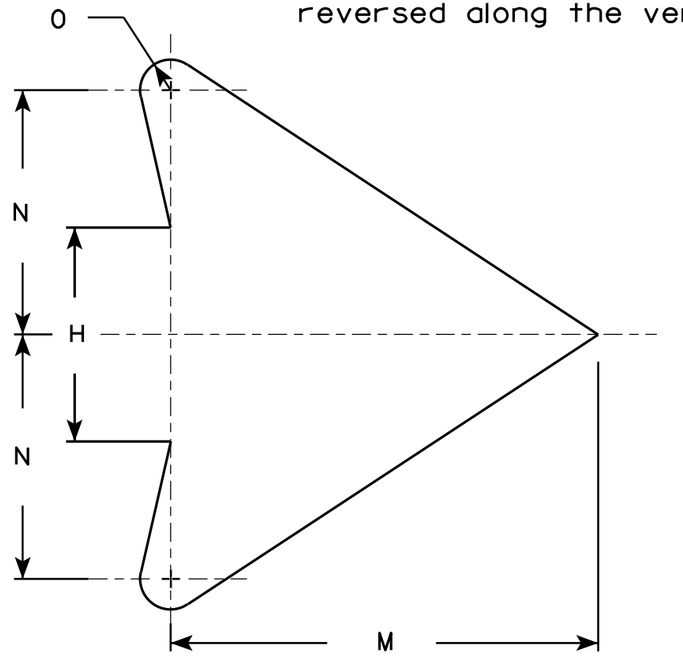
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S169P.dgn PLOT DATE : 22-JUL-2013 10:32 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 2.977140:1.000000

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

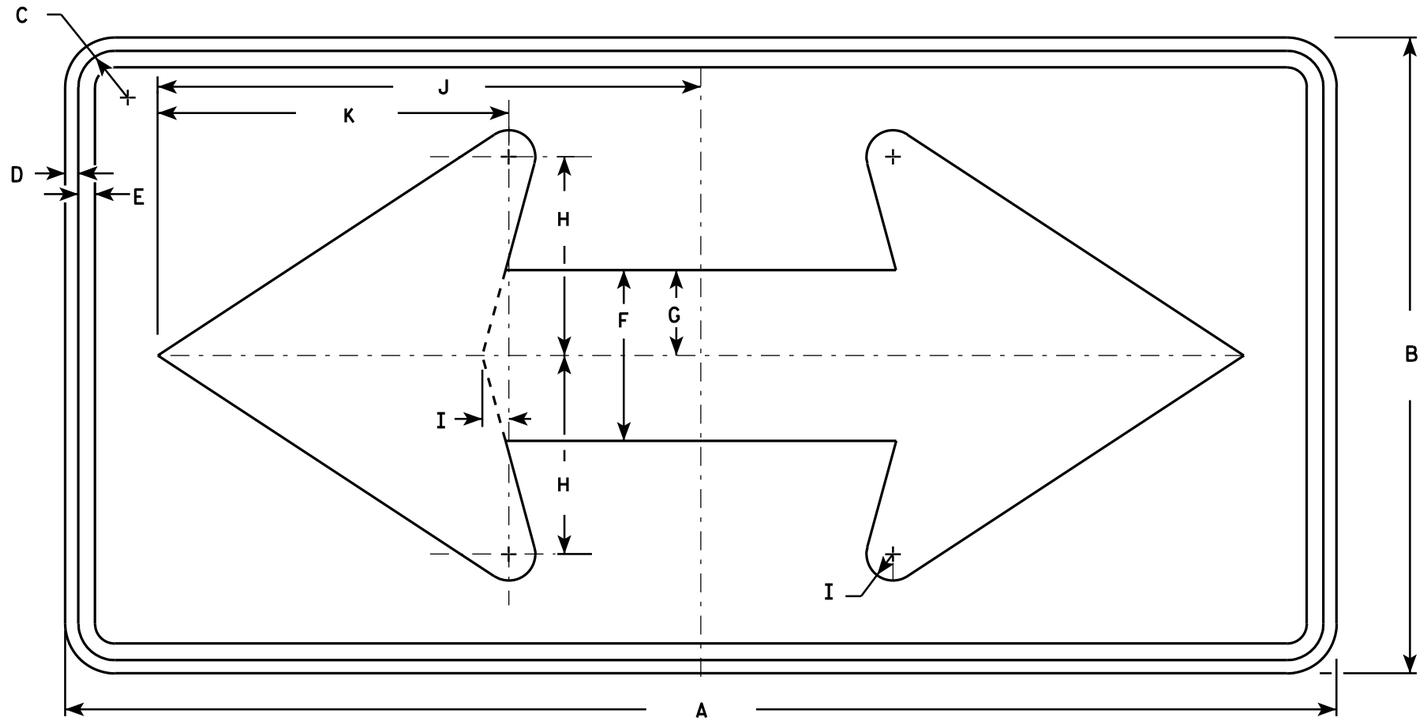
STANDARD SIGN
W1-2

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: 179	E



W1-7

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. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

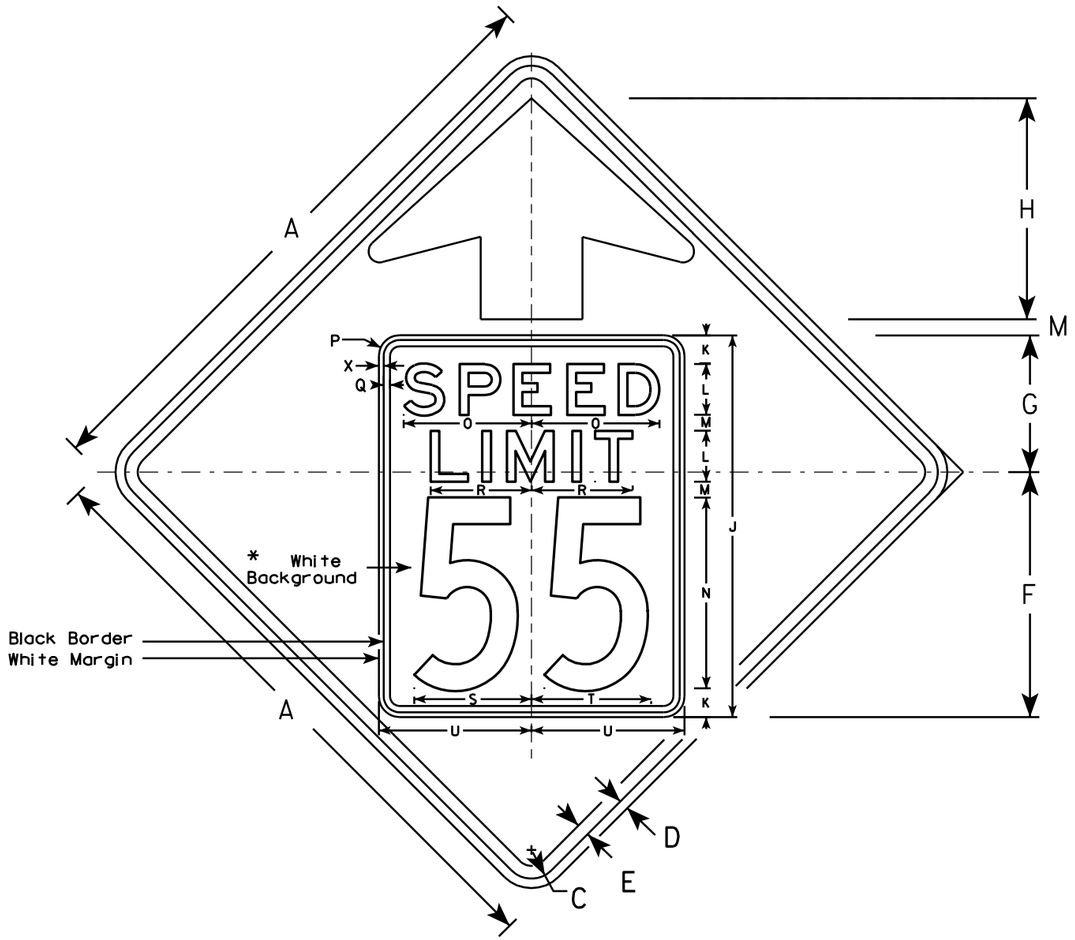
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 180 | E

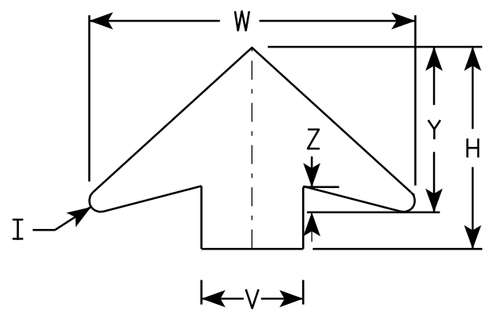


W3-5

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	O	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

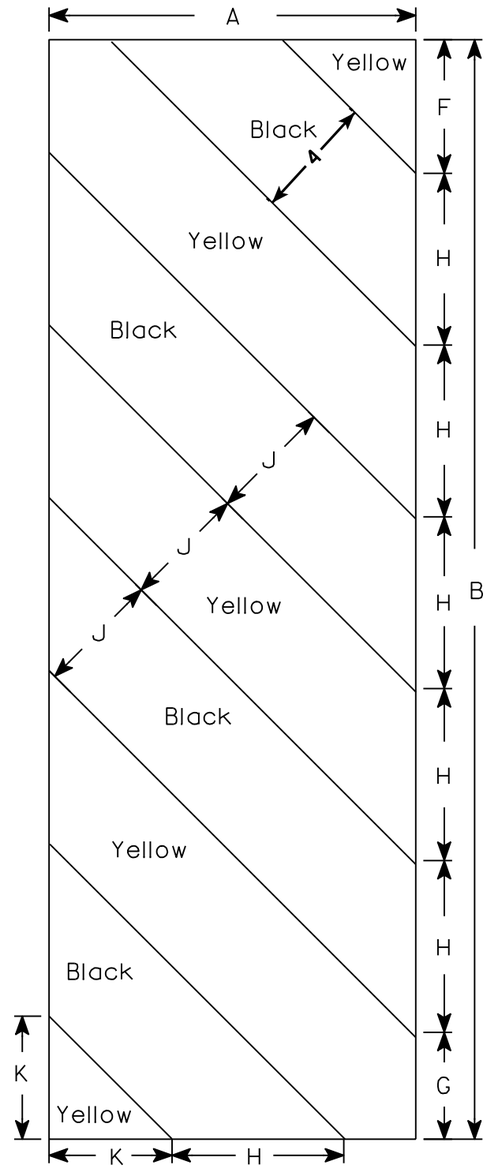
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

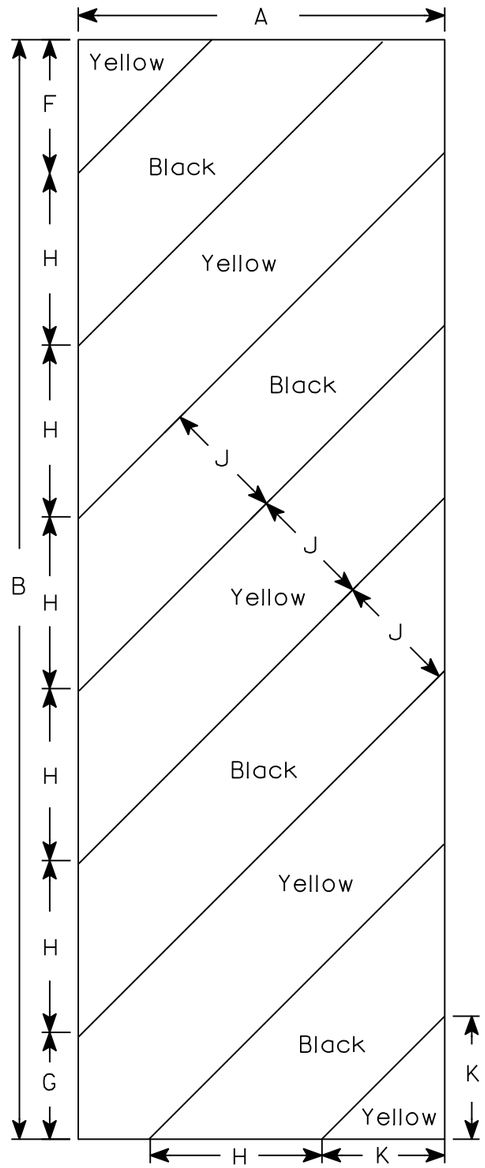
DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 181 E



W5-52L



W5-52R

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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

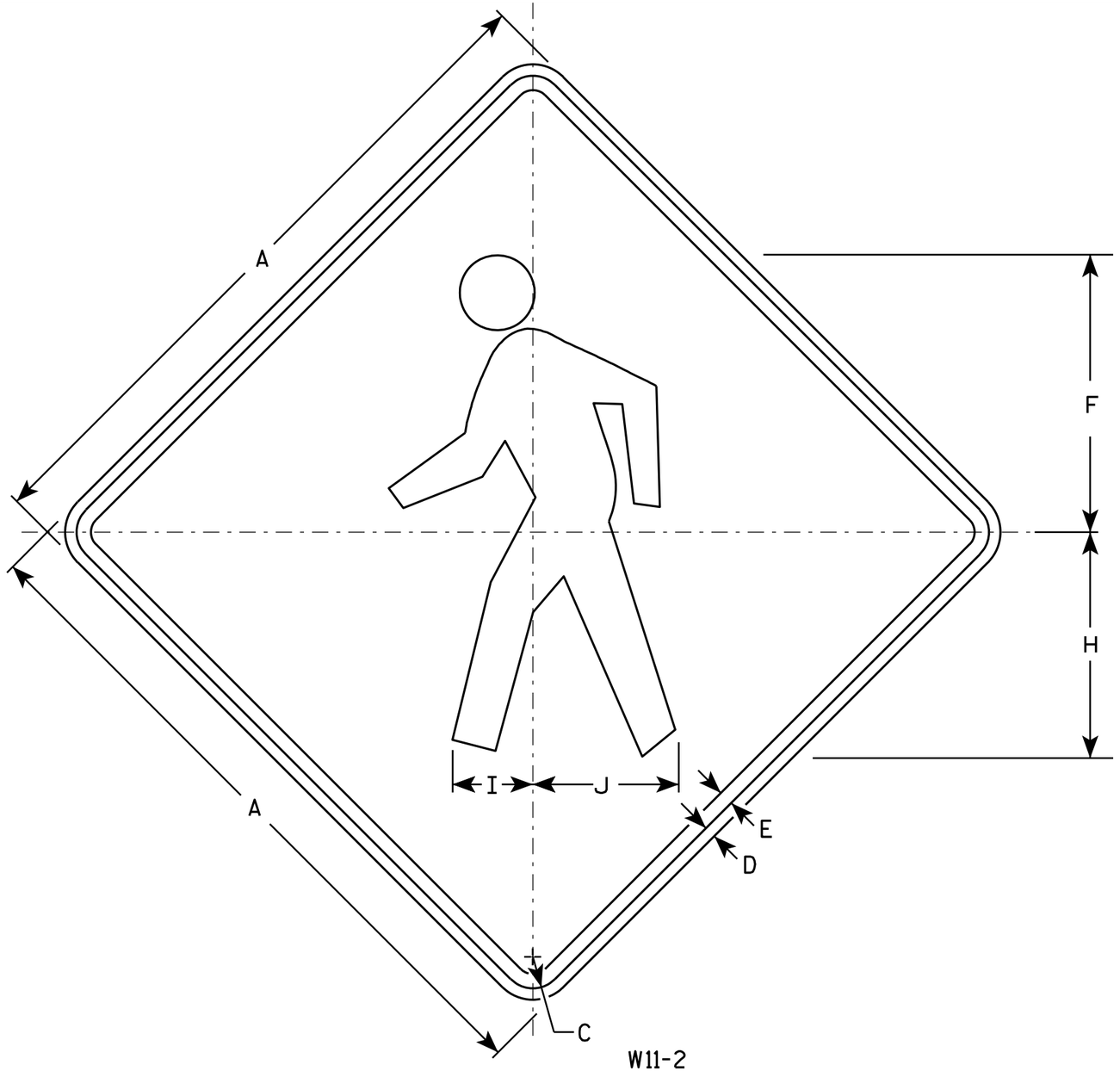
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 182	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

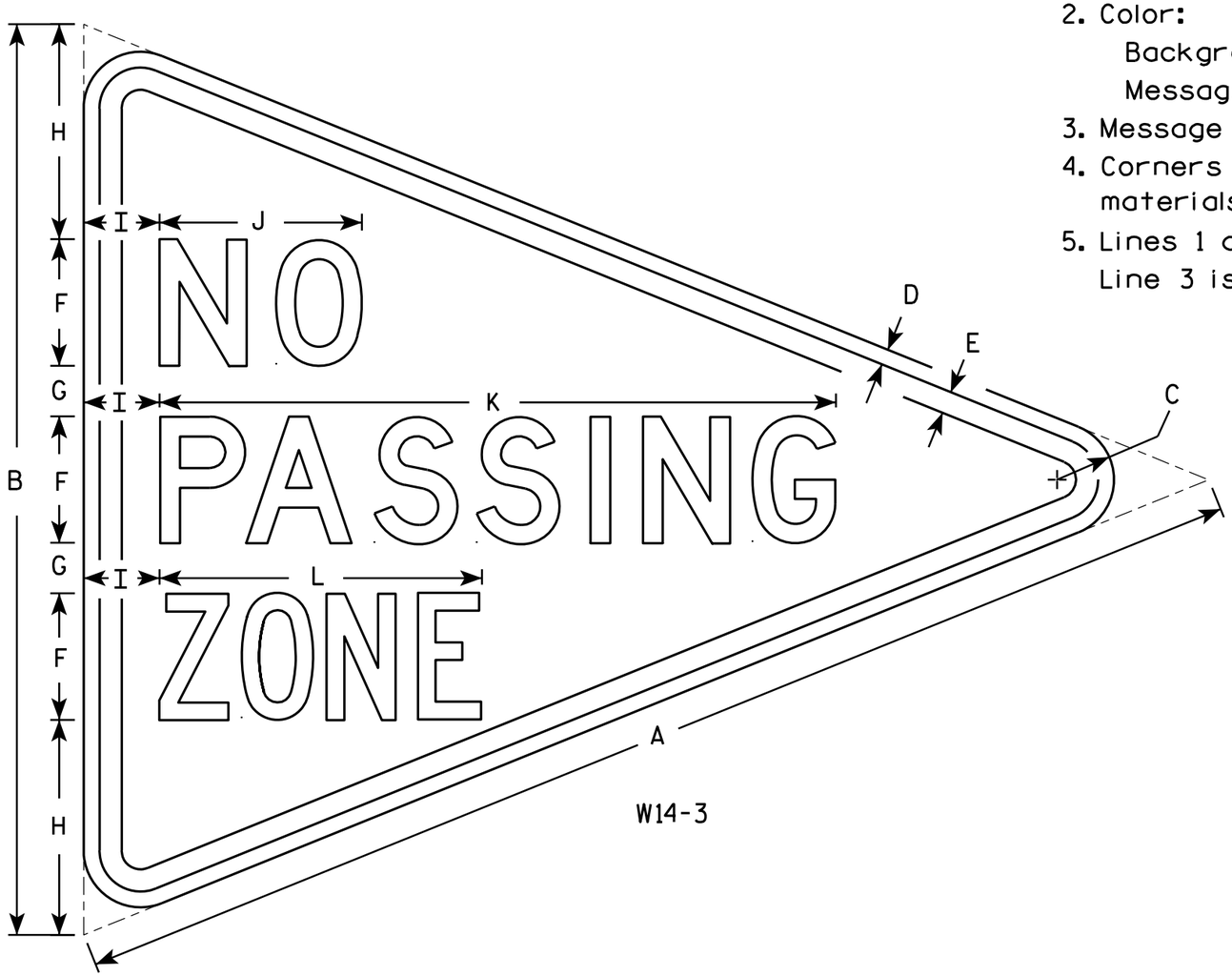
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 183	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	O	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																											

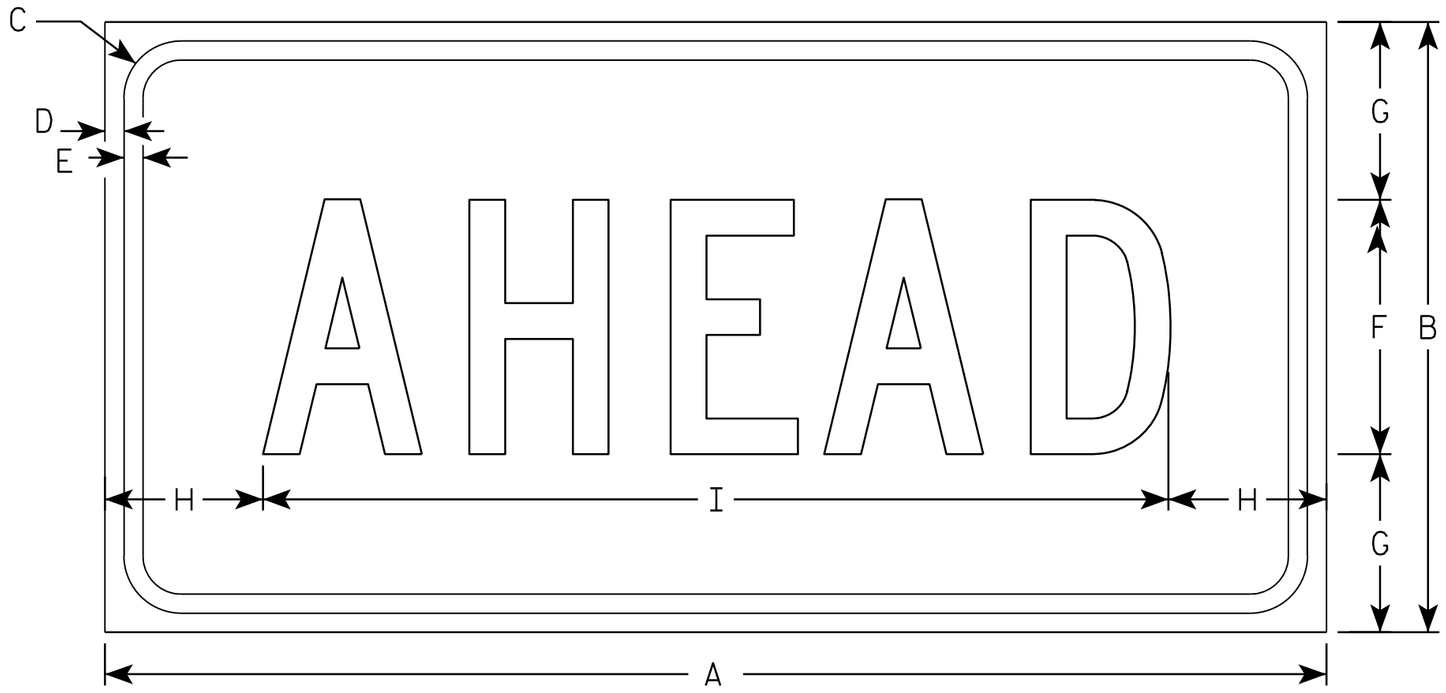
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 184	E



W16-9P

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.

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

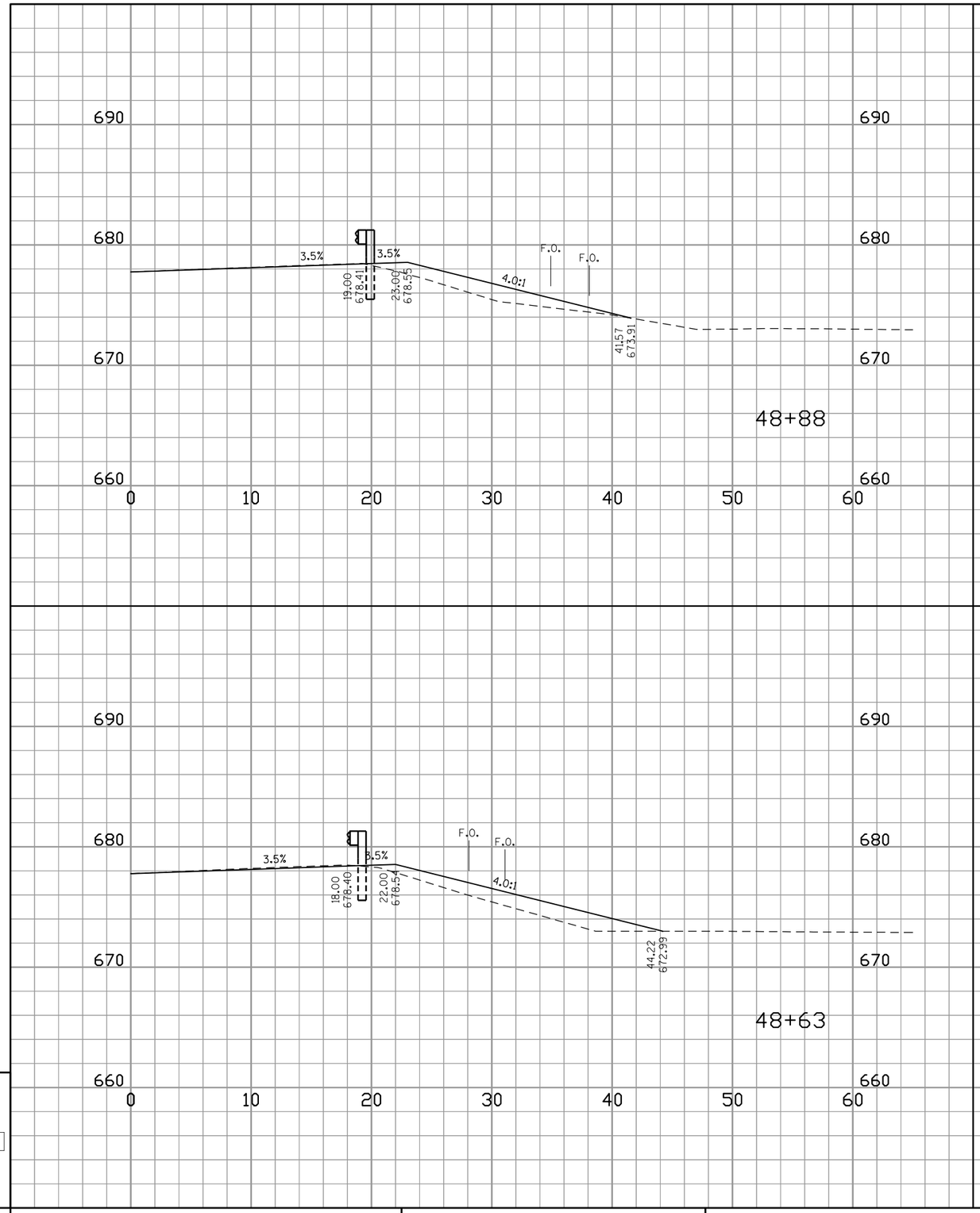
WISCONSIN DEPT OF TRANSPORTATION

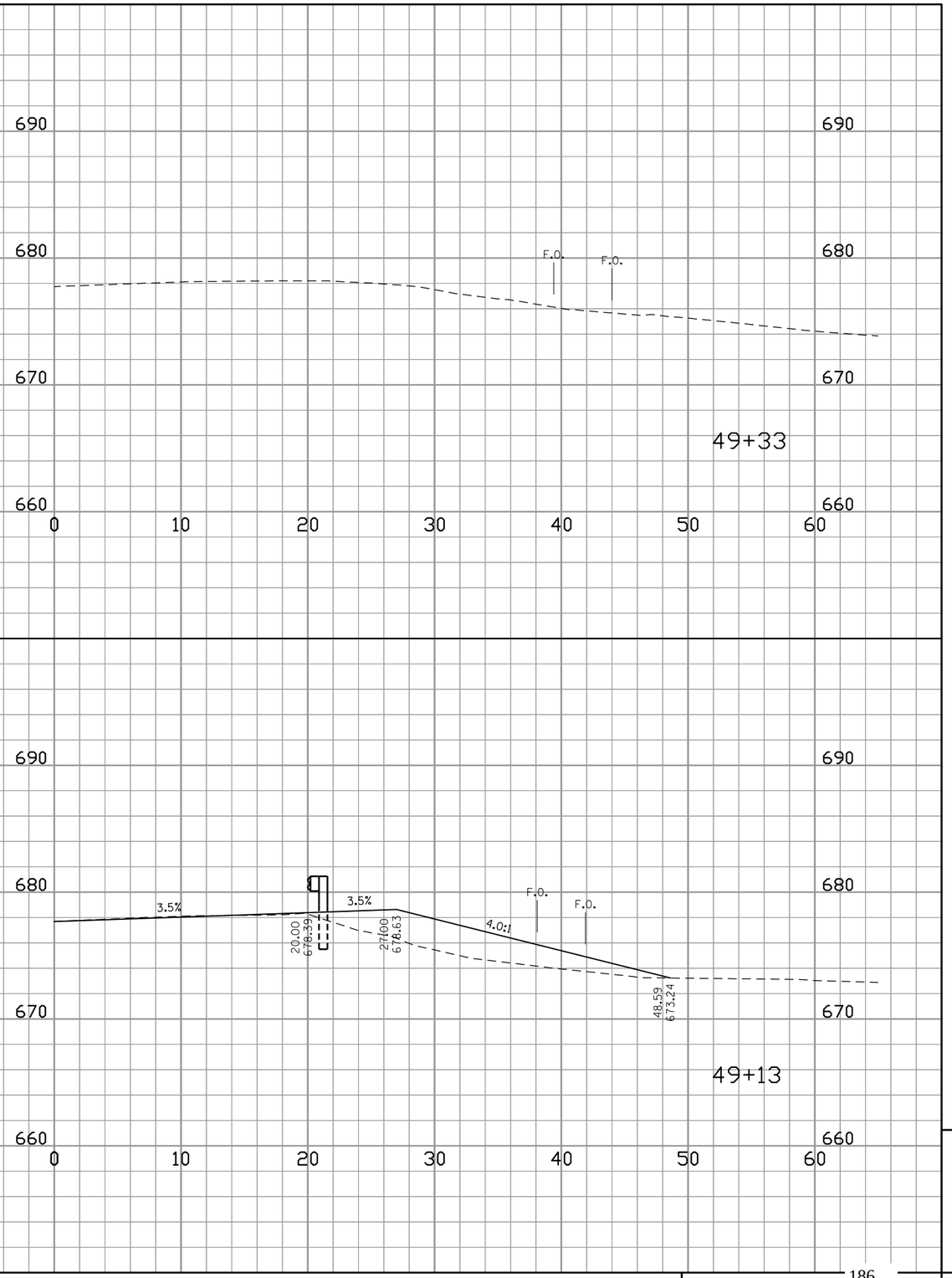
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 185 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
WISDOT/CADDS SHEET 42





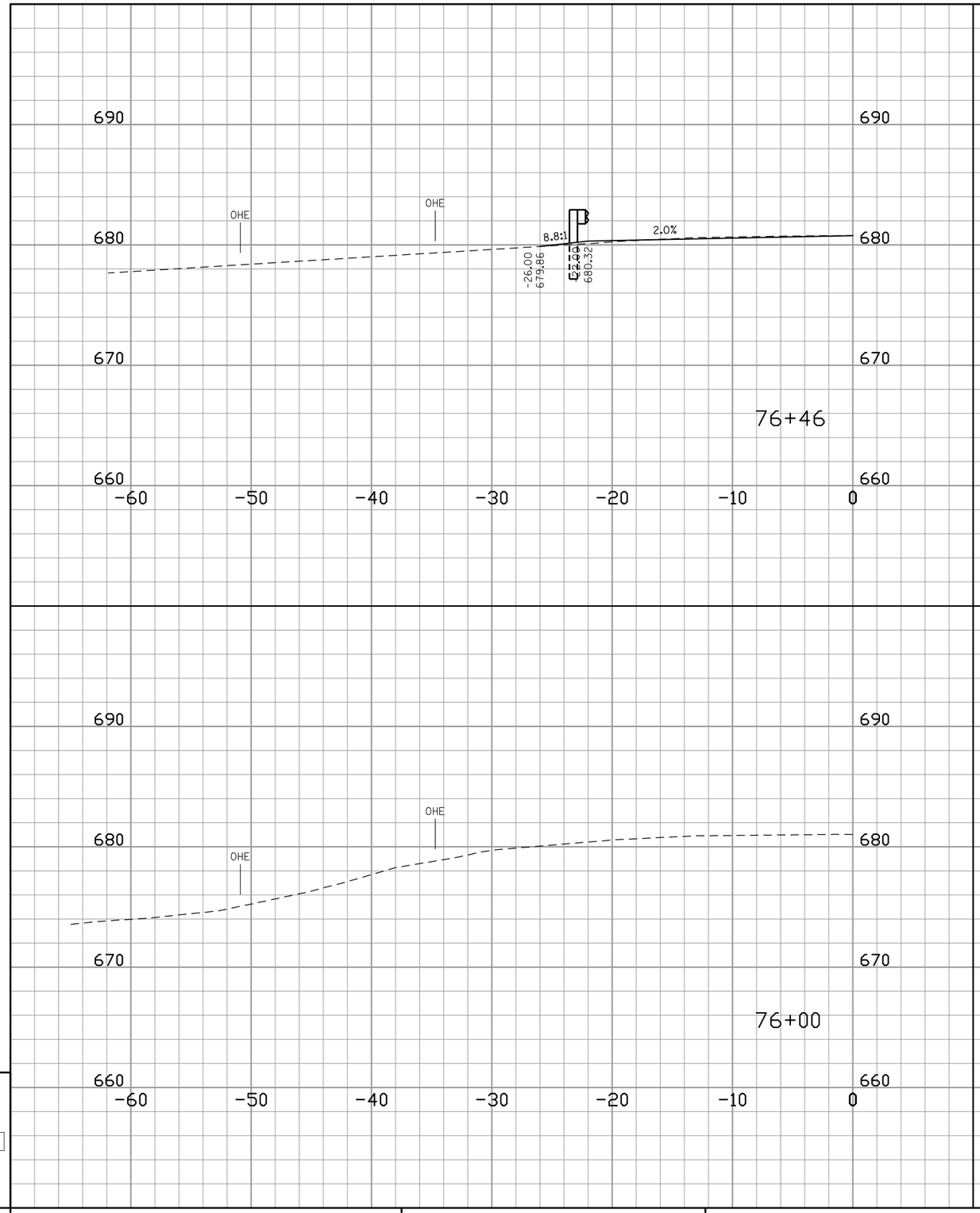
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

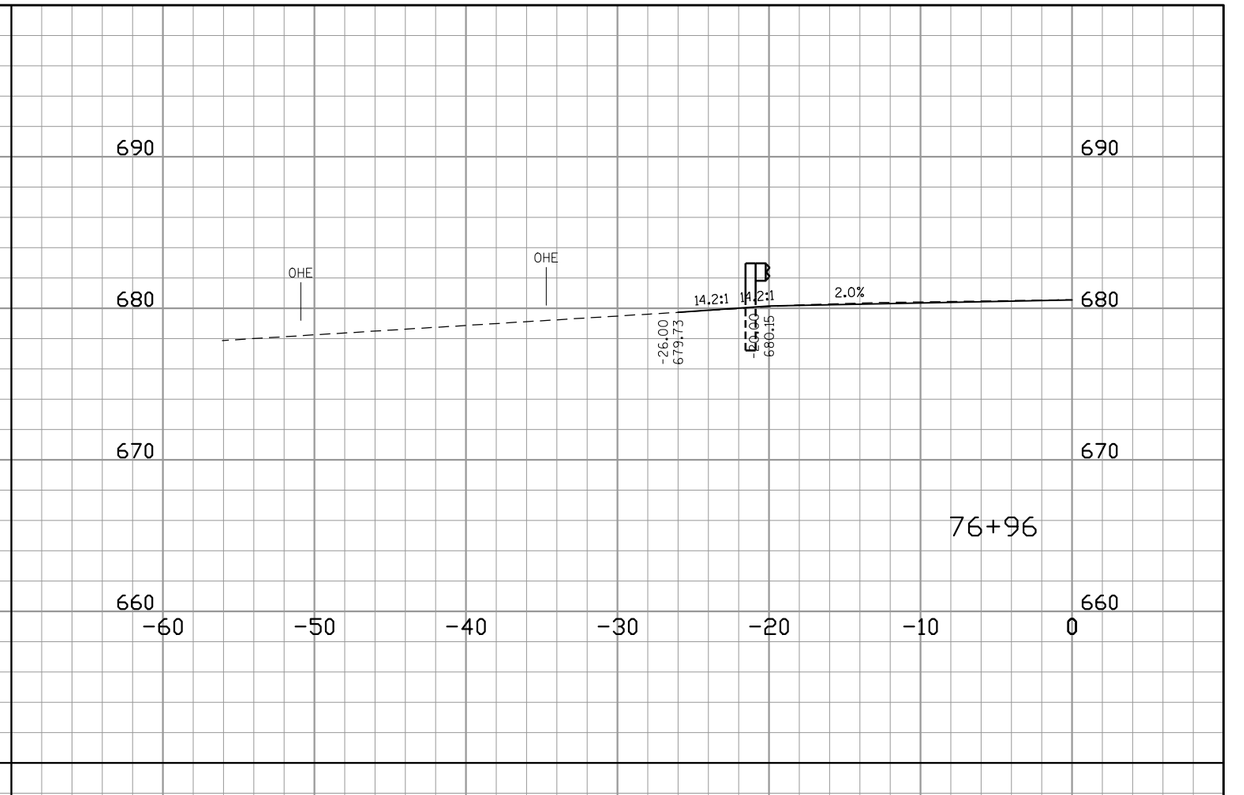
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 49+00 RT - (1)

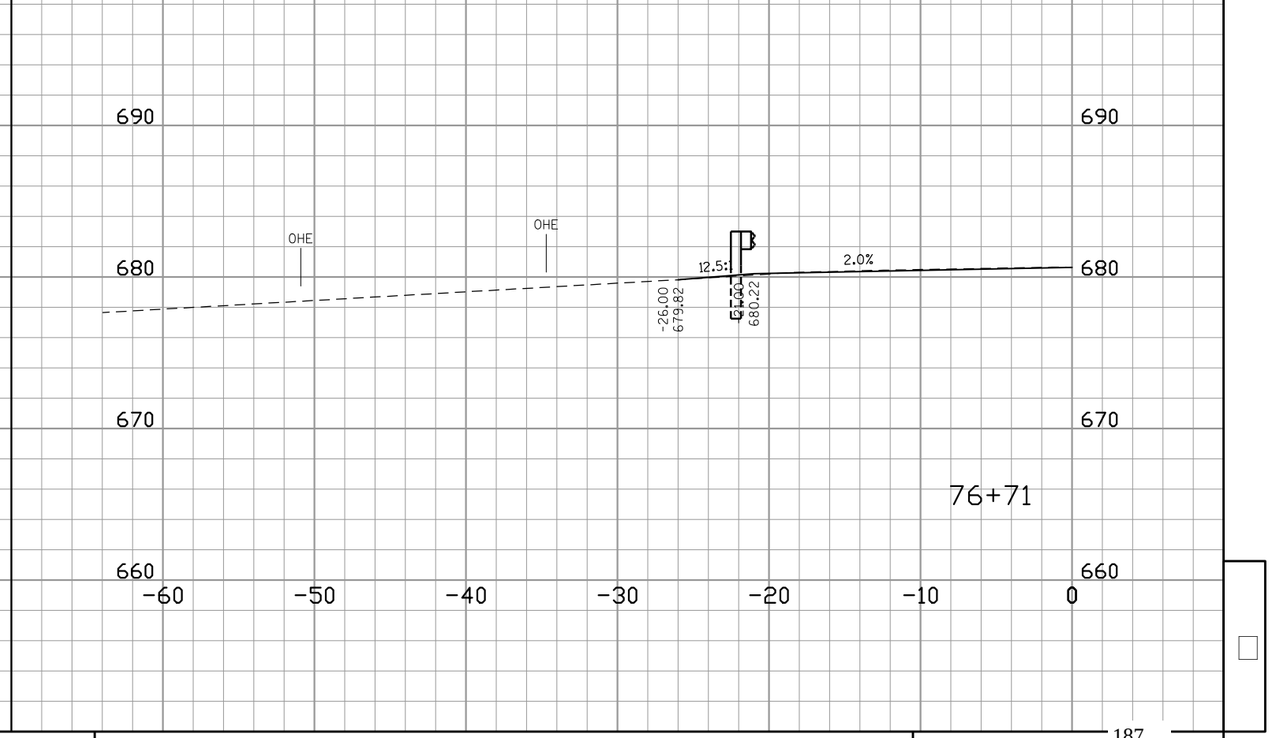
PLOT DATE : 7/31/2014
PLOT TIME : 5:53:56 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







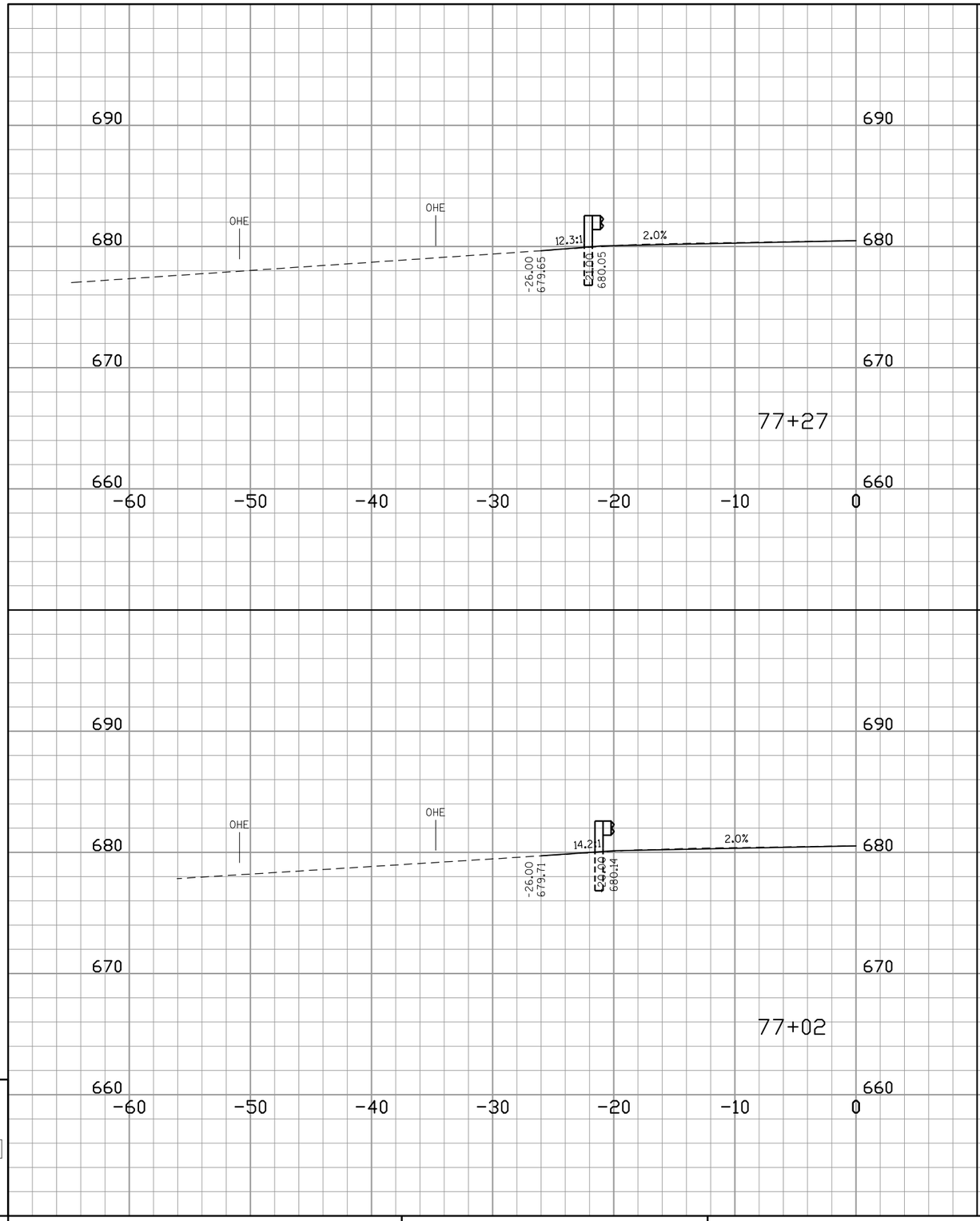
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

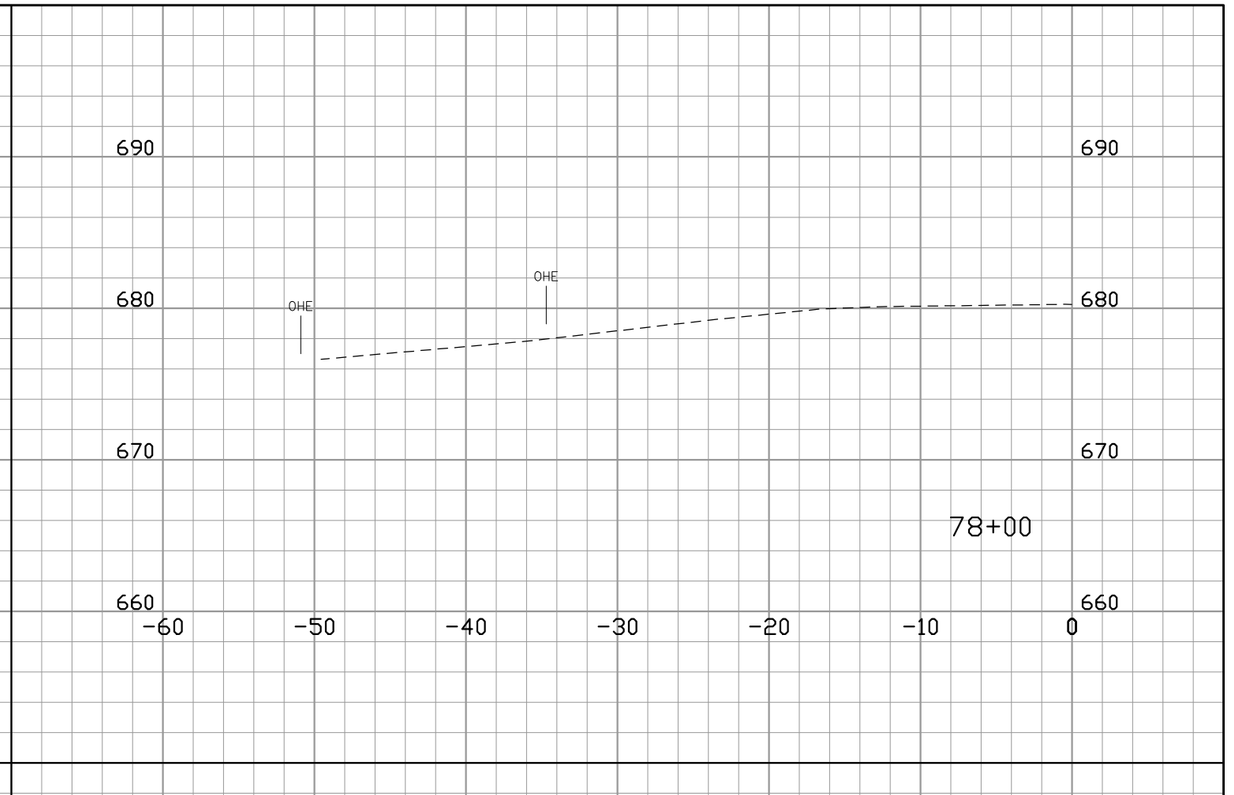
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 76+50 LT - (1)

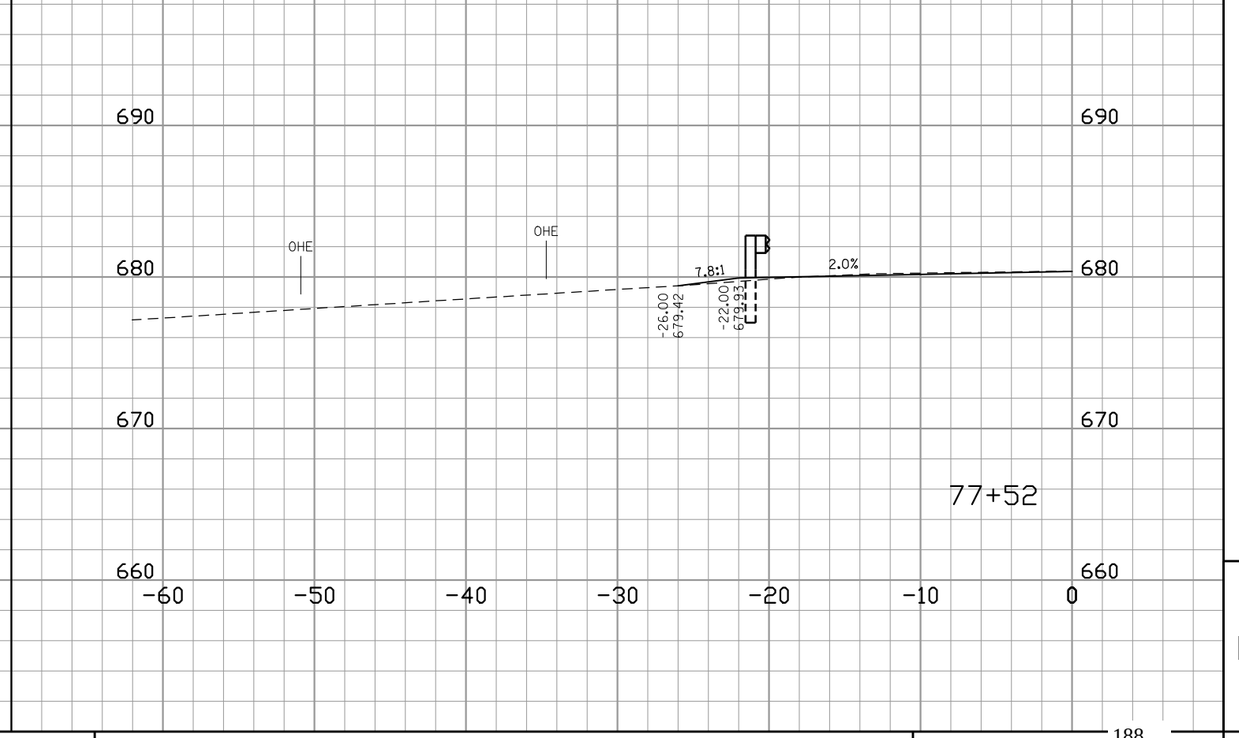
PLOT DATE : 7/31/2014
PLOT TIME : 5:54:22 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







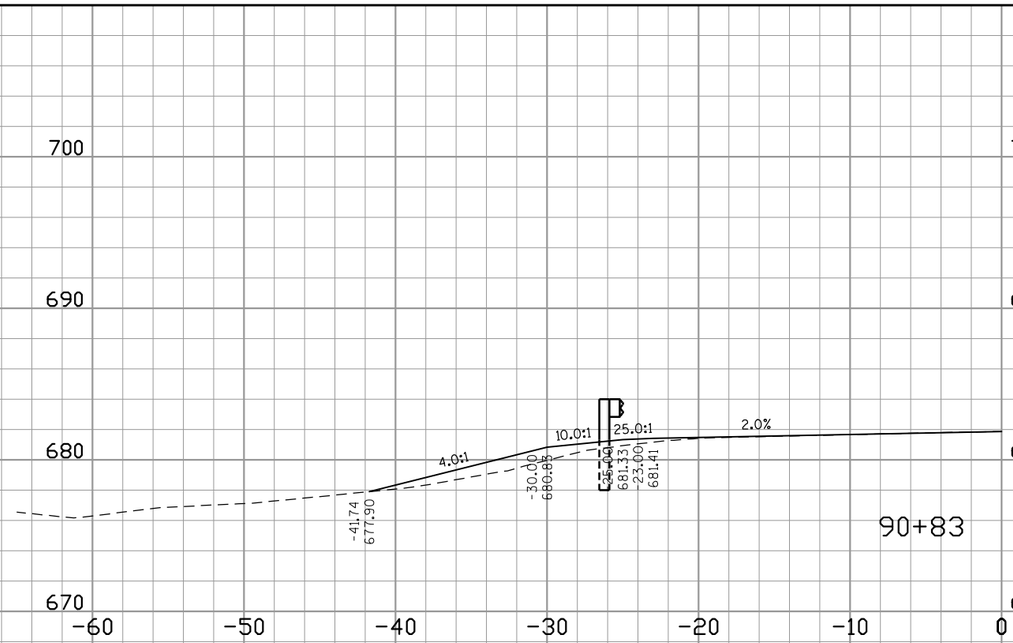
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

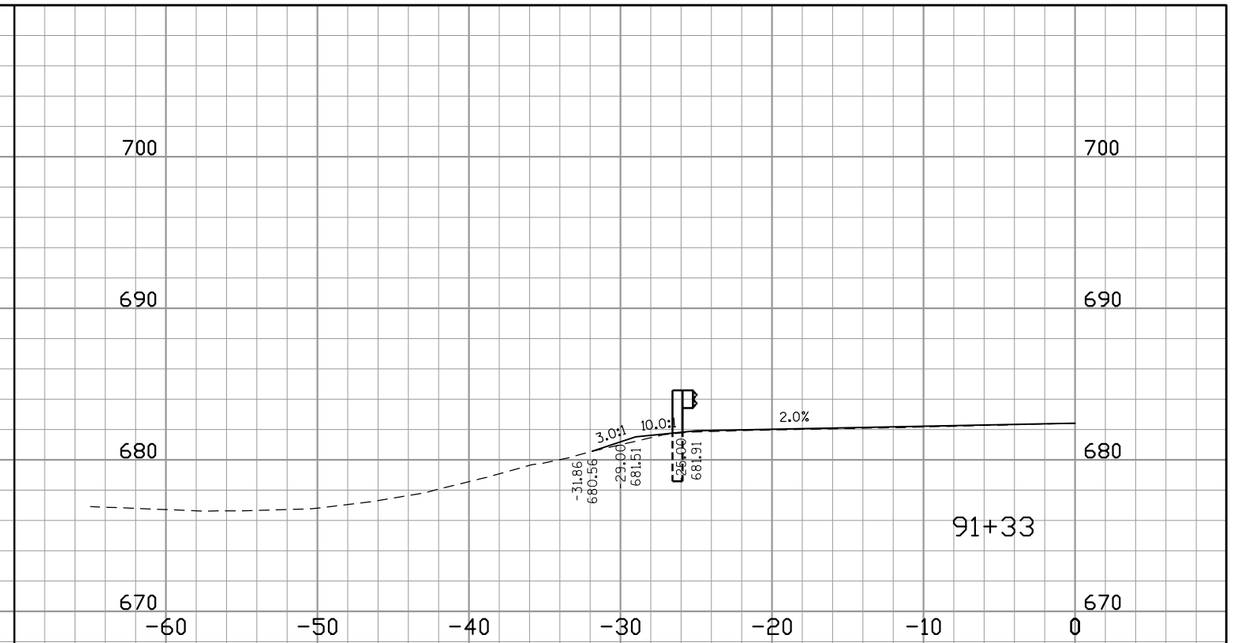
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 77+50 LT - (1)

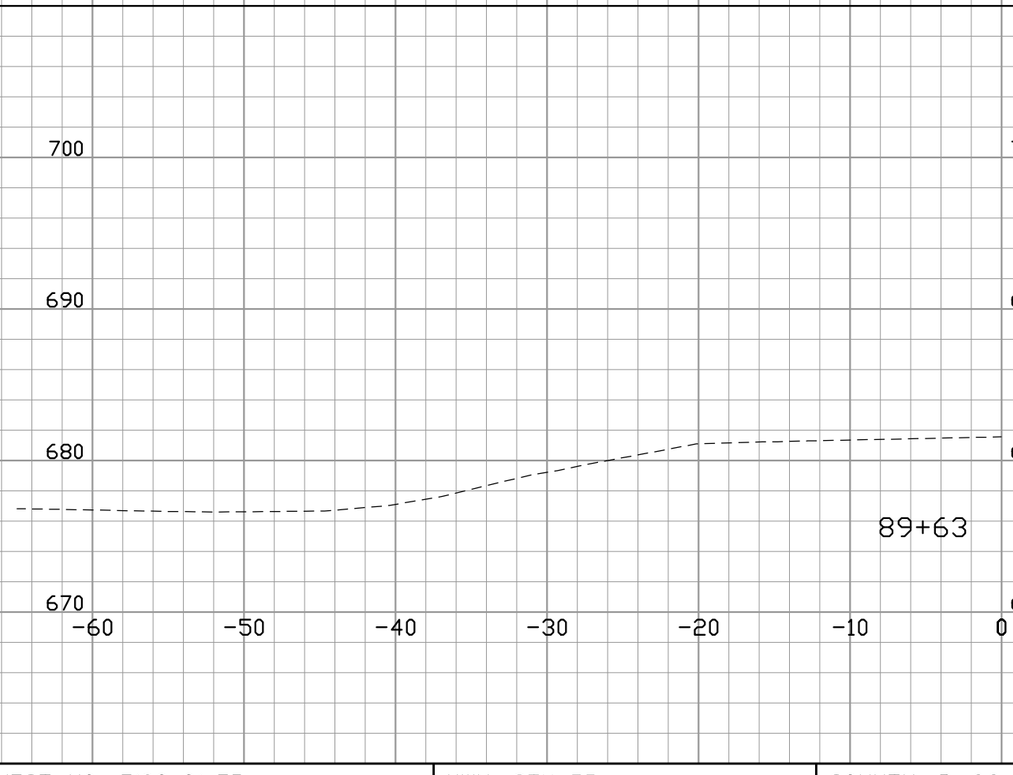
PLOT DATE : 7/31/2014
PLOT TIME : 5:54:48 PM

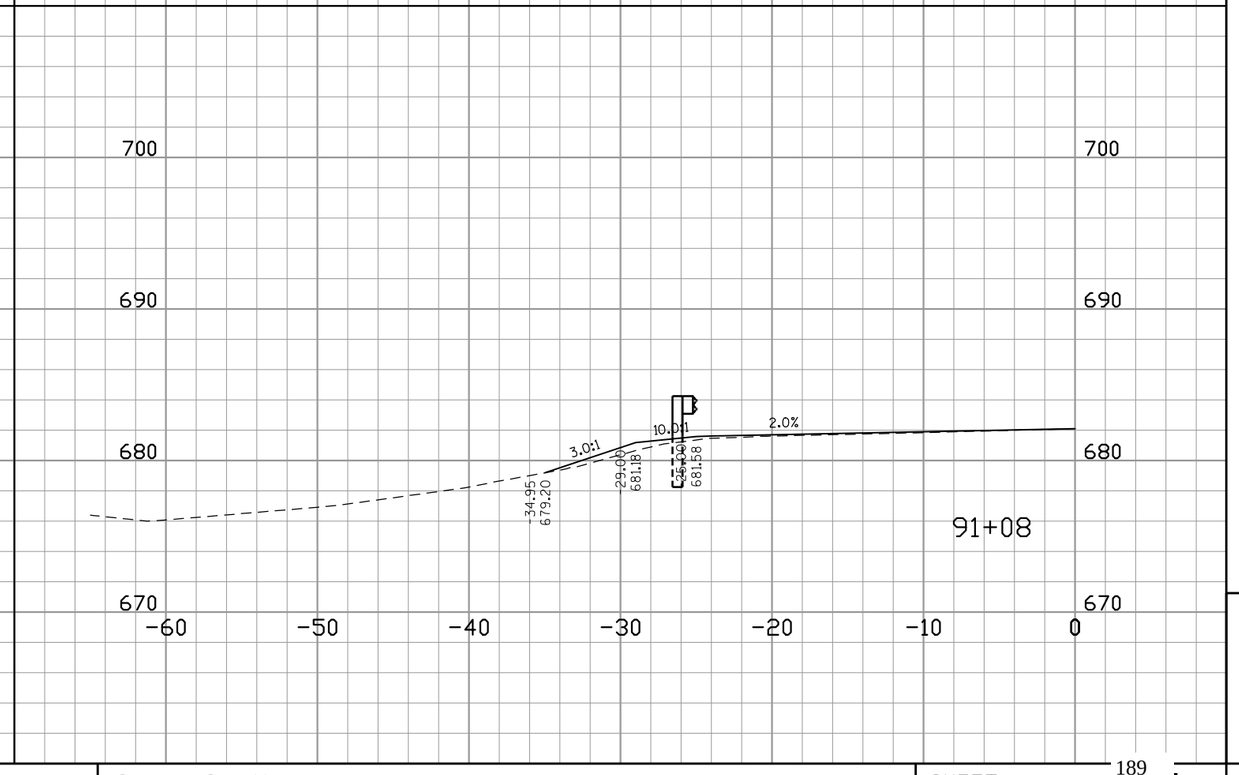
PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'









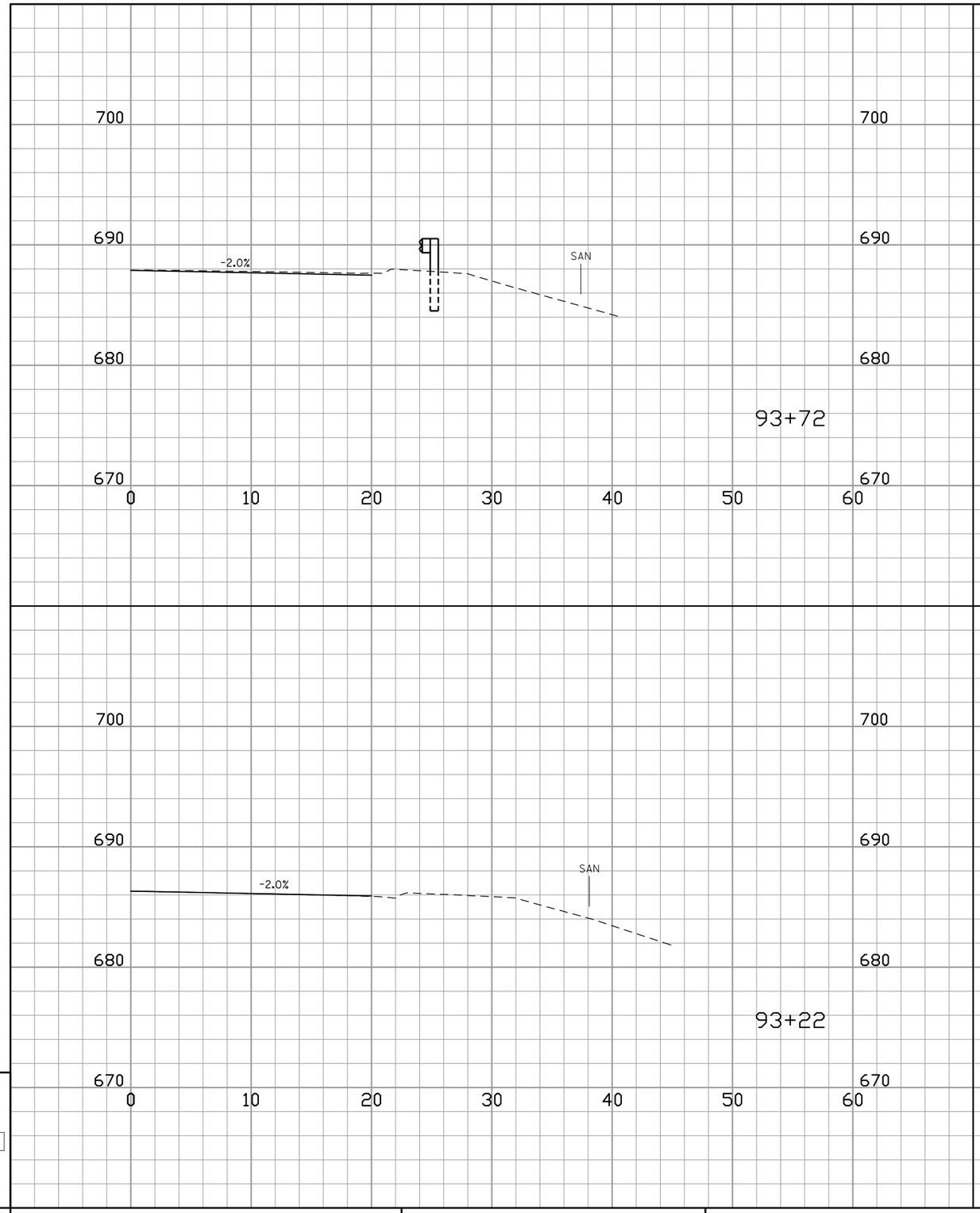
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

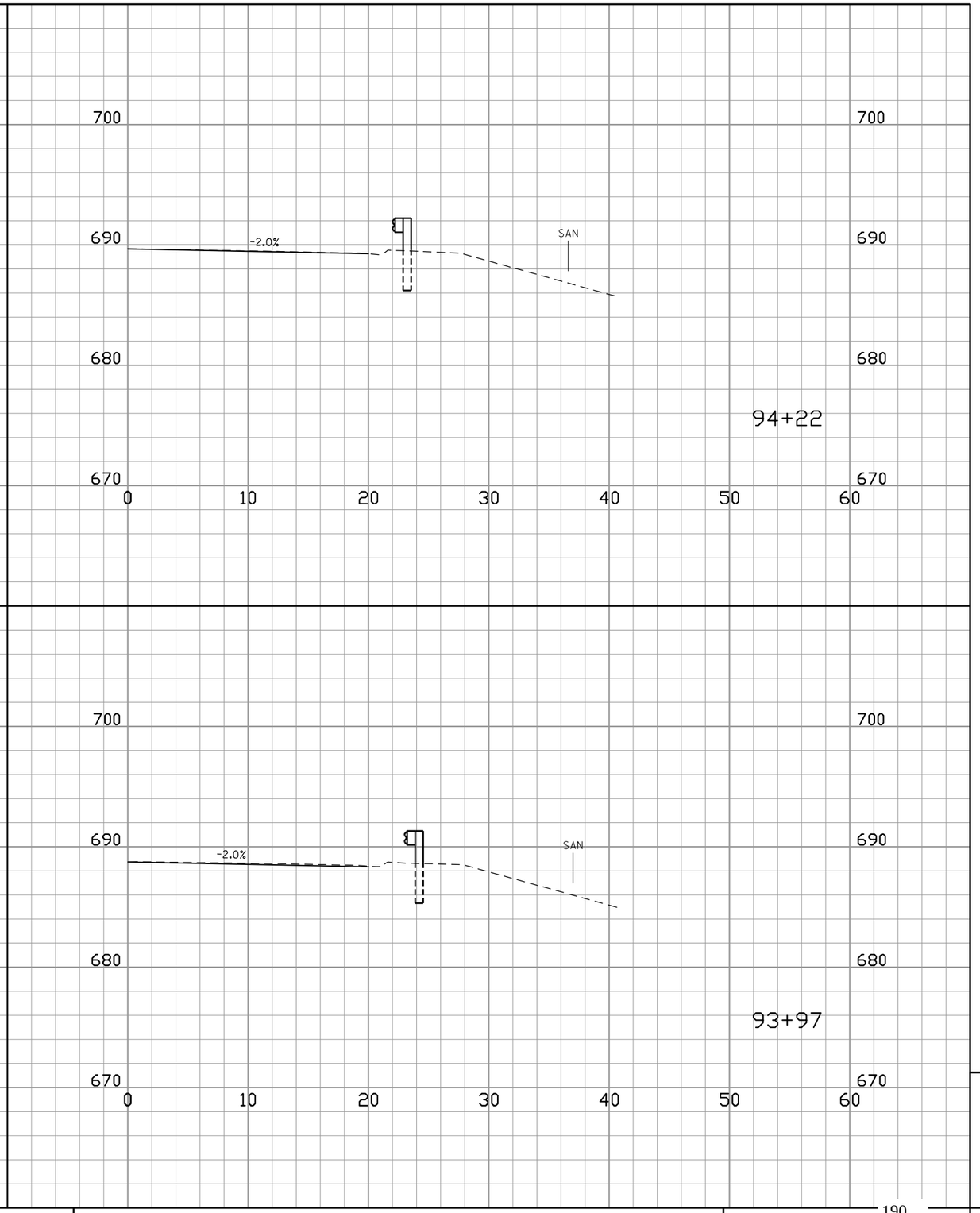
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 93+75 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:55:13 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





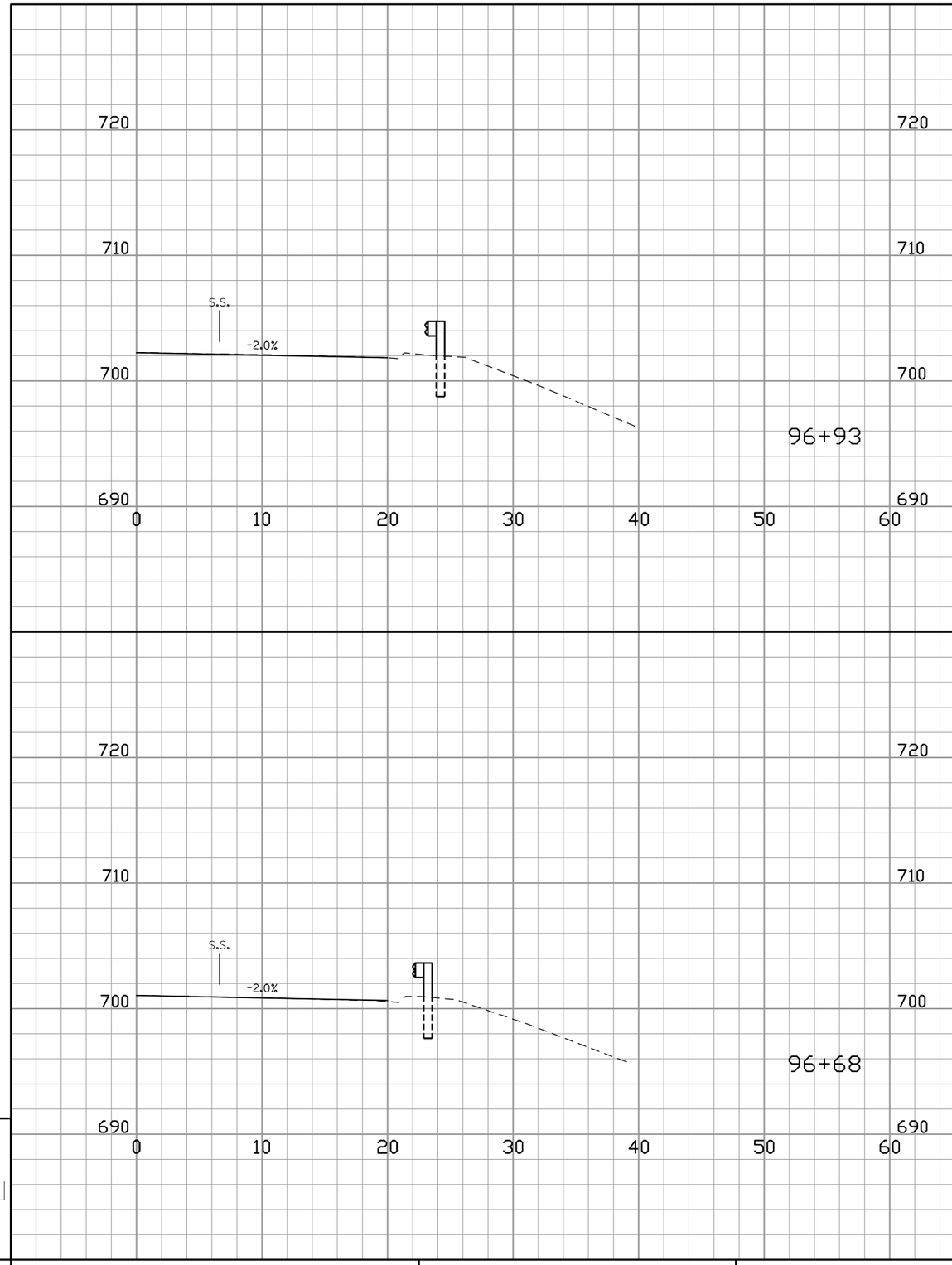
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

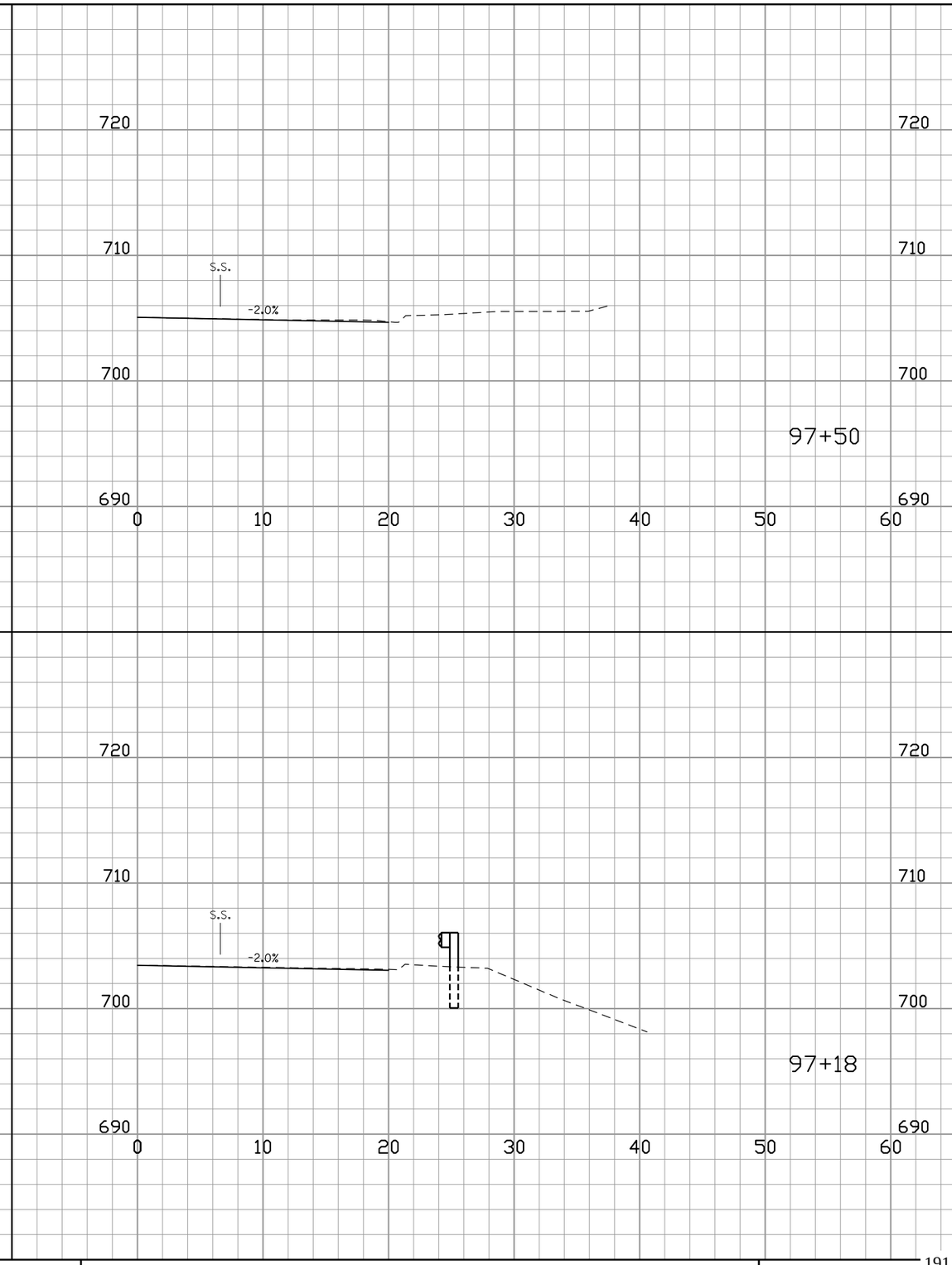
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 93+80 RT

PLOT DATE : 7/31/2014
PLOT TIME : 5:55:38 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





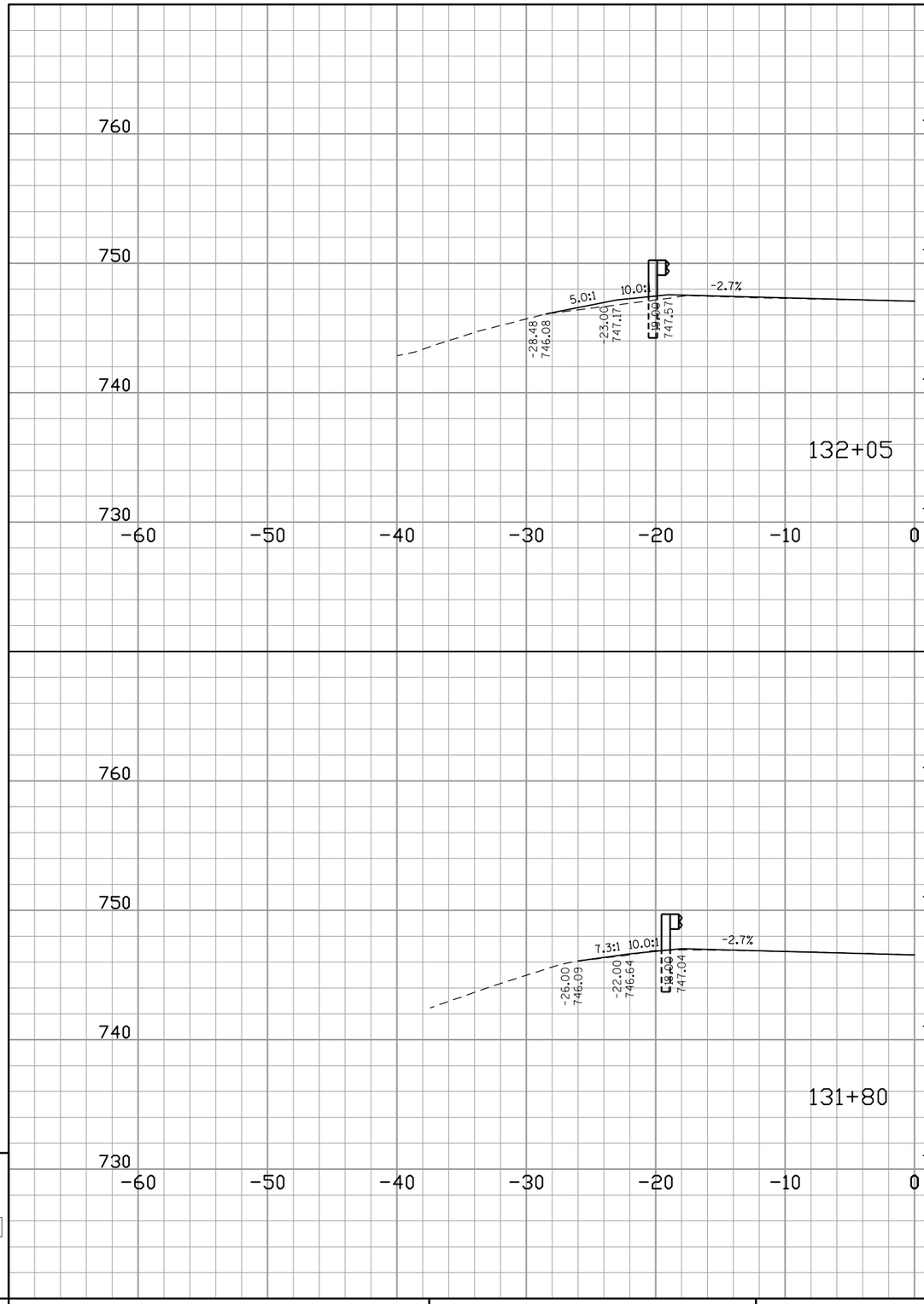
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

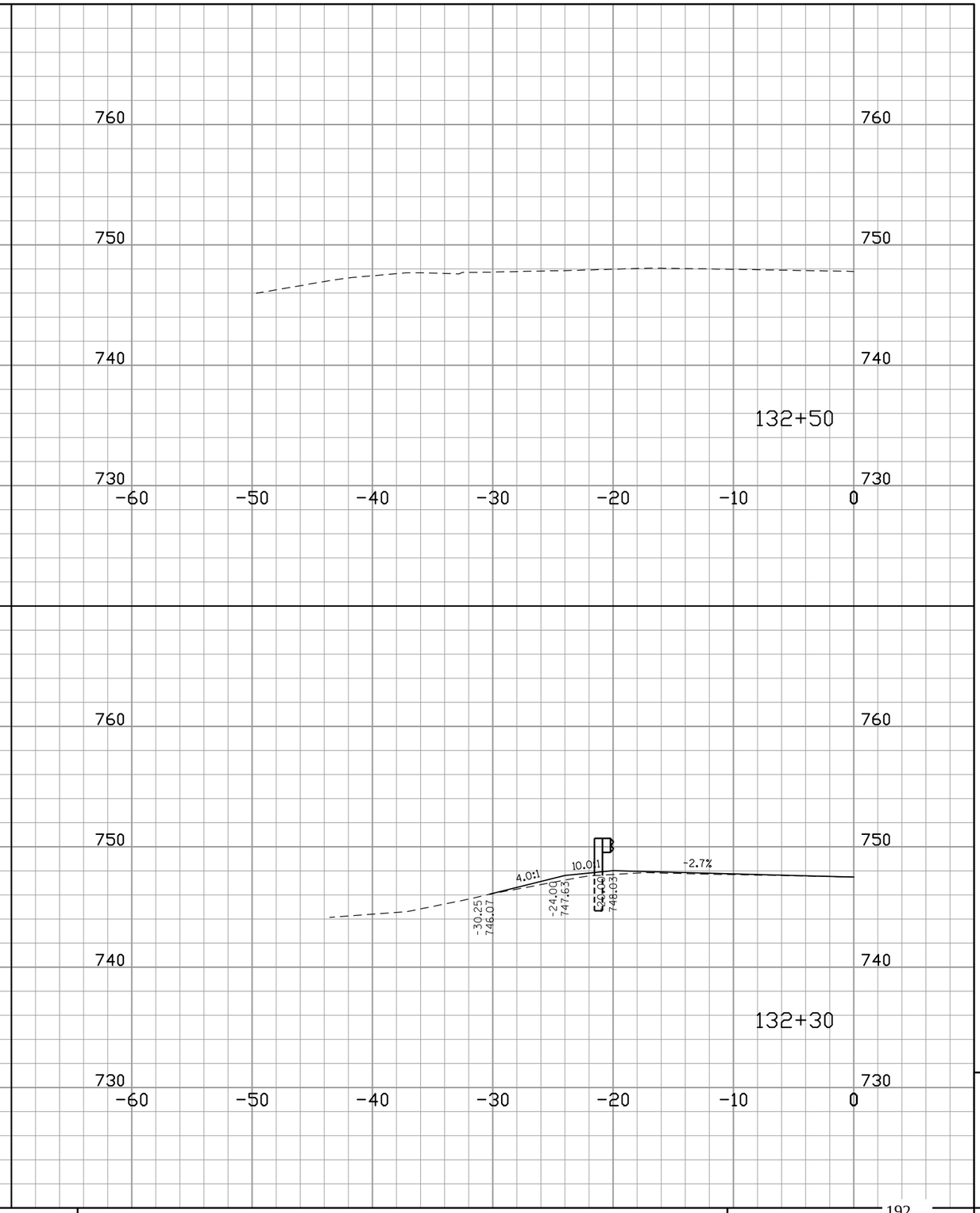
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 97+35 RT

PLOT DATE : 7/31/2014
PLOT TIME : 5:56:03 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





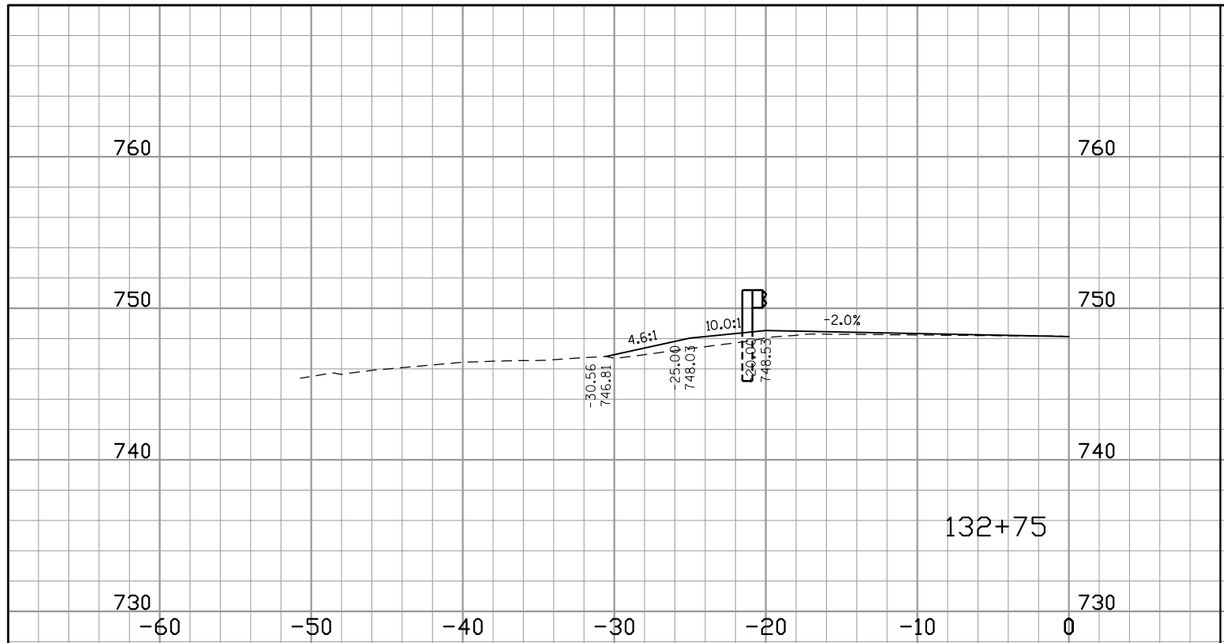
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

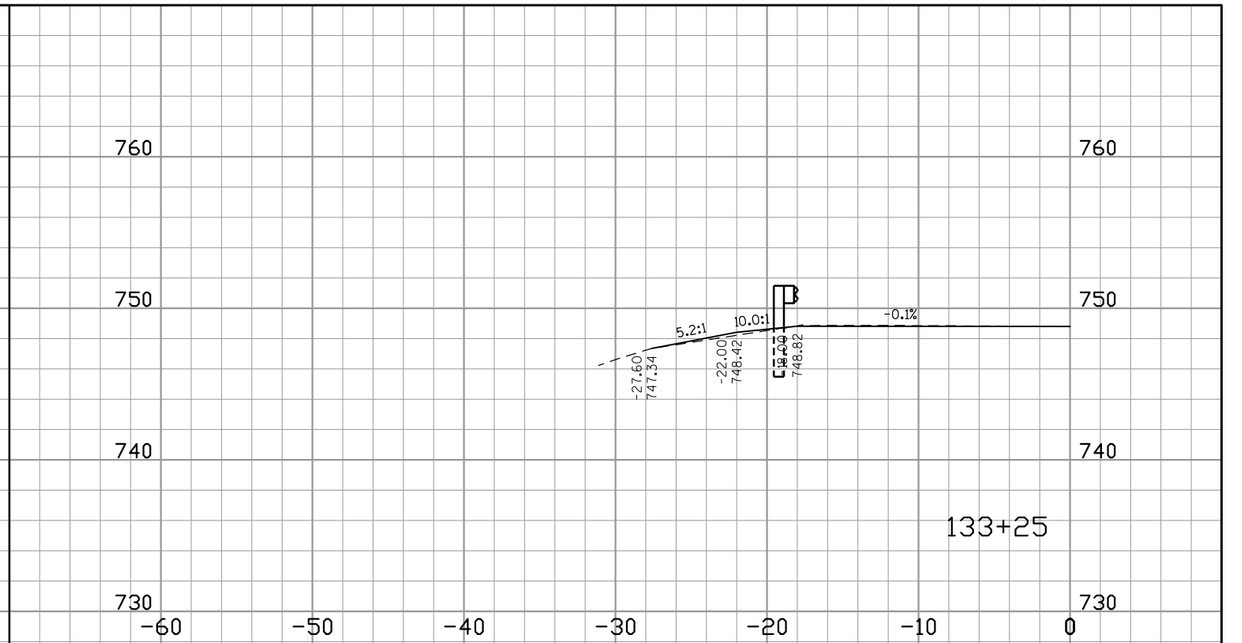
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 132+30 LT

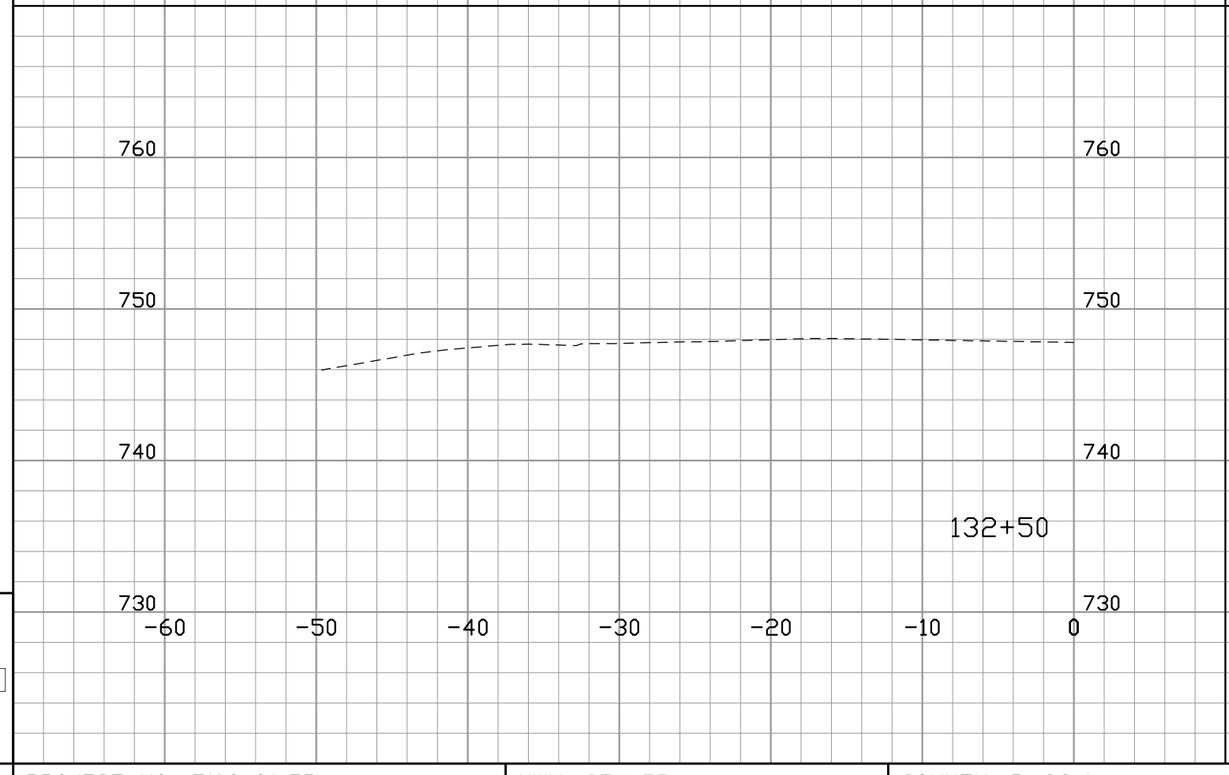
PLOT DATE : 7/31/2014
PLOT TIME : 5:56:27 PM

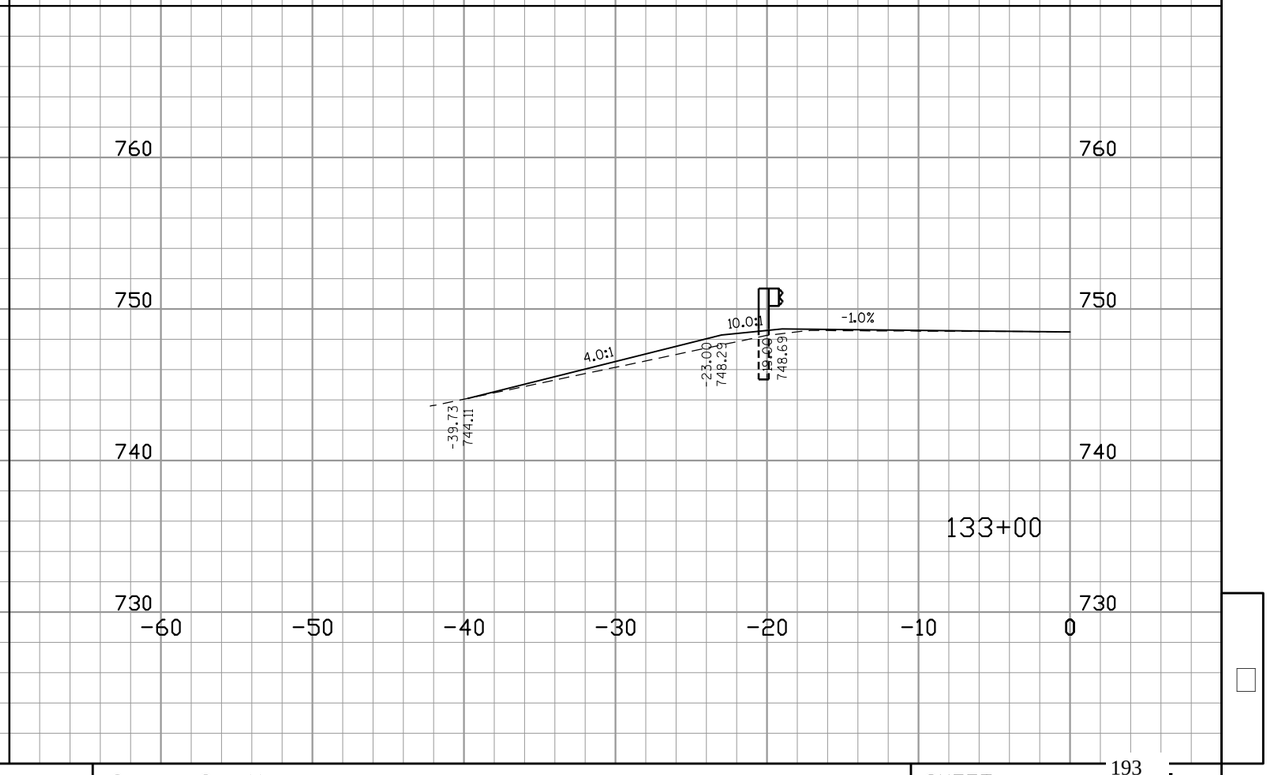
PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'









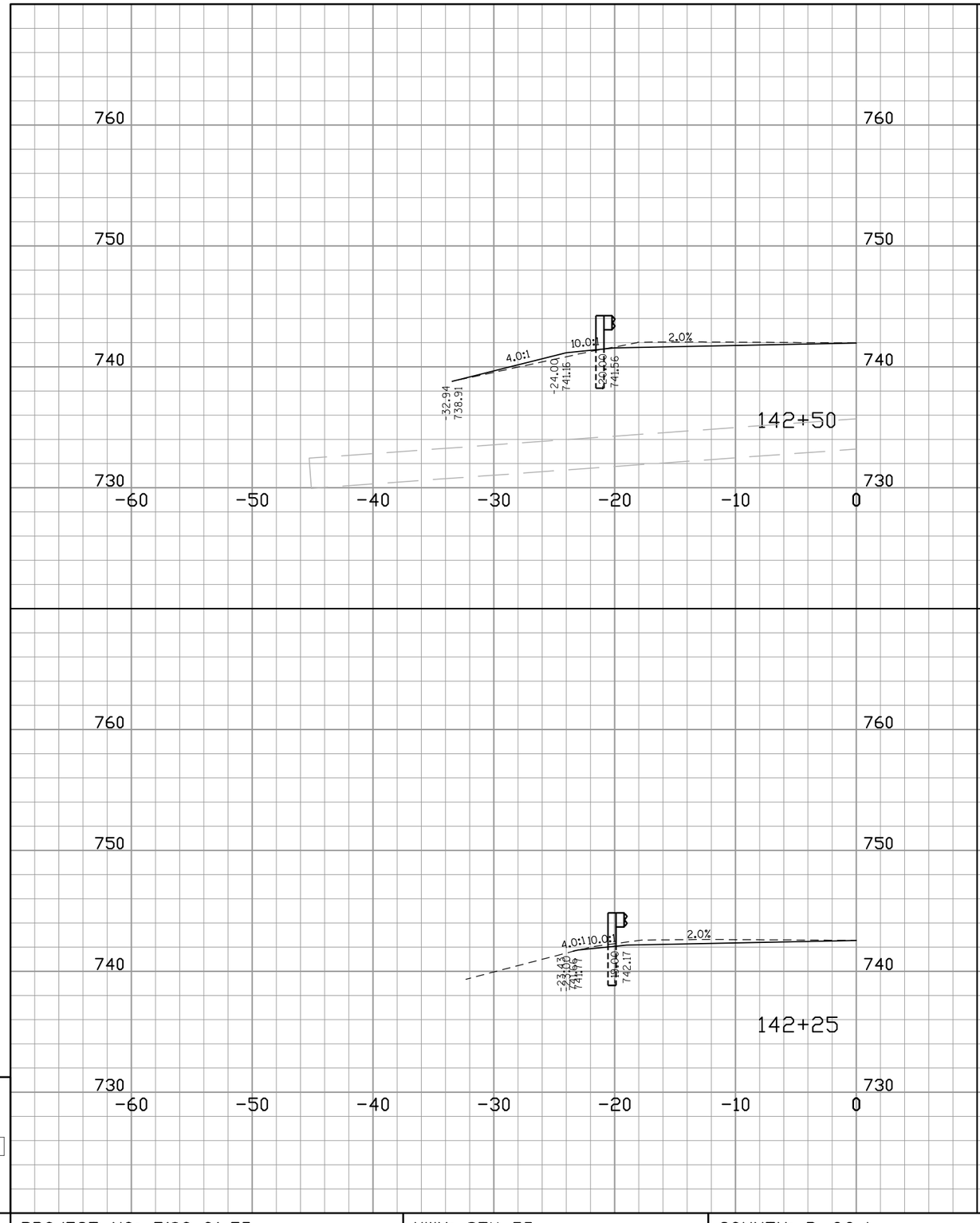
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

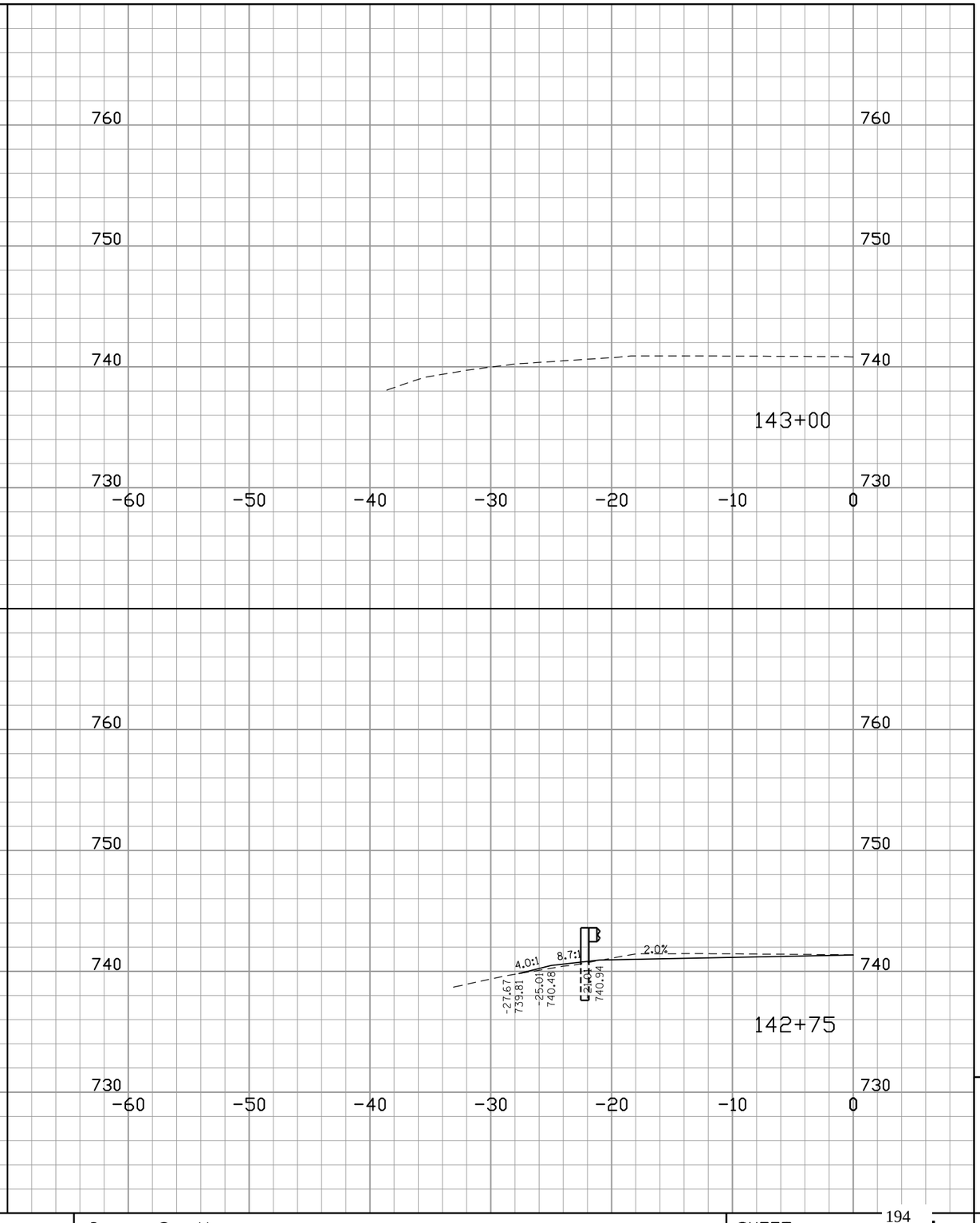
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 132+75 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:56:55 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'

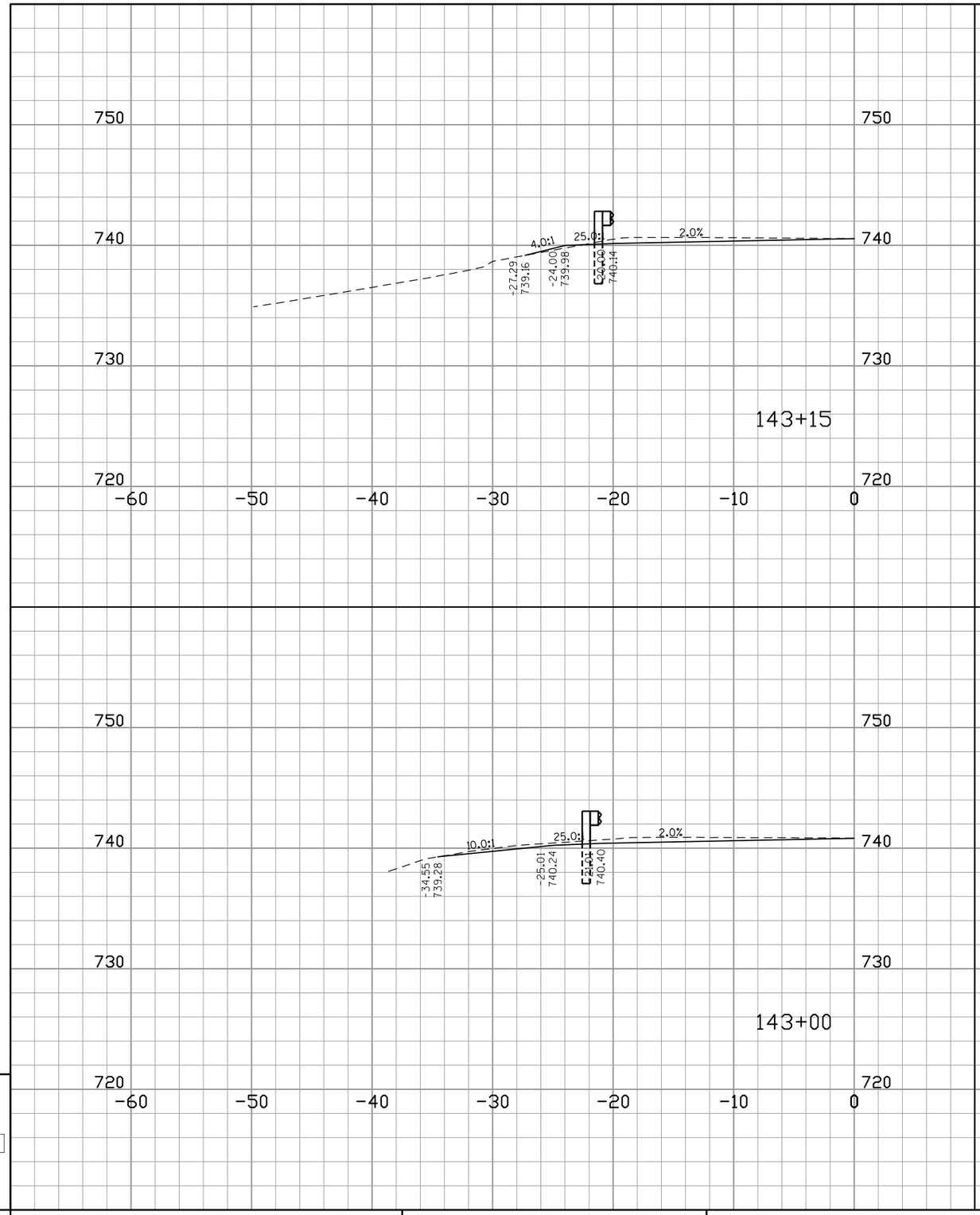


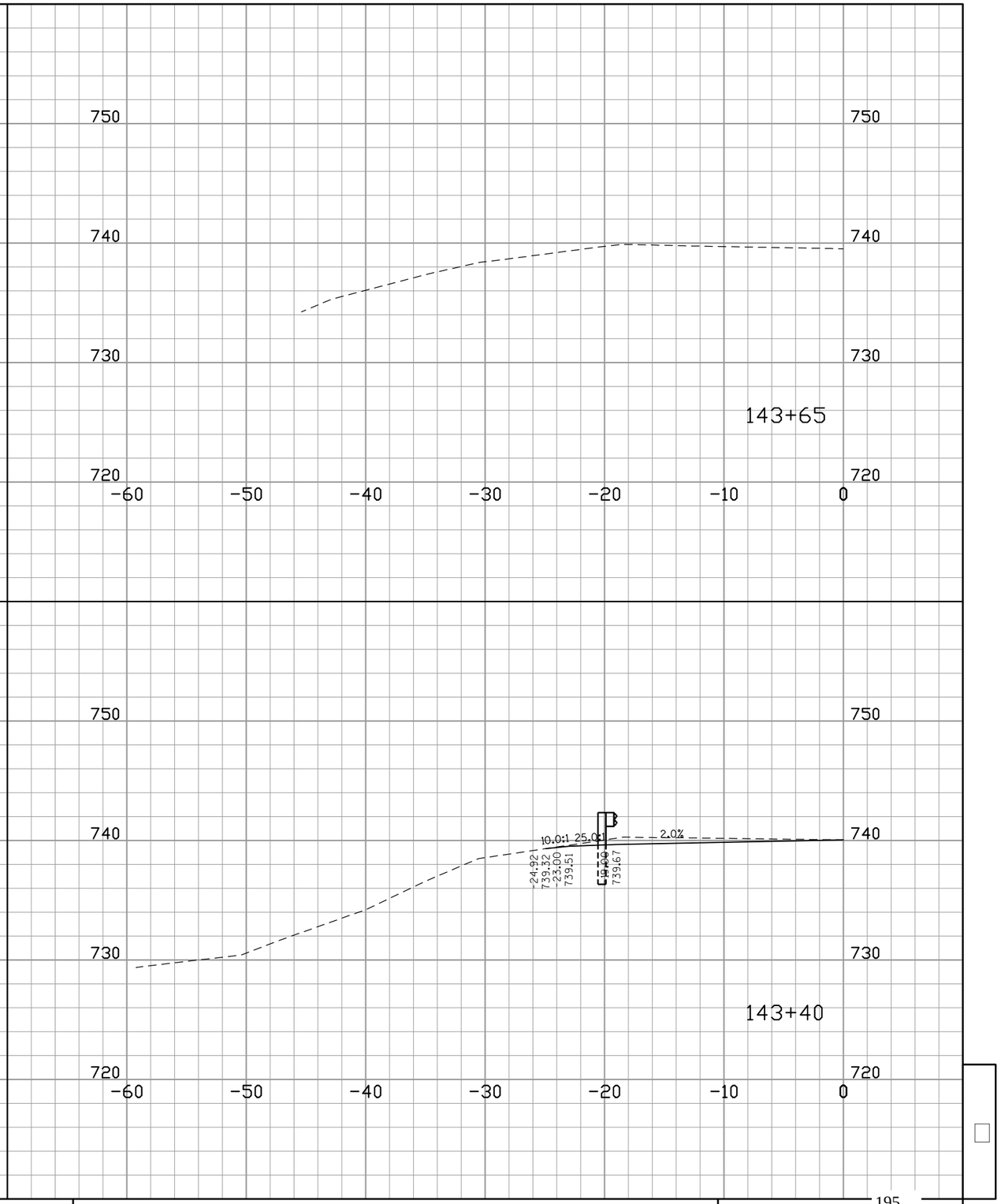


PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 142+75 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:57:20 PM
PLOT BY : ECKELBERG, PATRICK
PLOT SCALE : 1" = 1'





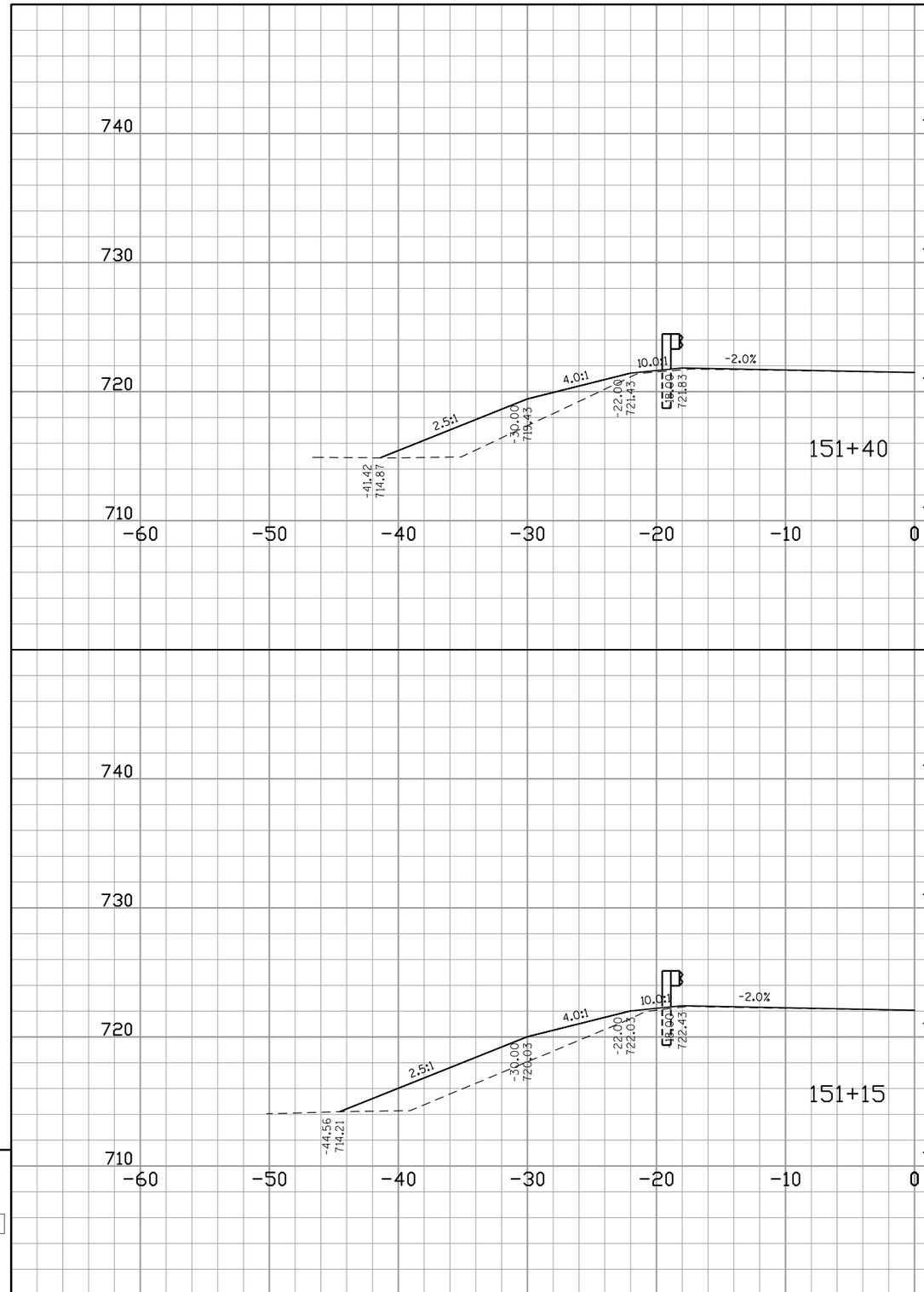
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

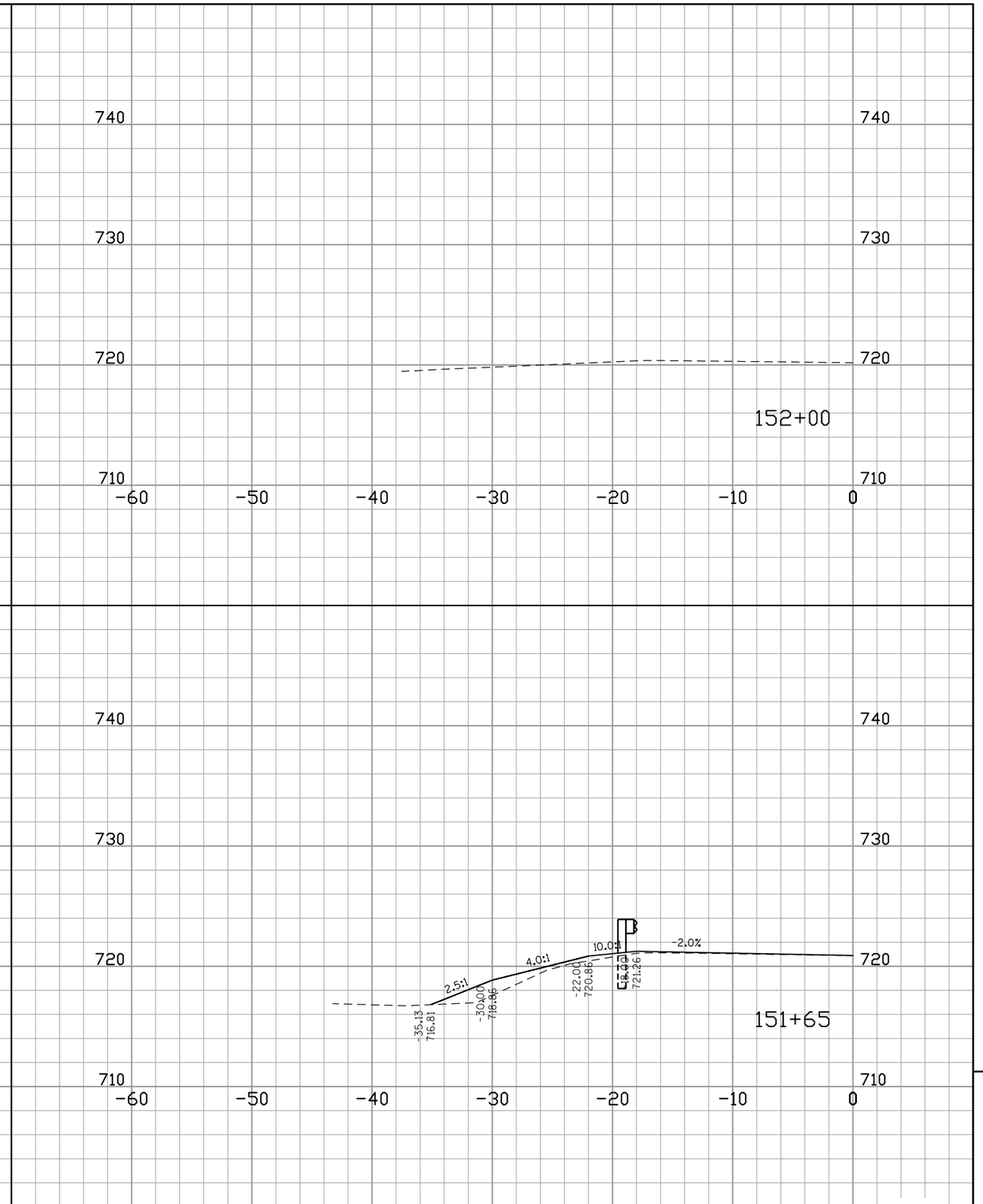
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 143+15 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:57:42 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





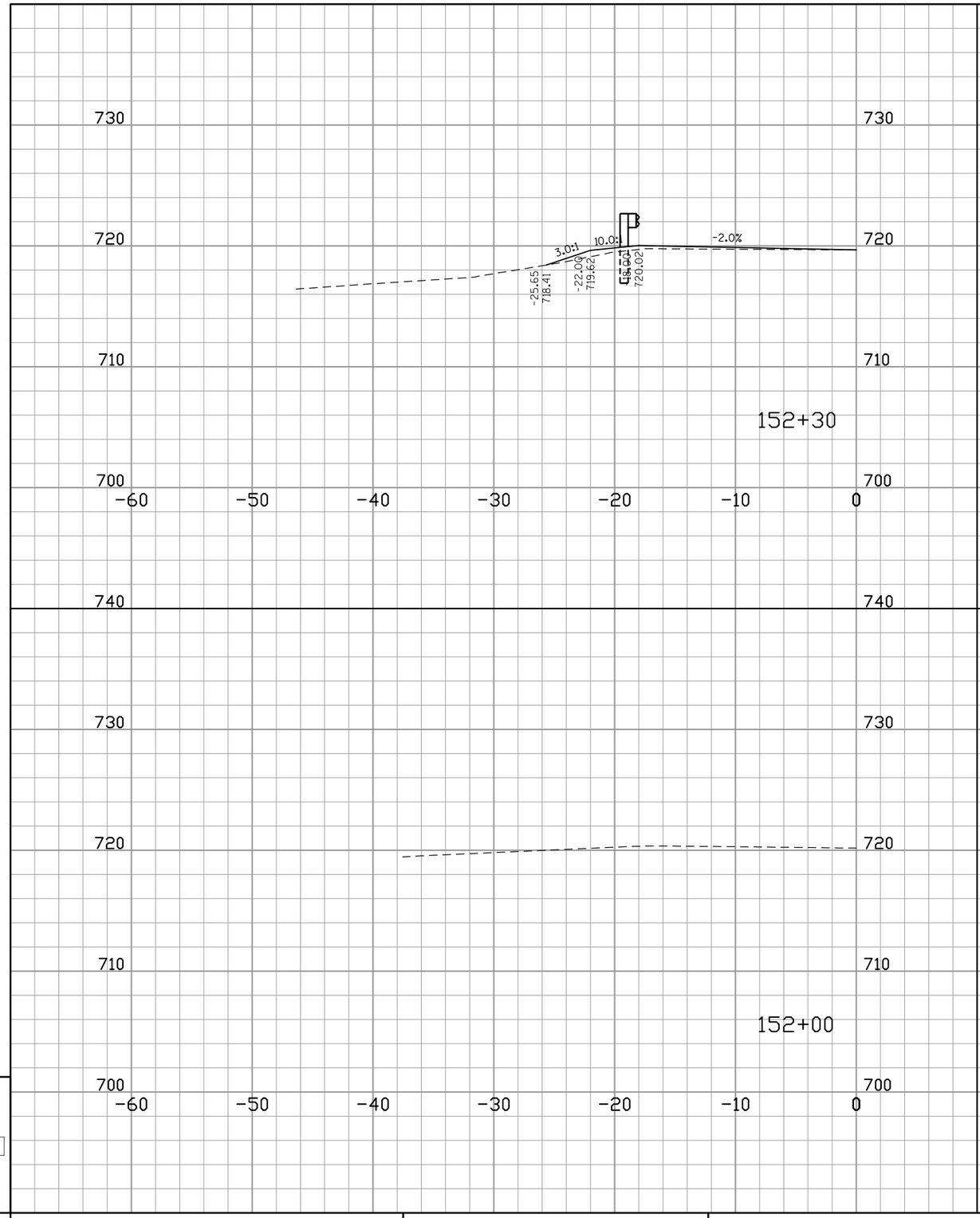
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

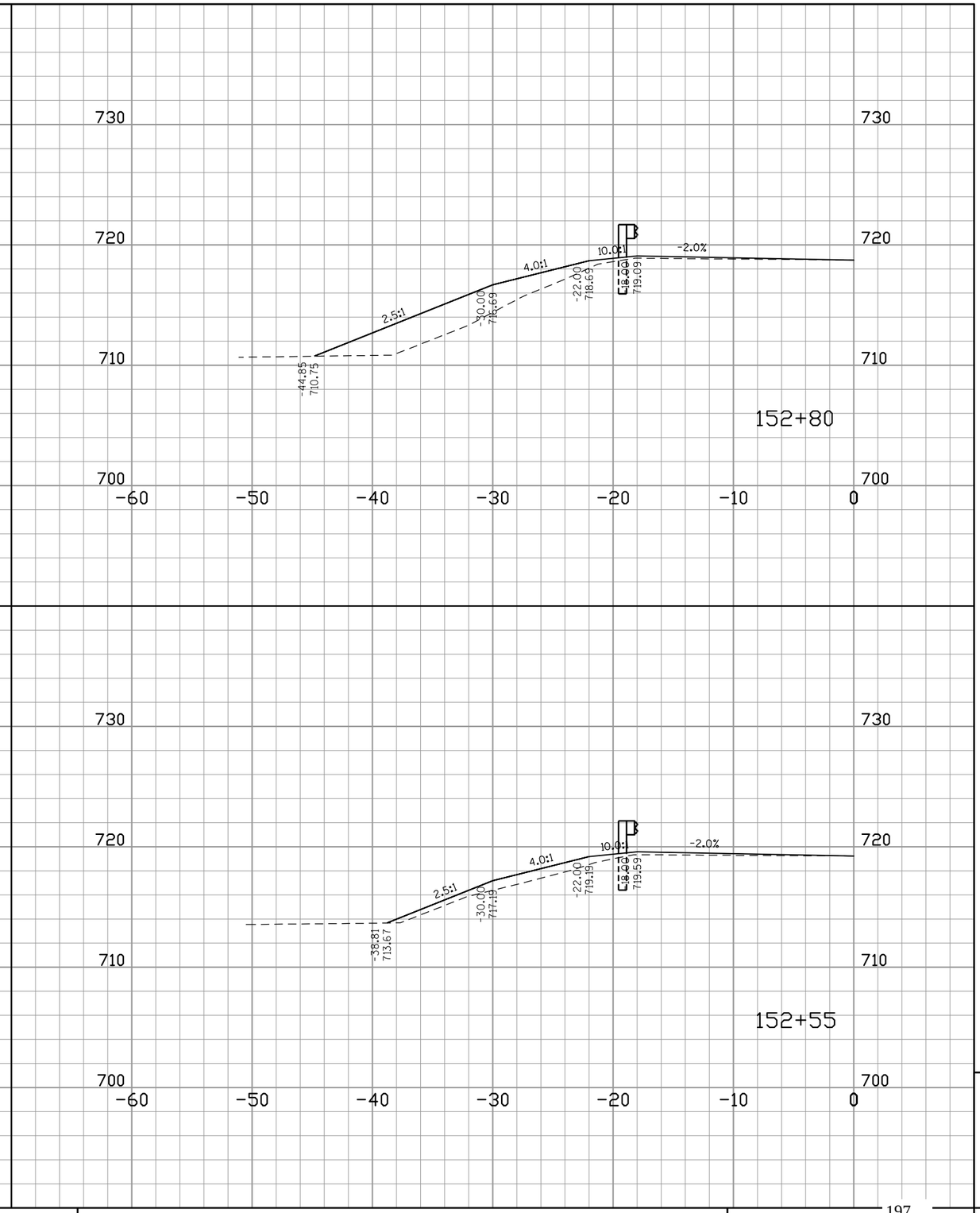
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 151+65 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:58:07 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





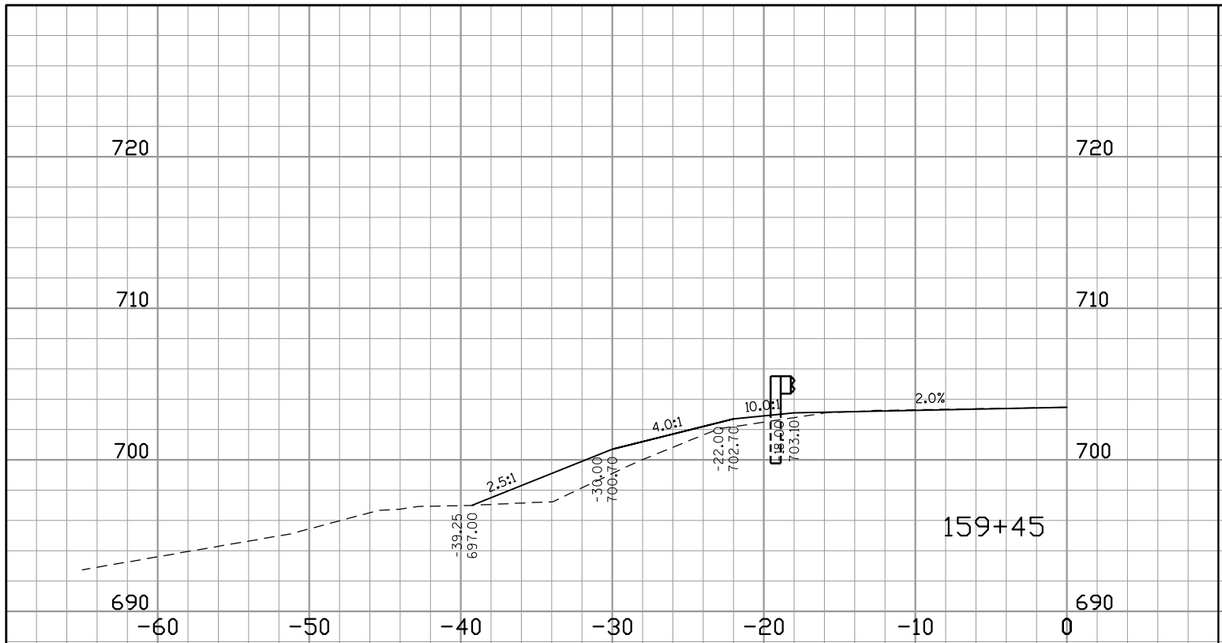
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

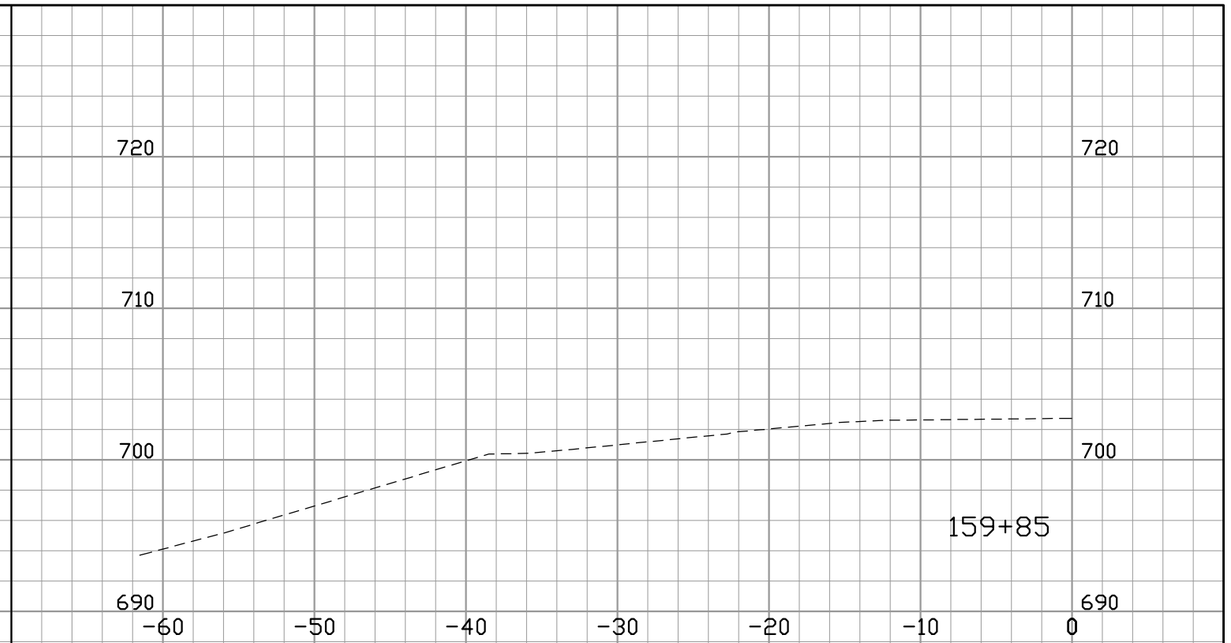
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 152+30 LT

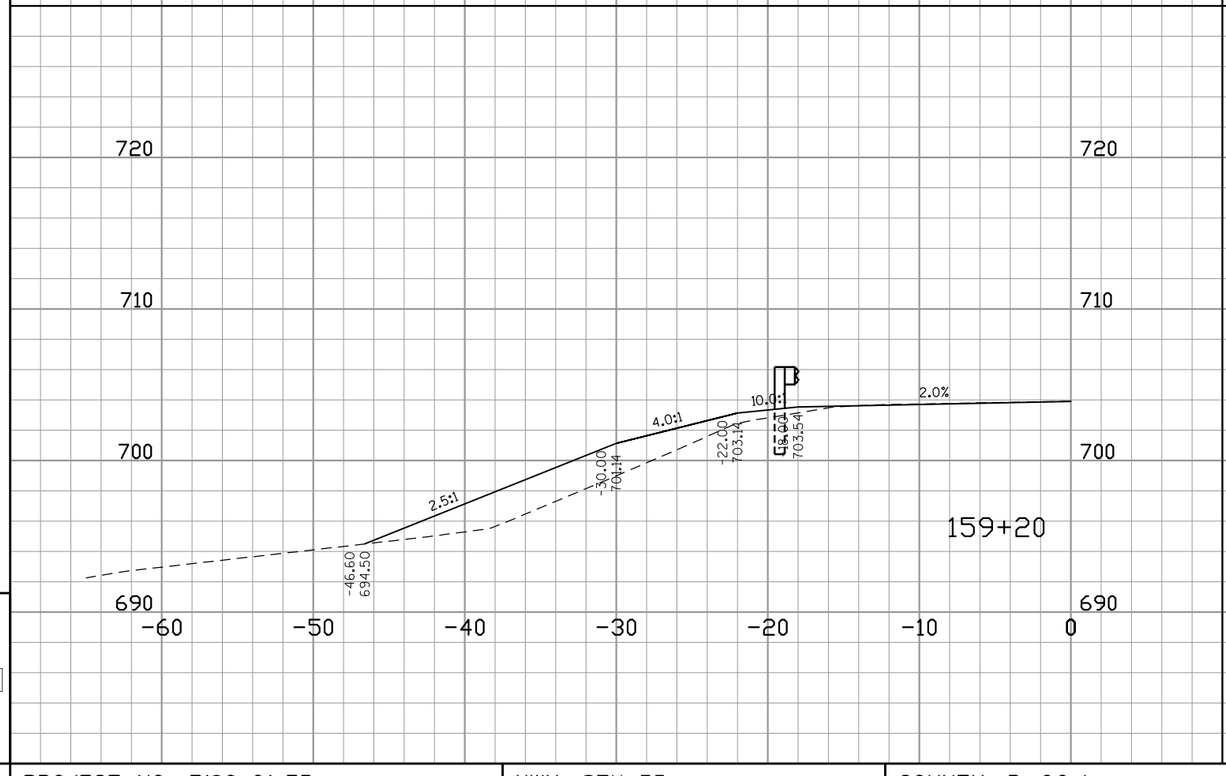
PLOT DATE : 7/31/2014
PLOT TIME : 5:58:34 PM

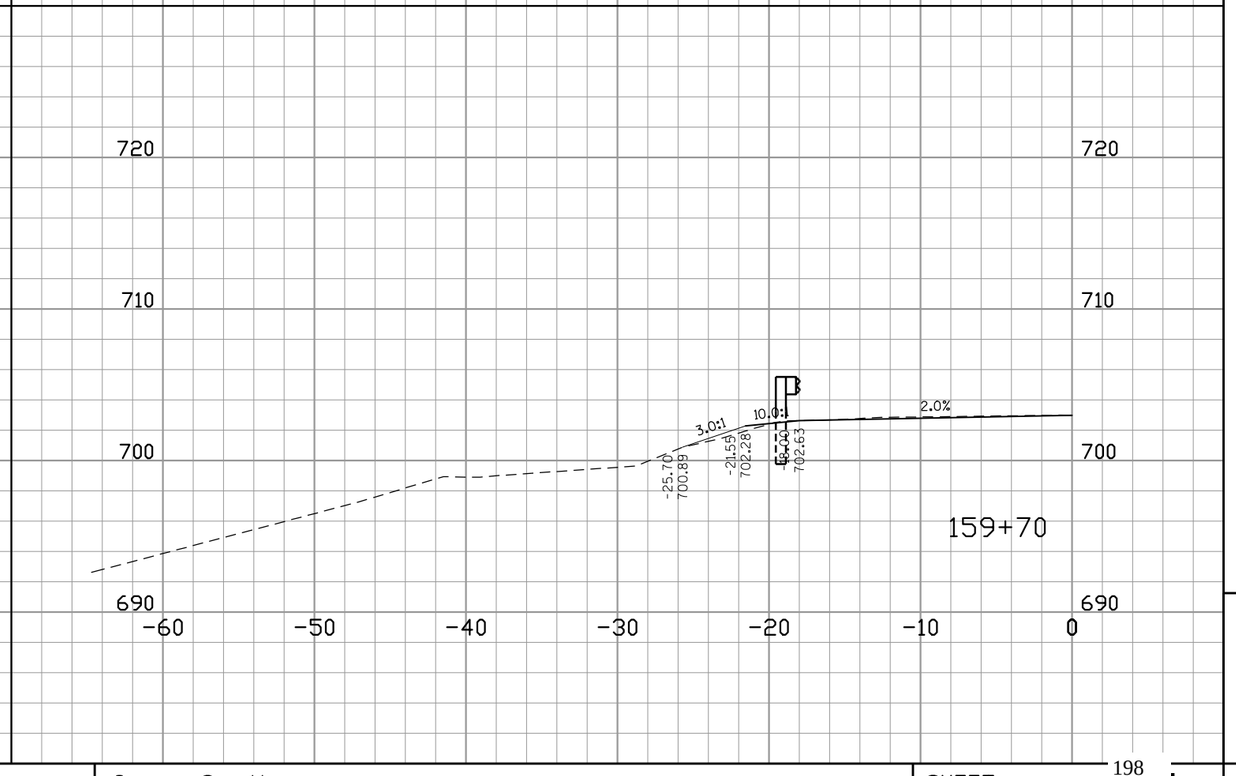
PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'









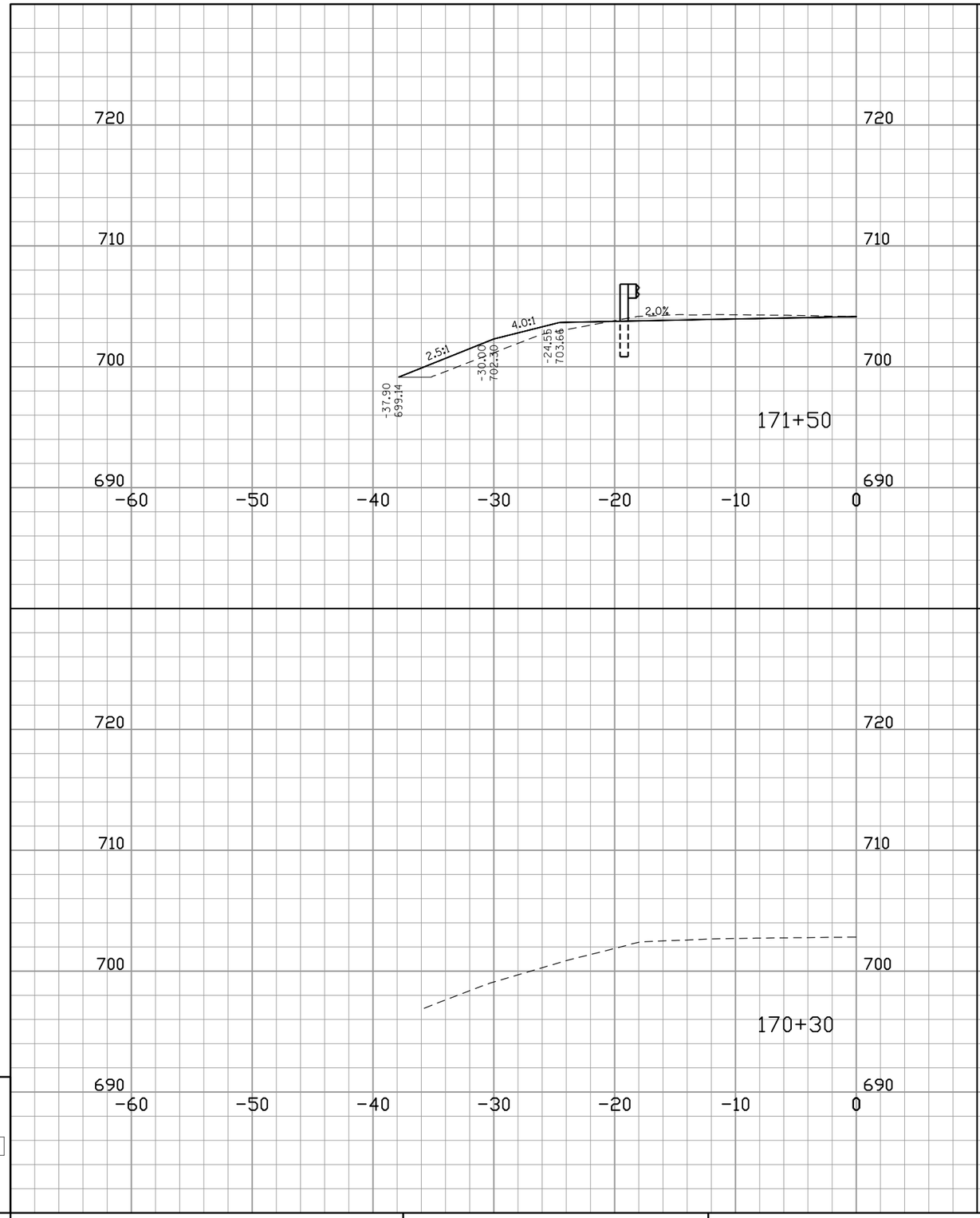
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

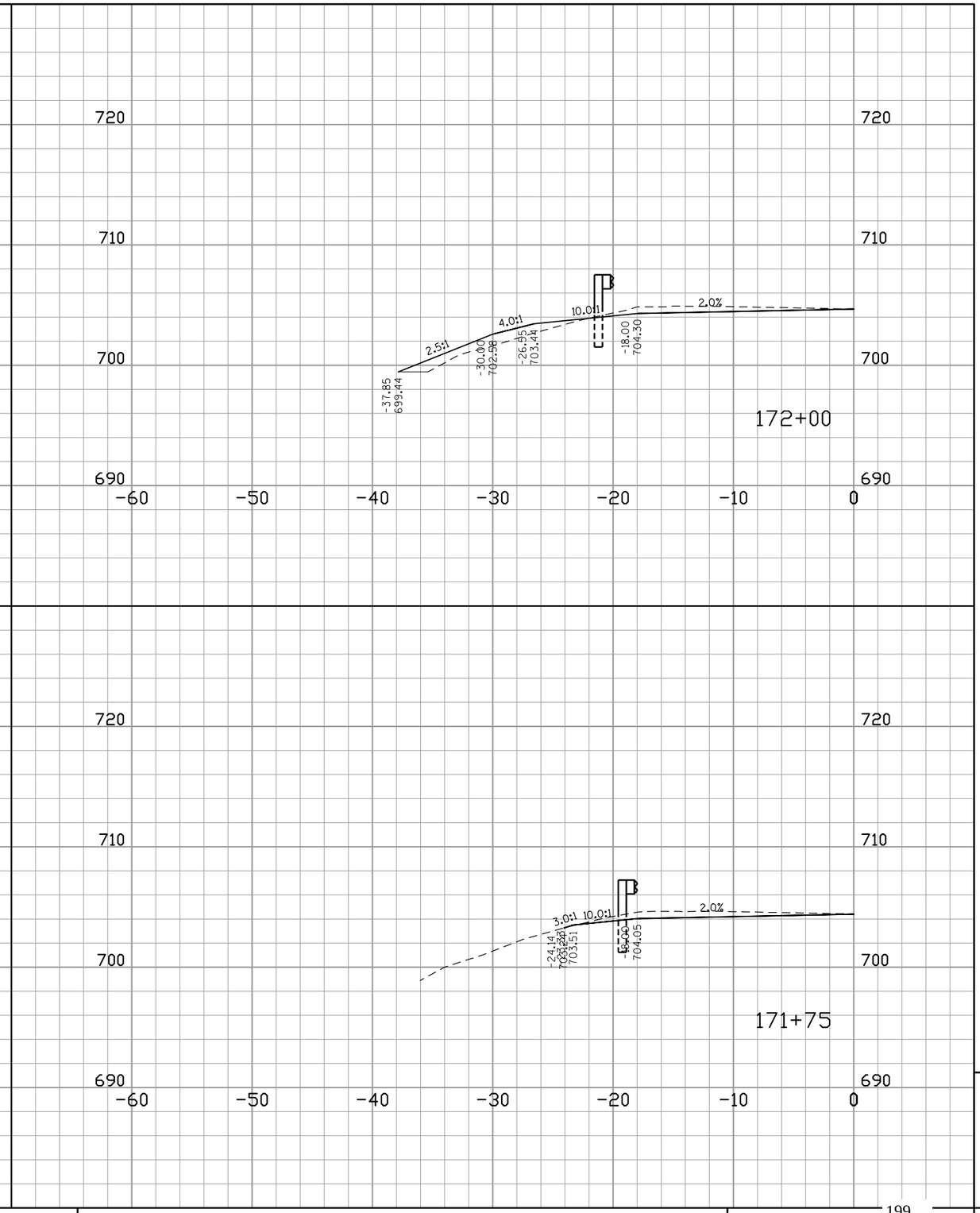
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 159+50 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:59:00 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





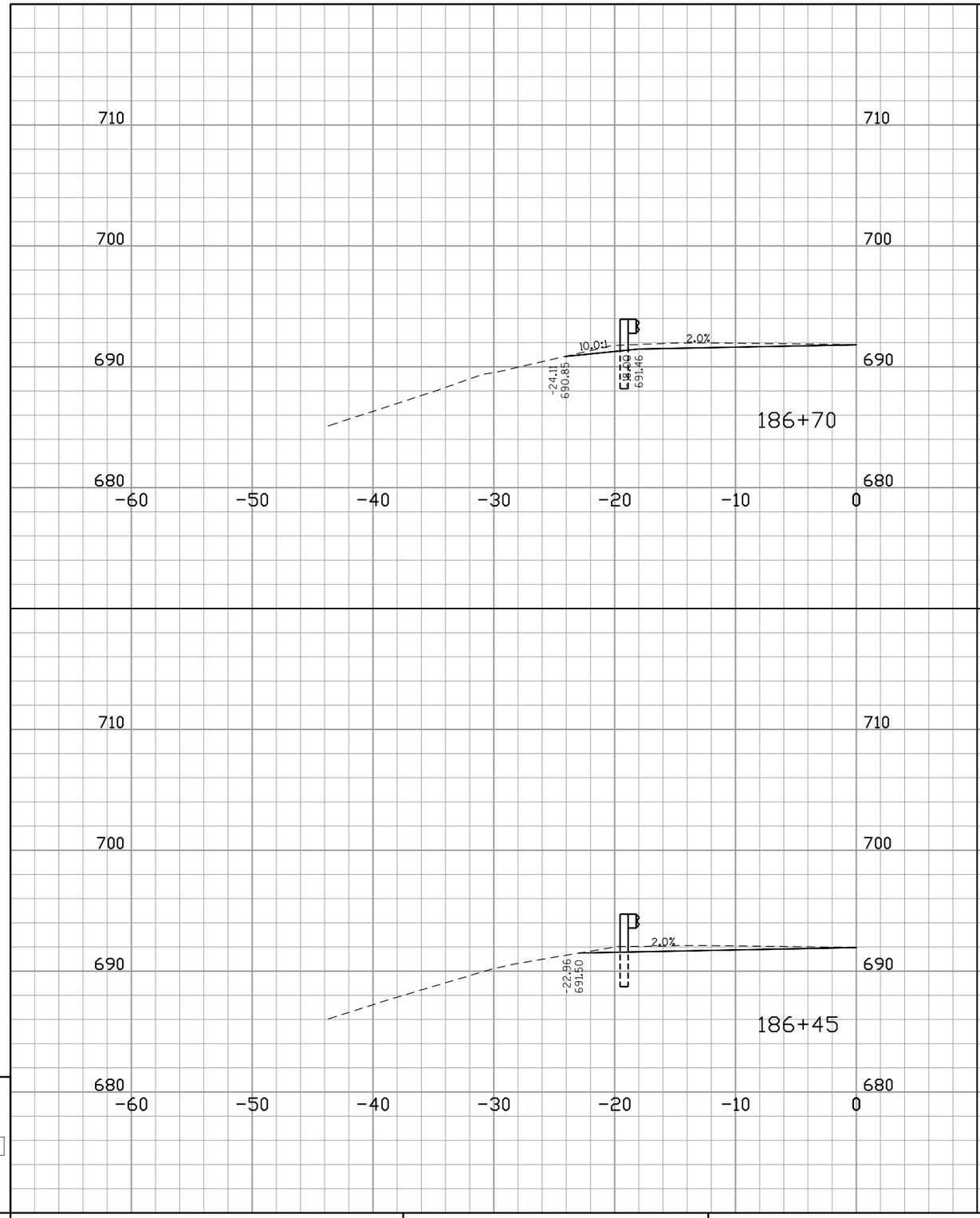
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

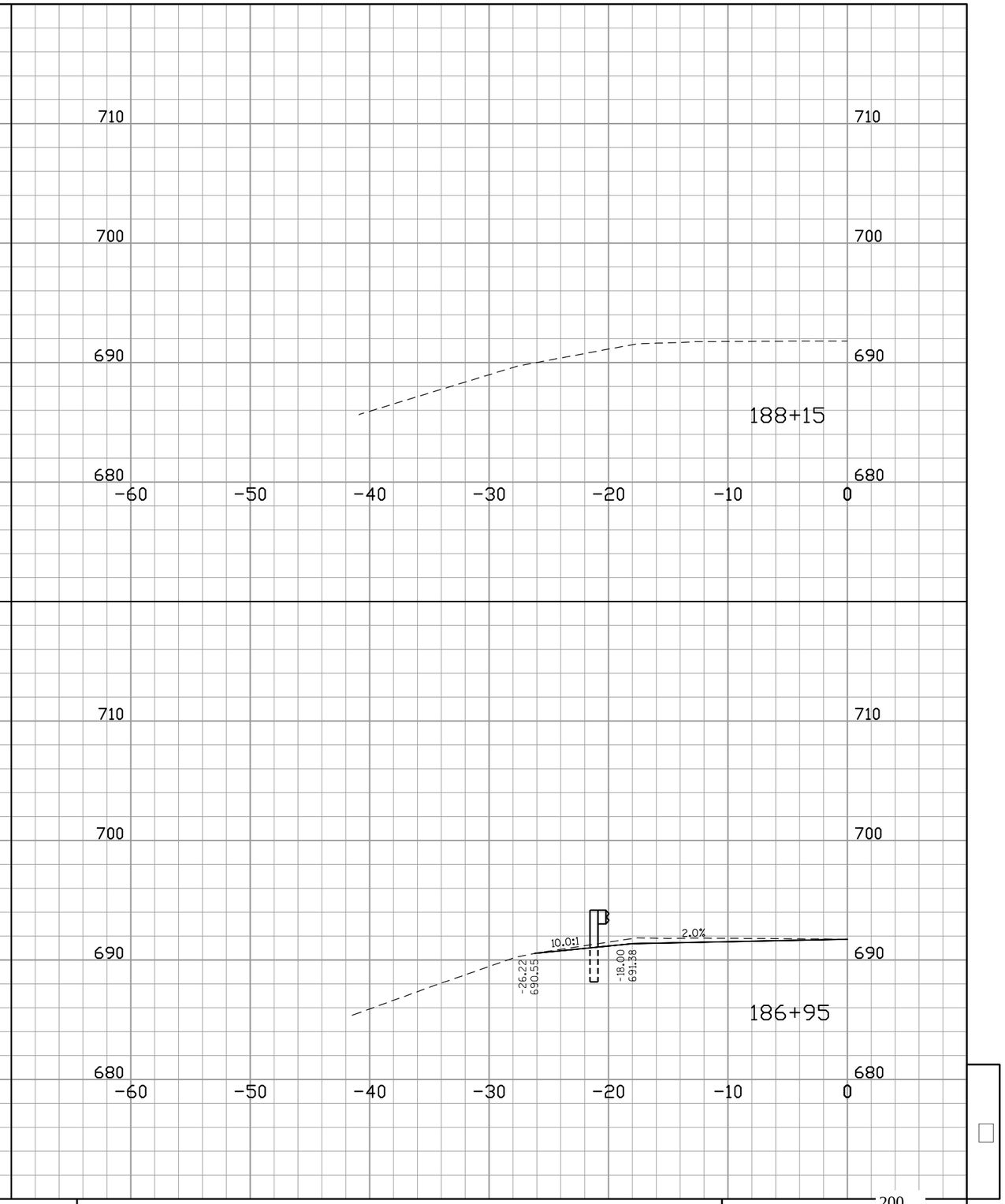
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 171+50 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:59:24 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





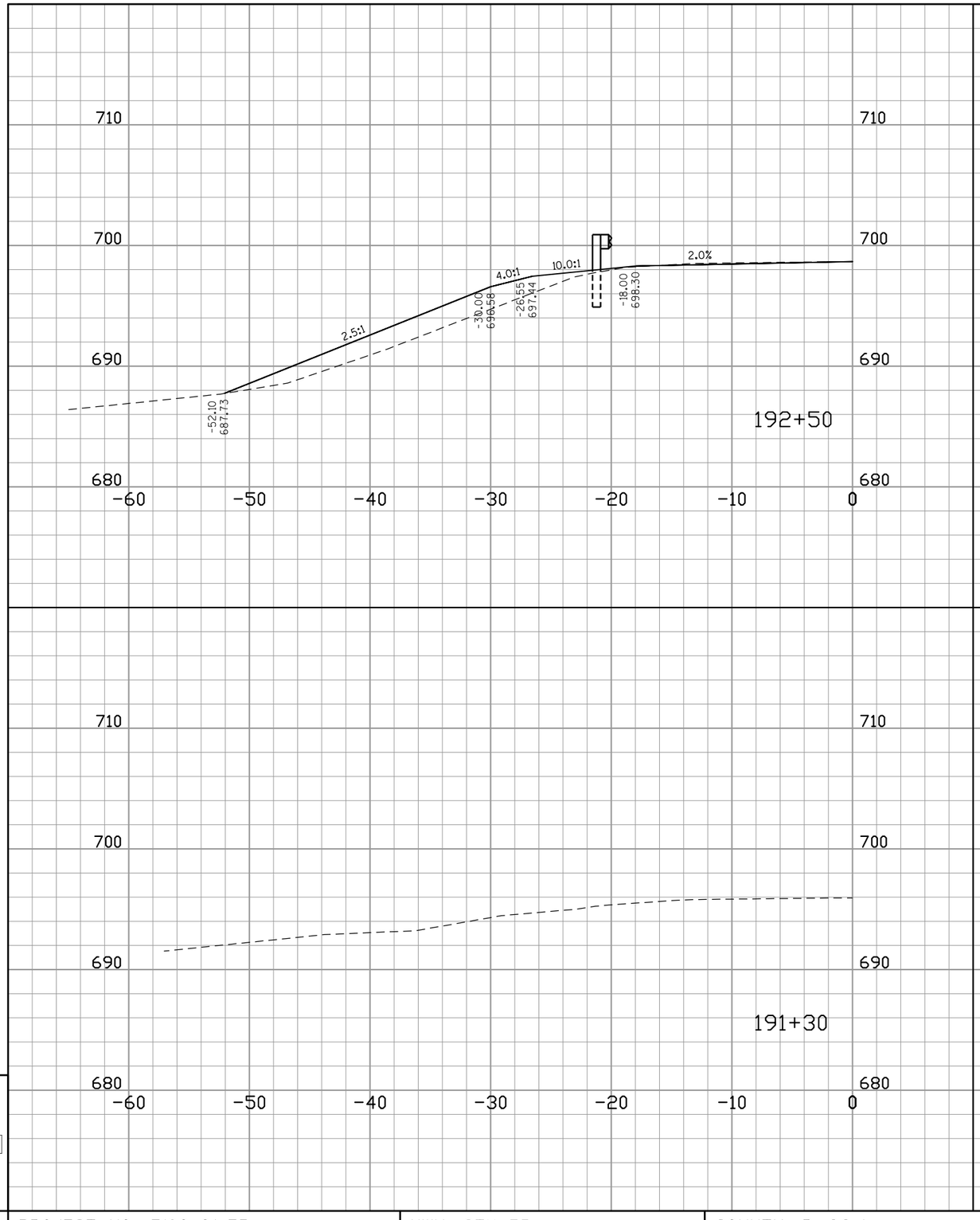
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET 200

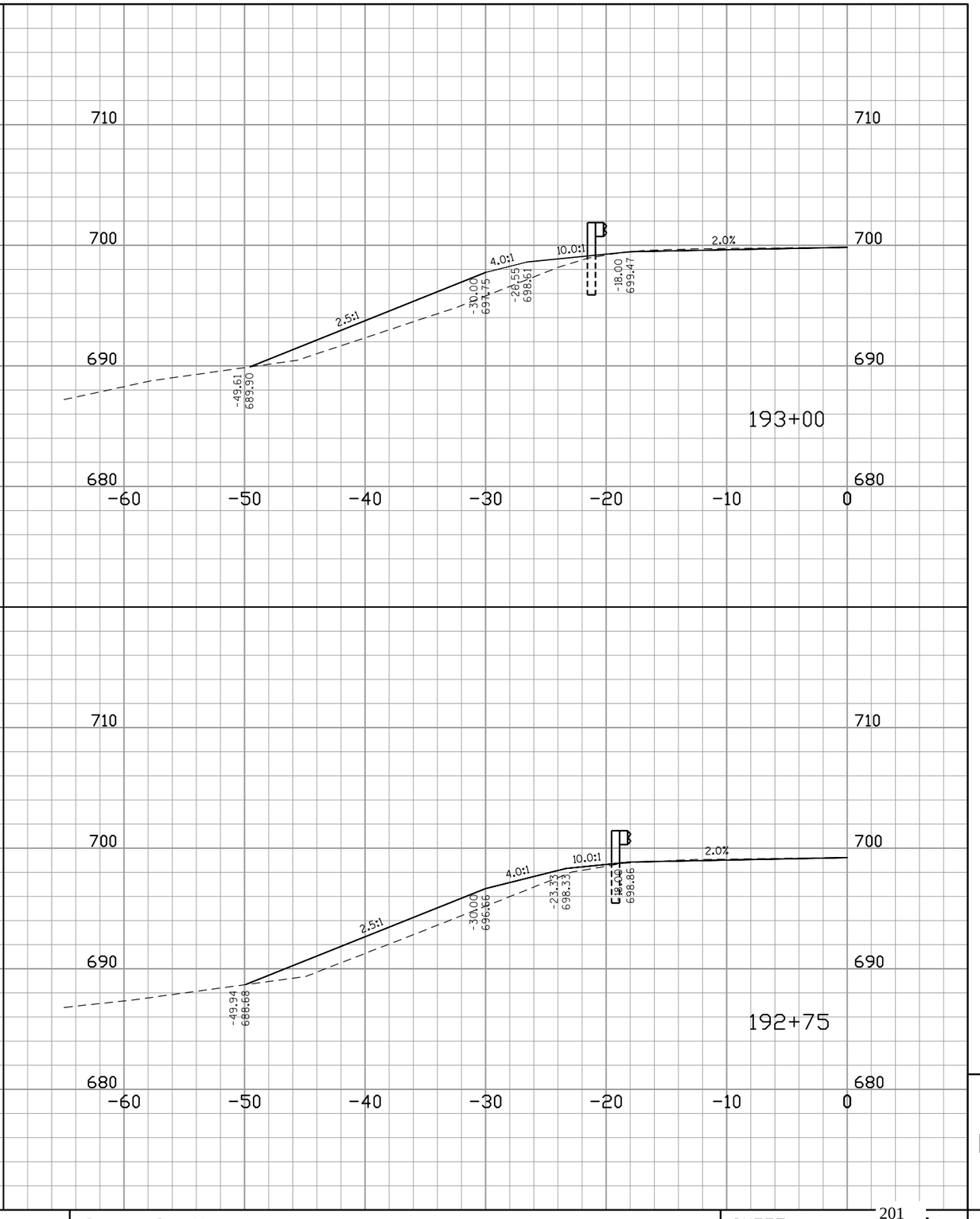
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 186+95 LT

PLOT DATE : 7/31/2014
PLOT TIME : 5:59:49 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





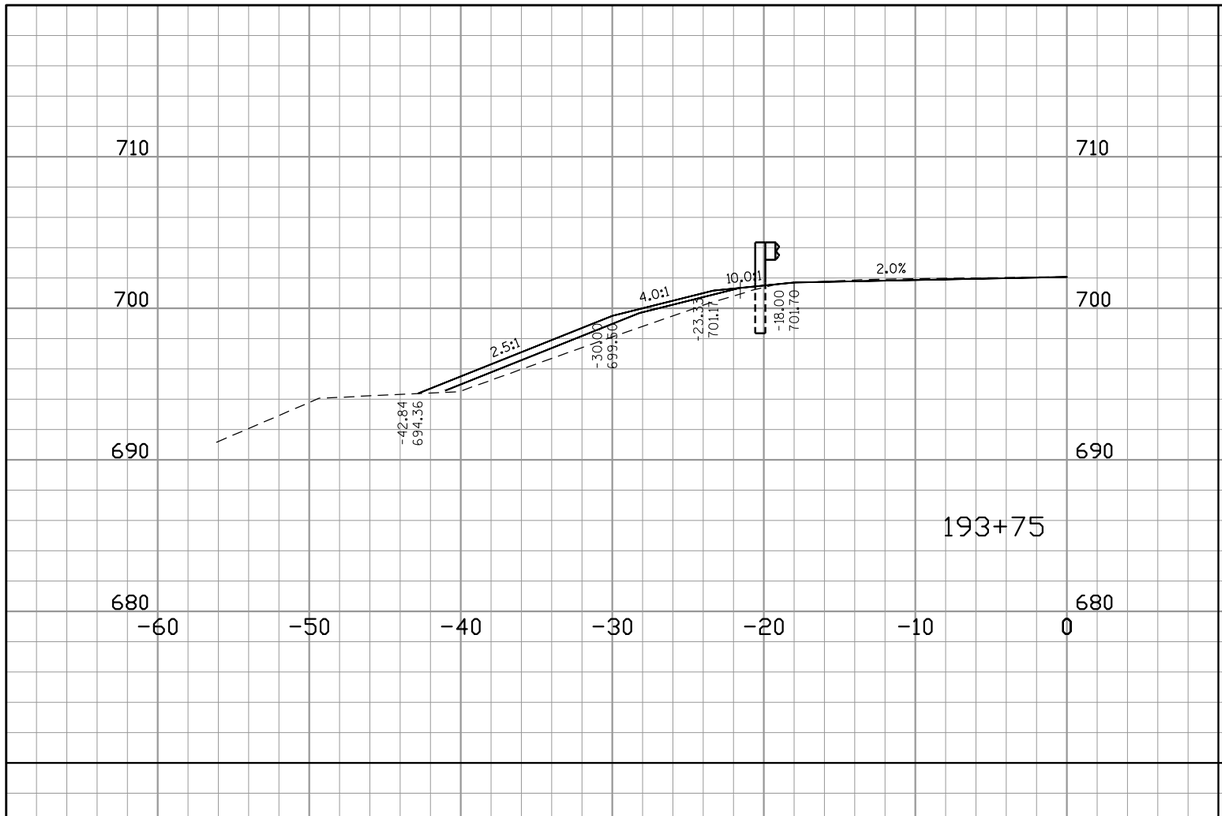
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

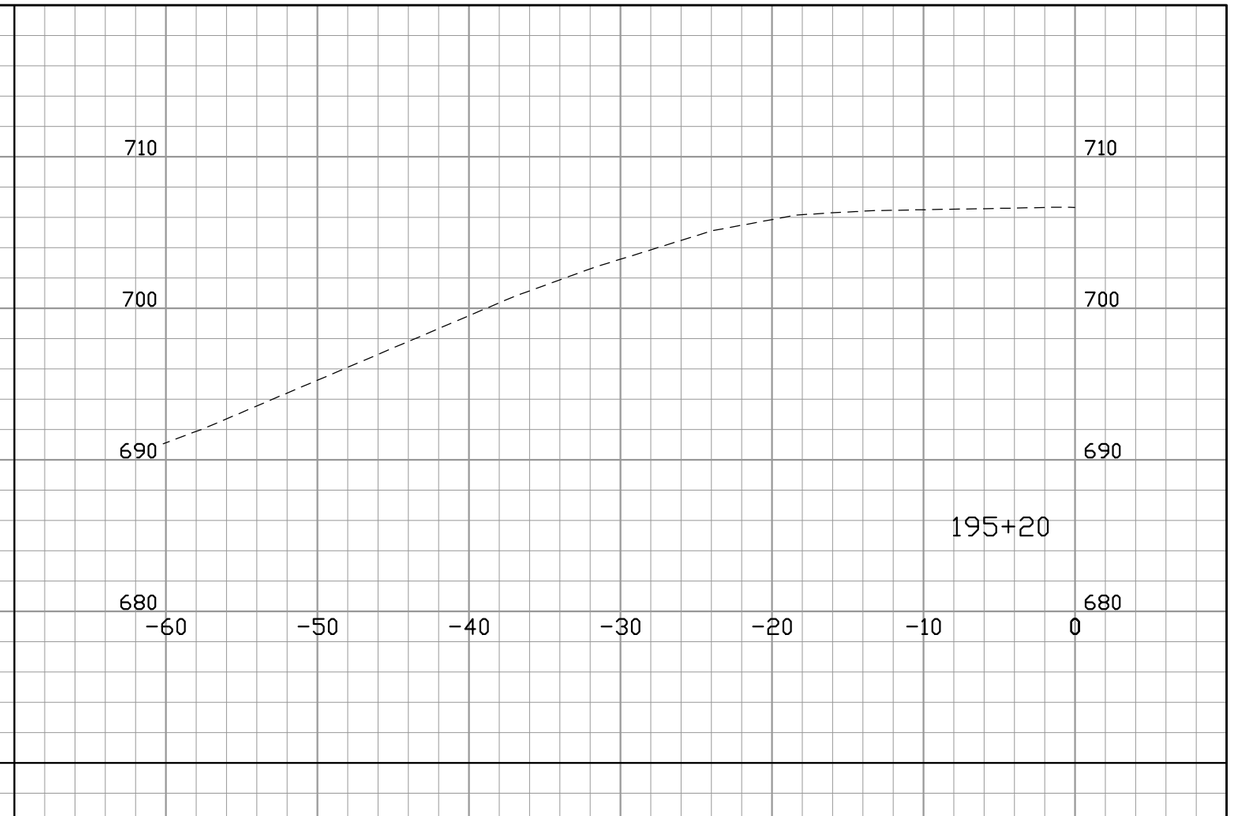
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 192+50 LT

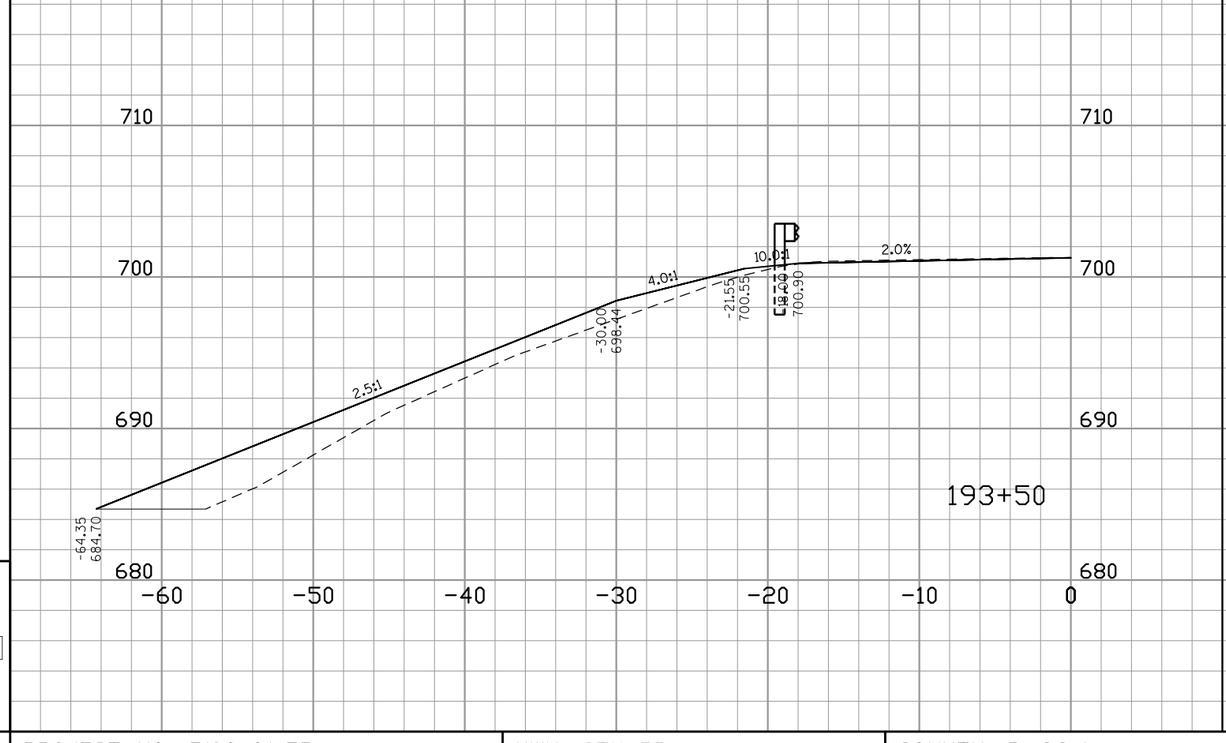
PLOT DATE : 7/31/2014
PLOT TIME : 6:00:14 PM

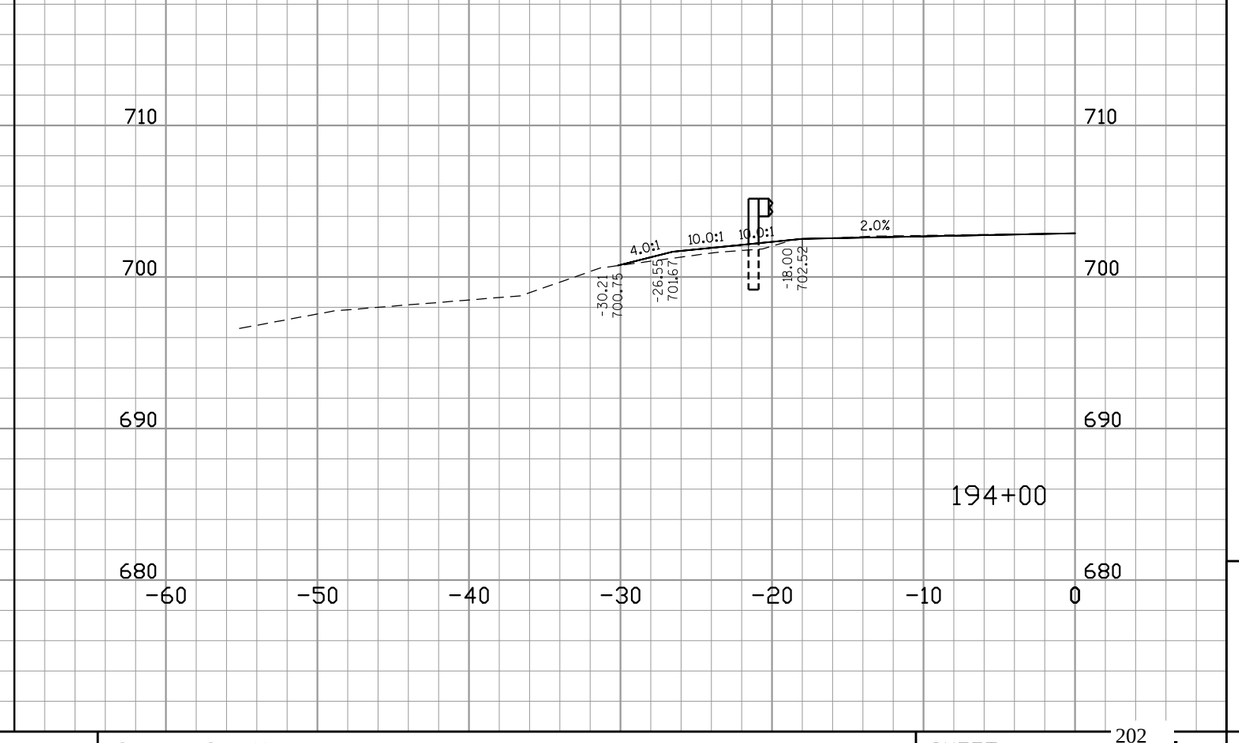
PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'









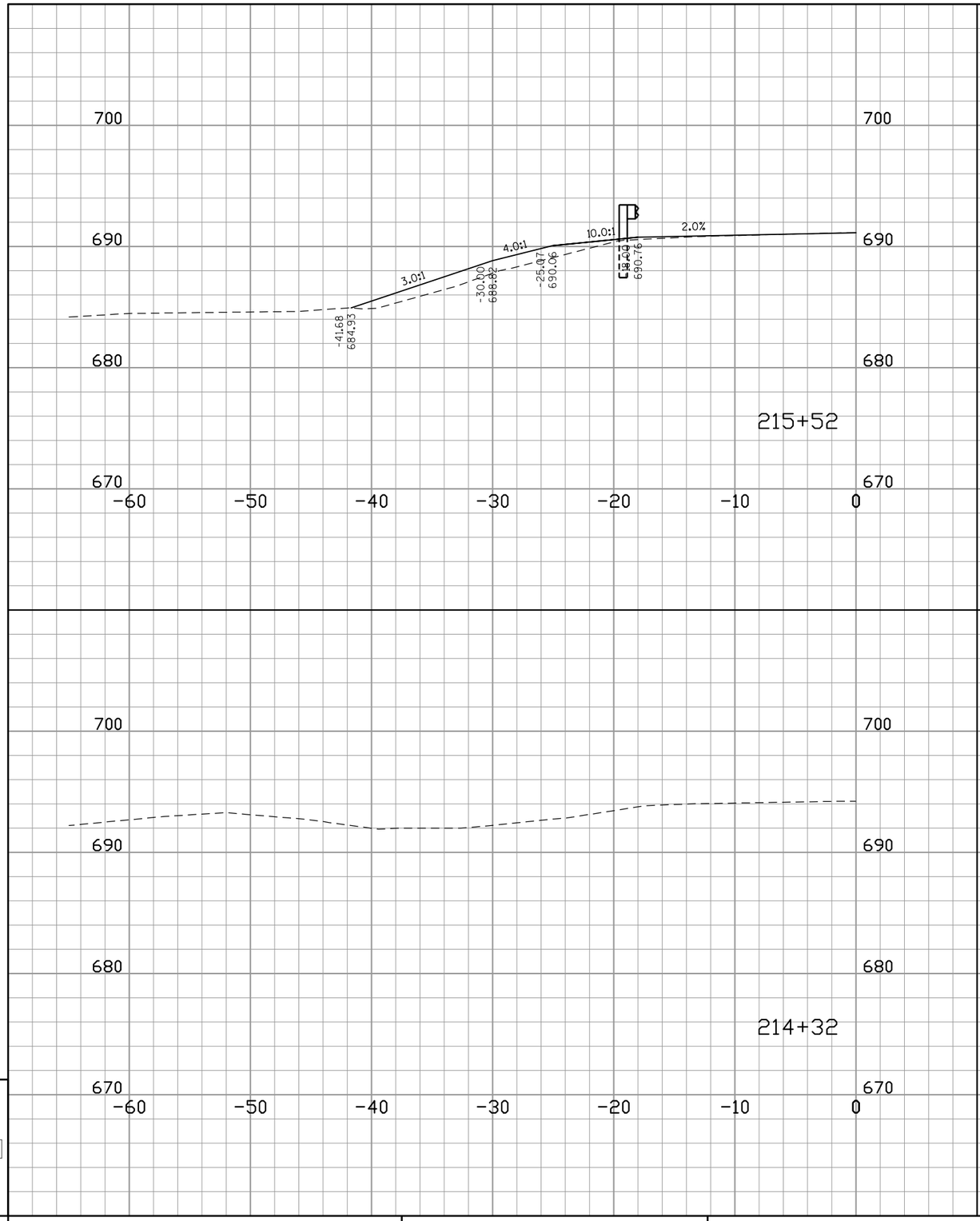
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

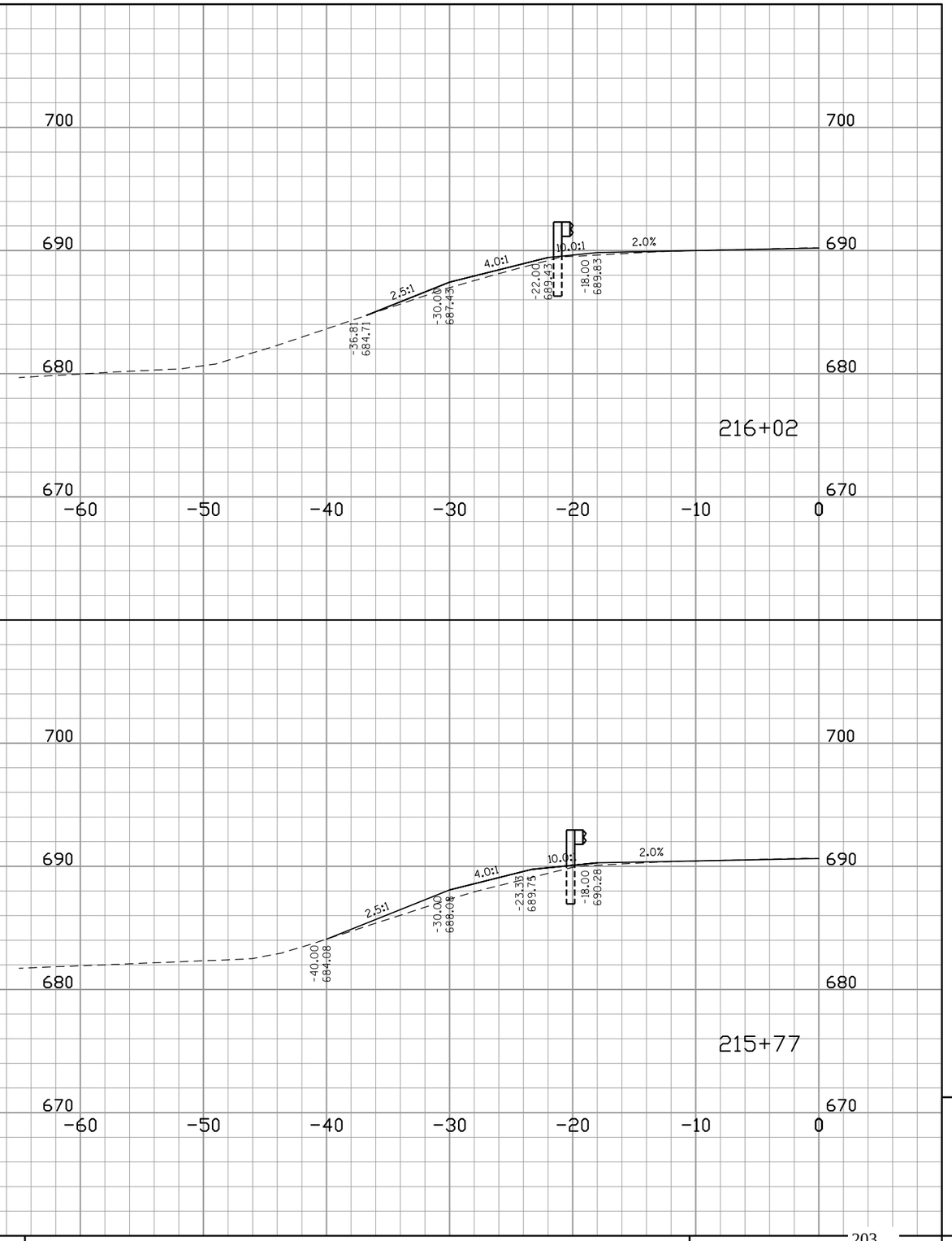
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 194+00 LT

PLOT DATE : 7/31/2014
PLOT TIME : 6:00:39 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





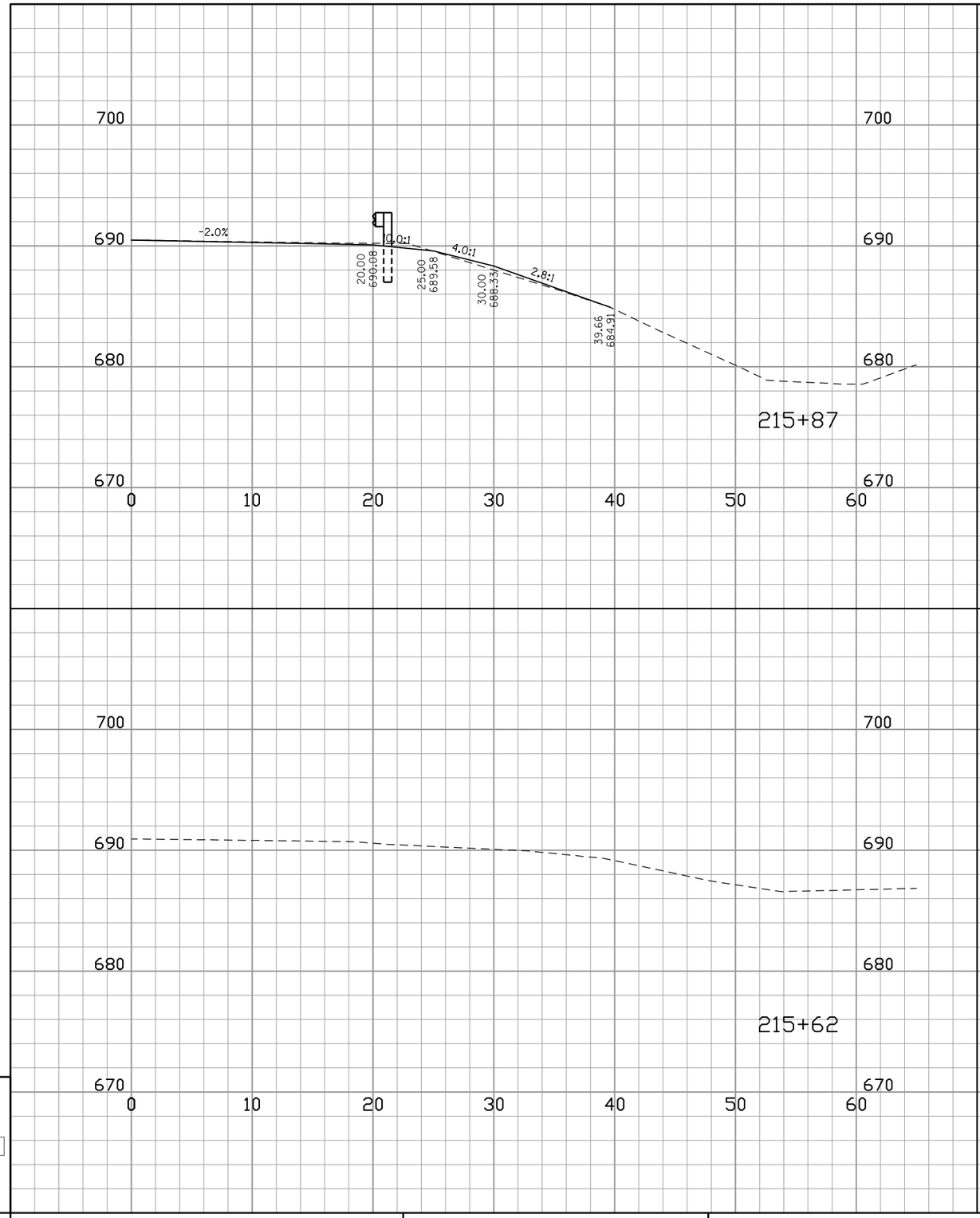
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

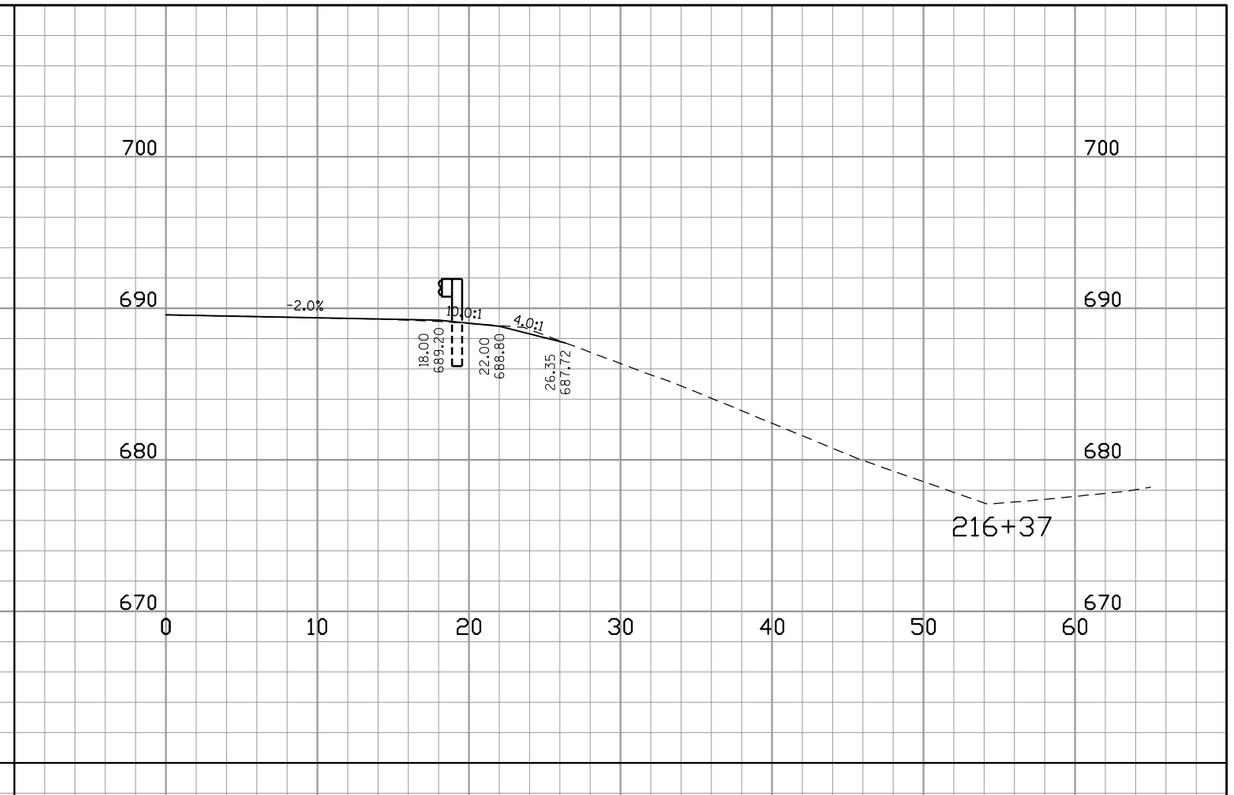
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 215+50 LT

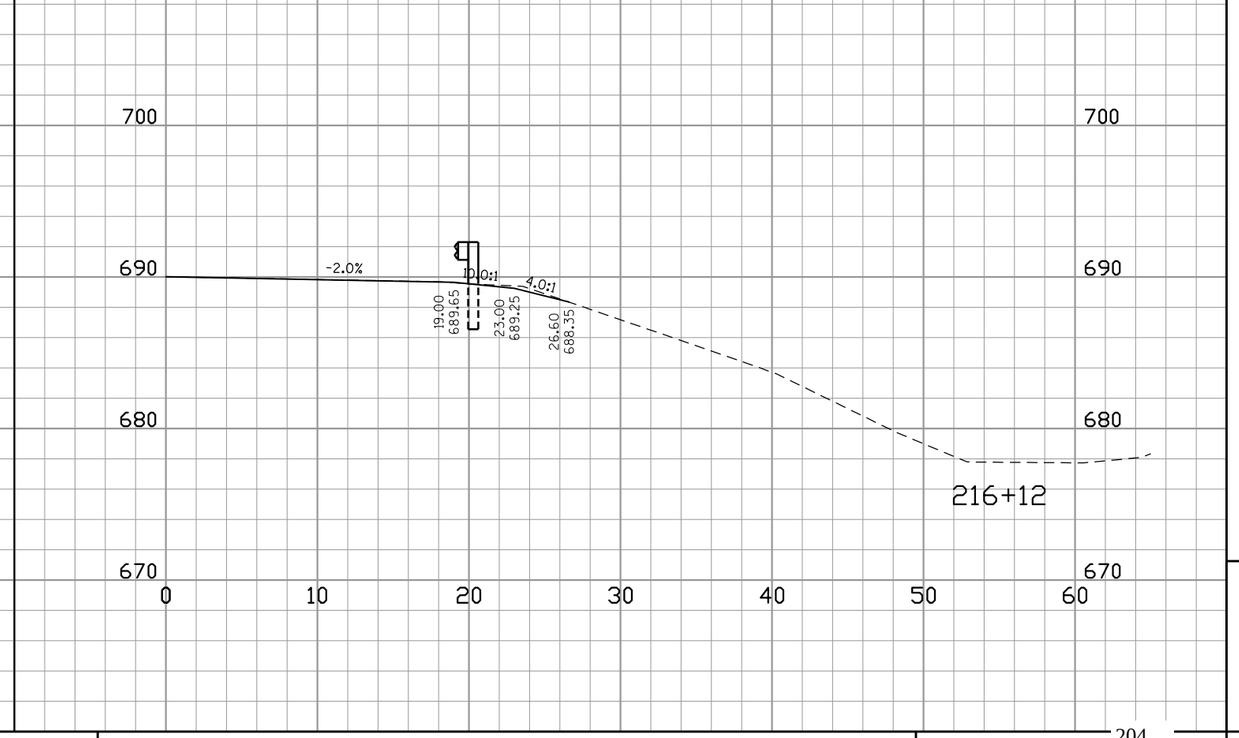
PLOT DATE : 7/31/2014
PLOT TIME : 6:01:05 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







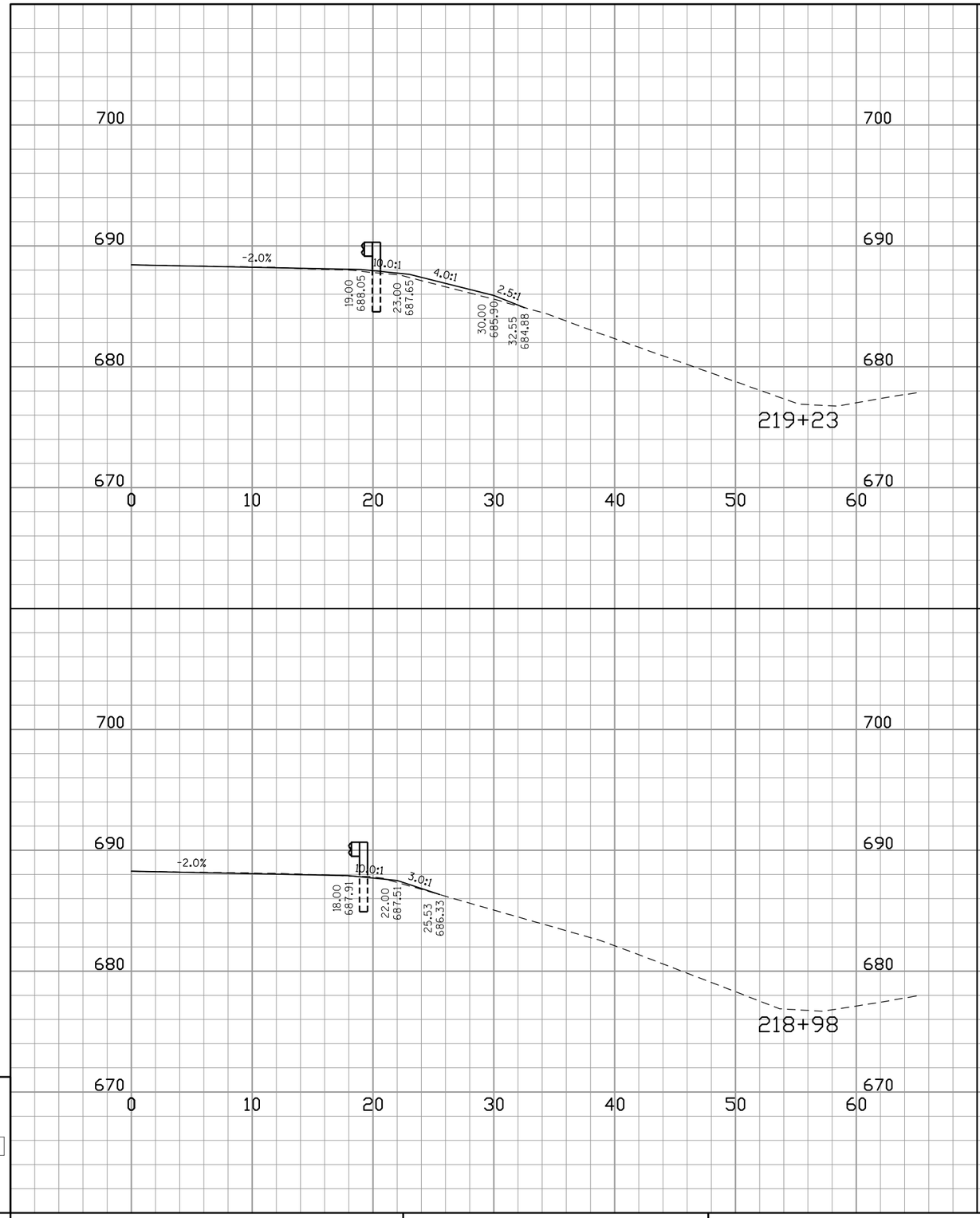
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

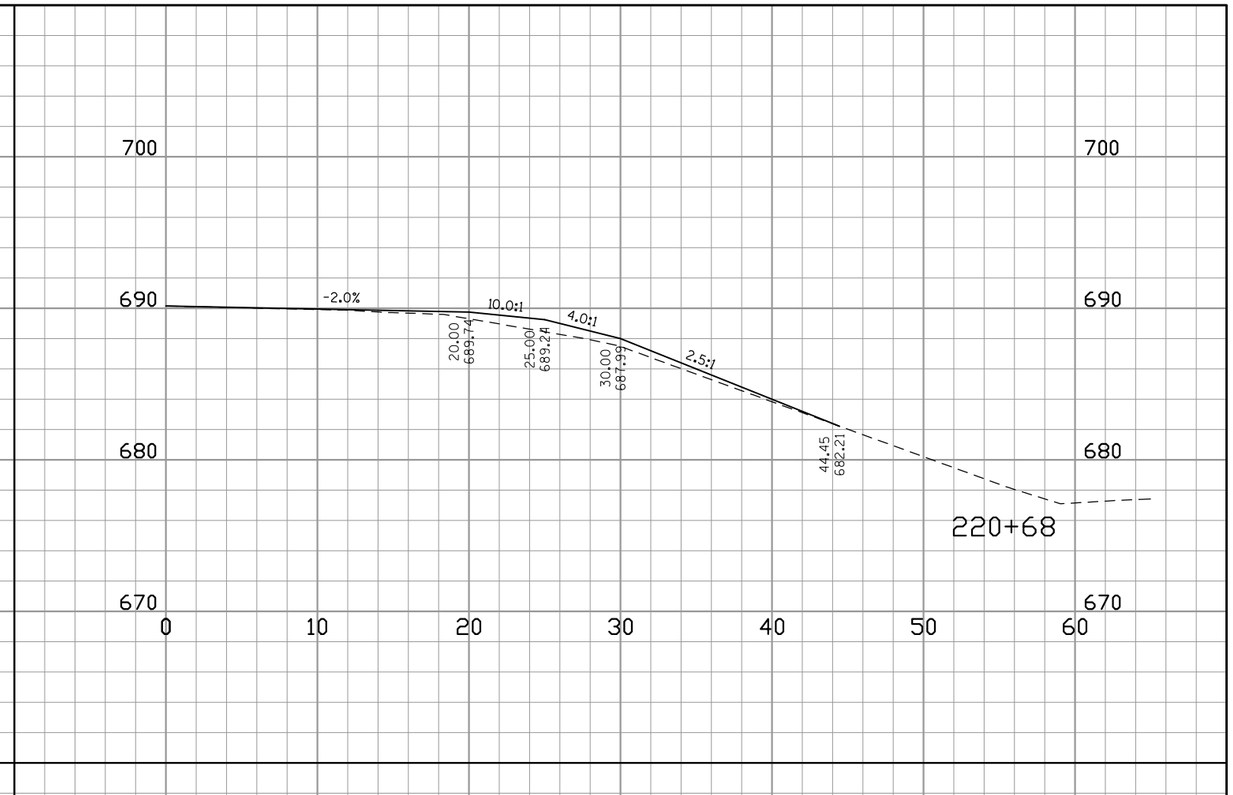
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 216+25 RT

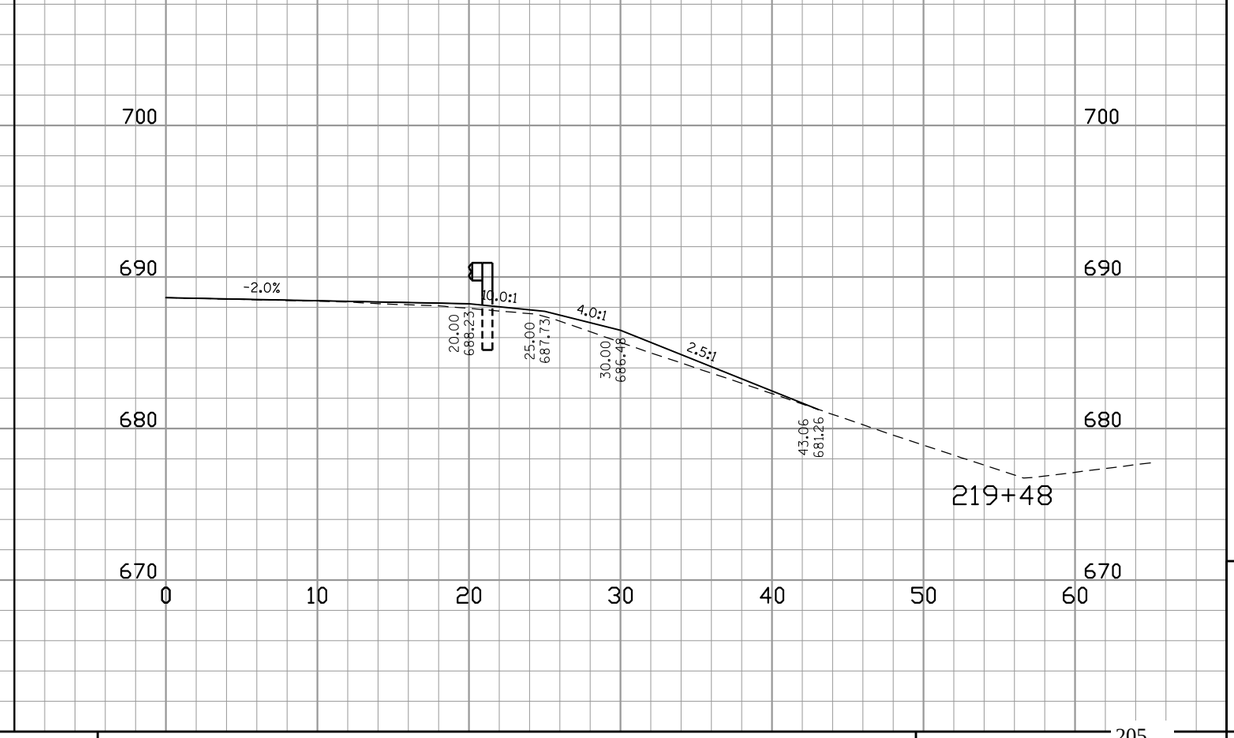
PLOT DATE : 7/31/2014
PLOT TIME : 6:01:31 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







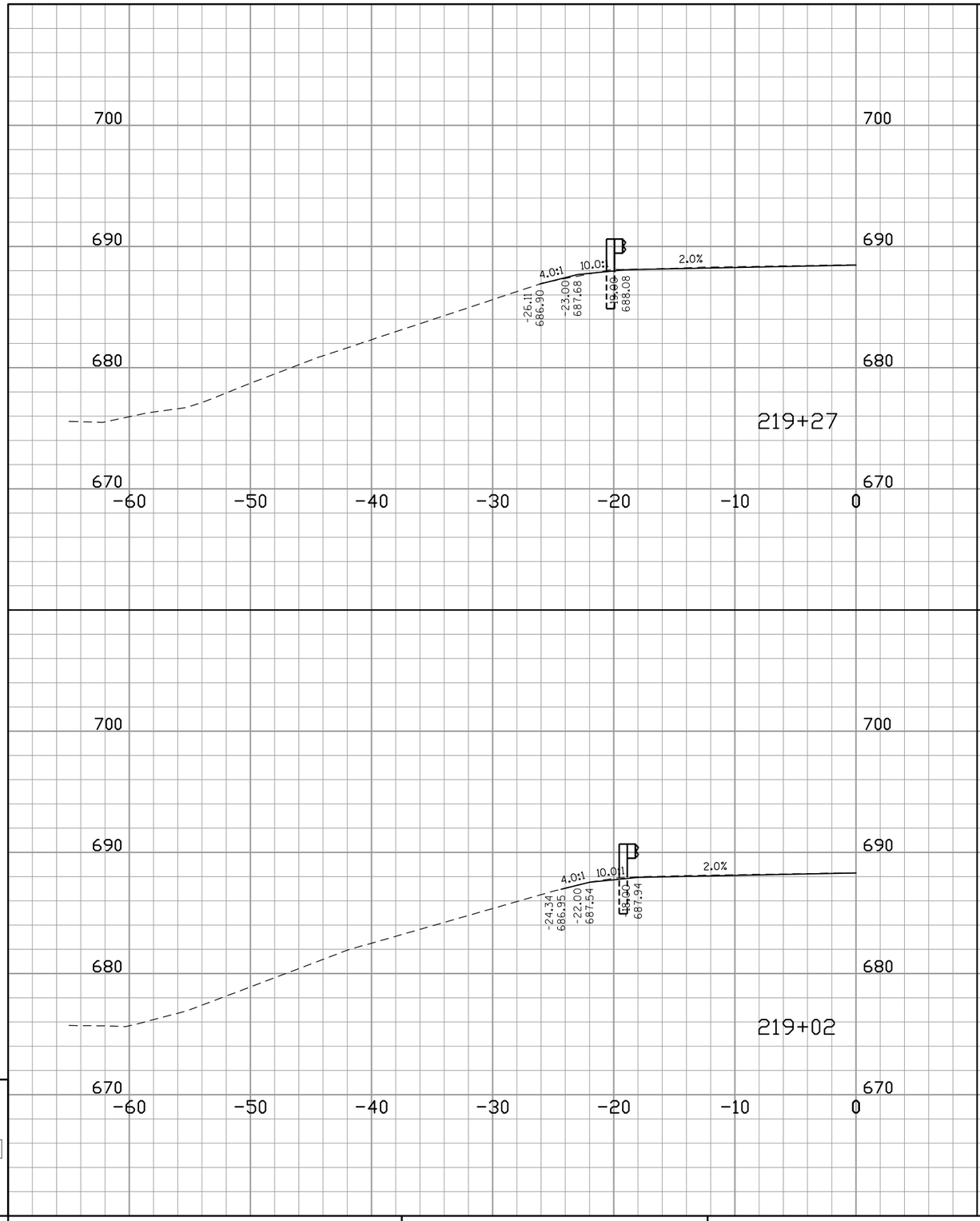
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

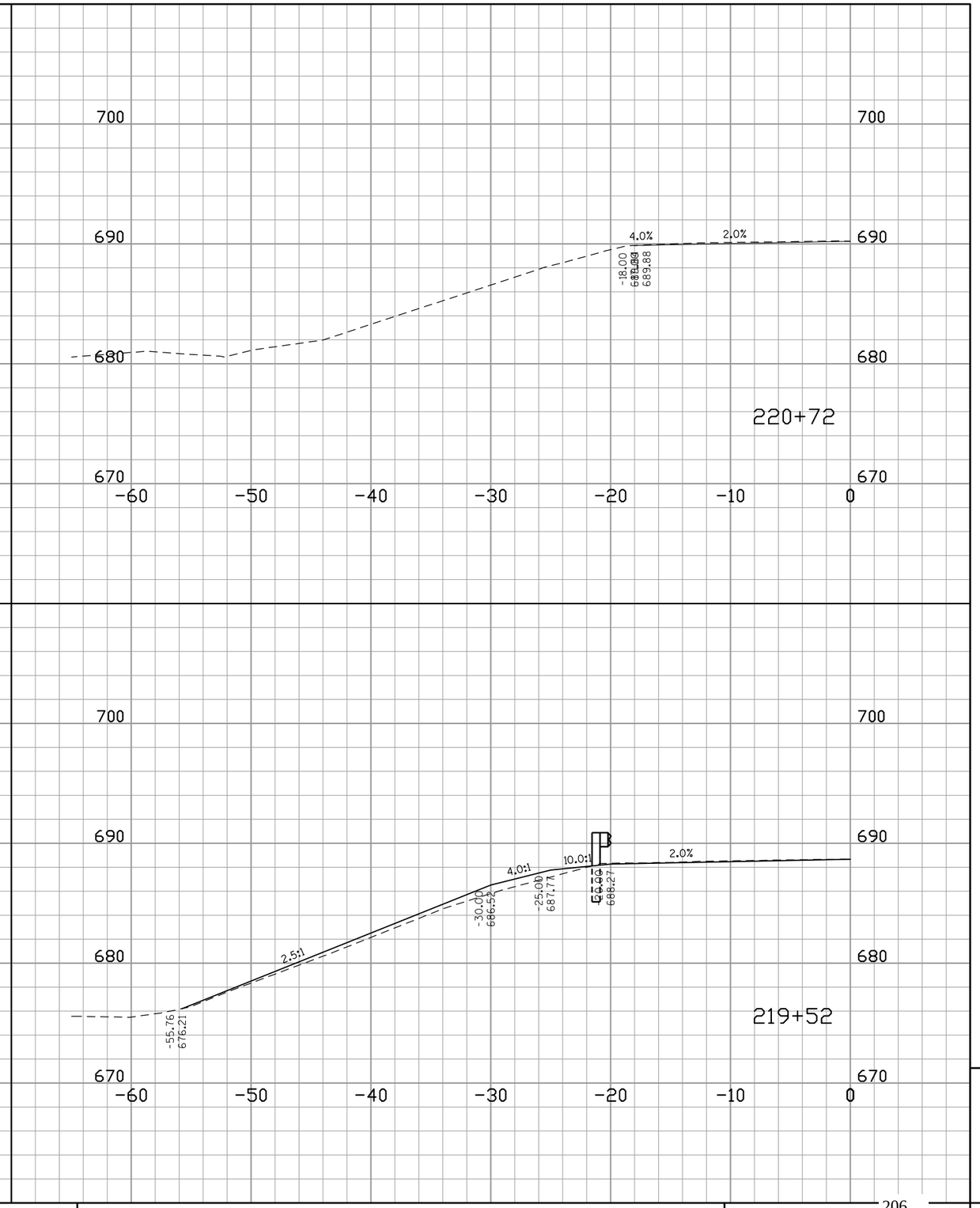
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 219+40 RT

PLOT DATE : 7/31/2014
PLOT TIME : 6:01:56 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





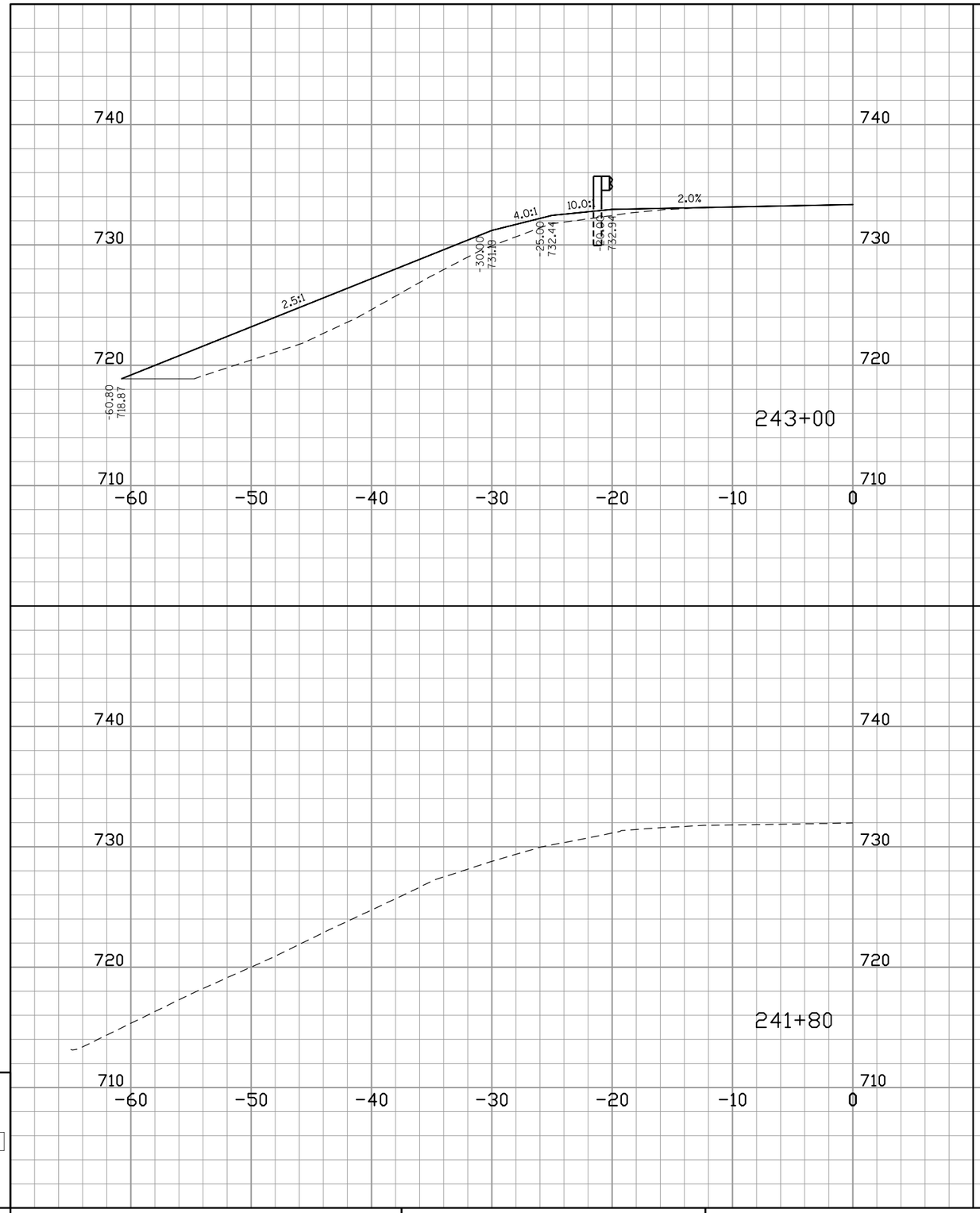
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

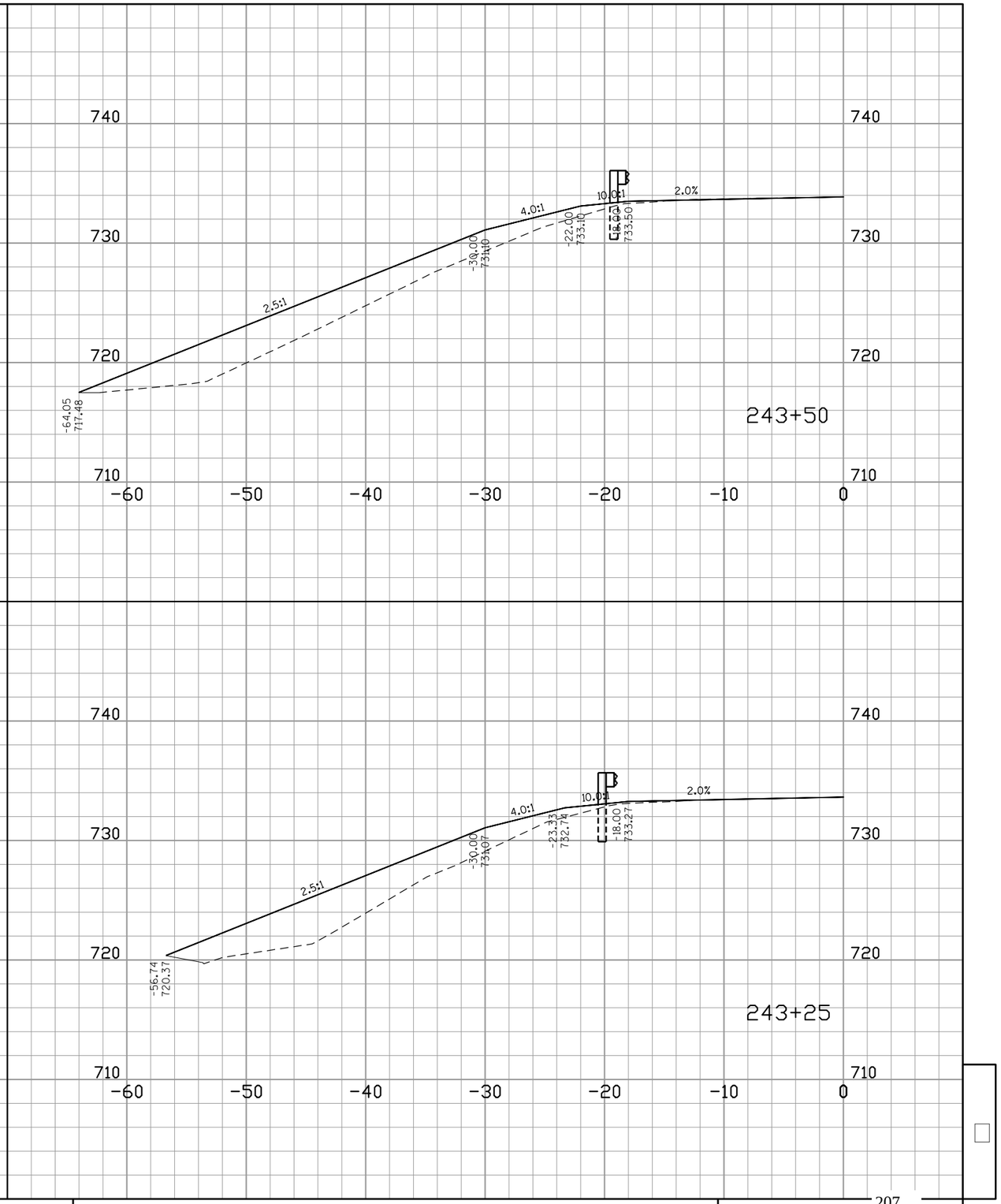
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 219+50 LT

PLOT DATE : 7/31/2014
PLOT TIME : 6:02:20 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





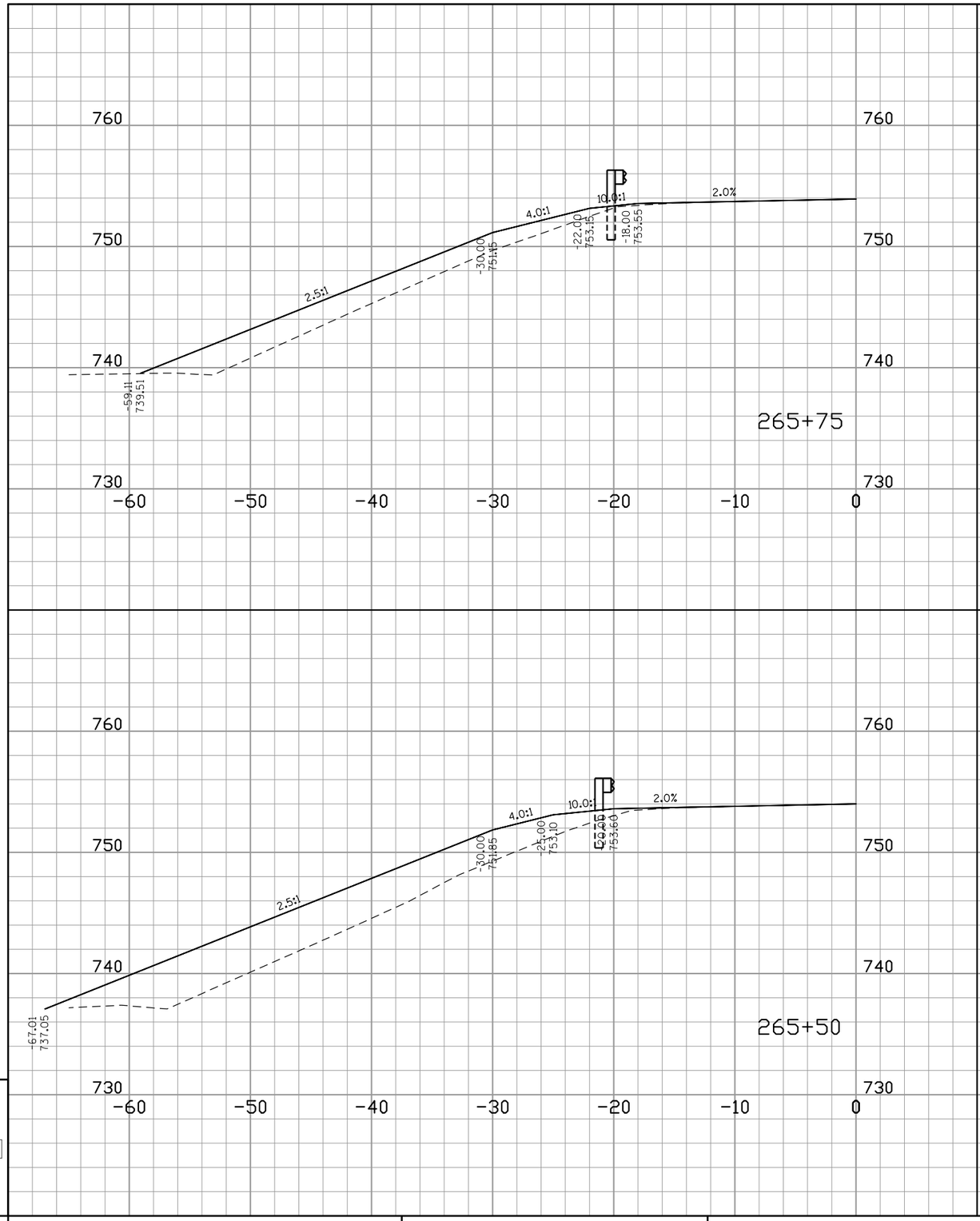
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

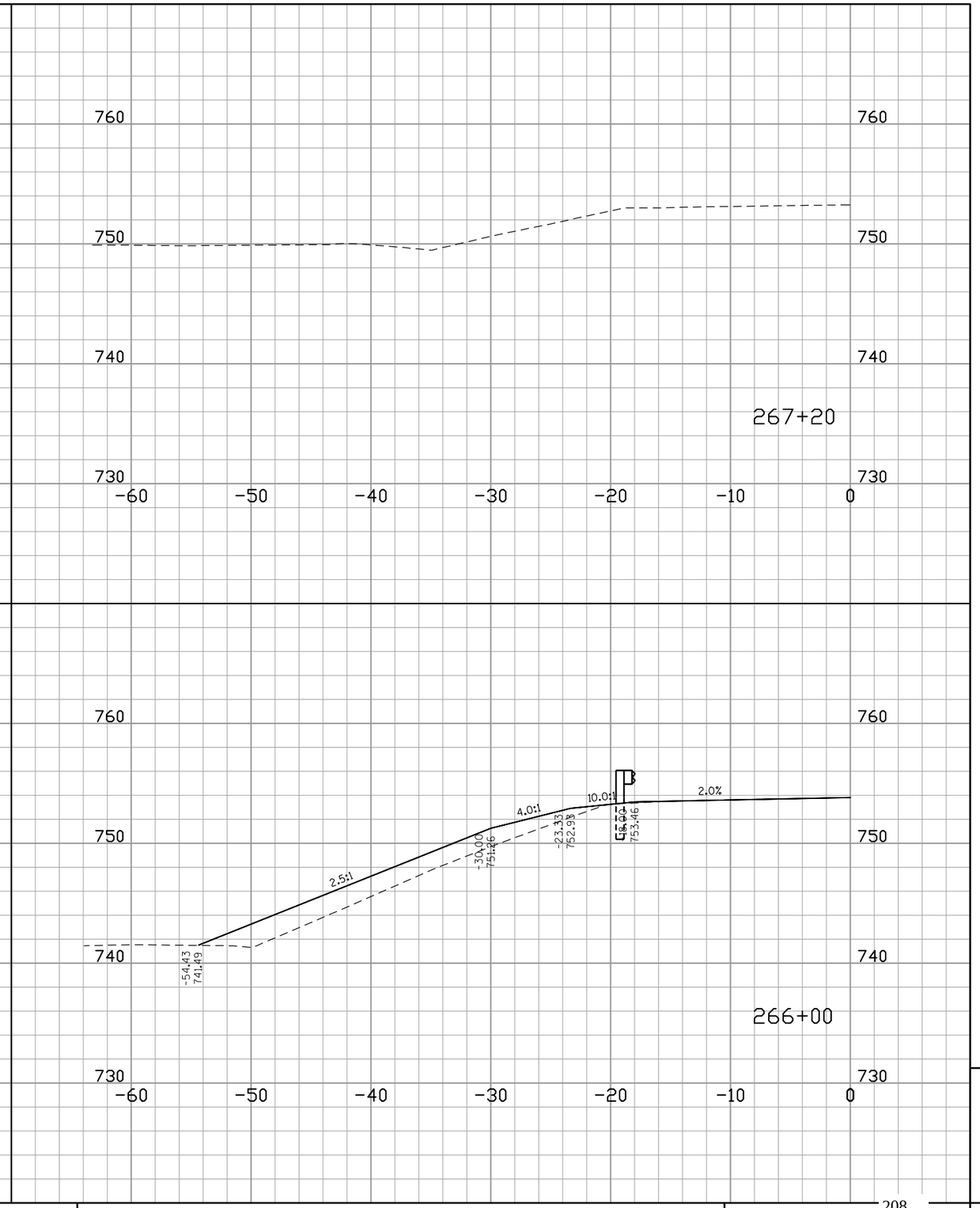
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 243+15 LT

PLOT DATE : 7/31/2014
PLOT TIME : 6:02:46 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





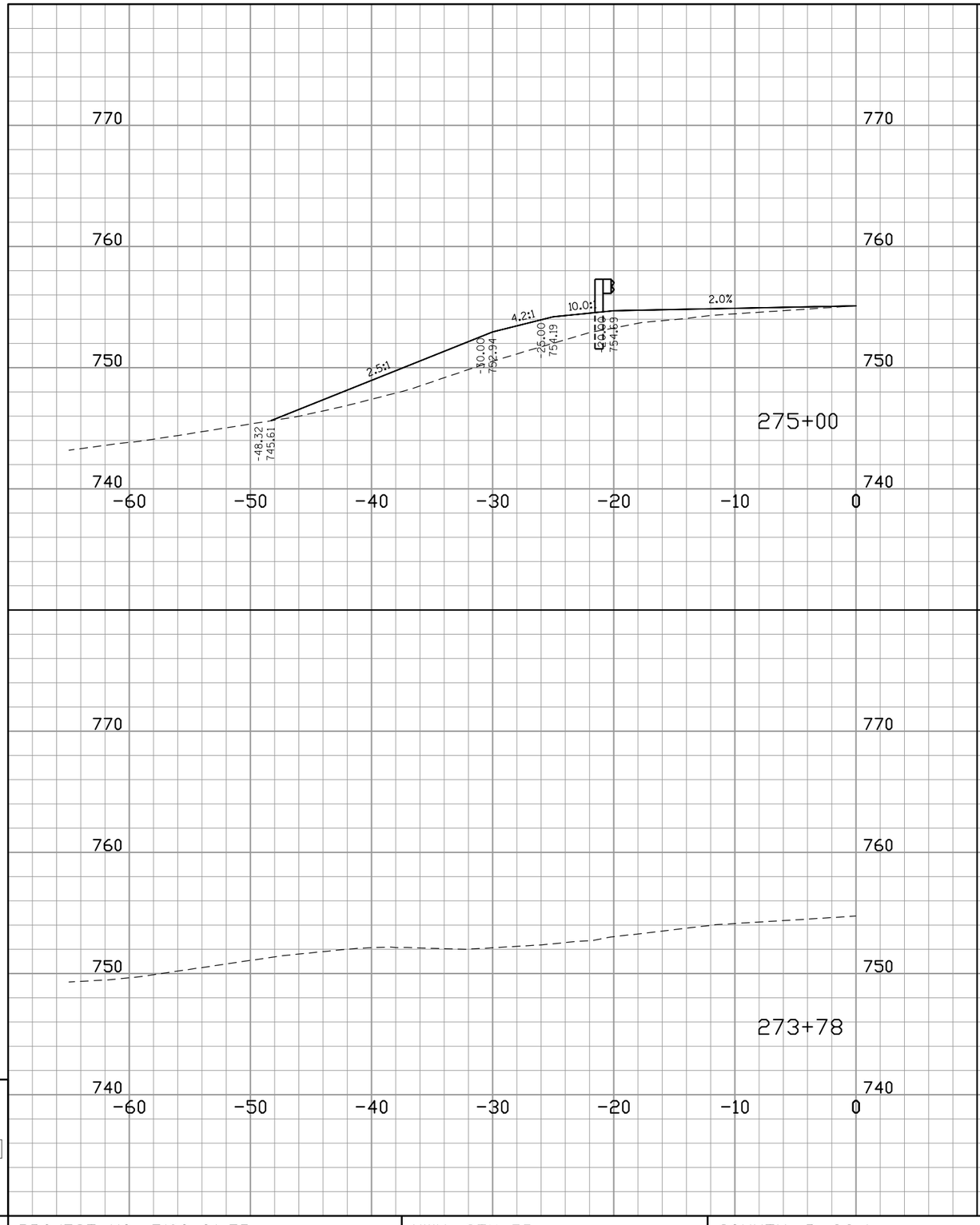
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

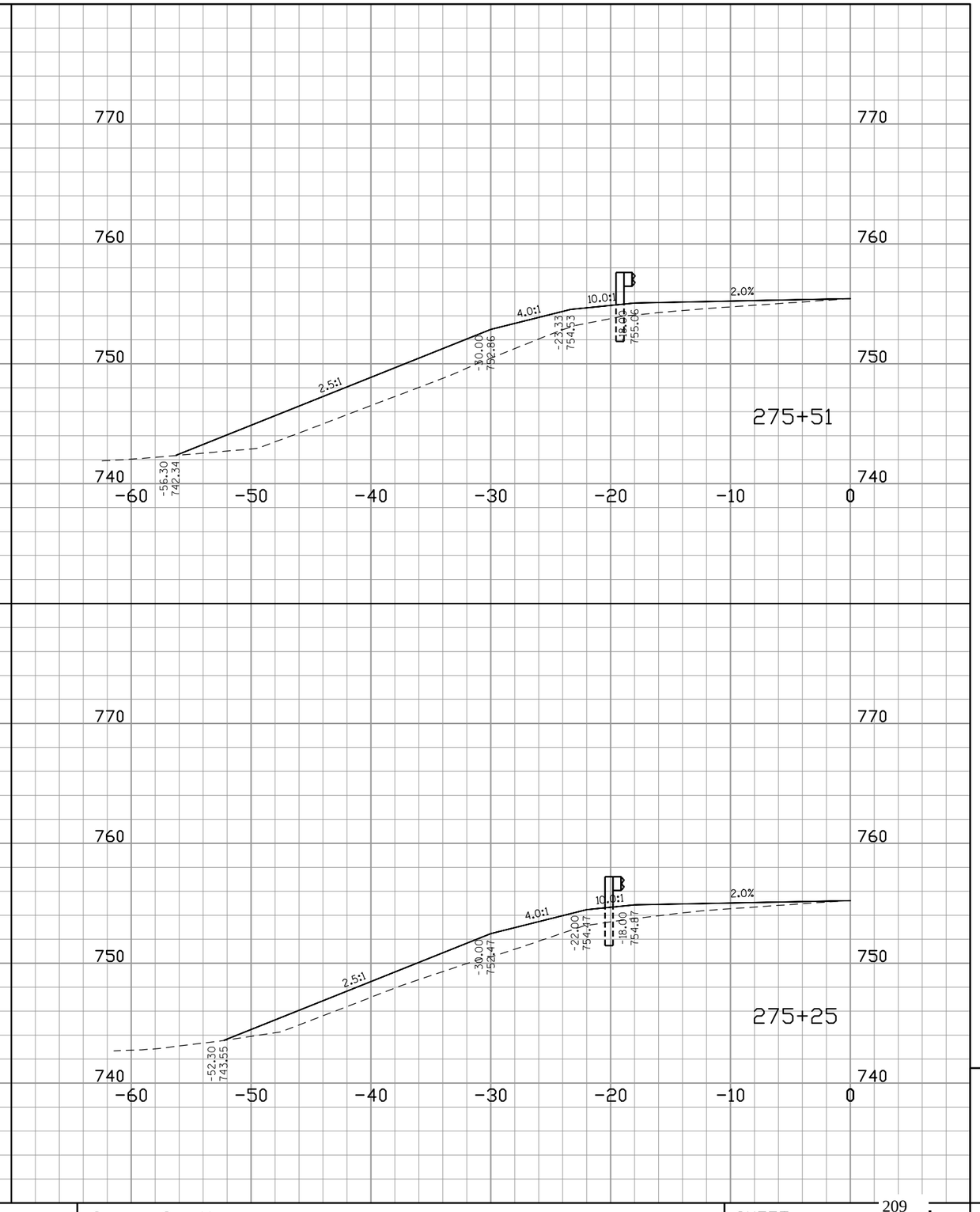
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 265+85 LT

PLOT DATE : 7/31/2014
PLOT TIME : 6:03:11 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





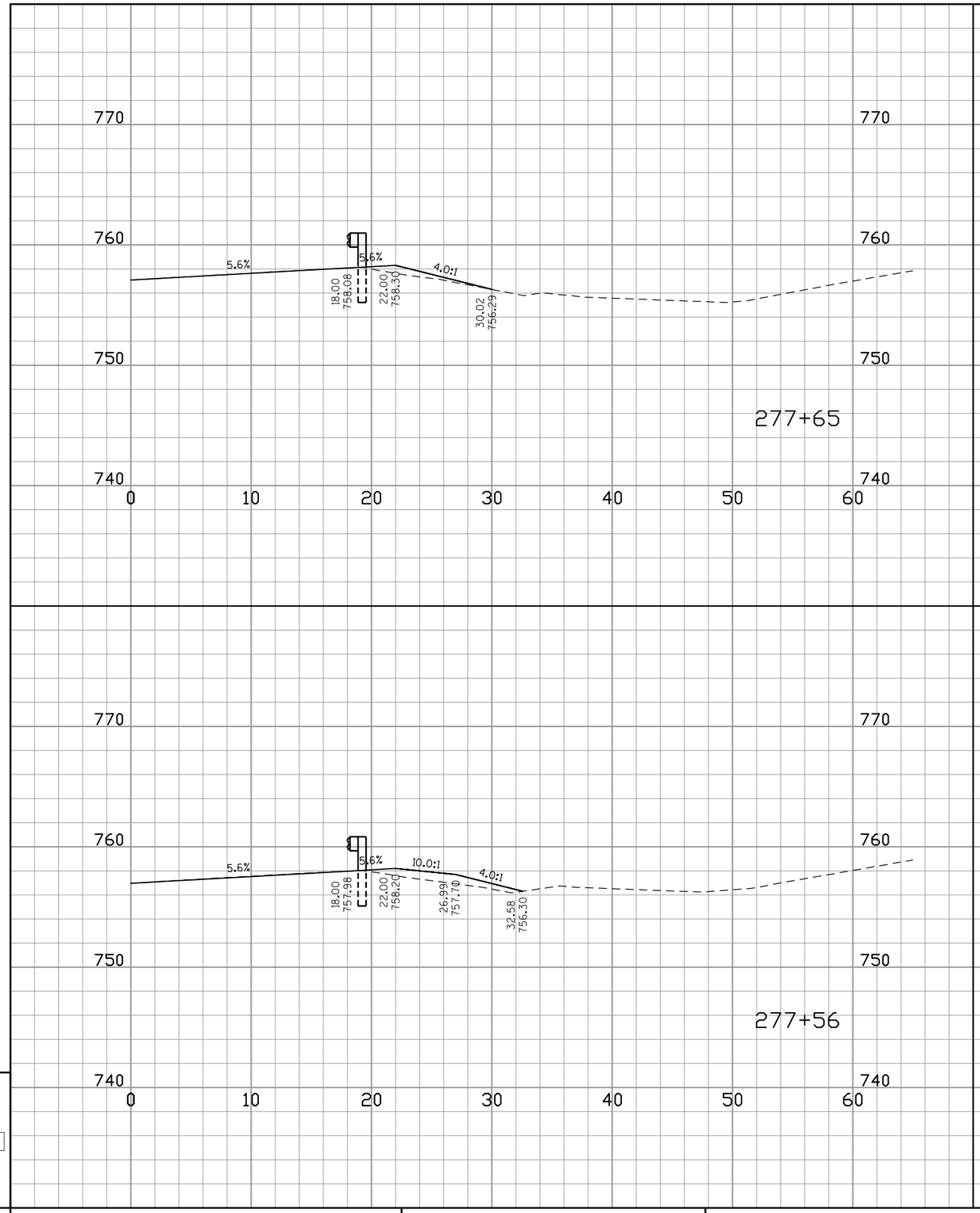
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

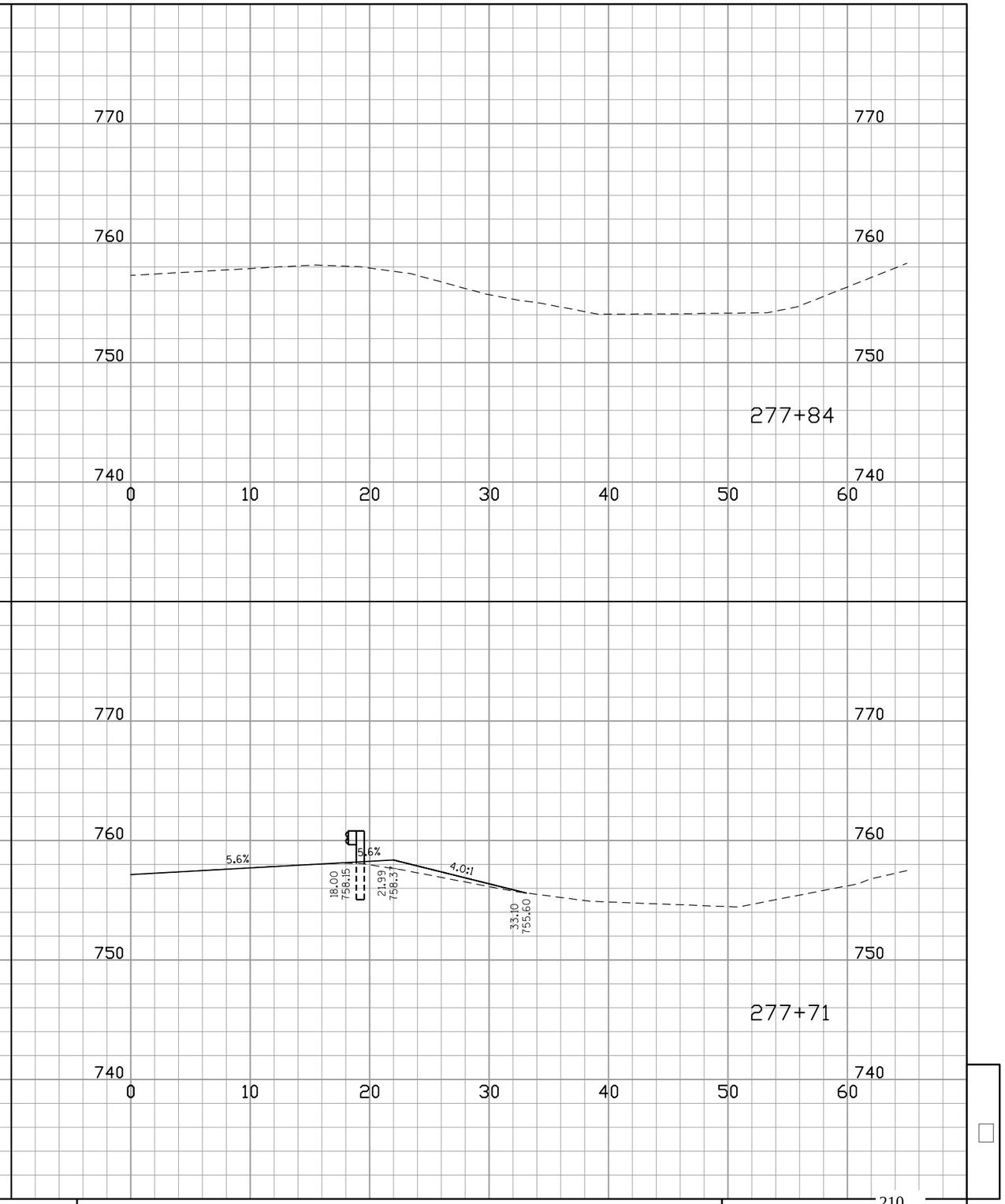
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 275+05 LT

PLOT DATE : 7/31/2014
PLOT TIME : 6:03:35 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





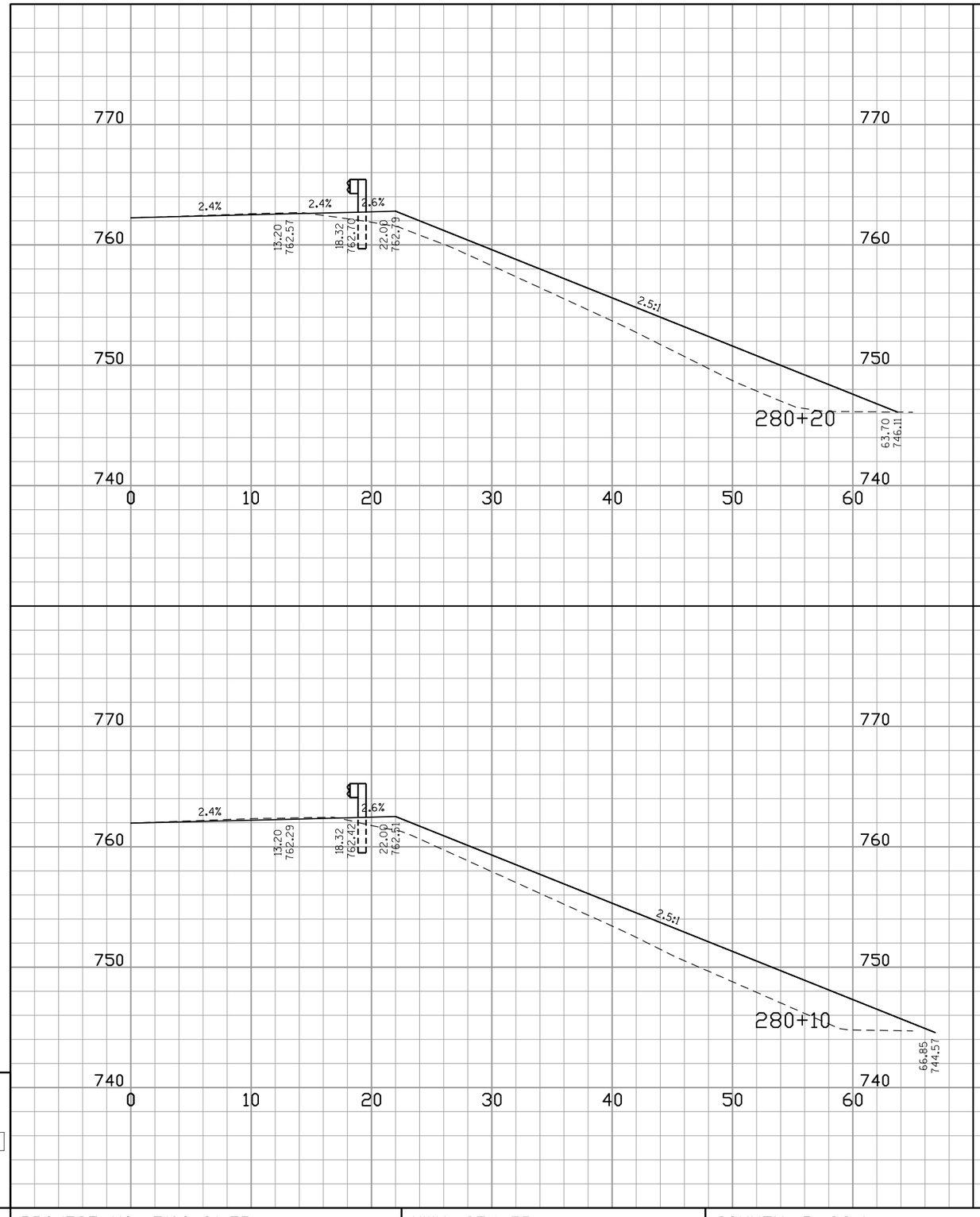
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

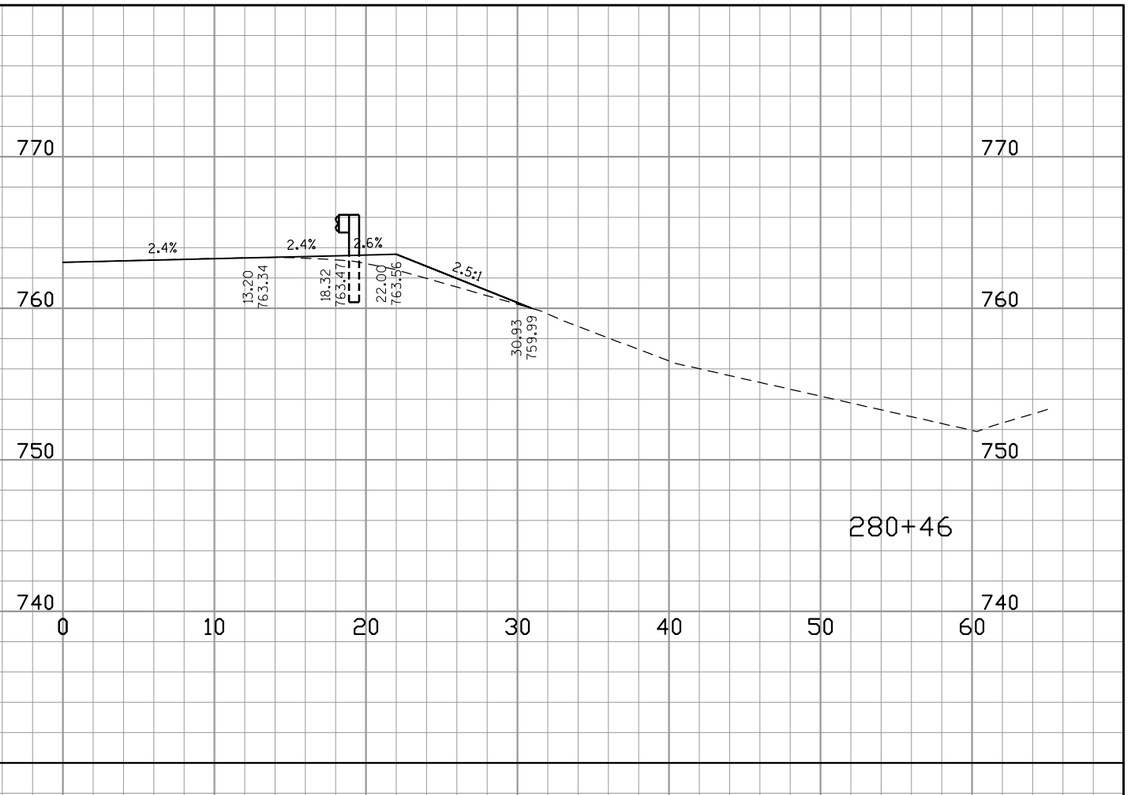
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 277+55 RT

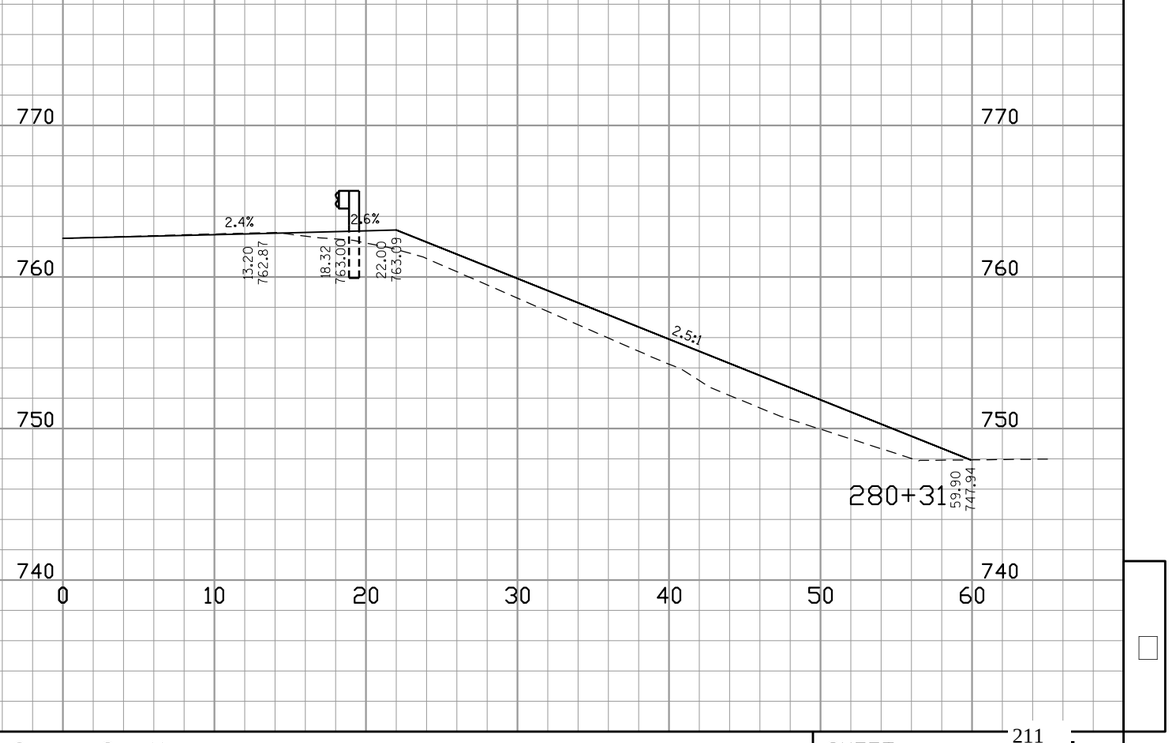
PLOT DATE : 7/31/2014
PLOT TIME : 6:04:00 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







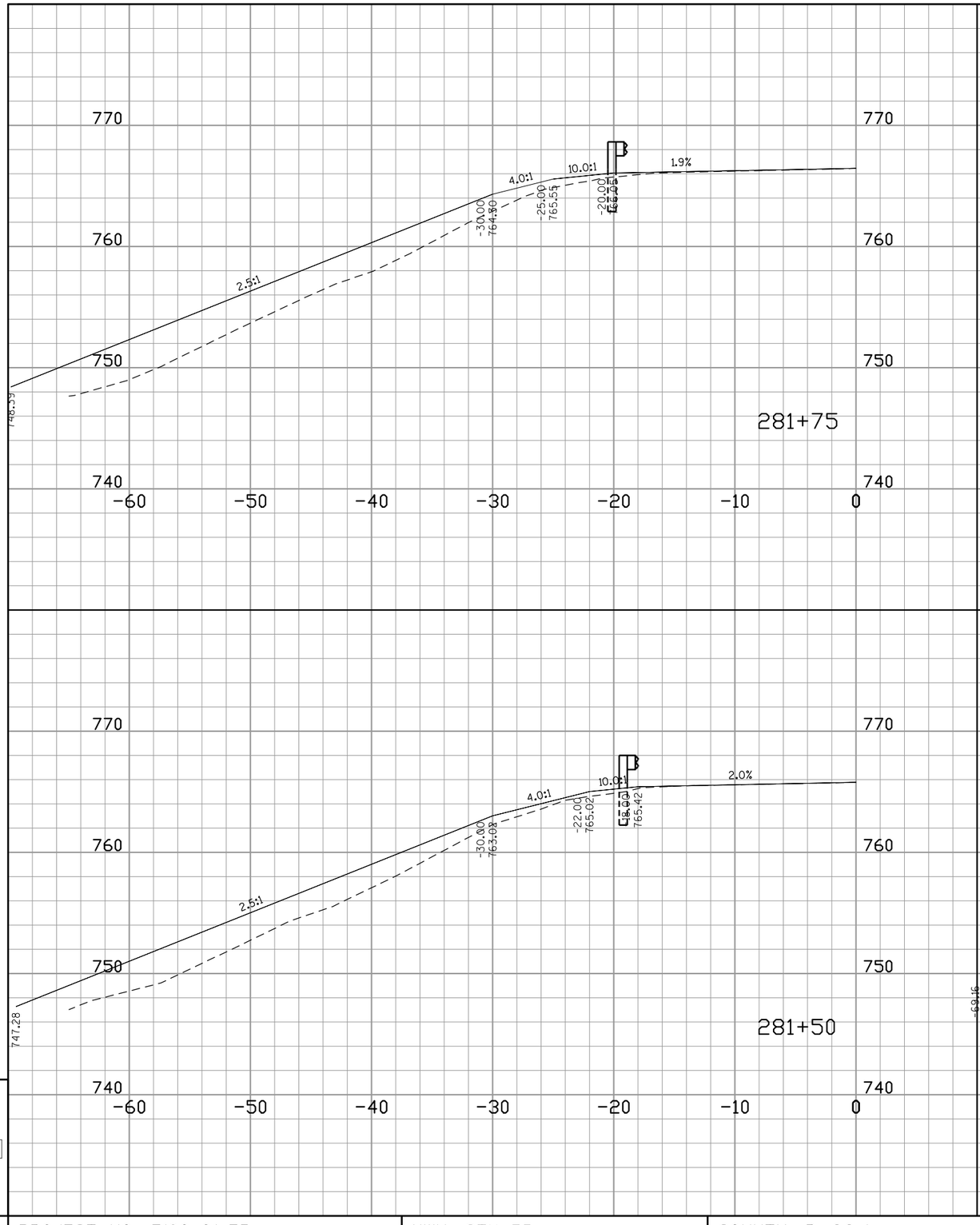
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

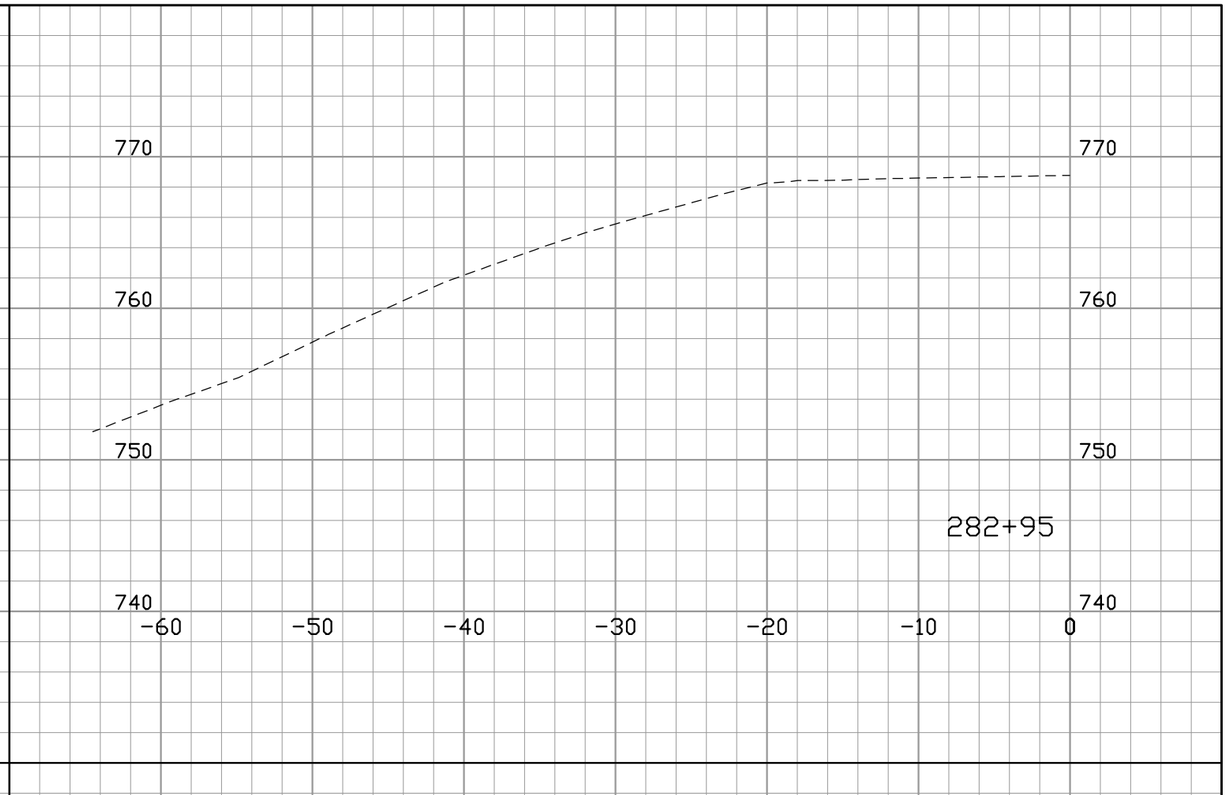
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 280+45 RT

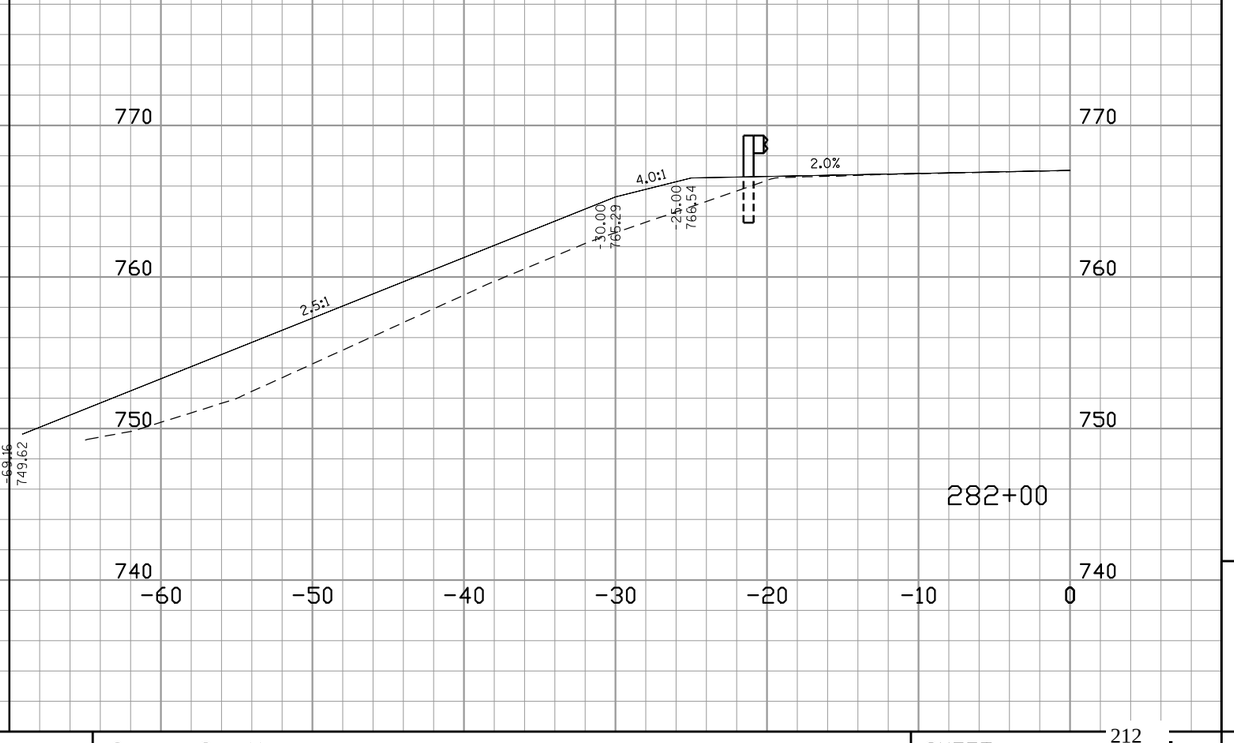
PLOT DATE : 7/31/2014
PLOT TIME : 6:04:26 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







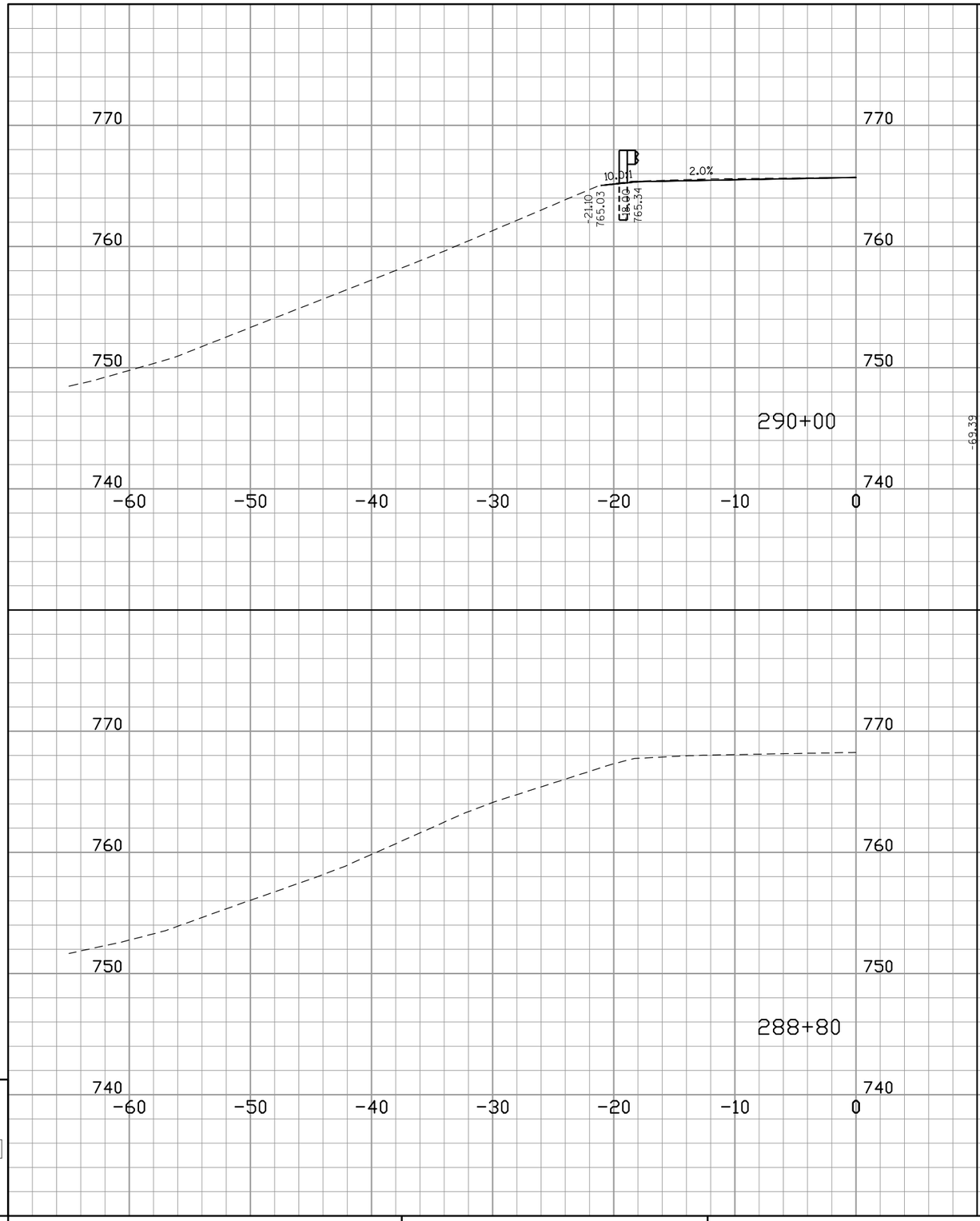
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

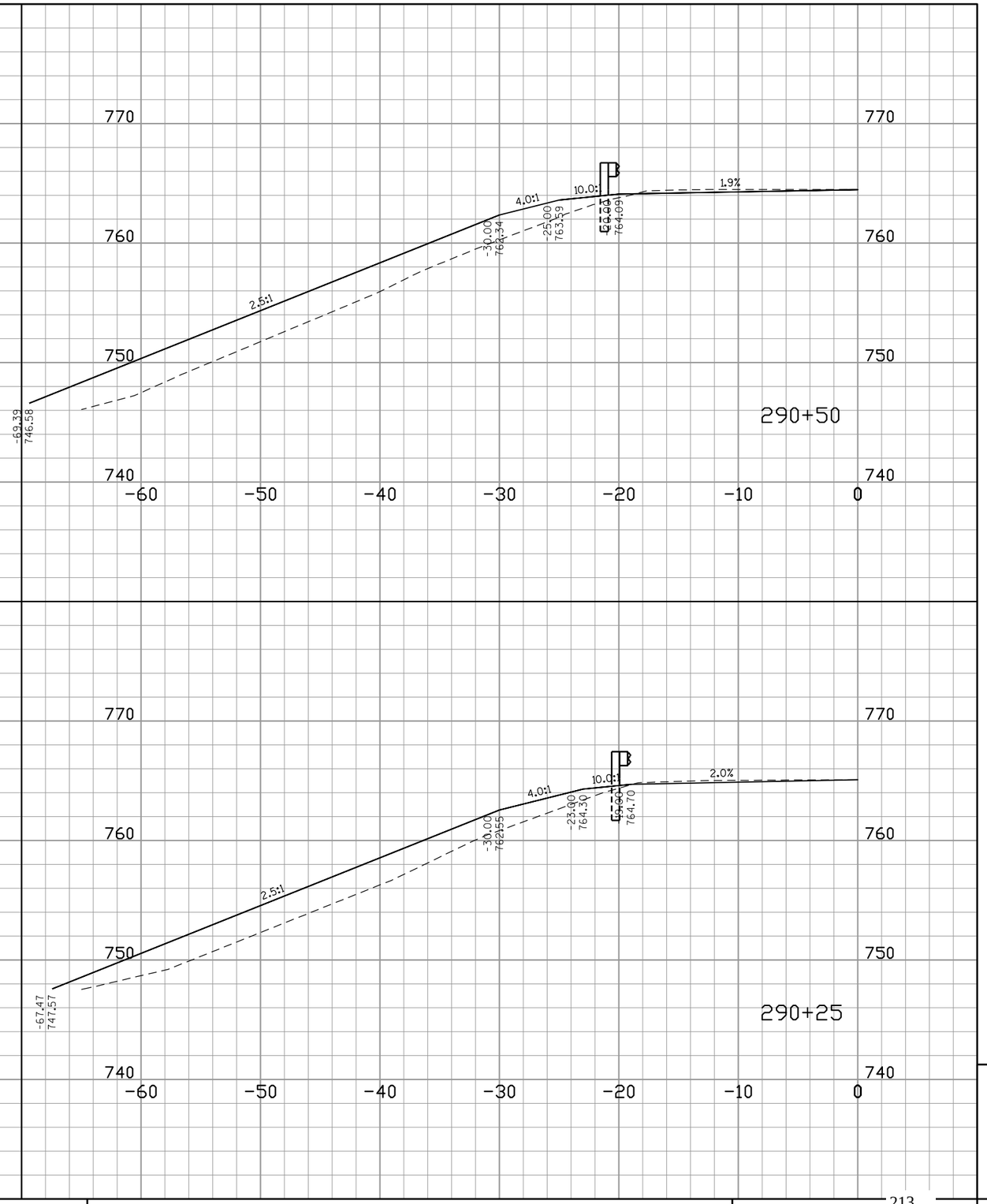
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 281+80 LT

PLOT DATE : 7/31/2014
PLOT TIME : 6:04:51 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'





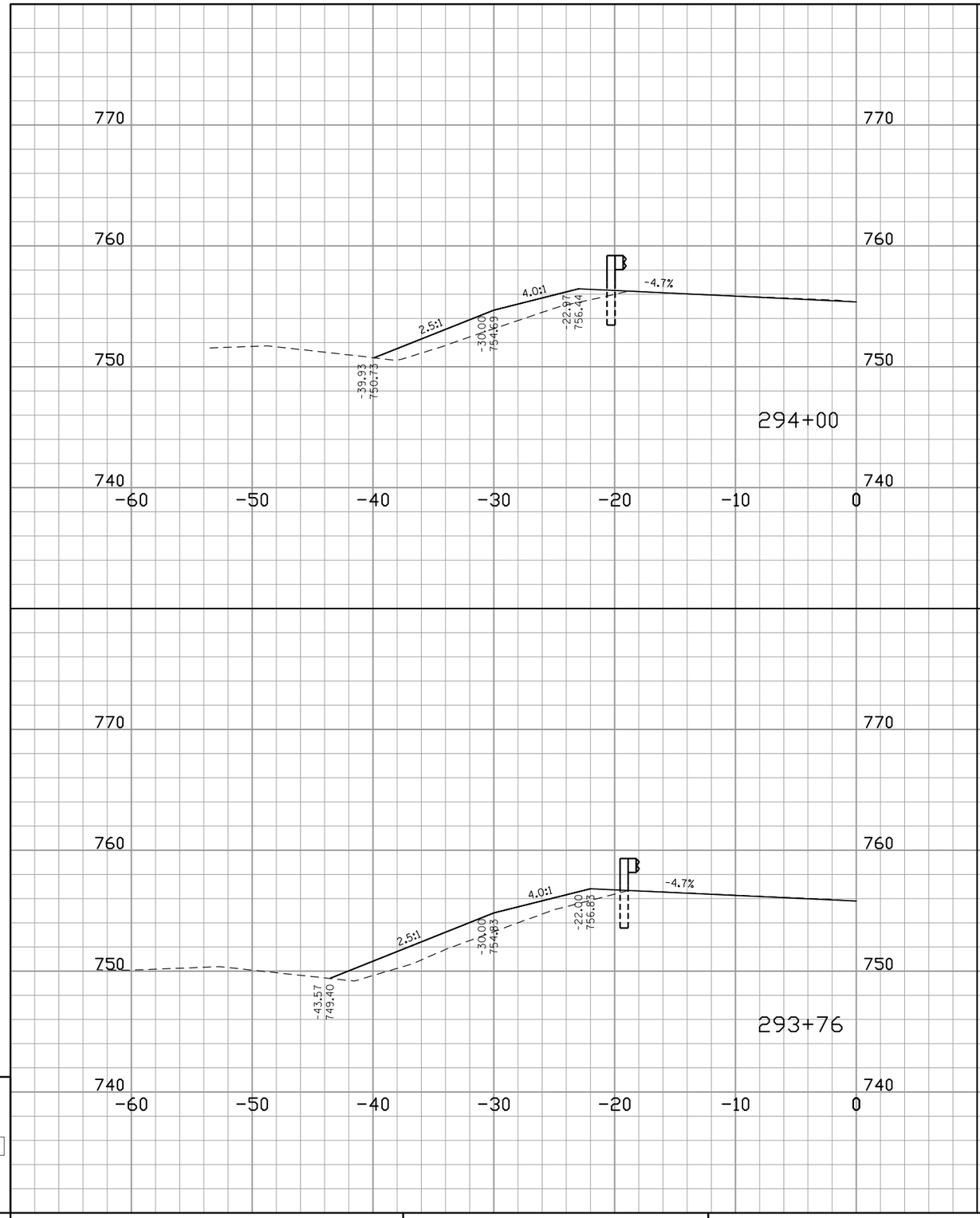
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

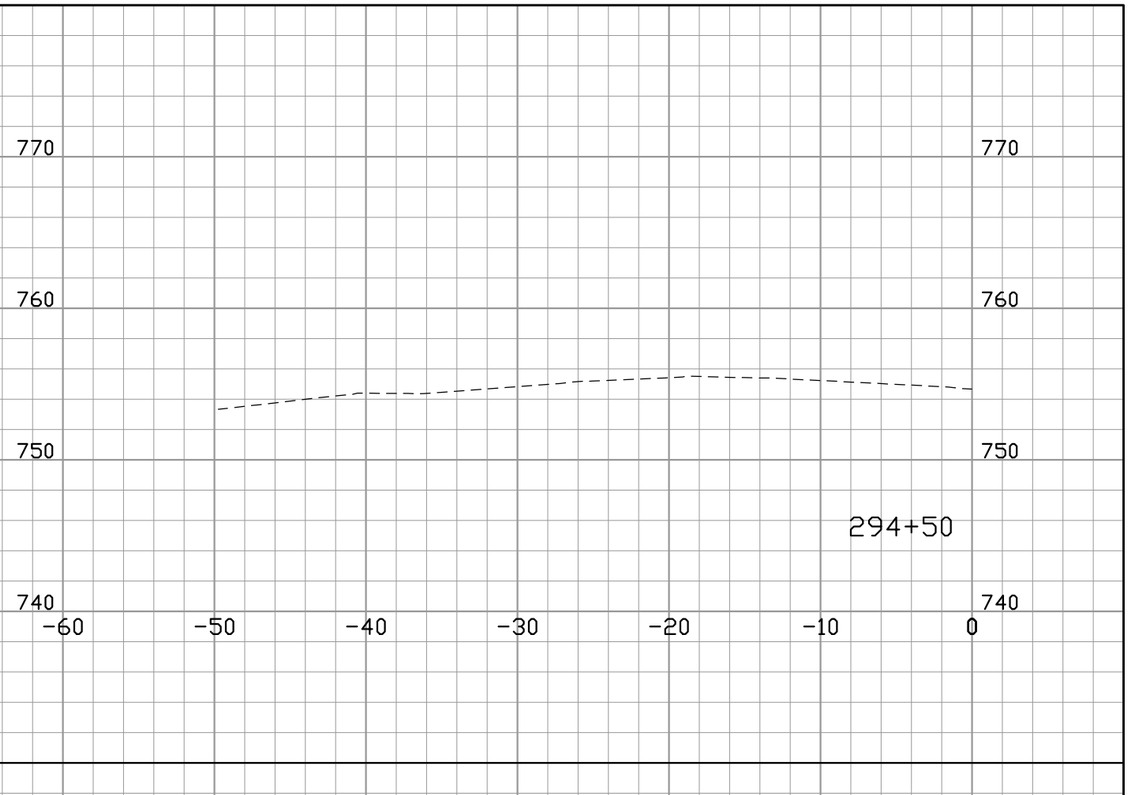
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 290+00 LT

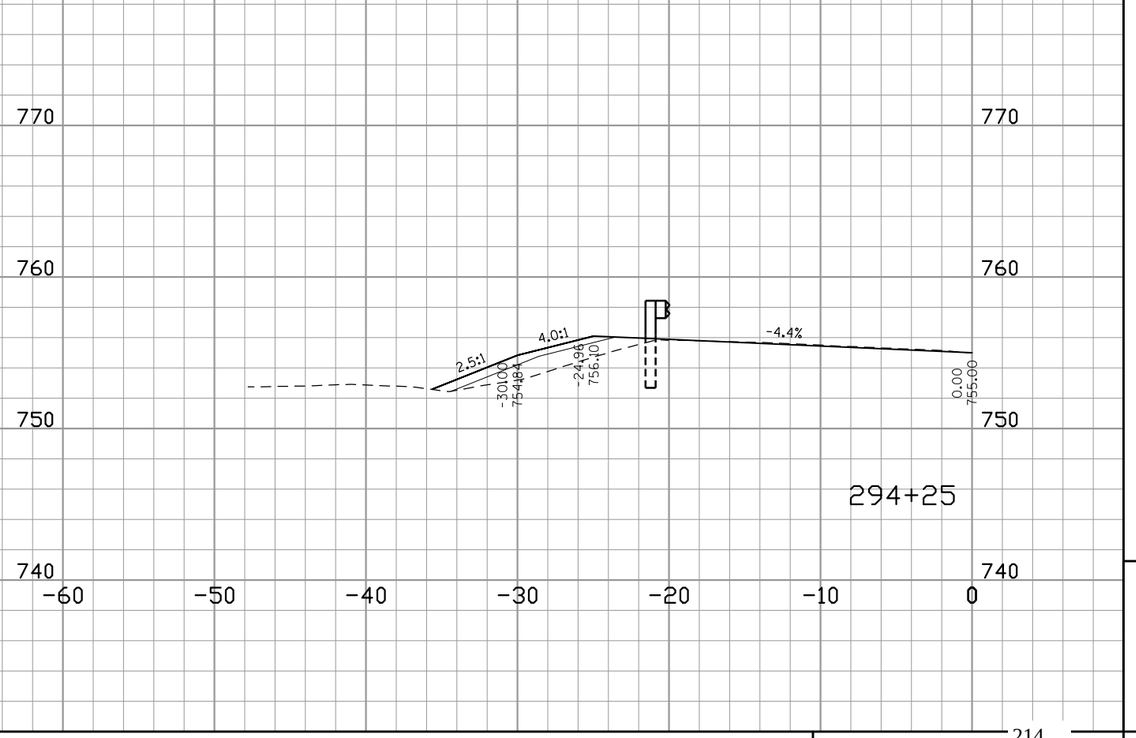
PLOT DATE : 7/31/2014
PLOT TIME : 6:05:16 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







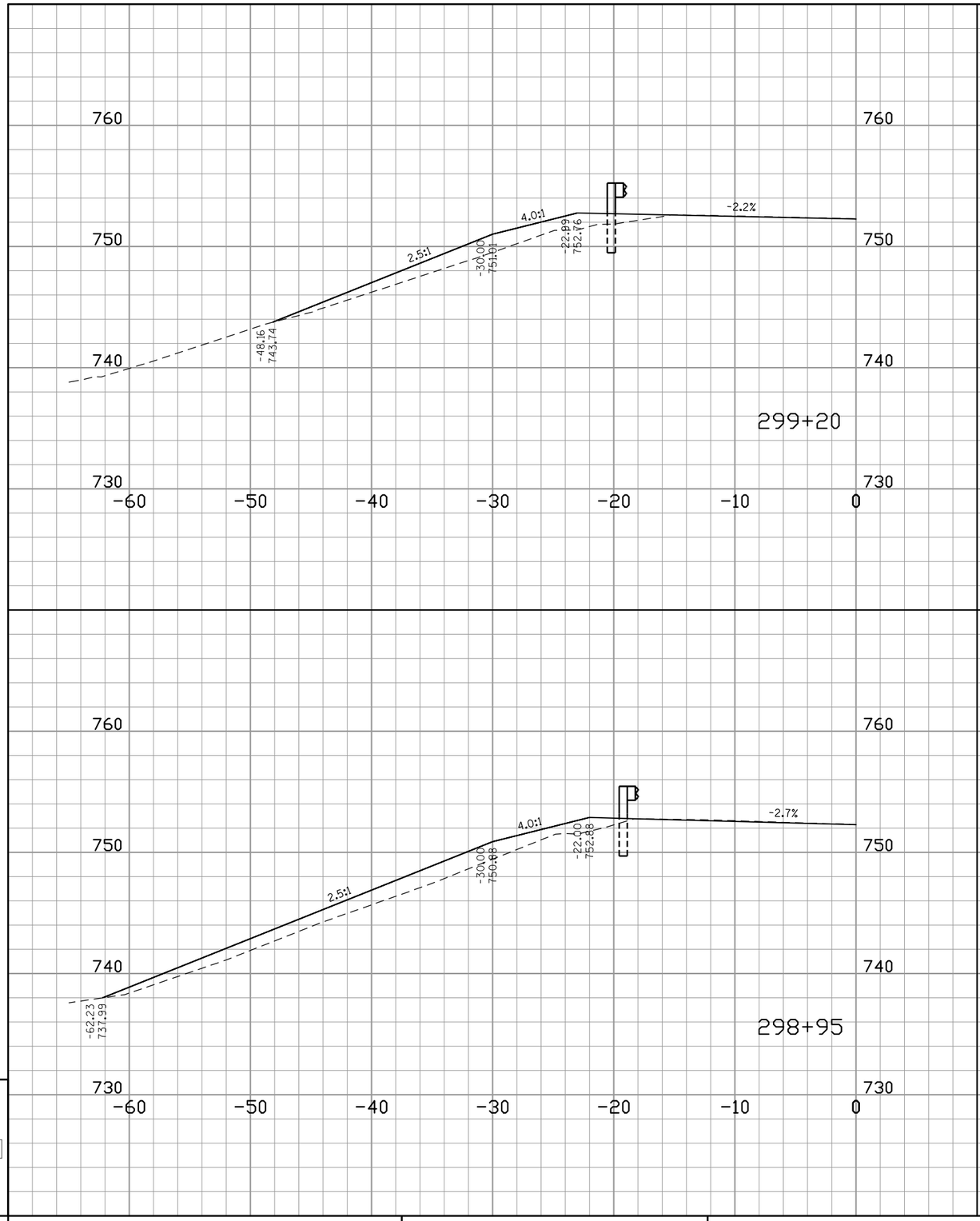
PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET 214

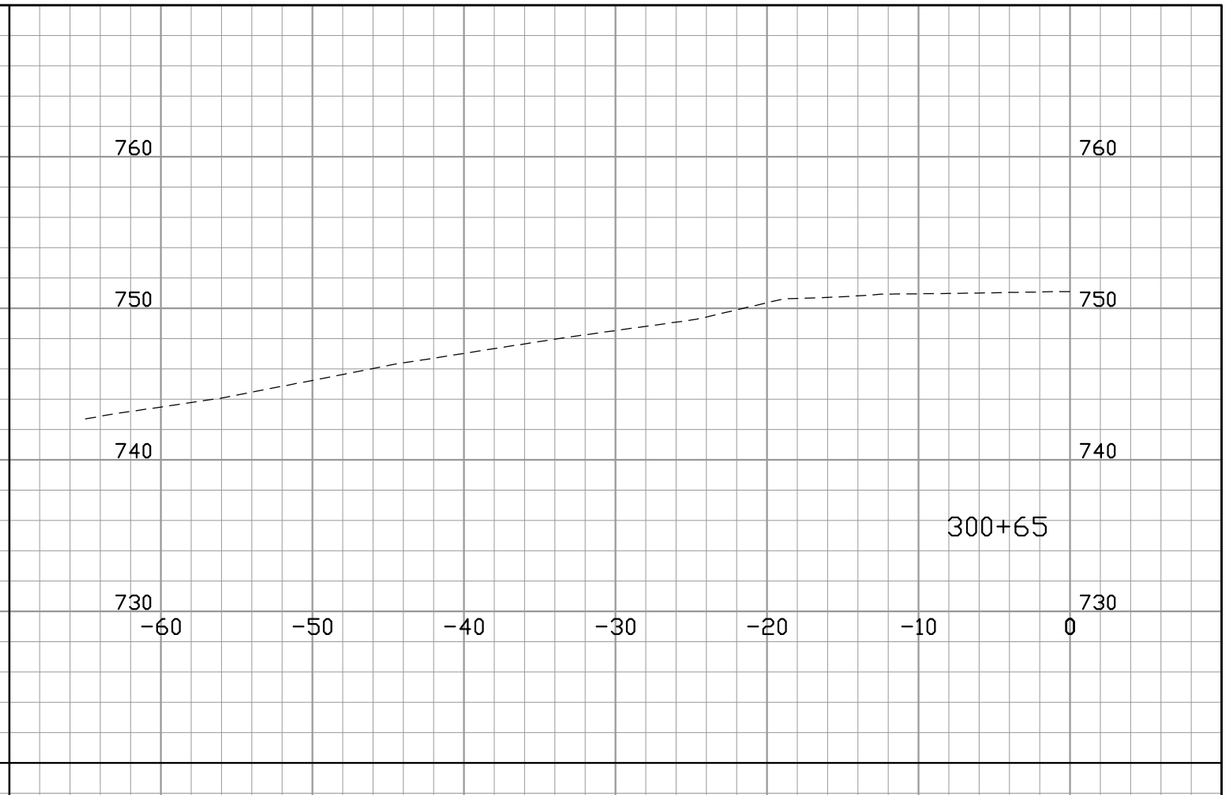
FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 294+20 LT

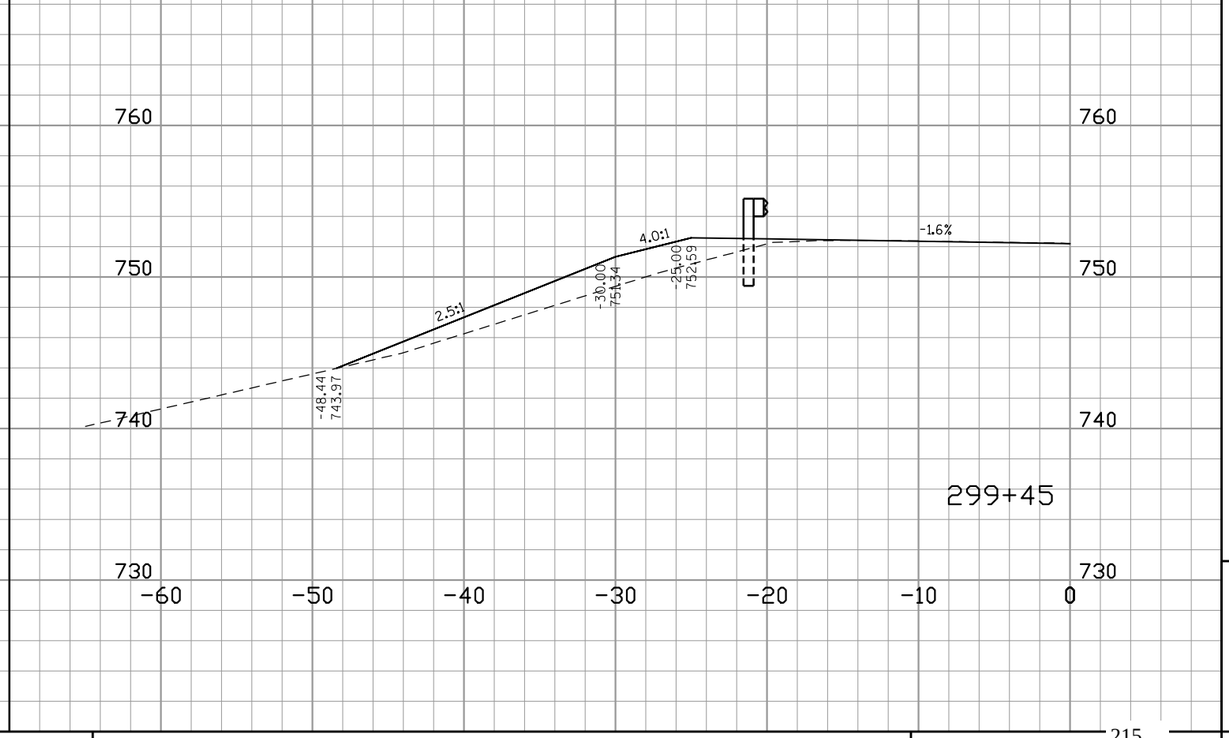
PLOT DATE : 7/31/2014
PLOT TIME : 6:05:41 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'







PROJECT NO: 7180-01-75	HWY: STH 35	COUNTY: Buffalo	Cross Sections	SHEET

FILE NAME : R:\PROJECTS\W11512 HWY 25 & 35 BUFFALO CO\DESIGN FILES\W11512_DESIGN.DWG
LAYOUT : 299+45 LT

PLOT DATE : 7/31/2014
PLOT TIME : 6:06:06 PM

PLOT BY : ECKELBERG, PATRICK

PLOT SCALE : 1" = 1'

Wisconsin Department of Transportation

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through innovation and exceptional service.

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