

RHI
WITH:
PROJECT ID: 9155-05-70
COUNTY: LANGLEADE

MAY 2016

ORDER OF SHEETS

Section No. 1

Title

Section No. 2

Typical Sections and Details

Section No. 3

Estimate of Quantities

Section No. 3

Miscellaneous Quantities

Section No. 4

Right of Way Plat

Section No. 5

Plan and Profile

Section No. 6

Standard Detail Drawings

Section No. 7

Sign Plates

Section No. 8

Structure Plans

Section No. 9

Computer Earthwork Data

Section No. 9

Cross Sections

TOTAL SHEETS = 194

38

3

WISCONSIN

LANGLADE COUNTY

38

3

DESIGN DESIGNATION

A.A.D.T. 2018 = 1400

A.A.D.T. 2038 = 1700

D.H.V. = 250

D.D. = 60-40

T. = 13%

DESIGN SPEED = 55 MPH

ESALS = 284,700

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT (Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LANGLADE - PICKEREL

SCHOOL ROAD TO CTH T

STH 55

LANGLADE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9155-05-70		

STATE PROJECT NUMBER
9155-05-70

BEGIN PROJECT
STA. 2+70

END PROJECT
STA. 1082+50

NET EXCEPTION TO C LENGTH
STA 738+04 TO STA 828+00

EQU. 148+50 BK.=
738+04 AHD.

LANGLADE - PICKEREL

LANGLADE COUNTY

LANGLADE COUNTY COORDINATES SYSTEM (WCCS), LANGLEDE COUNTY, NAD83, IN U.S. SURVEY FEET.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NAVD88

LANGLADE - PICKEREL

LANGLADE COUNTY

LANGLADE COUNTY COORDINATES SYSTEM (WCCS), LANGLEDE COUNTY, NAD83, IN U.S. SURVEY FEET.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NAVD88

ORIGINAL PLANS PREPARED BY

PATRICK

ENGINEERING

ROWLAND P. ZINGLER-HOSLET

E-30521

GREEN BAY WIS.

1-26-16

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor

Designer

Project Manager

Regional Examiner

Regional Supervisor

PATRICK ENGINEERING INC.

PATRICK ENGINEERING INC.

DANIEL R. ERVA

CHERYL L. SIMON

ANNA M. WISNER

APPROVED FOR THE DEPARTMENT

DATE: 1/26/16

(Signature)

E

FILE NAME : P:\GREEN BAY\PROJECTS\21352.018 STH 55\91550570\SHEETS\PLAN\010101-TI.DWG

PLOT DATE : 1/26/2016 3:09 PM

PLOT BY : FEUERSTEIN, KURT

PLOT NAME :

WISDOT/CADDs SHEET 10

GENERAL NOTES

- 1. CURVE DATA SHOWN ON THE PLAN IS "ARC DEFINITION".
- 2. RADIUS DIMENSIONS SHOWN ON THE PLAN ARE TO THE FLANGE LINE.
- 3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR MAKING DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES NECESSARY TO AVOID DAMAGE.
- 4. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
- 5. ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY THAT ARE NOT A RESULT OF CONTRACT WORK ITEMS SHALL BE FERTILIZED, SEEDED, AND MULCHED AT THE CONTRACTOR'S EXPENSE.
- 6. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPALITY OR PUBLIC AGENCY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.
- 7. WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE AND HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OF THICKNESS OF THE COURSES SHOWN ON THE PLAN IS APPROXIMATE AND ITS ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIALS AS DIRECTED BY THE ENGINEER.
- 8. LAYER THICKNESS FOR HMA PAVEMENT SHALL BE AS FOLLOWS:
 - 4" HMA PAVEMENT
 - LOWER LAYER - 2 1/4" 3 LT 58-28 S
 - UPPER LAYER - 1 3/4" 4 LT 58-28 S
- 9. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DEEMS THE MEASURE NO LONGER NECESSARY.

UTILITIES

CALVIN KLADE FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE 1851 N 14TH AVE WAUSAU, WI 54401 (715) 847-1525 CALVIN.KLADE@FTR.COM	MICHAEL KUCZMARSKI WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY 1505 STATE RD 32 WABENO, WI 54566 (715) 473-7804 MJKUCZMARSKI@WISCONSINPUBLICSERVICE.COM
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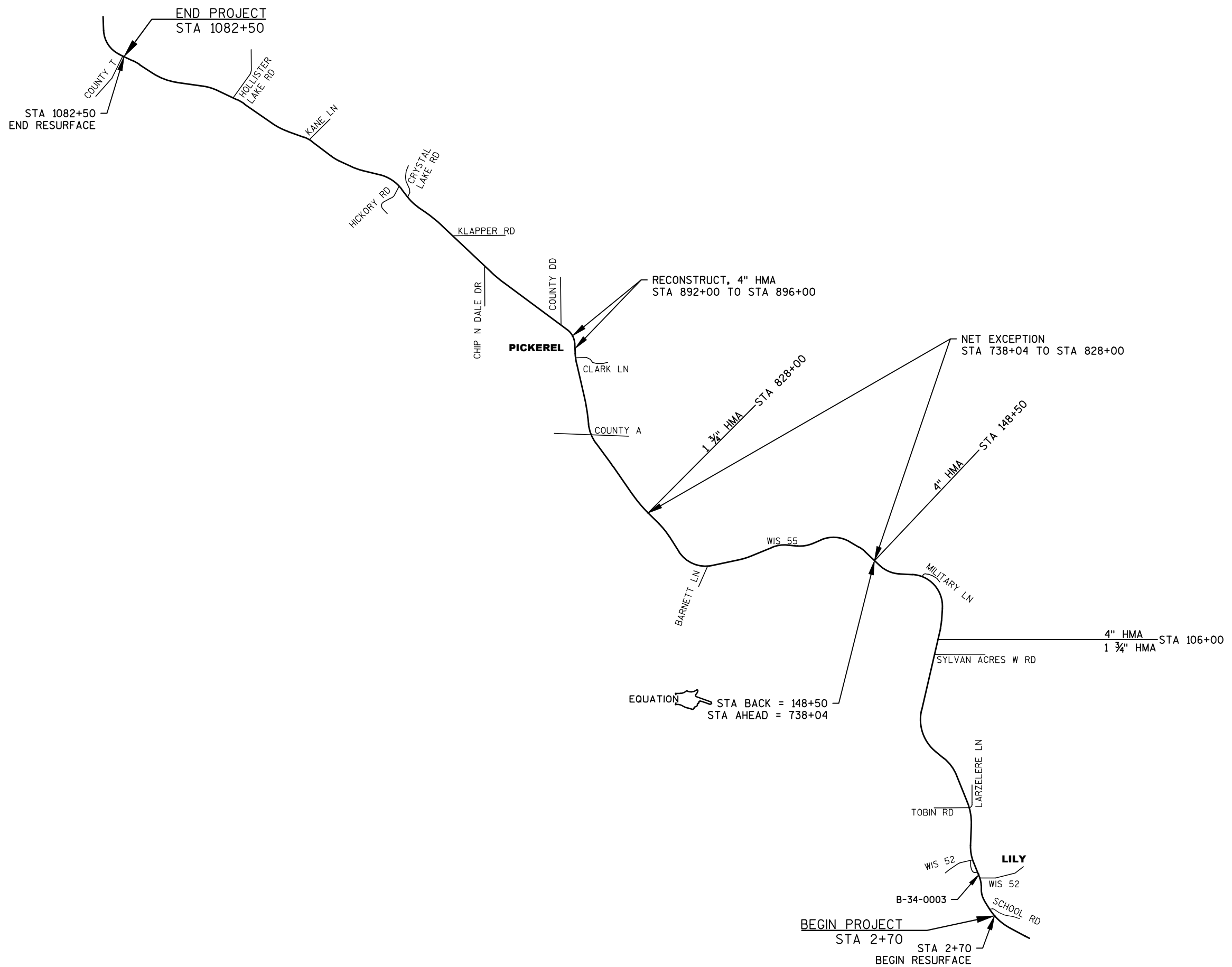
OTHER CONTACTS

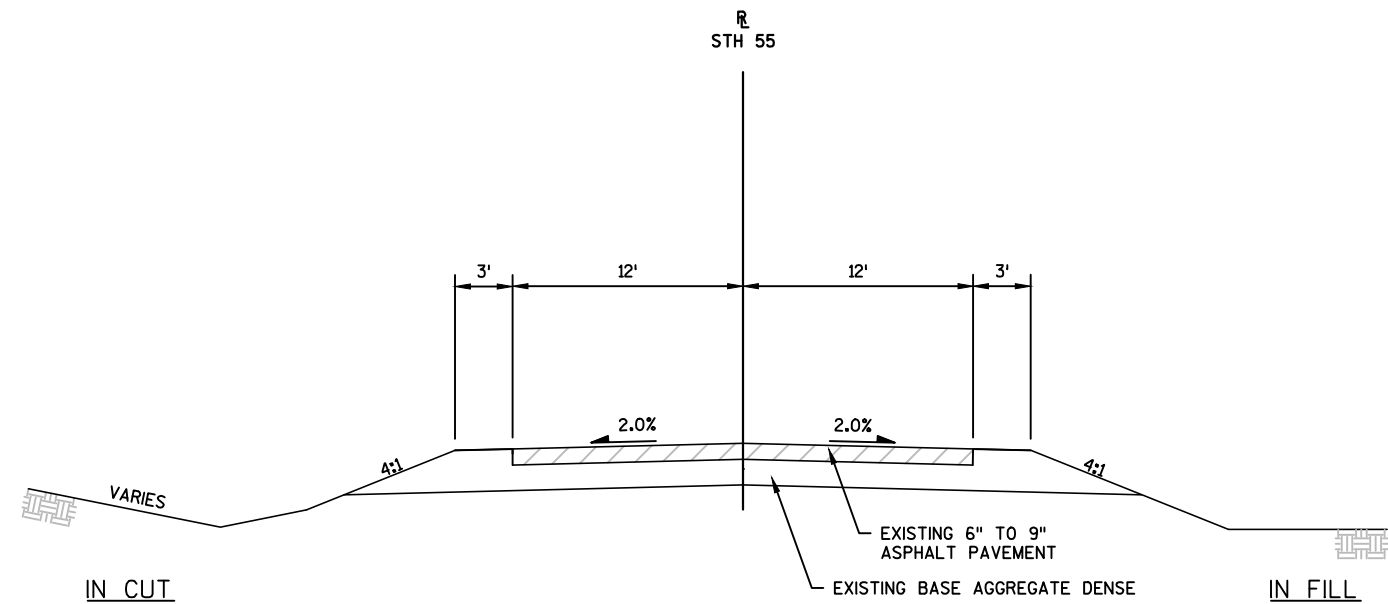
JON SIMONSEN
NORTHERN REGION HQ
WISCONSIN DEPT. OF NATURAL RESOURCES
107 SUTLIFF
RHINELANDER, WI 54501
(715) 365-8916
JONATHAN.SIMONSEN@WISCONSIN.GOV

DIGGERSHOTLINE

Dial 811 or (800)242-8511

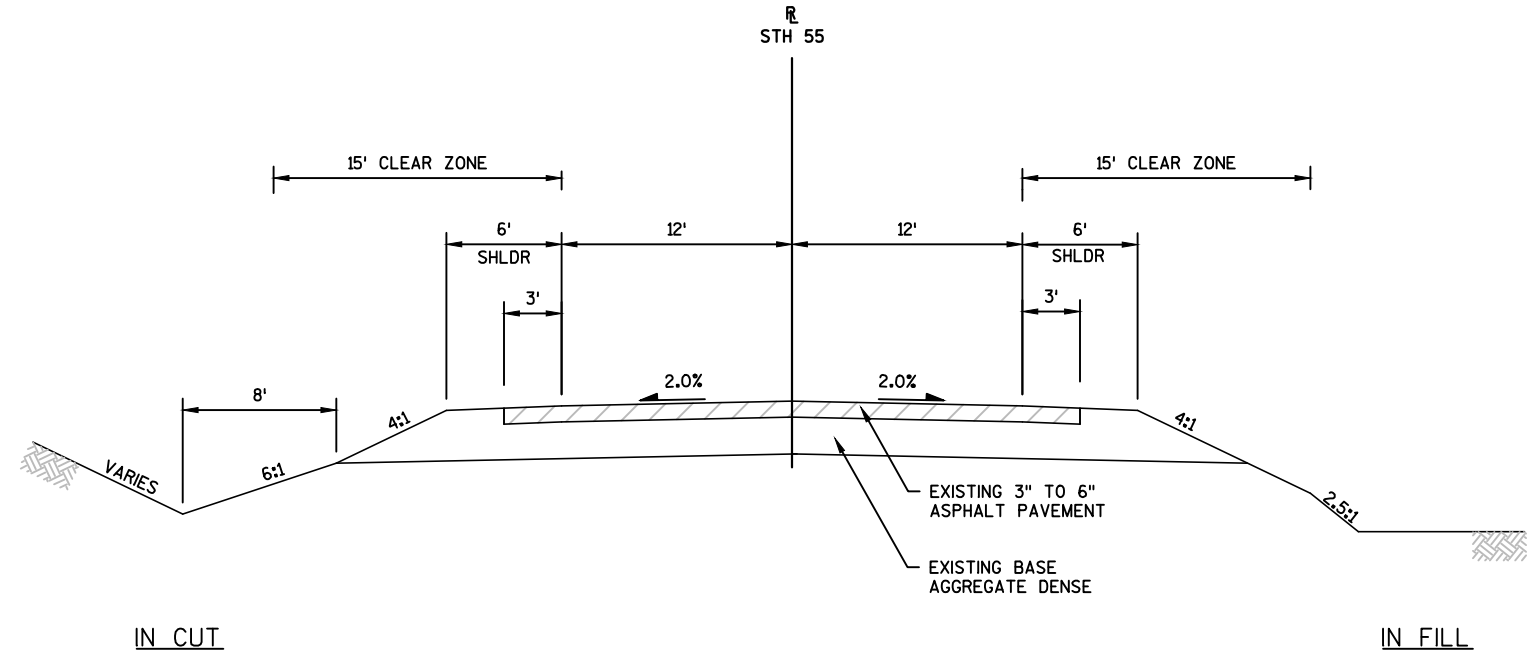
www.DiggersHotline.com





EXISTING TYPICAL SECTION

STH 55
STA 2+70 TO STA 106+00

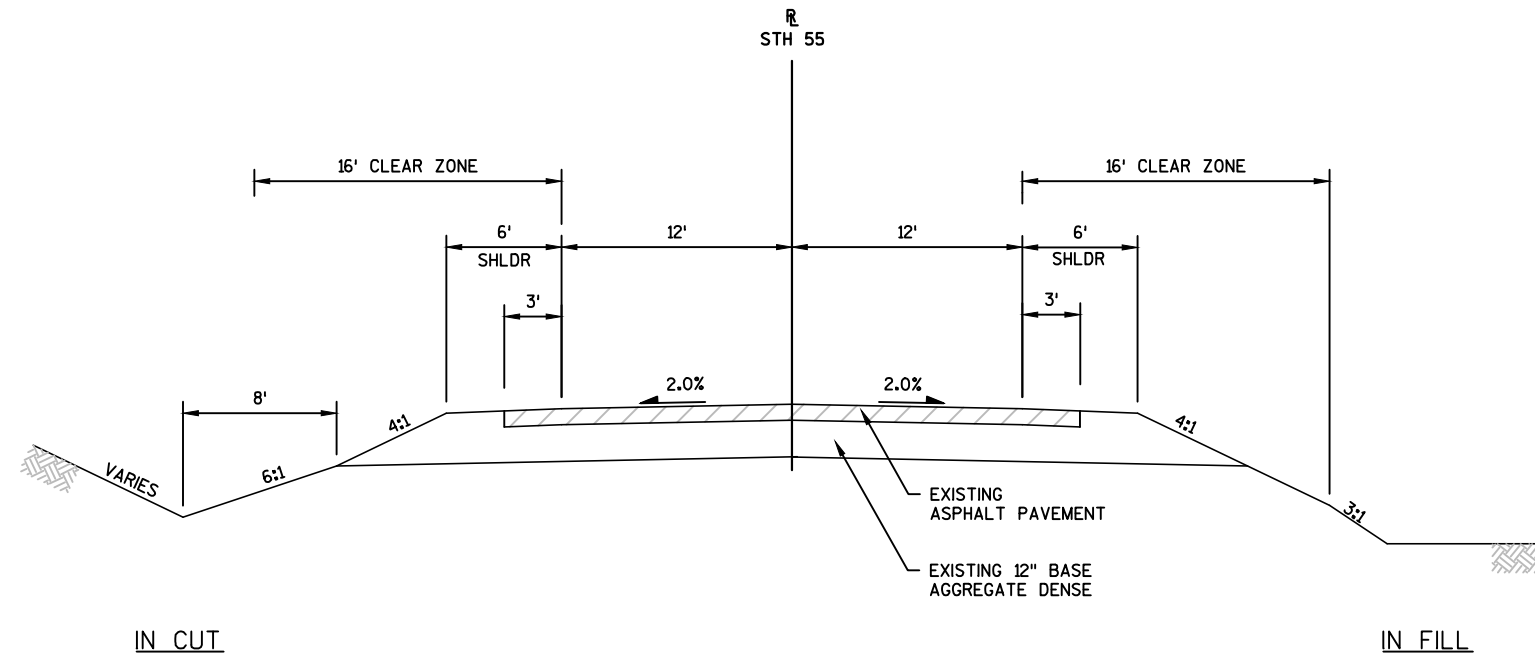


EXISTING TYPICAL SECTION

STH 55
STA 106+00 TO STA 148+50

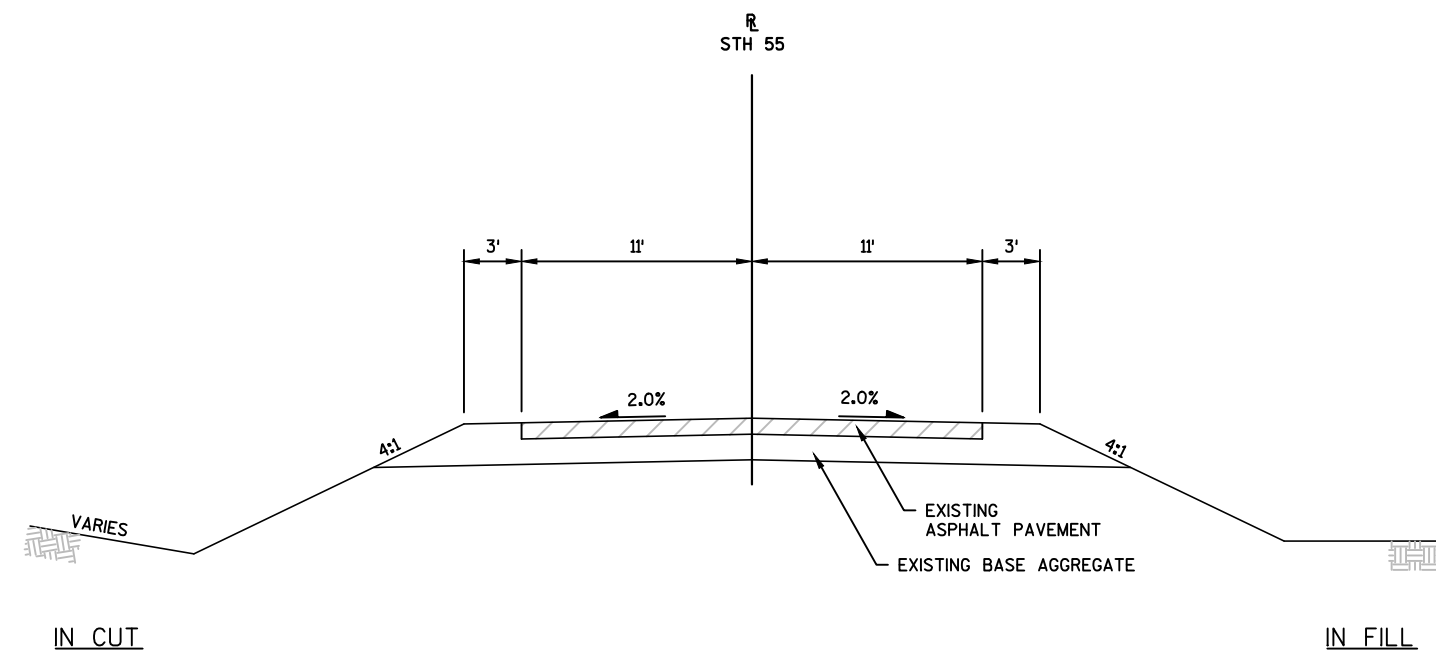
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2 |



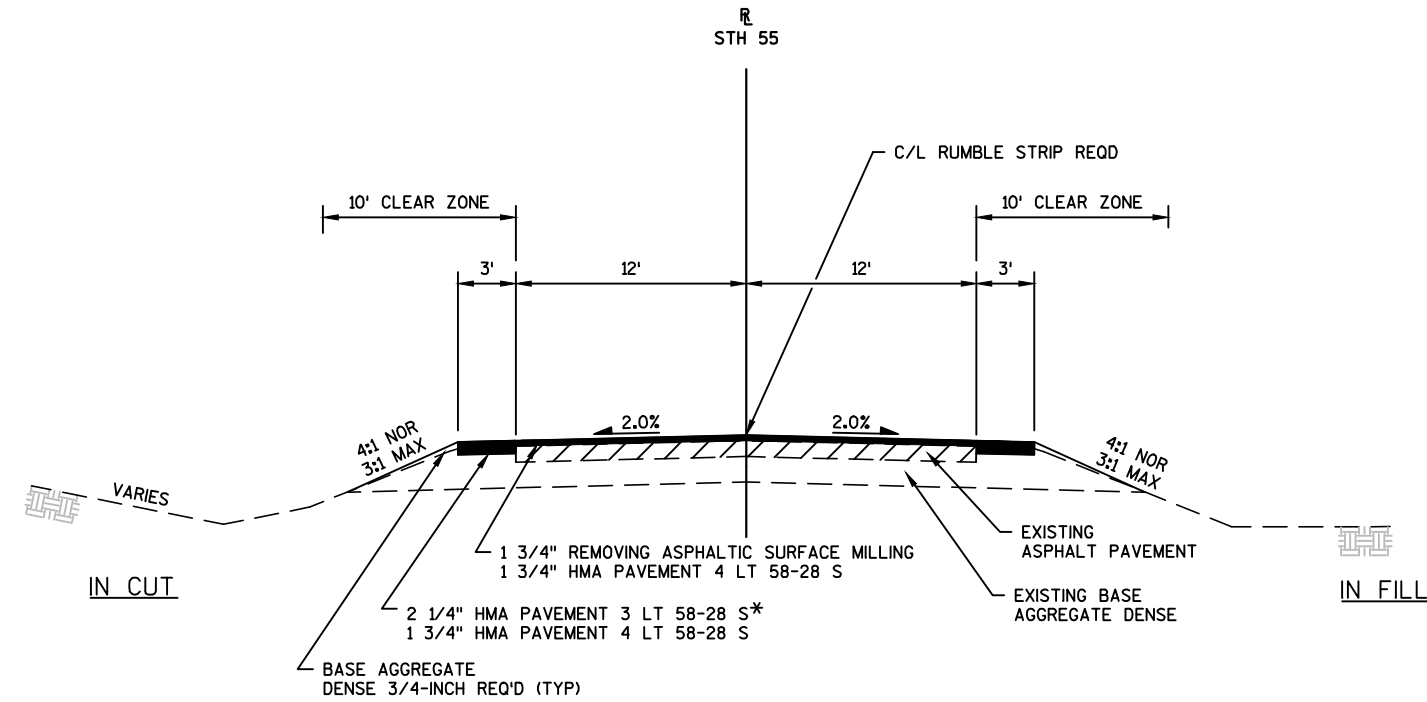
EXISTING TYPICAL SECTION

STH 55
STA 738+04 TO STA 828+00
NET EXCEPTION (GAP)



EXISTING TYPICAL SECTION

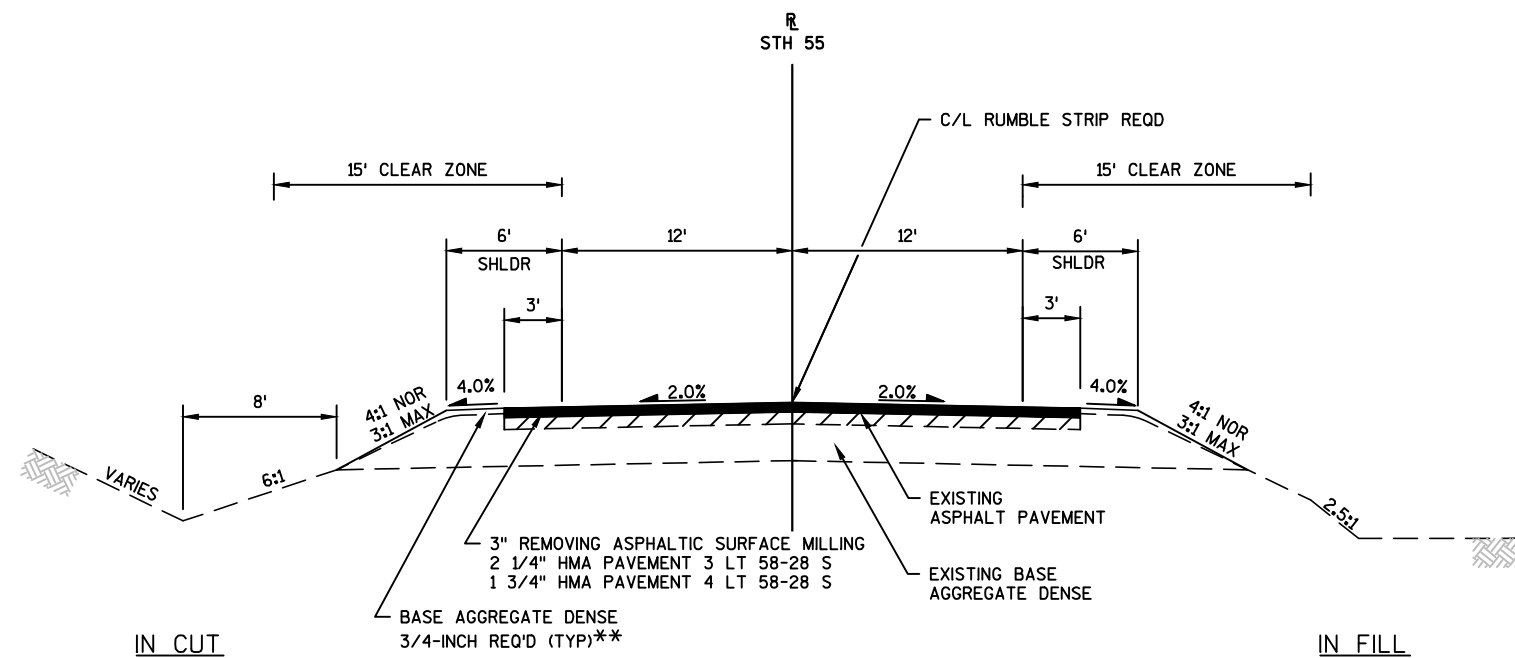
STH 55
STA 828+00 TO STA 1082+50



PROPOSED TYPICAL SECTION

STH 55
STA 2+70 TO STA 106+00

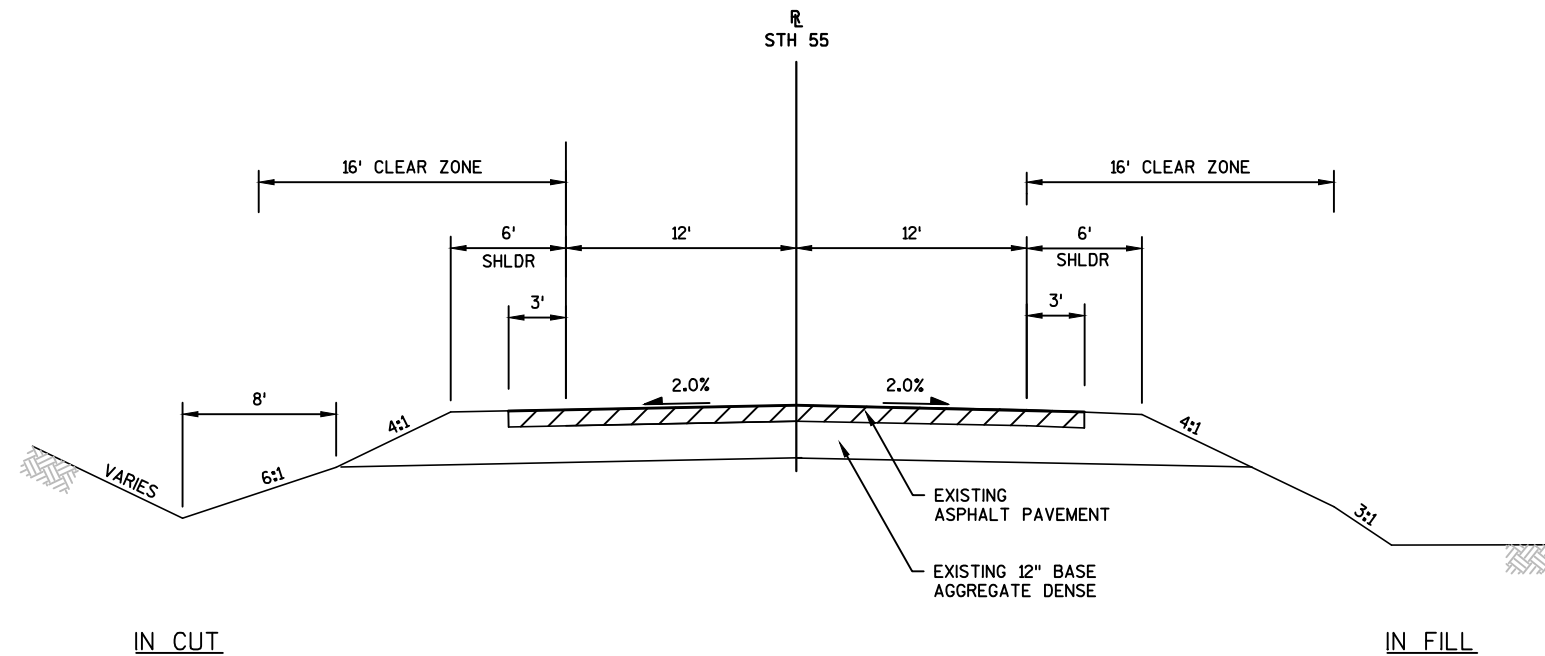
* PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS



PROPOSED TYPICAL SECTION

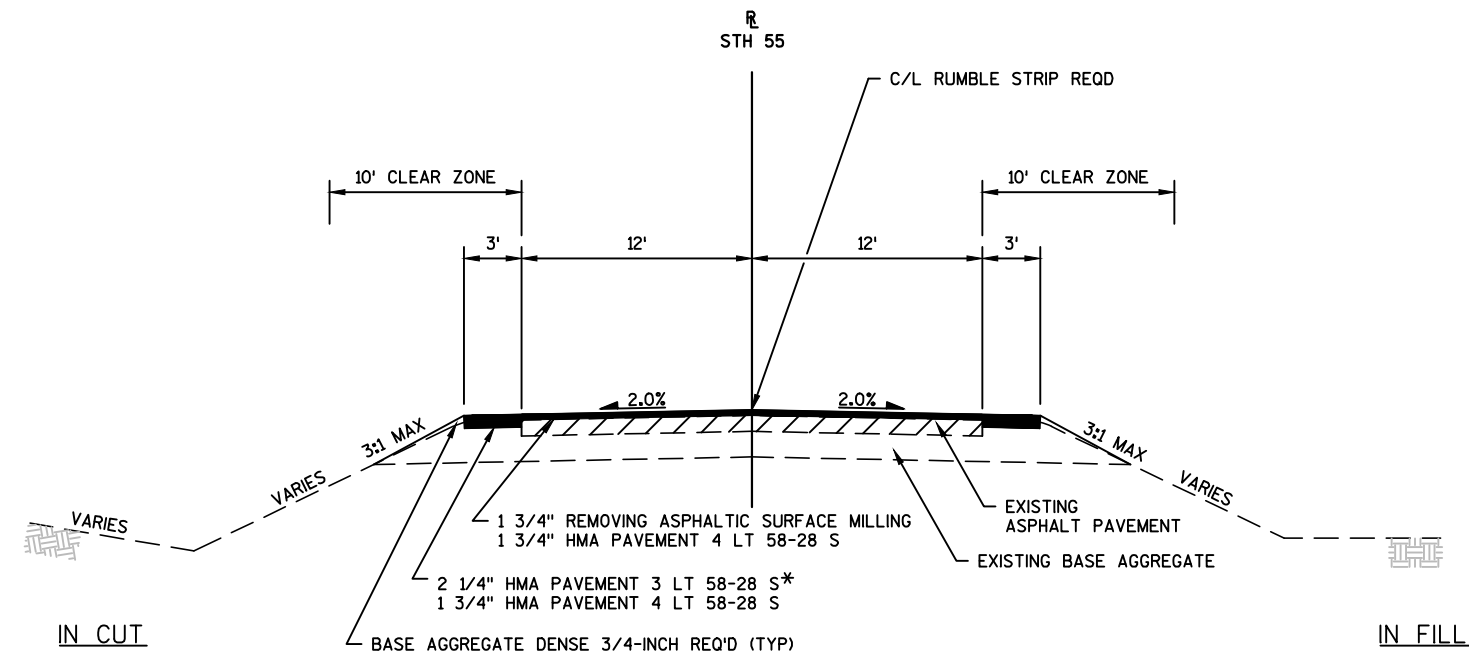
STH 55
STA 106+00 TO STA 148+50

**SHAPING SHOULDERS



PROPOSED TYPICAL SECTION

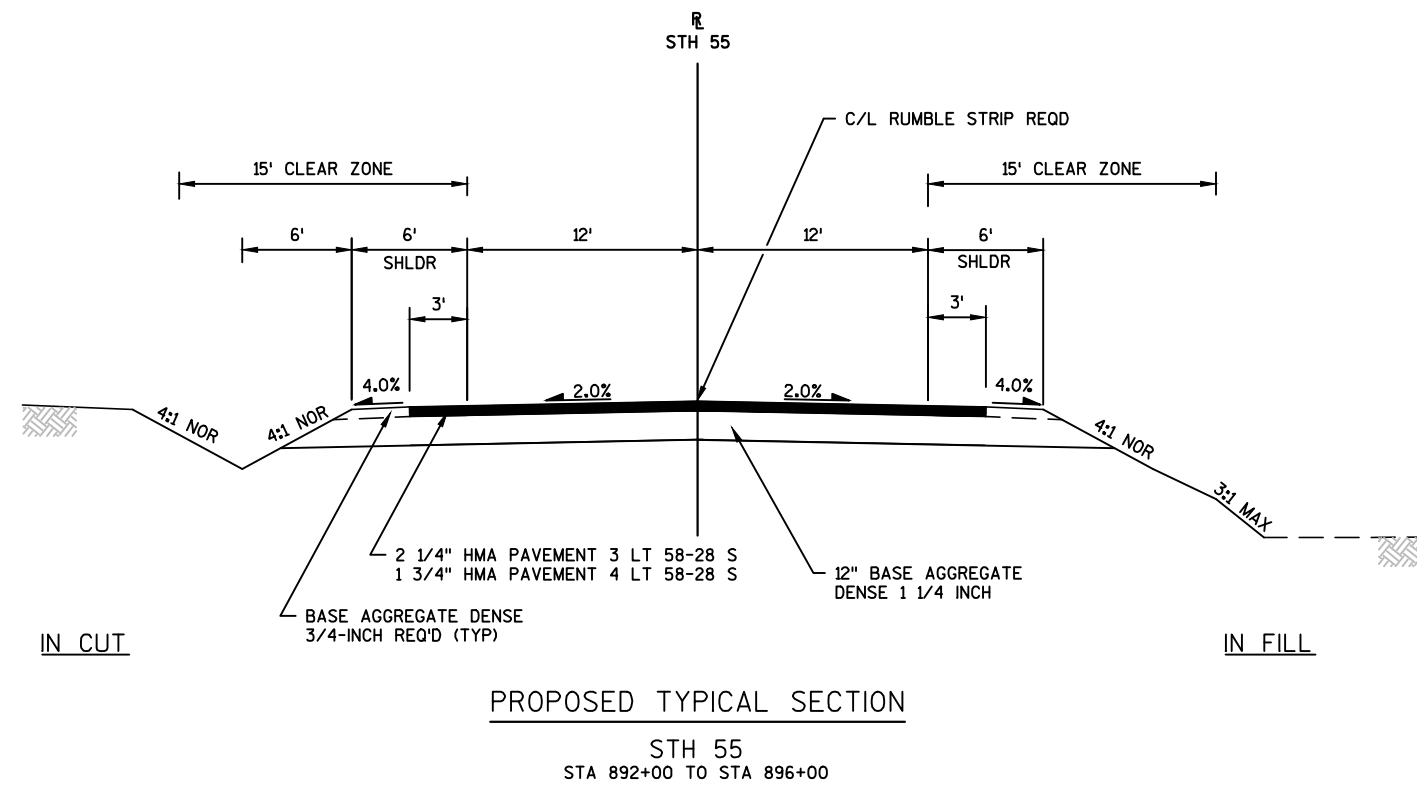
STH 55
STA 738+04 TO STA 828+00
NET EXCEPTION (GAP)

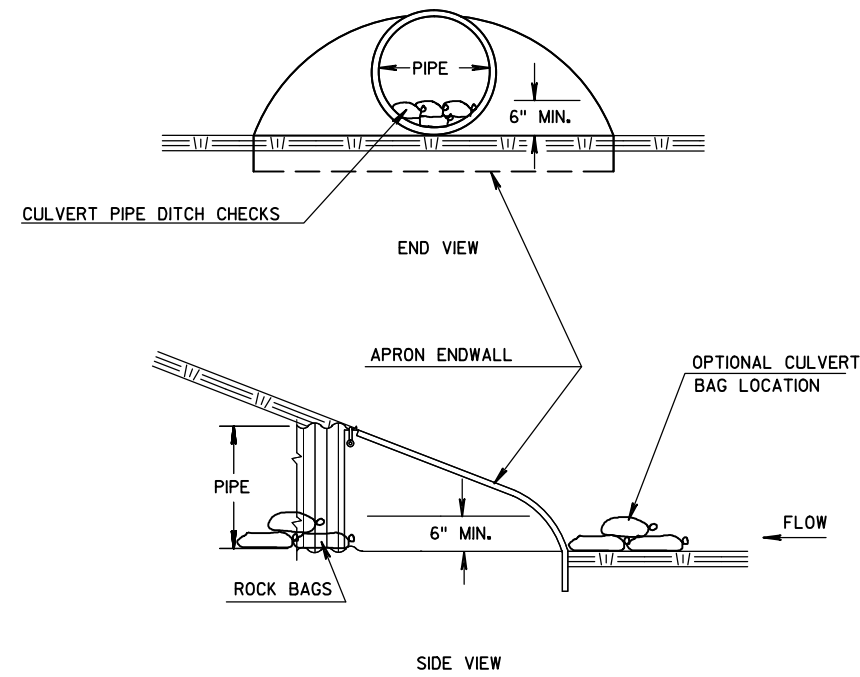


PROPOSED TYPICAL SECTION

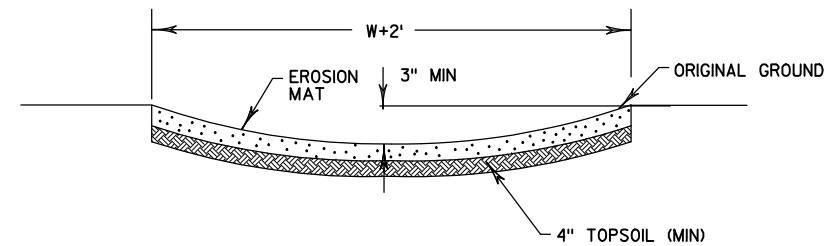
STH 55
STA 828+00 TO STA 892+00
STA 896+00 TO STA 1082+50

* PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

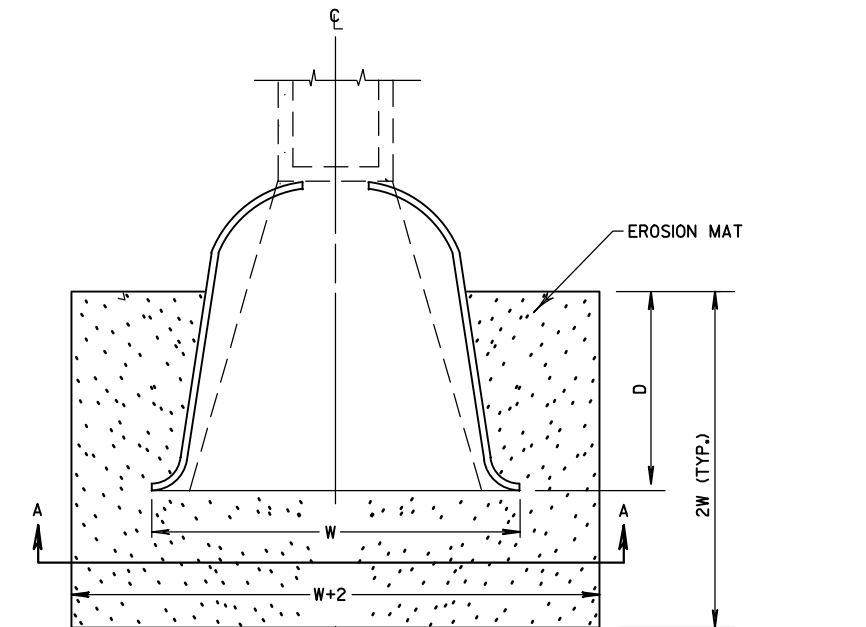




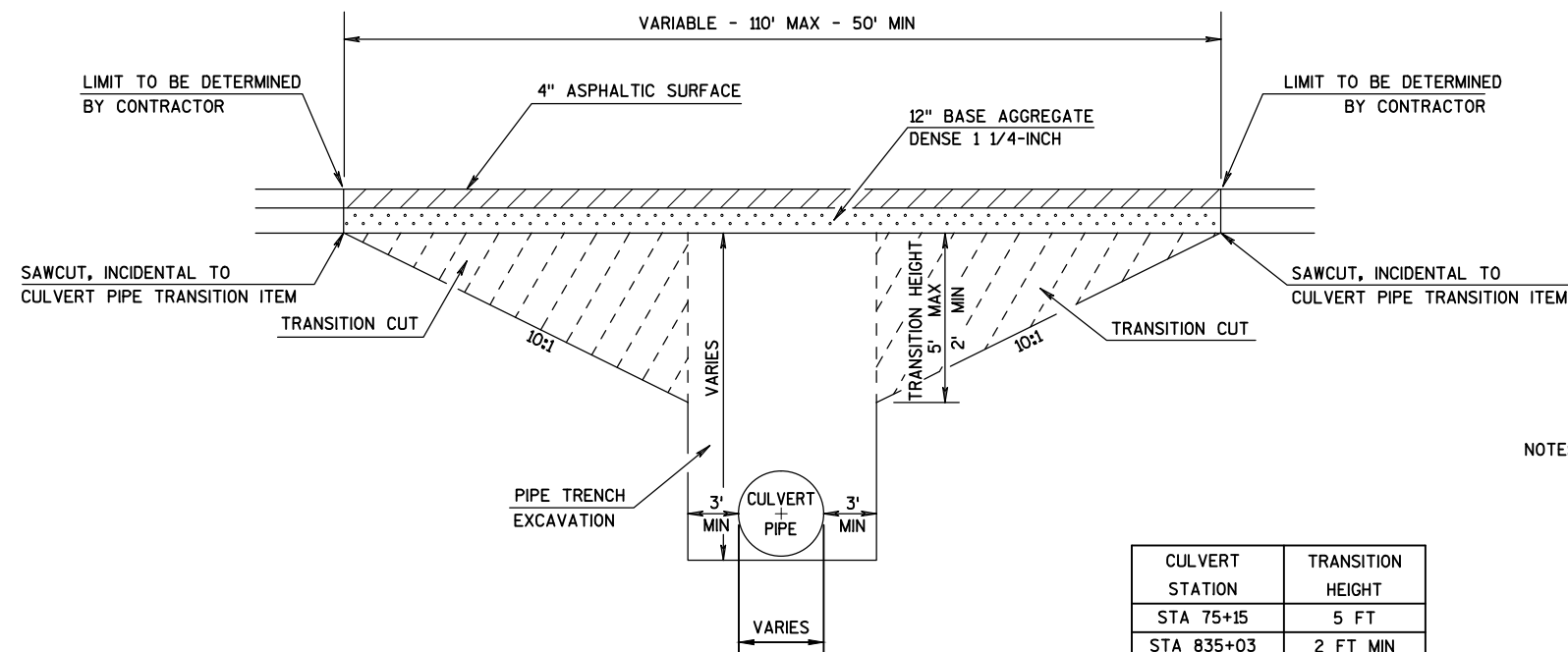
CULVERT PIPE DITCH CHECK



SECTION A-A



EROSION MAT AT CULVERT REPLACEMENT



CULVERT PIPE TRANSITION

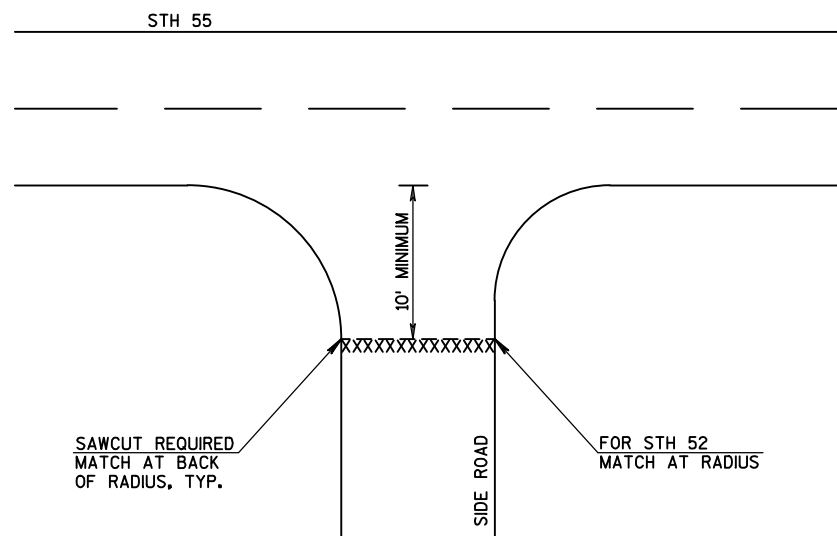
CULVERT STATION	TRANSITION HEIGHT
STA 75+15	5 FT
STA 835+03	2 FT MIN
STA 893+34	5 FT
STA 1036+18	2 FT MIN

NOTE: REUSE MATERIAL REMOVED IN TRANSITION CUT AND PIPE TRENCH EXCAVATIONS AS BACKFILL UNLESS OTHERWISE DIRECTED BY THE ENGINEER TO USE BACKFILL GRANULAR

PIPE TRENCH EXCAVATION, EXCLUDING TRANSITION CUT IS CONSIDERED INCIDENTAL TO PIPE INSTALLATION. TRANSITION CUT WILL BE PAID FOR AS CULVERT PIPE TRANSITION.

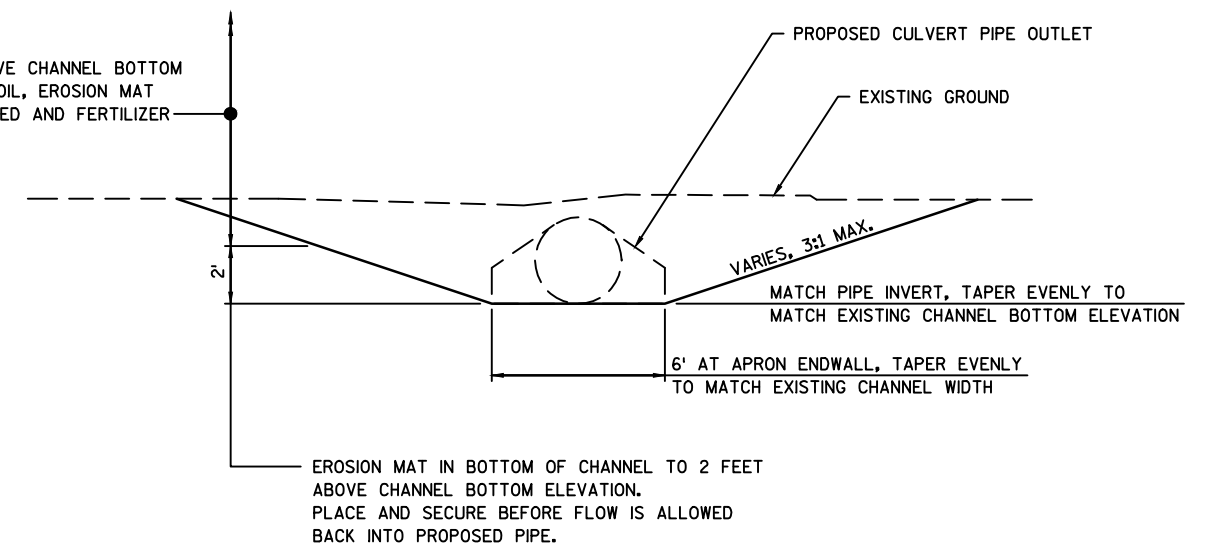
TRANSITION CUT WILL BE SHOULDER POINT TO SHOULDER POINT, HALF OF SHOULDER POINT TO SHOULDER POINT EACH SIDE OF CENTERLINE.

COMPLETE PIPE REPLACEMENT THROUGH ASPHALTIC SURFACE PRIOR TO OVERLAYING EXISTING ASPHALT

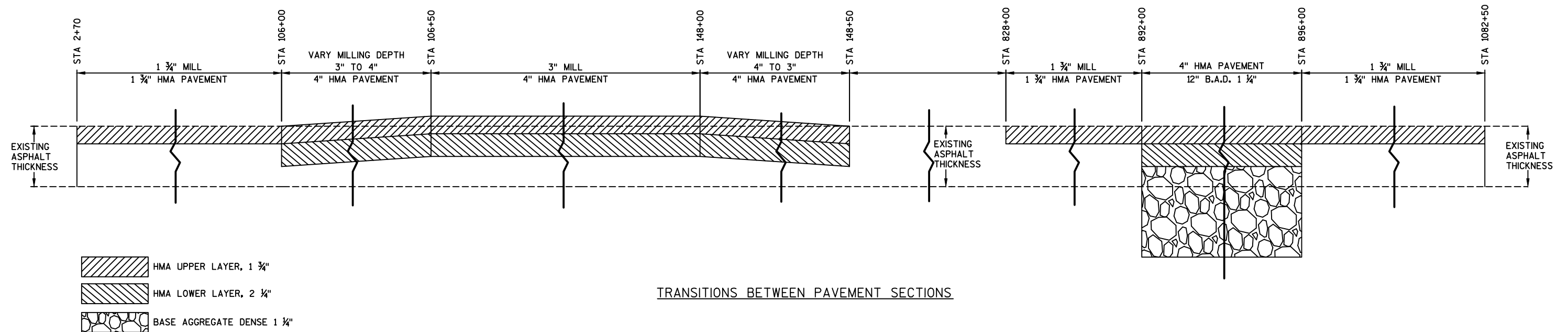


MATCH POINT AT SIDE ROAD, TYP.

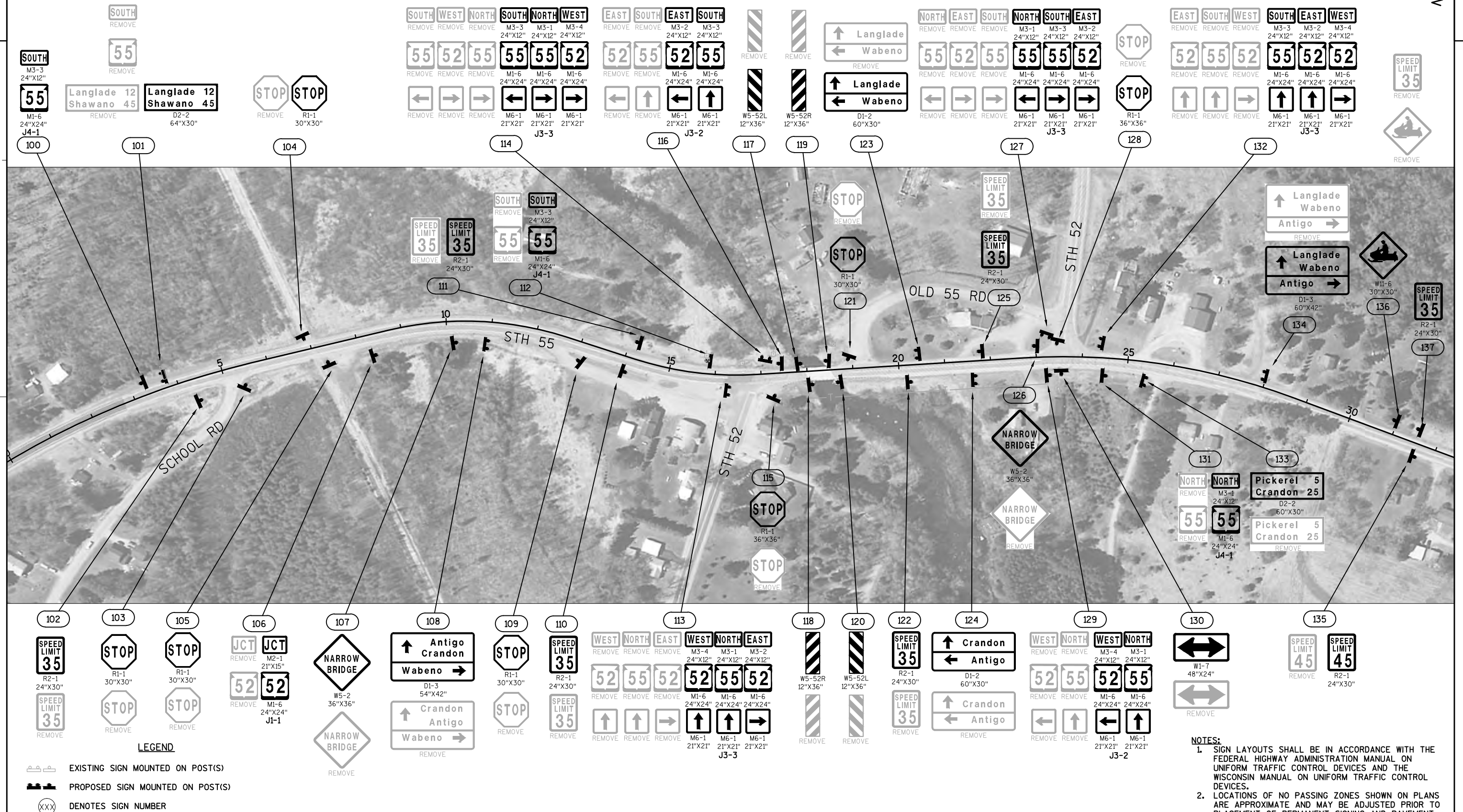
RESTORE FROM 2 FEET ABOVE CHANNEL BOTTOM
TO MATCH POINT WITH TOPSOIL, EROSION MAT
URBAN CLASS I, TYPE A, SEED AND FERTILIZER

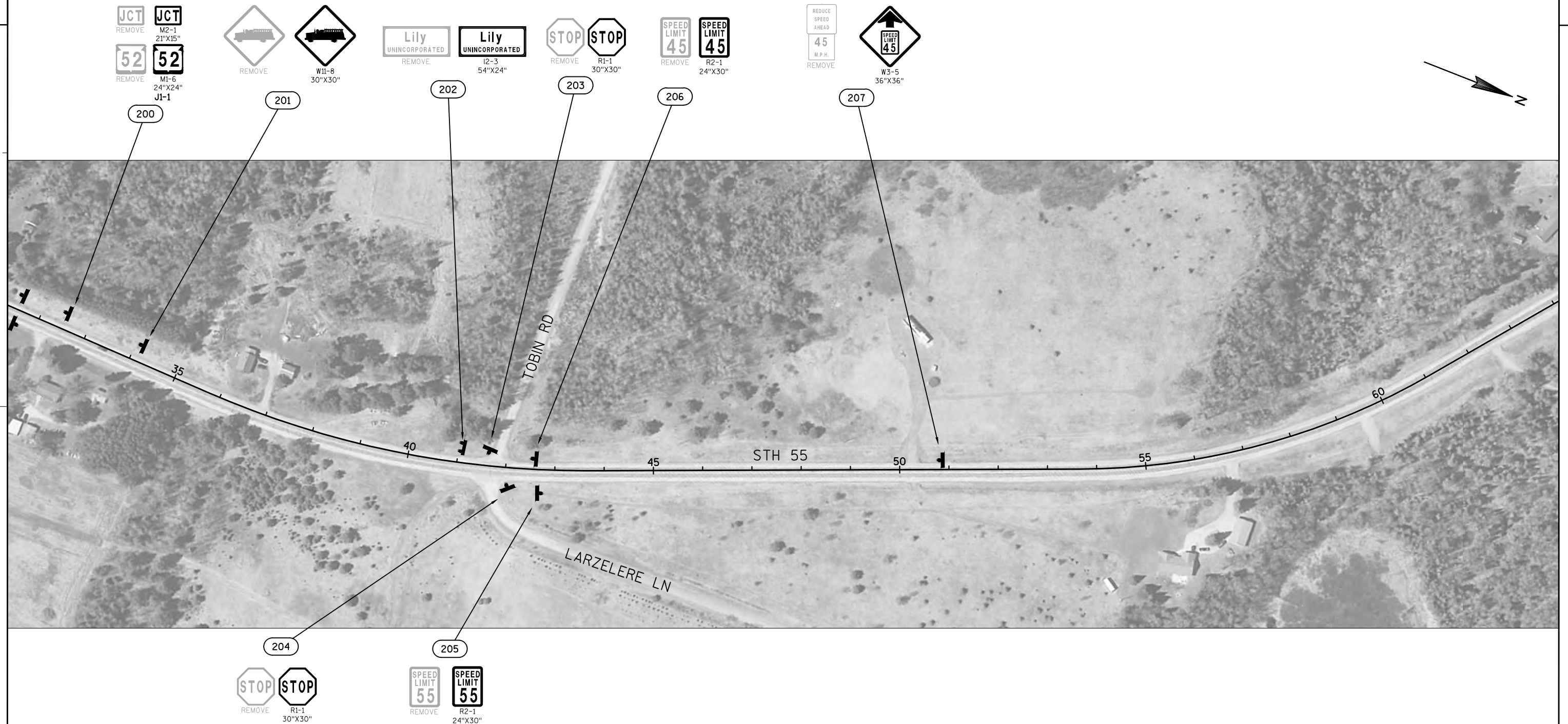


CHANNEL RESTORATION FOR CULVERT AT STA 893+34



TRANSITIONS BETWEEN PAVEMENT SECTIONS



**LEGEND**

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

NOTES:

1. SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. LOCATIONS OF NO PASSING ZONES SHOWN ON PLANS ARE APPROXIMATE AND MAY BE ADJUSTED PRIOR TO PLACEMENT OF PERMANENT SIGNING AND PAVEMENT MARKING.

PROJECT NO:9155-05-70

HWY:STH 55

COUNTY:LANGLADE

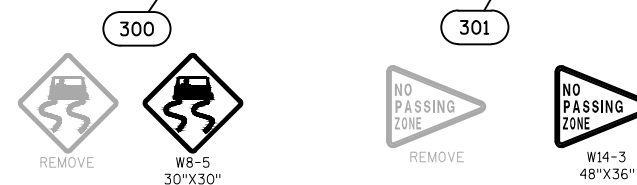
PERMANENT SIGNING

SHEET

E

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 PROPOSED SIGN MOUNTED ON POST(S)
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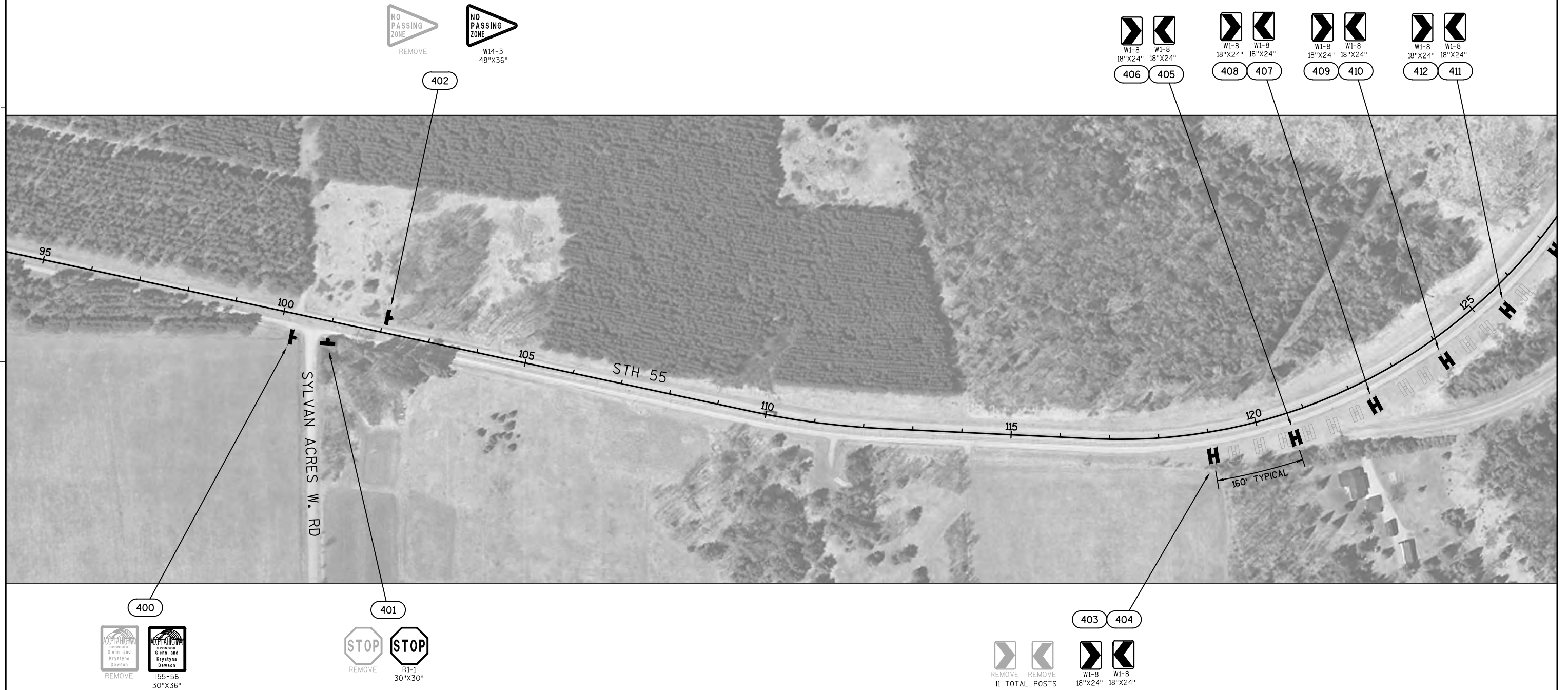
HWY: STH 55

COUNTY: LANGLADE

PERMANENT SIGNING

SHEET

E



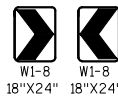
LEGEND

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- PROPOSED SIGN MOUNTED ON POST(S)
- DENOTES SIGN NUMBER

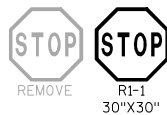
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500 501



502



503






LEGEND

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- PROPOSED SIGN MOUNTED ON POST(S)
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PROJECT NO: 9155-05-70

HWY: STH 55

COUNTY: LAGLADE

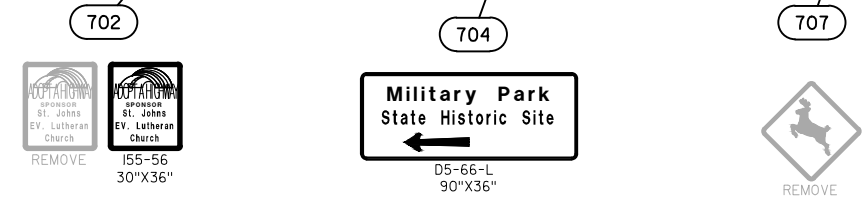
PERMANENT SIGNING

SHEET

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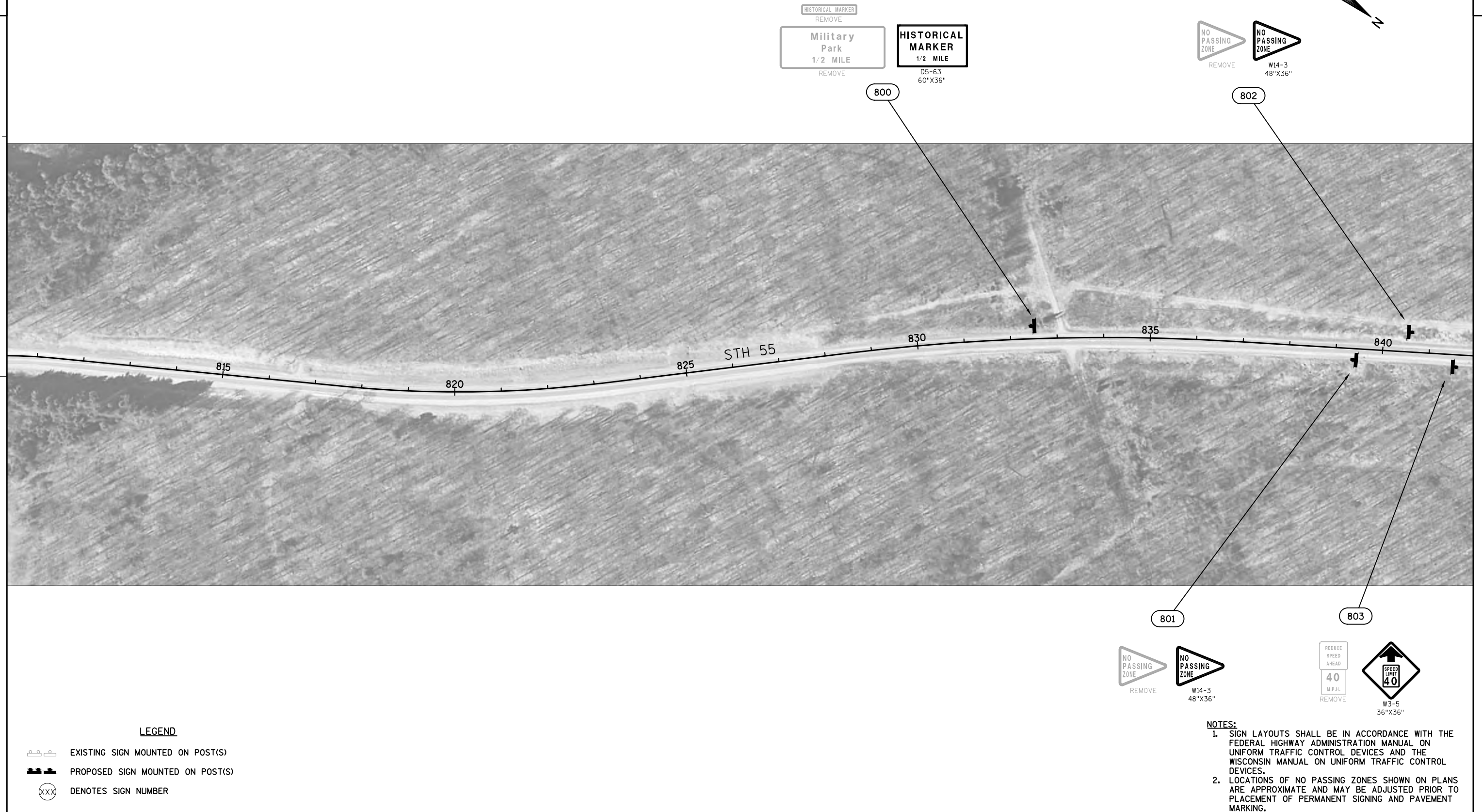
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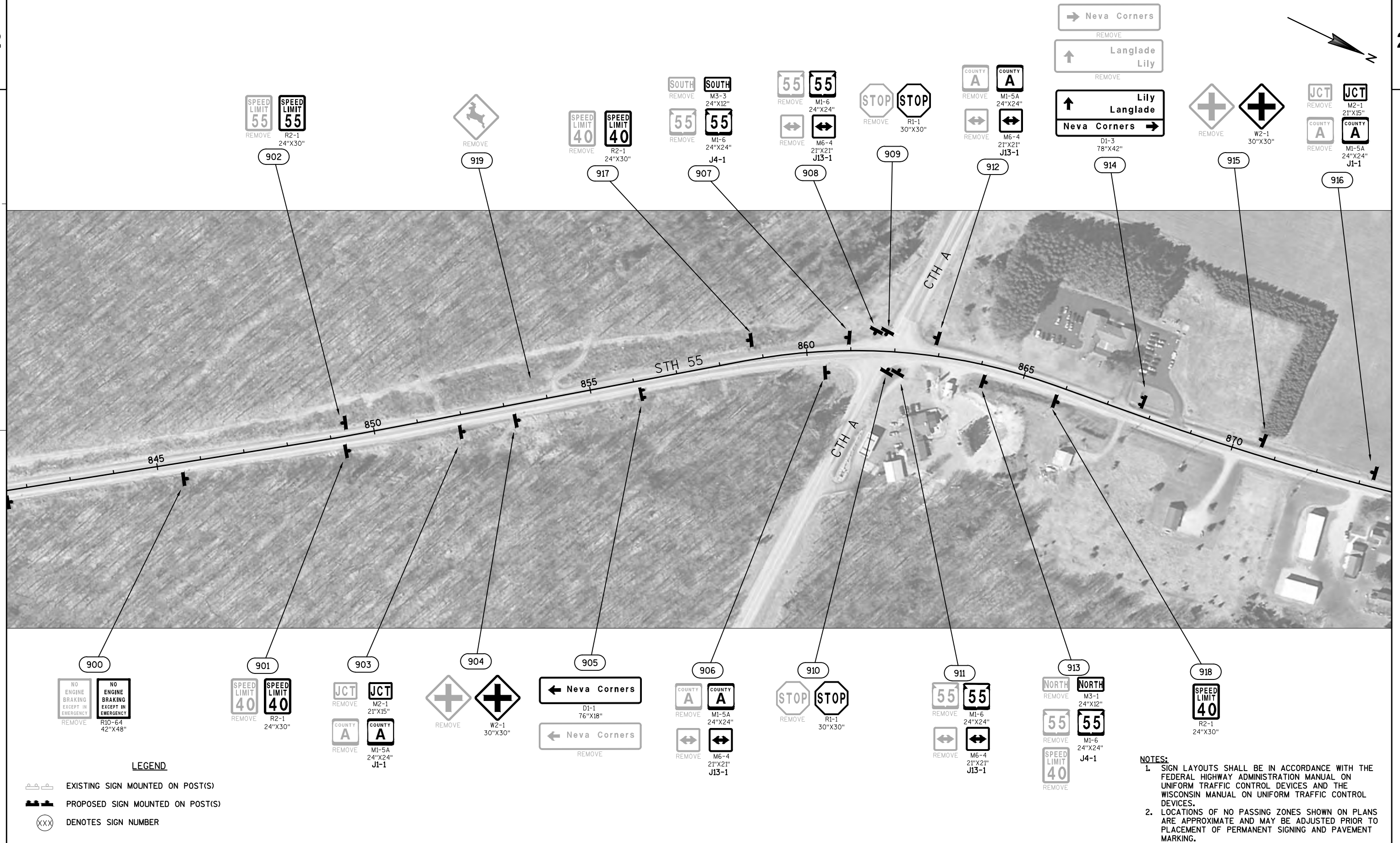
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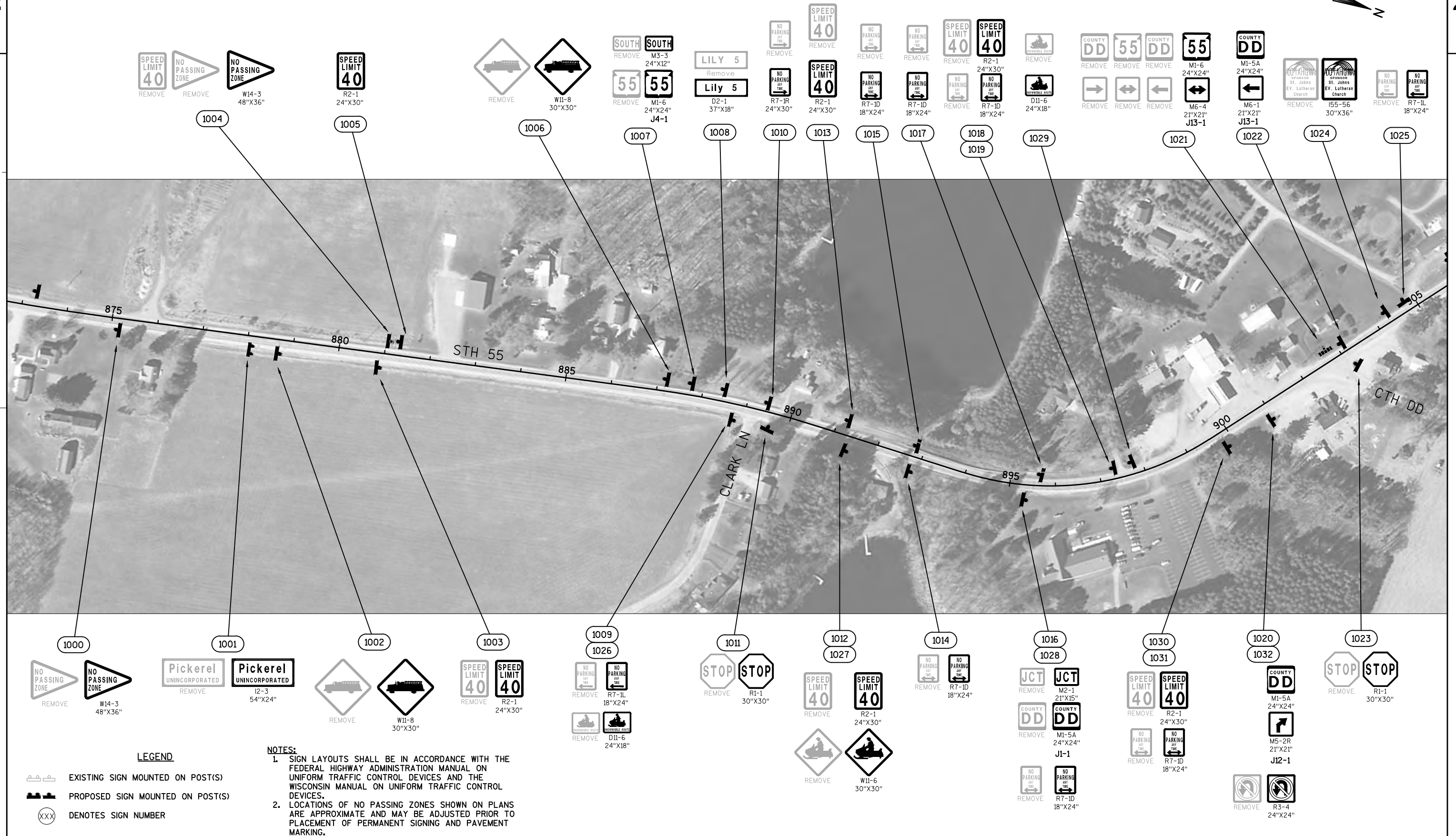
PERMANENT SIGNING

SHEET

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PROJECT NO: 9155-05-70

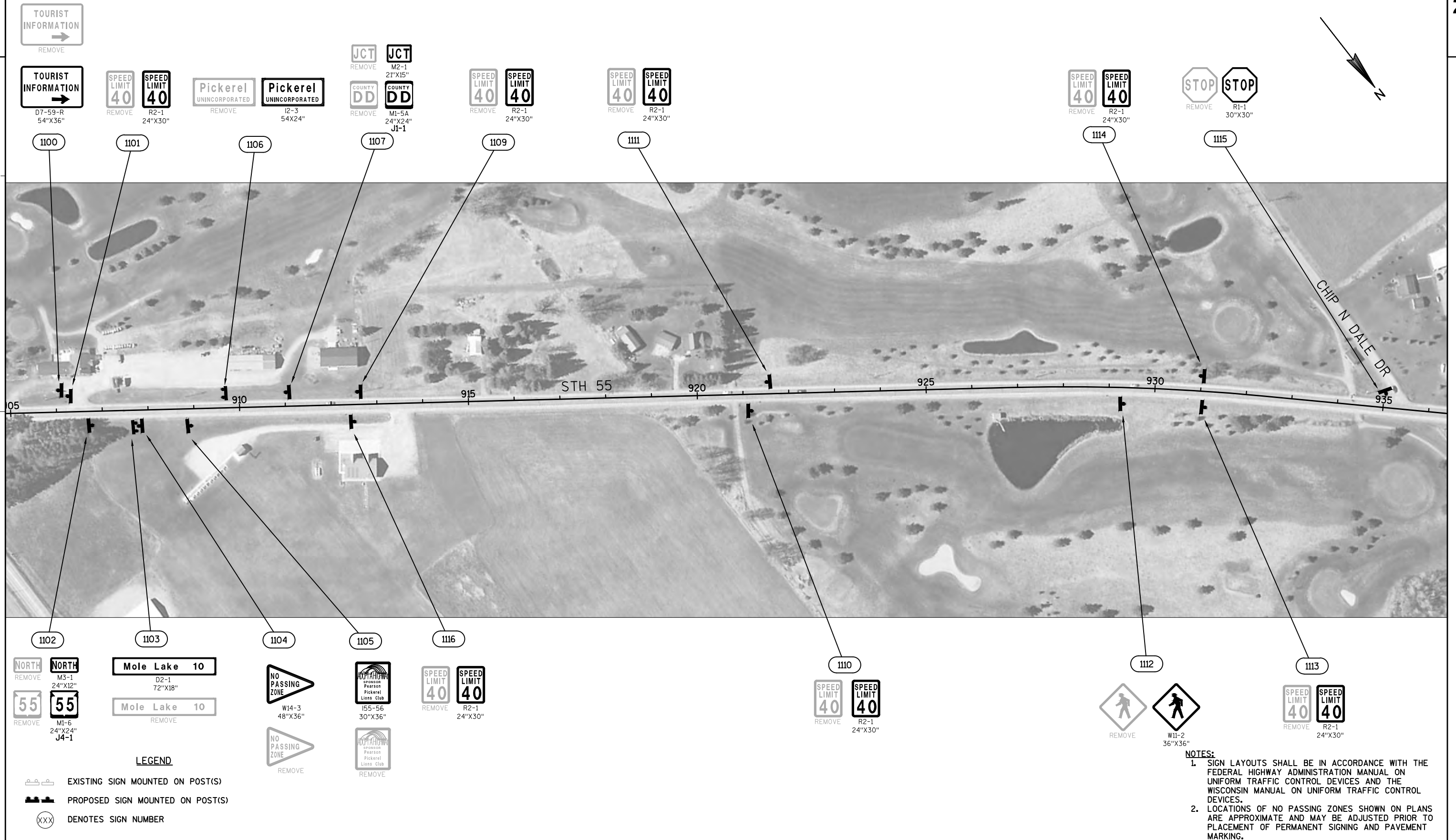
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PERMANENT SIGNING

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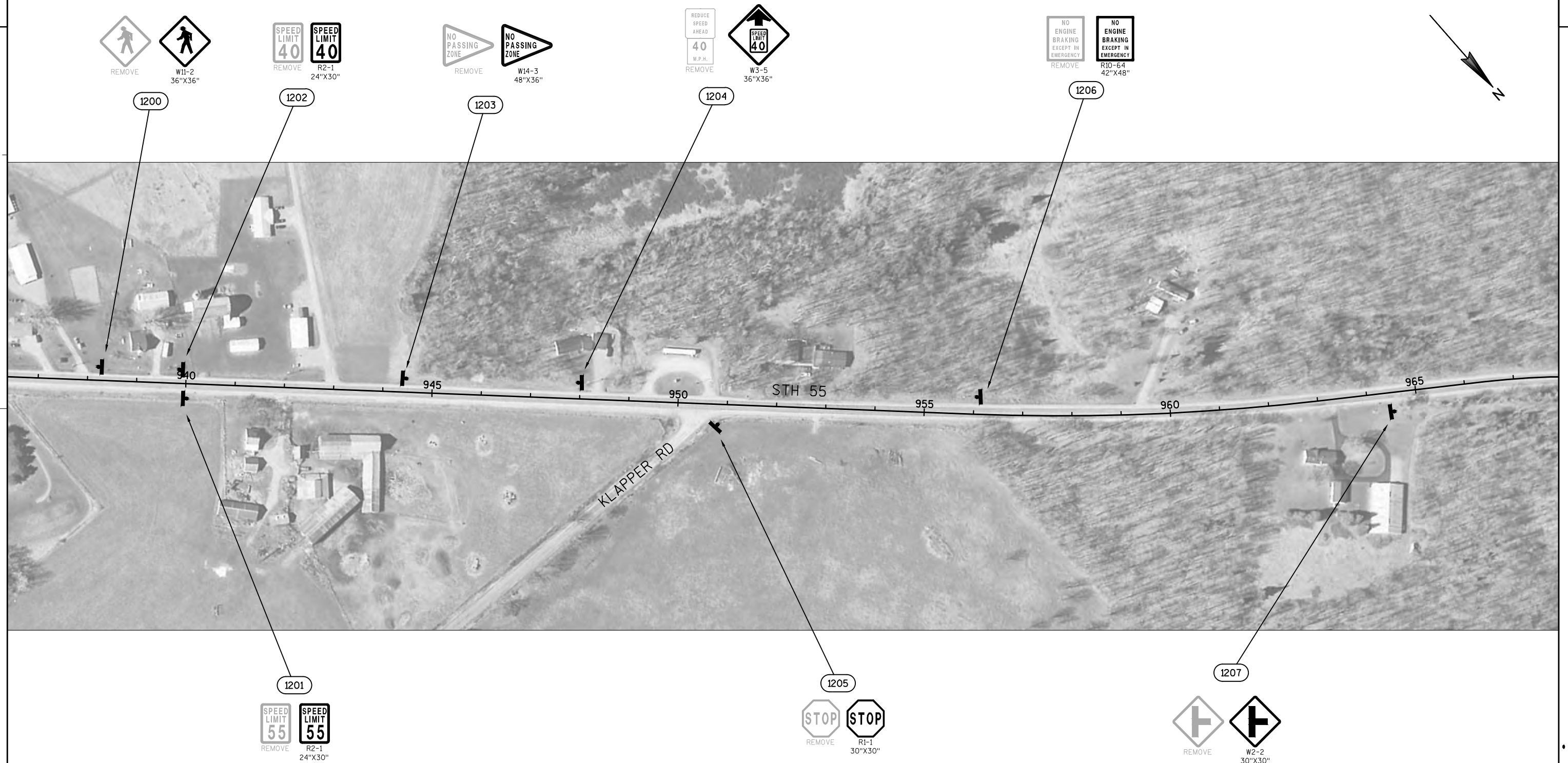
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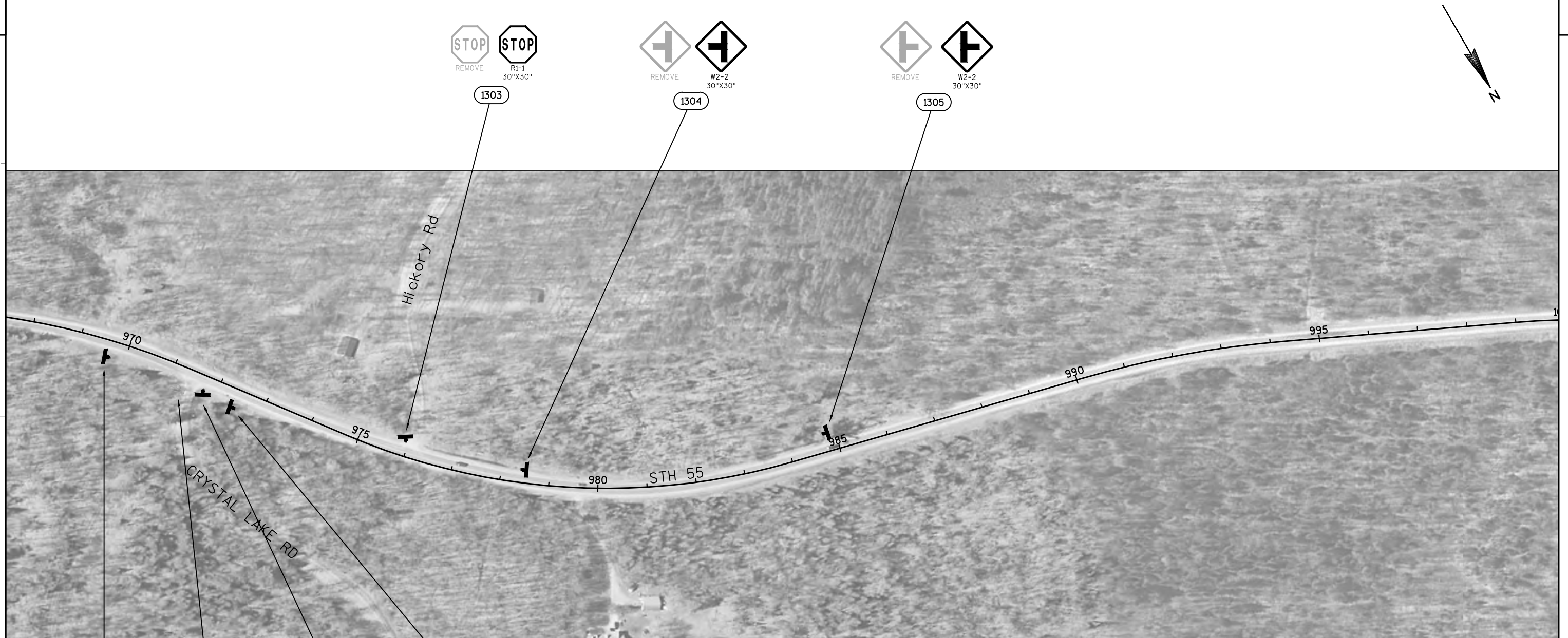
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PLOT DATE : 12/14/2015 2:26 PM

PLOT BY : HOLZEM, ANNE

PLOT SCALE : 1 IN:200 FT

WISDOT/CADDs SHEET 42

**LEGEND**

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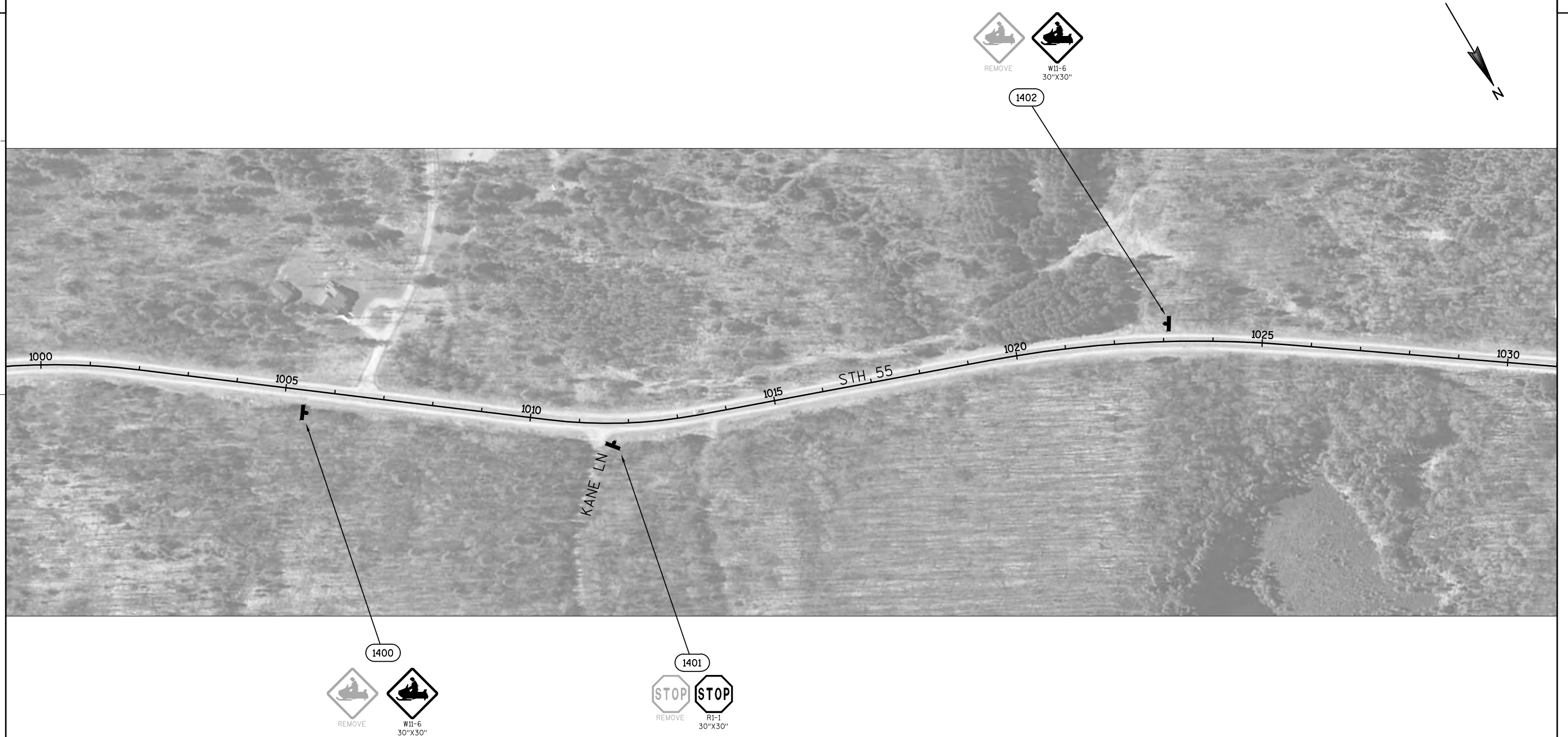
HWY: STH 55

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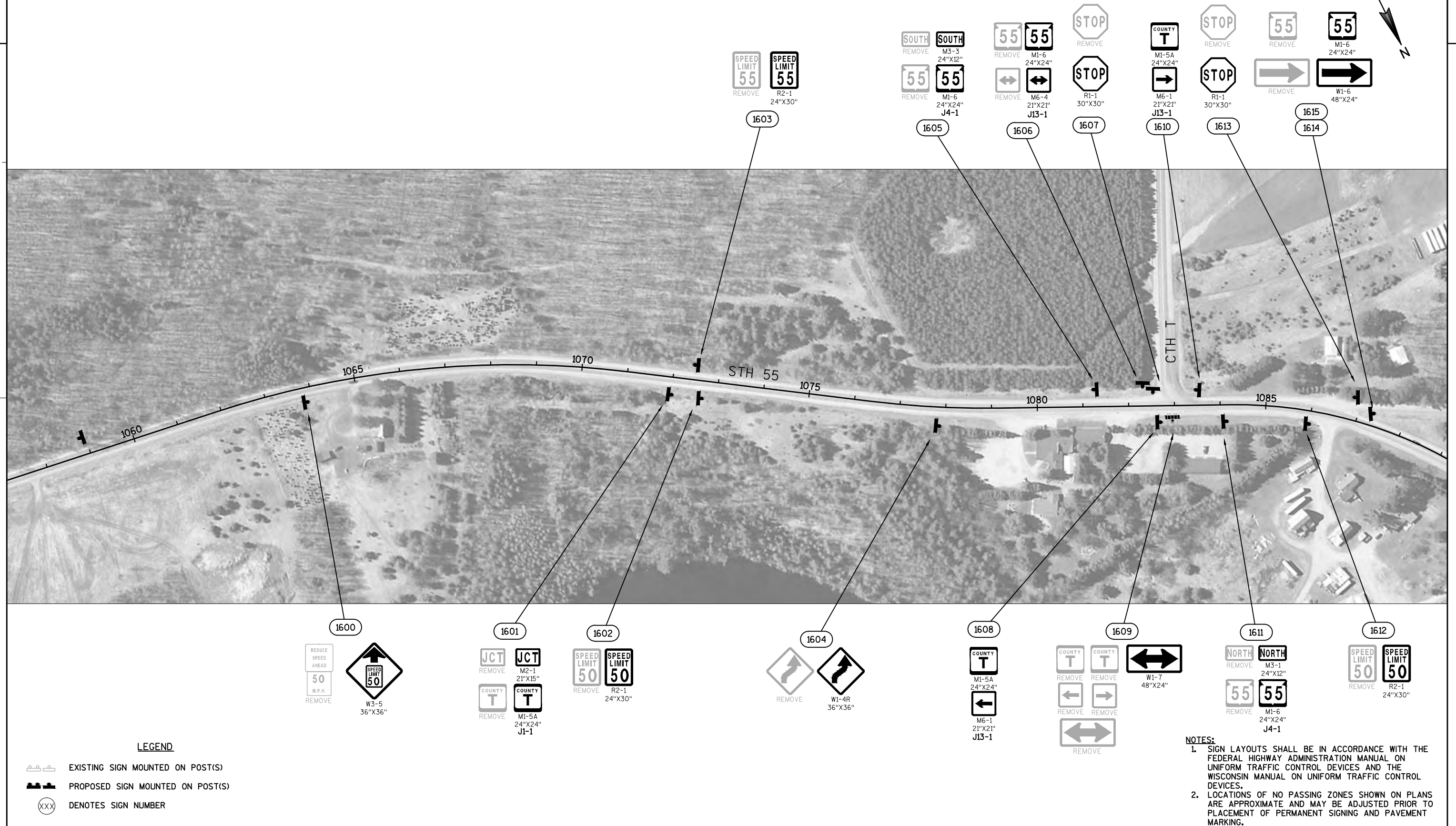
HWY: STH 55

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PERMANENT SIGNING

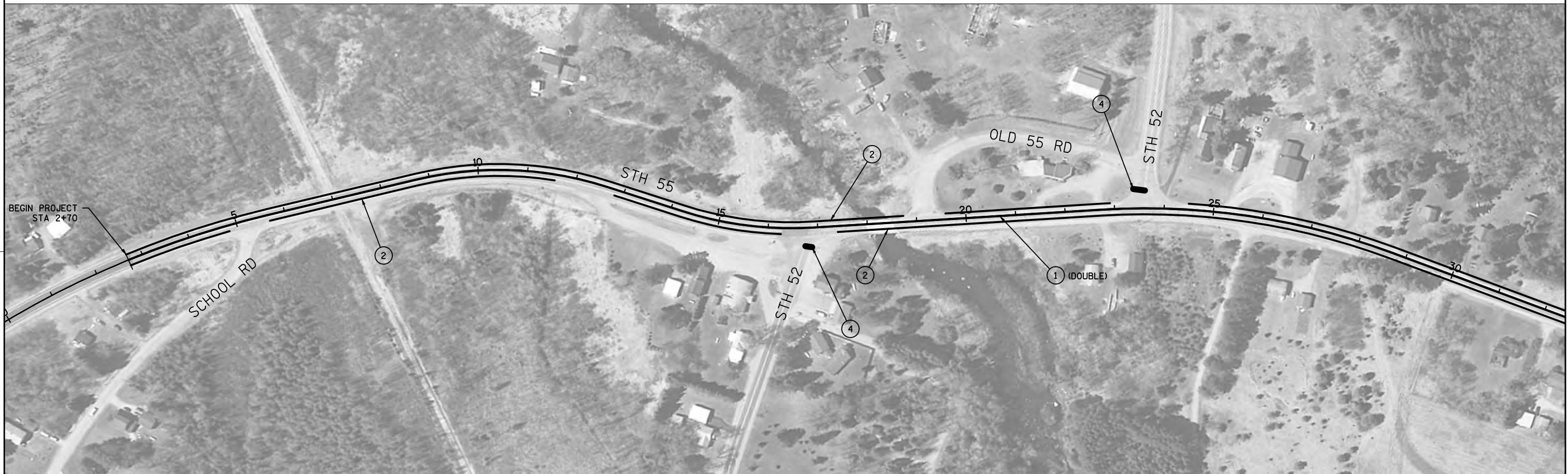
SHEET

E



PAVEMENT MARKING LEGEND

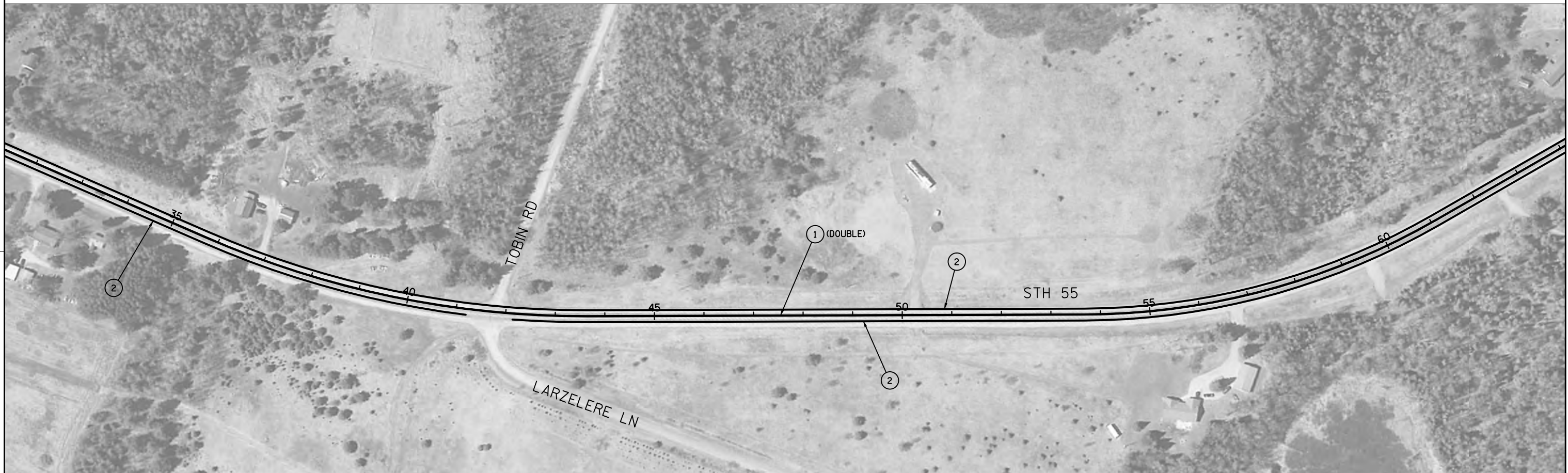
- ① PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- ② PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- ③ PAVEMENT MARKING EPOXY 4-INCH (DASHED YELLOW)
(12.5 FT LINE, 37.5 FT SKIP)
- ④ PAVEMENT MARKING STOP LINE EPOXY 18-INCH



- NOTES:
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PAVEMENT MARKING LEGEND

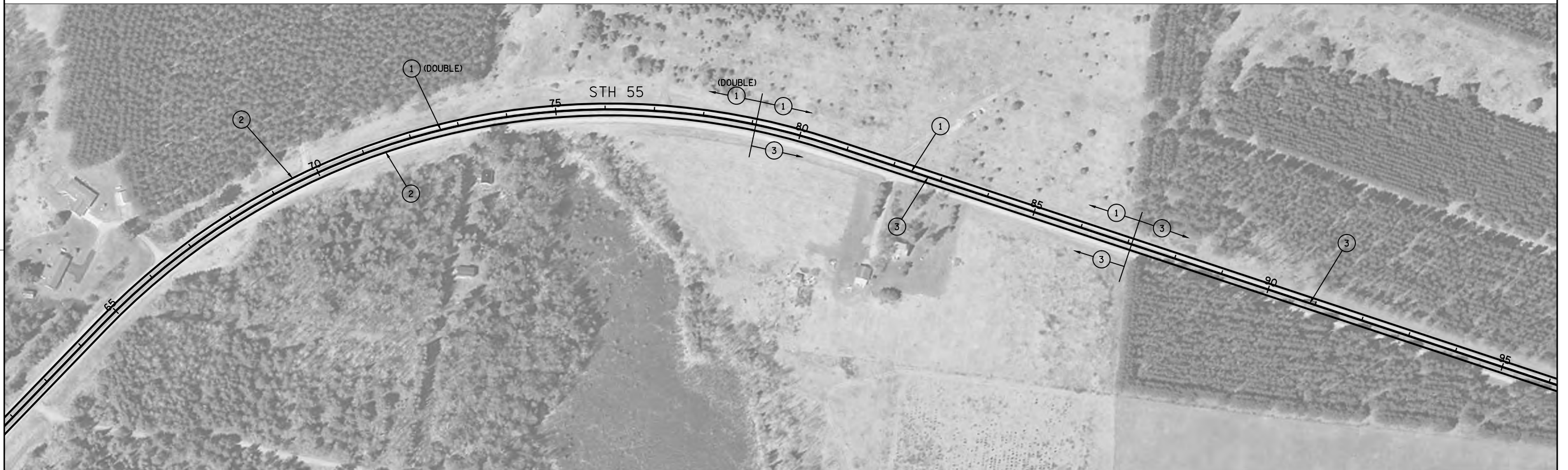
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- ③ PAVEMENT MARKING EPOXY 4-INCH (DASHED YELLOW)
(12.5 FT LINE, 37.5 FT SKIP)
- ④ PAVEMENT MARKING STOP LINE EPOXY 18-INCH



NOTES:

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2. LOCATIONS OF NO PASSING ZONES SHOWN ON PLANS ARE APPROXIMATE AND MAY BE ADJUSTED PRIOR TO PLACEMENT OF PERMANENT SIGNING AND PAVEMENT MARKING.

PROJECT NO: 9155-05-70

HWY: STH 55

COUNTY: LANGLADE

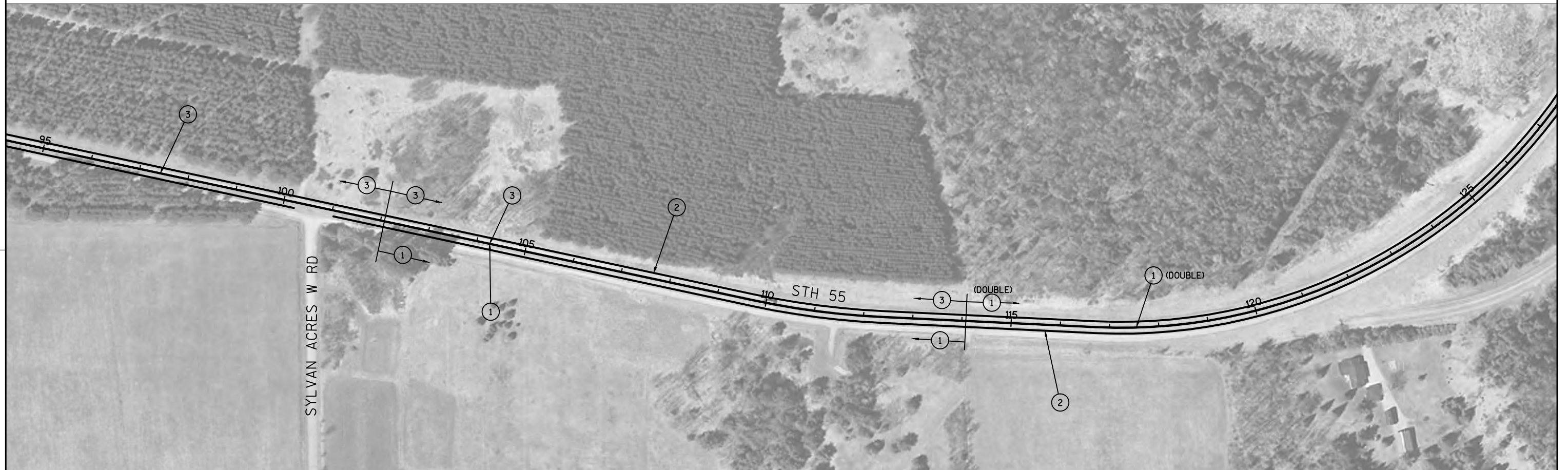
PAVEMENT MARKING

SHEET

E

PAVEMENT MARKING LEGEND

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PROJECT NO: 9155-05-70

HWY: STH 55

COUNTY: LAGLADE

PAVEMENT MARKING

SHEET

E

PAVEMENT MARKING LEGEND

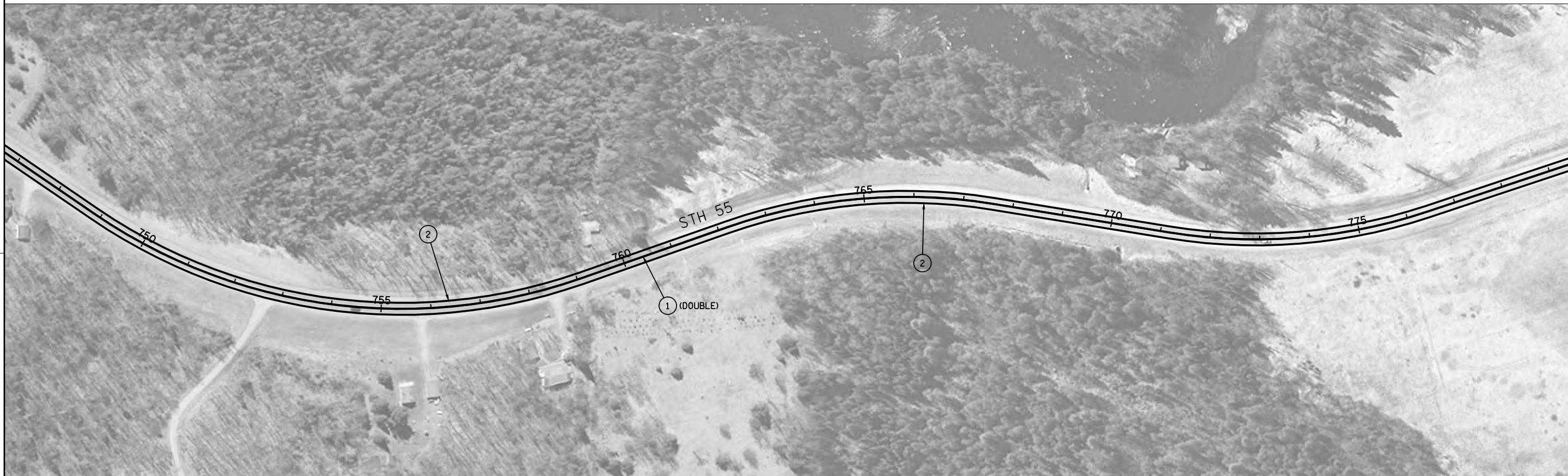
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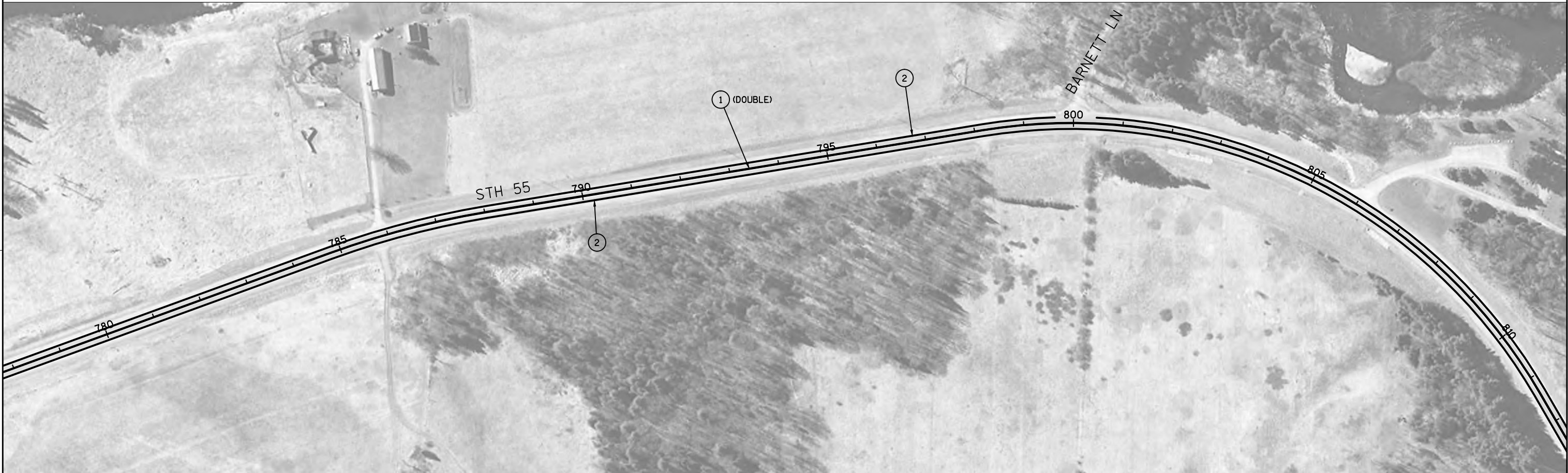
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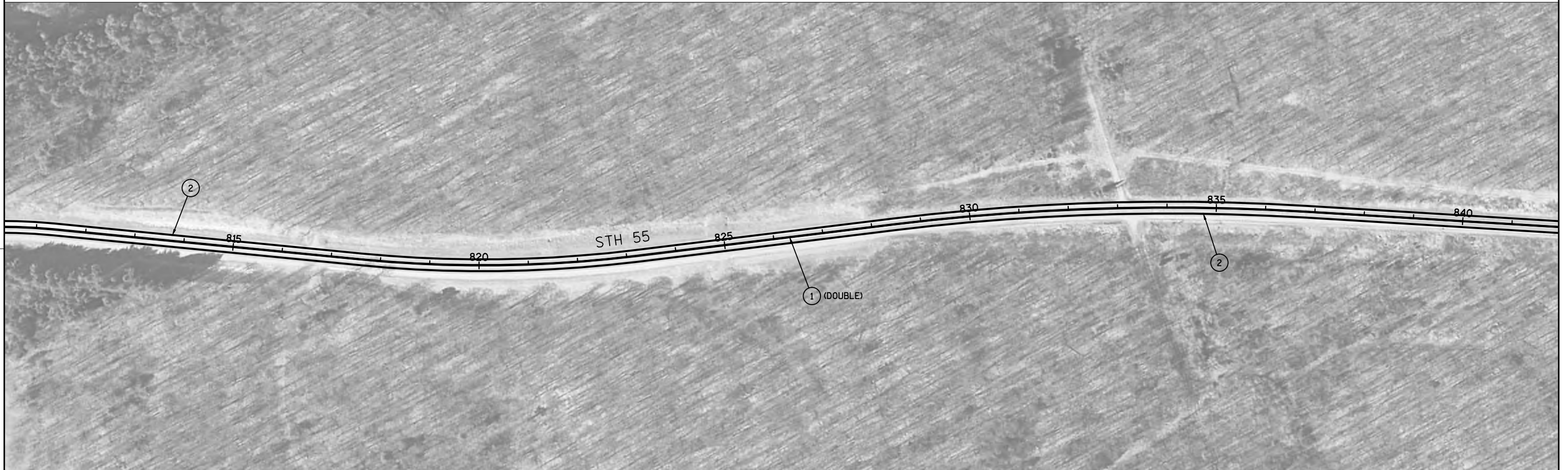
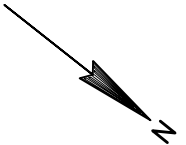
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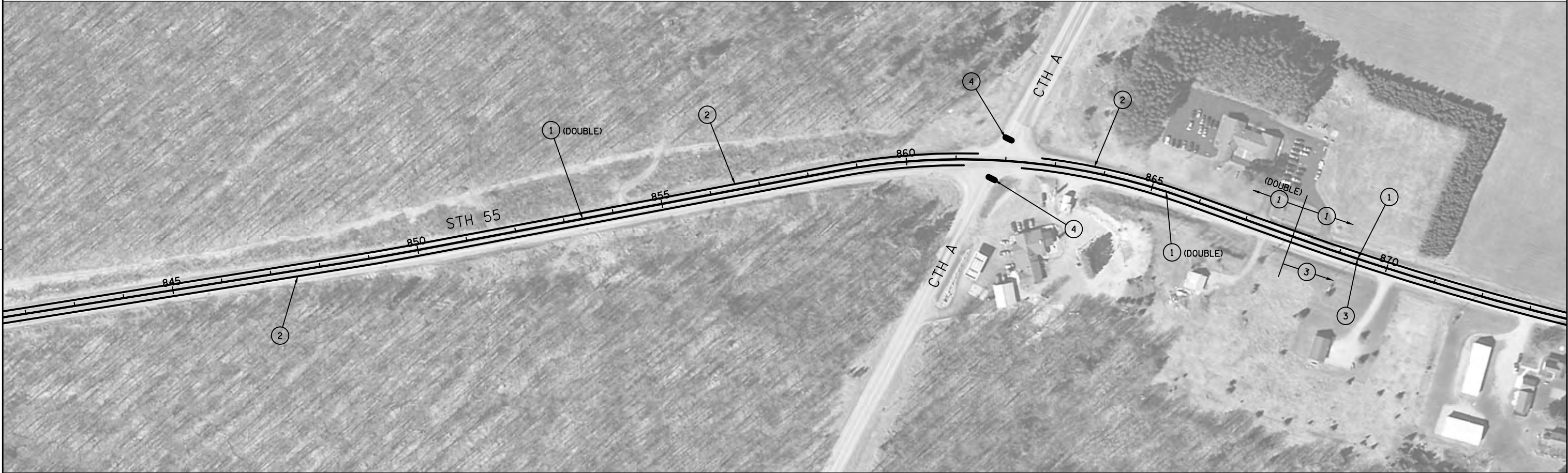
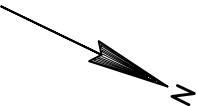
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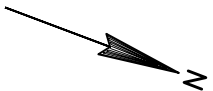
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PROJECT NO: 9155-05-70

HWY: STH 55

COUNTY: LANGLADE

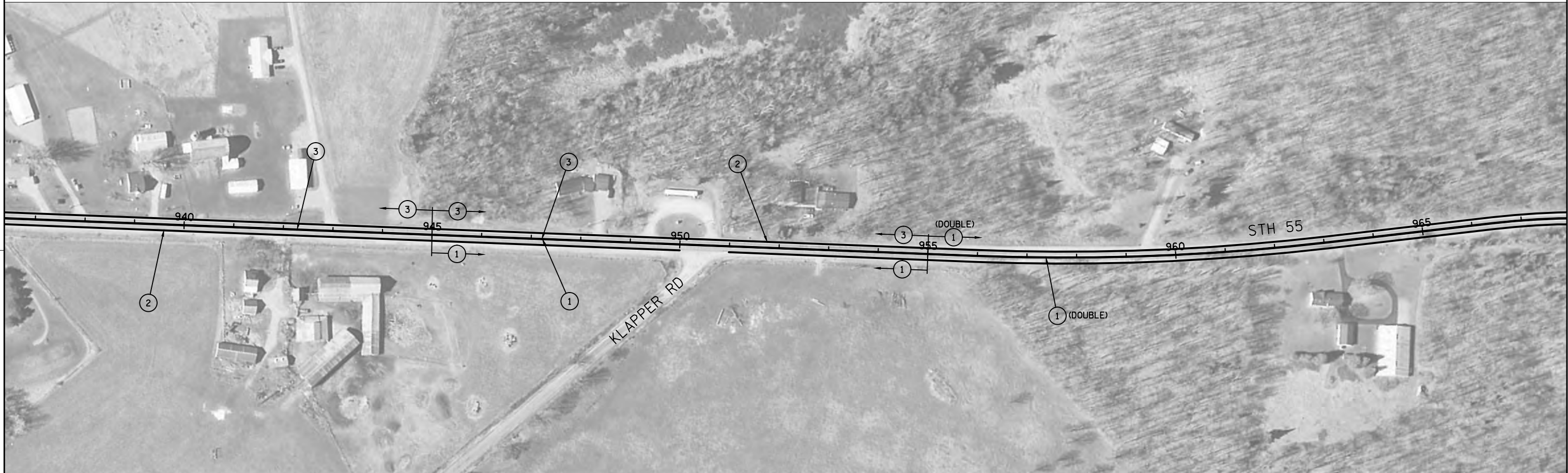
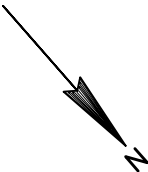
PAVEMENT MARKING

SHEET

E

PAVEMENT MARKING LEGEND

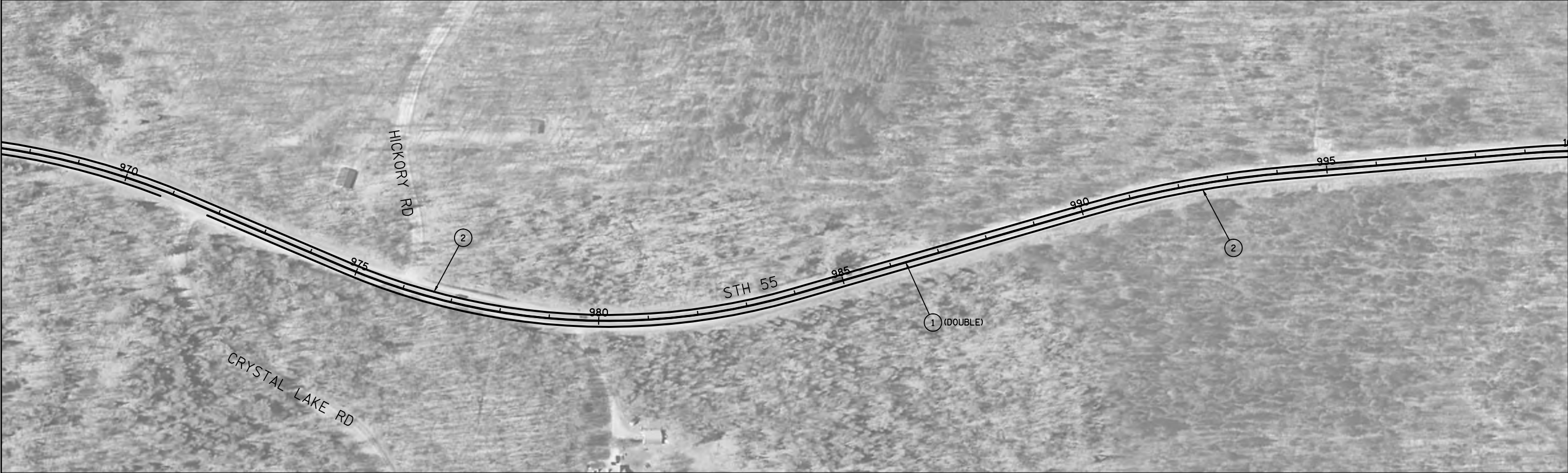
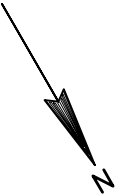
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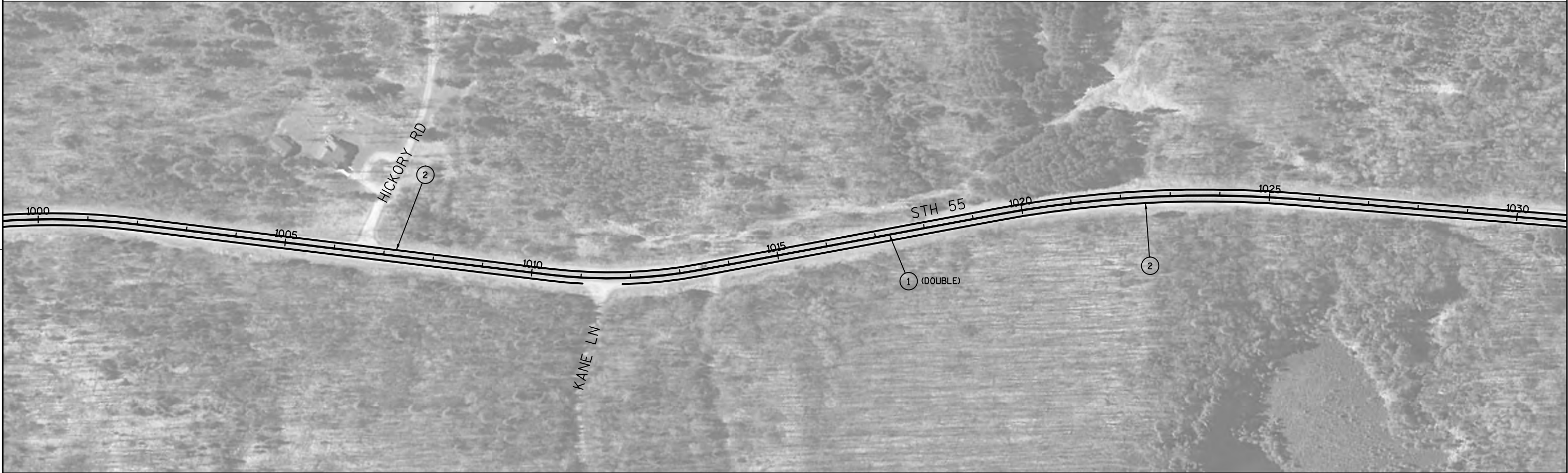
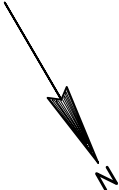
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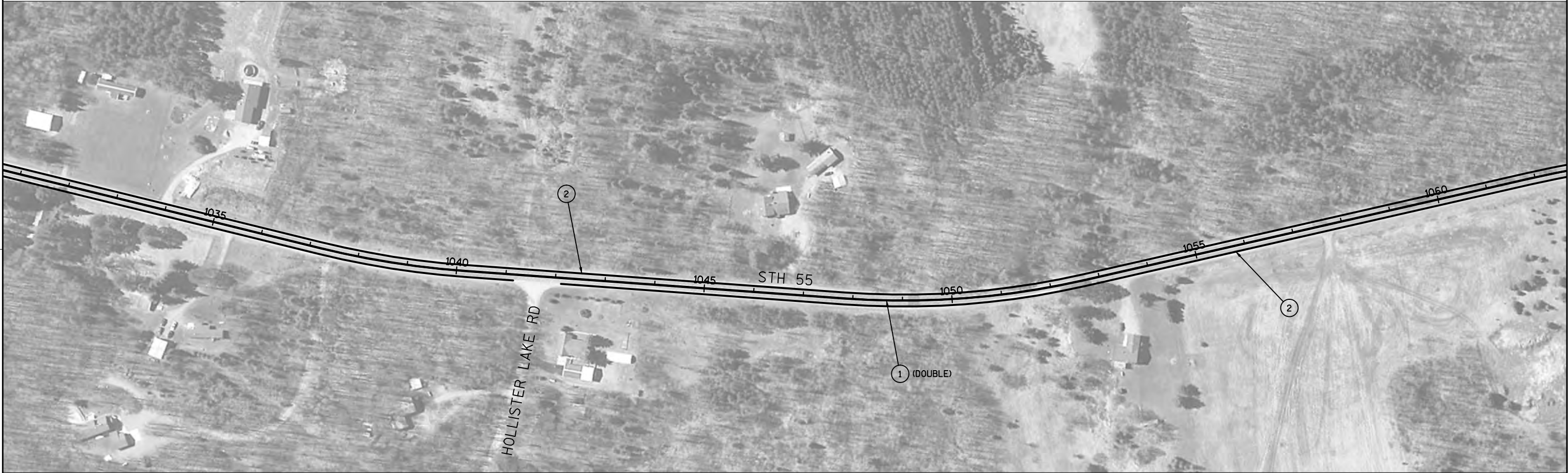
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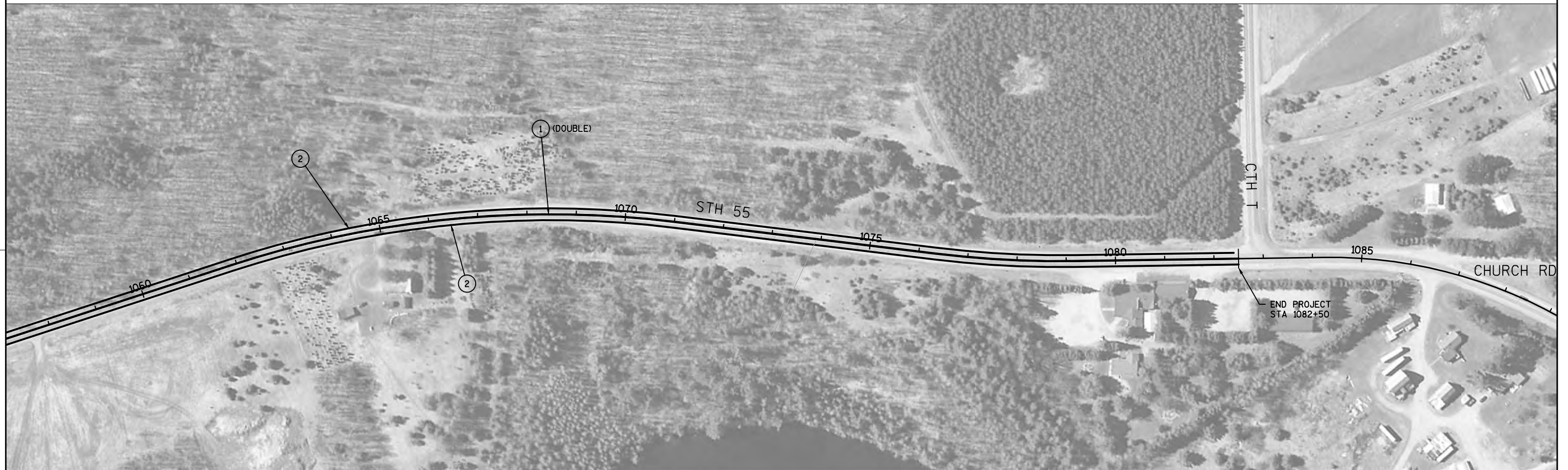
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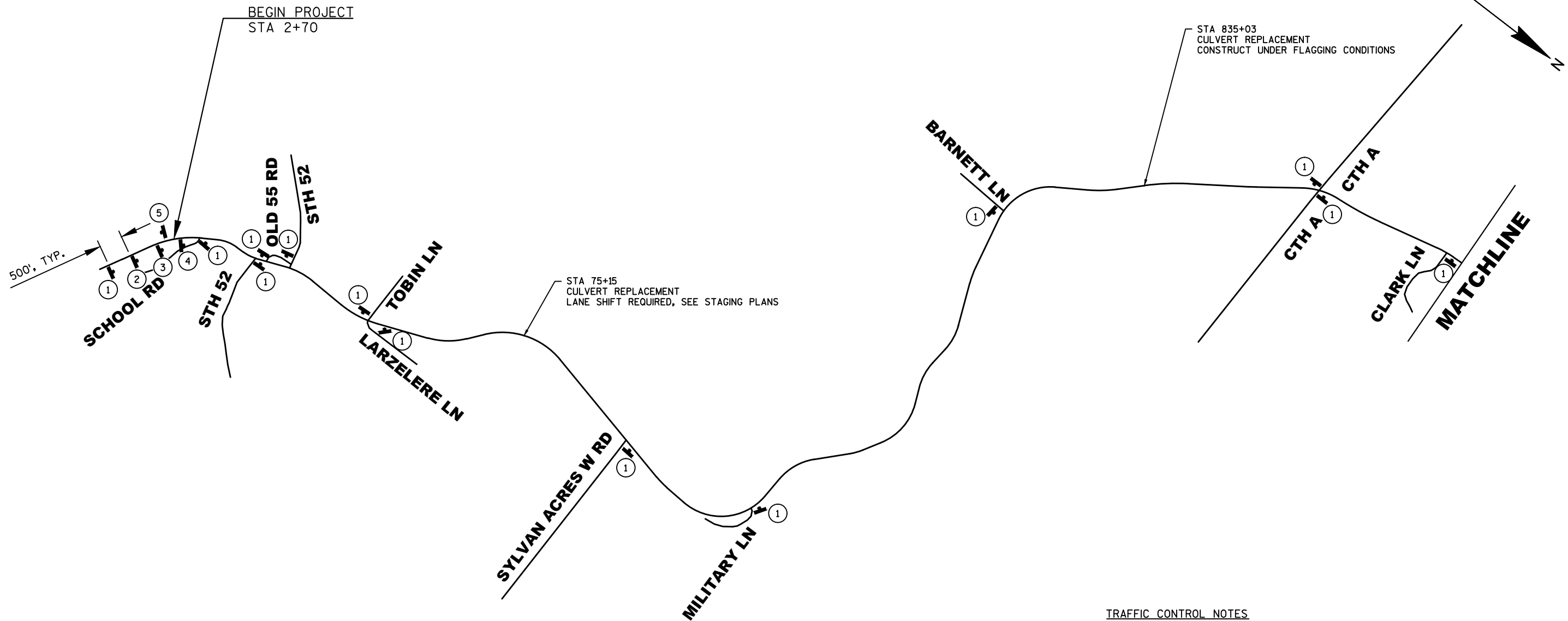
HWY: STH 55

COUNTY: LANGLADE

PAVEMENT MARKING

SHEET

E



LEGEND

1

ROAD WORK AHEAD

W20-1-A

2

ROAD WORK 1000 FT

W20-1-C

3

ROAD WORK 500 FT

W20-1-D

4

ROAD WORK NEXT 9MILES

G20-1
60"X24"

5

END ROAD WORK

G20-2A
48"X24"

TRAFFIC CONTROL NOTES

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

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

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

ALL "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. ALL OTHER SIGNS SHALL BE MOUNTED ON PERMANENT SUPPORTS.

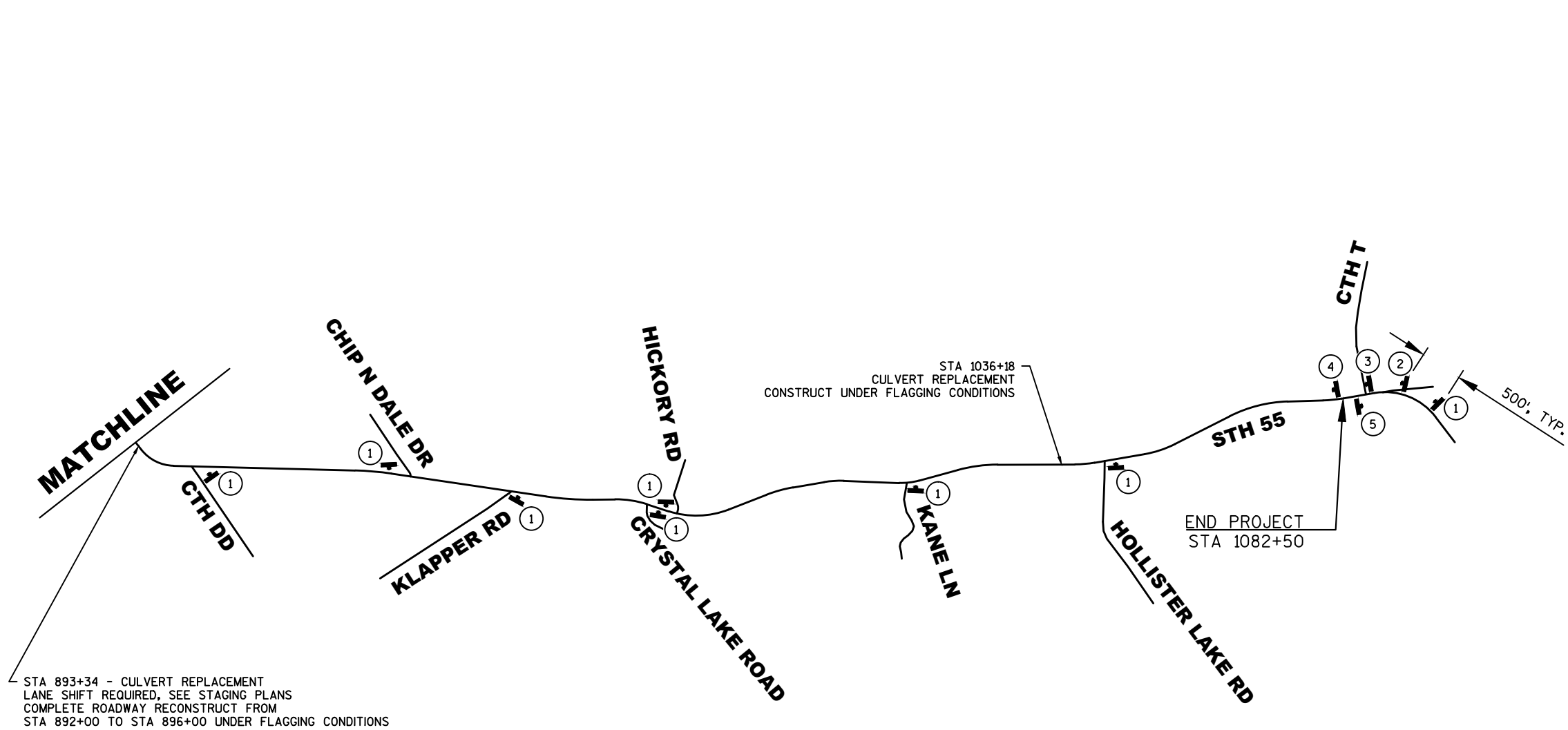
LANES CLOSURES FOR MILLING, PAVING, AND OTHER OPERATIONS WILL BE COMPLETED UNDER TRAFFIC CONTROL WITH THE USE OF SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)".

WORK WITHIN A WORK ZONE SHALL BE COMPLETED IN ONE DAY AND LANE CLOSURE/TRANSITIONS SHALL BE REMOVED AT THE END OF THE DAY. 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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

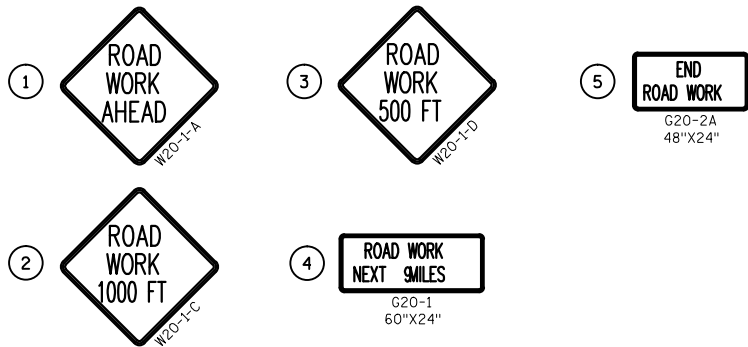
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SEE S.D.D. "TRAFFIC CONTROL ADVANCE WARNING SIGNS 45M.P.H. OR GREATER" FOR TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL. WORK ON ONLY ONE SIDE OF AN INTERSECTING ROAD AT A TIME.

WORK ON SHOULDERS SHALL BE IN ACCORDANCE WITH S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY."



LEGEND



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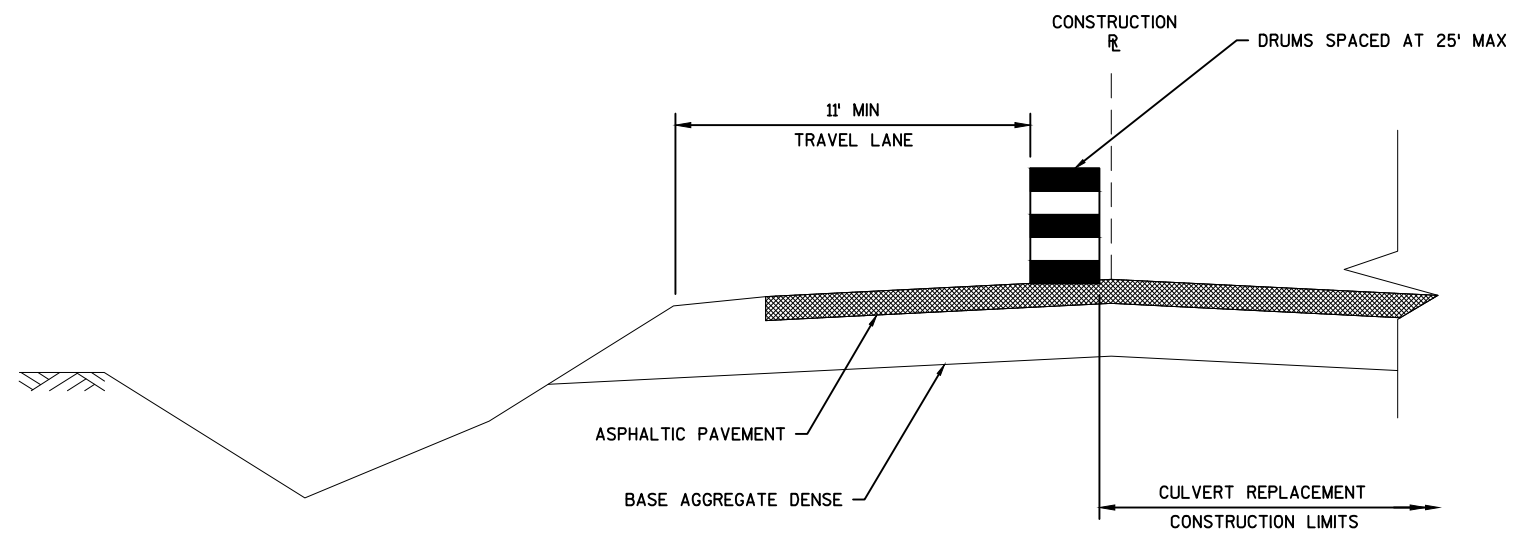
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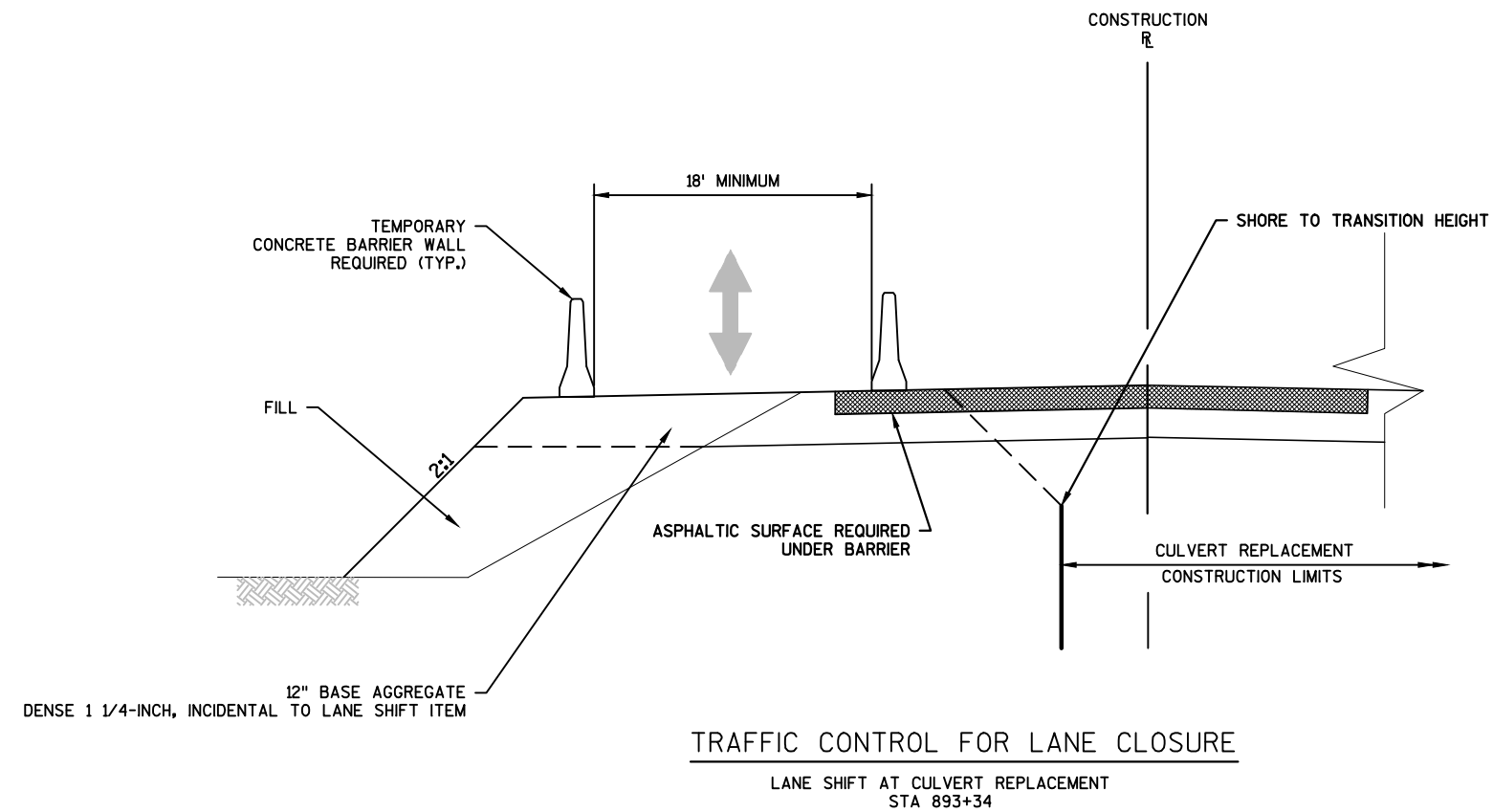
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TRAFFIC CONTROL FOR LANE CLOSURE

AT CULVERT REPLACEMENTS
STA 835+03
STA 1036+18

NOTE: SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" FOR SIGNING AND FLAGGER NEEDS



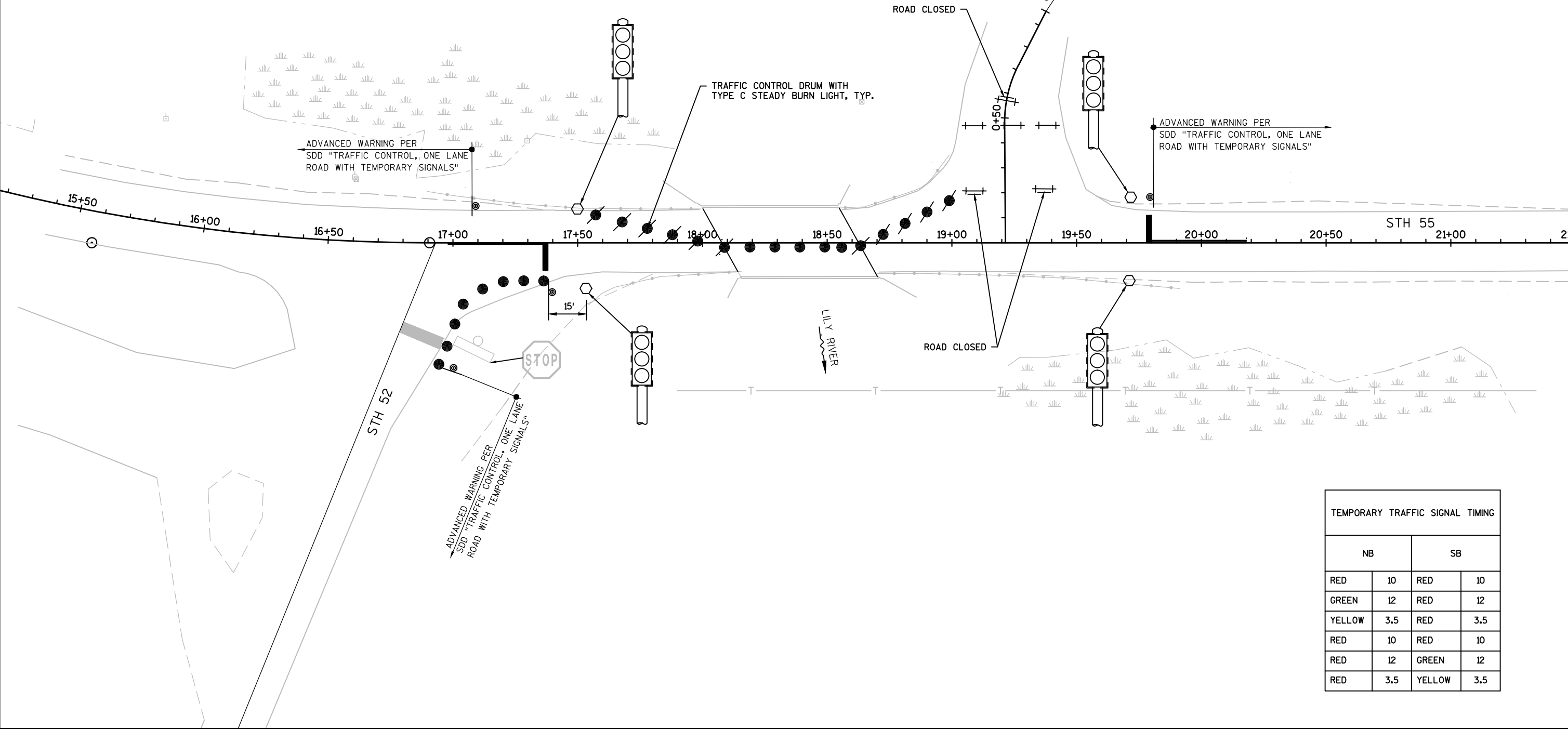
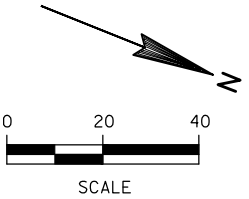
NOTE: SEE S.D.D 15D33-3, "TRAFFIC CONTROL,
ONE LANE ROAD WITH TEMPORARY SIGNALS"

LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ▬ SIGN ON PERMANENT SUPPORT
- ⬮ TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE







NOTES:

1. PROJECT ENGINEER TO NOTIFY RESIDENTS ALONG OLD STH 55 TWO-WEEKS IN ADVANCE OF ROAD CLOSURE.
2. SEE SDD "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR ADDITIONAL INFORMATION.
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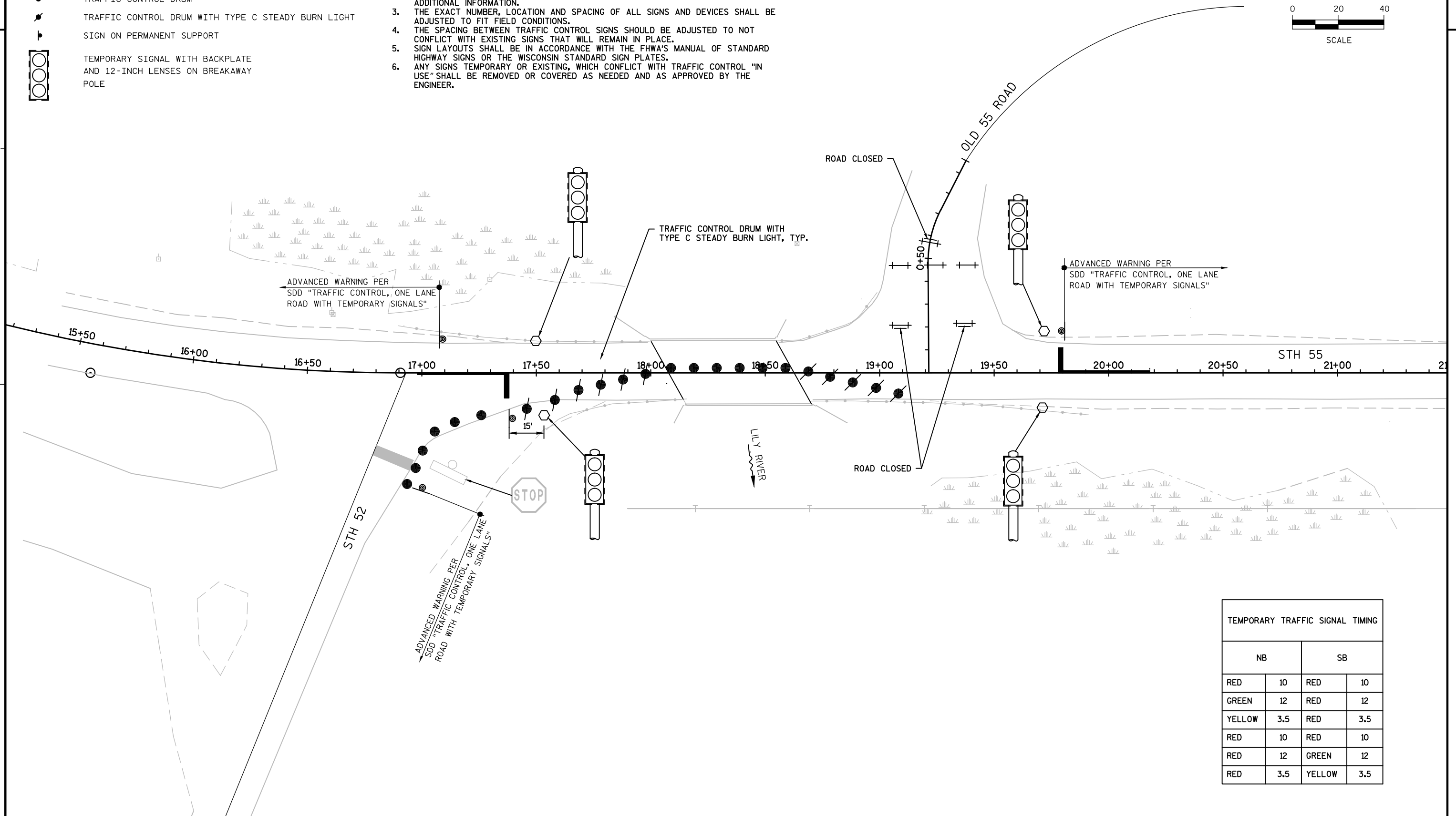
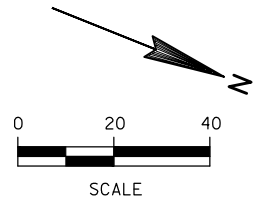
TEMPORARY TRAFFIC SIGNAL TIMING			
NB		SB	
RED	10	RED	10
GREEN	12	RED	12
YELLOW	3.5	RED	3.5
RED	10	RED	10
RED	12	GREEN	12
RED	3.5	YELLOW	3.5

LEGEND

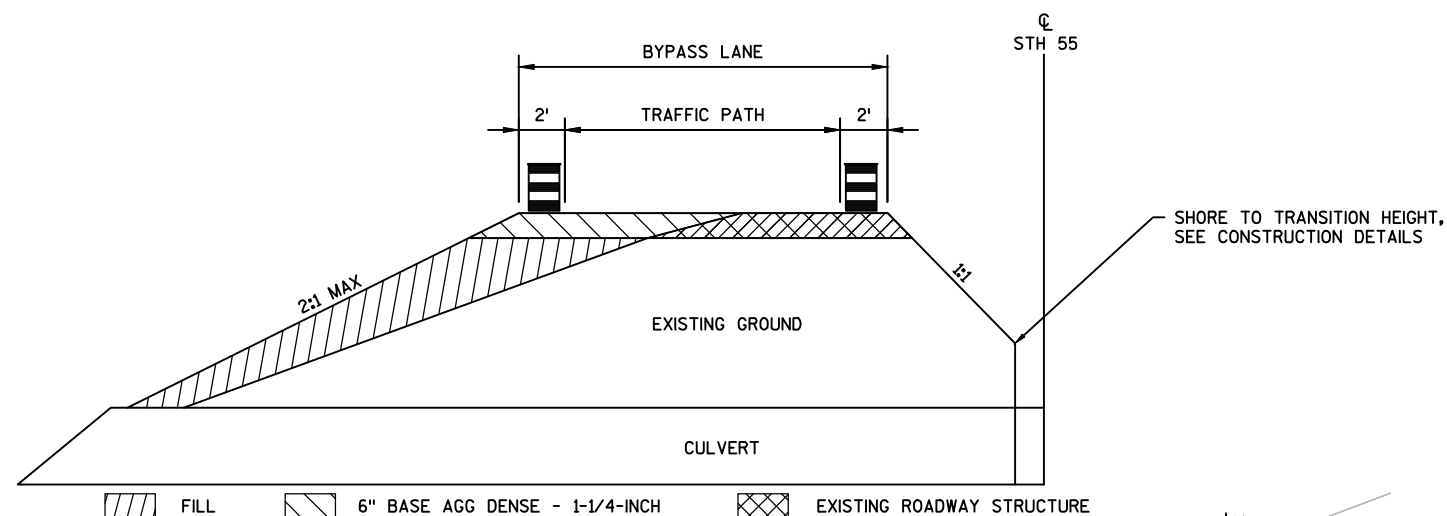
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 TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
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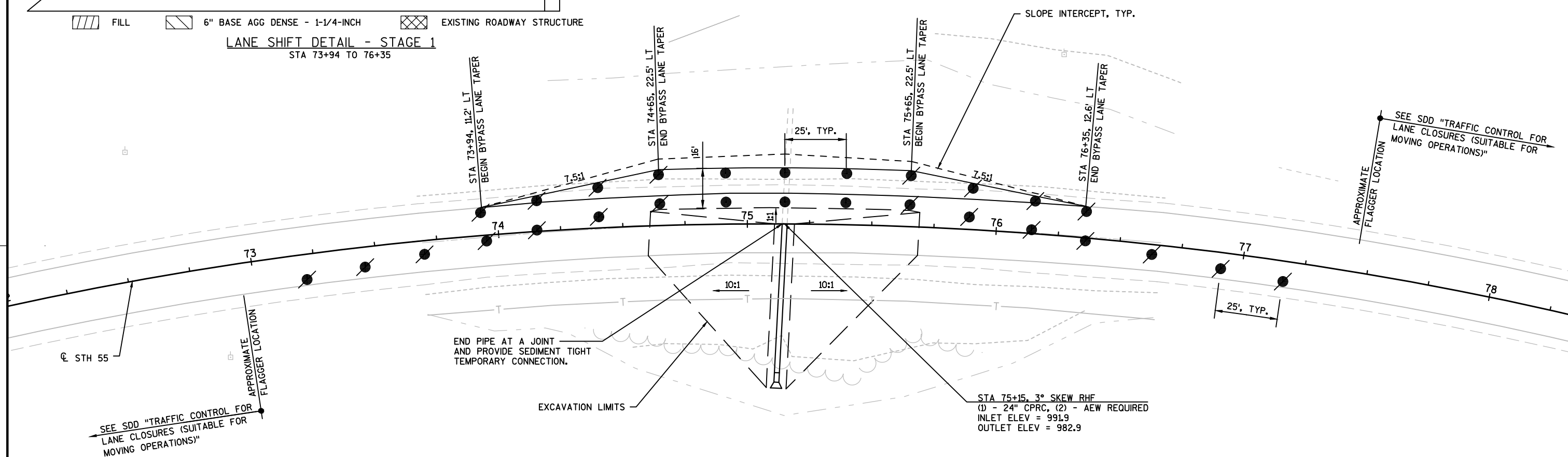
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TEMPORARY TRAFFIC SIGNAL TIMING			
NB		SB	
RED	10	RED	10
GREEN	12	RED	12
YELLOW	3.5	RED	3.5
RED	10	RED	10
RED	12	GREEN	12
RED	3.5	YELLOW	3.5



LANE SHIFT DETAIL - STAGE 1
STA 73+94 TO 76+35



PRE-STAGE 1:

1. CONSTRUCT BYPASS LANE UNDER FLAGGING CONDITIONS AS DETAILED ON SDD "TRAFFIC CONTROL FOR LANE CLOSURES (SUITABLE FOR MOVING OPERATIONS)".

STAGE 1 SEQUENCE:

1. EXCAVATE PER CULVERT PIPE TRANSITION DETAIL AND INSTALL STAGE 1 PORTIONS OF CULVERT PIPE.
2. TEMPORARY CONNECT NEW CULVERT PIPE TO EXISTING CULVERT PIPE.
3. BACKFILL STAGE 1 EXCAVATIONS AND PLACE GRAVEL OVERNIGHT, PAVE ASPHALTIC SURFACE FOR WEEKEND.
4. TEMPORARY MARK CENTERLINE AND REOPEN ROADWAY TO UNCONTROLLED TWO-WAY TRAFFIC.
5. CONSTRUCT SECOND BYPASS LANE UNDER FLAGGING CONDITIONS AS DETAILED ON SDD "TRAFFIC CONTROL FOR LANE CLOSURES (SUITABLE FOR MOVING OPERATIONS)".

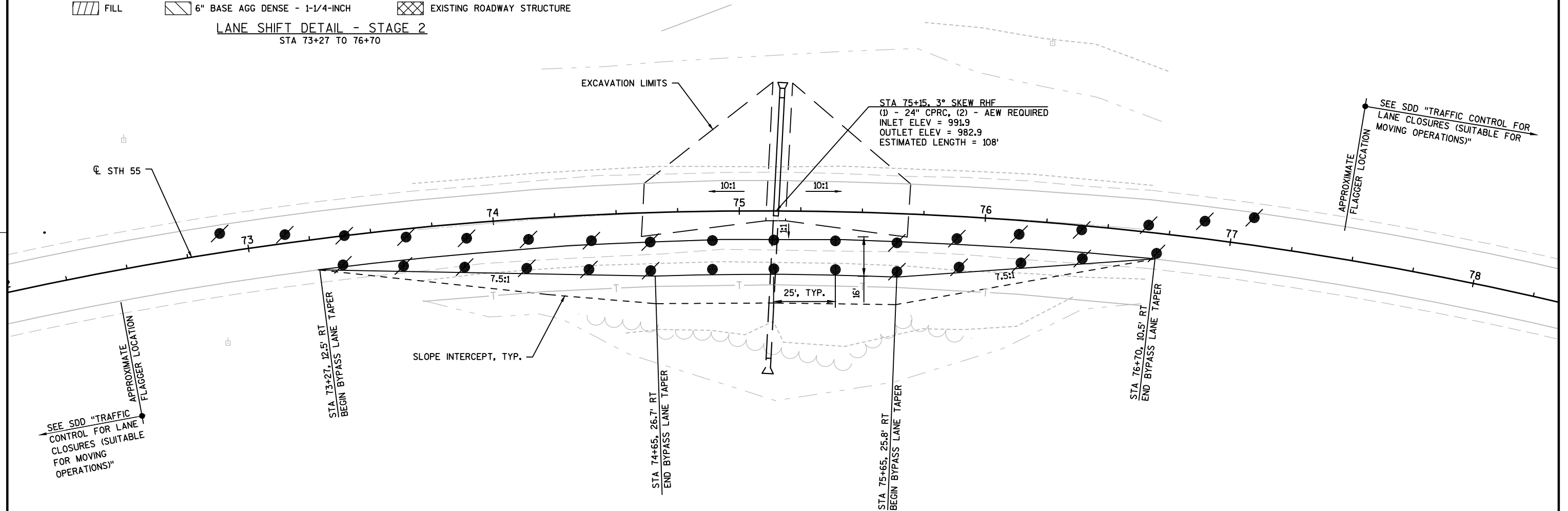
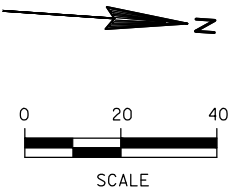
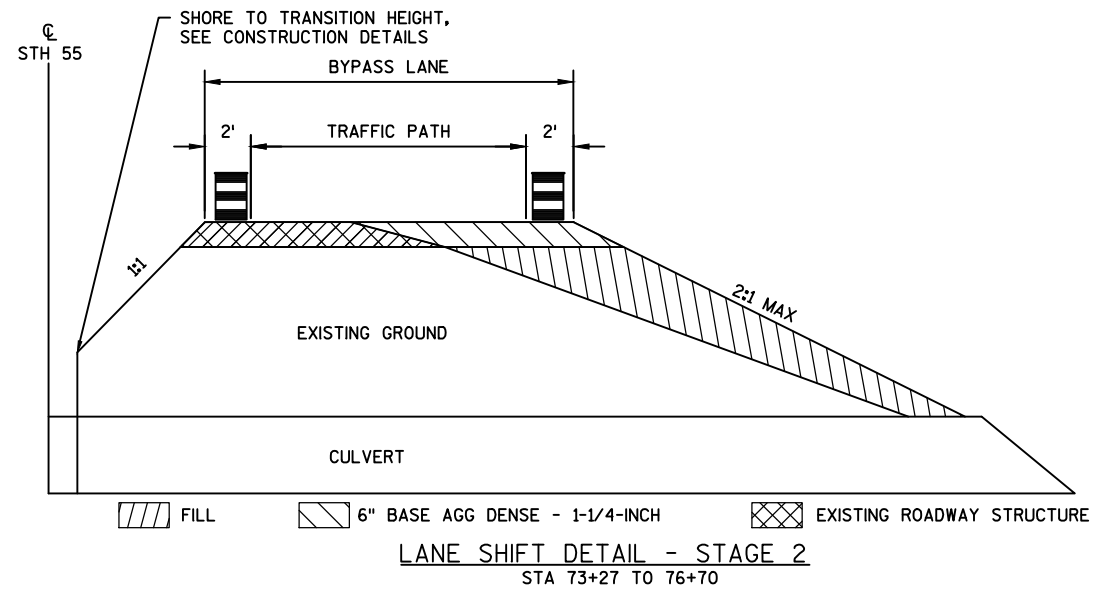
THESE ACTIVITIES
PERFORMED IN SINGLE DAY.

LANE SHIFT ITEM SPV.0060.02

LOCATION	FILL*
STA 73+94 TO STA 76+35	130 CY
*FOR BID INFORMATION ONLY. INCIDENTAL TO LANE SHIFT BID ITEM.	

LEGEND

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



NOTES:

1. ALL WORK AND SIGNAGE FOR FLAGGING OPERATION TO BE CONSIDERED INCIDENTAL TO BYPASS LANE CONSTRUCTION.

STAGE 2 SEQUENCE:

1. EXCAVATE PER CULVERT PIPE TRANSITION DETAIL, REMOVE TEMPORARY CONNECTION, AND INSTALL STAGE 2 PORTIONS OF CULVERT PIPE.
2. BACKFILL STAGE 2 EXCAVATIONS AND PLACE GRAVEL OVERNIGHT, PAVE ASPHALTIC SURFACE FOR WEEKEND.
3. TEMPORARY MARK CENTERLINE

THESE ACTIVITIES
PERFORMED IN SINGLE DAY.

POST STAGE 2:

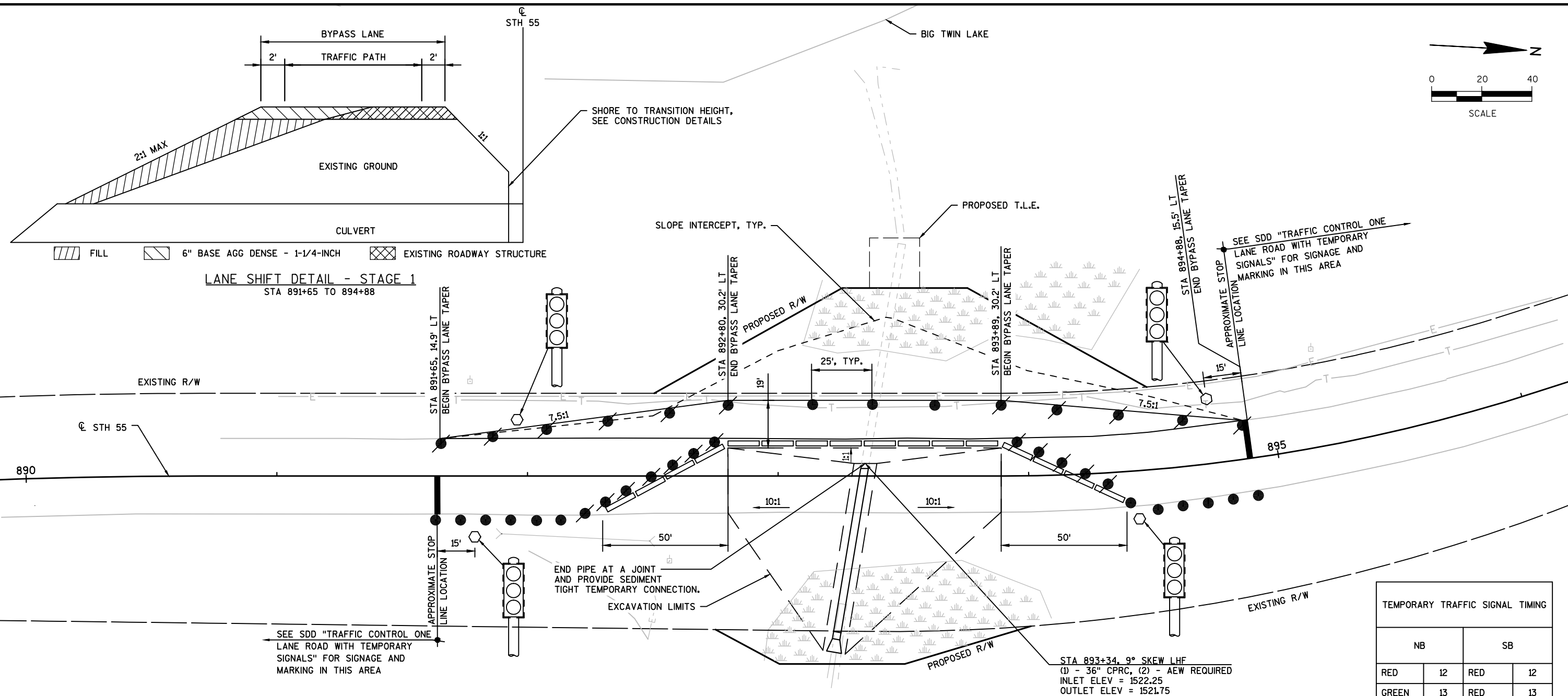
1. REMOVE BYPASS LANE UNDER FLAGGING CONDITIONS AS DETAILED ON SDD "TRAFFIC CONTROL FOR LANE CLOSURES (SUITABLE FOR MOVING OPERATIONS)".

LANE SHIFT ITEM SPV.0060.02

LOCATION	FILL*
STA 73+27 TO STA 76+70	450 CY
*FOR BID INFORMATION ONLY. INCIDENTAL TO LANE SHIFT BID ITEM.	

LEGEND

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



PRE-STAGE 1:

1. CONSTRUCT BYPASS LANE UNDER FLAGGING CONDITIONS AS DETAILED ON SDD "TRAFFIC CONTROL FOR LANE CLOSURES (SUITABLE FOR MOVING OPERATIONS)".

STAGE 1 SEQUENCE:

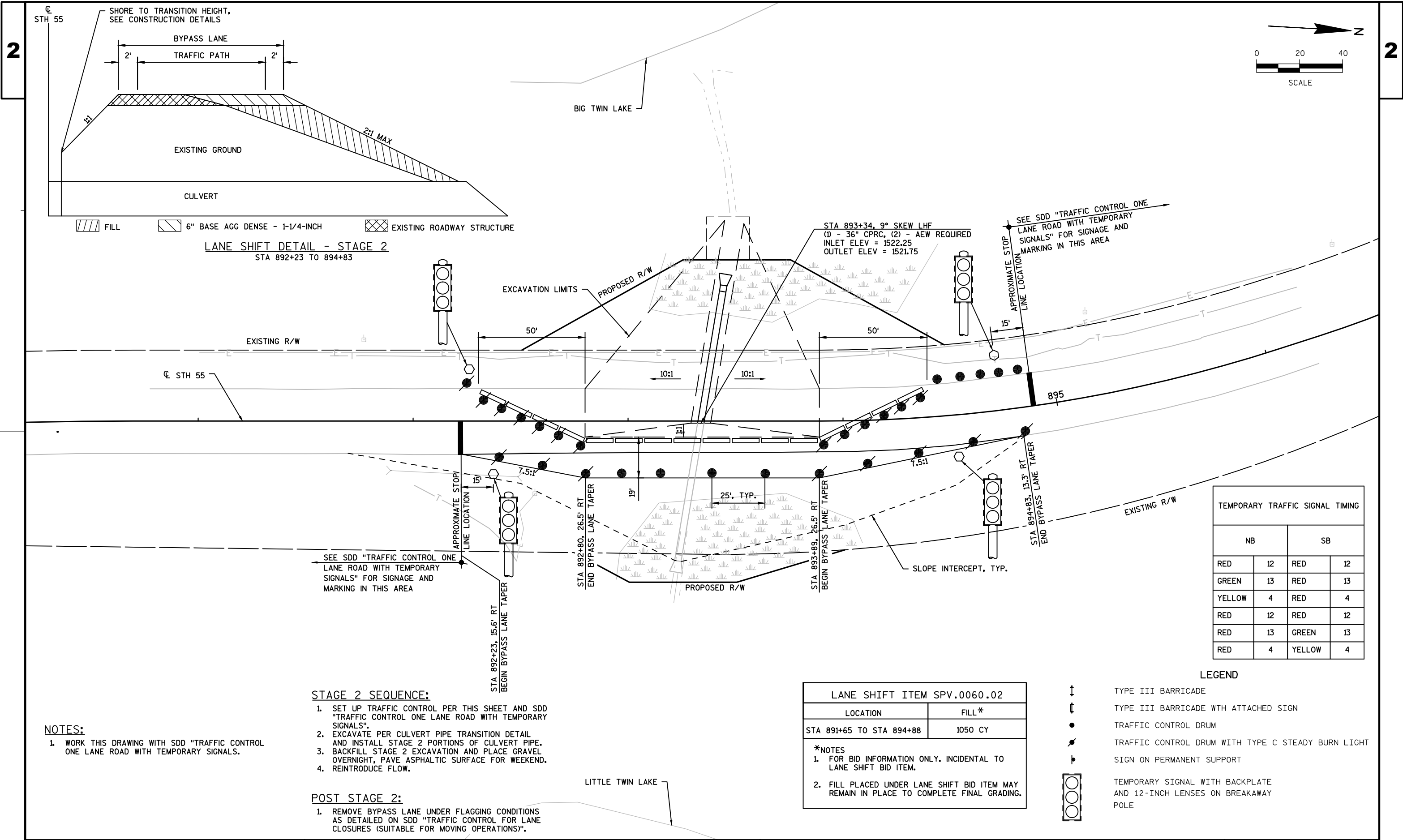
1. SET UP TRAFFIC CONTROL PER THIS SHEET AND SDD "TRAFFIC CONTROL ONE LANE ROAD WITH TEMPORARY SIGNALS".
2. DAM WEST END OF EXISTING PIPE.
3. EXCAVATE PER CULVERT PIPE TRANSITION DETAIL AND INSTALL STAGE 1 PORTIONS OF CULVERT PIPE.
4. TEMPORARY CONNECT NEW CULVERT PIPE TO EXISTING CULVERT PIPE.
5. BACKFILL STAGE 1 EXCAVATION AND PLACE GRAVEL OVERNIGHT, PAVE ASPHALTIC SURFACE FOR WEEKEND.
6. CONSTRUCT SECOND BYPASS LANE UNDER FLAGGING CONDITIONS AS DETAILED ON SDD "TRAFFIC CONTROL FOR LANE CLOSURES (SUITABLE FOR MOVING OPERATIONS)".

NOTES:

1. WORK THIS DRAWING WITH SDD "TRAFFIC CONTROL ONE LANE ROAD WITH TEMPORARY SIGNALS".

LANE SHIFT ITEM SPV.0060.02	
LOCATION	FILL *
STA 891+65 TO STA 894+88	650 CY
*NOTES	
1. FOR BID INFORMATION ONLY. INCIDENTAL TO LANE SHIFT BID ITEM.	
2. FILL PLACED UNDER LANE SHIFT BID ITEM MAY REMAIN IN PLACE TO COMPLETE FINAL GRADING.	

↑	TYPE III BARRICADE
↑	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
↑	SIGN ON PERMANENT SUPPORT
↑	TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE



DATE 29MAR16		E S T I M A T E O F Q U A N T I T I E S			
LINE					9155-05-70
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTI TY
0010	201.0205	Grubbing	STA	4.000	4.000
0020	203.0100	Removing Small Pipe Culverts	EACH	4.000	4.000
0030	204.0120	Removing Asphaltic Surface Milling	SY	108,700.000	108,700.000
0040	204.0165	Removing Guardrail	LF	875.000	875.000
0050	205.0100	Excavation Common	CY	665.000	665.000
0060	208.0100	Borrow	CY	442.000	442.000
0070	209.0100	Backfill Granular	CY	640.000	640.000
0080	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 9155-05-70	LS	1.000	1.000
0090	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	716.000	716.000
0100	213.0100	Finishing Roadway (project) 01. 9155-05-70	EACH	1.000	1.000
0110	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,480.000	2,480.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,790.000	1,790.000
0130	305.0500	Shaping Shoulders	STA	85.000	85.000
0140	440.4410	Incentive IRI Ride	DOL	30,320.000	30,320.000
0150	455.0605	Tack Coat	GAL	10,090.000	10,090.000
0160	460.2000	Incentive Density HMA Pavement	DOL	12,170.000	12,170.000
0170	460.4000	HMA Cold Weather Paving	TON	1,900.000	1,900.000
0180	460.5223	HMA Pavement 3 LT 58-28 S	TON	5,220.000	5,220.000
0190	460.5224	HMA Pavement 4 LT 58-28 S	TON	13,790.000	13,790.000
0200	465.0105	Asphaltic Surface	TON	150.000	150.000
0210	465.0110	Asphaltic Surface Patching	TON	950.000	950.000
0220	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	23,400.000	23,400.000
0230	509.0301	Preparation Decks Type 1	SY	20.000	20.000
0240	509.1500	Concrete Surface Repair	SF	35.000	35.000
0250	509.5100. S	Polymer Overlay	SY	186.000	186.000
0260	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	108.000	108.000
0270	522.0136	Culvert Pipe Reinforced Concrete Class III 36-Inch	LF	126.000	126.000
0280	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0290	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000
0300	523.0119	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	78.000	78.000
0310	523.0519	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	4.000	4.000
0320	603.8000	Concrete Barrier Temporary Precast Delivered	LF	440.000	440.000
0330	603.8125	Concrete Barrier Temporary Precast Installed	LF	440.000	440.000
0340	614.0010	Barrier System Grading Shaping Finishing	EACH	4.000	4.000
0350	614.0200	Steel Thrie Beam Structure Approach	LF	82.800	82.800
0360	614.0345	Steel Plate Beam Guard Short Radius	LF	49.500	49.500
0370	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	3.000	3.000
0380	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	1.000	1.000
0390	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9155-05-70	EACH	1.000	1.000
0400	619.1000	Mobilization	EACH	1.000	1.000

DATE 29MAR16		E S T I M A T E O F Q U A N T I T I E S			
LINE				9155-05-70	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0410	624. 0100	Water	MGAL	85. 000	85. 000
0420	625. 0100	Topsoil	SY	4, 605. 000	4, 605. 000
0430	628. 1504	Silt Fence	LF	2, 560. 000	2, 560. 000
0440	628. 1520	Silt Fence Maintenance	LF	2, 560. 000	2, 560. 000
0450	628. 1905	Mobilizations Erosion Control	EACH	5. 000	5. 000
0460	628. 1910	Mobilizations Emergency Erosion Control	EACH	5. 000	5. 000
0470	628. 2006	Erosion Mat Urban Class I Type A	SY	4, 605. 000	4, 605. 000
0480	628. 7504	Temporary Ditch Checks	LF	400. 000	400. 000
0490	628. 7555	Culvert Pipe Checks	EACH	50. 000	50. 000
0500	629. 0210	Fertilizer Type B	CWT	3. 200	3. 200
0510	630. 0130	Seeding Mixture No. 30	LB	85. 000	85. 000
0520	633. 5200	Markers Culvert End	EACH	56. 000	56. 000
0530	634. 0616	Posts Wood 4x6-Inch X 16-FT	EACH	136. 000	136. 000
0540	634. 0618	Posts Wood 4x6-Inch X 18-FT	EACH	54. 000	54. 000
0550	634. 0622	Posts Wood 4x6-Inch X 22-FT	EACH	10. 000	10. 000
0560	637. 2210	Signs Type II Reflective H	SF	1, 013. 200	1, 013. 200
0570	637. 2230	Signs Type II Reflective F	SF	349. 600	349. 600
0580	638. 2602	Removing Signs Type II	EACH	183. 000	183. 000
0590	638. 3000	Removing Small Sign Supports	EACH	188. 000	188. 000
0600	642. 5001	Field Office Type B	EACH	1. 000	1. 000
0610	643. 0100	Traffic Control (project) 01. 9155-05-70	EACH	1. 000	1. 000
0620	643. 0300	Traffic Control Drums	DAY	355. 000	355. 000
0630	643. 0420	Traffic Control Barricades Type III	DAY	34. 000	34. 000
0640	643. 0705	Traffic Control Warning Lights Type A	DAY	44. 000	44. 000
0650	643. 0715	Traffic Control Warning Lights Type C	DAY	226. 000	226. 000
0660	643. 0900	Traffic Control Signs	DAY	2, 389. 000	2, 389. 000
0670	646. 0106	Pavement Marking Epoxy 4-Inch	LF	181, 954. 000	181, 954. 000
0680	646. 0406	Pavement Marking Same Day Epoxy 4-Inch	LF	65, 910. 000	65, 910. 000
0690	646. 0600	Removing Pavement Markings	LF	900. 000	900. 000
0700	647. 0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	70. 000	70. 000
0710	648. 0100	Locating No-Passing Zones	MI	9. 210	9. 210
0720	649. 0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	860. 000	860. 000
0730	649. 0402	Temporary Pavement Marking Paint 4-Inch	LF	89, 360. 000	89, 360. 000
0740	649. 1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	LF	96. 000	96. 000
0750	650. 4500	Construction Staking Subgrade	LF	400. 000	400. 000
0760	650. 5000	Construction Staking Base	LF	400. 000	400. 000
0770	650. 6000	Construction Staking Pipe Culverts	EACH	4. 000	4. 000
0780	650. 8000	Construction Staking Resurfacing Reference	LF	40, 030. 000	40, 030. 000
0790	650. 9910	Construction Staking Supplemental Control (project) 01. 9155-05-70	LS	1. 000	1. 000
0800	650. 9920	Construction Staking Slope Stakes	LF	800. 000	800. 000
0810	661. 0100	Temporary Traffic Signals for Bridges (structure) 01. B-34-0003	LS	1. 000	1. 000
0820	661. 0100	Temporary Traffic Signals for Bridges (structure) 02. STA 893+34	LS	1. 000	1. 000
0830	690. 0150	Sawing Asphalt	LF	784. 000	784. 000
0840	SPV. 0035	Special 01. Concrete Masonry Deck Patching	CY	1. 000	1. 000
0850	SPV. 0060	Special 01. Culvert Pipe Transition, STA 75+15	EACH	1. 000	1. 000

DATE 29MAR16		E S T I M A T E O F Q U A N T I T I E S			
LINE					9155-05-70
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0860	SPV.0060	Speci al 02. Culvert Pipe Transition, STA 835+03	EACH	1.000	1.000
0870	SPV.0060	Speci al 03. Culvert Pipe Transition, STA 893+34	EACH	1.000	1.000
0880	SPV.0060	Speci al 04. Culvert Pipe Transition, STA 1036+18	EACH	1.000	1.000
0890	SPV.0060	Speci al 05. Lane Shift, STA 75+15	EACH	2.000	2.000
0900	SPV.0060	Speci al 06. Lane Shift, STA 893+34	EACH	2.000	2.000
0910	SPV.0090	Speci al 01. Sawing Pavement Deck Preparation Areas	LF	200.000	200.000
0920	SPV.0105	Speci al 01. Water Diversion at STA 893+34	LS	1.000	1.000
0930	SPV.0120	Speci al 01. Water for Seeded Areas	MGAL	103.000	103.000

3

REMOVALS

p				
			201.0205	204.0120
			REMOVING ASPHALTIC	
			GRUBBING	SURFACE MILLING
STATION	TO	STATION	STA	SY
2+70		106+00	---	27600
106+00		148+50	---	14200
828+00		892+00	---	17100
892+00		896+00	4	---
896+00		1082+50	---	49800
TOTAL			4	108700

LOCATION	211.0100	213.0100
	PREPARE FOUNDATION	FINISHING
	FOR ASPHALTIC PAVING	ROADWAY
	(9155-05-70)	(9155-05-70)
	LS	EACH
STH 55	1	1

3

PAVEMENT ITEMS

			211.0400	305.0110	305.0120	305.0500	455.0605*	460.4000	460.5223	460.5224	465.0105	465.0110	465.0475	624.0100
			PREPARE	BASE	BASE								ASPHALTIC	
			FOUNDATION	AGGREGATE	AGGREGATE			HMA COLD	HMA	HMA		ASPHALTIC	CENTERLINE	
			FOR ASPHALTIC	DENSE	DENSE	SHAPING	TACK	WEATHER	PAVEMENT	PAVEMENT	ASPHALTIC	SURFACE	RUMBLE STRIPS	
			SHOULDER	3/4-INCH	1 1/4-INCH	SHOULDERS	COAT	PAVING	3 LT 58-28 S	4 LT 58-28 S	SURFACE	PATCHING	2-LANE RURAL	WATER
STATION	TO	STATION	STA	TON	TON	STA	GAL	TON	TON	TON	TON	TON	LF	MGAL
2+70		106+00	207	500	---	---	2,890	448	920	3555	---	200	---	10
106+00		148+50	---	455	---	85	1,190	335	1890	1465	---	100	---	9
828+00		892+00	128	310	---	---	600	277	570	2205	---	150	---	6
892+00		896+00	8	55	1170	---	190	32	180	140	---	---	---	25
896+00		1082+50	373	910	---	---	5,220	808	1660	6425	---	500	---	18
43+50		148+50	---	---	---	---	---	---	---	---	---	---	9700	---
828+00		851+00	---	---	---	---	---	---	---	---	---	---	2300	---
944+00		1078+00	---	---	---	---	---	---	---	---	---	---	11400	---
GRAVEL DRIVEWAYS & SIDE ROADS			---	250	---	---	---	---	---	---	---	---	---	5
73+99		76+75	---	---	188	---	---	---	---	---	---	---	---	4
891+65		894+88	---	---	223	---	---	---	---	---	---	---	---	4
74+70		75+70	---	---	123	---	---	---	---	---	70	---	---	2
834+87		835+37	---	---	43	---	---	---	---	---	40	---	---	1
1036+02		1036+52	---	---	43	---	---	---	---	---	40	---	---	1
TOTAL			716	2480	1790	85	10090	1900	5220	13790	150	950	23400	85

* CALCULATED AT 0.07 GAL PER SQUARE YARD

3

CULVERT ITEMS

	203.0100	209.0100	522.0124	522.0136	522.1024	522.1036	523.0119	523.0519	633.5200	SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04	SPV.0060.05	SPV.0060.06
	REMOVING	BACKFILL	CULVERT PIPE REINFORCED		APRON ENDWALLS FOR		CULVERT PIPE REINF.	APRON ENDWALLS FOR		CULVERT	CULVERT	CULVERT	CULVERT	LANE	LANE
	SMALL PIPE	GRANULAR	CONCRETE CLASS III		CONCRETE		CONCRETE HORIZ.	CONCETE HORIZONTAL	MARKERS	PIPE	PIPE	PIPE	PIPE	SHIFT	SHIFT
	CULVERTS		24-INCH	36-INCH	24-INCH	36-INCH	ELLIPTICAL CLASS HE-III	ELLIPTICAL 19X30-INCH	CULVERT	TRANSITION	TRANSITION	TRANSITION	TRANSITION	STA 75+15	STA 893+34
STATION	EACH	CY	LF	LF	EACH	EACH	LF	EACH	EACH	EACH	EACH			EACH	EACH
75+18	1	260	108	---	2	---	---	---	2	1	---	---	---	2	---
835+03	1	50	---	---	---	---	38	2	2	---	1	---	---	---	---
893+34	1	280	---	126	---	2	---	---	2	---	---	1	---	---	2
1036+18	1	50	---	---	---	---	40	2	2	---	---	---	1	---	---
Existing Culverts	---	---	---	---	---	---	---	---	48	---	---	---	---	---	---
TOTAL	4	640	108	126	2	2	78	4	56	1	1	1	1	2	2

3

BEAM GUARD ITEMS

					204.0165	614.0010	614.0200	614.0345	614.0370	614.0390
					REMOVING	BARRIER SYSTEM	STEEL THRIE BEAM	STEEL PLATE	STEEL PLATE BEAM	STEEL PLATE BEAM
					GUARDRAIL	GRADING SHAPING	STRUCTURE	BEAM GUARD	GUARD ENERGY	GUARD SHORT
						FINISHING	APPROACH	SHORT RADIUS	ABSORBING TERMINAL	RADIUS TERMINAL
STA	OFFSET	TO	STA	OFFSET	LF	EACH	LF	LF	EACH	EACH
17+19.8	LT		17+69.9	LT	110	1	---	---	1	---
17+69.9	LT		17+91.1	LT	---	---	20.7	---	---	---
17+35.8	RT		17+86.2	RT	64	1	---	---	1	---
17+86.2	RT		18+05.8	RT	---	---	20.7	---	---	---
18+48.6	LT		18+67.8	LT	53	---	20.7	---	---	---
18+67.8	LT		18+94.4	LT	---	---	---	49.5	---	---
18+94.4	LT		18+95.4	LT	---	1	---	---	---	1
18+63.3	RT		18+82.8	RT	122	---	20.7	---	---	---
18+82.8	RT		19+33.9	RT	---	1	---	---	1	---
892+40.0	LT		895+05.0	LT	263	---	---	---	---	---
892+40.0	RT		895+05.0	RT	263	---	---	---	---	---
TOTAL					875	4	82.8	49.5	3	1

CULVERT PIPE TRANSITION, ITEMS			
SPV.0060.01, SPV.0060.02, SPV.0060.03, SPV.0060.04			
	REMOVING		
	ASPHALTIC	EXCAVATION	SAWING
	SURFACE*	COMMON*	ASPHALT*
STATION	SY	CY	LF
75+15	267	475	24
835+03	122	136	22
893+34	266	473	22
1036+18	122	136	22

* ITEMS & QUANTITIES LISTED FOR BID INFORMATION ONLY.

3

BARRIER SYSTEM GRADING, SHAPING, AND FINISHING, ITEM 614.0010

LOCATION	EXCAVATION*		EROSION MAT*		FERTILIZER*	SEEDING*
	COMMON	BORROW*	TOPSOIL*	URBAN CLASS I	TYPE B	MIXTURE 30
	CY	CY	SY	SY	CWT	LB
BEAM GUARD AT LILY RIVER BRIDGE						
SE BEAM GUARD	3	---	30	30	0.10	1
NE BEAM GUARD	---	25	90	90	0.10	2
SW BEAM GUARD	---	25	120	120	0.10	3
NW BEAM GUARD	---	---	15	15	0.10	1
TOTAL	3	50	255	255	0.40	7

*ITEMS & QUANTITIES LISTED FOR BID INFORMATION ONLY

3

RESTORATION ITEMS

LOCATION	625.0100	628.2006	629.0210	630.0130	SPV.0120.01
	TOPSOIL	EROSION MAT	FERTILIZER	SEEDING	WATER FOR
		URBAN CLASS I			
	SY	SY	CWT	LB	MGAL
STA 16+00 TO STA 21+00 (LILY RIVER BRIDGE)	420	420	0.30	8	9
STA 73+75 TO STA 76+75 (CULVERT @ STA 75+15)	1420	1420	0.90	26	32
CULVERT @ STA 835+12	100	100	0.10	2	2
STA 892+00 TO STA 896+00 (CULVERT @ STA 893+34)	1950	1950	1.30	36	44
STA 1035+50 TO STA 1037+00 (CULVERT AT STA 1036+18)	215	215	0.20	4	5
UNDISTRIBUTED	500	500	0.40	9	11
TOTAL	4605	4605	3.20	85	103

618.0100
MAINTENANCE
AND REPAIR OF
HAUL ROADS
(9155-05-70)

LOCATION	EACH
STH 55	1

619.1000
MOBILIZATION

LOCATION	EACH
STH 55	1

EROSION CONTROL ITEMS

LOCATION	628.1504	628.1520	628.1905	628.1910	628.7504	628.7555
	SILT FENCE	SILT FENCE MAINTENANCE	MOBILIZATIONS	EMERGENCY	TEMPORARY DITCH CHECKS	CULVERT
			EROSION CONTROL	EROSION CONTROL		PIPE CHECKS
	LF	LF	EACH	EACH	LF	EACH
STA 16+00 TO STA 21+00 (LILY RIVER BRIDGE)	555	555	1	---	100	---
STA 73+75 TO STA 76+75 (CULVERT @ STA 75+15)	640	640	1	---	50	10
CULVERT @ STA 835+12	---	---	---	---	50	10
STA 892+00 TO STA 896+00 (CULVERT @ STA 893+34)	860	860	1	---	50	10
STA 1035+50 TO STA 1037+00 (CULVERT AT STA 1036+18)	255	255	1	---	50	10
UNDISTRIBUTED	250	250	1	5	100	10
TOTAL	2560	2560	5	5	400	50

PROJECT NO: 9155-05-70

HWY: STH 55

COUNTY: LANGLADE

MISCELLANEOUS QUANTITIES

SHEET

E

PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II REFL. H S.F.	SIGNS, TYPE II REFL. F S.F.	POSTS WOOD 4X6X16 EACH	POSTS WOOD 4X6X18 EACH	POSTS WOOD 4X6X22 EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
100	J4-1	2S	---	24	36	6.00	---	1	---	---	1	---	---
	M3-3	2S	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
101	D2-2	2S	LANGLADE 12 SHAWANO 45	64	30	13.33	---	2	---	---	1	2	---
102	R2-1	2S	SPEED LIMIT 35	24	30	5.00	---	1	---	---	1	1	---
103	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
104	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
105	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
106	J1-1	2S	---	24	39	6.50	---	1	---	---	1	1	---
	M2-1	2S	JCT	21	15	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
107	W5-2	2S	Narrow Bridge	36	36	---	9.00	1	---	---	1	1	---
108	D1-3	2S	[A] ANTIGO CRANDON WABENO [A]	54	42	15.75	---	---	2	---	1	1	---
109	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
110	R2-1	2S	SPEED LIMIT 35	24	30	5.00	---	1	---	---	1	1	---
111	R2-1	2S	SPEED LIMIT 35	24	30	5.00	---	1	---	---	1	1	---
112	J4-1	2S	---	24	36	6.00	---	1	---	---	1	1	---
	M3-3	2S	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
113	J3-3	2S	---	72	57	28.50	---	---	2	---	1	2	---
	M3-1	2S	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-4	2S	WEST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-2	2S	EAST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
114	J3-3	2S	---	72	57	28.50	---	---	2	---	1	2	---
	M3-3	2S	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-1	2S	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-4	2S	WEST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---

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PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II REFL. H S.F.	SIGNS, TYPE II REFL. F S.F.	POSTS WOOD 4X6X16 EACH	POSTS WOOD 4X6X18 EACH	POSTS WOOD 4X6X22 EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
115	R1-1	3	Stop	36	36	7.46	---	1	---	---	1	1	---
116	J3-2	2S	---	48	57	19.00	---	---	1	---	1	1	---
	M3-2	2S	EAST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-3	2S	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
117	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	W5-52L	2S	TIGER BOARD	12	36	---	3.00	1	---	---	1	1	---
	W5-52R	2S	TIGER BOARD	12	36	---	3.00	1	---	---	1	1	---
	W5-52R	2S	TIGER BOARD	12	36	---	3.00	1	---	---	1	1	---
	W5-52L	2S	TIGER BOARD	12	36	---	3.00	1	---	---	1	1	---
	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
122	R2-1	2S	SPEED LIMIT 35	24	30	5.00	---	1	---	---	1	1	---
123	D1-2	2S	[A] LANGLADE	60	30	12.50	---	2	---	---	1	2	---
124	D1-2	2S	[A] WABENO	60	30	12.50	---	2	---	---	1	1	---
			[A] CRANDON										
125	R2-1	2S	[A] ANTIGO	24	30	5.00	---	1	---	---	1	1	---
			SPEED LIMIT 35										
126	W5-2	2S	Narrow Bridge	36	36	---	9.00	1	---	---	1	1	---
127	J3-3	2S	---	72	57	28.50	---	---	2	---	1	2	---
	M3-1	2S	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-3	2S	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-2	2S	EAST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
128	R1-1	3	Stop	36	36	7.46	---	1	---	---	1	1	---
129	J3-2	2S	---	48	57	19.00	---	---	1	---	1	1	---
	M3-4	2S	WEST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-1	2S	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
130	W1-7	2S	NIGHT ARROW (DOUBLE)	48	24	---	8.00	1	---	---	1	1	---
131	J4-1	2S	---	24	36	6.00	---	1	---	---	1	1	---
	M3-1	2S	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---

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PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II REFL. H S.F.	SIGNS, TYPE II REFL. F S.F.	POSTS WOOD 4X6X16 EACH	POSTS WOOD 4X6X18 EACH	POSTS WOOD 4X6X22 EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
132	J3-3	2S	---	72	57	28.50	---	---	2	---	1	2	---
	M3-3	2S	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-2	2S	EAST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
	M3-4	2S	WEST	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	52	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
133	D2-2	2S	PICKEREL 5	60	30	12.50	---	2	---	---	1	2	---
134	D1-3	2S	CRANDON 25 [A] LANGLADE WABENO	60	42	17.50	---	---	2	---	1	2	---
135	R2-1	2S	ANTIGO [A] SPEED LIMIT 45	24	30	5.00	---	---	1	---	1	1	---
136	W11-6	2S	Snowmobile Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
137	R2-1	2S	SPEED LIMIT 35	24	30	5.00	---	1	---	---	1	1	---
200	J1-1	2S	---	24	39	6.50	---	---	1	---	1	1	---
	M2-1	2S	JCT	21	15			---	---	---			---
	M1-6	2S	52	24	24			---	---	---			---
201	W11-8	2S	Fire Station Truck Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
202	I2-3	3	LILY UNINCORPORATED	54	24	9.00	---	2	---	---	1	1	---
203	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
204	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
205	R2-1	2S	SPEED LIMIT 55	24	30	5.00	---	---	1	---	1	1	---
206	R2-1	2S	SPEED LIMIT 45	24	30	5.00	---	---	1	---	1	1	---
207	W3-5	3	SPEED LIMIT 45 AHEAD [A]	36	36	---	9.00	1	---	---	2	1	---
300	W8-5	2S	Slippery When Wet Symbol	30	30	---	6.25	1	---	---	1	1	---
301	W14-3	2M	No Passing Zone	48	36	---	10.67	---	1	---	1	1	---
400	I55-56	2S	ADOPT A HIGHWAY SPONSOR GLENN AND KRYSTYNA DAWSON	30	36	7.50	---	1	---	---	1	1	---
401	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
402	W14-3	2M	No Passing Zone	48	36	---	10.67	---	1	---	1	1	---
403	W1-8	2M	Chevron	18	24	---	3.00	1	---	---	11	11	---
404	W1-8	2M	Chevron	18	24	---	3.00	---	---	---	---	---	Mount on back of #403
405	W1-8	2M	Chevron	18	24	---	3.00	1	---	---	---	---	---
406	W1-8	2M	Chevron	18	24	---	3.00	---	---	---	---	---	Mount on back of #405
407	W1-8	2M	Chevron	18	24	---	3.00	1	---	---	---	---	---
408	W1-8	2M	Chevron	18	24	---	3.00	---	---	---	---	---	Mount on back of #407
409	W1-8	2M	Chevron	18	24	---	3.00	1	---	---	---	---	---
410	W1-8	2M	Chevron	18	24	---	3.00	---	---	---	---	---	Mount on back of #409

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PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II	SIGNS, TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING SIGNS	REMOVING SMALL SIGN	
						REFL. H S.F.	REFL. F S.F.	4X6X16 EACH	4X6X18 EACH	4X6X22 EACH	TYPE II EACH	SUPPORTS EACH	
411	W1-8	2M	Chevron	18	24	---	3.00	1	---	---	---	---	---
412	W1-8	2M	Chevron	18	24	---	3.00	---	---	---	---	---	Mount on back of #411
500	W1-8	2M	Chevron	18	24	---	3.00	1	---	---	---	---	---
501	W1-8	2M	Chevron	18	24	---	3.00	---	---	---	---	---	Mount on back of #500
502	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
503	W1-6	2S	NIGHT ARROW (RIGHT)	48	24	---	8.00	1	---	---	1	1	---
700	D5-63	2S	Historical Marker [1/2] Mile	60	36	15.00	---	1	---	---	1	1	---
701	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
702	I55-56	2S	ADOPT A HIGHWAY SPONSOR	30	36	7.50	---	1	---	---	1	1	---
703	I55-56	2S	ST. JOHNS EV. LUTHERAN CHURCH ADOPT A HIGHWAY SPONSOR GLENN AND KRYSTYNA DAWSON	30	36	7.50	---	1	---	---	1	1	---
704	D5-66L	2S	MILITARY PARK STATE HISTORIC SITE [A]	90	36	22.50	---	2	---	---	1	2	---
705	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
706	D5-66R	2S	MILITARY PARK STATE HISTORIC SITE [A]	90	36	22.50	---	2	---	---	1	2	---
707	---	---	DEER CROSSING	---	---	---	---	---	---	---	1	1	Removal Only
800	D5-63	2S	Historical Marker [1/2] Mile	60	36	15.00	---	1	---	---	1	1	---
801	W14-3	2M	No Passing Zone	48	36	---	10.67	---	1	---	1	1	---
802	W14-3	2M	No Passing Zone	48	36	---	10.67	---	1	---	1	1	---
803	W3-5	3	SPEED LIMIT 40 AHEAD [A]	36	36	---	9.00	1	---	---	1	1	---
900	R10-64	3	No Engine Braking Except in Emergency	42	48	14.00	---	---	1	---	1	1	---
901	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
902	R2-1	2S	SPEED LIMIT 55	24	30	5.00	---	---	1	---	1	1	---
903	J1-1	2M	---	24	39	6.50	---	---	---	---	1	1	---
	M2-1	0	JCT	21	15	---	---	---	---	---	---	---	---
	M1-5A	0	COUNTY A	24	24	---	---	---	---	---	---	---	---
904	W2-1	2M	Cross Road	30	30	---	6.25	1	---	---	1	1	---
905	D1-1	2M	[A] NEVA CORNERS	76	18	9.50	---	2	---	---	1	2	---
906	J13-1	2M	---	24	45	7.50	---	---	1	---	1	1	---
	M1-5A	2M	COUNTY A	24	24	---	---	---	---	---	---	---	---
	M6-4	2M	[A]	21	21	---	---	---	---	---	---	---	---
907	J4-1	2M	---	24	36	6.00	---	1	---	---	1	1	---
	M3-3	2M	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2M	55	24	24	---	---	---	---	---	---	---	---
908	J13-1	2S	---	24	45	7.50	---	---	1	---	1	1	---
	M1-6	3	55	24	24	---	---	---	---	---	---	---	---
	M6-4	3	[A]	21	21	---	---	---	---	---	---	---	---
909	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
910	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
911	J13-1	2S	---	24	45	7.50	---	---	1	---	1	1	---
	M1-6	3	55	24	24	---	---	---	---	---	---	---	---
	M6-4	3	[A]	21	21	---	---	---	---	---	---	---	---

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PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II	SIGNS, TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING SIGNS	REMOVING SMALL SIGN	
						REFL. H S.F.	REFL. F S.F.	4X6X16 EACH	4X6X18 EACH	4X6X22 EACH	TYPE II EACH	SUPPORTS EACH	
912	J13-1	2M	---	24	45	7.50	---	---	1	---	1	1	---
	M1-5A	2M	COUNTY A	24	24	---	---	---	---	---	---	---	---
	M6-4	2M	[A]	21	21	---	---	---	---	---	---	---	---
913	J4-1	2M	---	24	36	6.00	---	1	---	---	1	1	---
	M3-1	2M	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2M	55	24	24	---	---	---	---	---	---	---	---
914	D1-3	2M	[A] LILY LANGLADE NEVA CORNERS [A] Cross Road	78	42	22.75	---	---	2	---	1	2	---
915	W2-1	2M		30	30	---	6.25	1	---	---	1	1	---
916	J1-1	2M	---	24	39	6.50	---	1	---	---	1	1	---
	M2-1	2M	JCT	21	15	---	---	---	---	---	---	---	---
	M1-5A	2M	COUNTY A	24	24	---	---	---	---	---	---	---	---
917	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	0	0	---
918	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	0	0	---
919	---	---	DEER CROSSING	---	---	---	---	---	---	---	1	1	Removal Only
1000	W14-3	2M	No Passing Zone	48	36	---	6.00	1	---	---	1	1	---
1001	I2-3	2M	PICKEREL UNINCORPORATED	54	24	9.00	---	2	---	---	1	1	---
1002	W11-8	2M	Fire Station Truck Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
1003	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1004	W14-3	2M	No Passing Zone	48	36	---	12.00	1	---	---	1	1	---
1005	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	0	0	---
1006	W11-8	2M	Fire Station Truck Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
1007	J4-1	2M	---	24	36	6.00	---	1	---	---	1	1	---
	M3-3	2M	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2M	55	24	24	---	---	---	---	---	---	---	---
1008	D2-1	2M	LILY 5	37	18	4.63	---	1	---	---	1	1	---
1009	R7-1L	2S	No Parking Any Time - LEFT Arrow	18	24	3.00	---	---	1	---	1	1	---
1010	R7-1R	2S	No Parking Any Time - RIGHT Arrow	18	24	3.00	---	1	---	---	1	1	---
1011	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1012	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	---	1	---	1	1	---
1013	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1014	R7-1D	2S	No Parking Any Time - Double Arrow	18	24	3.00	---	1	---	---	1	1	---
1015	R7-1D	2S	No Parking Any Time - Double Arrow	18	24	3.00	---	1	---	---	1	1	---
1016	J1-1	2M	---	24	39	6.50	---	---	1	---	1	1	---
	M2-1	2M	JCT	21	15	---	---	---	---	---	---	---	---
	M1-5A	2M	COUNTY DD	24	24	---	---	---	---	---	---	---	---
1017	R7-1D	2S	No Parking Any Time - Double Arrow	18	24	3.00	---	1	---	---	1	1	---
1018	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	---	1	---	1	1	---
1019	R7-1D	2S	No Parking Any Time - Double Arrow	18	24	3.00	---	---	---	---	1	---	Mount with #1018

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PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II REFL. H S.F.	SIGNS, TYPE II REFL. F S.F.	POSTS WOOD 4X6X16 EACH	POSTS WOOD 4X6X18 EACH	POSTS WOOD 4X6X22 EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	
1020	J12-1	2M	---	24	45	7.50	---	---	1	---	---	---	---
	M1-5A	2M	COUNTY DD	24	24	---	---	---	---	---	---	---	---
	M5-2R	2M	[A]	21	21	---	---	---	---	---	---	---	---
1021	J13-1	2M	---	24	45	7.50	---	---	1	---	1	2	---
	M1-6	2M	55	24	24	---	---	---	---	---	---	---	---
	M6-4	2M	[A]	21	21	---	---	---	---	---	---	---	---
1022	J13-1	2M	---	24	45	7.50	---	---	1	---	1	1	---
	M1-5A	2M	COUNTY DD	24	24	---	---	---	---	---	---	---	---
	M6-1	2M	[A]	21	21	---	---	---	---	---	---	---	---
1023	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1024	I55-56	2M	ADOPT A HIGHWAY SPONSOR ST. JOHNS EV. LUTHERAN CHURCH	30	36	7.50	---	1	---	---	1	1	---
1025	R7-1L	2S	No Parking Any Time - LEFT Arrow	18	24	3.00	---	1	---	---	1	1	---
1026	D11-6	2M	Snowmobile Route with Symbol	24	18	3.00	---	---	---	---	1	1	Mount with #1009
1027	W11-6	2M	Snowmobile Crossing Symbol	30	30	---	6.25	---	---	---	1	---	Mount with #1012
1028	R7-1D	2S	No Parking Any Time - Double Arrow	18	24	3.00	---	---	---	---	1	---	Mount with #1016
1029	D11-6	2M	Snowmobile Route with Symbol	24	18	3.00	---	1	---	---	1	1	---
1030	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	---	1	---	1	1	---
1031	R7-1D	2S	No Parking Any Time - Double Arrow	18	24	3.00	---	---	---	---	1	---	Mount with #1030
1032	R3-4	2S	No U-Turn Symbol	24	24	4.00	---	---	---	---	1	1	Mount with #1020
1100	D7-59R	2M	Tourist Information/Arrow Right	54	36	13.50	---	2	---	---	1	1	---
1101	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1102	J4-1	2M	---	24	36	6.00	---	1	---	---	1	1	---
	M3-1	2M	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2M	55	24	24	---	---	---	---	---	---	---	---
1103	D2-1	2M	MOLE LAKE 10	72	18	9.00	---	2	---	---	1	2	---
1104	W14-3	2M	No Passing Zone	48	36	---	12.00	1	---	---	1	1	---
1105	I55-56	2M	ADOPT A HIGHWAY SPONSOR PEARSON PICKEREL LIONS CLUB	30	36	7.50	---	1	---	---	1	1	---
1106	I2-3	2M	PICKEREL	54	24	9.00	---	2	---	---	1	1	---
1107	J1-1	2M	---	24	39	6.50	---	1	---	---	1	1	---
	M2-1	2M	JCT	21	15	---	---	---	---	---	---	---	---
	M1-5A	2M	COUNTY DD	24	24	---	---	---	---	---	---	---	---
1109	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1110	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1111	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1112	W11-2	2S	Pedestrian Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
1113	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---

3

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PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II	SIGNS, TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING SIGNS	REMOVING SMALL SIGN	
						REFL. H S.F.	REFL. F S.F.	4X6X16 EACH	4X6X18 EACH	4X6X22 EACH	TYPE II EACH	SUPPORTS EACH	
1114	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1115	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1116	R2-1	2S	SPEED LIMIT 40	24	30	7.50	---	1	---	---	1	1	---
1200	W11-2	2S	Pedestrian Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
1201	R2-1	2S	SPEED LIMIT 55	24	30	5.00	---	---	1	---	1	1	---
1202	R2-1	2S	SPEED LIMIT 40	24	30	5.00	---	1	---	---	1	1	---
1203	W14-3	2M	No Passing Zone	48	36	---	10.67	---	1	---	1	1	---
1204	W3-5	3	SPEED LIMIT 40 AHEAD [A]	36	36	---	9.00	1	---	---	1	1	---
1205	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1206	R10-64	3	No Engine Braking Except in Emergency	42	48	14.00	---	---	1	---	1	1	---
1207	W2-2	2M	Side Road (90 Degrees)	30	30	---	6.25	1	---	---	1	1	---
1300	W2-2	2M	Side Road (90 Degrees)	30	30	---	6.25	1	---	---	1	1	---
1301	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1302	S3-1	2S	School Bus Stop Ahead	36	36	9.00	---	---	1	---	1	1	---
1303	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1304	W2-2	2M	Side Road (90 Degrees)	30	30	---	6.25	1	---	---	1	1	---
1305	W2-2	2M	Side Road (90 Degrees)	30	30	---	6.25	1	---	---	1	1	---
1306	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1400	W11-6	2S	Snowmobile Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
1401	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1402	W11-6	2S	Snowmobile Crossing Symbol	30	30	---	6.25	1	---	---	1	1	---
1500	I55-56	2M	ADOPT A HIGHWAY SPONSOR ARBUTUS LUTHERAN CHURCH	30	36	7.50	---	1	---	---	1	1	---
1501	I55-56	2M	ADOPT A HIGHWAY SPONSOR	30	36	7.50	---	1	---	---	1	1	---
1502	W1-2L	2S	Left Curve	30	30	---	6.25	---	1	---	1	1	---
1503	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1504	S3-1	2S	School Bus Stop Ahead	36	36	9.00	---	---	1	---	1	1	---
1505	W2-2	2M	Side Road (90 Degrees)	30	30	---	6.25	1	---	---	1	1	---
1506	W1-2R	2S	Right Curve	30	30	---	6.25	---	1	---	1	1	---
1507	W13-1	2S	50 M.P.H.	18	18	---	2.25	---	---	---	1	---	Mount with #1502
1508	W13-1	2S	50 M.P.H.	18	18	---	2.25	---	---	---	1	---	Mount with #1506
1600	W3-5	3	SPEED LIMIT 50 AHEAD [A]	36	36	---	9.00	1	---	---	1	1	---
1601	J1-1	2S	---	24	39	6.50	---	---	1	---	1	1	---
	M2-1	2S	JCT	21	15	---	---	---	---	---	---	---	---
	M1-5A	2S	COUNTY T	24	24	---	---	---	---	---	---	---	---
1602	R2-1	2S	SPEED LIMIT 50	24	30	5.00	---	---	1	---	1	1	---
1603	R2-1	2S	SPEED LIMIT 55	24	30	5.00	---	---	1	---	1	1	---
1604	W1-4R	3	Right Reverse Curve	36	36	---	9.00	1	---	---	1	1	---
1605	J4-1	2S	---	24	36	6.00	---	---	1	---	1	1	---
	M3-3	2S	SOUTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---

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PERMANENT SIGNING QUANTITIES

SIGN NO.	SIGN CODE	SIGN SIZE	SIGN MESSAGE	WIDTH (IN.)	HEIGHT (IN.)	637.2210	637.2230	634.0616	634.0618	634.0622	638.2602	638.3000	REMARKS
						SIGNS, TYPE II	SIGNS, TYPE II	POSTS WOOD	POSTS WOOD	POSTS WOOD	REMOVING SIGNS	REMOVING SMALL SIGN	
						REFL. H S.F.	REFL. F S.F.	4X6X16 EACH	4X6X18 EACH	4X6X22 EACH	TYPE II EACH	SUPPORTS EACH	
1606	J13-1	2S	---	24	45	7.50	---	---	1	---	1	1	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
	M6-4	2S	[A]	21	21	---	---	---	---	---	---	---	---
1607	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1608	J13-1	2S	---	24	45	7.50	---	---	1	---	---	---	---
	M1-5A	2S	COUNTY T	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
1609	W1-7	2S	NIGHT ARROW (DOUBLE)	48	24	---	8.00	1	---	---	1	1	---
1610	J13-1	2S	---	24	45	7.50	---	---	1	---	---	---	---
	M1-5A	2S	COUNTY T	24	24	---	---	---	---	---	---	---	---
	M6-1	2S	[A]	21	21	---	---	---	---	---	---	---	---
1611	J4-1	2S	---	24	36	6.00	---	---	1	---	1	1	---
	M3-1	2S	NORTH	24	12	---	---	---	---	---	---	---	---
	M1-6	2S	55	24	24	---	---	---	---	---	---	---	---
1612	R2-1	2S	SPEED LIMIT 50	24	30	5.00	---	---	1	---	1	1	---
1613	R1-1	2S	Stop	30	30	5.18	---	1	---	---	1	1	---
1614	W1-6	2S	NIGHT ARROW (RIGHT)	48	24	---	8.00	1	---	---	1	1	---
1615	M1-6	3	55	36	36	9.00	---	---	---	---	1	---	Mount with #1614

UNDISTRIBUTED	---	---	---	---	10	---	---
TOTAL	1013.20	349.60	136	54	10	183	188

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TRAFFIC CONTROL ITEMS

LOCATION	CALENDAR DAYS*	603.8000	603.8125	643.0100	643.0300	643.0420	643.0705	643.0715	643.0900	646.0600	649.0400	649.1400	661.0100.01	661.0100.02
		CONCRETE	CONCRETE				TRAFFIC	TRAFFIC			TEMP PVMT	PAVEMENT	TEMPORARY	TEMPORARY
		BARRIER	BARRIER			TRAFFIC	CONTROL	CONTROL			MARKING	MARKING	TRAFFIC	TRAFFIC
		TEMPORARY	TEMPORARY	TRAFFIC	TRAFFIC	CONTROL	WARNING	WARNING	TRAFFIC	REMOVING	REMOVABLE	STOP LINE	SIGNAL	SIGNAL
		PRECAST DELIVERED	PRECAST INSTALLED	CONTROL (PROJECT)	CONTROL DRUMS	BARRICADES TYPE III	LIGHTS TYPE A	LIGHTS TYPE C	CONTROL SIGNS	PAVEMENT MARKINGS	TAPE 4-INCH WHITE	REMOVABLE TAPE 24-INCH	FOR BRIDGES (B-34-0003)	FOR BRIDGES (STA 893+34)
		LF	LF	EACH	DAY	DAY	DAY	DAY	DAY	LF	LF	LF	LS	LS
ADVANCE WARNING - PROJECT	73	---	---	1	---	---	---	---	2117	---	---	---	---	---
POLYMER OVERLAY AT LILY BRIDGE - STAGE 1	2	---	---	---	48	14	16	24	56	---	170	24	1	---
POLYMER OVERLAY AT LILY BRIDGE - STAGE 2	2	---	---	---	46	14	16	22	56	---	190	24	---	---
CULVERT AT STA 75+20 - STAGE 1	1	---	---	---	28	---	---	22	8	---	---	---	---	---
CULVERT AT STA 75+20 - STAGE 2	1	---	---	---	32	---	---	26	8	---	---	---	---	---
CULVERT AT STA 893+34 - STAGE 1	3	220	220	---	111	3	6	69	72	500	250	24	---	1
CULVERT AT STA 893+34 - STAGE 2	3	220	220	---	90	3	6	63	72	400	250	24	---	---
TOTAL		440	440	1	355	34	44	226	2389	900	860	96	1	1

*INFORMATION ONLY

EARTHWORK SUMMARY

LOCATION	205.0100	20%	208.0100
	COMMON	EXPANDED	BORROW
	EXCAVATION CY	FILL CY	
STA 892+00 TO 896+00	665	1107	442

Station	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
	Cut	Fill	Cut	Fill	Cut	Expanded Fill	
					1.00	1.20	
892+00	56.81	0	0	0	0	0	0
892+50	55.39	3.72	104	3	104	4	100
893+00	42.70	109.89	91	105	195	130	65
893+34	38.31	271.39	51	240	246	417	-172
893+50	37.24	225.00	22	147	268	594	-326
894+00	41.28	87.52	73	289	341	941	-600
894+50	44.06	26.43	79	106	420	1068	-648
895+00	46.16	2.19	84	27	503	1099	-596
895+50	39.17	0.68	79	3	582	1103	-520
896+00	50.11	3.24	83	4	665	1107	-442

STAKING ITEMS

LOCATION	650.4500	650.5000	650.6000	650.8000	650.9910	650.9920
	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
	STAKING	STAKING	STAKING	STAKING	STAKING SUPPLEMENTAL	STAKING
	SUBGRADE	BASE	PIPE CULVERTS	RESURFACING REFERENCE	CONTROL (9155-05-70)	SLOPE STAKES
	LF	LF	EACH	LF	LS	LF
STA 2+70 TO STA 1082+50	---	---	---	40030	1	---
STA 75+18	---	---	1	---	---	---
STA 835+12	---	---	1	---	---	---
STA 892+00 TO STA 896+00	400	400	1	---	---	800
STA 1036+18	---	---	1	---	---	---
TOTAL	400	400	4	40030	1	800

PROJECT NO: 9155-05-70

HWY: STH 55

COUNTY: LANGLADE

MISCELLANEOUS QUANTITIES

SHEET

E

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PAVEMENT MARKING ITEMS									

file 1 197 B

TRANSPORTATION PROJECT PLAT NO: 9155-05-20-4.01

THAT PART OF GOVERNMENT LOT ONE (1), SECTION 7, TOWNSHIP 33 NORTH, RANGE 13 EAST, TOWN OF LANGLADE, LANGLADE COUNTY, WISCONSIN.

RELOCATION ORDER STH 55 LANGLADE COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.

2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

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

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

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

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

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

EXISTING STH 55 IS ESTABLISHED IN TWO WAYS. ON THE WESTERLY SIDE OF THE ROAD, THE RIGHT OF WAY IS BASED FROM THE CURRENT CENTERLINE OF THE ROAD WHICH RESEMBLES THE HISTORIC ROADWAY AS DEPICTED IN PROJECT 7052 IN 1936. ON THE EASTERLY SIDE OF THE ROAD, THE ROW IS BASED ON THE ACQUIRED ROW AS SHOWN IN PROJECT 7052 IN 1936. WHILE ADDITIONAL RIGHT OF WAY WAS ACQUIRED IN 1936 ON THE EASTERLY SIDE OF THE ROAD, IT IS APPARENT THAT THE ROADWAY WAS NOT RELOCATED TO THE ALIGNMENT AS DEFINED IN PROJECT 7052. IT IS ALSO APPARENT THAT FOUND MONUMENTATION AND RECORDED CERTIFIED SURVEY MAPS FOR THIS AREA DO NOT CONFORM TO THE RIGHT OF WAY ACQUISITIONS FROM 1936.

CONVENTIONAL SYMBOLS

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

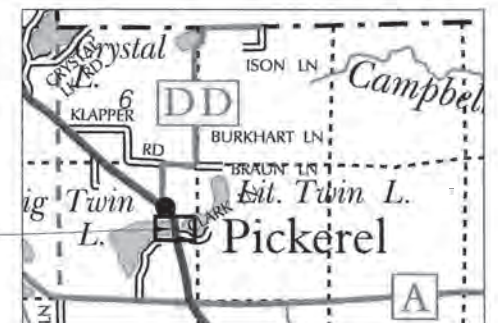
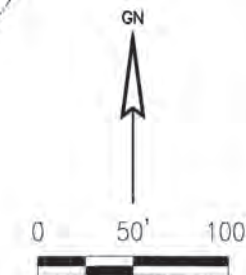
CURVE 2
R= 692.00
L= 216.26
ChL= 215.38
ChB= N12° 11' 20"W
Tan= 109.02
D= 08° 16' 47"
A= 17° 54' 21" LT
PC= 893+89.31
PT= 896+05.57
PI= 894+98.33
X= 683071.04
Y= 419663.30

UTILITY EASEMENT
DOC #139984

CURVE TABLE

B-C	756.80
L	54.31
ChL	54.30
ChB	509° 38' 34"E
G-H	1870.10
L	48.22
ChL	48.22
ChB	503° 15' 24"E
I-J	2233.00
L	143.98
ChL	143.96
ChB	N05° 05' 00"W

CURVE 4
R= 716.80 (716.8)
L= 623.87 (625.0)
ChL= 604.36
ChB= N27° 27' 07"W
Tan= 333.24 (334.0)
D= 07° 59' 36"
A= 49° 52' 04" LT
PC= 258+78.23 (258+75.0)
PT= 265+02.10 (265+00)
PI= 262+11.47
X= 683087.59
Y= 419833.92



LINE TABLE

A-B	N81° 44' 21"E	89.67
C-D	S19° 47' 51"E	53.13
D-E	S03° 14' 10"E	50.00
E-F	S25° 35' 49"W	28.54
F-G	S02° 31' 05"E	31.25
G-H	N86° 49' 58"W	86.25
H-I	N03° 14' 10"W	180.94
I-J	N32° 29' 06"W	85.96
J-K	N03° 14' 10"W	50.00
K-L	N25° 28' 58"E	82.14

CENTER OF
SEC. 7-33-13

N00° 53' 31"E

2645.15'

GOV. LOT 1

GOV. LOT 2

GOV. LOT 3

GOV. LOT 4

GOV. LOT 5

GOV. LOT 6

GOV. LOT 7

GOV. LOT 8

GOV. LOT 9

GOV. LOT 10

GOV. LOT 11

GOV. LOT 12

GOV. LOT 13

GOV. LOT 14

GOV. LOT 15

GOV. LOT 16

GOV. LOT 17

GOV. LOT 18

GOV. LOT 19

GOV. LOT 20

GOV. LOT 21

GOV. LOT 22

GOV. LOT 23

GOV. LOT 24

GOV. LOT 25

GOV. LOT 26

GOV. LOT 27

GOV. LOT 28

GOV. LOT 29

GOV. LOT 30

GOV. LOT 31

GOV. LOT 32

GOV. LOT 33

GOV. LOT 34

GOV. LOT 35

GOV. LOT 36

GOV. LOT 37

GOV. LOT 38

GOV. LOT 39

GOV. LOT 40

GOV. LOT 41

GOV. LOT 42

GOV. LOT 43

GOV. LOT 44

GOV. LOT 45

GOV. LOT 46

GOV. LOT 47

GOV. LOT 48

GOV. LOT 49

GOV. LOT 50

GOV. LOT 51

GOV. LOT 52

GOV. LOT 53

GOV. LOT 54

GOV. LOT 55

GOV. LOT 56

GOV. LOT 57

GOV. LOT 58

GOV. LOT 59

GOV. LOT 60

GOV. LOT 61

GOV. LOT 62

GOV. LOT 63

GOV. LOT 64

GOV. LOT 65

GOV. LOT 66

GOV. LOT 67

GOV. LOT 68

GOV. LOT 69

GOV. LOT 70

GOV. LOT 71

GOV. LOT 72

GOV. LOT 73

GOV. LOT 74

GOV. LOT 75

GOV. LOT 76

GOV. LOT 77

GOV. LOT 78

GOV. LOT 79

GOV. LOT 80

GOV. LOT 81

GOV. LOT 82

GOV. LOT 83

GOV. LOT 84

GOV. LOT 85

GOV. LOT 86

GOV. LOT 87

GOV. LOT 88

GOV. LOT 89

GOV. LOT 90

GOV. LOT 91

GOV. LOT 92

GOV. LOT 93

GOV. LOT 94

GOV. LOT 95

GOV. LOT 96

GOV. LOT 97

GOV. LOT 98

GOV. LOT 99

GOV. LOT 100

GOV. LOT 101

GOV. LOT 102

GOV. LOT 103

GOV. LOT 104

GOV. LOT 105

GOV. LOT 106

GOV. LOT 107

GOV. LOT 108

GOV. LOT 109

GOV. LOT 110

GOV. LOT 111

GOV. LOT 112

GOV. LOT 113

GOV. LOT 114

GOV. LOT 115

GOV. LOT 116

GOV. LOT 117

GOV. LOT 118

GOV. LOT 119

GOV. LOT 120

GOV. LOT 121

GOV. LOT 122

GOV. LOT 123

GOV. LOT 124

GOV. LOT 125

GOV. LOT 126

GOV. LOT 127

GOV. LOT 128

GOV. LOT 129

GOV. LOT 130

GOV. LOT 131

GOV. LOT 132

GOV. LOT 133

GOV. LOT 134

GOV. LOT 135

GOV. LOT 136

GOV. LOT 137

GOV. LOT 138

GOV. LOT 139

GOV. LOT 140

GOV. LOT 141

GOV. LOT 142

GOV. LOT 143

GOV. LOT 144

GOV. LOT 145

GOV. LOT 146

GOV. LOT 147

GOV. LOT 148

GOV. LOT 149

GOV. LOT 150

GOV. LOT 151

GOV. LOT 152

GOV. LOT 153

GOV. LOT 154

GOV. LOT 155

GOV. LOT 156

GOV. LOT 157

GOV. LOT 158

GOV. LOT 159

GOV. LOT 160

GOV. LOT 161

GOV. LOT 162

GOV. LOT 163

GOV. LOT 164

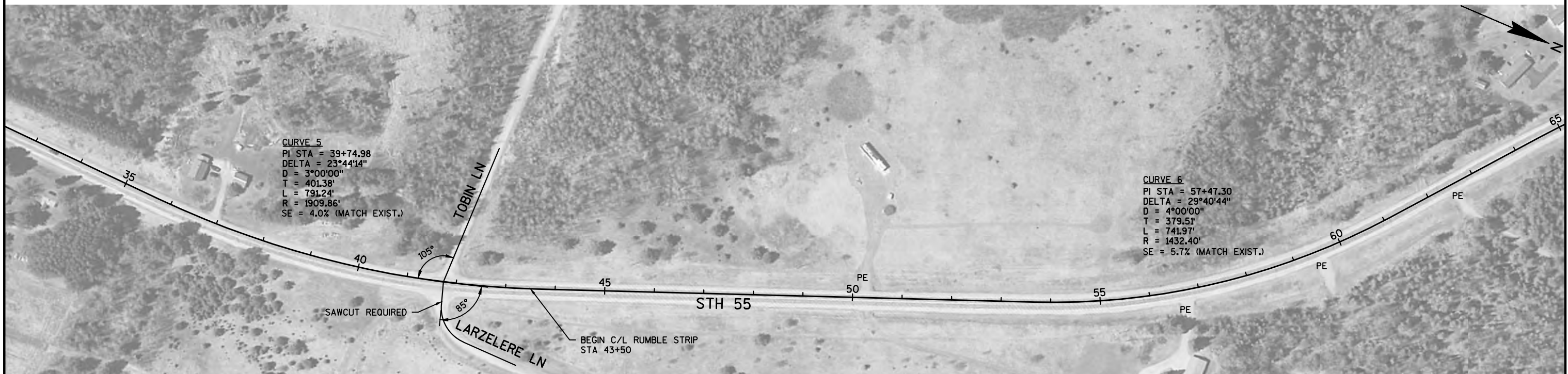
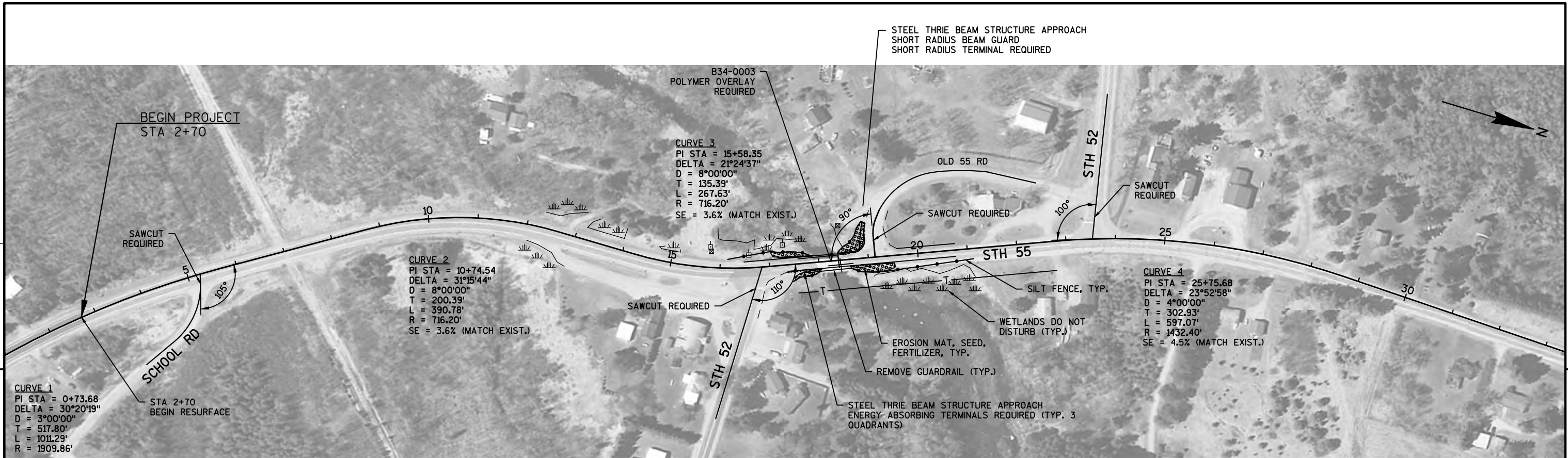
GOV. LOT 165

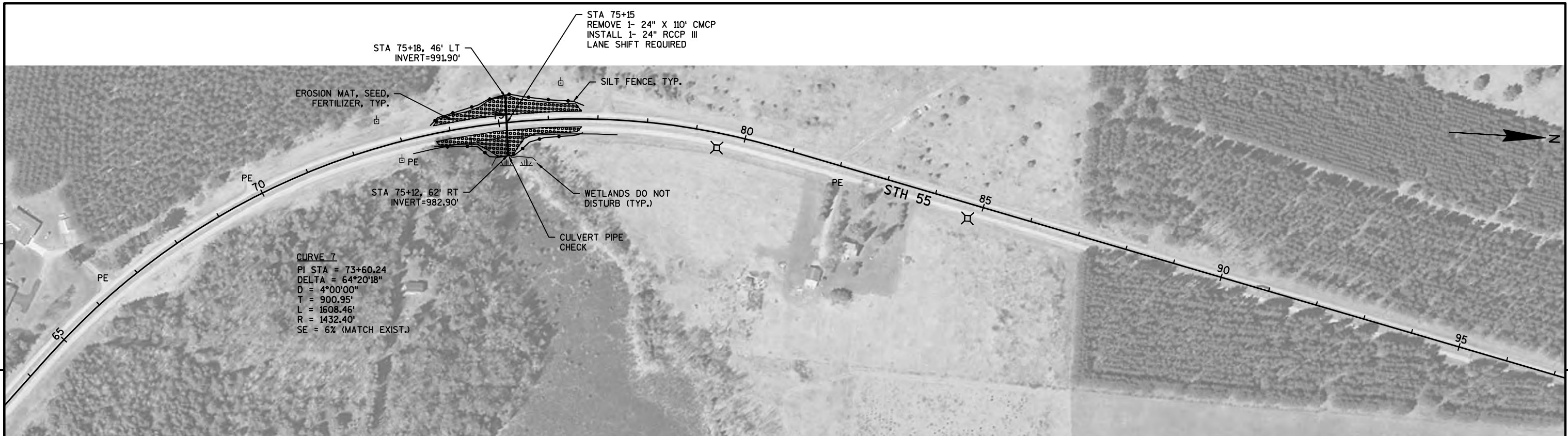
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GOV. LOT 167

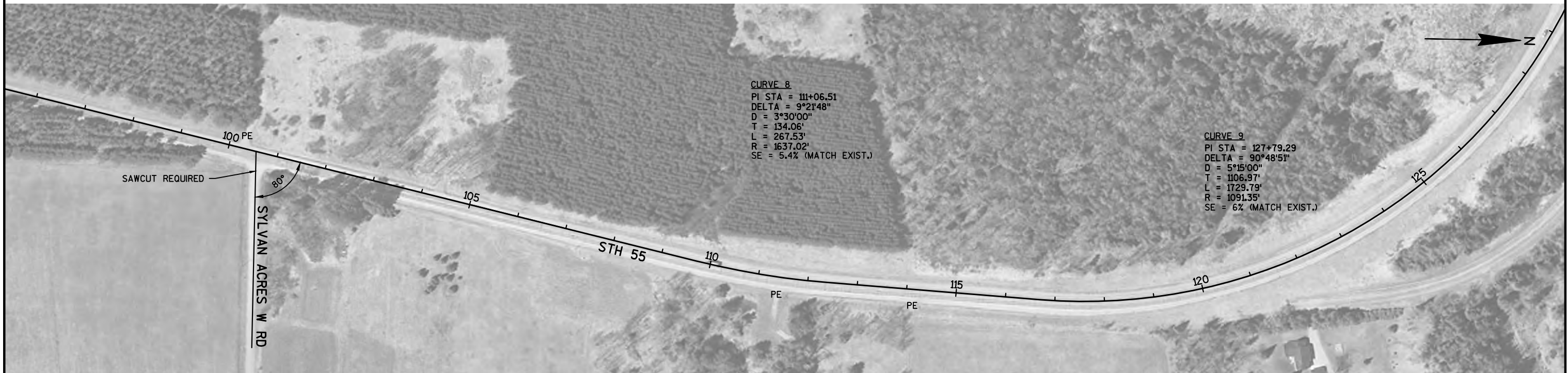
GOV. LOT 168

GOV. LOT 169

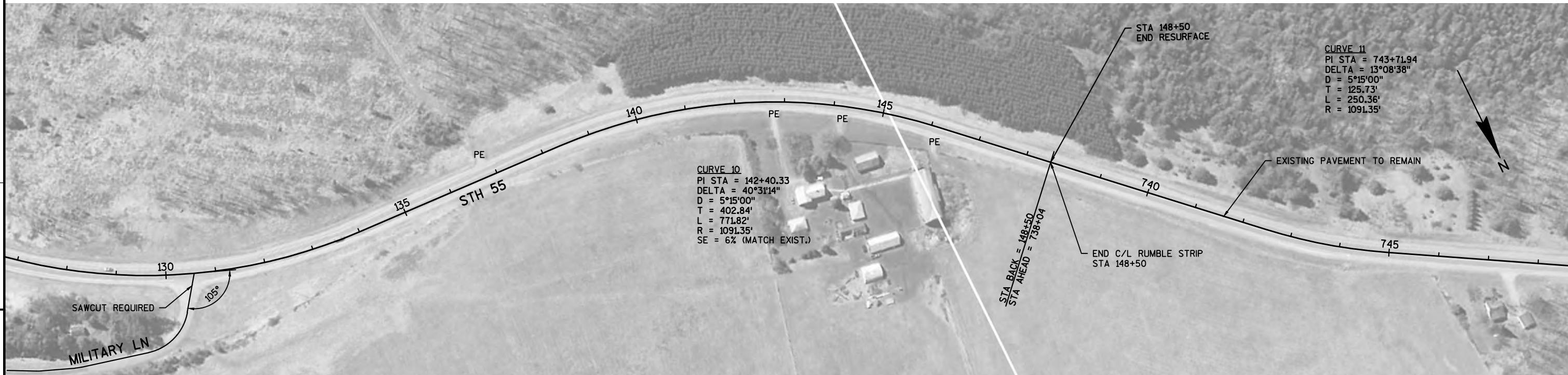




PLAN
STA 65+00 to 97+00



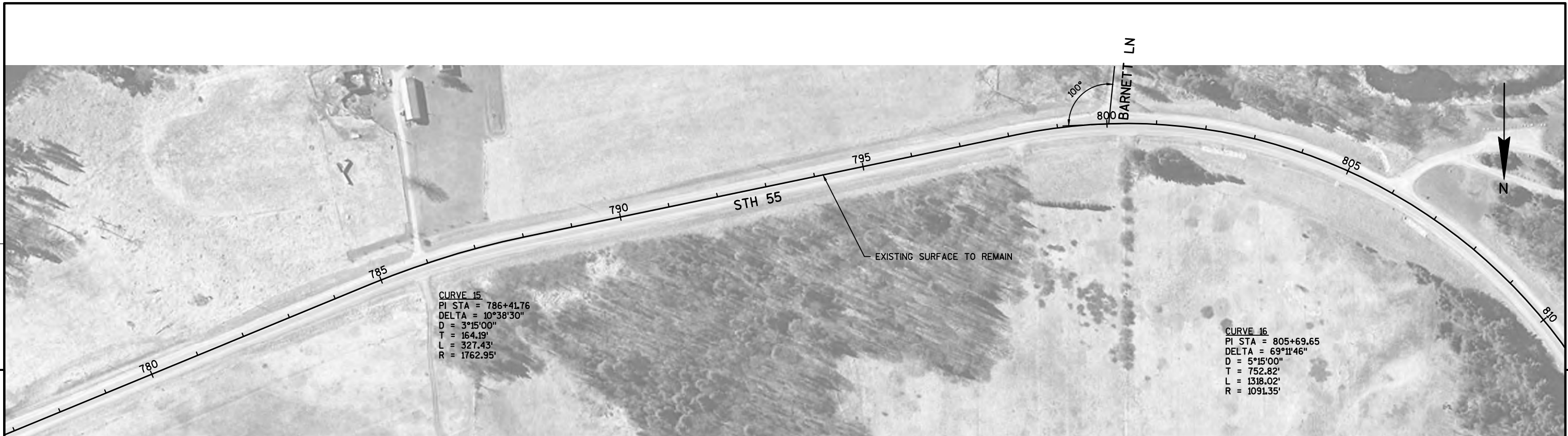
PLAN
STA 97+00 to 129+00



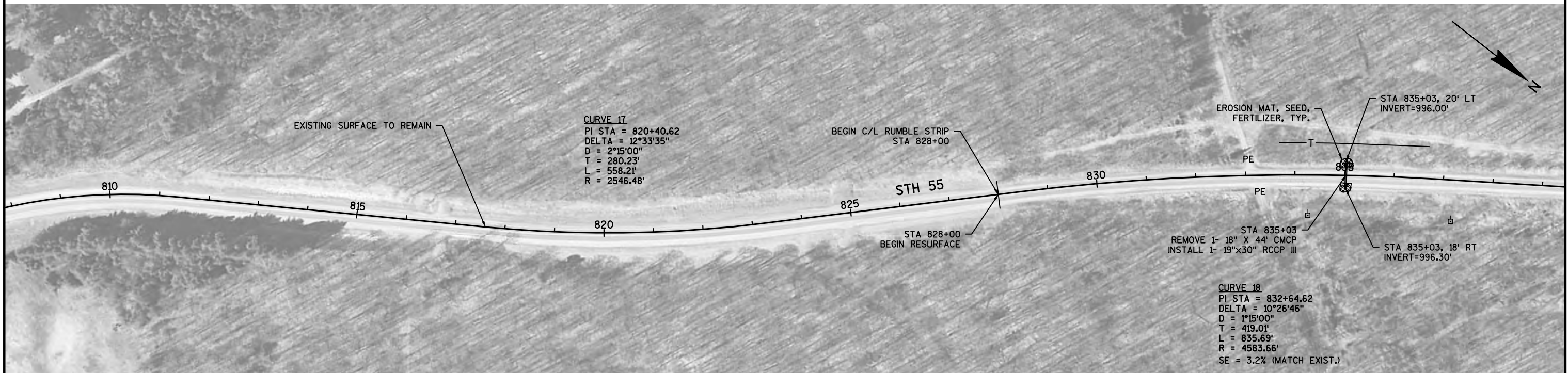
PLAN
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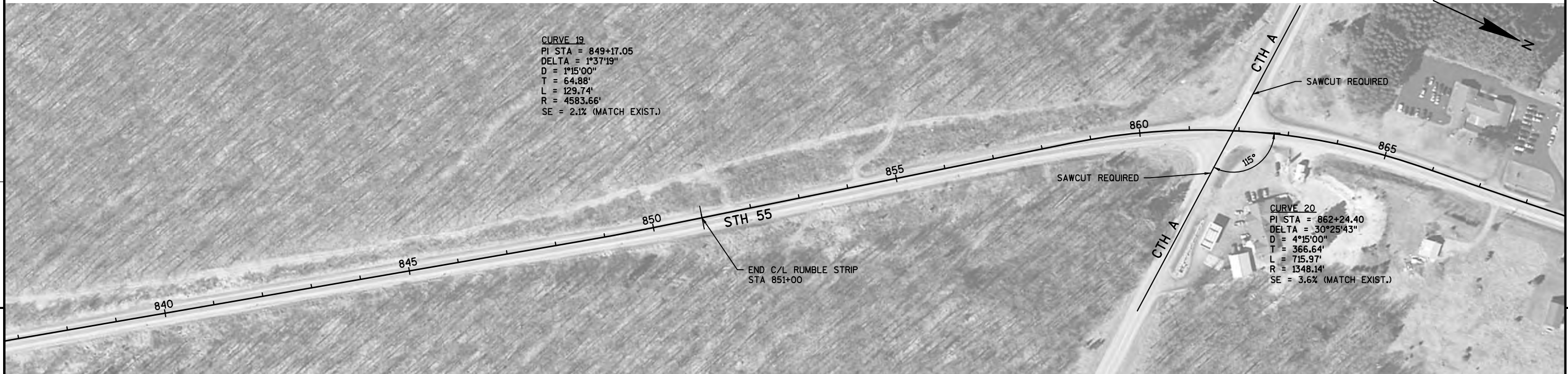
PLAN
STA 746+00 to 778+00



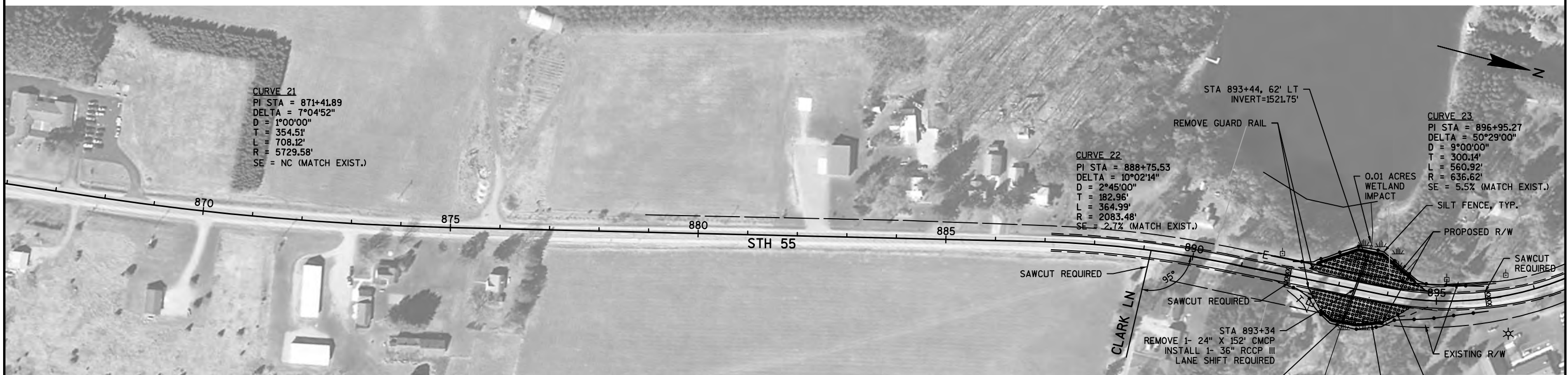
PLAN
STA 778+00 to 809+00



PLAN
STA 809+00 to 838+00



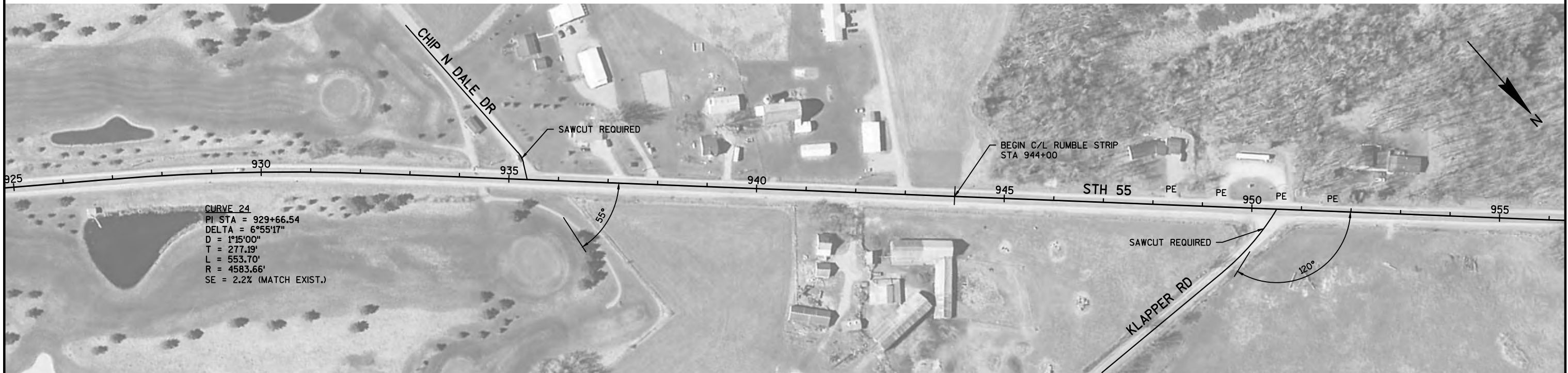
PLAN
STA 838+00 to 867+00



PLAN
STA 867+00 to 897+00

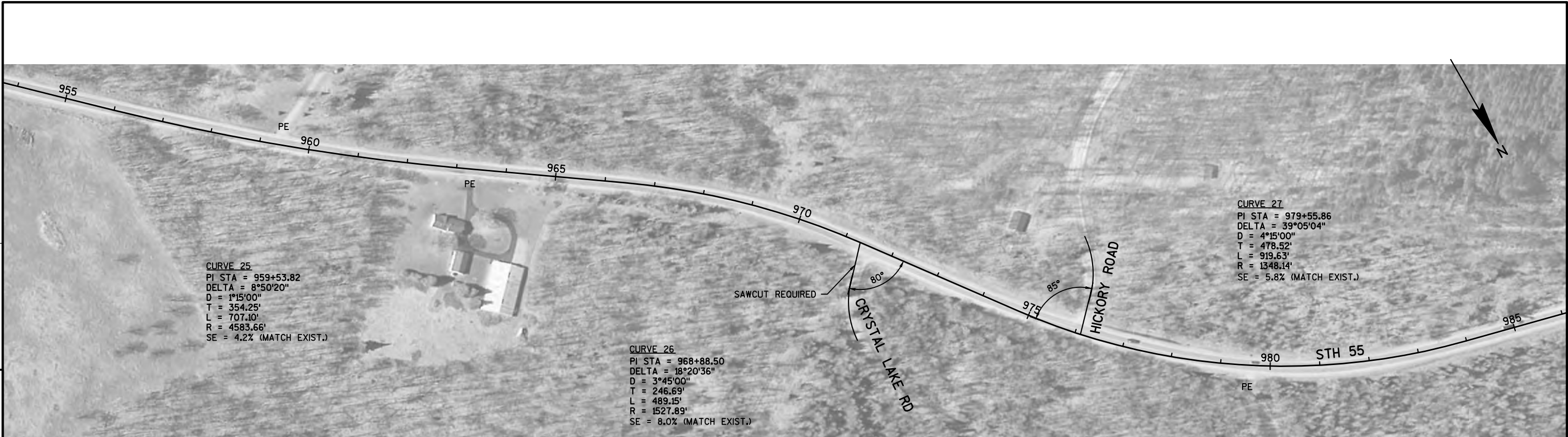


PLAN
STA 897+00 to 926+00

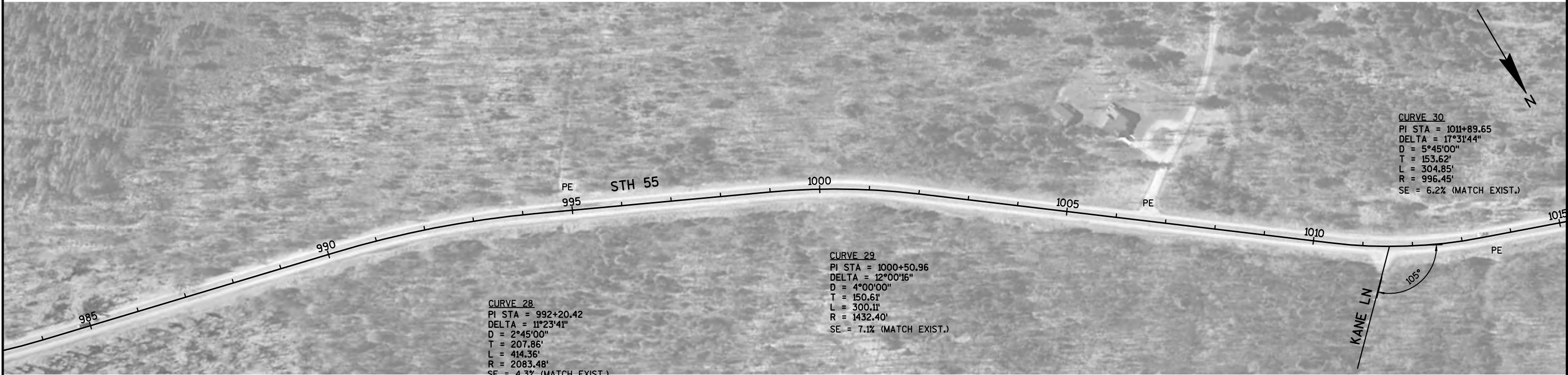


PLAN
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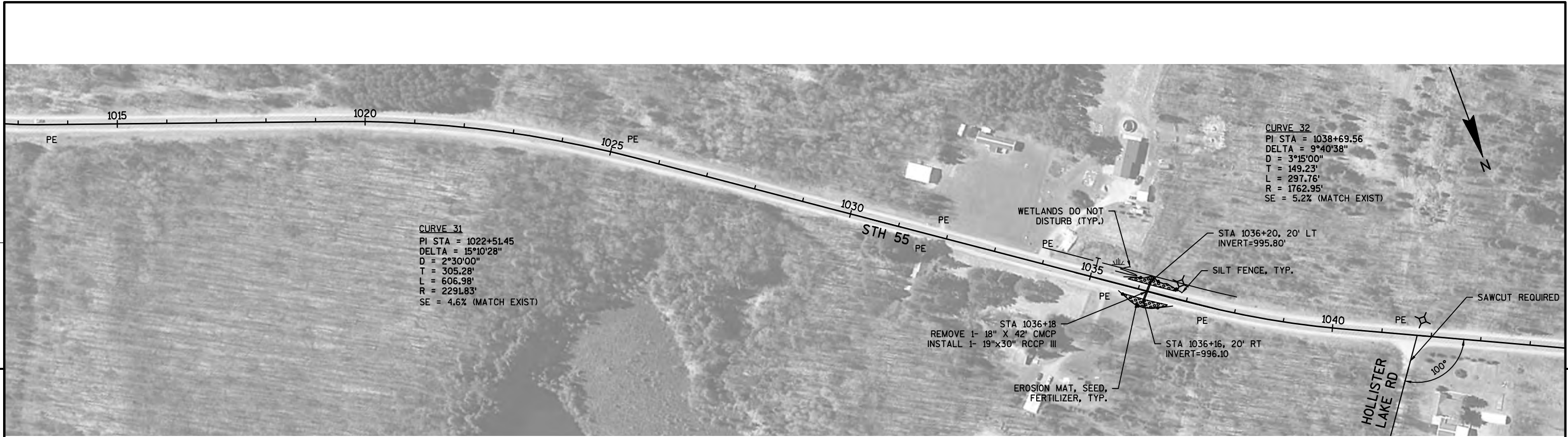
PROJECT NO: 9155-05-70	HWY: STH 55	COUNTY: LANGLADE	PLAN	SHEET	E
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PLAN
STA 955+00 to 985+00



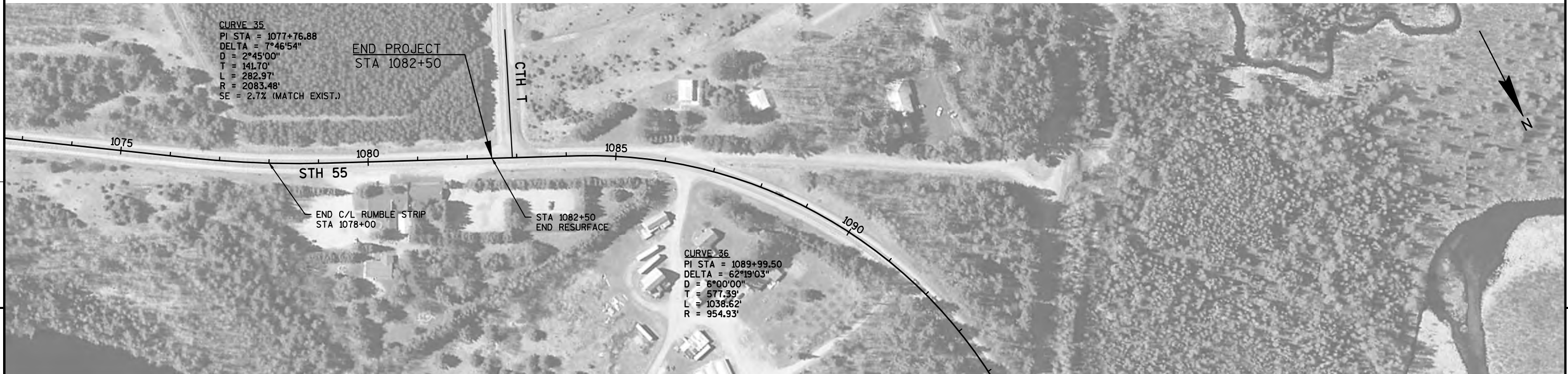
PLAN
STA 985+00 to 1014+00



PLAN
STA 1014+00 to 1044+00



PLAN
STA 1044+00 to 1074+00



CURVE 35
PI STA = 1077+76.88
DELTA = 7°46'54"
D = 2°45'00"
T = 141.70'
L = 282.97'
R = 2083.48'
SE = 2.7% (MATCH EXIST.)

END PROJECT
STA 1082+50

STH 55

END C/L RUMBLE STRIP
STA 1078+00

CTH T

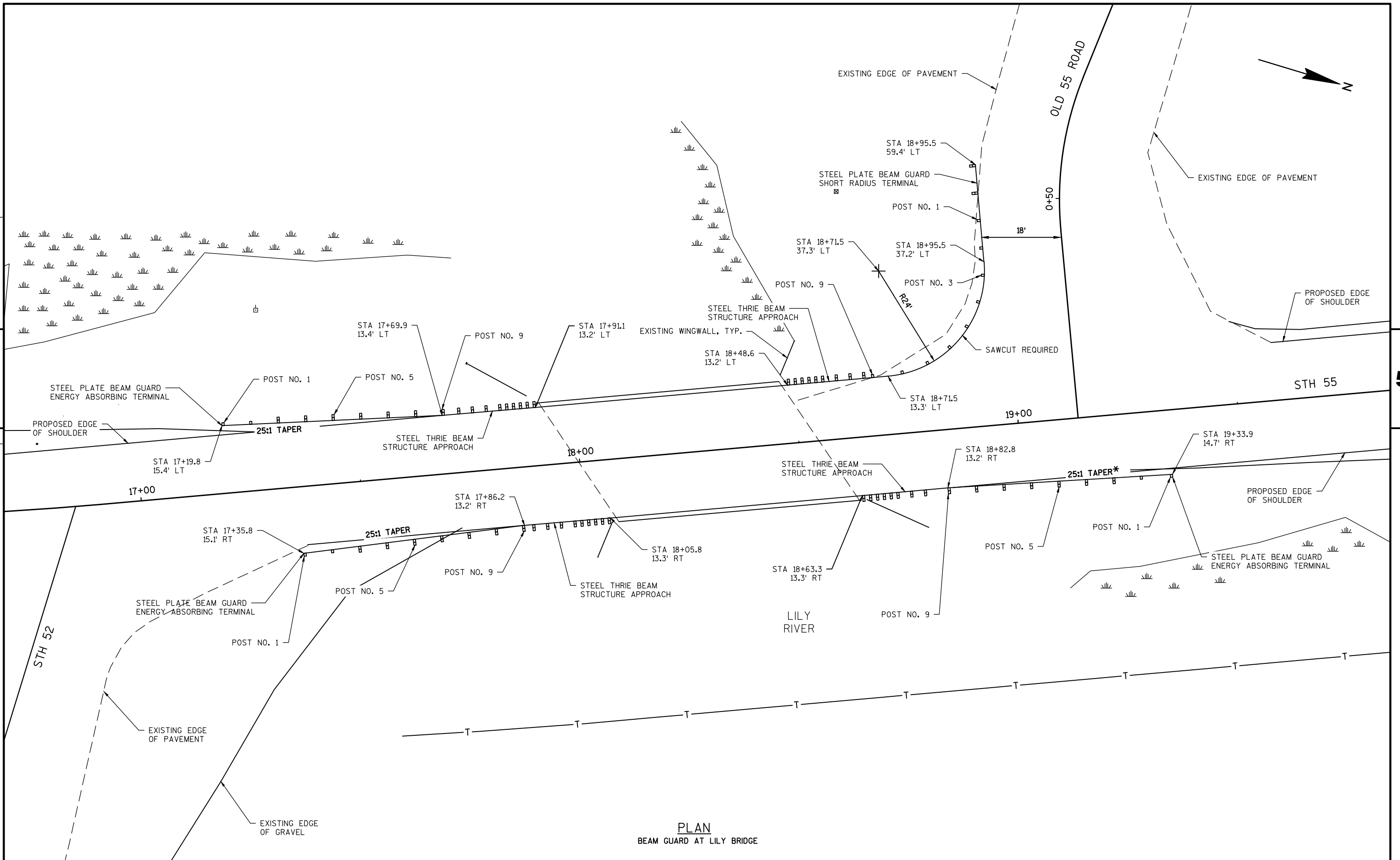
STA 1082+50
END RESURFACE

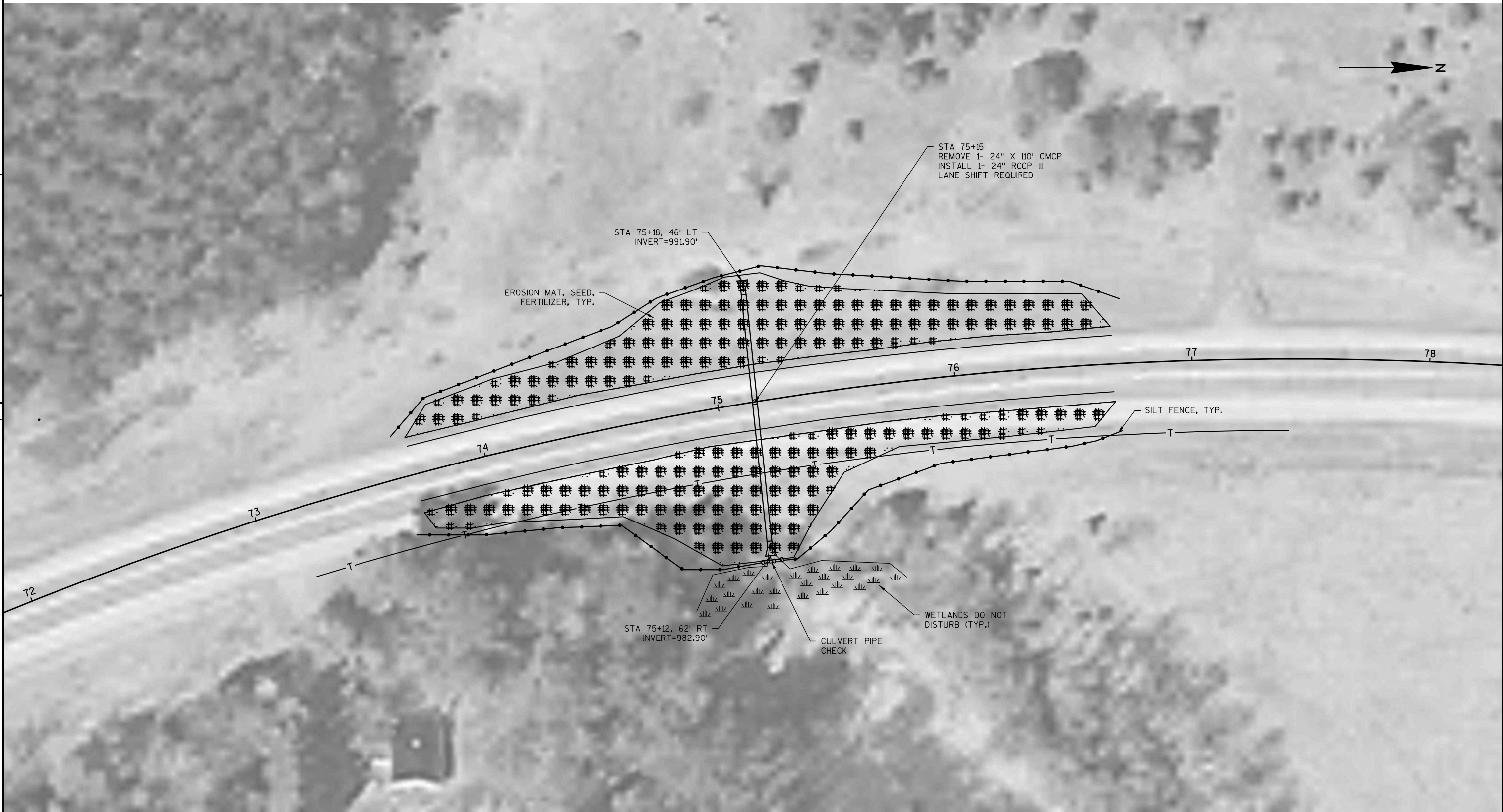
CURVE 36
PI STA = 1089+99.50
DELTA = 62°19'03"
D = 6°00'00"
T = 577.39'
L = 1038.62'
R = 954.93'

PLAN
STA 1074+00 to 1085+00

5

5





PLAN
STA 75+15

PROJECT NO: 9155-05-70

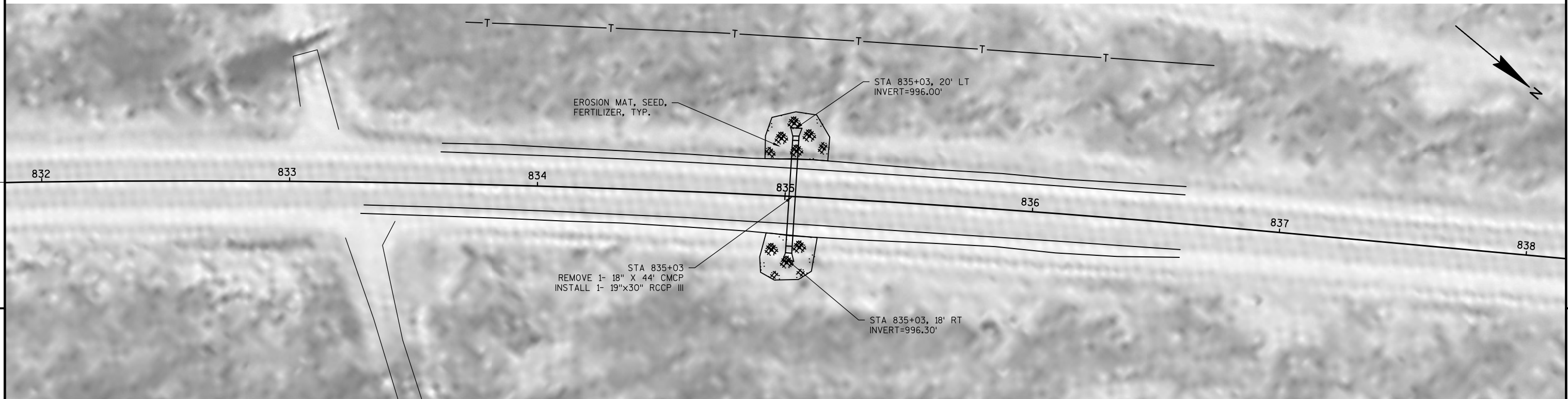
HWY: STH 55

COUNTY: LANGLADE

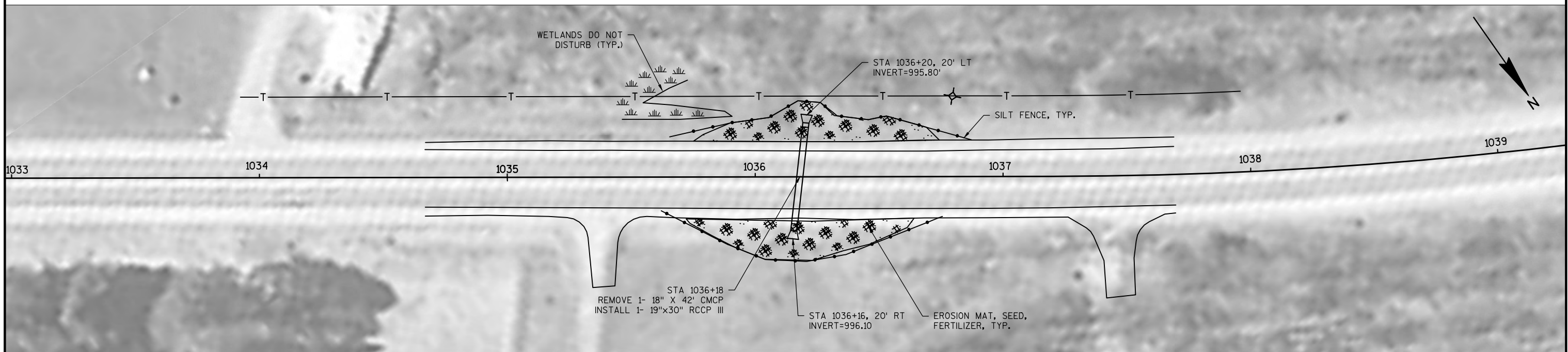
CUVLERT PLAN STA 75+15

SHEET

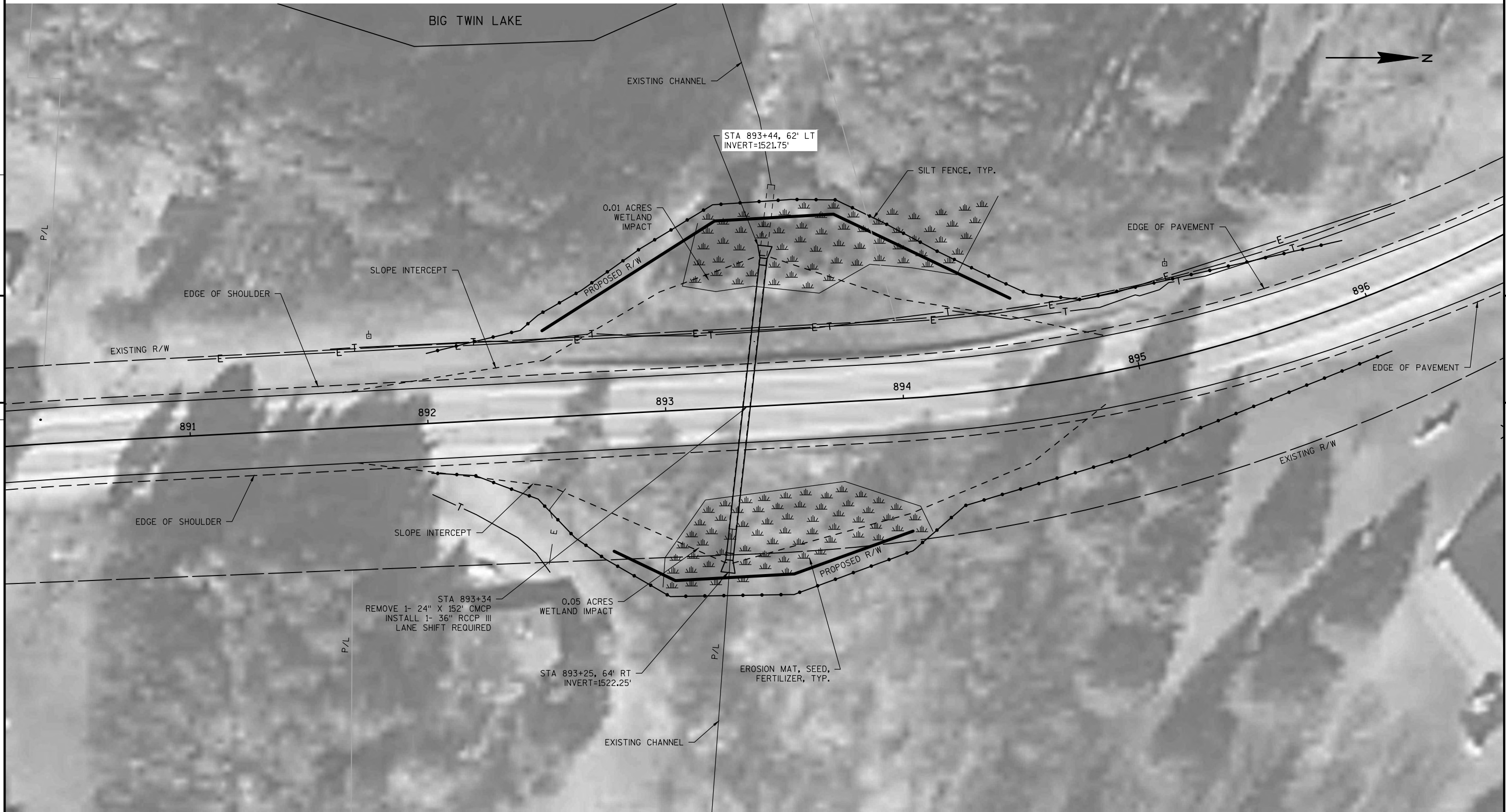
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PLAN
STA 835+03



PLAN
STA 1036+18

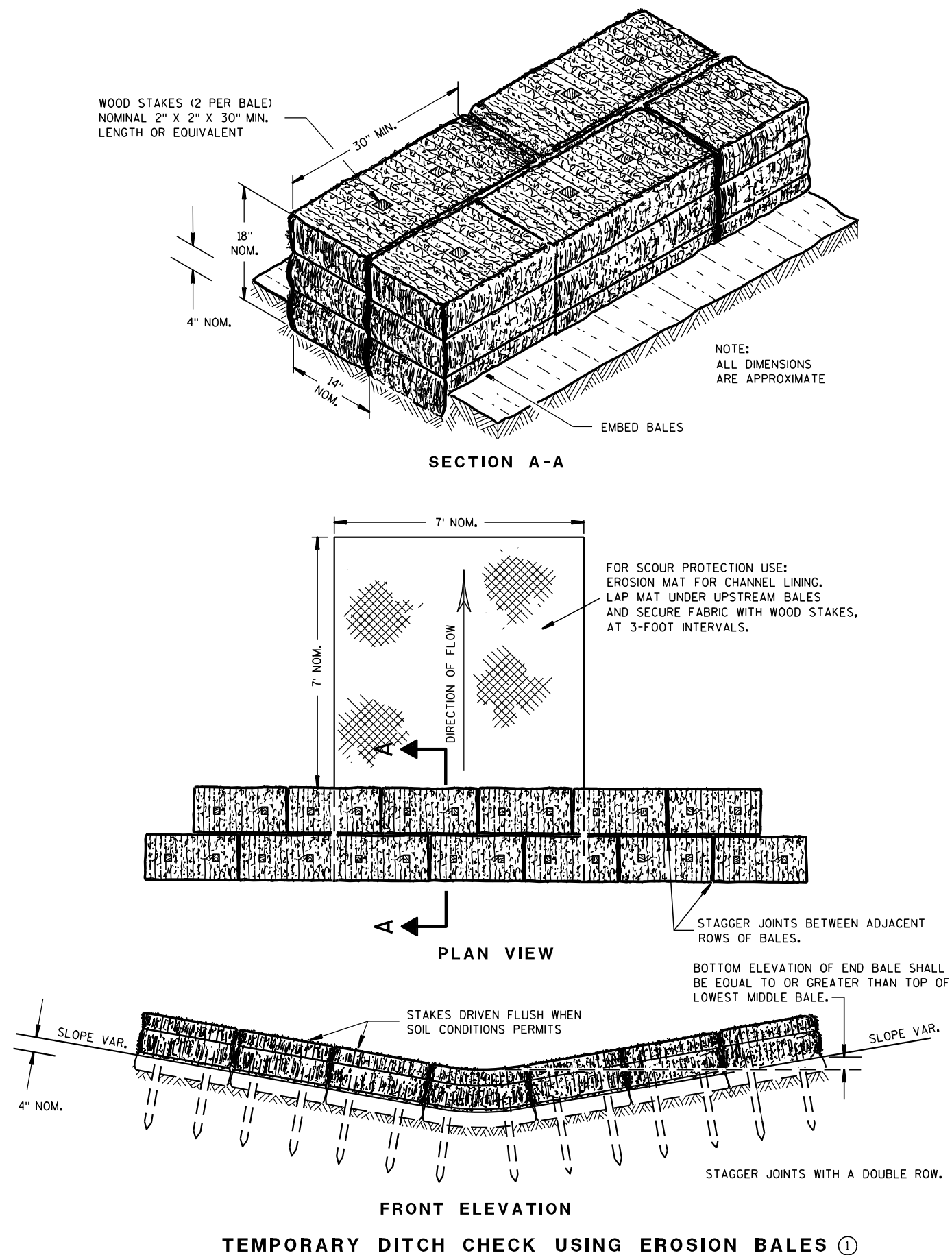


PLAN
STA 893+34

PROJECT NO: 9155-05-70	HWY: STH 55	COUNTY: LANGLADE	CULVERT PLAN STA 893+34	SHEET	5
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Standard Detail Drawing List

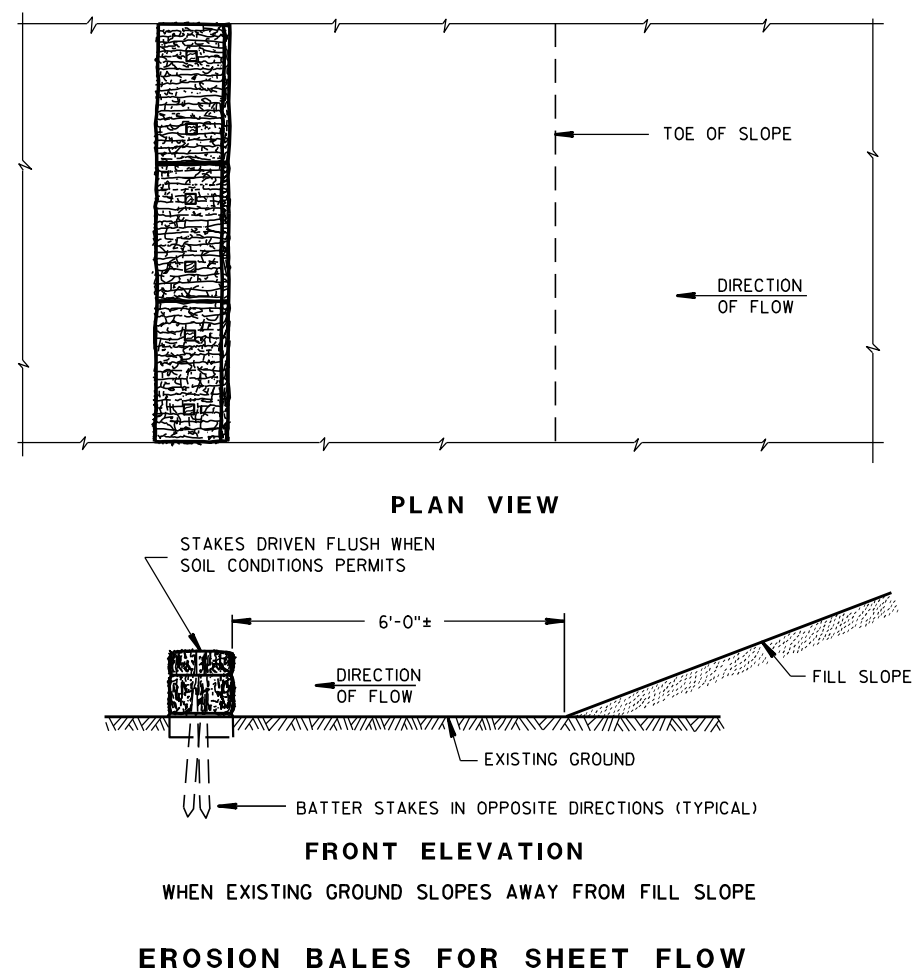
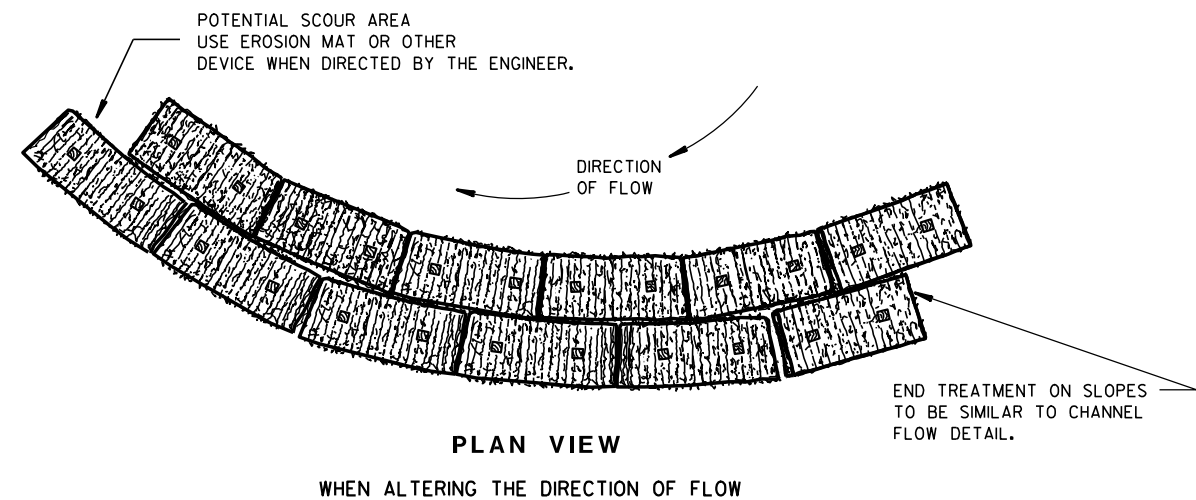
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09G02-03A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-03C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12' -6"
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/DRI VEWAYS)
14B20-11A	STEEL THRI E BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRI E BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRI E BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRI E BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRI E BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRI E BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRI E BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRI E BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B24-08A	STEEL PLATE BEAM GUARD ENERGY ABSORBI NG TERMINAL
14B24-08B	STEEL PLATE BEAM GUARD ENERGY ABSORBI NG TERMINAL
14B24-08C	STEEL PLATE BEAM GUARD ENERGY ABSORBI NG TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADI US TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADI US TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADI US TERMINAL
14B29-01	SAFETY EDGE
15A03-02A	FLEXI BLE MARKER POST FOR CULVERT END
15A03-02B	FLEXI BLE MARKER POST FOR CULVERT END
15C03-03	BARRICADES AND SIGNS FOR SIDERoad CLOSURES
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDI VIDE D ROAD OPEN TO TRAFFIC
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDI VIDE D ROADWAY
15D33-04	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS



GENERAL NOTES

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

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



TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



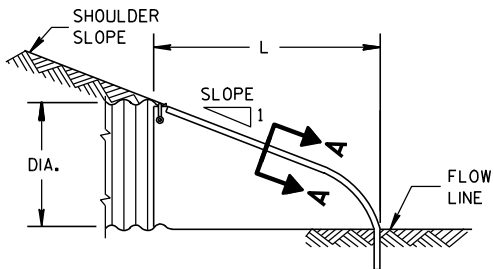
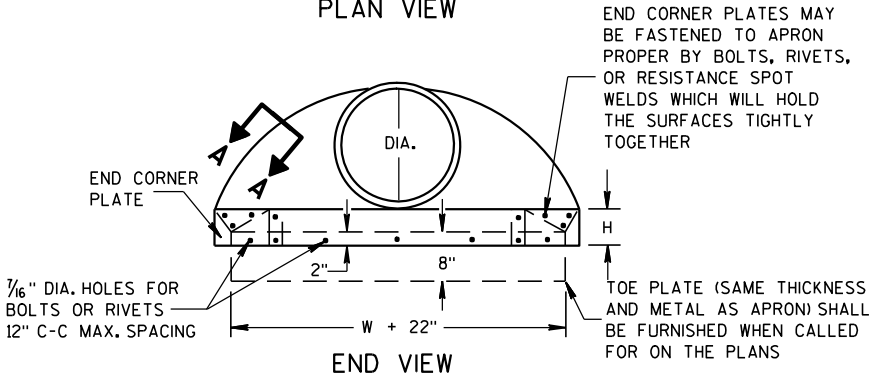
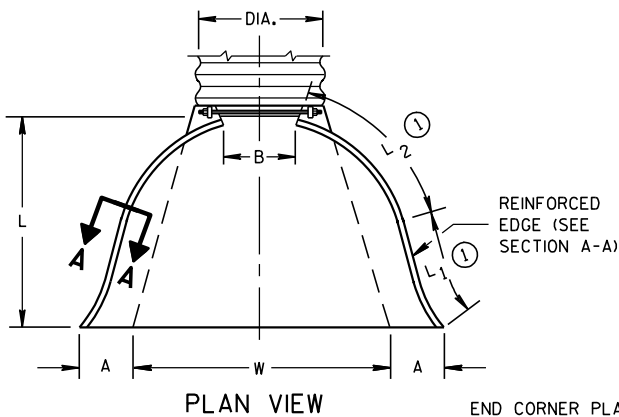
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" 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.



<p style="text-align: center;">SILT FENCE</p>	
<p style="text-align: center;">STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED</p> <p><u>4-29-05</u></p> <p>DATE</p>	<p><u>/S/ Beth Cannestra</u></p> <p>CHIEF ROADWAY DEVELOPMENT ENGINEER</p>

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

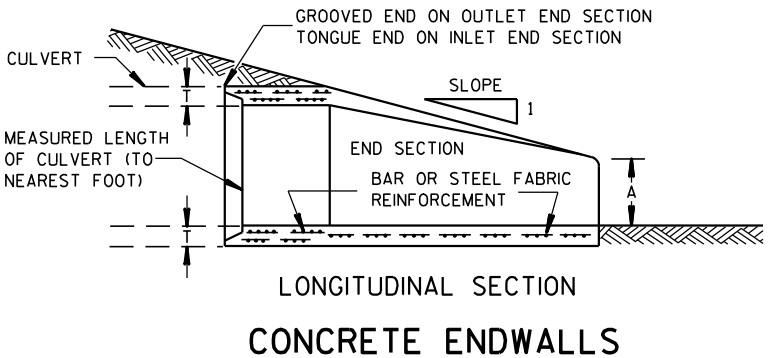
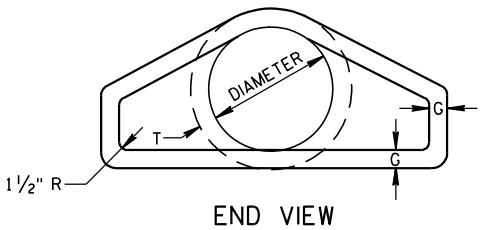
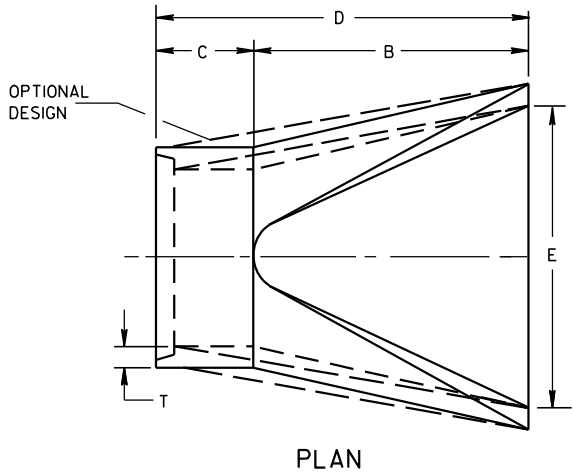
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



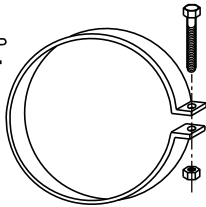
METAL ENDWALLS

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

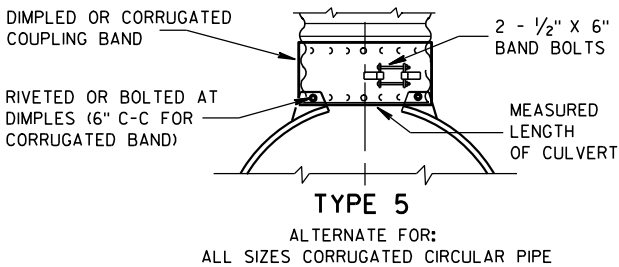
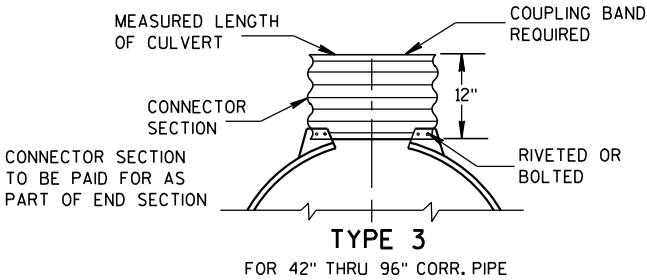
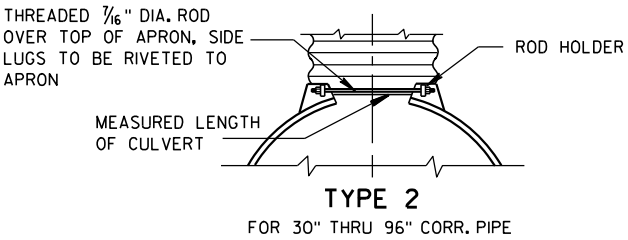
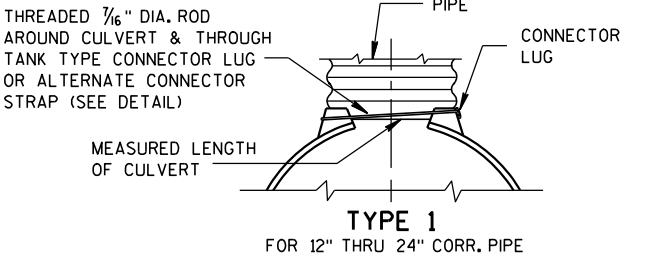
* MINIMUM
** MAXIMUM



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



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



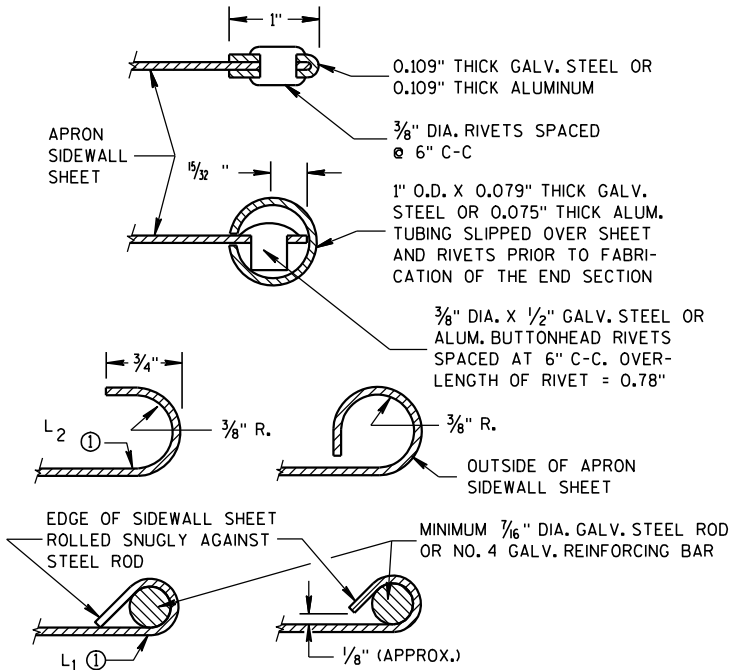
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

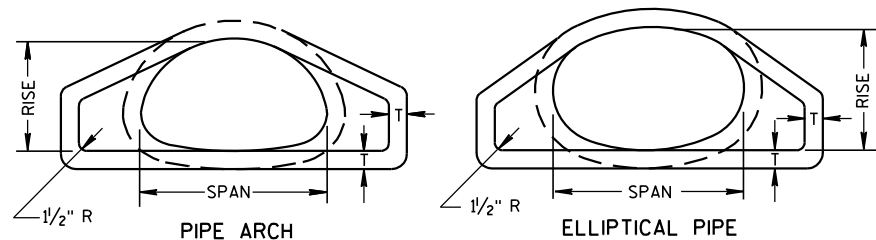
GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.
- ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.
- LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.
- WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.
- ① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

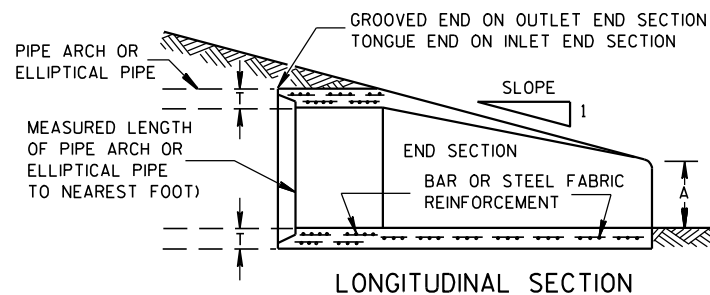
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

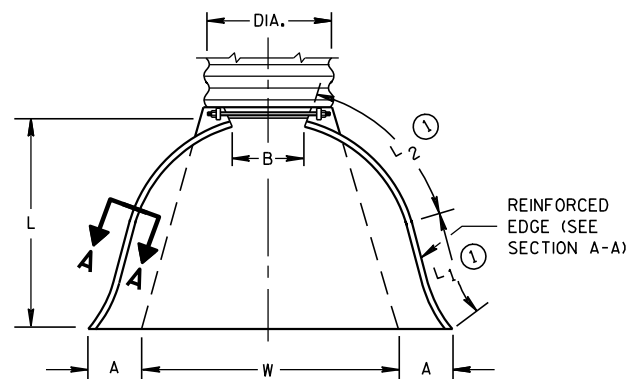


END VIEW



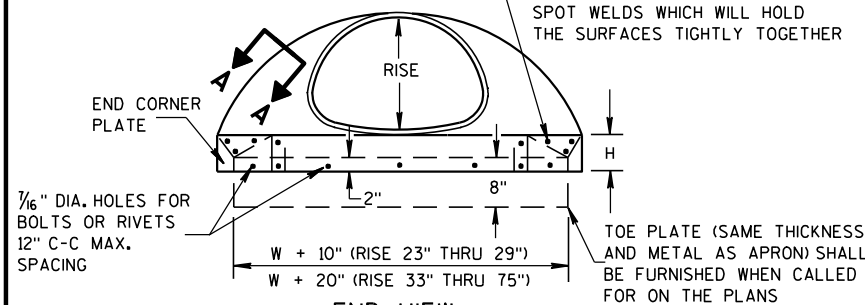
LONGITUDINAL SECTION

CONCRETE ENDWALLS

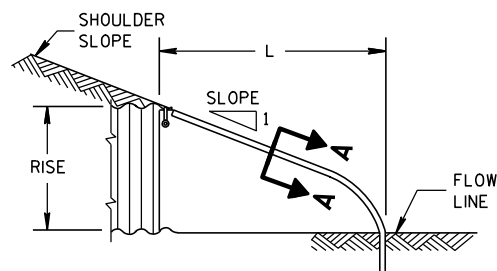
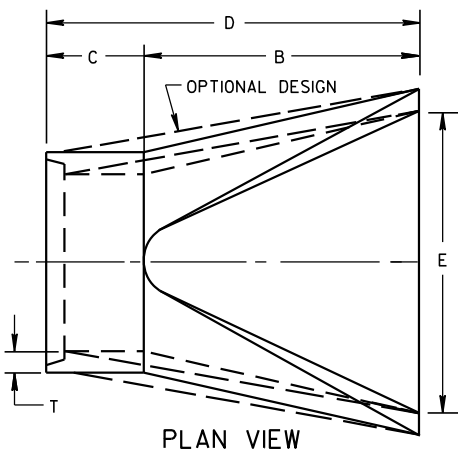


PLAN VIEW

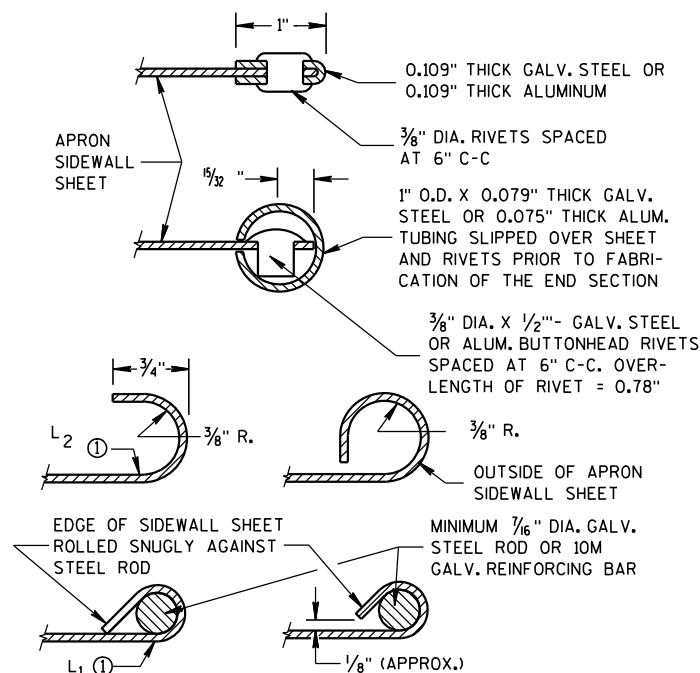
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW

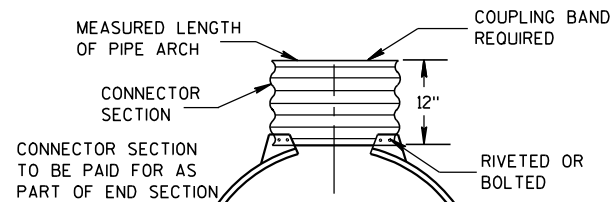


SECTION A-A



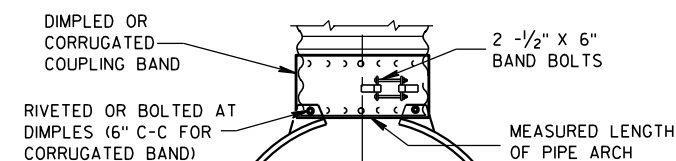
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED PIPE ARCHESNOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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.

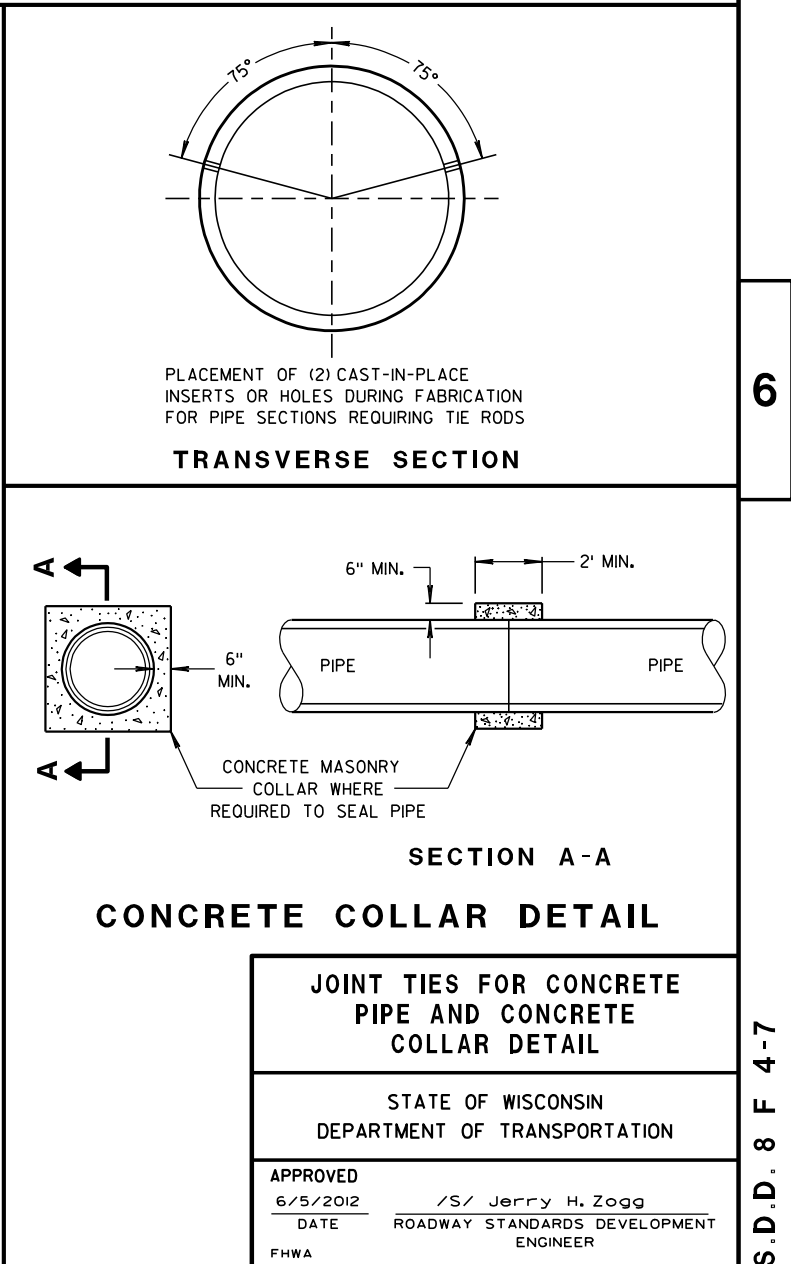
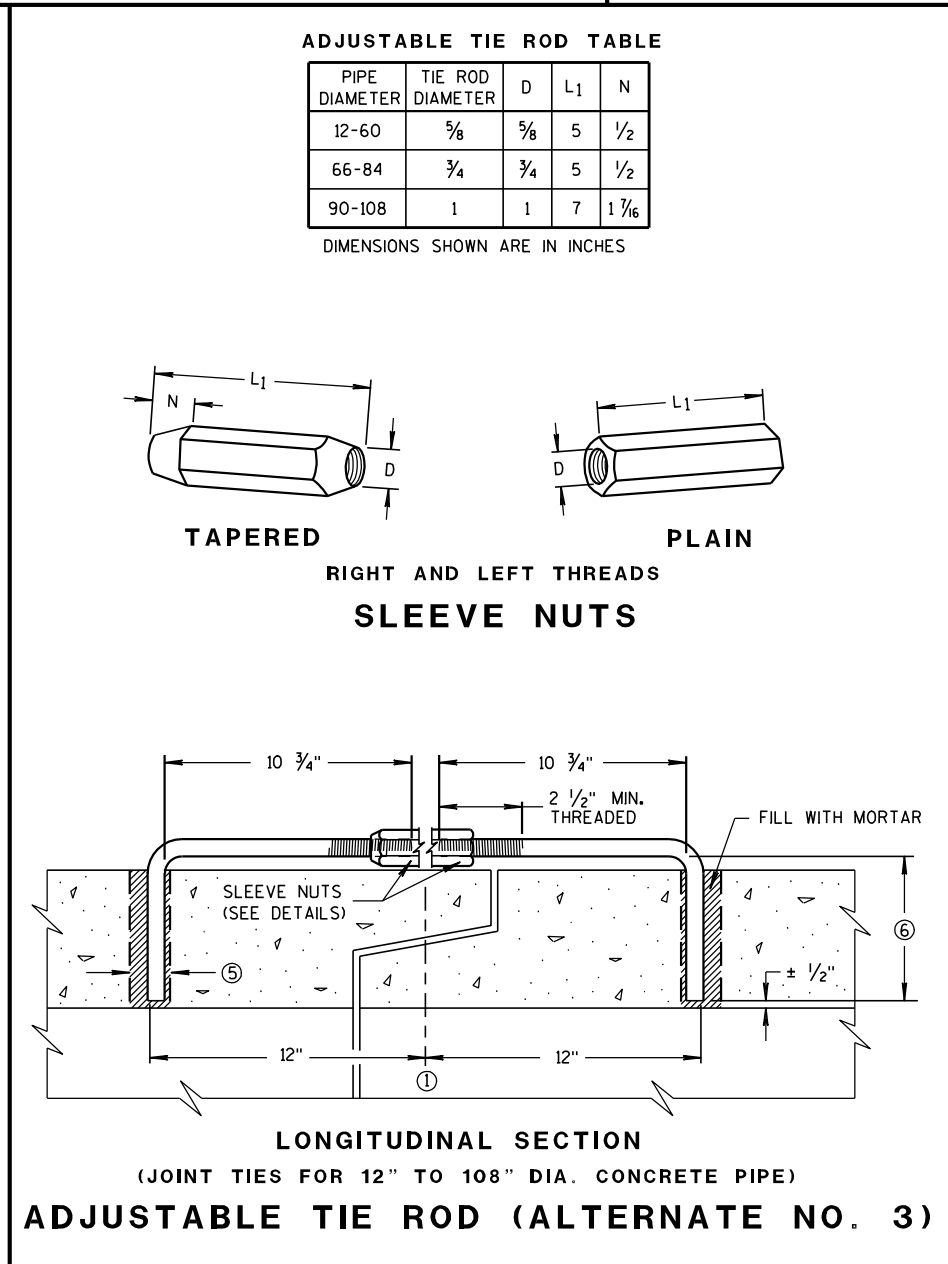
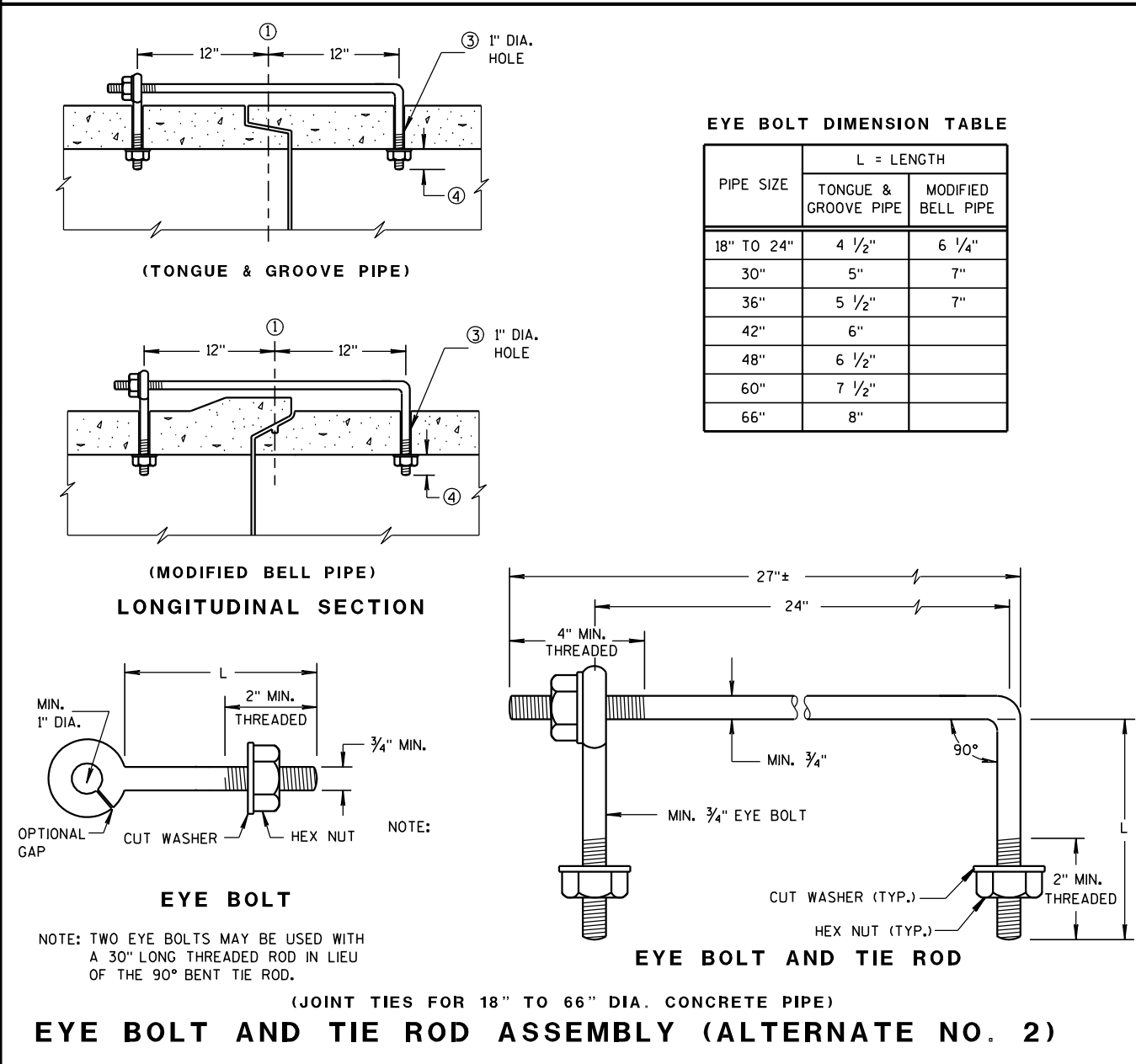
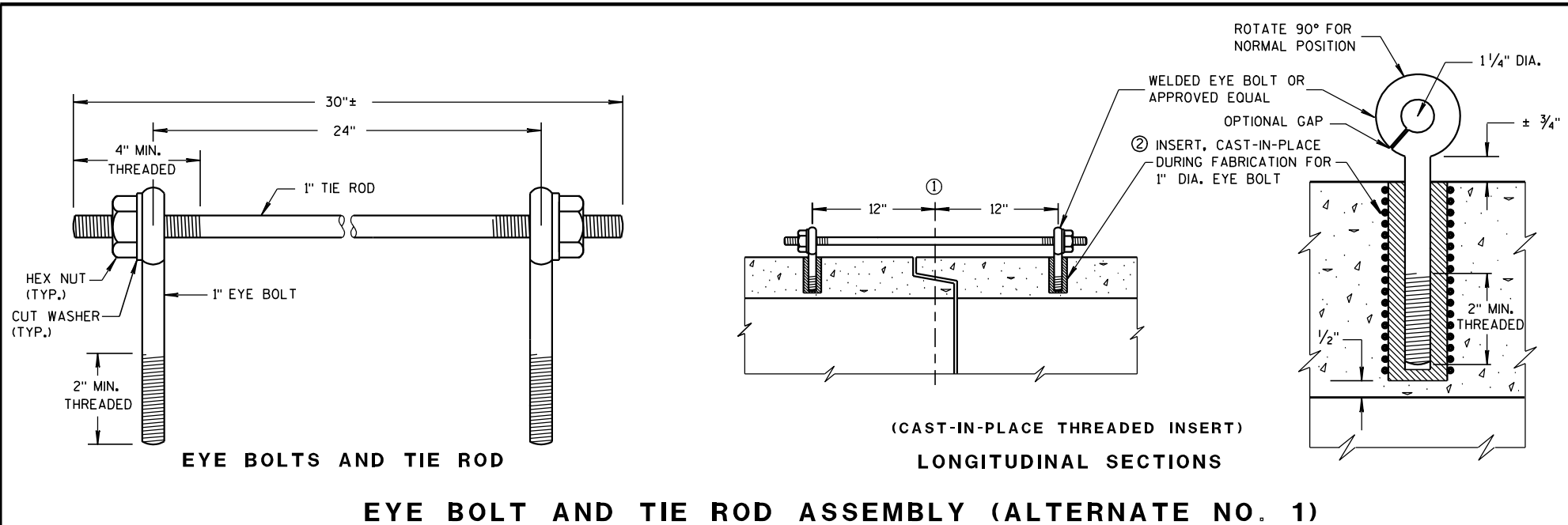
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

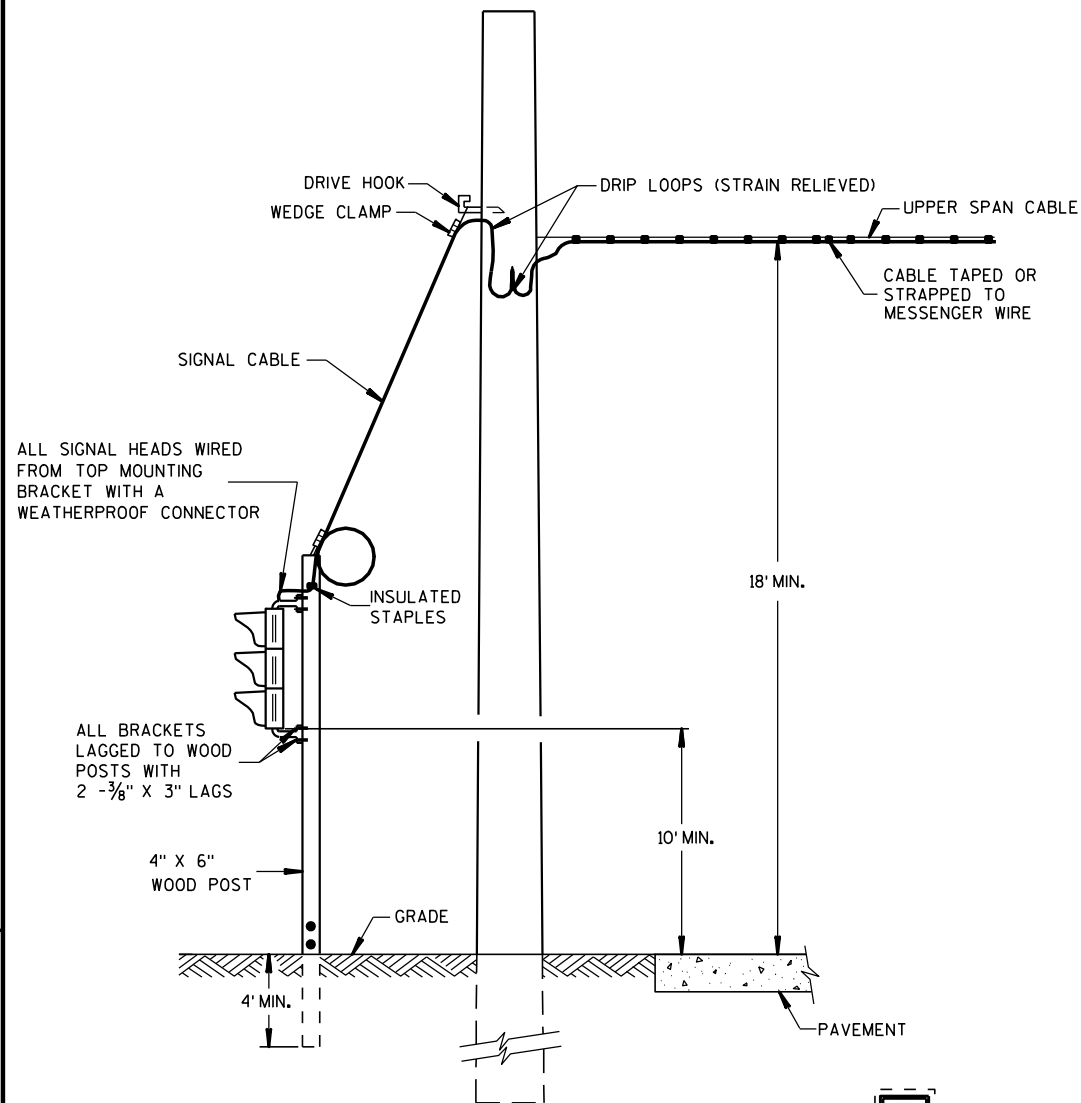
APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA



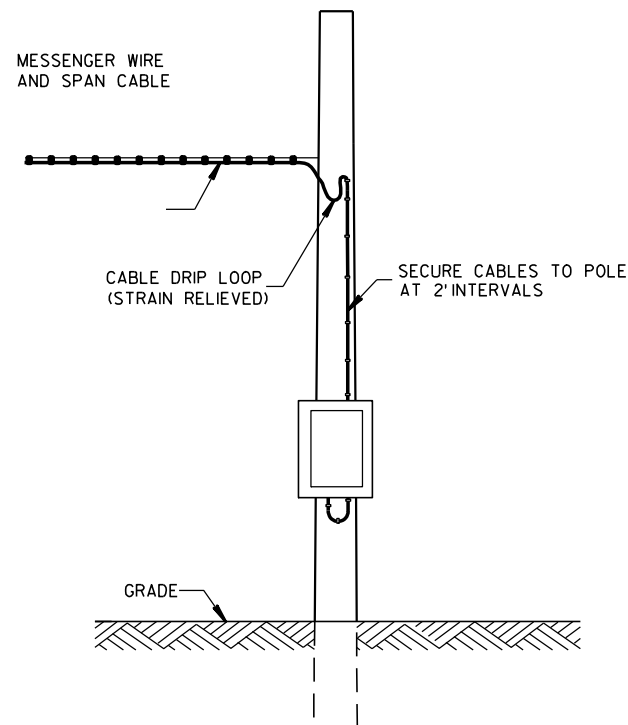


**TYPICAL DROP
TO TRAFFIC SIGNAL FACE**

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE**
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/ CURBS	2 FT

**NOTE: OFFSET MEASURED FROM OUTER EDGE OF
OUTSIDE THRU LANE.

MINIMUM POLE LENGTHS	CLASS	MINIMUM BURIAL DEPTHS
25 FEET	V	5 FEET
30 FEET	V	6 FEET
35 FEET	IV	7 FEET
40 FEET	IV	8 FEET
45 FEET	IV	9 FEET



**POLE MOUNT
CABINET INSTALLATION**

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

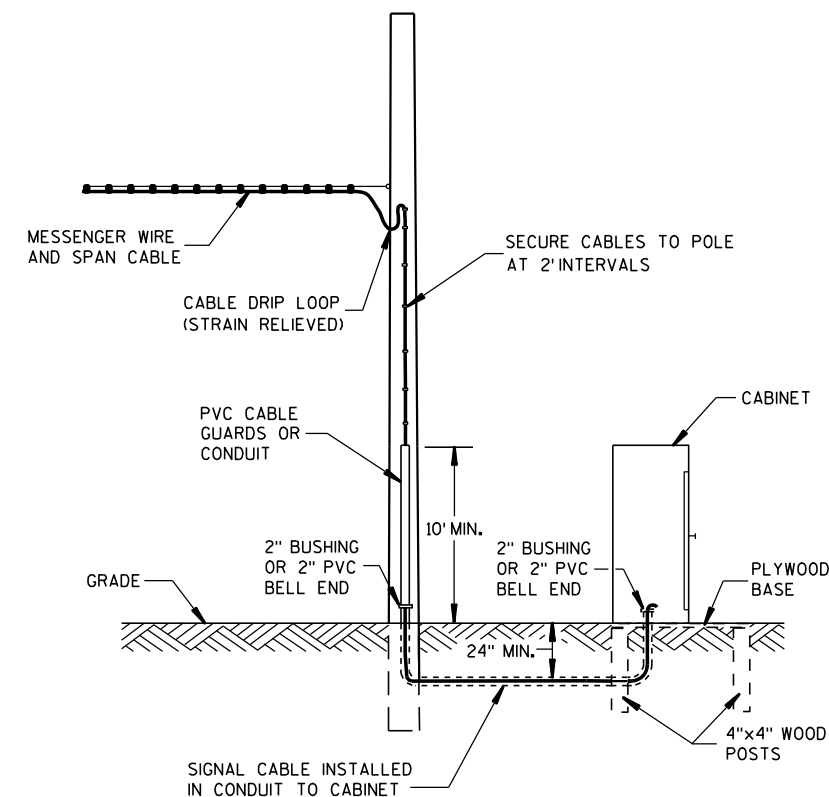
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

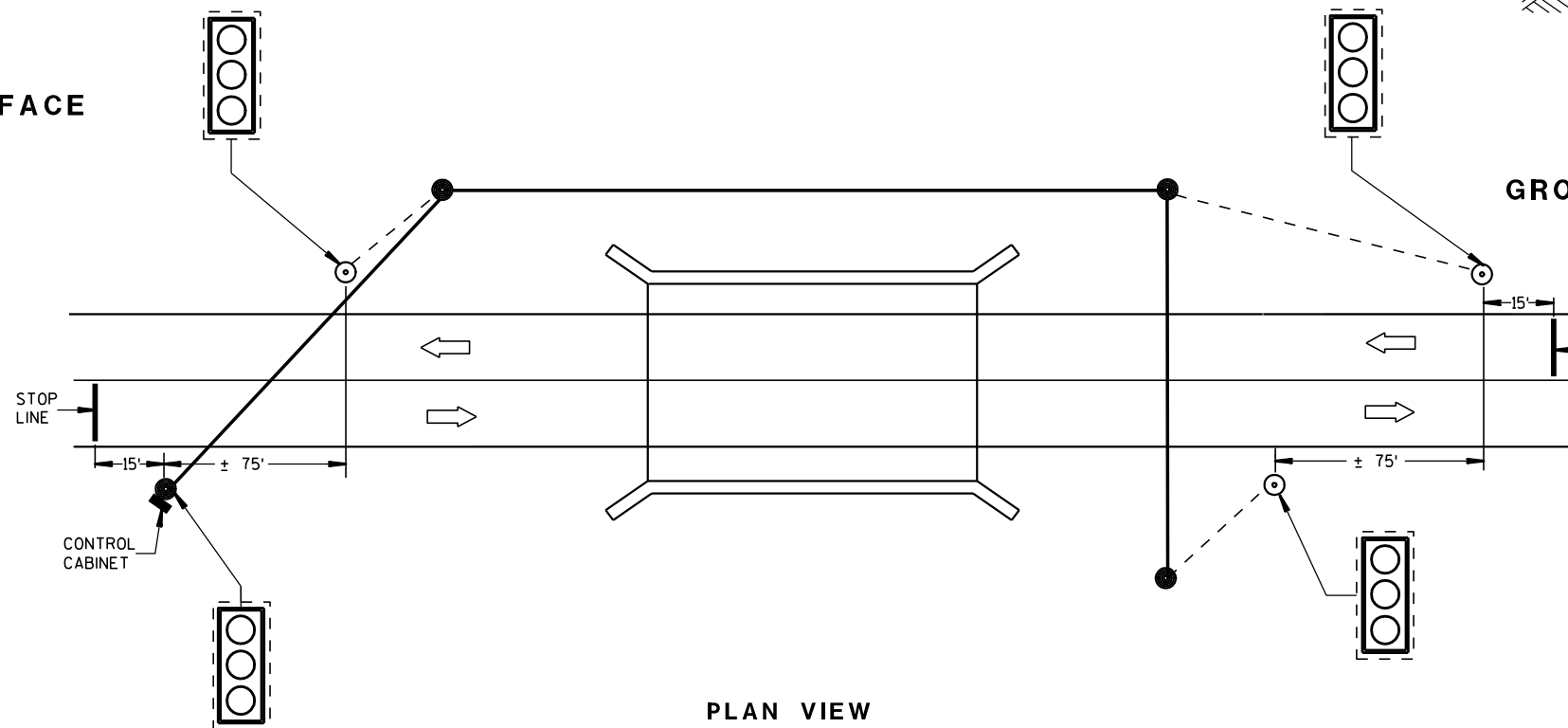
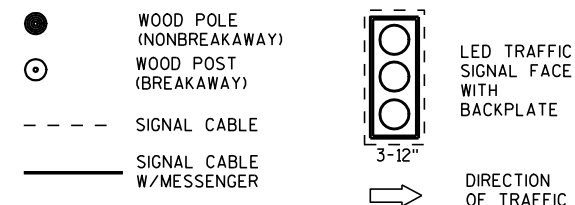
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.



GROUND MOUNT CABINET INSTALLATION

LEGEND



**PLAN VIEW
TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION**

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

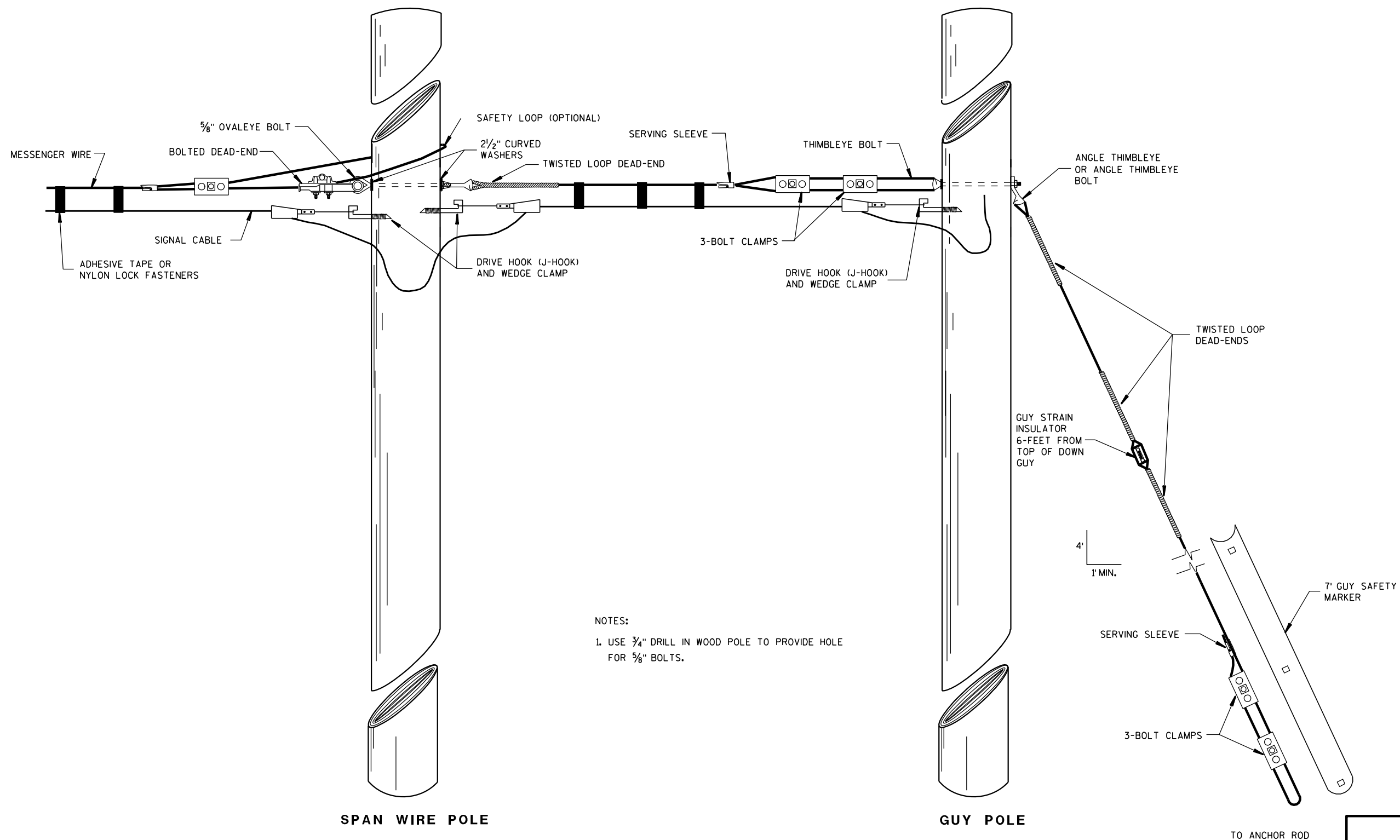
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

FHWA



NOTES:
 1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

TYPICAL DEAD-ENDINGS OR GUYING

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

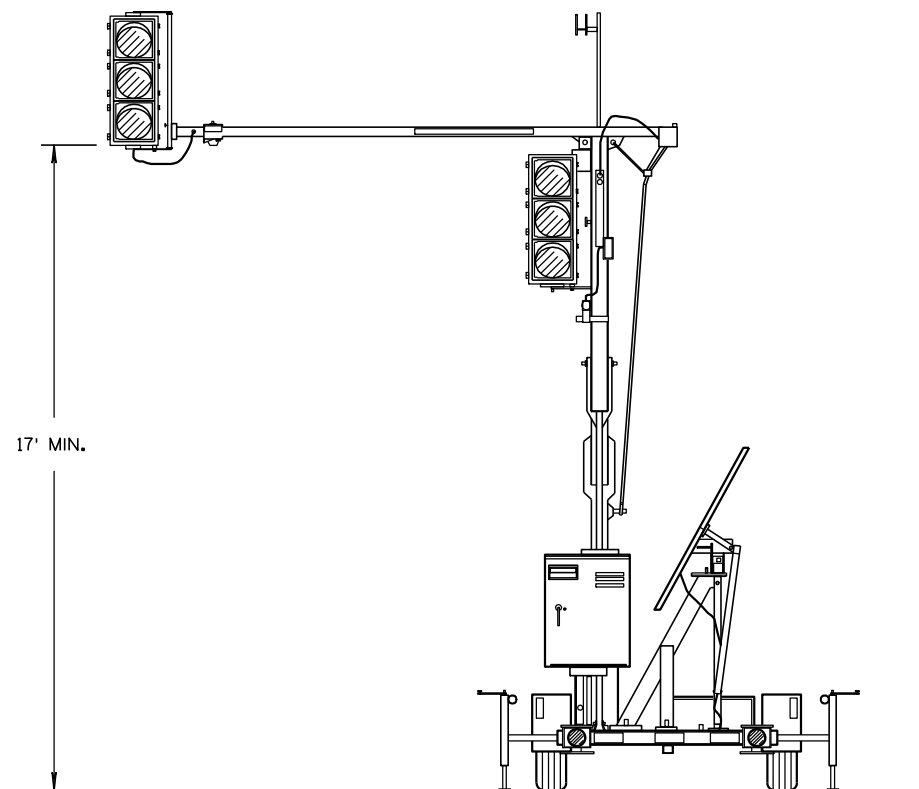
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

FHWA

/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

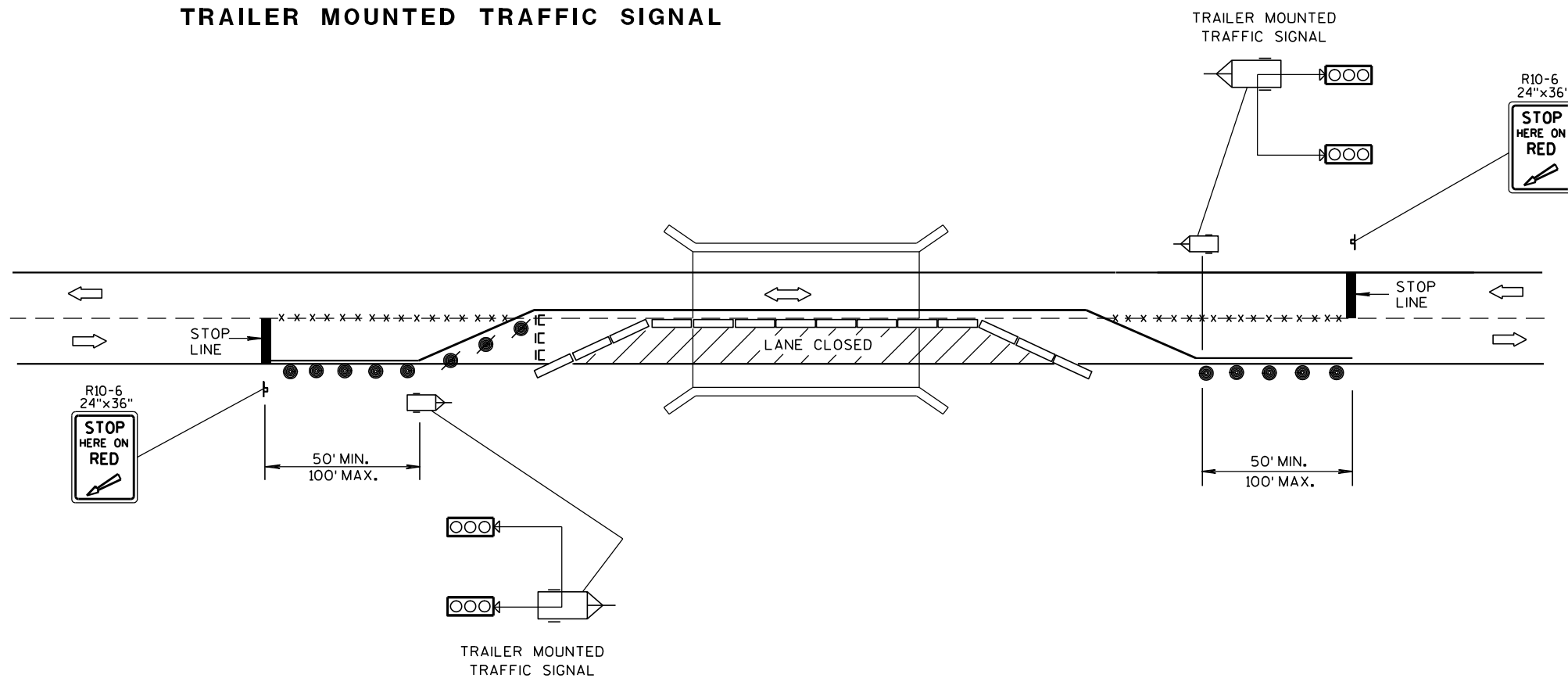


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

- ⌵ POST MOUNTED SIGN
- *-x-* REMOVING PAVEMENT MARKING
- IC TYPE III BARRICADE WITH SIGN
- /● DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- ▬ TEMPORARY PRECAST CONCRETE BARRIER
- ⌵ TRAILER MOUNTED TRAFFIC SIGNAL
- ➡ DIRECTION OF TRAFFIC FLOW

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

FHWA

/S/ Thomas J. Goring
STATE ELECTRICAL ENGINEER FOR HWYS

GENERAL NOTES

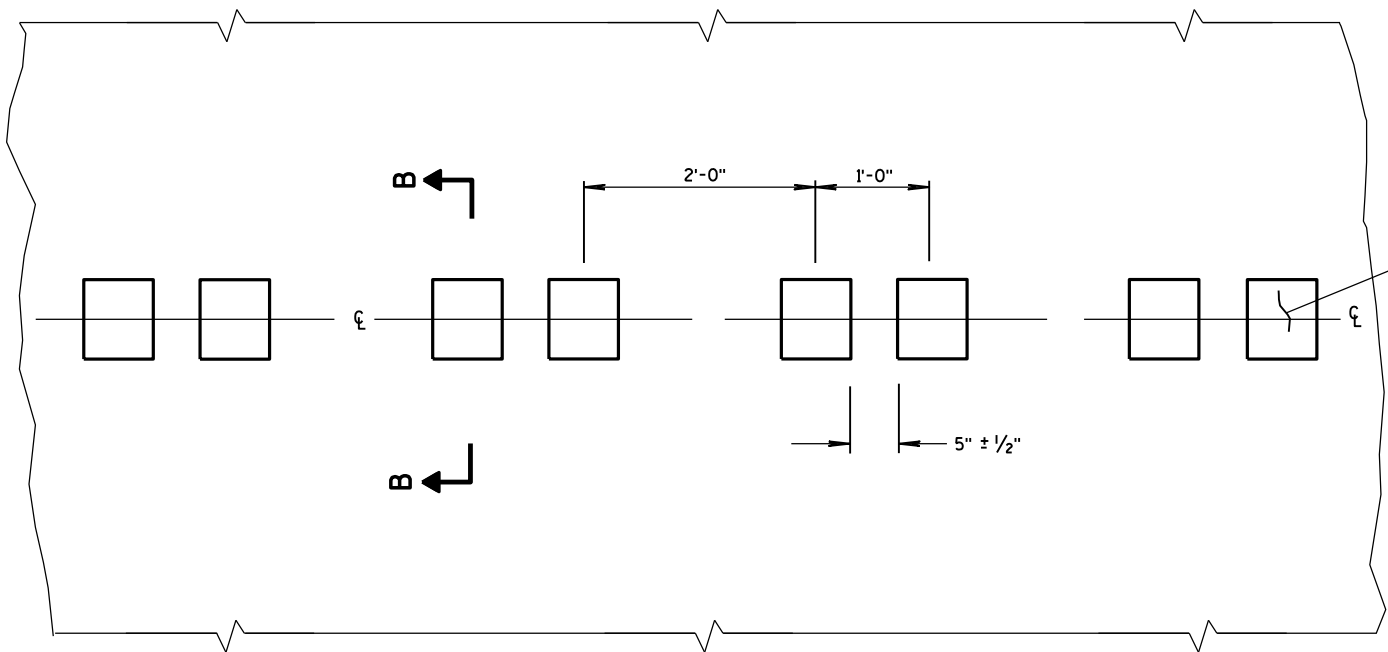
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

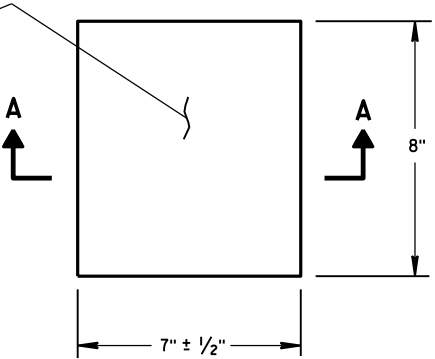
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

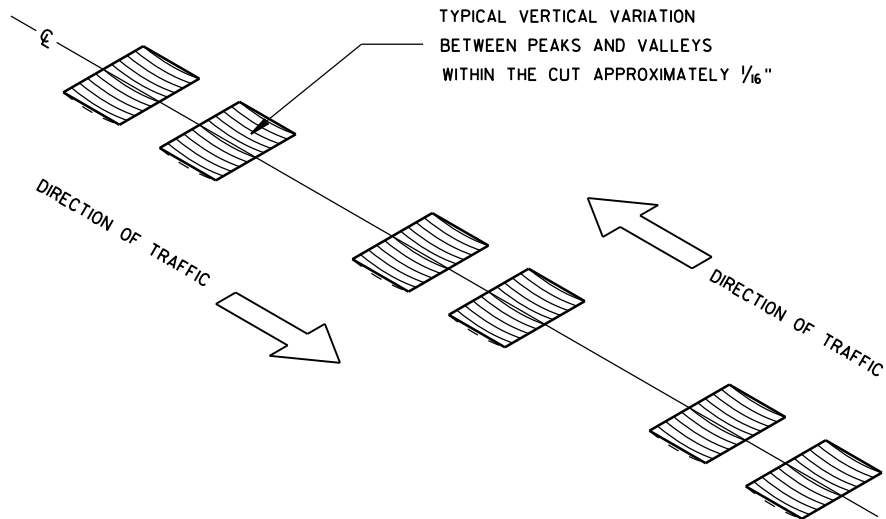
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



PLAN VIEW
CENTER LINE WITH GROOVES

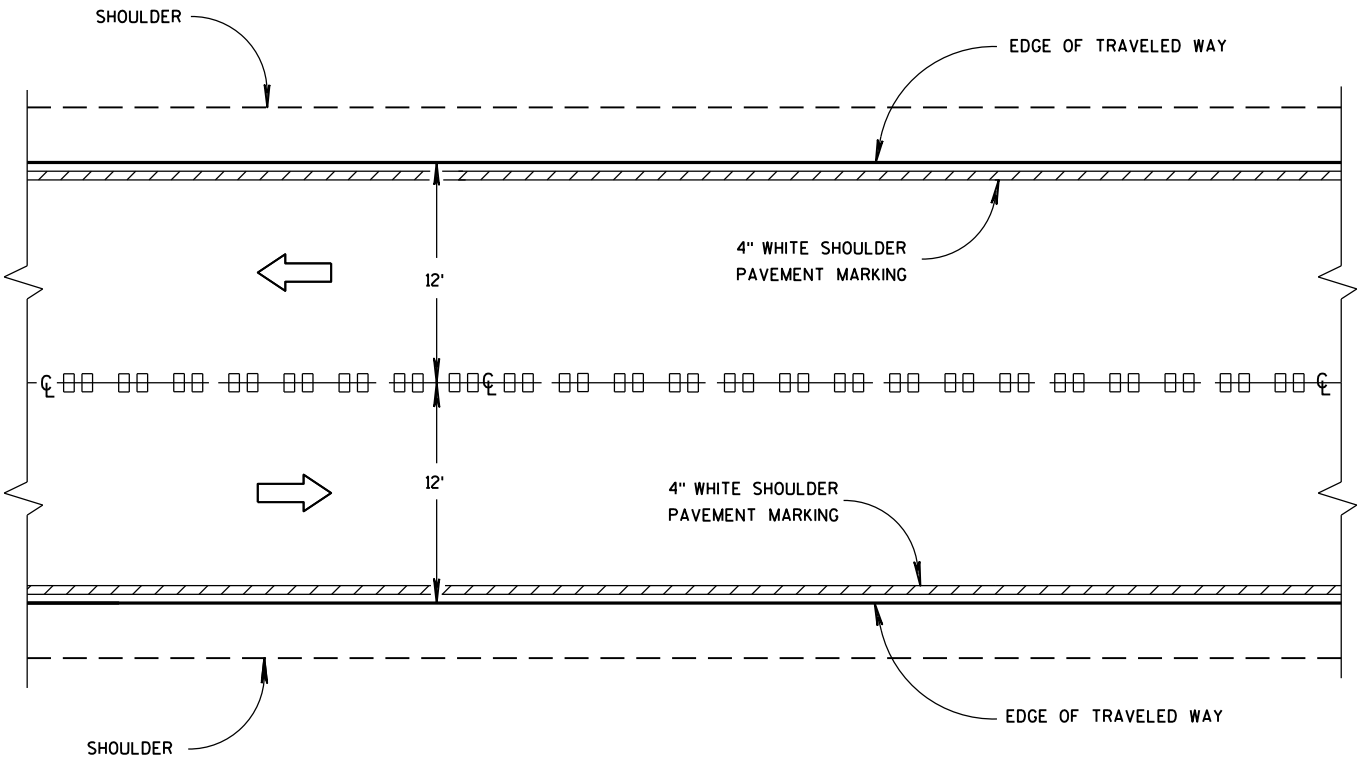


PLAN VIEW
(SINGLE GROOVE)

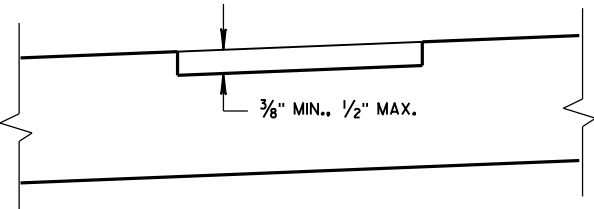


ISOMETRIC

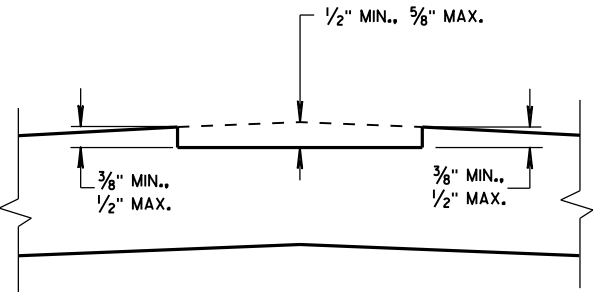
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



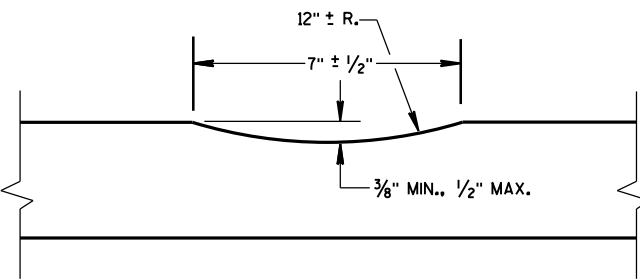
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



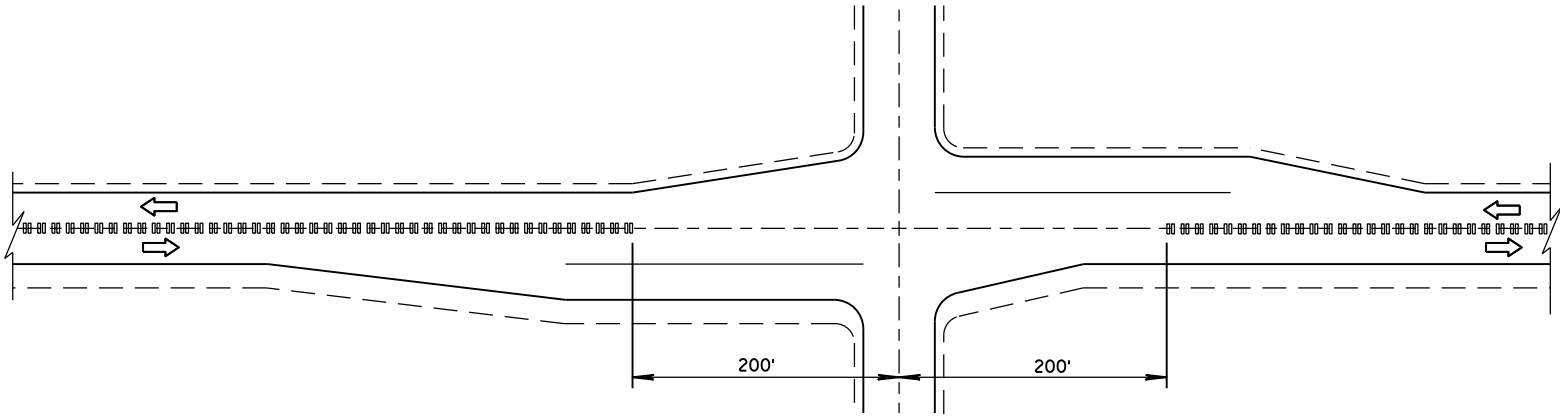
SECTION B-B
CROWNED ROADWAY



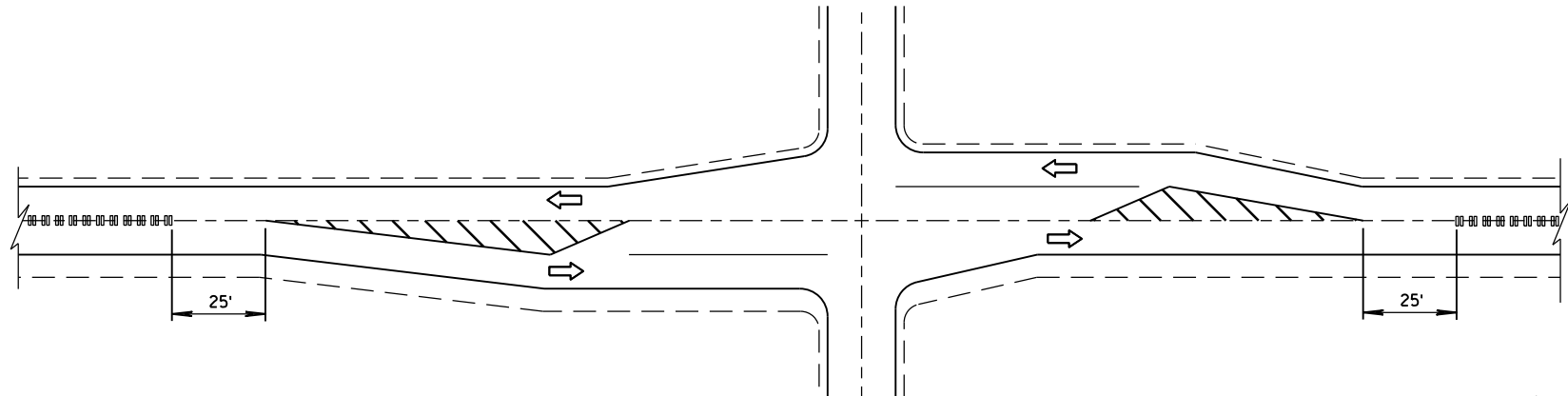
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

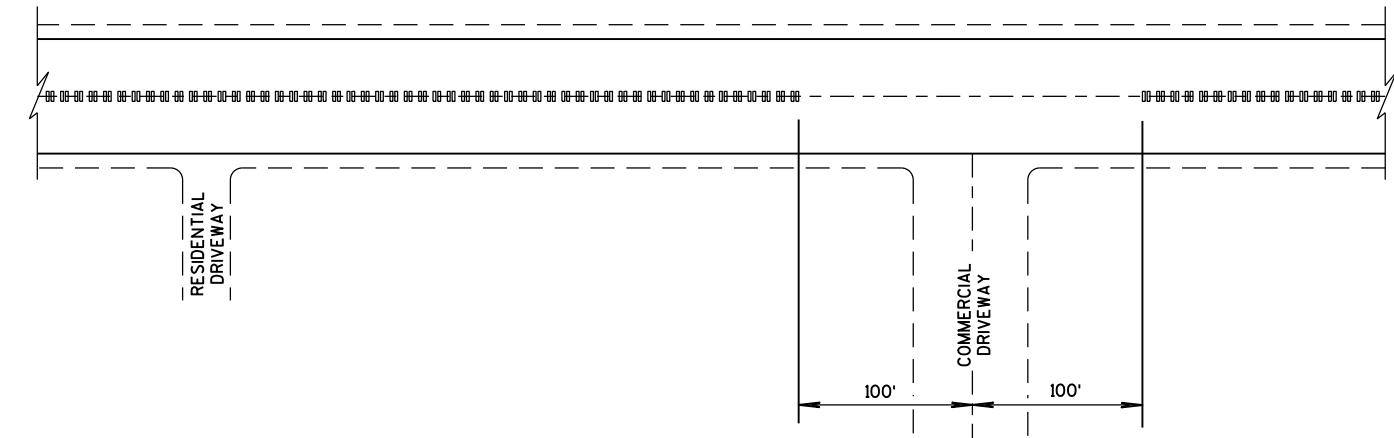
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

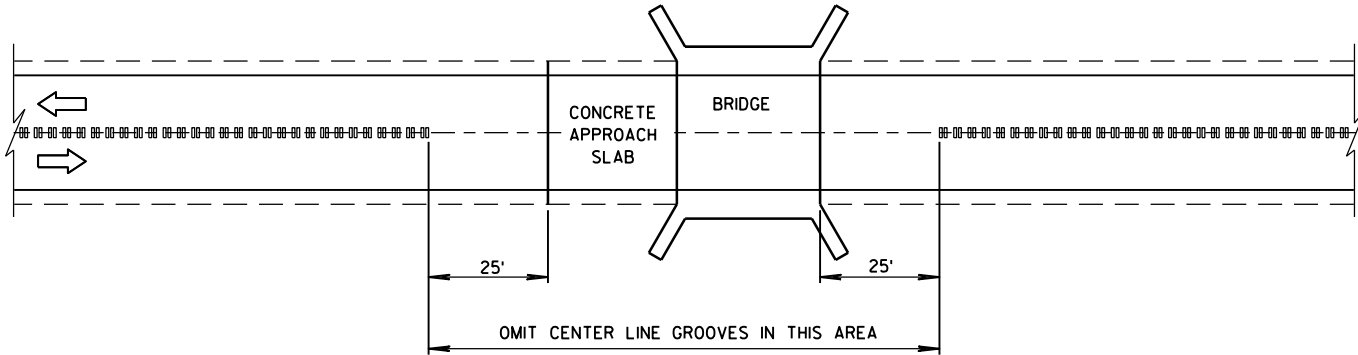


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

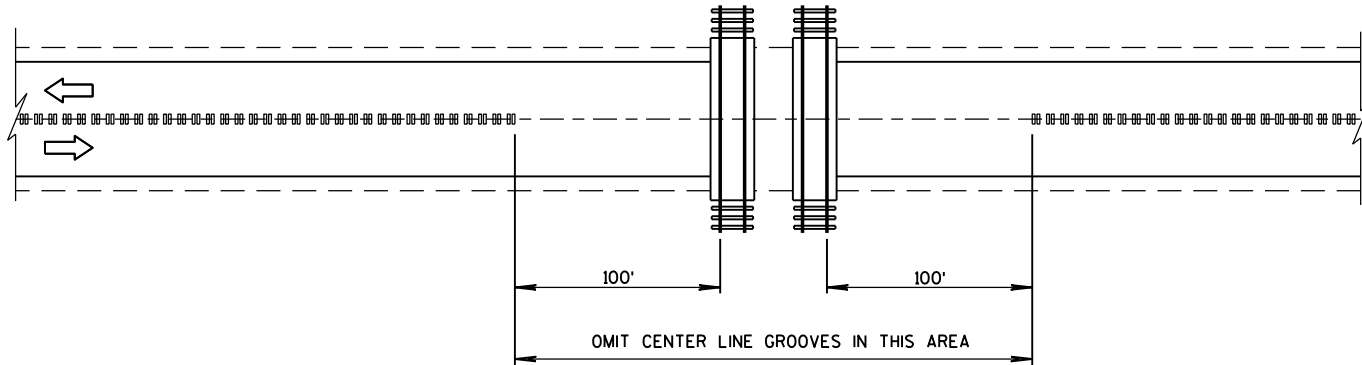


CENTER LINE GROOVES AT DRIVEWAYS^①

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

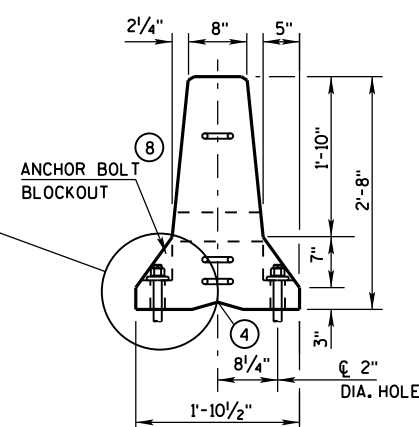
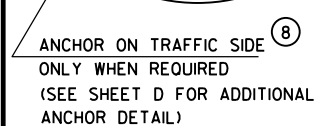


CENTER LINE GROOVES AT BRIDGES

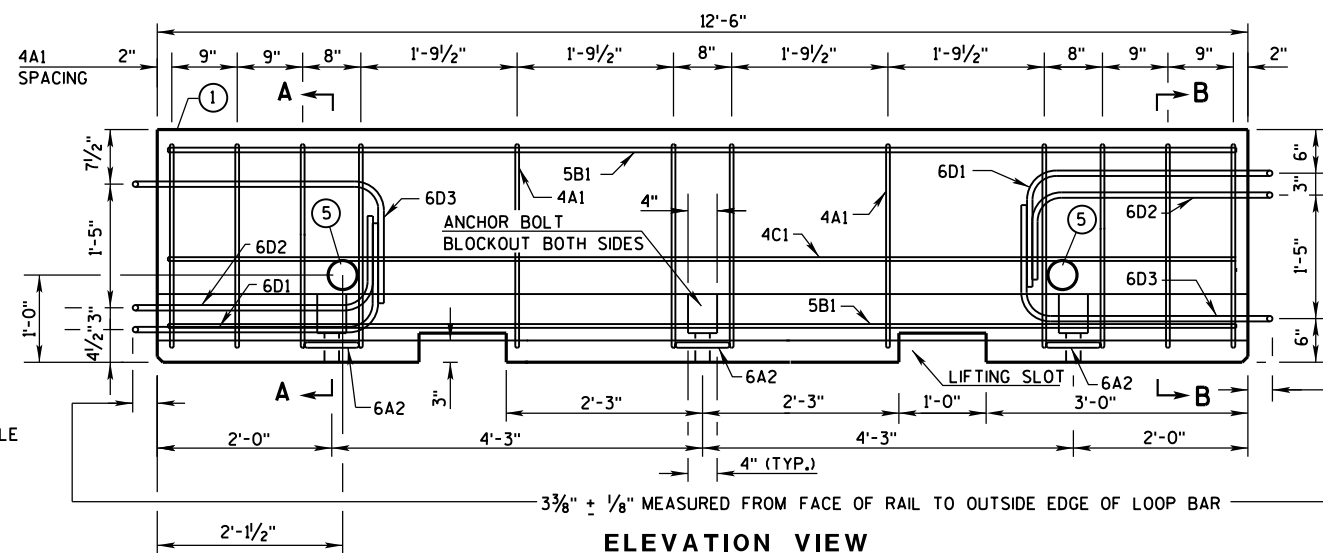


CENTER LINE GROOVES AT RAILROADS

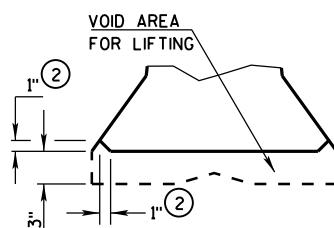
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



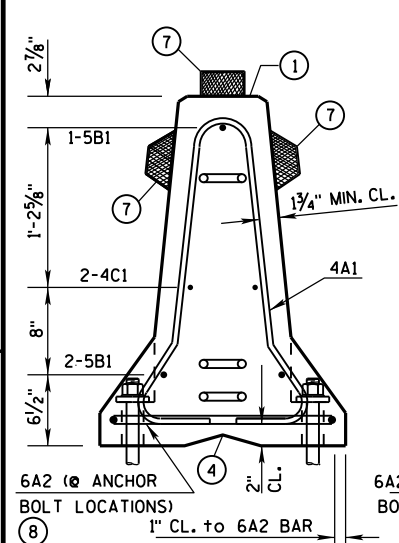
END VIEW



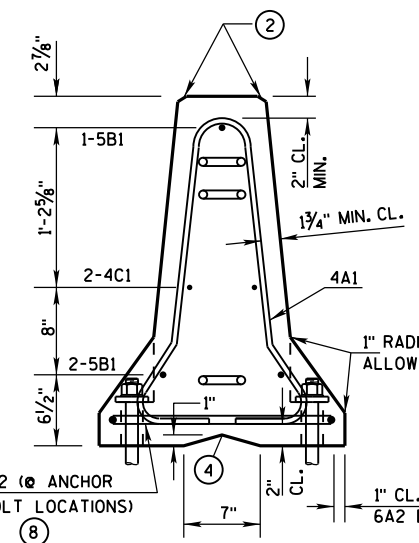
ELEVATION VIEW



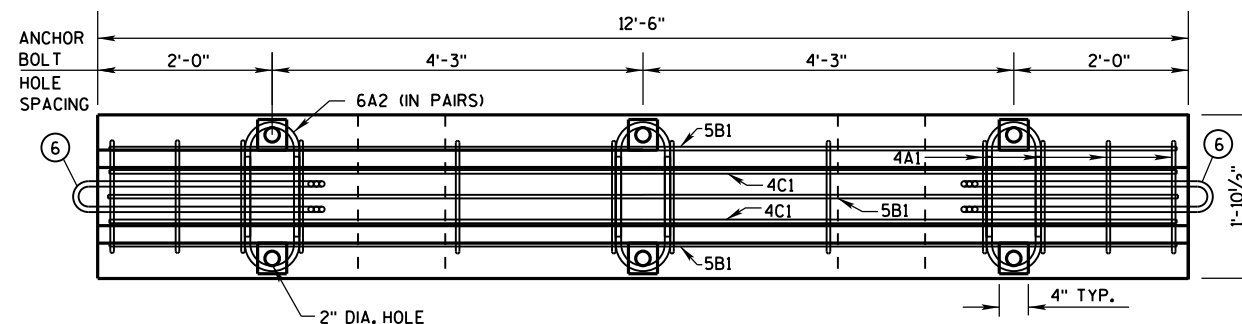
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

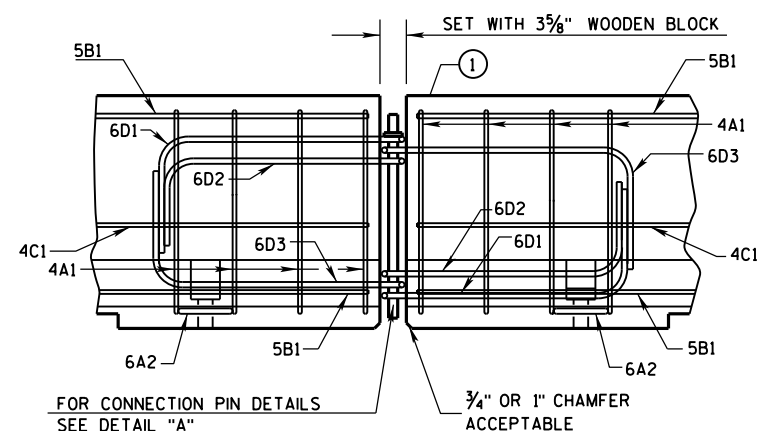


SECTION B-B
(STIRRUP PLACEMENT)

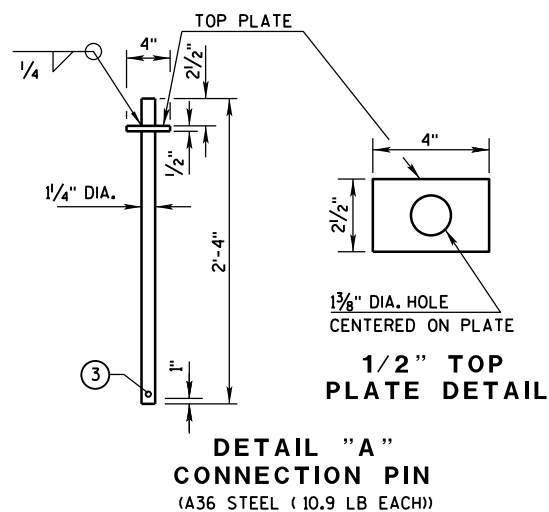


PLAN VIEW

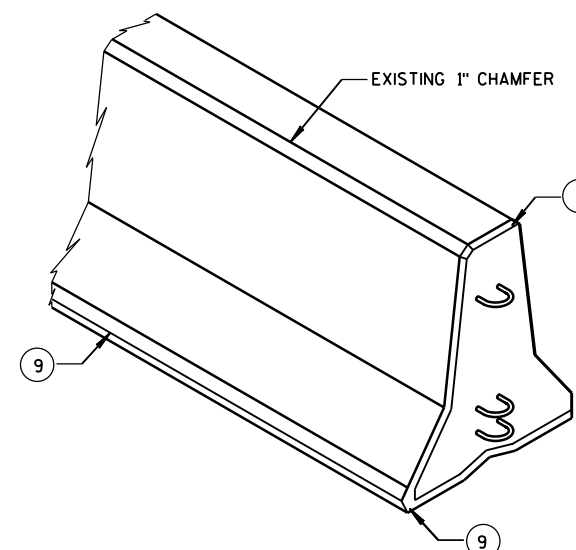
DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION



DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(d) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE $\frac{3}{4}$ " SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A $3\frac{1}{2}$ " PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN $\frac{1}{8}$ " OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

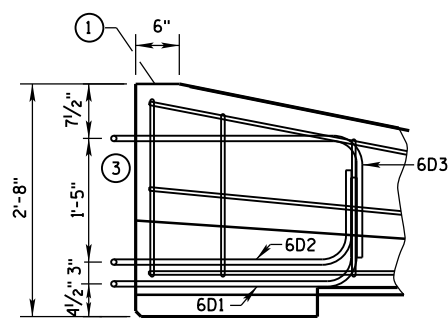
PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.
PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE: WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A $\frac{3}{8}$ " HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- ④ "V" NOTCH IS OPTIONAL.
- ⑤ THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- ⑥ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- ⑦ USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- ⑧ SEE SHEET D FOR ANCHORING CRITERIA.
- ⑨ 1" CHAMFER OPTIONAL.

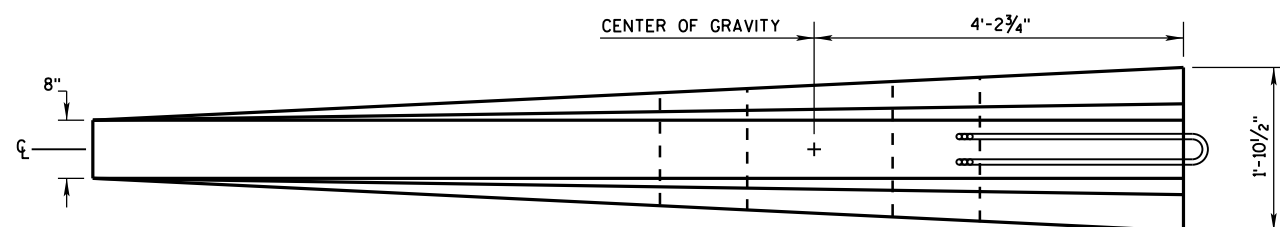
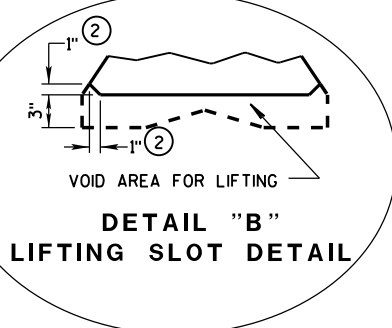
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)



**CHAMFER
DETAIL**

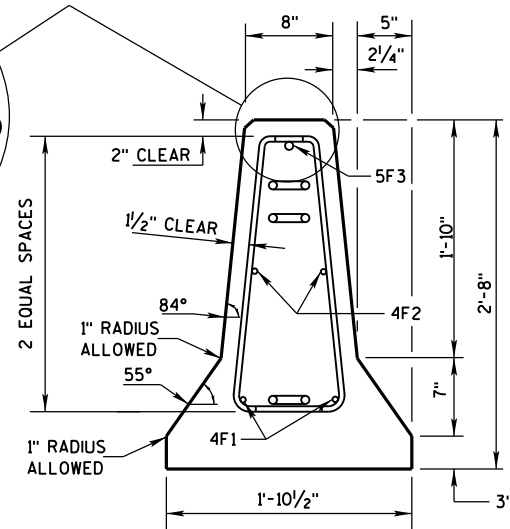


Diagram illustrating the placement of a barrier on a curve. The diagram shows a cross-section of the barrier and the road surface. Key dimensions and labels include:

- 10"± OFFSET**: The distance from the centerline to the barrier.
- 5°± MAX.**: The maximum angle of the barrier relative to the centerline.
- 12'-6"**: The length of the barrier segments.
- BARRIER ON CURVE**: The title of the diagram.
- END SECTION**: The label for the end of the barrier section.

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

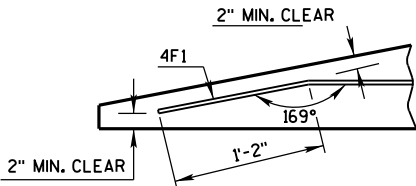
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

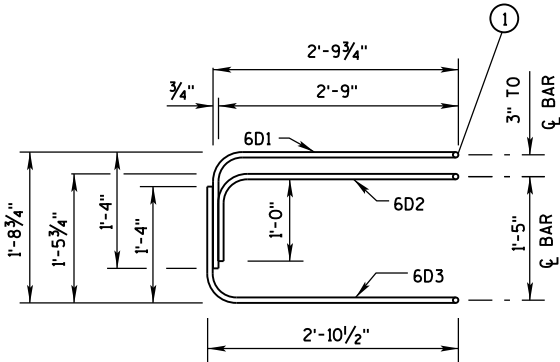
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

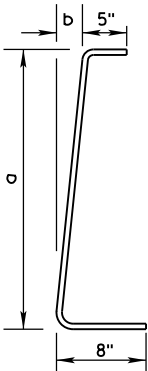
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

TAPER BARRIER SECTION

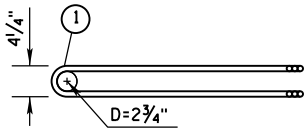
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION
BILL OF MATERIALS

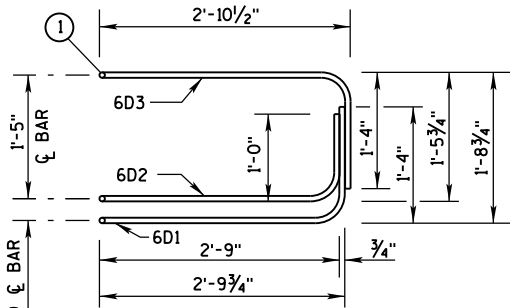
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"

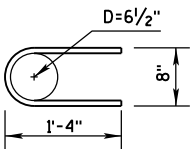


PLAN VIEW
LOOP BAR ASSEMBLY

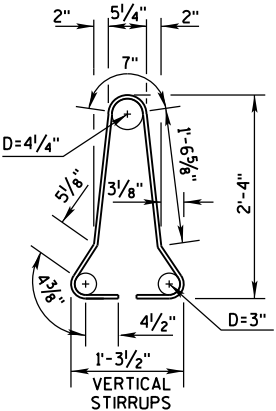
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

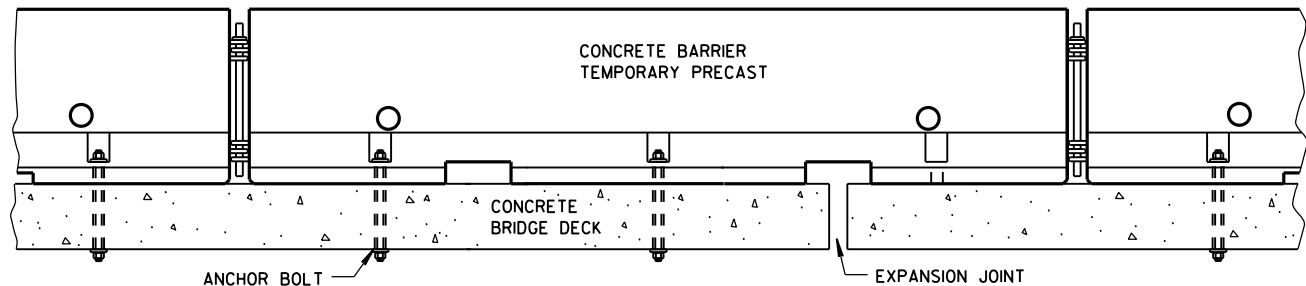
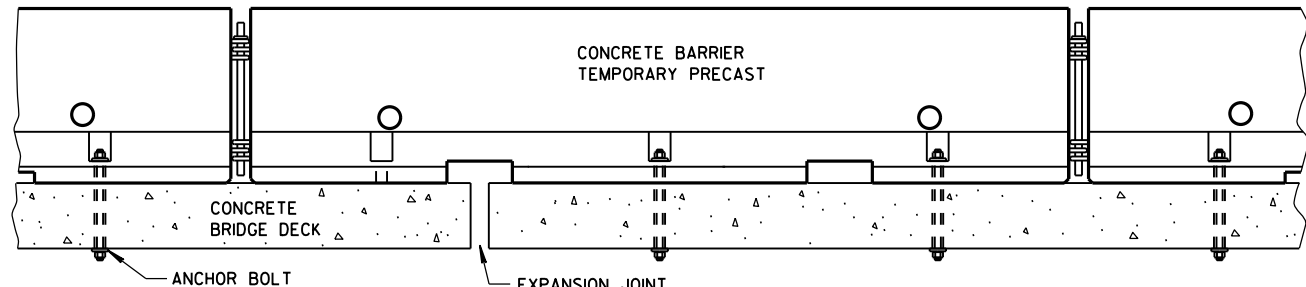


4A1

BARRIER SECTION

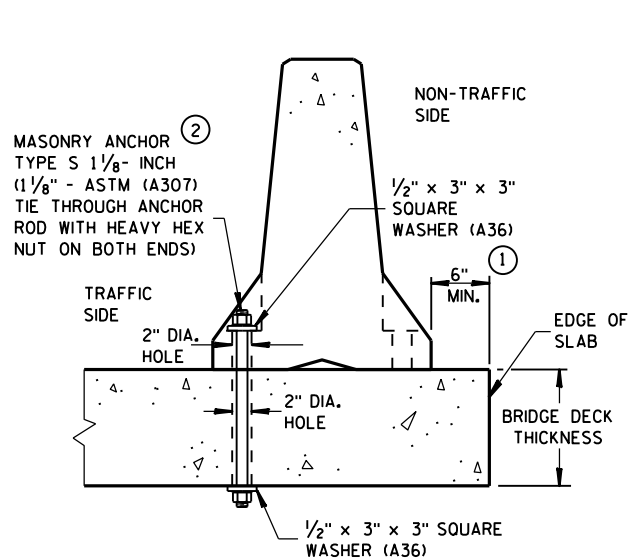
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



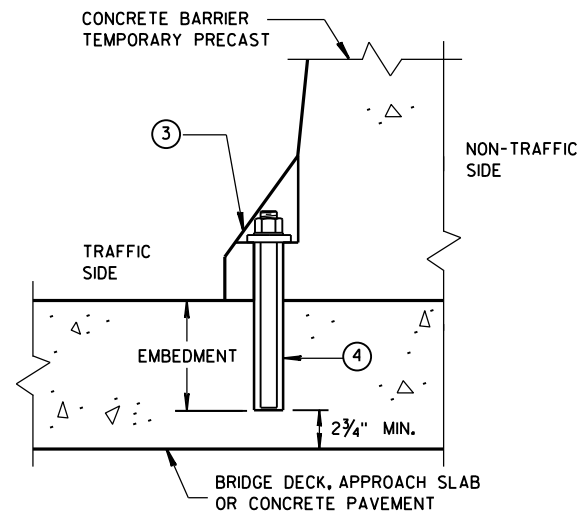
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



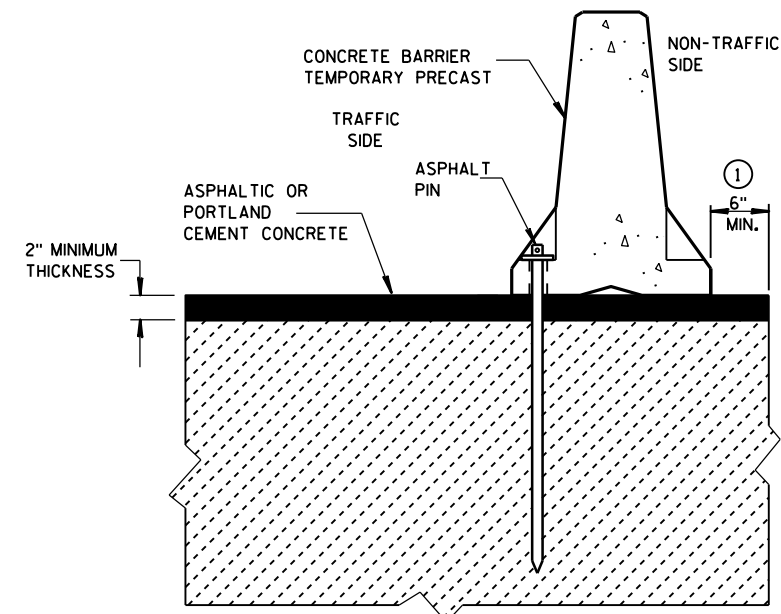
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



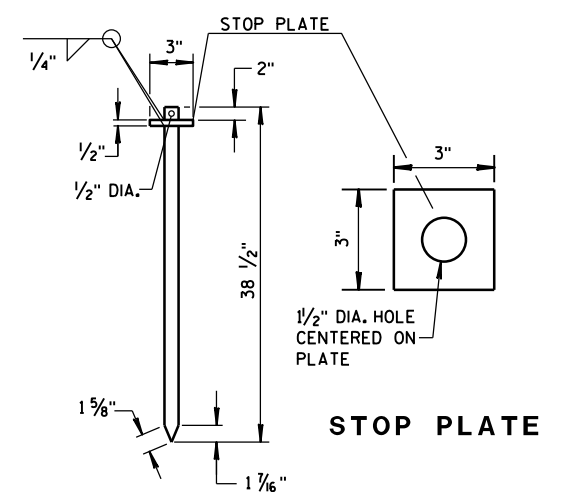
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

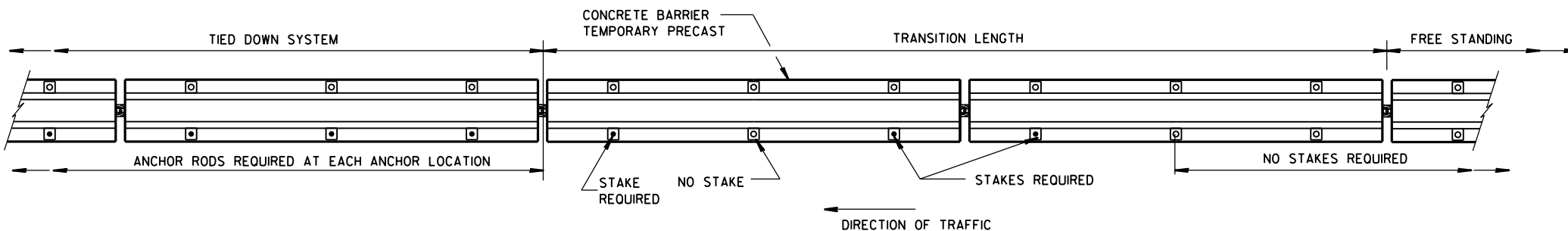


STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



ASPHALT PIN
(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

- ① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,
IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF
AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

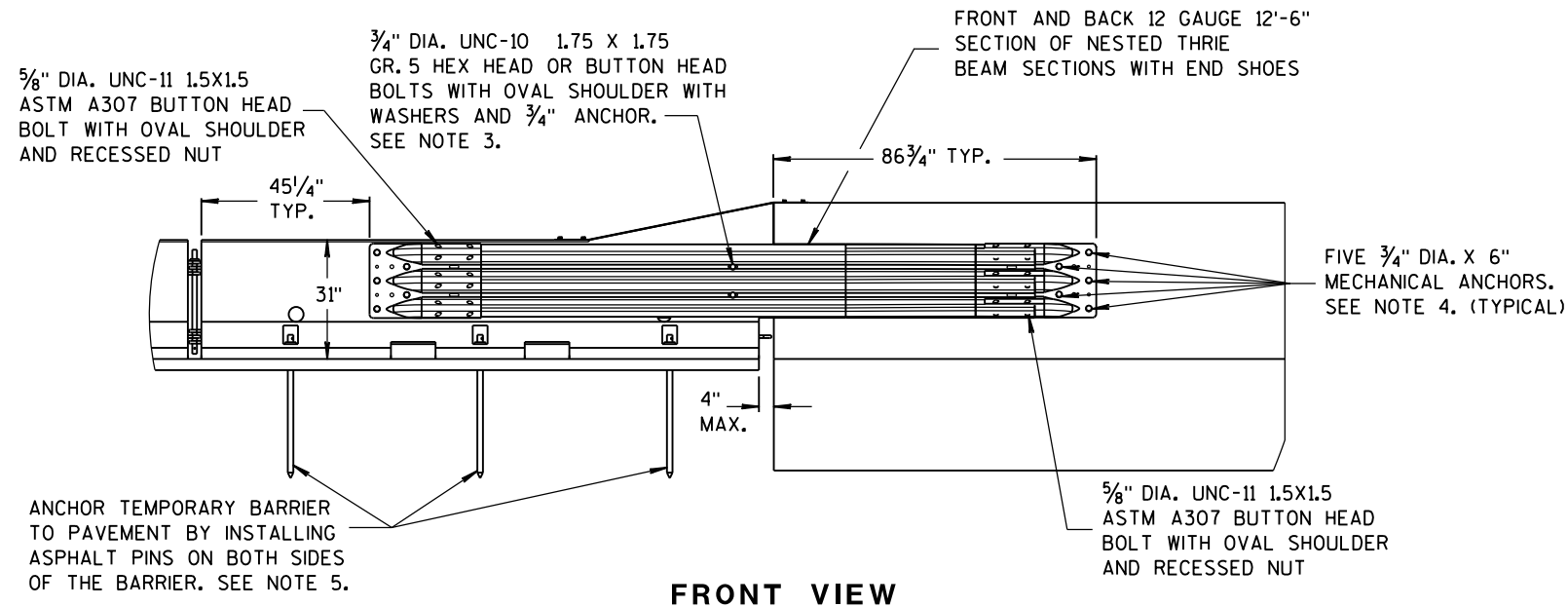
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V,
FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT,
IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF
AND THE POSTED SPEED IS 40 MPH OR LESS.
- ② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT
INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE
BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE
S 1 1/8"-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE
ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY
FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CON-
CRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR MATERIAL
IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.
- ③ 1/8" DIAMETER A307 THREADED ROD, 1/2" x 3" x 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL,
ASTM A563A HEAVY HEX NUT.
- ④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2
AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



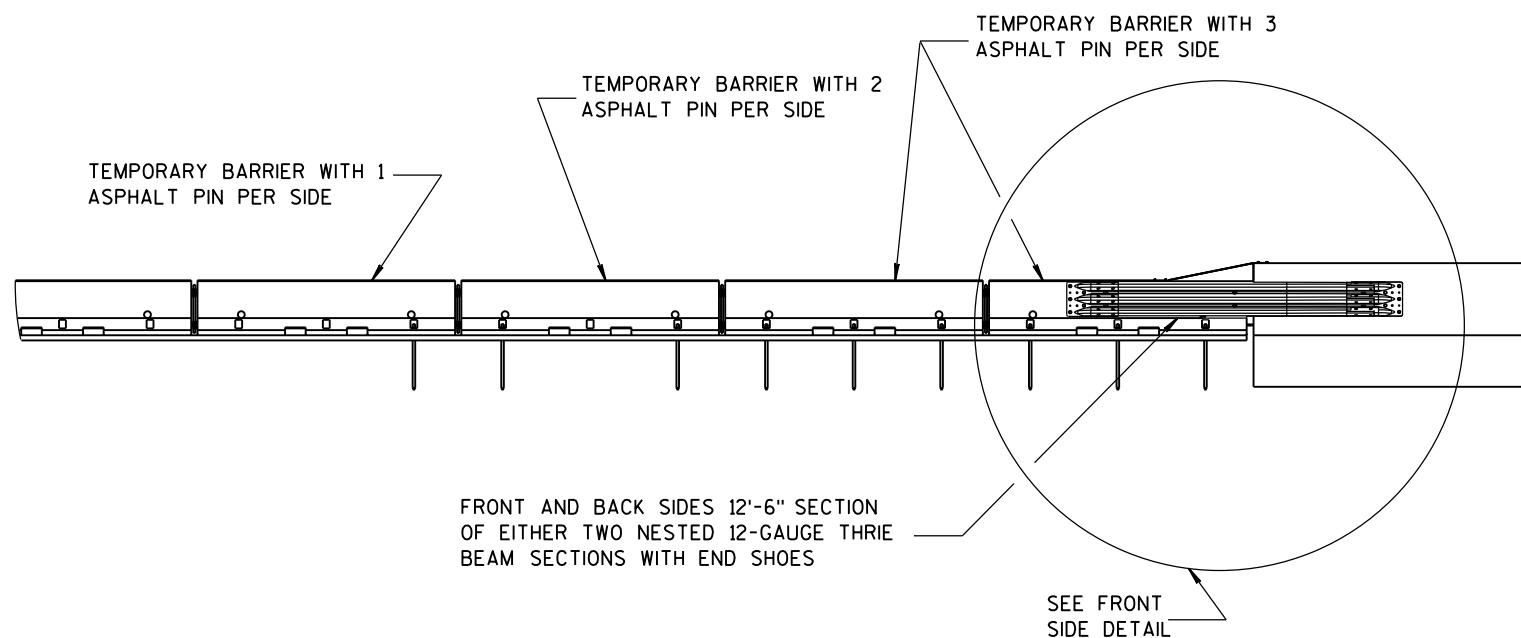
FRONT VIEW

NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

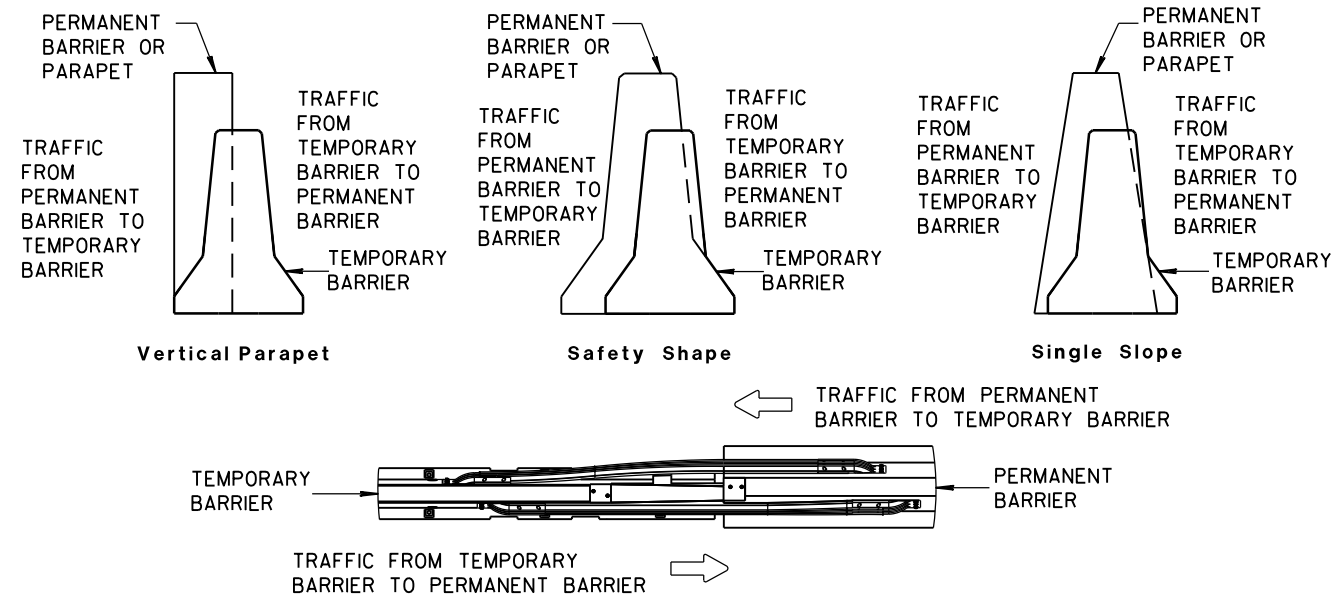
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.

4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

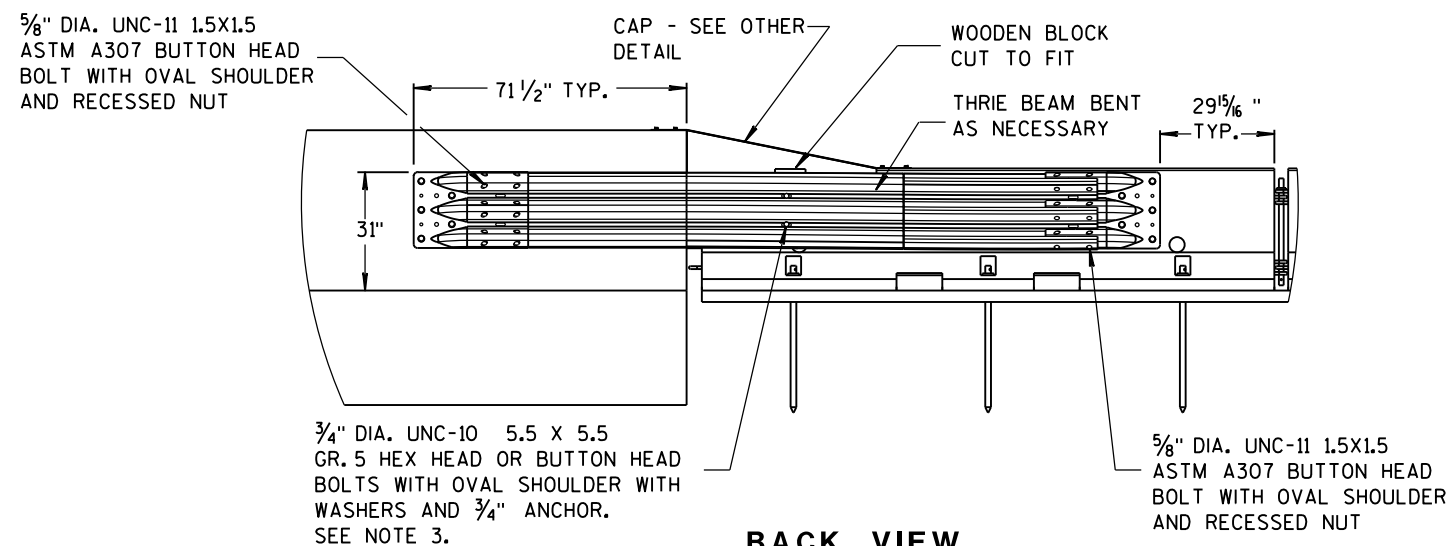


FRONT VIEW

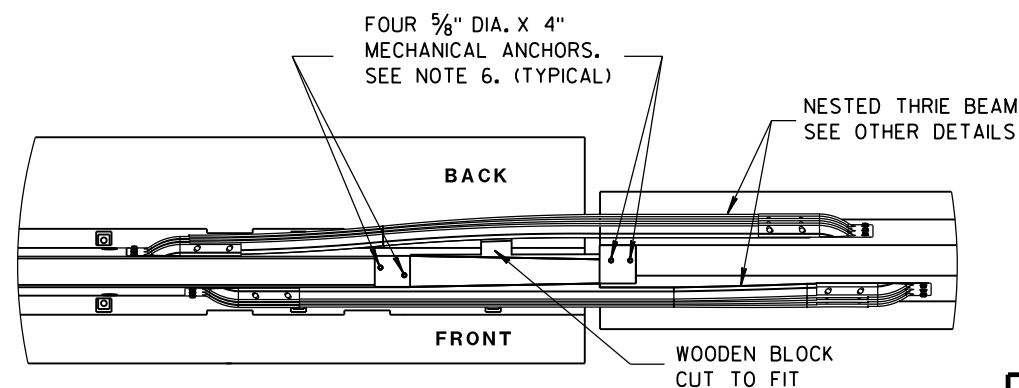
BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



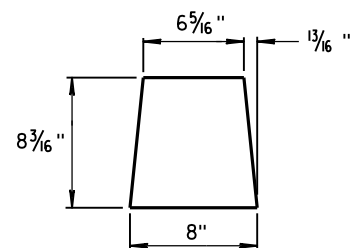
BACK VIEW



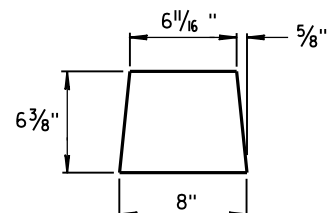
PLAN VIEW

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

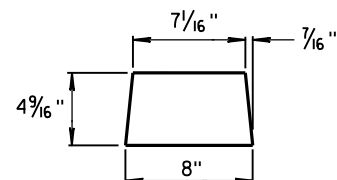
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



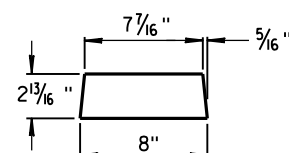
GUSSET 1



GUSSET 2

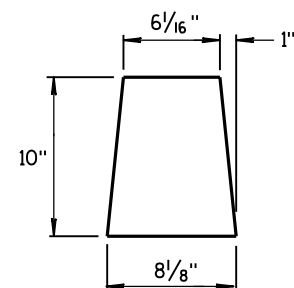


GUSSET 3

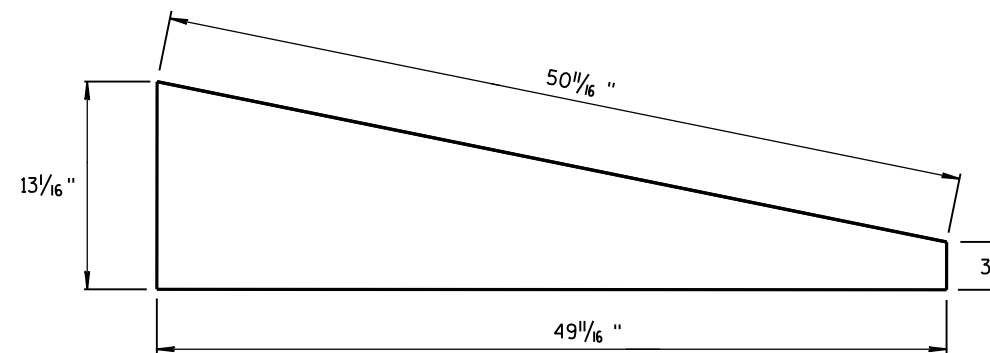


GUSSET 4

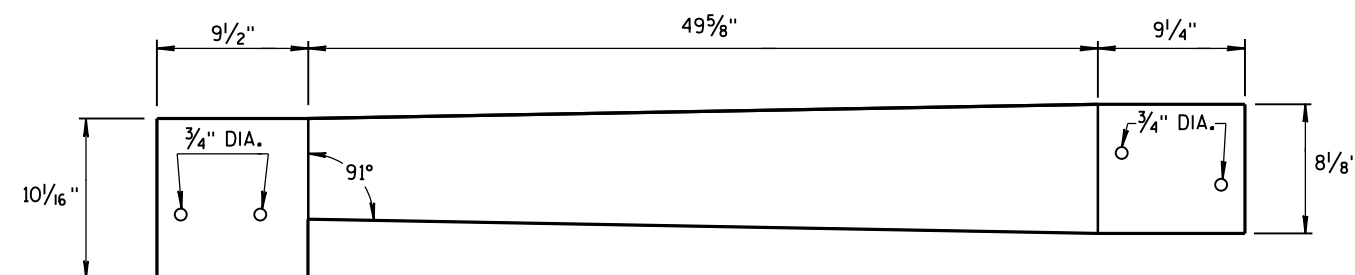
GUSSETS



END PLATE



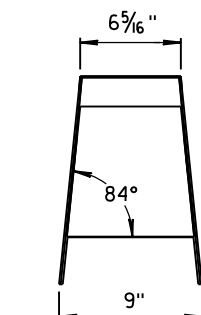
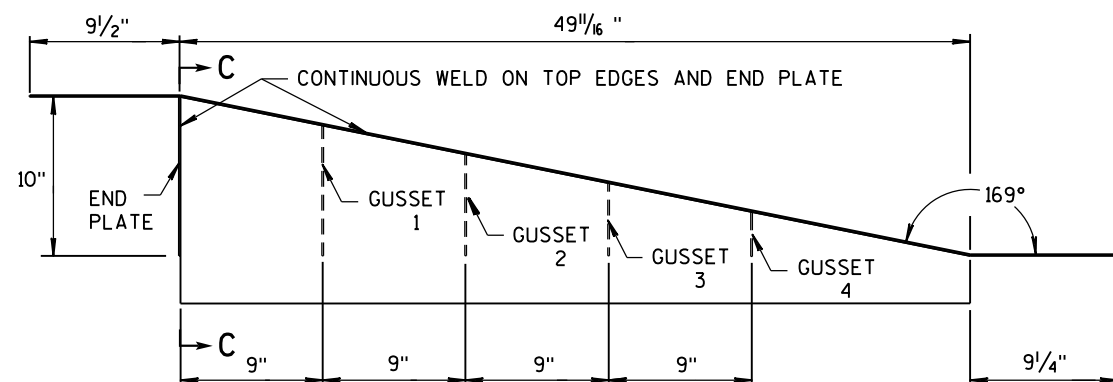
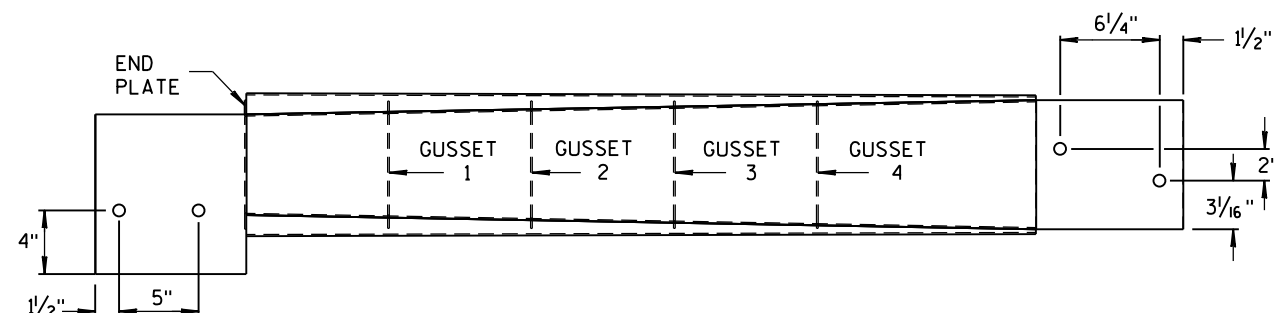
SIDE PLATE



TOP PLATE

**SIDE, TOP AND END PLATES FOR CAP
FROM TEMPORARY CONCRETE BARRIER
TO 42" PERMANENT CONCRETE BARRIER**

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C

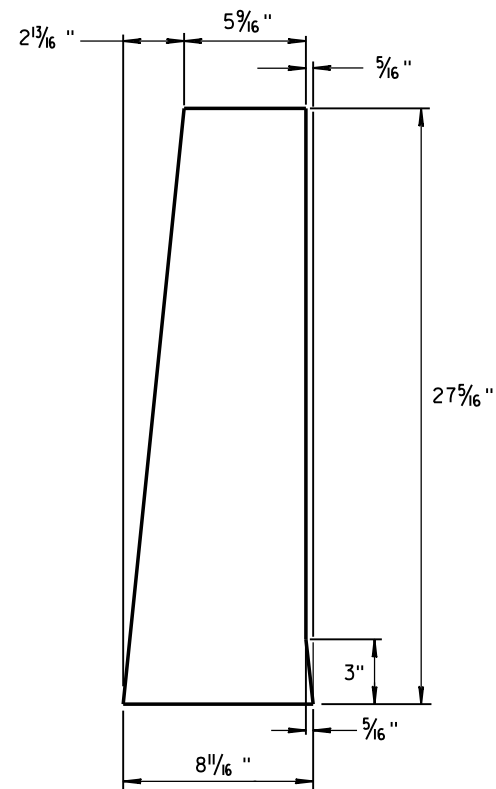
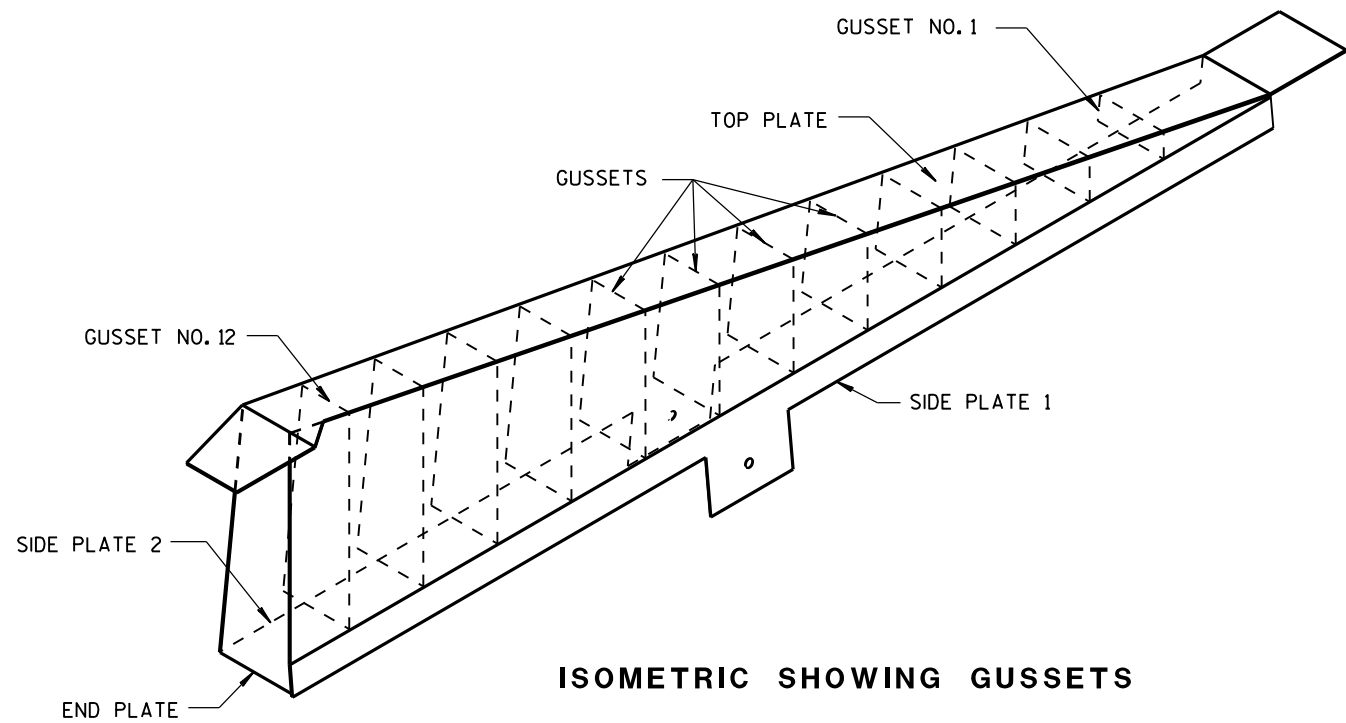
NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

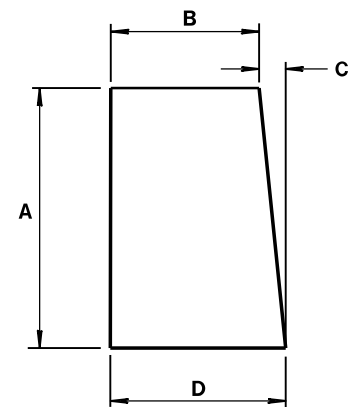
**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



1/8" STEEL PLATE

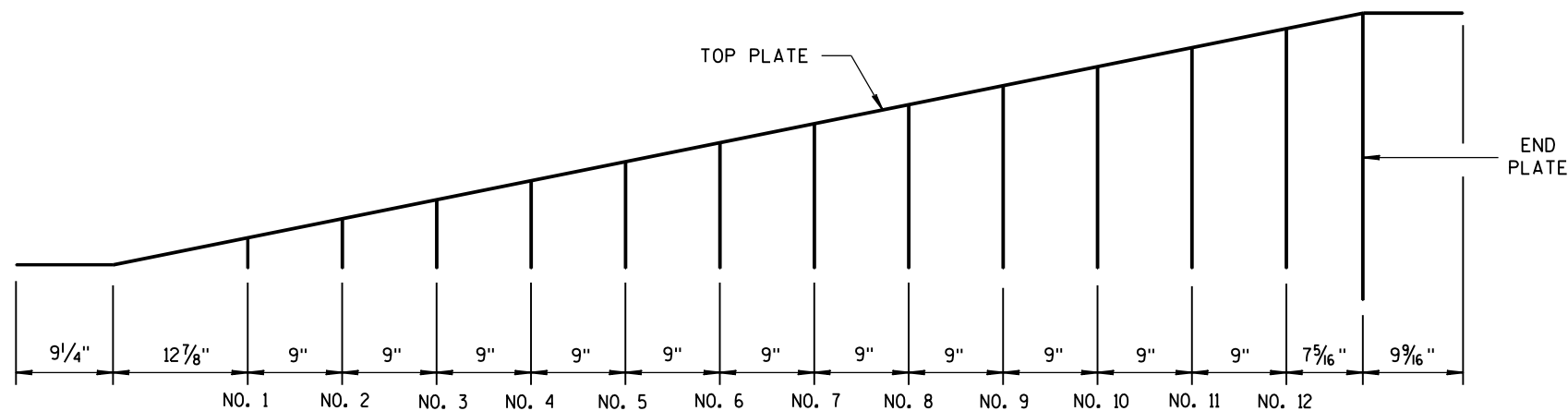


ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 1/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	1 1/16 "	8 1/16 "
4	8 5/16"	7 3/16"	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 5/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16"	6 1/16"	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16"	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16"	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

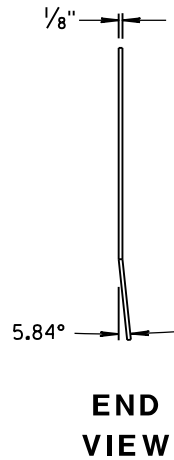
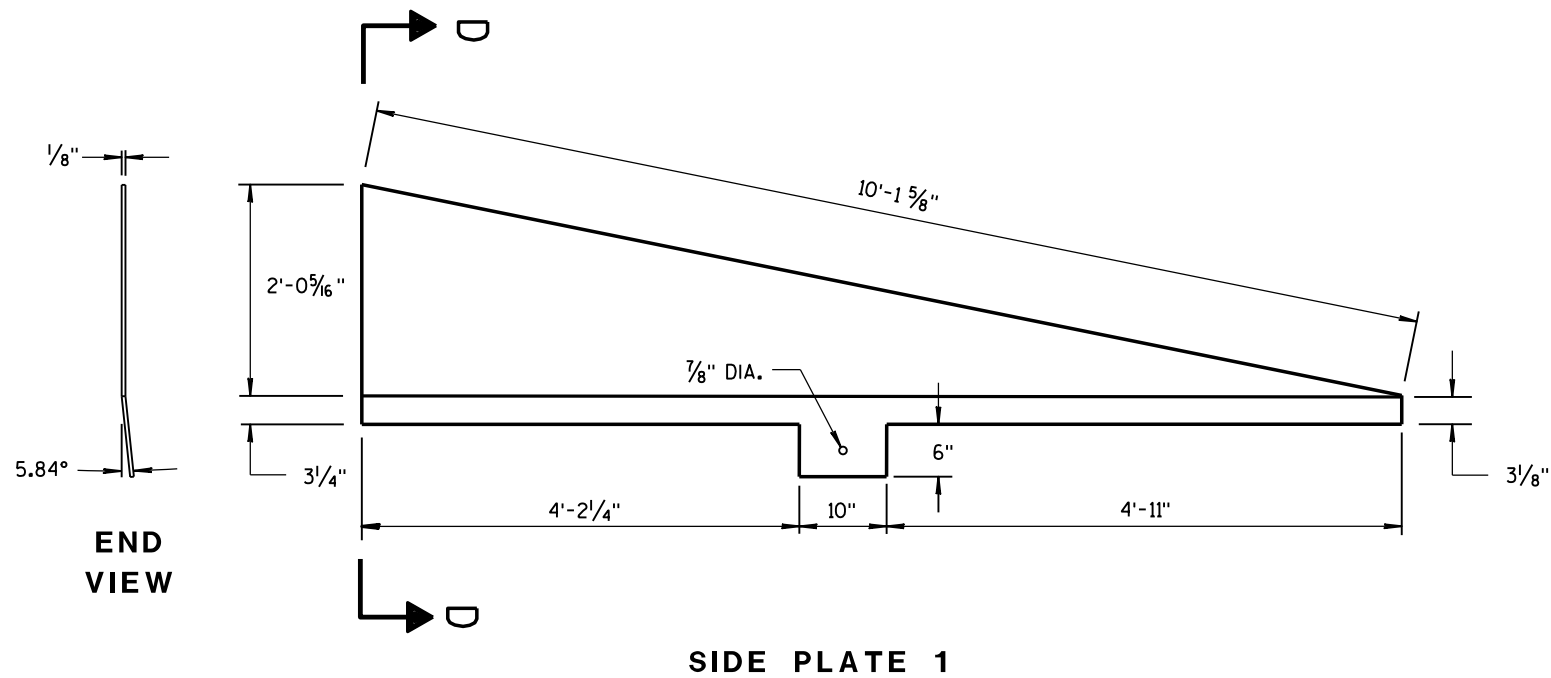
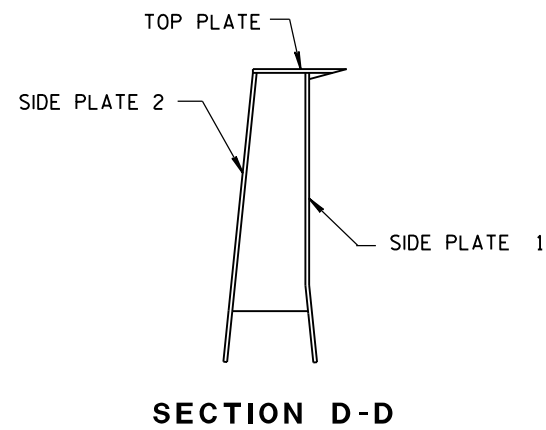
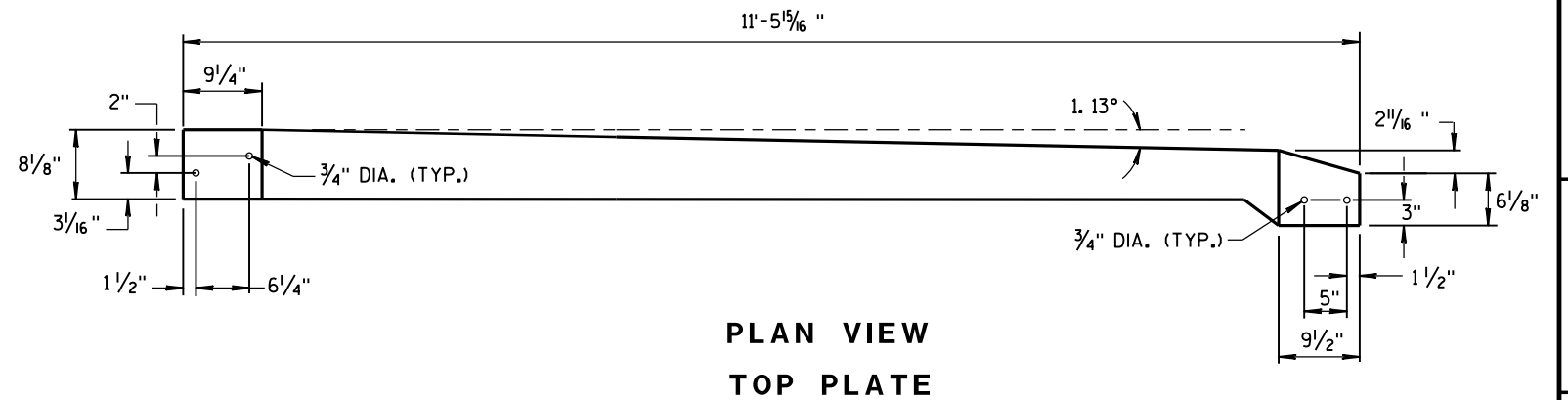
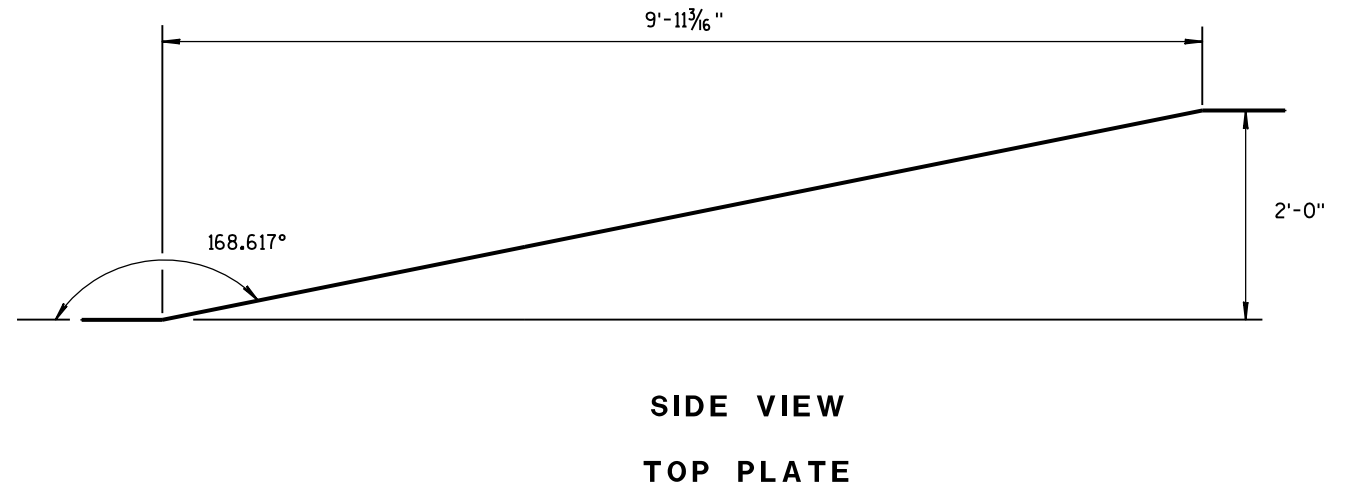
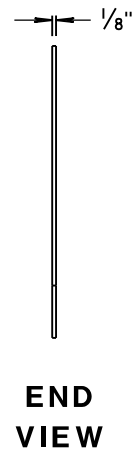
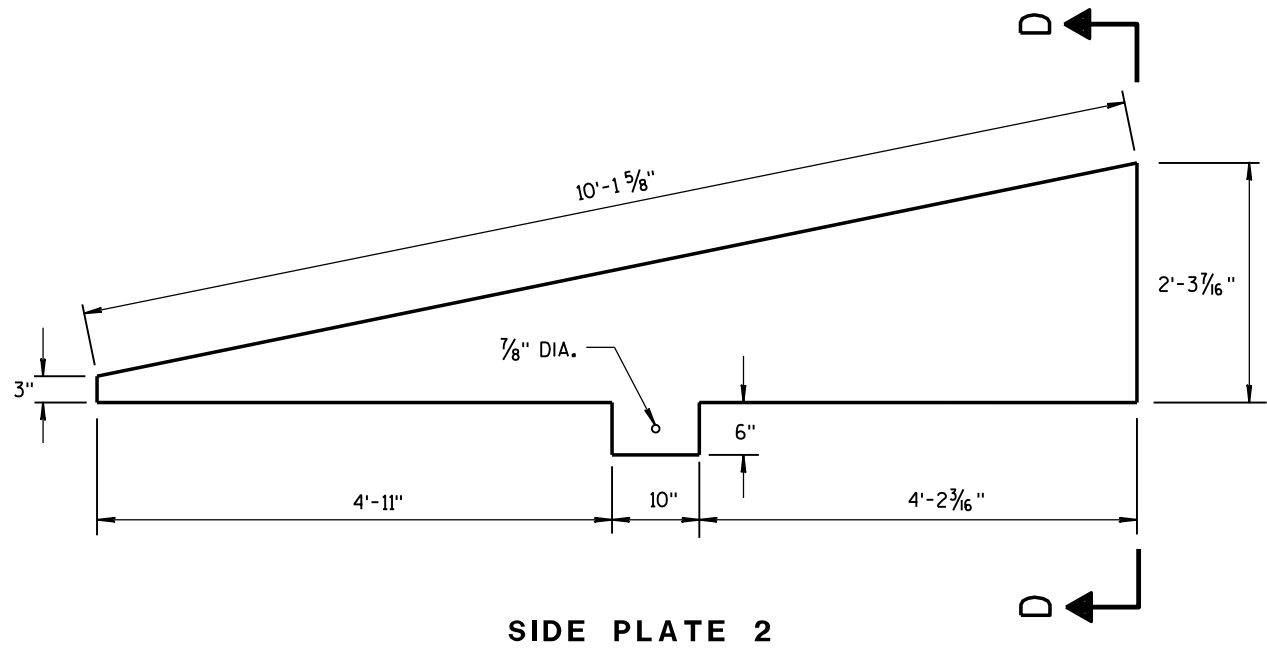
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 56" PERMANENT CONCRETE BARRIER

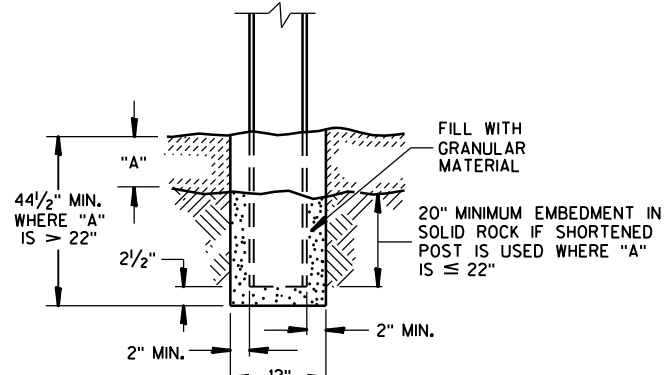
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014 DATE	/S/ Jerry H. Zogg ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

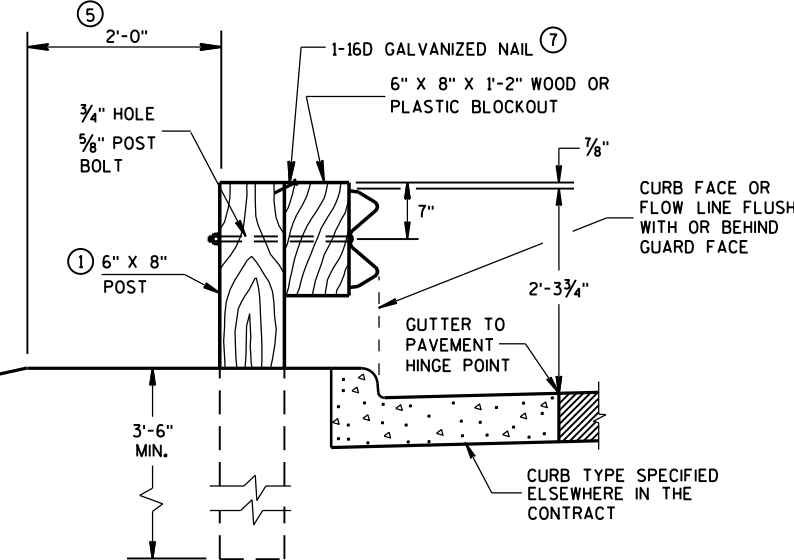
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

- ① 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 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.
- 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.

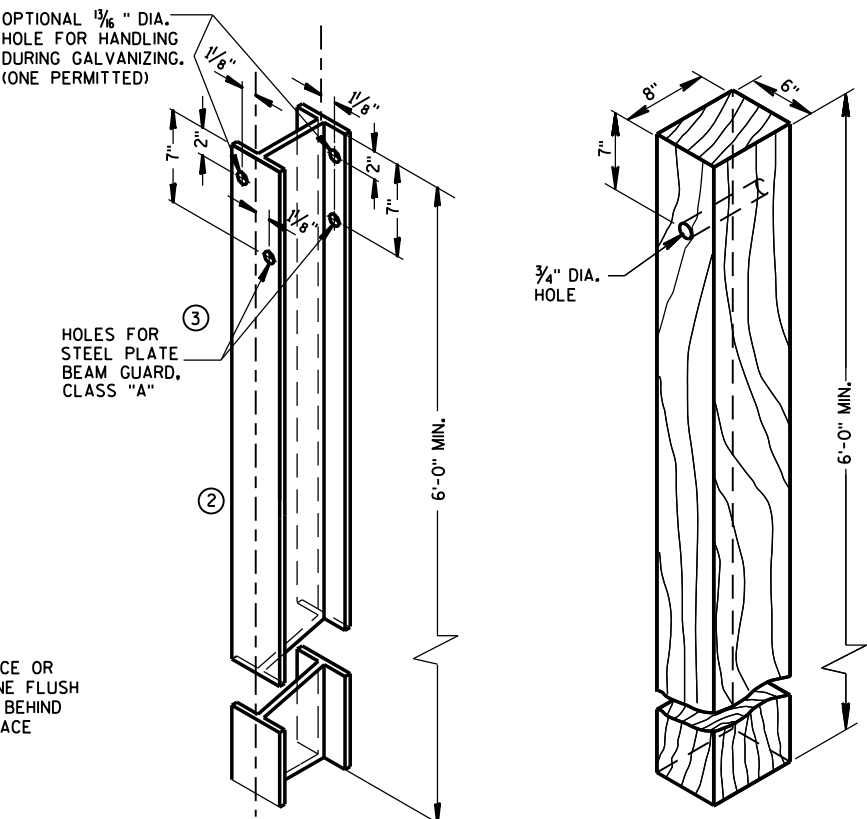
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥

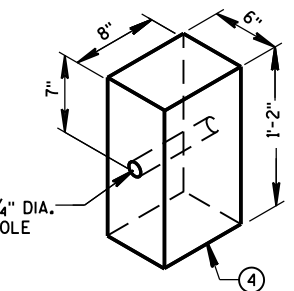


END VIEW
LOCATED ALONG A CURBED ROADWAY

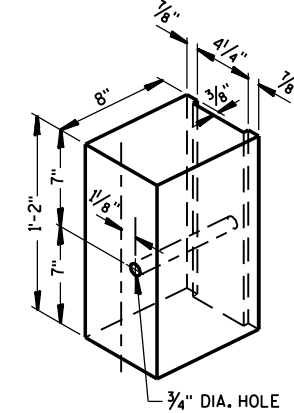


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①
ALL HOLES 1 3/8 INCH DIAMETER EXCEPT AS NOTED

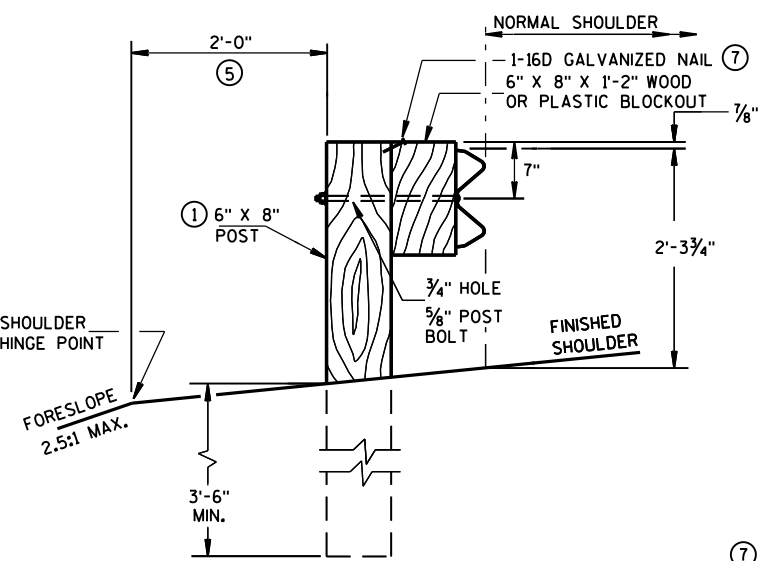
WOOD POST
(6" X 8") NOMINAL



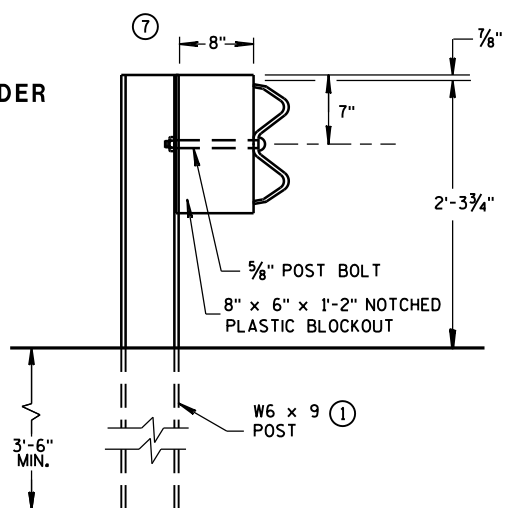
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



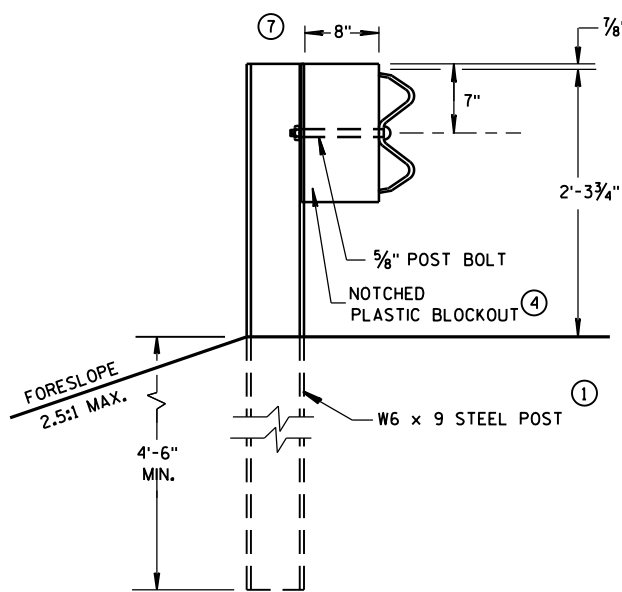
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS ①



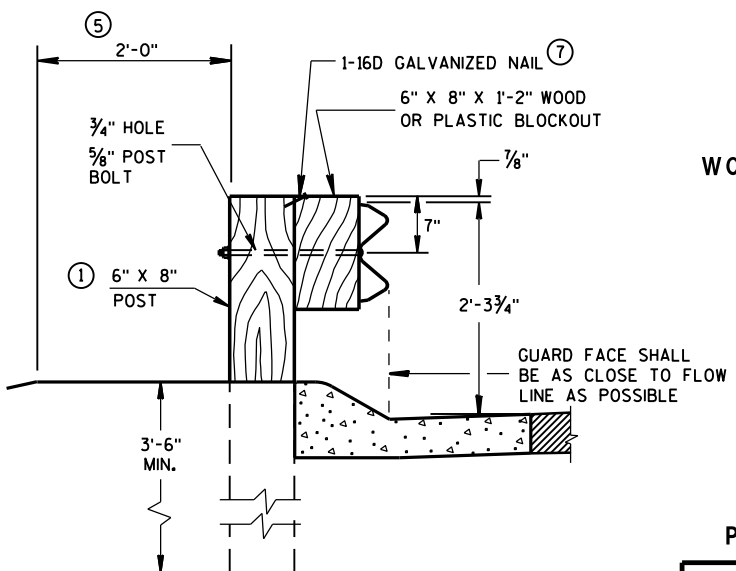
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



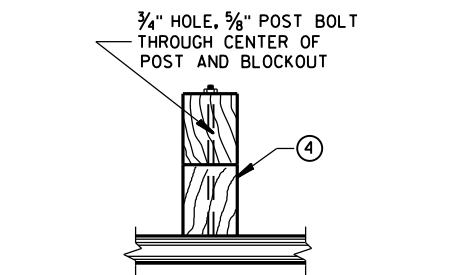
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



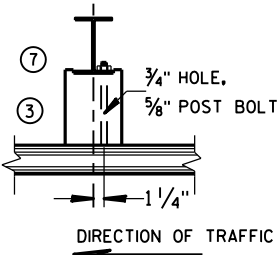
END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



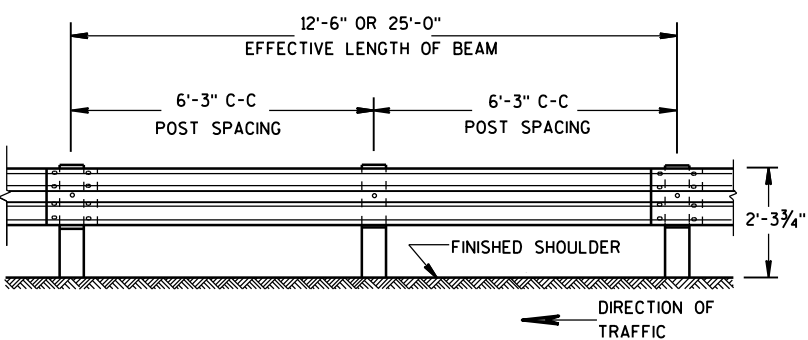
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

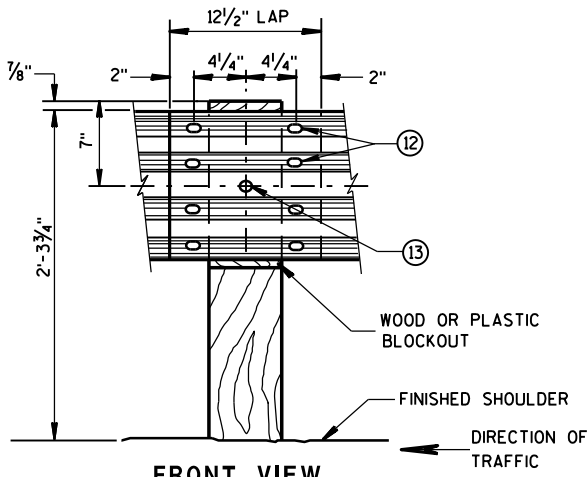
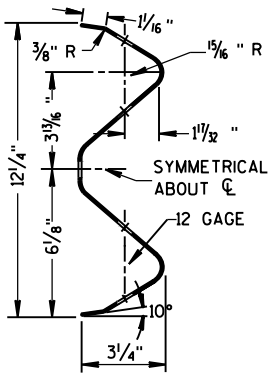
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



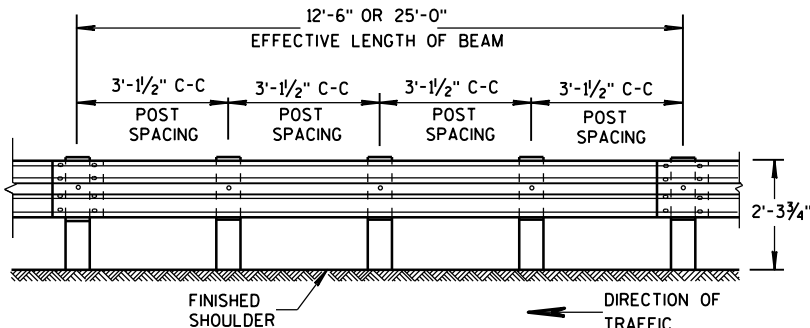
FRONT VIEW

POST SPACING STANDARD INSTALLATION

SECTION THRU W BEAM

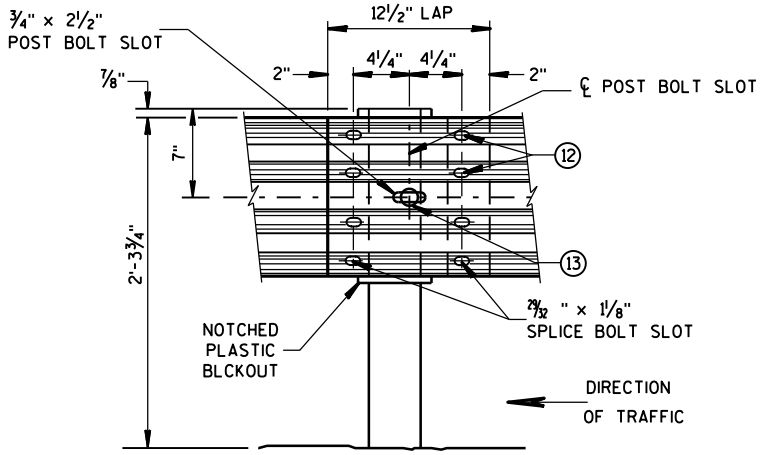


FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



FRONT VIEW

POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)

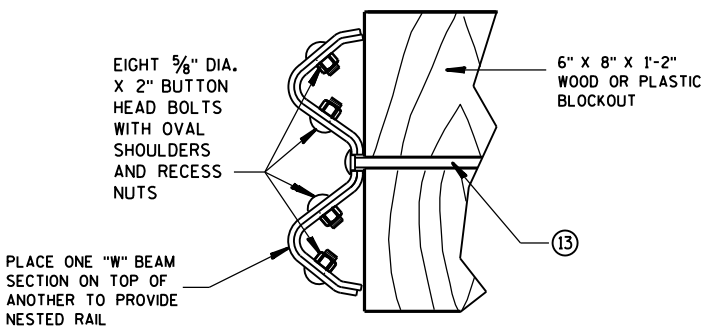


FRONT VIEW
BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD

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 $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.

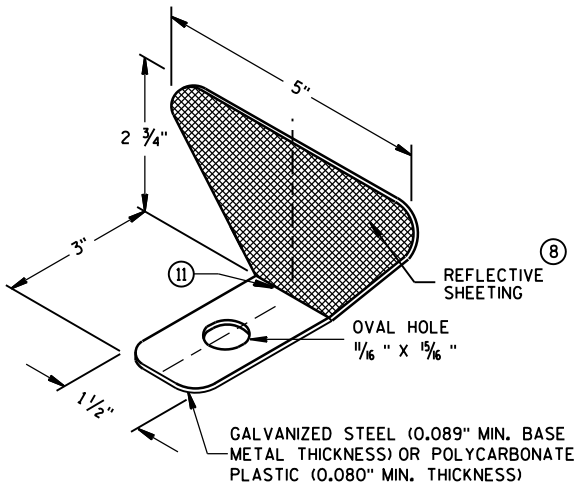
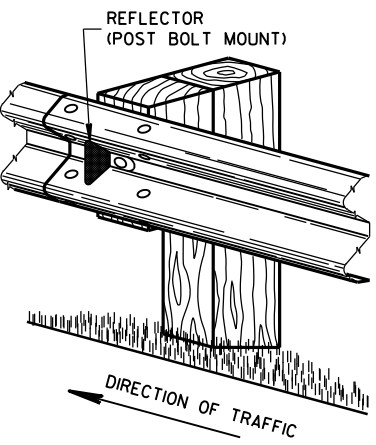


NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING ⑨

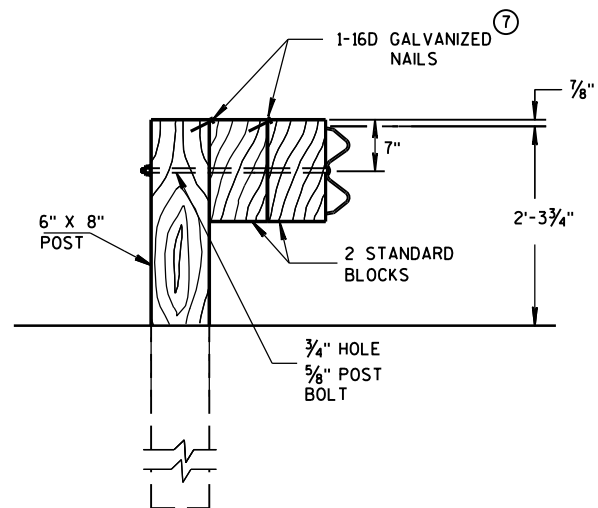
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑩	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ⑪	3
	> 200'	100' C-C	2	



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

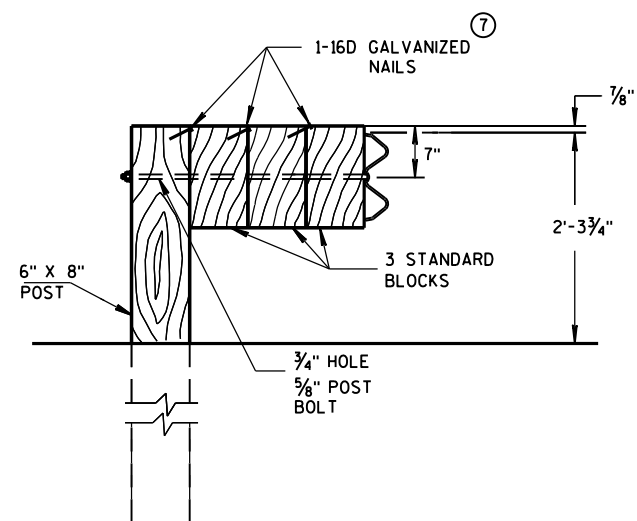
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS
WITHIN A BARRIER RUN IS UNLIMITED

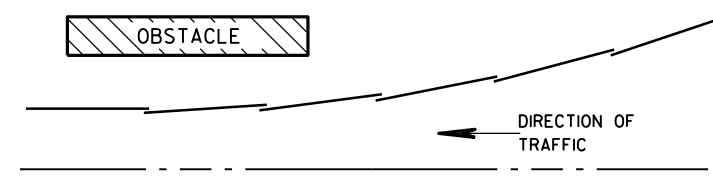


DETAIL FOR TRIPLE BLOCKS

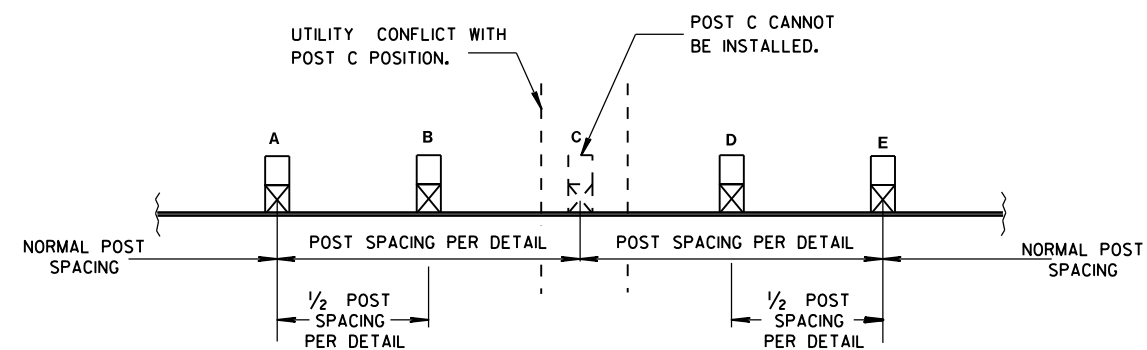
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

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

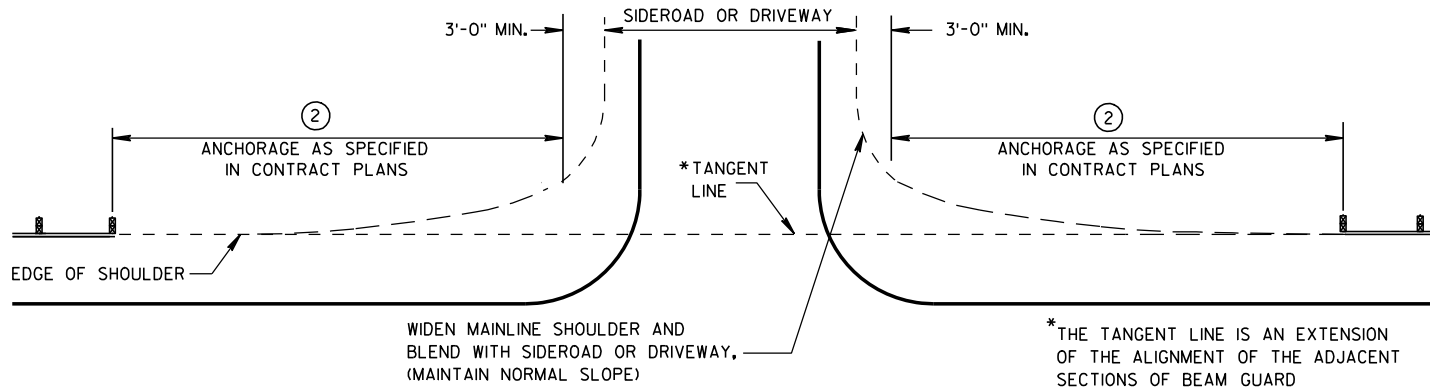
APPROVED

June 2014

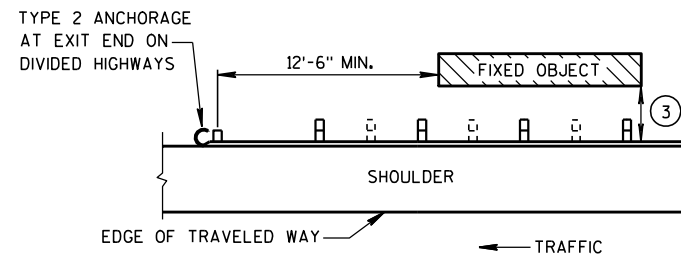
DATE

FHWA

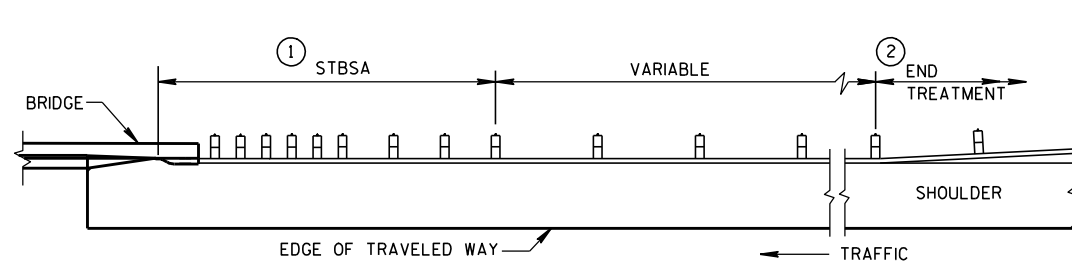
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



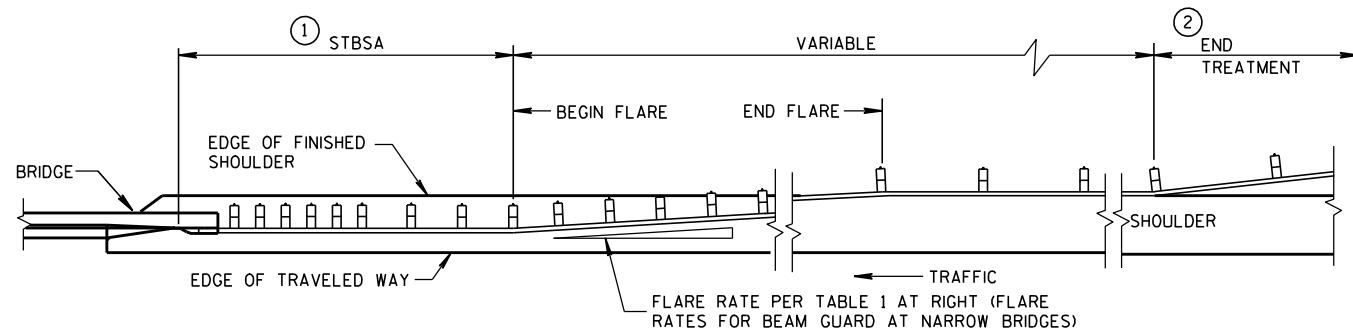
BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC



BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT NARROW BRIDGES (FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

GENERAL NOTES

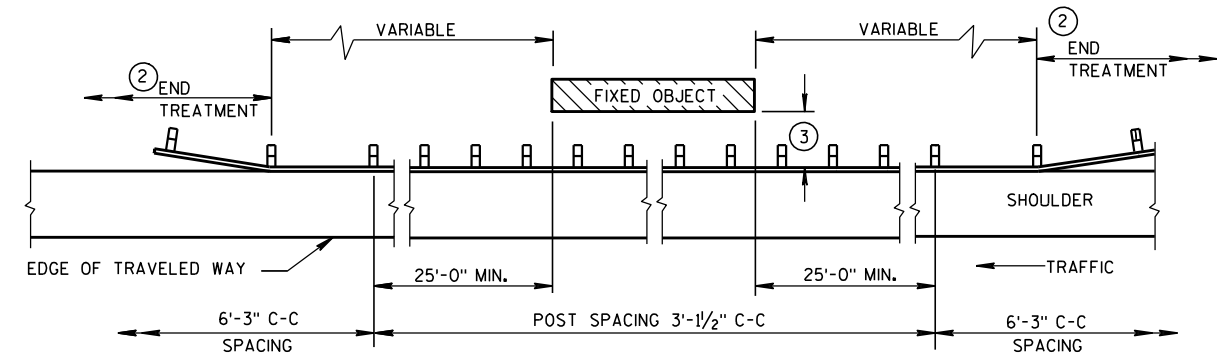
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

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

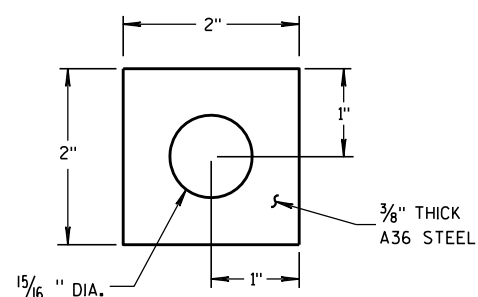
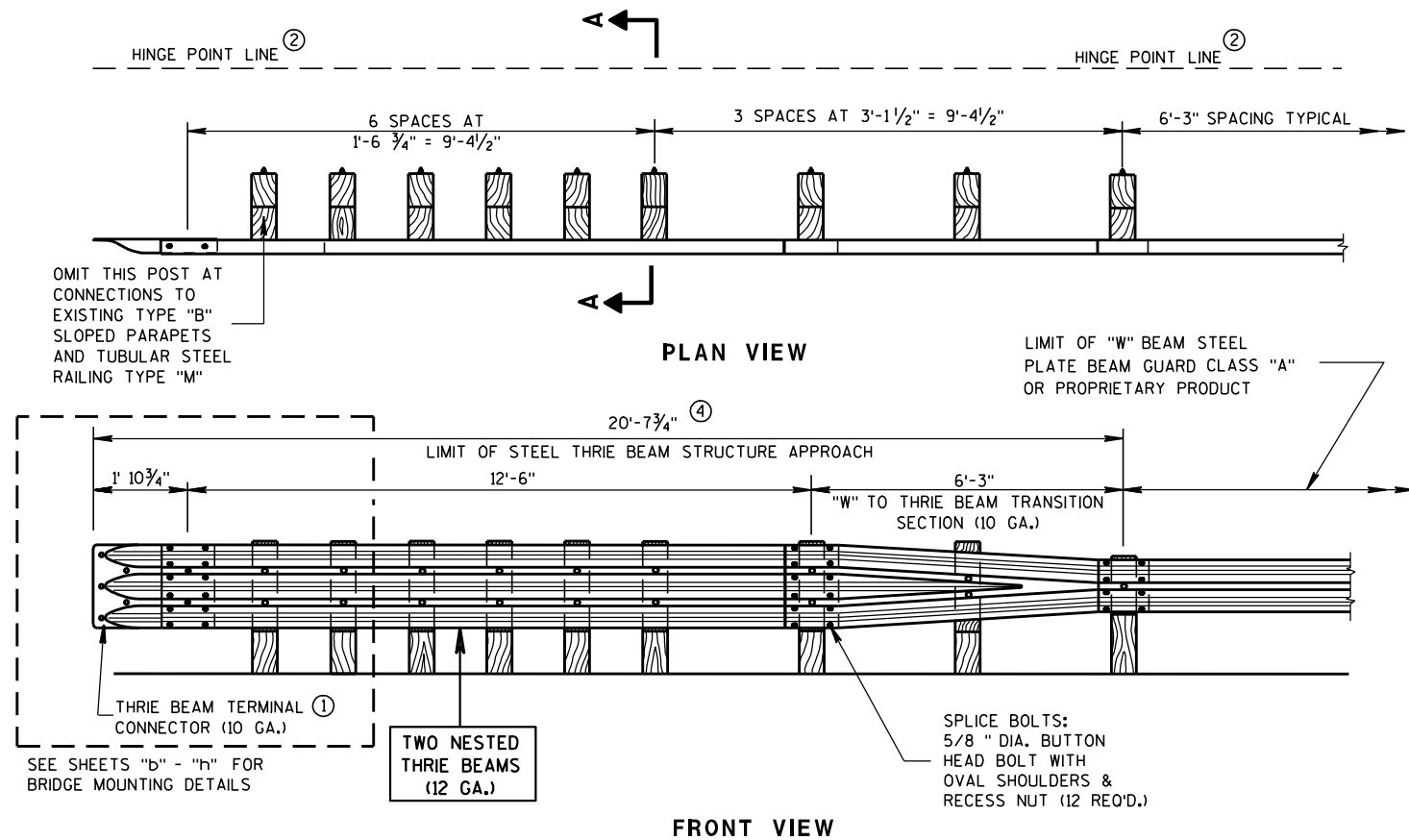


PLATE WASHER DETAIL

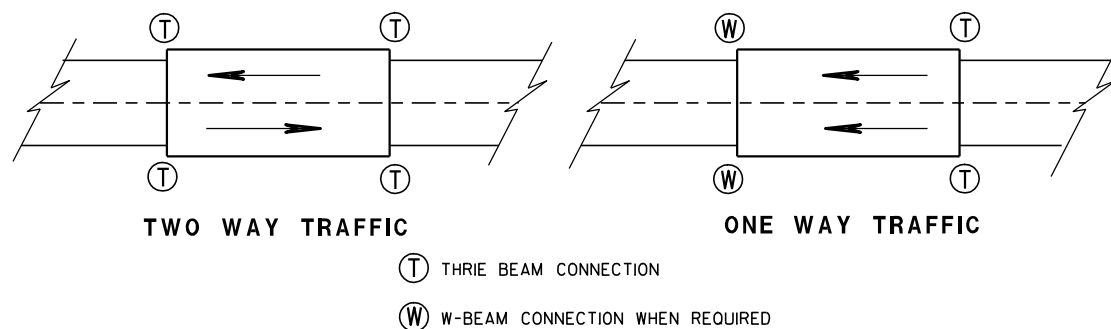
GENERAL NOTES

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".

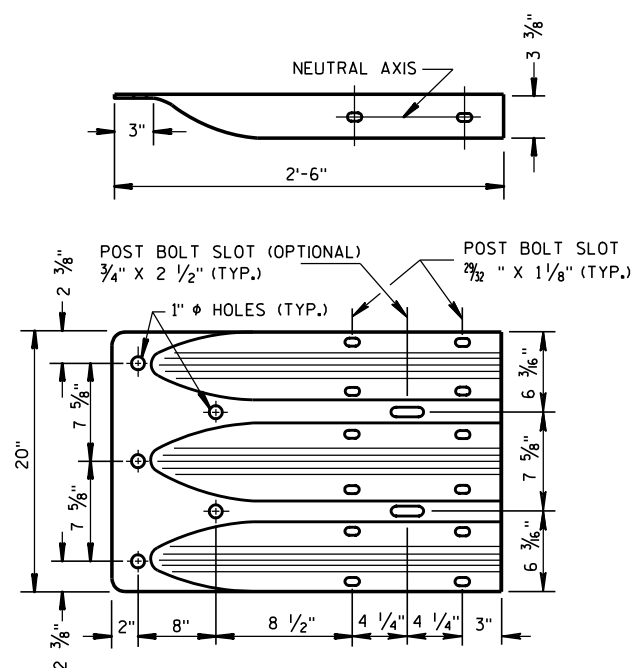
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

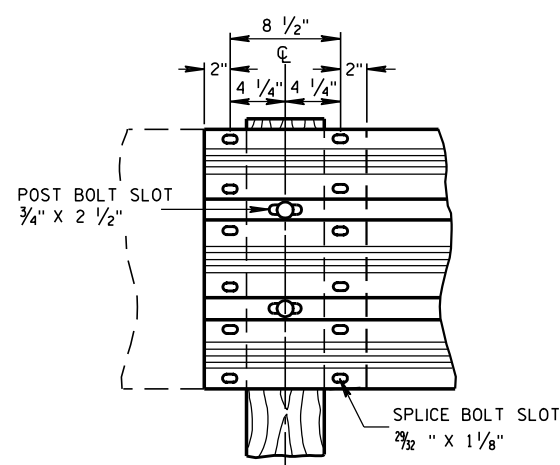
- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.
- ③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.
- ④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



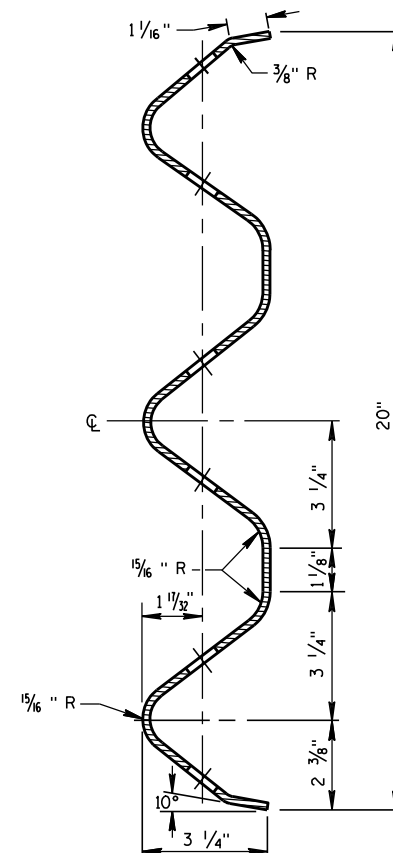
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



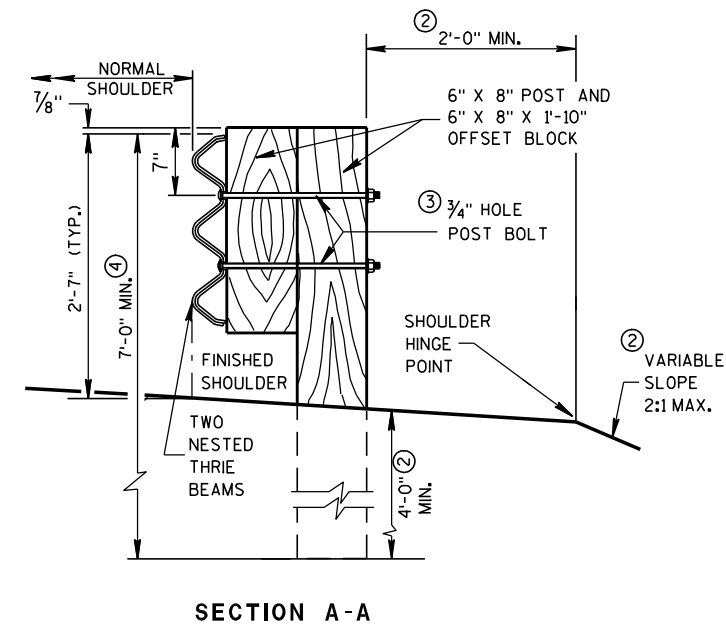
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

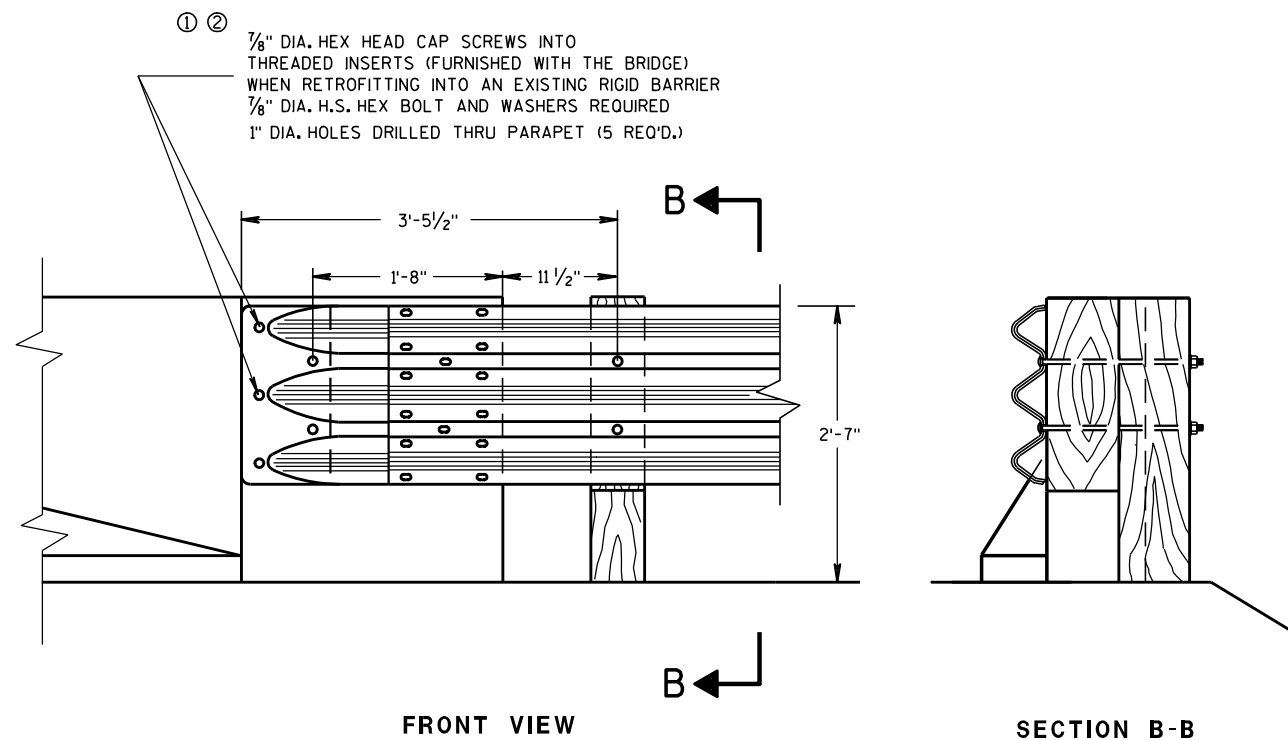
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8/31/2012

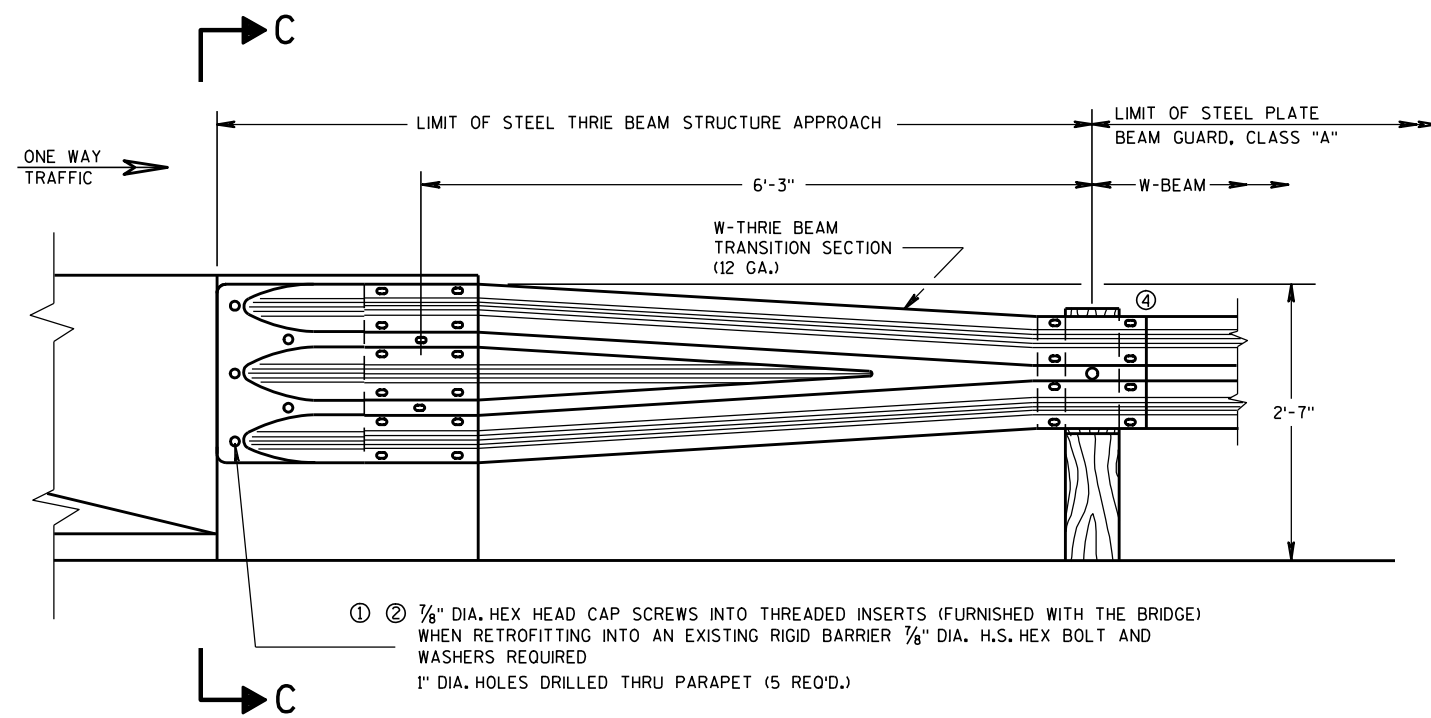
DATE

FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



THRIE BEAM CONNECTION TO BRIDGE
PARAPET WITH SQUARE ENDS



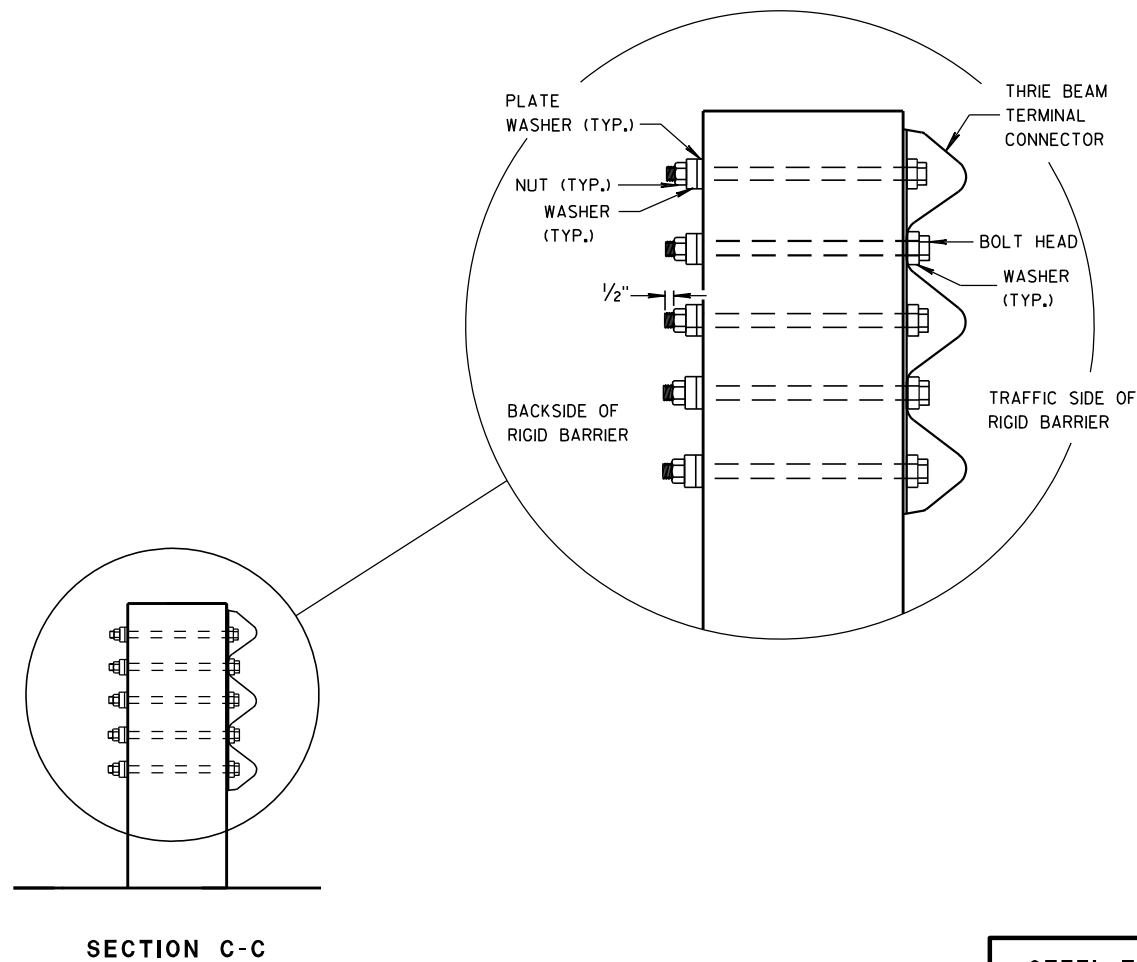
W BEAM TRANSITION AND CONNECTION TO
BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

- 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 TERMINAL CONNECTOR. 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".
 - ④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
- DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

FHWA

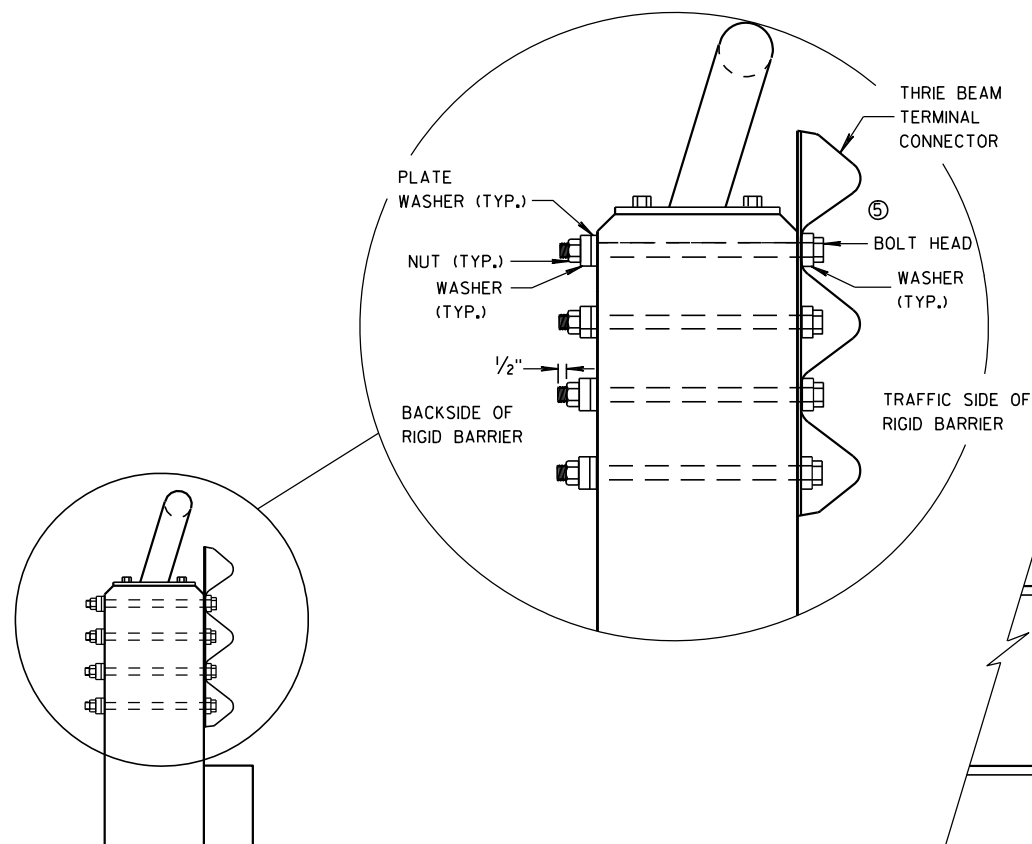
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

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 - 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 $\frac{1}{2}$ ".
 - ④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
 - ⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PARAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.
- DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

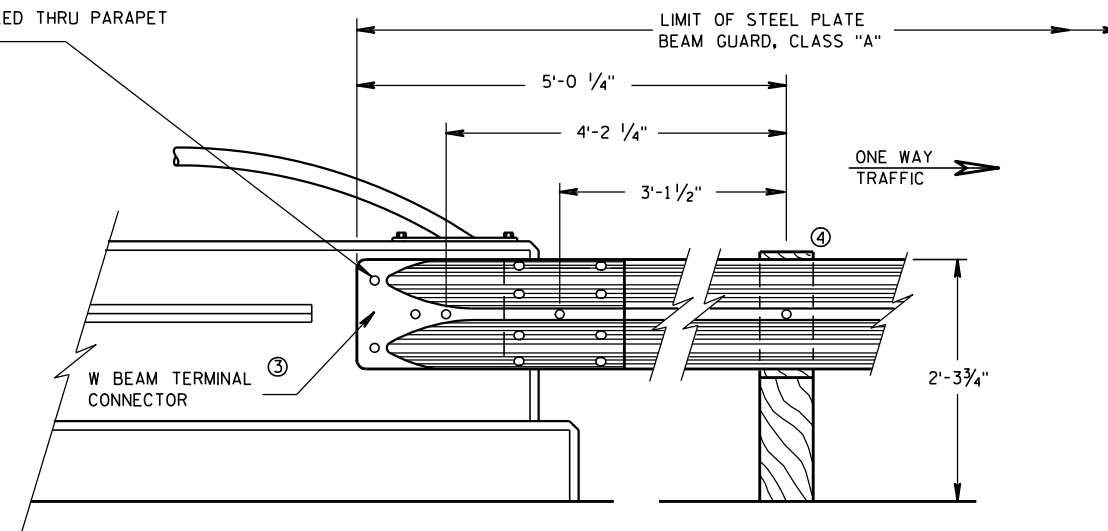


SECTION E-E

- ① ② $\frac{7}{8}$ " DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER $\frac{7}{8}$ " DIA. H.S. HEX BOLT AND WASHERS REQUIRED
- 1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

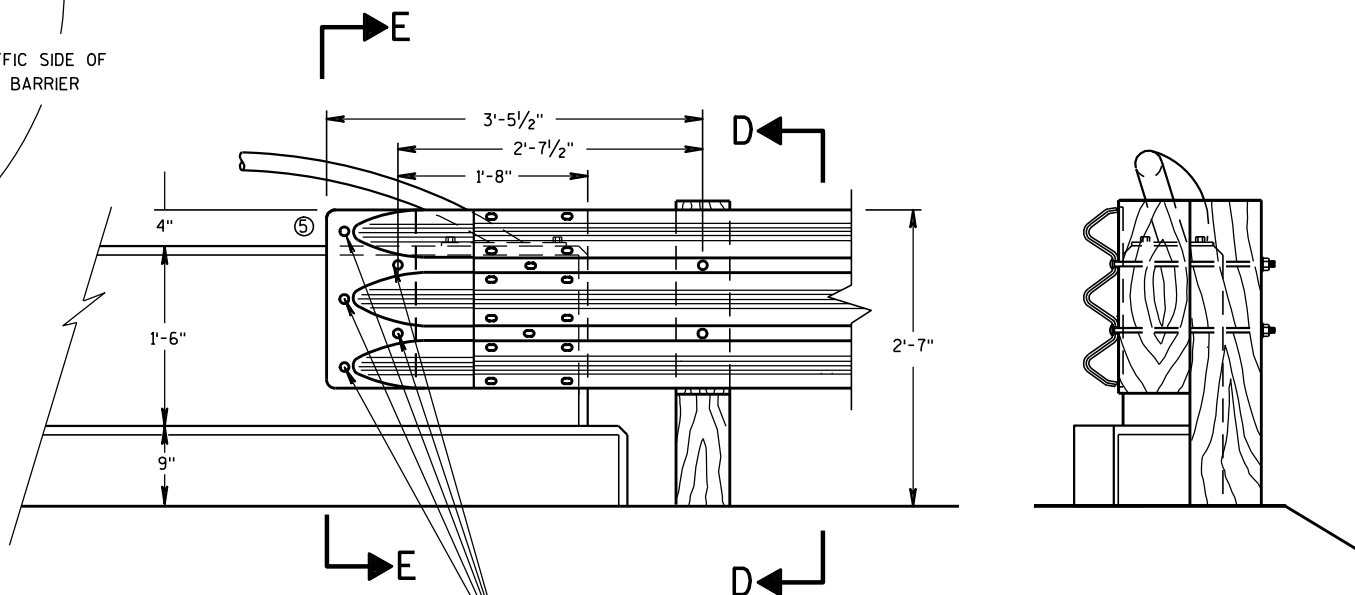
THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

- ① ② $\frac{7}{8}$ " DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER $\frac{7}{8}$ " DIA. H.S. HEX BOLT AND WASHERS REQUIRED
- 1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION D-D

STEEL THRIE BEAM STRUCTURE
APPROACH, CONNECTION TO
VERTICAL FACED PARAPETS

STATE OF WISCONSIN
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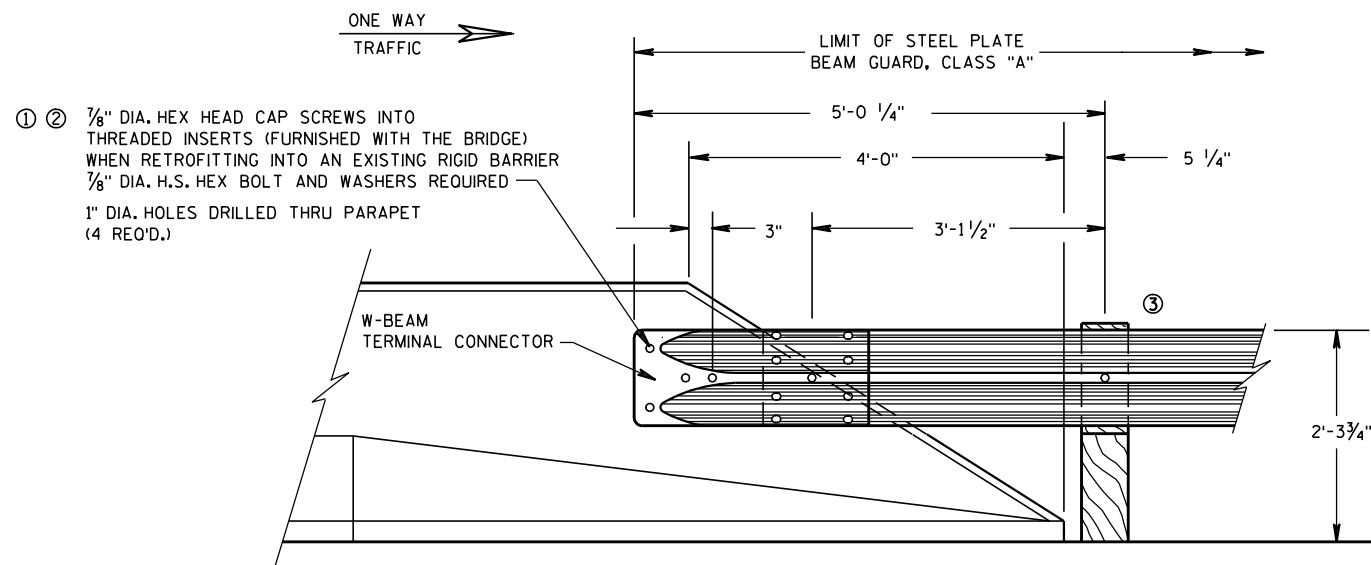
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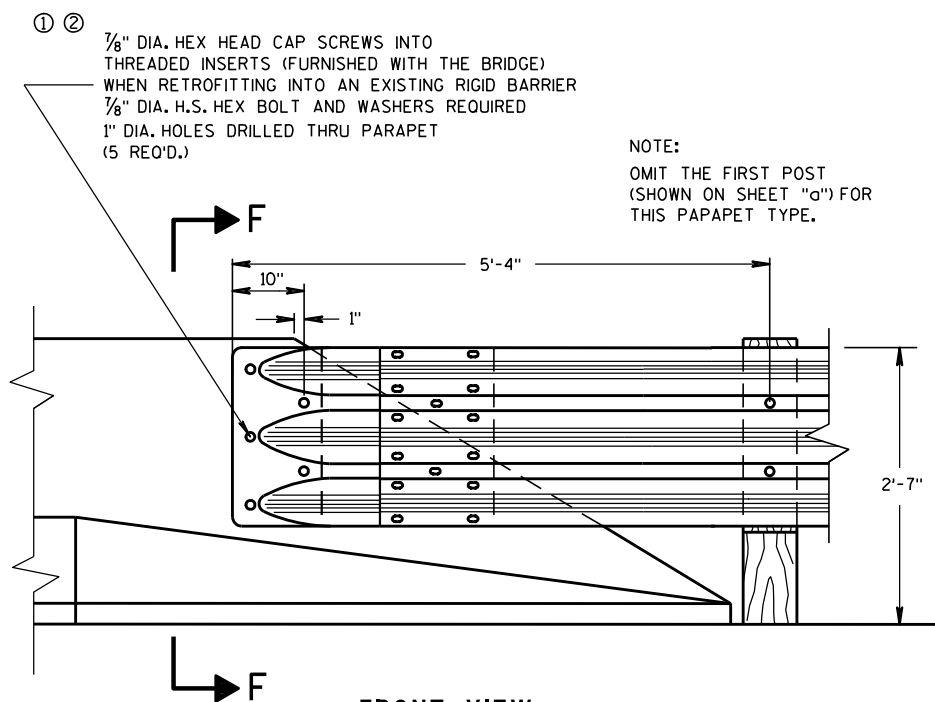
DATE

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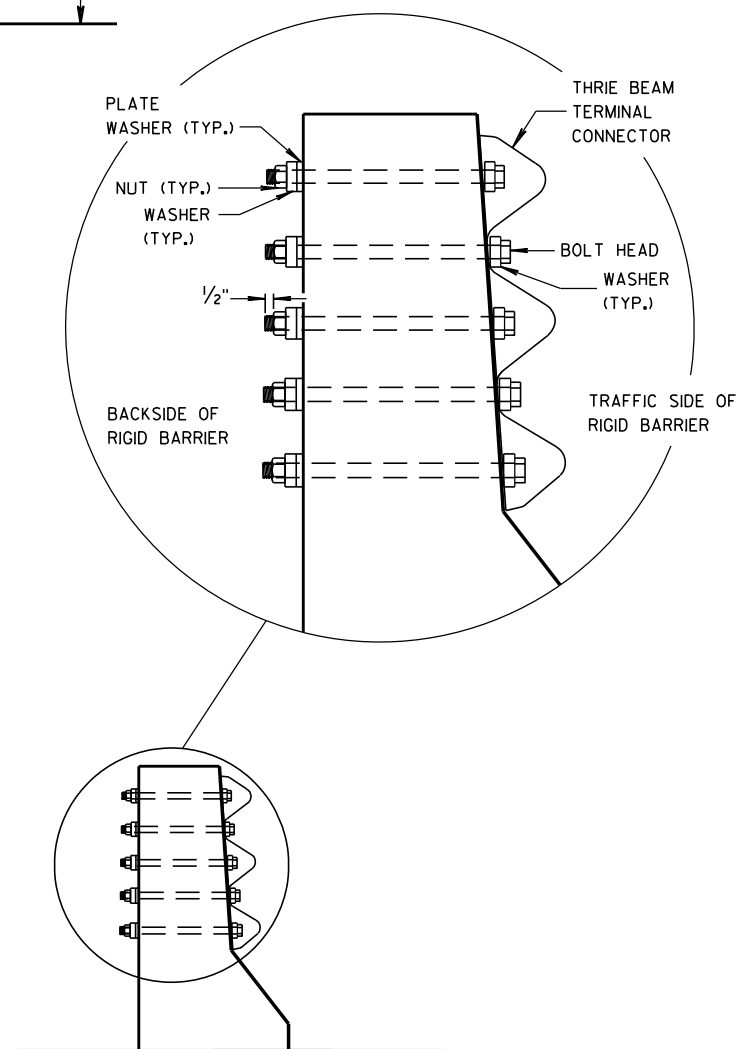
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



FRONT VIEW
W BEAM CONNECTION TO
PARAPETS WITH SLOPED ENDS
 (USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)



FRONT VIEW
THRIE BEAM CONNECTION TO BRIDGE
PARAPETS WITH SLOPED ENDS



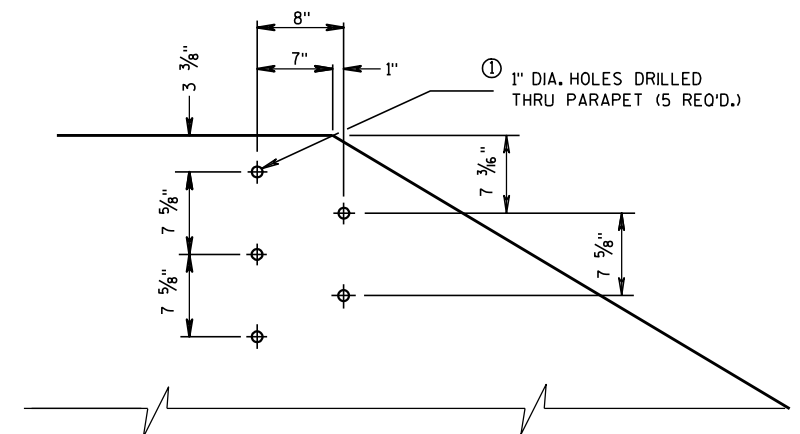
SECTION F-F

GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

- 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 TERMINAL CONNECTOR. 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 W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION

STEEL THRIE BEAM STRUCTURE
APPROACH CONNECTION TO
SLOPED END PARAPETS

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

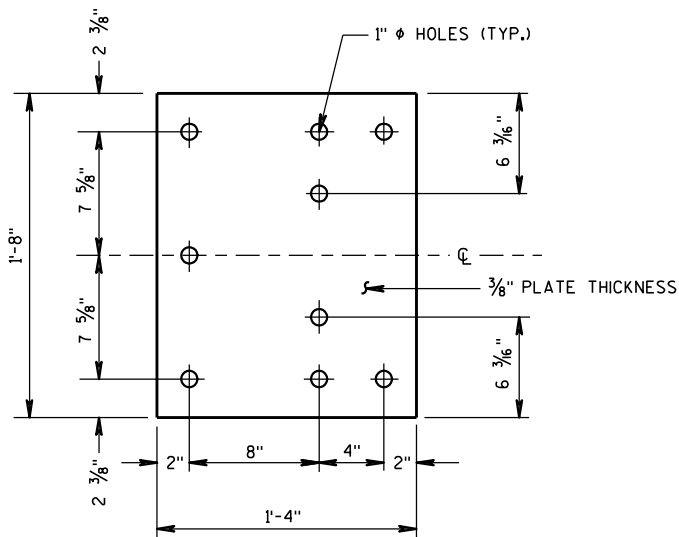
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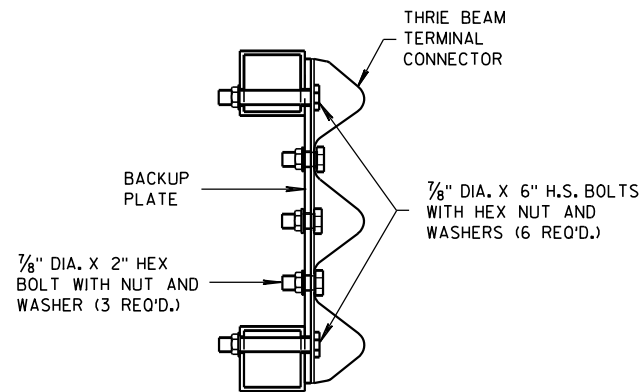
DATE

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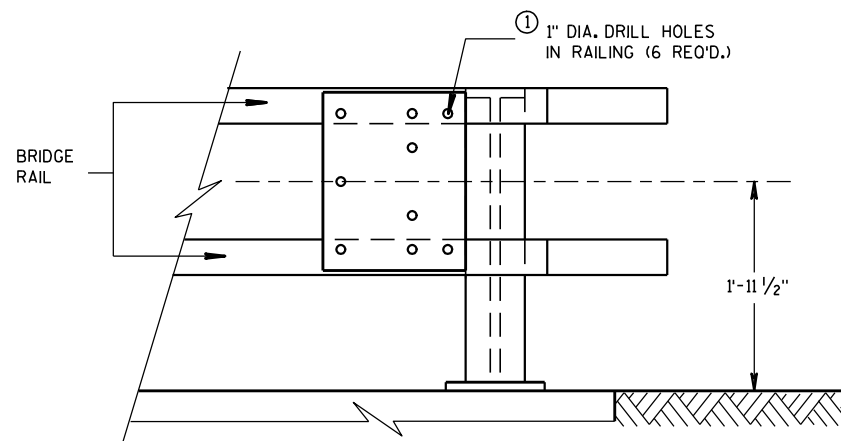
/S/ Jerry H. Zogg
 ROADWAY STANDARDS DEVELOPMENT
 ENGINEER



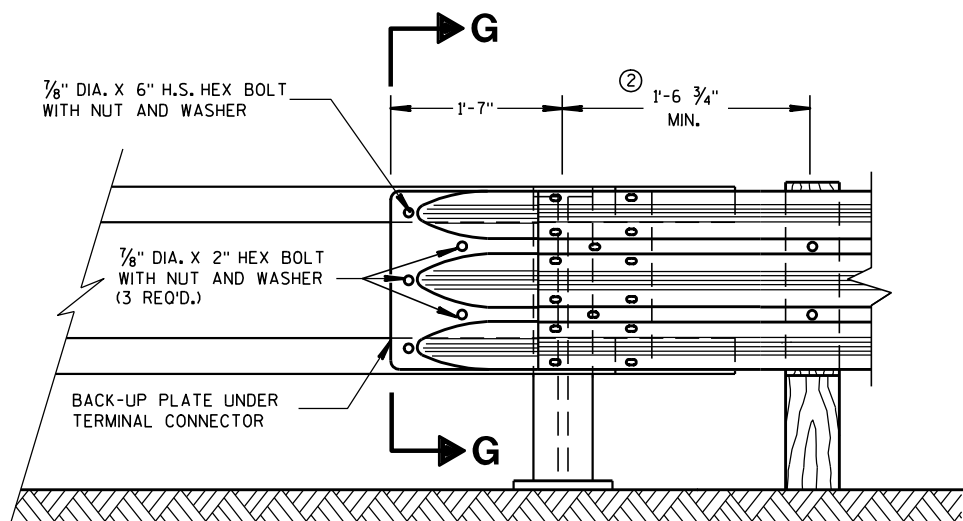
BACK-UP PLATE DETAIL



SECTION G-G

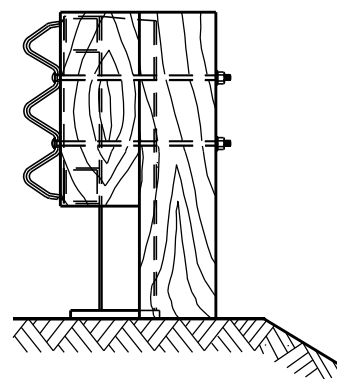


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

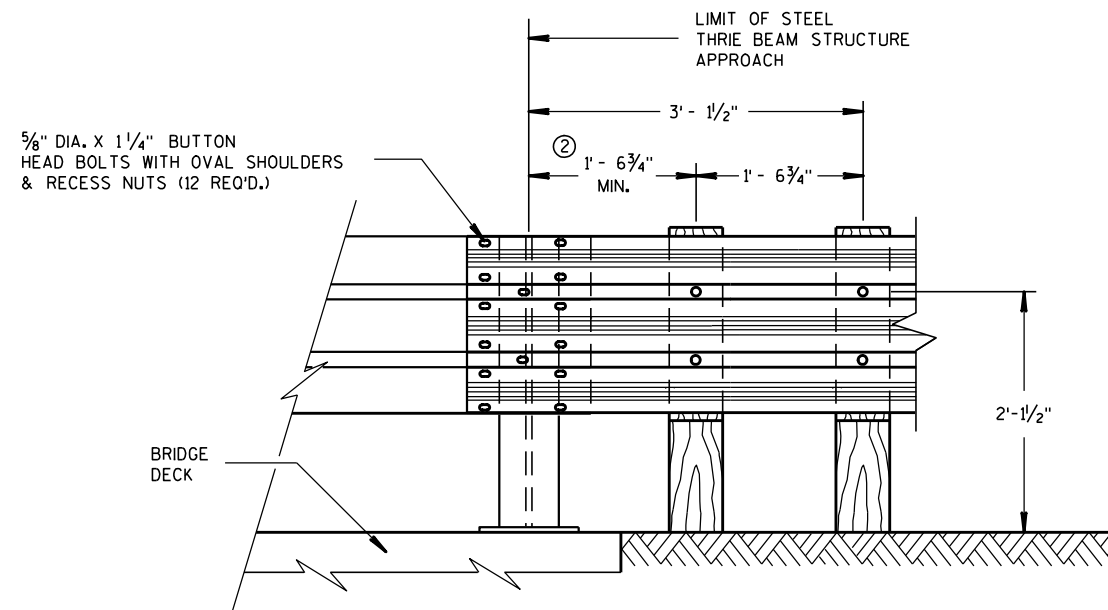


END VIEW

GENERAL NOTES

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"

STEEL THRIE BEAM STRUCTURE
APPROACH, CONNECTION TO BRIDGE
RAILING TYPES "F" AND "W"

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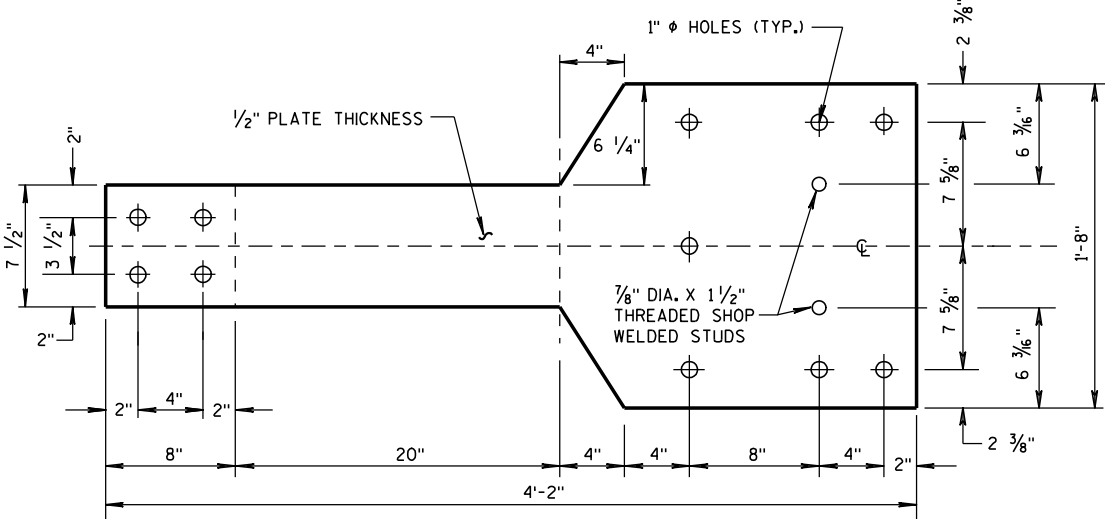
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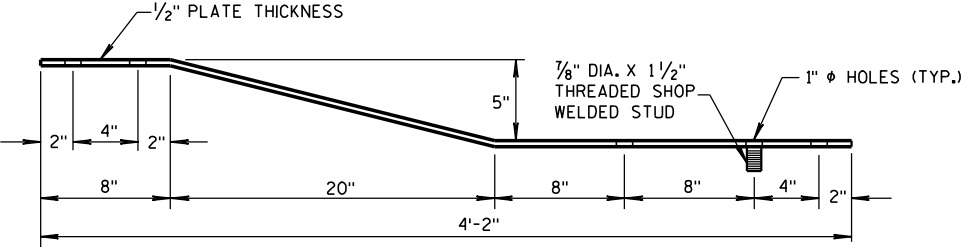
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

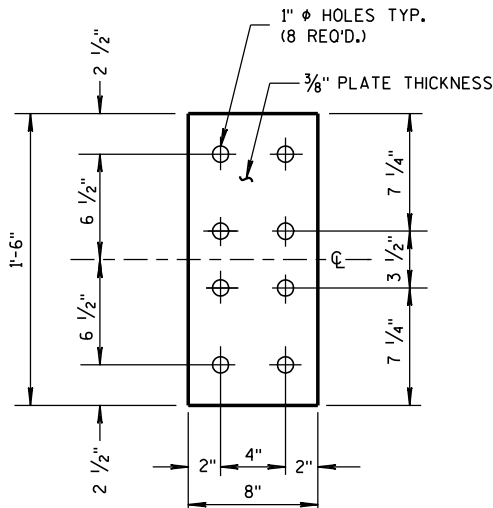
① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.



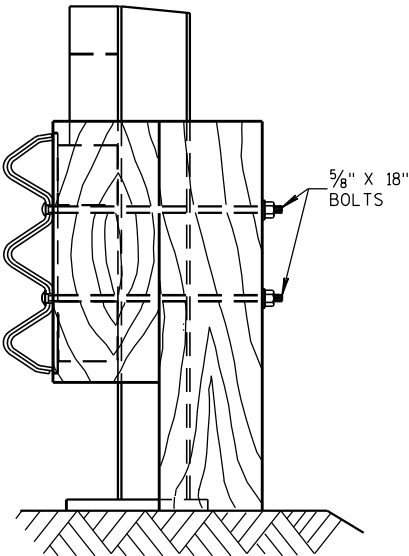
FRONT VIEW



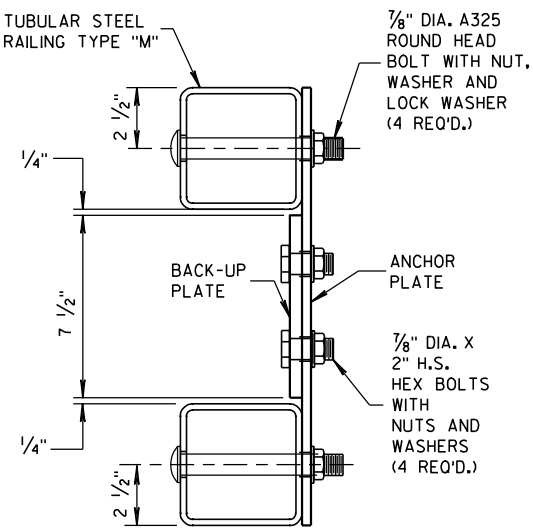
PLAN VIEW
BACK-UP PLATE DETAIL, TYPE "M"



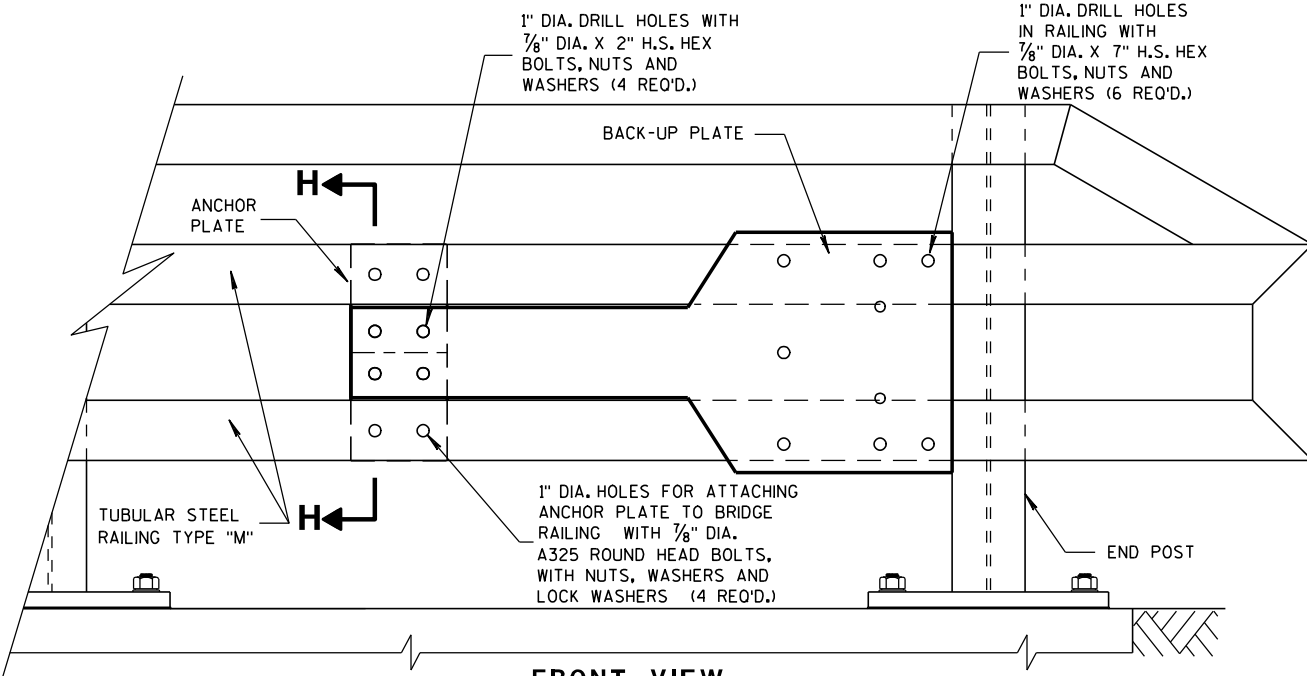
FRONT VIEW
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I

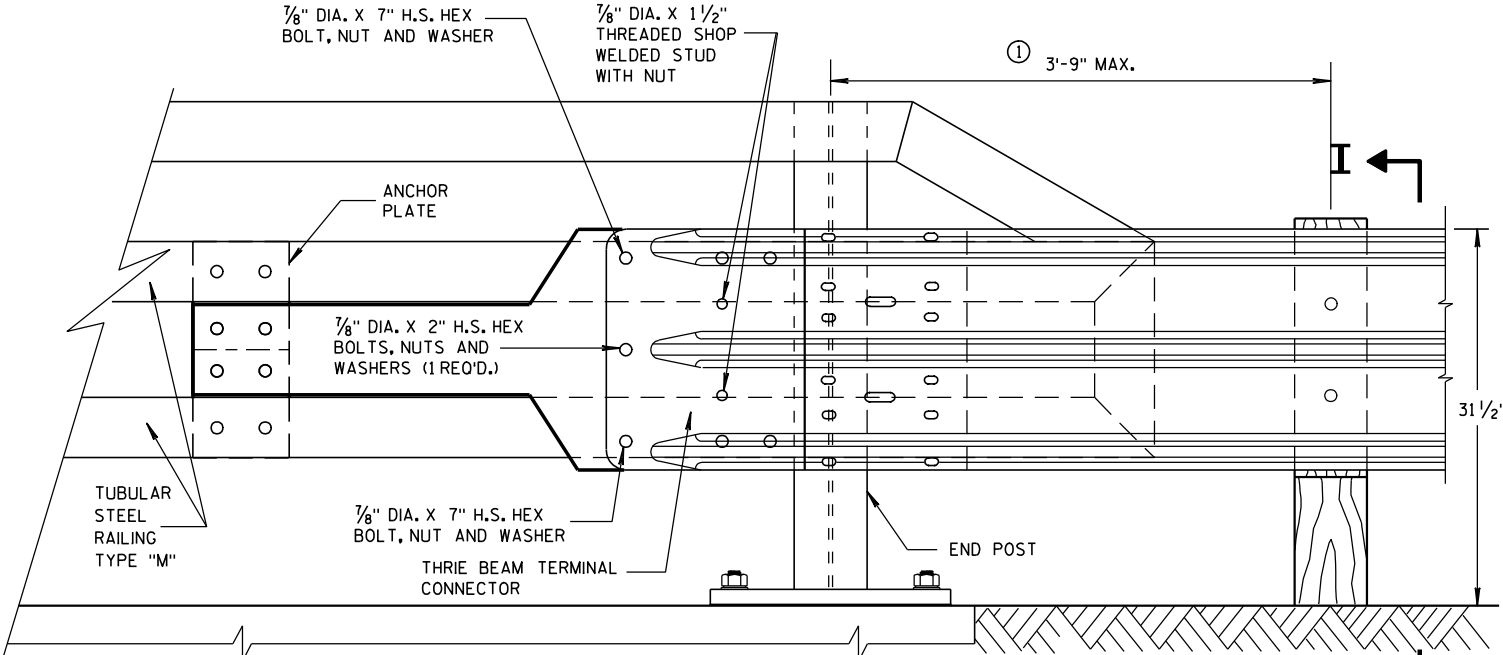


SECTION H-H

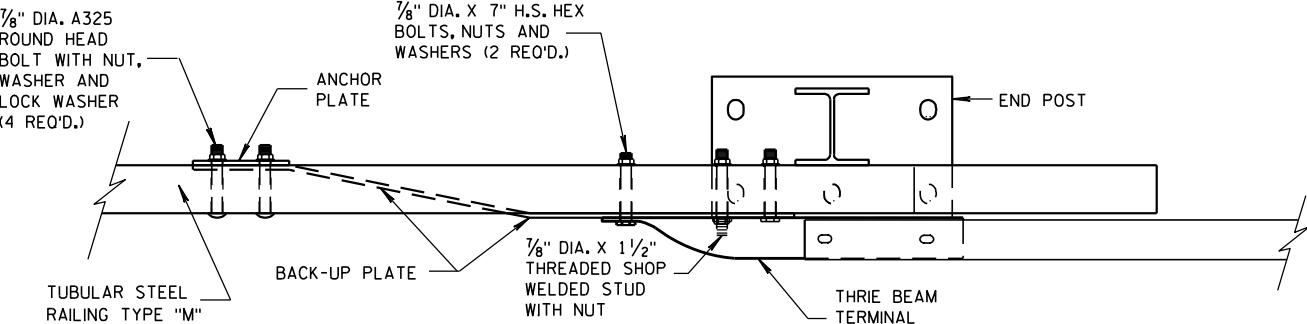


FRONT VIEW

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



FRONT VIEW



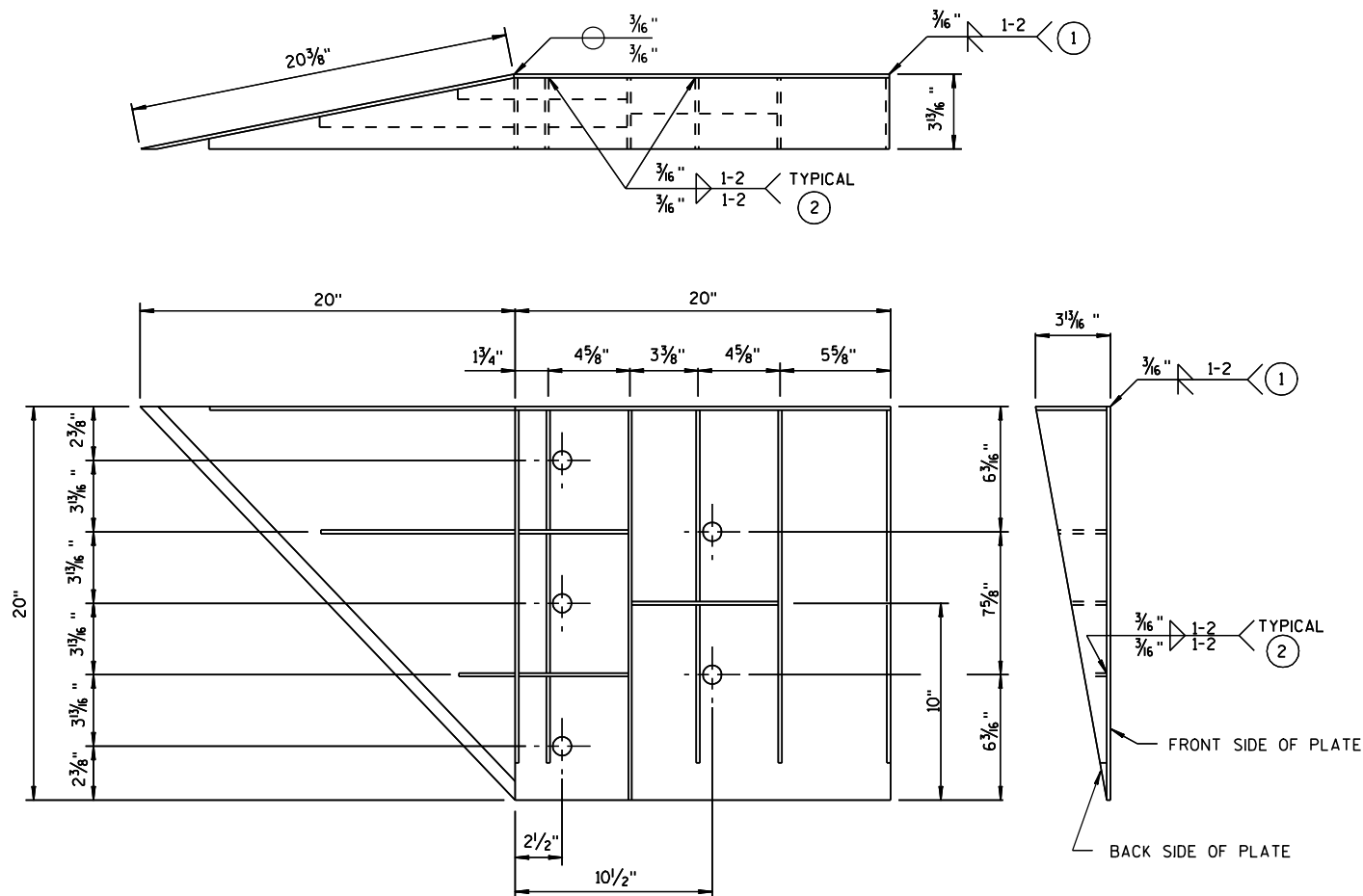
PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

**STEEL THRIE BEAM STRUCTURE
APPROACH CONNECTION TO
BRIDGE RAILING TYPE "M"**

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WELDING INSTRUCTION
(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 5/16"	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 1/16"	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 7/32" 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 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 1/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 1/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

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".

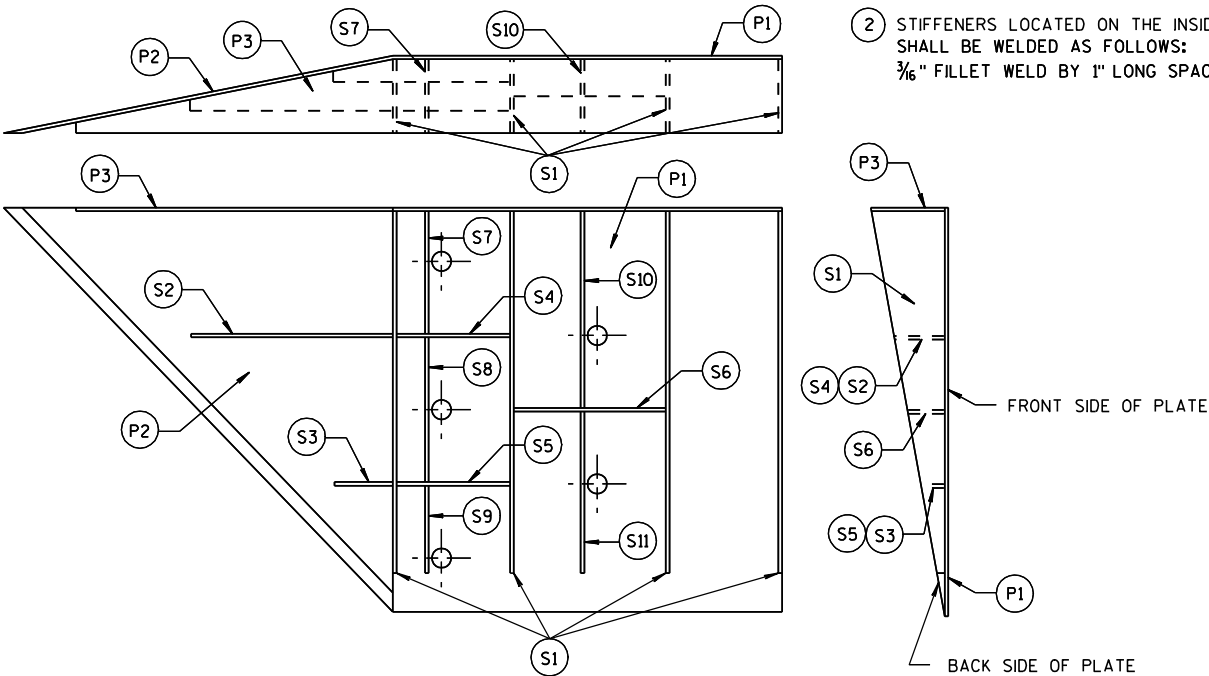
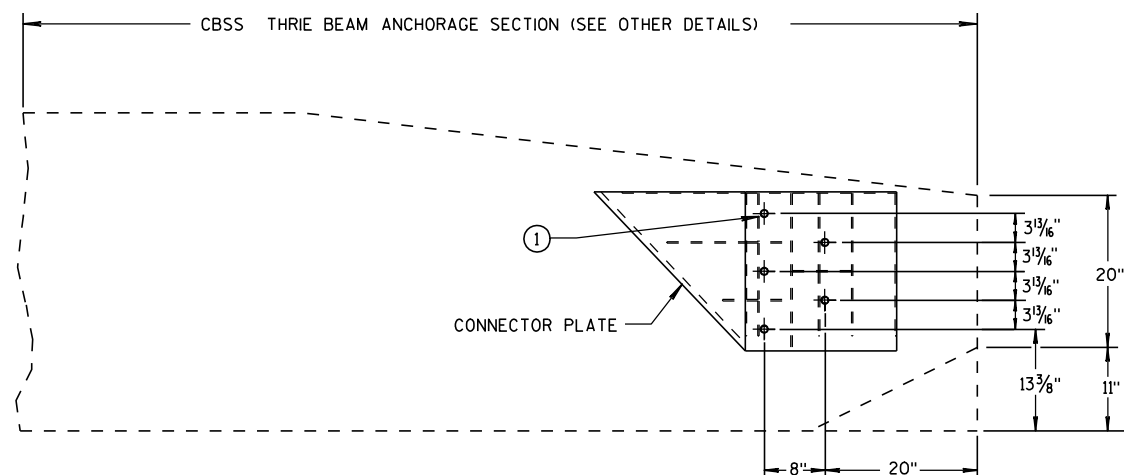
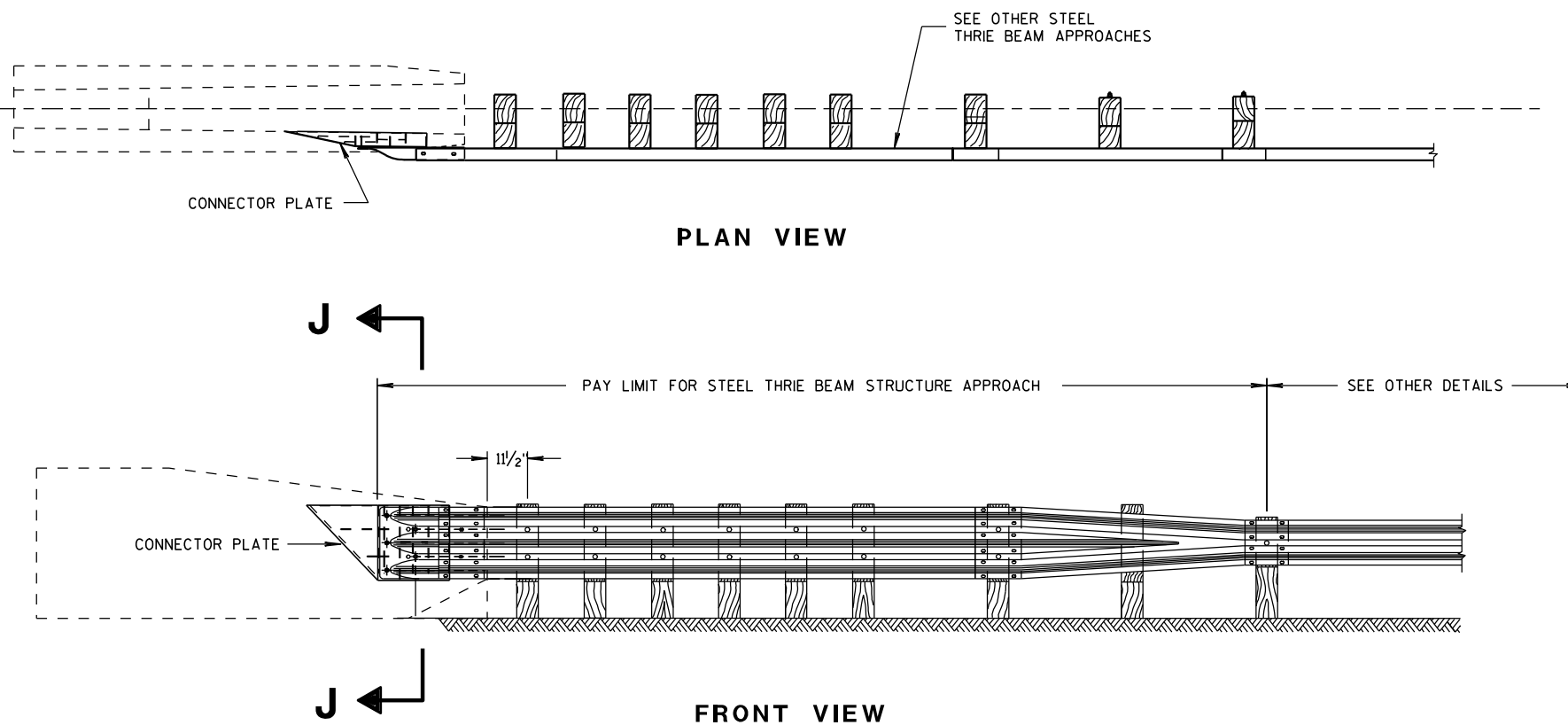
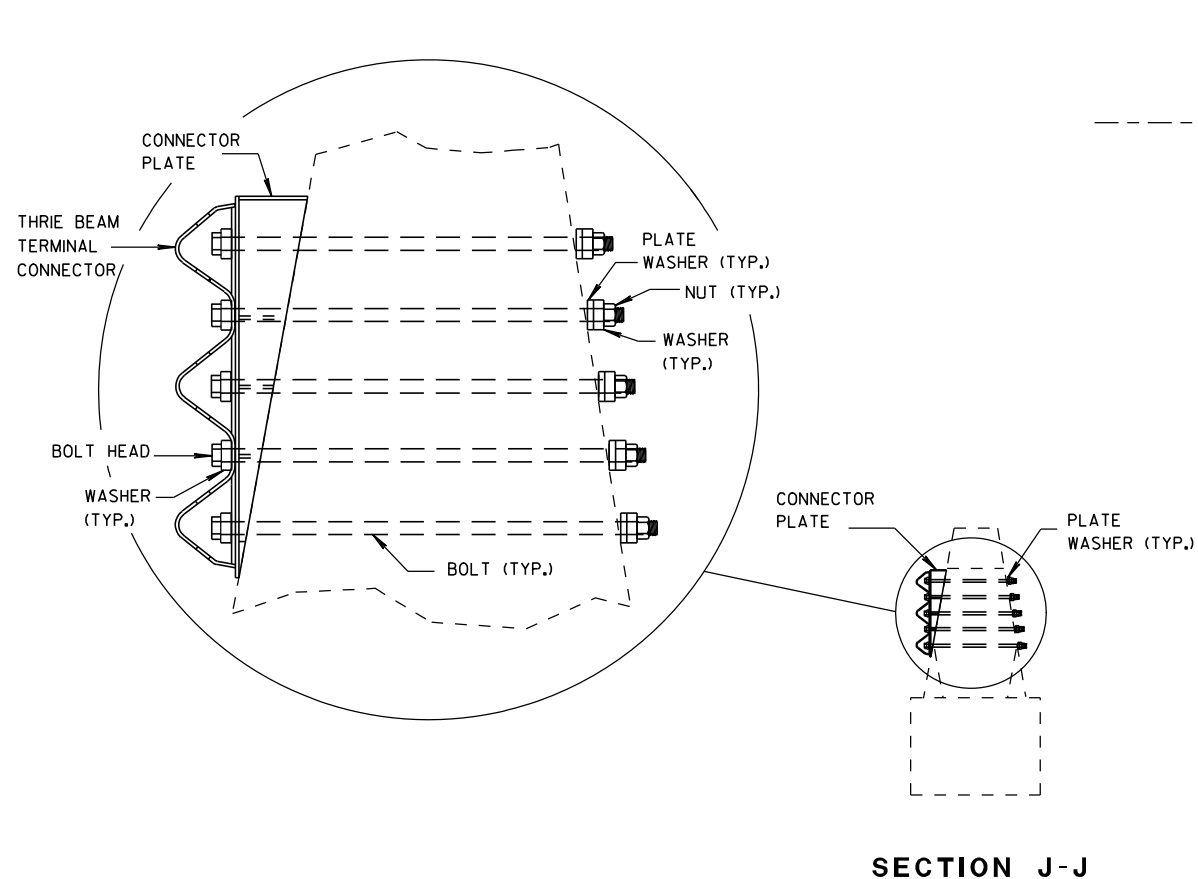


PLATE AND STIFFENER IDENTIFICATION
(VIEWED FROM BACK SIDE OF PLATE)

**STEEL THRIE BEAM
STRUCTURE APPROACH,
CONNECTOR PLATE DETAIL**

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/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
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CONNECTOR PLATE LOCATION

STEEL THRIE BEAM STRUCTURE APPROACH**GENERAL NOTES**

CONSTRUCT PER STANDARD SPECIFICATION 614.

CONNECTOR PLATE, DRILLING HOLES THROUGH 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 TERMINAL CONNECTOR. 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.

**STEEL THRIE BEAM
STRUCTURE APPROACH,
SINGLE SLOPE ATTACHMENT**

STATE OF WISCONSIN
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8/31/2012

DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5/2" X 7 1/2" X 3'-9"
②	**	STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY 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 1/4" **
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 1/2" 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'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA. 13'-6 1/2"
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

LIMIT OF STEEL PLATE
BEAM GUARD, CLASS A

FOLLOW MANUFACTURER'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL $\frac{3}{8}$ " ϕ 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 $\frac{3}{4}$ " DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE $\frac{3}{4}$ " 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.

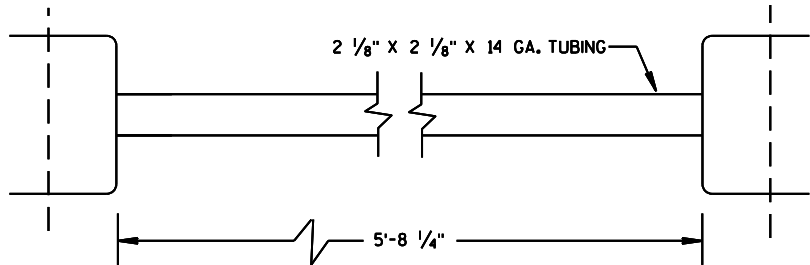
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

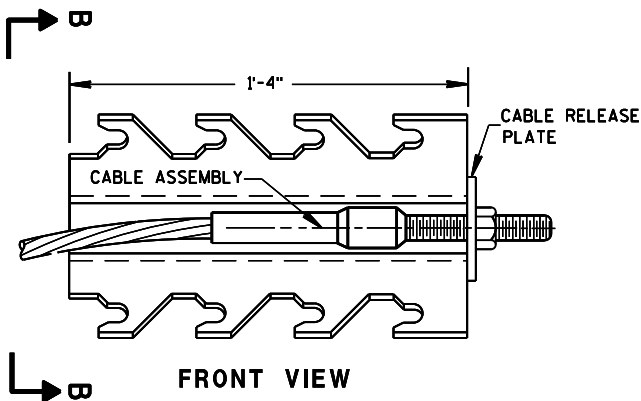
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2, POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



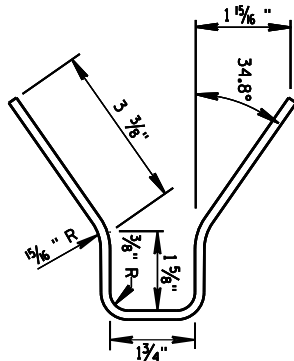
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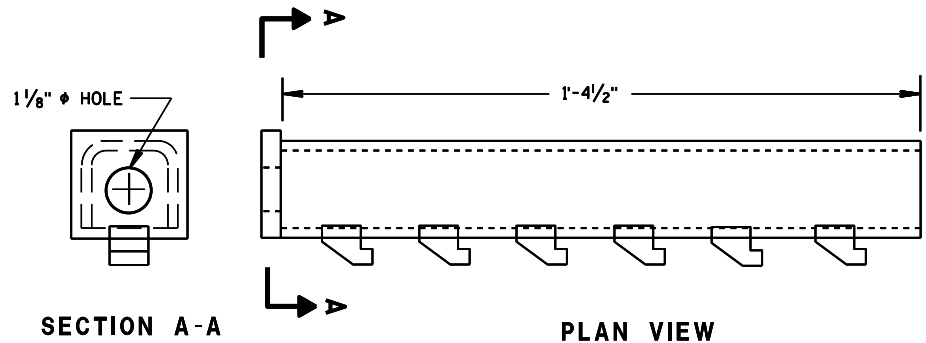
⑩ STRUT DETAIL (SKT-350)



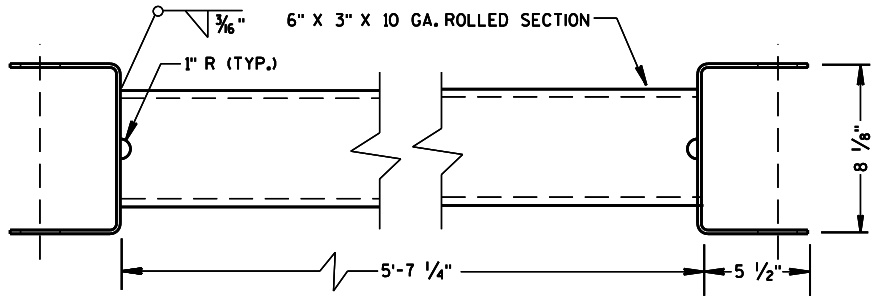
⑨ CABLE ANCHOR BOX (SKT-350)
(SKT-350)



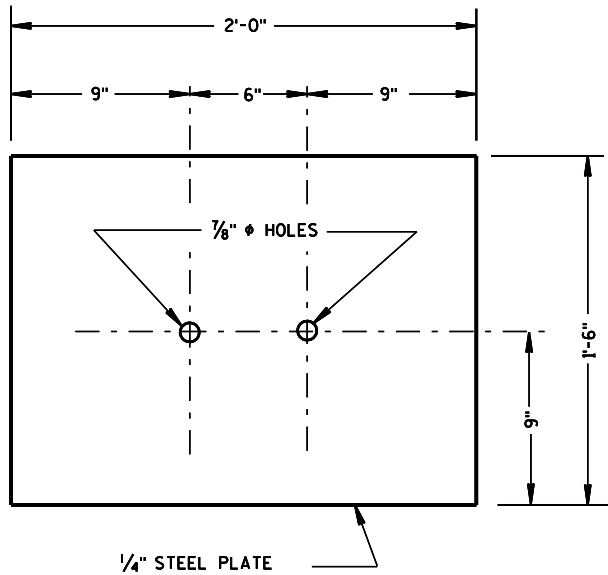
SECTION B-B



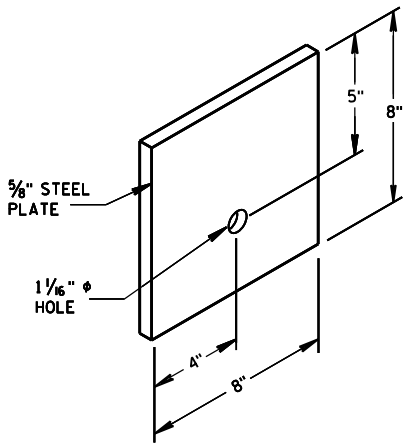
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)
(ET-2000/ET-2000 PLUS)



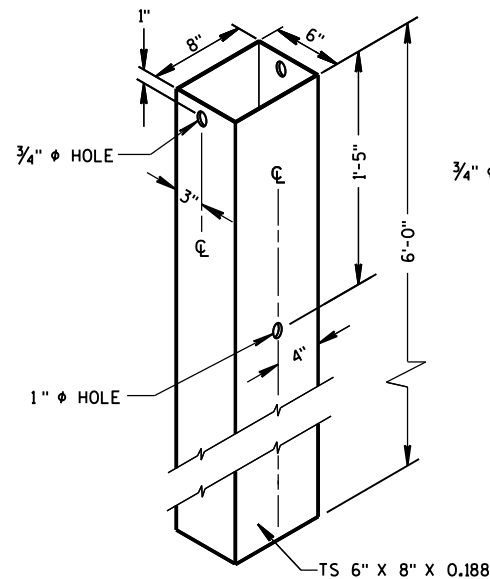
③ SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



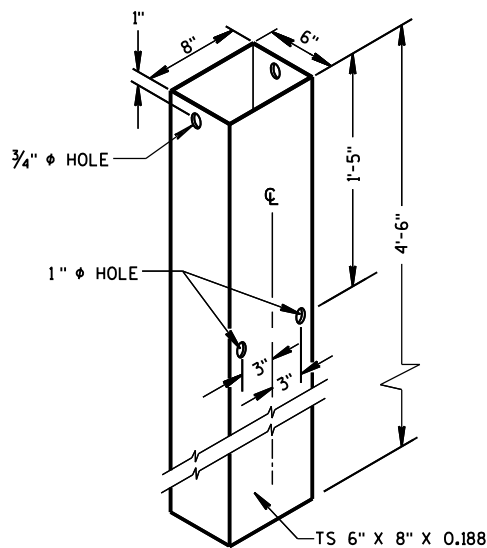
⑦ STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

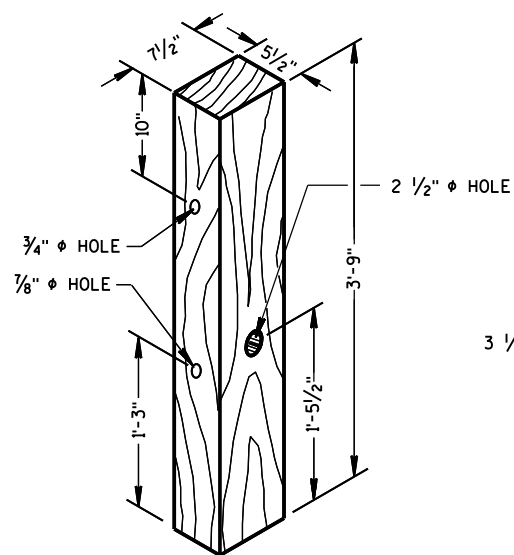
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② **72" STEEL TUBE**
(POSTS NO. 1-4)

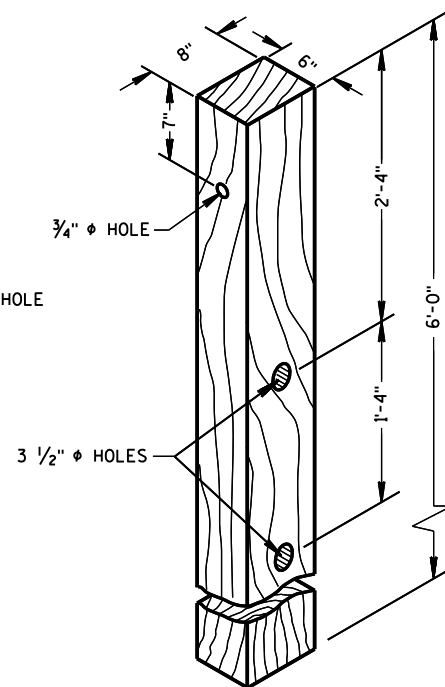


② **54" STEEL TUBE**
(POSTS NO. 1-4)



① **TERMINAL POST**
(POSTS NO. 1-4)

WOOD BREAKAWAY POSTS



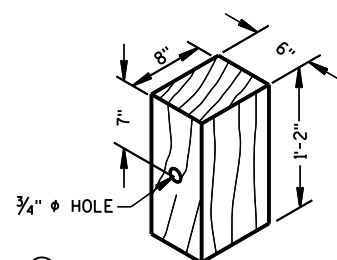
④ **CRT POST**
(POSTS NO'S 5-8)

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 1/2" 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.

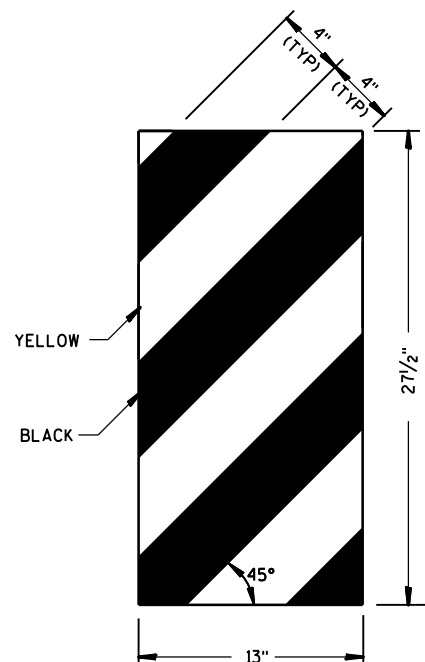
SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

ⓐ 1/2" DIA. X 3" LAG BOLT WITH WASHER.

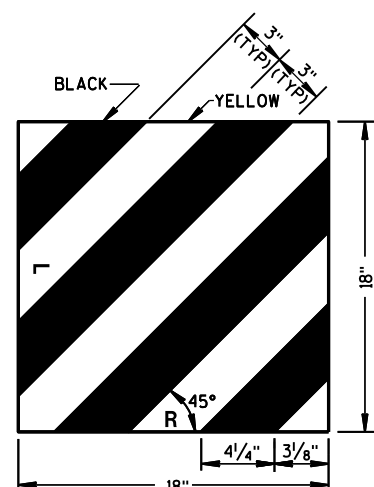


⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9"
SEE STANDARD
SPECIFICATION 637

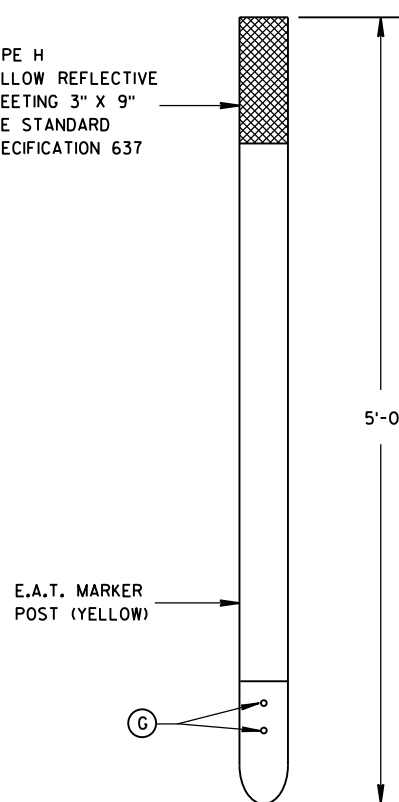


ET-2000 PLUS ONLY

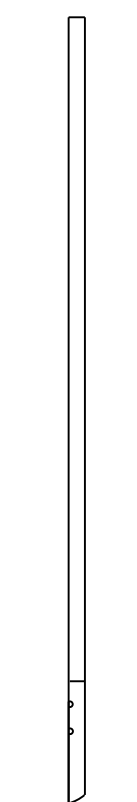


ET-2000 AND SKT-350

⑭ **REFLECTIVE SHEETING DETAILS**

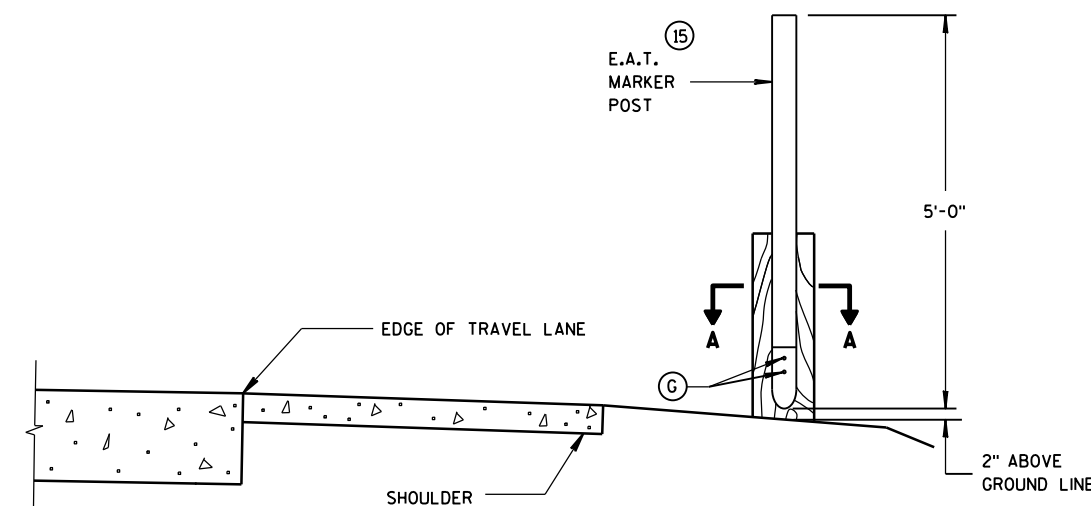


FRONT VIEW

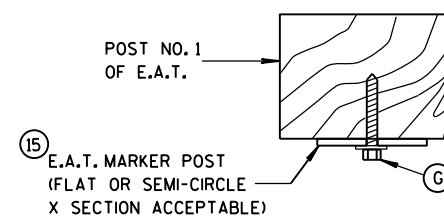


SIDE VIEW

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)



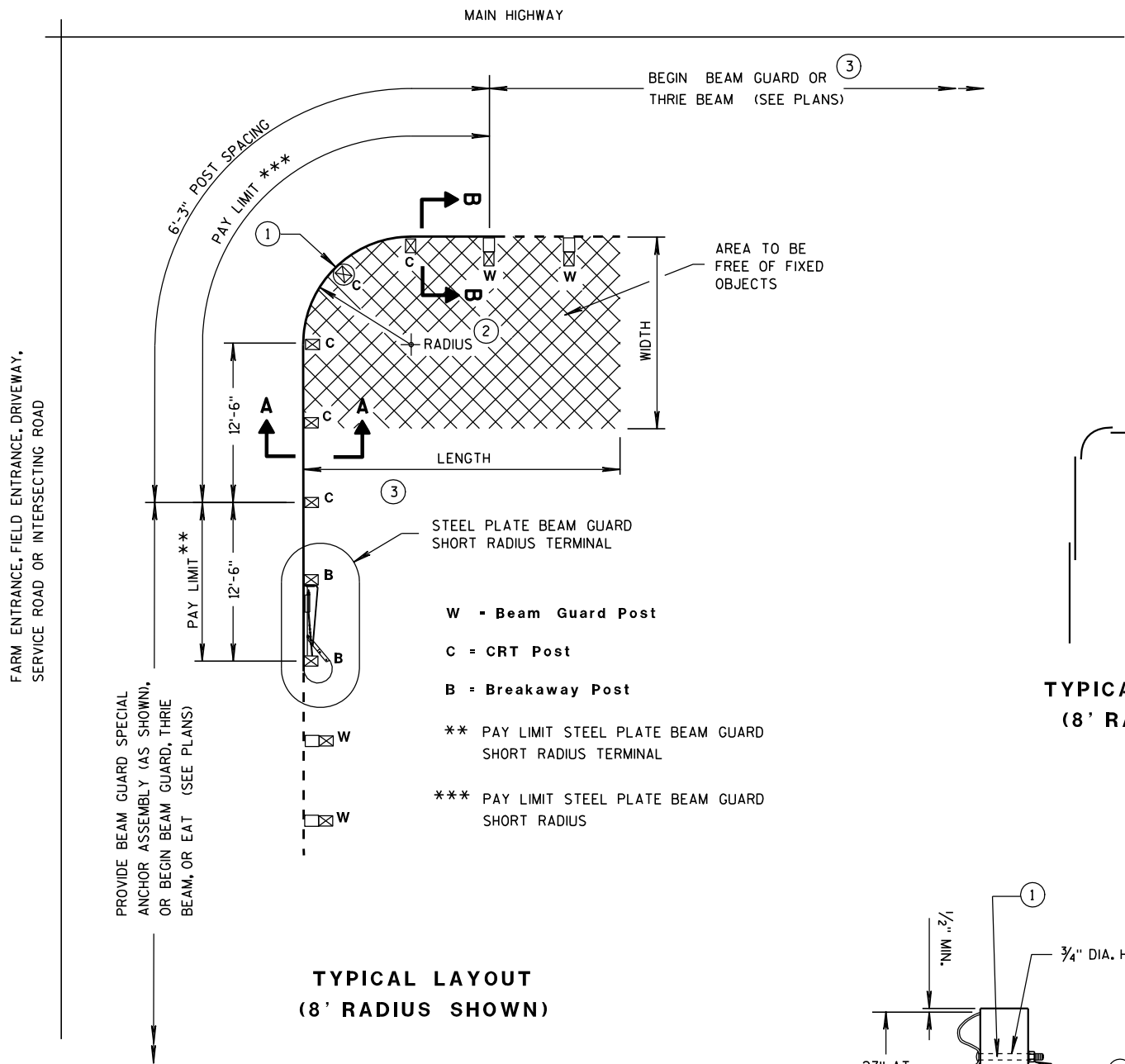
SECTION A-A

**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

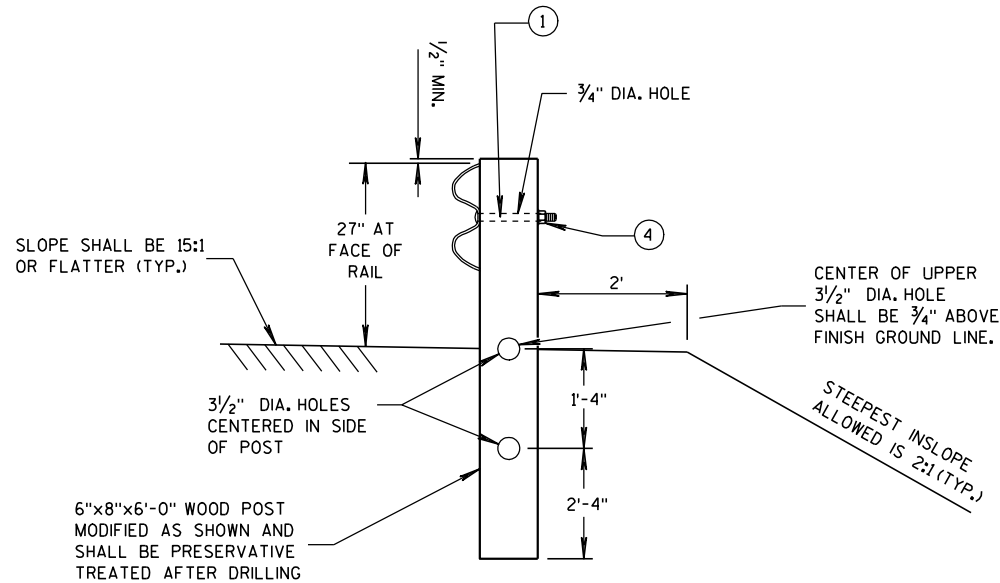
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TYPICAL LAYOUT
(8' RADIUS SHOWN)



SECTION A-A
(CRT POST)

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.

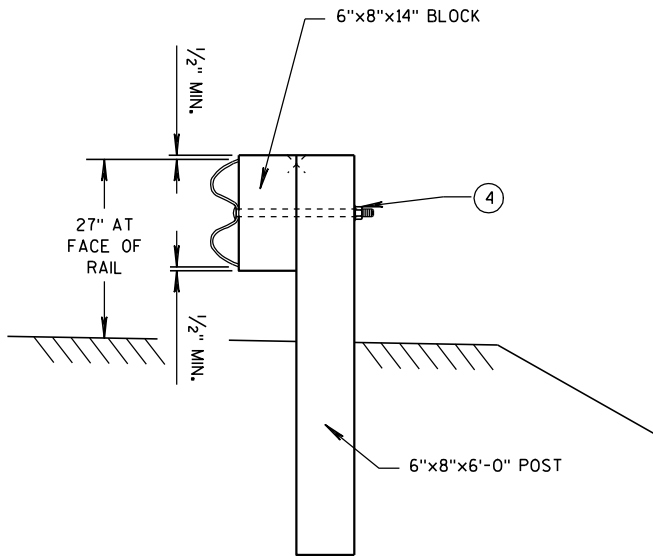
SHOP BEND CURVED RAIL SECTIONS.

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 B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

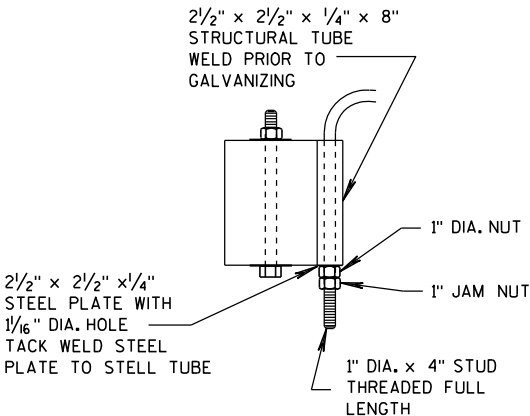
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



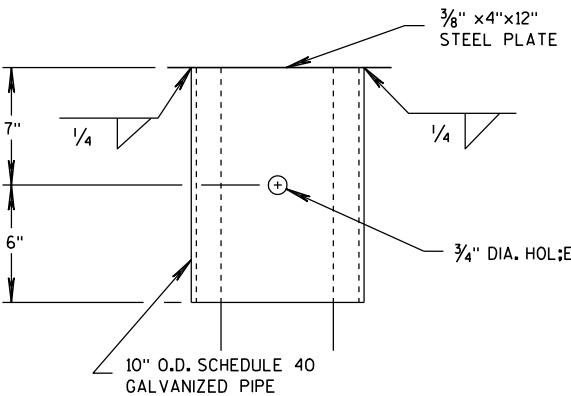
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

- 1 ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A 5/8" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.
- INSTALL GALVANIZED 3/4" (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

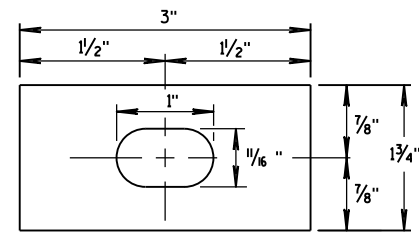


DETAIL B

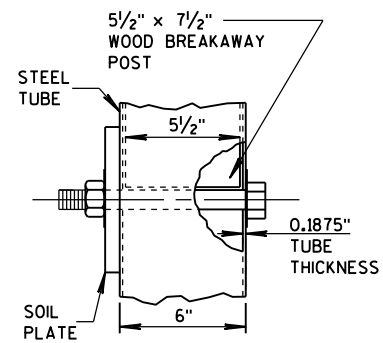
(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

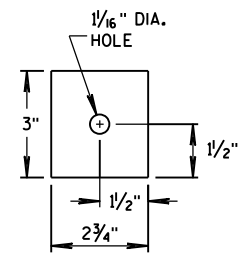
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



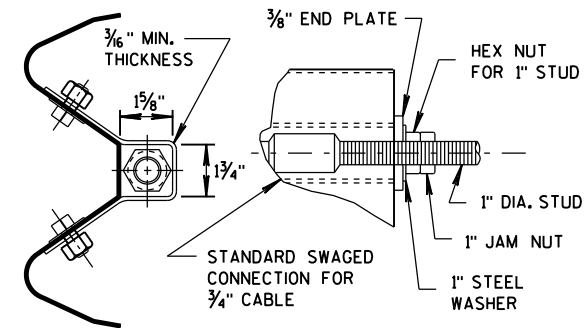
RECTANGULAR PLATE WASHER



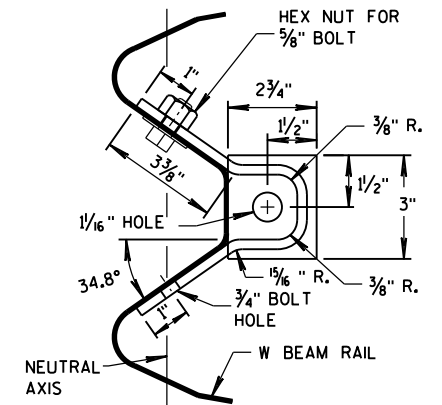
DETAIL D



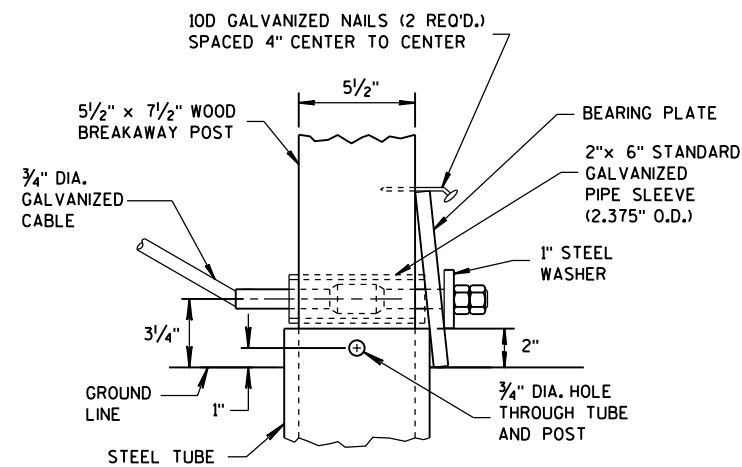
END PLATE



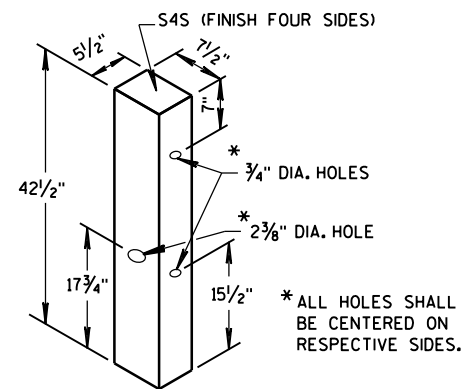
SECTION C-C
(END PLATE REMOVED)



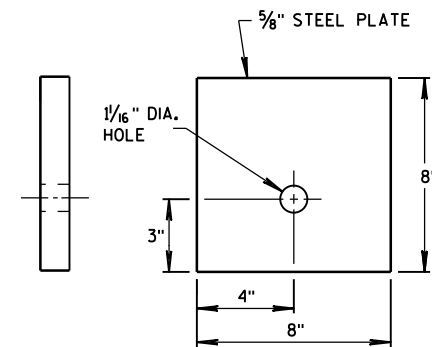
ANCHOR BRACKET



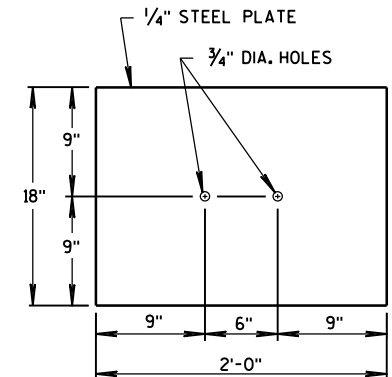
DETAIL C



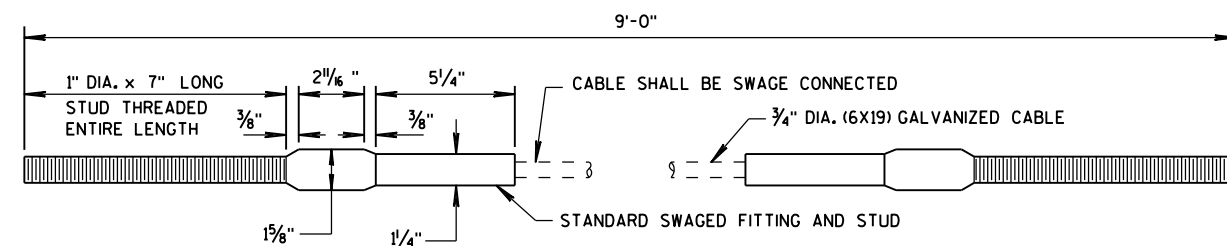
WOOD BREAKAWAY POST



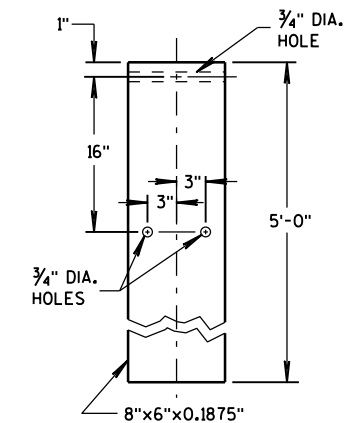
BEARING PLATE



SOIL PLATE

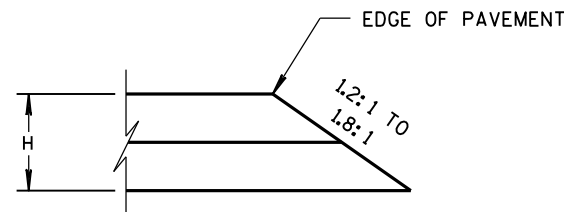


CABLE ASSEMBLY

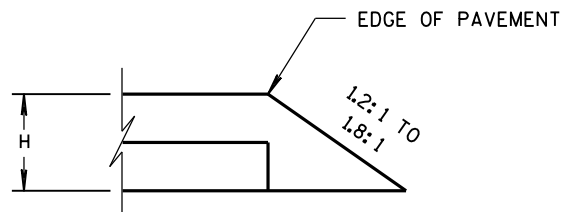


STEEL TUBE

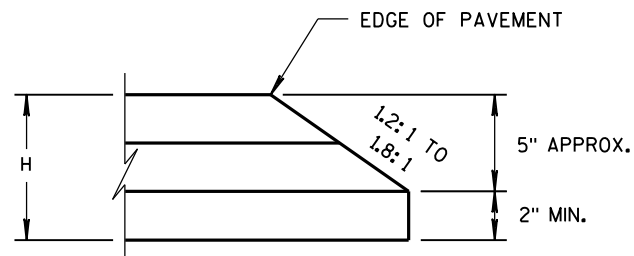
<p>STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL</p>	
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>	
<p>APPROVED 12/18/08 DATE</p>	<p>/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER</p>
<p>FHWA</p>	



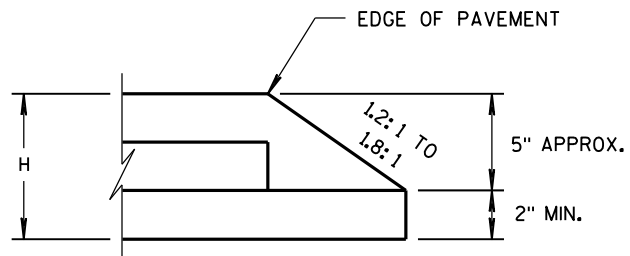
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

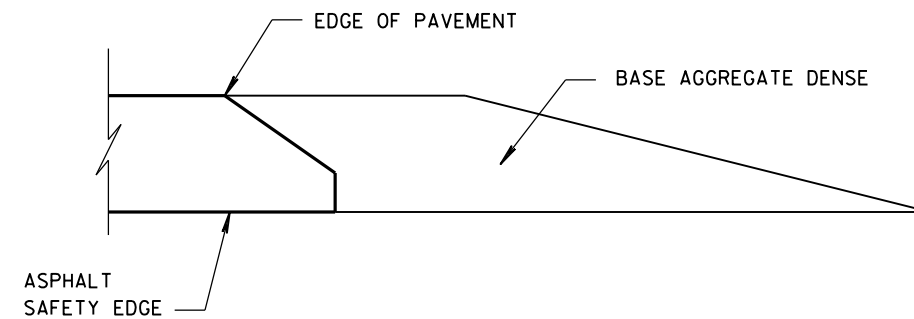


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



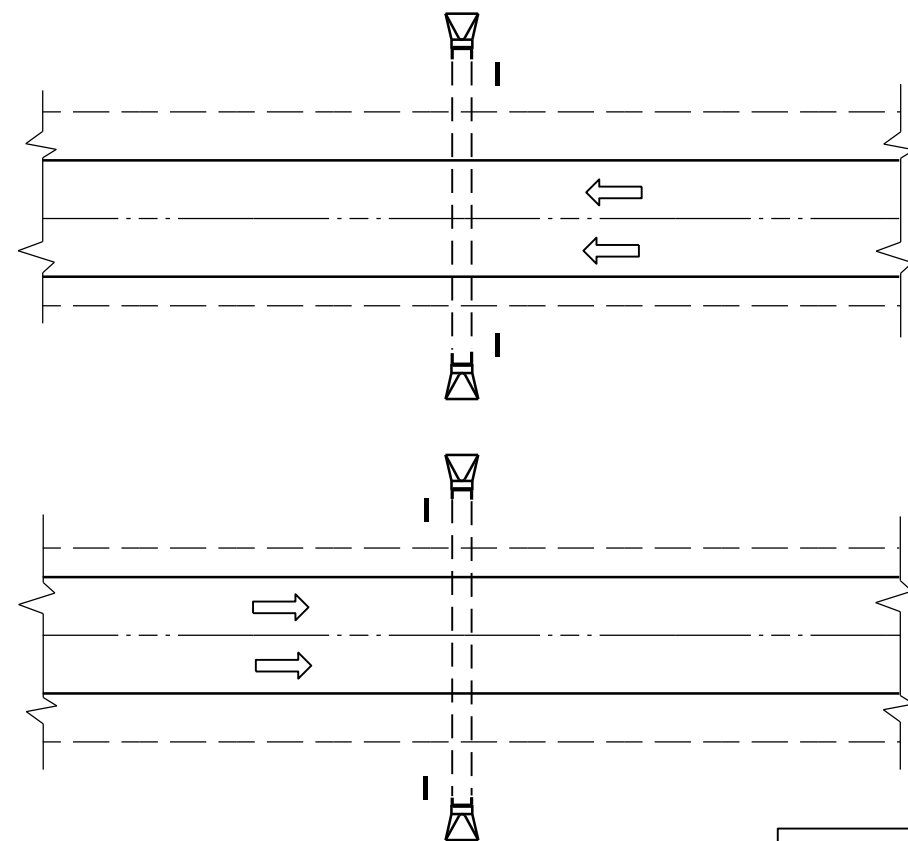
CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS

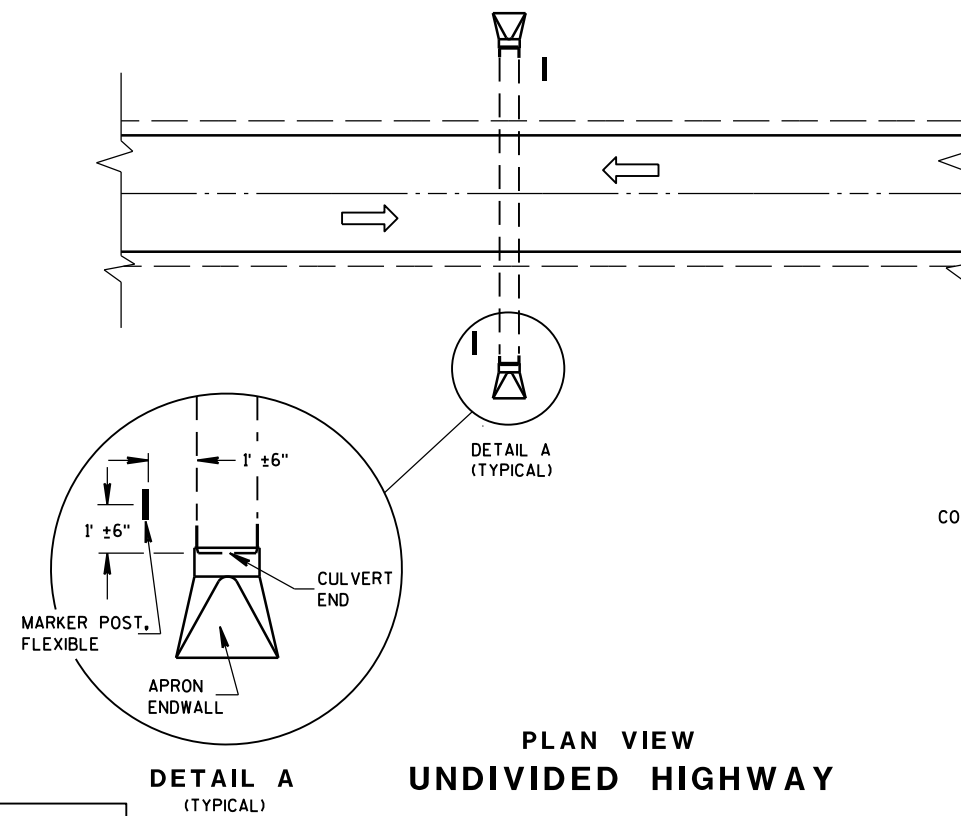
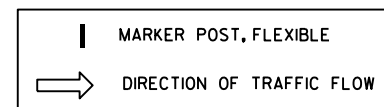


FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA



PLAN VIEW
DIVIDED HIGHWAY

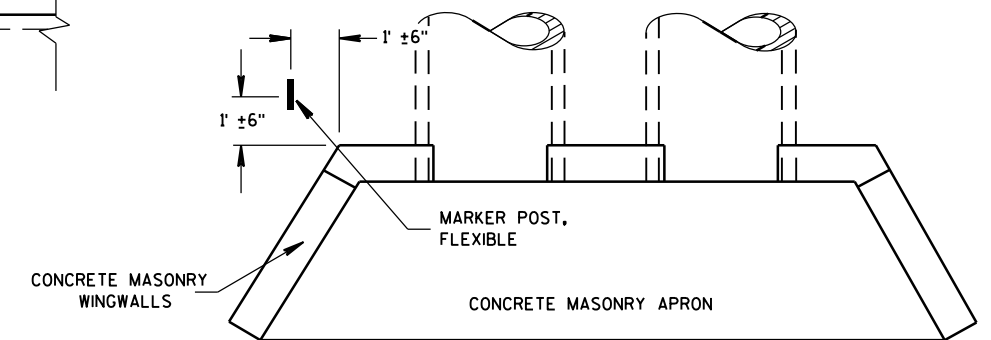


PLAN VIEW
UNDIVIDED HIGHWAY

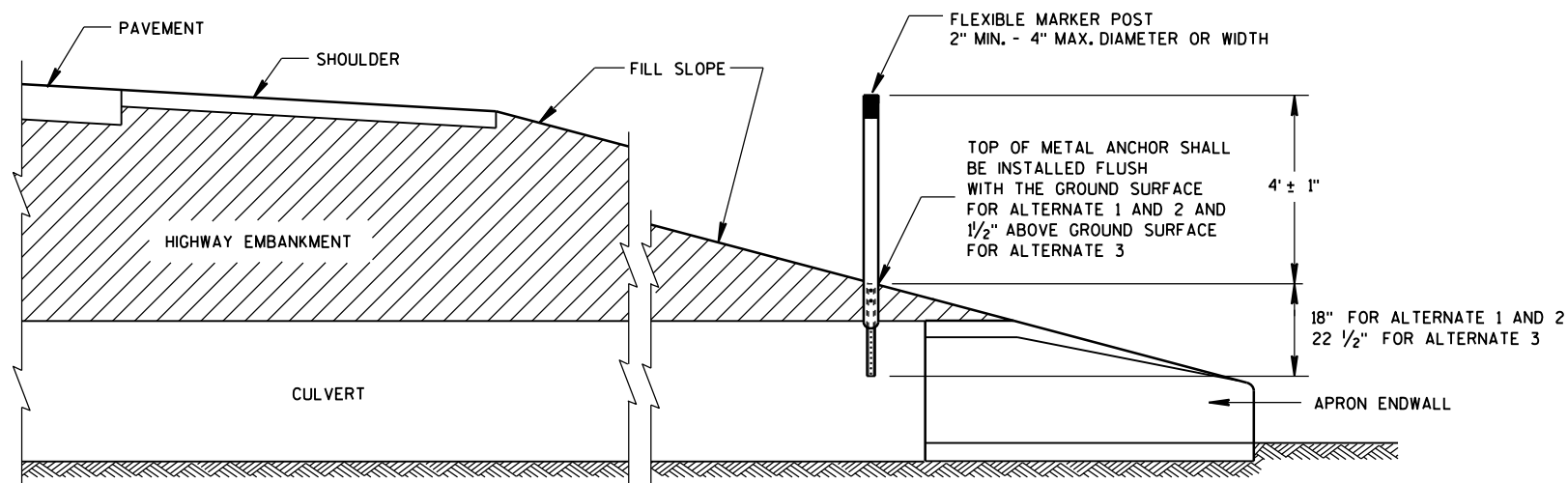
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



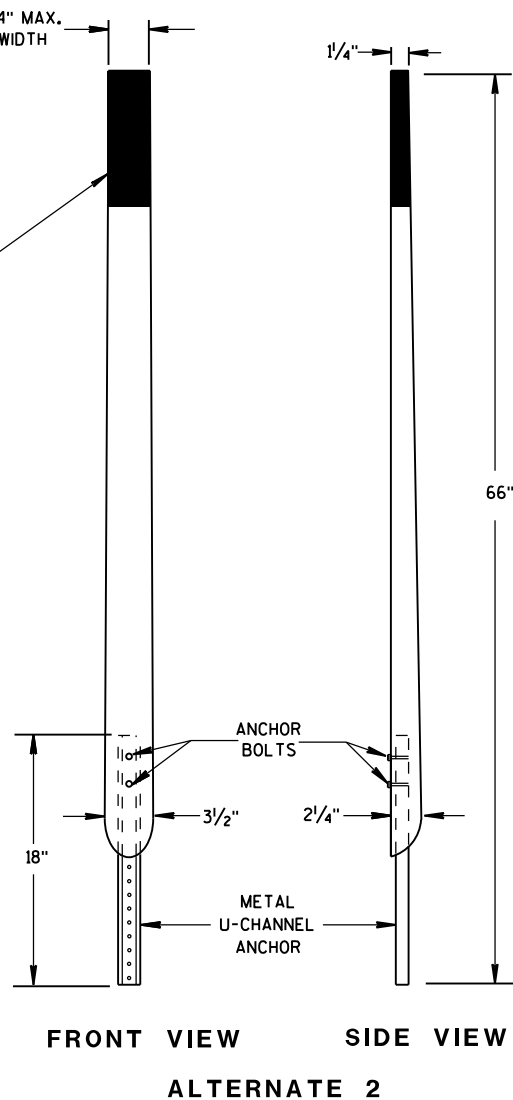
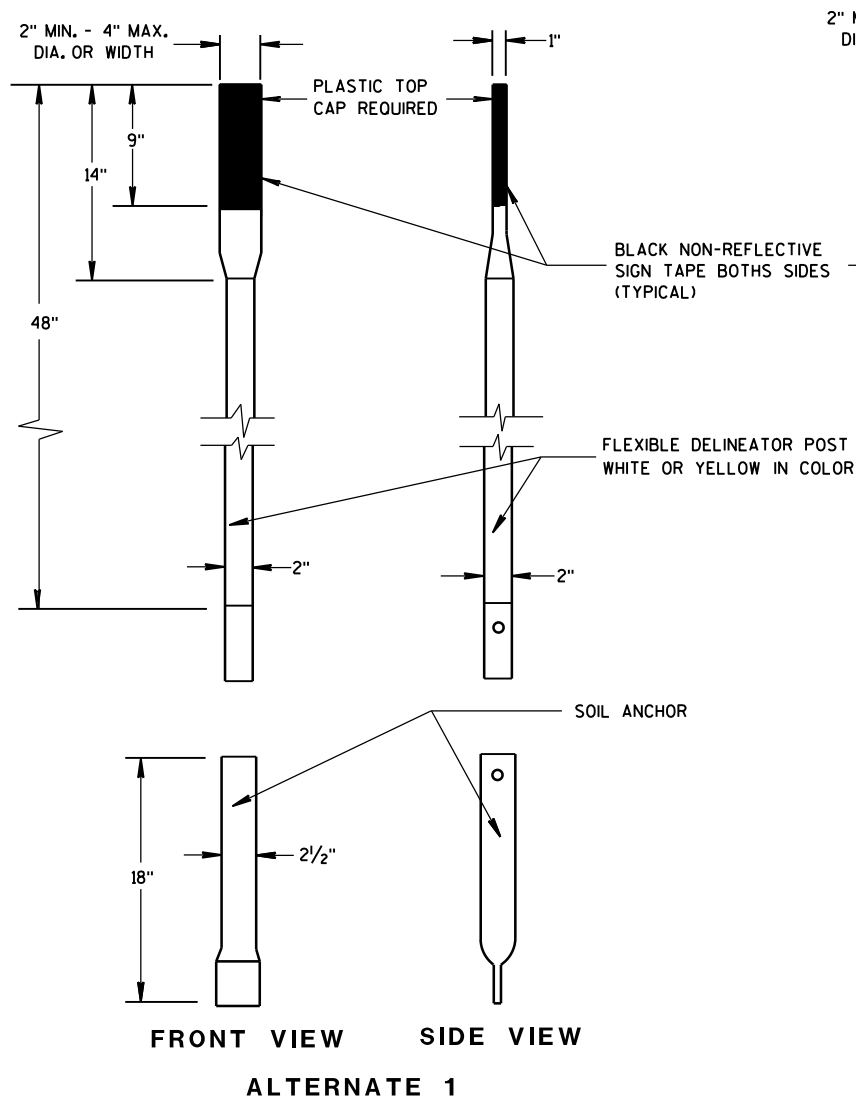
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



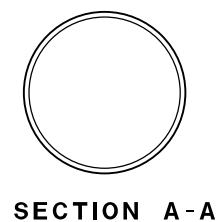
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

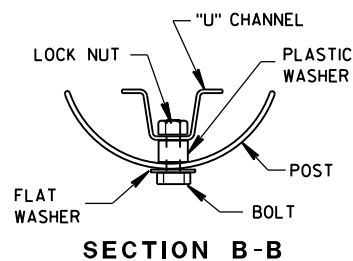
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



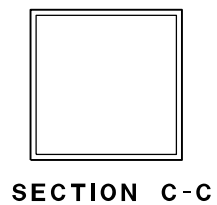
FLEXIBLE MARKER POSTS



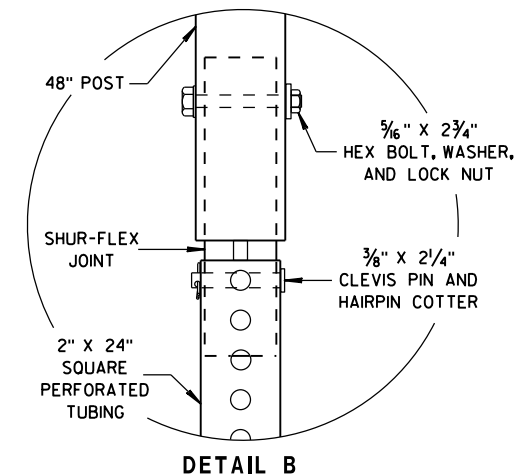
SECTION A-A



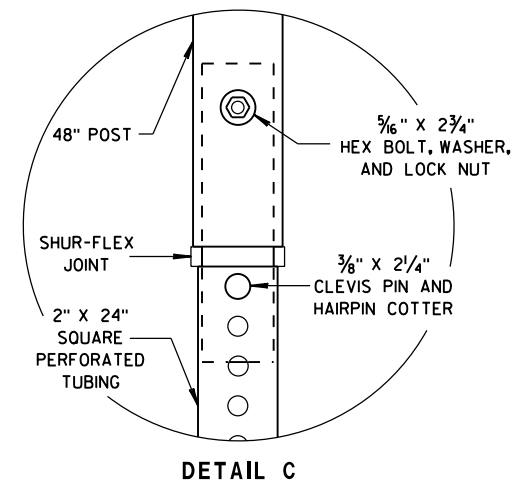
SECTION B-B



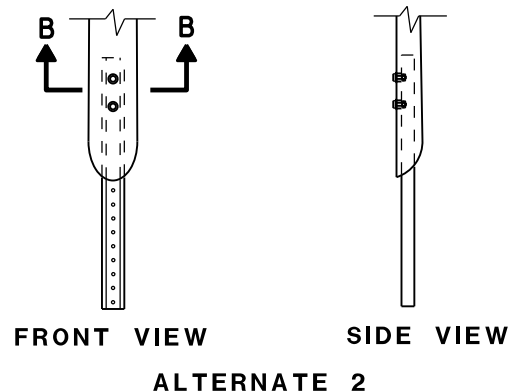
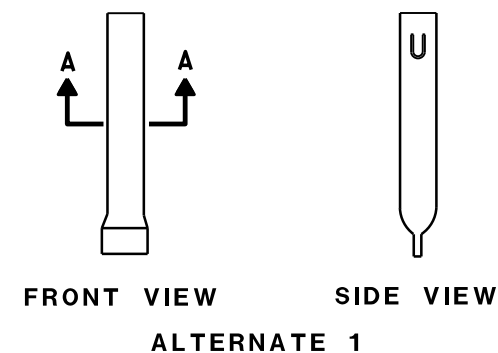
SECTION C-C



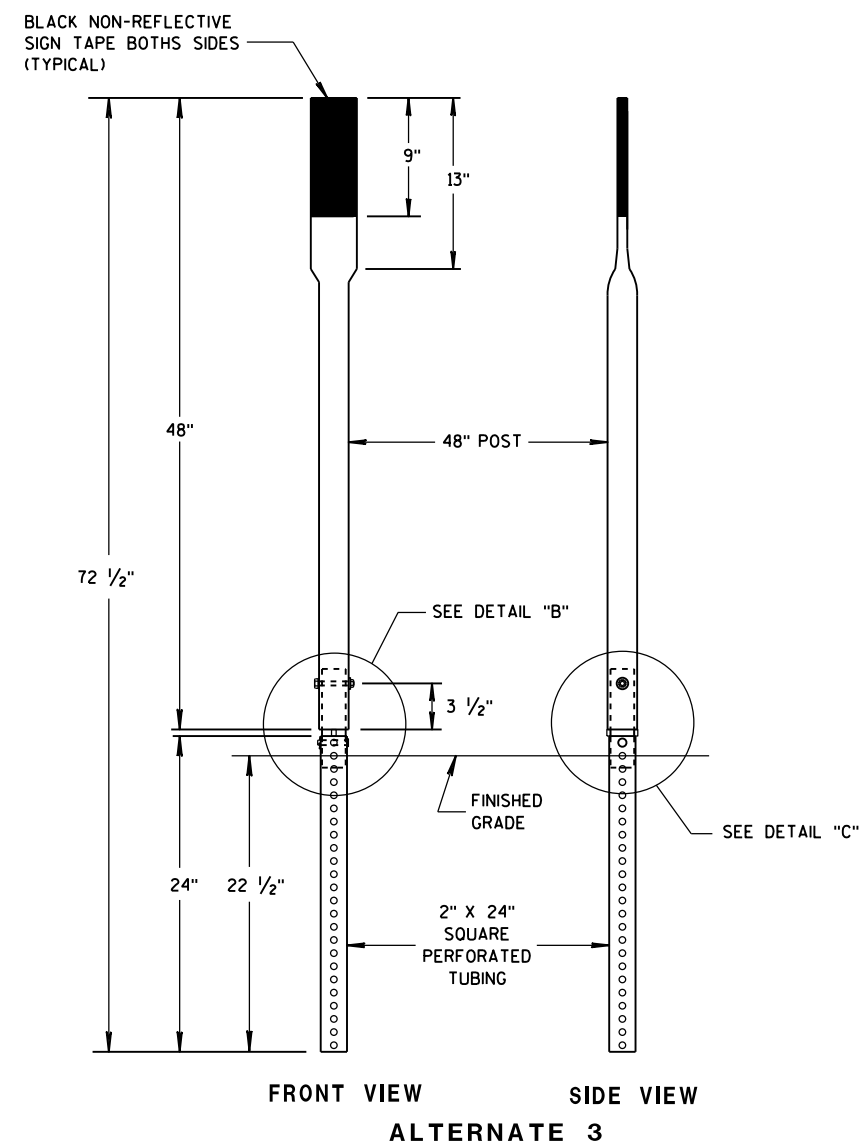
DETAIL B



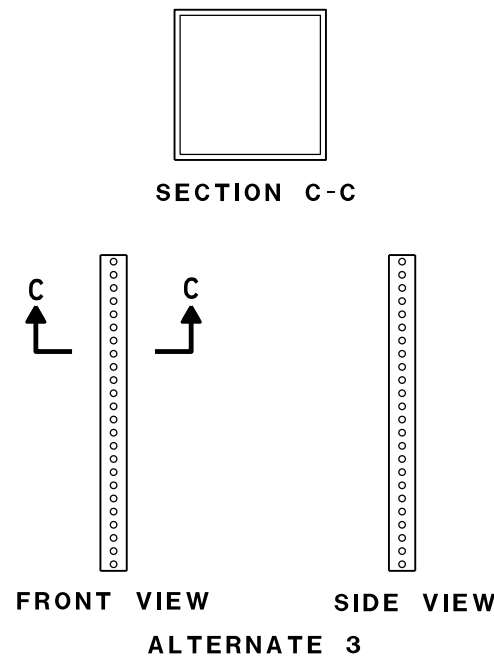
DETAIL C



FLEXIBLE MARKER POST ANCHORS

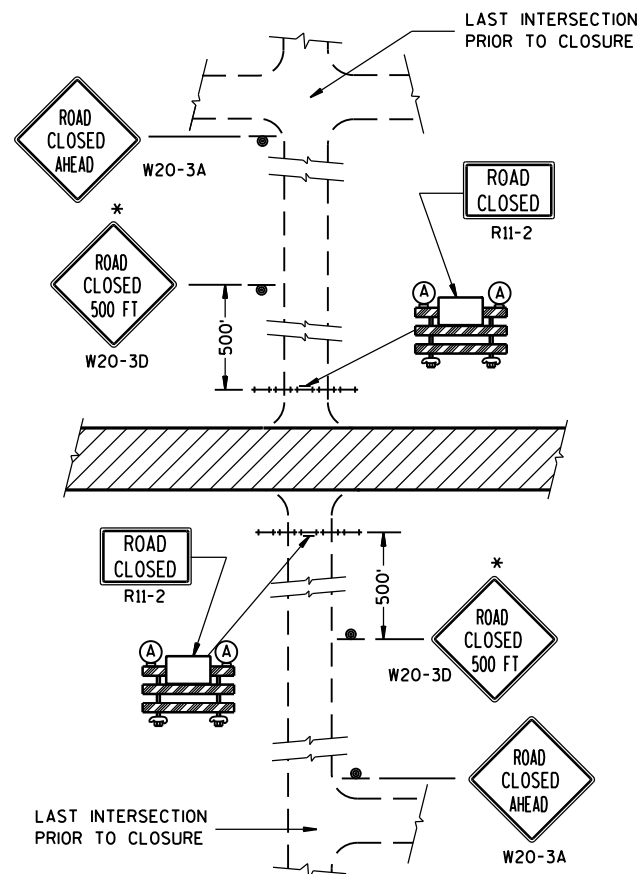


FLEXIBLE MARKER POSTS

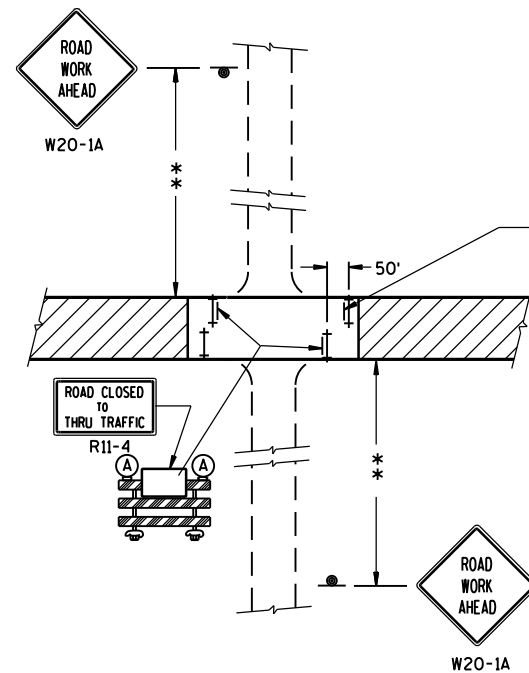


FLEXIBLE MARKER POSTS

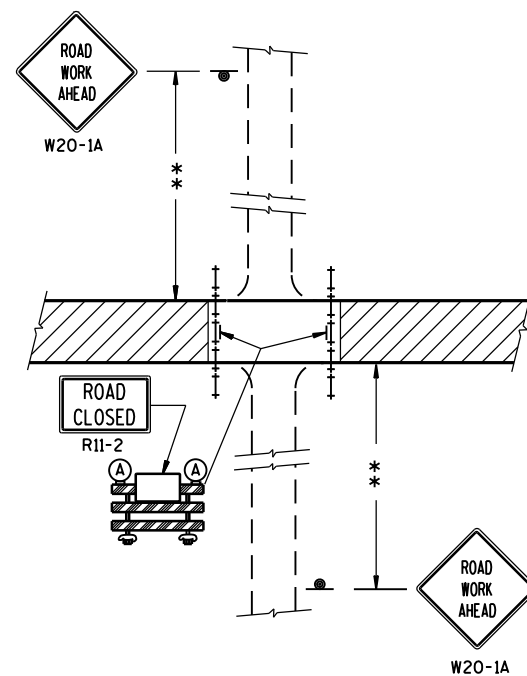
FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

**DETAIL 1**

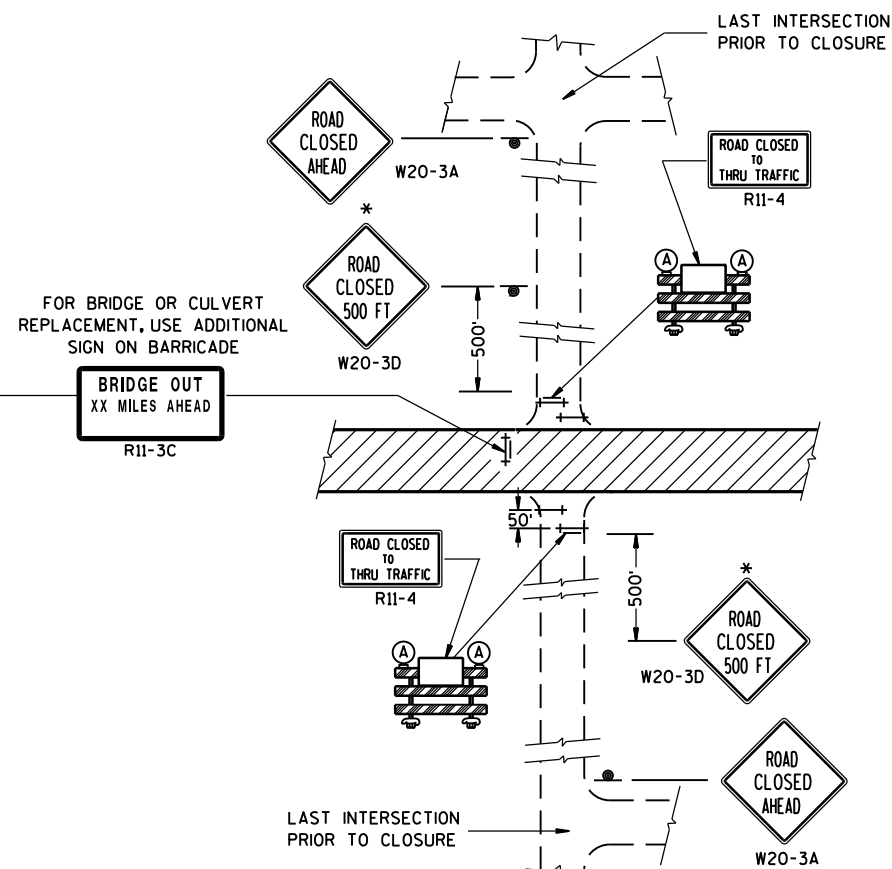
(NO ACCESS TO PROJECT)

**DETAIL 3**

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

**DETAIL 2**

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

**DETAIL 4**

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

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

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

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

LEGEND

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

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

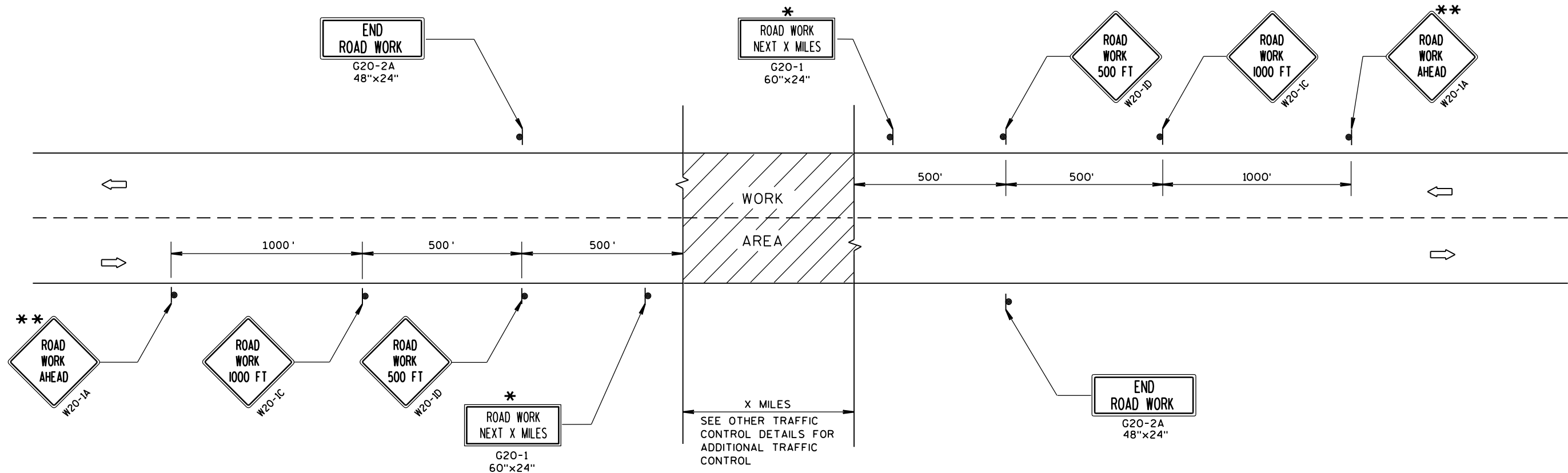
APPROVED

Sept. 2015

DATE

FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

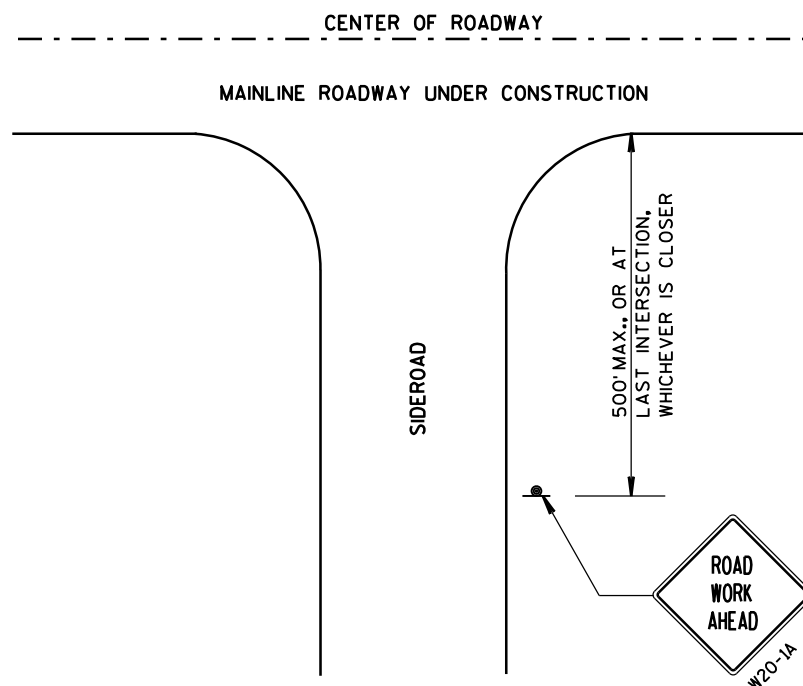
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



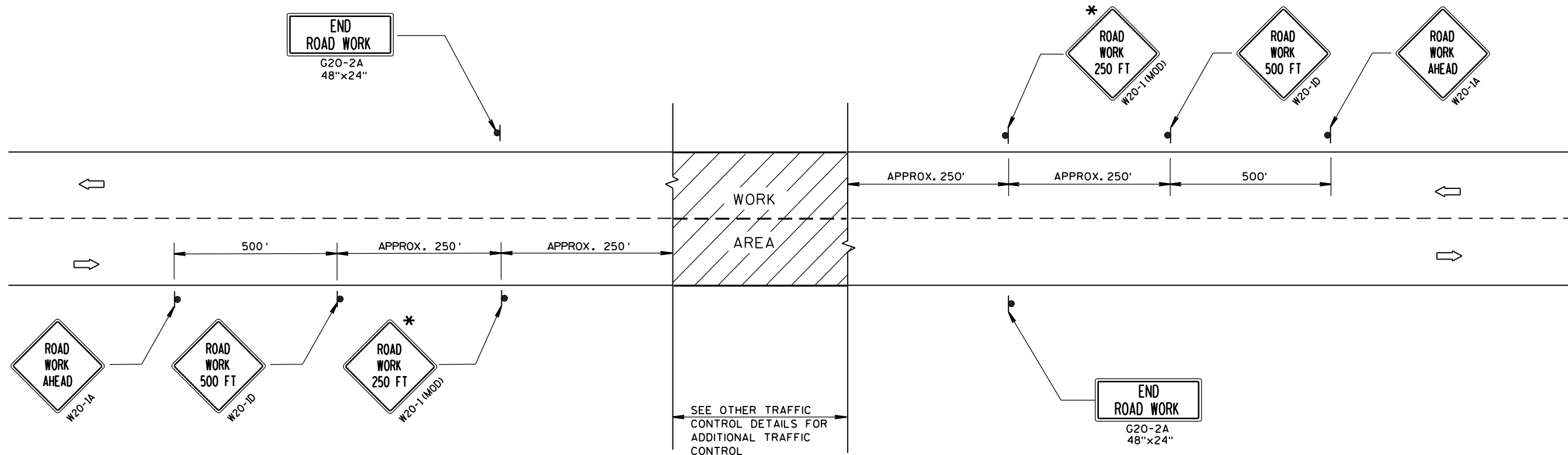
LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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.

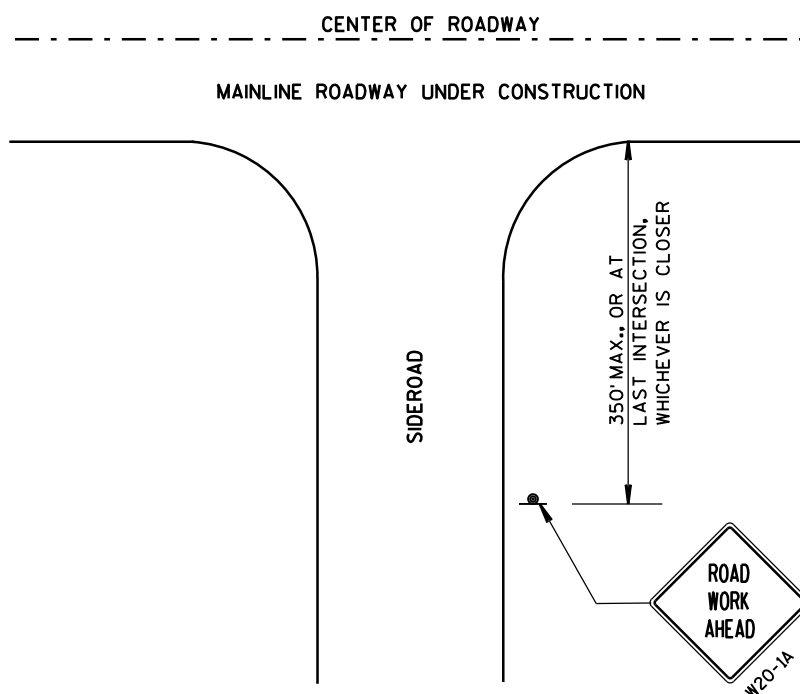
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.



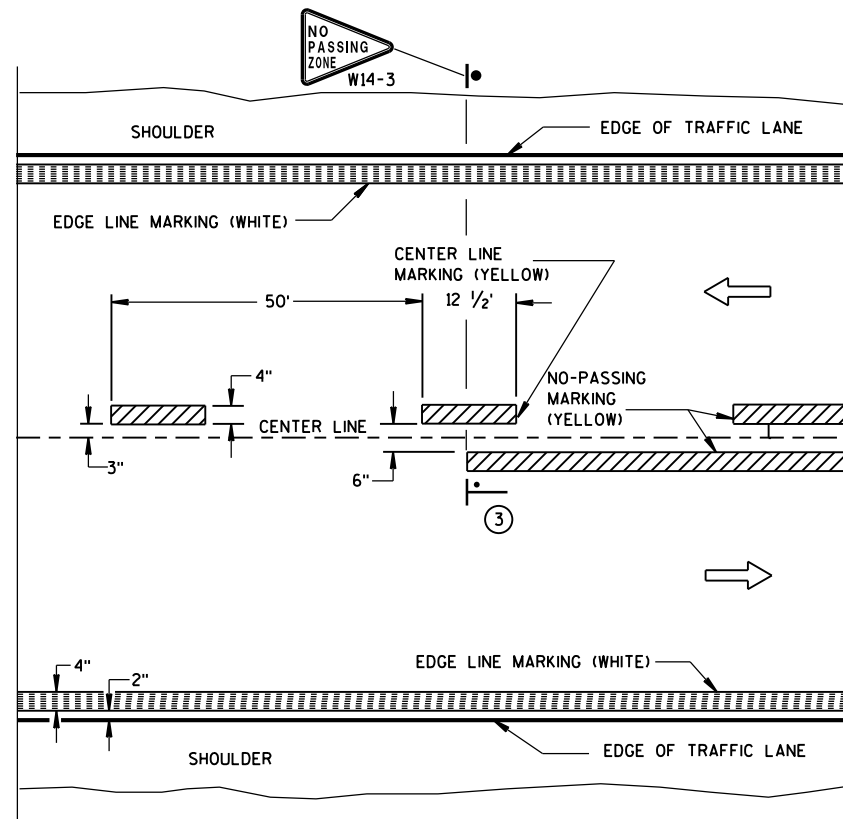
LEGEND

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

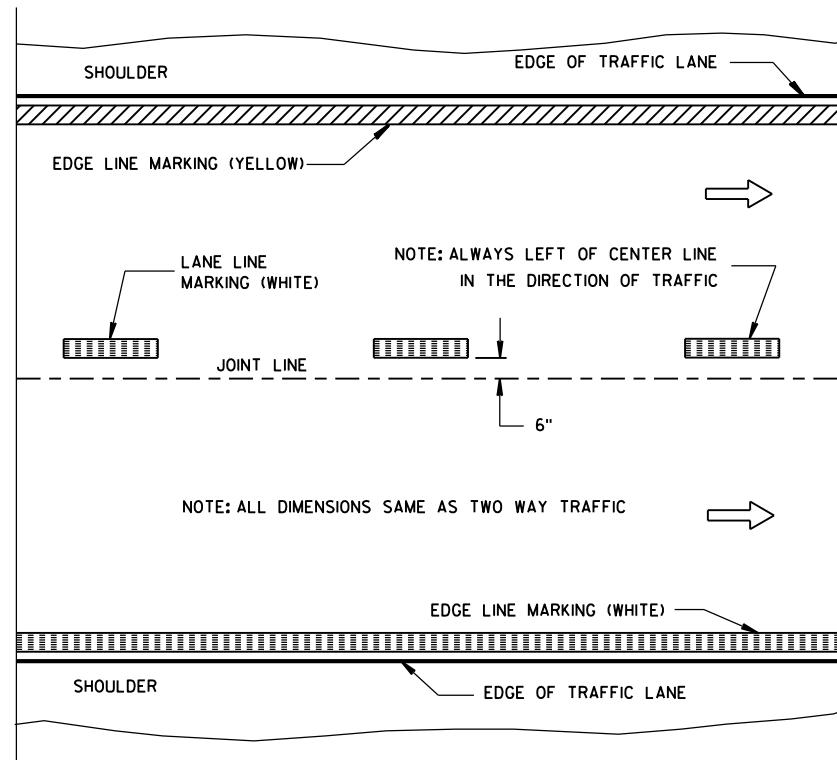
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

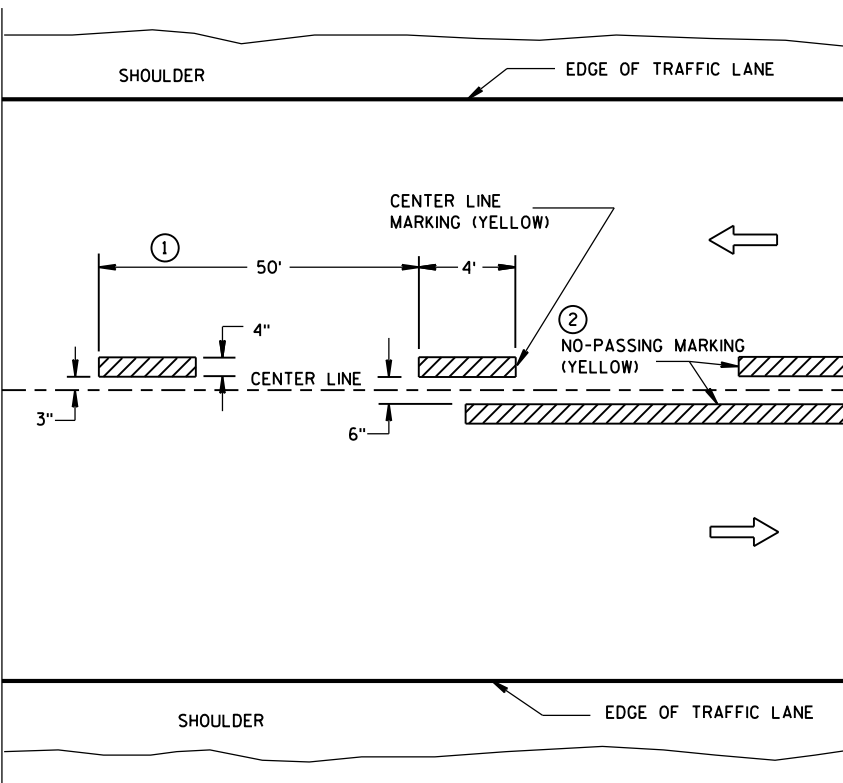


TWO WAY TRAFFIC

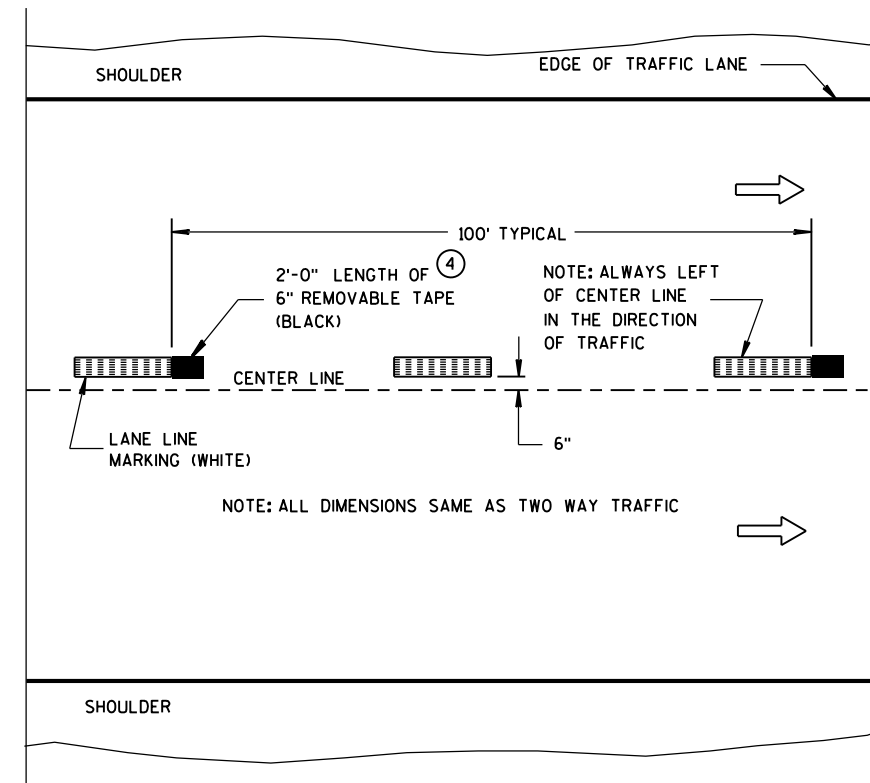


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

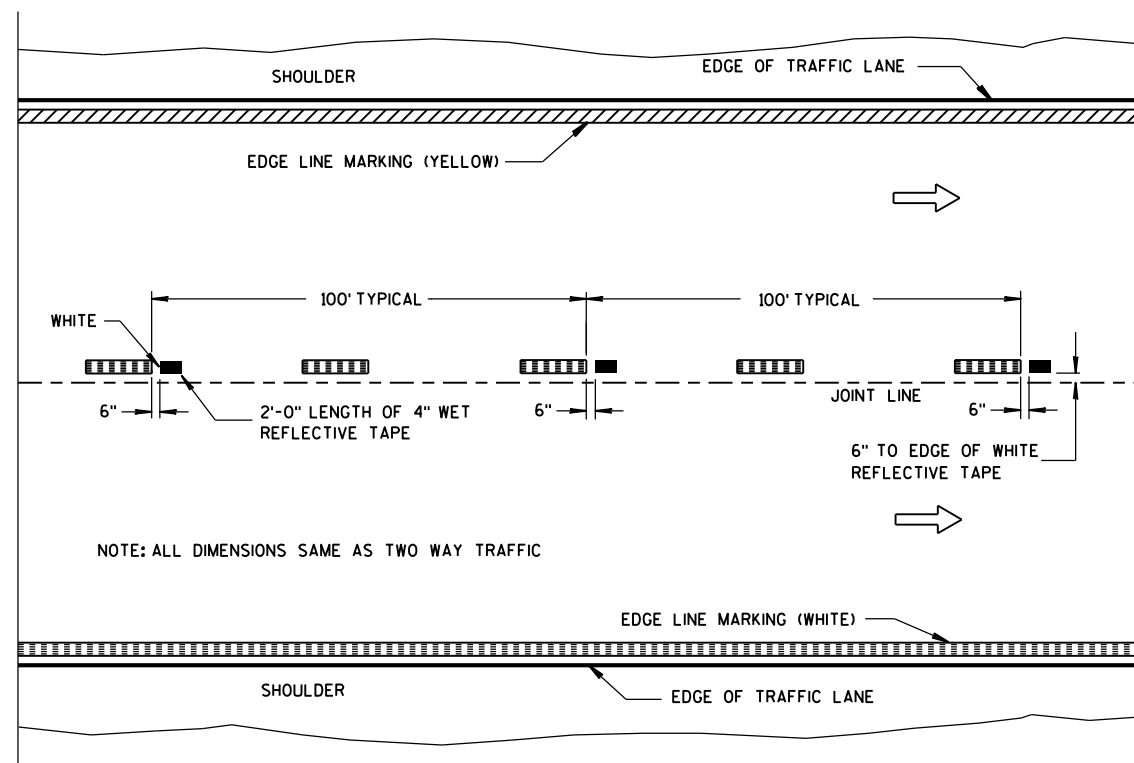
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

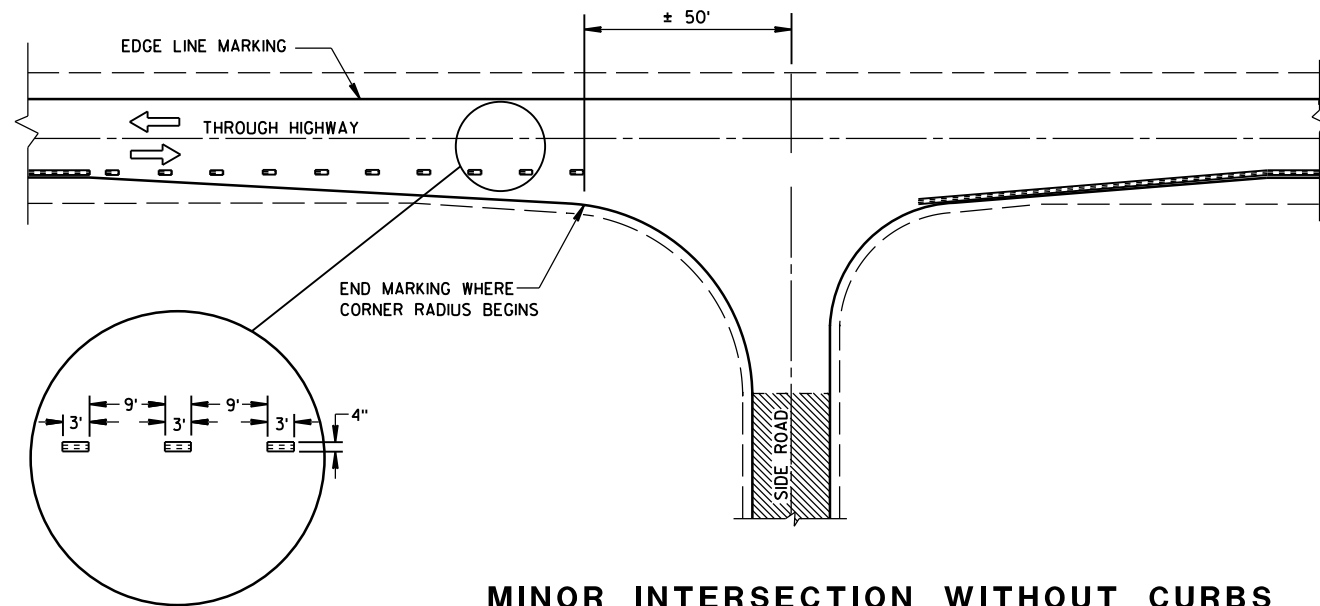
- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013
DATE
FHWA

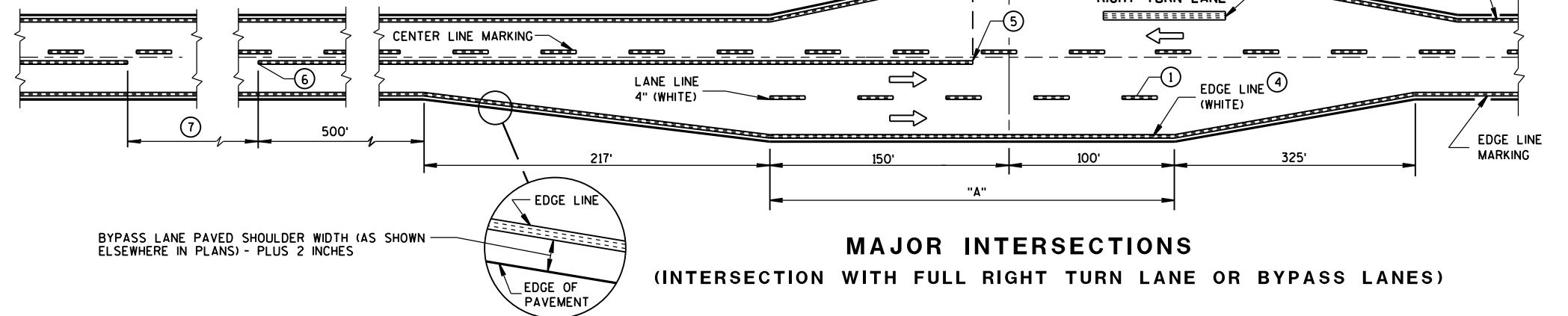
/S/ Travis Feltes
STATE TRAFFIC ENGINEER



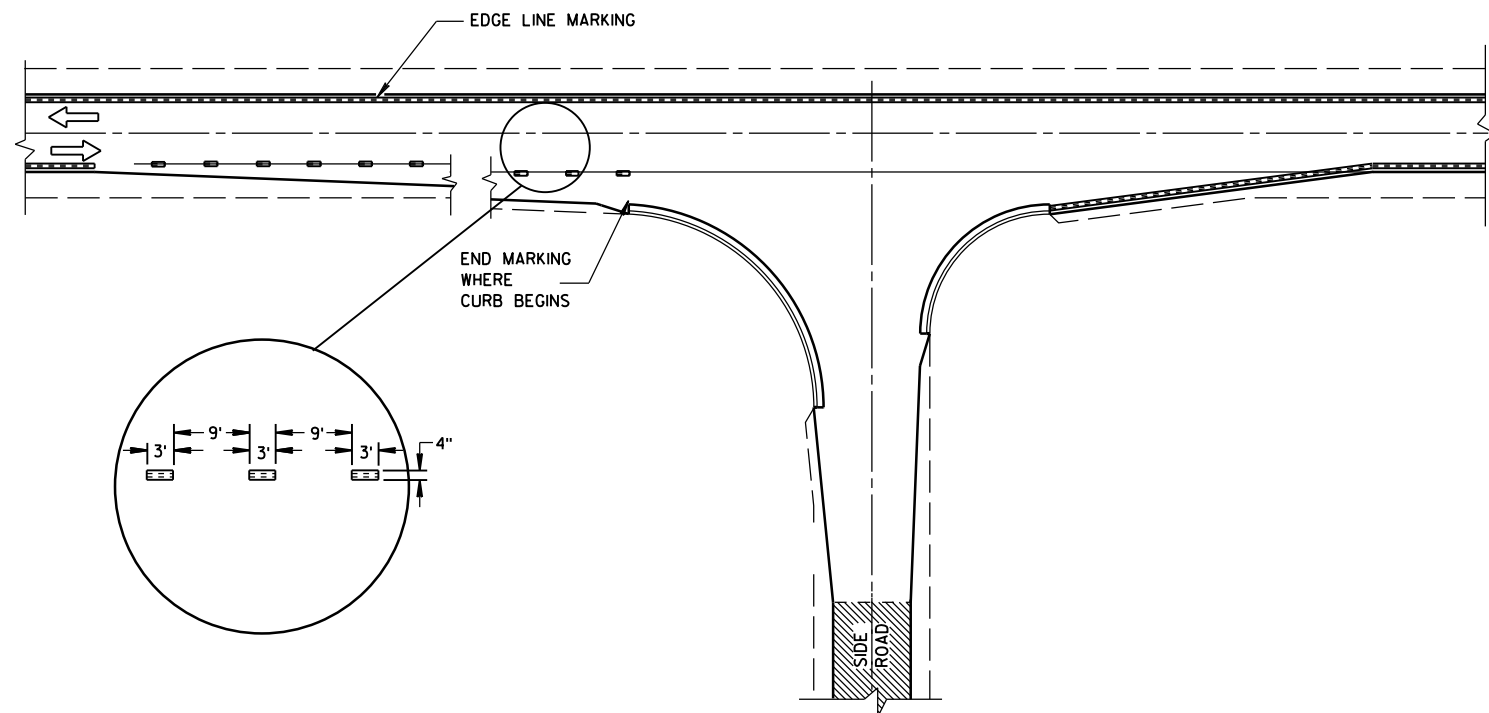
MINOR INTERSECTION WITHOUT CURBS

⑦

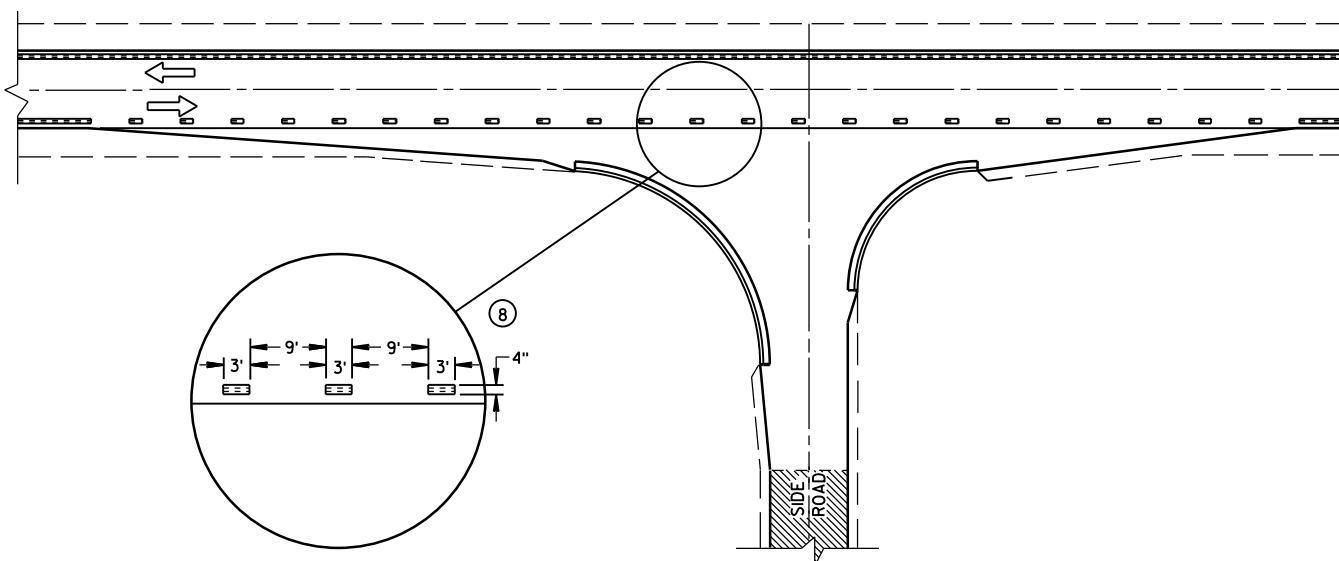
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



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

GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

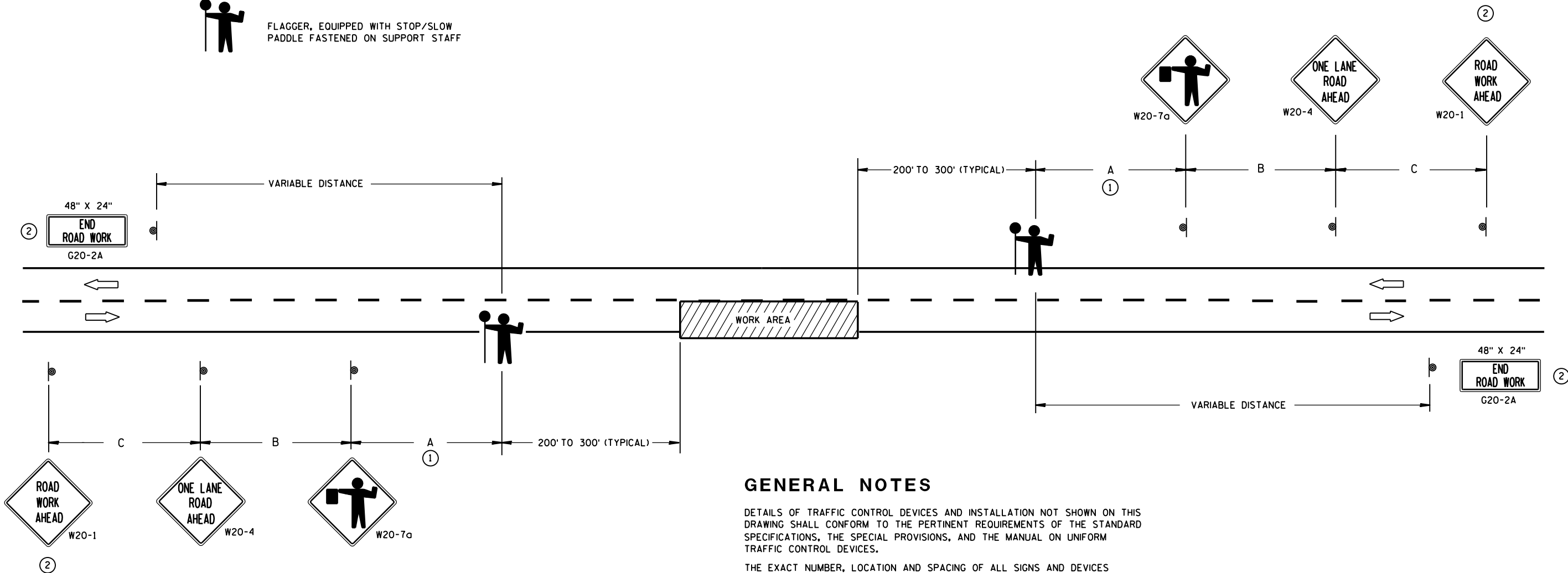
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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



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



GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

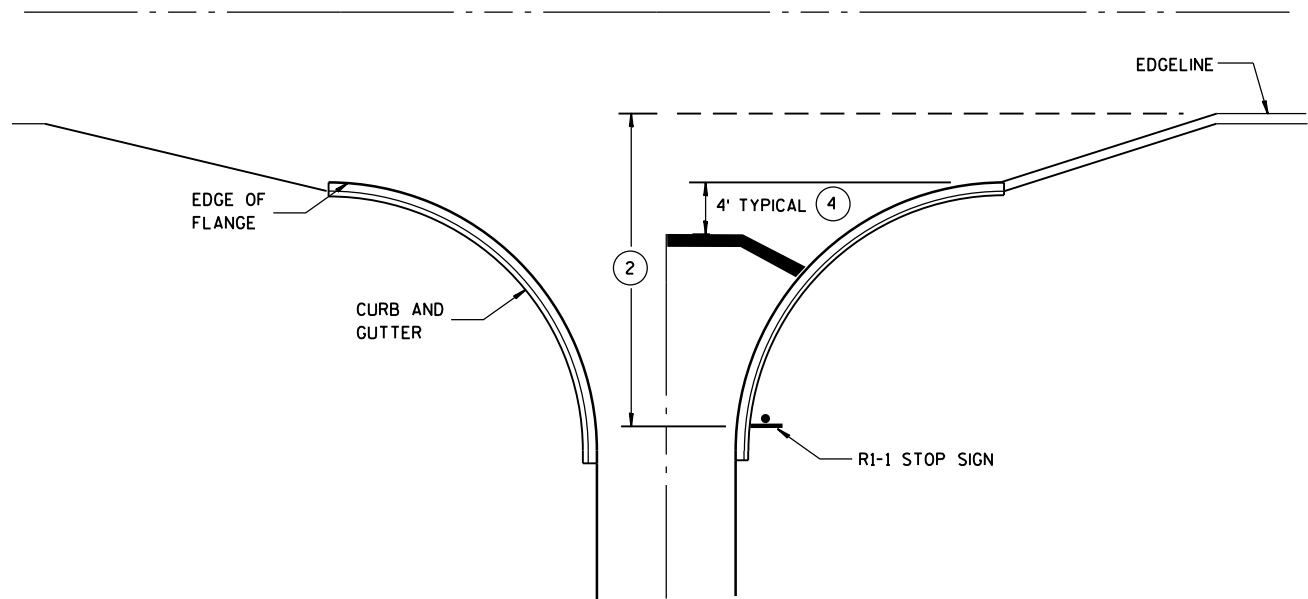
- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

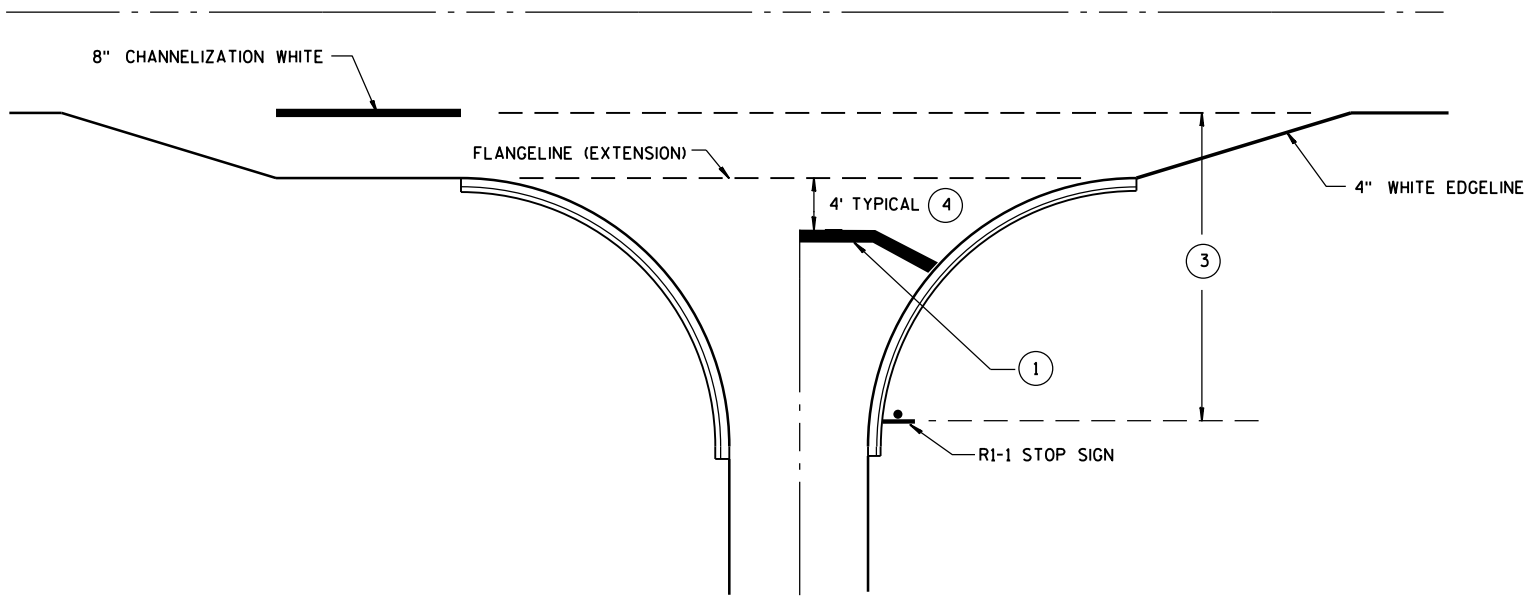
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

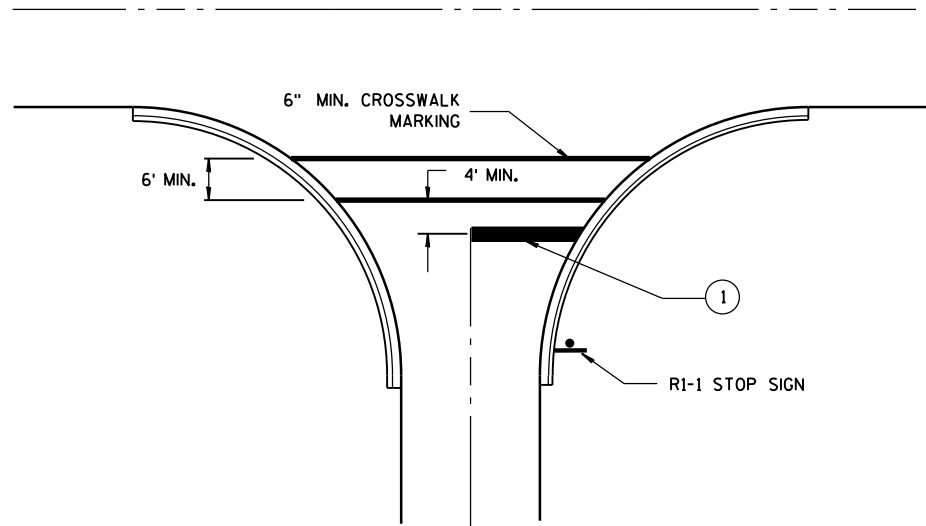
APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



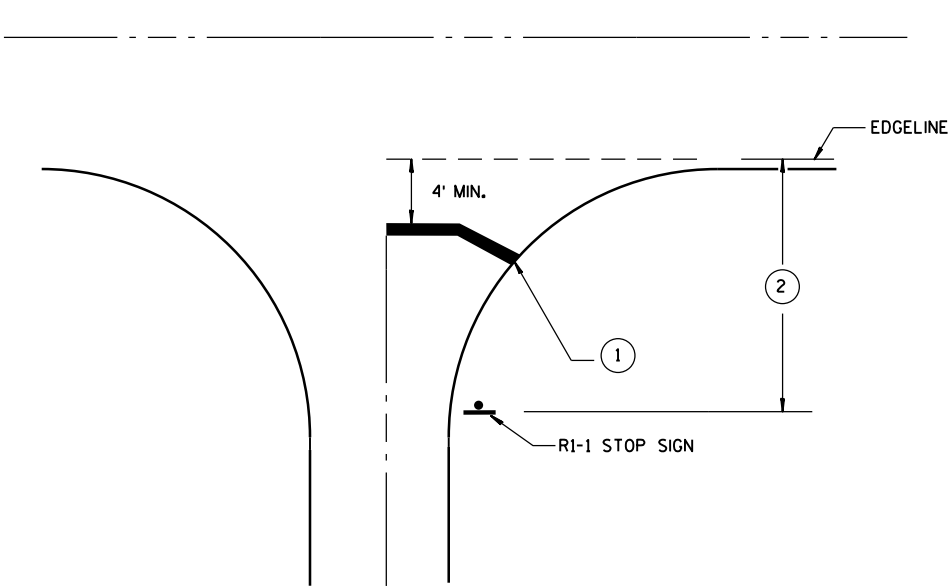
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



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 EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE /S/ Travis Feltz
STATE TRAFFIC ENGINEER
FHWA

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

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

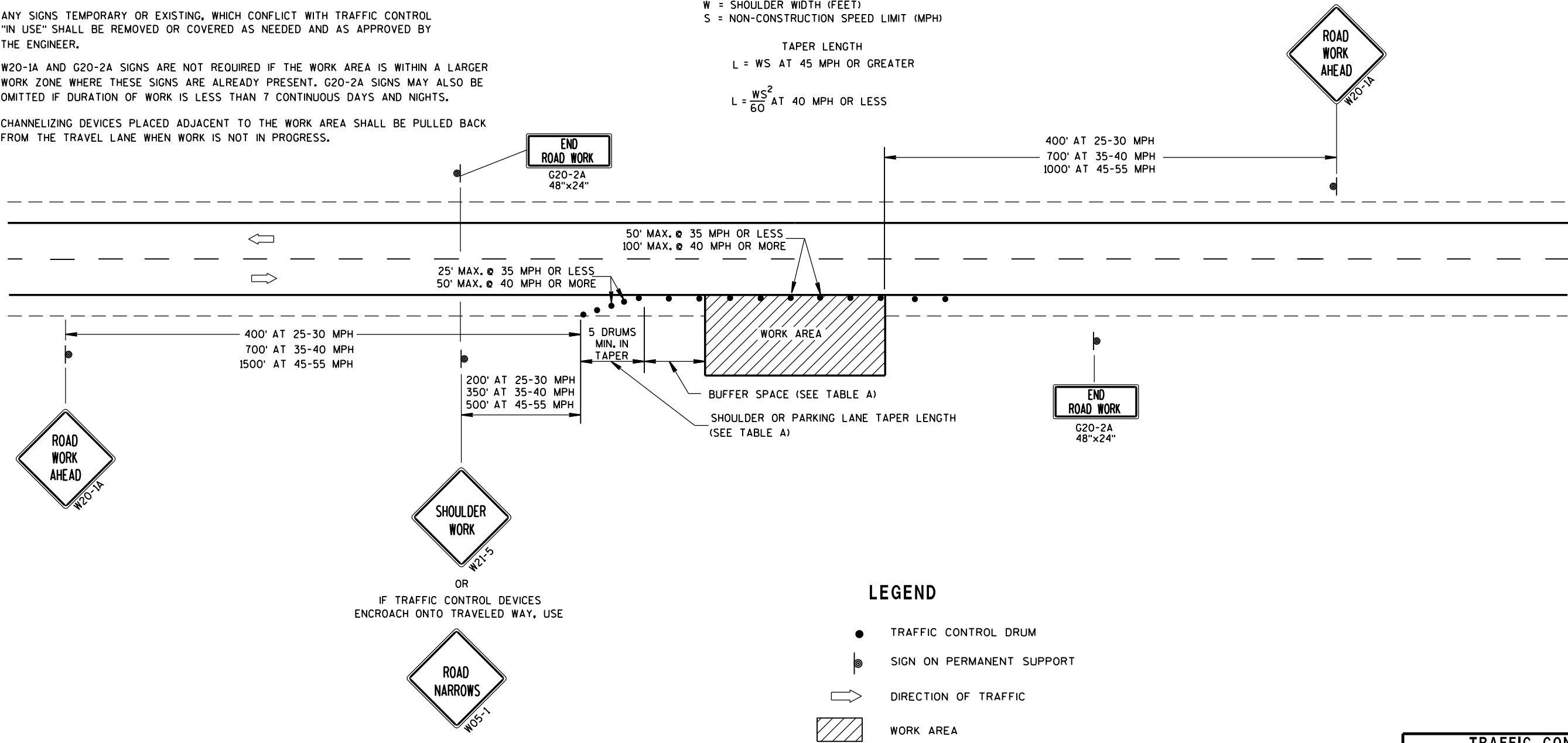
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

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



LEGEND

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

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

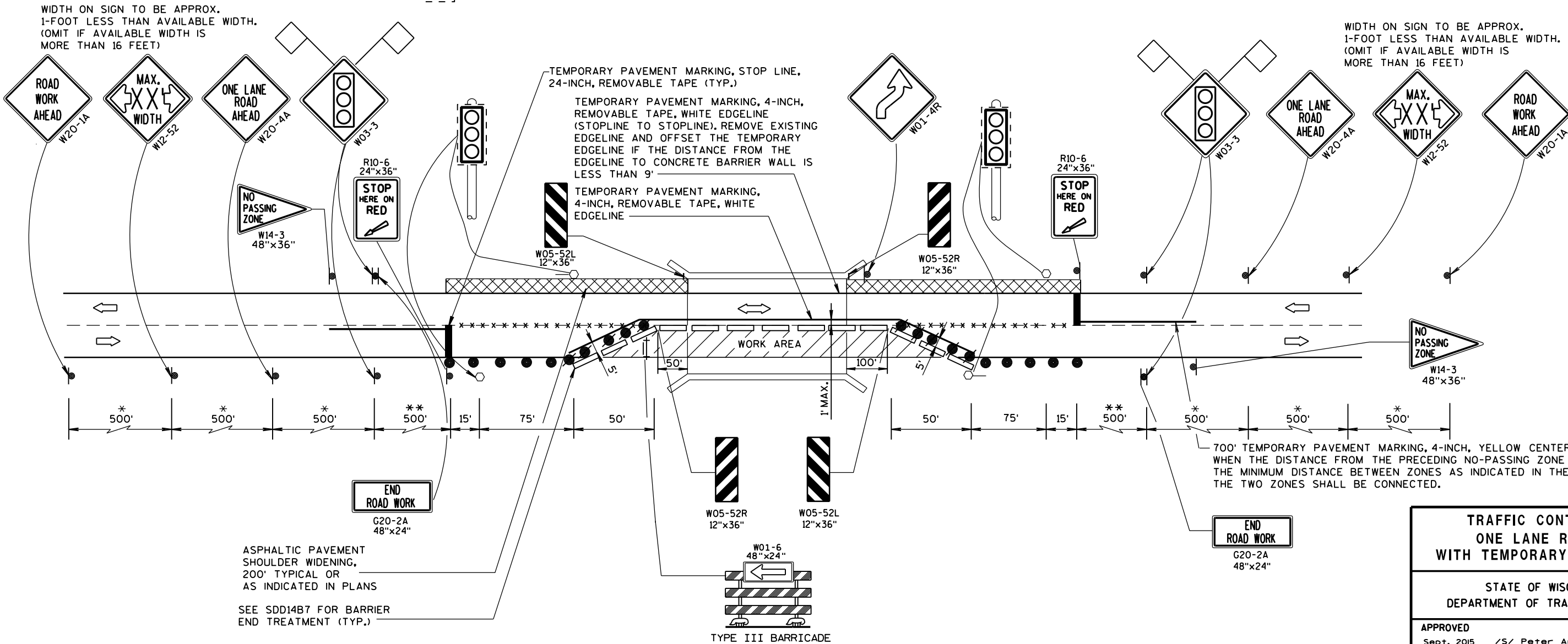
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.

6



TRAFFIC CONTROL,
ONE LANE ROAD
WITH TEMPORARY SIGNALS

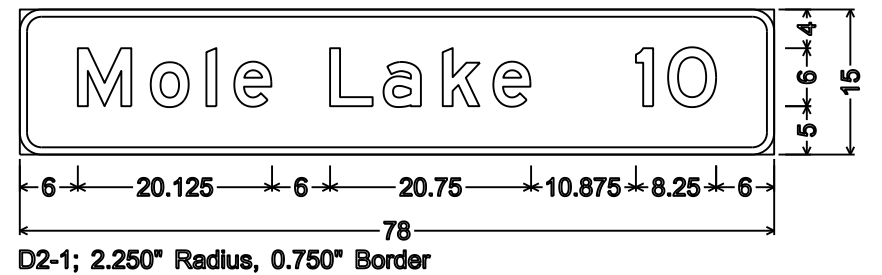
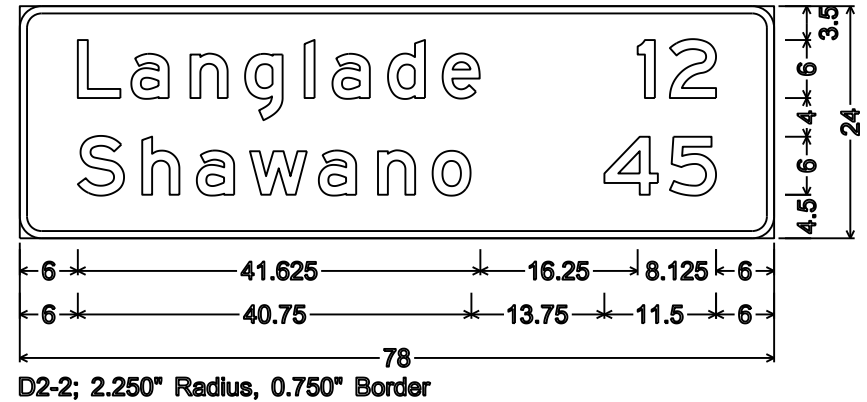
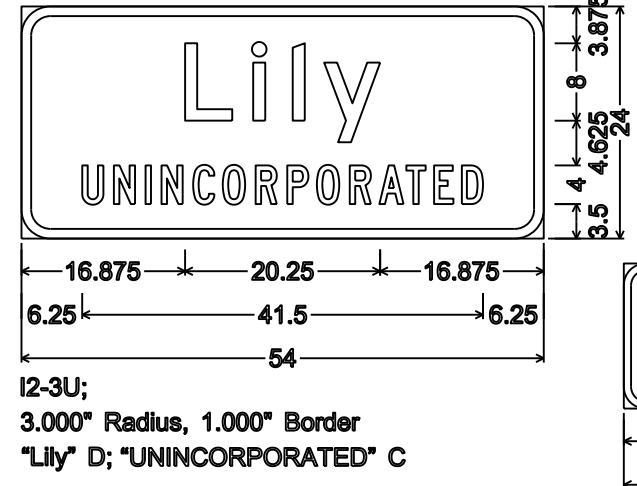
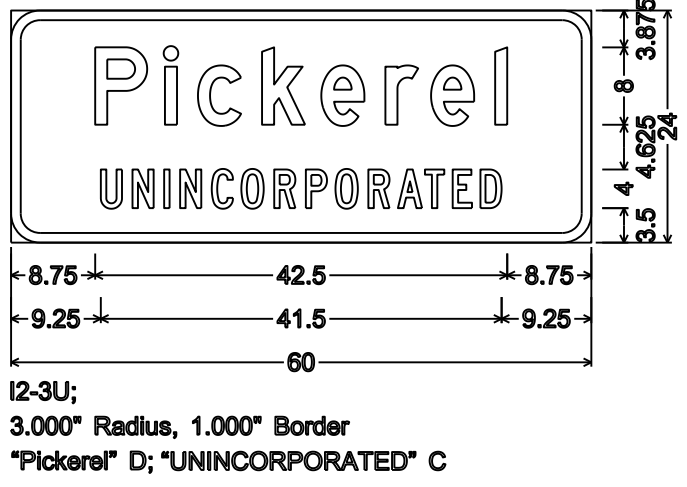
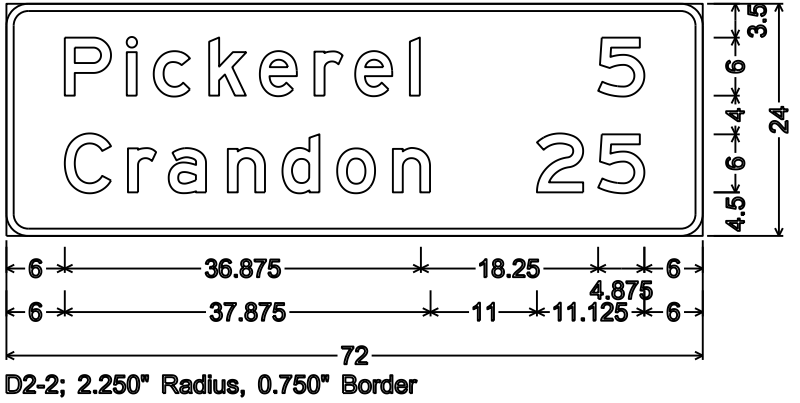
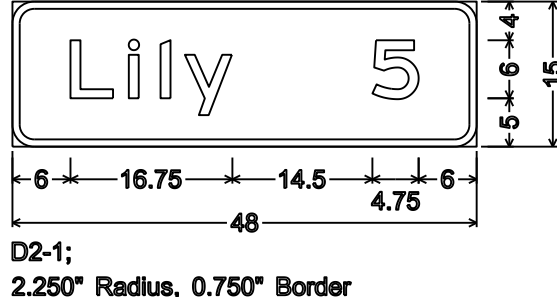
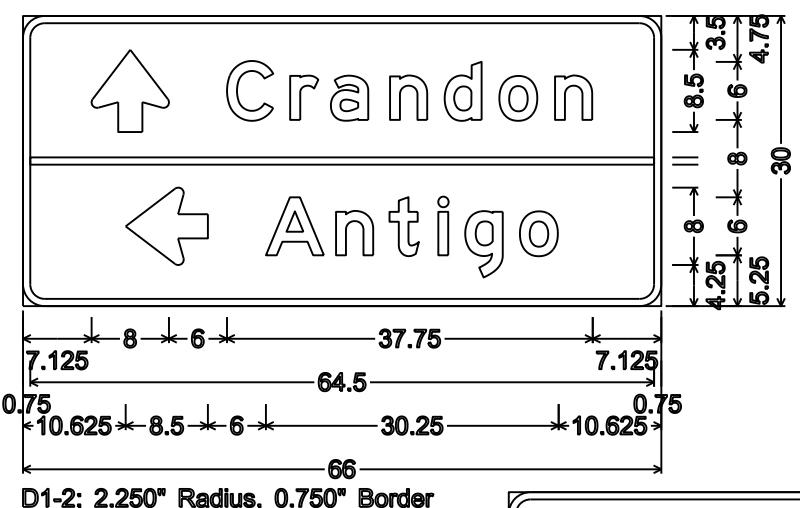
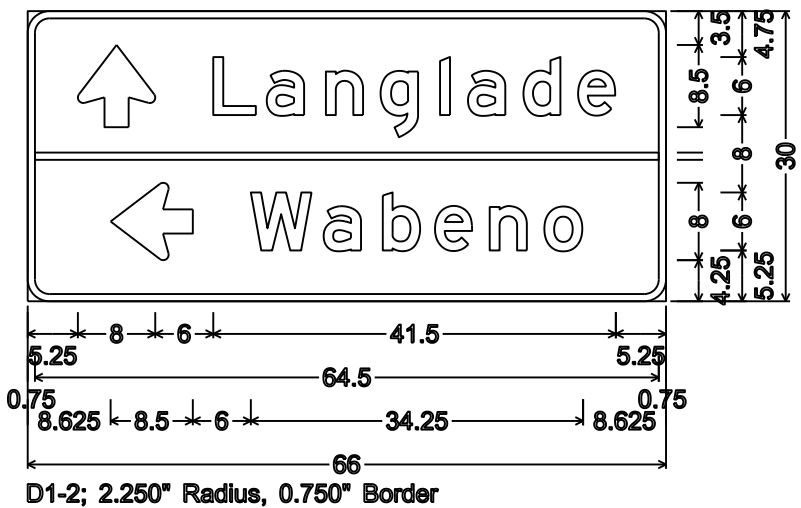
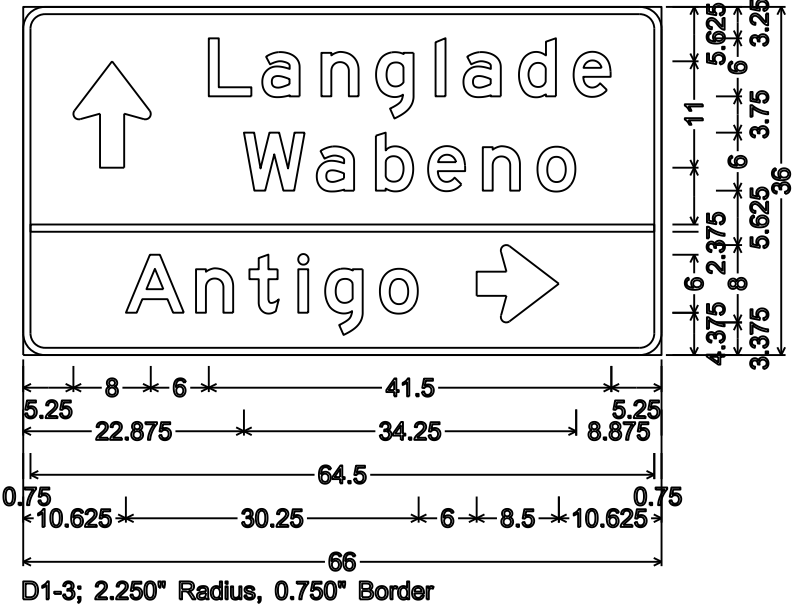
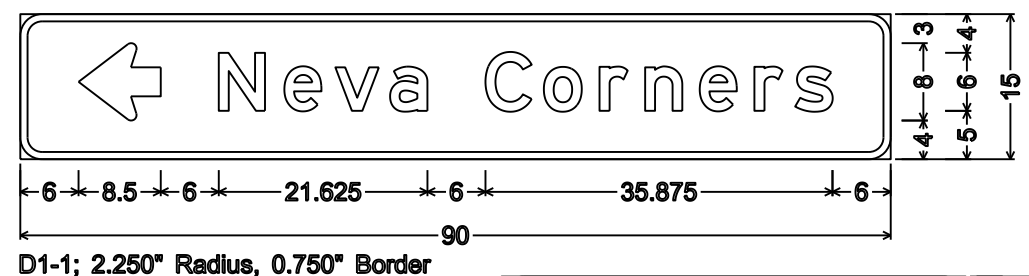
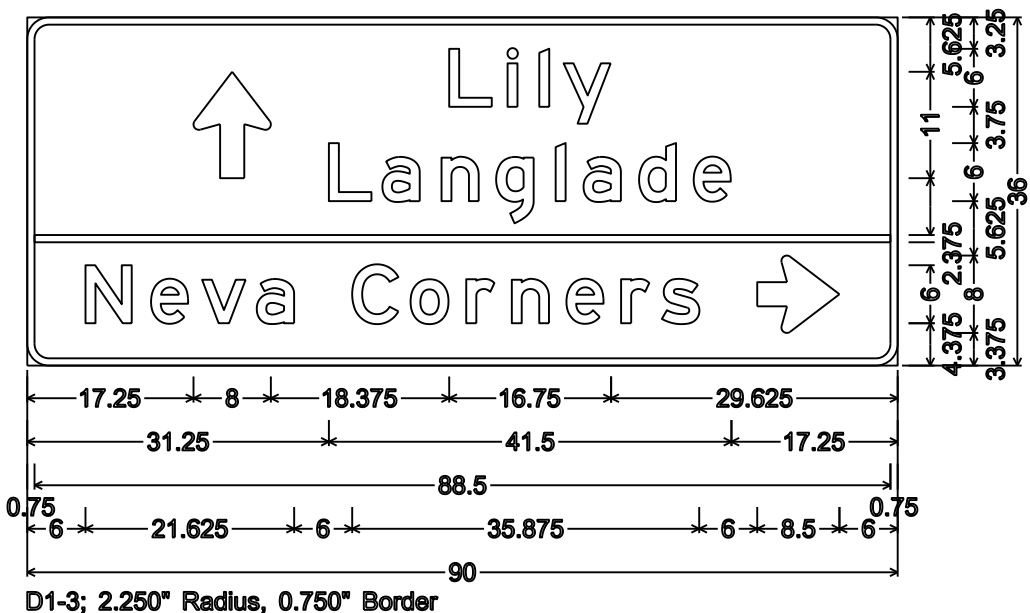
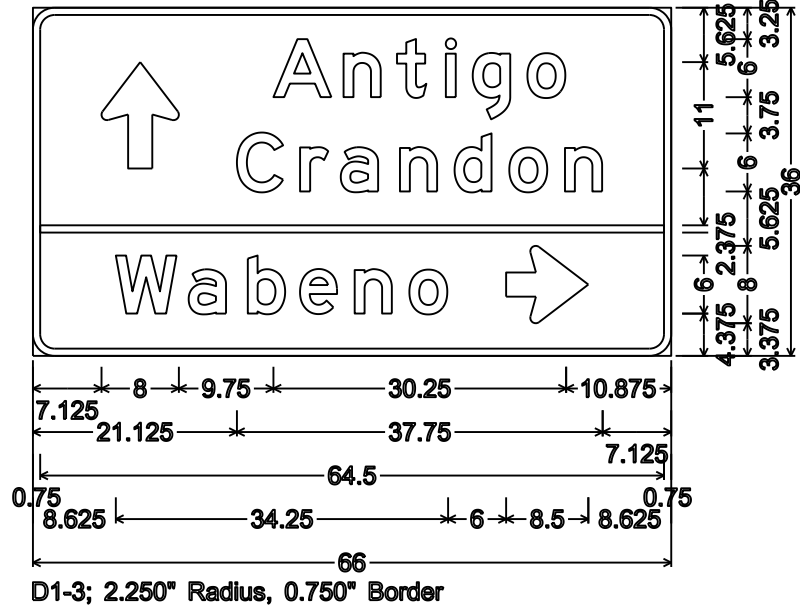
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 D 33-4

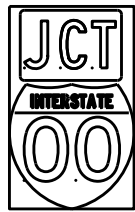
S.D.D. 15 D 33-4



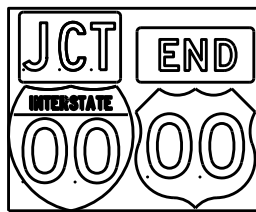
NOTES

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

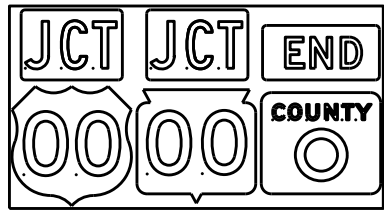
TYPICAL ASSEMBLIES



J1-1



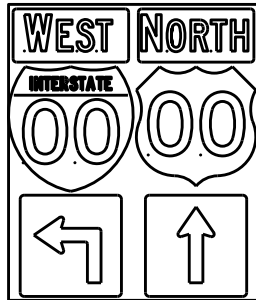
J1-2



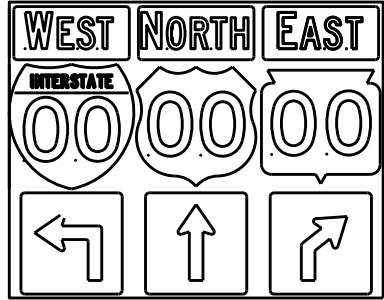
J1-3



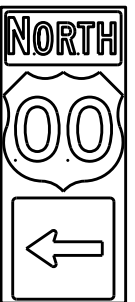
J2-1



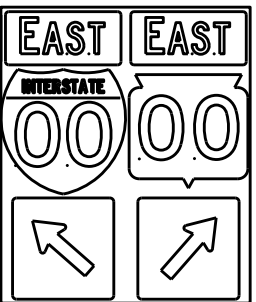
J2-2



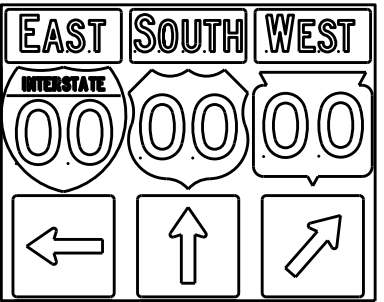
J2-3



J3-1



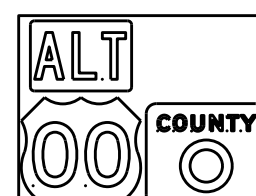
J3-2



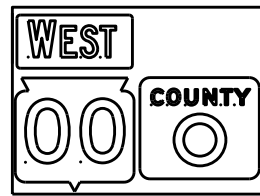
J3-3



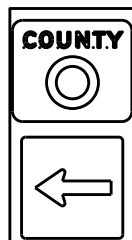
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

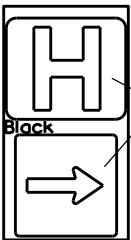


J22-1



JV

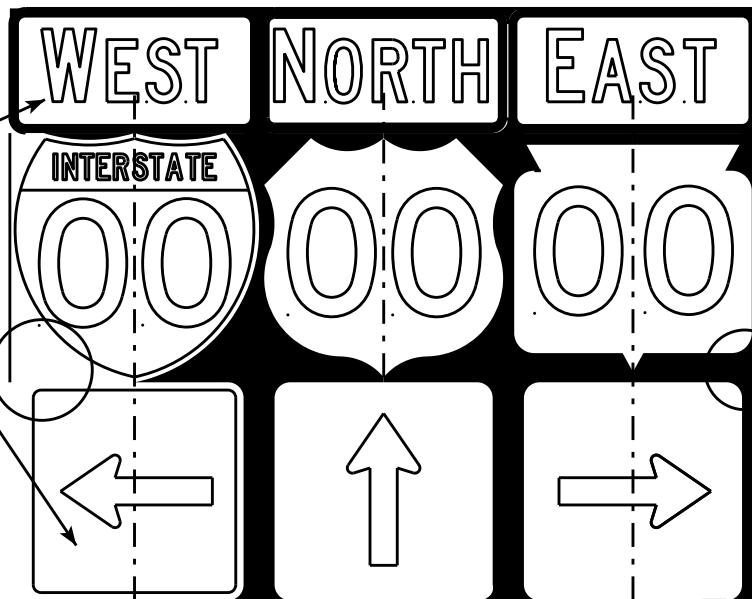
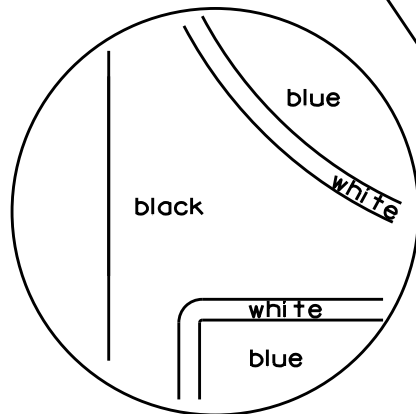
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

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

PROJECT NO:

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

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

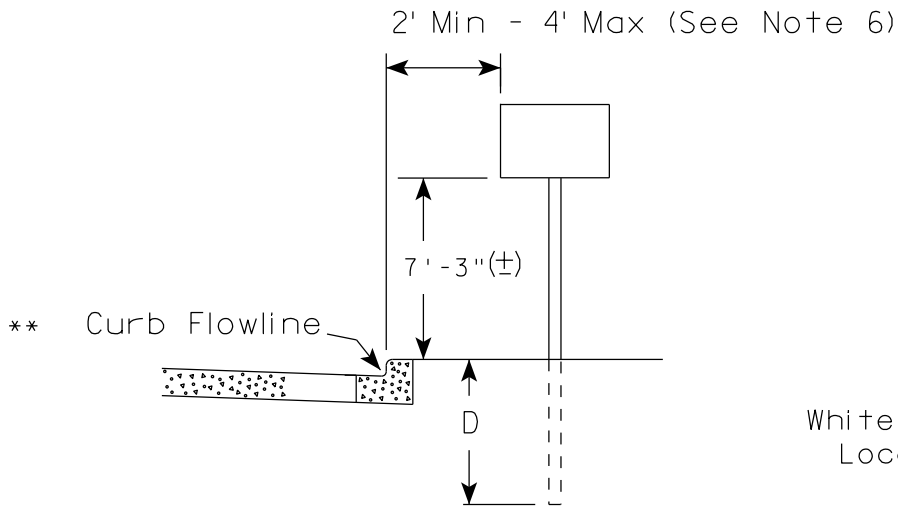
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SHEET NO:

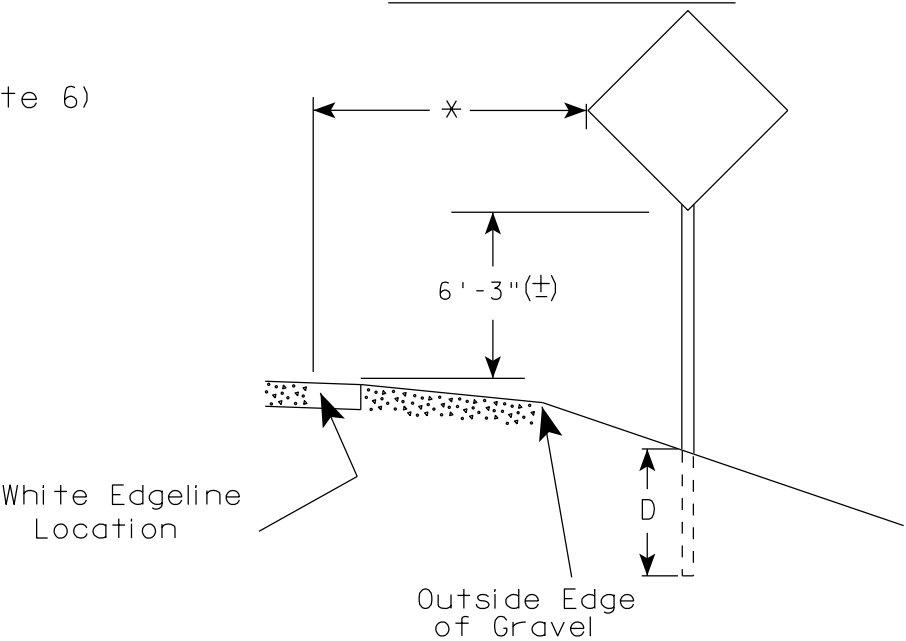
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WISDOT/CADDs SHEET 42

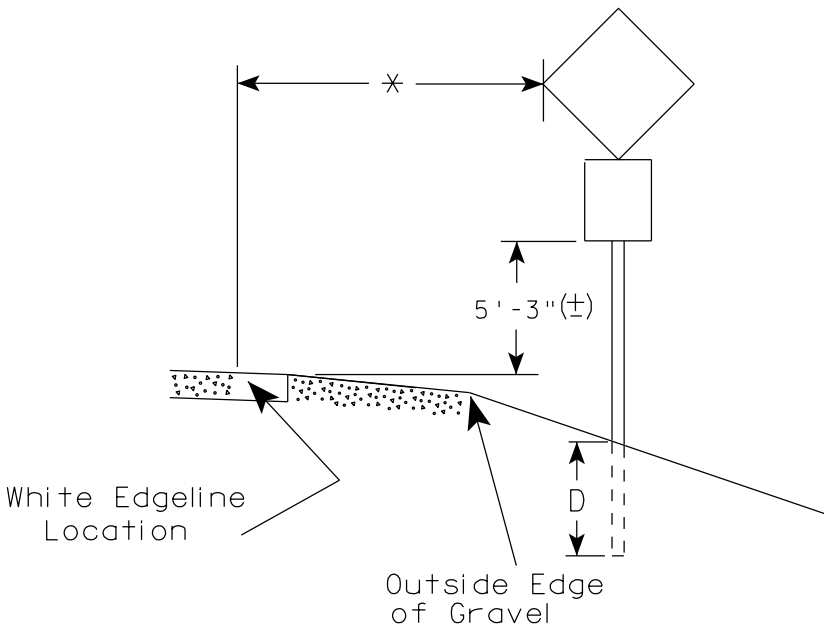
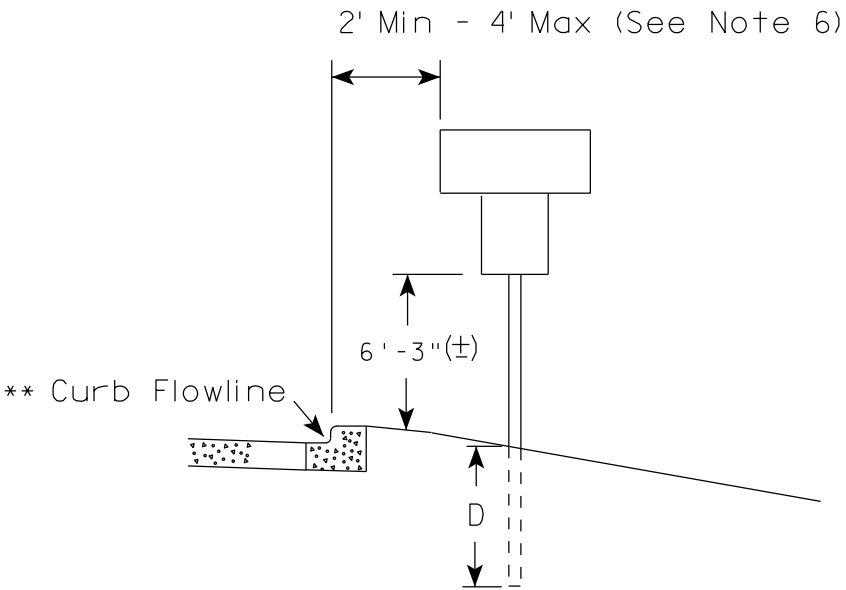
URBAN AREA



RURAL AREA (See Note 2)



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



POST EMBEDMENT DEPTH

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

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

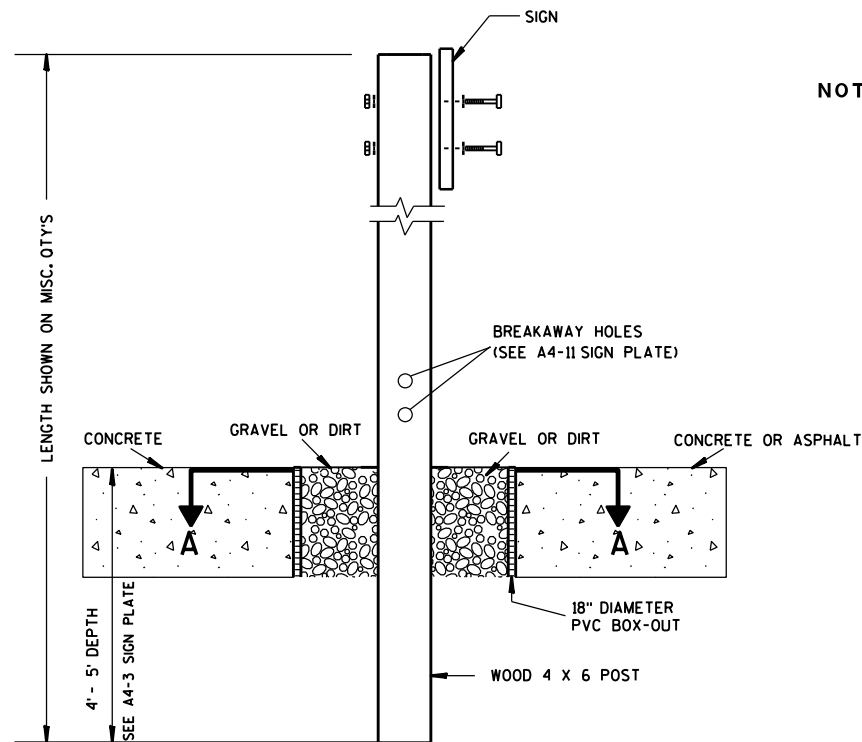
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

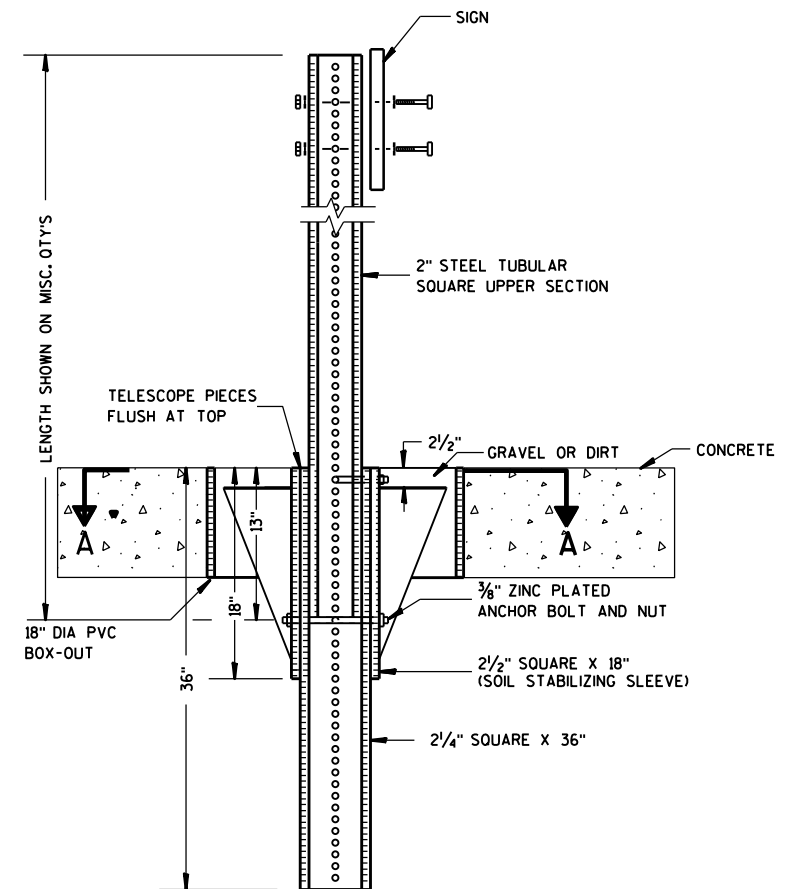
DATE 7/23/15 PLATE NO. A4-3.20



ELEVATION VIEW

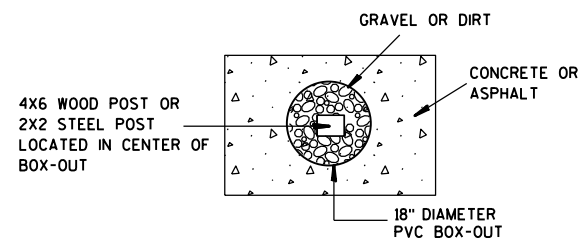
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

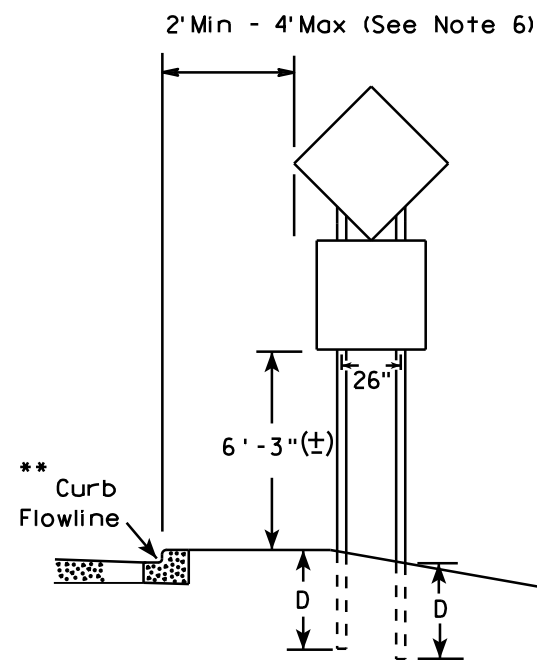
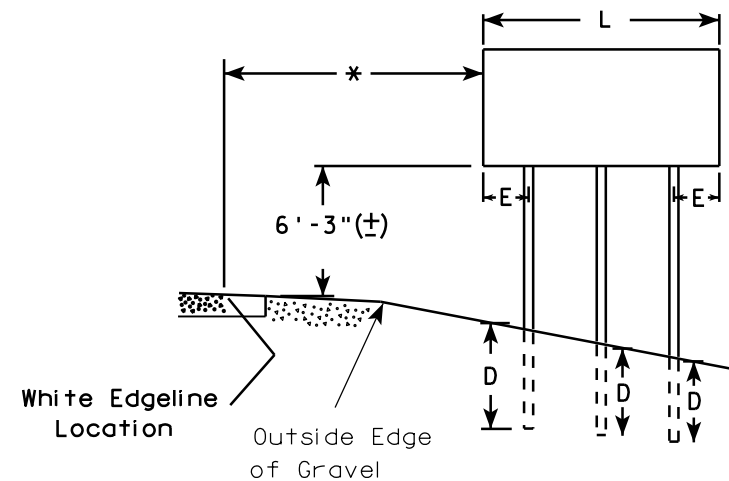
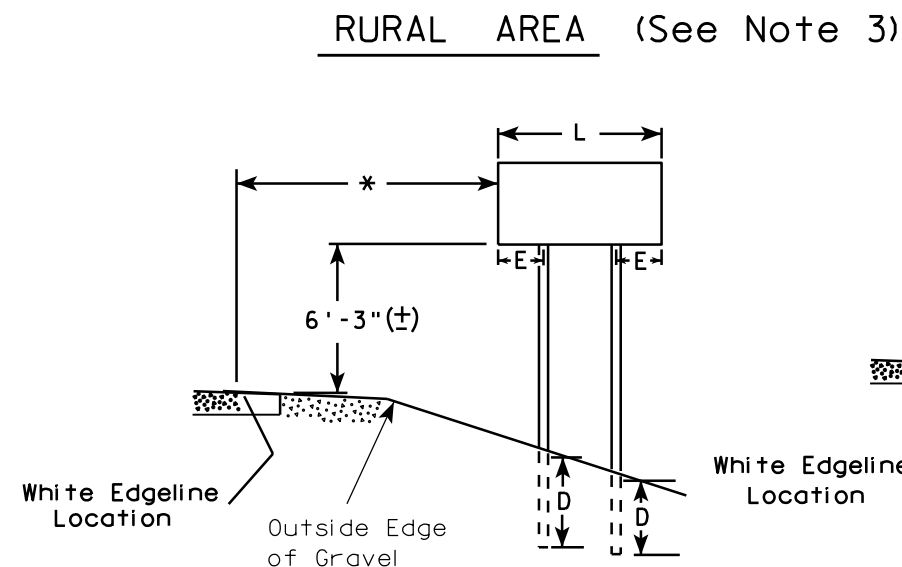
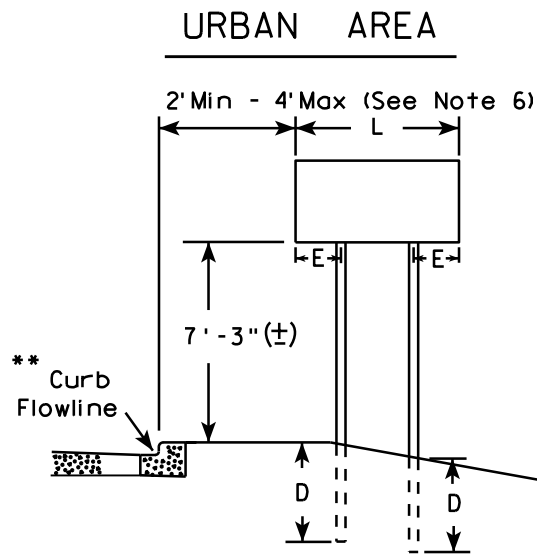
FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

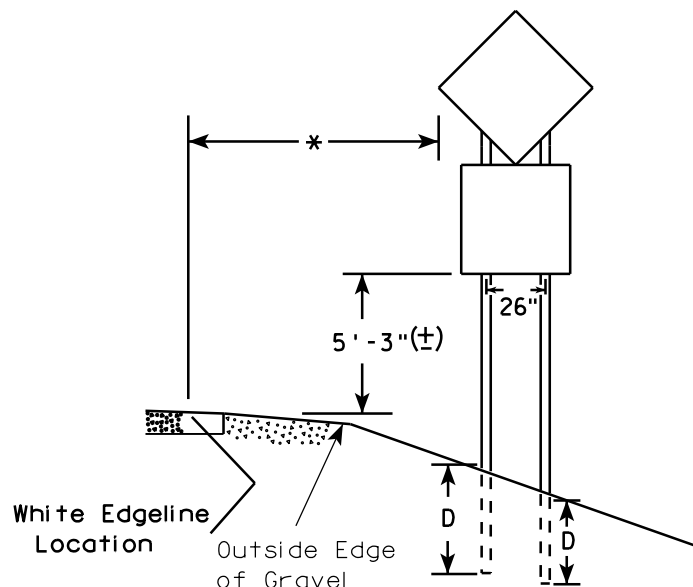
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



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

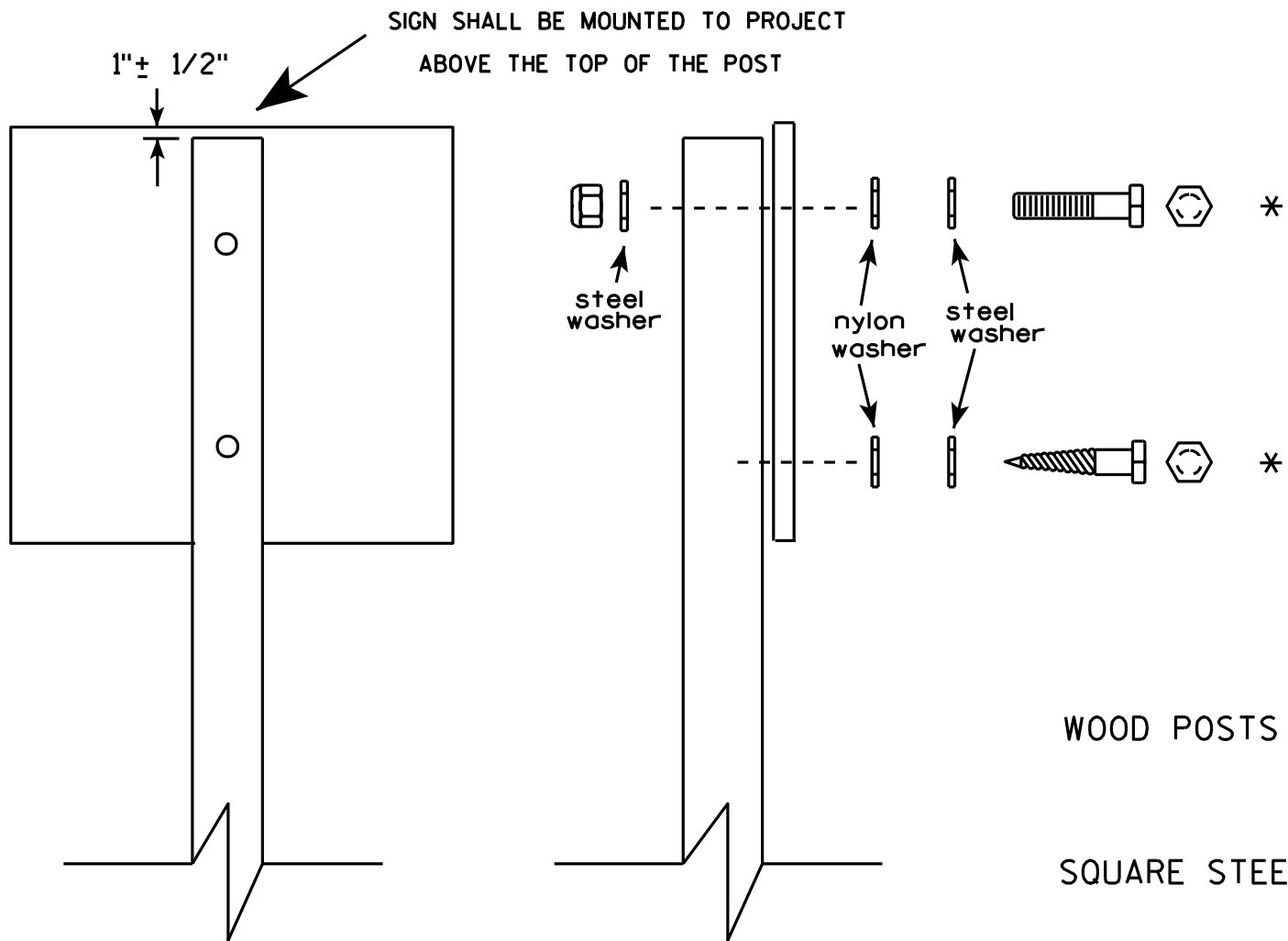
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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

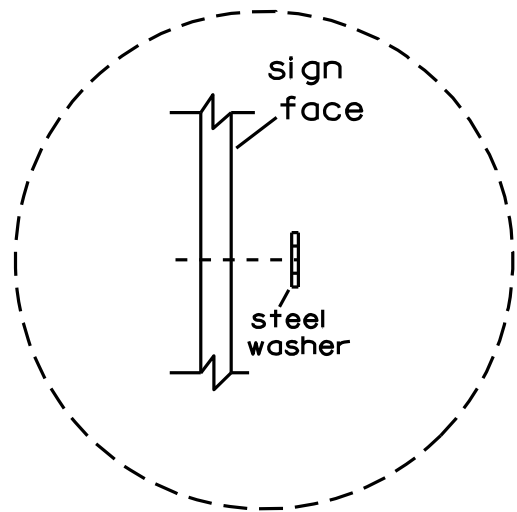


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

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



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

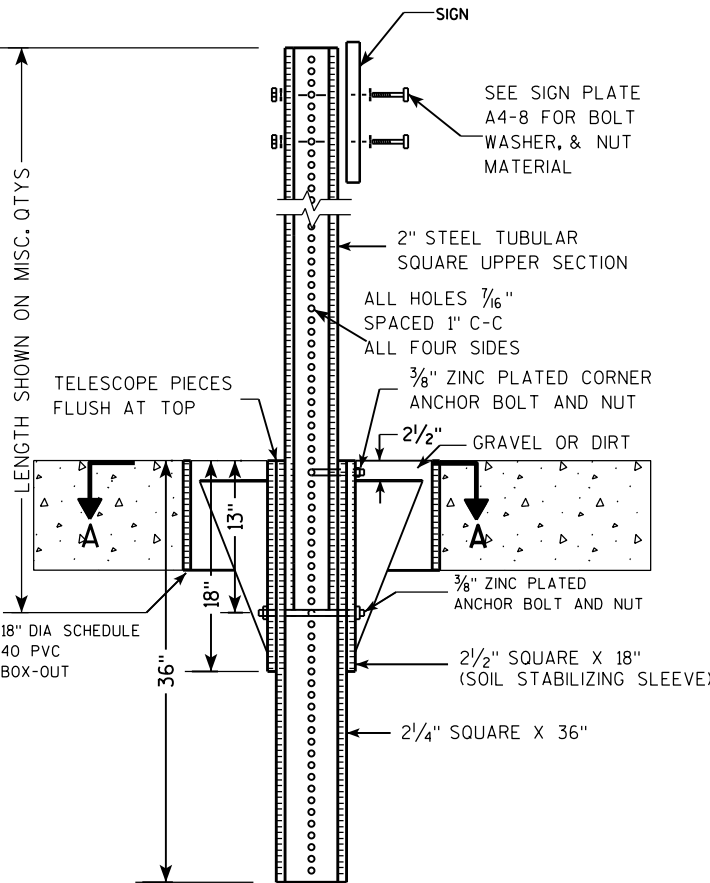
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

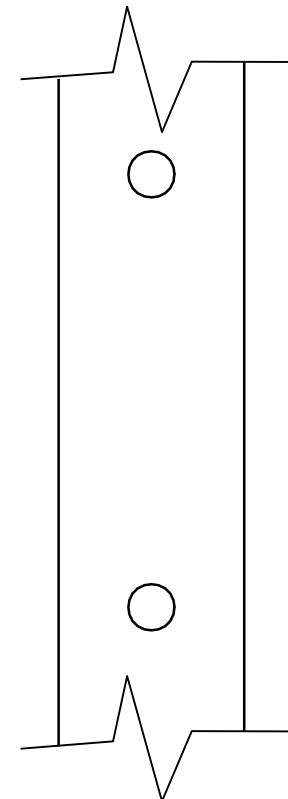
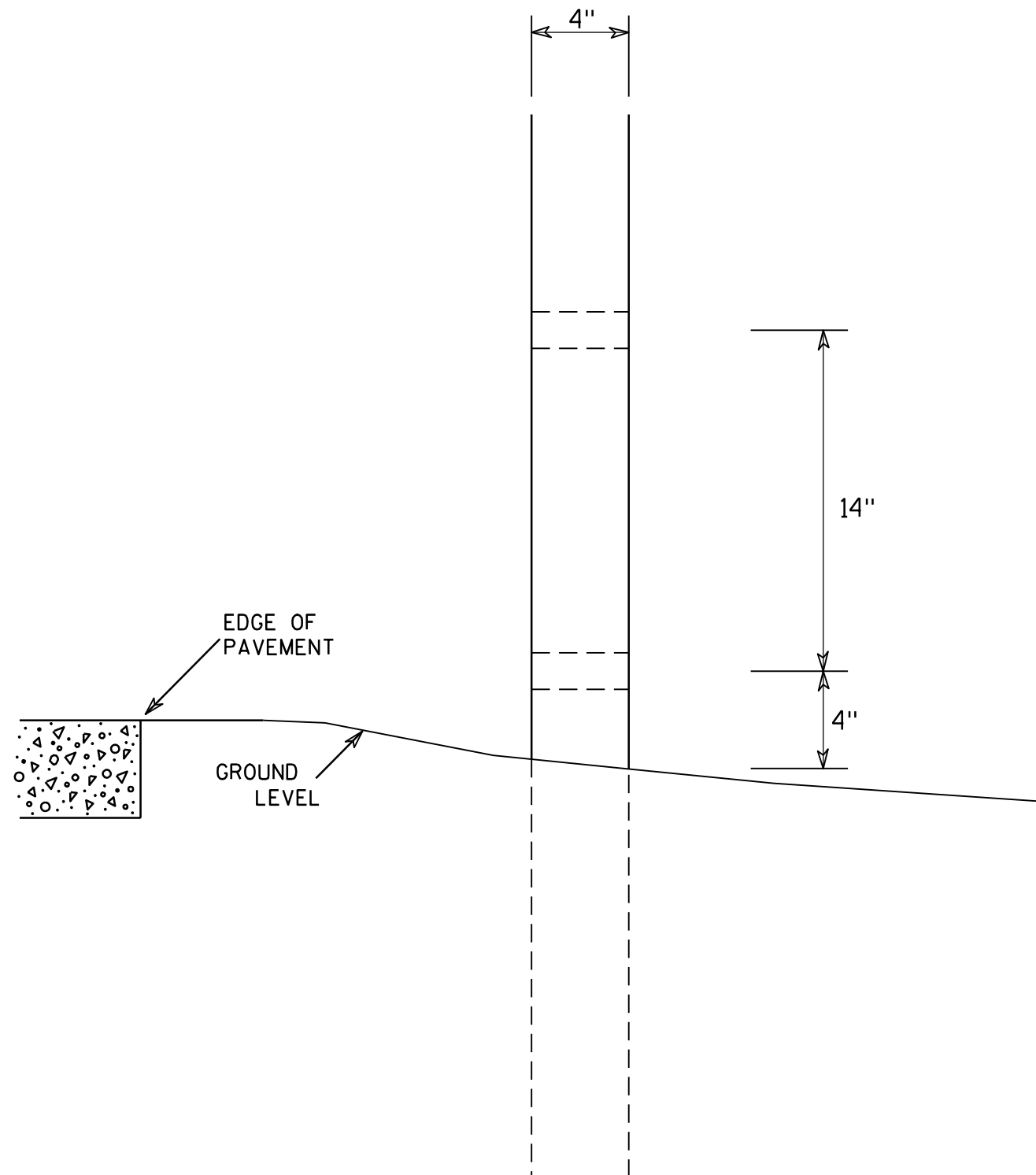
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

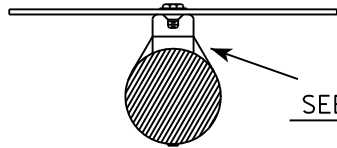
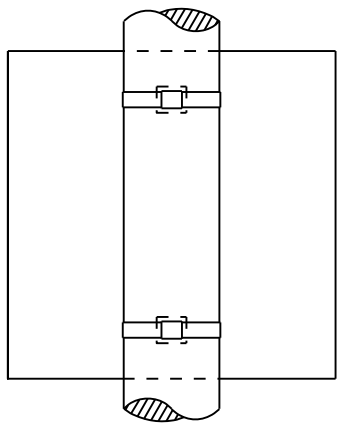
COUNTY:

SHEET NO:

E

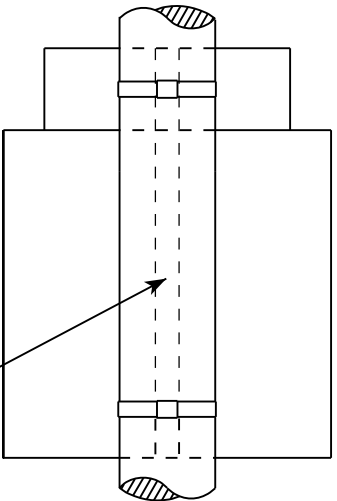
BANDING

SINGLE SIGN

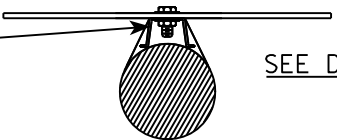


SEE DETAIL A

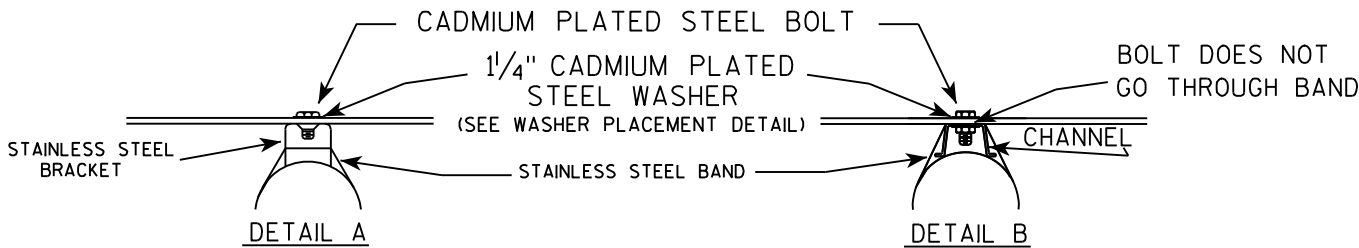
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



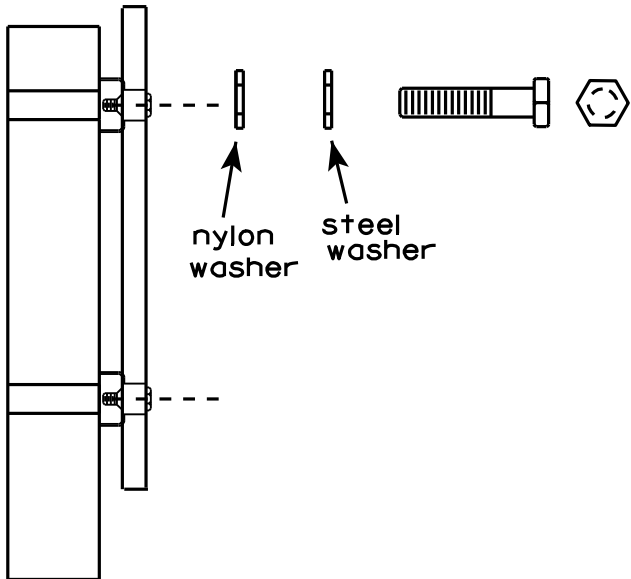
SEE DETAIL B



GENERAL NOTES

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

WASHER PLACEMENT



nylon washer

steel washer

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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 8/16/13

PLATE NO. A5-9.3

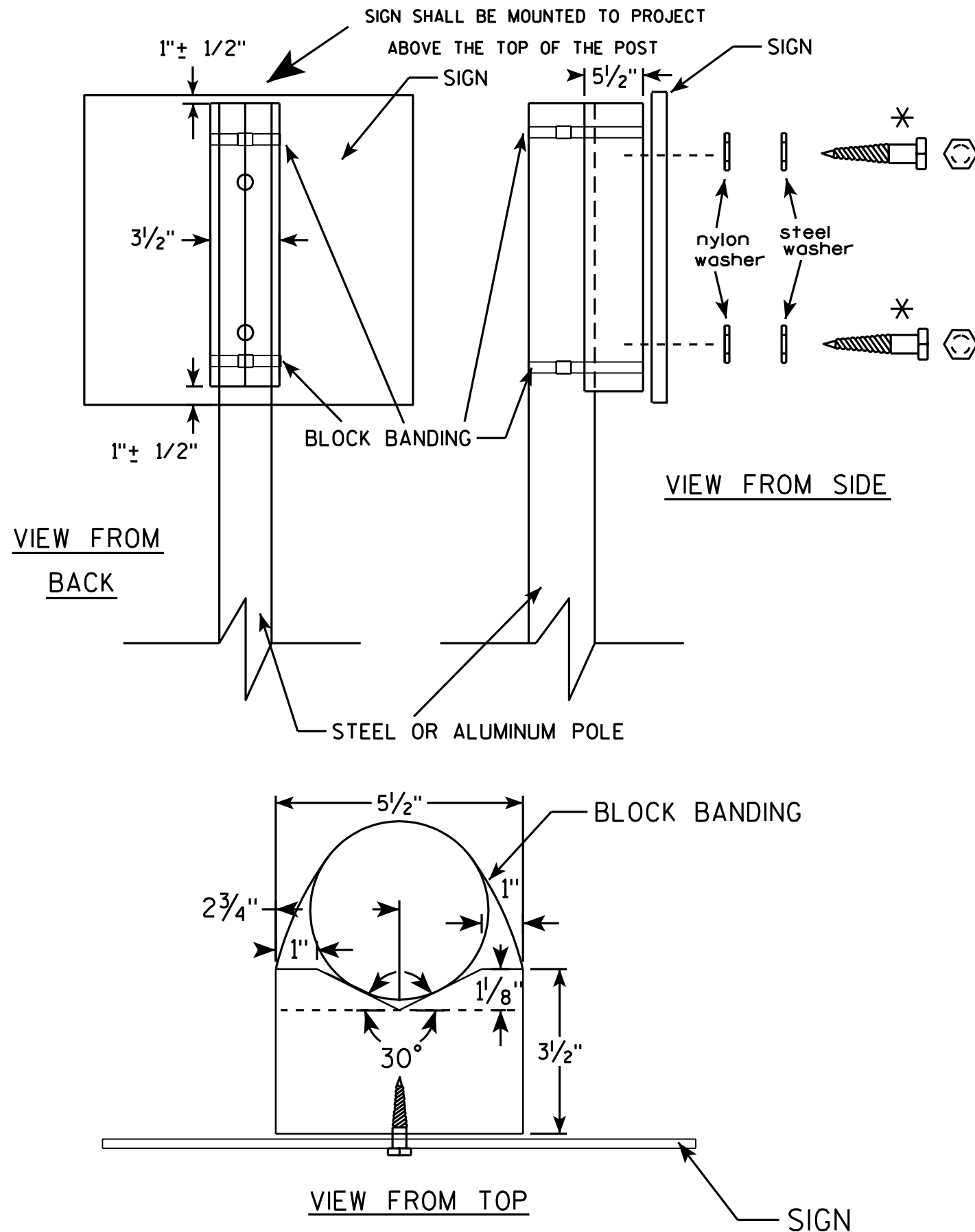
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

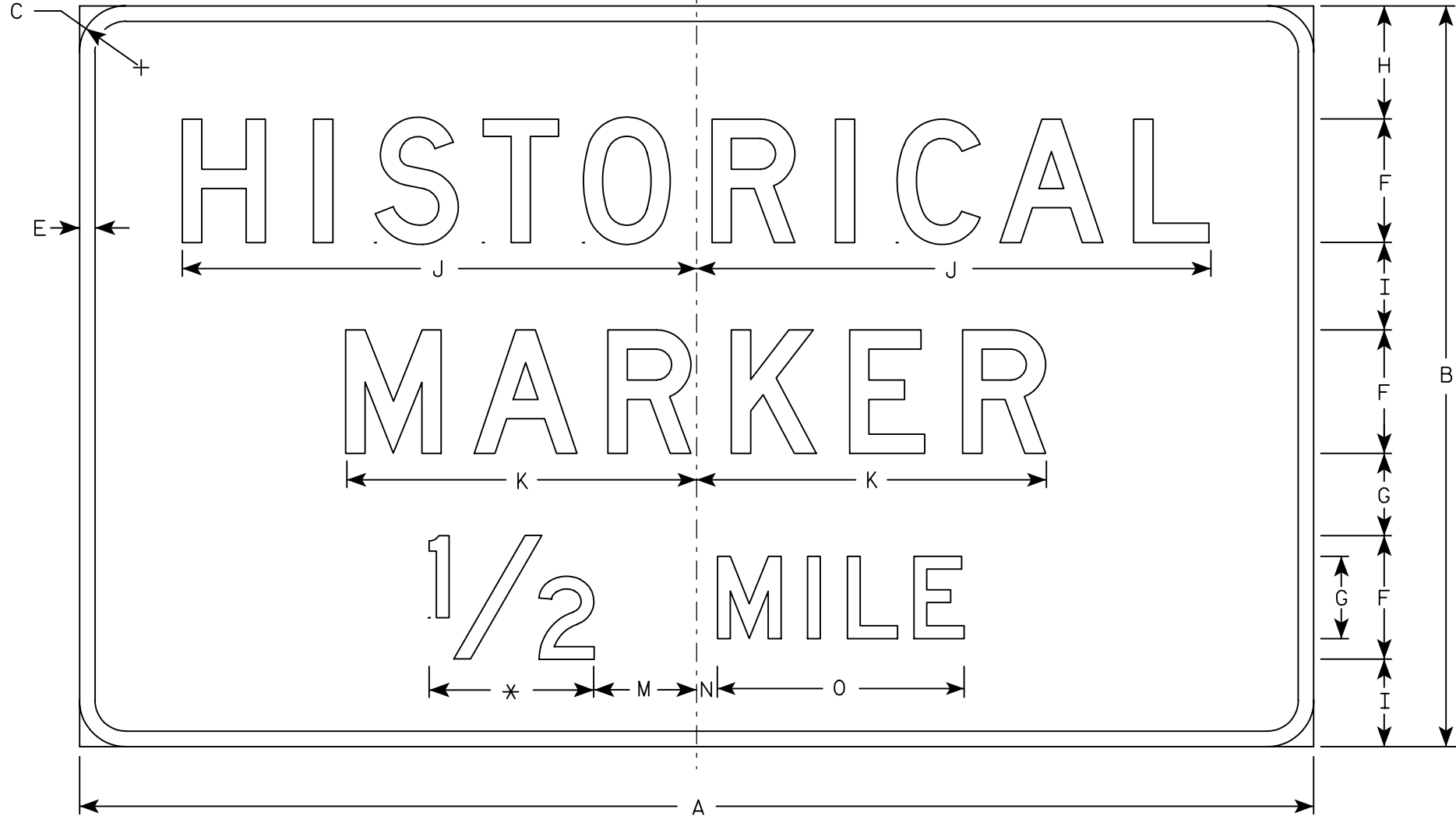
SHEET NO:

E

50, 53, 60, 61, 62, 63

7

LEVELS ON - 2, 3, 5, 6



D5-63 * See Note 5

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																												

STATE PROJECT NUMBER:

FILE NAME : C:\Users\Projects\tr_std\plate\D563.DGN

PLOT DATE : 09-JAN-2002 13:18

ORG DATE : 3/23/99

Originator : Don Kluever

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 - 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.

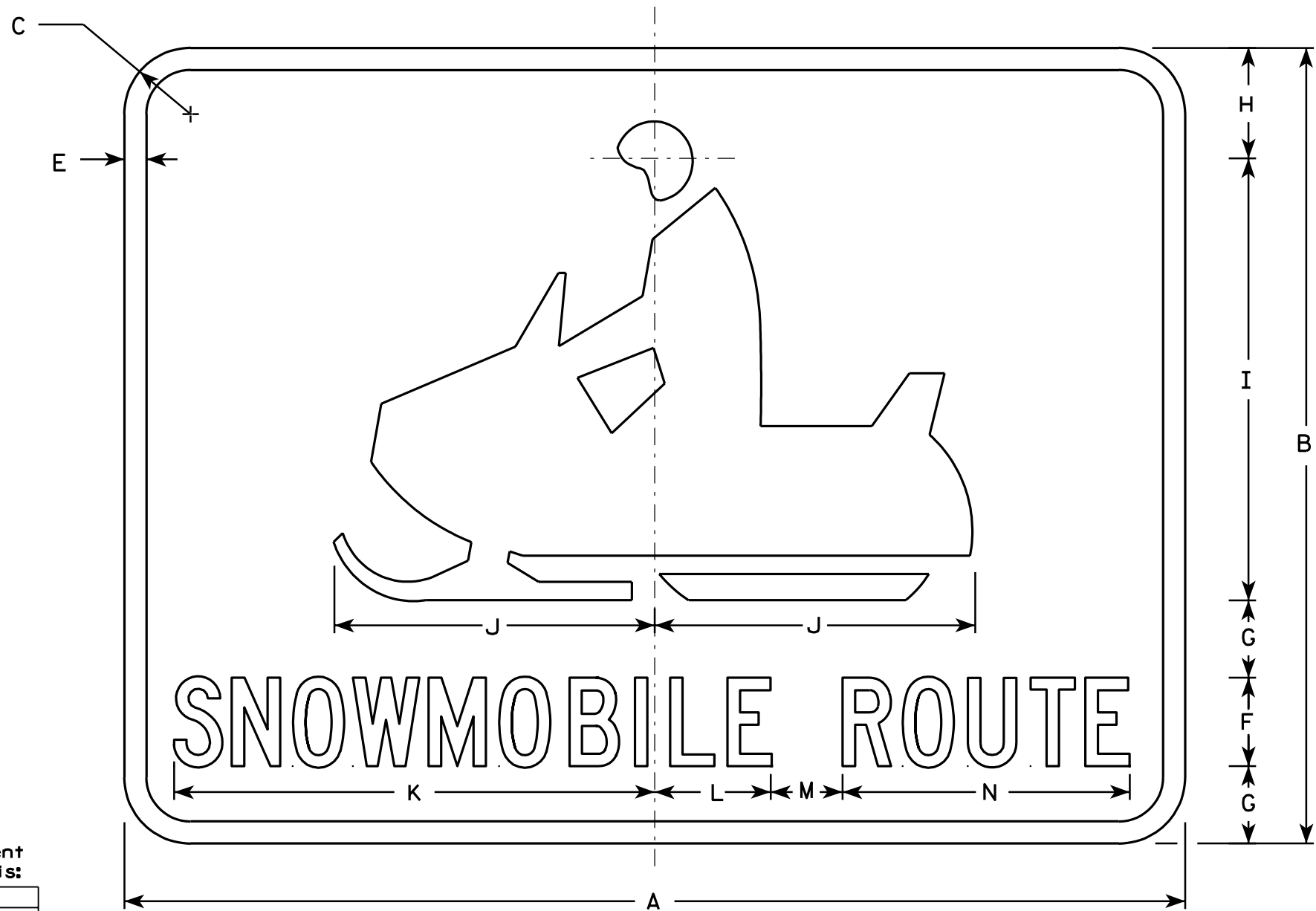
STANDARD SIGN
D5-63

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Christa J. Spang
for State Traffic Engineer

DATE 3/23/99 PLATE NO. D5-63.9

7



D11-6

Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 450 mm
3	
4	
5	

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.	Area m ²
1																												
2	24	18	1½		½	2	1¾	2½	10	7¼	10⅞	2⅝	1⅝	6½													3.0	0.27
3																												
4																												
5																												

PROJECT NO:

STANDARD SIGN
D11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Cheta J. Spay
State Traffic Engineer

DATE 1/16/02

PLATE NO. D11-6.6

SHEET NO:

E

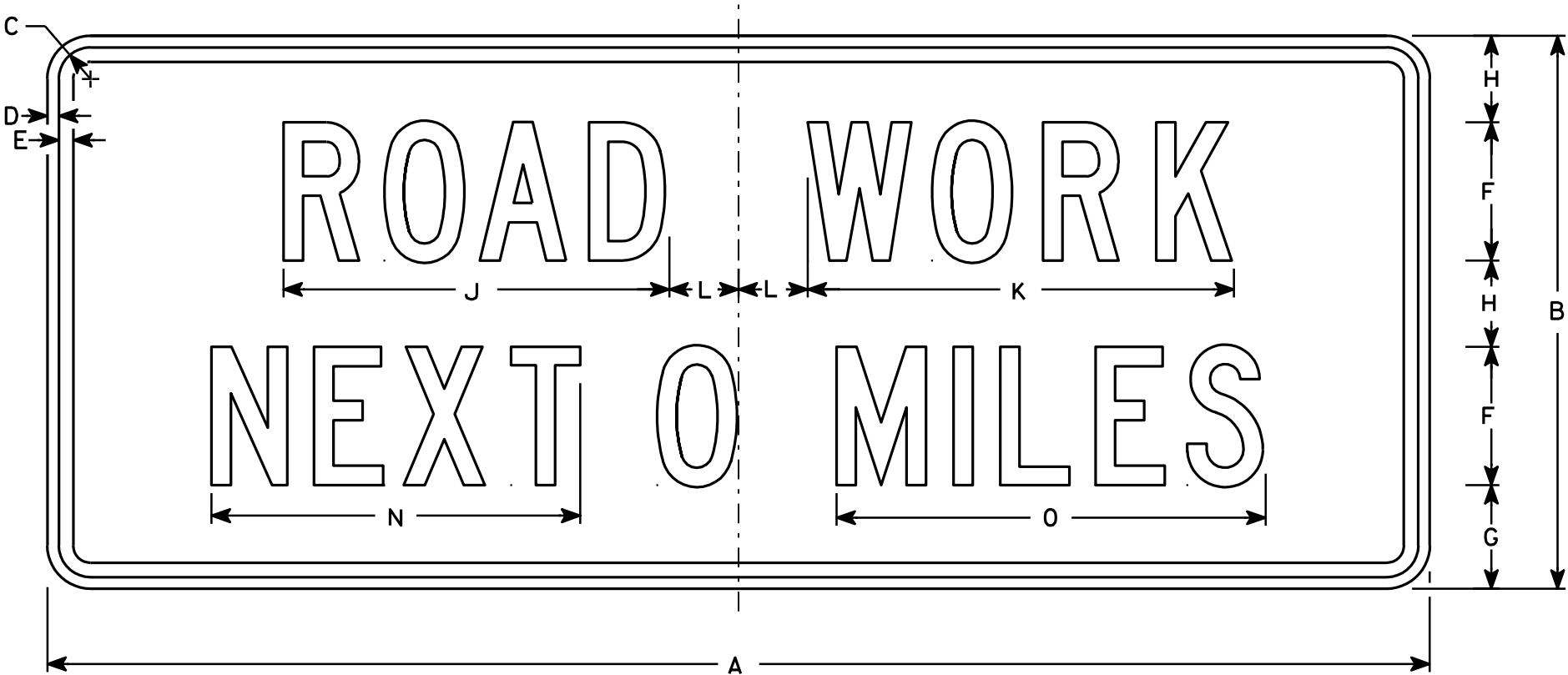
7

NOTES

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

NOTES

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



G20-1

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 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 m ²
1																												
2	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
3																												
4	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
5																												

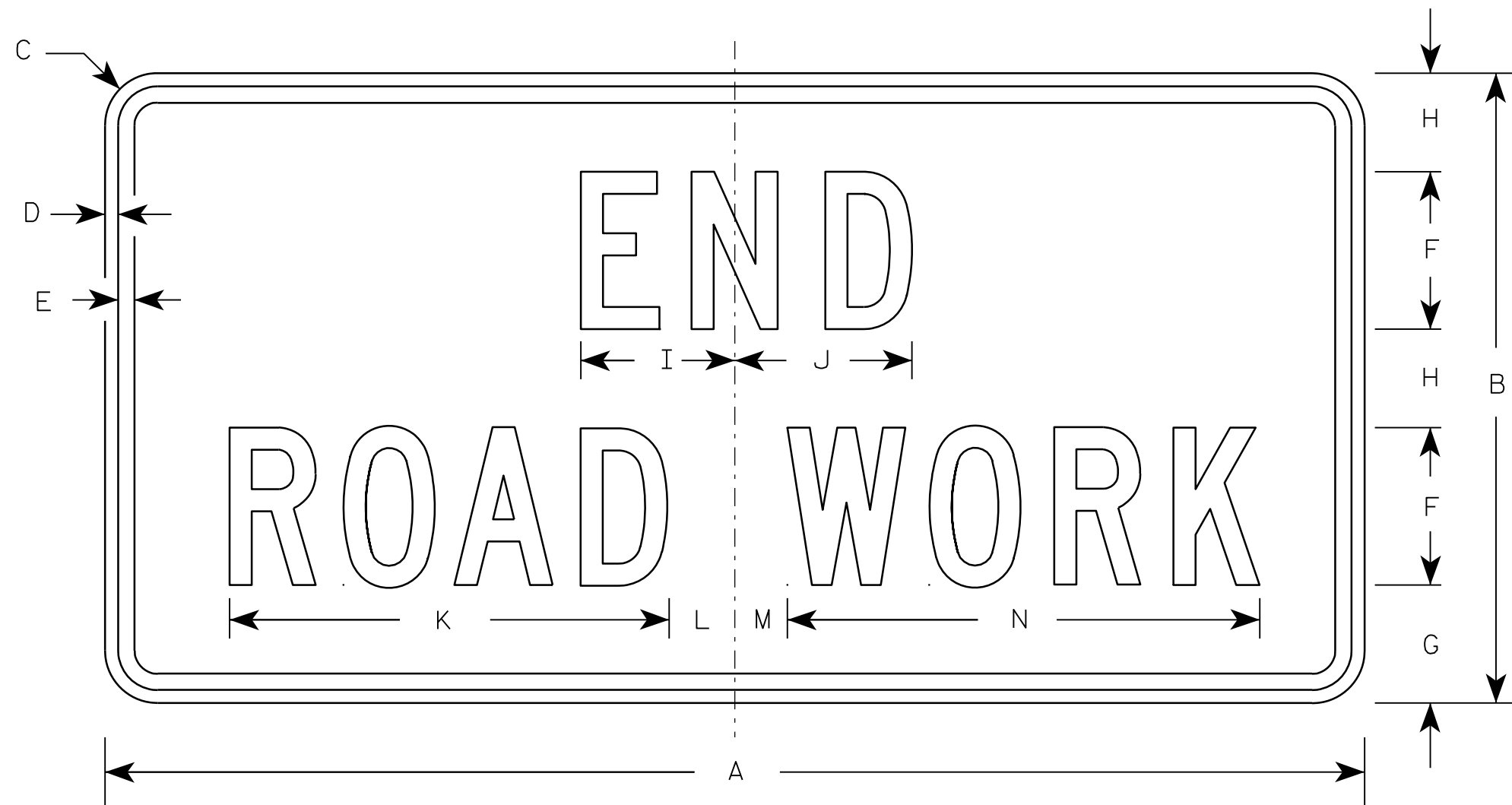
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chris J. Spay
State Traffic Engineer
DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



G20-2A

NOTES

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

Metric equivalent
for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

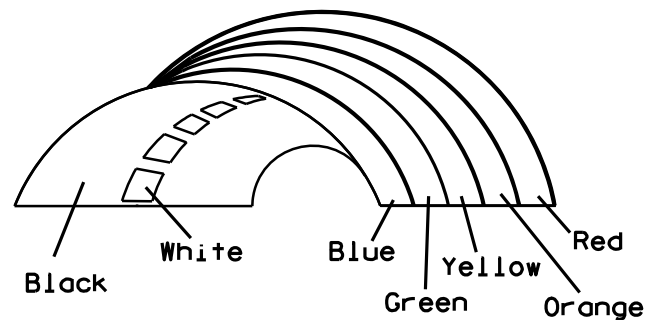
DATE 9/30/09 PLATE NO. G20-2A.8

7



* VARIES

Background Colors of Symbol*



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

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

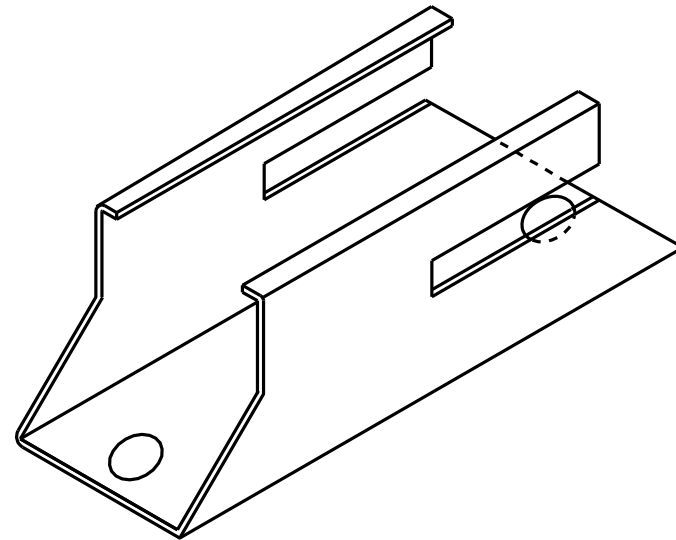
COUNTY:

SHEET NO:

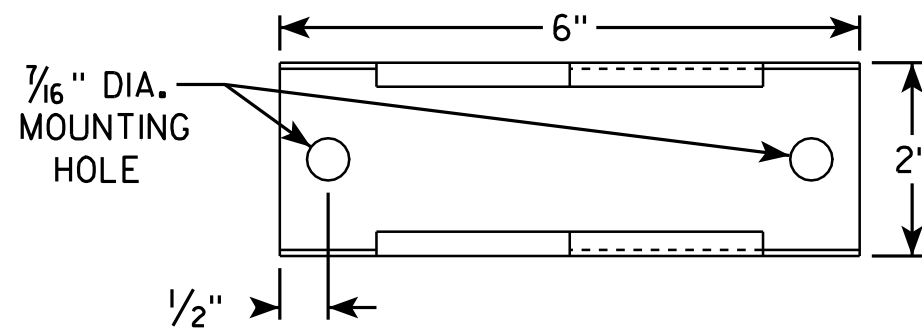
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 4/27/11 PLATE NO. I55-56.3

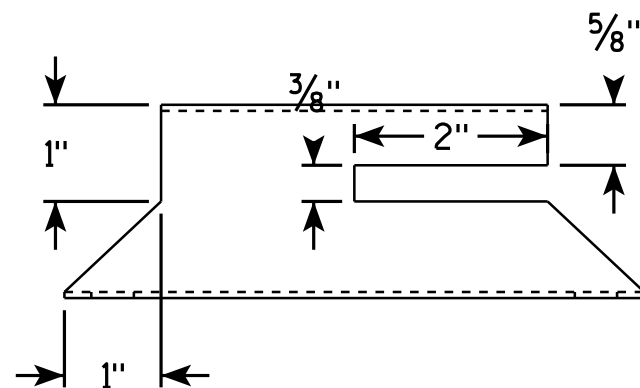
ISOMETRIC VIEW



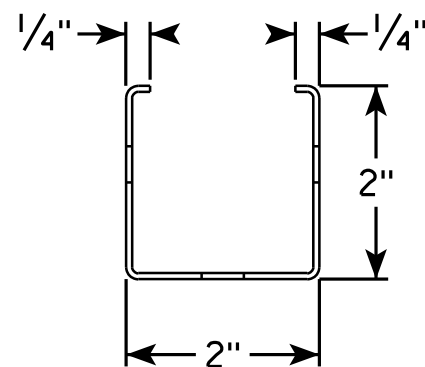
TOP VIEW



SIDE VIEW



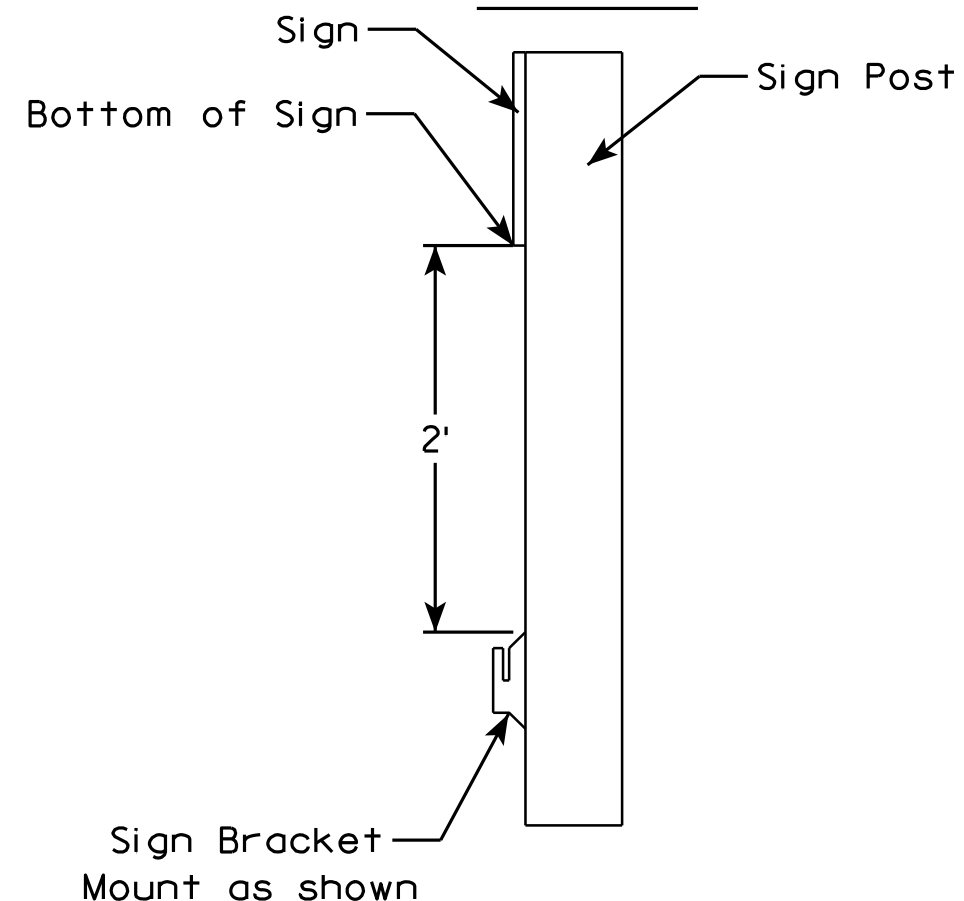
END VIEW



NOTES

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

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO:

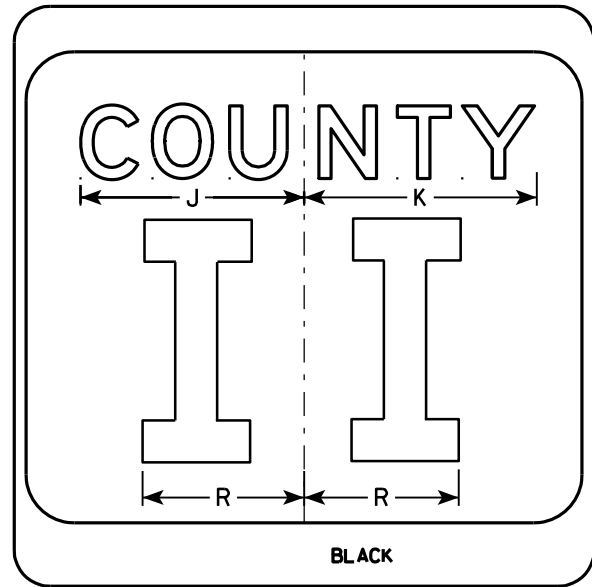
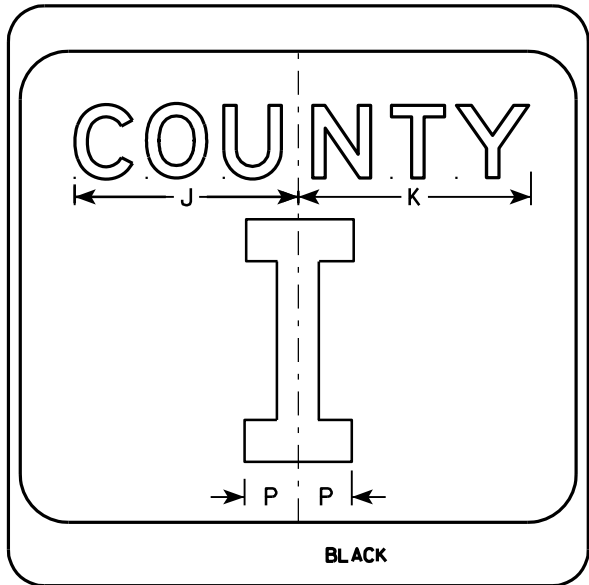
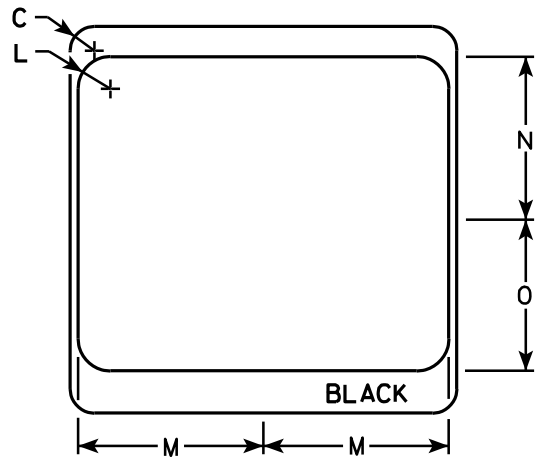
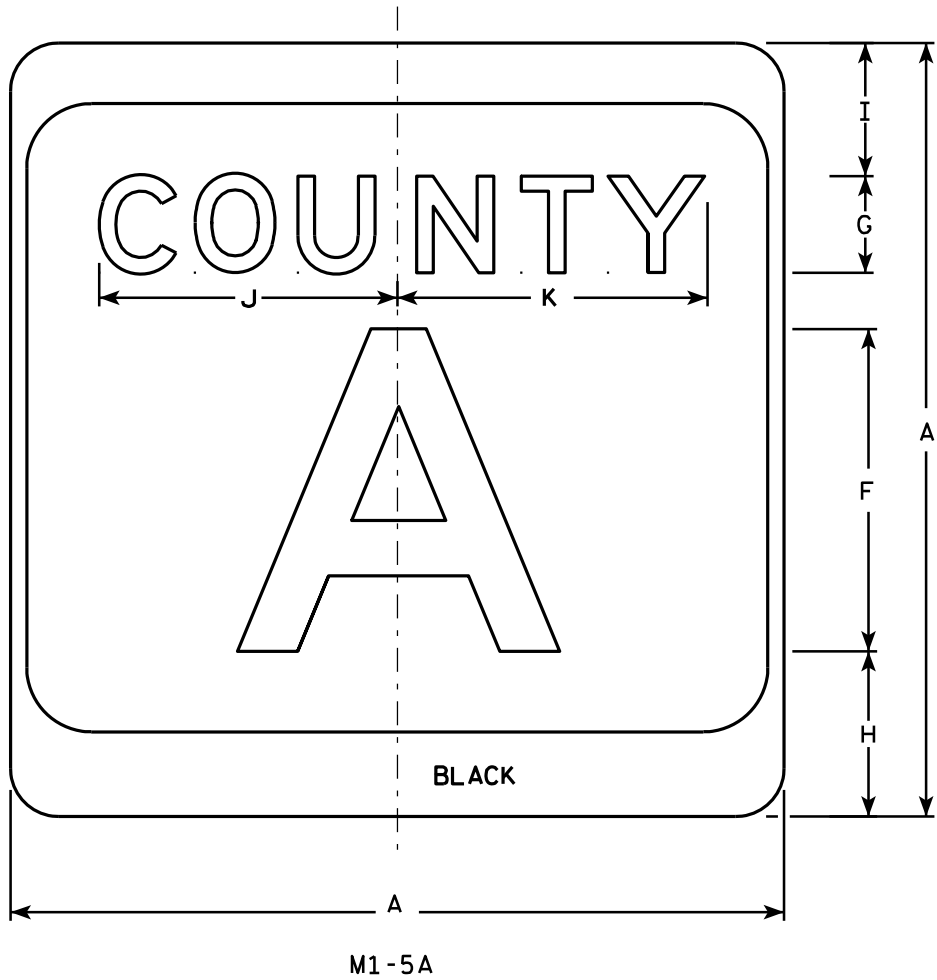
HWY:

COUNTY:

SHEET NO:

E

7



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

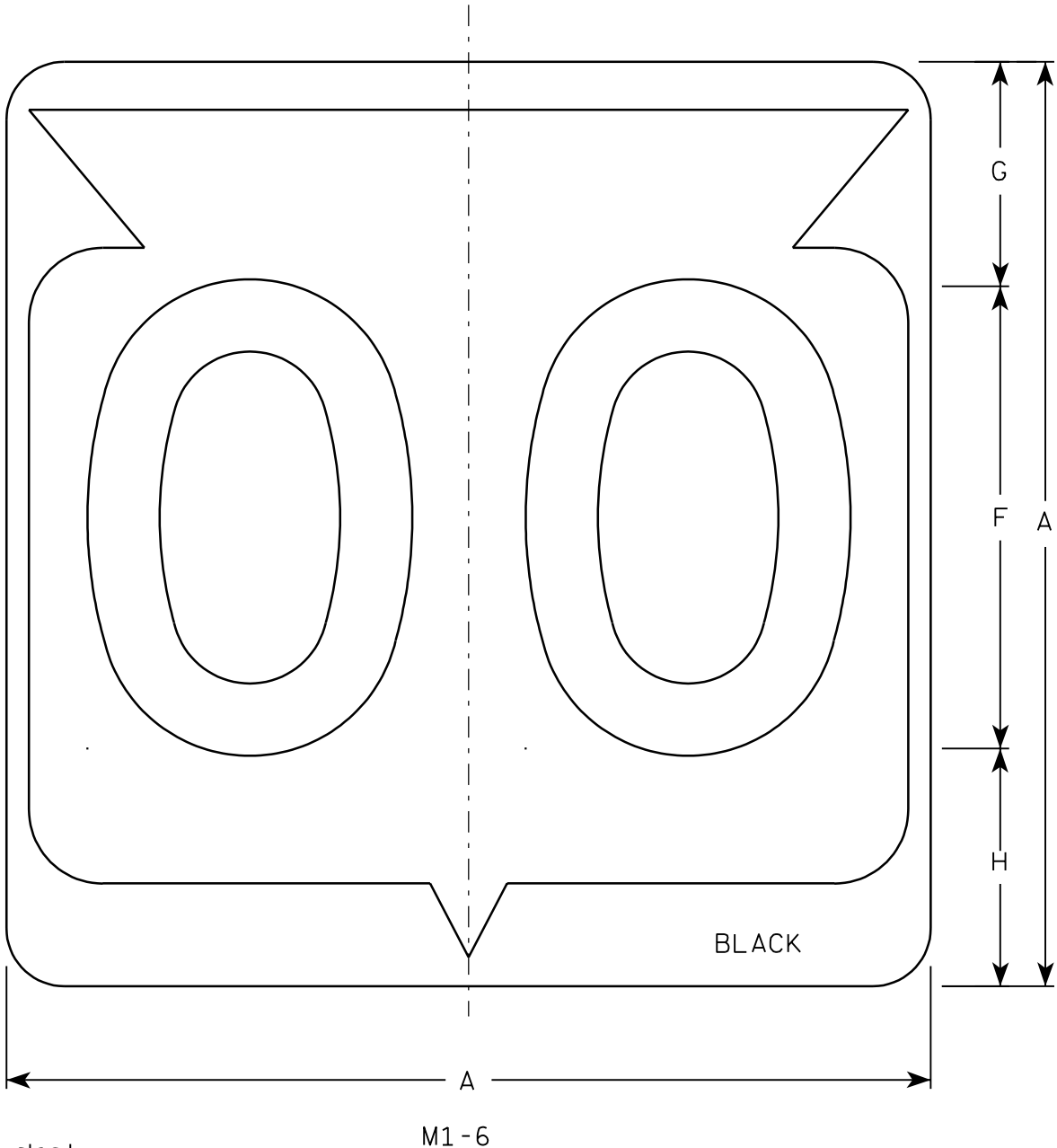
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/27/11	PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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7

7



Metric equivalent
for this sign is:

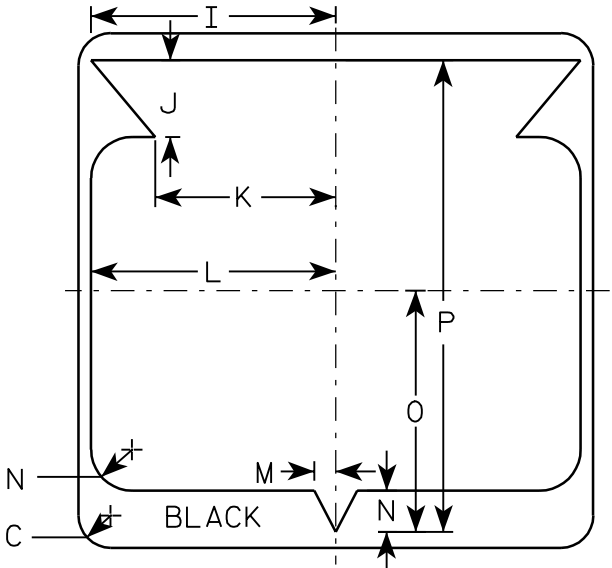
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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

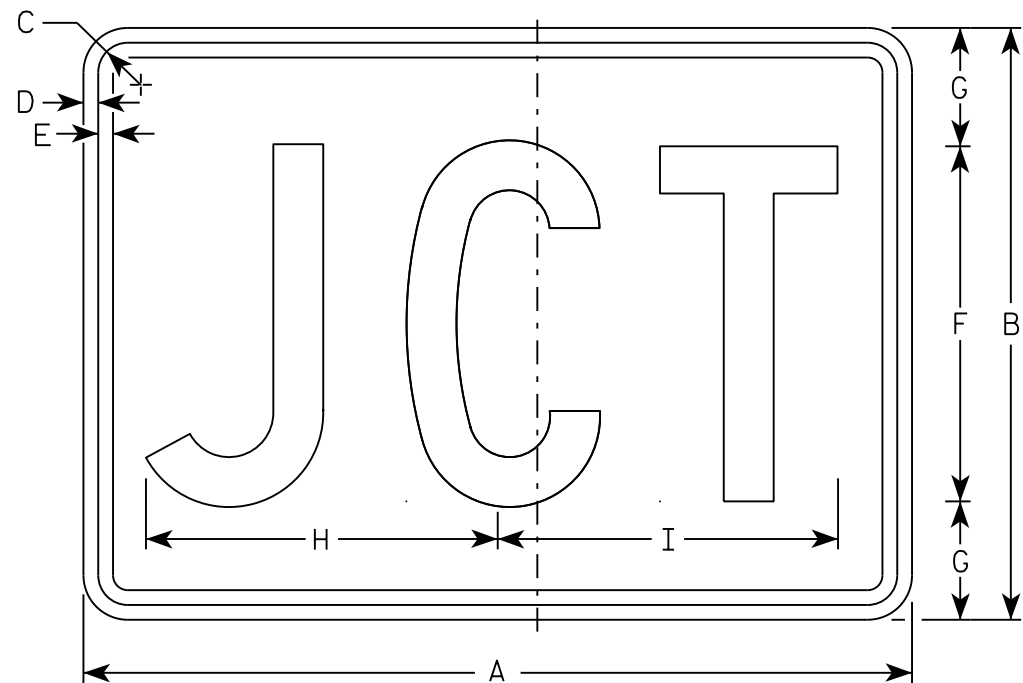
PROJECT NO:				HWY:				COUNTY:																SHEET NO:				E
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NOTES

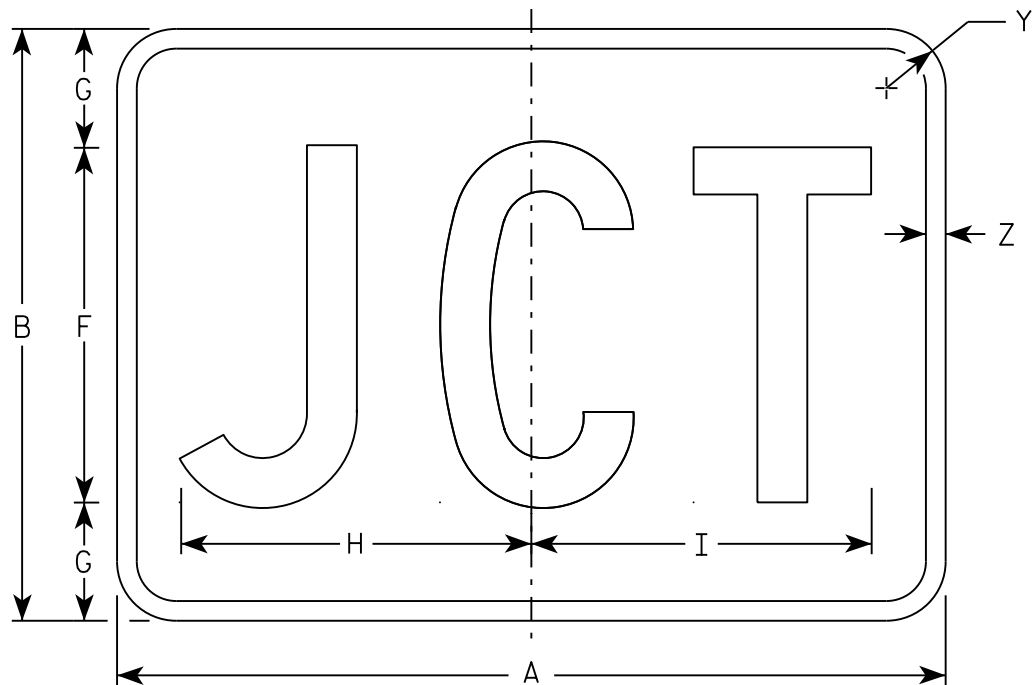
1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders 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



7



M2-1
MM2-1
MP2-1



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

NOTES

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

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

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

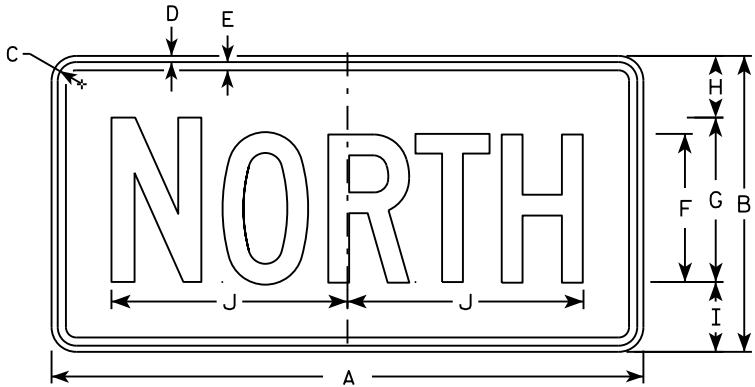
APPROVED

Matthew R. Rauch

For State Traffic Engineer

DATE 10/15/15

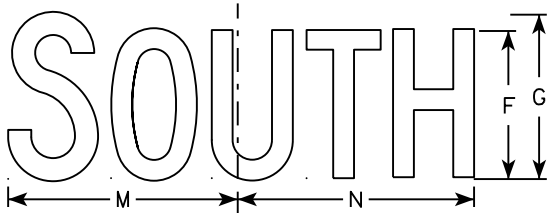
PLATE NO. M2-1.12



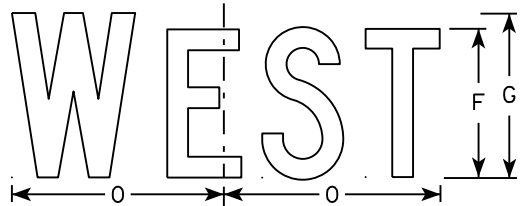
M3-1
MM3-1
MP3-1



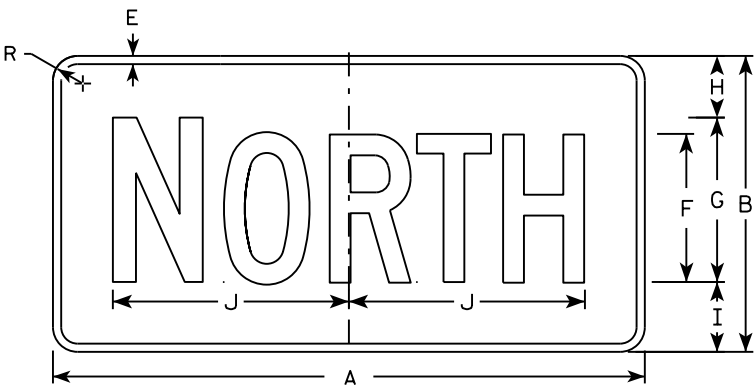
M3-2
MM3-2
MP3-2



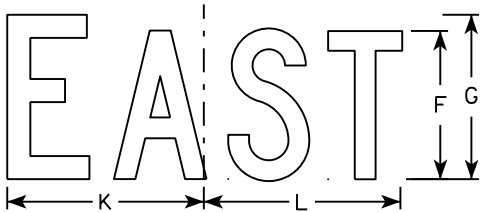
M3-3
MM3-3
MP3-3



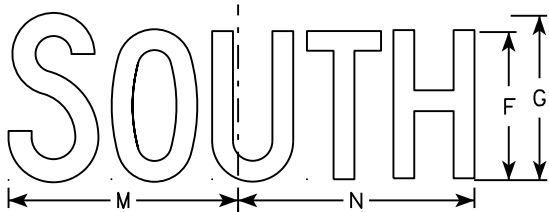
M3-4
MM3-4
MP3-4



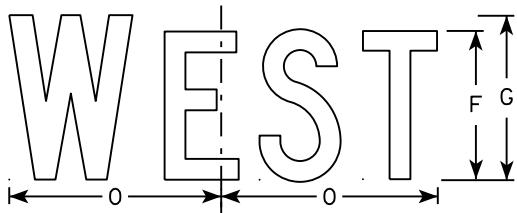
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

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

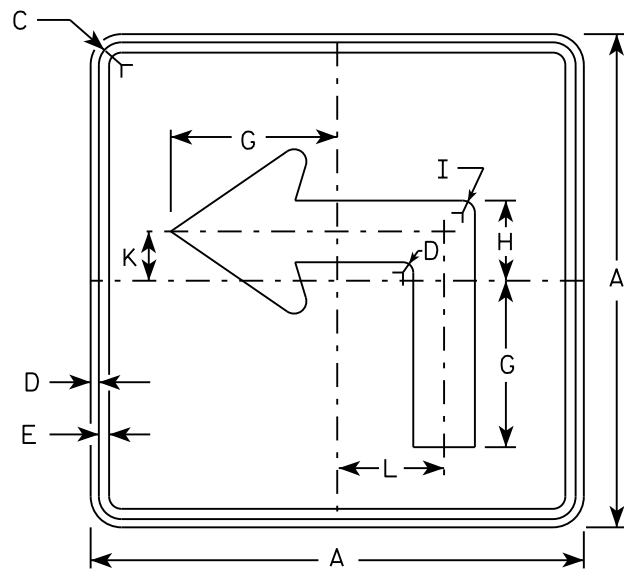
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

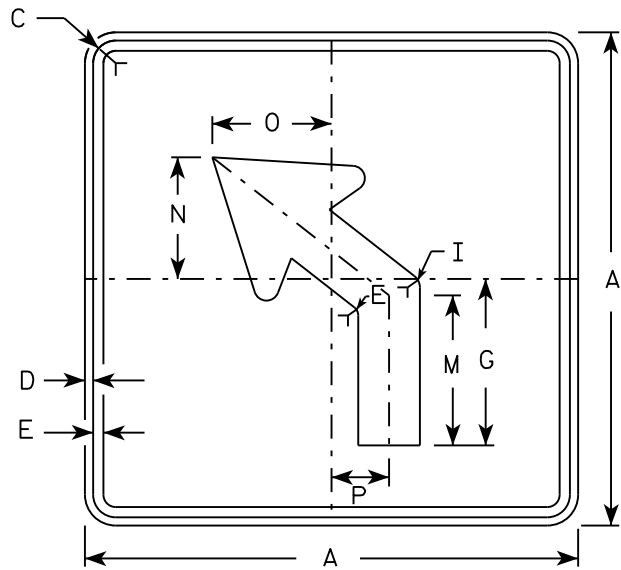
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

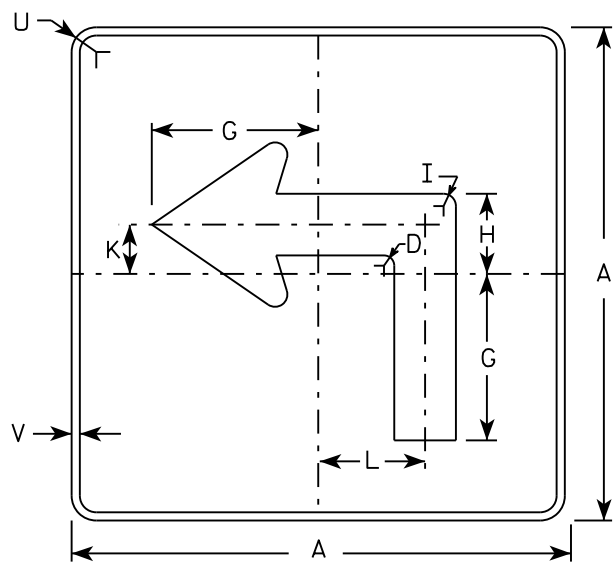
DATE 10/15/15 PLATE NO. M3-1.14



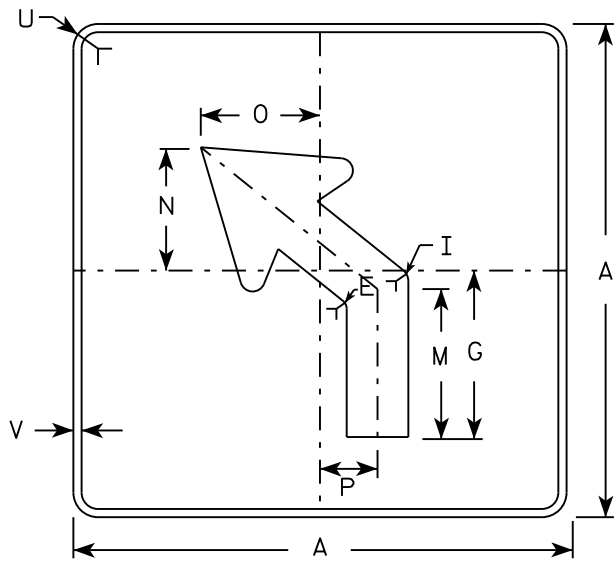
M5-1L
MM5-1L
M05-1L
MP5-1L



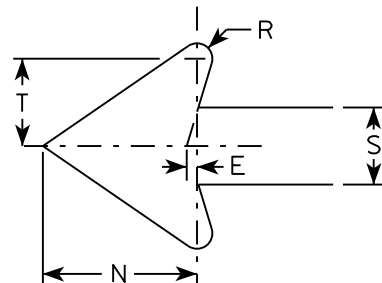
M5-2L
MM5-2L
M05-2L
MP5-2L



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



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



NOTES

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

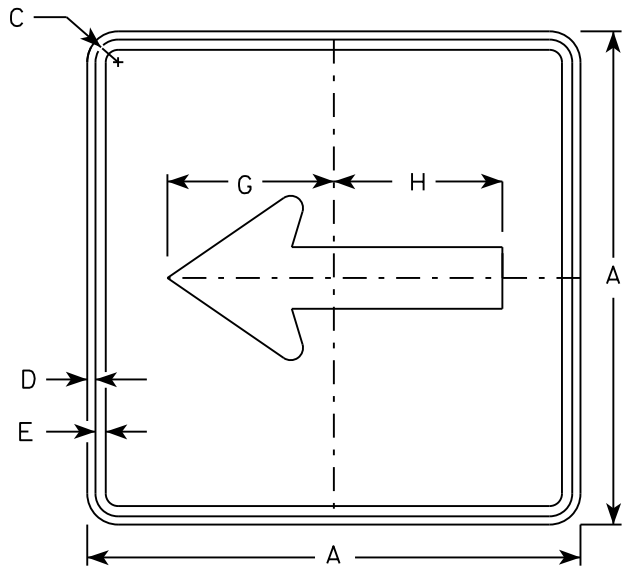
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

STANDARD SIGN
M5-1 & M5-2

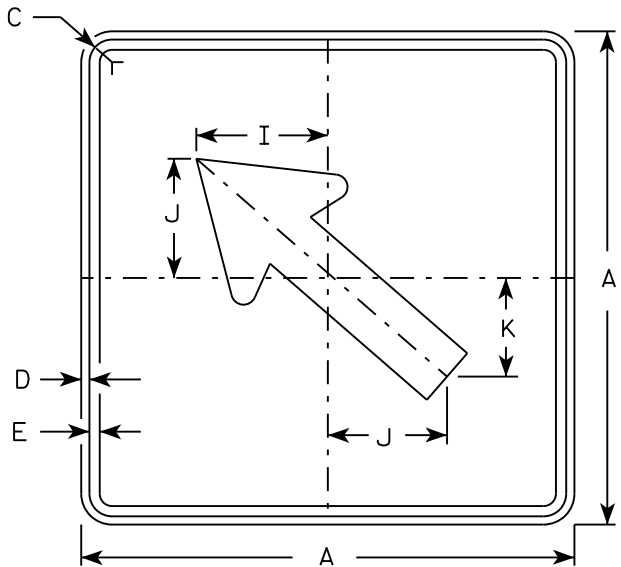
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

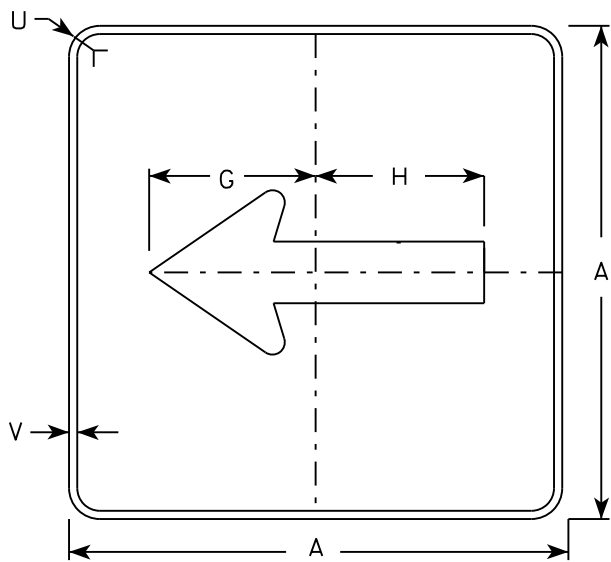
DATE 10/15/15 PLATE NO. M5-1.13



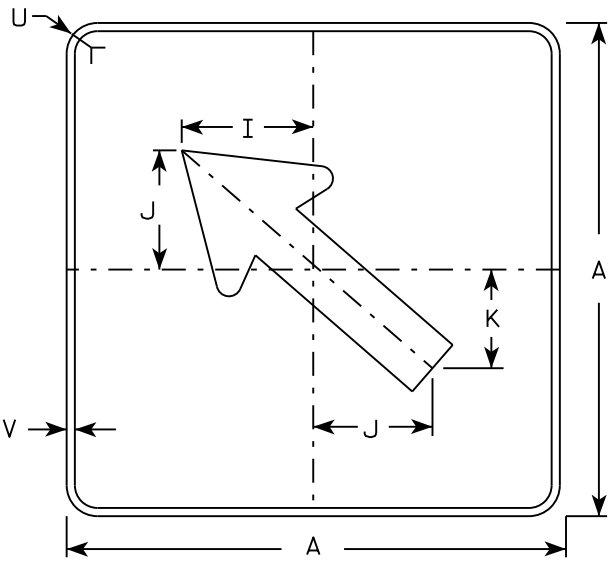
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



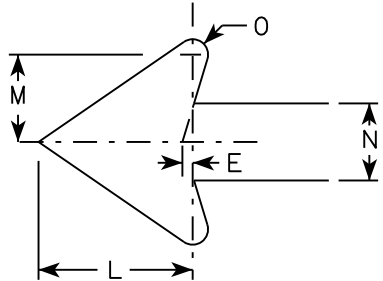
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



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



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



NOTES

- 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
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

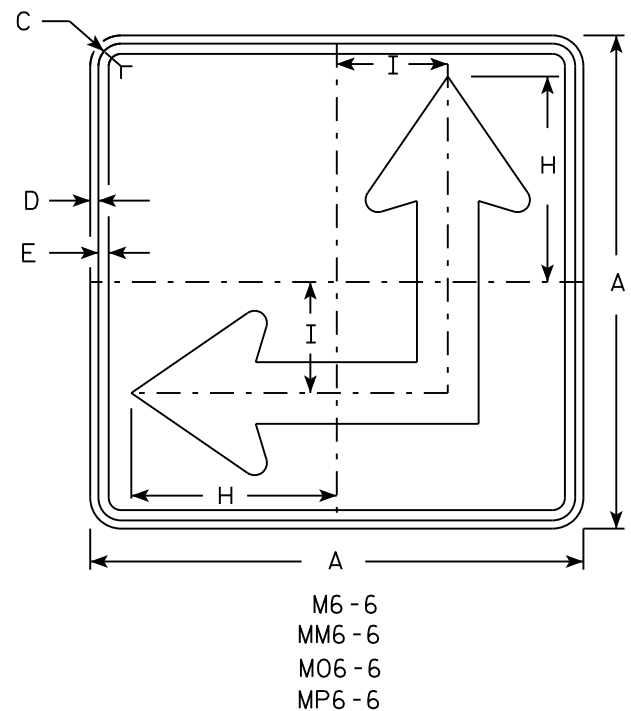
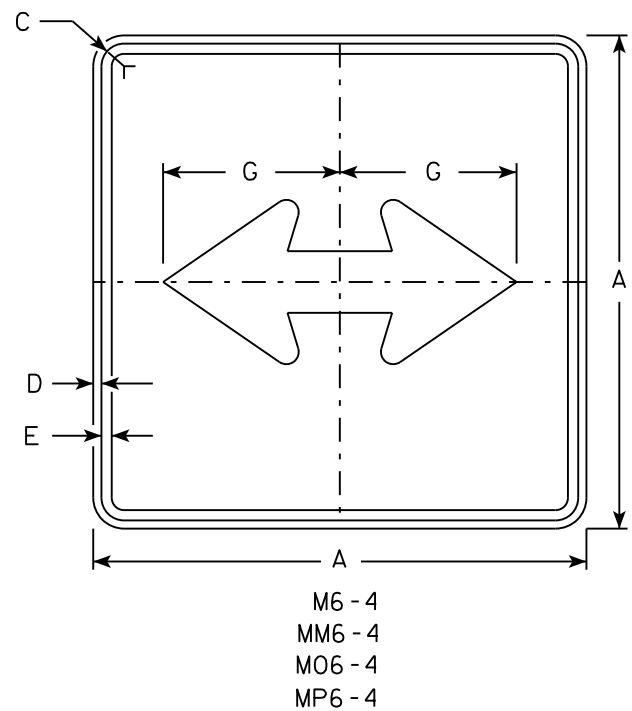
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

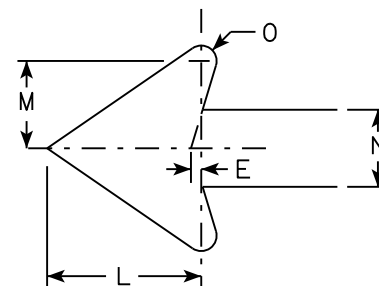
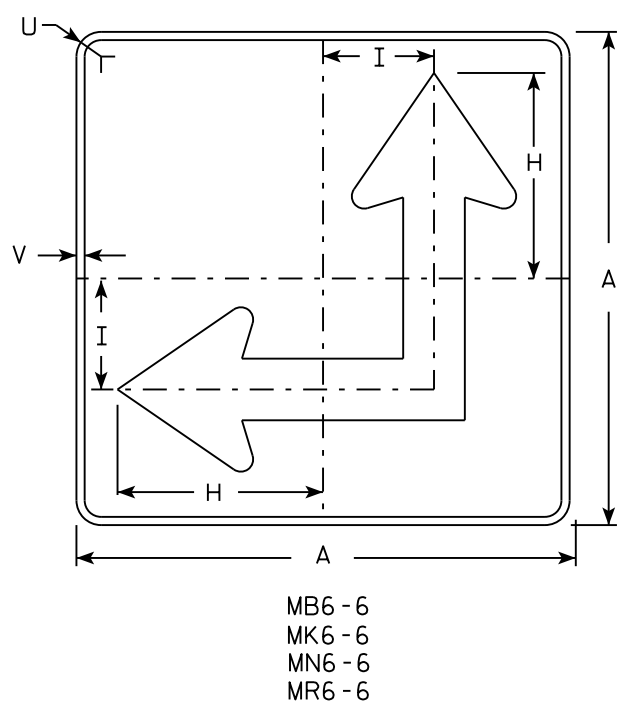
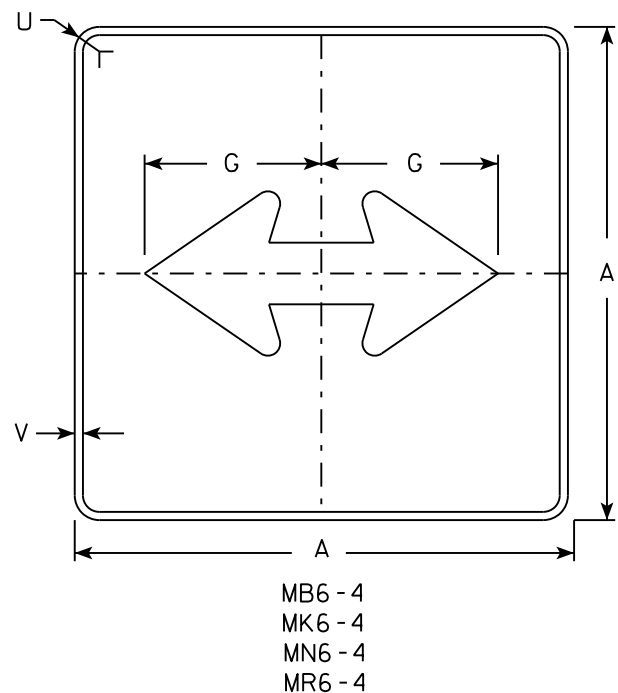
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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



- NOTES
- Signs are Type II - Type H except as Shown
 - Color:
Background - See Note 4
Message - See Note 4
 - Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - M6-4 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
M06-4 and M06-6 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
 - 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

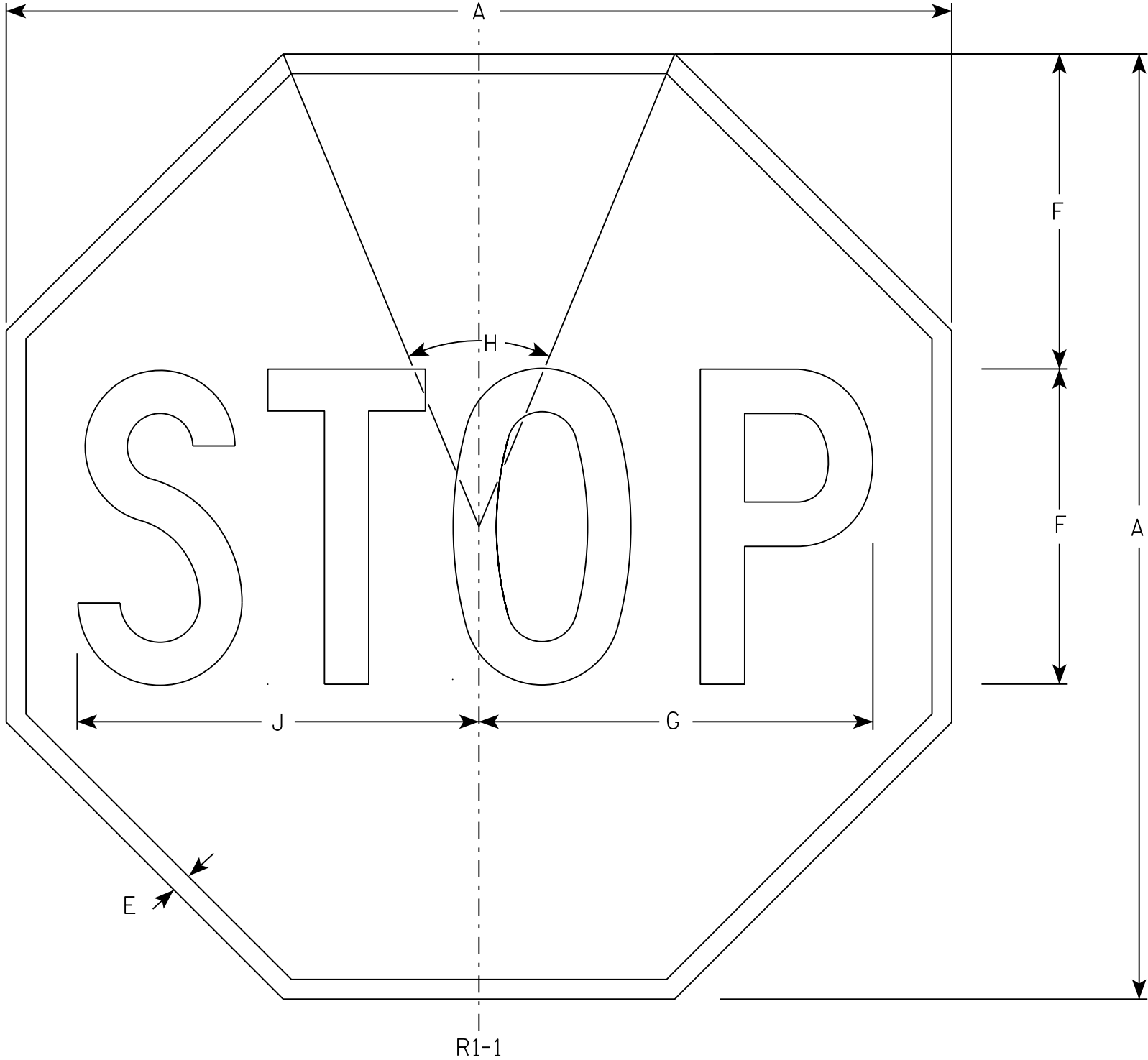
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-4.10



NOTES

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

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

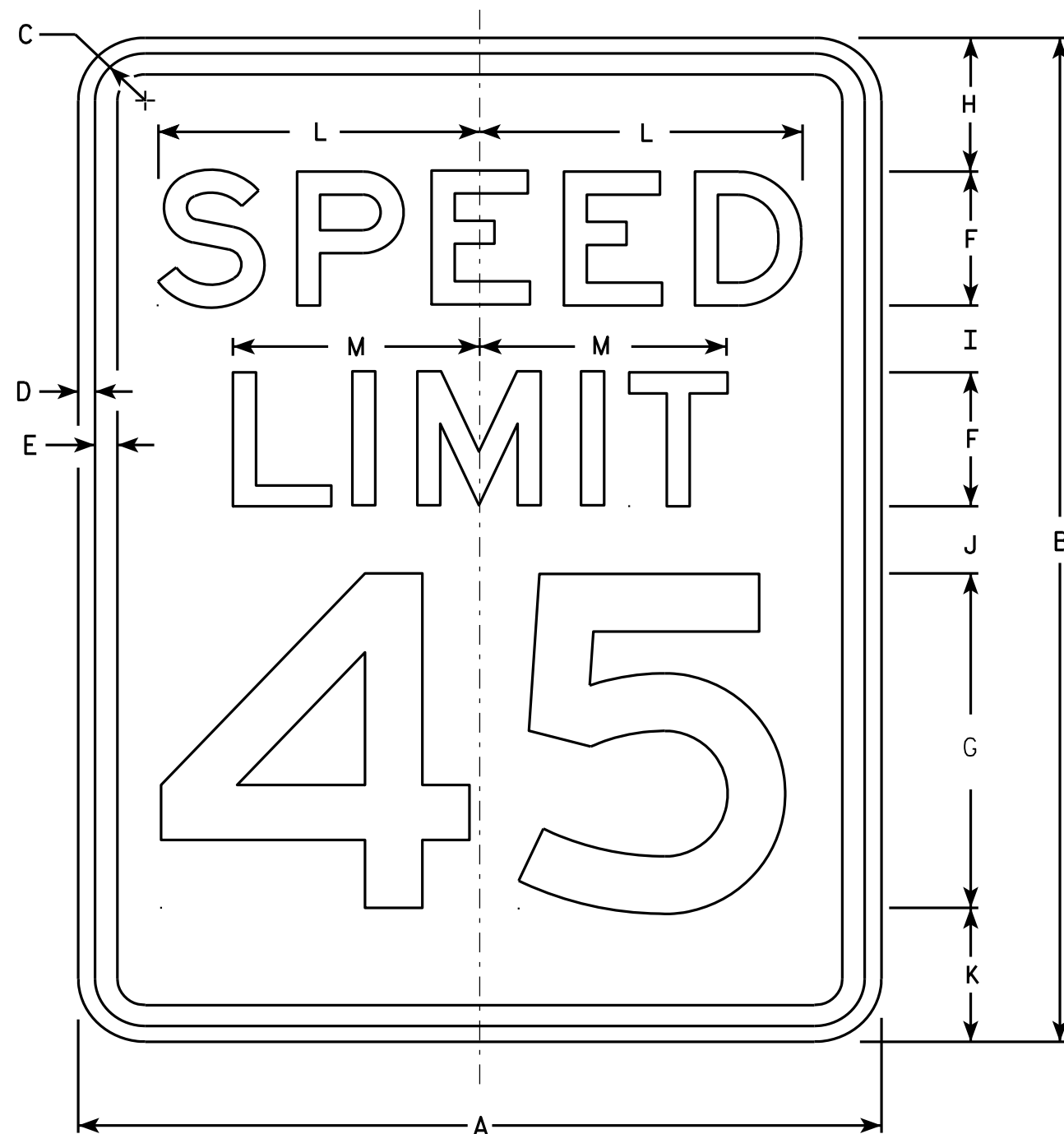
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



NOTES

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

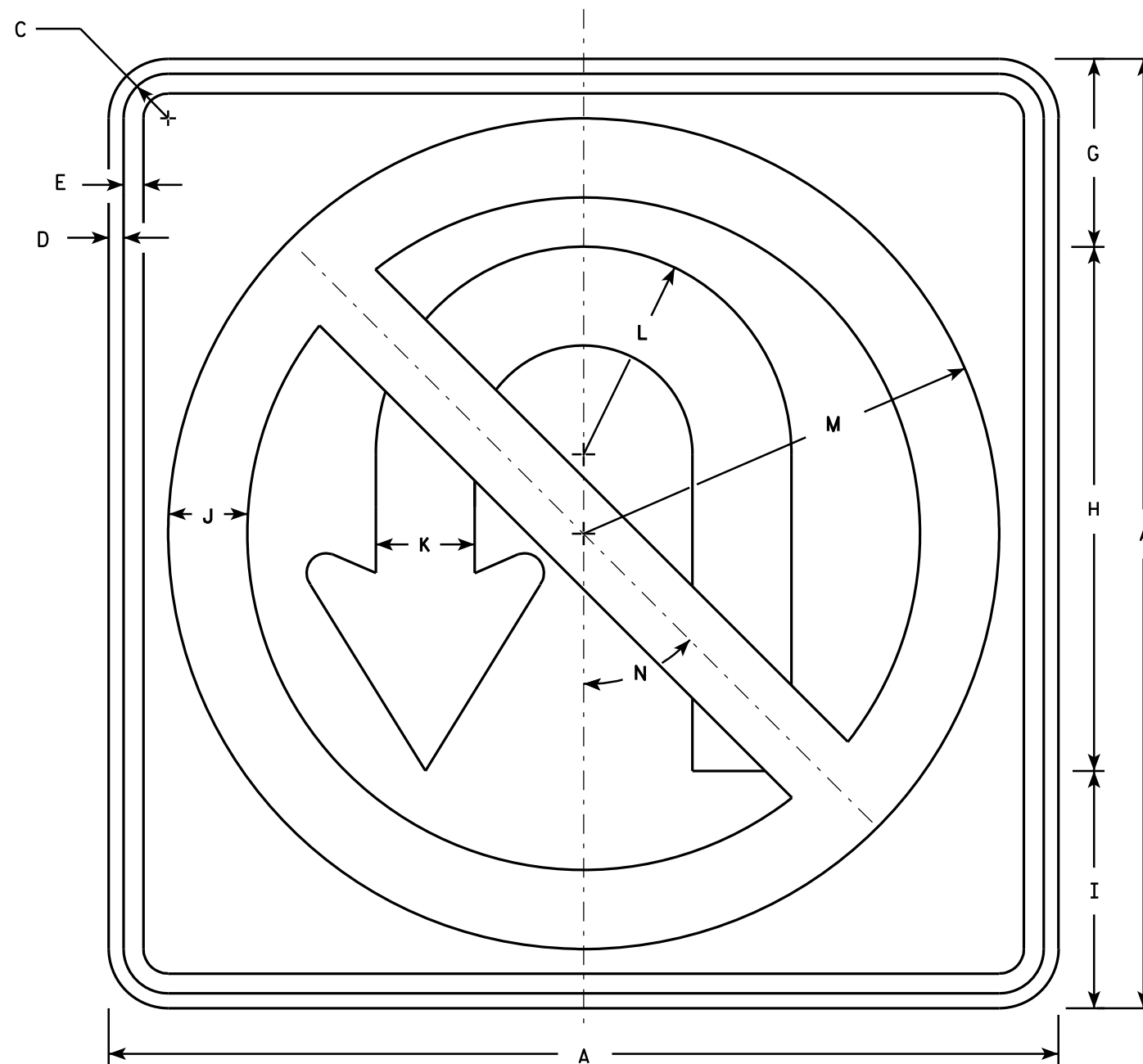
R2-1

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

STANDARD SIGN R2-1

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

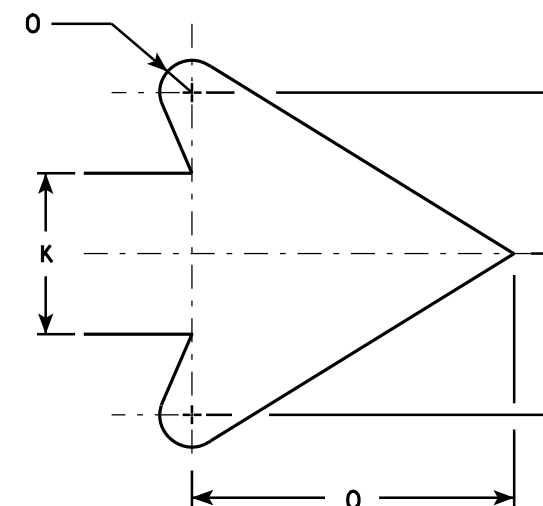
PROJECT NO: HWY: COUNTY: SHEET NO: E



R3-4

NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

STANDARD SIGN R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

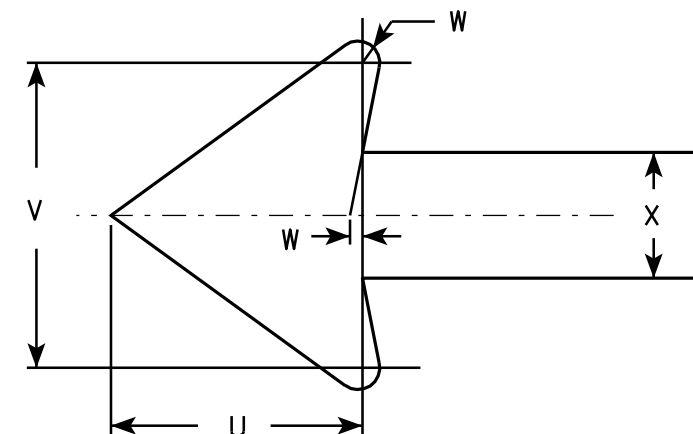
PROJECT NO: HWY: COUNTY: SHEET NO: E



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:

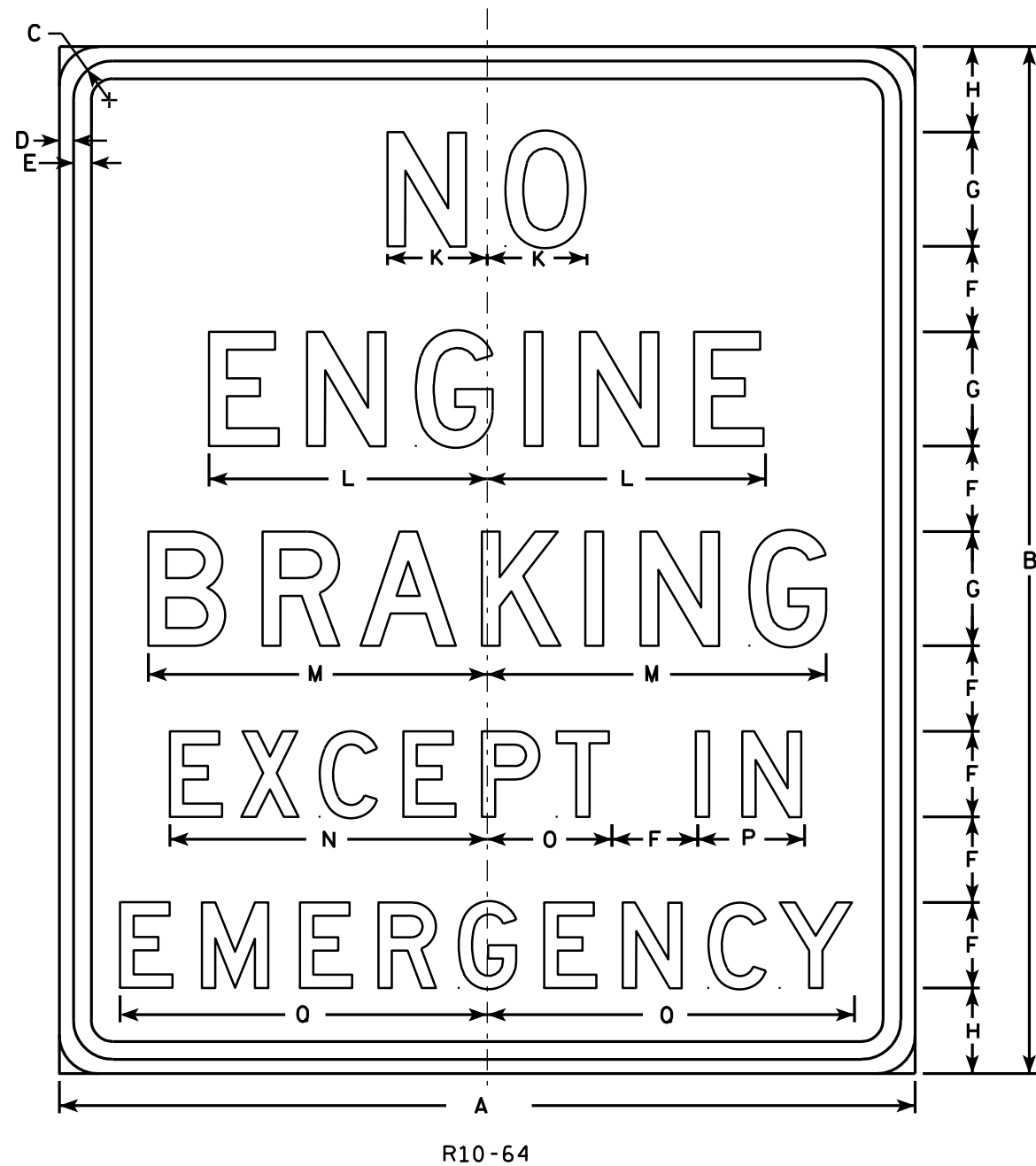
HWY:

COUNTY:

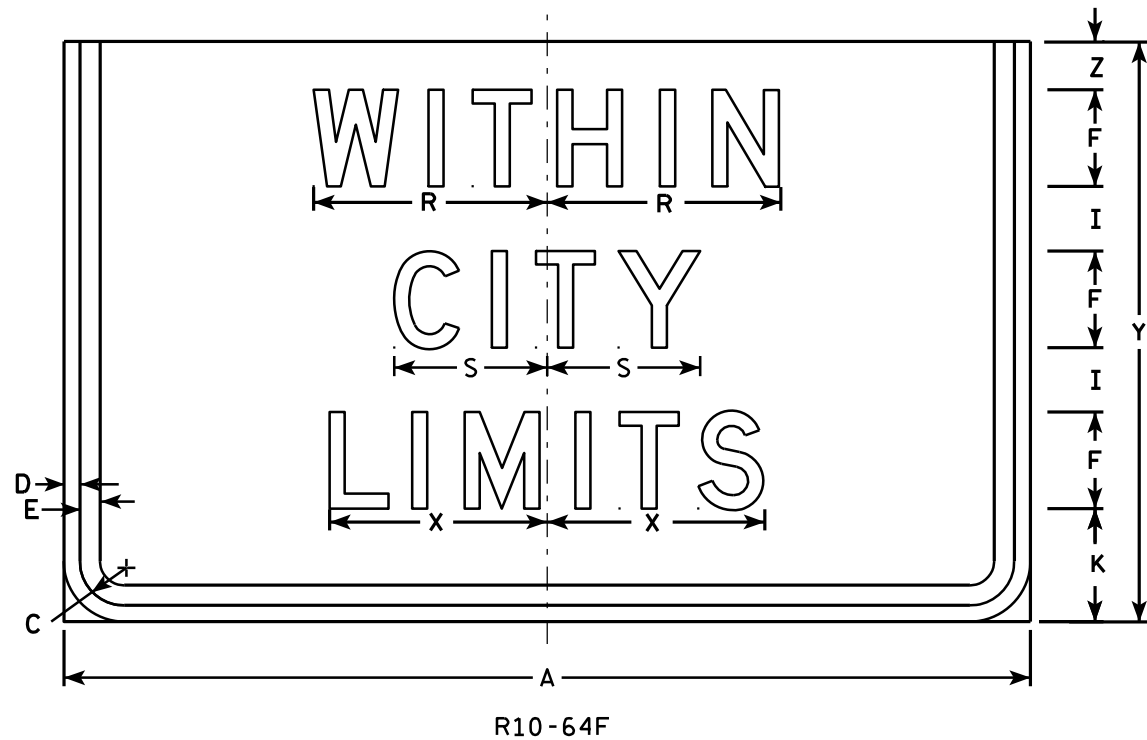
SHEET NO:

E

7

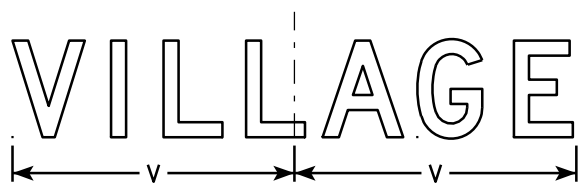


R10-64



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	O	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																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

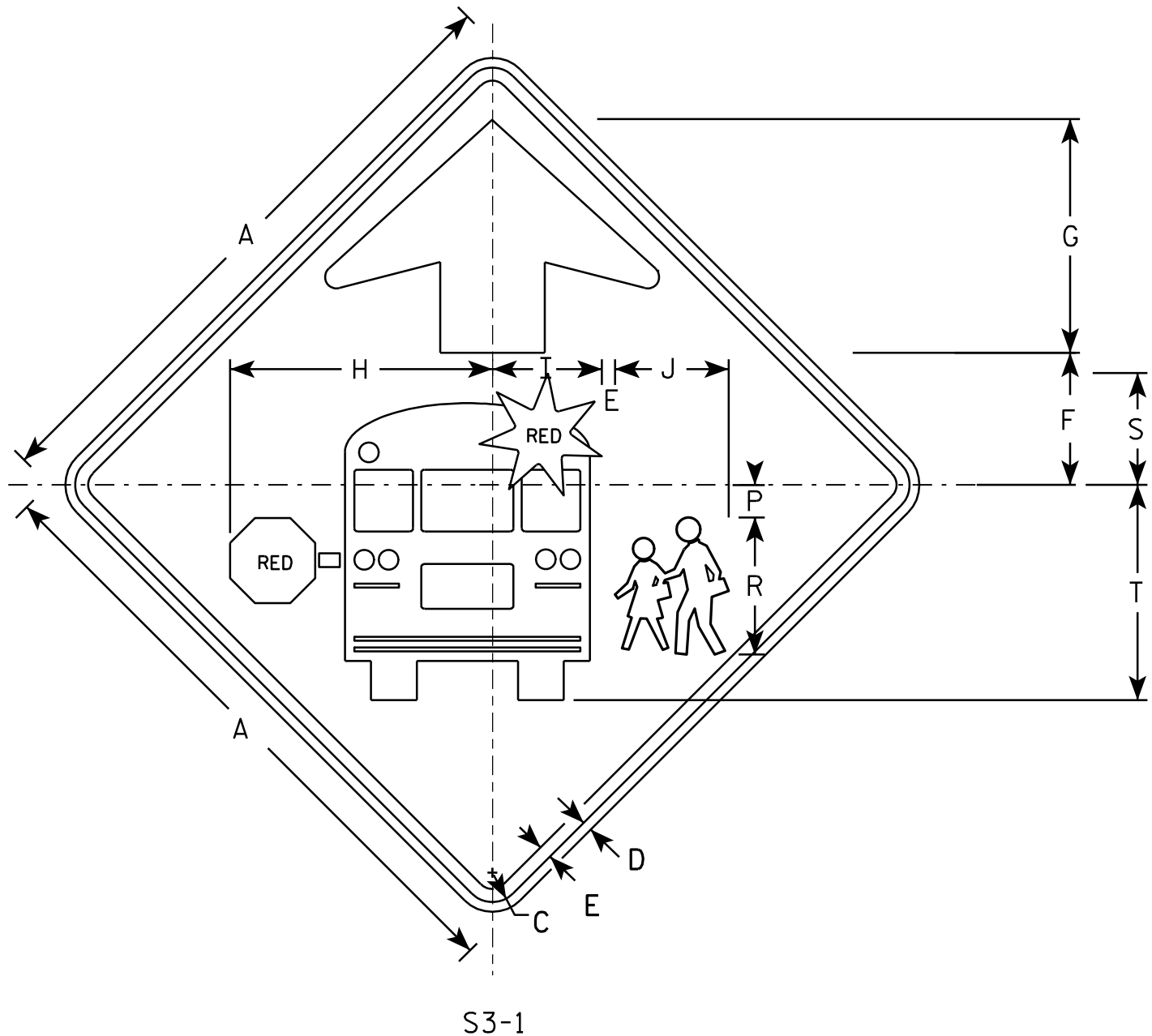
NOTES

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

Background - 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

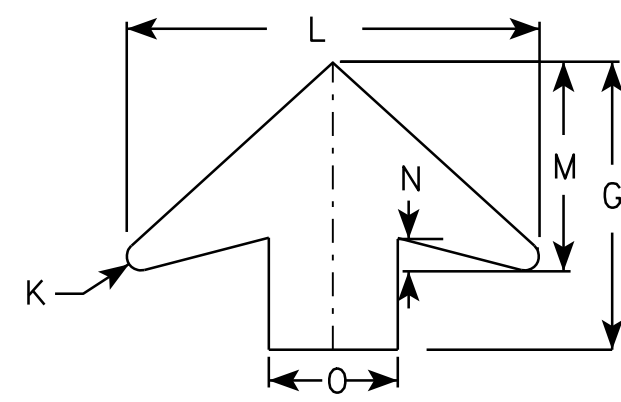
7



S3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW-GREEN
Message - BLACK except as noted
Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	12 1/2	5 1/4	5 1/2	1/2	16	8	1 1/4	5	1 1/2		6 5/8	5 3/8	10 3/8							6.25
2	36		1 5/8	5/8	3/4	7 1/2	13 1/2	15 1/8	6 1/4	6 1/2	5/8	19 1/4	9 3/4	1 5/8	6	1 7/8		7 7/8	6 3/8	12 3/8							9.0
3	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
4	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
5																											

PROJECT NO:			
SHEET NO:			E

STANDARD SIGN
S3-1

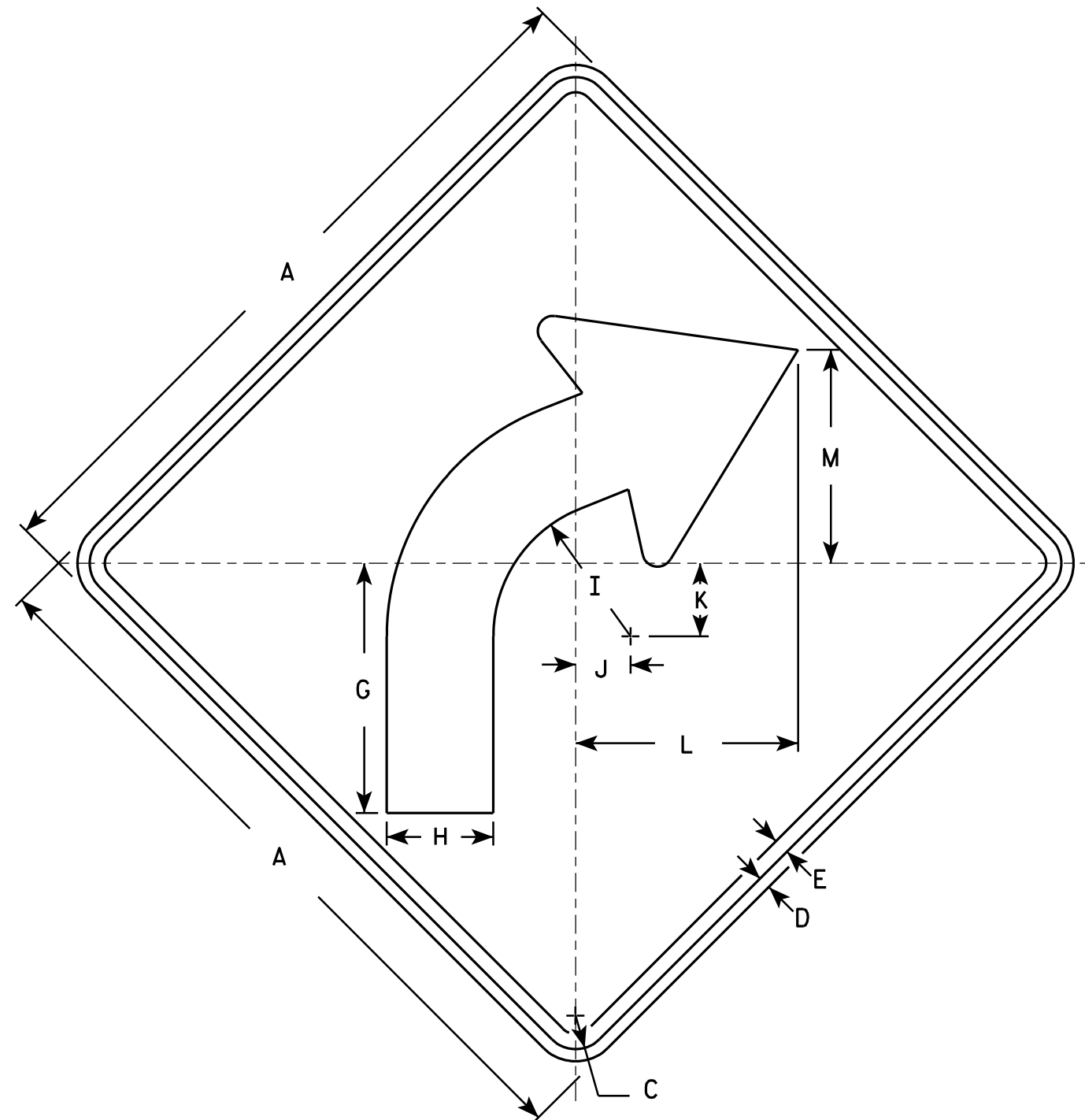
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

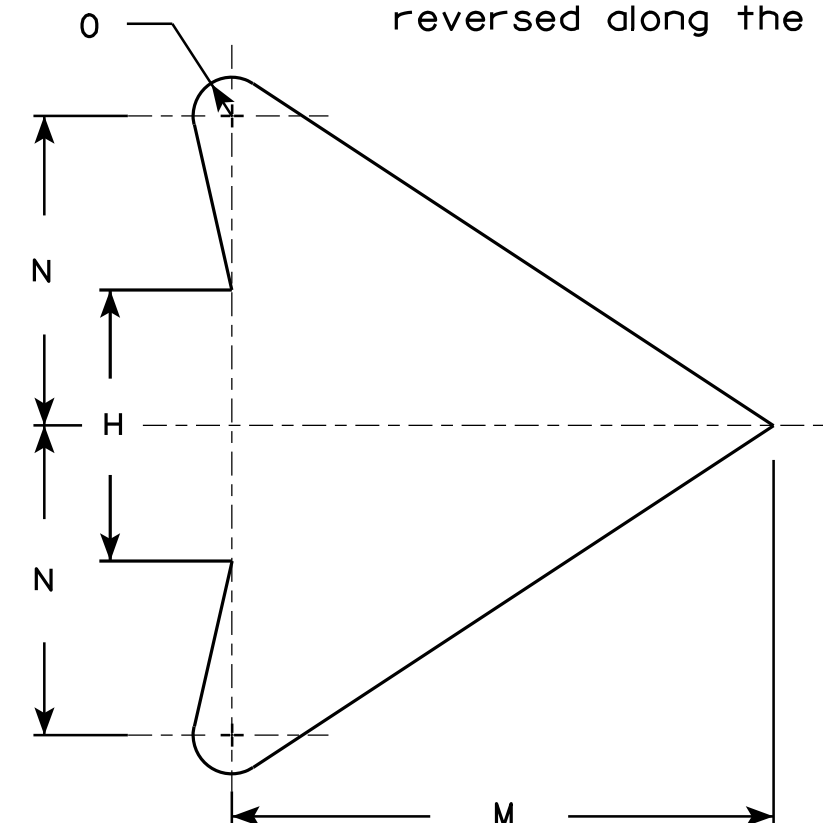
DATE 6/8/10 PLATE NO. S3-1.6

NOTES

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

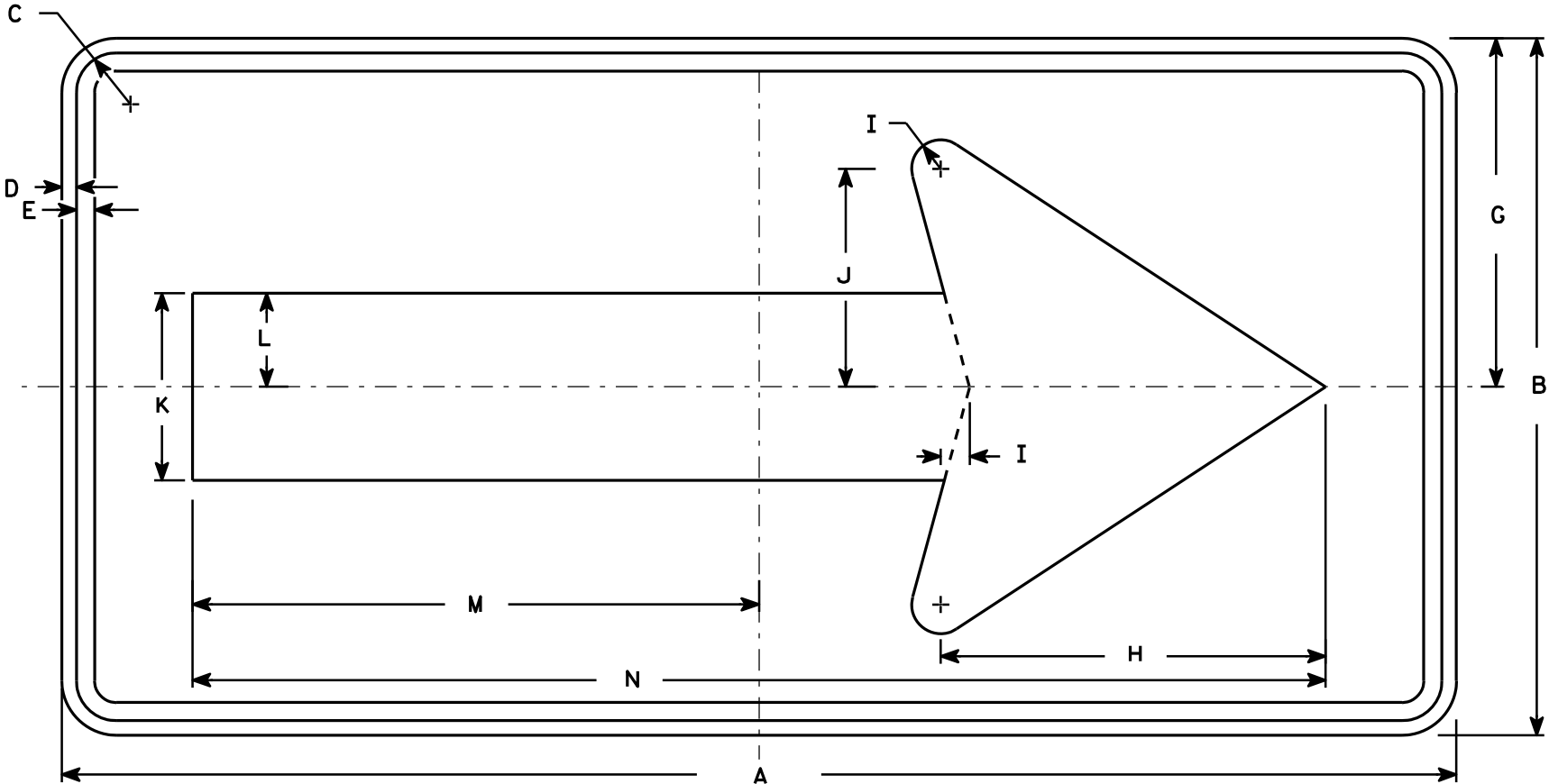
COUNTY:

SHEET NO:

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.



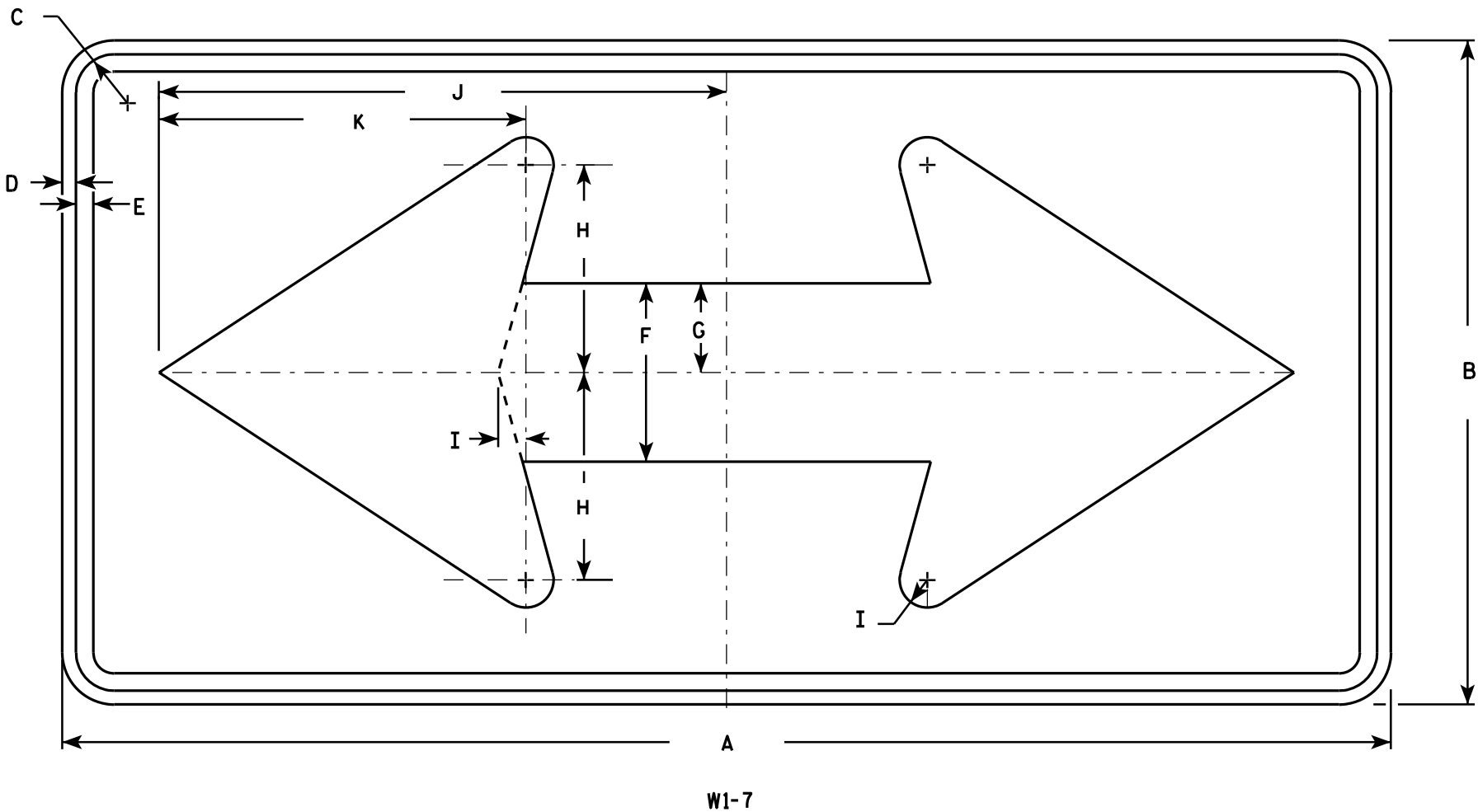
W1-6

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

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

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



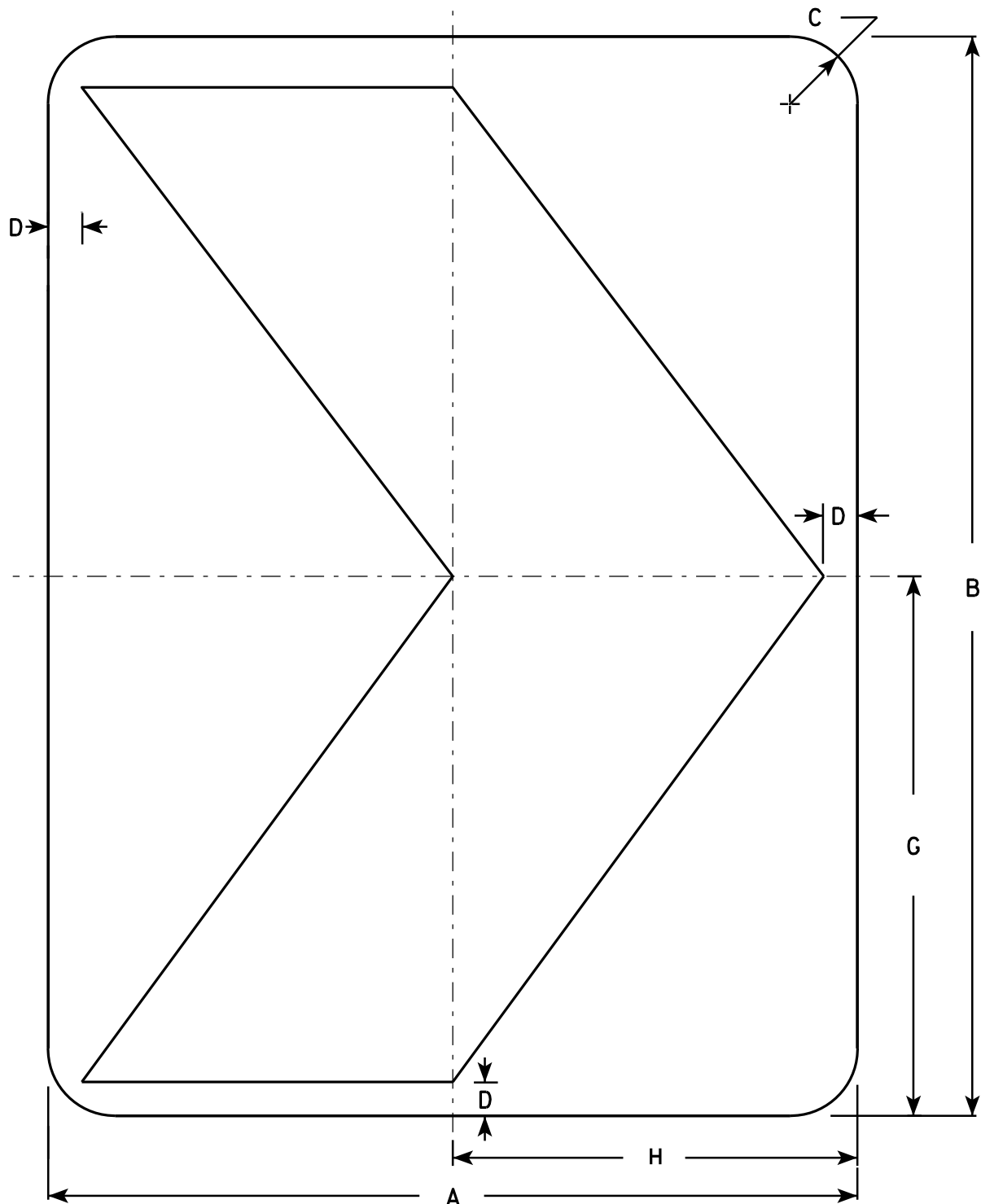
NOTES

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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 6/7/10	PLATE NO. W1-7.7

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

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

W1-8

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

STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

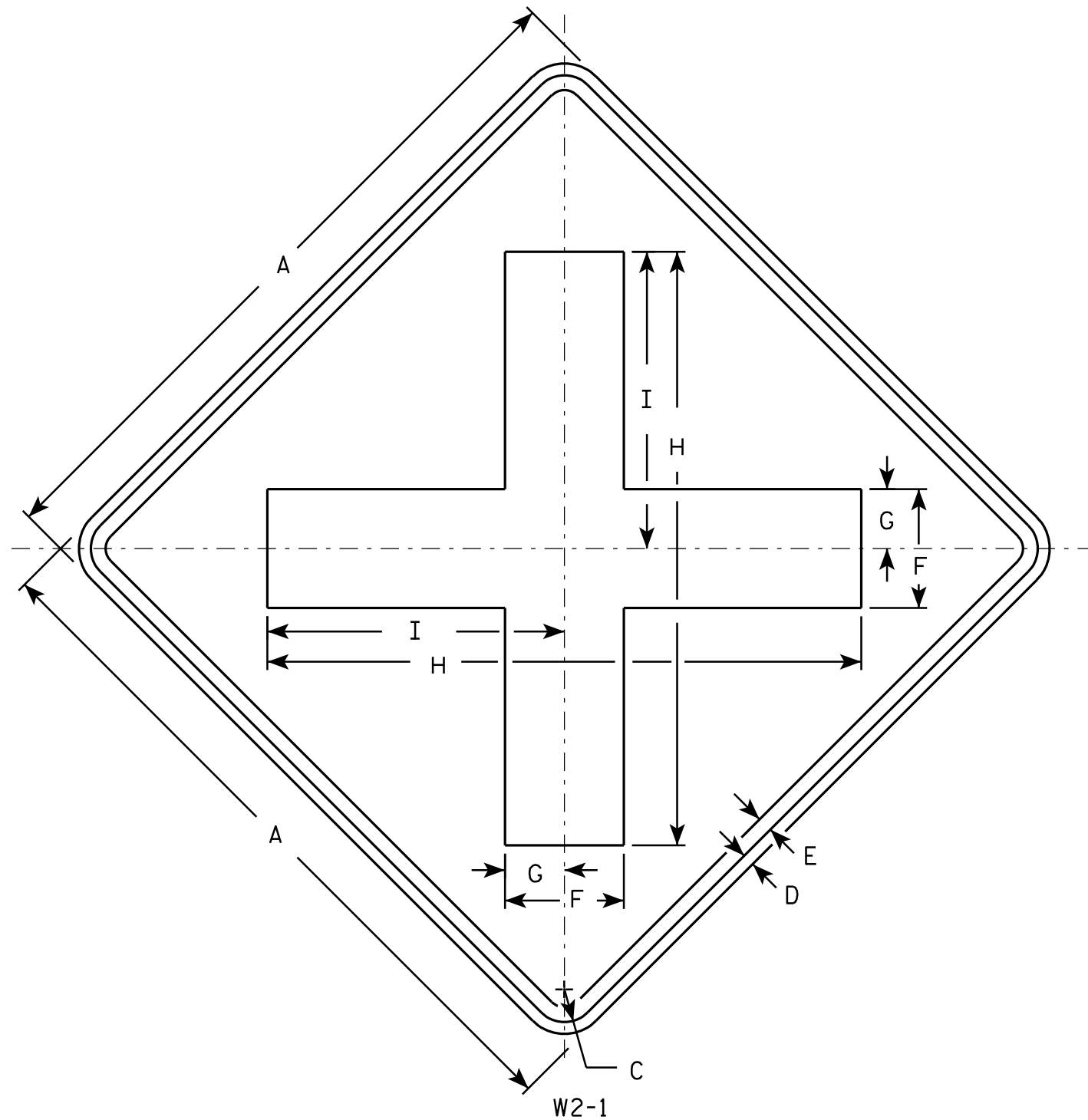
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

SHEET NO:

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.

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	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

STANDARD SIGN

W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

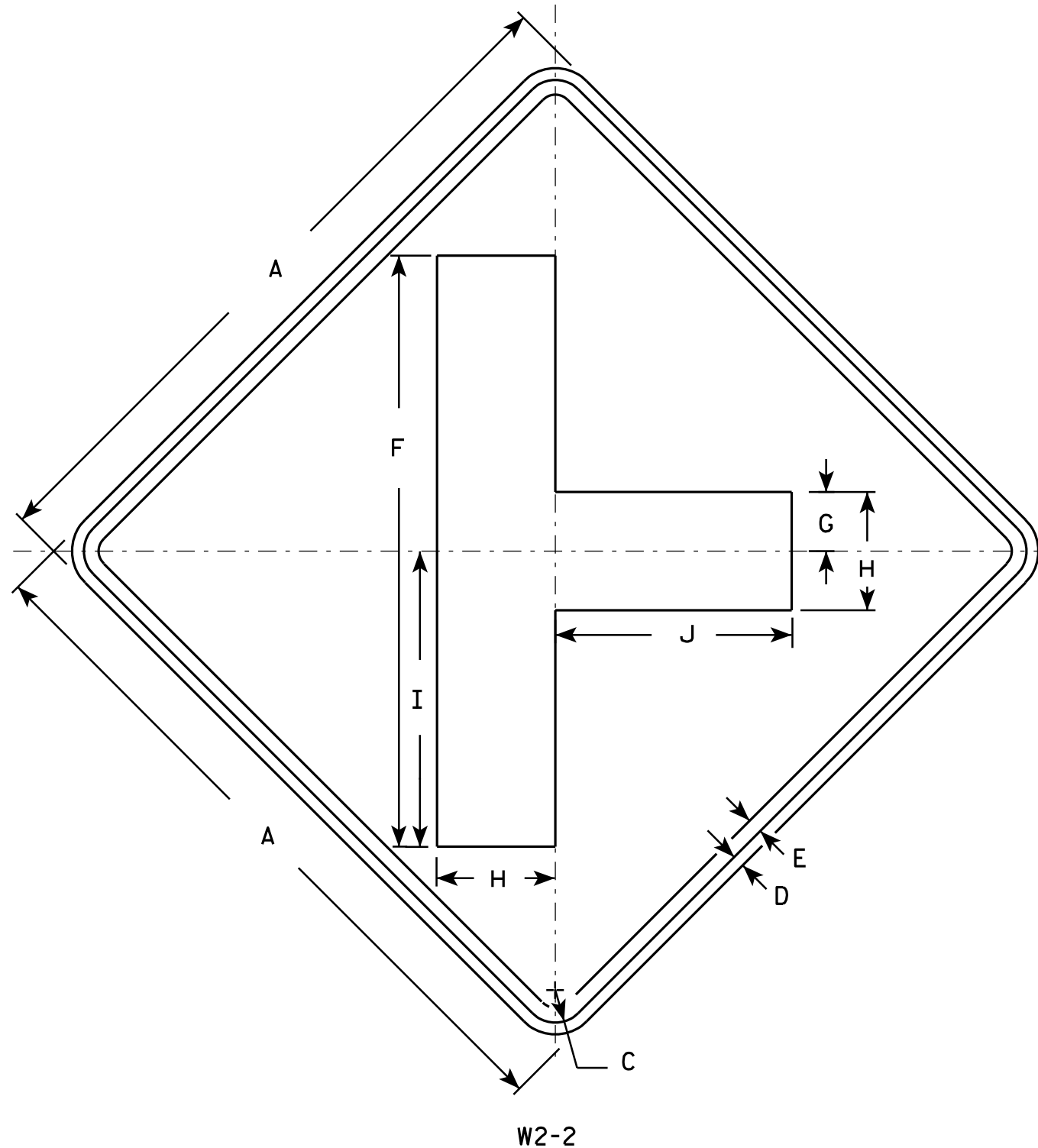
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

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	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

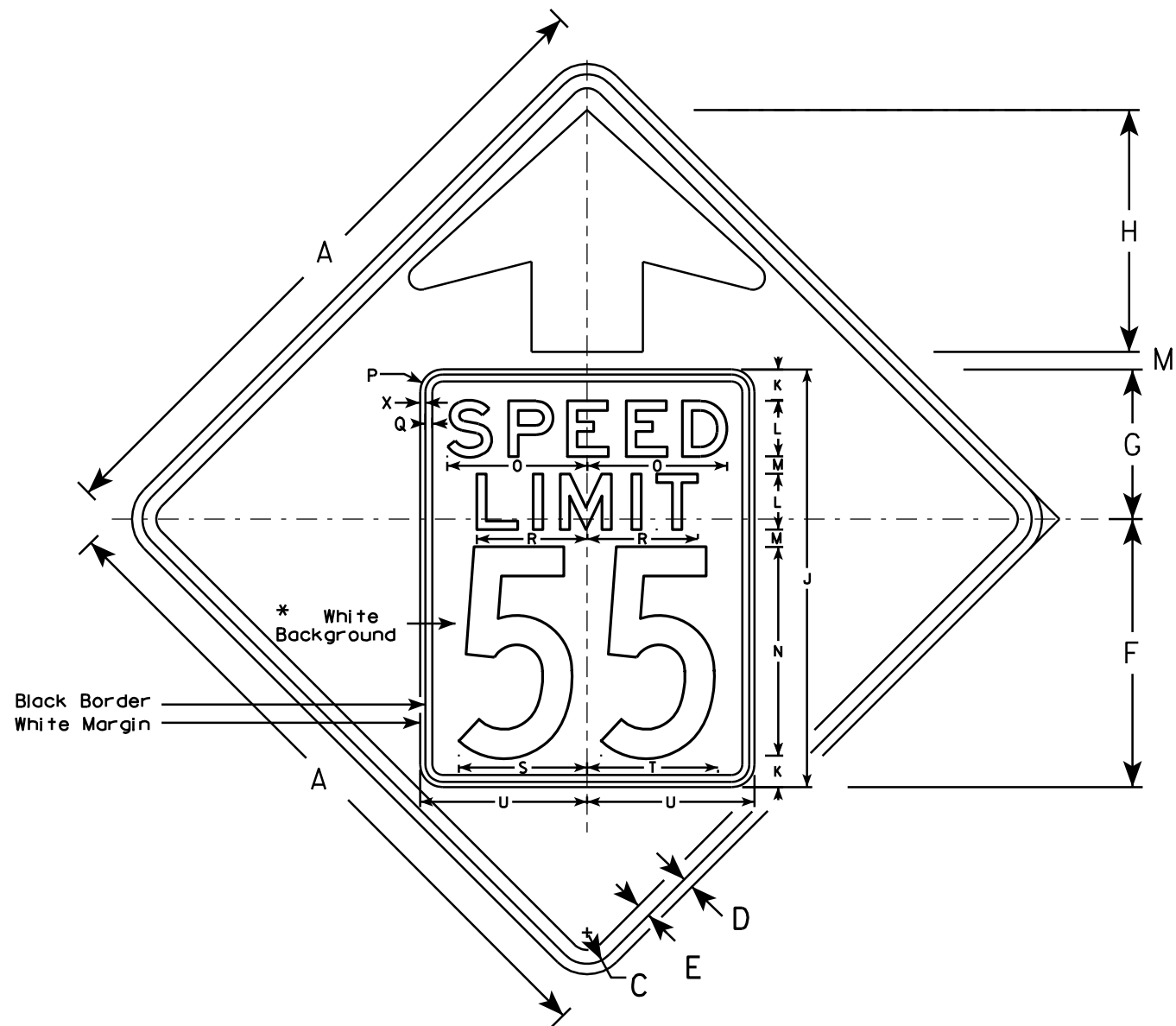
STANDARD SIGN W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: E

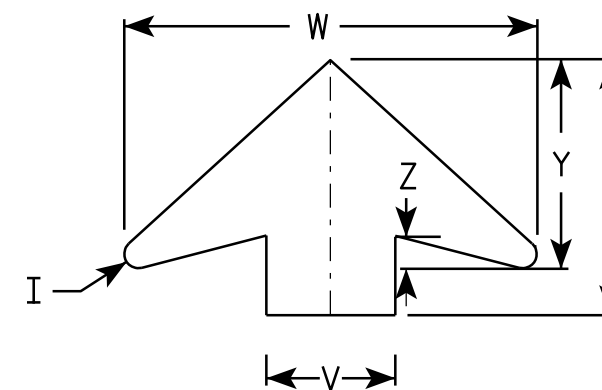


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

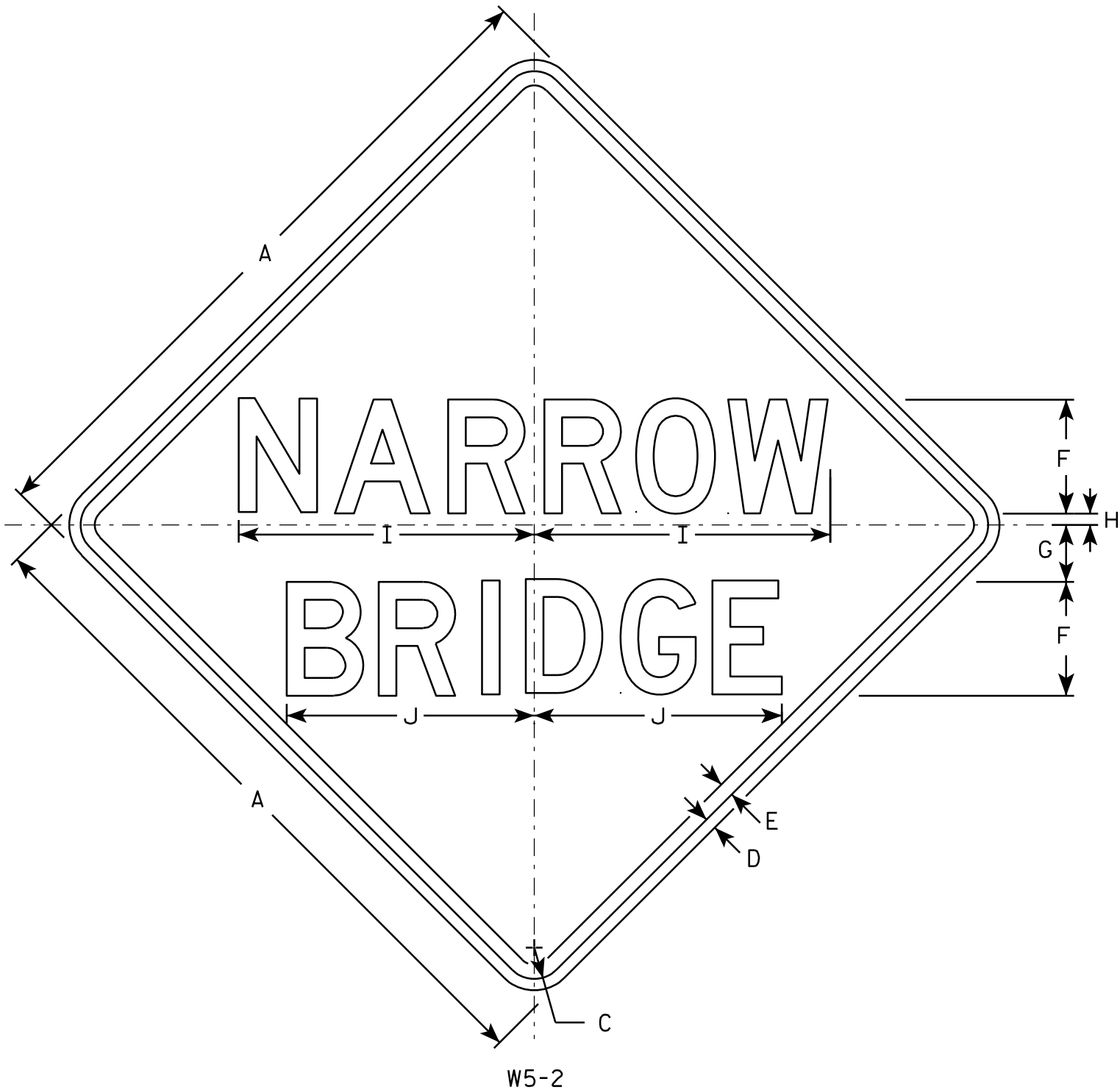
DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E



NOTES

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

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	5	2 1/2	1/2	13	10 7/8																	6.25
2S	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
2M	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
3	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
4	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0
5																											

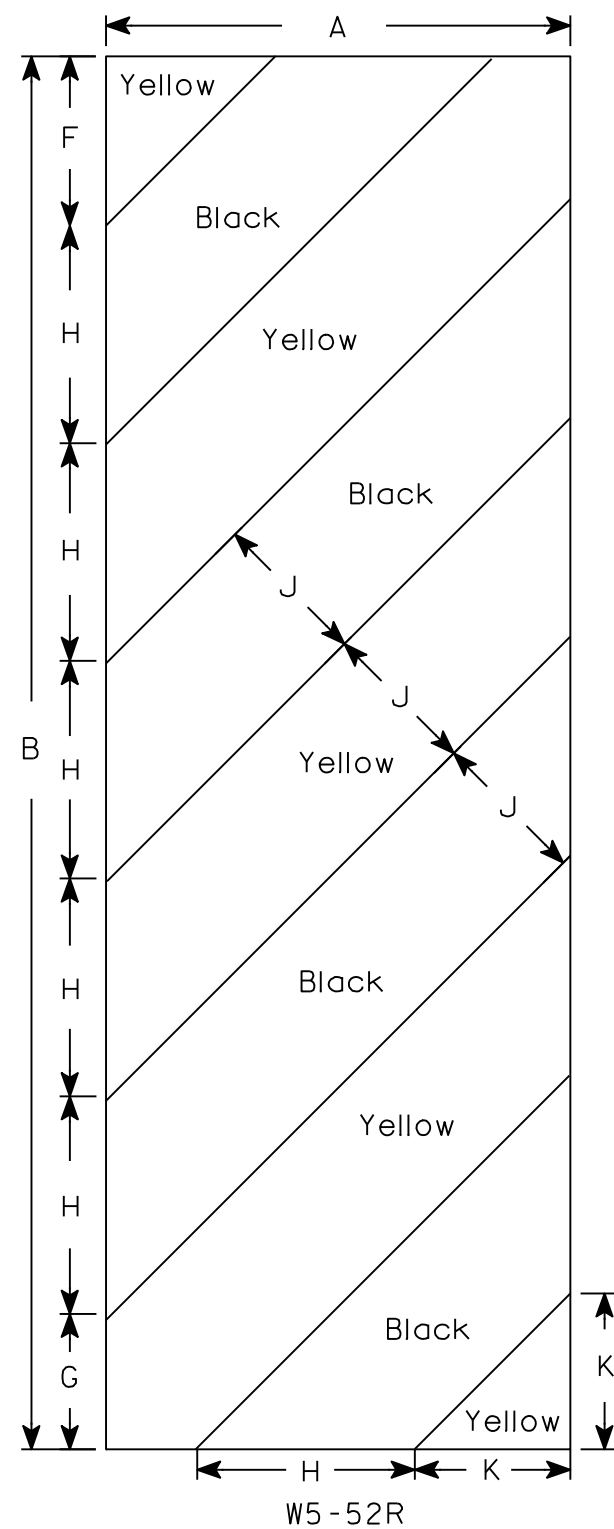
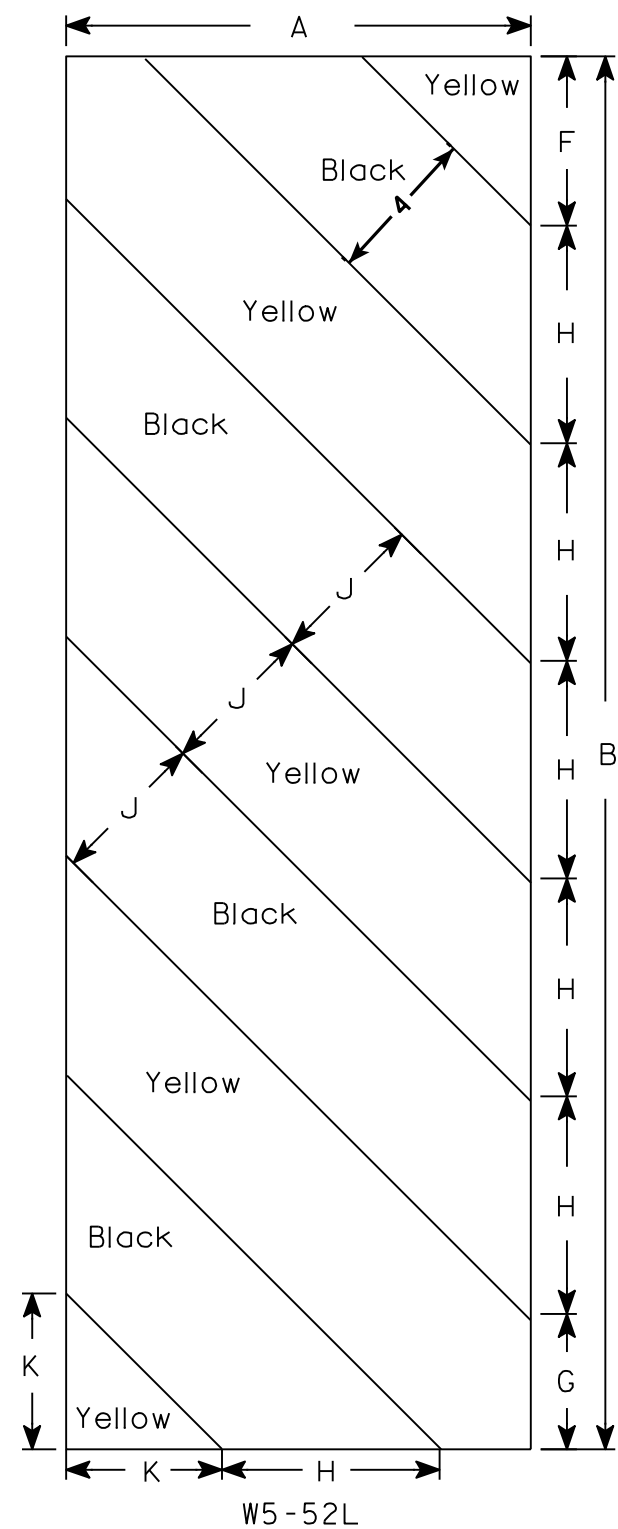
STANDARD SIGN
W5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W5-2.8

PROJECT NO: HWY: COUNTY: SHEET NO: E



NOTES

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

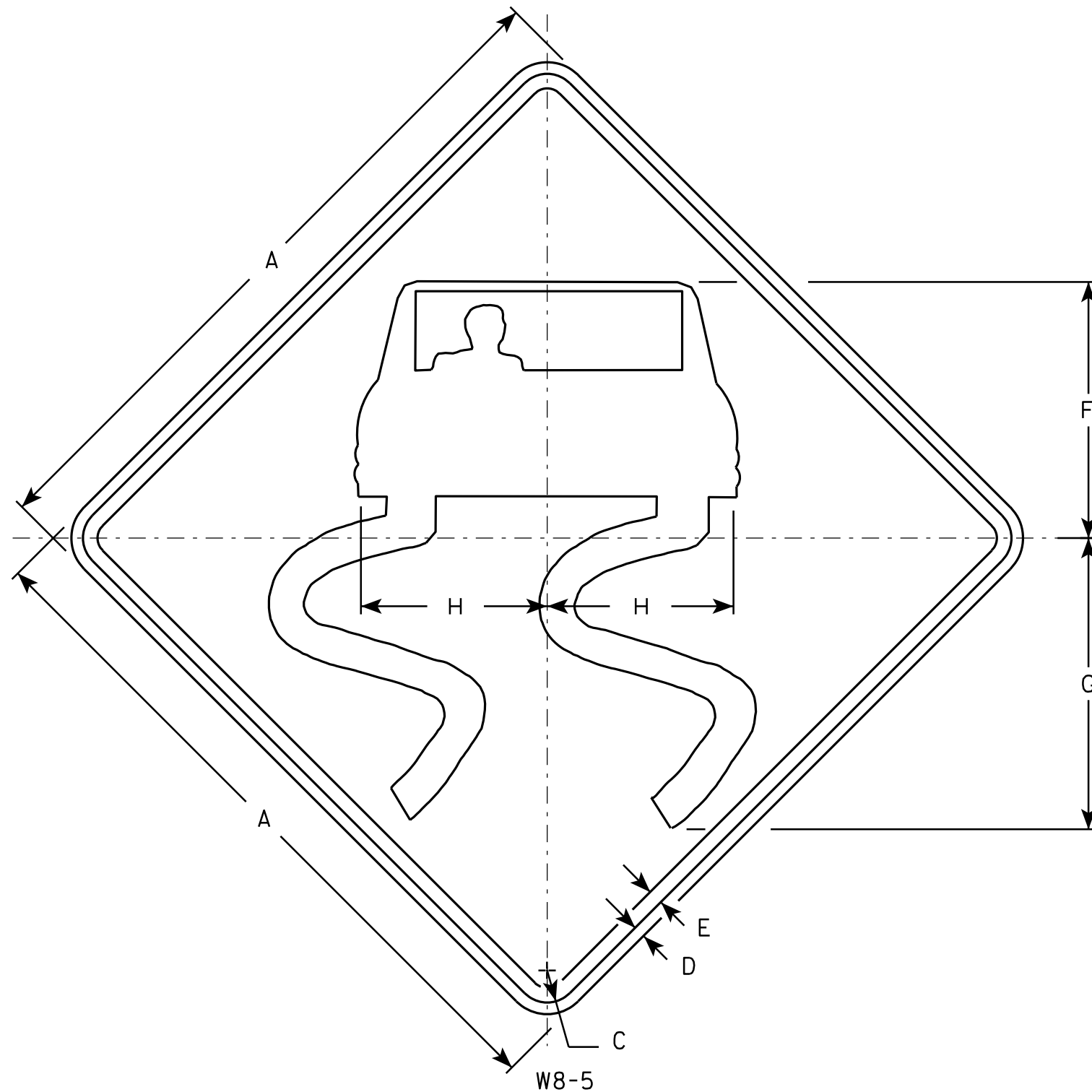
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

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



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	8 3/4	9 7/8	6 3/8																			4.0
2S	30		1 3/8	1/2	5/8	11	12 1/2	8																			6.25
2M	36		1 5/8	5/8	3/4	13	14 7/8	9 1/2																			9.0
3	36		1 5/8	5/8	3/4	13	14 7/8	9 1/2																			9.0
4	36		1 5/8	5/8	3/4	13	14 7/8	9 1/2																			9.0
5	48		2 1/4	3/4	1	17 3/8	19 3/4	12 5/8																			16.0

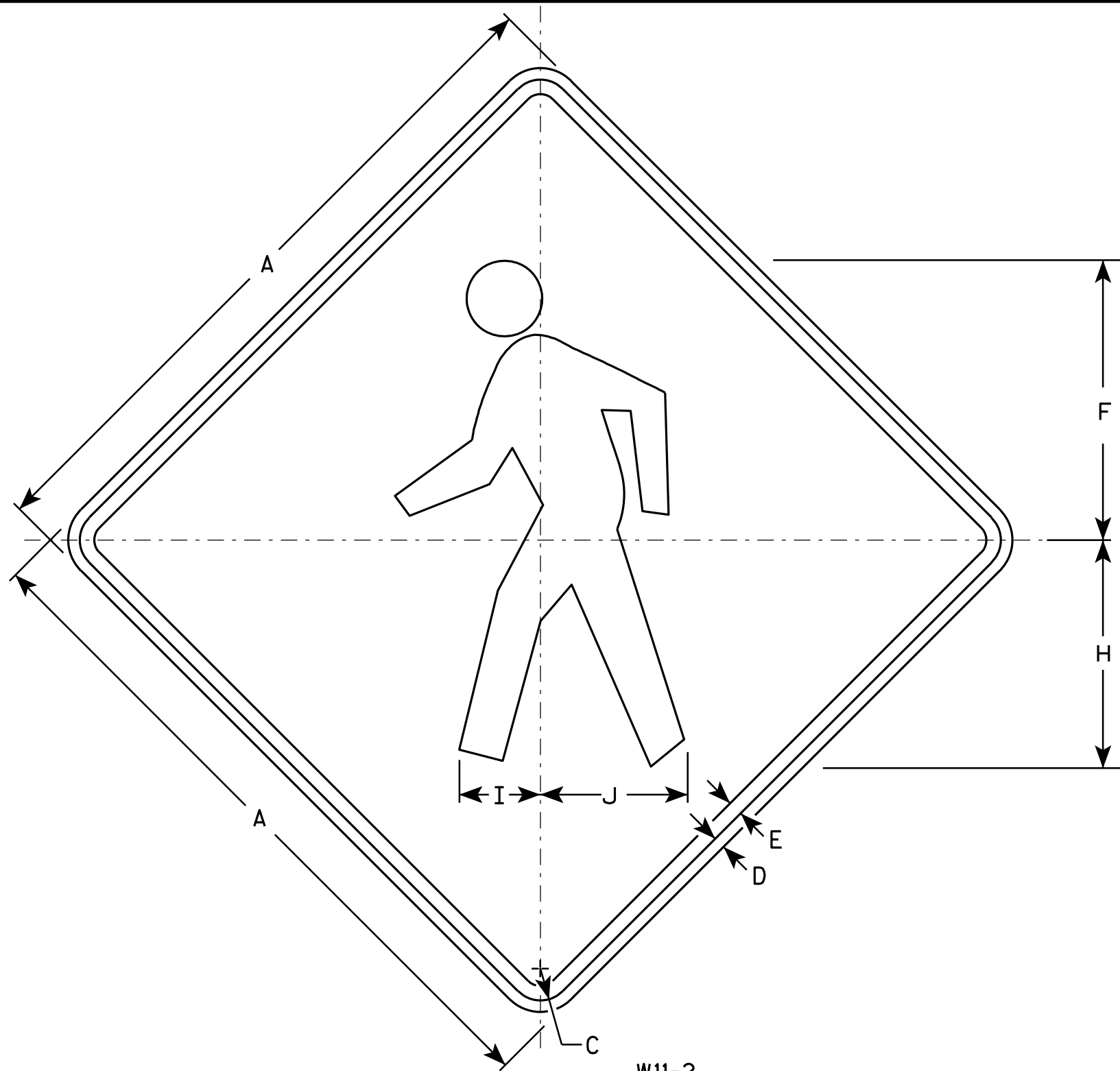
STANDARD SIGN W8-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-5.12

PROJECT NO: HWY: COUNTY: SHEET NO: 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																											

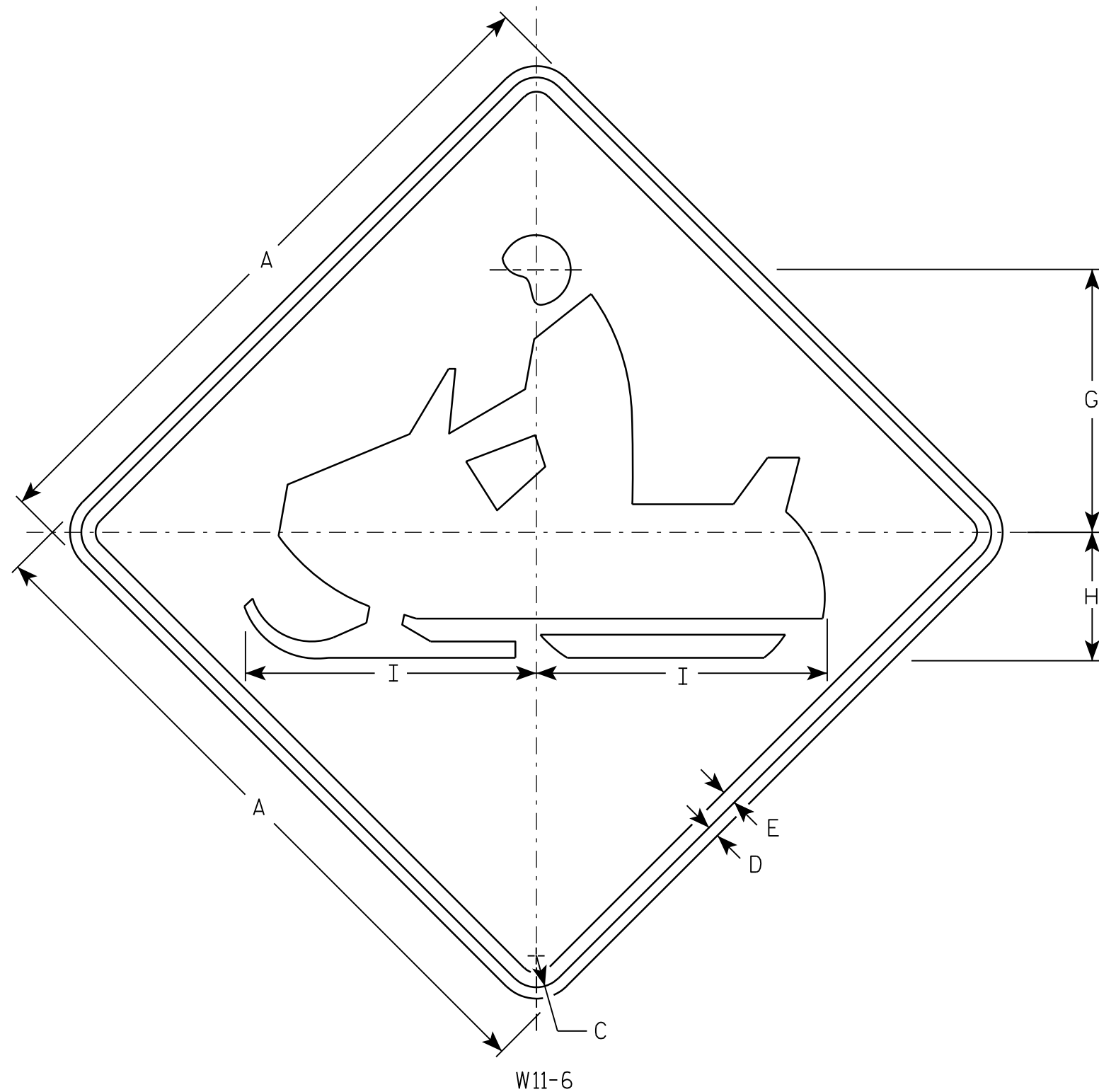
STANDARD SIGN W11-2

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: 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.

W11-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		9 1/2	4 1/2	10 1/4																		4.0
2S	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
2M	30		1 3/8	1/2	5/8		11 1/2	5 5/8	12 3/4																		6.25
3	36		1 5/8	5/8	3/4		14 1/8	6 3/4	15 1/4																		9.0
4	48		2 1/4	3/4	1		19	9	20 1/2																		16.0
5																											

STANDARD SIGN W11-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-6.8

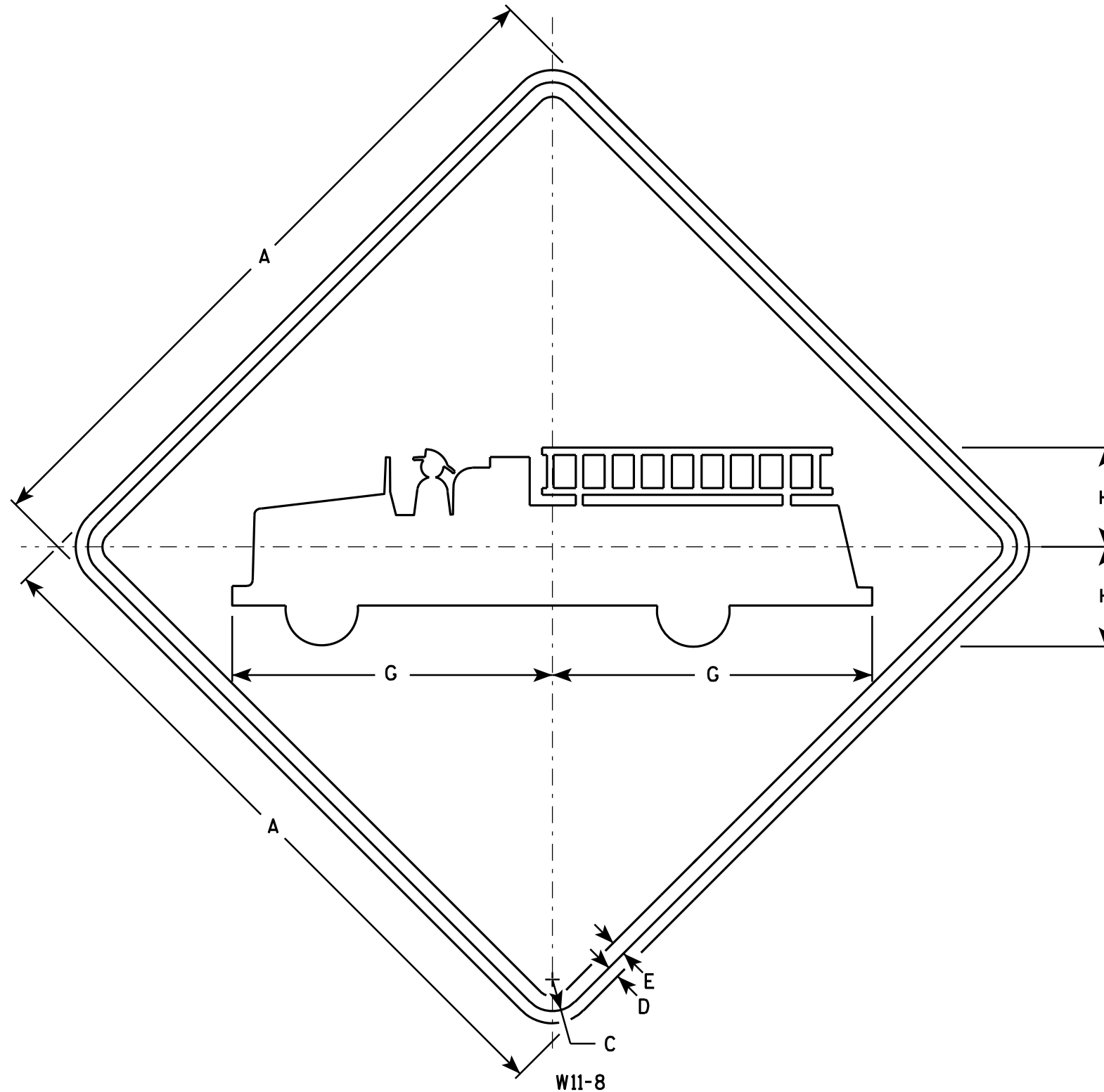
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

W11-8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

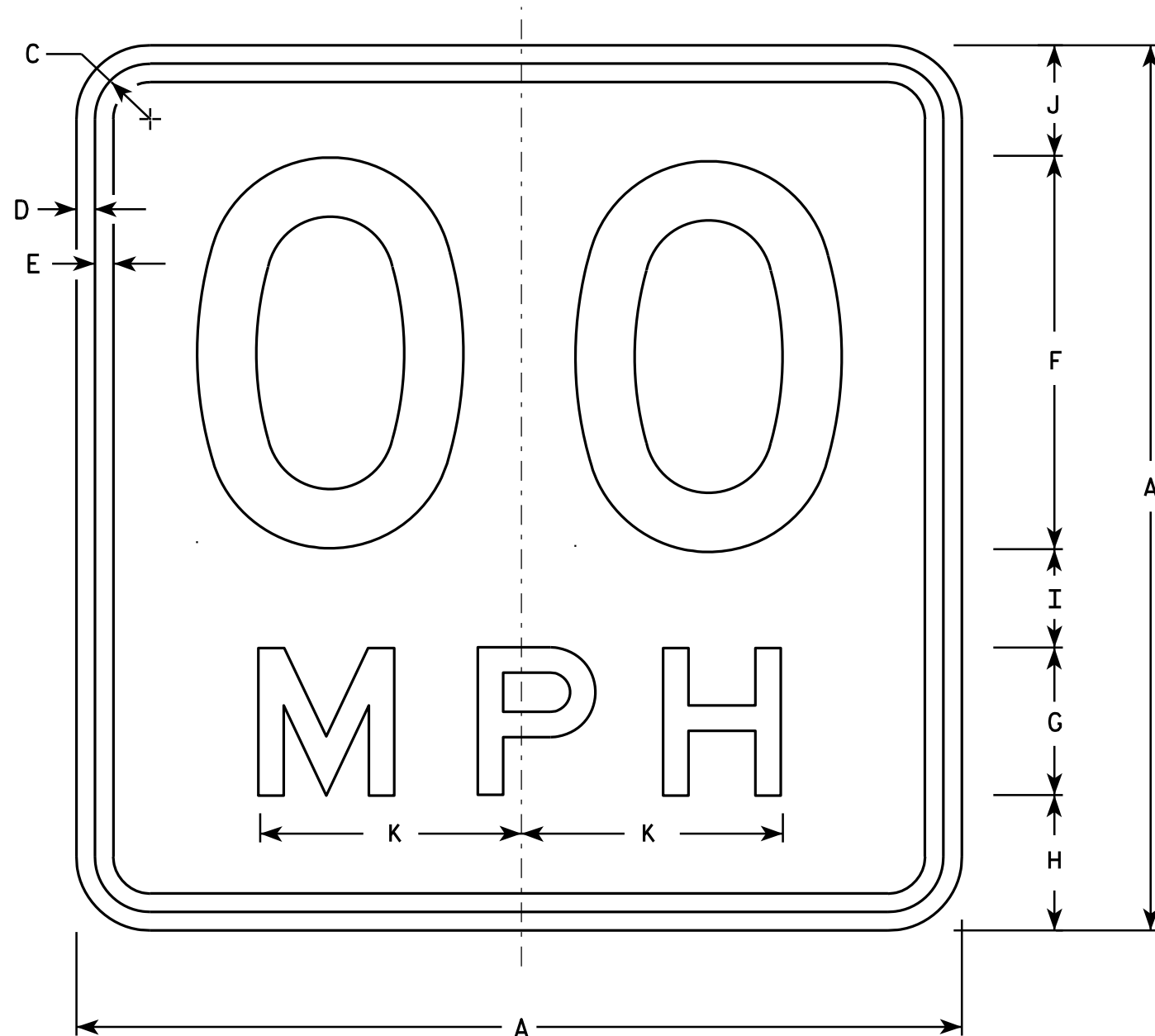
STANDARD SIGN W11-8

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W11-8.7

PROJECT NO:

SHEET NO:

E



NOTES

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

W13-1

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

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

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO:

HWY:

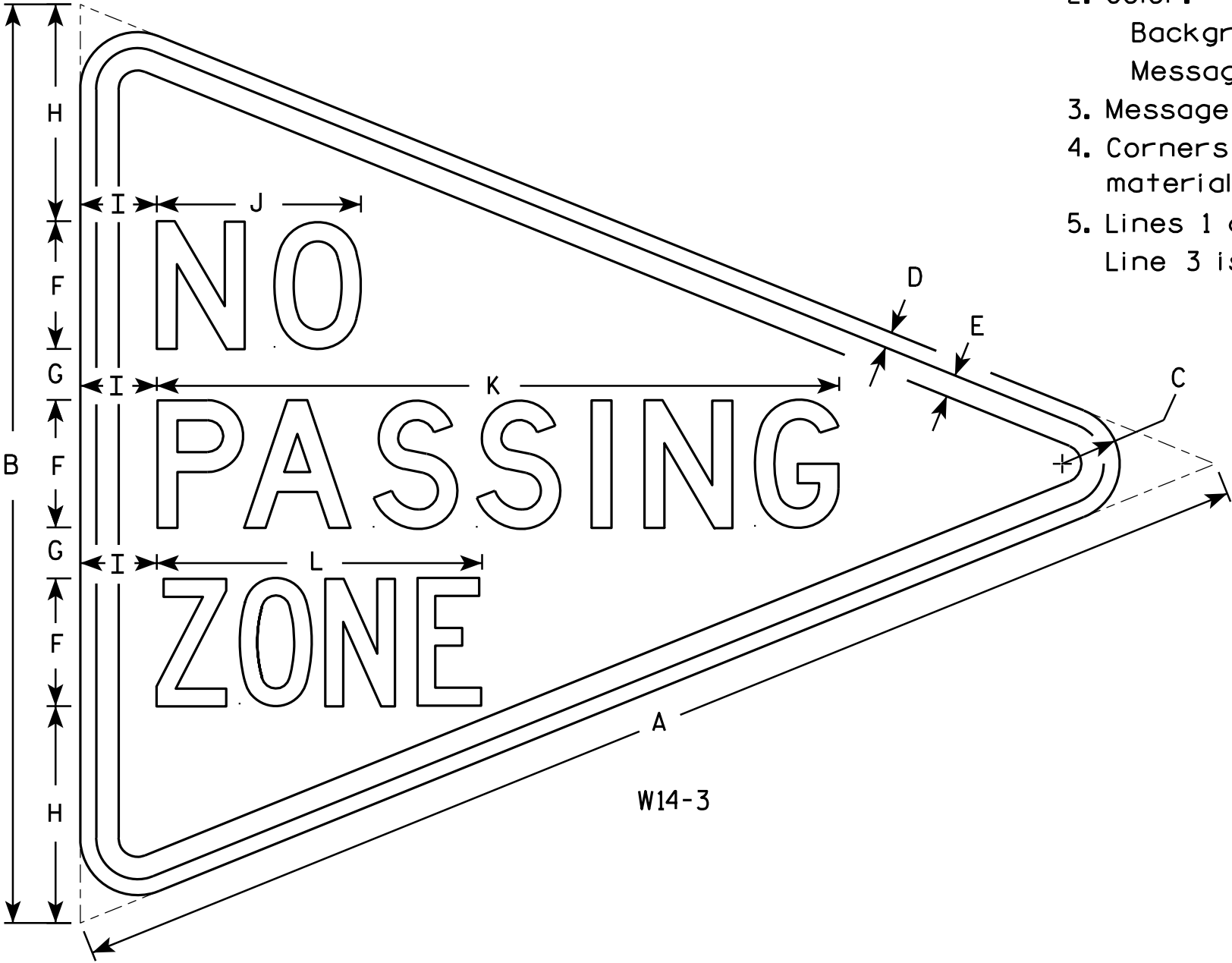
COUNTY:

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

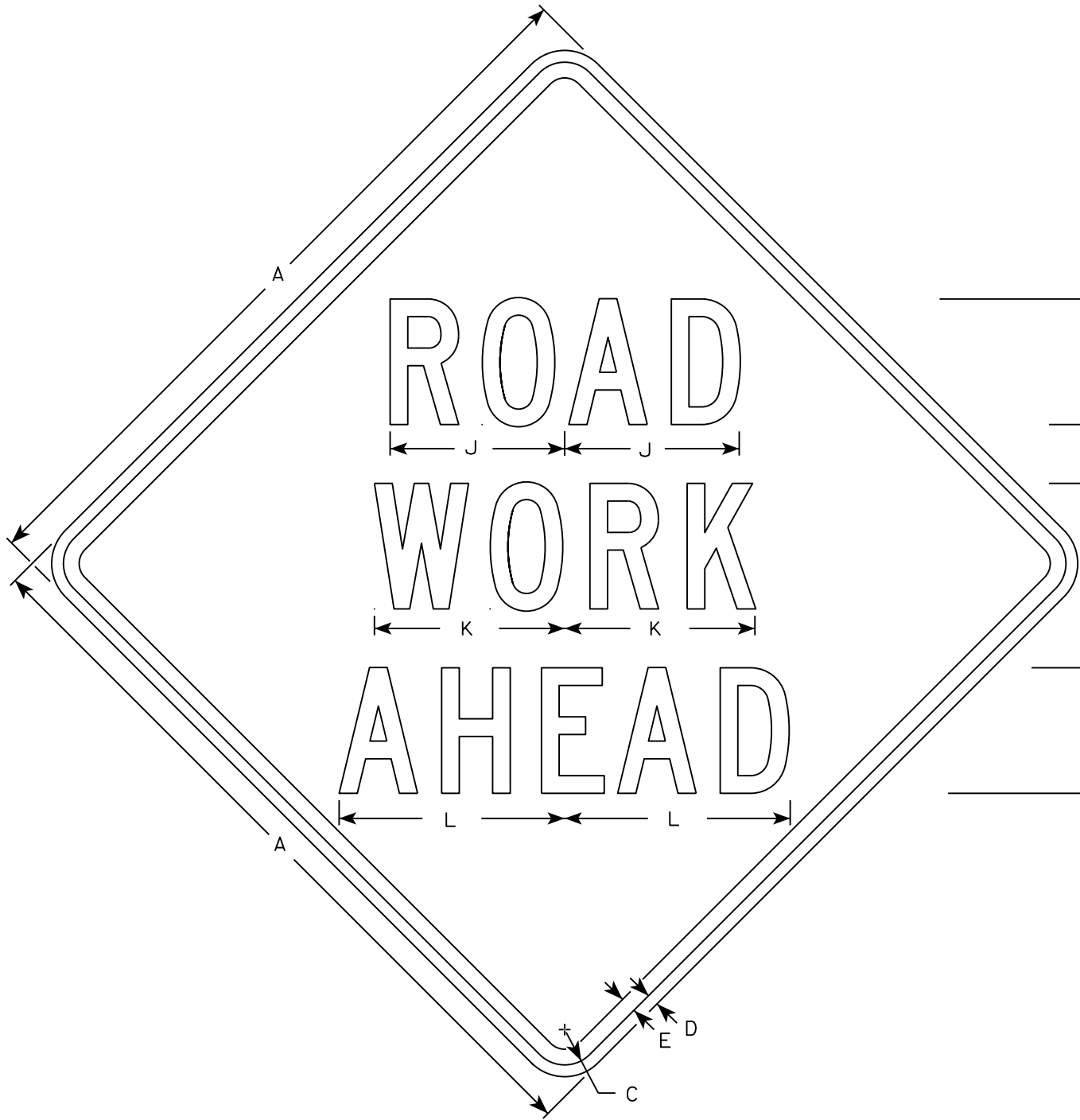
PROJECT NO:

HWY:

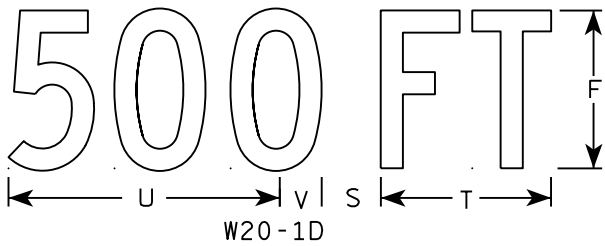
COUNTY:

SHEET NO:

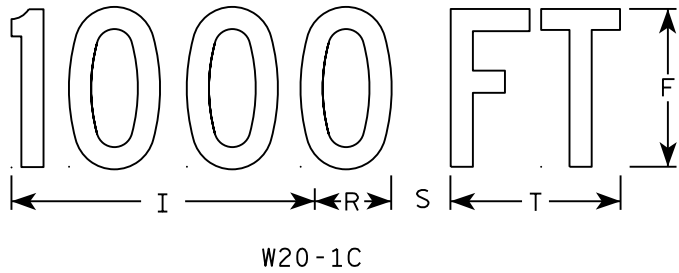
E



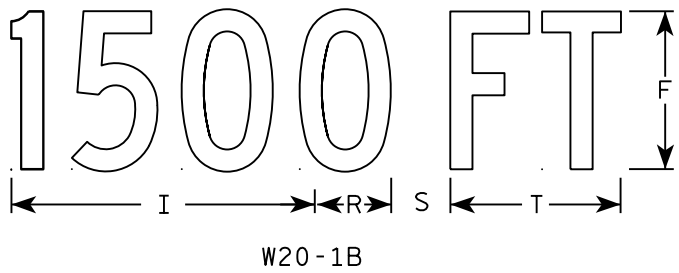
W20-1A



W20-1D



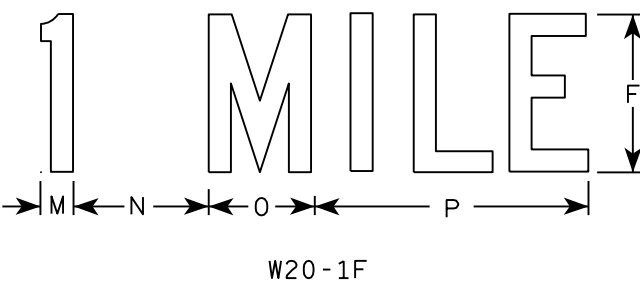
W20-1C



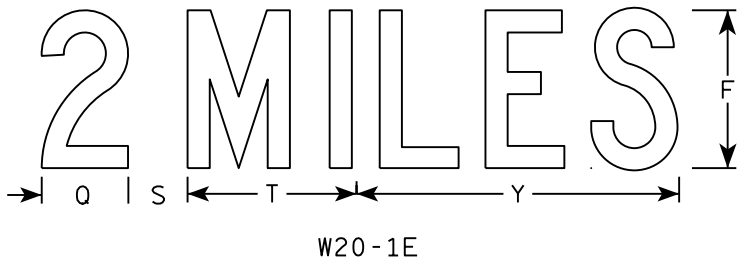
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

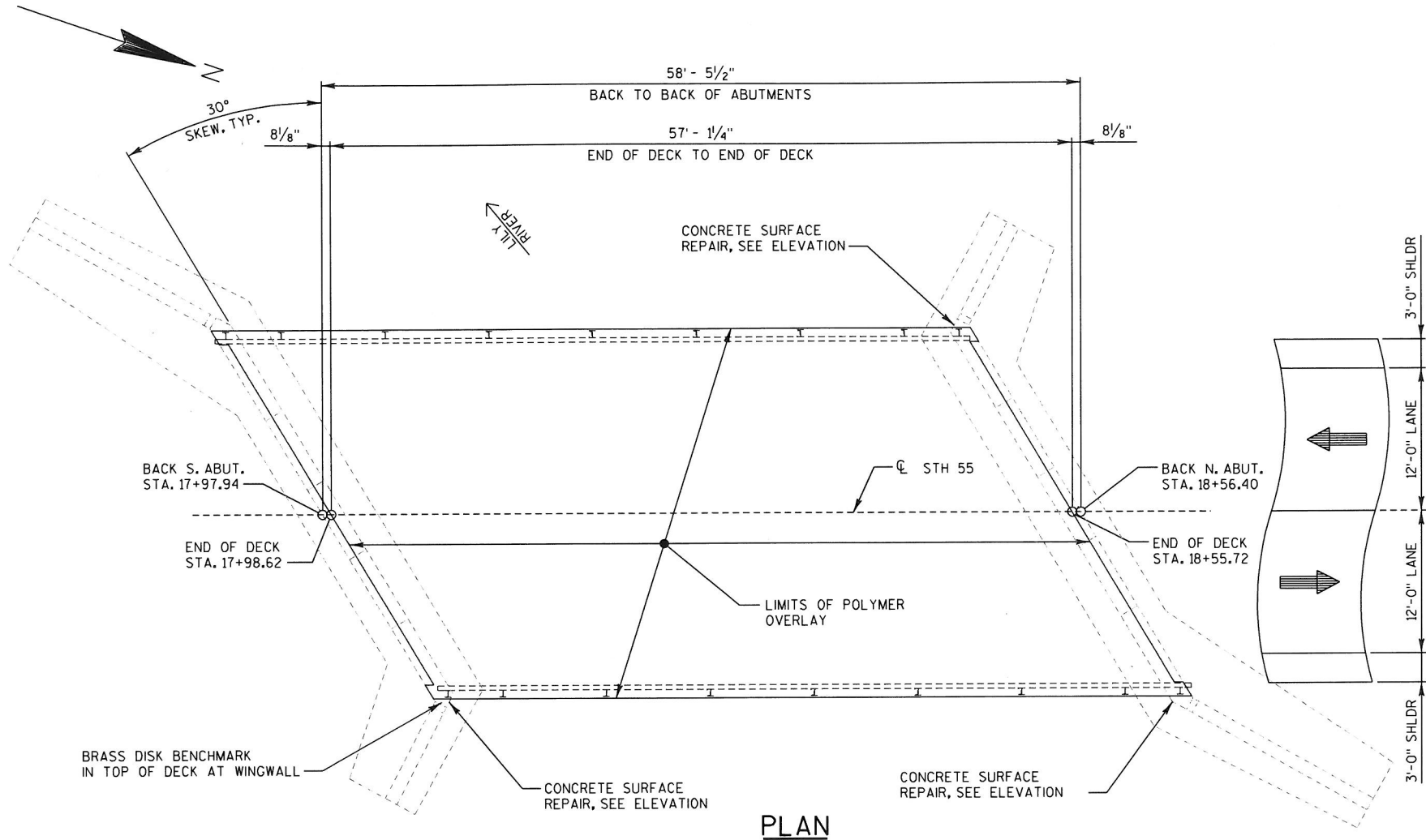
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13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

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

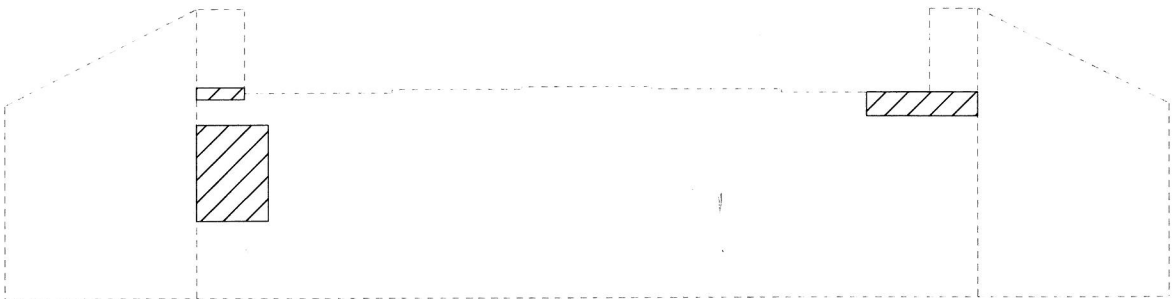
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10



PLAN



NORTH ABUTMENT ELEVATION

(LOOKING NORTH)



SOUTH ABUTMENT ELEVATION

(LOOKING SOUTH)

CONCRETE SURFACE REPAIR AREA



LIST OF DRAWINGS

1. POLYMER OVERLAY

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 266-8489

CONSULTANT CONTACT:
KURT FEUERSTEIN (262) 901-2500

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> ^{SR}		02/16/16 DATE	
CHIEF STRUCTURES DESIGN ENGINEER			
STRUCTURE B-34-003			
STH 55 OVER LILY RIVER			
COUNTY	LANGLADE	TOWN/CITY/VILLAGE	LANGLADE
DESIGN SPEC. REHABILITATION - N/A			
DESIGNED BY	JRM	DESIGN CK'D.	SKR
DRAWN BY	JRM	PLANS CK'D.	KEF
POLYMER OVERLAY			SHEET 1 OF 1

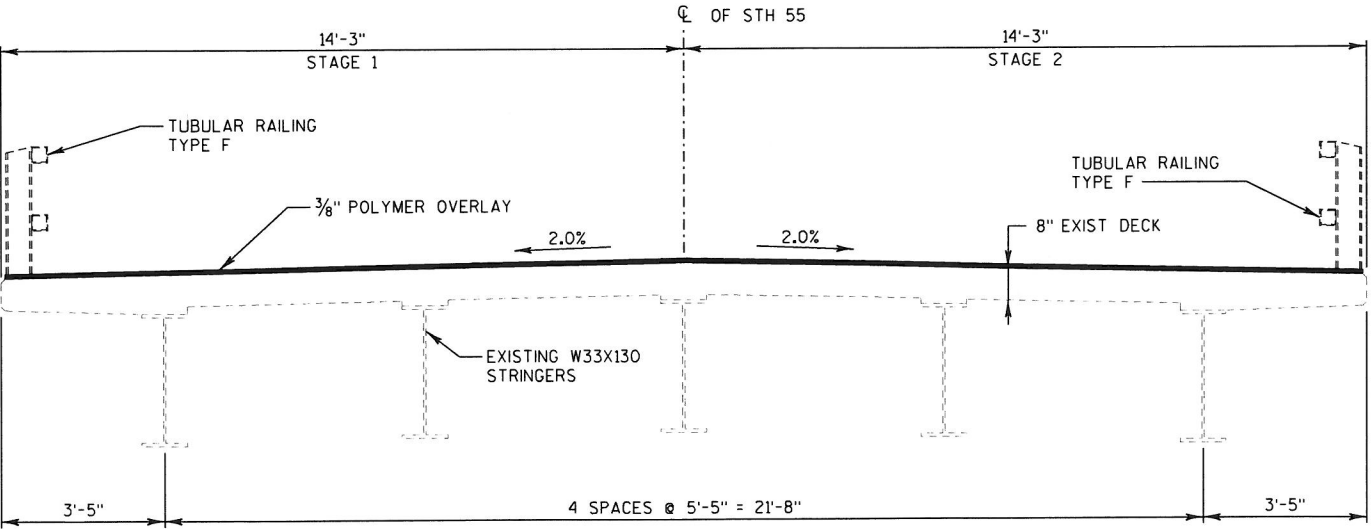
NOTES:

- DRAWINGS SHALL NOT BE SCALED.
- DECK SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "POLYMER OVERLAY".
- ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS SHOWN OR NOTED OTHERWISE.
- DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.
- ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAWCUT.
- BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS SHOWN OR NOTED OTHERWISE.
- CONCRETE SURFACE REPAIR TO BE DESIGNATED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON THE PLAN ARE APPROXIMATE.
- "PREPARATION DECKS TYPE 1" QUANTITY IS UNDISTRIBUTED AND SHALL BE DEFINED BY A SAW CUT.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
509.1500	CONCRETE SURFACE REPAIR	SF	35
509.0301	PREPARATION DECKS TYPE 1	SY	20
509.5100.S	POLYMER OVERLAY	SY	186
SPV.0035.01	CONCRETE MASONRY DECK PATCHING	CY	1
SPV.0090.01	SAWING PAVEMENT DECK PREPARATION AREAS	LF	200

ALL ITEMS ARE CATEGORY 0020



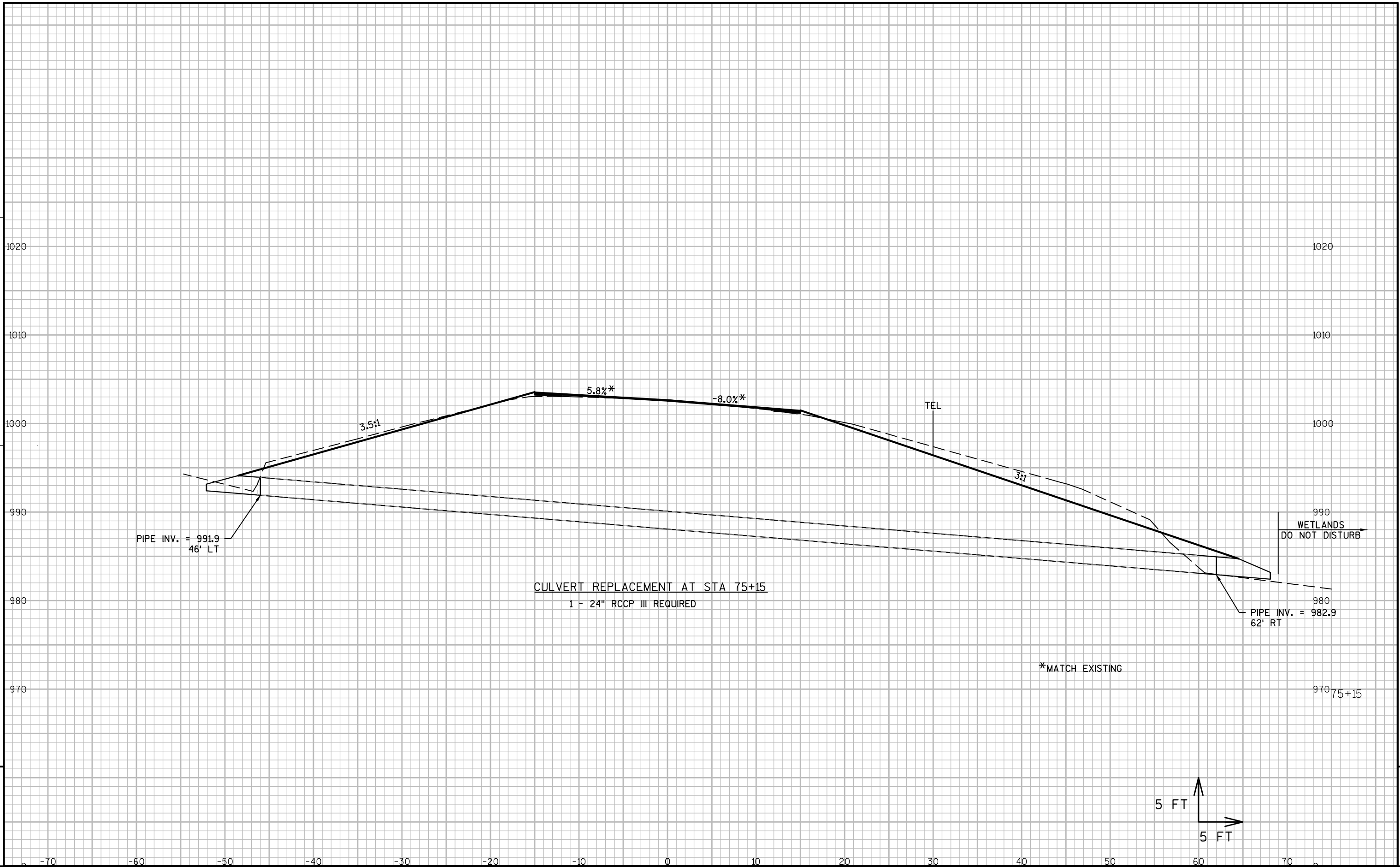
SECTION

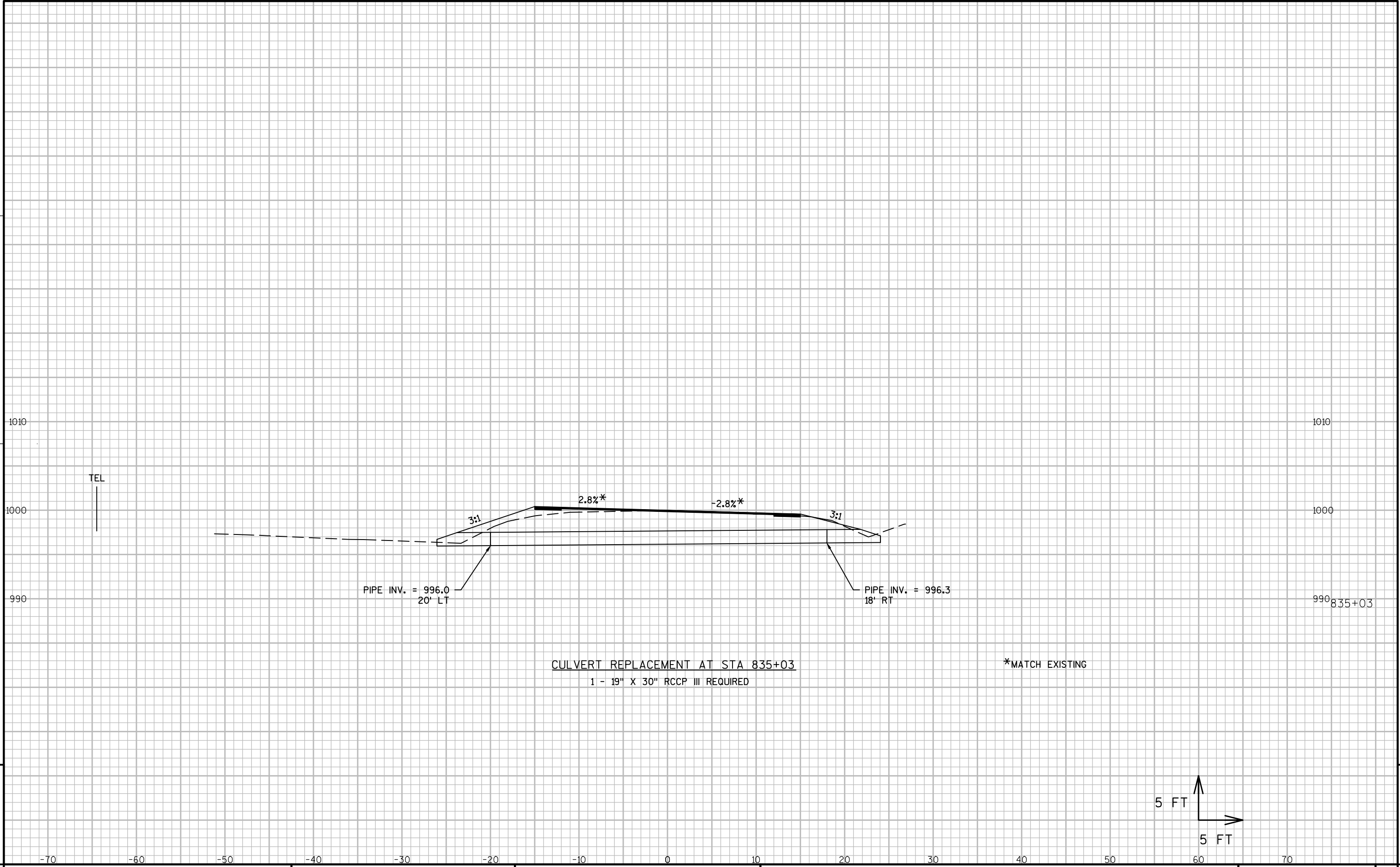
(LOOKING NORTH)

DESIGN DATA

LIVE LOAD:
DESIGN LOADING:
INVENTORY RATING:
OPERATIONAL RATING:
MAXIMUM STANDARD PERMIT VEHICLE:

HS 20
HS 20 (CURRENT)
HS 33 (CURRENT)
250 KIPS (CURRENT)



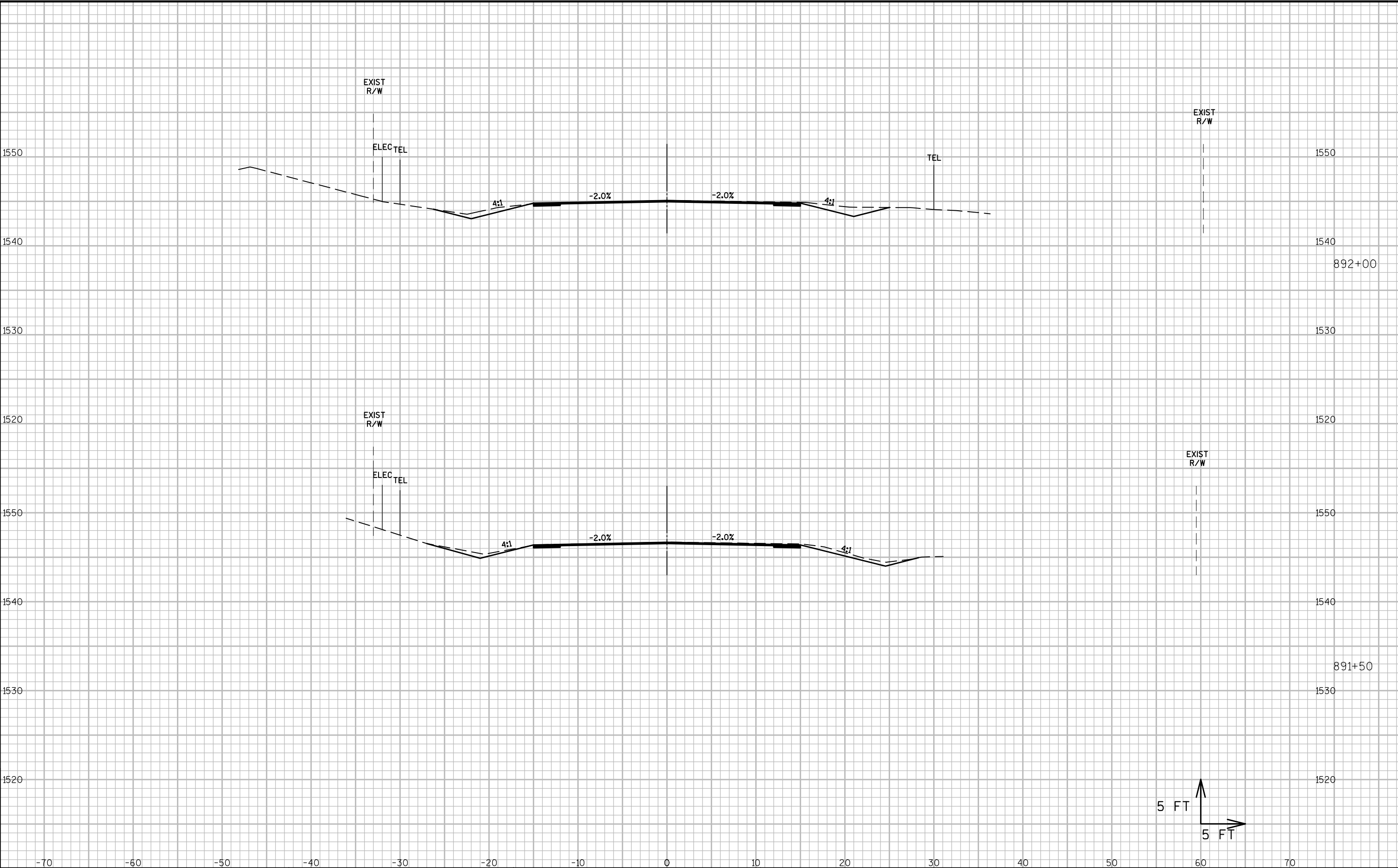


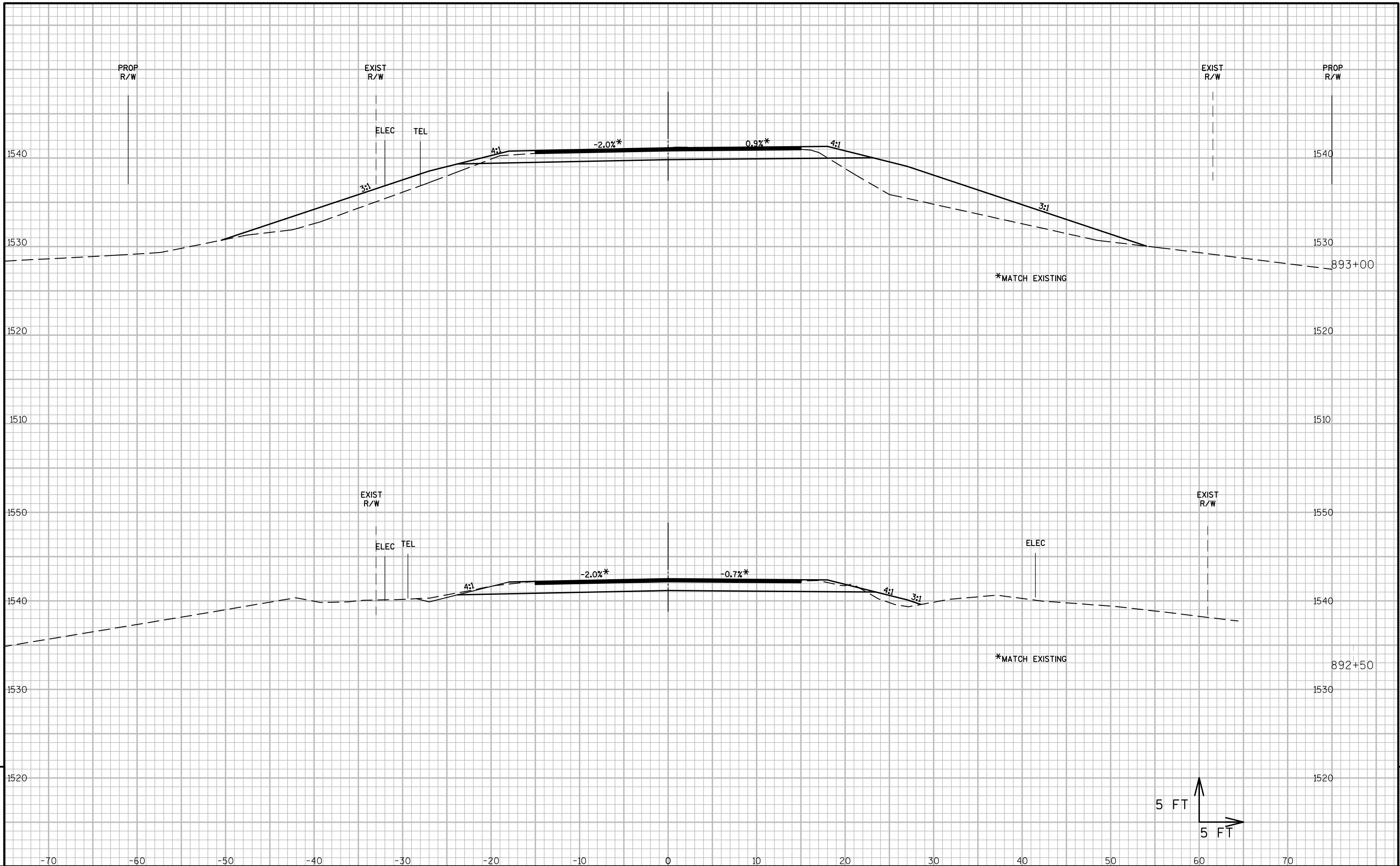
CULVERT REPLACEMENT AT STA 835+03
1 - 19" X 30" RCCP III REQUIRED

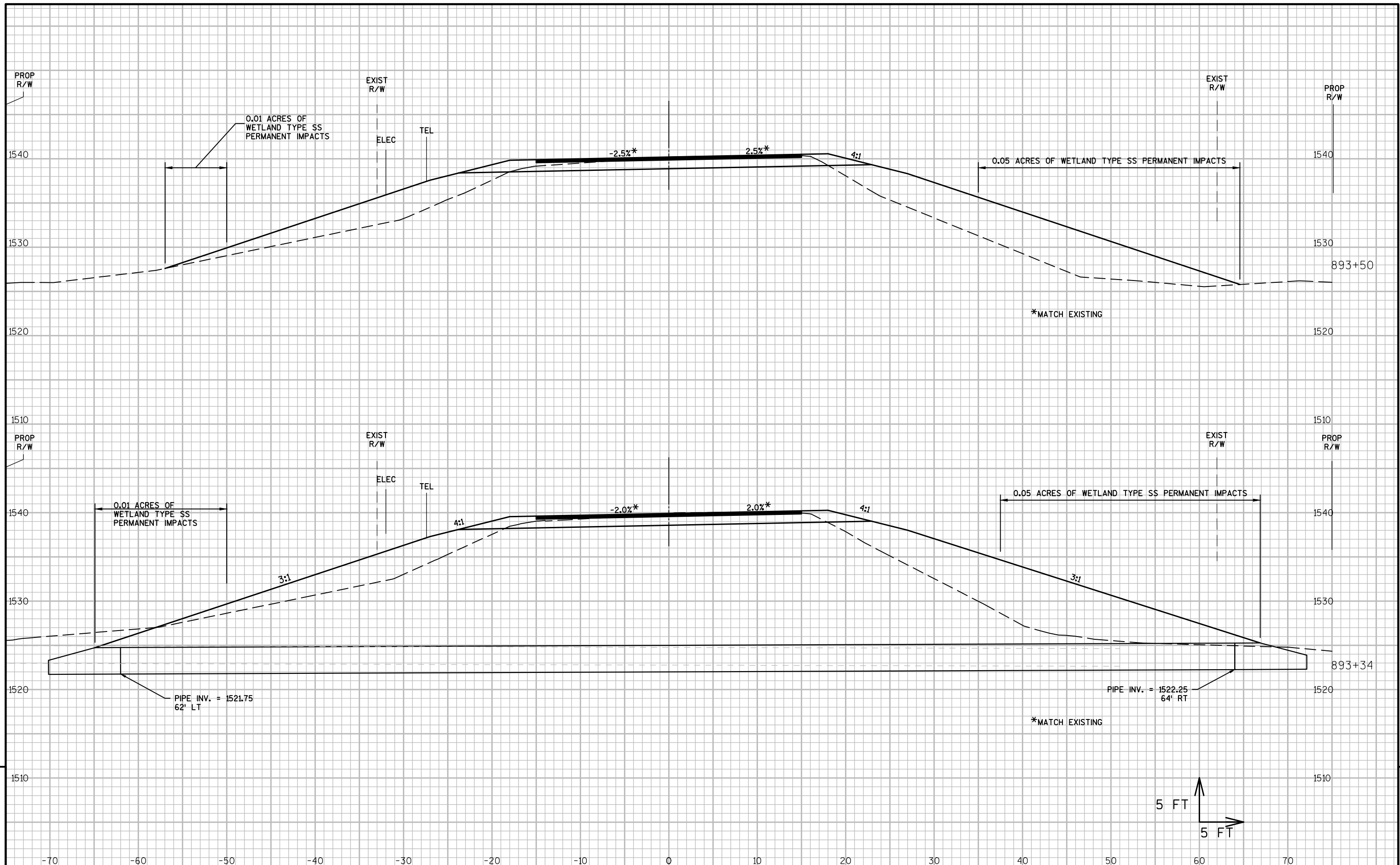
*MATCH EXISTING

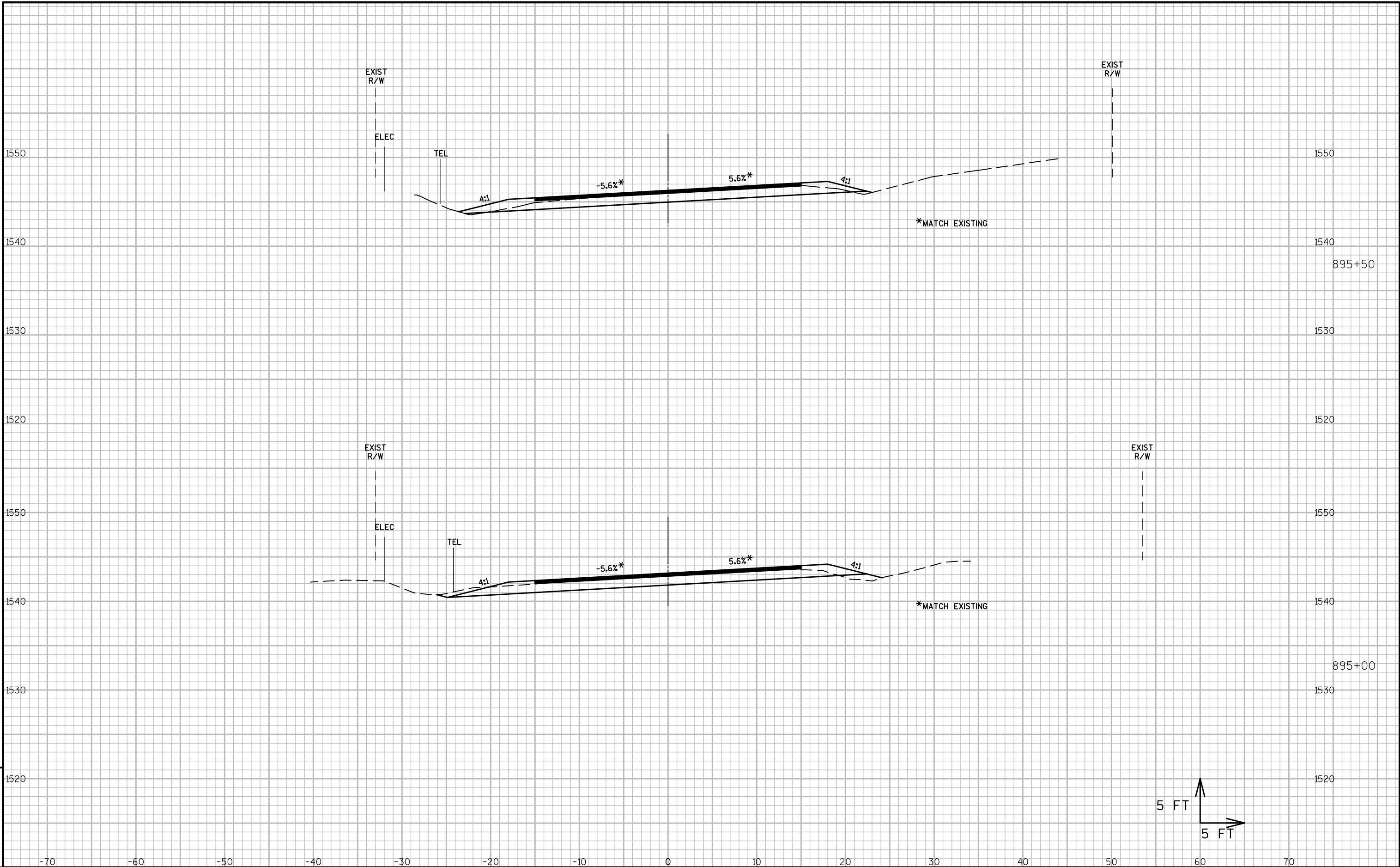
9

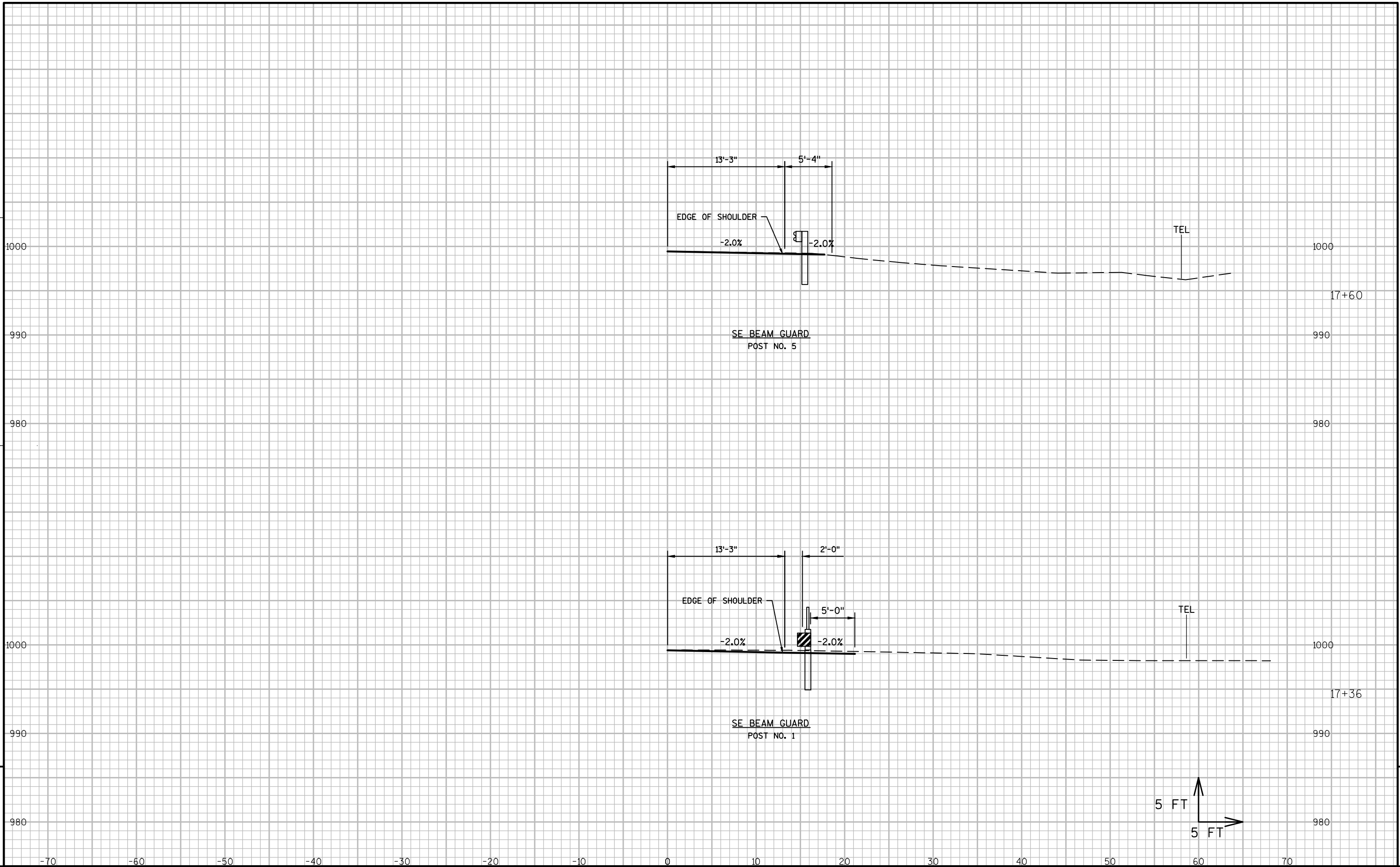
9





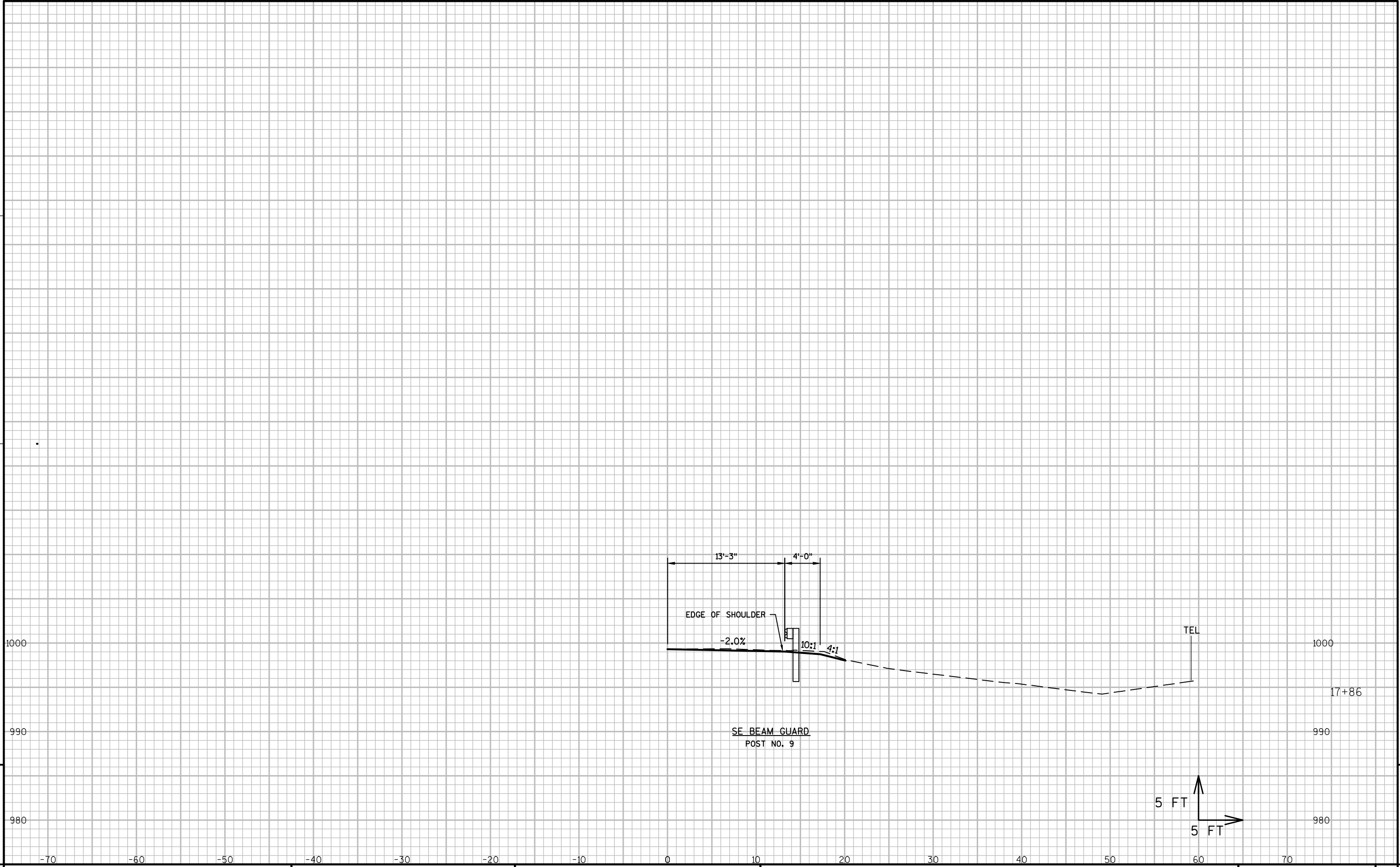






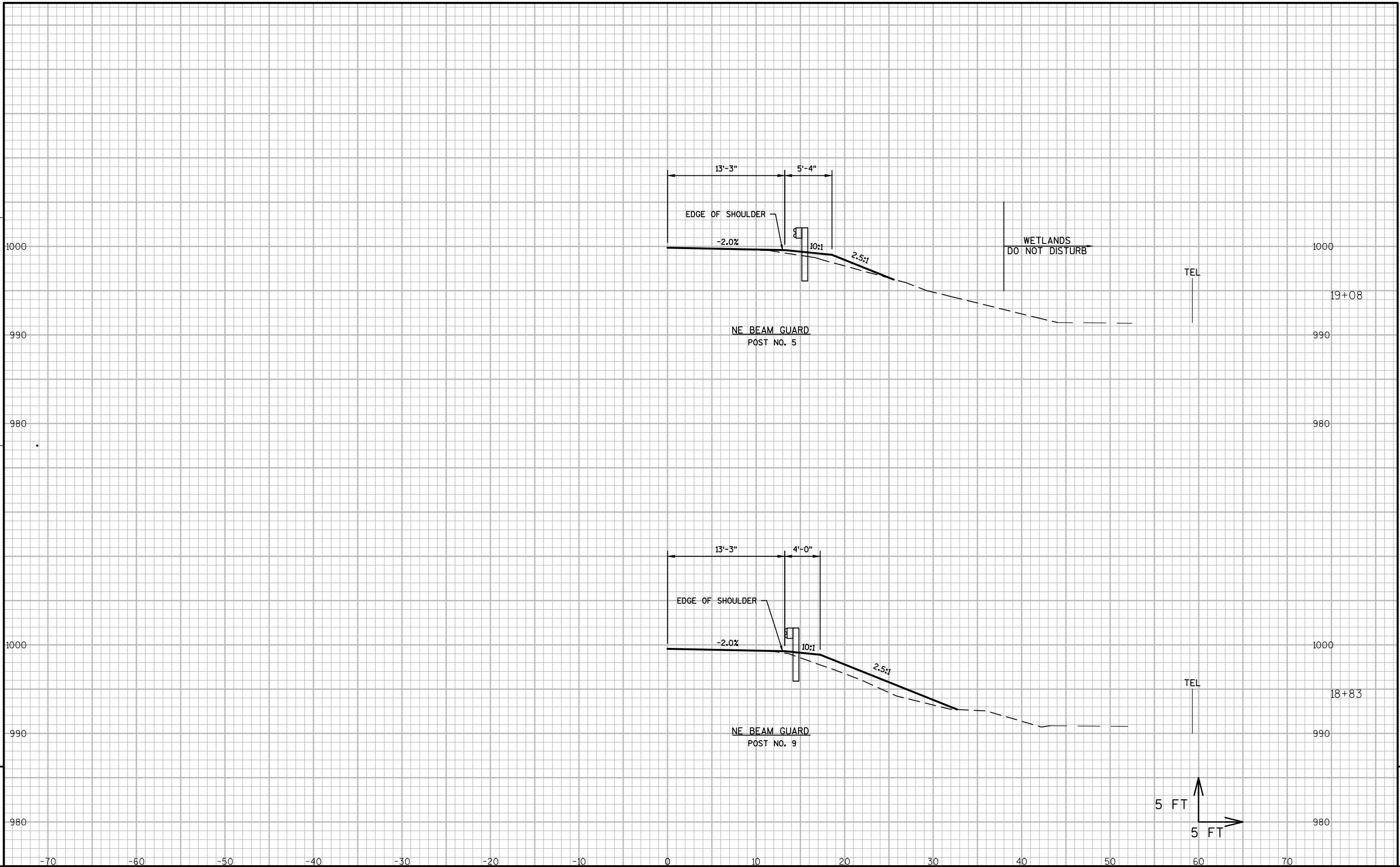
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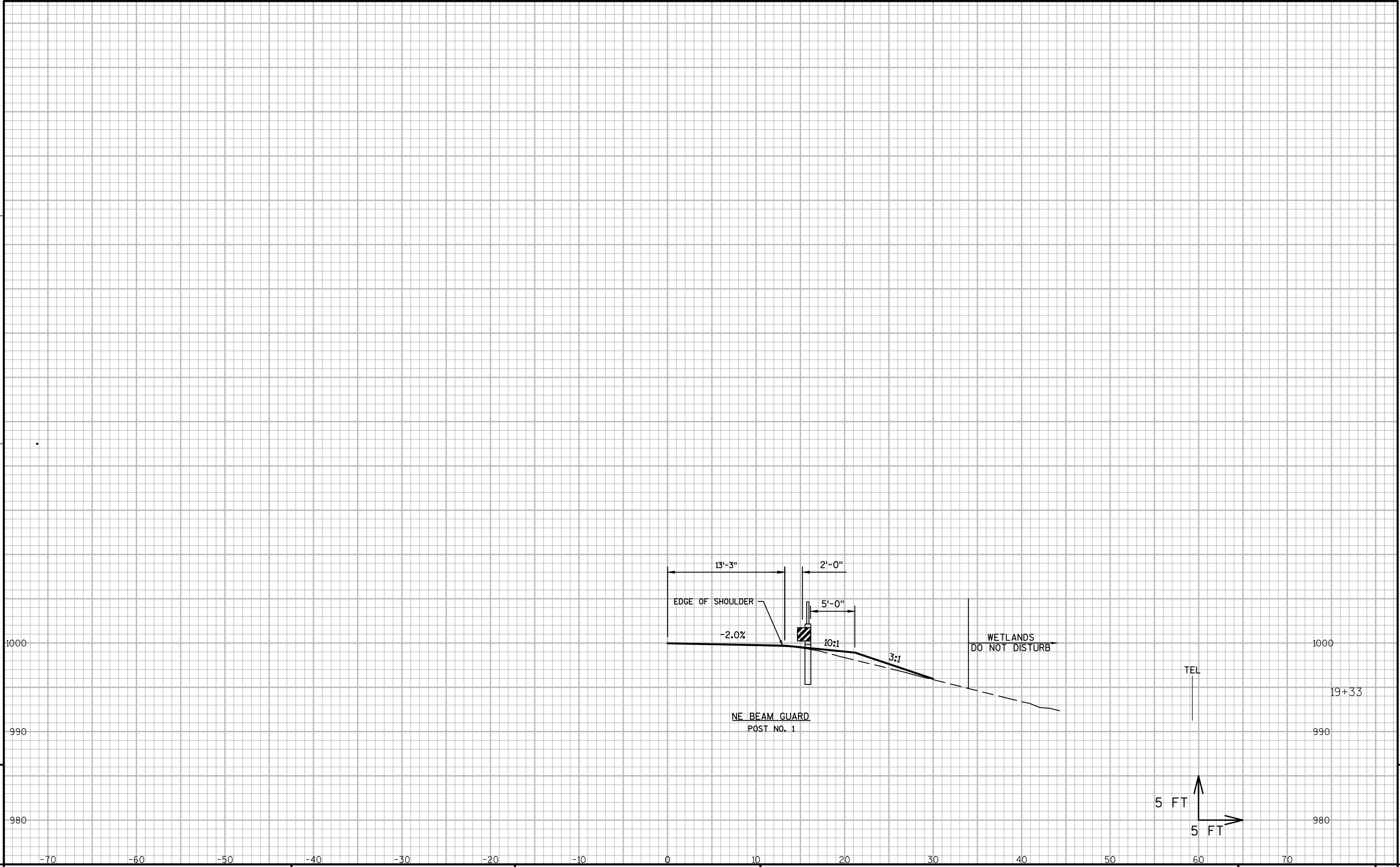
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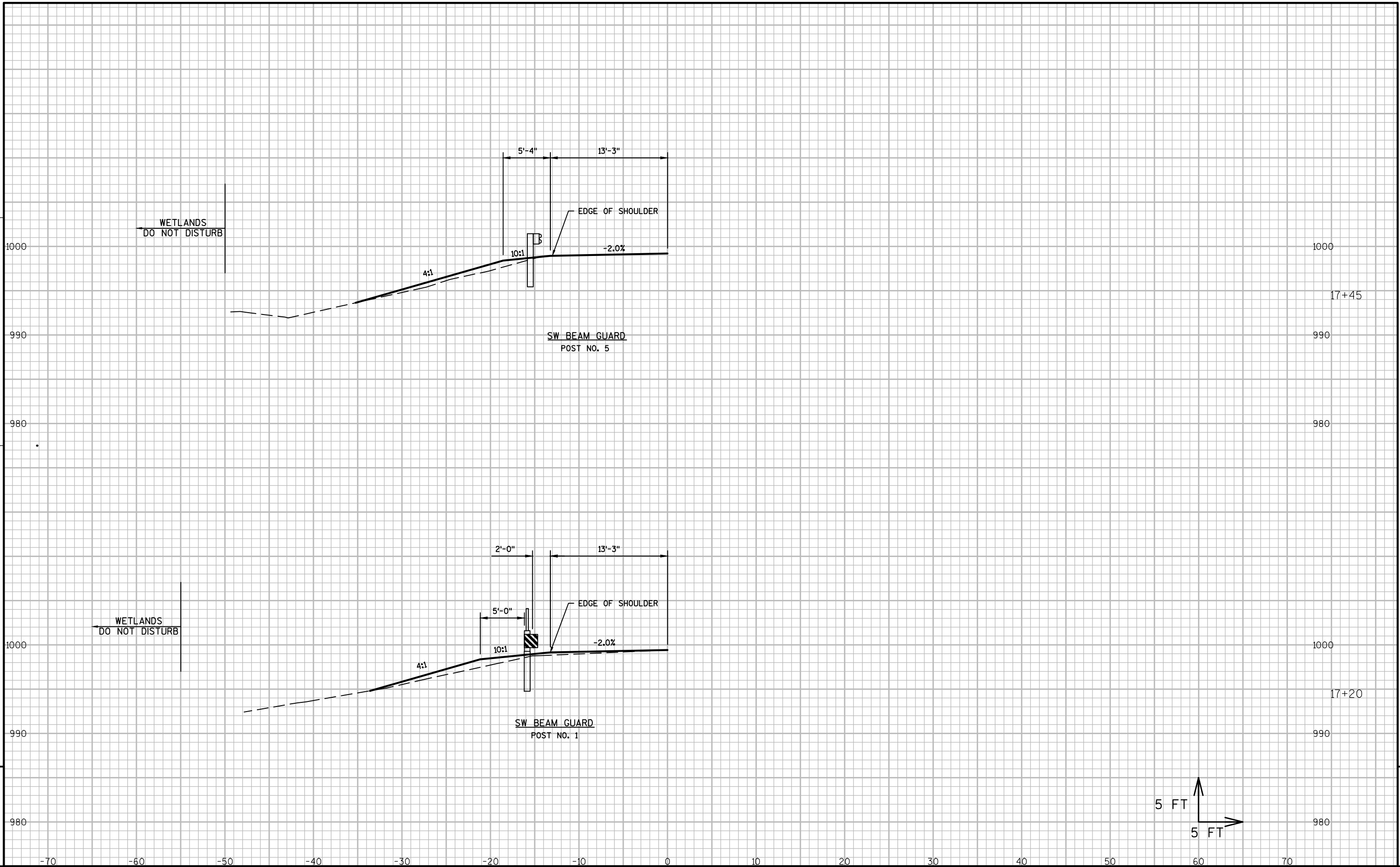
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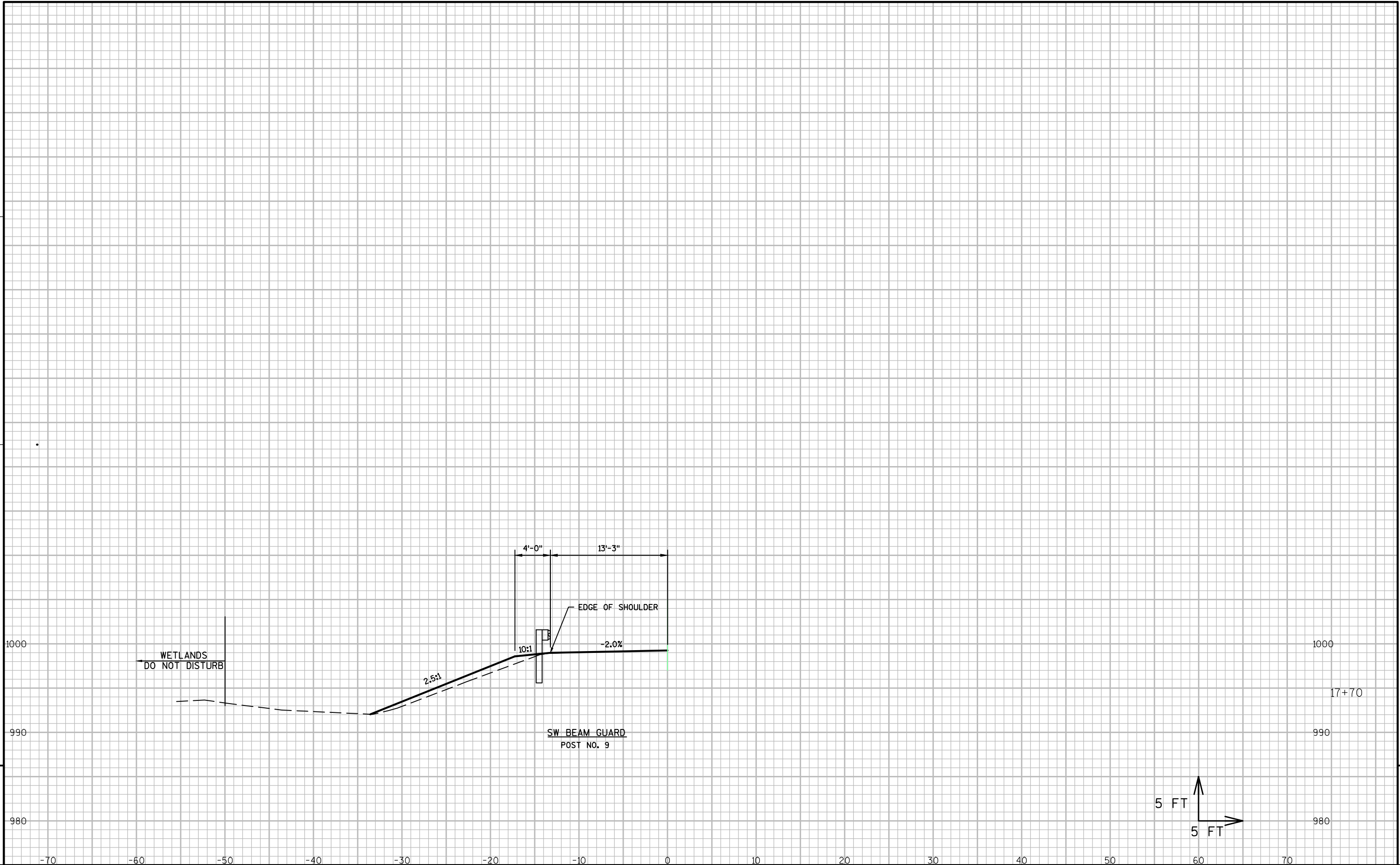
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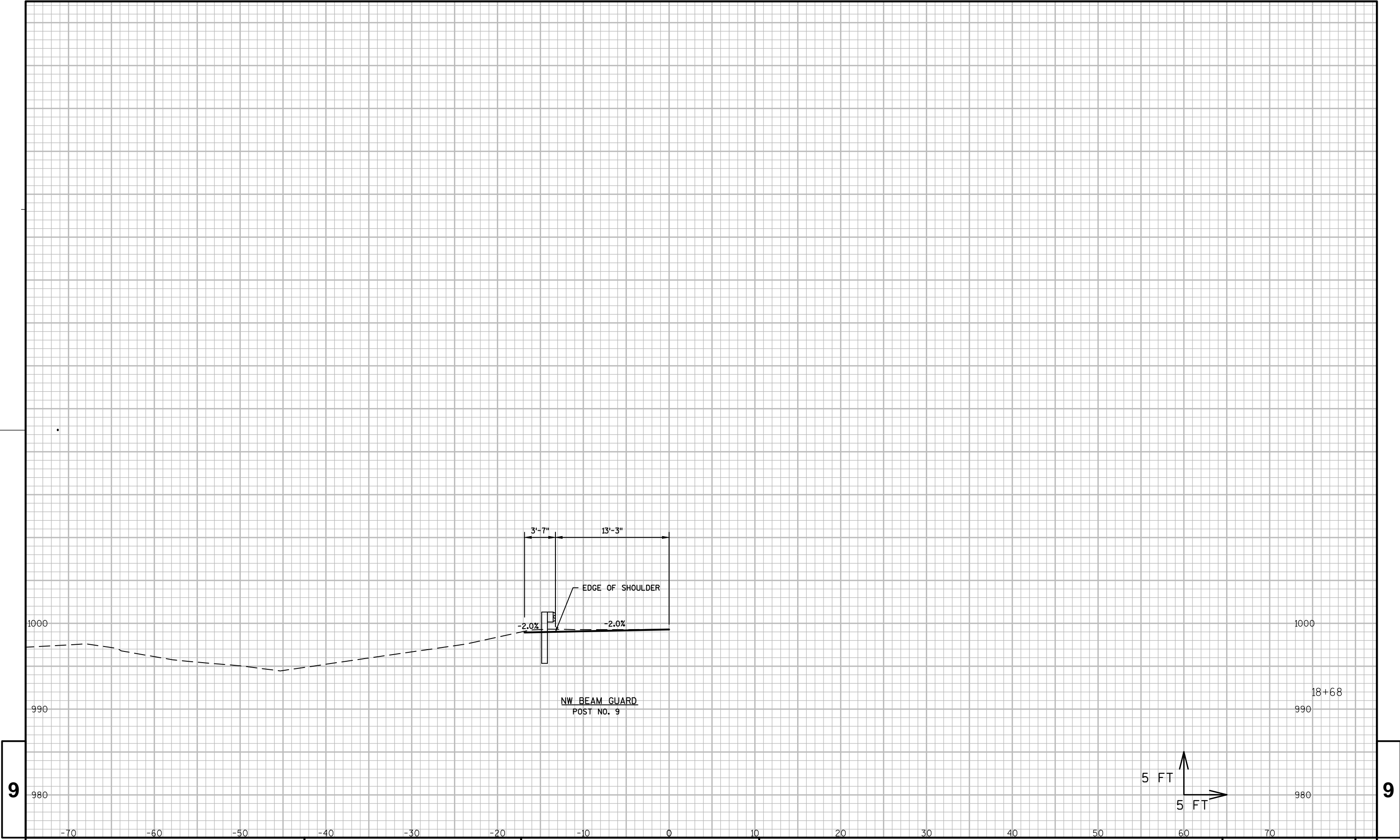
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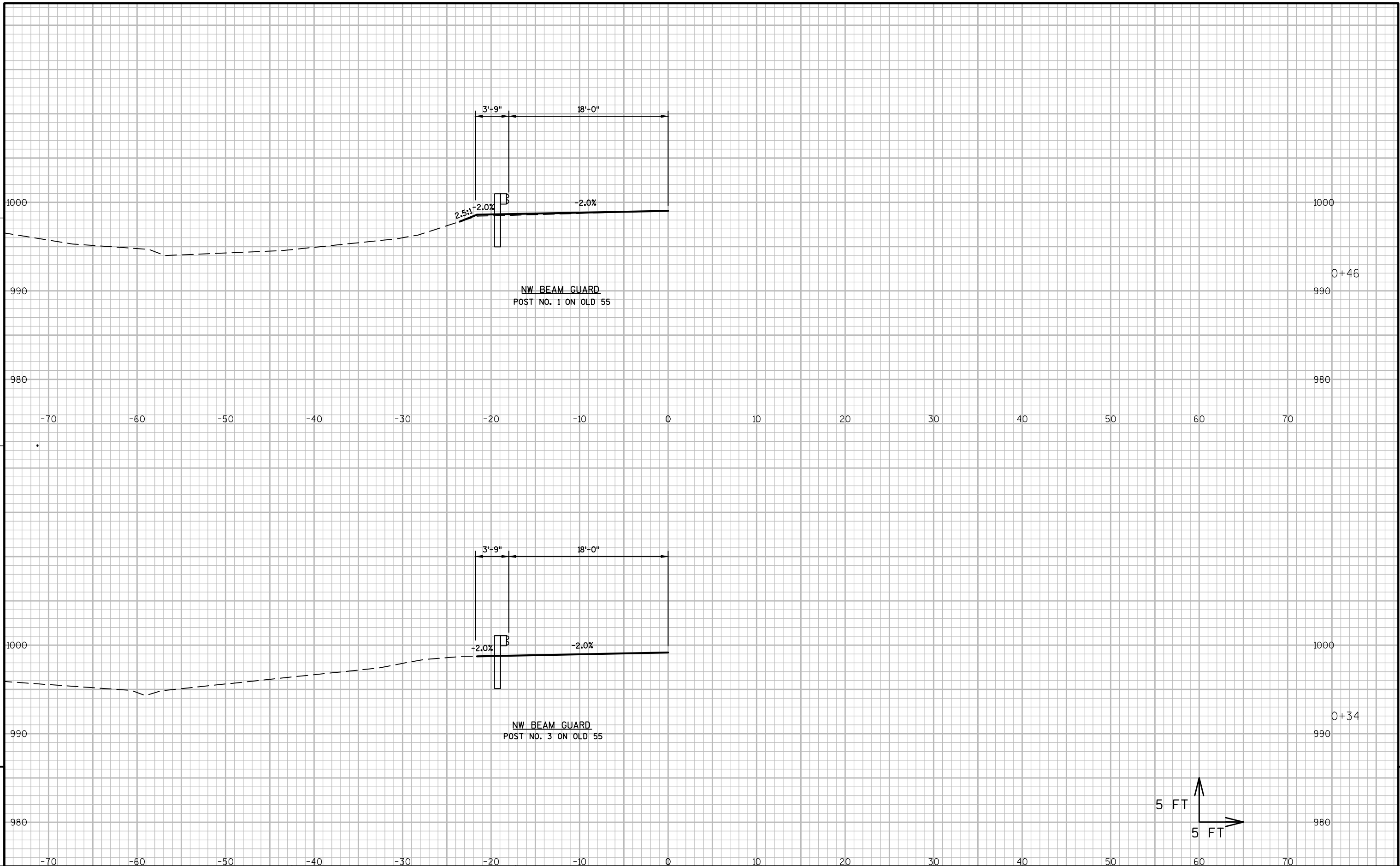
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