SUP

PROJECT ID: 8220-05-72

WITH: N/A

COUNTY: TAYLOR

JUNE 2014

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections & Details (Incl. Erosion Control)
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 = 298

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

GILMAN - MEDFORD

COYOTE DRIVE - CENTRAL AVENUE

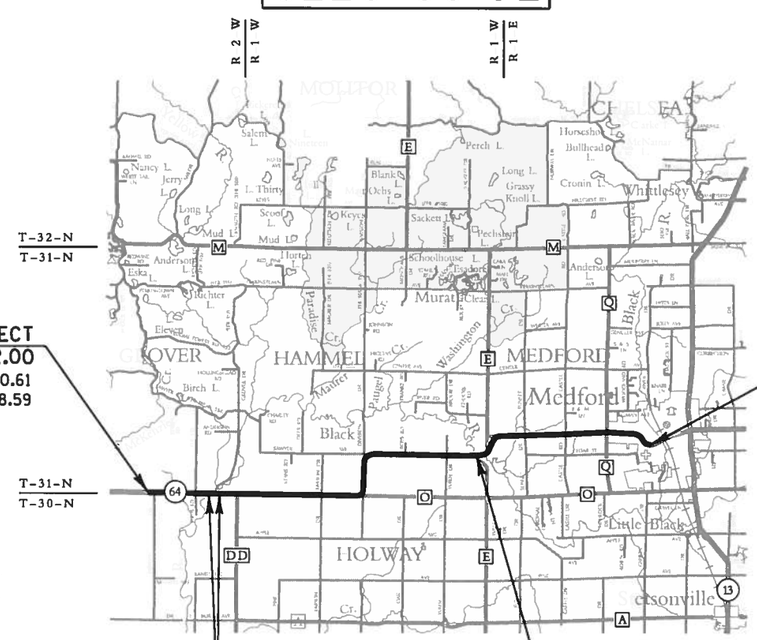
STH 64

TAYLOR COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8220-05-72		

DESIGN DESIGNATION			STH 64 COYOTE DR - CTH E	STH 64 CTH E - CENTRAL AVE
A.A.O.T.	2012	=	1,400-2,000	4,000-8,800
A.A.O.T.	2032	=	1,850-2,650	4,900-10,800
D.H.V.		=	15.0	15.0
D.D.		=	59/41	59/41
T.		=	17.5%	17.5%
DESIGN SPEED		=	55 MPH	40 MPH - 55 MPH
ESALS		=	883,300	1,708,200

STATE PROJECT NUMBER
8220-05-72



BEGIN PROJECT
STA 11+22.00
Y=332,020.61
X=582,808.59

END PROJECT
STA 715+64.00

EXCEPTION TO NET
CENTERLINE LENGTH
B-60-110
STA 105+25.10
STA 107+52.00

B-60-1

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

LAYOUT
SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 13.298 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), TAYLOR COUNTY, HORIZONTAL DATUM NAD 83 (07). ALL DISTANCES ARE GROUND. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM 1988.

ORIGINAL PLANS PREPARED BY

EMCS
630 South 36th Avenue
Wausau, WI 54401
715.845.1081 FAX 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E35808
WAUSAU, WI
PROFESSIONAL ENGINEER

7/19/2013 Stephanie G. Christensen
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	PHILLIP KEPPERS
Regional Examiner	DAN OJIBWAY
Regional Supervisor	DAVID OSTROWSKI

APPROVED FOR THE DEPARTMENT
DATE: 7/22/13 (Signature)

E

GENERAL NOTES

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

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.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE PIPES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

TEMPORARY STORAGE OF ANY MATERIAL OR EQUIPMENT WILL NOT BE PERMITTED IN WETLANDS. WETLANDS DELINEATED NEAR GRADING WORK ARE SHOWN ON THE PLANS. OTHER WETLANDS MAY EXIST IN THE PROJECT AREA.

PLACE HMA PAVEMENT LAYERS WITH THE FOLLOWING THICKNESS AND NOMINAL SIZES:

STH 64
HMA PAVEMENT TYPE E-3 SPECIAL 2-INCH
SINGLE LAYER THICKNESS = 2-INCH (12.5 MM)

CTH E (SHOULDER)
HMA PAVEMENT TYPE E-3 SPECIAL 4-INCH
SINGLE LAYER THICKNESS = 4-INCH (12.5 MM)

BILLINGS AVE
HMA PAVEMENT TYPE E-3 SPECIAL 3-INCH
UPPER LAYER THICKNESS = 1.5-INCH (12.5 MM)
LOWER LAYER THICKNESS = 1.5-INCH (12.5 MM)

ADDITIONAL PAVEMENT DEPTHS CAN BE PROVIDED BY THE DEPARTMENT UPON REQUEST. DEPTHS WERE MEASURED BY GROUND PENETRATING RADAR (GPR) ON 4/8/2014. CONTACT DAN REID AT (608) 246-7946.

PAVEMENT CORE LOG

CORE #	APPROX. STATION	OFFSET	PAVEMENT THICKNESS (IN)
1	15+00	9' LT	8.5
2	40+00	5' RT	7.75
3	65+00	5' LT	8.75
4	90+00	6' RT	7.5
5	115+00	6' LT	9
6	140+00	5.5' RT	8
7	165+00	6' LT	3.25
8	190+00	4' RT	5
9	215+00	7' LT	10
10	240+00	7' RT	8
11	265+00	6' LT	9.75
12	292+00	9' RT	3.75
13	292+00	9' LT	8.5
14	314+85	5' RT	9
15	340+00	10' LT	7
16	340+00	9' RT	12
17	365+00	7' LT	9.25
18	390+00	9' RT	9.5
19	415+00	6' LT	9.5
20	440+00	7' RT	3.75
21	465+50	8' LT	9.25
22	490+50	7' RT	9.75
23	515+50	11' LT	6
24	515+50	9' RT	9.75
25	540+50	6' LT	4.75
26	565+50	10.5 RT	7.5
27	590+50	6' LT	8.75
28	615+50	6' RT	8
29	640+50	6' LT	8.25
30	665+50	7.5' RT	10.5
31	690+50	14' LT	5.5

UTILITIES

CHARTER COMMUNICATIONS
(COMMUNICATIONS)
SCOTT OLSON
853 MCINTOSH ST
PO BOX 1818
WAUSAU, WI 54403
PHONE (715) 301-4079
MOBILE (715) 302-1348
SCOTT.OLSON@CHARTERCOM.COM

MEDFORD WATERWORKS
(SANITARY SEWER & WATER)
PAT CHARITON
639 S 2ND ST
MEDFORD, WI 54451
PHONE (715) 748-1187
MOBILE (715) 965-4187
PCHARITON@MEDFORDWI.US

TDS TELECOM
(COMMUNICATIONS)
STEVE JAKUBIEC
10 COLLEGE AVE SUIT 218A
APPLETON, WI 54911
PHONE (920) 562-7221
MOBILE (920) 882-4166
STEVE.JAKUBIEC@TDSTELECOM.COM

XCEL ENERGY
(ELECTRIC - TRANSMISSION)
KYLE NEIDERMIRE
3505 MELBY ROAD
PO BOX 8
EAU CLAIRE, WI 54702
PHONE (715) 737-1576
KYLE.S.NEIDERMIRE@XCELENERGY.COM

MEDFORD ELECTRIC UTILITY
(ELECTRIC)
PRIMARY CONTACT
SPENCER TITERA
639 S 2ND ST
PO BOX 360
MEDFORD, WI 54451
PHONE (715) 748-1521
STITERA@MEDFORDWI.US

TAYLOR COUNTY ELECTRIC COOPERATIVE
(ELECTRIC)
KEVIN COMSTOCK
N 1831 STH 13
MEDFORD, WI 54451
PHONE (800) 862-2407
MOBILE (715) 560-4084
KEVIN@TAYLORELECTRIC.ORG

WE ENERGIES
(GAS)
CONSTRUCTION FIELD CONTACT:
THOMAS KROSTAG
1921 8TH ST S
WISCONSIN RAPIDS, WI 54494
PHONE (715) 421-7268
MOBILE (715) 459-1772
THOMAS.KROSTAG@WE-ENERGIES.COM

SEND ALL CORRESPONDENCE TO:
DAN SANDE
333 W EVERETT ST. A299
MILWAUKEE, WI 53203
PHONE (414) 221-4578
DAN.SANDE@WE-ENERGIES.COM

OTHER CONTACTS

DNR LIAISON
BILL GANTZ
DNR NORTHERN REGION HEADQUARTERS
810 W MAPLE STREET
SPOONER, WI 54801
(715) 635-4227
WILLIAM.GANTZ@WISCONSIN.GOV

TAYLOR COUNTY HIGHWAY DEPARTMENT
JESS SACKMANN
HIGHWAY COMMISSIONER
209 N 8TH ST
PO BOX 89
MEDFORD, WI 54451
(715) 748-2456
JESS.SACKMANN@CO.TAYLOR.WI.US

TOWN OF GROVER
CRAIG BOLZ
CHAIRPERSON
W11260 STATE HIGHWAY 64
WITHEE, WI 54498
(715) 965-1293

TOWN OF MAPLEHURST
MARK NOSKO
CHAIRPERSON
N1182 PUTMAN DRIVE
OWEN, WI 54460
(715) 229-2834

TOWN OF HOLWAY
RODNEY ADAMS
CHAIRPERSON
N710 OAK DRIVE
CURTISS, WI 54422
(715) 678-2397

TOWN OF HAMMEL
STEVE DEML
CHAIRPERSON
W7856 PERKINSTOWN AVENUE
MEDFORD, WI 54451
(715) 748-4986

TOWN OF MEDFORD
VERN PERNSTEINER
CHAIRPERSON
N2680 SUNSET ROAD
MEDFORD, WI 54451
(715) 748-4804

CITY OF MEDFORD
JOHN FALES
PUBLIC WORKS DIRECTOR
603 S WHELEN AVE
MEDFORD, WI 54451
(715) 748-4321

ORDER OF SECTION 2 SHEETS

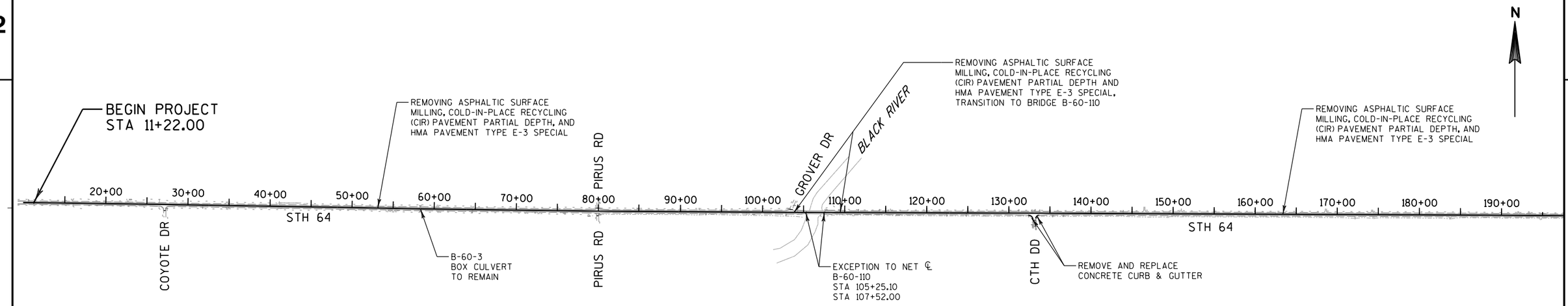
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL

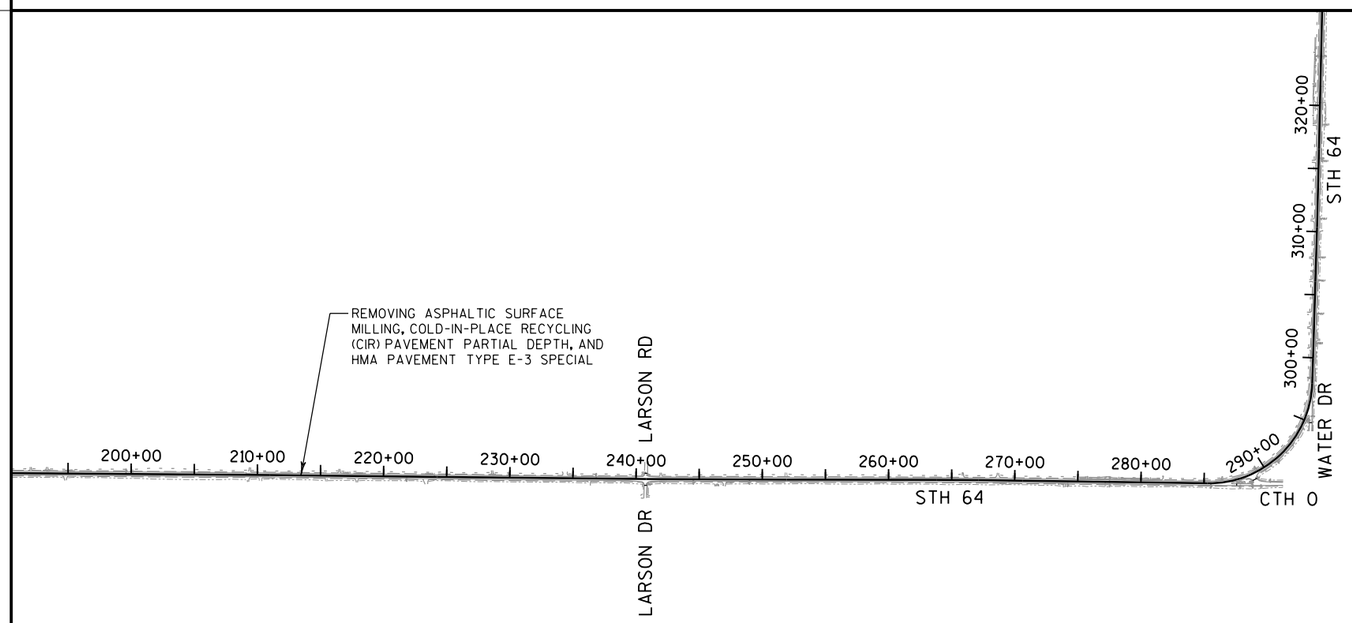
DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

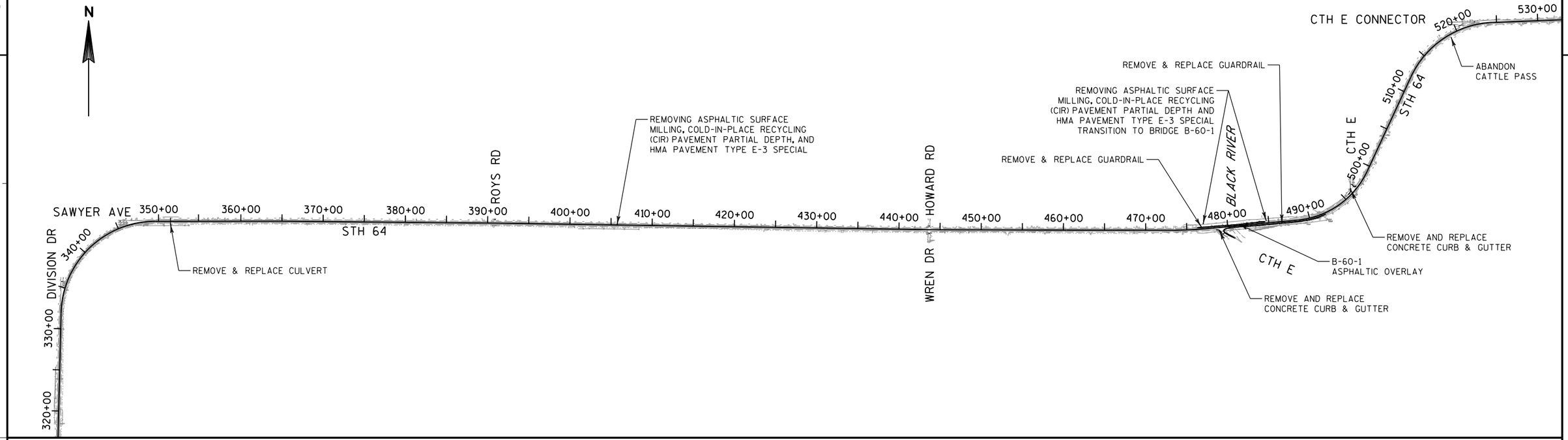
TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

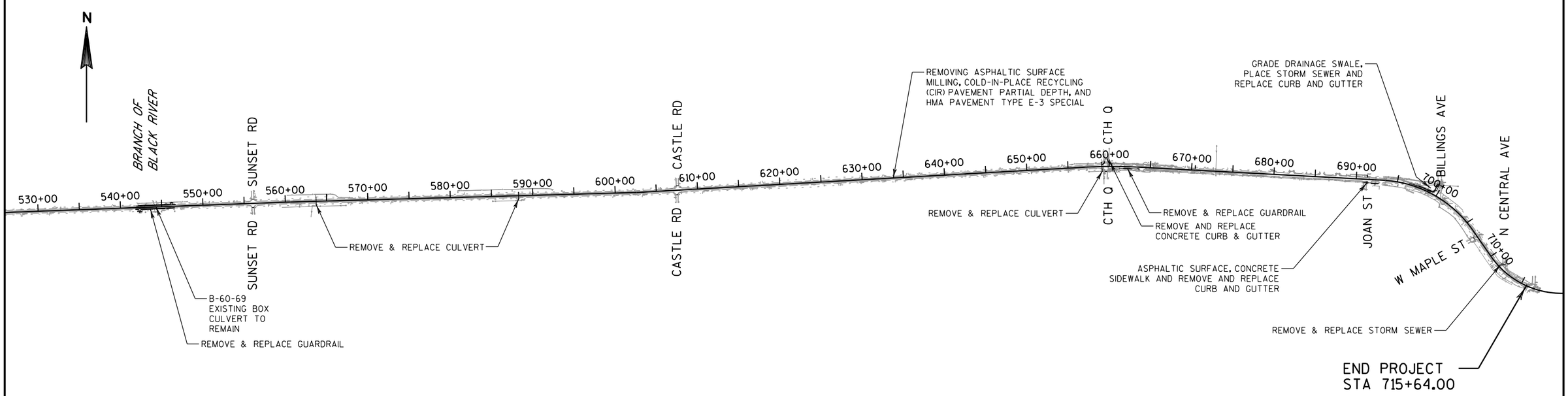
WISCONSIN STATUTE 182.0175 (1974) REQUIRES MINIMUM OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.



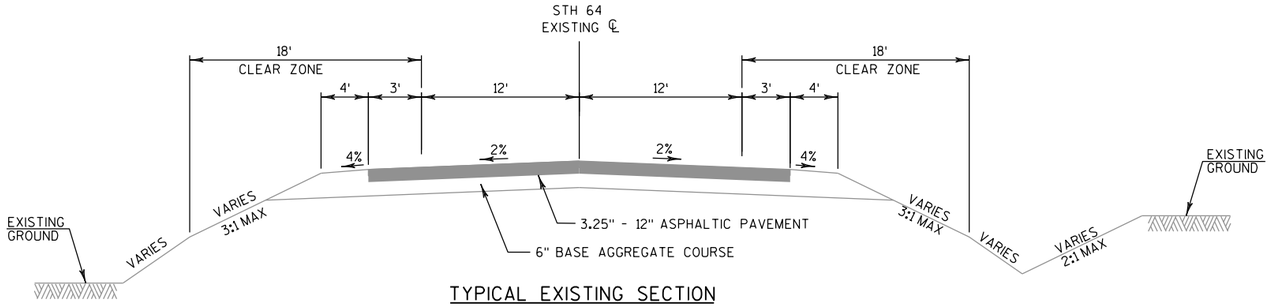


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PROJECT OVERVIEW	SHEET 3	E

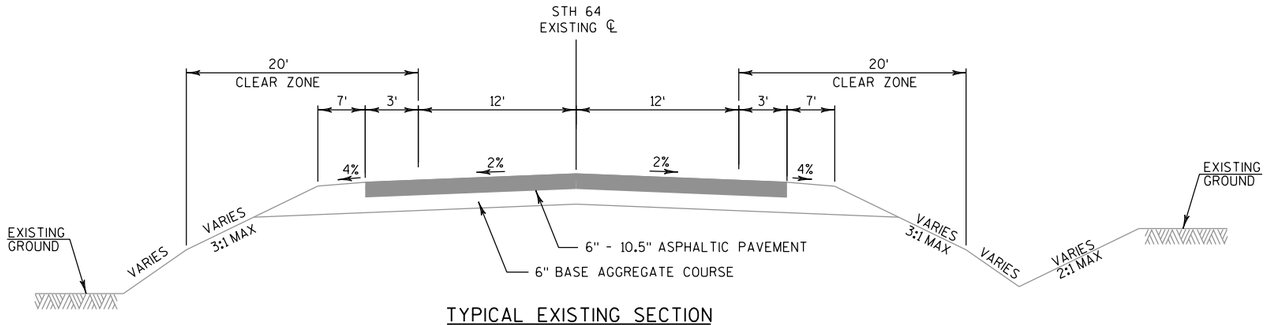




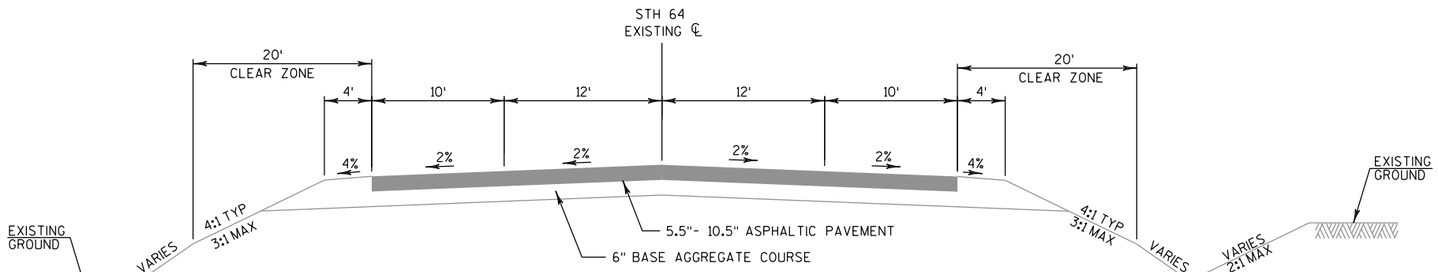
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PROJECT OVERVIEW	SHEET 4	E



TYPICAL EXISTING SECTION
STH 64
STA 11+22 - STA 460+37



TYPICAL EXISTING SECTION
STH 64
STA 460+37 - STA 678+44
STA 690+44 - STA 715+64



TYPICAL EXISTING SECTION
STH 64
STA 678+44 - STA 690+44

NOTES

PAVEMENT CROSS SLOPES VARY DUE TO EXISTING SUPERELEVATION. SEE SECTION 5 PLAN SHEETS FOR EXISTING SUPERELEVATION DATA. SHOULDER WIDTH VARIES AT BEAM GUARD BETWEEN STA 103+90 - 109+06.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	TYPICAL SECTIONS	SHEET 5	E

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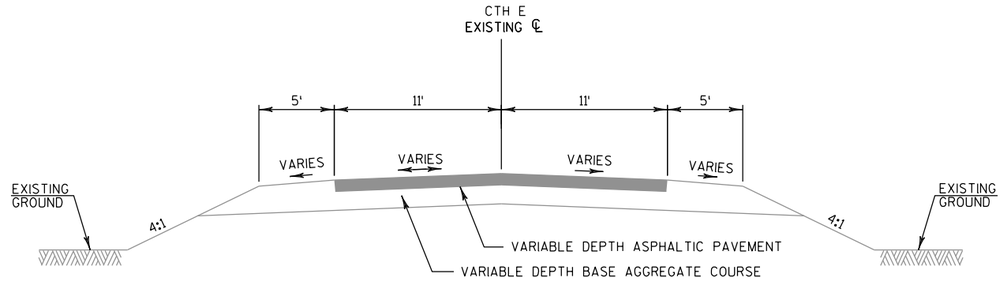
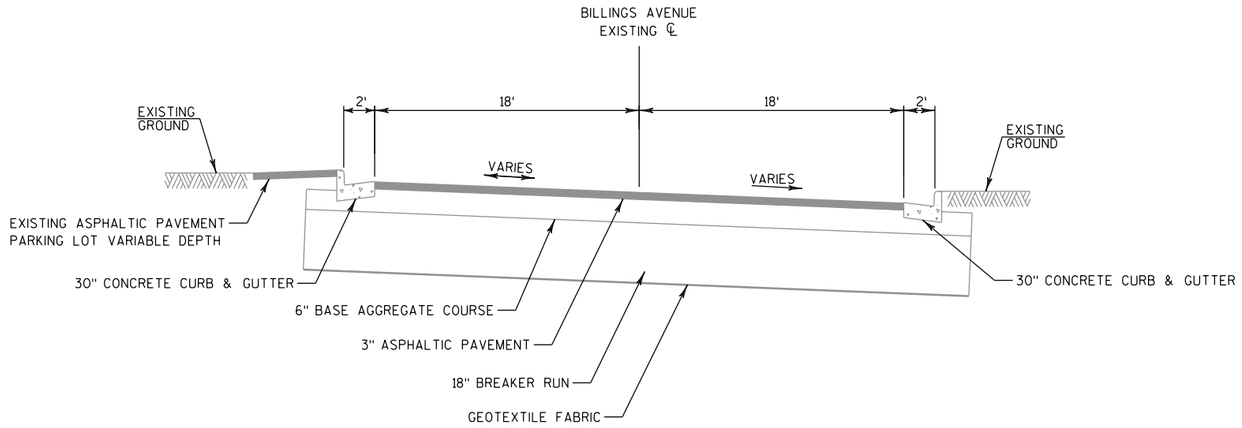


TYPICAL EXISTING SECTION
CTH E (SOUTH JUNCTION)
STA 500'E'+20 - STA 502'E'+30



TYPICAL EXISTING SECTION
BILLINGS AVENUE
STA 600'B'+55 - STA 601'B'+40

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	TYPICAL SECTIONS	SHEET 6	E

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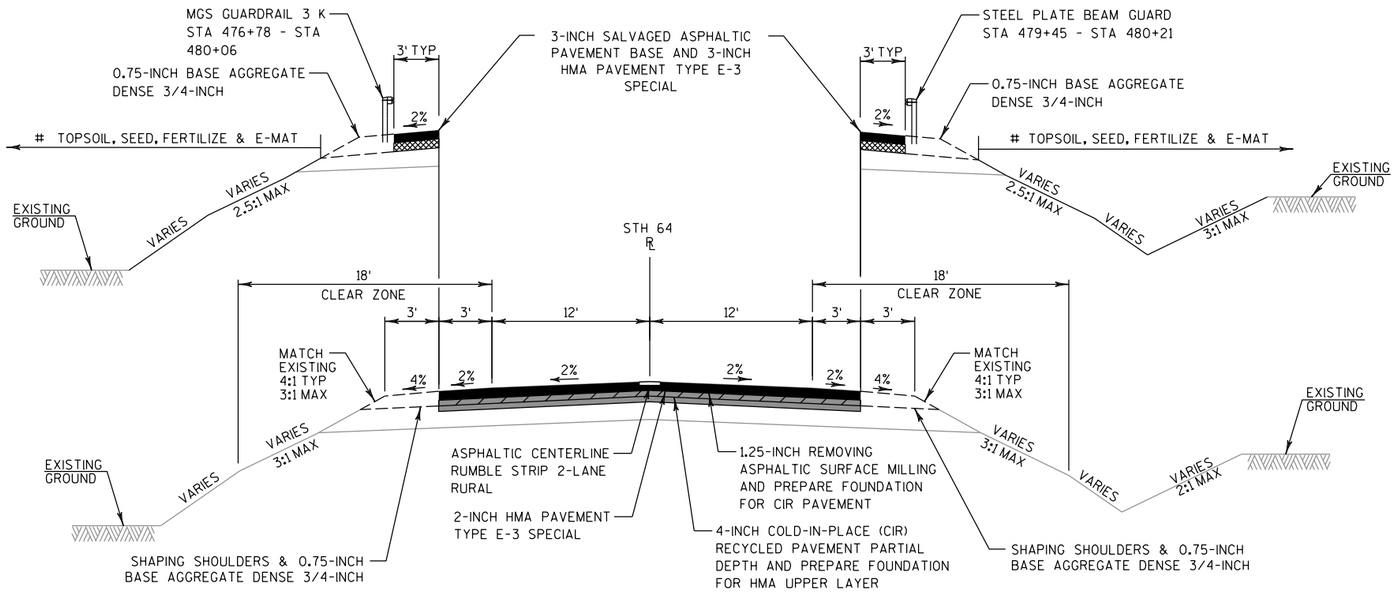
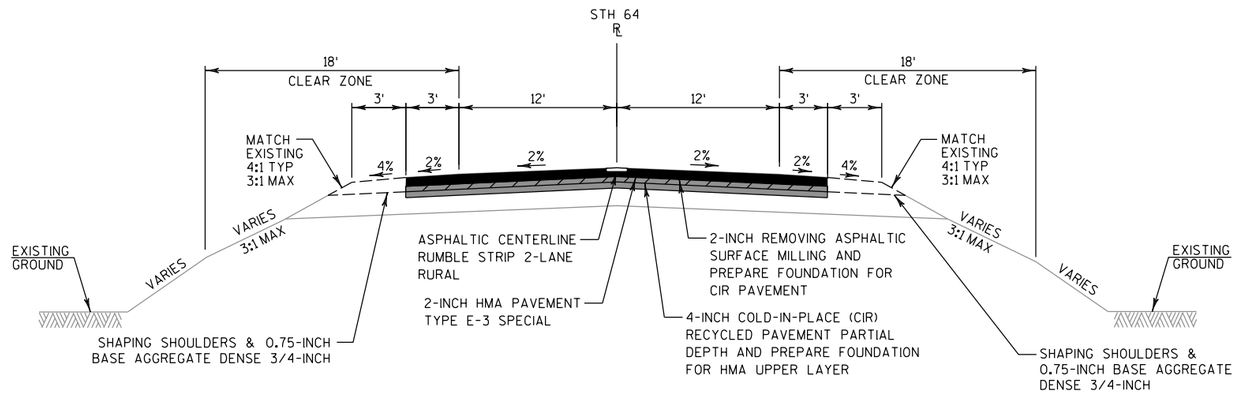


TYPICAL FINISHED SECTION

STH 64

STA 11+22 - STA 103+16
STA 109+65 - STA 480+13 (B-60-1)



TYPICAL FINISHED SECTION

STH 64

STA 103+16 - STA 105+25 (B-60-110)
STA 107+52 (B-60-110) - STA 109+65

NOTES

\# TOPSOIL, SEEDING MIXTURE NO. 30, AND FERTILIZER TYPE B ARE INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

SEE SDD "SAFETY EDGE" FOR LAYOUT OF SAFETY EDGE ON 3'PAVED SHOULDER.

PROPOSED SHOULDER WIDTH VARIES IN AREAS WITH GUARDRAIL. SEE STANDARD DETAIL DRAWINGS FOR GUARDRAIL ITEMS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

SEE SDD "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR LAYOUT OF CENTERLINE RUMBLE STRIP.

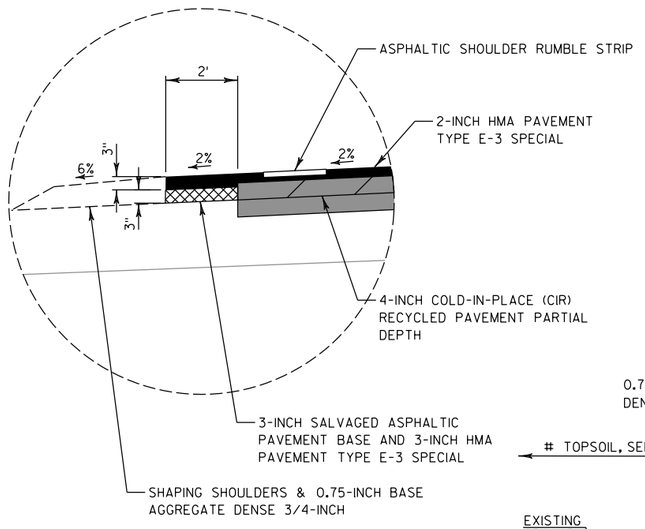
PAVEMENT CROSS SLOPES VARY DUE TO SUPERELEVATION. SEE SECTION 5 PLAN SHEETS FOR SUPERELEVATION DATA.

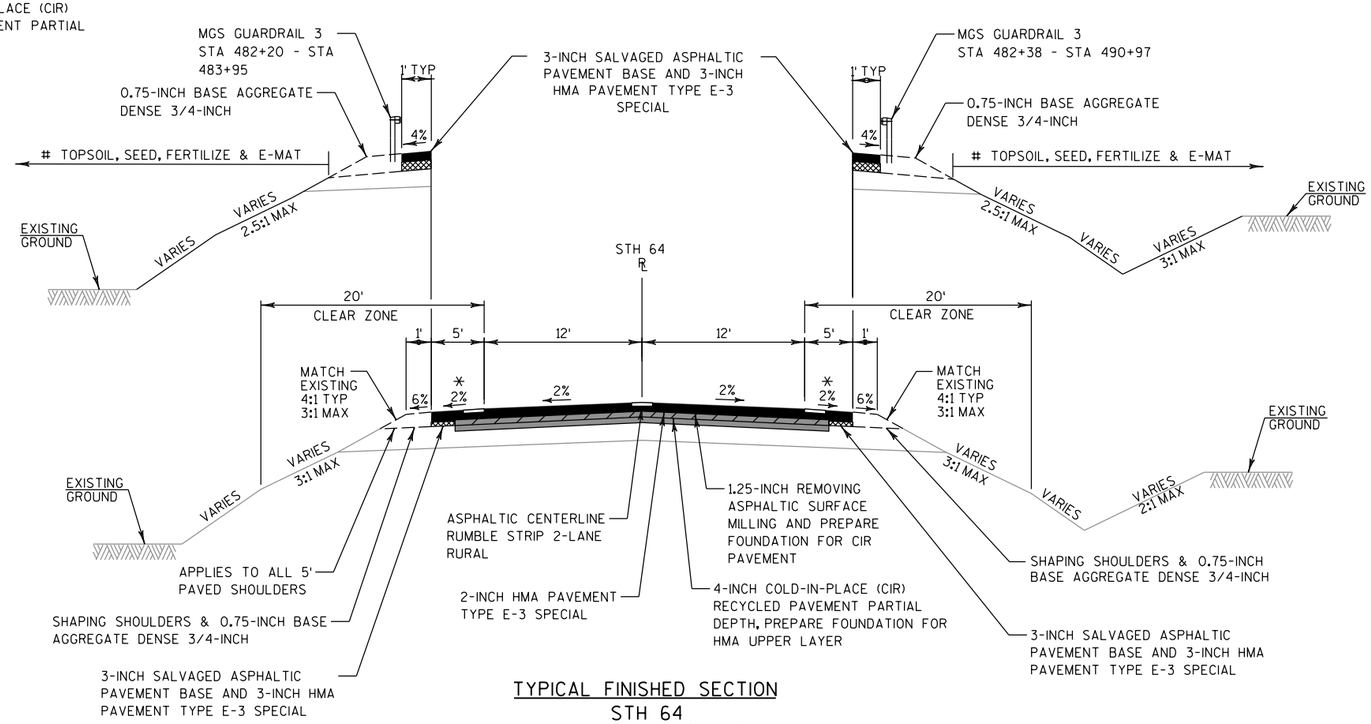
IF UNDERLYING BASE MATERIAL IS ENCOUNTERED DURING CIR OPERATIONS, MODIFY THE CIR DEPTH SO THAT THE UNDERLYING BASE MATERIAL DOES NOT CONTAMINATE THE CIR PAVEMENT.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	TYPICAL SECTIONS	SHEET 7	E

2

DETAIL FOR 5' PAVED SHOULDERS





TYPICAL FINISHED SECTION
STH 64
STA 482+28 (B-60-1) - STA 520+00

NOTES

\# TOPSOIL, SEEDING MIXTURE NO. 30, AND FERTILIZER TYPE B ARE INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

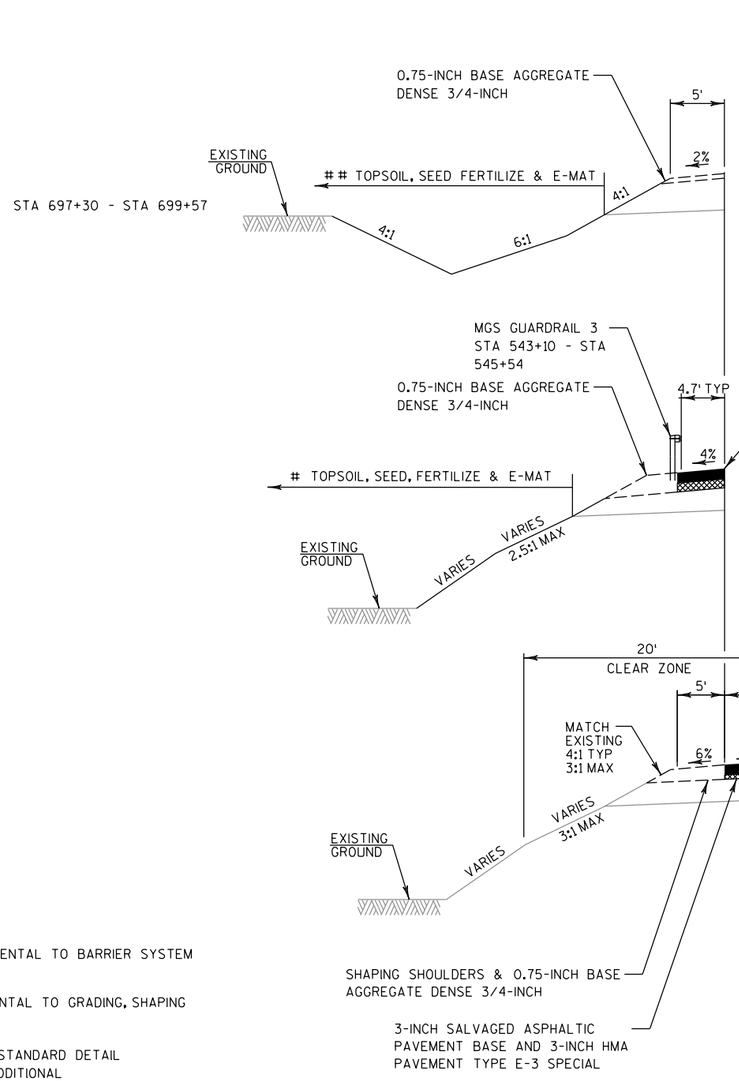
PROPOSED SHOULDER WIDTH VARIES IN AREAS WITH GUARDRAIL. SEE STANDARD DETAIL DRAWINGS FOR GUARDRAIL ITEMS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

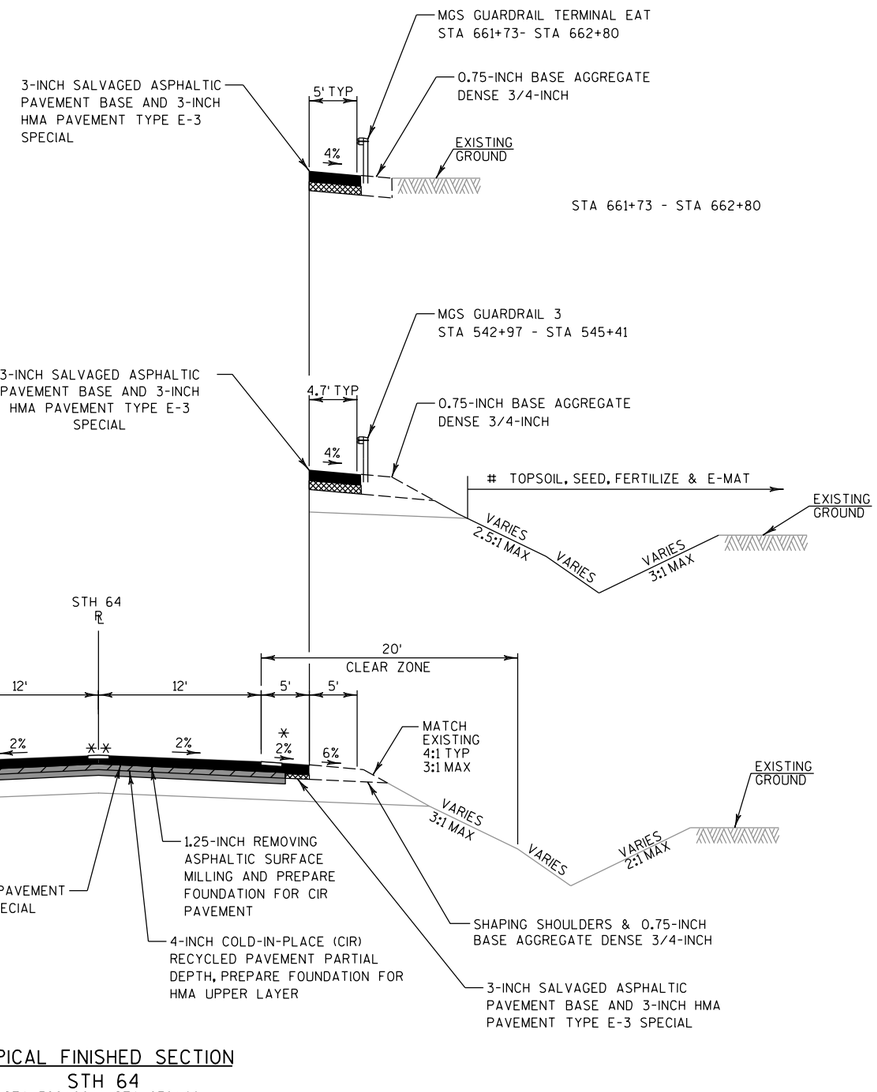
* 5' PAVED SHOULDERS ARE TO BE PAVED INTEGRALLY WITH ADJACENT TRAVEL LANE. ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1 SHALL BE PLACED ON 5' SHOULDERS.

SEE SDD "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR LAYOUT OF CENTERLINE RUMBLE STRIP.

PAVEMENT CROSS SLOPES VARY DUE TO SUPERELEVATION. SEE SECTION 5 PLAN SHEETS FOR SUPERELEVATION DATA.

IF UNDERLYING BASE MATERIAL IS ENCOUNTERED DURING CIR OPERATIONS, MODIFY THE CIR DEPTH SO THAT THE UNDERLYING BASE MATERIAL DOES NOT CONTAMINATE THE CIR PAVEMENT.





TYPICAL FINISHED SECTION

STH 64
STA 520+00 - STA 678+44
STA 690+44 - STA 715+64

NOTES

\# TOPSOIL, SEEDING MIXTURE NO. 30, AND FERTILIZER TYPE B ARE INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

\## TOPSOIL, SEEDING MIXTURE NO. 30 AND FETILIZER TYPE B ARE INCIDENTAL TO GRADING, SHAPING & FINISHING INTERSECTION.

PROPOSED SHOULDER WIDTH VARIES IN AREAS WITH GUARDRAIL. SEE STANDARD DETAIL DRAWINGS FOR GUARDRAIL ITEMS AND CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION.

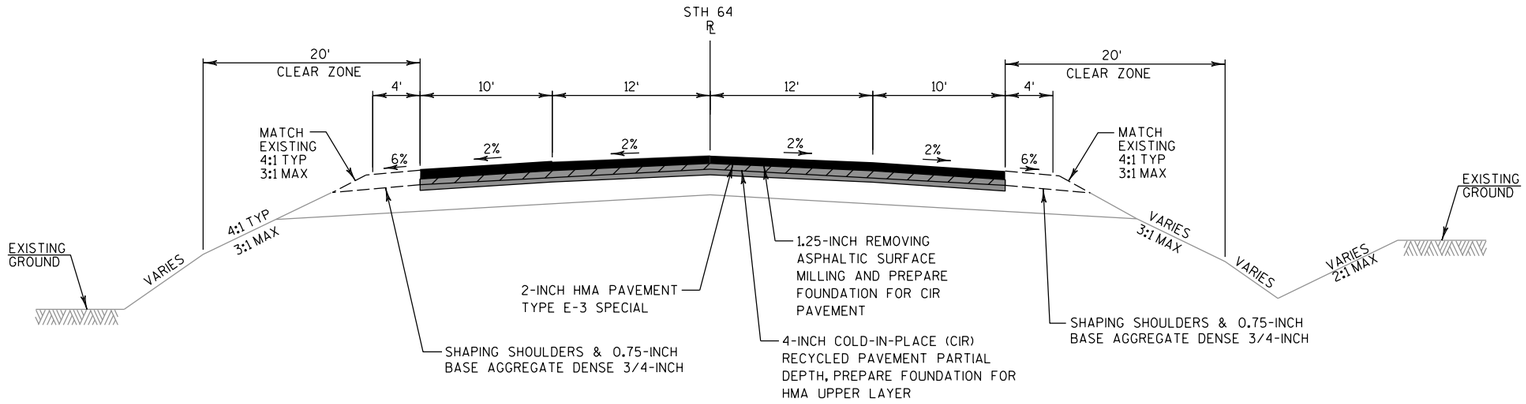
* 5'PAVED SHOULDERS ARE TO BE PAVED INTEGRALLY WITH ADJACENT TRAVEL LANE. ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL TYPE 1 SHALL BE PLACED ON 5' SHOULDERS.

** SEE SDD "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR LAYOUT OF CENTERLINE RUMBLE STRIP. ASPHALTIC CENTERLINE RUMBLE STRIP 2-LANE RURAL AND ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL IS NOT TO BE PLACED BETWEEN STA 657+30 AND STA 715+64.

PAVEMENT CROSS SLOPES VARY DUE TO SUPERELEVATION. SEE SECTION 5 PLAN SHEETS FOR SUPERELEVATION DATA.

IF UNDERLYING BASE MATERIAL IS ENCOUNTERED DURING CIR OPERATIONS, MODIFY THE CIR DEPTH SO THAT THE UNDERLYING BASE MATERIAL DOES NOT CONTAMINATE THE CIR PAVEMENT.

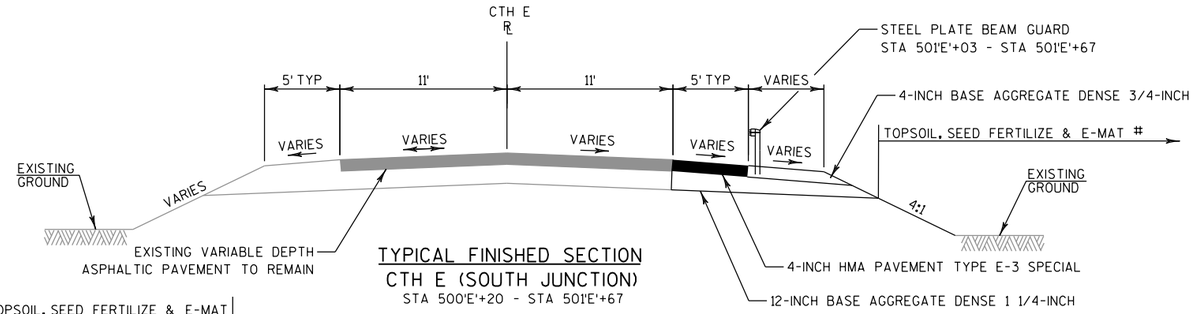
2



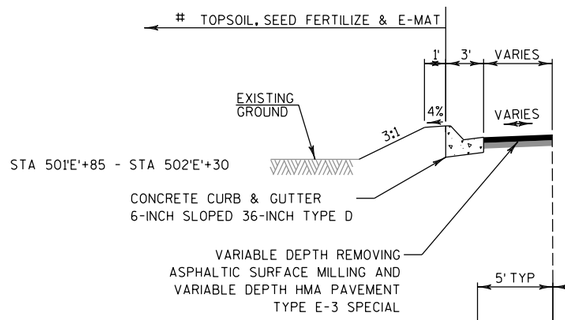
TYPICAL FINISHED SECTION
STH 64
STA 678+44 - STA 690+44

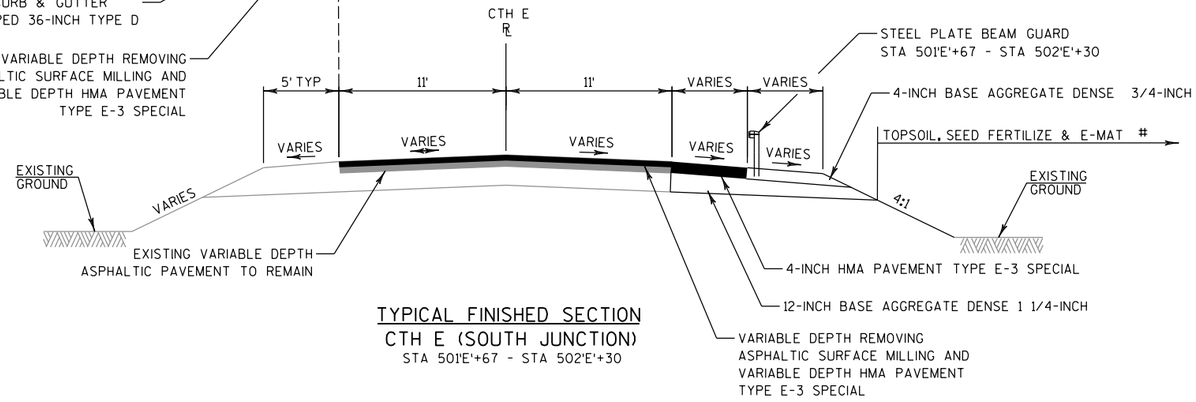
NOTE

IF UNDERLYING BASE MATERIAL IS ENCOUNTERED DURING CIR OPERATIONS, MODIFY THE CIR DEPTH SO THAT THE UNDERLYING BASE MATERIAL DOES NOT CONTAMINATE THE CIR PAVEMENT.

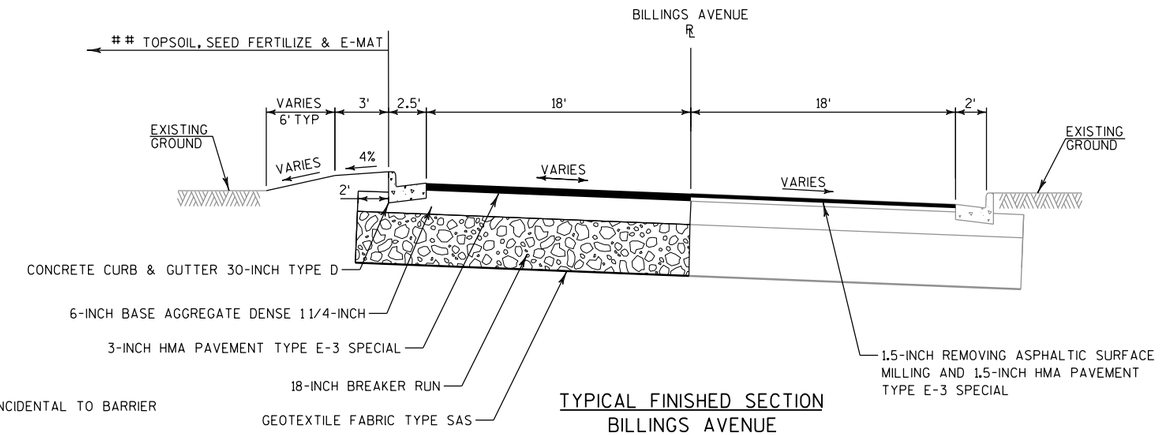


TYPICAL FINISHED SECTION
CTH E (SOUTH JUNCTION)
STA 500'E'+20 - STA 501'E'+67





TYPICAL FINISHED SECTION
CTH E (SOUTH JUNCTION)
STA 501'E'+67 - STA 502'E'+30



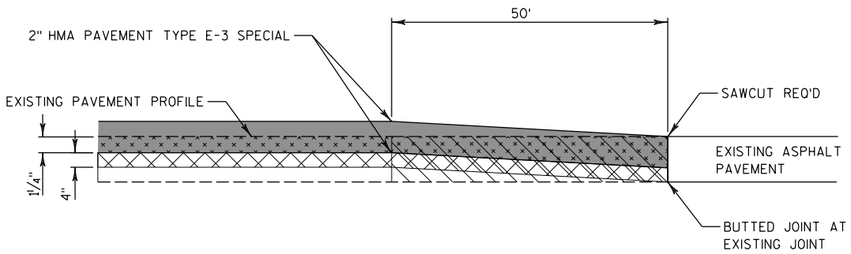
TYPICAL FINISHED SECTION
BILLINGS AVENUE
STA 600'B'+55 - STA 601'B'+40

NOTES

\# TOPSOIL, SEEDING MIXTURE NO. 30, AND FERTILIZER TYPE B ARE INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

\## TOPSOIL, SEEDING MIXTURE NO. 30 AND FERTILIZER TYPE B ARE INCIDENTAL TO GRADING, SHAPING & FINISHING INTERSECTION.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	TYPICAL SECTIONS	SHEET 11	E



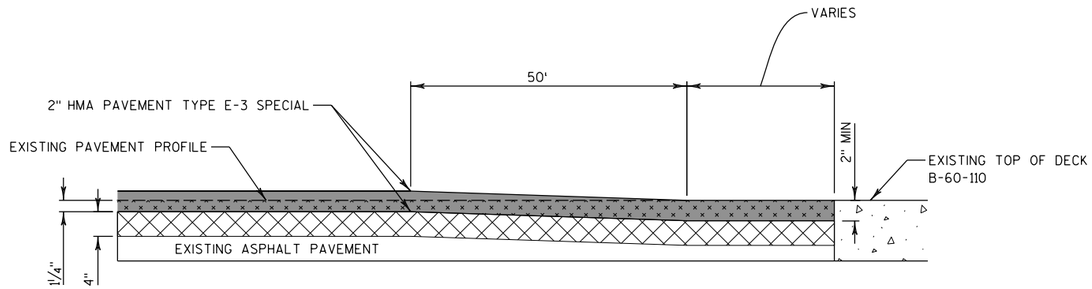
REMOVING ASPHALTIC SURFACE BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)

REMOVING ASPHALTIC SURFACE MILLING

COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH

DETAIL OF ASPHALTIC SURFACE BUTT JOINT ON MAINLINE

STA 11+22
STA 715+64

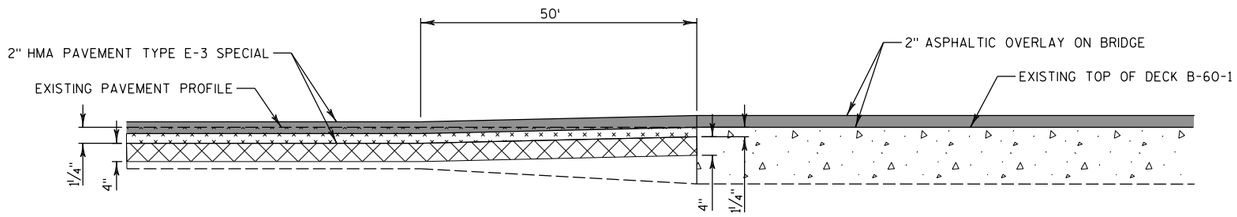


REMOVING ASPHALTIC SURFACE MILLING

COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH

DETAIL OF MAINLINE TRANSITION (B-60-110)

STA 103+16 - STA 105+25
STA 107+52 - STA 109+65



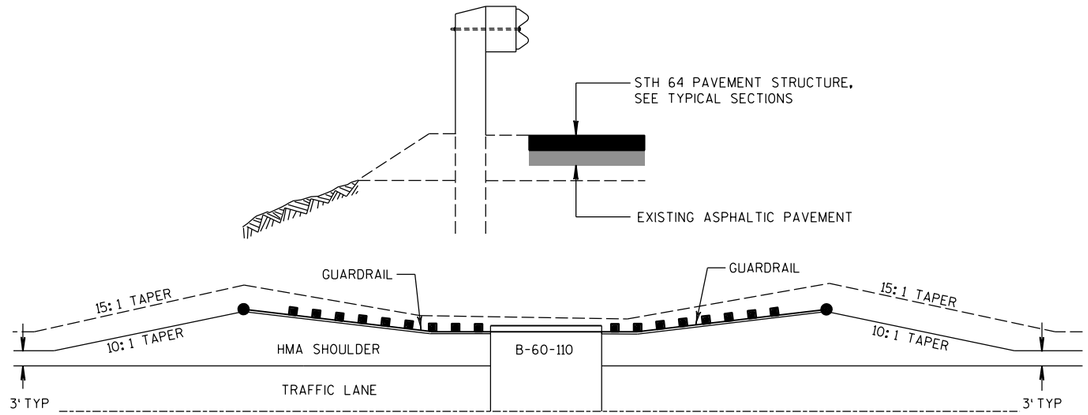
REMOVING ASPHALTIC SURFACE MILLING

COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH

DETAIL OF MAINLINE TRANSITION (B-60-1)

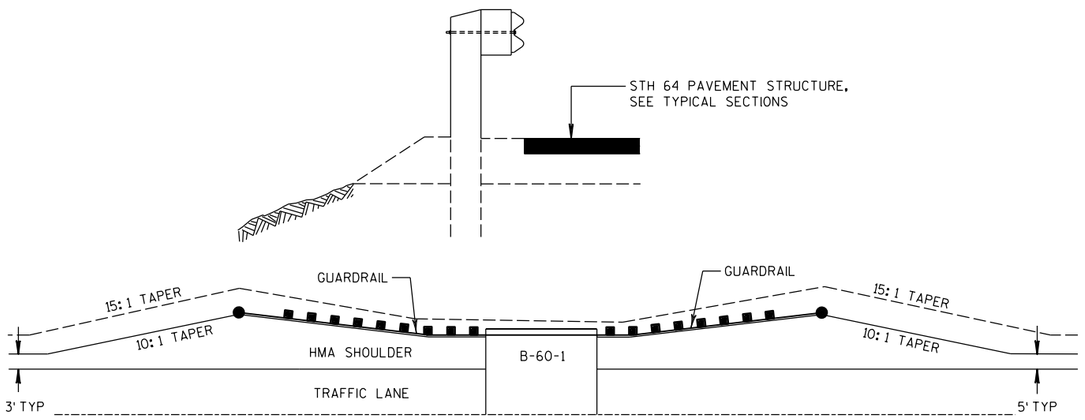
STA 480+13
STA 482+28
(SEE STRUCTURE PLANS FOR ADDITIONAL INFORMATION ON BRIDGE OVERLAY)

2



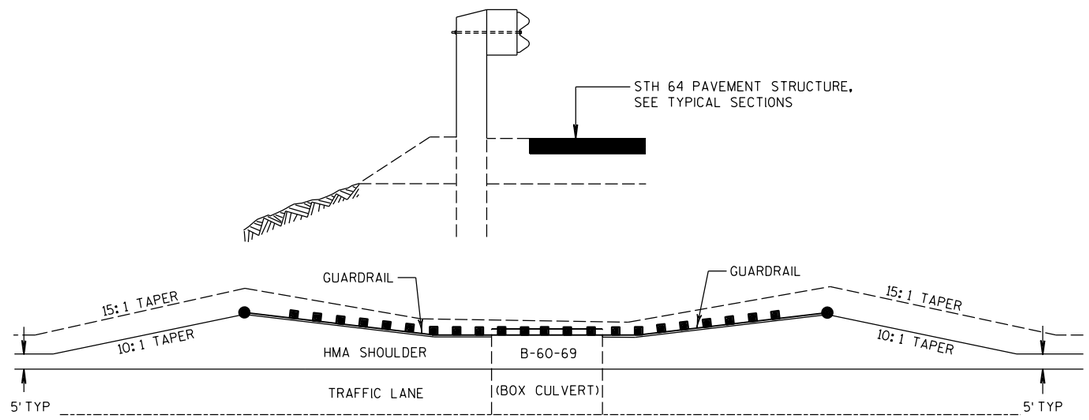
DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

STA 104+02 - STA 109+06, LT
STA 103+91 - STA 108+77, RT
(EXISTING SHOULDERS ARE PAVED OUT TO FACE OF EAT)



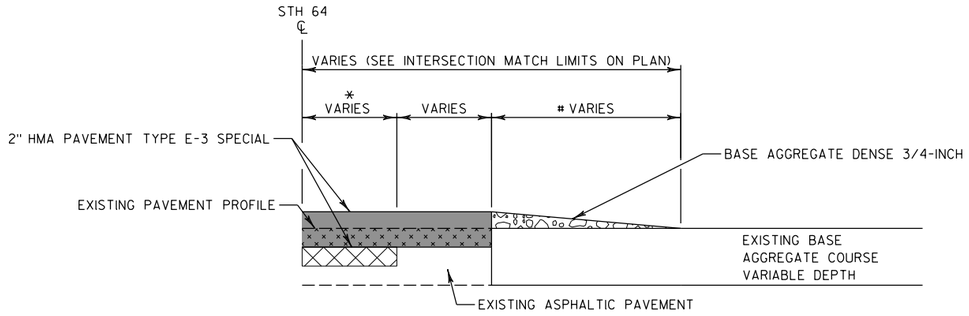
DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

STA 476+30 - STA 784+55, LT
STA 479+45 - STA 492+00, RT



DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

STA 542+40 - STA 546+24, LT
STA 542+27 - STA 546+11, RT



REMOVING ASPHALTIC SURFACE MILLING, (VARIABLE DEPTH)

COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH (15')

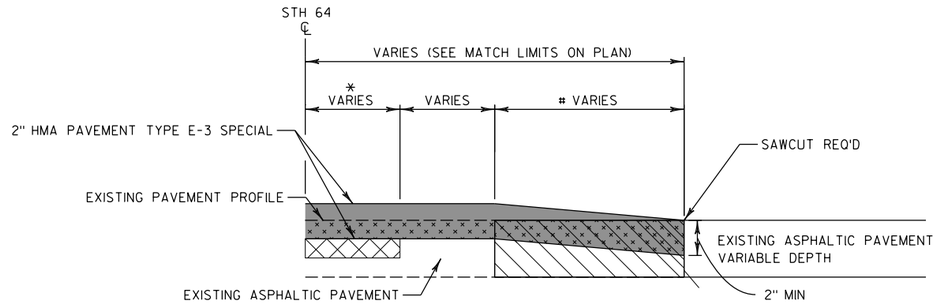
MATCH DETAIL AT UNPAVED INTERSECTIONS & DRIVEWAYS

COYOTE DR
PIRUS RD
GROVER DR
LARSON RD
DIVISION DR
ROY'S RD
HOWARD RD

NOTE

MATCH POINT 25' AT INTERSECTIONS
DRIVEWAY MATCH POINT TO BE DETERMINED IN THE FIELD BY ENGINEER, 10' TYP

* 15' BETWEEN STA 11+22 - STA 482+28
17' BETWEEN STA 428+82 - STA 715+64



REMOVE MATERIAL UNDER ITEM 'REMOVING ASPHALTIC SURFACE BUTT JOINTS'
(FULL DEPTH REMOVAL OPTIONAL)
25' AT INTERSECTIONS, 10' AT DRIVEWAYS
MATERIAL SHALL NOT BE REMOVED UNDER THIS ITEM UNTIL 24 HOURS BEFORE
SIDE ROAD PAVING.

REMOVING ASPHALTIC SURFACE MILLING, (VARIABLE DEPTH)

COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH (15')

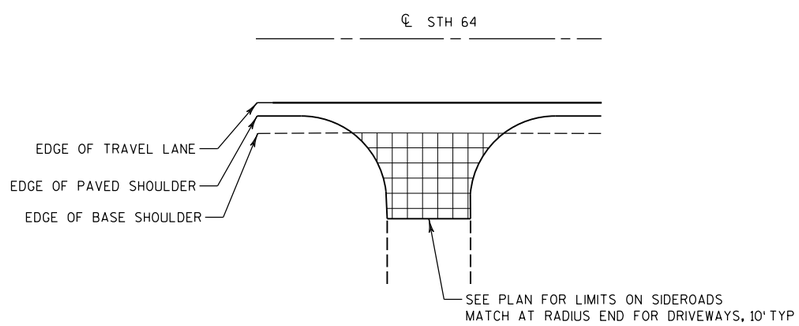
ASPHALTIC SURFACE BUTT JOINT DETAIL AT PAVED INTERSECTIONS & PAVED DRIVEWAYS

CTH DD
LARSON DR
CTH O
WATER DR
SAWYER AVE
WREN DR
CTH E
CTH E CONNECTOR
SUNSET RD
CASTLE RD
CTH Q
JOAN ST
BILLINGS AVE
MAPLE ST
CENTRAL AVE

NOTE

DRIVEWAY MATCH POINT TO BE DETERMINED IN THE FIELD BY ENGINEER FOR DRIVEWAYS, 10' TYP

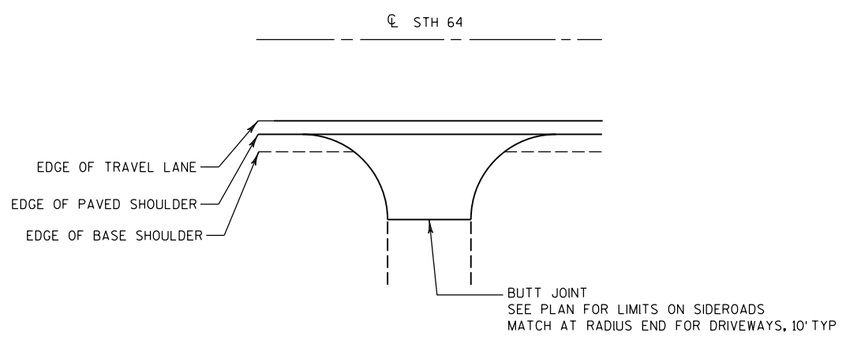
* 15' BETWEEN STA 11+22 - STA 482+28
17' BETWEEN STA 428+82 - STA 715+64



HMA PAVEMENT TYPE E-3 SPECIAL, VARIABLE DEPTH AT INTERSECTIONS
BASE AGGREGATE DENSE 3/4-INCH AT DRIVEWAYS

MATCH LIMITS AT UNPAVED INTERSECTIONS & DRIVEWAYS DETAIL

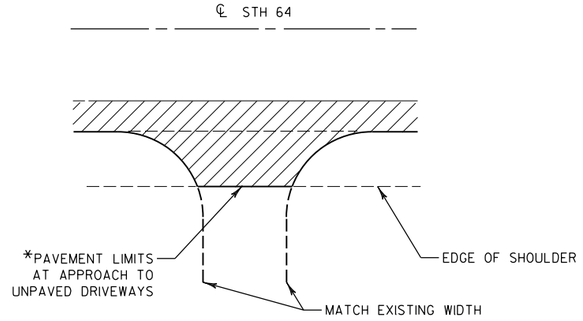
PLAN VIEW



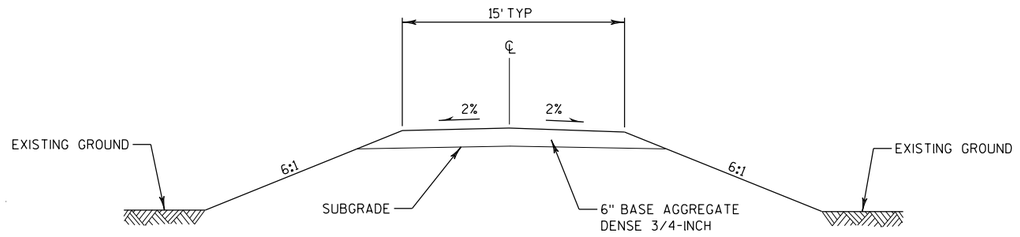
BUTT JOINT DETAIL AT PAVED INTERSECTIONS & PAVED DRIVEWAYS

PLAN VIEW

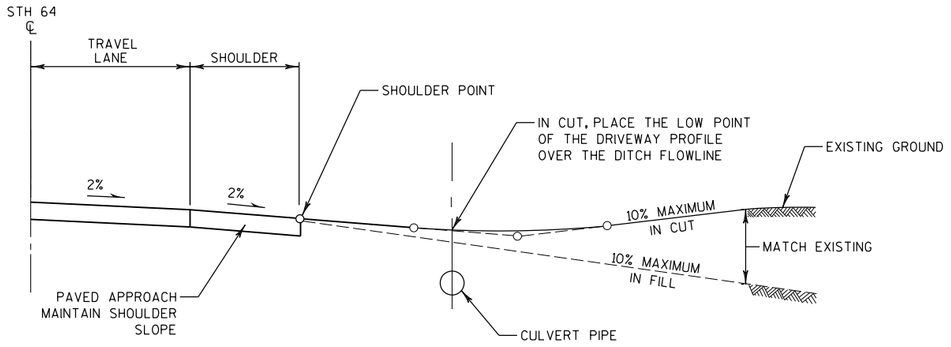
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CONSTRUCTION DETAILS	SHEET 14	E



RURAL DRIVEWAY INTERSECTION DETAIL
PLAN VIEW

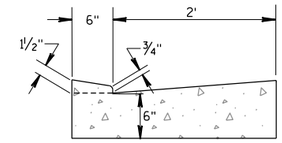


TYPICAL CROSS SECTION FOR PRIVATE DRIVEWAYS & FIELD ENTRANCES



TYPICAL RURAL DRIVEWAY DETAIL IN DITCH GRADING

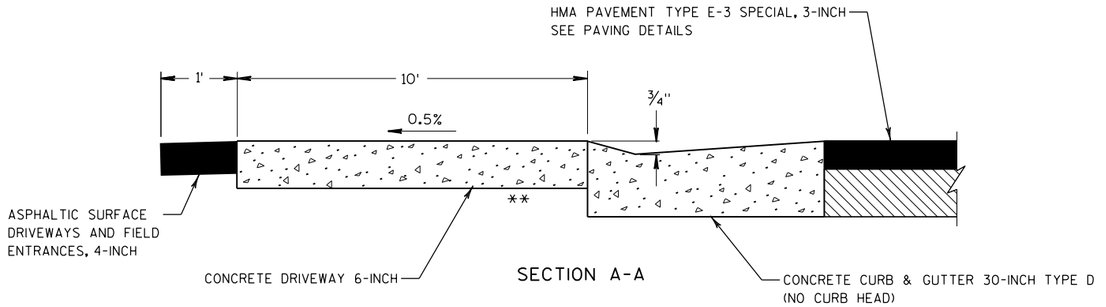
STA 542+33 RT
STA 546+20 LT



CONCRETE CURB & GUTTER 30-INCH TYPE D
DRIVEWAY CURB HEAD

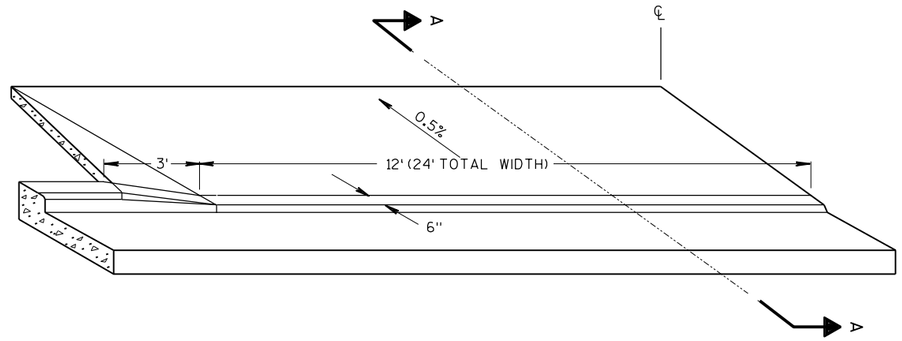
CONCRETE CURB & GUTTER FOR DRIVEWAYS
TO BE PAID FOR AS CONCRETE CURB & GUTTER 30-INCH TYPE D
(FOR DETAILS NOT SHOWN, SEE SDD CONCRETE CURB,
CONCRETE CURB & GUTTER AND TIES)

STA 600'B'+95 - STA 601'B'+22, LT
STA 691+41,RT



SECTION A-A

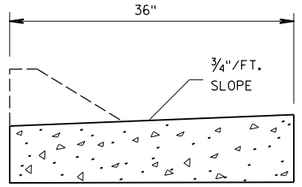
** 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER DRIVEWAY



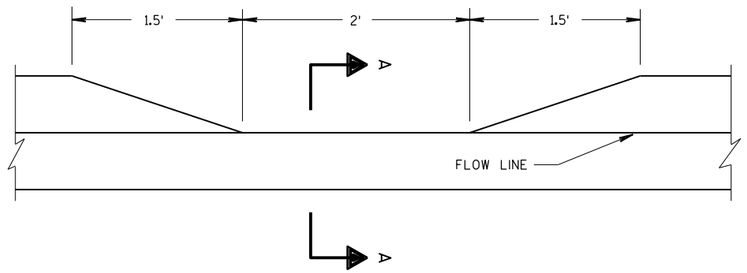
DRIVEWAY ENTRANCE DETAIL (HALF SECTION)

STA 601'B'+08, LT

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CONSTRUCTION DETAILS	SHEET 15	E

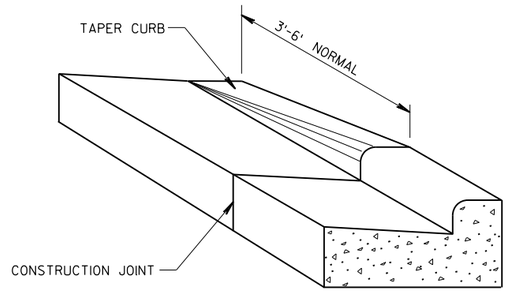


SECTION A-A



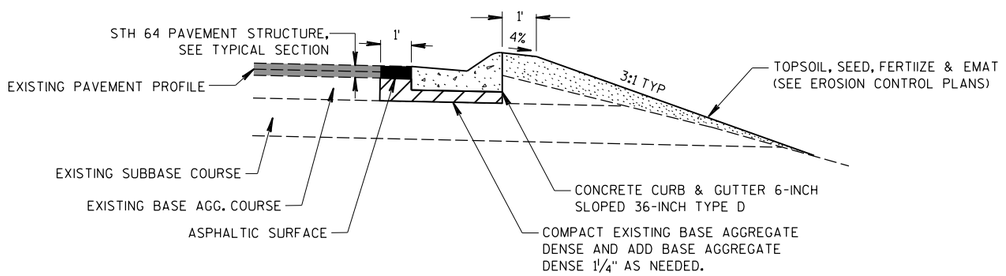
DETAIL OF CURB HEAD DEPRESSION FOR DRAINAGE AT CURB & GUTTER SECTION

STA 132+29 RT
STA 496+10 LT
STA 496+84 LT



DETAIL OF CURB & GUTTER TERMINI

2



DETAIL OF CURB & GUTTER INSTALLATION

AT INTERSECTION RADII

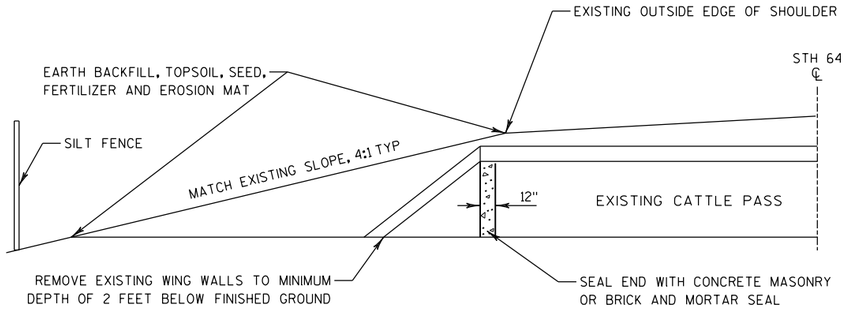
NOTE

PROPOSED CURB & GUTTER AND ASPHALTIC SURFACE IS TO BE PLACED PRIOR TO MILL AND PAVING OPERATIONS.

RUNOFF COEFFICIENT TABLE

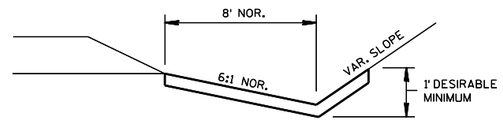
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 170.8 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.1 ACRES (GRADING AREA)



ABANDON CATTLE PASS

TYPICAL 1/2 SECTION, SYMMETRICAL ABOUT ℄
STA 519+19

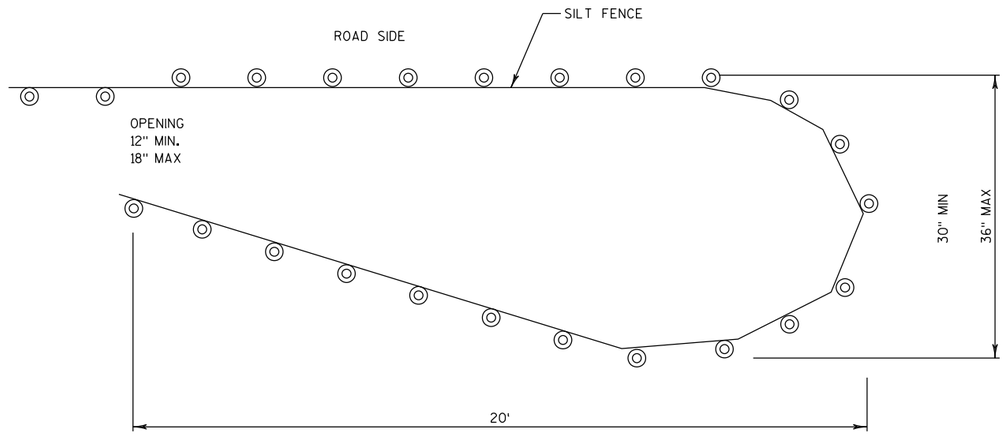


EROSION MAT DETAIL FOR DITCHES

NOTES

EXISTING CATTLE PASS DIMENSIONS ARE 3.5'HIGH X 5'WIDE

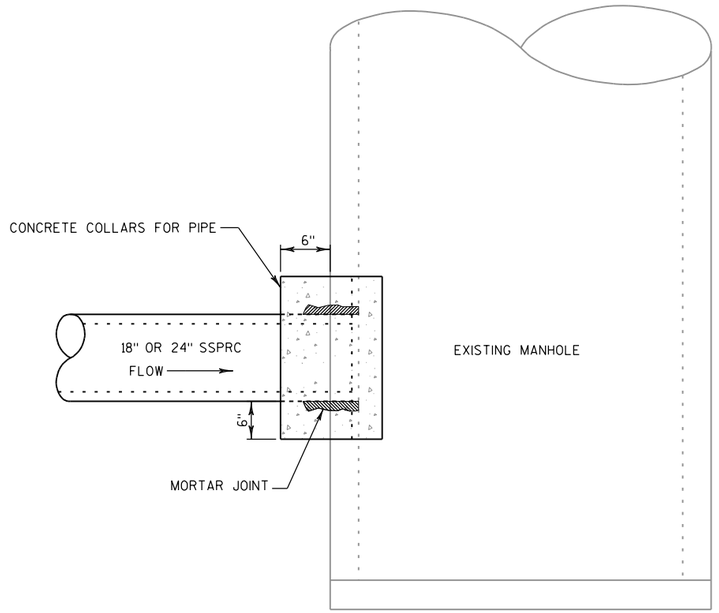
PLACE SILT FENCE AT EACH END OF THE CATTLE PASS TO ENCOMPASS GRADING LIMITS



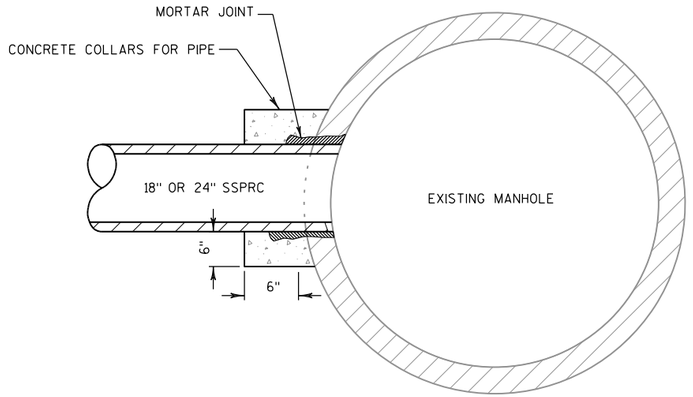
NOTE

SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

TEMPORARY SMALL ANIMAL TURN - AROUND DETAIL



PROFILE VIEW

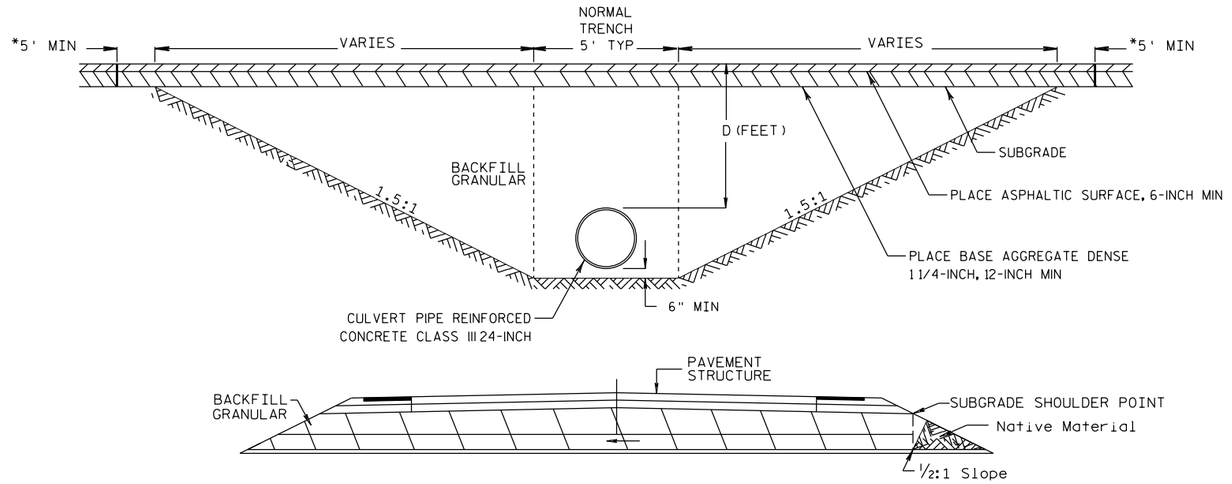


PLAN VIEW

CONCRETE COLLAR CONNECTION OF 18-INCH AND 24-INCH STORM SEWER TO AND EXISTNG STORM SEWER MANHOLE

STA 711+56.50, LT
STA 601'B'+33.30, LT

CONCRETE COLLAR DETAILS



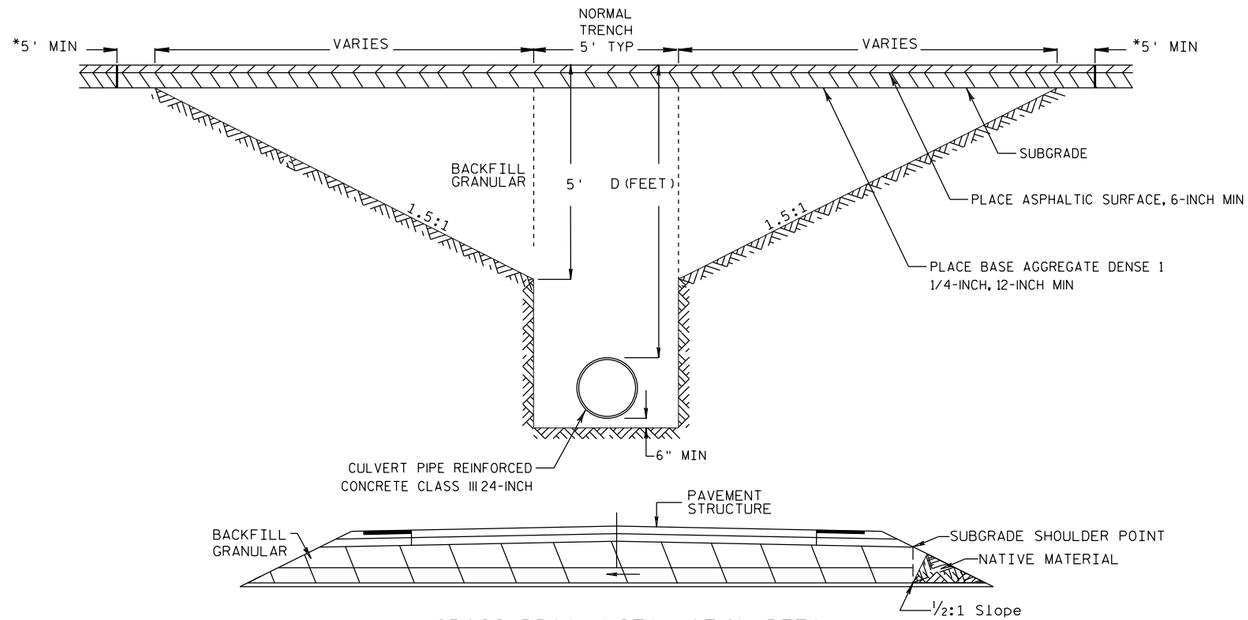
CROSS DRAIN INSTALLATION DETAIL

FOR D ≤ 5'

STA 351+45

STA 588+30

STA 569+11



CROSS DRAIN INSTALLATION DETAIL

FOR D ≥ 5'

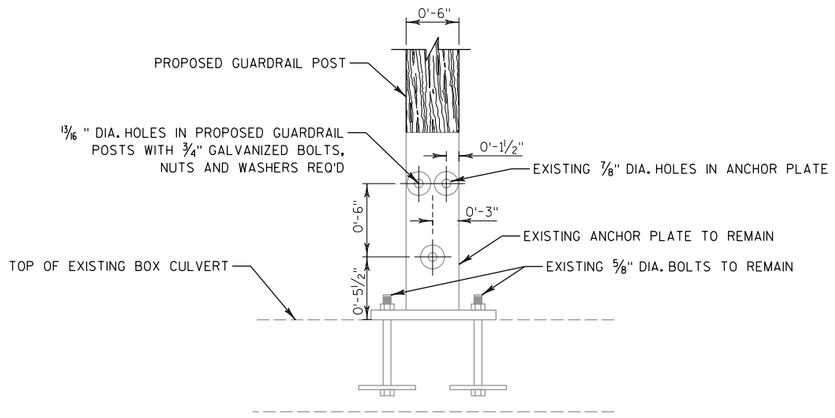
STA 563+73

NOTES

SEE TRAFFIC CONTROL DETAILS FOR ADDITIONAL INFORMATION REGARDING STAGING AND TRENCH OPENING WIDTH

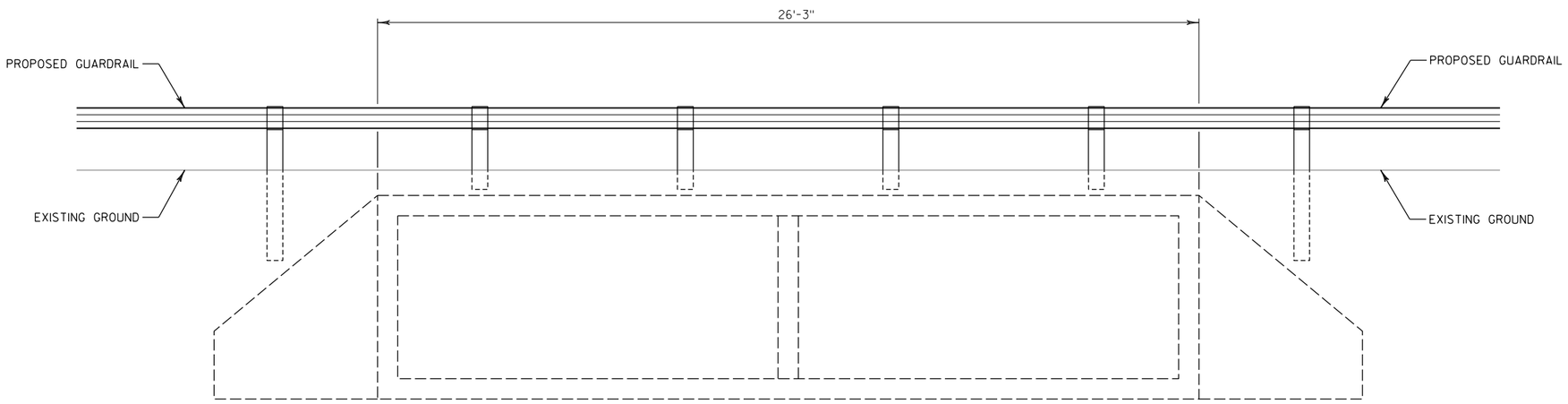
* TYPICAL PAVEMENT REMOVAL LIMITS

2



GUARDRAIL POST CONNECTION DETAIL

8 LOCATIONS REQ'D. PAID FOR AS GUARDRAIL POST CONNECTION

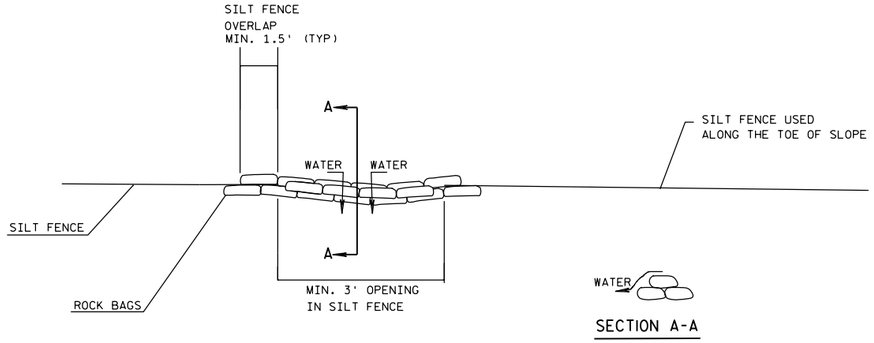


GUARDRAIL POST CONNECTION OVER BOX CULVERT PROFILE VIEW

STA 544+25, B-60-69

NOTE

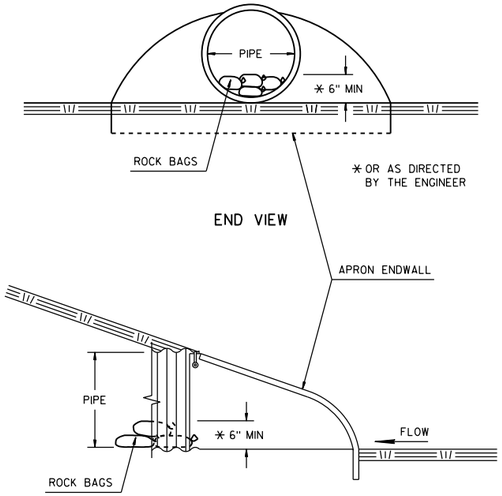
CONNECT WOOD POSTS TO EXISTING GUARDRAIL POST CONNECTIONS.



TOP VIEW

SILT FENCE RELIEF DETAIL

PAID AS ROCK BAGS



CULVERT PIPE CHECKS

INSTALL ON INLET END

SIDE VIEW

2

2

N

Y2 Y6 H3

661+00

662+00

STH 64

663+00

Y2 Y6 H3

Y2 Y6 H3

Y2 Y6 H3

R2 H1

STA 661+18.30
22.00 RT

STA 661+73.50
24.00 RT

STA 662+23.70
22.00 RT

STA 662+26.85
22.00 RT

STA 662+30.00
22.00 RT

STA 662+80.00
24.00 RT

S1

4'

B1 Y5 G1

Y5 B1 G1

S1

4'

S1

STA 663+34.60
22.00 RT

15' RAD

15' RAD

STA 663+45.76
32.00 RT

STA 663+55.64
22.00 RT

LEGEND

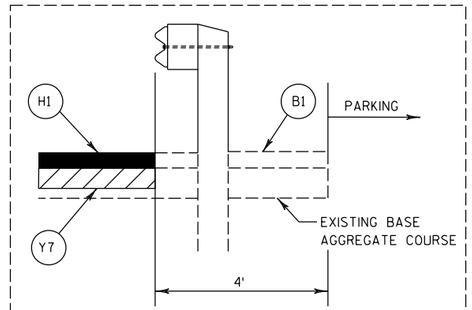
- B1 BASE AGGREGATE DENSE 3/4-INCH, 0.75-INCH
- G1 MGS GUARDRAIL TERMINAL EAT
- H1 HMA PAVEMENT TYPE E-3 SPECIAL, 3-INCH
- H3 HMA PAVEMENT TYPE E-3 SPECIAL, 2-INCH
- R2 SALVAGED RAIL
- S1 SAWING ASPHALT XXXXX
- Y2 REMOVING ASPHALTIC SURFACE MILLING, 1.25-INCH
- Y5 REMOVING ASPHALTIC SURFACE
- Y6 COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH
- Y7 SALVAGED ASPHALTIC PAVEMENT BASE, 3-INCH

NOTE

STATION/OFFSET AT GUARDRAIL IS
TO FACE OF RAIL

GUARDRAIL REPLACEMENT DETAIL

STA 661+73 - STA 662+80



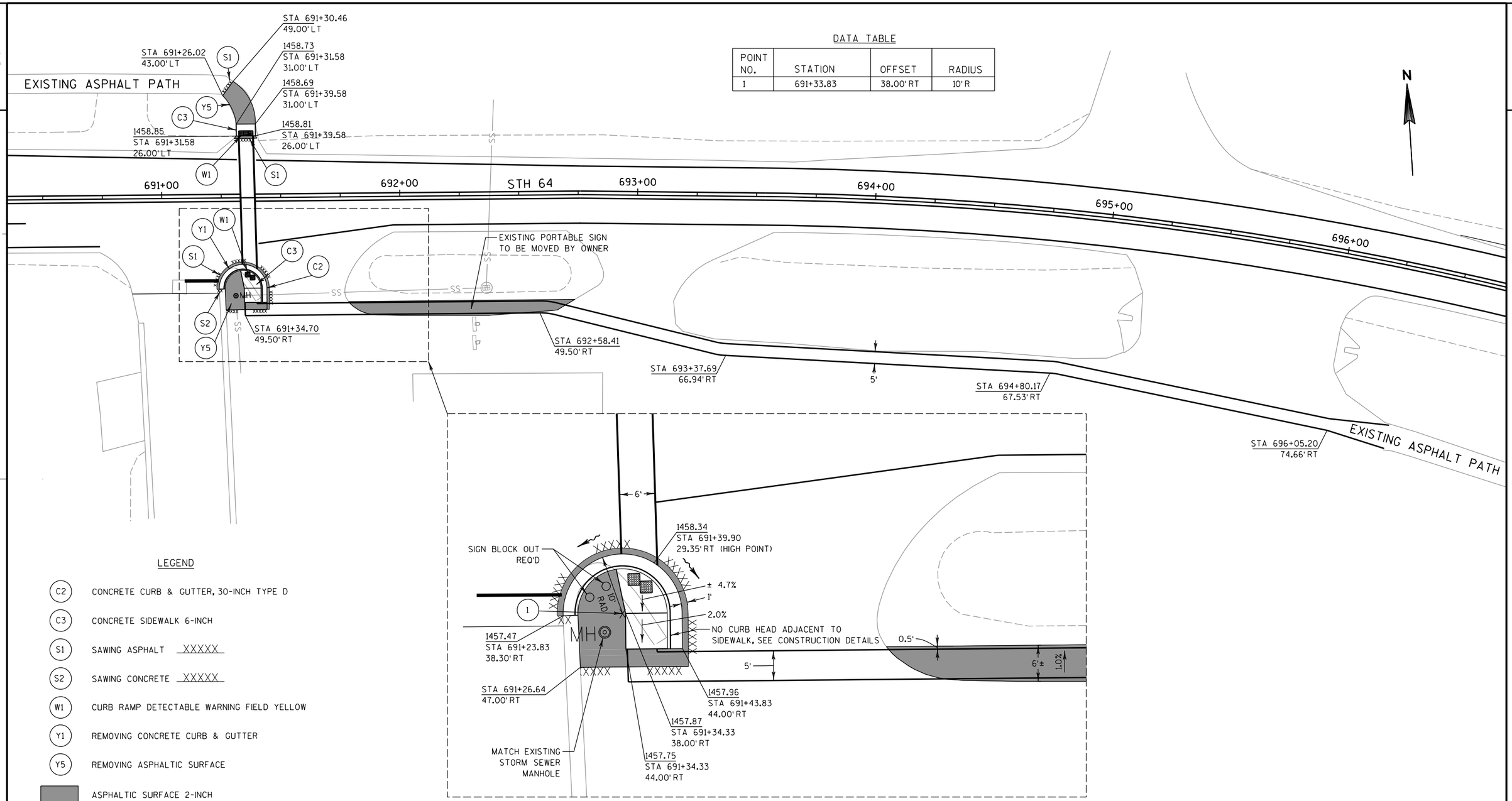
CROSS SECTION VIEW OF
GUARDRAIL REPLACEMENT

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CONSTRUCTION DETAILS	SHEET 22	E

2

DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
1	691+33.83	38.00' RT	10' R



LEGEND

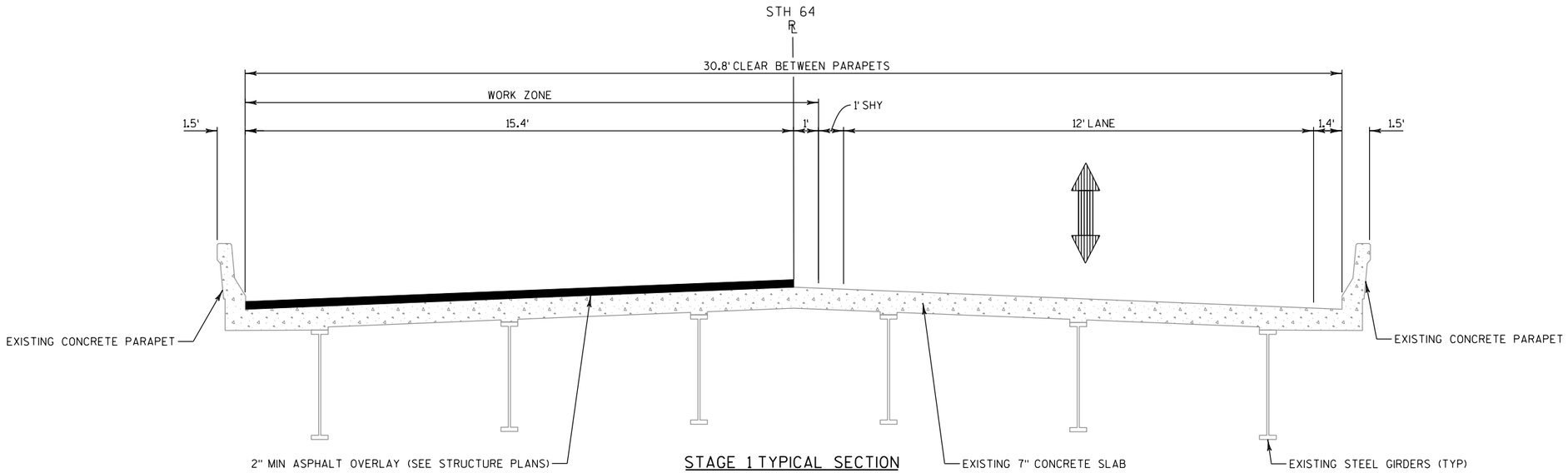
C2	CONCRETE CURB & GUTTER, 30-INCH TYPE D
C3	CONCRETE SIDEWALK 6-INCH
S1	SAWING ASPHALT XXXXX
S2	SAWING CONCRETE XXXXX
W1	CURB RAMP DETECTABLE WARNING FIELD YELLOW
Y1	REMOVING CONCRETE CURB & GUTTER
Y5	REMOVING ASPHALTIC SURFACE
	ASPHALTIC SURFACE 2-INCH

NOTE

SEE PAVEMENT MARKING PLAN SHEETS FOR PAVEMENT MARKING LAYOUT AND TYPES ALONG STH 64

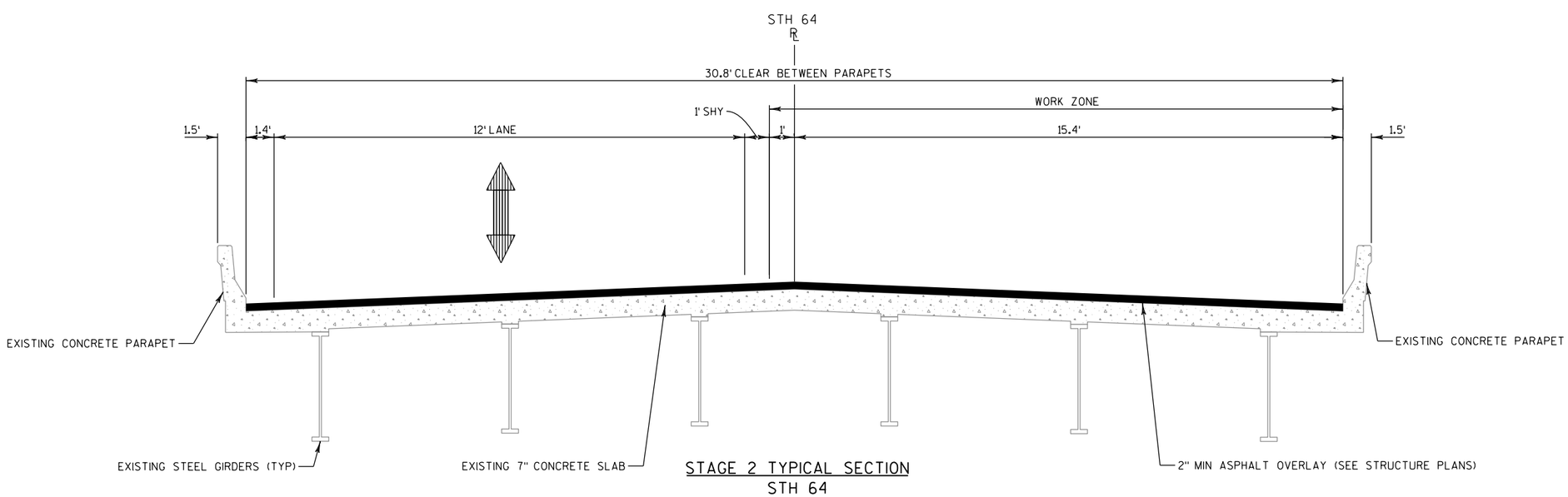
PATH DETAIL

STA 691+23 - STA 696+31



STAGE 1 TYPICAL SECTION
STH 64

BLACK RIVER BRIDGE
STRUCTURE B-60-1
(LOOKING EAST)



STAGE 2 TYPICAL SECTION
STH 64

BLACK RIVER BRIDGE
STRUCTURE B-60-1
(LOOKING EAST)

NOTES

SEE SDD FOR TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS) FOR ADDITIONAL DETAILS. COMPLETE WORK UNDER FLAGGING OPERATIONS.

MAINTAIN 12' MINIMUM TRAVEL LANE AS SHOWN ON THE STAGING TYPICAL SECTION.

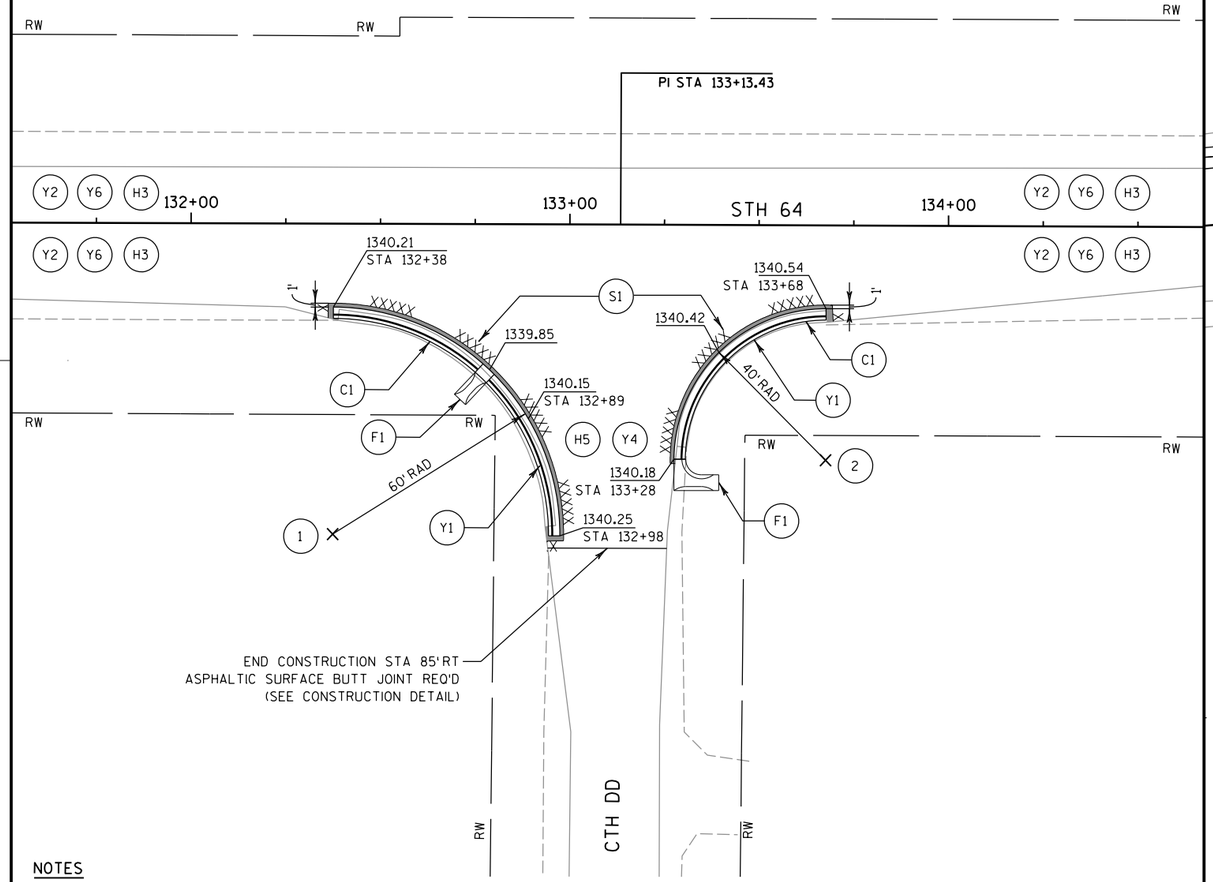
2

DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
1	132+37.62	89.00' RT	60' R
2	133+67.77	40.00' RT	40' R

LEGEND

- (C1) CONCRETE CURB & GUTTER 6-INCH, SLOPED 36-INCH TYPE D
- (F1) ASPHALTIC FLUME
- (H3) HMA PAVEMENT TYPE E-3 SPECIAL, 2-INCH
- (H5) HMA PAVEMENT TYPE E-3 SPECIAL, VARIABLE THICKNESS, 2-INCH MIN
- (S1) SAWING ASPHALT XXXXX
- (Y1) REMOVING CONCRETE CURB & GUTTER
- (Y2) REMOVING ASPHALTIC SURFACE MILLING, 1.25-INCH
- (Y4) REMOVING ASPHALTIC SURFACE MILLING, VARIABLE DEPTH
- (Y6) COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH
- ASPHALTIC SURFACE (SEE CONSTRUCTION DETAILS)



NOTES

RADIUS DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

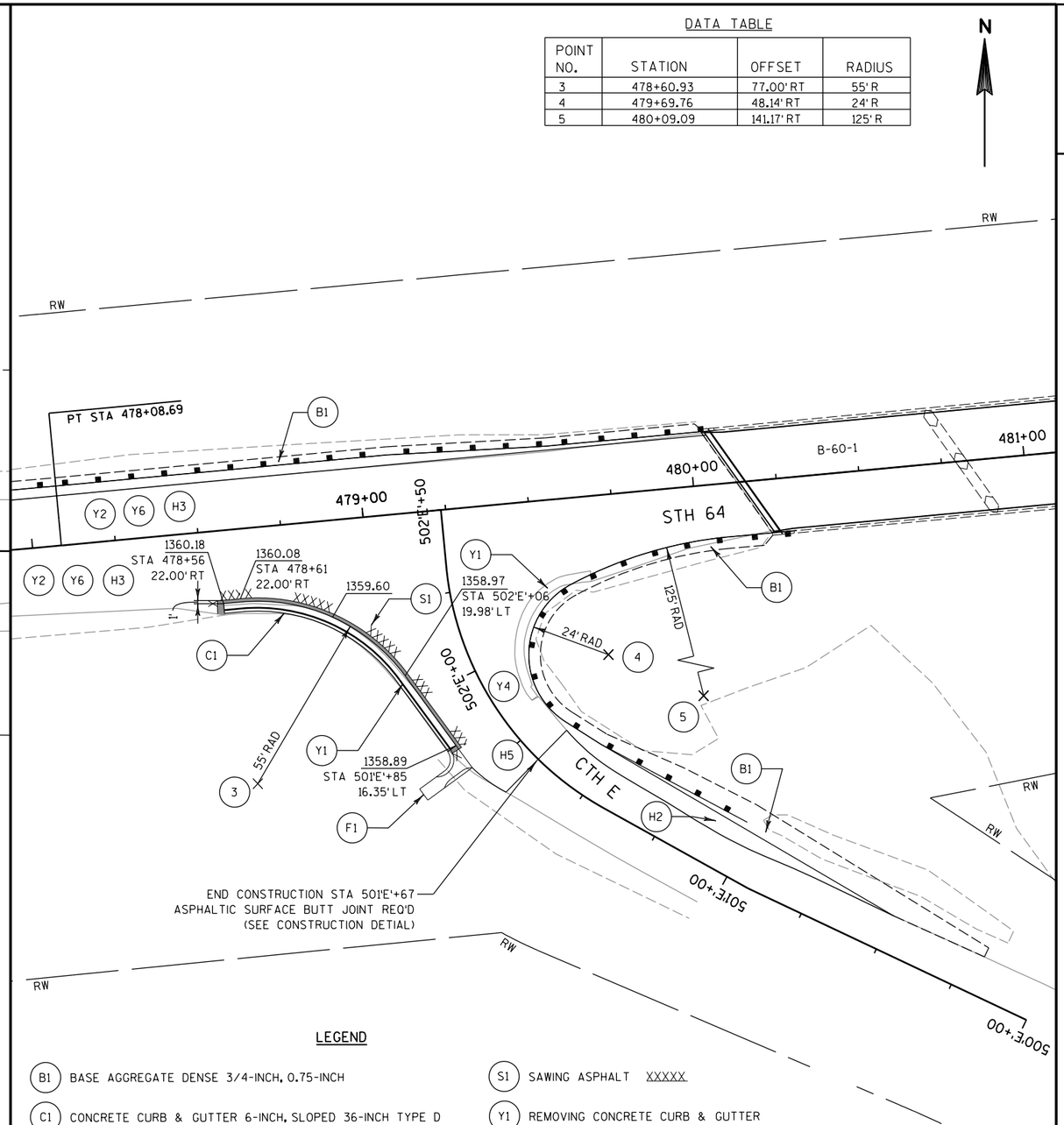
PAVEMENT GRADES SHOWN ALONG THE CURB & GUTTER ARE SHOWN AT THE FLANGELINE

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END OF CURB AND GUTTER RADII AND MID-POINTS OF RADII UNLESS OTHERWISE NOTED

REPLACE CURB & GUTTER PRIOR TO MILL AND PAVING OPERATIONS

DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
3	478+60.93	77.00' RT	55' R
4	479+69.76	48.14' RT	24' R
5	480+09.09	141.17' RT	125' R



LEGEND

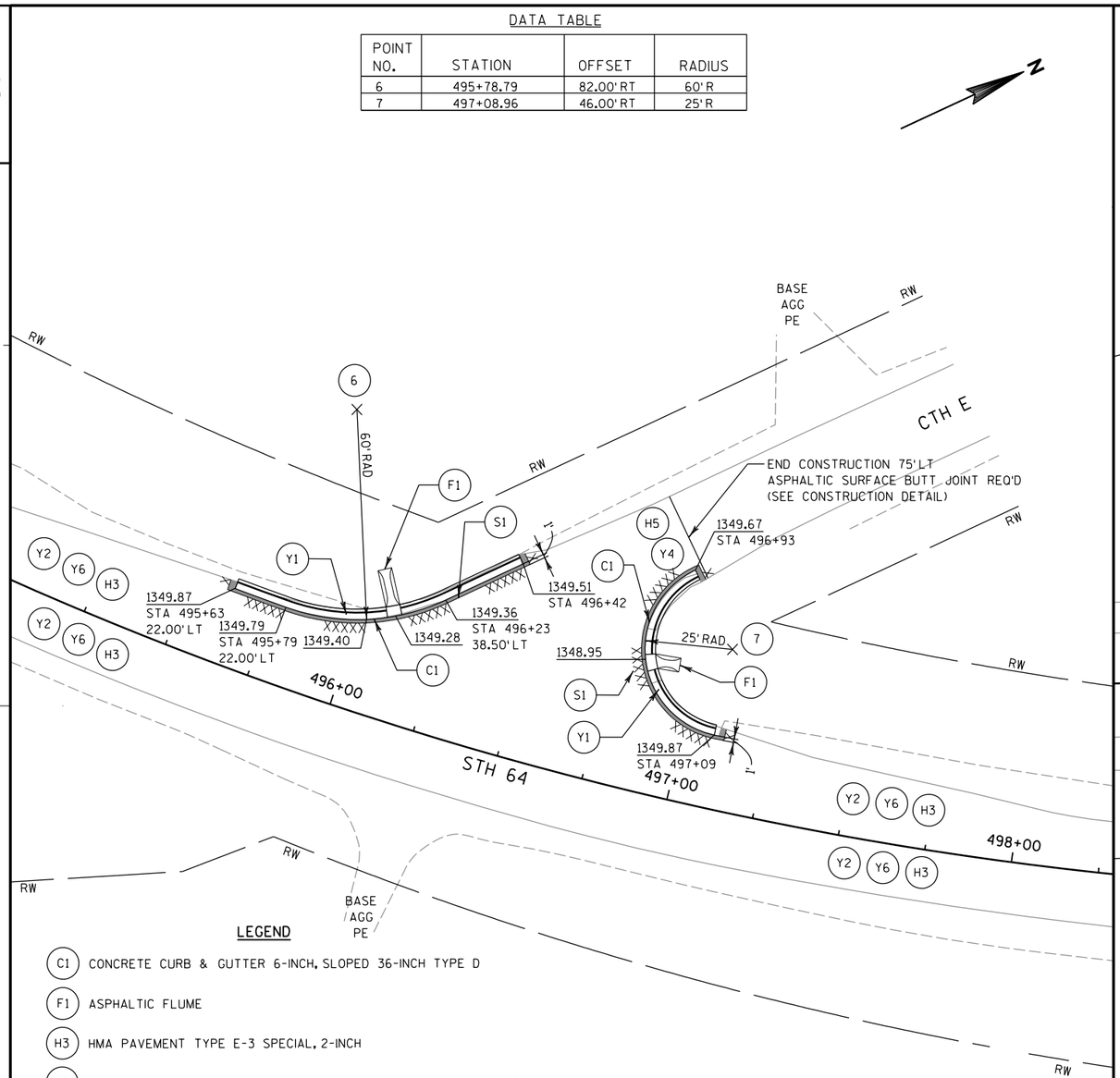
- (B1) BASE AGGREGATE DENSE 3/4-INCH, 0.75-INCH
- (C1) CONCRETE CURB & GUTTER 6-INCH, SLOPED 36-INCH TYPE D
- (F1) ASPHALTIC FLUME
- (H2) HMA PAVEMENT TYPE E-3 SPECIAL, 4-INCH
- (H3) HMA PAVEMENT TYPE E-3 SPECIAL, 2-INCH
- (H5) HMA PAVEMENT TYPE E-3 SPECIAL, VARIABLE THICKNESS, 2-INCH MIN
- (S1) SAWING ASPHALT XXXXX
- (Y1) REMOVING CONCRETE CURB & GUTTER
- (Y2) REMOVING ASPHALTIC SURFACE MILLING, 1.25-INCH
- (Y4) REMOVING ASPHALTIC SURFACE MILLING, VARIABLE DEPTH
- (Y6) COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH
- ASPHALTIC SURFACE (SEE CONSTRUCTION DETAILS)

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	INTERSECTION DETAIL - CTH DD & CTH E (SOUTH)	SHEET 25	E

2

DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
6	495+78.79	82.00' RT	60' R
7	497+08.96	46.00' RT	25' R



LEGEND

- C1 CONCRETE CURB & GUTTER 6-INCH, SLOPED 36-INCH TYPE D
- F1 ASPHALTIC FLUME
- H3 HMA PAVEMENT TYPE E-3 SPECIAL, 2-INCH
- H5 HMA PAVEMENT TYPE E-3 SPECIAL, VARIABLE THICKNESS, 2-INCH MIN
- S1 SAWING ASPHALT XXXXX
- Y1 REMOVING CONCRETE CURB & GUTTER
- Y2 REMOVING ASPHALTIC SURFACE MILLING, 1.25-INCH
- Y4 REMOVING ASPHALTIC SURFACE MILLING, VARIABLE DEPTH
- Y6 COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH
- ASPHALTIC SURFACE (SEE CONSTRUCTION DETAILS)

NOTES

RADIUS DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

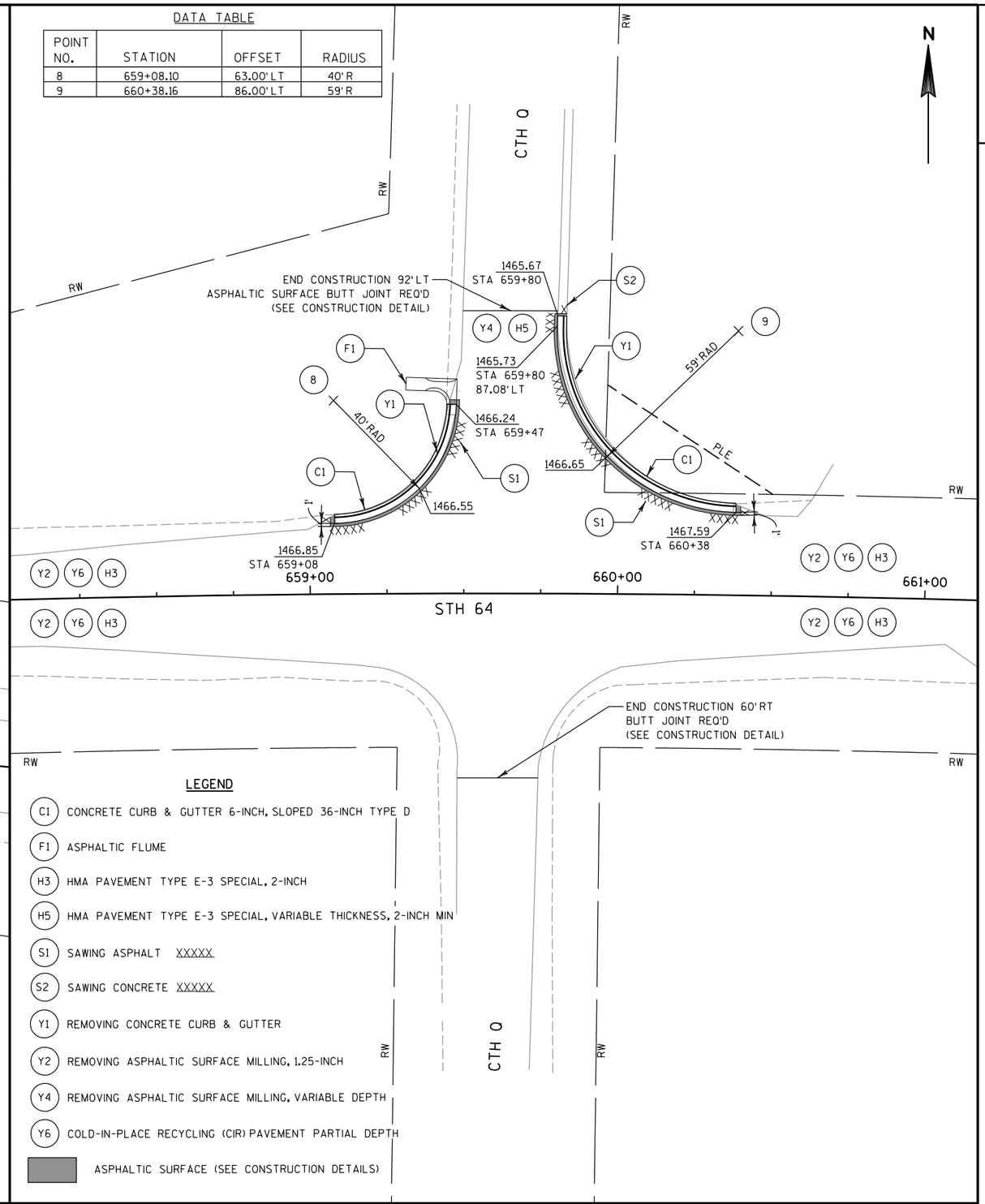
PAVEMENT GRADES SHOWN ALONG THE CURB & GUTTER ARE SHOWN AT THE FLANGELINE

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END OF CURB AND GUTTER RADII AND MID-POINTS OF RADII UNLESS OTHERWISE NOTED

REPLACE CURB & GUTTER PRIOR TO MILL AND PAVING OPERATIONS

DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
8	659+08.10	63.00' LT	40' R
9	660+38.16	86.00' LT	59' R



LEGEND

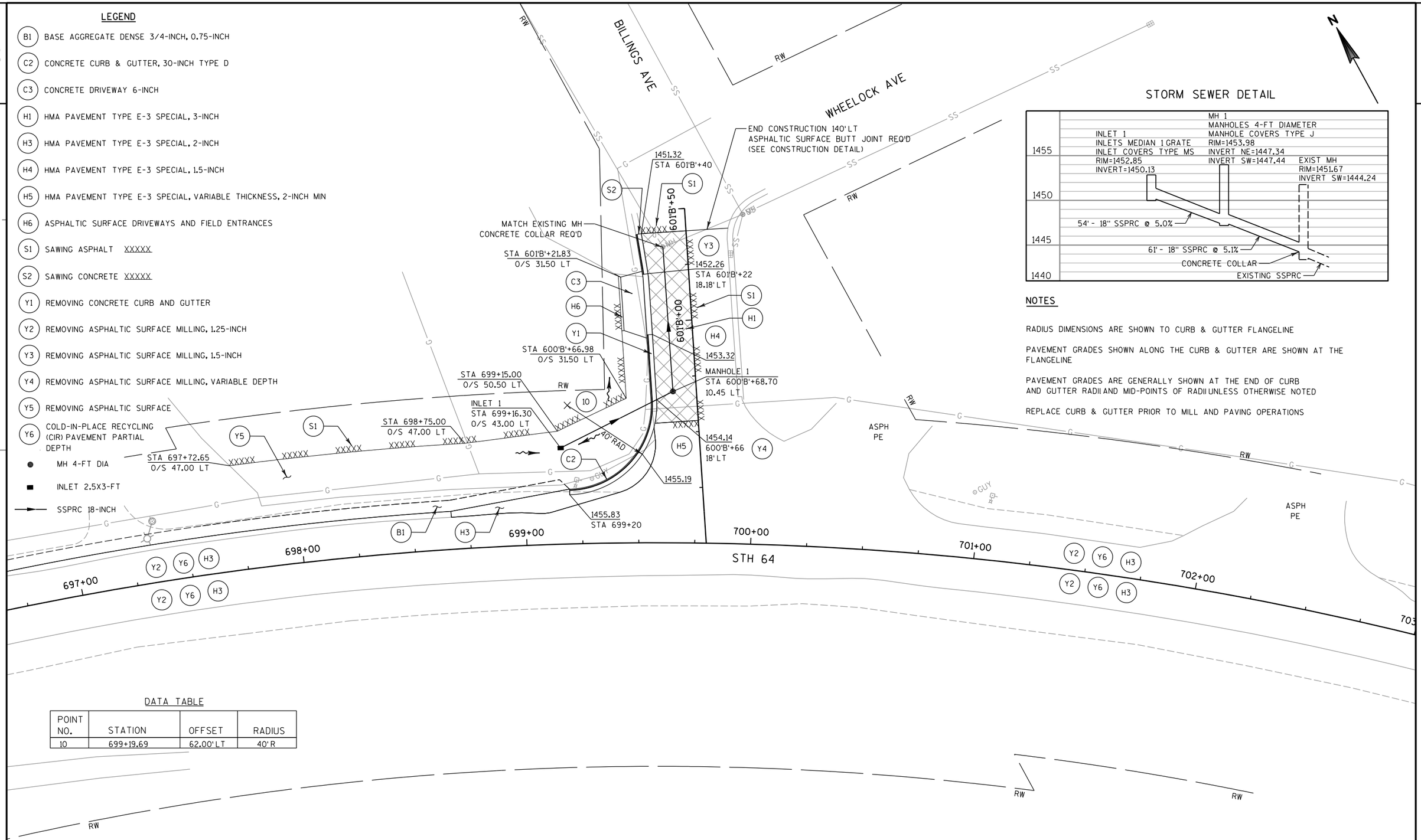
- C1 CONCRETE CURB & GUTTER 6-INCH, SLOPED 36-INCH TYPE D
- F1 ASPHALTIC FLUME
- H3 HMA PAVEMENT TYPE E-3 SPECIAL, 2-INCH
- H5 HMA PAVEMENT TYPE E-3 SPECIAL, VARIABLE THICKNESS, 2-INCH MIN
- S1 SAWING ASPHALT XXXXX
- S2 SAWING CONCRETE XXXXX
- Y1 REMOVING CONCRETE CURB & GUTTER
- Y2 REMOVING ASPHALTIC SURFACE MILLING, 1.25-INCH
- Y4 REMOVING ASPHALTIC SURFACE MILLING, VARIABLE DEPTH
- Y6 COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH
- ASPHALTIC SURFACE (SEE CONSTRUCTION DETAILS)

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	INTERSECTION DETAIL - CTH E (NORTH) & CTH Q	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\021102_id.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

LEGEND

- (B1) BASE AGGREGATE DENSE 3/4-INCH, 0.75-INCH
- (C2) CONCRETE CURB & GUTTER, 30-INCH TYPE D
- (C3) CONCRETE DRIVEWAY 6-INCH
- (H1) HMA PAVEMENT TYPE E-3 SPECIAL, 3-INCH
- (H3) HMA PAVEMENT TYPE E-3 SPECIAL, 2-INCH
- (H4) HMA PAVEMENT TYPE E-3 SPECIAL, 1.5-INCH
- (H5) HMA PAVEMENT TYPE E-3 SPECIAL, VARIABLE THICKNESS, 2-INCH MIN
- (H6) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
- (S1) SAWING ASPHALT XXXXX
- (S2) SAWING CONCRETE XXXXX
- (Y1) REMOVING CONCRETE CURB AND GUTTER
- (Y2) REMOVING ASPHALTIC SURFACE MILLING, 1.25-INCH
- (Y3) REMOVING ASPHALTIC SURFACE MILLING, 1.5-INCH
- (Y4) REMOVING ASPHALTIC SURFACE MILLING, VARIABLE DEPTH
- (Y5) REMOVING ASPHALTIC SURFACE
- (Y6) COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH
- MH 4-FT DIA
- INLET 2.5X3-FT
- SSPRC 18-INCH



STORM SEWER DETAIL

NOTES

RADIUS DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

PAVEMENT GRADES SHOWN ALONG THE CURB & GUTTER ARE SHOWN AT THE FLANGELINE

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REPLACE CURB & GUTTER PRIOR TO MILL AND PAVING OPERATIONS

DATA TABLE

POINT NO.	STATION	OFFSET	RADIUS
10	699+19.69	62.00'LT	40'R

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	INTERSECTION DETAIL - STH 64 & BILLINGS AVE	SHEET 27	E

2

N

132+00

133+00

STH 64

134+00

CTH DD

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- F SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

N

2

350+00

351+00

352+00

F

F

NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

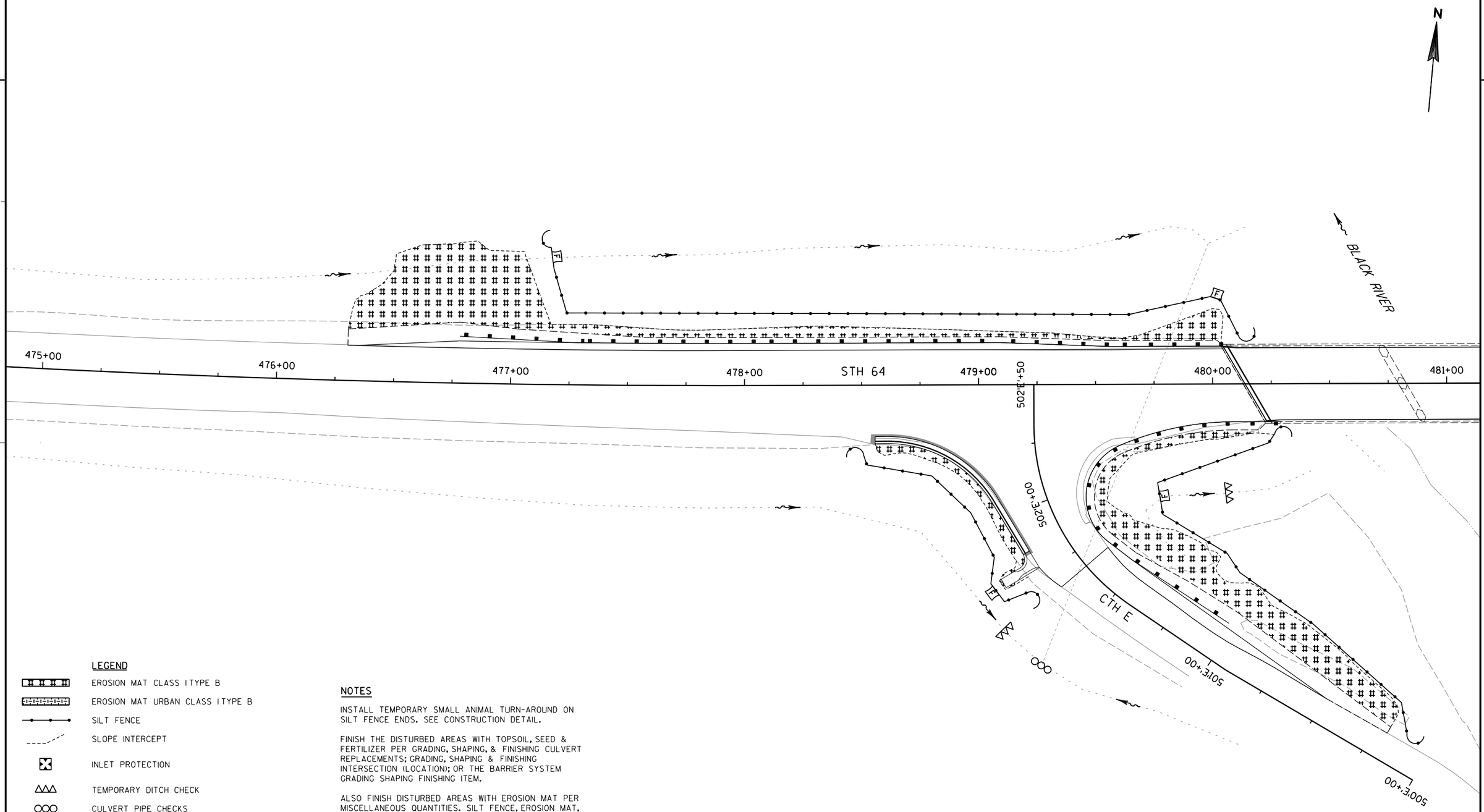
FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 28	E

2



LEGEND

- EROSION MAT CLASS ITYPE B
- EROSION MAT URBAN CLASS ITYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

NOTES

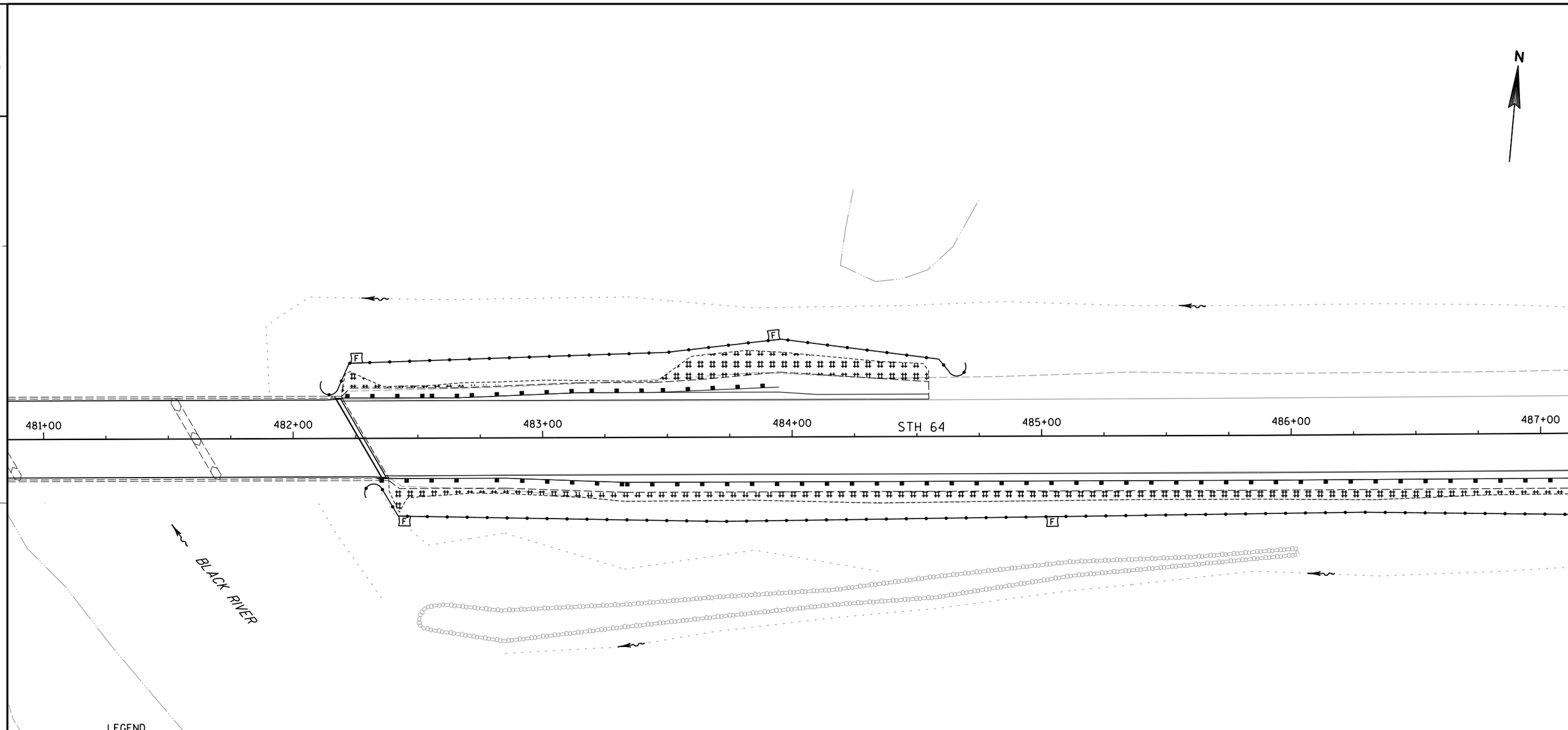
INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 29	E



LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

PROJECT NO:8220-05-72	HWY:STH 64	COUNTY:TAYLOR	EROSION CONTROL	SHEET 30	E

2

2

LEGEND

- EROSION MAT CLASS ITYPE B
- EROSION MAT URBAN CLASS ITYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

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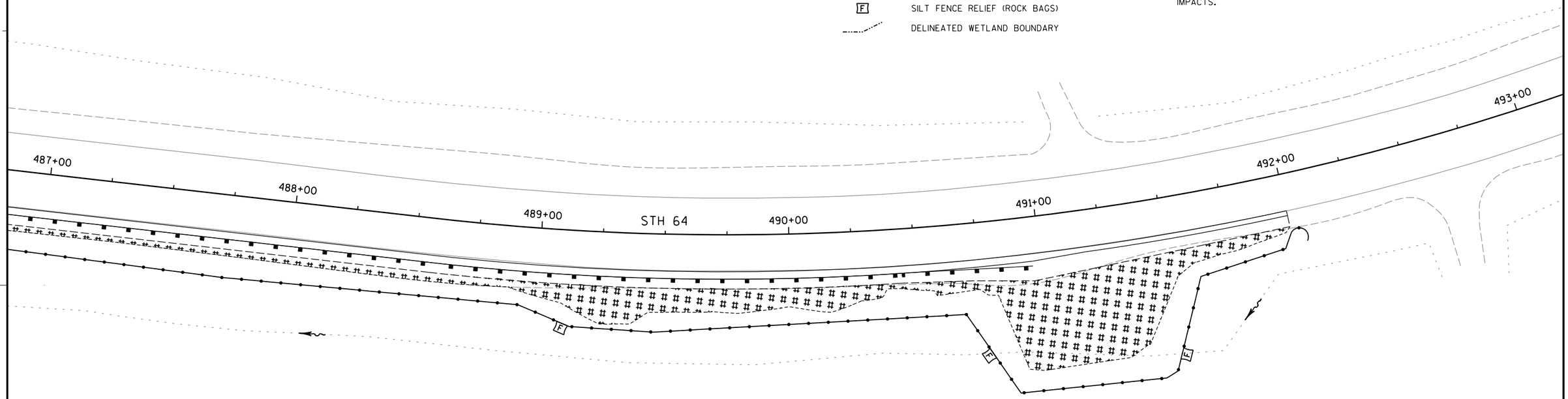
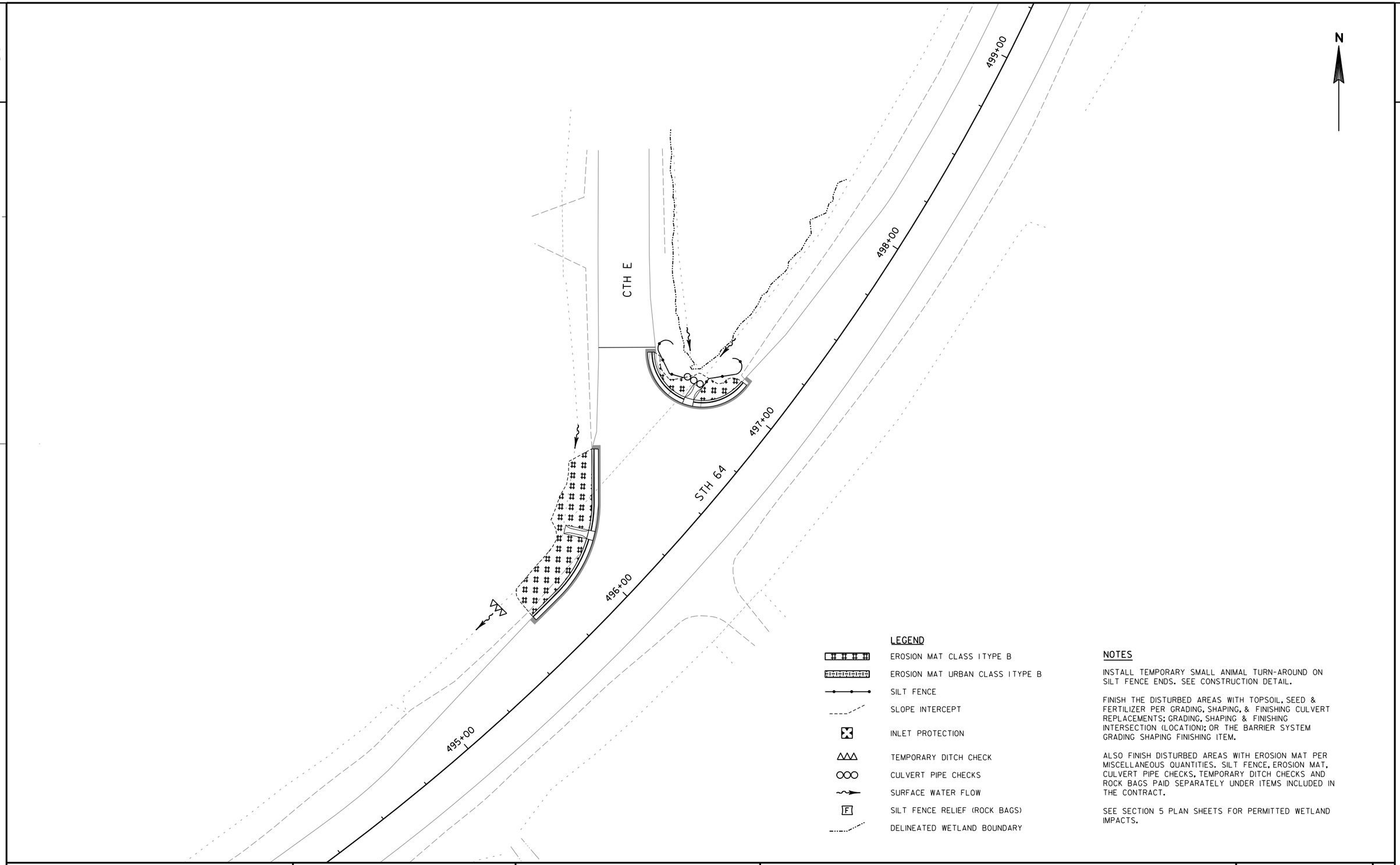


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 31	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\022004_ec.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42



LEGEND

- EROSION MAT CLASS ITYPE B
- EROSION MAT URBAN CLASS ITYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 32	E

2

N

BRANCH OF BLACK RIVER

542+00 543+00 544+00 STH 64 545+00 546+00 547+00

LEGEND

- EROSION MAT CLASS ITYPE B
- EROSION MAT URBAN CLASS ITYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

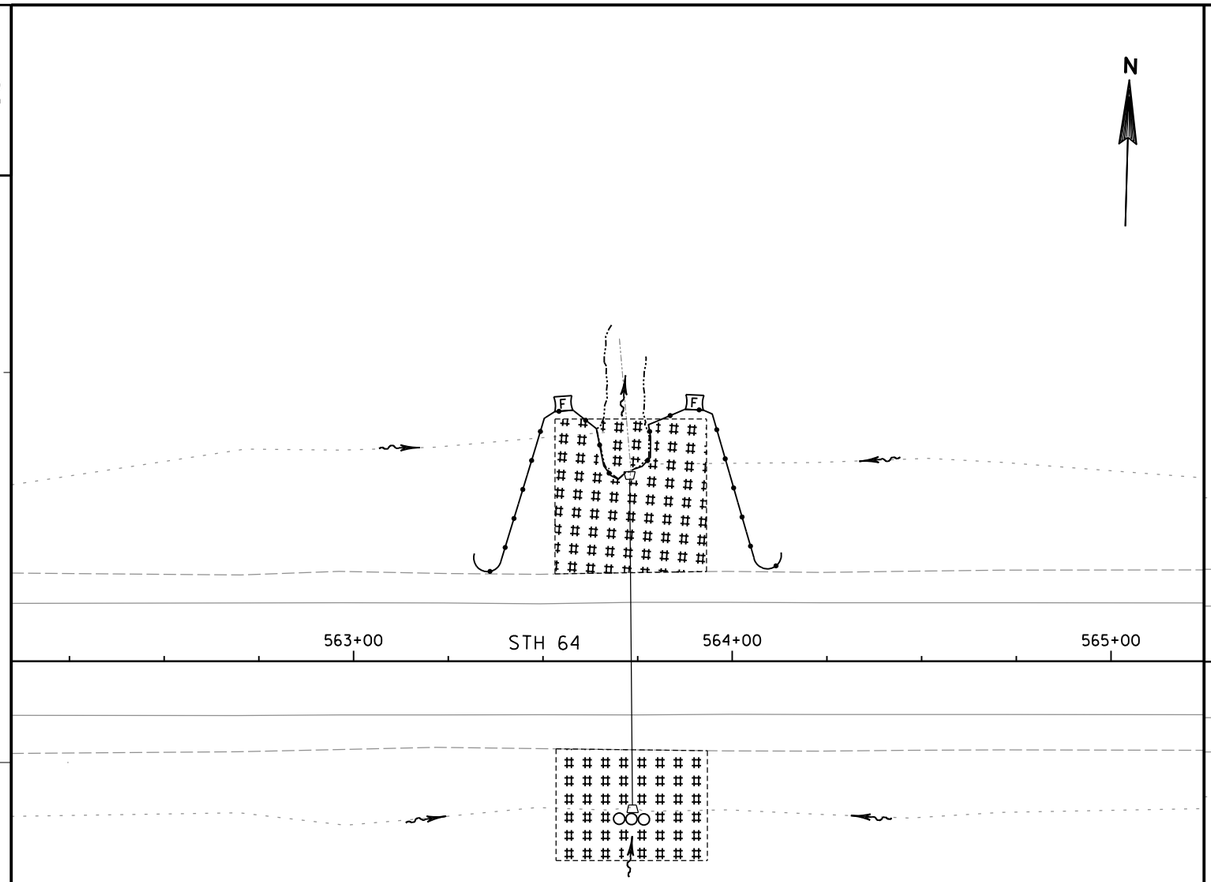
FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

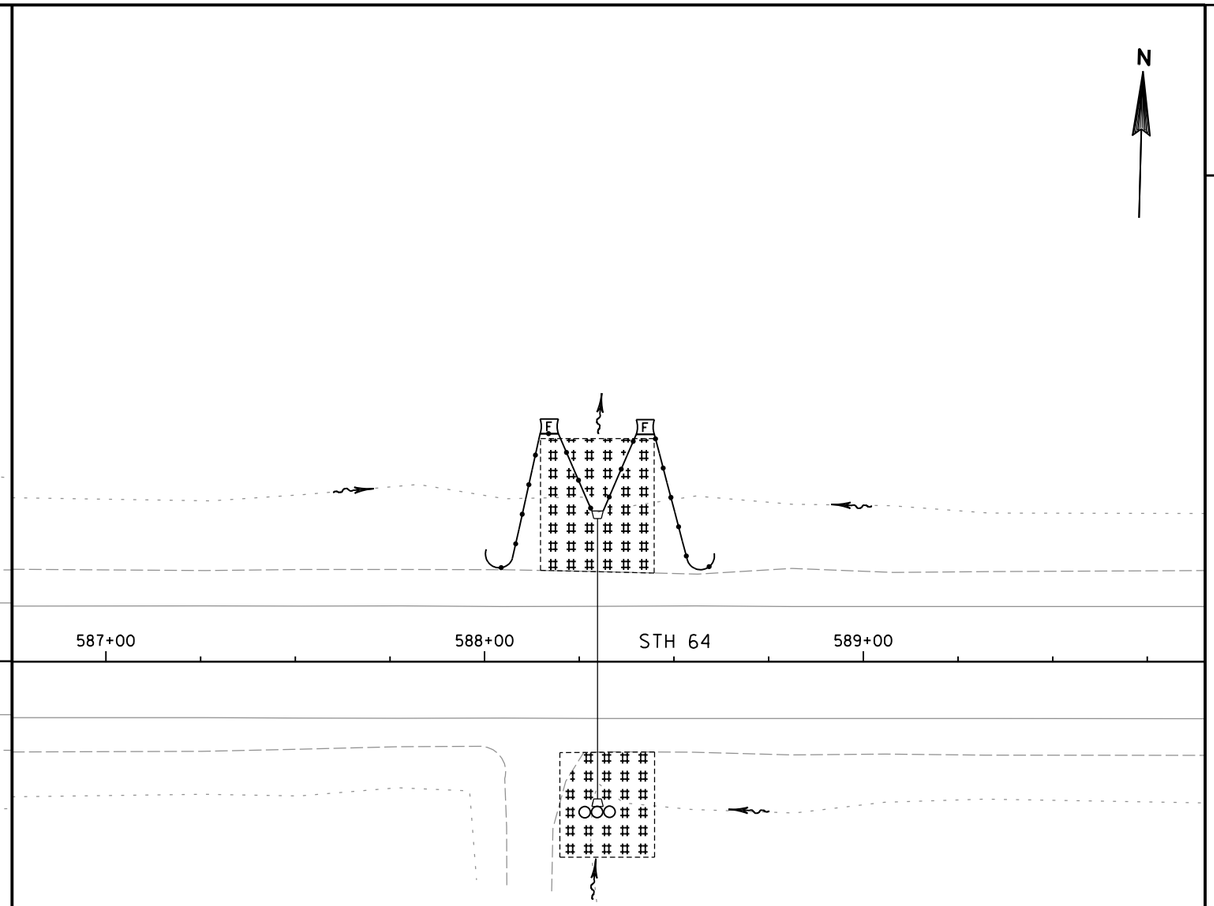
ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 33	E

2





2

LEGEND

- EROSION MAT CLASS ITYPE B
- EROSION MAT URBAN CLASS ITYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- F — SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 34	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

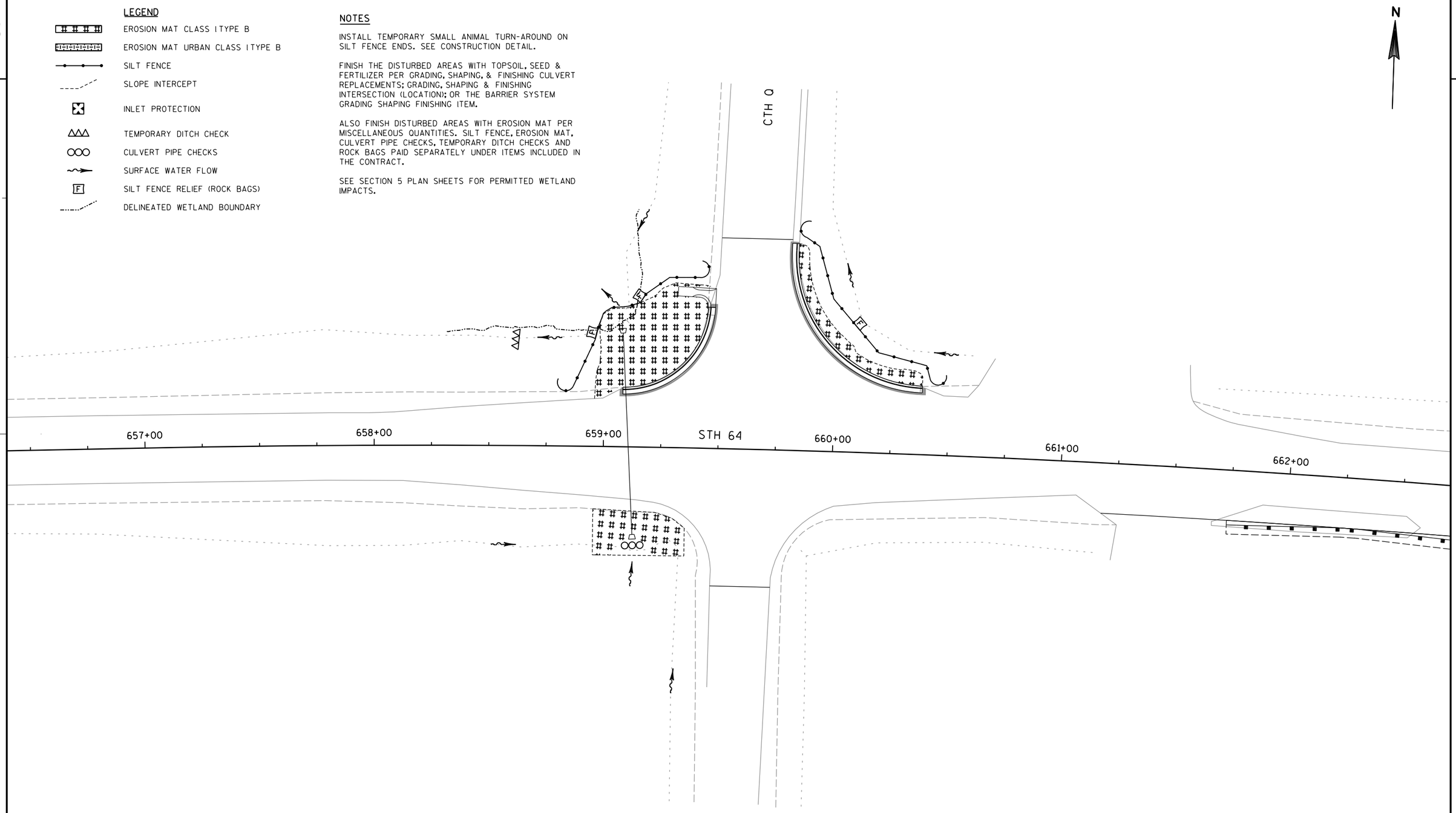
NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.



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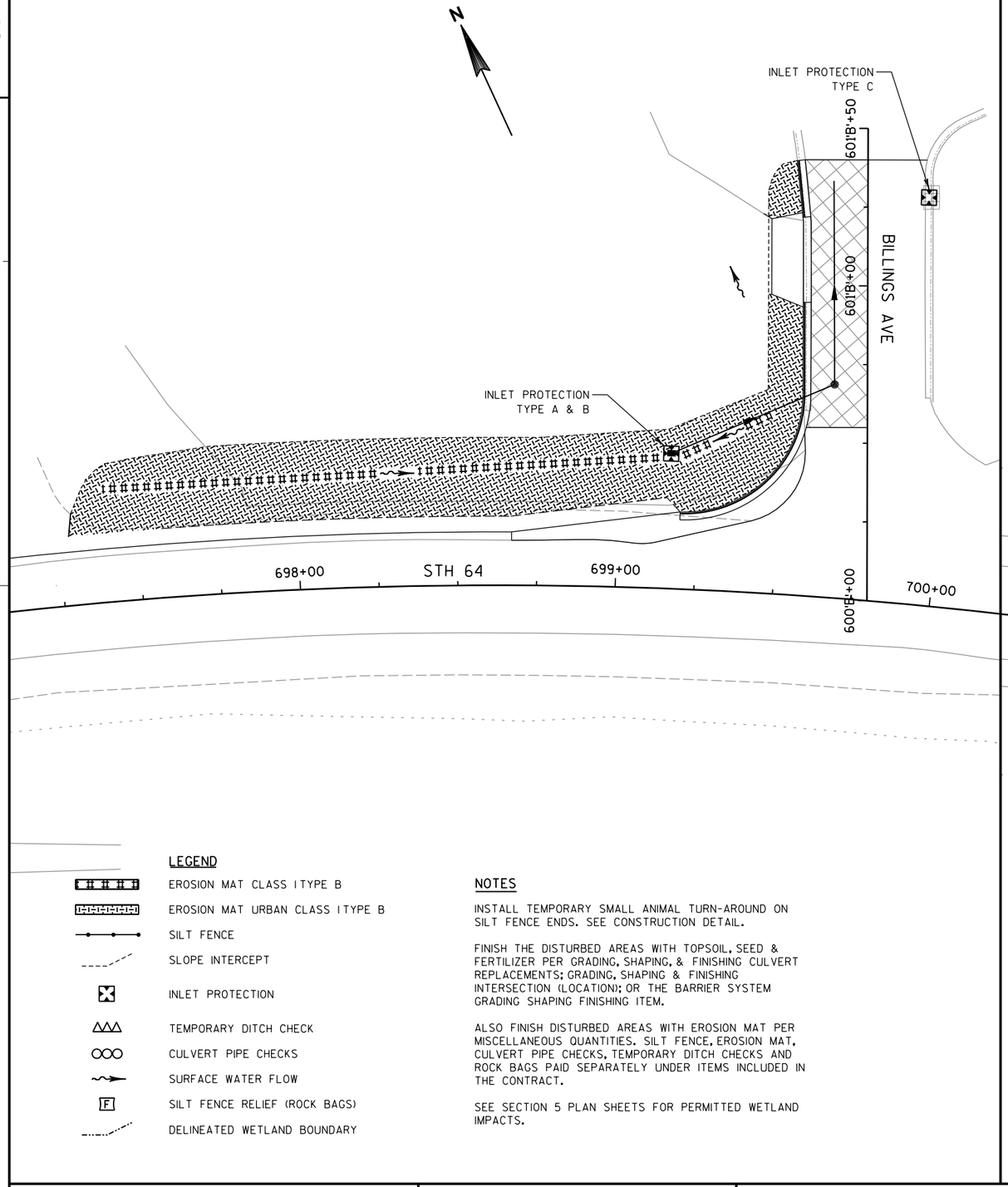
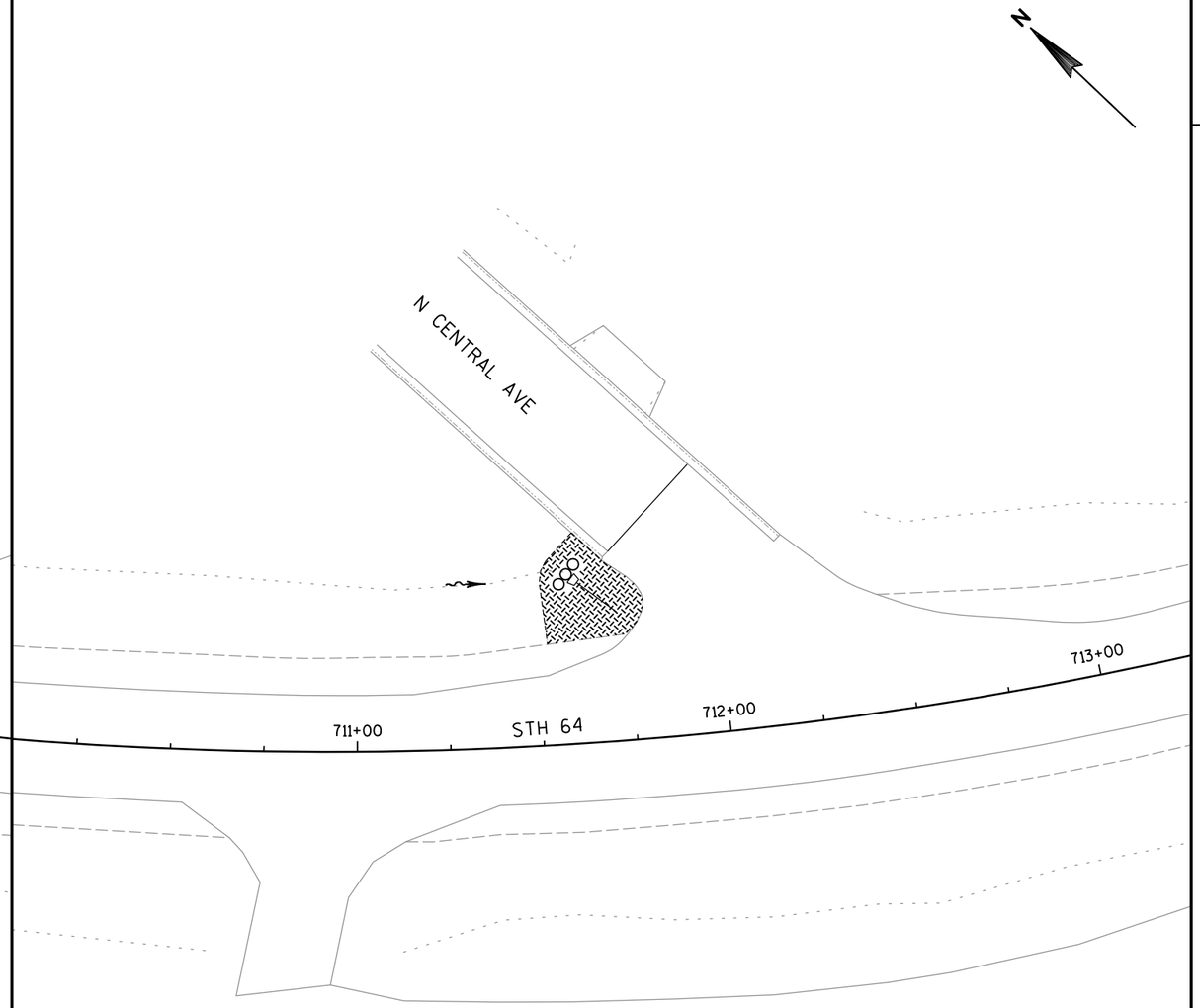
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 35	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\022008_ec.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42





2

LEGEND

- EROSION MAT CLASS I TYPE B
- EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECKS
- SURFACE WATER FLOW
- SILT FENCE RELIEF (ROCK BAGS)
- DELINEATED WETLAND BOUNDARY

NOTES

INSTALL TEMPORARY SMALL ANIMAL TURN-AROUND ON SILT FENCE ENDS. SEE CONSTRUCTION DETAIL.

FINISH THE DISTURBED AREAS WITH TOPSOIL, SEED & FERTILIZER PER GRADING, SHAPING, & FINISHING CULVERT REPLACEMENTS; GRADING, SHAPING & FINISHING INTERSECTION (LOCATION); OR THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM.

ALSO FINISH DISTURBED AREAS WITH EROSION MAT PER MISCELLANEOUS QUANTITIES. SILT FENCE, EROSION MAT, CULVERT PIPE CHECKS, TEMPORARY DITCH CHECKS AND ROCK BAGS PAID SEPARATELY UNDER ITEMS INCLUDED IN THE CONTRACT.

SEE SECTION 5 PLAN SHEETS FOR PERMITTED WETLAND IMPACTS.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	EROSION CONTROL	SHEET 36	E

2

LEGEND

EXISTING SIGN

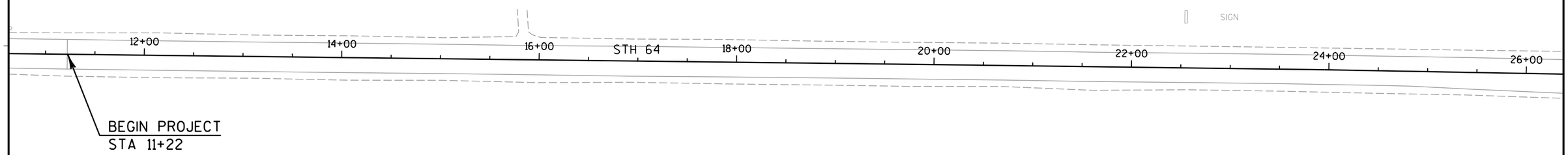
PROPOSED SIGN

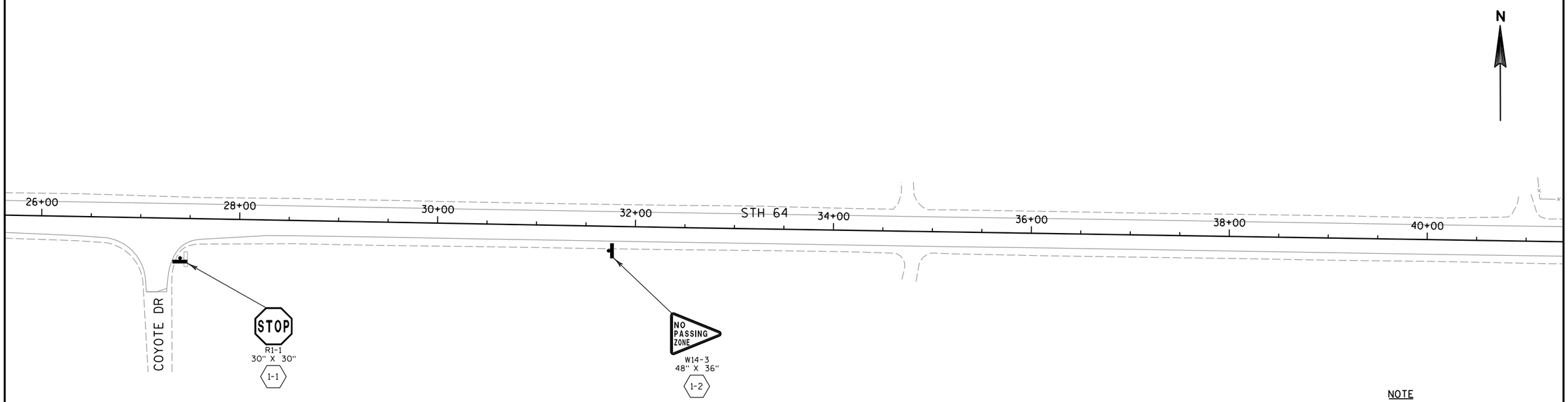
X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE





NOTE

NO SIGNS ARE LOCATED BETWEEN STA 42+00 AND STA 70+00

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 37	E

2

LEGEND

EXISTING SIGN

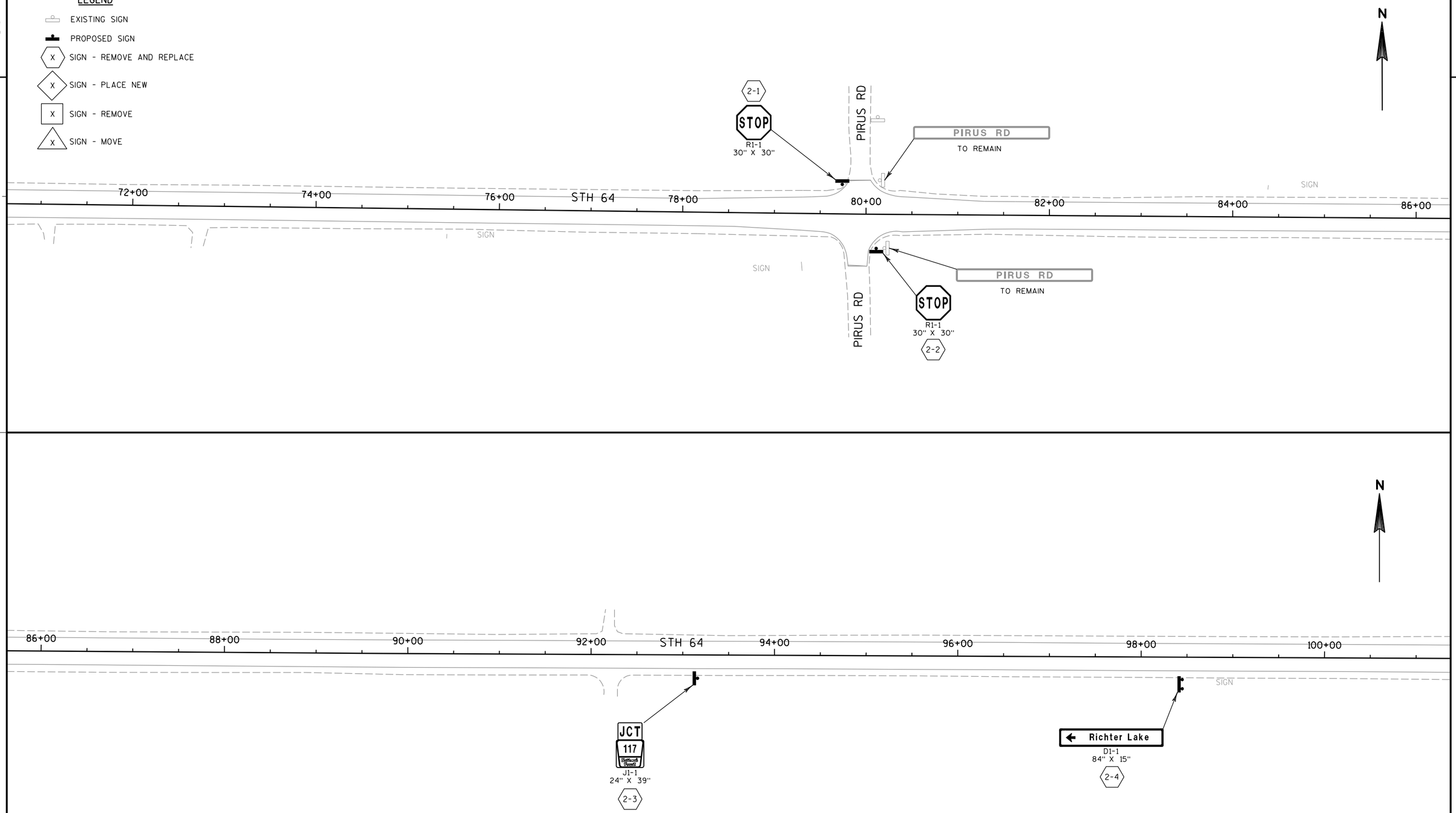
PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE



2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023202_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN
- PROPOSED SIGN
- X SIGN - REMOVE AND REPLACE
- X SIGN - PLACE NEW
- X SIGN - REMOVE
- X SIGN - MOVE

3-2 — 64 — J13-1 24" X 45"

3-3 — STOP — R1-1 30" X 30"

3-4 — 117 — J13-1 24" X 45"

3-6 — NO PASSING ZONE — W14-3 48" X 36"

3-7 — Black River — I3-1 66" X 15"

3-8 — Richter Lake → — D1-1 84" X 15"

3-9 — W2-2 30" X 30"

3-10 — JCT 117 — J1-1 24" X 39"

GROVER DR

BLACK RIVER

102+00 104+00 106+00 108+00 STH 64 110+00 112+00 114+00 116+00

SIGN SIGN

GROVER DR
TO REMAIN

3-1 — 117 — J13-1 24" X 45"

Black River — I3-1 66" X 15" — 3-5

N

116+00 118+00 120+00 122+00 124+00 STH 64 126+00 128+00 130+00

3-11 — JCT COUNTY DD — J1-1 24" X 39"

3-12 — NO PASSING ZONE — W14-3 48" X 36"

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 39	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023203_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- EXISTING SIGN
- PROPOSED SIGN
- X — SIGN - REMOVE AND REPLACE
- X — SIGN - PLACE NEW
- X — SIGN - REMOVE
- X — SIGN - MOVE

GROVER ZONGING SIGN TO REMAIN

4-3 W1-7 48" X 24"

4-6 COUNTY DD J13-1 24" X 45"

4-8 JCT COUNTY DD J1-1 24" X 39"

N

132+00 134+00 136+00 138+00 STH 64 140+00 142+00 144+00 146+00

WEST 64 J4-1 24" X 36" 4-1

COUNTY DD J13-1 24" X 45" 4-2

STOP R1-1 30" X 30" 4-4

CTH DD

64 J13-1 24" X 45" 4-5

EAST 64 J4-1 24" X 36" 4-7

SPONSOR WEDFORD EDUCATION ASSOCIATION TO REMAIN

N

146+00 148+00 150+00 152+00 STH 64 154+00 156+00 158+00 160+00

NOTE

NO SIGNS ARE LOCATED BETWEEN STA 162+00 AND STA 190+00

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 40	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023204_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

EXISTING SIGN

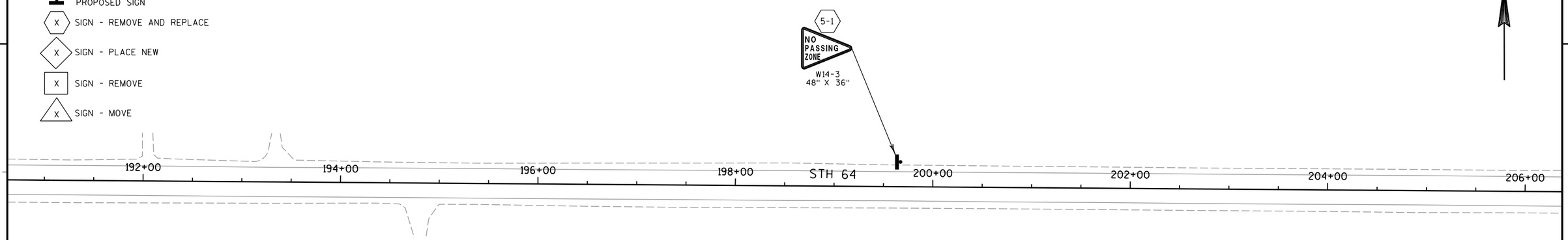
PROPOSED SIGN

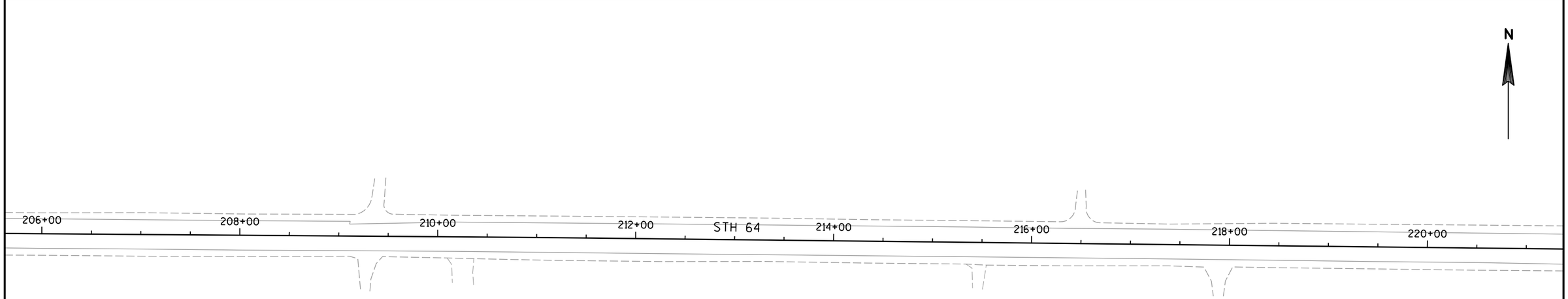
X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 41	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023205_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

N

6-2

NO PASSING ZONE

W14-3
48" X 36"

222+00 224+00 226+00 228+00 STH 64 230+00 232+00 234+00 236+00

NO PASSING ZONE

W14-3
48" X 36"

6-1

2

N

6-3

STOP

R1-1
30" X 30"

LARSON RD

LARSON RD

TO REMAIN

TO REMAIN

236+00 238+00 240+00 242+00 STH 64 244+00 246+00 248+00 250+00

STOP

R1-1
30" X 30"

6-4

LARSON DR

LARSON DR

TO REMAIN

TO REMAIN

SIGN

NO PASSING ZONE

W14-3
48" X 36"

6-5

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 42	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023206_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

2

2

LEGEND

EXISTING SIGN

PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

N

252+00 254+00 256+00 258+00 STH 64 260+00 262+00 264+00 266+00

N

266+00 268+00 270+00 272+00 STH 64 274+00 276+00 278+00 280+00

7-2

NO PASSING ZONE

W14-3
48" X 36"

JCT
COUNTY O

J1-1
24" X 39"

7-1

W1-2L
30" X 30"

50 M.P.H.

W13-1
18" X 18"

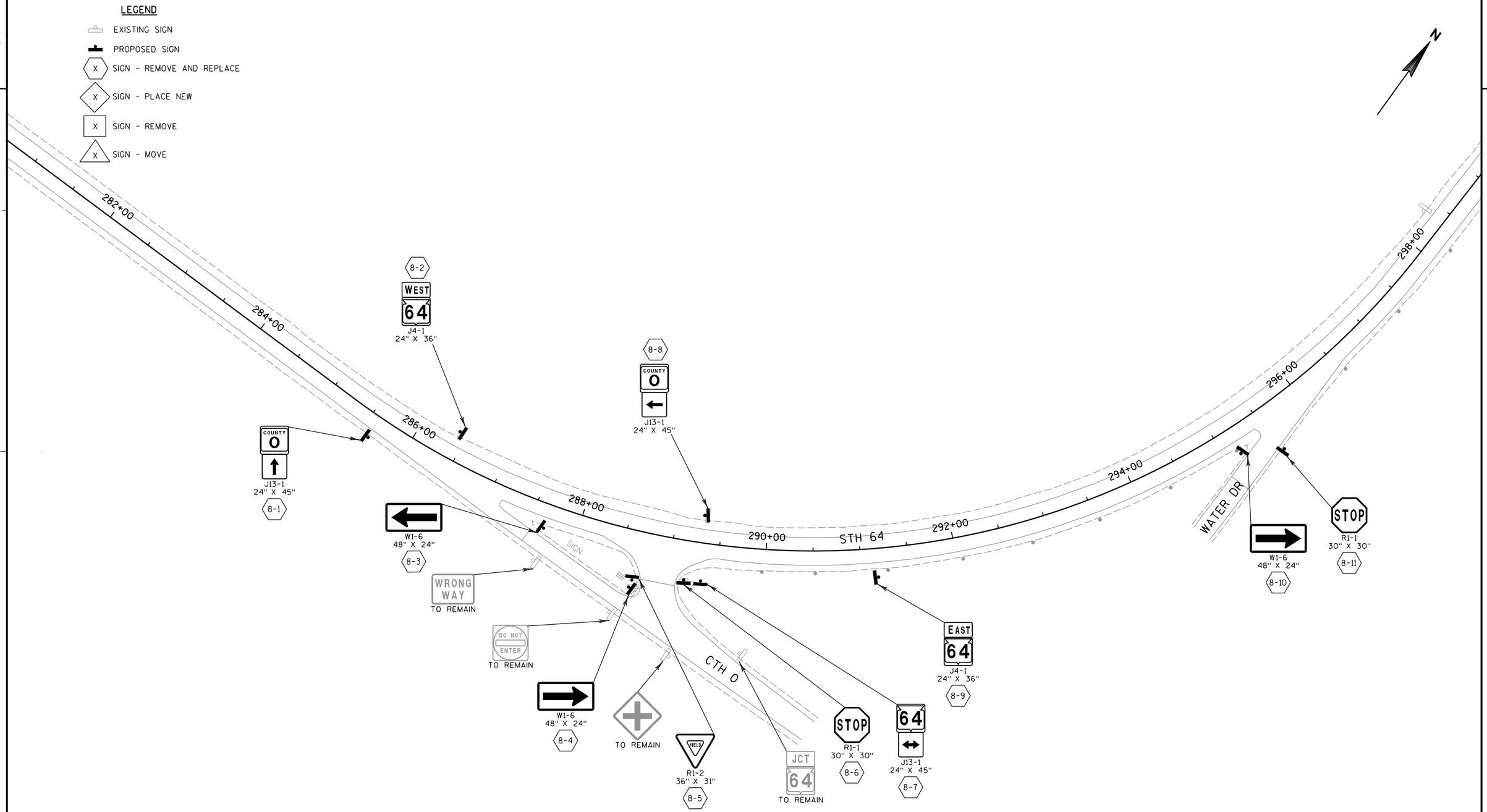
7-3 7-4

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 43	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023207_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- EXISTING SIGN
- PROPOSED SIGN
- X SIGN - REMOVE AND REPLACE
- X SIGN - PLACE NEW
- X SIGN - REMOVE
- X SIGN - MOVE



2

LEGEND

EXISTING SIGN

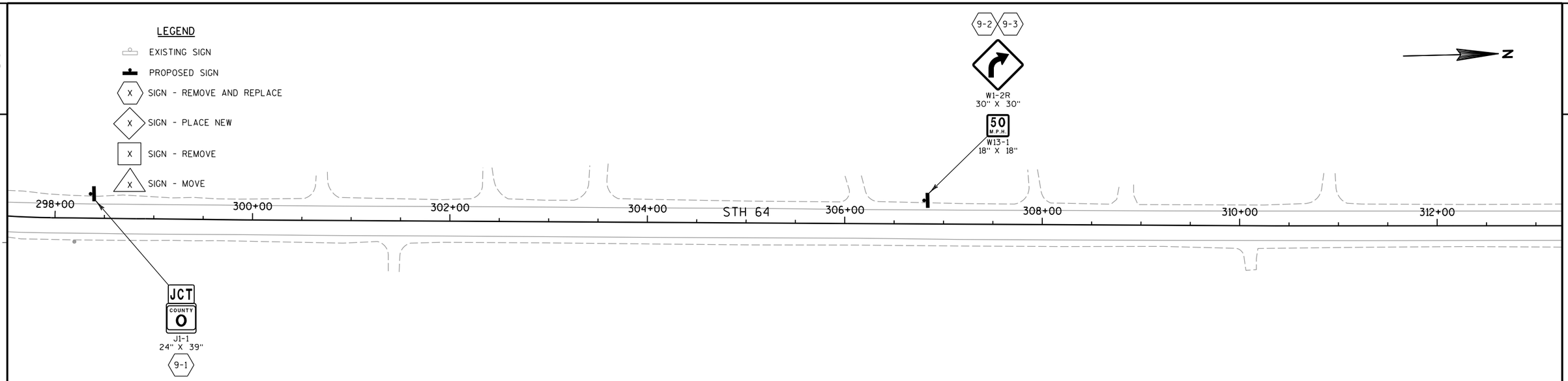
PROPOSED SIGN

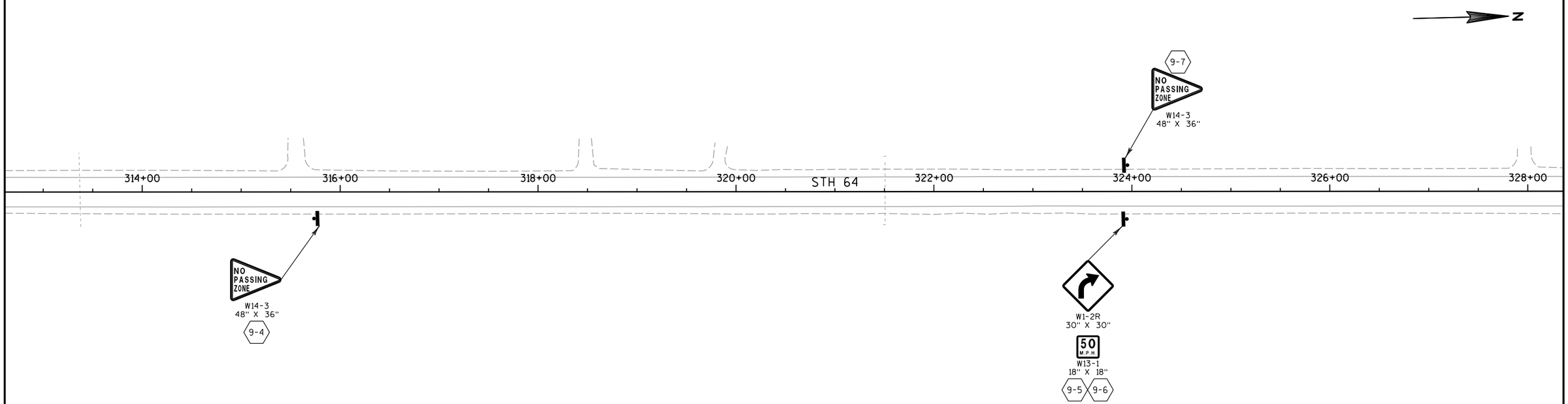
X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE





2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 45	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023209_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

EXISTING SIGN

PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

N

TO REMAIN

TO REMAIN

10-2

STOP

R1-1
30" X 30"

DIVISION DR

TO REMAIN

DIVISION DR

328+00

330+00

332+00

334+00

336+00

338+00

340+00

342+00

344+00

STH 64

S3-1
36" X 36"

10-1

10-3

W1-6
48" X 24"

2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 46	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023210_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

SAWYER AV
TO REMAIN

11-1
STOP
R1-1
30" X 30"

11-2
W1-6
48" X 24"

11-3
S3-1
36" X 36"

11-4 11-5
W1-2L
30" X 30"
50
M.P.H.
W13-1
18" X 18"

N

SAWYER AVE

344+00 346+00 348+00 350+00 352+00 STH 64 354+00 356+00 358+00

358+00 360+00 362+00 364+00 366+00 STH 64 368+00 370+00 372+00

N

NO PASSING ZONE
W14-3
48" X 36"
11-6

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 47	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023211_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

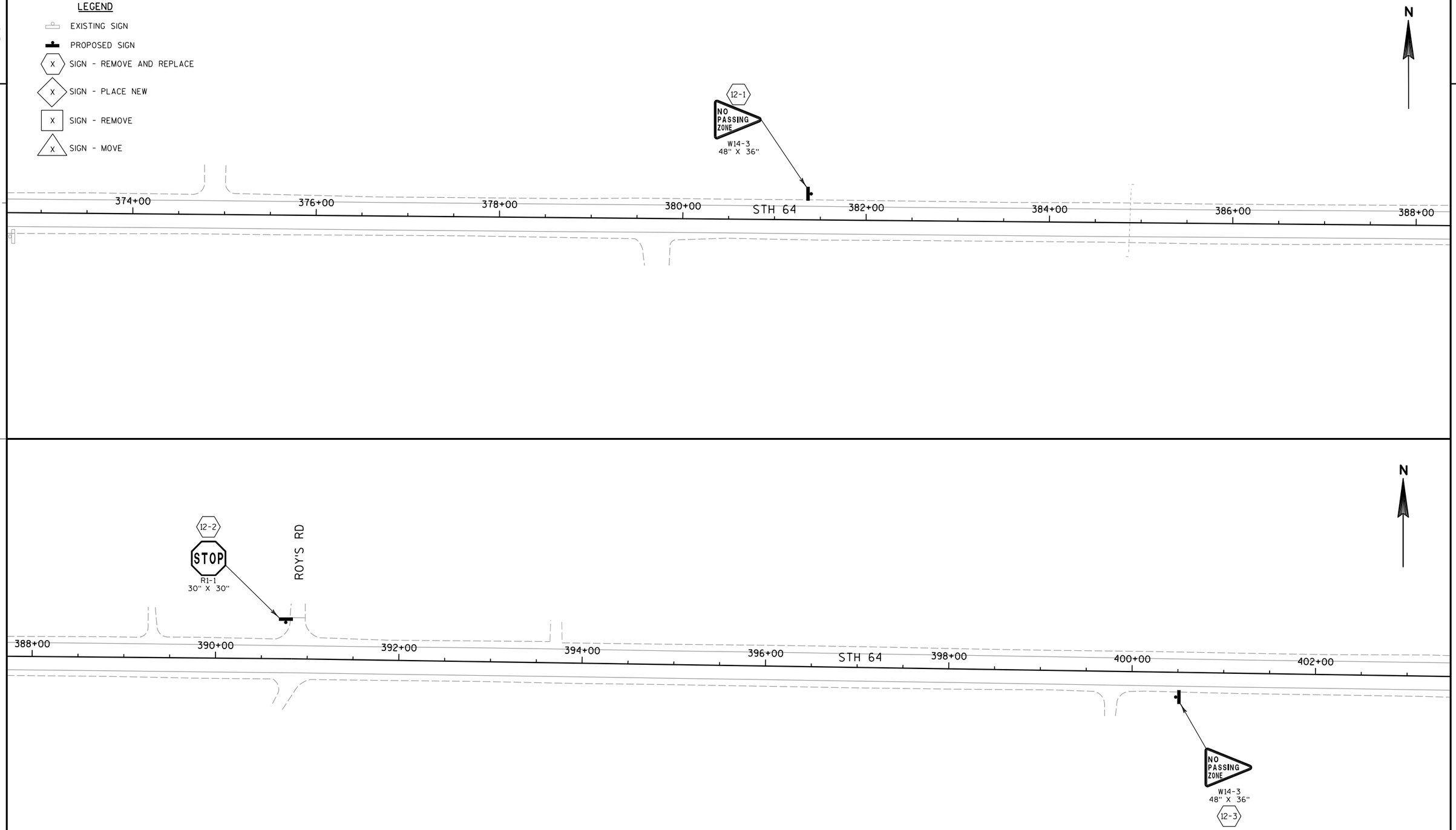
PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE



2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 48	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023212_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

PROPOSED SIGN

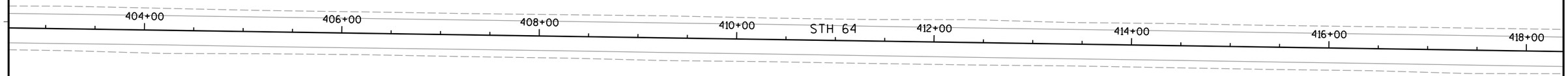
X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

N



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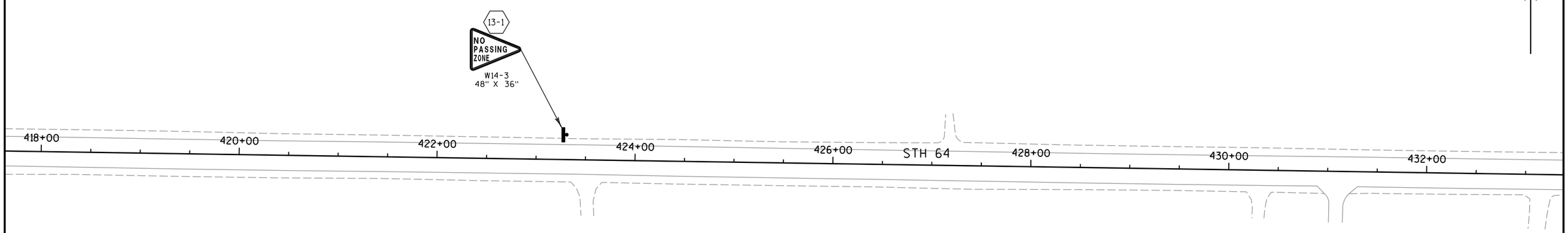


2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 49	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023213_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

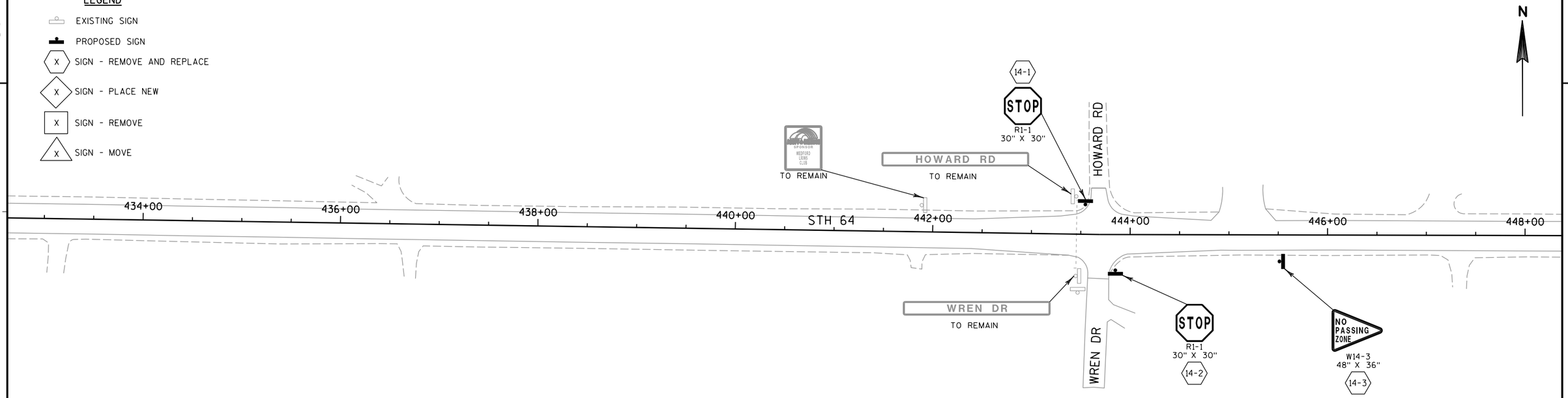
PROPOSED SIGN

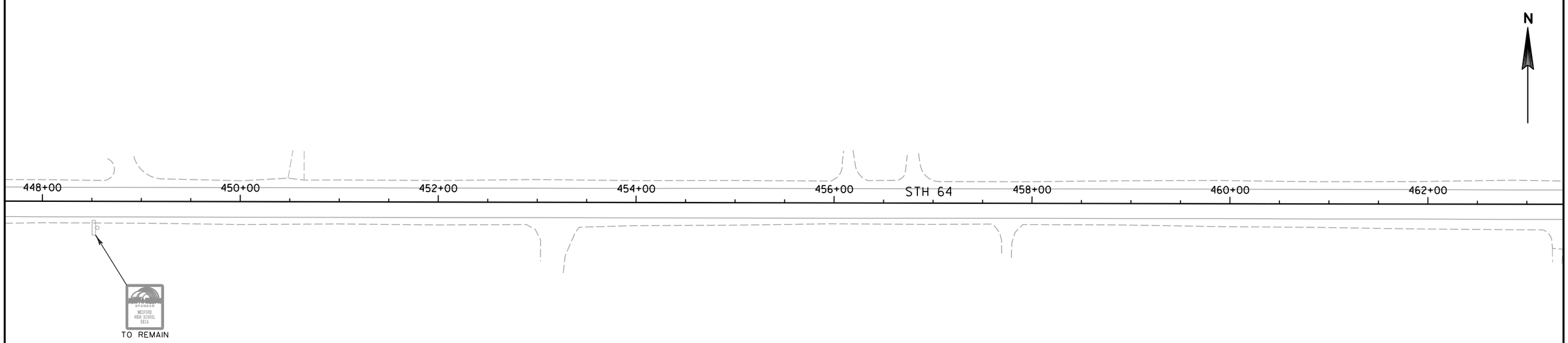
X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE





2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 50	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023214_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

N

15-2
WEST 64
J4-1
24" X 36"

464+00 466+00 468+00 470+00 STH 64 472+00 474+00 476+00 478+00

JCT COUNTY E
J1-1
24" X 39"
15-1

2

N

15-3
NO PASSING ZONE
W14-3
48" X 36"

15-6
COUNTY E
J13-1
24" X 45"

15-9
W5-52L
12" X 36"

15-10
W5-52R
12" X 36"

BLACK RIVER

15-12
Black River
I3-1
66" X 15"

15-13
W5-52R
12" X 36"

15-16
COUNTY E
J12-1
24" X 45"

478+00 480+00 482+00 484+00 486+00 STH 64 488+00 490+00 492+00

Black River
I3-1
66" X 15"
15-11

502E+00

COUNTY E
J12-1
24" X 45"
15-4

COUNTY E
J13-1
24" X 45"
15-5

STOP
R1-1
30" X 30"
15-7

CTH E

64 COUNTY E
J13-2
48" X 45"
15-8

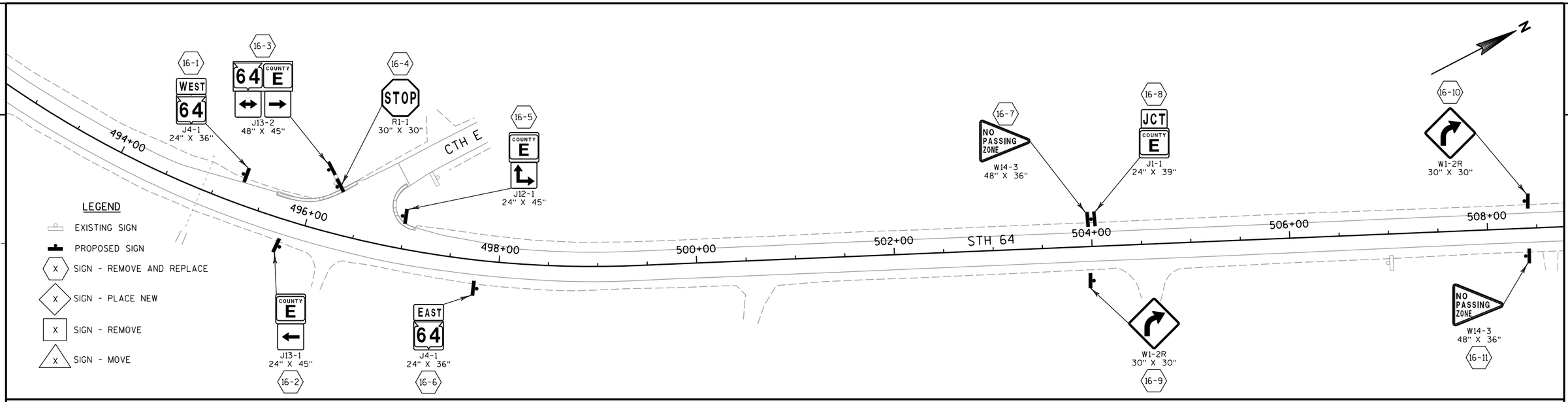
W5-52L
12" X 36"
15-14

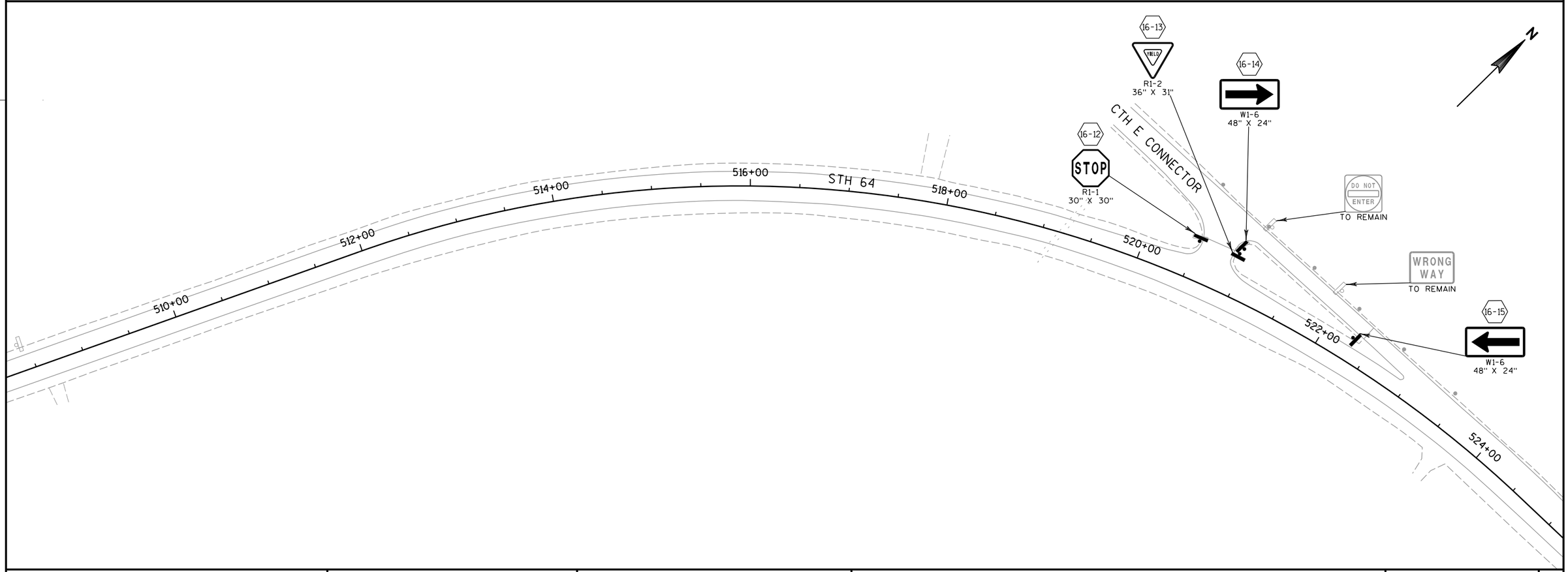
W1-2L
30" X 30"
15-15

COUNTY E
J12-1
24" X 45"
15-17

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023215_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 52	E

2

LEGEND

EXISTING SIGN

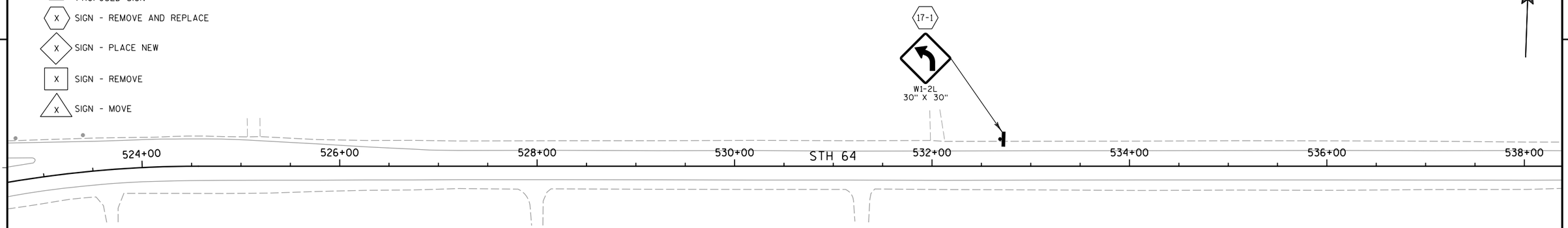
PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

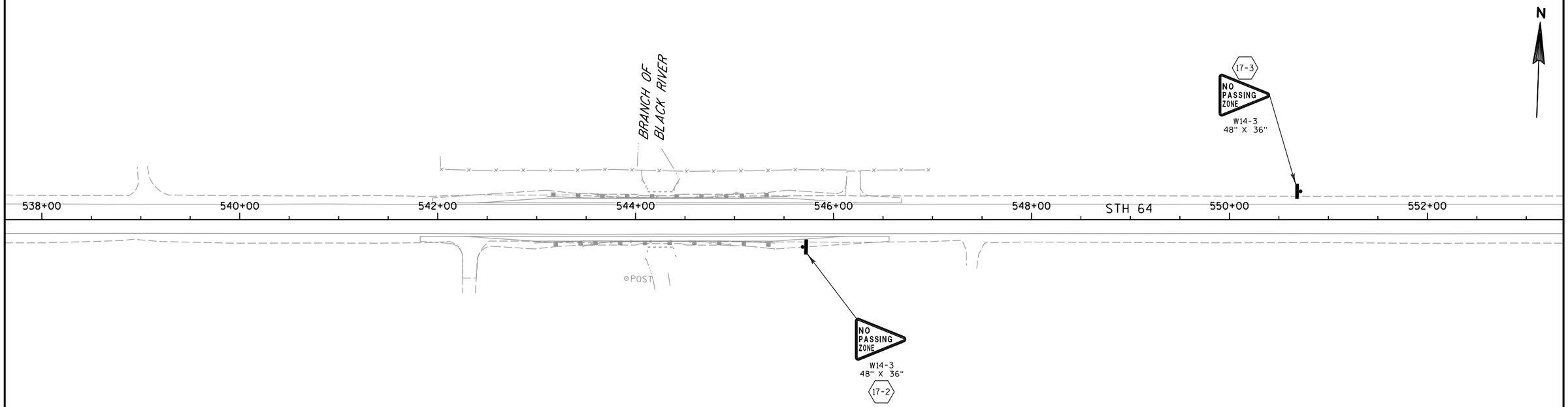
X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

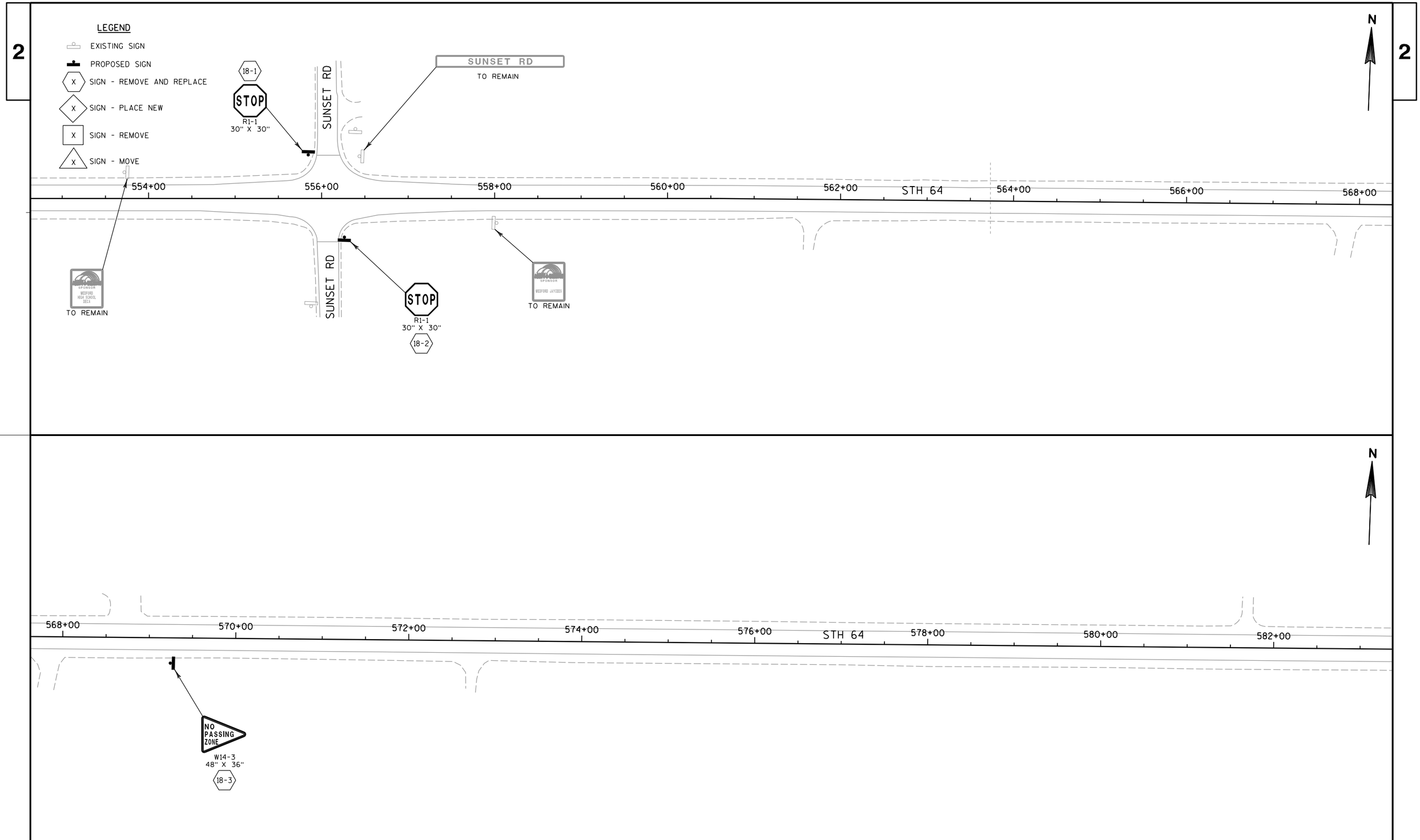


2



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023217_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100



PROJECT NO:8220-05-72	HWY:STH 64	COUNTY:TAYLOR	PERMANENT SIGNING	SHEET 54	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023218_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE

N

19-1

NO PASSING ZONE

W14-3
48" X 36"

584+00 586+00 588+00 590+00 592+00 STH 64 594+00 596+00 598+00

19-2 | 19-3

REMOVE

NEXT 1 MILE

REMOVE

19-4

STOP

R1-1
30" X 30"

CASTLE RD

CASTLE RD

TO REMAIN

N

598+00 600+00 602+00 604+00 606+00 STH 64 608+00 610+00 612+00

CASTLE RD

STOP

R1-1
30" X 30"

19-5

NO PASSING ZONE

W14-3
48" X 36"

19-6

NOTE

NO SIGNS ARE LOCATED BETWEEN STA 614+00 AND STA 642+00

2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 55	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023219_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- EXISTING SIGN
- PROPOSED SIGN
- X SIGN - REMOVE AND REPLACE
- X SIGN - PLACE NEW
- X SIGN - REMOVE
- X SIGN - MOVE

20-1 NO PASSING ZONE W14-3 48" X 36"

20-2 SPONSOR MEDFORD JAYCEES MOVE

20-4 Gilman 25 Cornell 42 D2-2 66" X 24"

20-9 SPEED LIMIT 55 R2-1 24" X 30"

20-8 WEST 64 J4-1 24" X 36"

644+00 646+00 648+00 650+00 STH 64 652+00 654+00 656+00 658+00

JCT COUNTY Q J1-1 24" X 39" 20-3

SPEED LIMIT 40 W3-5 36" X 36" 20-5

NO ENGINE BRAKING EXCEPT IN EMERGENCY R10-64 30" X 36"

WITHIN CITY LIMITS R10-64F 30" X 18" 20-6 20-7

SPEED LIMIT 40 R2-1 24" X 30" 20-10

N

20-12 64 COUNTY Q J13-2 48" X 45"

20-13 STOP R1-1 30" X 30"

CTH Q

20-16 COUNTY Q J13-1 24" X 45"

658+00 660+00 662+00 664+00 666+00 STH 64 668+00 670+00 672+00

20-23 NO PASSING ZONE W14-3 48" X 36"

20-24 JCT COUNTY Q J1-1 24" X 39"

20-26 SPEED LIMIT 40 REMOVE

COUNTY Q J13-1 24" X 45" 20-11

CTH Q

STOP R1-1 30" X 30" 20-14

64 COUNTY Q J13-2 48" X 45" 20-15

SIGN

Medford POPULATION 4326 TO REMAIN

CITY PARKING ORDINANCE SIGN TO REMAIN

SPEED LIMIT 40 R2-1 24" X 30" 20-17

NO PASSING ZONE W14-3 48" X 36" 20-18

S1-1 36" X 36"

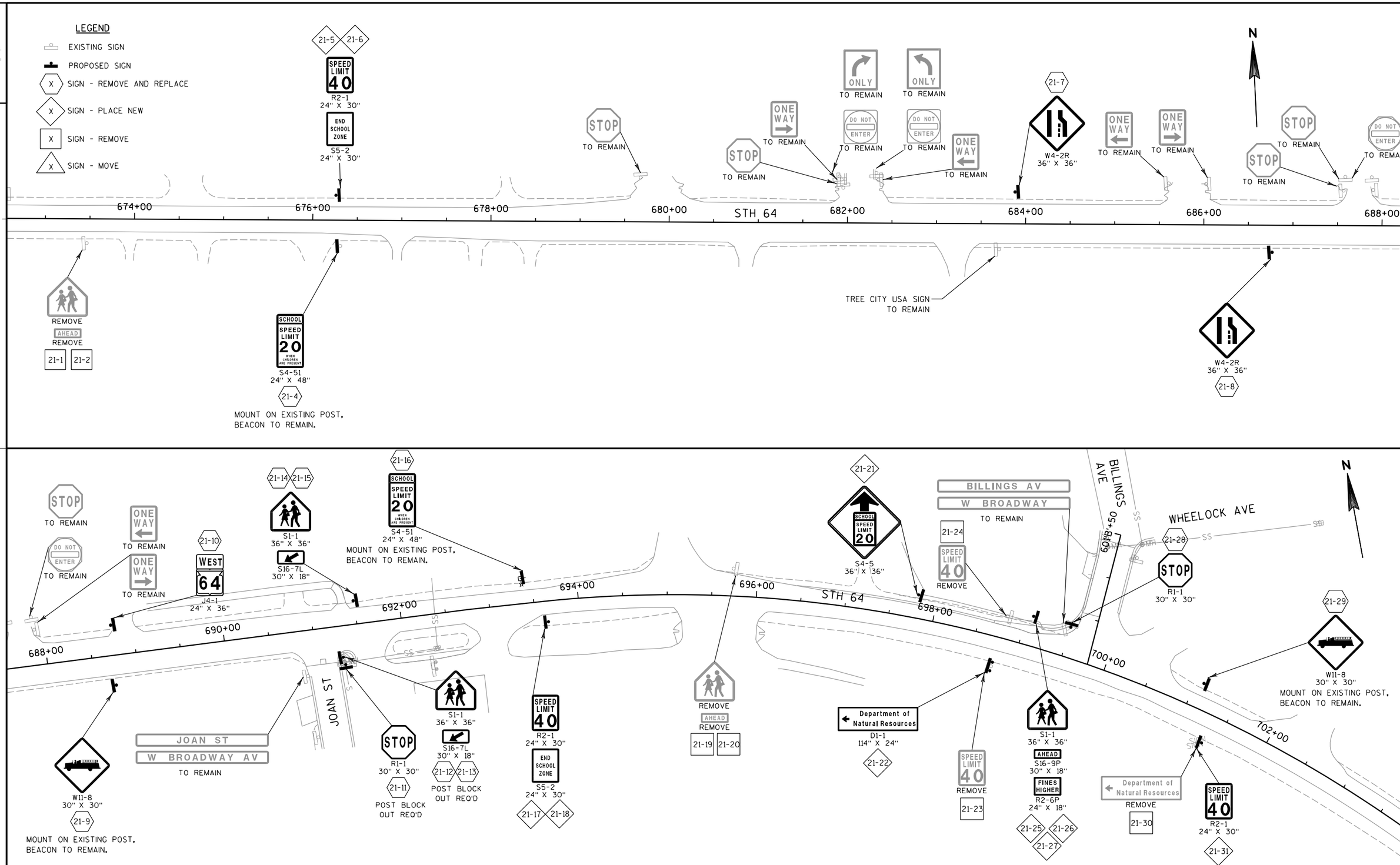
AHEAD S16-9P 30" X 18"

FINES HIGHER R2-6P 24" X 18" 20-19 20-20 20-21

SPEED LIMIT 40 REMOVE 20-22

SCHOOL SPEED LIMIT 20 S4-5 36" X 36" 20-25

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 56	E



PROJECT NO:8220-05-72	HWY:STH 64	COUNTY:TAYLOR	PERMANENT SIGNING	SHEET 57	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023221_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN

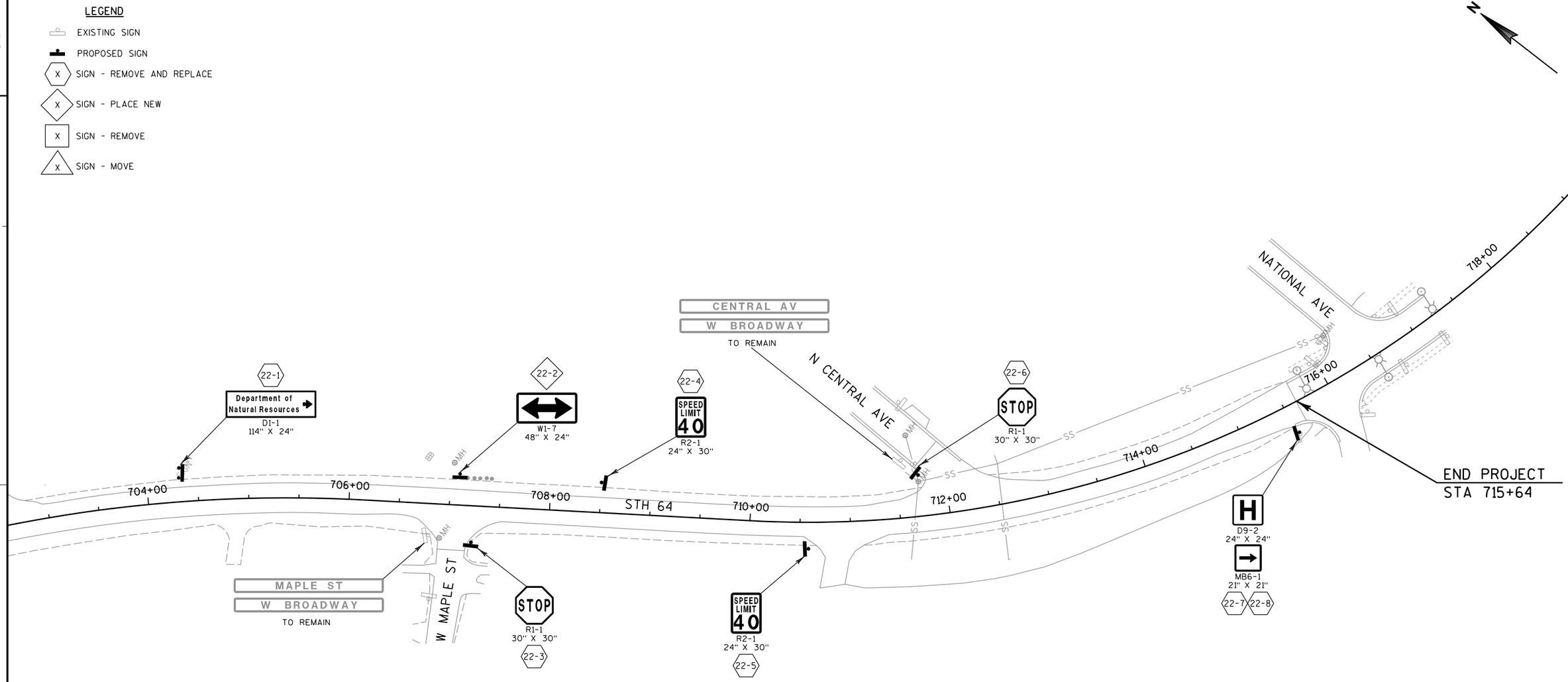
PROPOSED SIGN

X SIGN - REMOVE AND REPLACE

X SIGN - PLACE NEW

X SIGN - REMOVE

X SIGN - MOVE



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PERMANENT SIGNING	SHEET 58	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\023222_ps.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

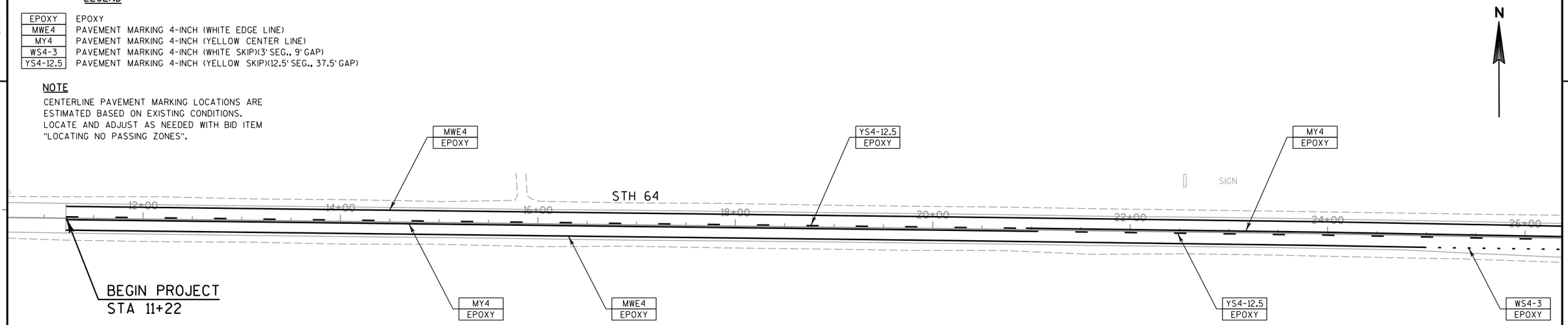
2

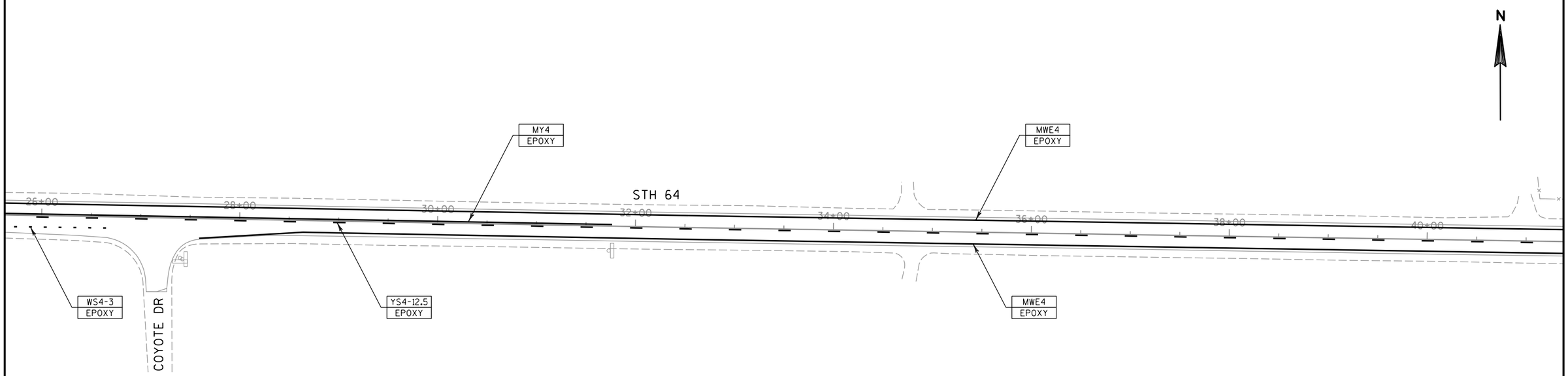
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 59	E

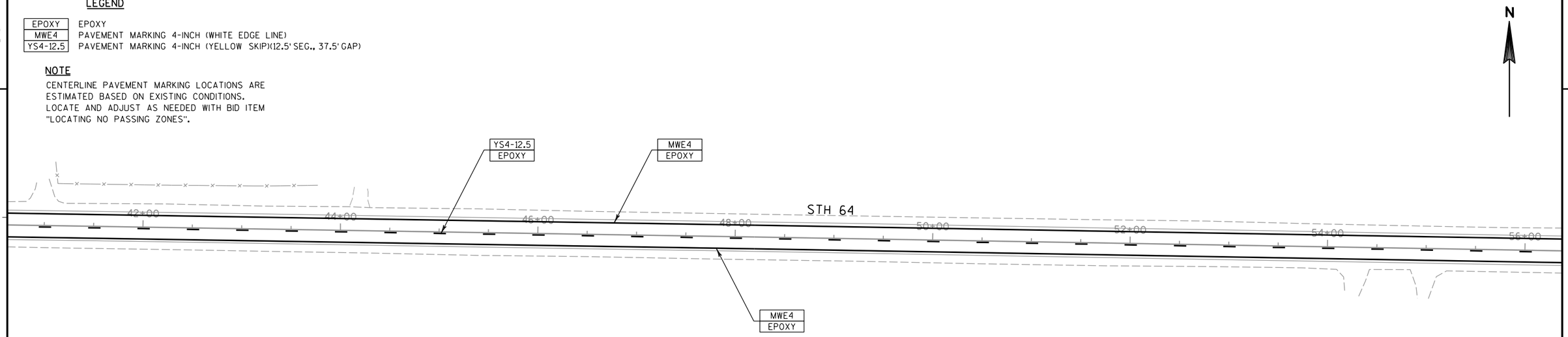
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024501_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

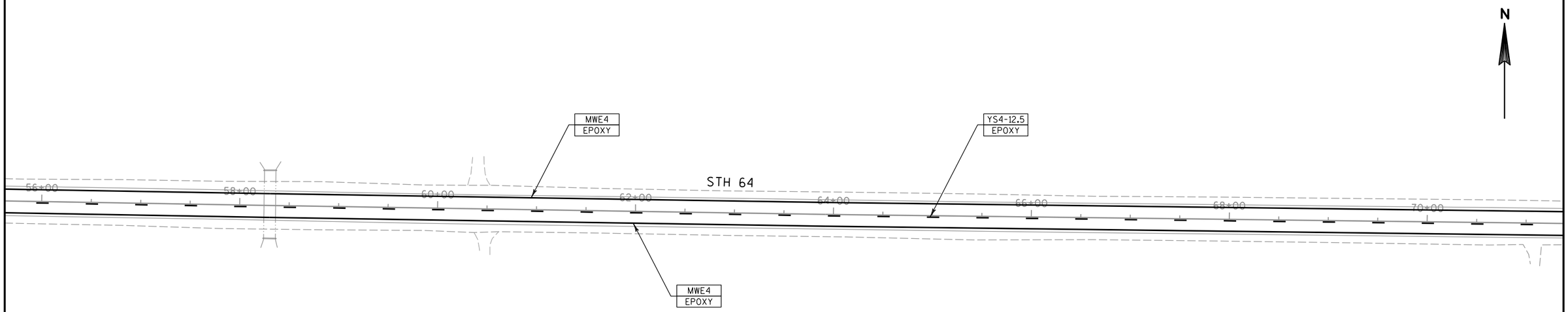
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 60 E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024502_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

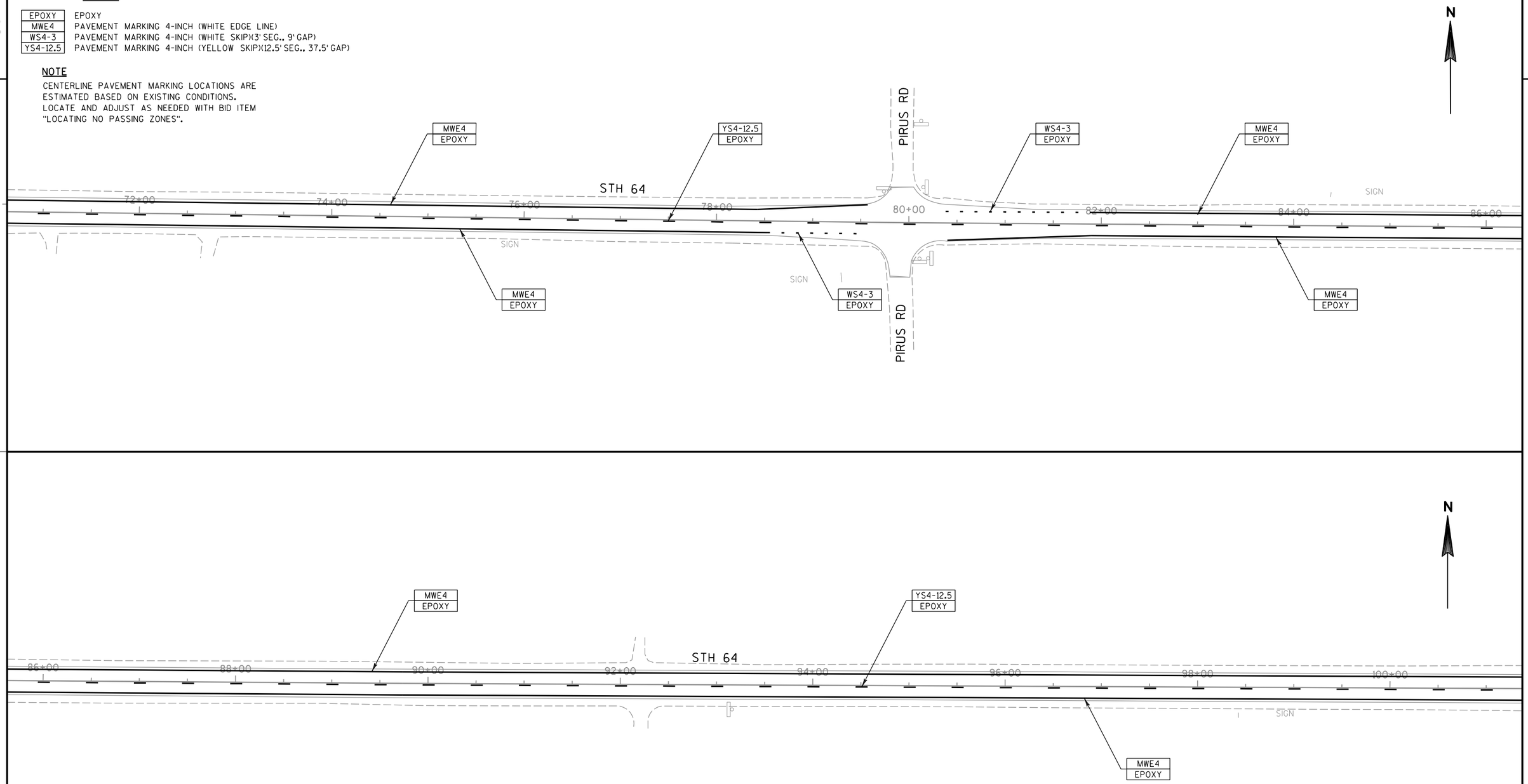
2

LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 61	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024503_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

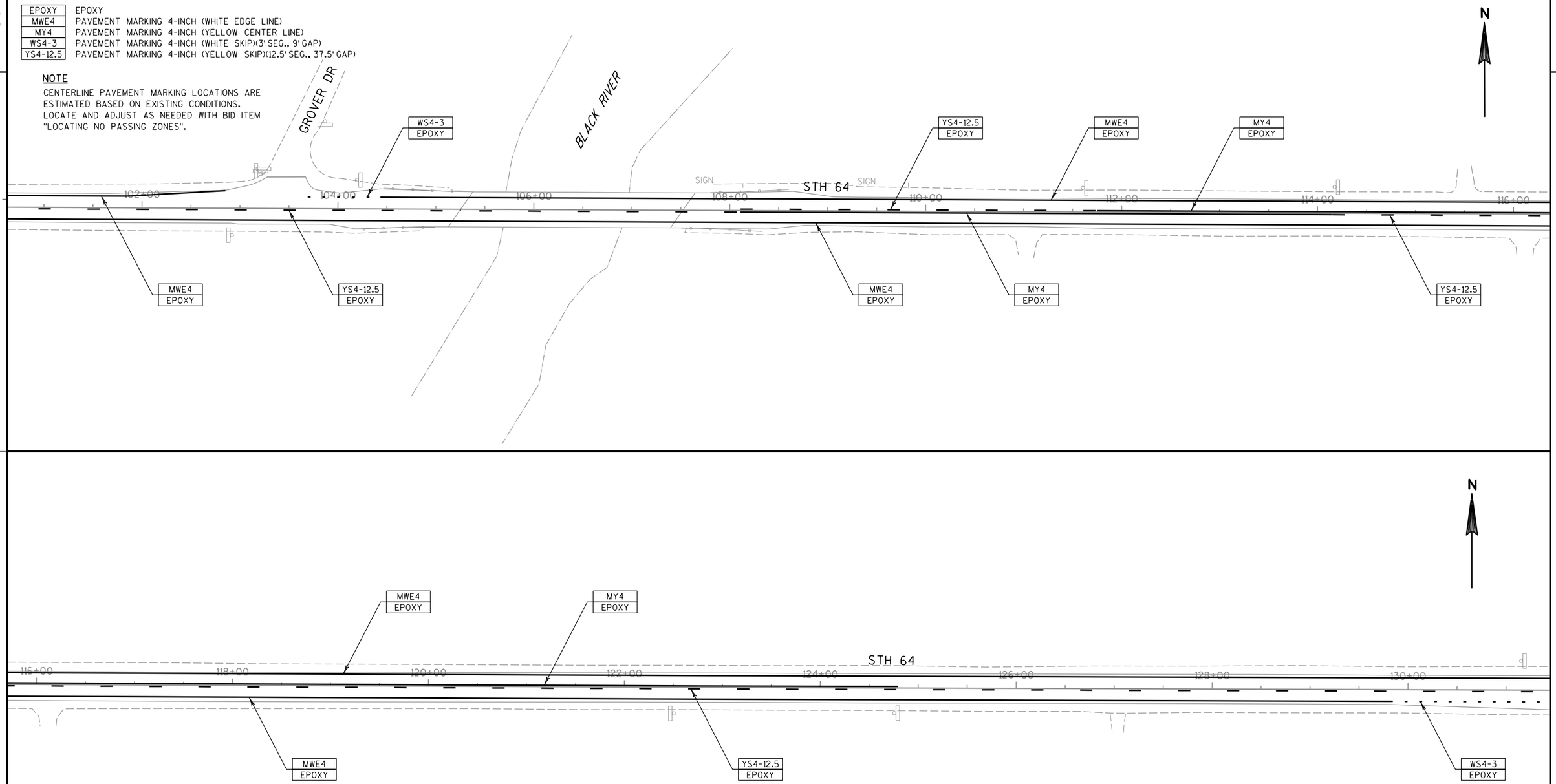
2

LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 62	E

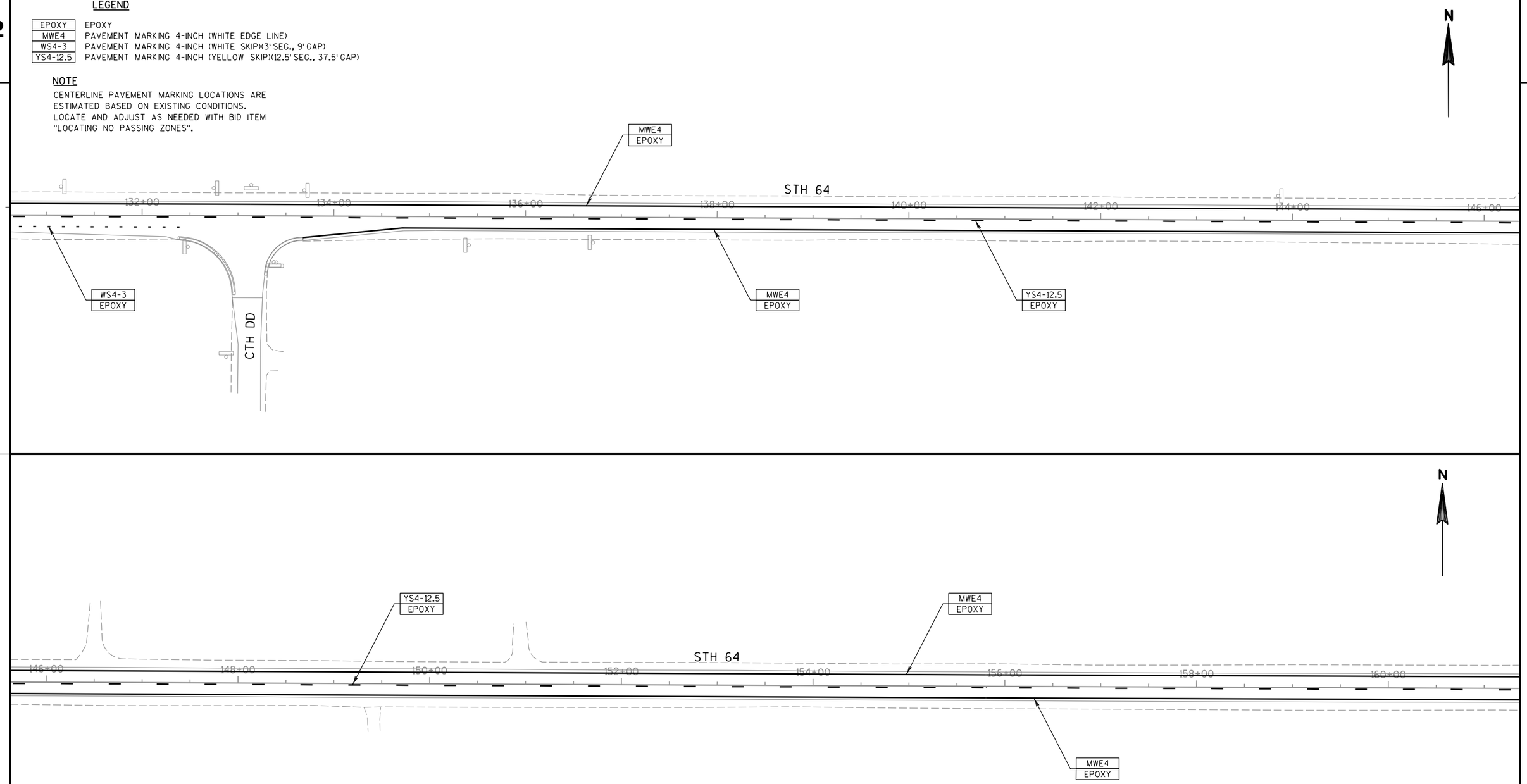
2

LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



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PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024505_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

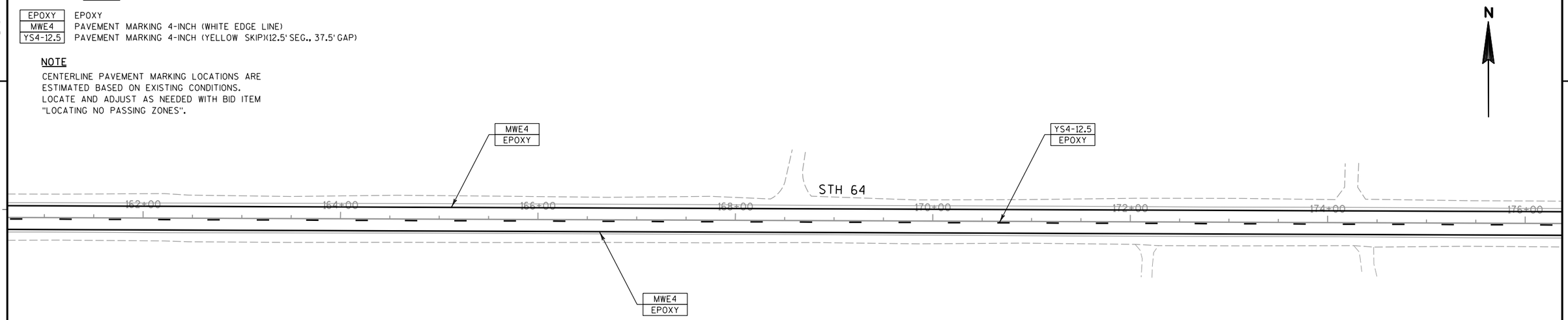
2

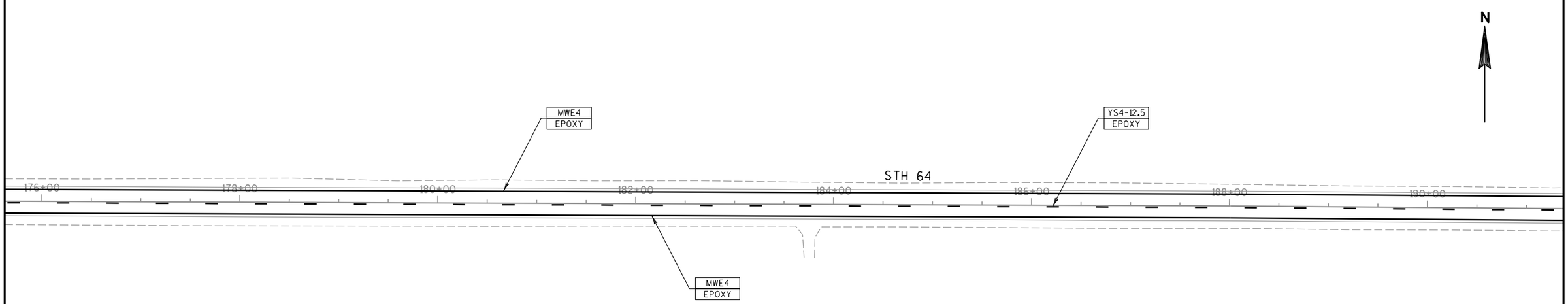
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





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PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 64	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024506_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

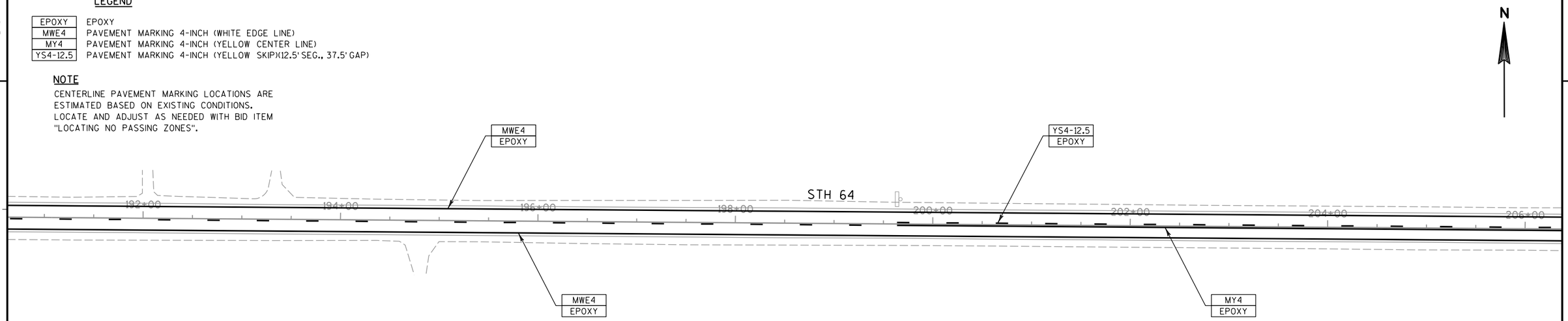
2

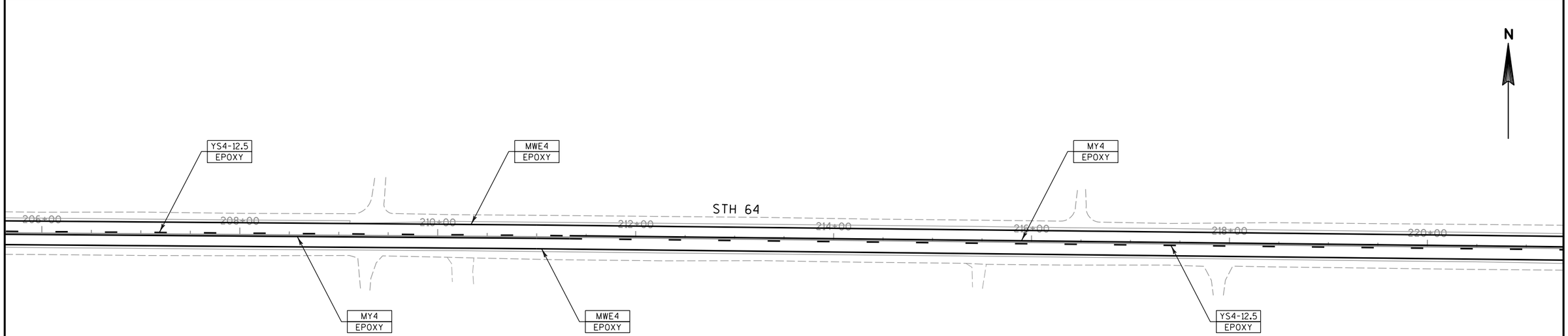
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 65	E

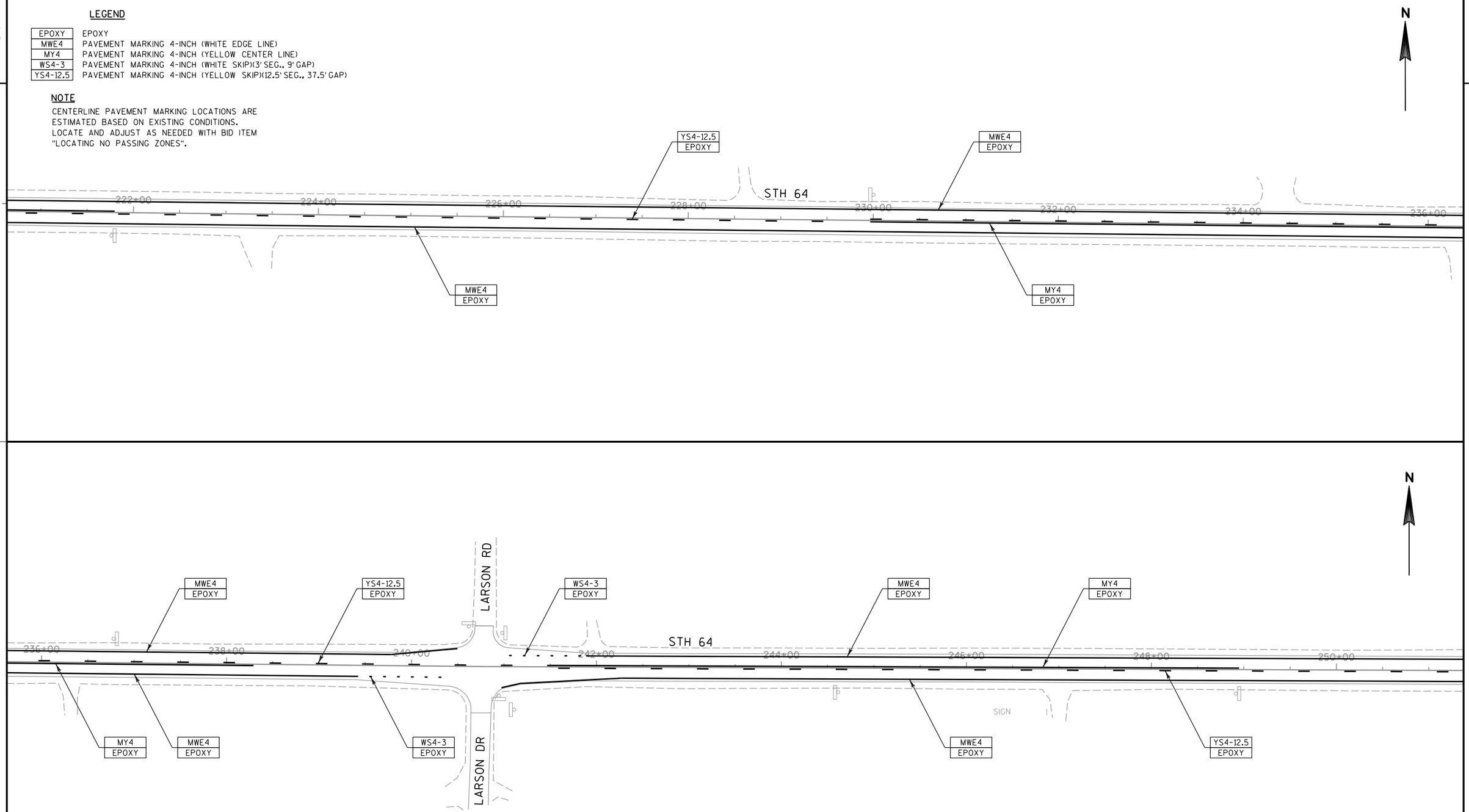
2

LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 66	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024508_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

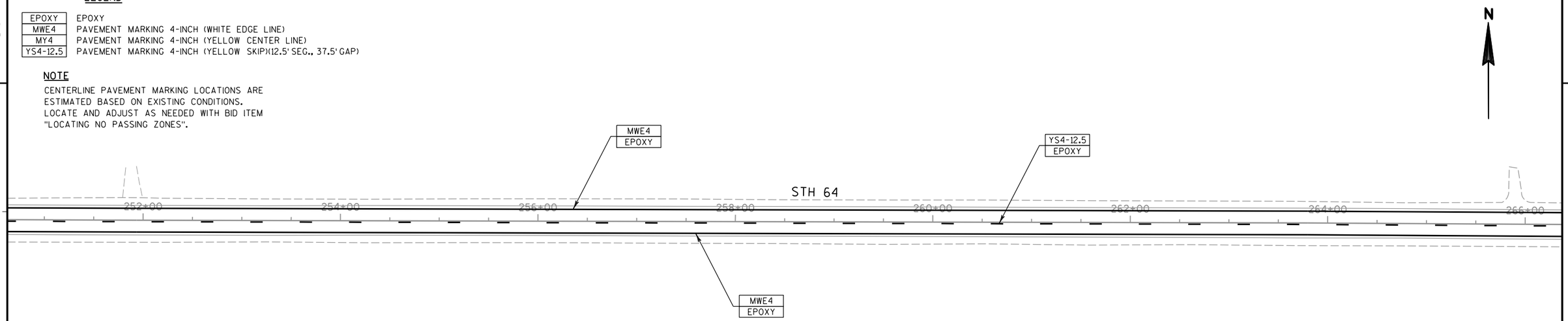
2

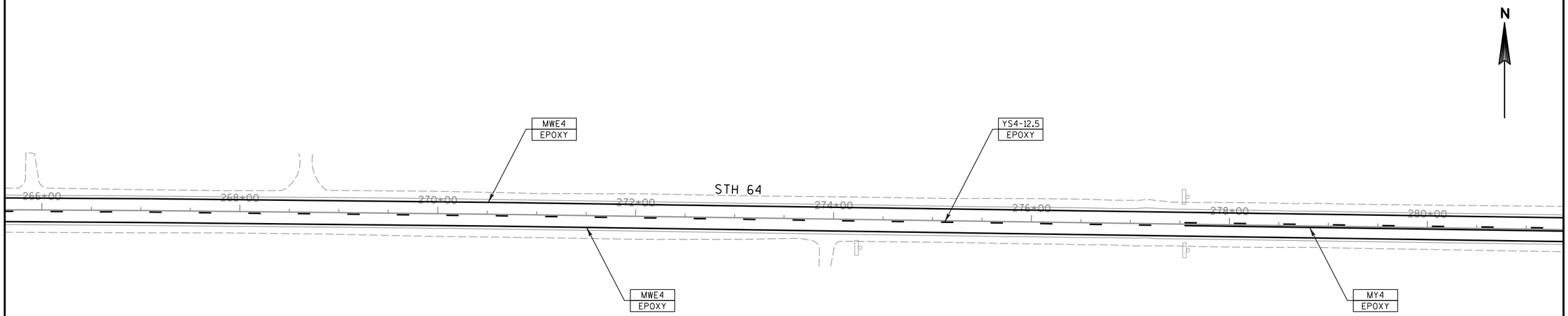
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 67	E

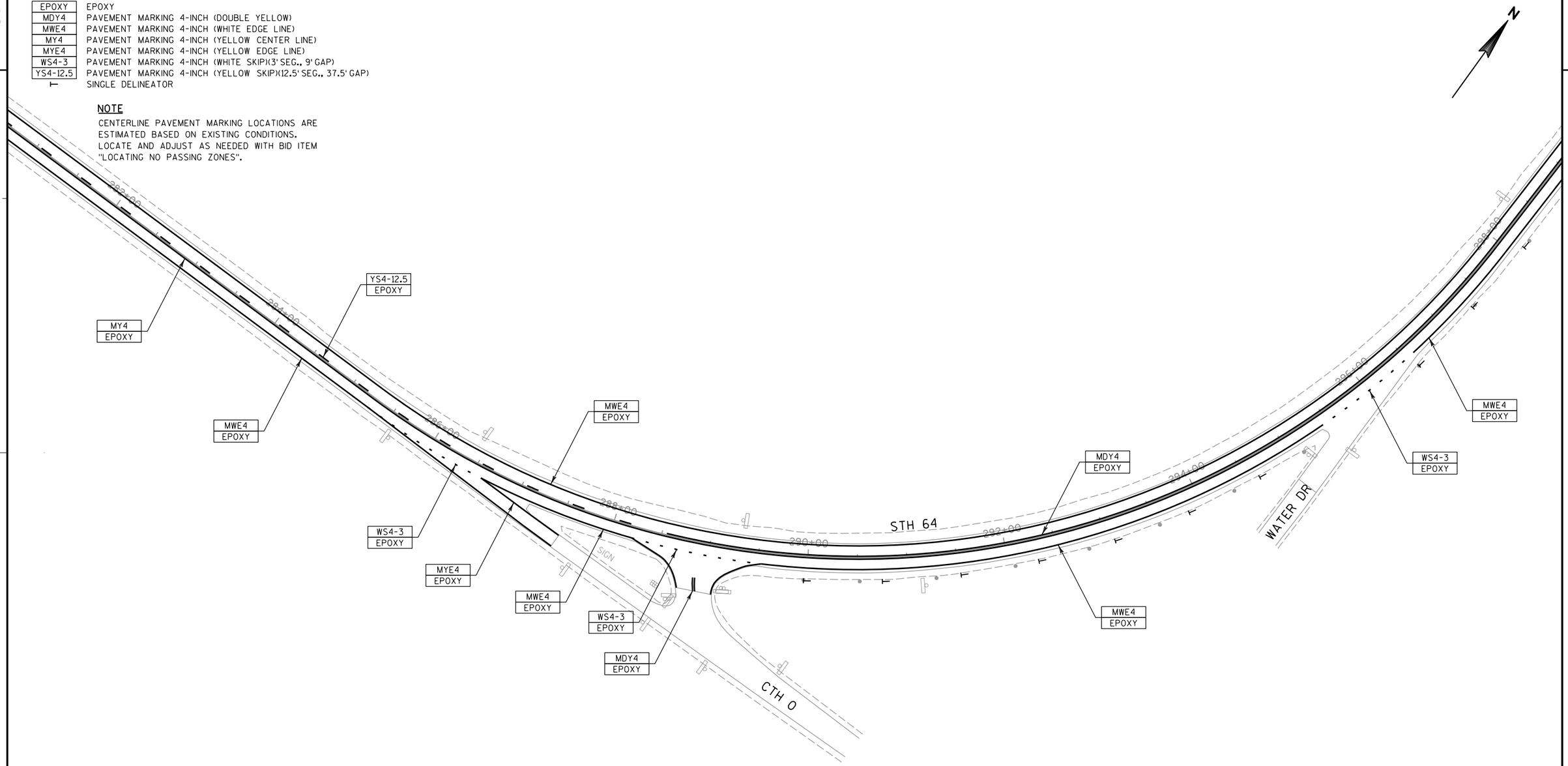
2

LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
MYE4	PAVEMENT MARKING 4-INCH (YELLOW EDGE LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)
⊢	SINGLE DELINEATOR

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 68	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024510_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

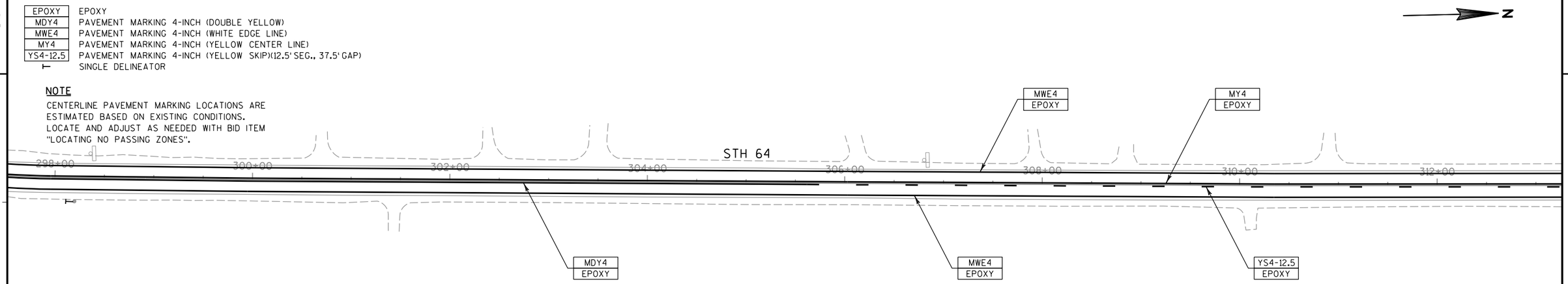
2

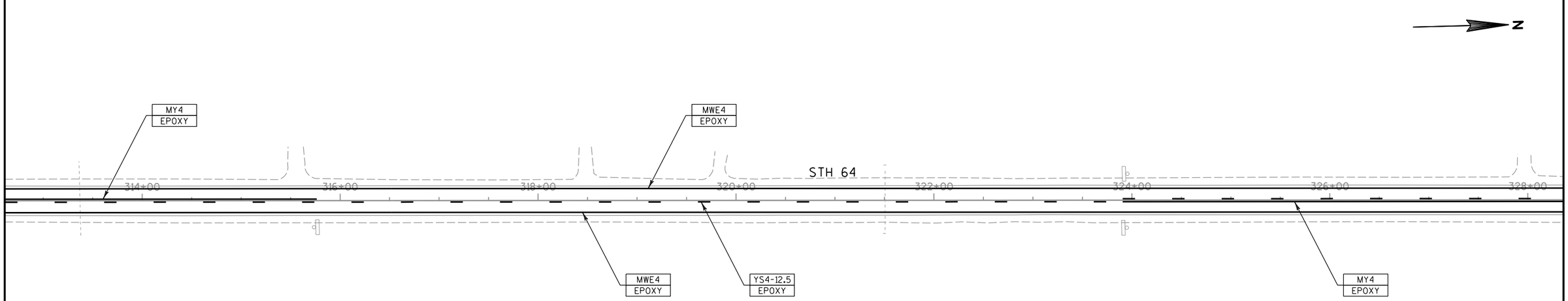
LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)
⊢	SINGLE DELINEATOR

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 69	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024511_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

2

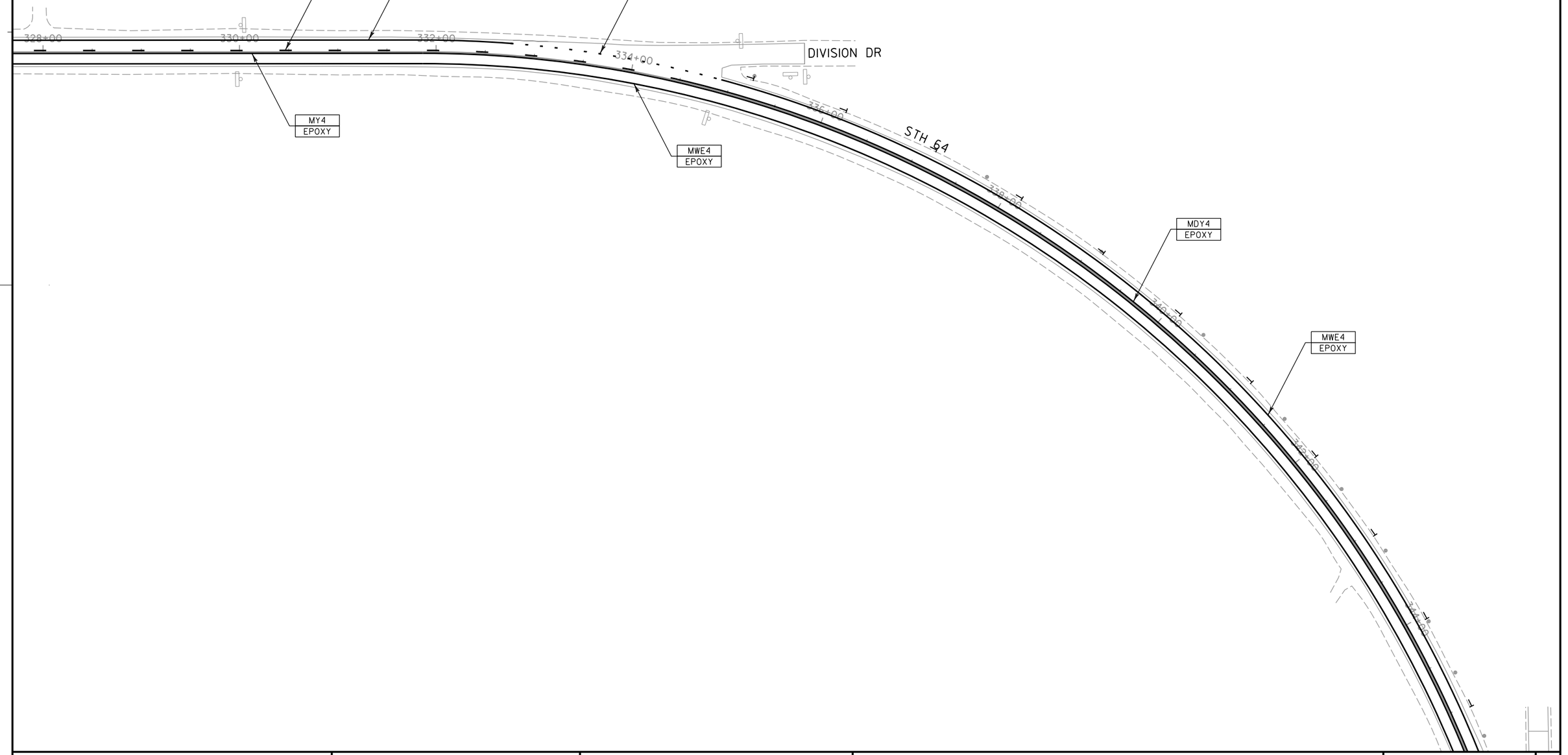
LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)
⊢	SINGLE DELINEATOR

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".

N



2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 70	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024512_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

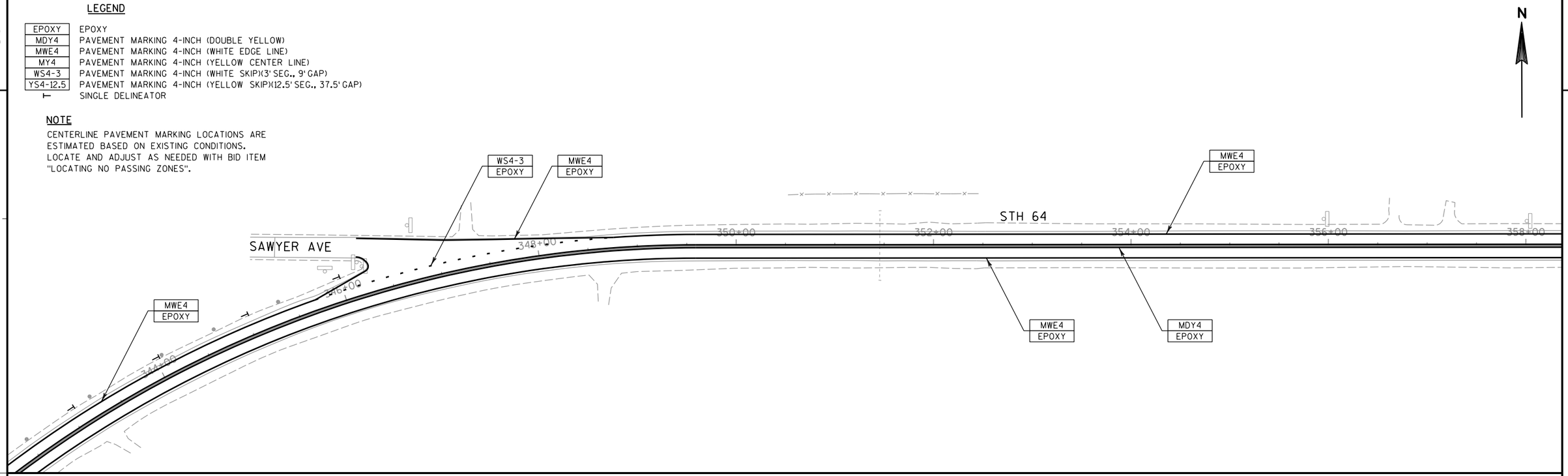
2

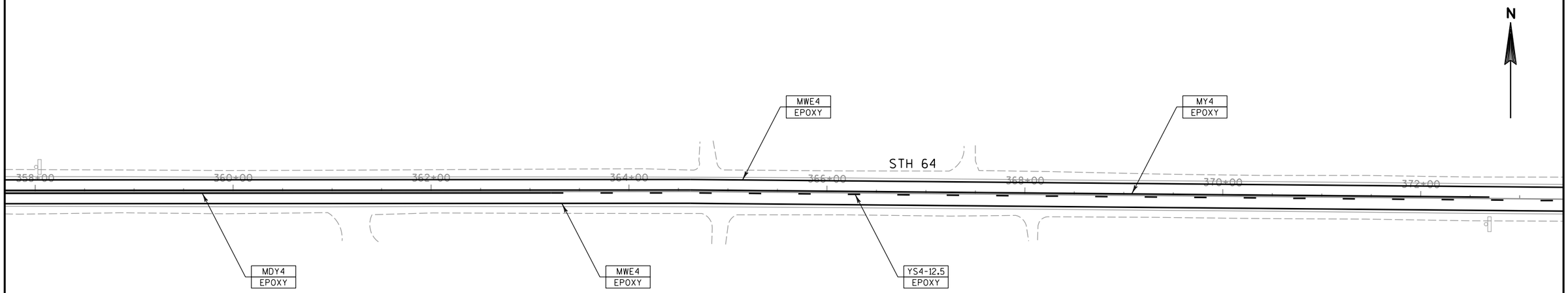
LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)
⊢	SINGLE DELINEATOR

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024513_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

2

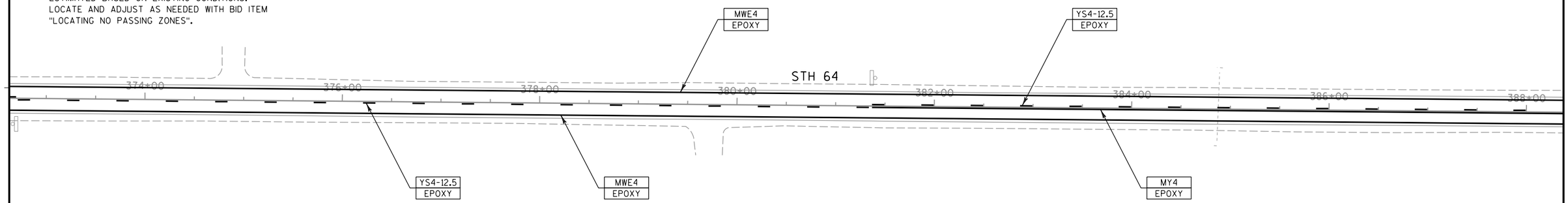
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".

N



2

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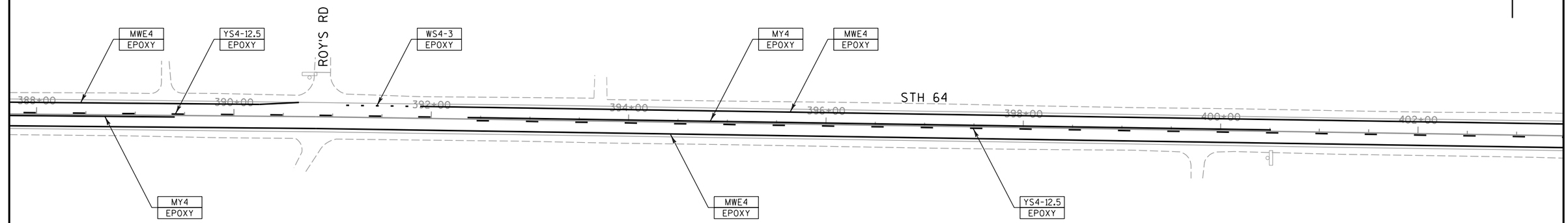


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 72	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024514_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

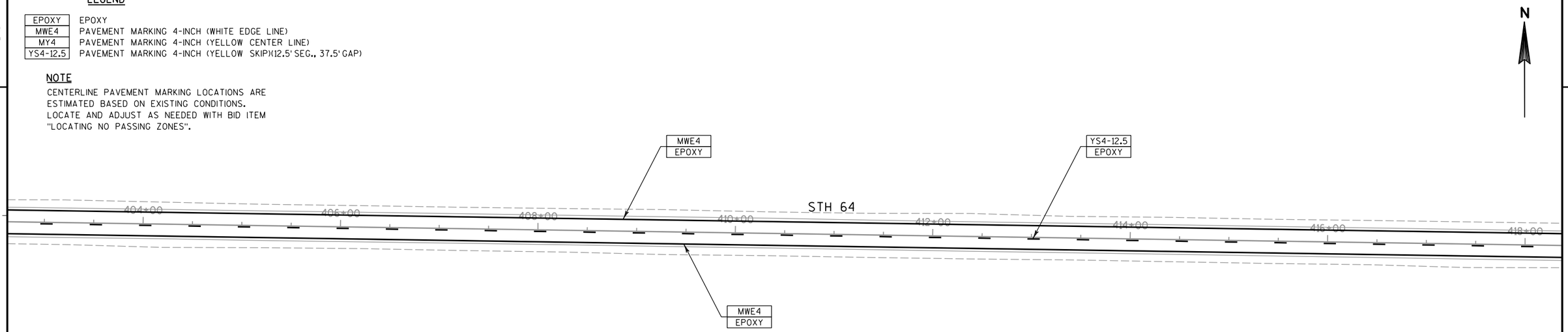
2

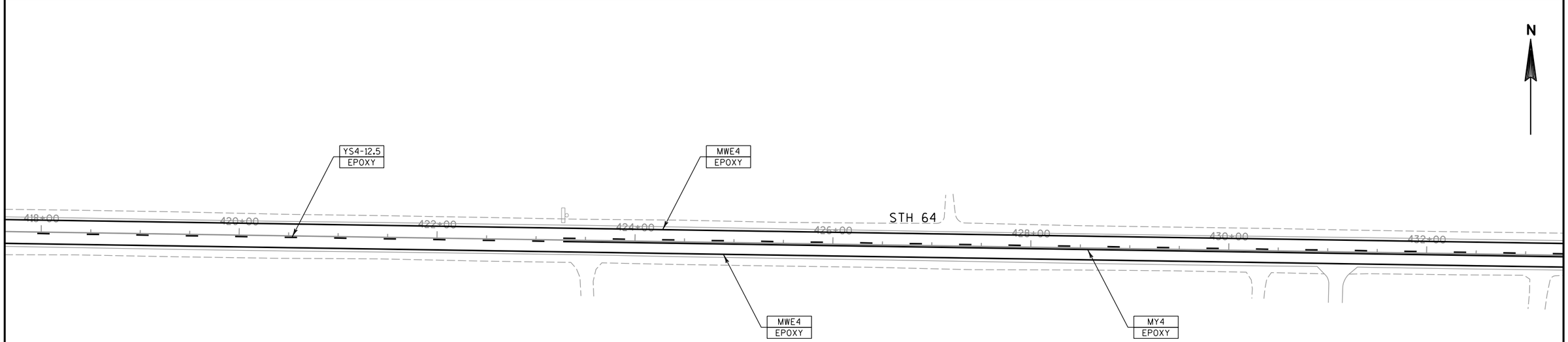
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 73	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024515_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

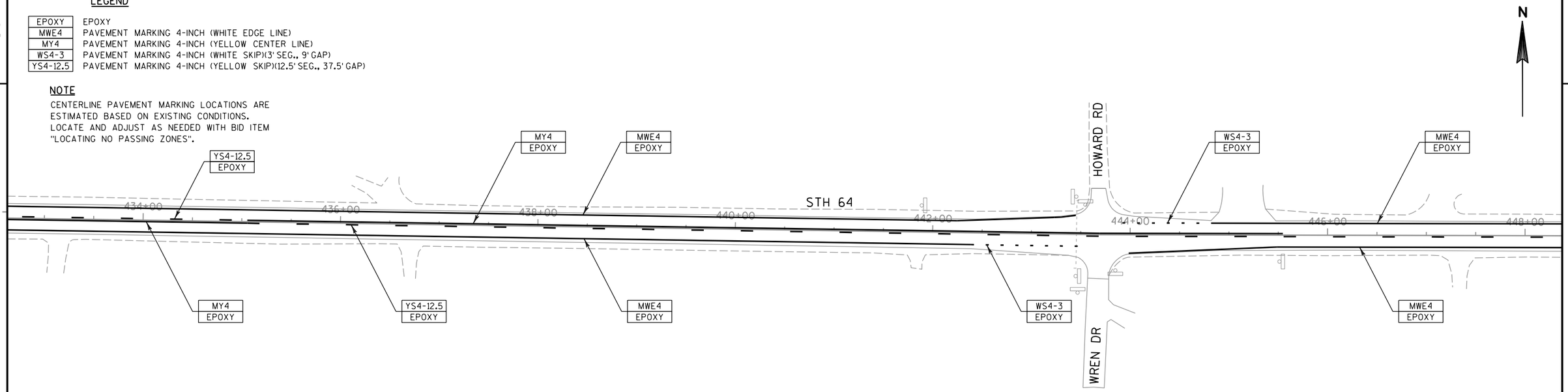
2

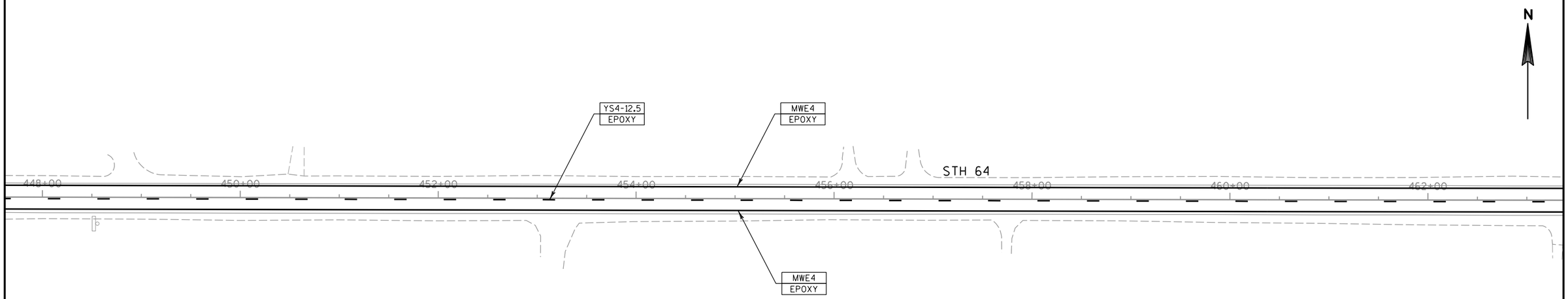
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 74	E

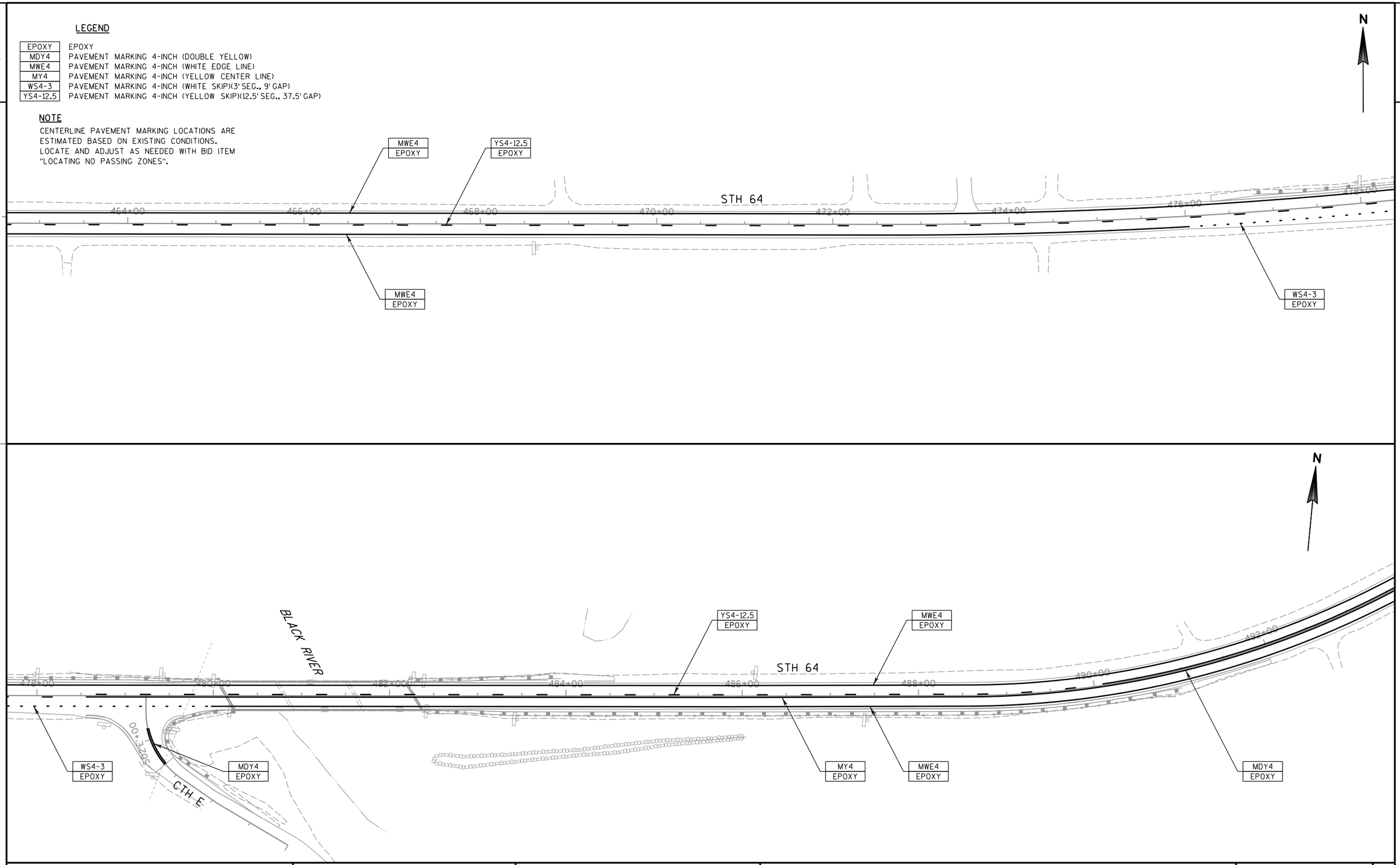
2

LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



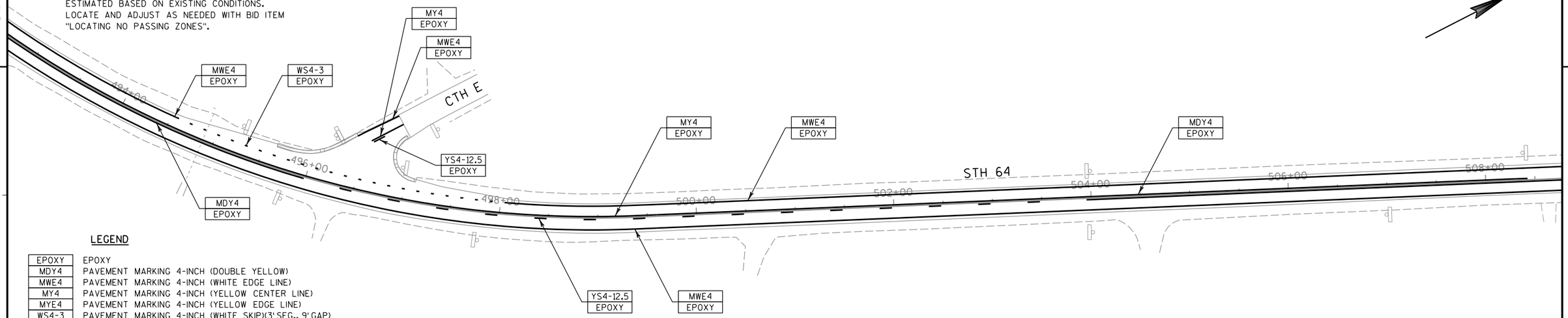
2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 75	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024517_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

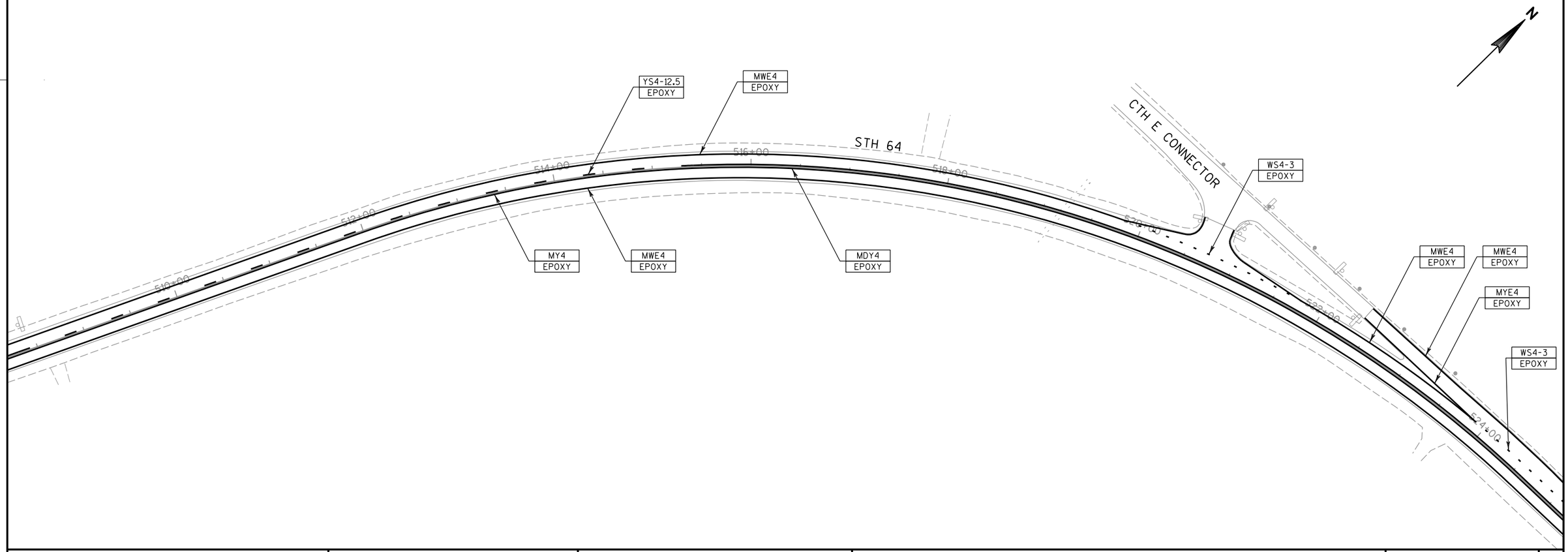
NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
MYE4	PAVEMENT MARKING 4-INCH (YELLOW EDGE LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

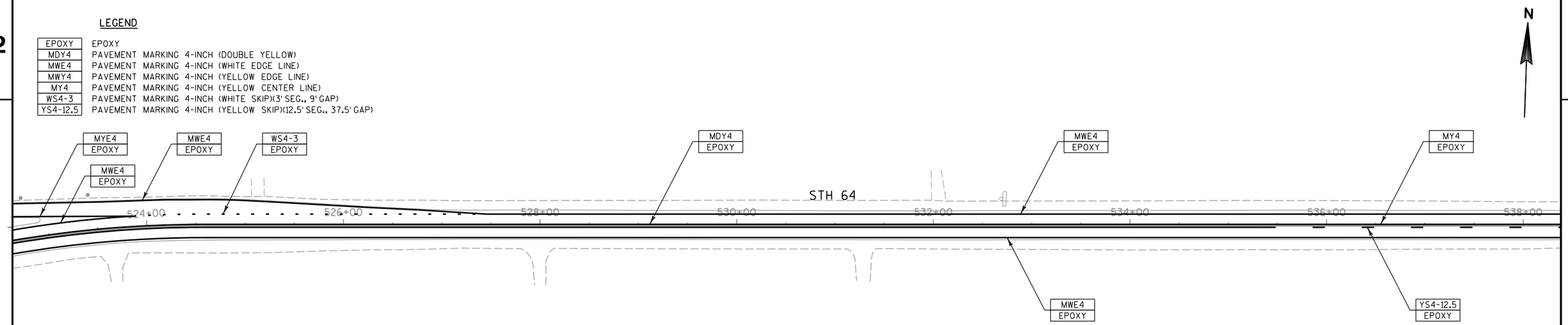


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 76	E

2

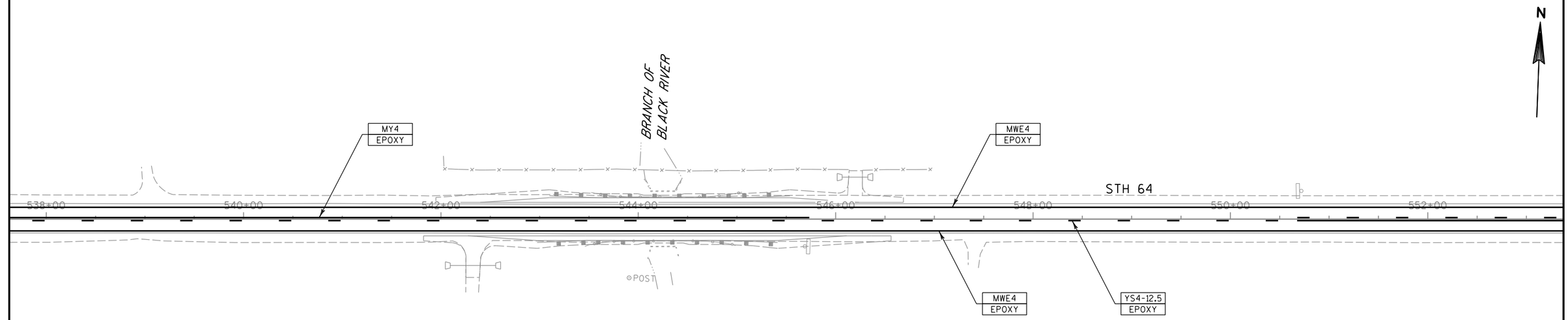
LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MWY4	PAVEMENT MARKING 4-INCH (YELLOW EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)



NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 77	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024519_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

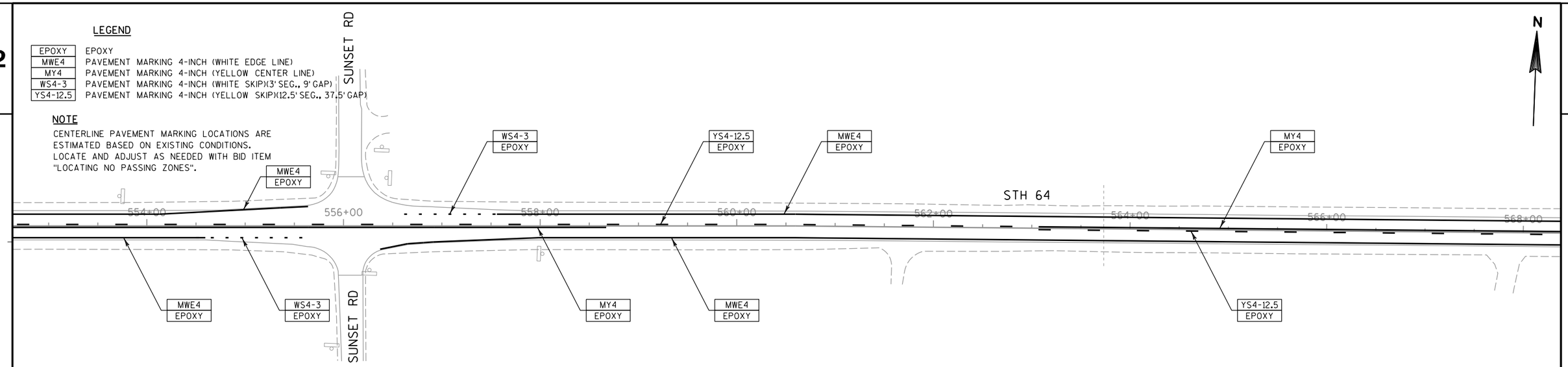
2

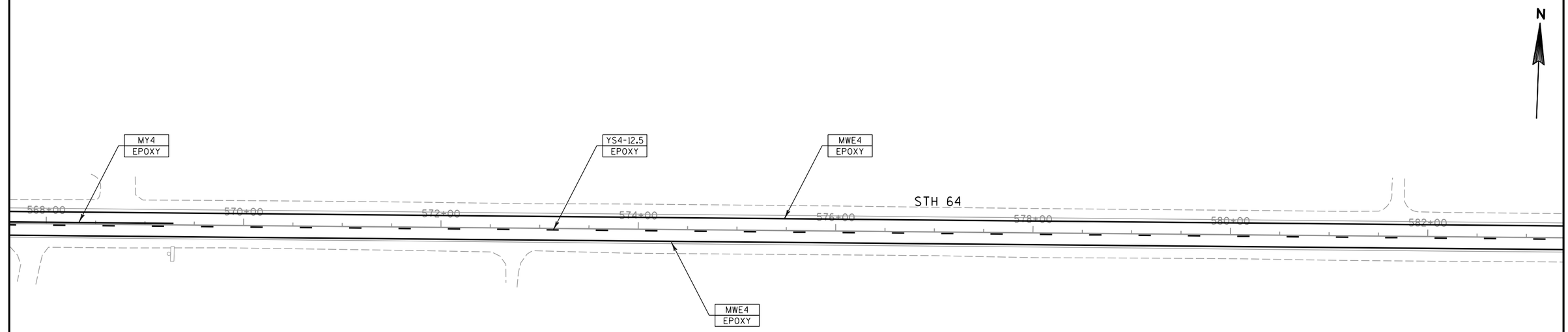
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 78	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024520_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

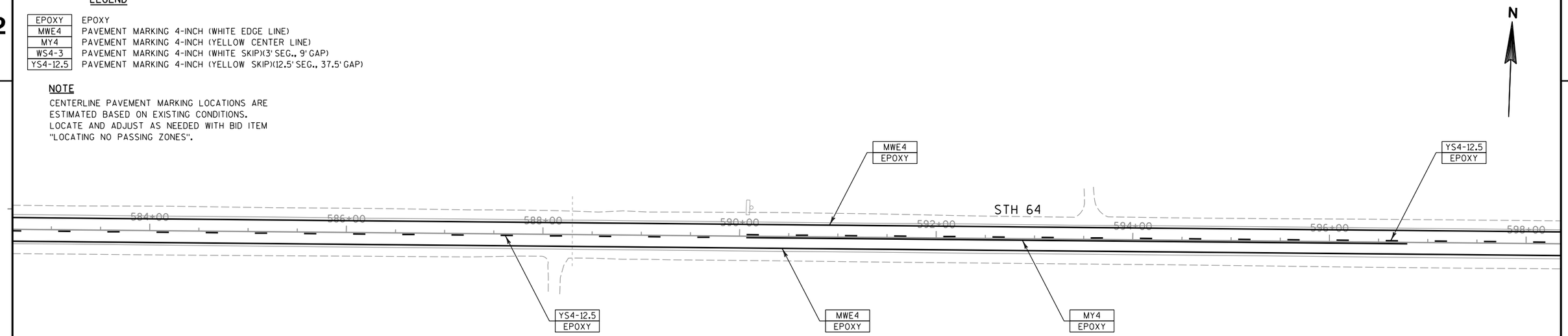
2

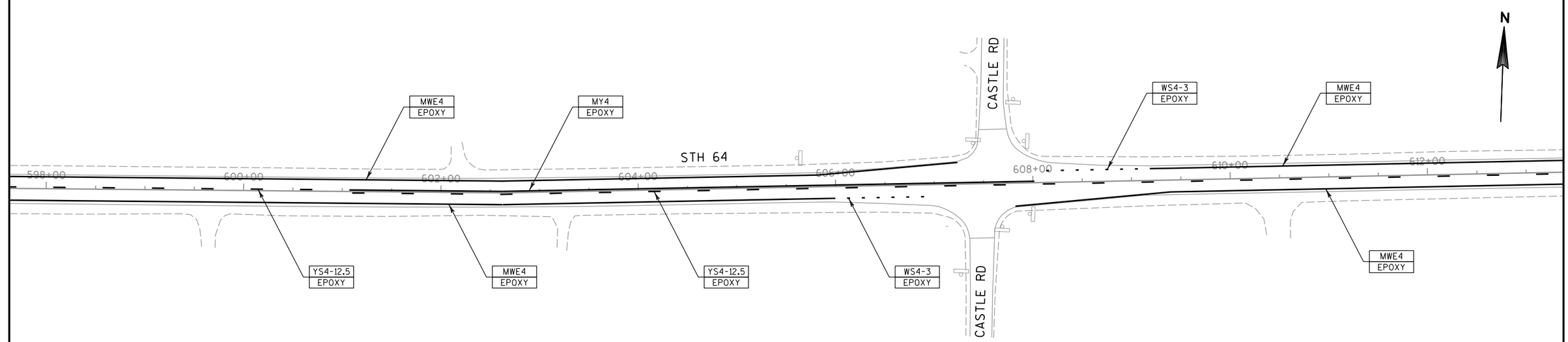
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 79	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024521_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

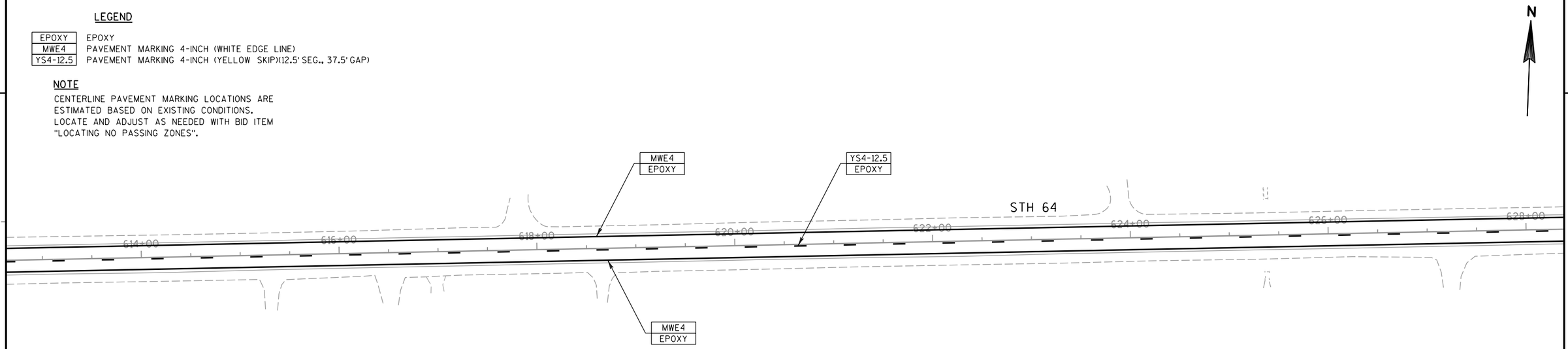
2

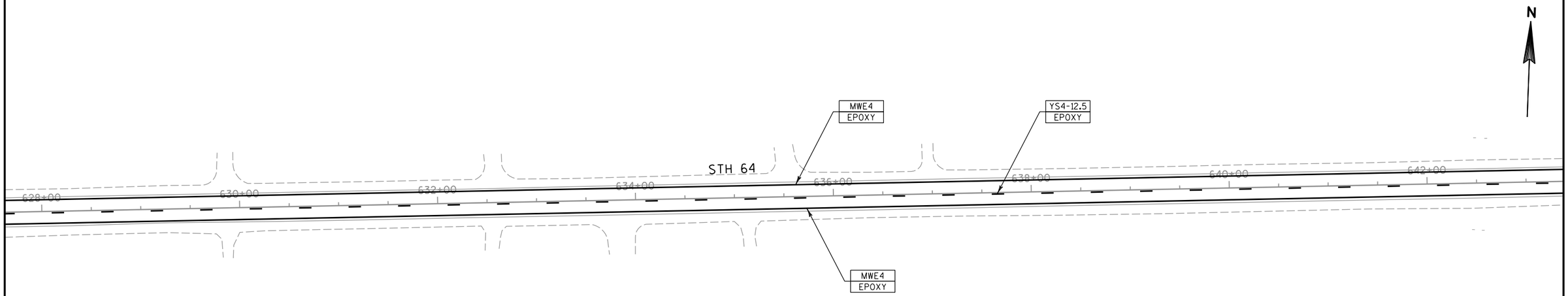
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





2

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 80	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024522_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

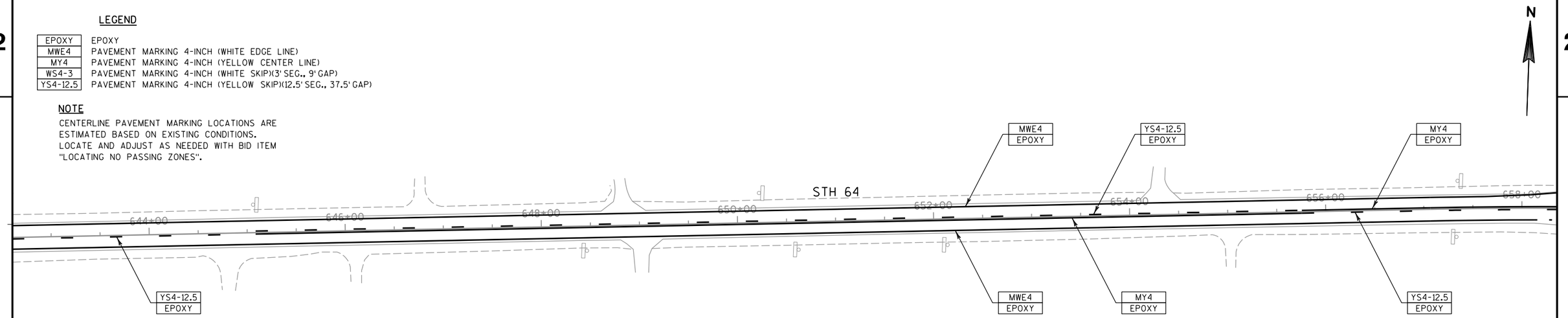
2

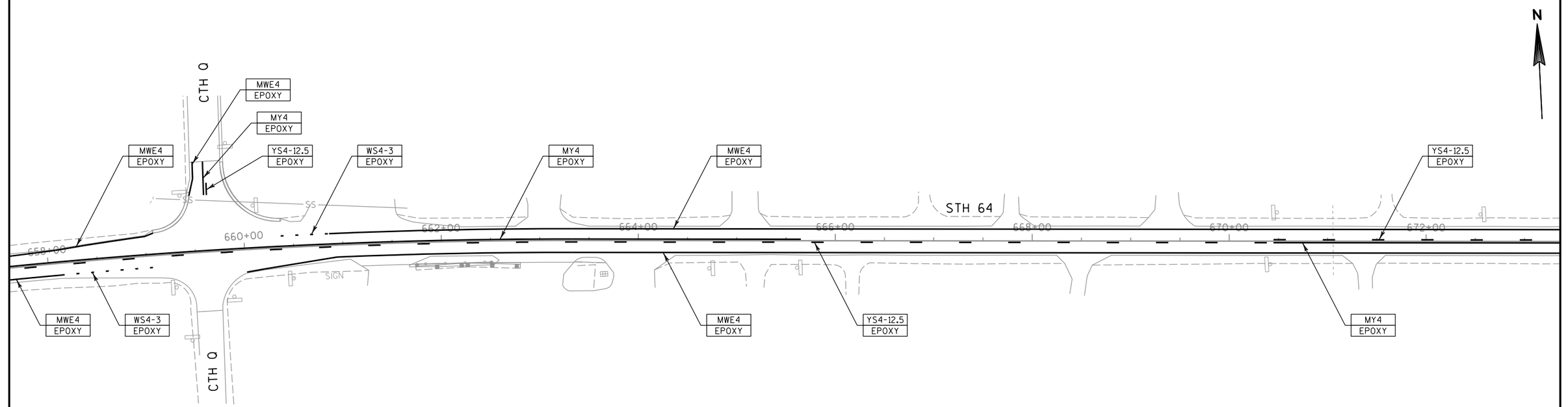
LEGEND

EPOXY	EPOXY
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





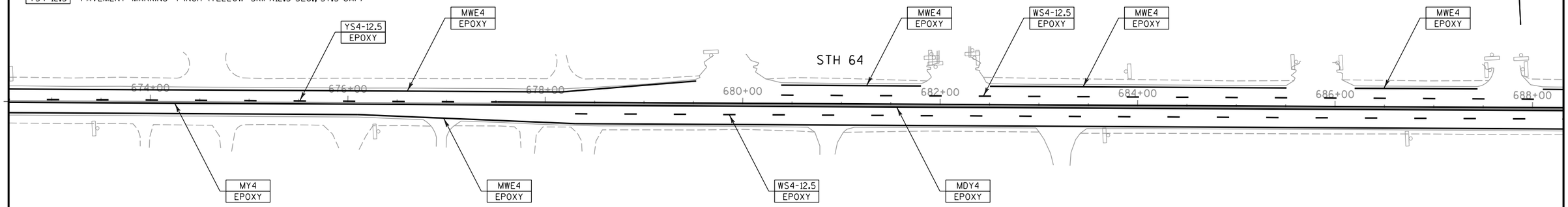
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 81	E

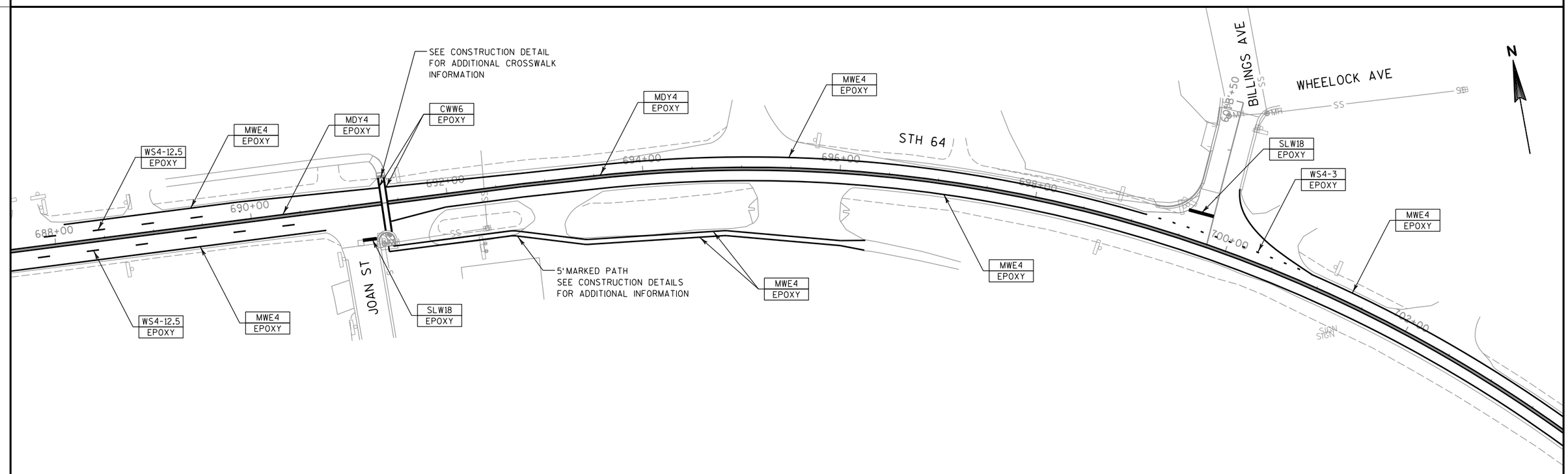
LEGEND

CWW6	PAVEMENT MARKING CROSSWALK 6-INCH (WHITE)
EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
MY4	PAVEMENT MARKING 4-INCH (YELLOW CENTER LINE)
SLW18	PAVEMENT MARKING STOP LINE 18-INCH (WHITE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)
WS4-12.5	PAVEMENT MARKING 4-INCH (WHITE SKIP)(12.5' SEG., 37.5' GAP)
YS4-12.5	PAVEMENT MARKING 4-INCH (YELLOW SKIP)(12.5' SEG., 37.5' GAP)

NOTE

CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".





PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 82	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024524_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

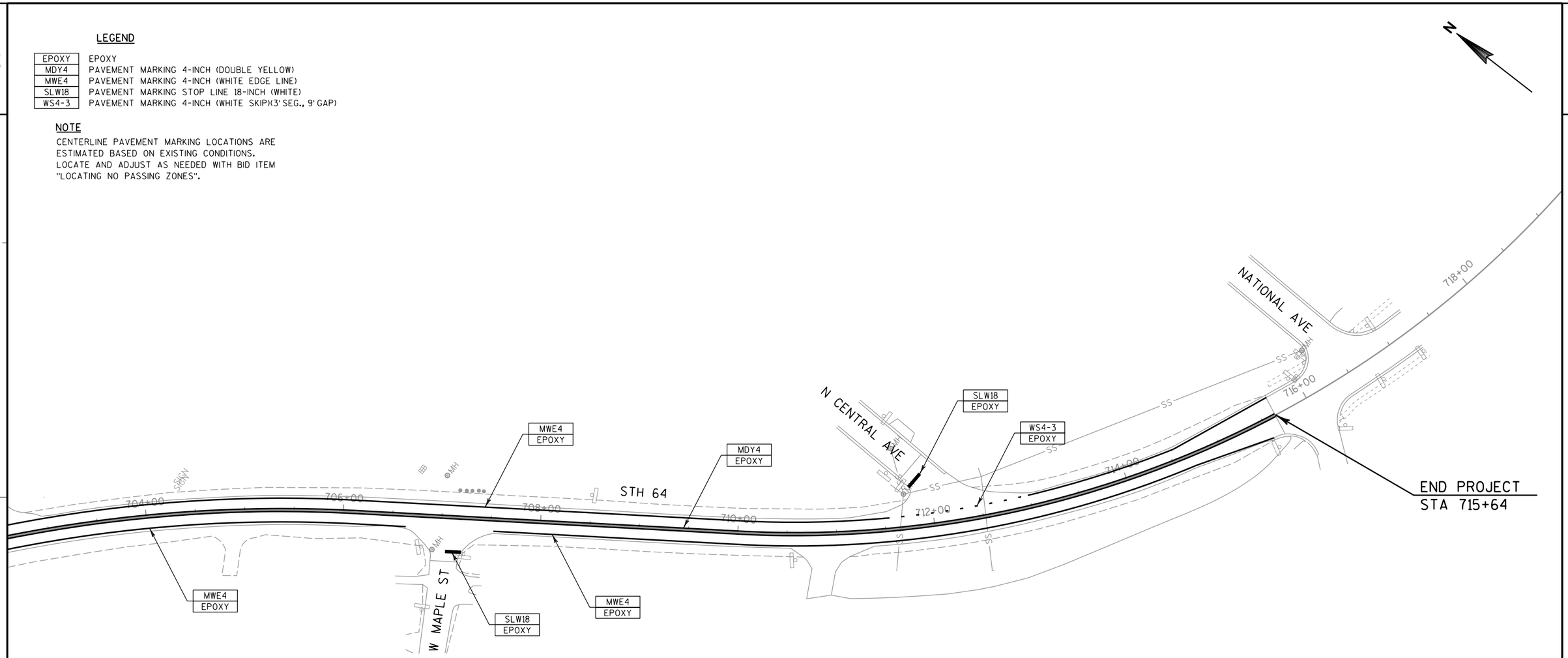
2

LEGEND

EPOXY	EPOXY
MDY4	PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)
MWE4	PAVEMENT MARKING 4-INCH (WHITE EDGE LINE)
SLW18	PAVEMENT MARKING STOP LINE 18-INCH (WHITE)
WS4-3	PAVEMENT MARKING 4-INCH (WHITE SKIP)(3' SEG., 9' GAP)

NOTE

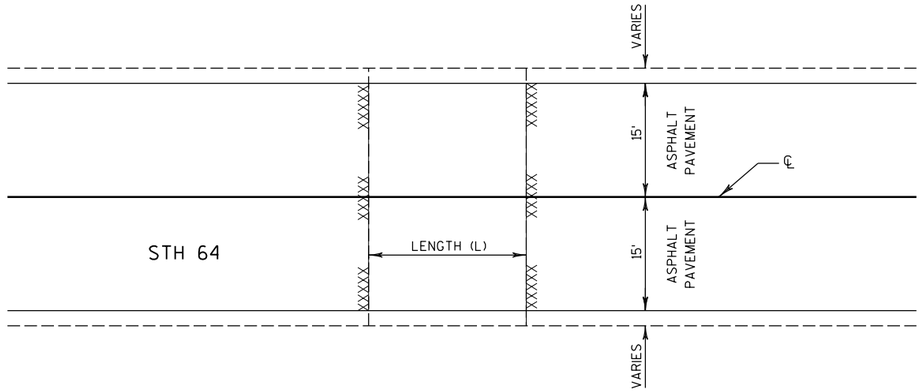
CENTERLINE PAVEMENT MARKING LOCATIONS ARE ESTIMATED BASED ON EXISTING CONDITIONS. LOCATE AND ADJUST AS NEEDED WITH BID ITEM "LOCATING NO PASSING ZONES".



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PAVEMENT MARKING	SHEET 83	E

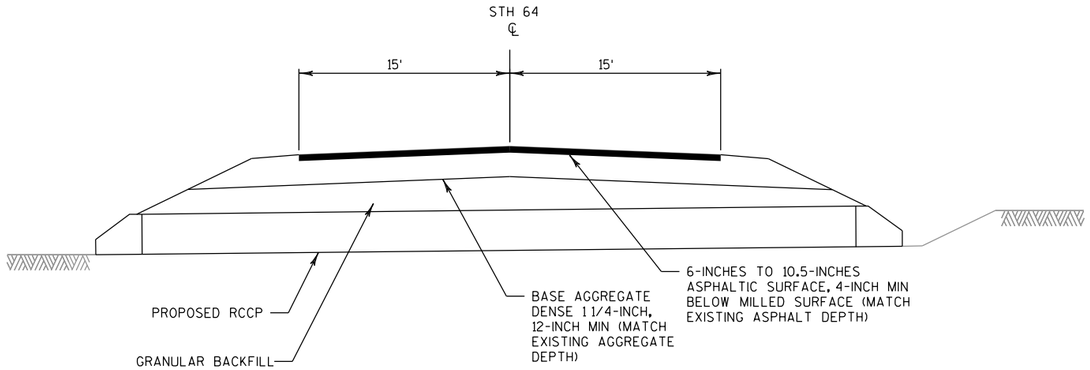
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\024525_pm.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



REPLACE CULVERTS PRIOR TO REMOVING ASPHALTIC SURFACE MILLING ON STH 64

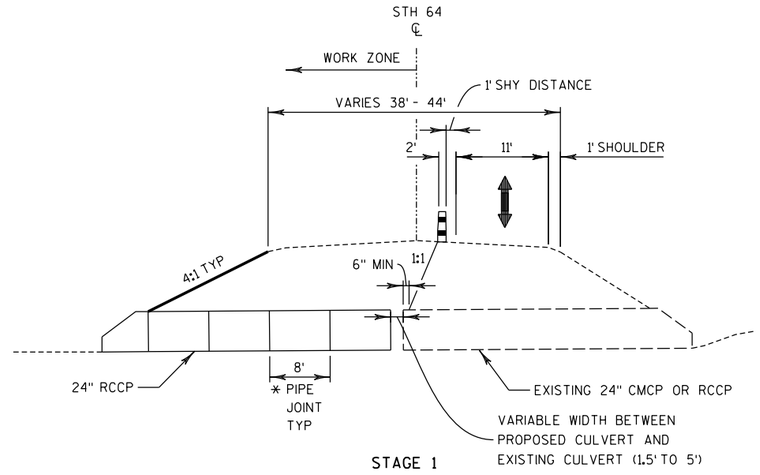
PROPOSED SAWCUT WIDTH AT CULVERT REPLACEMENT AREAS



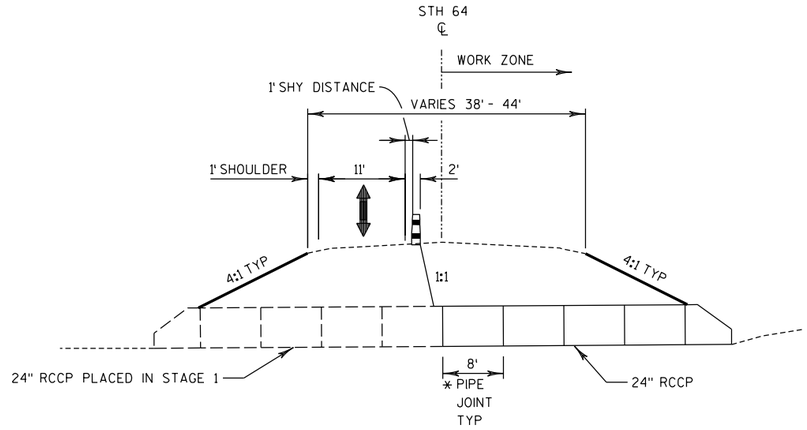
PROPOSED PAVEMENT STRUCTURE

AT CULVERT REPLACEMENT
LOCATIONS PLACE NEW PAVEMENT STRUCTURE
AFTER CULVERT REPLACEMENT BUT BEFORE STH
64 REMOVING ASPHALTIC SURFACE MILLING

CULVERT LOCATION	L (FT)
STA 351+45	35
STA 563+73	45
STA 588+30	35
STA 659+11	45



STAGE 1



STAGE 2

TRAFFIC CONTROL TYPICAL SECTION FOR CULVERT REPLACEMENT AREAS DETAIL

NOTES

CULVERT REPLACEMENT WILL BE COMPLETED UNDER TRAFFIC WITH THE USE OF SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)"

FLAGGING WILL OCCUR THROUGHOUT THE DURATION OF THE CULVERT REPLACEMENT. STH 64 IS TO BE RE-OPENED TO TWO THROUGH TRAVEL LANES WHEN FLAGGERS ARE NOT PRESENT. THE ENTIRE CULVERT REPLACEMENT SHALL TAKE PLACE IN ONE CONTINUOUS OPERATION UNLESS OTHERWISE APPROVED BY THE ENGINEER.

REPLACE CULVERTS PRIOR TO REMOVING ASPHALTIC SURFACE MILLING ON STH 64. USE THE ABOVE PROPOSED PAVEMENT STRUCTURE UNLESS OTHERWISE APPROVED BY THE ENGINEER.

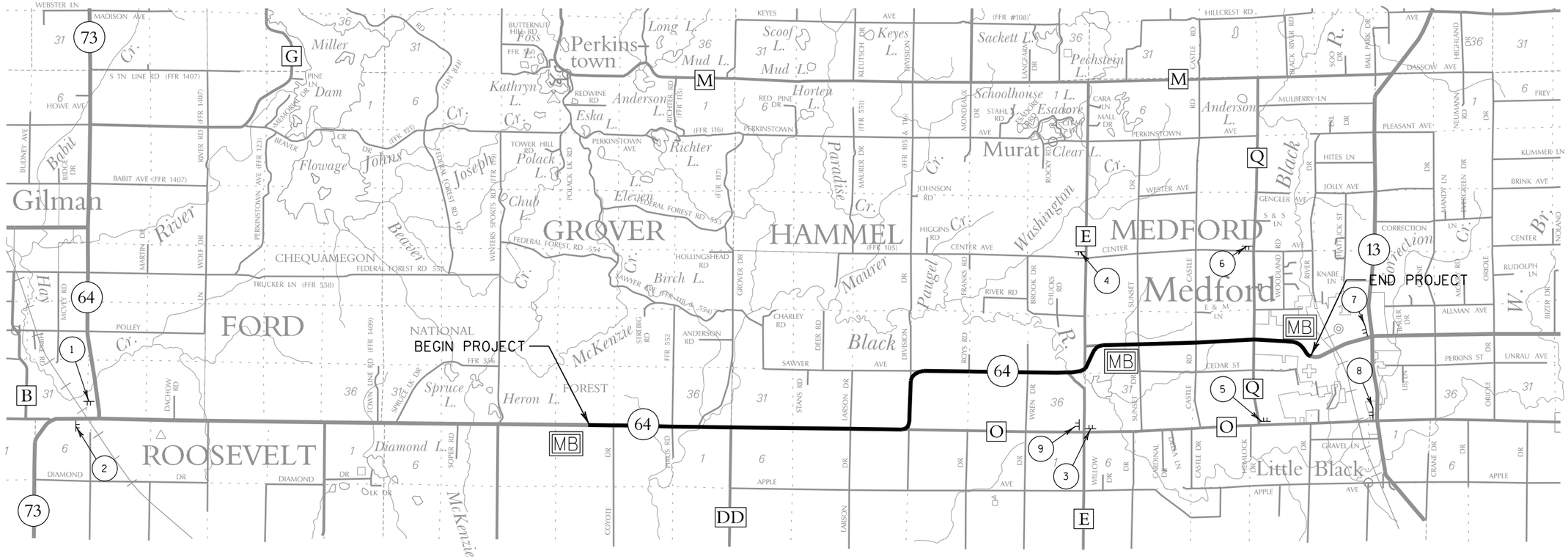
* 6'PIPE LENGTHS MAY BE NEEDED TO ACHIEVE THE OVERALL REQUIRED CULVERT LENGTH.

LEGEND

TRAFFIC CONTROL DRUM (CANDLE STICK TYPE)

TRAFFIC FLOW ARROW

XXXXX SAWING ASPHALT



N

NOTES

SEE SDD "TRAFFIC CONTROL LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" FOR WORK COMPLETED UNDER TRAFFIC.

SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR CLOSURE OF BILLINGS AVE DURING STORM SEWER PLACEMENT.

SEE SDD "TRAFFIC CONTROL, SIDEWALK CLOSURE" FOR PATH CLOSURE DURING CURB RAMP PLACEMENT NEAR JOAN ST.

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" DURING WORK ON GUARDRAIL REPLACEMENT.

POST ADVANCE WARNING SIGNS IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GRATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" AND SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC". SIGN NUMBER G20-1 WILL READ "ROAD WORK NEXT 13 MILES".

POST THE WIDTH RESTRICTION ADVANCED WARNING SIGNS AT THE LOCATIONS PROVIDED.

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

* PLACE SIGN M1-6 WHEN ASSEMBLY IS MOUNTED ON ALL ROADWAYS OTHER THAN STH 64.

\# ADJUST TRAFFIC CONTROL PCMS MESSAGE AS NEEDED BASED ON CONSTRUCTION SCHEDULE.

CONSIDER GEOMETRICS WHEN LOCATING MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1000 FEET IN FRONT OF THE MESSAGE BOARD. PLACE MESSAGE BOARDS AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.

PLACE TRAFFIC CONTROL SIGNS PCMS AND DISPLAY THE MESSAGE 10 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK. ADJUST THE MESSAGE DATE ACCORDINGLY.

TRAFFIC CONTROL SIGNS PCMS MESSAGES

	PCMS SIGN LOCATION	PHASE 1 (3 SEC)	PHASE 2 (3 SEC)
#	STH 64 EB 2.5 MILES WEST CTH DD	ROAD WORK BEGINS	DATE
#	STH 64 EB 0.75 MILES EAST CTH E NORTH LEG	ROAD WORK BEGINS	DATE
#	STH 64 WB END PROJECT LIMITS	ROAD WORK BEGINS	DATE

1	STH 64/STH 73 INTERSECTION - 8½MILES AHEAD
2	STH 64/STH 73 INTERSECTION - 8½MILES AHEAD
3	CTH O/CTH E INTERSECTION - 1 MILES AHEAD
4	CTH E/CENTER AVE INTERSECTION - 1¾MILES AHEAD
5	CTH O/CTH Q INTERSECTION - 1½MILES AHEAD
6	CTH Q/CENTER AVE INTERSECTION - 1½MILES AHEAD
7	STH 64/STH 13 INTERSECTION - 1 MILES AHEAD
8	CTH O/STH 13 INTERSECTION - 8 MILES AHEAD
9	CTH O/CTH E INTERSECTION - 3 MILES AHEAD

LEGEND

MB — TRAFFIC CONTROL SIGN PCMS

⊥⊥ — TEMPORARY SIGN POST

* 64 — M1-6 — 24" X 24"

MAX. 12' WIDTH — W12-52 — 48" X 48"

XX MILES AHEAD — W057-52 — 36" X 24"

PLACE ABOVE SIGNS DURING CULVERT REPLACEMENTS

* 64 — M1-6 — 24" X 24"

MAX. 13' WIDTH — W12-52 — 48" X 48"

XX MILES AHEAD — W057-52 — 36" X 24"

PLACE ABOVE SIGNS DURING OVERLAY ON STRUCTURE B-60-1 OVER THE BLACK RIVER

* 64 — M1-6 — 24" X 24"

MAX. 15' WIDTH — W12-52 — 48" X 48"

XX MILES AHEAD — W057-52 — 36" X 24"

PLACE ABOVE SIGNS DURING MILLING AND PAVING ON STH 64

THE FOLLOWING SIGNS MAY BE USED WHEN AND WHERE APPROPRIATE DURING ROADWAY MILLING AND PAVING OPERATIONS:

BUMP — W08-1

ROUGH ROAD — W08-8

NO CENTER LINE — W8-12 — 36" X 36"

LOOSE GRAVEL — W8-7 — 30" X 30"

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	TRAFFIC CONTROL	SHEET 85	E

DATE 15APR14 — E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8220-05-72 QUANTITY
0010	201.0105	CLEARING	STA	4.000	4.000
0020	201.0205	GRUBBING	STA	4.000	4.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	6.000	6.000
0040	204.0110	REMOVING ASPHALTIC SURFACE	SY	600.000	600.000
0050	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	3,600.000	3,600.000
0060	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	246,600.000	246,600.000
0070	204.0150	REMOVING CURB & GUTTER	LF	720.000	720.000
0080	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	128.000	128.000
0090	204.0245	REMOVING STORM SEWER (SIZE) 01. 24-INCH	LF	16.000	16.000
0100	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 01. CTH DD	LS	1.000	1.000
0110	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 02. CTH E SOUTH	LS	1.000	1.000
0120	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 03. CTH E NORTH	LS	1.000	1.000
0130	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 04. CTH Q NORTH	LS	1.000	1.000
0140	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 05. BILLINGS AVENUE	LS	1.000	1.000
0150	209.0100	BACKFILL GRANULAR	CY	1,325.000	1,325.000
0160	213.0100	FINISHING ROADWAY (PROJECT) 01. 8220-05-72	EACH	1.000	1.000
0170	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	6,000.000	6,000.000
0180	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,250.000	1,250.000
0190	305.0500	SHAPING SHOULDERS	STA	1,406.000	1,406.000
0200	306.0110	SALVAGED ASPHALTIC PAVEMENT BASE	TON	1,800.000	1,800.000
0210	311.0110	BREAKER RUN	TON	190.000	190.000
0220	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	30.000	30.000
0230	440.4410.S	INCENTIVE IRI RIDE	DOL	48,970.000	48,970.000
0240	455.0605	TACK COAT	GAL	6,400.000	6,400.000
0250	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	19,580.000	19,580.000
0260	465.0105	ASPHALTIC SURFACE	TON	2,400.000	2,400.000
0270	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	375.000	375.000
0280	465.0315	ASPHALTIC FLUMES	SY	40.000	40.000
0290	465.0425	ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL	LF	28,500.000	28,500.000
0300	465.0475	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	58,530.000	58,530.000
0310	506.0105	STRUCTURAL STEEL CARBON	LB	480.000	480.000
0320	509.0301	PREPARATION DECKS TYPE 1	SY	15.000	15.000
0330	509.0302	PREPARATION DECKS TYPE 2	SY	6.000	6.000
0340	509.1500	CONCRETE SURFACE REPAIR	SF	65.000	65.000
0350	509.2000	FULL-DEPTH DECK REPAIR	SY	1.000	1.000
0360	509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	15.000	15.000
0370	509.9026.S	CORED HOLES 2-INCH DIAMETER	EACH	2.000	2.000
0380	514.0900	ADJUSTING FLOOR DRAINS	EACH	4.000	4.000
0390	516.0600.S	SHEET MEMBRANE WATERPROOFING	SY	740.000	740.000
0400	520.1024	APRON ENDWALLS FOR CULVERT PIPE 24-INCH	EACH	4.000	4.000
0410	520.8000	CONCRETE COLLARS FOR PIPE	EACH	2.000	2.000
0420	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	72.000	72.000
0430	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	310.000	310.000
0440	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	9.000	9.000

3

DATE 15APR14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8220-05-72 QUANTITY
0450	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	180.000	180.000
0460	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	555.000	555.000
0470	602.0415	CONCRETE SIDEWALK 6-INCH	SF	130.000	130.000
0480	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	20.000	20.000
0490	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	121.000	121.000
0500	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	13.000	13.000
0510	611.0530	MANHOLE COVERS TYPE J	EACH	1.000	1.000
0520	611.0642	INLET COVERS TYPE MS	EACH	1.000	1.000
0530	611.2004	MANHOLES 4-FT DIAMETER	EACH	1.000	1.000
0540	611.3901	INLETS MEDIAN 1 GRATE	EACH	1.000	1.000
0550	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	6.000	6.000
0560	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	21.000	21.000
0570	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	62.500	62.500
0580	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	50.000	50.000
0590	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	1.000	1.000
0600	614.0920	SALVAGED RAIL	LF	1,180.000	1,180.000
0610	614.0925	SALVAGED GUARDRAIL END TREATMENTS	EACH	10.000	10.000
0620	614.2300	MGS GUARDRAIL 3	LF	1,137.500	1,137.500
0630	614.2330	MGS GUARDRAIL 3 K	LF	237.500	237.500
0640	614.2500	MGS THRIE BEAM TRANSITION	LF	120.000	120.000
0650	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	9.000	9.000
0660	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 8220-05-72	EACH	1.000	1.000
0670	619.1000	MOBILIZATION	EACH	1.000	1.000
0680	624.0100	WATER	MGAL	5.000	5.000
0690	628.1504	SILT FENCE	LF	5,800.000	5,800.000
0700	628.1520	SILT FENCE MAINTENANCE	LF	5,800.000	5,800.000
0710	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	4.000	4.000
0720	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0730	628.2004	EROSION MAT CLASS I TYPE B	SY	5,250.000	5,250.000
0740	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	825.000	825.000
0750	628.7005	INLET PROTECTION TYPE A	EACH	2.000	2.000
0760	628.7010	INLET PROTECTION TYPE B	EACH	2.000	2.000
0770	628.7015	INLET PROTECTION TYPE C	EACH	2.000	2.000
0780	628.7504	TEMPORARY DITCH CHECKS	LF	200.000	200.000
0790	628.7555	CULVERT PIPE CHECKS	EACH	60.000	60.000
0800	628.7570	ROCK BAGS	EACH	385.000	385.000
0810	633.0100	DELINEATOR POSTS STEEL	EACH	22.000	22.000
0820	633.0500	DELINEATOR REFLECTORS	EACH	22.000	22.000
0830	633.5200	MARKERS CULVERT END	EACH	61.000	61.000
0840	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	4.000	4.000
0850	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	43.000	43.000
0860	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	97.000	97.000
0870	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	8.000	8.000
0880	637.2210	SIGNS TYPE II REFLECTIVE H	SF	629.950	629.950
0890	637.2230	SIGNS TYPE II REFLECTIVE F	SF	438.750	438.750
0900	638.2102	MOVING SIGNS TYPE II	EACH	1.000	1.000
0910	638.2602	REMOVING SIGNS TYPE II	EACH	207.000	207.000
0920	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	150.000	150.000

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DATE 15APR14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8220-05-72 QUANTITY
0930	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
0940	643.0100	TRAFFIC CONTROL (PROJECT) 01. 8220-05-72	EACH	1.000	1.000
0950	643.0300	TRAFFIC CONTROL DRUMS	DAY	1,215.000	1,215.000
0960	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	30.000	30.000
0970	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	84.000	84.000
0980	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	168.000	168.000
0990	643.0900	TRAFFIC CONTROL SIGNS	DAY	5,759.000	5,759.000
1000	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	30.000	30.000
1010	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	215.000	215.000
1020	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	138,930.000	138,930.000
1030	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	62,100.000	62,100.000
1040	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	80.000	80.000
1050	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	110.000	110.000
1060	648.0100	LOCATING NO-PASSING ZONES	MI	13.300	13.300
1070	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	147,700.000	147,700.000
1080	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	3.000	3.000
1090	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	735.000	735.000
1100	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	4.000	4.000
1110	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	70,215.000	70,215.000
1120	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 8220-05-72	LS	1.000	1.000
1130	690.0150	SAWING ASPHALT	LF	3,440.000	3,440.000
1140	690.0250	SAWING CONCRETE	LF	9.000	9.000
1150	SPV.0035	SPECIAL 01. BASE REPAIR FOR CIR PAVEMENT	CY	3,000.000	3,000.000
1160	SPV.0035	SPECIAL 02. CONCRETE MASONRY BRIDGES PATCHING SHES	CY	2.000	2.000
1170	SPV.0060	SPECIAL 01. GRADING, SHAPING, AND FINISHING CULVERT REPLACEMENTS	EACH	5.000	5.000
1180	SPV.0090	SPECIAL 01. CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT	LF	735.000	735.000
1190	SPV.0090	SPECIAL 02. SAWING PAVEMENT DECK PREPARATION AREAS	LF	160.000	160.000
1200	SPV.0105	SPECIAL 01. MILLING AND REMOVING TEMPORARY JOINT	LS	1.000	1.000
1210	SPV.0105	SPECIAL 02. ABANDON CATTLE PASS	LS	1.000	1.000
1220	SPV.0105	SPECIAL 03. GUARDRAIL POST CONNECTION	LS	1.000	1.000
1230	SPV.0105	SPECIAL 04. PREPARE FOUNDATION FOR CIR PAVEMENT (8220-05-72)	LS	1.000	1.000
1240	SPV.0105	SPECIAL 05. PREPARE FOUNDATION FOR HMA UPPER LAYER (8220-05-72)	LS	1.000	1.000
1250	SPV.0165	SPECIAL 01. CONCRETE SIDEWALK CURE AND SEAL TREATMENT	SF	130.000	130.000
1260	SPV.0170	SPECIAL 01. REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL	STA	702.000	702.000
1270	SPV.0180	SPECIAL 01. COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH	SY	235,500.000	235,500.000
1280	SPV.0195	SPECIAL 01. HMA PAVEMENT TYPE E-3 SPECIAL	TON	30,584.000	30,584.000
1290	SPV.0195	SPECIAL 02. ASPHALT STABILIZING AGENT	TON	1,600.000	1,600.000

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CLEARING AND GRUBBING

STATION-STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
CAT 0010			
476+00 - 478+00	LT	2	2
490+00 - 492+00	RT	2	2
TOTALS		4	4

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH
CAT 0010		
351+45	RT & LT	1
542+34	RT	1
546+20	LT	1
563+73	RT & LT	1
588+30	RT & LT	1
659+11	RT & LT	1
TOTAL		6

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REMOVING ASPHALTIC SURFACE ITEMS

STATION - STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	COMMENTS
CAT 0010					
11+22 - 133+00	RT & LT	--	170	40,000	
133+00 - 289+00	RT & LT	--	--	51,775	
289+00 - 481+00	RT & LT	--	--	62,675	
481+00 - 660+00	RT & LT	--	--	59,200	
660+00 - 715+64	RT & LT	--	230	20,900	
27+17	RT	--	--	370	COYOTE DR
79+92	RT	--	--	220	PIRUS DR
79+92	LT	--	--	170	PIRUS DR
103+49	LT	--	--	155	GROVER DR
133+10	RT	--	95	610	CTH DD
240+78	RT	--	80	210	LARSON DR
240+78	LT	--	--	145	LARSON RD
285+61 - 289+47	RT	--	175	450	CTH O
295+41 - 296+11	RT	--	65	345	WATER DR
332+66 - 335+11	LT	--	--	480	DIVISION DR
345+75 - 348+48	LT	--	56	655	SAWYER AVE
443+68	RT	--	75	180	WREN DR
443+68	LT	--	85	135	HOWARD RD
476+16 - 480+22	RT	--	85	475	CTH E
494+74 - 498+21	LT	--	80	540	CTH E
519+66 - 526+84	LT	--	145	720	CTH E CONNECTOR
556+08	RT	--	100	170	SUNSET RD
556+08	LT	--	125	230	SUNSET RD
607+50	RT	--	90	260	CASTLE RD
607+50	LT	--	100	245	CASTLE RD
659+65	RT	--	100	280	CTH Q
659+65	LT	--	95	505	CTH Q
661+73 - 662+80	RT	35	--	--	BEAM GUARD REPLACEMENT
690+08	RT & LT	55	70	85	JOAN ST
697+22 - 699+57	LT	510	51	550	STH 64/BILLINGS AVE
707+04	RT	--	110	155	MAPLE ST
712+17	LT	--	88	320	CENTRAL AVE
DRIVEWAYS	PROJECT	--	1,330	3,390	
TOTALS		600	3,600	246,600	

DELINEATOR ITEMS

STATION	LOCATION	*204.0180 REMOVING DELINEATORS AND MARKERS EACH	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS (WHITE) EACH
CAT 0010				
290+00 - 298+25	RT	11	10	10
335+25 - 346+00	LT	10	12	12
661+73 - 662+80	RT	2	--	--
697+40 - 699+55	LT	40	--	--
707+15 - 707+45	LT	5	--	--
TOTALS		68	22	22

* ADDITIONAL QUANTITIES LOCATED ELSEWHERE

BACKFILL GRANULAR

STATION	LOCATION	209.0100 CY	COMMENTS
CAT 0010			
351+45	RT & LT	200	CULVERT REPLACEMENT
563+73	RT & LT	375	CULVERT REPLACEMENT
588+30	RT & LT	275	CULVERT REPLACEMENT
659+11	RT & LT	475	CULVERT REPLACEMENT
TOTAL		1,325	

PREPARE FOUNDATION ITEMS

LOCATION	SPV.0105.04 PREPARE FOUNDATION FOR CIR PAVEMENT (8220-05-72) LS	SPV.0105.05 PREPARE FOUNDATION FOR HMA UPPER LAYER (8220-05-72) LS
CAT 0010		
PROJECT	1	1
TOTALS	1	1

GRADING, SHAPING, AND FINISHING

STATION - STATION	LOCATION	205.9015.S GRADING, SHAPING & FINISHING INTERSECTION CTH DD LS	CTH E SOUTH LS	CTH E NORTH LS	CTH Q NORTH LS	BILLINGS AVE LS	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	SPV.0060.01 GRADING, SHAPING, AND FINISHING CULVERT REPLACEMENTS EACH	**EXCAVATION COMMON CY	**FILL CY	**BORROW CY	**TOPSOIL SY	**FERTILIZER TYPE B CWT	**SEEDING MIX NO. 30 LBS	COMMENTS
CAT 0010															
132+38 - 133+68	RT	1	--	--	--	--	--	--	--	4	4	90	0.1	2	CTH DD
351+45	RT & LT	--	--	--	--	--	--	1	6	36	30	150	0.1	4	CULVERT REPLACEMENT
478+56 - 479+67	RT	--	1	--	--	--	--	--	--	2	2	45	0.1	1	CTH E
476+30 - 480+09	LT	--	--	--	--	--	1	--	1	94	93	390	0.3	7	GUARDRAIL REPLACEMENT
479+44 - 480+25	RT	--	--	--	--	--	1	--	--	50	50	255	0.2	5	GUARDRAIL REPLACEMENT
482+14 - 484+55	LT	--	--	--	--	--	1	--	3	2	--	115	0.1	3	GUARDRAIL REPLACEMENT
482+33 - 492+00	RT	--	--	--	--	--	1	--	--	148	148	710	0.5	15	GUARDRAIL REPLACEMENT
495+63 - 497+09	LT	--	--	1	--	--	--	--	--	28	28	140	0.1	3	CTH E
541+82 - 546+56	RT	--	--	--	--	--	1	--	16	162	146	580	0.4	11	GUARDRAIL REPLACEMENT
541+94 - 546+68	LT	--	--	--	--	--	1	--	5	68	63	720	0.5	13	GUARDRAIL REPLACEMENT
563+73	RT & LT	--	--	--	--	--	--	1	17	145	128	315	0.2	6	CULVERT REPLACEMENT
588+30	RT & LT	--	--	--	--	--	--	1	30	55	25	200	0.1	4	CULVERT REPLACEMENT
659+11	RT & LT	--	--	--	--	--	--	1	12	40	28	200	0.1	4	CULVERT REPLACEMENT
659+08 - 660+38	LT	--	--	--	1	--	--	--	--	7	7	85	0.1	2	CTH Q
697+72 - 699+78	LT	--	--	--	--	1	--	--	460	6	--	630	0.4	15	BILLINGS AVE
711+56	LT	--	--	--	--	--	--	1	--	--	--	75	0.1	2	STORM SEWER REPLACEMENT
UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	--	--	1,200	1.6	25	
TOTALS		1	1	1	1	1	6	5	550	847	752	5,900	5.0	120	

** ITEMS AND QUANTITIES LISTED FOR INFORMATION ONLY; NON-BID ITEMS

NOTE: SALVAGED TOPSOIL MAY BE USED IN PLACE OF TOPSOIL.

BASE AGGREGATE DENSE AND SHAPING SHOULDERS ITEMS

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	306.0110 SALVAGED ASPHALTIC PAVEMENT BASE TON	311.0110 BREAKER RUN TON	645.0140 GEOTEXTILE FABRIC TYPE SAS SY	SPV.0035.01 BASE REPAIR FOR CIR PAVEMENT CY	COMMENTS
CAT 0010									
11+22 - 133+00	RT & LT	710	--	240	--	--	--	--	SHOULDERS
133+00 - 289+00	RT & LT	910	--	312	--	--	--	--	SHOULDERS
289+00 - 481+00	RT & LT	1,150	--	384	25	--	--	--	SHOULDERS
481+00 - 660+00	RT & LT	1,750	--	356	1,425	--	--	--	SHOULDERS
660+00 - 678+44	RT & LT	180	--	38	150	--	--	--	SHOULDERS
678+44 - 715+64	RT & LT	250	--	76	200	--	--	--	SHOULDERS
132+38 - 133+68	RT	--	10	--	--	--	--	--	CTH DD
351+45	RT & LT	--	100	--	--	--	--	--	CULVERT REPLACEMENT
476+30 - 480+09	LT	--	50	--	--	--	--	--	GUARDRAIL REPLACEMENT
478+56 - 479+67	RT	40	150	--	--	--	--	--	CTH E
482+14 - 484+55	LT	--	100	--	--	--	--	--	GUARDRAIL REPLACEMENT
482+33 - 492+00	RT	--	55	--	--	--	--	--	GUARDRAIL REPLACEMENT
495+63 - 497+09	LT	--	10	--	--	--	--	--	CTH E
541+82 - 546+56	RT	--	155	--	--	--	--	--	GUARDRAIL REPLACEMENT
541+94 - 546+68	LT	--	85	--	--	--	--	--	GUARDRAIL REPLACEMENT
563+73	RT & LT	--	125	--	--	--	--	--	CULVERT REPLACEMENT
588+30	RT & LT	--	100	--	--	--	--	--	CULVERT REPLACEMENT
659+11	RT & LT	--	200	--	--	--	--	--	CULVERT REPLACEMENT
659+08 - 660+38	LT	--	10	--	--	--	--	--	CTH Q
661+73 - 662+80	RT	10	--	--	--	--	--	--	GUARDRAIL REPLACEMENT
600'B'+55 - 601'B'+40	LT	--	100	--	--	190	215	--	BILLINGS AVE
DRIVEWAYS	RT & LT	1,000	--	--	--	--	--	--	
UNDISTRIBUTED	--	--	--	--	--	--	--	3,000	PREPARATION OF FOUNDATION
TOTALS		6,000	1,250	1,406	1,800	190	215	3,000	

CONCRETE DRIVEWAY 6-INCH

STATION	LOCATION	416.0160 SY
CAT 0010		
601'B'+08	LT	30
TOTAL		30

STORM SEWER PIPE ITEMS

FROM STRUCT	TO STRUCT	204.0245 REMOVING STORM SEWER 24-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	COMMENTS
CAT 0010						
INLET 1	MH 1	--	--	56	--	
MH 1	EXIST	--	1	65	--	CONNECT TO EXISTING MANHOLE
ENDWALL	EXIST	16	1	--	13	CONNECT TO EXISTING MANHOLE
TOTALS		16	2	121	13	

HMA AND ASPHALTIC PAVEMENT ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	* 465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	465.0315 ASPHALTIC FLUMES SY	465.0425 ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL LF	465.0475 ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL LF	SPV.0170.01 REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL STA	SPV.0180.01 COLD-IN-PLACE RECYCLING (CIR) PAVEMENT PARTIAL DEPTH SY	* ** SPV.0195.01 HMA PAVEMENT TYPE E-3 SPECIAL TON	SPV.0195.02 ASPHALT STABILIZING AGENT TON	COMMENTS
CAT 0010													
11+22 - 133+00	RT & LT	1,000	3,145	--	--	--	--	10,560	120	39,850	4,960	270	STH 64
133+00 - 289+00	RT & LT	1,300	4,060	--	--	--	--	14,780	156	52,000	6,280	350	STH 64
289+00 - 481+00	RT & LT	1,580	4,925	--	--	--	--	17,360	191	63,700	7,630	435	STH 64
481+00 - 660+00	RT & LT	1,700	5,115	--	--	--	--	15,830	180	59,250	8,000	405	STH 64
483+95 - 657+36	LT	--	--	--	--	--	14,500	--	--	--	--	--	STH 64
490+98 - 657+36	RT	--	--	--	--	--	14,000	--	--	--	--	--	STH 64
660+00 - 715+64	RT & LT	570	1,672	--	--	--	--	--	56	20,700	2,610	140	STH 64
27+17	RT	10	27	--	--	--	--	--	--	--	42	--	COYOTE DR
79+92	RT	6	16	--	--	--	--	--	--	--	25	--	PIRUS DR
79+92	LT	5	13	--	--	--	--	--	--	--	20	--	PIRUS DR
103+49	LT	5	12	--	--	--	--	--	--	--	18	--	GROVER DR
132+38 - 133+68	RT	16	46	10	--	11	--	--	--	--	71	--	CTH DD
240+78	RT	6	15	--	--	--	--	--	--	--	23	--	LARSON DR
240+78	LT	5	11	--	--	--	--	--	--	--	16	--	LARSON RD
285+61 - 289+47	RT	12	33	--	--	--	--	--	--	--	51	--	CTH O
295+41 - 296+11	RT	9	25	--	--	--	--	--	--	--	39	--	WATER DR
332+66 - 335+11	LT	12	35	--	--	--	--	--	--	--	54	--	DIVISION DR
345+75 - 348+48	LT	18	48	--	--	--	--	--	--	--	74	--	SAWYER AVE
351+45	RT & LT	--	--	60	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
443+68	RT	5	13	--	--	--	--	--	--	--	20	--	WREN DR
443+68	LT	5	10	--	--	--	--	--	--	--	15	--	HOWARD RD
478+56 - 479+67	RT	12	34	5	--	10	--	--	--	--	53	--	CTH E
495+63 - 497+09	LT	14	39	10	--	9	--	--	--	--	60	--	CTH E
519+66 - 526+84	LT	18	52	--	--	--	--	--	--	--	81	--	CTH E CONNECTOR
556+08	RT	5	13	--	--	--	--	--	--	--	19	--	SUNSET RD
556+08	LT	6	17	--	--	--	--	--	--	--	26	--	SUNSET RD
563+73	RT & LT	--	--	75	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
588+30	RT & LT	--	--	60	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
607+50	RT	7	19	--	--	--	--	--	--	--	29	--	CASTLE RD
607+50	LT	7	18	--	--	--	--	--	--	--	28	--	CASTLE RD
659+11	RT & LT	--	--	120	--	--	--	--	--	--	--	--	CULVERT REPLACEMENT
659+08 - 660+38	LT	15	37	10	--	10	--	--	--	--	57	--	CTH Q
659+65	RT	7	20	--	--	--	--	--	--	--	31	--	CTH Q
690+08	RT	5	7	--	--	--	--	--	--	--	10	--	JOAN ST
690+95	RT & LT	--	--	65	--	--	--	--	--	--	--	--	WATER MAIN TRENCH
691+23 - 692+73	RT & LT	--	--	13	--	--	--	--	--	--	--	--	PATH
699+76	LT	10	29	--	--	--	--	--	--	--	44	--	BILLINGS AVE
707+04	RT	5	11	--	--	--	--	--	--	--	17	--	MAPLE ST
712+17	LT	8	24	--	--	--	--	--	--	--	36	--	CENTRAL AVE
500'E'+20 - 502'E'+30	RT & LT	2	11	--	--	--	--	--	--	--	16	--	CTH E
600'B'+55 - 601'B'+40	RT	5	9	--	--	--	--	--	--	--	15	--	BILLINGS AVE
600'B'+55 - 601'B'+40	LT	10	19	2	--	--	--	--	--	--	30	--	BILLINGS AVE
DRIVEWAYS	PROJECT	--	--	--	375	--	--	--	--	--	--	--	PROJECT
UNDISTRIBUTED	--	--	--	1,970	--	--	--	--	--	--	--	--	PREPARATION OF FOUNDATION
TOTALS		6,400	19,580	2,400	375	40	28,500	58,530	702	235,500	30,500	1,600	

NOTES:

* UNDISTRIBUTED ASPHALTIC SURFACE IS FOR PATCHING, LEVELING, OR WEDGING PRIOR TO THE PLACEMENT OF THE HMA PAVEMENT SPECIAL LEVELING LAYER AS REQUIRED OR AS DIRECTED BY THE ENGINEER

** ASPHALTIC MATERIAL IS INCIDENTAL TO BID ITEM HMA PAVEMENT TYPE E-3 SPECIAL

* ADDITIONAL QUANTITIES SHOWN ON STRUCTURE PLAN FOR B-60-1

CULVERT PIPE ITEMS

STATION	LOCATION	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	MINIMUM STEEL THICKNESS INCHES	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	*522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	**JOINT TIES EACH	COMMENTS
CAT 0010								
351+45	RT & LT	--	--	--	62	2	12	0 DEG SKEW RHF
542+34	RT	2	0.064	46	--	--	--	DRIVEWAY
546+20	LT	2	0.064	26	--	--	--	DRIVEWAY
563+73	RT & LT	--	--	--	86	2	12	0.5 DEG SKEW RHF
588+30	RT & LT	--	--	--	74	2	12	0 DEG SKEW RHF
659+11	RT & LT	--	--	--	88	2	12	3 DEG SKEW RHF
TOTALS		4	--	72	310	8	48	

* ADDITIONAL QUANTITIES LOCATED ELSEWHERE
** ITEM AND QUANTITIES LISTED FOR INFORMATION ONLY; NON-BID ITEM

CONCRETE CURB & GUTTER ITEMS

STATION - STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER CURE AND SEAL TREATMENT LF	COMMENTS
CAT 0010						
132+38 - 133+68	RT	158	--	158	158	CTH DD
478+56 - 479+67	RT	143	--	89	89	CTH E
495+63 - 497+09	LT	150	--	150	150	CTH E
659+08 - 660+38	LT	158	--	158	158	CTH O
691+24 - 691+44	RT	31	40	--	40	JOAN
600'B'+25 - 601'B'+40	LT	80	140	--	140	BILLINGS
TOTALS		720	180	555	735	

CONCRETE SIDEWALK ITEMS

STATION	LOCATION	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	SPV.0165.01 CONCRETE SIDEWALK CURE AND SEAL TREATMENT SF
CAT 0010				
691+34	RT	90	8	90
691+34	LT	40	12	40
TOTALS		130	20	130

3

STORM SEWER MANHOLE AND INLET ITEMS

STRUCTURE NO	STATION	OFFSET	*522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0642 INLET COVERS TYPE MS EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	COMMENTS
CAT 0010									
INLET 1	699+16.30	43.00' LT	--	--	1	--	1	1	NO SLOPE ON INLET
MH 1	600'B'+68.70	10.45' LT	--	1	--	1	--	1	
ENDWALL	711+56.50	47.00' LT	1	--	--	--	--	1	
TOTALS			1	1	1	1	1	3	

* ADDITIONAL QUANTITIES LOCATED ELSEWHERE

MAINTENANCE AND REPAIR OF HAUL ROADS (8220-05-72)

LOCATION	618.0100 EACH
CAT 0010	
PROJECT	1
TOTAL	1

3

GUARDRAIL ITEMS

STATION - STATION	LOCATION	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0345 STEEL PLATE BEAM GUARD SHORT RADIUS LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH	614.0920 SALVAGED RAIL LF	*614.0925 SALVAGED GUARDRAIL END TREATMENTS EACH	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	COMMENTS
CAT 0010												
476+78 - 480+09	LT	--	--	--	--	120	1	--	237.5	40	1	
479+45 - 480+21	RT	21	62.5	50	1	22	1	--	--	--	--	11 CRT POSTS (SHORT RADIUS)
482+14 - 483+42	LT	--	--	--	--	120	1	87.5	--	40	1	
482+33 - 490+97	RT	--	--	--	--	810	1	775	--	40	1	
543+10 - 545+54	LT	--	--	--	--	54	2	137.5	--	--	2	
542+97 - 545+41	RT	--	--	--	--	54	2	137.5	--	--	2	
661+73 - 662+80	RT	--	--	--	--	--	2	--	--	--	2	
TOTALS		21	62.5	50	1	1,180	10	1,137.5	237.5	120	9	

* SALVAGED GUARDRAIL END TREATMENTS ACCOUNTS FOR 50' OF RAIL FOR EACH LOCATION

WATER

	LOCATION	LOCATION	624.0100 MGAL
CAT 0010			
	PROJECT	LT & RT	5
TOTAL			5

WATER PROVIDED FOR COMPACTION OF SUBGRADE, BASE AGGREGATE COMPACTION, AND DUST CONTROL

MOBILIZATIONS EROSION CONTROL

	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
CAT 0010			
	PROJECT	4	2
TOTALS		4	2

INLET PROTECTION ITEMS

	STATION - STATION	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	COMMENTS
CAT 0010						
	699+17	LT	1	1	--	
	601'B'+28	RT	--	--	1	BILLINGS AVE
	UNDISTRIBUTED	--	1	1	1	
TOTALS			2	2	2	

EROSION CONTROL ITEMS

	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	COMMENTS
CAT 0010										
	132+25 - 133+75	RT	340	340	90	--	48	--	--	CTH DD
	351+45	RT & LT	195	195	150	--	--	4	28	CULVERT REPLACEMENT
	476+16 - 480+22	RT & LT	945	945	680	--	32	14	42	BEAM GUARD REPLACEMENT
	482+10 - 492+00	RT & LT	1,490	1,490	820	--	--	--	84	BEAM GUARD REPLACEMENT
	495+60 - 497+16	LT	140	140	140	--	16	4	--	CTH E
	519+19	RT & LT	130	130	90	--	--	--	--	CATTLE PASS ABANDONMENT
	541+82- 546+70	RT & LT	560	560	1,300	--	48	8	56	BEAM GUARD REPLACEMENT
	563+73	RT & LT	245	245	220	100	--	4	28	CULVERT REPLACEMENT
	588+30	RT & LT	225	225	200	--	--	4	28	CULVERT REPLACEMENT
	658+60 - 660+50	RT & LT	370	370	310	--	16	4	42	CULVERT REPLACEMENT / CTH Q
	697+28 - 699+50	LT	--	--	200	430	--	--	--	STH 64 / BILLINGS AVE
	711+57	LT	--	--	--	65	--	4	--	STORM SEWER REPLACEMENT
	600'B'+50 - 601'B'+40	LT	--	--	--	65	--	--	--	BILLINGS AVE
	UNDISTRIBUTED	--	1,160	1,160	1,050	165	40	14	77	
TOTALS			5,800	5,800	5,250	825	200	60	385	

NOTE: ROCK BAGS ARE FOR SILT FENCE RELIEF

3

CULVERT MARKER ITEMS

STATION - STATION	LOCATION	*204.0180 REMOVING DELINEATORS AND MARKERS EACH	633.5200 MARKERS CULVERT END EACH
CAT 0010			
11+22 - 133+00	RT & LT	10	10
133+00 - 289+00	RT & LT	14	14
289+00 - 481+00	RT & LT	14	14
481+00 - 660+00	RT & LT	16	16
660+00 - 715+64	RT & LT	6	7
TOTAL		60	61

* ADDITIONAL QUANTITIES LOCATED ELSEWHERE

PAVEMENT MARKING 4-INCH ITEMS

STATION - STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH (WHITE) LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH (YELLOW) LF	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW) LF	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW) LF	COMMENTS
CAT 0010						
11+22 - 133+00	RT & LT	23,400	--	6,950	14,750	
133+00 - 289+00	RT & LT	30,250	--	8,450	17,400	
289+00 - 481+00	RT & LT	37,225	--	19,950	52,500	
481+00 - 660+00	RT & LT	34,620	--	17,430	45,000	
660+00 - 715+64	RT & LT	10,350	--	9,320	18,050	
691+36 - 696+32	RT	975	--	--	--	PATH
CTH O	RT	369	130	--	--	
SAWYER AVE	LT	345	--	--	--	
CTH E	RT	--	95	--	--	
CTH E	LT	47	50	--	--	
CTH E CONNECTOR	LT	714	155	--	--	
CTH O	LT	35	50	--	--	
BILLINGS AVE	LT	120	--	--	--	
TOTALS		138,450	480	62,100	147,700	
		138,930				

NOTES: PAVEMENT MARKING SAME DAY EPOXY 4-INCH IS TO BE PLACED ON THE CENTERLINE AFTER PLACING ASPHALTIC CENTER LINE RUMBLE STRIPS
TEMPORARY PAVEMENT MARKING 4-INCH IS TO BE PLACED ON THE CENTERLINE AFTER REMOVING ASPHALTIC SURFACE MILLING AND ON EACH LAYER OF HMA PAVEMENT

3

TRAFFIC CONTROL ITEMS

LOCATION	DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II NO.	643.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS	643.1050 SIGNS PCMS NO.	643.1050 SIGNS PCMS DAYS
CAT 0010													
PRIOR TO PROJECT START	10	--	--	--	--	--	--	--	--	--	--	3	30
MAINLINE MILLING AND PAVING OPERATIONS	20	--	--	--	--	--	--	--	--	8	160	--	--
MAINLINE ADVANCED WARNING	88	--	--	--	--	--	--	--	--	52	4,576	--	--
MAINLINE PAVING MAX WIDTH	30	--	--	--	--	--	--	--	--	25	750	--	--
B-60-1 OVERLAY MAX WIDTH	2	--	--	--	--	--	--	--	--	25	50	--	--
CULVERT REPLACEMENT MAX WIDTH	5	20	100	--	--	--	--	--	--	25	125	--	--
GUARDRAIL REPLACEMENT SHOULDER CLOSURE	15	25	375	--	--	--	--	--	--	2	30	--	--
BILLINGS AVE CLOSURE	14	10	140	--	--	6	84	12	168	2	28	--	--
JOAN STREET PATH CLOSURE	5	--	--	6	30	--	--	--	--	4	20	--	--
CURB & GUTTER REPLACEMENT SHOULDER CLOSURE	10	60	600	--	--	--	--	--	--	2	20	--	--
TOTALS			1,215		30		84		168		5,759		30

SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W		H	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
CAT 0010															
1-1	27+40 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
1-2	31+73 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
2-1	79+73 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
2-2	80+11 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
2-3	93+16 RT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
2-4	98+44 RT	D1-1	84	X	15	8.75	--	--	1	1	--	--	1	2	
3-1	102+92 RT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
3-2	103+20 LT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
3-3	103+24 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
3-4	104+19 LT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
3-5	104+86 RT	I3-1	66	X	15	6.88	--	--	1	1	--	--	1	2	
3-6	108+14 LT	W14-3	48	X	36	--	6.00	--	--	--	--	--	1	--	MOUNT ON BACK OF SIGN 3-9
3-7	108+14 LT	I3-1	66	X	15	6.88	--	--	1	1	--	--	1	2	
3-8	109+80 LT	D1-1	84	X	15	8.75	--	--	1	1	--	--	1	2	
3-9	111+60 LT	W2-2	30	X	30	--	6.25	--	--	1	--	--	1	1	
3-10	114+17 LT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
3-11	122+50 RT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
3-12	124+76 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
4-1	131+15 LT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
4-2	132+48 RT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
4-3	133+14 LT	W1-7	48	X	24	--	8.00	--	--	1	--	--	1	1	
4-4	133+37 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
4-5	133+40 RT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
4-6	133+69 LT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
4-7	135+41 RT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
4-8	143+85 LT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
5-1	199+67 LT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
6-1	221+76 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
6-2	230+00 LT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
6-3	240+62 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
6-4	240+95 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
6-5	248+91 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
7-1	274+27 RT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
7-2	277+57 LT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
7-3	277+58 RT	W1-2L	30	X	30	--	6.25	--	--	--	1	--	1	1	MOUNT ON SAME POST AS 7-4
7-4	277+58 RT	W13-1	18	X	18	--	2.25	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 7-3
8-1	285+61 RT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
8-2	286+40 LT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
8-3	287+67 RT	W1-6	48	X	24	--	8.00	--	--	1	--	--	1	2	
8-4	288+72 RT	W1-6	48	X	24	--	8.00	--	--	1	--	--	1	1	
8-5	288+76 RT	R1-2	36	X	31	3.88	--	--	--	1	--	--	1	1	
8-6	289+19 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
8-7	289+22 RT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
8-8	289+22 LT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
8-9	291+18 RT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
8-10	295+16 RT	W1-6	48	X	24	--	8.00	--	--	1	--	--	1	1	
SUBTOTALS						200.58	94.75	0	4	43	1	0	64	49	

SIGNS AND SUPPORTS (CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	W	X	H	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
CAT 0010															
8-11	295+59 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
9-1	298+36 LT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
9-2	306+80 LT	W1-2R	30	X	30	--	6.25	--	--	--	1	--	1	1	MOUNT ON SAME POST AS 9-3
9-3	306+80 LT	W13-1	18	X	18	--	2.25	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 9-2
9-4	315+74 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
9-5	323+95 RT	W1-2R	30	X	30	--	6.25	--	--	--	1	--	1	1	MOUNT ON SAME POST AS 9-6
9-6	323+95 RT	W13-1	18	X	18	--	2.25	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 9-5
9-7	323+95 LT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
10-1	334+86 RT	S3-1	36	X	36	--	9.00	--	--	1	--	--	1	1	
10-2	334+96 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
10-3	335+17 LT	W1-6	48	X	24	--	8.00	--	--	1	--	--	--	--	
11-1	346+21 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
11-2	346+25 LT	W1-6	48	X	24	--	8.00	--	--	1	--	--	1	1	
11-3	355+95 LT	S3-1	36	X	36	--	9.00	--	--	1	--	--	1	1	
11-4	358+01 LT	W1-2L	30	X	30	--	6.25	--	--	--	1	--	1	1	MOUNT ON SAME POST AS 11-5
11-5	358+01 LT	W13-1	18	X	18	--	2.25	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 11-4
11-6	372+66 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
12-1	381+40 LT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
12-2	390+76 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
12-3	400+48 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
13-1	423+31 LT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
14-1	443+54 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
14-2	443+86 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
14-3	445+51 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
15-1	468+64 RT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
15-2	477+96 LT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
15-3	478+44 LT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
15-4	478+76 RT	J12-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
15-5	478+76 RT	J13-1	24	X	45	7.50	--	--	--	--	--	--	2	--	MOUNT ON BACK OF SIGN 15-4
15-6	479+44 LT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
15-7	479+51 RT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
15-8	479+55 RT	J13-2	48	X	45	15.00	--	--	--	1	--	--	4	1	
15-9	480+03 LT	W5-52L	12	X	36	--	3.00	1	--	--	--	--	1	1	
15-10	480+20 RT	W5-52R	12	X	36	--	3.00	1	--	--	--	--	1	1	
15-11	480+20 RT	I3-1	66	X	15	6.88	--	--	1	1	--	--	1	2	
15-12	482+24 LT	I3-1	66	X	15	6.88	--	--	1	1	--	--	1	2	
15-13	482+35 LT	W5-52R	12	X	36	--	3.00	1	--	--	--	--	1	1	
15-14	482+38 RT	W5-52L	12	X	36	--	3.00	1	--	--	--	--	1	1	
15-15	483+45 RT	W1-2L	30	X	30	--	6.25	--	--	1	--	--	1	1	
15-16	486+12 LT	J12-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
15-17	487+42 RT	J12-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
16-1	495+23 LT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
16-2	495+84 RT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
16-3	496+18 LT	J13-2	48	X	45	15.00	--	--	--	1	--	--	4	1	
16-4	496+20 LT	R1-1	30	X	30	5.18	--	--	--	1	--	--	1	1	
16-5	496+92 LT	J12-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
16-6	497+83 RT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
16-7	504+00 LT	W14-3	48	X	36	--	6.00	--	--	--	--	--	1	--	MOUNT ON BACK OF SIGN 16-8
16-8	504+00 LT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
16-9	504+00 RT	W1-2R	30	X	30	--	6.25	--	--	1	--	--	1	1	
SUBTOTALS						175.20	138.00	4	2	38	3	0	68	46	

SIGNS AND SUPPORTS (CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	W	X	H	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
CAT 0010															
16-10	508+38 LT	W1-2R	30	X	30	--	6.25	--	--	1	--	--	1	1	
16-11	508+38 RT	W14-3	48	X	36	--	6.00	--	--	1	--	--	1	1	
16-12	520+53 LT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
16-13	520+96 LT	R1-2	36	X	31	3.88	--	--	1	--	--	--	1	1	
16-14	520+98 LT	W1-6	48	X	24	--	8.00	--	1	--	--	--	1	1	
16-15	522+30 LT	W1-6	48	X	24	--	8.00	--	1	--	--	--	1	1	
17-1	532+69 LT	W1-2L	30	X	30	--	6.25	--	--	1	--	--	1	1	
17-2	545+69 RT	W14-3	48	X	36	--	6.00	--	1	--	--	--	1	1	
17-3	550+72 LT	W14-3	48	X	36	--	6.00	--	1	--	--	--	1	1	
18-1	555+85 LT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
18-2	556+26 RT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
18-3	569+25 RT	W14-3	48	X	36	--	6.00	--	1	--	--	--	1	1	
19-1	590+12 LT	W14-3	48	X	36	--	6.00	--	1	--	--	--	1	1	
19-2	605+61 LT	--	--	X	--	--	--	--	--	--	--	--	1	1	REMOVE ONLY
19-3	605+61 LT	--	--	X	--	--	--	--	--	--	--	--	1	--	REMOVE ONLY
19-4	607+40 LT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
19-5	607+68 RT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
19-6	607+96 RT	W14-3	48	X	36	--	6.00	--	1	--	--	--	1	1	
20-1	645+07 LT	W14-3	48	X	36	--	6.00	--	1	--	--	--	1	1	MOUNT ON BACK OF 20-2
20-2	645+07 LT	--	--	X	--	--	--	--	--	--	--	1	--	--	MOVE TO NEW POST
20-3	648+46 RT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
20-4	650+22 LT	D2-2	66	X	24	11.00	--	--	2	--	--	--	1	2	
20-5	650+62 RT	W3-5	36	X	36	--	9.00	--	--	1	--	--	1	1	
20-6	652+14 RT	R10-64	30	X	36	7.50	--	--	--	--	1	--	1	1	MOUNT ON SAME POST AS 20-7
20-7	652+14 RT	R10-64F	30	X	18	3.75	--	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 20-6
20-8	657+33 LT	J4-1	24	X	36	6.00	--	--	1	--	--	--	--	--	NEW SIGN
20-9	657+33 LT	R2-1	24	X	30	5.00	--	--	1	--	--	--	1	1	
20-10	657+33 RT	R2-1	24	X	30	5.00	--	--	1	--	--	--	1	1	
20-11	659+28 RT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
20-12	659+38 LT	J13-2	48	X	45	15.00	--	--	--	1	--	--	4	1	
20-13	659+43 LT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
20-14	659+82 RT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
20-15	659+86 RT	J13-2	48	X	45	15.00	--	--	--	1	--	--	4	1	
20-16	660+11 LT	J13-1	24	X	45	7.50	--	--	--	1	--	--	2	1	
20-17	665+61 RT	R2-1	24	X	30	5.00	--	--	1	--	--	--	--	--	
20-18	665+61 RT	W14-3	48	X	36	--	6.00	--	--	--	--	--	1	1	MOUNT ON BACK OF 20-17
20-19	670+00 RT	S1-1	36	X	36	--	6.75	--	--	1	--	--	--	--	MOUNT ON SAME POST AS 20-20, 20-21
20-20	670+00 RT	S16-9P	30	X	18	--	3.75	--	--	--	--	--	--	--	MOUNT ON SAME POST AS 20-19, 20-21
20-21	670+00 RT	R2-6P	24	X	18	3.00	--	--	--	--	--	--	--	--	NEW SIGN, MOUNT ON SAME POST AS 20-19, 20-20
20-22	670+42 RT	--	--	X	--	--	--	--	--	--	--	--	1	1	REMOVE ONLY
20-23	670+48 LT	W14-3	48	X	36	--	6.00	--	--	--	--	--	1	--	MOUNT ON BACK OF 20-24
20-24	670+48 LT	J1-1	24	X	39	6.50	--	--	--	1	--	--	2	1	
20-25	671+75 RT	S4-5	36	X	36	--	9.00	--	--	1	--	--	--	--	NEW SIGN
20-26	672+25 LT	--	--	X	--	--	--	--	--	--	--	--	1	1	REMOVE ONLY
21-1	673+46 RT	--	--	X	--	--	--	--	--	--	--	--	1	1	REMOVE ONLY
21-2	673+46 RT	--	--	X	--	--	--	--	--	--	--	--	1	--	REMOVE ONLY
21-4	676+31 RT	S4-51	24	X	48	--	8.00	--	--	--	--	--	1	--	MOUNT ON EXISTING POST, BEACON TO REMAIN
21-5	676+31 LT	R2-1	24	X	30	5.00	--	--	--	--	1	--	--	--	NEW SIGN, MOUNT ON SAME POST AS 21-6
21-6	676+31 LT	S5-2	24	X	30	5.00	--	--	--	--	--	--	--	--	NEW SIGN, MOUNT ON SAME POST AS 21-5
21-7	683+88 LT	W4-2R	36	X	36	--	9.00	--	--	--	1	--	1	1	
21-8	686+77 RT	W4-2R	36	X	36	--	9.00	--	--	--	1	--	1	1	
21-9	688+73 RT	W11-8	30	X	30	--	6.25	--	--	--	--	--	1	--	MOUNT ON EXISTING POST, BEACON TO REMAIN
21-10	688+76 LT	J4-1	24	X	36	6.00	--	--	--	1	--	--	2	1	
SUBTOTALS						160.39	143.25	0	22	13	4	1	55	39	

SIGNS AND SUPPORTS (CONTINUED)

SIGN NO.	LOCATION	SIGN CODE	W	X	H	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
CAT 0010															
21-11	691+30 RT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	SIGN BLOCK OUT
21-12	691+30 RT	S1-1	36	X	36	--	6.75	--	1	--	--	--	1	1	MOUNT ON SAME POST AS 21-13, SIGN BLOCK OUT
21-13	691+30 RT	S16-7L	30	X	18	--	3.75	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 21-12, SIGN BLOCK OUT
21-14	691+49 LT	S1-1	36	X	36	--	6.75	--	1	--	--	--	1	1	MOUNT ON SAME POST AS 21-15
21-15	691+49 LT	S16-7L	30	X	18	--	3.75	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 21-14
21-16	693+40 LT	S4-51	24	X	48	--	8.00	--	--	--	--	--	1	--	MOUNT ON EXISTING POST, BEACON TO REMAIN
21-17	693+64 RT	R2-1	24	X	30	5.00	--	--	--	1	--	--	--	--	NEW SIGN, MOUNT ON SAME POST AS 21-18
21-18	693+64 RT	S5-2	24	X	30	5.00	--	--	--	--	--	--	--	--	NEW SIGN, MOUNT ON SAME POST AS 21-17
21-19	695+75 LT	--	--	X	--	--	--	--	--	--	--	--	1	1	REMOVE ONLY
21-20	695+75 LT	--	--	X	--	--	--	--	--	--	--	--	1	--	REMOVE ONLY
21-21	697+80 LT	S4-5	36	X	36	--	9.00	--	--	1	--	--	--	--	NEW SIGN
21-22	698+68 RT	D1-1	114	X	24	19.00	--	--	2	--	--	--	--	--	NEW SIGN
21-23	698+68 RT	--	--	X	--	--	--	--	--	--	--	--	1	1	REMOVE ONLY
21-24	698+81 LT	--	--	X	--	--	--	--	--	--	--	--	1	1	REMOVE ONLY
21-25	699+10 LT	S1-1	36	X	36	--	6.75	--	--	1	--	--	--	--	MOUNT ON SAME POST AS 21-26-, 21-27
21-26	699+10 LT	S16-9P	30	X	18	--	3.75	--	--	--	--	--	--	--	MOUNT ON SAME POST AS 21-25, 21-27
21-27	699+10 LT	R2-6P	24	X	18	3.00	--	--	--	--	--	--	--	--	NEW SIGN, MOUNT ON SAME POST AS 21-25, 21-26
21-28	699+51 LT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
21-29	701+09 LT	W11-8	30	X	30	--	6.25	--	--	--	--	--	1	--	MOUNT ON EXISTING POST, BEACON TO REMAIN
21-30	701+33 RT	--	--	X	--	--	--	--	--	--	--	--	1	2	REMOVE ONLY
21-31	701+33 RT	R2-1	24	X	30	5.00	--	--	1	--	--	--	--	--	NEW SIGN
22-1	704+32 LT	D1-1	114	X	24	19.00	--	--	2	--	--	--	1	2	
22-2	707+09 LT	W1-7	48	X	24	--	8.00	--	1	--	--	--	--	--	NEW SIGN
22-3	707+23 RT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
22-4	708+50 LT	R2-1	24	X	30	5.00	--	--	1	--	--	--	1	1	
22-5	710+60 RT	R2-1	24	X	30	5.00	--	--	1	--	--	--	1	1	
22-6	711+70 LT	R1-1	30	X	30	5.18	--	--	1	--	--	--	1	1	
22-7	715+54 RT	D9-2	24	X	24	4.00	--	--	1	--	--	--	1	1	MOUNT ON SAME POST AS 22-8
22-8	715+54 RT	M6-1	21	X	21	3.06	--	--	--	--	--	--	1	--	MOUNT ON SAME POST AS 22-7
SUBTOTALS						93.78	62.75	0	15	3	0	0	20	16	
TOTALS						629.95	438.75	4	43	97	8	1	207	150	

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

STATION	LOCATION	647.0566 (WHITE) LF	COMMENTS
CAT 0010			
691+10	RT	16	JOAN ST
699+66	LT	28	BILLINGS AVE
707+12	RT	18	W MAPLE ST
711+85	LT	18	N CENTRAL AVE
TOTAL		80	

PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

STATION	LOCATION	647.0766 (WHITE) LF	COMMENTS
CAT 0010			
691+36	RT & LT	110	JOAN ST/STH 64
TOTAL		110	

LOCATING NO - PASSING ZONES

LOCATION	648.0100 MI
CAT 0010	
PROJECT	13.30
TOTAL	13.30

MILLING AND REMOVING TEMPORARY JOINT

LOCATION	SPV.0105.01 LS
CAT 0010	
PROJECT	1
TOTAL	1

ABANDON CATTLE PASS

STATION	LOCATION	SPV.0105.02 LS	**EXCAVATION COMMON CY	**FILL CY	**BORROW CY	**TOPSOIL SY	**FERTILIZER TYPE B CWT	**SEEDING MIX NO. 30 LBS
CAT 0010								
519+19	RT & LT	1	7	7	--	89	0.1	2
UNDISTRIBUTED	--	--	--	--	--	23	0.1	1
TOTAL		1	7	7	0	112	0.2	3

** ITEMS AND QUANTITIES LISTED FOR INFORMATION ONLY; NON-BID ITEMS
NOTE: SALVAGED TOPSOIL MAY BE USED IN PLACE OF TOPSOIL.

GUARDRAIL POST CONNECTION

STATION	LOCATION	SPV.0105.03 LS
CAT 0010		
544+25	RT & LT	1
TOTAL		1

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.6000 PIPE CULVERTS EACH	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL (8220-05-72) LS	COMMENTS
CAT 0010						
132+38 - 133+68	RT	158	--	--	--	CTH DD
351+45	RT & LT	--	1	--	--	CULVERT REPLACEMENT
478+56 - 479+67	RT	89	--	--	--	CTH E
495+63 - 497+09	LT	150	--	--	--	CTH E
563+73	RT & LT	--	1	--	--	CULVERT REPLACEMENT
588+30	RT & LT	--	1	--	--	CULVERT REPLACEMENT
659+11	LT	--	1	--	--	CULVERT REPLACEMENT
659+08 - 660+38	LT	158	--	--	--	CTH Q
691+24 - 691+44	RT	40	--	--	--	JOAN
600'B'+25 - 601'B'+40	LT	140	--	--	--	BILLINGS
PROJECT	RT & LT	--	--	70,215	1	
TOTALS		735	4	70,215	1	

SAWING ITEMS

STATION - STATION	LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF	COMMENTS
CAT 0010				
11+22	RT & LT	30	--	BEGIN OF PROJECT
132+38 - 133+68	RT	212	--	CTH DD
240+78	RT	22	--	LARSON DR
285+61 - 289+47	RT	53	--	CTH O
295+41 - 296+11	RT	22	--	WATER DR
345+75 - 348+48	LT	22	--	SAWYER AVE
351+45	RT & LT	60	--	CULVERT REPLACEMENT
443+68	RT	22	--	WREN DR
478+56 - 479+67	RT	250	--	CTH E
495+63 - 497+09	LT	196	--	CTH E
519+66 - 526+84	LT	50	--	CTH E CONNECTOR
556+08	RT	24	--	SUNSET RD
556+08	LT	27	--	SUNSET RD
563+73	RT & LT	60	--	CULVERT REPLACEMENT
588+30	RT & LT	60	--	CULVERT REPLACEMENT
607+50	RT	26	--	CASTLE RD
607+50	LT	29	--	CASTLE RD
659+11	RT & LT	102	--	CULVERT REPLACEMENT
659+65	RT	27	--	CTH Q
659+08 - 660+38	LT	207	3	CTH Q
661+73 - 662+80	RT	227	--	BEAM GUARD REPLACEMENT
691+24 - 691+44	RT	110	3	JOAN ST
690+95	RT & LT	105	--	WATER MAIN
707+04	RT	28	--	MAPLE ST
712+17	LT	32	--	CENTRAL AVE
715+64	RT & LT	42	--	END OF PROJECT
600'B'+25 - 601'B'+40	LT	385	3	BILLINGS AVE
DRIVEWAYS	RT & LT	1,010	--	
TOTALS		3,440	9	

TRANSPORTATION PROJECT PLAT NO: 8220-05-22 - 4.01

THAT PART OF LOT 1, CSM 1649, LOCATED IN AND PART OF THE SW1/4 OF THE NW1/4, SECTION 28, TOWNSHIP 31 NORTH, RANGE 1 EAST, CITY OF MEDFORD, TAYLOR COUNTY, WISCONSIN

RELOCATION ORDER STH 64 TAYLOR 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 INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS 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.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	PLE ACRES
2	KLINGBEIL LAND, LLC A WISCONSIN LIMITED LIABILITY	PLE	0.022

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	TAYLOR COUNTY ELECTRIC COOPERATIVE (ELECTRIC)	RELEASE OF RIGHTS
201	DAIRYLAND POWER COOPERATIVE (ELECTRIC)	RELEASE OF RIGHTS
202	MEDFORD WATER WORKS (SANITARY)	RELEASE OF RIGHTS

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, TAYLOR COUNTY, NAD83(2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCE.

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".

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 64 ESTABLISHED FROM PREVIOUS PROJECTS T020(4), RW PLAT 8890-01-03, RW PLAT 6247, CSM 1935 AND CSM 1649 AND EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS AND CSM 1935, CSM 994, CSM 1649, CSM 116 AND CSM 901.

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

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN TAYLOR COUNTY, WISCONSIN AT 11:30 ON April 19, 2013 AS DOCUMENT # 348080 AND FILED IN Lot. 182 Page 34

Sara K. Zimmerberger
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8220-05-22-4.01
AMENDMENT NO: 8220-05-22-4.01

MAG NAIL SET FROM TIES
Y=342750.520
X=642077.960

T 31 N R 1 E
20 21 29 28

LOT 3
CSM 994
VOL.4-S PG.243

SE/NE

P.L.

IP 127

S01°02'07"W 2616.90' MON. TO 101

CTH Q

EAST LINE OF THE SE1/4 OF THE NE1/4

73'

200 TAYLOR COUNTY ELECTRIC COOPERATIVE
DOC. 106016 - PAR. 2

201 DAIRYLAND POWER COOPERATIVE
DOC. 138438 - PAR. 2

202 MEDFORD WATER WORKS
NO EASEMENT OF RECORD - PAR. 2

IP 128

TOWN

LOT 1
CSM 1935
VOL.9-S PG.184

P.L.

100'

IP 129
(0.75 ROD)

IP 130

FOUND PK NAIL
Y=340077.460
X=642029.658

T 31 N R 1 E
29 28

101 102 2 202

CITY

SW/NW

LOT 1
CSM 1649
VOL.7-S PG.335

RESTRICTIVE DEVELOPMENT EASEMENT DOC. 303307

IP 125
(0.75 ROD)

IP 126
(0.75 ROD)

SAN

100 103 105 104

660+00

662+00

SOUTH LINE OF THE SW1/4 OF THE NW1/4

664+00

STH 64

666+00

IP 123

IP 124
(0.75 ROD)

P.L.

100'

N86°41'23"E 5206.54' MON. TO 100

656+00

SOUTH LINE OF THE SE1/4 OF THE NE1/4

658+00

STH 64

654+00

N 86°45'48" E

107 106

CURVE 1

STA 663+12.55

PT STA 663+32.88

N86°55'10"W 5329.24' MON. TO 105

S 86°58'18" E

OF

OF

PC STA 657+06.78

IP 131

IP 121
(0.75 ROD)

P.L.

83'

T 31 N R 1 E
30 29

FOUND PK NAIL
Y=339776.814
X=636831.803

LOT 1
CSM 901
VOL.4-S PG.68

MEDFORD

NE/SE

COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N 01°02'07" E	56.60'
101-102	S 88°57'53" E	33.00'
102-103	S 0°02'07" W	35.01'
103-104	SEE CURVE DATA BELOW	
D=00°59'42" L=54.81'	R=5758.89' CB=N89°55'31" E	T=24.41' CL=54.81'
104-105	S 00°11'52" W	25.80'
105-106	S 00°11'52" W	7.20'
106-107	SEE CURVE DATA BELOW	
D=01°00'52" L=88.08'	R=5725.89' CB=S 89°45'26" W	T=44.04' CL=88.08'
107-100	N 00°01'05" W	12.31'

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
100	659+62.06	-12.31
101	659+63.74	-68.89
102	659+96.33	-68.00
103	659+95.50	-33.00
104	660+50.00	-33.00
105	660+50.00	-7.20
106	660+50.00	0.00
107	659+61.92	0.00

FOUND BROKEN SURVEY NAIL
Y=337363.209
X=642030.515

T 31 N R 1 E
29 28 32 33

66'

N00°01'05"W 2701.94' MON. TO 107

EAST LINE OF THE NW1/4 OF THE SW1/4

CTH Q

STH 64 CURVE 1 DATA

PC = 657+06.78
Y = 340056.42
X = 641774.70
PI = 660+20.14
Y = 340074.113
X = 642087.559
PT = 663+32.88
Y = 340057.56
X = 642400.48
T = 313.36'
L = 626.10'
R = 5725.89'
DELTA = 06°15'54" RT
D = 01°00'02"
BRG. AHEAD = S86°58'18"E
BRG. BACK = N86°45'48"E

LOT 1
CSM 116
VOL.1-S PG.116

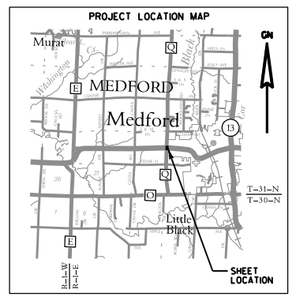
NW/SW

MEDFORD

P.L.

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP 121	340002.84	642497.44	0.75" IRON ROD FND
IP 123	340093.03	642683.82	1.25" OD IRON PIPE FND
IP 124	340103.43	642475.37	0.75" IRON ROD FND
IP 125	340114.25	642229.51	0.75" IRON ROD FND
IP 126	340097.34	642229.20	0.75" IRON ROD FND
IP 127	340313.77	641994.12	1.25" OD IRON PIPE FND
IP 128	340188.44	641991.72	1.25" OD IRON PIPE FND
IP 129	340100.77	641674.86	0.75" IRON ROD FND
IP 130	340088.02	641452.33	1.25" OD IRON PIPE FND
IP 131	339987.11	641444.41	1.25" OD IRON PIPE FND

PROJECT LOCATION MAP



FOUND CHISELED X
Y=339786.329
X=647439.302

LOT 1
CSM 2057
VOL.10-S PG.79

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN SUPERIOR

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	I.P.○ (1" UNLESS NOTED)	PROPOSED R/W LINE	
R/W MONUMENT	○ ● (SET)	EXISTING H.E. LINE	
R/W STANDARD	▲ (SET)	PROPERTY LINE	
SIGN	ISIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT	◍	SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		RESTRICTED ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		RESTRICTED ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	RWB20	SECTION LINE	
PARCEL NUMBER	102	QUARTER LINE	
UTILITY INTEREST	40	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21-1	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
REFERENCE LINE		PARALLEL OFFSET	

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL UTILITY SYMBOLS

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

NON COMPENSABLE	COMPENSABLE
POWER POLE	
TELEPHONE POLE	
TELEPHONE PEDESTAL	
ELECTRIC TOWER	

SCALE, FEET
0 50 100

GN

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 8220-05-22-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C BOYER S-2575 HEWITT WI LAND SURVEYOR

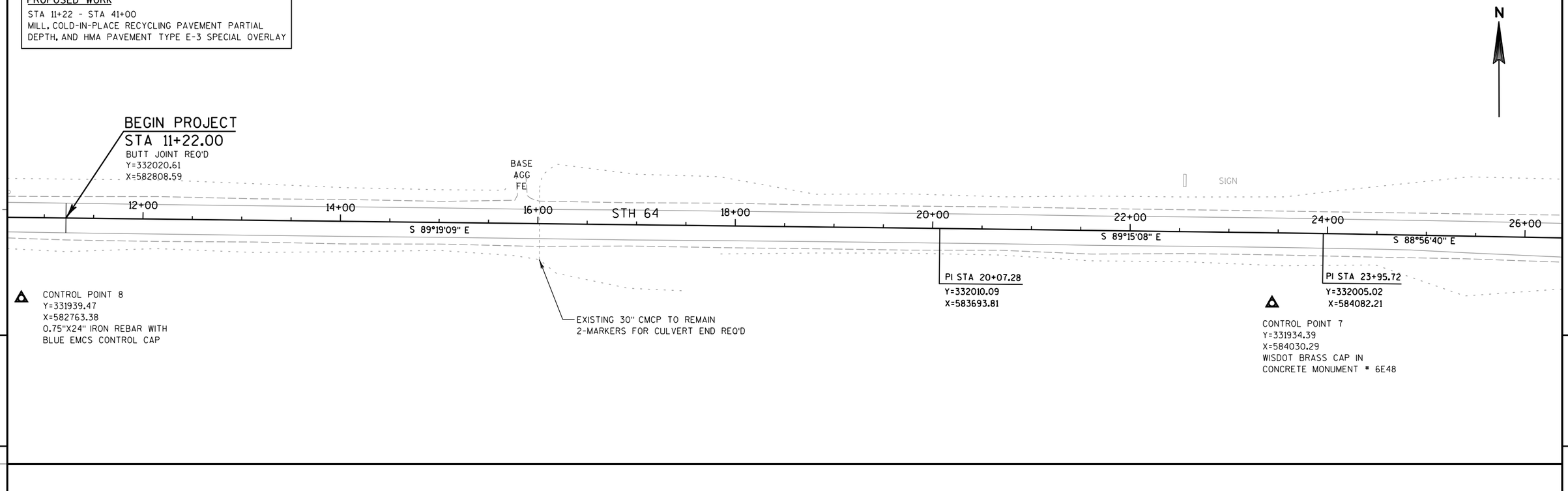
(SIGNATURE) Kevin C. Boyer DATE 4/8/2013
(PRINTED NAME) KEVIN C. BOYER
(REGISTRATION NUMBER) S-2575

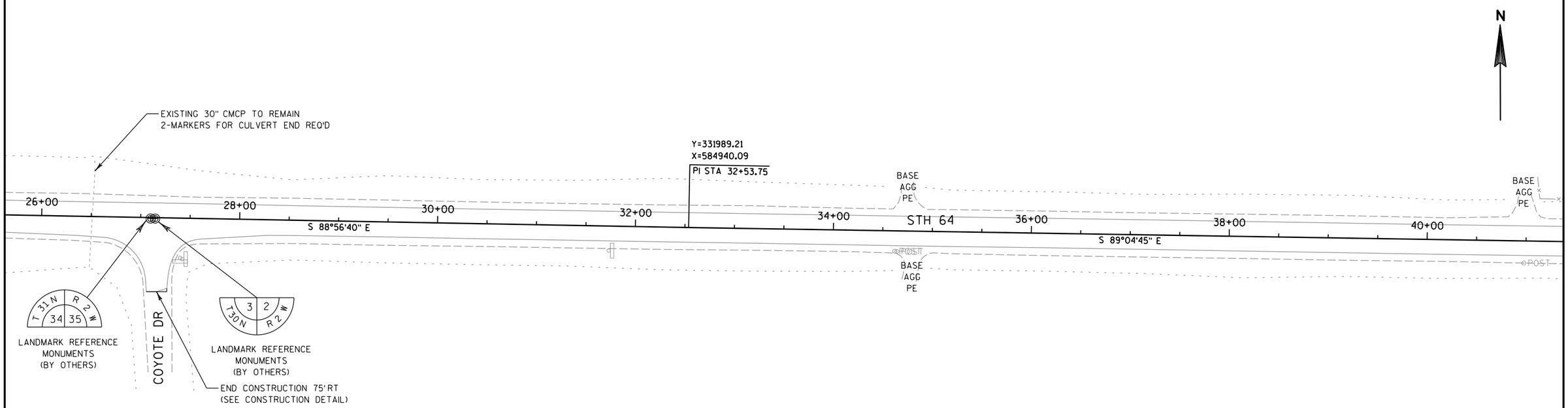
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION NW REGION OFFICE, SUPERIOR, WI

(SIGNATURE) Michael Pike DATE 4/10/2013
(PRINTED NAME)

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\TPP\040101_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 4/23/2013
PLOT BY : tgr
PLOT NAME :
PLOT SCALE : 1:100

PROPOSED WORK
STA 11+22 - STA 41+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

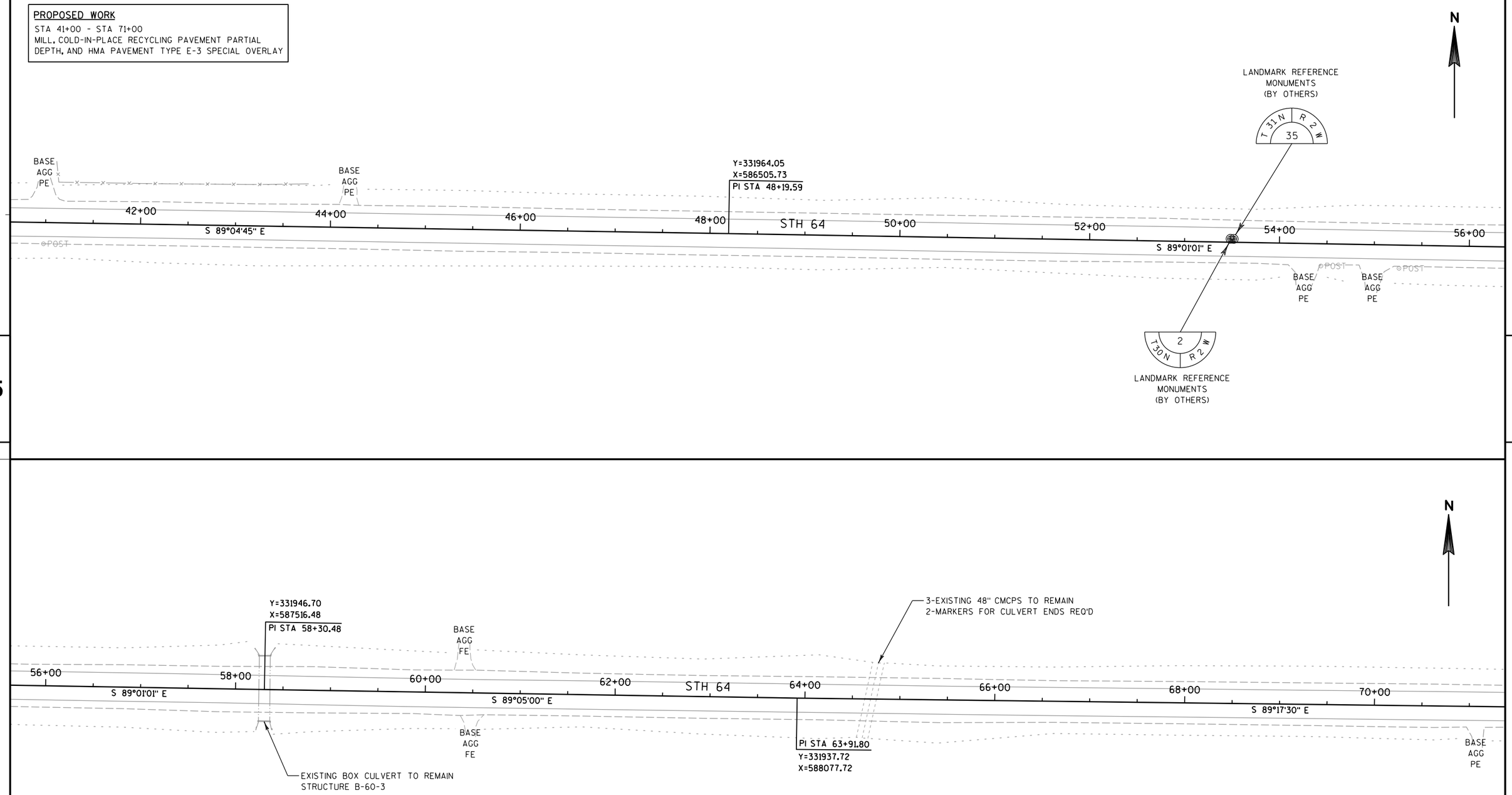




PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 103	E

PROPOSED WORK

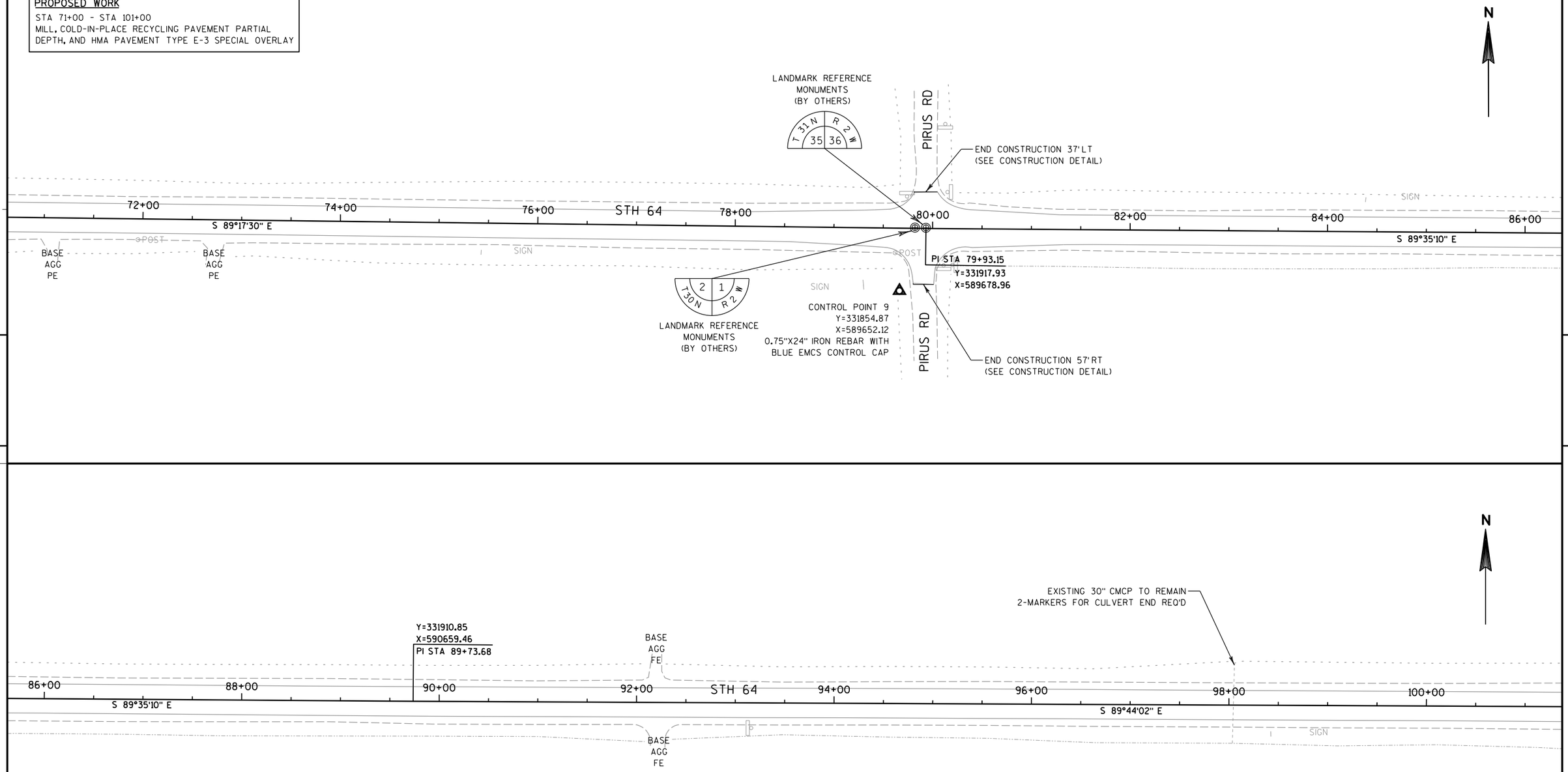
STA 41+00 - STA 71+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 104	E

PROPOSED WORK

STA 71+00 - STA 101+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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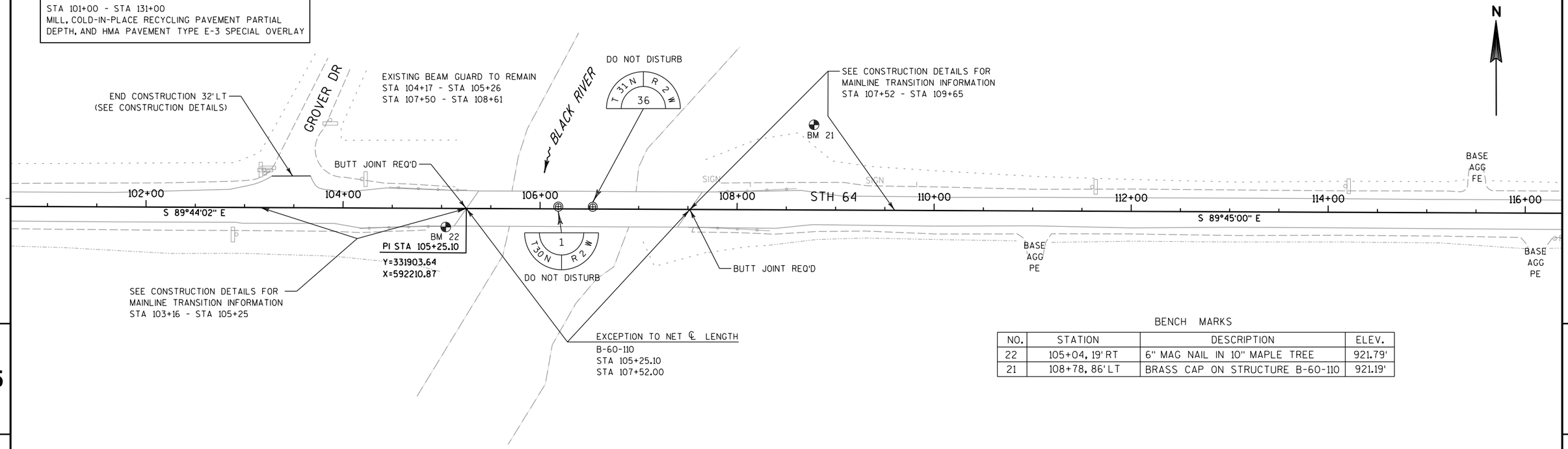
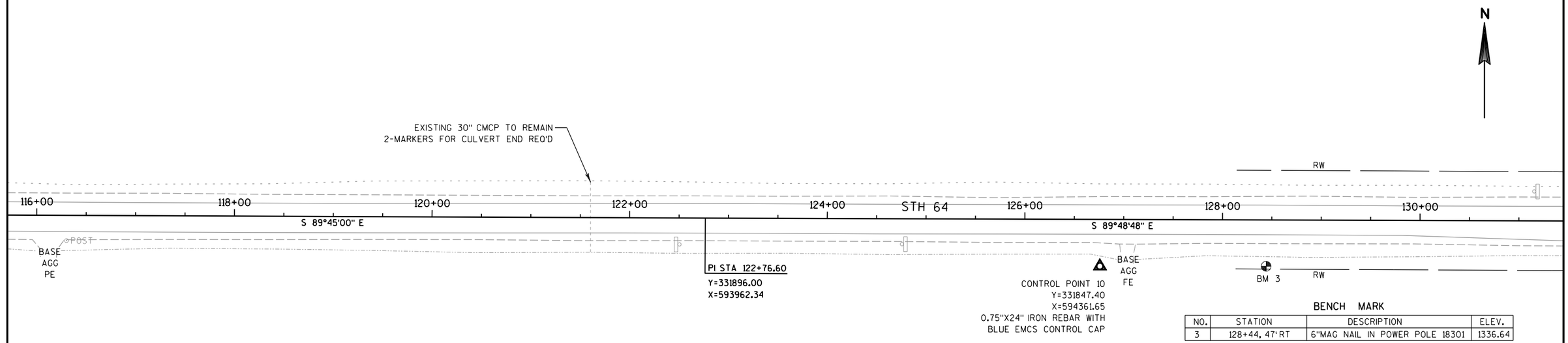
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 105	E

PROPOSED WORK
STA 101+00 - STA 131+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
22	105+04, 19' RT	6" MAG NAIL IN 10" MAPLE TREE	921.79'
21	108+78, 86' LT	BRASS CAP ON STRUCTURE B-60-110	921.19'



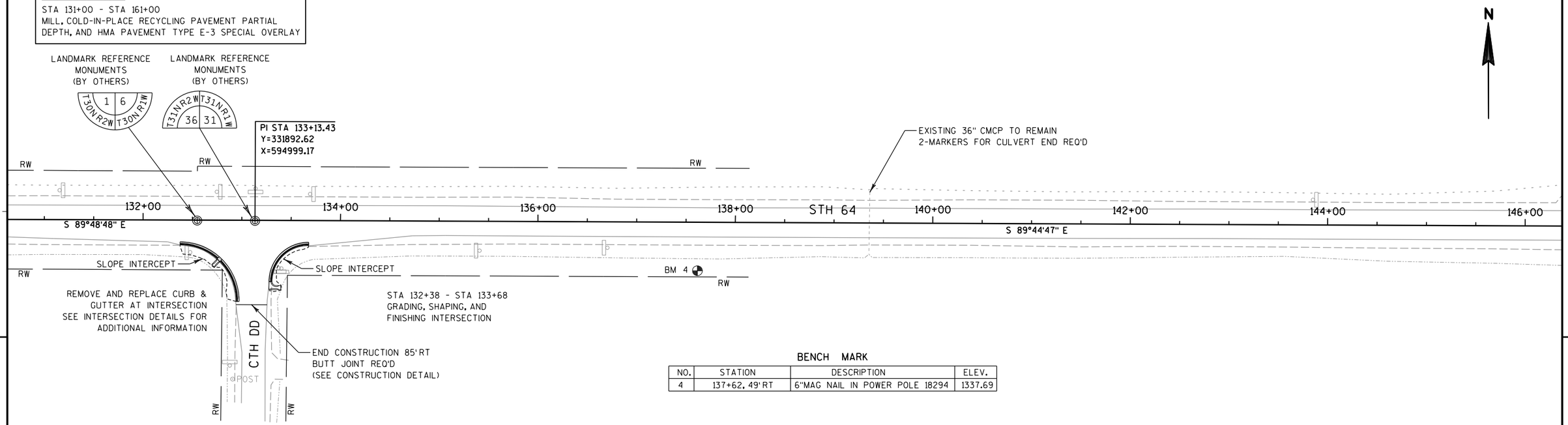
BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
3	128+44, 47' RT	6"MAG NAIL IN POWER POLE 18301	1336.64

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 106	E

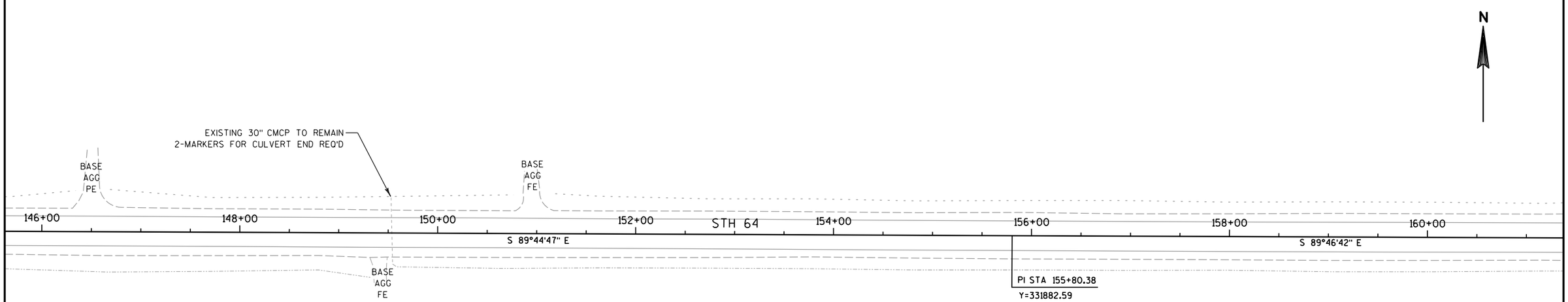
PROPOSED WORK

STA 131+00 - STA 161+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



BENCH MARK

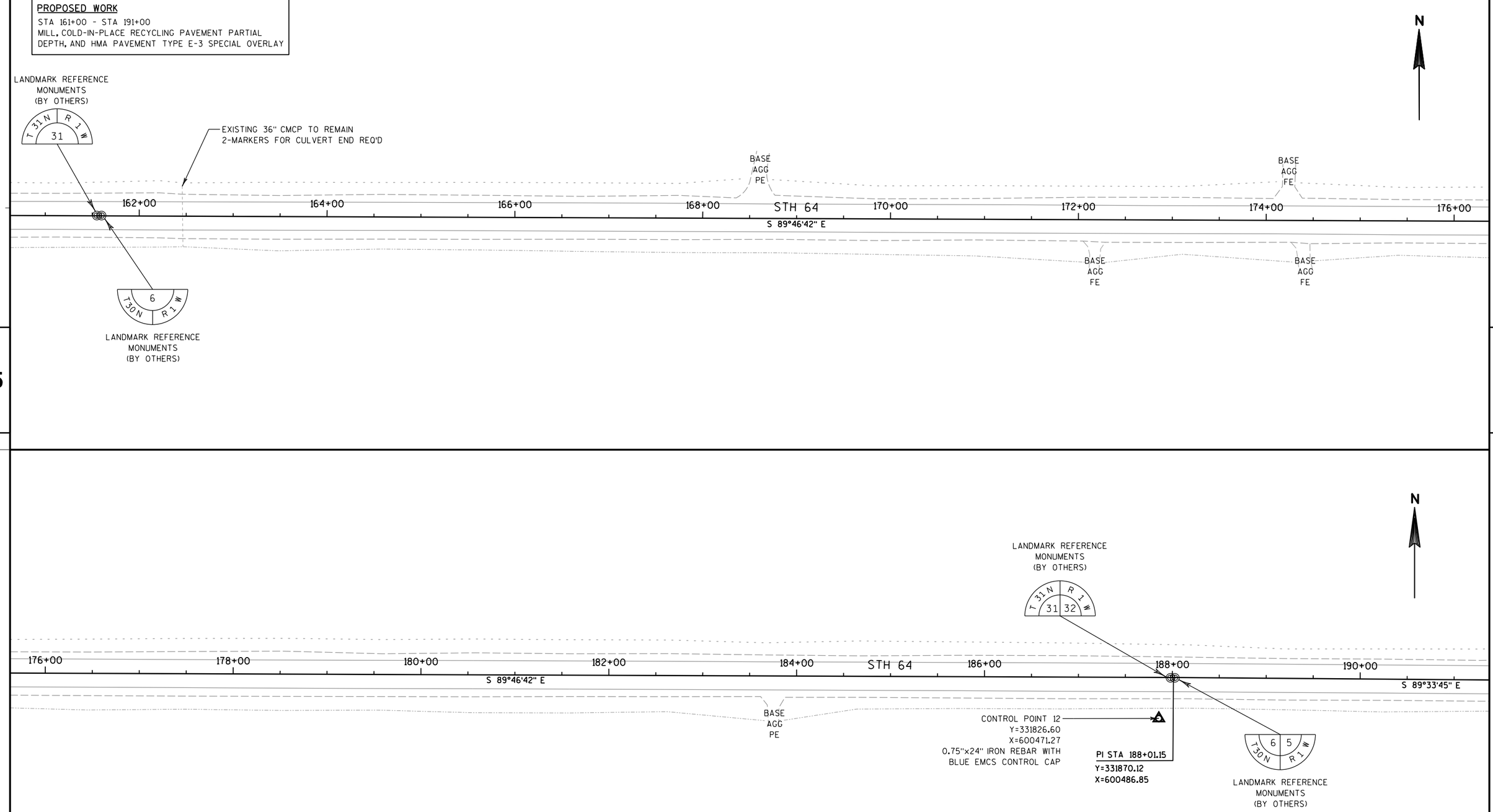
NO.	STATION	DESCRIPTION	ELEV.
4	137+62, 49'RT	6"MAG NAIL IN POWER POLE 18294	1337.69



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 107	E

PROPOSED WORK

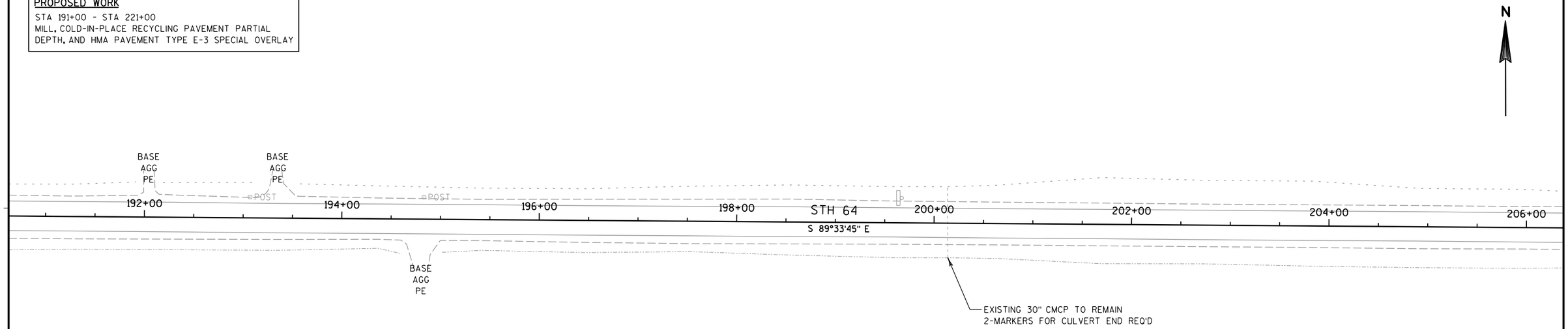
STA 161+00 - STA 191+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 108	E

PROPOSED WORK

STA 191+00 - STA 221+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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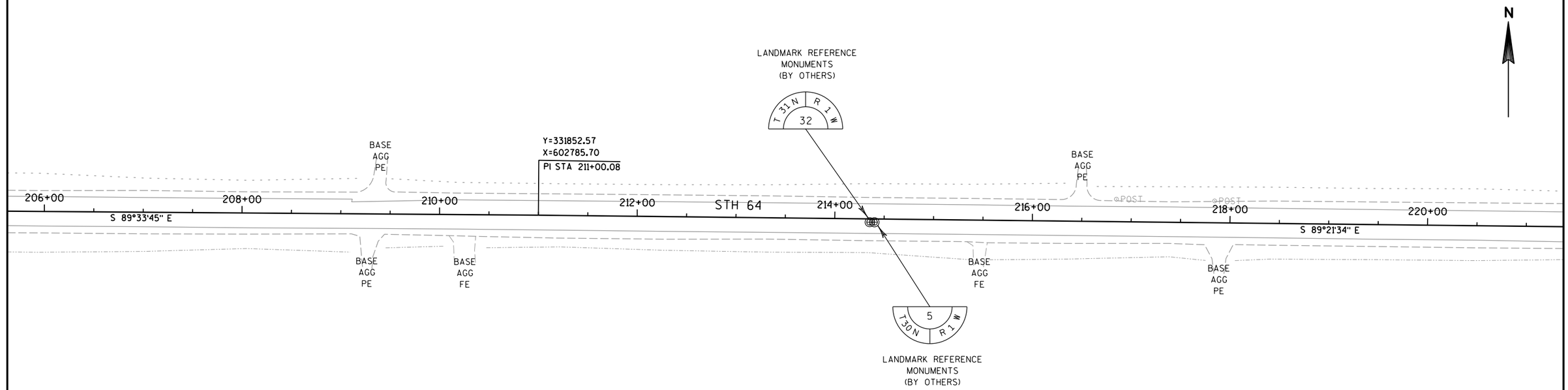
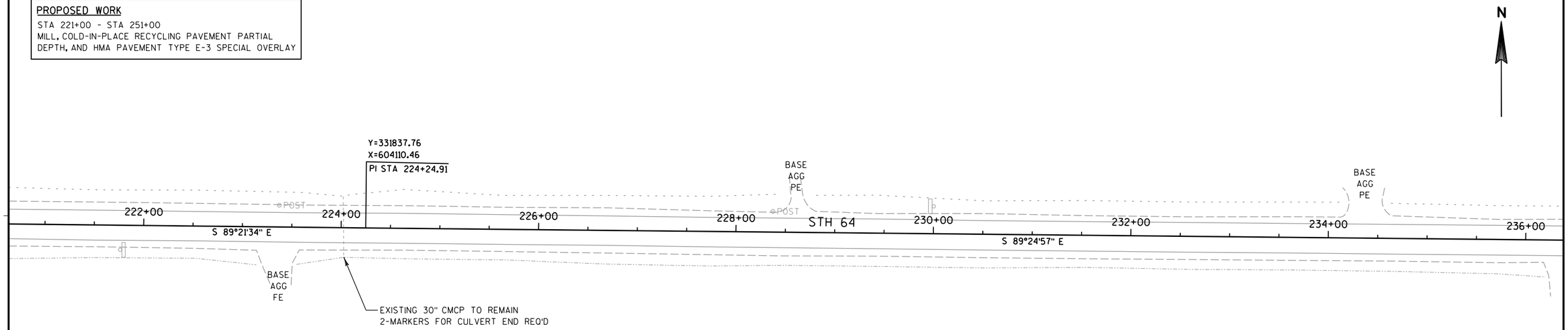


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 109	E

PROPOSED WORK

STA 221+00 - STA 251+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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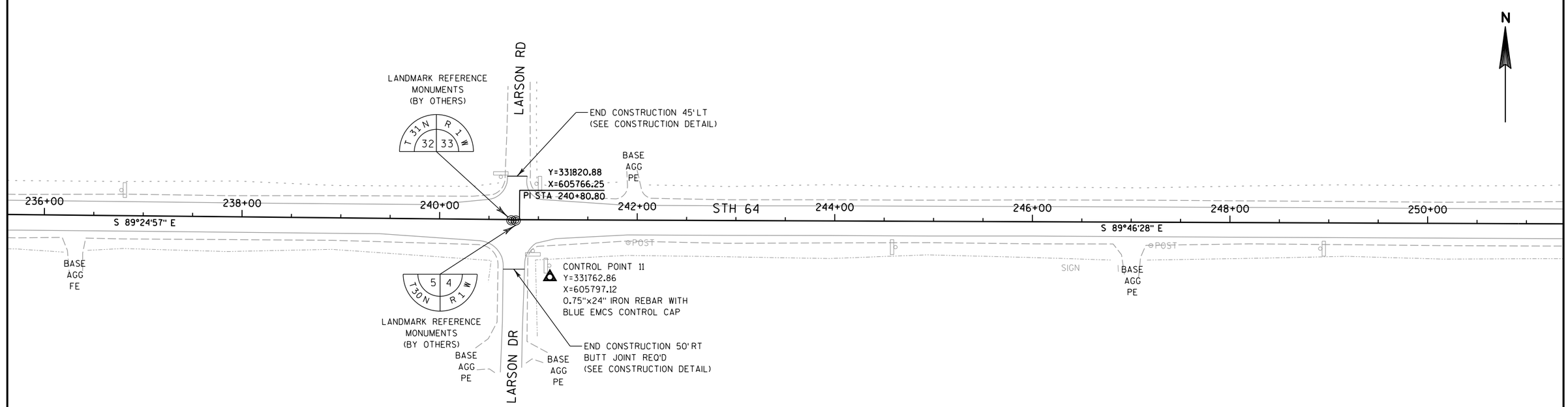
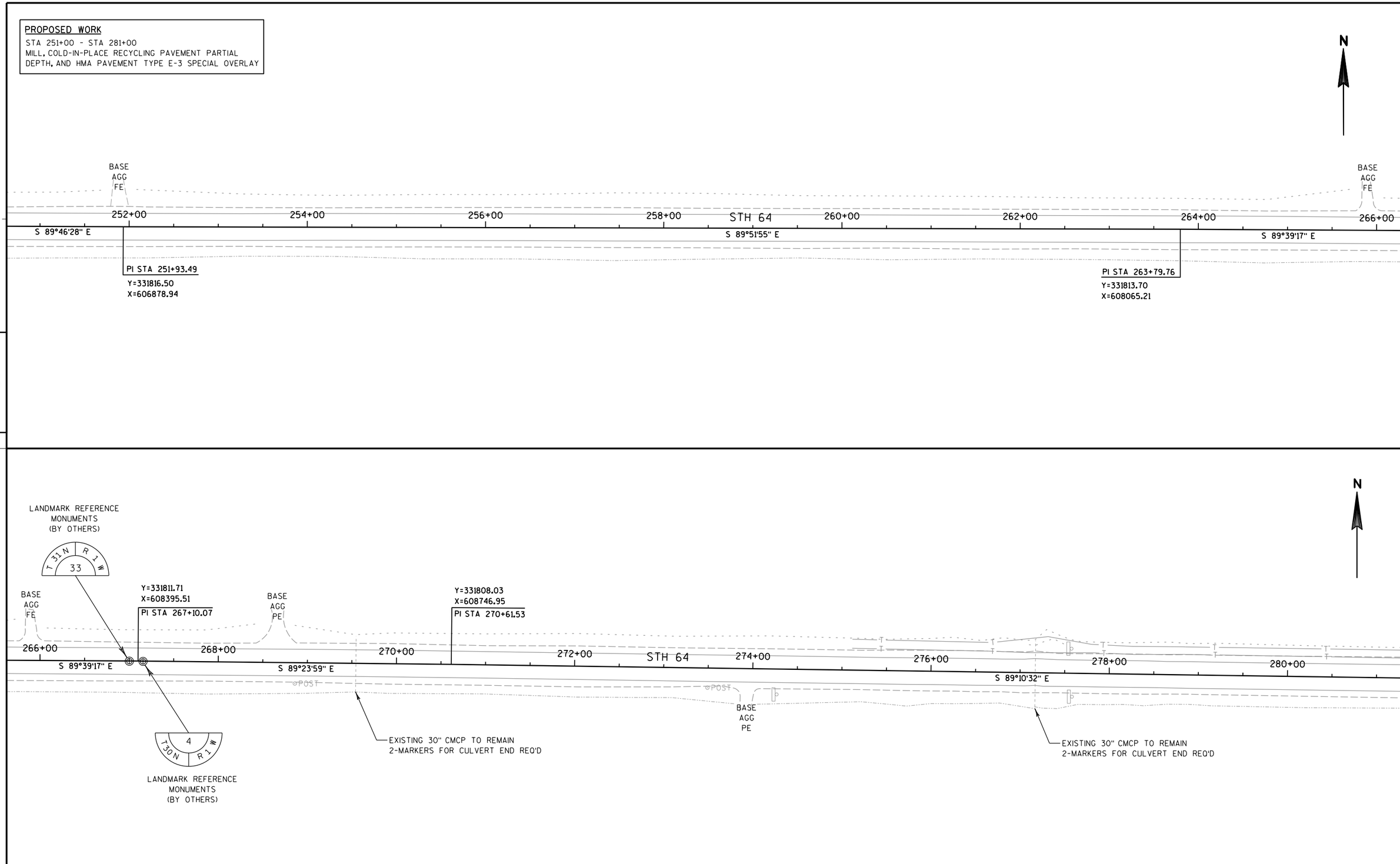


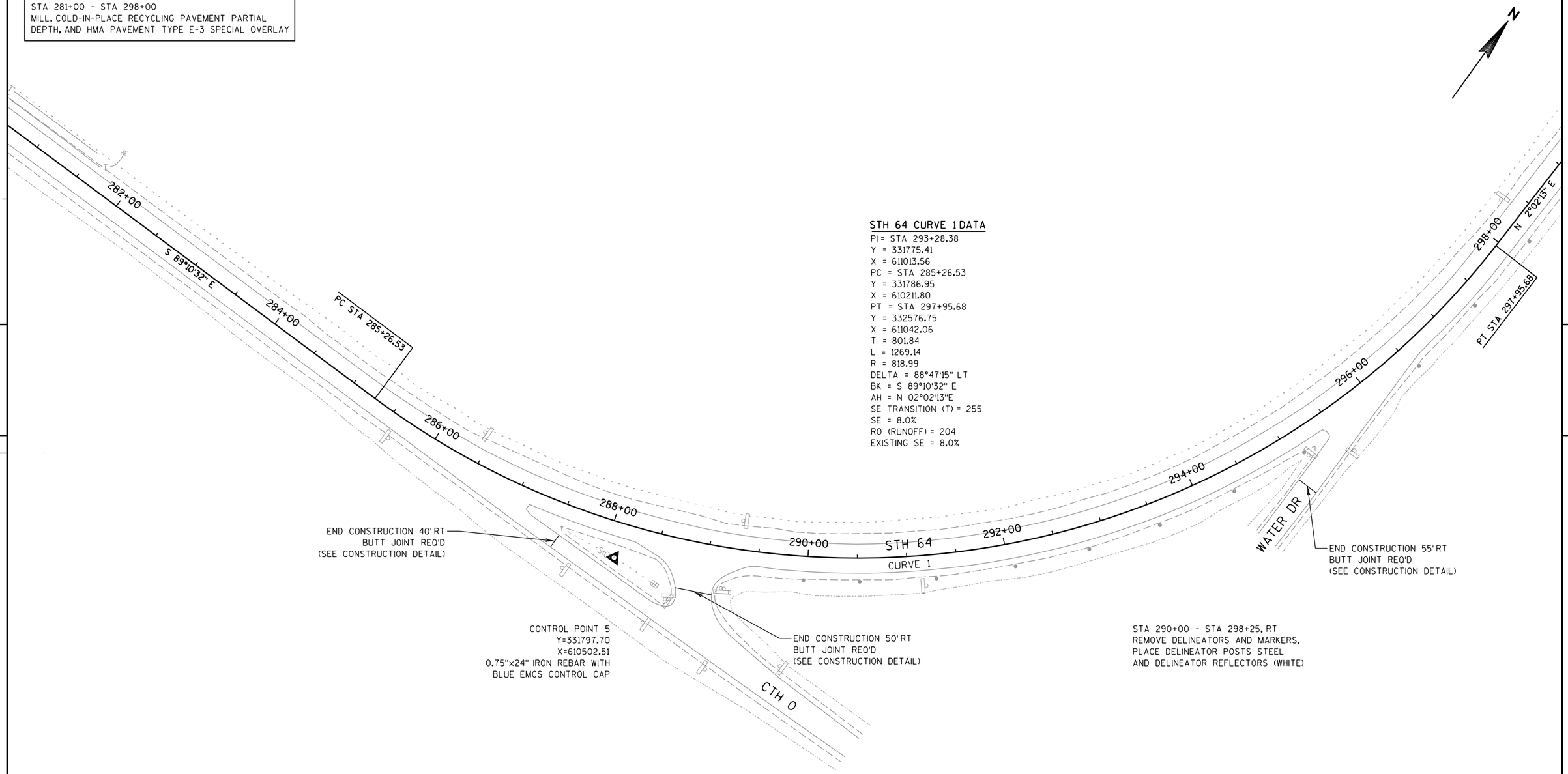
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 110	E



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 111	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050209_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100 WISDOT/CADDS SHEET 44

PROPOSED WORK
STA 281+00 - STA 298+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

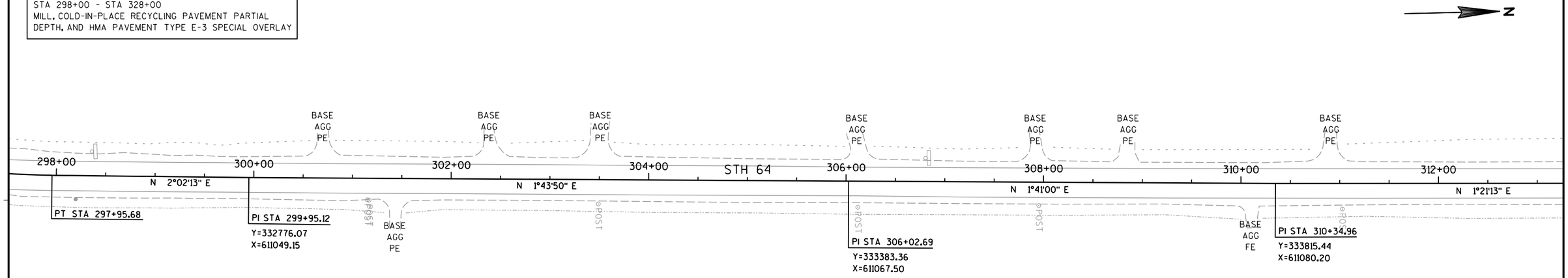


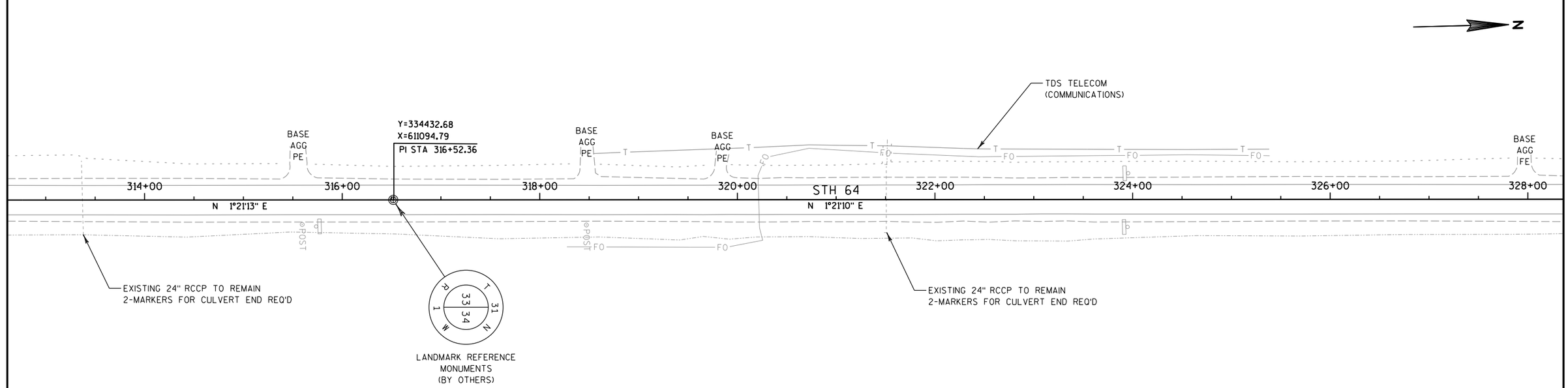
STH 64 CURVE 1 DATA
PI = STA 293+28.38
Y = 331775.41
X = 611013.56
PC = STA 285+26.53
Y = 331786.95
X = 610211.80
PT = STA 297+95.68
Y = 332576.75
X = 611042.06
T = 801.84
L = 1269.14
R = 818.99
DELTA = 88°47'15" LT
BK = S 89°10'32" E
AH = N 02°02'13"E
SE TRANSITION (T) = 255
SE = 8.0%
RO (RUNOFF) = 204
EXISTING SE = 8.0%

STA 290+00 - STA 298+25, RT
REMOVE DELINEATORS AND MARKERS,
PLACE DELINEATOR POSTS STEEL
AND DELINEATOR REFLECTORS (WHITE)

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 112	E

PROPOSED WORK
STA 298+00 - STA 328+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

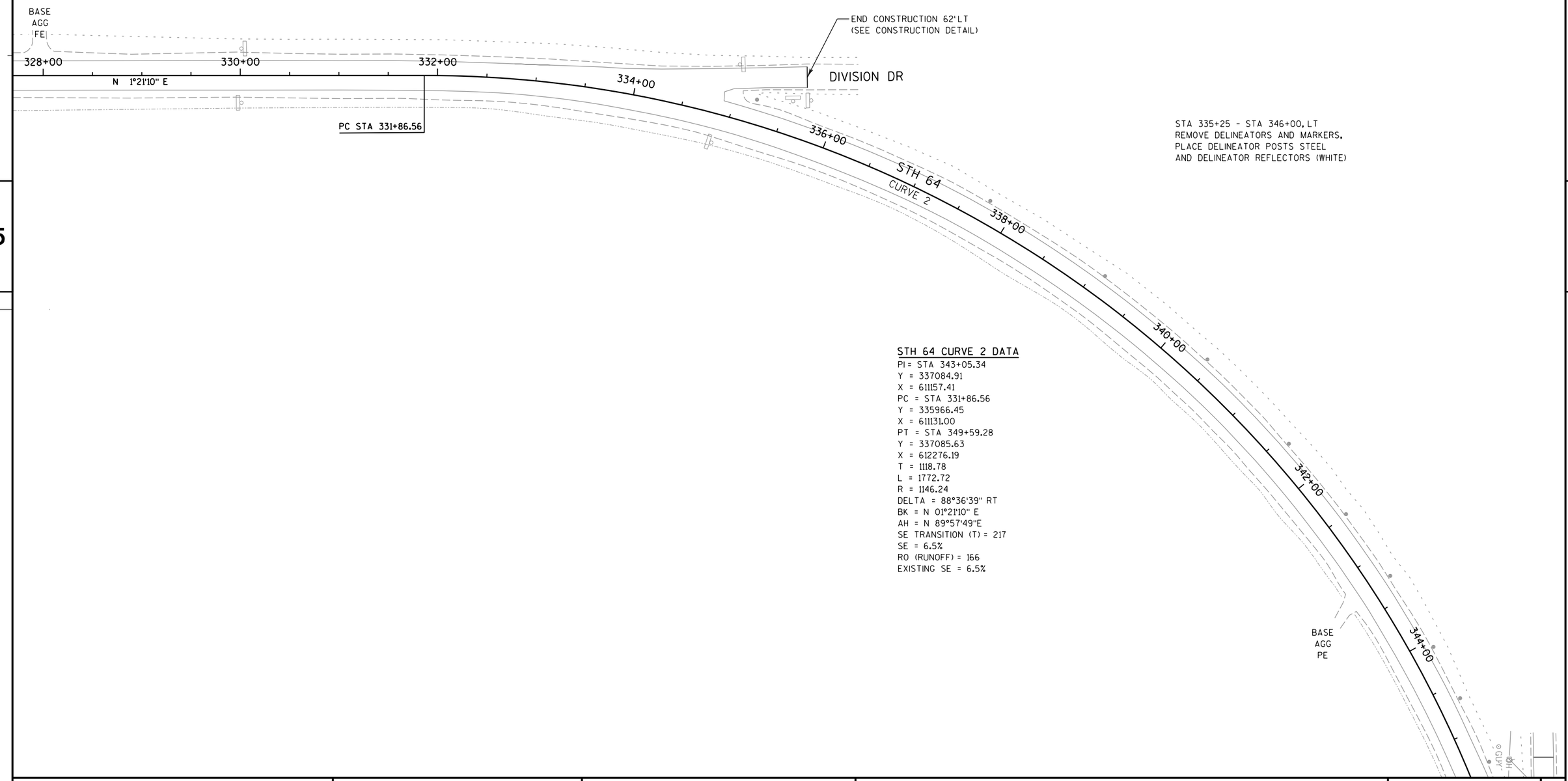




PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 113	E

PROPOSED WORK
STA 328+00 - STA 345+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

N



STA 335+25 - STA 346+00, LT
REMOVE DELINEATORS AND MARKERS, PLACE DELINEATOR POSTS STEEL AND DELINEATOR REFLECTORS (WHITE)

STH 64 CURVE 2 DATA
PI = STA 343+05.34
Y = 337084.91
X = 611157.41
PC = STA 331+86.56
Y = 335966.45
X = 611131.00
PT = STA 349+59.28
Y = 337085.63
X = 612276.19
T = 1118.78
L = 1772.72
R = 1146.24
DELTA = 88°36'39" RT
BK = N 01°21'10" E
AH = N 89°57'49"E
SE TRANSITION (T) = 217
SE = 6.5%
RO (RUNOFF) = 166
EXISTING SE = 6.5%

5

5

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 114	E

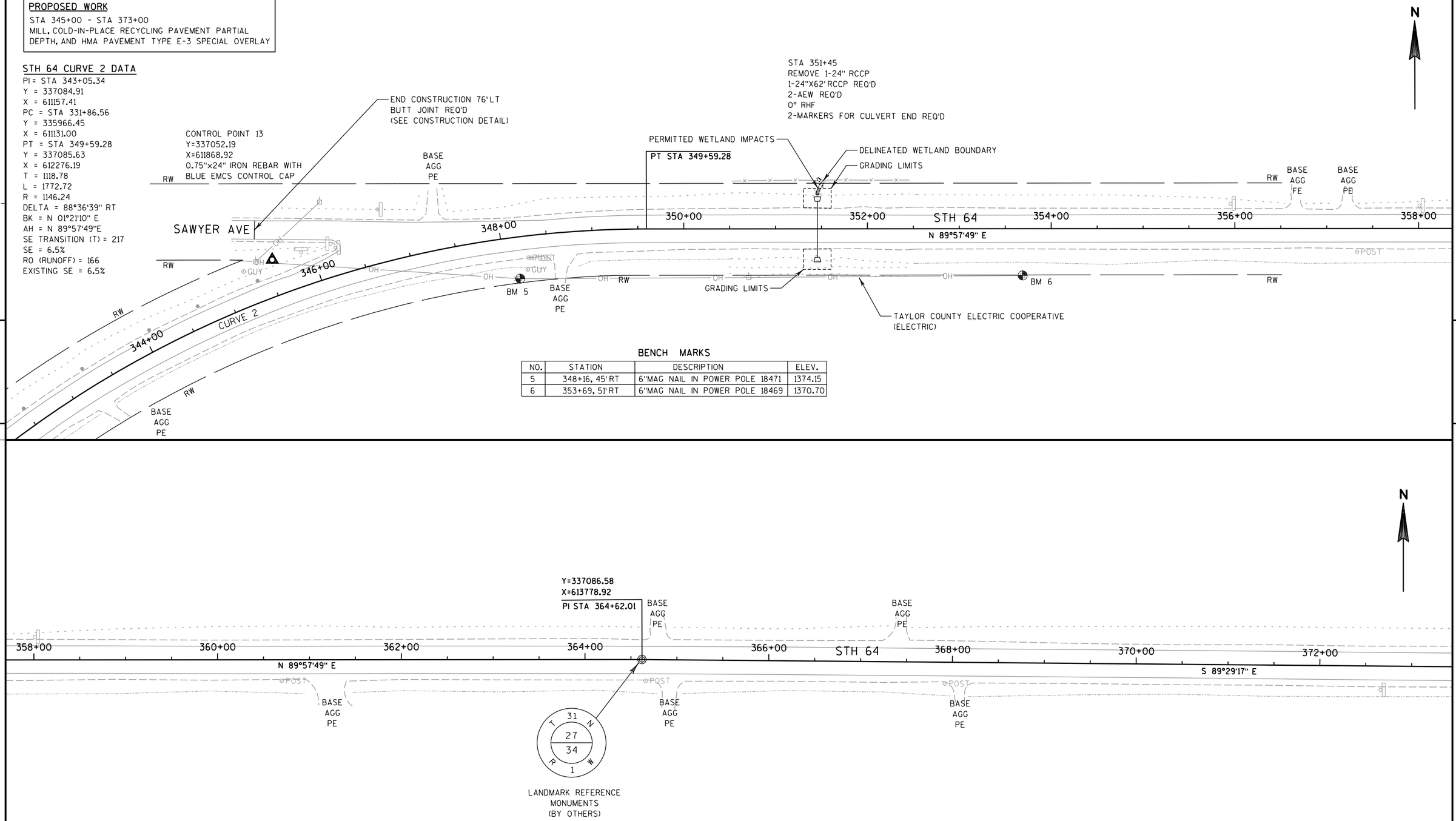
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050212_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

PROPOSED WORK

STA 345+00 - STA 373+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

STH 64 CURVE 2 DATA

PI = STA 343+05.34
Y = 337084.91
X = 611157.41
PC = STA 331+86.56
Y = 335966.45
X = 611131.00
PT = STA 349+59.28
Y = 337085.63
X = 612276.19
T = 1118.78
L = 1772.72
R = 1146.24
DELTA = 88°36'39" RT
BK = N 01°21'10" E
AH = N 89°57'49"E
SE TRANSITION (T) = 217
SE = 6.5%
RO (RUNOFF) = 166
EXISTING SE = 6.5%



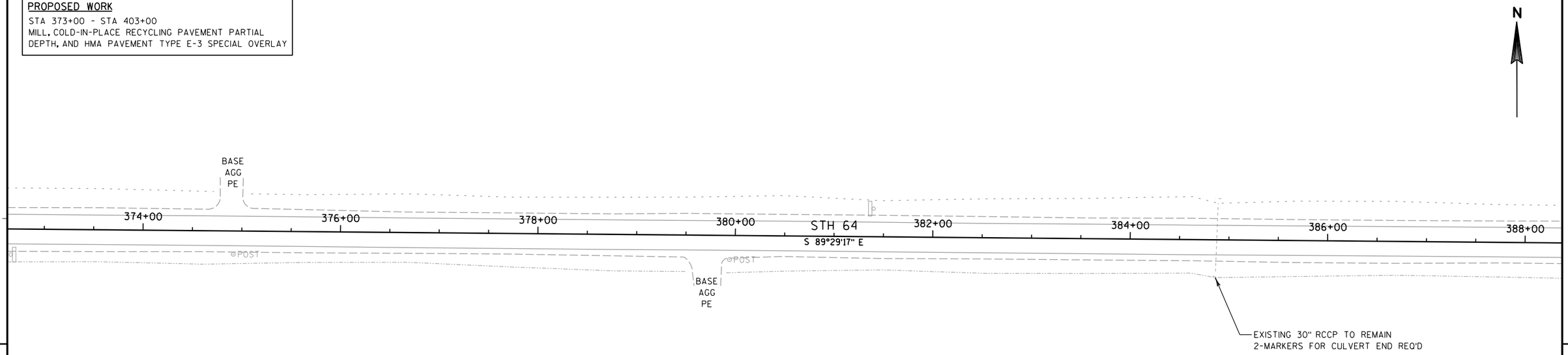
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
5	348+16.45' RT	6"MAG NAIL IN POWER POLE 18471	1374.15
6	353+69.51' RT	6"MAG NAIL IN POWER POLE 18469	1370.70

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050213_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 44

PROPOSED WORK
STA 373+00 - STA 403+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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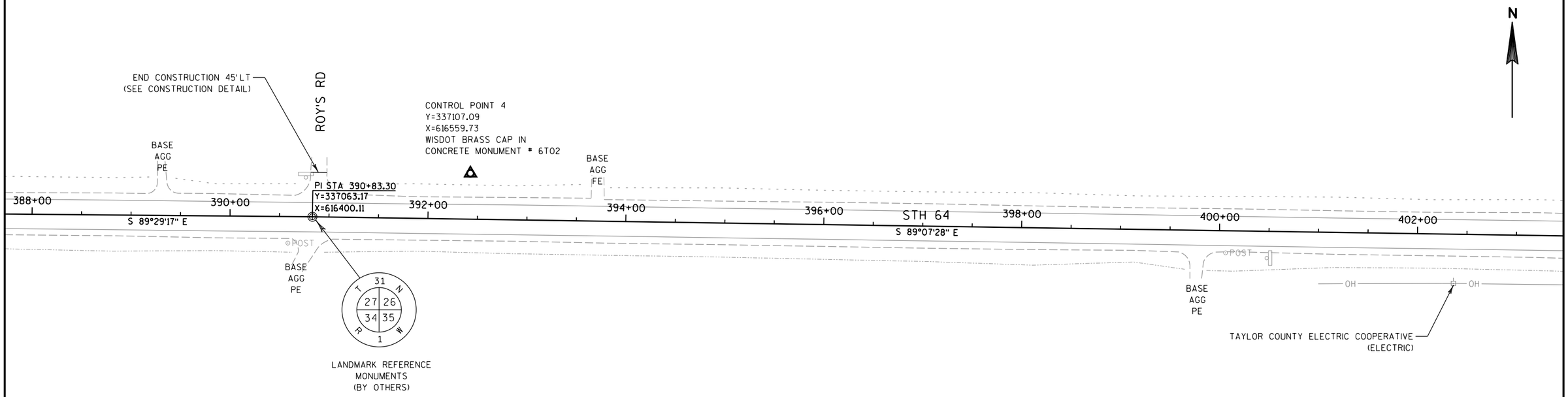
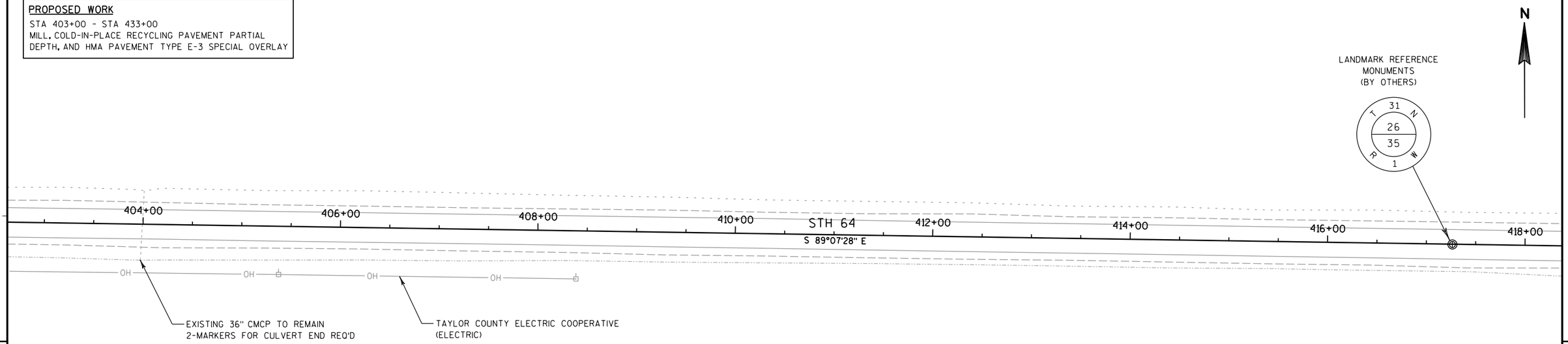
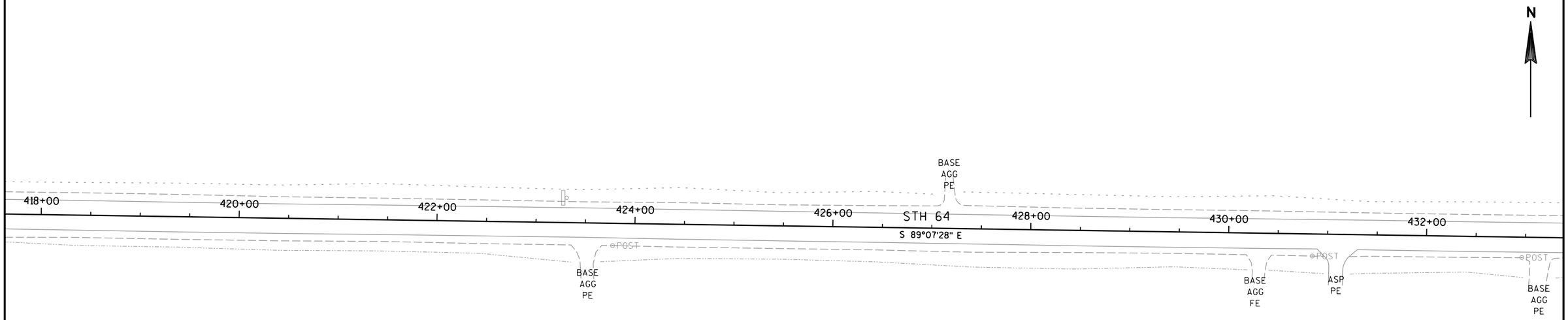


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050214_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 44

PROPOSED WORK
STA 403+00 - STA 433+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



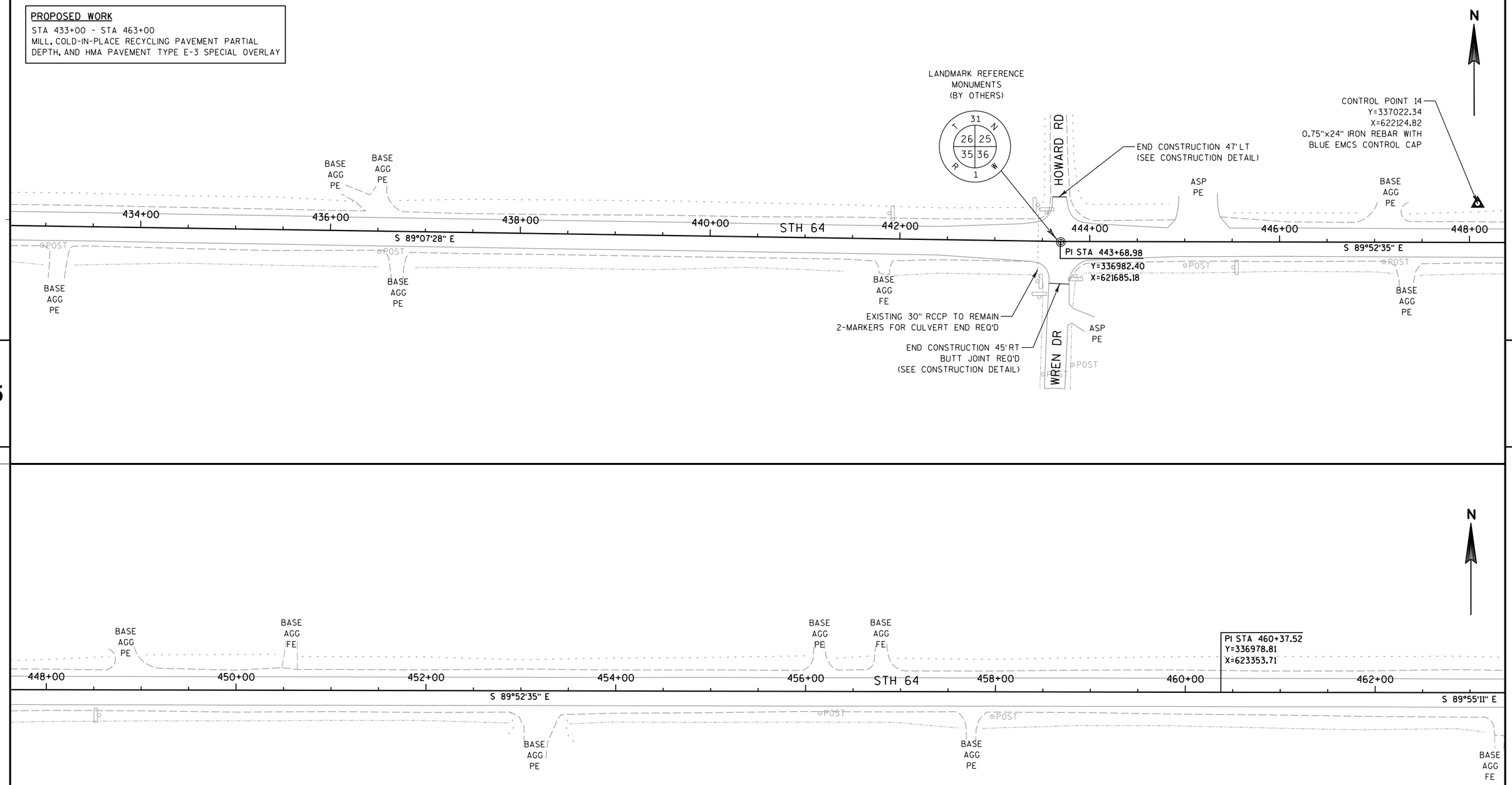


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050215_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 44

PROPOSED WORK
STA 433+00 - STA 463+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 118	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050216_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

PROPOSED WORK
STA 463+00 - STA 493+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

STH 64 CURVE 3 DATA
PI= STA 475+37.47
Y = 336976.71
X = 624853.66
PC = STA 472+65.84
Y = 336977.09
X = 624582.03
PT = STA 478+08.69
Y = 337002.03
X = 625124.10
T = 271.63
L = 542.85
R = 5729.01
DELTA = 05°25'44" LT
BK = S 89°55'11" E
AH = N 84°39'04" E
SE TRANSITION (T) = 112
SE = 2.4%
RO (RUNOFF) = 61
EXISTING SE = 2.3%

= CLEARING AND GRUBBING

N

SLOPE INTERCEPT

TDS TELECOM (COMMUNICATIONS)

BASE AGG PE

ASP PE

RW

+30 BEGIN BARRIER SYSTEM GRADING SHAPING FINISHING

+78 +31 +09

478+00

476+00

474+00

472+00

470+00

468+00

466+00

464+00

STH 64

CURVE 3

S 89°55'11" E

PT STA 478+08.69

PC STA 472+65.84

BASE AGG FE

POST

BM 1

LANDMARK REFERENCE MONUMENTS (BY OTHERS)

T 31 N
R 25 36 W
1

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
1	476+56, 64' RT	6"MAG NAIL IN POWER POLE 20271	1356.22

5

5

STA 478+56 - STA 479+67
GRADING, SHAPING, AND FINISHING INTERSECTION

REMOVE AND REPLACE CURB & GUTTER AT INTERSECTION
SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION

STA 478+37 - STA 480+06, LT
SALVAGED GUARDRAIL

STA 476+78 - STA 480+06, LT
MGS GUARDRAIL 3 K, MGS THRIE BEAM TRANSITION & MGS GUARDRAIL TERMINAL EAT (SEE STANDARD DETAIL DRAWINGS)

STA 480+14 - 482+28
STRUCTURE B-60-1
ASPHALT OVERLAY

STH 64 CURVE 4 DATA
PI= STA 494+51.26
Y = 337157.91
X = 626759.26
PC = STA 488+56.54
Y = 337100.57
X = 626167.30
PT = STA 499+36.85
Y = 337697.39
X = 627009.59
T = 594.73
L = 1080.32
R = 1039.00
DELTA = 59°34'27" LT
BK = N 84°28'01" E
AH = N 24°53'34" E
SE TRANSITION (T) = 255
SE = 8.0%
RO (RUNOFF) = 204
EXISTING SE = 8.0%

CTH E CURVE 1 DATA
PI= STA 501'E'+91.50
Y = 336946.64
X = 625244.67
PC = STA 501'E'+42.07
Y = 336922.65
X = 625287.89
PT = STA 502'E'+33.04
Y = 336995.85
X = 625240.07
T = 49.43
L = 90.97
R = 93.72
DELTA = 55°37'05.59" RT
BK = N 60°58'01" W
AH = N 05°20'56" W
SE TRANSITION (T) = N/A
SE = N/A
RO (RUNOFF) = N/A
EXISTING SE = N/A

= CLEARING AND GRUBBING

N

EXISTING 48" RCCP TO REMAIN
2-MARKERS FOR CULVERT END REQ'D

BUTT JOINT REQ'D

BLACK RIVER

STA 482+14 - STA 483+87, LT
SALVAGED GUARDRAIL

STA 482+14 - STA 483+95, LT
MGS GUARDRAIL 3, MGS THRIE BEAM TRANSITION & MGS GUARDRAIL TERMINAL EAT (SEE STANDARD DETAIL DRAWINGS)

TDS TELECOM (COMMUNICATIONS)

BASE AGG PE

RW

SLOPE INTERCEPT

+09 +09 +57

+67 +14 +42 +95

+55 END BARRIER SYSTEM GRADING SHAPING FINISHING

PC STA 488+56.54

478+00

480+00

482+00

484+00

486+00

488+00

490+00

492+00

STH 64

CURVE 4

STA 479+23.58 =502'E'+50

+61

24' RAD

+69 +54 +03

SLOPE INTERCEPT

PT STA478+08.69

00+31.79S

N 60°58'01" W

CURVE 1

N 64°40'03" W

00+3.00S

125' RAD

CTH E

BUTT JOINT REQ'D

+85 N 84°39'04" E +33

+87 N 84°28'01" E +57

PI STA 485+86.67
Y=337074.55
X=625898.70

Y=625331.08
X=336898.68
PI STA 500+92.68

+20 BEGIN BARRIER SYSTEM GRADING SHAPING FINISHING

Y=336859.02
X=625414.85
PI STA 485'E'+86.67

END CONSTRUCTION STA 501'E'+67
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAIL)

STA 479+57 - STA 480+21, RT
SALVAGED GUARDRAIL

STA 479+45 - STA 480+21, RT
STEEL PLATE BEAM GUARD CLASS A, SHORT RADIUS, THRIE BEAM STRUCTURE APPROACH & ENERGY ABSORBING TERMINAL (SEE STANDARD DETAIL DRAWINGS)

STA 482+33 - STA 490+88, RT
SALVAGED GUARDRAIL

STA 482+33 - STA 490+97, RT
MGS GUARDRAIL 3, MGS THRIE BEAM TRANSITION & MGS GUARDRAIL TERMINAL EAT (SEE STANDARD DETAIL DRAWINGS)

TDS TELECOM (COMMUNICATIONS)

TAYLOR COUNTY ELECTRIC COOPERATIVE (ELECTRIC)

SLOPE INTERCEPT

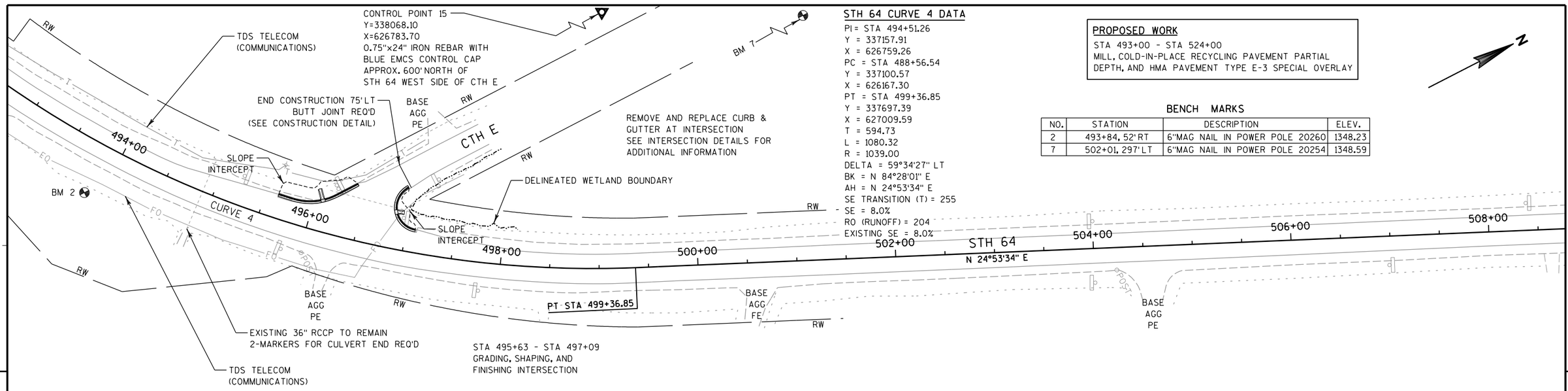
+45 +97 +00 END BARRIER SYSTEM GRADING SHAPING FINISHING

GUY

NOTE
* RADII ARE SHOWN TO FACE OF BEAM GUARD.

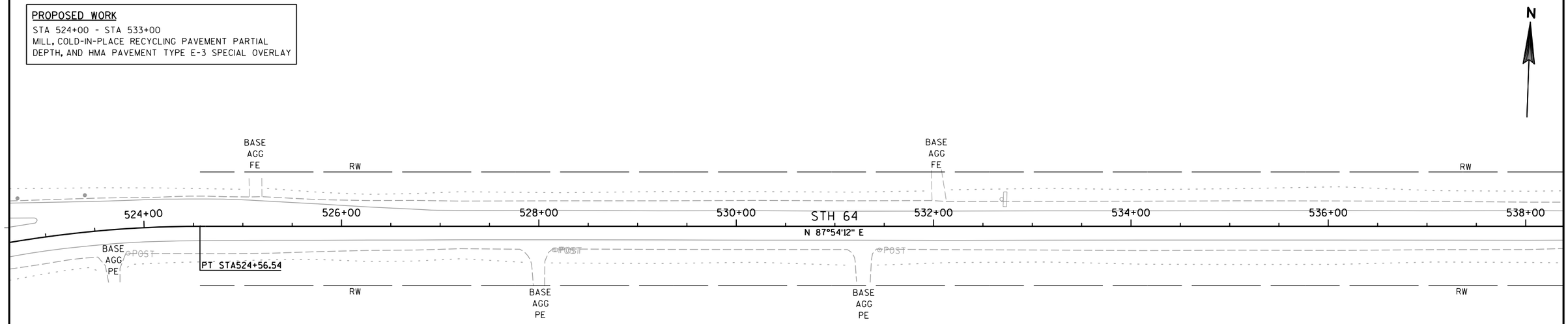
HEIGHT TRANSITION REQ'D BETWEEN STEEL PLATE BEAM GUARD CLASS A AND STEEL PLATE BEAM GUARD SHORT RADIUS. SEE STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION AND ELEMENTS SDD AND STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL SDD FOR DETAILS.

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 119	E



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 120	E

PROPOSED WORK
STA 524+00 - STA 533+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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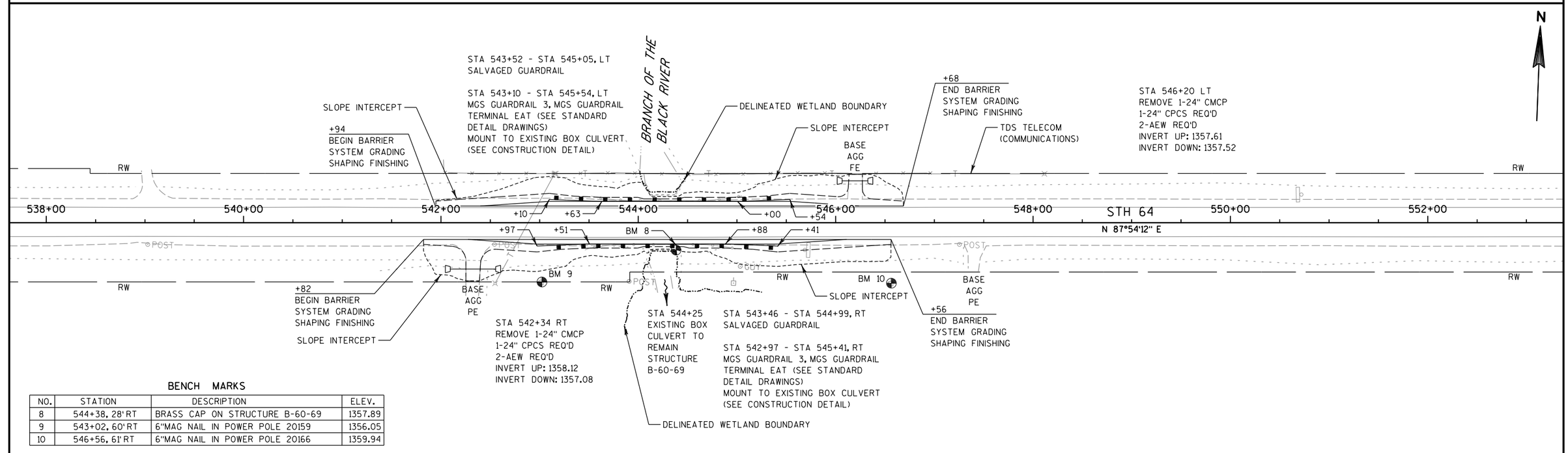


BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
8	544+38, 28' RT	BRASS CAP ON STRUCTURE B-60-69	1357.89
9	543+02, 60' RT	6"MAG NAIL IN POWER POLE 20159	1356.05
10	546+56, 61' RT	6"MAG NAIL IN POWER POLE 20166	1359.94

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 121	E

PROPOSED WORK
STA 553+0 - STA 583+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

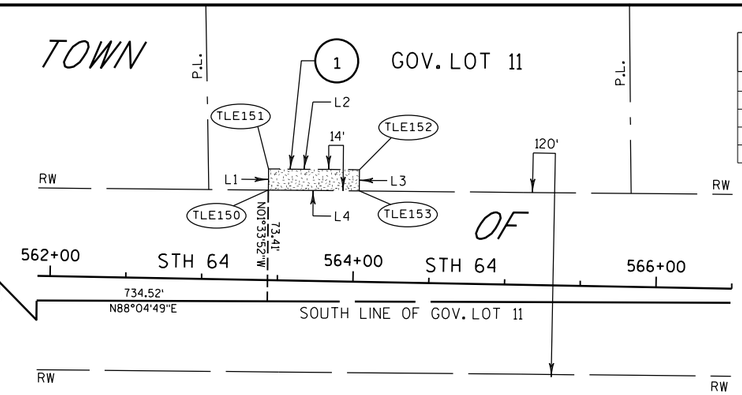
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
1	ROBERT F. DAMM & JUDITH A. DAMM	TLE	0.019

LINE TABLE		
LINE NO.	BEARING	DIST.
L1	N01°33'52"W	14.00'
L2	N88°26'08"E	60.00'
L3	S01°33'52"E	14.00'
L4	S88°26'08"W	60.00'

POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, TAYLOR COUNTY, NAD83(2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCE.

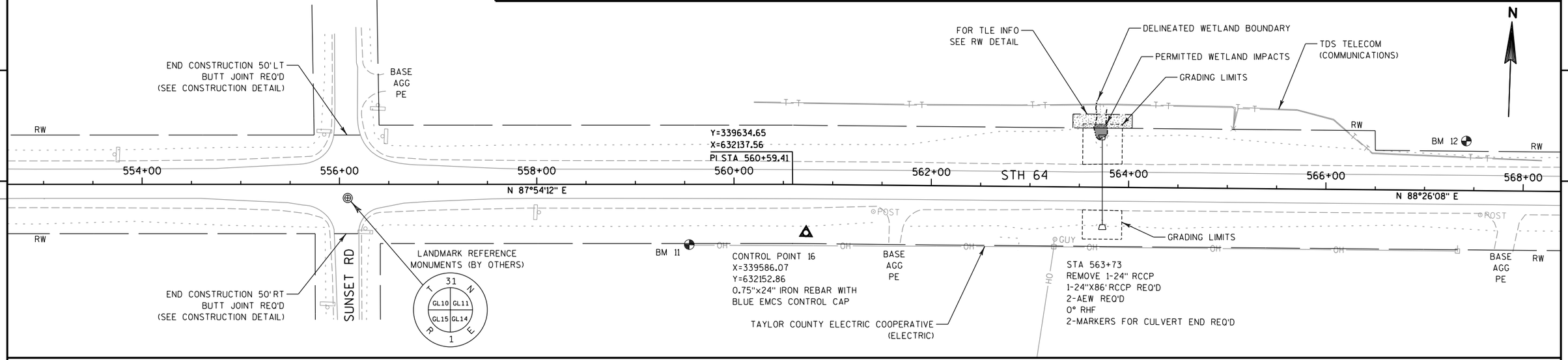
CALCULATED POSITION PER TIES
Y=339604.382
X=631687.302

T31N R1E: GL10 GL11 GL15 GL14



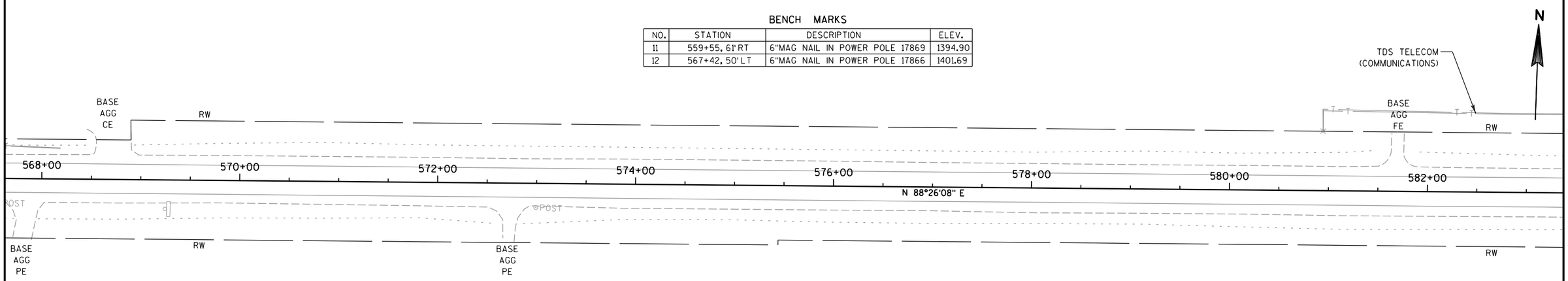
TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE150	563+43.00	-60.00'
TLE151	563+43.00	-74.00'
TLE152	564+03.00	-74.00'
TLE153	564+03.00	-60.00'

RW DETAIL



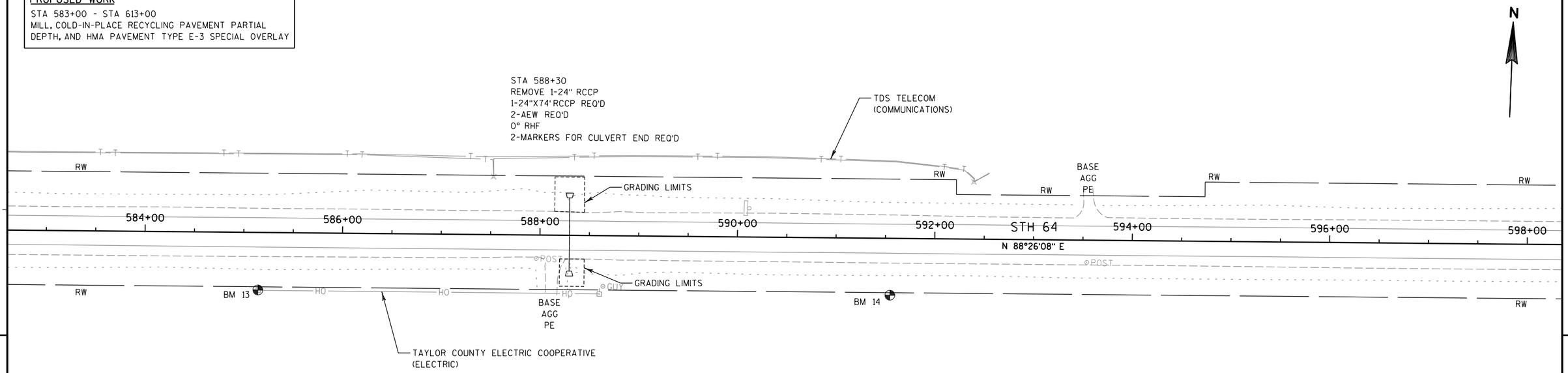
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
11	559+55, 61'RT	6"MAG NAIL IN POWER POLE 17869	1394.90
12	567+42, 50'LT	6"MAG NAIL IN POWER POLE 17866	1401.69



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 122	E

PROPOSED WORK
STA 583+00 - STA 613+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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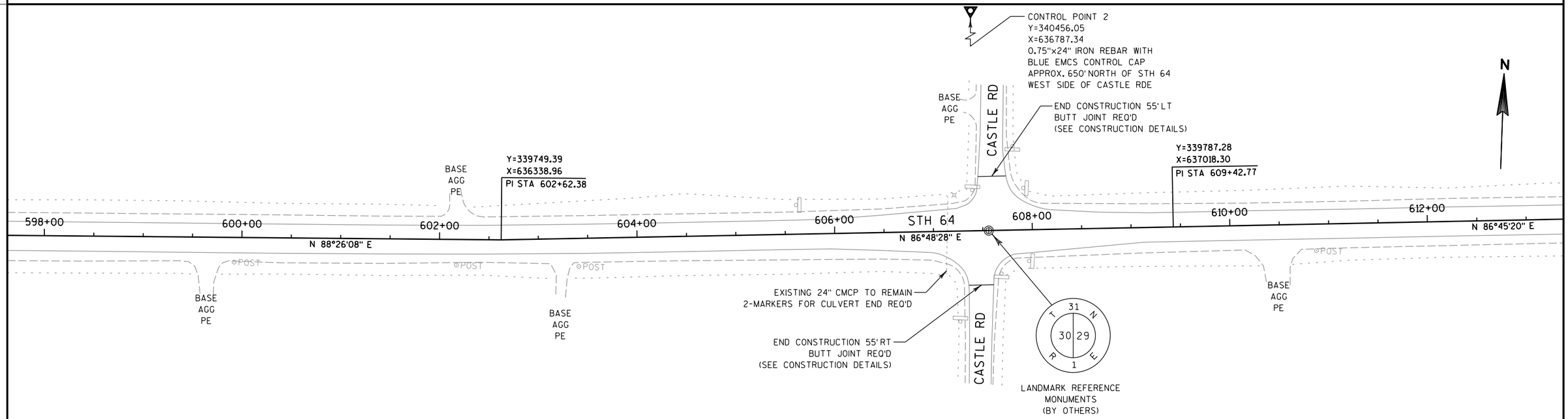
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
13	585+15, 58' RT	6"MAG NAIL IN POWER POLE 17858	1426.98
14	591+55, 58' RT	6"MAG NAIL IN POWER POLE 17853	1438.95



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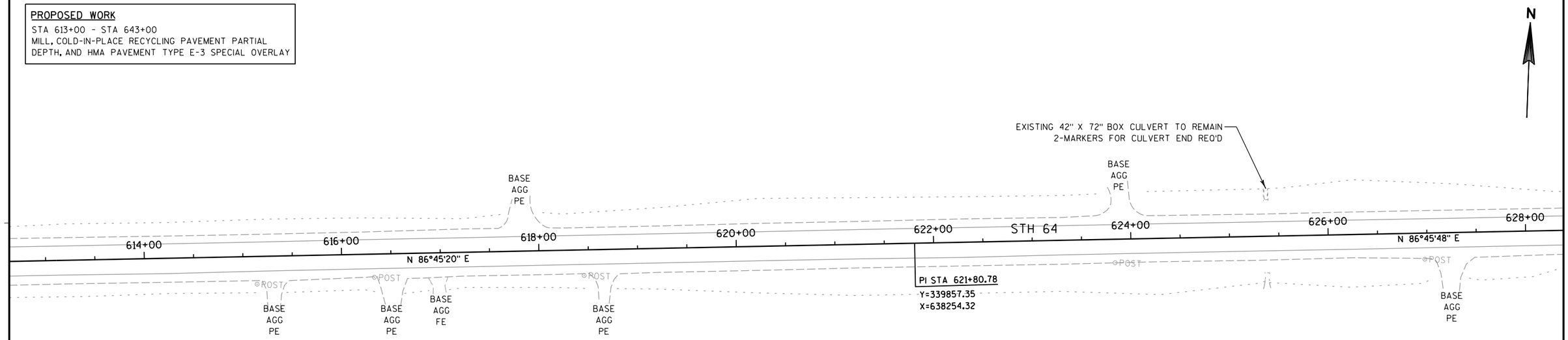
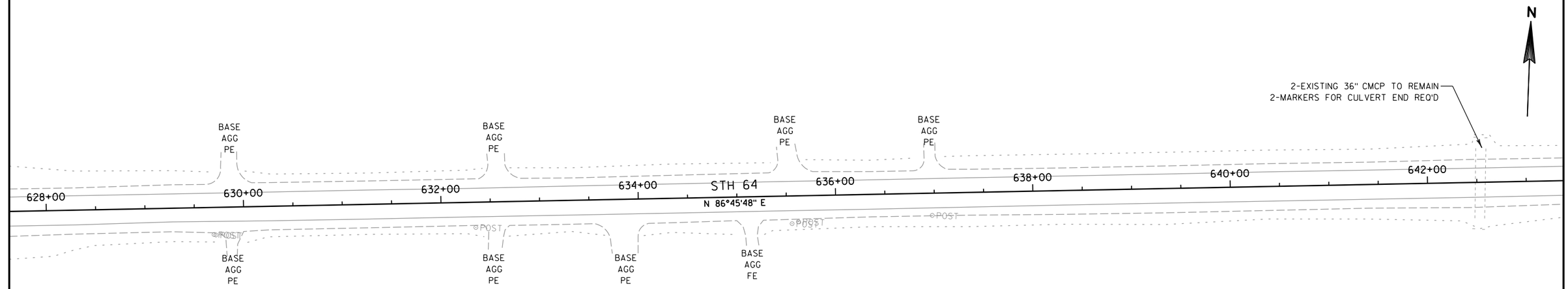
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050221_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

PROPOSED WORK
STA 613+00 - STA 643+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

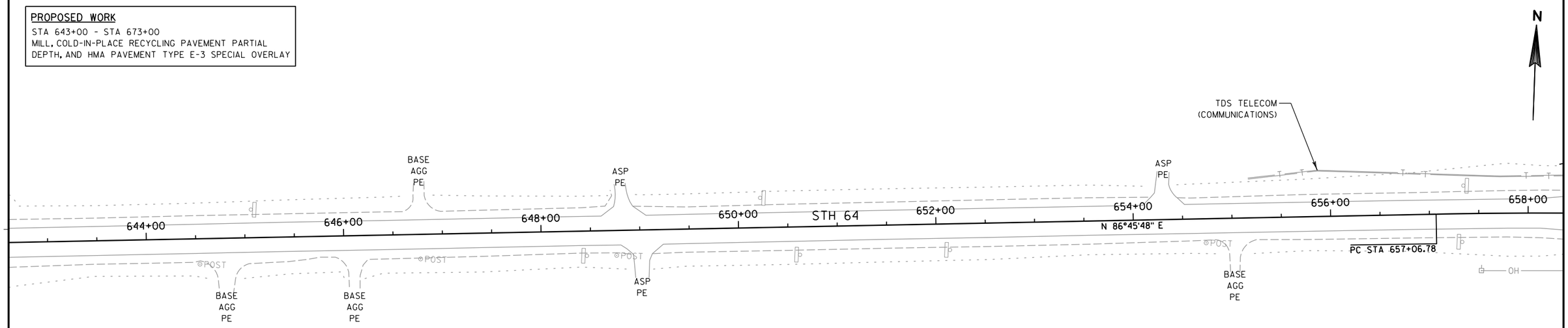




PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 124	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\050222_pn.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:100

PROPOSED WORK
STA 643+00 - STA 673+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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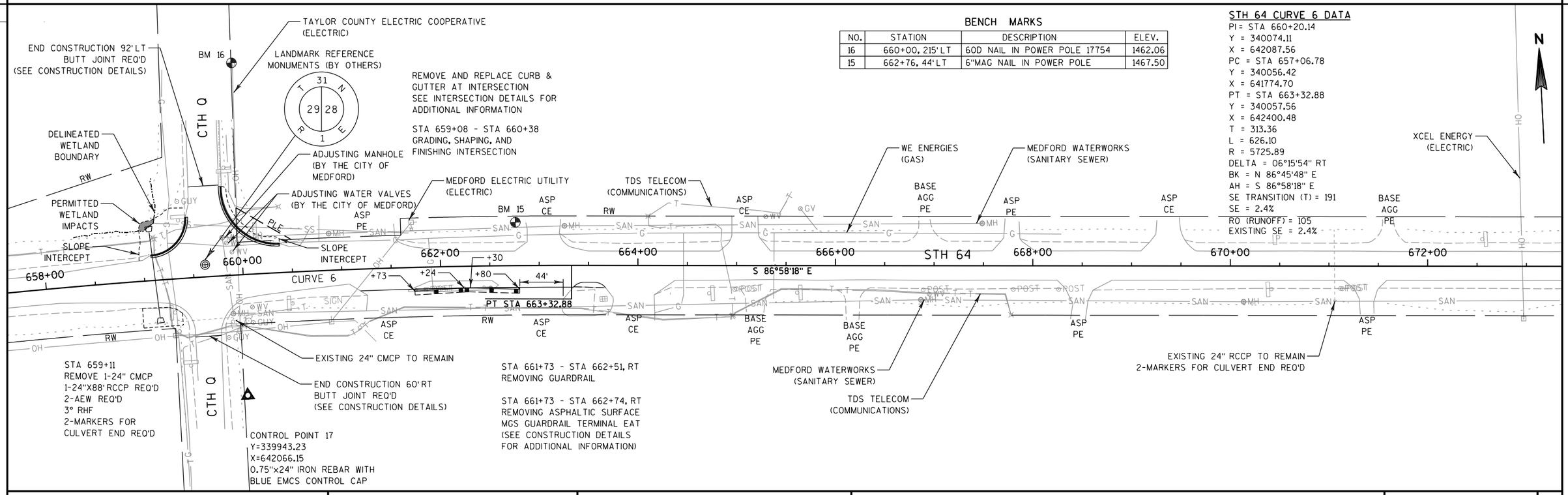


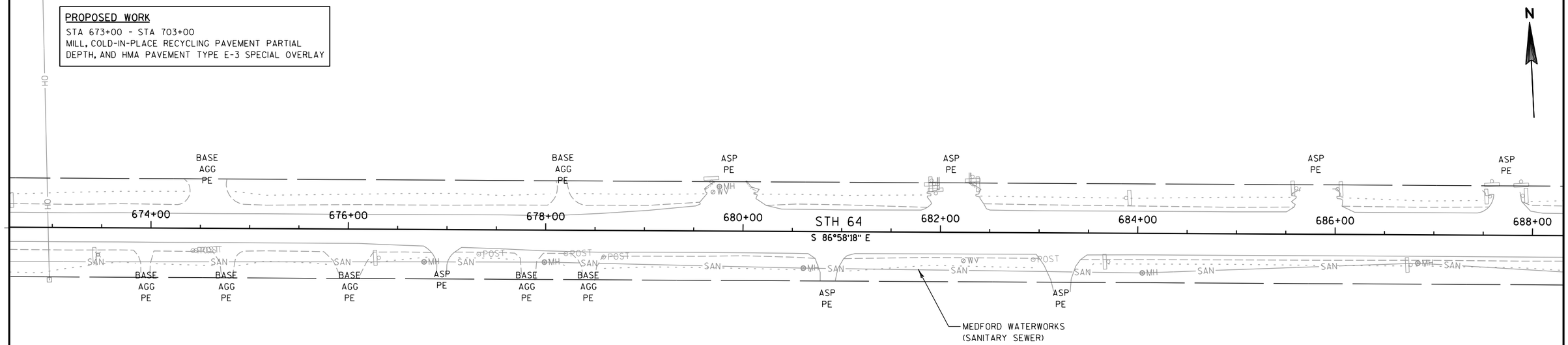
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
16	660+00, 215'LT	60D NAIL IN POWER POLE 17754	1462.06
15	662+76, 44'LT	6"MAG NAIL IN POWER POLE	1467.50

STH 64 CURVE 6 DATA
PI = STA 660+20.14
Y = 340074.11
X = 642087.56
PC = STA 657+06.78
Y = 340056.42
X = 641774.70
PT = STA 663+32.88
Y = 340057.56
X = 642400.48
T = 313.36
L = 626.10
R = 5725.89
DELTA = 06°15'54" RT
BK = N 86°45'48" E
AH = S 86°58'18" E
SE TRANSITION (T) = 191
SE = 2.4%
RO (RUNOFF) = 105
EXISTING SE = 2.4%

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 125	E

PROPOSED WORK
STA 673+00 - STA 703+00
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY



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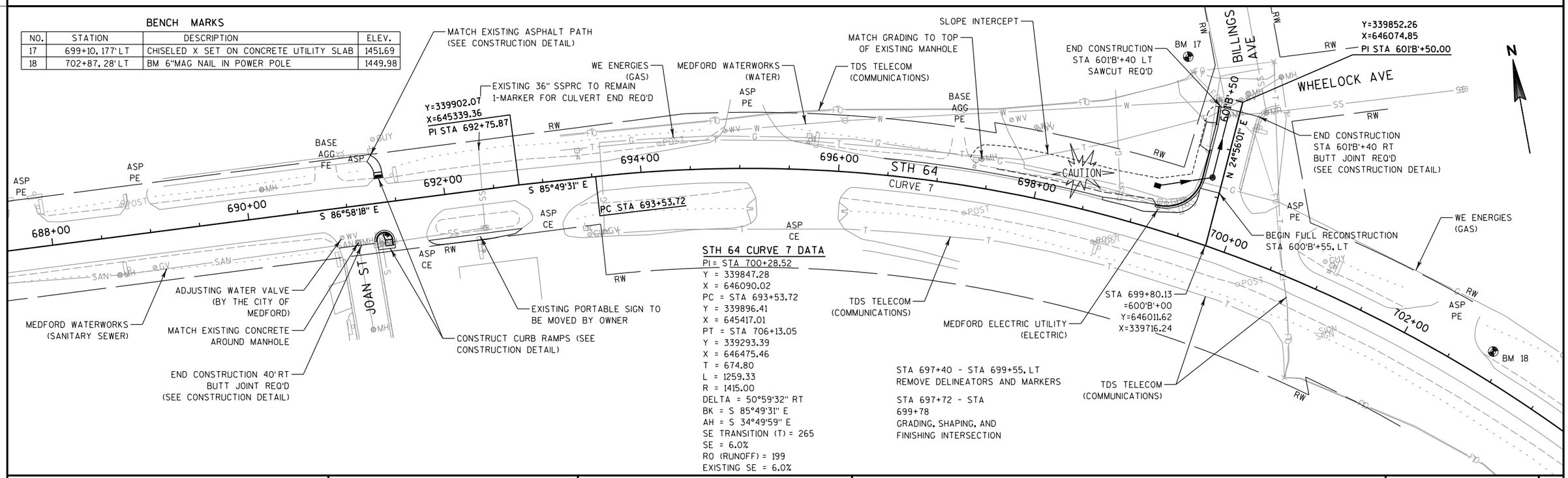
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
17	699+10, 177' LT	CHISELED X SET ON CONCRETE UTILITY SLAB	1451.69
18	702+87, 28' LT	BM 6"MAG NAIL IN POWER POLE	1449.98



STH 64 CURVE 7 DATA
PI= STA 700+28.52
Y = 339847.28
X = 646090.02
PC = STA 693+53.72
Y = 339896.41
X = 645417.01
PT = STA 706+13.05
Y = 339293.39
X = 646475.46
T = 674.80
L = 1259.33
R = 1415.00
DELTA = 50°59'32" RT
BK = S 85°49'31" E
AH = S 34°49'59" E
SE TRANSITION (T) = 265
SE = 6.0%
RO (RUNOFF) = 199
EXISTING SE = 6.0%

STA 697+40 - STA 699+55, LT
REMOVE DELINEATORS AND MARKERS

STA 697+72 - STA 699+78
GRADING, SHAPING, AND FINISHING INTERSECTION

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	PLAN	SHEET 126	E

PROPOSED WORK
STA 703+00 - STA 715+64
MILL, COLD-IN-PLACE RECYCLING PAVEMENT PARTIAL DEPTH, AND HMA PAVEMENT TYPE E-3 SPECIAL OVERLAY

STH 64 CURVE 8 DATA
PI = STA 719+13.30
Y = 338226.12
X = 647218.15
PC = STA 710+02.31
Y = 338973.88
X = 646697.80
PT = STA 724+99.34
Y = 338642.19
X = 648028.58
T = 910.99
L = 1497.04
R = 1041.67
DELTA = 82°20'34" LT
BK = S 34°49'59" E
AH = N 62°49'26" E
SE TRANSITION (T) = 220
SE = 5.0%
RO (RUNOFF) = 156
EXIST SE = 5.0%

BM 19
STA 711+57, 46.00' LT
REMOVE 1-24" CMSS

STA 711+56.50, 47' LT
TO PROPOSED ENDWALL
1-24"X13' SSPRC AT 4.5% REQ'D
1-AEW REQ'D
AEW INV=1424.40
EXISTING MH INV=1423.67
1-MARKER FOR CULVERT END REQ'D
CONCRETE COLLAR REQ'D
(SEE CONCRETE COLLAR DETAIL)

STA 707+15 - STA 707+45, LT
REMOVE DELINEATORS AND MARKERS

MEDFORD WATERWORKS (WATER)

END CONSTRUCTION 61' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAIL)

ADJUSTING WATER VALVE
(BY THE CITY OF MEDFORD)

WE ENERGIES (GAS)

MEDFORD WATERWORKS (WATER)

CONTROL POINT 18
Y=338595.34
X=647260.46
0.75"x24" IRON REBAR WITH BLUE EMCS CONTROL CAP

N CENTRAL AVE
NATIONAL AVE
STH 64
S 34°49'59" E
CURVE 8
704+00
706+00
708+00
710+00
712+00
714+00
716+00
718+00
BM 20
ASP PE
END PROJECT
STA 715+64.00
BUTT JOINT REQ'D

PT STA 706+13.05
PC STA 710+02.31
BASE AGG FE
W MAPLE ST
MATCH EXISTING MANHOLE
TDS TELECOM (COMMUNICATIONS)
END CONSTRUCTION 45' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAIL)

ASP PE
CONTROL POINT 1
Y=338830.93
X=646708.54
0.75"x24" IRON REBAR WITH BLUE EMCS CONTROL CAP
EXISTING 36" SSPRC TO REMAIN
1-MARKER FOR CULVERT END REQ'D
EXISTING SSPRC TO REMAIN
1-MARKER FOR CULVERT END REQ'D
WE ENERGIES (GAS)

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
19	709+77, 249' LT	BM 6"MAG NAIL IN POWER POLE	1429.27'
20	714+08, 28' LT	BM 6"MAG NAIL IN POWER POLE	1429.62'

Standard Detail Drawing List

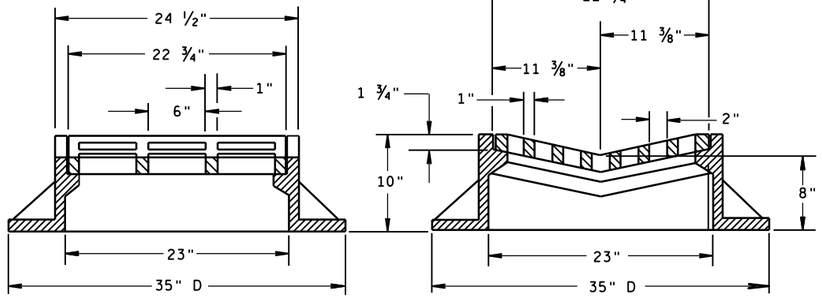
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B24-07A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B29-01	SAFETY EDGE
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-06	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)

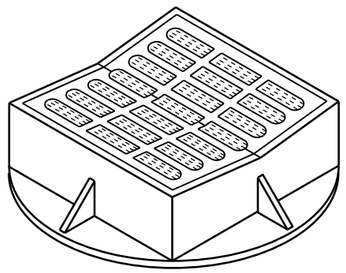
6

Standard Detail Drawing List

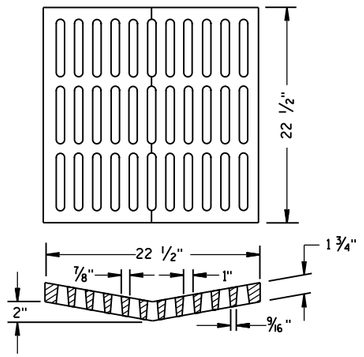
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

6



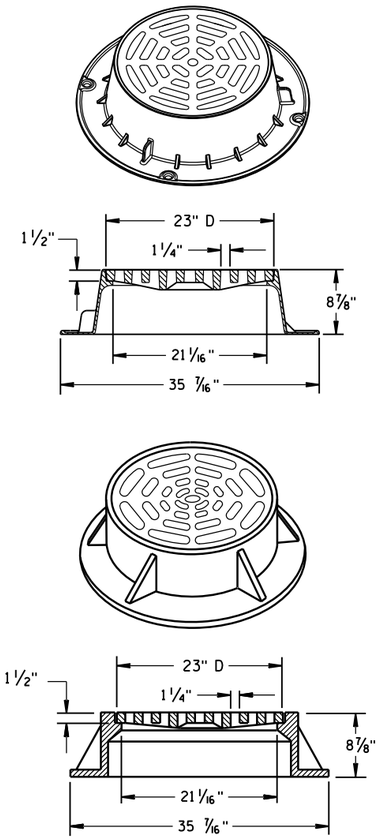


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

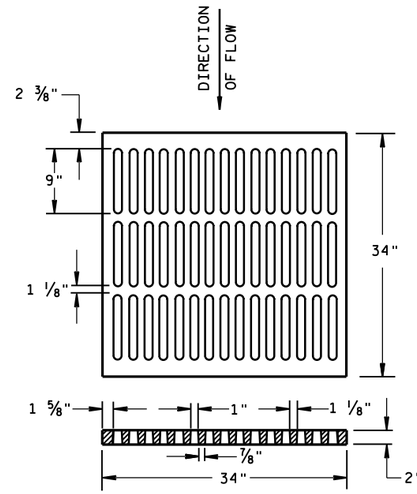
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

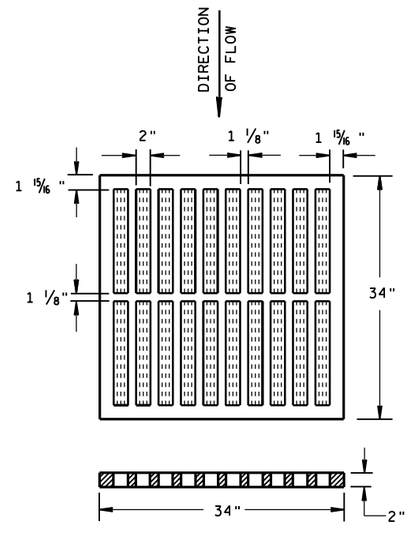
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



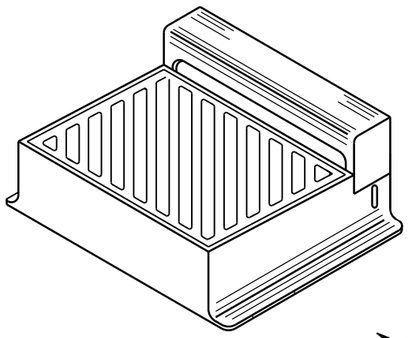
ALTERNATIVE TYPE "MS"

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

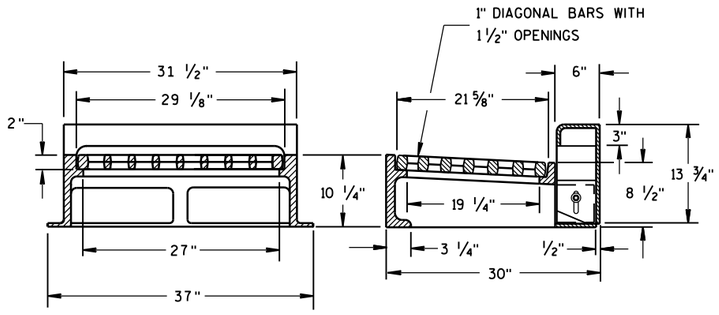


TYPE "MS"

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



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

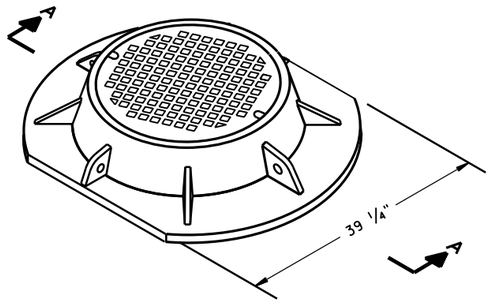
INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

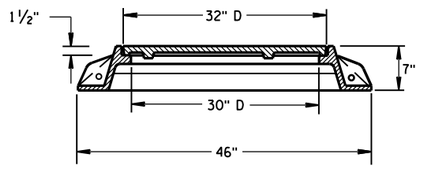
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

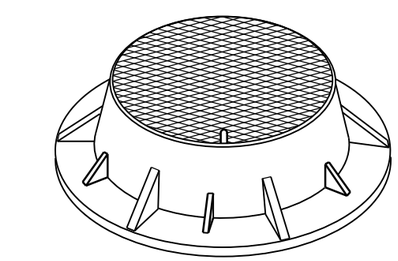
6

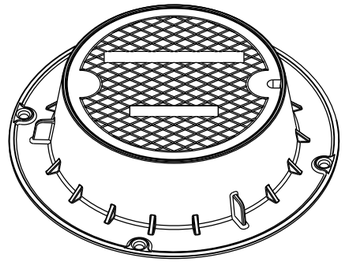
S.D.D. 8 A 5-19b

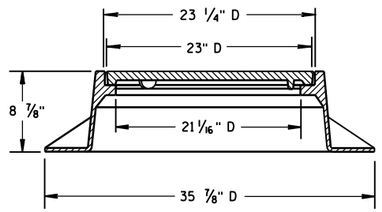


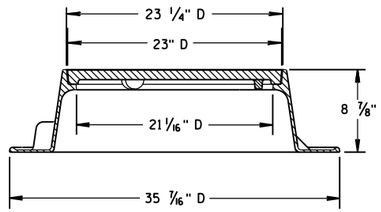


SECTION A-A
TYPE "K"









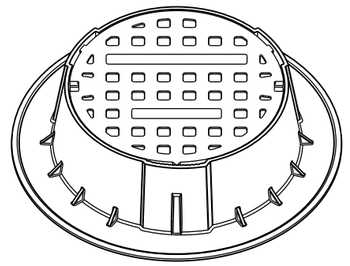
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

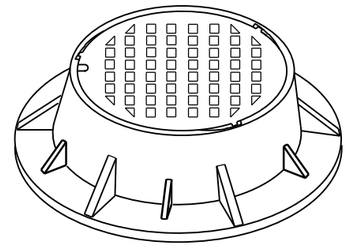
GENERAL NOTES

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

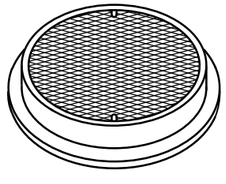
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

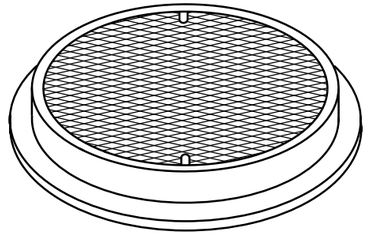
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

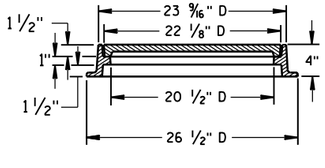




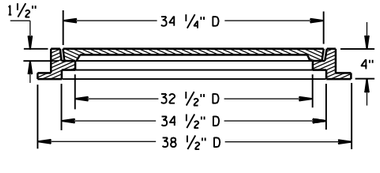
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



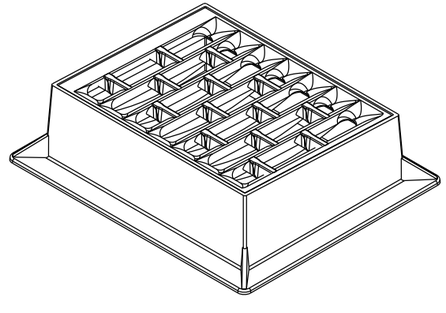


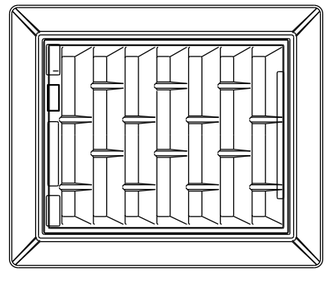


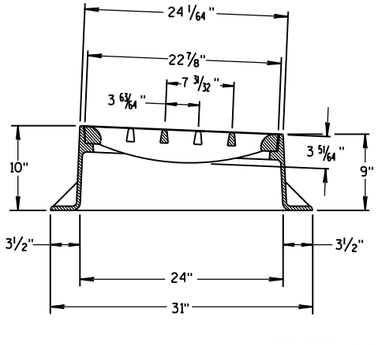
TYPE "L"

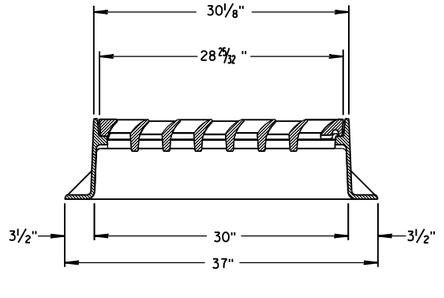


TYPE "M"









INLET COVER TYPE "BW"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

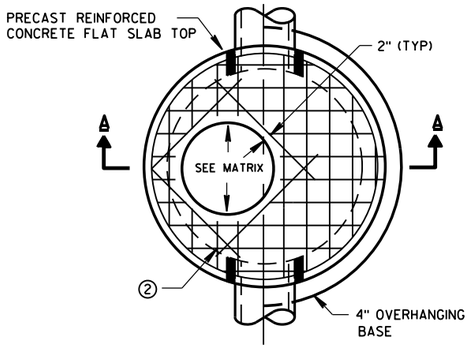
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

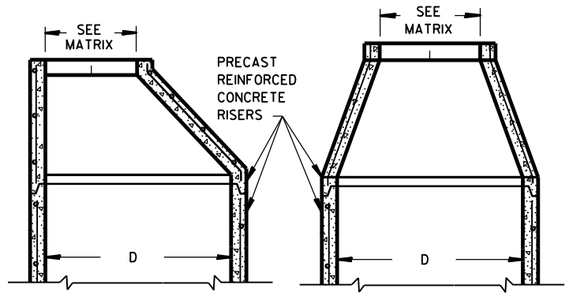
S.D.D. 8 A 5-19d

6

S.D.D. 8 A 5-19d

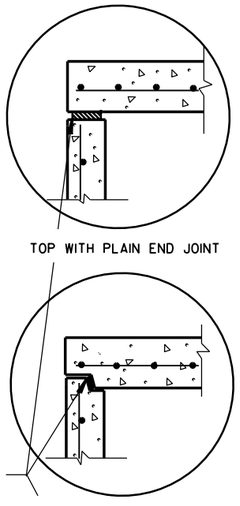


PLAN VIEW CIRCULAR OPENING



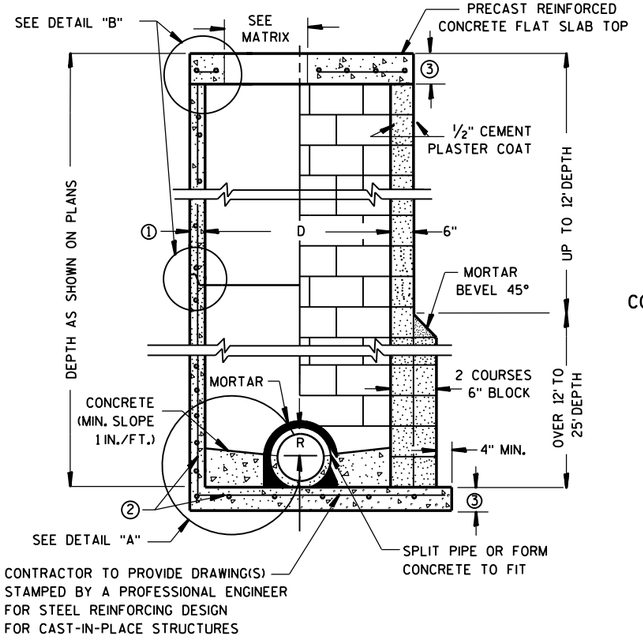
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



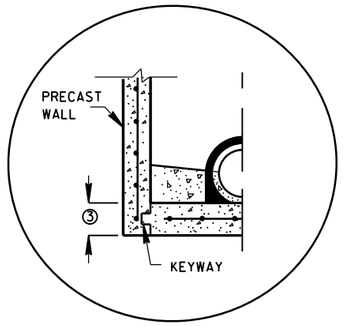
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

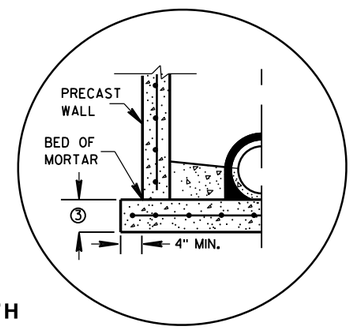


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

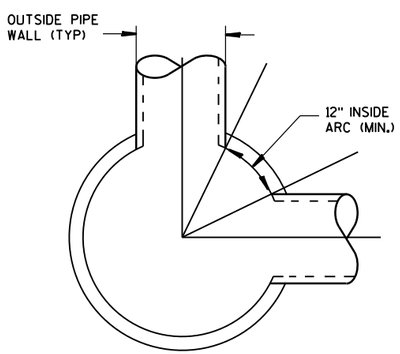


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

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

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

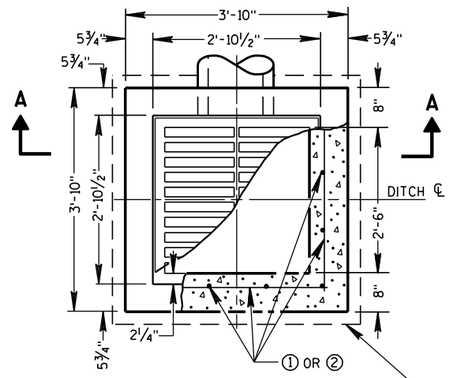
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

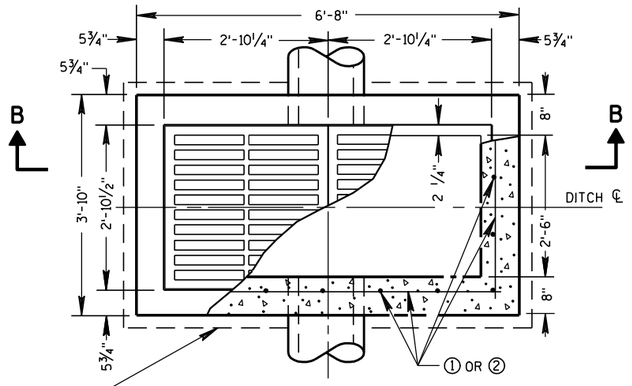
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 B 9-1

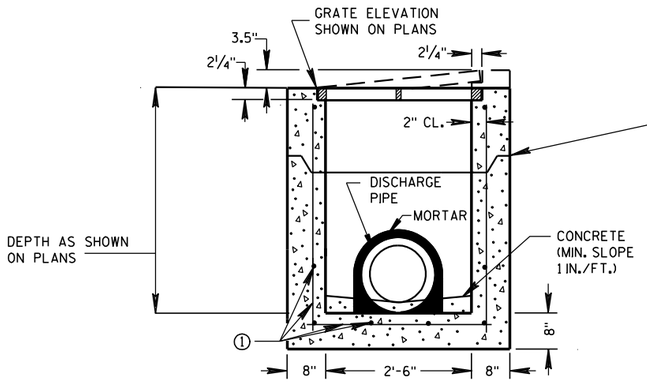


PLAN VIEW

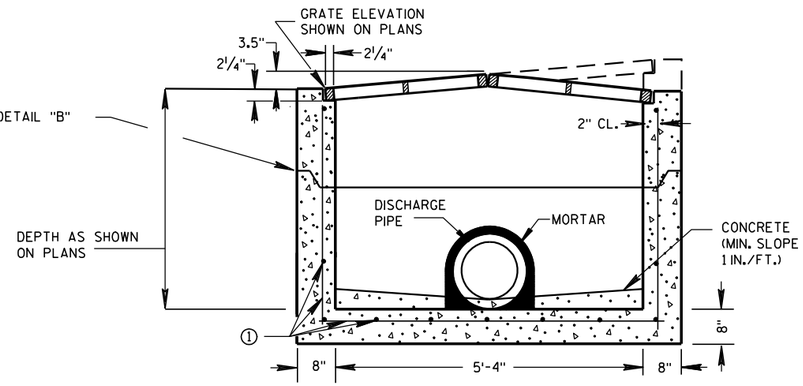


PLAN VIEW

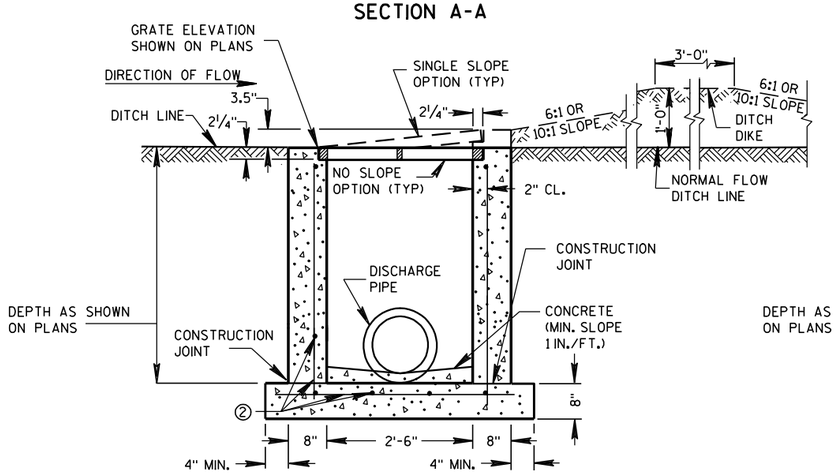
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



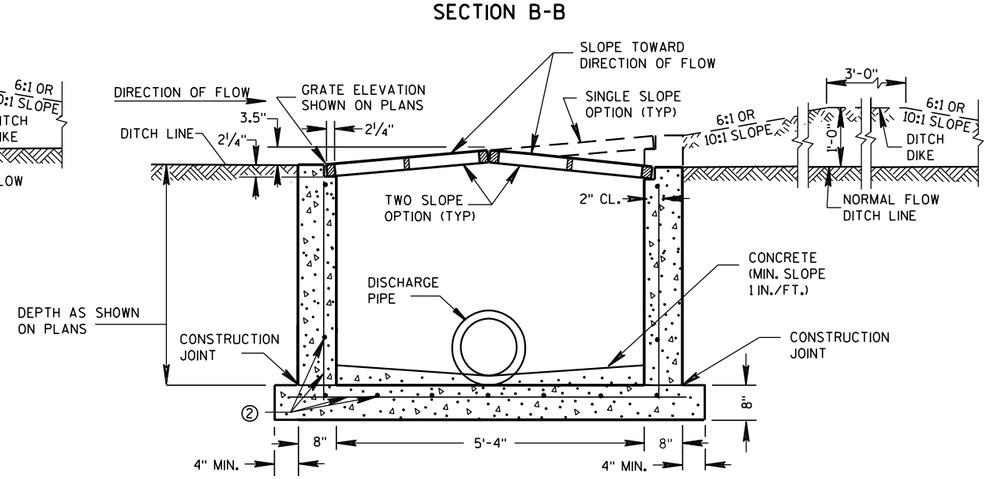
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

GENERAL NOTES

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

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

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

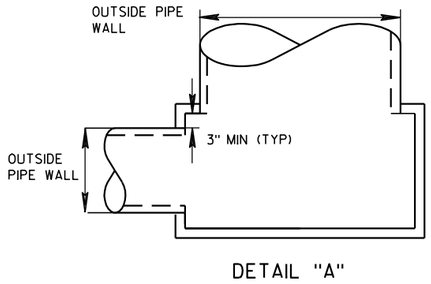
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

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

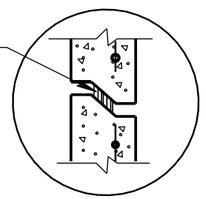
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

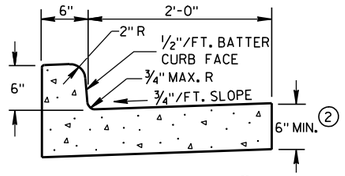
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

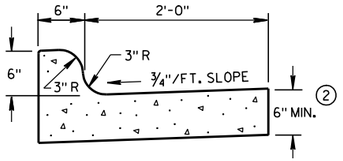
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

S.D.D. 8 C 8-1

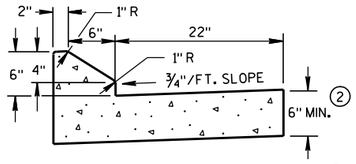
6



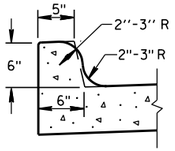
TYPES A & D (1)



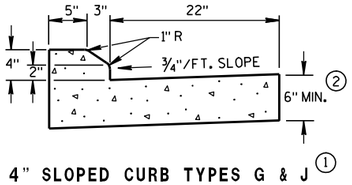
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

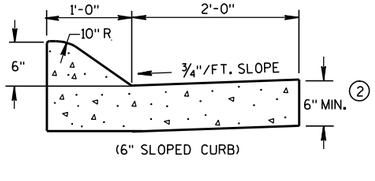


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

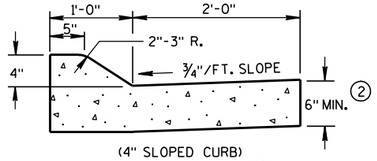


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

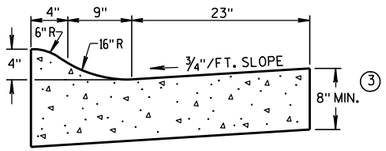


(6" SLOPED CURB)



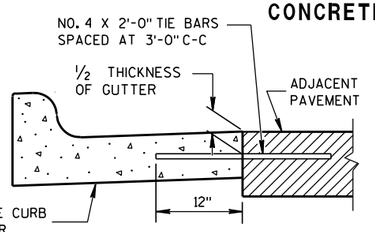
(4" SLOPED CURB)

TYPES A & D (1)

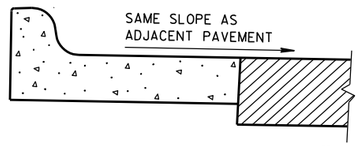


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



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

GENERAL NOTES

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

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

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

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

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

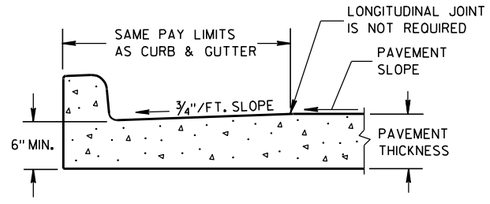
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

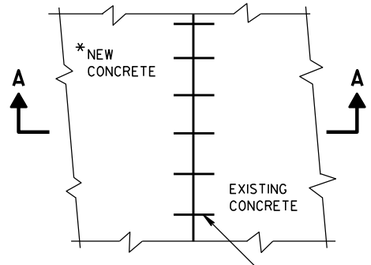
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

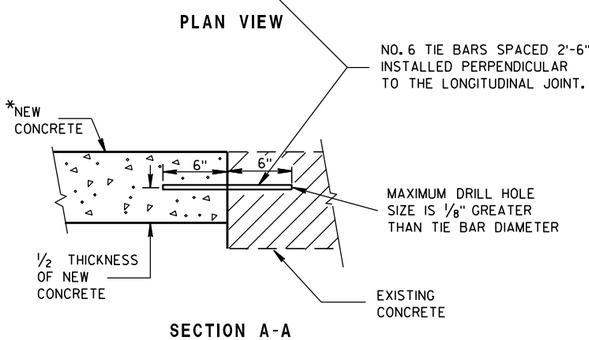


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



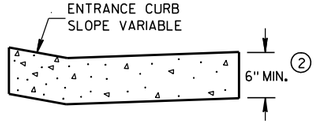
PLAN VIEW

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

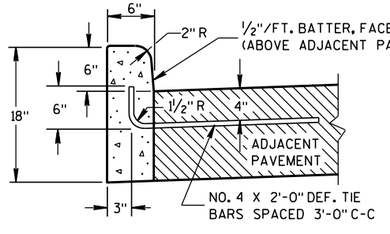


SECTION A-A

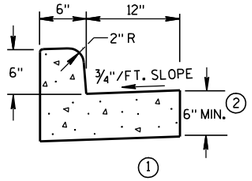
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

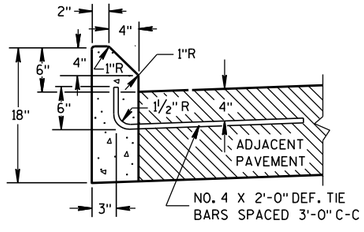


(1) TYPES A & D

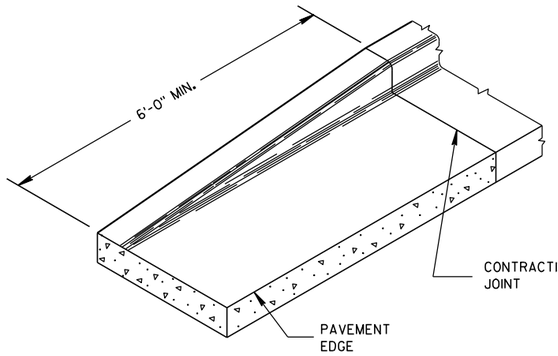


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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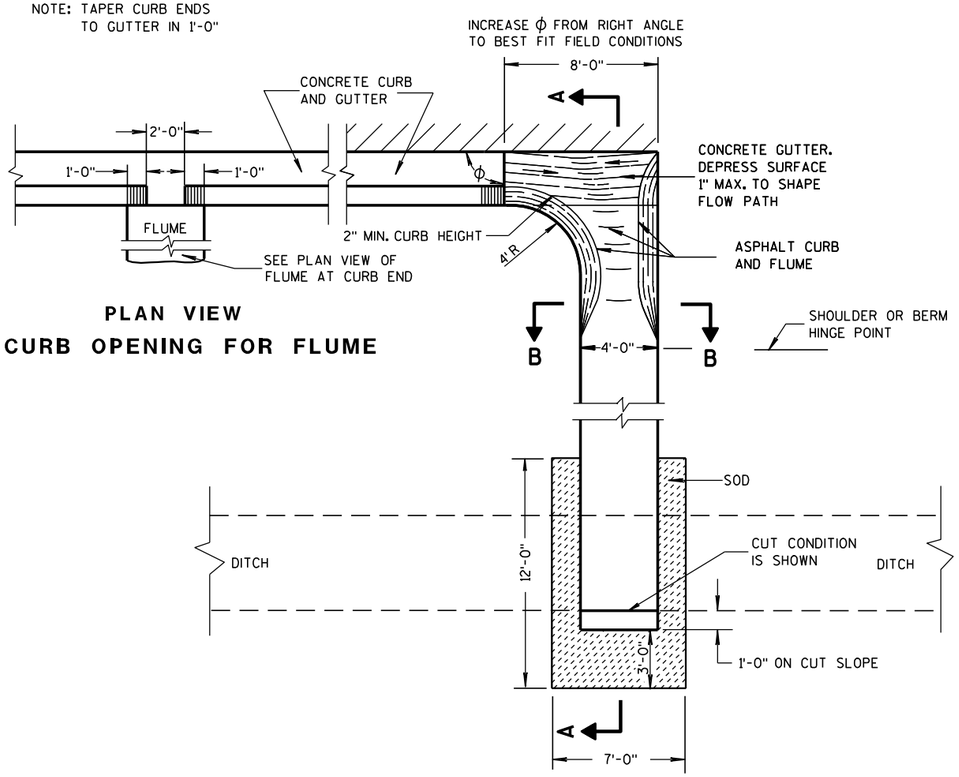
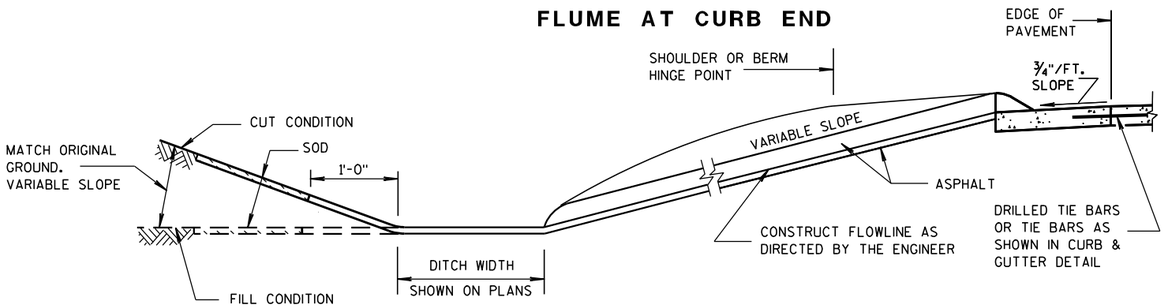
S.D.D. 8 D 1-17

ASPHALTIC FLUME

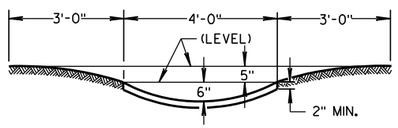


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

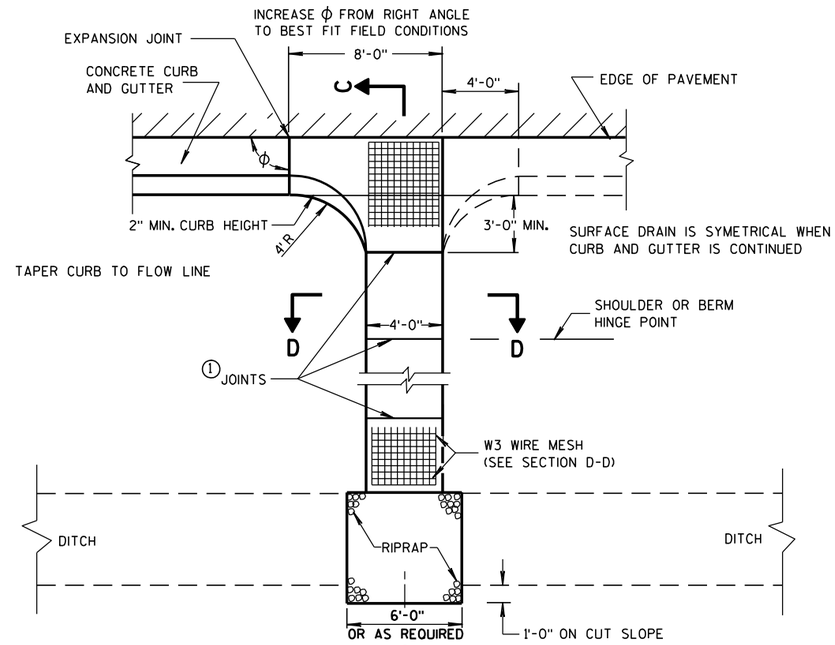
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

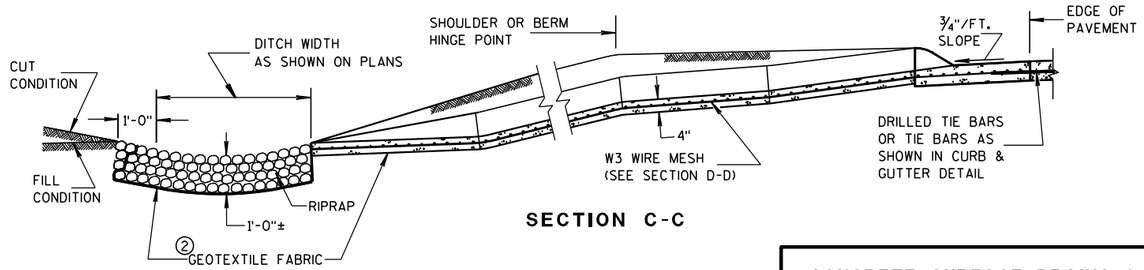
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

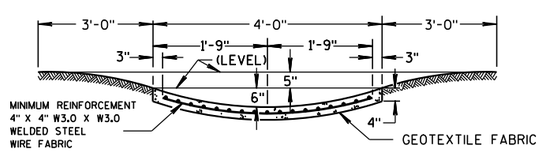
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
135
MENT
FHWA

6

S.D.D. 8 D 4-5

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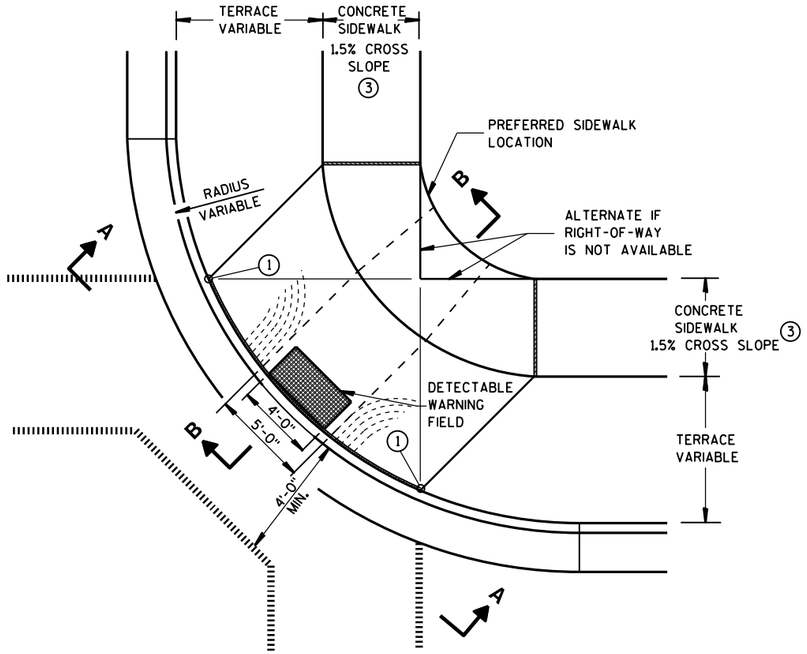
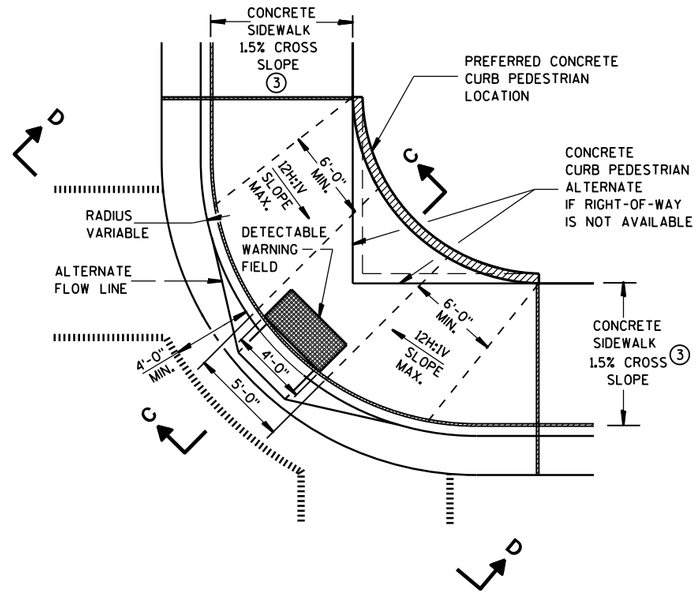
S.D.D. 8 D 4-5



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

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

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

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

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

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

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

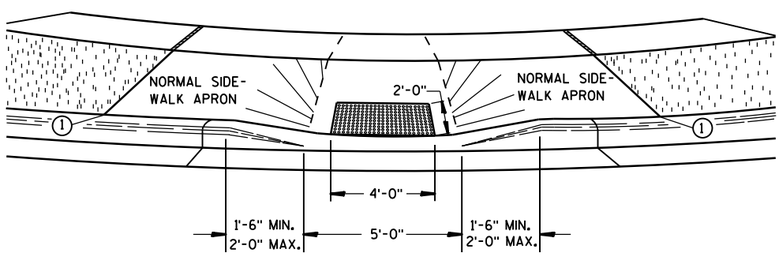
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

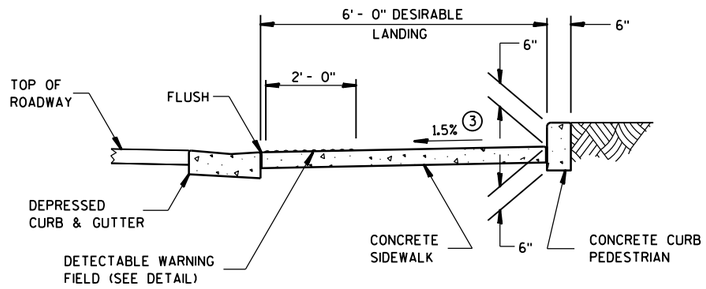
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

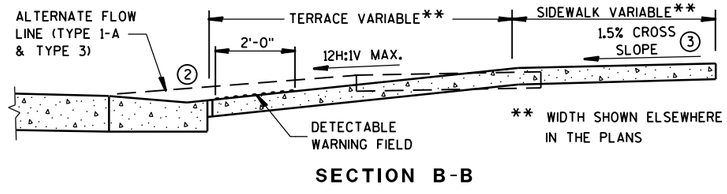
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



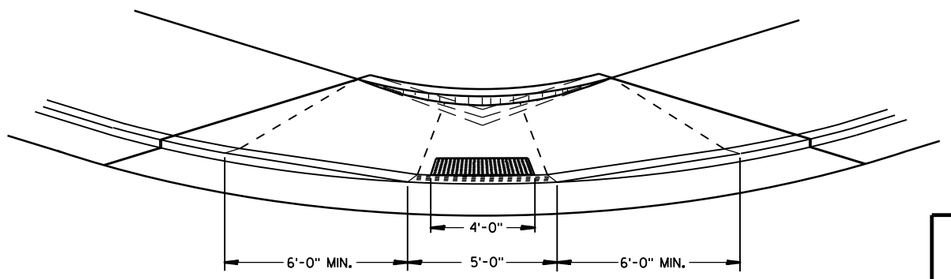
VIEW A-A



SECTION C-C



SECTION B-B



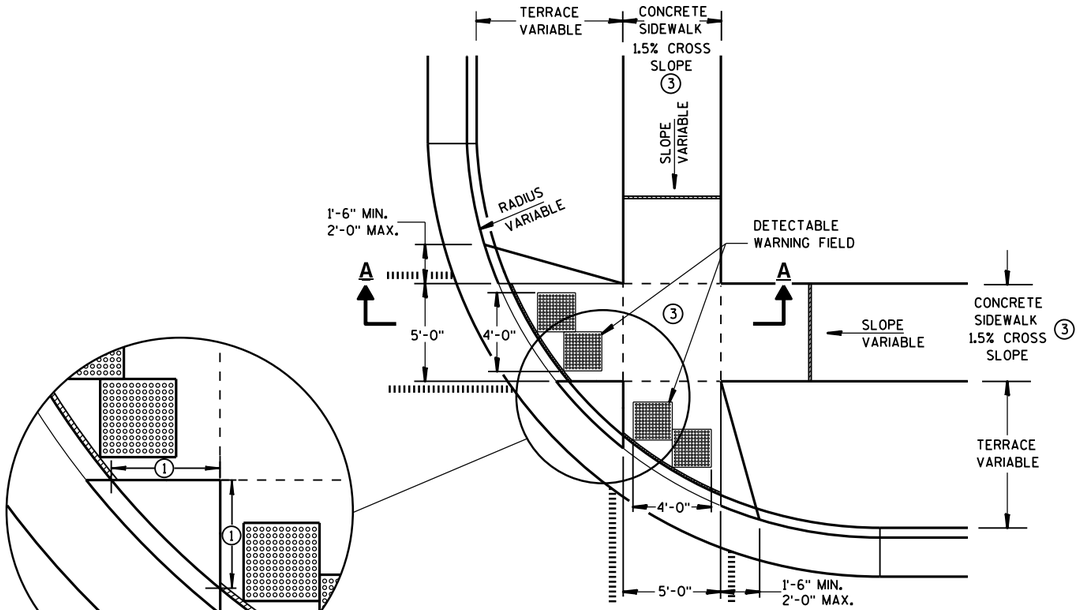
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

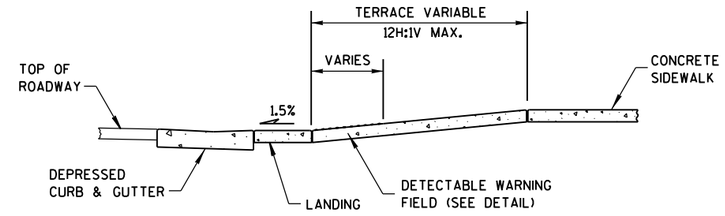
S.D.D. 8 D 5-15a



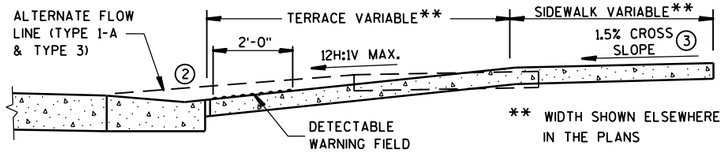
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

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

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

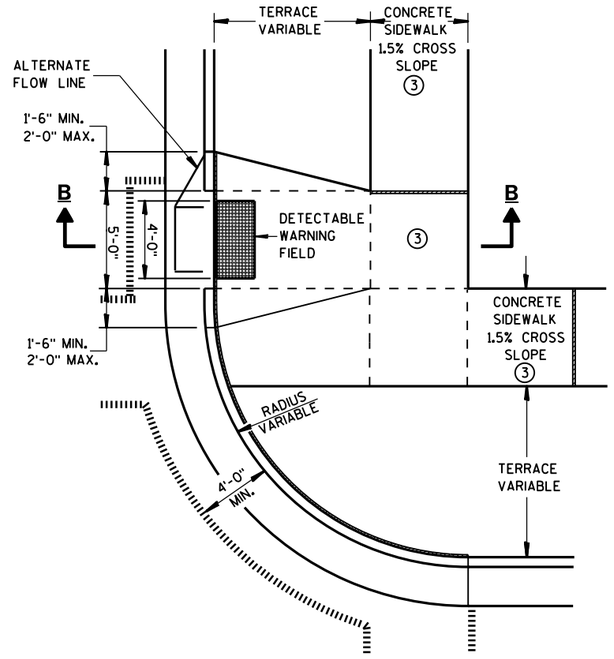
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

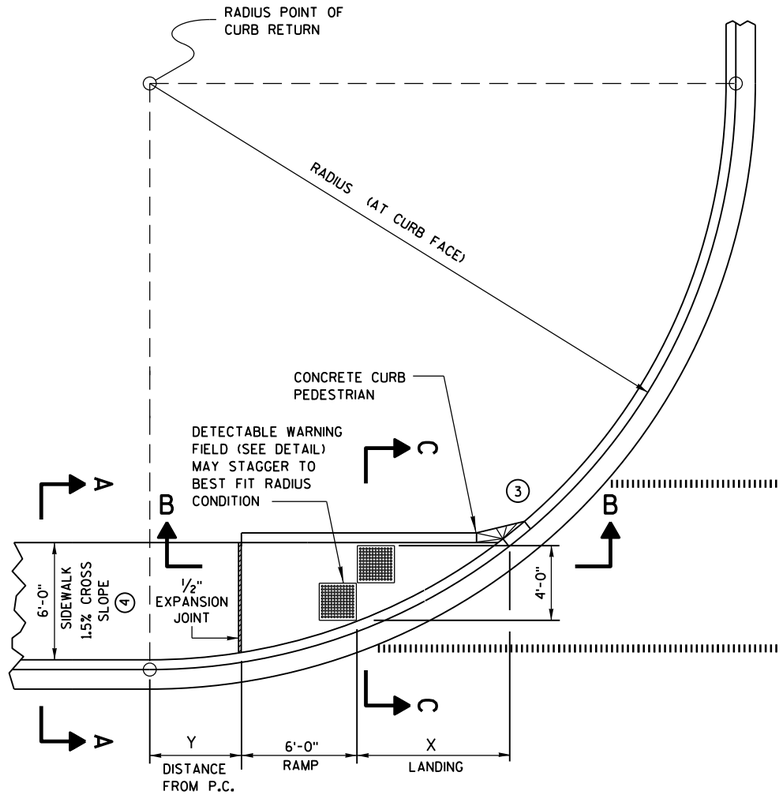
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

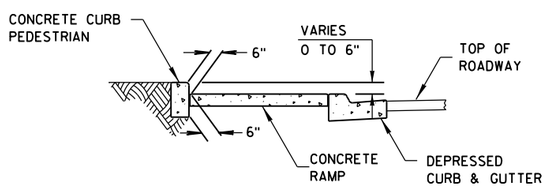
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

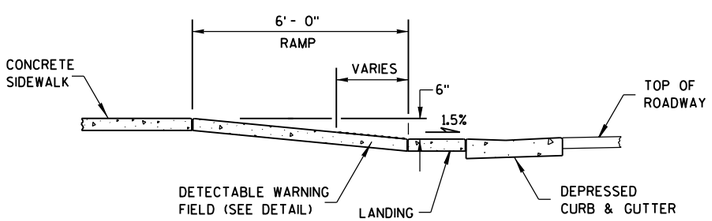
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



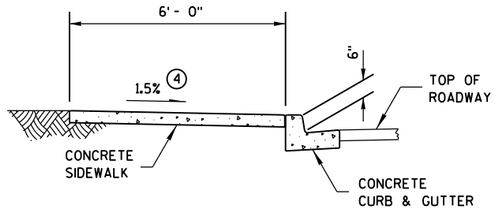
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

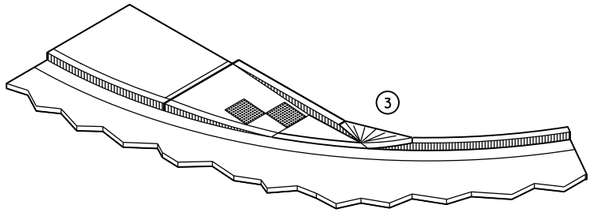
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

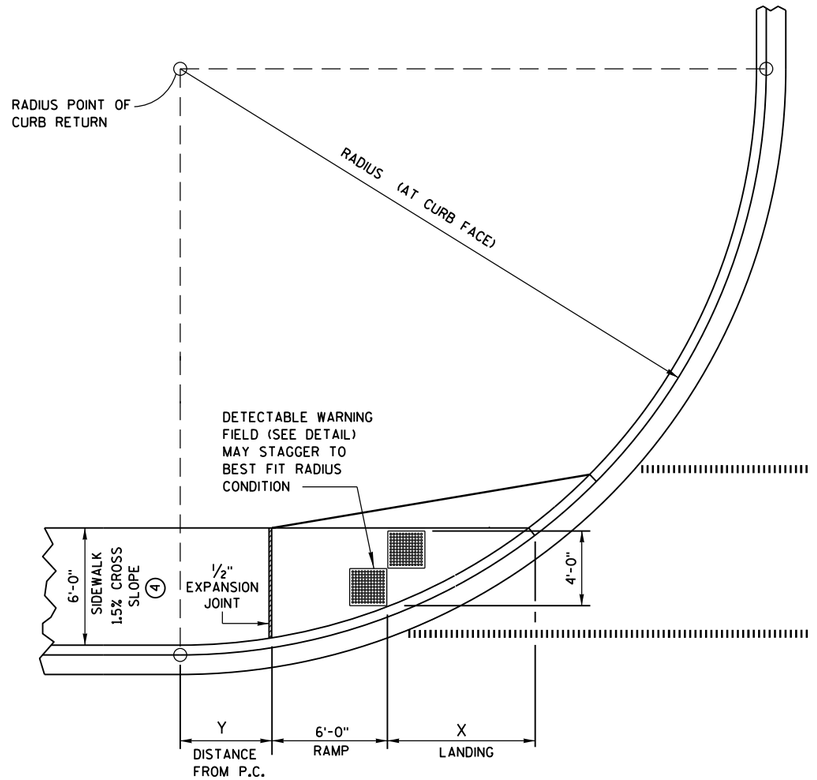
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

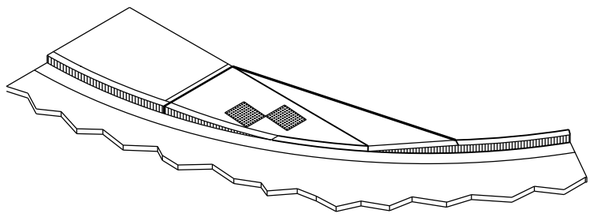
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

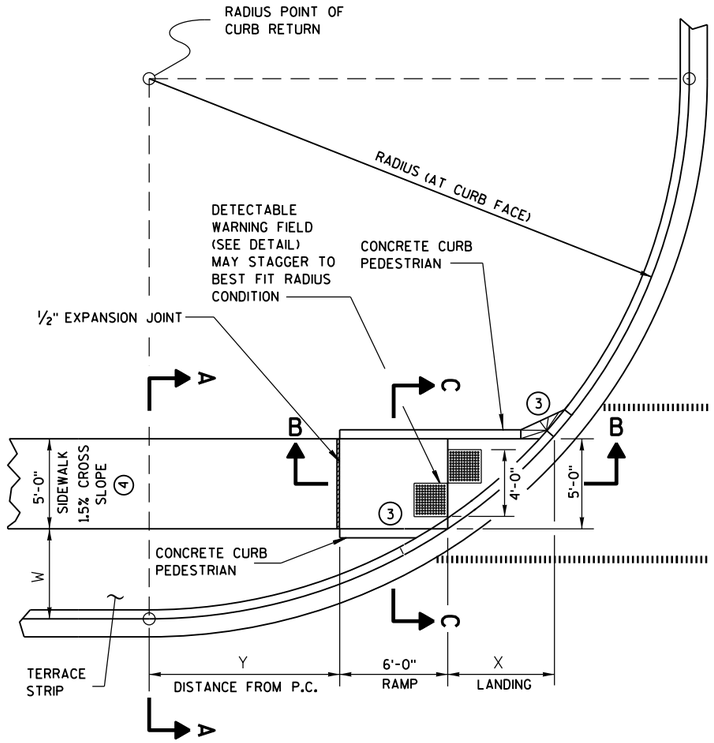
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

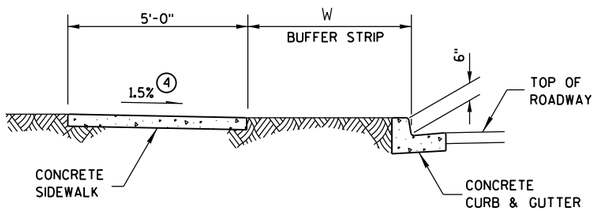
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

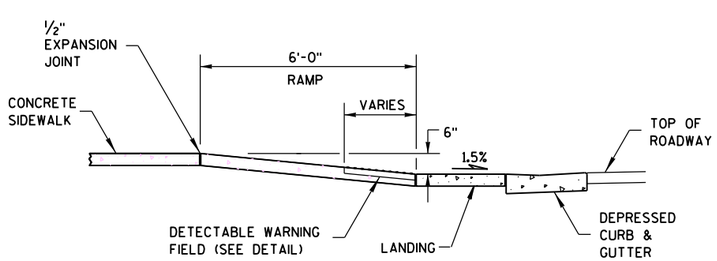
S.D.D. 8 D 5-15c



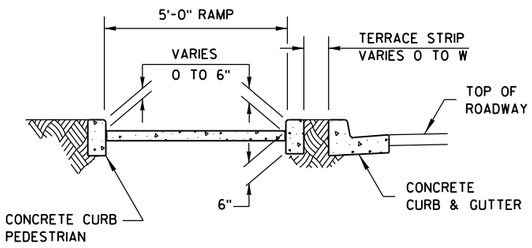
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B



SECTION C-C FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

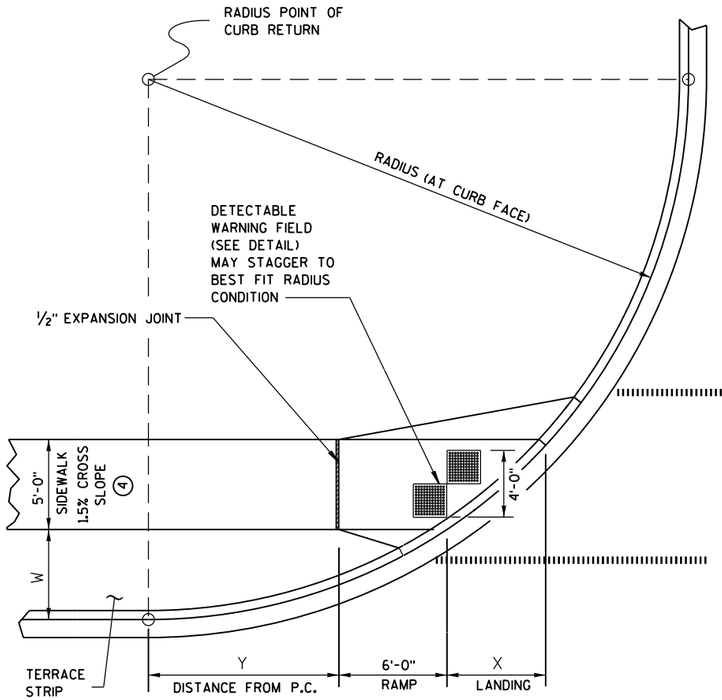
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

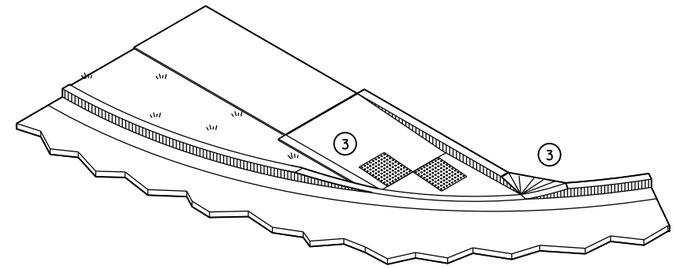
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

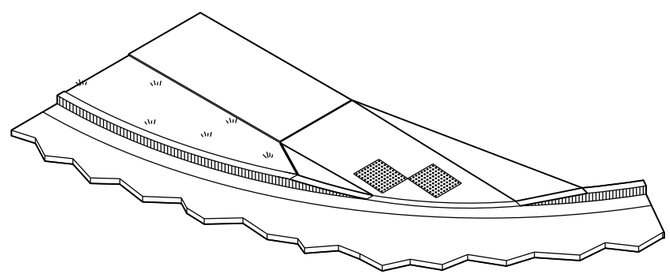
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



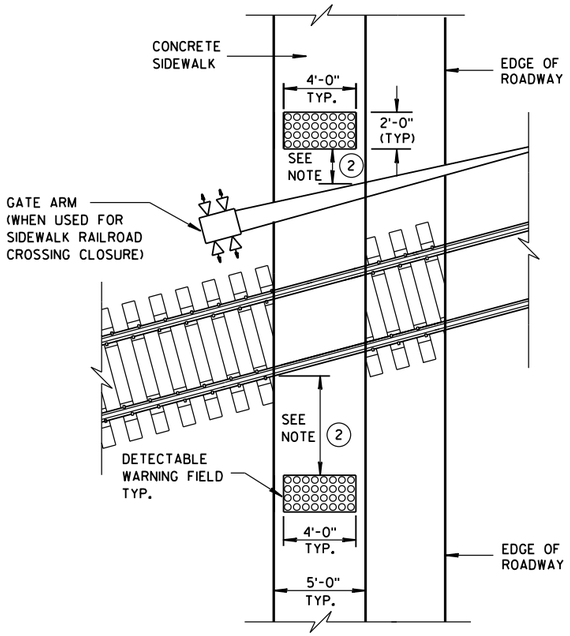
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

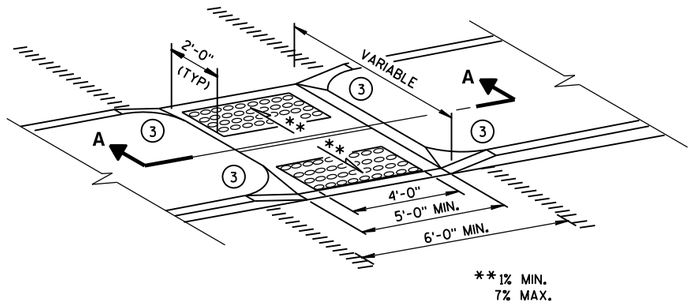
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

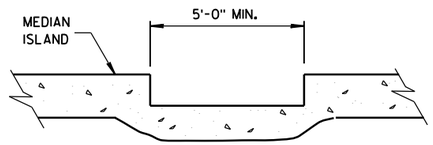
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

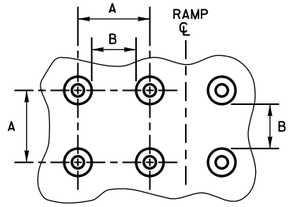
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

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

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



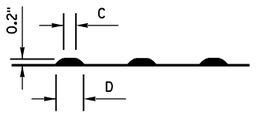
SECTION A-A



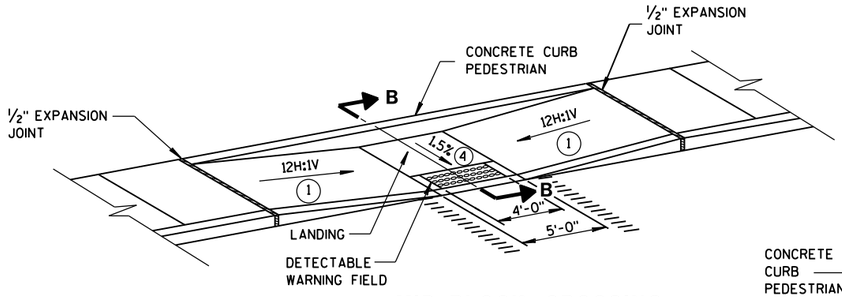
PLAN VIEW

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

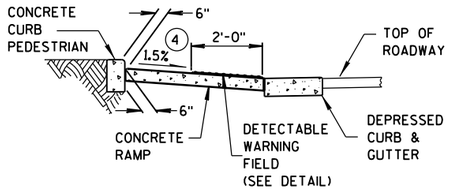
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

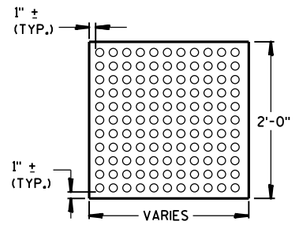


MID-BLOCK CROSSING
TYPE 7A



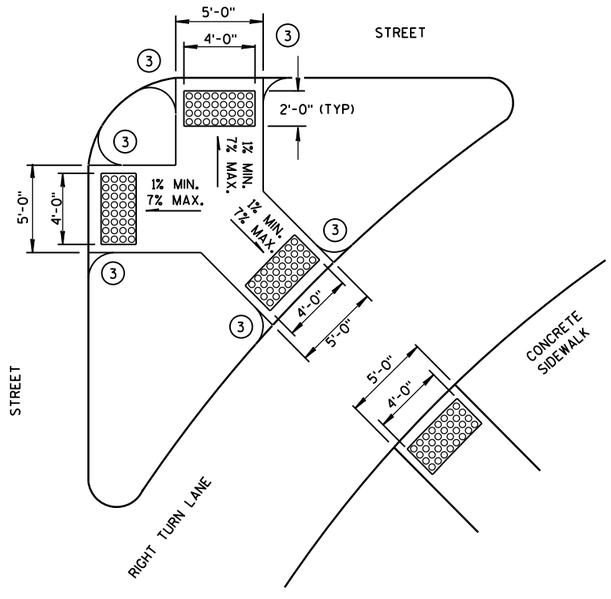
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

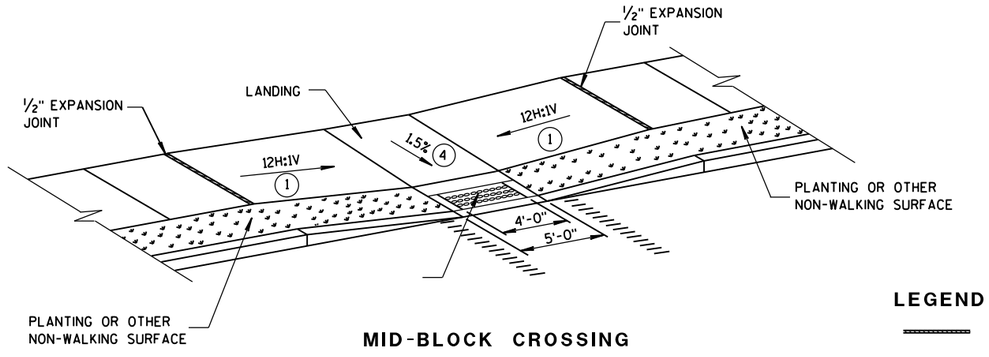


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

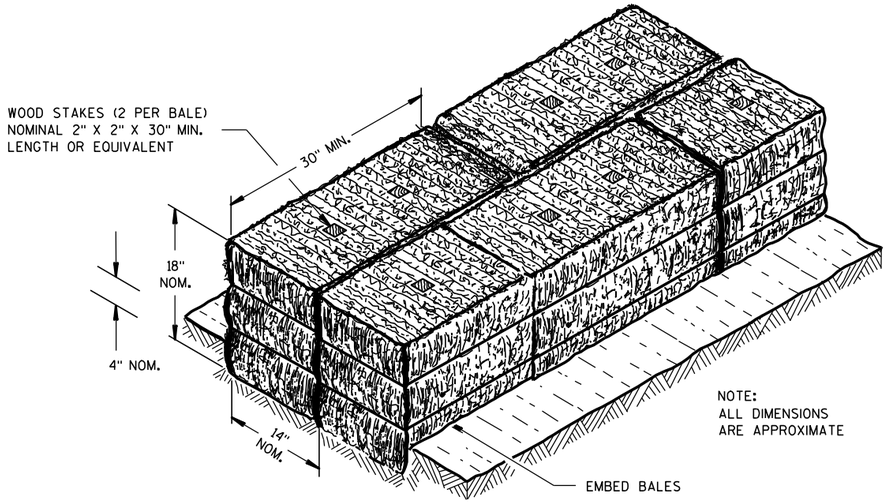
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

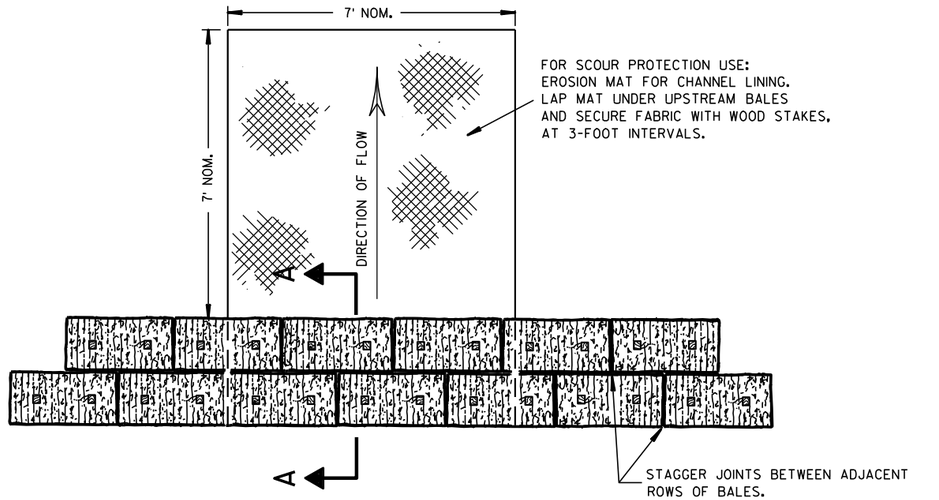
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

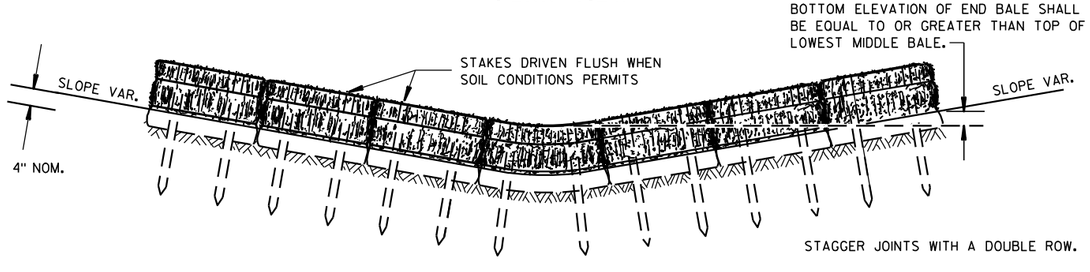
S.D.D. 8 D 5-15e



SECTION A-A



PLAN VIEW



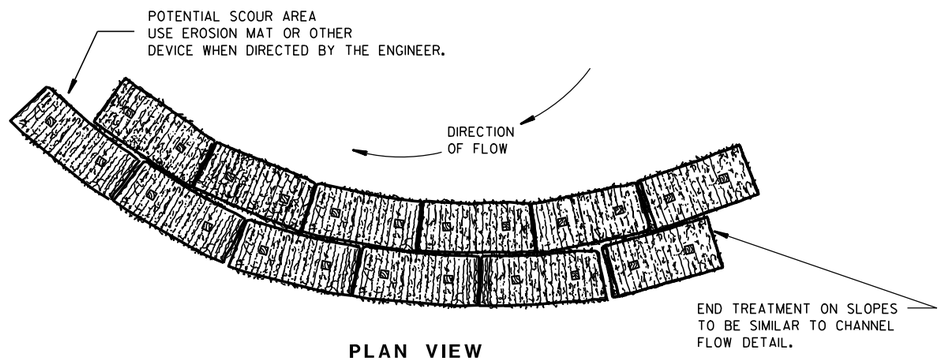
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

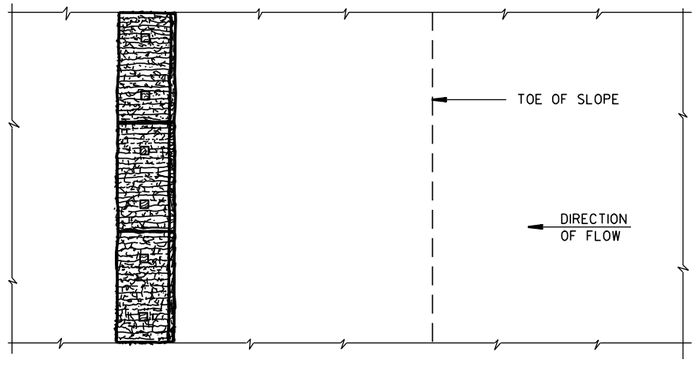
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

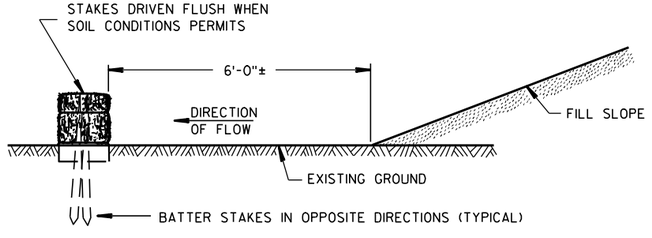


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

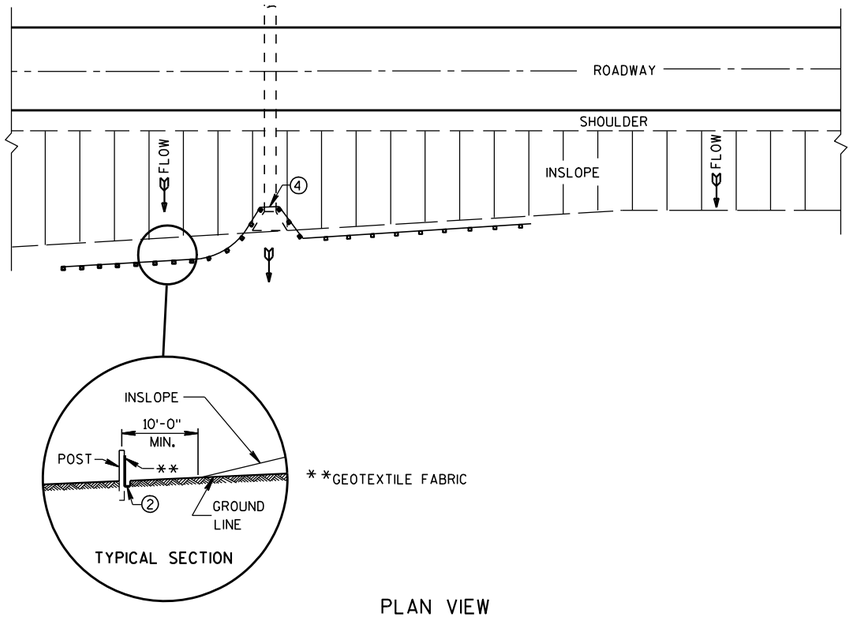
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

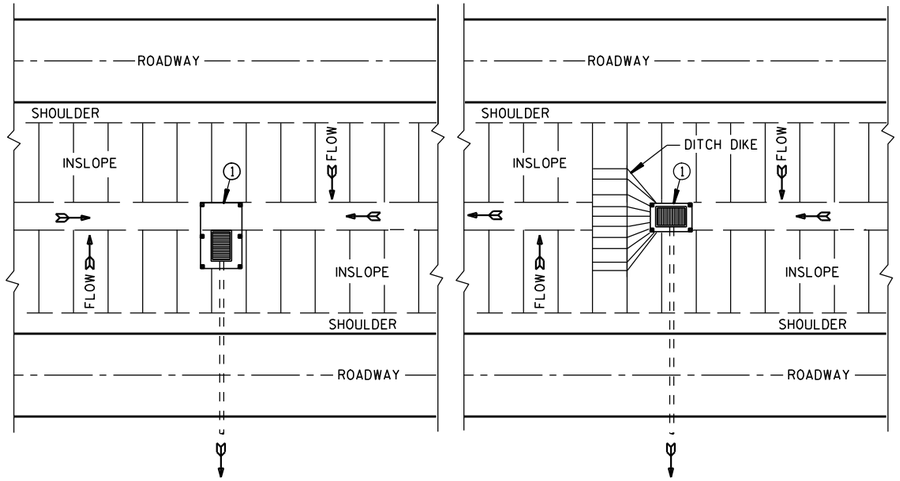
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



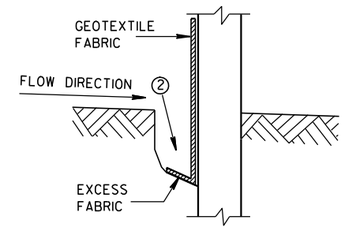
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

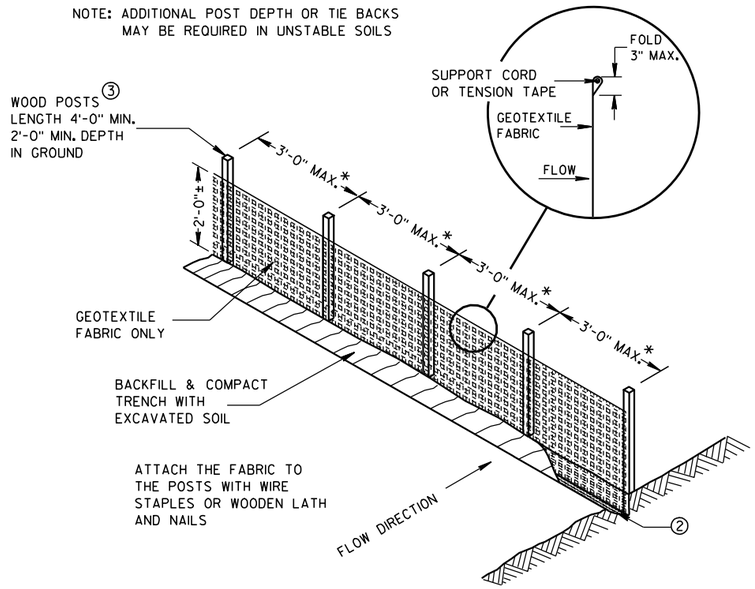
GENERAL NOTES

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

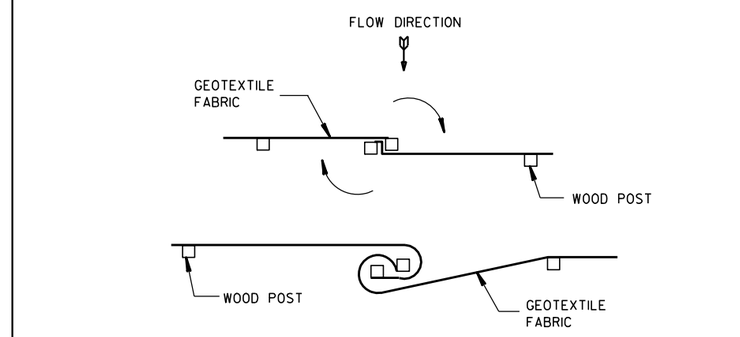
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



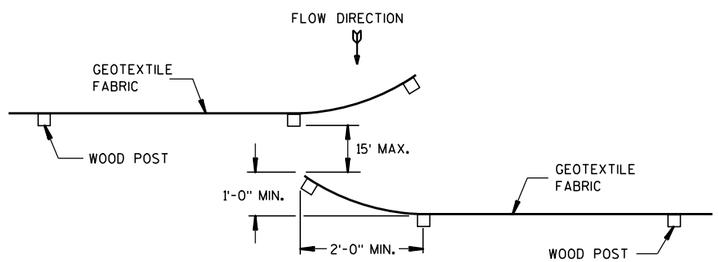
TRENCH DETAIL



SILT FENCE

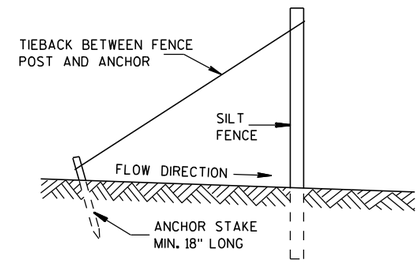


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

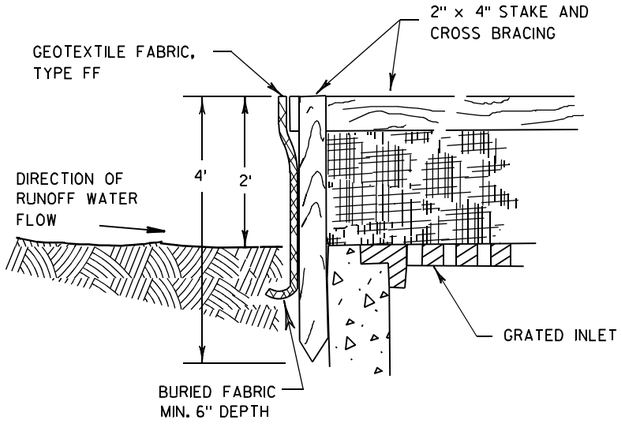
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

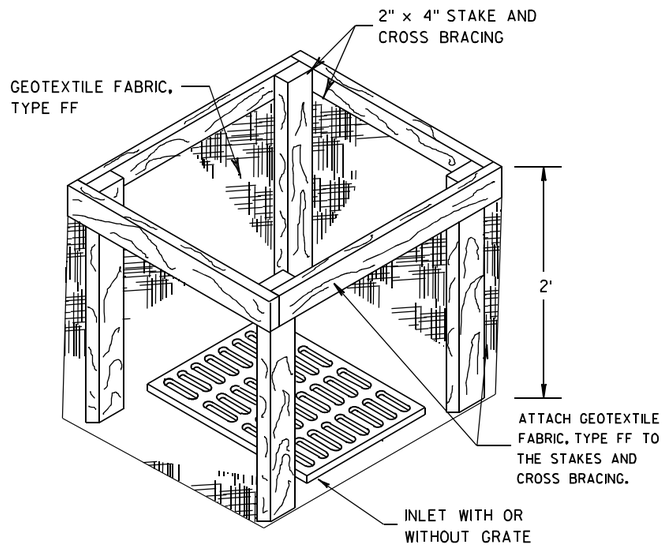
6

S.D.D. 8 E 9-6

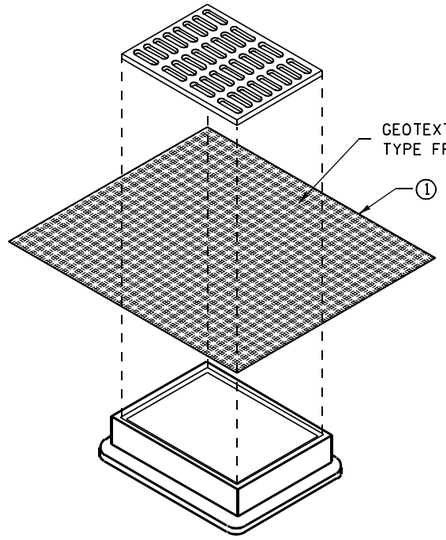
6

S.D.D. 8 E 9-6



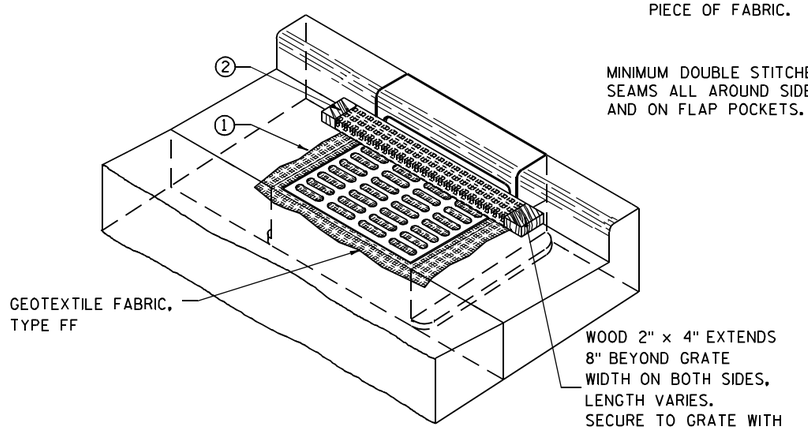


INLET PROTECTION, TYPE A

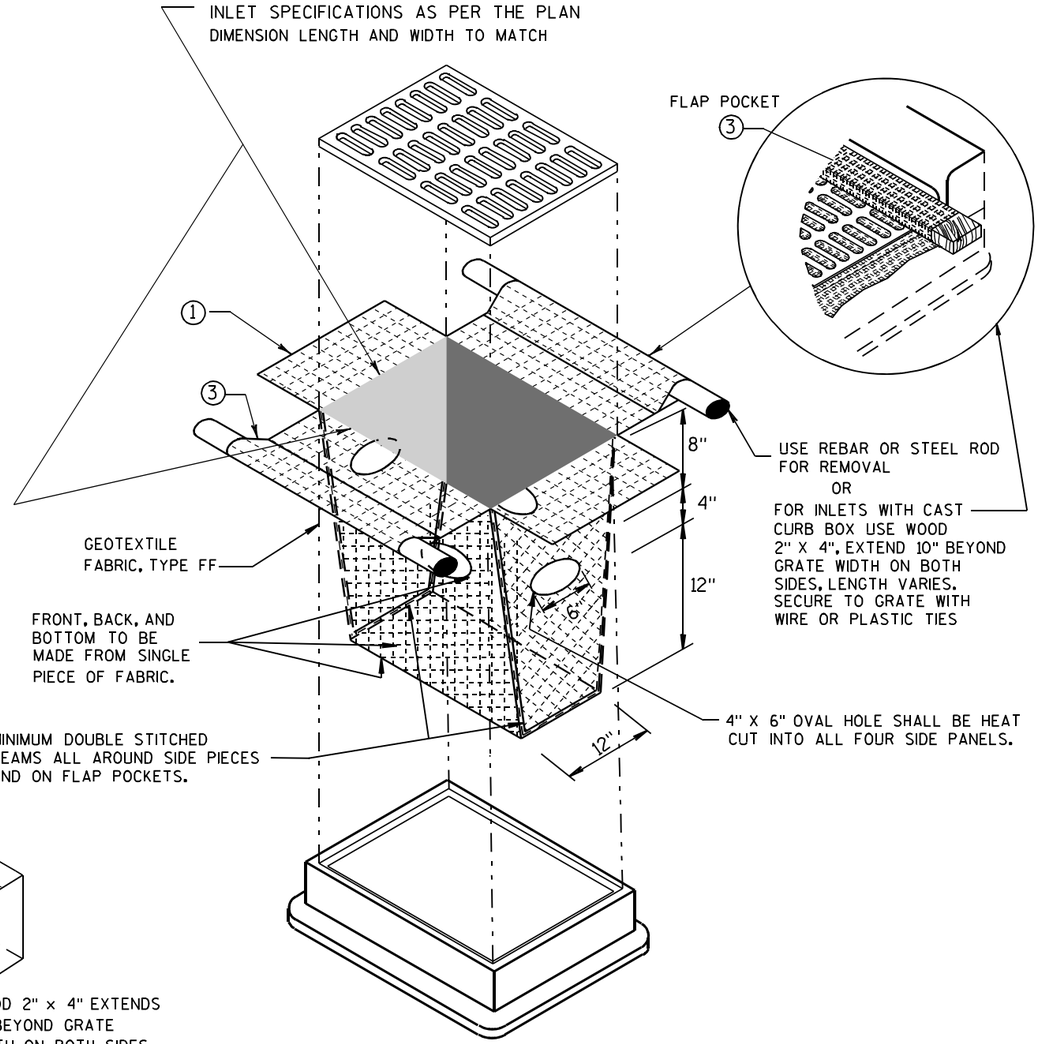


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2

METAL APRON ENDWALLS

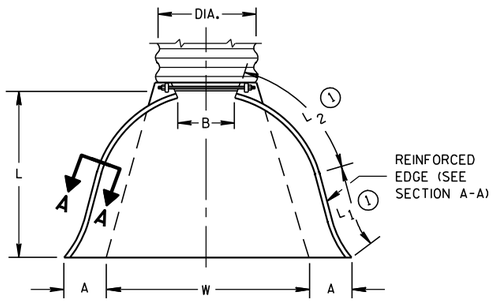
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

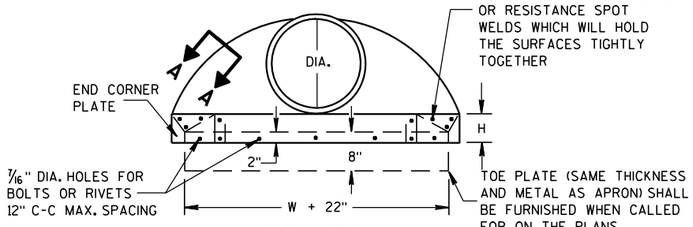
REINFORCED CONCRETE APRON ENDWALLS

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

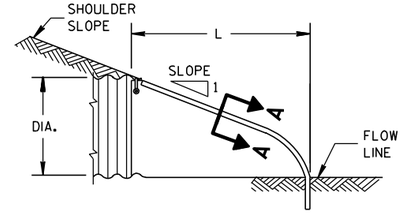
*MINIMUM
**MAXIMUM



PLAN VIEW

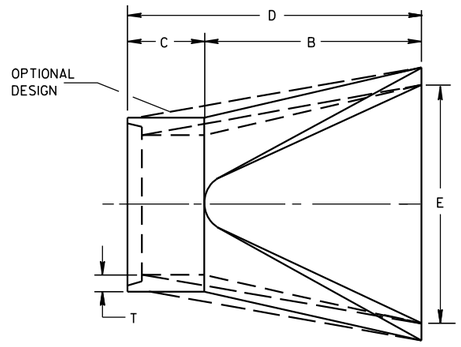


END VIEW

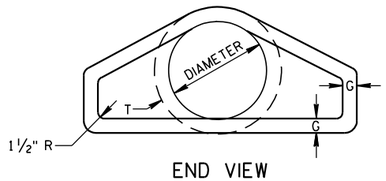


SIDE ELEVATION

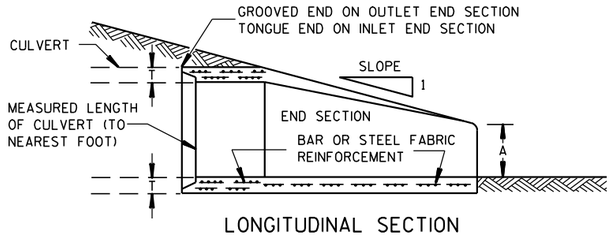
METAL ENDWALLS



PLAN

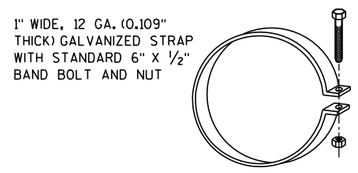


END VIEW



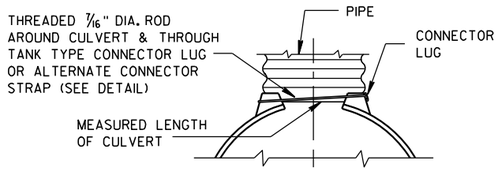
LONGITUDINAL SECTION

CONCRETE ENDWALLS

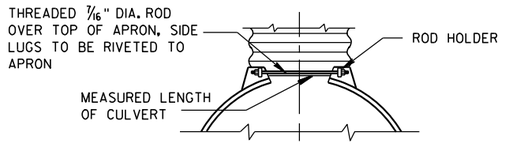


ALTERNATE FOR TYPE 1 CONNECTION

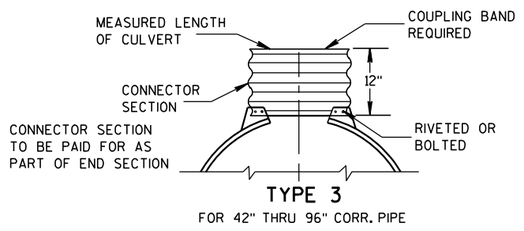
END SECTION CONNECTOR STRAP



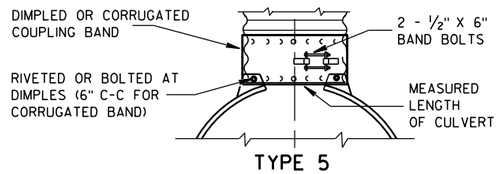
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

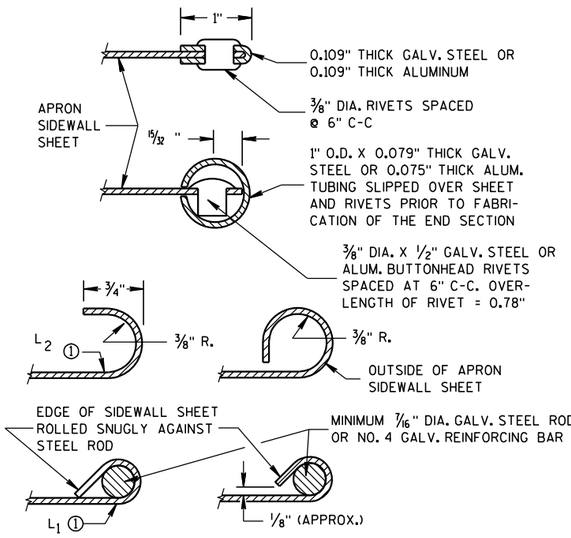
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

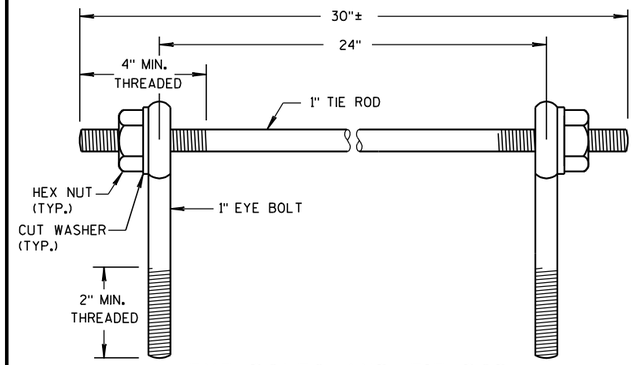
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

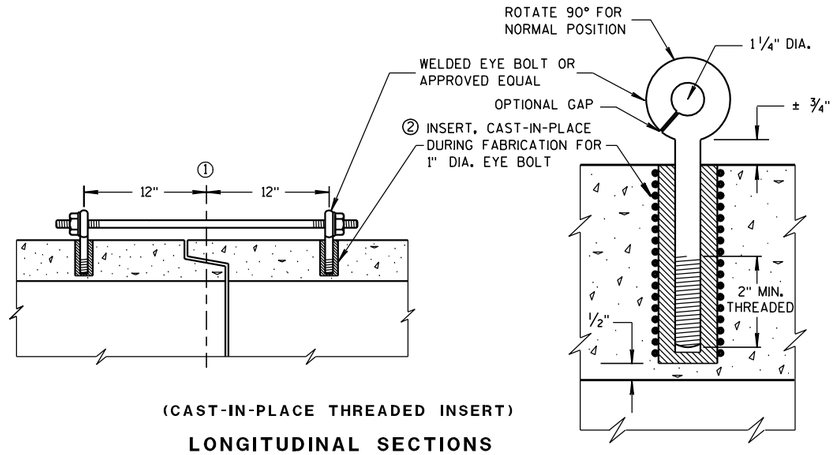
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

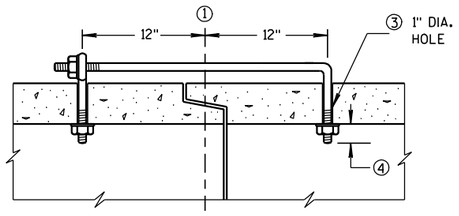
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

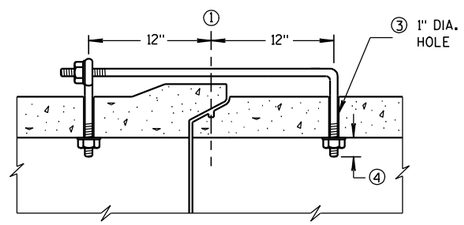
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

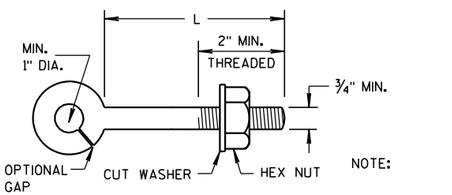


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

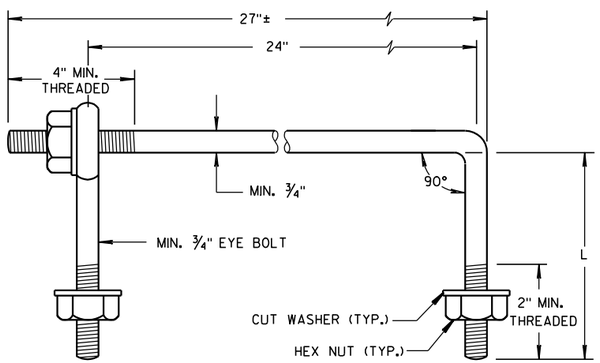
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

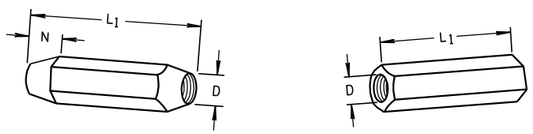
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

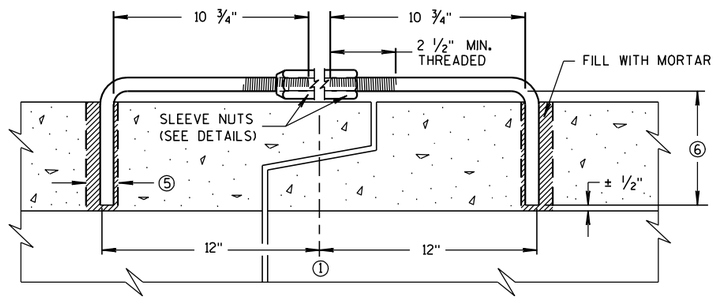
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

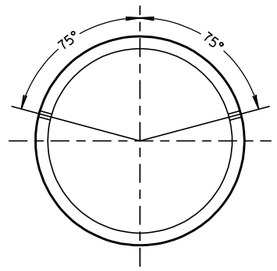
SLEEVE NUTS



LONGITUDINAL SECTION

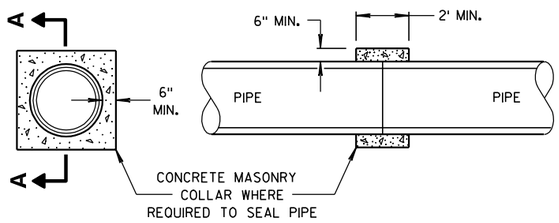
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

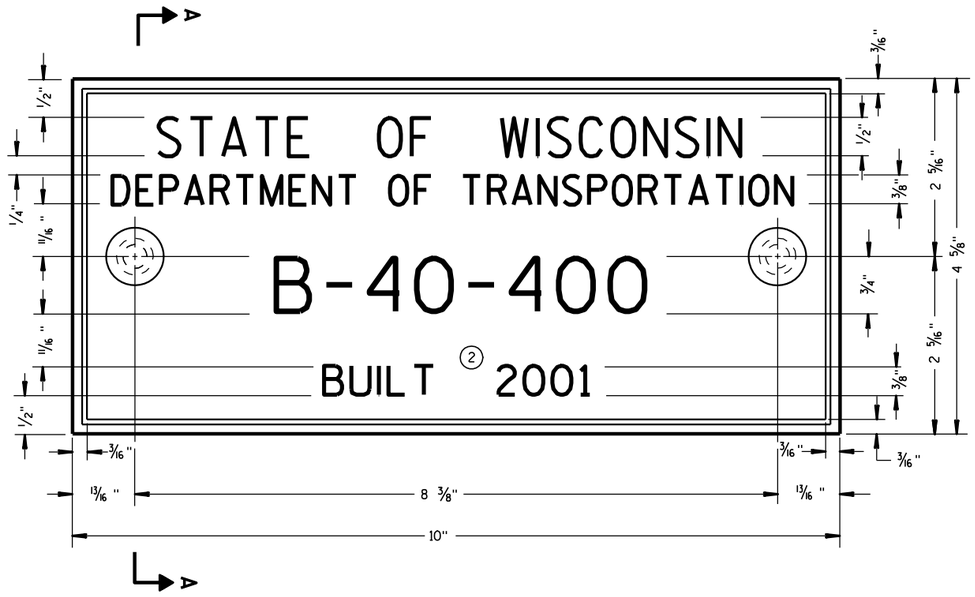
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
145
FHWA

6

S.D.D. 8 F 4-7



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

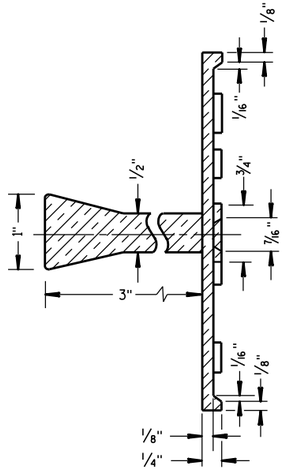
GENERAL NOTES

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

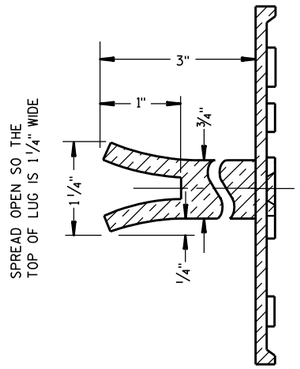
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

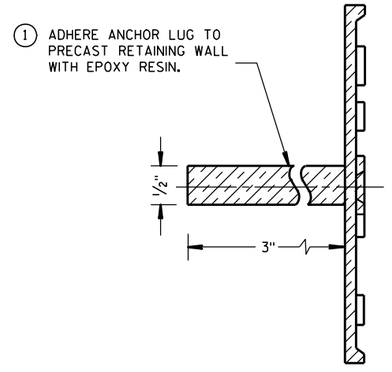
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

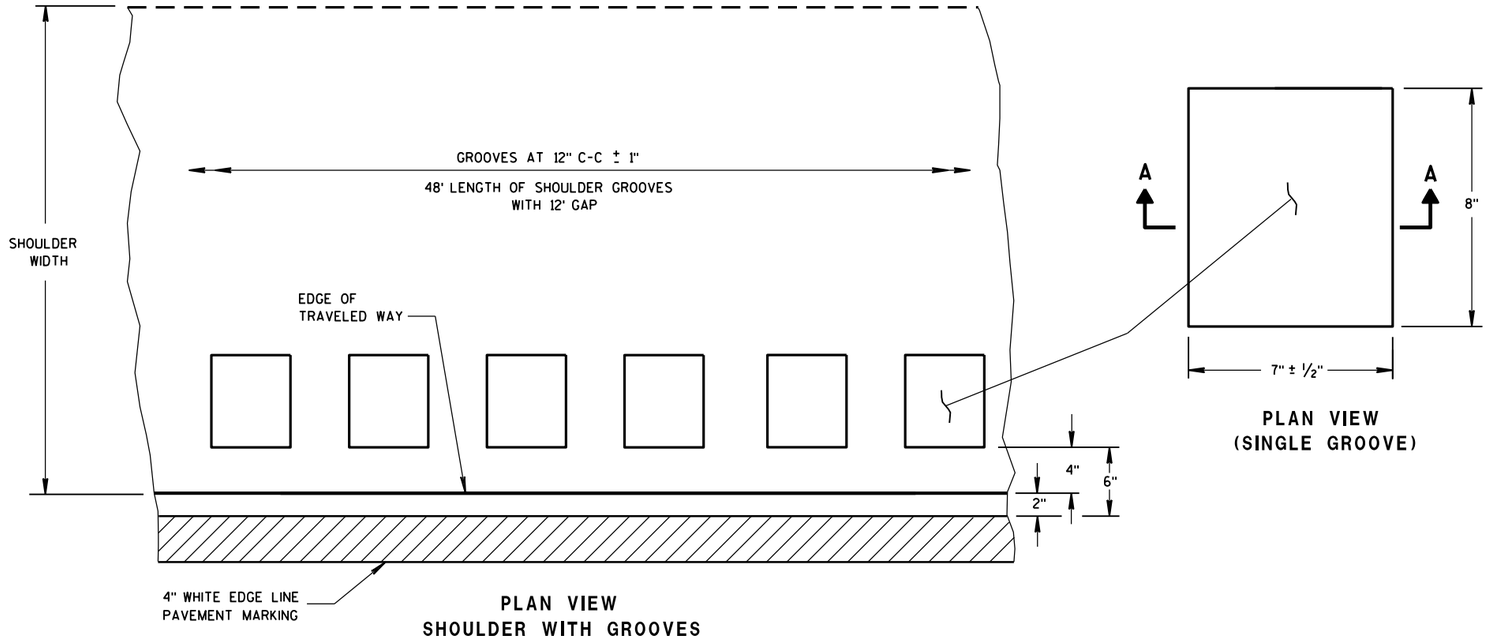
3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 12 A 3-10



PLAN VIEW
SHOULDER WITH GROOVES

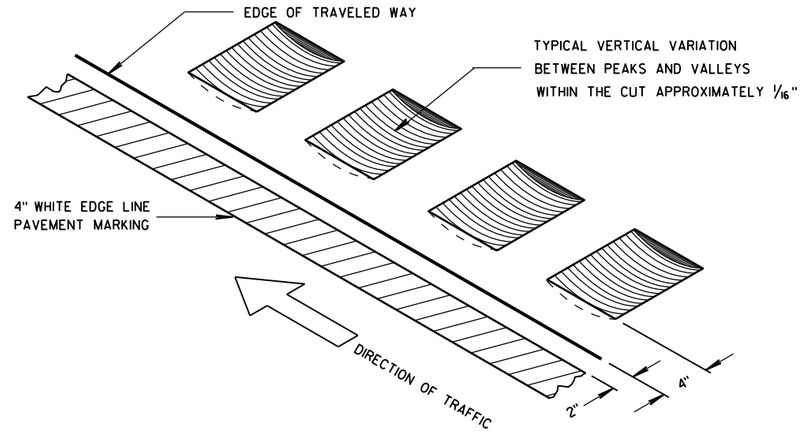
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

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

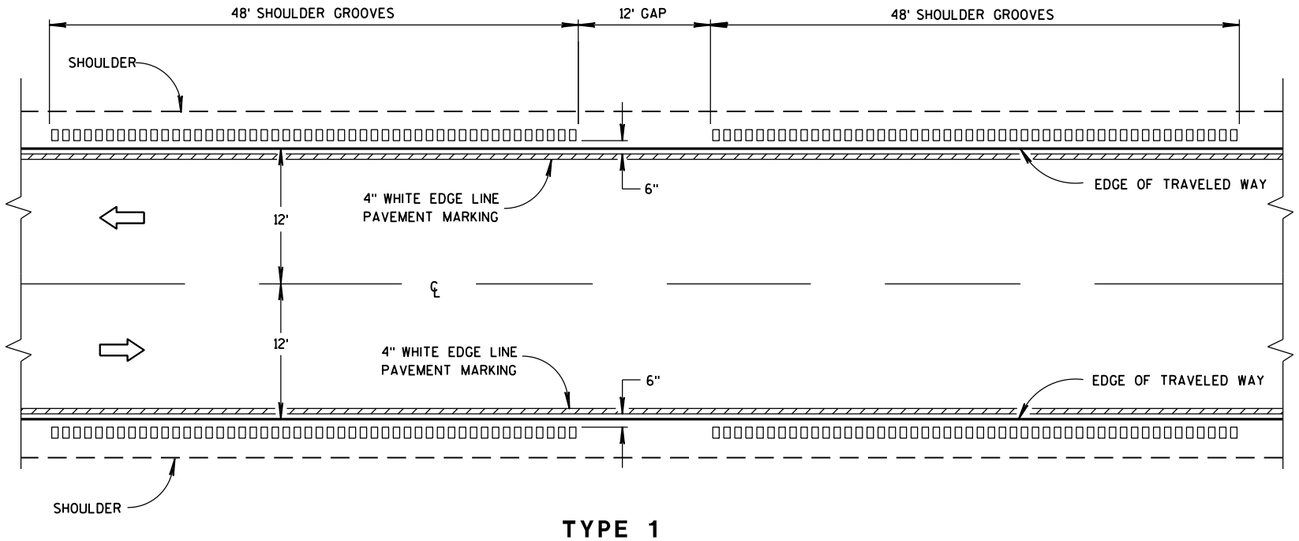
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

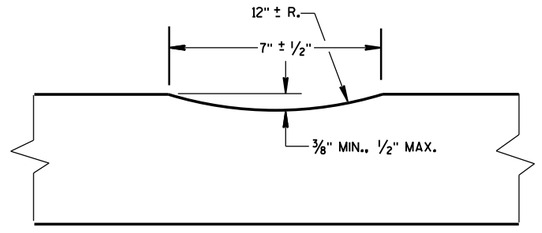


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

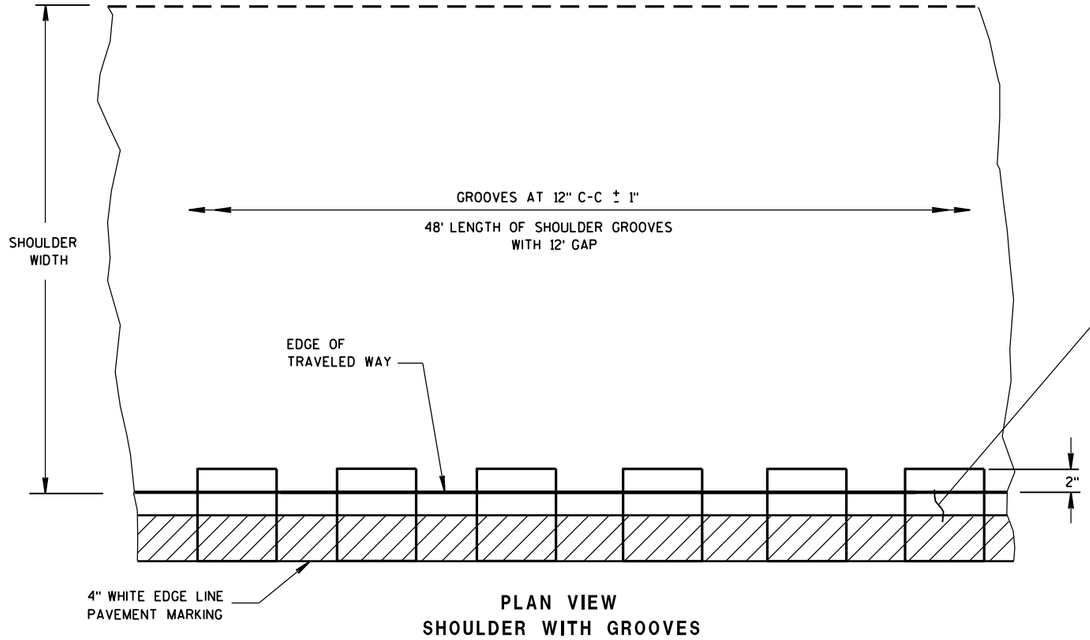
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

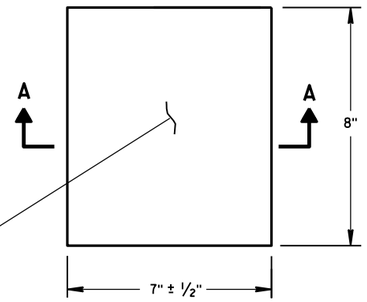
S.D.D. 13 A 10-1a

6

S.D.D. 13 A 10-1a



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

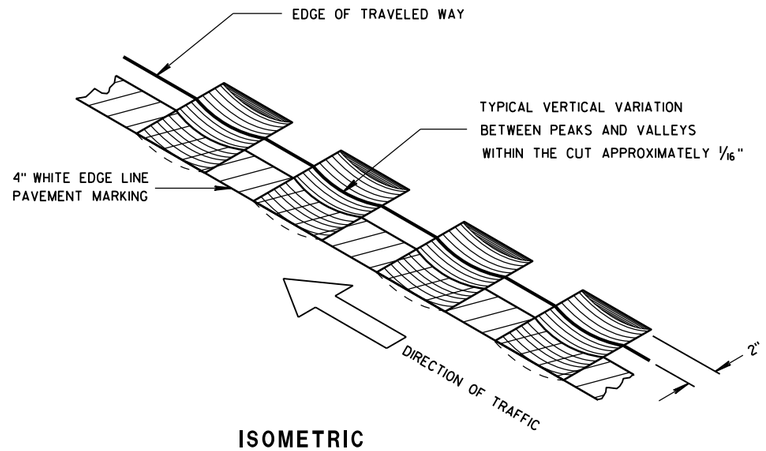
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

GENERAL NOTES

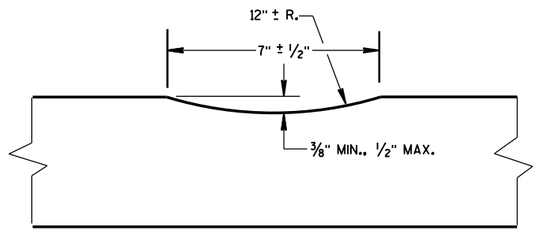
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

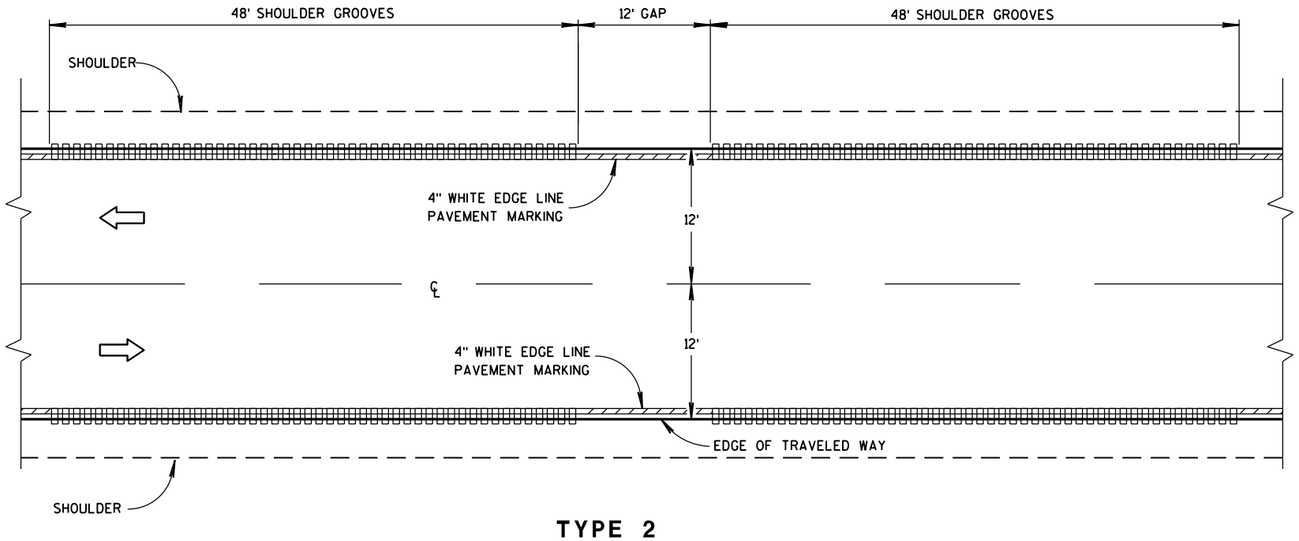
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



SECTION A-A



TYPE 2
2-LANE SHOULDER RUMBLE STRIP

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

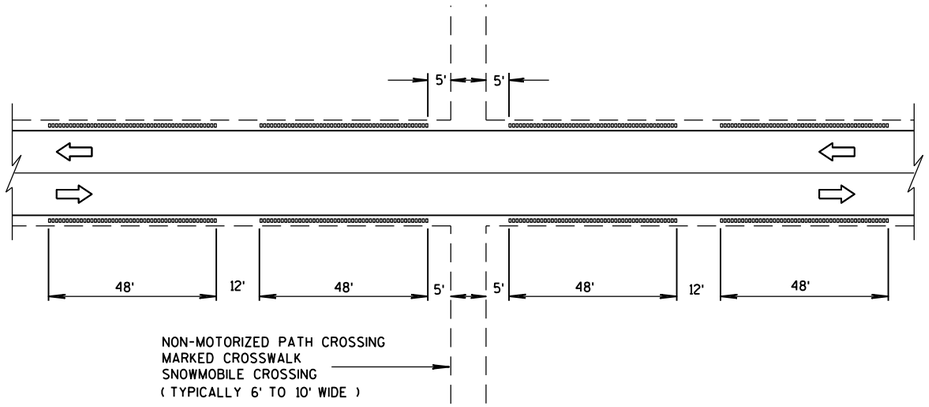
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

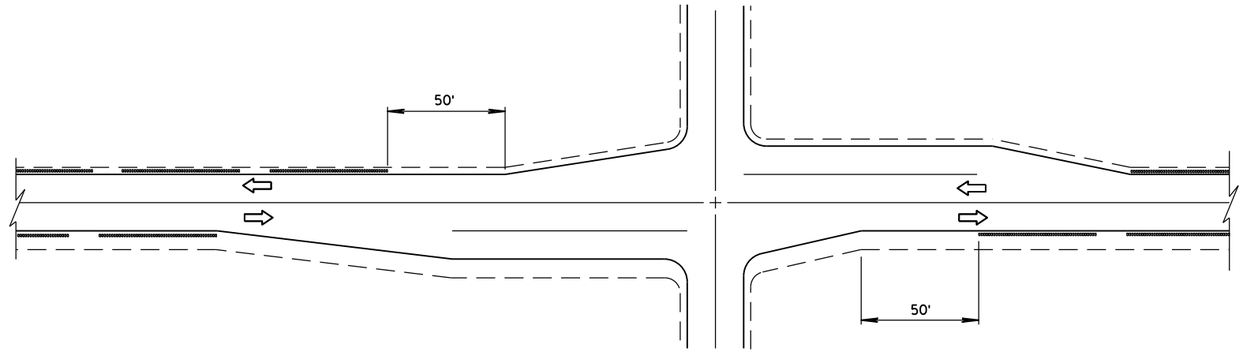
S.D.D. 13 A 10-1b

6

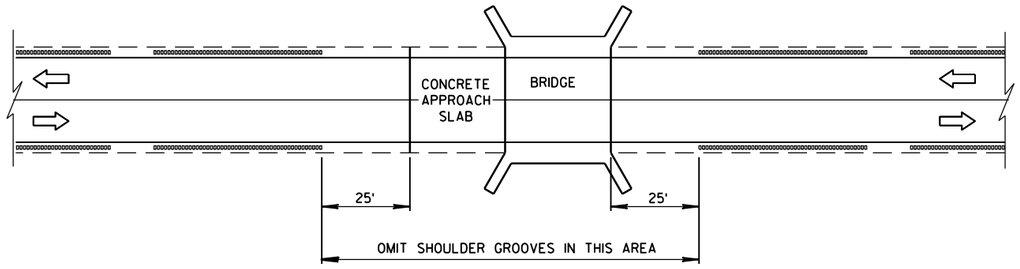
S.D.D. 13 A 10-1b



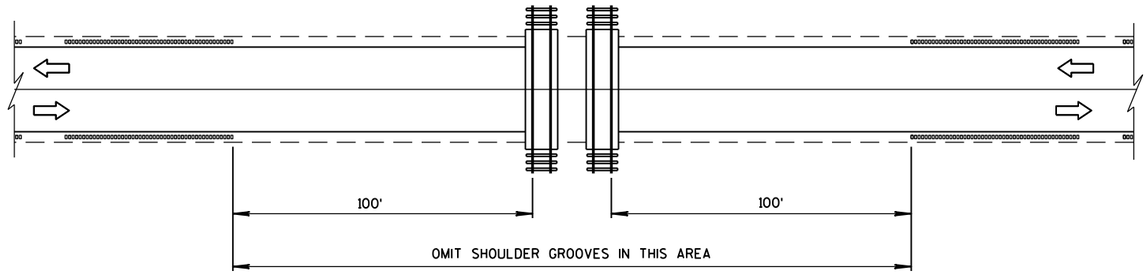
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



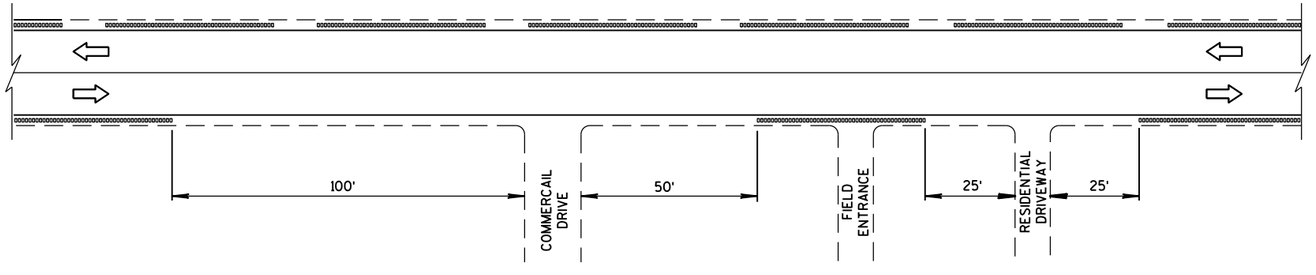
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT DRIVEWAYS (1)

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

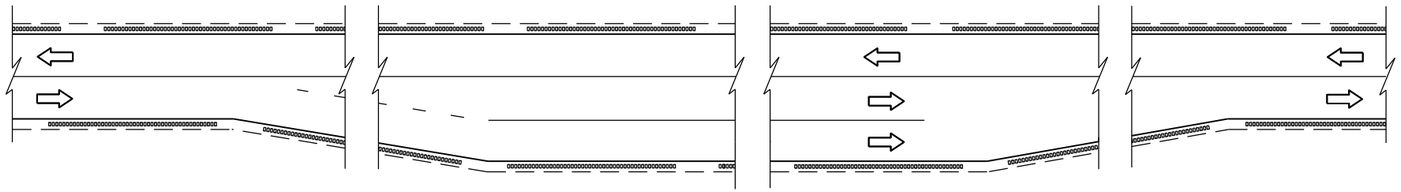
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

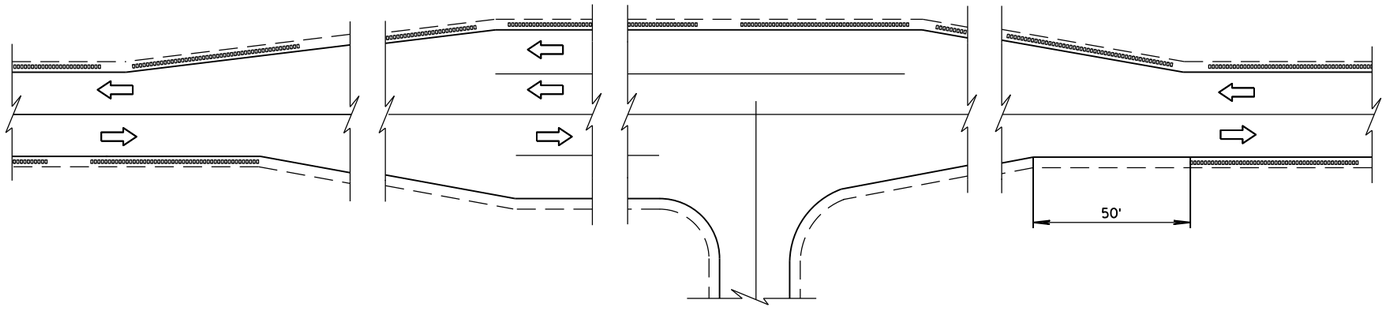
S.D.D. 13 A 10-1c

6

S.D.D. 13 A 10-1c



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

S.D.D. 13 A 10-1d

S.D.D. 13 A 10-1d

GENERAL NOTES

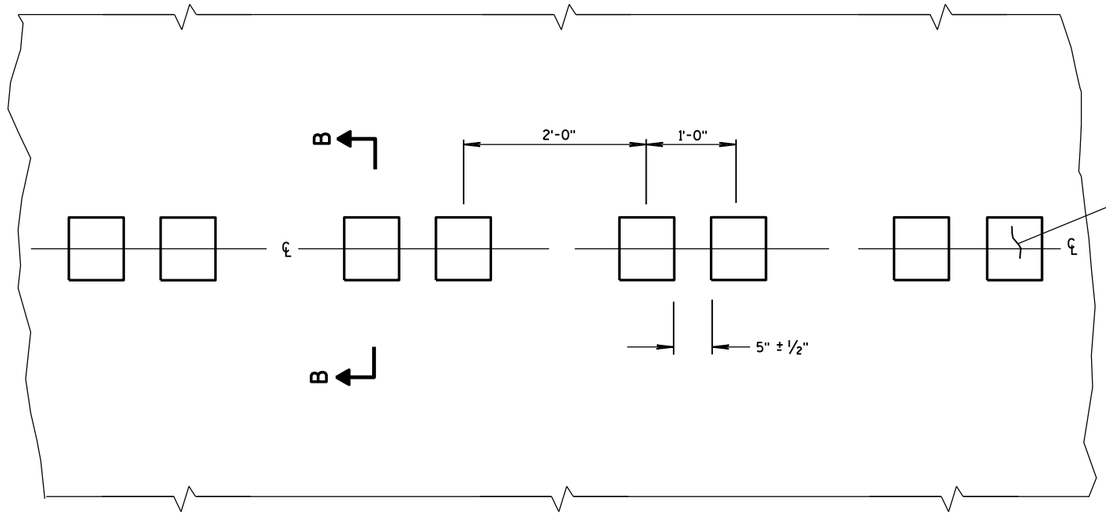
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

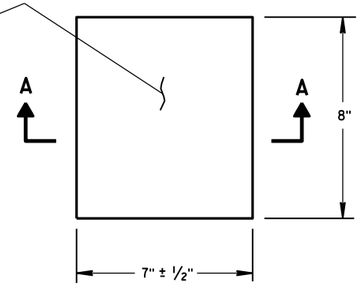
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

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

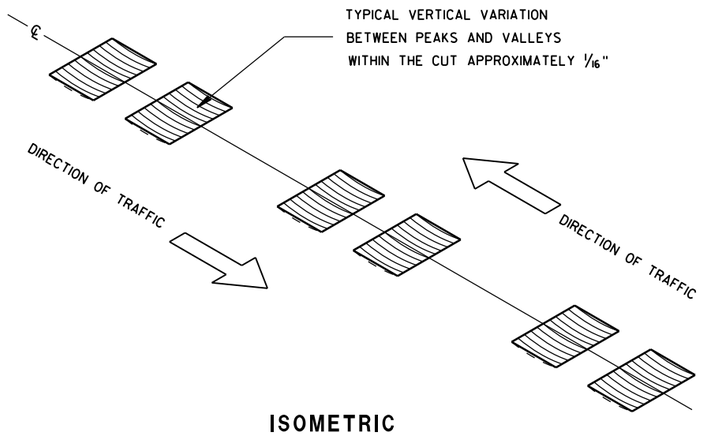


PLAN VIEW
CENTER LINE WITH GROOVES

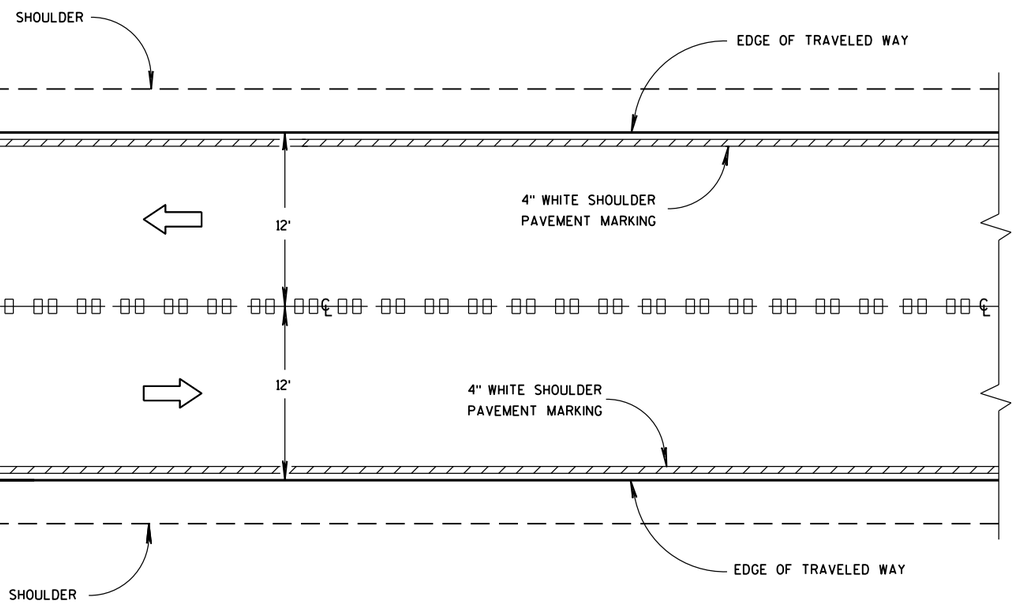


PLAN VIEW
(SINGLE GROOVE)

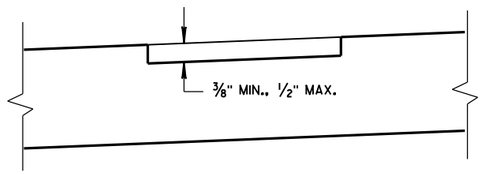
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



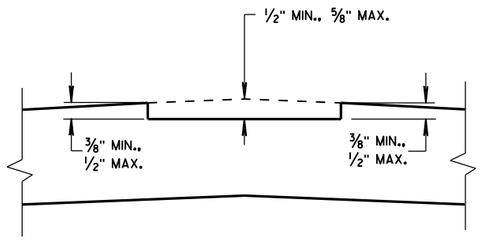
ISOMETRIC



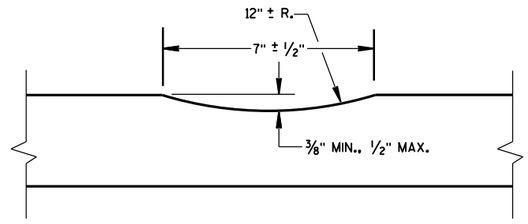
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



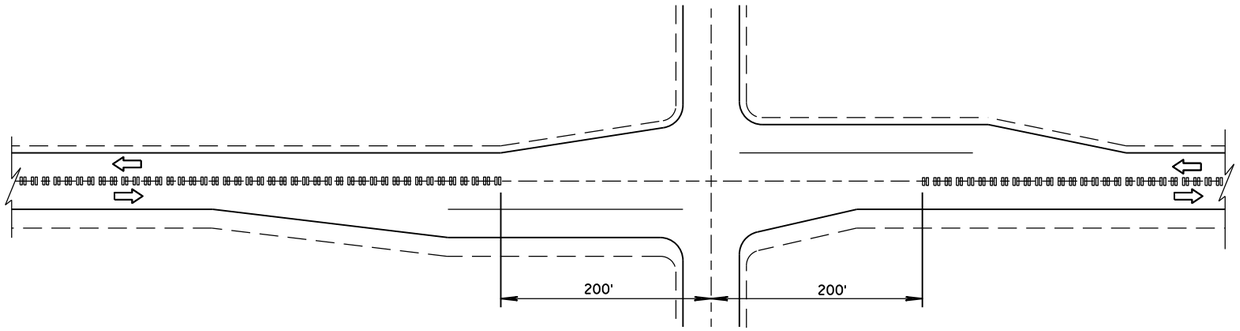
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

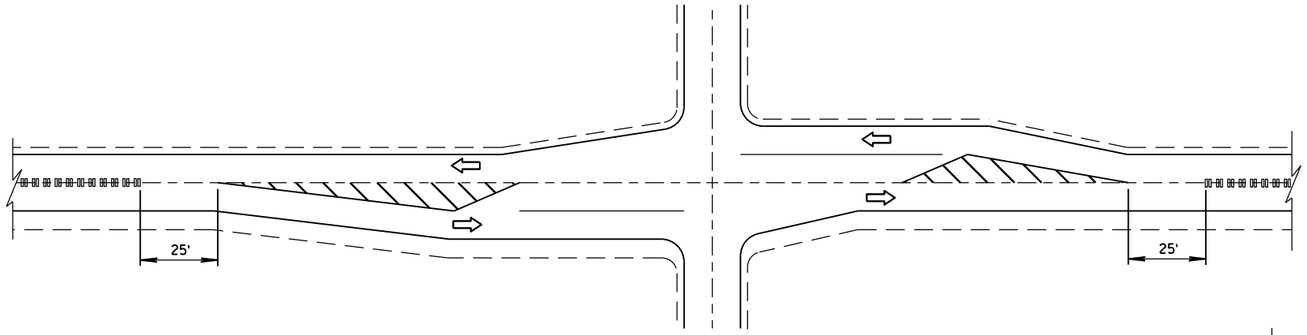
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

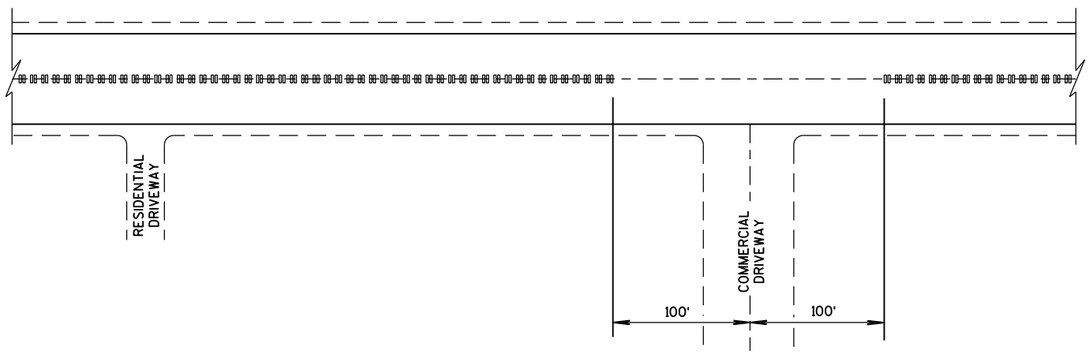
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

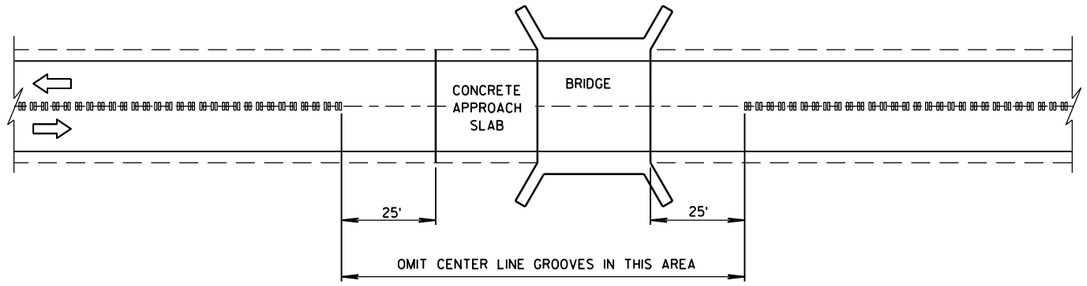


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

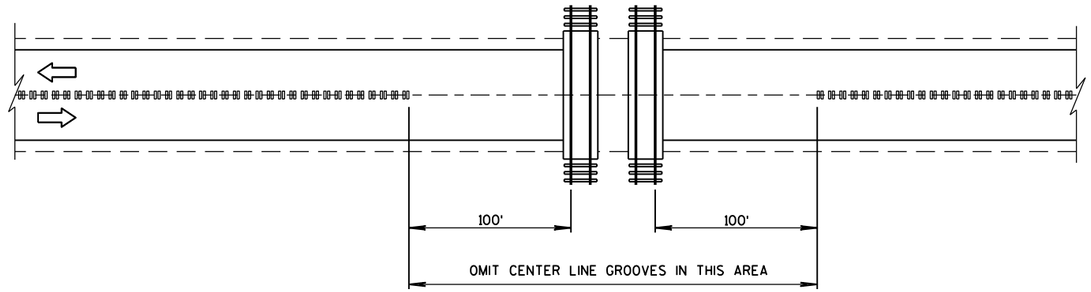


CENTER LINE GROOVES AT DRIVEWAYS (1)

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



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

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

6

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

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/15/2013
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

NT

FHWA

GENERAL NOTES

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

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

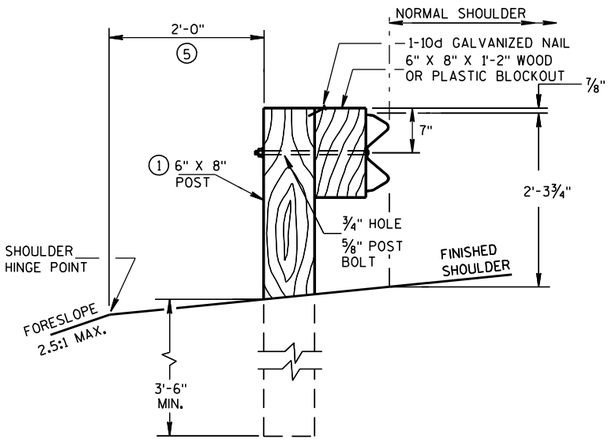
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

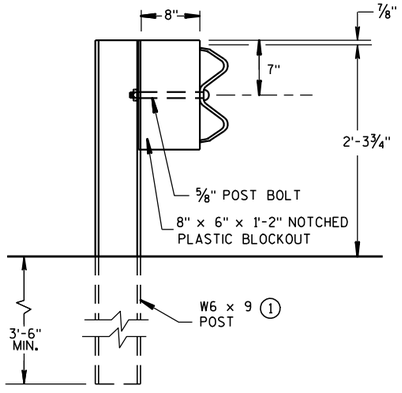
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

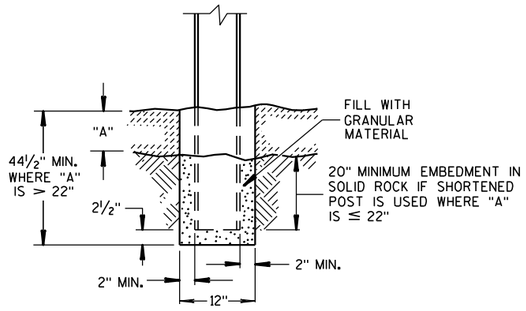
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



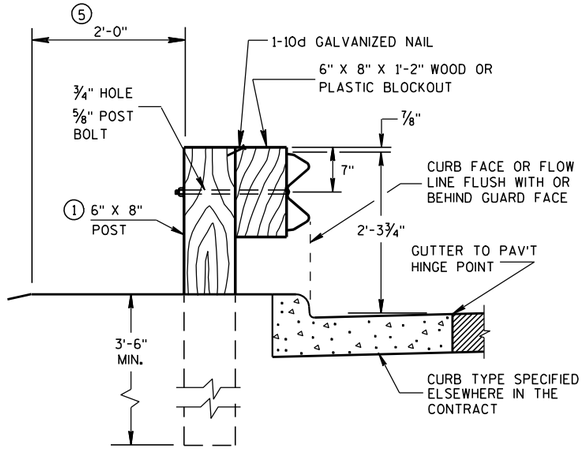
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



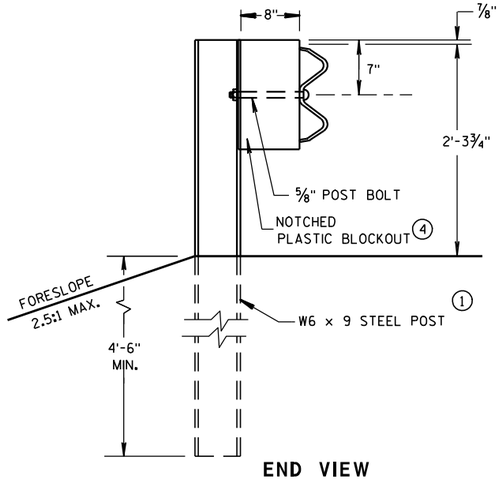
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



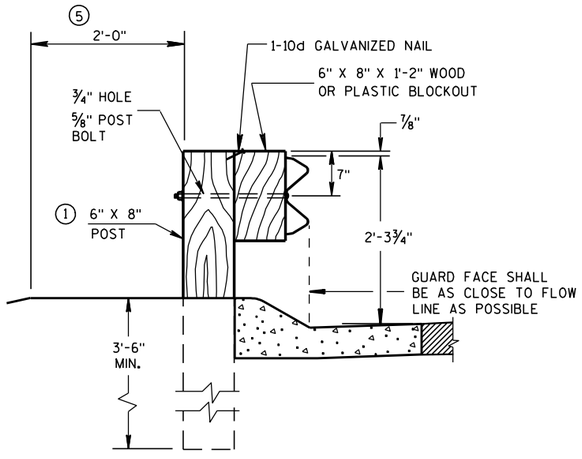
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



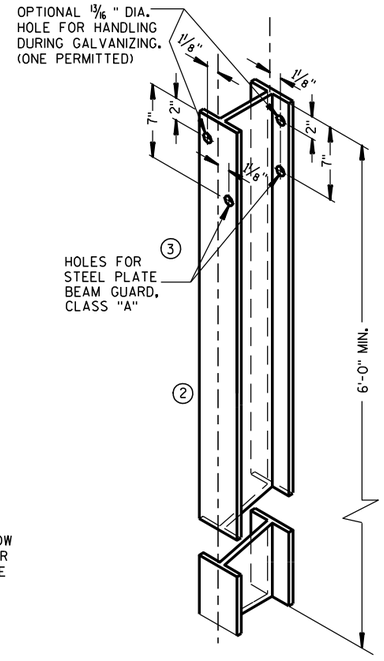
END VIEW
LOCATED ALONG A CURBED ROADWAY



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

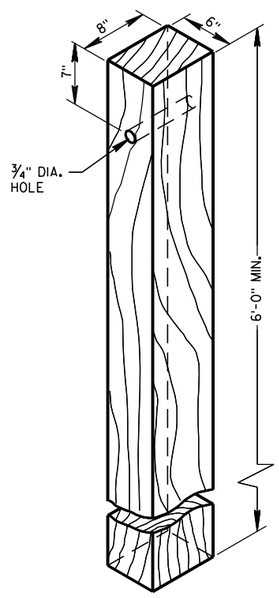


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

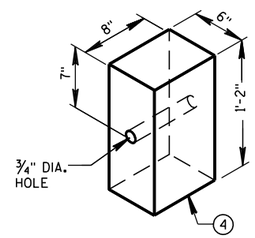


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

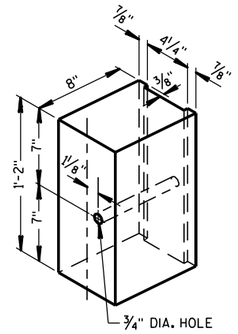
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



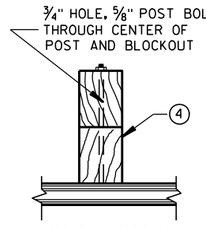
WOOD POST
(6"X8") NOMINAL



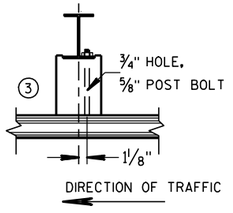
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



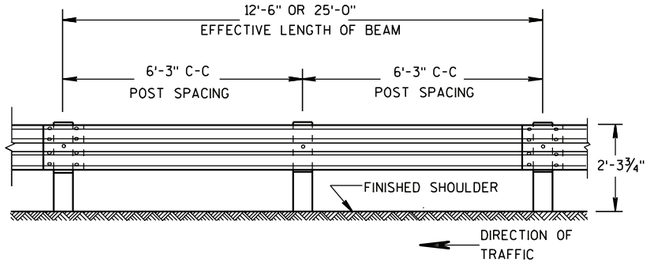
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

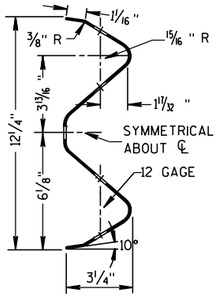
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

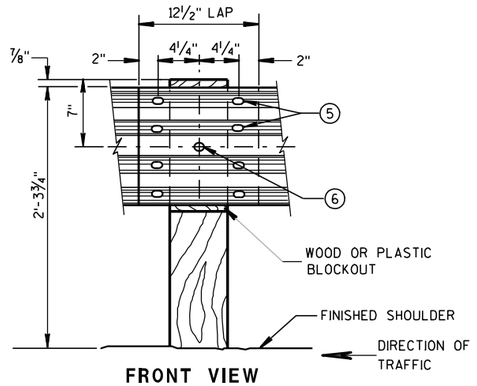


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

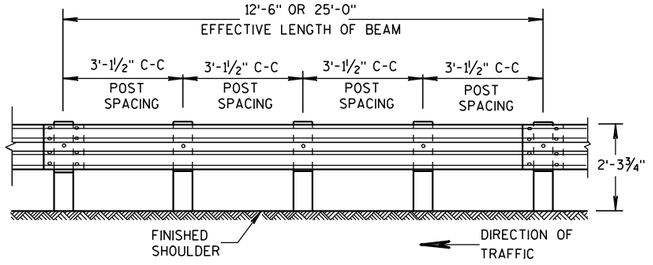


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

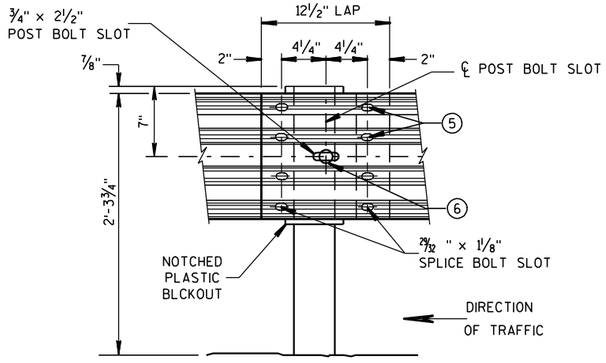
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" ϕ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

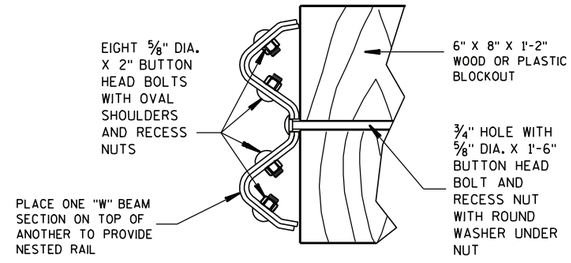
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

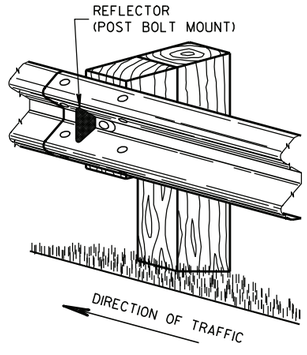


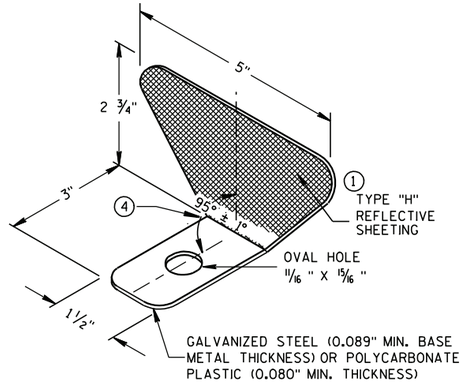
NESTED W BEAM (NW)

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

REFLECTOR SPACING (2)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 (3) 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 (4)	3



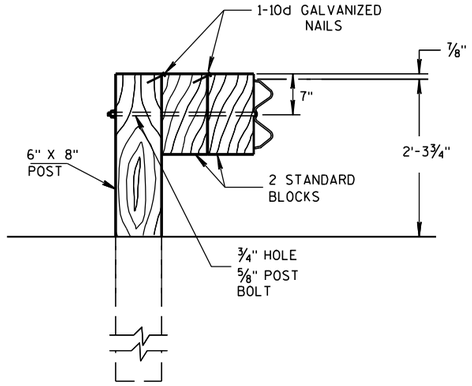


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

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

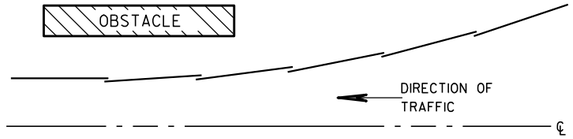
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 15-7b

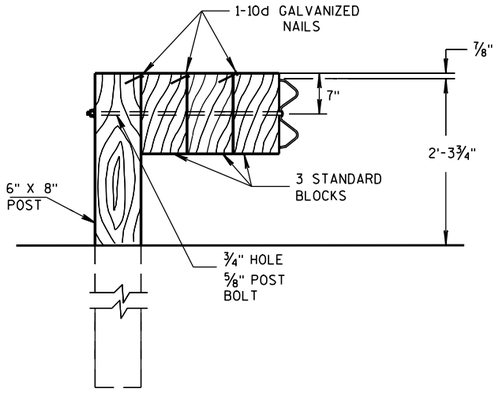


DETAIL FOR DOUBLE BLOCKS

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

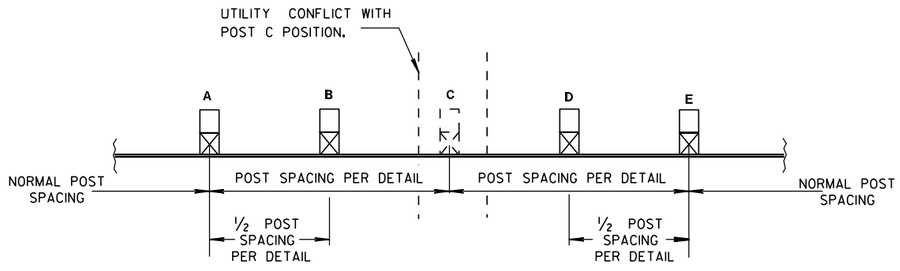


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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.

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

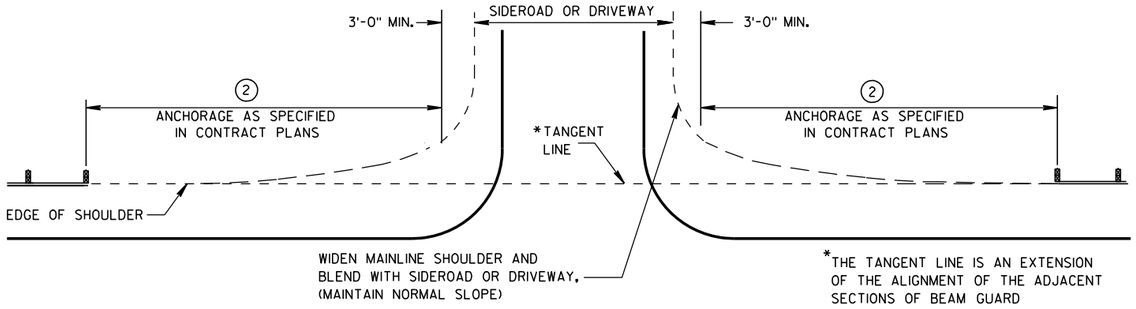
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

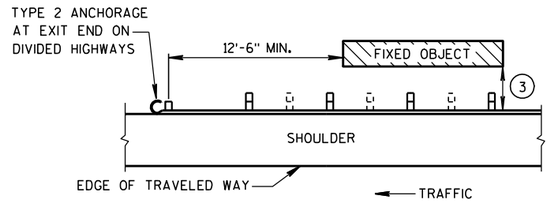
5/23/11	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

6
S.D.D. 14 B 15-7c



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

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

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

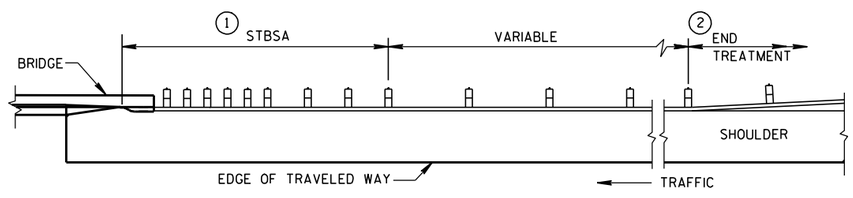
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

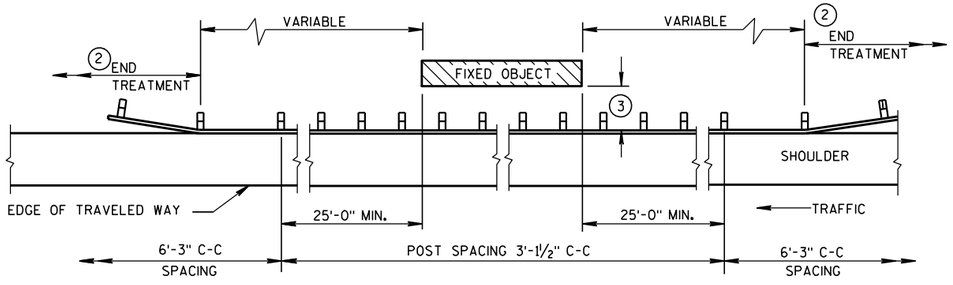
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

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

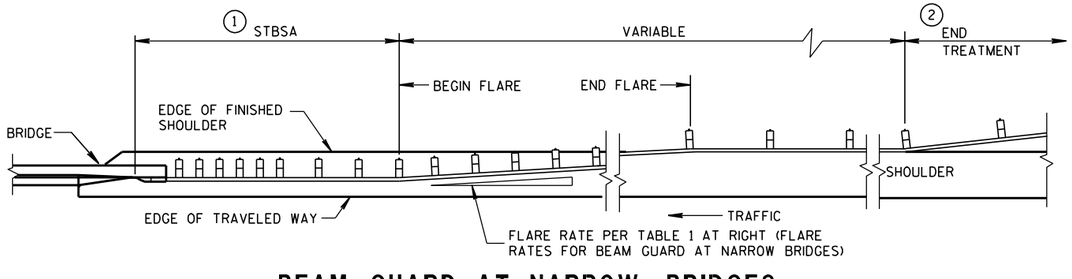


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



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

TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

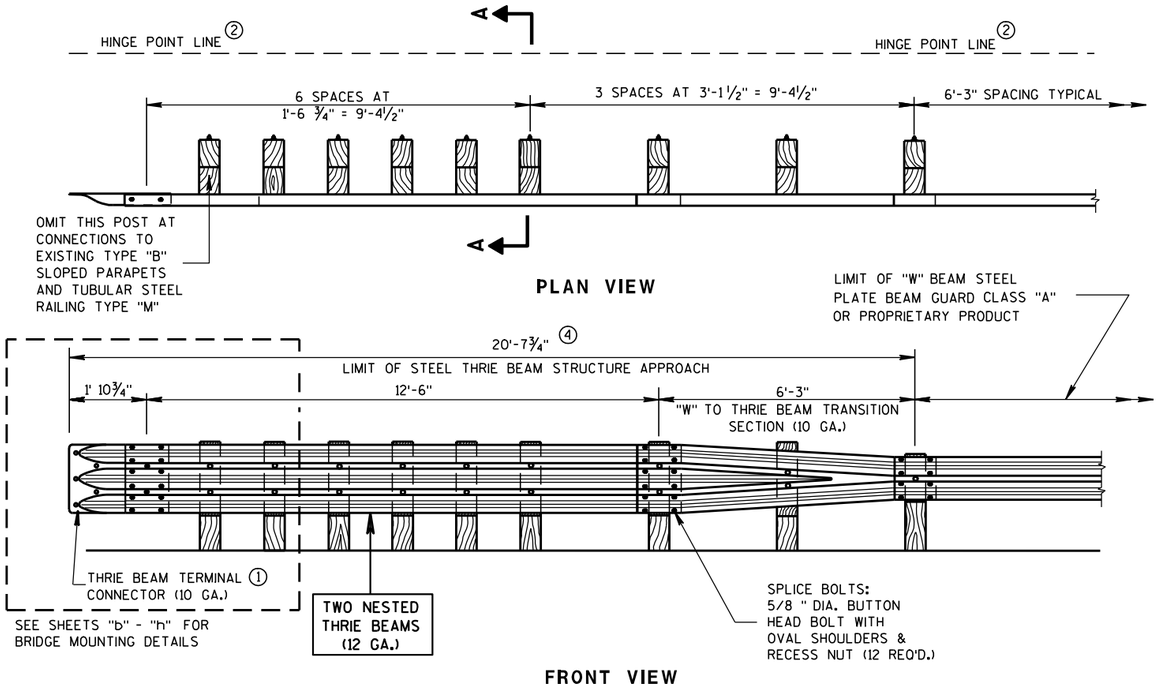
8-21-07 DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 14 B 18-6a



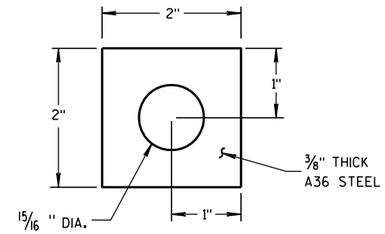


PLATE WASHER DETAIL

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.

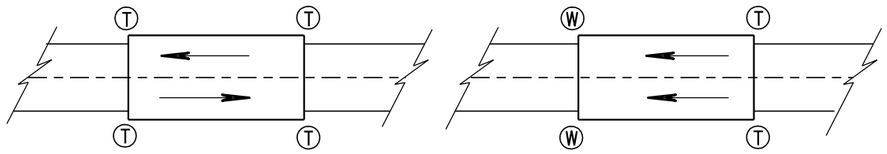
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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.



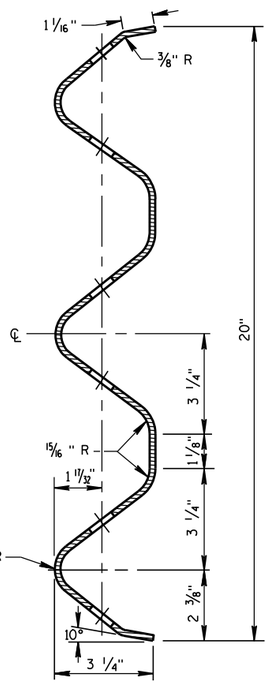
TWO WAY TRAFFIC

ONE WAY TRAFFIC

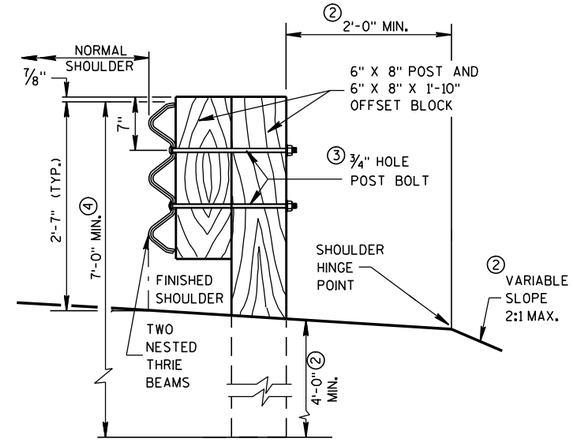
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

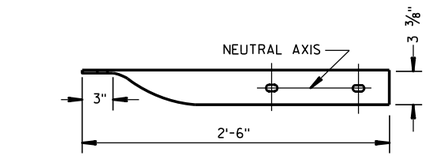
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

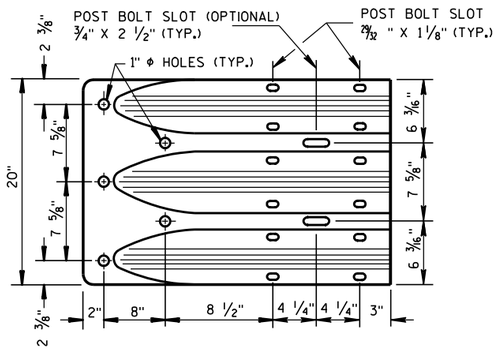


SECTION THRU THRIE BEAM RAIL ELEMENT

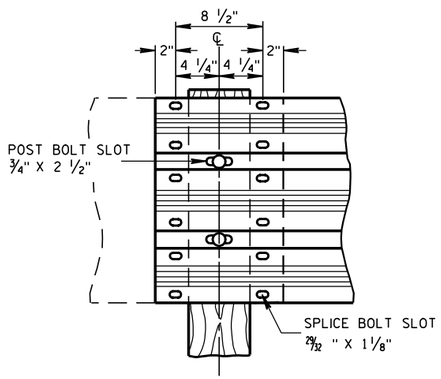


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

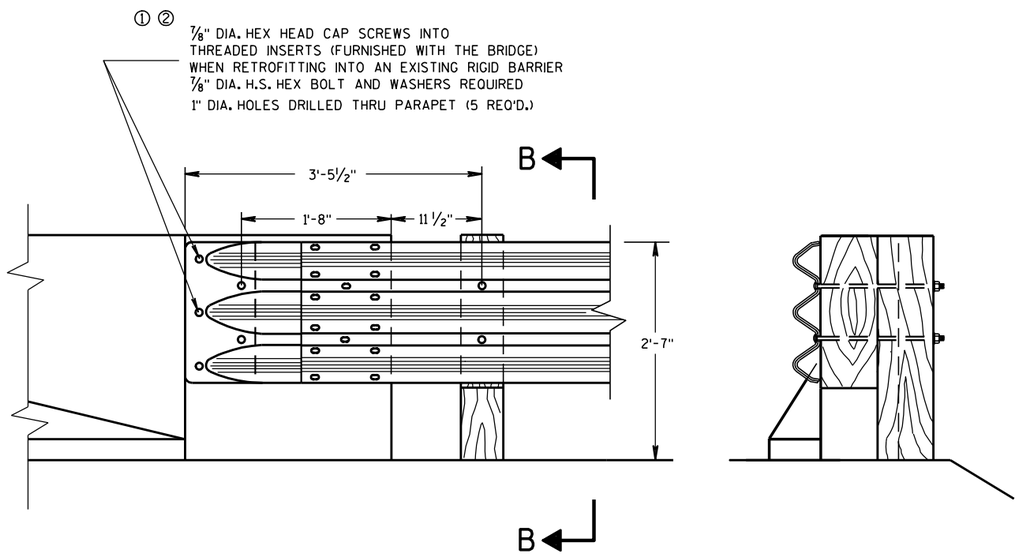
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

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

FHWA



FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION 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.

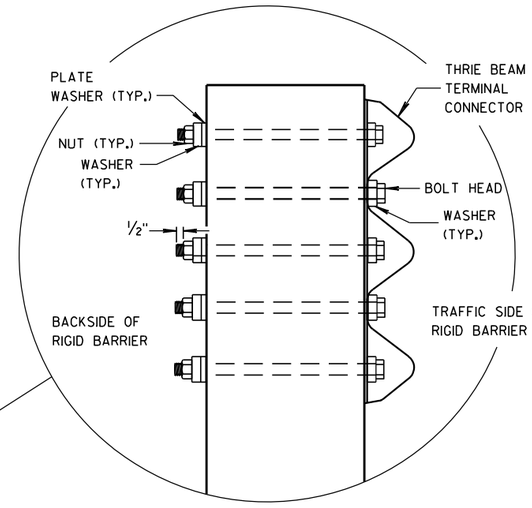
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

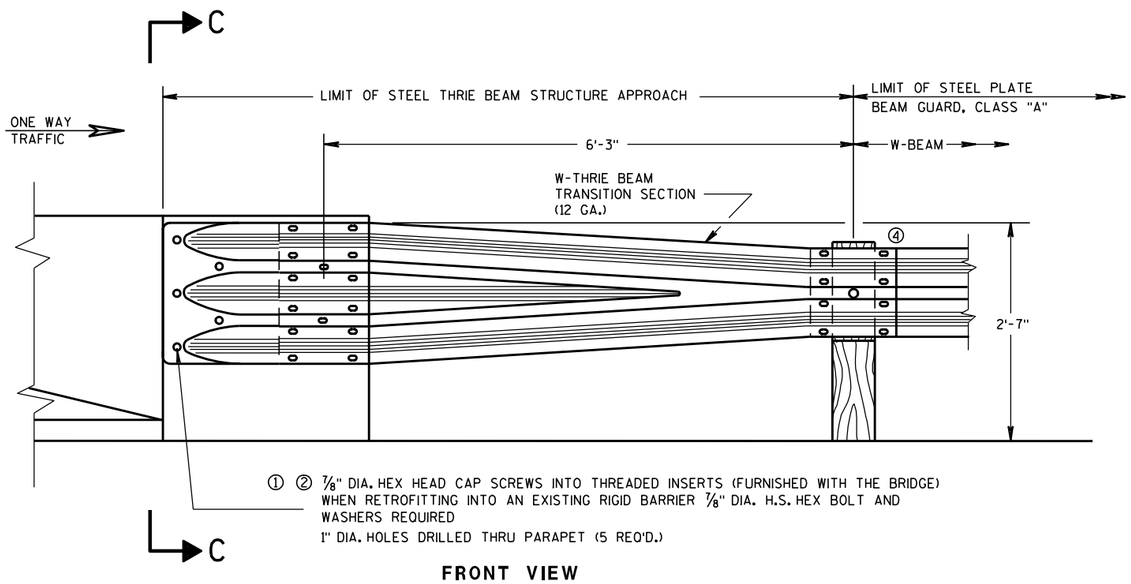
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" 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 ½".

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.

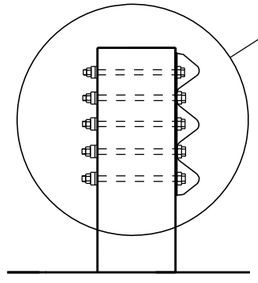




FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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



SECTION C-C

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

GENERAL NOTES

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

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

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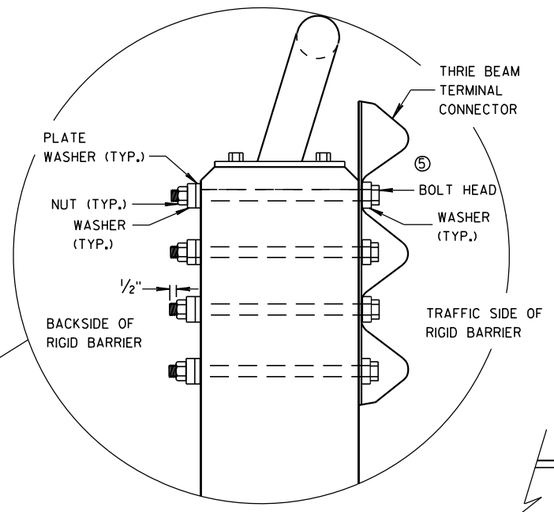
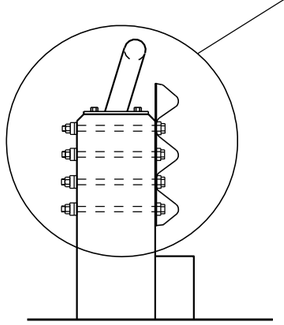
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

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.

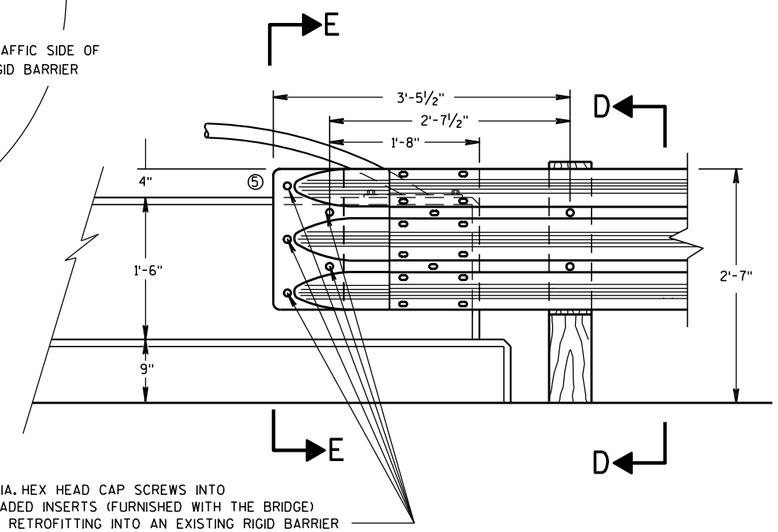
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

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.



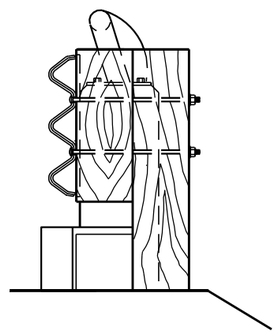


SECTION E-E



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

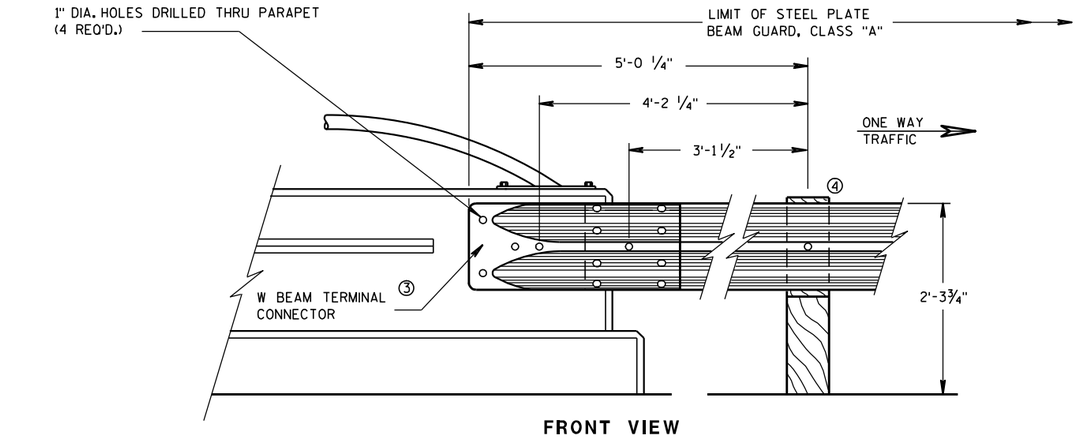
FRONT VIEW



SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" 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)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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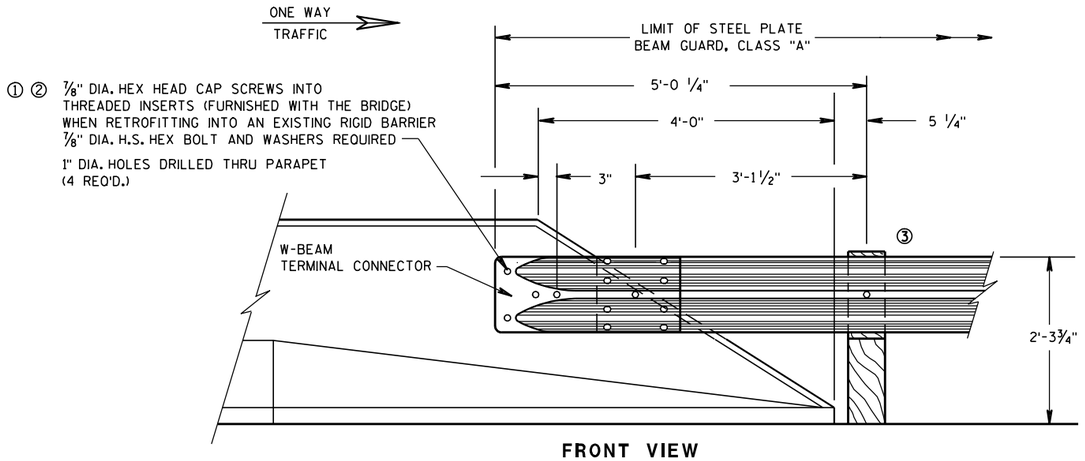


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

GENERAL NOTES

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

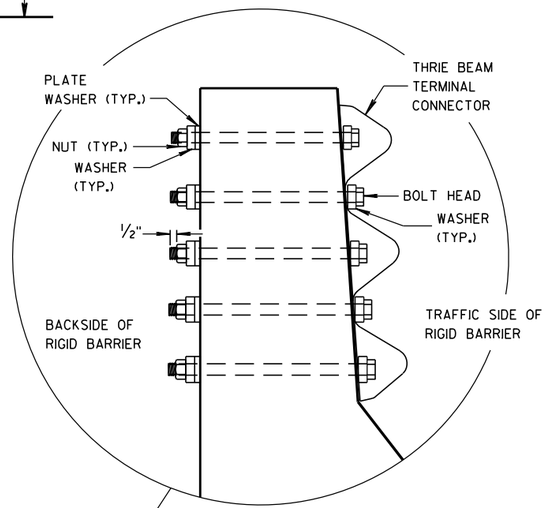
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

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

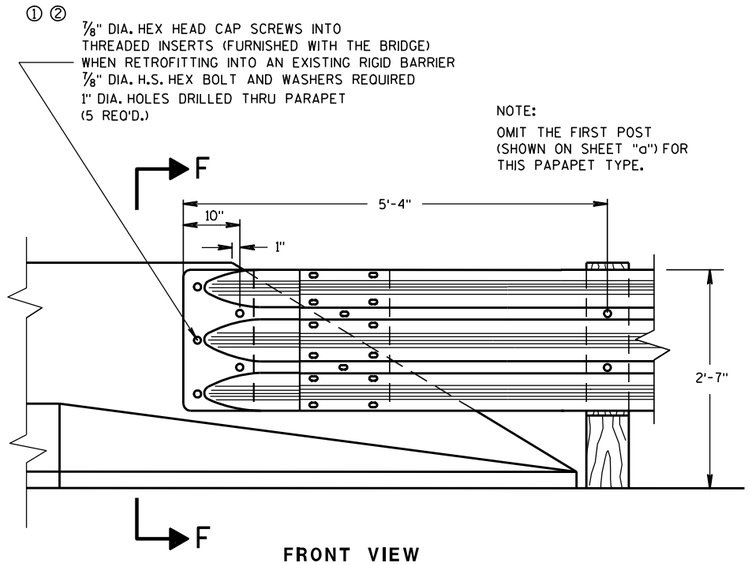
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. 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.

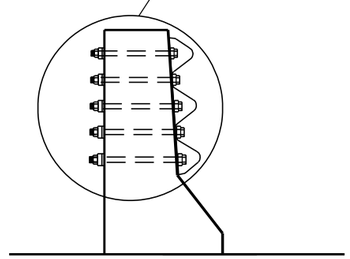
DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.



DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible]ENT ENGINEER
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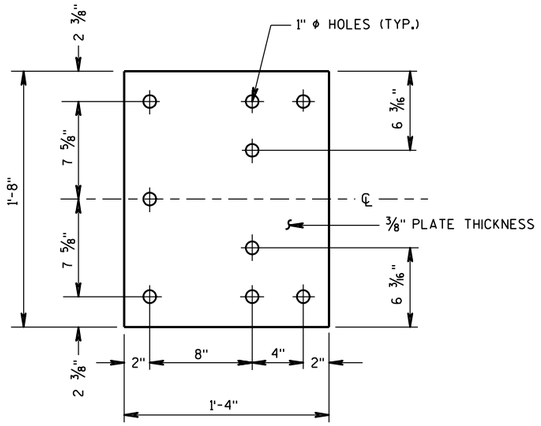
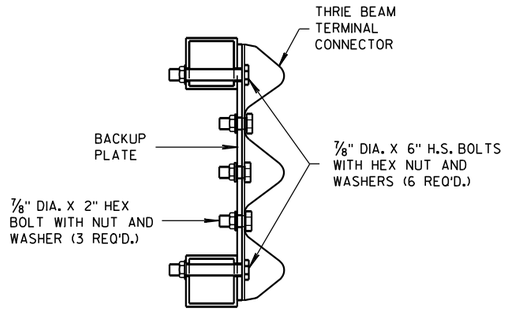


BACK-UP PLATE DETAIL



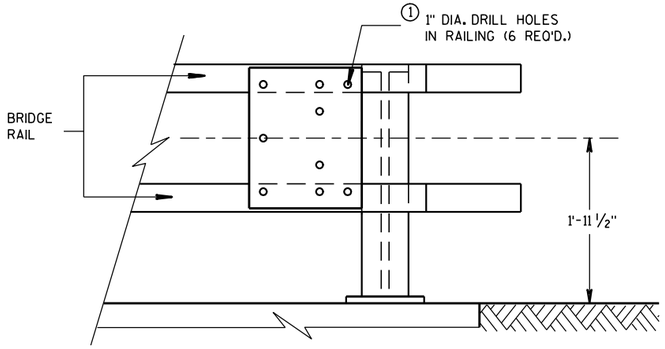
SECTION G-G

GENERAL NOTES

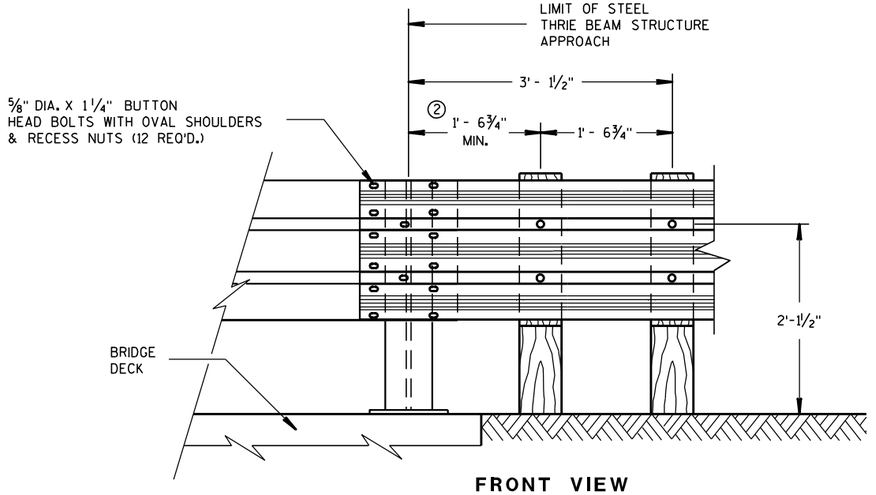
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

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.

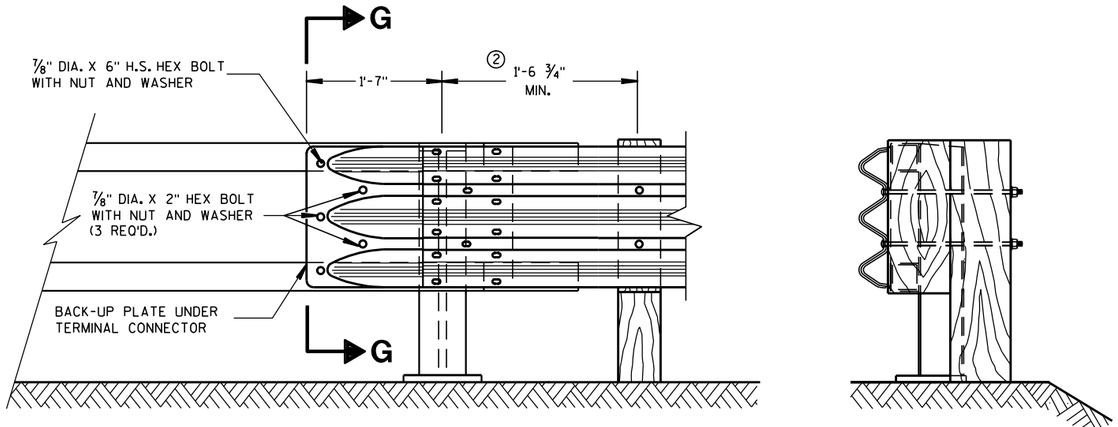


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H ____ ROADWAY STANDARDS ENGINEER ENT
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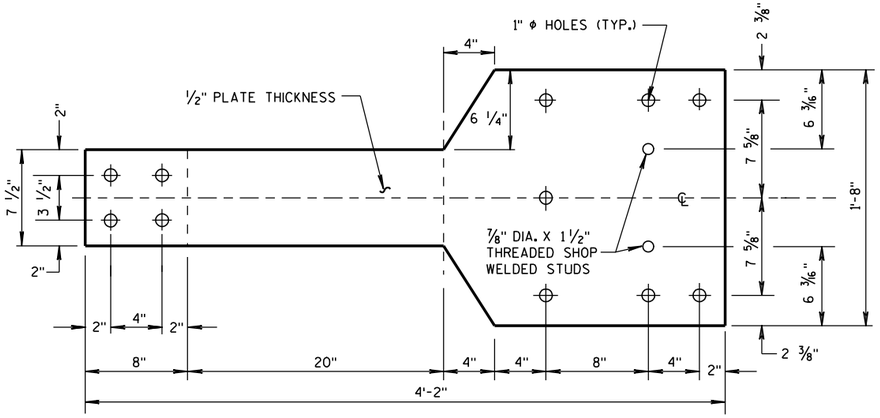
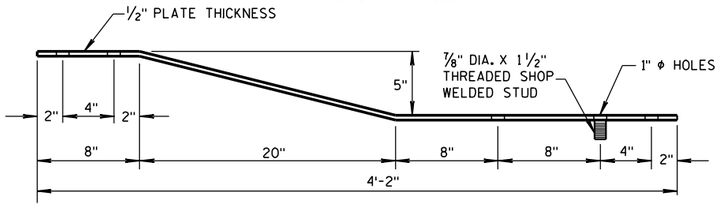
GENERAL NOTES

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.

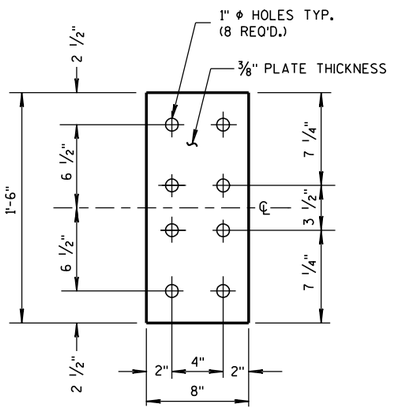


FRONT VIEW



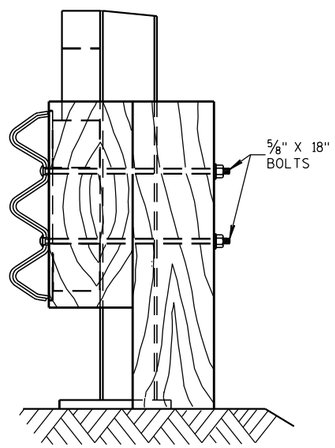
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

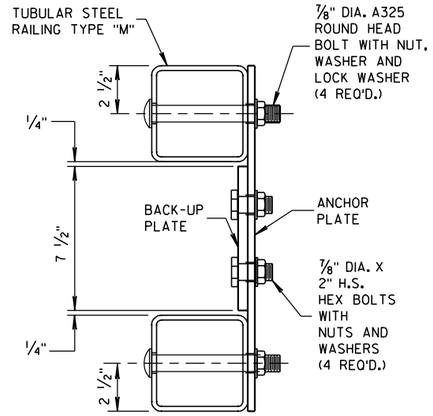


FRONT VIEW

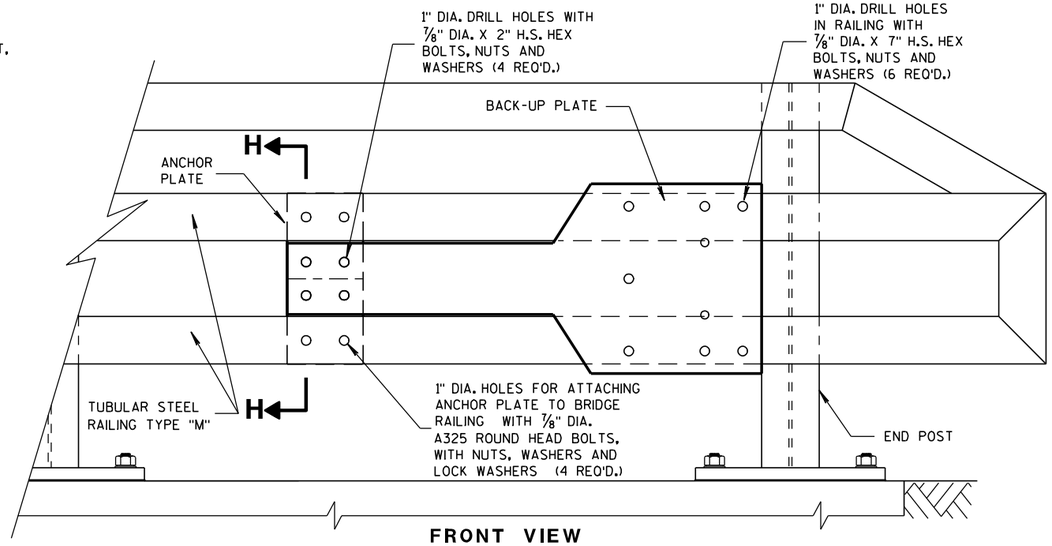
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I

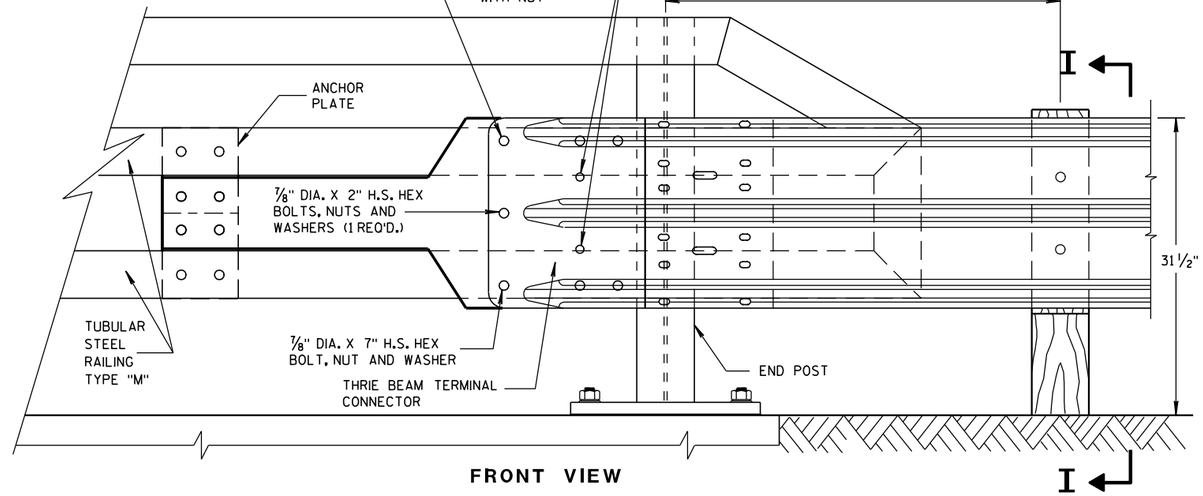


SECTION H-H

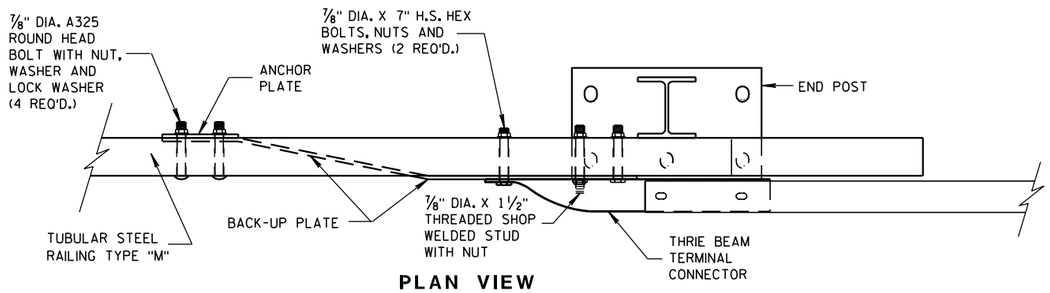


FRONT VIEW

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"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER

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GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

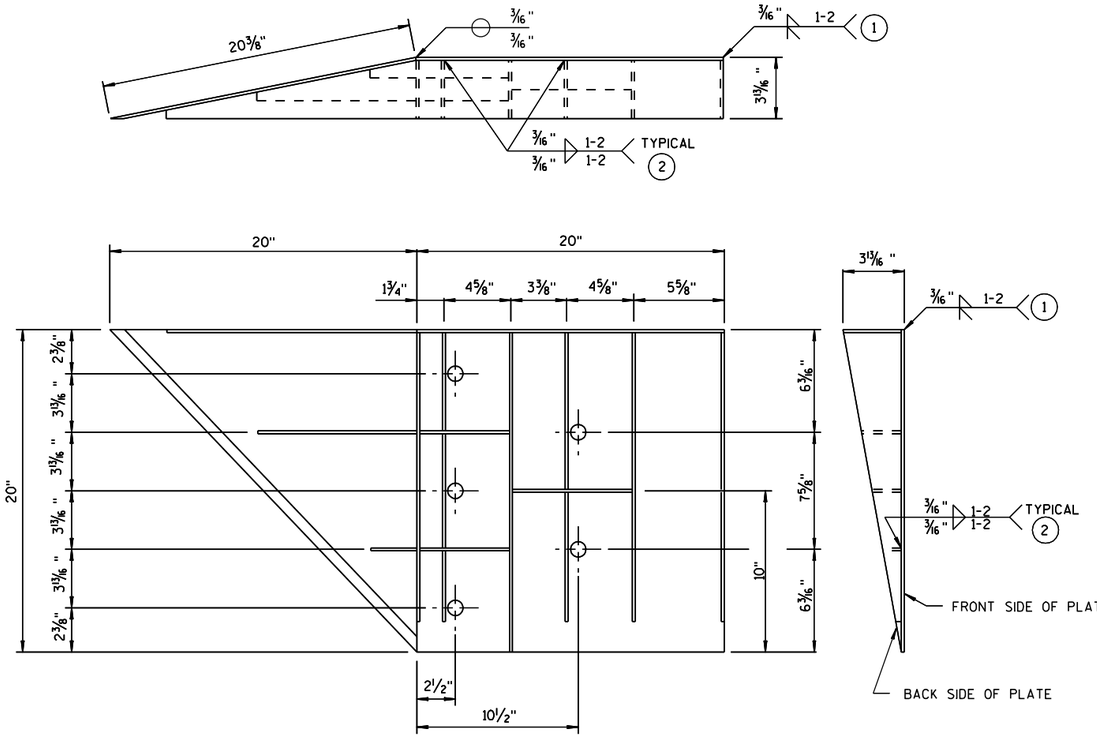
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

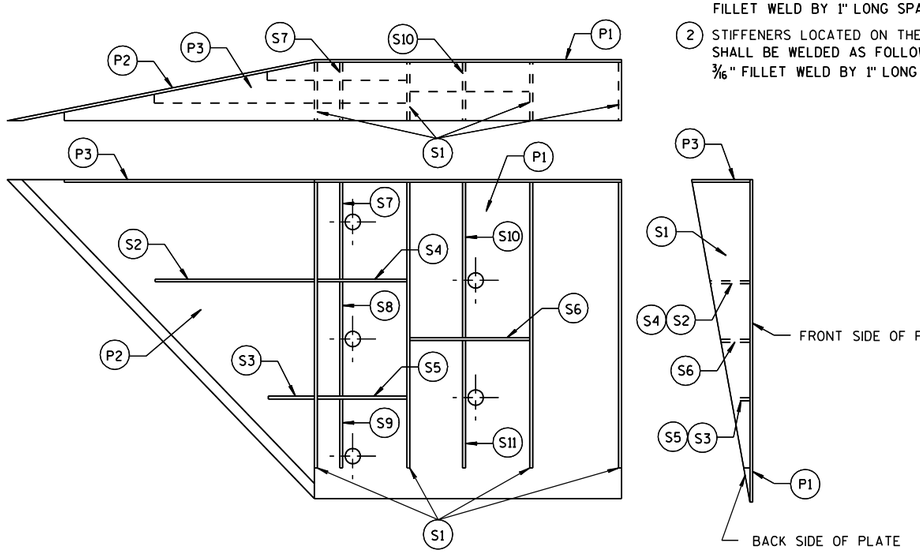


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
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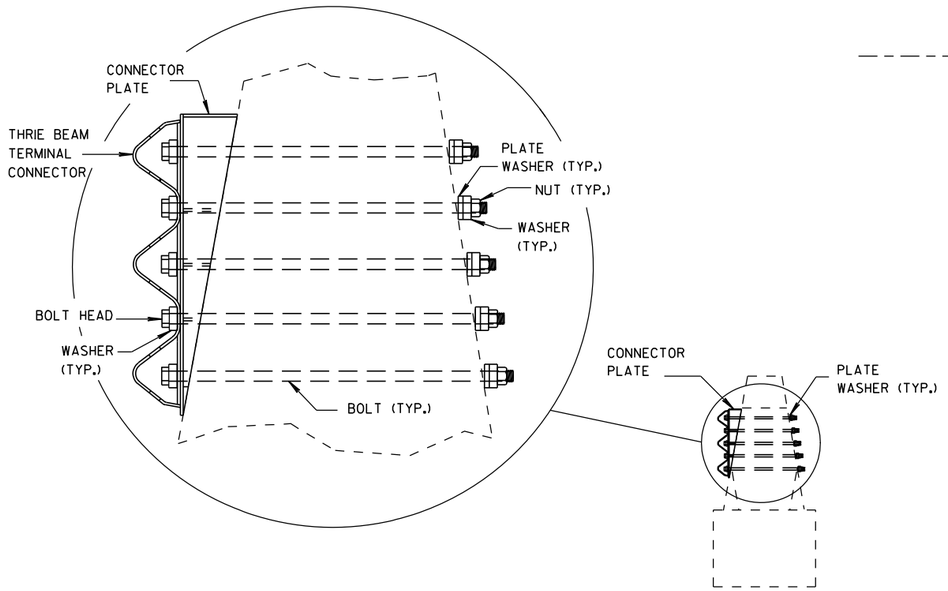
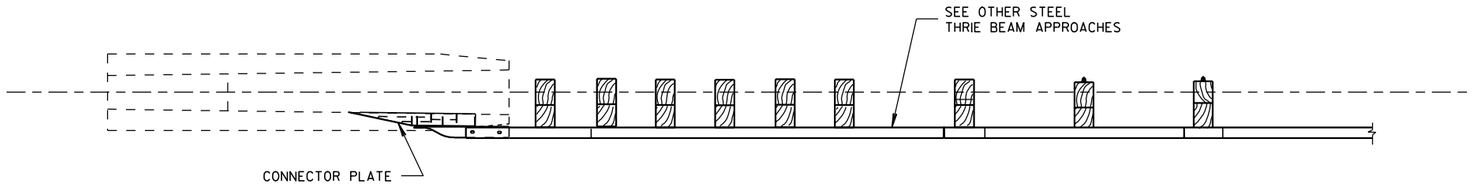
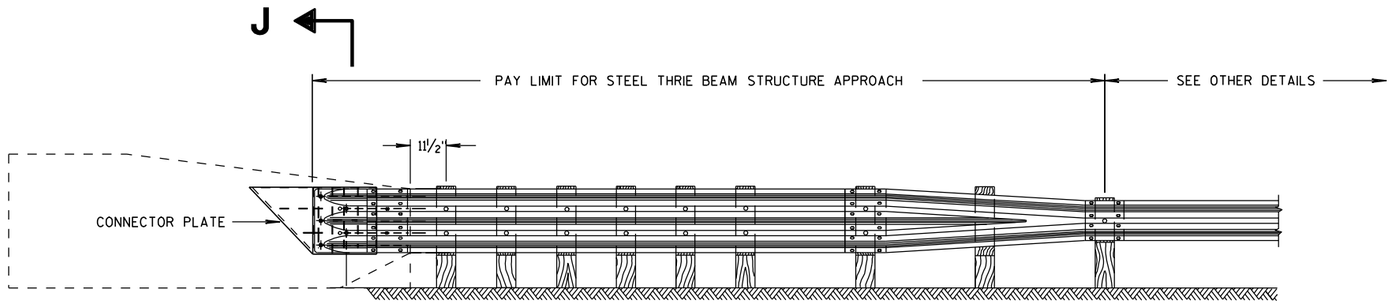


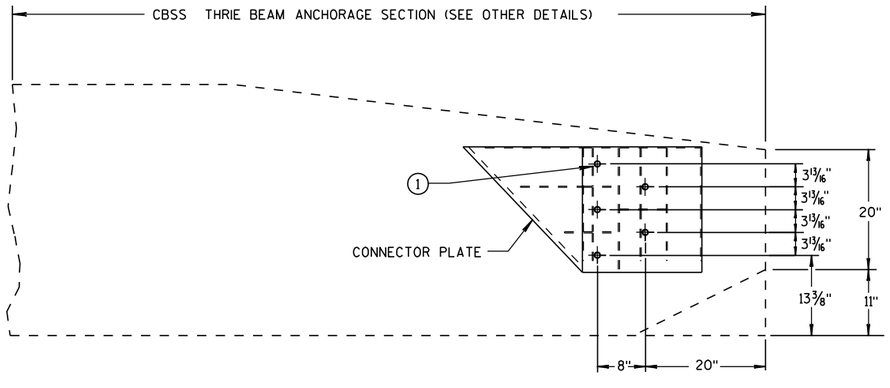
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

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

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
(1)	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
(2)	**	STEEL TUBE: OPTION 1 - QUANITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
(3)	2	SOIL PLATE: 2'-0" X 1'-6" X ¼" **
(4)	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
(5)	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
(6)	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
(7)	1	BEARING PLATE
(8)	1	BCT CABLE ASSEMBLY
(9)	1	CABLE ANCHOR BOX
(10)	1	STRUT & YOKE
(11)	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
(12)	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
(13)	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
(14)	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
(15)	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL ⅝" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

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

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

(C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

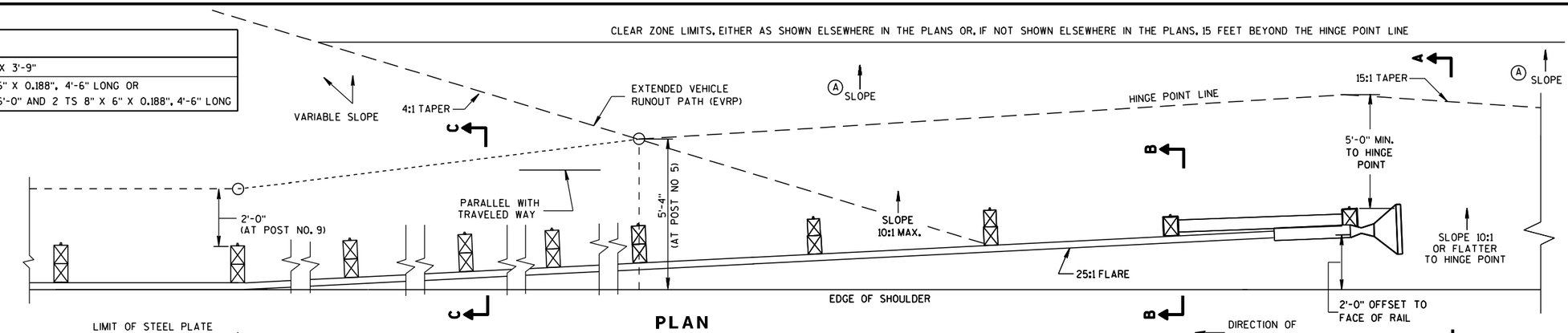
(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

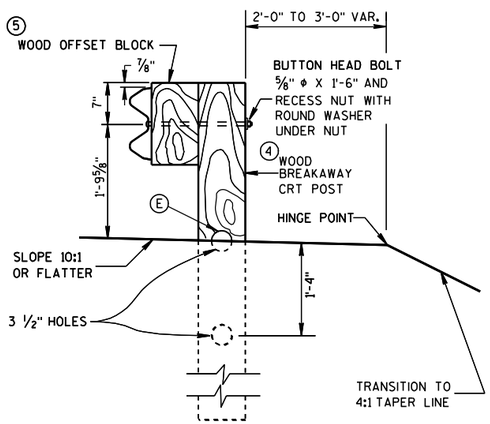
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

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.

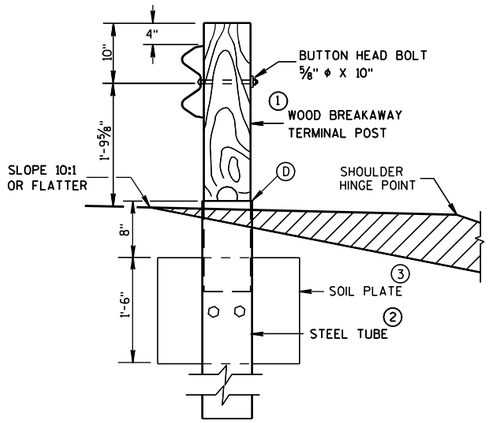
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE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





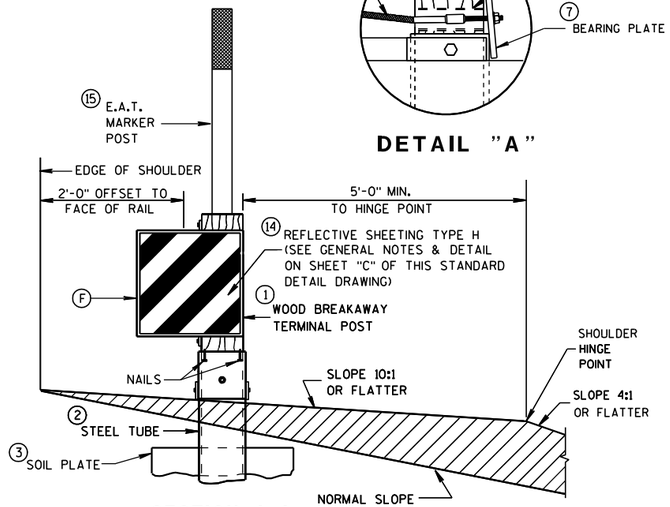
SECTION C-C

TYPICAL AT POST NOS. 6, 8



SECTION B-B

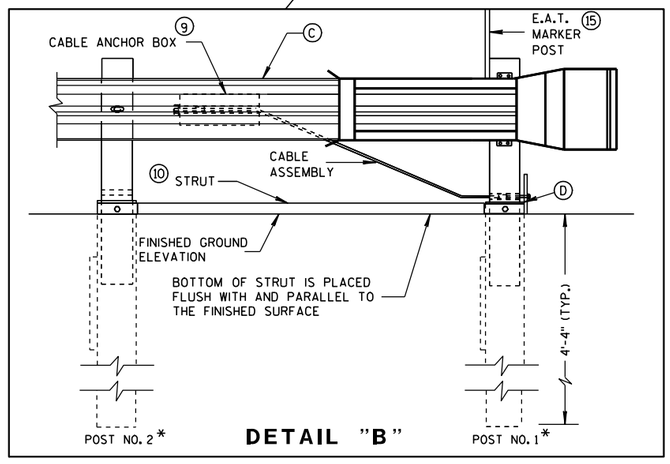
TYPICAL AT POST NO. 2*



DETAIL "A"

SECTION A-A

TYPICAL AT POST NO. 1*



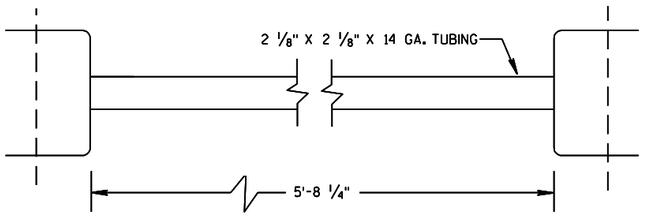
DETAIL "B"

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

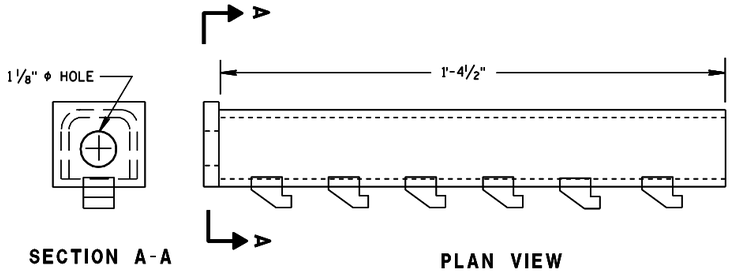
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 24-7a

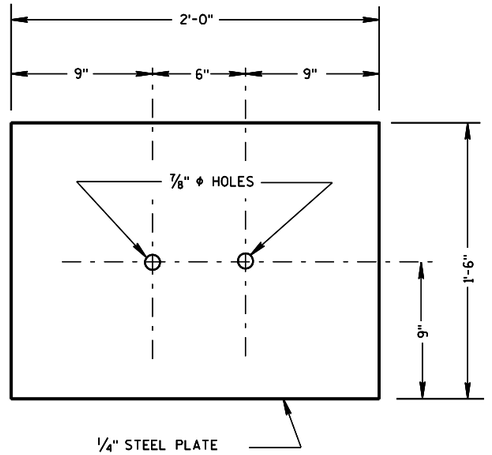
6



⑩ STRUT DETAIL (SKT-350)

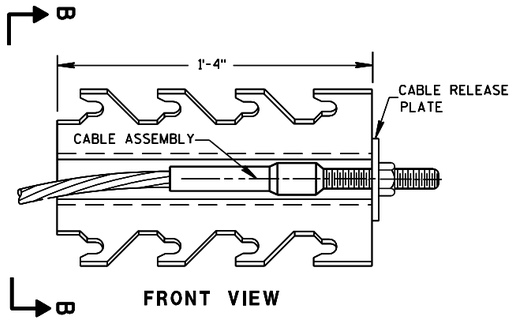


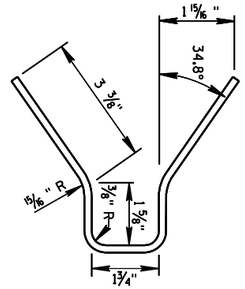
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



③ SOIL PLATE

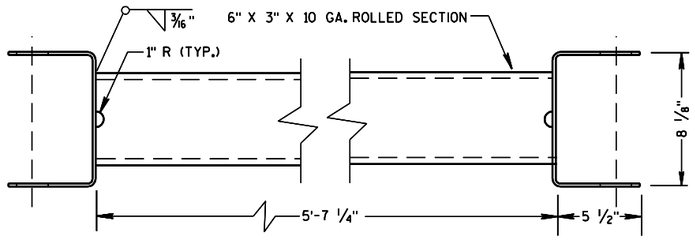
(SKT-350, ET-2000/ET-2000 PLUS)





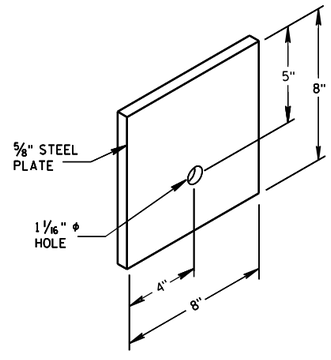
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)

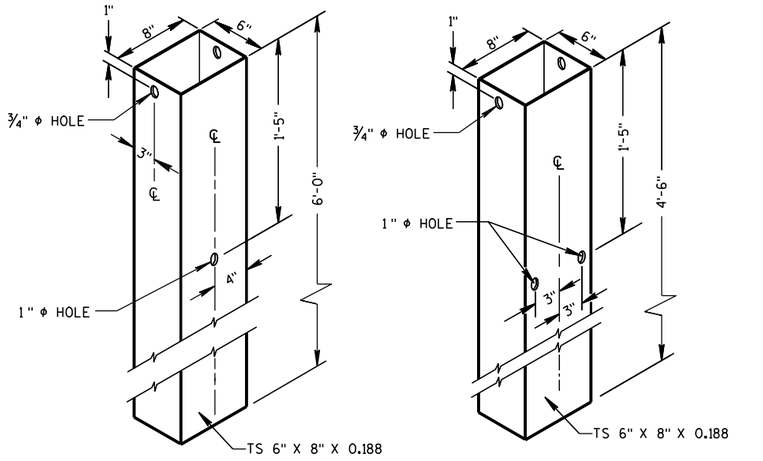


⑦ STEEL BEARING PLATE

(SKT-350, ET-2000/ET-2000 PLUS)

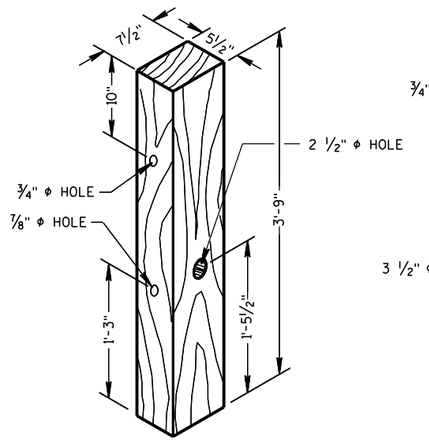
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

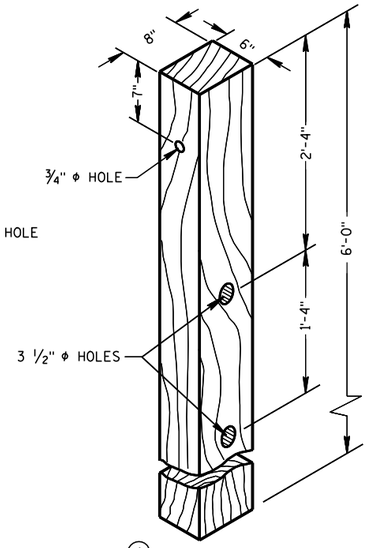


(2) 72" STEEL TUBE
(POSTS NO. 1-4

(2) 54" STEEL TUBE
(POSTS NO. 1-4



(1) TERMINAL POST
(POSTS NO. 1-4



(4) CRT POST
(POSTS NO'S 5-8

WOOD BREAKAWAY POSTS

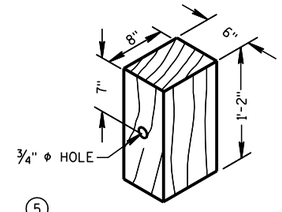
GENERAL NOTES

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

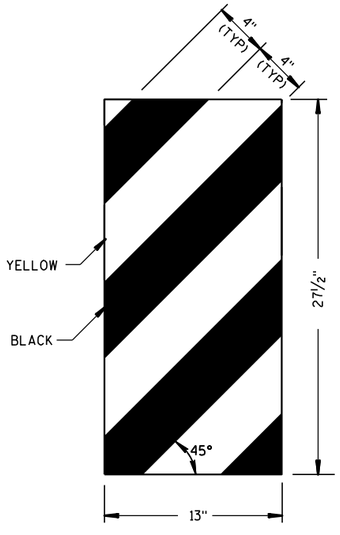
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

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

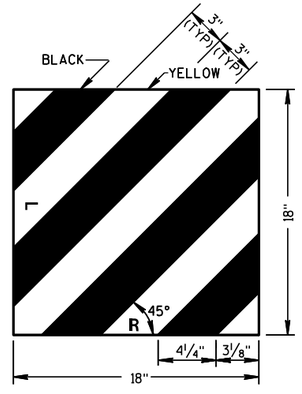
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



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

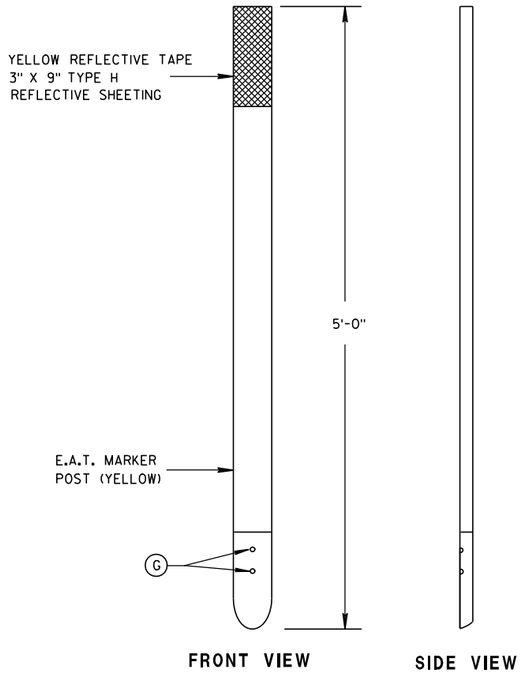


ET-2000 PLUS ONLY

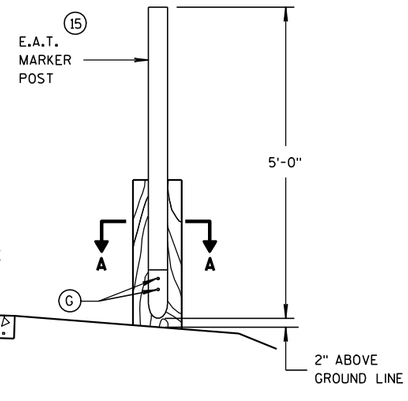


ET-2000 AND SKT-350

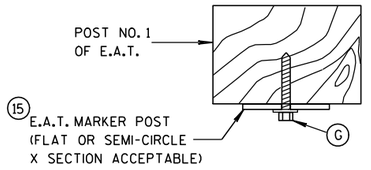
(14) REFLECTIVE SHEETING DETAILS



(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)



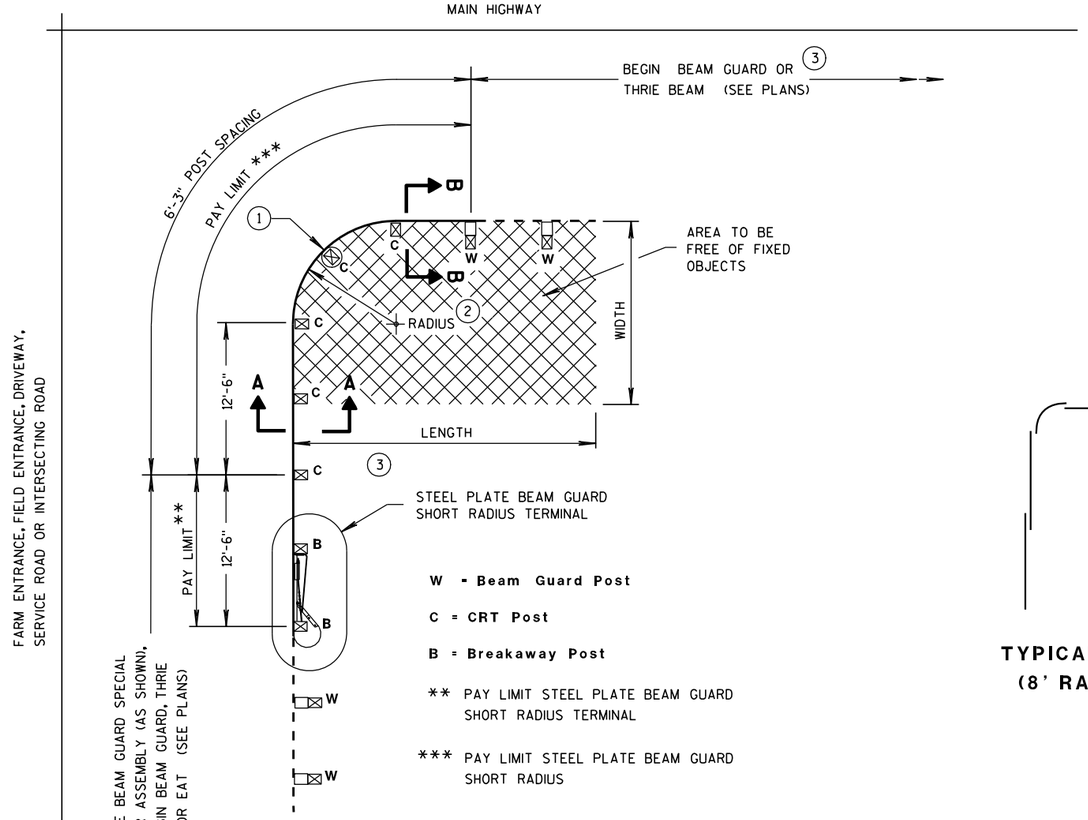
SECTION A-A

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

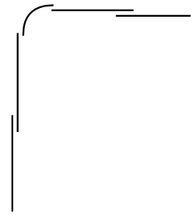
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-12-10
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 14 B 24-7c



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

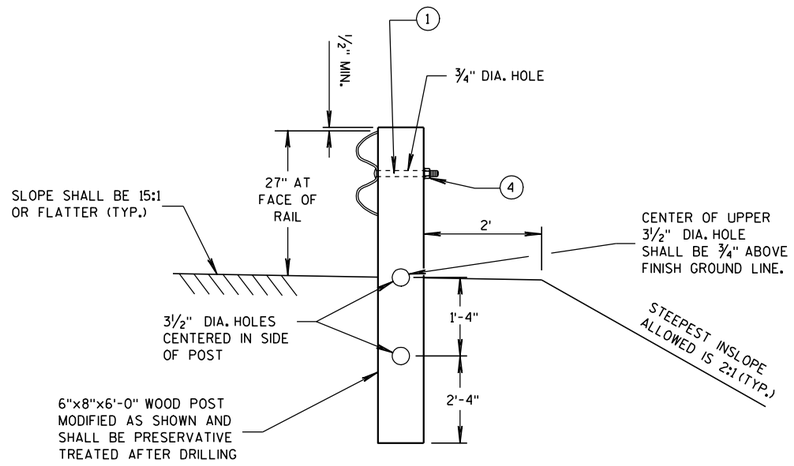
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

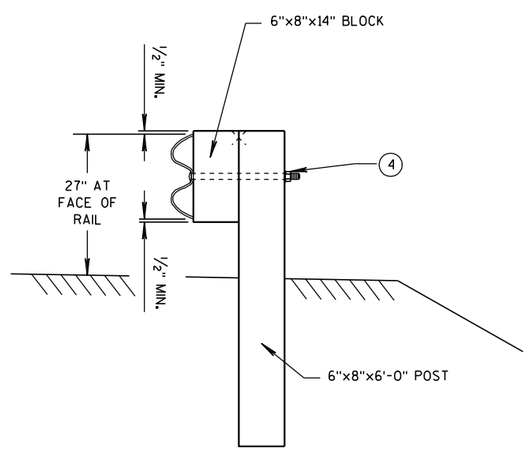
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

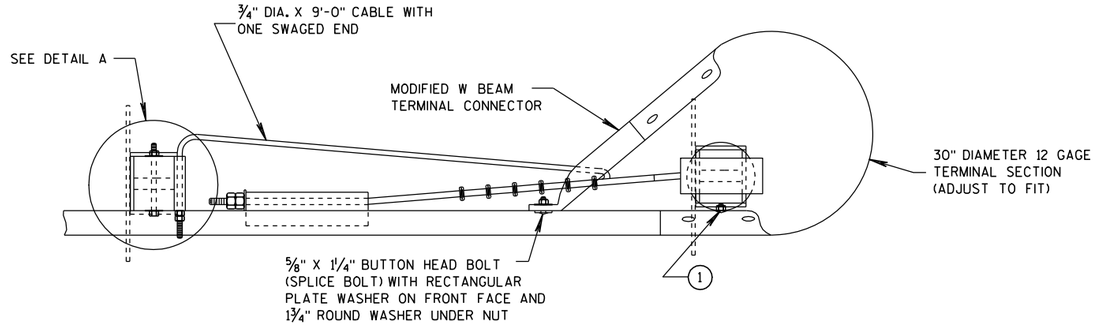
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

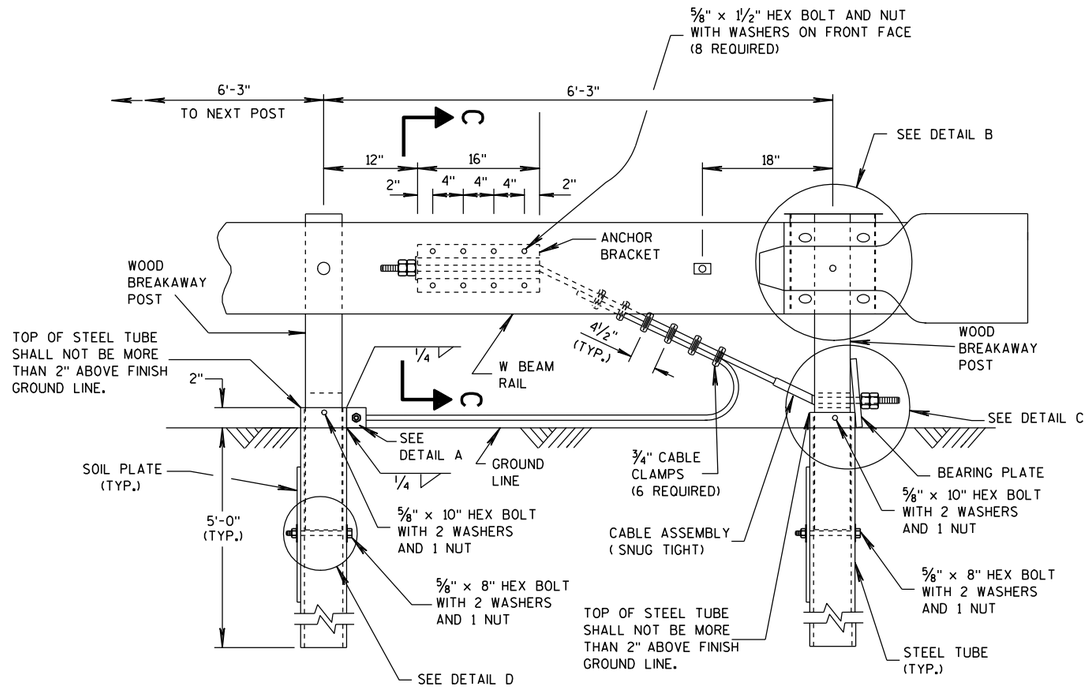
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



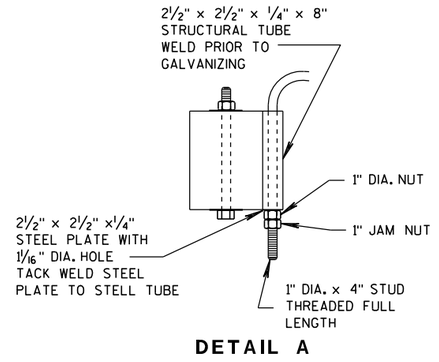
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

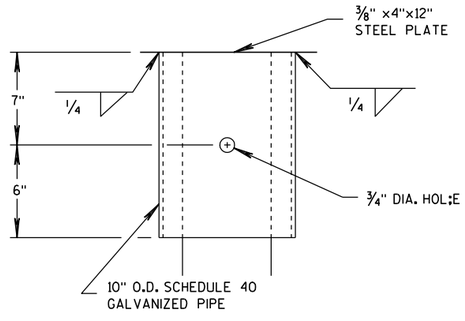
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

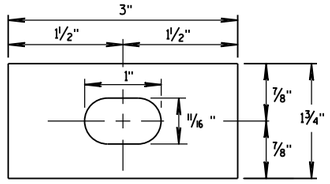
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

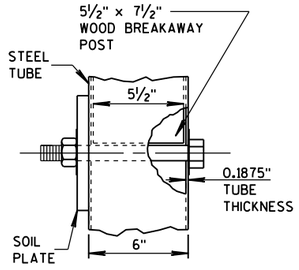
S.D.D. 14 B 27-1b

6

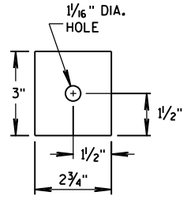
S.D.D. 14 B 27-1b



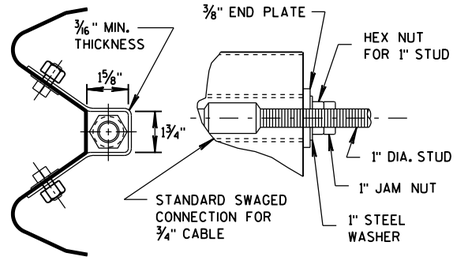
RECTANGULAR PLATE WASHER



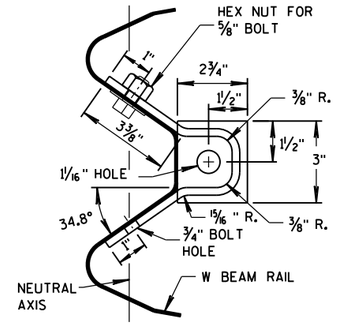
DETAIL D



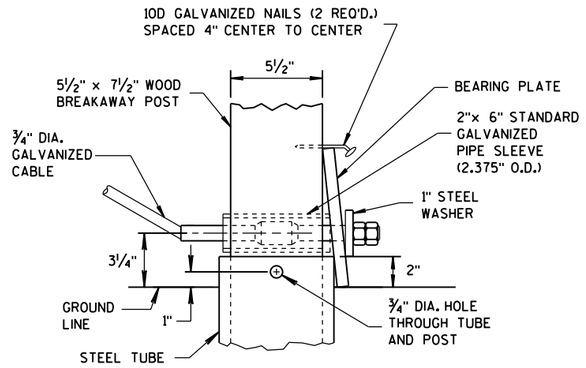
END PLATE



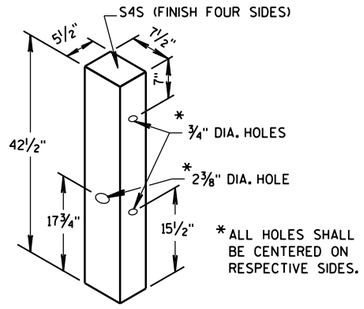
SECTION C-C
(END PLATE REMOVED)



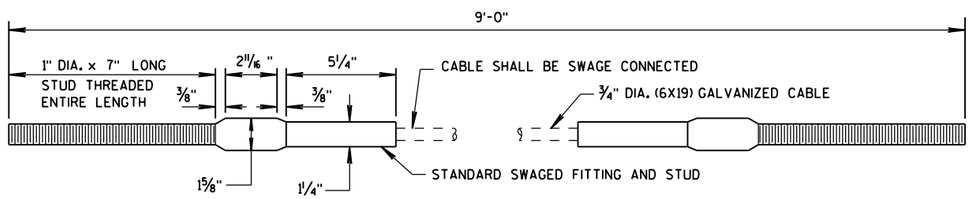
ANCHOR BRACKET



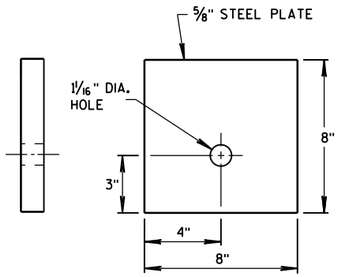
DETAIL C



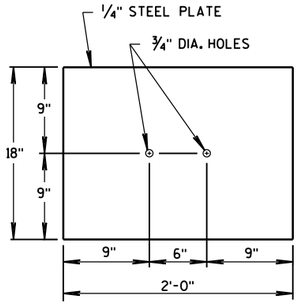
WOOD BREAKAWAY POST



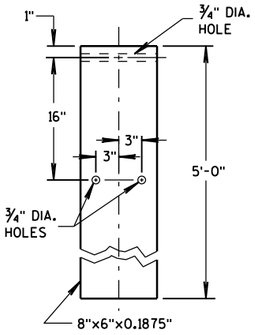
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

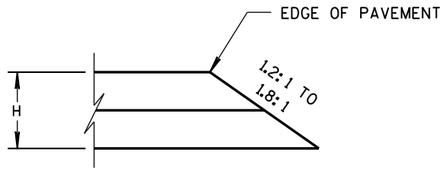
APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

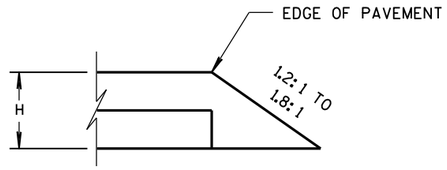
6

S.D.D. 14 B 27-1c



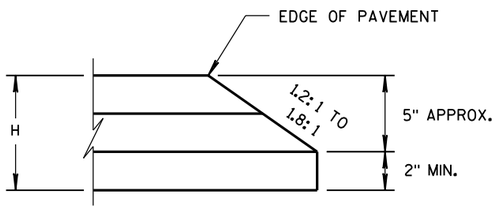
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



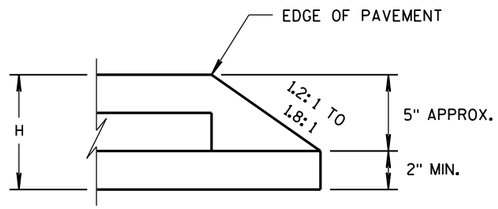
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

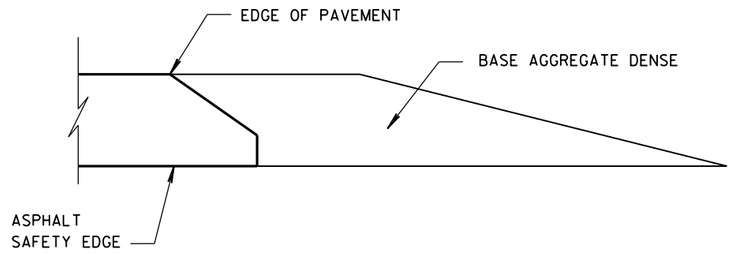
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

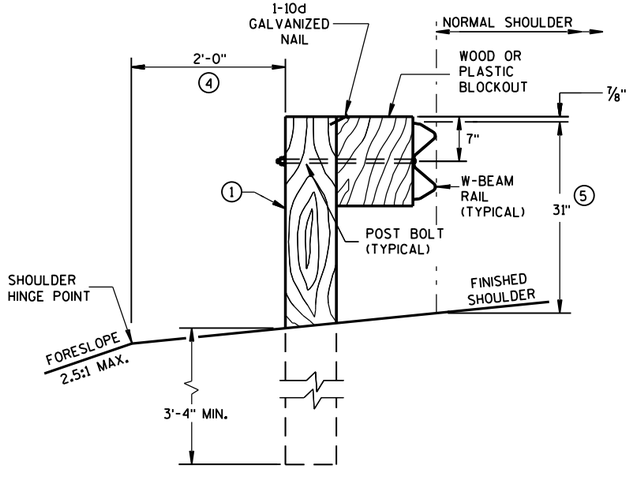
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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

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

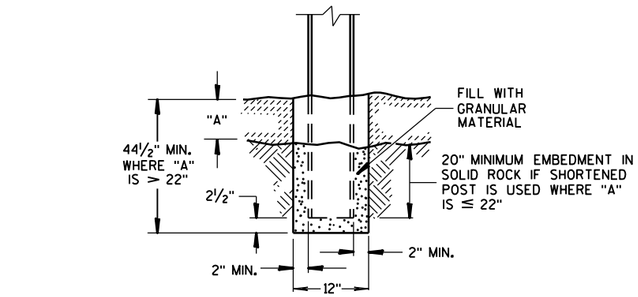
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

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



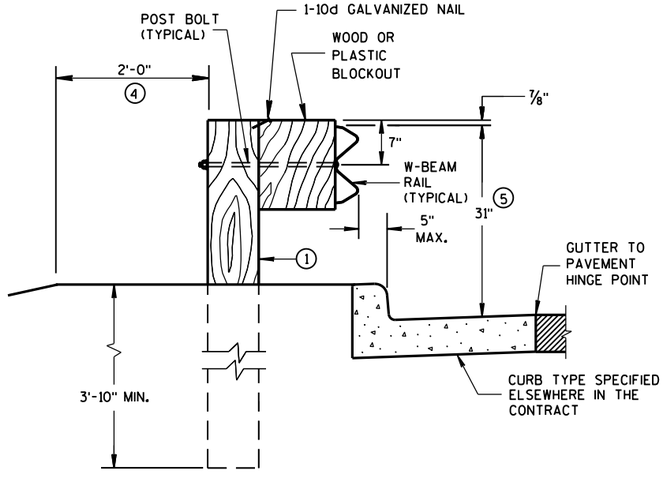
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



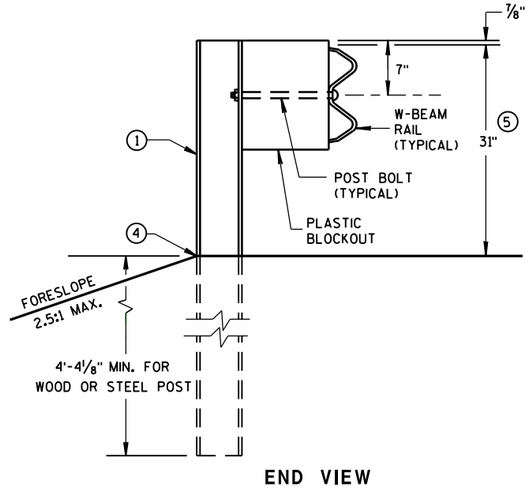
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



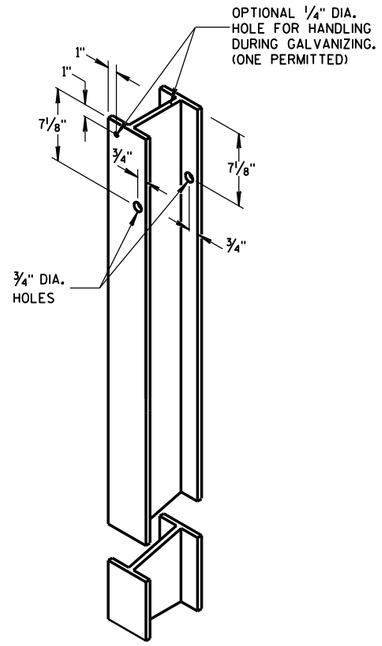
END VIEW

LOCATED ALONG A CURBED ROADWAY

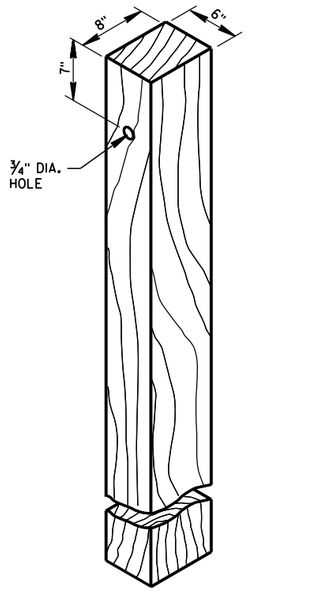


END VIEW

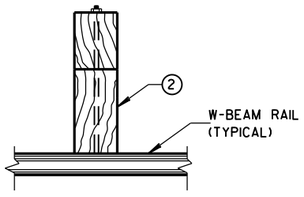
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



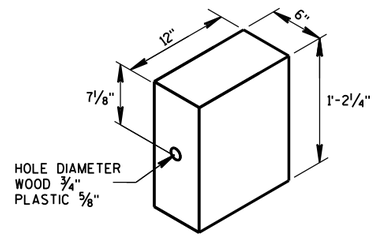
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



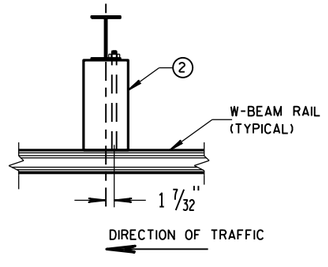
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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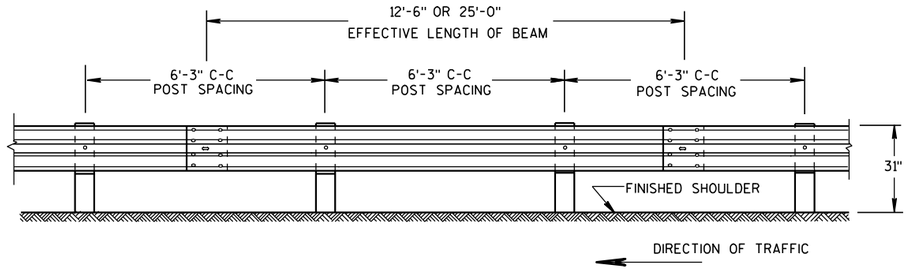
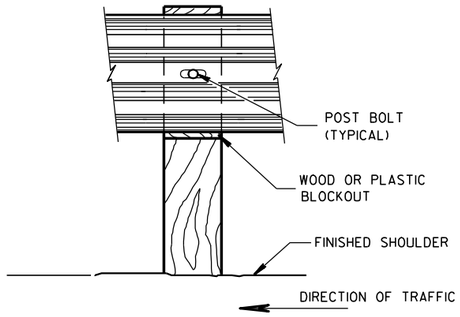
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



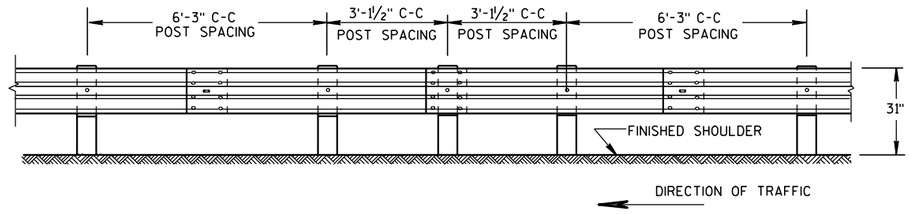
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

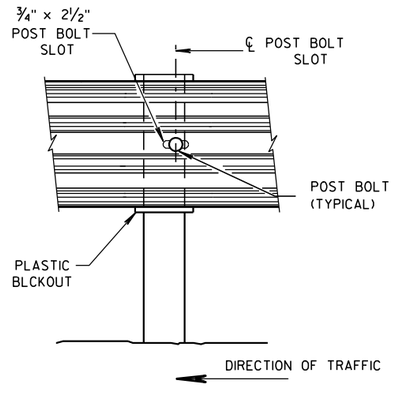
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

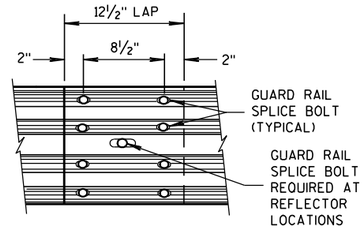


FRONT VIEW

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

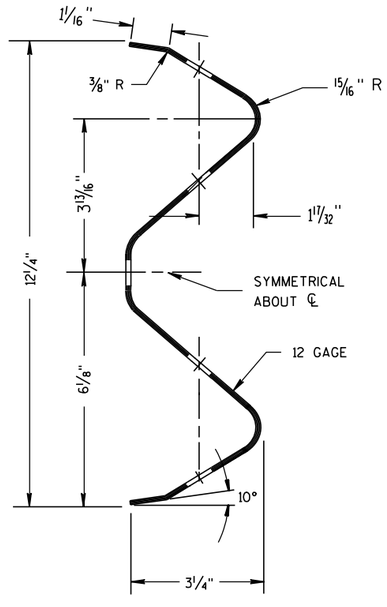


FRONT VIEW AT STEEL POST

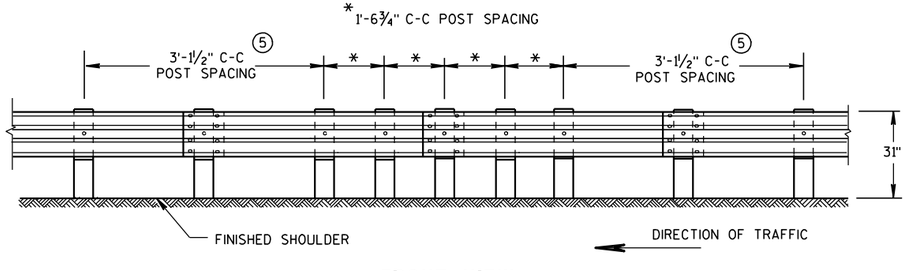


FRONT VIEW

MID-SPAN BEAM SPLICE

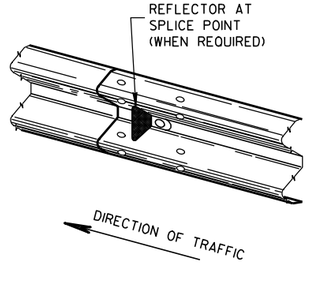


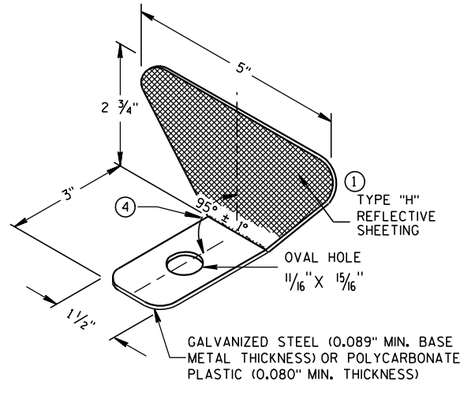
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1 ③	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ④	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 42-2b

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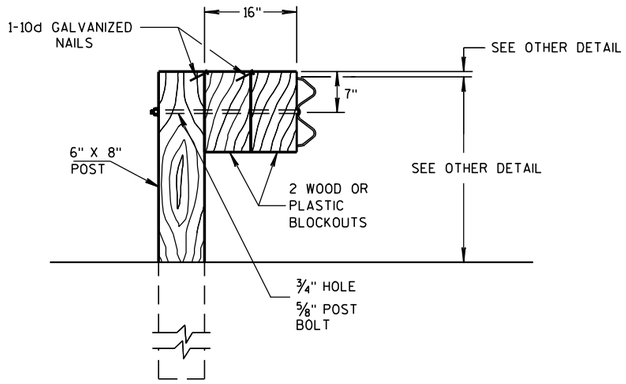
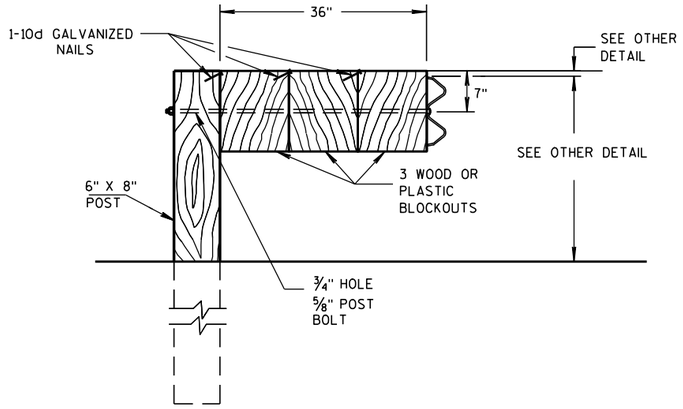


DETAIL FOR 16" BLOCKOUT DEPTH

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

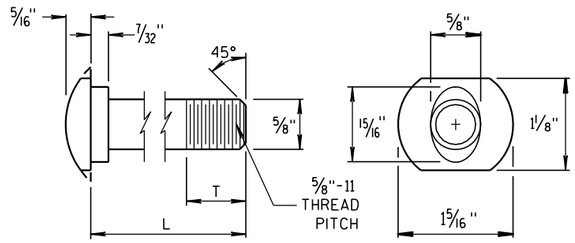


DETAIL FOR 36" BLOCKOUT DEPTH

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

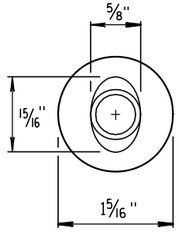
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

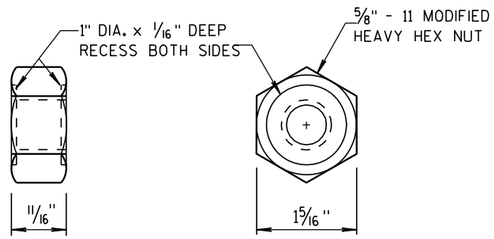


POST BOLT TABLE

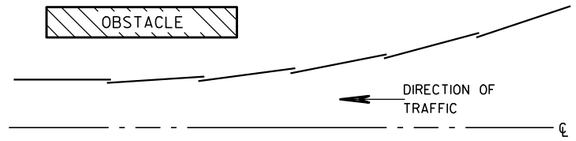
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

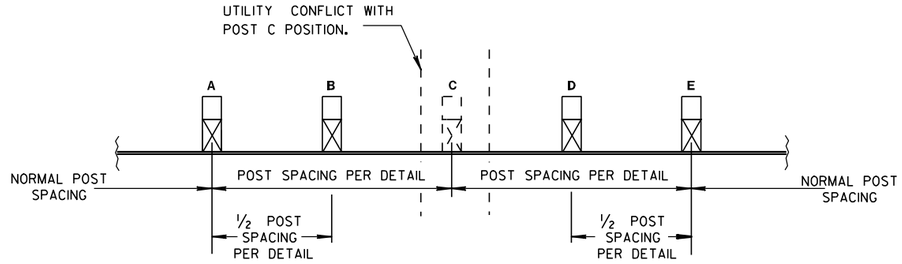


POST BOLT AND RECESS NUT

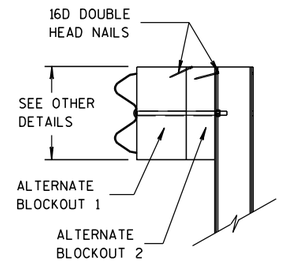


PLAN VIEW

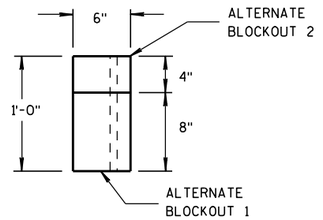
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

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

FHWA

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S.D.D. 14 B 42-2c

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S.D.D. 14 B 42-2c

GENERAL NOTES

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

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

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

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

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

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

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

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

SEE SDD 14B42 FOR MORE INFORMATION.

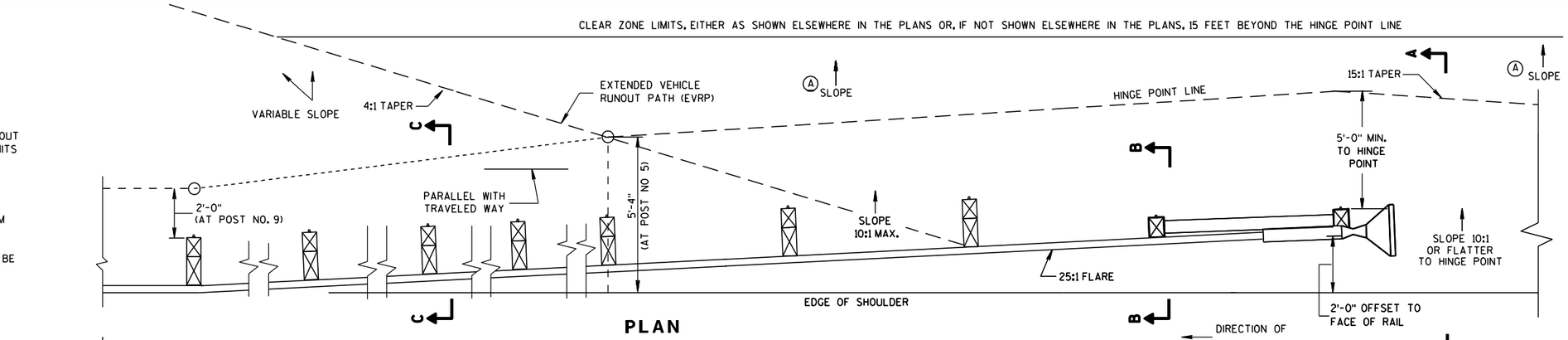
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

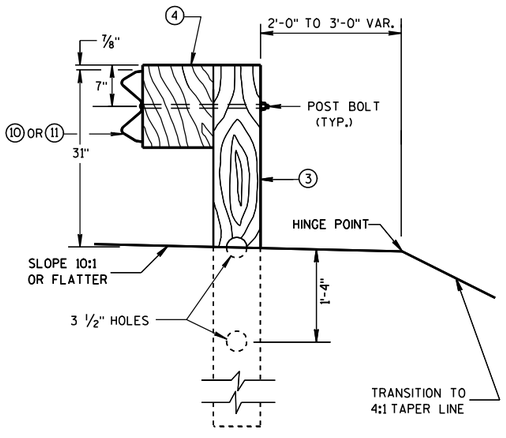
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

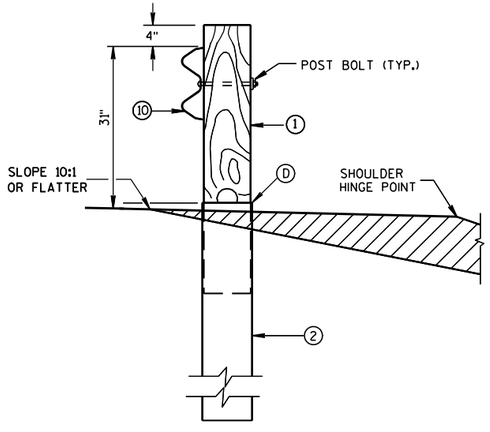
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

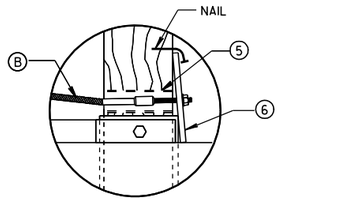


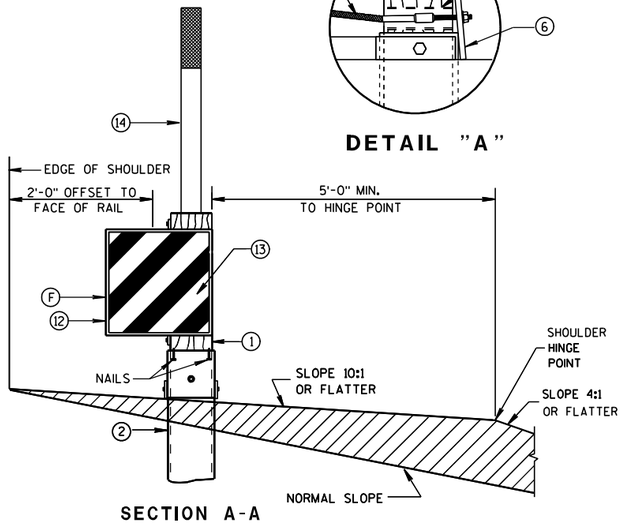


SECTION C-C
TYPICAL AT POST NOS. 3-9

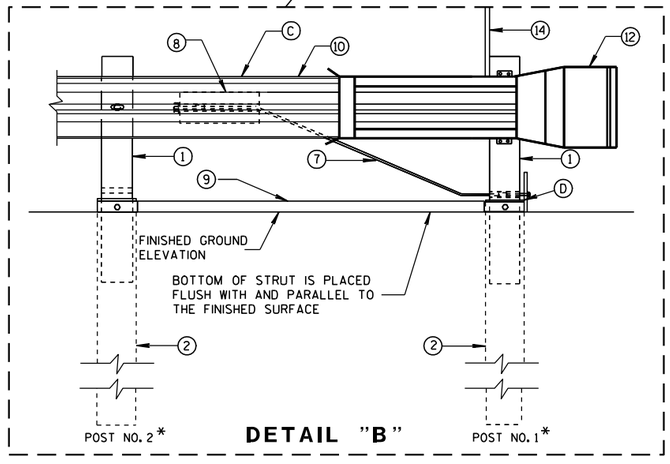


SECTION B-B
TYPICAL AT POST NO. 2*





SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 44-1a

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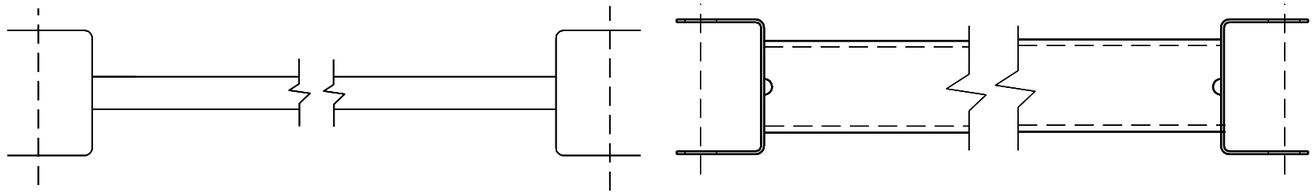
S.D.D. 14 B 44-1a



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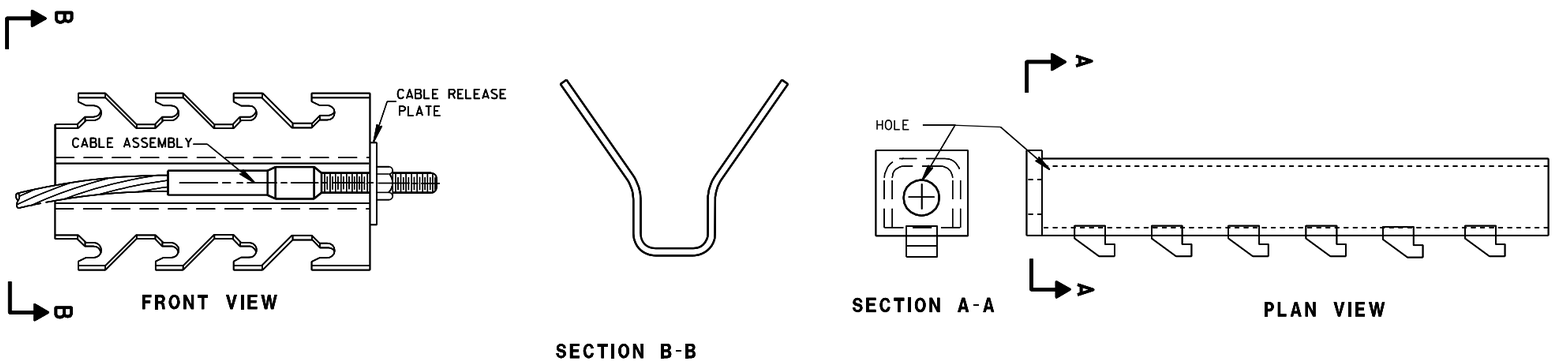
GENERIC GROUND STRUT

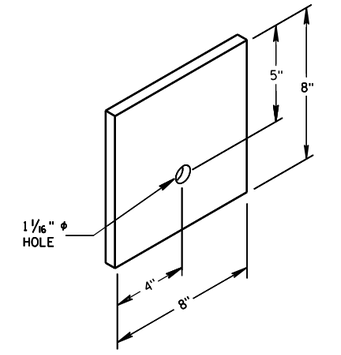
BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX

⑧ Ⓗ



BEARING PLATE

⑥

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

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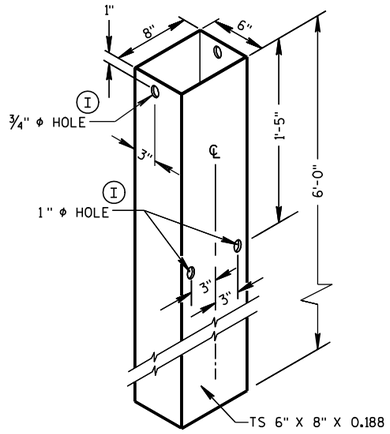
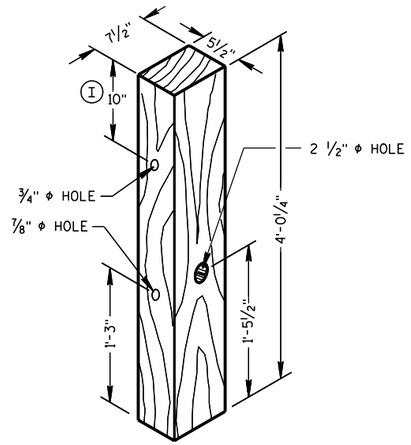
S.D.D. 14 B 44-1b

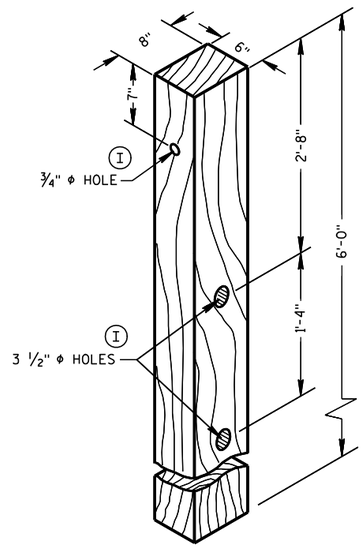


FOUNDATION TUBE (2)



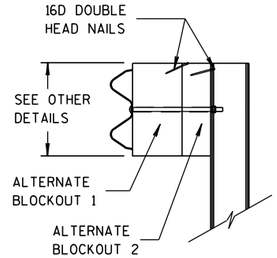
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

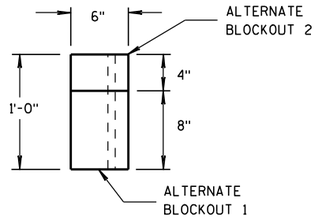


POSTS NUMBER 3-9

WOOD CRT POST (3)

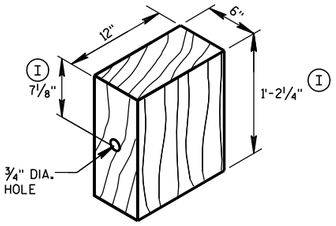


SIDE VIEW



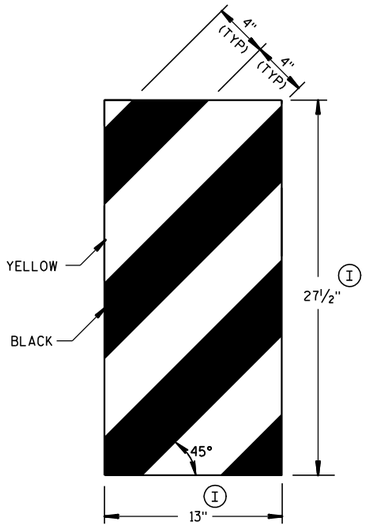
TOP VIEW

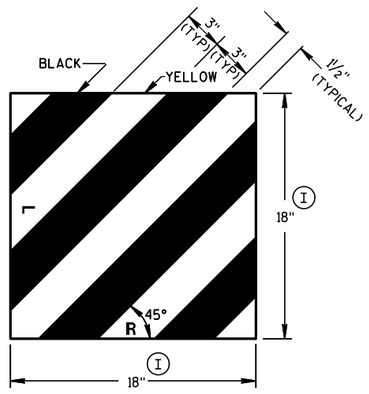
ALTERNATE WOOD BLOCKOUT DETAIL



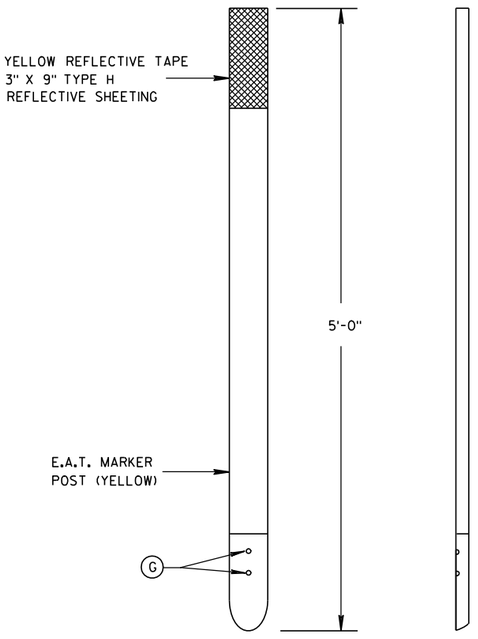
WOOD BLOCKOUT (4)

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





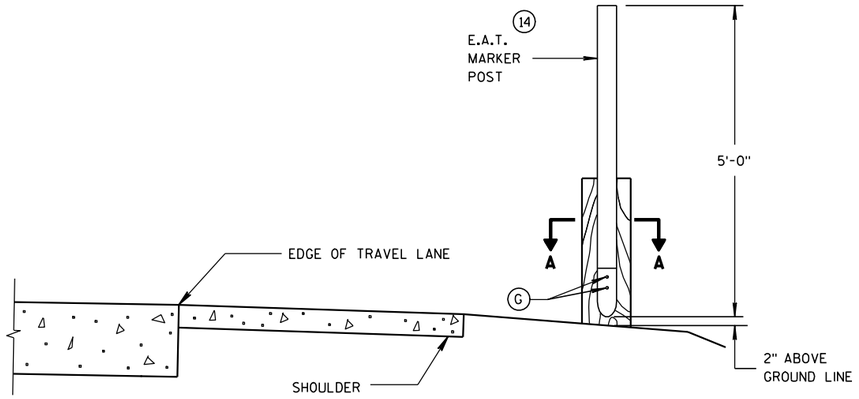
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

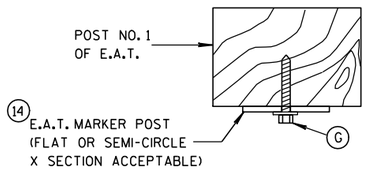
SIDE VIEW

E.A.T. MARKER POST (14)



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

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



SECTION A-A

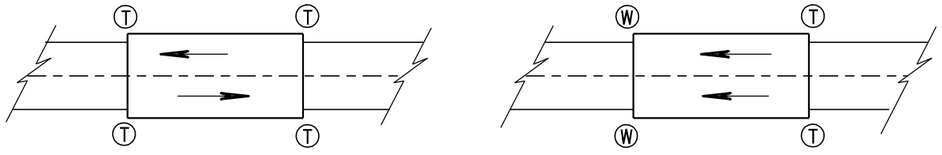
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

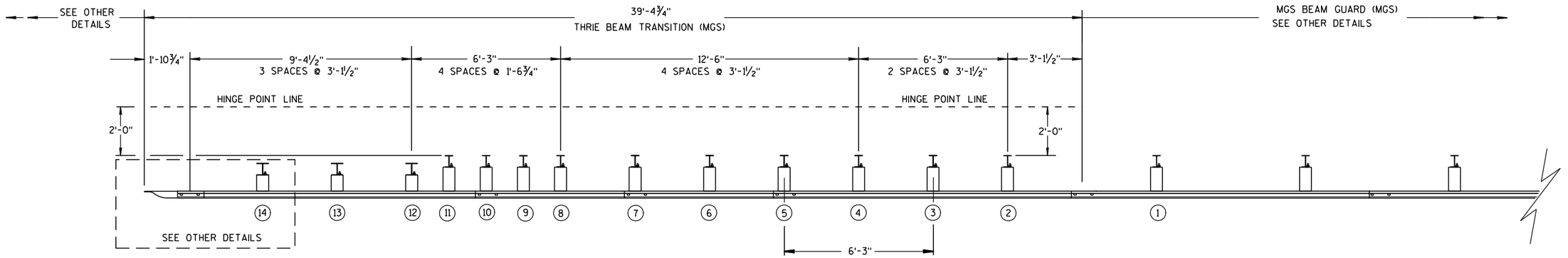
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

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

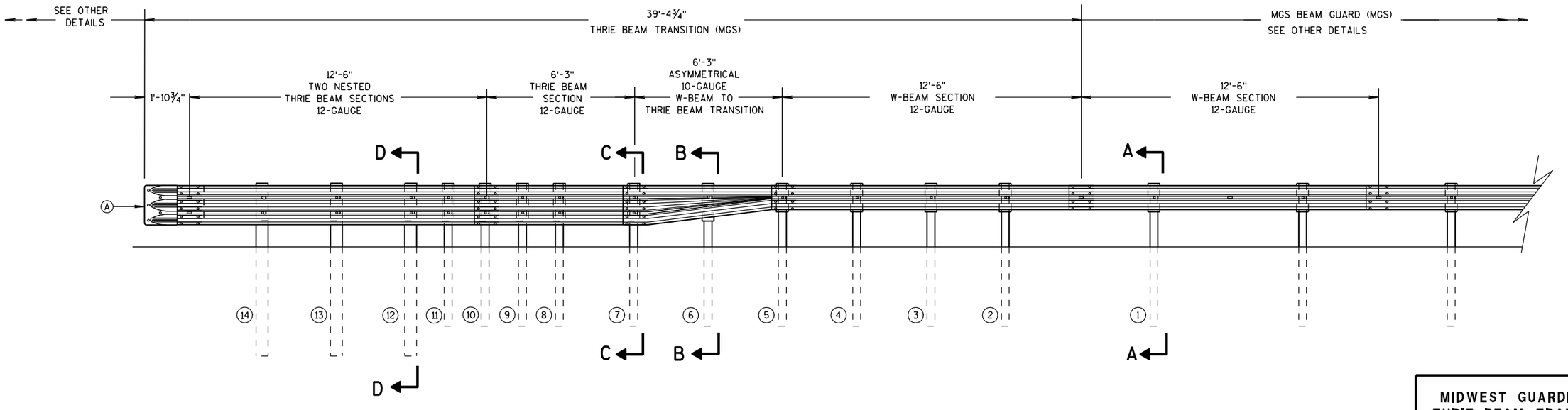
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

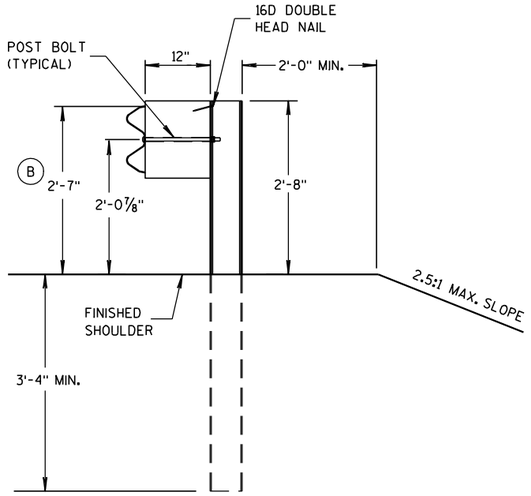
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

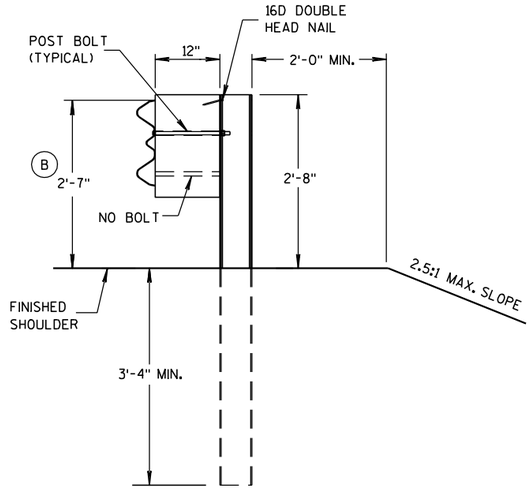
GENERAL NOTES

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



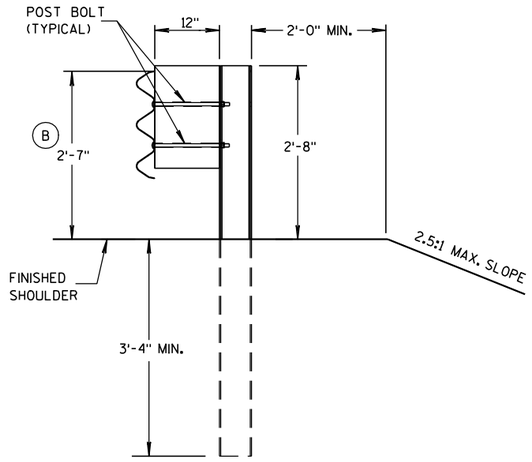
SECTION A-A

POSTS 1-5



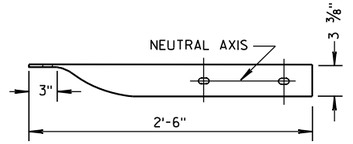
SECTION B-B

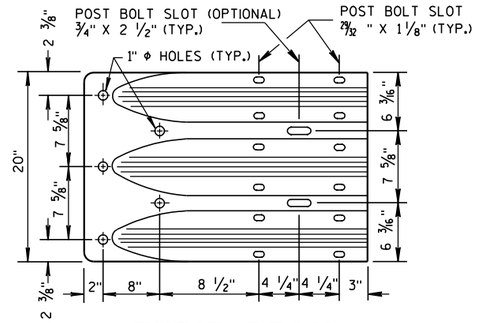
POST 6



SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR

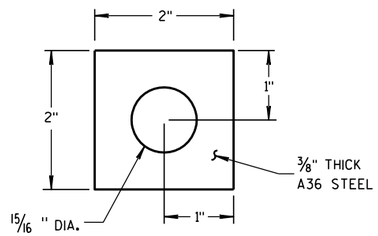
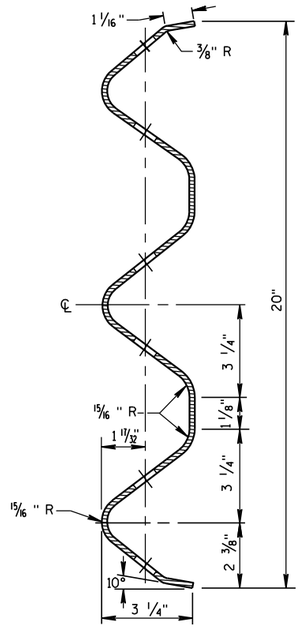
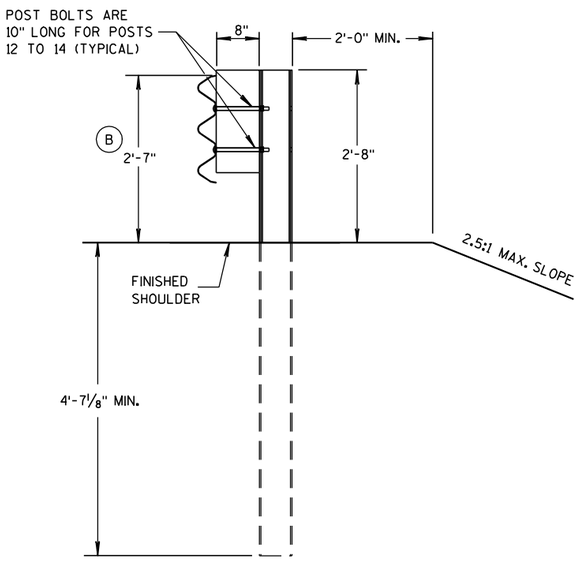


PLATE WASHER DETAIL

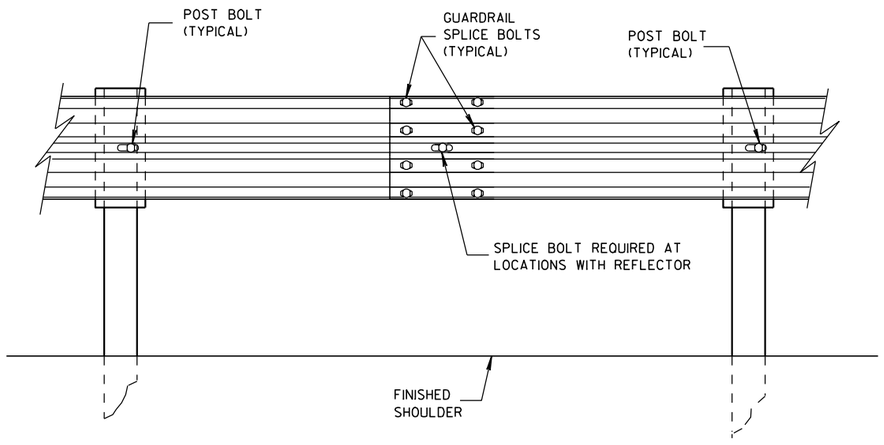


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-14



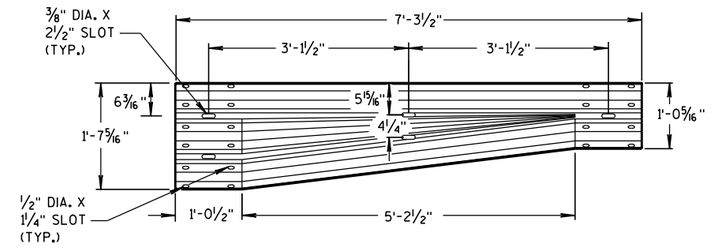
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

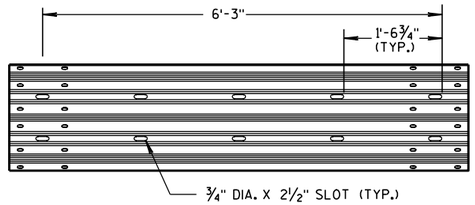
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

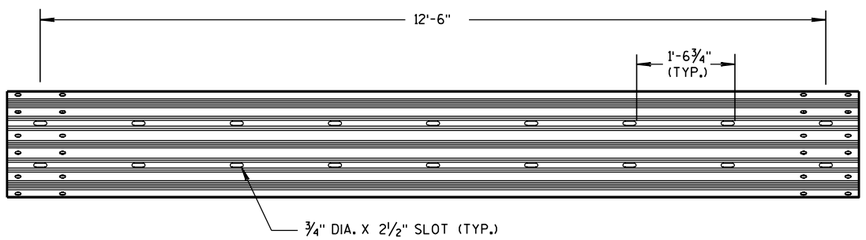
S.D.D. 14 B 45-3b



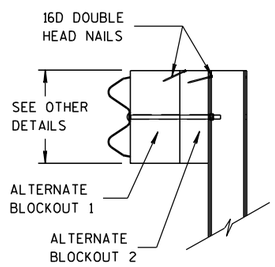
W-BEAM TO THRIE BEAM TRANSITION SECTION



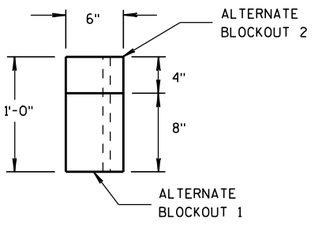
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

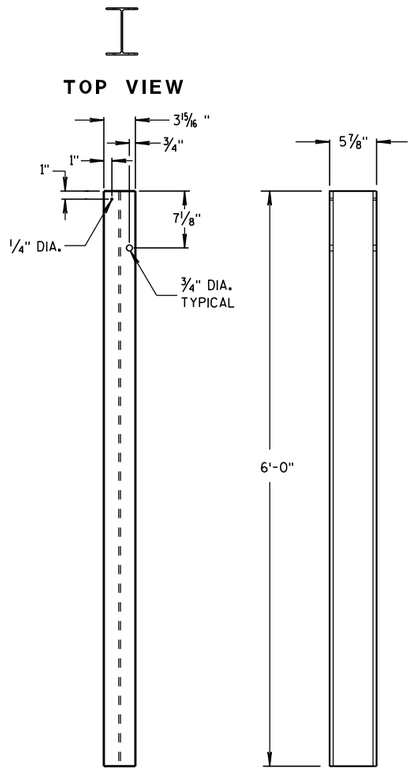


SIDE VIEW

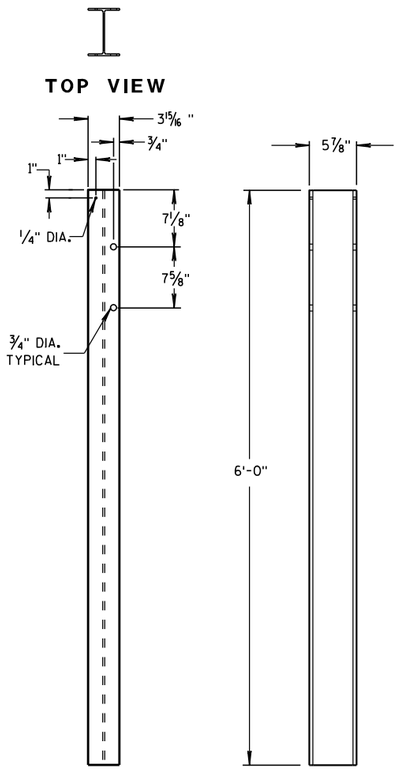


TOP VIEW

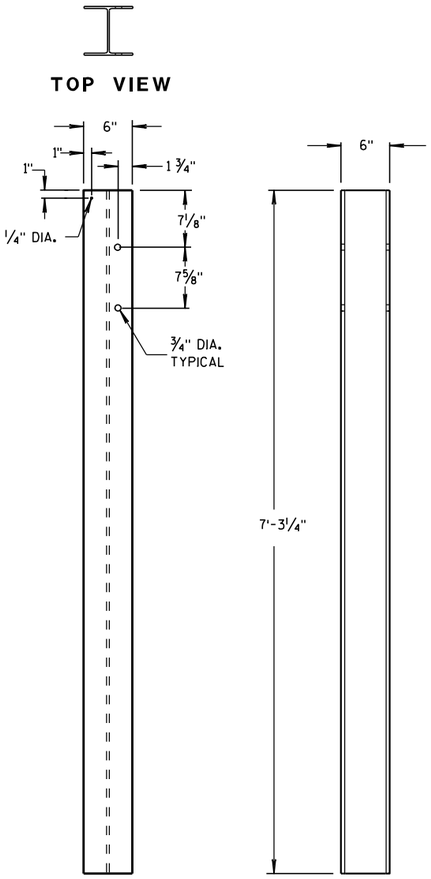
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

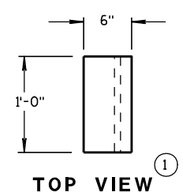


STEEL POSTS 6-11

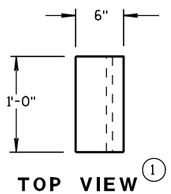


STEEL POSTS 12-14

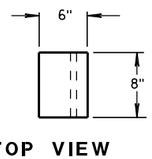
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



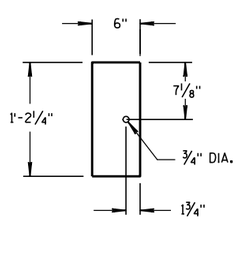
TOP VIEW (1)



TOP VIEW (1)

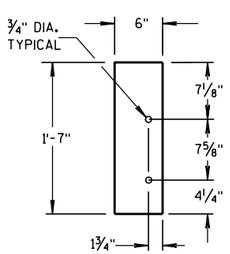


TOP VIEW



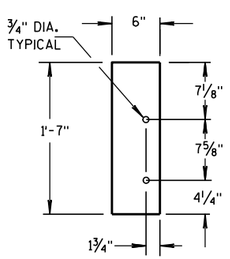
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

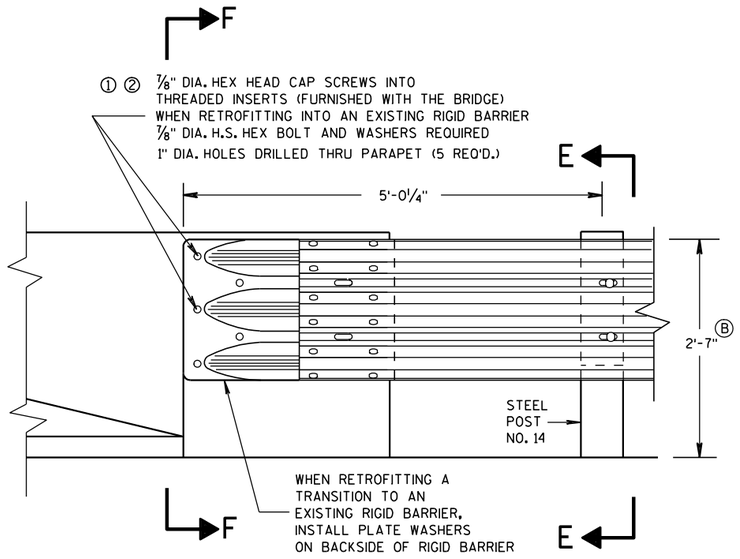
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

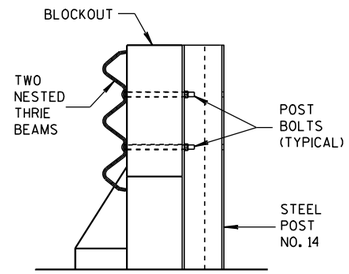
S.D.D. 14 B 45-3c

6

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



FRONT VIEW



SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

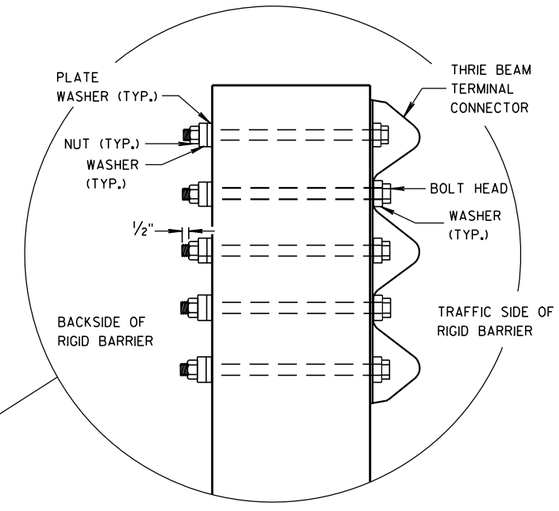
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

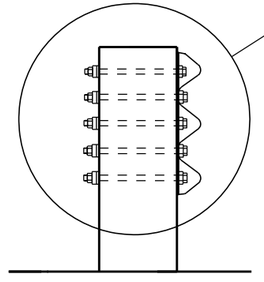
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

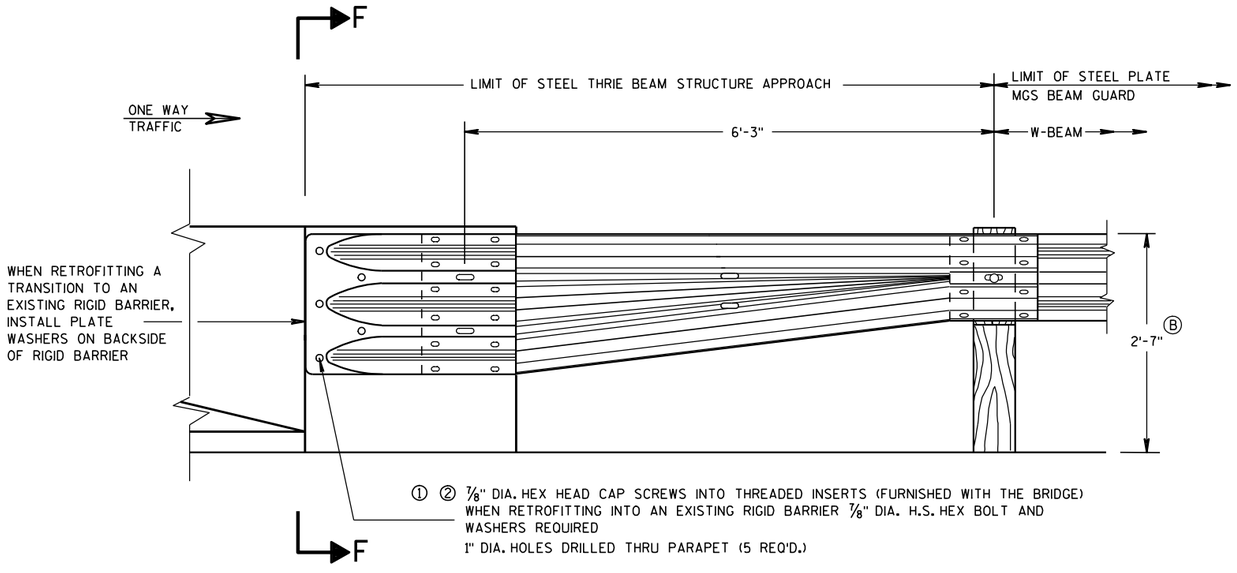
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".





SECTION F-F



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

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

FHWA

6

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

GENERAL NOTES

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

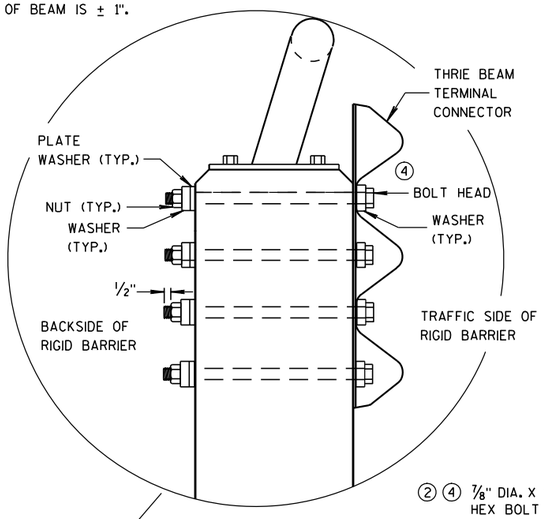
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

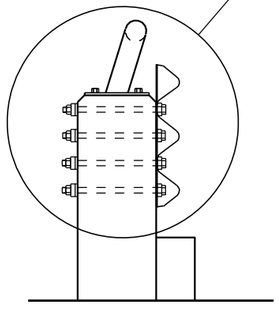
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

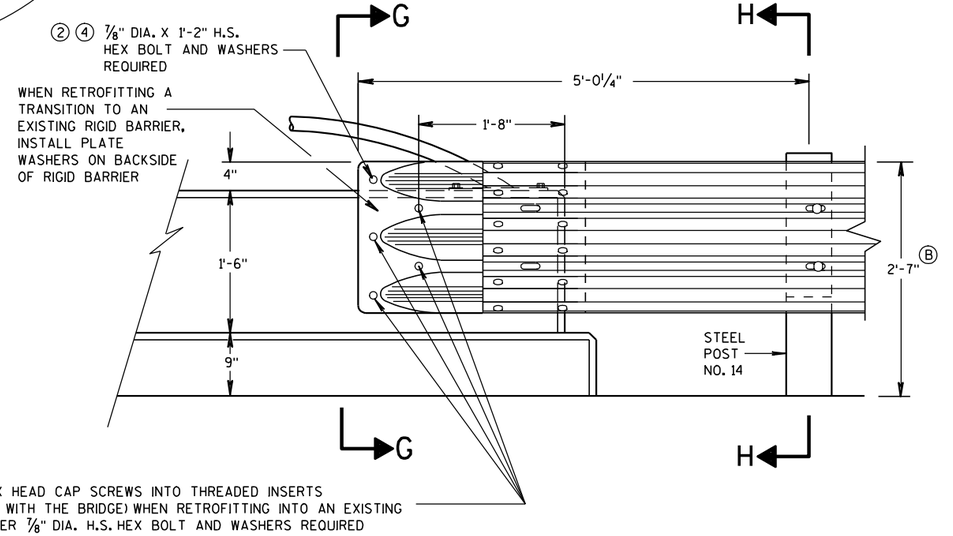
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

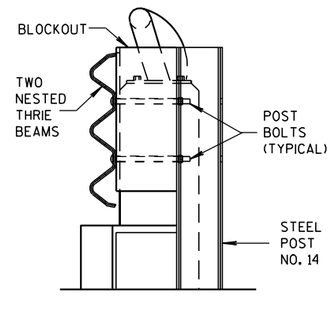




SECTION G-G

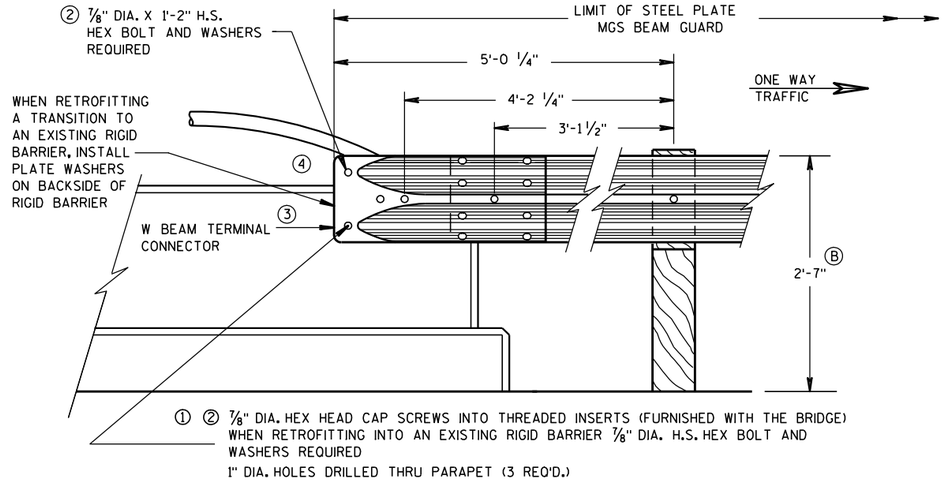


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

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

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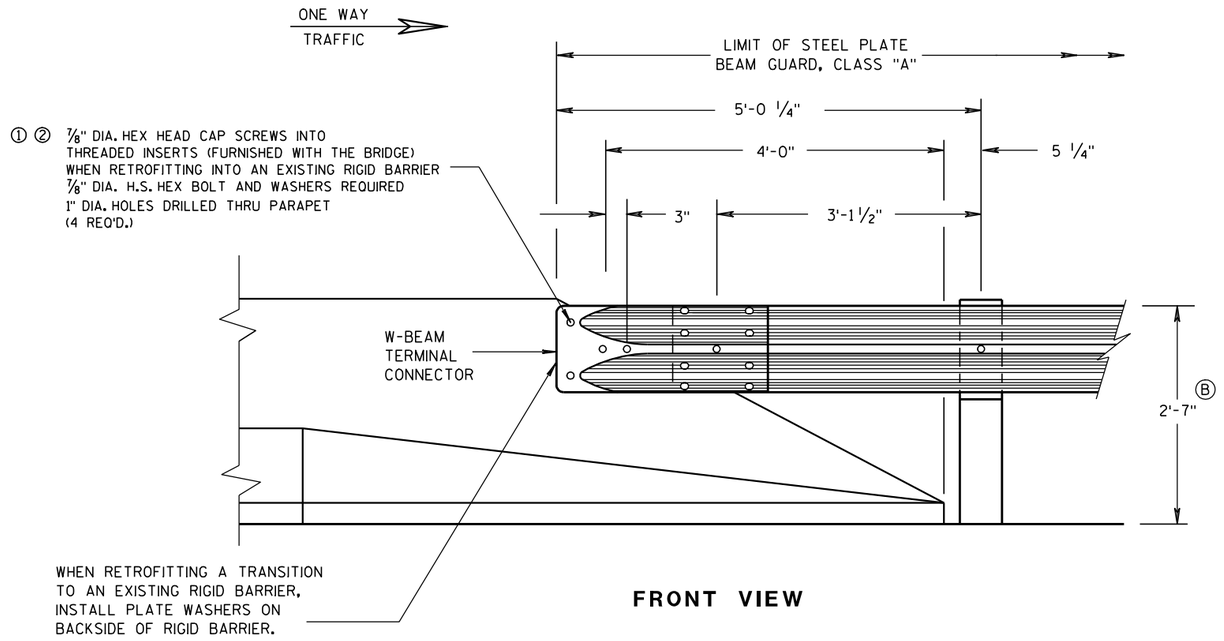


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

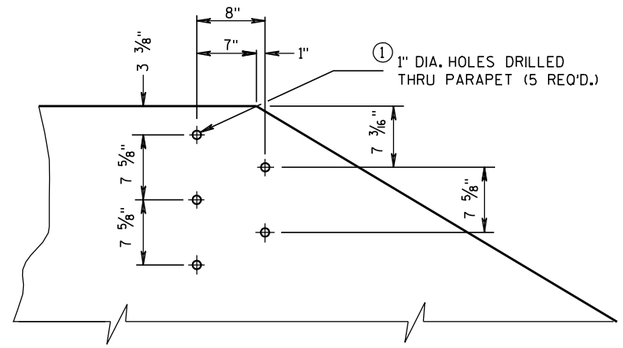
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

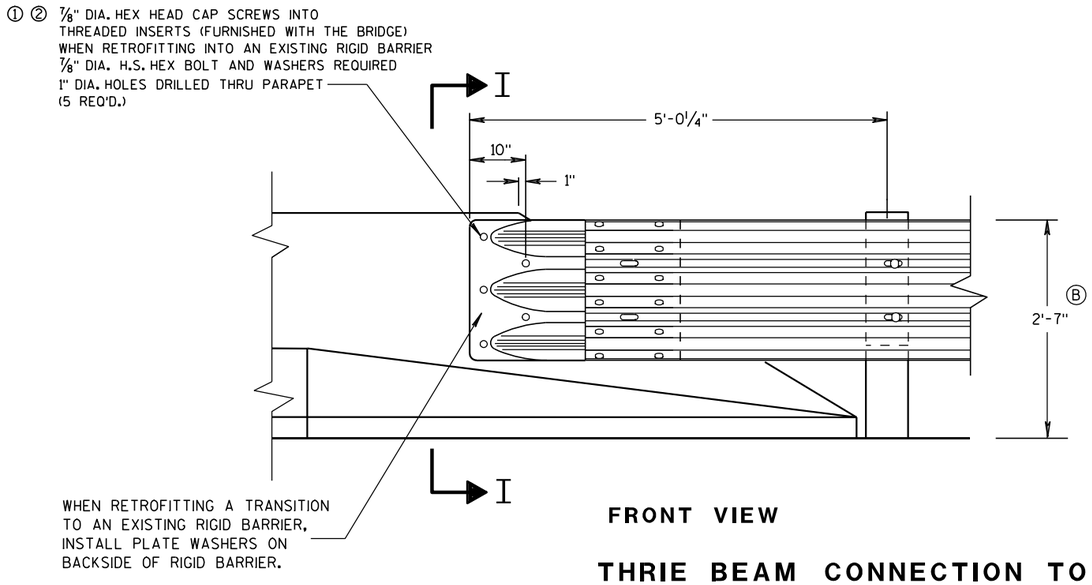
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

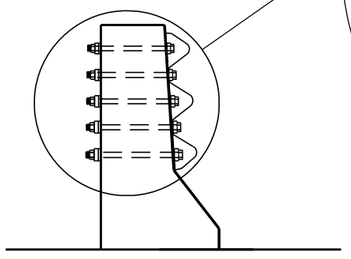
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



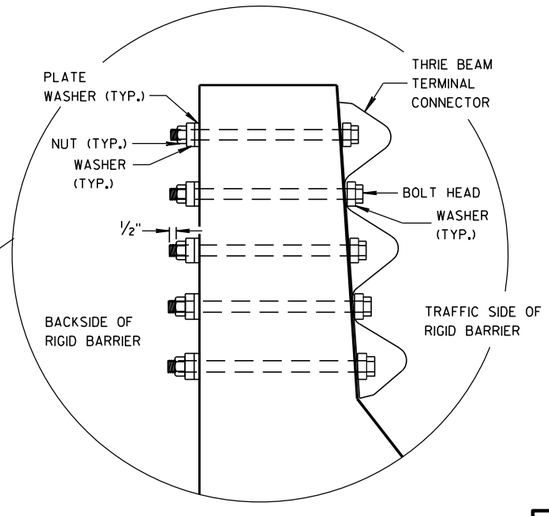
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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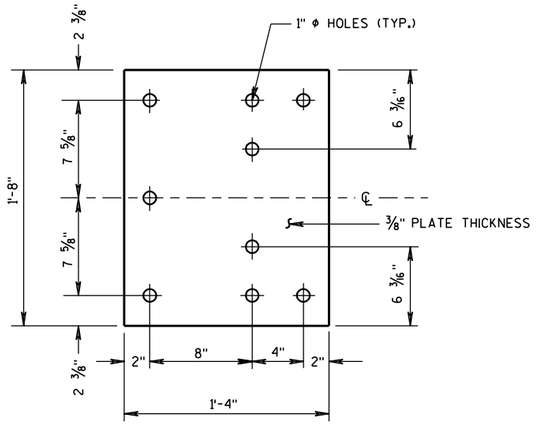
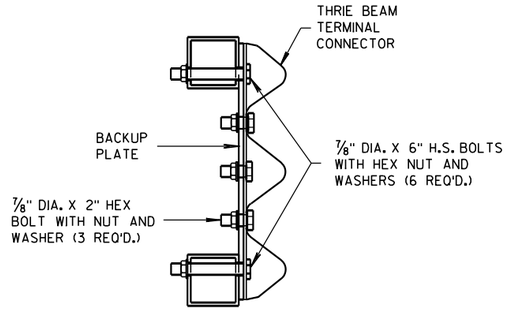


BACK-UP PLATE DETAIL

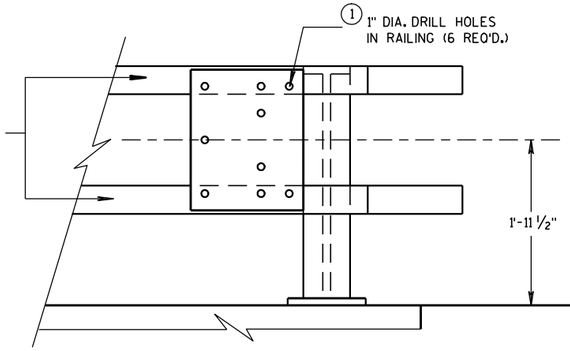


SECTION J-J

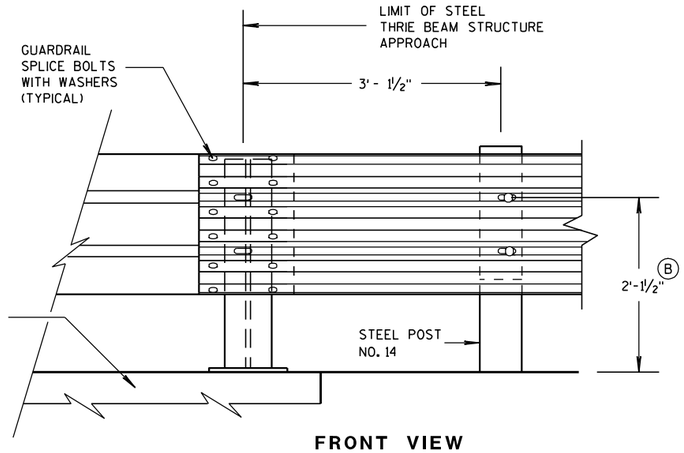
GENERAL NOTES

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

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

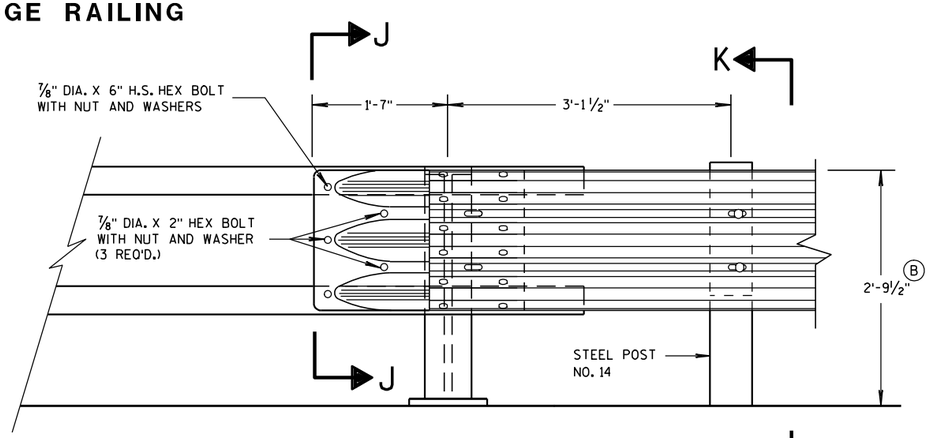


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

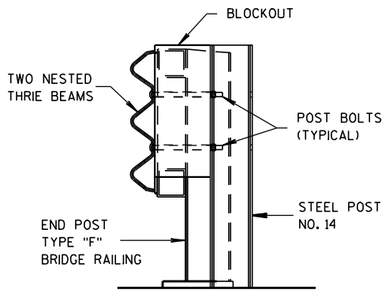


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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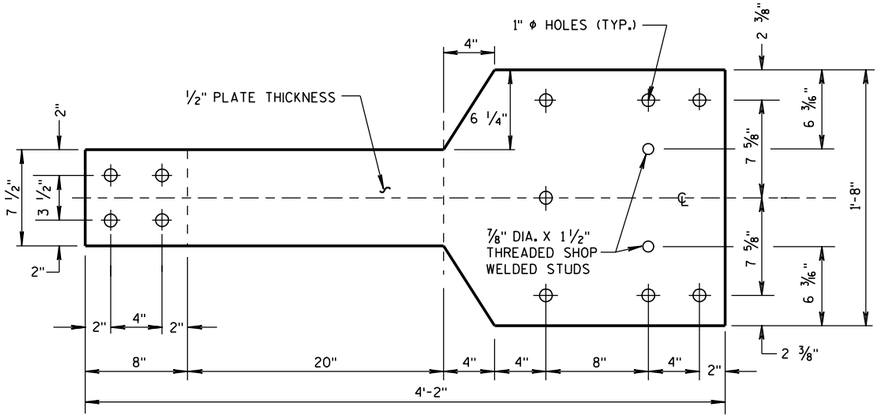
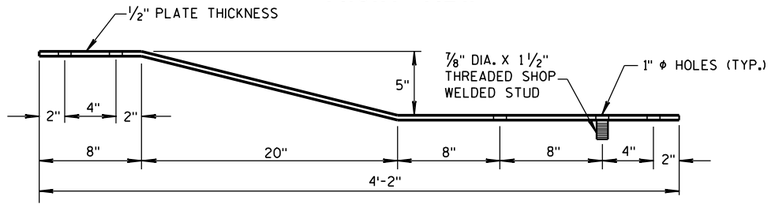
GENERAL NOTES

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

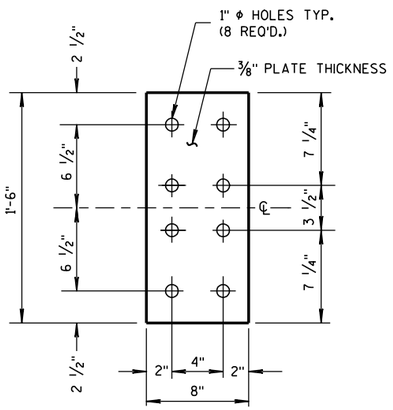


FRONT VIEW



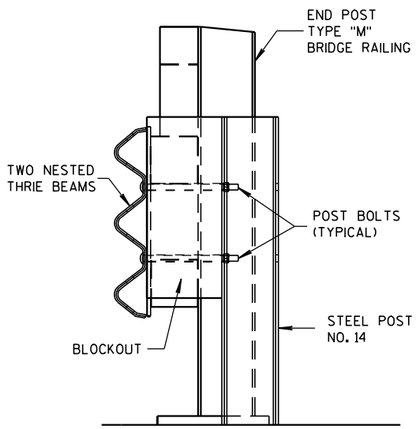
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

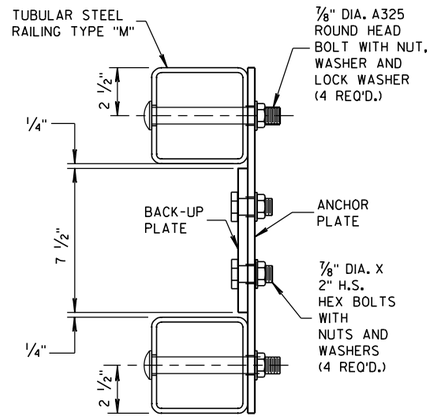


FRONT VIEW

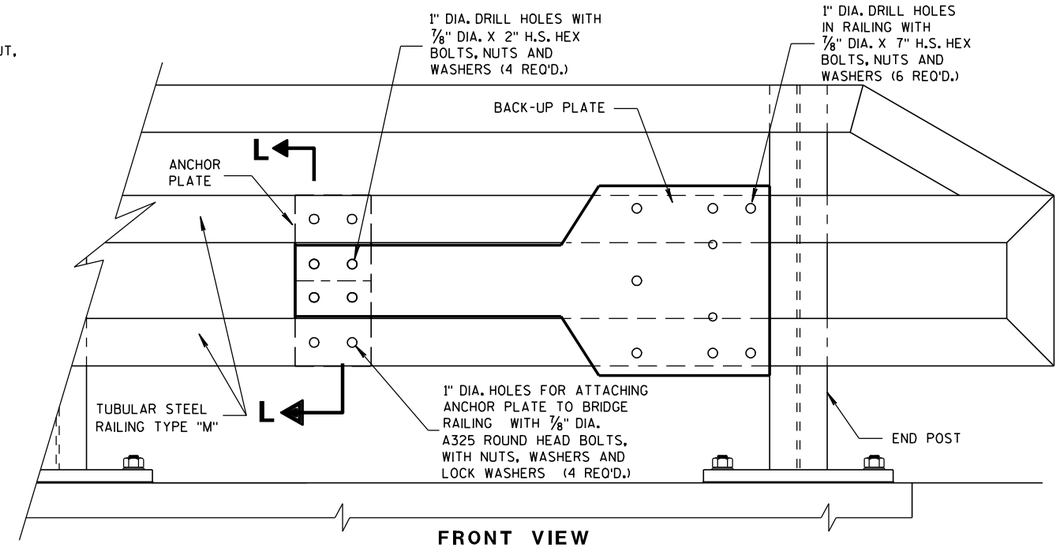
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

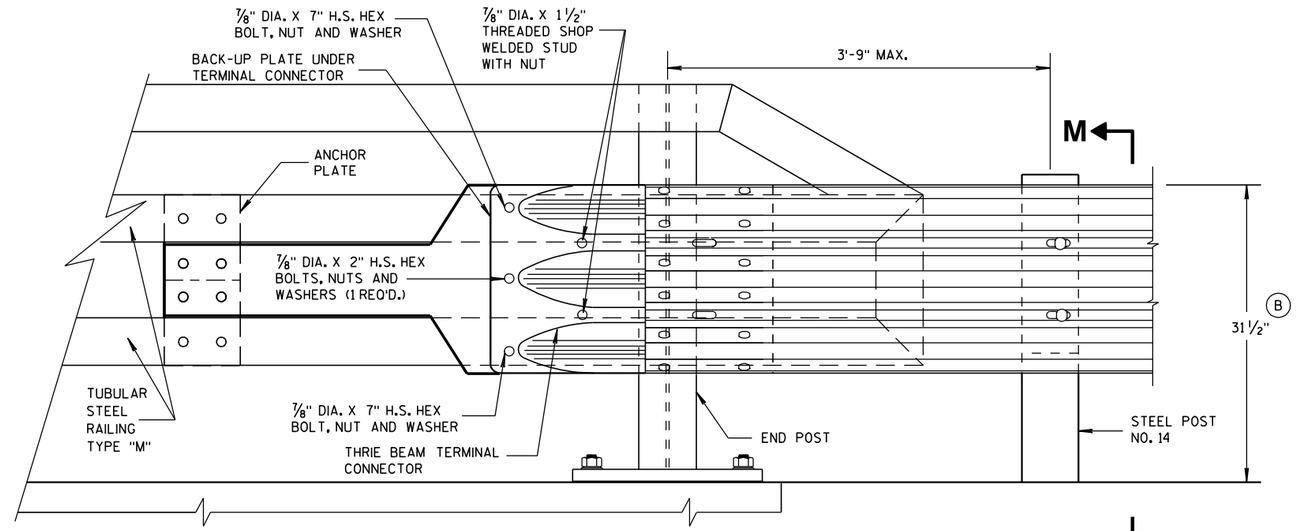


SECTION L-L

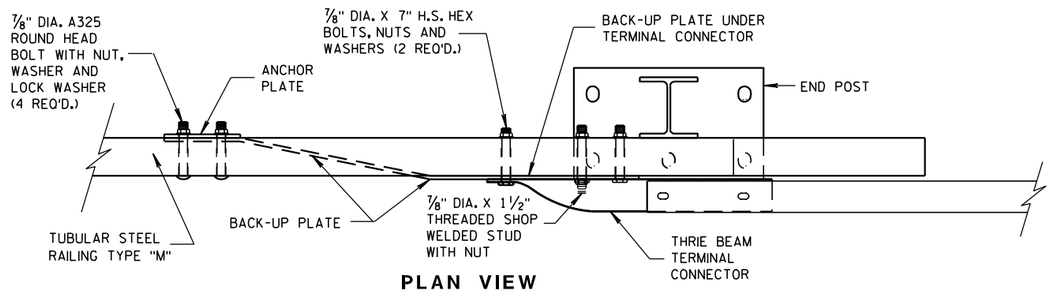


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

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GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

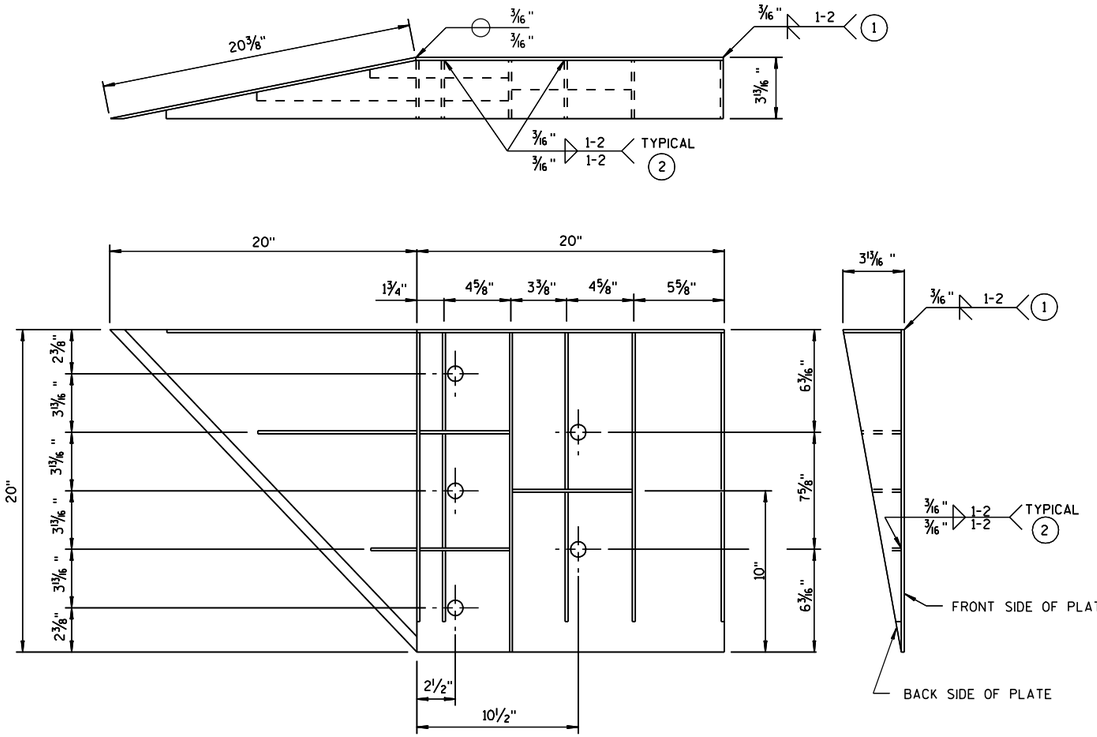
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

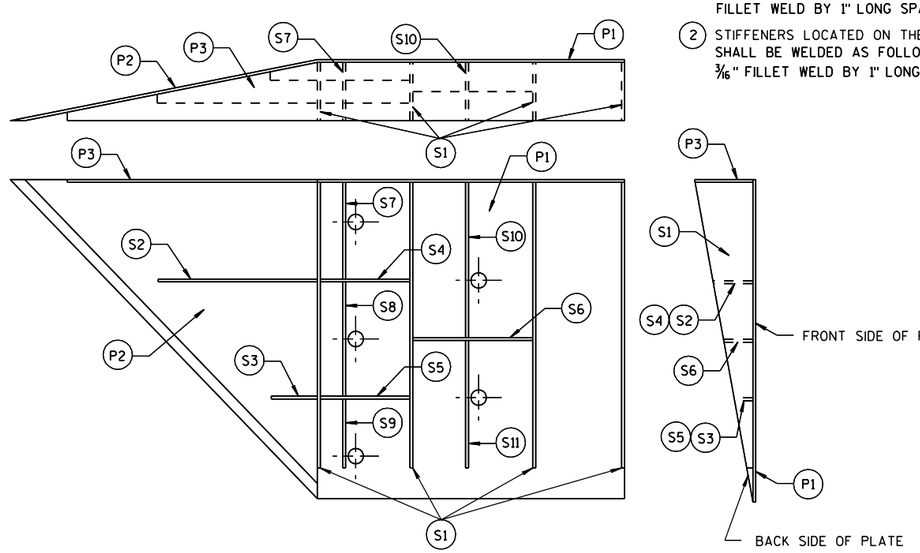


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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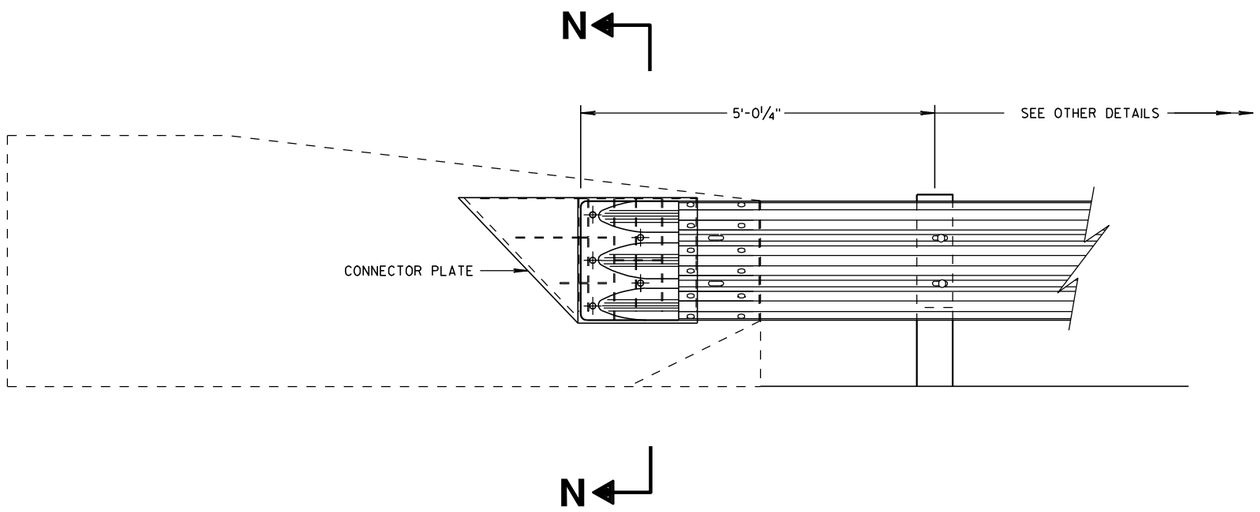
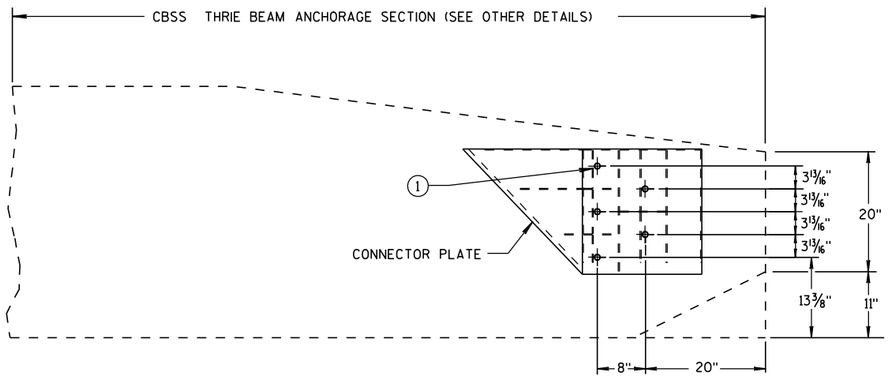
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

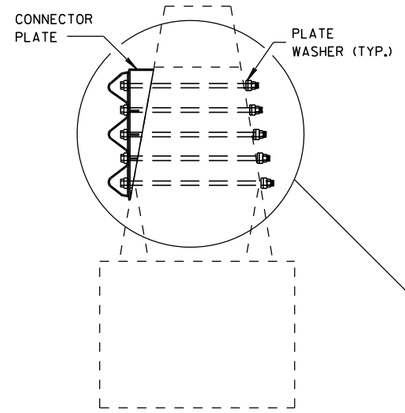


SINGLE SLOPE CONNECTION PLATE PLACEMENT

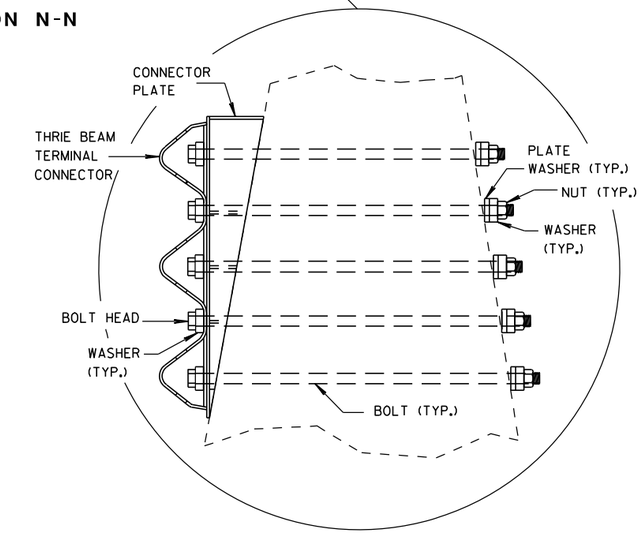
GENERAL NOTES

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
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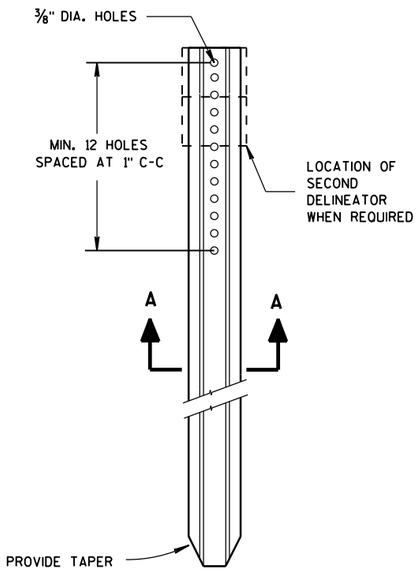
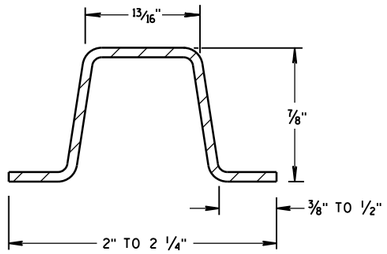
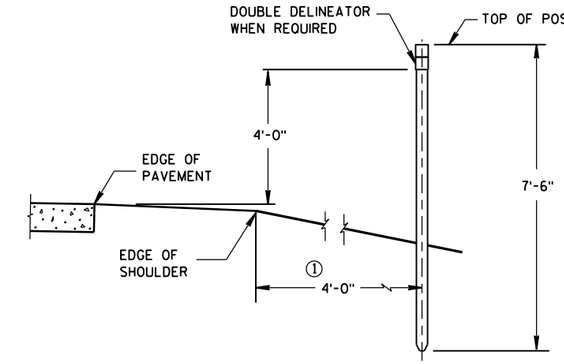


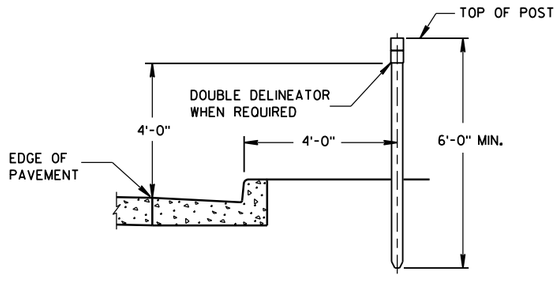
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



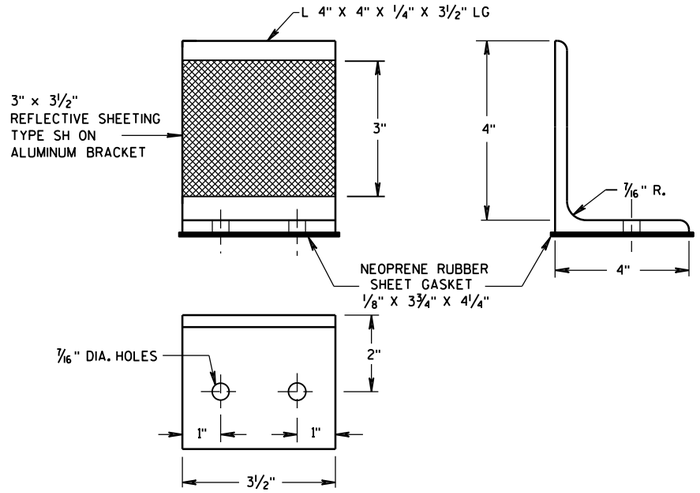


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

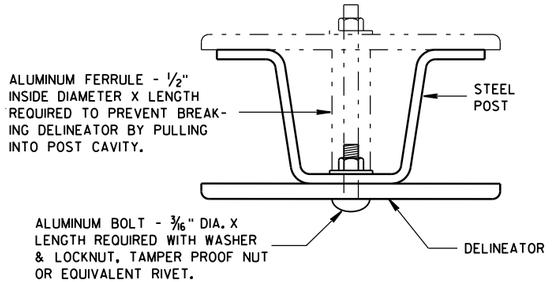
GENERAL NOTES

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

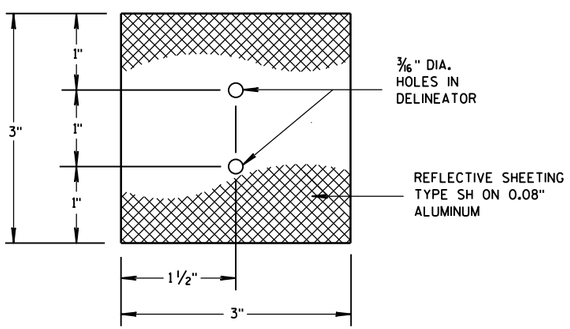
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



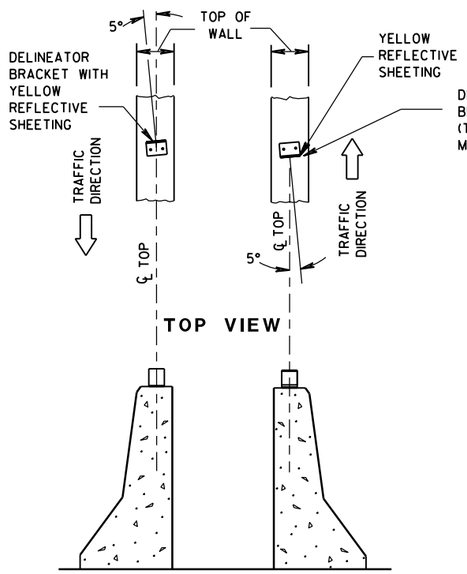
DELINEATOR BRACKET



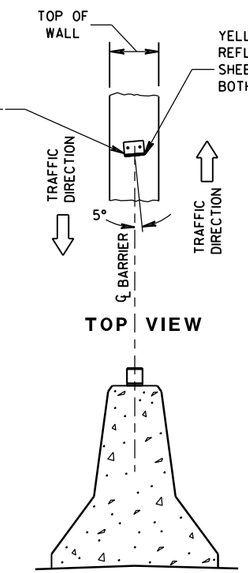
MOUNTING DETAIL FOR DELINEATOR



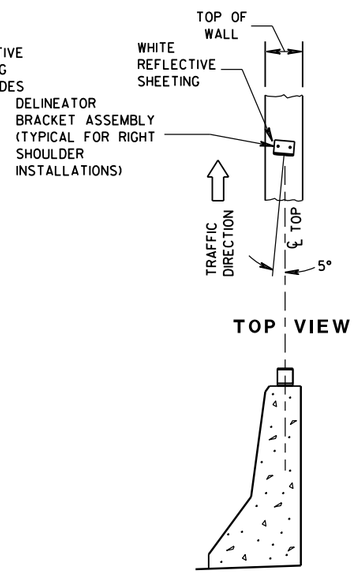
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

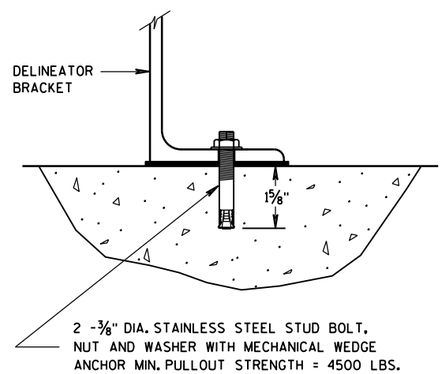


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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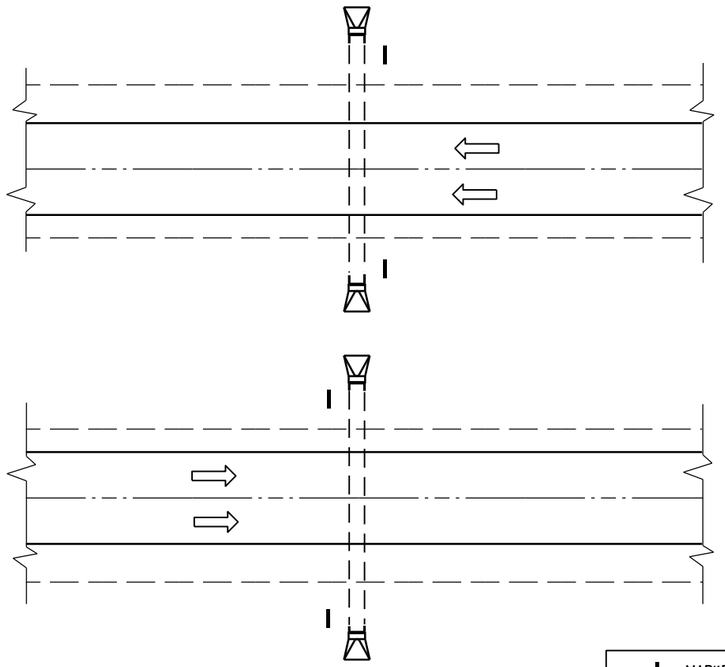
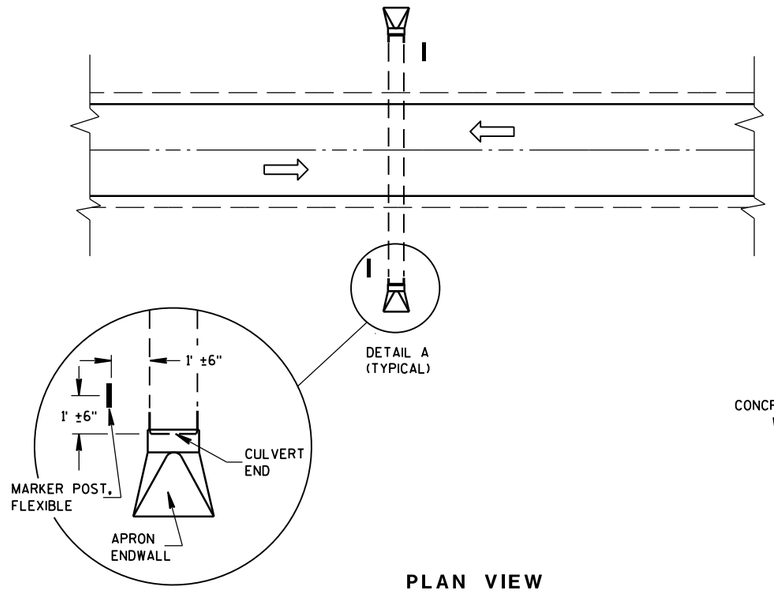


PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

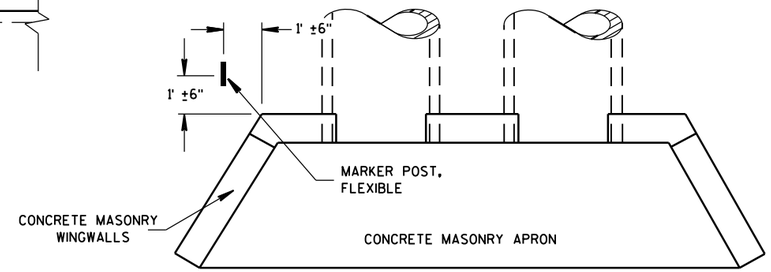
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

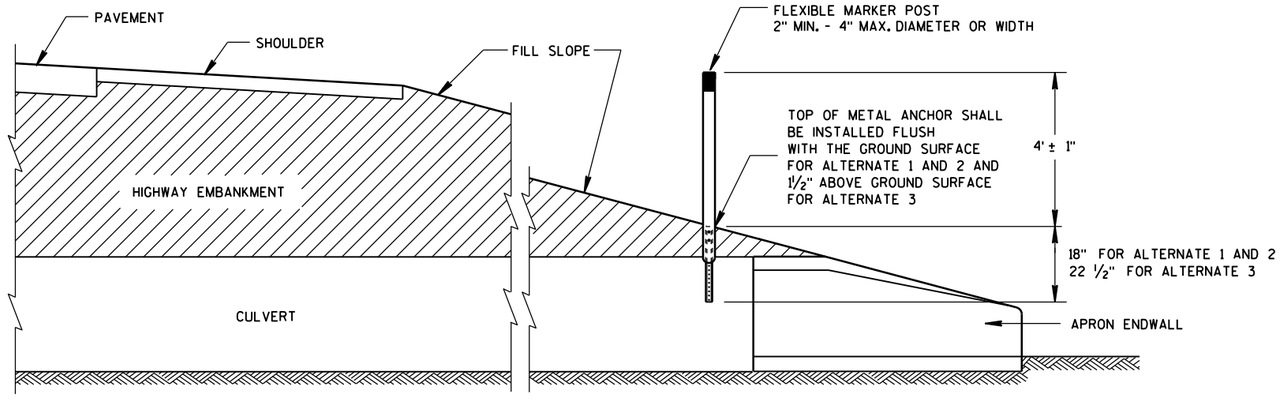
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

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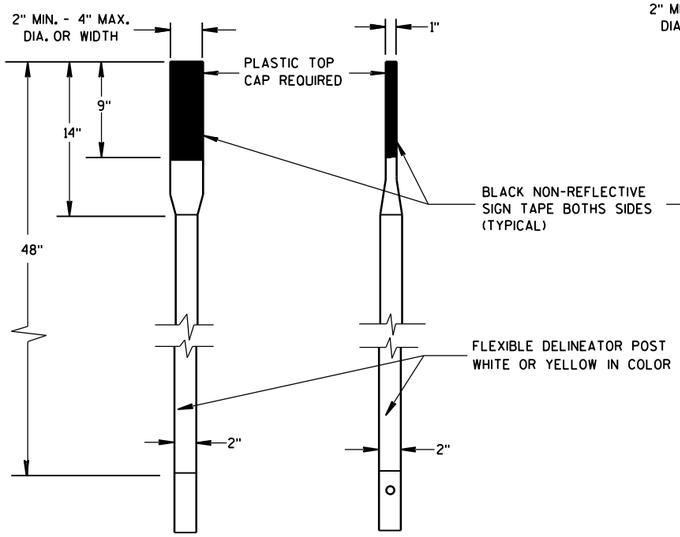
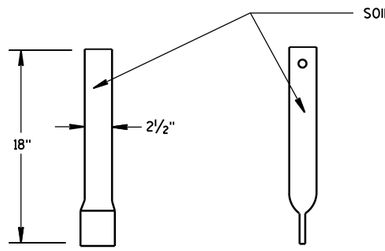
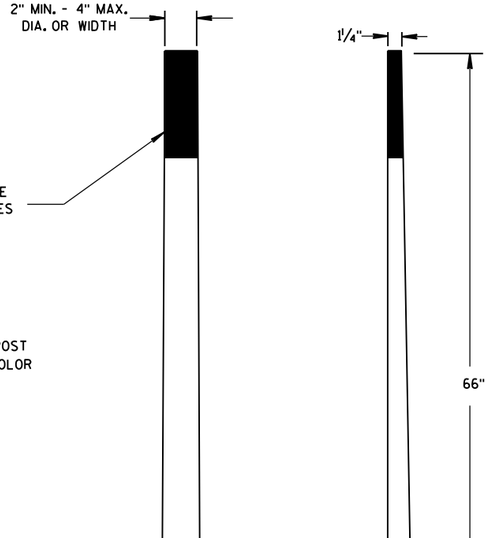
S.D.D. 15 A 3-2a





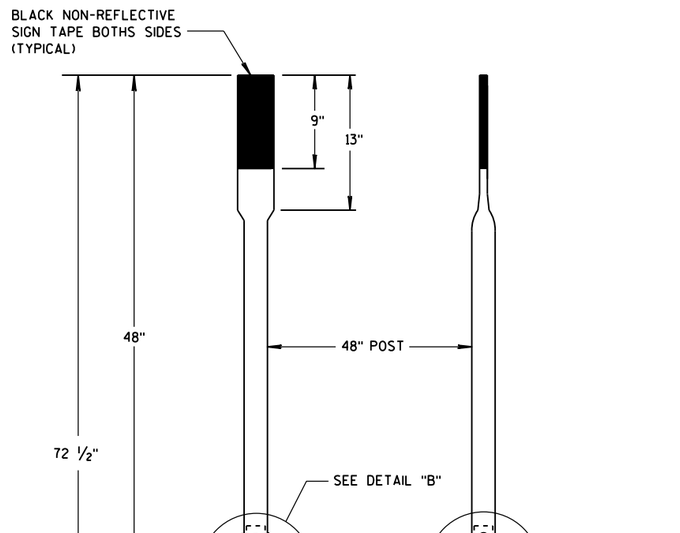
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

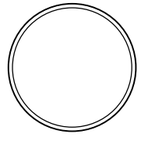
ALTERNATE 2



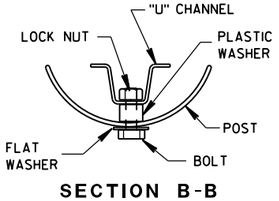
FRONT VIEW SIDE VIEW

ALTERNATE 3

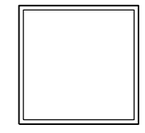
FLEXIBLE MARKER POSTS



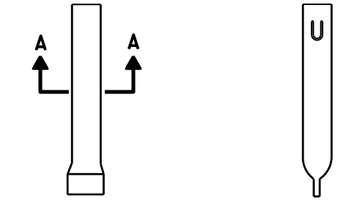
SECTION A-A



SECTION B-B

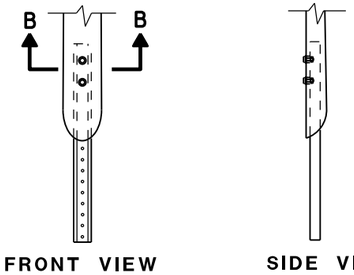


SECTION C-C



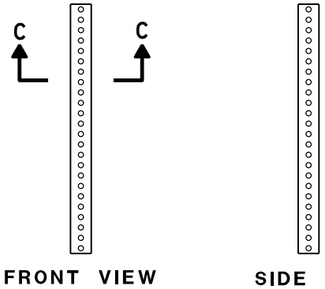
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

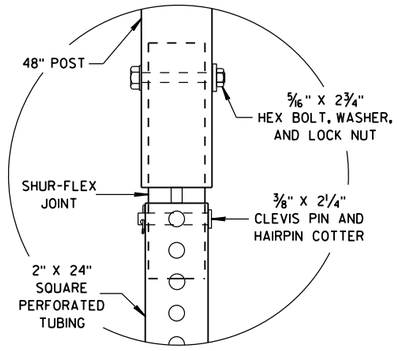
ALTERNATE 2



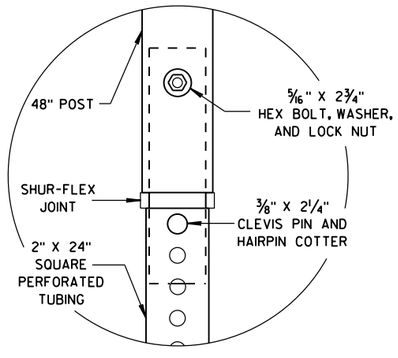
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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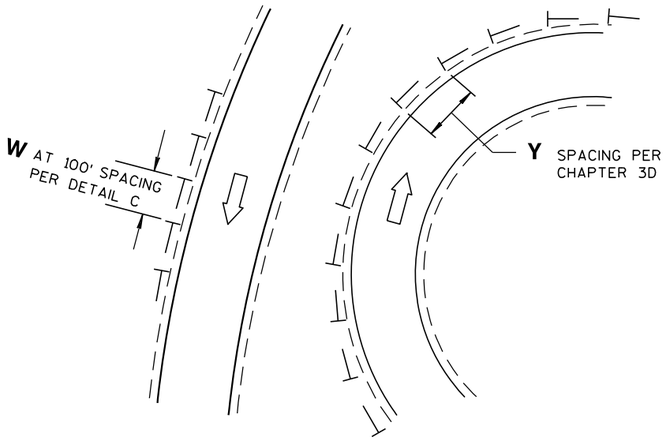
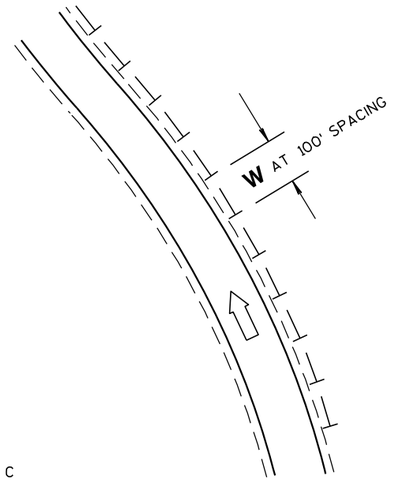
GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



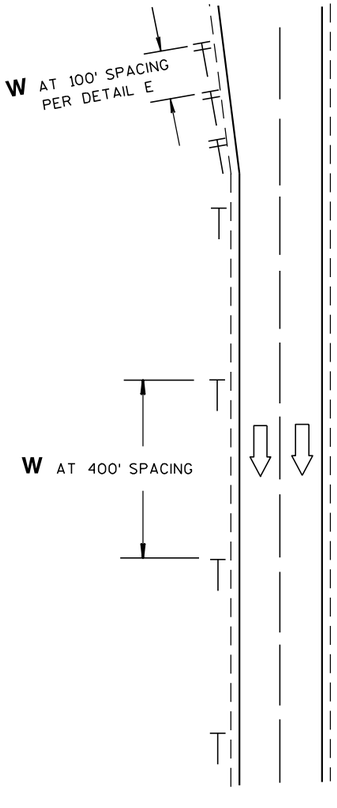
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



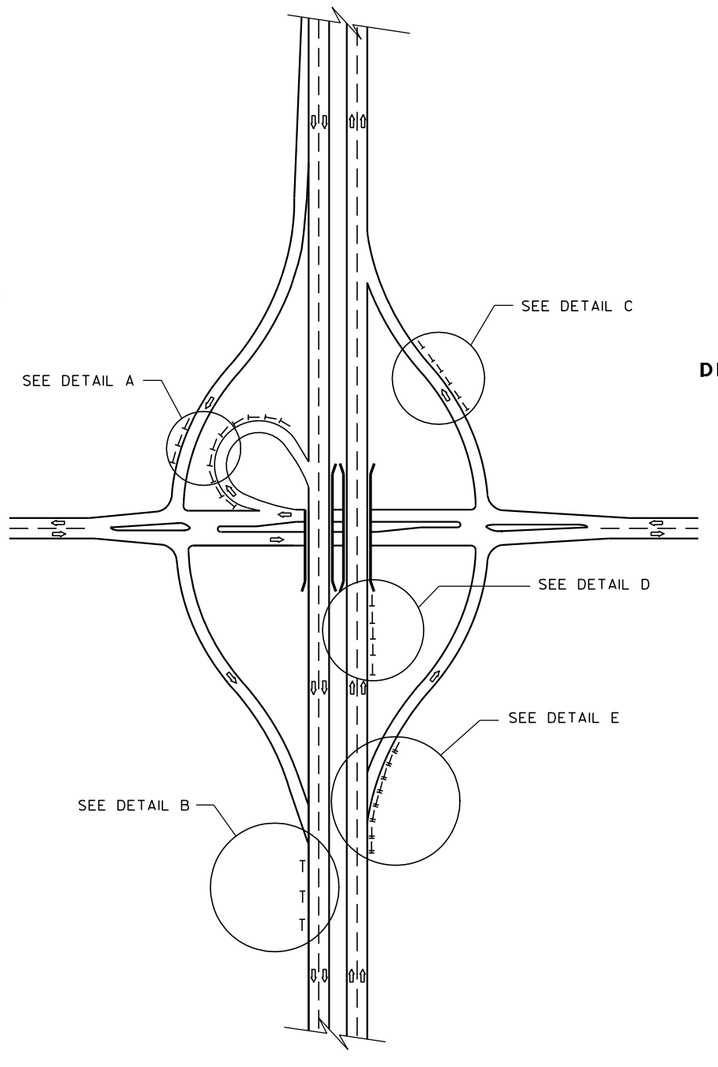
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

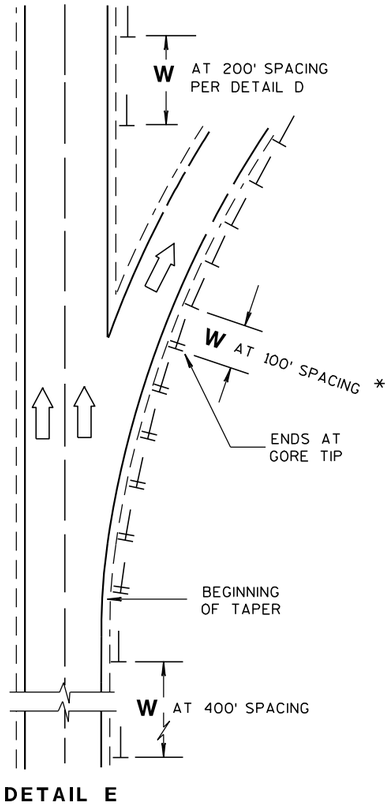
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



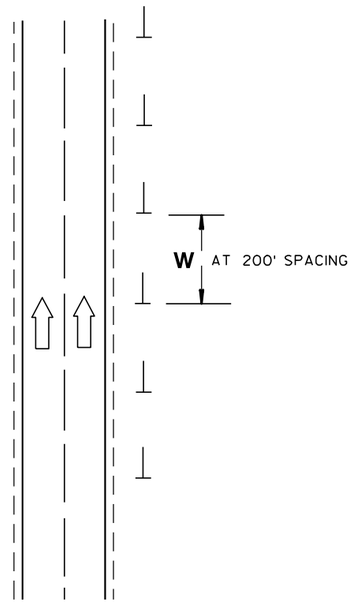
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

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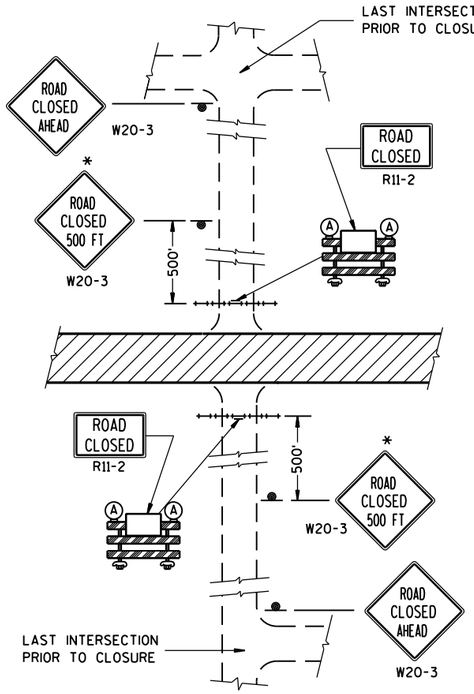
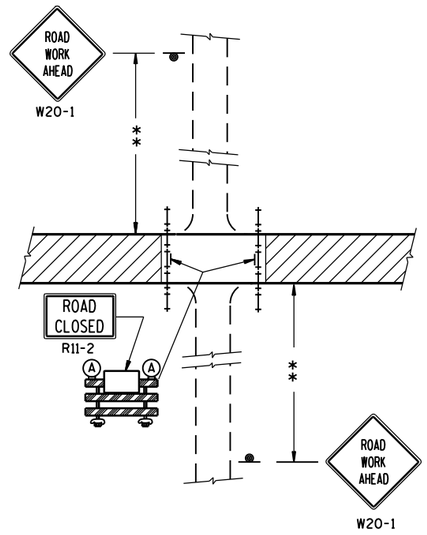


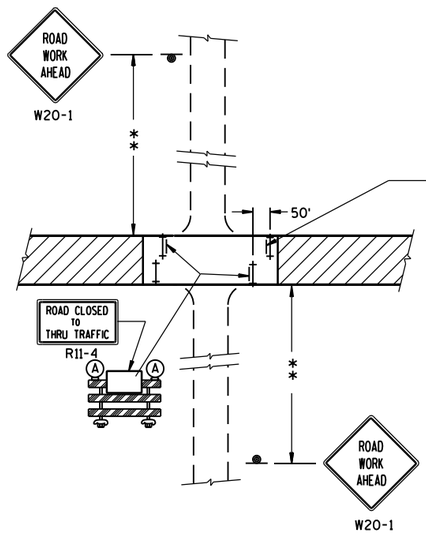
DETAIL 1

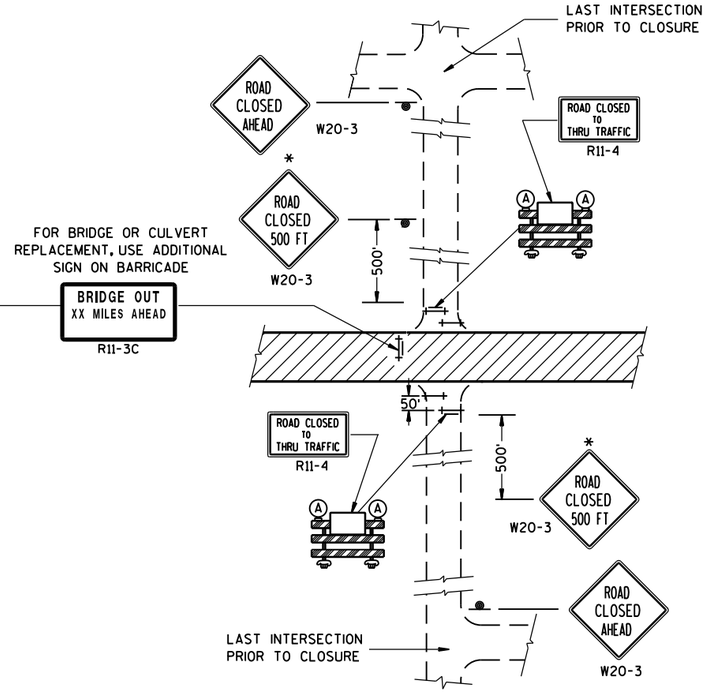
(NO ACCESS TO PROJECT)



DETAIL 2

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





DETAIL 3

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

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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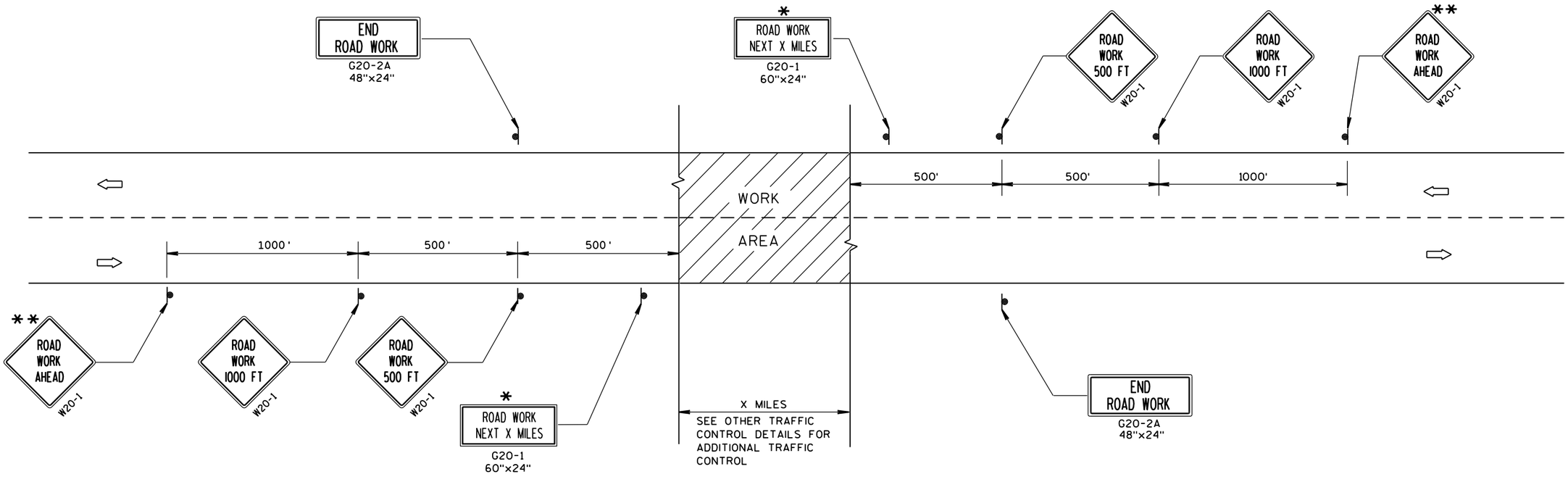


TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

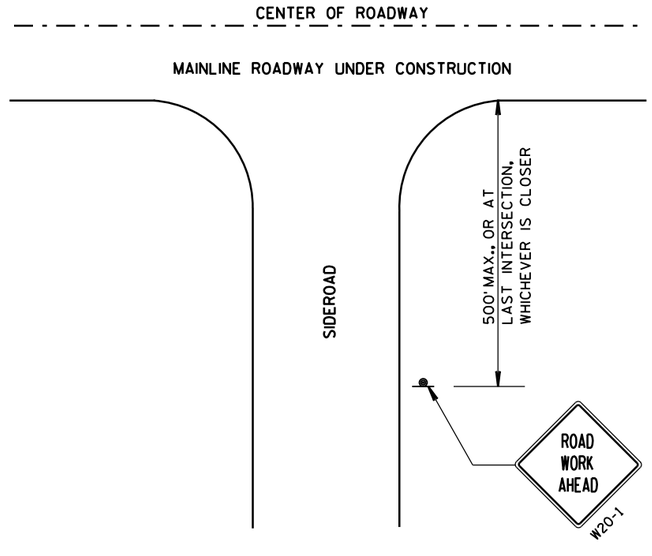
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

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SIGN

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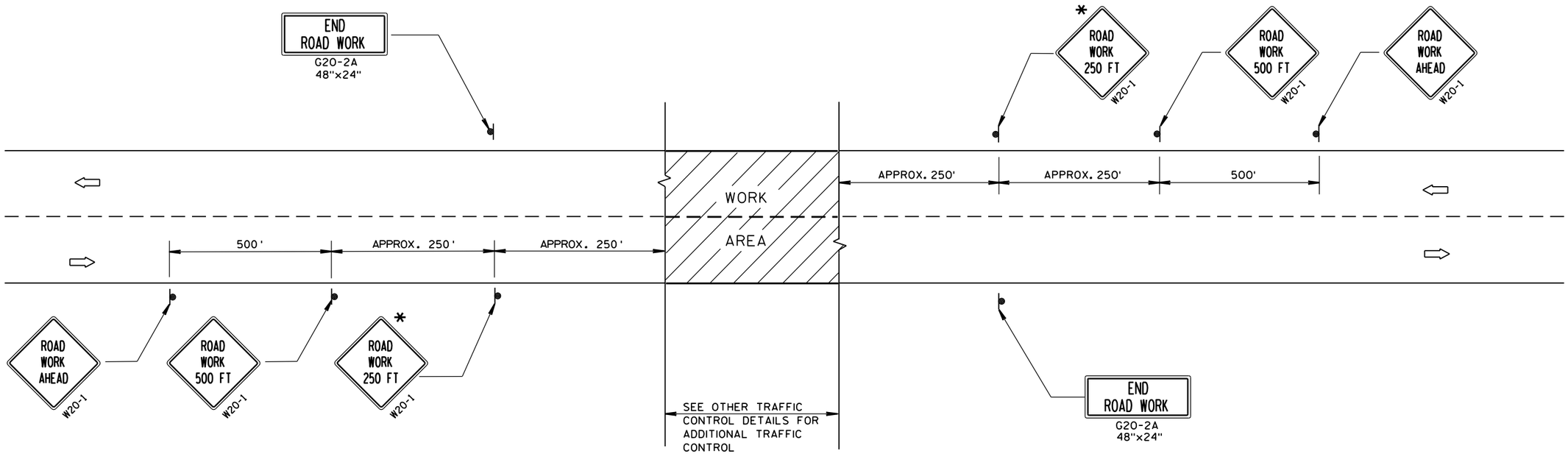
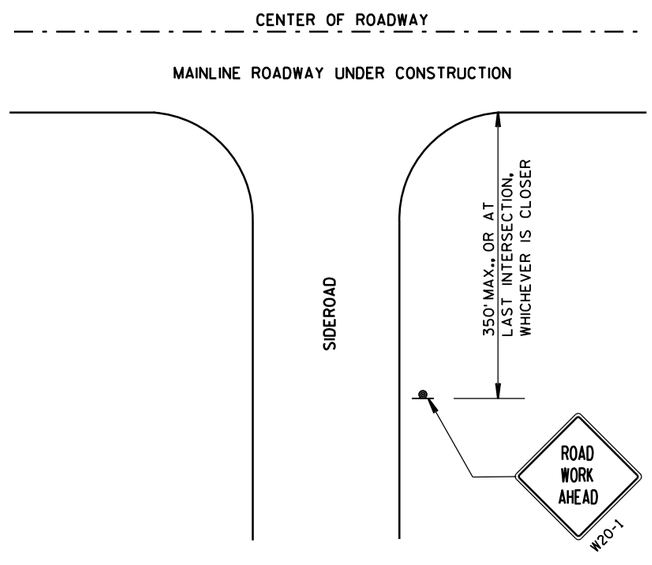
S.D.D. 15 C 4-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

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

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

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

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

LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

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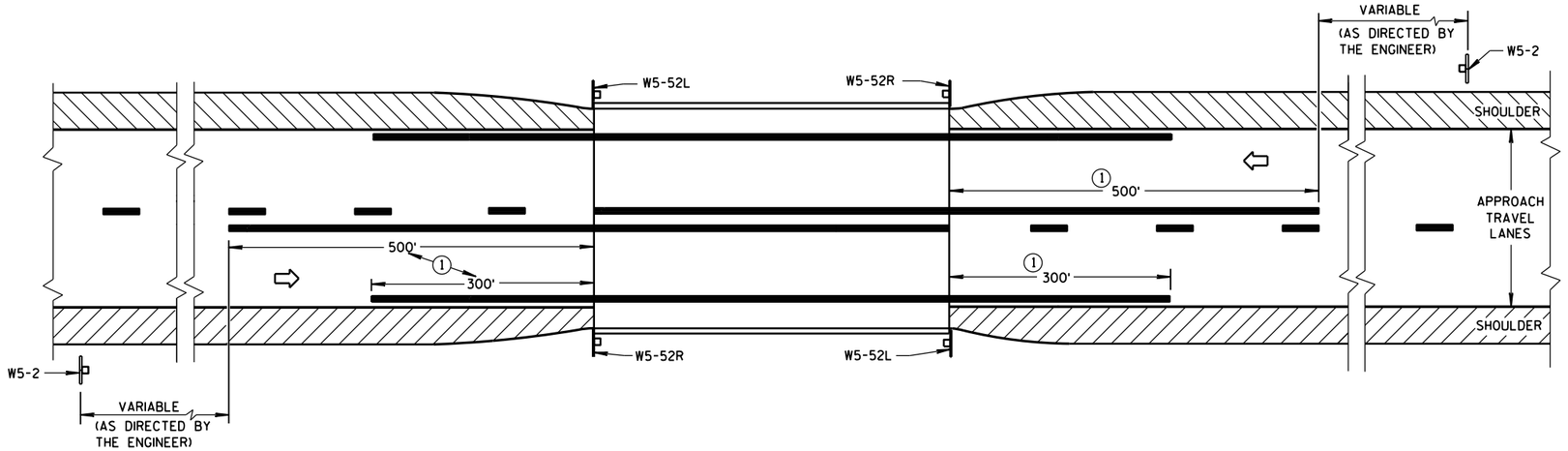
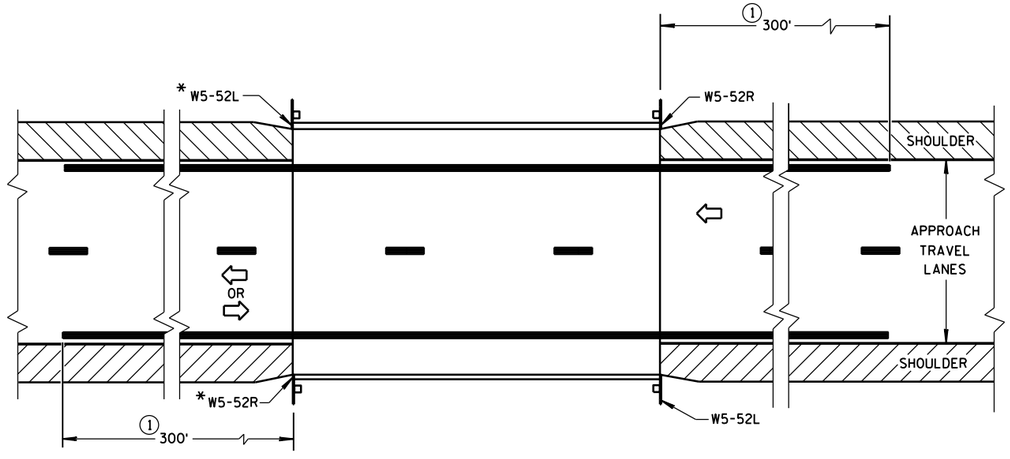
S.D.D. 15 C 5-2



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

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

GENERAL NOTES

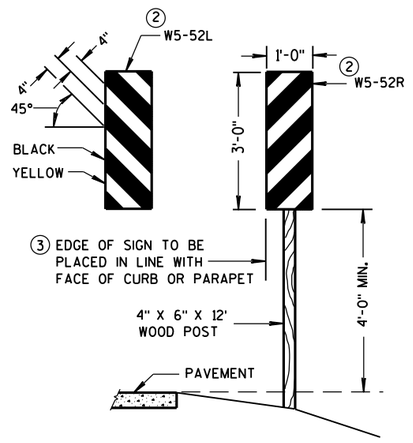
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

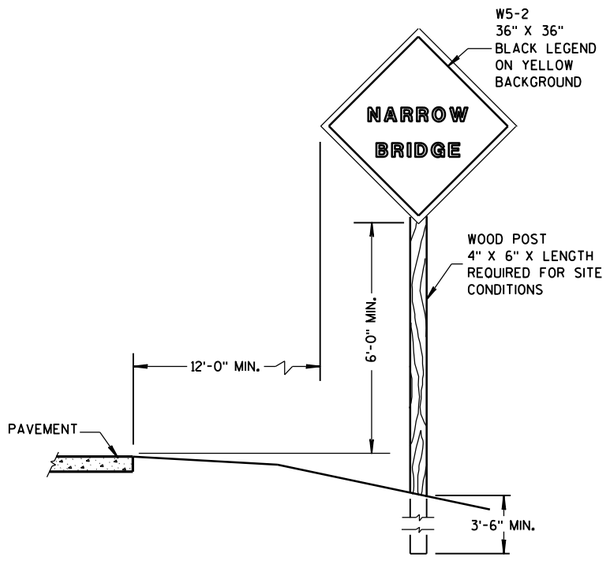
(1) MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.

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

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



OBJECT MARKER PLACEMENT



SIGN PLACEMENT

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/4/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

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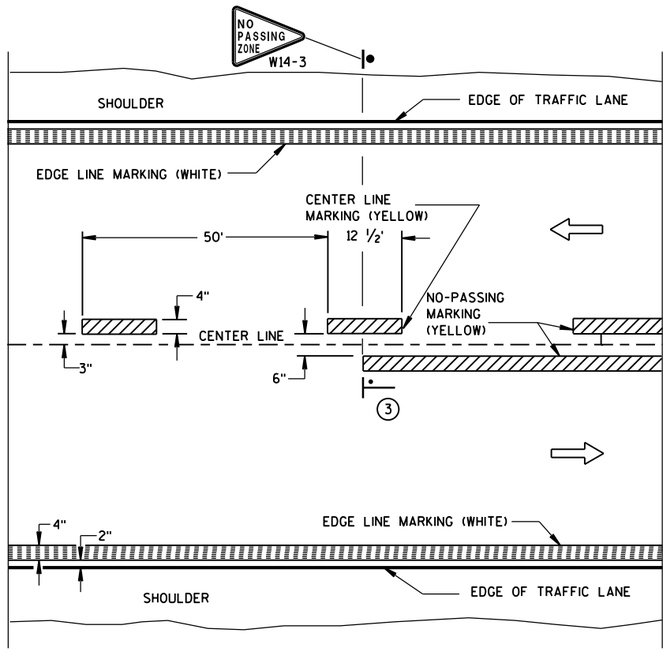
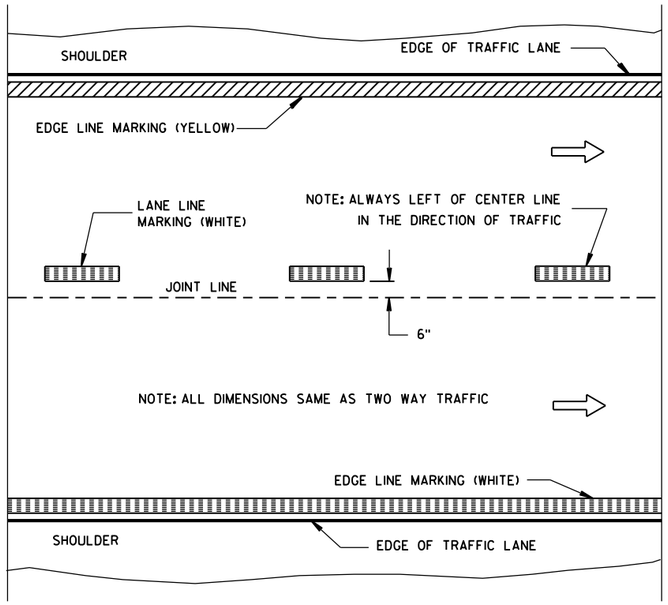
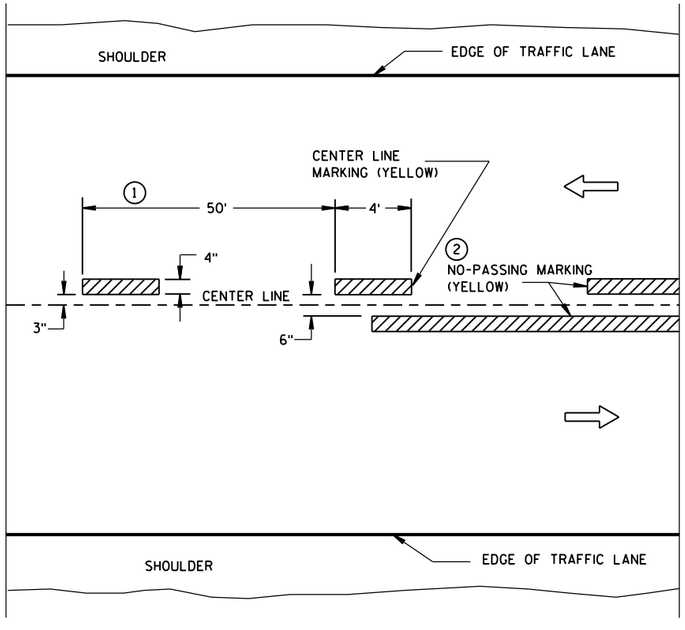


TWO WAY TRAFFIC

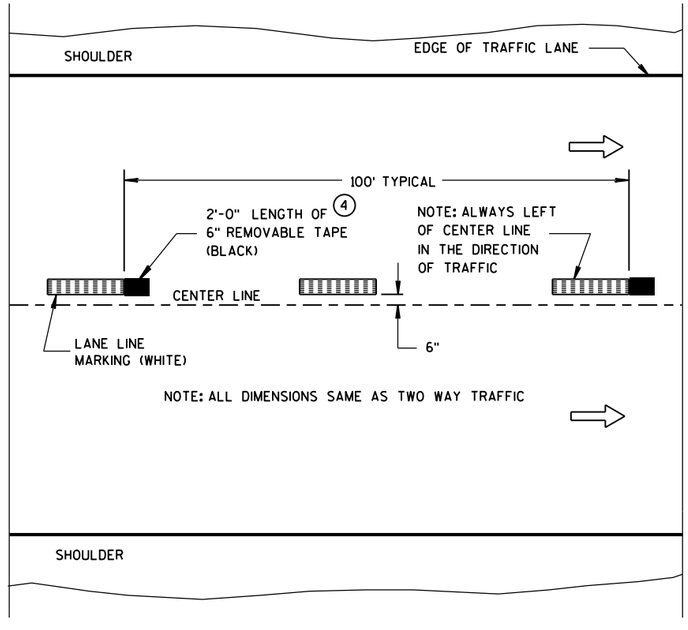


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

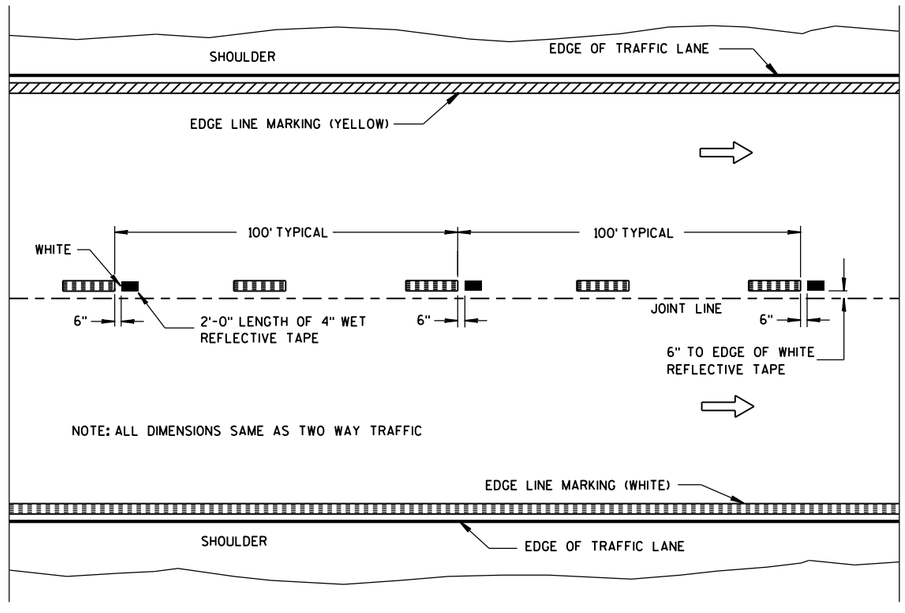
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

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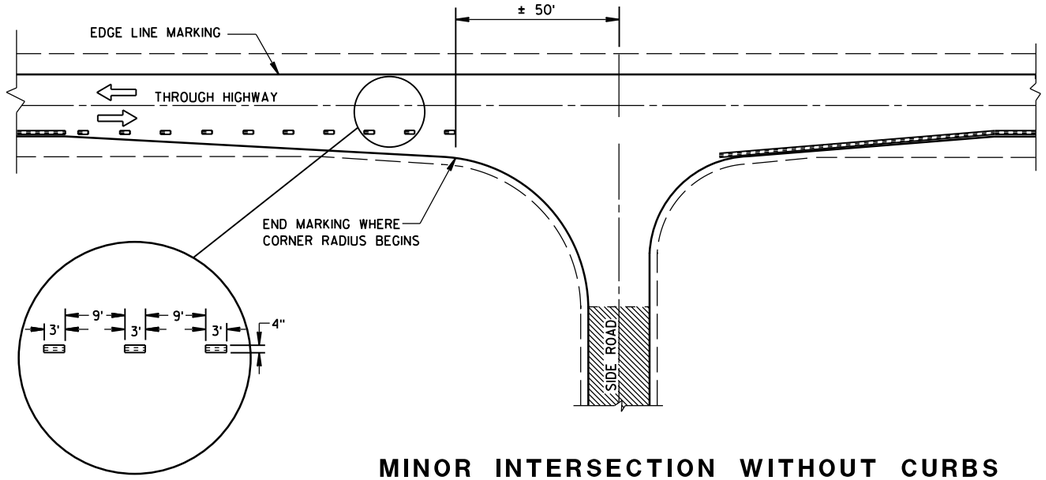
6

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



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

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

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

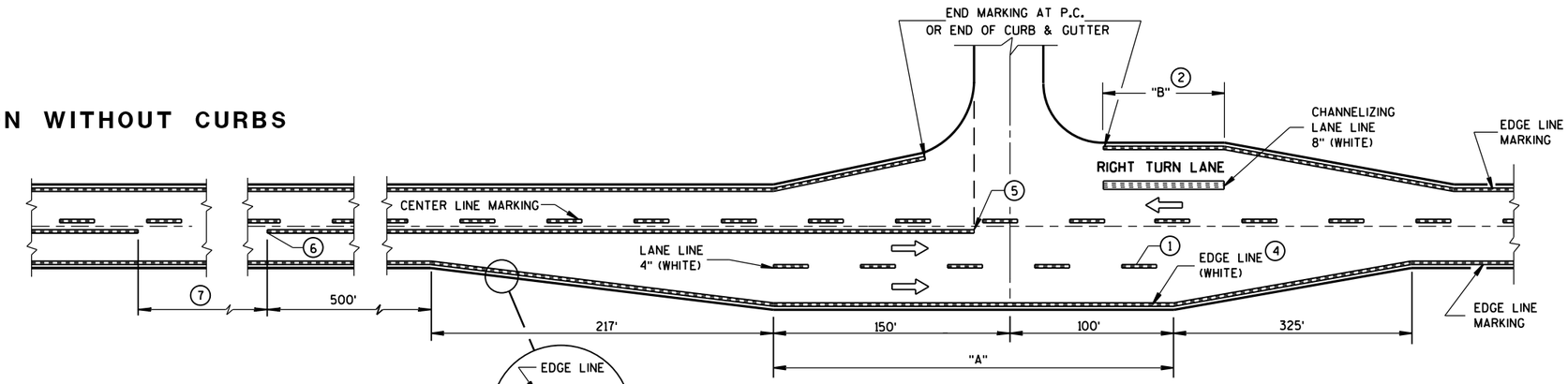
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

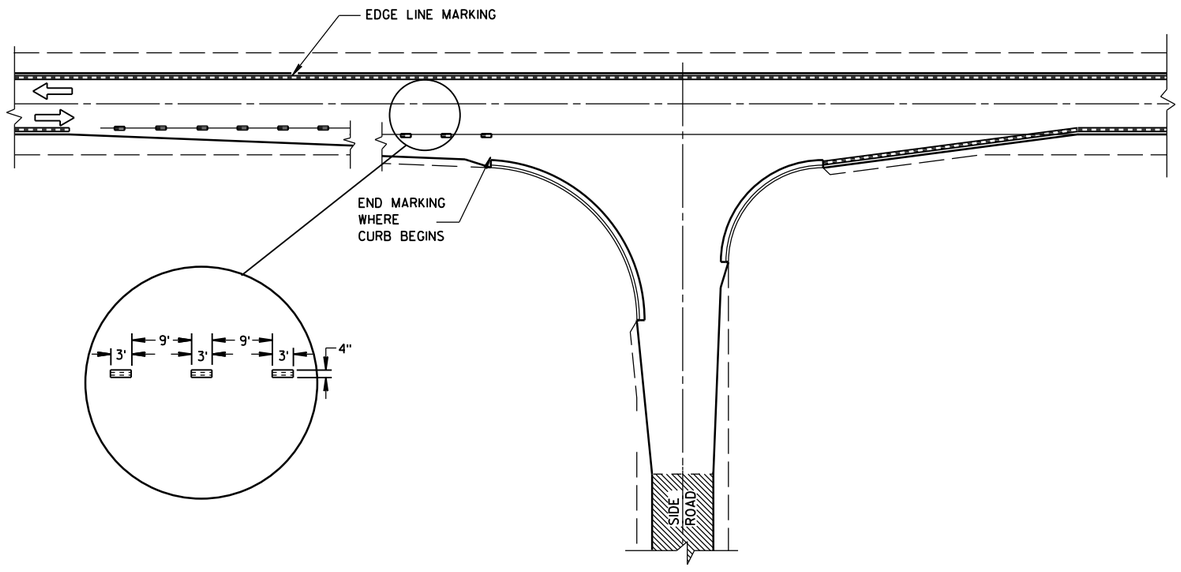
(7)

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



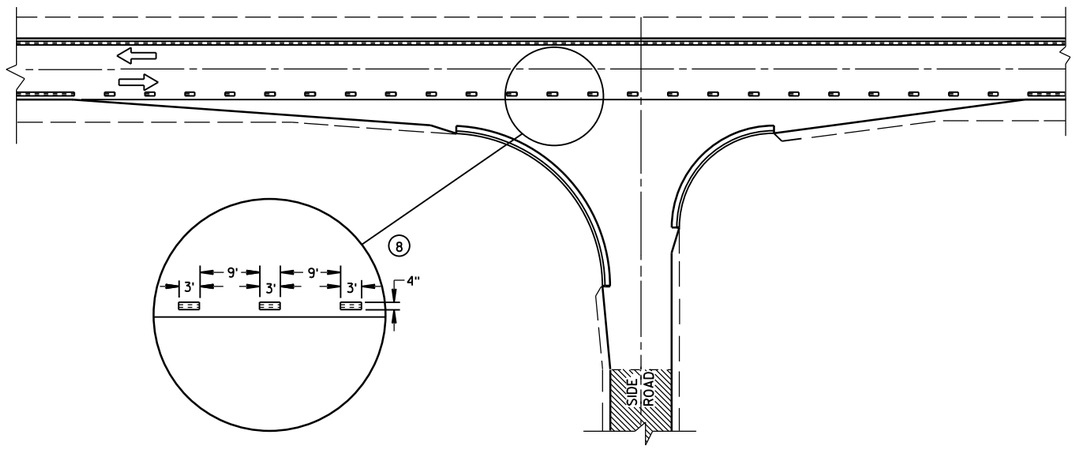
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

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

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

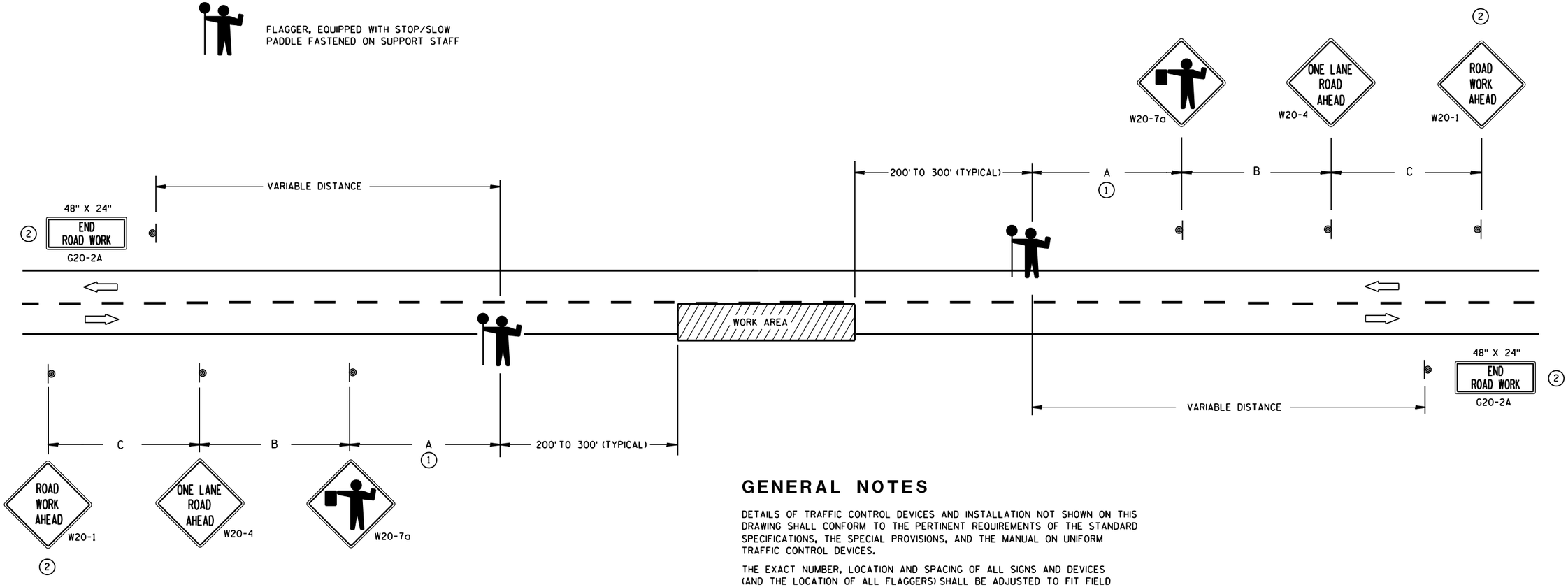
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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

W3-4

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



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

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

GENERAL NOTES

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

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

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

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

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

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

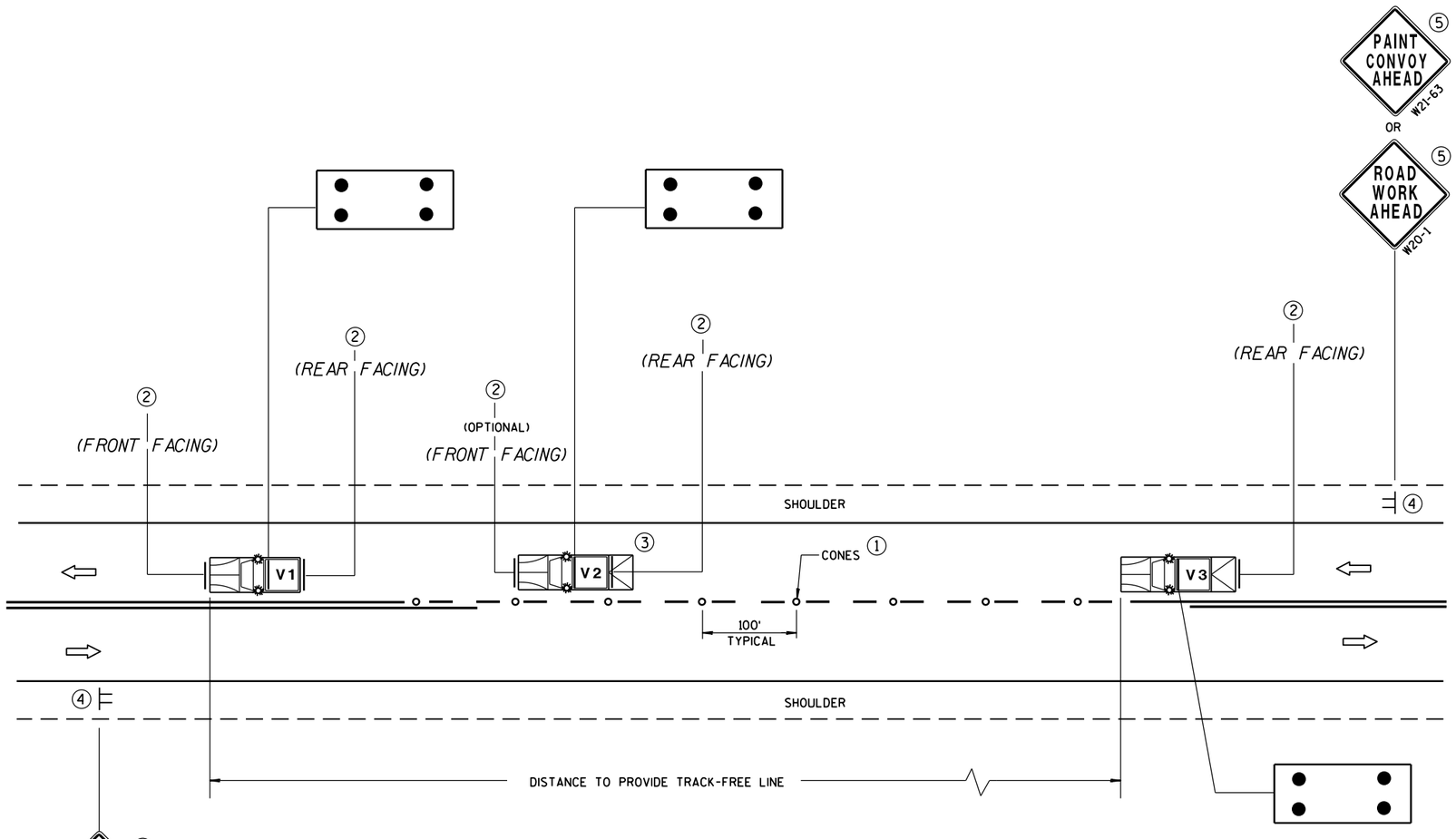
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- **V1** LEAD VEHICLE
- **V2** SHADOW VEHICLE
- **V3** TRAIL VEHICLE WITH TMA
- **TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

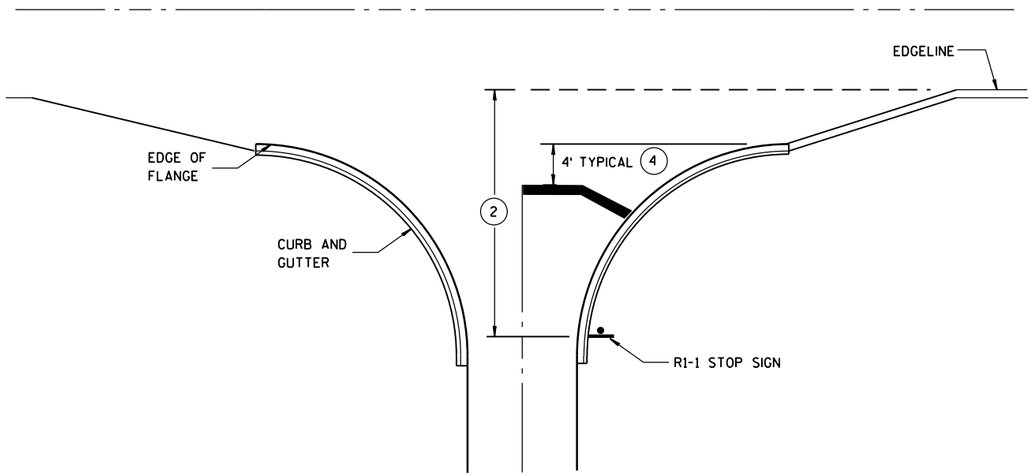
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 5/3/2013 DATE — /S/ Travis Feltes STATE TRAFFIC E FHWA

6

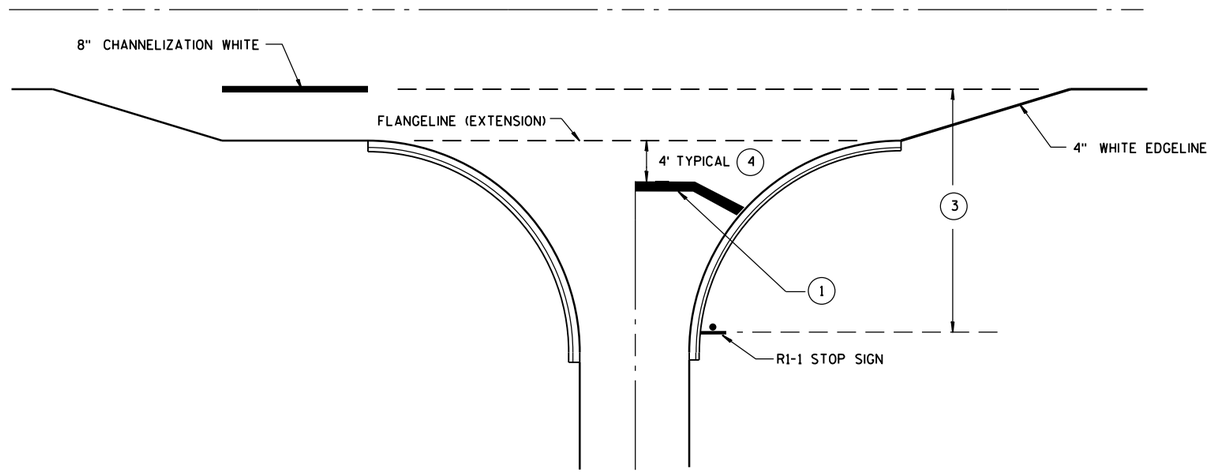
S.D.D. 15 C 19-2a

6

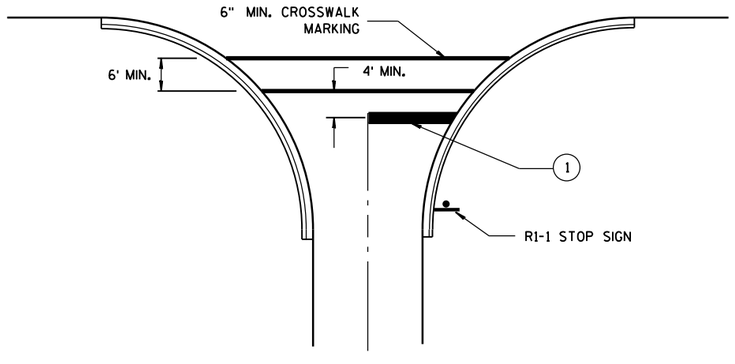
S.D.D. 15 C 19-2a



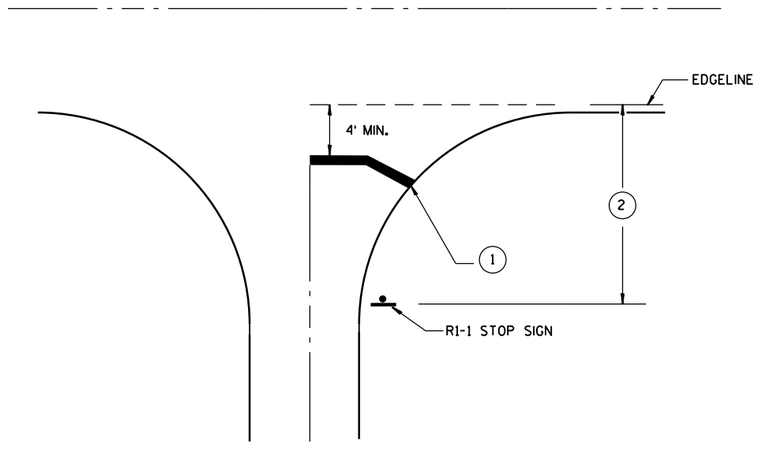
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 33-1

GENERAL NOTES

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

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

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

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

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

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

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

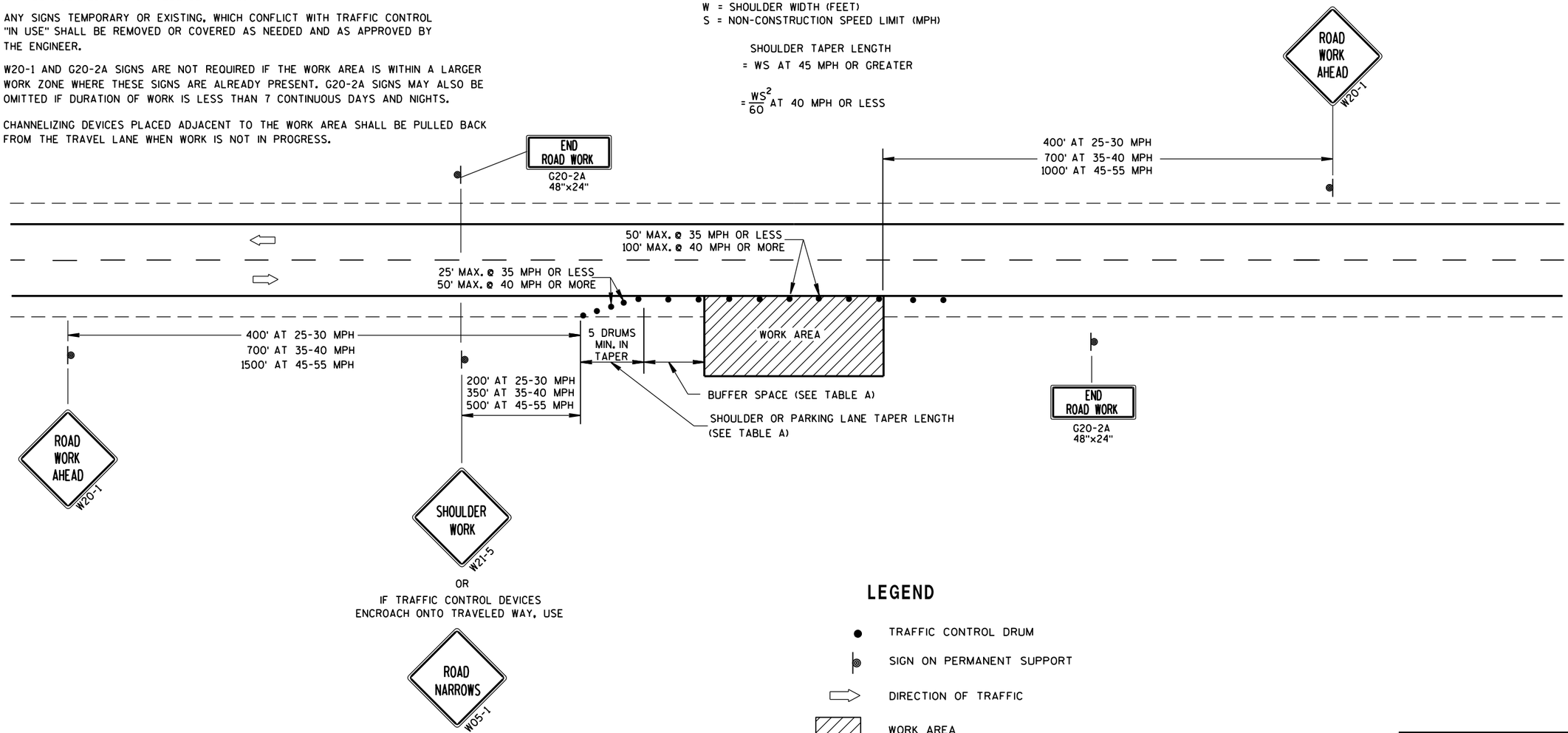
TABLE A

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

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

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

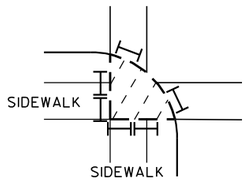
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

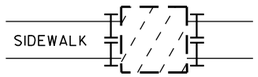
FHWA

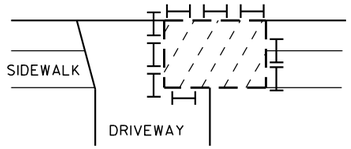
6

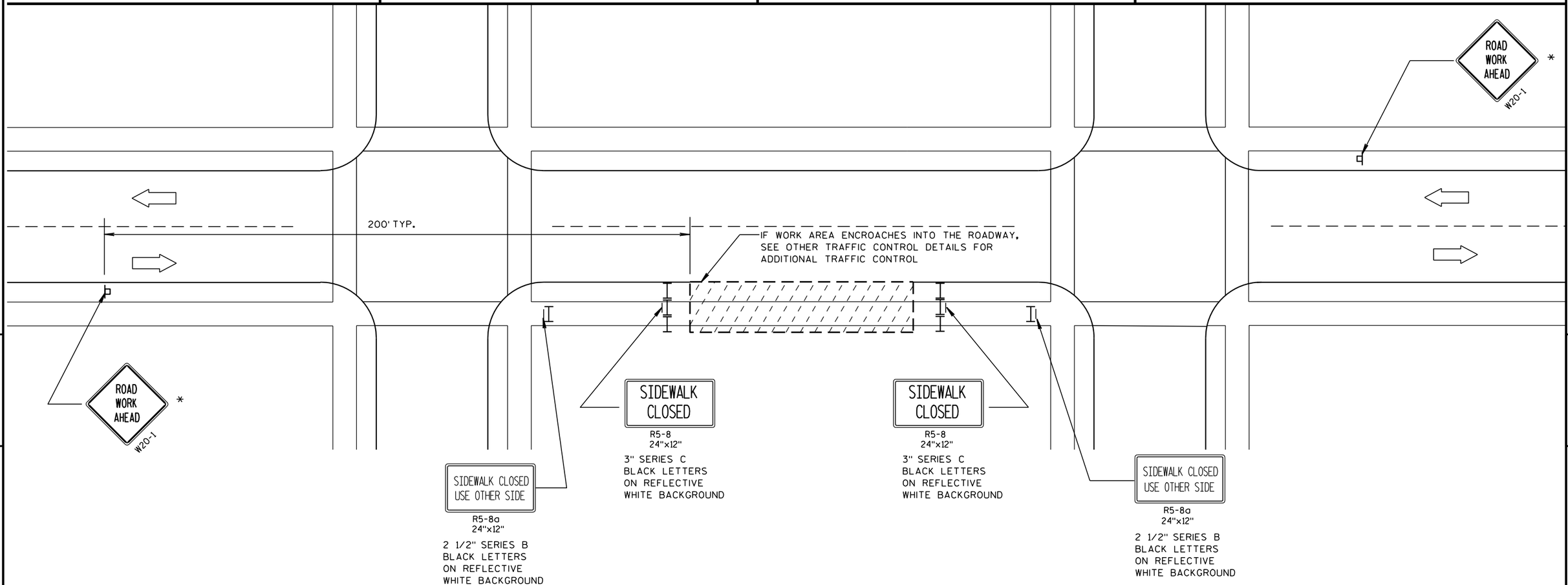
S.D.D. 15 D 28-2

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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

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

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

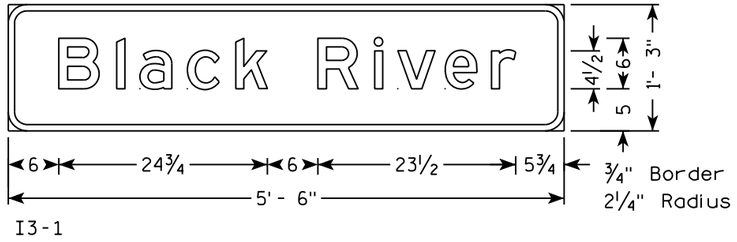
TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

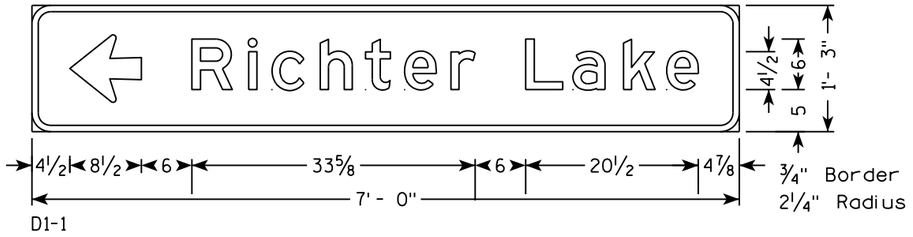
APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible]NEER
FHWA

6

S.D.D. 15 D 30-1



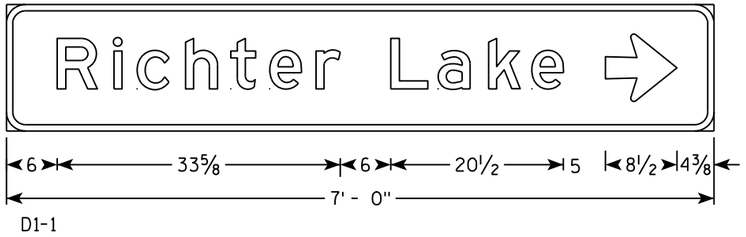
I3-1



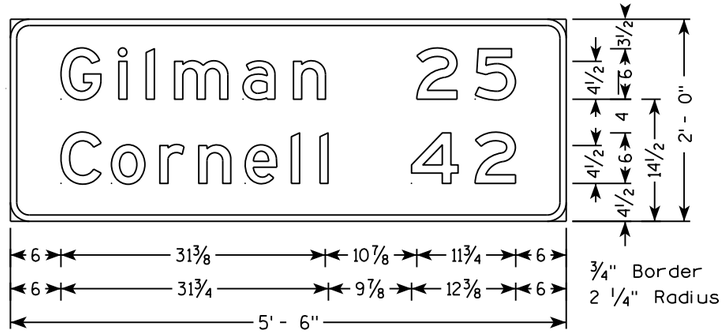
D1-1

NOTES

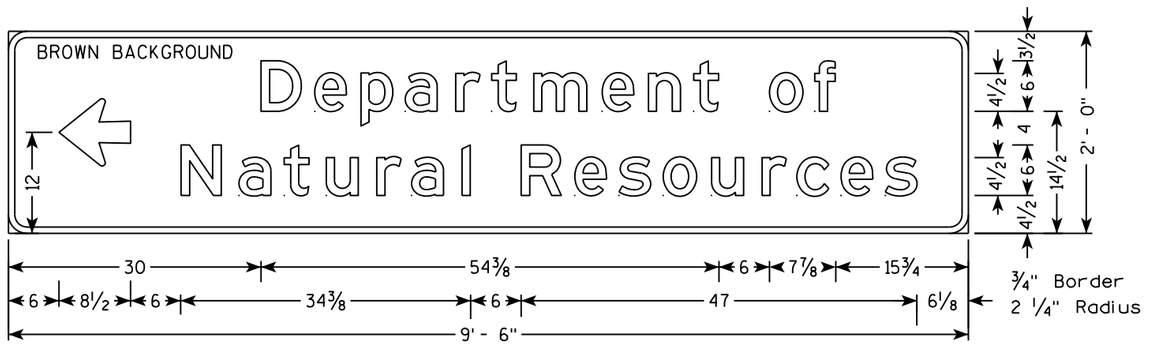
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN except as Shown
   Message - WHITE
3. Message Series - E except as Shown



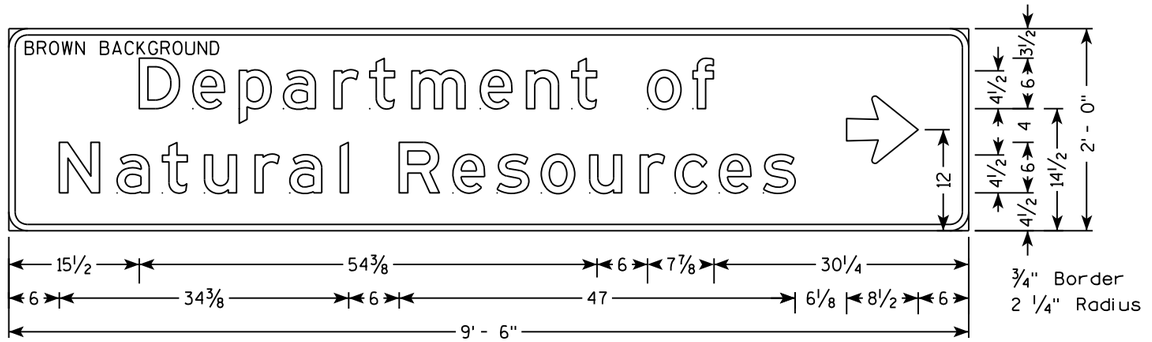
D1-1



D2-2



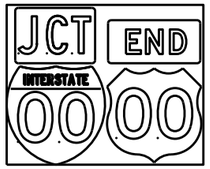
D1-1



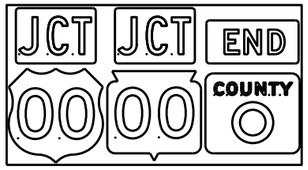
D1-1

TYPICAL ASSEMBLIES

J1-1

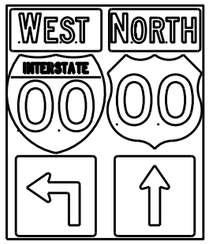


J1-2

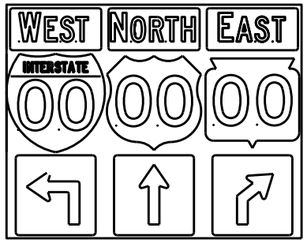


J1-3

J2-1



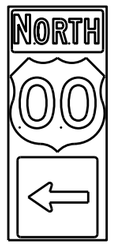
J2-2



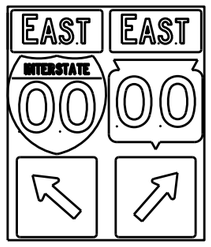
J2-3

JV

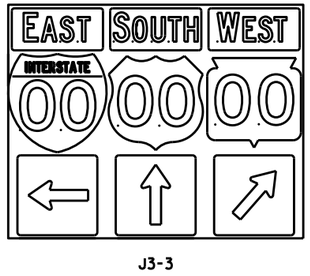
(Typical Vertical J-Assembly
See Note 10 and 11)



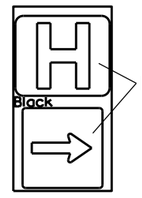
J3-1



J3-2



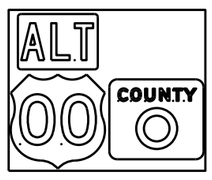
J3-3



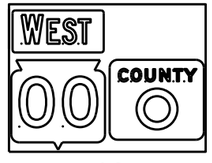
Blue Background

JH-1

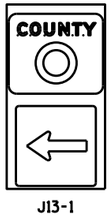
J4-1



J4-2



J4-2



J13-1

J12-1

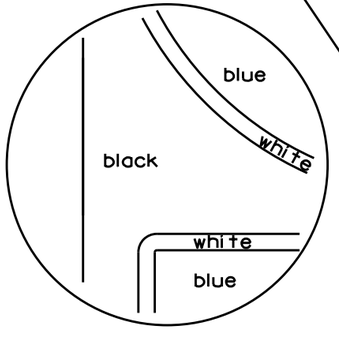
J32-1

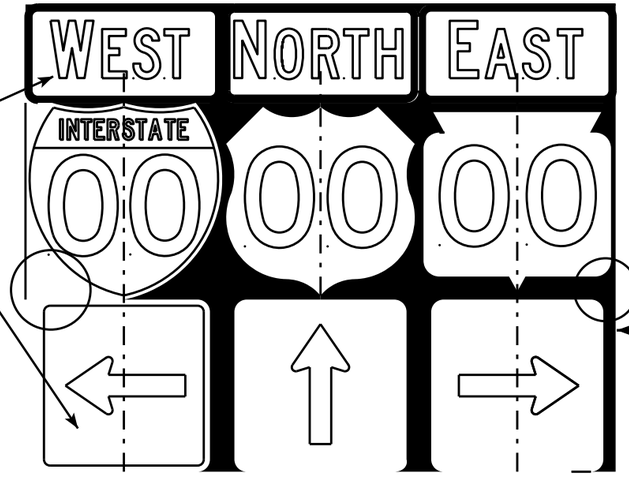
J33-1

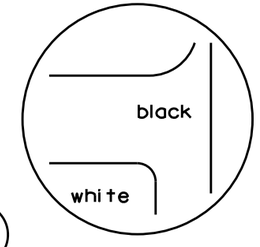
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

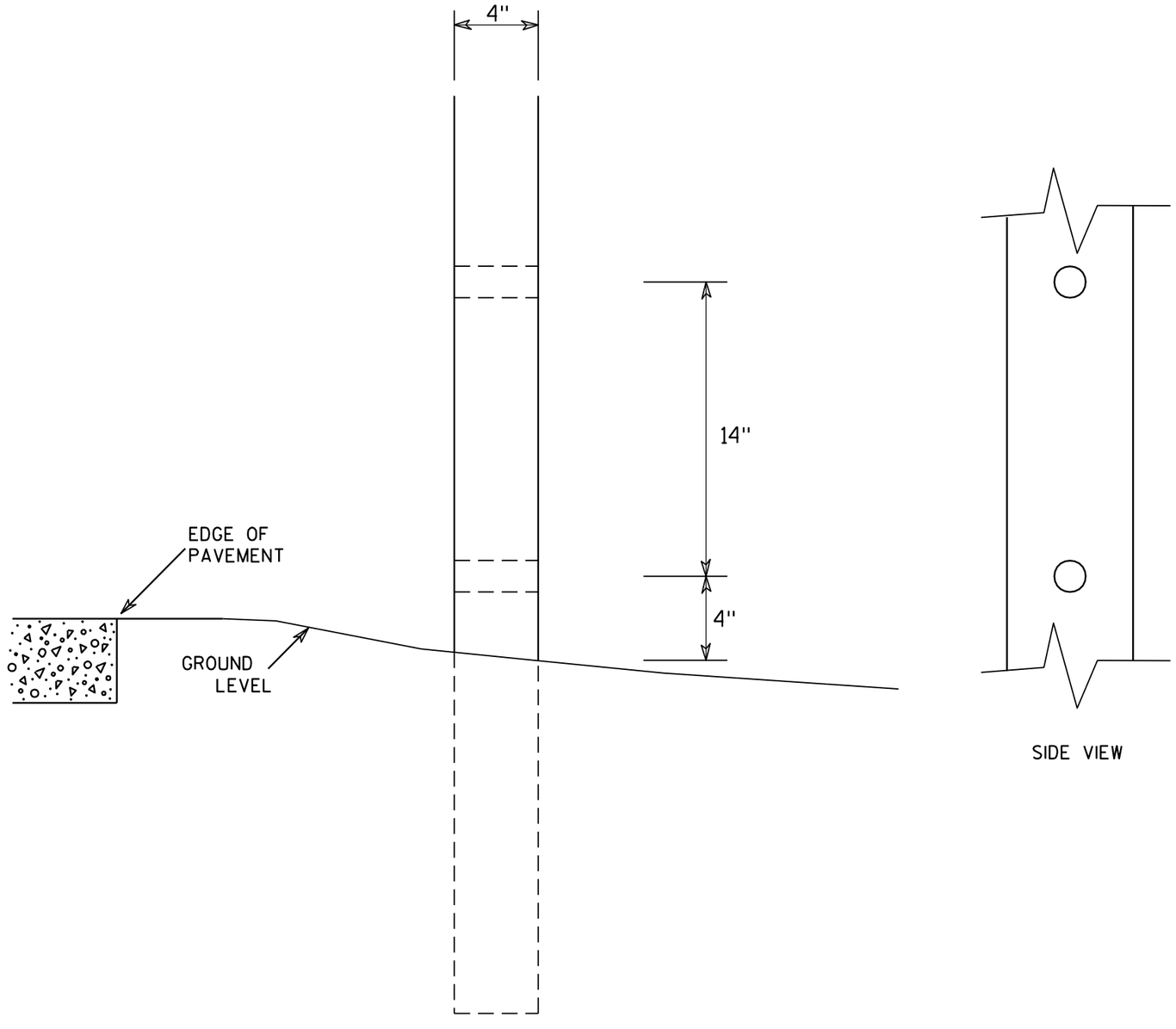
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | SHEET NO: E

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

WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

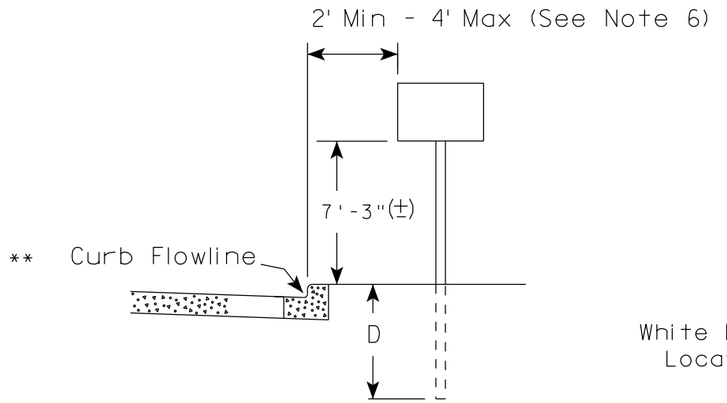
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

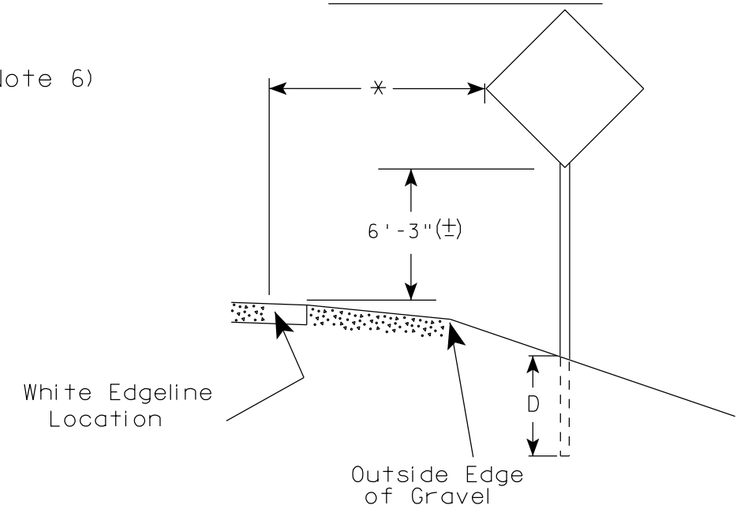
DATE 3/27/97 PLATE NO. A4-11.2

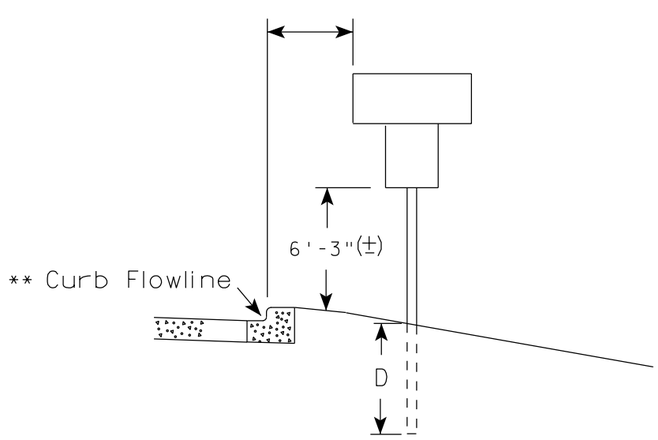
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 205	E

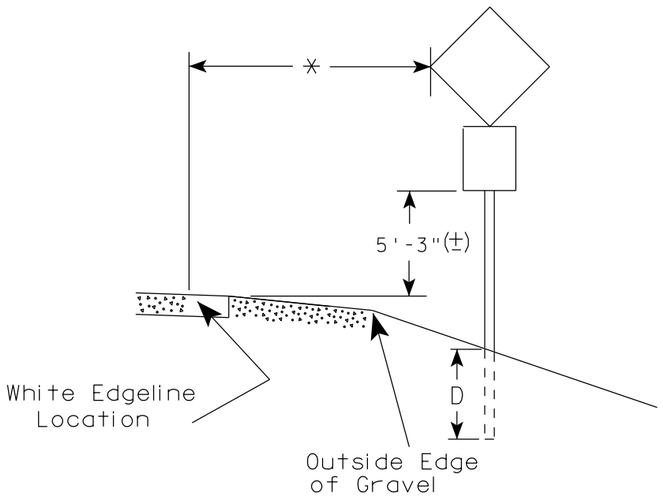
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

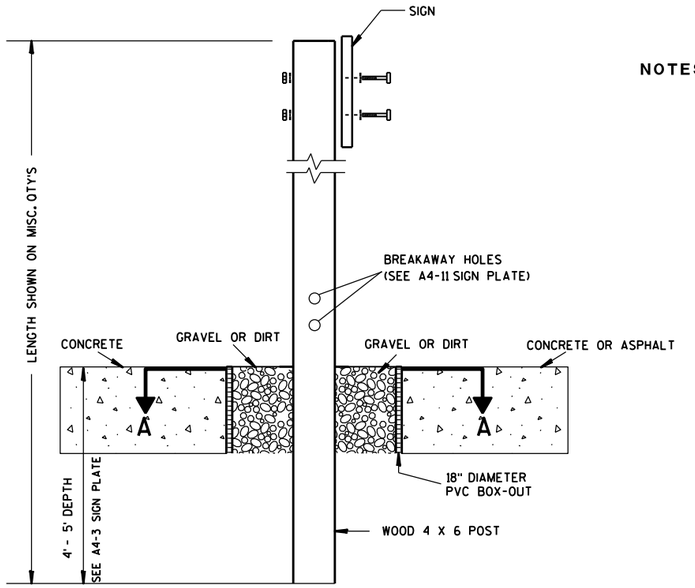
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

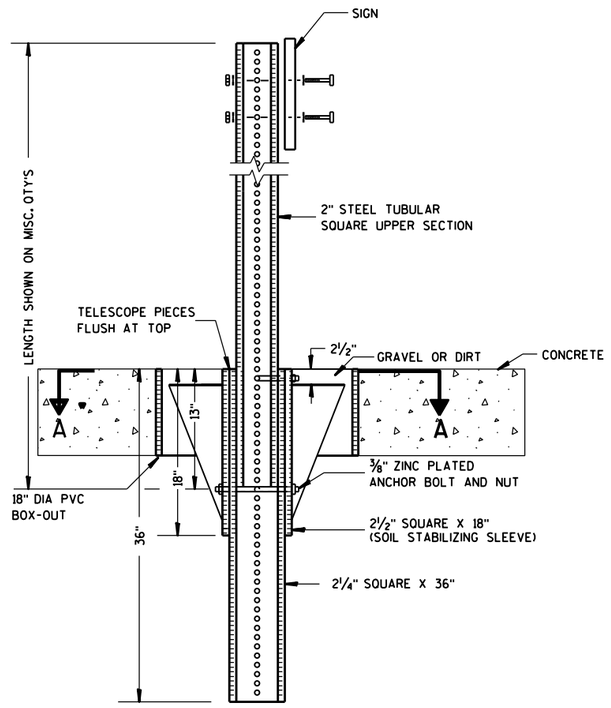
7



ELEVATION VIEW

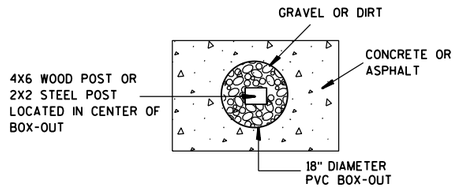
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

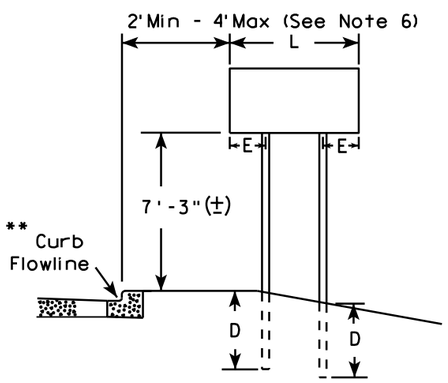
APPROVED Matthew R Rauch
for State Traffic Engineer

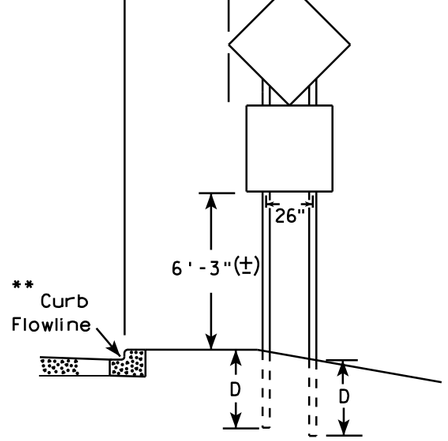
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

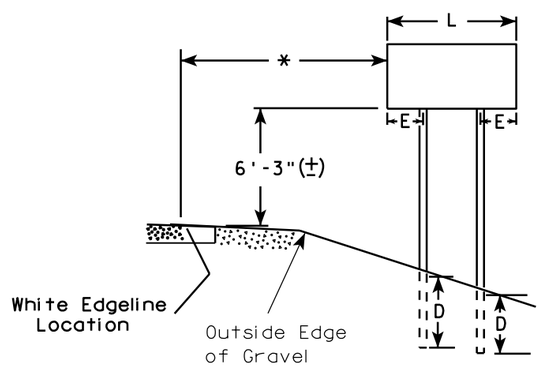
URBAN AREA

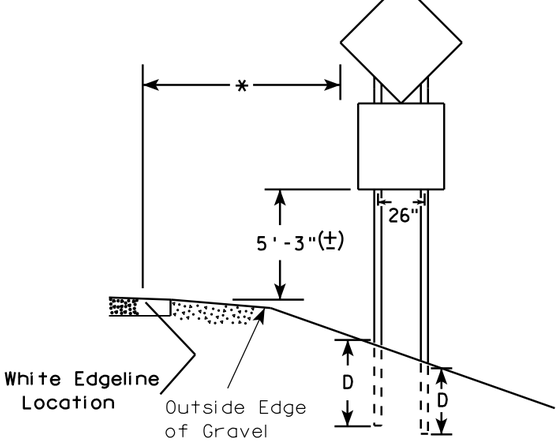




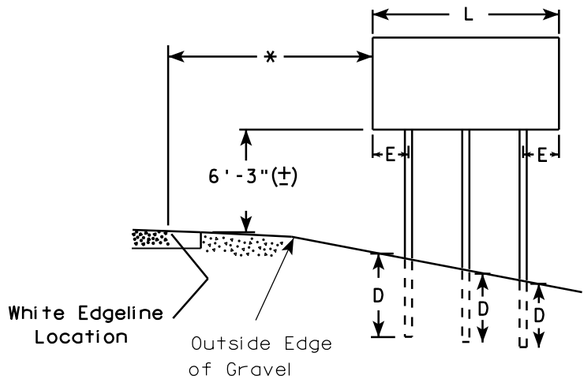
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





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

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

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

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

***

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

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

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

POST EMBEDMENT DEPTH

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

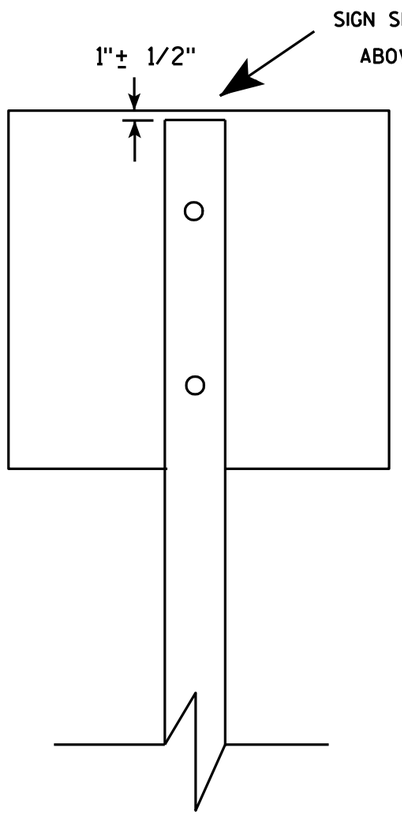
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

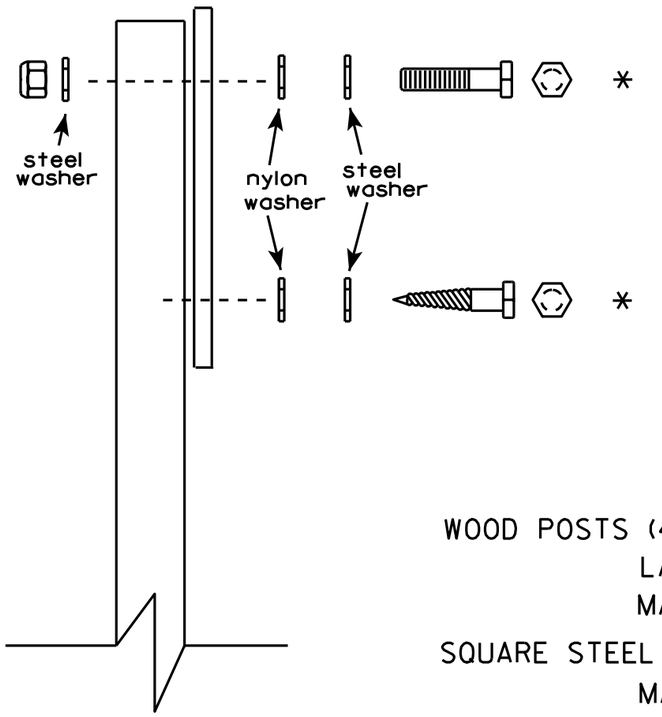
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E





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

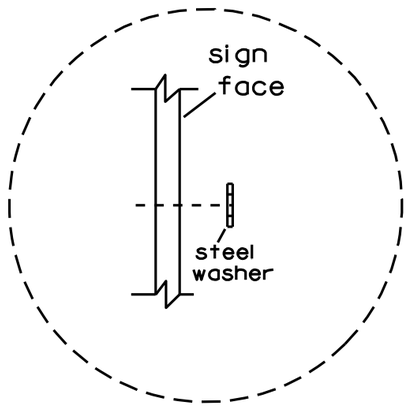
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

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

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

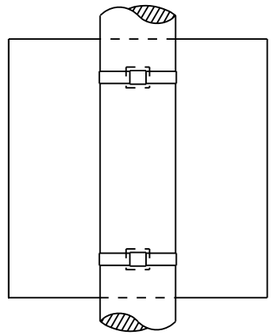
7

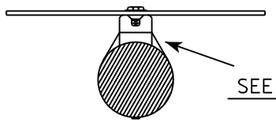
PROJECT NO:

SHEET NO: 209 E

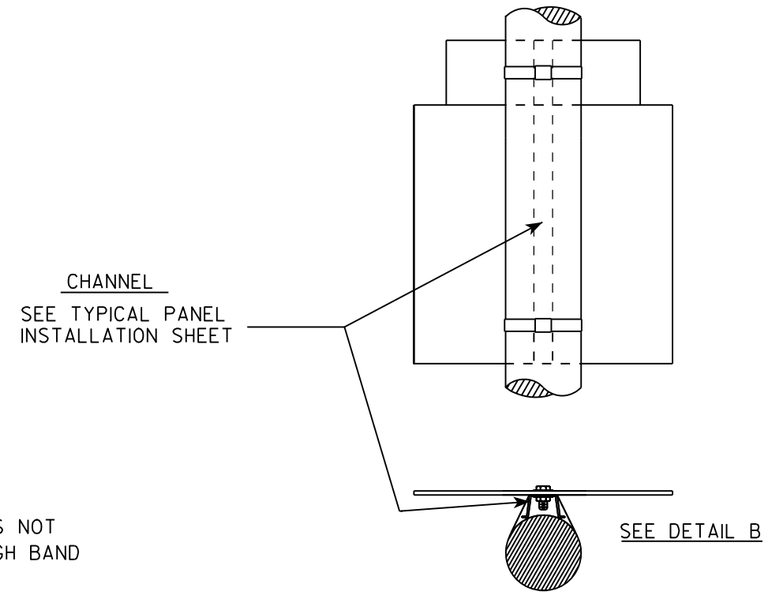
BANDING

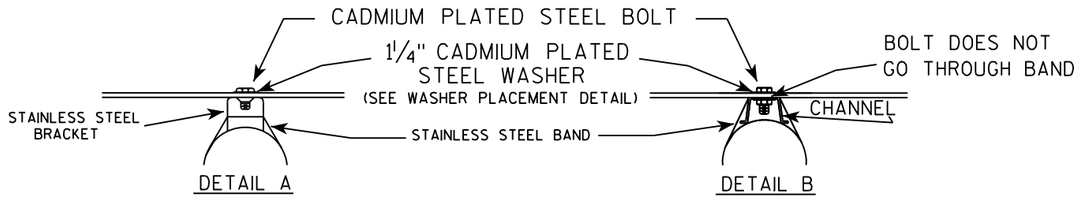
SINGLE SIGN



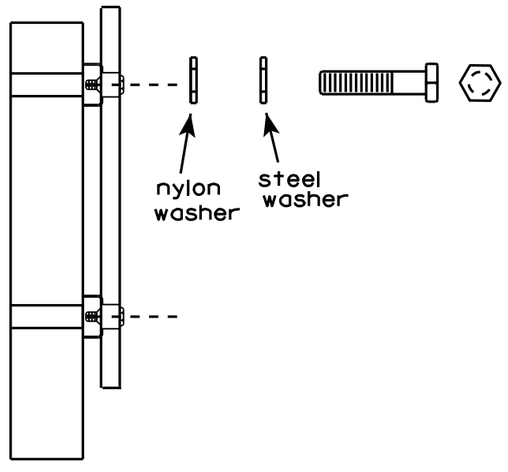


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. 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 ¾" in width and 0.025" thickness.

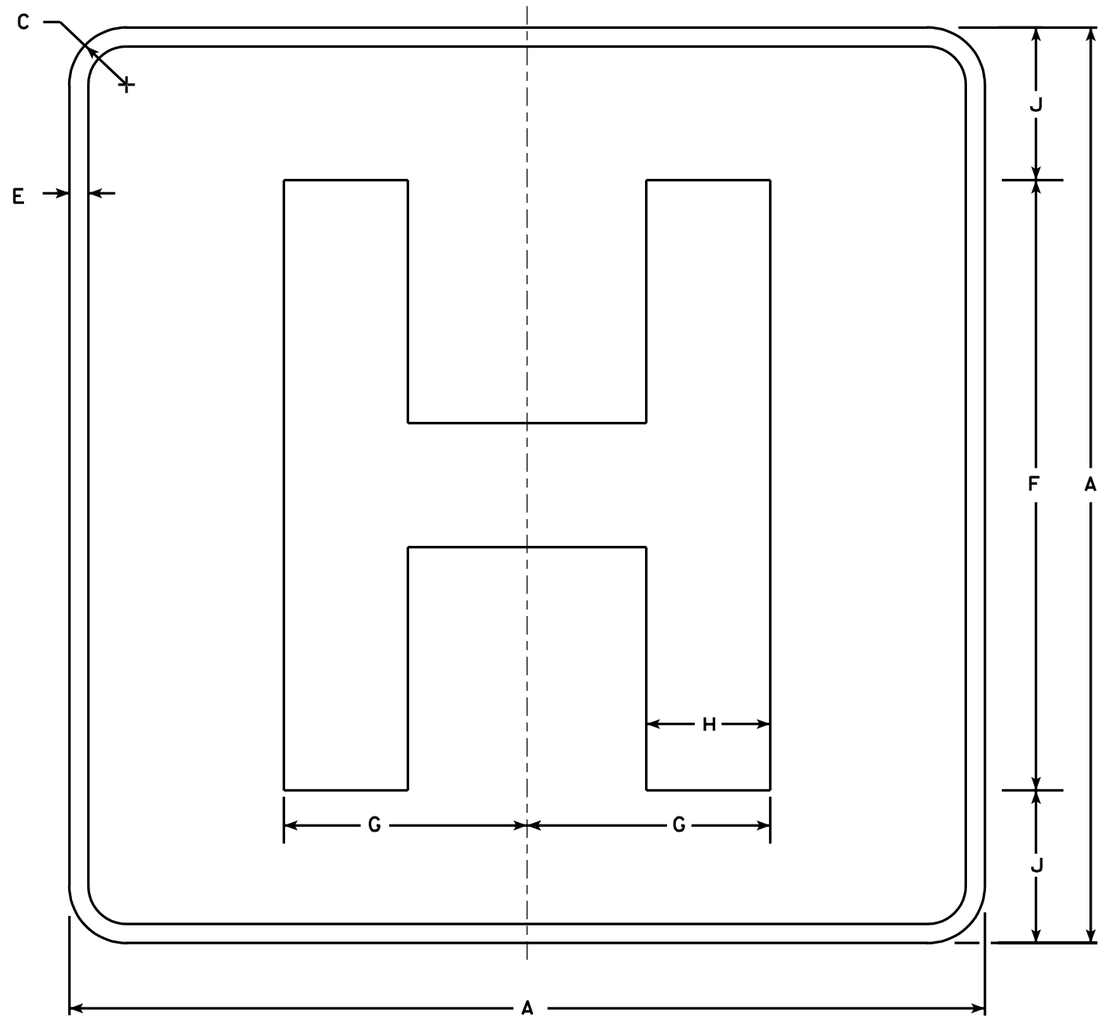
STANDARD SIGN
SIGN BANDING DETAILS

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: 210	E



D9-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - E Modified
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	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

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		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

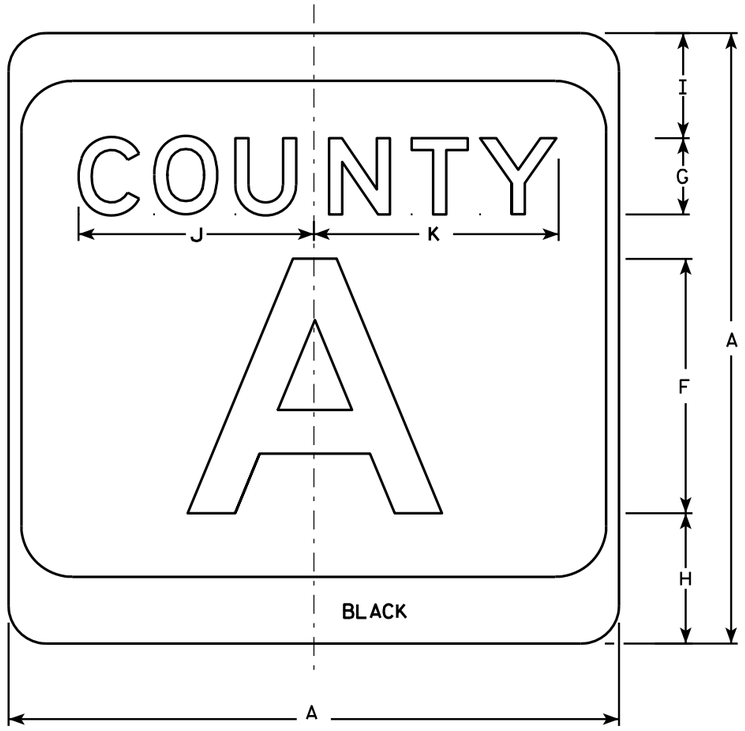
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong
for State Traffic Engineer

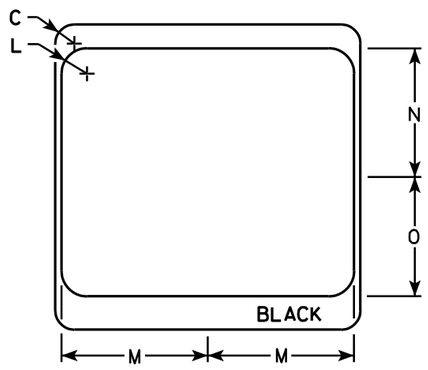
DATE 1/15/02 PLATE NO. D9-2.4

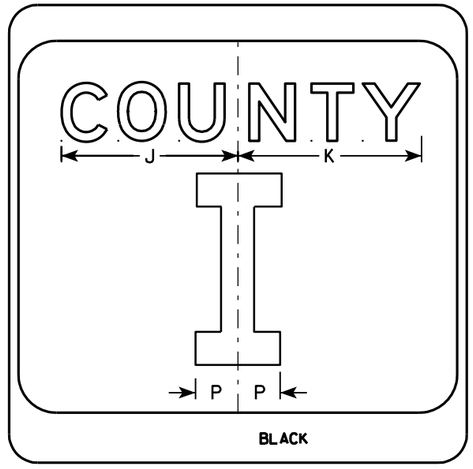
PROJECT NO:

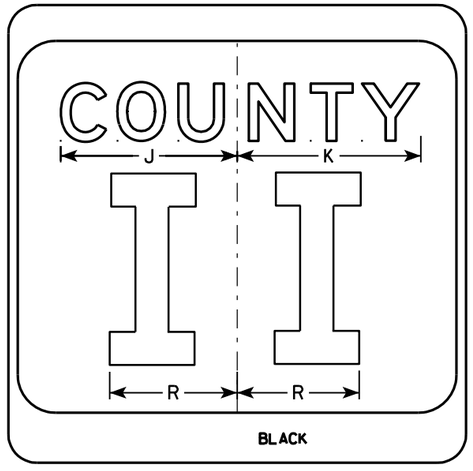
SHEET NO: 211 E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

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

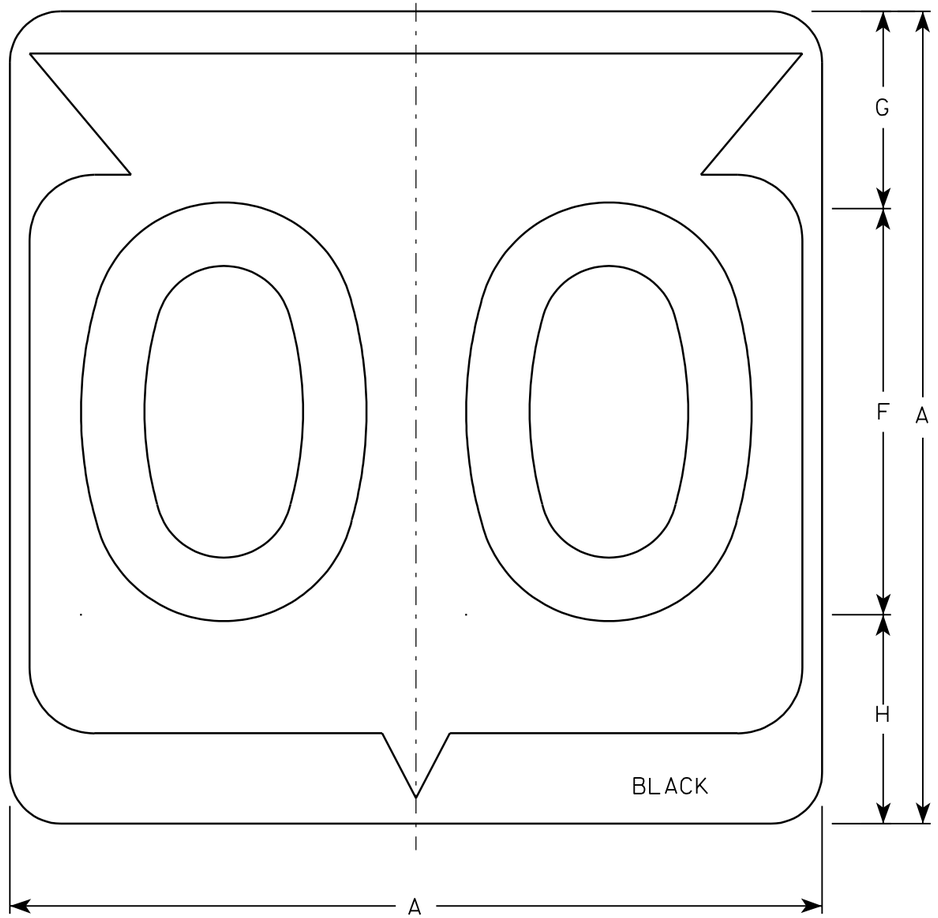
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

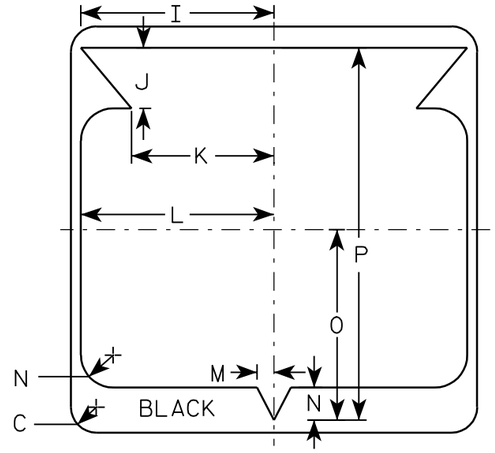
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 212 | E



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

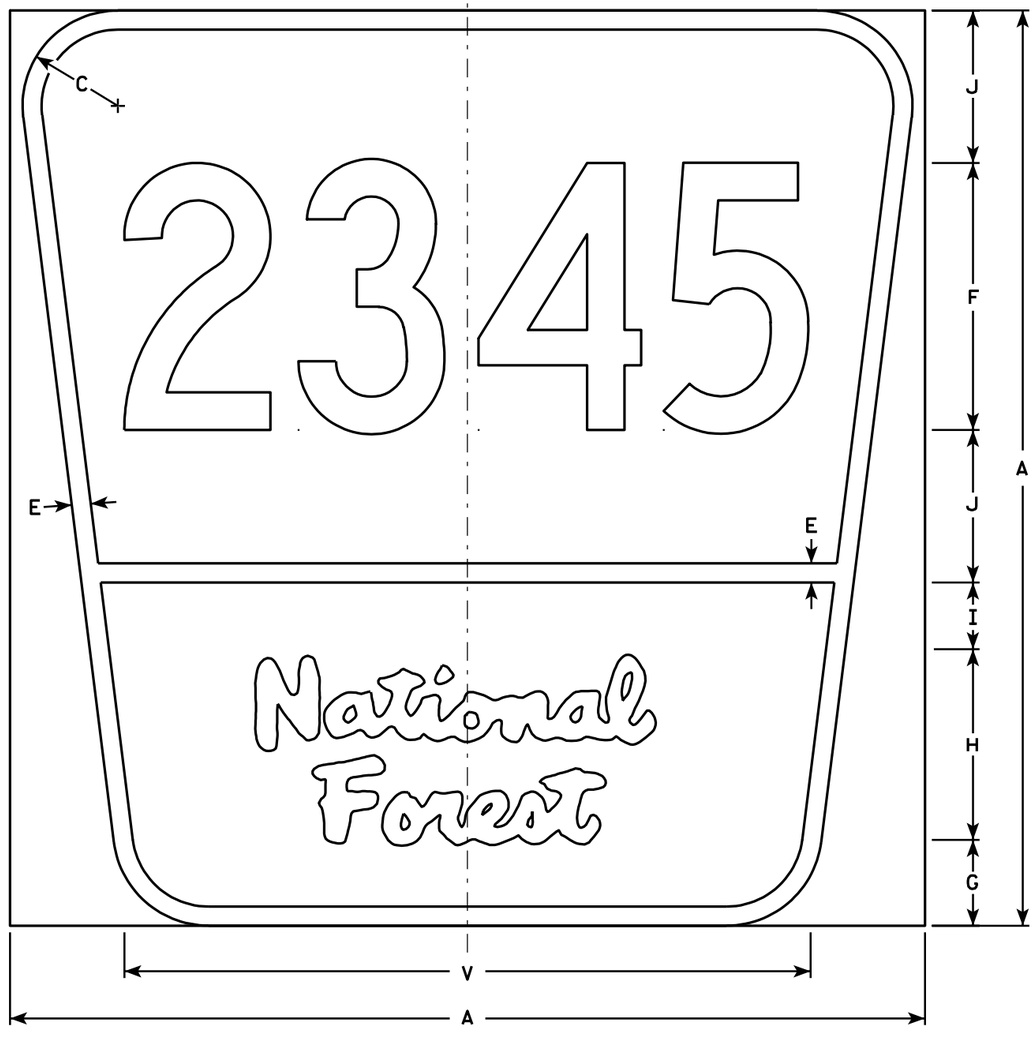
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 213	E



M1-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Brown
   Message - White - Type H Reflective
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. 4 digit numerals series C
   3 digit numerals series D
6. See National Forest Handbook for layout of "National Forest".

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1																												
2	24		2 ½		½	7	2 ¼	5	1 ¾	4												18					4.0	.37
3																												
4																												
5																												

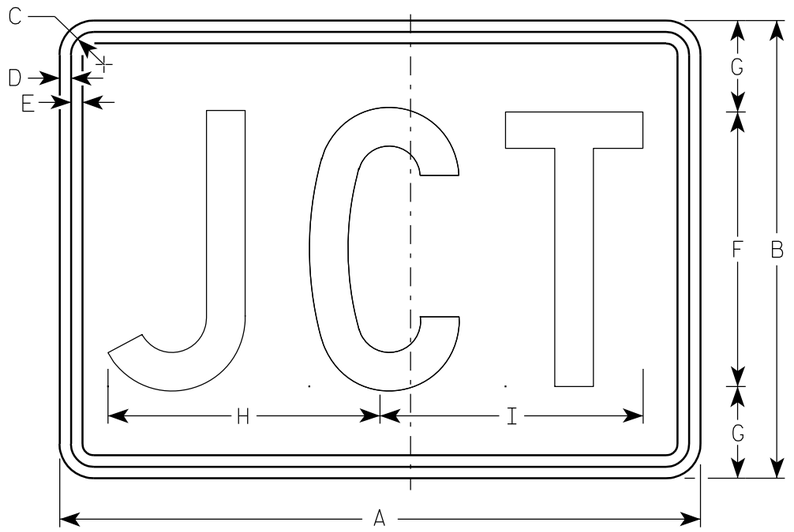
STANDARD SIGN
M1-7

WISCONSIN DEPT OF TRANSPORTATION

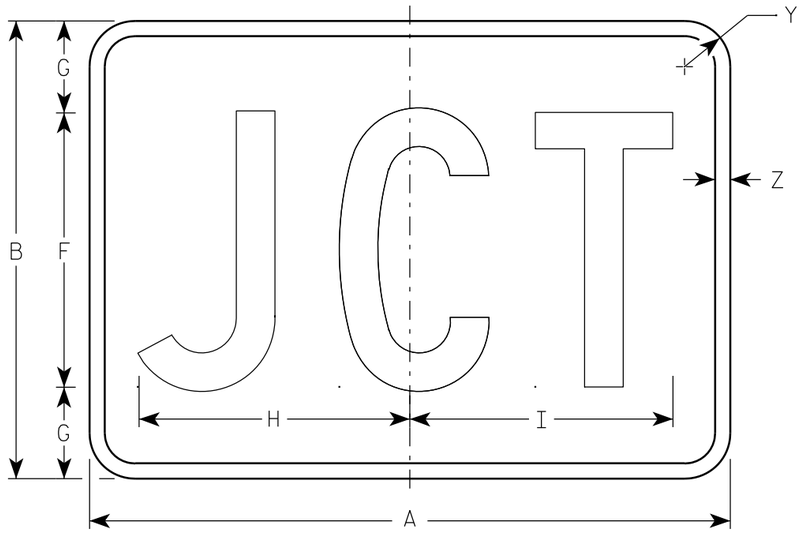
APPROVED Chester J Spagg for State Traffic Engineer

DATE 1/30/02 PLATE NO. M1-7.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 214 | E



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



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

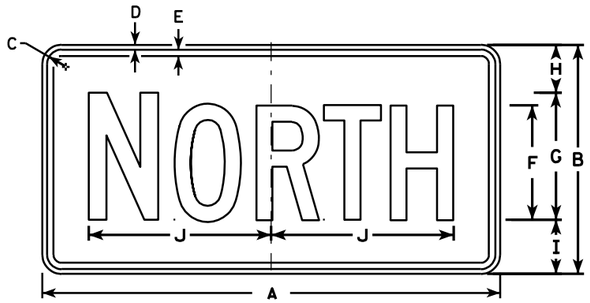
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

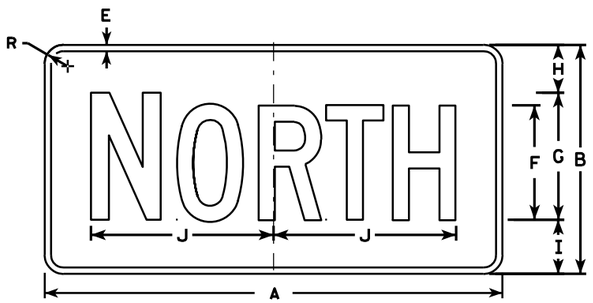
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 215	E

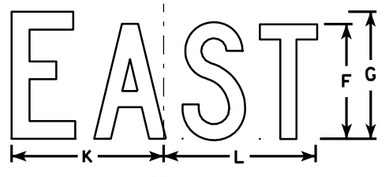


M3-1
MK3-1
MO3-1

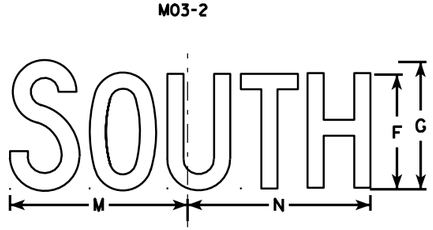


MB3-1
MG3-1
MM3-1
MN3-1

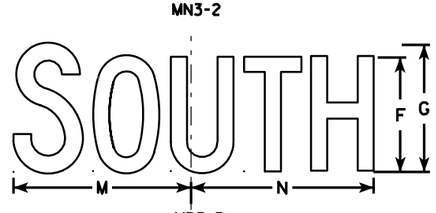
M3-2
MK3-2
MO3-2



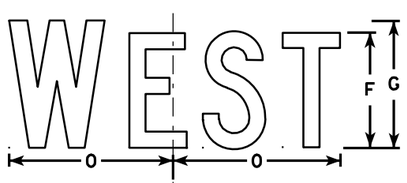
MB3-2
MG3-2
MM3-2
MN3-2



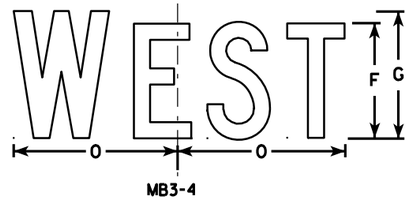
M3-3
MK3-3
MO3-3



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



M3-4
MK3-4
MO3-4



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

NOTES

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

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

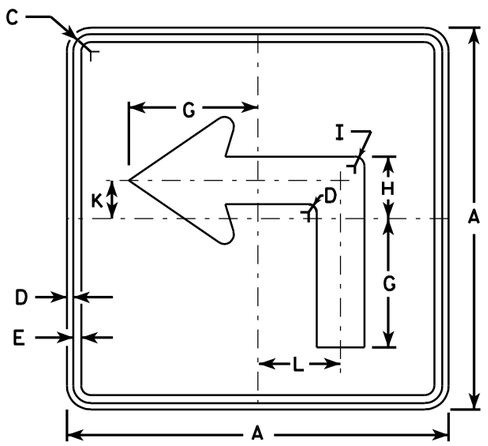
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

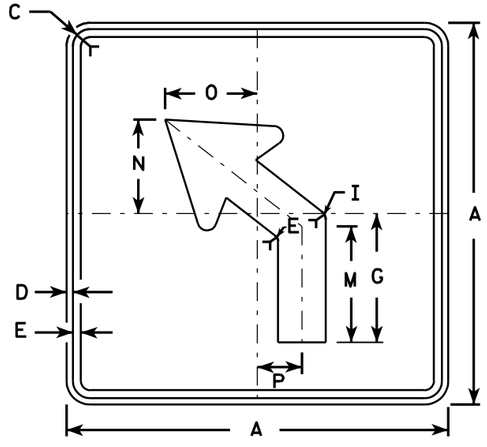
APPROVED Matthew R Rauch for State Traffic Engineer

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

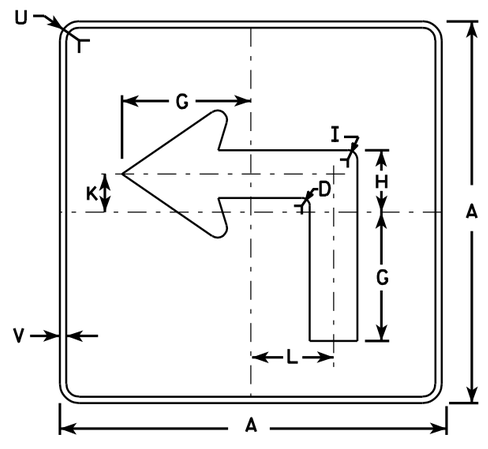
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 216	E



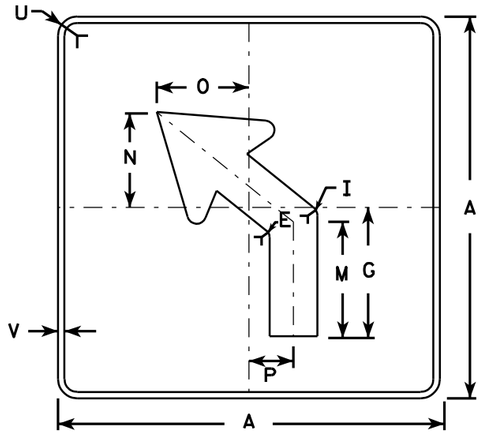
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



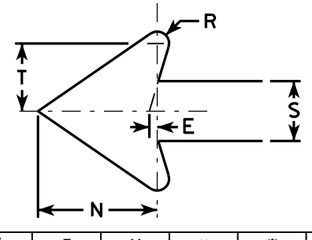
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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



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



NOTES

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

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

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

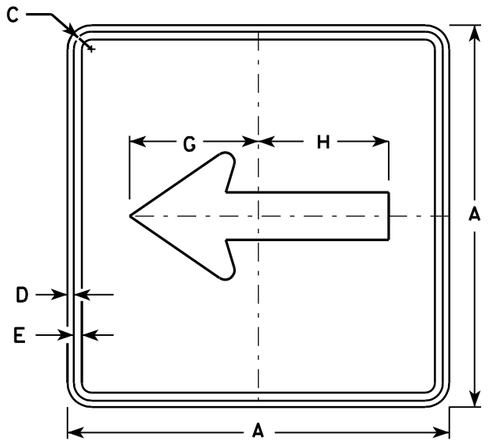
APPROVED Matthew R Rauch
for State Traffic Engineer

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

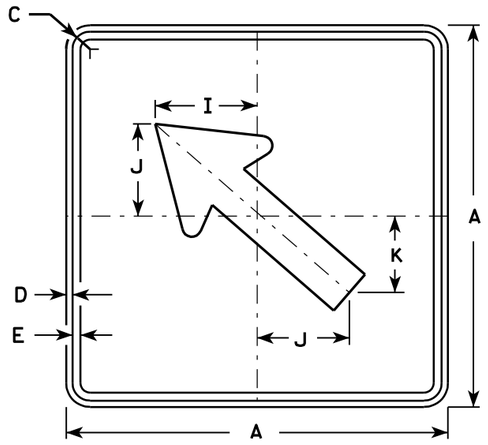
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	E

7

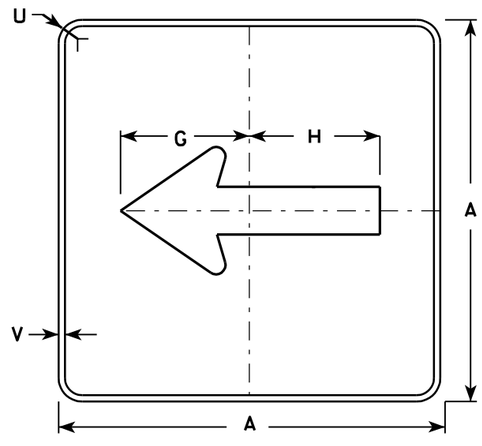
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 29-JUL-2013 13:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000



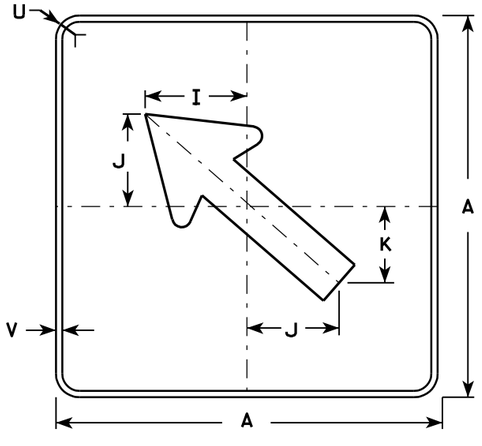
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



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



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

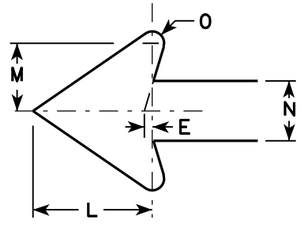
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - White - Type H 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	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

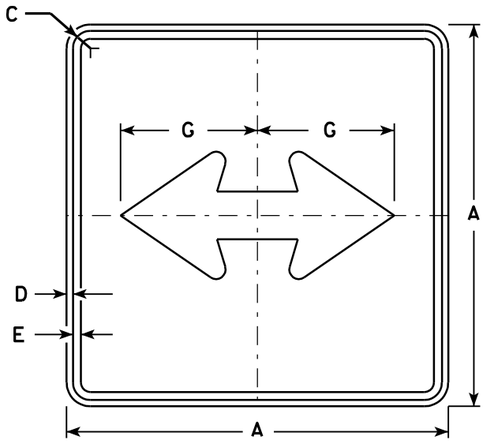
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

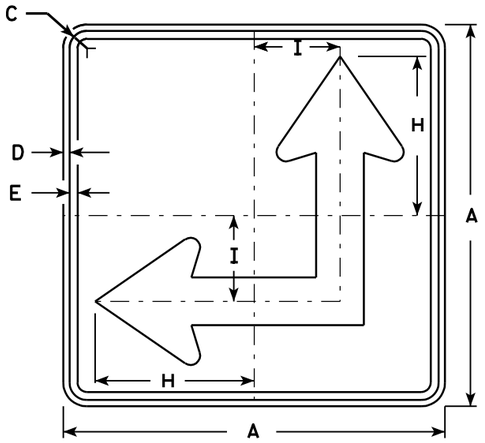
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

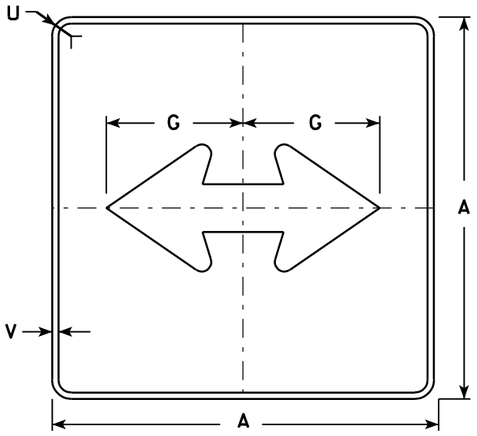
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 218	E



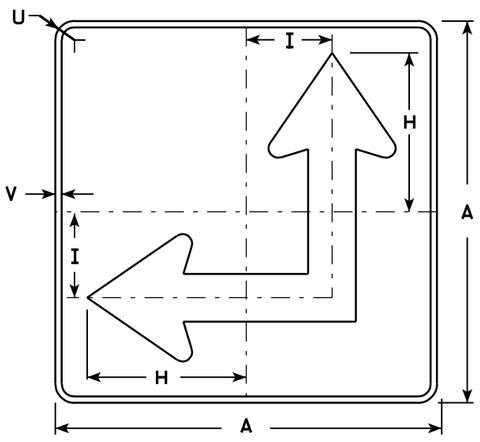
M6-4
MK6-4
MM6-4
MO6-4
MP6-4
MR6-4



M6-6
MK6-6
MM6-6
MO6-6
MP6-6
MR6-6



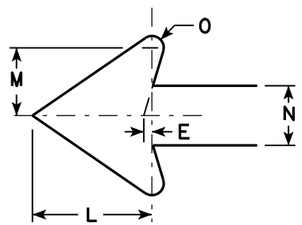
MB6-4
MG6-4
MN6-4



MB6-6
MG6-6
MN6-6

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White - Type H Reflective
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White - Type H Reflective
   MG6-4 and MG6-6 Background - Green
   Message - White - Type H Reflective
   MK6-4 and MK6-6 Background - Green
   Message - White - Type H Reflective
   MM6-4 and MM6-6 Background - White - Type H Reflective
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White - Type H Reflective
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White - Type H Reflective
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow - Type H Reflective
5. M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

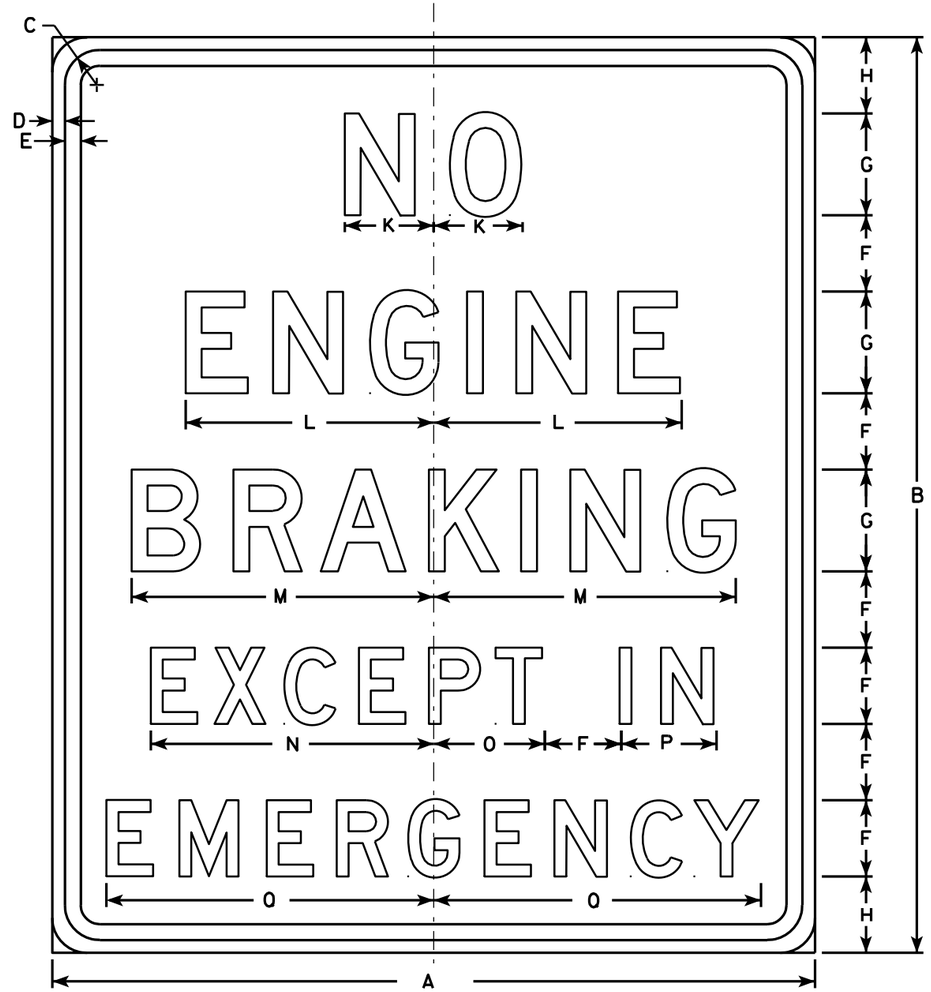
STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8

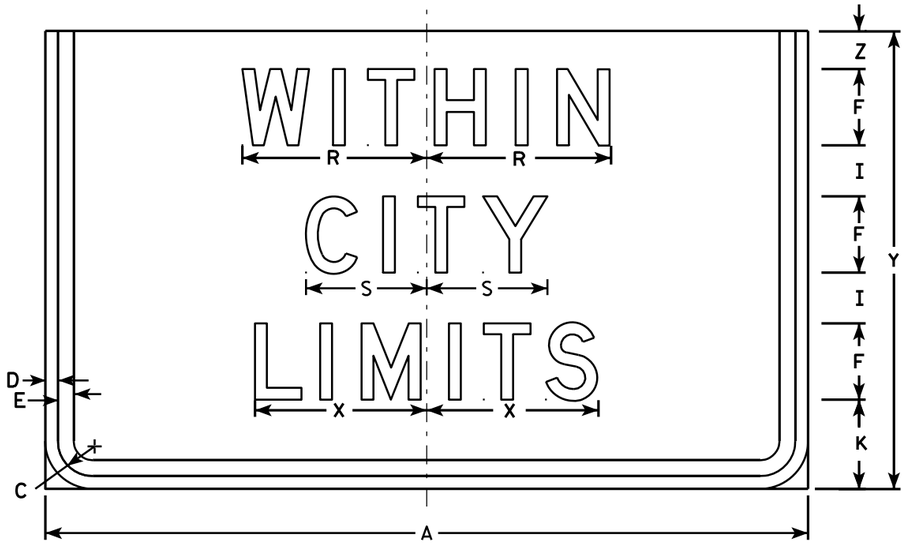
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 219 | E



R10-64

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 2 of R10-64F is Series C for "TOWNSHIP" Only



R10-64F

Area sq. ft.
3.75
7.0

VILLAGE
V
V

TOWNSHIP
U
U

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

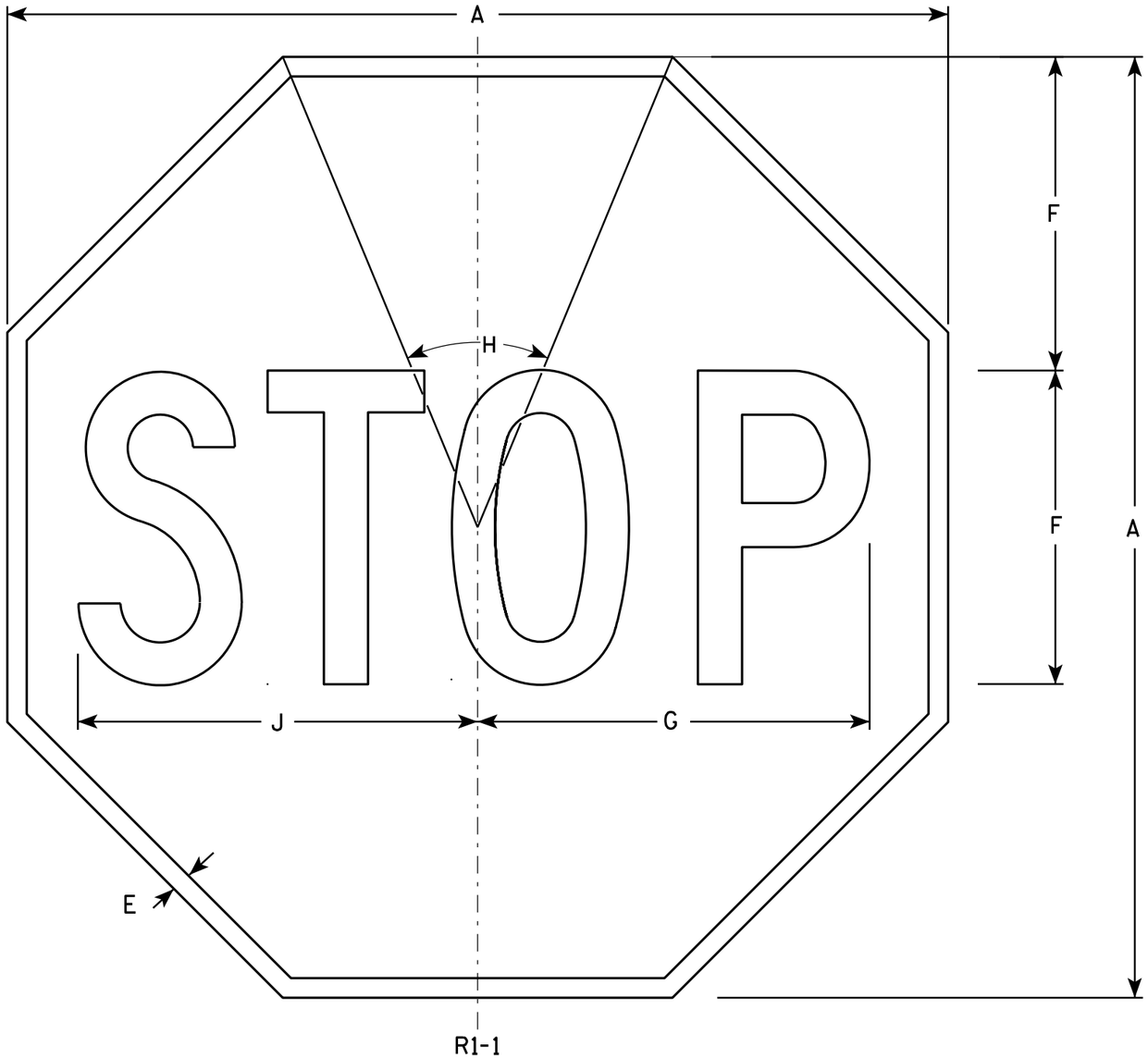
STANDARD SIGN
R10-64 & R10-64F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 220	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 - Red
   Message - White
3. Message Series - C

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

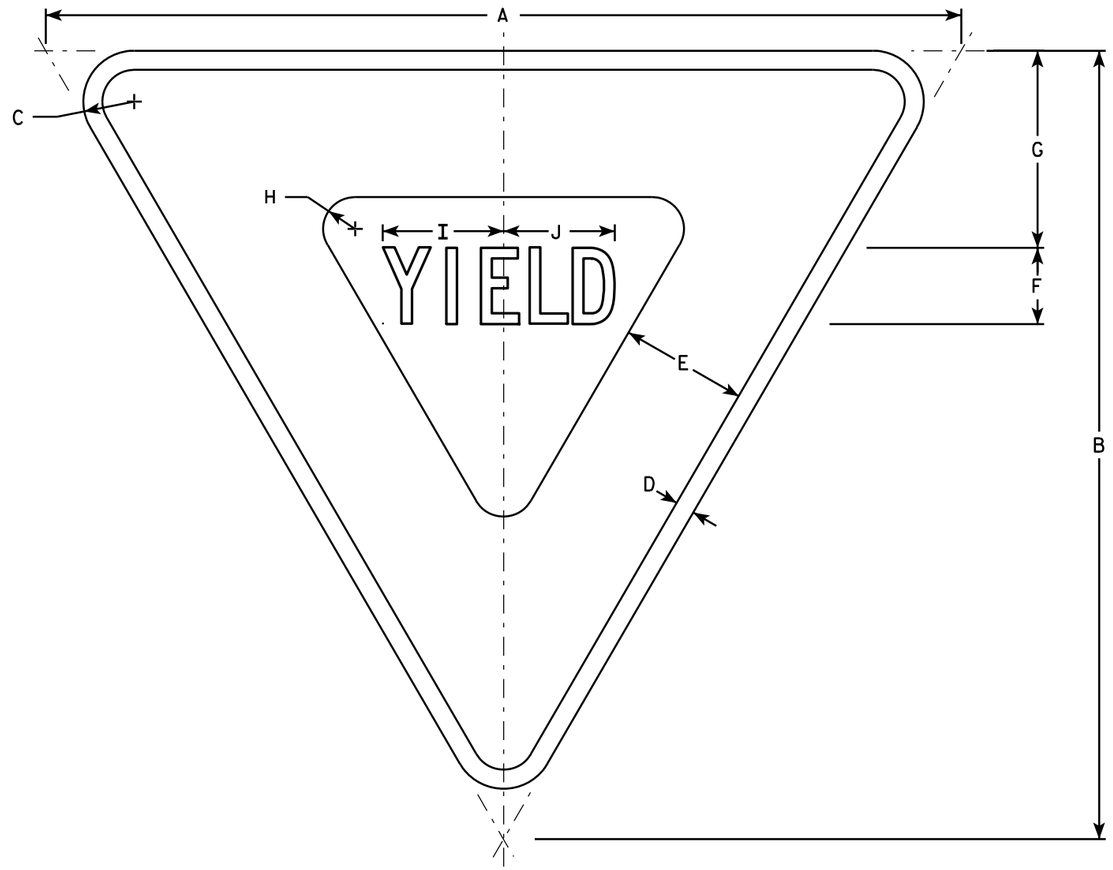
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 221	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

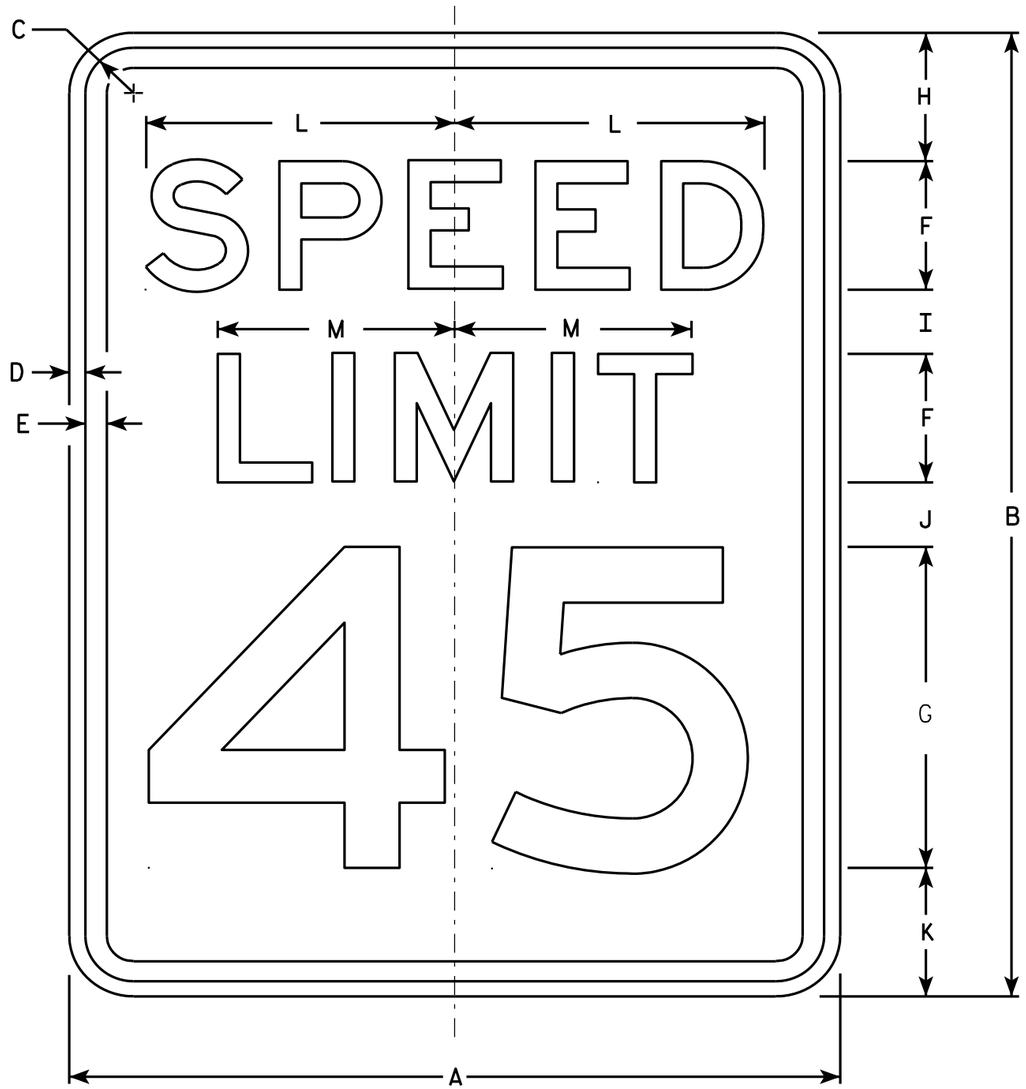
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 222 | E



R2-1

NOTES

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

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

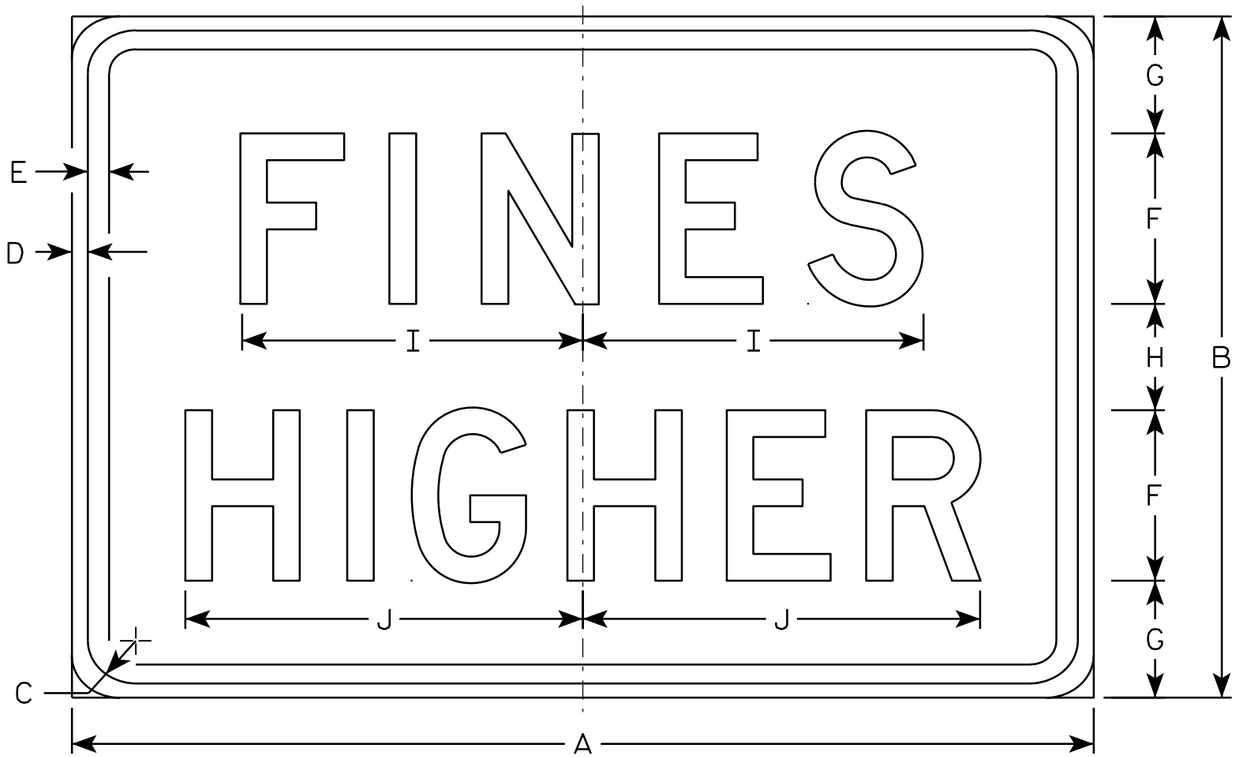
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 223 | E



R2-6P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

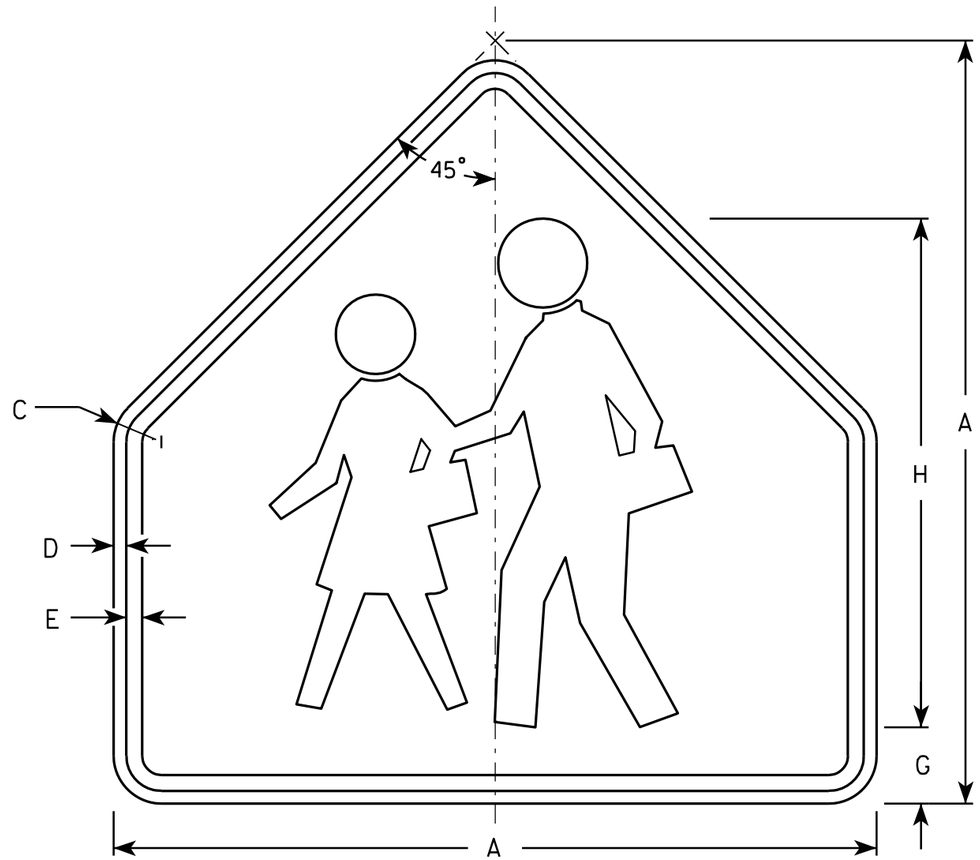
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 224 | E

7



S1-1

NOTES

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

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

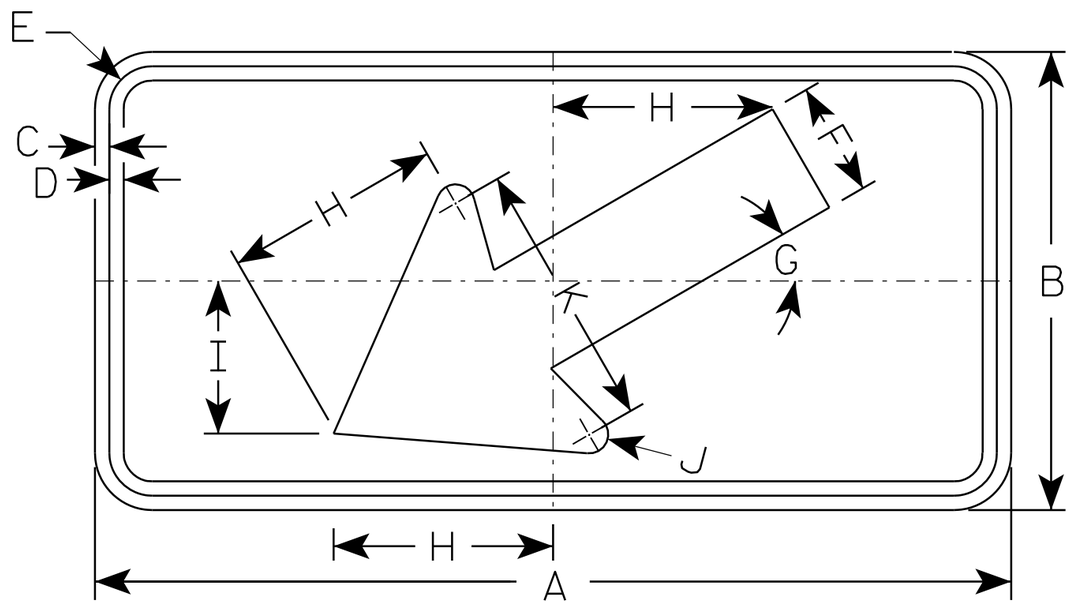
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 225	E



S16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

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

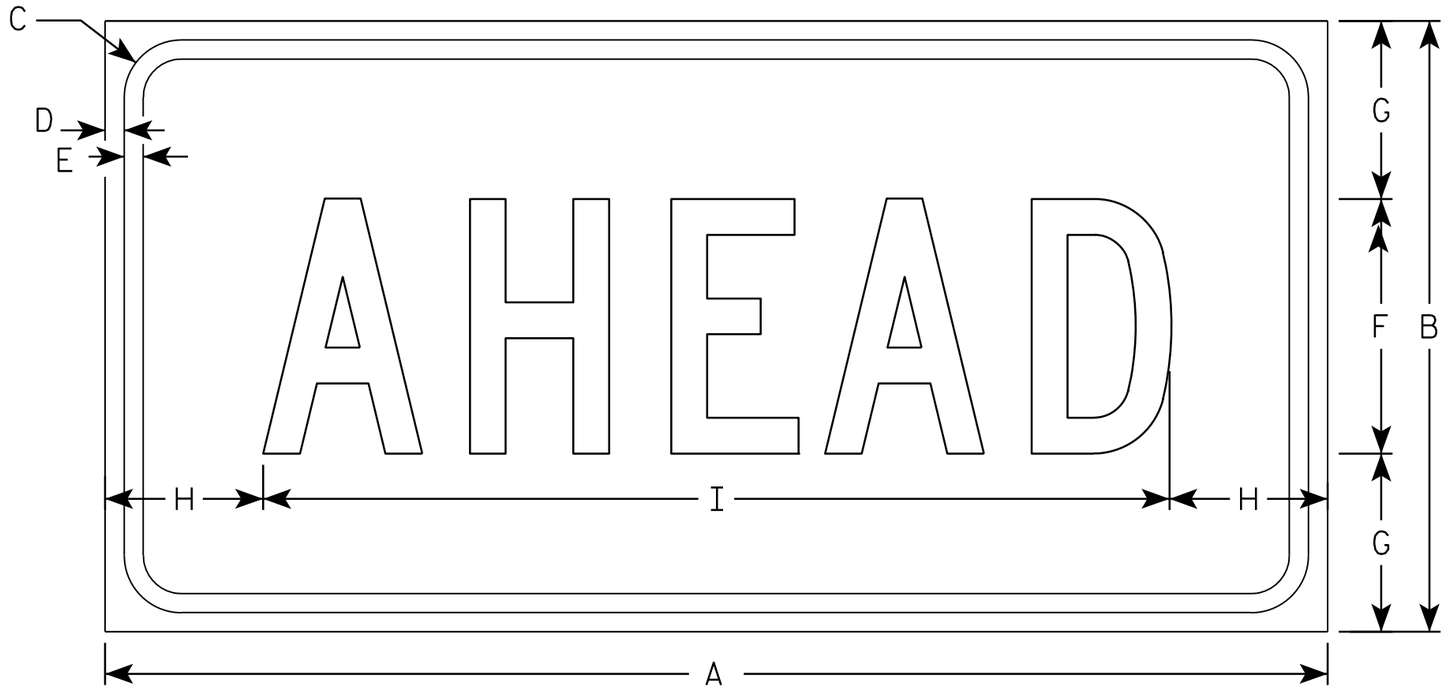
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 226 | E



S16-9P

NOTES

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

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

STANDARD SIGN
S16-9P

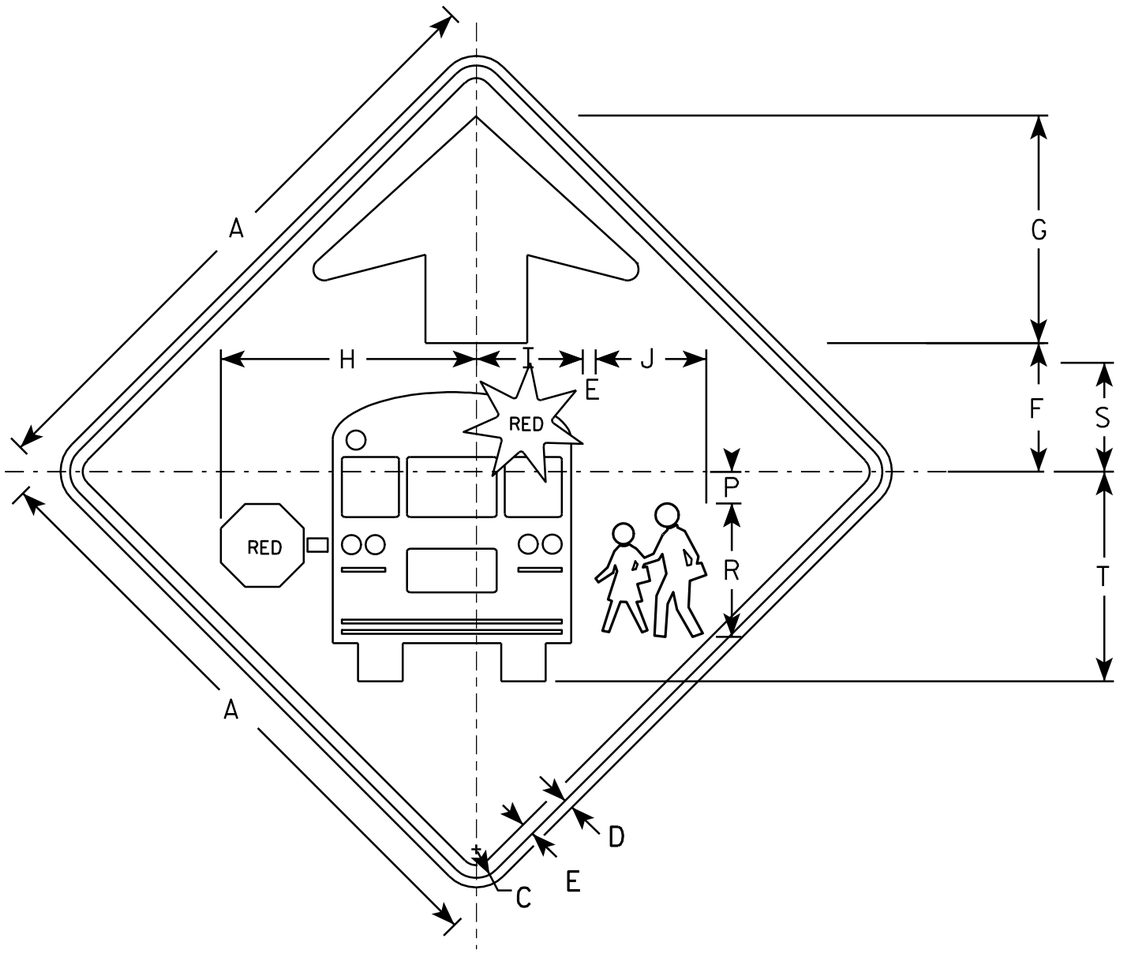
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 227 | E

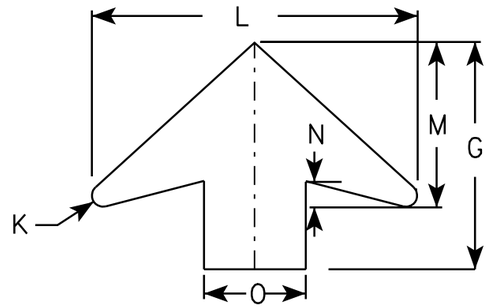
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S169P.dgn PLOT DATE : 22-JUL-2013 10:32 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 2.977140:1.000000



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																											

STANDARD SIGN
S3-1

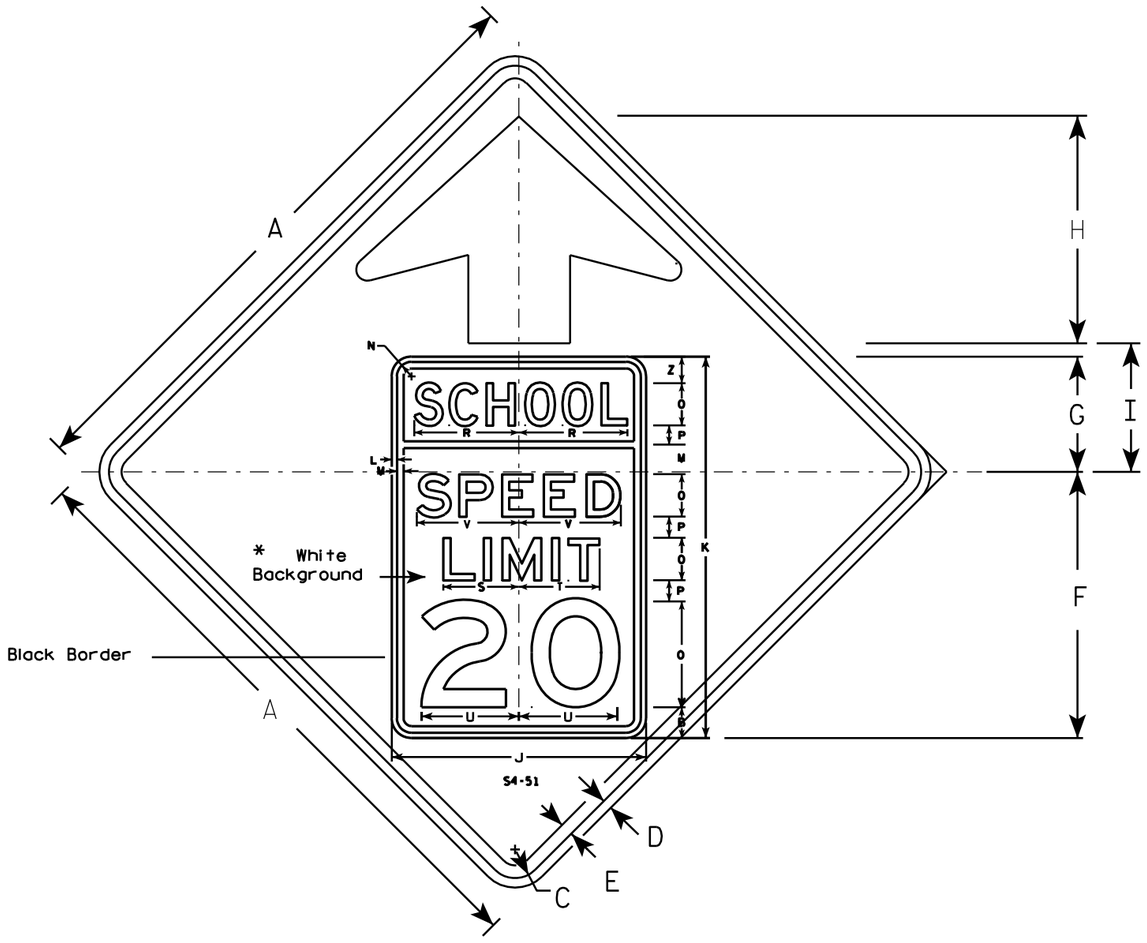
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

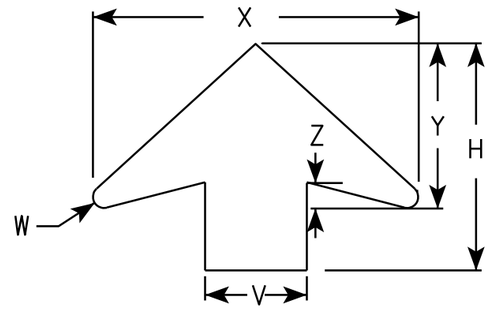
SHEET NO: 228 E



S4-5

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: See Note 5
   Background - Flourescent Yellow Green
   Message - BLACK
3. Message Series - See note 6
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance
5. SCHOOL background - Yellow Green -Type F Reflective.
   Speed Limit panel background - White -Type H Reflective.
6. From top to bottom:
   School is series D
   All other lines are series E
7. 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	36	1 7/8	1 5/8	5/8	3/4	15 3/4	6 3/4	13 3/8	7 5/8	15	22 1/2	1/4	3/8	7/8	6 1/4	1 1/4	2 1/2	6 3/8	4 1/2	4 3/4	5 3/4	6	5/8	19 1/4	9 3/4	1 5/8	9.0
3	48	2 3/8	2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	10 1/8	20	30	3/8	1/2	1 1/8	8 3/8	1 5/8	3 3/8	8 1/2	5 7/8	6 3/8	7 3/4	8	7/8	25 5/8	13	2	16.0
4	48	2 3/8	2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	10 1/8	20	30	3/8	1/2	1 1/8	8 3/8	1 5/8	3 3/8	8 1/2	5 7/8	6 3/8	7 3/4	8	7/8	25 5/8	13	2	16.0
5																											

STANDARD SIGN
S4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. S4-5.3

PROJECT NO:

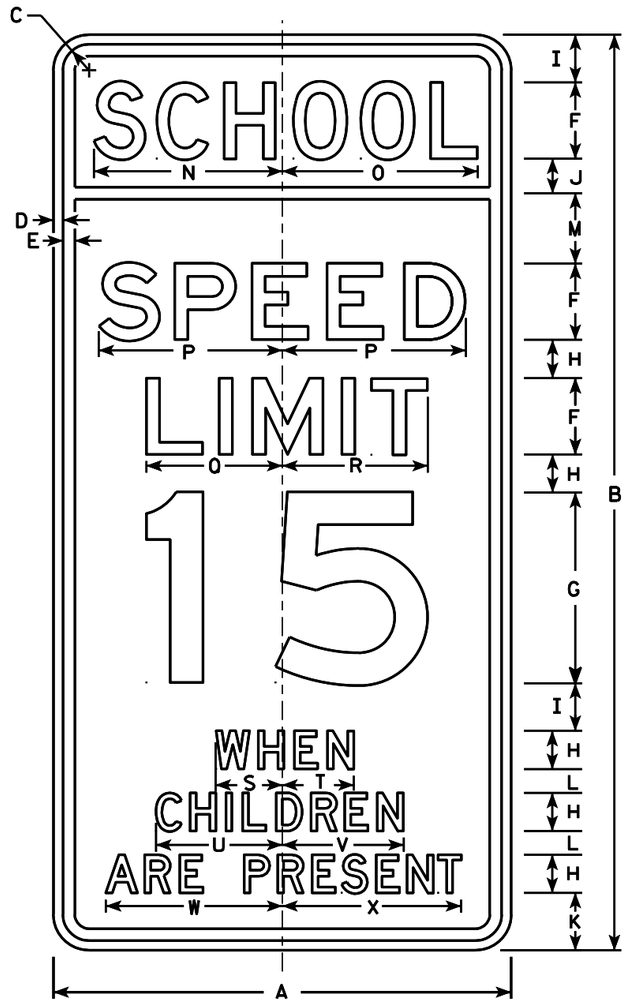
SHEET NO: 229 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\S45.DGN PLOT DATE : 21-DEC-2010 10:31 PLOT BY : dotsja

WISDOT/CADDS SHEET 42

7

7



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   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. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
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	24	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

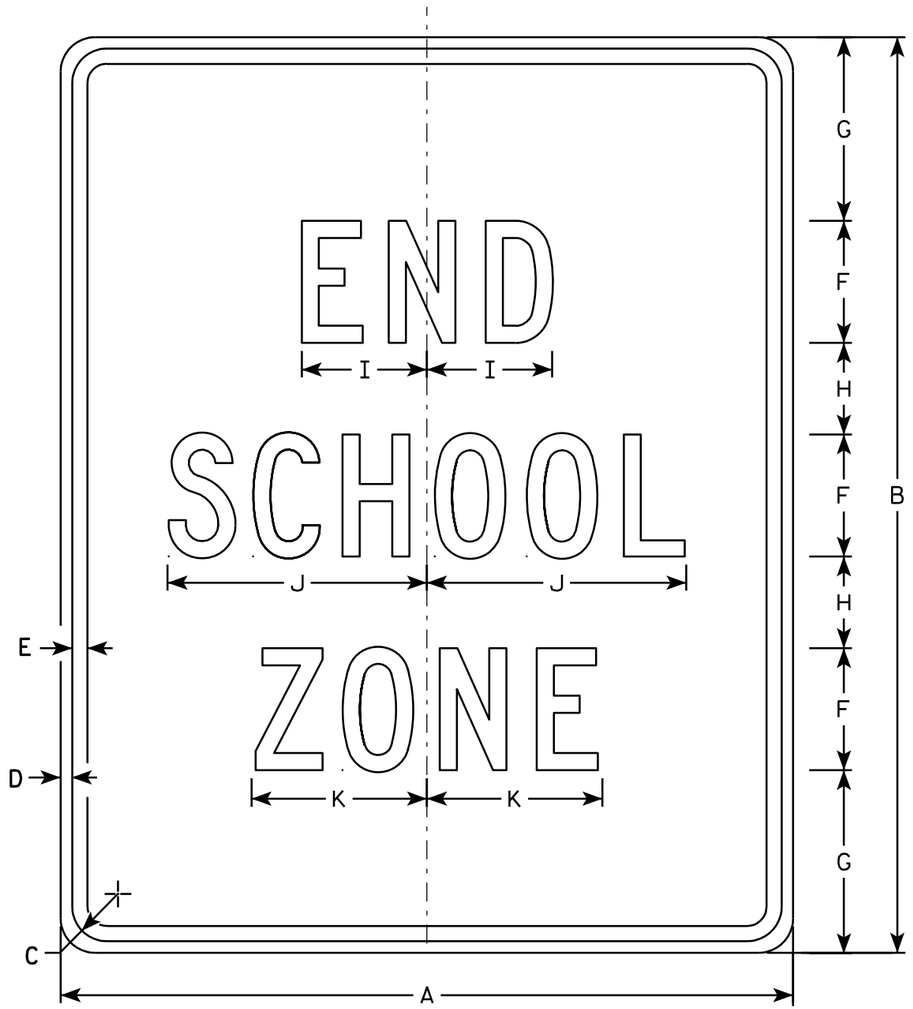
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 230 | E



S5-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

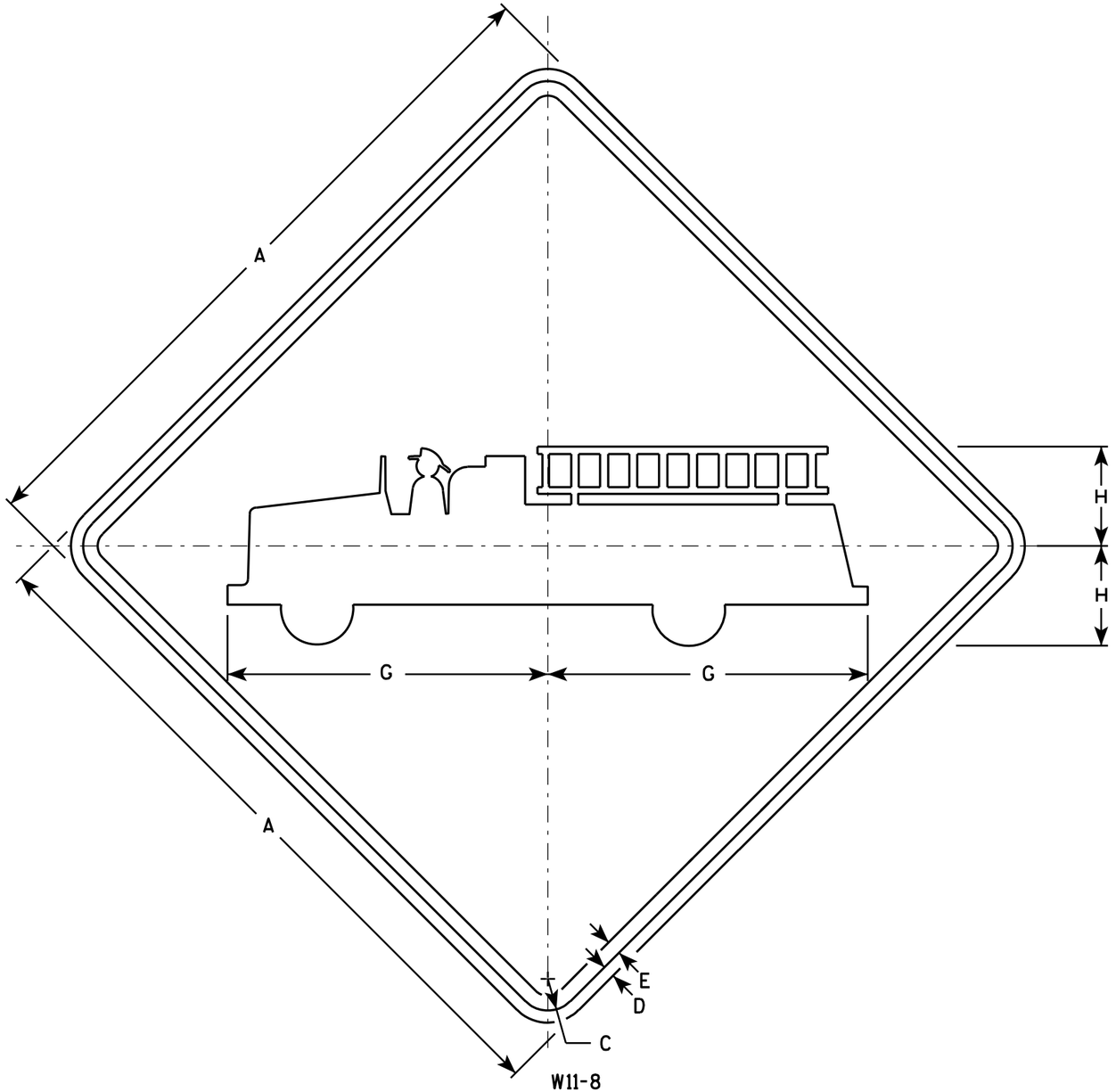
STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 231 | E



W11-8

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	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

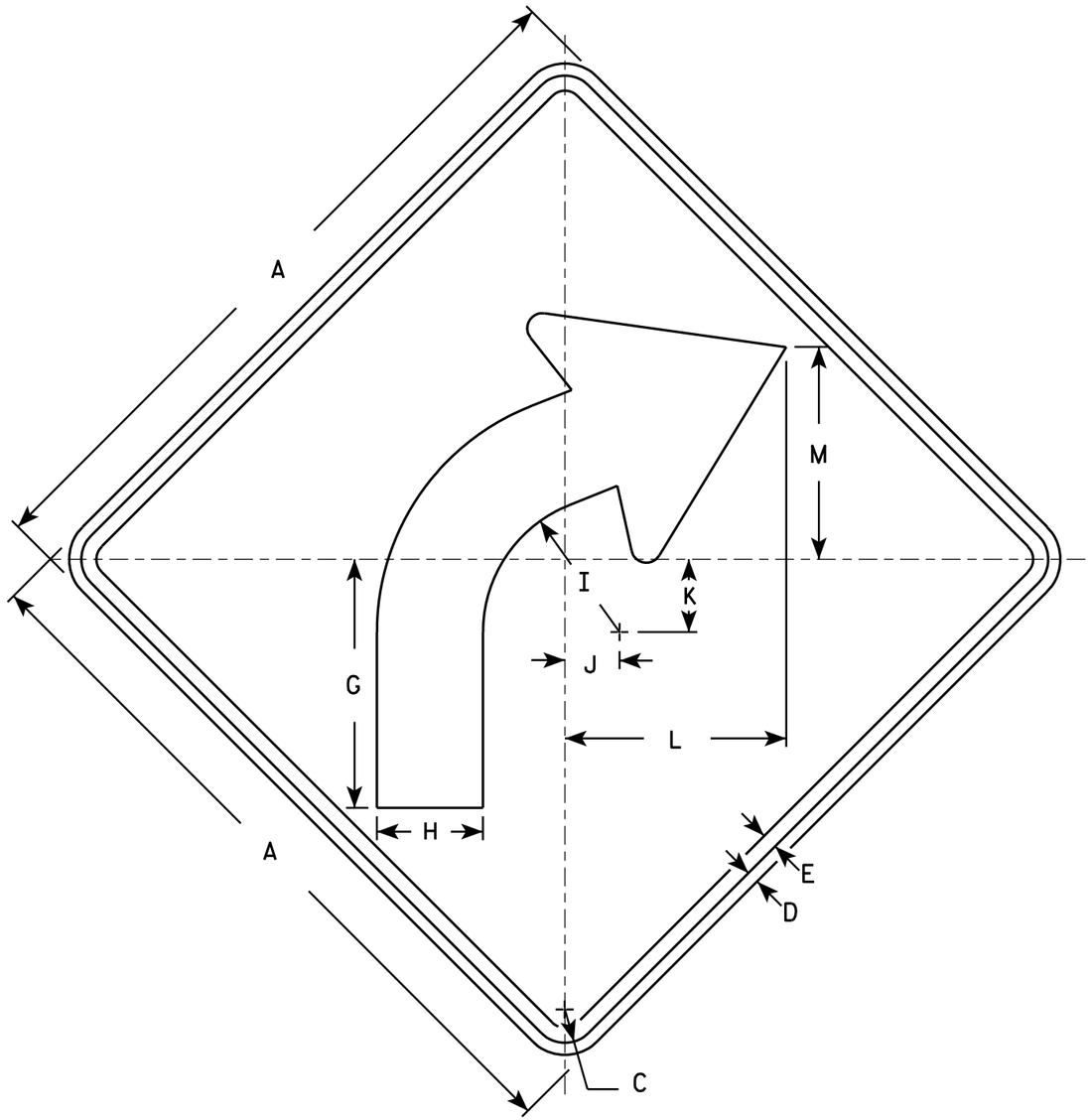
DATE 3/13/13 PLATE NO. W11-8.7

PROJECT NO:

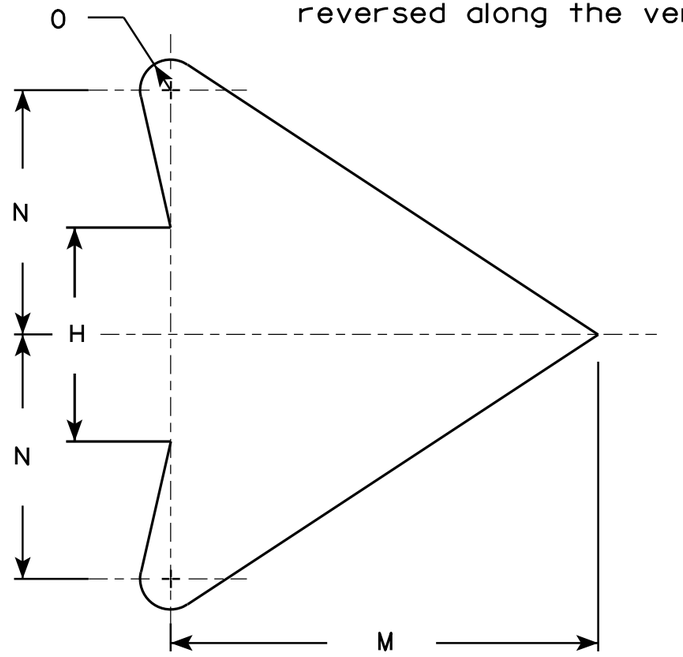
SHEET NO: 232 E

NOTES

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



W1-2R



ARROW DETAIL

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

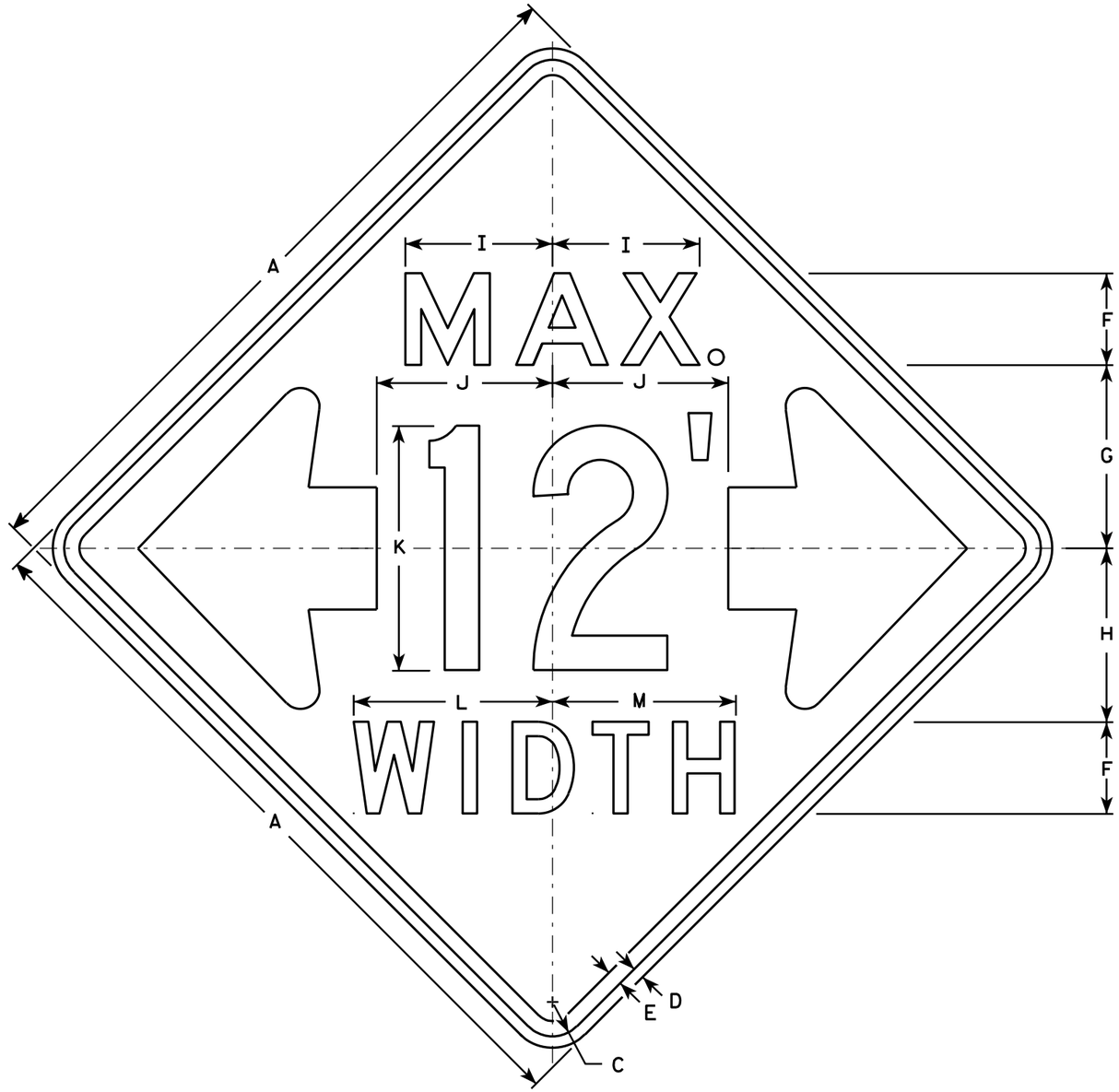
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

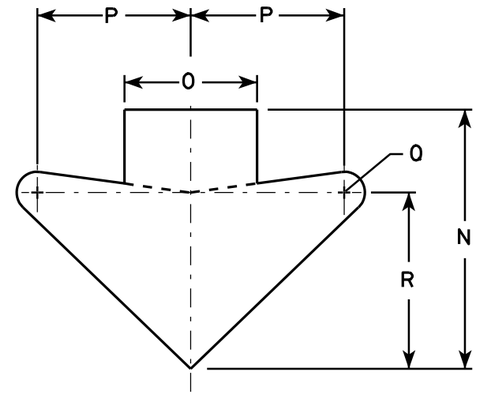
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 233	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

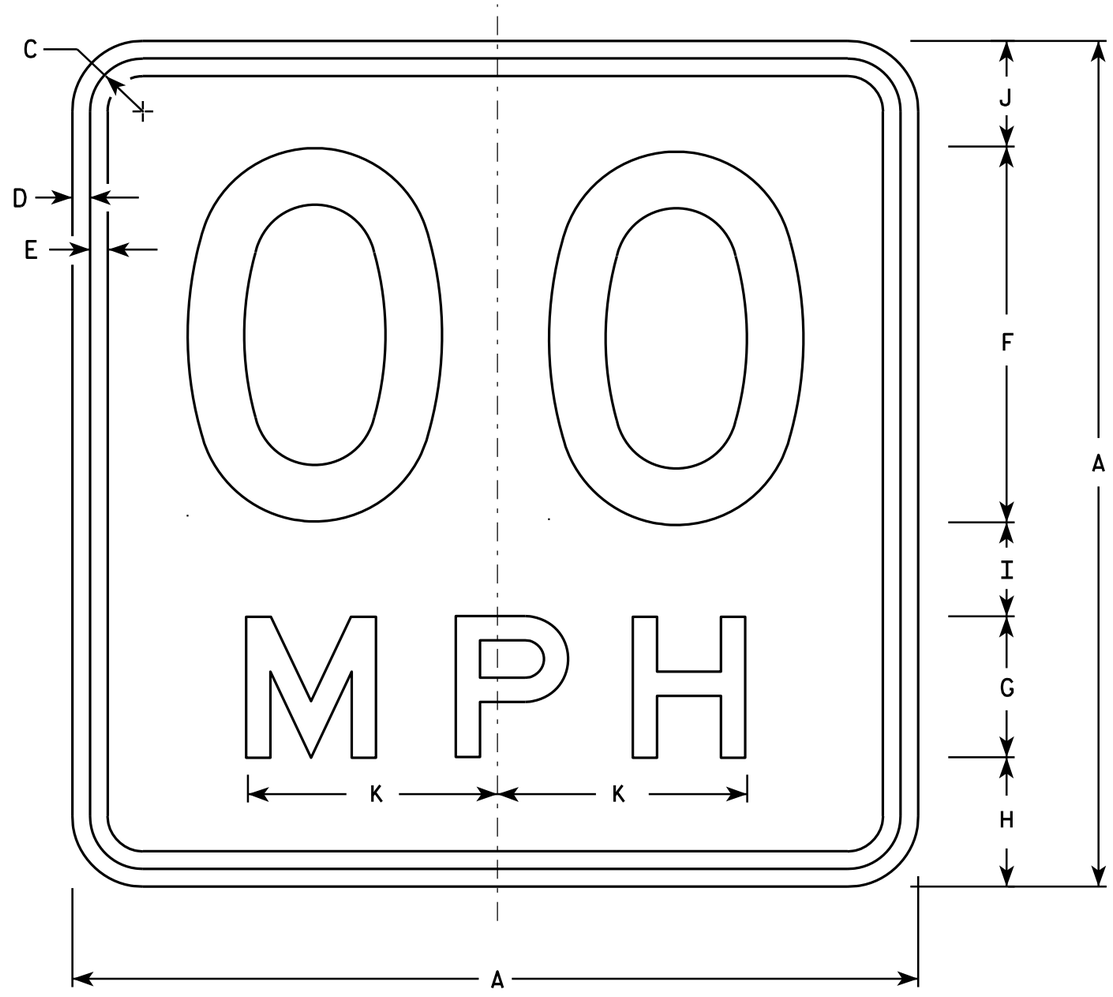
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 234 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



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.

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

	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

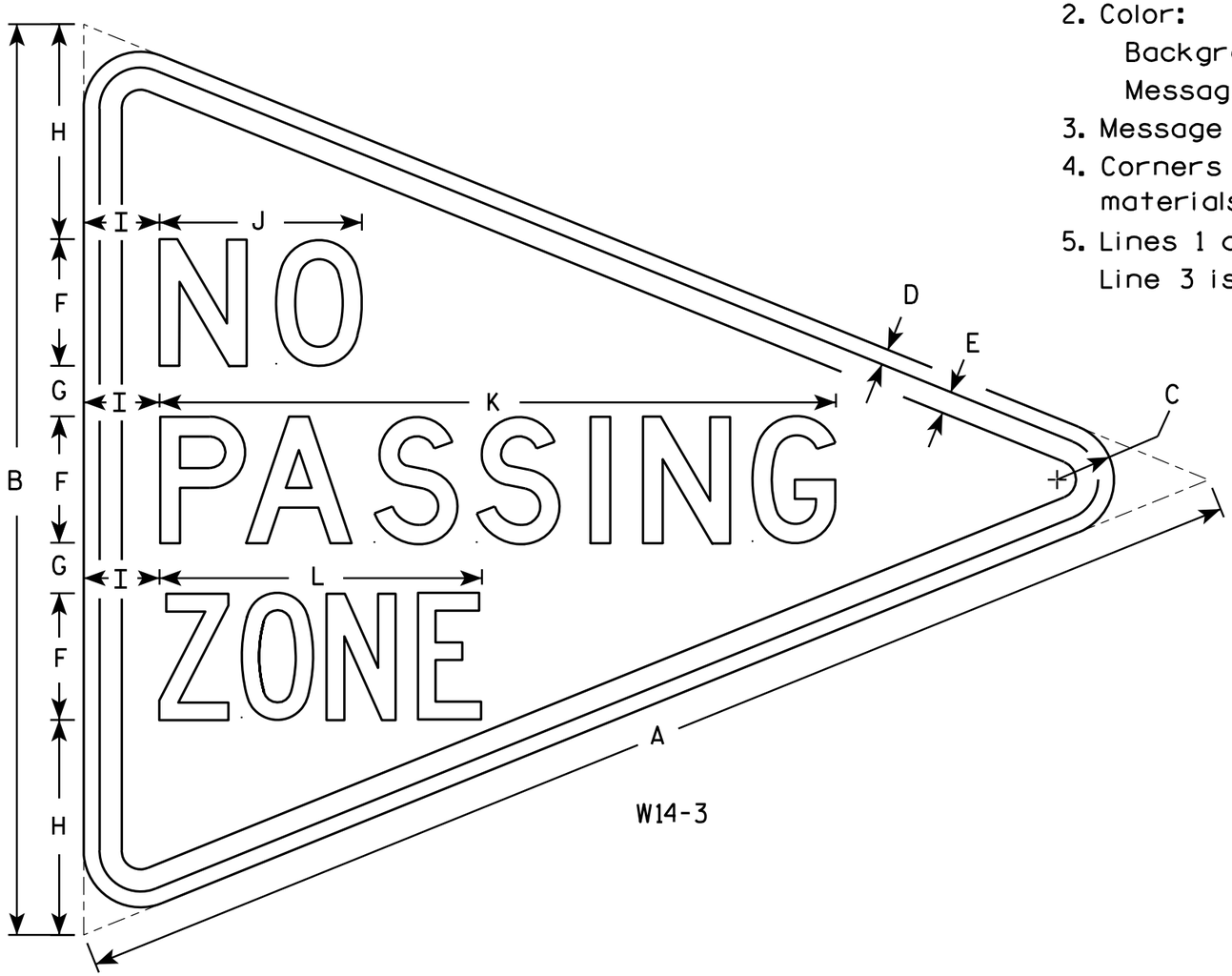
APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 235 | E

NOTES

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



W14-3

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

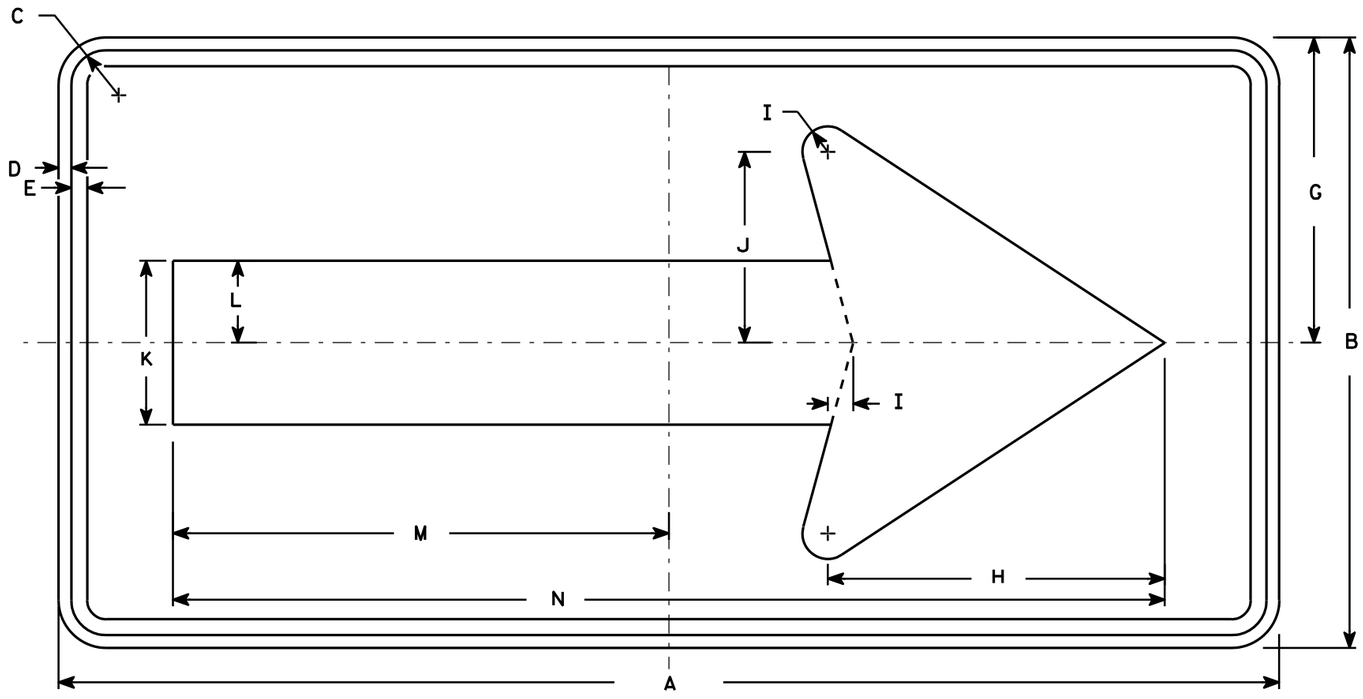
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 236	E



W1-6

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.

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

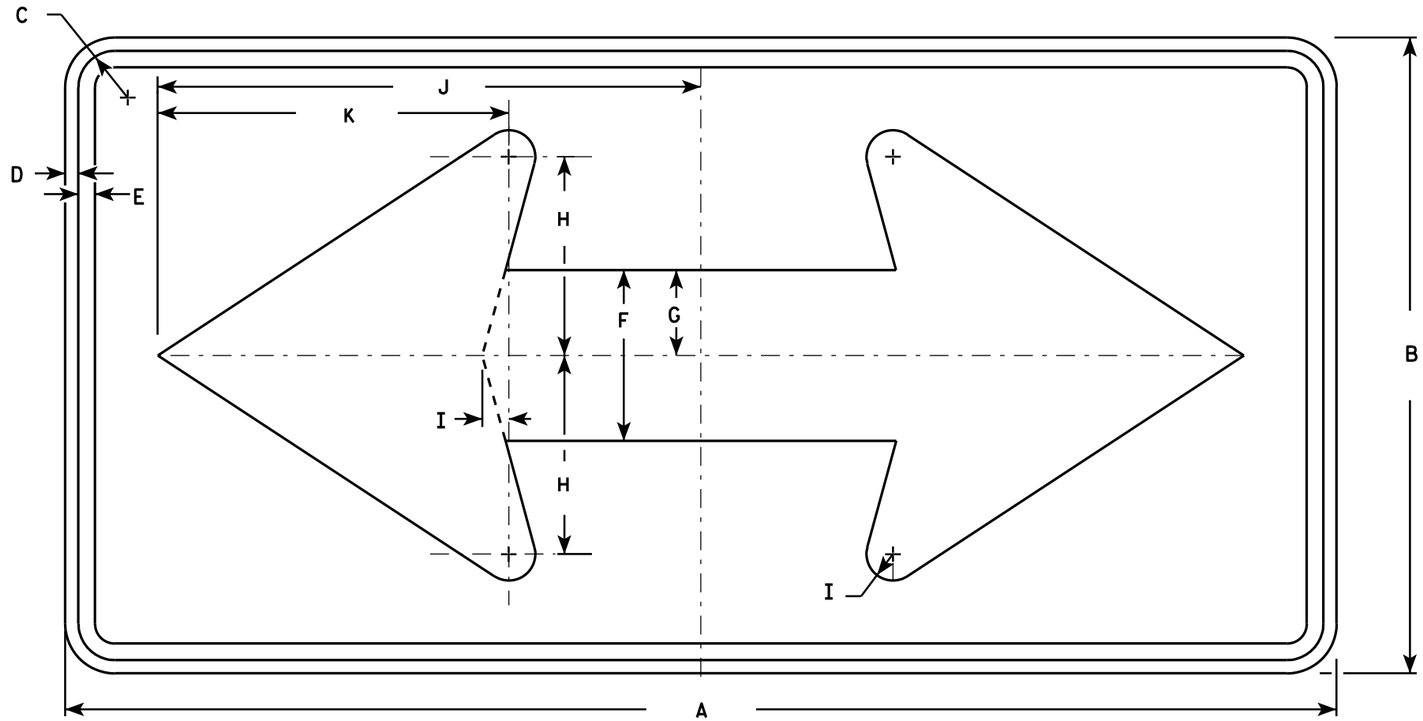
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 237



W1-7

NOTES

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

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

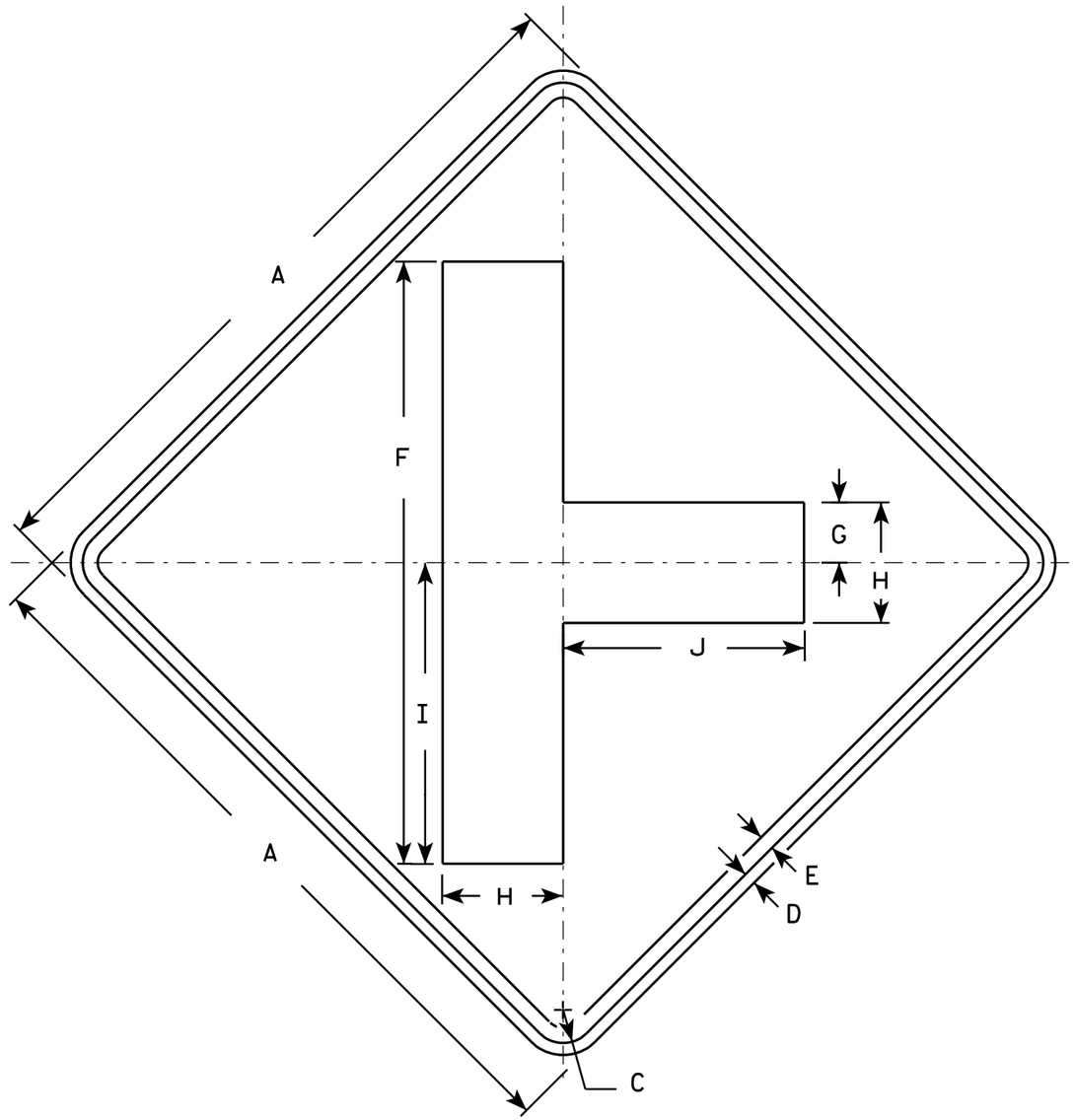
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 238 | E



W2-2

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	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																											

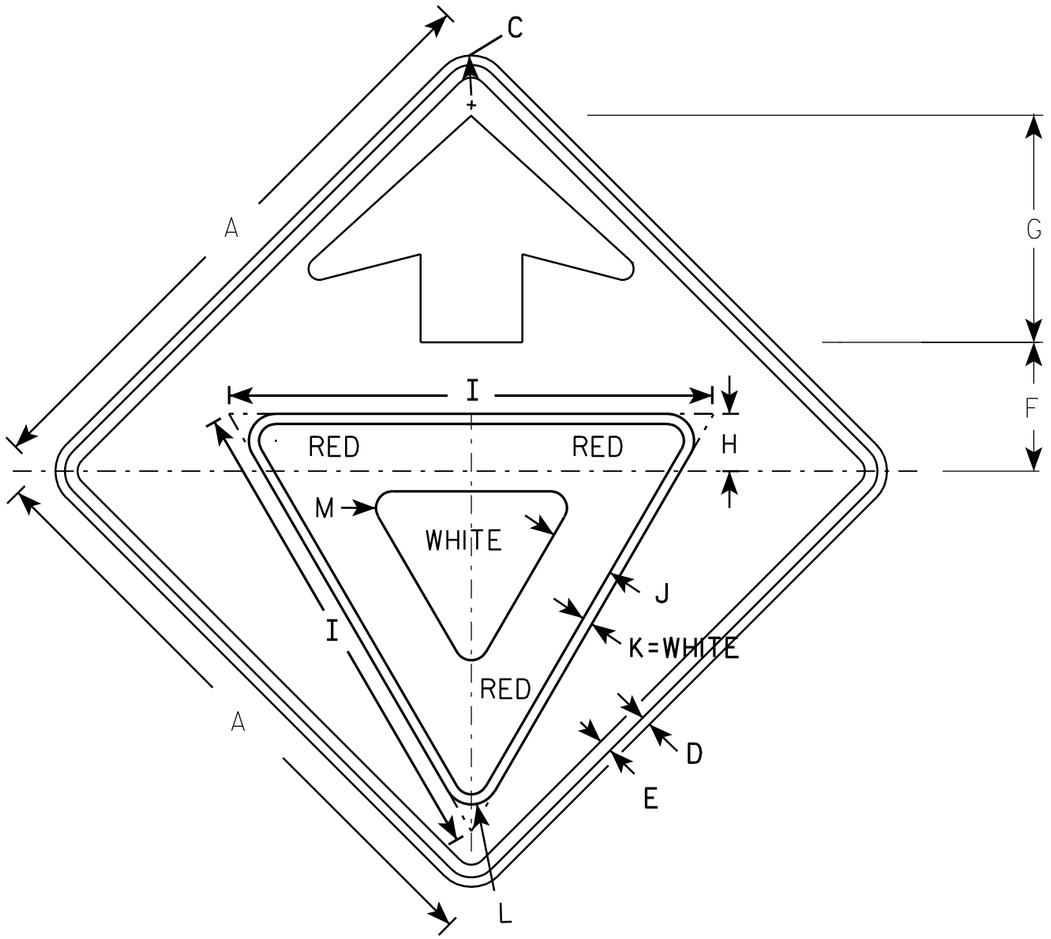
STANDARD SIGN
W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

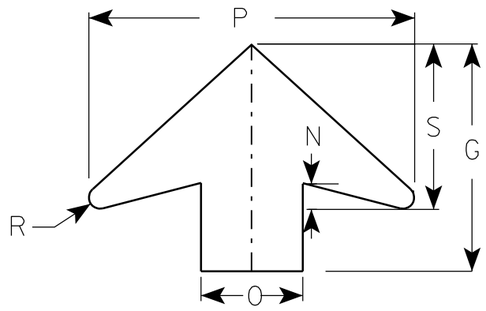
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 239	E



W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W3-2

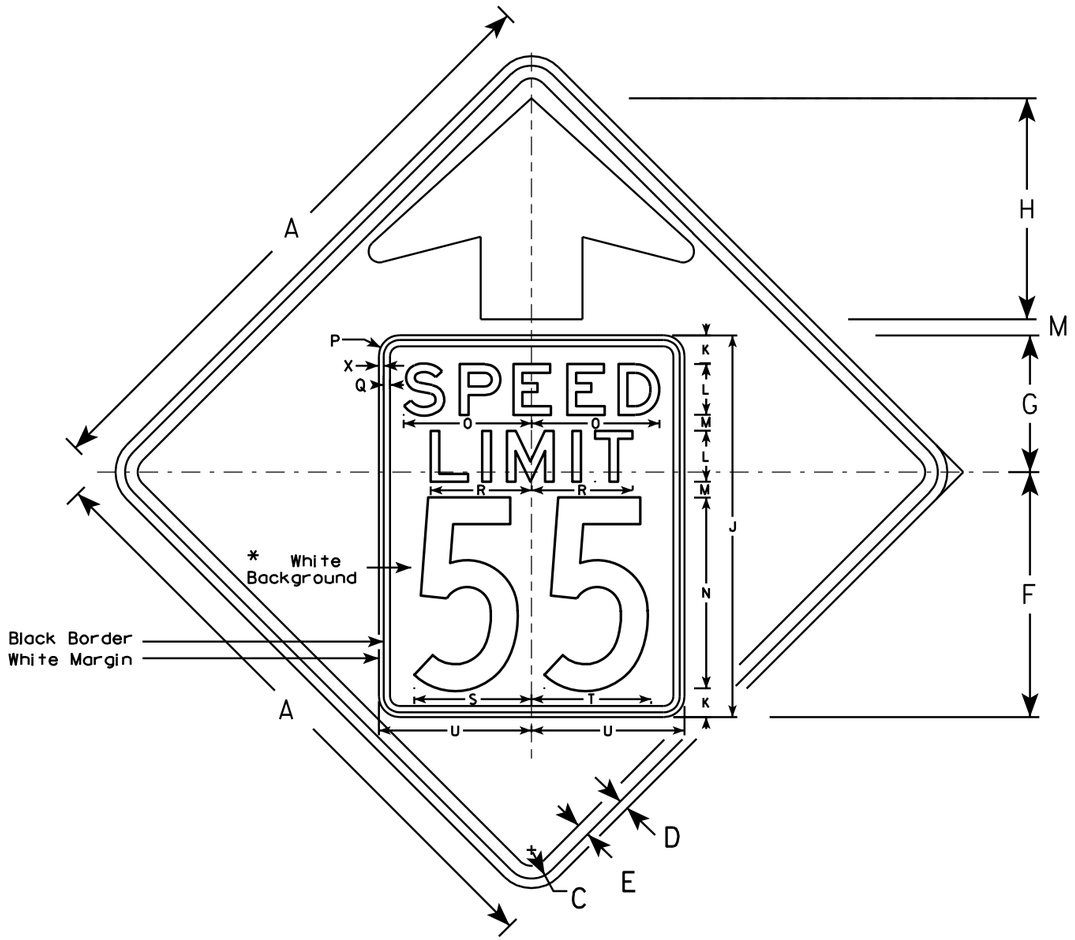
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

PROJECT NO:

SHEET NO: 240 E

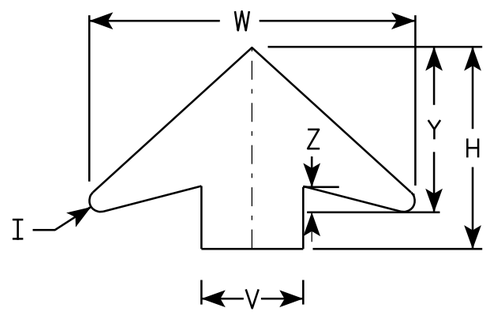


W3-5

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

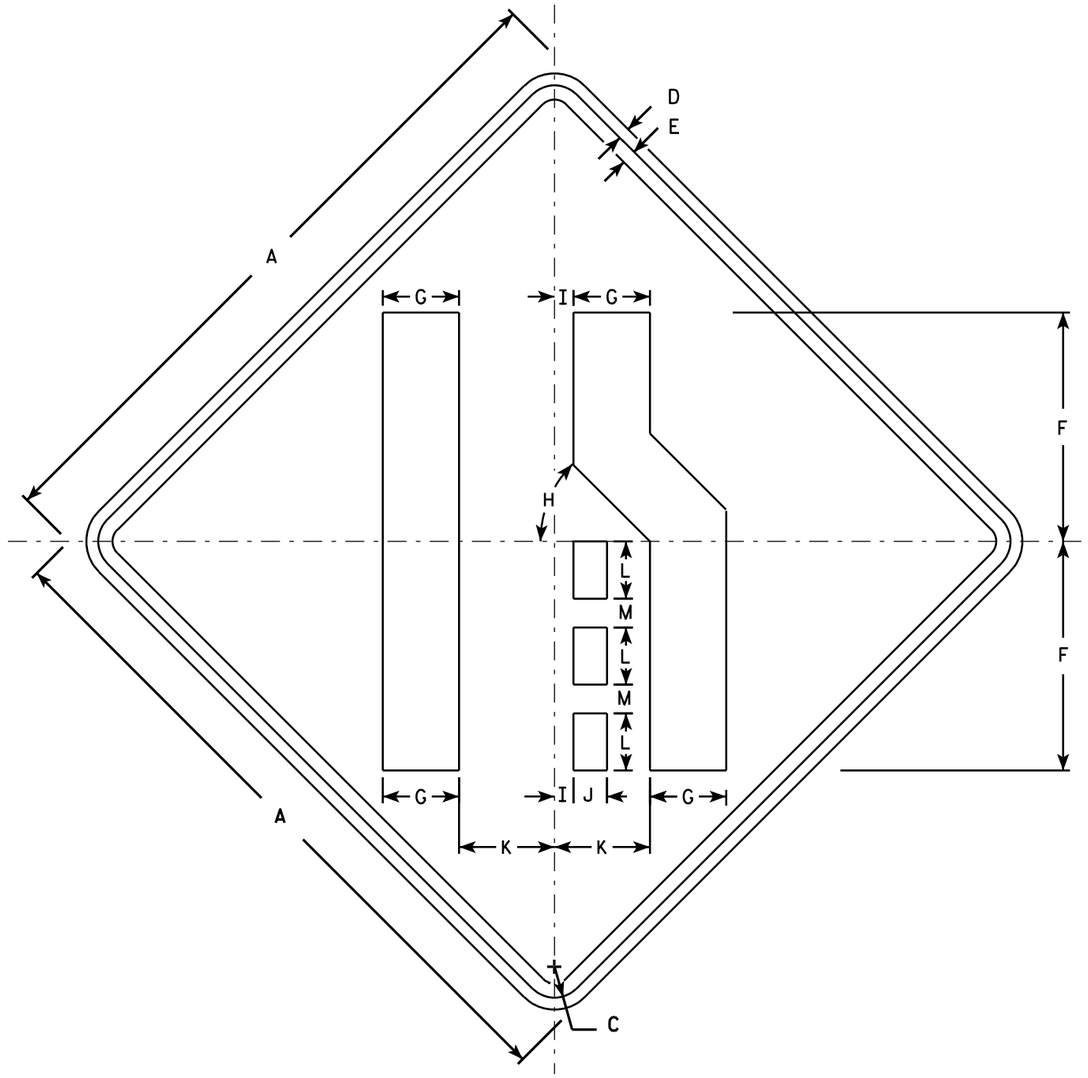
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 241 E



W4-2R

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. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

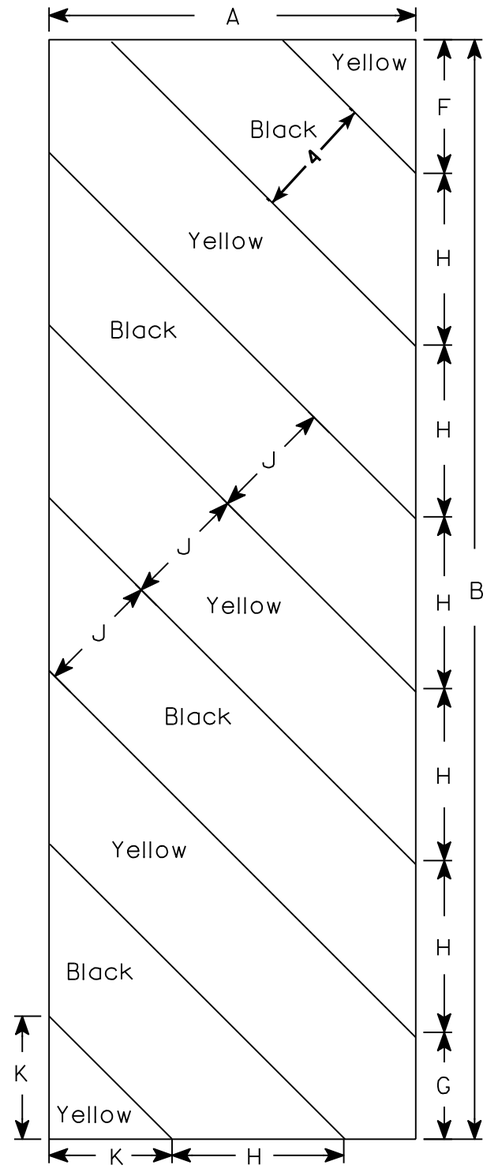
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

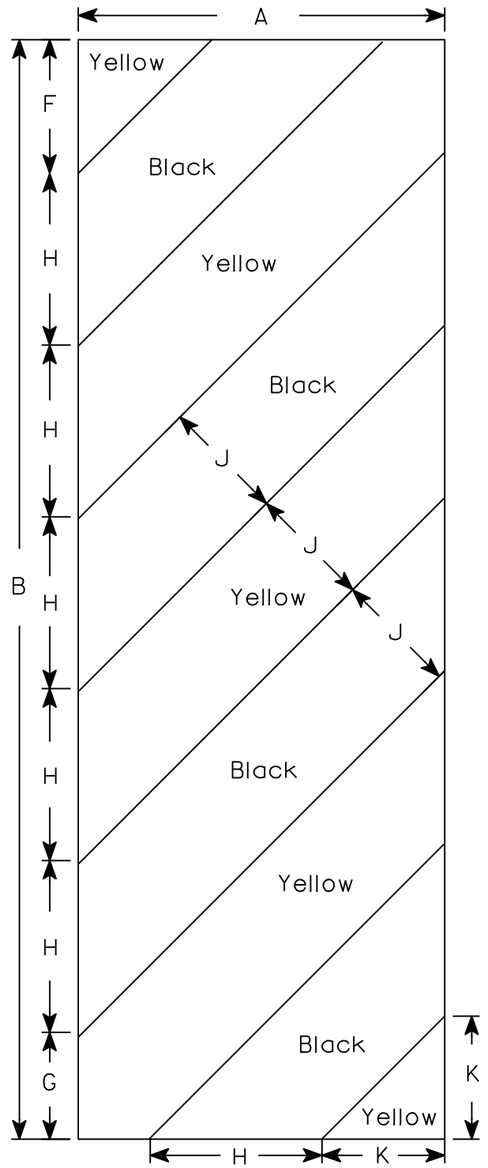
DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 242 E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

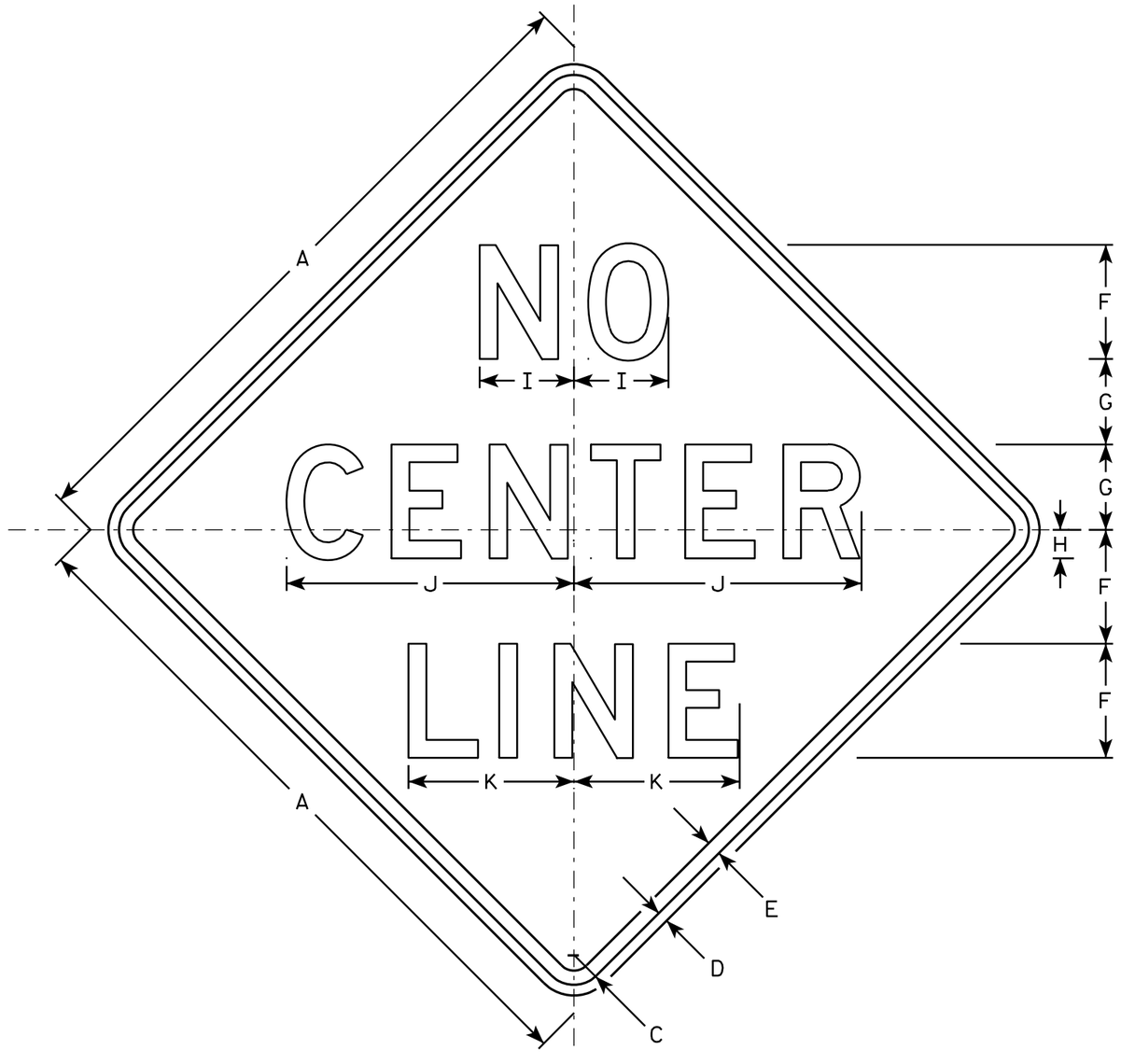
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 243	E



W8-12

NOTES

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

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	6	4 1/2	1 1/2	5 1/8	16	9																9.0
2M	36		1 5/8	5/8	3/4	6	4 1/2	1 1/2	5 1/8	16	9																9.0
3	48		2 1/4	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
4	48		2 1/4	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0
5	48		2 1/4	3/4	1	8	6	2	6 5/8	20 1/4	11 5/8																16.0

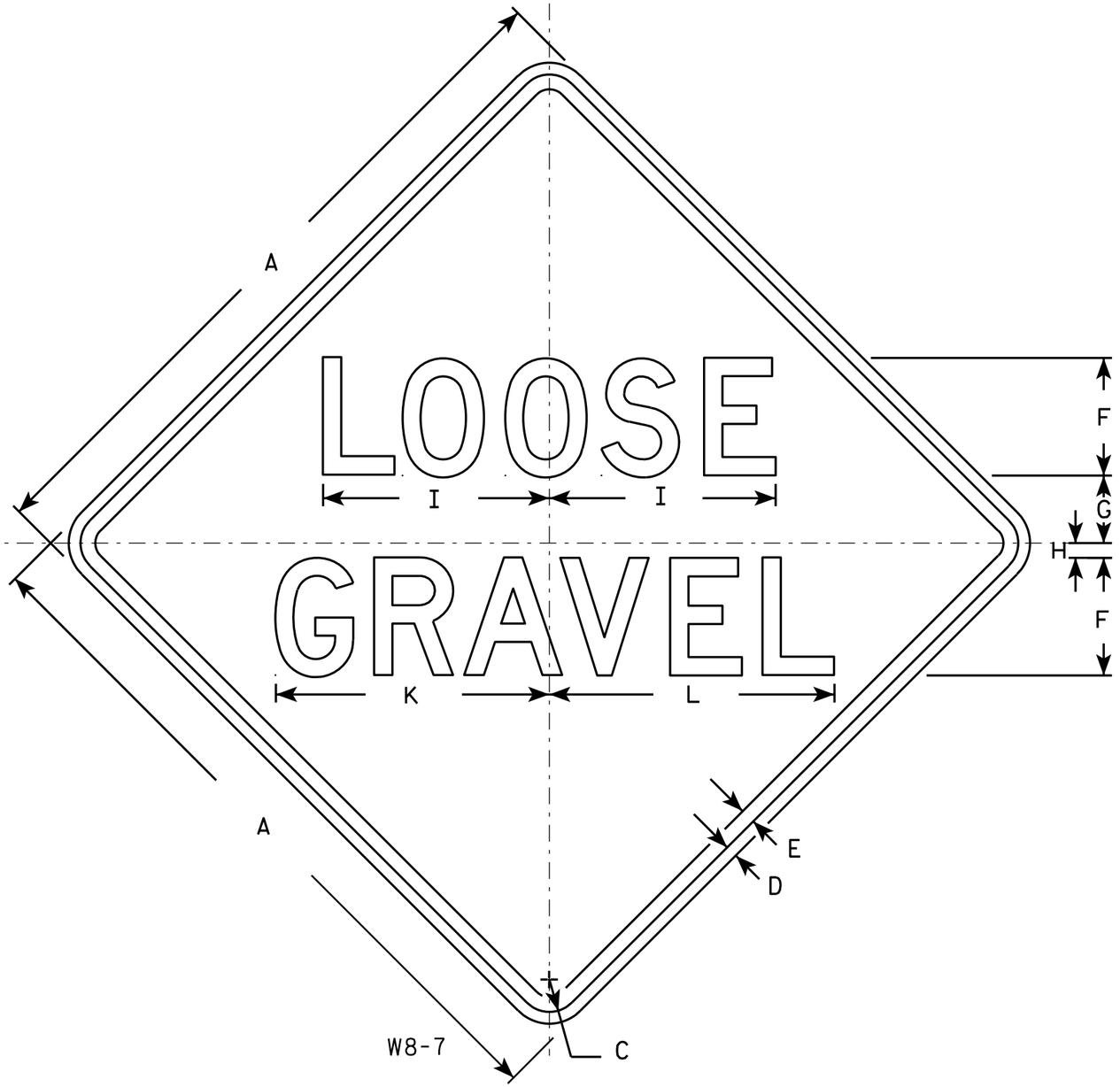
STANDARD SIGN
W8-12

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rausch
for State Traffic Engineer

DATE 8/24/10 PLATE NO. W8-12.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 244	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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	24		1 1/8	3/8	1/2	4	2 3/4	1/2	7 3/4		9 1/4	9 3/4															4.0
2S	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
2M	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
3	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
4	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
5	48		2 1/4	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0

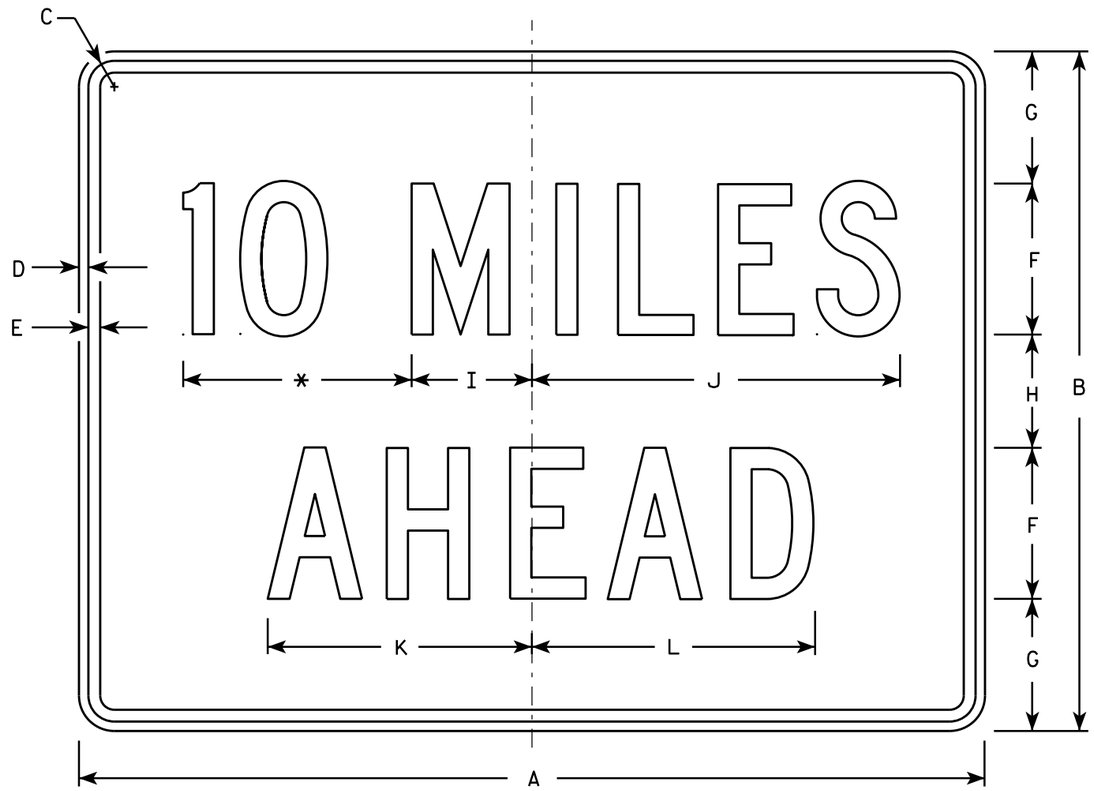
STANDARD SIGN
W8-7

WISCONSIN DEPT OF TRANSPORTATION

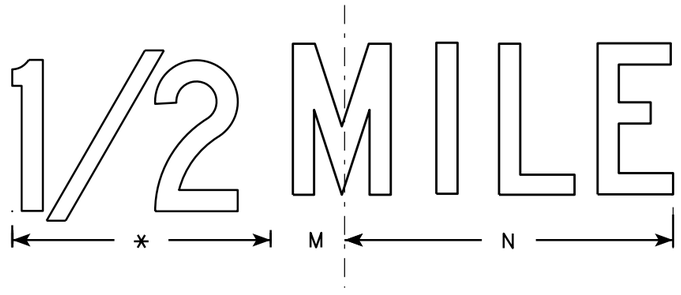
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. W8-7.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 245	E



W057-52



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.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	13													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	17 3/8													12.0

STANDARD SIGN
W057-52

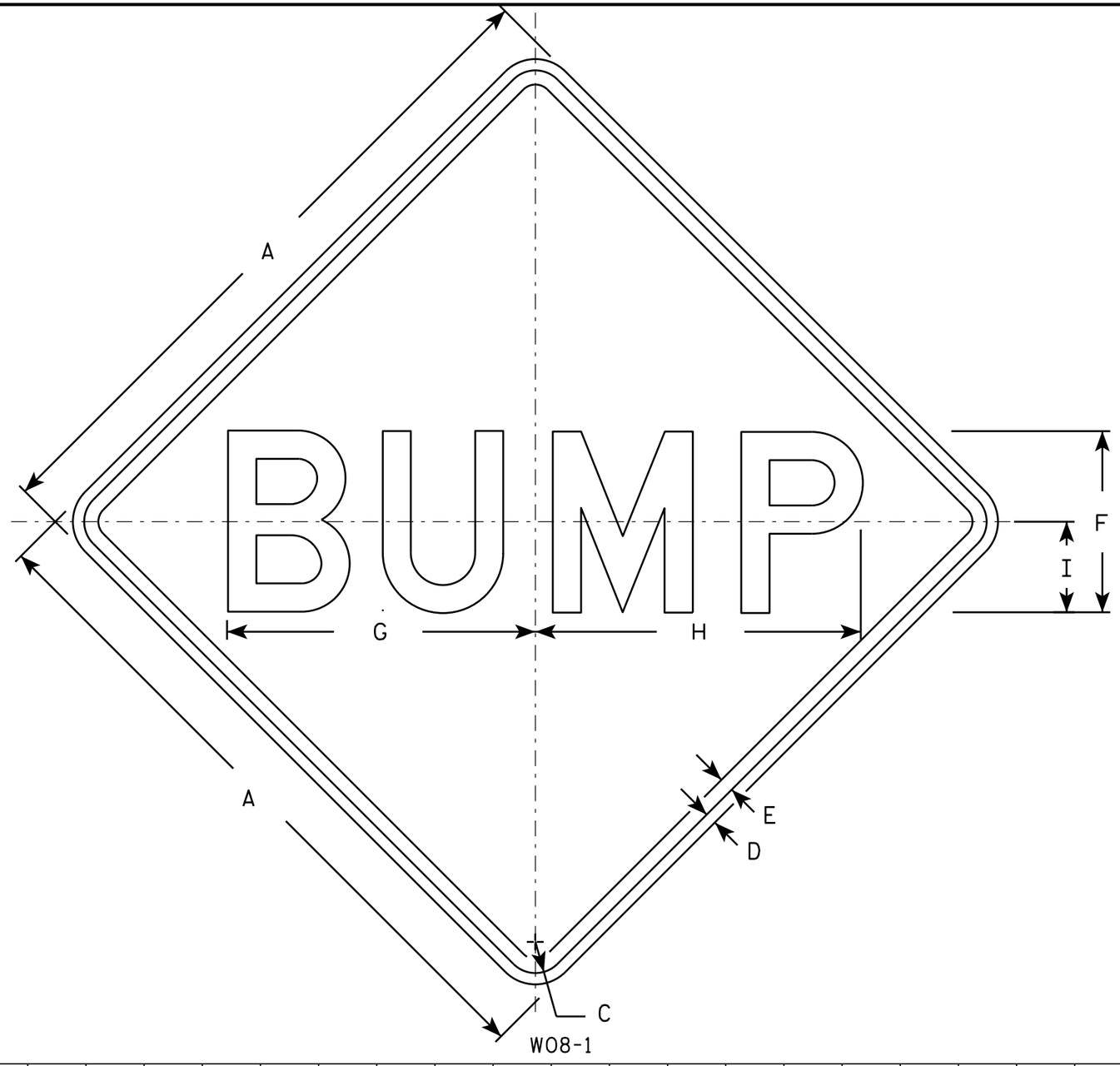
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W057-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W05752.DGN PLOT DATE : 28-FEB-2014 11:42 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.026599:1.000000 WISDOT/CADDS SHEET 42



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	10	16 7/8	17 7/8	5																		9.0
2S	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
2M	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
3	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
4	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
5	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0

STANDARD SIGN
W08-1

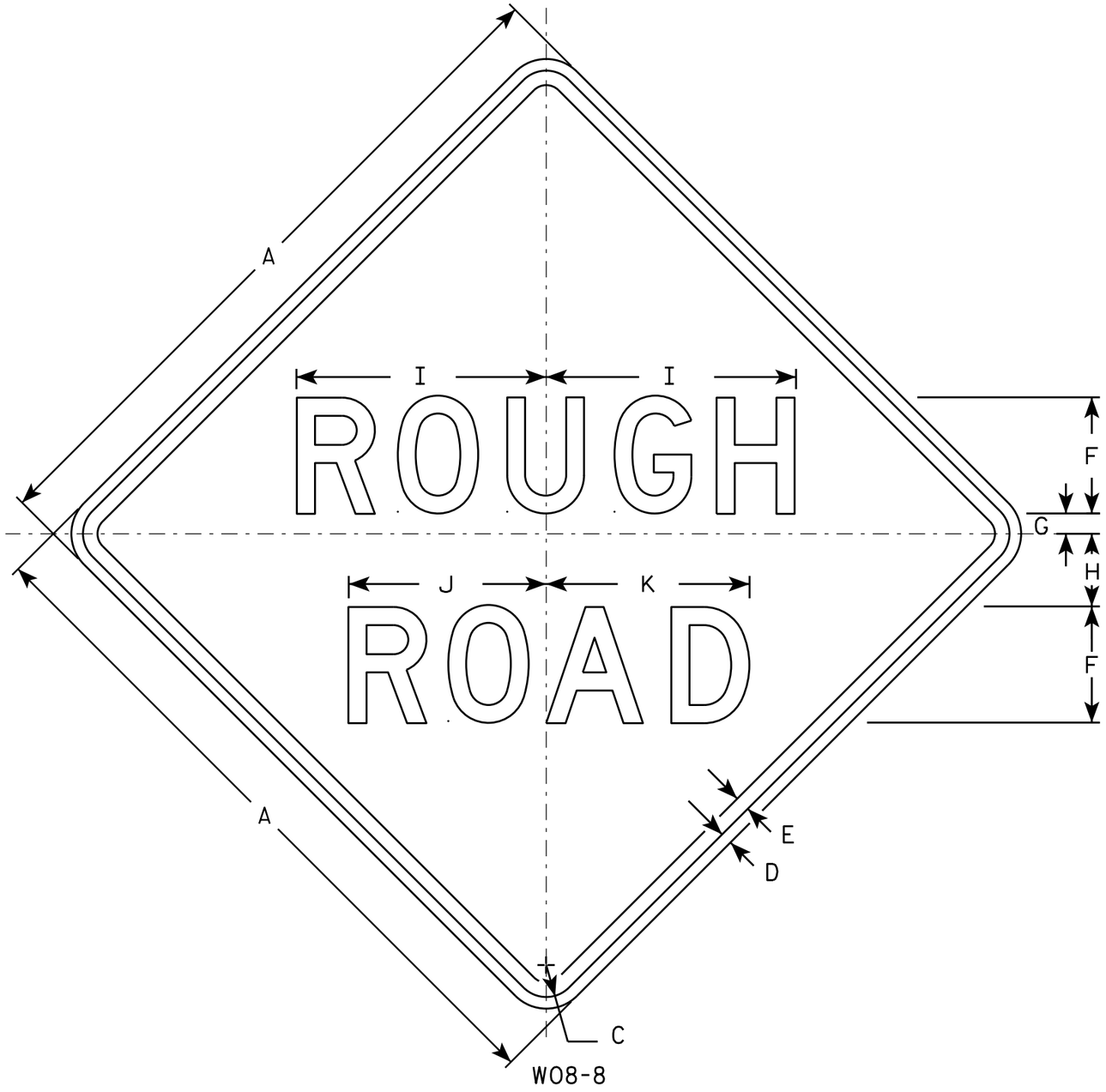
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 1247 W08-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W081.DGN PLOT DATE : 20-NOV-2013 12:24 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.688833:1.000000 WISDOT/CADDS SHEET 42



NOTES

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

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

STANDARD SIGN
W08-8

WISCONSIN DEPT OF TRANSPORTATION

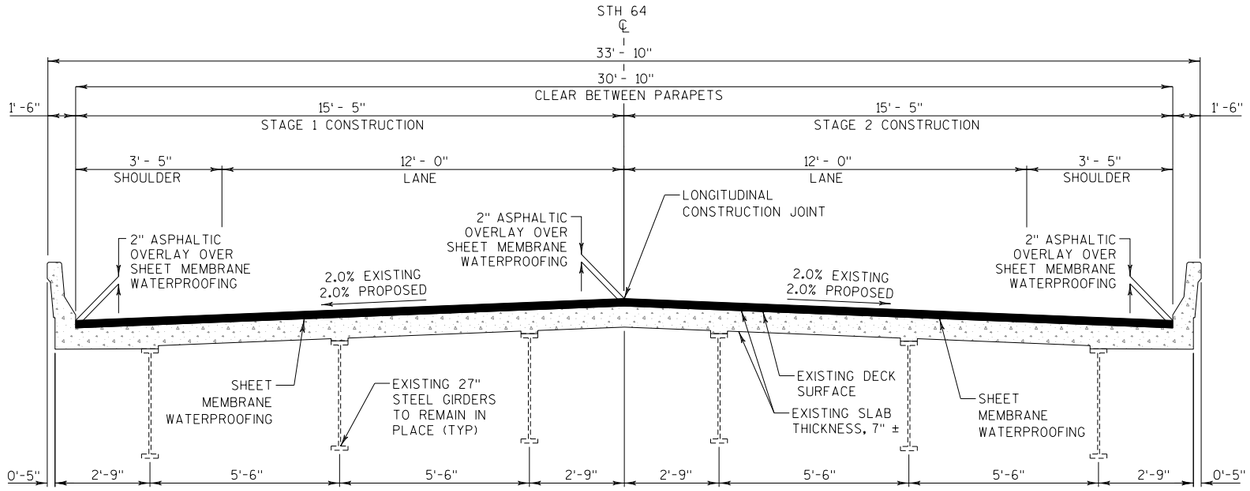
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/14/13 PLATE NO. W08-8.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

STATE PROJECT NUMBER

8220-05-72



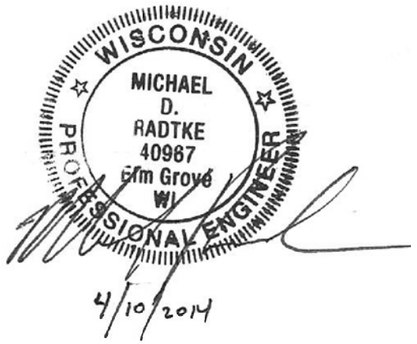
CROSS SECTION THRU ROADWAY

(LOOKING EAST)

TOTAL ESTIMATED QUANTITIES

	ITEM NO.	BID ITEMS	UNIT	STAGE 1	STAGE 2	TOTAL
	506.0105	STRUCTURAL STEEL CARBON	LB	240	240	480
	509.0301	PREPARATION DECKS TYPE 1	SY	7.5	7.5	15.0
	509.0302	PREPARATION DECKS TYPE 2	SY	3	3	6
	509.1500	CONCRETE SURFACE REPAIR	SF	32.5	32.5	65
	509.2000	FULL DEPTH DECK REPAIR	SY	1	0	1
*	509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	15	0	15
	509.9026.S	CORED HOLES 2-INCH DIAMETER	EACH	2	0	2
	514.0900	ADJUSTING FLOOR DRAINS	EACH	2	2	4
	516.0600.S	SHEET MEMBRANE WATERPROOFING	SY	370	370	740
	SPV.0035	CONCRETE MASONRY BRIDGES PATCHING SHES	CY	1	1	2
	SPV.0090	SAWING PAVEMENT DECK PREPARATION AREAS	LF	85	75	160
	SPV.0195	HMA PAVEMENT TYPE E-3 SPECIAL	TONS	42	42	84

* AT THE ABUTMENTS AS DIRECTED BY THE ENGINEER IN THE FIELD.



GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS.

THE EXISTING STRUCTURE B-60-1, IS A 3 SPAN, STEEL DECK GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 33'-10" AND AN OVERALL LENGTH OF 214'-4 1/4".

CONTACT THE BUREAU OF STRUCTURES BEFORE PLACEMENT OF OVERLAY IF THE NEW OVERLAY WILL EXCEED THE AVERAGE OVERLAY SHOWN ON THE PLANS BY MORE THAN 1/4".

"PREPARATION DECKS TYPE 1" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.

IF THE EXISTING NAME PLATE IS DAMAGED AND A NEW NAME PLATE IS REQUIRED, REPLACE AT NO ADDITIONAL COST TO THE OWNER. THE ORIGINAL CONSTRUCTION DATE IS 1953.

"CONCRETE SURFACE REPAIR" SHALL BE USED FOR NEEDED REPAIRS ON THE EXISTING ABUTMENTS, PIERS, UNDERSIDE OF DECK AND PARAPETS. LOCATION LIMITS OF REPAIR SHALL BE DETERMINED BY THE FIELD ENGINEER.

TRAFFIC DATA

ADT= 1500 (2012)
1900 (2032)
RDS= 55 mph

DESIGN DATA

LOADING:
INVENTORY----------HS-13
OPERATING----------HS-22
MAXIMUM STANDARD PERMIT VEHICLE LOAD---------170 KIPS

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY BRIDGE----------f'c = 4,000 psi

LIST OF DRAWINGS

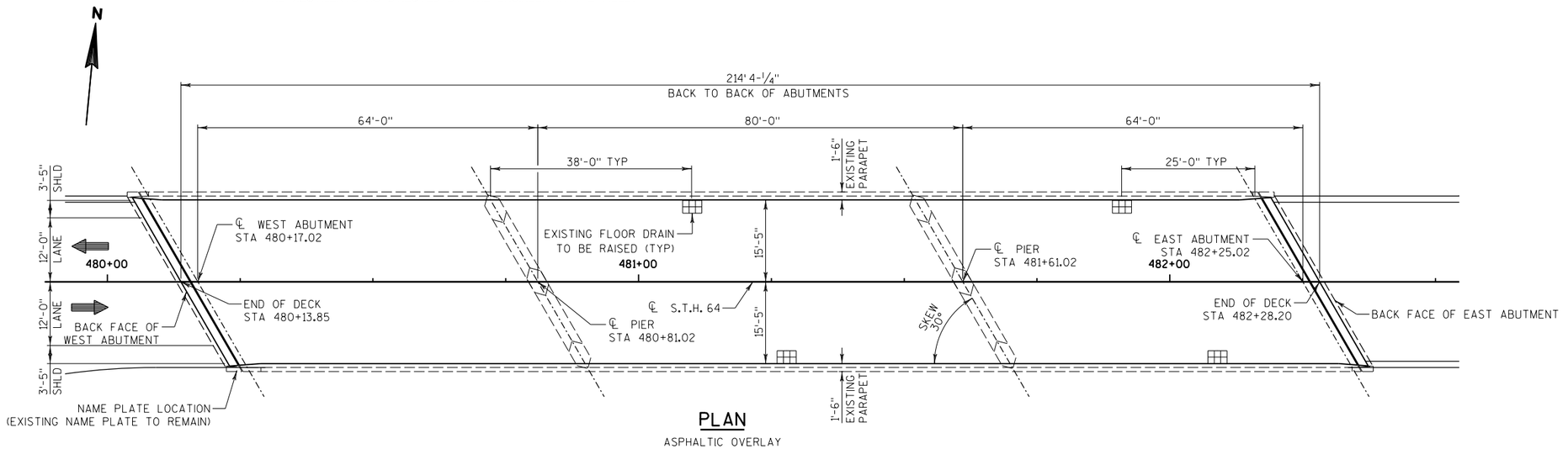
1. ASPHALTIC OVERLAY
2. STRUCTURE DETAILS
3. DRAIN RAISING DETAIL
4. CONCRETE REPAIR DETAILS

STRUCTURE DESIGN CONTACTS:

BRIDGE OFFICE:
WILLIAM DREHER
(608) 266-8489

CONSULTANT:
MICHAEL RADTKE
(414) 347-1607

8



PLAN

ASPHALTIC OVERLAY

NO.	DATE	REVISION	BY

EMCS
1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 FAX 414.347.1347

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 04/15/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-60-1

STH 64 OVER BLACK RIVER

COUNTY: TAYLOR	TOWN/~~CITY/VILLAGE~~: HAMMEL
DESIGN SPEC.: REHABILITATION	N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SMK	DRB	TGR	DRB

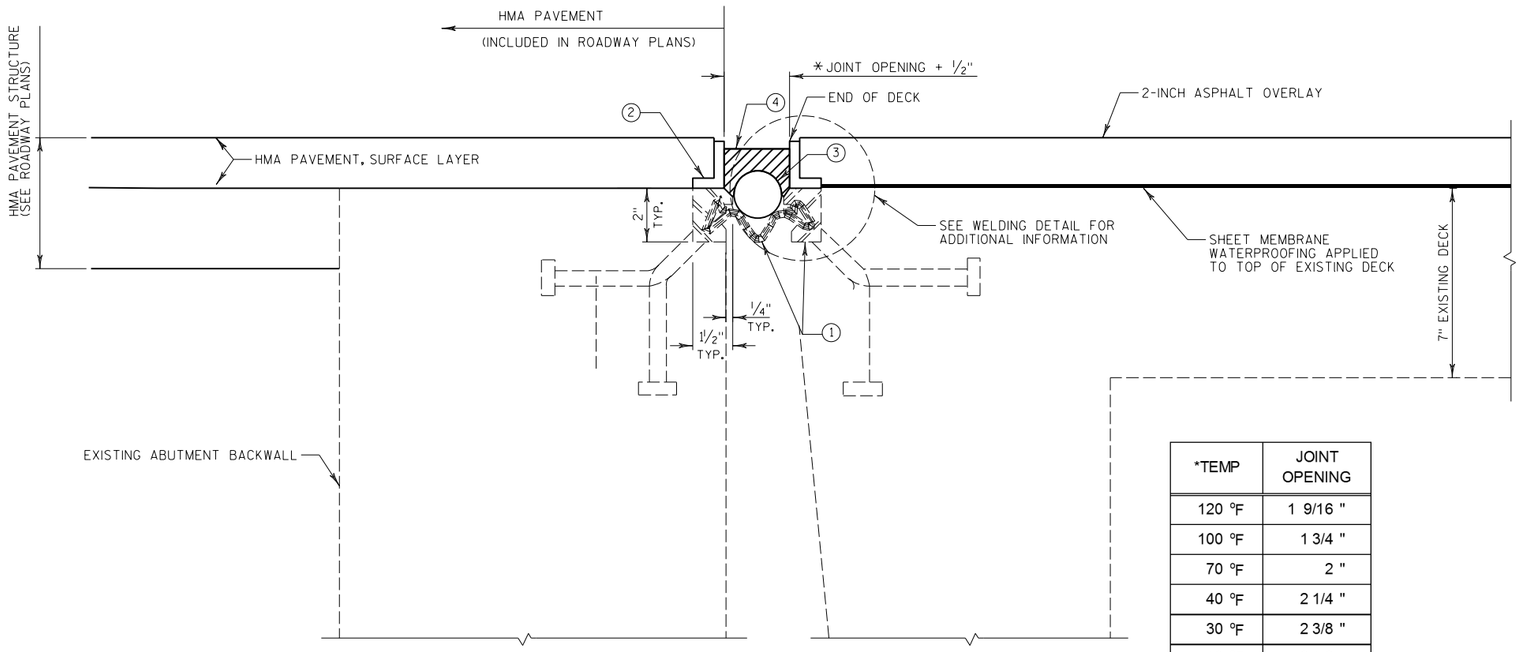
ASPHALTIC OVERLAY

SHEET 1 OF 4
249

8

STATE PROJECT NUMBER

8220-05-72



SECTION THRU JOINT

*TEMP	JOINT OPENING
120 °F	1 9/16 "
100 °F	1 3/4 "
70 °F	2 "
40 °F	2 1/4 "
30 °F	2 3/8 "
10 °F	2 1/2 "
0 °F	2 5/8 "
-30 °F	2 7/8 "

* SHADED UNDERSIDE OF DECK TEMPERATURE AT TIME OF INSTALLATION. EXPECTED JOINT OPENING VALUES ARE REFERENCED FROM B-60-0001 REHABILITATION PLANS DATED 12-9-85.

NOTES

ONE FIELD SPLICE PERMITTED IN STRUCTURAL STEEL CARBON ANGLE.

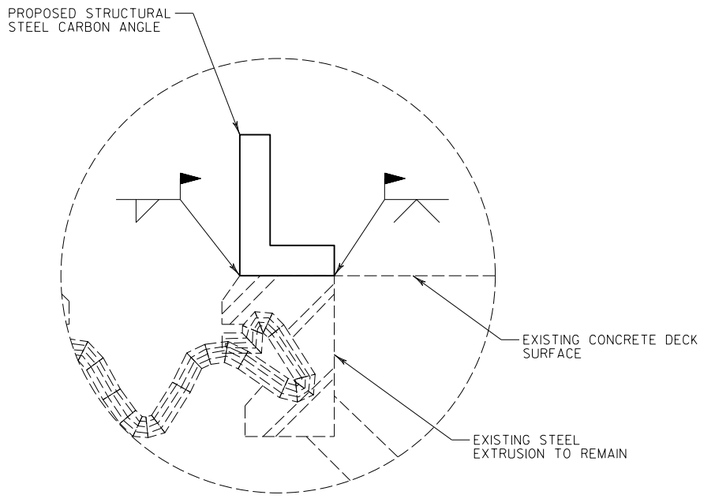
FABRICATOR SHALL PROVIDE MEANS OF KEEPING STRUCTURAL STEEL CARBON ANGLE CLEAN & SMOOTH DURING SHIPMENT.

SHEET MEMBRANE WATERPROOFING SHALL ONLY BE APPLIED TO THE DECK SURFACE AND NOT THE TOP OF THE PAVING BLOCK.

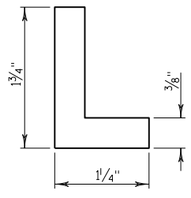
FURNISH POURABLE JOINT SEALANT AND BACKER ROD THAT MEETS THE BRIDGE THERMAL MOVEMENT REQUIREMENTS. PAYMENT FOR THE BACKER ROD AND POURABLE JOINT SEALER IS INCIDENTAL TO THE STRUCTURAL STEEL CARBON.

LEGEND

1. EXISTING NEOPRENE STRIP SEAL & STEEL EXTRUSIONS TO REMAIN.
2. STRUCTURAL STEEL CARBON ANGLE TO BE WELDED TO THE EXISTING EXTRUSIONS (TYP).
3. BACKER ROD
4. POURABLE JOINT SEALER



WELDING DETAIL



SECTION THRU STRUCTURAL STEEL CARBON ANGLE

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-60-1

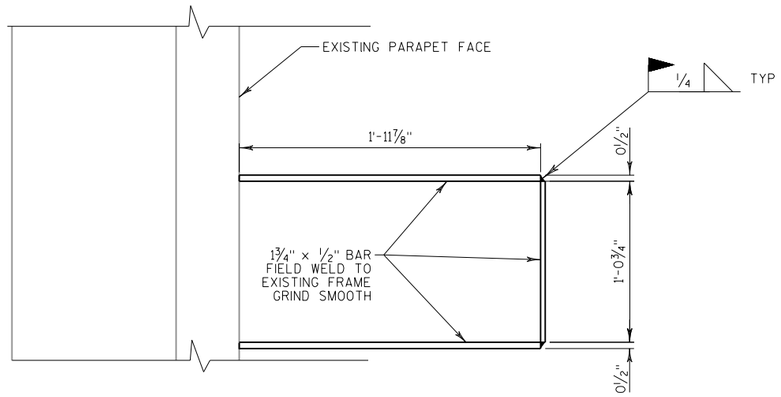
DRAWN BY SMK | PLANS CK'D. DRB

SUPERSTRUCTURE DETAILS

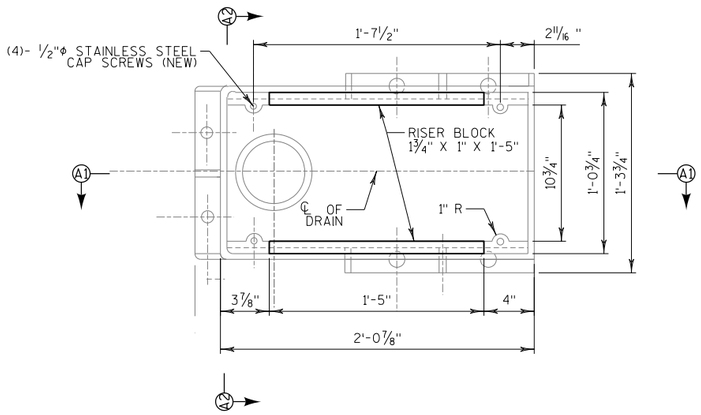
SHEET 2 OF 4
250

STATE PROJECT NUMBER

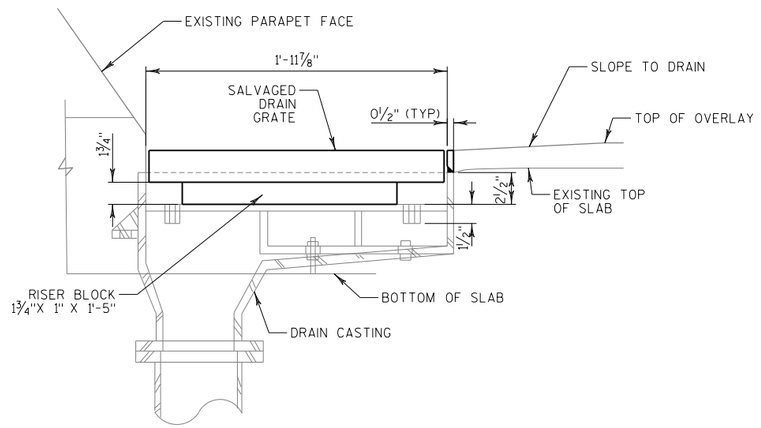
8220-05-72



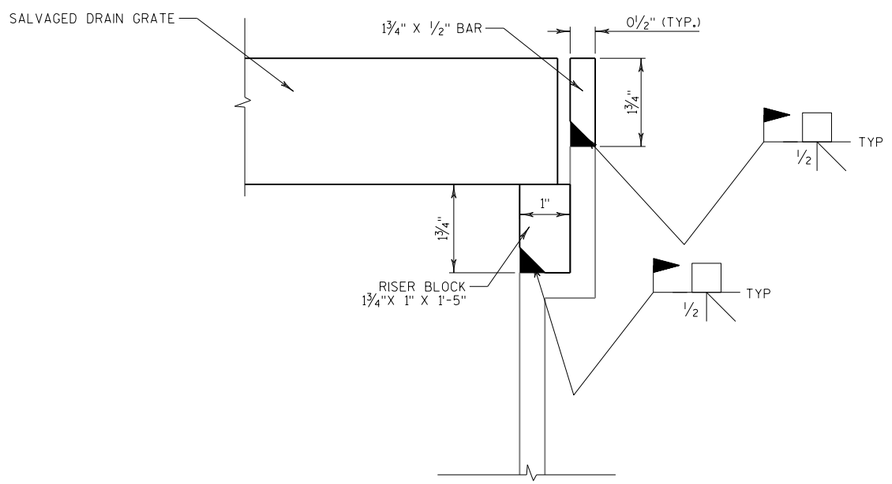
PLAN (ABOVE EXISTING SLAB)



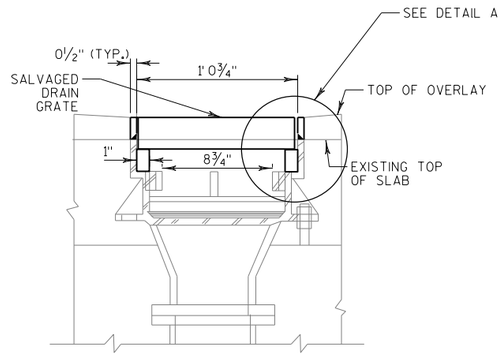
PLAN (EXISTING)



SECTION A1



DETAIL A



SECTION A2

NOTE

SALVAGE AND REUSE EXISTING DRAIN GRATE. DRAIN MATERIAL TO BE PAID FOR AS "ADJUSTING FLOOR DRAINS."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-60-1

DRAWN BY SMK | PLANS CK'D. DRB

DRAIN RAISING DETAIL

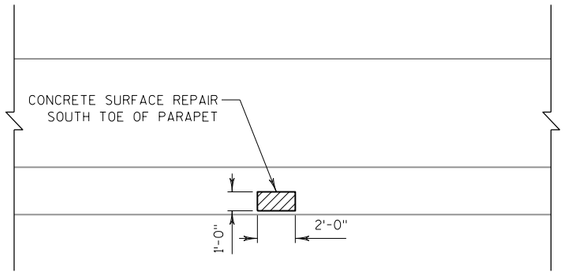
SHEET 3 OF 4
251

8

8

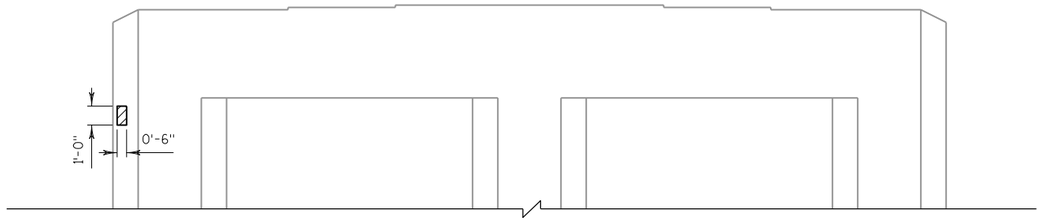
STATE PROJECT NUMBER

8220-05-72



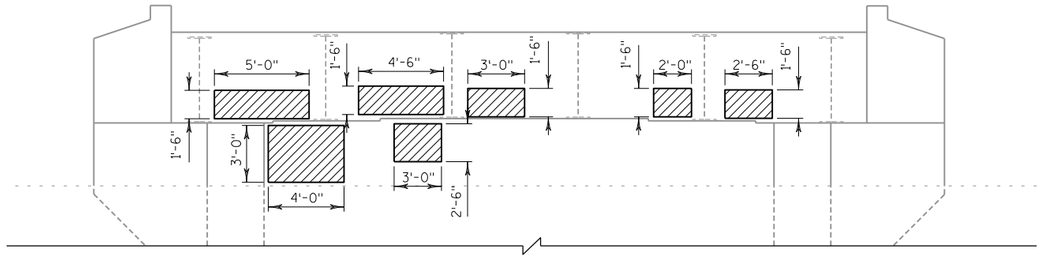
CONCRETE SURFACE REPAIR DETAIL

B-60-1 (STA 482+12 RT)



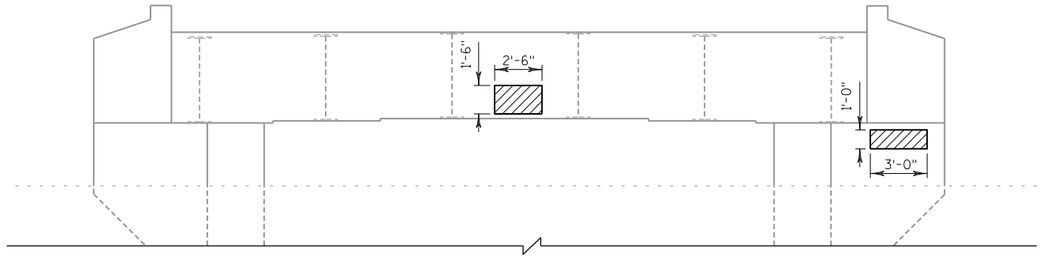
EAST PIER

(LOOKING EAST)



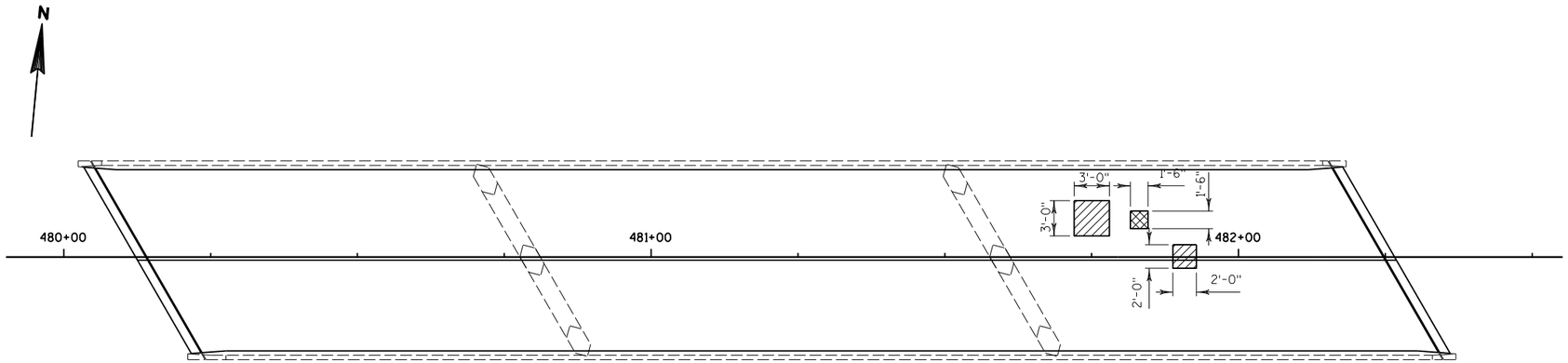
WEST ABUTMENT

(LOOKING WEST)



EAST ABUTMENT

(LOOKING EAST)



CONCRETE SURFACE REPAIR ON THE UNDERSIDE OF DECK AND FULL DEPTH DECK REPAIR ON THE TOP OF DECK

(PLAN VIEW)

CONCRETE SURFACE REPAIR REQUIRED LOCATIONS AND DIMENSIONS OF SPALL AREAS ARE APPROXIMATE AND SHOULD BE USED AS A GUIDE ONLY. AREAS AS DETERMINED BY ENGINEER IN THE FIELD.

PLACE CONCRETE MASONRY BRIDGES PATCHING SHES AT THE LOCATION OF THE FULL DEPTH DECK REPAIR.

THE LOCATION AND DIMENSION OF THE FULL DEPTH DECK REPAIR IS APPROXIMATE AND SHOULD BE USED AS A GUIDE ONLY. AREA AS DETERMINED BY ENGINEER IN THE FIELD.

THE LOCATION OF THE PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE NOT SHOWN ON THE SURFACE REPAIR PLAN ON THIS SHEET. QUANTITIES SHOWN IN THE QUANTITY TABLE ARE ESTIMATED. AREAS FOR PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 ARE TO BE DETERMINED BY ENGINEER IN THE FIELD.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-60-1

DRAWN BY SMK | PLANS CK'D. DRB

CONCRETE REPAIR DETAILS

SHEET 4 OF 4
252

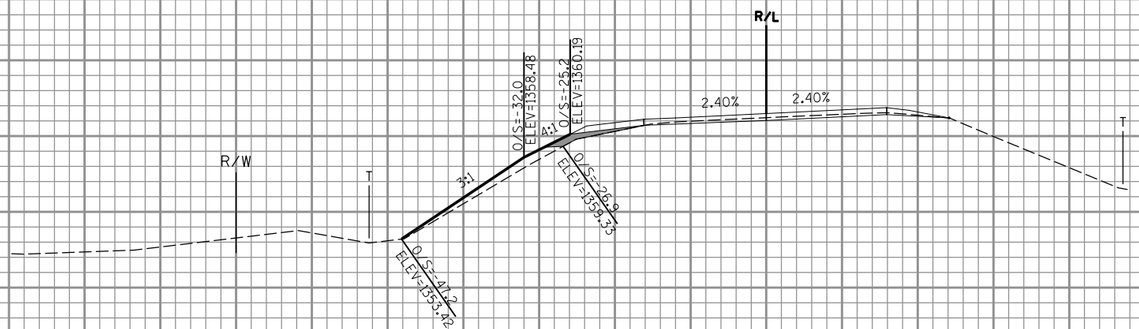
8

8

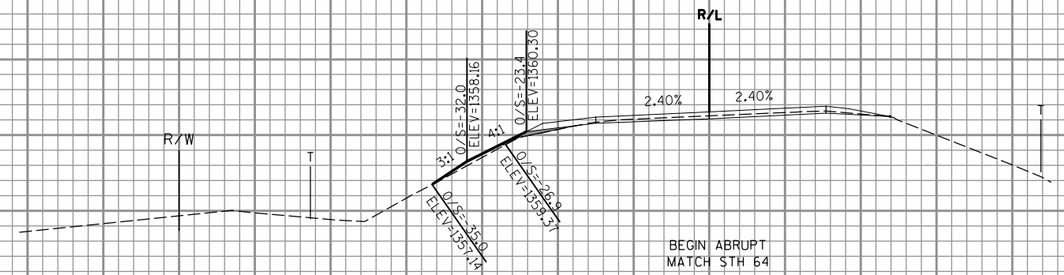
NOTES

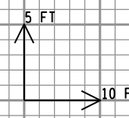
ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



476+50





476+30

9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 253	E

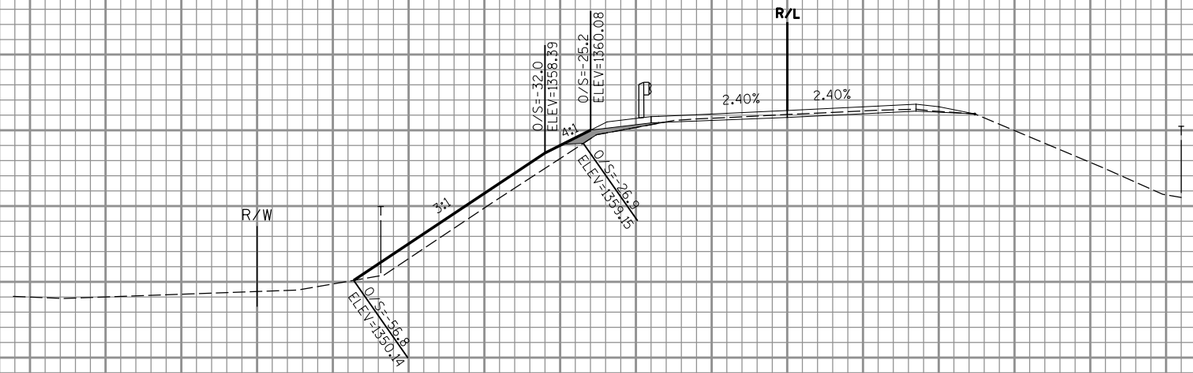
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

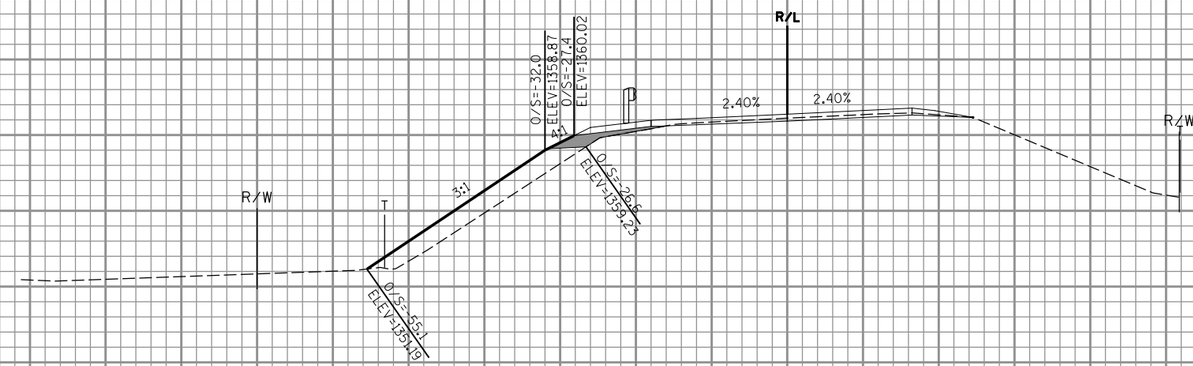
WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS





1375 1370 1365 1360 1355 1350 1345 1340

-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140

477+00

476+78

9 9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 254	E

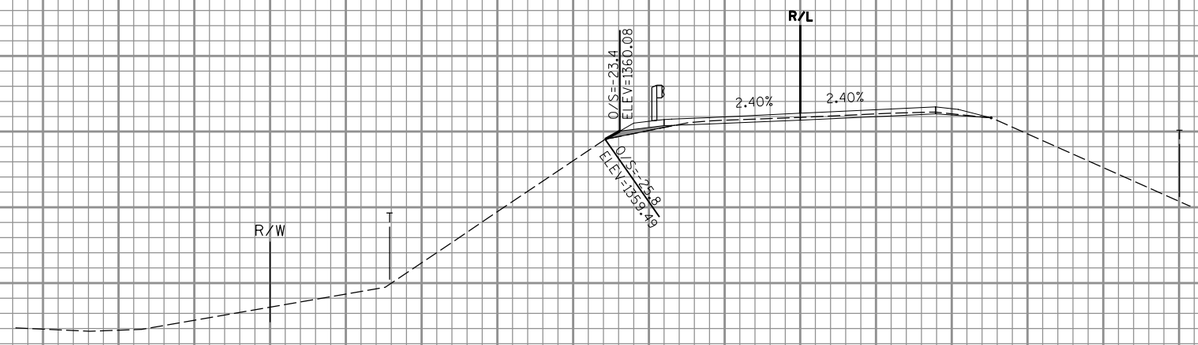
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

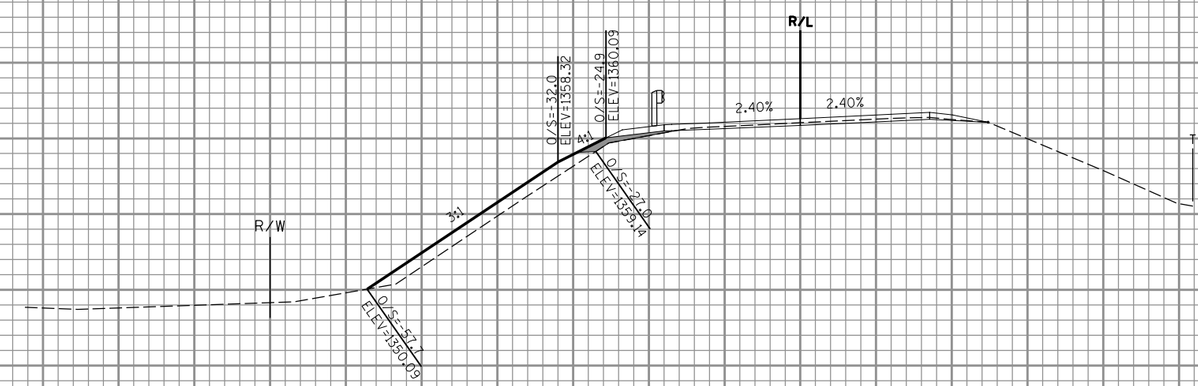
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



477+31



477+03

5 FT
10 FT

9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 255	E

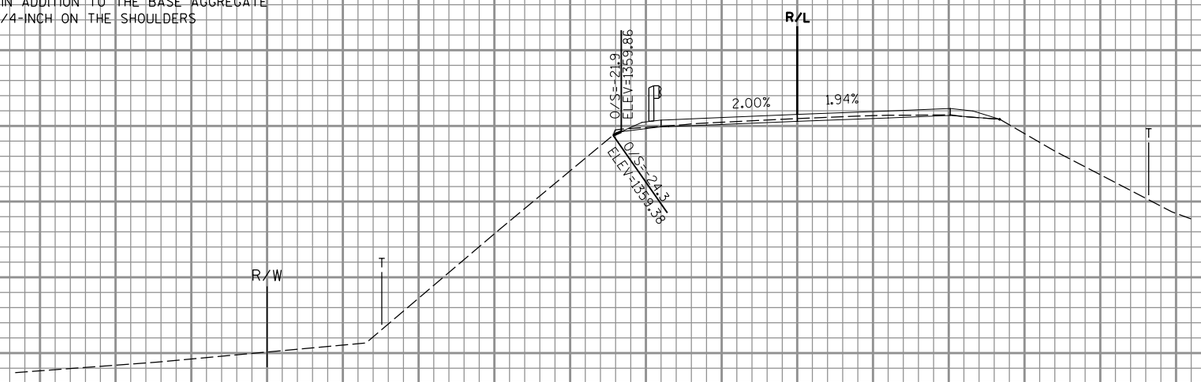
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

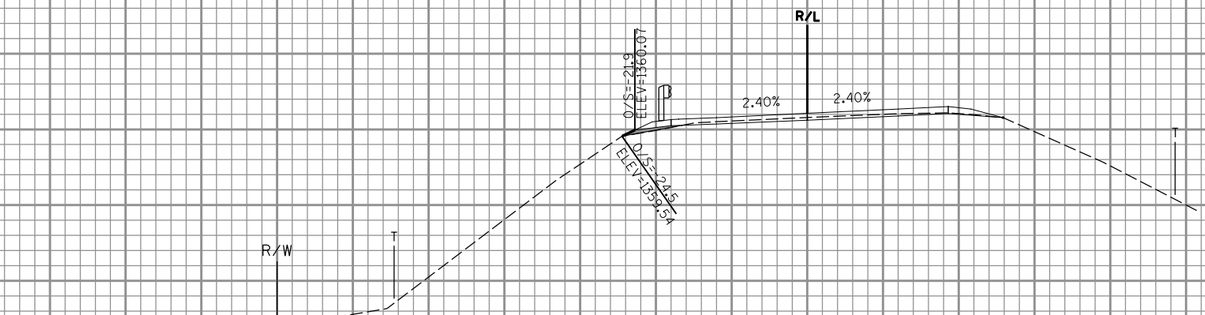
NOTES

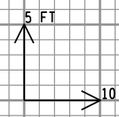
ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



478+00





477+57

9 9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 256	E

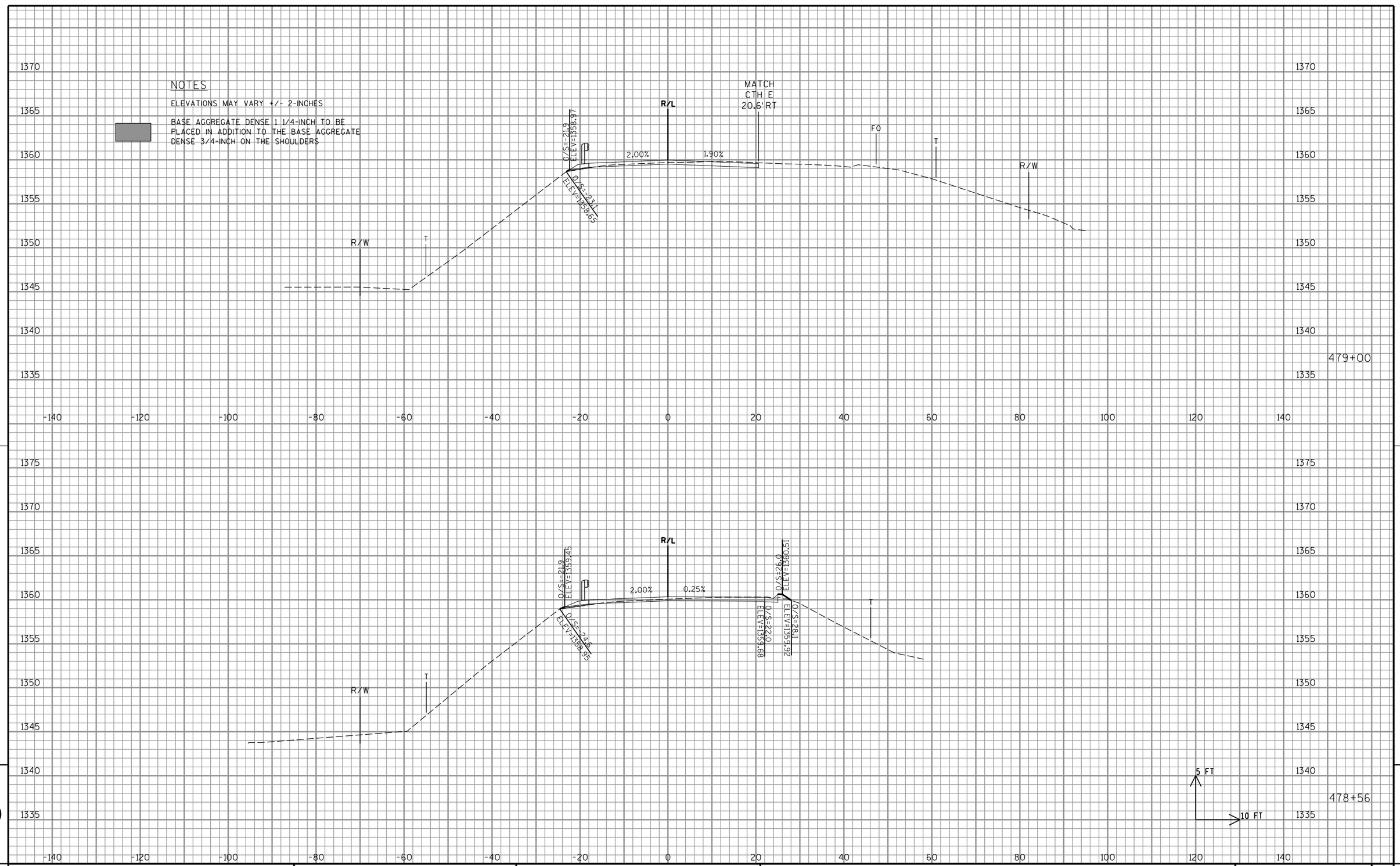
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 257	E

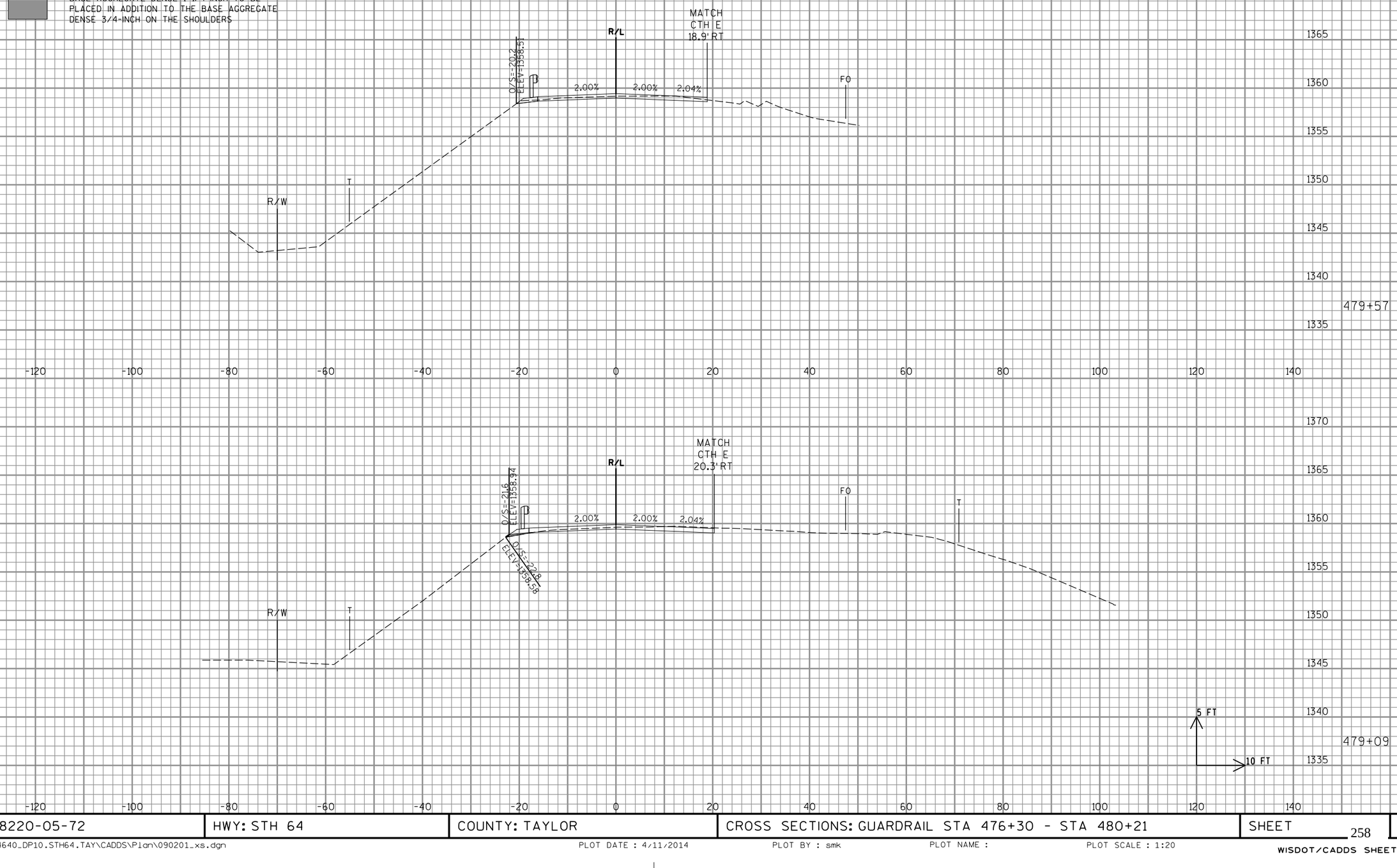
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 258	E

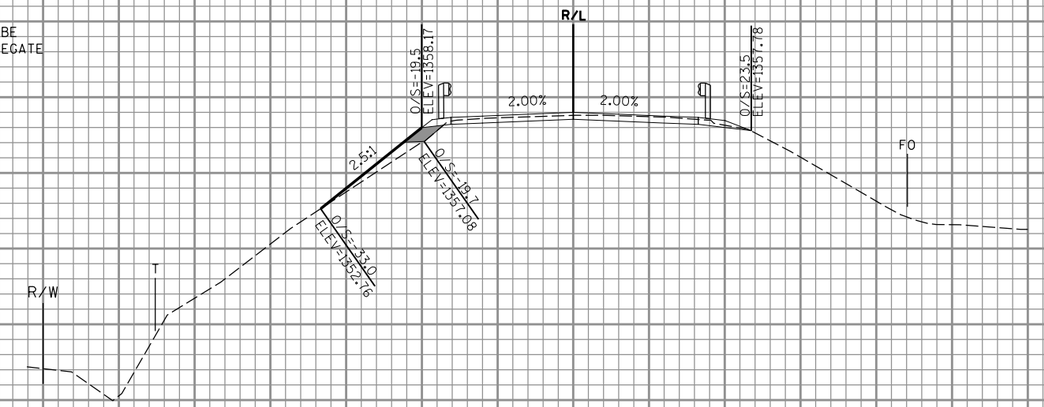
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

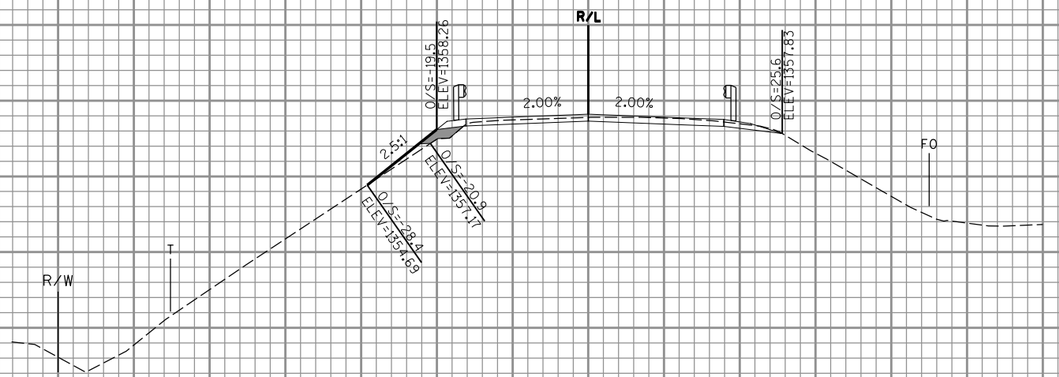
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



480+00



479+88

5 FT

10 FT

9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 259	E

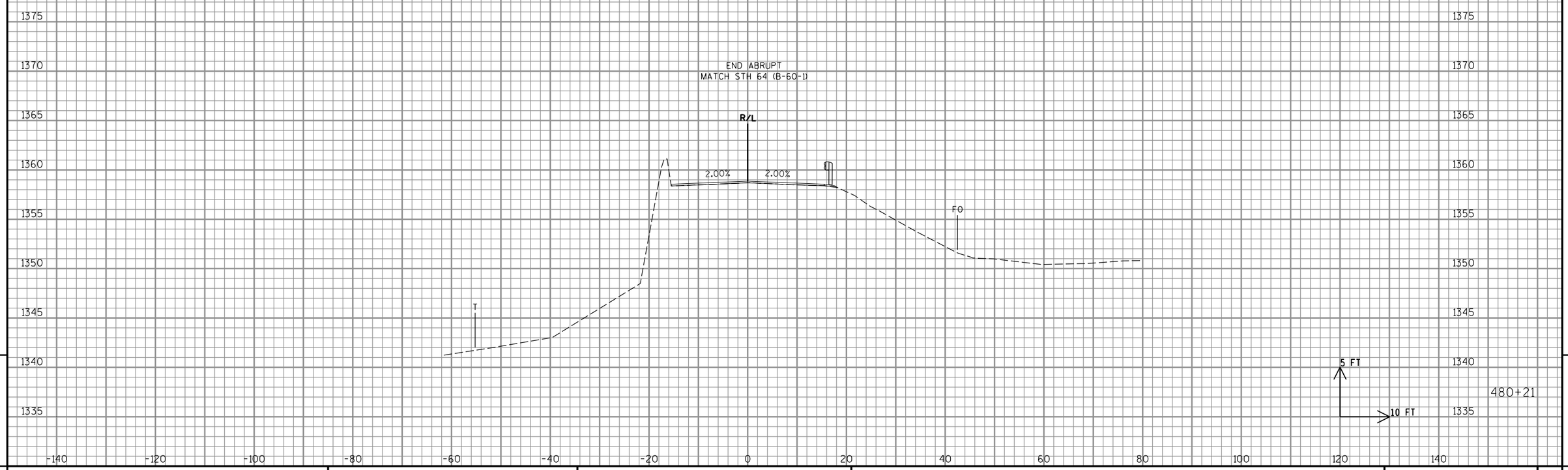
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



9

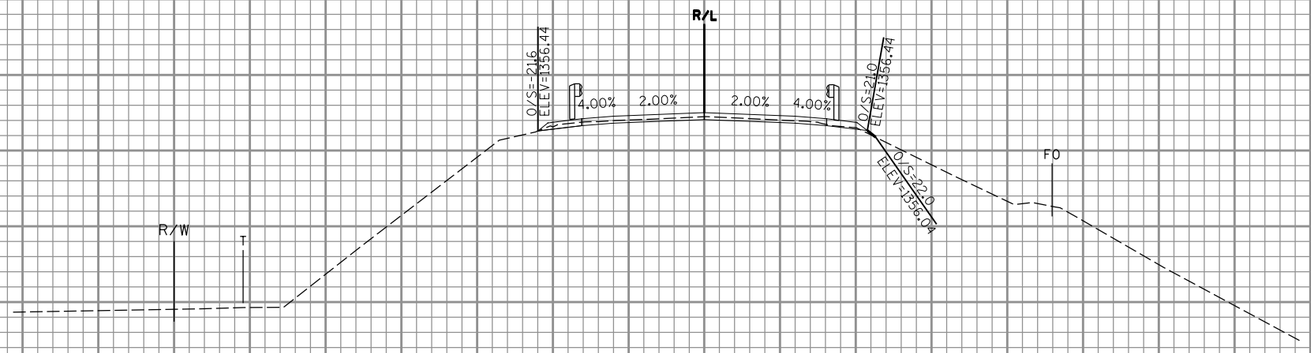
9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 476+30 - STA 480+21	SHEET 260	E

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



482+67

482+28

5 FT
10 FT

9 9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 261	E

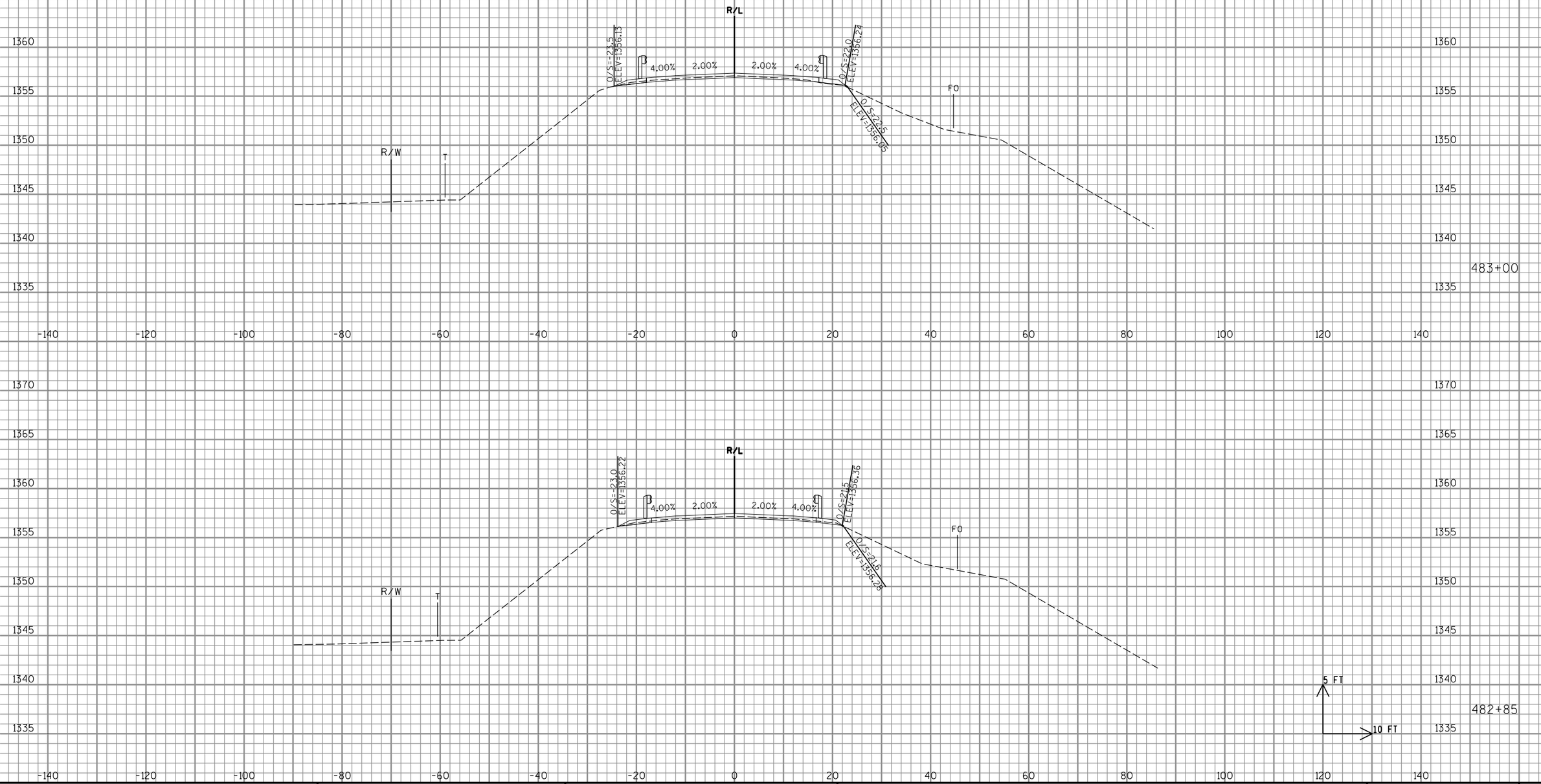
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 262	E

9

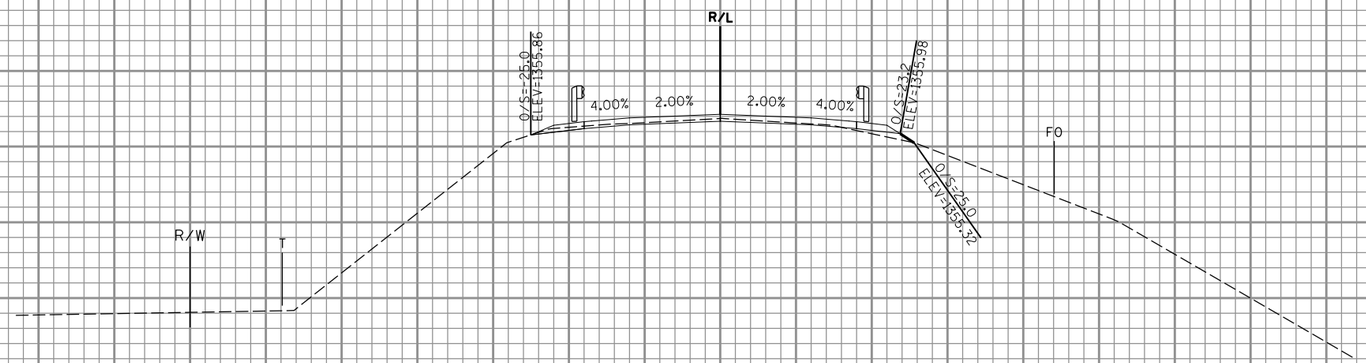
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

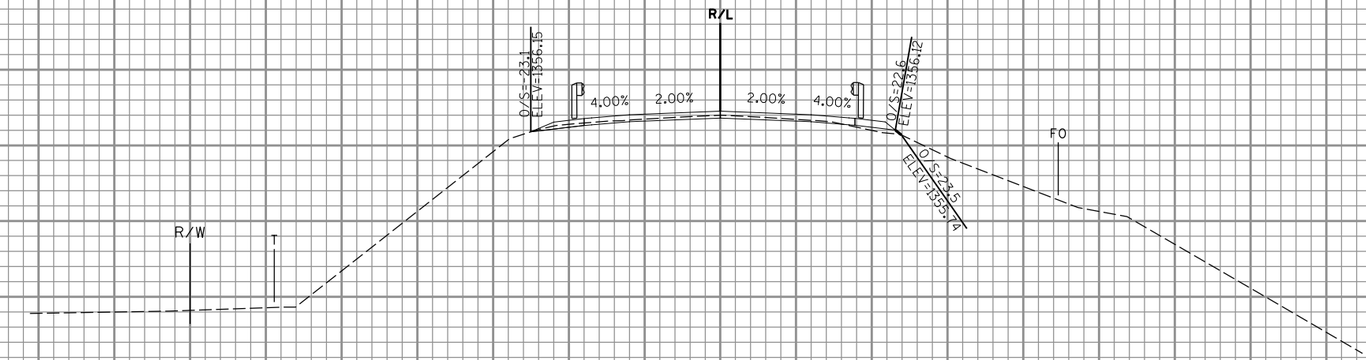
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



483+33



483+14

5 FT
10 FT

9 9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 263	E

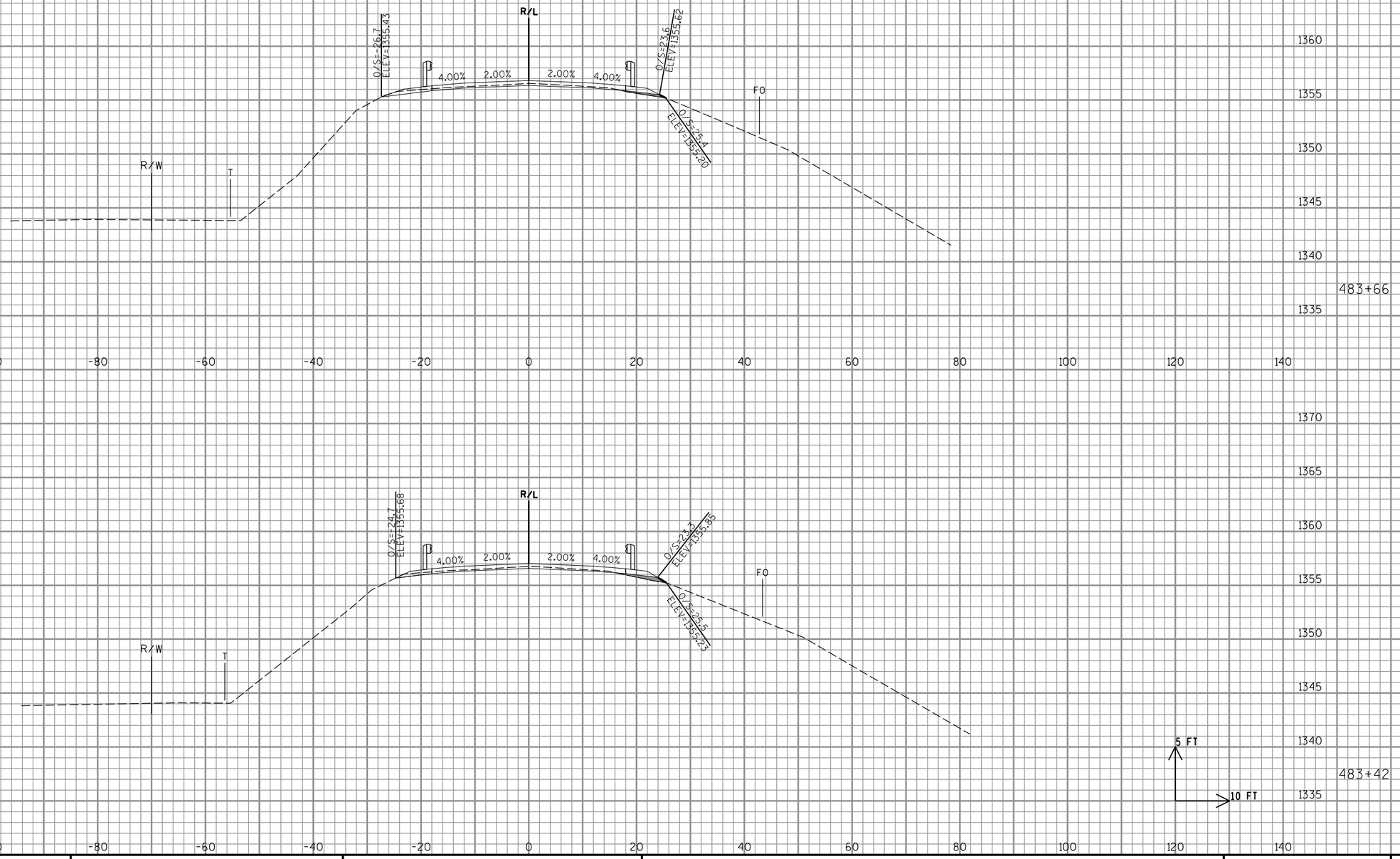
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



483+66

483+42

9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 264	E

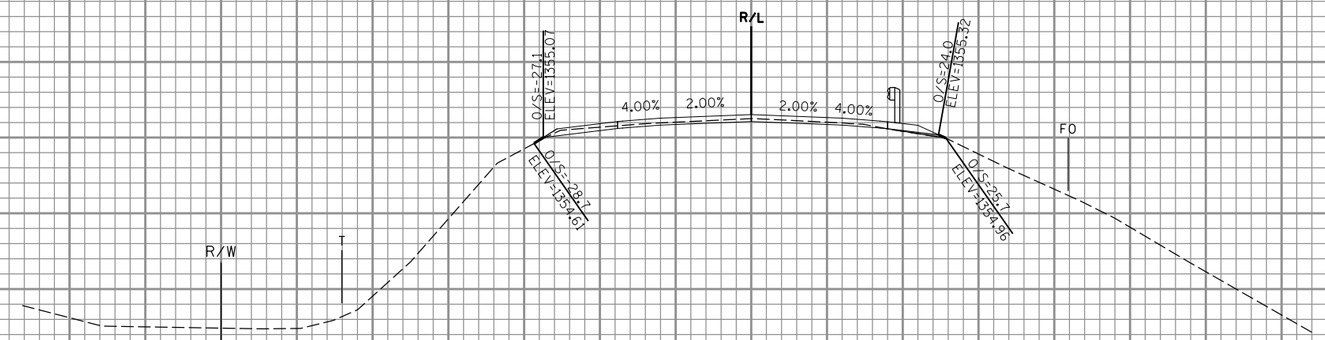
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

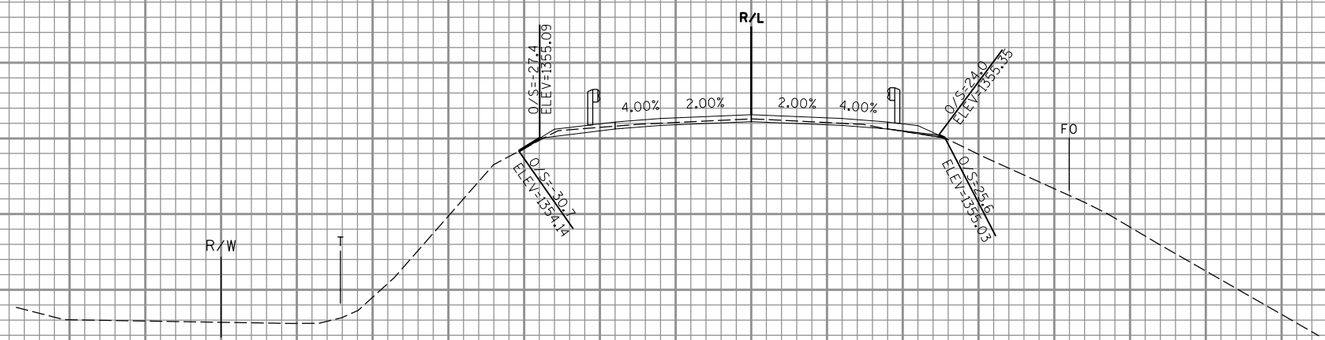
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



484+00



483+95

5 FT

10 FT

9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 265	E

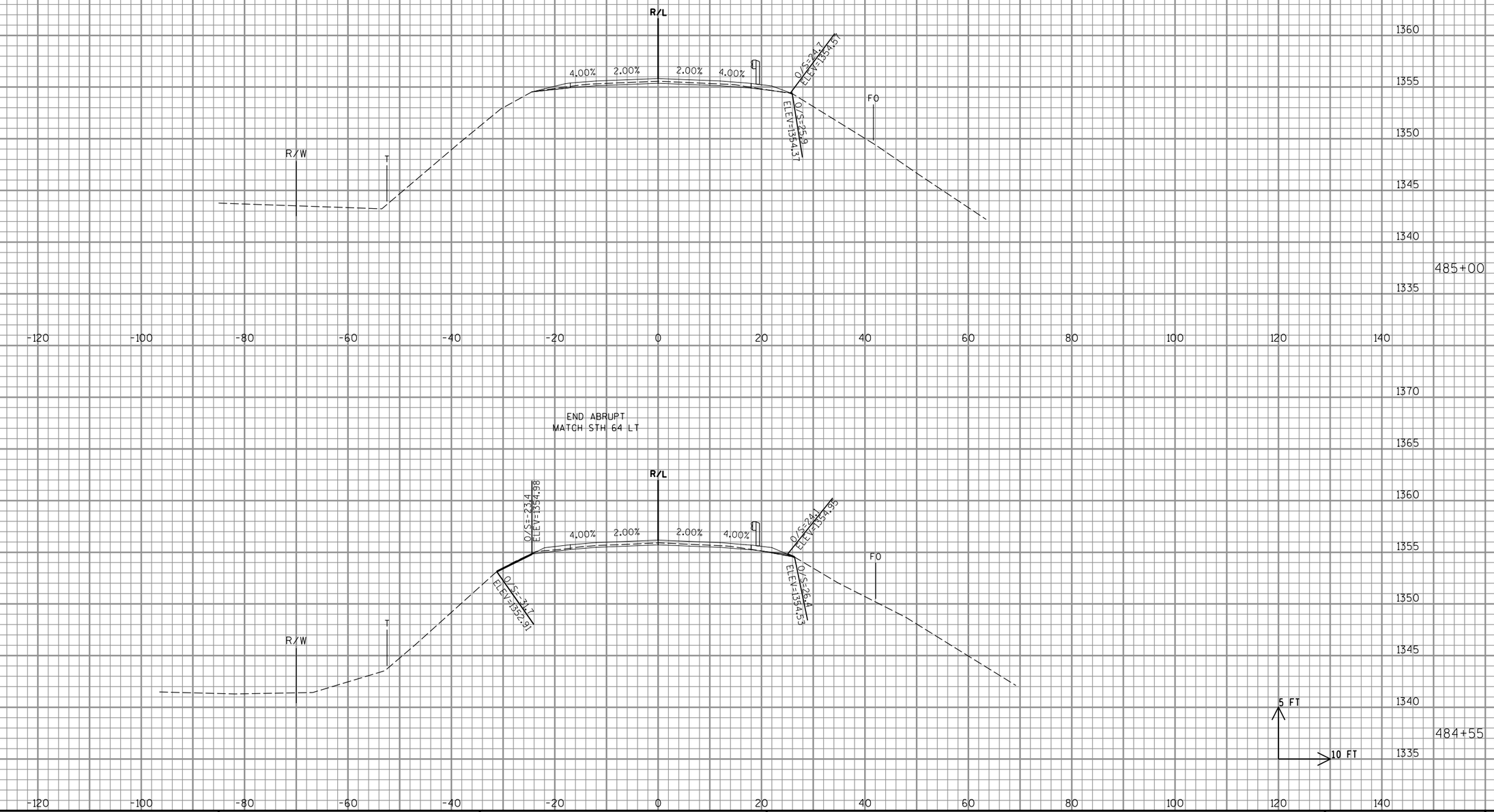
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 266	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

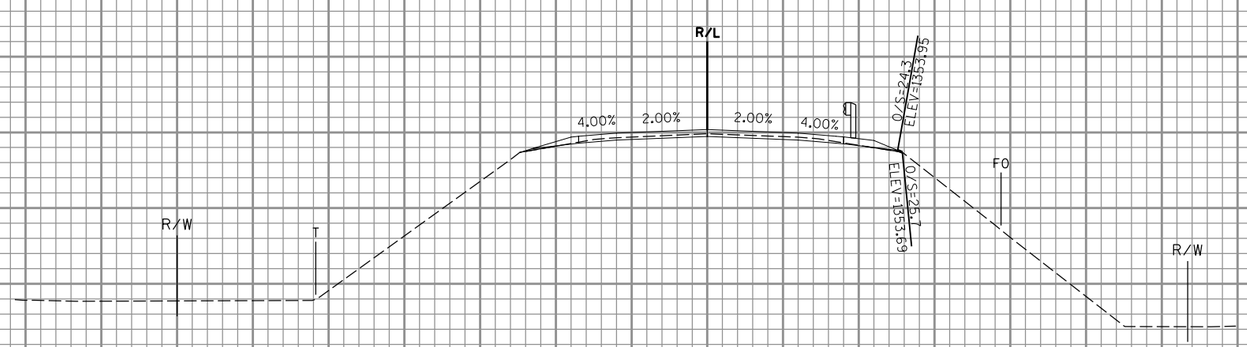
WISDOT/CADDS SHEET 21

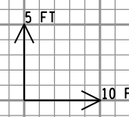
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS

487+00





486+00

9 9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 267	E

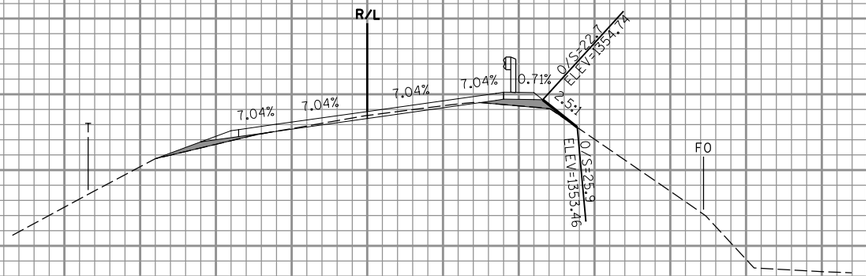
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

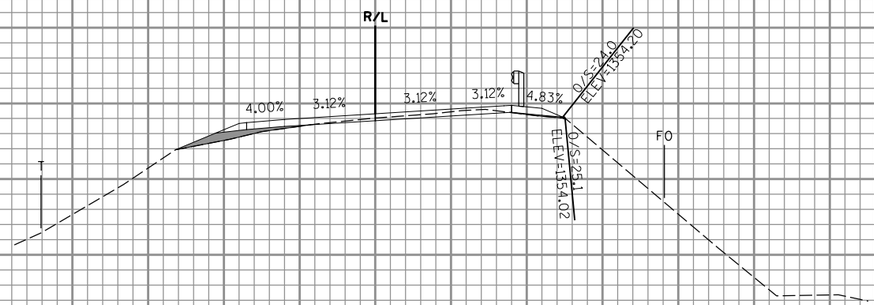
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



489+00



488+00

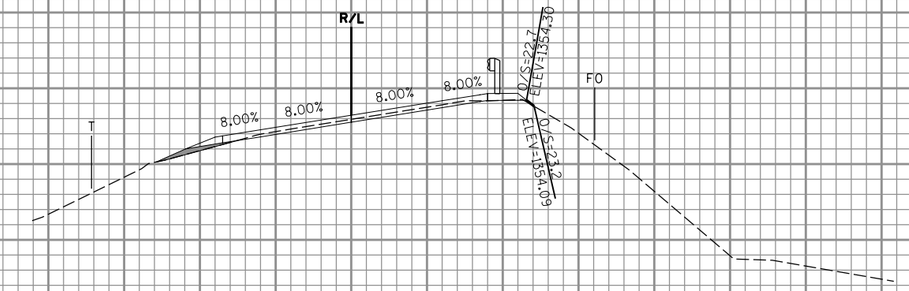
5 FT
10 FT

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 268	E

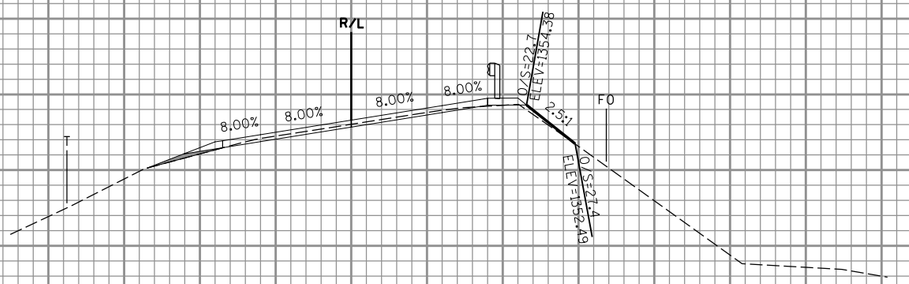
NOTES

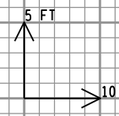
ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



490+44





490+00

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 269	E

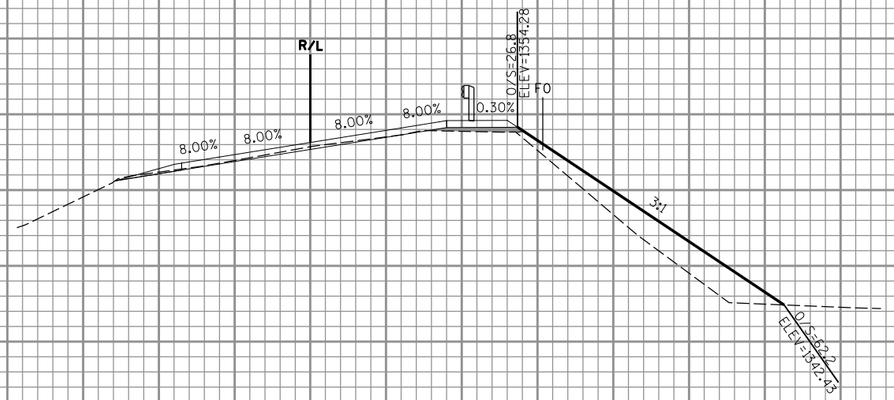
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

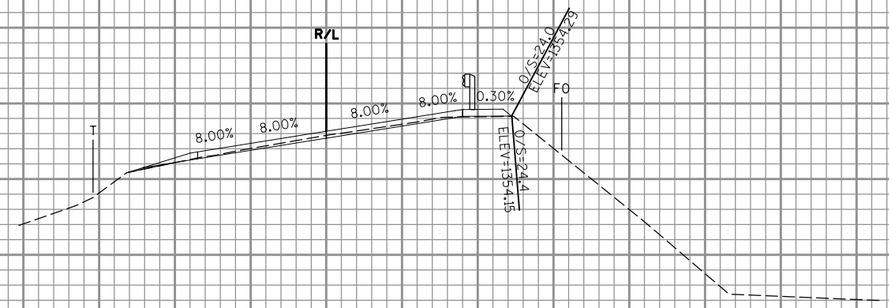
NOTES

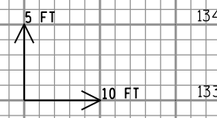
ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



490+97





490+72

9 9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 270	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

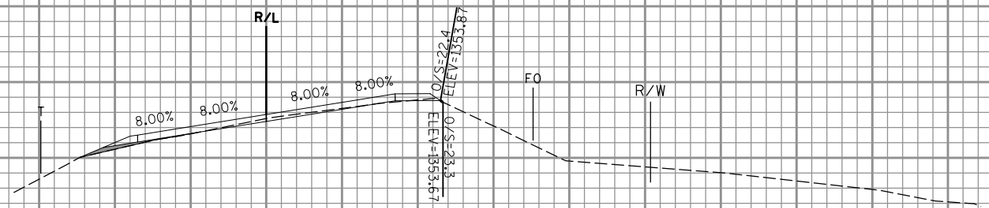
WISDOT/CADDS SHEET 21

NOTES

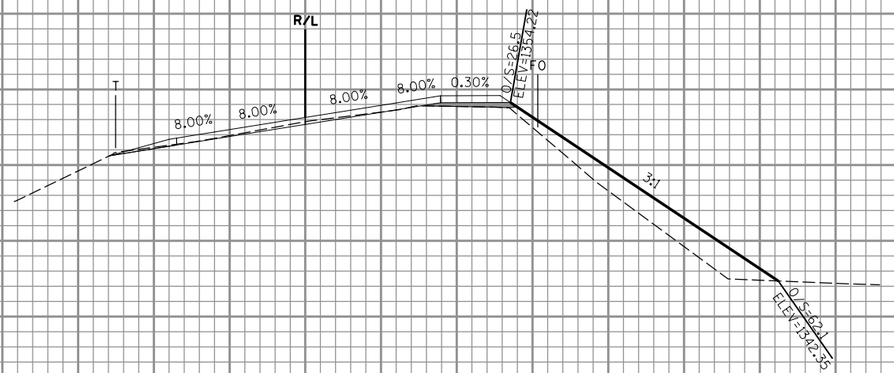
ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS

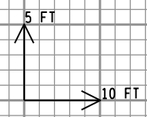
END ABRUPT
MATCH STH 64 RT



492+00



491+00



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 482+28 - STA 492+00	SHEET 271	E

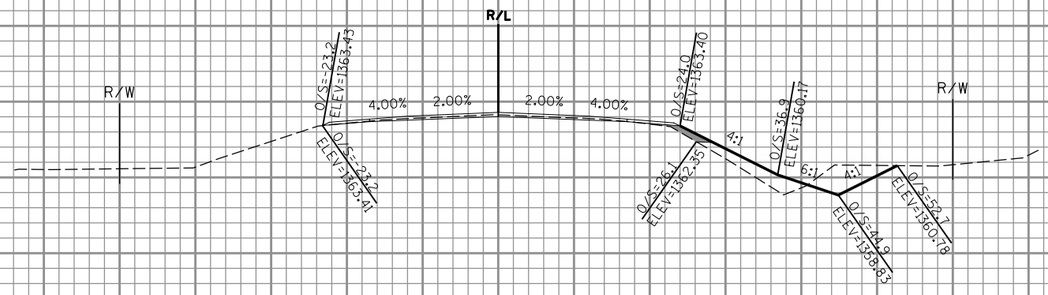
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090201_xs.dgn | PLOT DATE : 4/11/2014 | PLOT BY : smk | PLOT NAME : | PLOT SCALE : 1:20

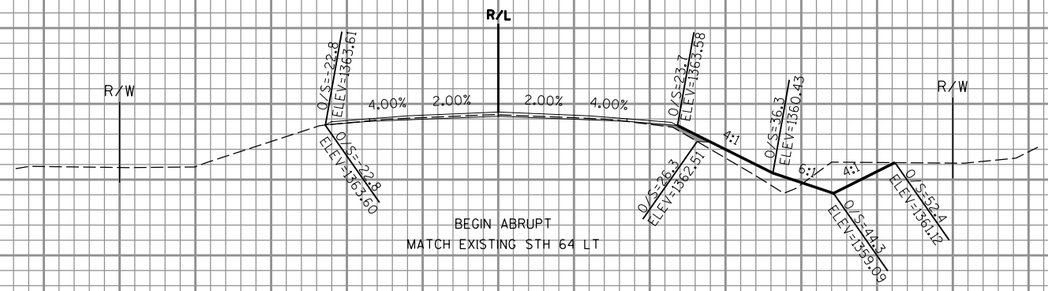
WISDOT/CADDS SHEET 21

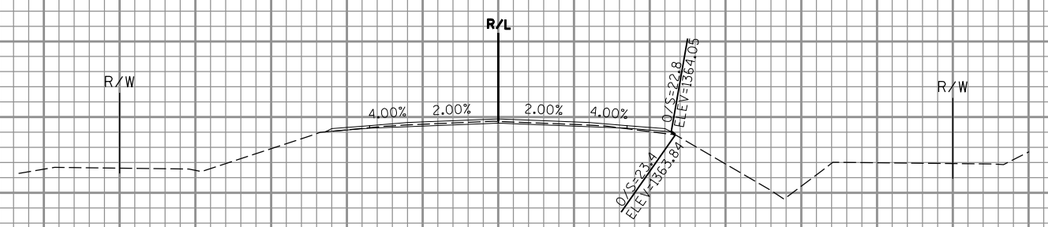
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS





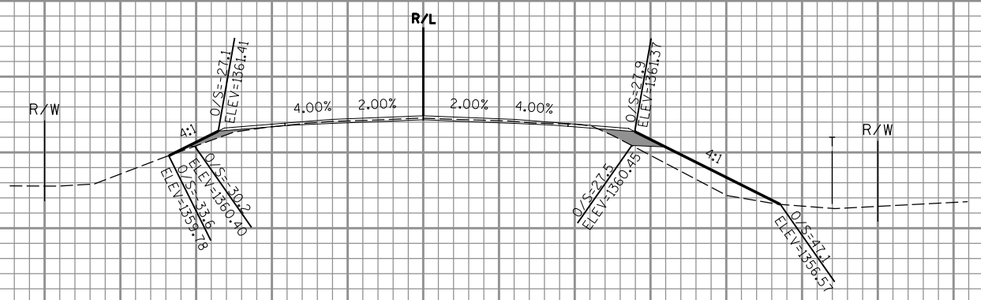


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 272	E

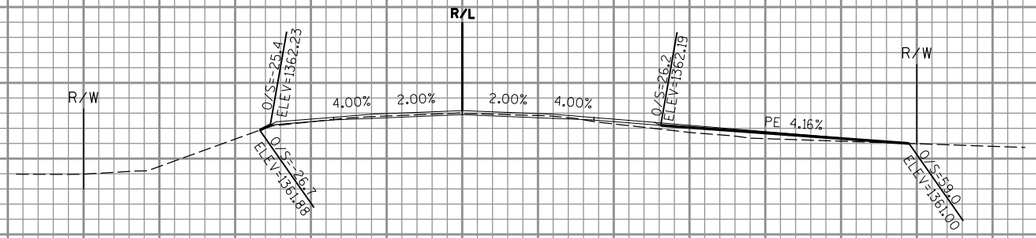
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

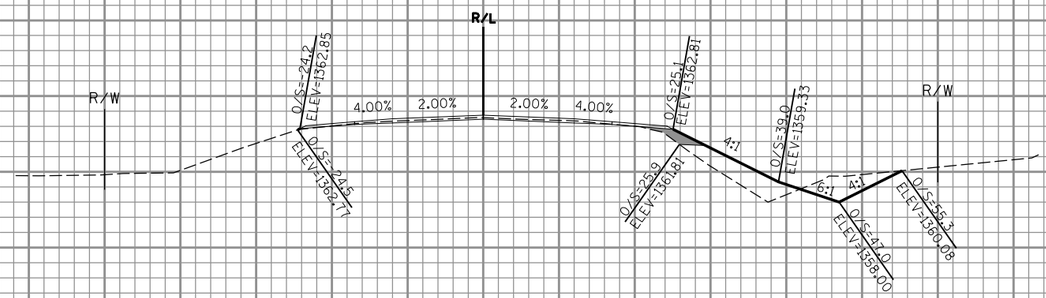
BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



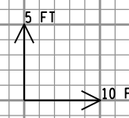
542+59



542+33



542+16



9

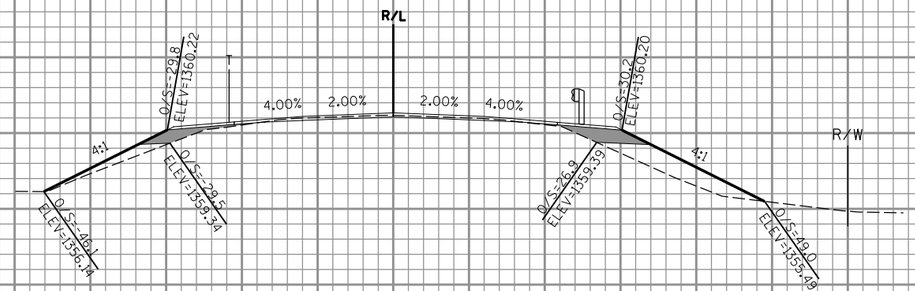
9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 273	E

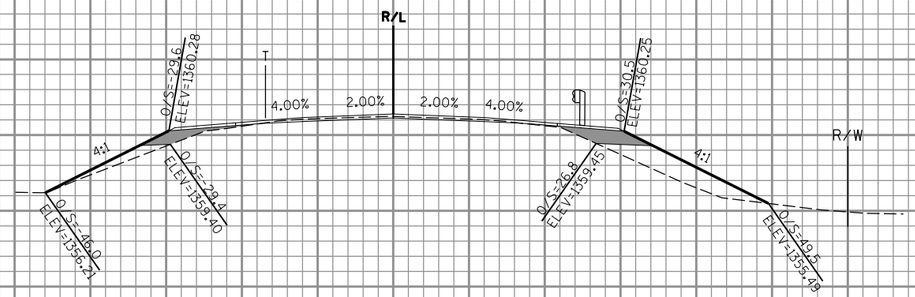
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



543+00



542+97

5 FT
10 FT

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 274	E

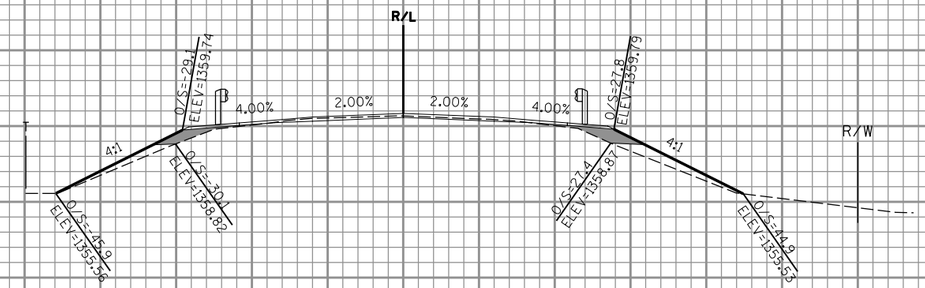
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090202_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

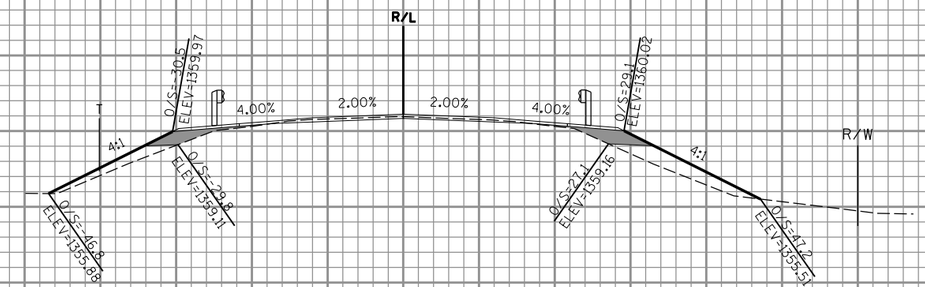
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



543+22



543+10

5 FT
10 FT

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 275	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090202_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

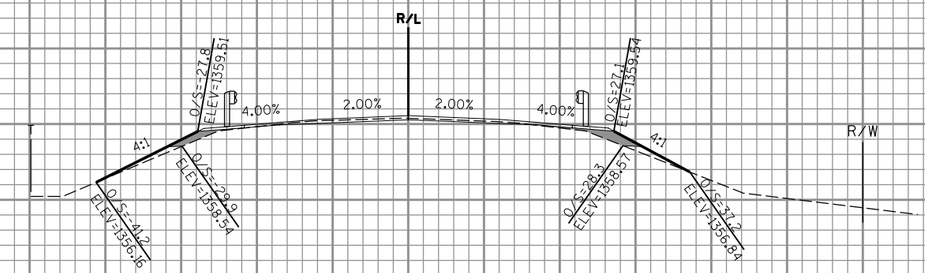
WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS

543+51



543+35

5 FT
10 FT

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 276	E

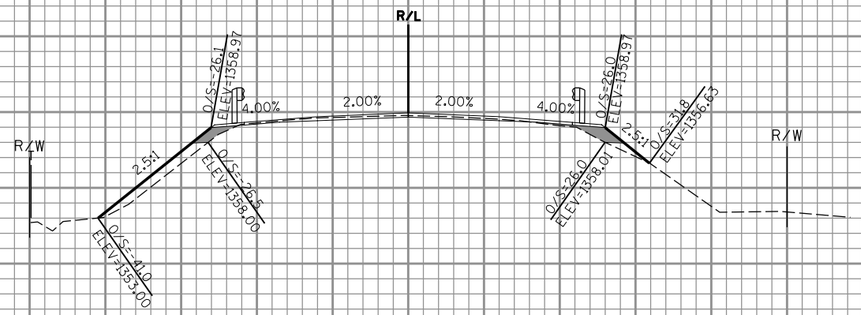
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090202_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

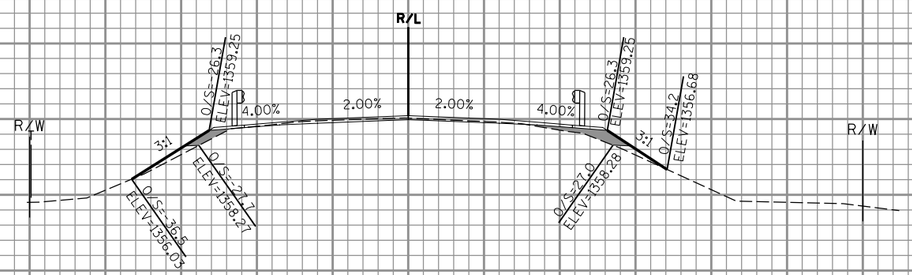
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



544+00



543+63

5 FT

10 FT

9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 277	E

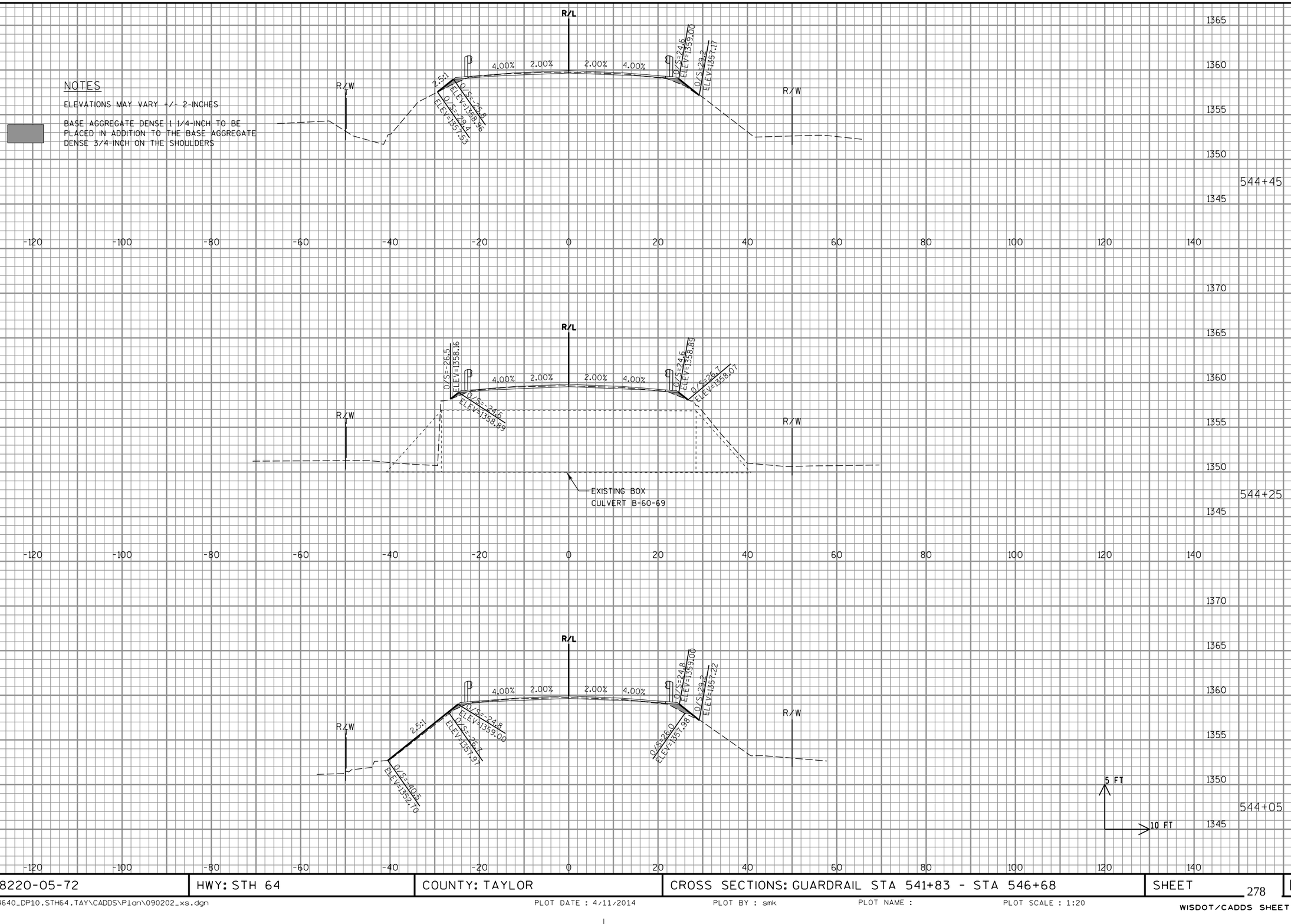
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090202_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS

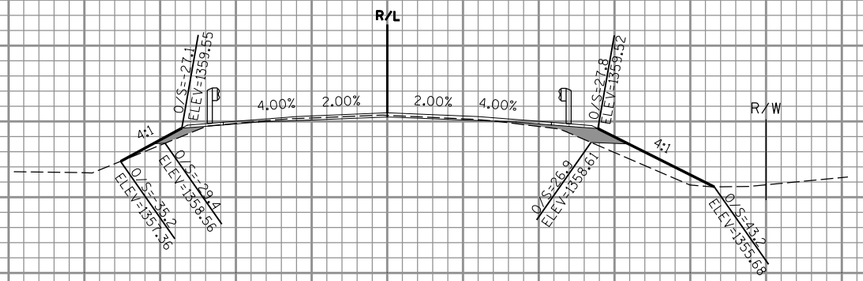


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 278	E

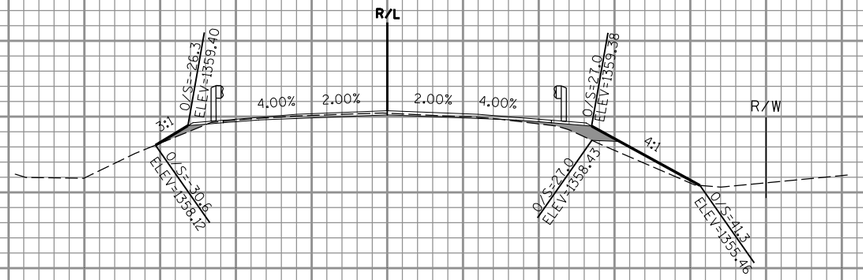
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

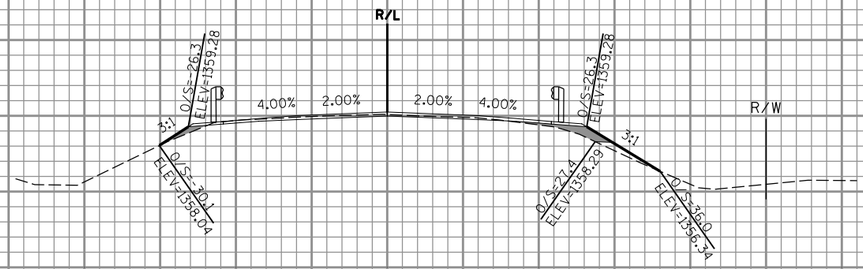
BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



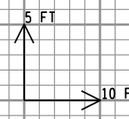
545+16



545+00



544+88



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PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 279	E

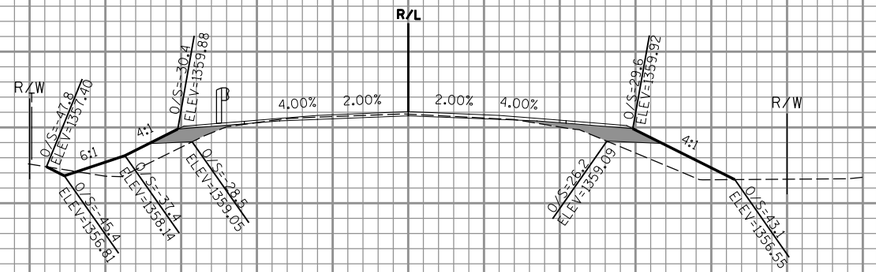
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090202_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

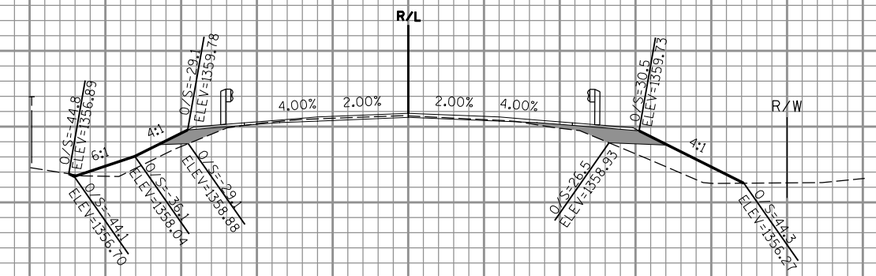
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

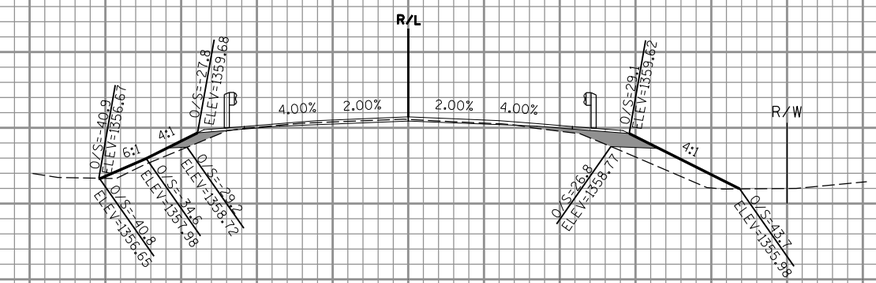
BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



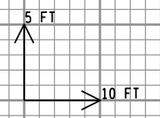
545+54



545+41



545+29



9 9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 280	E

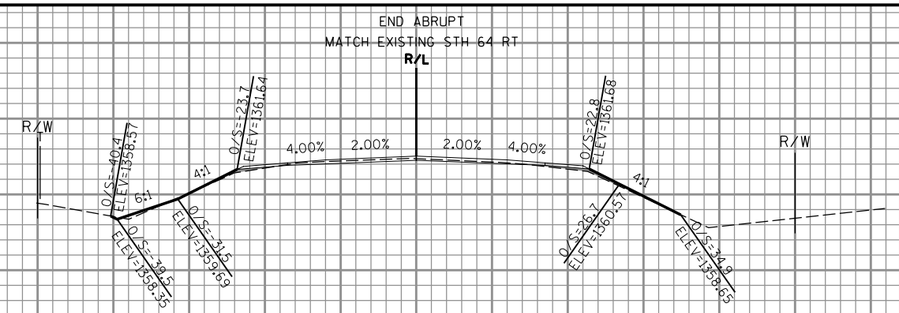
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090202_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

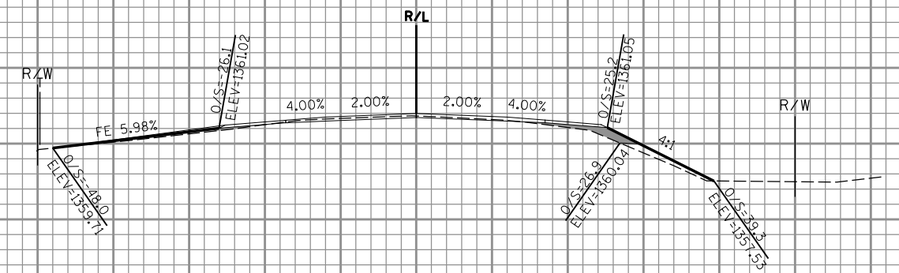
NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

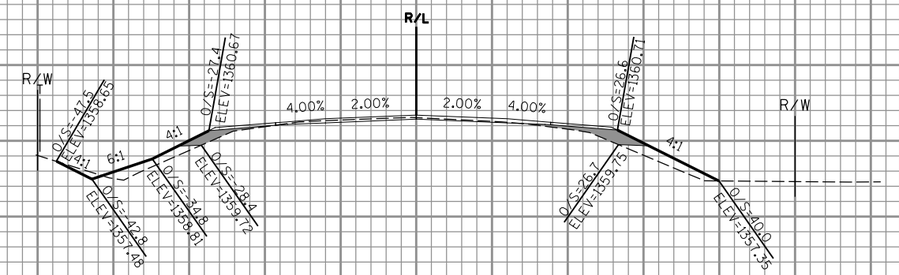
BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



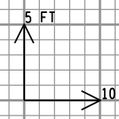
546+56



546+20



546+00



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 281	E

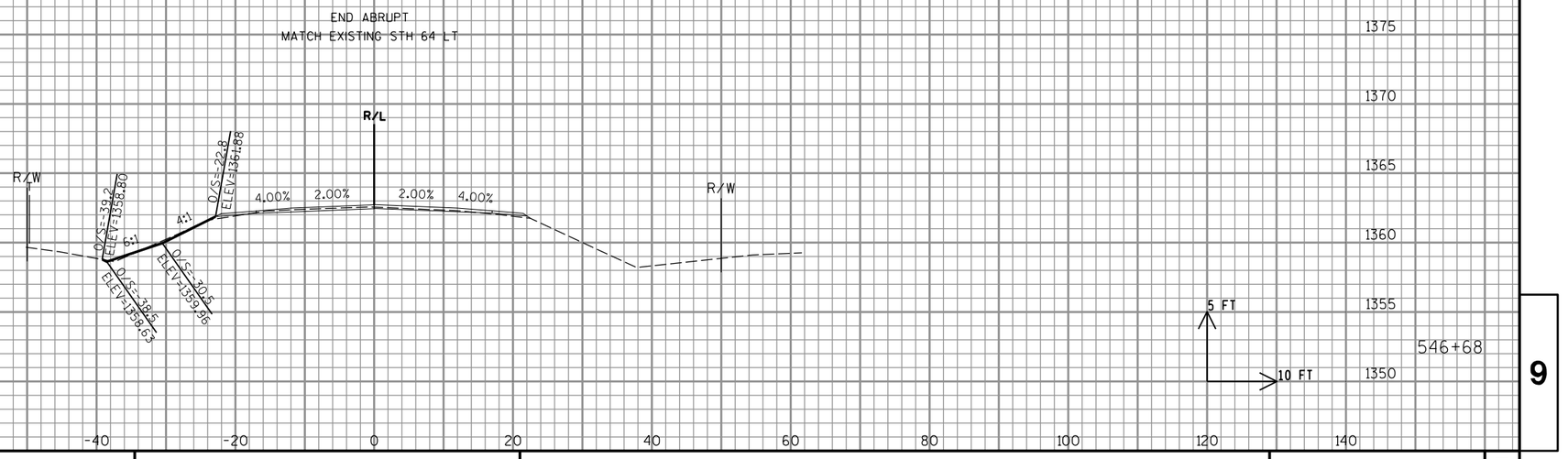
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090202_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTES

ELEVATIONS MAY VARY +/- 2-INCHES

BASE AGGREGATE DENSE 1 1/4-INCH TO BE PLACED IN ADDITION TO THE BASE AGGREGATE DENSE 3/4-INCH ON THE SHOULDERS



9

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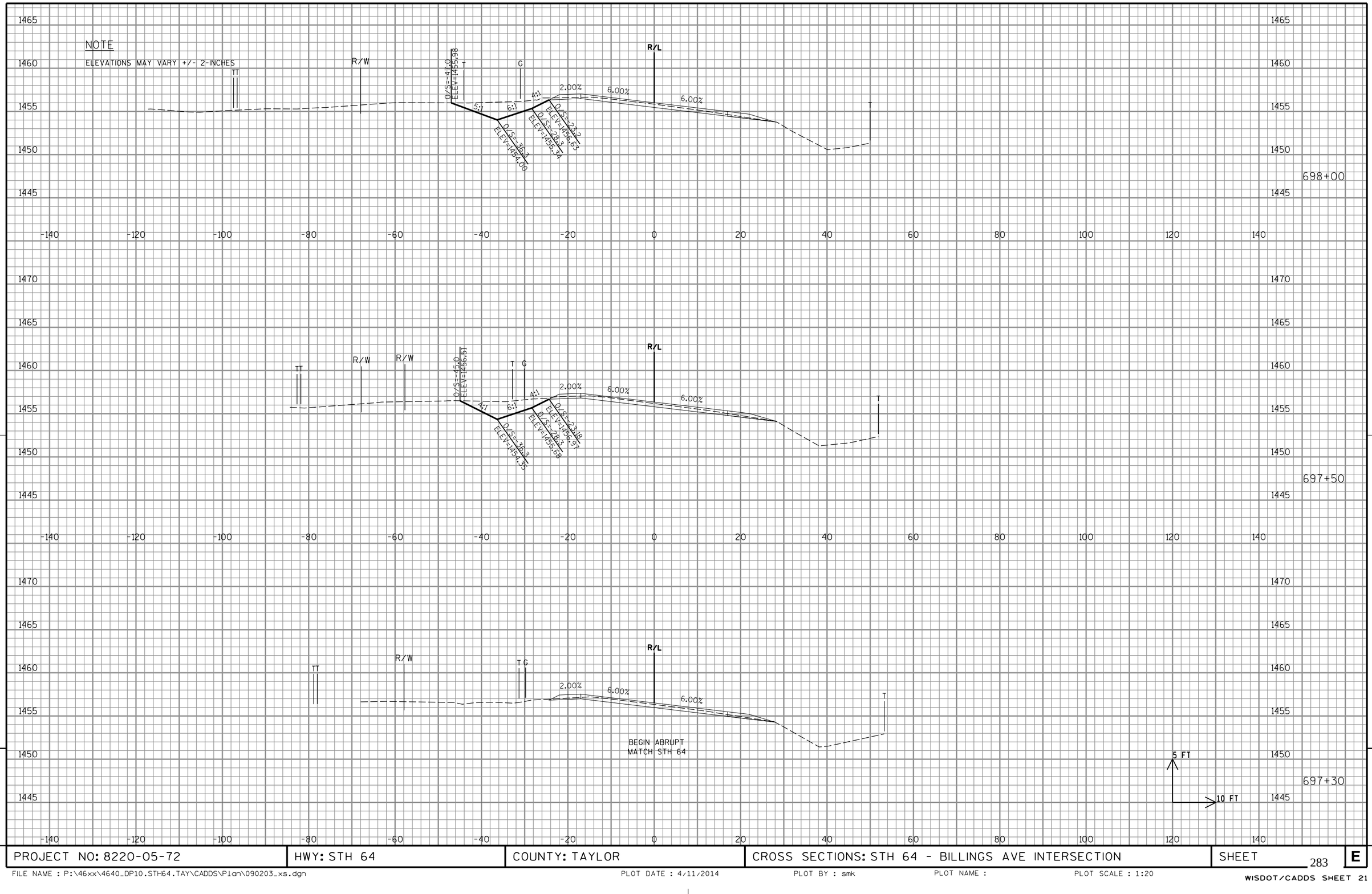
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: GUARDRAIL STA 541+83 - STA 546+68	SHEET 282	E

NOTE

ELEVATIONS MAY VARY +/- 2-INCHES



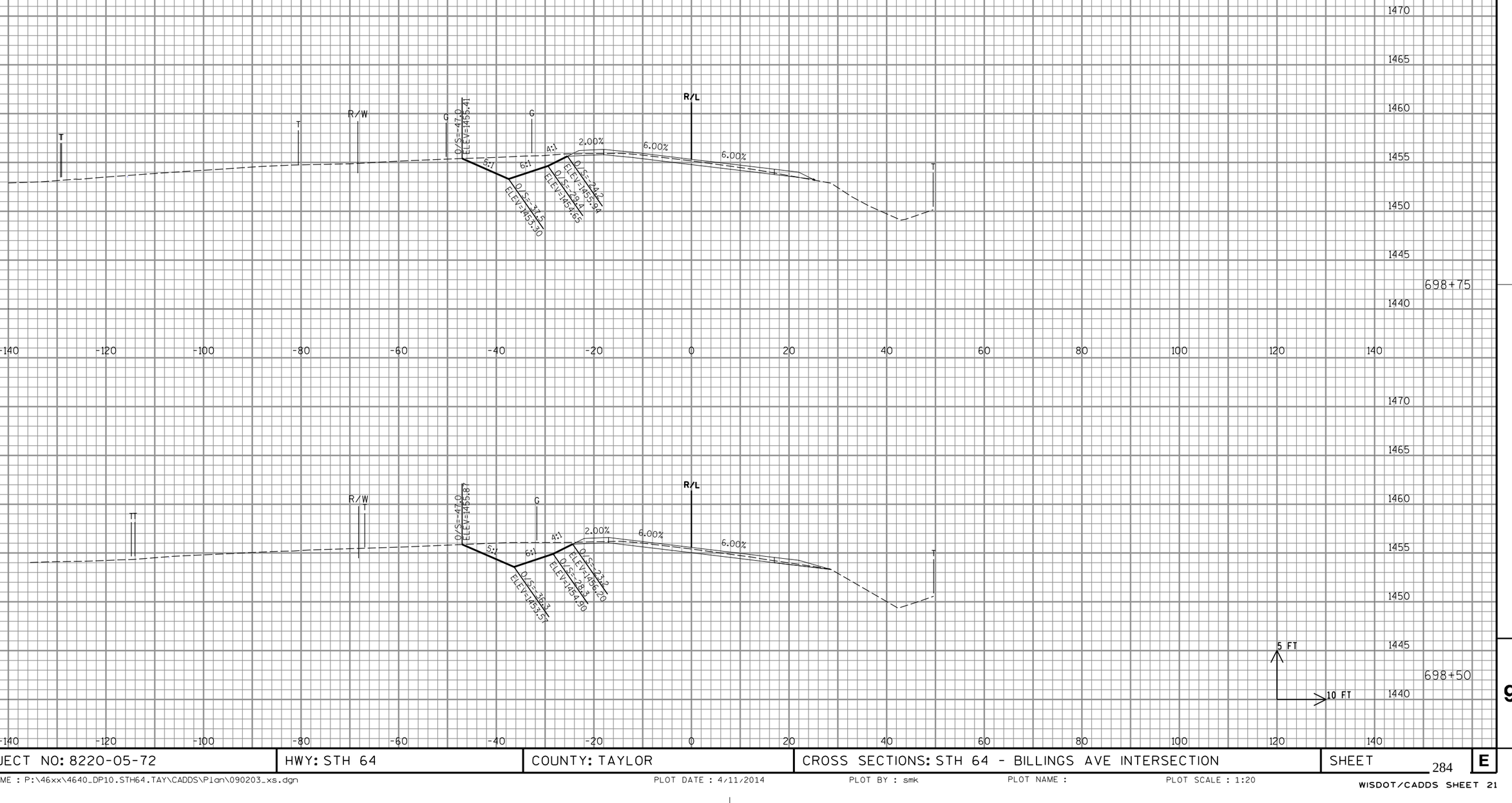
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: STH 64 - BILLINGS AVE INTERSECTION	SHEET 283	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090203_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE

ELEVATIONS MAY VARY +/- 2-INCHES



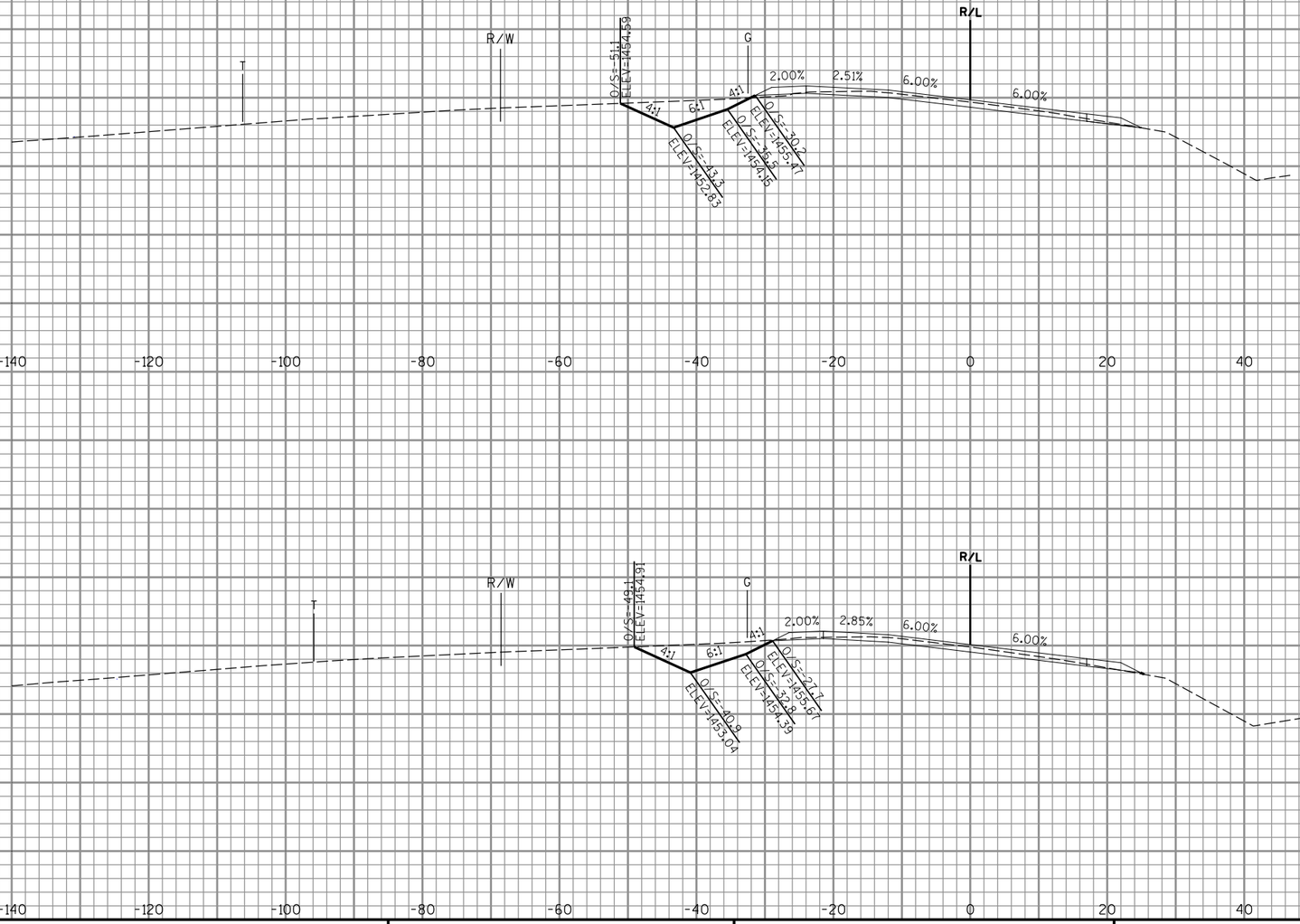
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: STH 64 - BILLINGS AVE INTERSECTION	SHEET 284	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090203_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE

ELEVATIONS MAY VARY +/- 2-INCHES



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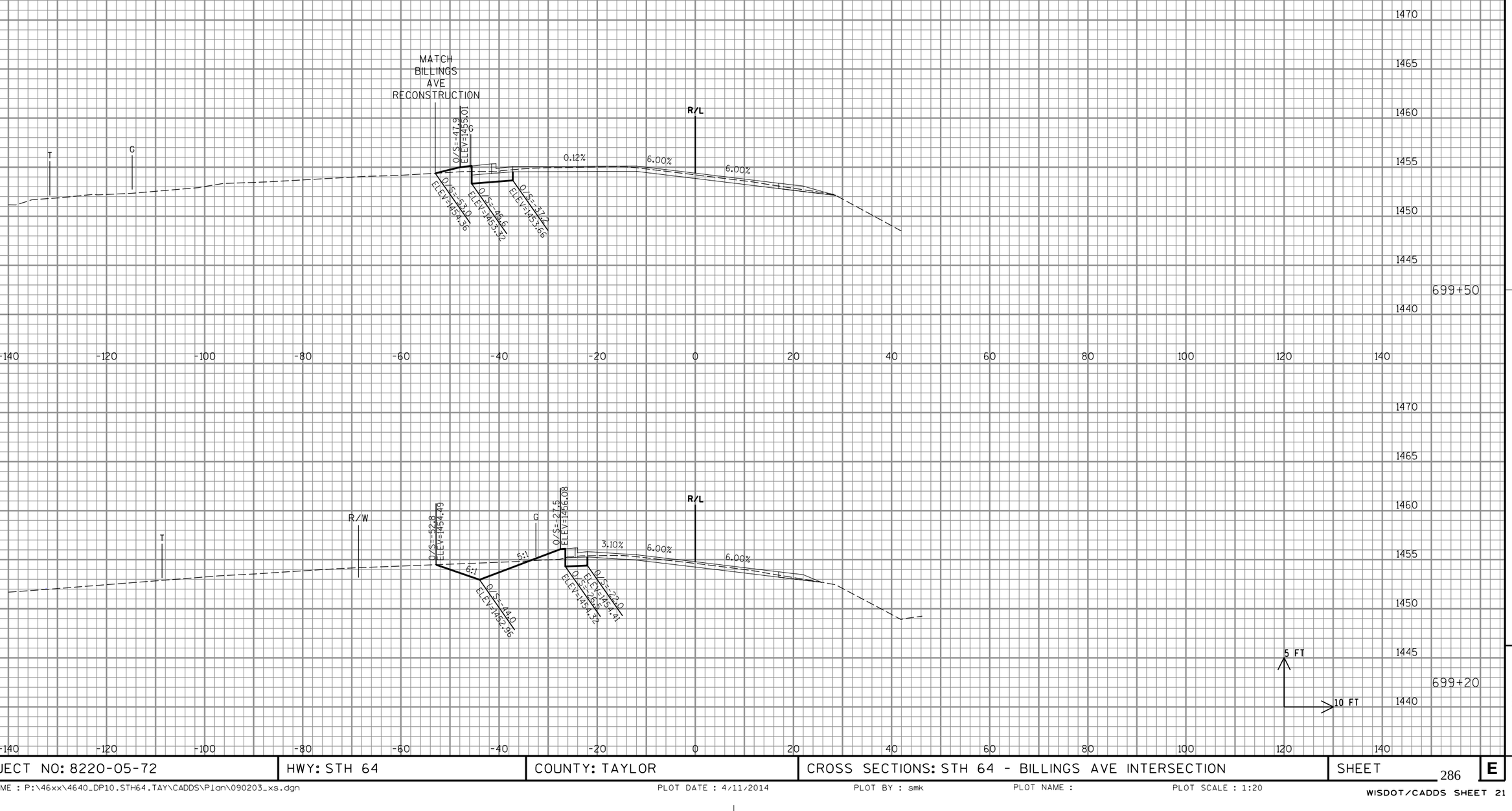
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: STH 64 - BILLINGS AVE INTERSECTION	SHEET 285	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090203_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

NOTE

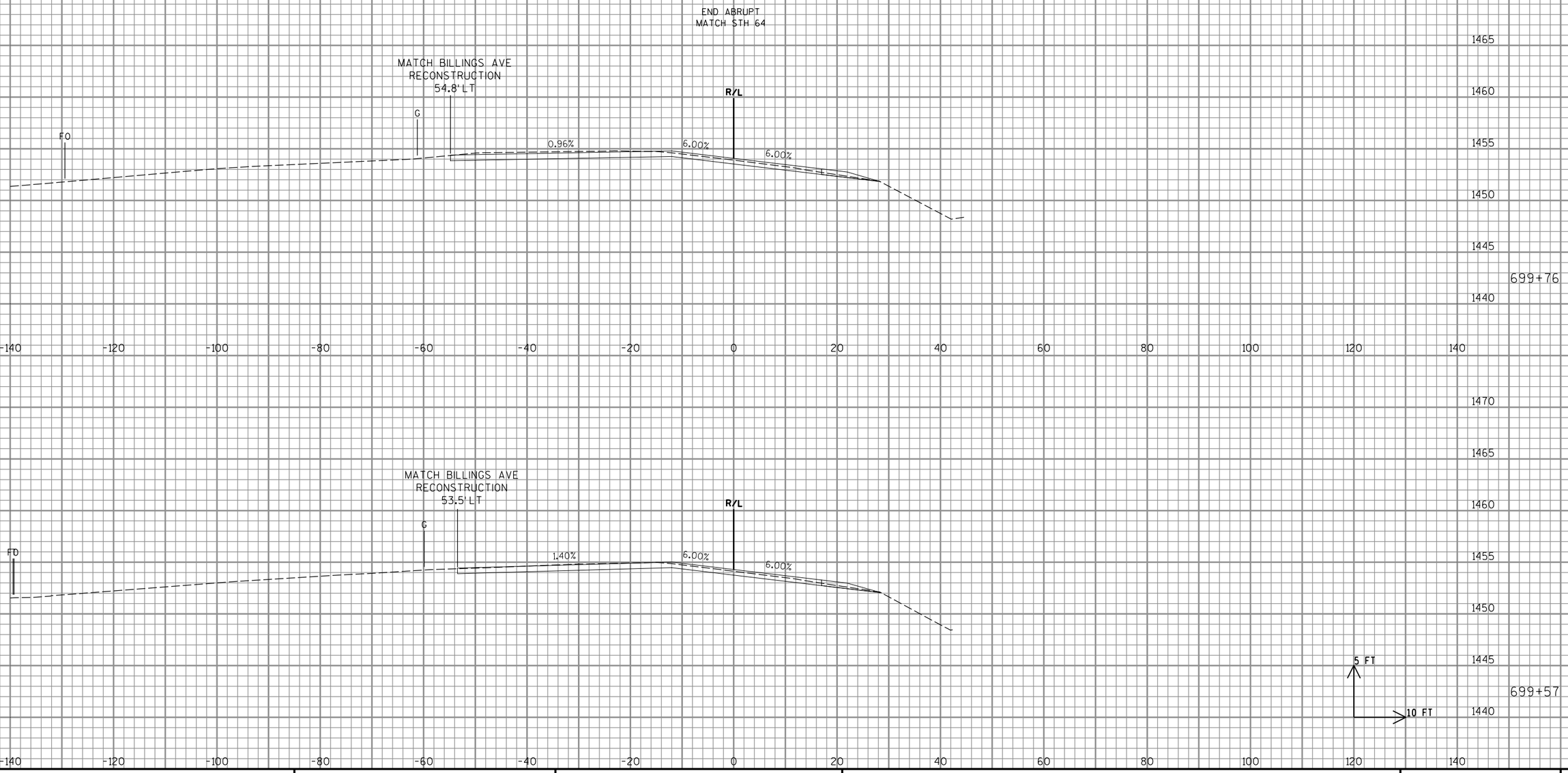
ELEVATIONS MAY VARY +/- 2-INCHES



PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: STH 64 - BILLINGS AVE INTERSECTION	SHEET 286	E

NOTE

ELEVATIONS MAY VARY +/- 2-INCHES



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PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: STH 64 - BILLINGS AVE INTERSECTION	SHEET 287	E

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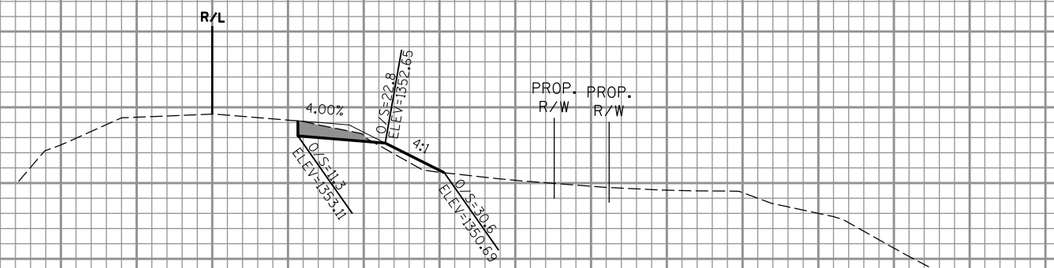
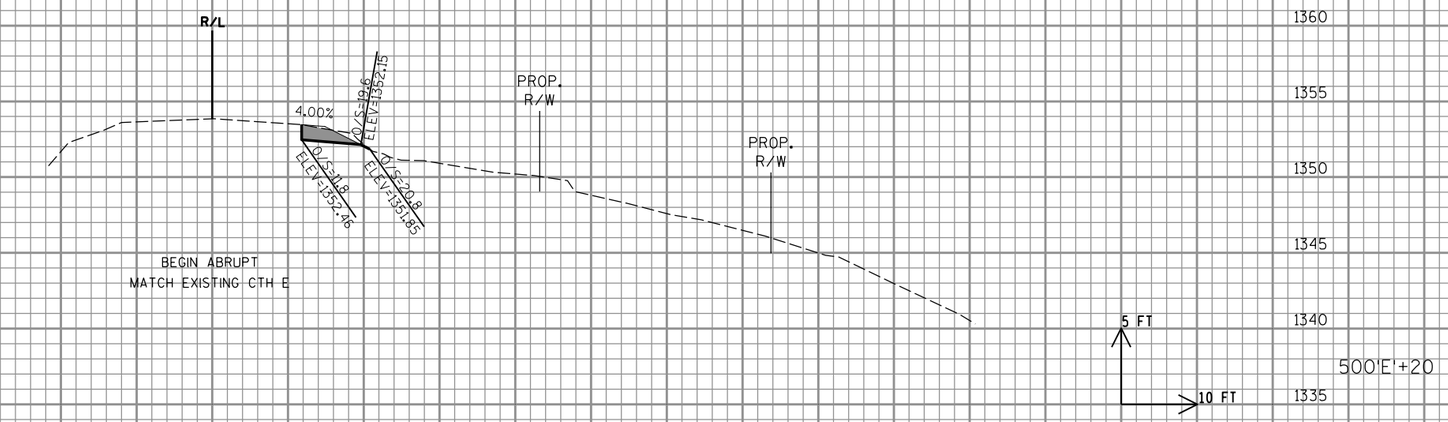
EXISTING BASE AGGREGATE COURSE IN GOOD CONDITION TO REMAIN AS APPROVED BY THE FIELD ENGINEER



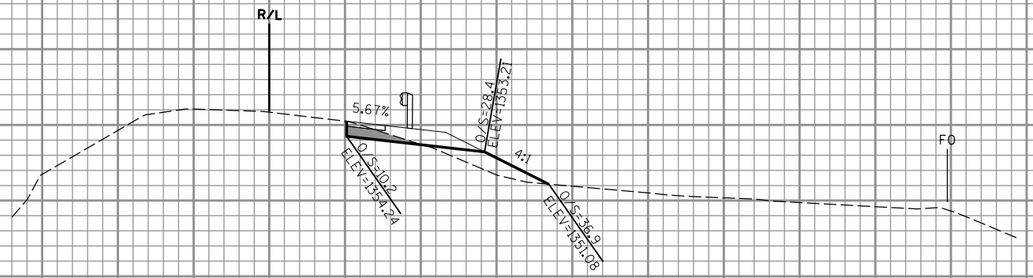


PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: CTH E STA 500'E'+20 - STA 502'E'+30	SHEET 288	E

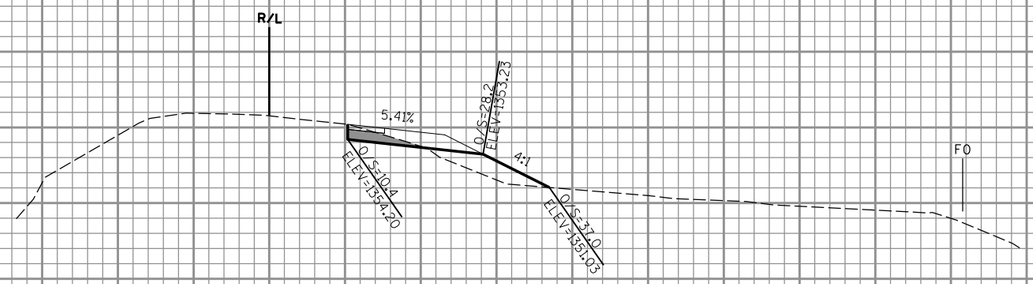
FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090204_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

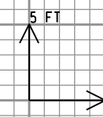
WISDOT/CADDS SHEET 21

EXISTING BASE AGGREGATE COURSE IN GOOD CONDITION TO REMAIN AS APPROVED BY THE FIELD ENGINEER



501'E'+03





501'E'+00

9

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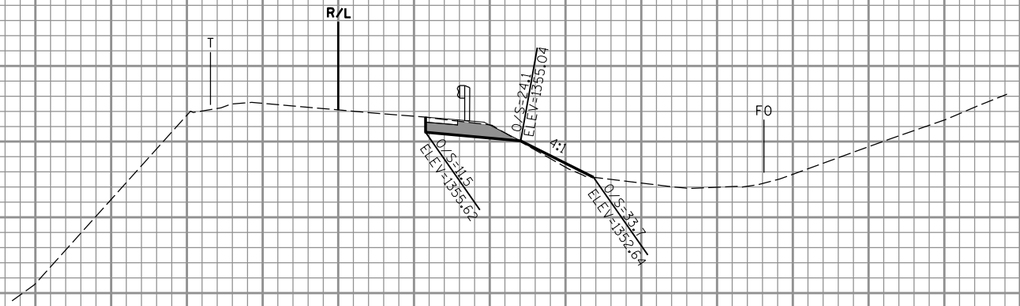
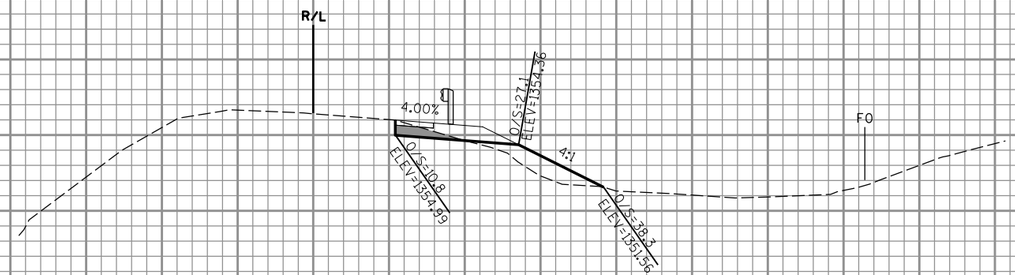
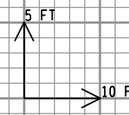
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: CTH E STA 500'E'+20 - STA 502'E'+30	SHEET 289	E

EXISTING BASE AGGREGATE COURSE IN GOOD CONDITION TO REMAIN AS APPROVED BY THE FIELD ENGINEER



501'E'+55





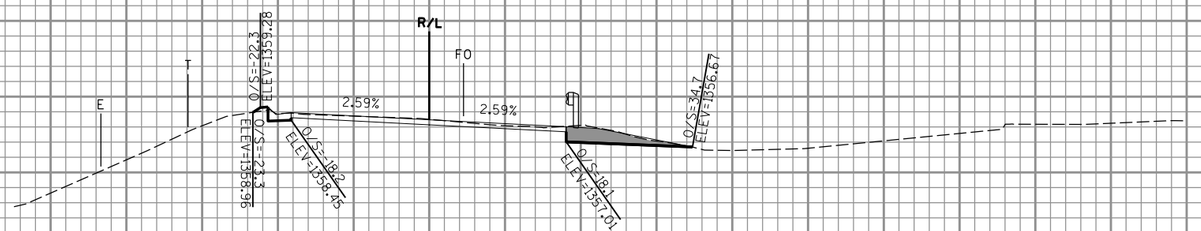
501'E'+27

9

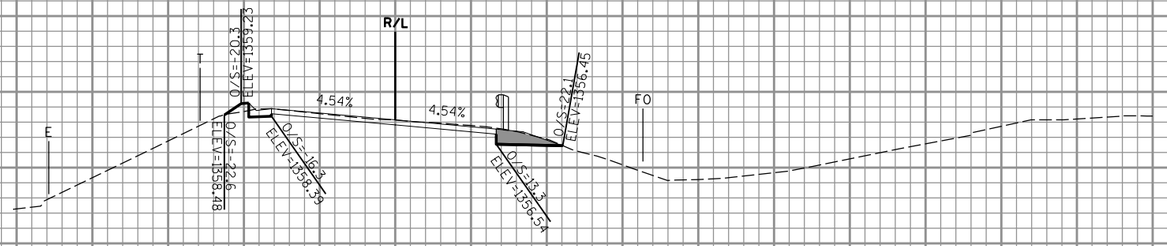
9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: CTH E STA 500'E'+20 - STA 502'E'+30	SHEET 290	E

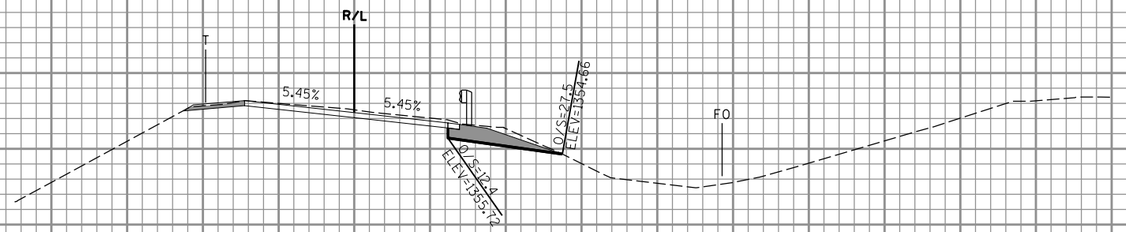
EXISTING BASE AGGREGATE COURSE IN GOOD CONDITION TO REMAIN AS APPROVED BY THE FIELD ENGINEER

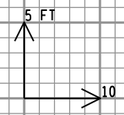


502'E'+00



501'E'+85





501'E'+69

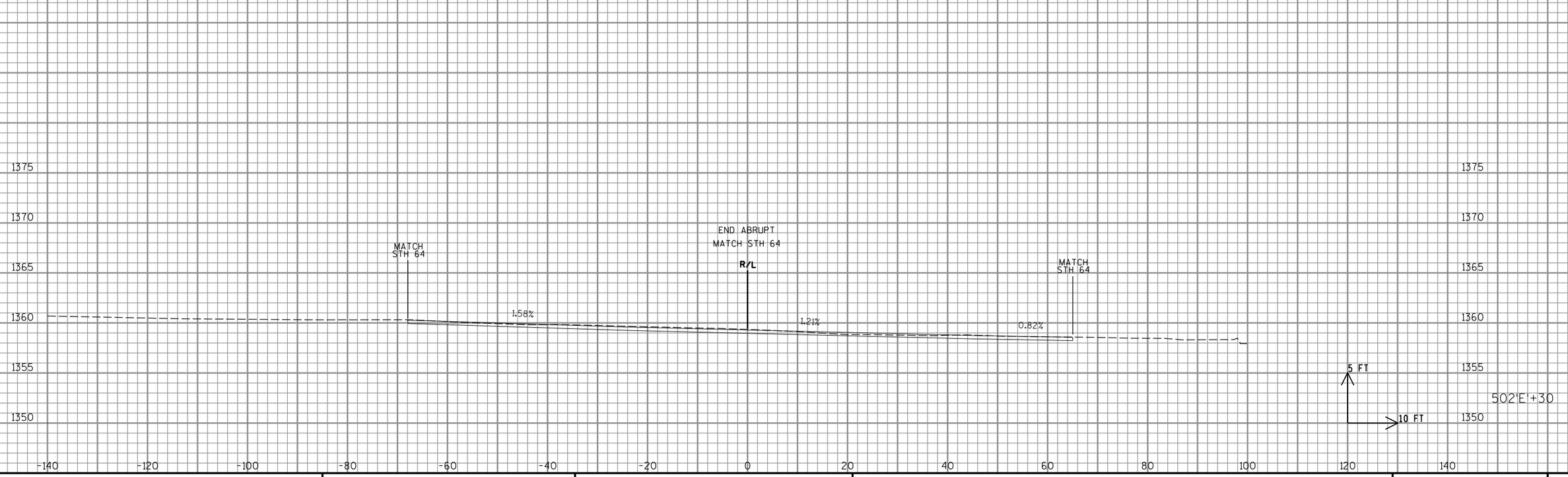
9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: CTH E STA 500'E'+20 - STA 502'E'+30	SHEET 291	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090204_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

EXISTING BASE AGGREGATE COURSE IN GOOD CONDITION TO REMAIN AS APPROVED BY THE FIELD ENGINEER



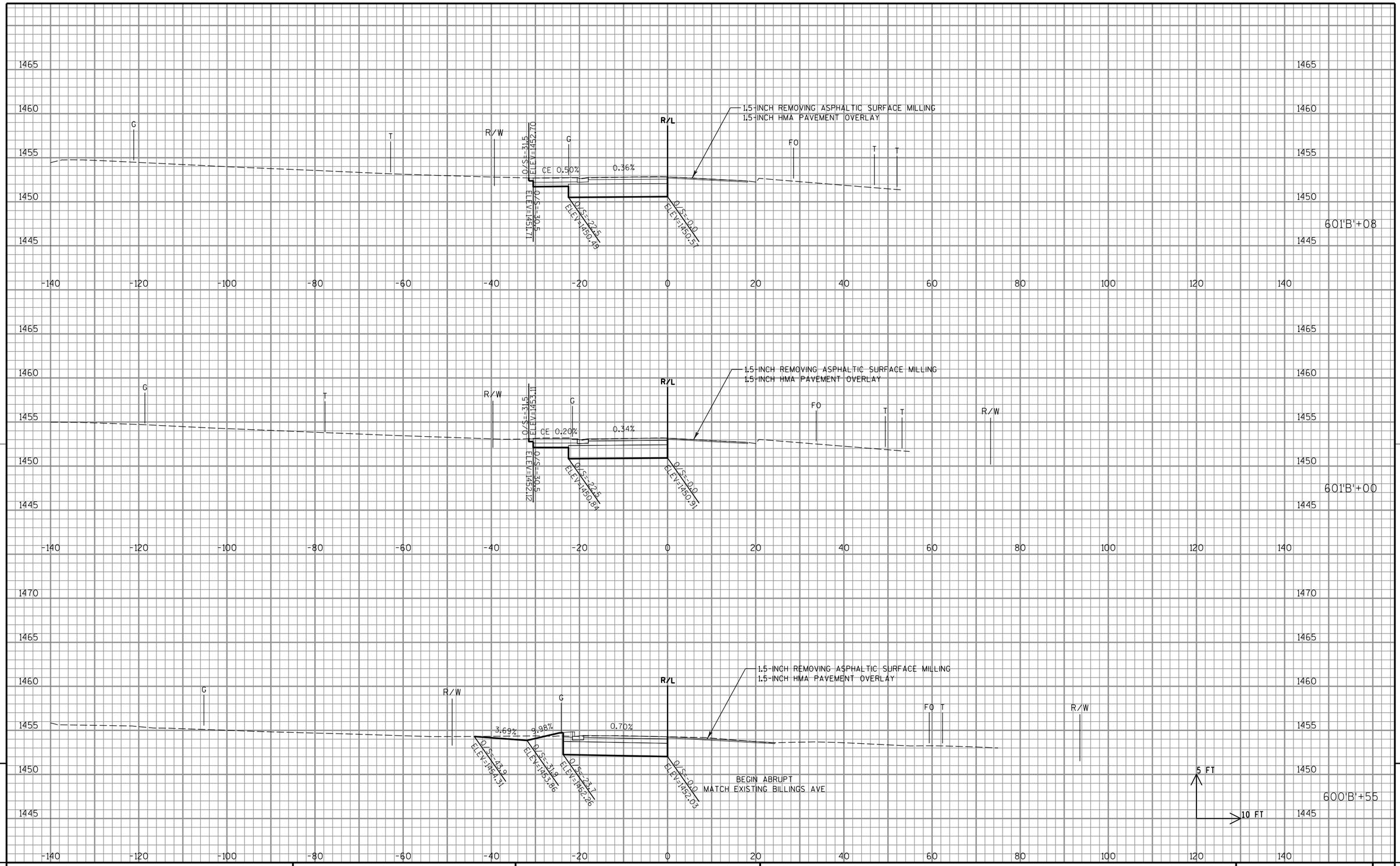
9

9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: CTH E STA 500'E'+20 - STA 502'E'+30	SHEET 292	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090204_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: BILLINGS AVE STA 600'B'+55 - 601'B'+40	SHEET 293	E

FILE NAME : P:\46xx\4640_DP10.STH64.TAY\CADDS\Plan\090205_xs.dgn PLOT DATE : 4/11/2014 PLOT BY : smk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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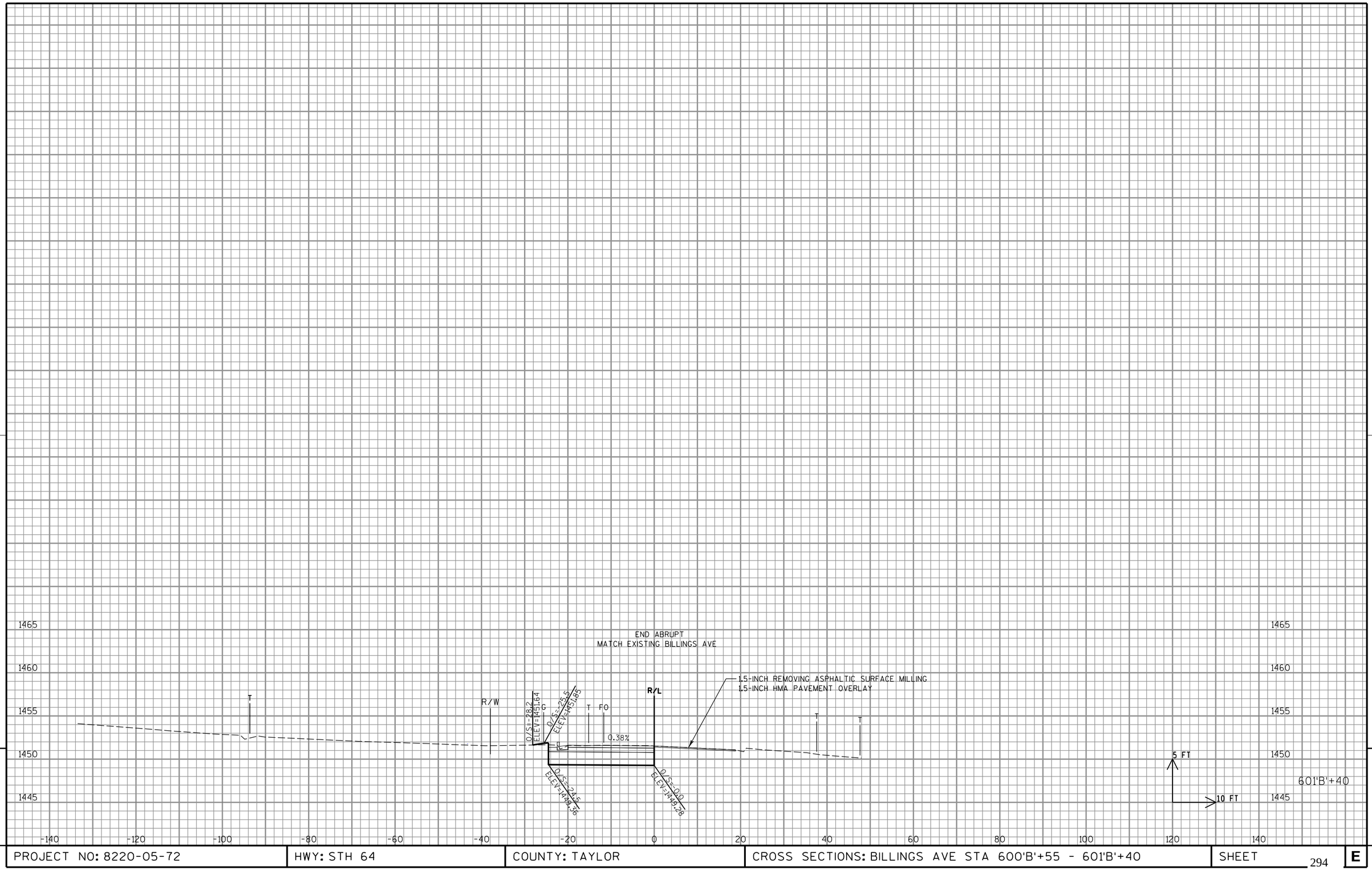

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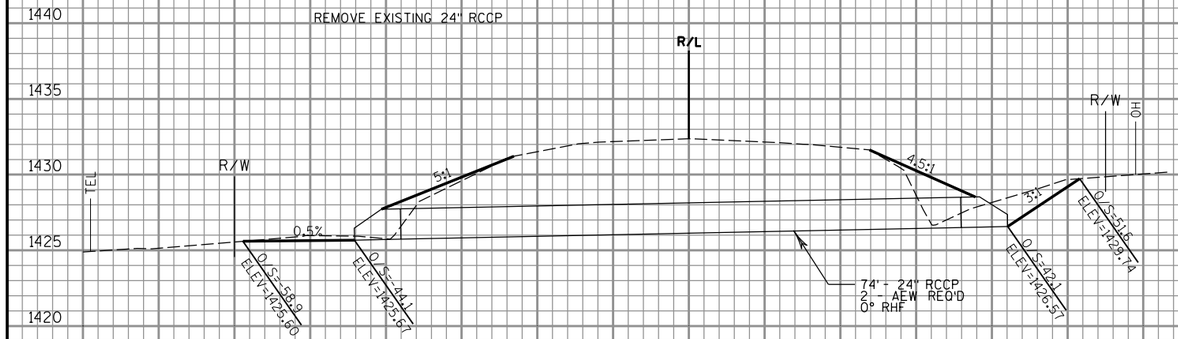
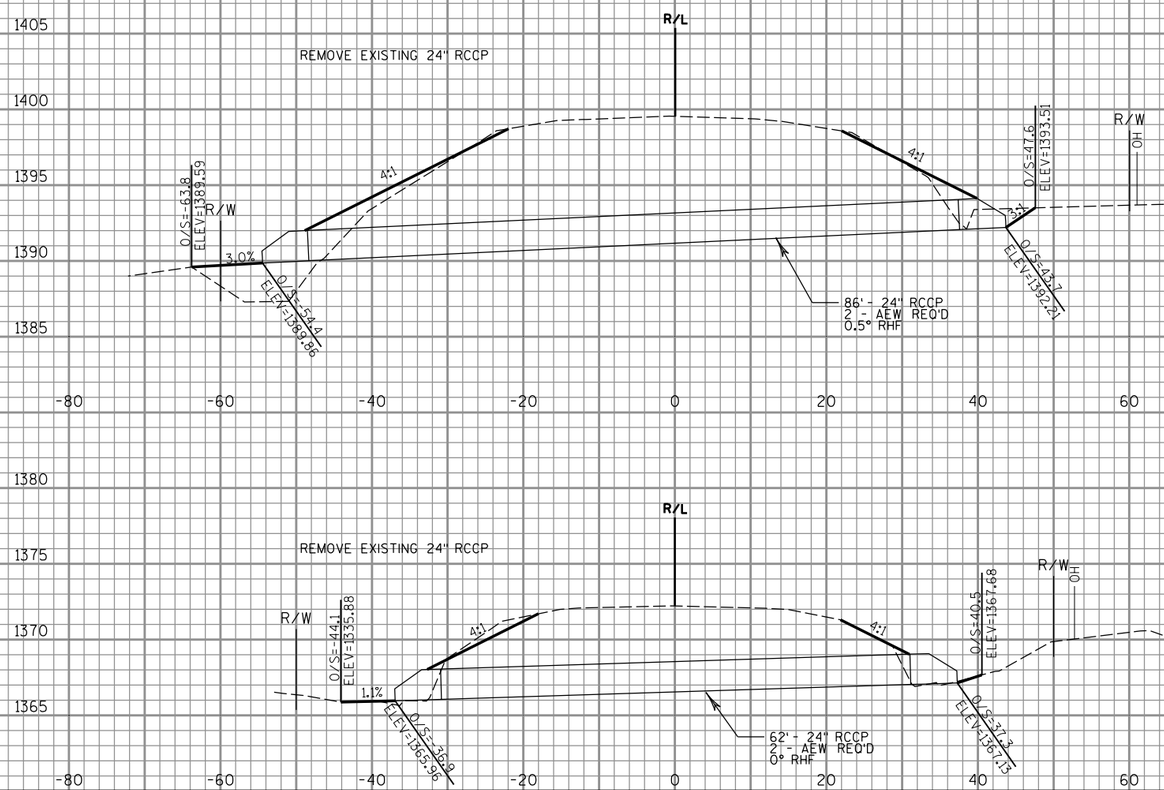
9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: BILLINGS AVE STA 600'B'+55 - 601'B'+40	SHEET 294	E

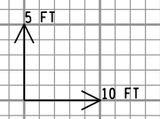


588+30



563+73

351+45



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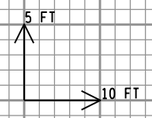
PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: CULVERT REPLACEMENTS	SHEET 295	E

659+11

(CROSS SECTION CUT AT A SKEW OF 3° RHF)



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9

PROJECT NO: 8220-05-72	HWY: STH 64	COUNTY: TAYLOR	CROSS SECTIONS: CULVERT REPLACEMENTS	SHEET 296	E

Notes

Wisconsin Department of Transportation

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