

GRE

PROJECT ID: 1120-54-60
WITH: N/A

COUNTY: WINNEBAGO AND OUTAGAMIE

NOV 2014

ORDER OF SHEETS

- Section No. 1 Title
Section No. 2 Typical Sections and Details
Section No. 3 Estimate of Quantities
Section No. 3 Miscellaneous Quantities
~~Section No. 4 Right of Way Plot~~
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 = 260



DESIGN DESIGNATION

- A.A.D.T. (2014) = 90,100
A.A.D.T. (2034) = 104,400
D.H.V. =
D.D. = 60/40
T. = 12.4%
DESIGN SPEED = 70 mph
ESALS =

CONVENTIONAL SYMBOLS

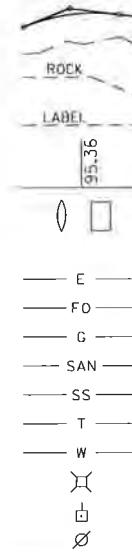
- PLAN
CORPORATE LIMITS
PROPERTY LINE
LOT LINE
LIMITED HIGHWAY EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE

- SLOPE INTERCEPT
REFERENCE LINE
EXISTING CULVERT
PROPOSED CULVERT
(Box or Pipe)
COMBUSTIBLE FLUIDS

- MARSH AREA
WOODED OR SHRUB AREA

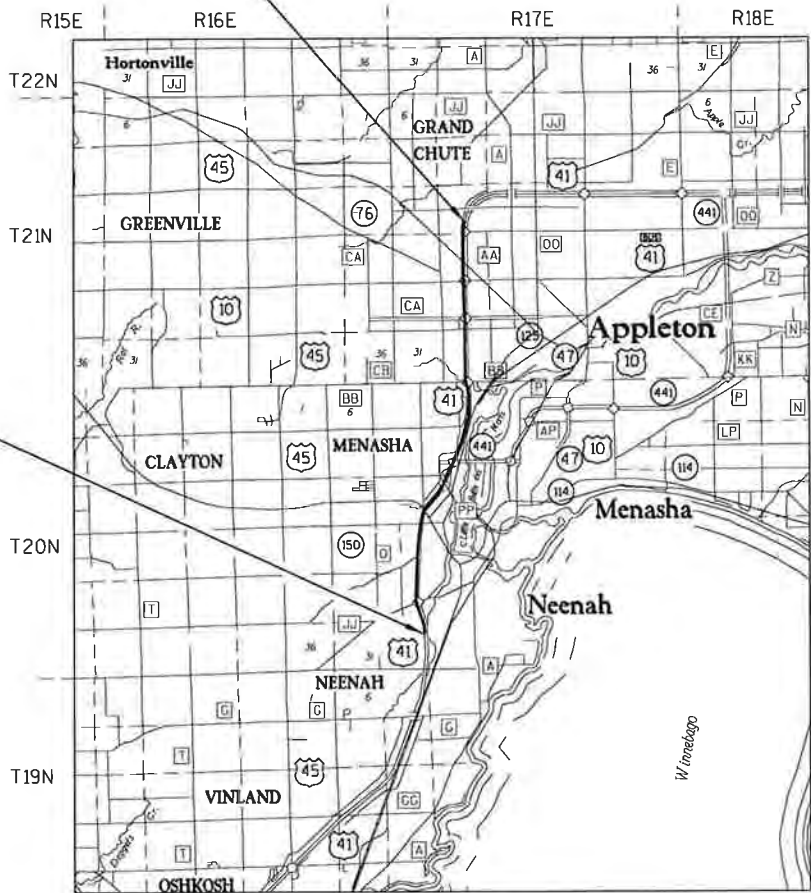


- PROFILE
GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE
(To be noted as such)
SPECIAL DITCH
GRADE ELEVATION
CULVERT (Profile View)
UTILITIES
ELECTRIC
FIBER OPTIC
GAS
SANITARY SEWER
STORM SEWER
TELEPHONE
WATER
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE



BEGIN PROJECT
STA. 1119+86.79 NB
Y = 526,410.45
X = 806,938.22

END PROJECT
STA. 1580+88.89 NB



LAYOUT
SCALE 0 2.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 8.731 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO EITHER THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), NAD 83 (2007) WINNEBAGO COUNTY, OR NAD 83 (2007) OUTAGAMIE COUNTY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
NEENAH - APPLETON
BREEZWOOD LANE - STH 15
USH 41
WINNEBAGO AND OUTAGAMIE COUNTIES

STATE PROJECT NUMBER
1120-54-60

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1120-54-60	WISC 2014386	1

PLANS PREPARED BY

GRAEF

1150 Springhurst Drive,
Suite 201
Green Bay, WI 54304-5950
920 / 592 9440
920 / 592 9445 fax
www.graef-usa.com

ORIGINAL WAS COPIED BY

DAN R. HERZBERG
E-28226
EAU CLAIRE
WIS

4/30/2014

PROFESSIONAL ENGINEER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor GRAEF
Designer GRAEF
Project Manager BILL BERTRAND
Regional Examiner
Regional Supervisor
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 4-30-14 William R. Bertrand
(Signature)

E

UTILITY CONTACTS

APPLETON AREA SCHOOL DISTRICT

COMMUNICATION
ATTN: DENNIS LAFAVE
C/O MI-TECH SERVICES INC.
1700 INDUSTRIAL DRIVE
GREEN BAY, WI. 54302
CELL: 920-619-9774
EMAIL: dlafave@mi-tech.us

AT&T WISCONSIN

COMMUNICATION
ATTN: GARY LAABS
221 WEST WASHINGTON STREET
APPLETON, WI. 54911
PHONE: 920-735-3063
EMAIL: gl1784@att.com

ATC MANAGEMENT, INC.

ELECTRIC
ATTN: KIM HACKELBERG
801 O'KEEFE ROAD
P.O. BOX 6113
DE PERE, WI. 54115-6113
PHONE: 920-338-6556
EMAIL: khackelberg@atcllc.com

CITY OF NEENAH DEPARTMENT OF PUBLIC WORKS & UTILITIES

SANITARY AND WATER
ATTN: JASON ECKHART
211 WALNUT STREET
NEENAH, WI. 54956
PHONE: 920-209-9454
EMAIL: jeckhart@ci.neenah.wi.us

NSIGHT

COMMUNICATION
ATTN: DENNIS LAFAVE
C/O MI-TECH SERVICES INC.
1700 INDUSTRIAL DRIVE
GREEN BAY, WI. 54302
CELL: 920-619-9774
EMAIL: dlafave@mi-tech.us

NEENAH JOINT SCHOOL DISTRICT

COMMUNICATION
ATTN: ANDREW THORSON
410 SOUTH COMMERCIAL STREET
NEENAH, WI. 54956
PHONE: 920-751-6800 EXT. 200
CELL: 920-209-9629
EMAIL: andrew.thorson@neenah.k12.wi.us

TDS METROCOM

COMMUNICATION
ATTN: STEVE JAKUBIEC
SUITE 218A
10 COLLEGE AVENUE
APPLETON, WI. 54911
PHONE: 920-882-4166
EMAIL: steve.jakubiec@tdstelecom.com

TIME WARNER CABLE

COMMUNICATION
ATTN: VINCE ALBIN
3520 DESTINATION DRIVE
APPLETON, WI. 54915
PHONE: 920-831-9249
CELL: 920-378-0444
EMAIL: vince.albin@twcable.com

TOWN OF MENASHA UTILITY DISTRICT

SEWER & WASTEWATER
ATTN: MARK SCHMITT
2340 AMERICAN DRIVE
NEENAH, WI. 54956
PHONE: 920-720-7100
EMAIL: mschmitt@town-menasha.com

TRANSCANADA

GAS & PETROLEUM
ATTN: MARK BIRSCHBACH
WEST 3925 PIPELINE LANE
EDEN, WI. 53019-1225
PHONE: 920-477-2242
CELL: 920-375-0467
EMAIL: mark.birschbach@transcanada.com

TOWN OF MENASHA UTILITY DISTRICT

WATER
ATTN: JEFF ROTH
2340 AMERICAN DRIVE
NEENAH, WI. 54956
PHONE: 920-720-7175
EMAIL: jroth@town-menasha.com

WE ENERGIES

ELECTRIC
ATTN: STEVE ARMSTRONG
P.O. BOX 1699
APPLETON, WI. 54912
PHONE: 920-380-3563
EMAIL: steven.armstrong@we-energies.com

WE ENERGIES

GAS & PETROLEUM
ATTN: DEBORA ROBINSON
P.O. BOX 1699
APPLETON, WI. 54913
PHONE: 920-380-3493
CELL: 920-450-1056
EMAIL: debora.robinson@we-energies.com

WINDSTREAM KDL, INC.

COMMUNICATION
ATTN: JAMES KOSTUCH
13935 BISHOPS DRIVE
BROOKFIELD, WI. 53005
PHONE: 262-792-7938
EMAIL: james.kostuch@windstream.com

WISCONSIN DEPARTMENT OF TRANSPORTATION RWIS PROGRAM

COMMUNICATION
ATTN: MIKE ADAMS
ROOM 501
P.O. BOX 7986
MADISON, WI. 53707-7986
PHONE: 608-266-5004
EMAIL: michael.adams@dot.wi.gov

WISCONSIN INDEPENDENT NETWORK, LLC

COMMUNICATION
ATTN: JOHN LOUIS
800 WISCONSIN STREET
BUILDING D02, SUITE 219
EAU CLAIRE, WI. 54703
PHONE: 715-838-4012
CELL: 715-864-2918
EMAIL: jlouis@wins.net

GENERAL NOTES

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATION, AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- "ARC DEFINITION" CURVE DATA IS SHOWN ON THE PLAN
- NO TREES OR SHRUBS ARE TO REMOVED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- THE CONCRETE REPAIR LOCATIONS ARE BASED ON REVIEWS COMPLETED IN 2013. EXACT LOCATIONS WILL BE DETERMINED BY ENGINEER IN THE FIELD.

STANDARD ABBREVIATIONS

ASPH.	ASPHALT	N.T.S.	NOT TO SCALE
BM(*)	BENCHMARK	O.C.	ON CENTER
C&G	CURB AND GUTTER	PE	PRIVATE ENTRANCE
CABC	CRUSHED AGGREGATE BASE COURSE	P.L.	PERMANENT LIMITED EASEMENT
CE	COMMERCIAL ENTRANCE	P.L.E.	PROPERTY LINE
CL	CENTERLINE	PROP.	PROPOSED
CL	CLASS	R	RADIUS
CONC.	CONCRETE	R	REFERENCE LINE
CMCP	CORRUGATED METAL CULVERT PIPE	RCCP	REINFORCED CONCRETE CULVERT PIPE
CP(*)	CONTROL POINT	REQ'D	REQUIRED
CP	CULVERT PIPE	RHF	RIGHT HAND FORWARD
C.Y.	CUBIC YARDS	RT	RIGHT
D/W	DRIVEWAY	R/W	RIGHT OF WAY
E.O.R.	END OF RADIUS	SB	SOUTHBOUND
EB	EASTBOUND	SBRL	SOUTHBOUND REFERENCE LINE
EL.	ELEVATION	SE	SUPERELEVATION
EX.	EXISTING	SF	SQUARE FOOT
EXC.	EXCAVATION	SQ. FT.	SQUARE FOOT
FE	FIELD ENTRANCE	SY	SQUARE YARD
F.L.	FLOWLINE	(TYP.)	TYPICAL
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE	T.L.E.	TEMPORARY LIMITED EASEMENT
LF	LINEAL FOOT	VAR.	VARIES
LT	LEFT	WB	WESTBOUND
MH	MANHOLE	W/L	WETLAND
MIN.	MINIMUM		
NB	NORTHBOUND		
NBRL	NORTHBOUND REFERENCE LINE		
NOR.	NORMAL		

OUTAGAMIE COUNTY SURVEYOR CONTACT

ATTN: DAVE JOHNSON
LAND INFORMATION
410 S. WALNUT STREET
APPLETON, WI. 54911
PHONE: 920-832-5255
EMAIL: johnsodw@co.outagamie.wi.us

OUTAGAMIE COUNTY SURVEYOR

ATTN: JIM HEBERT
HEBERT ASSOC, INC.
P.O. BOX 1594
1110 W. WISCONSIN AVENUE
APPLETON, WI 54912-1594
PHONE: 920-734-8373
FAX: 920-734-3968
EMAIL: jim@herbertassoc.com

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVE.
GREEN BAY, WI. 54313-6727
ATTN: JAY SCHIEFELBEIN
PHONE: 920-360-3784
EMAIL: Jeremiah.Schiefelbein@wisconsin.gov

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	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
TURF	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE- TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

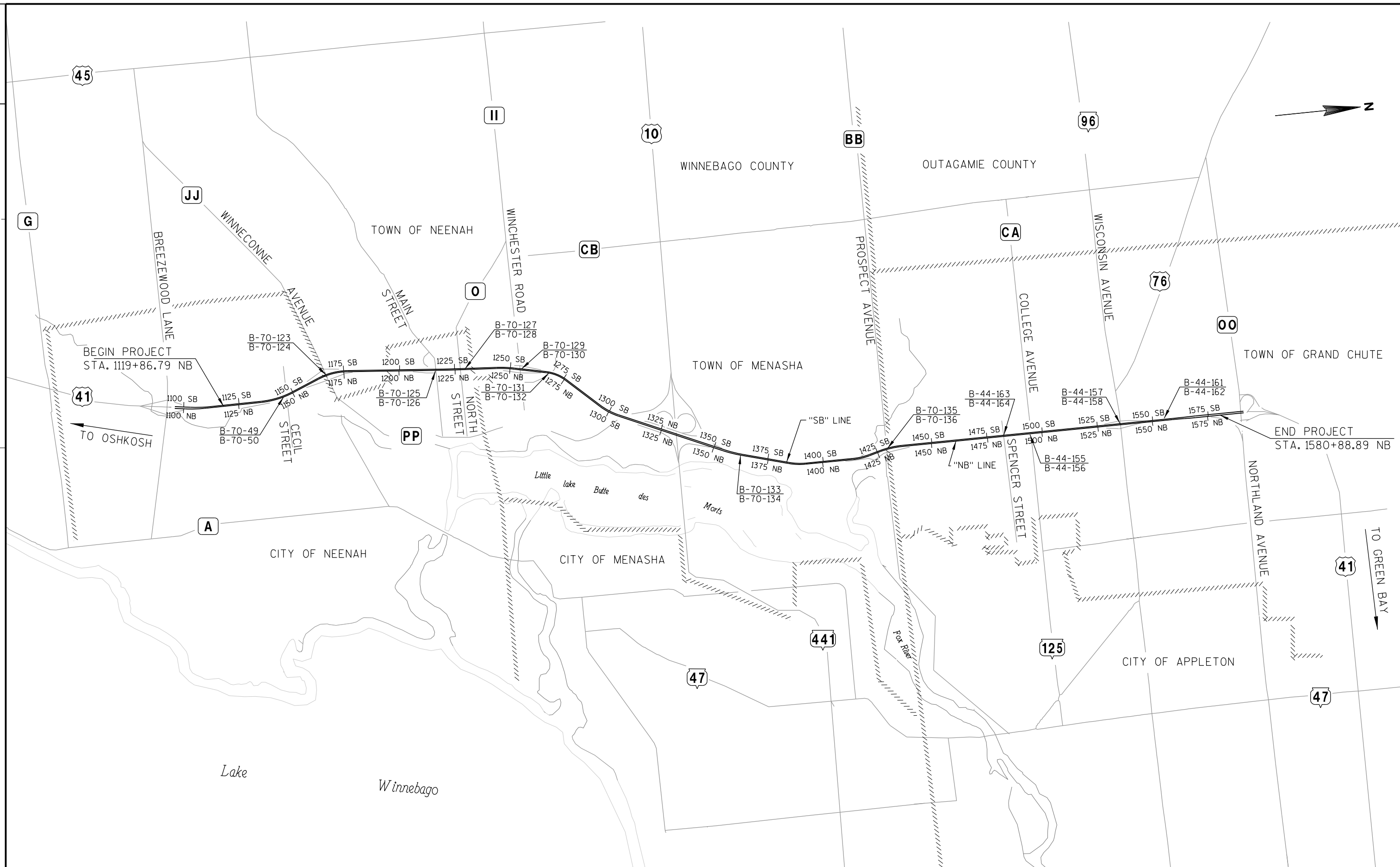
TOTAL PROJECT AREA = 130 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.75 ACRES



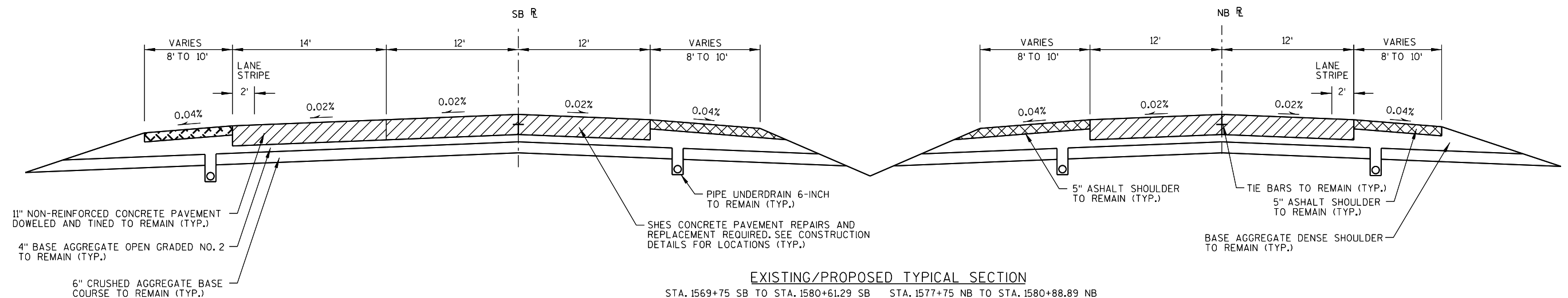
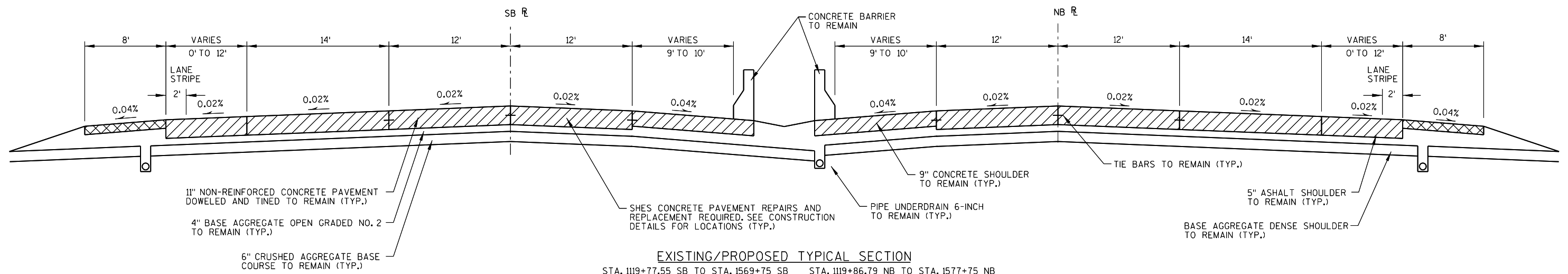
Dial 811 or (800) 242-8511
www.DiggersHotline.com

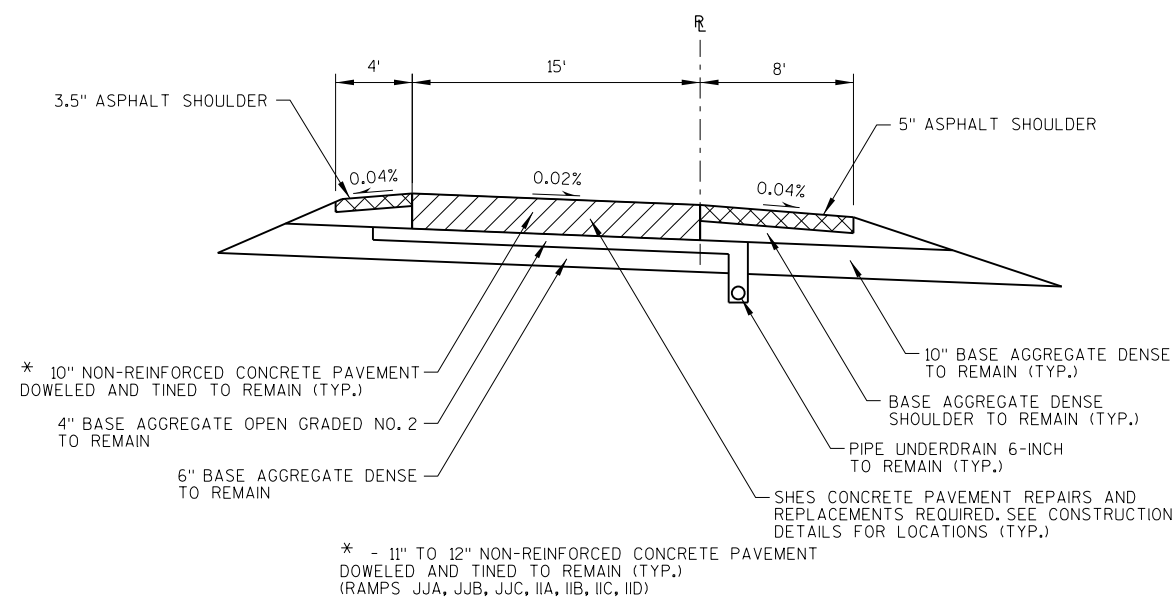
2

2



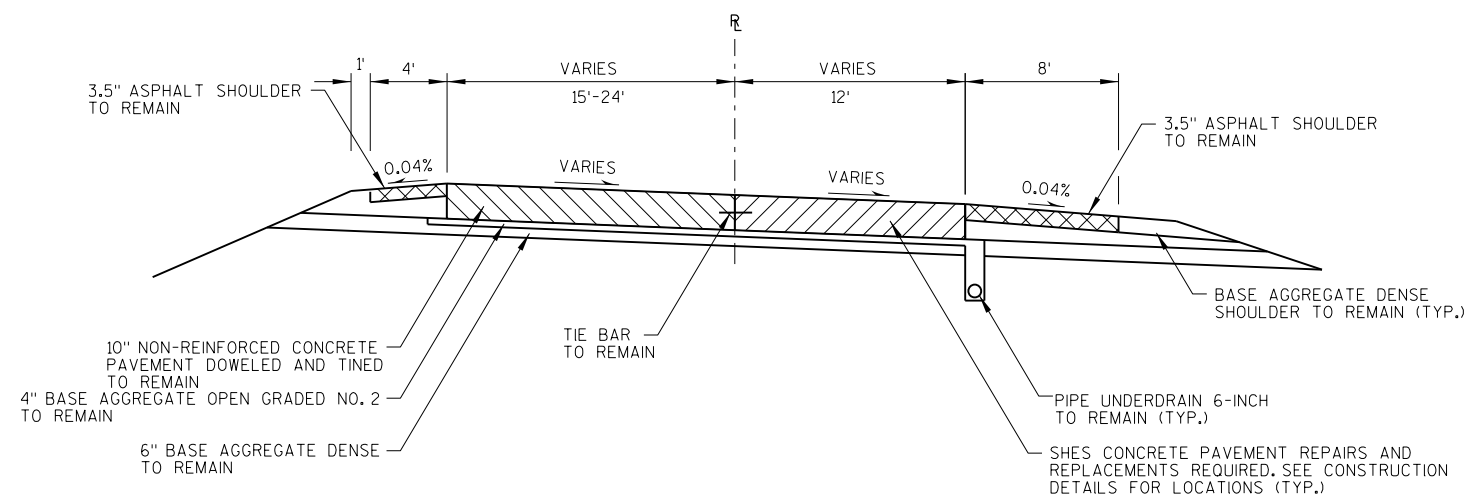
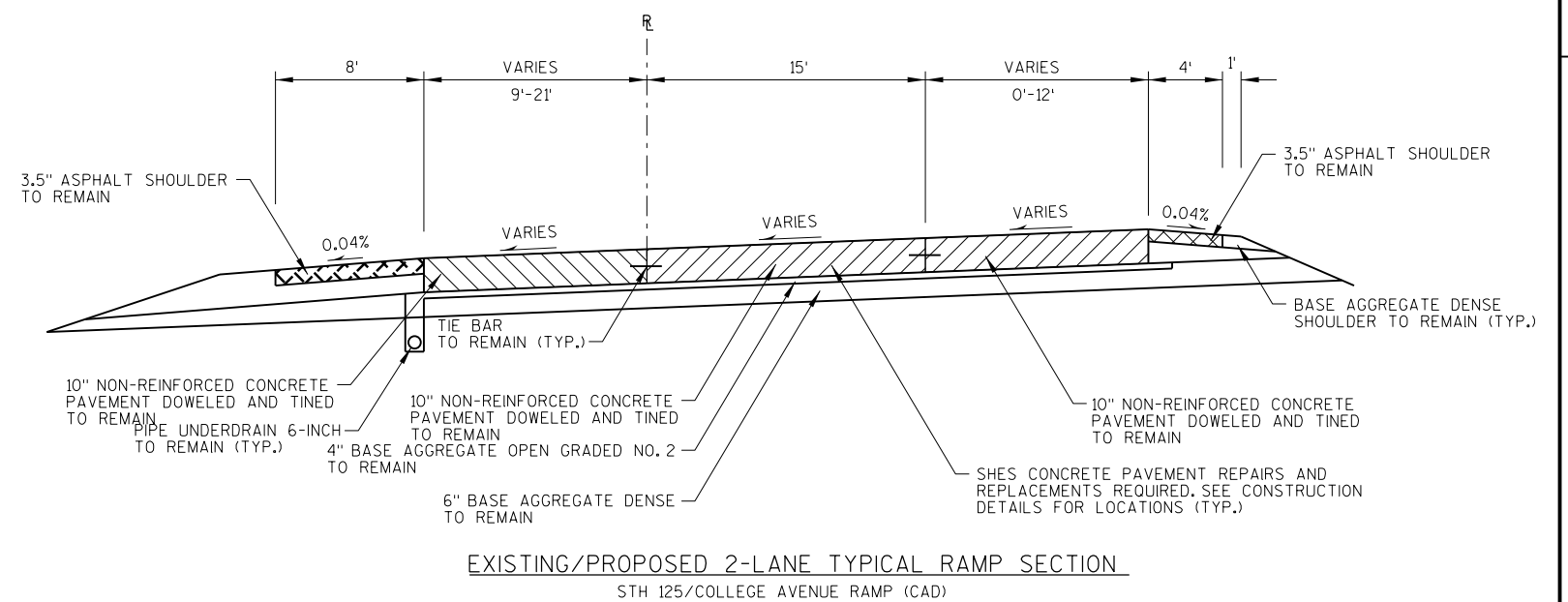
PROJECT NO: 1120-54-60	HWY: USH 41	COUNTY: WINNEBAGO/ OUTAGAMIE	PROJECT OVERVIEW	SHEET	E
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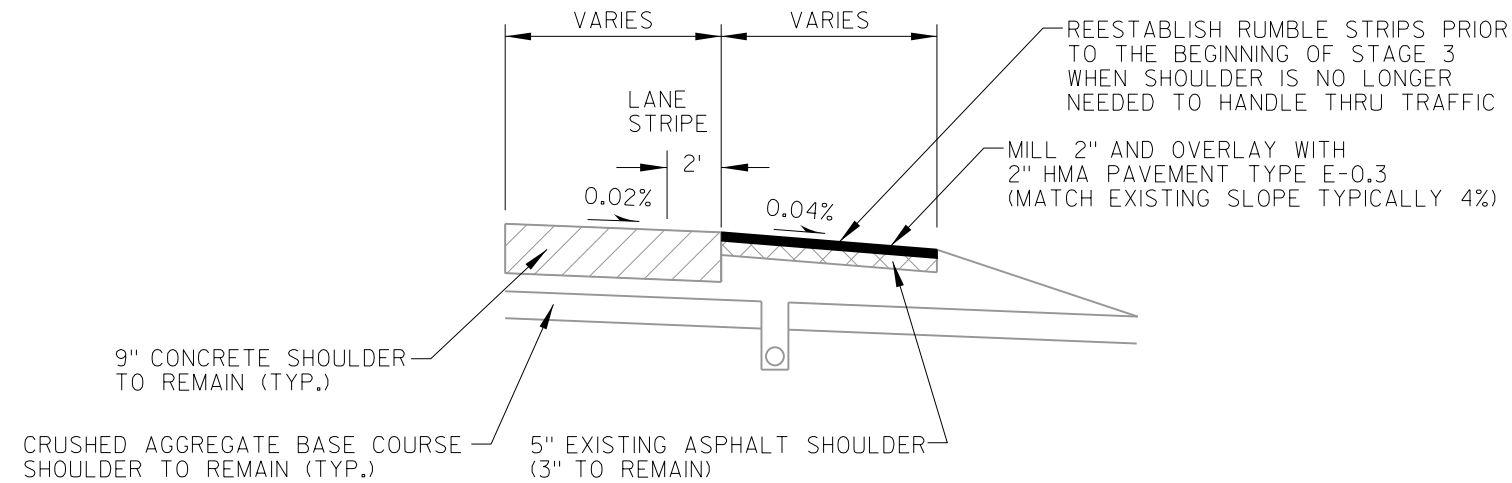
EXISTING/PROPOSED 1-LANE TYPICAL RAMP SECTION

STH 114/CTH JJ/WINNECONNE AVENUE RAMPS (JJA, JJB, JJC)
 MAIN STREET RAMPS (MSA, MSB)
 CTH 11/WINCHESTER ROAD RAMPS (IIA, IIB, IIC, IID)
 CTH 88/PROSPECT AVENUE RAMPS (BBA, BBB, BBC, BBD)
 STH 125/COLLEGE AVENUE RAMPS (CAA, CAB, CAC)
 STH 96/WISCONSIN AVENUE RAMPS (WIA, WIC, WID)



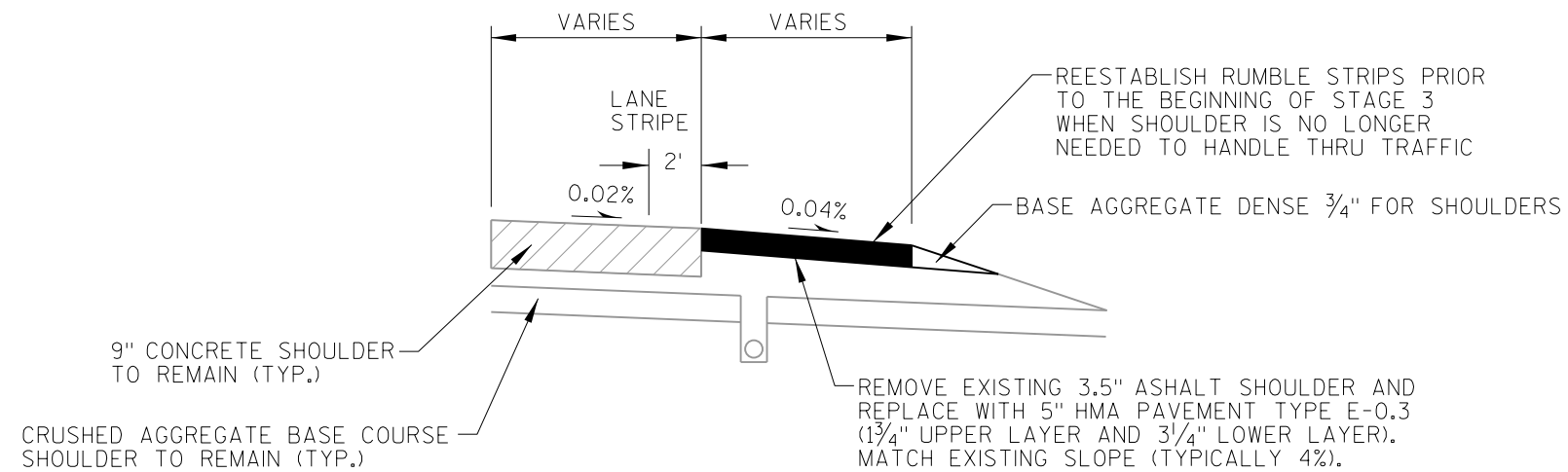
EXISTING/PROPOSED 2-LANE TYPICAL RAMP SECTION

STH 96/WISCONSIN AVENUE RAMP (WIB)



ASPHALT SHOULDER MILL AND OVERLAY

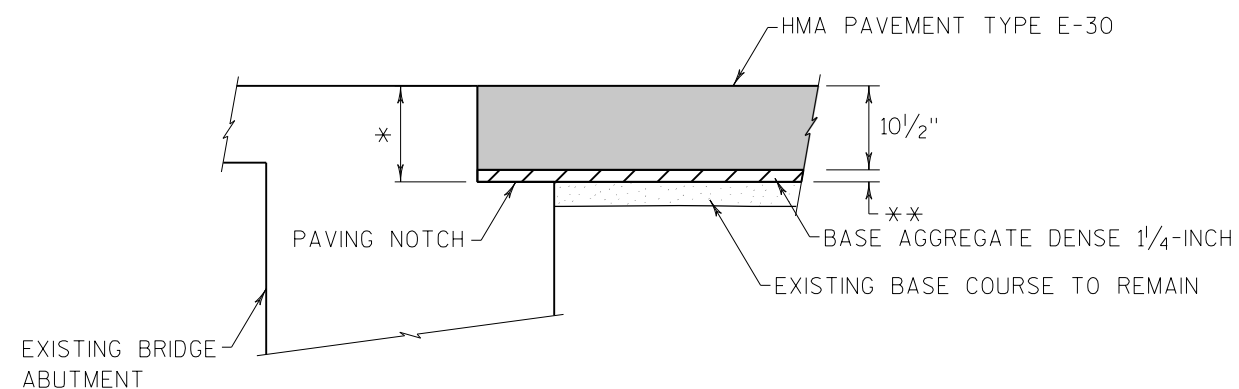
1139+54 NB to 1142+02 NB	1143+71 SB to 1146+02 SB
1154+32 NB to 1165+85 NB	1147+83 SB to 1151+22 SB
1168+21 NB to 1171+65 NB	1219+78 SB to 1226+47 SB
1211+47 NB to 1215+83 NB	1228+29 SB to 1231+67 SB
1217+54 NB to 1226+58 NB	1250+78 SB to 1254+06 SB
1228+47 NB to 1231+32 NB	1256+67 SB to 1263+32 SB
1261+33 NB to 1263+00 NB	1424+23 SB to 1427+42 SB
1270+61 NB to 1272+79 NB	1429+94 SB to 1433+83 SB



ASPHALT SHOULDER REPLACEMENT

1530+67 NB to 1534+50 NB	1484+29 SB to 1493+27 SB
1536+88 NB to 1544+87 NB	1495+73 SB to 1498+66 SB
1551+05 NB to 1553+17 NB	1531+47 SB to 1534+34 SB
1555+72 NB to 1559+71 NB	1536+76 SB to 1543+40 SB
	1547+78 SB to 1554+10 SB
	1556+92 SB to 1561+41 SB

2

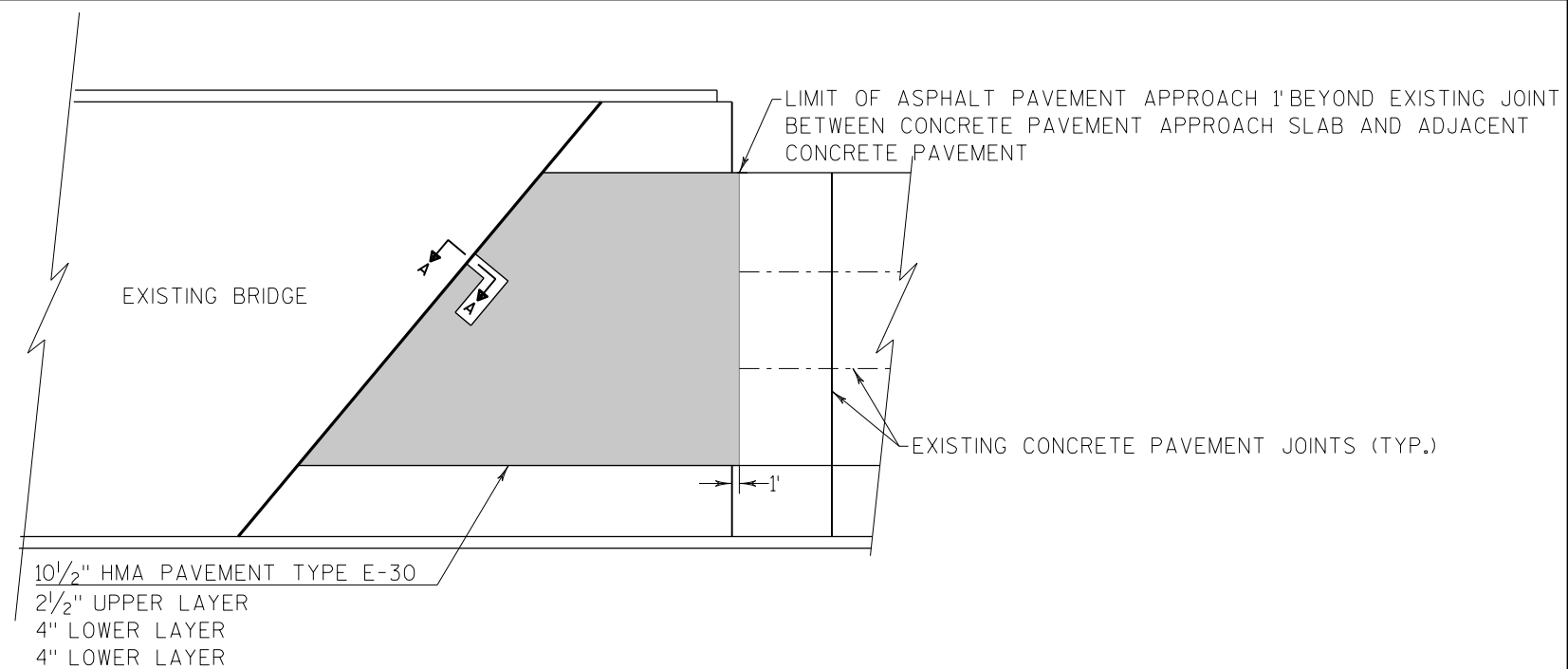


SECTION A-A

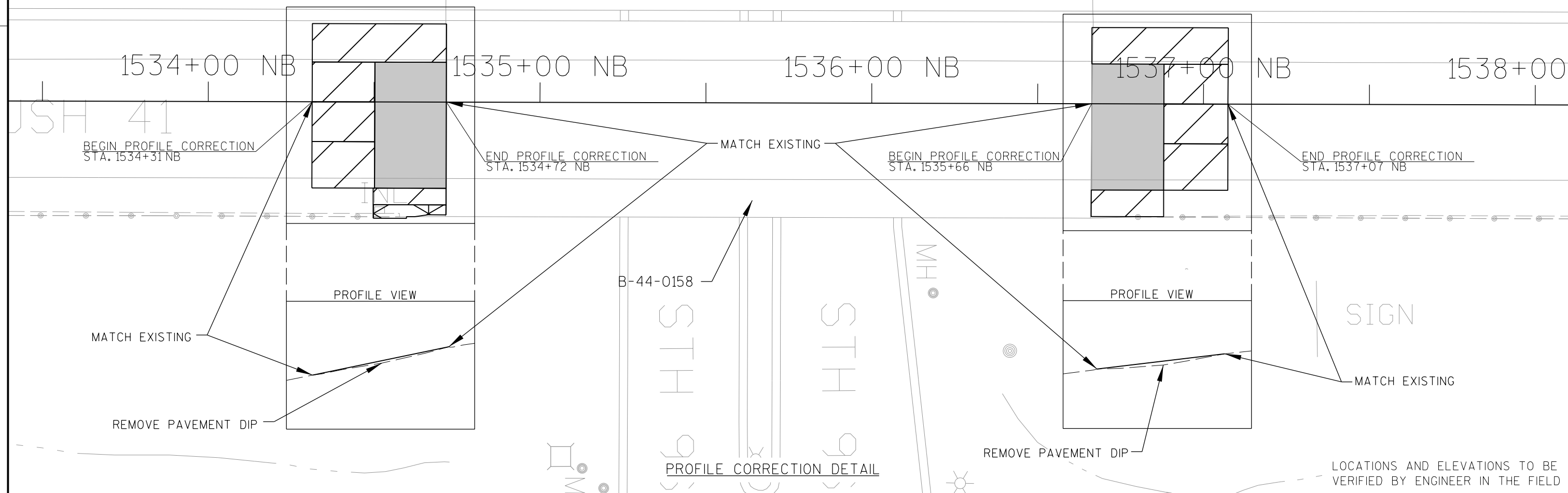
* $12''$:	B-44-157	B-70-125	* $1\frac{1}{2}''$:	B-44-157	B-70-125
	B-44-158	B-70-126		B-44-158	B-70-126
	B-44-161	B-70-127		B-44-161	B-70-127
	B-44-162	B-70-128		B-44-162	B-70-128
	B-44-163	B-70-129		B-44-163	B-70-129
	B-44-164	B-70-131		B-44-164	B-70-131
	B-70-49	B-70-132		B-70-49	B-70-132
	B-70-50	B-70-133		B-70-50	B-70-133
	B-70-124	B-70-135		B-70-124	B-70-135

14": B-44-155

3 1/2": B-44-155



ASPHALT APPROACH DETAIL



PROJECT NO: 1120-54-60

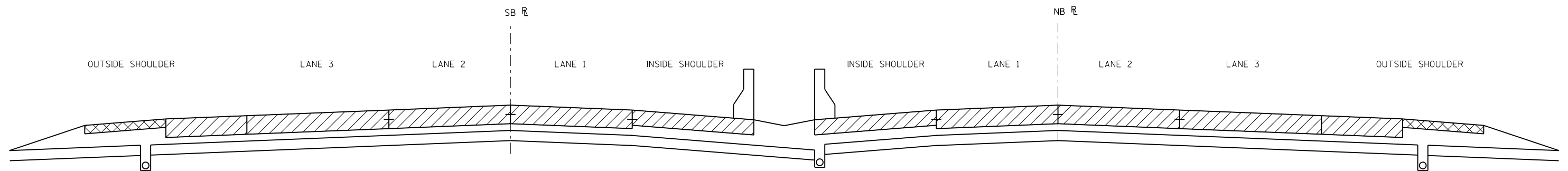
HWY: USH 41

COUNTY: WINNEBAGO/OUTAGAMIE

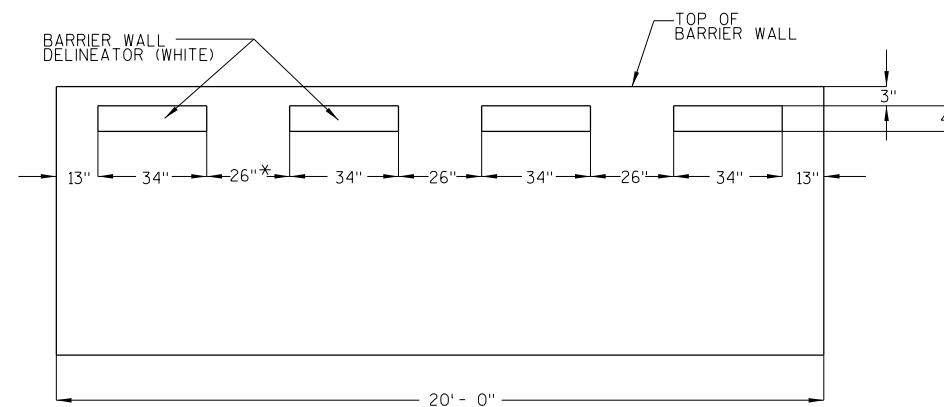
CONSTRUCTION DETAILS

SHEET

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LANE LOCATION DETAIL
LANE REFERENCES FOR REPAIR SUMMARY TABLES



*ADJUST DELINEATOR SPACING FOR JOINT SPACINGS OTHER THAN 20' BY CONTACTING THE NORTHEAST REGION TRAFFIC UNIT AT (920) 492-5653

BARRIER WALL DELINEATIONS DETAIL

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 1

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1145+15	NB	-	1145+21	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1148+85	NB	-	1148+91	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1150+44	NB	-	1150+84	NB	NB MAINLINE LANE 1	40 x 12	---	53.0	32	16	---	103
1165+01	NB	-	1165+07	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1168+26	NB	-	1168+40	NB	NB MAINLINE LANE 1	13 x 12	17.7	---	---	8	---	51
1168+78	NB	-	1168+84	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1210+87	NB	-	1210+93	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1214+89	NB	-	1214+95	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1256+85	NB	-	1256+95	NB	NB MAINLINE LANE 1	10 x 12	13.4	---	---	8	---	44
1270+41	NB	-	1270+47	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1290+07	NB	-	1290+13	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1292+97	NB	-	1293+38	NB	NB MAINLINE LANE 1	42 x 12	---	55.6	34	16	---	107
1298+85	NB	-	1298+91	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1302+27	NB	-	1302+33	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1302+70	NB	-	1302+83	NB	NB MAINLINE LANE 1	12 x 12	16.5	---	---	16	---	49
1303+49	NB	-	1303+66	NB	NB MAINLINE LANE 1	17 x 12	---	23.3	14	16	---	59
1315+88	NB	-	1316+02	NB	NB MAINLINE LANE 1	14 x 12	19.2	---	---	16	---	53
1324+19	NB	-	1324+25	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1349+63	NB	-	1349+93	NB	NB MAINLINE LANE 1	30 x 12	---	39.7	24	16	---	83
1364+06	NB	-	1364+14	NB	NB MAINLINE LANE 1	9 x 12	11.4	---	---	16	---	41
1364+27	NB	-	1364+33	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1365+23	NB	-	1365+35	NB	NB MAINLINE LANE 1	12 x 12	16.5	---	---	16	---	49
1365+88	NB	-	1366+08	NB	NB MAINLINE LANE 1	19 x 12	---	25.9	16	16	---	63
1398+38	NB	-	1398+44	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1403+81	NB	-	1403+87	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1407+29	NB	-	1407+35	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1420+38	NB	-	1420+44	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1424+58	NB	-	1424+64	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1426+70	NB	-	1426+76	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1427+48	NB	-	1427+73	NB	NB MAINLINE LANE 1	26 x 12	---	34.1	20	16	---	75
1430+70	NB	-	1430+86	NB	NB MAINLINE LANE 1	15 x 12	---	20.6	12	16	---	55
1435+89	NB	-	1436+02	NB	NB MAINLINE LANE 1	13 x 12	16.9	---	---	16	---	49
1436+17	NB	-	1436+23	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1436+73	NB	-	1436+79	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1437+13	NB	-	1437+19	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1439+18	NB	-	1440+07	NB	NB MAINLINE LANE 1	89 x 12	---	119.1	72	16	---	203
1442+43	NB	-	1442+53	NB	NB MAINLINE LANE 1	10 x 12	13.9	---	---	16	---	45
1453+34	NB	-	1453+43	NB	NB MAINLINE LANE 1	10 x 12	12.9	---	---	16	---	43
1454+32	NB	-	1454+47	NB	NB MAINLINE LANE 1	15 x 12	---	20.0	12	16	---	54
1459+44	NB	-	1459+86	NB	NB MAINLINE LANE 1	42 x 12	---	56.3	34	16	---	108
1483+50	NB	-	1483+71	NB	NB MAINLINE LANE 1	21 x 12	---	27.8	16	16	---	66
1483+94	NB	-	1484+00	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1484+21	NB	-	1484+27	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1493+19	NB	-	1493+40	NB	NB MAINLINE LANE 1	21 x 12	---	28.2	16	16	---	66
1495+78	NB	-	1495+96	NB	NB MAINLINE LANE 1	18 x 12	---	23.5	14	8	---	59
1534+31	NB	-	1534+50	NB	NB MAINLINE LANE 1	19 x 12	---	25.2	---	8	---	50
1536+88	NB	-	1537+07	NB	NB MAINLINE LANE 1	19 x 12	---	25.8	---	16	---	51
1546+24	NB	-	1546+30	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1546+49	NB	-	1546+55	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1553+21	NB	-	1553+27	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1556+12	NB	-	1556+18	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1556+32	NB	-	1556+38	NB	NB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1556+64	NB	-	1556+76	NB	NB MAINLINE LANE 1	12 x 12	16.2	---	---	16	---	48
1577+81	NB	-	1577+97	NB	NB MAINLINE LANE 1	16 x 12	---	21.5	12	16	---	56
NB LANE 1 MAINLINE TOTALS =							378.8	599.5	328	832	0	2,738

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1144+21	NB	-	1144+27	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1145+76	NB	-	1145+82	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1147+88	NB	-	1148+03	NB	NB MAINLINE LANE 2	14 x 12	19.3	---	---	8	---	53
1149+84	NB	-	1149+98	NB	NB MAINLINE LANE 2	14 x 12	19.3	---	---	16	---	53
1153+07	NB	-	1153+13	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1163+11	NB	-	1163+37	NB	NB MAINLINE LANE 2	25 x 12	---	34.0	20	16	---	75
1168+82	NB	-	1168+95	NB	NB MAINLINE LANE 2	13 x 12	17.0	---	---	16	---	49
1169+21	NB	-	1169+45	NB	NB MAINLINE LANE 2	24 x 12	---	32.1	20	16	---	72
1171+25	NB	-	1171+31	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1172+01	NB	-	1172+24	NB	NB MAINLINE LANE 2	23 x 12	---	31.0	18	16	---	71
1173+83	NB	-	1173+89	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1174+20	NB	-	1174+26	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1176+39	NB	-	1176+46	NB	NB MAINLINE LANE 2	7 x 12	8.7	---	---	16	---	37
1178+79	NB	-	1179+01	NB	NB MAINLINE LANE 2	21 x 12	---	28.3	16	16	---	66
1180+81	NB	-	1180+92	NB	NB MAINLINE LANE 2	11 x 12	14.7	---	---	16	---	46
1181+02	NB	-	1181+11	NB	NB MAINLINE LANE 2	9 x 12	12.3	---	---	16	---	42
1181+93	NB	-	1182+17	NB	NB MAINLINE LANE 2	24 x 12	---	31.9	20	16	---	72
1206+44	NB	-	1206+55	NB	NB MAINLINE LANE 2	11 x 12	14.6	---	---	16	---	46
1206+78	NB	-	1206+84	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1208+89	NB	-	1208+95	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1212+97	NB	-	1213+03	NB	NB MAINLINE LANE 2	8 x 12	10.6	---	---	16	---	40
1215+43	NB	-	1215+49	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1217+82	NB	-	1217+88	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1219+45	NB	-	1219+51	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1220+35	NB	-	1220+41	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1221+08	NB	-	1221+14	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1223+46	NB	-	1223+52	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1226+18	NB	-	1226+58	NB	NB MAINLINE LANE 2	40 x 12	---	52.9	32	8	---	103
1230+31	NB	-	1230+37	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1230+70	NB	-	1230+97	NB	NB MAINLINE LANE 2	27 x 12	---	35.8	19	16	---	78
1231+80	NB	-	1232+75	NB	NB MAINLINE LANE 2	95 x 12	---	126.5	65	16	---	214
1233+25	NB	-	1233+35	NB	NB MAINLINE LANE 2	11 x 12	14.2	---	---	16	---	45
1234+73	NB	-	1234+83	NB	NB MAINLINE LANE 2	11 x 12	14.0	---	---	16	---	45
1236+71	NB	-	1236+86	NB	NB MAINLINE LANE 2	15 x 12	---	20.1	---	16	---	54
1247+55	NB	-	1247+61	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1256+85	NB	-	1256+99	NB	NB MAINLINE LANE 2	15 x 12	19.3	---	---	8	---	53
1257+19	NB	-	1257+25	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1284+14	NB	-	1284+20	NB	NB MAINLINE LANE 2	6 x 12	8.3	---	---	16	---	36
1285+30	NB	-	1285+36	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1285+93	NB	-	1285+99	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1290+01	NB	-	1290+11	NB	NB MAINLINE LANE 2	10 x 12	13.7	---	---	16	---	44
1304+80	NB	-	1304+86	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1307+10	NB	-	1307+17	NB	NB MAINLINE LANE 2	7 x 12	9.1	---	---	16	---	38
1309+41	NB	-	1309+47	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1311+81	NB	-	1311+87	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1314+60	NB	-	1314+67	NB	NB MAINLINE LANE 2	7 x 12	9.0	---	---	16	---	37
1323+43	NB	-	1323+84	NB	NB MAINLINE LANE 2	41 x 12	---	54.5	32	16	---	106
1341+92	NB	-	1341+98	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1345+32	NB	-	1345+38	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1346+17	NB	-	1346+23	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
NB LANE 2 MAINLINE SUBTOTALS =							403.9	447.0	242	776	0	2,475

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2 CONTINUES ON FOLLOWING SHEET

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1346+82	NB	-	1346+94	NB	NB MAINLINE LANE 2	11 x 12	15.0	---	---	16	---	46
1364+06	NB	-	1364+14	NB	NB MAINLINE LANE 2	9 x 12	11.4	---	---	16	---	41
1365+08	NB	-	1365+17	NB	NB MAINLINE LANE 2	9 x 12	12.2	---	---	16	---	42
1382+05	NB	-	1382+11	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1387+34	NB	-	1387+72	NB	NB MAINLINE LANE 2	38 x 12	---	50.1	30	16	---	99
1388+36	NB	-	1388+60	NB	NB MAINLINE LANE 2	25 x 12	---	32.8	20	16	---	73
1394+18	NB	-	1394+24	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1394+75	NB	-	1395+00	NB	NB MAINLINE LANE 2	25 x 12	---	32.7	20	16	---	73
1395+24	NB	-	1395+42	NB	NB MAINLINE LANE 2	18 x 12	---	24.0	14	16	---	60
1395+63	NB	-	1395+81	NB	NB MAINLINE LANE 2	18 x 12	---	24.0	14	16	---	60
1396+60	NB	-	1397+16	NB	NB MAINLINE LANE 2	56 x 12	---	74.5	35	16	---	136
1399+27	NB	-	1399+62	NB	NB MAINLINE LANE 2	35 x 12	---	46.0	28	16	---	93
1400+12	NB	-	1400+28	NB	NB MAINLINE LANE 2	16 x 12	---	21.3	12	16	---	56
1404+49	NB	-	1404+55	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1407+35	NB	-	1407+41	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1407+79	NB	-	1407+97	NB	NB MAINLINE LANE 2	19 x 12	---	25.2	16	16	---	62
1412+61	NB	-	1412+84	NB	NB MAINLINE LANE 2	23 x 12	---	30.0	9	16	---	69
1413+23	NB	-	1413+29	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1415+72	NB	-	1415+81	NB	NB MAINLINE LANE 2	9 x 12	11.3	---	---	16	---	41
1416+32	NB	-	1416+38	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1419+01	NB	-	1419+47	NB	NB MAINLINE LANE 2	45 x 12	---	60.5	18	16	---	115
1424+47	NB	-	1424+53	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1425+30	NB	-	1425+36	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1427+57	NB	-	1427+65	NB	NB MAINLINE LANE 2	9 x 12	11.4	---	---	16	---	41
1429+94	NB	-	1430+22	NB	NB MAINLINE LANE 2	28 x 12	---	36.8	18	16	---	79
1430+62	NB	-	1430+70	NB	NB MAINLINE LANE 2	8 x 12	11.0	---	---	16	---	40
1434+15	NB	-	1434+21	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1434+52	NB	-	1434+59	NB	NB MAINLINE LANE 2	6 x 12	8.4	---	---	16	---	37
1434+72	NB	-	1434+78	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1435+75	NB	-	1435+93	NB	NB MAINLINE LANE 2	18 x 12	---	23.7	13	16	---	60
1437+63	NB	-	1437+69	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1441+21	NB	-	1441+27	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1444+29	NB	-	1444+35	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1444+70	NB	-	1444+76	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1445+39	NB	-	1445+54	NB	NB MAINLINE LANE 2	15 x 12	---	20.3	12	16	---	55
1445+73	NB	-	1445+79	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1446+34	NB	-	1446+40	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1449+07	NB	-	1449+13	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1449+27	NB	-	1449+33	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1450+07	NB	-	1450+13	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1452+58	NB	-	1452+64	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1459+86	NB	-	1459+92	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1459+86	NB	-	1459+92	NB	NB MAINLINE LANE 2	6 x 12	8.2	---	---	16	---	36
1463+22	NB	-	1463+28	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1465+85	NB	-	1466+19	NB	NB MAINLINE LANE 2	35 x 12	---	46.2	25	16	---	93
1466+38	NB	-	1466+44	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1466+76	NB	-	1466+83	NB	NB MAINLINE LANE 2	6 x 12	8.5	---	---	16	---	37
1468+23	NB	-	1468+29	NB	NB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1470+26	NB	-	1470+48	NB	NB MAINLINE LANE 2	22 x 12	---	29.9	18	16	---	69
1471+14	NB	-	1471+35	NB	NB MAINLINE LANE 2	21 x 12	---	28.2	16	16	---	66
NB LANE 2 MAINLINE SUBTOTALS =							289.5	606.2	318	800	0	2,543

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2 CONTINUES ON FOLLOWING SHEET

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2

								REPAIR SIZE	CONCRETE PAVEMENT	CONCRETE PAVEMENT	DRILLED	DRILLED	SAWING	SAWING
								LENGTH X WIDTH	REPAIR SHES	REPLACEMENT SHES	TIE BARS	DOWEL BARS	ASPHALT	CONCRETE
STATION	TO	STATION		LOCATION				(FT x FT)	(SY)	(SY)	(EACH)	(EACH)	(LF)	(LF)
1471+86	NB	-	1471+92	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1473+32	NB	-	1473+38	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1473+71	NB	-	1473+77	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1474+79	NB	-	1474+85	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1476+08	NB	-	1476+32	NB	NB MAINLINE LANE 2			23 x 12	---	31.3	18	16	---	71
1477+36	NB	-	1477+42	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1480+69	NB	-	1480+75	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1481+72	NB	-	1481+78	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1484+00	NB	-	1484+06	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1486+37	NB	-	1486+43	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1489+85	NB	-	1489+91	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1492+46	NB	-	1492+52	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1498+06	NB	-	1498+20	NB	NB MAINLINE LANE 2			15 x 12	19.5	---	---	16	---	53
1502+41	NB	-	1502+47	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1502+58	NB	-	1502+64	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1502+78	NB	-	1502+84	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1503+87	NB	-	1503+93	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1504+42	NB	-	1504+48	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1504+80	NB	-	1504+86	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1507+77	NB	-	1507+83	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1508+52	NB	-	1508+58	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1508+69	NB	-	1508+75	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1508+87	NB	-	1509+09	NB	NB MAINLINE LANE 2			22 x 12	---	29.6	18	16	---	68
1512+98	NB	-	1513+04	NB	NB MAINLINE LANE 2			7 x 12	8.8	---	---	16	---	37
1514+07	NB	-	1514+13	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1514+82	NB	-	1514+88	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1517+77	NB	-	1517+83	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1518+33	NB	-	1518+39	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1523+23	NB	-	1523+31	NB	NB MAINLINE LANE 2			8 x 12	10.8	---	---	16	---	40
1524+72	NB	-	1524+85	NB	NB MAINLINE LANE 2			13 x 12	17.6	---	---	16	---	50
1526+91	NB	-	1526+97	NB	NB MAINLINE LANE 2			7 x 12	9.1	---	---	16	---	38
1529+23	NB	-	1529+29	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1530+58	NB	-	1530+64	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1534+31	NB	-	1534+50	NB	NB MAINLINE LANE 2			19 x 12	---	25.2	---	8	---	50
1536+88	NB	-	1537+07	NB	NB MAINLINE LANE 2			19 x 12	---	25.8	---	16	---	51
1538+70	NB	-	1538+76	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1544+82	NB	-	1544+88	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1553+10	NB	-	1553+16	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1556+04	NB	-	1556+10	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1556+99	NB	-	1557+05	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1559+93	NB	-	1559+99	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1563+22	NB	-	1563+29	NB	NB MAINLINE LANE 2			7 x 12	9.2	---	---	16	---	38
1563+77	NB	-	1563+83	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1564+88	NB	-	1564+94	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1567+18	NB	-	1567+26	NB	NB MAINLINE LANE 2			8 x 12	10.6	---	---	16	---	40
1570+93	NB	-	1571+01	NB	NB MAINLINE LANE 2			8 x 12	11.0	---	---	16	---	40
1572+12	NB	-	1572+32	NB	NB MAINLINE LANE 2			20 x 12	---	27.3	16	16	---	65
1573+21	NB	-	1573+27	NB	NB MAINLINE LANE 2			6 x 12	8.0	---	---	16	---	36
1574+89	NB	-	1575+38	NB	NB MAINLINE LANE 2			49 x 12	---	65.2	20	16	---	122
NB LANE 2 MAINLINE SUBTOTALS =									376.7	204.3	72	776	0	2,023
NB LANE 2 MAINLINE TOTALS =									1,070.1	1,257.6	632	2,352	0	7,041

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1127+06	NB	-	1127+12	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1134+52	NB	-	1134+60	NB	NB MAINLINE LANE 3	8 x 14	12.7	---	---	16	8	36
1134+85	NB	-	1135+07	NB	NB MAINLINE LANE 3	22 x 14	---	33.7	9	16	22	49
1135+17	NB	-	1135+23	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	6	34
1135+38	NB	-	1135+44	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	6	34
1135+81	NB	-	1136+43	NB	NB MAINLINE LANE 3	62 x 14	---	96.6	25	16	62	90
1137+08	NB	-	1137+20	NB	NB MAINLINE LANE 3	12 x 14	18.3	---	---	16	12	39
1139+86	NB	-	1139+92	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	6	34
1143+05	NB	-	1143+11	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1144+00	NB	-	1144+06	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1144+66	NB	-	1144+72	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1148+14	NB	-	1148+20	NB	NB MAINLINE LANE 3	6 x 14	10.0	---	---	16	---	41
1148+55	NB	-	1148+61	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1148+71	NB	-	1148+77	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1148+91	NB	-	1148+97	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1149+11	NB	-	1149+17	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1149+67	NB	-	1149+73	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1149+84	NB	-	1149+90	NB	NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1150+64	NB	-	1150+70	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1151+15	NB	-	1151+21	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1152+68	NB	-	1152+74	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1156+56	NB	-	1156+62	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1158+21	NB	-	1158+27	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1158+60	NB	-	1158+84	NB	NB MAINLINE LANE 3	24 x 14	---	37.5	10	16	24	52
1164+23	NB	-	1164+43	NB	NB MAINLINE LANE 3	20 x 14	---	31.2	8	16	20	48
1173+92	NB	-	1173+98	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1174+04	NB	-	1174+10	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1174+20	NB	-	1174+26	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	28
1175+31	NB	-	1175+37	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	28
1176+39	NB	-	1176+64	NB	NB MAINLINE LANE 3	25 x 14	---	38.6	7	16	25	53
1180+24	NB	-	1180+30	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1180+88	NB	-	1180+96	NB	NB MAINLINE LANE 3	8 x 14	12.5	---	---	16	---	44
1183+91	NB	-	1184+02	NB	NB MAINLINE LANE 3	11 x 14	17.5	---	---	16	---	51
1184+68	NB	-	1185+28	NB	NB MAINLINE LANE 3	60 x 14	---	93.5	48	16	---	148
1185+60	NB	-	1185+82	NB	NB MAINLINE LANE 3	22 x 14	---	34.1	18	16	---	72
1187+92	NB	-	1187+98	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1197+20	NB	-	1197+26	NB	NB MAINLINE LANE 3	6 x 14	10.0	---	---	16	---	41
1204+42	NB	-	1204+48	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1206+52	NB	-	1206+61	NB	NB MAINLINE LANE 3	9 x 14	13.3	---	---	16	9	36
1207+37	NB	-	1207+43	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1207+91	NB	-	1207+97	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1208+87	NB	-	1208+93	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1209+97	NB	-	1210+07	NB	NB MAINLINE LANE 3	10 x 14	16.0	---	---	16	10	39
1210+91	NB	-	1211+01	NB	NB MAINLINE LANE 3	10 x 14	15.3	---	---	16	10	38
1212+60	NB	-	1212+71	NB	NB MAINLINE LANE 3	10 x 14	16.3	---	---	16	11	38
1212+97	NB	-	1213+07	NB	NB MAINLINE LANE 3	10 x 14	16.3	---	---	16	11	38
1215+43	NB	-	1215+61	NB	NB MAINLINE LANE 3	18 x 14	---	27.5	14	16	18	45
1217+82	NB	-	1217+90	NB	NB MAINLINE LANE 3	8 x 14	12.3	---	---	16	8	36
1218+36	NB	-	1218+42	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1219+10	NB	-	1219+16	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34

NB LANE 3 MAINLINE SUBTOTALS =

450.7

392.8

139

800

346

2,126

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3 CONTINUES ON FOLLOWING SHEET

PROJECT NO: 1120-54-60

HWY: USH 41

COUNTY: WINNEBAGO/OUTAGAMIE

CONSTRUCTION DETAILS: NORTHBOUND LANE 3 REPAIR SUMMARY

SHEET NO:

E

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3

STATION	TO	STATION	LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1219+45	NB	-	1219+51 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1219+99	NB	-	1220+05 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1220+93	NB	-	1221+15 NB NB MAINLINE LANE 3	22 x 14	---	33.8	6	16	22	49
1221+44	NB	-	1221+50 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1222+39	NB	-	1222+45 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1223+65	NB	-	1223+71 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1224+03	NB	-	1224+09 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1225+51	NB	-	1225+57 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1226+18	NB	-	1226+24 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1230+87	NB	-	1230+93 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1231+97	NB	-	1232+03 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1232+53	NB	-	1232+75 NB NB MAINLINE LANE 3	22 x 14	---	34.3	---	16	22	50
1233+25	NB	-	1233+35 NB NB MAINLINE LANE 3	11 x 14	16.6	---	---	16	11	38
1234+73	NB	-	1234+79 NB NB MAINLINE LANE 3	7 x 14	10.4	---	---	16	6	35
1236+71	NB	-	1236+77 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1237+12	NB	-	1237+18 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1242+36	NB	-	1242+67 NB NB MAINLINE LANE 3	31 x 14	---	48.8	26	16	---	91
1244+59	NB	-	1244+65 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1251+83	NB	-	1251+89 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1256+85	NB	-	1256+96 NB NB MAINLINE LANE 3	12 x 14	17.9	---	---	8	12	25
1258+65	NB	-	1258+71 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1260+88	NB	-	1260+94 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1263+12	NB	-	1263+18 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1263+48	NB	-	1263+54 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1278+24	NB	-	1278+30 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1282+65	NB	-	1282+71 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1290+01	NB	-	1290+07 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1293+72	NB	-	1293+95 NB NB MAINLINE LANE 3	22 x 14	---	34.3	18	16	---	72
1299+82	NB	-	1299+88 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1302+32	NB	-	1302+43 NB NB MAINLINE LANE 3	11 x 14	16.6	---	---	16	---	49
1303+31	NB	-	1303+37 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1304+10	NB	-	1304+16 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1305+96	NB	-	1306+02 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1306+72	NB	-	1306+78 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1306+92	NB	-	1306+98 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1309+23	NB	-	1309+29 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1311+06	NB	-	1311+12 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1312+60	NB	-	1312+66 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1315+93	NB	-	1315+99 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1319+35	NB	-	1319+41 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1322+84	NB	-	1322+90 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1336+29	NB	-	1336+35 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1343+57	NB	-	1343+63 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1344+99	NB	-	1345+05 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1345+32	NB	-	1345+38 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1345+98	NB	-	1346+04 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1346+51	NB	-	1346+59 NB NB MAINLINE LANE 3	8 x 14	12.8	---	---	16	8	36
1348+20	NB	-	1348+26 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1350+75	NB	-	1350+97 NB NB MAINLINE LANE 3	21 x 14	---	33.1	18	16	---	71
1354+18	NB	-	1354+24 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40

NB LANE 3 MAINLINE SUBTOTALS =

447.7

184.4

68

792

243

1,954

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3 CONTINUES ON FOLLOWING SHEET

PROJECT NO: 1120-54-60

HWY: USH 41

COUNTY: WINNEBAGO/OUTAGAMIE

CONSTRUCTION DETAILS: NORTHBOUND LANE 3 REPAIR SUMMARY

SHEET NO:

E

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3

STATION	TO	STATION	LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1358+56	NB	-	1359+18 NB NB MAINLINE LANE 3	62 x 14	---	96.9	25	16	62	91
1365+22	NB	-	1365+30 NB NB MAINLINE LANE 3	8 x 14	13.1	---	---	16	9	36
1365+97	NB	-	1366+03 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1372+64	NB	-	1372+70 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1375+37	NB	-	1375+47 NB NB MAINLINE LANE 3	10 x 14	15.9	---	---	16	10	38
1377+08	NB	-	1377+17 NB NB MAINLINE LANE 3	8 x 14	13.0	---	---	16	9	36
1380+16	NB	-	1380+22 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1380+76	NB	-	1380+82 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1387+89	NB	-	1387+95 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	6	34
1389+36	NB	-	1389+42 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	6	34
1389+94	NB	-	1390+38 NB NB MAINLINE LANE 3	43 x 14	---	67.5	17	16	43	72
1392+04	NB	-	1392+10 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	6	34
1393+15	NB	-	1394+50 NB NB MAINLINE LANE 3	134 x 14	---	208.7	105	16	134	162
1395+81	NB	-	1396+46 NB NB MAINLINE LANE 3	65 x 14	---	100.4	26	16	64	93
1396+77	NB	-	1397+02 NB NB MAINLINE LANE 3	25 x 14	---	39.1	---	16	25	53
1399+98	NB	-	1400+04 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1400+68	NB	-	1400+74 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1401+22	NB	-	1401+33 NB NB MAINLINE LANE 3	11 x 14	16.5	---	---	16	10	39
1401+80	NB	-	1402+23 NB NB MAINLINE LANE 3	43 x 14	---	66.7	17	16	43	71
1404+28	NB	-	1404+75 NB NB MAINLINE LANE 3	47 x 14	---	73.0	19	16	47	75
1406+62	NB	-	1407+05 NB NB MAINLINE LANE 3	44 x 14	---	67.9	17	16	44	71
1407+35	NB	-	1407+64 NB NB MAINLINE LANE 3	29 x 14	---	45.3	12	16	29	57
1408+27	NB	-	1408+33 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1409+65	NB	-	1409+71 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1409+84	NB	-	1409+90 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1410+44	NB	-	1410+55 NB NB MAINLINE LANE 3	10 x 14	16.3	---	---	16	---	49
1411+46	NB	-	1412+07 NB NB MAINLINE LANE 3	61 x 14	---	94.7	48	16	---	150
1412+23	NB	-	1412+50 NB NB MAINLINE LANE 3	26 x 14	---	40.8	22	16	---	81
1412+61	NB	-	1412+84 NB NB MAINLINE LANE 3	23 x 14	---	35.0	9	16	---	73
1417+28	NB	-	1417+34 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1417+67	NB	-	1417+73 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1417+86	NB	-	1417+92 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	---	40
1419+01	NB	-	1419+47 NB NB MAINLINE LANE 3	46 x 14	---	70.9	18	16	---	73
1420+72	NB	-	1420+78 NB NB MAINLINE LANE 3	6 x 14	9.4	---	---	16	6	34
1422+64	NB	-	1422+70 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1423+21	NB	-	1423+27 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1424+47	NB	-	1425+00 NB NB MAINLINE LANE 3	54 x 14	---	83.6	19	16	22	114
1427+36	NB	-	1427+45 NB NB MAINLINE LANE 3	9 x 14	13.7	---	---	16	9	37
1430+12	NB	-	1430+22 NB NB MAINLINE LANE 3	10 x 14	14.8	---	---	16	10	37
1430+67	NB	-	1430+73 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1443+77	NB	-	1443+83 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1452+47	NB	-	1452+53 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1453+50	NB	-	1453+60 NB NB MAINLINE LANE 3	11 x 14	16.4	---	---	16	11	38
1455+64	NB	-	1455+70 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1458+77	NB	-	1458+88 NB NB MAINLINE LANE 3	11 x 14	16.9	---	---	16	11	39
1461+13	NB	-	1461+39 NB NB MAINLINE LANE 3	26 x 14	---	41.0	11	16	26	55
1462+04	NB	-	1462+10 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1463+35	NB	-	1463+41 NB NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1463+94	NB	-	1464+35 NB NB MAINLINE LANE 3	41 x 14	---	63.9	16	16	41	69
1465+22	NB	-	1465+32 NB NB MAINLINE LANE 3	10 x 14	15.2	---	---	16	10	38
NB LANE 3 MAINLINE SUBTOTALS =					376.3	1,195.4	381	800	777	2,599

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3 CONTINUES ON FOLLOWING SHEET

PROJECT NO: 1120-54-60

HWY: USH 41

COUNTY: WINNEBAGO/OUTAGAMIE

CONSTRUCTION DETAILS: NORTHBOUND LANE 3 REPAIR SUMMARY

SHEET NO:

E

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3

STATION		TO	STATION	LOCATION		REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1465+96	NB	-	1466+02	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1467+43	NB	-	1467+49	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1471+27	NB	-	1471+35	NB	NB MAINLINE LANE 3	7 x 14	11.4	---	---	16	7	36
1471+65	NB	-	1471+71	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1475+15	NB	-	1475+39	NB	NB MAINLINE LANE 3	24 x 14	---	37.6	10	16	24	52
1481+43	NB	-	1481+49	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1506+51	NB	-	1506+57	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1509+09	NB	-	1509+31	NB	NB MAINLINE LANE 3	19 x 14	---	29.3	16	16	---	66
1517+99	NB	-	1518+05	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1522+24	NB	-	1522+30	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1533+70	NB	-	1533+76	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1534+31	NB	-	1534+50	NB	NB MAINLINE LANE 3	19 x 14	---	29.4	---	8	19	35
1536+88	NB	-	1537+07	NB	NB MAINLINE LANE 3	19 x 14	---	30.1	---	16	---	55
1544+96	NB	-	1545+02	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1545+37	NB	-	1545+43	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1547+01	NB	-	1547+07	NB	NB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1556+67	NB	-	1556+77	NB	NB MAINLINE LANE 3	11 x 14	16.5	---	---	16	11	38
1563+08	NB	-	1563+29	NB	NB MAINLINE LANE 3	21 x 14	---	33.3	6	16	22	49
1574+75	NB	-	1575+47	NB	NB MAINLINE LANE 3	76 x 12	---	101.1	11	16	65	111
NB LANE 3 MAINLINE SUBTOTALS =							130.5	260.7	43	296	172	858
NB LANE 3 MAINLINE TOTALS =							1,405.4	2,033.4	631	2,688	1,538	7,537

NORTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - SHOULDERS

					REPAIR SIZE		CONCRETE PAVEMENT		CONCRETE PAVEMENT		DRILLED	DRILLED	SAWING	SAWING	
					LENGTH X WIDTH		REPAIR SHES		REPLACEMENT SHES		TIE BARS	DOWEL BARS	ASPHALT	CONCRETE	
					(FT x FT)		(SY)		(SY)		(EACH)	(EACH)	(LF)	(LF)	
PRE-STAGE 1															
	1147+67	NB	-	1147+88	NB	NB MAINLINE	INSIDE	SHOULDER	19 x 10	---	21.5	8	8	---	48
	1165+79	NB	-	1166+01	NB	NB MAINLINE	INSIDE	SHOULDER	22 x 10	---	25.5	9	8	---	55
	1167+98	NB	-	1168+26	NB	NB MAINLINE	INSIDE	SHOULDER	27 x 10	---	31.2	11	8	---	65
	1217+30	NB	-	1217+47	NB	NB MAINLINE	INSIDE	SHOULDER	17 x 10	---	19.1	7	8	---	44
	1429+76	NB	-	1430+30	NB	NB MAINLINE	INSIDE	SHOULDER	53 x 11	---	64.2	34	8	---	116
	1495+57	NB	-	1495+79	NB	NB MAINLINE	INSIDE	SHOULDER	22 x 11	---	26.5	9	8	---	54
	1534+31	NB	-	1534+72	NB	NB MAINLINE	INSIDE	SHOULDER	41 x 12	---	52.1	16	8	---	93
	1536+66	NB	-	1537+07	NB	NB MAINLINE	INSIDE	SHOULDER	41 x 11	---	50.2	16	8	---	93
NB MAINLINE INSIDE SHOULDERS SUBTOTALS =										0.0	290.3	110	64	0	568
STAGE 2															
	1165+79	NB	-	1166+04	NB	NB MAINLINE	OUTSIDE	SHOULDER	25 x 5	---	13.7	---	---	9	45
	1168+04	NB	-	1168+26	NB	NB MAINLINE	OUTSIDE	SHOULDER	21 x 8	---	18.7	---	---	8	42
	1217+32	NB	-	1217+54	NB	NB MAINLINE	OUTSIDE	SHOULDER	21 x 8	---	19.0	---	---	8	43
	1228+19	NB	-	1228+47	NB	NB MAINLINE	OUTSIDE	SHOULDER	28 x 6	---	19.4	3	---	10	52
	1266+34	NB	-	1266+76	NB	NB MAINLINE	OUTSIDE	SHOULDER	37 x 7	---	29.0	16	---	7	72
	1269+57	NB	-	1269+90	NB	NB MAINLINE	OUTSIDE	SHOULDER	28 x 10	---	30.8	10	---	10	52
	1429+63	NB	-	1429+96	NB	NB MAINLINE	OUTSIDE	SHOULDER	32 x 8	---	28.5	1	---	8	64
	1495+56	NB	-	1495+82	NB	NB MAINLINE	OUTSIDE	SHOULDER	27 x 5	---	14.8	1	---	9	49
	1534+50	NB	-	1534+72	NB	NB MAINLINE	OUTSIDE	SHOULDER	27 x 5	---	14.8	---	---	8	50
	1536+66	NB	-	1536+88	NB	NB MAINLINE	OUTSIDE	SHOULDER	22 x 8	---	19.4	---	---	8	44
	1555+44	NB	-	1555+72	NB	NB MAINLINE	OUTSIDE	SHOULDER	23 x 10	---	25.5	7	---	10	42
NB MAINLINE OUTSIDE SHOULDERS SUBTOTALS =										0.0	233.5	38	0	95	555
NB MAINLINE SHOULDERS TOTALS =										0.0	523.9	148	64	95	1,123

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 1

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1177+85	SB	-	1177+91	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1189+82	SB	-	1189+88	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	8	---	36
1192+09	SB	-	1192+15	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	8	---	36
1215+40	SB	-	1215+52	SB	SB MAINLINE LANE 1	12 x 12	15.7	---	---	8	---	47
1217+46	SB	-	1217+71	SB	SB MAINLINE LANE 1	25 x 12	---	33.2	10	8	---	74
1220+07	SB	-	1220+13	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	8	---	36
1226+34	SB	-	1226+47	SB	SB MAINLINE LANE 1	13 x 12	17.3	---	---	8	---	50
1253+87	SB	-	1254+06	SB	SB MAINLINE LANE 1	19 x 12	---	25.1	16	8	---	62
1266+19	SB	-	1266+31	SB	SB MAINLINE LANE 1	12 x 12	15.8	---	---	16	---	48
1271+32	SB	-	1271+38	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1294+14	SB	-	1294+20	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1298+94	SB	-	1299+00	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1306+71	SB	-	1306+77	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1307+96	SB	-	1308+06	SB	SB MAINLINE LANE 1	9 x 12	12.5	---	---	16	---	43
1309+86	SB	-	1309+92	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1314+94	SB	-	1315+00	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1338+78	SB	-	1338+88	SB	SB MAINLINE LANE 1	10 x 12	13.7	---	---	16	---	45
1341+37	SB	-	1341+50	SB	SB MAINLINE LANE 1	13 x 12	17.5	---	---	16	---	50
1354+44	SB	-	1354+50	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1364+02	SB	-	1364+08	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1364+20	SB	-	1364+28	SB	SB MAINLINE LANE 1	8 x 12	11.0	---	---	16	---	41
1364+40	SB	-	1364+46	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1365+35	SB	-	1365+41	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1369+05	SB	-	1369+13	SB	SB MAINLINE LANE 1	7 x 12	9.8	---	---	16	---	39
1369+47	SB	-	1369+53	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1370+94	SB	-	1371+01	SB	SB MAINLINE LANE 1	8 x 12	10.2	---	---	16	---	39
1371+32	SB	-	1371+39	SB	SB MAINLINE LANE 1	7 x 12	9.8	---	---	16	---	39
1372+06	SB	-	1372+12	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1372+24	SB	-	1372+30	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1372+45	SB	-	1372+51	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1381+58	SB	-	1381+66	SB	SB MAINLINE LANE 1	9 x 12	11.5	---	---	16	---	41
1390+54	SB	-	1390+60	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1418+65	SB	-	1418+71	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1427+22	SB	-	1427+28	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1427+37	SB	-	1427+43	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1429+89	SB	-	1429+95	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1430+02	SB	-	1430+12	SB	SB MAINLINE LANE 1	10 x 12	13.7	---	---	16	---	44
1442+76	SB	-	1442+82	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1443+84	SB	-	1443+93	SB	SB MAINLINE LANE 1	9 x 12	12.2	---	---	16	---	42
1448+94	SB	-	1449+00	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1450+06	SB	-	1450+28	SB	SB MAINLINE LANE 1	22 x 12	---	29.3	18	16	---	68
1454+09	SB	-	1454+15	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1459+48	SB	-	1459+54	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1464+70	SB	-	1464+76	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1481+63	SB	-	1481+69	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1481+80	SB	-	1481+86	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1482+01	SB	-	1482+07	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1483+12	SB	-	1483+18	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1483+32	SB	-	1483+38	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1486+71	SB	-	1486+77	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36

SB LANE 1 MAINLINE SUBTOTALS = 442.4 87.6 44 744 0 1,996

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 1 CONTINUES ON FOLLOWING SHEET

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 1

STATION		TO	STATION	LOCATION		REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1493+02	SB	-	1493+08	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1495+78	SB	-	1495+84	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1500+35	SB	-	1500+41	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1534+01	SB	-	1534+07	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1534+19	SB	-	1534+25	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1537+98	SB	-	1537+04	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1553+43	SB	-	1553+49	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1553+60	SB	-	1553+66	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1556+70	SB	-	1556+76	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
1577+87	SB	-	1577+93	SB	SB MAINLINE LANE 1	6 x 12	8.0	---	---	16	---	36
SB LANE 1 MAINLINE SUBTOTALS =							80.0	0.0	0	160	0	360
SB LANE 1 MAINLINE TOTALS =							522.4	87.6	44	904	0	2,356

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1142+86	SB	-	1142+92	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1144+92	SB	-	1145+10	SB	SB MAINLINE LANE 2	17 x 12	---	23.1	14	16	---	59
1149+81	SB	-	1149+87	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1153+59	SB	-	1153+69	SB	SB MAINLINE LANE 2	10 x 12	13.7	---	---	16	---	45
1157+84	SB	-	1157+90	SB	SB MAINLINE LANE 2	6 x 12	8.1	---	---	16	---	36
1188+72	SB	-	1189+44	SB	SB MAINLINE LANE 2	72 x 12	---	95.7	58	16	---	168
1214+40	SB	-	1214+46	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1217+46	SB	-	1217+75	SB	SB MAINLINE LANE 2	29 x 12	---	38.8	13	16	---	82
1235+68	SB	-	1235+77	SB	SB MAINLINE LANE 2	9 x 12	12.0	---	---	16	---	42
1241+18	SB	-	1241+24	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1241+72	SB	-	1241+78	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1242+09	SB	-	1242+21	SB	SB MAINLINE LANE 2	12 x 12	16.1	---	---	16	---	48
1249+01	SB	-	1249+07	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1253+60	SB	-	1253+66	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1256+85	SB	-	1256+91	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1267+21	SB	-	1267+27	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1267+37	SB	-	1267+43	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1270+92	SB	-	1270+98	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1272+43	SB	-	1272+49	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1284+32	SB	-	1284+43	SB	SB MAINLINE LANE 2	11 x 12	14.7	---	---	16	---	46
1286+28	SB	-	1286+34	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1296+42	SB	-	1296+49	SB	SB MAINLINE LANE 2	7 x 12	9.9	---	---	16	---	39
1302+06	SB	-	1302+12	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1302+69	SB	-	1302+75	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1311+43	SB	-	1311+50	SB	SB MAINLINE LANE 2	7 x 12	9.1	---	---	16	---	38
1313+82	SB	-	1313+88	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1319+53	SB	-	1319+59	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1322+87	SB	-	1322+93	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1341+82	SB	-	1341+88	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1343+46	SB	-	1343+52	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1343+66	SB	-	1343+72	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1344+58	SB	-	1344+64	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1354+62	SB	-	1354+76	SB	SB MAINLINE LANE 2	13 x 12	17.7	---	---	16	---	51
1356+38	SB	-	1356+71	SB	SB MAINLINE LANE 2	33 x 12	---	44.4	26	16	---	91
1359+85	SB	-	1359+91	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1364+20	SB	-	1364+28	SB	SB MAINLINE LANE 2	8 x 12	11.0	---	---	16	---	41
1364+39	SB	-	1364+45	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1365+35	SB	-	1365+41	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1365+54	SB	-	1365+60	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1372+23	SB	-	1372+29	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1386+17	SB	-	1386+23	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1388+64	SB	-	1388+70	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1390+17	SB	-	1390+23	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1391+36	SB	-	1391+42	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1395+15	SB	-	1395+21	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1402+08	SB	-	1402+14	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1405+46	SB	-	1405+52	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1406+22	SB	-	1406+28	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1407+99	SB	-	1408+05	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1410+38	SB	-	1410+44	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
SB LANE 2 MAINLINE SUBTOTALS =							408.3	202.1	111	800	0	2,118

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2 CONTINUES ON FOLLOWING SHEET

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1415+53	SB	-	1415+59	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1416+27	SB	-	1416+33	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1418+16	SB	-	1418+22	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1424+20	SB	-	1424+26	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1427+42	SB	-	1427+57	SB	SB MAINLINE LANE 2	15 x 12	---	20.1	12	8	---	54
1429+94	SB	-	1430+00	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1430+12	SB	-	1430+24	SB	SB MAINLINE LANE 2	13 x 12	16.9	---	---	16	---	49
1435+24	SB	-	1435+30	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1436+56	SB	-	1436+67	SB	SB MAINLINE LANE 2	11 x 12	15.3	---	---	16	---	47
1437+67	SB	-	1437+73	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1439+18	SB	-	1439+25	SB	SB MAINLINE LANE 2	7 x 12	9.0	---	---	16	---	37
1440+26	SB	-	1440+38	SB	SB MAINLINE LANE 2	12 x 12	16.4	---	---	16	---	49
1441+94	SB	-	1442+00	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1443+84	SB	-	1443+93	SB	SB MAINLINE LANE 2	9 x 12	12.2	---	---	16	---	42
1444+75	SB	-	1444+81	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1454+33	SB	-	1454+39	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1457+52	SB	-	1457+58	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1458+22	SB	-	1458+31	SB	SB MAINLINE LANE 2	9 x 12	11.5	---	---	16	---	41
1459+92	SB	-	1460+02	SB	SB MAINLINE LANE 2	10 x 12	12.7	---	---	16	---	43
1462+94	SB	-	1463+00	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1463+13	SB	-	1463+19	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1464+36	SB	-	1464+76	SB	SB MAINLINE LANE 2	40 x 12	---	53.9	30	16	---	105
1469+95	SB	-	1470+05	SB	SB MAINLINE LANE 2	10 x 12	13.3	---	---	16	---	44
1481+05	SB	-	1481+28	SB	SB MAINLINE LANE 2	23 x 12	---	30.2	18	16	---	69
1481+51	SB	-	1481+63	SB	SB MAINLINE LANE 2	12 x 12	15.8	---	---	16	---	48
1483+49	SB	-	1483+77	SB	SB MAINLINE LANE 2	28 x 12	---	37.9	22	16	---	81
1492+44	SB	-	1492+50	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1492+67	SB	-	1492+73	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1492+85	SB	-	1492+91	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1504+02	SB	-	1504+14	SB	SB MAINLINE LANE 2	12 x 12	15.9	---	---	16	---	48
1505+16	SB	-	1505+22	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1505+76	SB	-	1505+82	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1508+84	SB	-	1509+11	SB	SB MAINLINE LANE 2	27 x 12	---	36.1	22	16	---	78
1516+98	SB	-	1517+05	SB	SB MAINLINE LANE 2	7 x 12	9.9	---	---	16	---	39
1520+92	SB	-	1520+98	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1521+11	SB	-	1521+17	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1522+95	SB	-	1523+01	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1528+10	SB	-	1528+10	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1529+22	SB	-	1529+28	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1529+40	SB	-	1529+46	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1530+14	SB	-	1530+20	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1531+43	SB	-	1531+49	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1532+02	SB	-	1532+08	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1532+20	SB	-	1532+26	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1537+72	SB	-	1537+78	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1539+75	SB	-	1539+81	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1541+59	SB	-	1541+65	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1546+78	SB	-	1546+84	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1549+00	SB	-	1549+06	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1550+47	SB	-	1550+53	SB	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36

SB LANE 2 MAINLINE SUBTOTALS = 420.9 178.2 104 792 0 2,098

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2 CONTINUES ON FOLLOWING SHEET

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 2

STATION		TO	STATION	LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1553+51	SB	-	1553+57	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1553+71	SB	-	1553+77	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1556+61	SB	-	1556+67	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1557+74	SB	-	1557+80	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1557+91	SB	-	1557+97	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1558+86	SB	-	1558+92	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1575+37	SB	-	1575+43	SB MAINLINE LANE 2	6 x 12	8.1	---	---	16	---	36
1576+15	SB	-	1576+21	SB MAINLINE LANE 2	6 x 12	8.0	---	---	16	---	36
1576+35	SB	-	1576+41	SB MAINLINE LANE 2	6 x 12	8.1	---	---	16	---	36
1577+97	SB	-	1578+07	SB MAINLINE LANE 2	10 x 12	13.5	---	---	16	---	44
SB LANE 2 MAINLINE SUBTOTALS =						85.7	0.0	0	160	0	368
SB LANE 2 MAINLINE TOTALS =						914.9	380.2	215	1,752	0	4,584

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3

STATION		TO	STATION	LOCATION		REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1120+01	SB	-	1120+28	SB	SB MAINLINE LANE 3	27 x 14	---	41.7	11	16	26	56
1122+25	SB	-	1122+31	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1123+24	SB	-	1123+40	SB	SB MAINLINE LANE 3	16 x 14	---	25.0	6	16	16	44
1135+13	SB	-	1135+19	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1144+74	SB	-	1144+80	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1149+71	SB	-	1149+80	SB	SB MAINLINE LANE 3	8 x 14	13.1	---	---	16	---	45
1193+20	SB	-	1193+26	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1195+18	SB	-	1195+38	SB	SB MAINLINE LANE 3	20 x 14	---	30.9	8	16	20	48
1210+42	SB	-	1210+48	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1226+24	SB	-	1226+47	SB	SB MAINLINE LANE 3	23 x 14	---	36.2	18	8	---	75
1257+32	SB	-	1210+48	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1288+44	SB	-	1288+50	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1290+41	SB	-	1290+47	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1298+15	SB	-	1298+25	SB	SB MAINLINE LANE 3	10 x 14	15.8	---	---	16	---	48
1301+87	SB	-	1301+97	SB	SB MAINLINE LANE 3	10 x 14	15.2	---	---	16	---	48
1304+18	SB	-	1304+24	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1315+39	SB	-	1315+51	SB	SB MAINLINE LANE 3	12 x 14	18.5	---	---	16	12	40
1316+16	SB	-	1317+58	SB	SB MAINLINE LANE 3	142 x 14	---	221.2	57	16	142	170
1323+10	SB	-	1323+16	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1339+31	SB	-	1339+37	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1340+43	SB	-	1340+66	SB	SB MAINLINE LANE 3	22 x 14	---	34.4	9	16	23	49
1346+22	SB	-	1346+28	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1384+37	SB	-	1384+43	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1385+32	SB	-	1385+38	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1393+50	SB	-	1393+56	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1395+15	SB	-	1395+29	SB	SB MAINLINE LANE 3	14 x 14	21.2	---	---	16	14	41
1403+54	SB	-	1403+60	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1407+74	SB	-	1407+80	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1407+99	SB	-	1408+05	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1409+28	SB	-	1409+55	SB	SB MAINLINE LANE 3	27 x 14	---	41.7	22	16	---	82
1422+09	SB	-	1422+15	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1430+12	SB	-	1430+18	SB	SB MAINLINE LANE 3	6 x 14	9.6	---	---	16	6	34
1446+88	SB	-	1447+06	SB	SB MAINLINE LANE 3	18 x 14	---	28.4	7	16	18	47
1454+97	SB	-	1455+03	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1455+52	SB	-	1455+58	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1461+76	SB	-	1461+98	SB	SB MAINLINE LANE 3	22 x 14	---	34.6	9	16	22	50
1463+89	SB	-	1463+95	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1496+63	SB	-	1496+69	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1504+02	SB	-	1504+08	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1505+76	SB	-	1505+82	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1506+43	SB	-	1506+49	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1530+63	SB	-	1530+85	SB	SB MAINLINE LANE 3	22 x 14	---	34.4	9	16	22	50
1533+88	SB	-	1534+01	SB	SB MAINLINE LANE 3	13 x 14	21.0	---	---	16	13	42
1537+06	SB	-	1537+12	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1539+31	SB	-	1539+37	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1545+26	SB	-	1545+32	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	---	40
1553+26	SB	-	1553+32	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1558+86	SB	-	1558+92	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1559+02	SB	-	1559+08	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1560+34	SB	-	1560+40	SB	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
SB LANE 3 MAINLINE SUBTOTALS =							422.2	528.3	156	792	472	2,151

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3 CONTINUES ON FOLLOWING SHEET

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - LANE 3

STATION		TO	STATION	LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1560+88	SB	-	1560+94	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1569+27	SB	-	1569+33	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
1570+76	SB	-	1570+82	SB MAINLINE LANE 3	6 x 14	9.3	---	---	16	6	34
SB LANE 3 MAINLINE TOTALS =						28.0	0.0	0	48	18	102
SB LANE 3 MAINLINE TOTALS =						450.2	528.3	156	840	490	2,253

SOUTHBOUND CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - SHOULDERS

STAGE	STATION	TO	STATION	LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)	
PRE-STAGE 1												
	1145+94	SB	-	1146+15	SB SB MAINLINE INSIDE SHOULDER	20 x 10	---	22.2	7	8	---	49
	1165+52	SB	-	1165+76	SB SB MAINLINE INSIDE SHOULDER	24 x 10	---	27.3	10	8	---	58
	1167+76	SB	-	1167+99	SB SB MAINLINE INSIDE SHOULDER	22 x 10	---	25.2	9	8	---	55
	1226+47	SB	-	1226+72	SB SB MAINLINE INSIDE SHOULDER	25 x 10	---	28.2	10	8	---	60
	1228+08	SB	-	1228+29	SB SB MAINLINE INSIDE SHOULDER	21 x 10	---	23.7	8	8	---	52
	1267+33	SB	-	1267+56	SB SB MAINLINE INSIDE SHOULDER	18 x 10	---	20.0	14	8	---	42
	1270+25	SB	-	1270+45	SB SB MAINLINE INSIDE SHOULDER	16 x 10	---	18.0	12	8	---	40
	1429+59	SB	-	1429+88	SB SB MAINLINE INSIDE SHOULDER	27 x 11	---	33.2	22	8	---	65
	1495+45	SB	-	1495+69	SB SB MAINLINE INSIDE SHOULDER	23 x 11	---	28.2	9	8	---	57
	1536+54	SB	-	1536+76	SB SB MAINLINE INSIDE SHOULDER	22 x 11	---	26.9	9	8	---	55
SB MAINLINE INSIDE SHOULDERS SUBTOTALS =						0.0	252.9	110	80	0	533	
STAGE 2												
	1146+02	SB	-	1146+31	SB SB MAINLINE OUTSIDE SHOULDER	27 x 7	---	21.1	---	---	11	50
	1165+52	SB	-	1165+74	SB SB MAINLINE OUTSIDE SHOULDER	22 x 8	---	19.3	---	---	8	43
	1167+70	SB	-	1167+99	SB SB MAINLINE OUTSIDE SHOULDER	28 x 8	---	25.1	---	---	8	57
	1226+47	SB	-	1226+68	SB SB MAINLINE OUTSIDE SHOULDER	20 x 8	---	17.9	---	---	8	40
	1270+66	SB	-	1270+94	SB SB MAINLINE OUTSIDE SHOULDER	25 x 10	---	27.3	11	---	10	47
	1493+27	SB	-	1493+51	SB SB MAINLINE OUTSIDE SHOULDER	24 x 8	---	21.2	---	---	8	48
	1495+47	SB	-	1495+73	SB SB MAINLINE OUTSIDE SHOULDER	26 x 5	---	14.4	---	---	8	49
	1534+34	SB	-	1534+60	SB SB MAINLINE OUTSIDE SHOULDER	26 x 5	---	14.2	---	---	8	48
	1536+54	SB	-	1536+76	SB SB MAINLINE OUTSIDE SHOULDER	22 x 8	---	19.5	---	---	8	44
	1554+19	SB	-	1554+42	SB SB MAINLINE OUTSIDE SHOULDER	20 x 7	---	15.9	---	---	7	38
	1556+45	SB	-	1556+63	SB SB MAINLINE OUTSIDE SHOULDER	13 x 10	14.5	---	---	---	10	22
SB MAINLINE OUTSIDE SHOULDERS TOTALS =						14.5	196.0	11	0	94	486	
SB MAINLINE SHOULDERS TOTALS =						14.5	448.9	121	80	94	1,019	

CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - RAMPS

STATION		TO	STATION		LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1151+44	JJA	-	1151+57	JJA	WINNECONNE AVENUE INTERCHANGE - USH 41 SB ON RAMP	13 x 12	18.2	---	---	16	13	38
1166+31	JJA	-	1166+52	JJA	WINNECONNE AVENUE INTERCHANGE - USH 41 SB ON RAMP	21 x 12	---	28.0	16	16	---	66
1163+25	JJB	-	1163+33	JJB	WINNECONNE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	8 x 5	4.8	---	---	16	8	19
1162+81	JJB	-	1162+90	JJB	WINNECONNE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	9 x 3	3.2	---	---	16	10	15
1163+61	JJB	-	1163+69	JJB	WINNECONNE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	8 x 9	7.5	---	---	16	8	25
1164+67	JJB	-	1164+75	JJB	WINNECONNE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	8 x 12	10.6	---	---	16	8	32
1165+25	JJB	-	1165+38	JJB	WINNECONNE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	13 x 12	16.7	---	---	16	13	36
1165+50	JJB	-	1165+79	JJB	WINNECONNE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	29 x 12	---	39.8	12	16	29	54
1168+87	JJC	-	1168+95	JJC	WINNECONNE AVENUE INTERCHANGE - USH 41 NB ON RAMP	6 x 17	12.2	---	---	16	8	39
1176+43	JJC	-	1176+80	JJC	WINNECONNE AVENUE INTERCHANGE - USH 41 NB ON RAMP	37 x 15	---	62.0	---	16	74	30
1206+30	MSB	-	1206+38	MSB	MAIN STREET INTERCHANGE - USH 41 SB OFF RAMP	8 x 27	23.2	---	---	32	8	62
1245+49	IIA	-	1246+01	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	52 x 15	---	88.6	---	16	105	30
1246+22	IIA	-	1246+43	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	21 x 16	---	35.7	---	16	42	30
1246+59	IIA	-	1247+00	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	41 x 15	---	68.9	---	16	83	30
1248+29	IIA	-	1248+35	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	6 x 15	9.9	---	---	16	12	30
1250+31	IIA	-	1250+73	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	43 x 15	---	71.6	---	16	86	30
1252+99	IIA	-	1253+46	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	48 x 19	---	101.4	19	16	48	86
1253+46	IIA	-	1253+57	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	10 x 11	12.4	---	---	16	---	42
1253+90	IIA	-	1254+08	IIA	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	11 x 15	19.3	---	---	16	---	40
1244+01	IIB	-	1244+10	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	8 x 15	13.6	---	---	16	8	38
1244+29	IIB	-	1244+43	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	14 x 15	22.7	---	---	16	14	43
1244+72	IIB	-	1244+81	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	9 x 15	15.3	---	---	16	9	39
1246+63	IIB	-	1246+85	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	22 x 15	---	36.3	9	16	22	52
1248+34	IIB	-	1248+42	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	8 x 15	13.6	---	---	16	16	30
1250+20	IIB	-	1250+41	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	21 x 15	---	35.1	---	16	42	30
1251+28	IIB	-	1251+86	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	58 x 4	---	23.2	23	3	35	88
1251+67	IIB	-	1251+74	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	8 x 15	13.1	---	---	16	8	38
1253+38	IIB	-	1253+46	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	8 x 12	11.2	---	---	16	8	33
1253+58	IIB	-	1253+66	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	8 x 12	10.4	---	---	16	8	32
1253+77	IIB	-	1253+86	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	9 x 15	15.1	---	---	16	---	48
1253+77	IIB	-	1253+86	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	9 x 12	12.5	---	---	16	9	34
1254+10	IIB	-	1254+24	IIB	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP	14 x 12	18.6	---	---	16	---	52
1261+07	IIC	-	1261+16	IIC	WINCHESTER ROAD INTERCHANGE - USH 41 NB ON RAMP	8 x 15	13.9	---	---	16	17	30
1257+73	IID	-	1257+81	IID	WINCHESTER ROAD INTERCHANGE - USH 41 SB OFF RAMP	8 x 12	10.5	---	---	16	8	32
1419+84	BBA	-	1419+93	BBA	PROSPECT AVENUE INTERCHANGE - USH 41 SB ON RAMP	9 x 15	15.1	---	---	16	9	39
1426+65	BBA	-	1426+79	BBA	PROSPECT AVENUE INTERCHANGE - USH 41 SB ON RAMP	13 x 15	22.3	---	---	16	27	30
1427+08	BBA	-	1427+26	BBA	PROSPECT AVENUE INTERCHANGE - USH 41 SB ON RAMP	18 x 15	---	29.7	---	16	36	30
1427+97	BBA	-	1428+05	BBA	PROSPECT AVENUE INTERCHANGE - USH 41 SB ON RAMP	7 x 2	1.7	---	---	---	7	11
1428+22	BBA	-	1428+30	BBA	PROSPECT AVENUE INTERCHANGE - USH 41 SB ON RAMP	8 x 5	4.4	---	---	4	8	18
1428+34	BBA	-	1428+40	BBA	PROSPECT AVENUE INTERCHANGE - USH 41 SB ON RAMP	6 x 15	10.2	---	---	16	6	37
1422+15	BBB	-	1422+39	BBB	PROSPECT AVENUE INTERCHANGE - USH 41 NB OFF RAMP	25 x 15	---	42.6	---	16	51	30
1422+68	BBB	-	1422+78	BBB	PROSPECT AVENUE INTERCHANGE - USH 41 NB OFF RAMP	9 x 17	17.0	---	---	16	18	34
1424+86	BBB	-	1424+94	BBB	PROSPECT AVENUE INTERCHANGE - USH 41 NB OFF RAMP	8 x 15	13.8	---	---	16	8	39
1425+36	BBB	-	1425+45	BBB	PROSPECT AVENUE INTERCHANGE - USH 41 NB OFF RAMP	9 x 15	15.7	---	---	16	9	40
1425+99	BBB	-	1426+17	BBB	PROSPECT AVENUE INTERCHANGE - USH 41 NB OFF RAMP	16 x 15	---	27.2	---	16	33	30
1429+63	BBC	-	1429+72	BBC	PROSPECT AVENUE INTERCHANGE - USH 41 NB ON RAMP	9 x 3	3.2	---	---	3	9	15
1434+42	BBC	-	1434+50	BBC	PROSPECT AVENUE INTERCHANGE - USH 41 NB ON RAMP	9 x 15	14.5	---	---	16	8	39
1429+42	BBD	-	1429+59	BBD	PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	17 x 17	---	31.8	14	16	---	68
1430+55	BBD	-	1430+62	BBD	PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	8 x 12	10.8	---	---	16	8	32
1431+14	BBD	-	1431+20	BBD	PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	6 x 12	8.1	---	---	16	6	30
RAMPS SUBTOTALS =							445.4	721.7	93	762	1,002	1,875

CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - RAMPS CONTINUES ON FOLLOWING SHEET

PROJECT NO: 1120-54-60

HWY: USH 41

COUNTY: WINNEBAGO/OUTAGAMIE

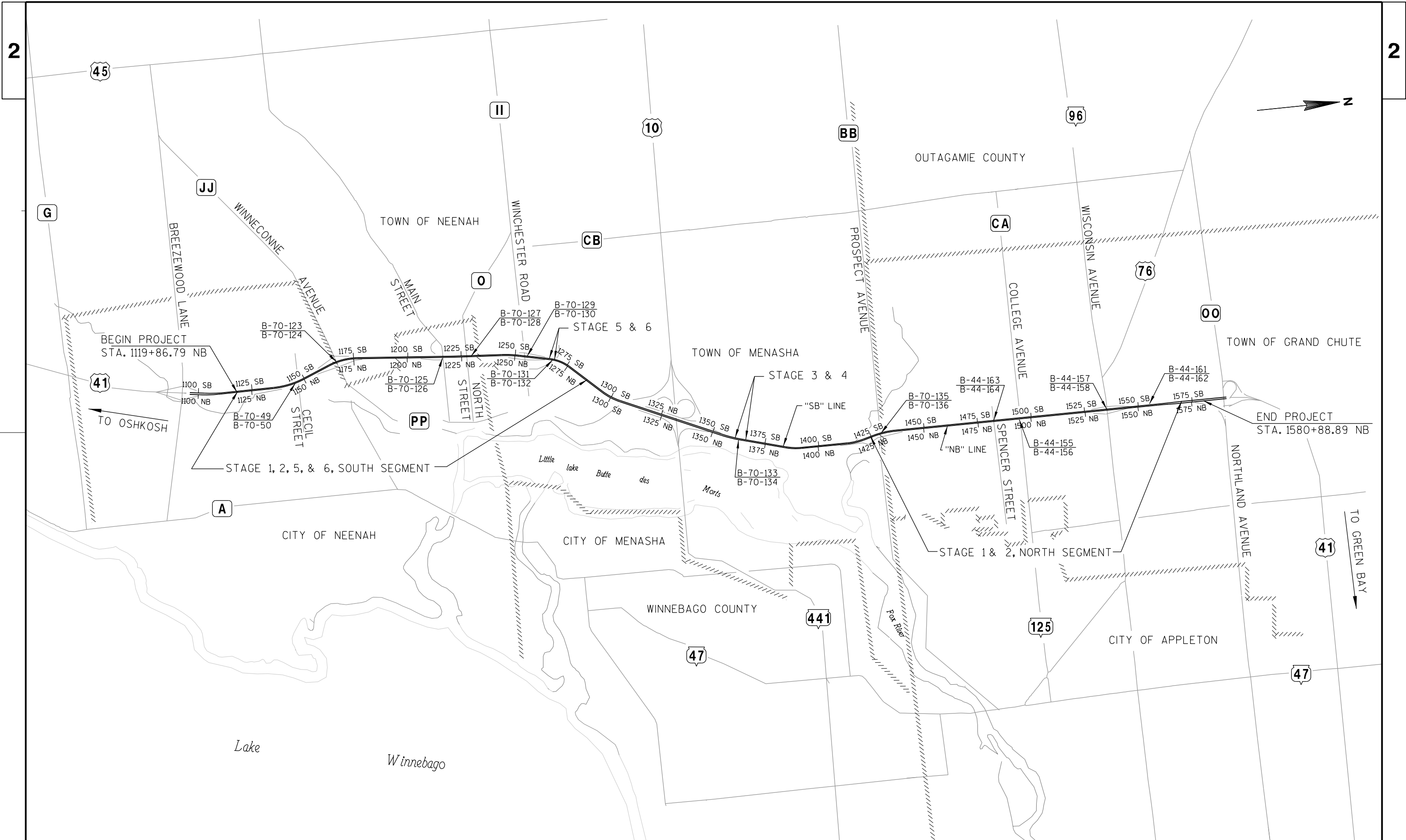
CONSTRUCTION DETAILS: RAMP REPAIR SUMMARY

SHEET NO:

E

CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS - RAMPS

STATION		TO	STATION	LOCATION	REPAIR SIZE LENGTH X WIDTH (FT x FT)	CONCRETE PAVEMENT REPAIR SHES (SY)	CONCRETE PAVEMENT REPLACEMENT SHES (SY)	DRILLED TIE BARS (EACH)	DRILLED DOWEL BARS (EACH)	SAWING ASPHALT (LF)	SAWING CONCRETE (LF)
1431+31	BBD	-	1431+45	BBD PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	14 x 12	18.3	---	---	16	14	38
1431+97	BBD	-	1432+03	BBD PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	6 x 15	9.7	---	---	16	6	35
1433+81	BBD	-	1433+88	BBD PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	7 x 15	11.8	---	---	16	7	37
1433+81	BBD	-	1434+02	BBD PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	21 x 2	---	4.9	8	2	9	37
1437+26	BBD	-	1437+34	BBD PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	8 x 15	14.3	---	---	16	17	30
1438+22	BBD	-	1438+41	BBD PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP	19 x 14	---	29.8	7	16	19	47
1481+33	CAA	-	1481+50	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	17 x 15	---	27.6	7	16	17	46
1483+69	CAA	-	1483+95	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	27 x 15	---	44.7	11	16	27	57
1490+58	CAA	-	1490+67	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	9 x 15	14.6	---	---	16	18	30
1491+28	CAA	-	1491+36	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	8 x 15	12.9	---	---	16	15	31
1491+80	CAA	-	1491+88	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	8 x 15	13.3	---	---	16	16	30
1493+11	CAA	-	1493+25	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	14 x 15	23.3	---	---	16	28	30
1493+32	CAA	-	1493+50	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	18 x 15	---	29.5	7	16	18	47
1493+57	CAA	-	1493+71	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	7 x 17	14.5	---	---	16	---	50
1493+63	CAA	-	1493+71	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	8 x 16	14.2	---	---	16	8	40
1493+75	CAA	-	1493+90	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	8 x 17	15.5	---	---	16	---	50
1493+80	CAA	-	1493+89	CAA COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP	9 x 15	14.2	---	---	16	---	47
19+23	CAB	-	19+35	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	12 x 15	20.5	---	---	16	12	43
19+98	CAB	-	20+11	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	13 x 2	2.9	---	---	2	15	15
20+18	CAB	-	20+30	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	11 x 3	3.5	---	---	2	12	16
20+80	CAB	-	20+88	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	8 x 10	8.6	---	---	16	8	27
27+34	CAB	-	27+42	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	8 x 9	8.0	---	---	16	8	26
28+24	CAB	-	28+38	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	14 x 15	23.2	---	---	16	---	58
28+29	CAB	-	28+38	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	9 x 9	8.2	---	---	16	9	25
28+45	CAB	-	28+71	CAB COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP	26 x 15	---	43.6	20	16	---	82
1496+77	CAC	-	1496+85	CAC COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP	8 x 15	13.7	---	---	16	16	31
1496+99	CAC	-	1497+14	CAC COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP	15 x 15	24.9	---	---	16	30	30
1497+65	CAC	-	1497+73	CAC COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP	8 x 15	13.3	---	---	16	16	30
1498+88	CAC	-	1498+94	CAC COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP	6 x 16	10.5	---	---	16	12	31
1499+15	CAC	-	1499+21	CAC COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP	6 x 15	10.1	---	---	16	12	30
1499+35	CAC	-	1499+42	CAC COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP	8 x 15	12.8	---	---	16	16	30
1499+61	CAC	-	1499+67	CAC COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP	6 x 15	10.0	---	---	16	12	30
21+71	CAD	-	21+79	CAD COLLEGE AVENUE INTERCHANGE - USH 41 SB OFF RAMP	8 x 15	12.6	---	---	16	7	38
23+92	CAD	-	23+98	CAD COLLEGE AVENUE INTERCHANGE - USH 41 SB OFF RAMP	6 x 15	9.9	---	---	16	6	36
00+36	WIA	-	00+42	WIA WISCONSIN AVENUE INTERCHANGE - USH 41 SB ON RAMP	6 x 14	9.4	---	---	16	6	34
03+87	WIA	-	03+93	WIA WISCONSIN AVENUE INTERCHANGE - USH 41 SB ON RAMP	6 x 15	10.1	---	---	16	12	30
07+95	WIA	-	08+01	WIA WISCONSIN AVENUE INTERCHANGE - USH 41 SB ON RAMP	6 x 15	10.0	---	---	16	12	30
27+63	WIB	-	27+70	WIB WISCONSIN AVENUE INTERCHANGE - USH 41 NB OFF RAMP	8 x 15	12.9	---	---	16	8	37
29+37	WIB	-	29+43	WIB WISCONSIN AVENUE INTERCHANGE - USH 41 NB OFF RAMP	6 x 15	10.3	---	---	16	12	30
1546+29	WIC	-	1546+37	WIC WISCONSIN AVENUE INTERCHANGE - USH 41 NB ON RAMP	8 x 15	14.0	---	---	16	8	39
RAMPS SUBTOTALS =						436.2	180.1	60	598	468	1,460
RAMPS TOTALS =						881.6	901.8	153	1,360	1,470	3,335



TRAFFIC CONTROL 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.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, 500 FEET DESIRABLE, DISTANCE TO EXISTING SIGNS.

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

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

ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

REDUCED SPEED AHEAD AND SPEED LIMIT 55 SIGNS MUST BE POST MOUNTED.

SPEED LIMIT SIGNS SHALL ALSO BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND AT 0.5 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE FIRST SIGN INDICATING THE 55 MPH REGULATORY SPEED LIMIT IS REFERENCED FROM BEGINNING OF LANE CLOSURE TAPER. THE 55 MPH REGULATORY SPEED LIMIT SIGN LOCATION MUST BE ADJUSTED WHEN CONSTRUCTION ACTIVITIES REQUIRE THE LANE CLOSURE START LOCATION TO CHANGE.

TRAFFIC CONTROL DEVICES NOT IN USE SHALL BE LAYED DOWN OR REMOVED, TURNING OF DEVICES TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

REMOVE ANY CONFLICTING EXISTING PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

FOR NIGHTTIME OPERATION, ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE A (LOW INTENSITY FLASHING) LIGHTS AND SPACED AT 1500'

WORK AREAS SHOWN ILLUSTRATES GENERAL LOCATIONS OF WORK AND DOES NOT REFLECT ALL WORK REQUIRED

ALL PAVEMENT MARKING STATIONING IN TRAFFIC CONTROL PLANS HAVE THE PREFIX OF THE ALIGNMENT THAT IT IS MEASURED OFF OF IN THE STATION CALLOUT.

FOR ALL CONCRETE BARRIER TEMPORARY PRECAST, REFER TO THE STANDARD DETAIL DRAWING FOR LOCATION OF DELINEATORS AND BRACKETS. CONCRETE BARRIER TEMPORARY PRECAST WHICH IS MOVED BETWEEN STAGES MAY NEED TO HAVE THE DELINEATORS REMOVED OR THE REFLECTOR COLOR CHANGED OR A TOP REFLECTOR ADDED. FURNISHING, MULTIPLE INSTALLATIONS, MAINTAINING AND REMOVAL OF THE DELINEATORS AND BRACKETS ARE INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

ANCHOR CONCRETE BARRIER TEMPORARY PRECAST IN ALL LOCATIONS WHERE A 2 FOOT OR GREATER DROPOFF IS STEEPER THAN 3H:1V AND THE DROPOFF IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

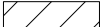
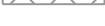
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DRUMS.

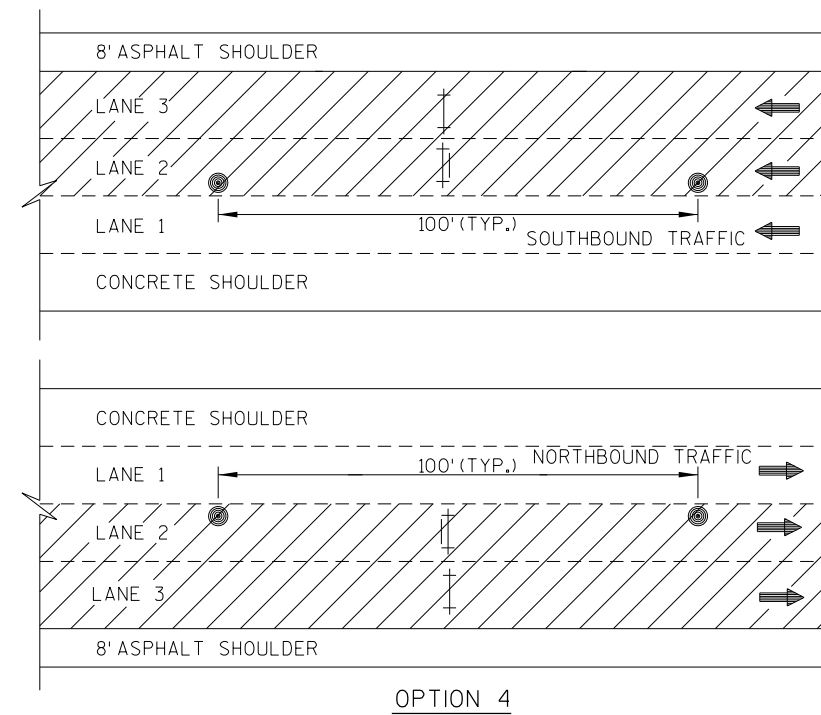
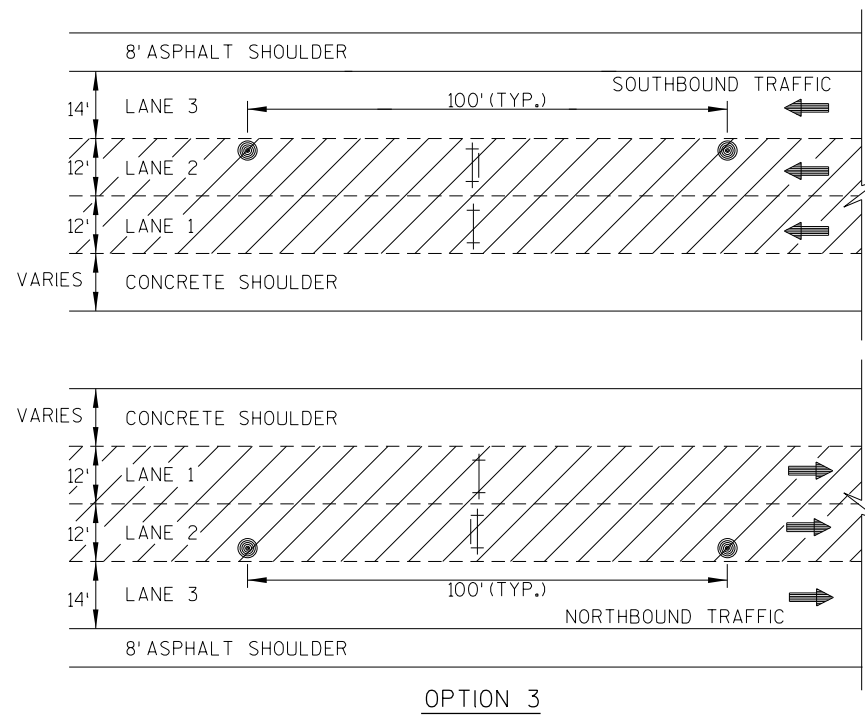
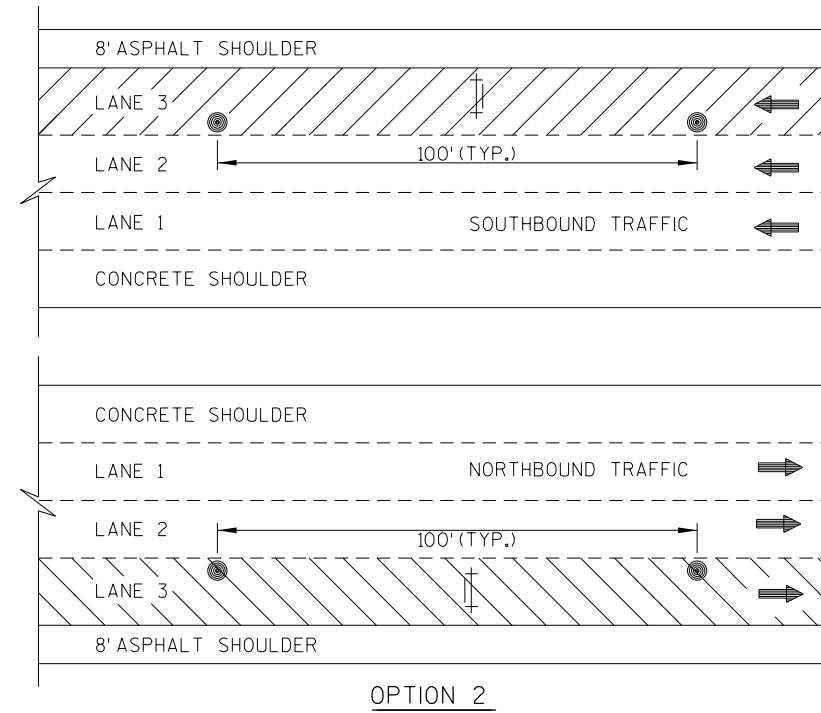
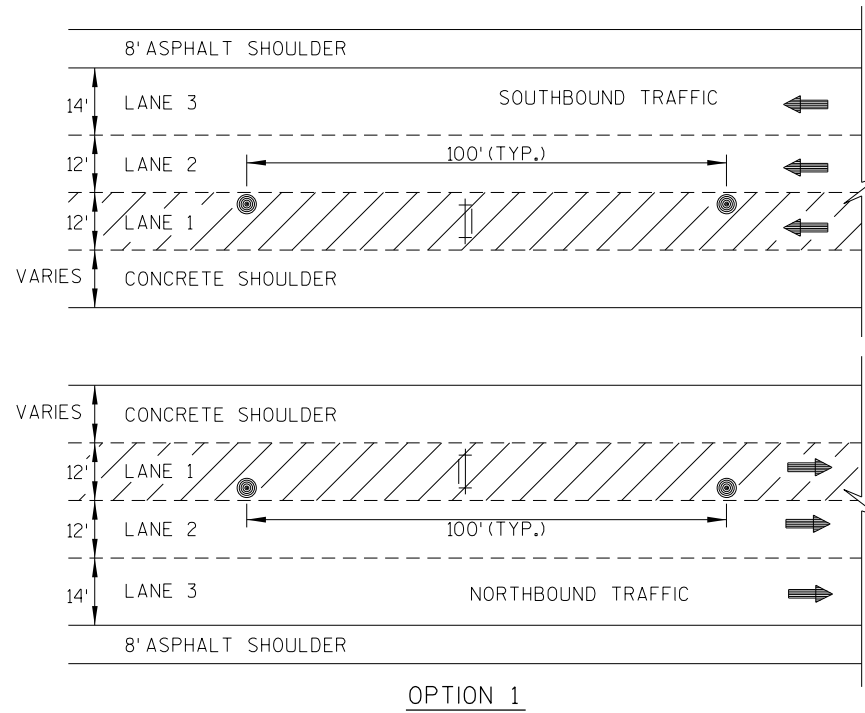
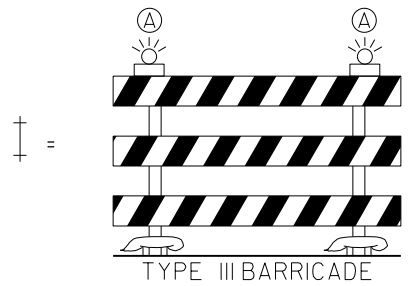
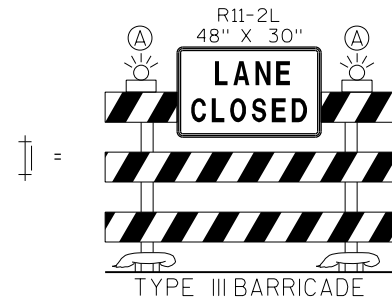
COVERING AND REMOVAL OF MATERIAL COVERING TEMPORARY REGULATORY SPEED LIMIT SIGNS AND EXISTING SPEED LIMIT SIGNS RELATED TO TEMPORARY AND/OR PERIODIC LANE CLOSURES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

TRAFFIC CONTROL PAVEMENT MARKING LEGEND

- ① TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH, EDGE LINE (WHITE)
- ② TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH, EDGE LINE (YELLOW)
- ③ TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH, CHANNELIZING (WHITE)
- ④ TEMPORARY PAVEMENT MARKING 4-INCH, DASHED 12.5 FT LINE, 37.5 FT SKIP (WHITE)
- ⑤ TEMPORARY PAVEMENT MARKING 4-INCH, DASHED 3 FT LINE, 9 FT SKIP (WHITE)
- ⑥ TEMPORARY PAVEMENT MARKING 4-INCH, CHANNELIZING (WHITE)

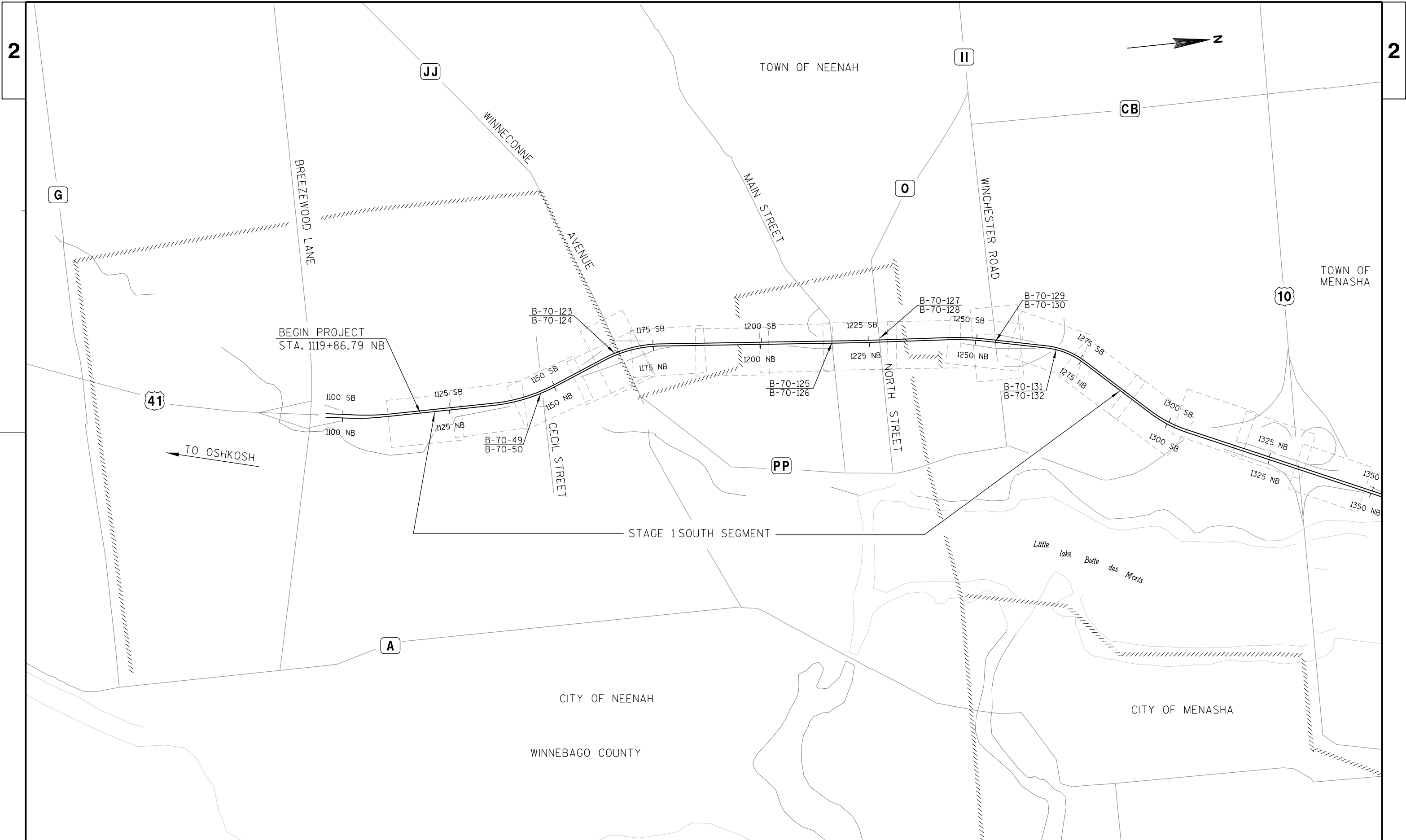
LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WTH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  FLASHING ARROW BOARD
-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TYPE A WARNING LIGHT (FLASHING)
-  TEMPORARY ORANGE FLAGS (18"x18" MIN.)
-  CONCRETE BARRIER TEMPORARY PRECAST
-  WORK AREA
-  DIRECTION OF TRAFFIC
-  PORTABLE CHANGEABLE MESSAGE BOARD
-  CRASH CUSHION BARRIER
-  2-INCH SHOULDER ASPHALT MILL AND OVERLAY
-  SHOULDER ASPHALT REPLACEMENT



LANE CLOSURE OPTIONS

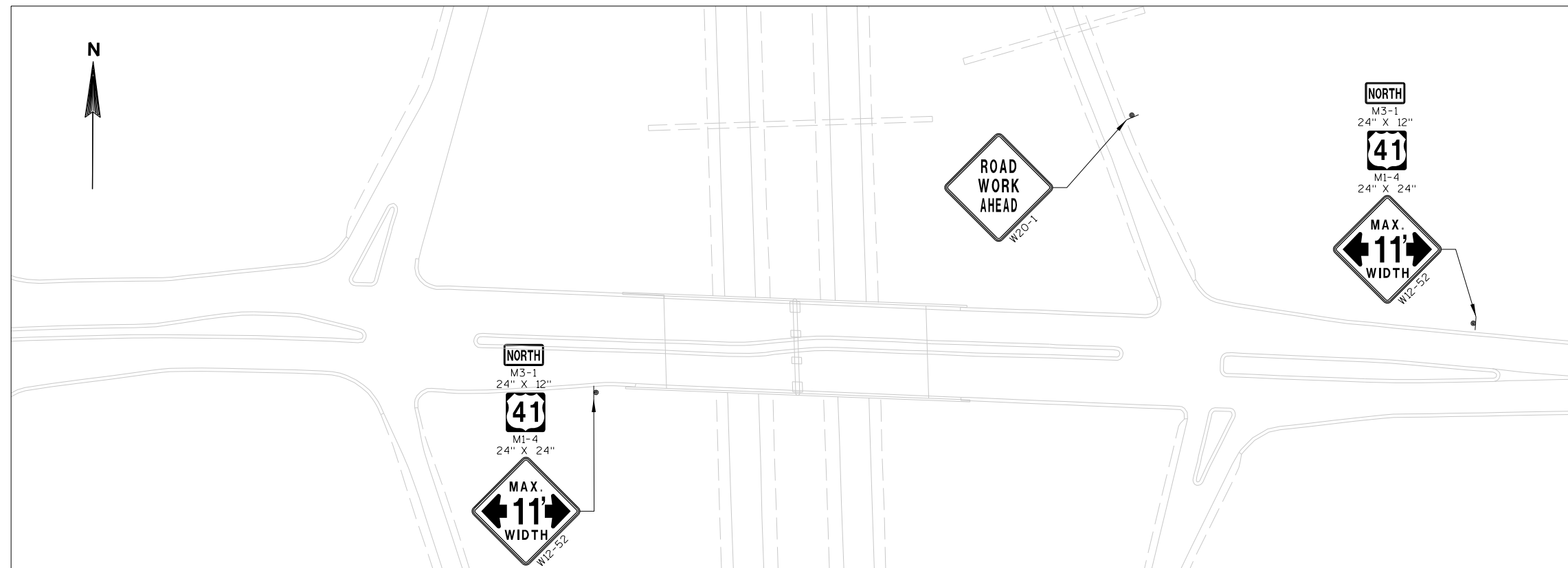
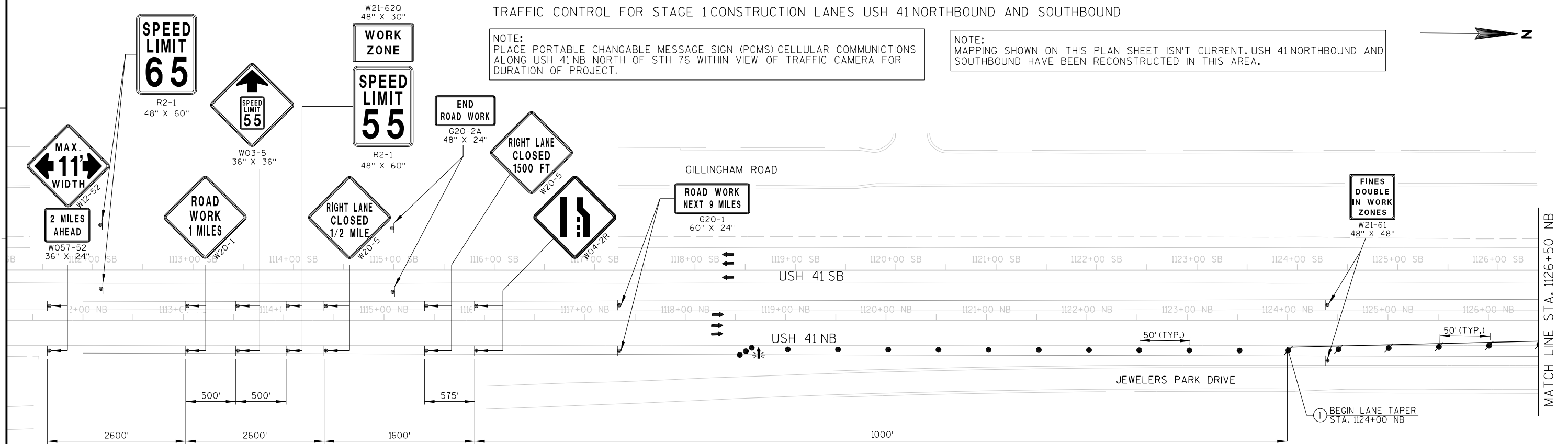
NOTE: ALL TYPE III BARRICADES SHOULD BE SPACED AT 1500'



TRAFFIC CONTROL FOR STAGE 1 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

NOTE:
PLACE PORTABLE CHANGABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS
ALONG USH 41 NB NORTH OF STH 76 WITHIN VIEW OF TRAFFIC CAMERA FOR
DURATION OF PROJECT.

NOTE:
MAPPING SHOWN ON THIS PLAN SHEET ISN'T CURRENT. USH 41 NORTHBOUND AND
SOUTHBOUND HAVE BEEN RECONSTRUCTED IN THIS AREA.

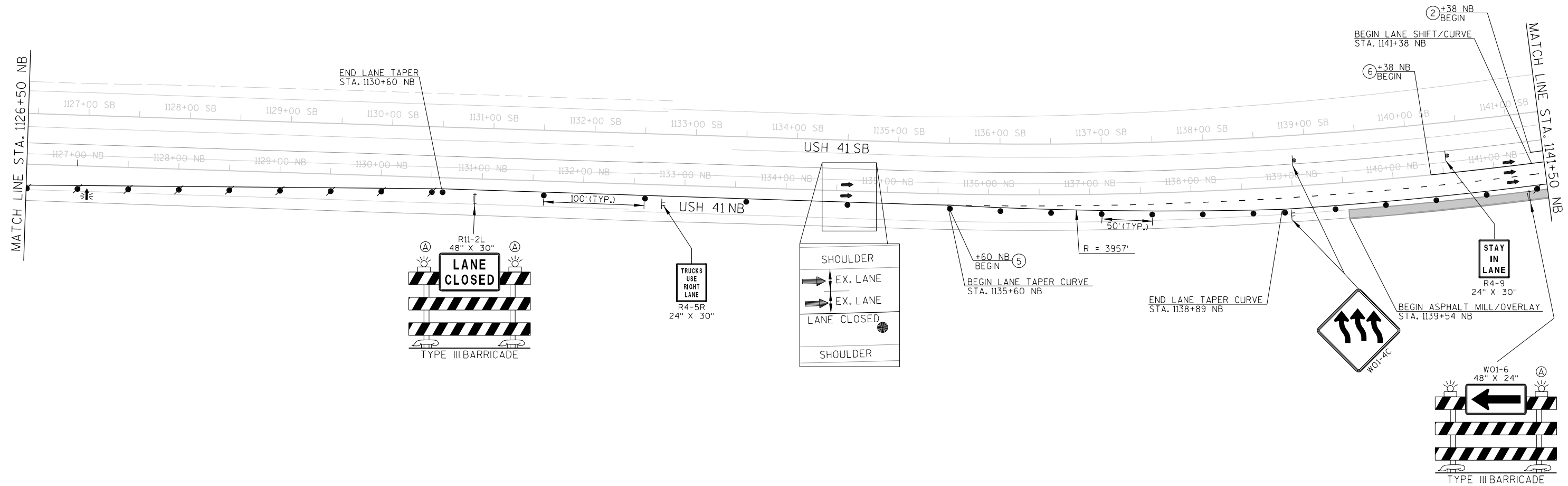


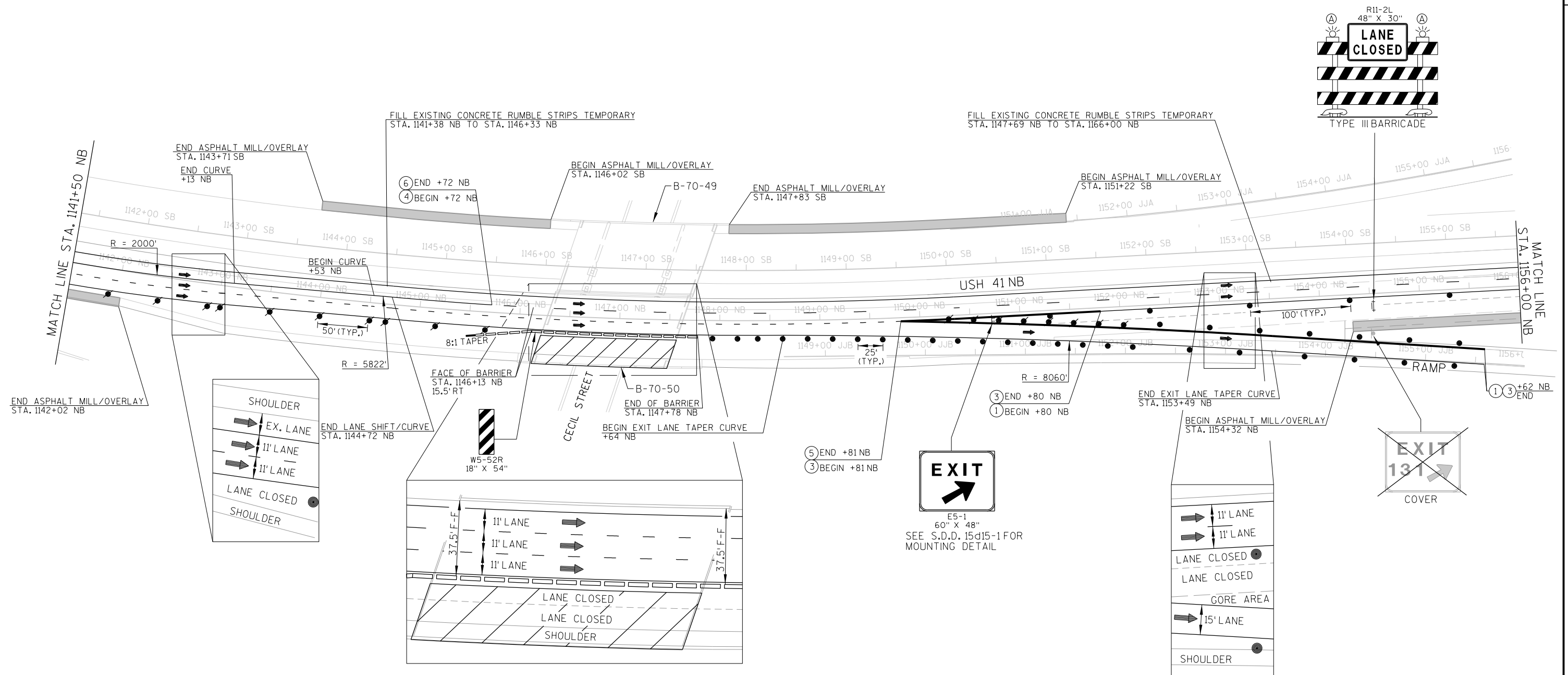
BREEZEWOOD LANE NORTHBOUND ON RAMP DETAIL



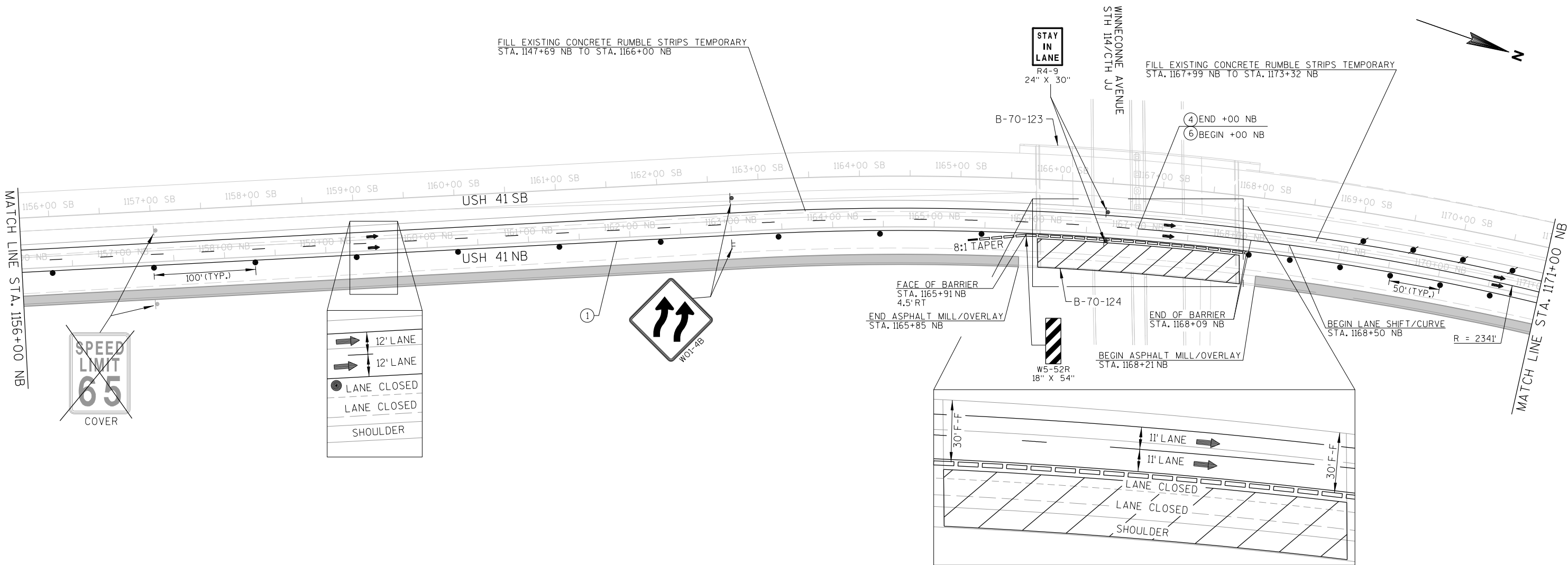
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2





TRAFFIC CONTROL FOR STAGE 1 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND



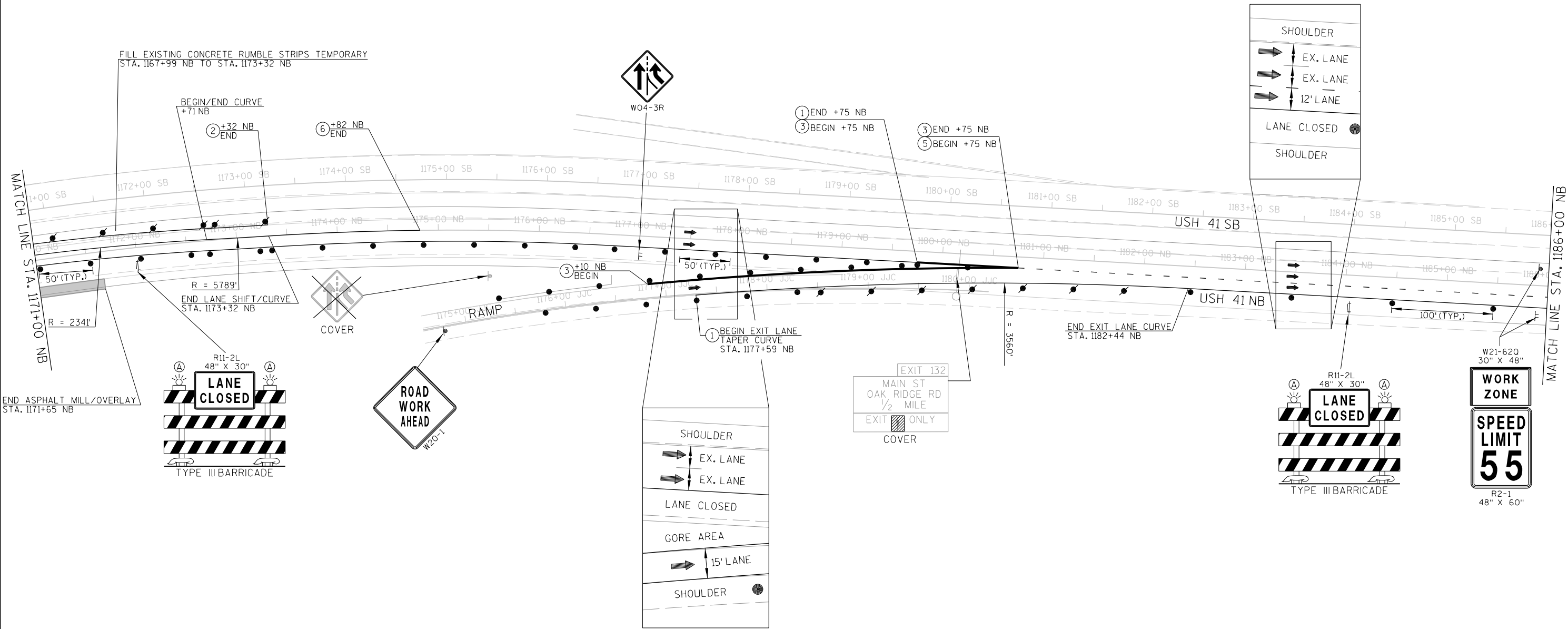
NOTE:
FOR TRAFFIC CONTROL ALONG WINNECONNE AVENUE/STH 114/CTH 'JJ'DUE TO NIGHT RAMP WORK
SEE THE FOLLOWING TRAFFIC CONTROL DETAILS
"ENTRANCE RAMP TO USH 41 SOUTHBOUND CLOSURE FROM STH 114, CTH 'JJ'AND WINNECONNE AVENUE" AND
"ENTRANCE RAMP TO USH 41 NORTHBOUND CLOSURE FROM STH 114, CTH 'JJ'AND WINNECONNE AVENUE"

NOTE:
PLACE THESE SIGNS 200' EAST
AND WEST OF RAMP TERMINALS
ALONG STH 114/CTH JJ.

NORTH
M3-1
24" X 12"

41
M1-4
24" X 24"

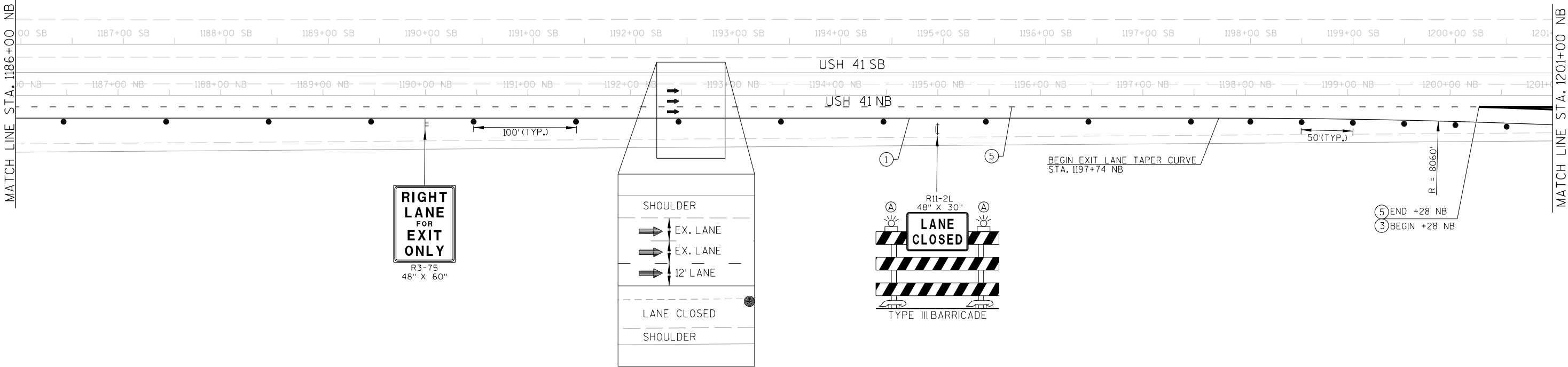
MAX.
11'
WIDTH
W12-52



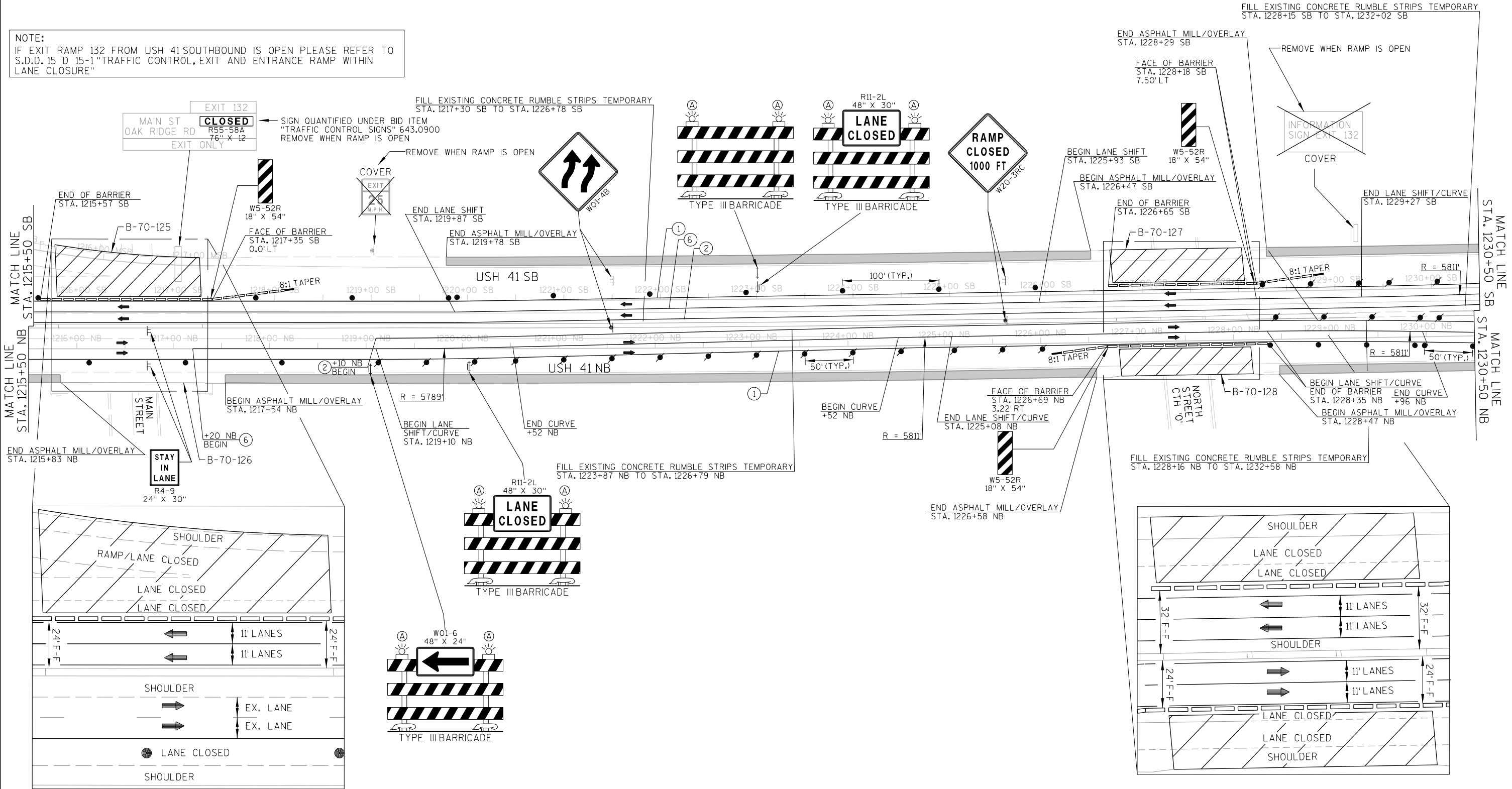


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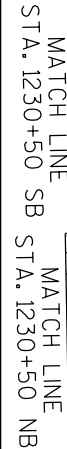
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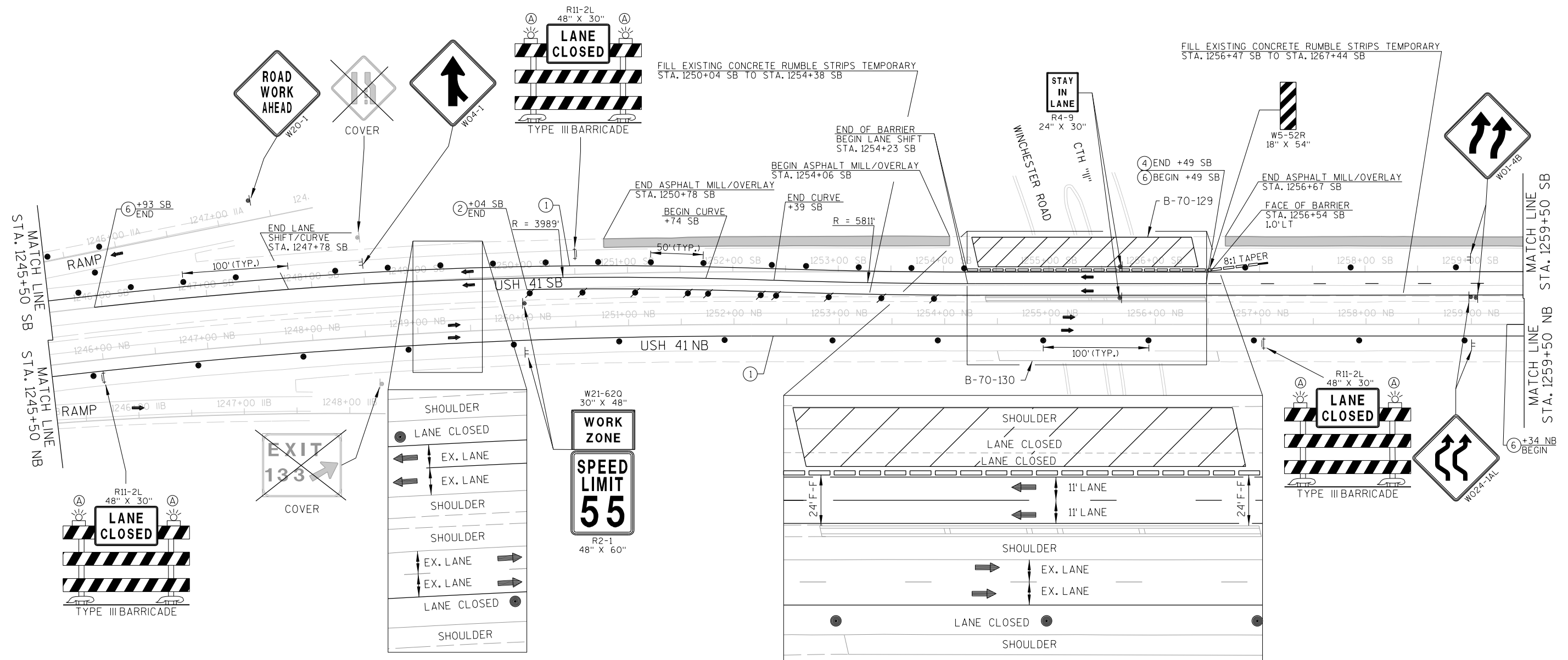


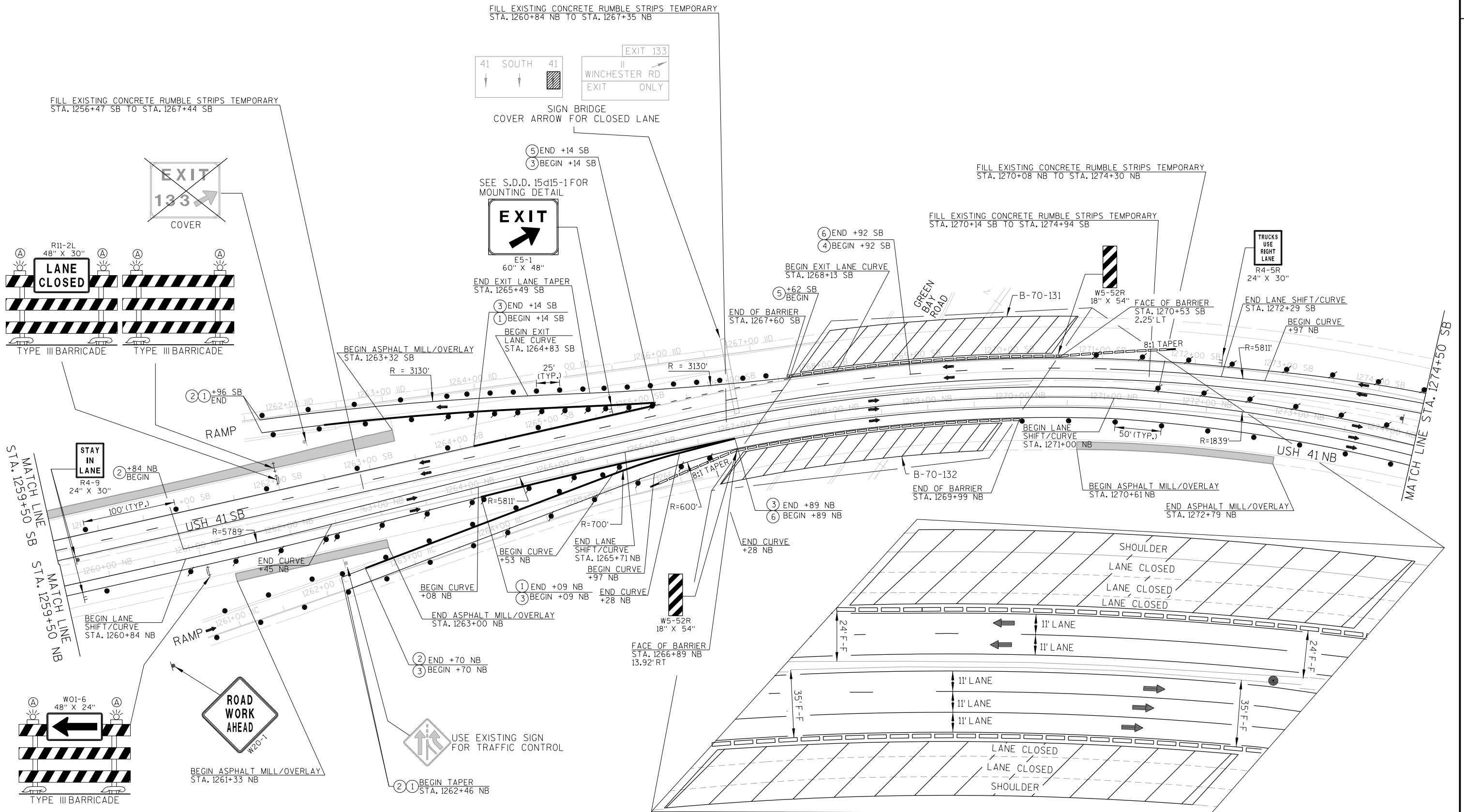
NOTE:
IF EXIT RAMP 132 FROM USH 41 SOUTHBOUND IS OPEN PLEASE REFER TO S.D.D. 15 D 15-1 "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE"

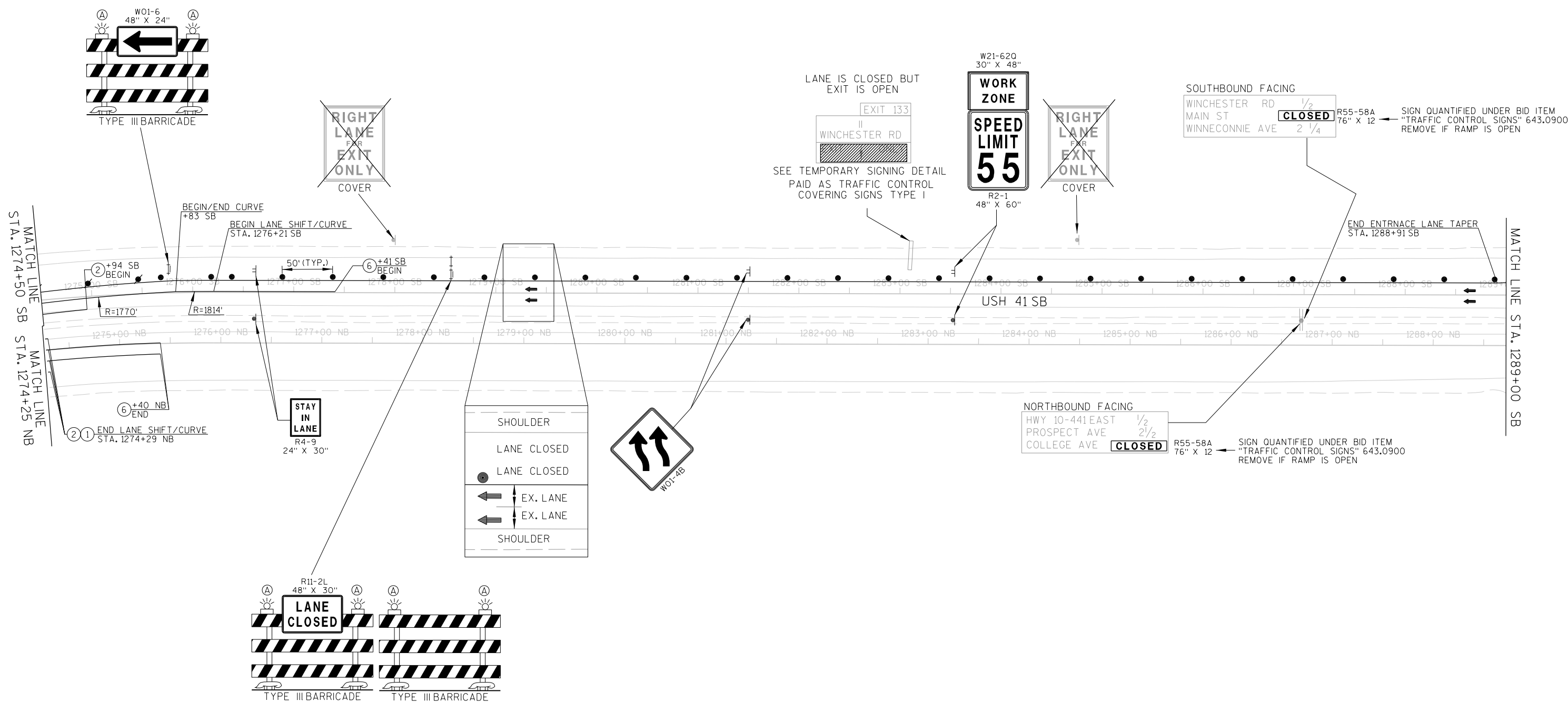


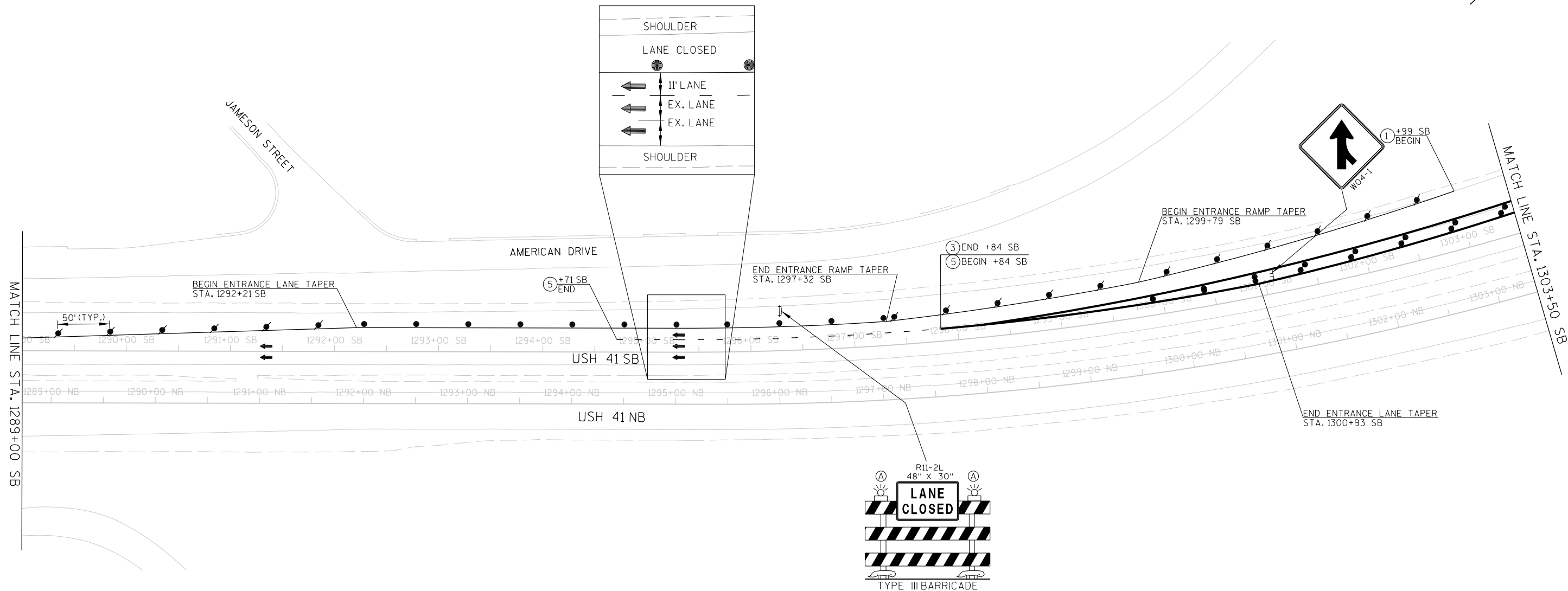
NOTE:
IF EXIT RAMP 132 FROM USH 41 SOUTHBOUND IS OPEN PLEASE REFER TO
S.D.D. 15 D 15-1 "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN
LANE CLOSURE"

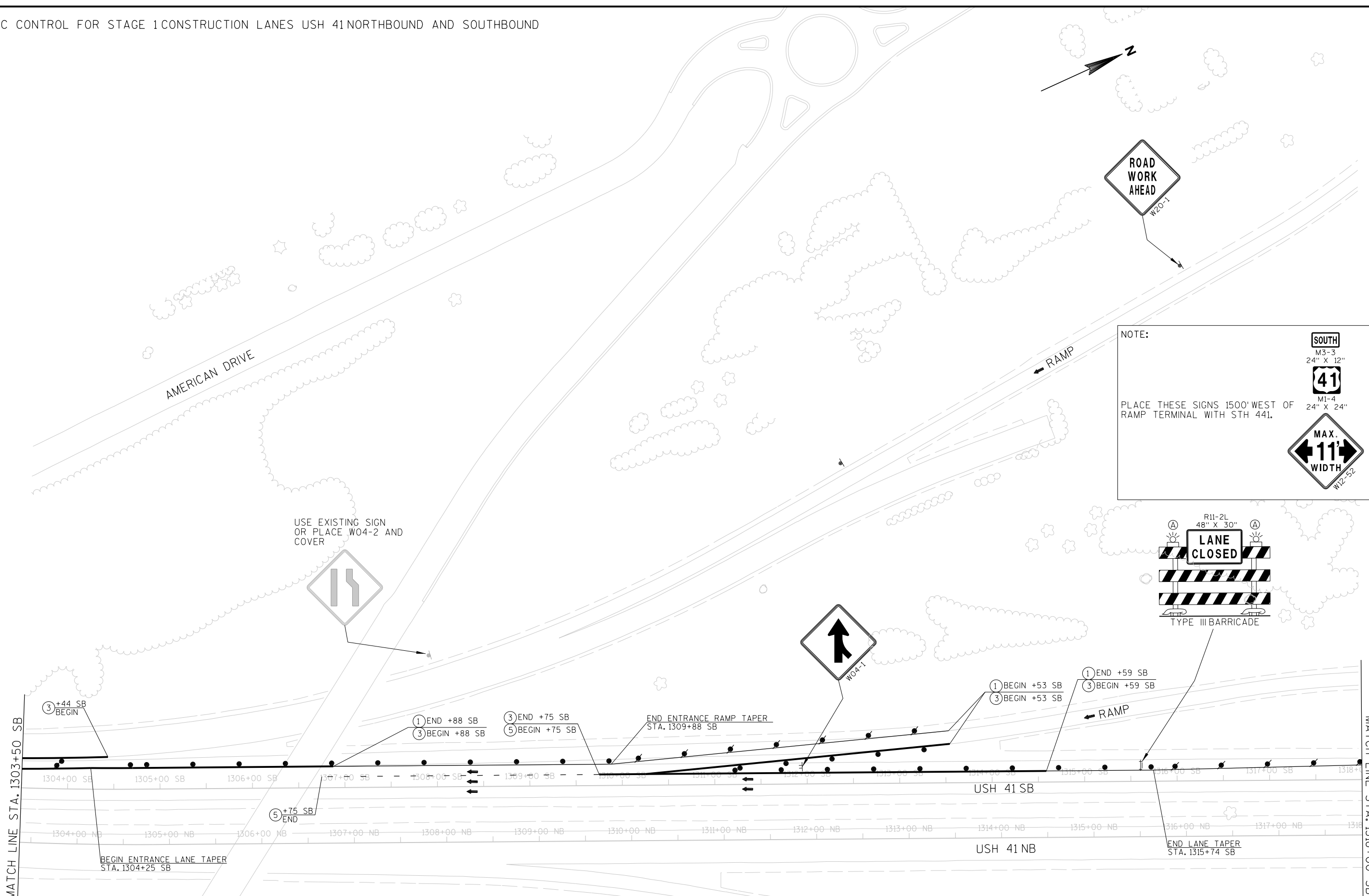


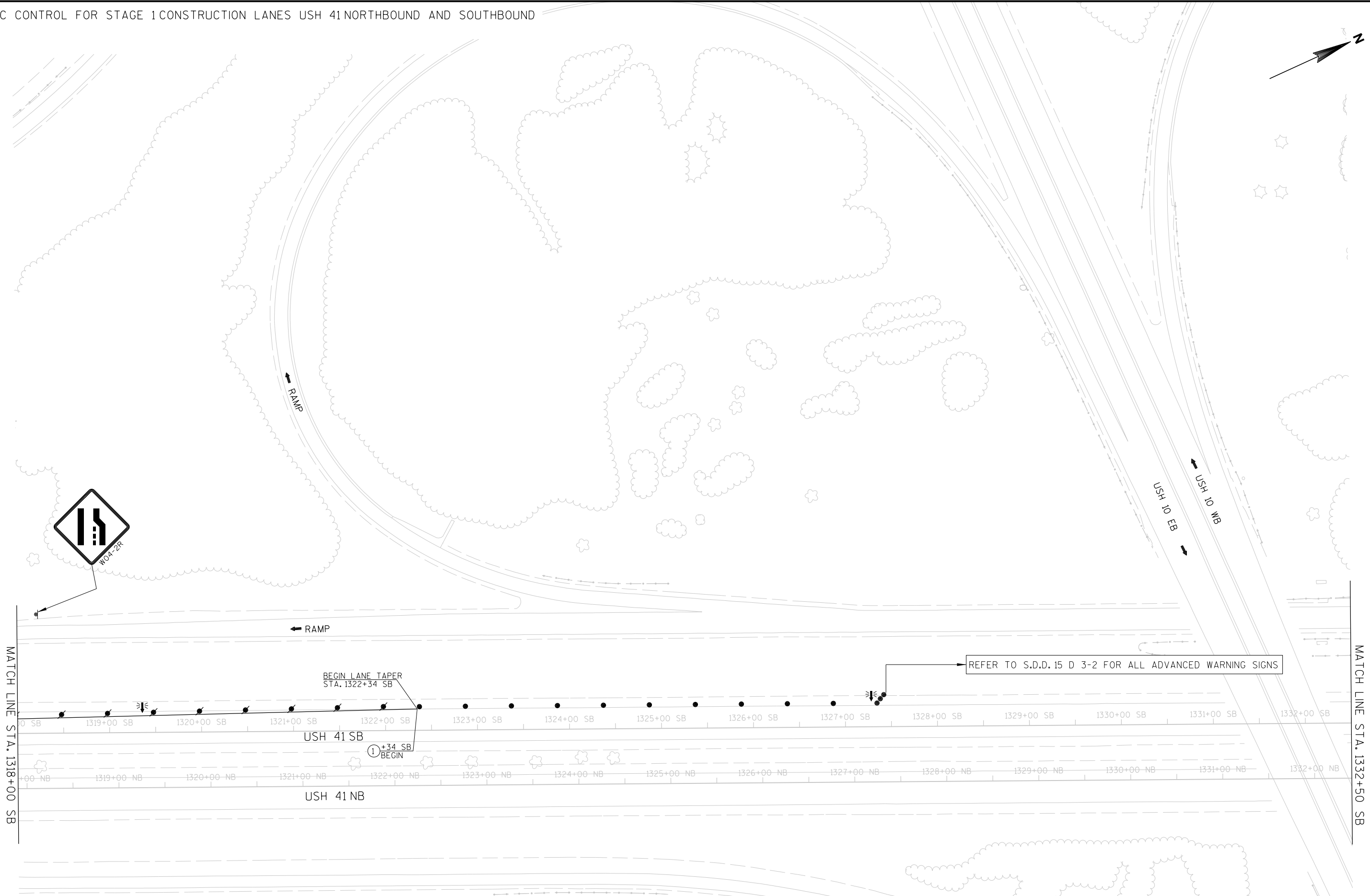


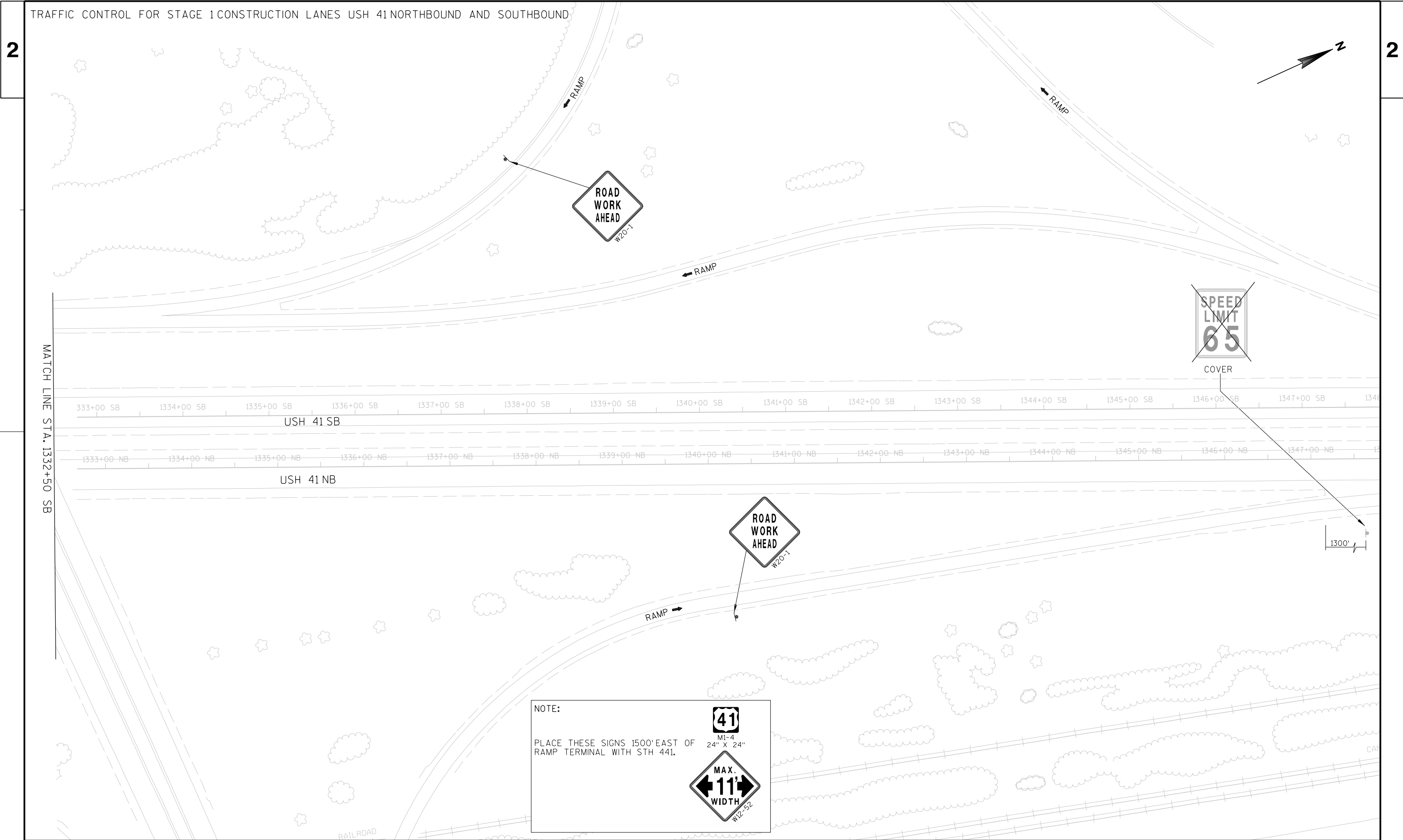






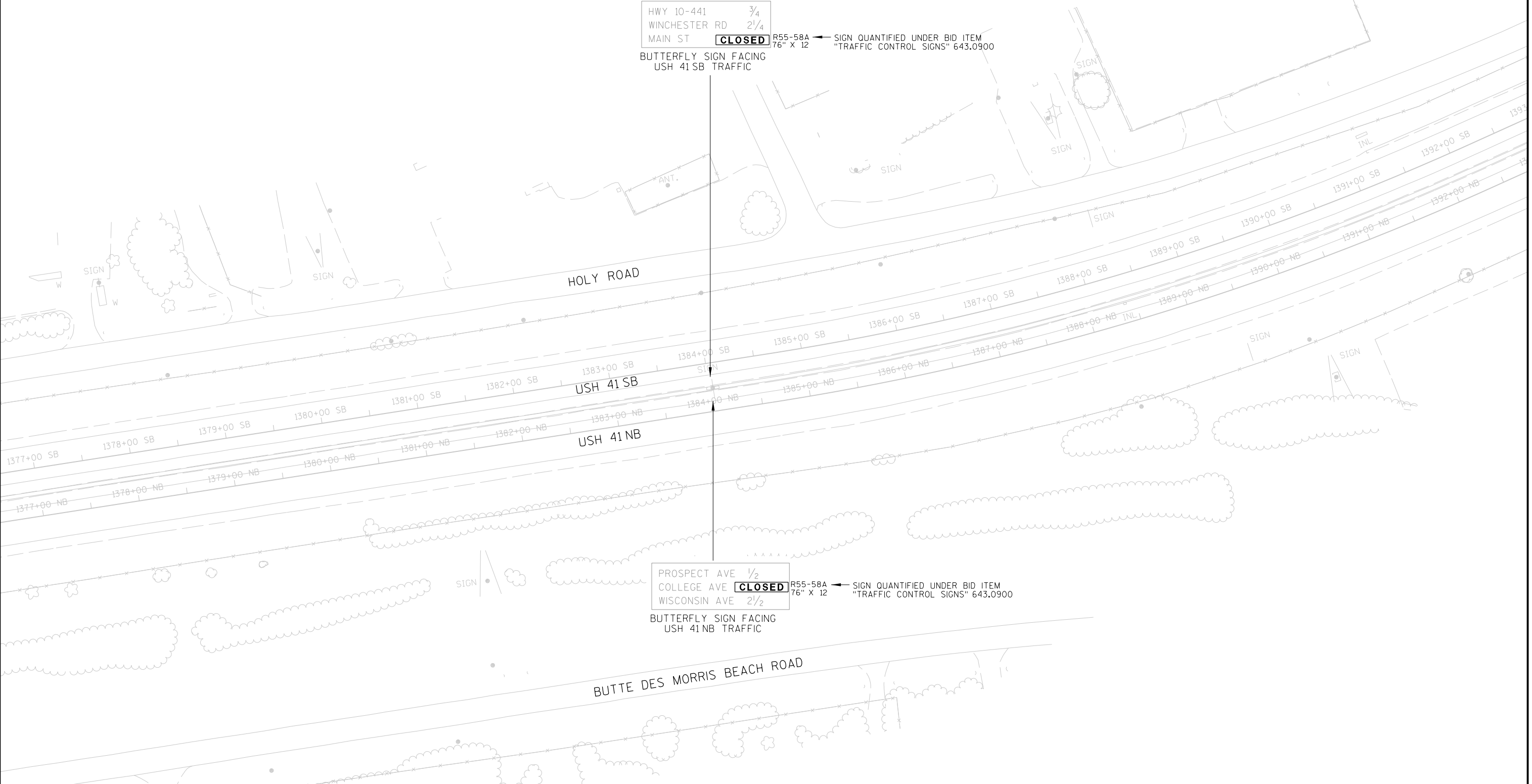


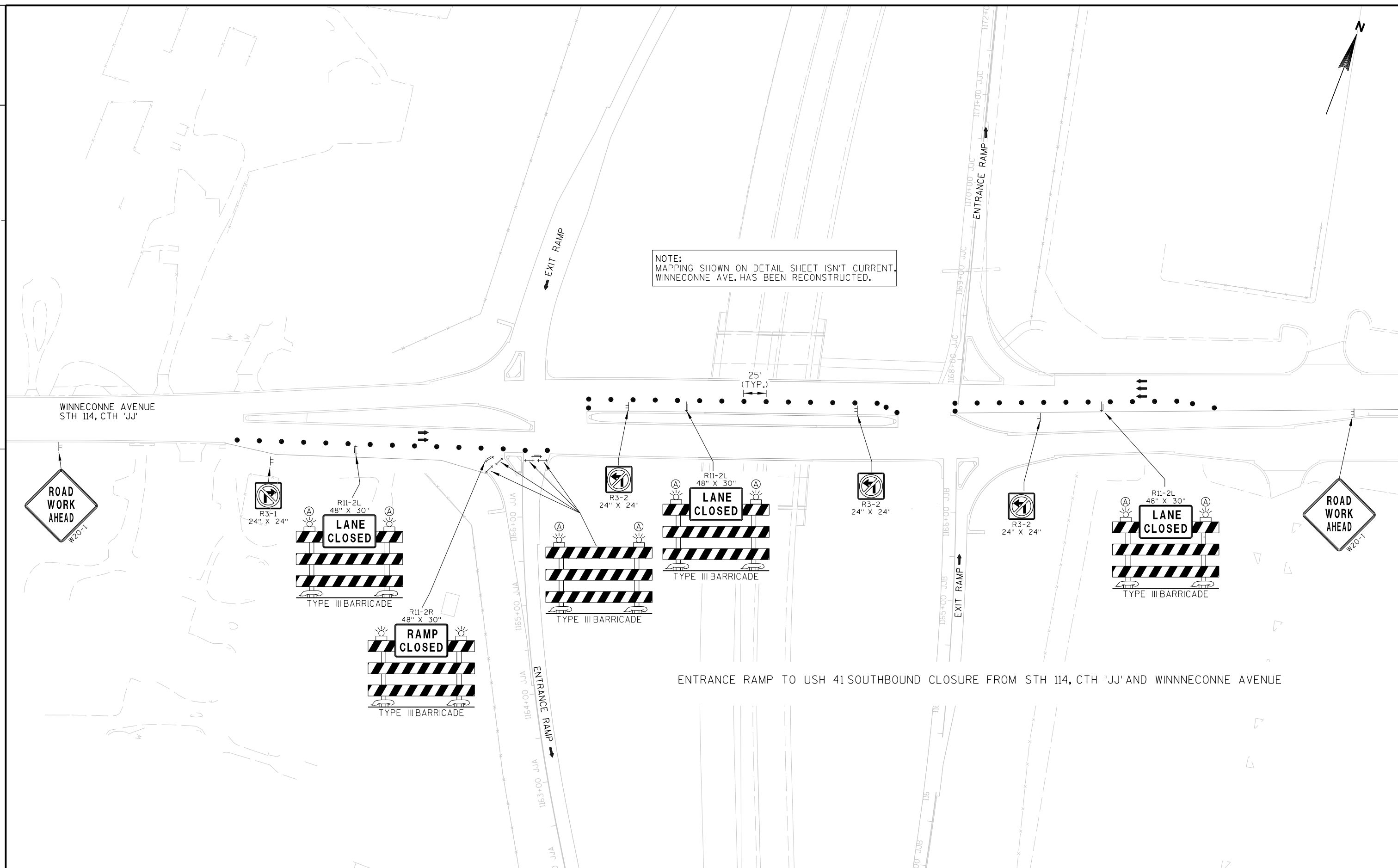


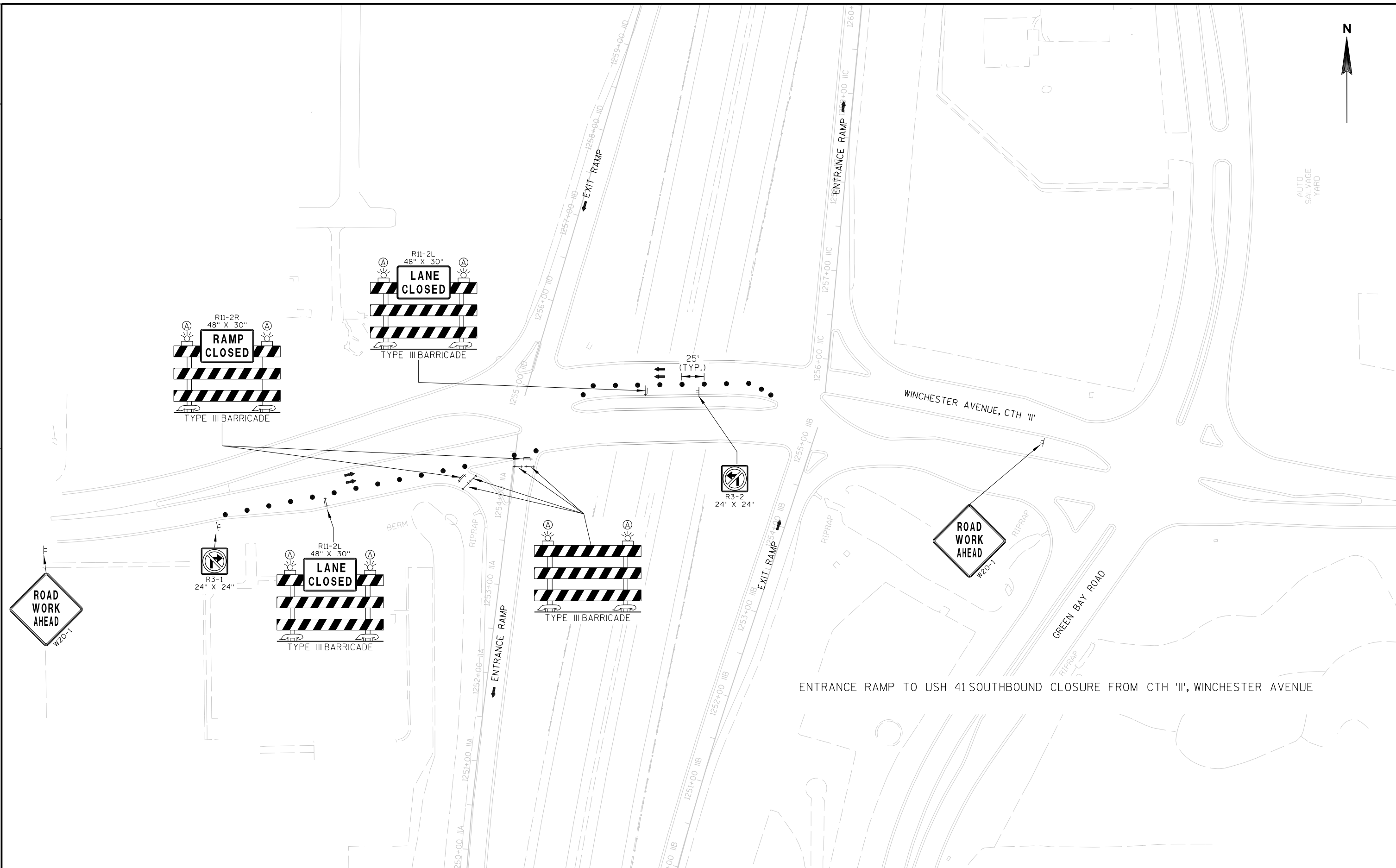


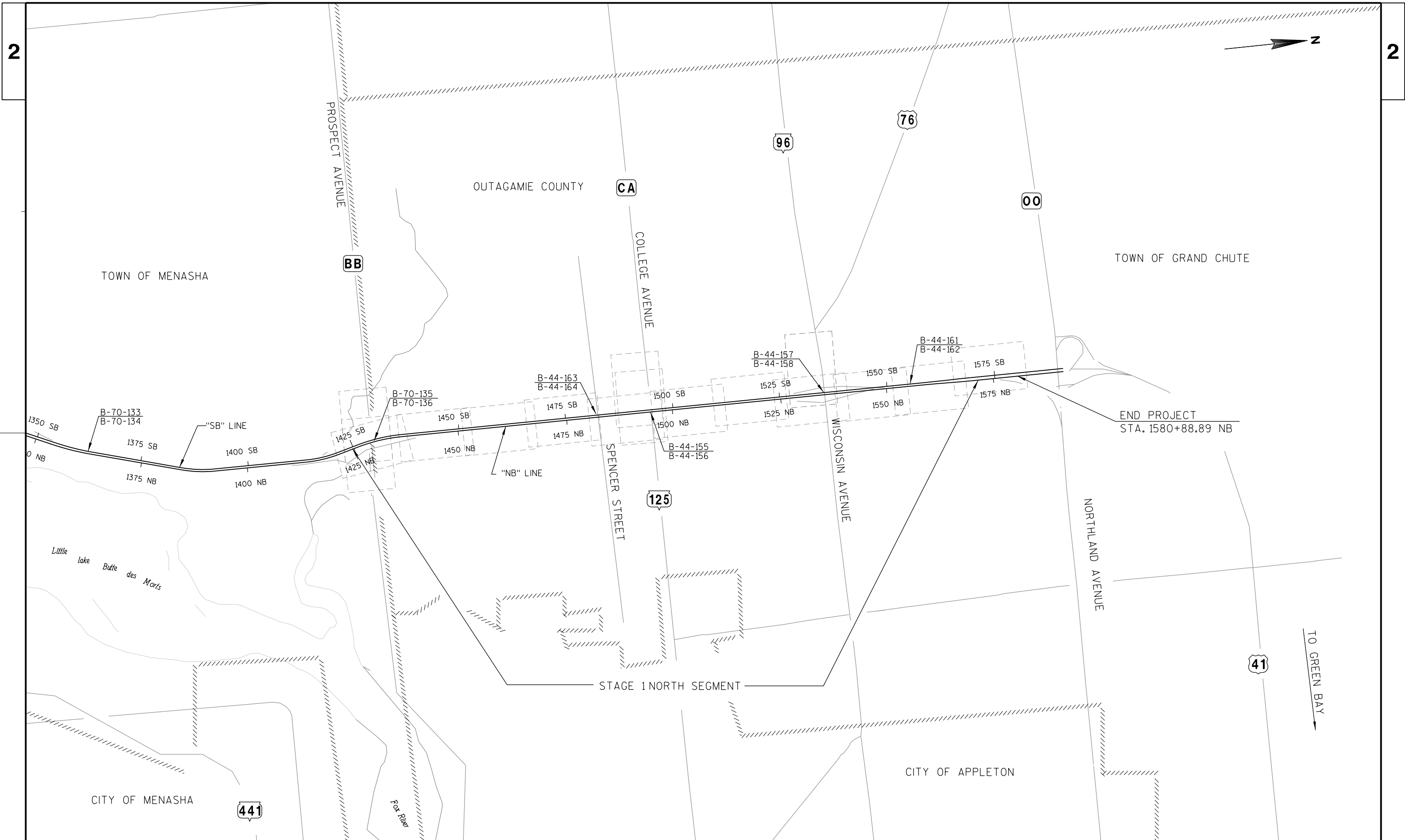
TRAFFIC CONTROL FOR STAGE 1 CONSTRUCTION LANES USH 41 SOUTHBOUND AND NORTHBOUND

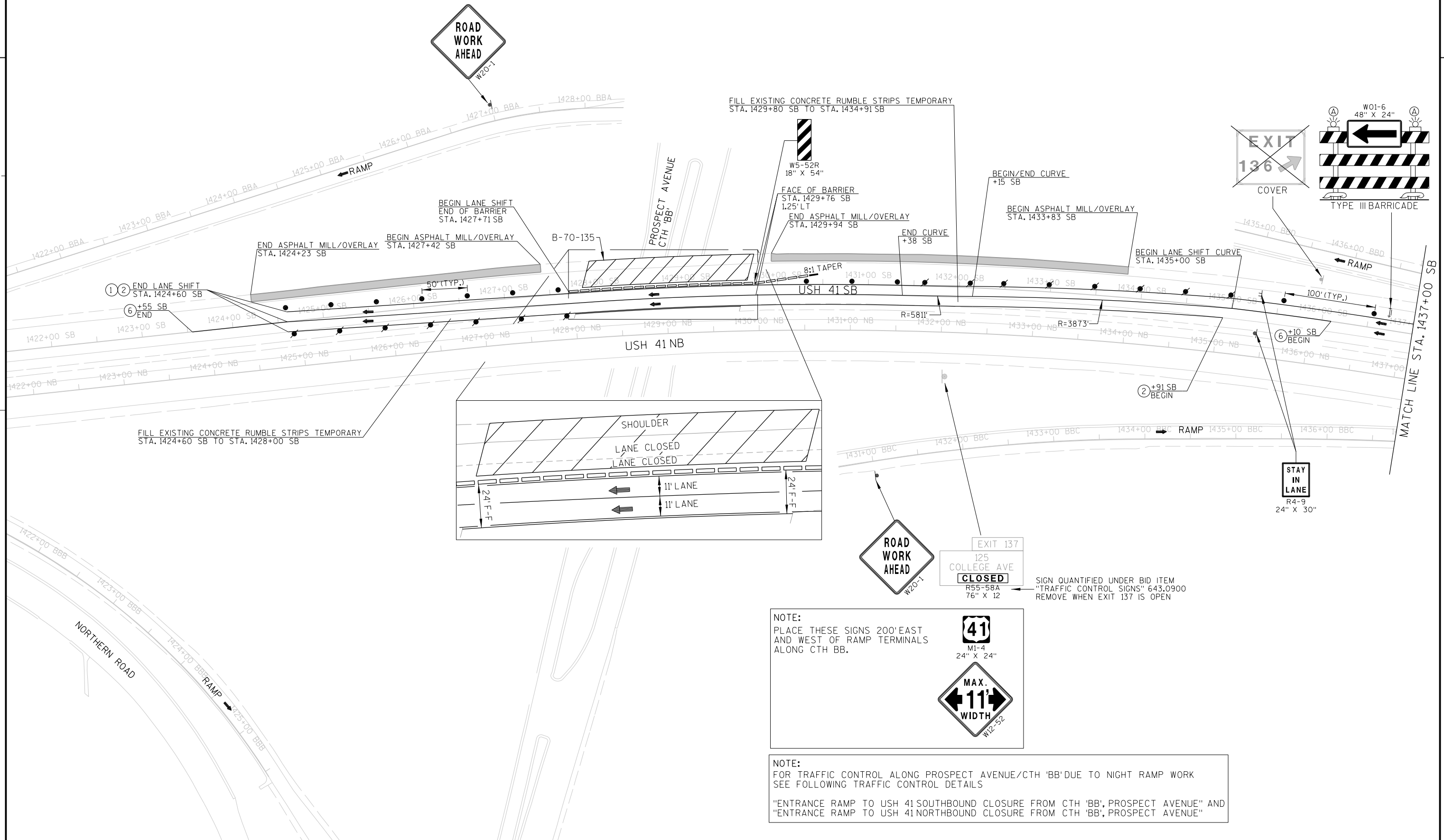
SIGN COVERING WITH "CLOSED" PLAQUE DURING STAGE 1 CONSTRUCTION FOR SOUTH AND NORTH ENDS. USE WHEN EXIT RAMP AT 132 MAIN STREET FROM USH 41 SOUTHBOUND AND 137 COLLEGE AVENUE FROM USH 41 NORTHBOUND ARE CLOSED. REMOVE PLAQUES WHEN RAMP ARE OPEN.

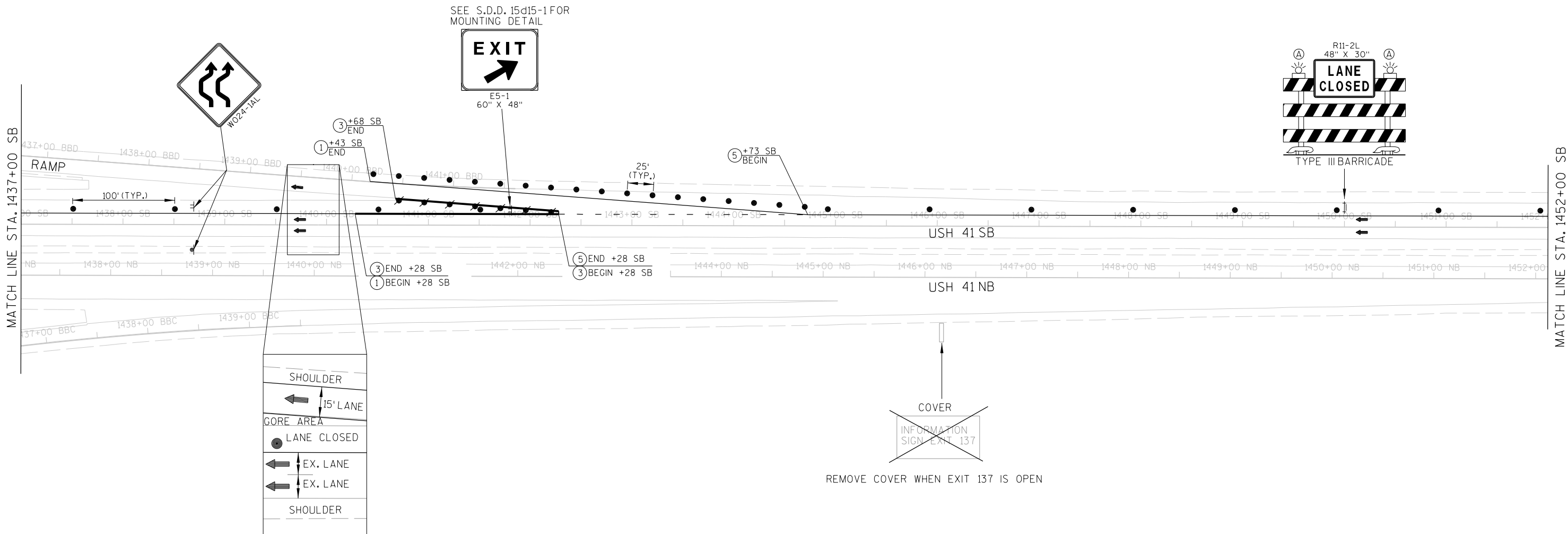




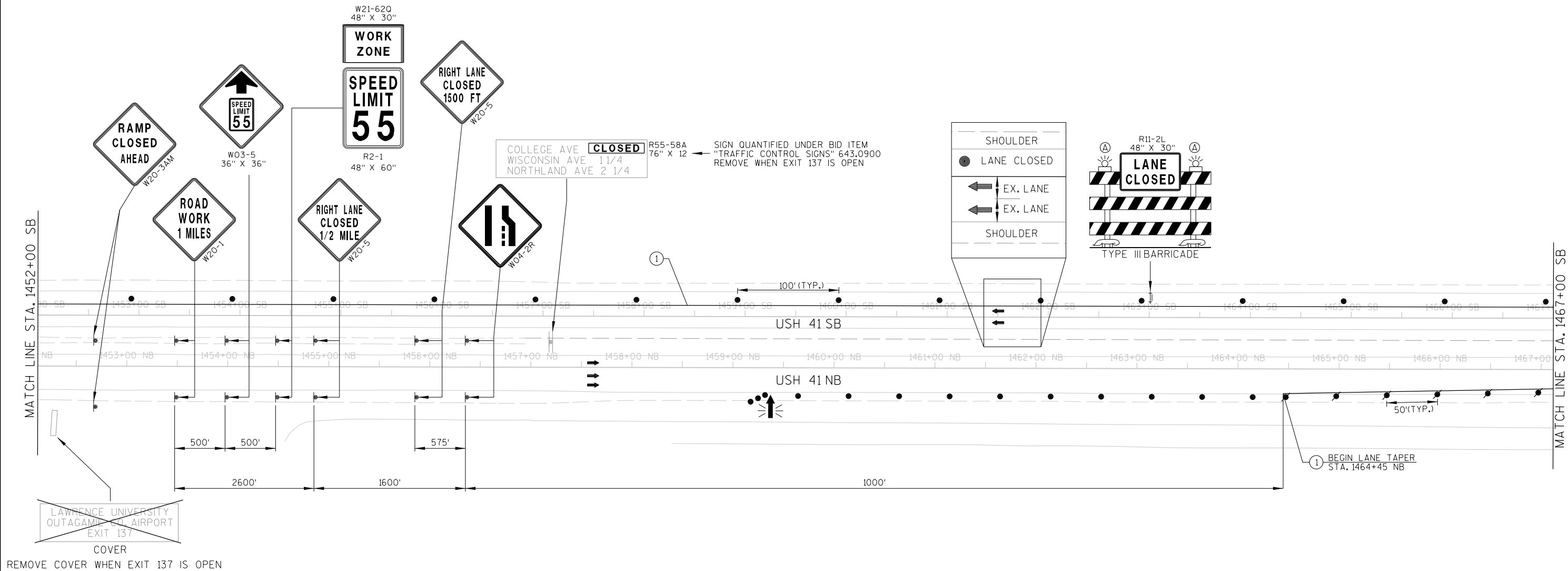


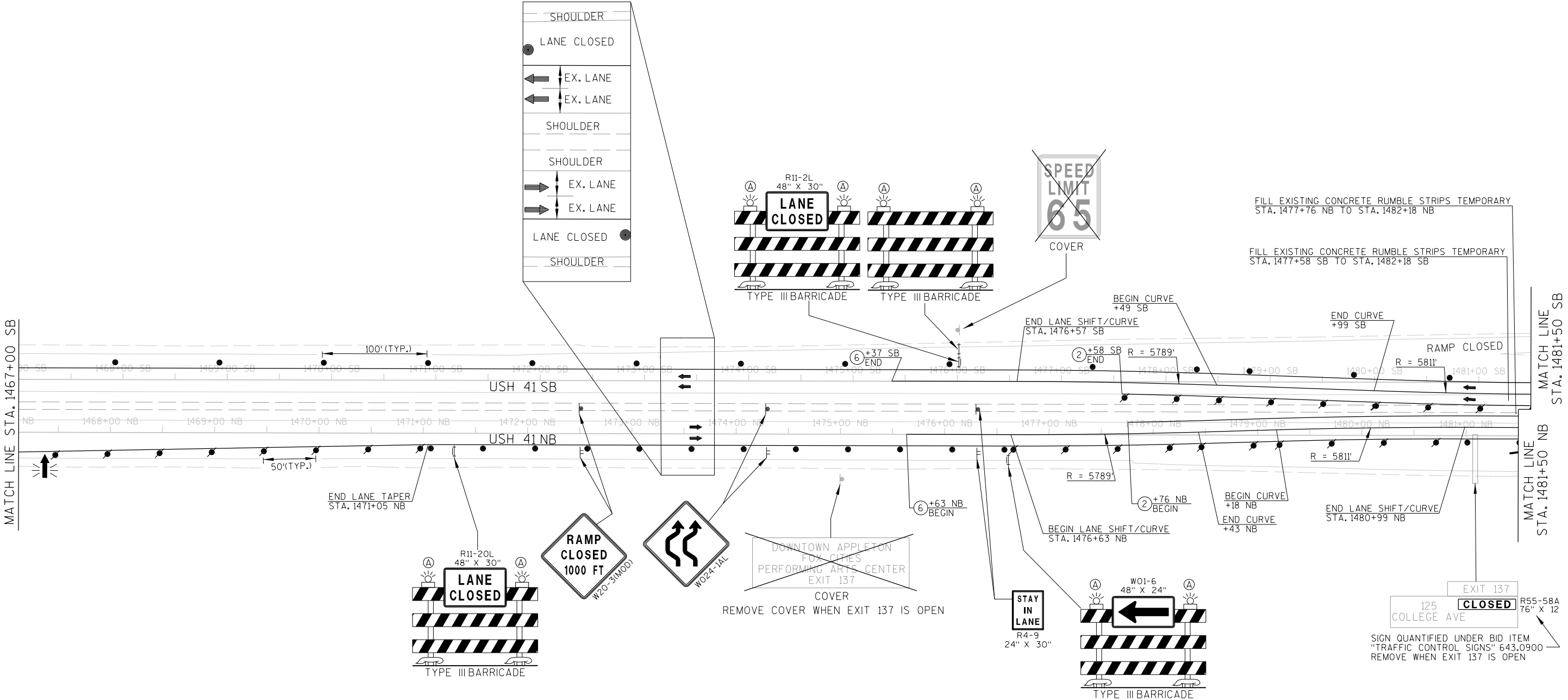






TRAFFIC CONTROL FOR STAGE 1 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

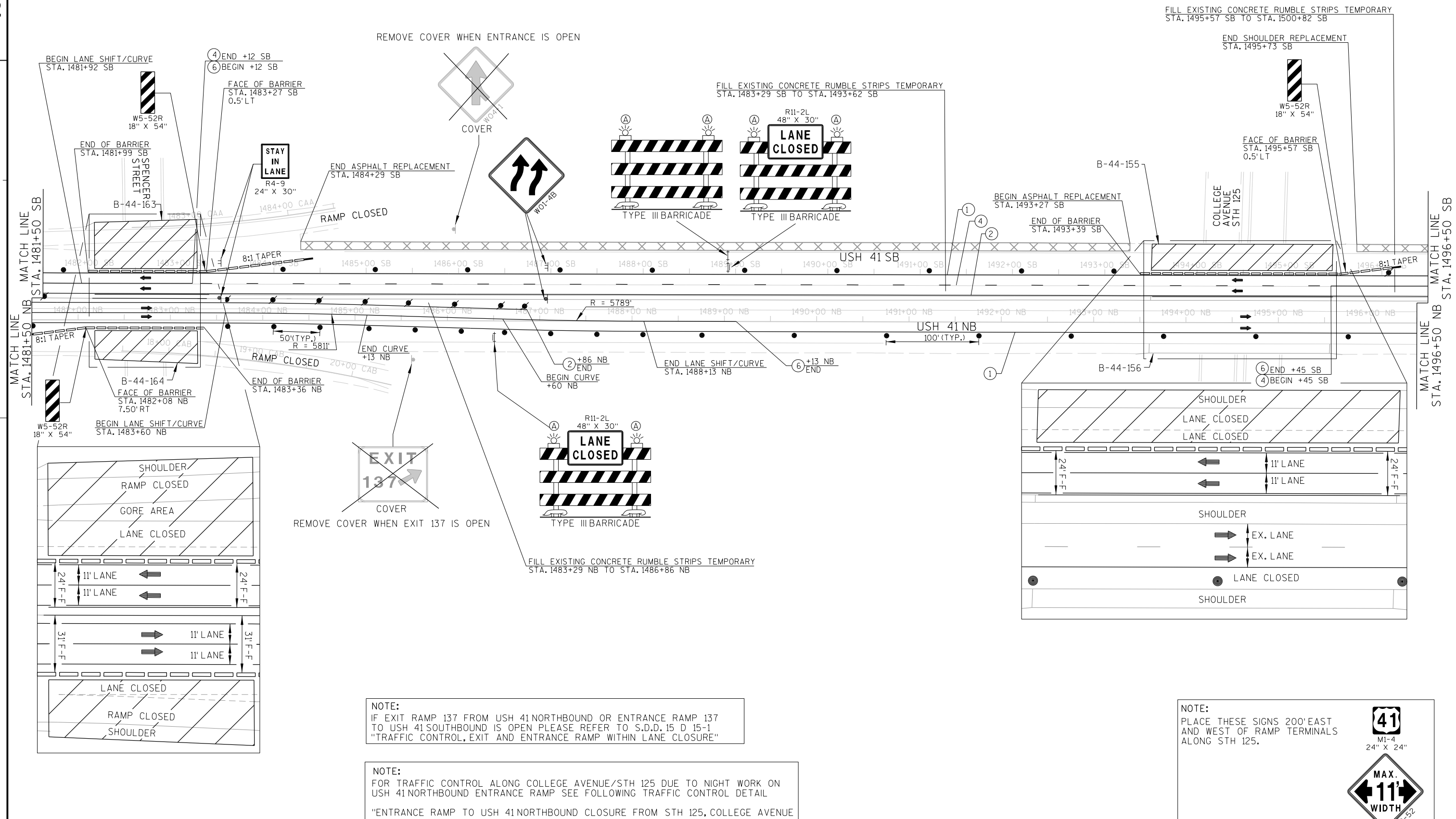




TRAFFIC CONTROL FOR STAGE 1 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

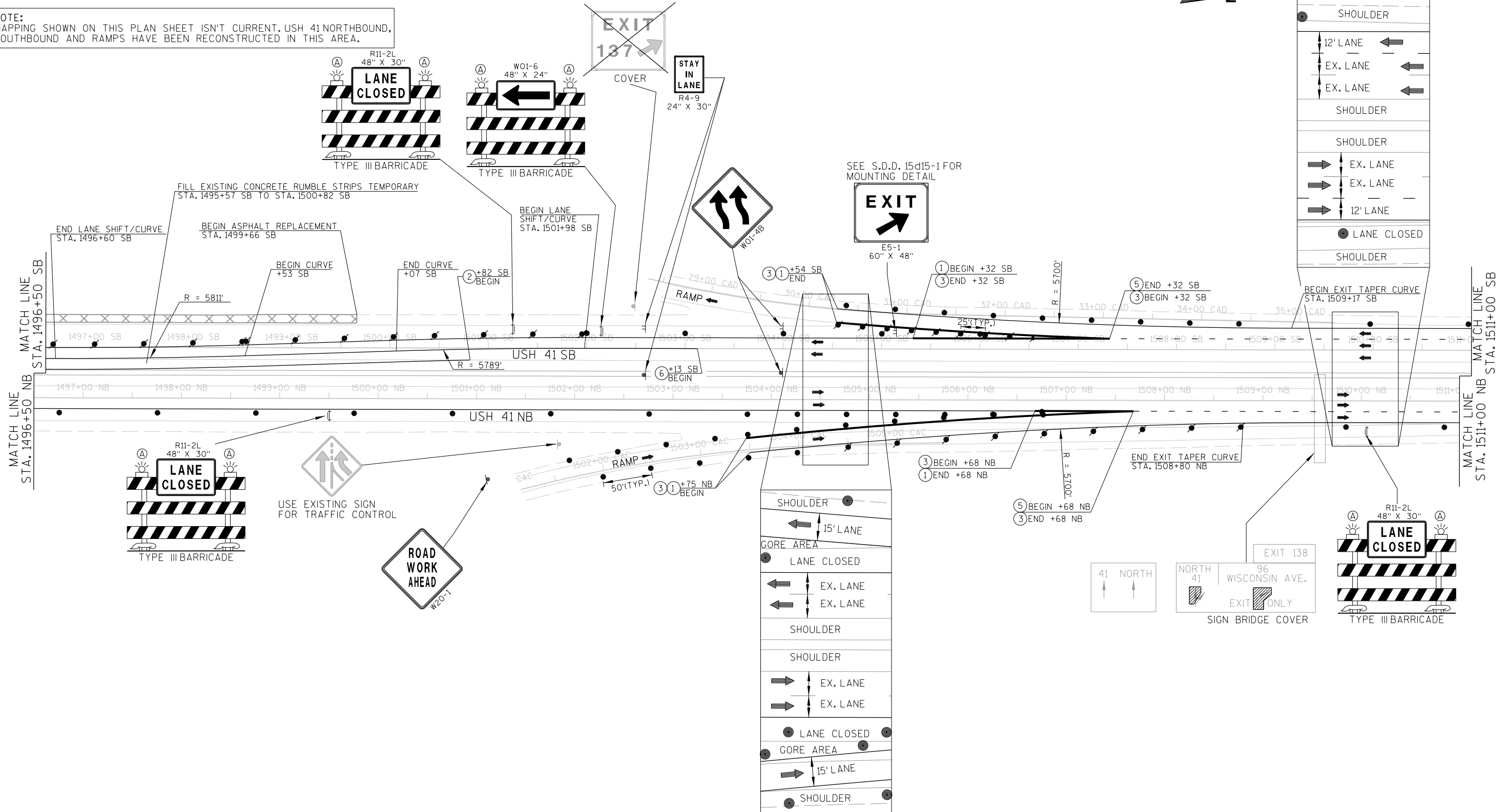
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2

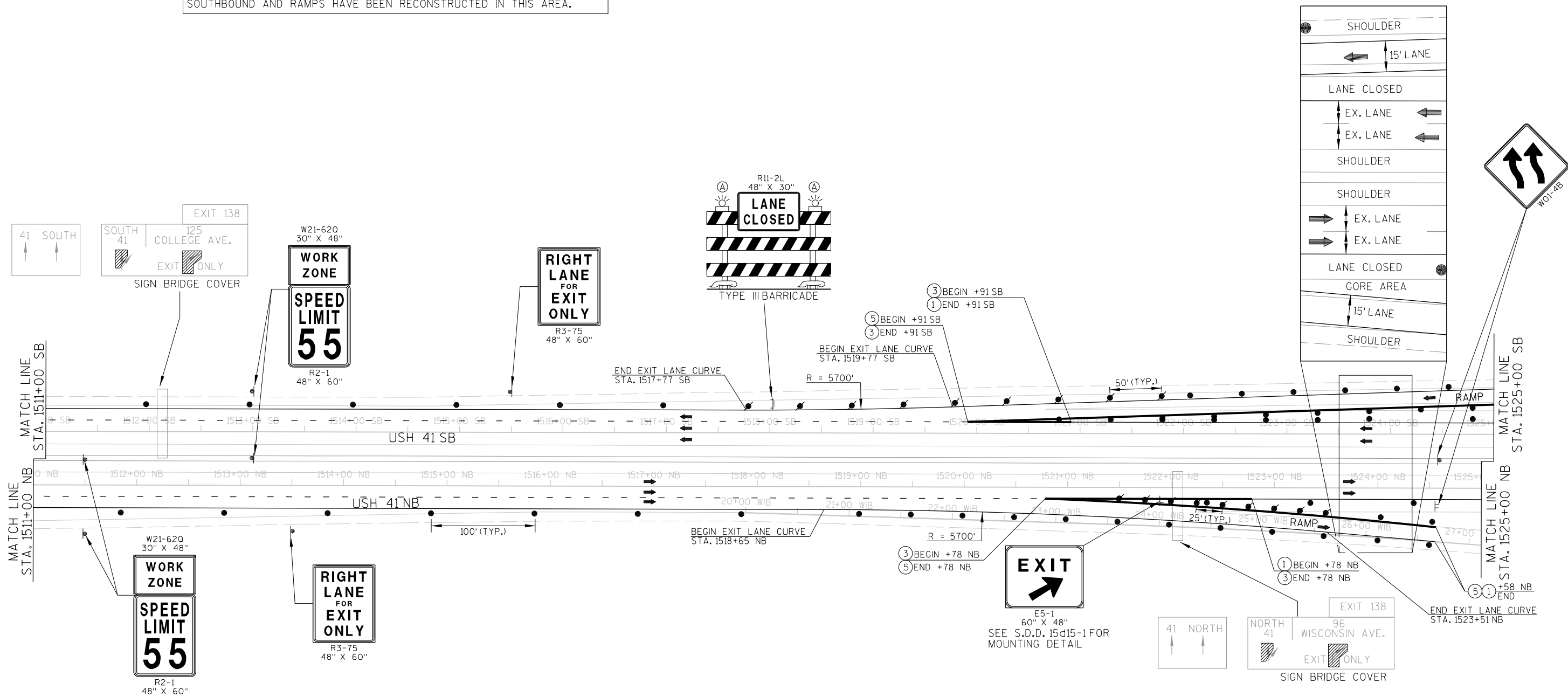


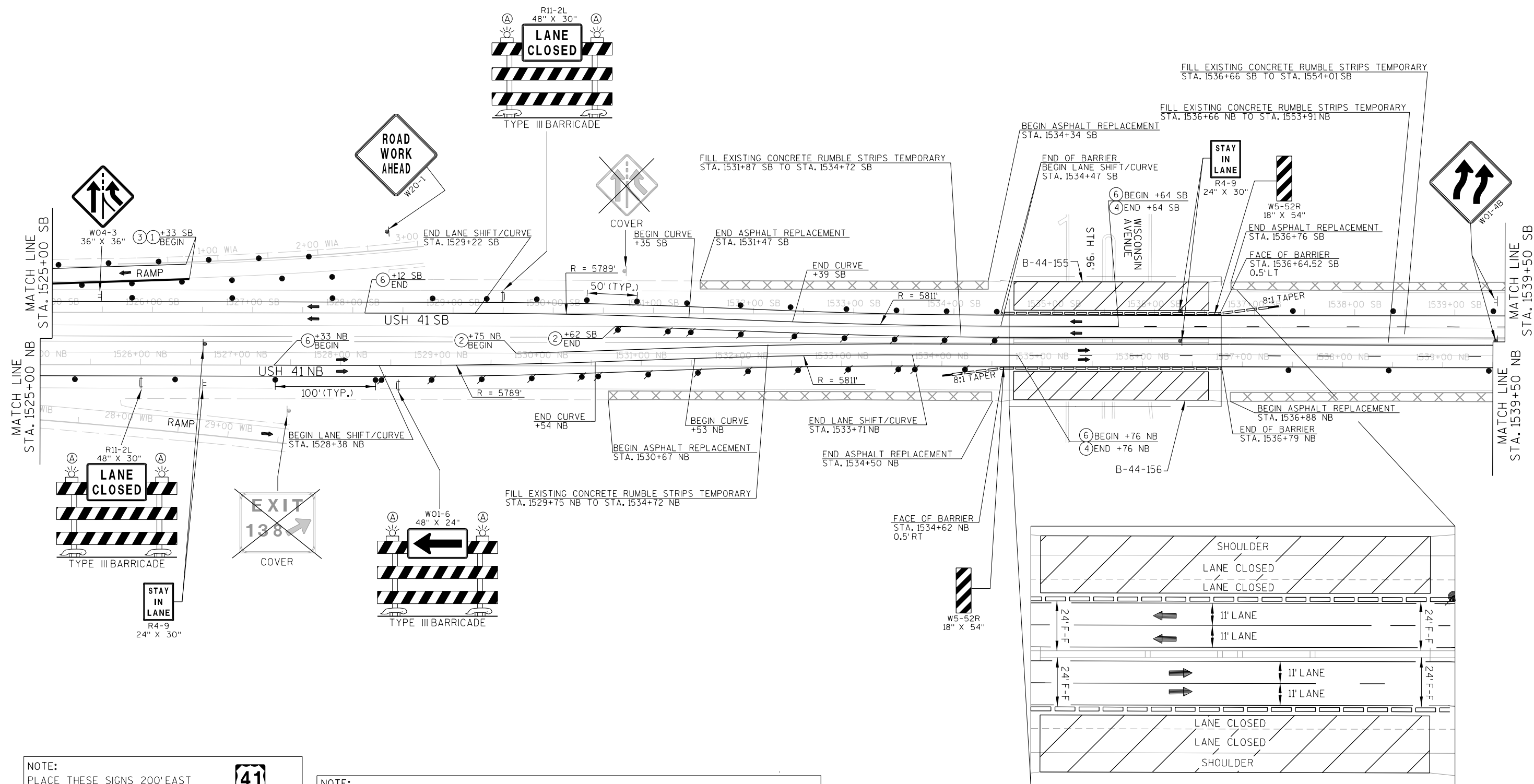
TRAFFIC CONTROL FOR STAGE 1 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

NOTE:
MAPPING SHOWN ON THIS PLAN SHEET ISN'T CURRENT. USH 41 NORTHBOUND,
SOUTHBOUND AND RAMPS HAVE BEEN RECONSTRUCTED IN THIS AREA.



NOTE:
MAPPING SHOWN ON THIS PLAN SHEET ISN'T CURRENT. USH 41 NORTHBOUND,
SOUTHBOUND AND RAMP HAVE BEEN RECONSTRUCTED IN THIS AREA.





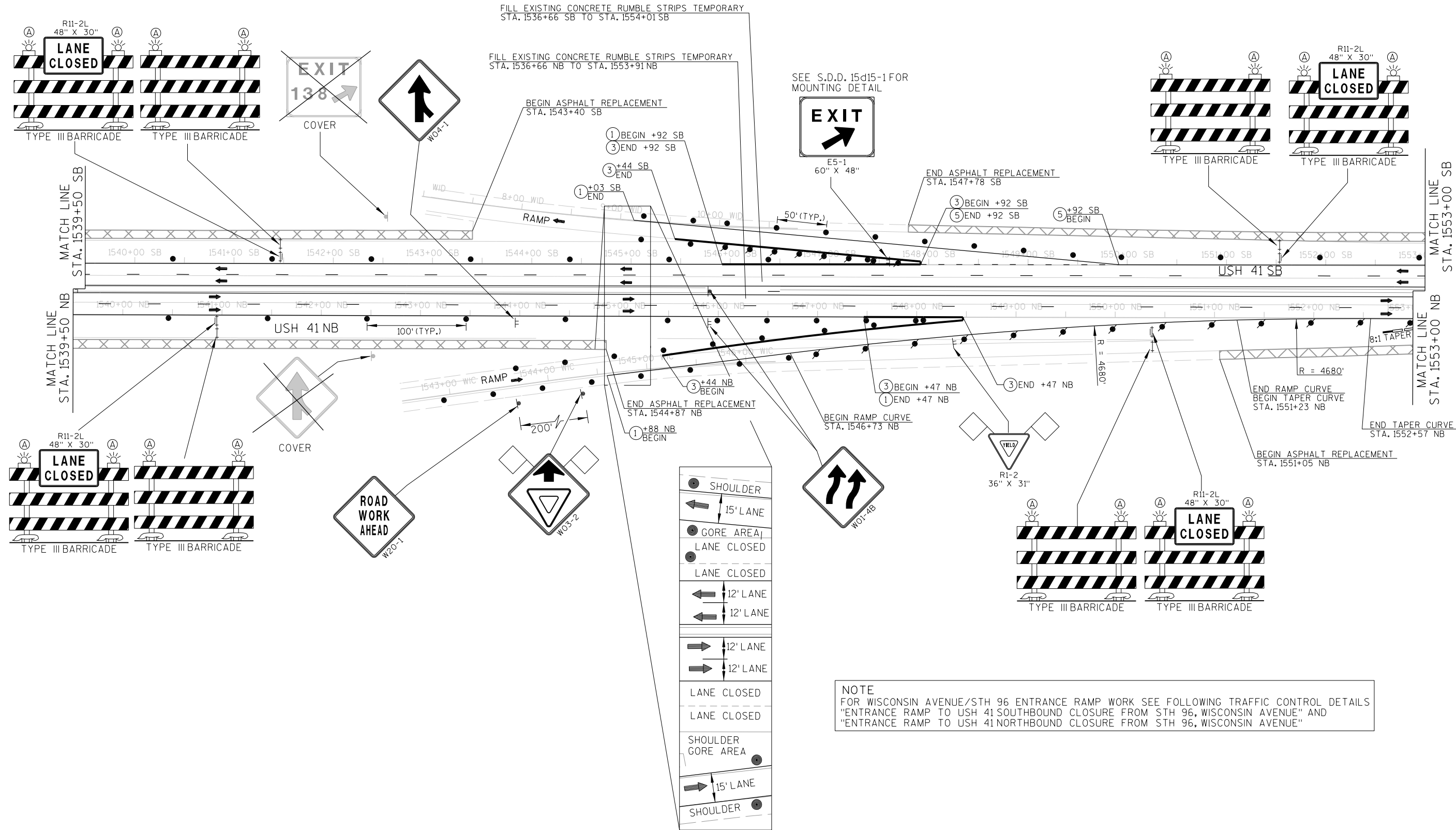
NOTE:
PLACE THESE SIGNS 200' EAST
AND WEST OF RAMP TERMINALS
ALONG STH 96.



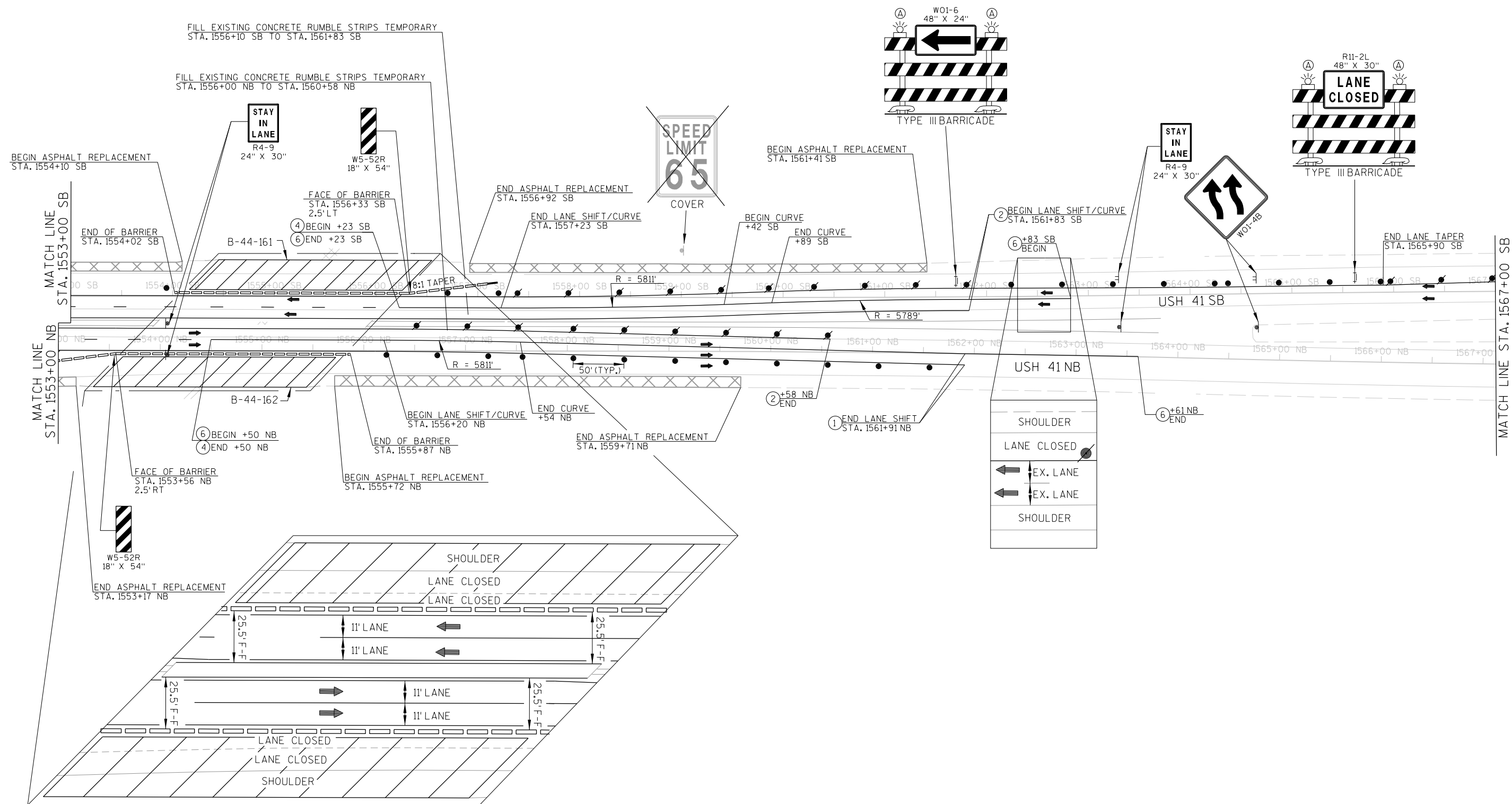
NOTE:
FOR TRAFFIC CONTROL ALONG WISCONSIN AVENUE/STH 96 DUE TO NIGHT RAMP WORK
SEE FOLLOWING TRAFFIC CONTROL DETAILS

"ENTRANCE RAMP TO USH 41 SOUTHBOUND CLOSURE FROM STH 96, WISCONSIN AVENUE" AND
"ENTRANCE RAMP TO USH 41 NORTHBOUND CLOSURE FROM STH 96, WISCONSIN AVENUE"

NOTE:
MAPPING SHOWN ON THIS PLAN SHEET ISN'T CURRENT. USH 41 NORTHBOUND,
SOUTHBOUND AND RAMP HAVE BEEN RECONSTRUCTED IN THIS AREA.

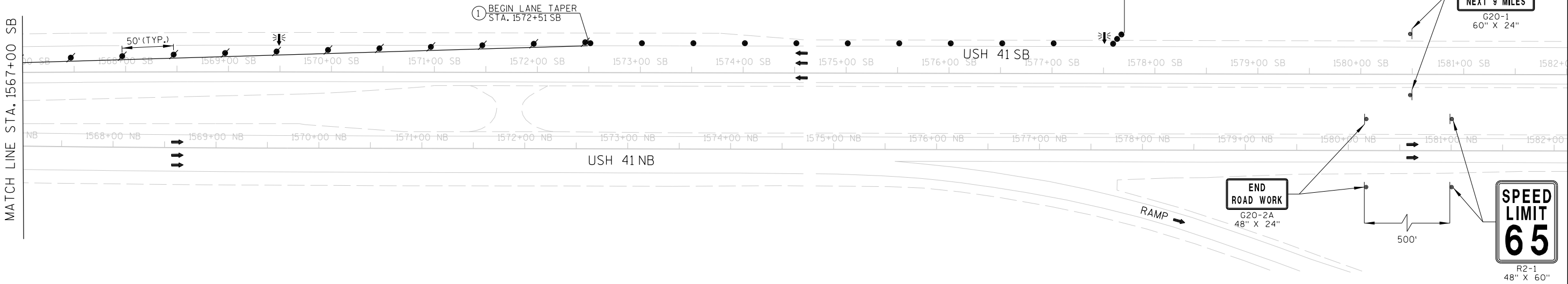
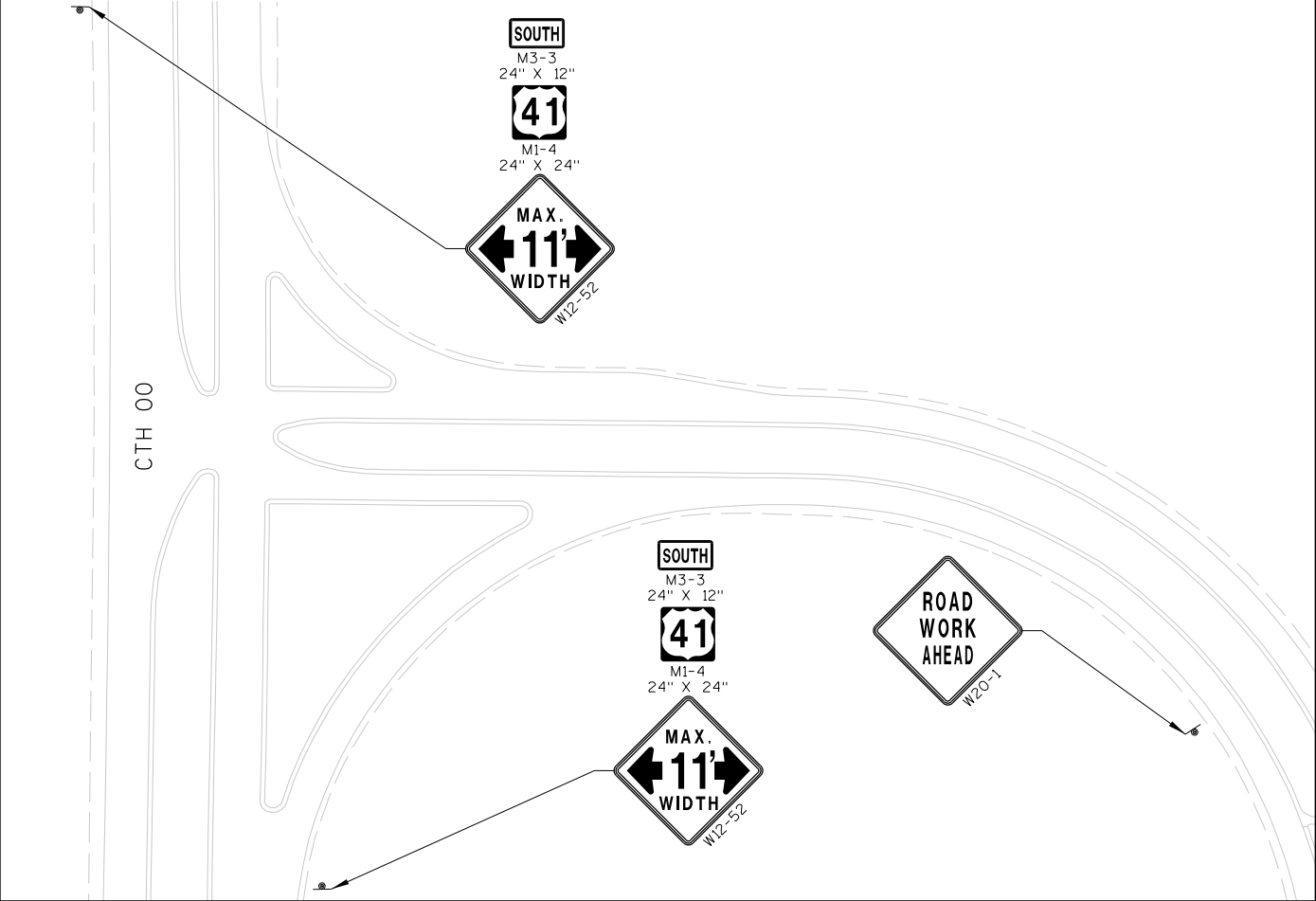


NOTE
FOR WISCONSIN AVENUE/STH 96 ENTRANCE RAMP WORK SEE FOLLOWING TRAFFIC CONTROL DETAILS
"ENTRANCE RAMP TO USH 41 SOUTHBOUND CLOSURE FROM STH 96, WISCONSIN AVENUE" AND
"ENTRANCE RAMP TO USH 41 NORTHBOUND CLOSURE FROM STH 96, WISCONSIN AVENUE"

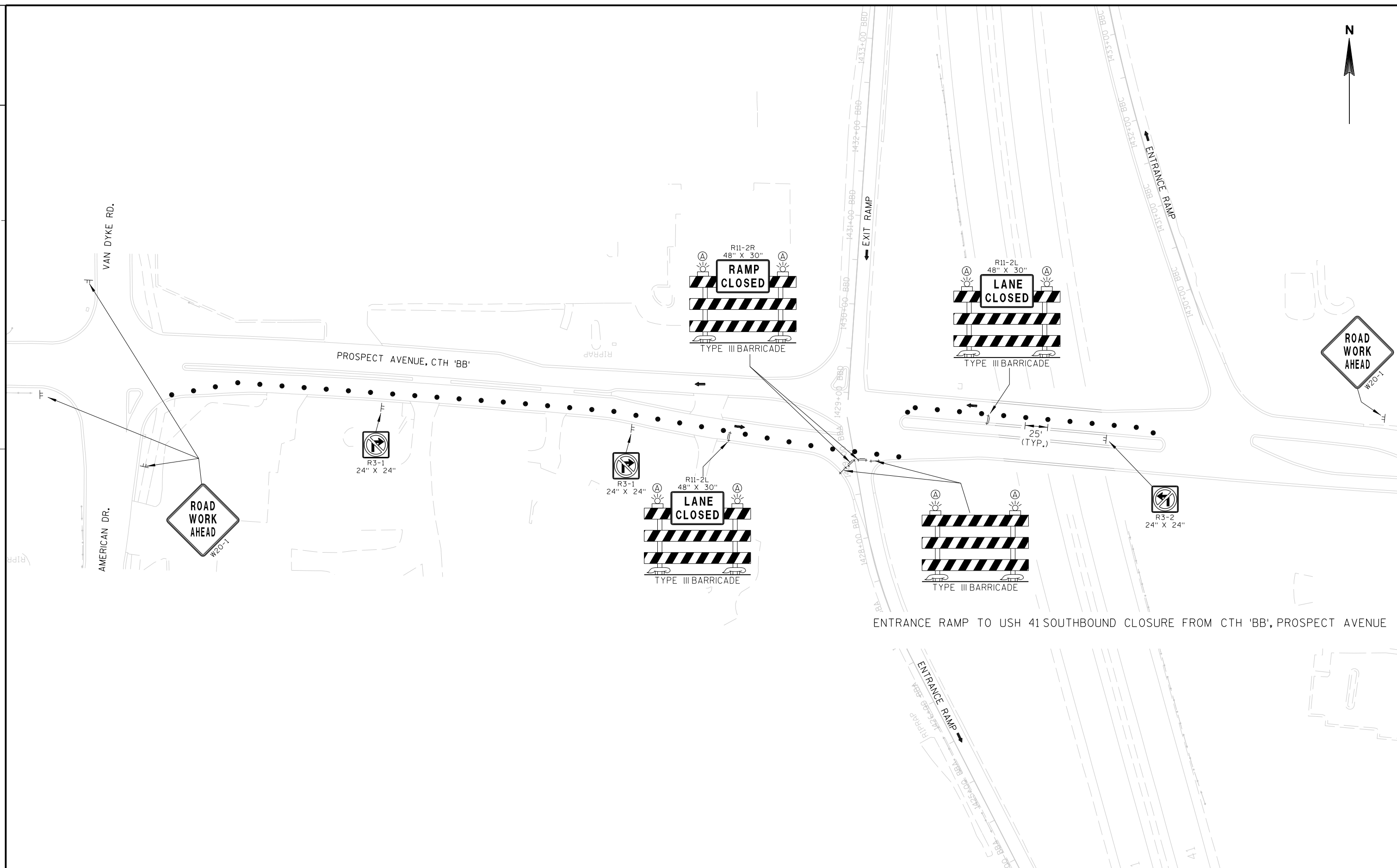


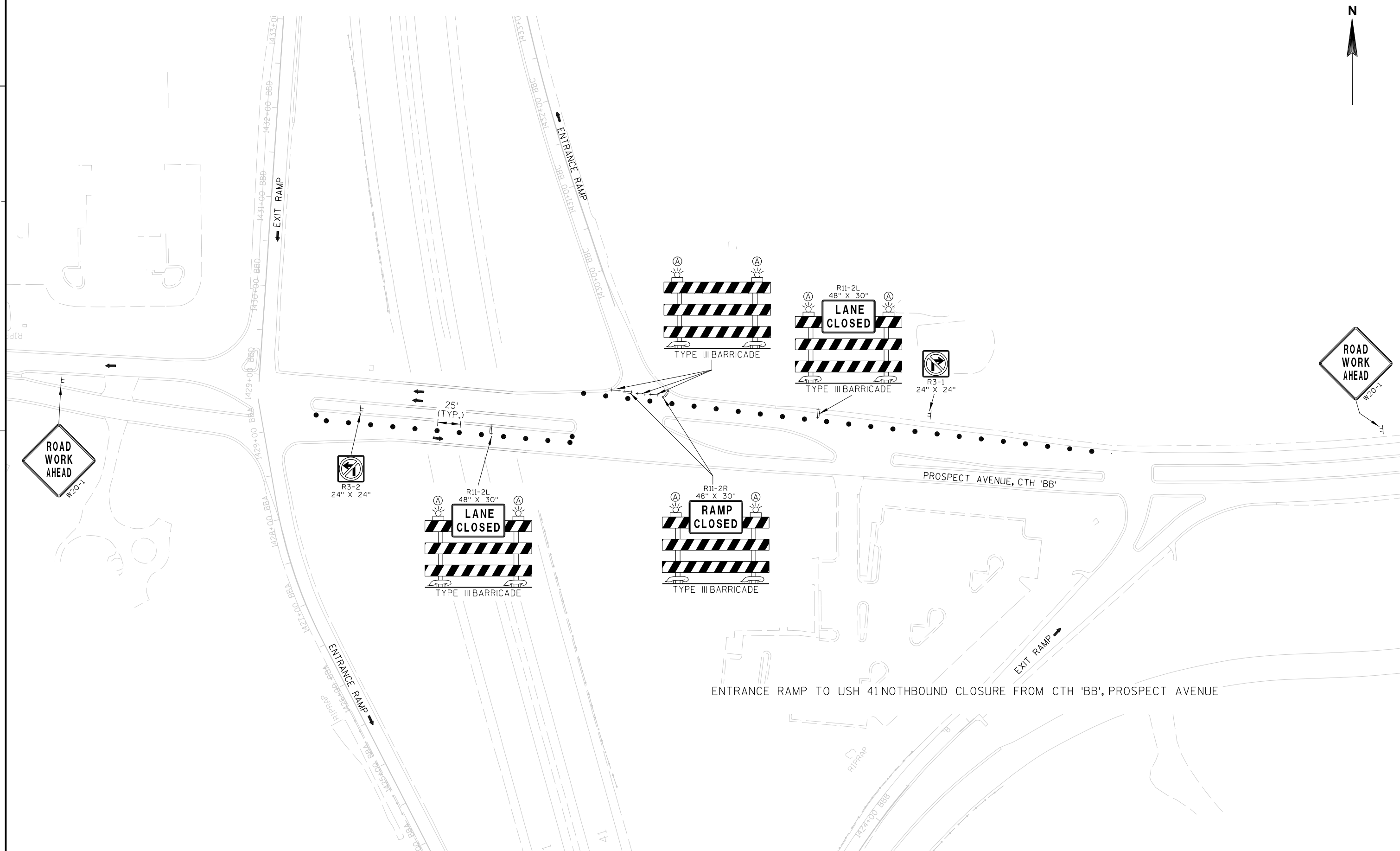


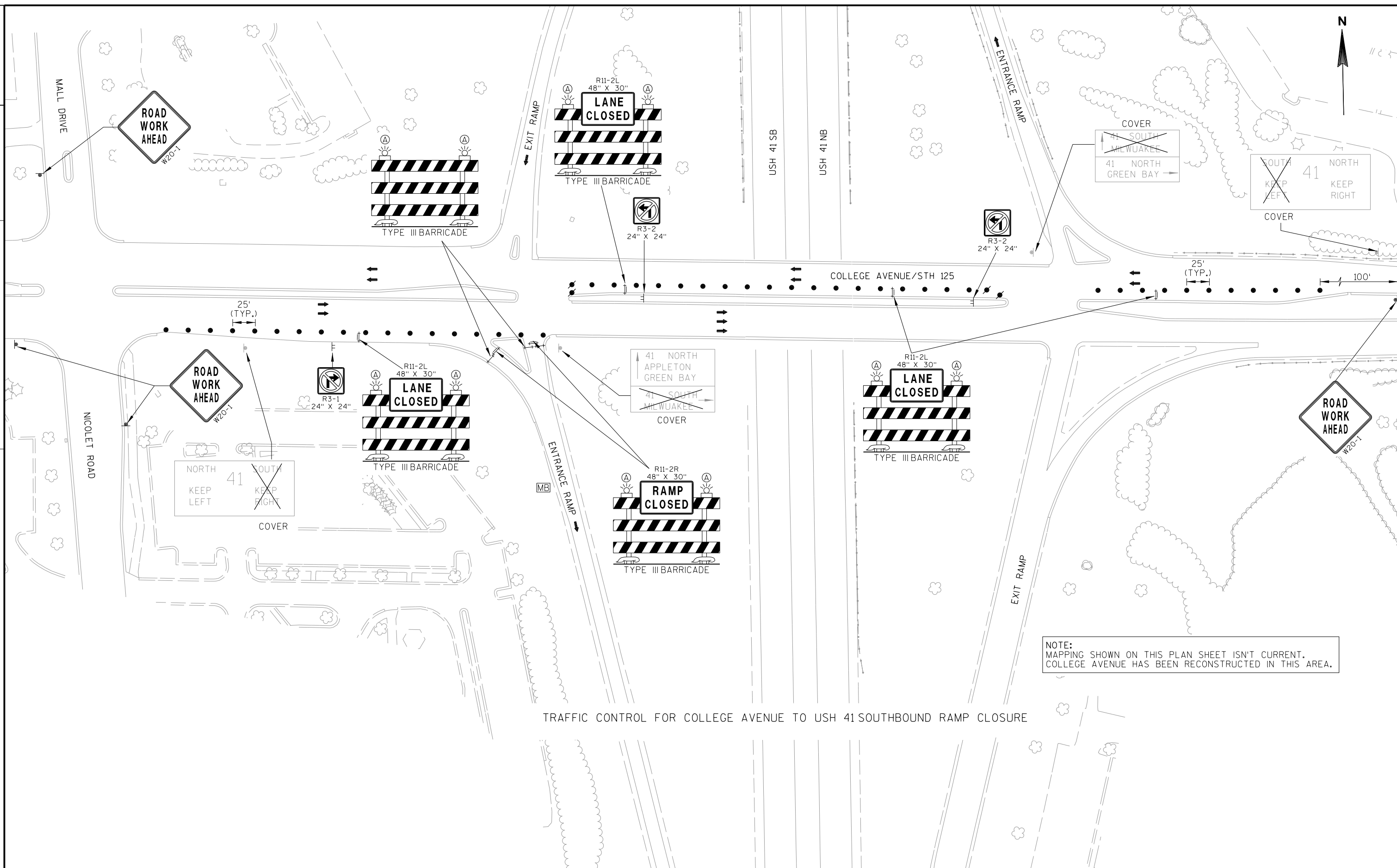
CTH 00 SOUTHBOUND ON RAMP DETAIL

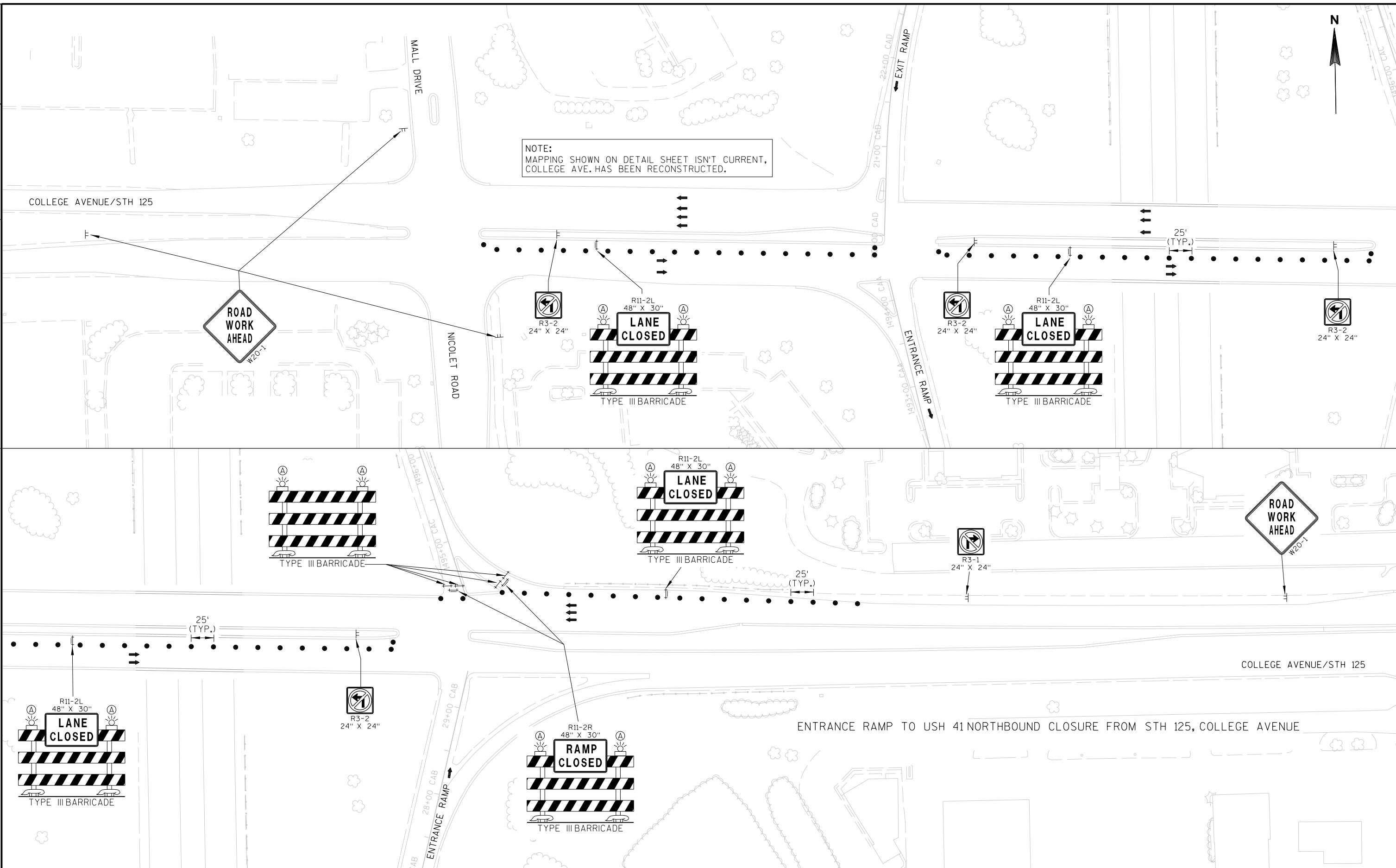


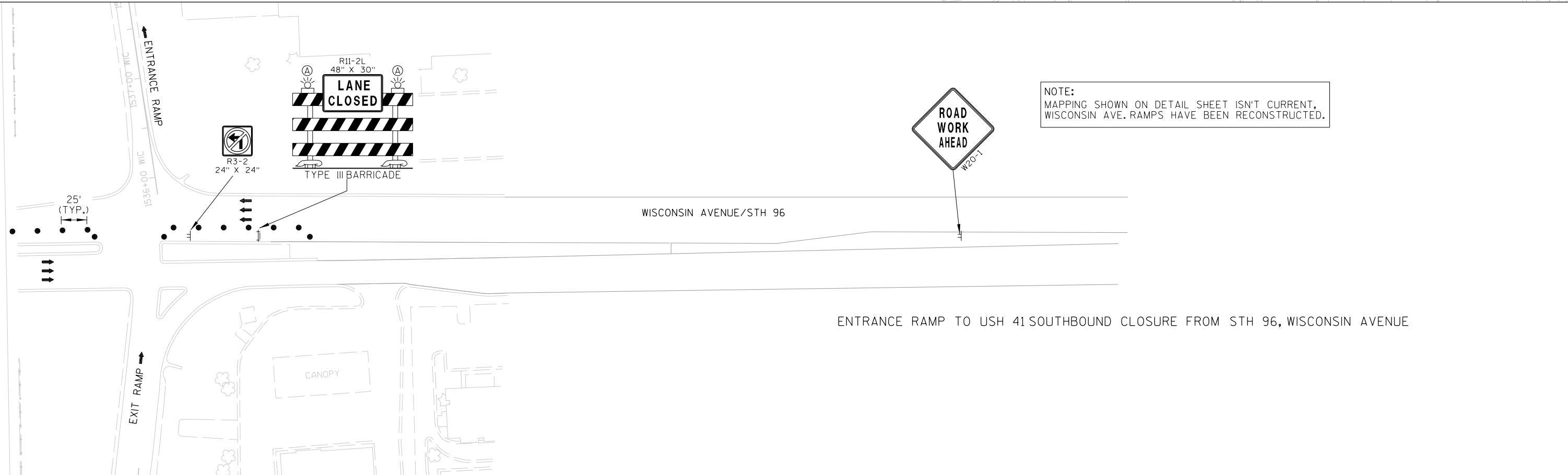
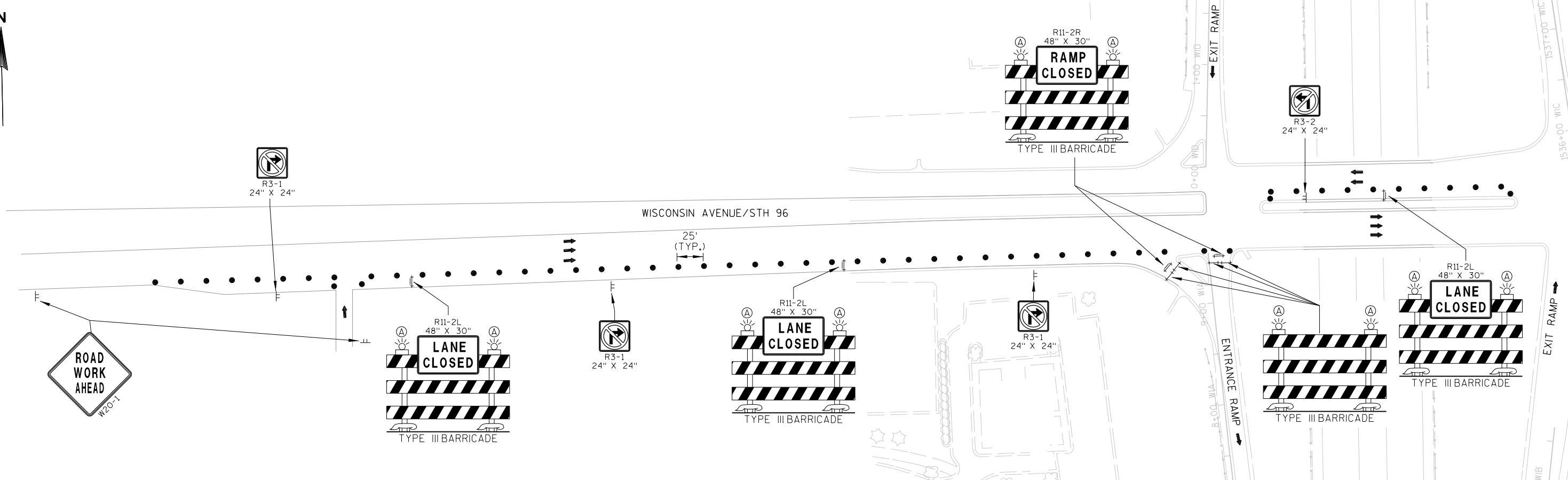
NOTE:
PLACE PORTABLE CHANGABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS
ALONG USH 41SB SOUTH OF STH 47 WITHIN VIEW OF TRAFFIC CAMERA FOR
DURATION OF PROJECT.







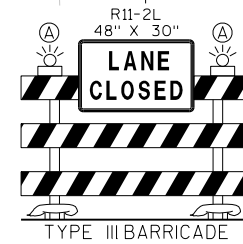
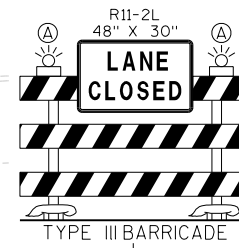
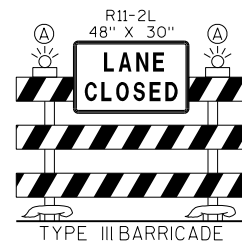




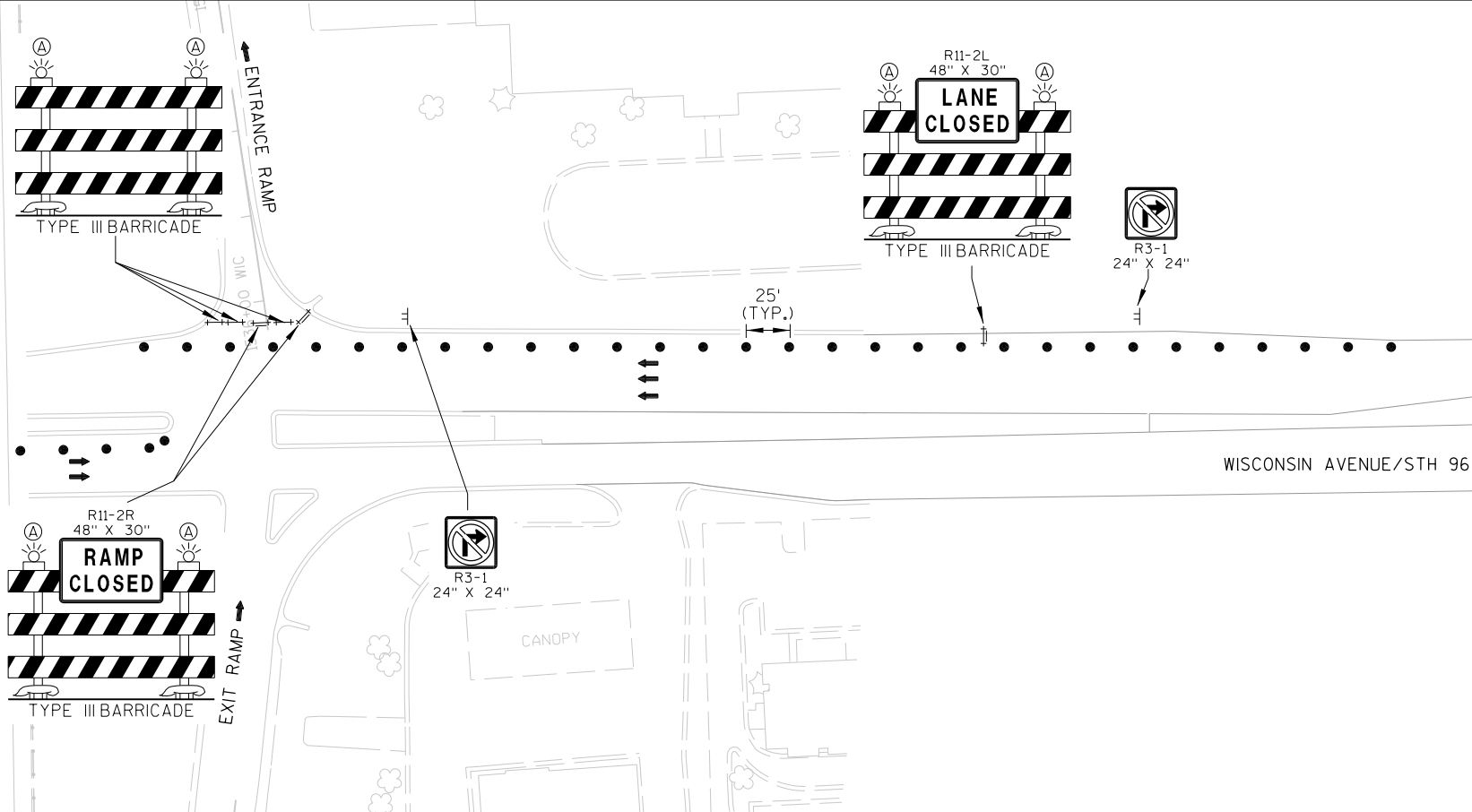
NOTE:
MAPPING SHOWN ON DETAIL SHEET ISN'T CURRENT,
WISCONSIN AVE. RAMPS HAVE BEEN RECONSTRUCTED.



WISCONSIN AVENUE/STH 96



EXIT RAMP

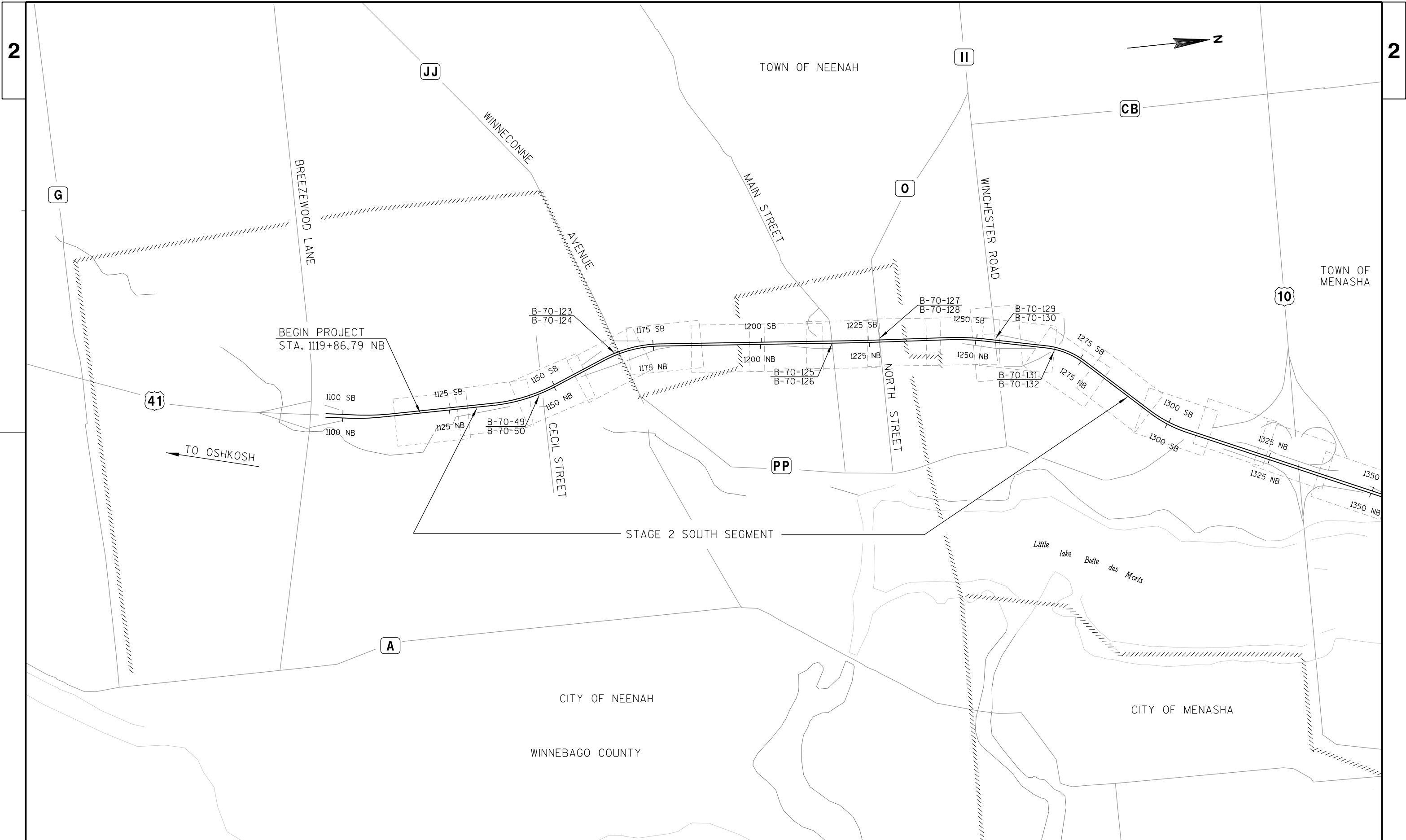


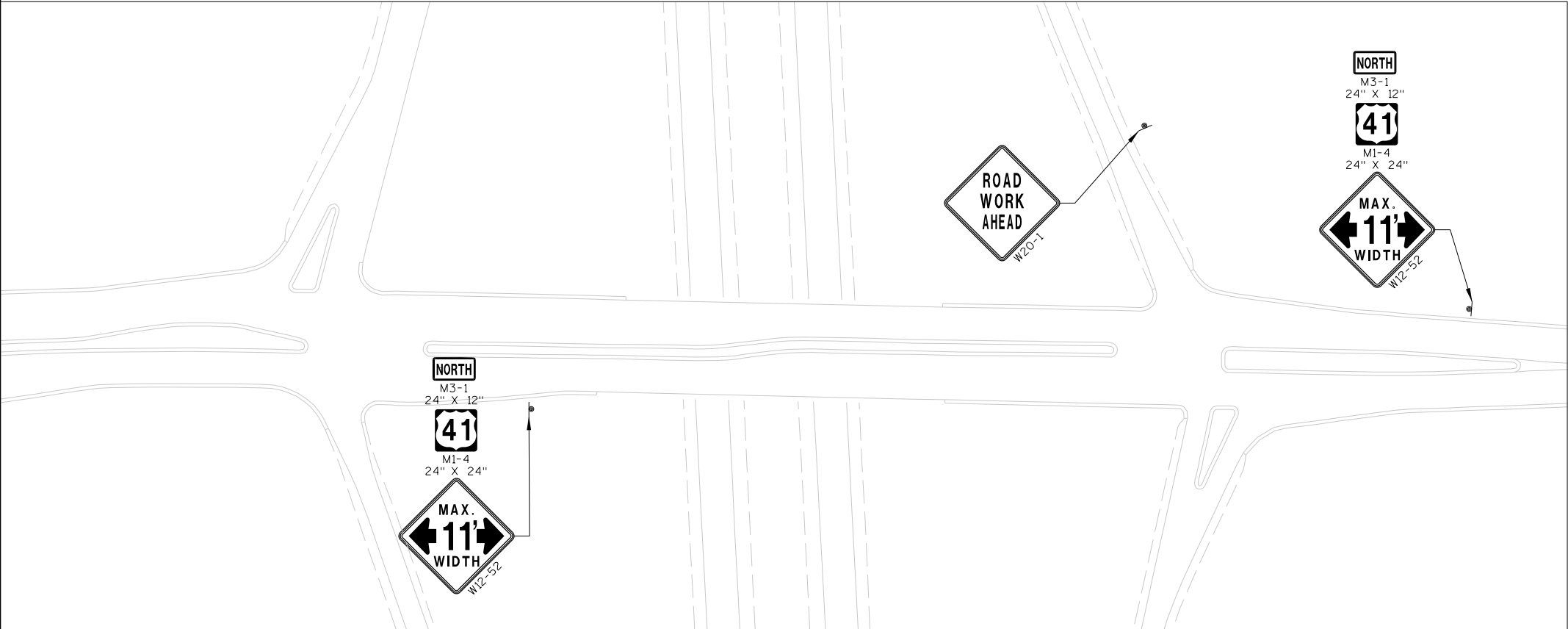
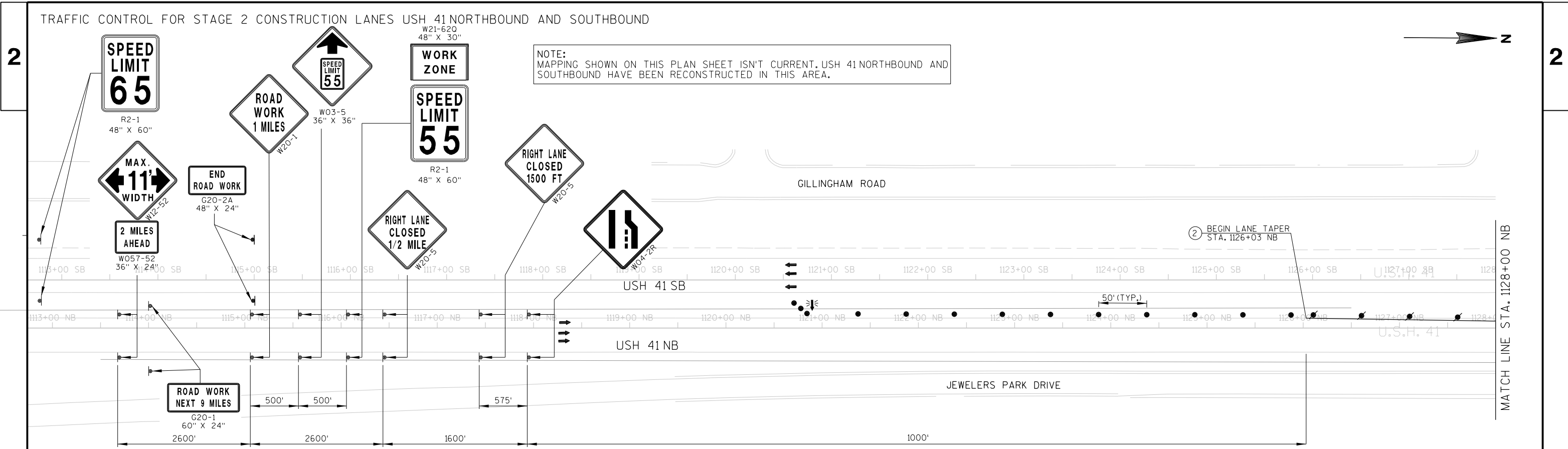
WISCONSIN AVENUE/STH 96

ENTRANCE RAMP TO USH 41 NORTHBOUND CLOSURE FROM STH 96, WISCONSIN AVENUE

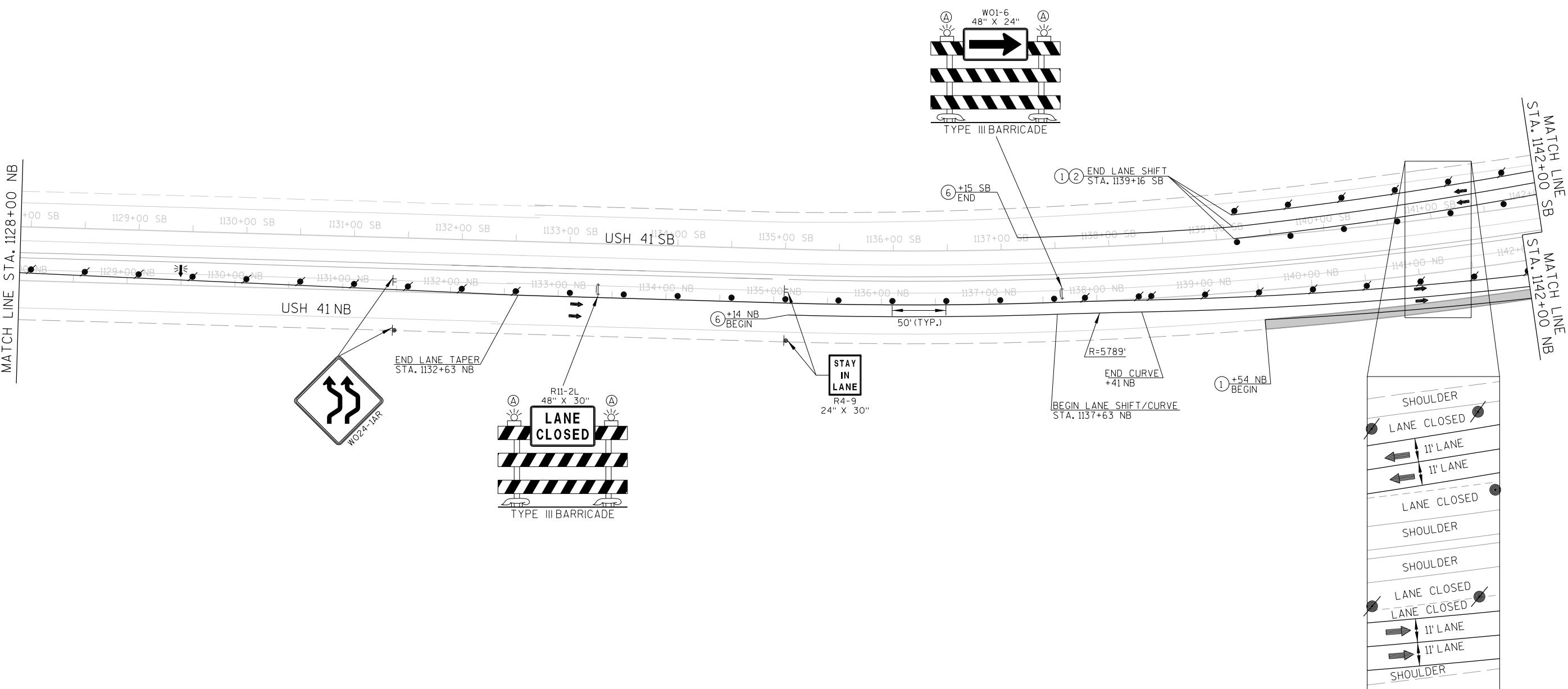


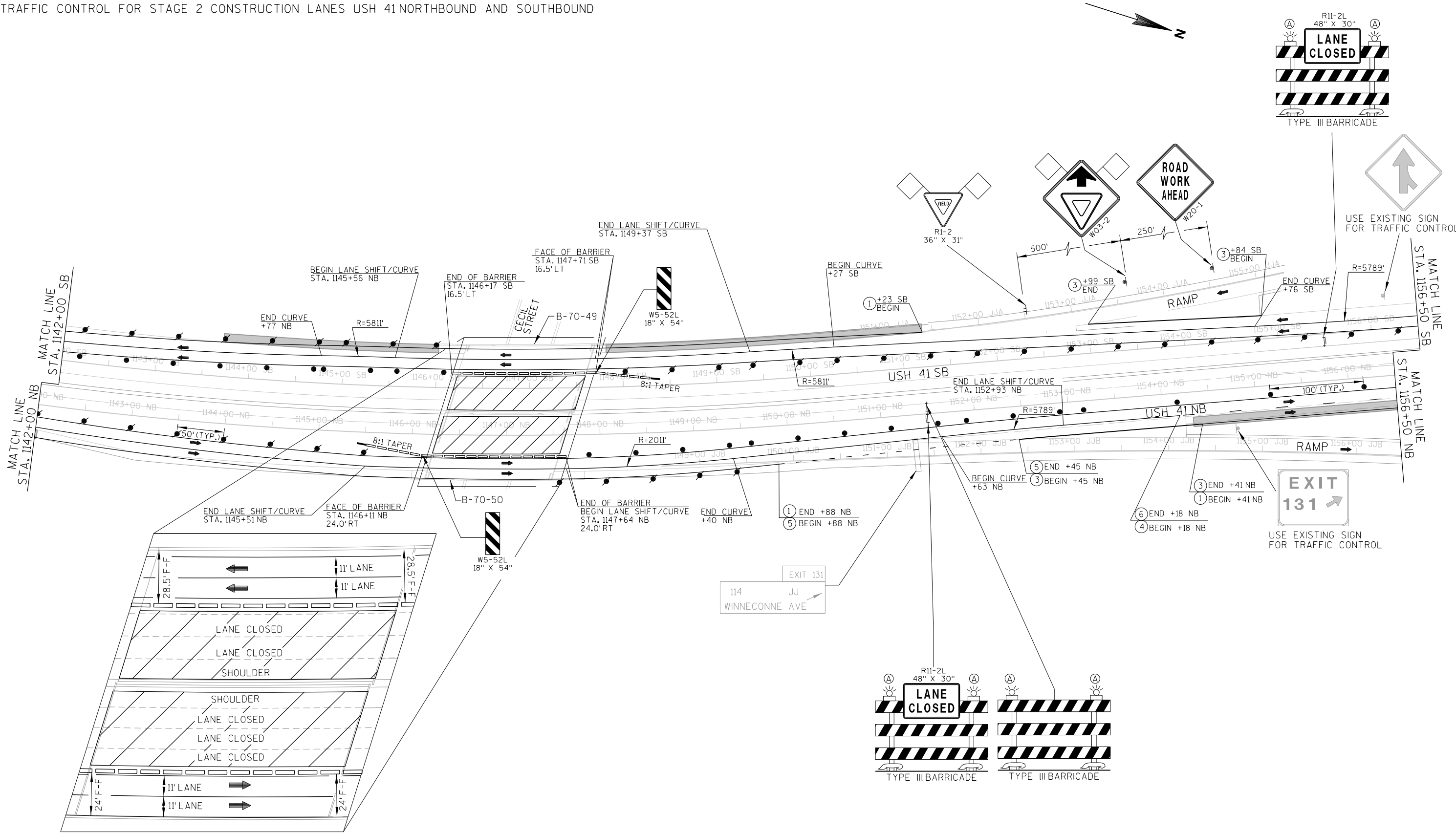
MAPPING SHOWN ON DETAIL SHEET ISN'T CURRENT,
WISCONSIN AVE. RAMPS HAVE BEEN RECONSTRUCTED.

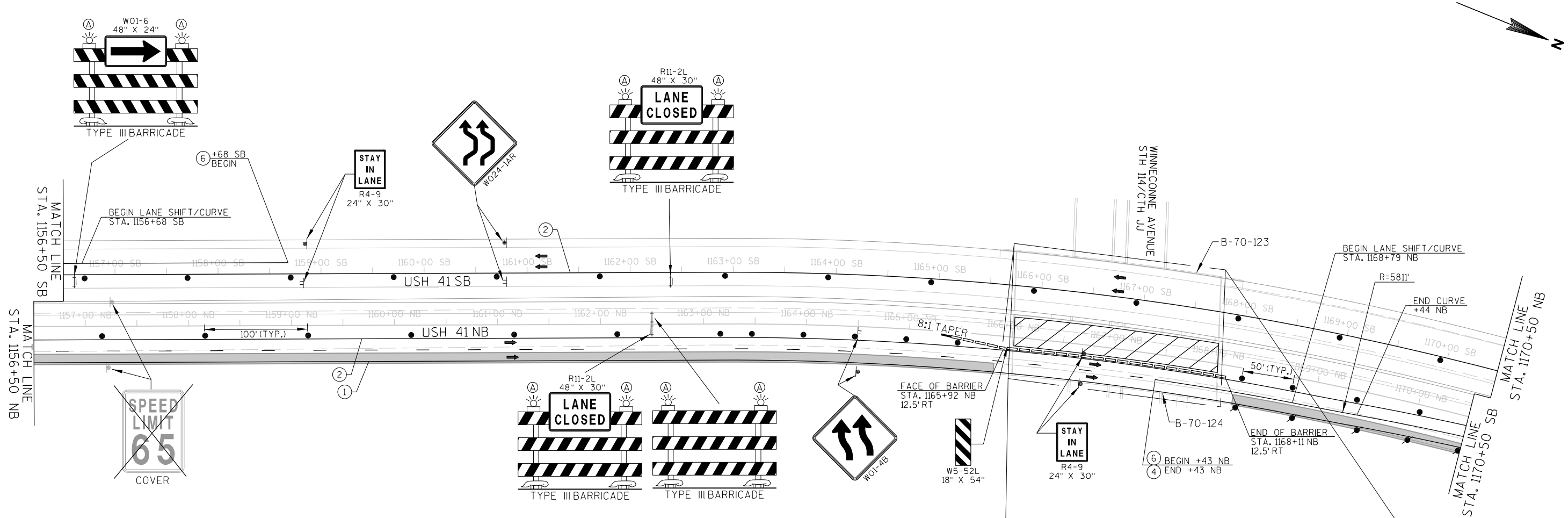




BREEZEWOOD LANE NORTHBOUND ON RAMP DETAIL

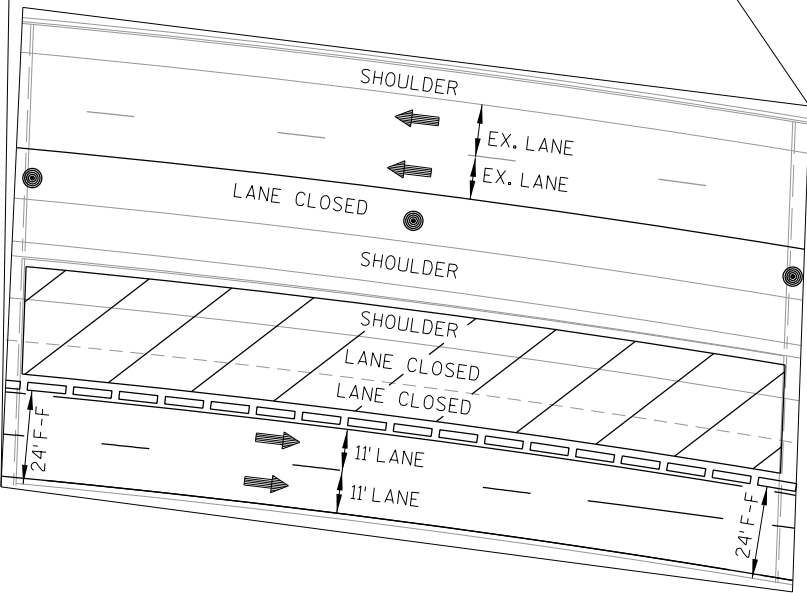


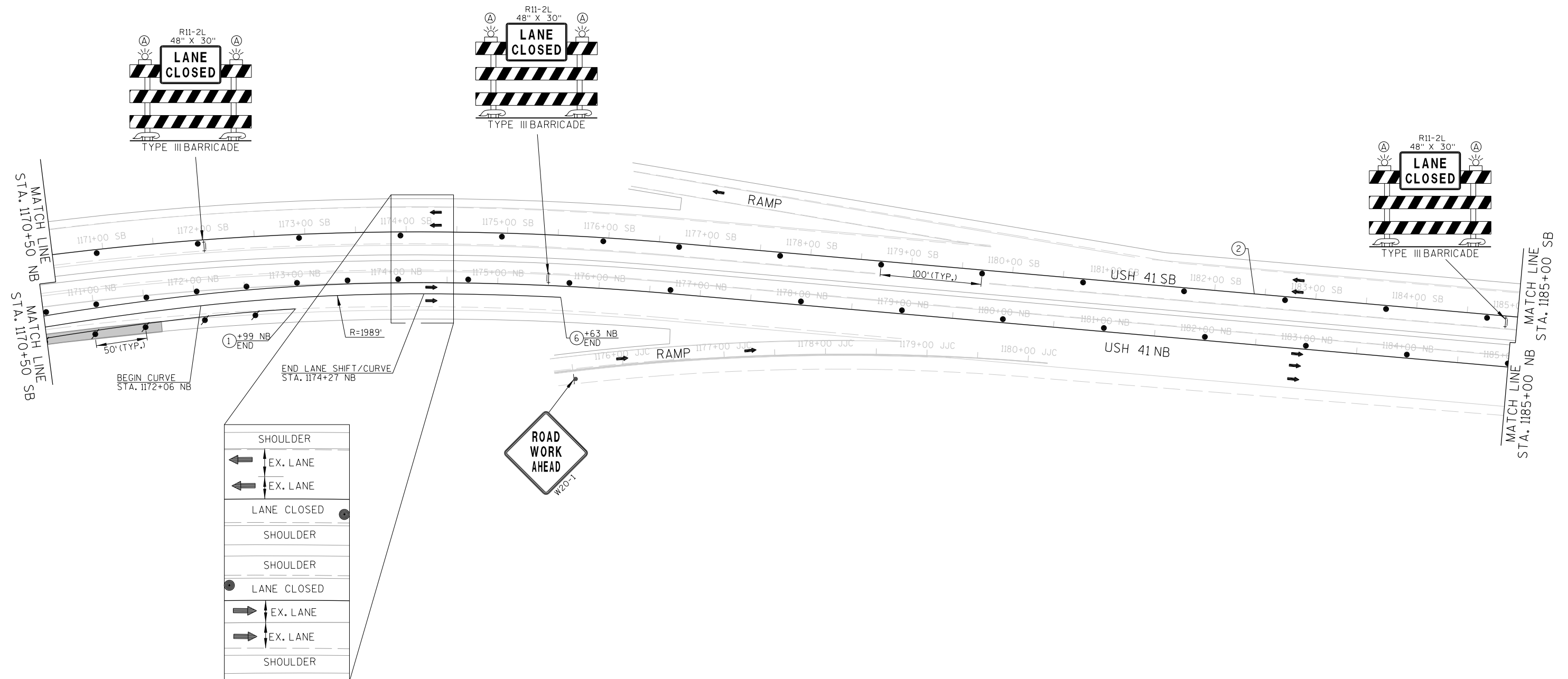


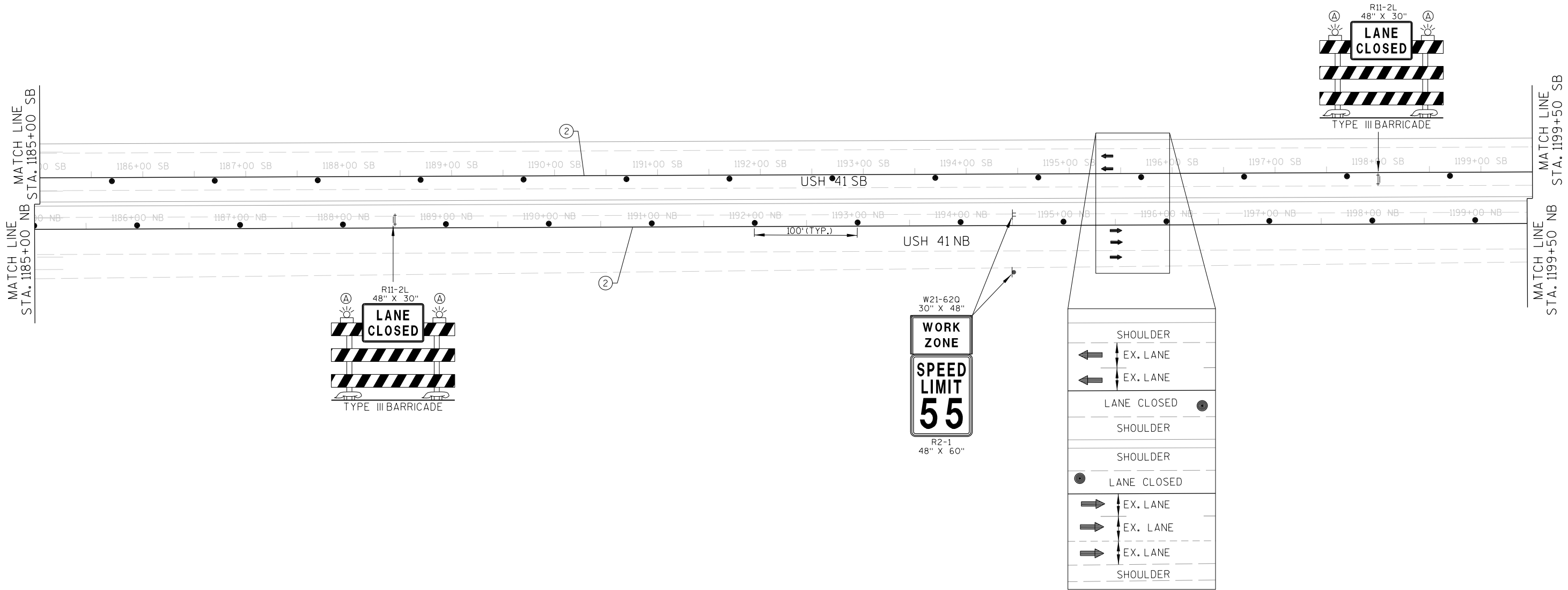


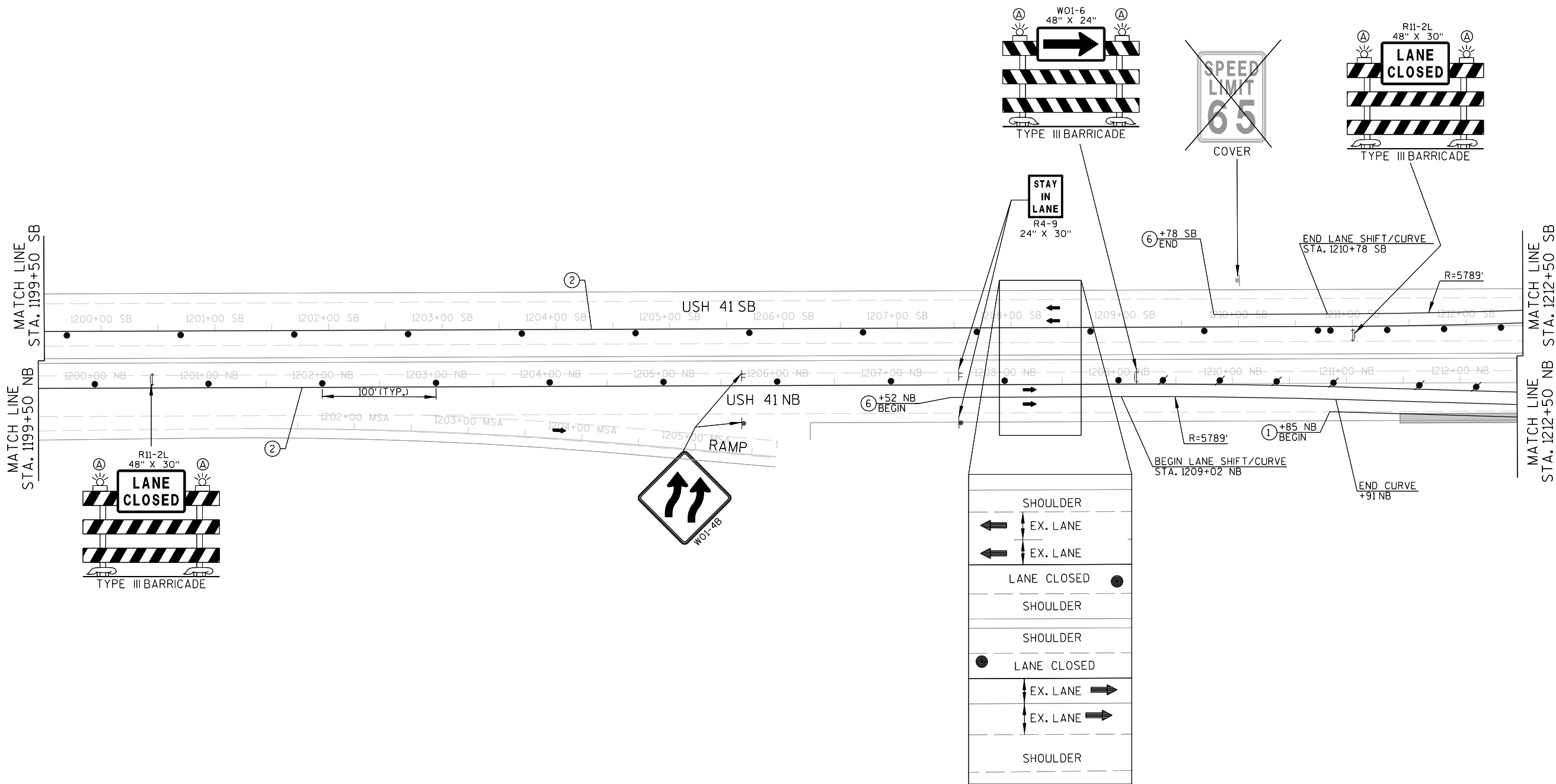
NOTE:
FOR TRAFFIC CONTROL ALONG WINNECONNE AVENUE/STH 114/CTH 'JJ' DUE TO NIGHT RAMP WORK
SEE THE FOLLOWING TRAFFIC CONTROL DETAILS
"ENTRANCE RAMP TO USH 41 SOUTHBOUND CLOSURE FROM STH 114, CTH 'JJ' AND WINNECONNE AVENUE" AND
"ENTRANCE RAMP TO USH 41 NORTHBOUND CLOSURE FROM STH 114, CTH 'JJ' AND WINNECONNE AVENUE"

NOTE:
PLACE THESE SIGNS 200' EAST
AND WEST OF RAMP TERMINALS
ALONG STH 114/CTH JJ.





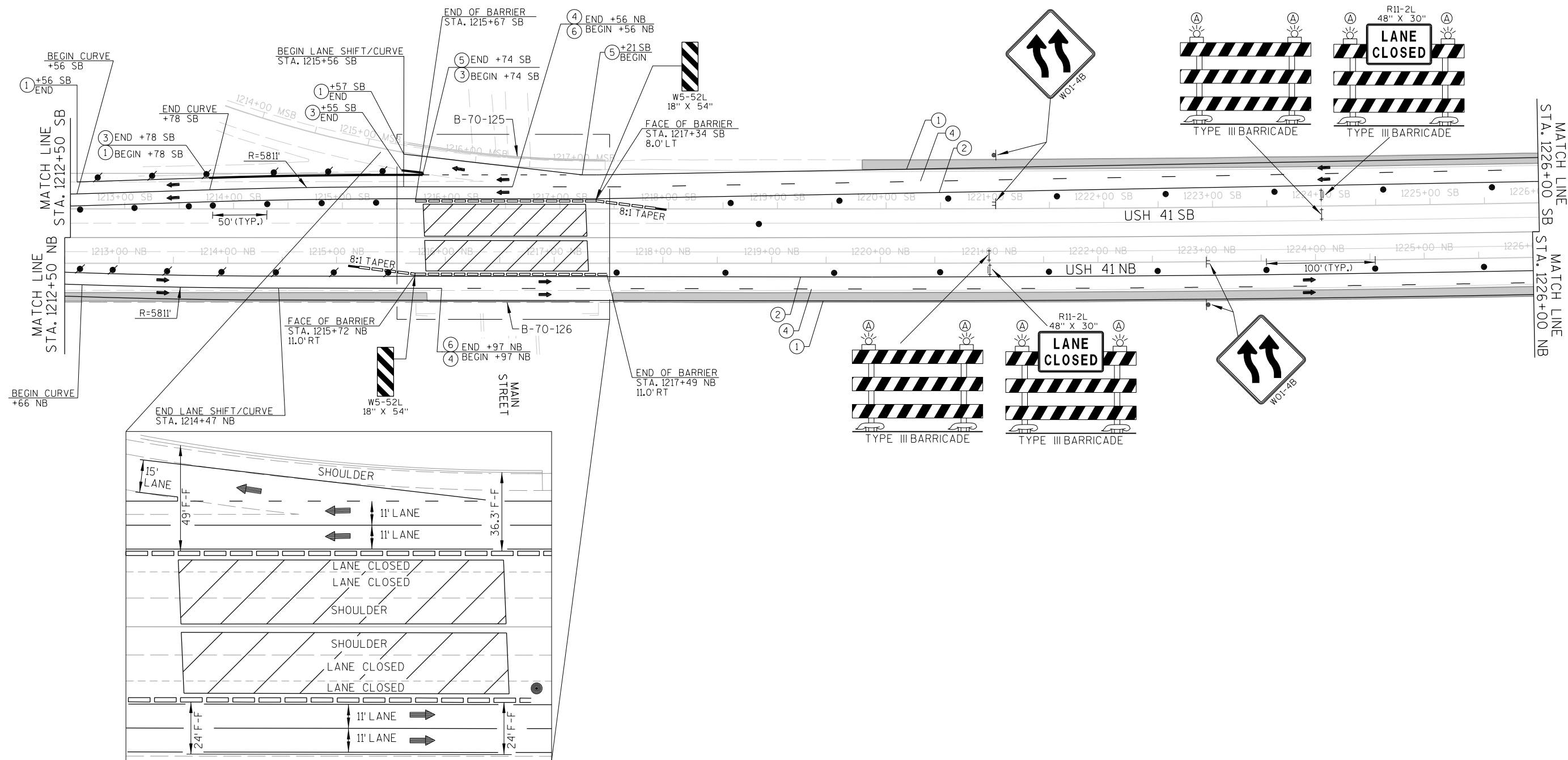


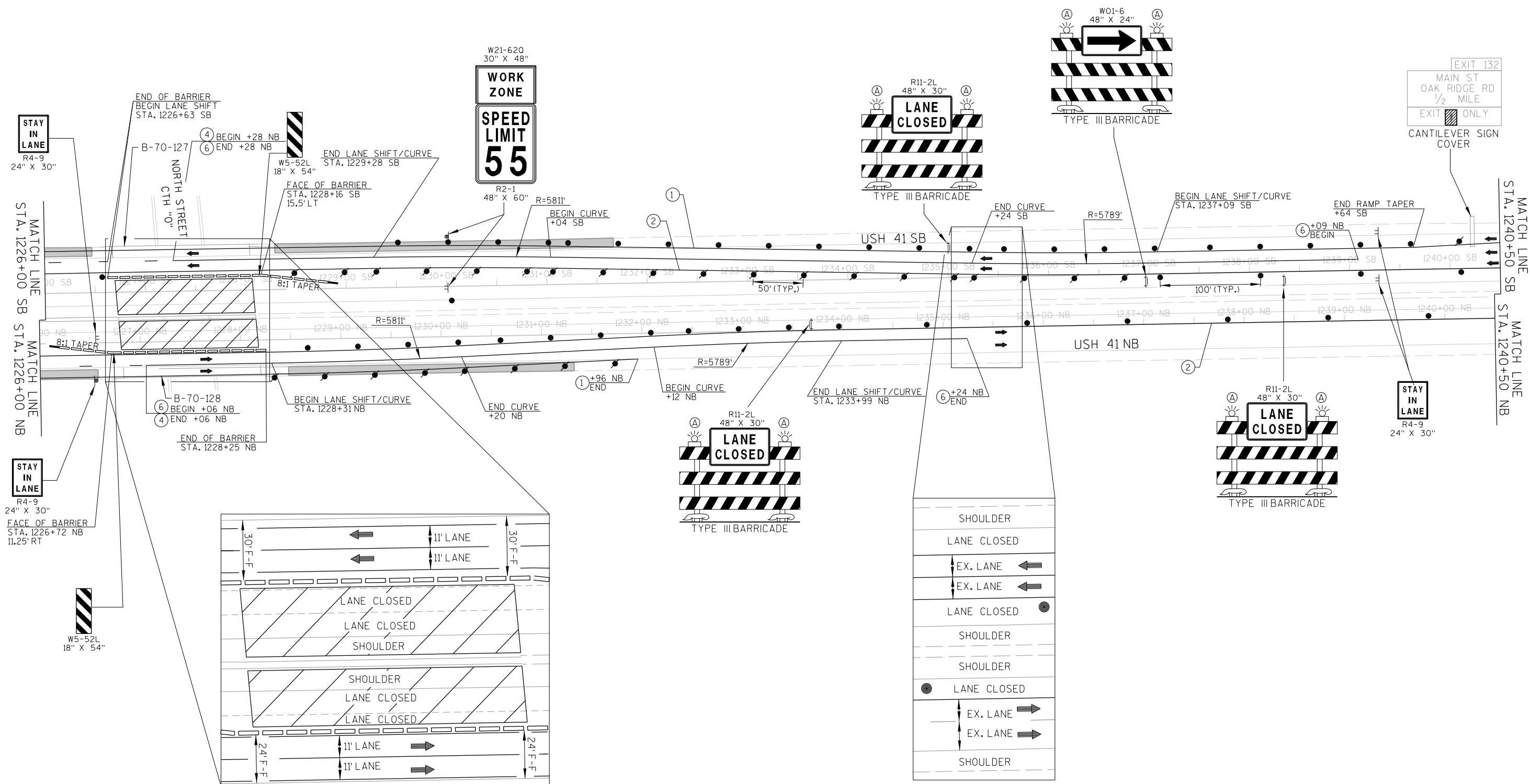




2

2

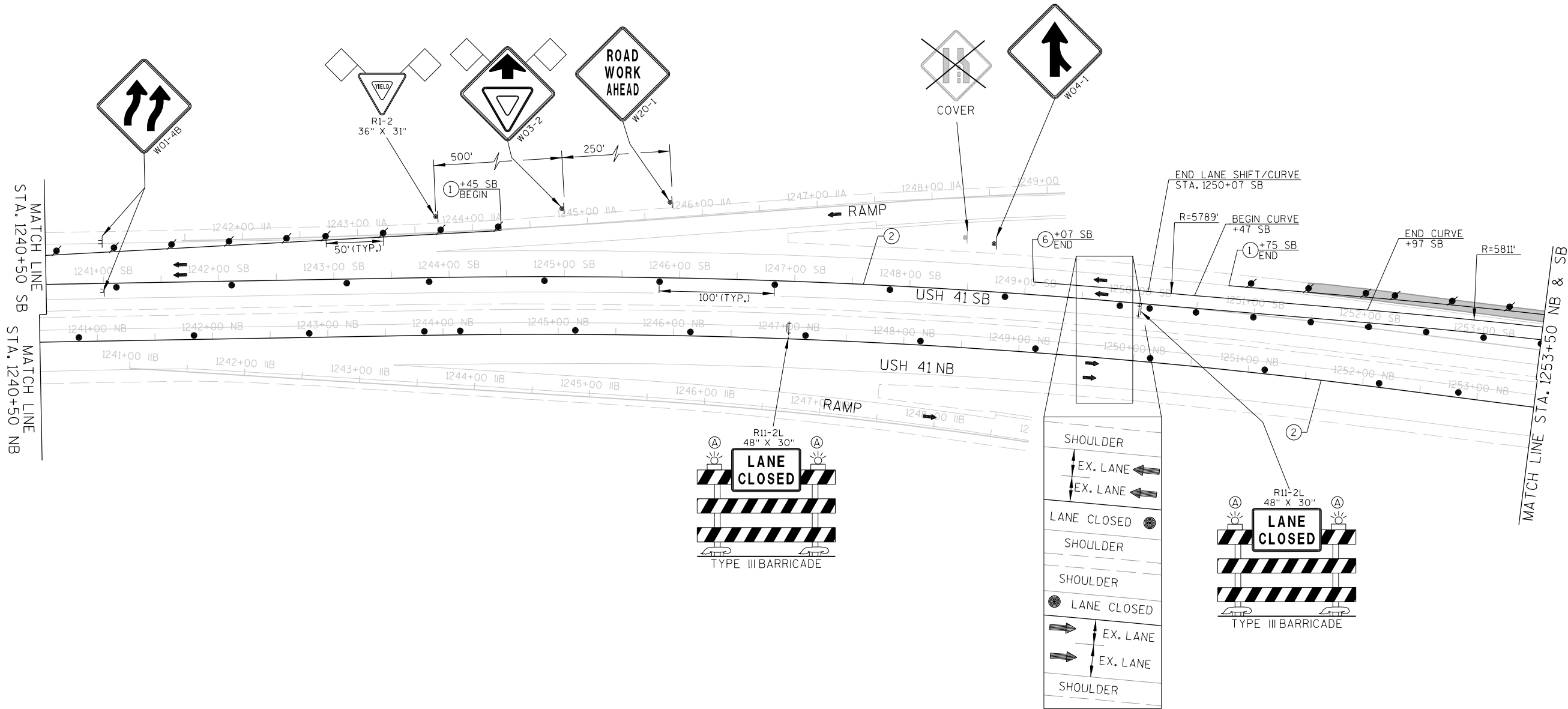




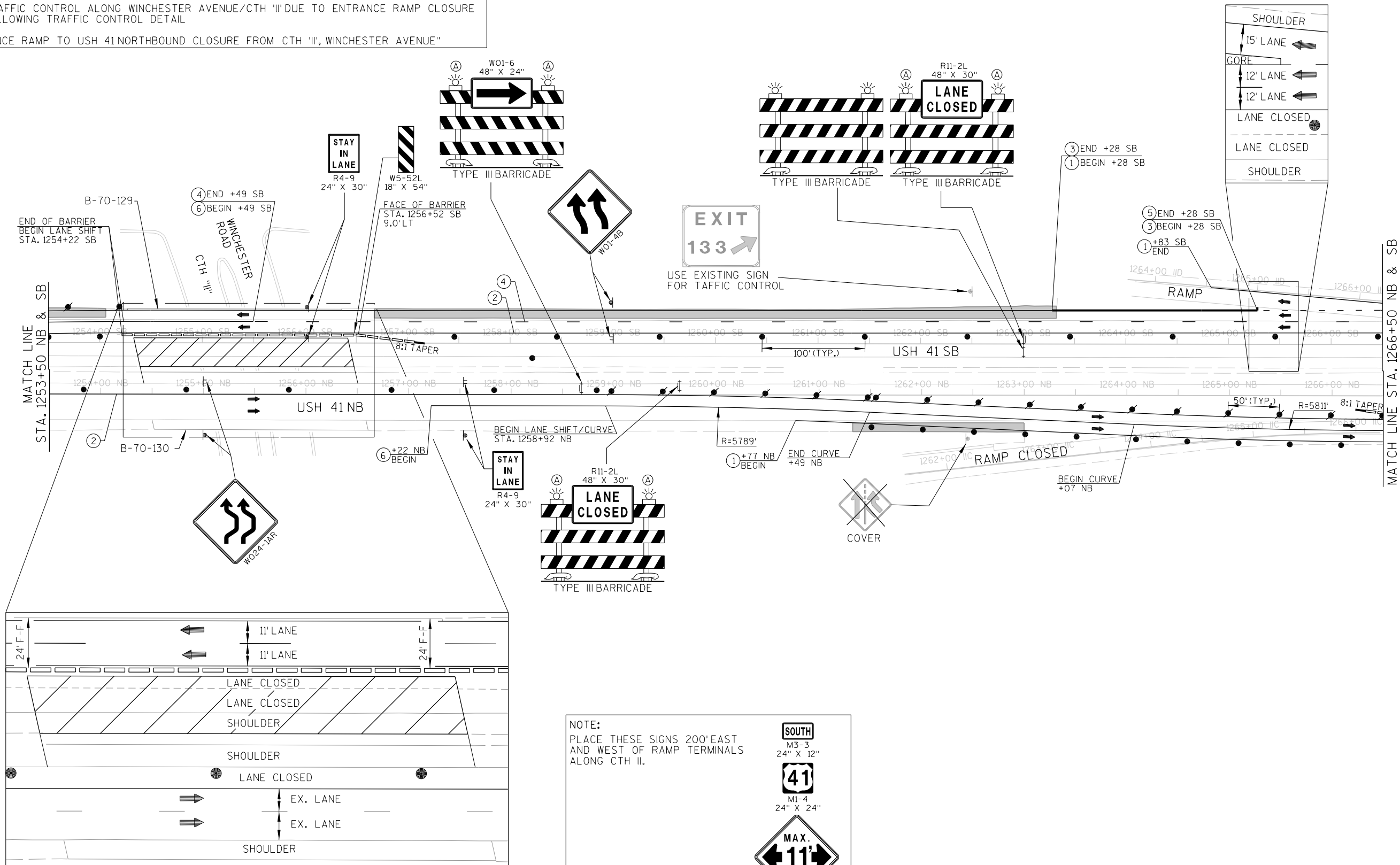


2

2



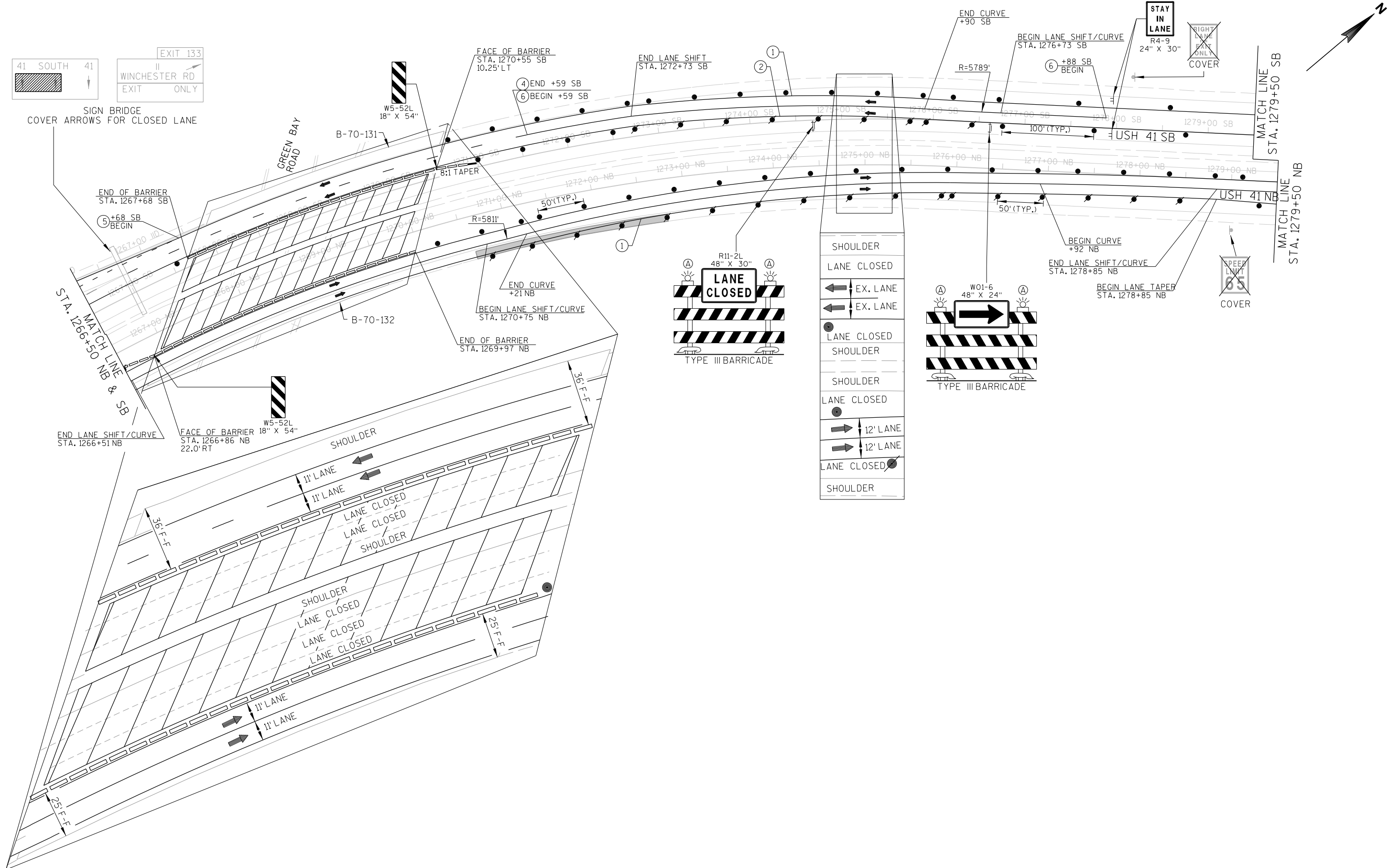
NOTE:
FOR TRAFFIC CONTROL ALONG WINCHESTER AVENUE/CTH "II" DUE TO ENTRANCE RAMP CLOSURE
SEE FOLLOWING TRAFFIC CONTROL DETAIL
"ENTRANCE RAMP TO USH 41 NORTHBOUND CLOSURE FROM CTH "II", WINCHESTER AVENUE"



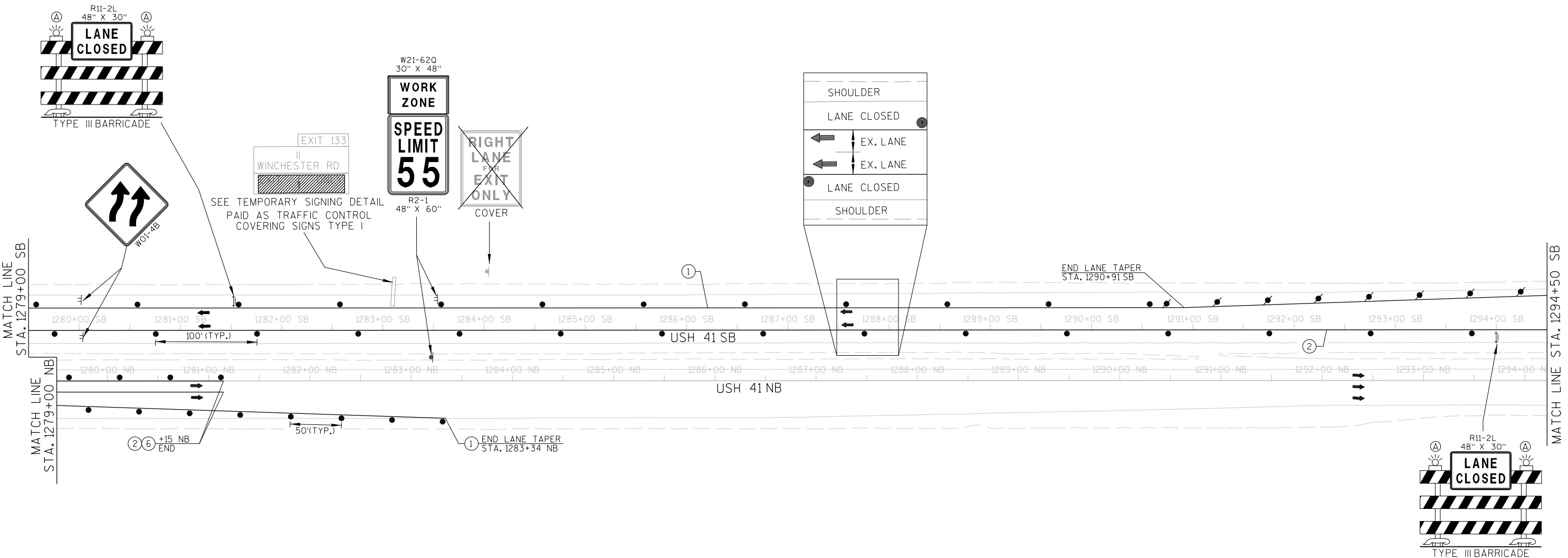
NOTE:
PLACE THESE SIGNS 200' EAST
AND WEST OF RAMP TERMINALS
ALONG CTH II.

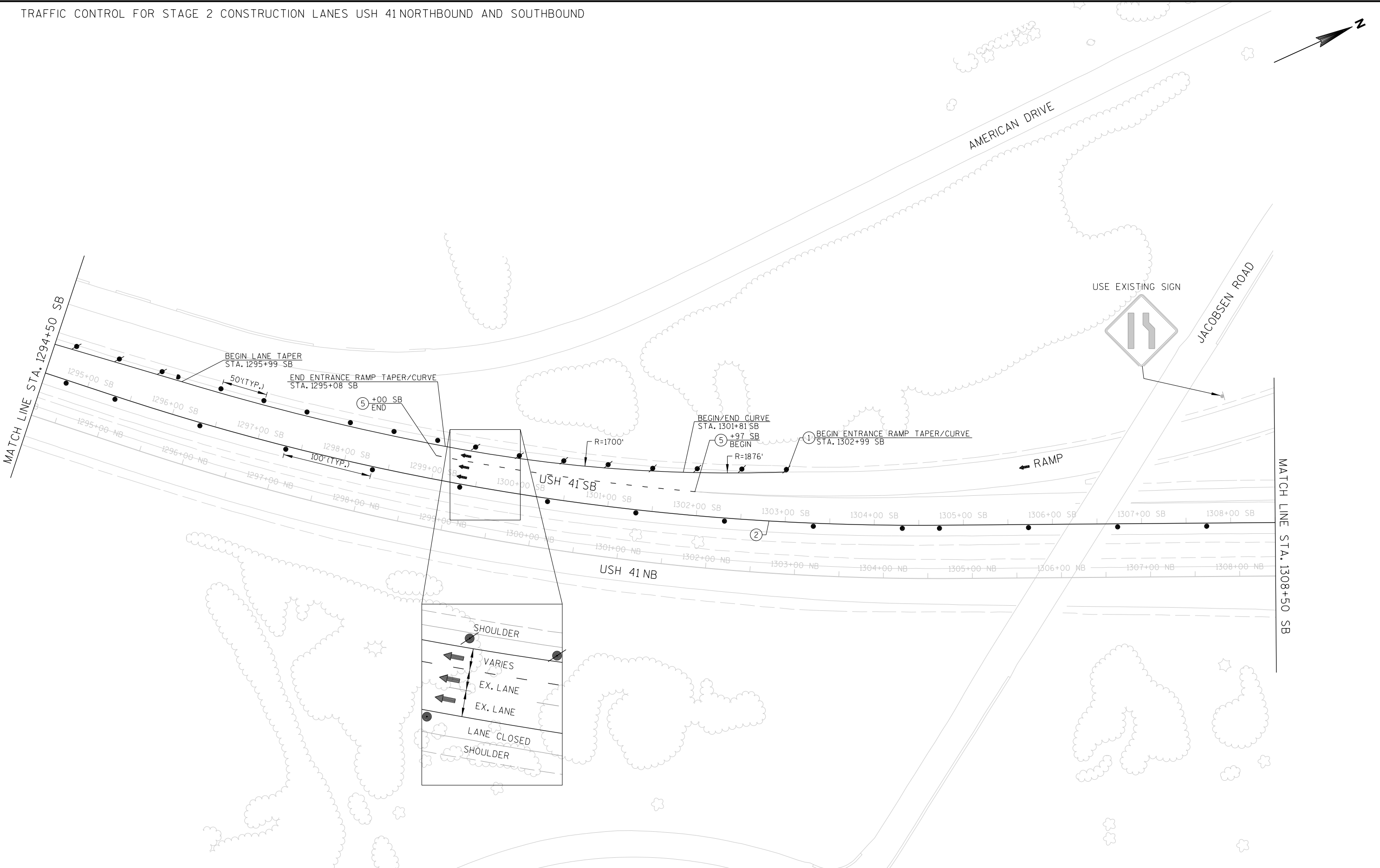
SOUTH
M3-3
24" X 12"
41
M1-4
24" X 24"
MAX. 11' WIDTH
W2-52

2



2





TRAFFIC CONTROL FOR STAGE 2 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

NOTE:

SOUTH

M3-3

24" X 12"

41

M1-4

24" X 24"

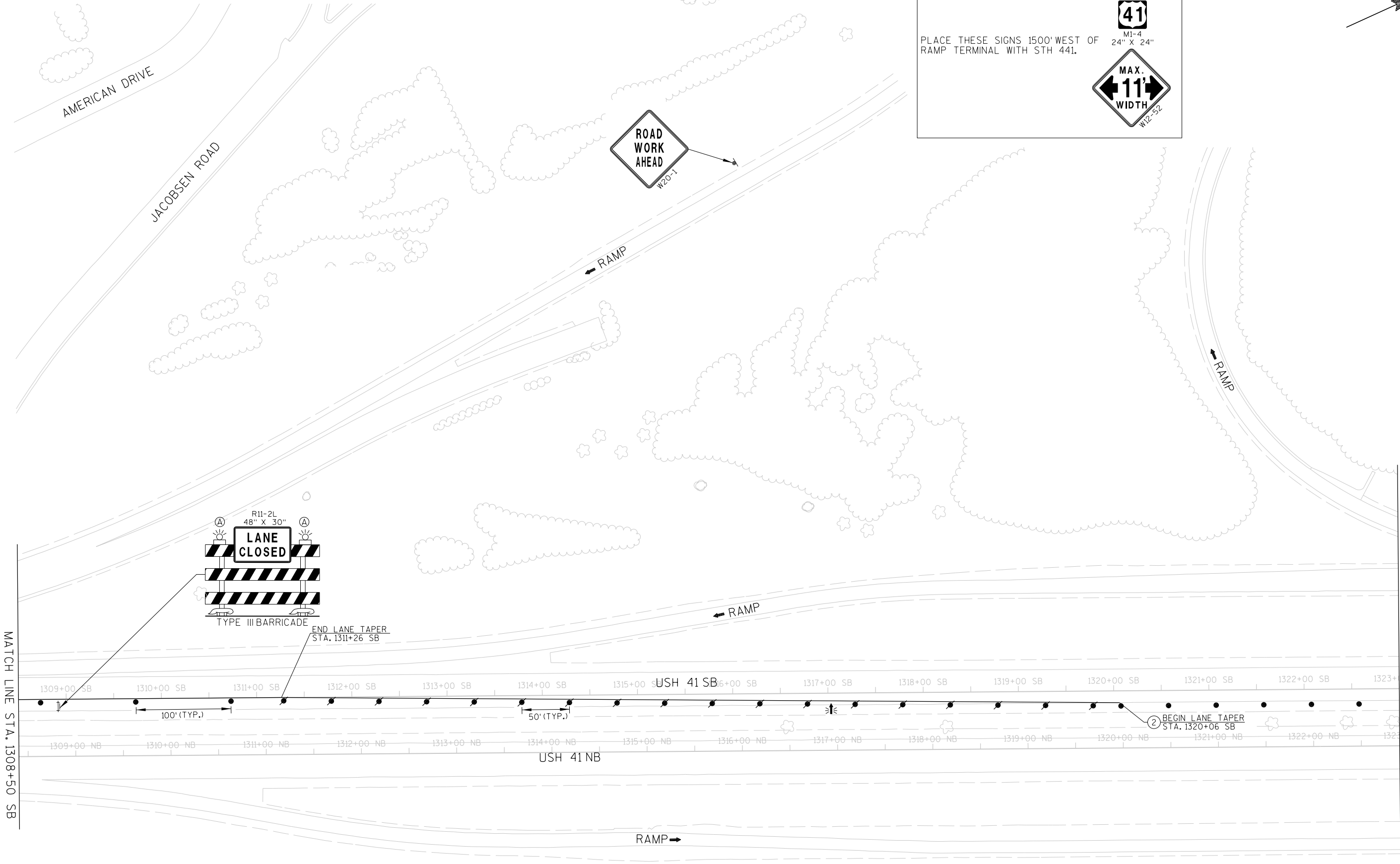
PLACE THESE SIGNS 1500' WEST OF RAMP TERMINAL WITH STH 441.

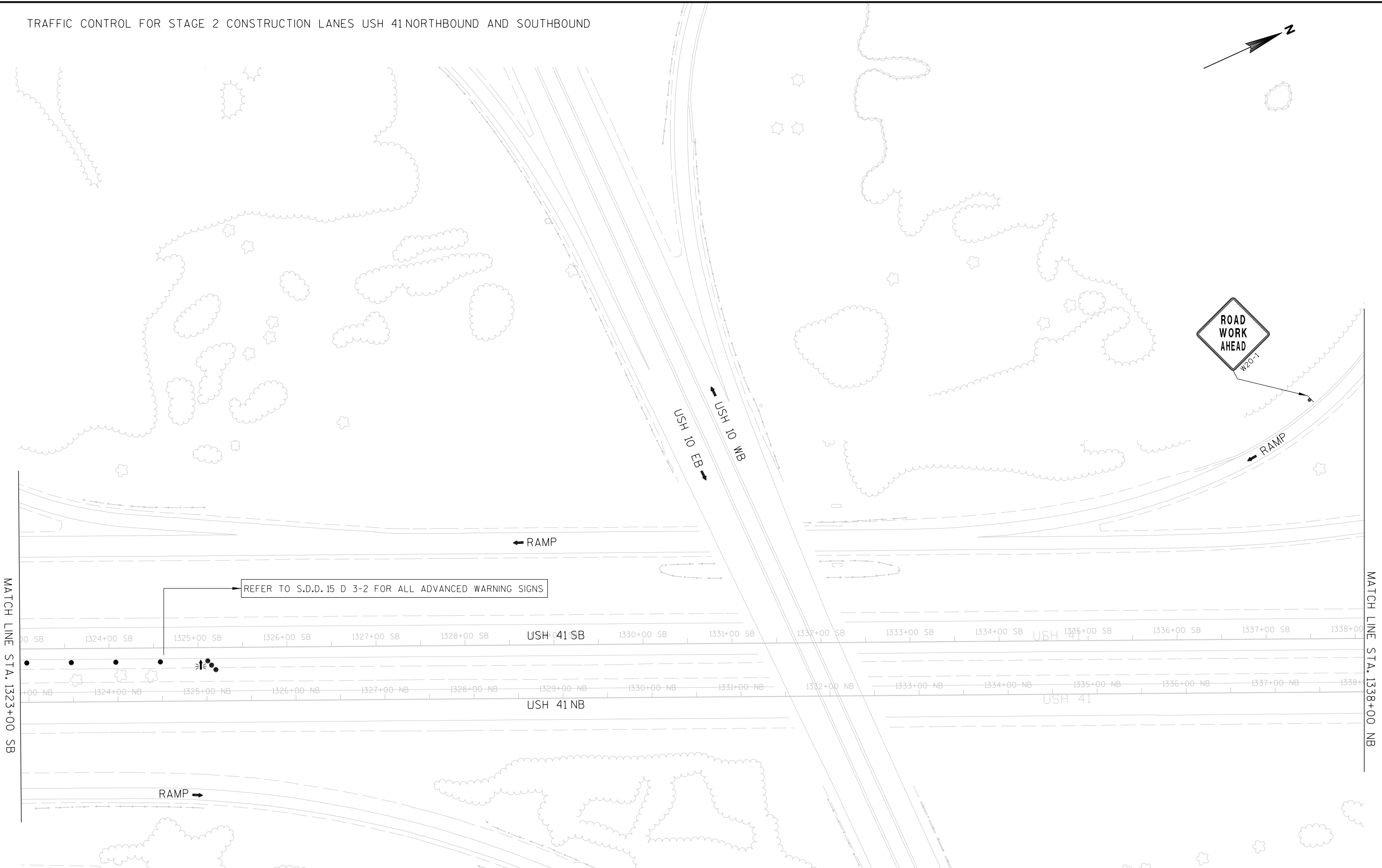
MAX.

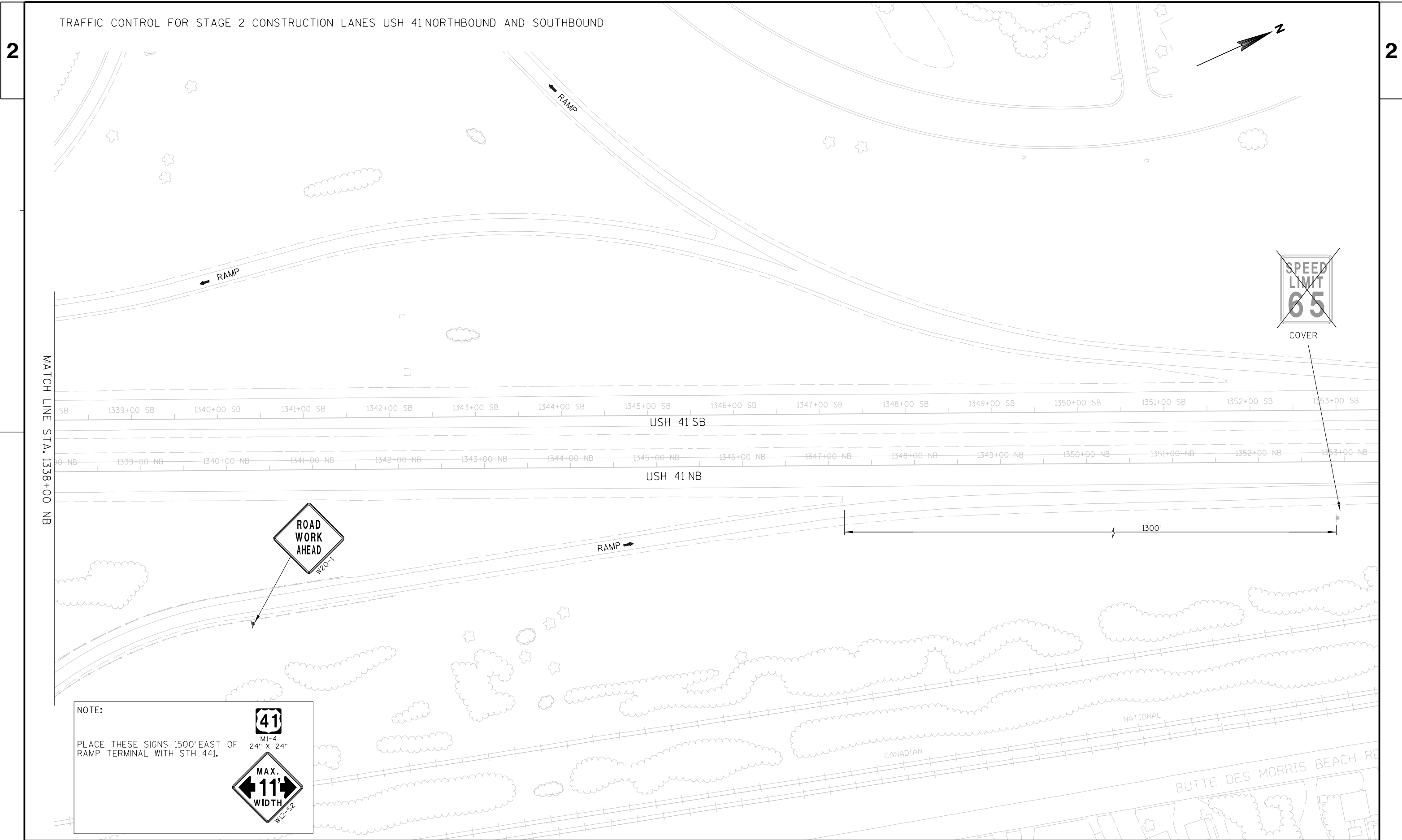
11'

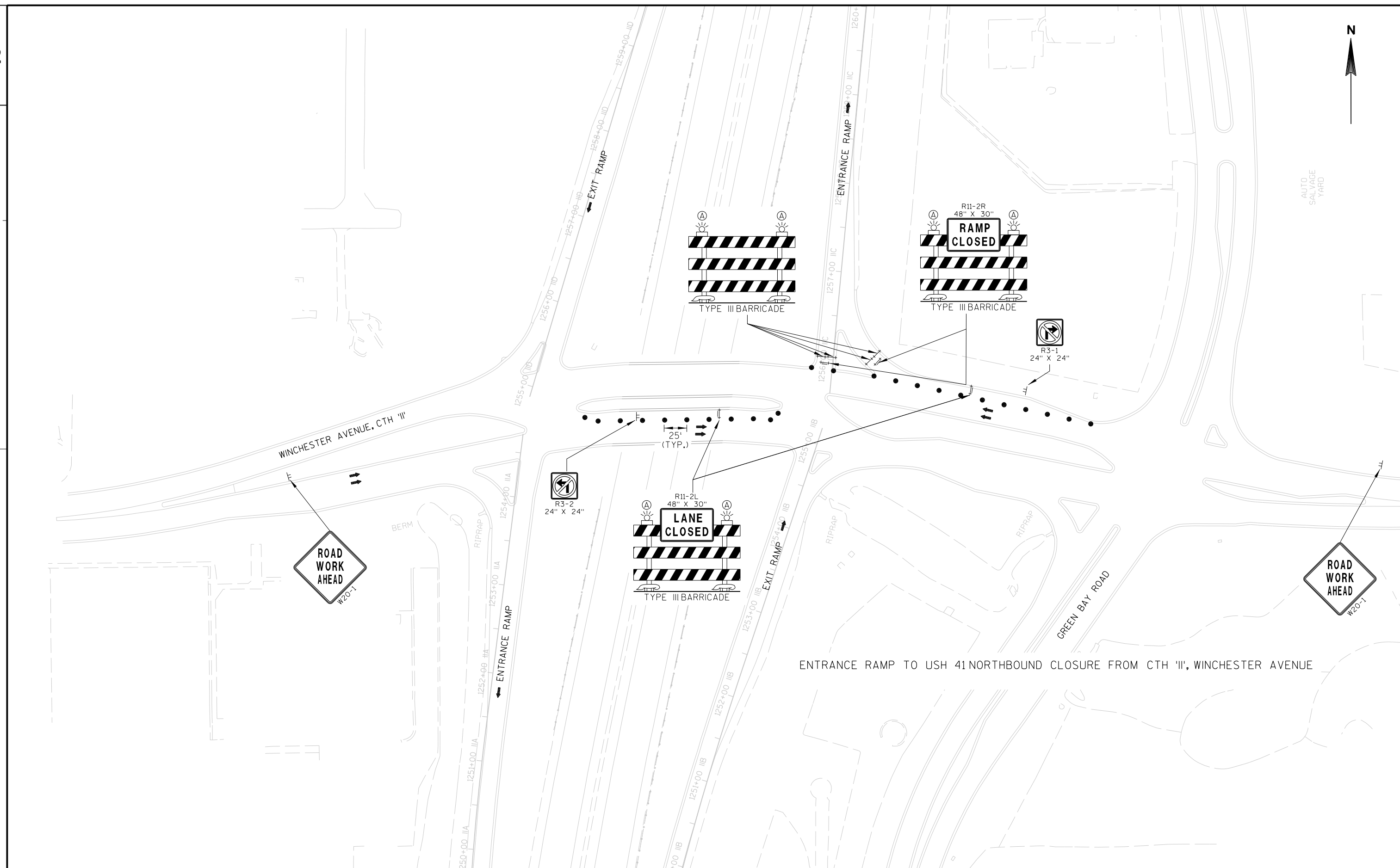
WIDTH

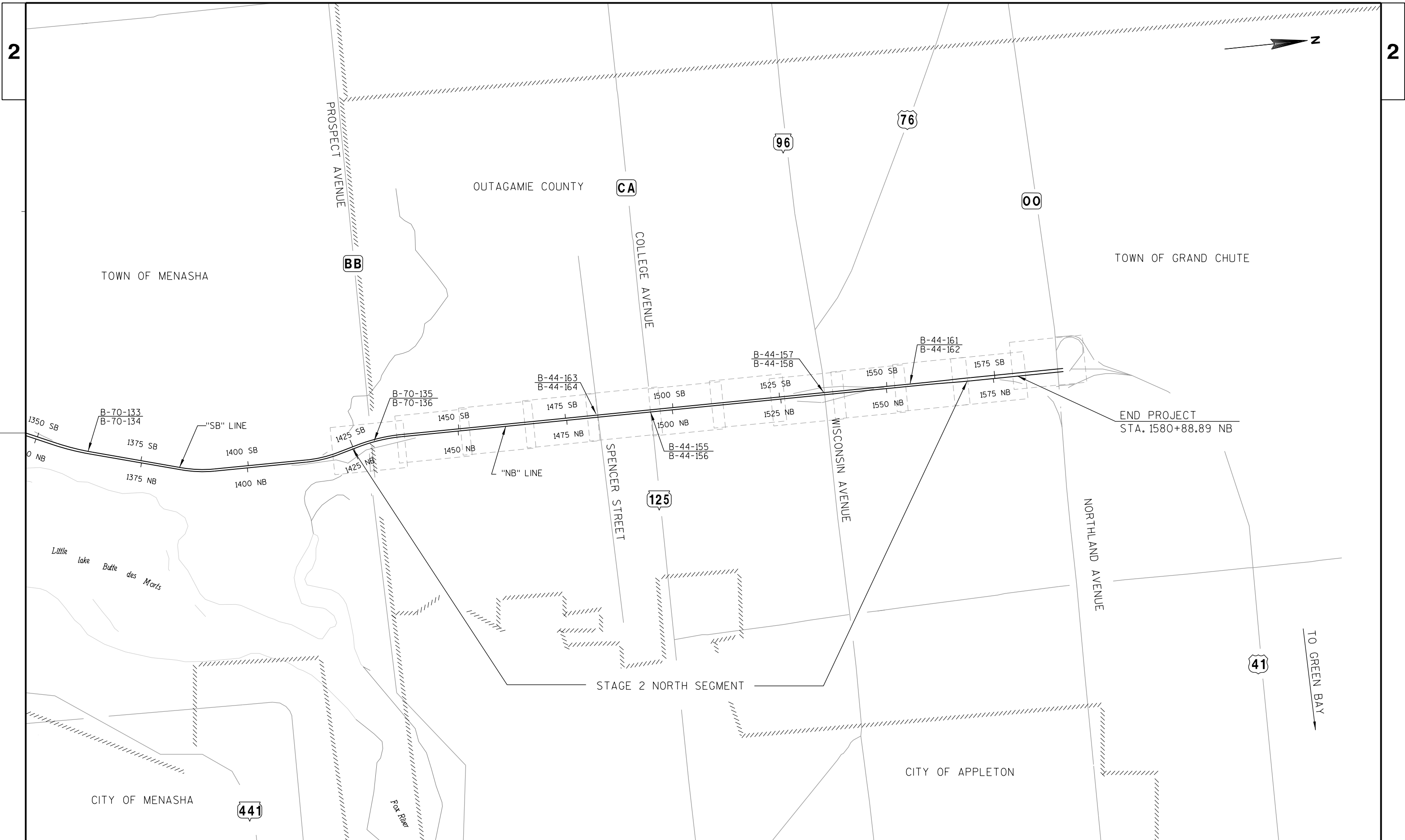
W12-52

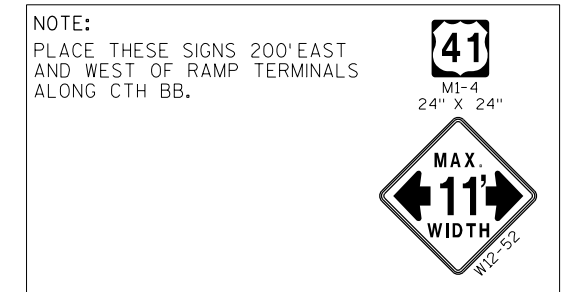




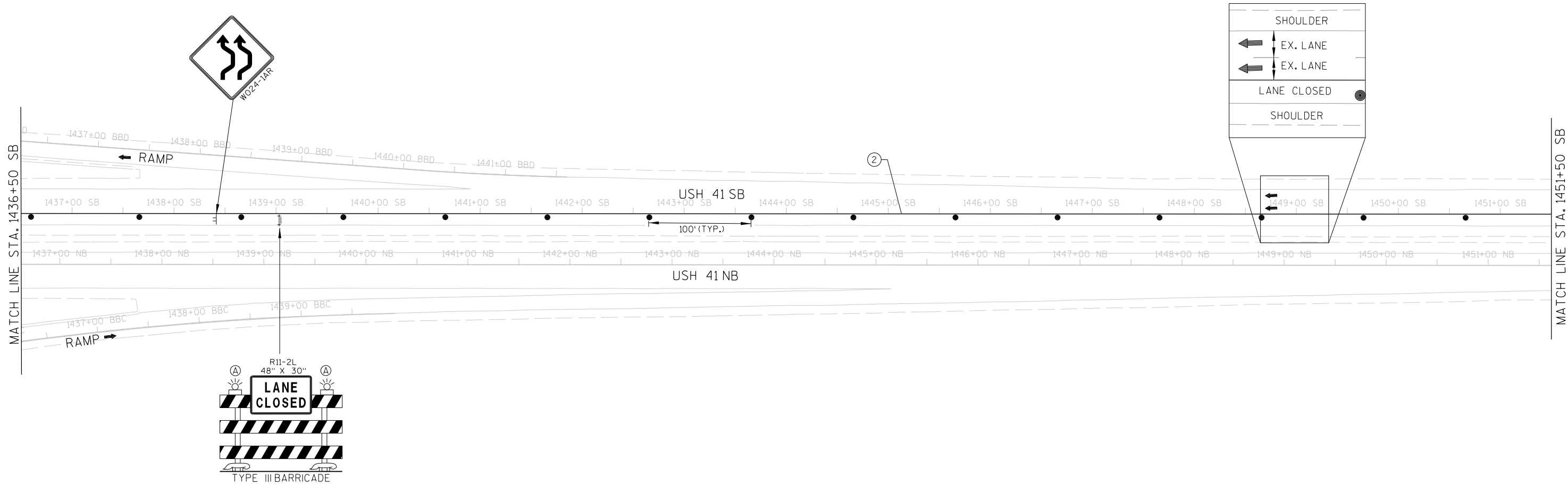


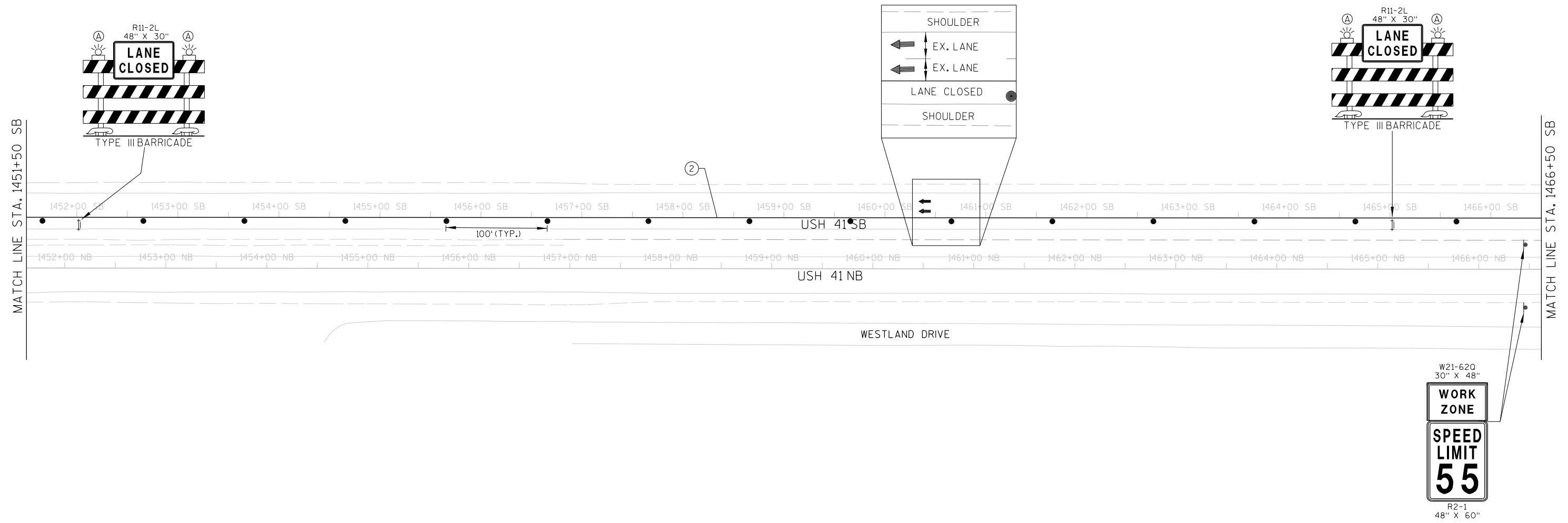


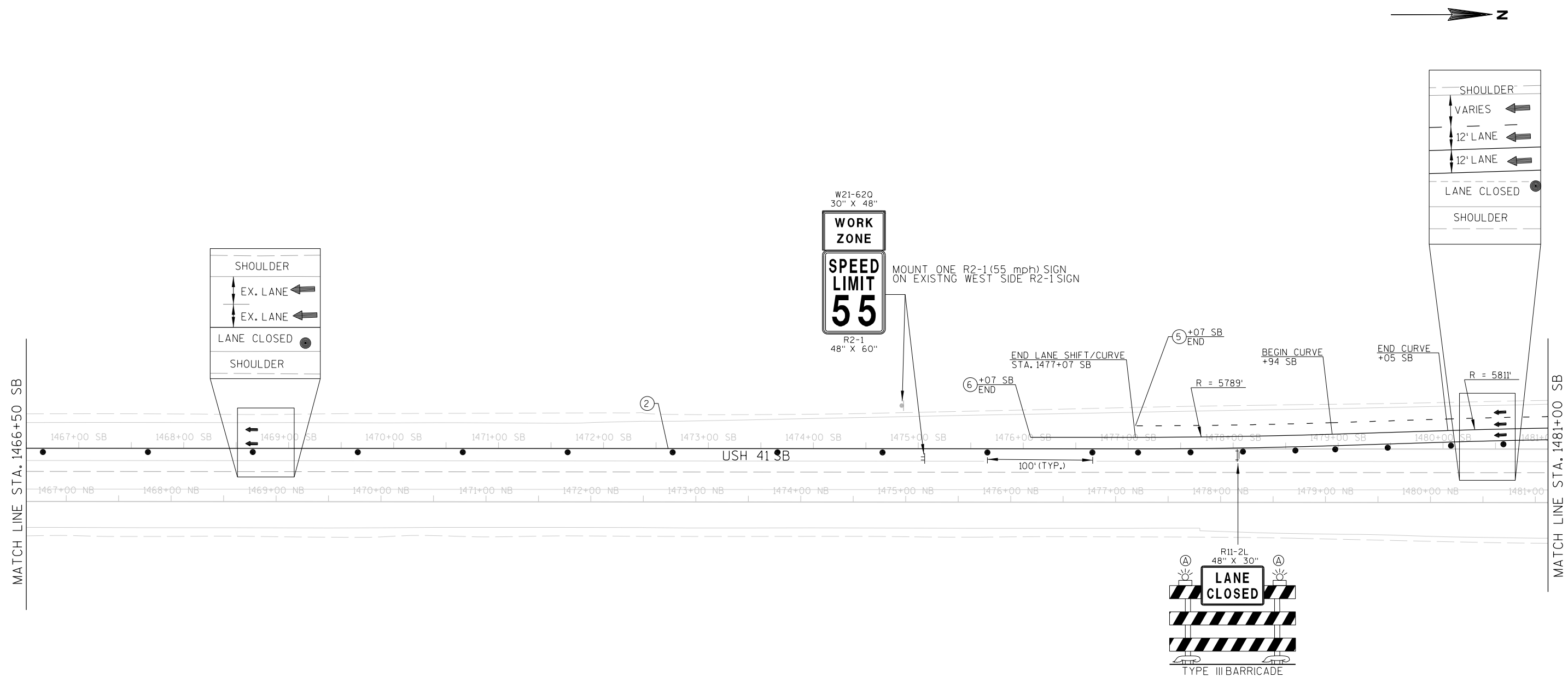


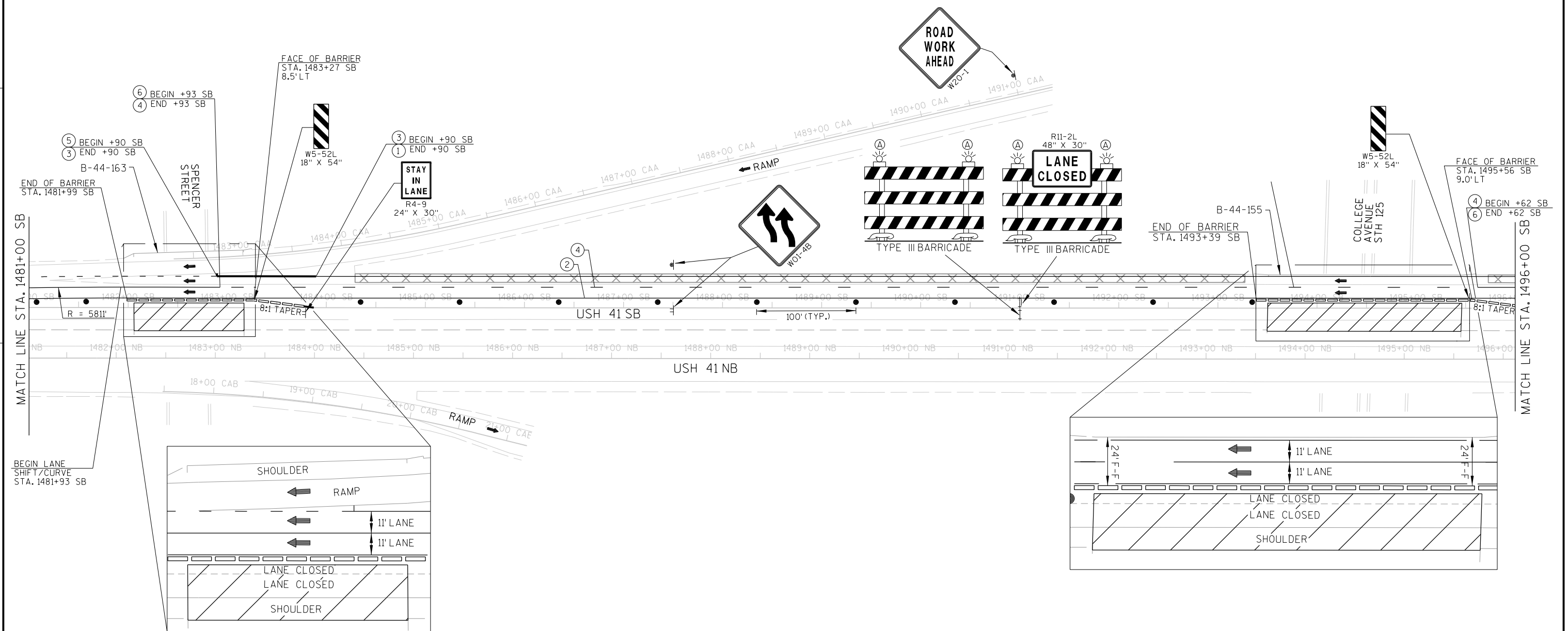


TRAFFIC CONTROL FOR STAGE 2 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND





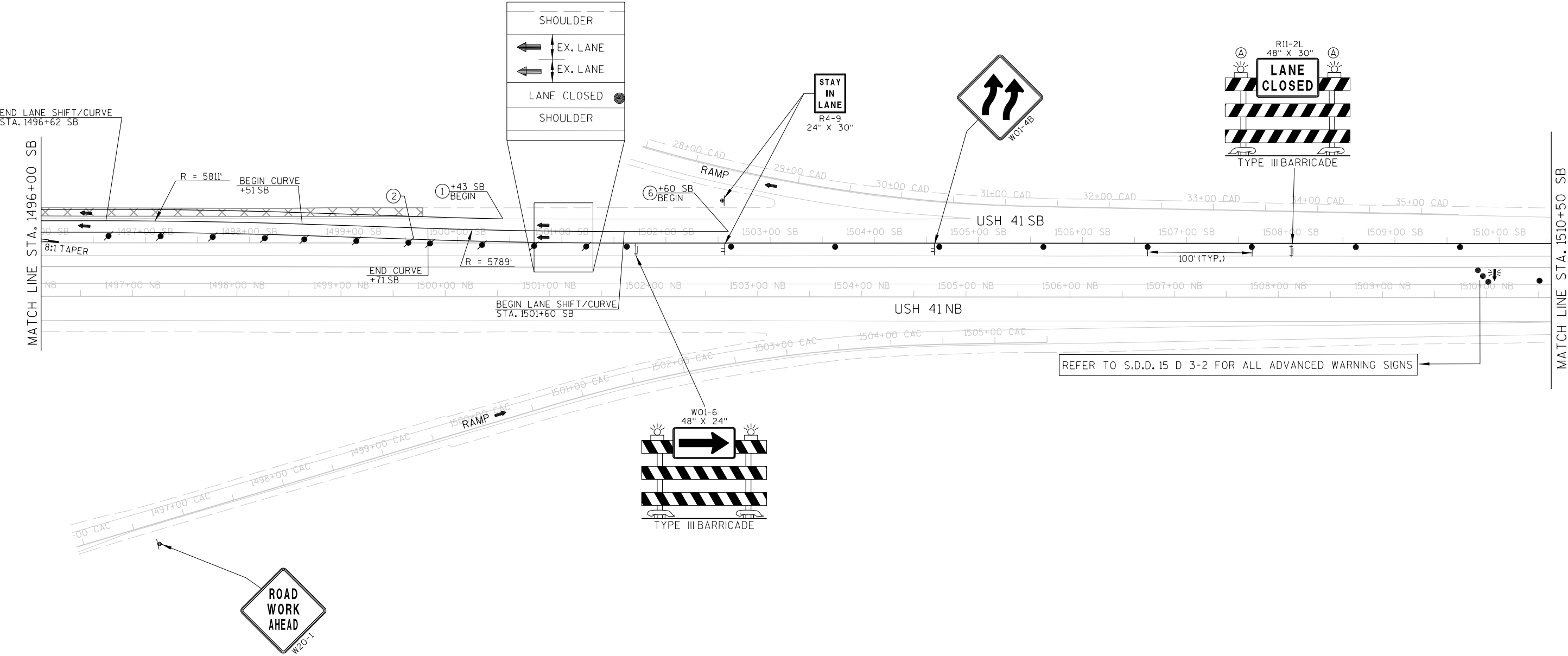




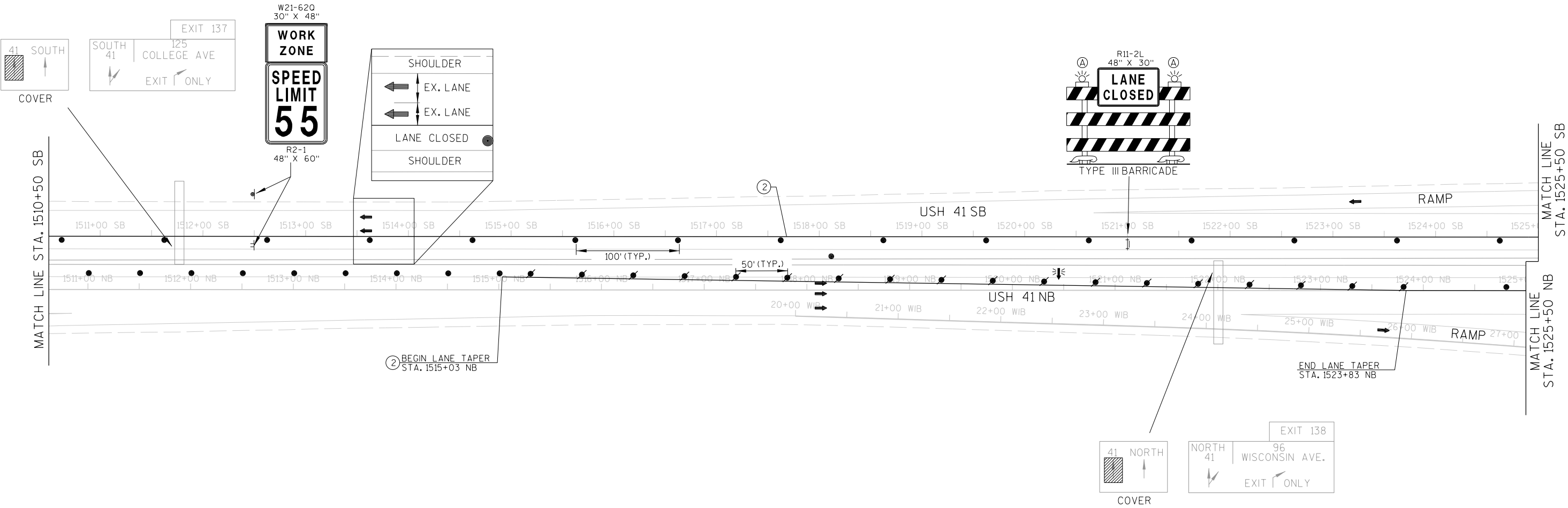
NOTE:
PLACE THESE SIGNS 200' EAST
AND WEST OF RAMP TERMINALS
ALONG STH 125.



NOTE:
MAPPING SHOWN ON THIS PLAN SHEET ISN'T CURRENT. USH 41 NORTHBOUND,
SOUTHBOUND AND RAMP HAVE BEEN RECONSTRUCTED IN THIS AREA.

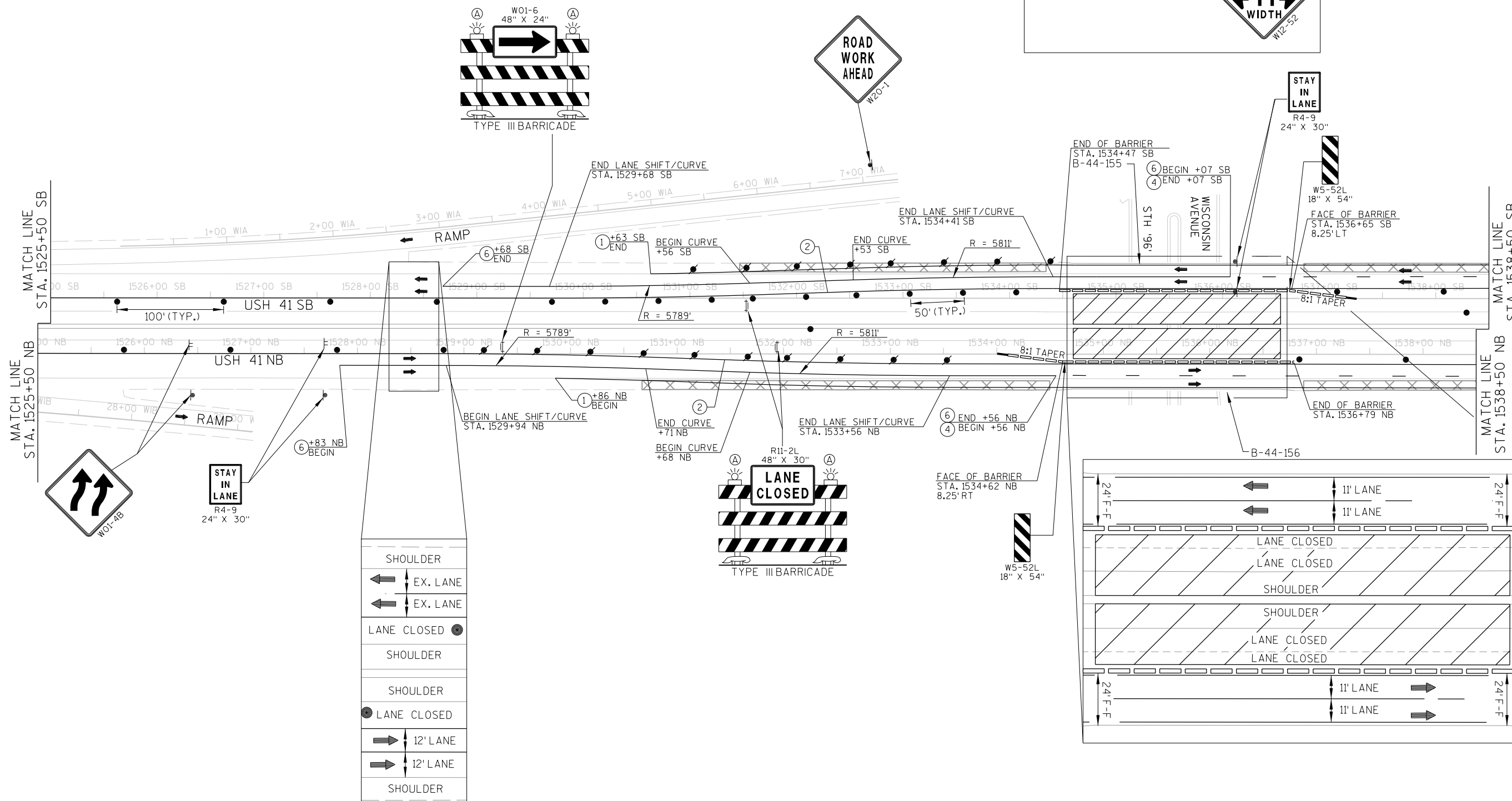


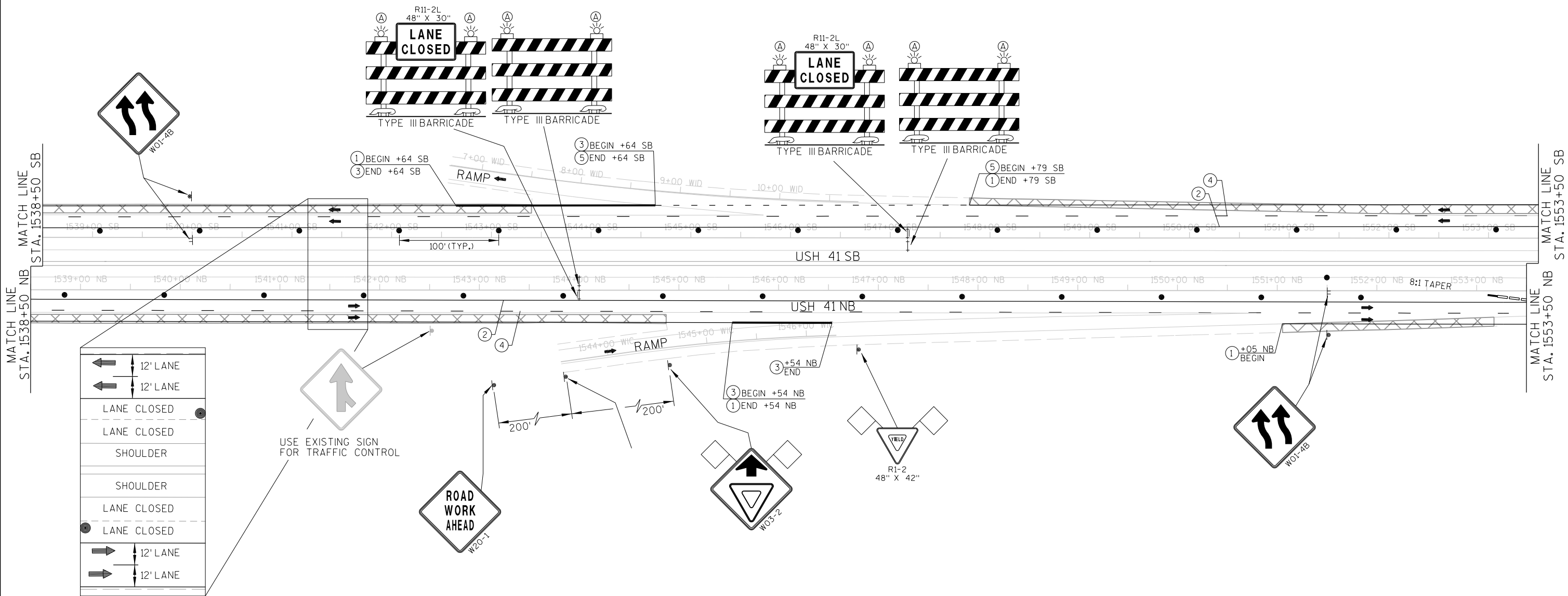
NOTE:
MAPPING SHOWN ON THIS PLAN SHEET ISN'T CURRENT. USH 41 NORTHBOUND,
SOUTHBOUND AND RAMPS HAVE BEEN RECONSTRUCTED IN THIS AREA.

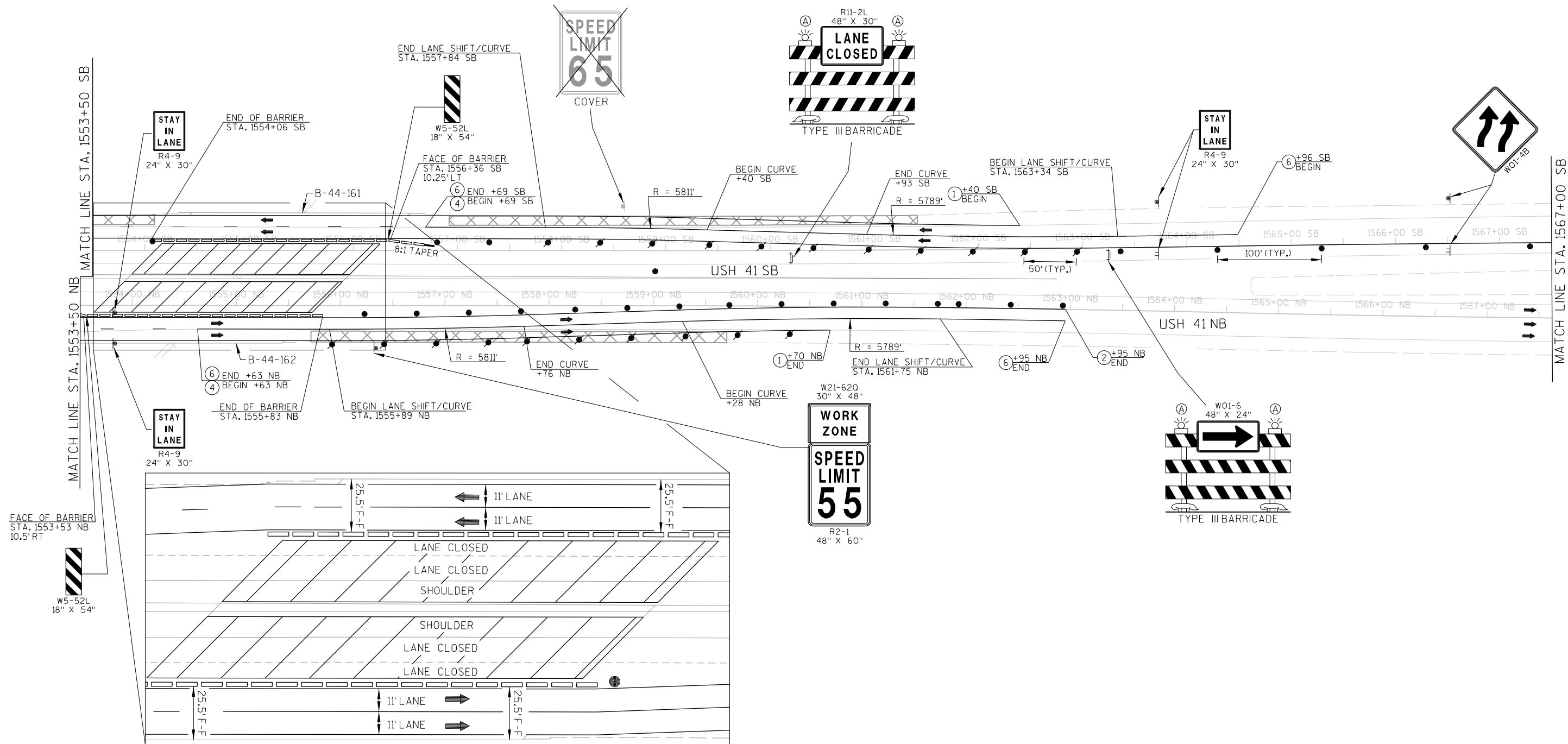


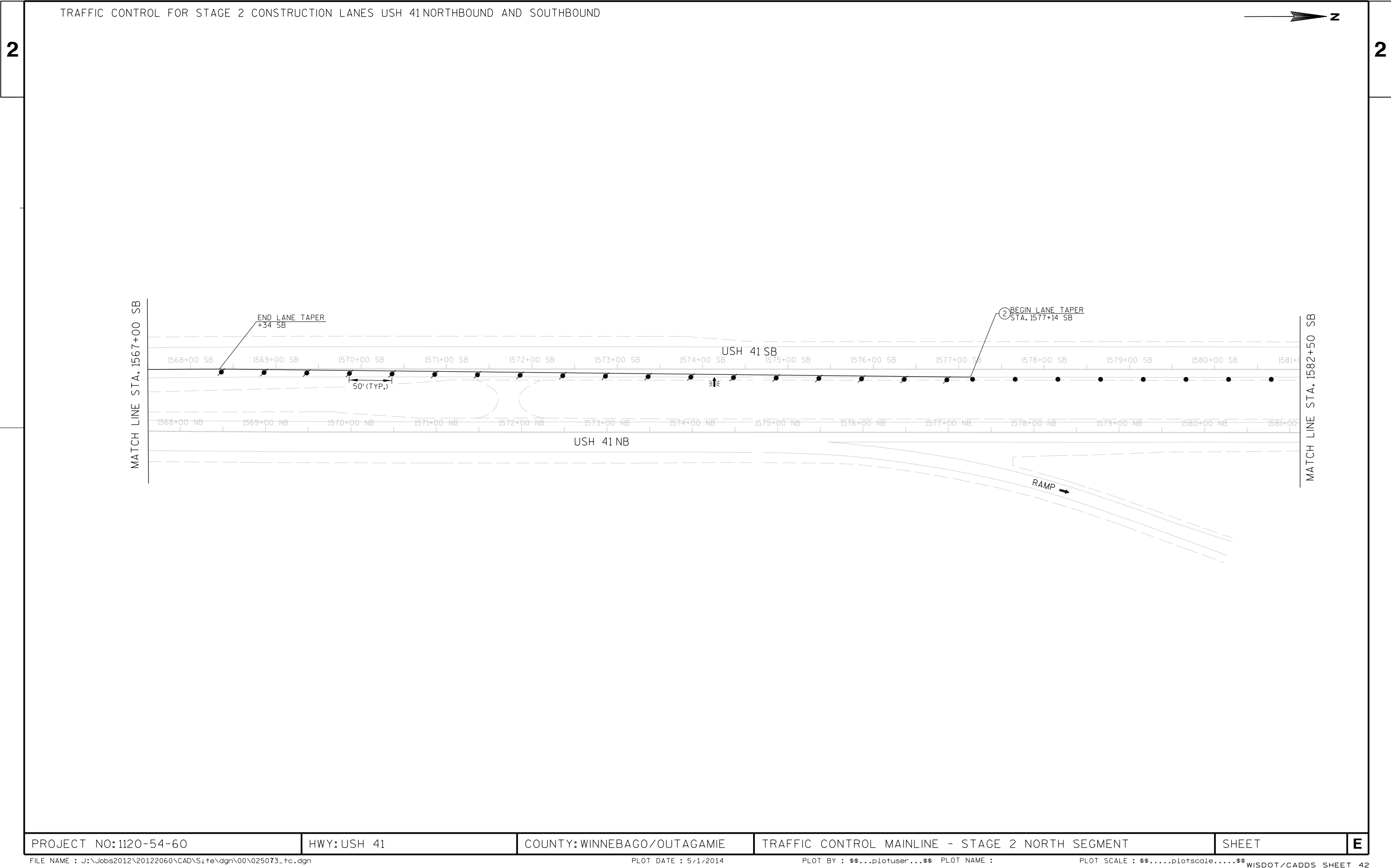
NOTE:
MAPPING SHOWN ON THIS PLAN SHEET ISN'T CURRENT. USH 41 NORTHBOUND,
SOUTHBOUND AND RAMP HAVE BEEN RECONSTRUCTED IN THIS AREA.

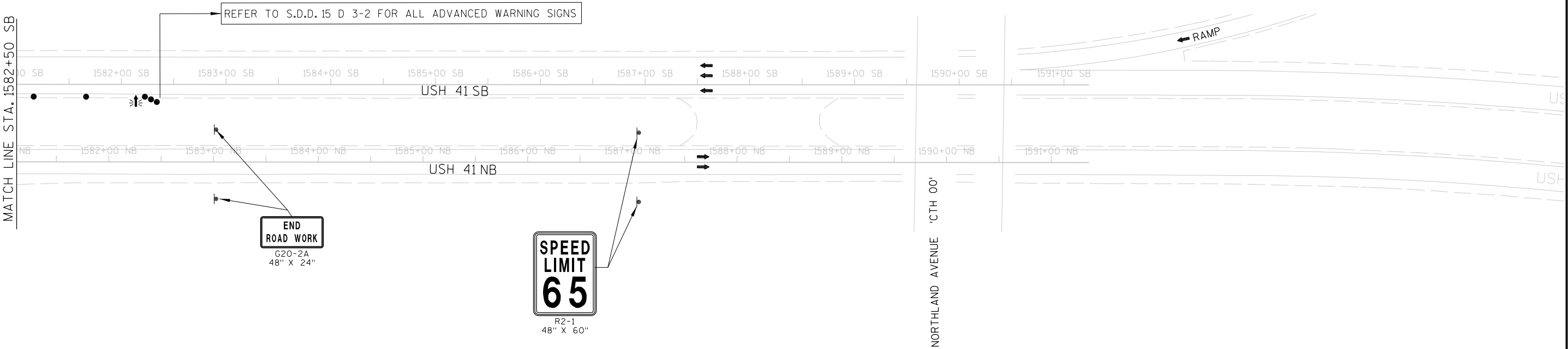
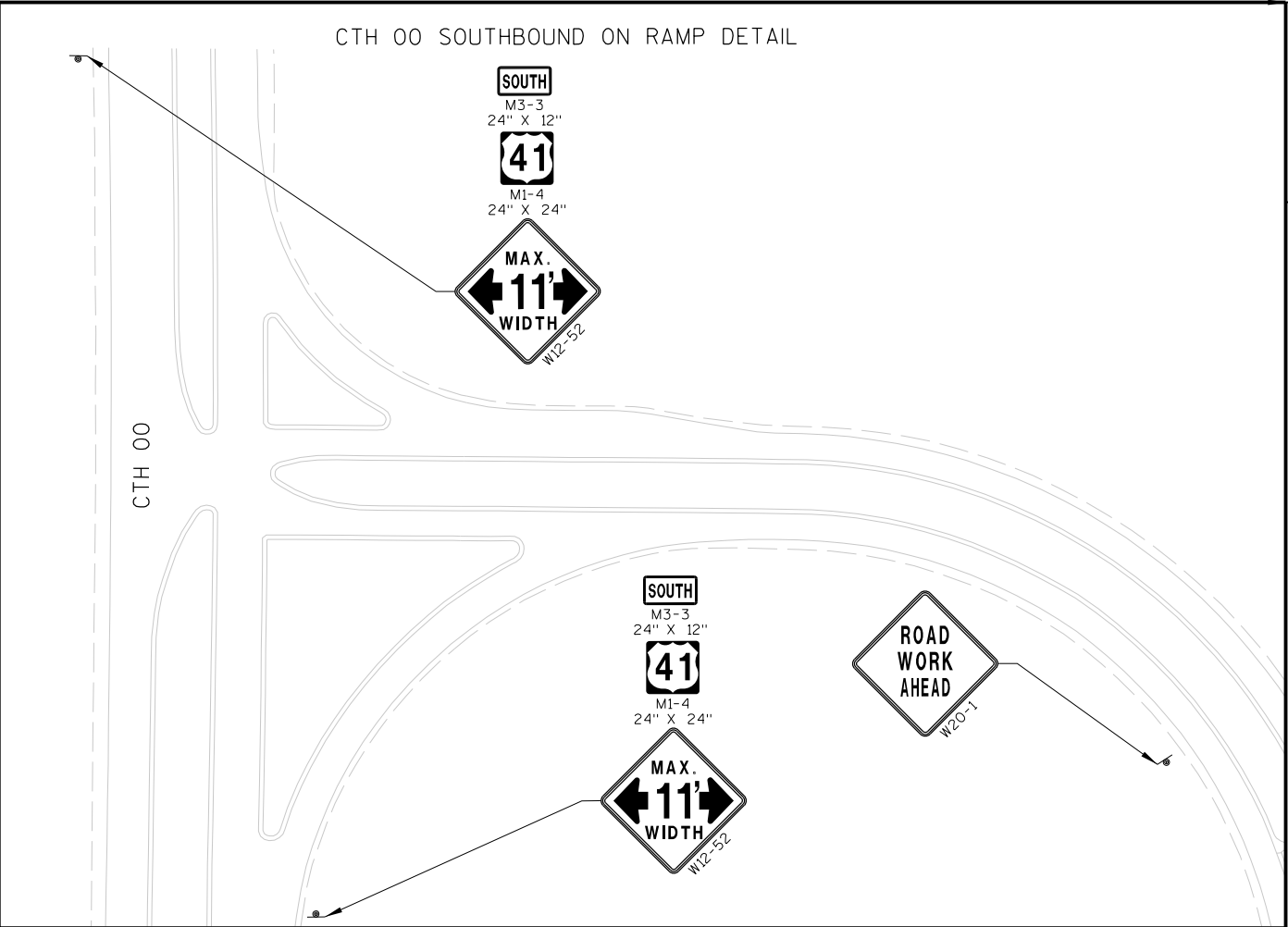
NOTE:
PLACE THESE SIGNS 200' EAST
AND WEST OF RAMP TERMINALS
ALONG STH 96.

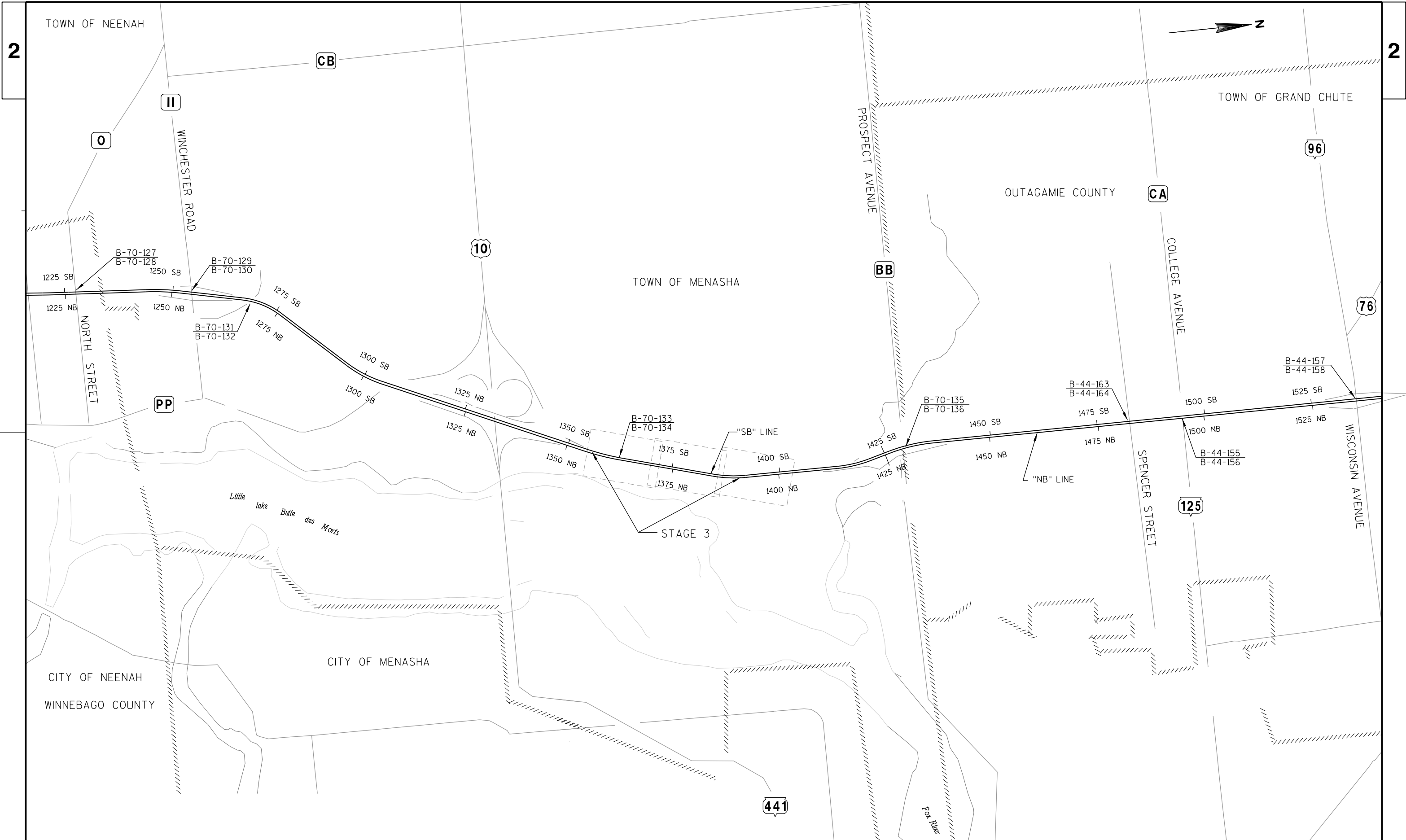












PROJECT NO: 1120-54-60

HWY: USH 41

COUNTY: WINNEBAGO/OUTAGAMIE

TRAFFIC CONTROL OVERVIEW STAGE 3

SHEET

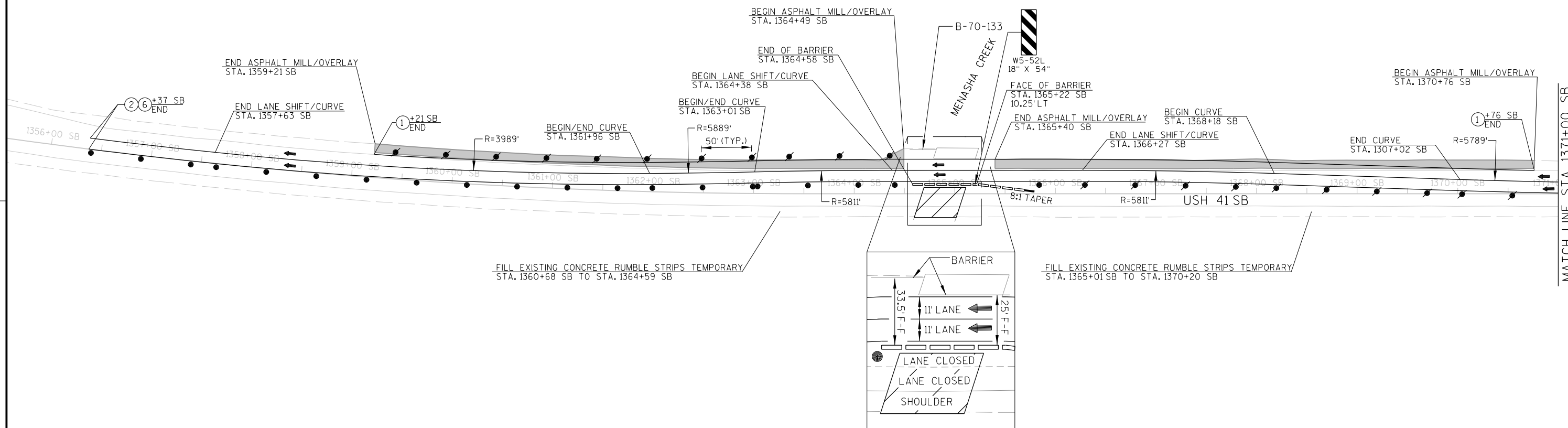
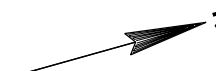
E

FILE NAME : J:\Jobs2012\20122060\CAD\Site\dgn\00\025075_fc.dgn

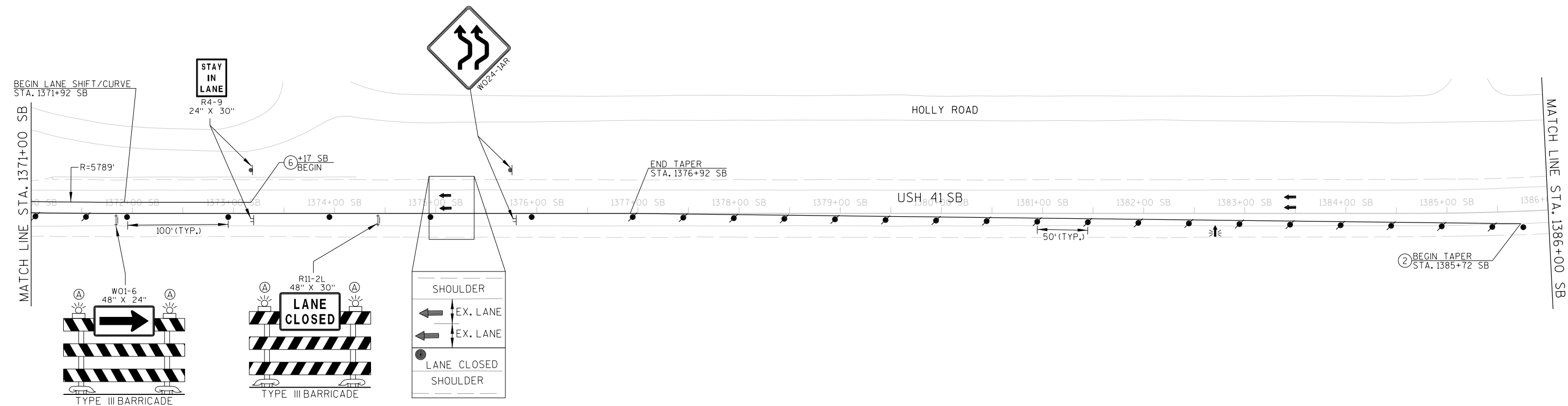
PLOT DATE : 5/1/2014

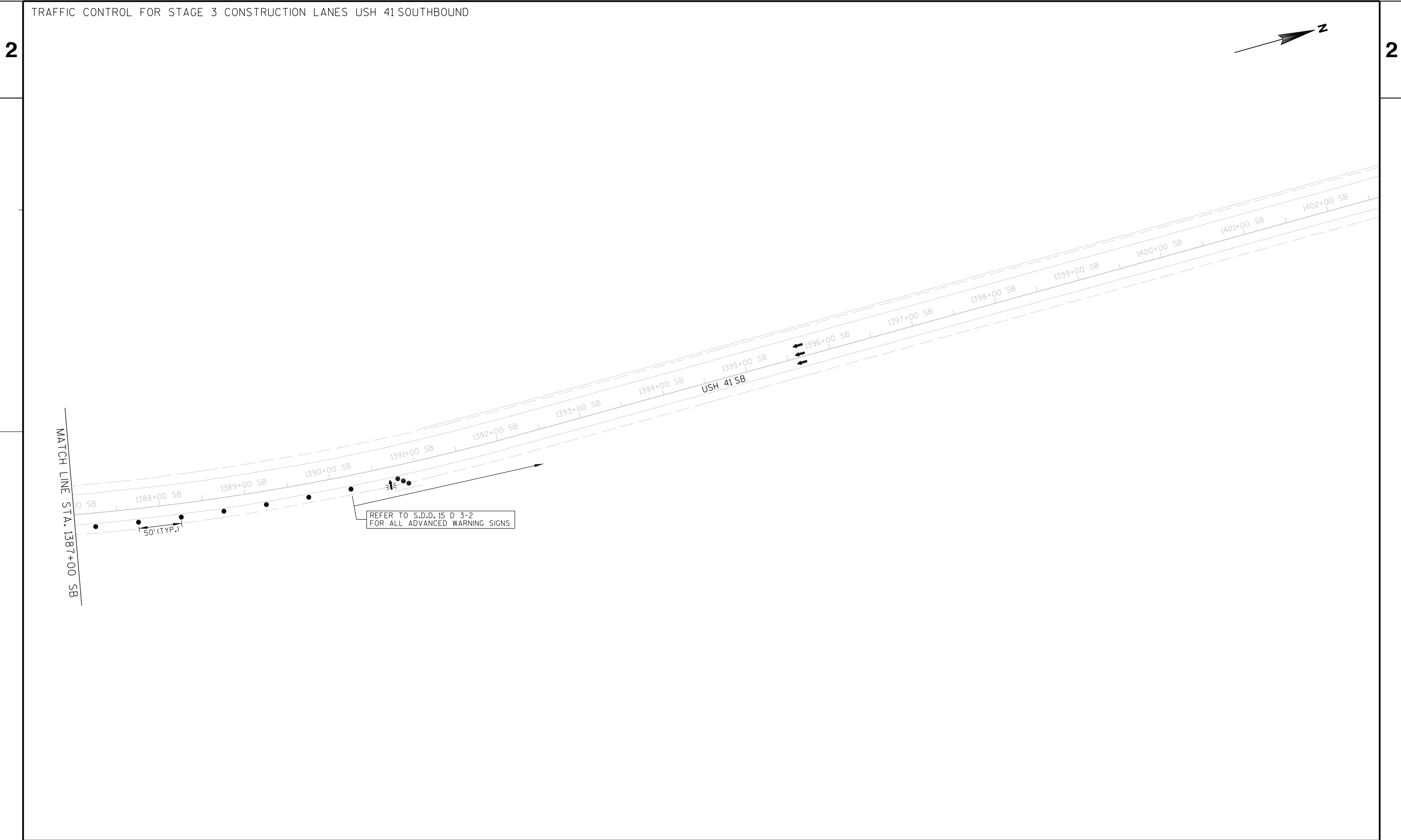
PLOT BY : \$\$\$...plotuser...\$\$ PLOT NAME :

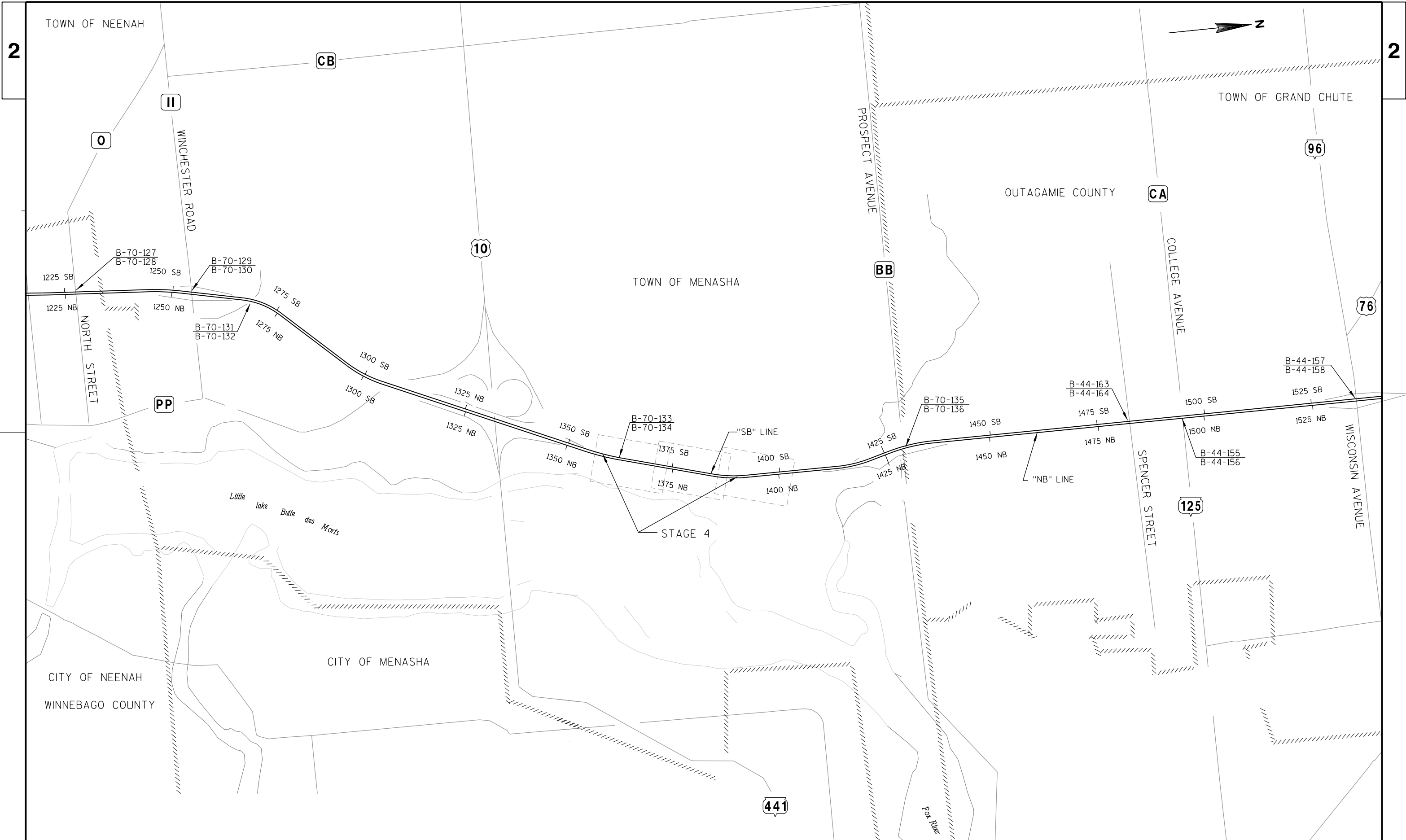
PLOT SCALE : \$\$\$...plotscale...\$\$\$ WISDOT/CADDs SHEET 42

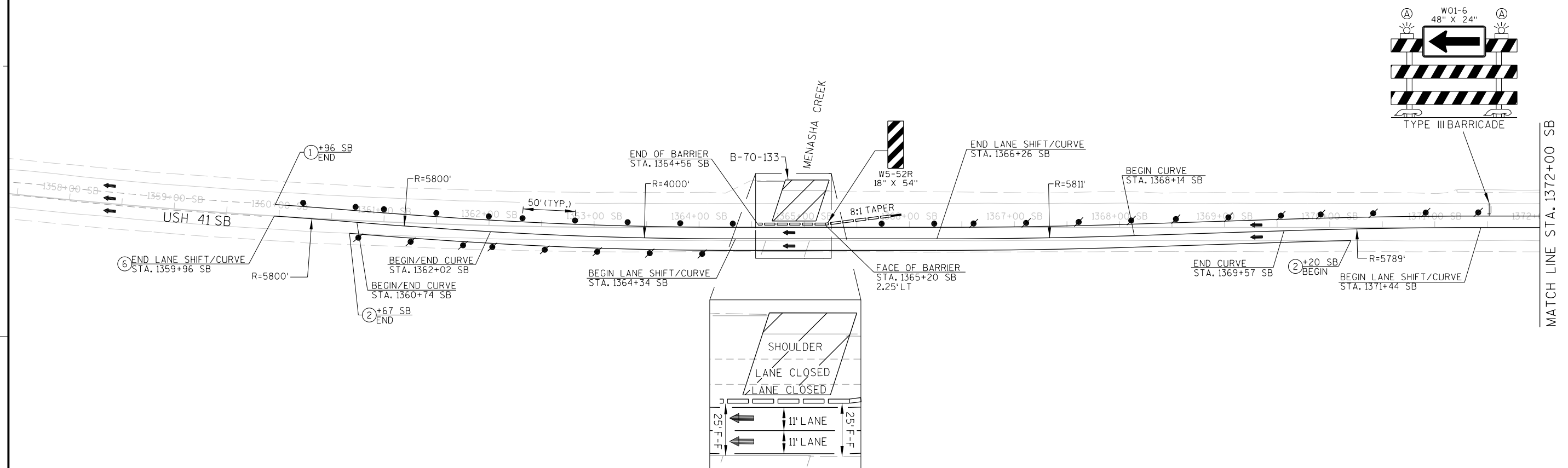


TRAFFIC CONTROL FOR STAGE 3 CONSTRUCTION LANES USH 41 SOUTHBOUND

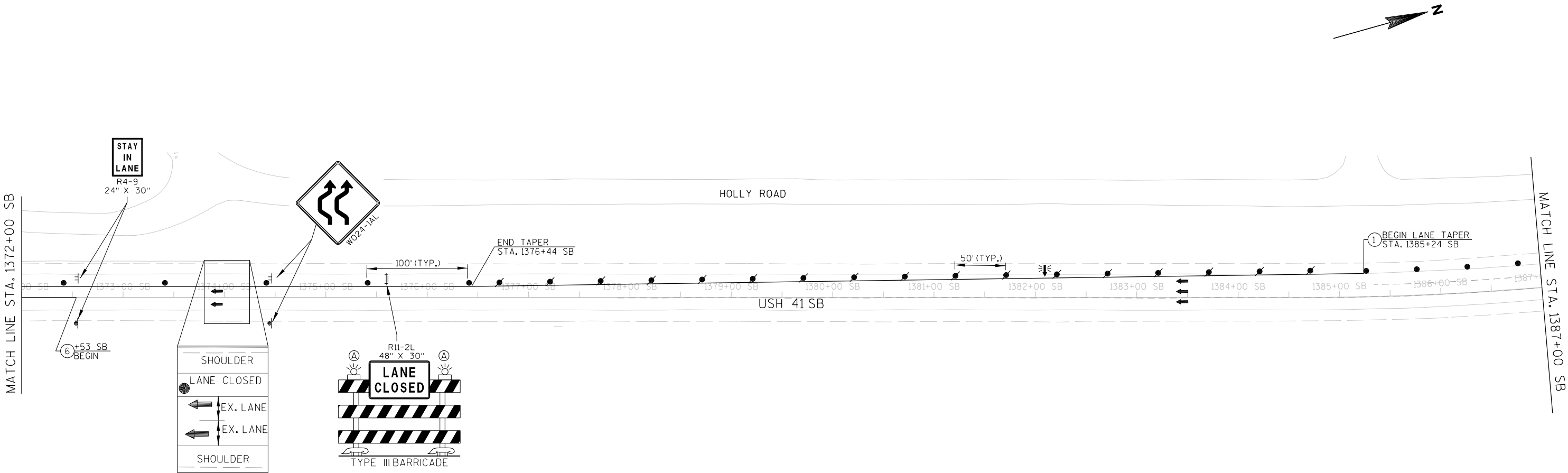


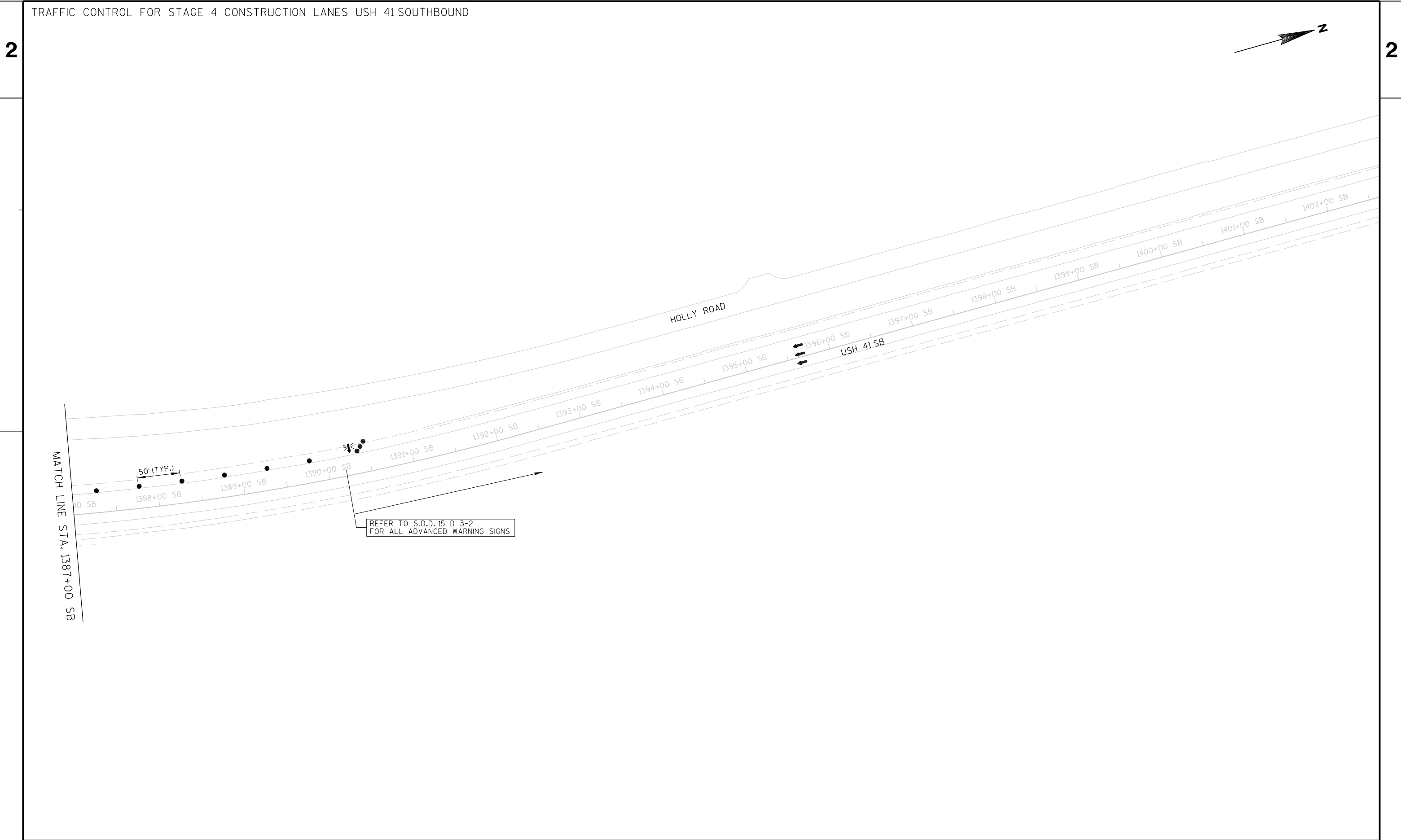


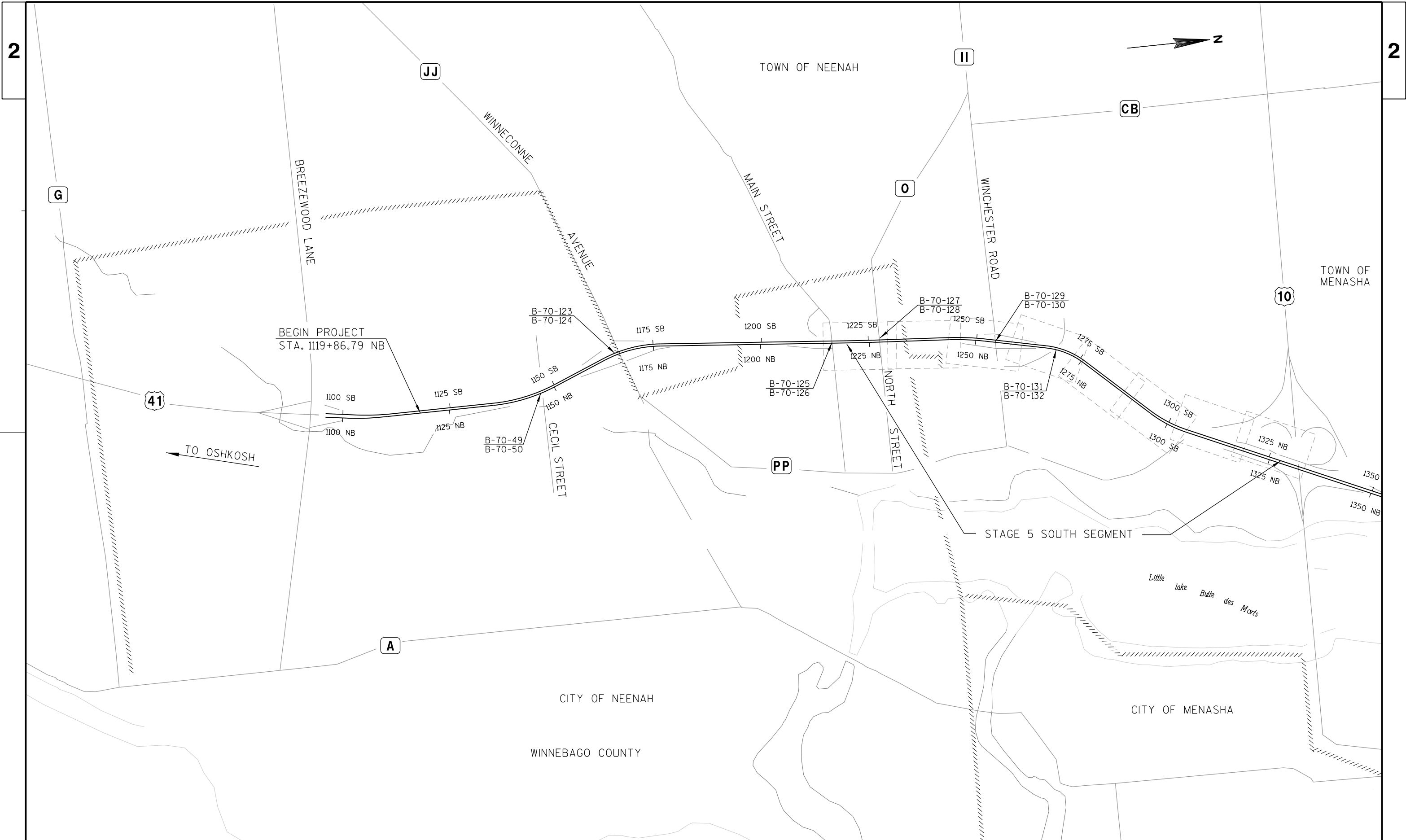




TRAFFIC CONTROL FOR STAGE 4 CONSTRUCTION LANES USH 41 SOUTHBOUND



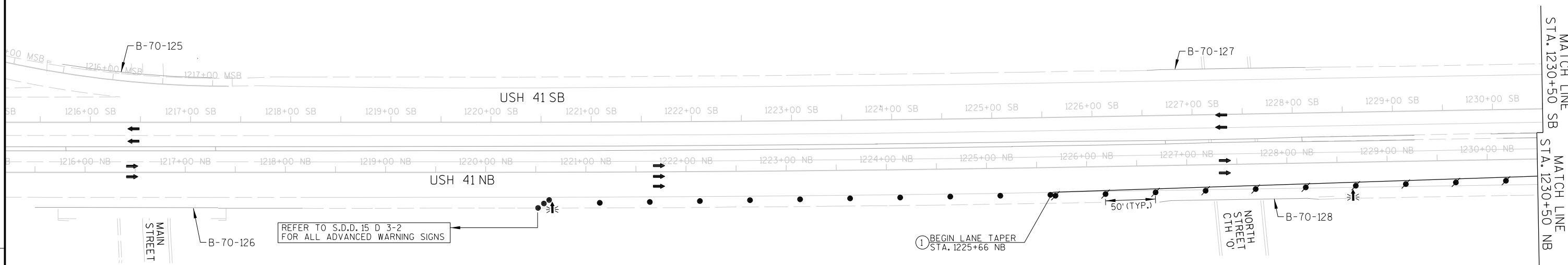




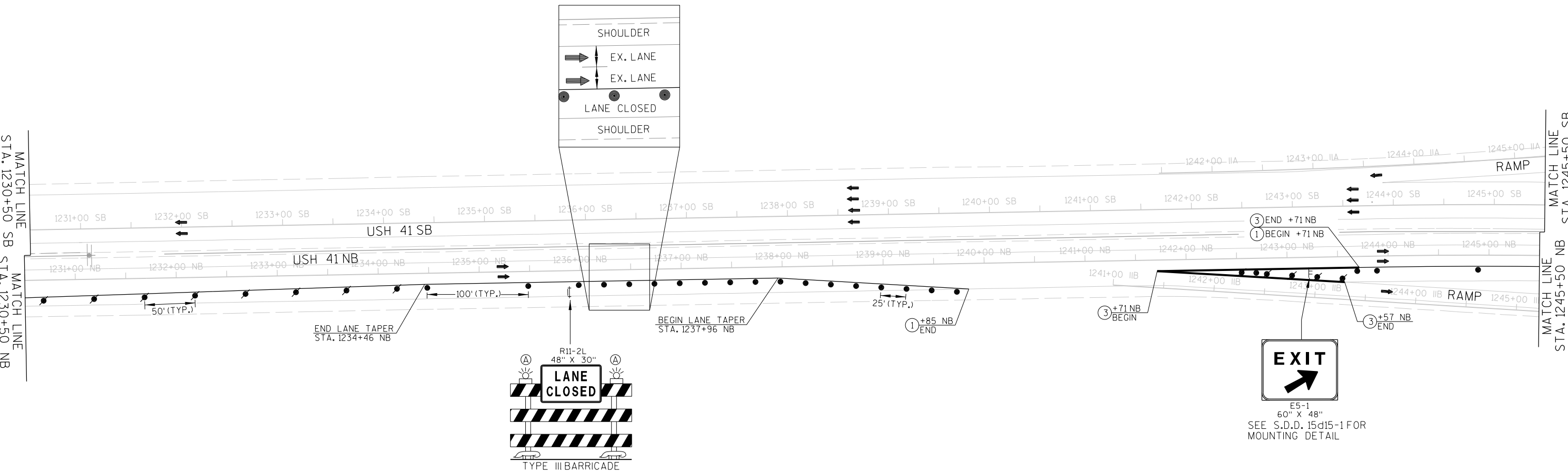


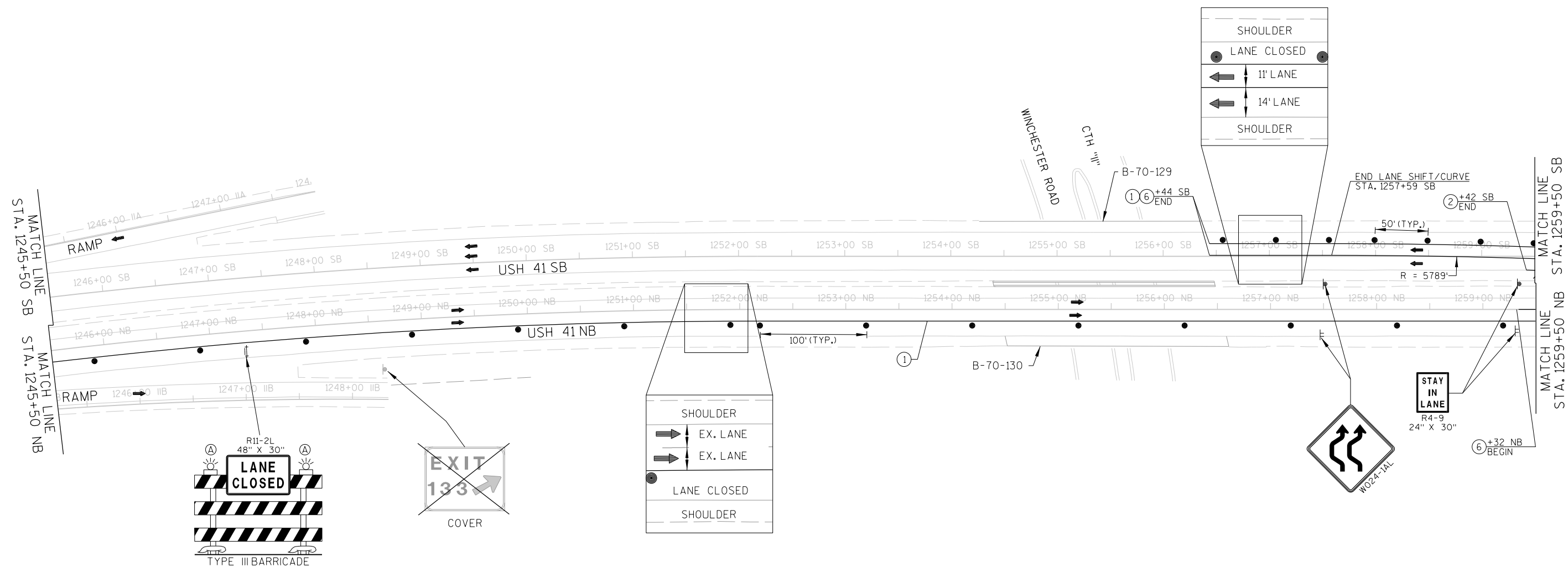
2

2

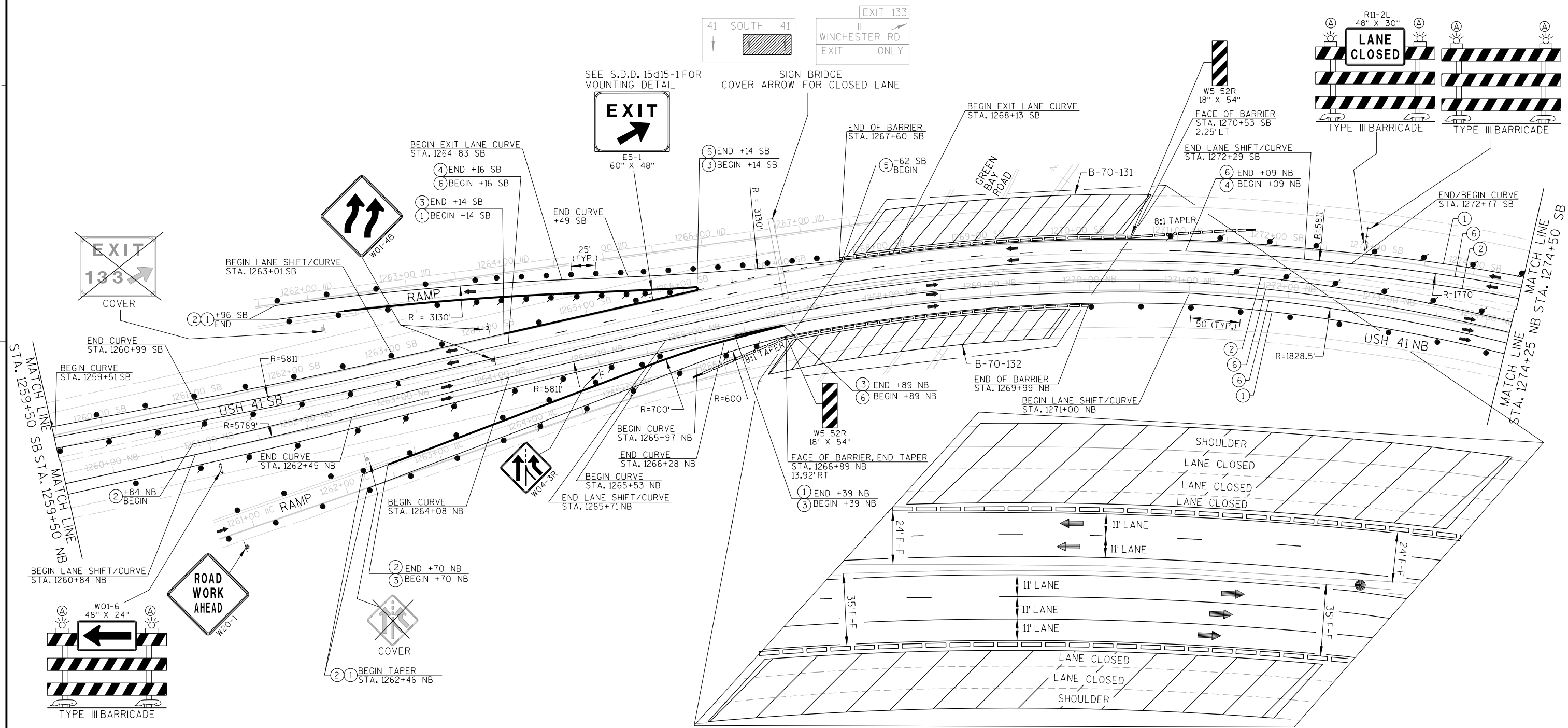
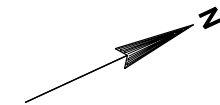


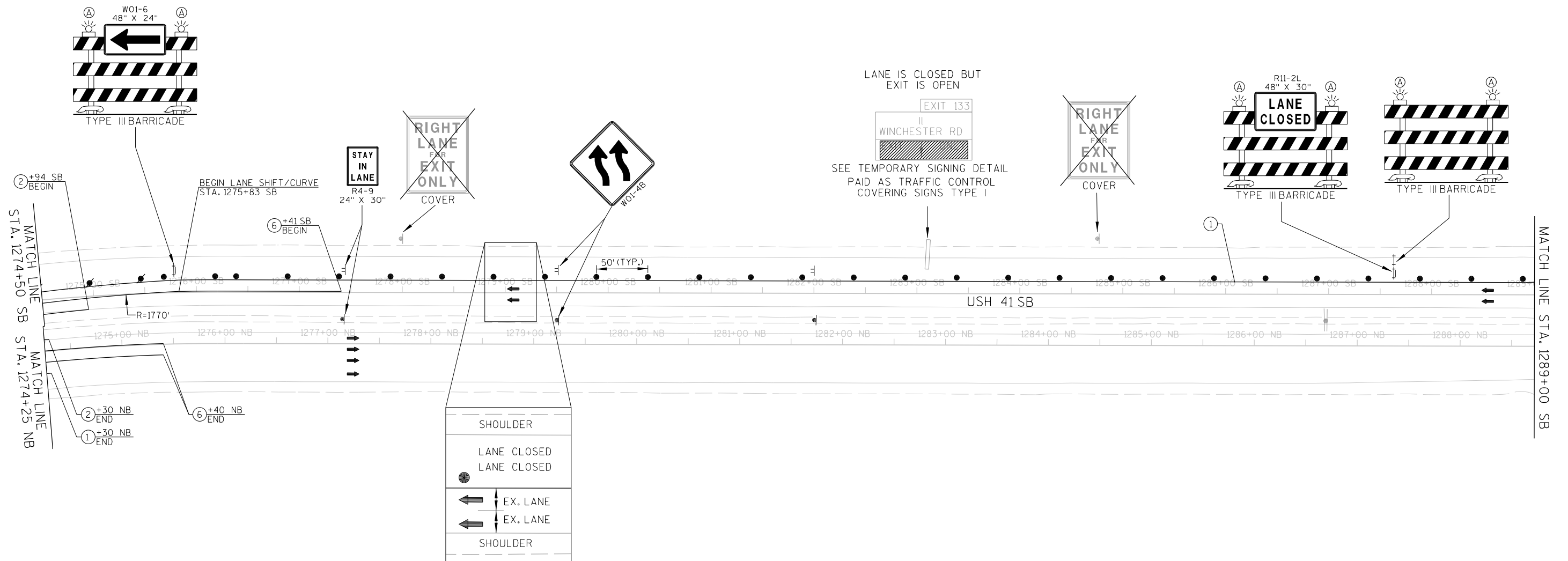
TRAFFIC CONTROL FOR STAGE 5 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

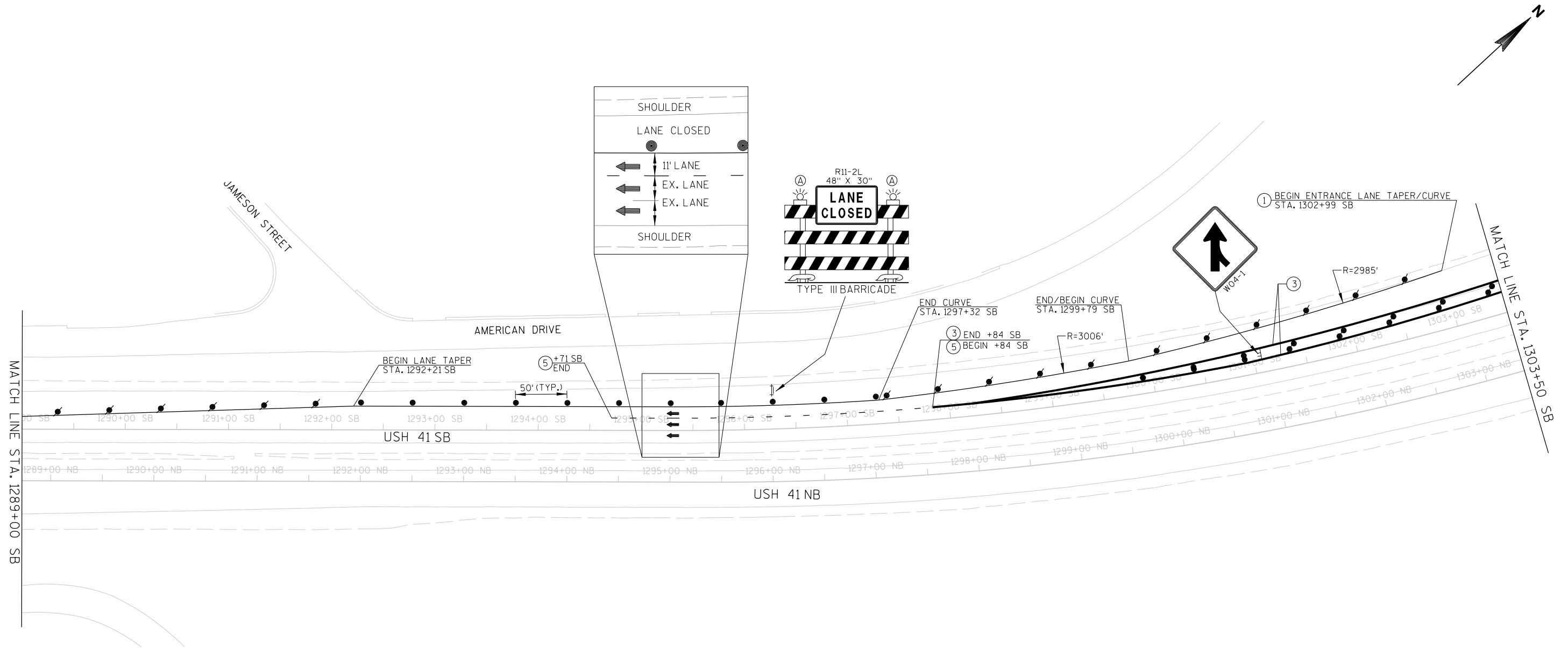




TRAFFIC CONTROL FOR STAGE 5 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND







TRAFFIC CONTROL FOR STAGE 5 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

NOTE:

SOUTH

M3-3

24" X 12"

41

M1-4

24" X 24"

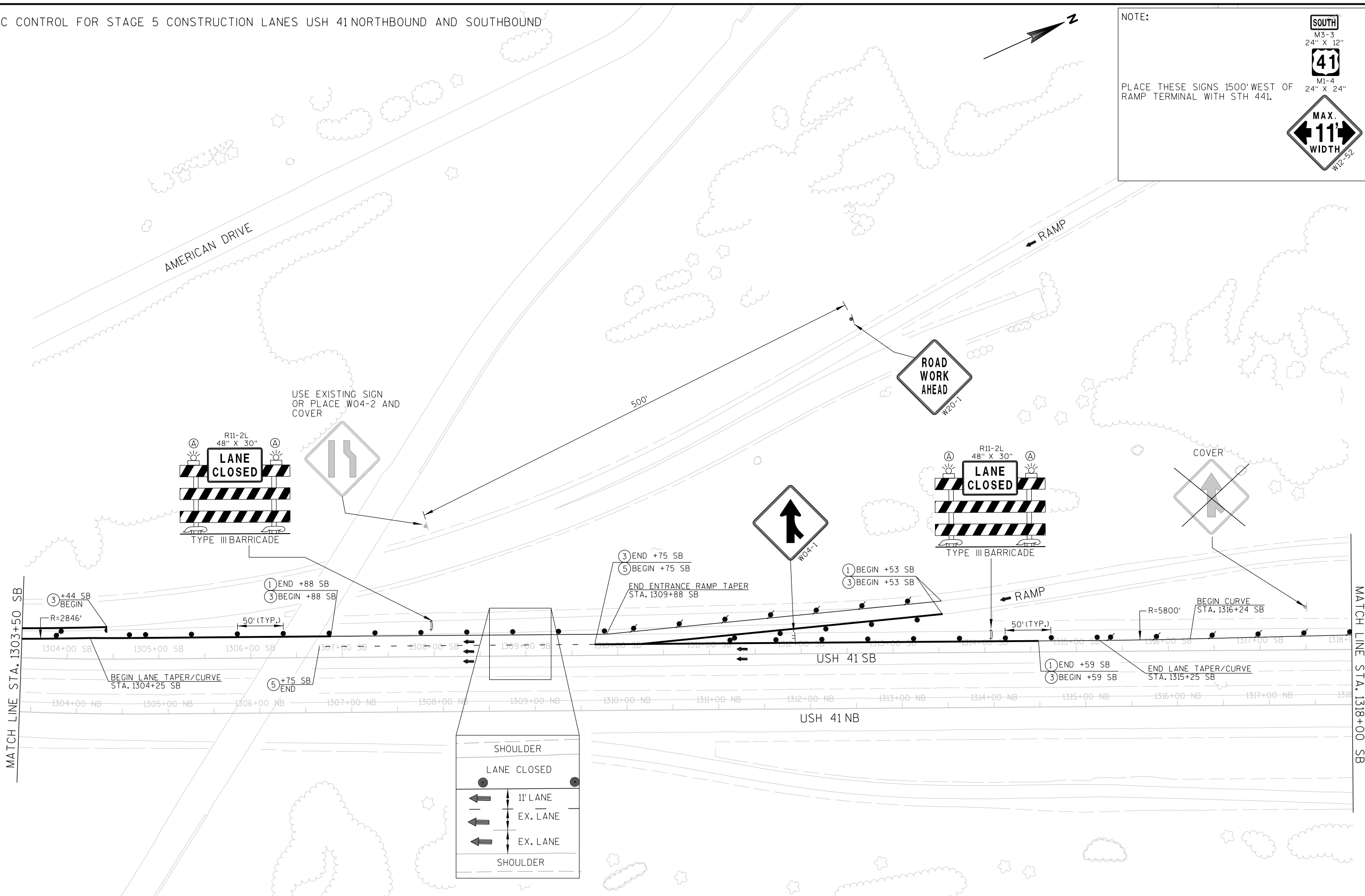
MAX.

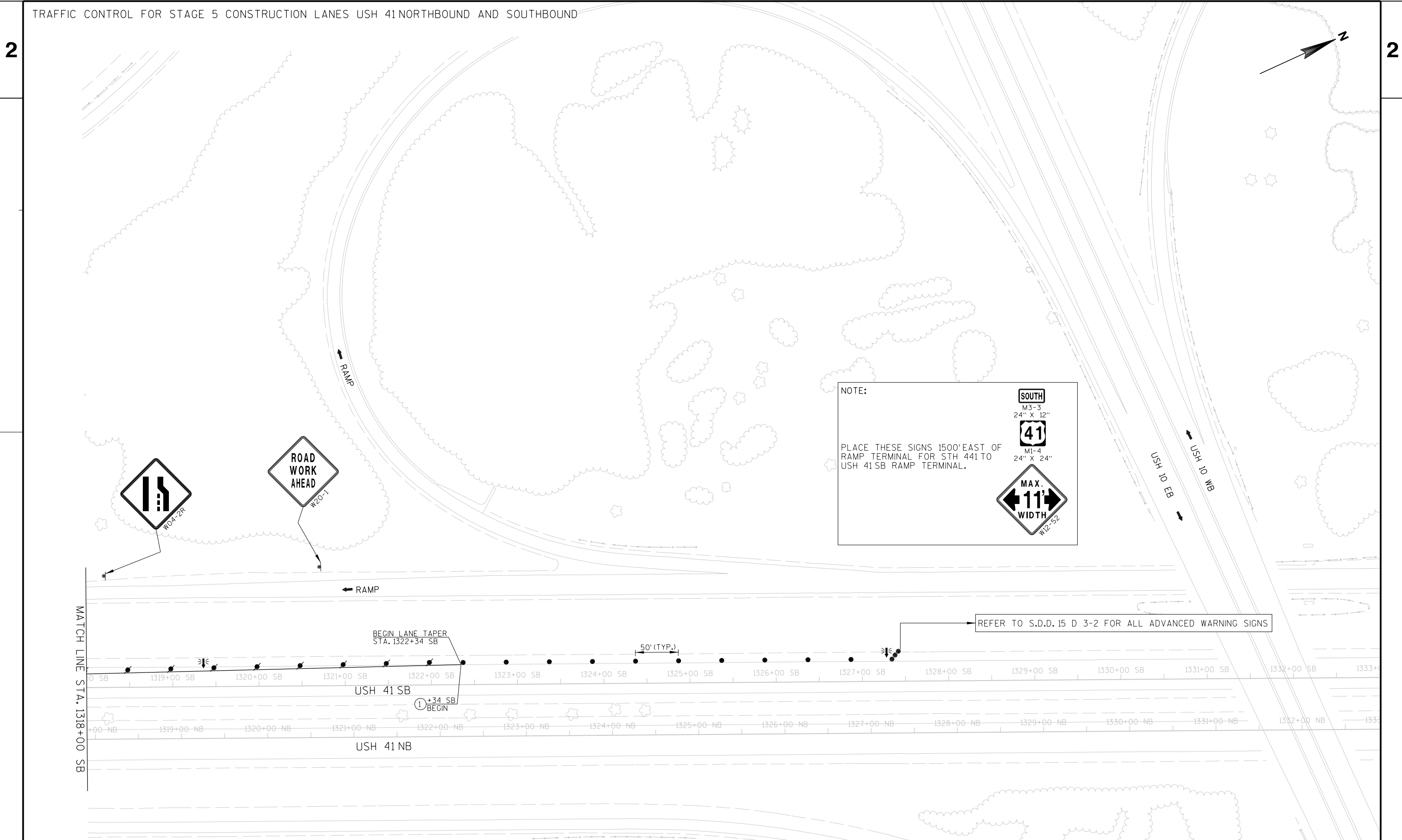
11'

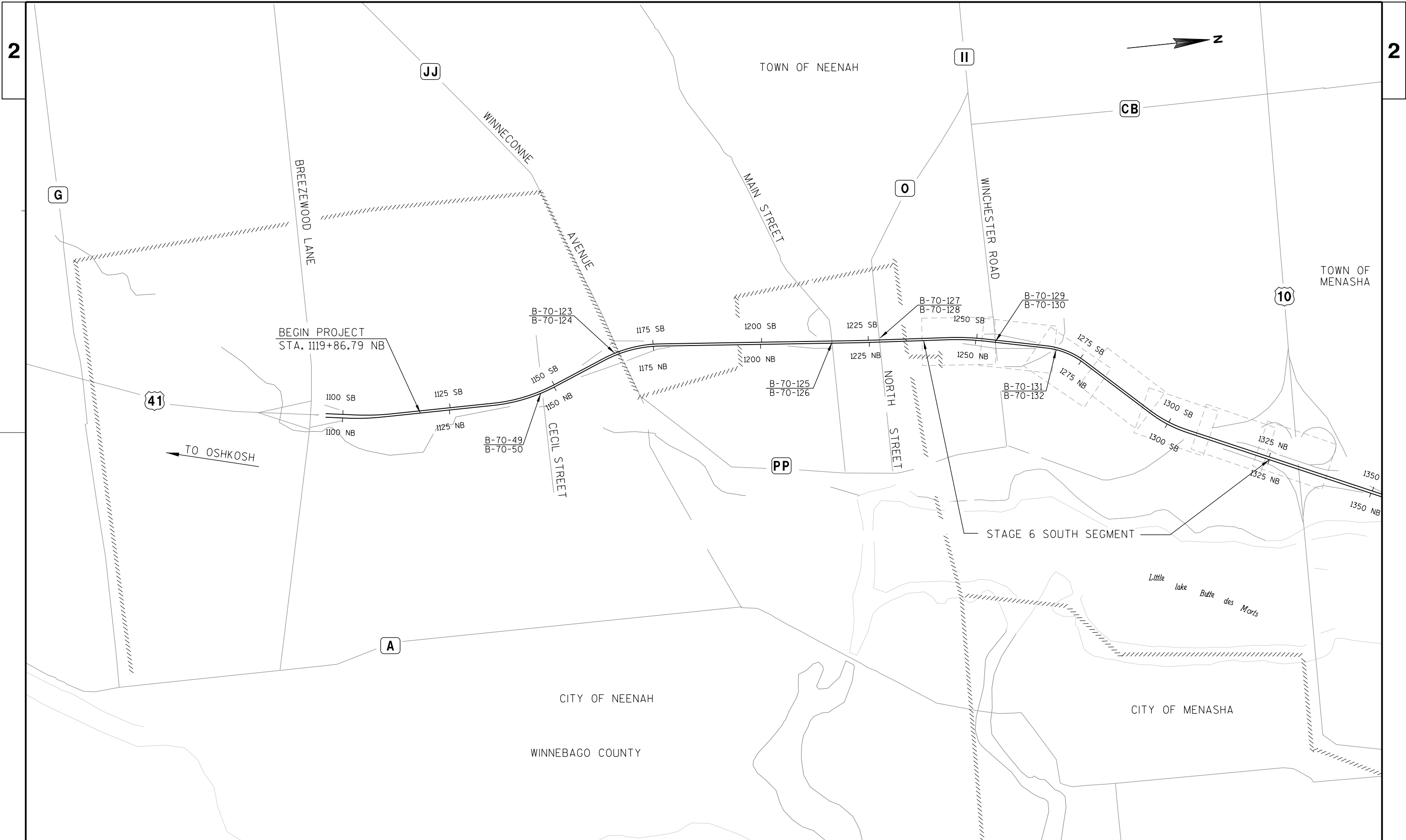
WIDTH

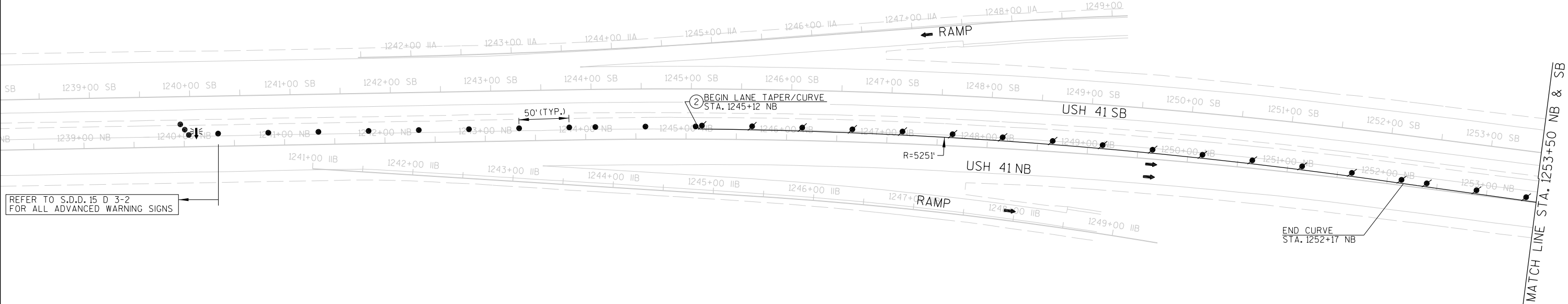
W12-52

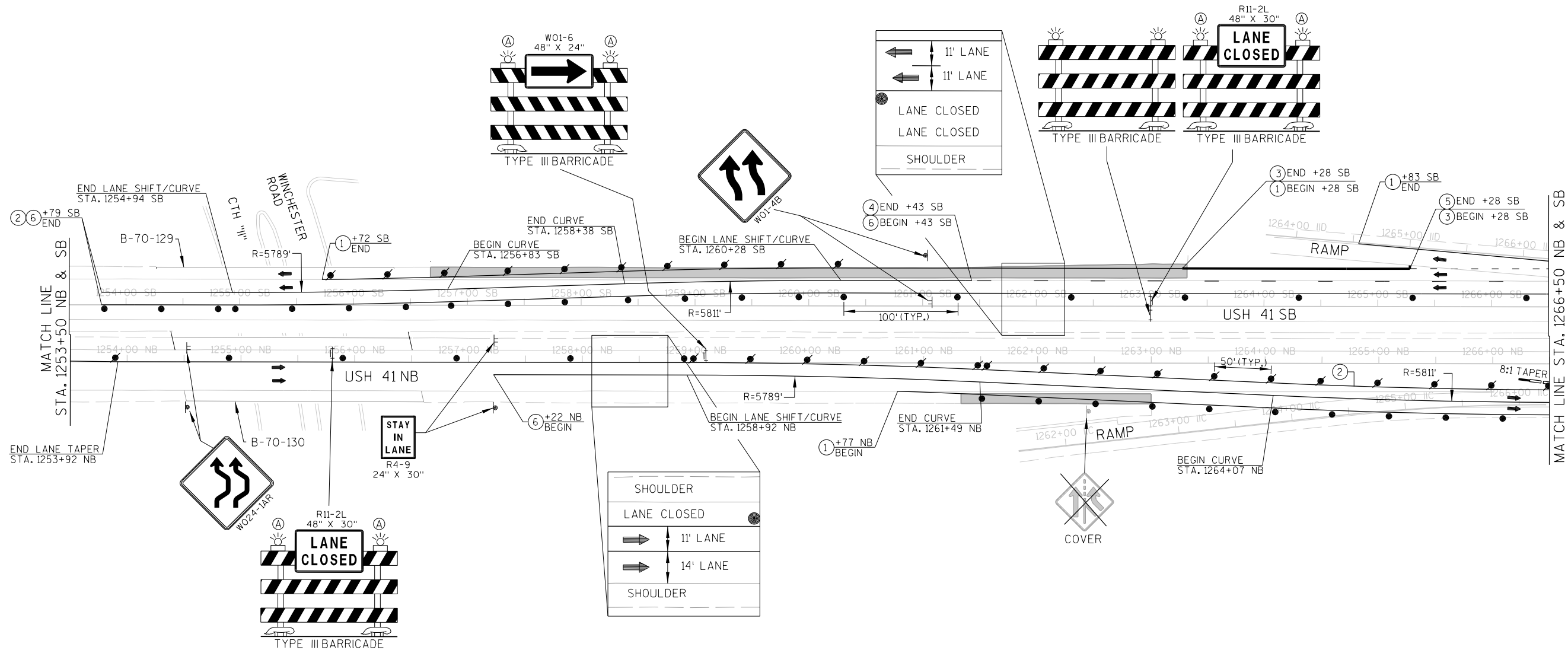
PLACE THESE SIGNS 1500' WEST OF RAMP TERMINAL WITH STH 441.





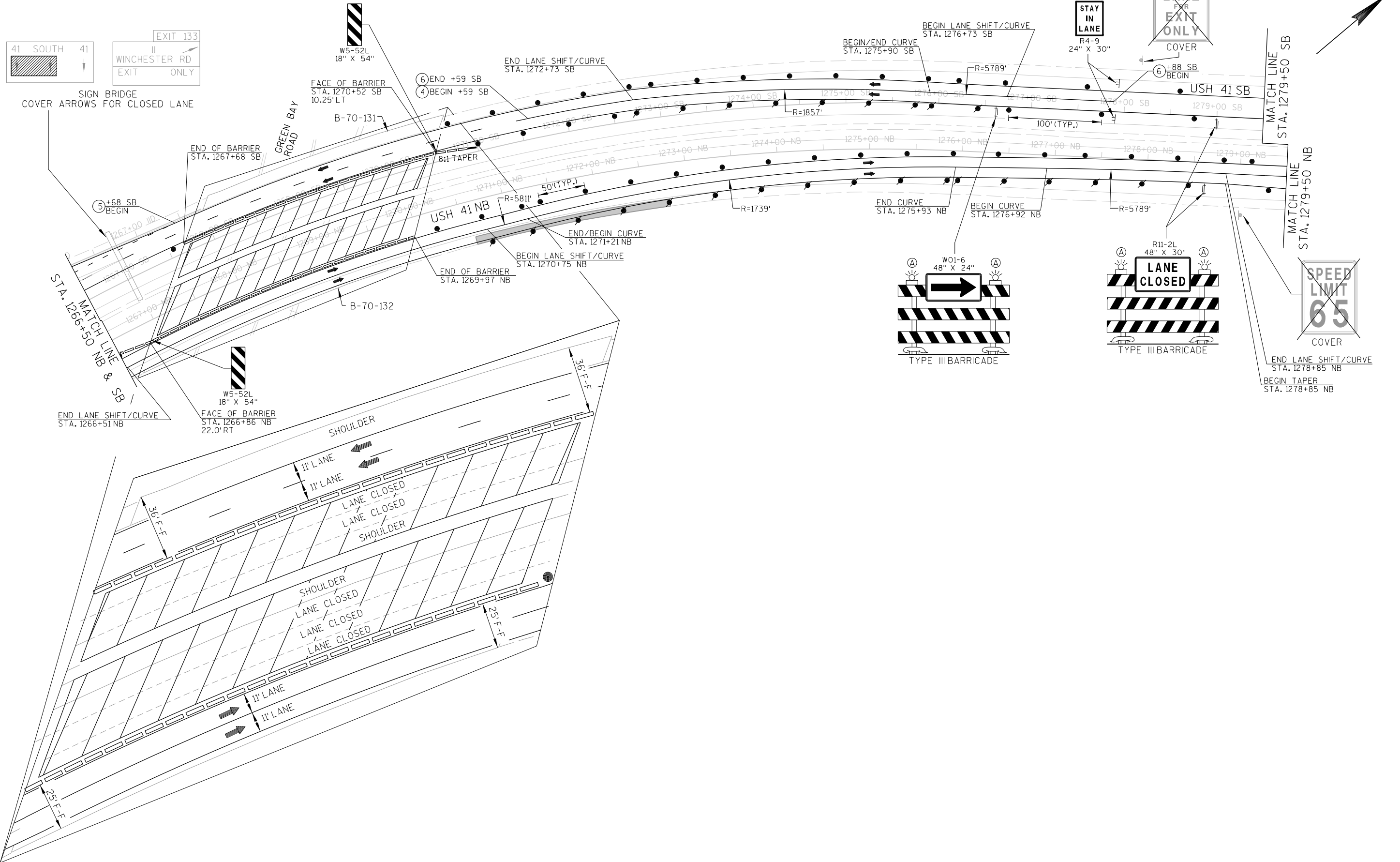




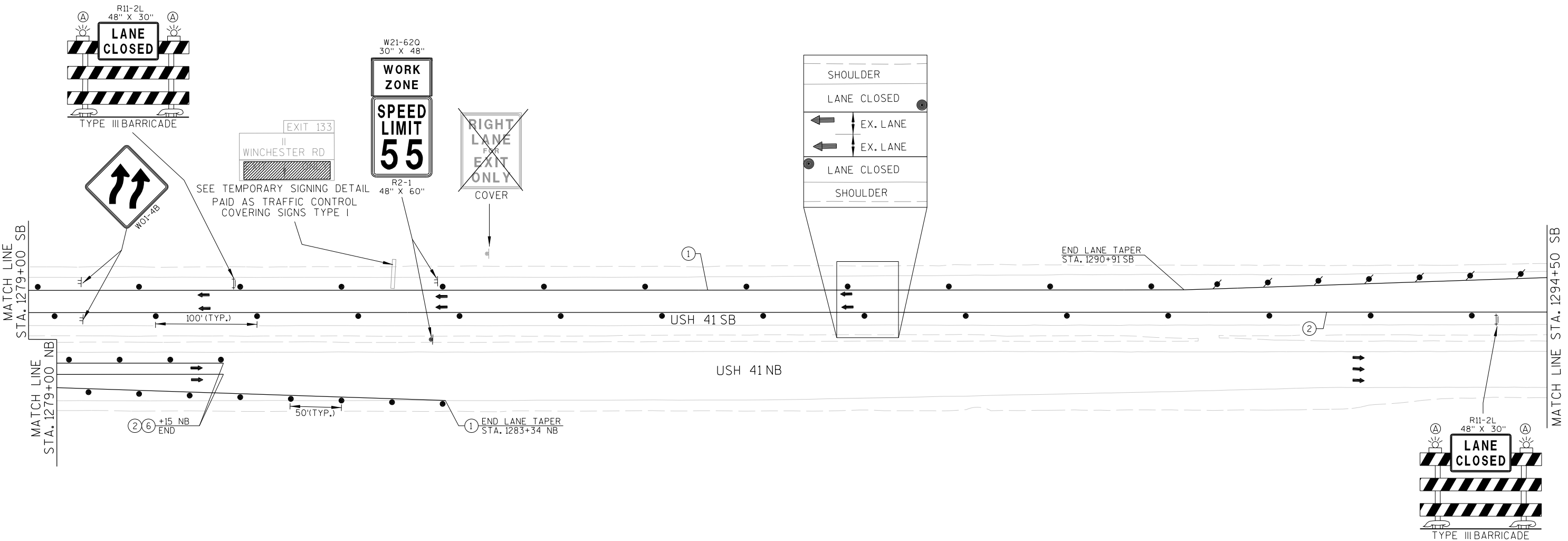


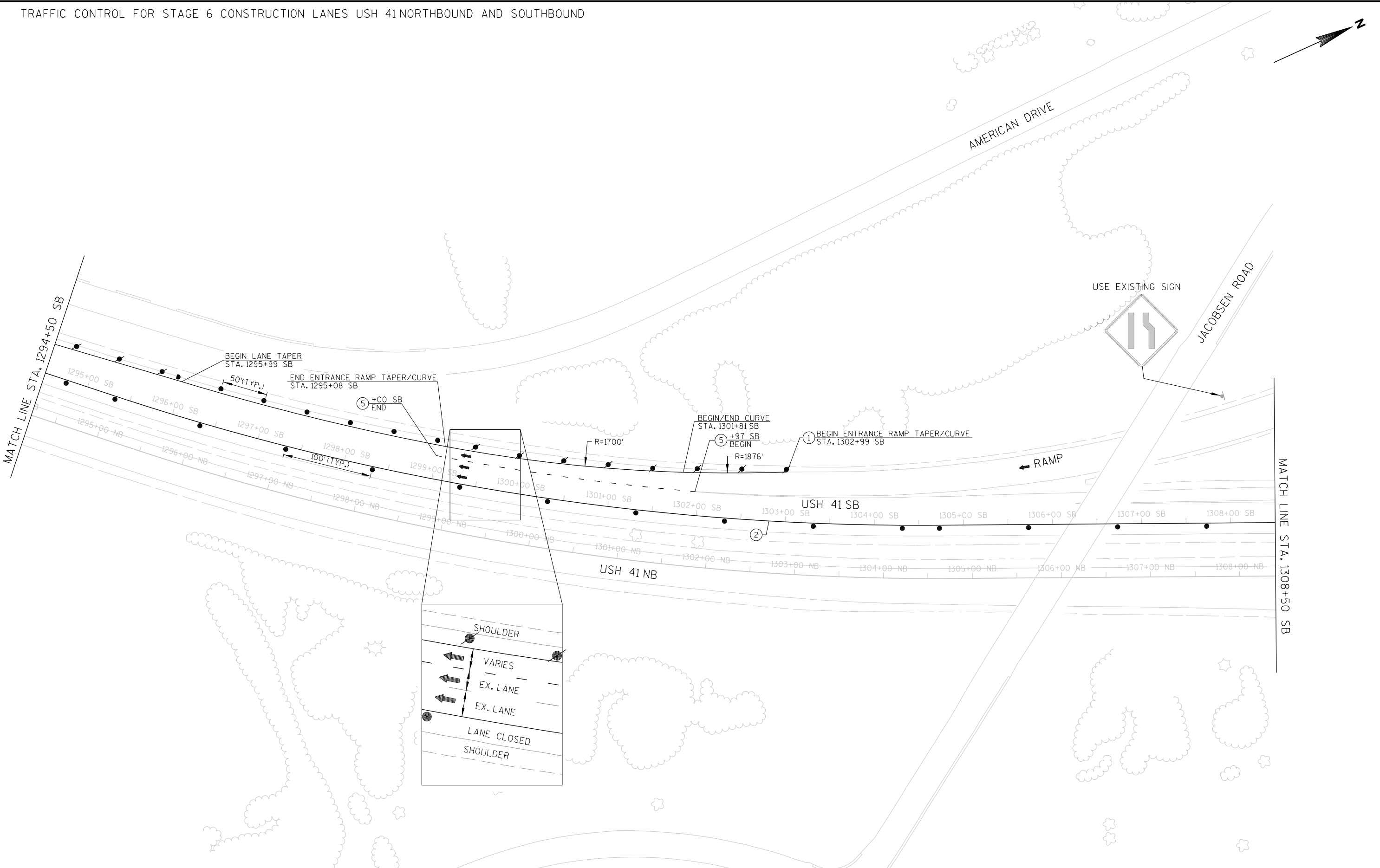
TRAFFIC CONTROL FOR STAGE 6 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND

2

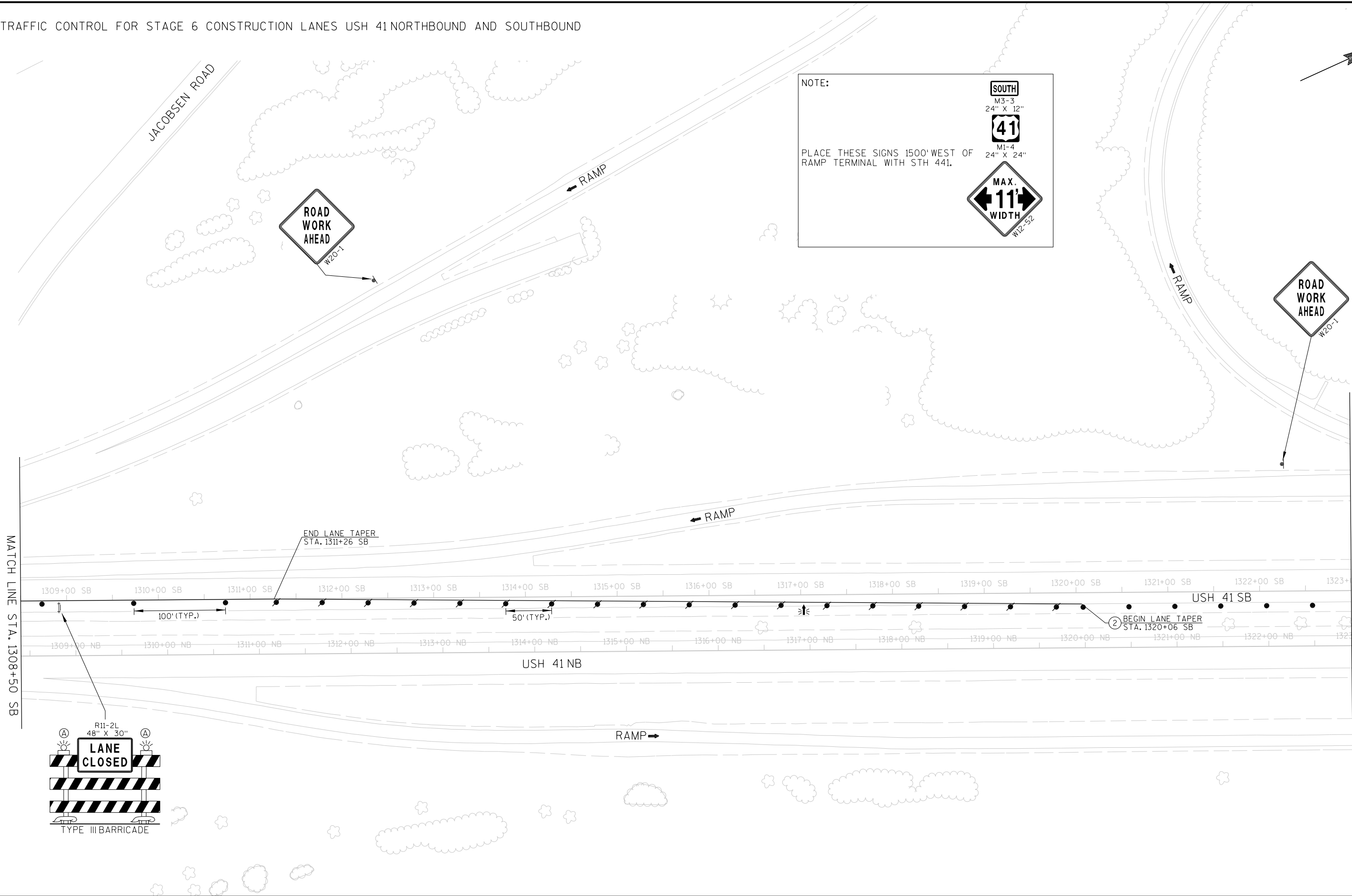


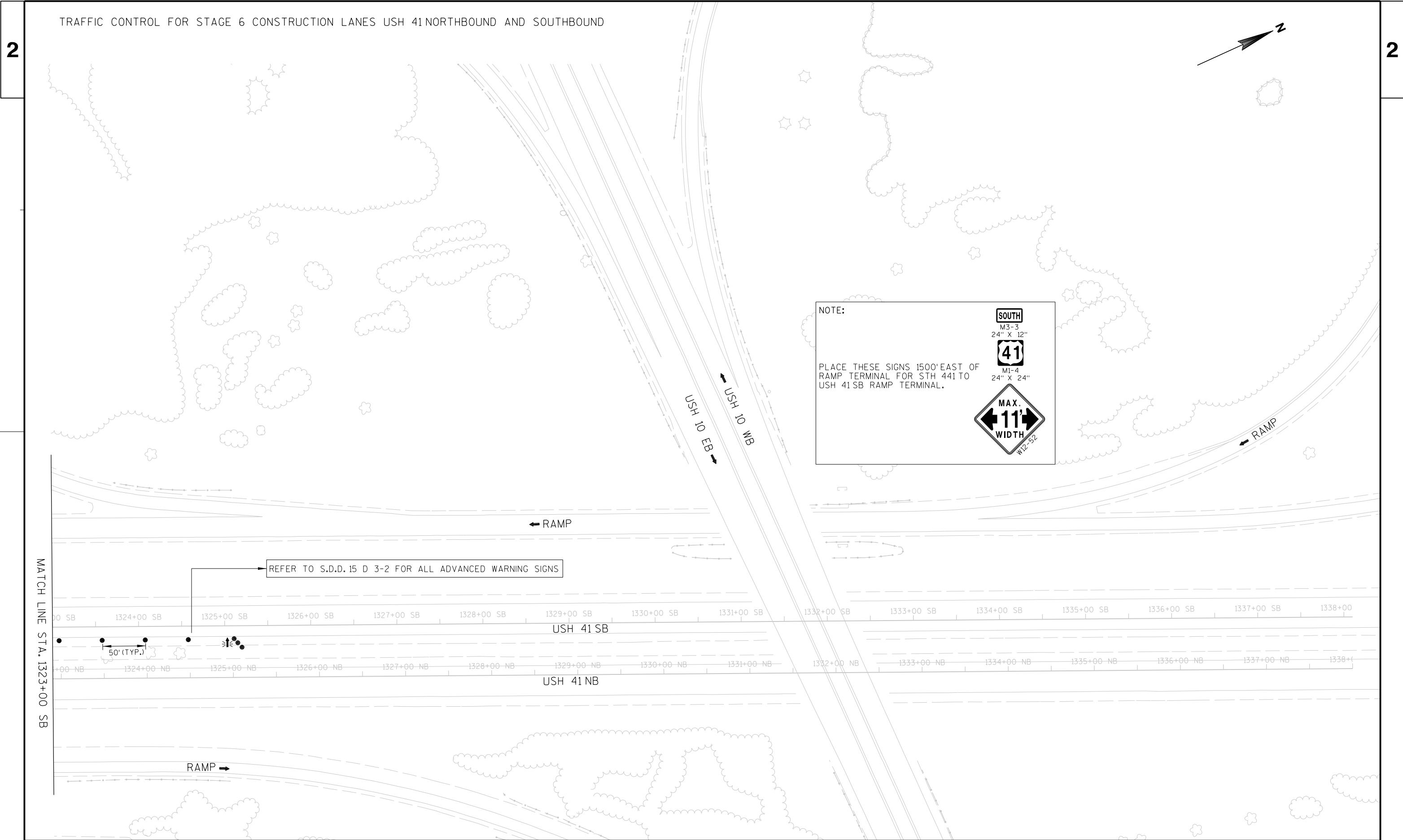
2





TRAFFIC CONTROL FOR STAGE 6 CONSTRUCTION LANES USH 41 NORTHBOUND AND SOUTHBOUND





DATE 25SEP14		E S T I M A T E O F Q U A N T I T I E S			
LINE					1120-54-60
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	108.4300	RBC PROGRESS SCHEDULE	EACH	17.000	17.000
0020	203.0200	REMOVING OLD STRUCTURE (STATION) 132. STA. 1269+90	LS	1.000	1.000
0030	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 124. B-70-0124	LS	1.000	1.000
0040	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 125. B-70-0125	LS	1.000	1.000
0050	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 126. B-70-0126	LS	1.000	1.000
0060	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 127. B-70-0127	LS	1.000	1.000
0070	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 128. B-70-0128	LS	1.000	1.000
0080	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 129. B-70-0129	LS	1.000	1.000
0090	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 131. B-70-0131	LS	1.000	1.000
0100	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 132. B-70-0132	LS	1.000	1.000
0110	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 133. B-70-0133	LS	1.000	1.000
0120	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 135. B-70-0135	LS	1.000	1.000
0130	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 155. B-44-0155	LS	1.000	1.000
0140	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 157. B-44-0157	LS	1.000	1.000
0150	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 158. B-44-0158	LS	1.000	1.000
0160	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 161. B-44-0161	LS	1.000	1.000
0170	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 162. B-44-0162	LS	1.000	1.000
0180	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 163. B-44-0163	LS	1.000	1.000
0190	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 164. B-44-0164	LS	1.000	1.000
0200	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 49. B-70-0049	LS	1.000	1.000
0210	203.0225.S	DEBRIS CONTAINMENT (STRUCTURE) 50. B-70-0050	LS	1.000	1.000
0220	204.0100	REMOVING PAVEMENT	SY	3,191.000	3,191.000
0230	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	8,038.000	8,038.000
0240	204.0190	REMOVING SURFACE DRAINS	EACH	9.000	9.000
0250	205.0100	EXCAVATION COMMON	CY	1,653.000	1,653.000
0260	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 132. B-70-0132	LS	1.000	1.000
0270	206.6000.S	TEMPORARY SHORING	SF	215.000	215.000
0280	210.0100	BACKFILL STRUCTURE	CY	45.000	45.000
0290	211.0400	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	STA	132.000	132.000
0300	213.0100	FINISHING ROADWAY (PROJECT) 01. 1120-54-60	EACH	1.000	1.000
0310	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	131.000	131.000
0320	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	298.000	298.000
0330	416.0610	DRILLED TIE BARS	EACH	2,766.000	2,766.000
0340	416.0620	DRILLED DOWEL BARS	EACH	11,962.000	11,962.000
0350	416.1015	CONCRETE SURFACE DRAINS HES	CY	61.000	61.000

DATE 25SEP14		E S T I M A T E O F Q U A N T I T I E S			
LINE				1120-54-60	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0360	416.1715	CONCRETE PAVEMENT REPAIR SHES	SY	6,197.800	6,197.800
0370	416.1725	CONCRETE PAVEMENT REPLACEMENT SHES	SY	7,441.200	7,441.200
0380	455.0105	ASPHALTIC MATERIAL PG58-28	TON	234.000	234.000
0390	455.0605	TACK COAT	GAL	403.000	403.000
0400	460.1100	HMA PAVEMENT TYPE E-0.3	TON	2,326.000	2,326.000
0410	460.1130	HMA PAVEMENT TYPE E-30	TON	1,927.000	1,927.000
0420	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	2,730.000	2,730.000
0430	465.0400	ASPHALTIC SHOULDER RUMBLE STRIPS	LF	12,555.000	12,555.000
0440	502.0100	CONCRETE MASONRY BRIDGES	CY	9.000	9.000
0450	502.3100	EXPANSION DEVICE (STRUCTURE) 131. B-70-0131	LS	1.000	1.000
0460	502.3100	EXPANSION DEVICE (STRUCTURE) 132. B-70-0132	LS	1.000	1.000
0470	502.3100	EXPANSION DEVICE (STRUCTURE) 157. B-44-0157	LS	1.000	1.000
0480	502.3100	EXPANSION DEVICE (STRUCTURE) 158. B-44-0158	LS	1.000	1.000
0490	502.3100	EXPANSION DEVICE (STRUCTURE) 161. B-44-0161	LS	1.000	1.000
0500	502.3100	EXPANSION DEVICE (STRUCTURE) 162 B-44-0162	LS	1.000	1.000
0510	502.3200	PROTECTIVE SURFACE TREATMENT	SY	382.000	382.000
0520	502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS	EACH	15.000	15.000
0530	502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS	EACH	37.000	37.000
0540	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	20,260.000	20,260.000
0550	509.0301	PREPARATION DECKS TYPE 1	SY	233.000	233.000
0560	509.0302	PREPARATION DECKS TYPE 2	SY	169.000	169.000
0570	509.1000	JOINT REPAIR	SY	361.000	361.000
0580	509.2000	FULL-DEPTH DECK REPAIR	SY	19.000	19.000
0590	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	167.000	167.000
0600	509.5100.S	POLYMER OVERLAY	SY	4,290.000	4,290.000
0610	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3.000	3.000
0620	601.0105	CONCRETE CURB TYPE A	LF	20.000	20.000
0630	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	10,412.000	10,412.000
0640	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	10,412.000	10,412.000
0650	611.8115	ADJUSTING INLET COVERS	EACH	10.000	10.000
0660	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1.000	1.000
0670	614.0905	CRASH CUSHIONS TEMPORARY	EACH	39.000	39.000
0680	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1120-54-60	EACH	1.000	1.000
0690	619.1000	MOBILIZATION	EACH	1.000	1.000
0700	624.0100	WATER	MGAL	4.000	4.000
0710	628.1504	SILT FENCE	LF	125.000	125.000
0720	628.1520	SILT FENCE MAINTENANCE	LF	125.000	125.000
0730	628.2004	EROSION MAT CLASS I TYPE B	SY	25.000	25.000
0740	628.7015	INLET PROTECTION TYPE C	EACH	10.000	10.000
0750	629.0210	FERTILIZER TYPE B	CWT	0.010	0.010
0760	630.0130	SEEDING MIXTURE NO. 30	LB	0.400	0.400
0770	630.0200	SEEDING TEMPORARY	LB	0.500	0.500
0780	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000

DATE 25SEP14			E S T I M A T E O F Q U A N T I T I E S		
LINE					1120-54-60
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0790	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 1120-54-60	DAY	115.000	115.000
0800	643.0300	TRAFFIC CONTROL DRUMS	DAY	169,082.000	169,082.000
0810	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	12,329.000	12,329.000
0820	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	24,260.000	24,260.000
0830	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	34,122.000	34,122.000
0840	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	757.000	757.000
0850	643.0900	TRAFFIC CONTROL SIGNS	DAY	35,625.000	35,625.000
0860	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	19.000	19.000
0870	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	62.000	62.000
0880	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	356.000	356.000
0890	646.0103	PAVEMENT MARKING PAINT 4-INCH	LF	7,188.000	7,188.000
0900	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	201,148.000	201,148.000
0910	646.0123	PAVEMENT MARKING PAINT 8-INCH	LF	2,071.000	2,071.000
0920	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	5,125.000	5,125.000
0930	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	LF	44,015.000	44,015.000
0940	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	LF	22,811.000	22,811.000
0950	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	14.000	14.000
0960	647.0176	PAVEMENT MARKING ARROWS EPOXY TYPE 3	EACH	1.000	1.000
0970	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	9.000	9.000
0980	647.0526	PAVEMENT MARKING YIELD LINE SYMBOLS EPOXY 18-INCH	EACH	19.000	19.000
0990	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	311.000	311.000
1000	647.0803	PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH	LF	24.000	24.000
1010	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	53,675.000	53,675.000
1020	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	191,850.000	191,850.000
1030	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	15,205.000	15,205.000
1040	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	92,200.000	92,200.000
1050	690.0150	SAWING ASPHALT	LF	4,057.000	4,057.000
1060	690.0250	SAWING CONCRETE	LF	35,967.000	35,967.000
1070	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	500.000	500.000
1080	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	2,300.000	2,300.000
1090	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	2,100.000	2,100.000
1100	SPV.0045	SPECIAL 01. PORTABLE CHANGABLE MESSAGE SIGN (PCMS) CELLULAR COMMUNICATIONS	DAY	216.000	216.000
1110	SPV.0060	SPECIAL 01. BARRIER WALL DELINEATION	EACH	191.000	191.000
1120	SPV.0090	SPECIAL 01. REPAIRING CONCRETE BARRIER	LF	52.000	52.000
1130	SPV.0090	SPECIAL 02. SAWING PAVEMENT DECK PREPARATION AREAS	LF	2,330.000	2,330.000
1140	SPV.0090	SPECIAL 03. FILL EXISTING CONCRETE RUMBLE STRIPS TEMPORARY	LF	2,925.000	2,925.000
1150	SPV.0090	SPECIAL 04. REMOVING PAVEMENT MARKINGS WATER BLASTING	LF	72,203.000	72,203.000

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NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

REMOVING PAVEMENT									
204.0100									
STAGE	ROADWAY	FROM STATION	TO STATION	(SY)	COMMENT				
1	NB USH 41	1145+72.09	NB - 1146+07.04	NB 47	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1147+25.81	NB - 1147+62.56	NB 69	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1165+54.17	NB - 1165+79.35	NB 47	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1167+79.18	NB - 1168+06.22	NB 44	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1217+25.49	NB - 1217+48.63	NB 46	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1226+51.41	NB - 1226+76.53	NB 51	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1228+10.25	NB - 1228+34.86	NB 47	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1254+05.62	NB - 1254+51.35	NB 128	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1256+51.25	NB - 1256+85.99	NB 88	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1429+43.81	NB - 1429+73.42	NB 73	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1495+43.69	NB - 1495+66.68	NB 65	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1534+38.22	NB - 1534+59.80	NB 52	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	NB USH 41	1536+54.32	NB - 1536+76.07	NB 52	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1145+93.63	SB - 1146+28.60	SB 81	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1147+51.82	SB - 1147+89.17	SB 65	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1165+51.82	SB - 1165+75.66	SB 65	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1167+71.33	SB - 1167+98.84	SB 75	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1215+52.00	SB - 1215+74.89	SB 53	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1217+22.44	SB - 1217+45.78	SB 77	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1226+47.29	SB - 1226+71.62	SB 63	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1228+04.43	SB - 1228+29.47	SB 71	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1254+05.78	SB - 1254+36.87	SB 59	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1256+36.93	SB - 1256+67.53	SB 67	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1427+57.32	SB - 1427+92.56	SB 72	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1493+27.22	SB - 1493+50.99	SB 54	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1495+45.44	SB - 1495+68.60	SB 51	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1534+37.53	SB - 1534+59.85	SB 54	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
1	SB USH 41	1536+54.37	SB - 1536+76.37	SB 53	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1145+72.09	NB - 1146+07.04	NB 110	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1147+25.81	NB - 1147+62.56	NB 94	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1165+54.17	NB - 1165+79.35	NB 53	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1167+79.18	NB - 1168+06.22	NB 58	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1217+25.49	NB - 1217+48.63	NB 49	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1226+51.41	NB - 1226+76.53	NB 49	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1228+10.25	NB - 1228+34.86	NB 51	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1254+05.62	NB - 1254+51.35	NB 47	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1256+51.25	NB - 1256+85.99	NB 41	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1429+43.81	NB - 1429+73.42	NB 27	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1495+43.69	NB - 1495+66.68	NB 29	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1534+38.22	NB - 1534+59.80	NB 39	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	NB USH 41	1536+54.32	NB - 1536+76.07	NB 39	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1145+93.63	SB - 1146+28.60	SB 67	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1147+51.82	SB - 1147+89.17	SB 91	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1165+51.82	SB - 1165+75.66	SB 31	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1167+71.33	SB - 1167+98.84	SB 31	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1215+52.00	SB - 1215+74.89	SB 41	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1217+22.44	SB - 1217+45.78	SB 39	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1226+47.29	SB - 1226+71.62	SB 62	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1228+04.43	SB - 1228+29.47	SB 58	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1254+05.78	SB - 1254+36.87	SB 54	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1256+36.93	SB - 1256+67.53	SB 45	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1427+57.32	SB - 1427+92.56	SB 51	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1493+27.22	SB - 1493+50.99	SB 44	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1495+45.44	SB - 1495+68.60	SB 43	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1534+37.53	SB - 1534+59.85	SB 40	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
2	SB USH 41	1536+54.37	SB - 1536+76.37	SB 40	EXISTING	CONCRETE	PAVEMENT	APPROACH	SLAB
PROJECT TOTAL				3,191					

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NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

REMOVING ASPHALTIC SURFACE MILLING

204.0120						
STAGE	ROADWAY	FROM STATION	TO STATION			(SY)
1	NB USH 41	1139+54	NB - 1142+02	NB		250
1	NB USH 41	1154+32	NB - 1165+85	NB		1,277
1	NB USH 41	1168+21	NB - 1171+65	NB		381
1	NB USH 41	1211+47	NB - 1215+83	NB		388
1	NB USH 41	1217+54	NB - 1226+58	NB		887
1	NB USH 41	1228+47	NB - 1231+32	NB		275
1	NB USH 41	1261+33	NB - 1263+00	NB		161
1	NB USH 41	1270+61	NB - 1272+79	NB		184
1	SB USH 41	1143+71	SB - 1146+02	SB		229
1	SB USH 41	1147+83	SB - 1151+22	SB		337
1	SB USH 41	1219+78	SB - 1226+47	SB		666
1	SB USH 41	1228+29	SB - 1231+67	SB		327
1	SB USH 41	1250+78	SB - 1254+06	SB		321
1	SB USH 41	1256+67	SB - 1263+32	SB		694
3	SB USH 41	1359+21	SB - 1364+49	SB		503
3	SB USH 41	1365+40	SB - 1370+76	SB		510
1	SB USH 41	1424+23	SB - 1427+42	SB		294
1	SB USH 41	1429+94	SB - 1433+83	SB		354
PROJECT TOTAL						8,038

REMOVING SURFACE DRAINS

204.0190						
STAGE	ROADWAY	STATION	OFFSET			(EACH)
1	USH 41 NB	1165+91.10	NB	31.00'	RT	1
1	USH 41 NB	1228+33.63	NB	32.25'	RT	1
1	USH 41 NB	1266+51.21	NB	43.00'	RT	1
1	USH 41 NB	1495+68.85	NB	31.00'	RT	1
1	USH 41 NB	1534+60.78	NB	31.00'	RT	1
1	USH 41 SB	1146+16.49	SB	43.00'	LT	1
1	USH 41 SB	1495+60.00	SB	31.00'	LT	1
1	USH 41 SB	1534+47.05	SB	31.00'	LT	1
1	USH 41 SB	1554+30.52	SB	33.00'	LT	1
PROJECT TOTAL						9

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

211.0400						
STAGE	ROADWAY	FROM STATION	TO STATION			(STA)
1	NB USH 41	1139+54	NB - 1142+02	NB		2
1	NB USH 41	1154+32	NB - 1165+85	NB		12
1	NB USH 41	1168+21	NB - 1171+65	NB		3
1	NB USH 41	1211+47	NB - 1215+83	NB		4
1	NB USH 41	1217+54	NB - 1226+58	NB		9
1	NB USH 41	1228+47	NB - 1231+32	NB		3
1	NB USH 41	1261+33	NB - 1263+00	NB		2
1	NB USH 41	1270+61	NB - 1272+79	NB		2
1	NB USH 41	1530+67	NB - 1534+50	NB		4
1	NB USH 41	1536+88	NB - 1544+87	NB		8
1	NB USH 41	1551+05	NB - 1553+17	NB		2
1	NB USH 41	1555+72	NB - 1559+71	NB		4
1	SB USH 41	1143+71	SB - 1146+02	SB		2
1	SB USH 41	1147+83	SB - 1151+22	SB		3
1	SB USH 41	1219+78	SB - 1226+47	SB		7
1	SB USH 41	1228+29	SB - 1231+67	SB		3
1	SB USH 41	1250+78	SB - 1254+06	SB		3
1	SB USH 41	1256+67	SB - 1263+32	SB		7
3	SB USH 41	1359+21	SB - 1364+49	SB		5
3	SB USH 41	1365+40	SB - 1370+76	SB		5
1	SB USH 41	1424+23	SB - 1427+42	SB		3
1	SB USH 41	1429+94	SB - 1433+83	SB		4
1	SB USH 41	1484+29	SB - 1493+27	SB		9
1	SB USH 41	1495+73	SB - 1499+66	SB		4
1	SB USH 41	1531+47	SB - 1534+34	SB		3
1	SB USH 41	1536+76	SB - 1543+40	SB		7
1	SB USH 41	1547+79	SB - 1554+09	SB		6
1	SB USH 41	1556+92	SB - 1561+41	SB		4
PROJECT TOTAL						132

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

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EARTHWORK

Division	Location	Roadway	Common Excavation (1) (item # 205.0100)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Borrow (item #208.0100)	Comment:
			Cut (2)	EBS Excavation (3)				Factor 1.25				
STAGE 1	PAVEMENT APPROACH SLABS	USH 41 NB	247	0	247	0	0	0	0	0	0	
	PAVEMENT APPROACH SLABS	USH 41 SB	293	0	293	0	0	0	0	0	0	
	SHOULDER REPLACEMENT	USH 41 NB	251	0	251	0	0	0	0	0	0	
	SHOULDER REPLACEMENT	USH 41 SB	427	0	427	0	0	0	0	0	0	
Division 1 Subtotal			1218	0	1218	0	0	0	0	0	0	
STAGE 2	PAVEMENT APPROACH SLABS	USH 41 NB	210	0	210	0	0	0	0	0	0	
	PAVEMENT APPROACH SLABS	USH 41 SB	225	0	225	0	0	0	0	0	0	
Division 2 Subtotal			435	0	435	0	0	0	0	0	0	
Grand Total			1653	0	1653	0	0	0	0	0	0	
Total Common Exc			1653									

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 13) Expanded Fill. Factor = 1.25
- 14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

BASE AGGREGATE DENSE 3/4-INCH

STAGE	ROADWAY	STATION	TO	STATION	LOCATION	WATER	
						305.0110 (TON)	624.0100 (A) (MGAL)
1	NB USH 41	1530+67	NB -	1534+50	NB RIGHT SHOULDER	10	0.1
1	NB USH 41	1536+88	NB -	1544+87	NB RIGHT SHOULDER	21	0.2
1	NB USH 41	1551+05	NB -	1553+17	NB RIGHT SHOULDER	5	0.1
1	NB USH 41	1555+72	NB -	1559+71	NB RIGHT SHOULDER	10	0.1
1	SB USH 41	1484+29	SB -	1493+27	SB RIGHT SHOULDER	23	0.2
1	SB USH 41	1495+73	SB -	1499+66	SB RIGHT SHOULDER	10	0.1
1	SB USH 41	1531+47	SB -	1534+34	SB RIGHT SHOULDER	7	0.1
1	SB USH 41	1536+76	SB -	1543+40	SB RIGHT SHOULDER	17	0.2
1	SB USH 41	1547+79	SB -	1554+09	SB RIGHT SHOULDER	16	0.2
1	SB USH 41	1556+92	SB -	1561+41	SB RIGHT SHOULDER	12	0.1
PROJECT TOTAL						131	1

(A) REFER TO "BASE AGGREGATE DENSE 1 1/4-INCH" TABLE FOR ADDITIONAL QUANTITY

BASE AGGREGATE DENSE 1 1/4-INCH

STAGE	ROADWAY	STATION	TO	STATION	LOCATION	WATER	
						305.0120 (TON)	624.0100 (A) (MGAL)
1	NB USH 41	1145+72	NB -	1146+07	NB PAVEMENT APPROACH SLAB	4	0.04
1	NB USH 41	1147+26	NB -	1147+63	NB PAVEMENT APPROACH SLAB	6	0.06
1	NB USH 41	1165+54	NB -	1165+79	NB PAVEMENT APPROACH SLAB	4	0.04
1	NB USH 41	1167+79	NB -	1168+06	NB PAVEMENT APPROACH SLAB	4	0.04
1	NB USH 41	1217+25	NB -	1217+49	NB PAVEMENT APPROACH SLAB	4	0.04
1	NB USH 41	1226+51	NB -	1226+77	NB PAVEMENT APPROACH SLAB	4	0.04
1	NB USH 41	1228+10	NB -	1228+35	NB PAVEMENT APPROACH SLAB	4	0.04
1	NB USH 41	1254+06	NB -	1254+51	NB PAVEMENT APPROACH SLAB	10	0.10
1	NB USH 41	1256+51	NB -	1256+86	NB PAVEMENT APPROACH SLAB	8	0.08
1	NB USH 41	1429+44	NB -	1429+73	NB PAVEMENT APPROACH SLAB	6	0.06
1	NB USH 41	1495+44	NB -	1495+67	NB PAVEMENT APPROACH SLAB	12	0.12
1	NB USH 41	1534+38	NB -	1534+60	NB PAVEMENT APPROACH SLAB	4	0.04
1	NB USH 41	1536+54	NB -	1536+76	NB PAVEMENT APPROACH SLAB	4	0.04
1	SB USH 41	1145+94	SB -	1146+29	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1147+52	SB -	1147+89	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1165+52	SB -	1165+76	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1167+71	SB -	1167+99	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1215+52	SB -	1215+75	SB PAVEMENT APPROACH SLAB	4	0.04
1	SB USH 41	1217+22	SB -	1217+46	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1226+47	SB -	1226+72	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1228+04	SB -	1228+29	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1254+06	SB -	1254+37	SB PAVEMENT APPROACH SLAB	4	0.04
1	SB USH 41	1256+37	SB -	1256+68	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1427+57	SB -	1427+93	SB PAVEMENT APPROACH SLAB	6	0.06
1	SB USH 41	1493+27	SB -	1493+51	SB PAVEMENT APPROACH SLAB	10	0.10
1	SB USH 41	1495+45	SB -	1495+69	SB PAVEMENT APPROACH SLAB	10	0.10
1	SB USH 41	1534+38	SB -	1534+60	SB PAVEMENT APPROACH SLAB	4	0.04
1	SB USH 41	1536+54	SB -	1536+76	SB PAVEMENT APPROACH SLAB	4	0.04
STAGE SUBTOTALS						164	2

(A) REFER TO "BASE AGGREGATE DENSE 3/4-INCH" TABLE FOR ADDITIONAL QUANTITY

PROJECT NO: 1120-54-60

HWY: USH 41

COUNTY: WINNEBAGO/OUTAGAMIE

MISCELLANEOUS QUANTITIES

SHEET

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NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

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BASE AGGREGATE DENSE 1 1/4-INCH CONT.

STAGE	ROADWAY	STATION	TO	STATION	LOCATION	WATER	
						305.0120 (TON)	624.0100 (MGAL) (A)
2	NB USH 41	1145+72	NB -	1146+07	NB PAVEMENT APPROACH SLAB	10	0.10
2	NB USH 41	1147+26	NB -	1147+63	NB PAVEMENT APPROACH SLAB	8	0.08
2	NB USH 41	1165+54	NB -	1165+79	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1167+79	NB -	1168+06	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1217+25	NB -	1217+49	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1226+51	NB -	1226+77	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1228+10	NB -	1228+35	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1254+06	NB -	1254+51	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1256+51	NB -	1256+86	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1429+44	NB -	1429+73	NB PAVEMENT APPROACH SLAB	2	0.02
2	NB USH 41	1495+44	NB -	1495+67	NB PAVEMENT APPROACH SLAB	6	0.06
2	NB USH 41	1534+38	NB -	1534+60	NB PAVEMENT APPROACH SLAB	4	0.04
2	NB USH 41	1536+54	NB -	1536+76	NB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1145+94	SB -	1146+29	SB PAVEMENT APPROACH SLAB	6	0.06
2	SB USH 41	1147+52	SB -	1147+89	SB PAVEMENT APPROACH SLAB	8	0.08
2	SB USH 41	1165+52	SB -	1165+76	SB PAVEMENT APPROACH SLAB	2	0.02
2	SB USH 41	1167+71	SB -	1167+99	SB PAVEMENT APPROACH SLAB	2	0.02
2	SB USH 41	1215+52	SB -	1215+75	SB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1217+22	SB -	1217+46	SB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1226+47	SB -	1226+72	SB PAVEMENT APPROACH SLAB	6	0.06
2	SB USH 41	1228+04	SB -	1228+29	SB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1254+06	SB -	1254+37	SB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1256+37	SB -	1256+68	SB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1427+57	SB -	1427+93	SB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1493+27	SB -	1493+51	SB PAVEMENT APPROACH SLAB	8	0.08
2	SB USH 41	1495+45	SB -	1495+69	SB PAVEMENT APPROACH SLAB	8	0.08
2	SB USH 41	1534+38	SB -	1534+60	SB PAVEMENT APPROACH SLAB	4	0.04
2	SB USH 41	1536+54	SB -	1536+76	SB PAVEMENT APPROACH SLAB	4	0.04
STAGE SUBTOTALS						134	1
PROJECT TOTALS						298	3

(A) REFER TO "BASE AGGREGATE DENSE 3/4-INCH" TABLE FOR ADDITIONAL QUANTITY

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

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CONCRETE SURFACE DRAINS HES

								416.0610 (B)
								DRILLED
								TIE BARS
STAGE	ROADWAY	STATION	TO	STATION	OFFSET	416.1015		(EACH)
						(CY)		
STAGE 1	NB USH 41	1165+79	NB -	1166+04	NB RIGHT	6		14
STAGE 1	NB USH 41	1228+20	NB -	1228+47	NB RIGHT	8		9
STAGE 1	NB USH 41	1266+34	NB -	1266+68	NB RIGHT	8		11
STAGE 1	NB USH 41	1495+56	NB -	1495+82	NB RIGHT	6		11
STAGE 1	NB USH 41	1534+50	NB -	1534+72	NB RIGHT	5		11
STAGE 1	SB USH 41	1146+02	SB -	1146+32	SB LEFT	8		9
STAGE 1	SB USH 41	1495+47	SB -	1495+73	SB LEFT	6		11
STAGE 1	SB USH 41	1534+34	SB -	1534+60	SB LEFT	7		11
STAGE 1	SB USH 41	1554+19	SB -	1554+45	SB LEFT	7		11
PROJECT TOTAL						61		98

(B) REFER TO "SHES CONCRETE PAVEMENT REPAIR AND REPLACEMENT SUMMARY" TABLE FOR ADDITIONAL QUANTITIES

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

SHES CONCRETE PAVEMENT REPAIR AND REPLACEMENT SUMMARY

							416.1715	416.1725	416.0610 (B)	416.0620	690.0150	690.0250 (D)
							CONCRETE	CONCRETE	DRILLED	DRILLED	SAWING	SAWING
							PAVEMENT	PAVEMENT	TIE BARS	DOWEL BARS	ASPHALT	CONCRETE
							REPAIR	REPLACEMENT				
							SHES	SHES				
STAGE	STATION	TO	STATION	LOCATION			(SY)	(SY)	(EACH)	(EACH)	(LF)	(LF)
STAGE 2	1119+87	NB -	1580+89	NB	NB MAINLINE LANE 1		378.8	599.5	328	832	---	2,738
STAGES 1 & 2	1119+87	NB -	1580+89	NB	NB MAINLINE LANE 2		1,070.1	1,257.6	632	2,352	0	7,041
STAGE 1	1119+87	NB -	1580+89	NB	NB MAINLINE LANE 3		1,405.4	2,033.4	631	2,688	1,538	7,537
PRE-STAGE 1	1119+87	NB -	1580+89	NB	NB MAINLINE INSIDE SHOULDERS		0.0	290.3	110	64	0	568
STAGE 2	1119+87	NB -	1580+89	NB	NB MAINLINE OUTSIDE SHOULDERS		0.0	233.5	38	0	95	555
STAGE 2	1119+78	SB -	1580+61	SB	SB MAINLINE LANE 1		522.4	87.6	44	904	0	2,356
STAGES 1 & 2	1119+78	SB -	1580+61	SB	SB MAINLINE LANE 2		914.9	380.2	215	1,752	0	4,584
STAGE 1	1119+78	SB -	1580+61	SB	SB MAINLINE LANE 3		450.2	528.3	156	840	490	2,253
PRE-STAGE 1	1119+78	SB -	1580+61	SB	SB INSIDE MAINLINE SHOULDERS		0.0	252.9	110	80	0	533
STAGE 2	1119+78	SB -	1580+61	SB	SB OUTSIDE MAINLINE SHOULDERS		14.5	196.0	11	0	94	486
STAGE 1	WINNECONNE AVENUE INTERCHANGE - USH 41 SB ON RAMP						18.2	28.0	16	32	13	104
STAGE 1	WINNECONNE AVENUE INTERCHANGE - USH 41 NB OFF RAMP						42.7	39.8	12	96	76	181
STAGE 1	WINNECONNE AVENUE INTERCHANGE - USH 41 NB ON RAMP						12.2	62.0	---	32	82	69
STAGE 1	MAIN STREET INTERCHANGE - USH 41 SB OFF RAMP						23.2	---	---	32	8	62
STAGE 1	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP						41.7	366.2	19	128	376	318
STAGE 1	WINCHESTER ROAD INTERCHANGE - USH 41 NB OFF RAMP						146.2	94.6	32	195	179	557
STAGE 1	WINCHESTER ROAD INTERCHANGE - USH 41 NB ON RAMP						13.9	---	---	16	17	30
STAGE 1	WINCHESTER ROAD INTERCHANGE - USH 41 SB OFF RAMP						10.5	---	---	16	8	32
STAGE 1	PROSPECT AVENUE INTERCHANGE - USH 41 SB ON RAMP						53.7	29.7	---	68	93	165
STAGE 1	PROSPECT AVENUE INTERCHANGE - USH 41 NB OFF RAMP						46.5	69.7	---	80	119	173
STAGE 1	PROSPECT AVENUE INTERCHANGE - USH 41 NB ON RAMP						17.7	---	---	19	17	54
STAGE 1	PROSPECT AVENUE INTERCHANGE - USH 41 SB OFF RAMP						73.1	66.5	29	130	86	354
STAGE 1	COLLEGE AVENUE INTERCHANGE - USH 41 SB ON RAMP						122.4	101.8	25	176	147	458
STAGE 1	COLLEGE AVENUE INTERCHANGE - USH 41 NB OFF RAMP						75.1	43.6	20	100	64	292
STAGE 1	COLLEGE AVENUE INTERCHANGE - USH 41 NB ON RAMP						95.4	---	---	112	114	212
STAGE 1	COLLEGE AVENUE INTERCHANGE - USH 41 SB OFF RAMP						22.6	---	---	32	13	74
STAGE 1	WISCONSIN AVENUE INTERCHANGE - USH 41 SB ON RAMP						29.5	---	---	48	30	94
STAGE 1	WISCONSIN AVENUE INTERCHANGE - USH 41 NB OFF RAMP						23.1	---	---	32	20	67
STAGE 1	WISCONSIN AVENUE INTERCHANGE - USH 41 NB ON RAMP						14.0	---	---	16	8	39
UNDISTRIBUTED							560.0	680.0	240	1,090	370	3,200
PROJECT TOTALS							6,197.8	7,441.2	2,668	11,962	4,057	35,186

(B) REFER TO "CONCRETE SURFACE DRAIN HES" TABLE FOR ADDITIONAL QUANTITIES

(D) REFER TO "SAWING CONCRETE" TABLE FOR ADDITIONAL QUANTITIES

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

ASPHALTIC PAVEMENT

						455.0105 ASPHALTIC MATERIAL PG58-28 (TON)	460.1100 HMA PAVEMENT TYPE E-0.3 (TON)	460.1130 HMA PAVEMENT TYPE E-30 (TON)	455.0605 TACK COAT (GAL)
STAGE	STATION	TO	STATION	LOCATION					
1	1139+54	NB -	1142+02	NB	SHOULDER MILL AND RELAY	1.6	29	---	6
1	1145+72	NB -	1146+07	NB	PAVEMENT APPROACH SLAB	1.6	---	29	1
1	1147+26	NB -	1147+63	NB	PAVEMENT APPROACH SLAB	2.3	---	42	2
1	1154+32	NB -	1165+85	NB	SHOULDER MILL AND RELAY	8.1	147	---	32
1	1165+54	NB -	1165+79	NB	PAVEMENT APPROACH SLAB	1.6	---	28	1
1	1167+79	NB -	1168+06	NB	PAVEMENT APPROACH SLAB	1.5	---	27	1
1	1168+21	NB -	1171+65	NB	SHOULDER MILL AND RELAY	2.4	44	---	10
1	1211+47	NB -	1215+83	NB	SHOULDER MILL AND RELAY	2.5	45	---	10
1	1217+25	NB -	1217+49	NB	PAVEMENT APPROACH SLAB	1.5	---	28	1
1	1217+54	NB -	1226+58	NB	SHOULDER MILL AND RELAY	5.6	102	---	22
1	1226+51	NB -	1226+77	NB	PAVEMENT APPROACH SLAB	1.7	---	31	1
1	1228+10	NB -	1228+35	NB	PAVEMENT APPROACH SLAB	1.5	---	28	1
1	1228+47	NB -	1231+32	NB	SHOULDER MILL AND RELAY	1.7	32	---	7
1	1254+06	NB -	1254+51	NB	PAVEMENT APPROACH SLAB	4.3	---	77	3
1	1256+51	NB -	1256+86	NB	PAVEMENT APPROACH SLAB	2.9	---	53	2
1	1261+33	NB -	1263+00	NB	SHOULDER MILL AND RELAY	1.0	18	---	4
1	1270+61	NB -	1272+79	NB	SHOULDER MILL AND RELAY	1.2	21	---	5
1	1429+44	NB -	1429+73	NB	PAVEMENT APPROACH SLAB	2.4	---	44	2
1	1495+44	NB -	1495+67	NB	PAVEMENT APPROACH SLAB	2.2	---	39	2
1	1530+67	NB -	1534+50	NB	SHOULDER REPLACEMENT	5.7	104	---	9
1	1534+38	NB -	1534+60	NB	PAVEMENT APPROACH SLAB	1.7	---	31	1
1	1536+54	NB -	1536+76	NB	PAVEMENT APPROACH SLAB	1.7	---	32	1
1	1536+88	NB -	1544+87	NB	SHOULDER REPLACEMENT	12.1	221	---	19
1	1551+05	NB -	1553+17	NB	SHOULDER REPLACEMENT	3.3	59	---	5
1	1555+72	NB -	1559+71	NB	SHOULDER REPLACEMENT	7.4	134	---	12
2	1145+72	NB -	1146+07	NB	PAVEMENT APPROACH SLAB	3.6	---	66	3
2	1147+26	NB -	1147+63	NB	PAVEMENT APPROACH SLAB	3.1	---	57	2
2	1165+54	NB -	1165+79	NB	PAVEMENT APPROACH SLAB	1.8	---	32	1
2	1167+79	NB -	1168+06	NB	PAVEMENT APPROACH SLAB	1.9	---	35	1
2	1217+25	NB -	1217+49	NB	PAVEMENT APPROACH SLAB	1.6	---	29	1
2	1226+51	NB -	1226+77	NB	PAVEMENT APPROACH SLAB	1.6	---	30	1
2	1228+10	NB -	1228+35	NB	PAVEMENT APPROACH SLAB	1.7	---	31	1
2	1254+06	NB -	1254+51	NB	PAVEMENT APPROACH SLAB	1.6	---	28	1
2	1256+51	NB -	1256+86	NB	PAVEMENT APPROACH SLAB	1.4	---	25	1
2	1429+44	NB -	1429+73	NB	PAVEMENT APPROACH SLAB	0.9	---	16	1
2	1495+44	NB -	1495+67	NB	PAVEMENT APPROACH SLAB	1.0	---	18	1
2	1534+38	NB -	1534+60	NB	PAVEMENT APPROACH SLAB	1.3	---	24	1
2	1536+54	NB -	1536+76	NB	PAVEMENT APPROACH SLAB	1.3	---	24	1
SUBTOTALS						102	955	903	177

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

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ASPHALTIC PAVEMENT CONT.

						455.0105 ASPHALTIC MATERIAL PG58-28 (TON)	460.1100 HMA PAVEMENT TYPE E-0.3 (TON)	460.1130 HMA PAVEMENT TYPE E-30 (TON)	455.0605 TACK COAT (GAL)
STAGE	STATION	TO	STATION	LOCATION					
1	1143+71	SB -	1146+02	SB	SHOULDER MILL AND RELAY	1.4	26	---	6
1	1145+94	SB -	1146+29	SB	PAVEMENT APPROACH SLAB	2.7	---	49	2
1	1147+52	SB -	1147+89	SB	PAVEMENT APPROACH SLAB	2.2	---	39	2
1	1147+83	SB -	1151+22	SB	SHOULDER MILL AND RELAY	2.1	39	---	8
1	1165+52	SB -	1165+76	SB	PAVEMENT APPROACH SLAB	2.2	---	39	2
1	1167+71	SB -	1167+99	SB	PAVEMENT APPROACH SLAB	2.5	---	46	2
1	1215+52	SB -	1215+75	SB	PAVEMENT APPROACH SLAB	1.7	---	32	1
1	1217+22	SB -	1217+46	SB	PAVEMENT APPROACH SLAB	2.5	---	46	2
1	1219+78	SB -	1226+47	SB	SHOULDER MILL AND RELAY	4.2	77	---	17
1	1226+47	SB -	1226+72	SB	PAVEMENT APPROACH SLAB	2.1	---	38	2
1	1228+04	SB -	1228+29	SB	PAVEMENT APPROACH SLAB	2.4	---	43	2
1	1228+29	SB -	1231+67	SB	SHOULDER MILL AND RELAY	2.1	38	---	8
1	1250+78	SB -	1254+06	SB	SHOULDER MILL AND RELAY	2.0	37	---	8
1	1254+06	SB -	1254+37	SB	PAVEMENT APPROACH SLAB	1.9	---	35	1
1	1256+37	SB -	1256+68	SB	PAVEMENT APPROACH SLAB	2.2	---	40	2
1	1256+67	SB -	1263+32	SB	SHOULDER MILL AND RELAY	4.4	80	---	17
1	1424+23	SB -	1427+42	SB	SHOULDER MILL AND RELAY	1.9	34	---	7
1	1427+57	SB -	1427+93	SB	PAVEMENT APPROACH SLAB	2.4	---	43	2
1	1429+94	SB -	1433+83	SB	SHOULDER MILL AND RELAY	2.2	41	---	9
1	1484+29	SB -	1493+27	SB	SHOULDER REPLACEMENT	13.6	247	---	21
1	1493+27	SB -	1493+51	SB	PAVEMENT APPROACH SLAB	1.8	---	33	1
1	1495+45	SB -	1495+69	SB	PAVEMENT APPROACH SLAB	1.7	---	31	1
1	1495+73	SB -	1499+66	SB	SHOULDER REPLACEMENT	5.5	101	---	9
1	1531+47	SB -	1534+34	SB	SHOULDER REPLACEMENT	4.2	76	---	7
1	1534+38	SB -	1534+60	SB	PAVEMENT APPROACH SLAB	1.8	---	33	1
1	1536+54	SB -	1536+76	SB	PAVEMENT APPROACH SLAB	1.8	---	32	1
1	1536+76	SB -	1543+40	SB	SHOULDER REPLACEMENT	9.8	178	---	15
1	1547+79	SB -	1554+09	SB	SHOULDER REPLACEMENT	8.8	160	---	14
1	1556+92	SB -	1561+41	SB	SHOULDER REPLACEMENT	6.7	123	---	11
SUBTOTALS						101	1,255	579	181

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NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

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ASPHALTIC PAVEMENT CONT.

						455.0105	460.1100	460.1130	455.0605
						ASPHALTIC	HMA	HMA	TACK COAT
						MATERIAL	PAVEMENT	PAVEMENT	
						PG58-28	TYPE E-0.3	TYPE E-30	
STAGE	STATION	TO	STATION	LOCATION		(TON)	(TON)	(TON)	(GAL)
2	1145+94	SB -	1146+29	SB	PAVEMENT APPROACH SLAB	2.2	---	41	2
2	1147+52	SB -	1147+89	SB	PAVEMENT APPROACH SLAB	3.0	---	55	2
2	1165+52	SB -	1165+76	SB	PAVEMENT APPROACH SLAB	1.0	---	19	1
2	1167+71	SB -	1167+99	SB	PAVEMENT APPROACH SLAB	1.0	---	19	1
2	1215+52	SB -	1215+75	SB	PAVEMENT APPROACH SLAB	1.3	---	25	1
2	1217+22	SB -	1217+46	SB	PAVEMENT APPROACH SLAB	1.3	---	24	1
2	1226+47	SB -	1226+72	SB	PAVEMENT APPROACH SLAB	2.1	---	37	2
2	1228+04	SB -	1228+29	SB	PAVEMENT APPROACH SLAB	1.9	---	35	1
2	1254+06	SB -	1254+37	SB	PAVEMENT APPROACH SLAB	1.8	---	33	1
2	1256+37	SB -	1256+68	SB	PAVEMENT APPROACH SLAB	1.5	---	27	1
2	1427+57	SB -	1427+93	SB	PAVEMENT APPROACH SLAB	1.7	---	31	1
2	1493+27	SB -	1493+51	SB	PAVEMENT APPROACH SLAB	1.5	---	26	1
2	1495+45	SB -	1495+69	SB	PAVEMENT APPROACH SLAB	1.4	---	26	1
2	1534+38	SB -	1534+60	SB	PAVEMENT APPROACH SLAB	1.3	---	24	1
2	1536+54	SB -	1536+76	SB	PAVEMENT APPROACH SLAB	1.3	---	24	1
3	1359+21	SB -	1364+49	SB	SHOULDER MILL AND RELAY	3.2	58	---	13
3	1365+40	SB -	1370+76	SB	SHOULDER MILL AND RELAY	3.2	59	---	13
SUBTOTALS						31	117	445	44
PROJECT TOTALS						234	2,326	1,927	403

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

ASPHALTIC SHOULDER RUMBLE STRIP

							465.0400
ROADWAY	STATION	TO	STATION	LOCATION			(LF)
NB USH 41	1139+54	NB	1142+02	NB	RT		248
NB USH 41	1154+32	NB	1165+85	NB	RT		1,153
NB USH 41	1168+21	NB	1171+65	NB	RT		344
NB USH 41	1211+47	NB	1215+83	NB	RT		436
NB USH 41	1217+54	NB	1226+58	NB	RT		904
NB USH 41	1228+47	NB	1231+32	NB	RT		285
NB USH 41	1261+33	NB	1263+00	NB	RT		167
NB USH 41	1270+61	NB	1272+79	NB	RT		218
NB USH 41	1532+42	NB	1534+50	NB	RT		208
NB USH 41	1536+88	NB	1544+87	NB	RT		799
NB USH 41	1551+05	NB	1553+17	NB	RT		212
NB USH 41	1555+72	NB	1558+85	NB	RT		313
SB USH 41	1143+71	SB	1146+02	SB	LT		231
SB USH 41	1147+83	SB	1151+22	SB	LT		339
SB USH 41	1219+78	SB	1226+47	SB	LT		669
SB USH 41	1228+29	SB	1231+67	SB	LT		338
SB USH 41	1250+78	SB	1254+06	SB	LT		328
SB USH 41	1256+67	SB	1263+32	SB	LT		665
SB USH 41	1359+21	SB	1364+49	SB	LT		528
SB USH 41	1365+40	SB	1370+76	SB	LT		536
SB USH 41	1424+23	SB	1427+42	SB	LT		319
SB USH 41	1429+94	SB	1433+83	SB	LT		389
SB USH 41	1484+29	SB	1493+27	SB	LT		898
SB USH 41	1495+73	SB	1498+26	SB	LT		253
SB USH 41	1532+30	SB	1534+34	SB	LT		204
SB USH 41	1536+76	SB	1543+40	SB	LT		664
SB USH 41	1547+79	SB	1554+09	SB	LT		630
SB USH 41	1556+92	SB	1559+67	SB	LT		275
PROJECT TOTAL							12,555

CONCRETE CURB

							TYPE A 601.0105
STAGE	ROADWAY	STATION	TO	STATION	OFFSET		(LF)
STAGE 1	WINCHESTER ROAD INTERCHANGE - USH 41 SB ON RAMP	1254+00	IIA	-	1254+08	IIA LT	12
UNDISTRIBUTED							8
PROJECT TOTAL							20

ADJUSTING INLET COVERS

							611.8115
STAGE	ROADWAY	STATION		OFFSET			(EACH)
1	USH 41 NB	1165+91.10	NB	31.00'	RT		1
1	USH 41 NB	1228+41.14	NB	34.00'	RT		1
1	USH 41 NB	1266+51.21	NB	43.00'	RT		1
1	USH 41 NB	1495+68.85	NB	31.00'	RT		1
1	USH 41 NB	1534+51.74	NB	31.50'	RT		1
1	USH 41 SB	1146+09.42	SB	43.00'	LT		1
2	USH 41 SB	1270+35.24	SB	21.00'	RT		1
1	USH 41 SB	1495+60.00	SB	31.00'	LT		1
1	USH 41 SB	1534+40.27	SB	31.00'	LT		1
1	USH 41 SB	1554+30.52	SB	33.00'	LT		1
PROJECT TOTAL							10

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CONCRETE BARRIER

STAGE	LOCATION	603.8000	603.8125	614.0905
		CONCRETE BARRIER	CONCRETE BARRIER	CRASH
		TEMPORARY DELIVERED (LF)	PRECAST INSTALLED (LF)	CUSHION TEMPORARY (EACH)
STAGE 1	USH 41 NB SOUTH SEGMENT	1,102	1,102	4
	USH 41 NB NORTH SEGMENT	762	762	3
	USH 41 SB SOUTH SEGMENT	1,156	1,156	4
	USH 41 SB NORTH SEGMENT	1,347	1,347	5
STAGE TOTAL		4,367	4,367	16
STAGE 2	USH 41 NB SOUTH SEGMENT	1,280	1,280	5
	USH 41 NB NORTH SEGMENT	535	535	2
	USH 41 SB SOUTH SEGMENT	1,265	1,265	5
	USH 41 SB NORTH SEGMENT	1,230	1,230	5
STAGE TOTAL		4,310	4,310	17
STAGE 3	USH 41 SB	112	112	1
STAGE TOTAL		112	112	1
STAGE 4	USH 41 SB	130	130	1
STAGE TOTAL		130	130	1
STAGE 5	USH 41 NB SOUTH SEGMENT	398	398	1
	USH 41 SB SOUTH SEGMENT	410	410	1
STAGE TOTAL		809	809	2
STAGE 6	USH 41 NB SOUTH SEGMENT	360	360	1
	USH 41 SB SOUTH SEGMENT	325	325	1
STAGE TOTAL		685	685	2
PROJECT TOTALS		10,412	10,412	39

EROSION CONTROL

LOCATION	628.1504	628.1520	628.2004	628.7015
	SILT FENCE LF	SILT FENCE MAINTENANCE LF	EROSION MAT CLASS I TYPE B SY	INLET PROTECTION TYPE C EACH
NE WINGWALL OF B-70-132	100	100	20	---
UNDISTIBUTED	25	25	5	10
PROJECT TOTALS	125	125	25	10

LANDSCAPING

LOCATION	629.0210	630.0130	630.0200
	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO 30 LB	SEEDING TEMPORARY LB
NE WING WALL OF B-70-132	0.01	0.4	0.5
PROJECT TOTALS	0.01	0.4	0.5

NOTE: ALL ITEMS ON THIS
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TRAFFIC CONTROL DEVICES

STAGE	LOCATION	DAYS IN PHASE	643.0300		643.0420		643.0705		643.0715		643.0800		643.0900	
			DRUMS		BARRICADES		WARNING LIGHTS		WARNING LIGHTS		ARROW BOARDS		TRAFFIC CONTROL SIGNS	
			(DEVICES)	(DAYS)	(DEVICES)	(DAYS)	(DEVICES)	(DAYS)	(DEVICES)	(DAYS)	(DEVICES)	(DAYS)	(DEVICES)	(DAYS)
STAGE 1	USH 41 NB SOUTH SEGMENT	62	313	19,406	13	806	26	1,612	96	5,952	2	124	90	5,580
	USH 41 NB NORTH SEGMENT	58	193	11,194	11	638	22	1,276	71	4,118	2	116	67	3,886
	USH 41 SB SOUTH SEGMENT	44	289	12,716	12	528	24	1,056	47	2,068	2	88	74	3,256
	USH 41 SB NORTH SEGMENT	43	255	10,965	17	731	34	1,462	74	3,182	2	86	77	3,311
ADDITIONAL DEVICES REQUIRED FOR MULTI-LANE CLOSURES														
	USH 41 NB	62	266	16,492	34	2,108	68	4,216	0	0	0	0	12	744
	USH 41 SB	44	243	10,692	17	748	30	1,320	0	0	0	0	20	880
	STH 114 SB ENTRANCE RAMP CLOSURE	1	44	44	9	9	18	18	0	0	0	0	11	11
	STH 114 NB ENTRANCE RAMP CLOSURE	1	58	58	9	9	18	18	0	0	0	0	11	11
	CTH II SB ENTRANCE RAMP CLOSURE	1	24	24	8	8	16	16	0	0	0	0	8	8
	CTH BB SB ENTRANCE RAMP CLOSURE	1	46	46	6	6	12	12	0	0	0	0	11	11
	CTH BB NB ENTRANCE RAMP CLOSURE	1	37	37	7	7	14	14	0	0	0	0	8	8
	STH 125 SB ENTRANCE RAMP CLOSURE	1	49	49	9	9	18	18	4	4	0	0	13	13
	STH 125 NB ENTRANCE RAMP CLOSURE	1	77	77	10	10	20	20	0	0	0	0	15	15
	STH 96 SB ENTRANCE RAMP CLOSURE	1	55	55	10	10	20	20	0	0	0	0	14	14
	STH 96 NB ENTRANCE RAMP CLOSURE	1	72	72	9	9	18	18	0	0	0	0	14	14
ADDITIONAL DEVICES REQUIRED FOR SHORT TERM EXIT CLOSURES														
	STH 114 EXIT RAMP CLOSURE	1	10	10	4	4	8	8	0	0	0	0	3	3
	CTH II SB EXIT RAMP CLOSURE	1	9	9	4	4	8	8	0	0	0	0	3	3
	CTH II NB EXIT RAMP CLOSURE	1	0	0	4	4	8	8	0	0	0	0	3	3
	CTH BB SB EXIT RAMP CLOSURE	2	4	8	4	8	8	16	0	0	0	0	3	6
	CTH BB NB EXIT RAMP CLOSURE	1	40	40	4	4	8	8	0	0	0	0	3	3
	STH 125 SB EXIT RAMP CLOSURE	1	35	35	4	4	8	8	0	0	0	0	3	3
	STH 96 NB EXIT RAMP CLOSURE	1	94	94	6	6	8	8	0	0	0	0	8	8
STAGE TOTAL			2,213	82,123	211	5,670	414	11,160	292	15,324	8	414	471	17,791
STAGE 2	USH 41 NB SOUTH SEGMENT	50	275	13,750	16	800	32	1,600	95	4,750	1	50	74	3,700
	USH 41 NB NORTH SEGMENT	50	85	4,250	4	200	8	400	40	2,000	1	50	40	2,000
	USH 41 SB SOUTH SEGMENT	45	335	15,075	19	855	38	1,710	115	5,175	1	45	71	3,195
	USH 41 SB NORTH SEGMENT	45	215	9,675	15	675	30	1,350	65	2,925	2	90	67	3,015
ADDITIONAL DEVICES REQUIRED FOR MULTI-LANE CLOSURES														
	USH 41 NB	50	266	13,300	34	1,700	68	3,400	0	0	0	0	12	600
	USH 41 SB	45	243	10,935	17	765	30	1,350	0	0	0	0	20	900
	CTH II NB ENTRANCE RAMP CLOSURE	50	24	1,200	8	400	16	800	0	0	0	0	8	400
STAGE TOTAL			1,443	68,185	113	5,395	222	10,610	315	14,850	5	235	292	13,810
STAGE 3	USH 41 SB	7	63	441	2	14	4	28	49	343	1	7	21	147
STAGE TOTAL			63	441	2	14	4	28	49	343	1	7	21	147
STAGE 4	USH 41 SB	7	65	455	2	14	4	28	35	245	1	7	15	105
STAGE TOTAL			65	455	2	14	4	28	35	245	1	7	15	105
STAGE 5	USH 41 NB SOUTH SEGMENT	4	226	904	3	12	6	24	29	116	2	8	31	124
	USH 41 SB SOUTH SEGMENT	4	112	448	8	32	16	64	36	144	2	8	39	156
STAGE TOTAL			338	1,352	11	44	22	88	65	260	4	16	70	280
STAGE 6	USH 41 NB SOUTH SEGMENT	4	110	440	3	12	6	24	0	0	1	4	22	88
	USH 41 SB SOUTH SEGMENT	4	155	620	7	28	12	48	0	0	1	4	33	132
	CTH II NB ENTRANCE RAMP CLOSURE	4	24	96	8	32	16	64	0	0	0	0	8	32
STAGE TOTAL			289	1,156	18	72	34	136	0	0	2	8	63	252
UNDISTRIBUTED			440	15,370	40	1,120	70	2,210	80	3,100	0	70	90	3,240
PROJECT TOTALS			4,851	169,082	397	12,329	770	24,260	836	34,122	21	757	1,022	35,625

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TRAFFIC CONTROL COVERING SIGNS

STAGE	LOCATION	643.0910 TYPE I			643.092 TYPE II		
		NUMBER OF	NUMBER OF	(EACH)	NUMBER OF	NUMBER OF	(EACH)
		SIGNS	CYCLES		SIGNS	CYCLES	
STAGE 1	USH 41 NB SOUTH SEGMENT	1	1	1	7	1	7
	USH 41 NB NORTH SEGMENT	4	1	4	6	1	6
	USH 41 SB SOUTH SEGMENT	2	1	2	8	1	8
	USH 41 SB NORTH SEGMENT	2	1	2	7	1	7
STH 125 SB ENTRANCE RAMP CLOSURE			0	0	4	1	4
STAGE TOTAL				9	32		
STAGE 2	USH 41 NB SOUTH SEGMENT	---	---	0	5	1	5
	USH 41 NB NORTH SEGMENT	1	1	1	---	---	0
	USH 41 SB SOUTH SEGMENT	3	1	3	4	1	4
	USH 41 SB NORTH SEGMENT	1	1	1	1	1	1
STAGE TOTAL				5	10		
STAGE 5	USH 41 NB SOUTH SEGMENT	---	---	0	2	1	2
	USH 41 SB SOUTH SEGMENT	3	1	3	4	1	4
STAGE TOTAL				3	6		
STAGE 6	USH 41 NB SOUTH SEGMENT	---	---	0	2	1	2
	USH 41 SB SOUTH SEGMENT	2	1	2	2	1	2
STAGE TOTAL				2	4		
UNDISTRIBUTED				0	10		
PROJECT TOTALS				19	62		

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SIGNS PCMS						
			643.1050		SPV.0045.01	
					PCMS	
					CELLULAR	
					COMMUNICATIONS	
STAGE	LOCATION	DAYS IN PHASE	(DEVICES)	(DAYS)	(DEVICES)	(DAYS)
STAGE 1	USH 41 NB SOUTH SEGMENT	62	1	62	1	62
	USH 41 NB NORTH SEGMENT	58	-	-	-	-
	USH 41 SB SOUTH SEGMENT	44	-	-	-	-
	USH 41 SB NORTH SEGMENT	43	1	43	1	43
	STH 114 SB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	STH 114 NB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	CTH II SB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	CTH BB SB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	CTH BB NB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	STH 125 SB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	STH 125 NB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	STH 96 SB ENTRANCE RAMP CLOSURE	1	1	7	-	-
	STH 96 NB ENTRANCE RAMP CLOSURE	1	1	7	-	-
ADDITIONAL DEVICES REQUIRED FOR SHORT TERM EXIT CLOSURES						
	STH 114 EXIT RAMP CLOSURE	1	1	7	-	-
	CTH II SB EXIT RAMP CLOSURE	1	1	7	-	-
	CTH II NB EXIT RAMP CLOSURE	1	1	7	-	-
	CTH BB SB EXIT RAMP CLOSURE	2	1	7	-	-
	CTH BB NB EXIT RAMP CLOSURE	1	1	7	-	-
	STH 125 SB EXIT RAMP CLOSURE	1	1	7	-	-
	STH 96 NB EXIT RAMP CLOSURE	1	1	7	-	-
STAGE TOTAL			18	217	2	105
STAGE 2	USH 41 NB SOUTH SEGMENT	50	1	50	1	50
	USH 41 NB NORTH SEGMENT	50	-	-	-	-
	USH 41 SB SOUTH SEGMENT	45	-	-	-	-
	USH 41 SB NORTH SEGMENT	45	1	45	1	45
	CTH II NB ENTRANCE RAMP CLOSURE	53	1	7	-	-
STAGE TOTAL			3	102	2	95
STAGE 3	USH 41 SB	7	1	7	-	-
STAGE TOTAL			1	7	0	0
STAGE 4	USH 41 SB	7	1	7	-	-
STAGE TOTAL			1	7	0	0
STAGE 5	USH 41 NB SOUTH SEGMENT	4	1	4	1	4
	USH 41 SB SOUTH SEGMENT	4	1	4	1	4
STAGE TOTAL			2	8	2	8
STAGE 6	USH 41 NB SOUTH SEGMENT	4	1	4	1	4
	USH 41 SB SOUTH SEGMENT	4	1	4	1	4
	CTH II NB ENTRANCE RAMP CLOSURE	4	1	7	-	-
STAGE TOTAL			3	15	2	8
PROJECT TOTALS			28	356	8	216

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NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
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PAVEMENT MARKING														
646.0103				646.0106		646.0123		646.0126	646.0841.S	646.0843.S				
PAINT				EPOXY		PAINT		EPOXY	GROOVED WET	GROOVED WET				
4-INCH				4-INCH		8-INCH		8-INCH	REFLECTIVE	REFLECTIVE				
									CONTRAST	CONTRAST				
									TAPE, 4-INCH	TAPE, 8-INCH				
				YELLOW	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE	WHITE		
				SOLID	SOLID	DASHED	SOLID	SOLID	SOLID	DASHED	SOLID	DASHED		
				(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)		
STATION - STATION														
USH 41 NB														
1119+87 NB - 1147+63 NB				---	---	---	2,776	2,776	---	---	---	1,388	---	---
1142+02 NB - 1147+63 NB				---	---	---	---	---	---	---	---	---	140	
1147+63 NB - 1168+01 NB				---	---	---	2,038	2,038	---	---	---	1,019	---	---
1147+63 NB - 1150+14 NB				---	---	---	---	---	---	---	---	---	62	
1150+14 NB - 1154+50 NB				---	---	---	---	---	---	---	---	822	---	
1168+01 NB - 1217+31 NB				---	---	---	4,930	4,930	---	---	---	2,465	---	---
1179+25 NB - 1199+88 NB				---	---	---	---	---	---	---	---	---	516	
1176+40 NB - 1179+25 NB				---	---	---	---	---	---	---	---	570	---	
1199+88 NB - 1206+33 NB				---	---	---	---	---	---	---	---	990	---	
1217+31 NB - 1228+17 NB				---	---	---	1,086	1,086	---	---	---	272	---	---
1228+17 NB - 1256+53 NB				---	---	---	2,836	2,836	---	---	---	1,418	---	---
1241+78 NB - 1243+57 NB				---	---	---	---	---	---	---	---	44	---	---
1243+57 NB - 1248+30 NB				---	---	---	---	---	---	---	---	---	945	---
1256+53 NB - 1262+75 NB				---	---	---	622	622	---	---	---	311	---	---
1262+50 NB - 1262+75 NB				---	---	---	---	---	---	50	---	---	---	---
1262+75 NB - 1267+15 NB				440	440	220	---	---	---	---	---	---	---	---
1262+75 NB - 1266+01 NB				---	---	---	---	---	650	---	---	---	---	---
1266+01 NB - 1267+15 NB				---	---	---	---	---	---	29	---	---	---	---
1267+15 NB - 1269+93 NB				---	---	---	278	278	---	---	---	139	---	69
1269+93 NB - 1279+75 NB				982	982	491	---	---	---	246	---	---	---	---
1279+75 NB - 1326+52 NB				---	---	---	4,677	4,677	---	---	---	2,339	---	---
1269+93 NB - 1284+10 NB				---	---	---	---	---	---	---	---	---	---	108
1302+43 NB - 1308+64 NB				---	---	---	---	---	---	---	---	---	---	155
1308+64 NB - 1311+46 NB				---	---	---	---	---	---	---	---	---	565	---
1336+37 NB - 1364+91 NB				---	---	---	2,854	2,854	---	---	---	1,427	---	---
1346+66 NB - 1354+44 NB				---	---	---	---	---	---	---	---	---	1,556	---
1364+91 NB - 1429+72 NB				---	---	---	6,481	6,481	---	---	---	3,241	---	---
1408+21 NB - 1414+89 NB				---	---	---	---	---	---	---	---	---	---	167
1414+89 NB - 1420+33 NB				---	---	---	---	---	---	---	---	---	792	---
1429+72 NB - 1483+29 NB				---	---	---	5,357	5,357	---	---	---	2,679	---	---
1477+00 NB - 1483+29 NB				---	---	---	---	---	---	---	---	157	---	---
1437+25 NB - 1445+14 NB				---	---	---	---	---	---	---	---	---	1,580	---
1483+29 NB - 1495+56 NB				---	---	---	1,227	1,227	---	---	---	614	---	---
1483+29 NB - 1483+34 NB				---	---	---	---	---	---	---	---	1	---	---
1483+34 NB - 1485+04 NB				---	---	---	---	---	---	---	---	---	340	---
1495+56 NB - 1536+66 NB				---	---	---	4,110	1,737	---	---	---	2,055	---	---
1536+66 NB - 1555+79 NB				---	---	---	1,913	1,913	---	---	---	957	---	---
1544+37 NB - 1550+79 NB				---	---	---	---	---	---	---	---	---	1,284	---
1555+79 NB - 1580+90 NB				---	---	---	2,511	2,511	---	---	---	628	---	---
1555+79 NB - 1572+60 NB				---	---	---	---	---	---	---	---	---	---	420
1572+60 NB - 1578+26 NB				---	---	---	---	---	---	---	---	---	832	---
SUBTOTALS				1,422	1,422	711	43,696	41,323	650	275	50	21,154	10,276	1,637

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NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
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PAVEMENT MARKING CONT.													
		646.0103			646.0106		646.0123		646.0126	646.0841.S	646.0843.S		
		PAINT			EPOXY		PAINT		EPOXY	GROOVED WET	GROOVED WET		
		4-INCH			4-INCH		8-INCH		8-INCH	REFLECTIVE	REFLECTIVE		
										CONTRAST	CONTRAST		
										TAPE, 4-INCH	TAPE, 8-INCH		
		YELLOW	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
		SOLID	SOLID	DASHED	SOLID	SOLID	SOLID	DASHED	SOLID	DASHED	SOLID	DASHED	DASHED
		(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)
STATION - STATION													
USH 41 SB													
1119+78 SB - 1147+56 SB		---	---	---	2,778	2,778	---	---	---	1,389	---	---	---
1146+20 SB - 1147+56 SB		---	---	---	---	---	---	---	---	34	---	---	---
1147+56 SB - 1167+74 SB		---	---	---	2,018	2,018	---	---	---	1,009	---	---	---
1147+56 SB - 1150+97 SB		---	---	---	---	---	---	---	---	---	---	85	---
1150+97 SB - 1155+33 SB		---	---	---	---	---	---	---	---	---	820	---	---
1167+74 SB - 1217+24 SB		---	---	---	4,950	4,950	---	---	---	2,475	---	---	---
1179+77 SB - 1181+64 SB		---	---	---	---	---	---	---	---	47	---	---	---
1176+00 SB - 1179+77 SB		---	---	---	---	---	---	---	---	---	755	---	---
1213+82 SB - 1217+24 SB		---	---	---	---	---	---	---	---	---	633	---	---
1217+24 SB - 1228+07 SB		---	---	---	1,083	1,083	---	---	---	542	---	---	---
1219+73 SB - 1228+07 SB		---	---	---	---	---	---	---	---	---	---	209	---
1217+24 SB - 1219+73 SB		---	---	---	---	---	---	---	---	---	249	---	---
1228+07 SB - 1256+43 SB		---	---	---	2,836	2,836	---	---	---	1,418	---	---	---
1228+07 SB - 1243+40 SB		---	---	---	---	---	---	---	---	---	---	383	---
1243+40 SB - 1247+44 SB		---	---	---	---	---	---	---	758	---	---	---	---
1256+43 SB - 1262+75 SB		---	---	---	632	632	---	---	---	316	---	---	---
1262+75 SB - 1267+69 SB		494	494	247	---	---	---	---	---	---	---	---	---
1262+83 SB - 1267+69 SB		---	---	---	---	---	906	---	---	---	---	---	---
1267+69 SB - 1270+41 SB		---	---	---	272	272	---	---	---	136	---	---	---
1267+69 SB - 1270+03 SB		---	---	---	---	---	---	---	234	---	---	---	---
1270+03 SB - 1270+41 SB		---	---	---	---	---	---	---	---	---	---	10	---
1270+41 SB - 1280+00 SB		959	959	480	---	---	---	240	---	---	---	---	---
1280+00 SB - 1332+36 SB		---	---	---	5,236	5,236	---	---	---	2,618	---	---	---
1280+00 SB - 1301+46 SB		---	---	---	---	---	---	---	---	---	---	536	---
1301+46 SB - 1306+87 SB		---	---	---	---	---	---	---	---	---	1,032	---	---
1306+26 SB - 1314+59 SB		---	---	---	---	---	---	---	---	---	1,666	---	---
1332+36 SB - 1365+08 SB		---	---	---	3,272	3,272	---	---	---	1,636	---	---	---
1354+88 SB - 1356+50 SB		---	---	---	---	---	---	---	---	41	---	---	---
1351+23 SB - 1354+88 SB		---	---	---	---	---	---	---	---	---	730	---	---
1365+08 SB - 1429+65 SB		---	---	---	6,457	6,457	---	---	---	3,229	---	---	---
1413+66 SB - 1416+68 SB		---	---	---	---	---	---	---	---	76	---	---	---
1416+68 SB - 1421+02 SB		---	---	---	---	---	---	---	---	---	818	---	---
1429+65 SB - 1483+17 SB		---	---	---	5,352	5,352	---	---	---	2,676	---	---	---
1440+90 SB - 1447+28 SB		---	---	---	---	---	---	---	---	160	---	---	---
1437+16 SB - 1440+90 SB		---	---	---	---	---	---	---	---	---	748	---	---
1476+50 SB - 1483+17 SB		---	---	---	---	---	---	---	---	---	1,334	---	---
1483+17 SB - 1495+46 SB		---	---	---	1,259	1,229	---	---	---	630	---	---	---
1483+17 SB - 1484+79 SB		---	---	---	---	---	---	---	---	---	324	---	---
1495+46 SB - 1536+54 SB		---	---	---	4,108	---	---	---	---	2,054	---	---	---
1536+54 SB - 1556+19 SB		---	---	---	1,965	1,965	---	---	---	983	---	---	---
1545+73 SB - 1552+54 SB		---	---	---	---	---	---	---	---	171	---	---	---
1542+90 SB - 1545+73 SB		---	---	---	---	---	---	---	---	---	566	---	---
1556+19 SB - 1580+61 SB		---	---	---	2,442	2,442	---	---	---	1,221	---	---	---
SUBTOTALS		1,453	1,453	727	44,660	40,522	906	240	992	22,861	9,675	1,223	---

3

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

PAVEMENT MARKING CONT.

STATION - STATION	646.0103		646.0106		646.0123		646.0126		646.0841.S	646.0843.S		
	PAINT		EPOXY		PAINT		EPOXY		GROOVED WET	GROOVED WET		
	4-INCH		4-INCH		8-INCH		8-INCH		REFLECTIVE	REFLECTIVE		
									CONTRAST	CONTRAST	TAPE, 4-INCH	TAPE, 8-INCH
	YELLOW	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
	SOLID	SOLID	DASHED	SOLID	SOLID	SOLID	DASHED	SOLID	DASHED	SOLID	SOLID	DASHED
	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)
USH 41 NB OFF RAMP TO STH 114												
1154+50 JJB - 1166+46 JJB	---	---	---	1,196	1,196	---	---	---	---	---	---	---
1162+50 JJB - 1166+46 JJB	---	---	---	---	---	---	---	396	---	---	---	---
1164+00 JJB - 1166+46 JJB	---	---	---	---	---	---	---	246	---	---	---	---
1166+46 JJB	---	---	---	---	---	---	---	52	---	---	---	---
USH 41 NB OFF RAMP TO STH 114												
BYPASS												
	---	---	---	---	---	---	---	60	---	---	---	---
	---	---	---	---	---	---	---	40	---	---	---	---
USH 41 NB ON RAMP FROM STH 114												
1168+89 JJC - 1176+25 JJC	---	---	---	736	736	---	---	---	---	---	---	---
1167+90 JJC - 1169+05 JJC	---	---	---	---	---	---	---	115	---	---	---	---
1167+90 JJC	---	---	---	---	---	---	---	40	---	---	---	---
USH 41 NB ON RAMP FROM STH 114												
BYPASS												
	---	---	---	---	110	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	40	---	---	---	---
USH 41 SB ON RAMP FROM STH 114												
1155+33 JJA - 1166+62 JJA	---	---	---	1,129	1,073	---	---	---	---	---	---	---
1165+65 JJA - 1166+62 JJA	---	---	---	---	---	---	---	97	---	---	---	---
1166+57	---	---	---	---	---	---	---	52	---	---	---	---
USH 41 SB ON RAMP FROM STH 114												
BYPASS												
	---	---	---	---	50	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	48	---	---	---	---
USH 41 SB OFF RAMP TO STH 114												
	---	---	---	940	920	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	495	---	---	---	---
	---	---	---	---	---	---	---	495	---	---	---	---
	---	---	---	---	---	---	---	48	---	---	---	---
USH 41 SB OFF RAMP TO STH 114												
BYPASS												
	---	---	---	---	75	---	---	---	---	---	---	---
	---	---	---	---	---	---	---	36	---	---	---	---
USH 41 NB OFF RAMP TO MAIN												
STREET												
1206+00 MSA - 1214+85 MSA	---	---	---	885	938	---	---	---	---	---	---	---
1213+00 MSA - 1216+09 MSA	---	---	---	---	---	---	---	309	---	---	---	---
USH 41 NB OFF RAMP TO MAIN												
STREET BYPASS												
	---	---	---	---	60	---	---	---	---	---	---	---
SUBTOTALS	0	0	0	4,886	5,158	0	0	2,569	0	0	0	0

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

PAVEMENT MARKING CONT.

	646.0103			646.0106		646.0123		646.0126	646.0841.S	646.0843.S	
	PAINT			EPOXY		PAINT		EPOXY	GROOVED WET	GROOVED WET	
	4-INCH			4-INCH		8-INCH		8-INCH	REFLECTIVE	REFLECTIVE	
									CONTRAST	CONTRAST	
									TAPE, 4-INCH	TAPE, 8-INCH	
STATION - STATION	YELLOW SOLID (LF)	WHITE SOLID (LF)	WHITE DASHED (LF)	YELLOW SOLID (LF)	WHITE SOLID (LF)	WHITE SOLID (LF)	WHITE DASHED (LF)	WHITE SOLID (LF)	WHITE DASHED (LF)	WHITE SOLID (LF)	WHITE DASHED (LF)
USH 41 SB OFF RAMP TO MAIN STREET											
1205+00 MSB - 1213+65 MSB	---	---	---	865	784	---	---	---	---	---	---
1205+00 MSB - 1206+40 MSB	---	---	---	---	---	---	---	140	---	---	---
USH 41 SB OFF RAMP TO MAIN STREET BYPASS											
	---	---	---	---	85	---	---	---	---	---	---
USH 41 NB OFF RAMP TO CTH II											
1248+00 IIB - 1254+63 IIB	---	---	---	663	608	---	---	---	---	---	---
1252+48 IIB - 1254+81 IIB	---	---	---	---	---	---	---	233	---	---	---
USH 41 NB OFF RAMP TO CTH II BYPASS											
	---	---	---	---	45	---	---	---	---	---	---
USH 41 NB ON RAMP FROM CTH II											
1256+35 IIC - 1262+28 IIC	---	---	---	593	547	---	---	---	---	---	---
1256+10 IIC - 1256+60 IIC	---	---	---	---	---	---	---	50	---	---	---
USH 41 NB ON RAMP FROM CTH II BYPASS											
	---	---	---	---	105	---	---	---	---	---	---
USH 41 SB ON RAMP FROM CTH II											
1247+23 IIA - 1254+00 IIA	---	---	---	677	639	---	---	---	---	---	---
1253+00 IIA - 1254+15 IIA	---	---	---	---	---	---	---	115	---	---	---
USH 41 SB ON RAMP FROM CTH II BYPASS											
	---	---	---	---	95	---	---	---	---	---	---
USH 41 SB OFF RAMP TO CTH II											
1255+43 IID - 1262+56 IID	---	---	---	713	687	---	---	---	---	---	---
1255+43 IID - 1257+92 IID	---	---	---	---	---	---	---	249	---	---	---
USH 41 SB OFF RAMP TO CTH II BYPASS											
	---	---	---	---	65	---	---	---	---	---	---
USH 41 NB OFF RAMP TO CTH BB											
	---	---	---	870	850	---	---	---	---	---	---
USH 41 NB ON RAMP FROM CTH BB											
	---	---	---	810	790	---	---	---	---	---	---
USH 41 SB ON RAMP FROM CTH BB											
1420+78 BBA - 1428+62 BBA	---	---	---	784	767	---	---	---	---	---	---
USH 41 SB OFF RAMP TO CTH BB											
1429+10 BBD - 1436+92 BBD	---	---	---	782	697	---	---	---	---	---	---
1429+10 BBD - 1432+05 BBD	---	---	---	---	---	---	---	295	---	---	---
SUBTOTALS	0	0	0	6,757	6,764	0	0	1,082	0	0	0

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

PAVEMENT MARKING CONT.											
STATION - STATION	646.0103			646.0106		646.0123		646.0126	646.0841.S	646.0843.S	
	PAINT			EPOXY		PAINT		EPOXY	GROOVED WET	GROOVED WET	
	4-INCH			4-INCH		8-INCH		8-INCH	REFLECTIVE	REFLECTIVE	
	YELLOW	WHITE	WHITE	YELLOW	WHITE	WHITE	WHITE	WHITE	CONTRAST	CONTRAST	
	SOLID	SOLID	DASHED	SOLID	SOLID	SOLID	DASHED	SOLID	TAPE, 4-INCH	TAPE, 8-INCH	
	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	(LF)	WHITE	WHITE	WHITE
									DASHED	SOLID	DASHED
									(LF)	(LF)	(LF)
USH 41 SB OFF RAMP TO CTH BB BYPASS	---	---	---	---	45	---	---	---	---	---	---
USH 41 NB ON RAMP FROM STH 125											
1494+53 CAC - 1502+33 CAC	---	---	---	780	690	---	---	---	---	---	---
USH 41 SB ON RAMP FROM STH 125											
1484+60 CAA - 1494+09 CAA	---	---	---	949	867	---	---	---	---	---	---
USH 41 NB ON RAMP FROM STH 96											
1536+16 WIC - 1544+12 WIC	---	---	---	796	775	---	---	---	---	---	---
USH 41 SB ON RAMP FROM STH 96											
3+20 WIA - 9+36 WIA	---	---	---	616	543	---	---	---	---	---	---
9+36 WIA	---	---	---	---	---	---	---	40	---	---	---
USH 41 SB ON RAMP FROM STH 96 BYPASS											
	---	---	---	---	---	---	---	36	---	---	---
USH 41 SB OFF RAMP TO STH 96											
0+13 WID - 7+04 WID	---	---	---	691	630	---	---	---	---	---	---
0+13 WID - 3+19 WID	---	---	---	---	---	---	---	306	---	---	---
USH 41 SB OFF RAMP TO STH 96 BYPASS											
	---	---	---	---	---	---	---	50	---	---	---
SUBTOTALS	0	0	0	3,832	3,550	0	0	432	0	0	0
PROJECT TOTALS		7,188		201,148		2,071		5,125	44,015	22,811	

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

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PAVEMENT MARKING						
STATION - STATION	647.0166	647.0176	647.0356	647.0526	647.0566	647.0803
	ARROWS	ARROWS	WORDS	YEILD LINE	STOP LINE	AERIAL
	EPOXY	EPOXY	EPOXY	SYMBOLS	EPOXY	ENFORCEMENT
	TYPE 2	TYPE 3		EPOXY	18-INCH	BARS EPOXY
	(EACH)	(EACH)	(EACH)	18-INCH	(LF)	24-INCH
				(EACH)		(LF)
USH 41 NB						
1341+25 NB	---	---	---	---	---	12
1347+85 NB	---	---	---	---	---	12
USH 41 NB OFF RAMP TO STH 114						
1166+46 JJB	---	---	---	---	26	---
	2	---	2	---	---	---
USH 41 NB OFF RAMP TO STH 114 BYPASS						
	---	---	---	---	20	---
	---	---	---	10	---	---
USH 41 SB OFF RAMP TO STH 114						
	---	---	---	---	24	---
	4	1	3	---	---	---
USH 41 SB OFF RAMP TO STH 114 BYPASS						
	---	---	---	9	---	---
USH 41 NB OFF RAMP TO MAIN STREET						
1216+09 MSA	---	---	---	---	28	---
	4	---	2	---	---	---
USH 41 NB OFF RAMP TO MAIN STREET BYPASS						
	---	---	---	---	24	---
USH 41 SB OFF RAMP TO MAIN STREET						
1205+00 MSB	---	---	---	---	15	---
	4	---	2	---	---	---
USH 41 NB OFF RAMP TO CTH II						
1254+81 IIB	---	---	---	---	18	---
USH 41 NB OFF RAMP TO CTH II BYPASS						
	---	---	---	---	20	---
USH 41 SB OFF RAMP TO CTH II						
1255+43 IID	---	---	---	---	18	---
USH 41 SB OFF RAMP TO CTH II BYPASS						
	---	---	---	---	18	---
USH 41 NB OFF RAMP TO CTH BB						
	---	---	---	---	24	---
USH 41 NB OFF RAMP TO CTH BB BYPASS						
	---	---	---	---	18	---
USH 41 SB OFF RAMP TO CTH BB						
1429+10 BBD	---	---	---	---	19	---
USH 41 SB OFF RAMP TO STH 96						
0+13 WID	---	---	---	---	20	---
USH 41 SB OFF RAMP TO STH 96 BYPASS						
	---	---	---	---	19	---
PROJECT TOTALS	14	1	9	19	311	24

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NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

TEMPORARY PAVEMENT MARKING

		649.0100	649.0400	649.0801
			REMOVABLE	
		PAINT	REMOVABLE TAPE	
		4-INCH	4-INCH	4-INCH
		WHITE	WHITE	YELLOW
STAGE	LOCATION	(LF)	(LF)	(LF)
STAGE 1	USH 41 NB SOUTH SEGMENT	6,955	16,185	5,925
	USH 41 NB NORTH SEGMENT	3,820	10,475	3,995
	USH 41 SB SOUTH SEGMENT	4,840	11,190	4,650
	USH 41 SB NORTH SEGMENT	5,455	15,490	6,475
STAGE TOTAL		21,070	53,340	21,045
STAGE 2	USH 41 NB SOUTH SEGMENT	7,445	7,240	15,505
	USH 41 NB NORTH SEGMENT	2,010	2,535	4,795
	USH 41 SB SOUTH SEGMENT	6,135	9,290	18,095
	USH 41 SB NORTH SEGMENT	5,550	5,425	15,655
STAGE TOTAL		21,140	24,490	54,050
STAGE 3	USH 41 SB CENTRAL SEGMENT	1,680	1,155	2,935
STAGE TOTAL		1,680	1,155	2,935
STAGE 4	USH 41 SB CENTRAL SEGMENT	1,390	2,660	955
STAGE TOTAL		1,390	2,660	955
STAGE 5	USH 41 NB SOUTH SEGMENT	2,460	4,865	1,380
	USH 41 SB SOUTH SEGMENT	1,760	6,315	1,610
STAGE TOTAL		4,220	11,180	2,990
STAGE 6	USH 41 NB SOUTH SEGMENT	2,380	2,240	3,595
	USH 41 SB SOUTH SEGMENT	1,795	4,580	6,635
STAGE TOTAL		4,175	6,820	10,230
PROJECT SUBTOTAL		53,675	99,645	92,205
PROJECT TOTALS		53,675	191,850	15,205

CONSTRUCTION STAKING

		650.8000 RESURFACING REFERENCE		
LOCATION	STATION	TO	STATION	(LF)
USH 41 NB	1119+87	-	1580+89	46,100
USH 41 SB	1119+78	-	1580+61	46,100
PROJECT TOTAL				92,200

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

SAWING CONCRETE

690.0250 (D)										
STAGE	ROADWAY			STATION		TO	STATION		LOCATION	LF
1	NB	USH	41	1145+72	NB	-	1146+07	NB	RT	35
1	NB	USH	41	1147+26	NB	-	1147+63	NB	RT	37
1	NB	USH	41	1165+54	NB	-	1165+79	NB	RT	25
1	NB	USH	41	1167+79	NB	-	1168+06	NB	RT	27
1	NB	USH	41	1217+25	NB	-	1217+49	NB	RT	23
1	NB	USH	41	1226+51	NB	-	1226+77	NB	RT	25
1	NB	USH	41	1228+10	NB	-	1228+35	NB	RT	25
1	NB	USH	41	1254+06	NB	-	1254+51	NB	RT	46
1	NB	USH	41	1256+51	NB	-	1256+86	NB	RT	35
1	NB	USH	41	1429+44	NB	-	1429+73	NB	RT	30
1	NB	USH	41	1495+44	NB	-	1495+67	NB	RT	23
1	NB	USH	41	1534+38	NB	-	1534+60	NB	RT	22
1	NB	USH	41	1536+54	NB	-	1536+76	NB	RT	22
1	SB	USH	41	1145+94	SB	-	1146+29	SB	LT	35
1	SB	USH	41	1147+52	SB	-	1147+89	SB	LT	37
1	SB	USH	41	1165+52	SB	-	1165+76	SB	LT	24
1	SB	USH	41	1167+71	SB	-	1167+99	SB	LT	28
1	SB	USH	41	1215+52	SB	-	1215+75	SB	LT	23
1	SB	USH	41	1217+22	SB	-	1217+46	SB	LT	23
1	SB	USH	41	1226+47	SB	-	1226+72	SB	LT	24
1	SB	USH	41	1228+04	SB	-	1228+29	SB	LT	25
1	SB	USH	41	1254+06	SB	-	1254+37	SB	LT	31
1	SB	USH	41	1256+37	SB	-	1256+68	SB	LT	31
1	SB	USH	41	1427+57	SB	-	1427+93	SB	LT	35
1	SB	USH	41	1493+27	SB	-	1493+51	SB	LT	24
1	SB	USH	41	1495+45	SB	-	1495+69	SB	LT	23
1	SB	USH	41	1534+38	SB	-	1534+60	SB	LT	22
1	SB	USH	41	1536+54	SB	-	1536+76	SB	LT	22
PROJECT TOTAL										781

(D) REFER TO "SHES CONCRETE PAVEMENT REPAIR AND REPLACEMENT SUMMARY" TABLE FOR ADDITIONAL QUANTITIES

BARRIER WALL DELINEATION

SPV.0060.01

STAGE	ROADWAY			STATION		TO	STATION		OFFSET	(EACH)
2	NB	USH	41	1266+45	NB	-	1276+00	NB	LT	191
PROJECT TOTAL										191

REPAIRING CONCRETE BARRIER

SPV.0090.01

STAGE	ROADWAY			STATION		TO	STATION		OFFSET	(LF)
2	NB	USH	41	1146+27	NB	-	1146+35	NB	LT	8
2	SB	USH	41	1167+77	SB	-	1167+89	SB	RT	12
2	NB	USH	41	1167+98	NB	-	1168+10	NB	LT	12
2	SB	USH	41	1226+52	SB	-	1226+72	SB	RT	20
PROJECT TOTAL										52

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

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FILL EXISTING CONCRETE RUMBLE STRIPS TEMPORARY

SPV.0090.03										
STAGE	ROADWAY			STATION	TO	STATION	OFFSET	(LF)	COMMENT	
1	NB	USH	41	1143+88	NB -	1146+33	NB LT	50	APPROX. 10 SEGMENTS	
1	NB	USH	41	1147+69	NB -	1166+00	NB LT	365	APPROX. 73 SEGMENTS	
1	NB	USH	41	1167+99	NB -	1170+39	NB LT	50	APPROX. 10 SEGMENTS	
1	NB	USH	41	1223+87	NB -	1226+79	NB LT	60	APPROX. 12 SEGMENTS	
1	NB	USH	41	1228+16	NB -	1231+20	NB LT	60	APPROX. 12 SEGMENTS	
1	NB	USH	41	1264+41	NB -	1267+35	NB LT	60	APPROX. 12 SEGMENTS	
1	NB	USH	41	1270+08	NB -	1272+42	NB LT	45	APPROX. 9 SEGMENTS	
1	NB	USH	41	1479+98	NB -	1482+18	NB LT	45	APPROX. 9 SEGMENTS	
1	NB	USH	41	1483+29	NB -	1485+38	NB LT	40	APPROX. 8 SEGMENTS	
1	NB	USH	41	1531+87	NB -	1534+72	NB LT	55	APPROX. 11 SEGMENTS	
1	NB	USH	41	1536+66	NB -	1553+91	NB LT	345	APPROX. 69 SEGMENTS	
1	NB	USH	41	1556+00	NB -	1558+21	NB LT	45	APPROX. 9 SEGMENTS	
1	SB	USH	41	1213+05	SB -	1215+81	SB RT	55	APPROX. 11 SEGMENTS	
1	SB	USH	41	1217+30	SB -	1226+78	SB RT	190	APPROX. 38 SEGMENTS	
1	SB	USH	41	1228+15	SB -	1230+05	SB RT	40	APPROX. 8 SEGMENTS	
1	SB	USH	41	1252+03	SB -	1254+38	SB RT	45	APPROX. 9 SEGMENTS	
1	SB	USH	41	1256+47	SB -	1267+44	SB RT	220	APPROX. 44 SEGMENTS	
1	SB	USH	41	1270+14	SB -	1272+55	SB RT	50	APPROX. 10 SEGMENTS	
1	SB	USH	41	1360+68	SB -	1364+59	SB RT	80	APPROX. 16 SEGMENTS	
1	SB	USH	41	1365+01	SB -	1370+20	SB RT	105	APPROX. 21 SEGMENTS	
1	SB	USH	41	1424+85	SB -	1428+00	SB RT	65	APPROX. 13 SEGMENTS	
1	SB	USH	41	1429+80	SB -	1433+13	SB RT	65	APPROX. 13 SEGMENTS	
1	SB	USH	41	1478+93	SB -	1482+18	SB RT	65	APPROX. 13 SEGMENTS	
1	SB	USH	41	1483+29	SB -	1493+62	SB RT	205	APPROX. 41 SEGMENTS	
1	SB	USH	41	1495+57	SB -	1498+81	SB RT	65	APPROX. 13 SEGMENTS	
1	SB	USH	41	1531+87	SB -	1534+72	SB RT	55	APPROX. 11 SEGMENTS	
1	SB	USH	41	1536+66	SB -	1554+01	SB RT	345	APPROX. 69 SEGMENTS	
1	SB	USH	41	1556+10	SB -	1558+80	SB RT	55	APPROX. 11 SEGMENTS	
3	SB	USH	41	1360+68	SB -	1364+59	SB RT	80	APPROX. 16 SEGMENTS	
3	SB	USH	41	1365+01	SB -	1370+20	SB RT	105	APPROX. 21 SEGMENTS	
PROJECT TOTAL								2,925		

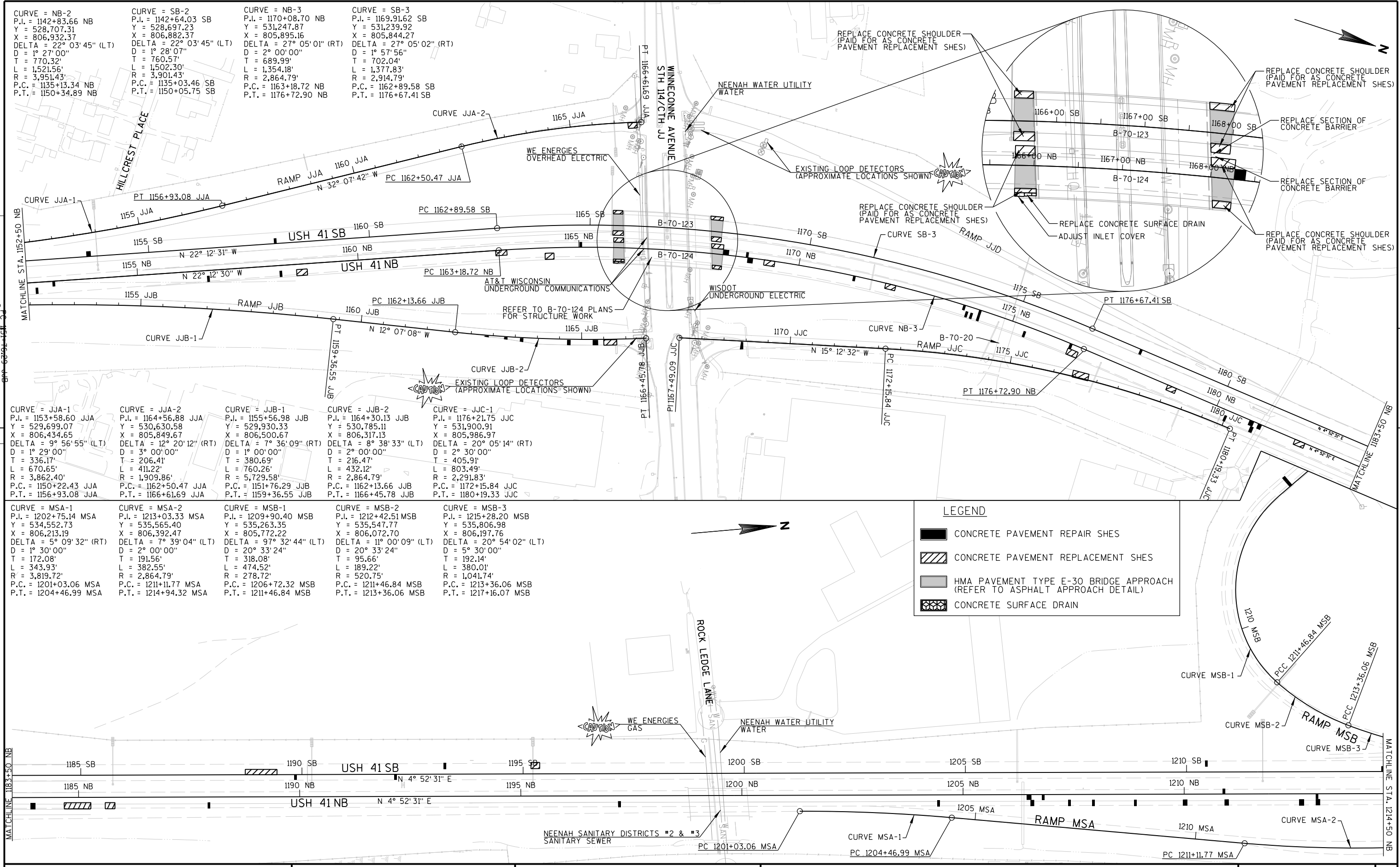
NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0020
UNLESS OTHERWISE NOTED.

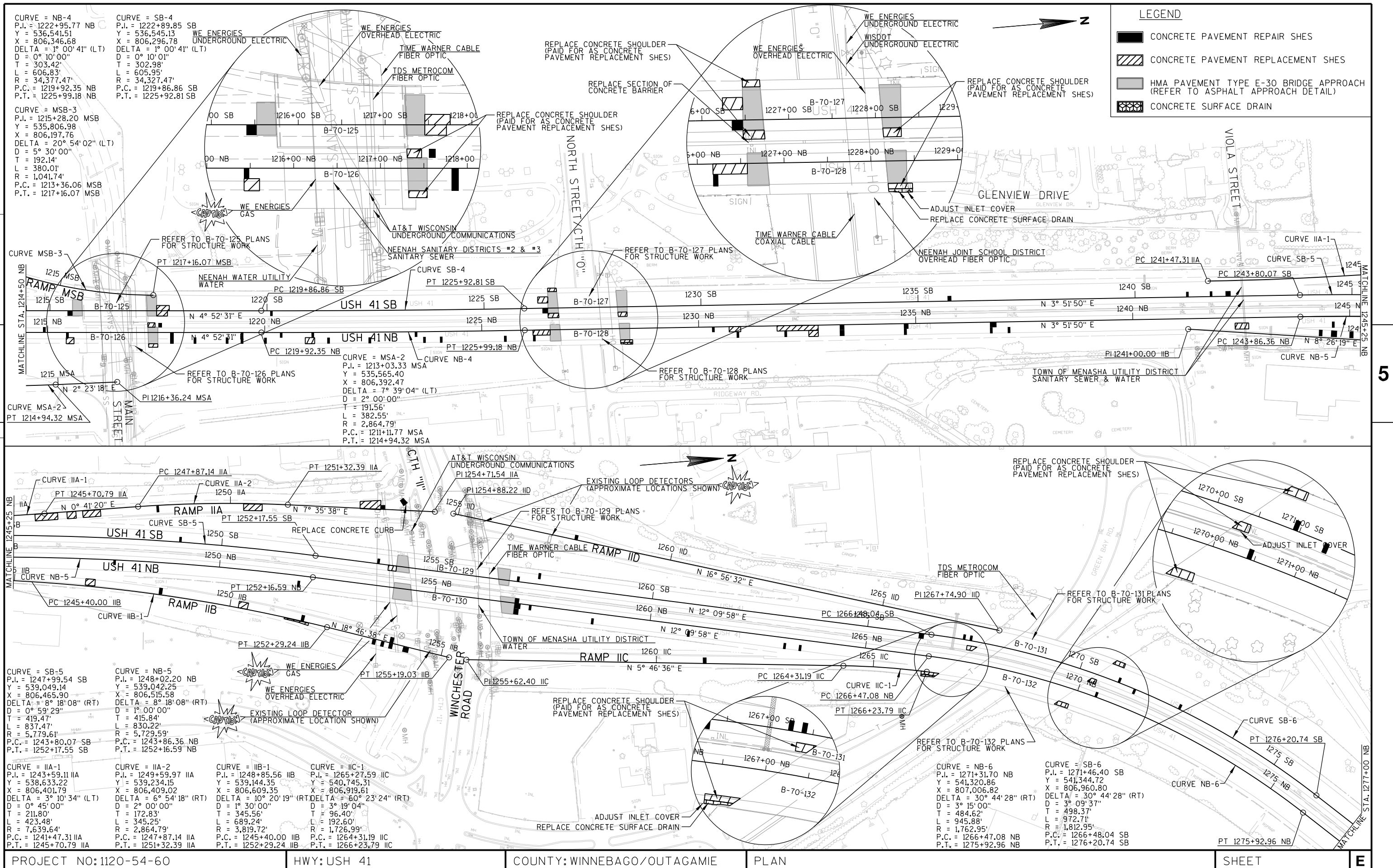
REMOVING PAVEMENT MARKINGS WATER BLASTING

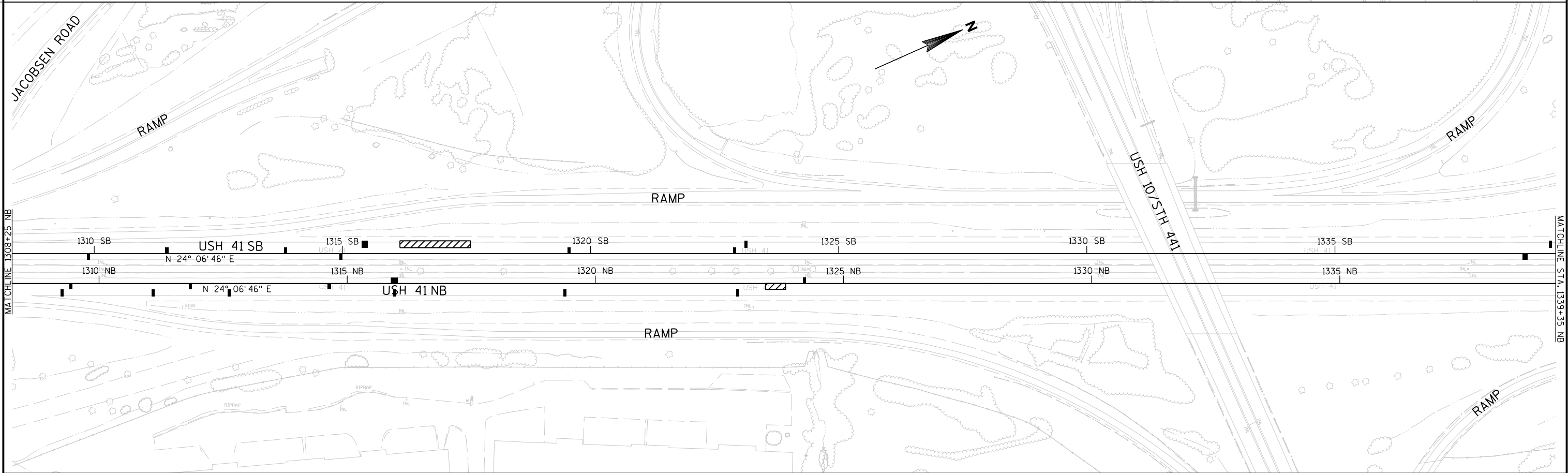
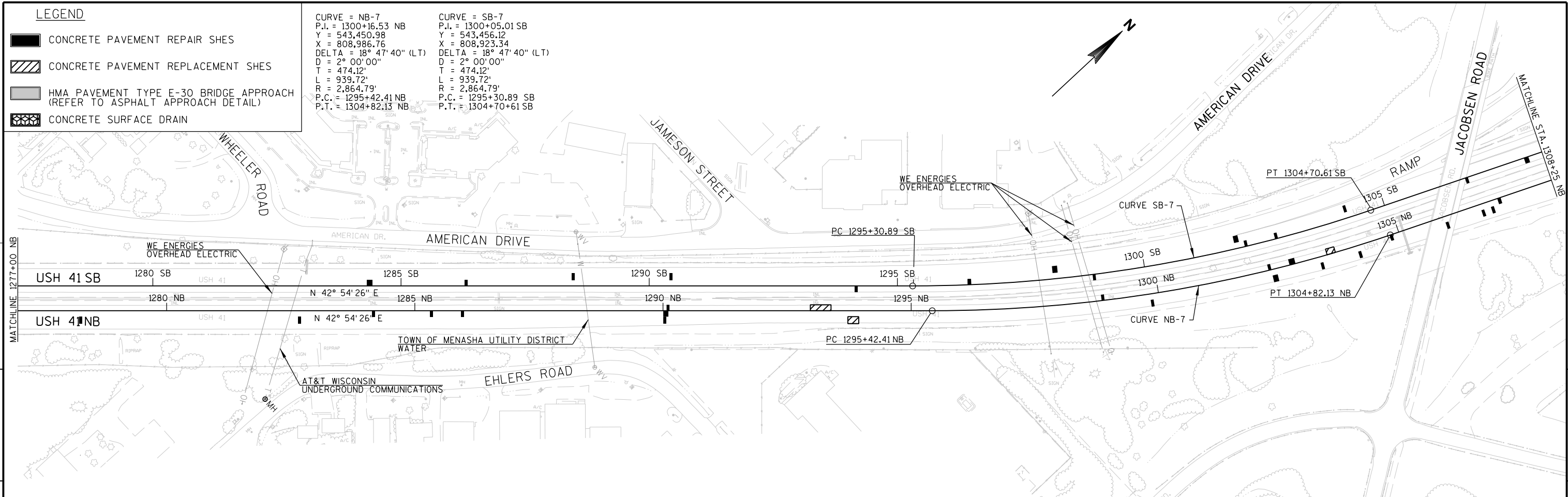
							SPV.0090.04
STAGE	ROADWAY	STATION	TO	STATION	LOCATION		(LF)
STAGE 1	USH 41 NB	1124+00	NB -	1130+60	NB RT		165
	USH 41 NB	1135+60	NB -	1151+80	NB RT		405
	USH 41 NB	1141+38	NB -	1173+32	NB LT		3,993
	USH 41 NB/JJB	1150+50	NB -	1155+62	JJB RT/LT		512
	JJC/USH 41 NB	1176+83	JJC -	1179+25	NB LT/RT		242
	USH 41 NB	1179+25	NB -	1182+44	NB RT		80
	USH 41 NB	1197+74	NB -	1199+88	NB RT		54
	USH 41 NB/MSA	1199+88	NB -	1203+77	MSA RT/LT		389
	USH 41 NB	1219+10	NB -	1232+58	NB LT		1,685
	USH 41 NB	1234+14	NB -	1243+50	NB RT		234
	USH 41 NB	1239+65	IIB -	1245+05	NB RT		540
	IIC/USH 41 NB	1262+50	IIC -	1266+01	NB LT/RT		351
	USH 41 NB	1260+84	NB -	1274+29	NB LT		1,681
	USH 41 NB	1266+01	NB -	1274+29	NB RT		207
	USH 41 NB	1464+45	NB -	1471+05	NB RT		165
	USH 41 NB	1476+63	NB -	1488+13	NB LT		1,438
	USH 41 NB	1503+75	NB -	1507+68	NB RT		393
	USH 41 NB	1507+68	NB -	1520+78	NB RT		328
	USH 41 NB	1520+78	NB -	1524+58	NB RT		380
	USH 41 NB	1528+38	NB -	1561+91	NB LT		4,191
	USH 41 NB	1545+44	NB -	1548+01	NB RT		257
	USH 41 NB	1548+01	NB -	1550+00	NB RT		50
	USH 41 SB	1210+40	SB -	1233+68	SB RT		2,910
	USH 41 SB	1236+65	SB -	1240+73	SB LT		102
	USH 41 SB	1239+64	SB -	1243+90	SB LT		107
	USH 41 SB	1247+78	SB -	1276+21	SB RT		3,554
	IID/USH 41 SB	1262+25	IID -	1265+88	SB RT/LT		363
	USH 41 SB	1288+91	SB -	1292+21	SB LT		83
	USH 41 SB	1297+32	SB -	1302+99	SB LT		142
	USH 41 SB	1300+93	SB -	1309+75	SB LT		221
	USH 41 SB	1309+88	SB -	1313+53	SB LT		365
	USH 41 SB	1424+60	SB -	1435+00	SB RT		1,300
	USH 41 SB	1440+68	SB -	1444+73	SB LT		101
	USH 41 SB	1476+57	SB -	1501+98	SB RT		3,176
	USH 41 SB	1504+92	SB -	1507+32	SB LT		240
	USH 41 SB	1507+32	SB -	1519+91	SB LT		315
	USH 41 SB	1519+91	SB -	1526+33	SB LT		642
	USH 41 SB	1529+22	SB -	1561+83	SB RT		4,076
	USH 41 SB	1545+03	SB -	1549+92	SB LT		122
	USH 41 SB	1565+90	SB -	1572+51	SB LT		661
SUBTOTAL							36,217

REMOVING PAVEMENT MARKINGS WATER BLASTING CONT.

							SPV.0090.04
STAGE	ROADWAY	STATION	TO	STATION	LOCATION		(LF)
STAGE 2	USH 41 NB	1126+03	NB -	1132+63	NB LT		165
	USH 41 NB	1137+63	NB -	1154+18	NB RT		2,069
	USH 41 NB	1154+18	NB -	1168+11	NB RT		1,393
	USH 41 NB	1168+11	NB -	1174+27	NB RT		770
	USH 41 NB	1209+02	NB -	1233+99	NB RT		3,121
	USH 41 NB	1258+92	NB -	1272+79	NB RT		1,734
	USH 41 NB	1272+79	NB -	1278+85	NB RT		303
	USH 41 NB	1278+85	NB -	1283+34	NB RT		112
	USH 41 NB	1515+03	NB -	1523+83	NB LT		220
	USH 41 NB	1529+94	NB -	1546+54	NB RT		2,075
	USH 41 NB	1546+54	NB -	1550+79	NB RT		850
	USH 41 NB	1550+79	NB -	1561+75	NB RT		1,370
	USH 41 SB	1139+16	SB -	1143+71	SB LT		228
	USH 41 SB	1143+71	SB -	1151+23	SB LT		940
	USH 41 SB	1151+23	SB -	1156+68	SB LT		273
	USH 41 SB	1210+78	SB -	1231+67	SB LT		2,611
	USH 41 SB	1231+67	SB -	1237+09	SB LT		271
	USH 41 SB	1239+64	SB -	1243+90	SB LT		107
	USH 41 SB	1250+07	SB -	1267+03	SB LT		2,120
	USH 41 SB	1265+28	SB -	1267+03	SB LT		175
	USH 41 SB	1272+73	SB -	1276+73	SB LT		200
	USH 41 SB	1290+91	SB -	1302+99	SB RT		302
	USH 41 SB	1311+26	SB -	1320+06	SB LT		220
	USH 41 SB	1421+97	SB -	1435+32	SB LT		1,669
	USH 41 SB	1477+07	SB -	1482+90	SB LT		146
	USH 41 SB	1481+21	SB -	1482+90	SB LT		338
	USH 41 SB	1482+90	SB -	1501+60	SB LT		2,338
	USH 41 SB	1529+68	SB -	1544+64	SB LT		1,870
	USH 41 SB	1544+64	SB -	1545+85	SB LT		242
	USH 41 SB	1545+85	SB -	1547+79	SB LT		97
	USH 41 SB	1547+79	SB -	1563+34	SB LT		1,944
	USH 41 SB	1568+34	SB -	1577+14	SB LT		220
STAGE 3	USH 41 SB	1357+63	SB -	1371+92	SB LT		1,786
	USH 41 SB	1376+92	SB -	1385+72	SB RT		220
STAGE 4	USH 41 SB	1359+96	SB -	1371+44	SB RT		1,435
	USH 41 SB	1376+44	SB -	1385+24	SB LT		220
STAGE 5	USH 41 NB	1225+66	NB -	1234+46	NB RT		220
	USH 41 NB	1237+96	NB -	1241+71	NB RT		94
	USH 41 SB	1257+59	SB -	1263+01	SB LT		136
STAGE 6	USH 41 NB	1245+12	NB -	1253+92	NB LT		220
	USH 41 NB	1258+92	NB -	1266+51	NB RT		949
	USH 41 SB	1254+94	SB -	1256+67	SB LT		216
SUBTOTAL							35,986
PROJECT TOTAL							72,203



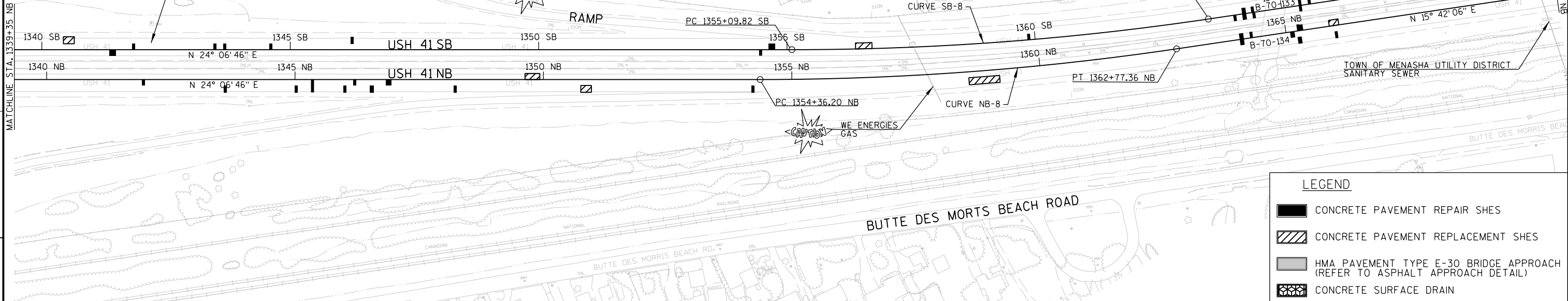




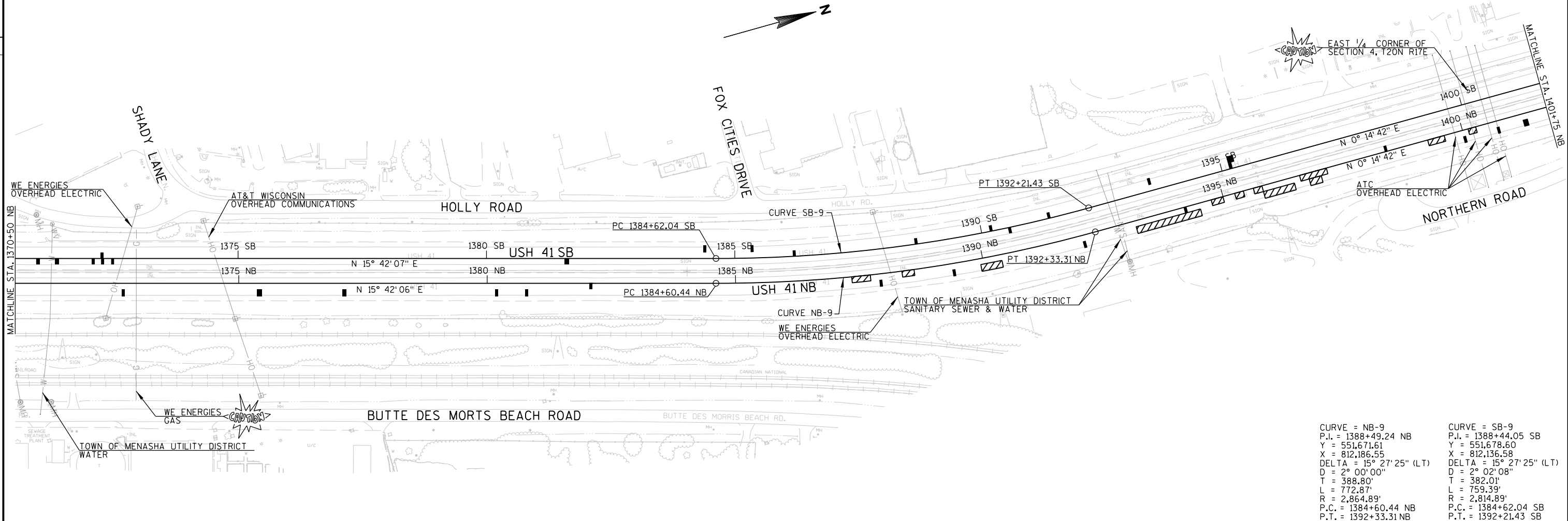
CURVE = NB-8
P.I. = 1358+57.54 NB
Y = 548,790.09
X = 811,376.50
DELTA = 8° 24' 40" (LT)
D = 1° 00' 00"
T = 421.34'
L = 841.16'
R = 5,729.96'
P.C. = 1354+36.20 NB
P.T. = 1362+77.36 NB

CURVE = SB-8
P.I. = 1359+31.15 SB
Y = 548,872.94
X = 811,347.84
DELTA = 8° 24' 39" (LT)
D = 1° 00' 00"
T = 421.33'
L = 841.14'
R = 5,729.96'
P.C. = 1355+09.82 SB
P.T. = 1363+50.96 SB

WISCONSIN DEPARTMENT OF TRANSPORTATION RWIS PAVEMENT SENSORS
LOCATED WITHIN CENTER AND OUTSIDE LANES



- LEGEND
- CONCRETE PAVEMENT REPAIR SHES
 - CONCRETE PAVEMENT REPLACEMENT SHES
 - HMA PAVEMENT TYPE E-30 BRIDGE APPROACH (REFER TO ASPHALT APPROACH DETAIL)
 - CONCRETE SURFACE DRAIN



CURVE = NB-9
P.I. = 1388+49.24 NB
Y = 551,671.61
X = 812,186.55
DELTA = 15° 27' 25" (LT)
D = 2° 00' 00"
T = 388.80'
L = 772.87'
R = 2,864.89'
P.C. = 1384+60.44 NB
P.T. = 1392+33.31 NB

CURVE = SB-9
P.I. = 1388+44.05 SB
Y = 551,678.60
X = 812,136.58
DELTA = 15° 27' 25" (LT)
D = 2° 02' 08"
T = 382.01'
L = 759.39'
R = 2,814.89'
P.C. = 1384+62.04 SB
P.T. = 1392+21.43 SB

LEGEND

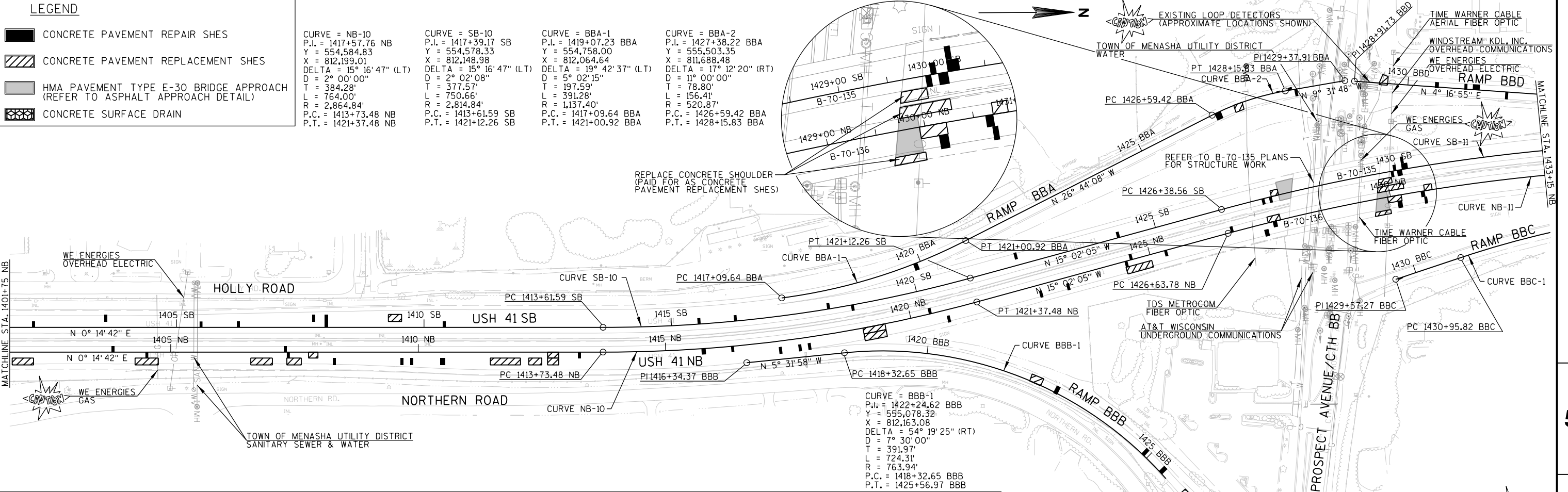
- CONCRETE PAVEMENT REPAIR SHES
- CONCRETE PAVEMENT REPLACEMENT SHES
- HMA PAVEMENT TYPE E-30 BRIDGE APPROACH (REFER TO ASPHALT APPROACH DETAIL)
- CONCRETE SURFACE DRAIN

CURVE = NB-10
P.I. = 1417+57.76 NB
Y = 554,584.83
X = 812,199.01
DELTA = 15° 16' 47" (LT)
D = 2° 00' 00"
T = 384.28'
L = 764.00'
R = 2,864.84'
P.C. = 1413+73.48 NB
P.T. = 1421+37.48 NB

CURVE = SB-10
P.I. = 1417+39.17 SB
Y = 554,578.33
X = 812,148.98
DELTA = 15° 16' 47" (LT)
D = 2° 02' 08"
T = 377.57'
L = 750.66'
R = 2,814.84'
P.C. = 1413+61.59 SB
P.T. = 1421+12.26 SB

CURVE = BBA-1
P.I. = 1419+07.23 BBA
Y = 554,758.00
X = 812,064.64
DELTA = 19° 42' 37" (LT)
D = 5° 02' 15"
T = 197.59'
L = 391.28'
R = 1,137.40'
P.C. = 1417+09.64 BBA
P.T. = 1421+00.92 BBA

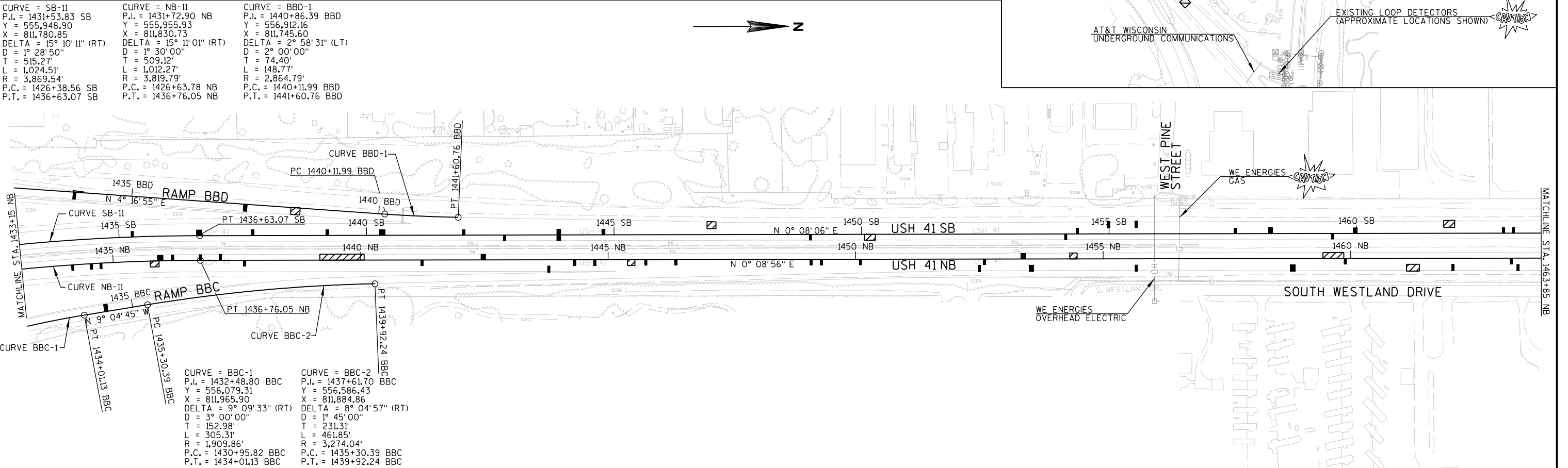
CURVE = BBA-2
P.I. = 1427+38.22 BBA
Y = 555,503.35
X = 811,688.48
DELTA = 17° 12' 20" (RT)
D = 11° 00' 00"
T = 78.80'
L = 156.41'
R = 520.87'
P.C. = 1426+59.42 BBA
P.T. = 1428+15.83 BBA



CURVE = SB-11
P.I. = 1431+53.83 SB
Y = 555,948.90
X = 811,780.85
DELTA = 15° 10' 11" (RT)
D = 1° 28' 50"
T = 515.27'
L = 1,024.51'
R = 3,869.54'
P.C. = 1426+38.56 SB
P.T. = 1436+63.07 SB

CURVE = NB-11
P.I. = 1431+72.90 NB
Y = 555,955.93
X = 811,830.73
DELTA = 15° 11' 01" (RT)
D = 1° 30' 00"
T = 509.12'
L = 1,012.27'
R = 3,819.79'
P.C. = 1426+63.78 NB
P.T. = 1436+76.05 NB

CURVE = BBD-1
P.I. = 1440+86.39 BBD
Y = 556,912.16
X = 811,745.60
DELTA = 2° 58' 31" (LT)
D = 2° 00' 00"
T = 74.40'
L = 148.77'
R = 2,864.79'
P.C. = 1440+11.99 BBD
P.T. = 1441+60.76 BBD



CURVE = BBC-1
P.I. = 1432+48.80 BBC
Y = 556,079.31
X = 811,965.90
DELTA = 9° 09' 33" (RT)
D = 3° 00' 00"
T = 152.98'
L = 305.31'
R = 1,909.86'
P.C. = 1430+95.82 BBC
P.T. = 1434+01.13 BBC

CURVE = BBC-2
P.I. = 1437+61.70 BBC
Y = 556,586.43
X = 811,884.86
DELTA = 8° 04' 57" (RT)
D = 1° 45' 00"
T = 231.31'
L = 461.85'
R = 3,274.04'
P.C. = 1435+30.39 BBC
P.T. = 1439+92.24 BBC

PROJECT NO: 1120-54-60

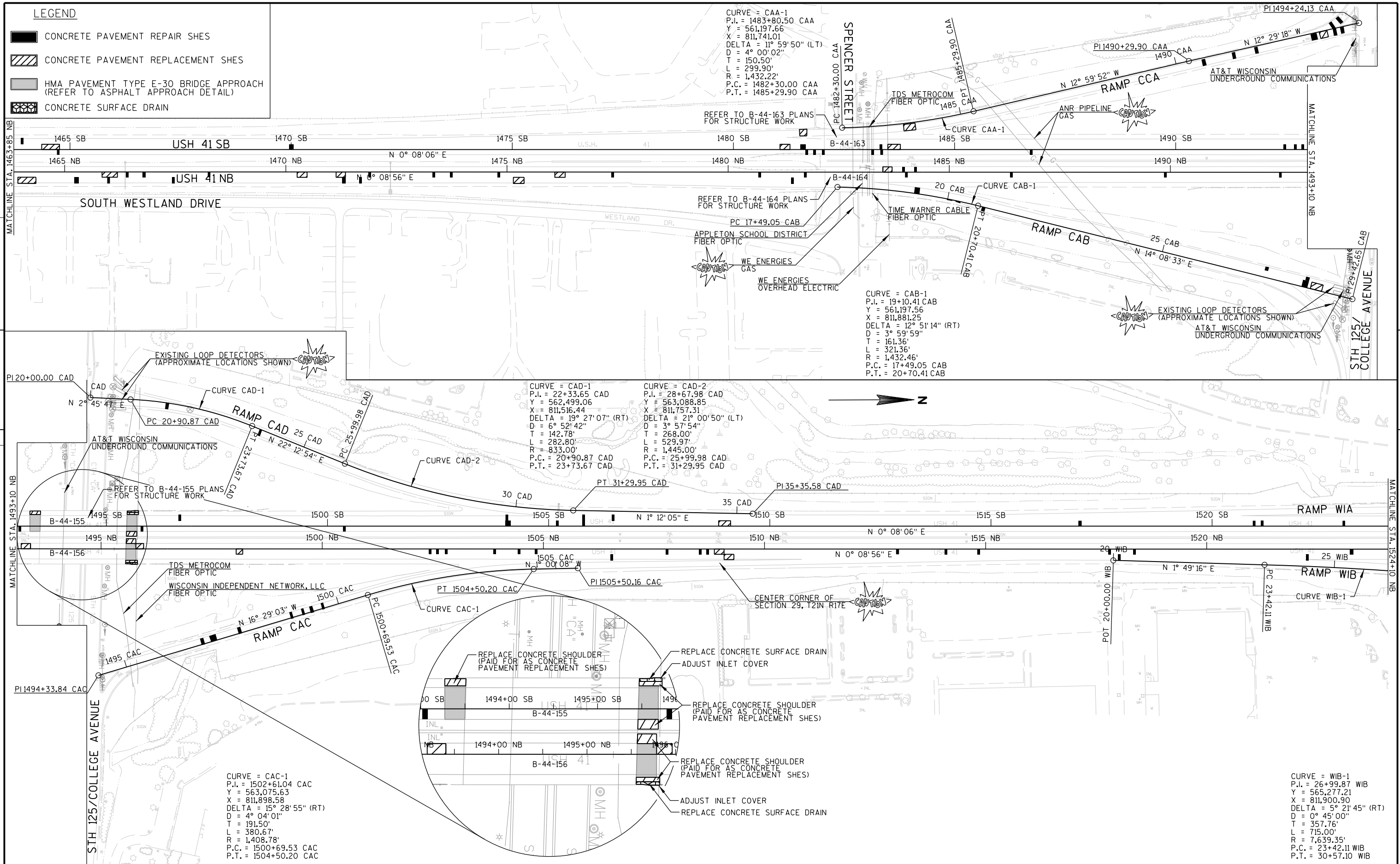
HWY: USH 41

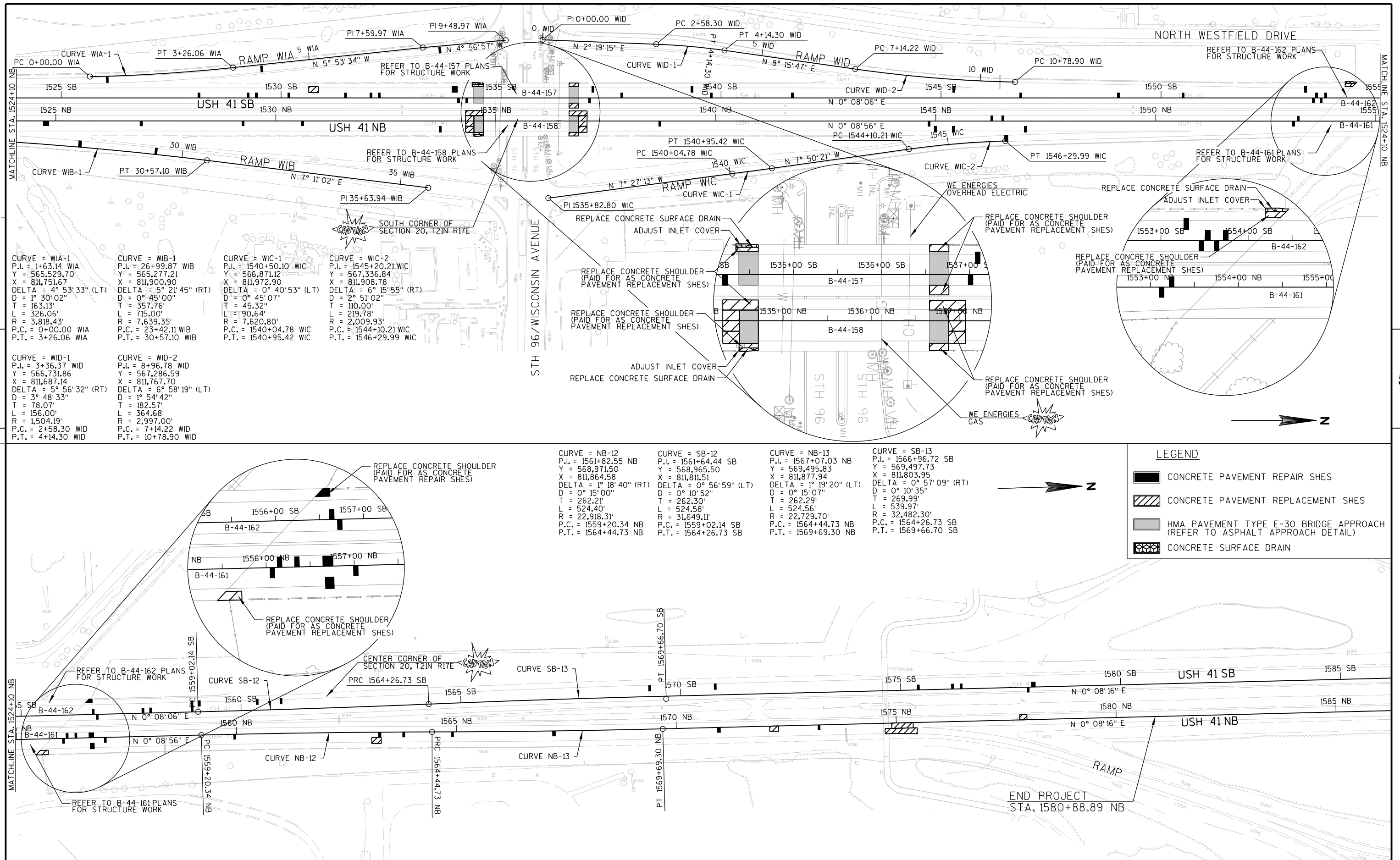
COUNTY: WINNEBAGO/OUTAGAMIE

PLAN

SHEET

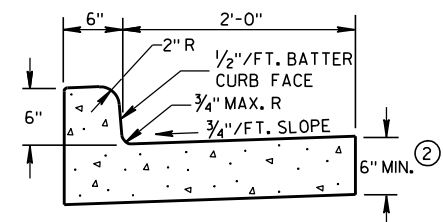
E



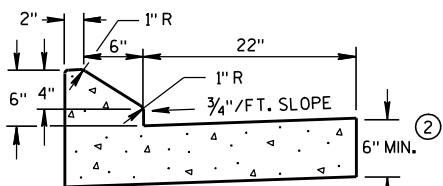


Standard Detail Drawing List

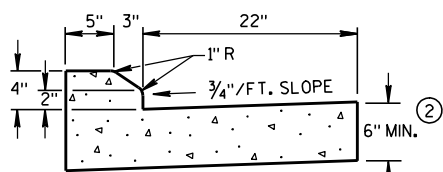
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D03-06	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13A03-05	CONCRETE PAVEMENT SHOULDERS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C09-11A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B22-05A	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
14B22-05B	CONCRETE BARRIER, SINGLE-FACED (WITH ANCHORAGE)
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C14-01	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C20-01	YIELD MARKING
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D03-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D14-02	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



TYPES A & D ①



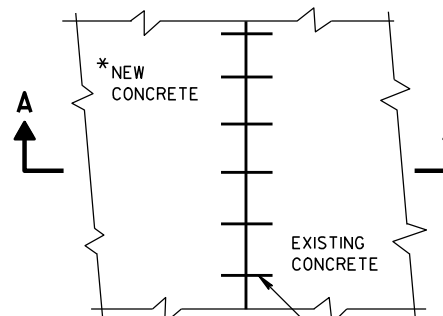
6" SLOPED CURB TYPES G & J ①



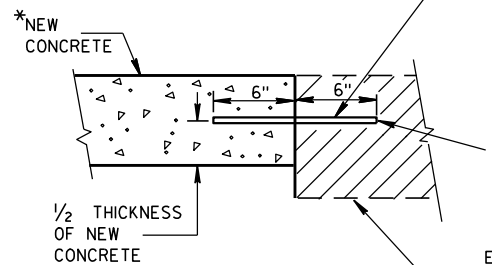
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

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



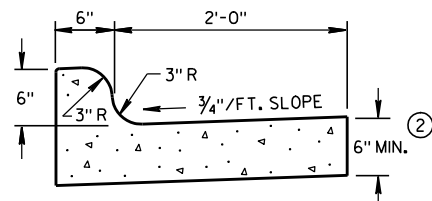
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

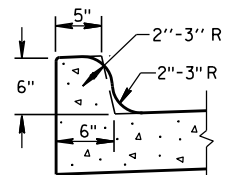
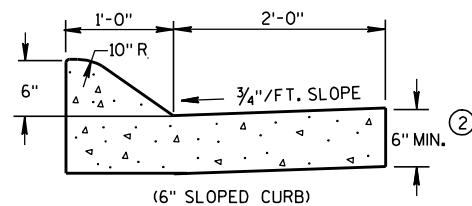
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

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

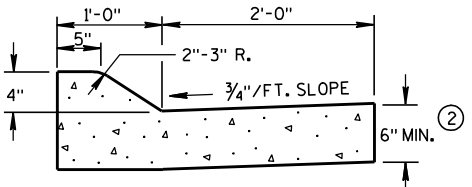
EXISTING
CONCRETE



TYPES K & L ①

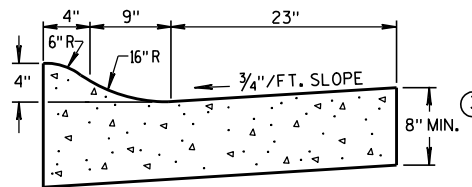
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

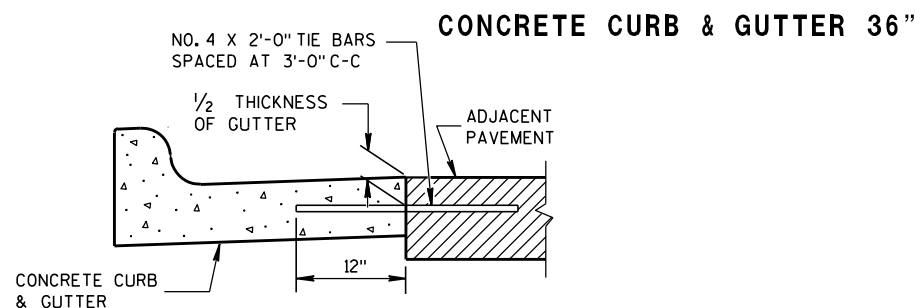


(4" SLOPED CURB)

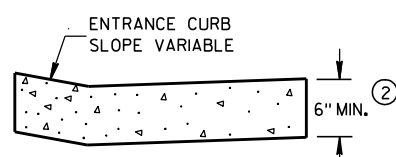
TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

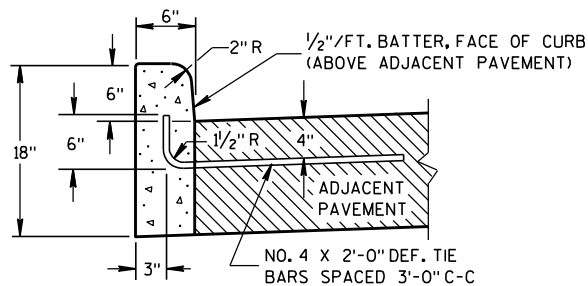


TYPICAL TIE BAR LOCATION ①



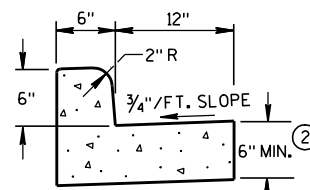
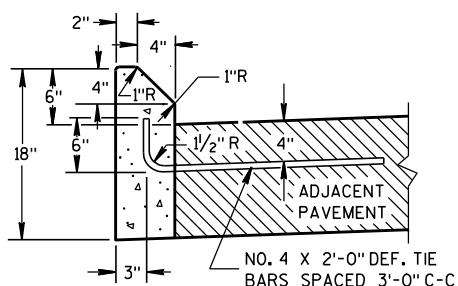
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

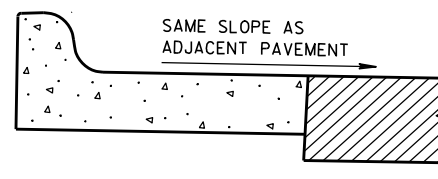
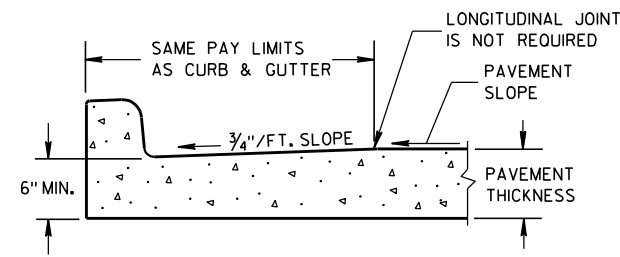
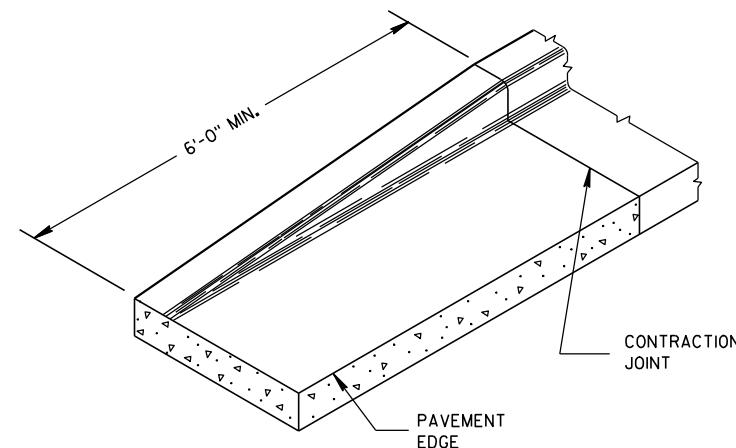
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

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

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

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

REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

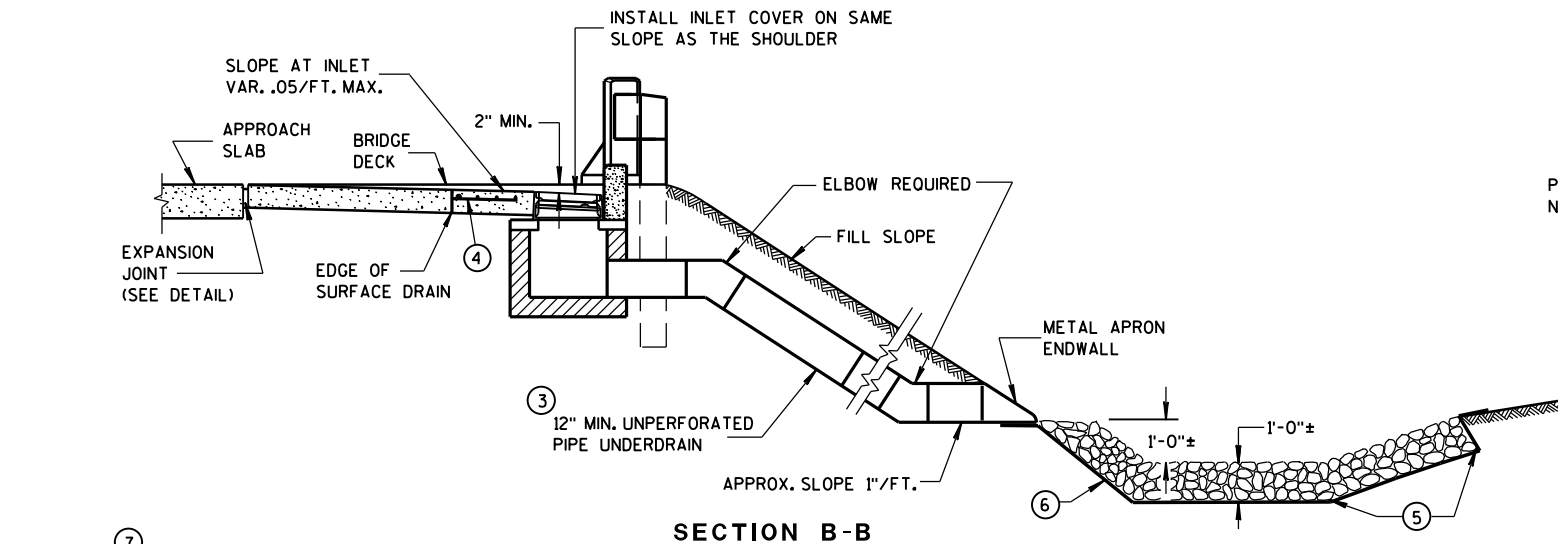
APPROVED

9/4/08

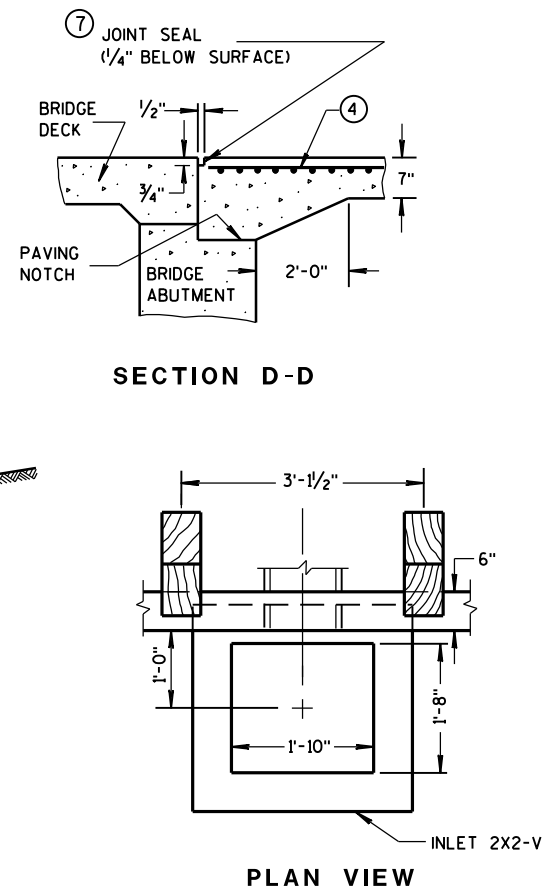
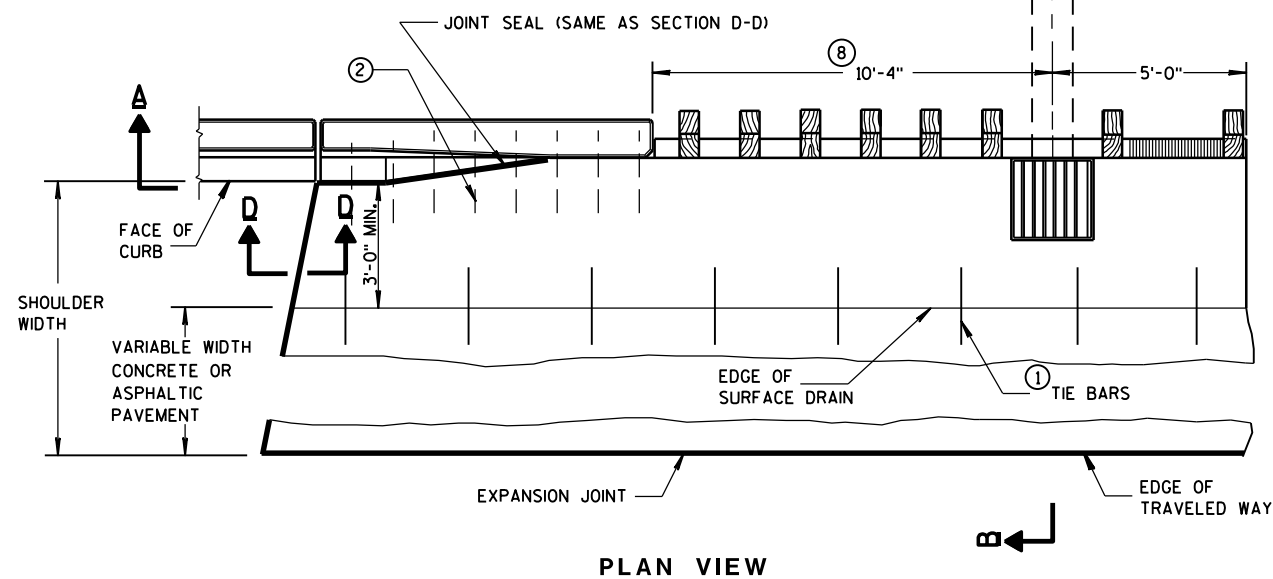
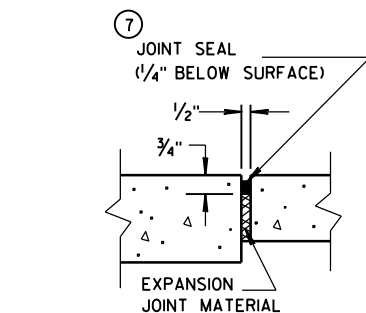
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



EXPANSION JOINT DETAIL

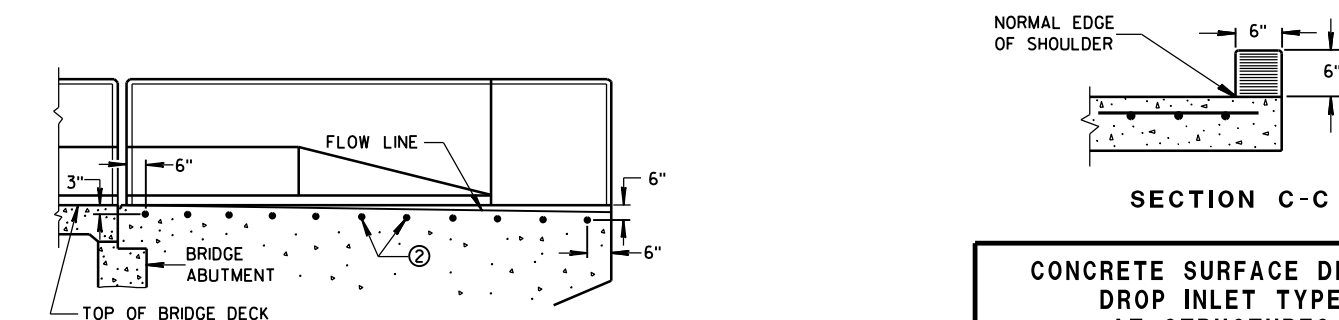
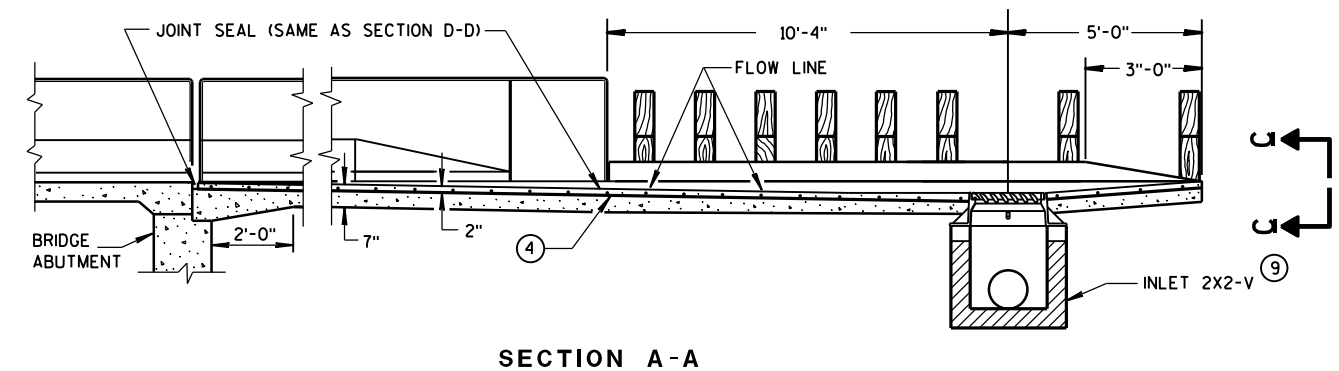


GENERAL NOTES

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.

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

- ① NO. 4 X 2'-0" TIE BARS SPACED AT 3'-0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.
- ② NO. 4 X 2'-0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.
- ④ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑤ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑥ GEOTEXTILE FABRIC, TYPE 'R'
- ⑦ HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.
- ⑧ THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING WIDENS TO 3'-1 1/2".
- ⑨ SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.



LOCATION OF TIE BARS IN WINGWALL

CONCRETE SURFACE DRAINS
DROP INLET TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

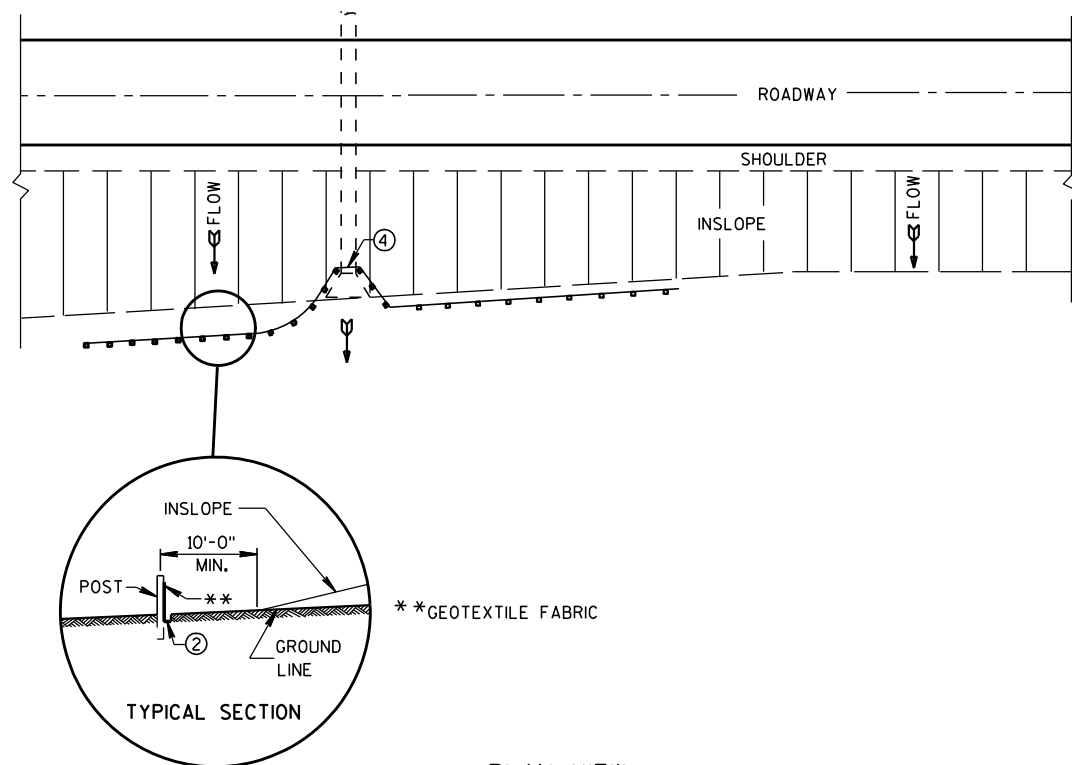
APPROVED

9/4/08

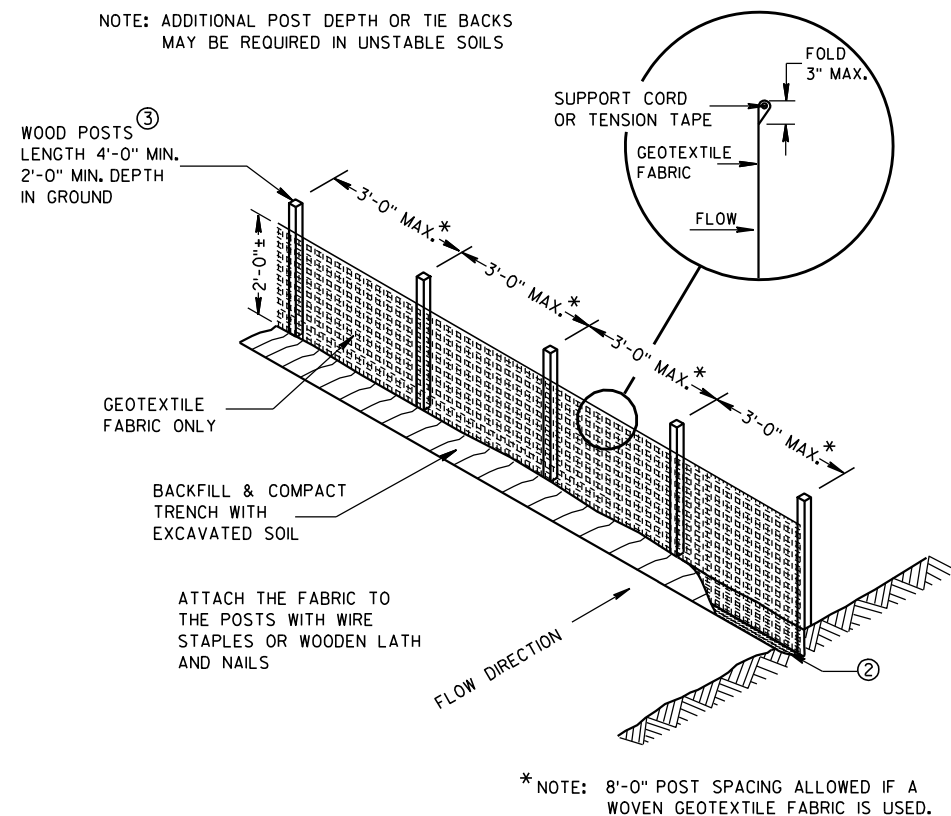
DATE

FHWA

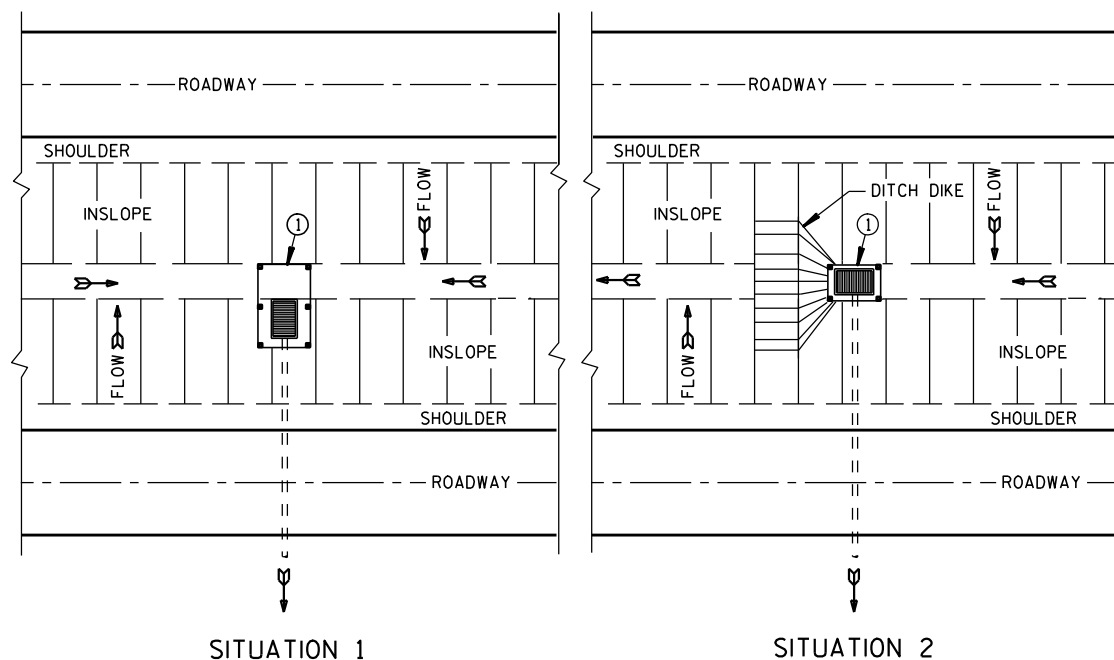
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TYPICAL APPLICATION OF SILT FENCE

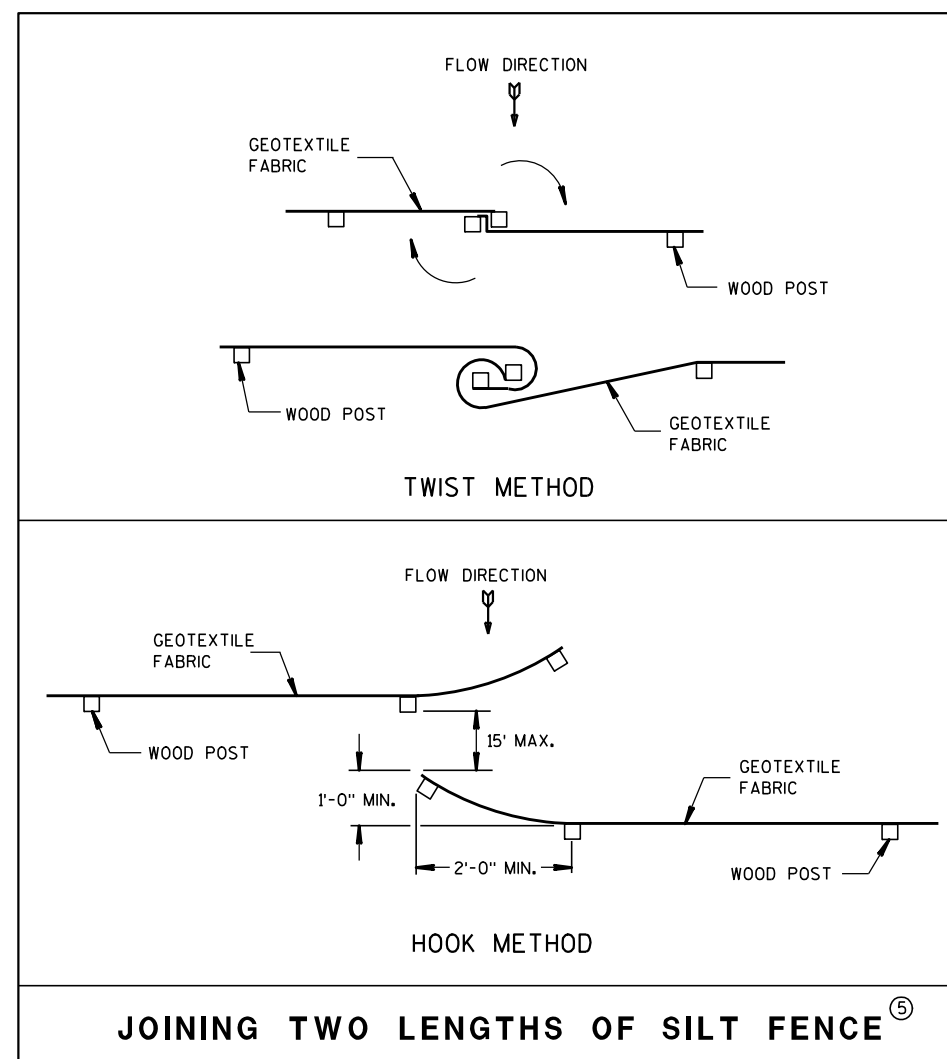


SILT FENCE



PLAN VIEW

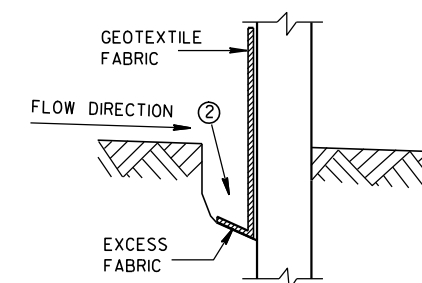
SILT FENCE AT MEDIAN SURFACE DRAINS



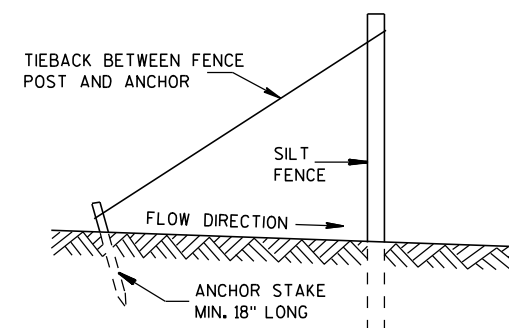
GENERAL NOTES

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 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

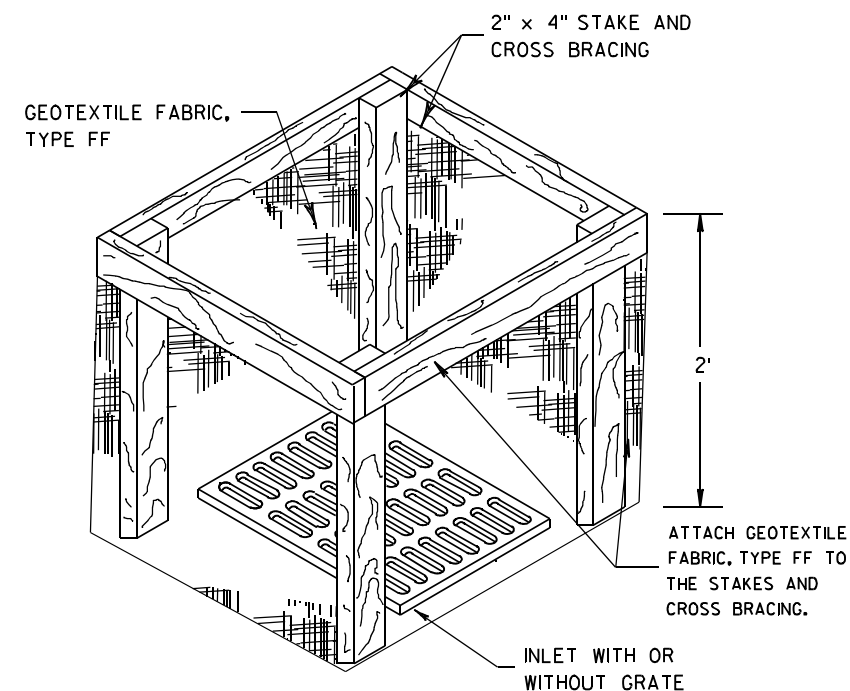
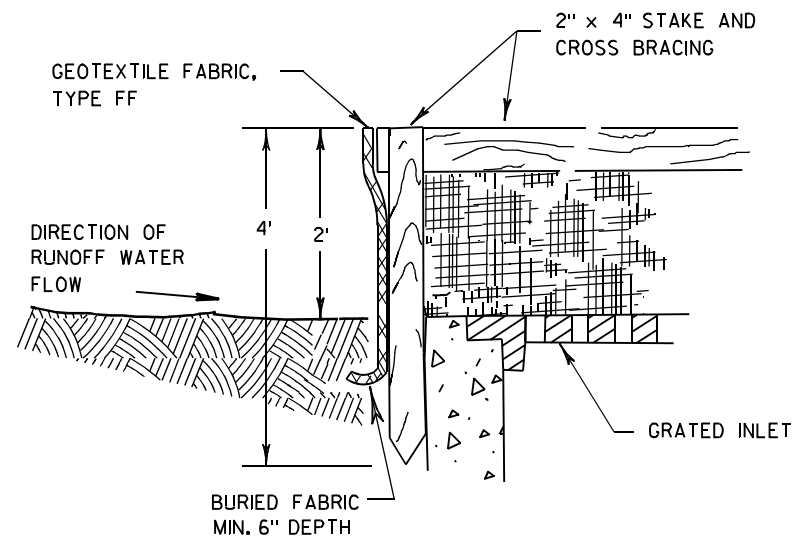
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-29-05
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

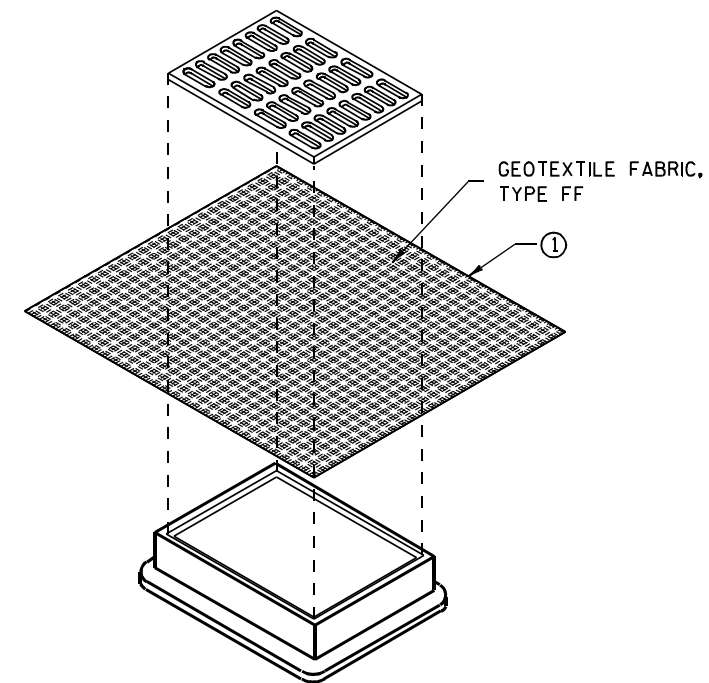
GENERAL NOTES

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

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

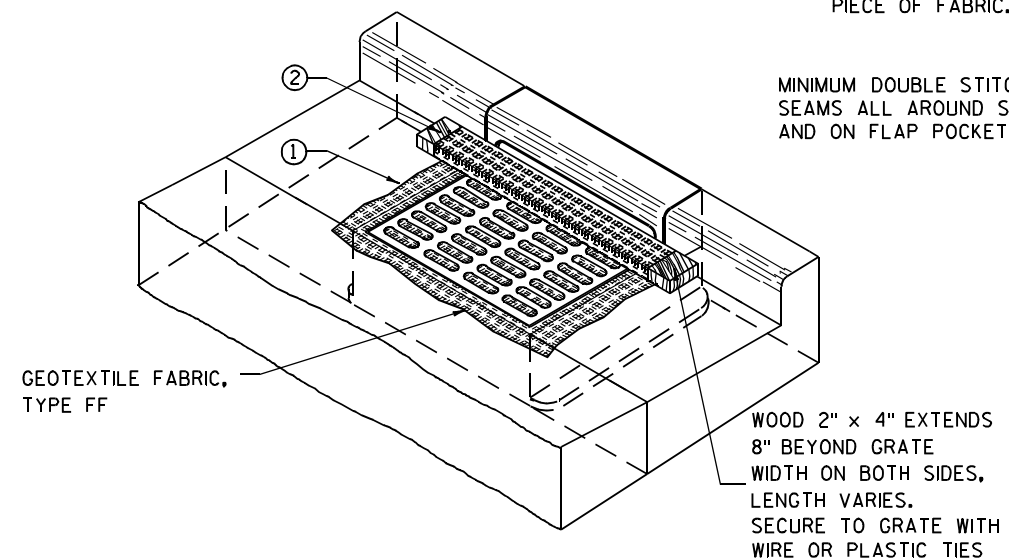
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

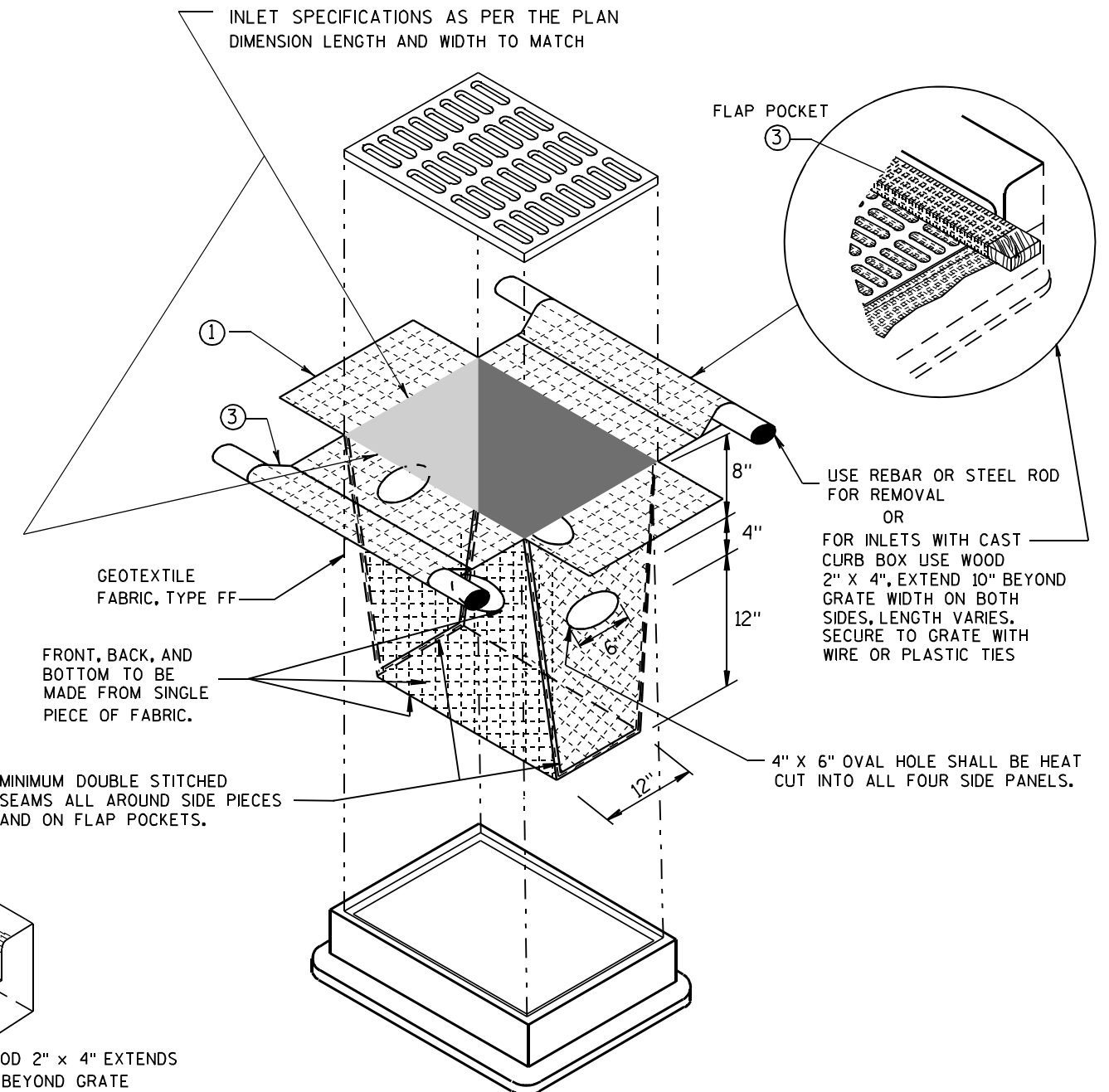
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



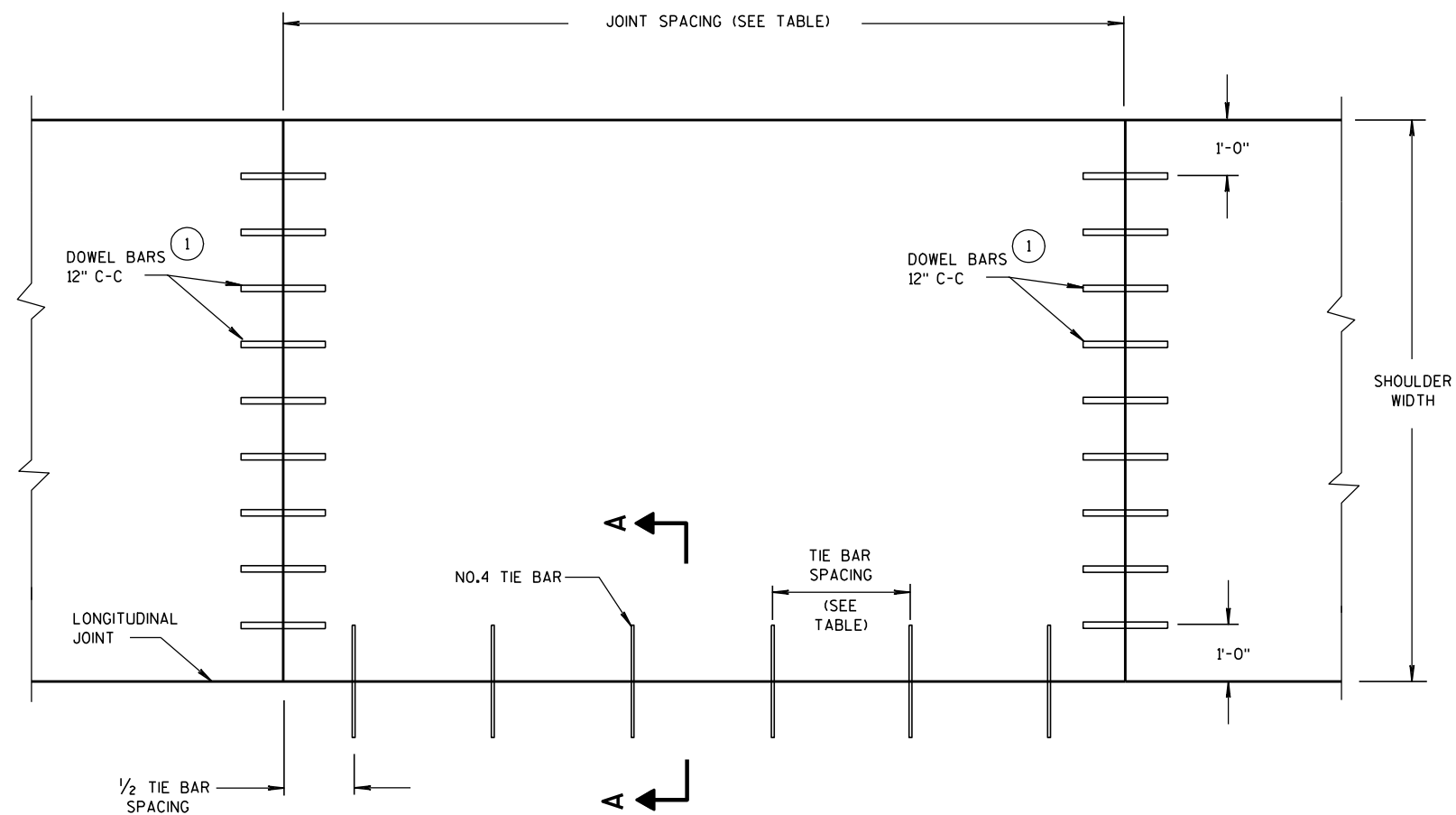
INLET PROTECTION, TYPE D

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

INLET PROTECTION TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
CONCRETE PAVEMENT SHOULDER

PAVEMENT TYPE OF TRAFFIC LANES	TIE BAR SPACING	SHOULDER JOINT SPACING
NON-REINFORCED	30"	MATCH JOINT SPACING OF ADJACENT TRAFFIC LANE
CONTINUOUSLY REINFORCED	30"	15' FOR 6' TO 10' WIDE SHOULDER
CONTINUOUSLY REINFORCED	36"	12' FOR 3' WIDE SHOULDER

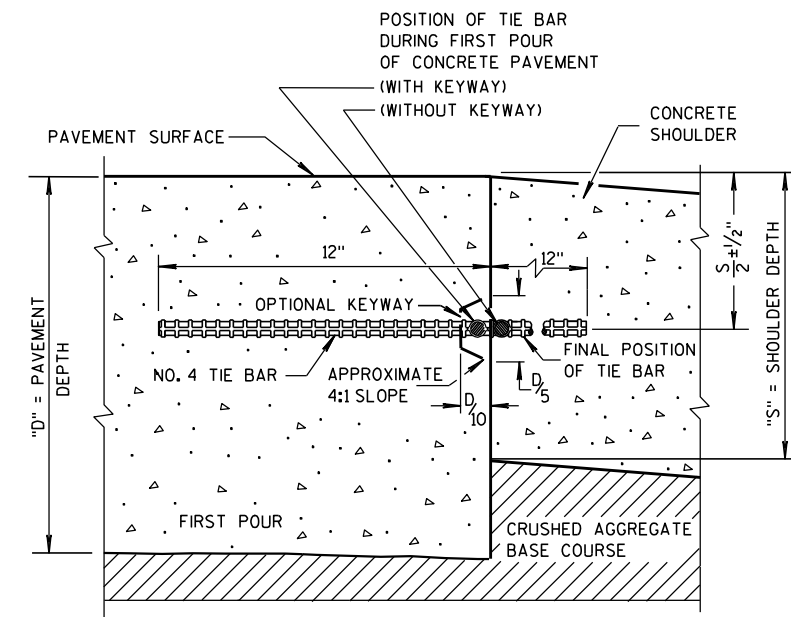
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT

1
PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

FOR DOWELED CONCRETE SHOULDER WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

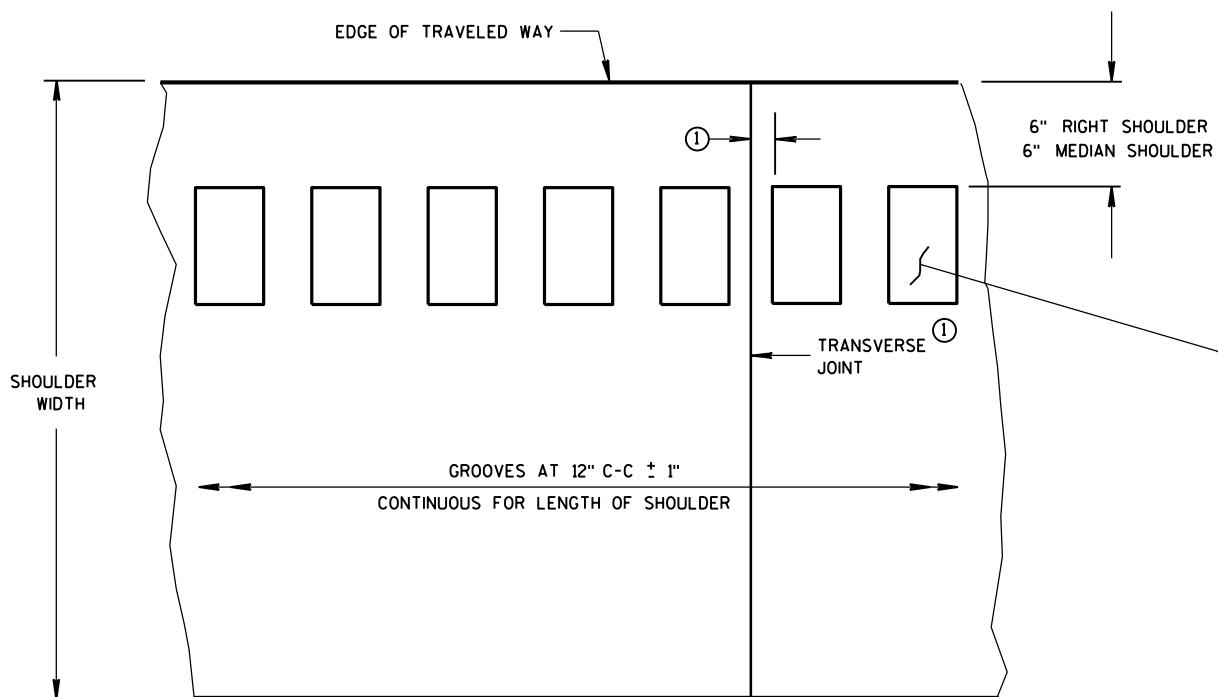
CONCRETE PAVEMENT SHOULDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

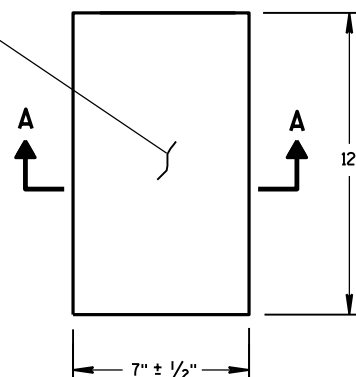
APPROVED
8/15/2011
DATE

FWHA

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

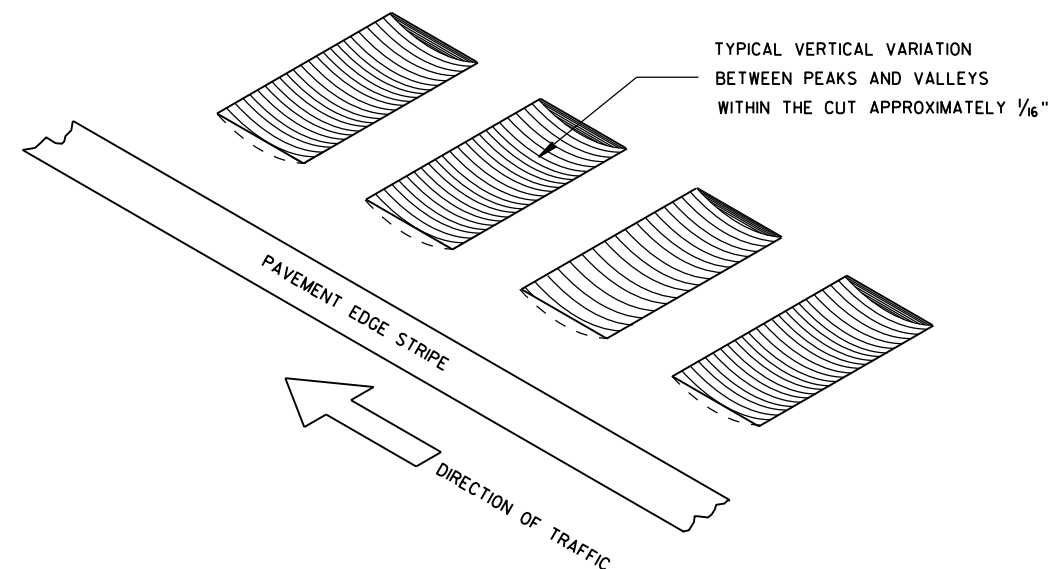
GENERAL NOTES

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

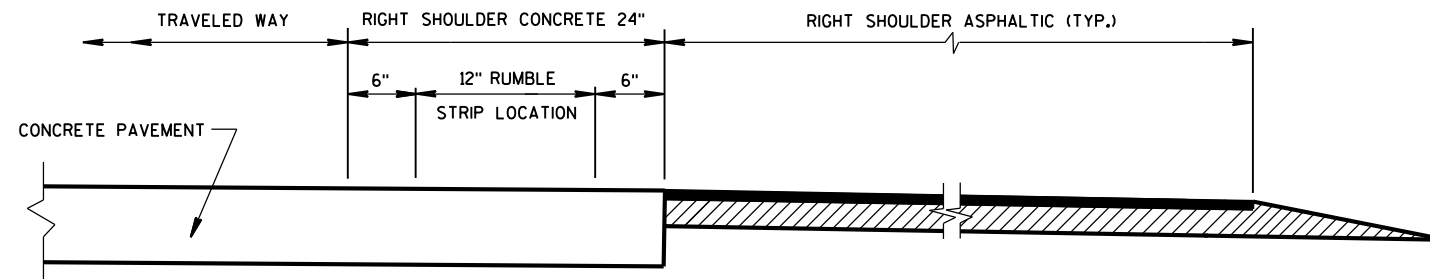
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

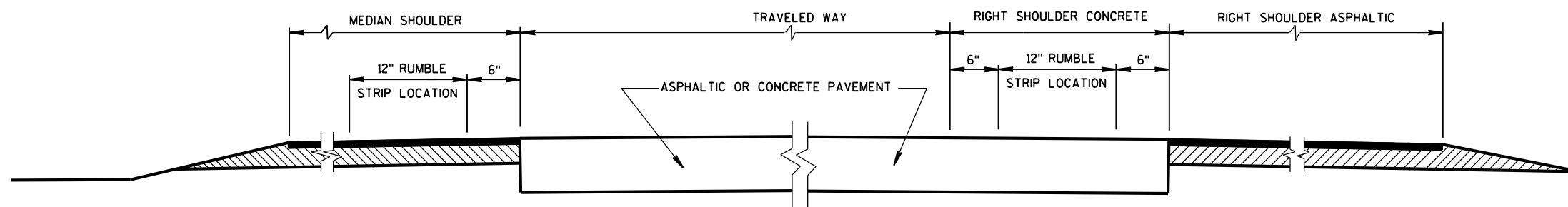
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



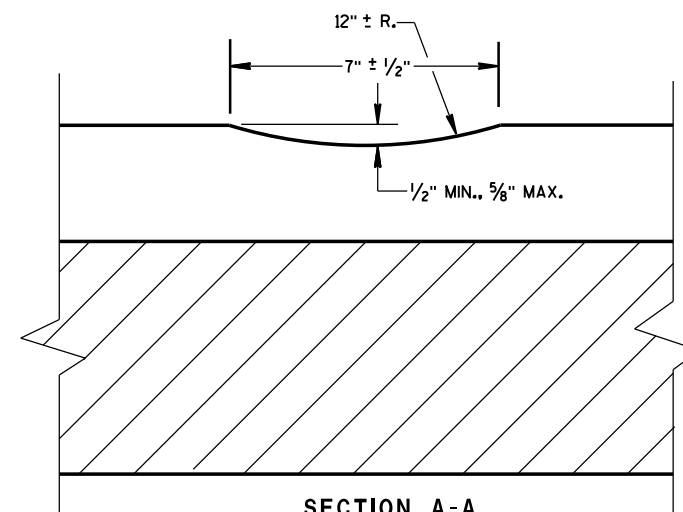
ISOMETRIC



SECTION VIEW
(CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



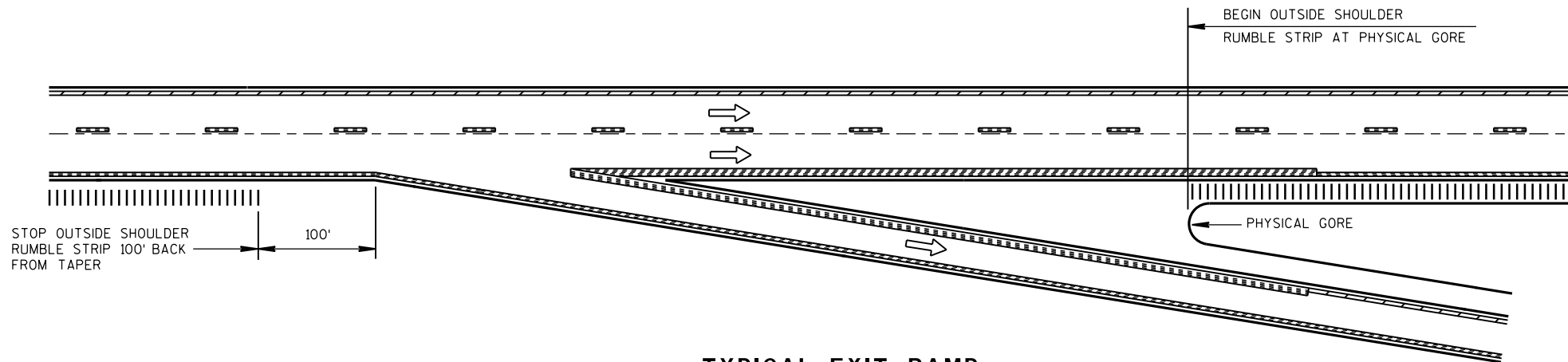
SECTION VIEW
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS
(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



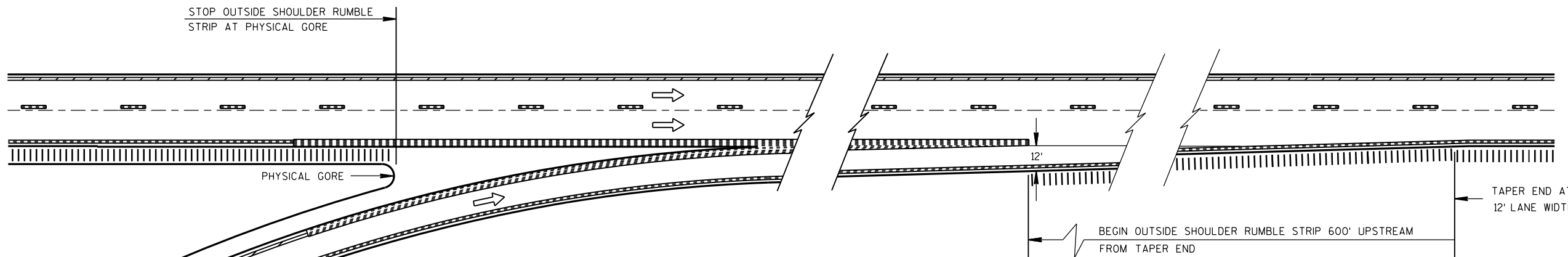
TYPICAL EXIT RAMP

NOTES:

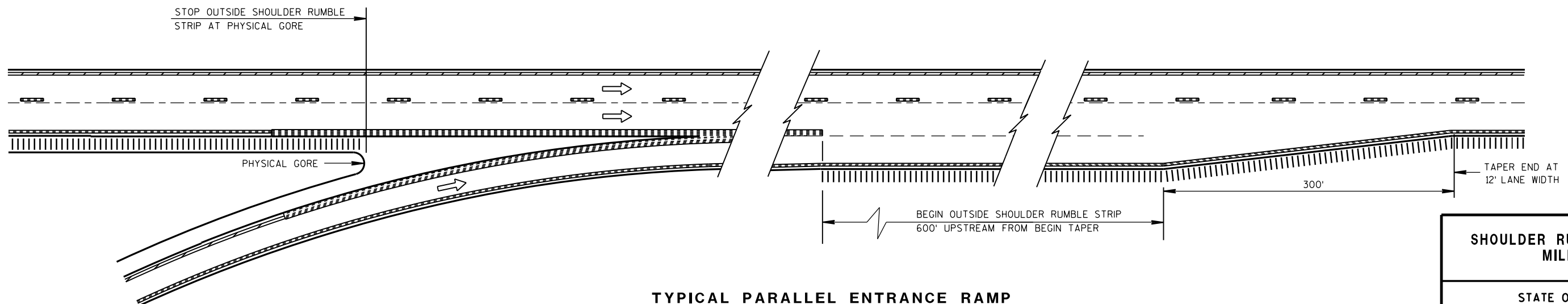
NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (→)
SHOWS DIRECTION OF TRAVEL



**TYPICAL TAPERED ENTRANCE RAMP
RAMP AND GORE RUMBLE STRIP LOCATIONS**



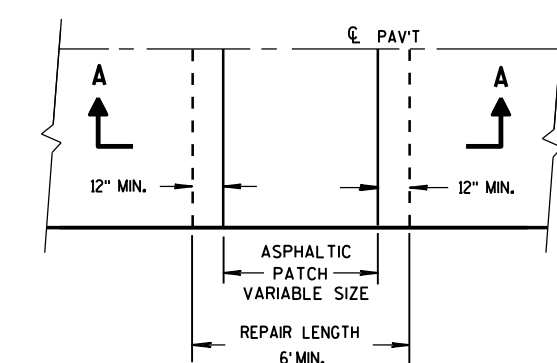
**TYPICAL PARALLEL ENTRANCE RAMP
RAMP AND GORE RUMBLE STRIP LOCATIONS**

**SHOULDER RUMBLE STRIP,
MILLING**

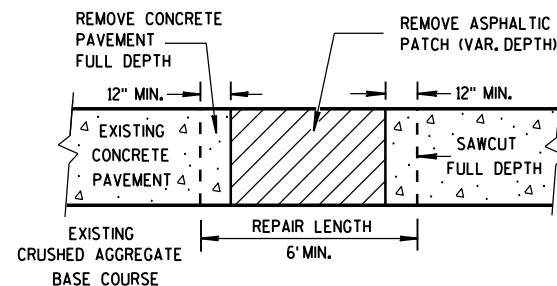
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/2012
DATE
FHWA

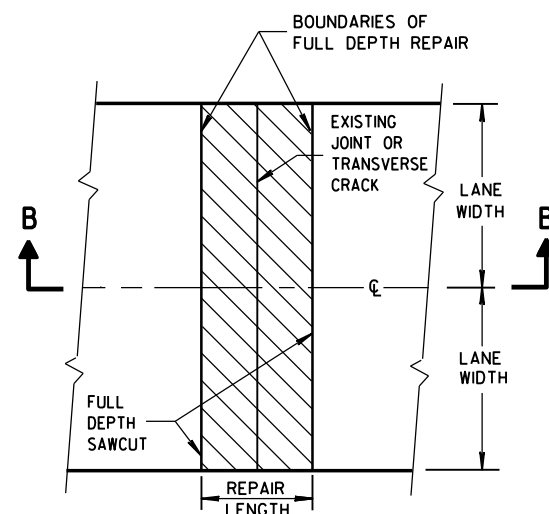
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



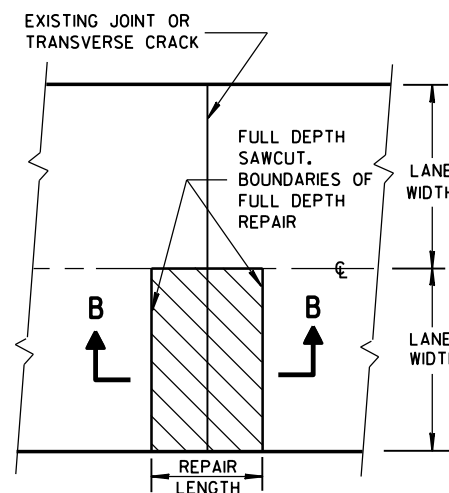
PLAN VIEW



SECTION A-A
HMA PATCH REMOVAL



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)

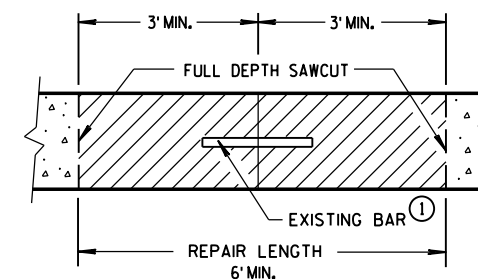
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

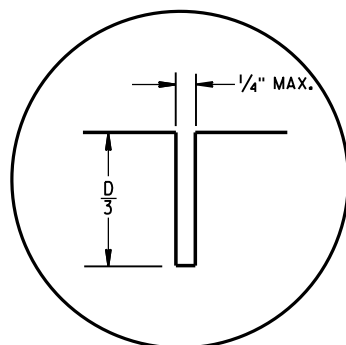
① DOWEL BARS MIGHT NOT EXIST.



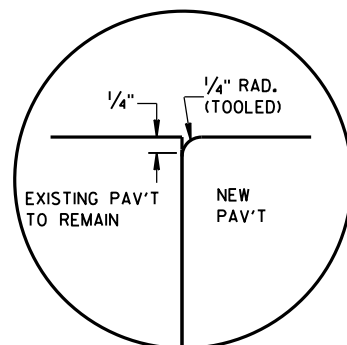
SECTION B-B
CONCRETE REMOVAL

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3" ± 1/2"	48"	42"
7, 7 1/2"	3 1/4" ± 1"	45"	36"
8, 8 1/2"	3 3/4" ± 1"	39"	30"
9, 9 1/2"	4 1/4" ± 1"	33"	27"
10, 10 1/2"	4 3/4" ± 1"	30"	24"
11, 11 1/2"	5 1/4" ± 1"	27"	21"
12"	5 3/4" ± 1"	24"	21"

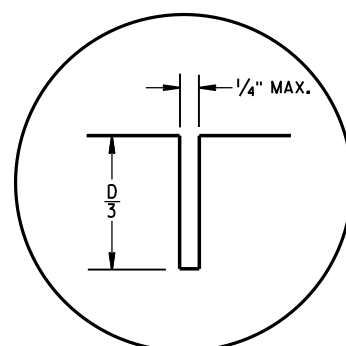


C1

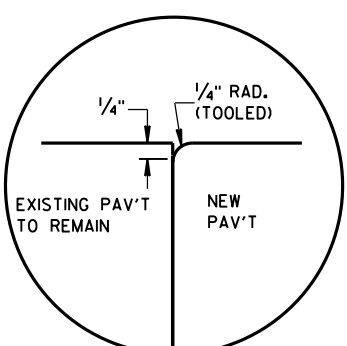


C2

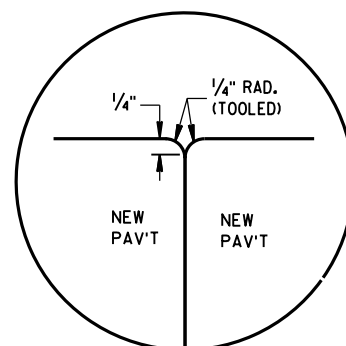
TRANSVERSE JOINTS



L1

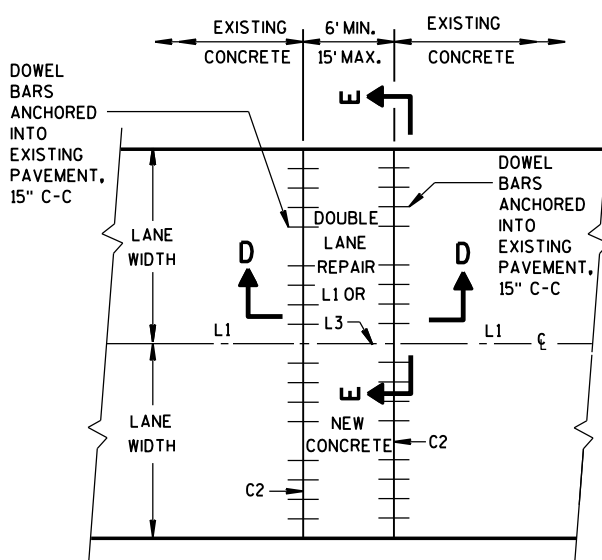


L2



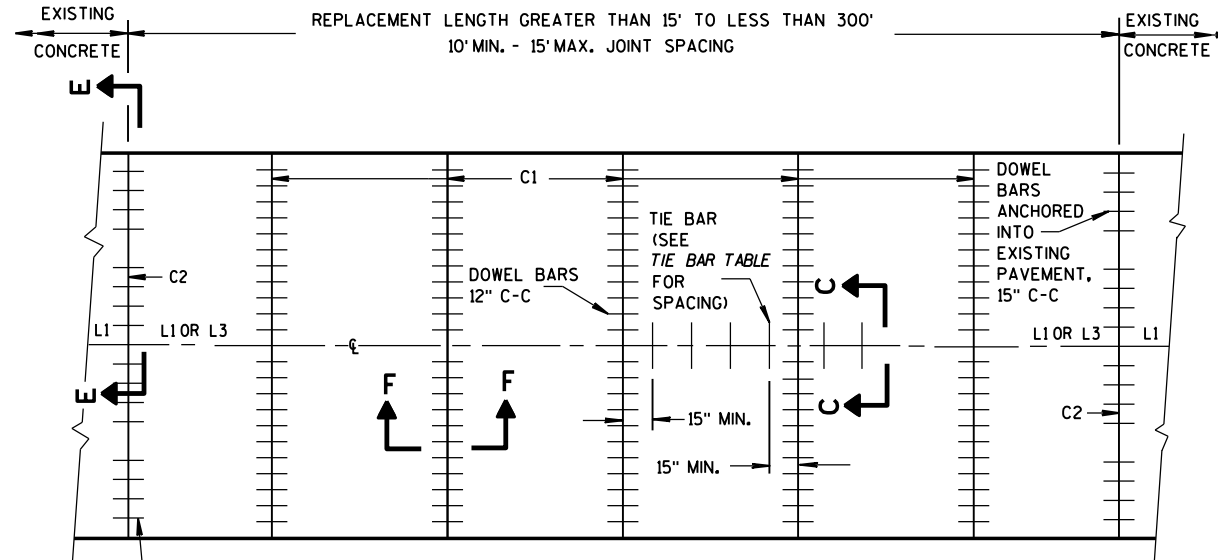
L3

LONGITUDINAL JOINTS



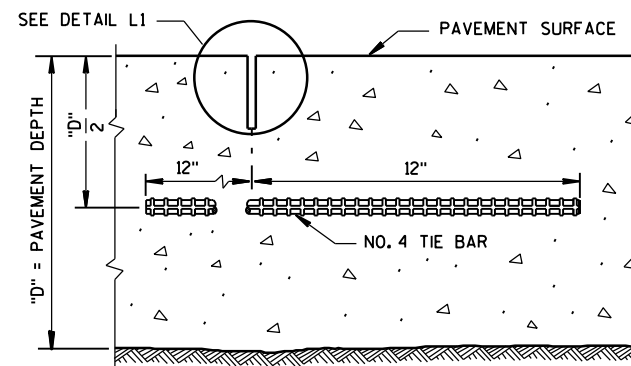
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



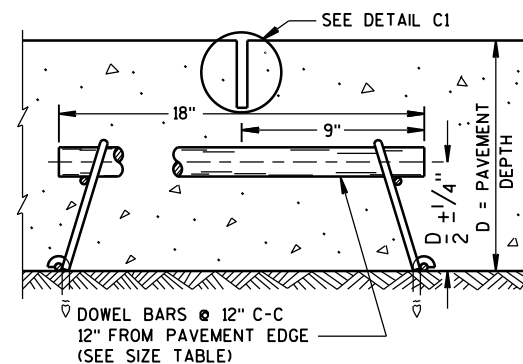
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT



SECTION C-C

SAWED LONGITUDINAL JOINT

SECTION F-F
CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

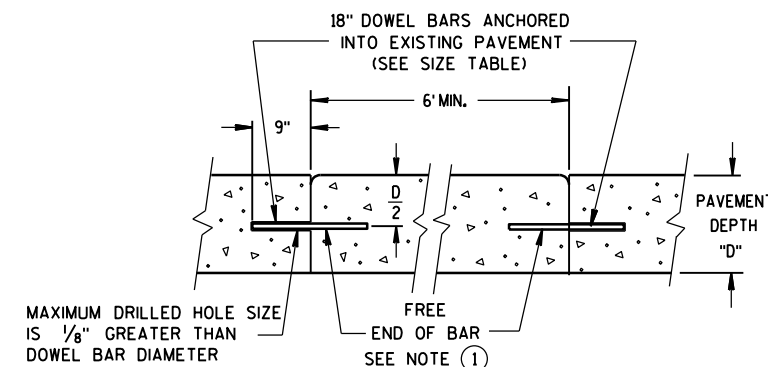
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

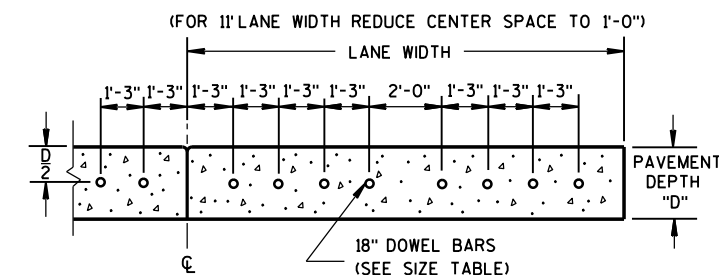
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION D-D



SECTION E-E

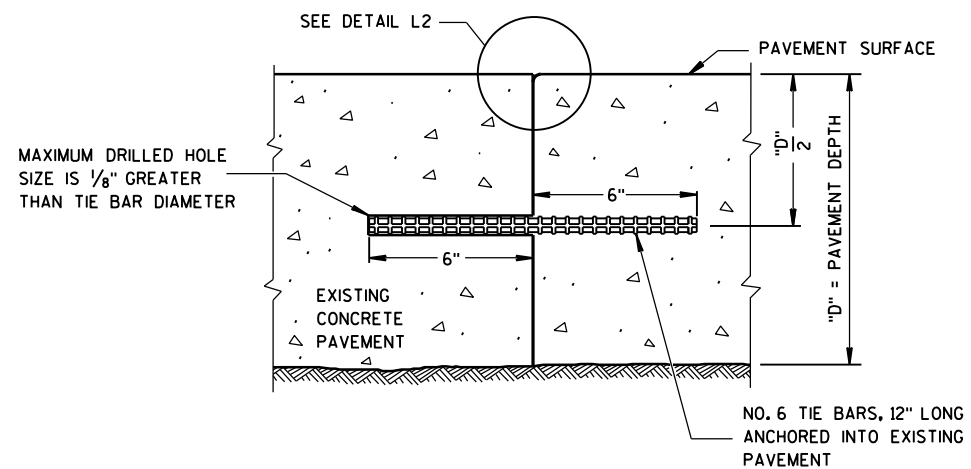
DRILLED DOWEL BAR CONSTRUCTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6, 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

CONCRETE PAVEMENT
REPAIR AND REPLACEMENT

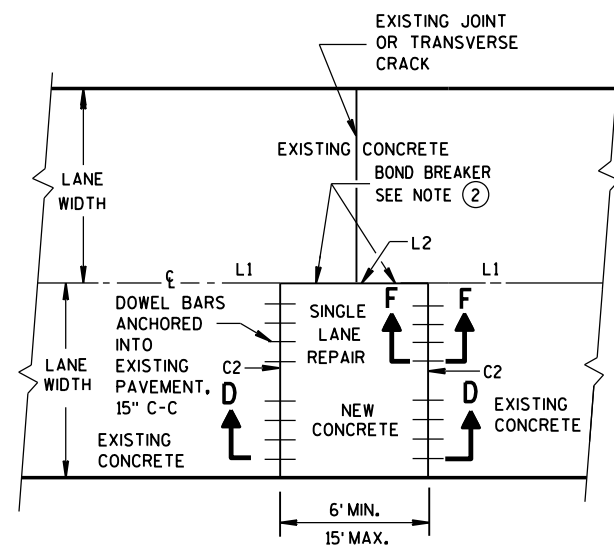
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



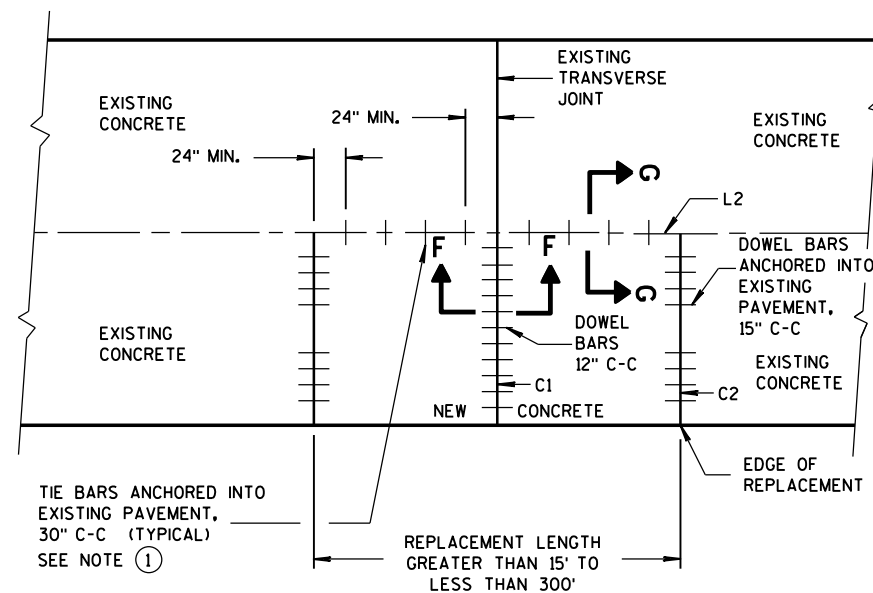
SECTION G-G
TIE BARS ANCHORED
INTO EXISTING PAVEMENT

GENERAL NOTES

- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

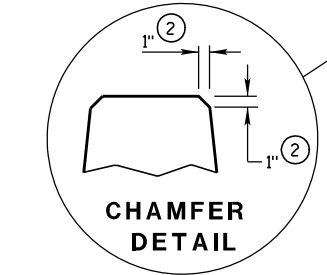
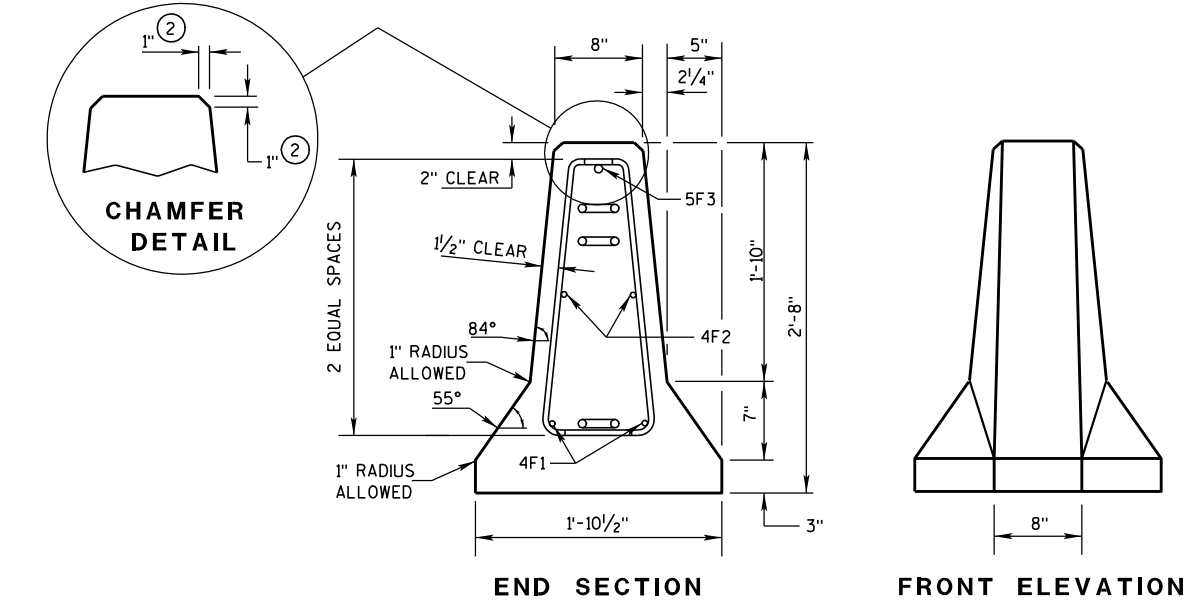
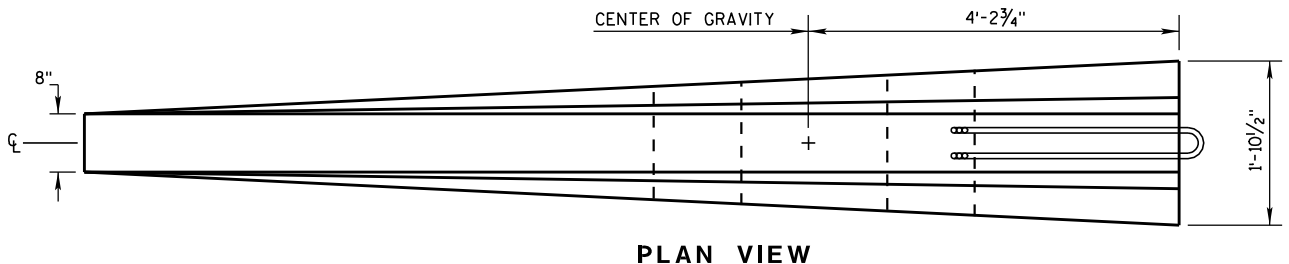
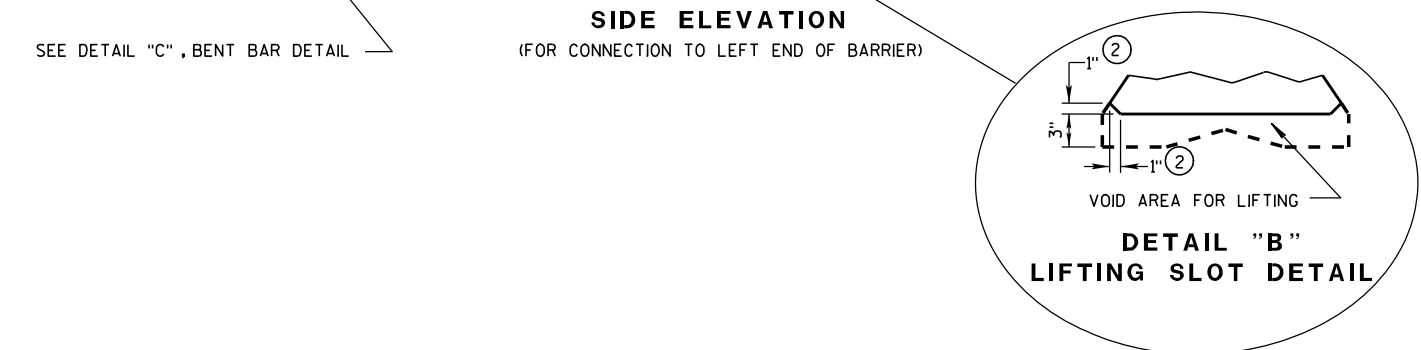
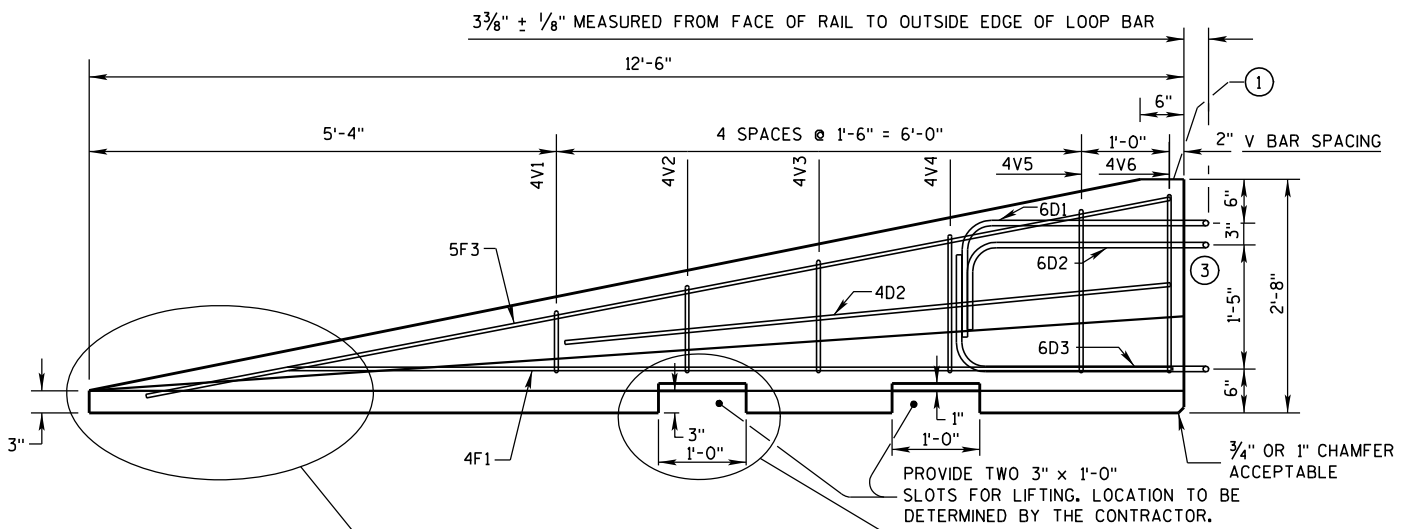
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

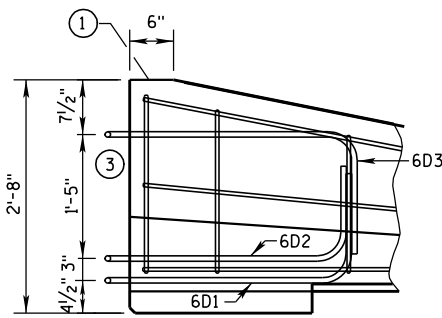
12-2013
DATE

FHWA

/S/ Deb Bischoff
PAVEMENT POLICY & DESIGN ENGINEER



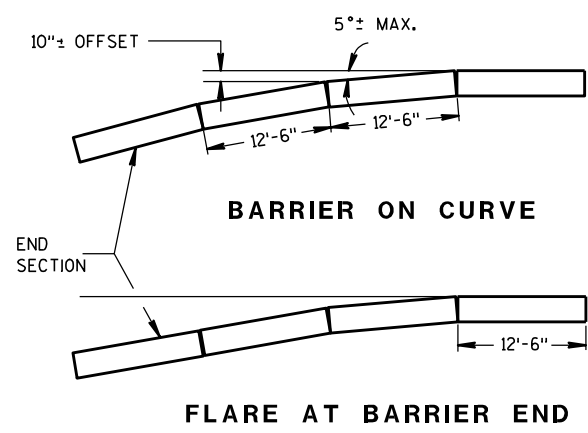
DETAILS OF BARRIER TAPER SECTION



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

GENERAL NOTES

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



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

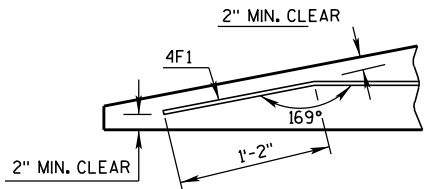
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

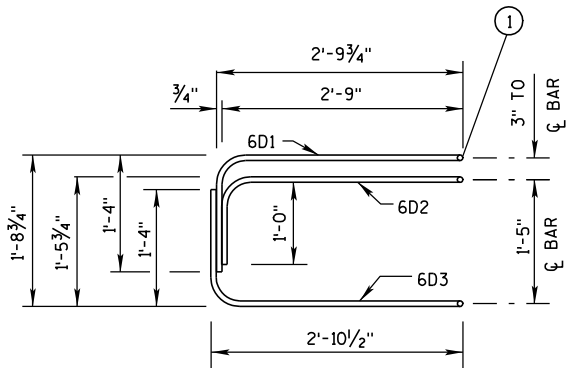
BARRIER TAPER SECTION
BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

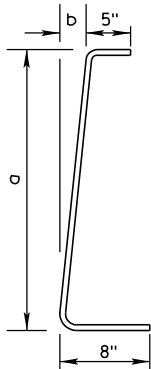
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



DETAIL "C"
BENT BAR DETAIL



ELEVATION
LOOP BAR ASSEMBLY



4V BARS

2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

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

TAPER BARRIER SECTION

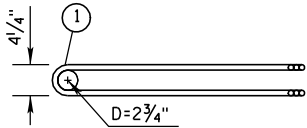
GENERAL NOTES

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

BARRIER SECTION
BILL OF MATERIALS

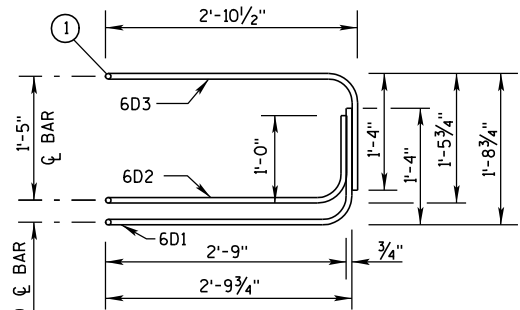
(PER 12'-6" BARRIER SECTION)

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

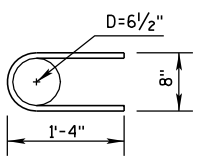


PLAN VIEW
LOOP BAR ASSEMBLY

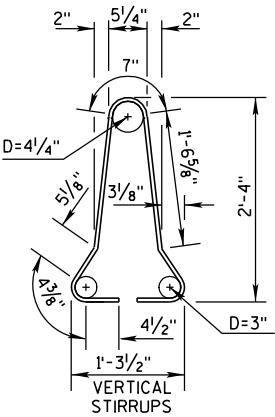
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2

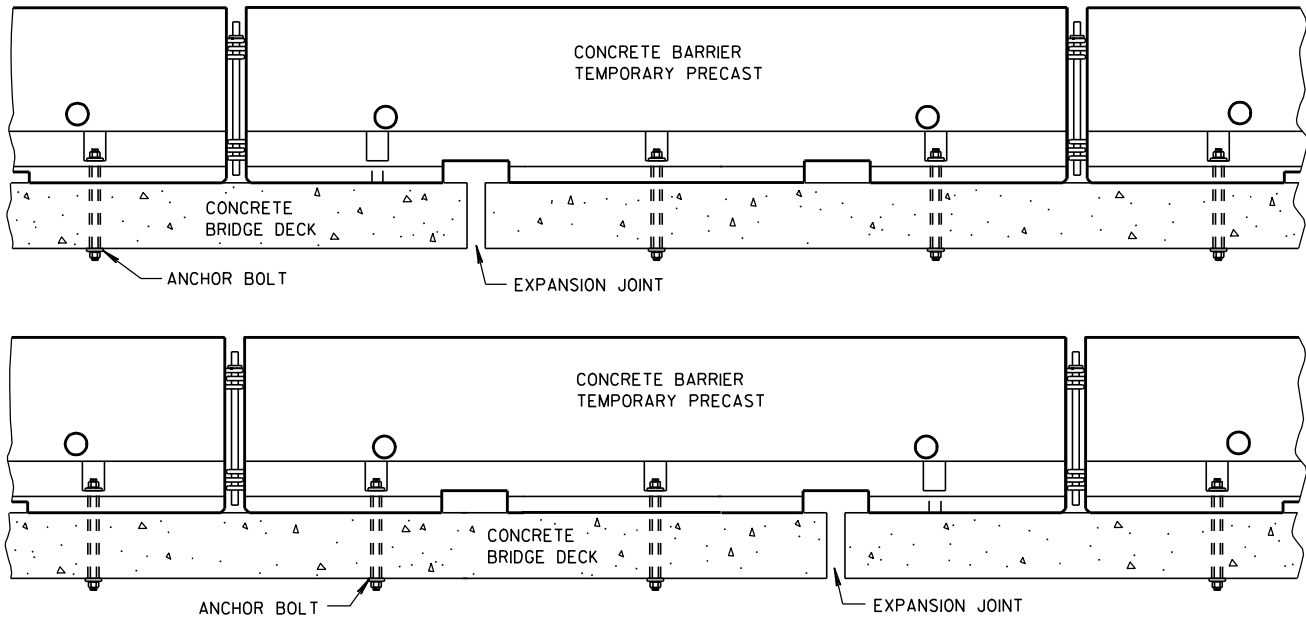


4A1

BARRIER SECTION

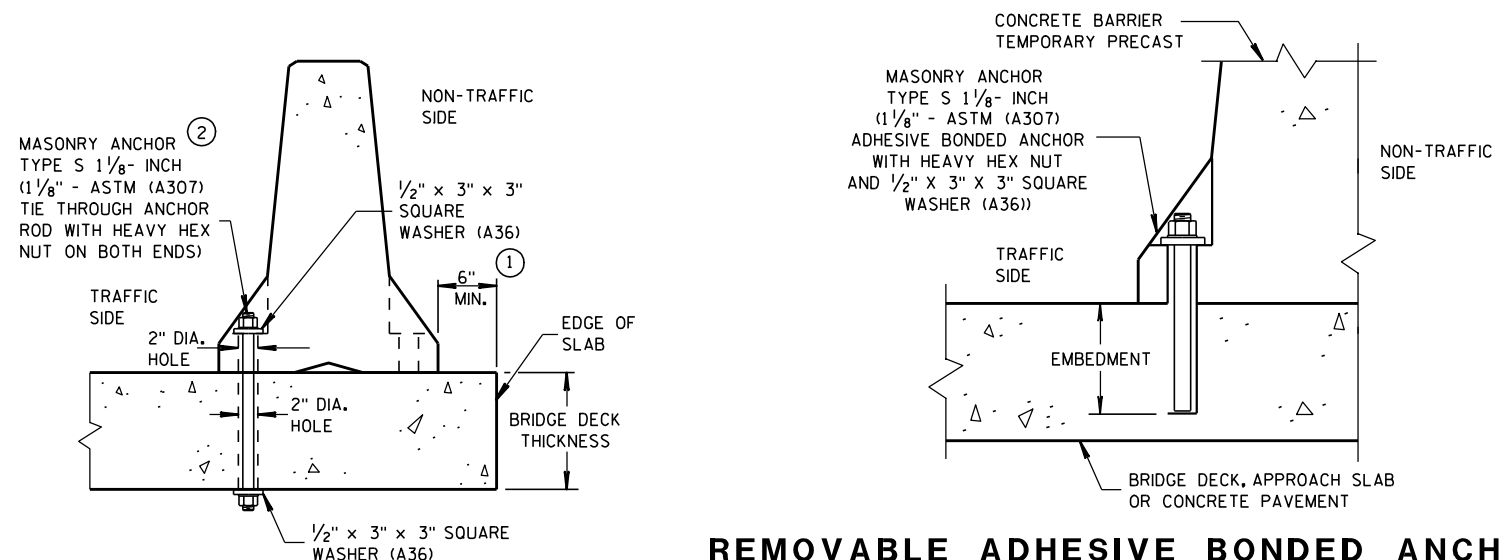
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TREATMENT AT BRIDGE DECK EXPANSION JOINTS

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

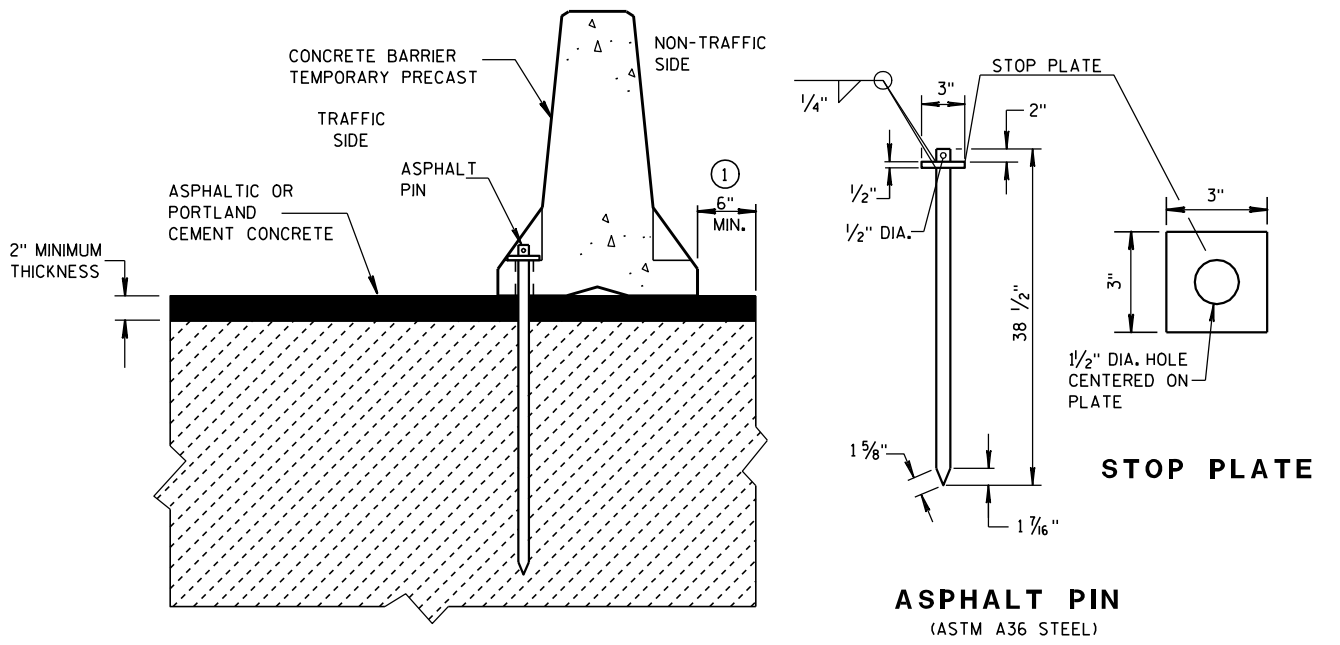


THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

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

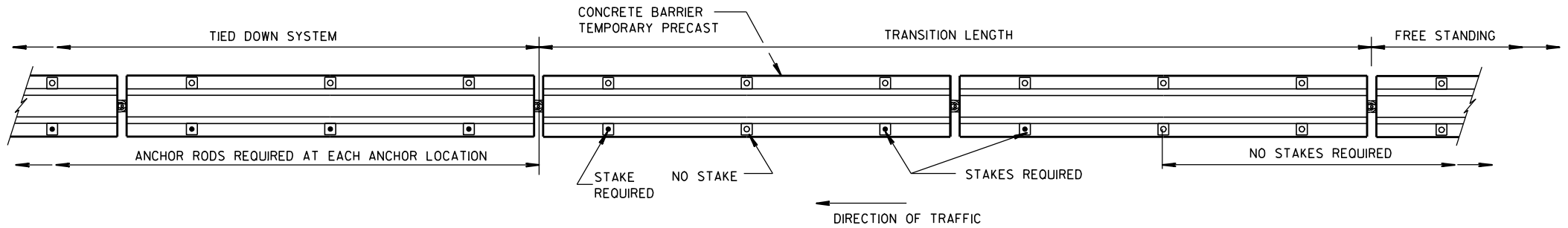
REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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

GENERAL NOTES

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

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

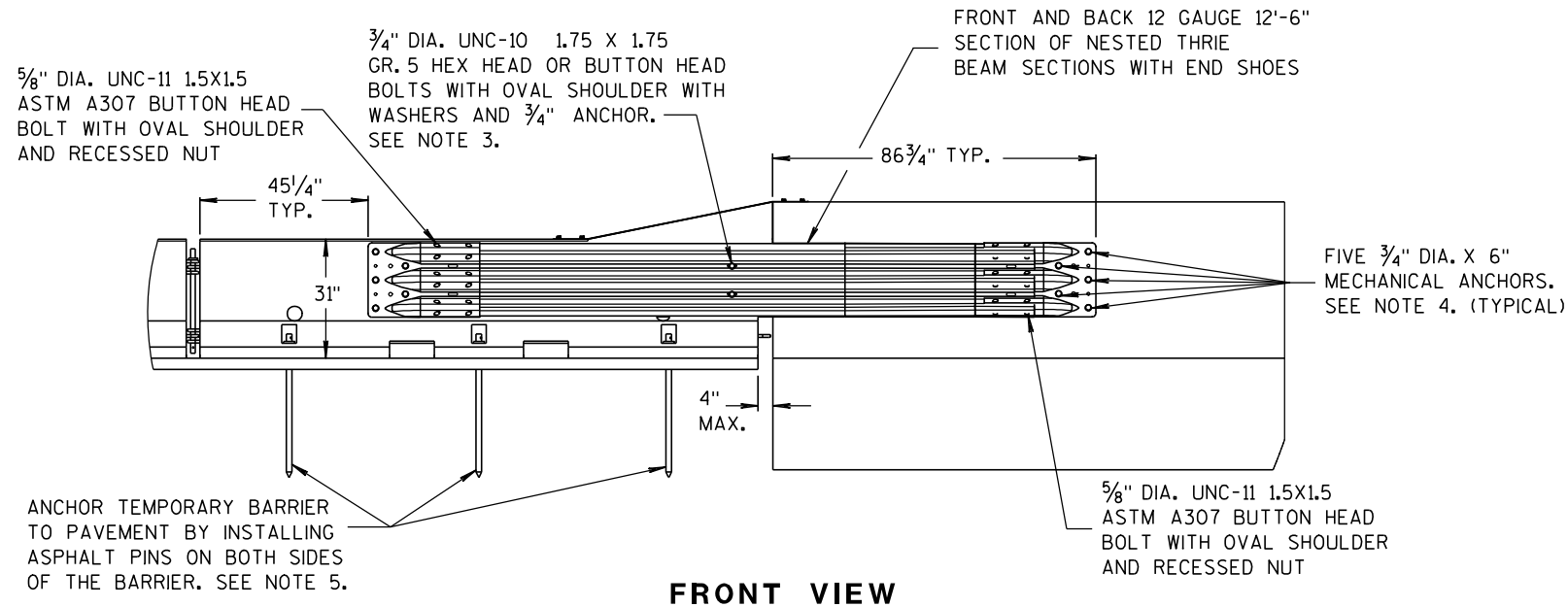
2 ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

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

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY
FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CON-
CRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERCIAL GROUT OR EPOXY MATERIAL
IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

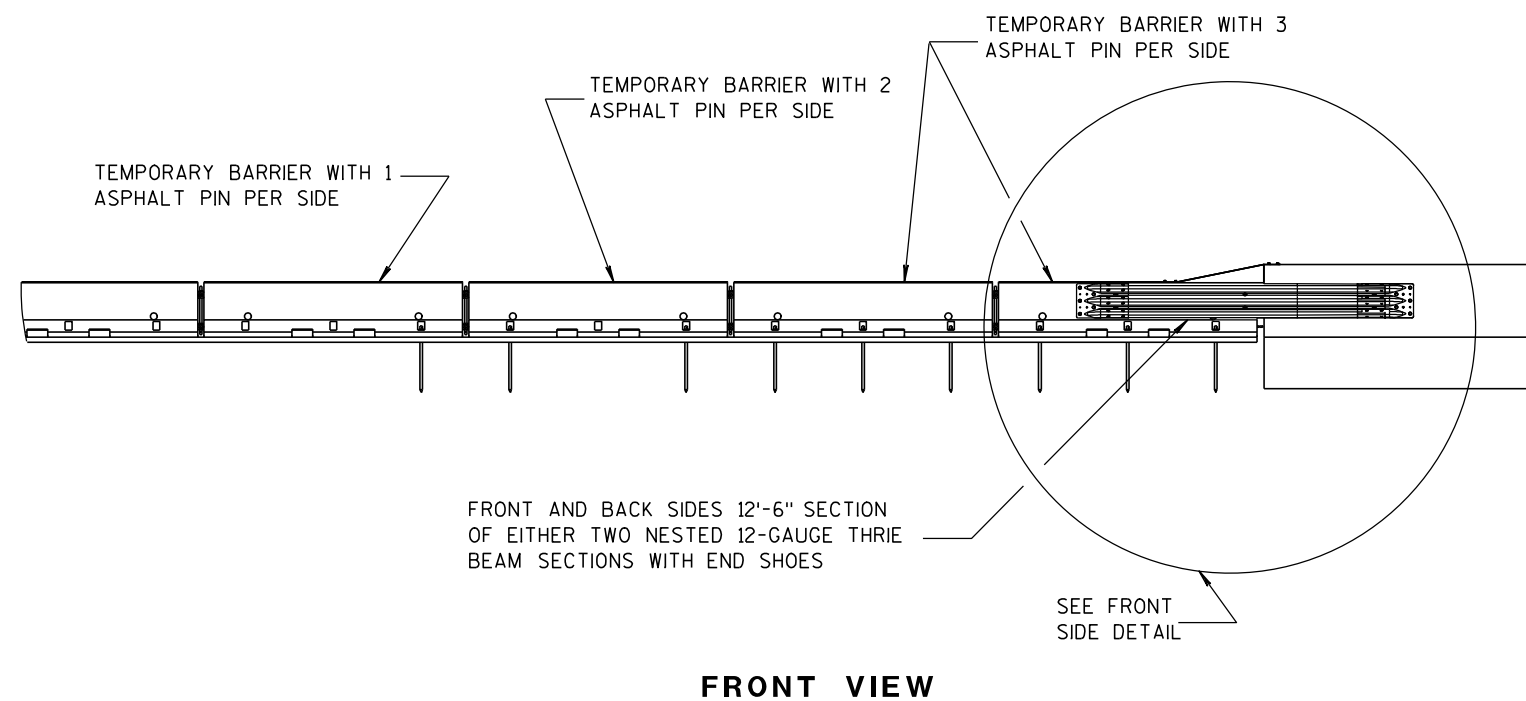
**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

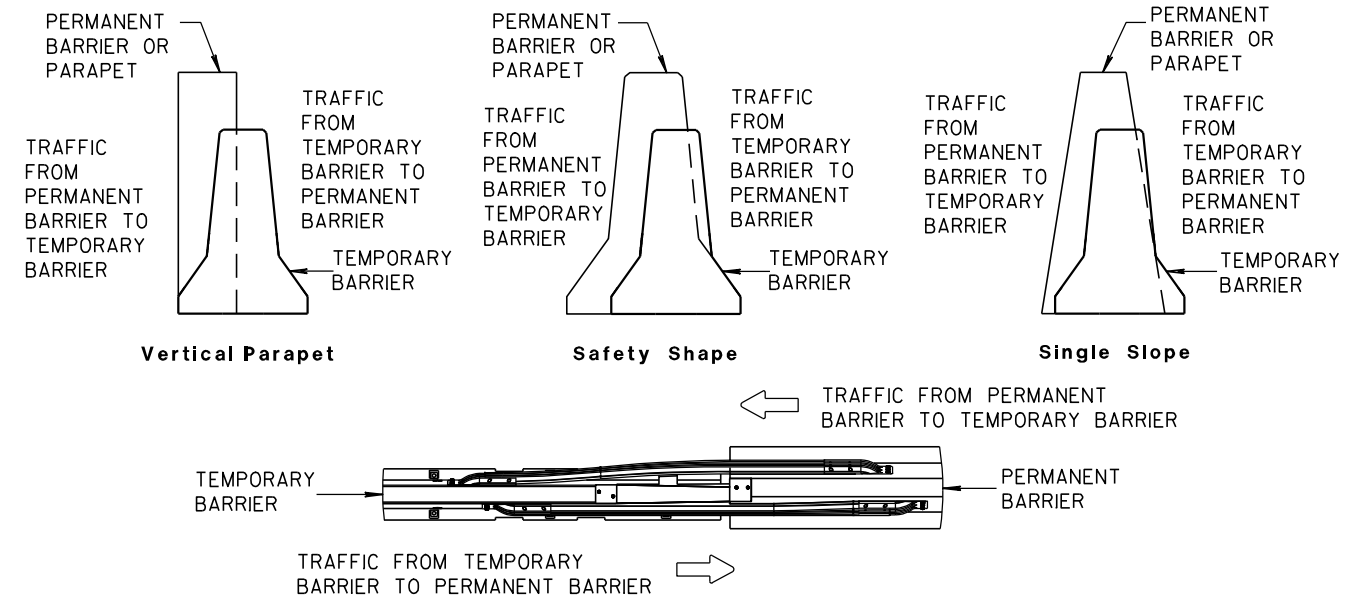


NOTES

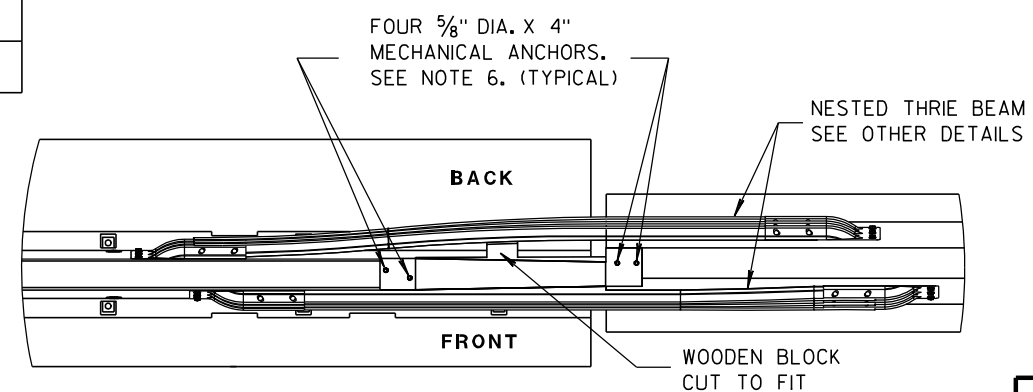
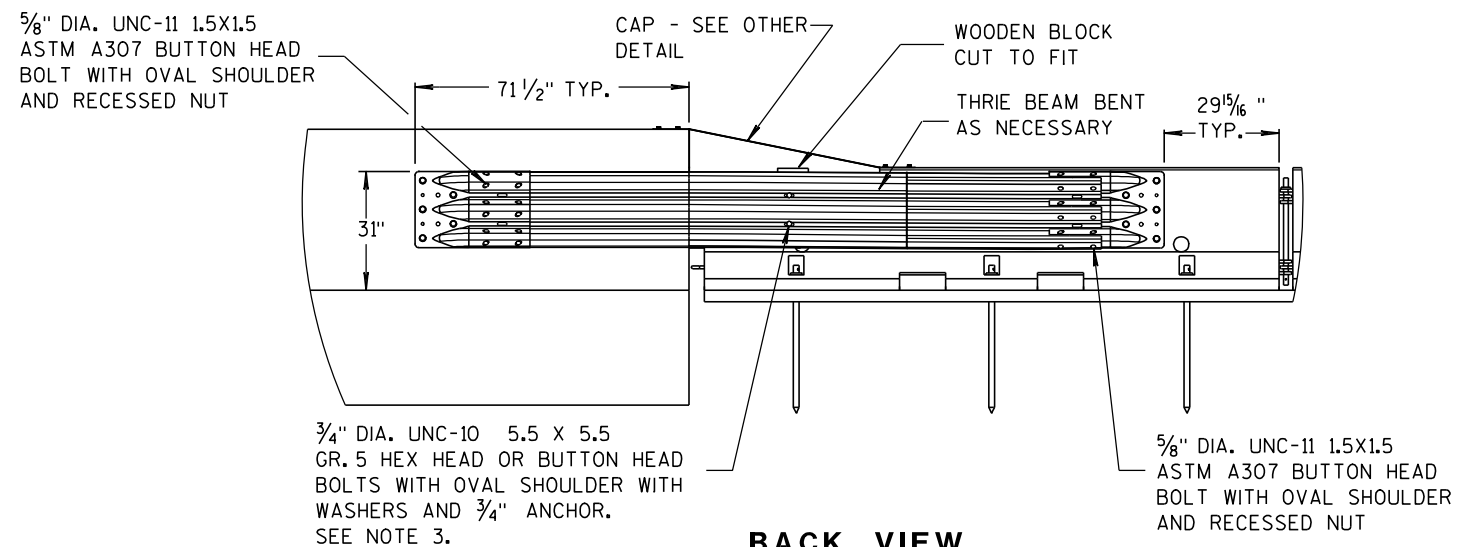
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

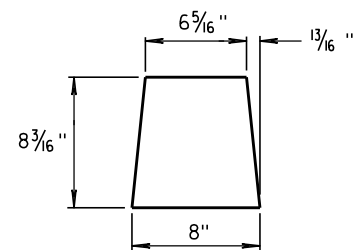
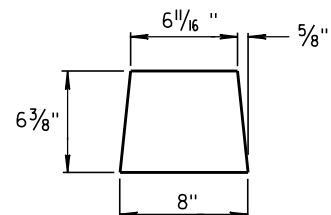
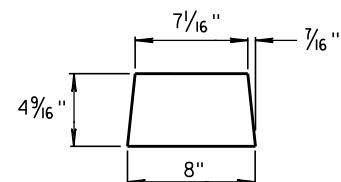
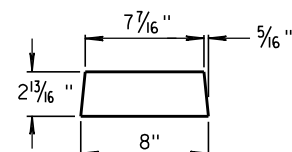
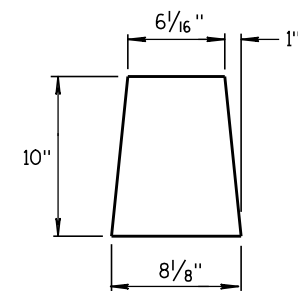
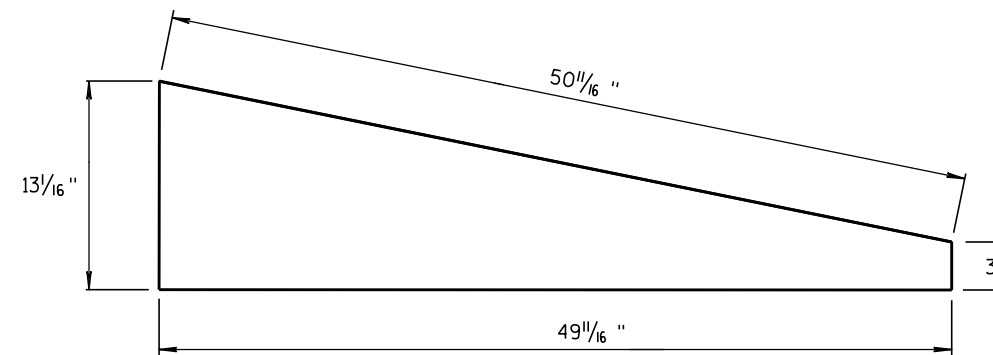
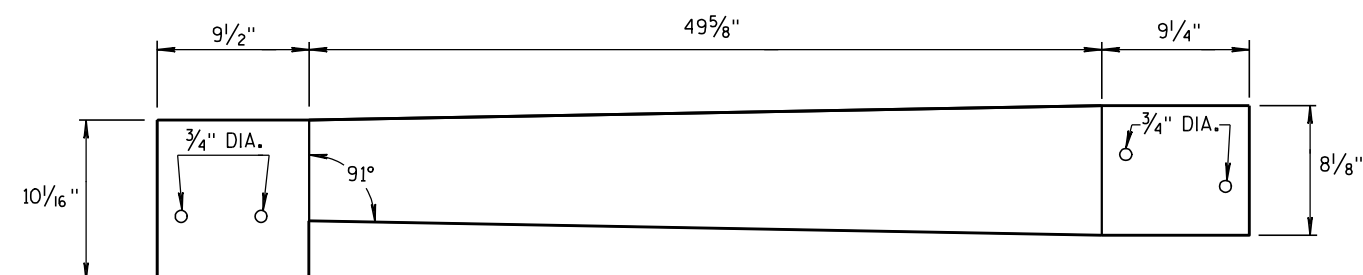
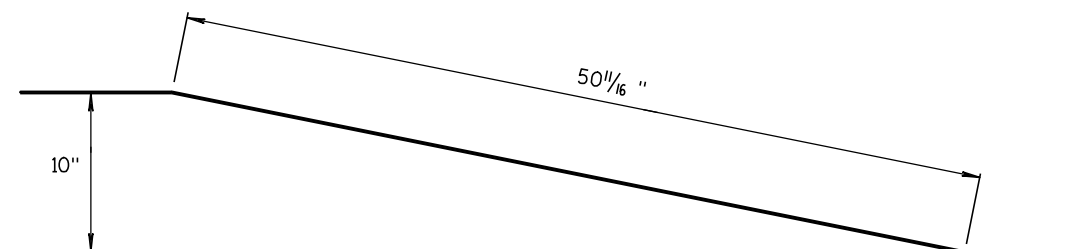


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



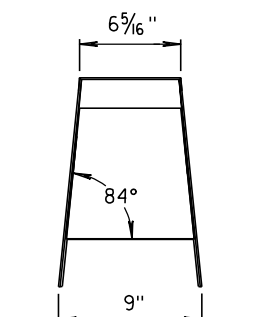
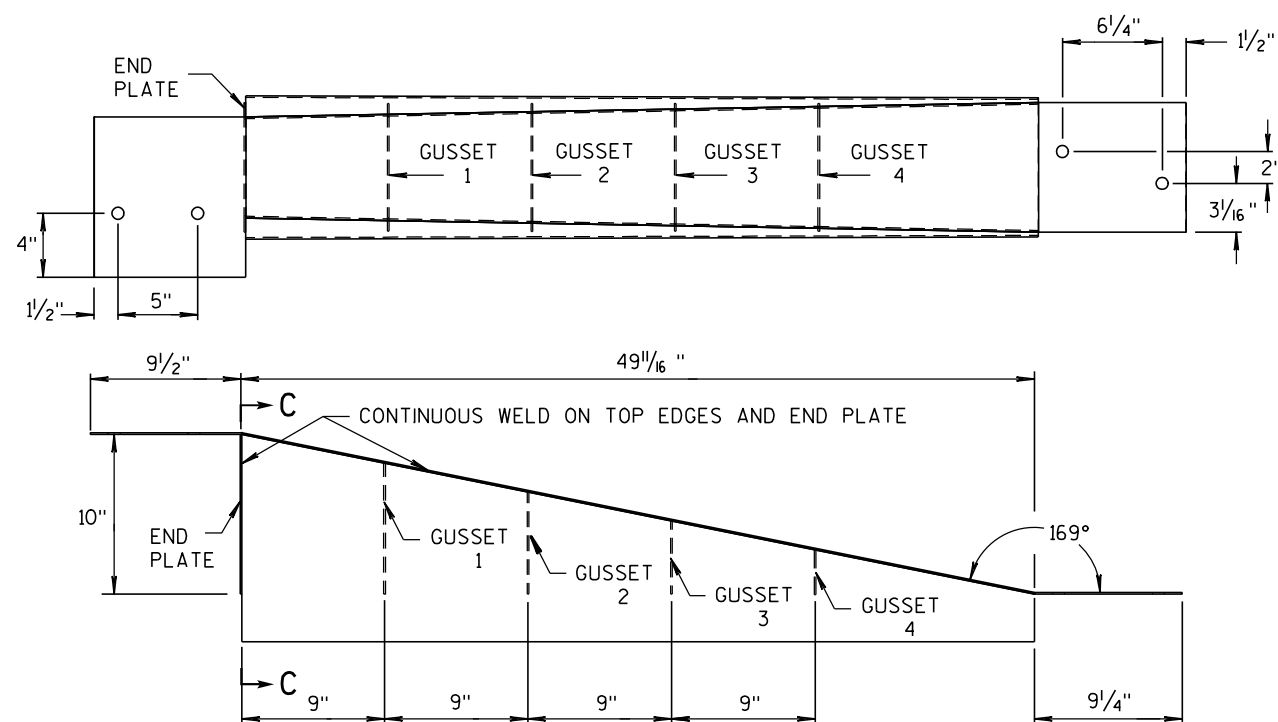
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

**GUSSET 1****GUSSET 2****GUSSET 3****GUSSET 4****GUSSETS****END PLATE****SIDE PLATE****TOP PLATE**

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

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

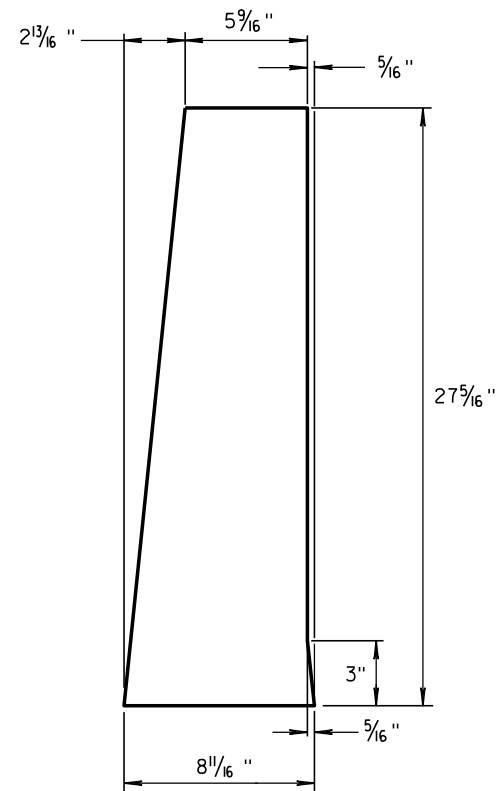
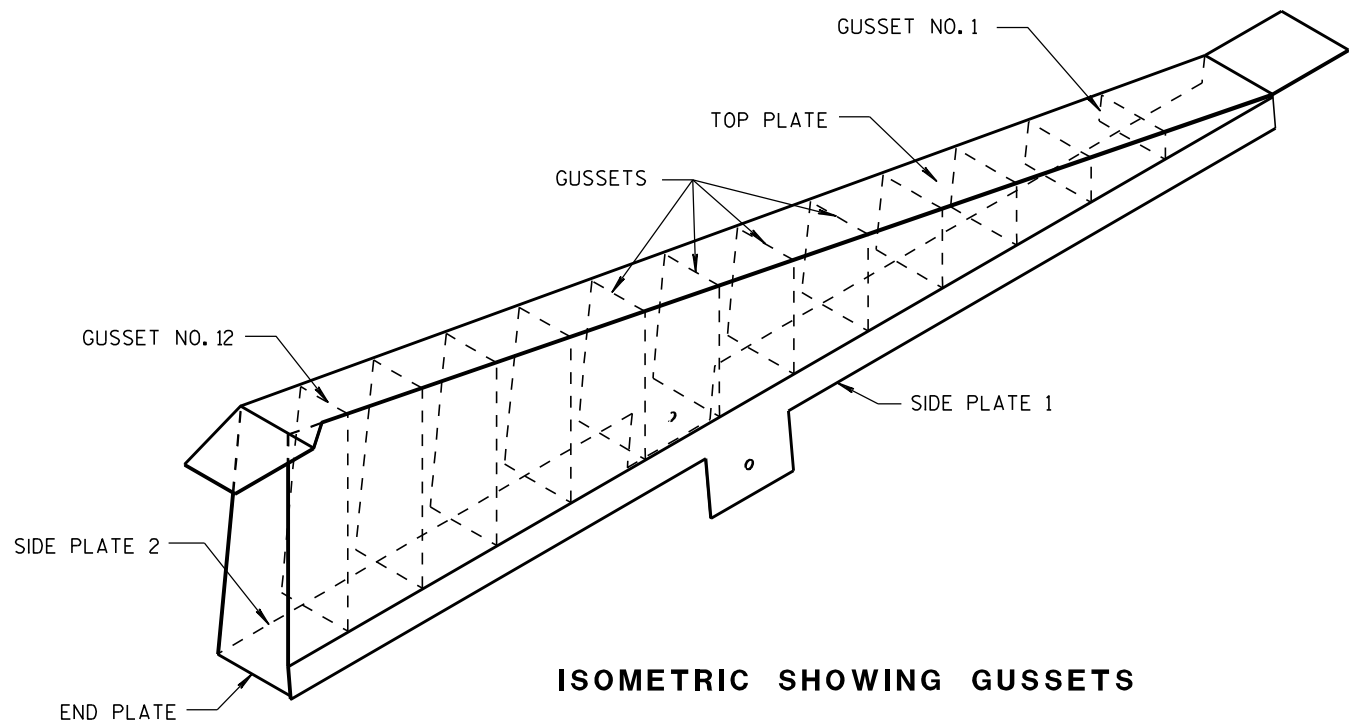
**SECTION C-C****NOTES**

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

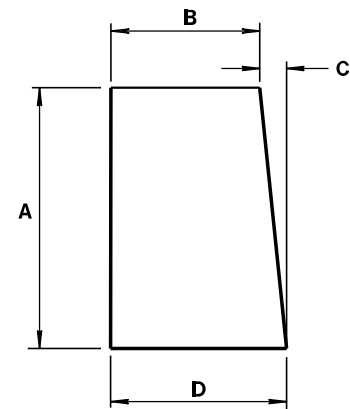
**CAP DETAILS FOR TEMPORARY CONCRETE
BARRIER TO 42" PERMANENT CONCRETE BARRIER**

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



1/8" STEEL PLATE

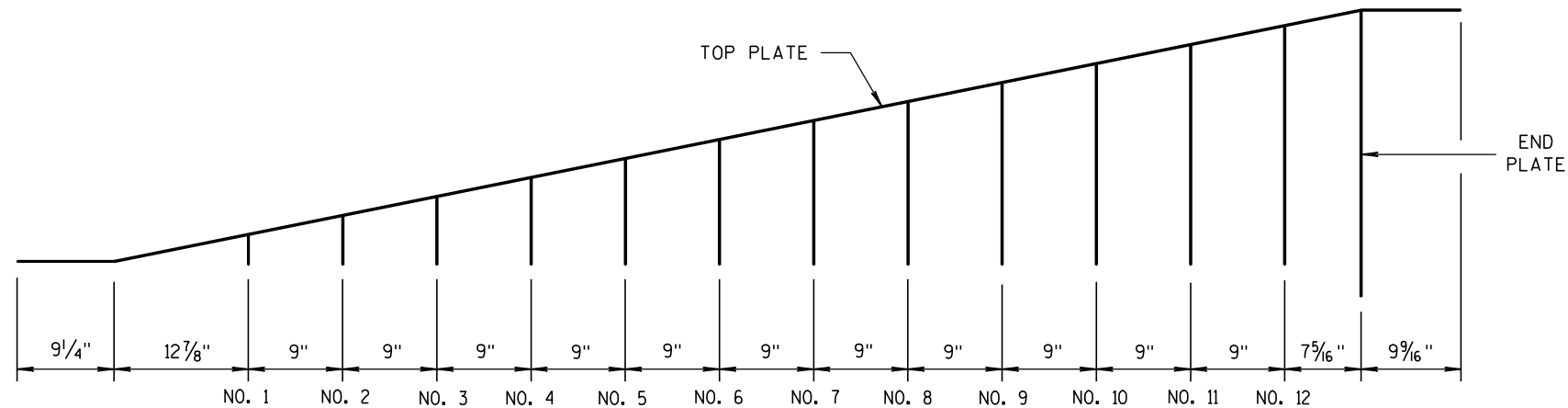


ALL GUSSETS 1/8" STEEL PLATE

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

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

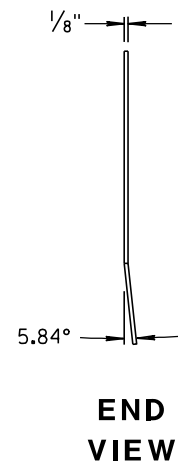
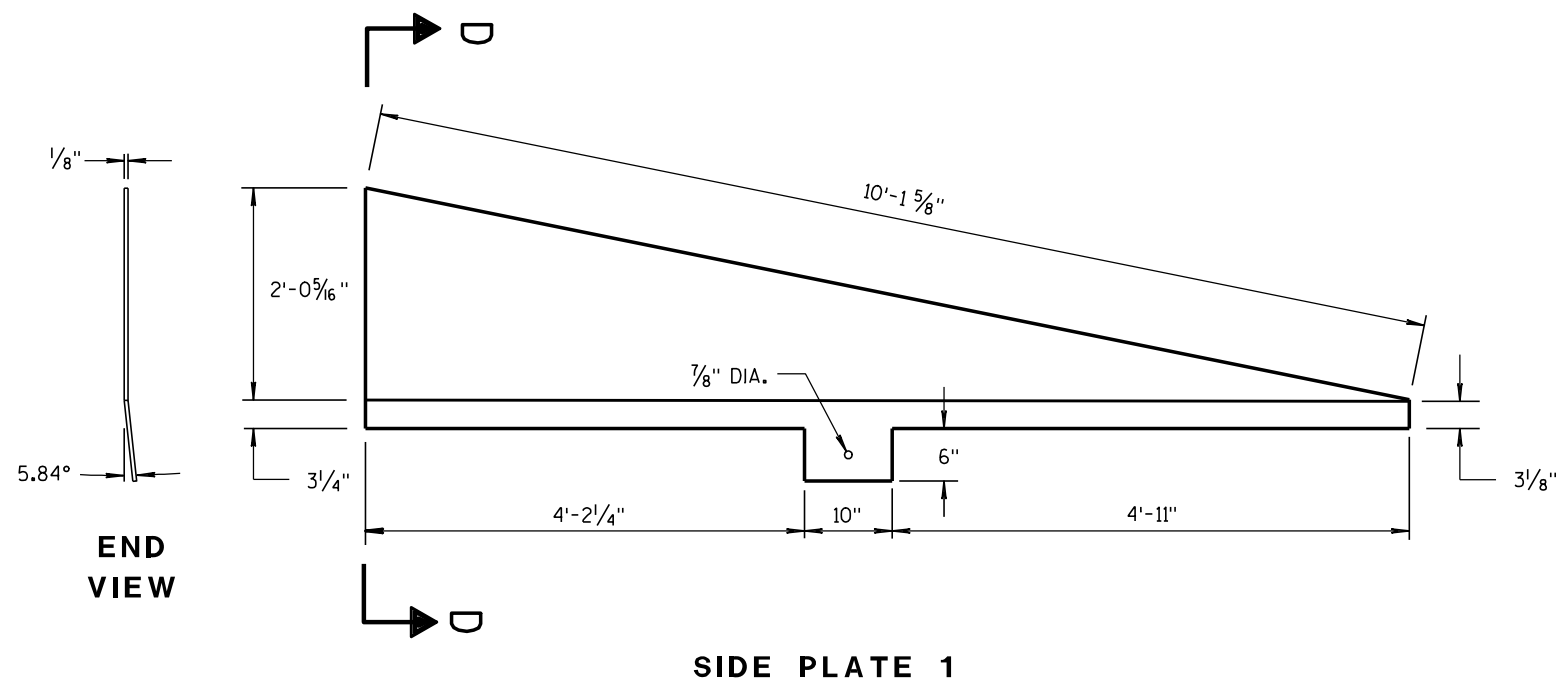
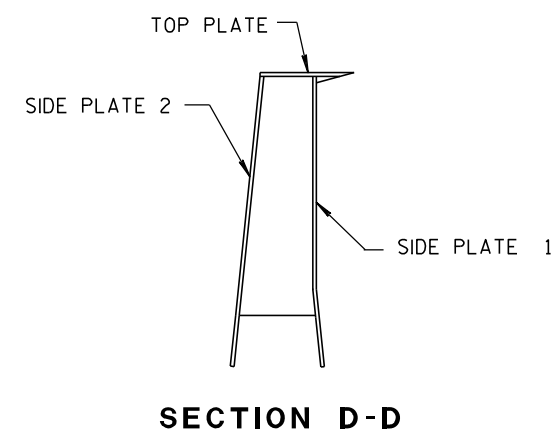
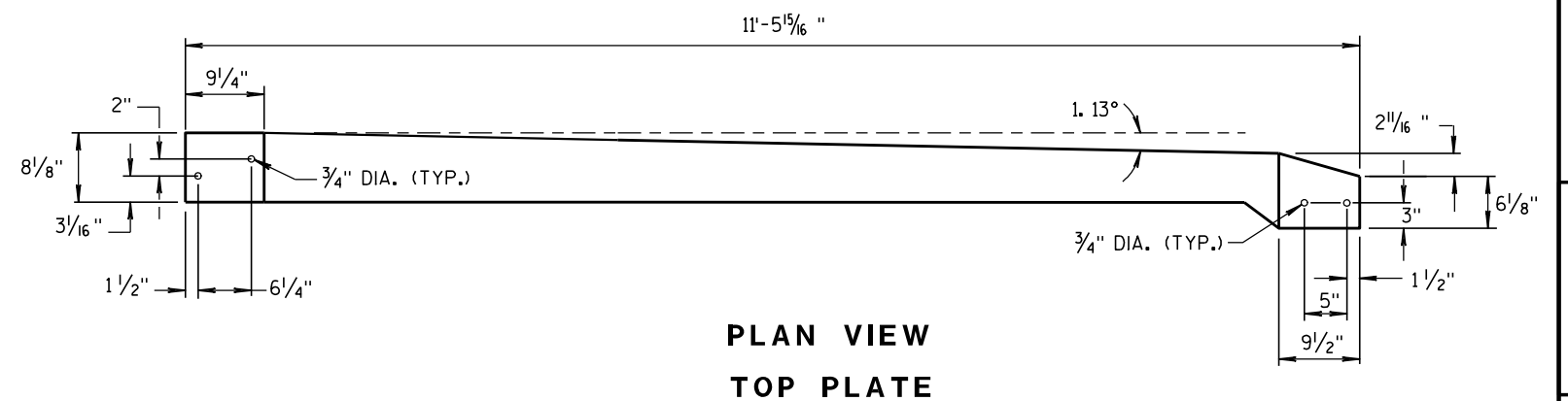
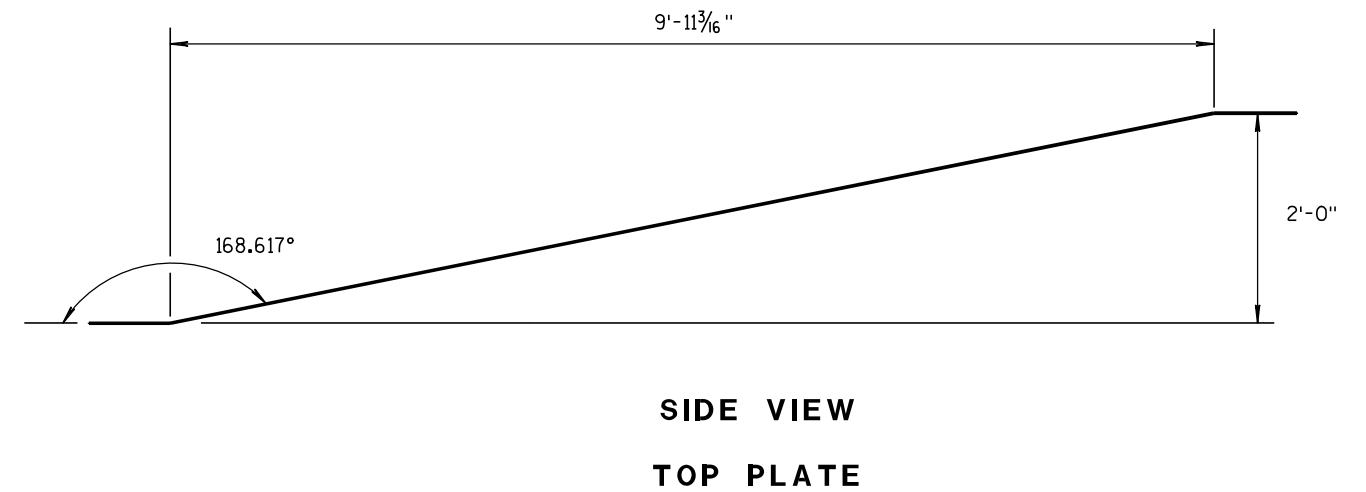
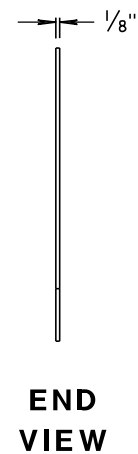
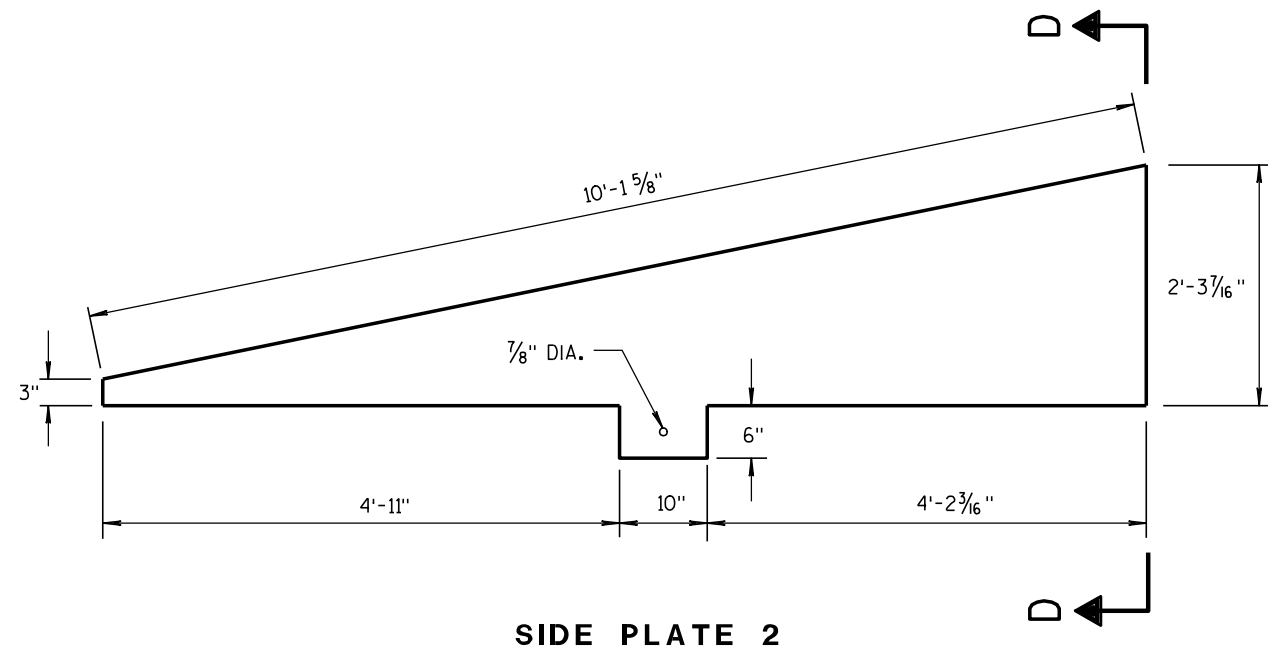
GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

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

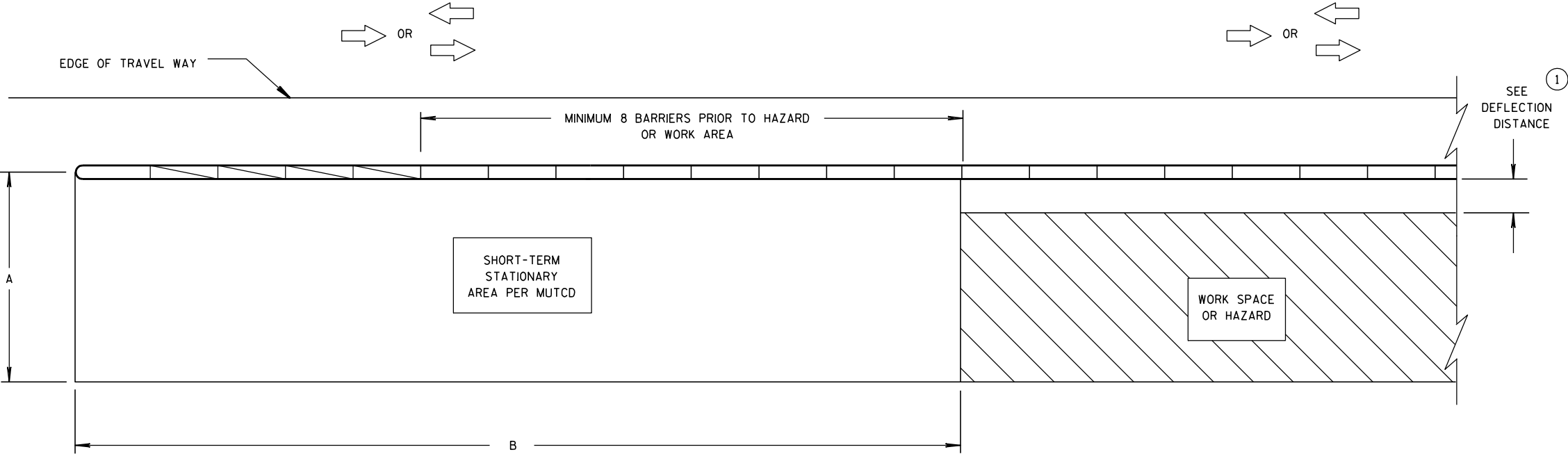
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

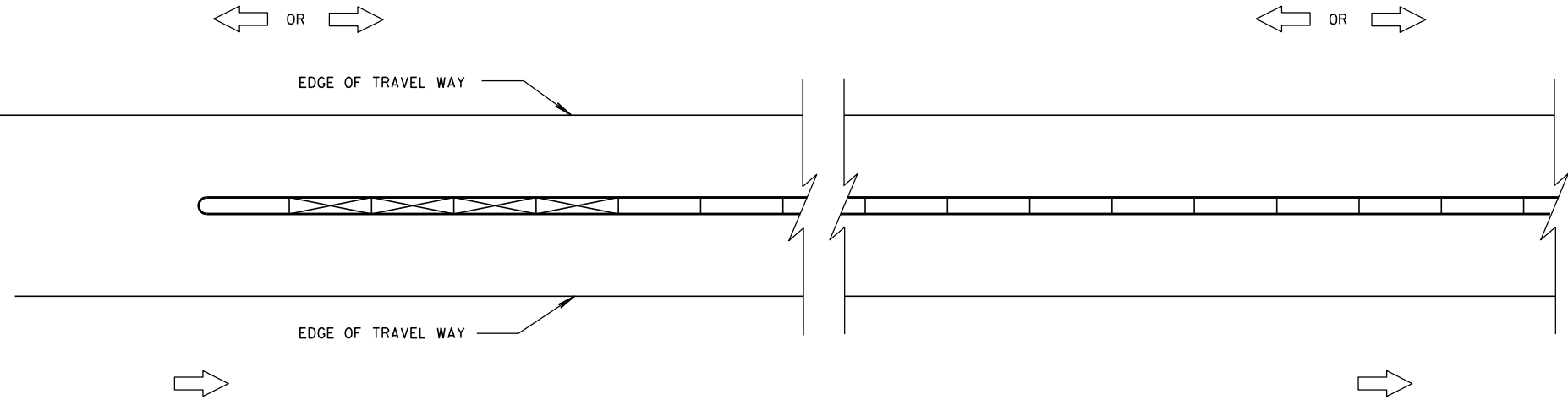
8/31/2012
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARD DEVELOPMENT
ENGINEER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

- ① FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- ② VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

DIMENSION A TABLE ②

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE ②

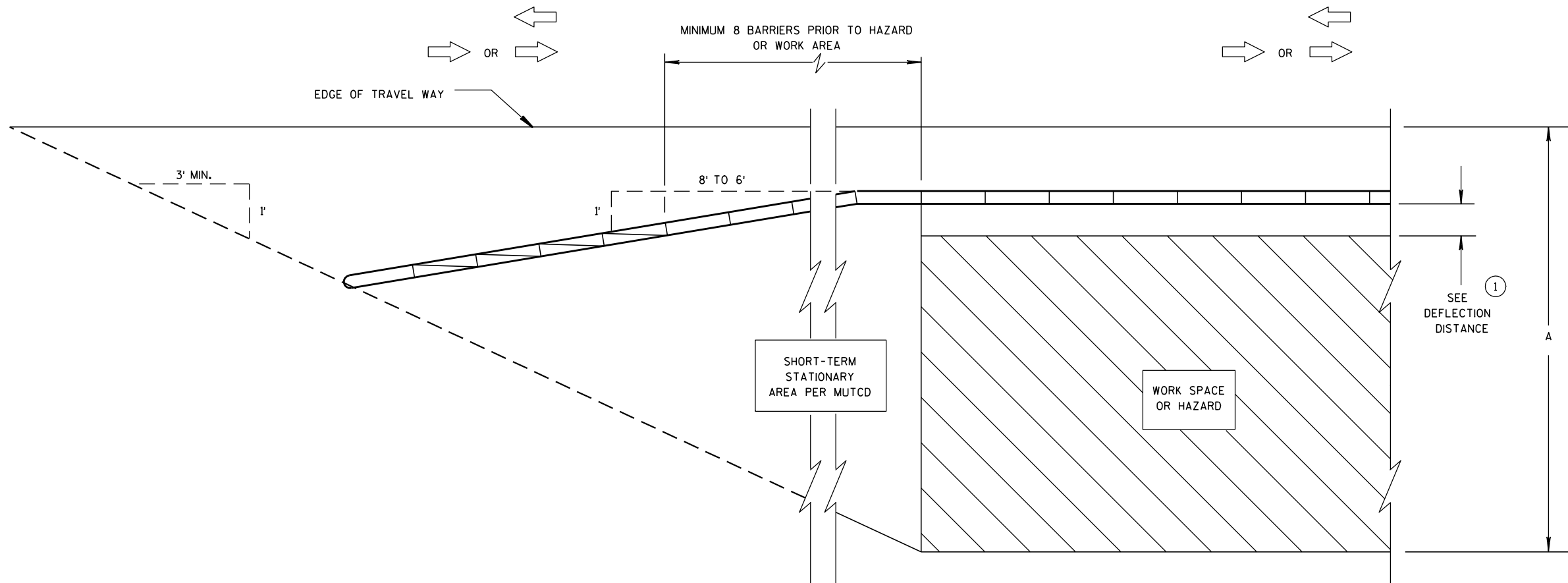
POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

LEGEND

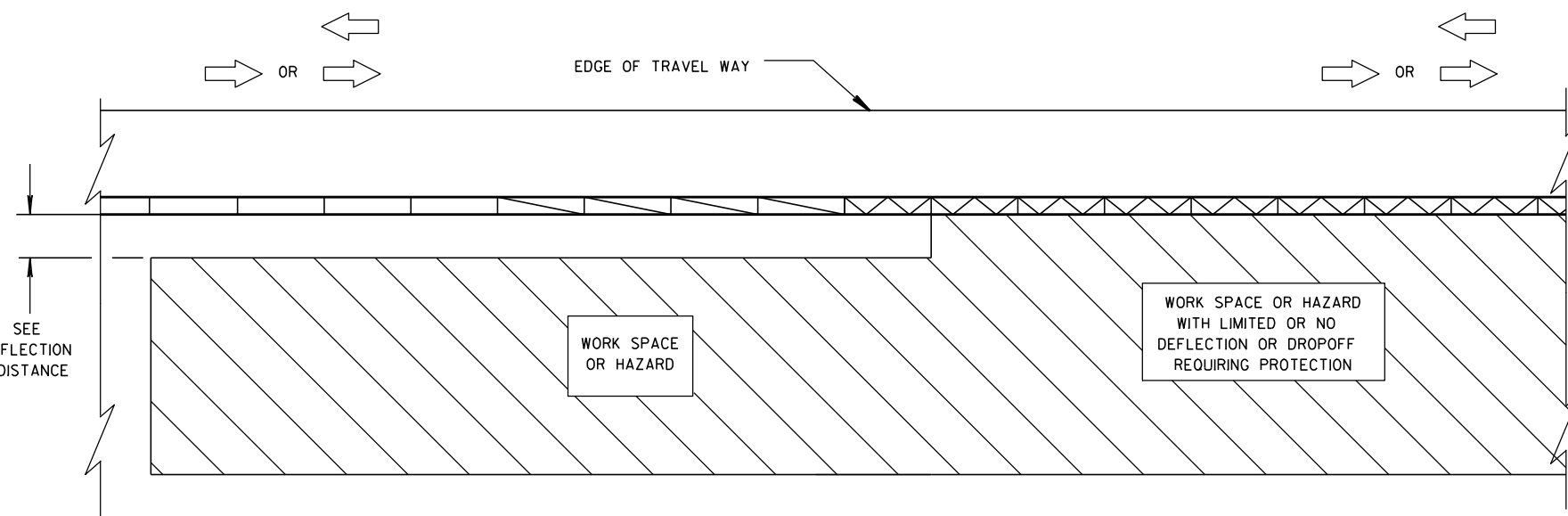
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION**



**TRANSITION FROM FREE STANDING TEMPORARY BARRIER
TO ANCHORED BARRIER**

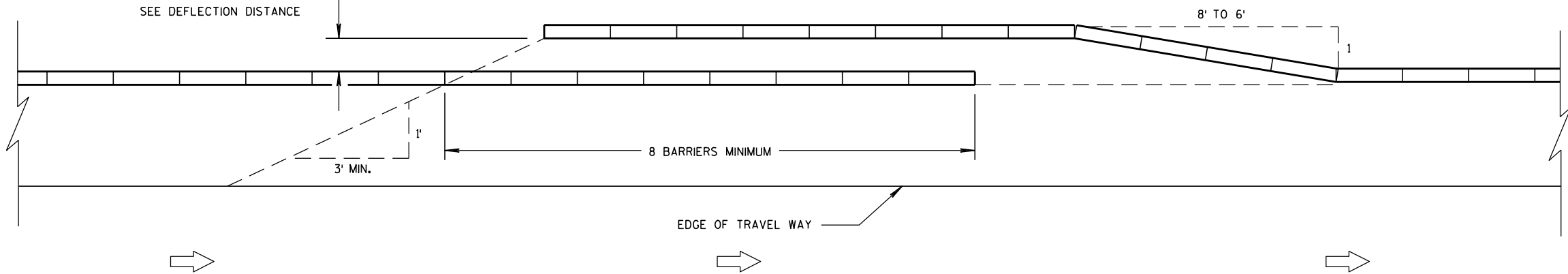
LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

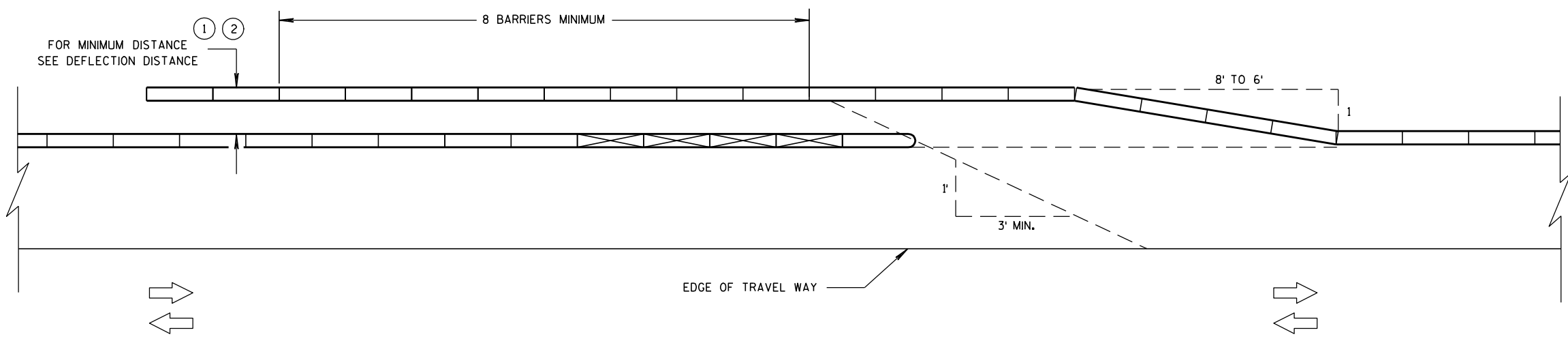
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

FOR MINIMUM DISTANCE
SEE DEFLECTION DISTANCE

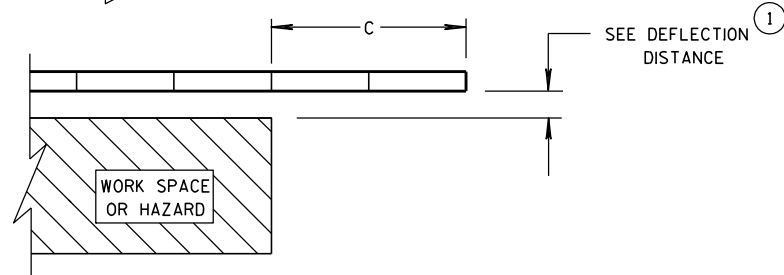


TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC

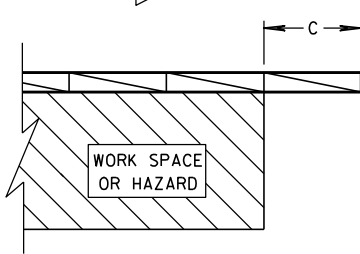
FOR MINIMUM DISTANCE
SEE DEFLECTION DISTANCE



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



**ENDING TEMPORARY BARRIER
DOWNSTREAM - UNANCHORED**



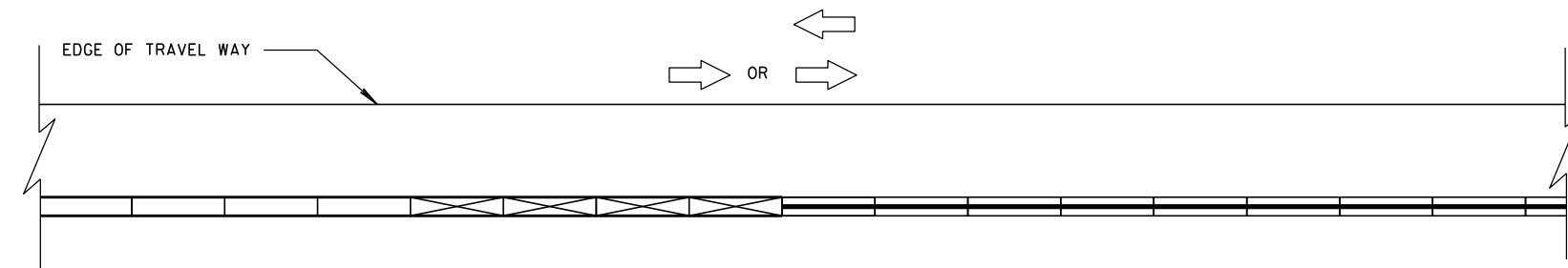
**ENDING TEMPORARY BARRIER
DOWNSTREAM - ANCHORED**

LEGEND

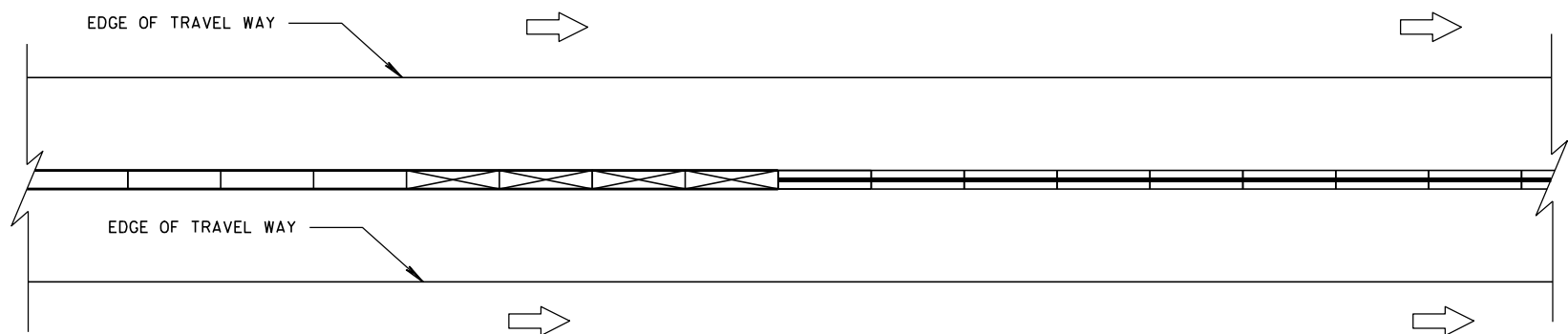
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



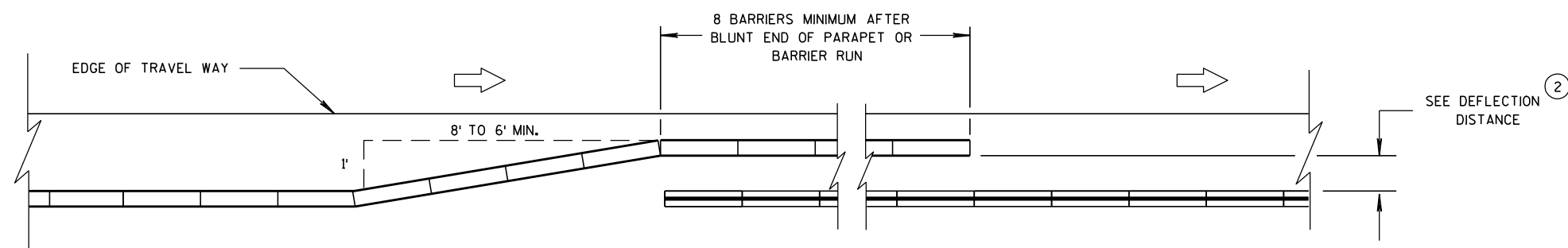
**CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE**



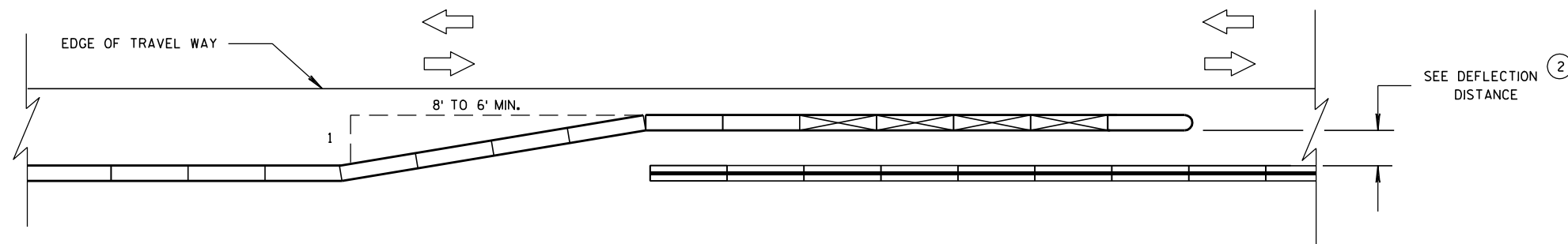
**CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES**

LEGEND

DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	



**OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC**

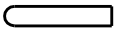
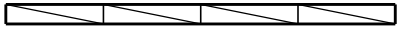
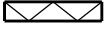
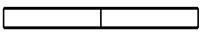


**OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC**

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

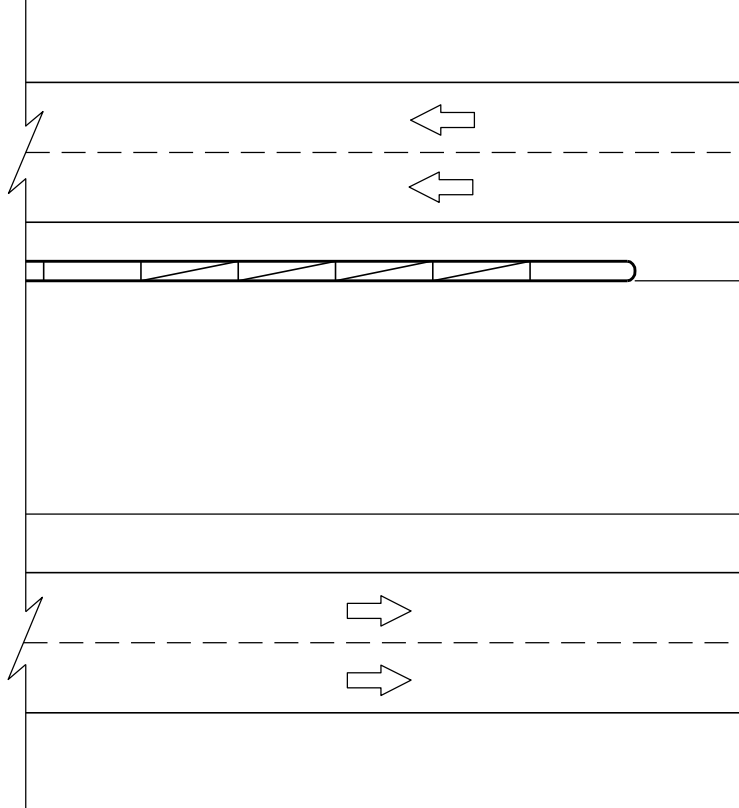
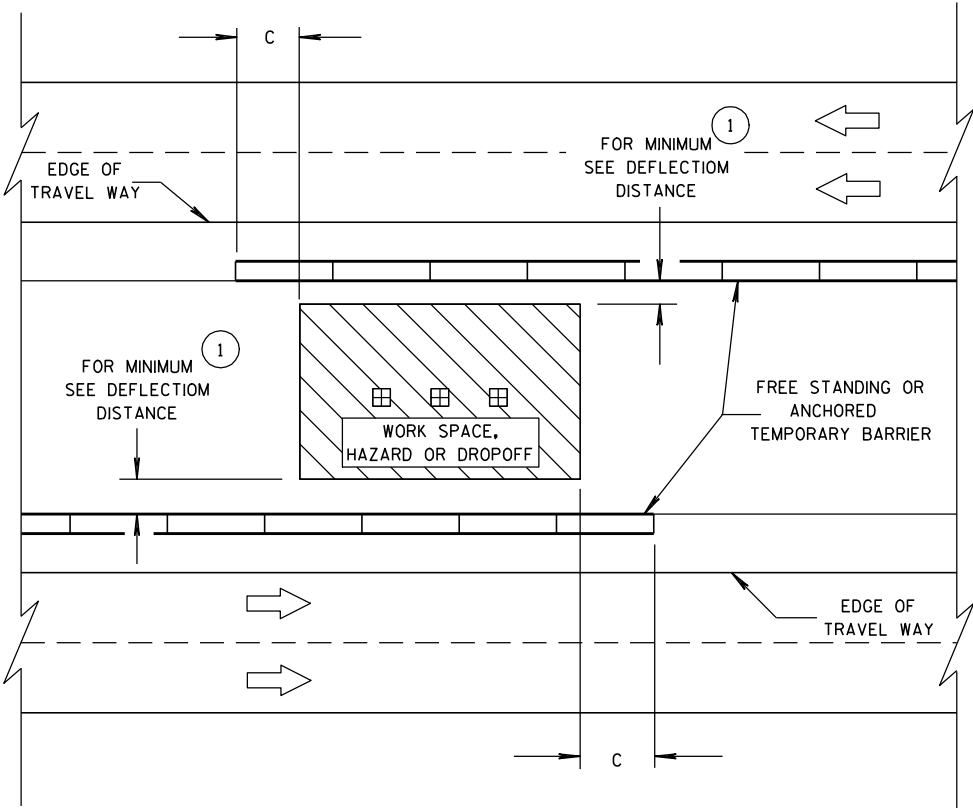
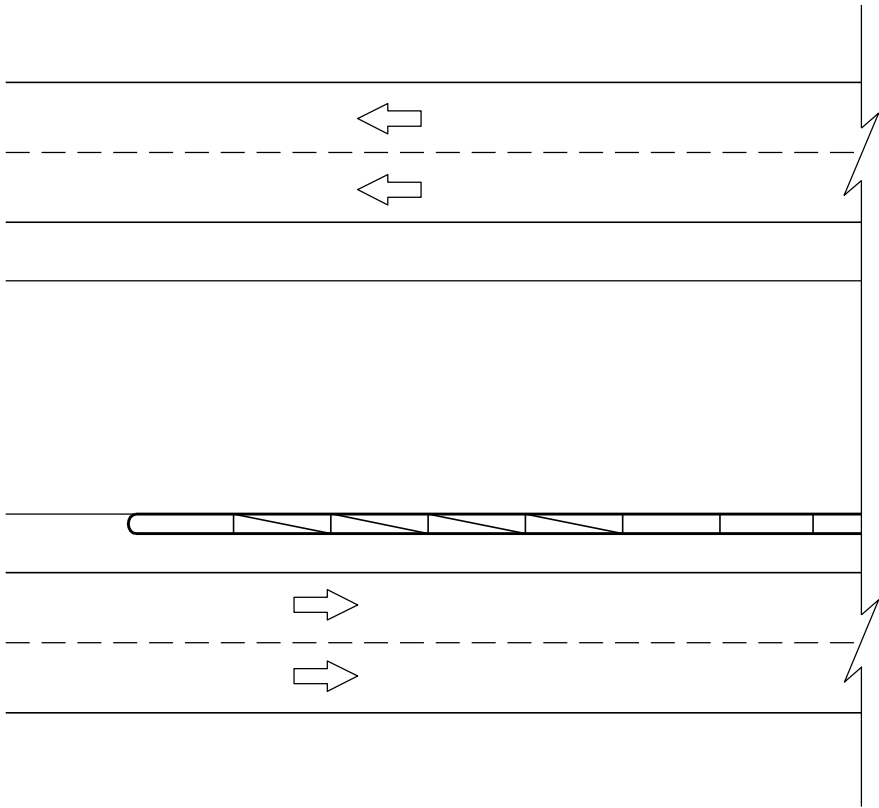
DIRECTION OF TRAVEL	
CRASH CUSHION OR SAND BARREL ARRAY	
SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS	
SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS	
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER	
PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET	
FREE STANDING TEMPORARY BARRIER	

DIMENSION C TABLE

2

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100

6



6

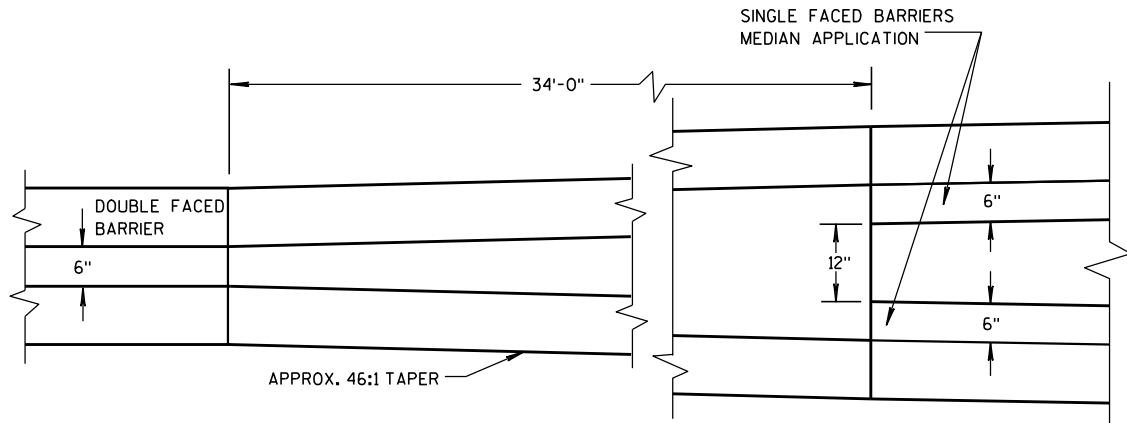
S.D.D. 14 B 8-1e

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

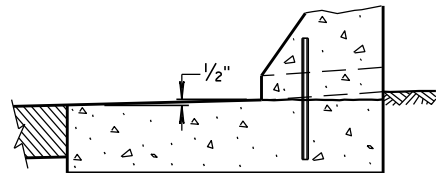
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

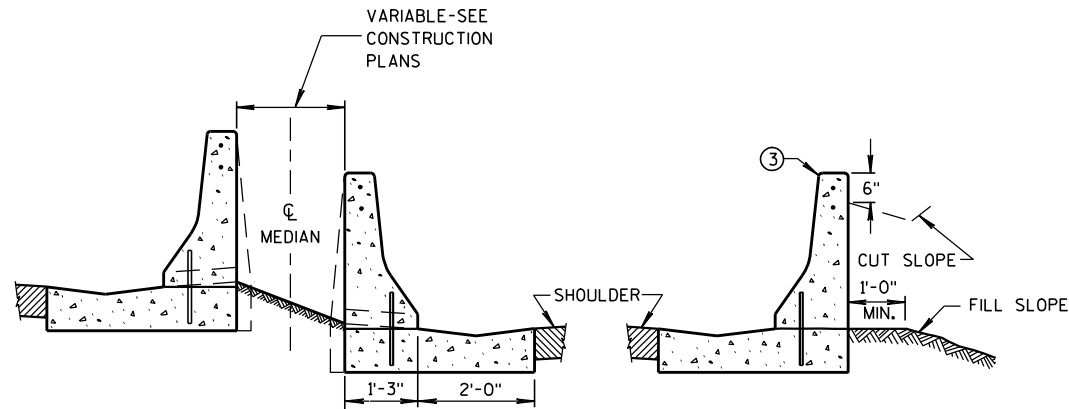
S.D.D. 14 B 8-1e



PLAN VIEW
TRANSITION DETAILS OF DOUBLE FACED
TO SINGLE FACED CONCRETE MEDIAN BARRIER
(FOOTINGS ARE NOT SHOWN)

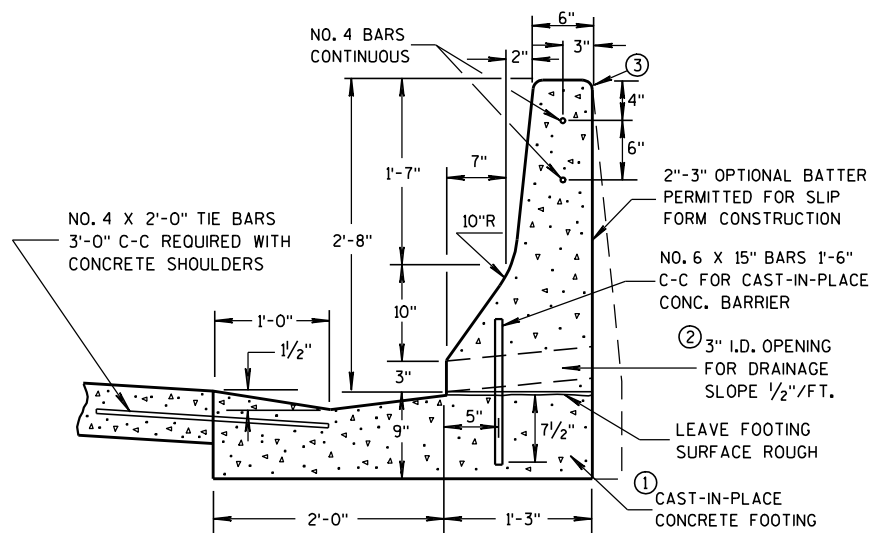


HIGH SIDE
CONCRETE BARRIER DETAIL

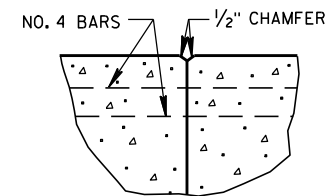


MEDIAN SHOULDER

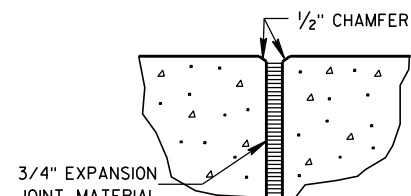
TYPICAL APPLICATIONS



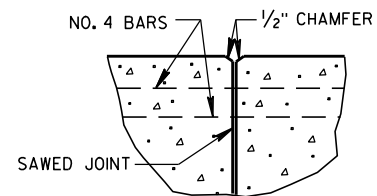
SECTION VIEW



CONSTRUCTION JOINT



EXPANSION JOINT

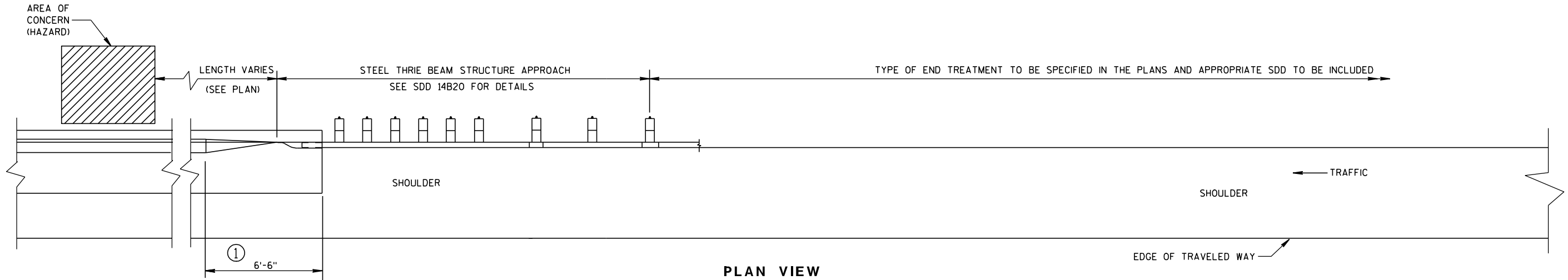


CONTRACTION JOINT

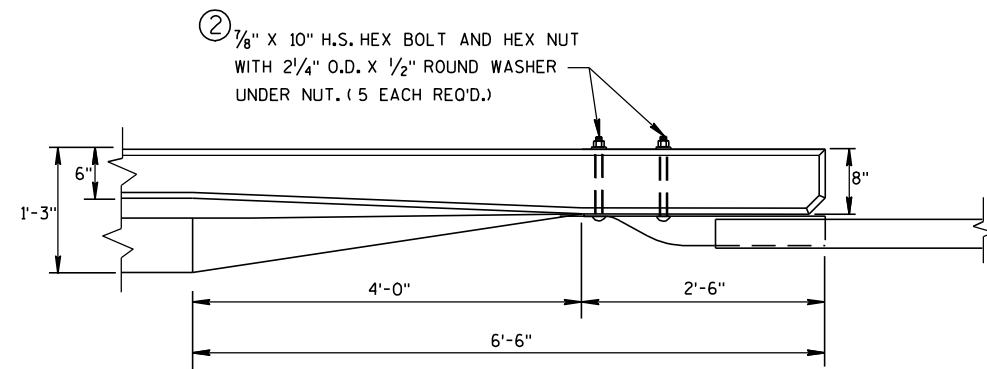
JOINT DETAILS

GENERAL NOTES

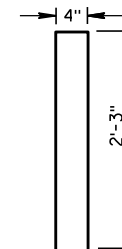
1. SPLICES OF LONGITUDINAL BARS SHALL BE MADE WITH BARS LAPPED AT LEAST 18-INCHES AND FIRMLY TIED OR FASTENED TOGETHER.
2. ALL BAR STEEL REINFORCEMENT SHALL CONFORM TO REQUIREMENTS OF AASHTO M31, GRADE 60.
3. BARRIER SHALL BE INSTALLED ON A CONCRETE SHOULDER INSTEAD OF THE CONCRETE FOOTING WHEN SPECIFIED OR SHOWN ELSEWHERE IN CONTRACT.
4. OPENINGS FOR DRAINAGE SHALL BE PLACED AT LOW POINTS OF VERTICAL CURVES OR WHERE DIRECTED BY THE ENGINEER.
5. 3/4-INCH BEVEL OR 1-INCH RADIUS (TYPICAL).
6. NO. 4 BARS SHALL BE CONTINUED THROUGH CONSTRUCTION JOINTS.
7. EXPANSION JOINTS SHALL BE PLACED AT EXISTING EXPANSION JOINTS IN THE PAVEMENT AND AT STRUCTURES. SEE REINFORCEMENT AT BARRIER END DETAIL.
8. SAWED CONTRACTION JOINTS SHALL BE PROVIDED ACROSS THE FULL WIDTH OF THE BARRIER FOOTING, AND IN FRONT, TOP AND BACK FACE OF THE BARRIER AT EXISTING PAVEMENT JOINTS AND AT UNIFORM INTERVALS BETWEEN WITH A MAXIMUM SPACING OF 25 FEET.



PLAN VIEW
TRANSITION TO STEEL PLATE BEAM GUARD
AND END TERMINAL



PLAN VIEW

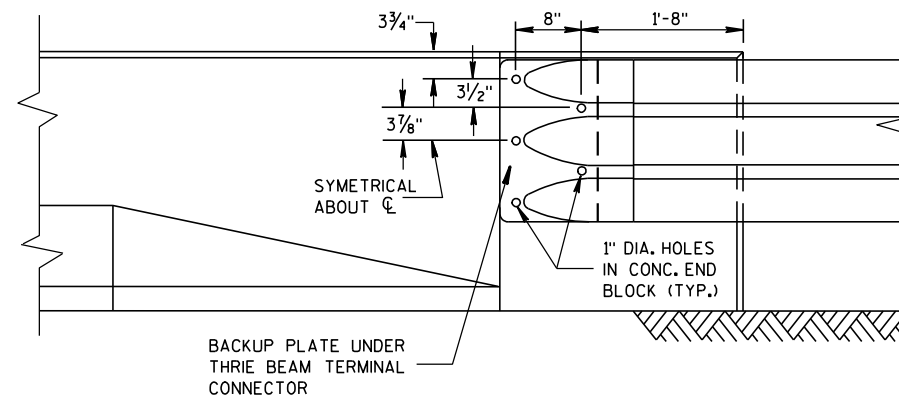


BENT BAR DETAIL

GENERAL NOTES

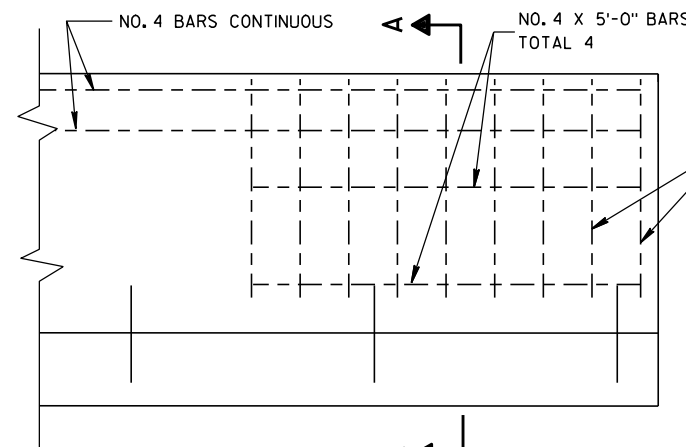
- ① A SPECIAL END IS REQUIRED ON THE CONCRETE BARRIER TO TRANSITION TO A CONNECTION WITH THE STEEL THRIE BEAM STRUCTURE APPROACH. SEE THE DETAILS ON THIS SHEET.
- ② HIGH STRENGTH BOLTS SHALL MEET REQUIREMENTS OF ASTM A325.
- ③ REINFORCEMENT REQUIRED AT EXPANSION JOINTS AND WHERE CONCRETE BARRIER IS TERMINATED.
- ④ PLACE REINFORCEMENT SUCH THAT IT WILL NOT CONFLICT WITH THE BOLT HOLES IN THE THRIE BEAM TERMINAL CONNECTOR.

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.



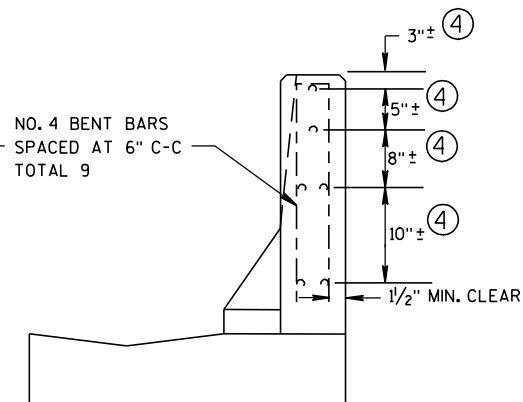
FRONT VIEW

CONCRETE BARRIER TRANSITION TO THRIE BEAM



FRONT VIEW

③ REINFORCEMENT AT BARRIER END



SECTION A-A

CONCRETE BARRIER,
SINGLE-FACED
(WITH ANCHORAGE)

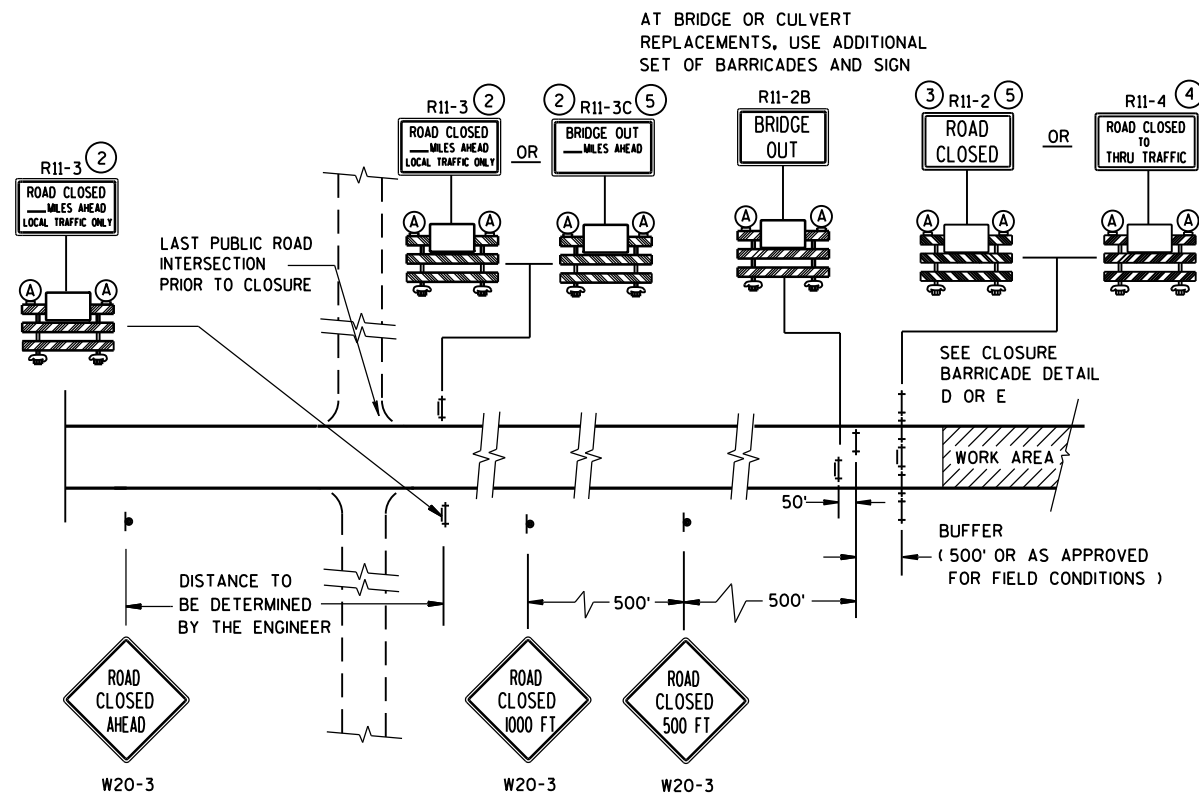
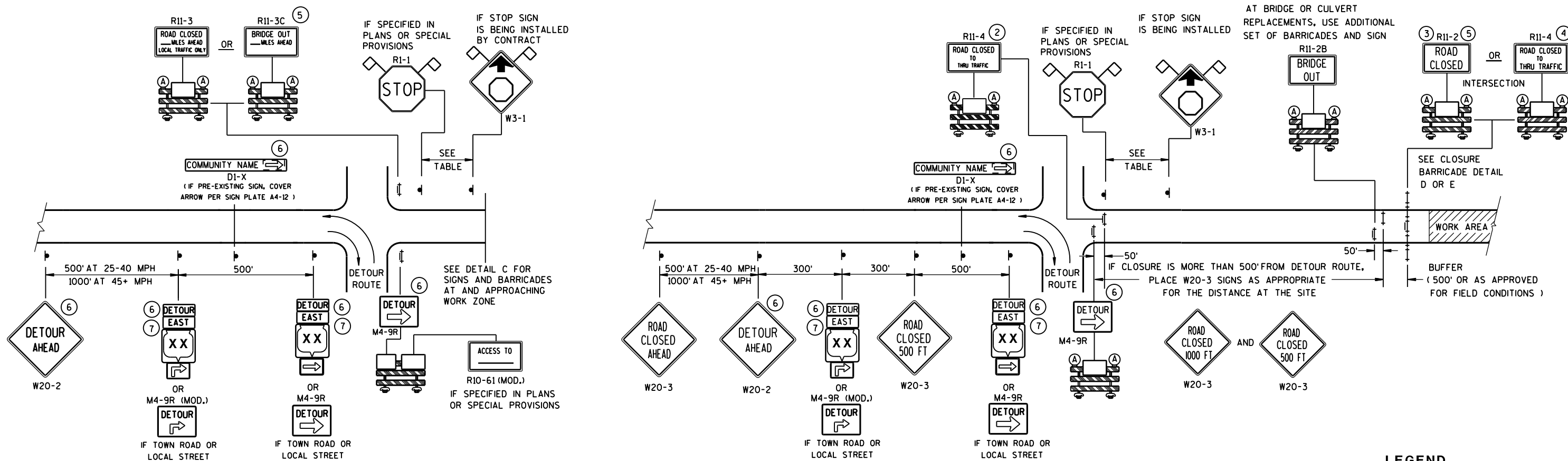
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/12/10
DATE

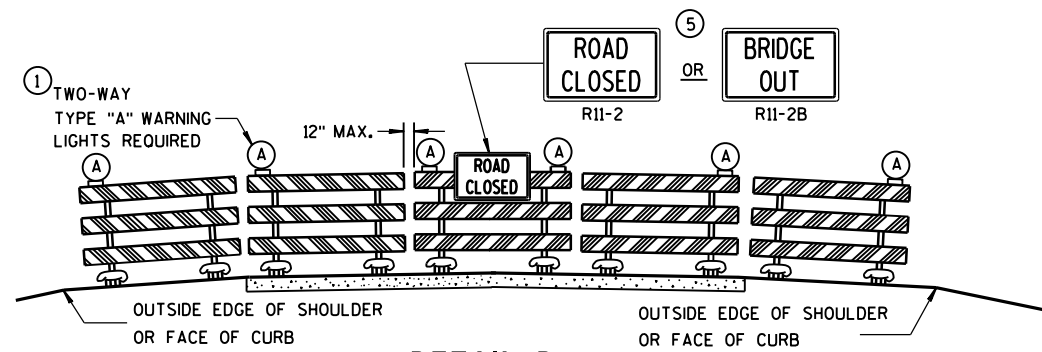
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

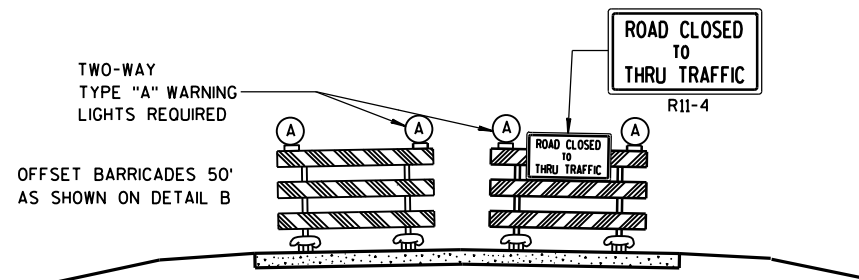


SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

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

M4-9 SHALL BE 30" X 24".

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

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

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

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

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

R1-1 SHALL BE 36" X 36".

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

**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

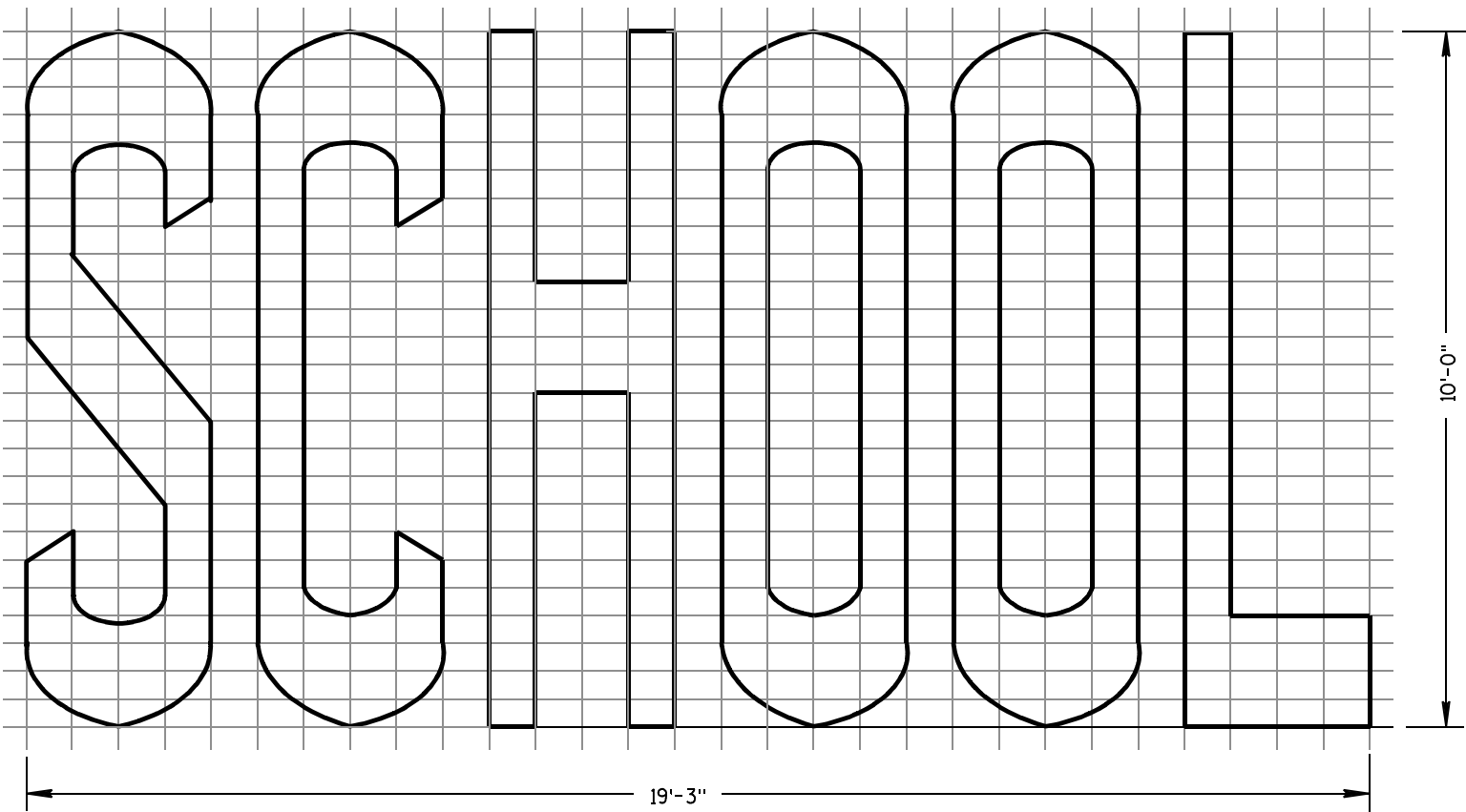
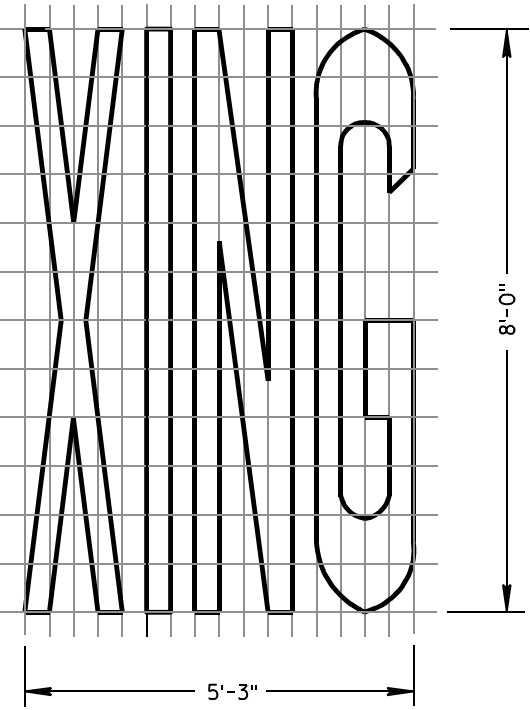
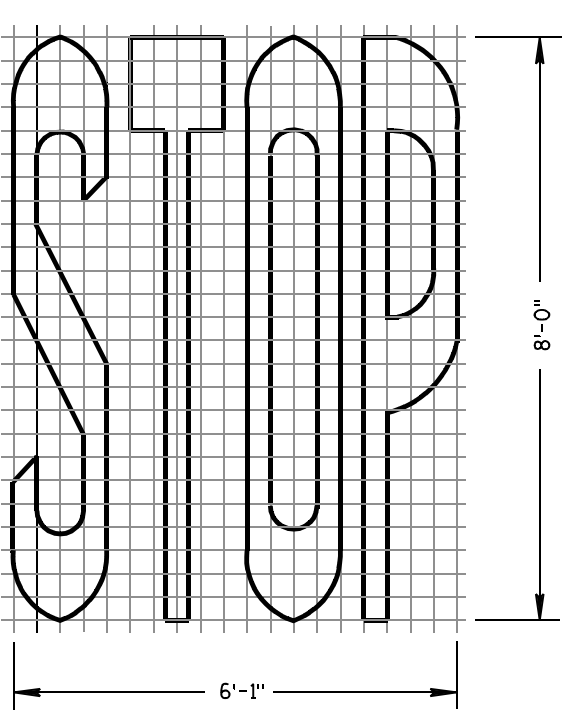
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

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

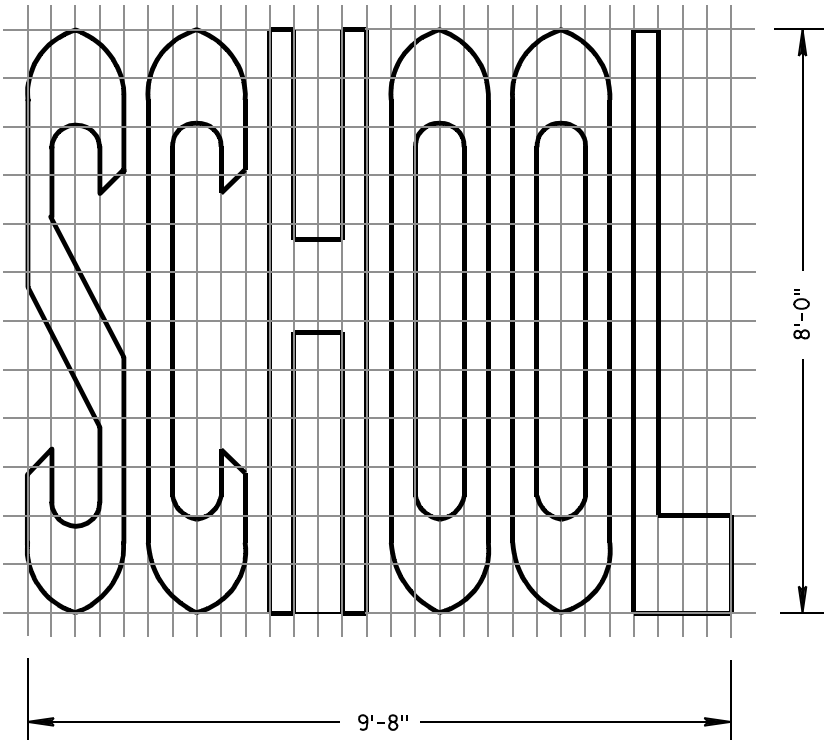
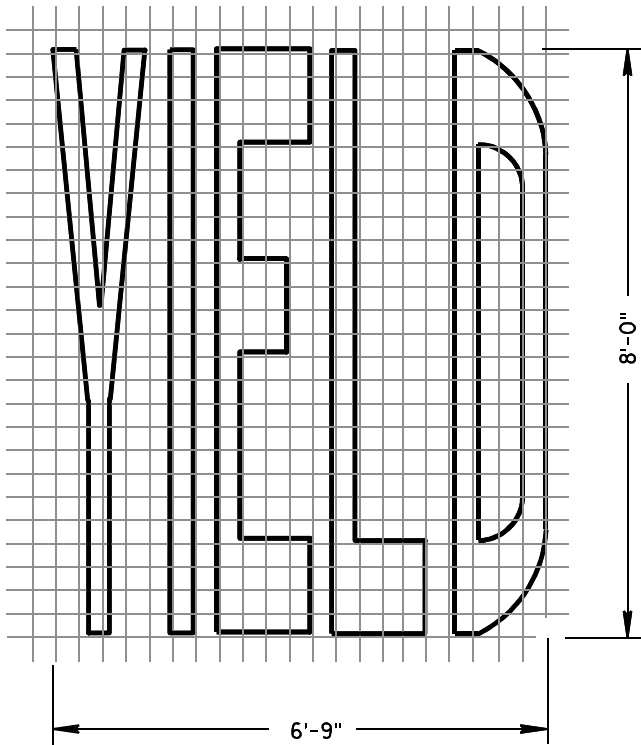
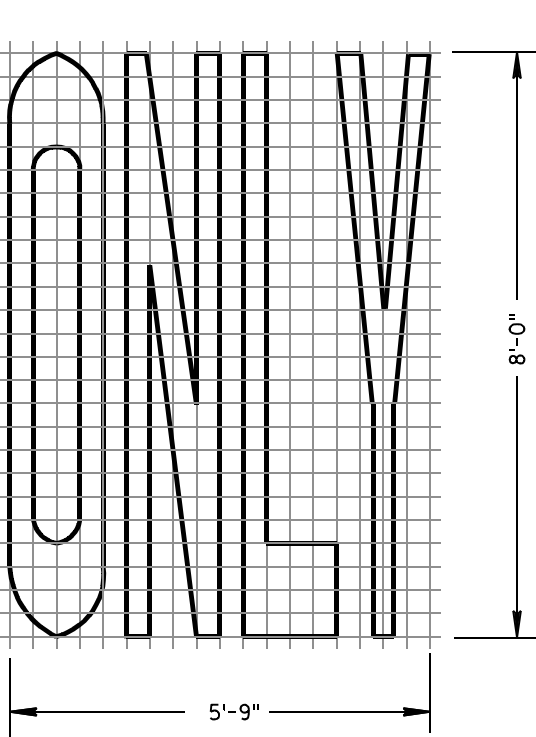
GENERAL NOTES

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

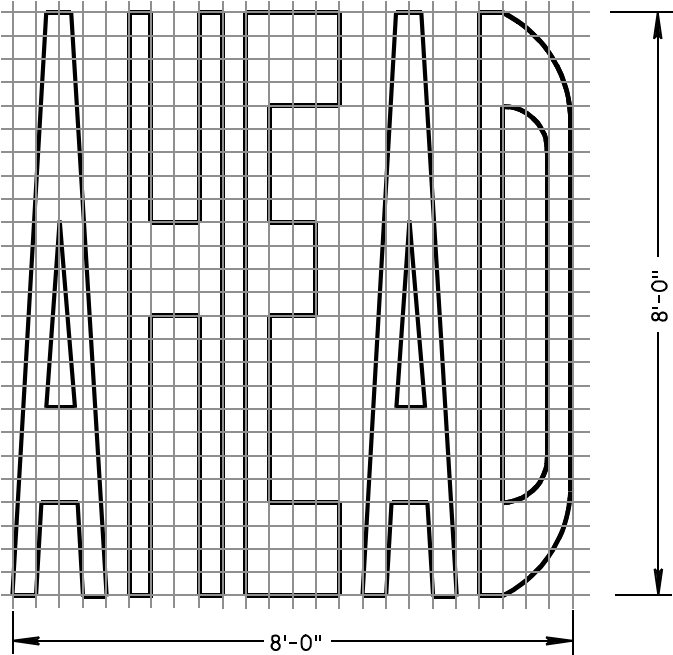
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



TWO-LANE



SINGLE-LANE



PAVEMENT MARKING WORDS

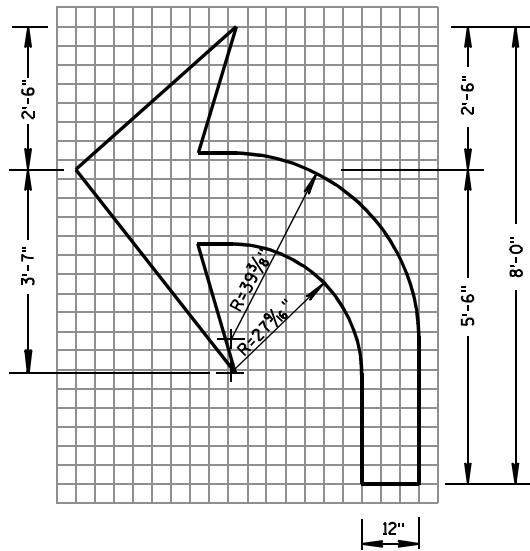
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

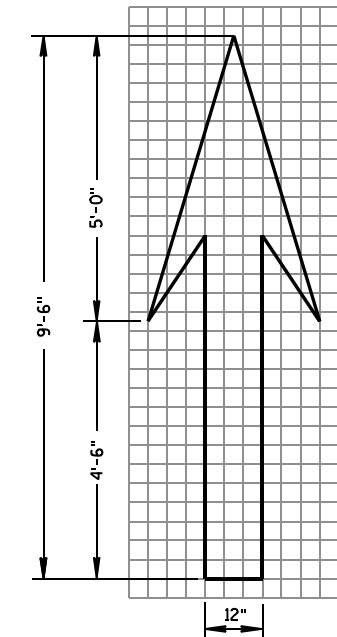
7-1-11
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

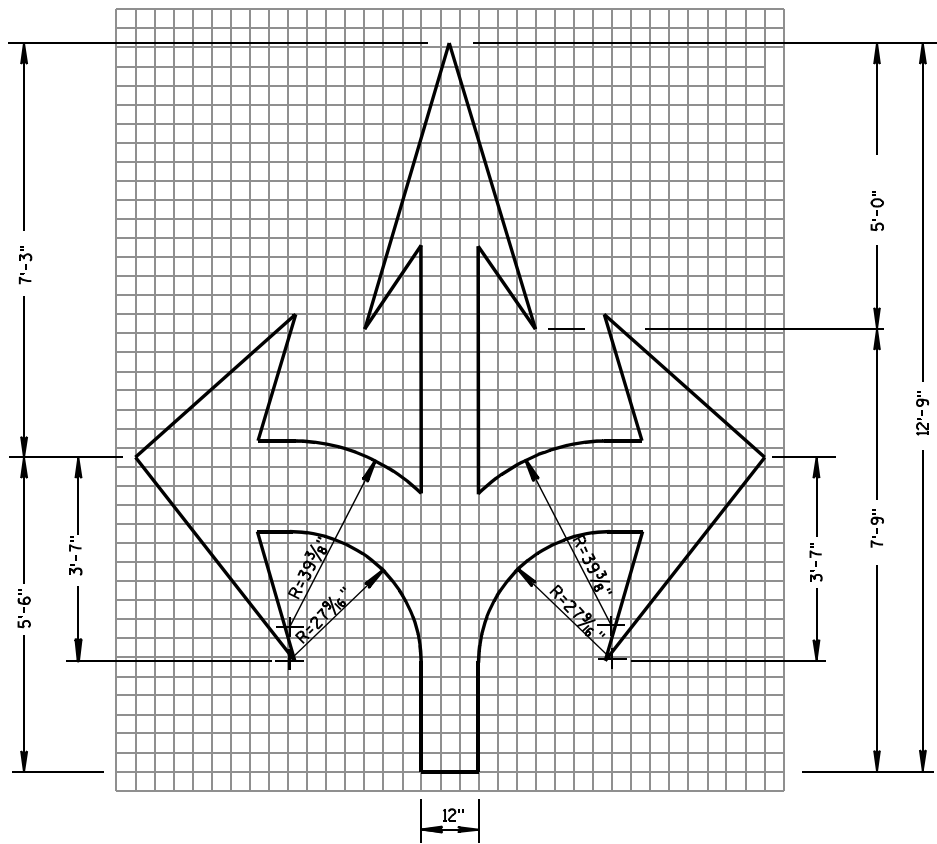
FHWA



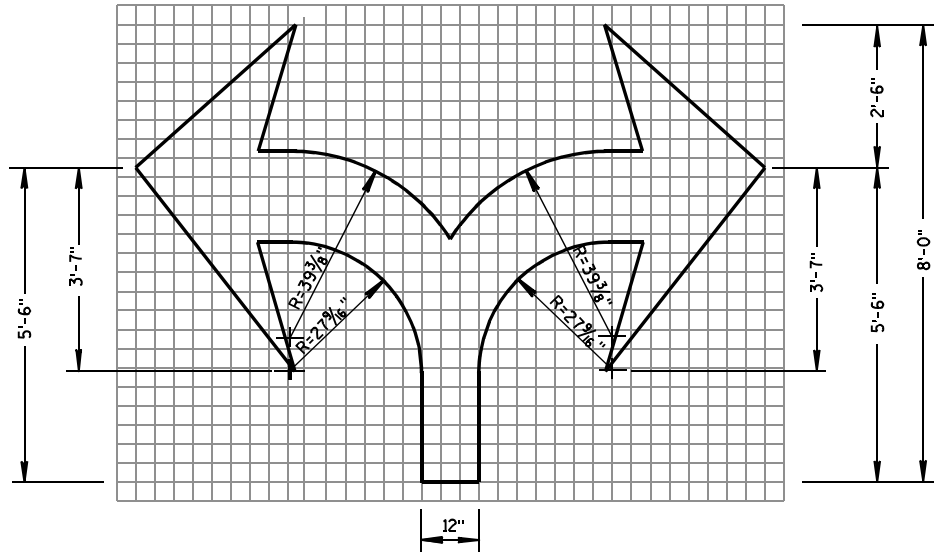
TYPE 2



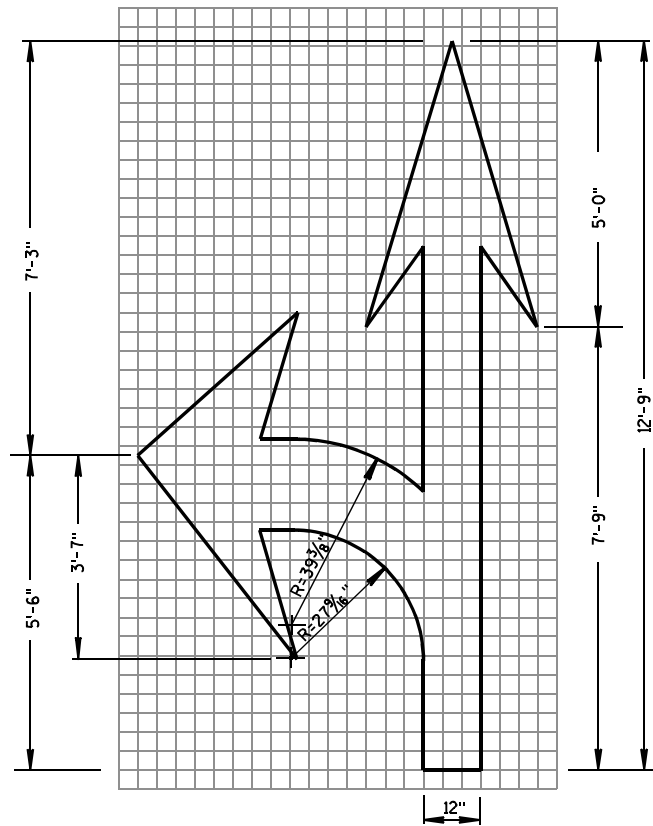
TYPE 1



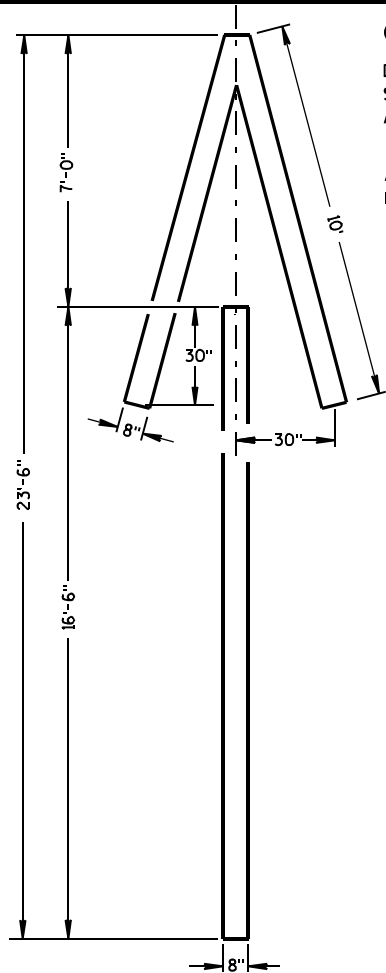
TYPE 6



TYPE 7



TYPE 3

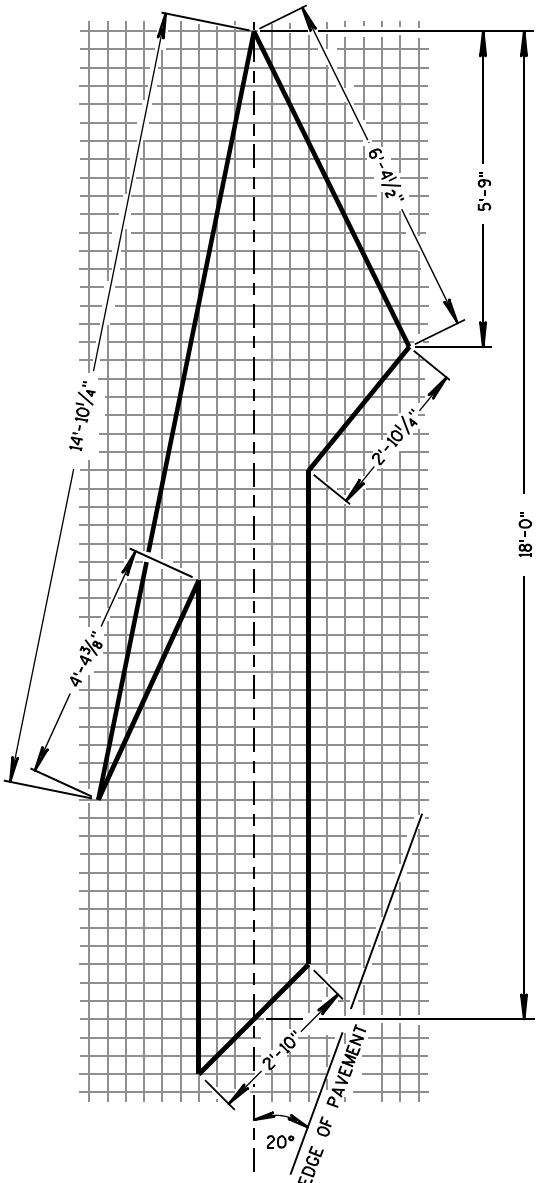


TYPE 4

GENERAL NOTES

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

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



TYPE 5 LANE DROP ARROW

PAVEMENT MARKING ARROWS

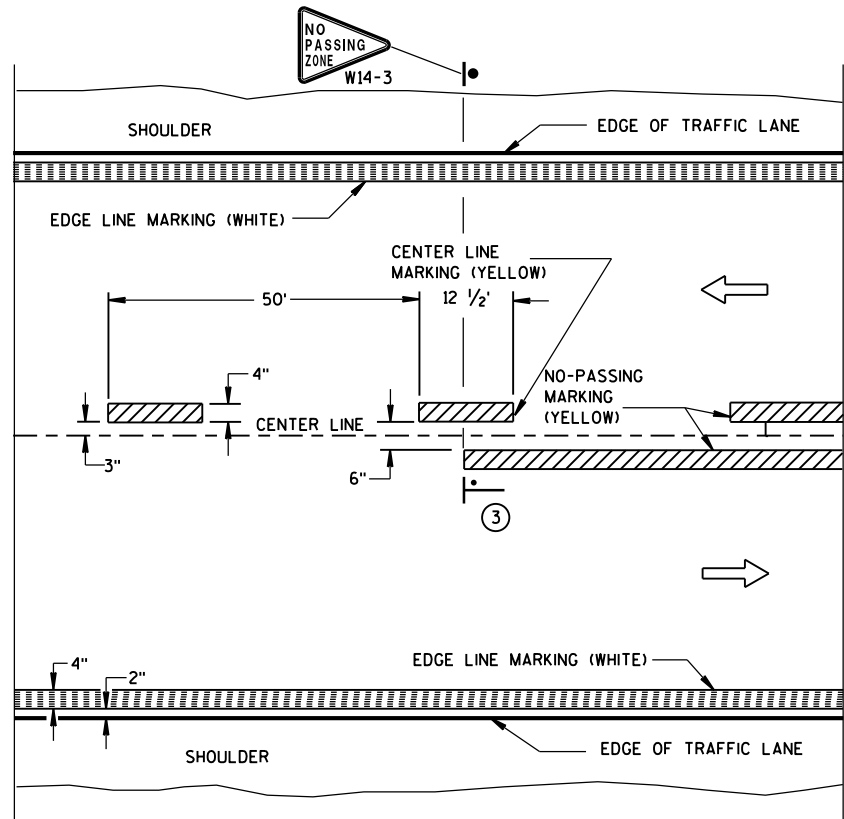
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

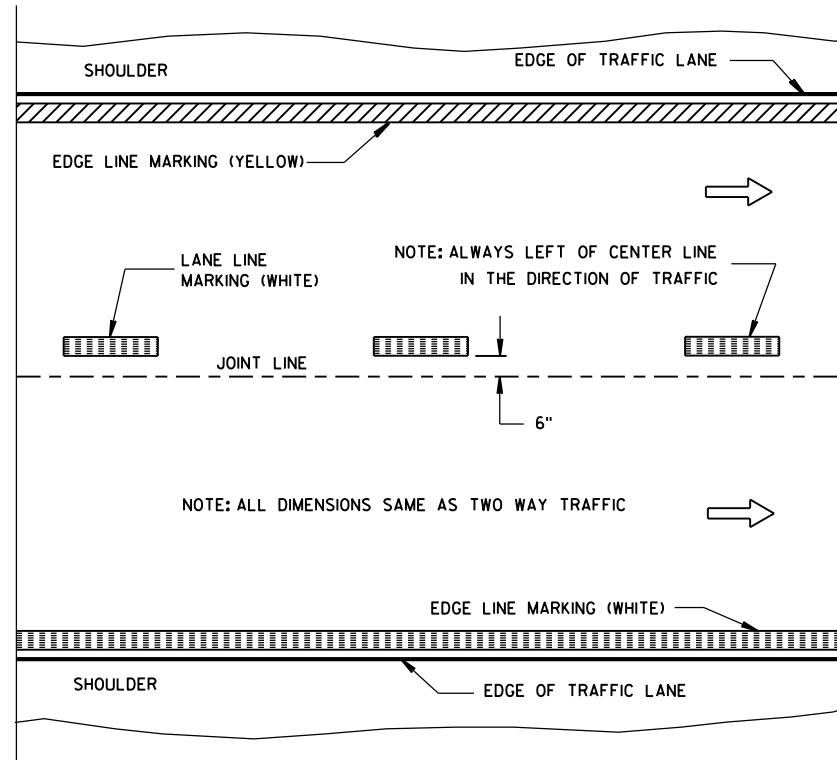
7/1/11
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA

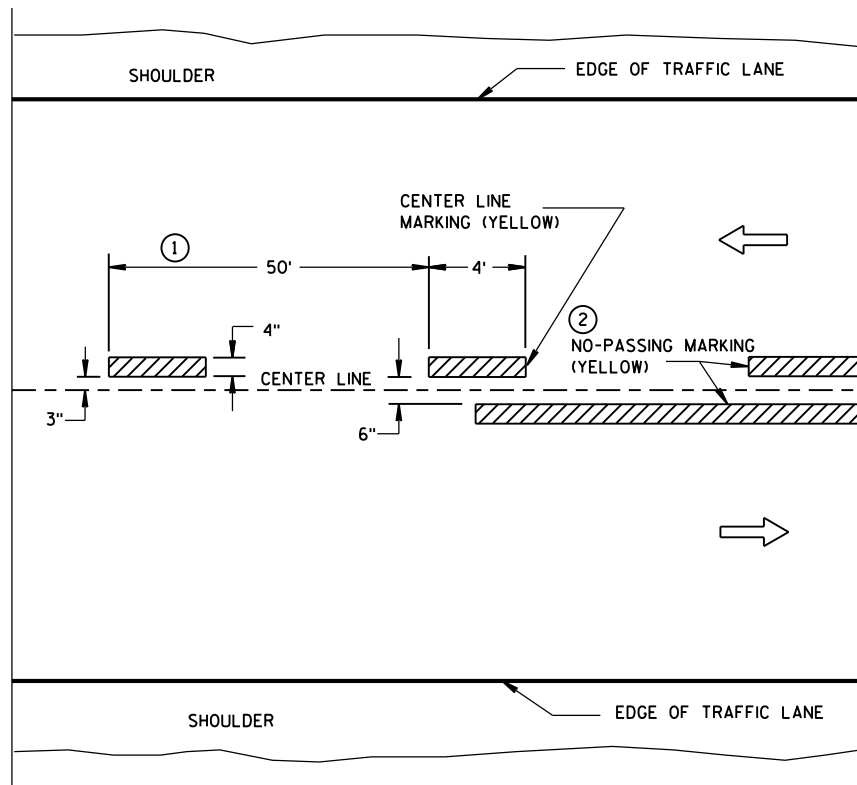


TWO WAY TRAFFIC

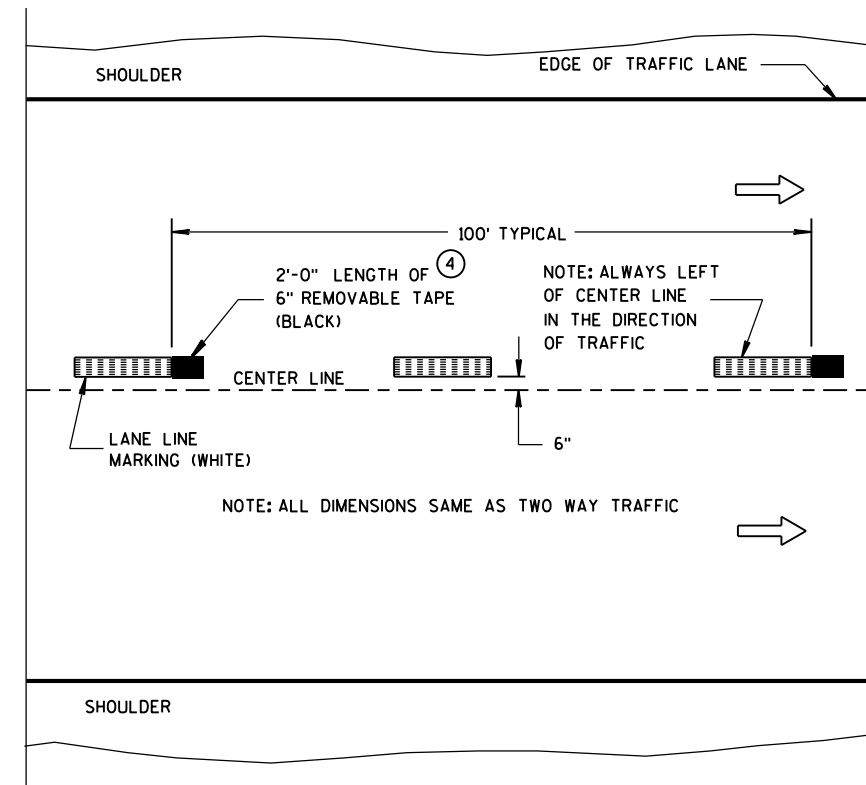


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

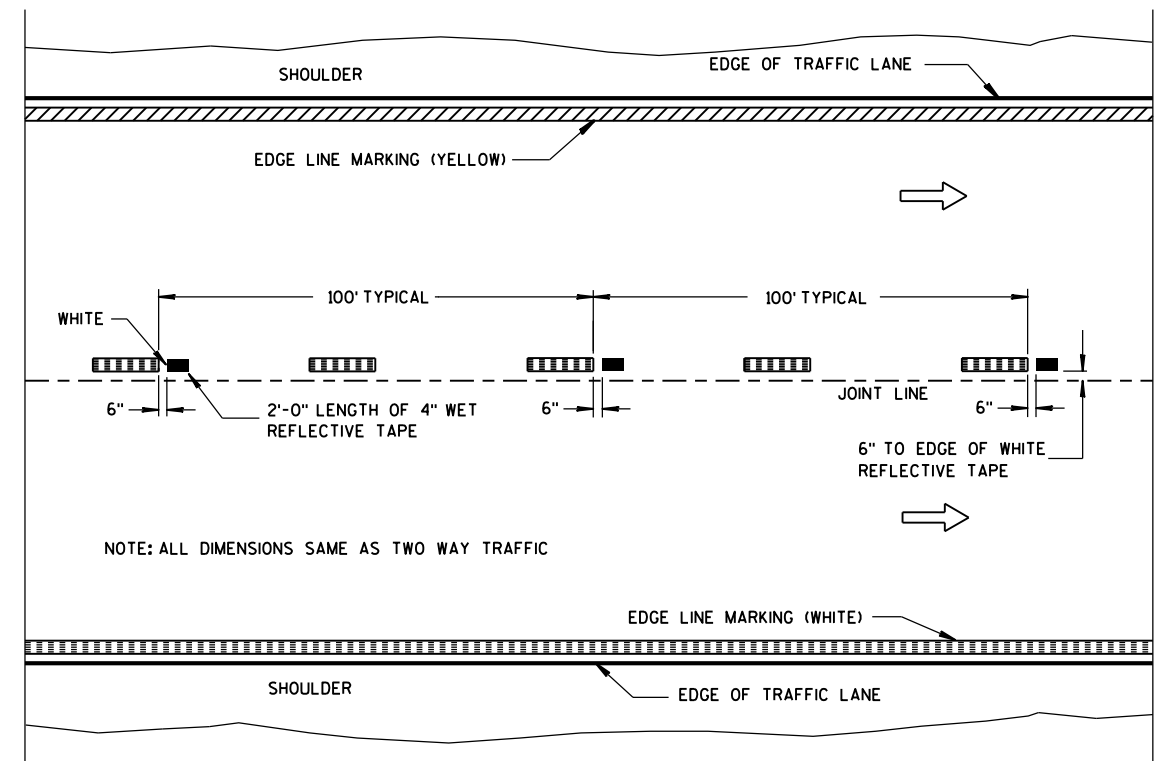
GENERAL NOTES

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

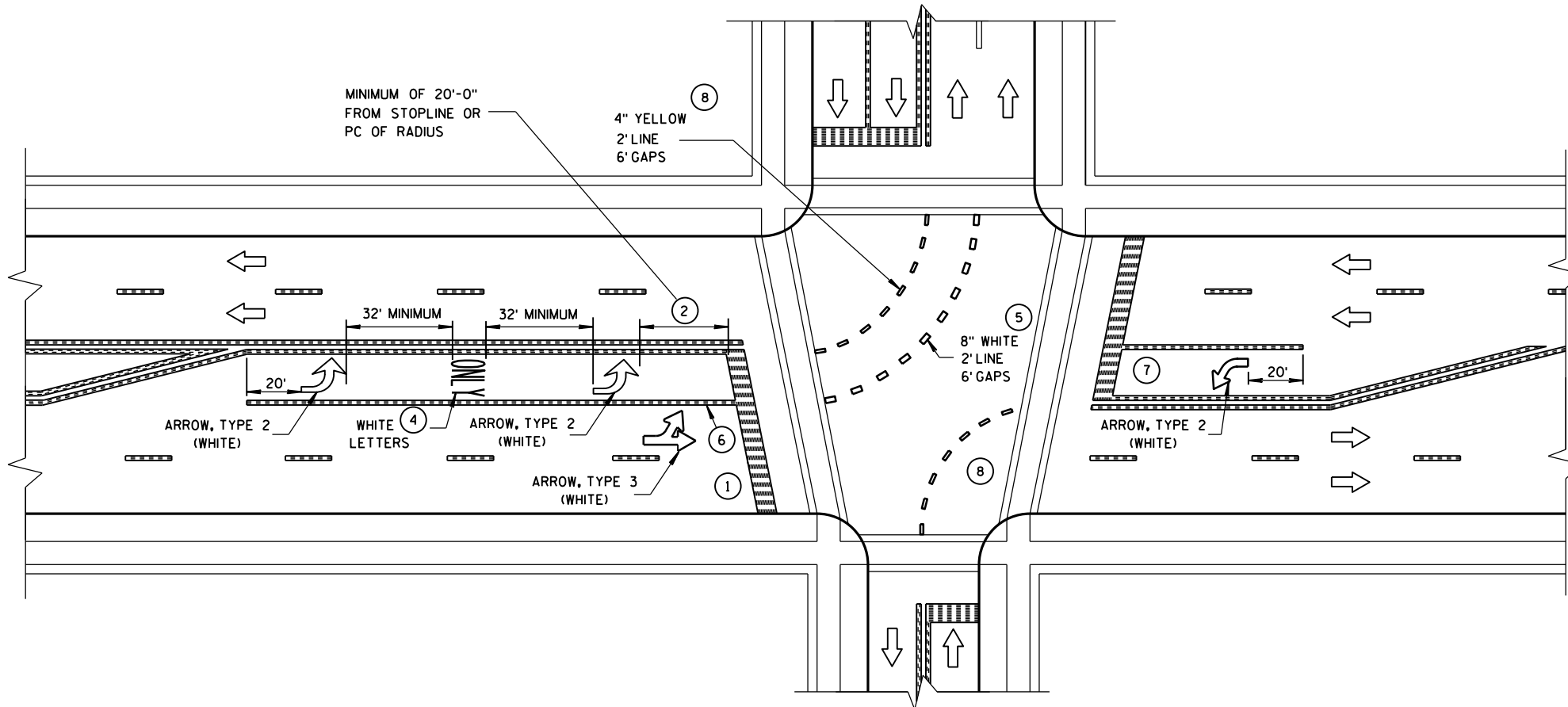
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

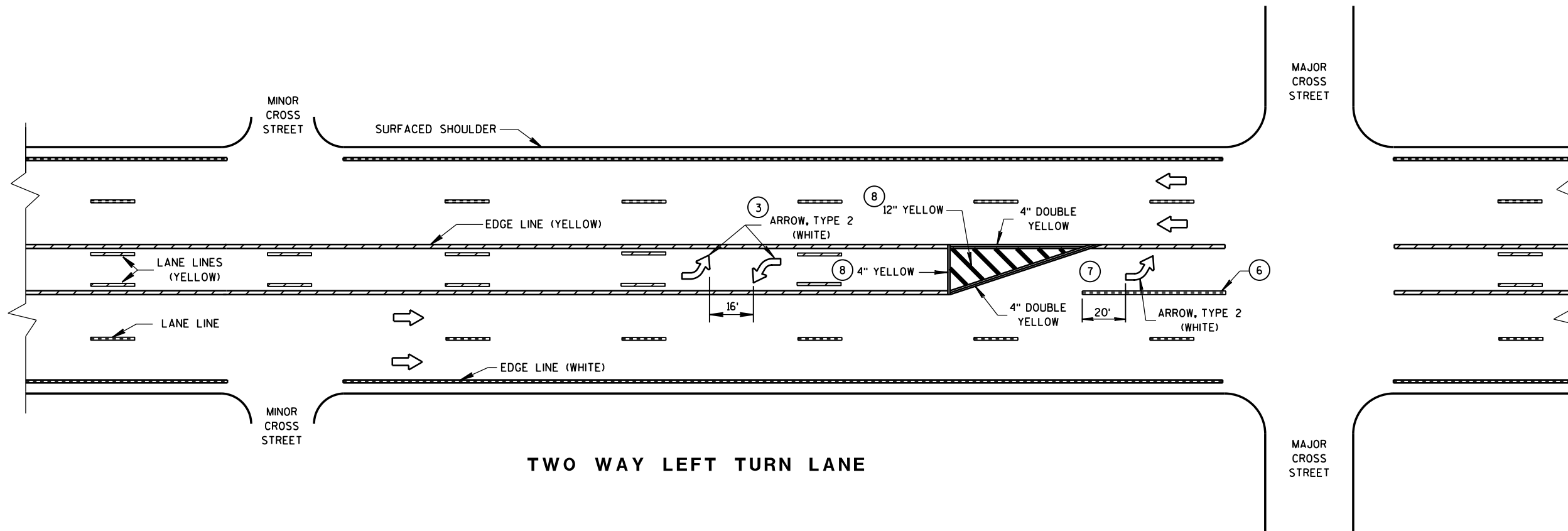
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



GENERAL NOTES

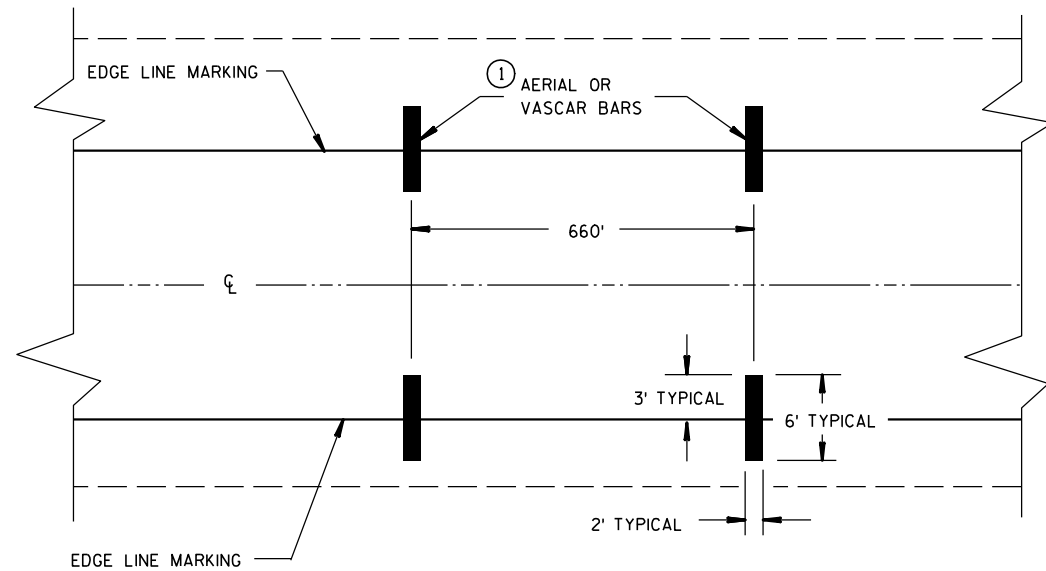
- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
- ⑤ 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- ⑥ 8" WHITE
- ⑦ ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
- ⑧ REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (➡)
SHOWS DIRECTION OF TRAVEL

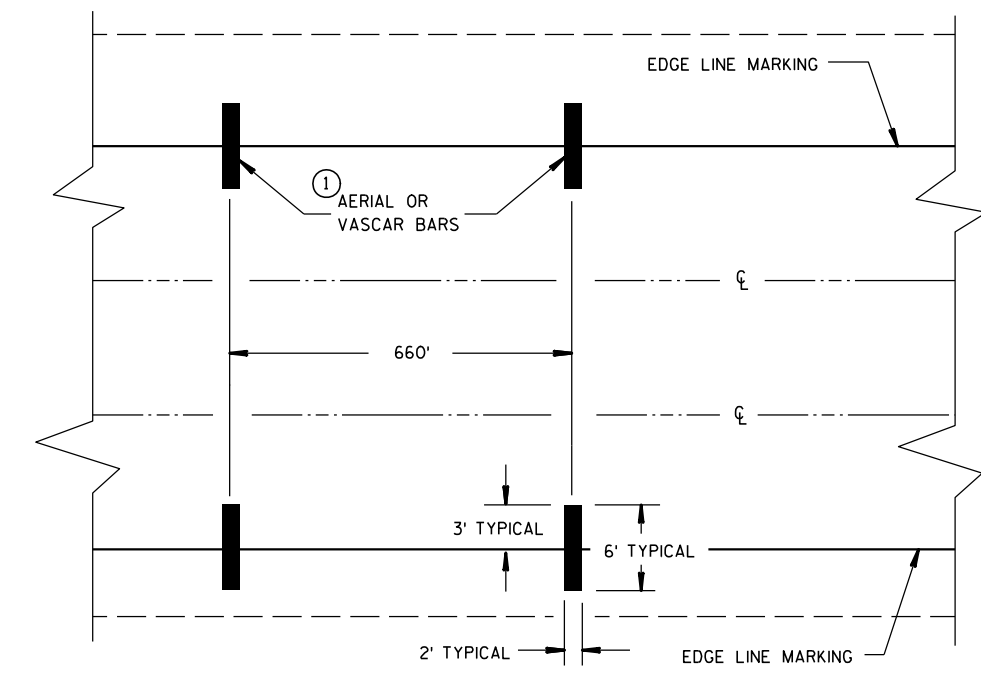


**PAVEMENT MARKING
(LEFT TURN LANE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



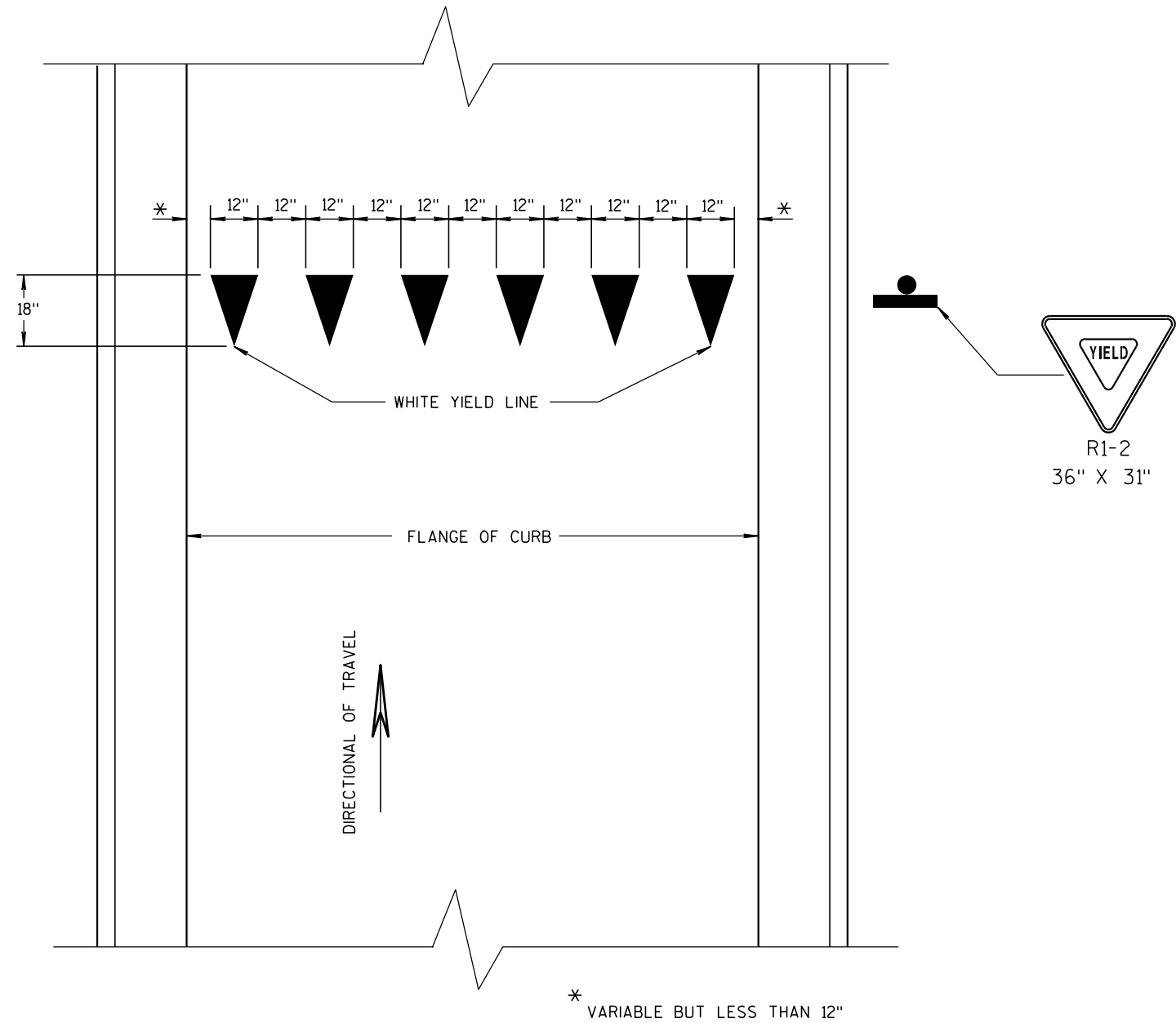
TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

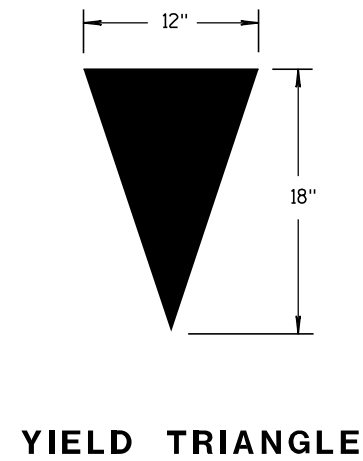
GENERAL NOTES

- ① NUMBER OF VASCAR OR AERIAL BARS SHALL BE A MINIMUM OF 2 OR A MAXIMUM OF 5 AT 660' SPACING.
- A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.

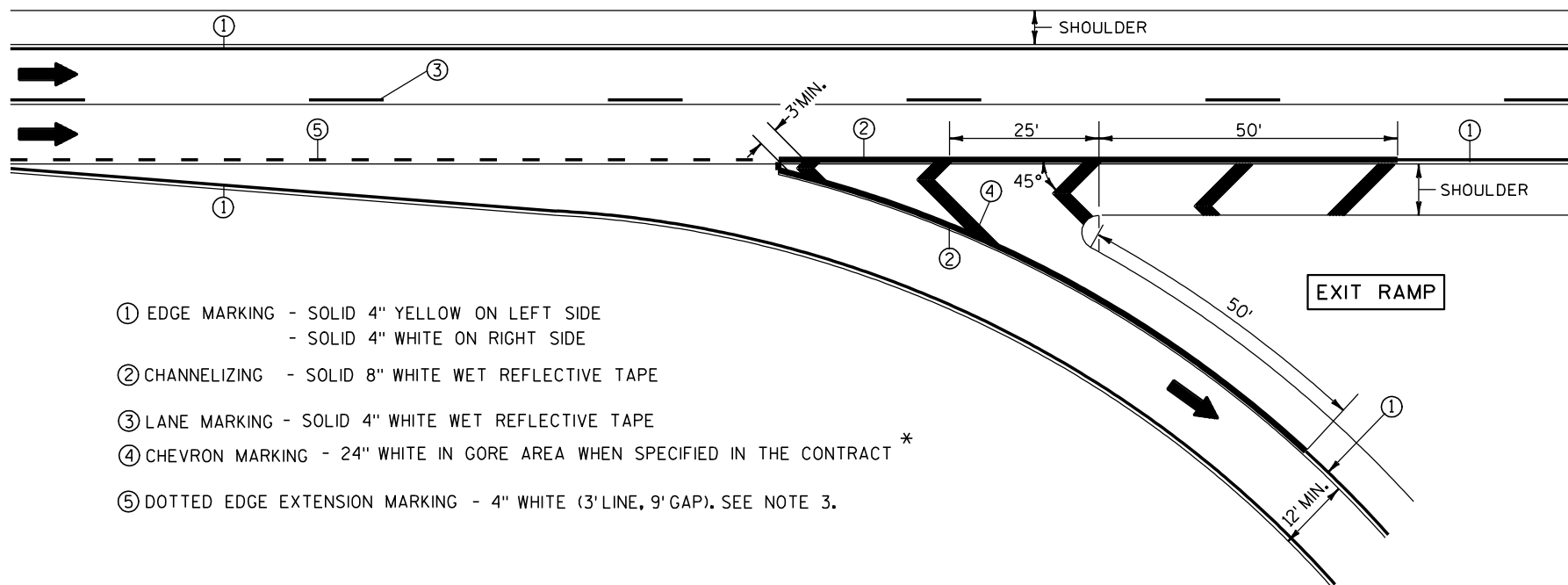
AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4/23/01 DATE	/S/ Chester J. Spang CHIEF SIGNS AND MARKING ENGINEER
FHWA	



YIELD LINE



YIELD MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 1/28/05 DATE	/S/ Thomas N. Notbohm STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

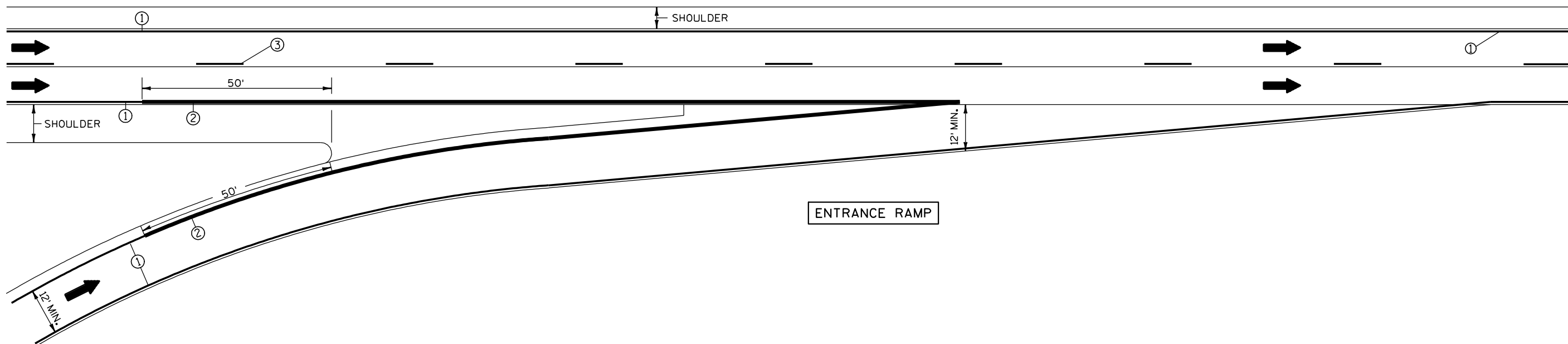


- ① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE
- ② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE
- ③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE
- ④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *
- ⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

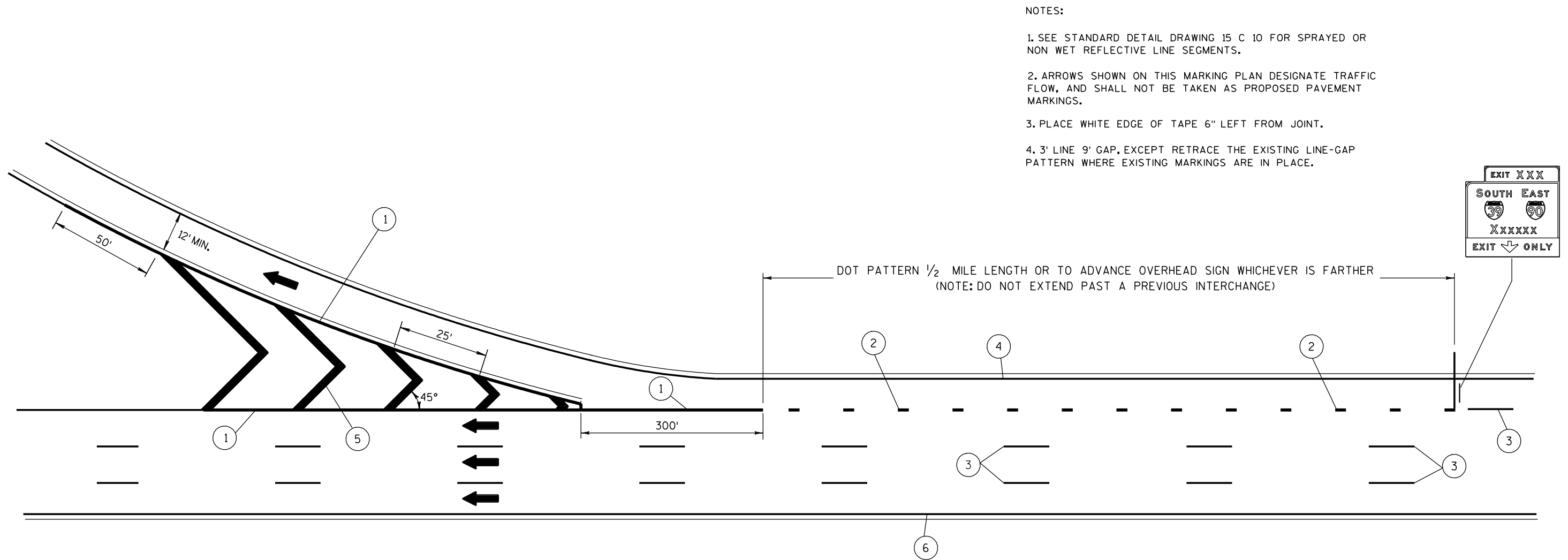
- 1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
- 2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
- 3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



PAVEMENT MARKING
(RAMPS AND GORES)

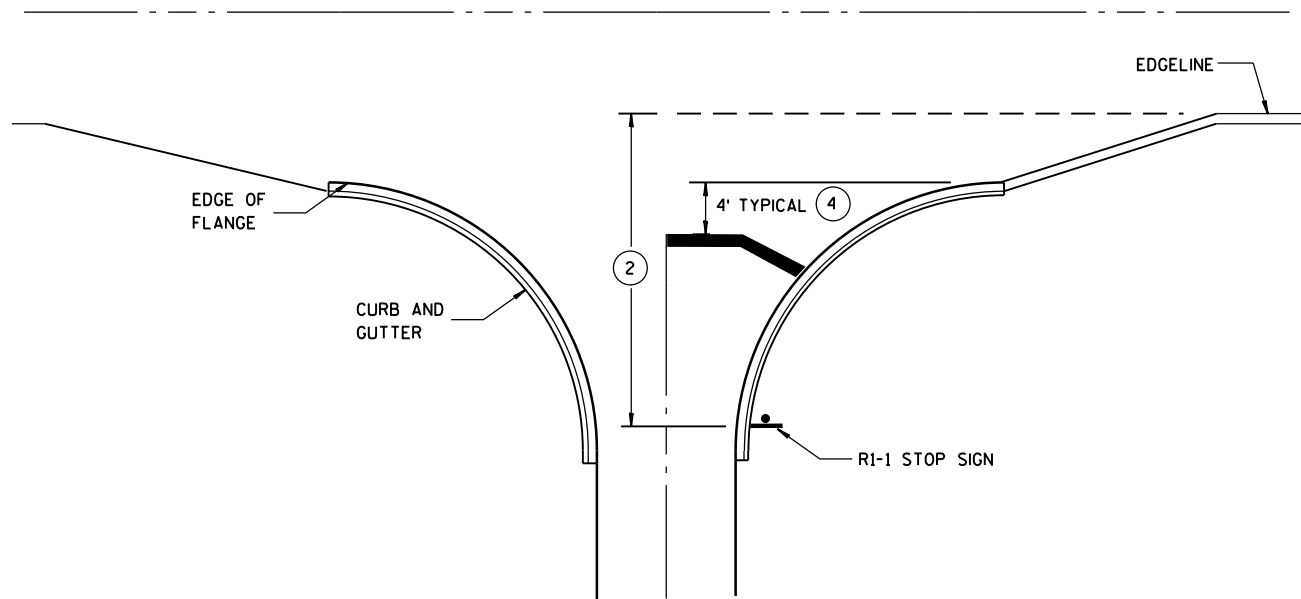
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



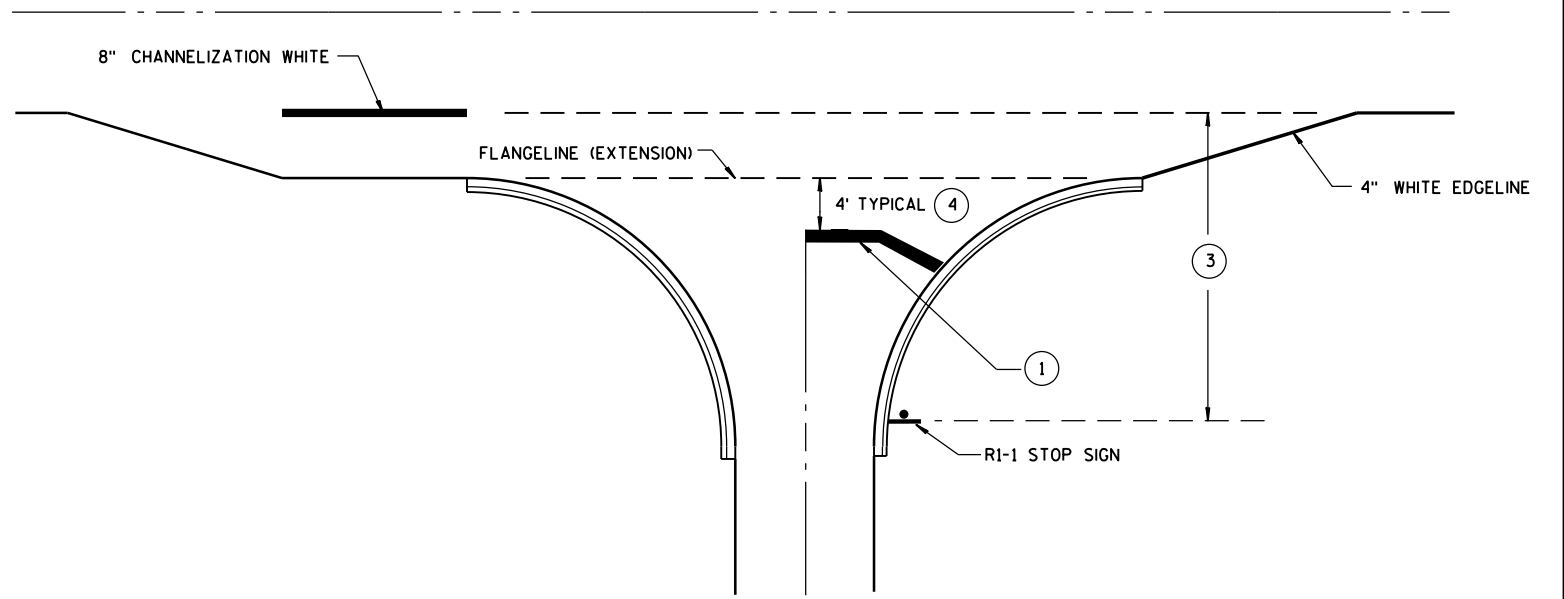
- ① CHANNELIZING - SOLID 8" WHITE WET RELECTIVE TAPE
- ② 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE. SEE NOTE 4.
- ③ SOLID 4" WHITE WET REFLECTIVE TAPE
- ④ 4" WHITE EDGELINE
- ⑤ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT
- ⑥ 4" YELLOW EDGELINE

LANE DROP
PAVEMENT MARKING

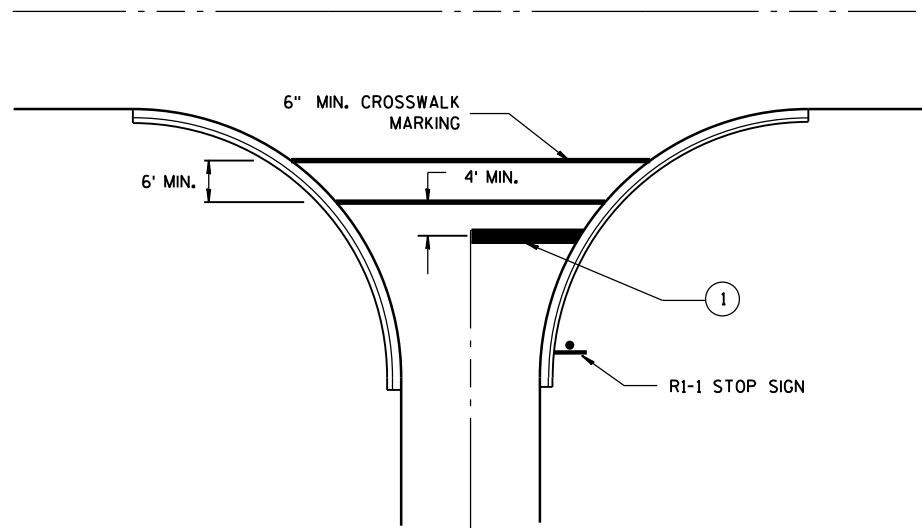
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



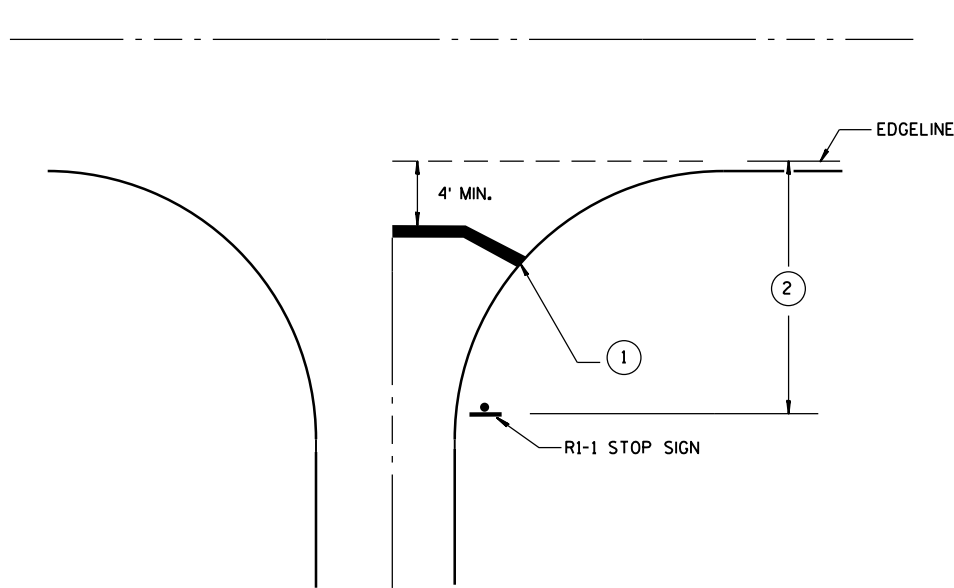
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA



W02-52
36"x24"

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



LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.



R2-1
48"x60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

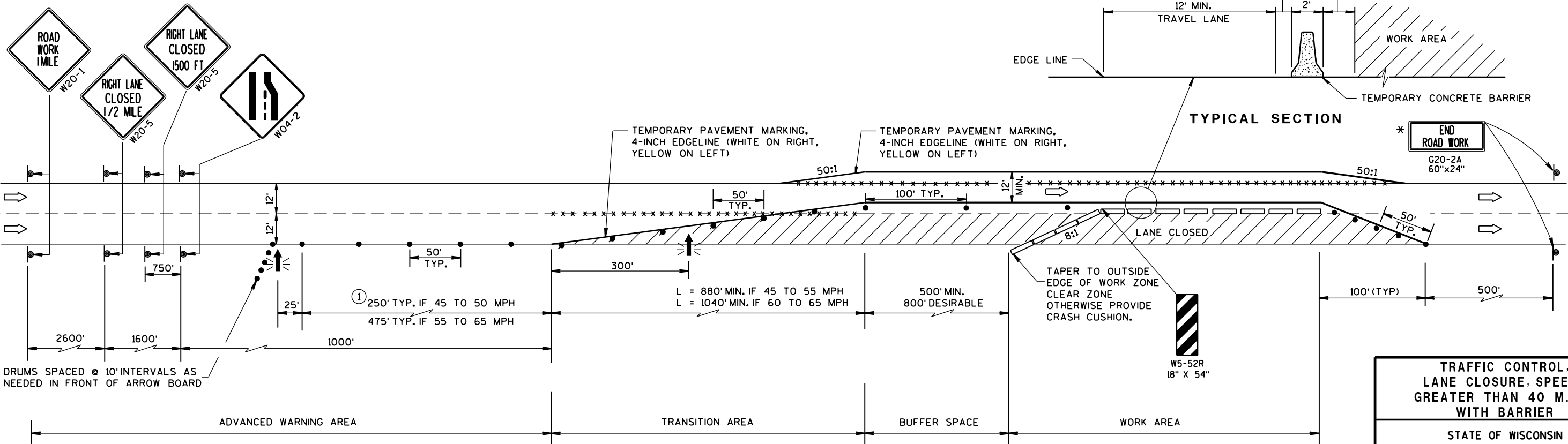
- ① CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

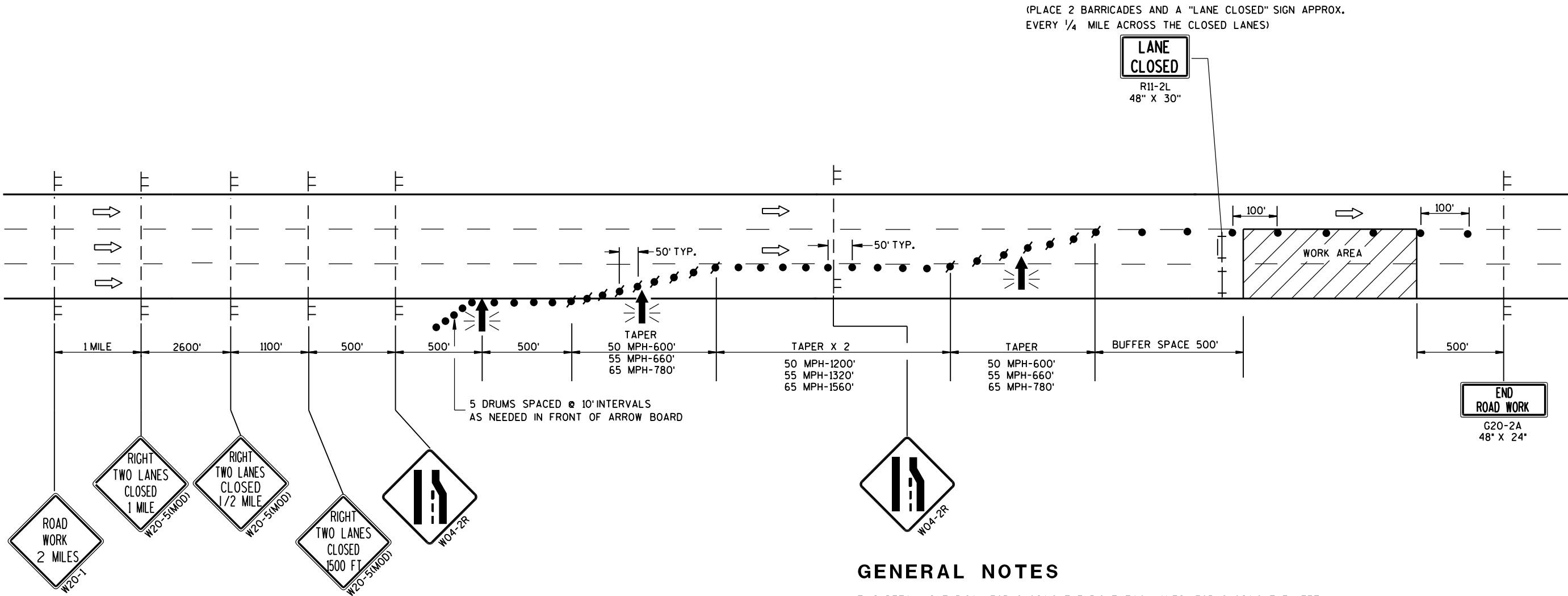
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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

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" X 48" UNLESS OTHERWISE NOTED.

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

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 LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

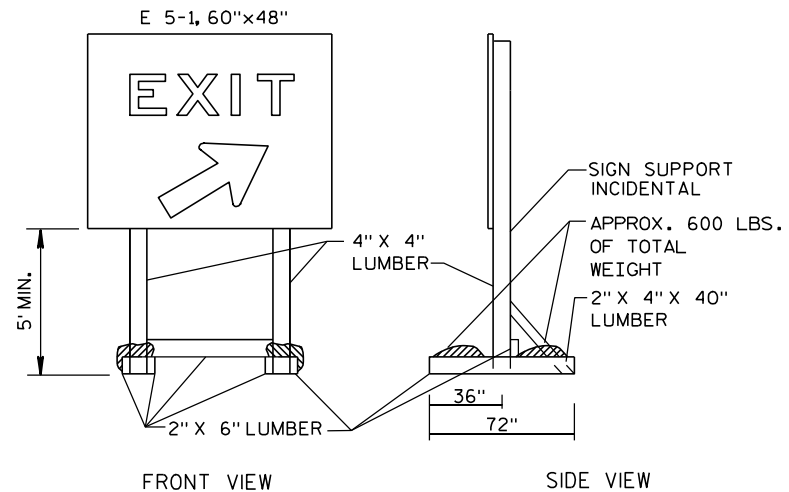
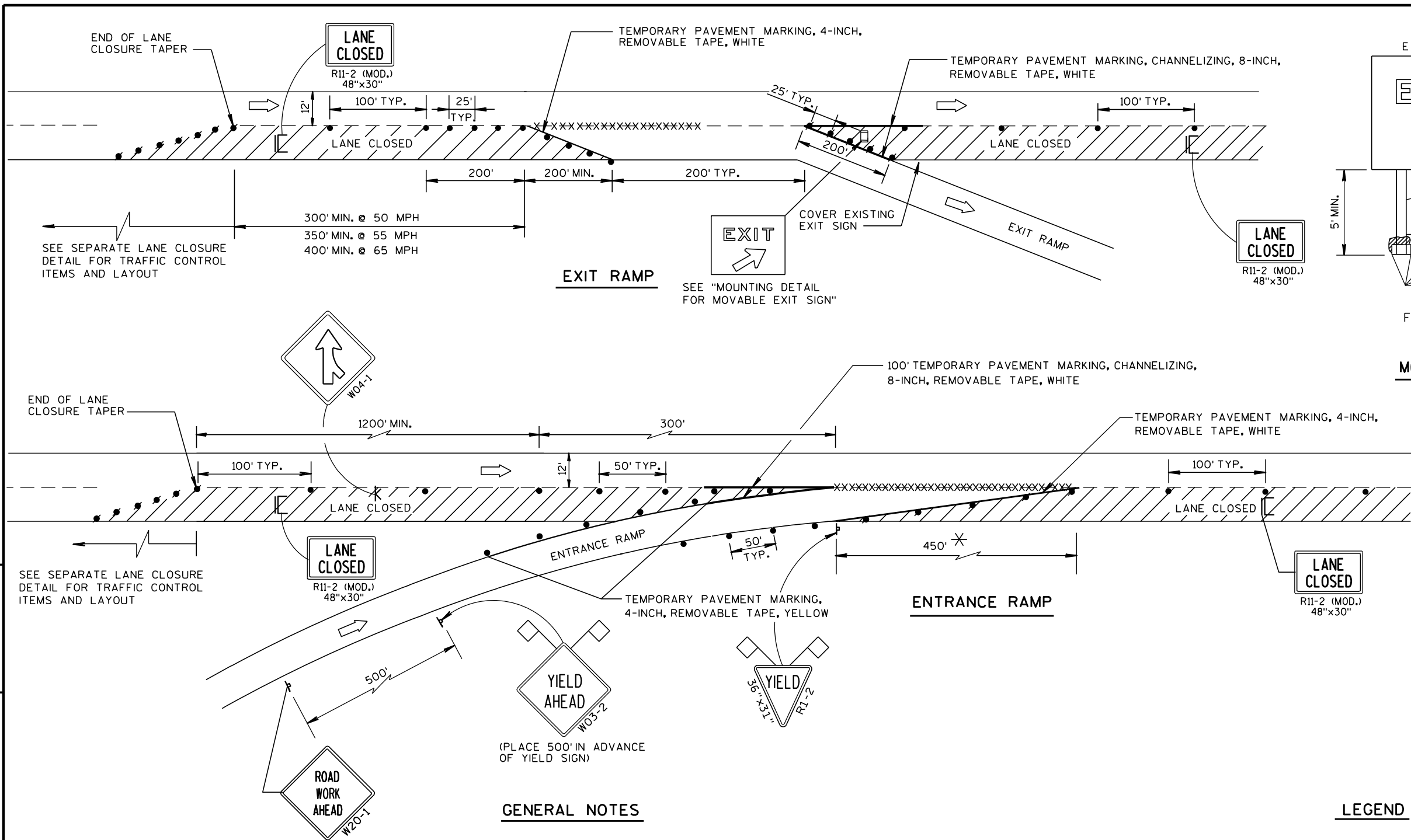
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

BARRICADES IN A CLOSED LANE 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.

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL. TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY. SHORT TERM (LESS THAN 24 HOURS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL
MOUNTING DETAIL FOR MOVABLE EXIT SIGN

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 DATE /S/ Chester J. Spang
CHIEF SIGNS AND MARKING ENGINEER
FHWA

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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" X 48" UNLESS OTHERWISE NOTED.

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.

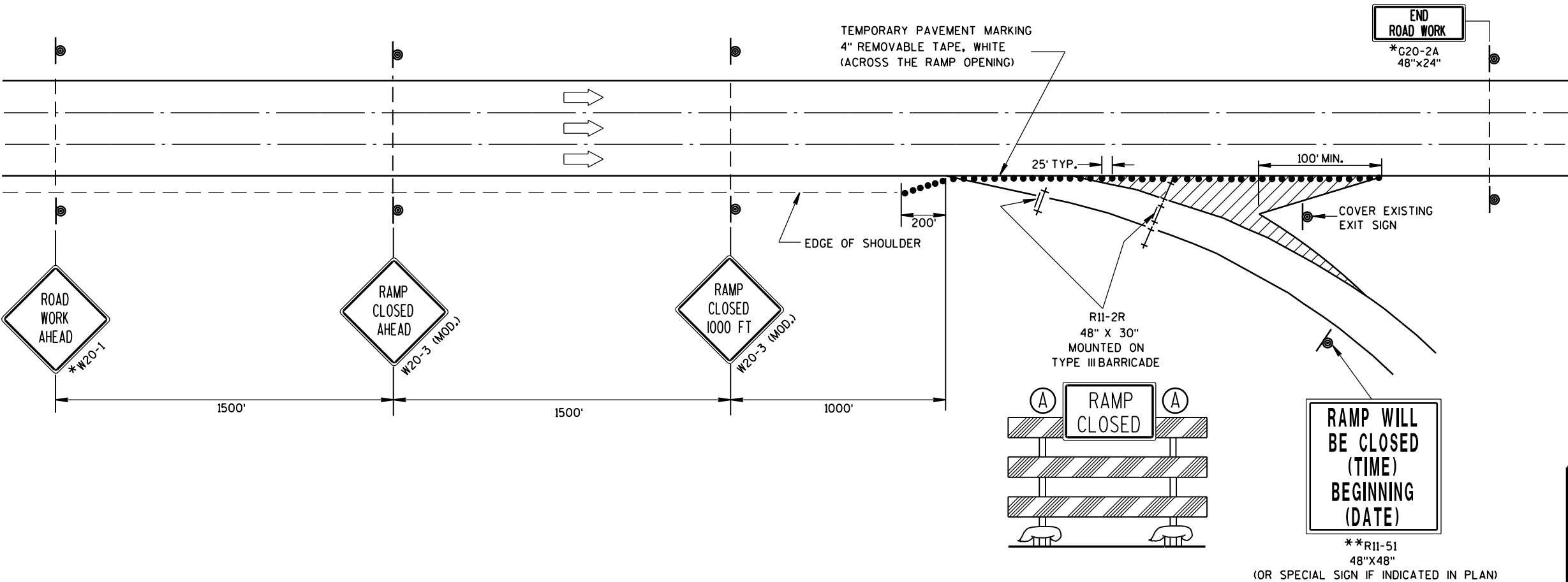
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL, EXIT RAMP CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD
- ▨ WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

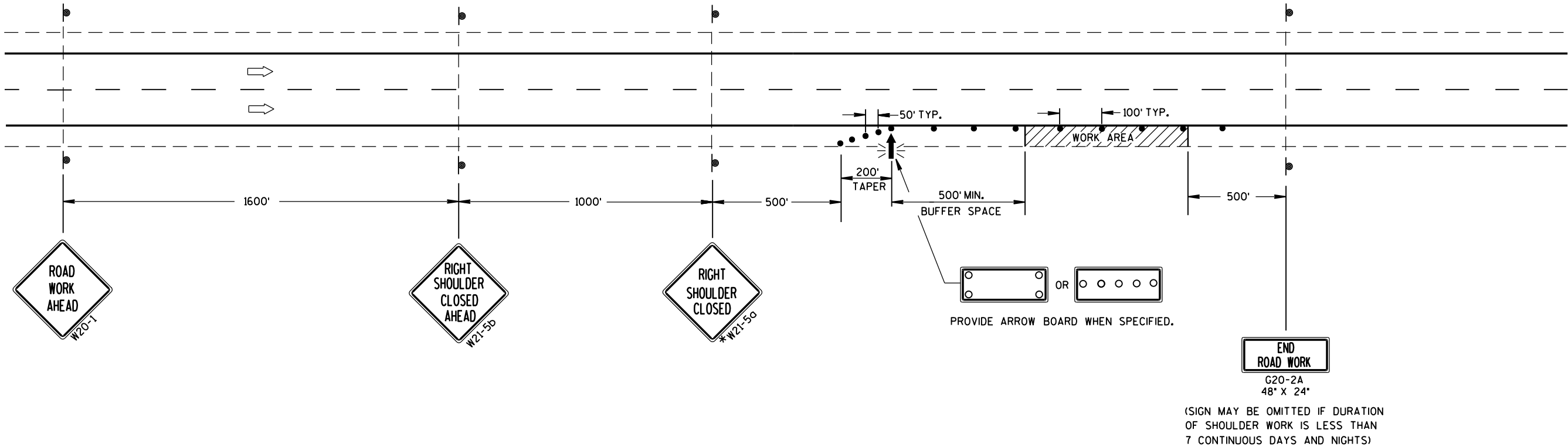
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



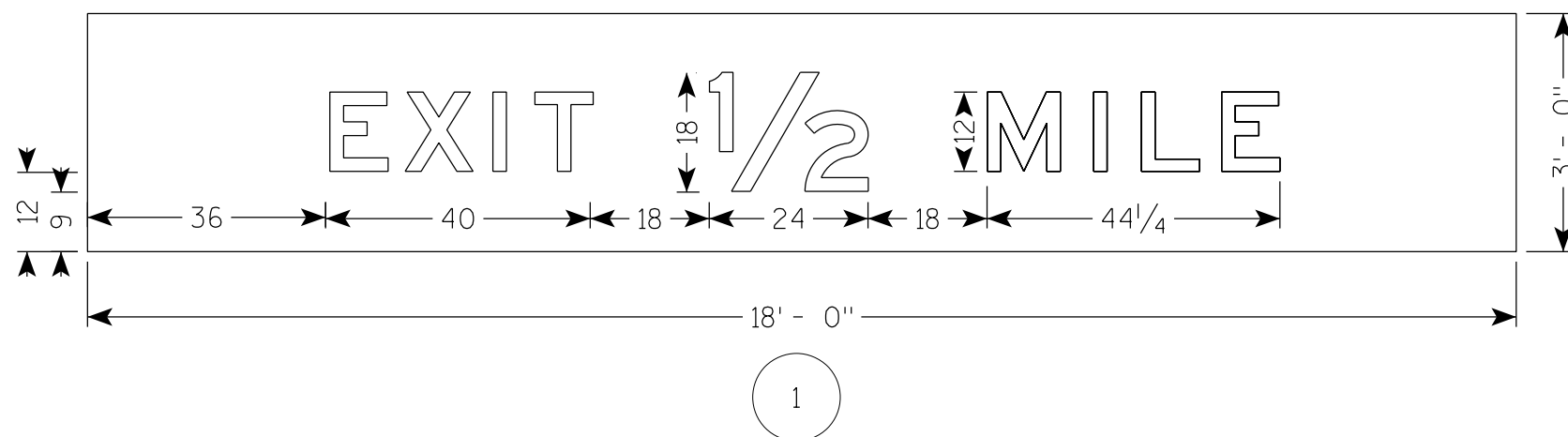
TRAFFIC CONTROL
SHOULDER CLOSURE ON DIVIDED
ROADWAY, SPEEDS GREATER
THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

NOTES

1. All Signs Type II Type F Reflective
2. Color:
Background - YELLOW
Message - BLACK
3. Message Series - E
4. Sign Covers are .040 aluminum



FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

1. DECK REPAIR

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

1. DECK REPAIR

NO.	DATE	REVISION	BY
PLANS PREPARED BY:		 1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 CHIEF STRUCTURES DESIGN ENGINEER		6/19/14
DATE			
STRUCTURE B-44-155			
USH 41 SOUTHBOUND OVER STH 125			
COUNTY OUTAGAMIE		TOWN/CITY/VILLAGE GRAND CHUTE	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
AMZ	JSR	AMZ	JSR
DECK REPAIR			SHEET 1 OF 1

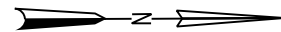
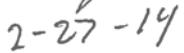


Diagram of a 90-foot long building with three sections. The left section is 36 feet long with three downward arrows. The middle section is 15 feet long with a vertical dashed line. The right section is 36 feet long with three upward arrows.



— 36" DEEP STEEL

1. EXPANSION JOINT REPLACEMENT AND DECK REPAIR
2. QUANTITIES AND GENERAL NOTES
3. CONCRETE DETAILS
4. STRIP SEAL EXPANSION JOINT
5. STRIP SEAL EXPANSION JOINT
6. DECK REPAIR



NO.	DATE	REVISION	BY

PLANS
PREPARED BY: **GRaEF**

1150 Springhurst Drive
Suite 201
Green Bay, WI 54304
920 / 592-9440
920 / 592-9445 fax
www.graef-usa.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Decker ^{DWR} 6/19/1
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-44-157

USH 41 SB OVER STH 96 / WISCONSIN AVE.

COUNTY	OUTAGAMIE	TOWN/CITY/VILLAGE	GRAND CHUTE
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DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	KGW	DESIGN CK'D.	AL	DRAWN BY	AMZ	PLANS CK'D.	JSP
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EXPANSION JOINT REPLACEMENT AND DECK REPAIR	SHEET 1 OF 6

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-44-157	LS	1
502.3100	EXPANSION DEVICE B-44-157	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	56
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	3320
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.1000	JOINT REPAIR	SY	54
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	19
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR JOINT REPAIR, PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

GENERAL NOTES

THE PROPOSED WORK INCLUDES JOINT REPAIR AND DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ANY EXCAVATION REQUIRED TO COMPLETE THE PAVING BLOCK AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM, "EXPANSION DEVICE B-44-157".

THE EXISTING STRUCTURE, B-44-157, IS A TWO SPAN STEEL PLATE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 60 FEET AND AN OVERALL LENGTH OF 198.5 FEET. THE NORTH AND SOUTH EXPANSION JOINTS ARE TO BE REPLACED.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

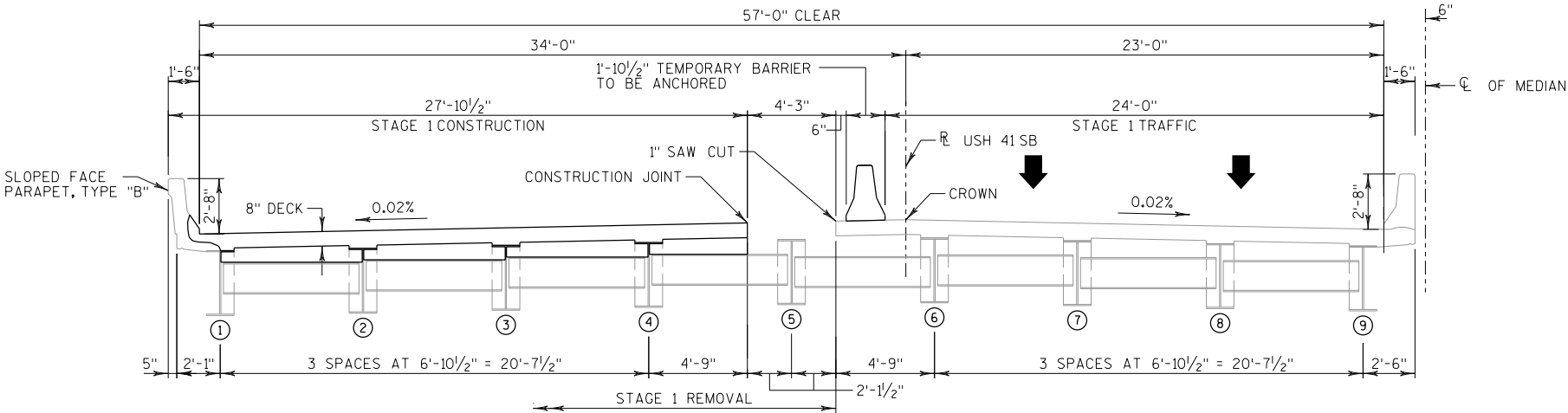
PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

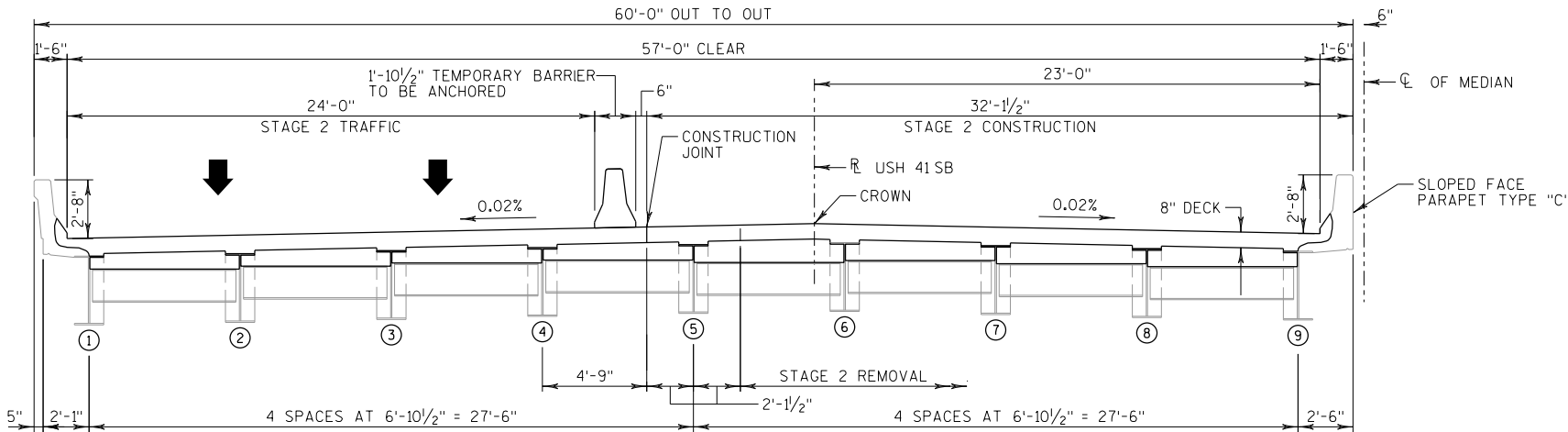
PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE NEW DECK CONCRETE ASSOCIATED WITH THE JOINT REPLACEMENT, FRONT FACE OF THE PARAPETS, PAVING BLOCKS, AND DECK REPAIR AREAS.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ON ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



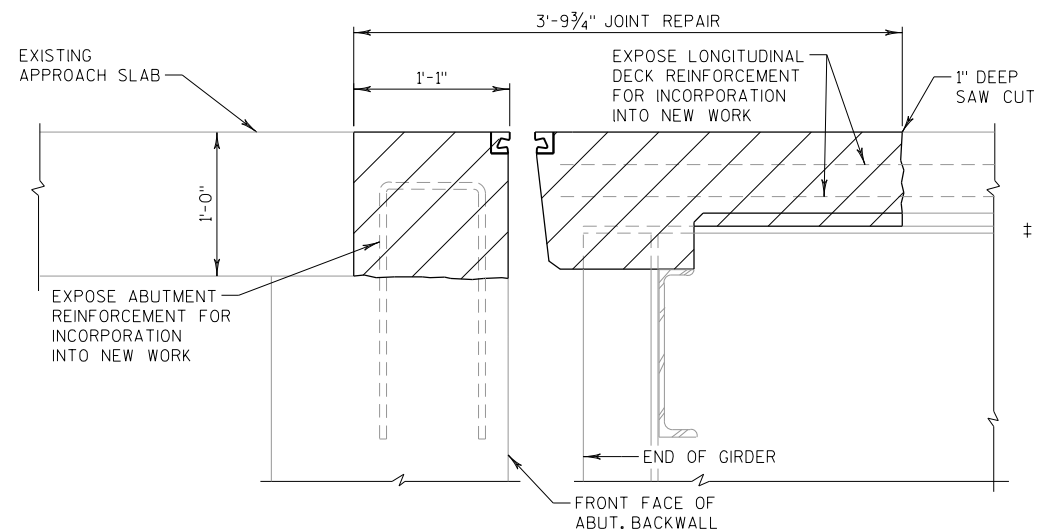
CROSS SECTION STAGE 1 - AT BOTH ABUTMENTS
(LOOKING NORTH)



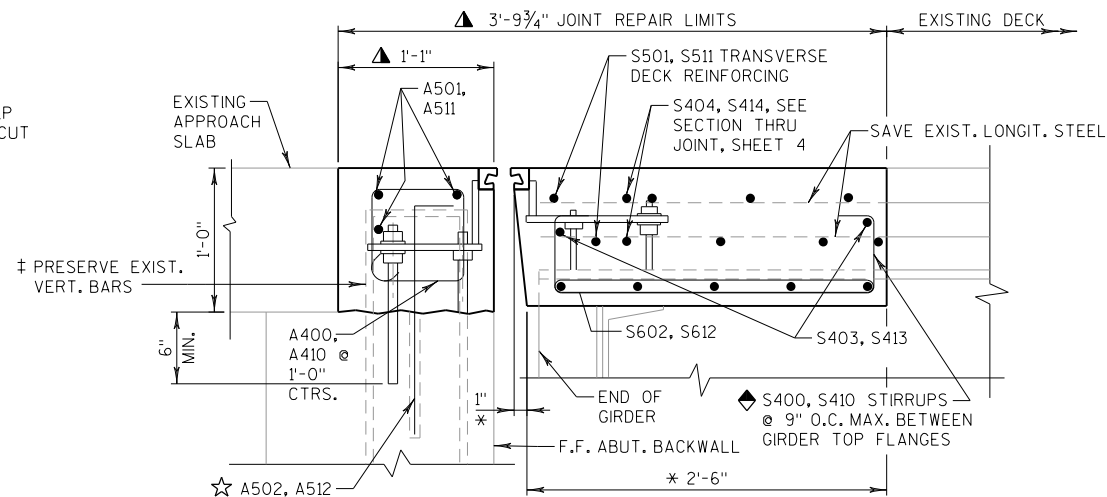
CROSS SECTION STAGE 2 - AT BOTH ABUTMENTS
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-157			
DRAWN BY		AMZ	PLANS CK'D. JSR
QUANTITIES AND GENERAL NOTES		SHEET 2 OF 6	
		USH 41	

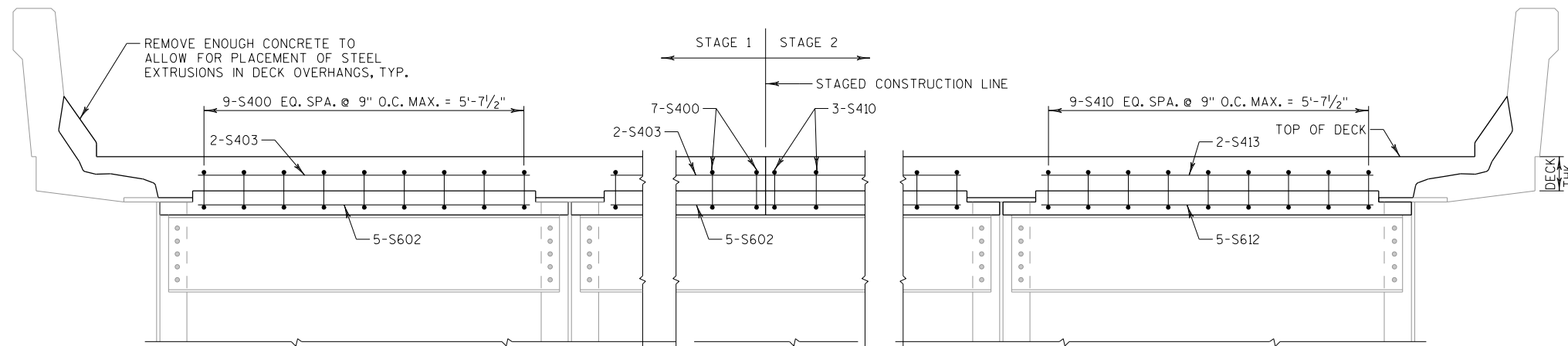
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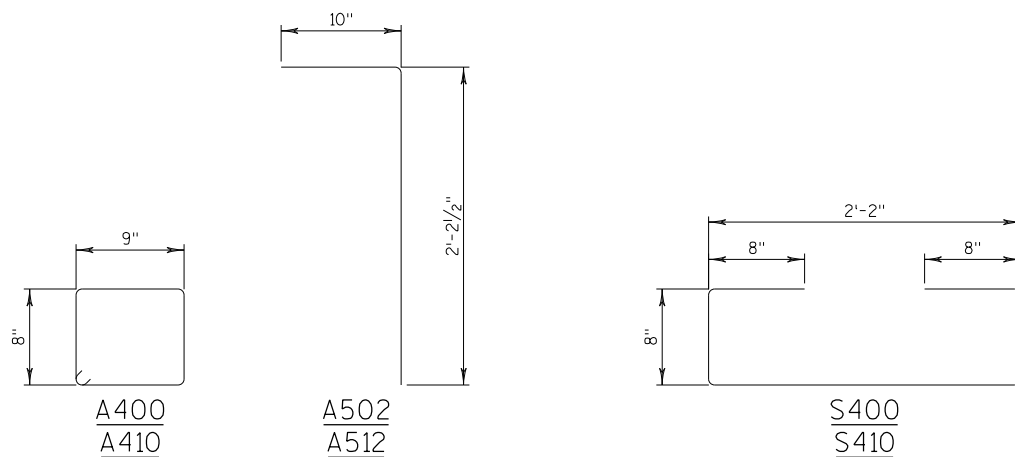
JOINT REPAIR - REMOVAL
NORMAL TO ϕ SUBSTRUCTURE



SECTION THRU EXPANSION JOINT
NORMAL TO ϕ SUBSTRUCTURE



**PART TRANSVERSE SECTION AT DIAPHRAGM
EXPANSION END**
(LOOKING NORTH)



NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS						
MARK	COATED	NO. REQ'D	LENGT H	BAR SERIES	BENT	LOCATION
A400	X	54	3'-4"		X	PAVING NOTCH STIRRUP STAGE 1
A501	X	24	8'-0"			PAVING NOTCH TRANS. STAGE 1
A502	X	54	2'-11"		X	PAVING NOTCH DOWEL STAGE 1
A410	X	62	3'-4"		X	PAVING NOTCH STIRRUP STAGE 2
A511	X	24	8'-0"			PAVING NOTCH TRANS. STAGE 2
A512	X	62	2'-11"		X	PAVING NOTCH DOWEL STAGE 2
S400	X	68	4'-6"		X	DIAPH. STIRRUP STAGE 1
S501	X	16	28'-0"			DECK TRANS. STAGE 1
S602	X	40	5'-7"			DIAPH. TRANS. BOTT. STAGE 1
S403	X	16	5'-7"			DIAPH. TRANS. TOP STAGE 1
S404	X	16	5'-7"			TRANS. BARS AT JOINT STAGE 1
S410	X	78	4'-6"		X	DIAPH. STIRRUP STAGE 2
S511	X	16	29'-5"			DECK TRANS. STAGE 2
S612	X	40	5'-7"			DIAPH. TRANS. BOTT. STAGE 2
S413	X	16	5'-7"			DIAPH. TRANS. TOP STAGE 2
S414	X	16	5'-7"			TRANS. BARS AT JOINT STAGE 2

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

LEGEND

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ A502, A512 MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

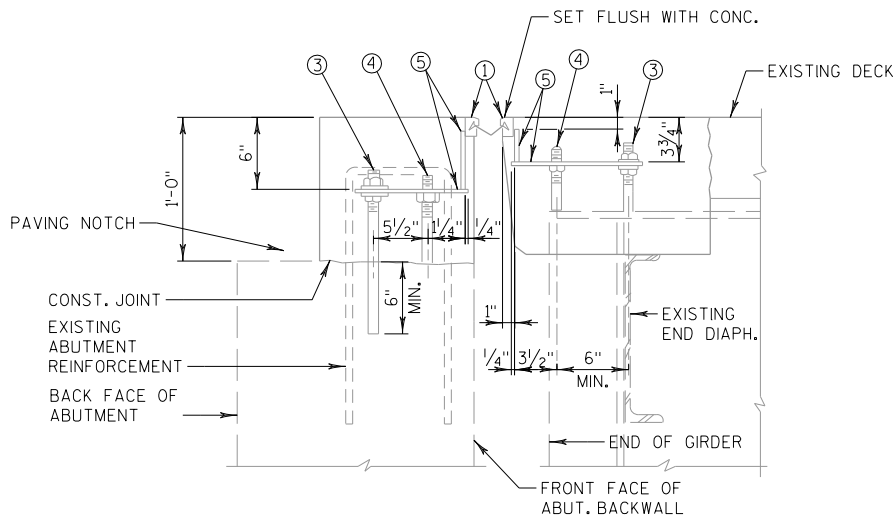
▲ DIMENSIONS GIVEN ARE NORMAL TO ϕ OF SUBSTRUCTURE UNIT. UTILIZE EXISTING REINFORCEMENT.

◆ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ϕ GIRDERS.

▨ EXISTING CONCRETE TO BE REMOVED.

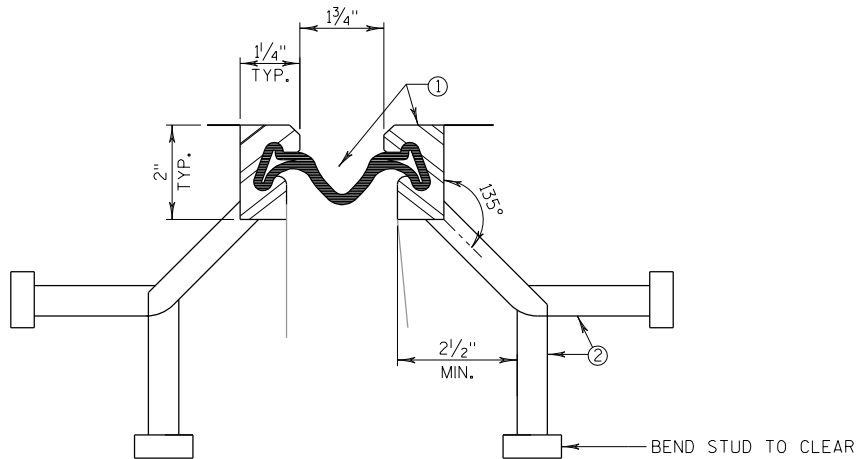
* DIMENSION IS TAKEN NORMAL TO ϕ ABUTMENT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-157			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE DETAILS		SHEET 3 OF 6	
		USH 41	

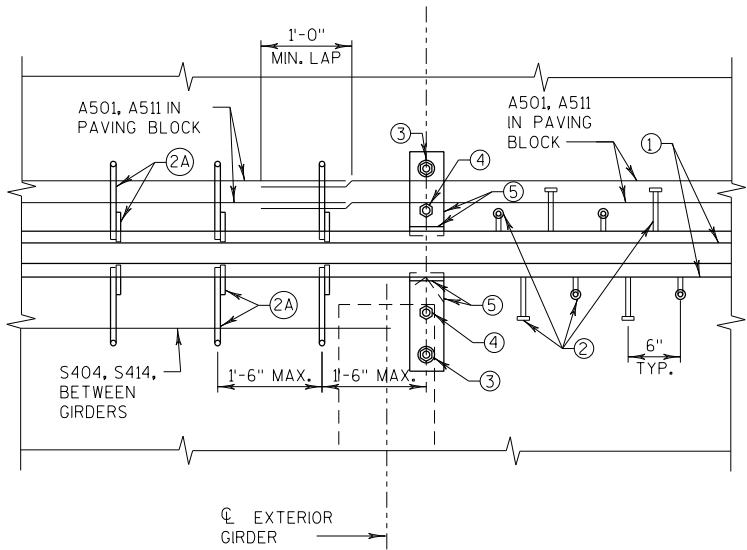


TYPICAL SECTION THRU JOINT AT STEEL GIRDER

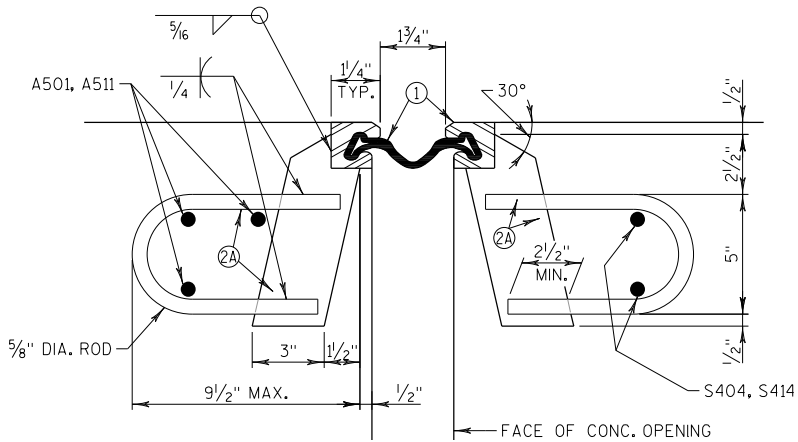
NORMAL TO CL SUBSTRUCTURE



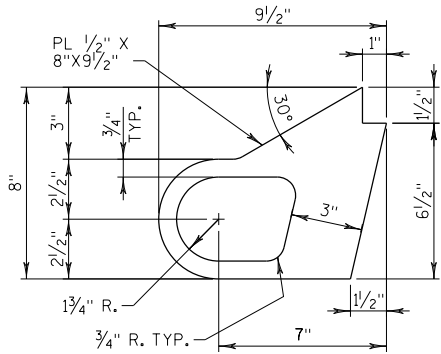
SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF SLAB
AND AT PARAPETS, MEDIANS & SIDEWALKS



PART PLAN



SECTION THRU JOINT
ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS
SYM. ABOUT CL JOINT UNLESS OTHERWISE SHOWN OR NOTED



ALTERNATE STRIP SEAL ANCHOR

LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4".
2. STUDS 5/8" ϕ $\times$ 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 2A. 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND 2 PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" $\times$ 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" $\times$ 10 1/2" $\times$ 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4" ϕ $\times$ 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" ϕ $\times$ 2 1/4" GALVANIZED THREADED COUPLING.
10. NOT USED
11. 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE IS PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

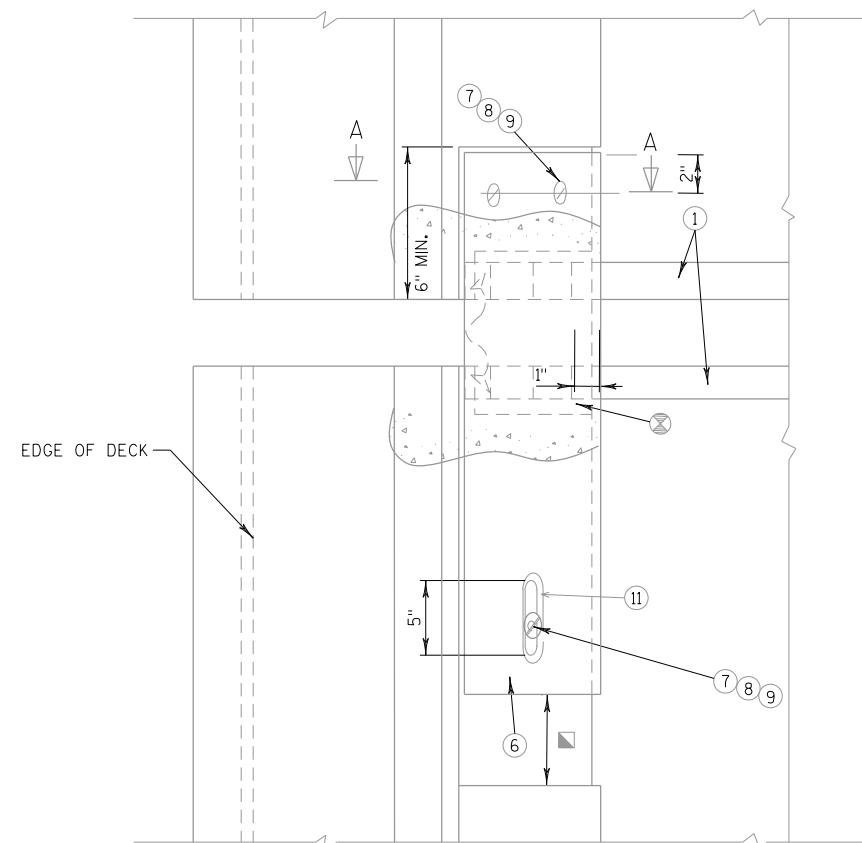
SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

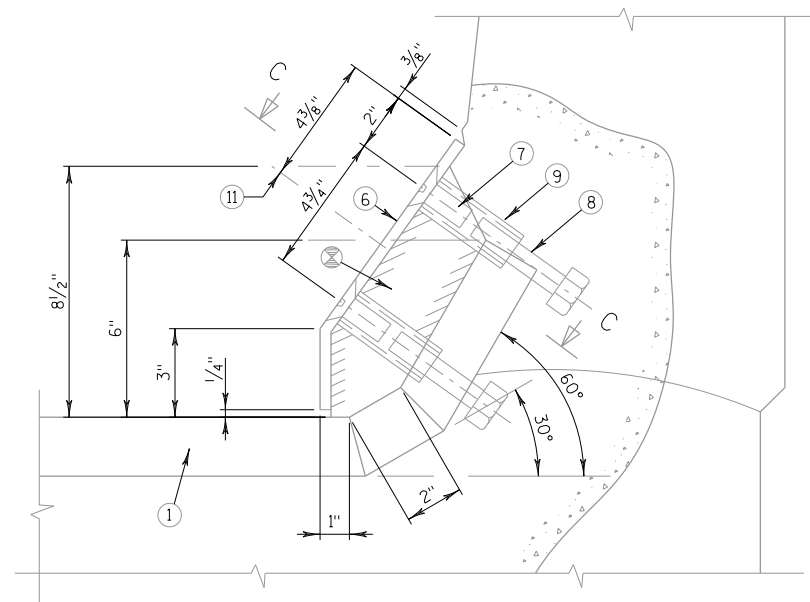
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-44-157".

STATE PROJECT NUMBER	
1124-54-60	

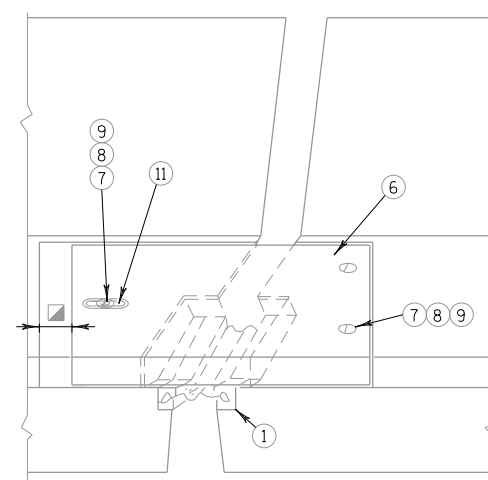
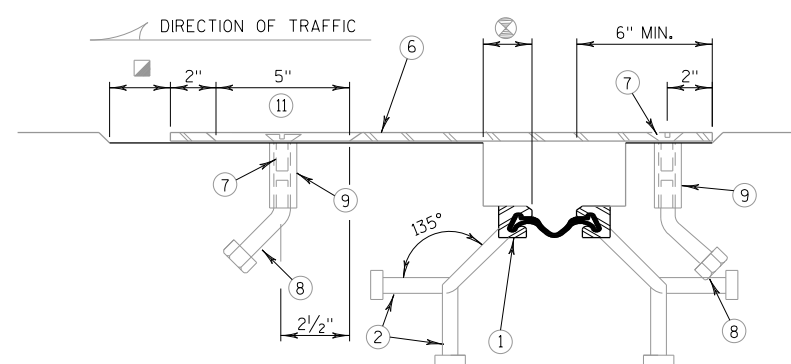
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-157			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 4 OF 6	
		USH 41	



PLAN AT PARAPET



SECTION A-A

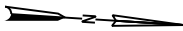
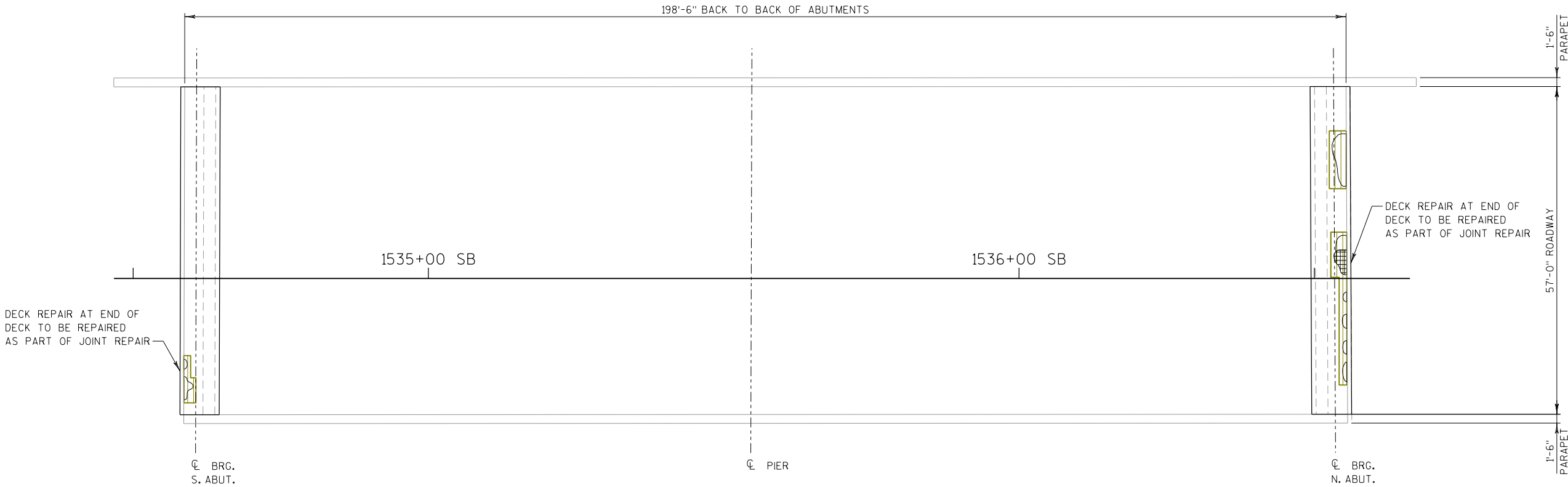
VIEW OF PARAPET PLATES
FROM ROADWAY

SECTION C-C

LEGEND

- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING
- ▣ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"
- ⑪ SEE SHEET 4 FOR LEGEND

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-157			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 5 OF 6	
		USH 41	



PLAN
DECK REPAIR

DECK REPAIR

DECK REPAIR AREAS		S.N. B-44-157		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1314.7		DECK PREPARATION AREA SHADE/DEBRIS	DELAMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	9.4	0.7		DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	2.4	0.2		ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/1/13
INFRARED SURVEY TAKEN BY AECOM

- FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-157			
DRAWN BY		AMZ	PLANS CK'D. JSR
DECK REPAIR		SHEET 6 OF 6	
		USH 41	

FILE= SCALE =

1. EXPANSION JOINT REPLACEMENT AND DECK REPAIR
2. QUANTITIES AND GENERAL NOTES
3. CONCRETE DETAILS
4. STRIP SEAL EXPANSION JOINT
5. STRIP SEAL EXPANSION JOINT
6. DECK REPAIR

1. EXPANSION JOINT REPLACEMENT AND DECK REPAIR
2. QUANTITIES AND GENERAL NOTES
3. CONCRETE DETAILS
4. STRIP SEAL EXPANSION JOINT
5. STRIP SEAL EXPANSION JOINT
6. DECK REPAIR



AND DECK REPAIR	
-----------------	--

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-44-158	LS	1
502.3100	EXPANSION DEVICE B-44-158	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	28
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1660
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.1000	JOINT REPAIR	SY	27
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	10
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR JOINT REPAIR, PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

GENERAL NOTES

THE PROPOSED WORK INCLUDES JOINT REPAIR AND DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ANY EXCAVATION REQUIRED TO COMPLETE THE PAVING BLOCK AT THE NORTH ABUTMENT IS INCIDENTAL TO THE BID ITEM, "EXPANSION DEVICE B-44-158".

THE EXISTING STRUCTURE, B-44-158, IS A TWO SPAN STEEL PLATE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 60 FEET AND AN OVERALL LENGTH OF 198.5 FEET. THE NORTH EXPANSION JOINT IS TO BE REPLACED.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

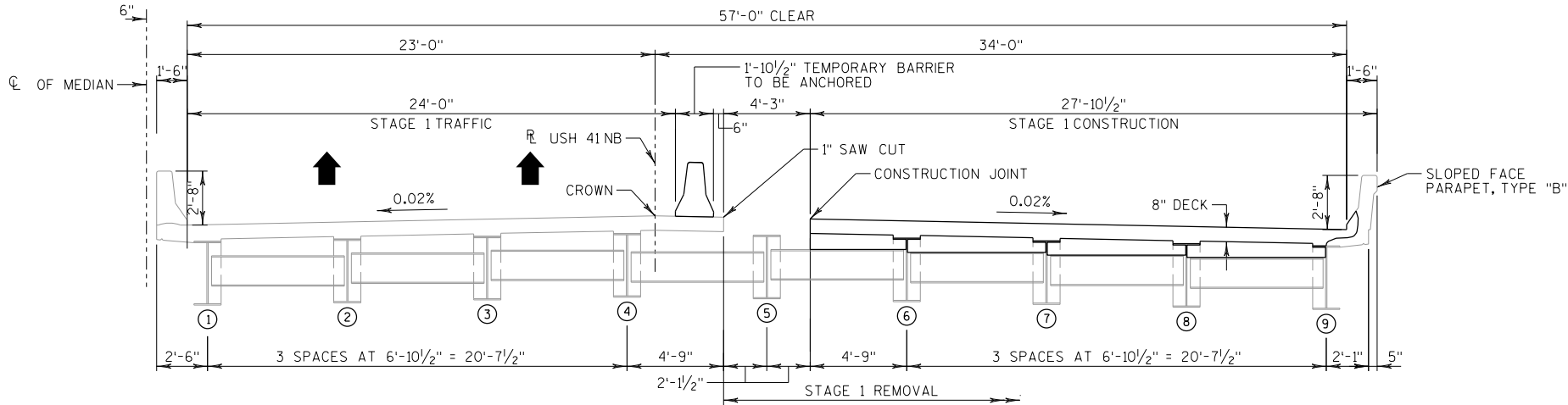
PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

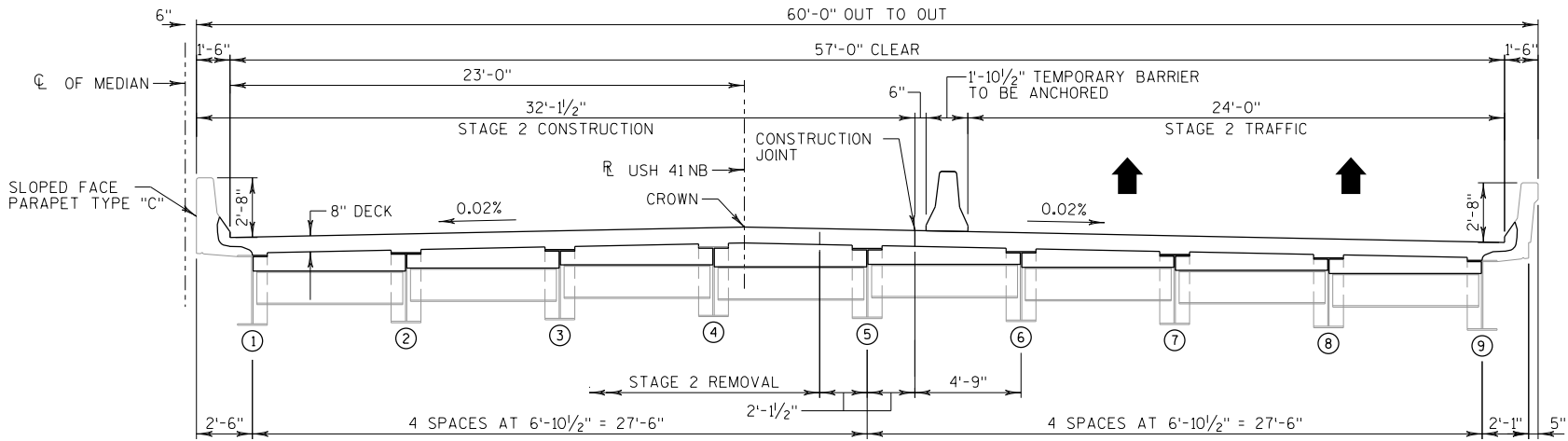
PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE NEW DECK CONCRETE ASSOCIATED WITH THE JOINT REPLACEMENT, FRONT FACE OF THE PARAPETS, PAVING BLOCK, AND DECK REPAIR AREAS.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ON ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



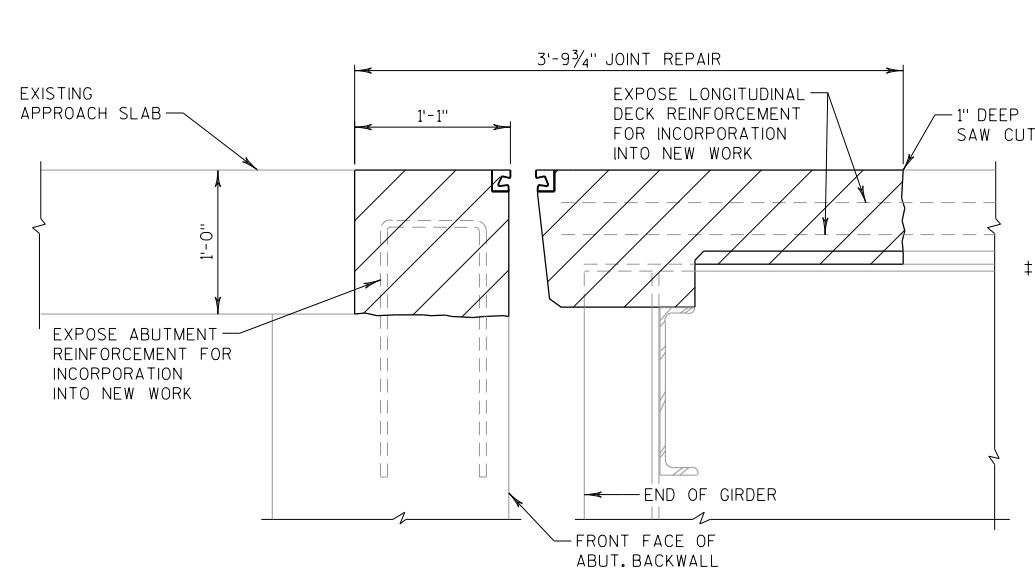
CROSS SECTION STAGE 1 - AT BOTH ABUTMENTS
(LOOKING NORTH)



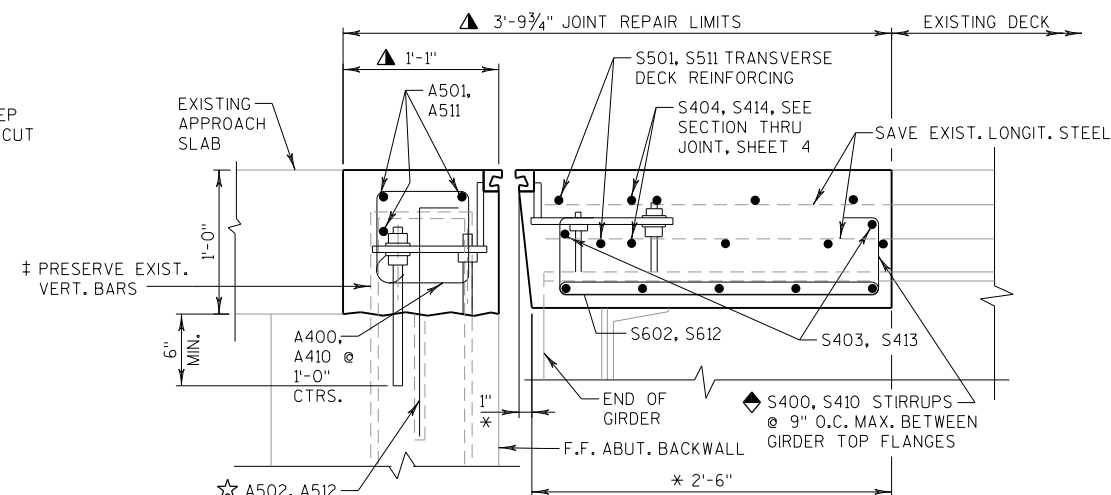
CROSS SECTION STAGE 2 - AT BOTH ABUTMENTS
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-158			
DRAWN BY		AMZ	PLANS CK'D. JSR
QUANTITIES AND GENERAL NOTES		SHEET 2 OF 6	
		USH 41	

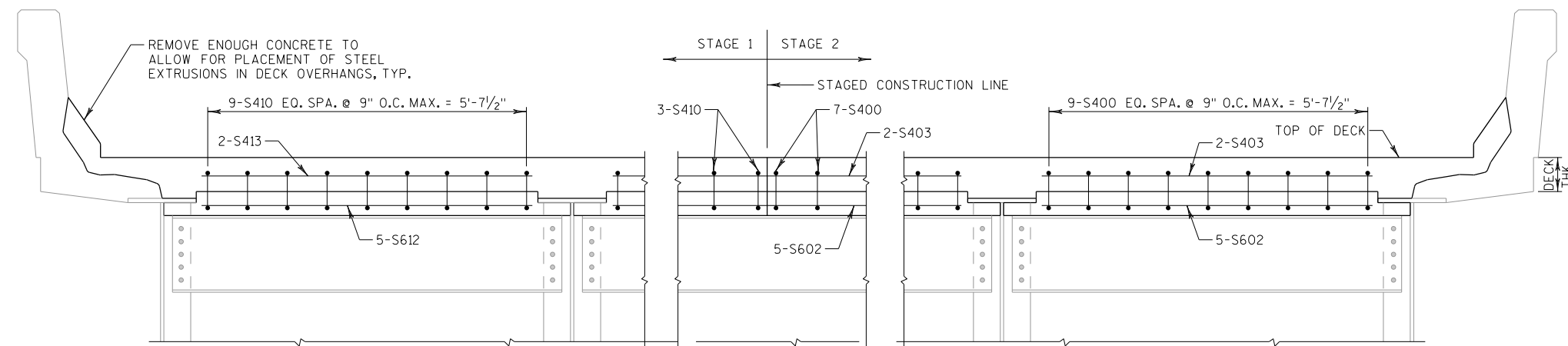
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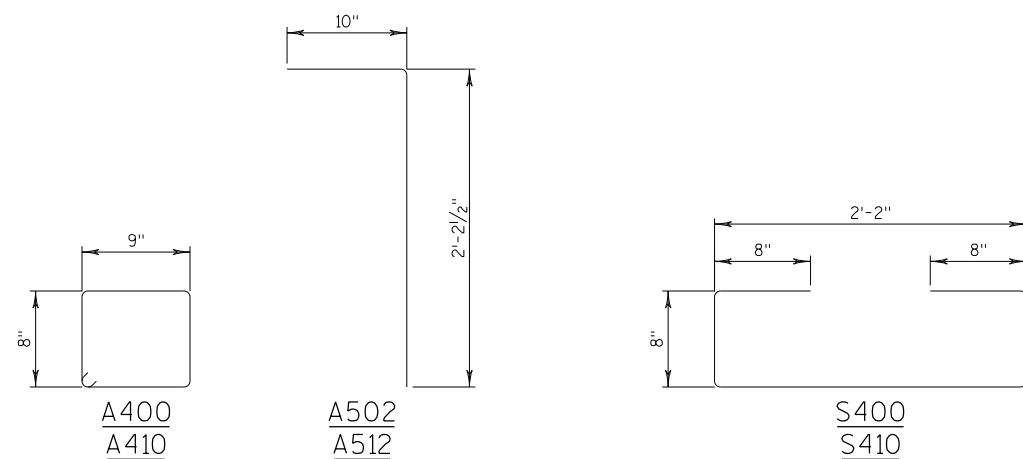
JOINT REPAIR - REMOVAL
NORMAL TO ϕ SUBSTRUCTURE



SECTION THRU EXPANSION JOINT
NORMAL TO ϕ SUBSTRUCTURE



PART TRANSVERSE SECTION AT DIAPHRAGM
EXPANSION END
(LOOKING NORTH)



NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS						
MARK	COATED	NO. REQ'D	LENGT H	BAR SERIES	BENT	LOCATION
A400	X	27	3'-4"		X	PAVING NOTCH STIRRUP STAGE 1
A501	X	12	8'-0"			PAVING NOTCH TRANS. STAGE 1
A502	X	27	2'-11"		X	PAVING NOTCH DOWEL STAGE 1
A410	X	31	3'-4"		X	PAVING NOTCH STIRRUP STAGE 2
A511	X	12	8'-0"			PAVING NOTCH TRANS. STAGE 2
A512	X	31	2'-11"		X	PAVING NOTCH DOWEL STAGE 2
S400	X	34	4'-6"		X	DIAPH. STIRRUP STAGE 1
S501	X	8	28'-0"			DECK TRANS. STAGE 1
S602	X	20	5'-7"			DIAPH. TRANS. BOTT. STAGE 1
S403	X	8	5'-7"			DIAPH. TRANS. TOP STAGE 1
S404	X	8	5'-7"			TRANS. BARS AT JOINT STAGE 1
S410	X	39	4'-6"		X	DIAPH. STIRRUP STAGE 2
S511	X	8	29'-5"			DECK TRANS. STAGE 2
S612	X	20	5'-7"			DIAPH. TRANS. BOTT. STAGE 2
S413	X	8	5'-7"			DIAPH. TRANS. TOP STAGE 2
S414	X	8	5'-7"			TRANS. BARS AT JOINT STAGE 2

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

LEGEND

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ A502, A512 MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

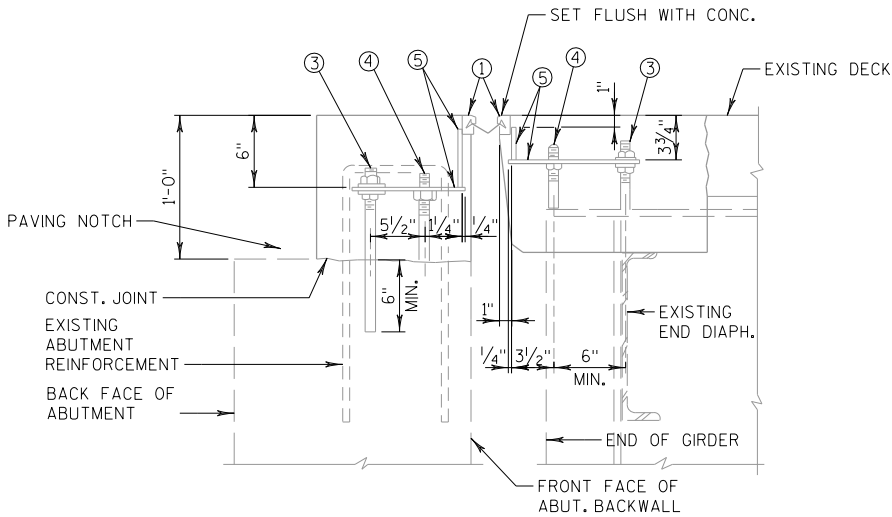
▲ DIMENSIONS GIVEN ARE NORMAL TO ϕ OF SUBSTRUCTURE UNIT. UTILIZE EXISTING REINFORCEMENT.

◆ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ϕ GIRDERS.

▨ EXISTING CONCRETE TO BE REMOVED.

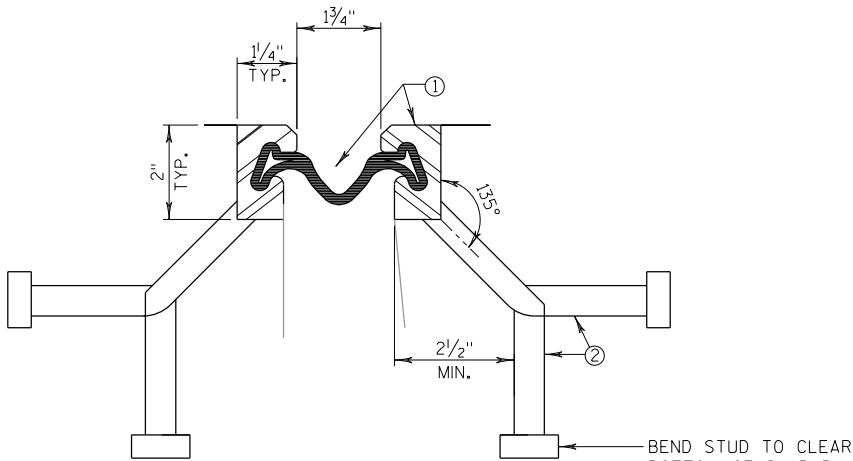
* DIMENSION IS TAKEN NORMAL TO ϕ ABUTMENT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-158			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE DETAILS		SHEET 3 OF 6	
		USH 41	



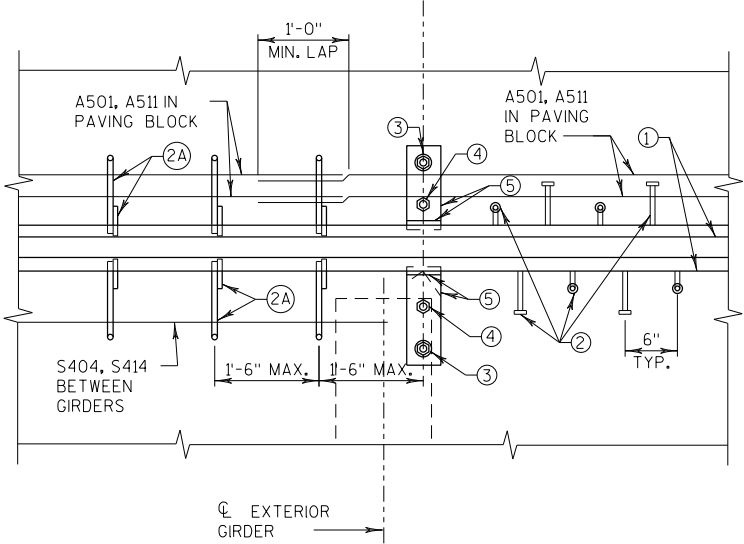
TYPICAL SECTION THRU
JOINT AT STEEL GIRDER

NORMAL TO CL SUBSTRUCTURE

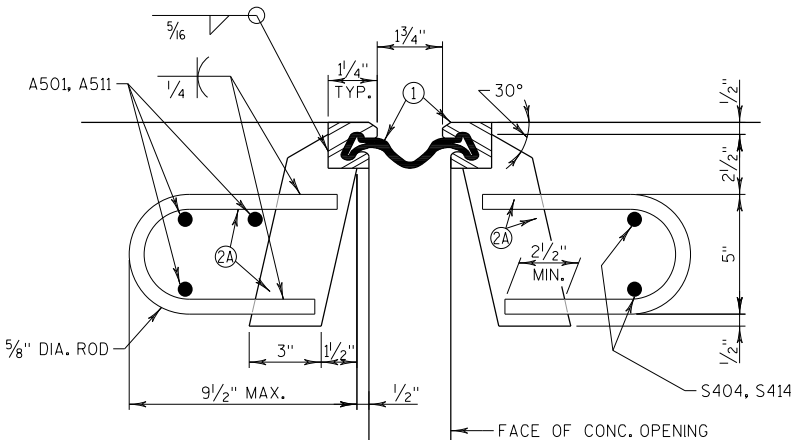


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB
AND AT PARAPETS, MEDIANS & SIDEWALKS

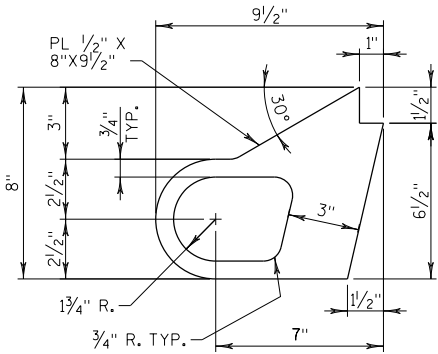


PART PLAN



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS
SYM. ABOUT CL JOINT UNLESS OTHERWISE SHOWN OR NOTED



ALTERNATE STRIP SEAL
ANCHOR

SEE SHEET 5

LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4".
2. STUDS 5/8" ϕ $\times$ 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 2A. 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND 2 PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" $\times$ 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" $\times$ 10 1/2" $\times$ 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4" ϕ $\times$ 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" ϕ $\times$ 2 1/4" GALVANIZED THREADED COUPLING.
10. NOT USED
11. 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE IS PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

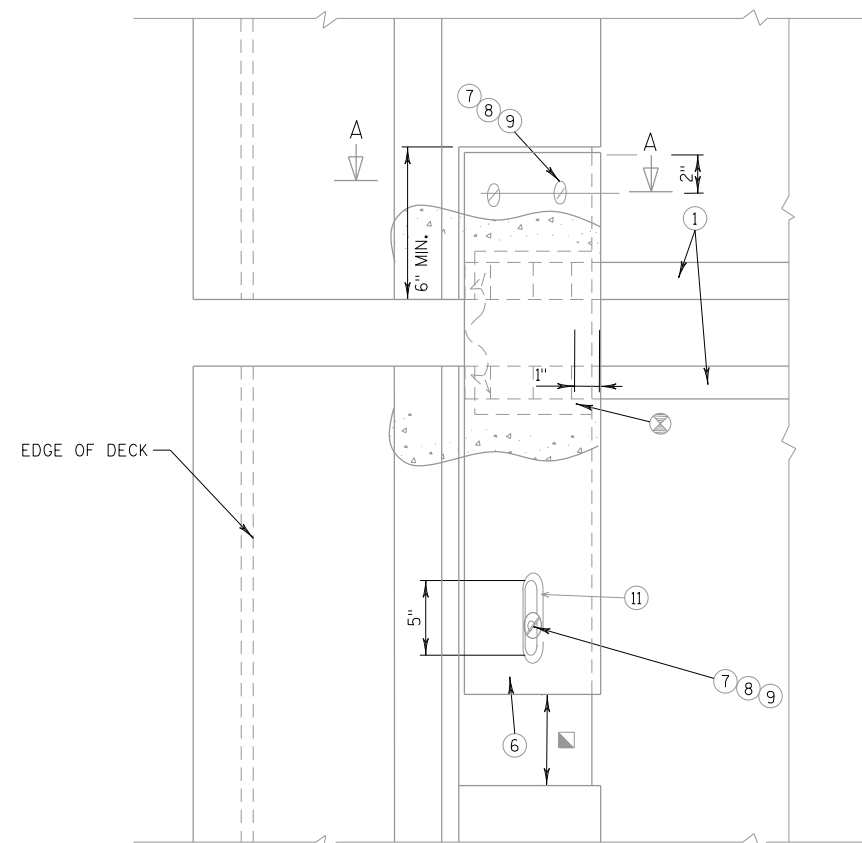
SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

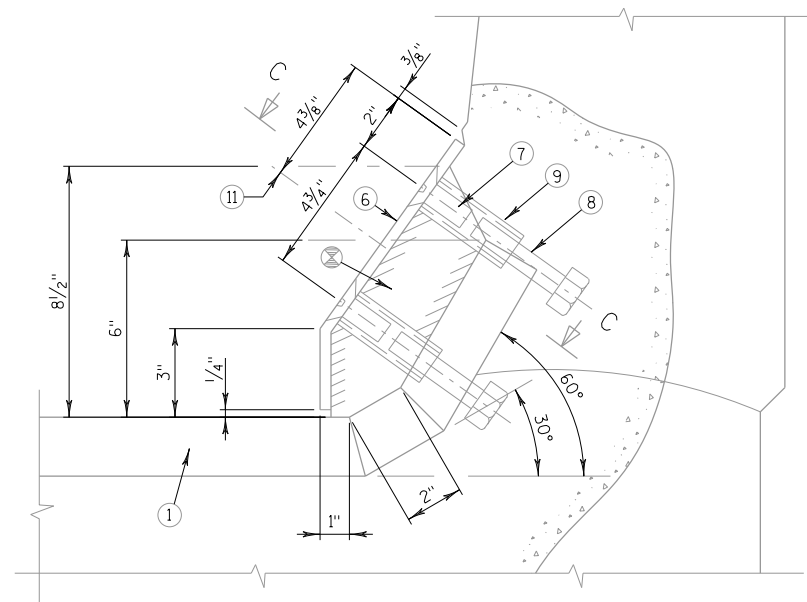
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-44-157".

STATE PROJECT NUMBER
1124-54-60

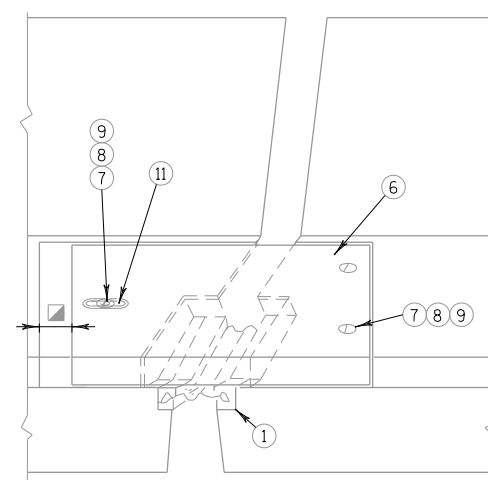
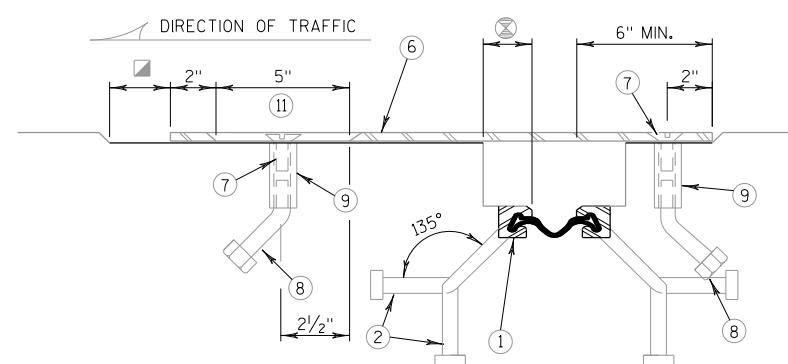
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-158			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 4 OF 6	
		USH 41	



PLAN AT PARAPET



SECTION A-A

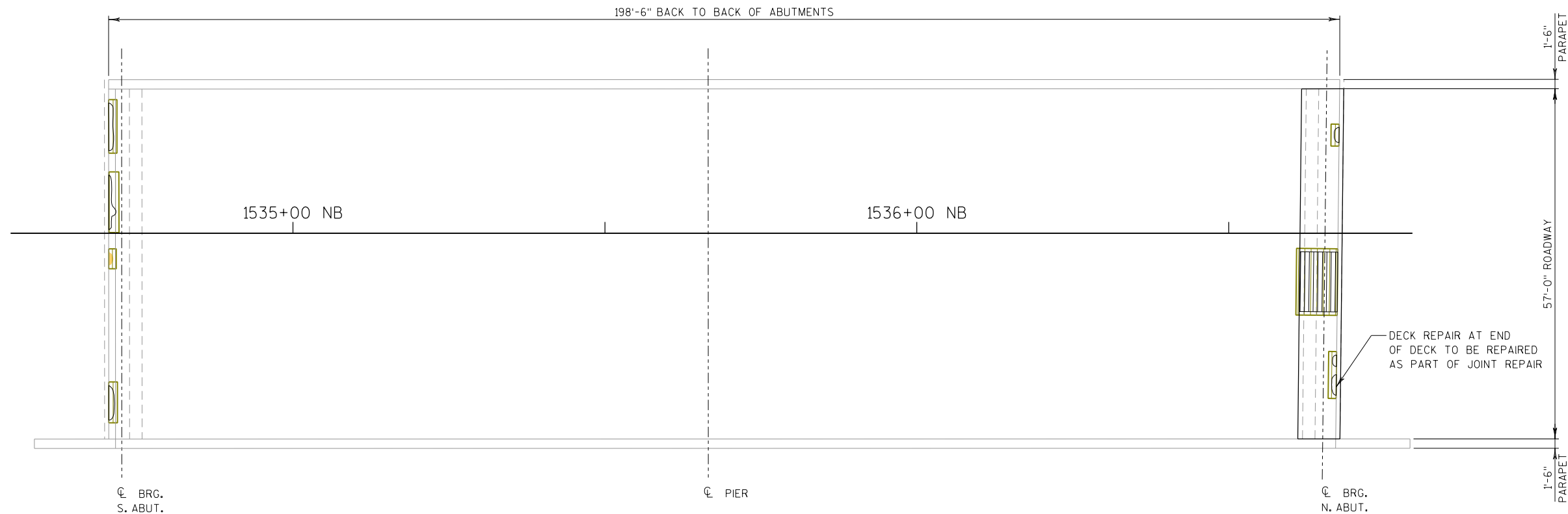
VIEW OF PARAPET PLATES
FROM ROADWAY

SECTION C-C

LEGEND

- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING
- ▣ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"
- ⑪ SEE SHEET 4 FOR LEGEND

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-158			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 5 OF 6	
		USH 41	



PLAN
DECK REPAIR

DECK REPAIR

DECK REPAIR AREAS		S.N. B-44-157		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1314.7		DECK PREPARATION AREA	
SHADE/DEBRIS	yd ²	0		SHADE/DEBRIS	
PREPARATION, DECKS, TYPE 1	yd ²	13.9	1.1	DELAMINATION	
PREPARATION, DECKS, TYPE 2	yd ²	7.0	0.5	SPALL	
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1	DEBOND	
				ASPHALT PATCH	
				CONCRETE PATCH	

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/1/13
INFRARED SURVEY TAKEN BY AECOM

- FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-158			
DRAWN BY		AMZ	PLANS CK'D. JSR
DECK REPAIR		SHEET 6 OF 6	
		USH 41	

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS22 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS46 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

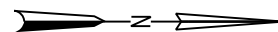
ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY
SUPERSTRUCTURE..... $f'_c = 4,000$ PSI

BAR STEEL REINFORCEMENT,
GRADE 60..... $f_y = 60,000$ PSI

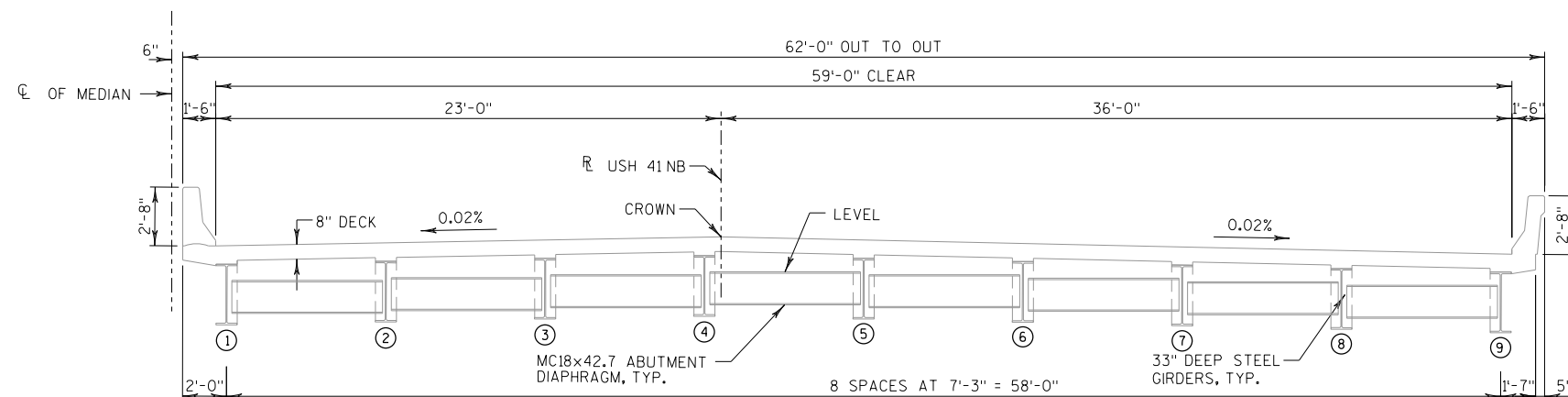
CONCRETE MASONRY..... f'_c = 4,000 PSI

$$\frac{\text{USH41}}{\text{A.D.T.}} = 30,500 \text{ (2014)}$$
$$= 38,200 \text{ (2034)}$$

1. EXPANSION JOINT REPLACEMENT AND DECK REPAIR
2. QUANTITIES AND GENERAL NOTES
3. CONCRETE DETAILS
4. STRIP SEAL EXPANSION JOINT
5. STRIP SEAL EXPANSION JOINT
6. DECK REPAIR



EXPANSION JOINT REPLACEMENT AND DECK REPAIR



CROSS SECTION THRU B-44-161
(LOOKING NORTH)



7-28-14

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY

PLANS PREPARED BY:		1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax
		www.graef-usa.com

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		6/19/14
ACCEPTED	 CHIEF STRUCTURES DESIGN ENGINEER	
		DATE

STRUCTURE B-44-161		
USH 41NB OVER CANADIAN NATIONAL RR		
COUNTY	OUTAGAMIE	TOWN/CITY/VILLAGE GRAND CHUTE

DESIGN SPEC.		REHABILITATION N/A	
DESIGNED BY KGW	DESIGN CK'D. AL	DRAWN BY AMZ	PLANS CK'D. JSR

EXPANSION JOINT REPLACEMENT AND DECK REPAIR	SHEET 1 OF

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-44-161	LS	1
502.3100	EXPANSION DEVICE B-44-161	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	80
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	3760
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.1000	JOINT REPAIR	SY	77
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	27
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR JOINT REPAIR, PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

GENERAL NOTES

THE PROPOSED WORK INCLUDES JOINT REPAIR AND DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ANY EXCAVATION REQUIRED TO COMPLETE THE PAVING BLOCK AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM, "EXPANSION DEVICE B-44-161".

THE EXISTING STRUCTURE, B-44-161, IS A THREE SPAN STEEL PLATE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 62 FEET AND AN OVERALL LENGTH OF 214.9 FEET. THE NORTH AND SOUTH EXPANSION JOINTS ARE TO BE REPLACED.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

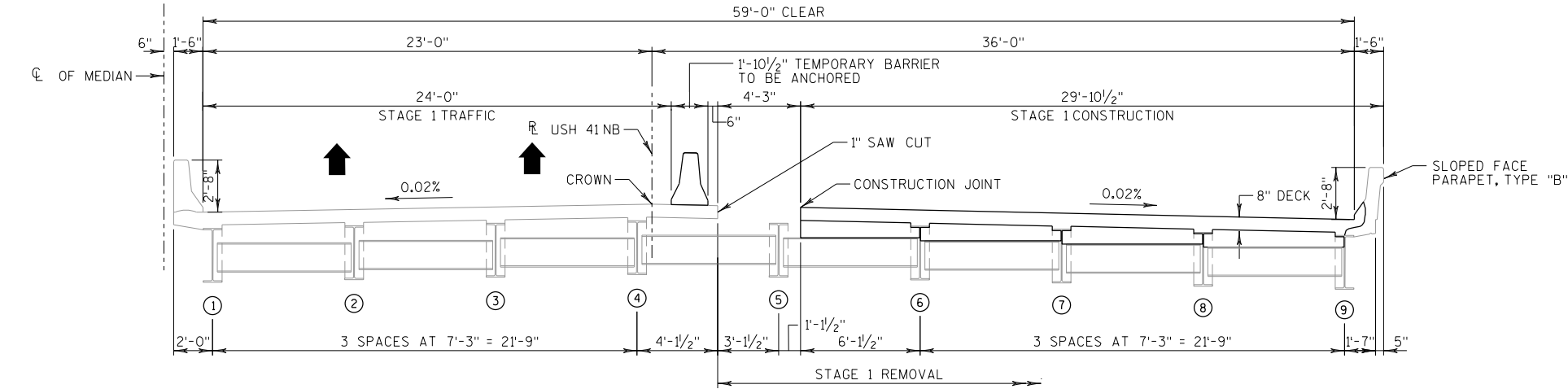
PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER, DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

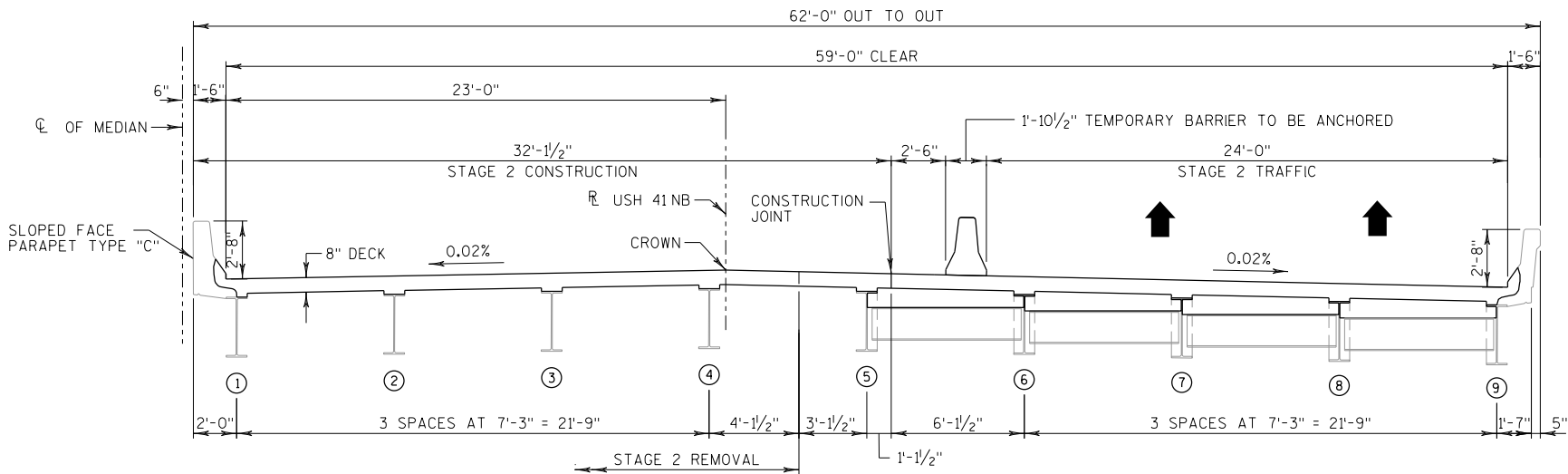
PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE NEW DECK CONCRETE ASSOCIATED WITH THE JOINT REPLACEMENT, FRONT FACE OF THE PARAPETS, PAVING BLOCKS, AND DECK REPAIR AREAS.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ON ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



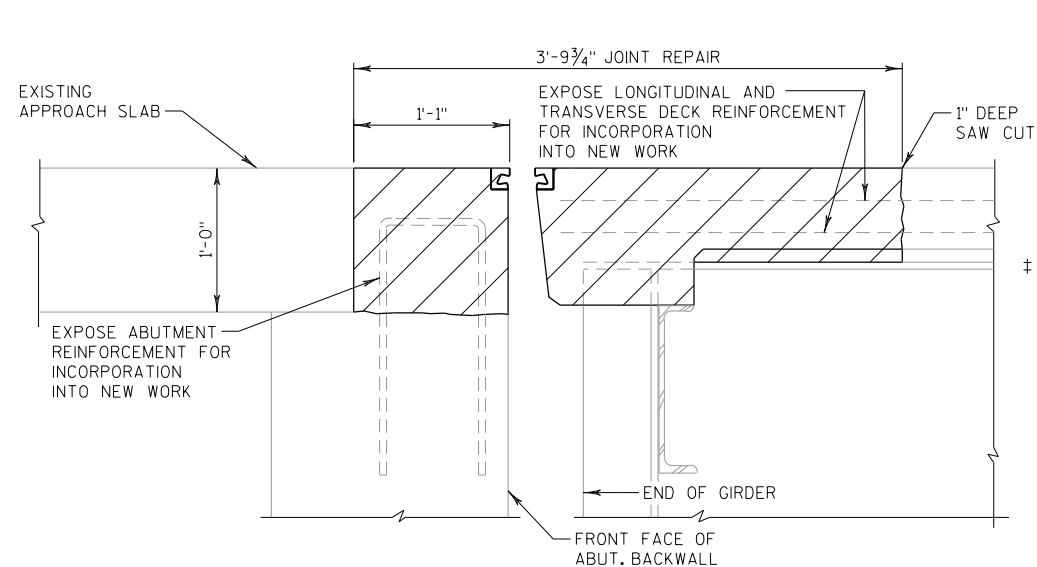
CROSS SECTION STAGE 1 - AT BOTH ABUTMENTS
(LOOKING NORTH)



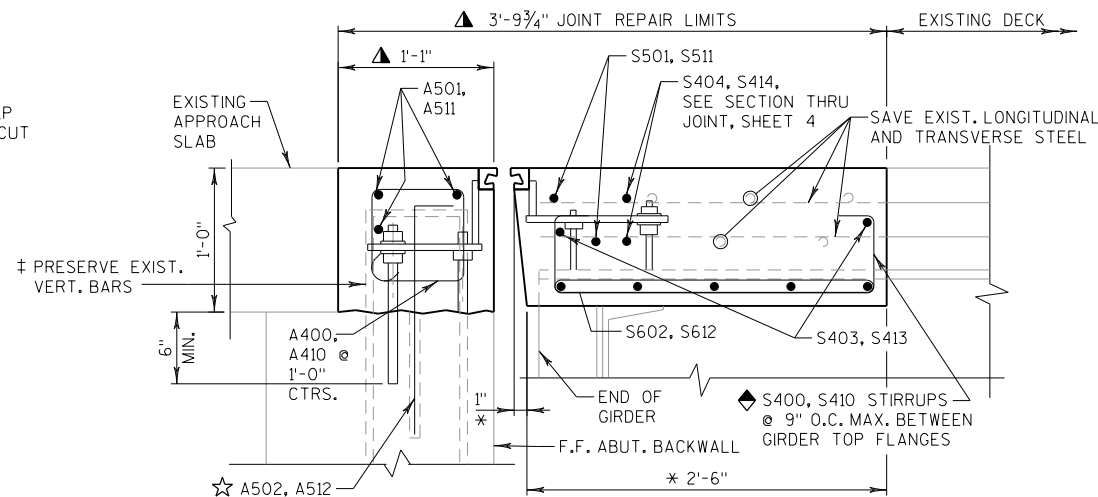
CROSS SECTION STAGE 2 - AT BOTH ABUTMENTS
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-161			
DRAWN BY		AMZ	PLANS CK'D. JSR
QUANTITIES AND GENERAL NOTES		SHEET 2 OF 6	
		USH 41	

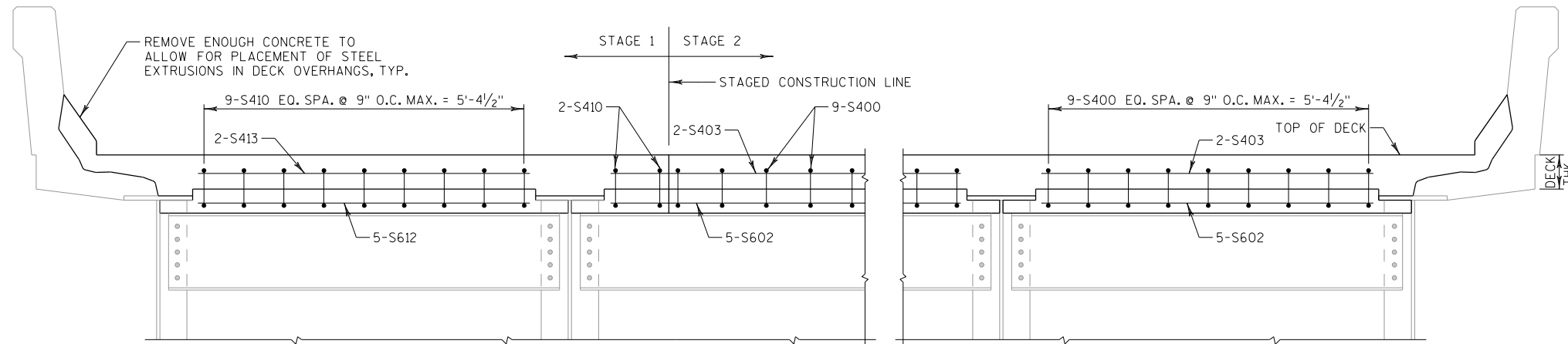
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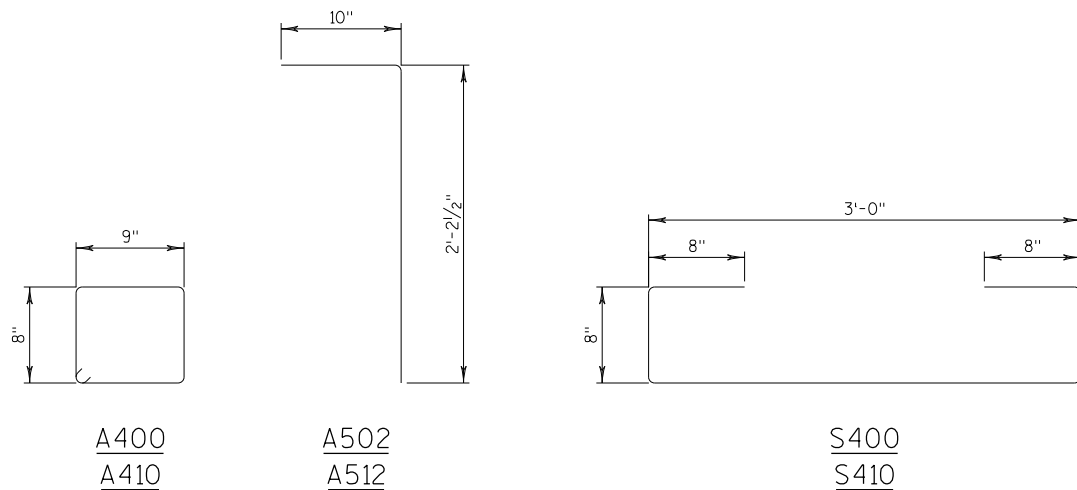
JOINT REPAIR - REMOVAL
NORMAL TO ϕ SUBSTRUCTURE



SECTION THRU EXPANSION JOINT
NORMAL TO ϕ SUBSTRUCTURE



**PART TRANSVERSE SECTION AT DIAPHRAGM
EXPANSION END**
(LOOKING NORTH)



NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS						
MARK	COATE D	NO. REQ'D	LENGT H	BAR SERIES	BENT	LOCATION
A400	X	82	3'-4"		X	PAVING NOTCH STIRRUP STAGE 1
A501	X	36	8'-0"			PAVING NOTCH TRANS. STAGE 1
A502	X	82	2'-11"		X	PAVING NOTCH DOWEL STAGE 1
A410	X	88	3'-4"		X	PAVING NOTCH STIRRUP STAGE 2
A511	X	36	8'-0"			PAVING NOTCH TRANS. STAGE 2
A512	X	88	2'-11"		X	PAVING NOTCH DOWEL STAGE 2
S400	X	72	5'-4"		X	DIAPH. STIRRUP STAGE 1
S501	X	4	41'-9"			DECK TRANS. STAGE 1
S602	X	40	8'-6"			DIAPH. TRANS. BOTT. STAGE 1
S403	X	16	8'-6"			DIAPH. TRANS. TOP STAGE 1
S404	X	16	8'-6"			TRANS. BARS AT JOINT STAGE 1
S410	X	76	5'-4"		X	DIAPH. STIRRUP STAGE 2
S511	X	4	42'-1"			DECK TRANS. STAGE 2
S612	X	40	8'-6"			DIAPH. TRANS. BOTT. STAGE 2
S413	X	16	8'-6"			DIAPH. TRANS. TOP STAGE 2
S414	X	16	8'-6"			TRANS. BARS AT JOINT STAGE 2

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

LEGEND

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ A502, A512 MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

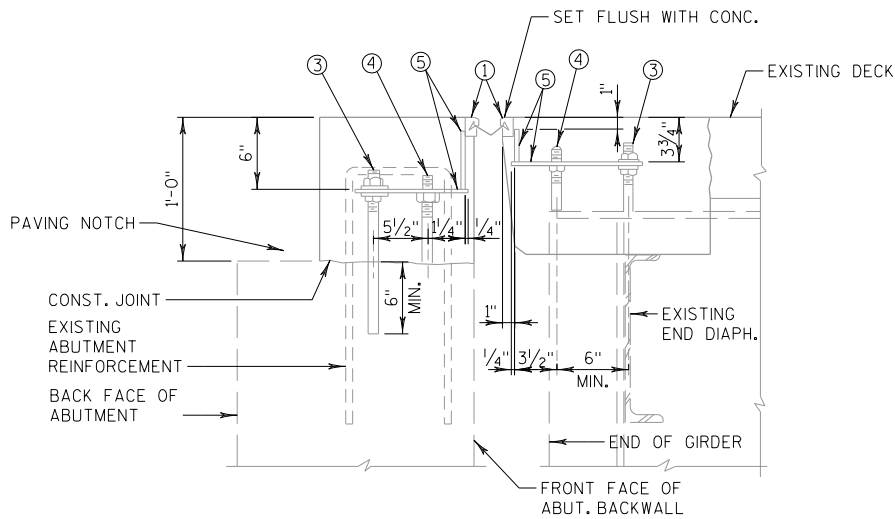
▲ DIMENSIONS GIVEN ARE NORMAL TO ϕ OF SUBSTRUCTURE UNIT. UTILIZE EXISTING REINFORCEMENT.

◆ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ϕ GIRDERS.

▨ EXISTING CONCRETE TO BE REMOVED.

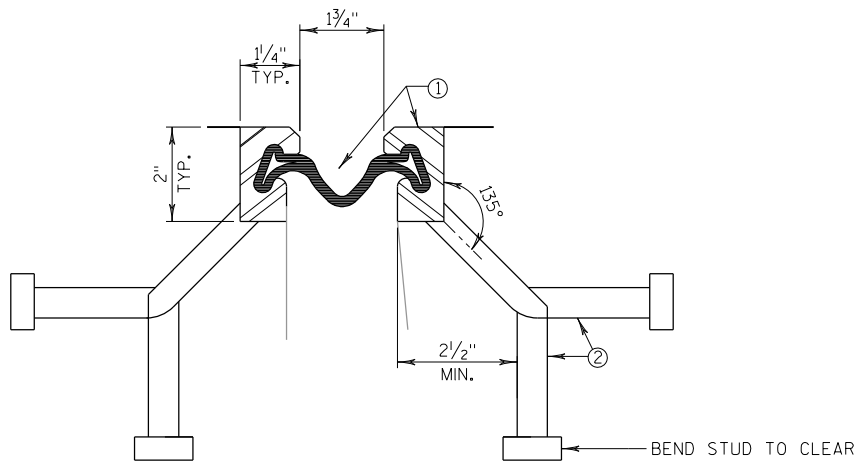
* DIMENSION IS TAKEN NORMAL TO ϕ ABUTMENT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-161			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE DETAILS		SHEET 3 OF 6	
		USH 41	

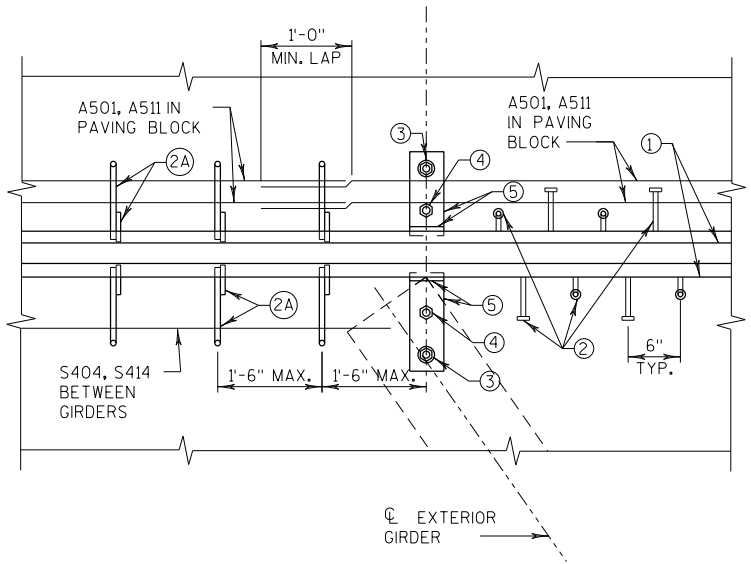


TYPICAL SECTION THRU
JOINT AT STEEL GIRDER

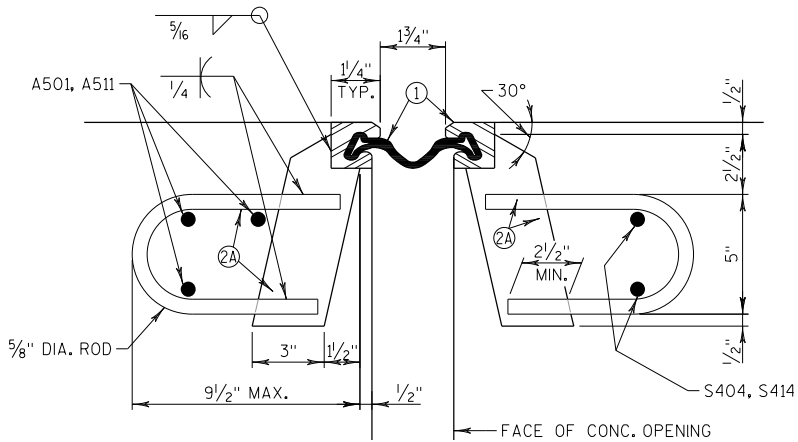
NORMAL TO CL SUBSTRUCTURE



SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF SLAB
AND AT PARAPETS, MEDIANS & SIDEWALKS

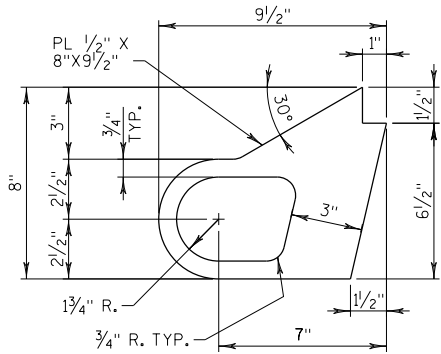


PART PLAN



SECTION THRU JOINT
AT PAVING BLOCK
AT DECK

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS
SYM. ABOUT CL JOINT UNLESS OTHERWISE SHOWN OR NOTED



ALTERNATE STRIP SEAL
ANCHOR

LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4".
2. STUDS 5/8" ϕ $\times$ 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 2A. 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND 2 PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" $\times$ 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" $\times$ 10 1/2" $\times$ 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4" ϕ $\times$ 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" ϕ $\times$ 2 1/4" GALVANIZED THREADED COUPLING.
10. NOT USED
11. 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE IS PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

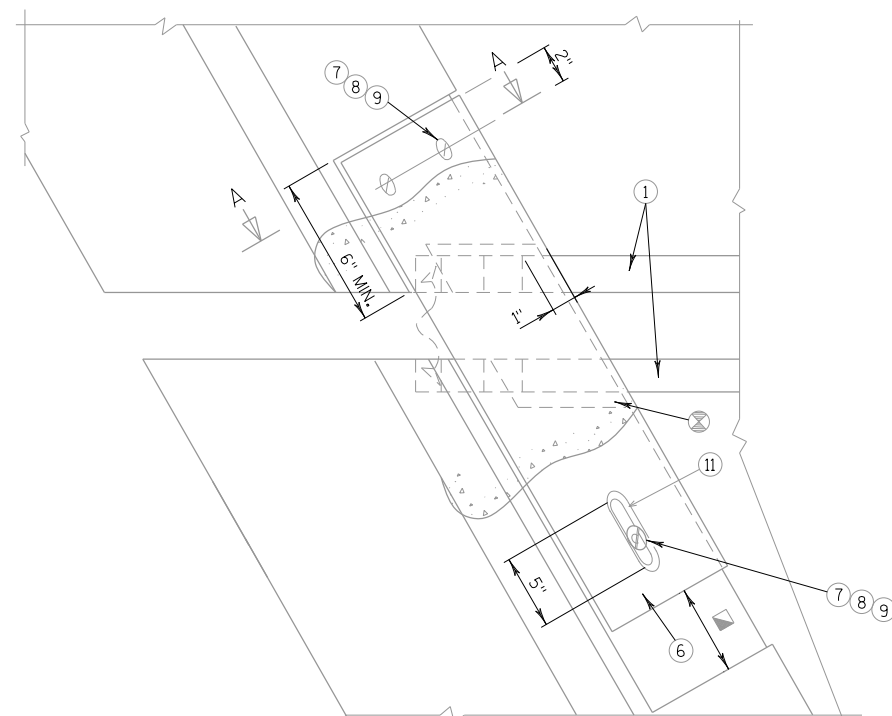
SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

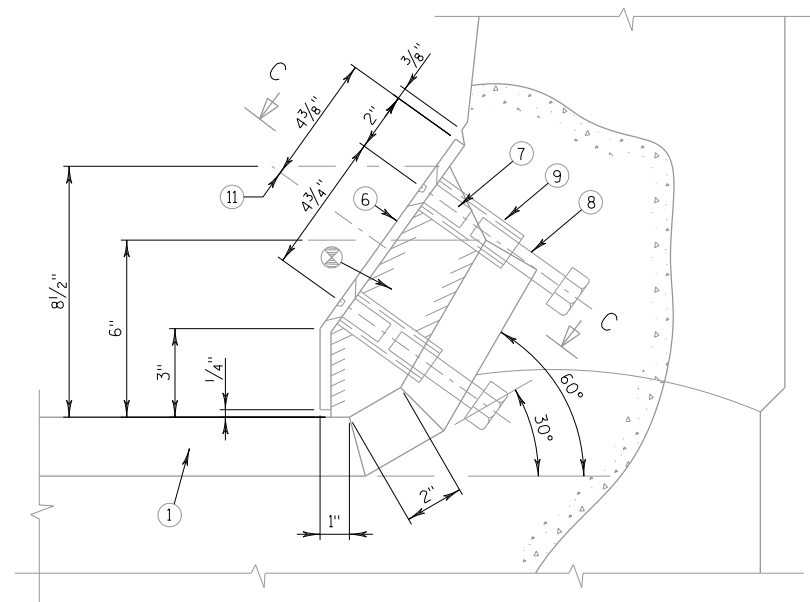
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-44-157".

STATE PROJECT NUMBER	
1124-54-60	

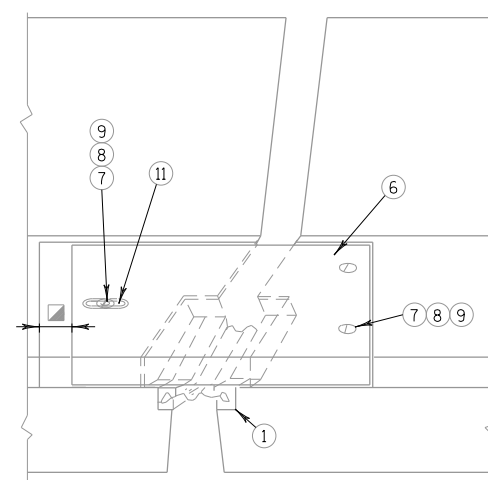
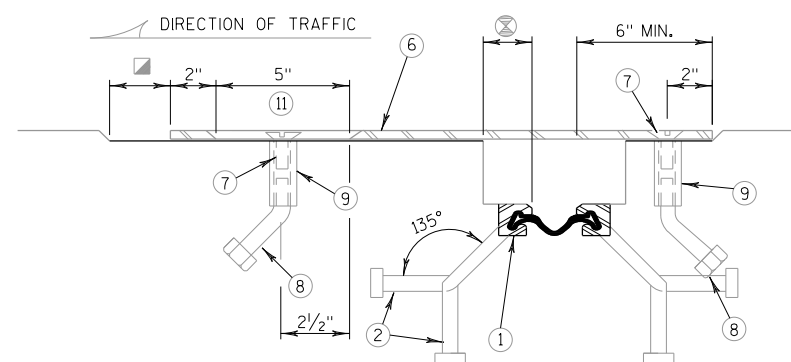
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-161			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 4 OF 6	
		USH 41	



PLAN AT PARAPET



SECTION A-A

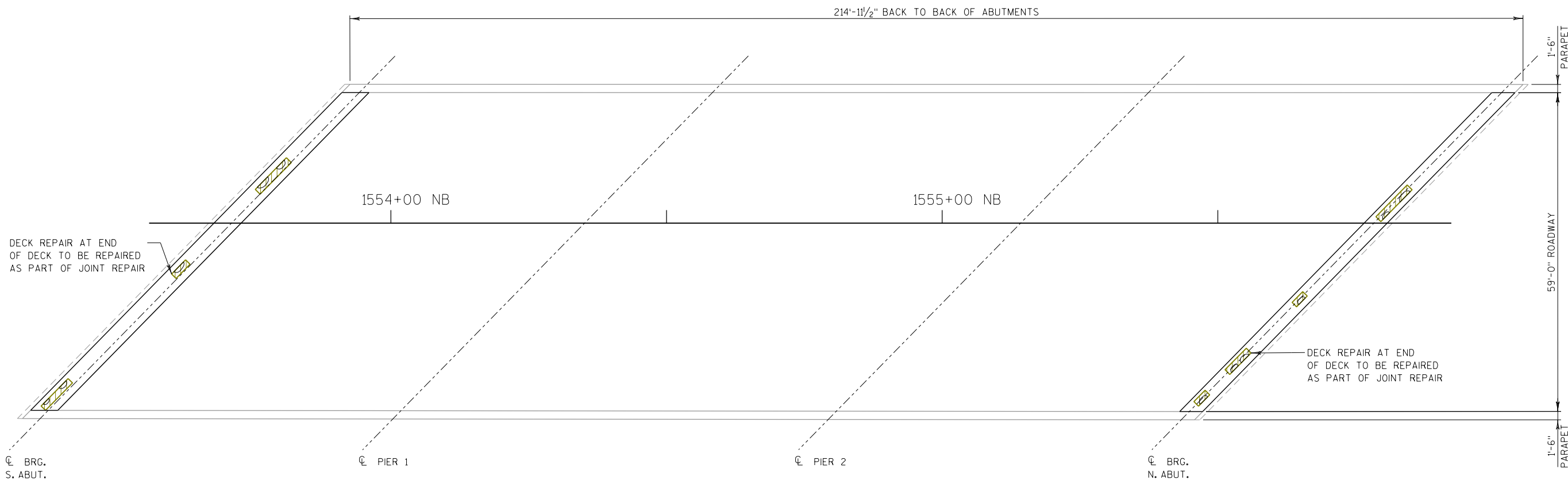
VIEW OF PARAPET PLATES
FROM ROADWAY

SECTION C-C

LEGEND

- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING
- ▣ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"
- ⑪ SEE SHEET 4 FOR LEGEND

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-161			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 5 OF 6	
		USH 41	



PLAN

EXPANSION JOINT REPLACEMENT
AND DECK REPAIR

DECK REPAIR

DECK REPAIR AREAS		S.N. B-44-161		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1468.0		DECK PREPARATION AREA SHADE/DEBRIS	DELAMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	5.0	0.3		DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	1.3	<0.1		ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	0.5	<0.1		CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/1/13
INFRARED SURVEY TAKEN BY AECOM

- FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-161			
DRAWN BY		AMZ	PLANS CK'D. JSR
DECK REPAIR		SHEET 6 OF 6	
		USH 41	

FILE=
SCALE =

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS22 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS46 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY
SUPERSTRUCTURE.....f'c = 4,000 PSI

BAR STEEL REINFORCEMENT,
GRADE 60.....fy = 60,000 PSI

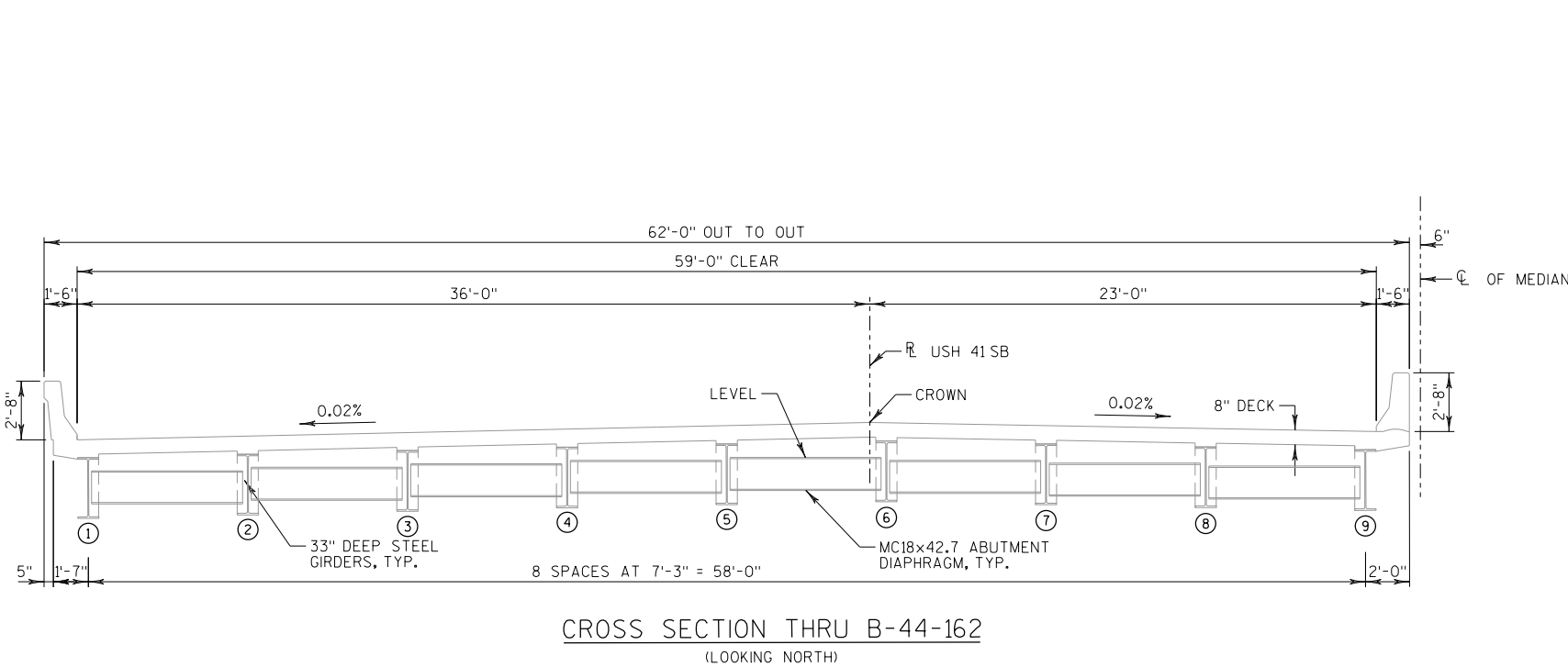
CONCRETE MASONRY.....f'c = 4,000 PSI

TRAFFIC DATA

USH41
A.D.T. = 30,500 (2014)
= 38,200 (2034)

LIST OF DRAWINGS

1. EXPANSION JOINT REPLACEMENT AND DECK REPAIR
2. QUANTITIES AND GENERAL NOTES
3. CONCRETE DETAILS
4. STRIP SEAL EXPANSION JOINT
5. STRIP SEAL EXPANSION JOINT
6. DECK REPAIR



STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY
PLANS PREPARED BY:		GRAEF	1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> DVE		6/19/14
CHIEF STRUCTURES DESIGN ENGINEER			DATE
STRUCTURE B-44-162			
USH 41 SB OVER CANADIAN NATIONAL RR			
COUNTY	OUTAGAMIE	TOWN/CITY/VILLAGE	GRAND CHUTE
DESIGN SPEC.			
REHABILITATION N/A			
DESIGNED BY	KGW	DESIGN CK'D.	AL
DRAWN BY	AMZ	PLANS CK'D.	JSR
EXPANSION JOINT REPLACEMENT AND DECK REPAIR			SHEET 1 OF 1

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-44-162	LS	1
502.3100	EXPANSION DEVICE B-44-162	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	80
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	3760
509.0301	PREPARATION DECKS TYPE 1	SY	1
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.1000	JOINT REPAIR	SY	77
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	27
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	10

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR JOINT REPAIR, PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

GENERAL NOTES

THE PROPOSED WORK INCLUDES JOINT REPAIR AND DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ANY EXCAVATION REQUIRED TO COMPLETE THE PAVING BLOCK AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM, "EXPANSION DEVICE B-44-162".

THE EXISTING STRUCTURE, B-44-162, IS A THREE SPAN STEEL PLATE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 62 FEET AND AN OVERALL LENGTH OF 214.9 FEET. THE NORTH AND SOUTH EXPANSION JOINTS ARE TO BE REPLACED.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

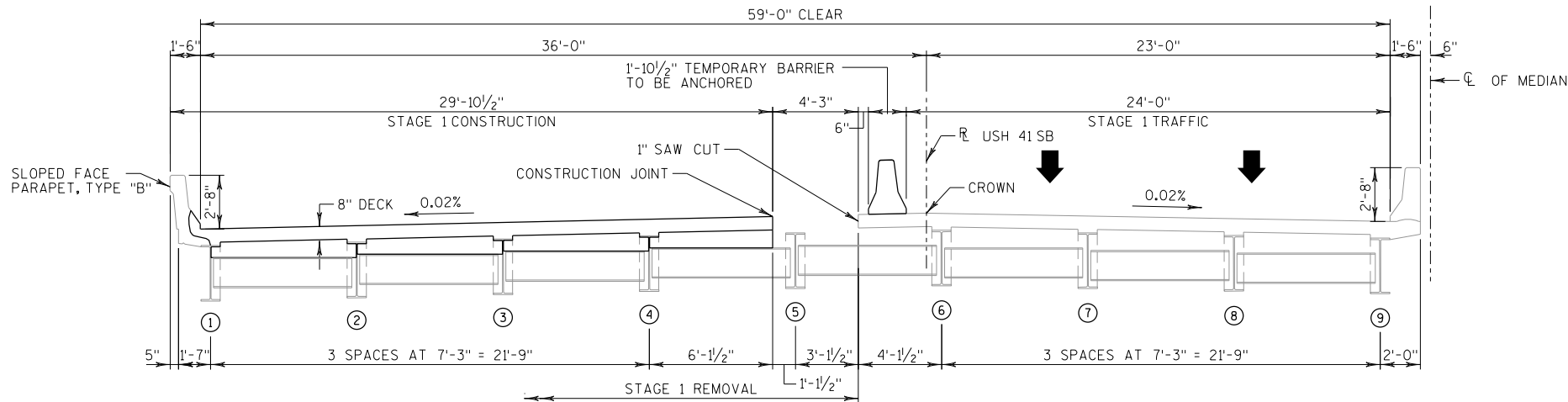
PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER, DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

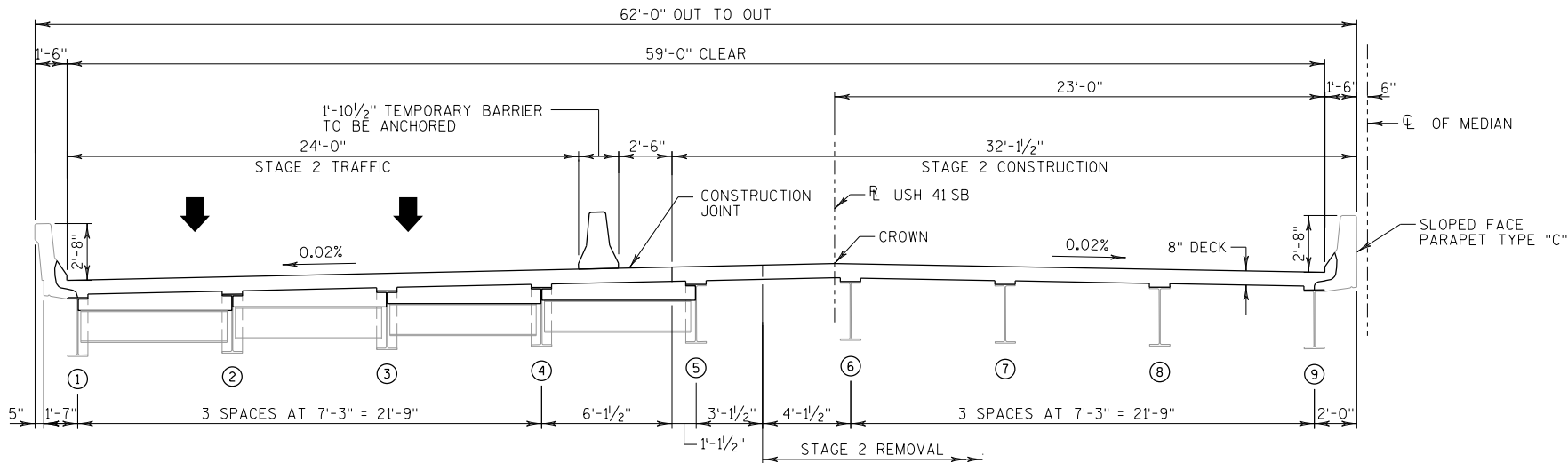
PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE NEW DECK CONCRETE ASSOCIATED WITH THE JOINT REPLACEMENT, FRONT FACE OF THE PARAPETS, PAVING BLOCKS, AND DECK REPAIR AREAS.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ON ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



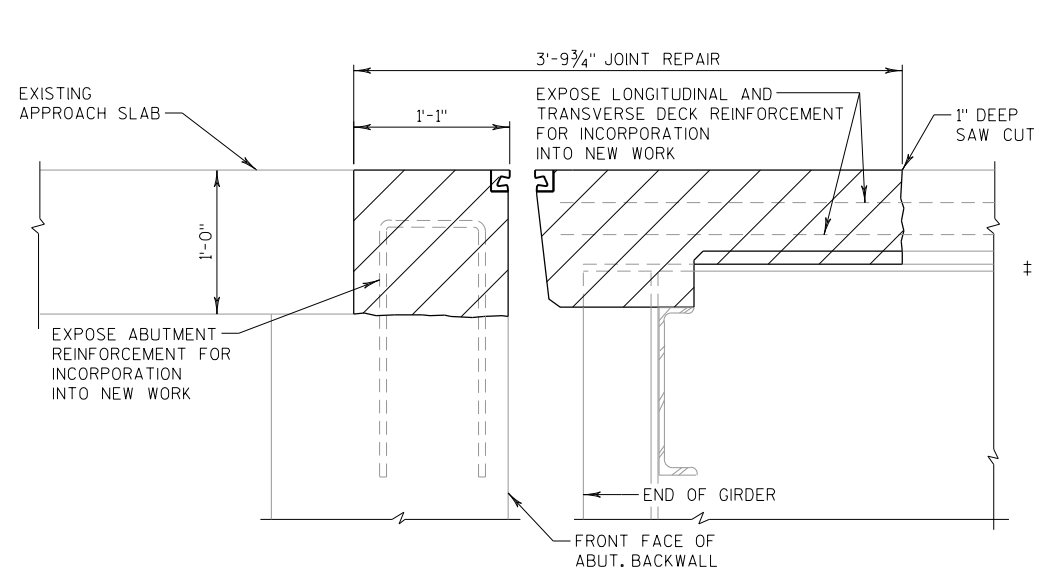
CROSS SECTION STAGE 1 - AT BOTH ABUTMENTS
(LOOKING NORTH)



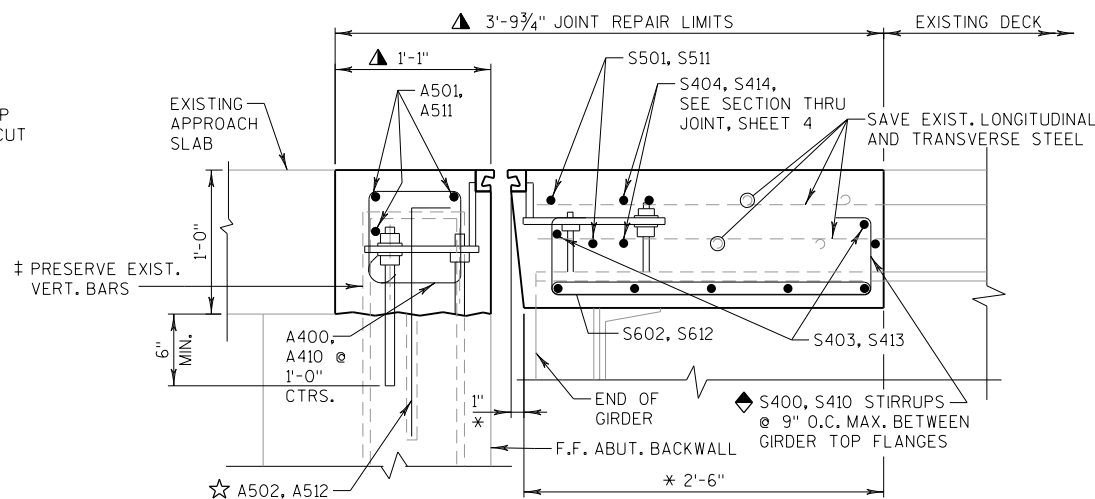
CROSS SECTION STAGE 2 - AT BOTH ABUTMENTS
(LOOKING NORTH)

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-162			
DRAWN BY		AMZ	PLANS CK'D. JSR
QUANTITIES AND GENERAL NOTES		SHEET 2 OF 6	
		USH 41	

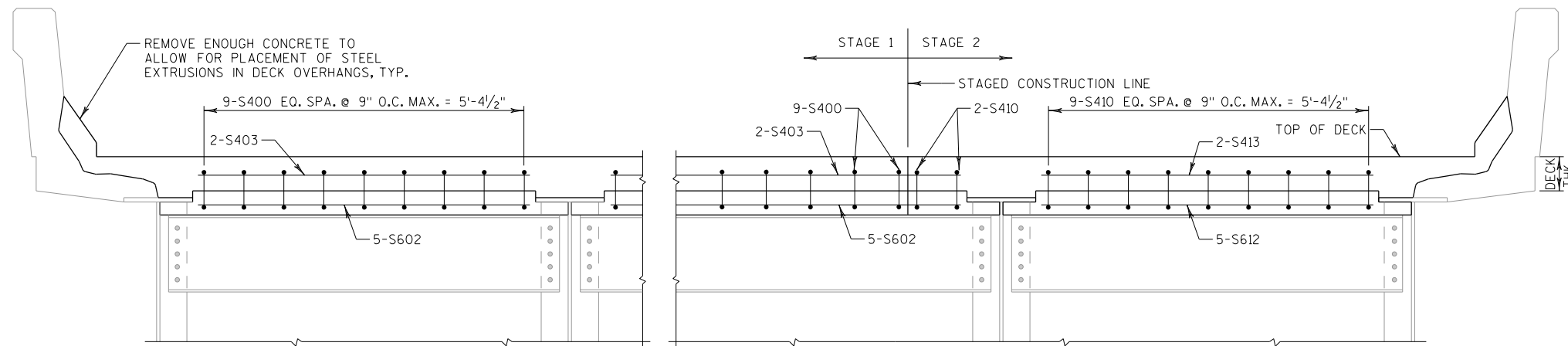
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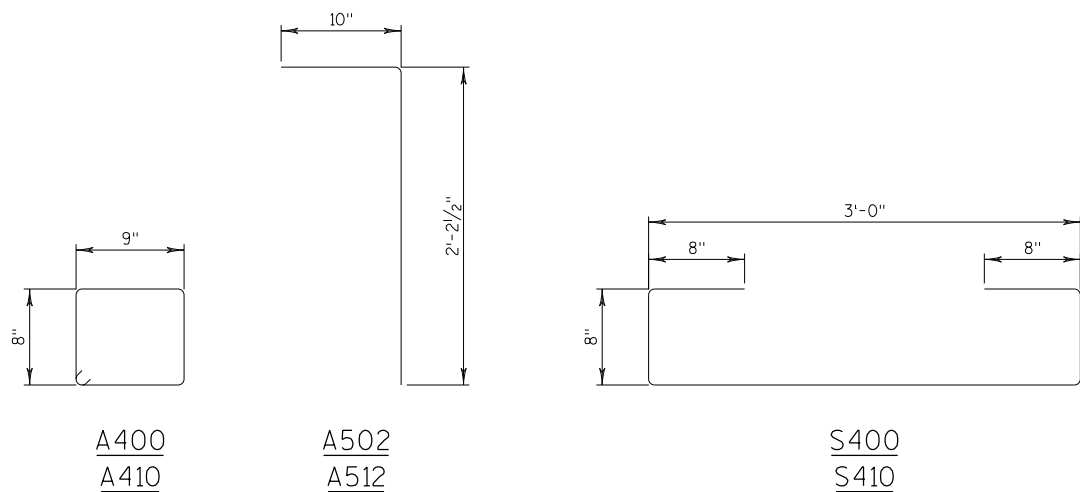
JOINT REPAIR - REMOVAL
NORMAL TO ϕ SUBSTRUCTURE



SECTION THRU EXPANSION JOINT
NORMAL TO ϕ SUBSTRUCTURE



**PART TRANSVERSE SECTION AT DIAPHRAGM
EXPANSION END**
(LOOKING NORTH)



NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS					
MARK	COATE D	NO. REQ'D	LENGT H	BAR SERIES	BENT
A400	X	82	3'-4"		X
A501	X	36	8'-0"		
A502	X	82	2'-11"		X
A410	X	88	3'-4"		X
A511	X	36	8'-0"		
A512	X	88	2'-11"		X
S400	X	72	5'-4"		X
S501	X	4	41'-9"		
S602	X	40	8'-6"		
S403	X	16	8'-6"		
S404	X	16	8'-6"		
S410	X	76	5'-4"		X
S511	X	4	42'-1"		
S612	X	40	8'-6"		
S413	X	16	8'-6"		
S414	X	16	8'-6"		

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

LEGEND

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ A502, A512 MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

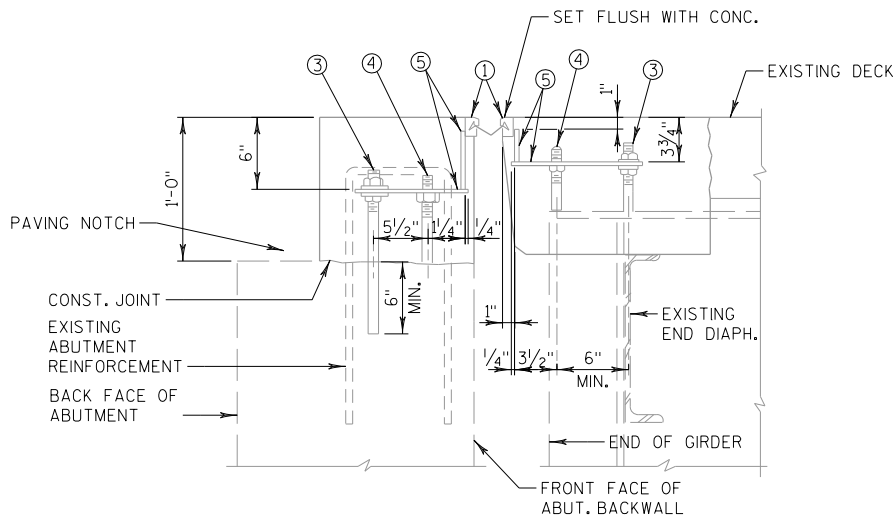
▲ DIMENSIONS GIVEN ARE NORMAL TO ϕ OF SUBSTRUCTURE UNIT. UTILIZE EXISTING REINFORCEMENT.

◆ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ϕ GIRDERS.

▨ EXISTING CONCRETE TO BE REMOVED.

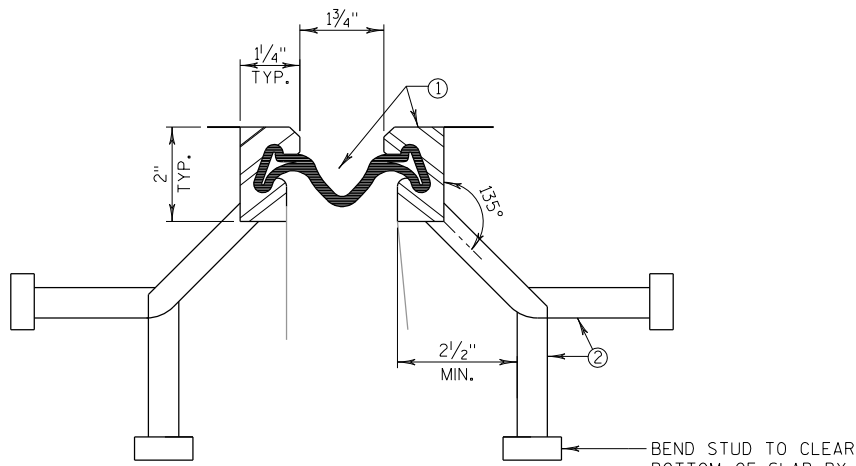
* DIMENSION IS TAKEN NORMAL TO ϕ ABUTMENT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-162			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE DETAILS		SHEET 3 OF 6	
		USH 41	



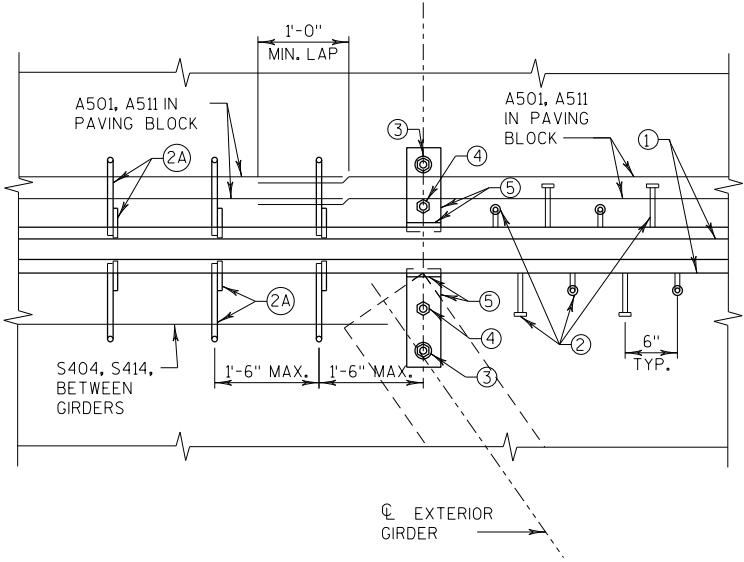
TYPICAL SECTION THRU JOINT AT STEEL GIRDER

NORMAL TO CL SUBSTRUCTURE

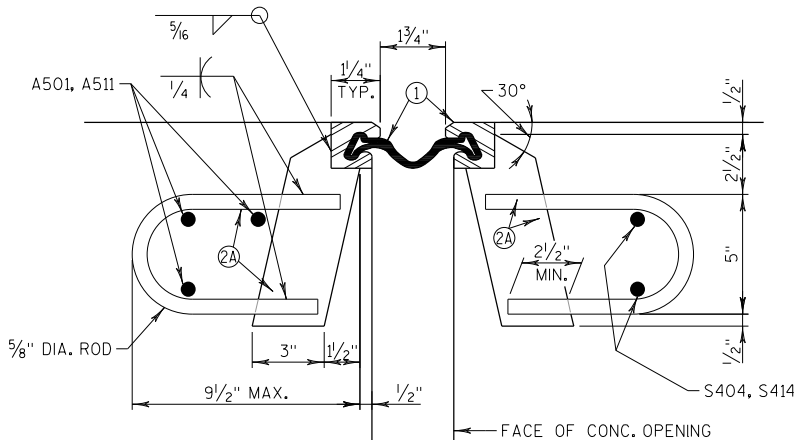


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB AND AT PARAPETS, MEDIANS & SIDEWALKS

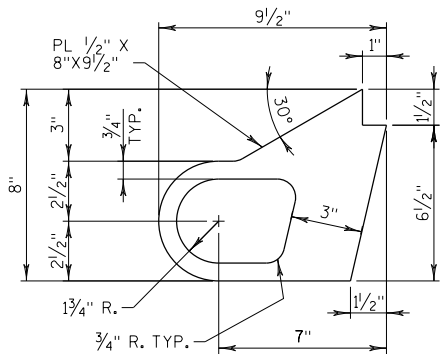


PART PLAN



SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS
SYM. ABOUT CL JOINT UNLESS OTHERWISE SHOWN OR NOTED



ALTERNATE STRIP SEAL ANCHOR

LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4".
2. STUDS 5/8" ϕ $\times$ 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 2A. 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND 2 PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" $\times$ 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" $\times$ 10 1/2" $\times$ 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4" ϕ $\times$ 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" ϕ $\times$ 2 1/4" GALVANIZED THREADED COUPLING.
10. NOT USED
11. 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE IS PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

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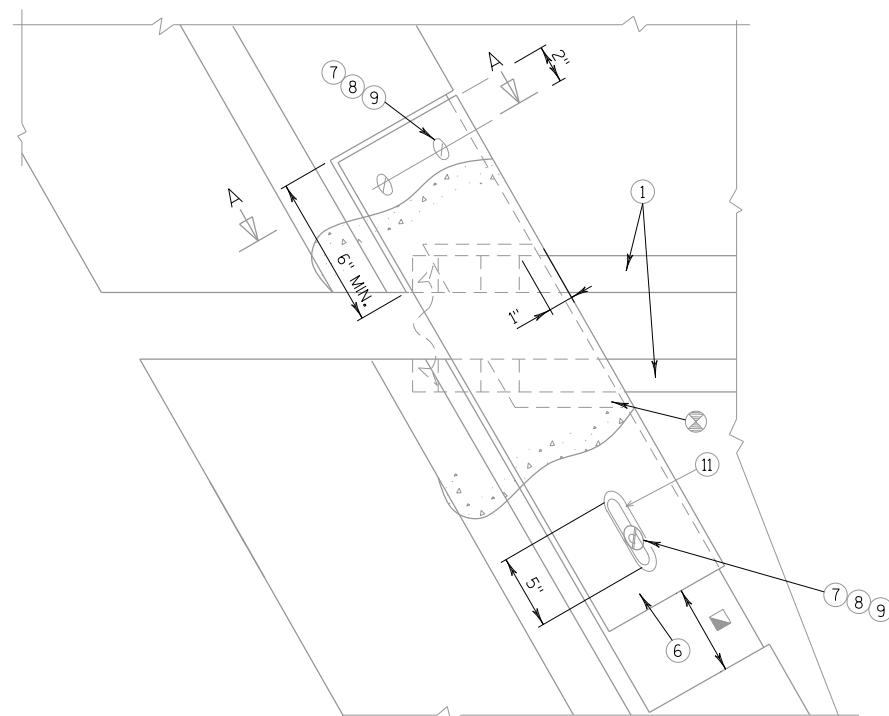
SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

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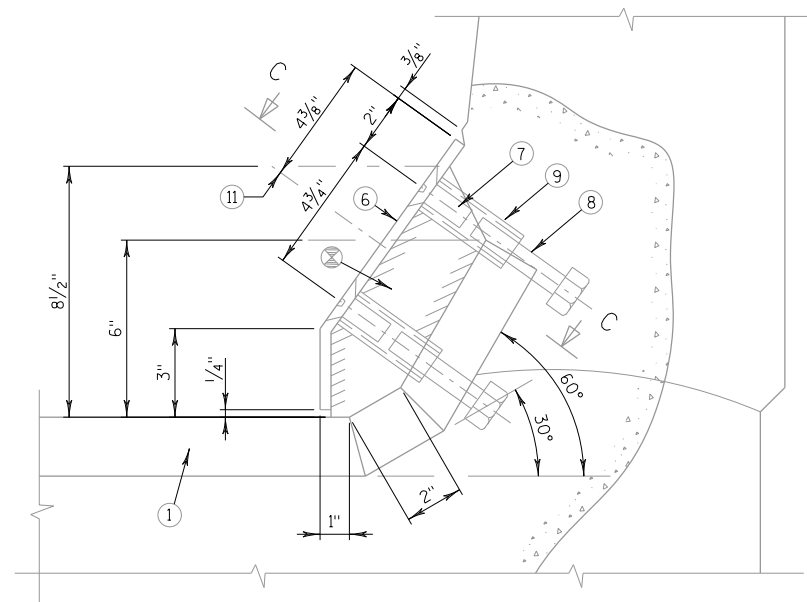
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-44-157".

STATE PROJECT NUMBER
1124-54-60

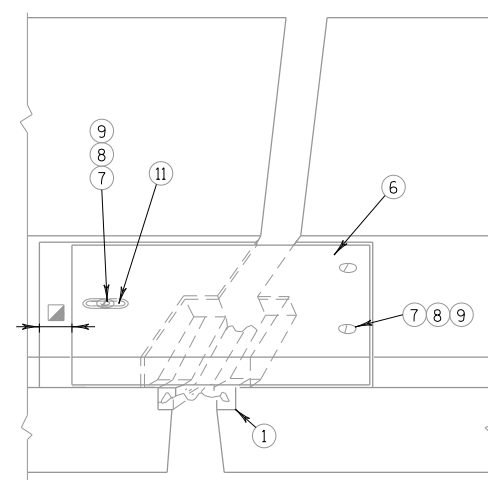
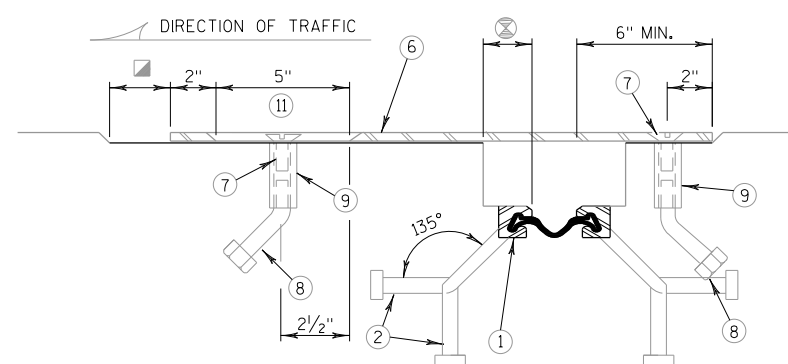
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-162			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 4 OF 6	
		USH 41	



PLAN AT PARAPET



SECTION A-A

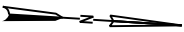
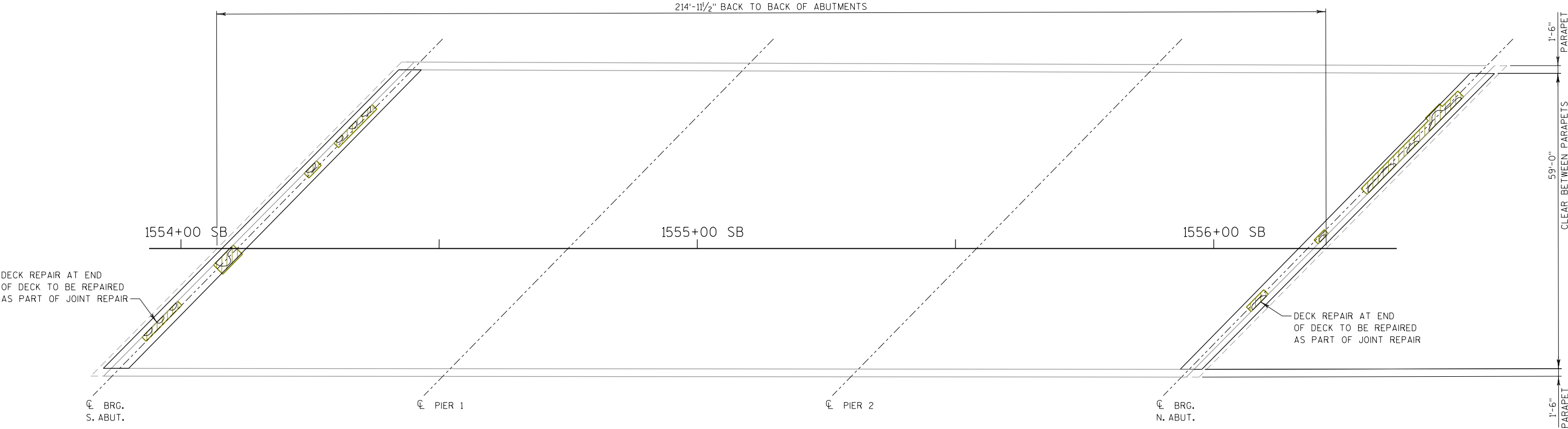
VIEW OF PARAPET PLATES
FROM ROADWAY

SECTION C-C

LEGEND

- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING
- ▣ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"
- ⑪ SEE SHEET 4 FOR LEGEND

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-162			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 5 OF 6	
		USH 41	



PLAN

EXPANSION JOINT REPLACEMENT
AND DECK REPAIR

DECK REPAIR

DECK REPAIR AREAS		S.N. B-44-157		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1468.0		DECK PREPARATION AREA	
SHADE/DEBRIS	yd ²	0		SHADE/DEBRIS	
PREPARATION, DECKS, TYPE 1	yd ²	10.7	0.7		
PREPARATION, DECKS, TYPE 2	yd ²	2.7	0.2		
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		

DECK PREPARATION AREA

SHADE/DEBRIS

DELAMINATION

SPALL

DEBOND

ASPHALT PATCH

CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/1/13
INFRARED SURVEY TAKEN BY AECOM

- FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIR.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-44-162			
DRAWN BY		AMZ	PLANS CK'D. JSR
DECK REPAIR		SHEET 6 OF 6	
		USH 41	

FILE= SCALE =

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS27 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS45 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'c = 4,000 PSI

TRAFFIC DATA

USH41
A.D.T. = 41,550 (2014)
= 49,350 (2034)

SPENCER ST.
A.D.T. = 7,200 (2010)

LIST OF DRAWINGS

1. SLAB REPAIR



GENERAL NOTES

THE PROPOSED WORK INCLUDES SLAB REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-44-163, IS A THREE SPAN HAUNCHED SLAB STRUCTURE WITH AN OVERALL WIDTH THAT VARIES FROM 81.02 FEET TO 84.58 FEET AND AN OVERALL LENGTH OF 112.67 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

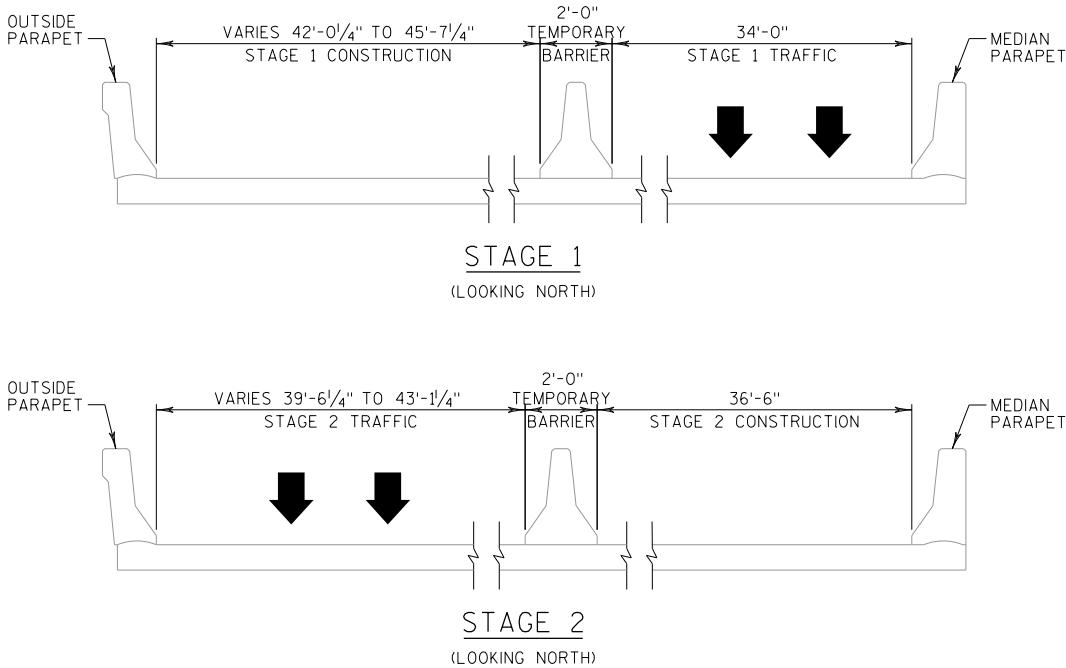
ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/1/13
INFRARED SURVEY TAKEN BY AECOM

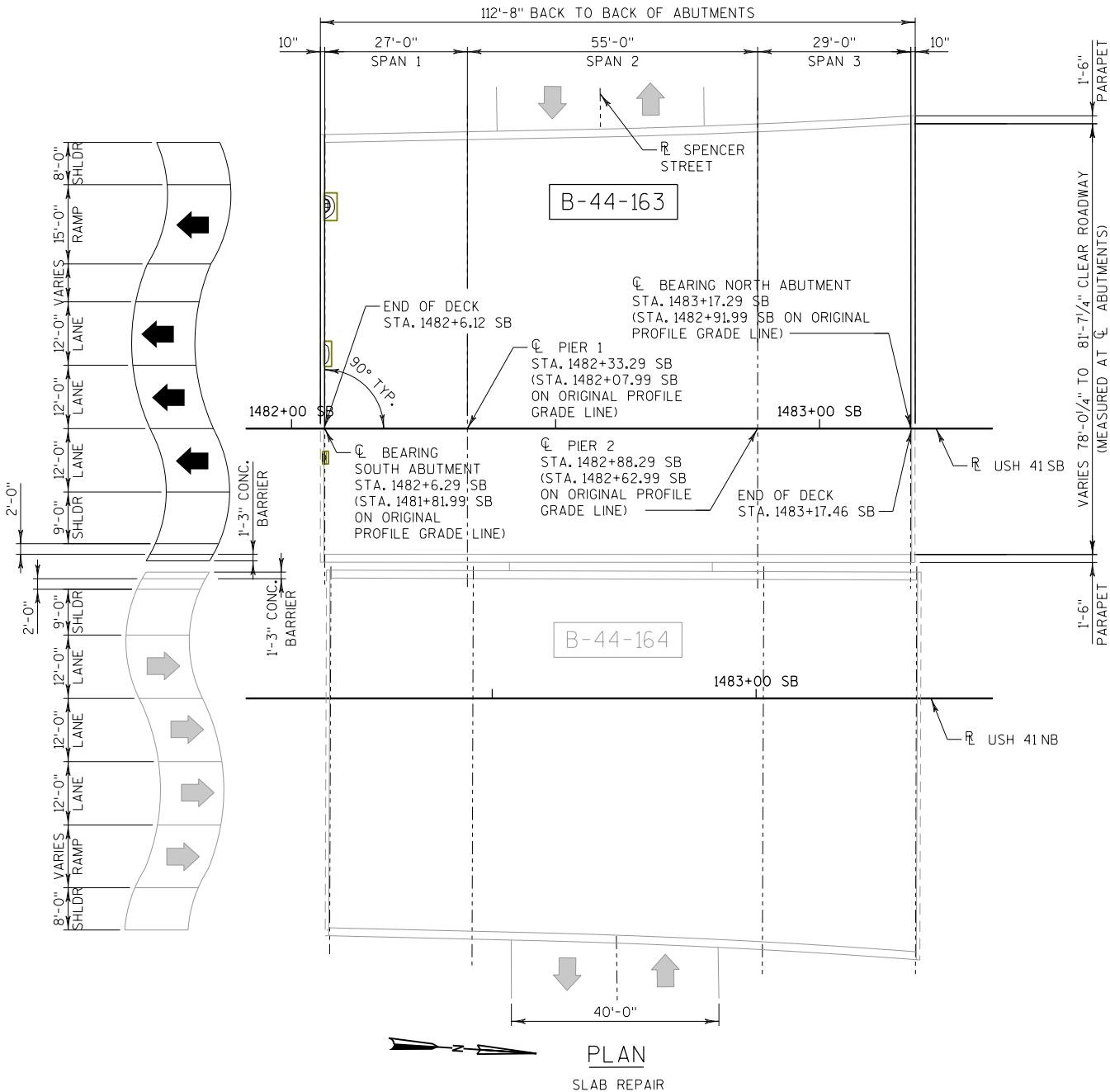
LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

- QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440



SLAB REPAIR

SLAB REPAIR AREAS		S.N. B-44-163		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1036.8		DECK PREPARATION AREA	
SHADE/DEBRIS	yd ²	0		SHADE/DEBRIS	
PREPARATION, DECKS, TYPE 1	yd ²	2.6	0.3	DELMINATION	
PREPARATION, DECKS, TYPE 2	yd ²	0.7	<0.1	SPALL	
FULL DEPTH DECK REPAIR	yd ²	0.5	<0.1	DEBOND	
				ASPHALT PATCH	
				CONCRETE PATCH	

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-44-163	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	3
* 509.0302	PREPARATION DECKS TYPE 2	SY	1
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	1
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	30

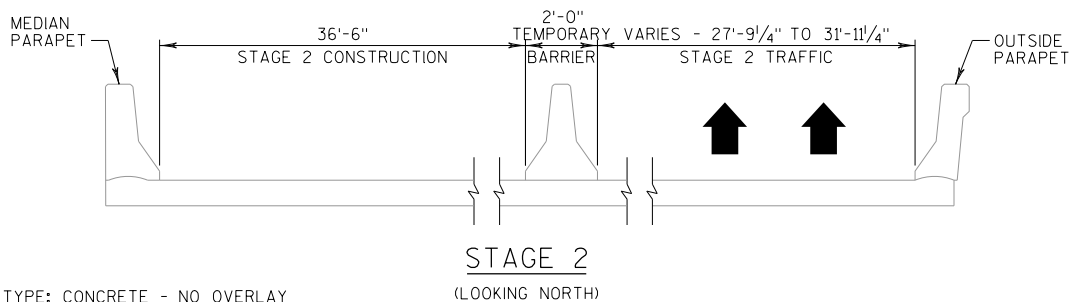
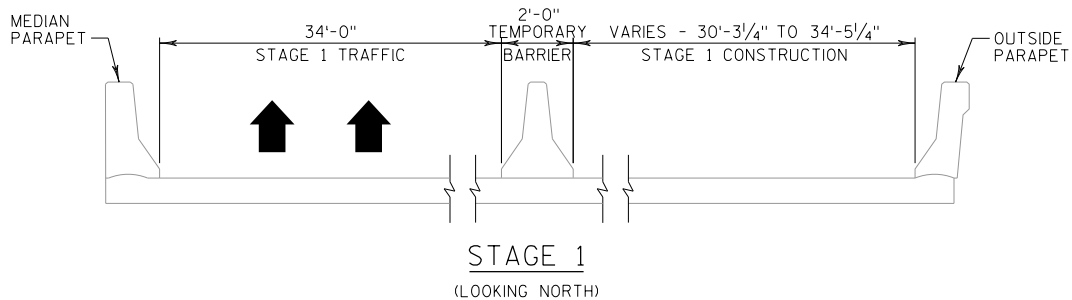
NO.	DATE	REVISION	BY
PLANS PREPARED BY:		1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> DVE CHIEF STRUCTURES DESIGN ENGINEER		6/19/14 DATE
STRUCTURE B-44-163			
USH 41 SOUTHBOUND OVER SPENCER STREET			
COUNTY	OUTAGAMIE	TOWN/CITY/VILLAGE	GRAND CHUTE
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
SLAB REPAIR		SHEET 1 OF 1	

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS27 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS45 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

1. SLAB REPAIR



FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



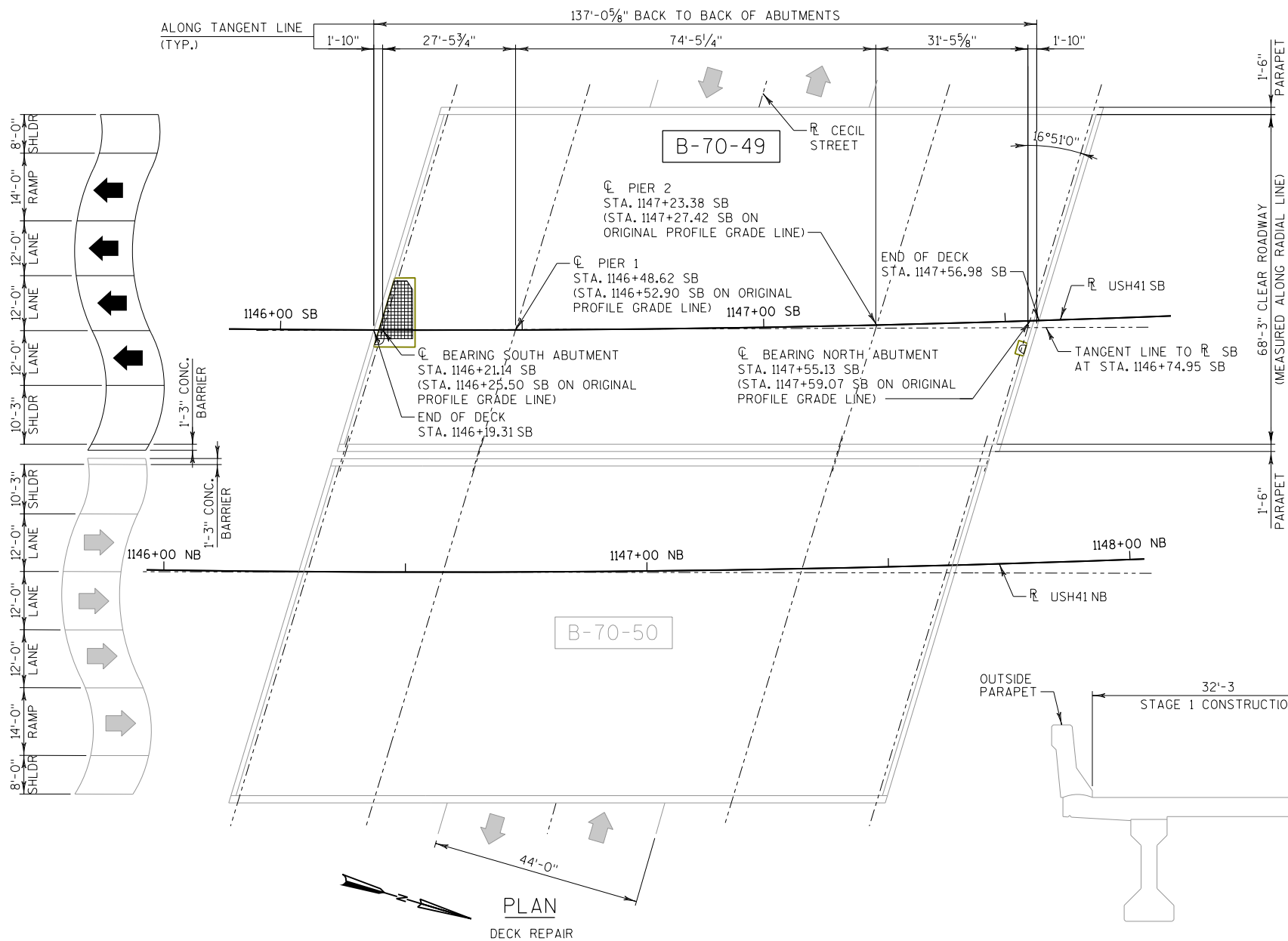
SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 7/1/13
INFRARED SURVEY TAKEN BY AECOM

SLAB REPAIR AREAS		S.N. B-44-164		LEGEND			
ITEM	UNIT	QUANT.	%	DECK PREPARATION AREA  SHADE/DEBRIS 		DELAMINATION	
TOTAL AREA	yd ²	893.4				SPALL	
SHADE/DEBRIS	yd ²	0				DEBOND	
PREPARATION, DECKS, TYPE 1	yd ²	2.8	0.3			ASPHALT PATCH	
PREPARATION, DECKS, TYPE 2	yd ²	0.7	<0.1			CONCRETE PATCH	
FULL DEPTH DECK REPAIR	yd ²	0.5	<0.1				

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-44-164	LS	1
509.0301	PREPARATION DECKS TYPE 1	SY	4
509.0302	PREPARATION DECKS TYPE 2	SY	1
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	1
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	40

* QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440



GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-49, IS A THREE SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 71.25 FEET AND AN OVERALL LENGTH OF 137.05 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

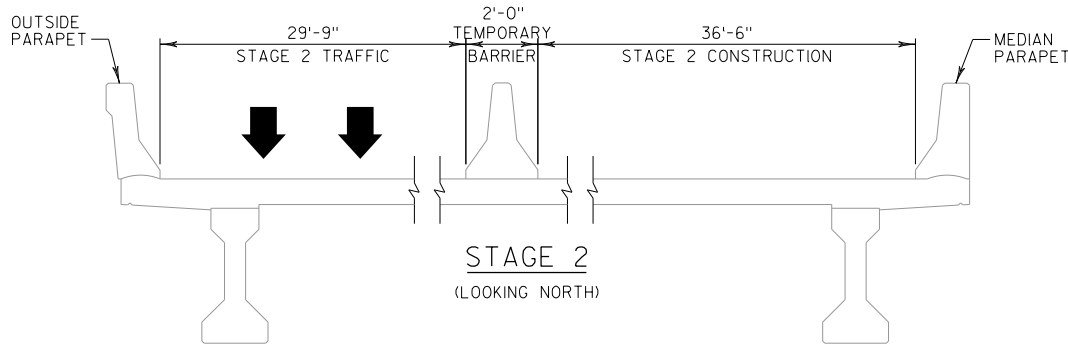
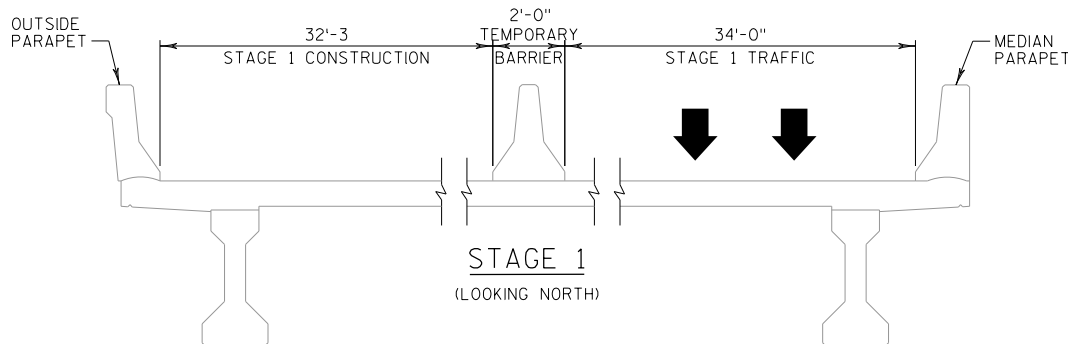
ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-49		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1074.2		DECK PREPARATION AREA	DELAMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	10.7	1.0	SHADE/DEBRIS	DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	8.0	0.7		ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/19/13
INFRARED SURVEY TAKEN BY AECOM

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-49	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	12
* 509.0302	PREPARATION DECKS TYPE 2	SY	9
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	2
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	120

LEGEND

● BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

* QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20M (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS28 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS51 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'_c = 4,000 PSI

TRAFFIC DATA

USH41
A.D.T. = 38,350 (2014)
= 46,550 (2034)

CECIL ST.
A.D.T. = 8,600 (2010)

LIST OF DRAWINGS

1. DECK REPAIR



NO.	DATE	REVISION	BY
PLANS PREPARED BY: GRAEF			
1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> 6/19/14 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-70-49			
USH 41 SOUTHBOUND OVER CECIL STREET			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	NEENAH
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR			SHEET 1 OF 1

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-50, IS A THREE SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 71.25 FEET AND AN OVERALL LENGTH OF 135.88 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20M (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS28 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS51 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'c = 4,000 PSI

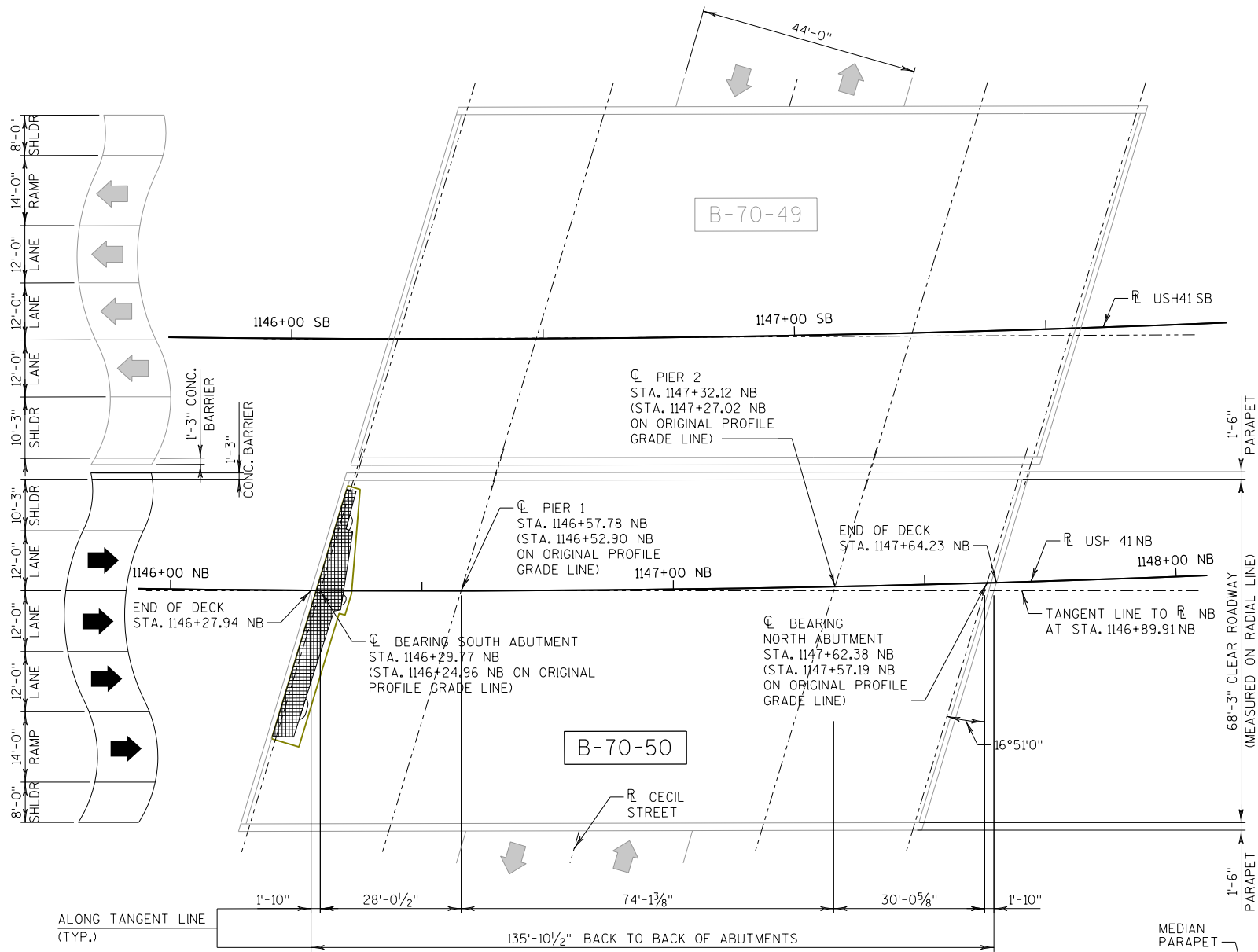
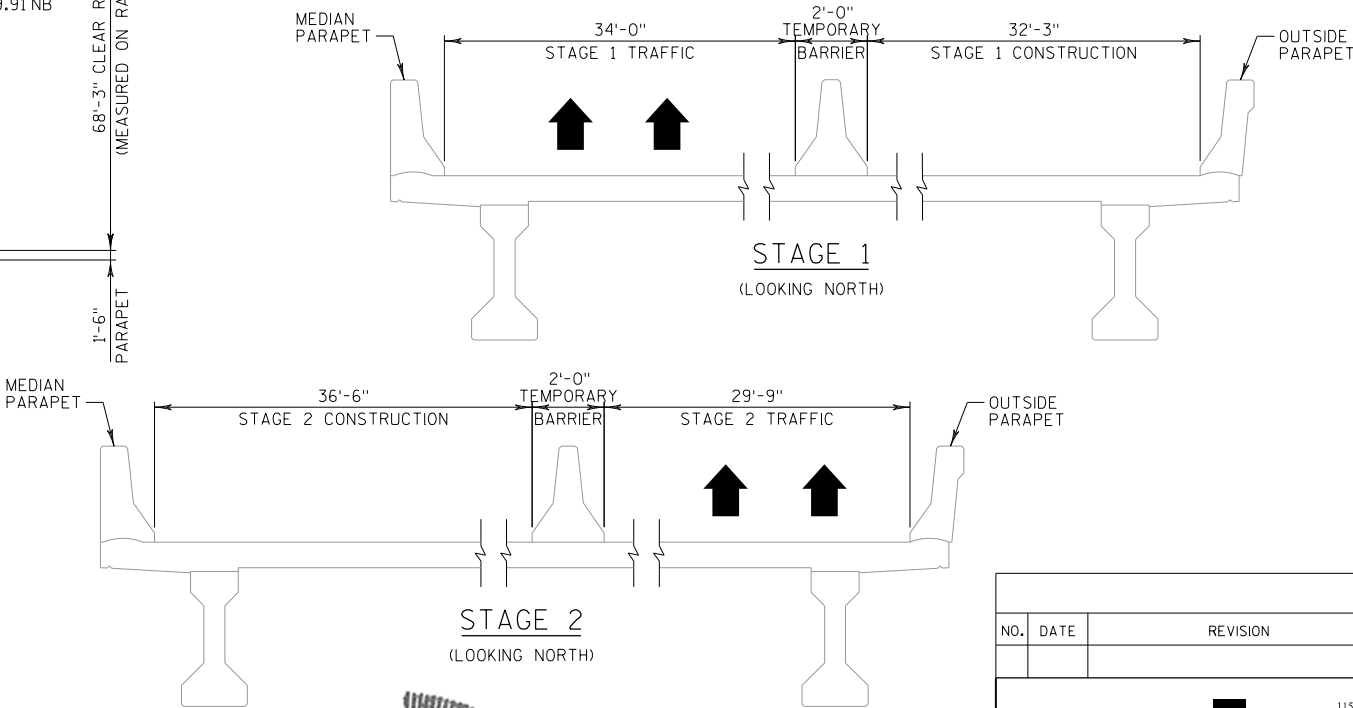
TRAFFIC DATA

USH41
A.D.T. = 38,350 (2014)
= 46,550 (2034)

CECIL ST.
A.D.T. = 8,600 (2010)

LIST OF DRAWINGS

1. DECK REPAIR



PLAN
DECK REPAIR

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/19/13
INFRARED SURVEY TAKEN BY AECOM

DECK REPAIR AREAS		S.N. B-70-50		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1061.7		DECK PREPARATION AREA	DELAMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	31.6	3.0		DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	23.7	2.2	SHADE/DEBRIS	ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		CONCRETE PATCH

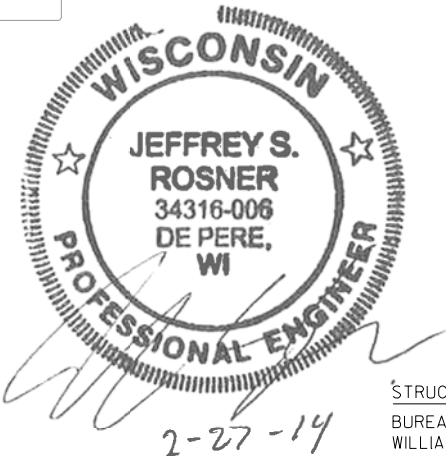
ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-50	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	35
* 509.0302	PREPARATION DECKS TYPE 2	SY	27
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	4
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	350

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

* QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.



STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY
PLANS PREPARED BY: GRAEF			
1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> 6/19/14 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-70-50			
USH 41 NORTHBOUND OVER CECIL STREET			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	NEENAH
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR			SHEET 1 OF 1

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-124, IS A TWO SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 59.25 FEET AND AN OVERALL LENGTH OF 199.52 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS23 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS43 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'c = 4,000 PSI

TRAFFIC DATA

USH41
A.D.T. = 38,350 (2014)
= 46,550 (2034)

STH114
A.D.T. = 19,700 (2010)

LIST OF DRAWINGS

1. DECK REPAIR



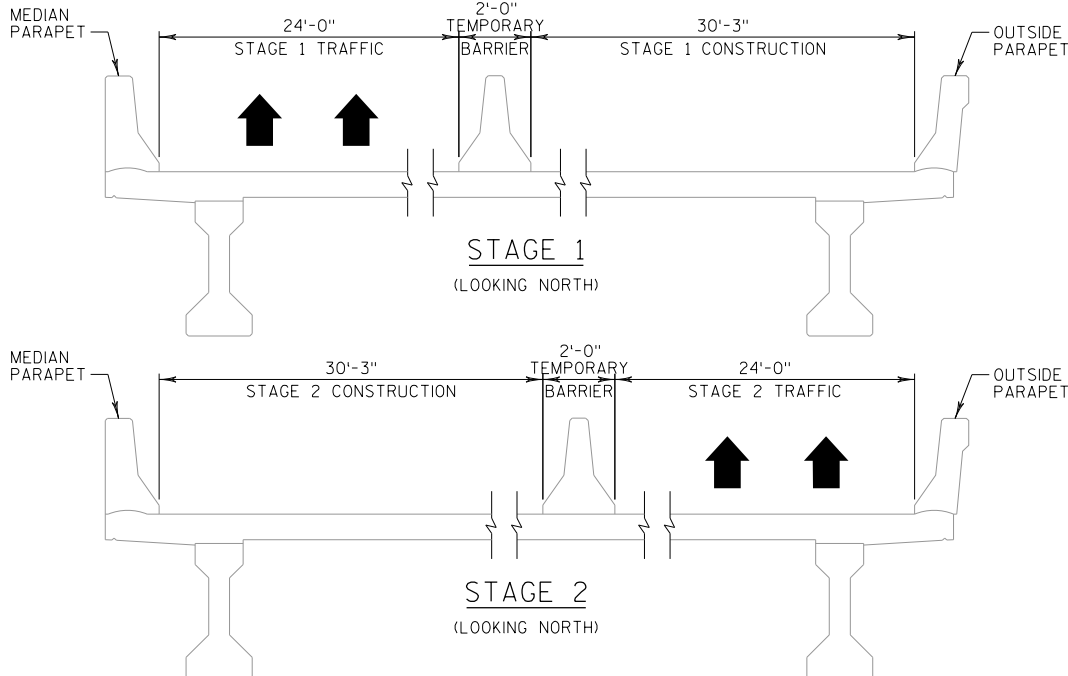
DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-124		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1314.4		DECK PREPARATION AREA	DELAMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	10.7	0.8		DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	5.4	0.4	SHADE/DEBRIS	ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/19/13
INFRARED SURVEY TAKEN BY AECOM

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-124	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	12
* 509.0302	PREPARATION DECKS TYPE 2	SY	6
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	2
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	120

PLAN
DECK REPAIR

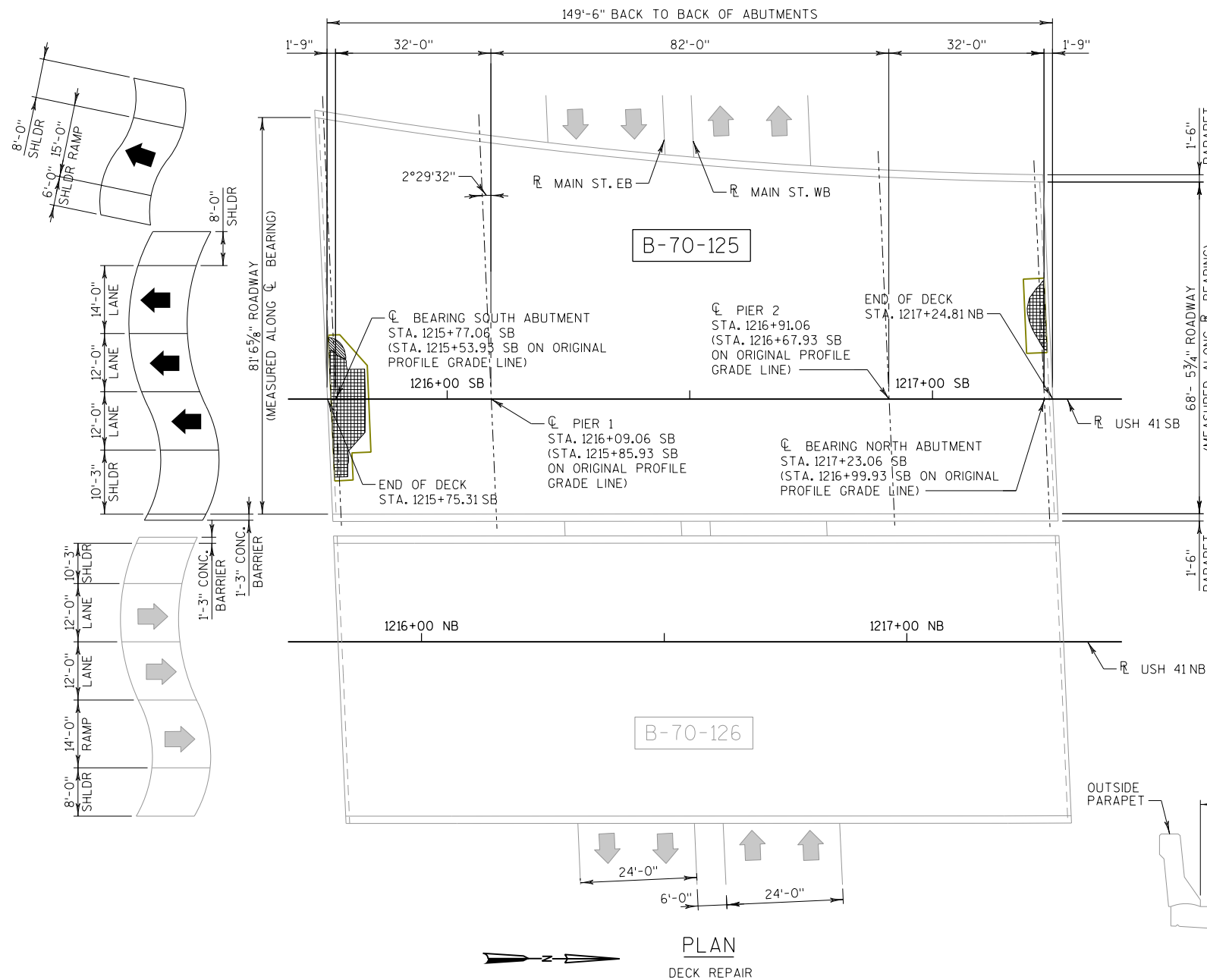
LEGEND

● BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

* QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440



DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-49		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1273.3			
SHADE/DEBRIS	yd ²	0			
PREPARATION, DECKS, TYPE 1	yd ²	28.7	2.3		
PREPARATION, DECKS, TYPE 2	yd ²	21.5	1.7		
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		

DECK PREPARATION AREA	DEBRIS	DELAMINATION	SPALL	DEBOND	ASPHALT PATCH	CONCRETE PATCH

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-125	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	32
* 509.0302	PREPARATION DECKS TYPE 2	SY	24
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	4
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	320

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

- * QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-125, IS A THREE SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH VARYING FROM 71.5 TO 84.6 FEET AND AN OVERALL LENGTH OF 149.50 FEET. THE ENTIRE DECK SURFACE TO BE SOUNDED AND REPAIRED WITH DECK PATCHING.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS23 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS52 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'c = 4,000 PSI

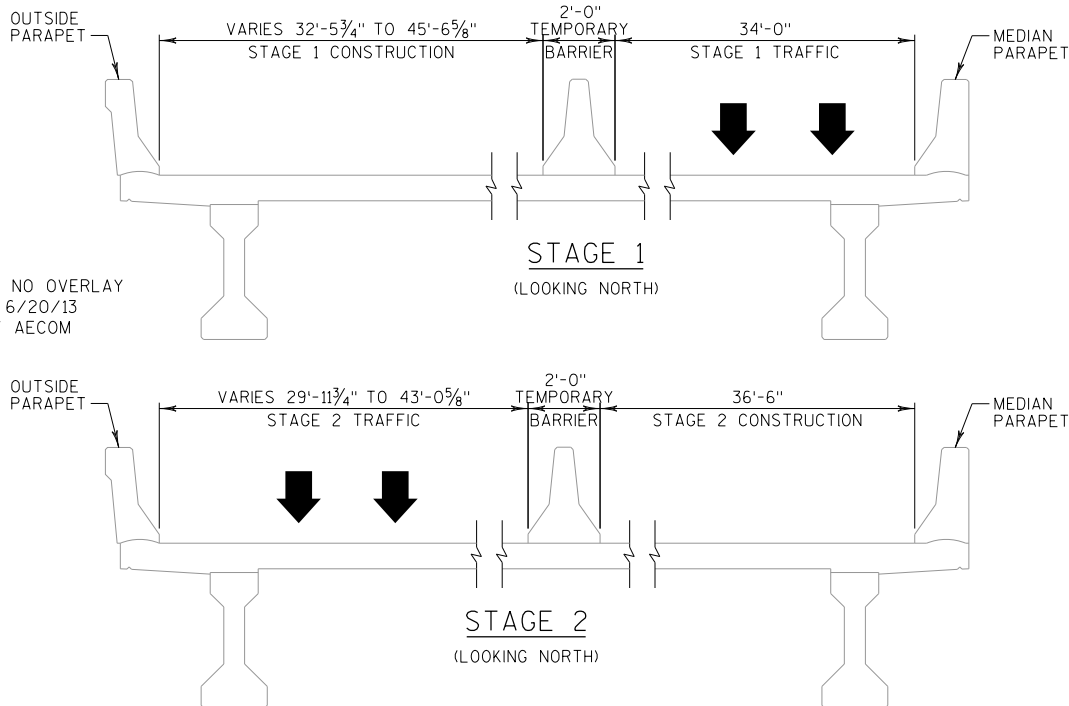
TRAFFIC DATA

USH41
A.D.T. = 43,550 (2014)
= 51,750 (2034)

MAIN STREET
A.D.T. = 9,000 (2010)

LIST OF DRAWINGS

- DECK REPAIR



NO.	DATE	REVISION	BY
PLANS PREPARED BY:		GRāEF	1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> CPM		6/19/14
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-70-125			
USH 41 SB OVER MAIN STREET			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	NEENAH
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR		SHEET 1 OF 1	

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-126, IS A THREE SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 59.25 FEET AND AN OVERALL LENGTH OF 149.50 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS25 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS53 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f_c = 4,000 PSI

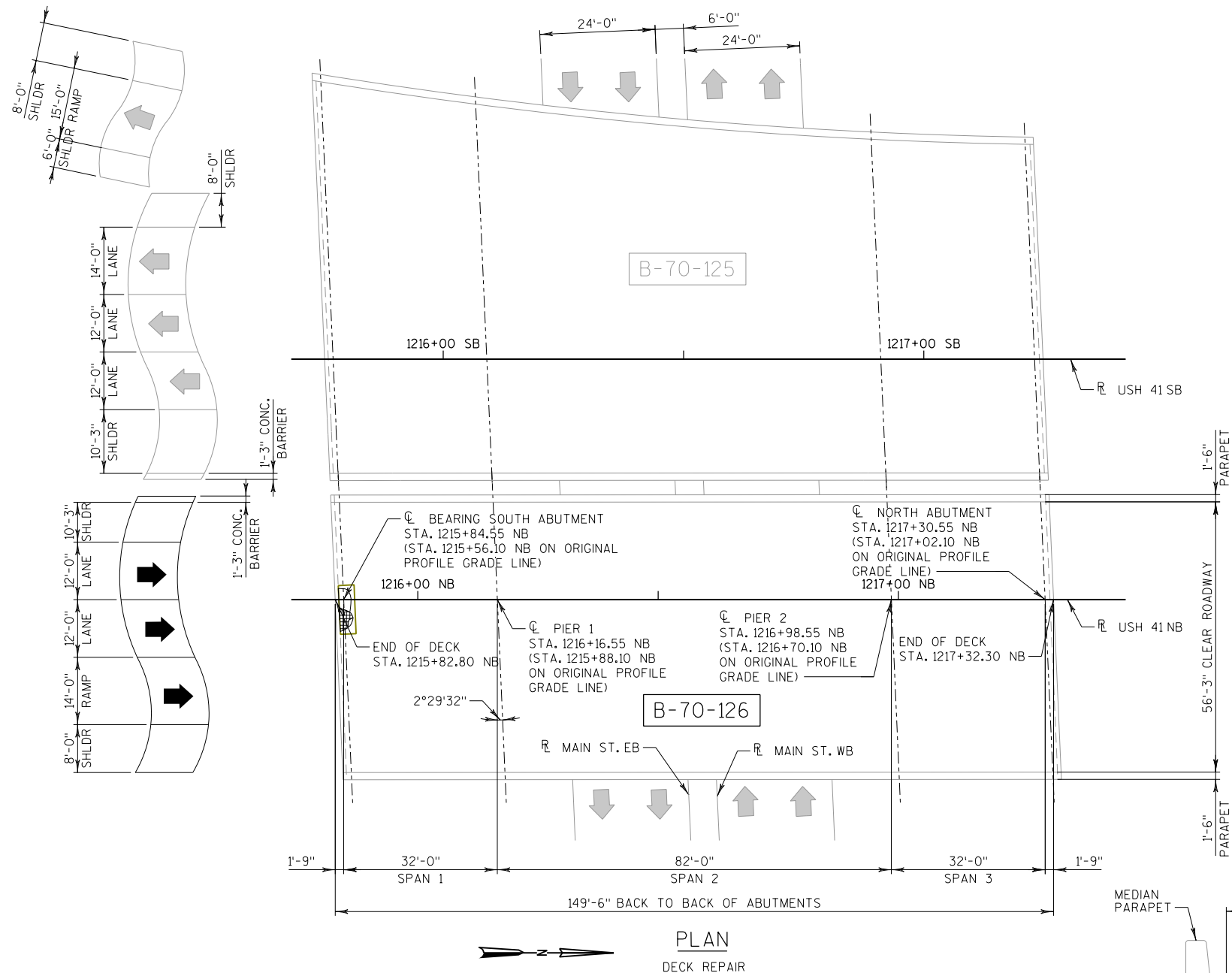
TRAFFIC DATA

USH41
A.D.T. = 41,300 (2014)
= 49,300 (2034)

MAIN STREET
A.D.T. = 9,000 (2010)

LIST OF DRAWINGS

- DECK REPAIR



DECK REPAIR

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/20/13
INFRARED SURVEY TAKEN BY AECOM

DECK REPAIR AREAS		S.N. B-70-126		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	985.0		DECK PREPARATION AREA	
SHADE/DEBRIS	yd ²	0		SHADE/DEBRIS	
PREPARATION, DECKS, TYPE 1	yd ²	3.7	0.4		
PREPARATION, DECKS, TYPE 2	yd ²	1.9	0.2		
FULL DEPTH DECK REPAIR	yd ²	1.0	0.1		

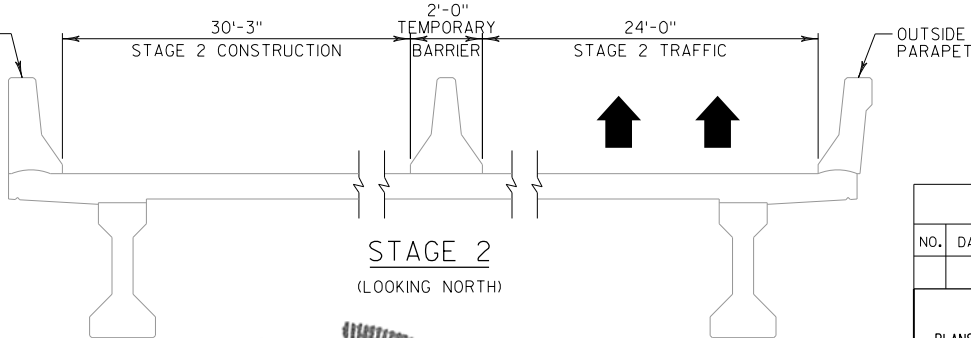
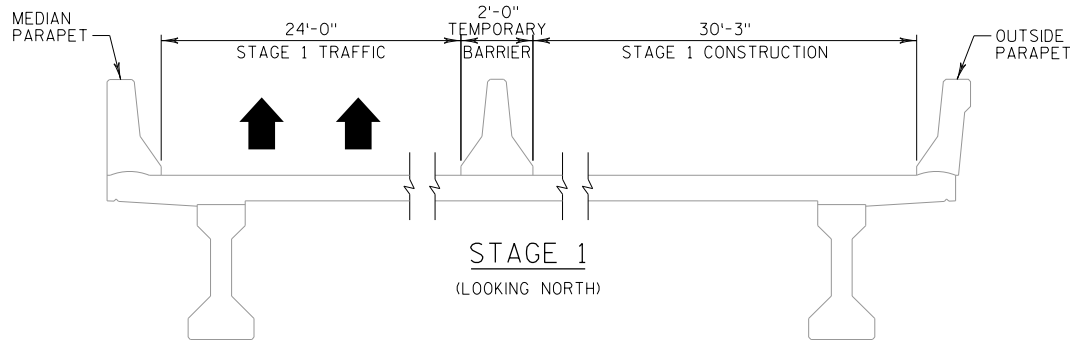
ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-126	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	5
* 509.0302	PREPARATION DECKS TYPE 2	SY	3
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	1
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	50

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

- * QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.



STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY
PLANS PREPARED BY: GRAEF			
1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> 6/19/14 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-70-126			
USH 41 NORTHBOUND OVER MAIN STREET			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	NEENAH
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR			SHEET 1 OF 1

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-127, IS A THREE SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 71.25 FEET AND AN OVERALL LENGTH OF 136.77 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS22 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS47 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'c = 4,000 PSI

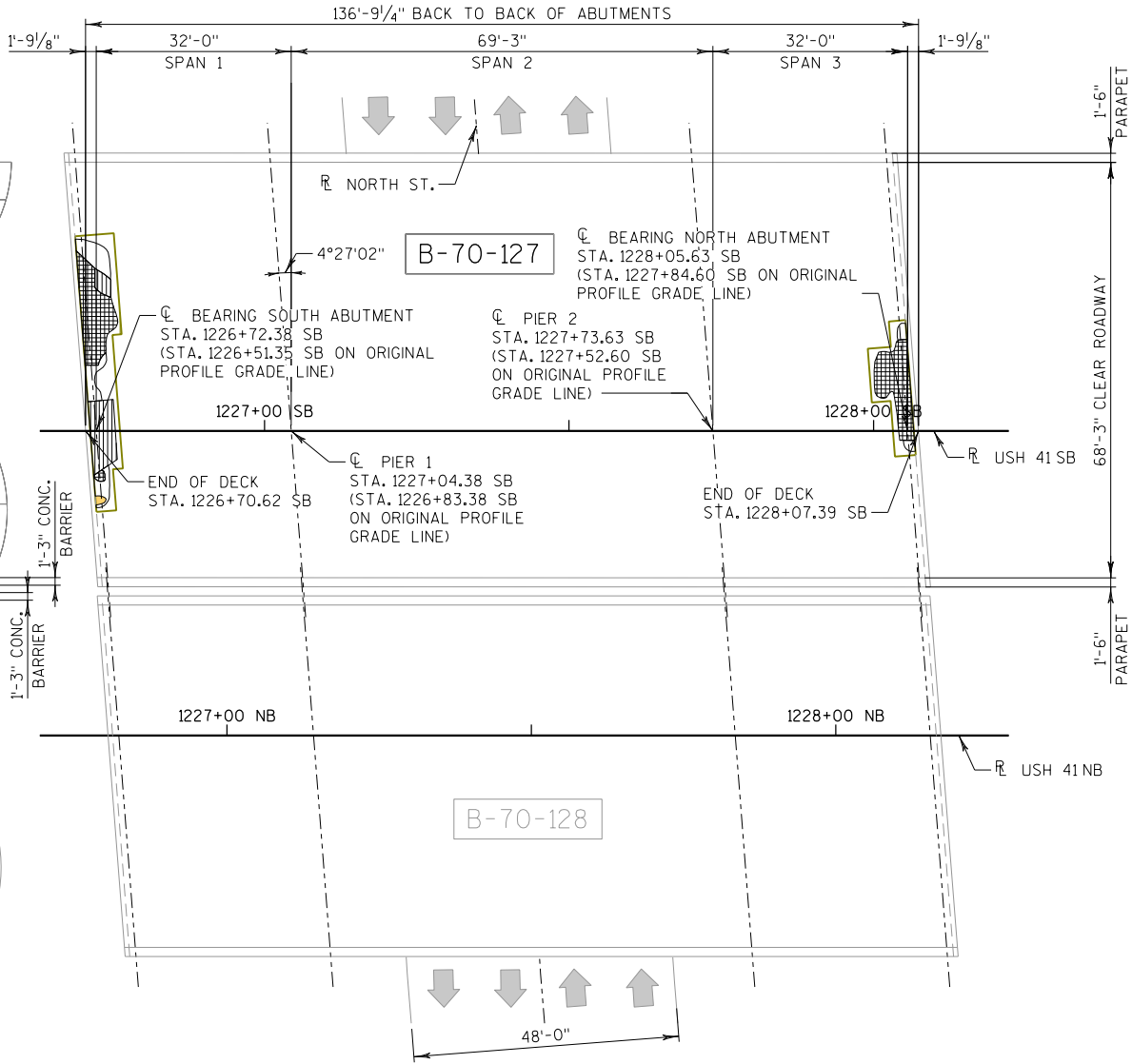
TRAFFIC DATA

USH41
A.D.T. = 43,550 (2014)
= 51,750 (2034)

NORTH STREET
A.D.T. 2,800 (2010)

LIST OF DRAWINGS

1. DECK REPAIR



PLAN

DECK REPAIR

DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-127		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1081.4		DECK PREPARATION AREA SHADE/DEBRIS	DELMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	37.3	3.4		DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	28.0	2.6		ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/20/13
INFRARED SURVEY TAKEN BY AECOM

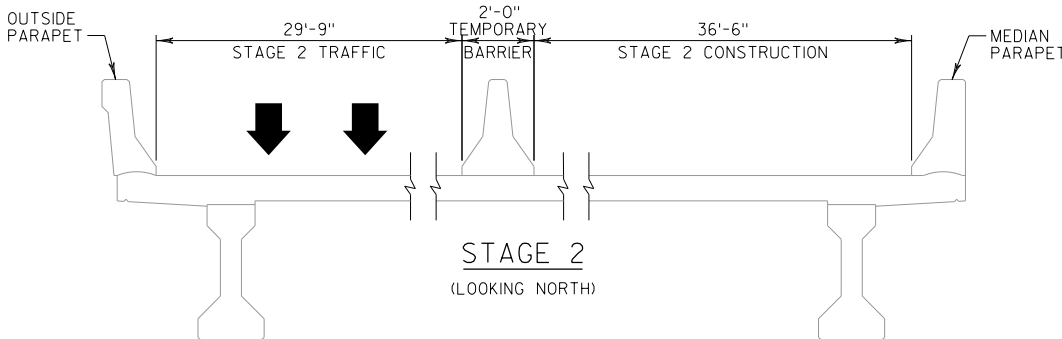
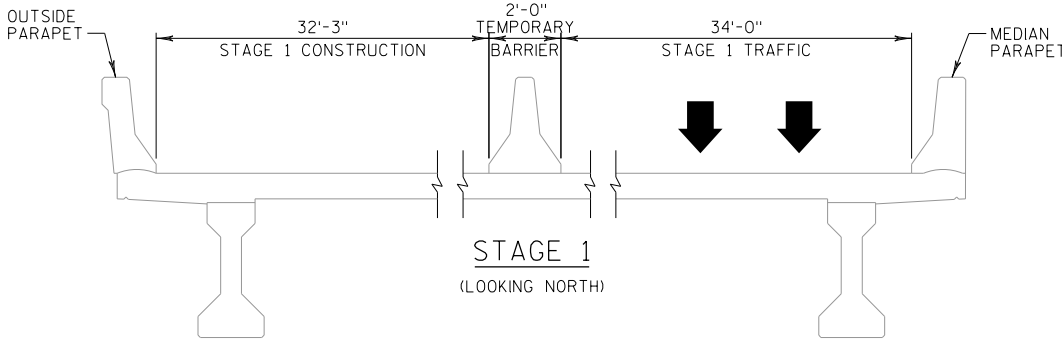
ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-127	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	42
* 509.0302	PREPARATION DECKS TYPE 2	SY	31
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASORY OVERLAY DECKS	CY	5
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	420

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

- * QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.



STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY
PLANS PREPARED BY: GRAEF			
1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> 6/19/14 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-70-127			
USH 41 SOUTHBOUND OVER NORTH STREET			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	NEENAH
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR			SHEET 1 OF 1

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-128, IS A THREE SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 59.25 FEET AND AN OVERALL LENGTH OF 136.77 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS22 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS47 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'c = 4,000 PSI

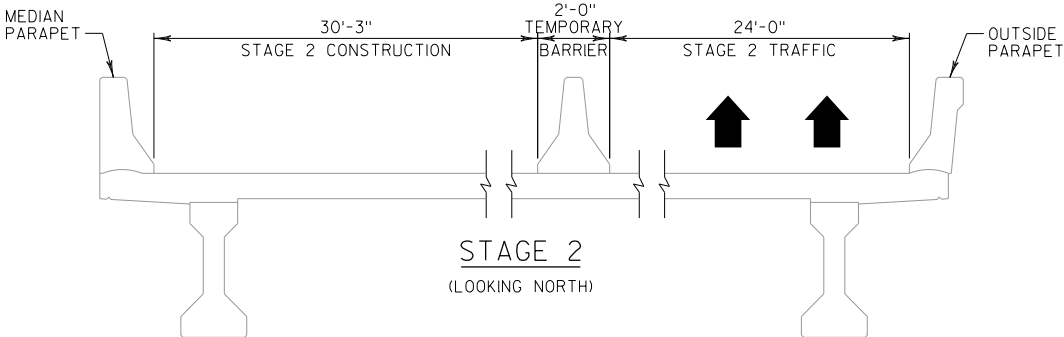
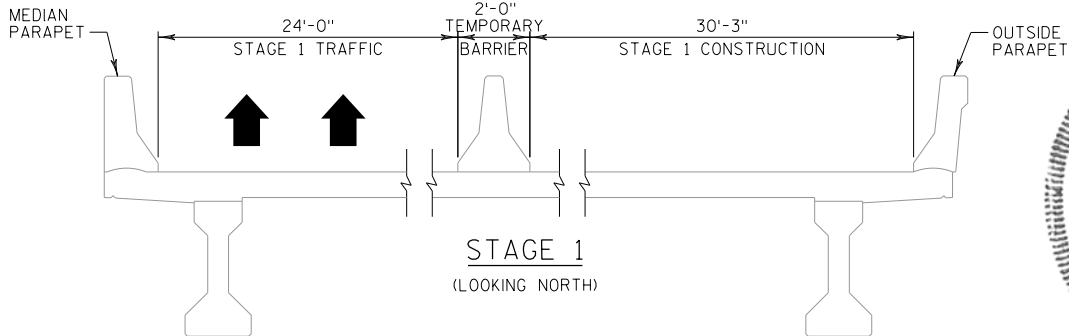
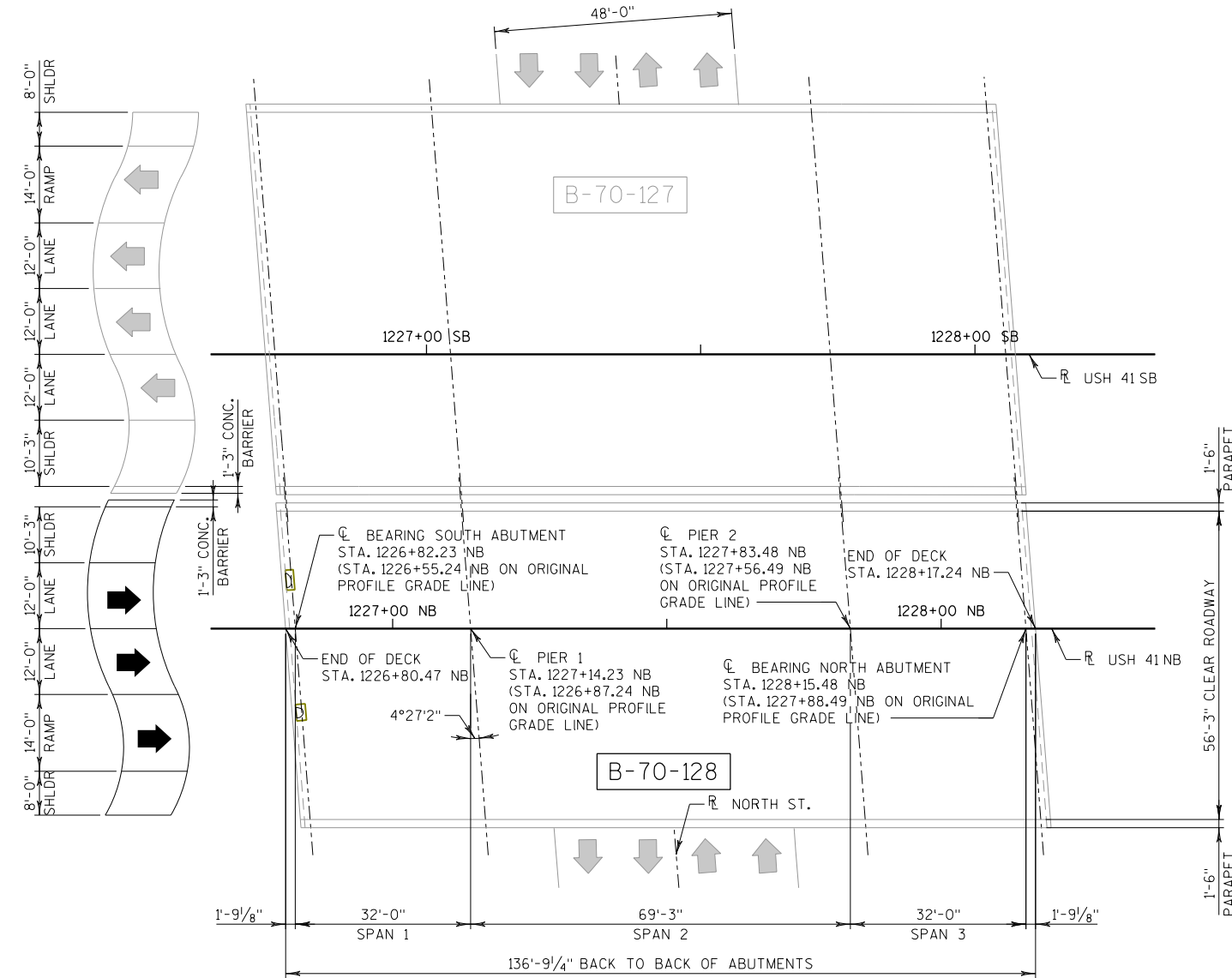
TRAFFIC DATA

USH41
A.D.T. = 43,550 (2014)
= 51,750 (2034)

NORTH STREET
A.D.T. 2,800 (2010)

LIST OF DRAWINGS

1. DECK REPAIR



DECK REPAIR AREAS		S.N. B-70-128		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	901.3			
SHADE/DEBRIS	yd ²	0			
PREPARATION, DECKS, TYPE 1	yd ²	1.2	0.1		
PREPARATION, DECKS, TYPE 2	yd ²	0.3	<0.1		
FULL DEPTH DECK REPAIR	yd ²	0.5	<0.1		

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/20/13
INFRARED SURVEY TAKEN BY AECOM

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-128	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	2
* 509.0302	PREPARATION DECKS TYPE 2	SY	1
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	1
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	20

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

- * QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY
PLANS PREPARED BY: GRAEF 1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> 6/19/14 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-70-128			
USH 41 NORTHBOUND OVER NORTH STREET			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	NEENAH
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR			SHEET 1 OF 1

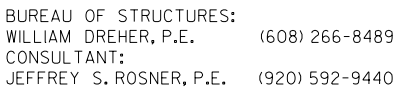
1. DECK REPAIR



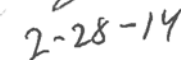
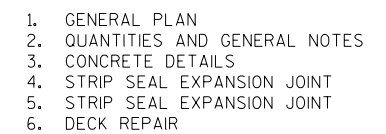
SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/20/13
INFRARED SURVEY TAKEN BY AECOM

	ITEM NO.	BID ITEMS	UNIT	TOTALS
	203.0225.S	DEBRIS CONTAINMENT B-70-129	LS	1
*	509.0301	PREPARATION DECKS TYPE 1	SY	3
*	509.0302	PREPARATION DECKS TYPE 2	SY	2
	509.2000	FULL-DEPTH DECK REPAIR	SY	1
●	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	1
	SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	30

* QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.



NO.	DATE	REVISION	BY
PLANS PREPARED BY:		 1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> DWR CHIEF STRUCTURES DESIGN ENGINEER	6/19/14 DATE		
STRUCTURE B-70-129			
USH 14 SB OVER CTH II / WINCHESTER ROAD			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	MENASHA
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR			SHEET 1 OF 1



STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.		DATE		REVISION		BY	
PLANS PREPARED BY: GRÄEF				1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION							
ACCEPTED <i>William C. Dreher</i> DWR CHIEF STRUCTURES DESIGN ENGINEER				6/19/14 DATE			
STRUCTURE B-70-131							
USH 41 SB OVER GREEN BAY ROAD							
COUNTY		WINNEBAGO		TOWN/CITY/VILLAGE		MENASHA	
DESIGN SPEC. REHABILITATION N/A							
DESIGNED BY	KGW	DESIGN CK'D.	AL	DRAWN BY	AMZ	PLANS CK'D.	JSR
GENERAL PLAN					SHEET 1 OF 6		

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-131	LS	1
502.3100	EXPANSION DEVICE B-70-131	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	41
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	2040
* 509.0301	PREPARATION DECKS TYPE 1	SY	4
* 509.0302	PREPARATION DECKS TYPE 2	SY	1
509.1000	JOINT REPAIR	SY	39
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.5100.S	POLYMER OVERLAY	SY	2140
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	17
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	40

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).
- * QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

GENERAL NOTES

THE PROPOSED WORK INCLUDES JOINT REPAIR, POLYMER OVERLAY, AND DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR THE PAVING BLOCK AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM, "EXPANSION DEVICE B-70-131".

THE EXISTING STRUCTURE, B-70-131, IS A TWO SPAN STEEL PLATE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 71.0 FEET AND AN OVERALL LENGTH OF 281.5 FEET. THE ENTIRE DECK SURFACE TO BE REPAIRED FOR A NEW POLYMER OVERLAY.

EXPANSION JOINT ASSEMBLIES INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM BID PRICE BID AS "EXPANSION DEVICE B-70-131"

INFORMATION ON THESE DRAWINGS RELATED TO THE EXISTING BRIDGE IS BASED UPON AVAILABLE DRAWINGS FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2 AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER.

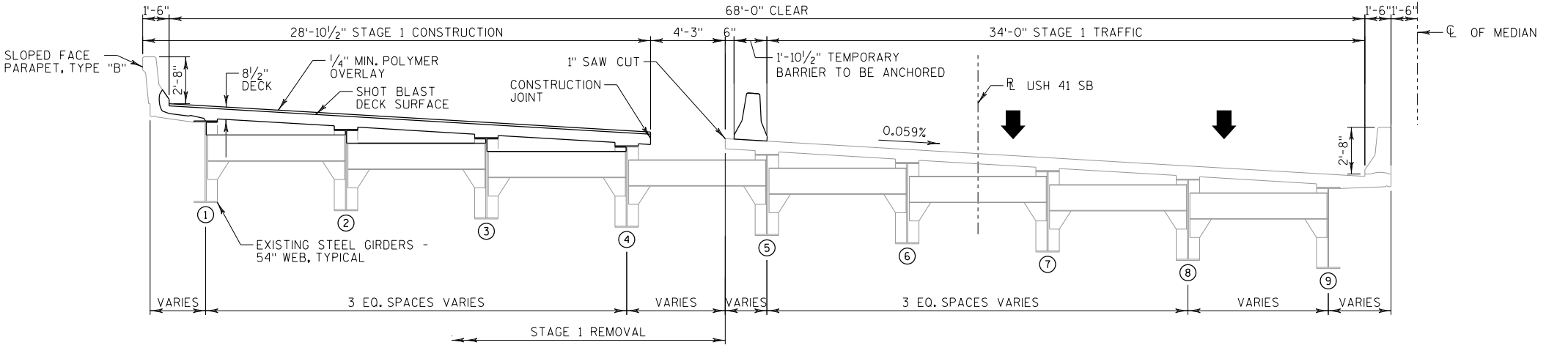
USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE NEW DECK CONCRETE ASSOCIATED WITH THE JOINT REPLACEMENT, FRONT FACE OF THE PARAPETS, PAVING BLOCKS, AND DECK REPAIR AREAS.

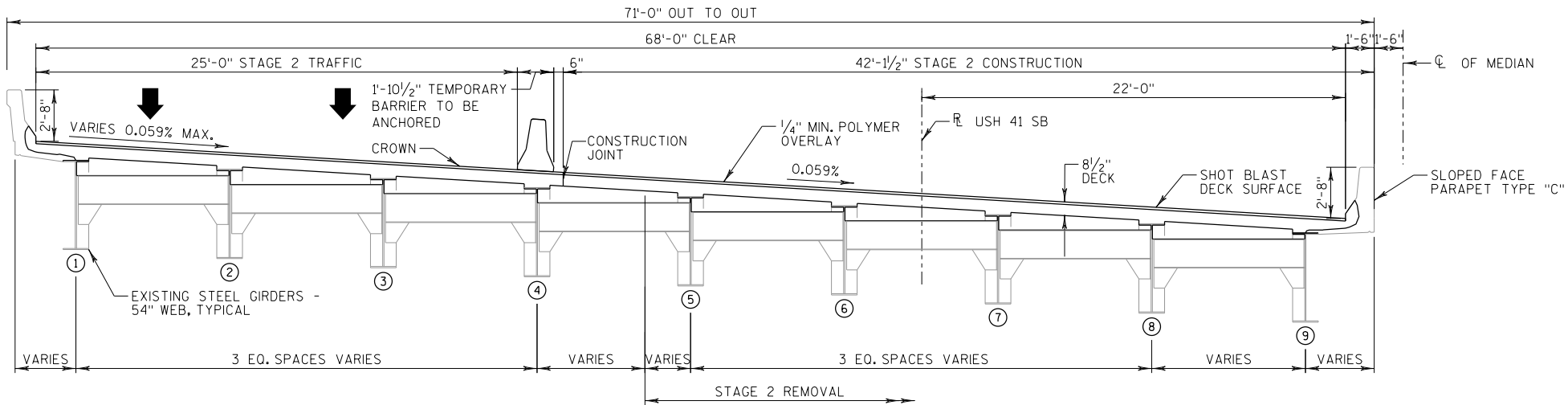
VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE BUREAU OF STRUCTURES SECTION FOR REVIEW.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



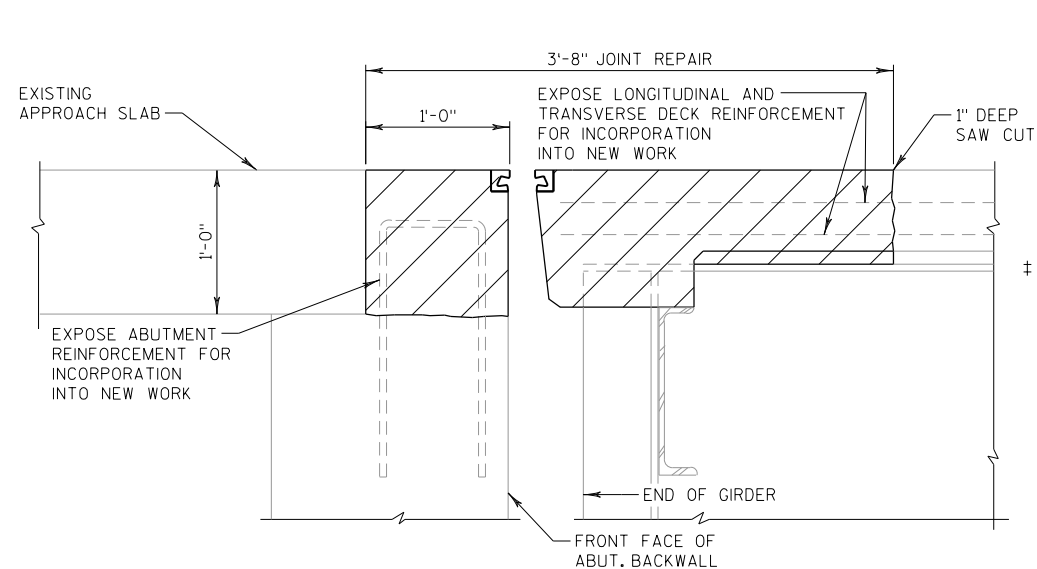
CROSS SECTION STAGE 1 - AT BOTH ABUTMENTS
(LOOKING NORTH)



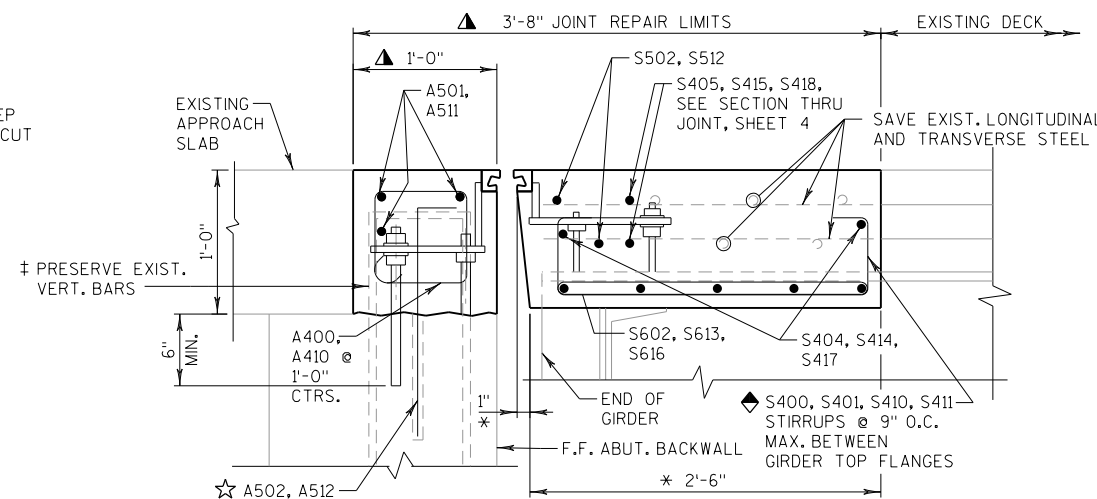
CROSS SECTION STAGE 2 - AT BOTH ABUTMENTS
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-131			
DRAWN BY		AMZ	PLANS CK'D. JSR
QUANTITIES AND GENERAL NOTES		SHEET 2 OF 6	
		USH 41	

FILE =
SCALE =



JOINT REPAIR - REMOVAL
NORMAL TO ∇ SUBSTRUCTURE

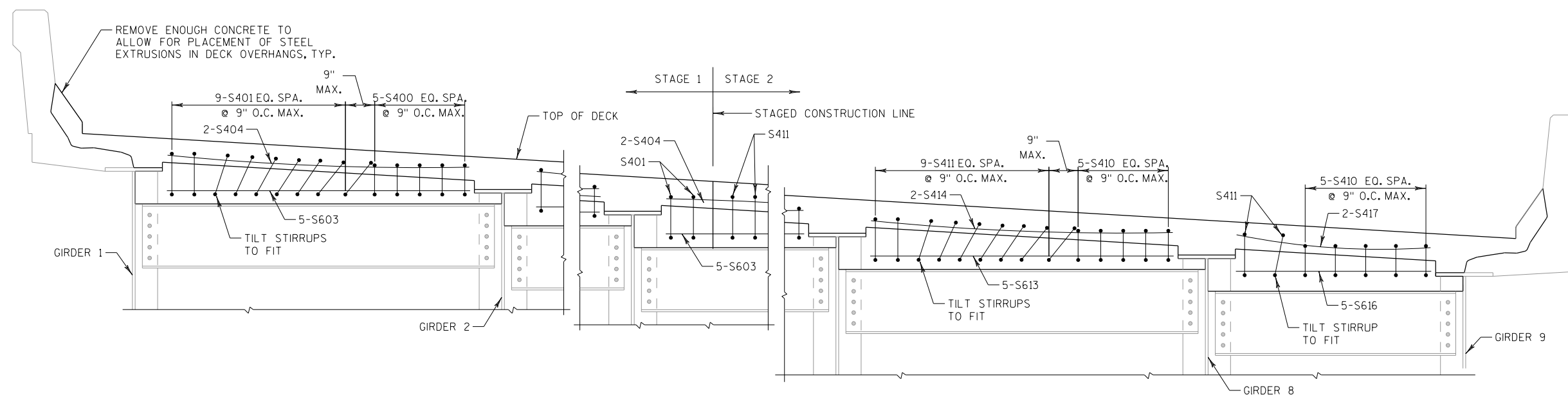


SECTION THRU EXPANSION JOINT
NORMAL TO ∇ SUBSTRUCTURE

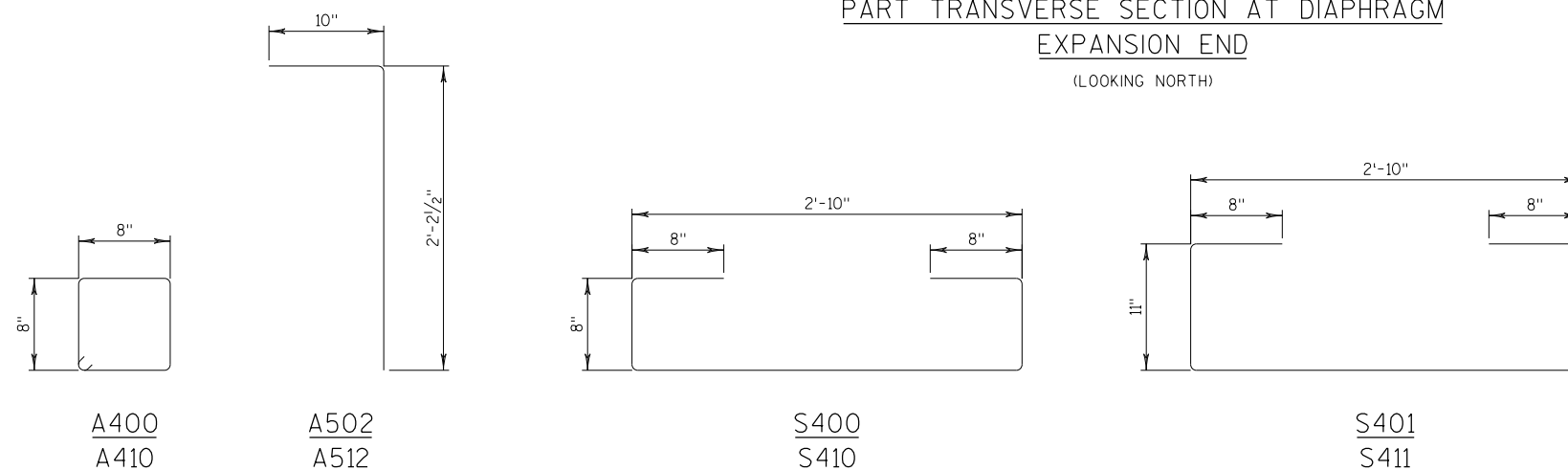
NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS						
MARK	COATED	NO. REQ'D	LENGT H	BAR SERIES	BENT	LOCATION
A400	X	29	3'-2"		X	PAVING NOTCH STIRRUP STAGE 1
A501	X	15	8'-0"			PAVING NOTCH TRANS. STAGE 1
A502	X	29	2'-11"		X	PAVING NOTCH DOWEL STAGE 1
A410	X	56	3'-2"		X	PAVING NOTCH STIRRUP STAGE 2
A511	X	24	8'-0"			PAVING NOTCH TRANS. STAGE 2
A512	X	56	2'-11"		X	PAVING NOTCH DOWEL STAGE 2
S400	X	15	5'-2"		X	DIAPH. STIRRUP STAGE 1
S401	X	29	5'-8"		X	DIAPH. STIRRUP STAGE 1
S502	X	2	32'-1"			DECK TRANS. STAGE 1
S603	X	20	9'-3"			DIAPH. TRANS. BOT. STAGE 1
S404	X	8	9'-8"			DIAPH. TRANS. TOP STAGE 1
S405	X	8	9'-8"			TRANS. BARS AT JOINT STAGE 1
S410	X	25	5'-2"		X	DIAPH. STIRRUP STAGE 2
S411	X	37	5'-8"		X	DIAPH. STIRRUP STAGE 2
S512	X	2	56'-5"			DECK TRANS. STAGE 2
S613	X	15	9'-3"			DIAPH. TRANS. BOT. STAGE 2, GIRDER 5-8
S414	X	6	9'-8"			DIAPH. TRANS. TOP STAGE 2, GIRDER 5-8
S415	X	6	9'-8"			TRANS. BARS AT JOINT STAGE 2, GIRDER 5-8
S616	X	5	3'-11"			DIAPH. TRANS. BOT. STAGE 2, GIRDER 8-9
S417	X	2	4'-2"			DIAPH. TRANS. TOP STAGE 2, GIRDER 8-9
S418	X	2	4'-2"			TRANS. BARS AT JOINT STAGE 2, GIRDER 8-9

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.



PART TRANSVERSE SECTION AT DIAPHRAGM
EXPANSION END
(LOOKING NORTH)



LEGEND

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ A502, A512 MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

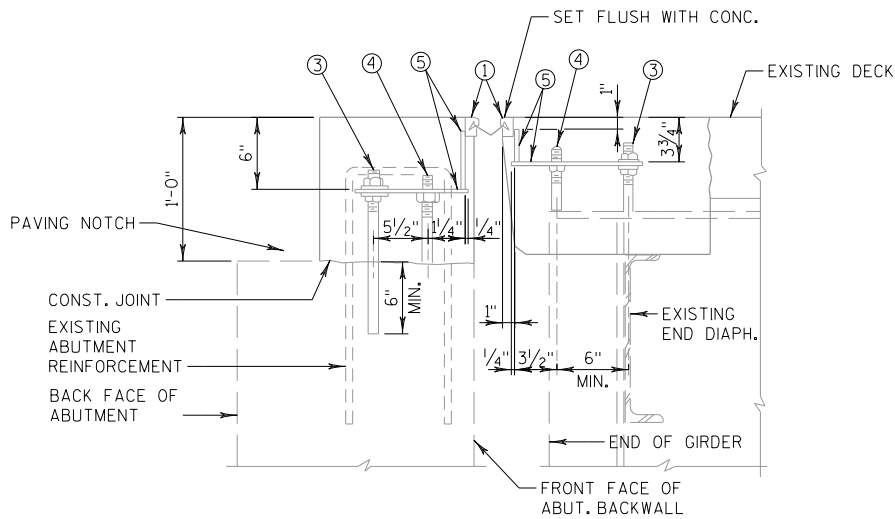
▲ DIMENSIONS GIVEN ARE NORMAL TO ∇ OF SUBSTRUCTURE UNIT. UTILIZE EXISTING REINFORCEMENT.

◆ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ∇ GIRDERS.

EXISTING CONCRETE TO BE REMOVED.

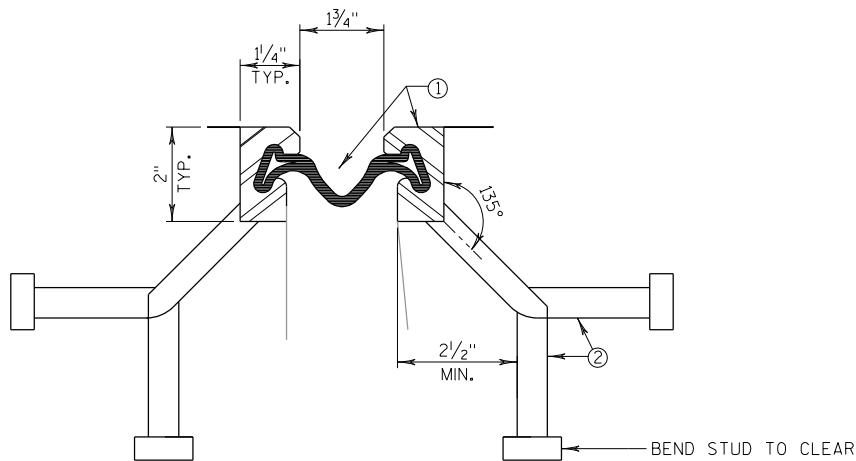
* DIMENSION IS TAKEN NORMAL TO ∇ ABUTMENT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-131			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE DETAILS		SHEET 3 OF 6	
		USH 41	

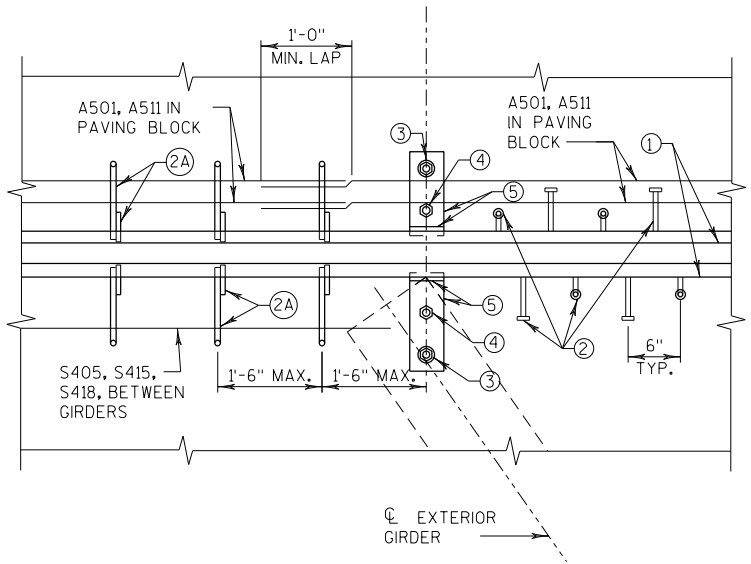


TYPICAL SECTION THRU
JOINT AT STEEL GIRDER

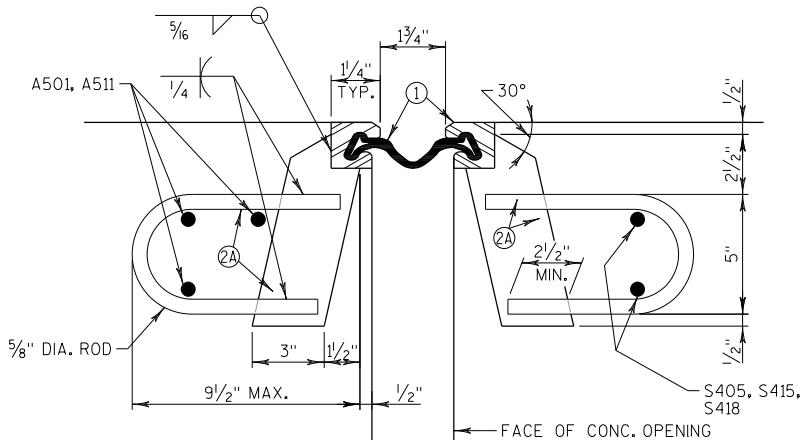
NORMAL TO CL SUBSTRUCTURE



SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF SLAB
AND AT PARAPETS, MEDIANS & SIDEWALKS

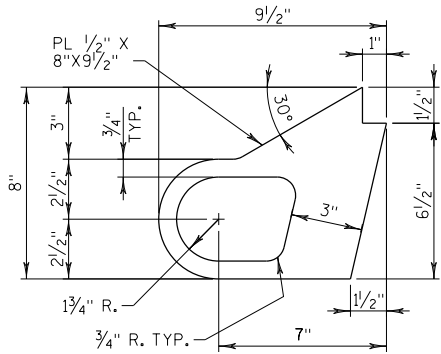


PART PLAN



SECTION THRU JOINT
AT PAVING BLOCK AT DECK

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS
SYM. ABOUT CL JOINT UNLESS OTHERWISE SHOWN OR NOTED



ALTERNATE STRIP SEAL
ANCHOR

LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4".
2. STUDS 5/8" ϕ $\times$ 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 2A. 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND 2 PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" $\times$ 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" $\times$ 10 1/2" $\times$ 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4" ϕ $\times$ 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" ϕ $\times$ 2 1/4" GALVANIZED THREADED COUPLING.
10. NOT USED
11. 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE IS PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

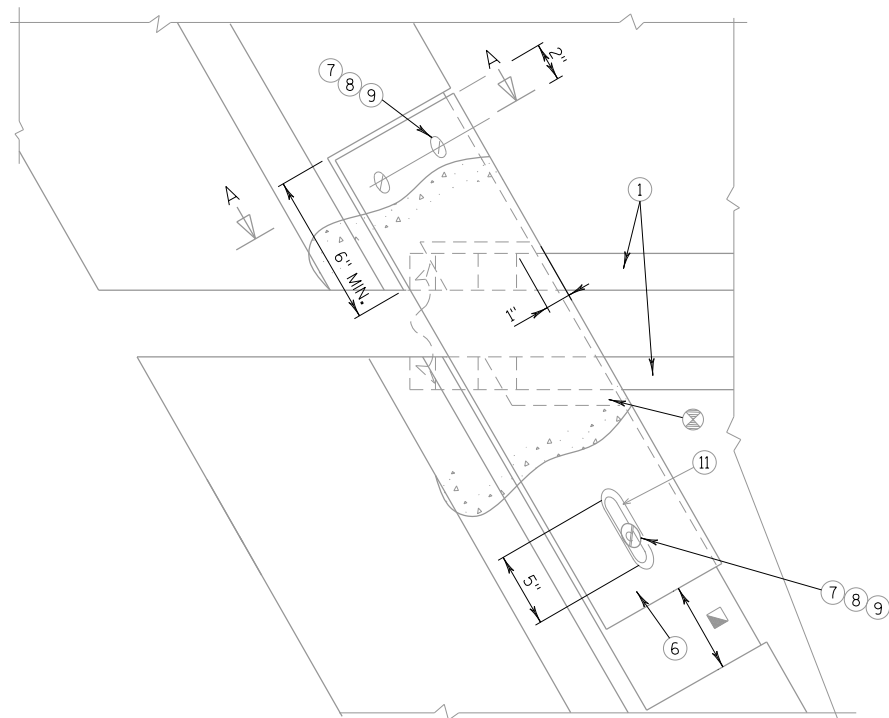
SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

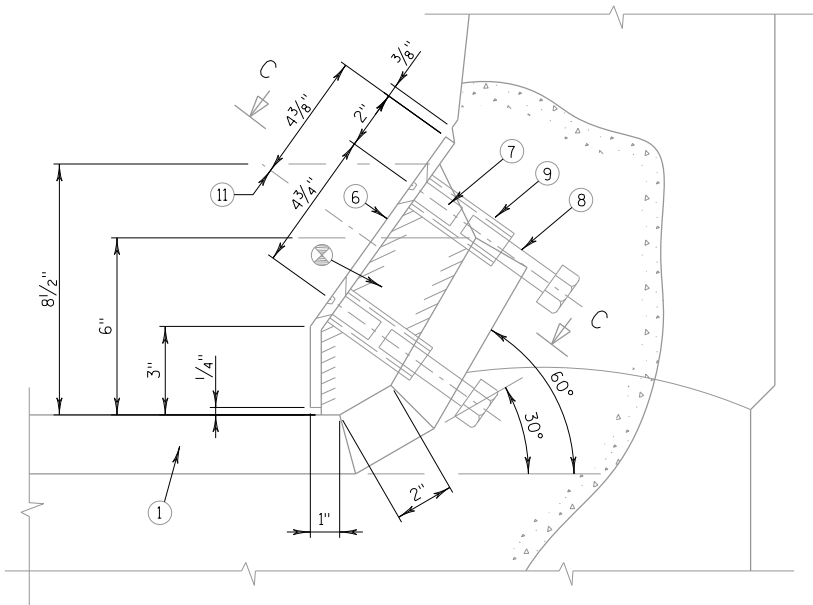
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-44-157".

STATE PROJECT NUMBER
1124-54-60

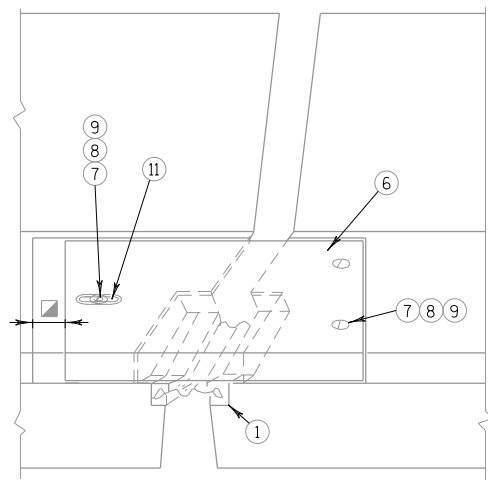
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-131			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 4 OF 6	
		USH 41	



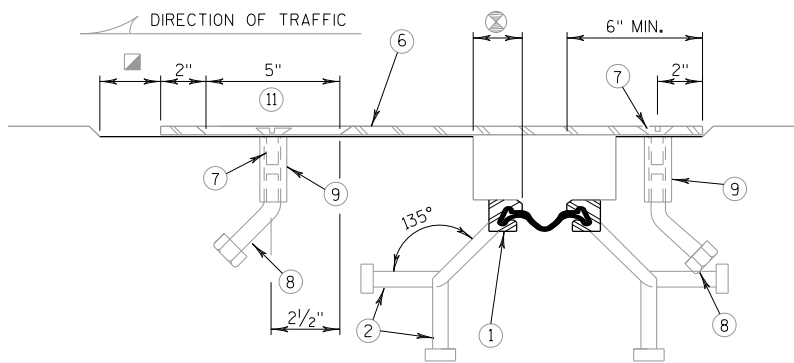
PLAN AT PARAPET



SECTION A-A



VIEW OF PARAPET PLATES
FROM ROADWAY



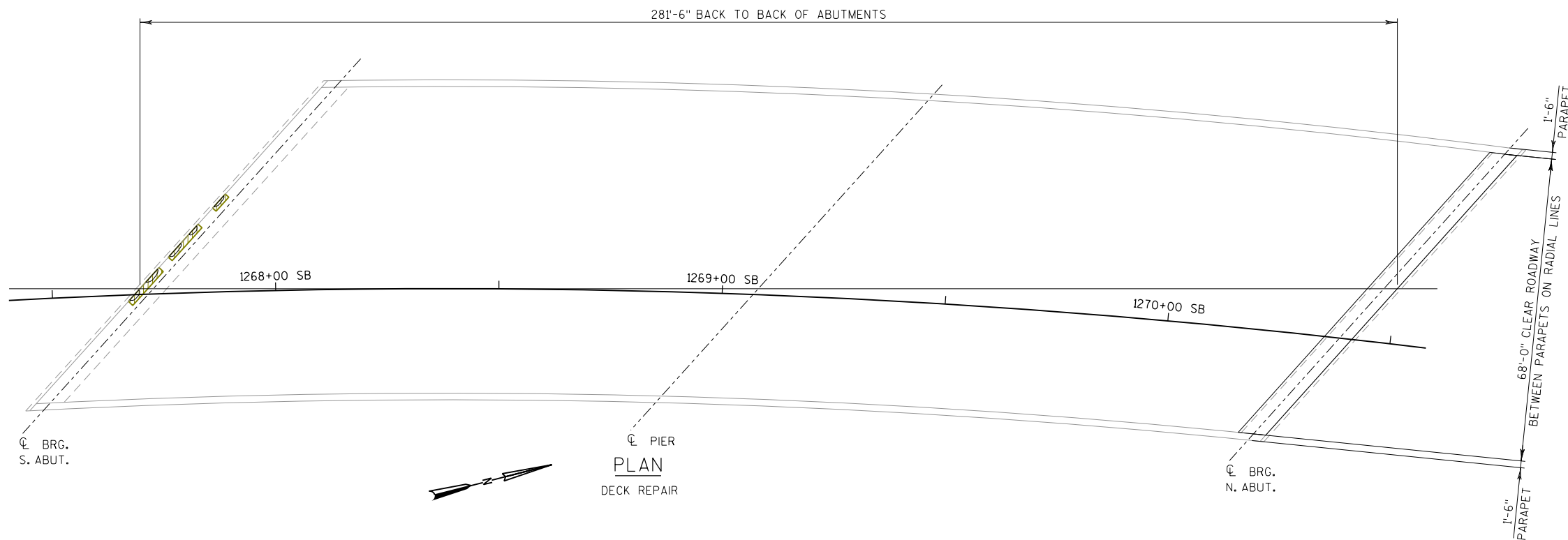
SECTION C-C

LEGEND

- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING
- ▣ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"
- ⑪ SEE SHEET 4 FOR LEGEND

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-131			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 5 OF 6 USH 41	

FILE= SCALE =



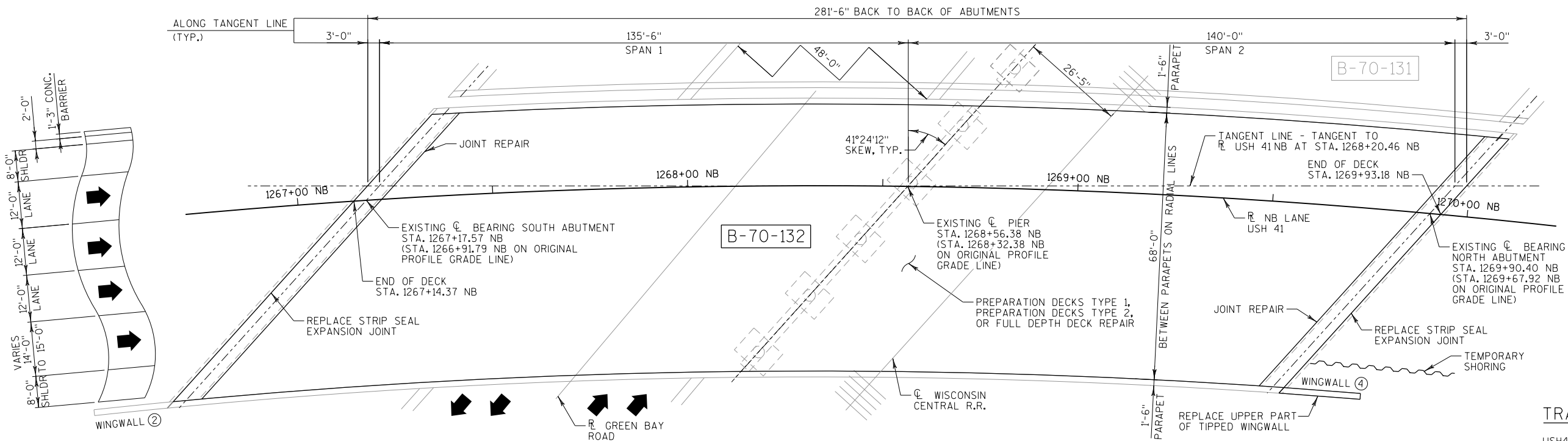
DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-131		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	2179.7		DECK PREPARATION AREA	
SHADE/DEBRIS	yd ²	0		SHADE/DEBRIS	
PREPARATION, DECKS, TYPE 1	yd ²	3.3	0.2	DELAMINATION	
PREPARATION, DECKS, TYPE 2	yd ²	0.8	<0.1	SPALL	
FULL DEPTH DECK REPAIR	yd ²	0.5	<0.1	DEBOND	
				ASPHALT PATCH	
				CONCRETE PATCH	

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/20/13
INFRARED SURVEY TAKEN BY AECOM

- FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-131			
DRAWN BY		AMZ	PLANS CK'D. JSR
DECK REPAIR		SHEET 6 OF 6	
		USH 41	



PLAN

POLYMER OVERLAY, EXPANSION JOINT REPLACEMENT, DECK REPAIR, AND WINGWALL REPAIR

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 MODIFIED
INVENTORY RATING:
HS20
OPERATING RATING:
HS43
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY
SUPERSTRUCTURE.....f'_c = 4,000 PSI

CONCRETE MASONRY
SUBSTRUCTURE.....f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT,
GRADE 60.....f_y = 60,000 PSI

CONCRETE MASONRY.....f'_c = 4,000 PSI

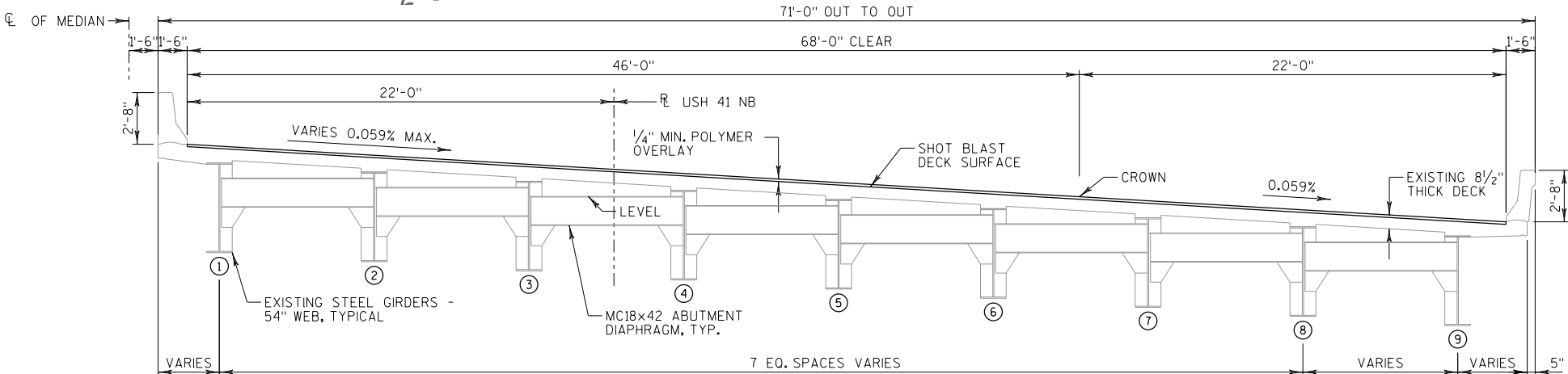
TRAFFIC DATA

USH41
A.D.T. = 45,050 (2014)
= 52,200 (2034)

GREEN BAY ROAD
A.D.T. = 4,700 (2010)

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND GENERAL NOTES
3. CONCRETE DETAILS
4. CONCRETE DETAILS
5. STRIP SEAL EXPANSION JOINT
6. STRIP SEAL EXPANSION JOINT
7. CONCRETE REMOVAL DETAILS
8. EAST WINGWALL
9. SLOPED FACE PARAPET
10. DECK REPAIR



CROSS SECTION THRU B-70-132
(LOOKING NORTH)

STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440



NO.				DATE	REVISION	BY
PLANS PREPARED BY:				GRAEF		
				1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com		
				STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
ACCEPTED				<i>William C. Dreher</i> 6/19/14 CHIEF STRUCTURES DESIGN ENGINEER DATE		
				STRUCTURE B-70-132		
				USH 41 NB OVER GREEN BAY ROAD		
COUNTY				WINNEBAGO	TOWN/CITY/VILLAGE	MENASHA
DESIGN SPEC.				REHABILITATION N/A		
DESIGNED BY	KGW	DESIGN CK'D.	AL	DRAWN BY	AMZ	PLANS CK'D. JSR
				GENERAL PLAN		
				SHEET 1 OF 10		

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	NORTH ABUT,	SUPER	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-132	LS	-	-	1
203.0200	REMOVING OLD STRUCTURE STA. 1269+90	LS	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-70-132	LS	-	-	1
206.6000.S	TEMPORARY SHORING	SF	215	-	215
210.0100	BACKFILL STRUCTURE	CY	45	-	45
502.0100	CONCRETE MASONRY BRIDGES	CY	9	-	9
502.3100	EXPANSION DEVICE B-70-132	LS	-	-	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	8	89	97
502.5002	MASONRY ANCHORS TYPE L NO. 4 BARS	EACH	15	-	15
502.5010	MASONRY ANCHORS TYPE L NO. 6 BARS	EACH	37	-	37
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1250	4470	5720
* 509.0301	PREPARATION DECKS TYPE 1	SY	-	31	31
* 509.0302	PREPARATION DECKS TYPE 2	SY	-	23	23
509.1000	JOINT REPAIR	SY	-	87	87
509.2000	FULL-DEPTH DECK REPAIR	SY	-	1	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	-	39	39
509.5100.S	POLYMER OVERLAY	SY	-	2150	2150
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3	-	3
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	-	1
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	-	310	310

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR JOINT REPAIR, PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).
- * QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

STATE PROJECT NUMBER

1124-54-60

GENERAL NOTES

THE PROPOSED WORK INCLUDES JOINT REPAIR, POLYMER OVERLAY, DECK REPAIR, AND WINGWALL REPAIR.

DRAWINGS NOT TO BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

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

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

THE EXISTING ROADWAY SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES FOR THE ABUTMENT WINGWALL REPLACEMENT.

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR THE PAVING BLOCK AT ABUTMENTS IS INCIDENTAL TO THE BID ITEM, "EXPANSION DEVICE B-70-132".

THE EXISTING STRUCTURE, B-70-132, IS A TWO SPAN STEEL PLATE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 71.0 FEET AND AN OVERALL LENGTH OF 281.5 FEET. THE ENTIRE DECK SURFACE TO BE REPAIRED FOR A NEW POLYMER OVERLAY.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

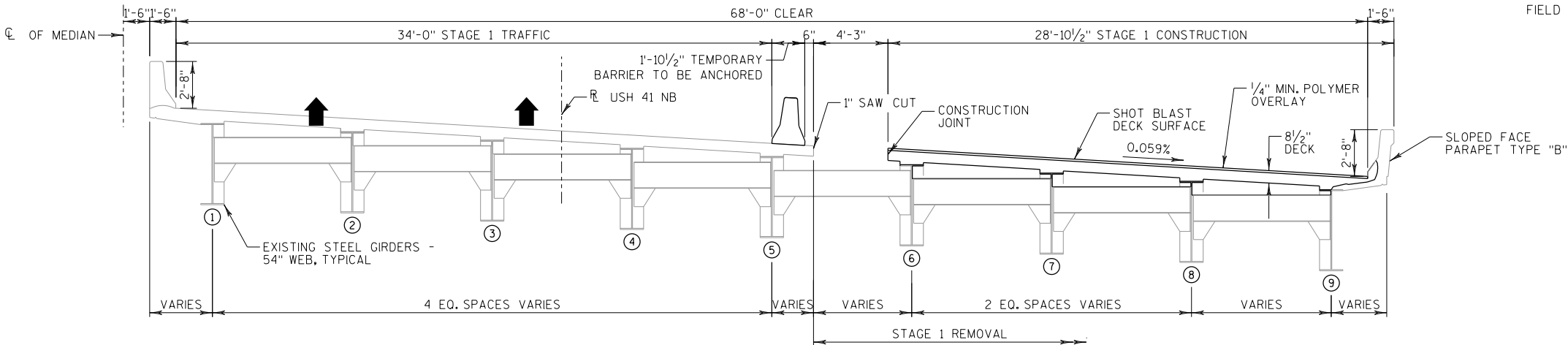
PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER, DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE NEW DECK CONCRETE ASSOCIATED WITH THE JOINT REPLACEMENT, FRONT FACE OF THE PARAPETS, PAVING BLOCKS, AND DECK REPAIR AREAS.

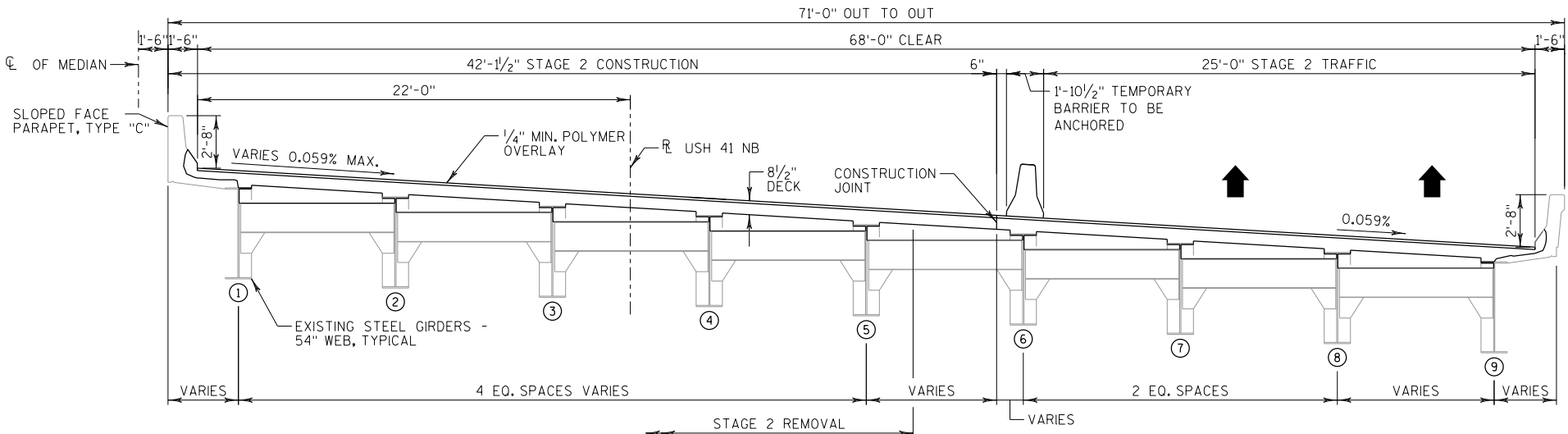
TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ON ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.



CROSS SECTION STAGE 1 - AT BOTH ABUTMENTS

(LOOKING NORTH)

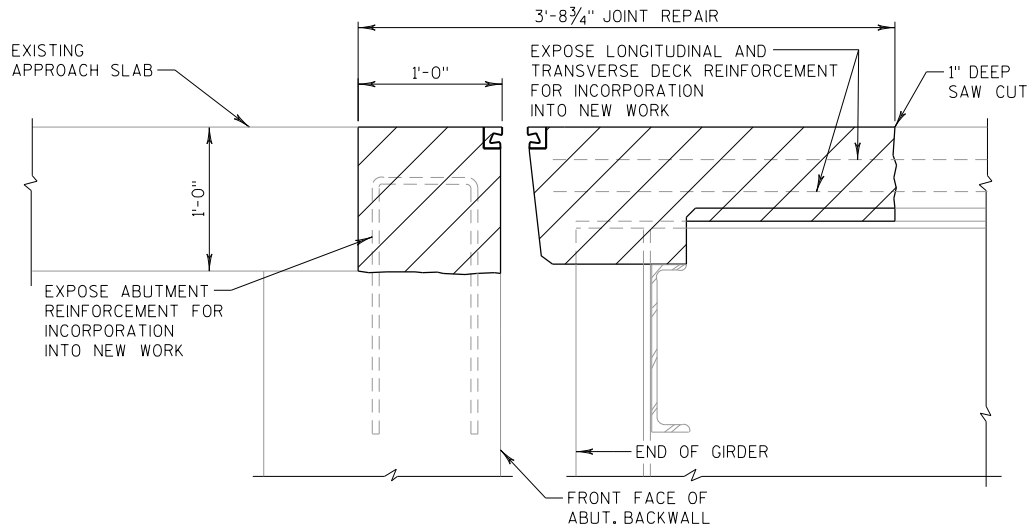


CROSS SECTION STAGE 2 - AT BOTH ABUTMENTS

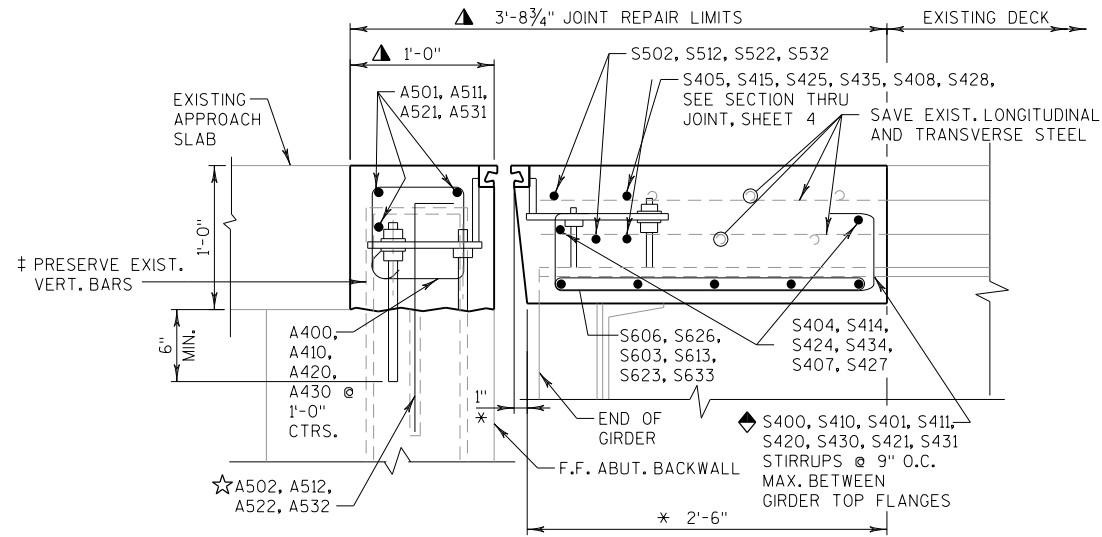
(LOOKING NORTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
QUANTITIES AND GENERAL NOTES		SHEET 2 OF 10	
		USH 41	

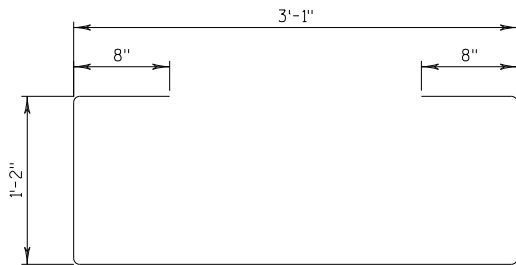
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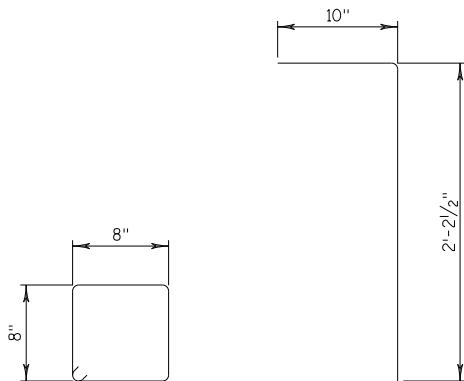
JOINT REPAIR - REMOVAL
NORMAL TO CL SUBSTRUCTURE



SECTION THRU EXPANSION JOINT
NORMAL TO CL SUBSTRUCTURE

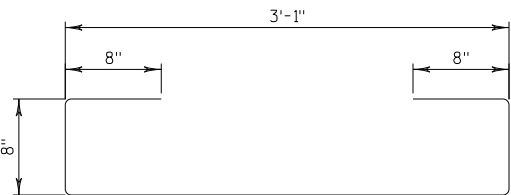


S429

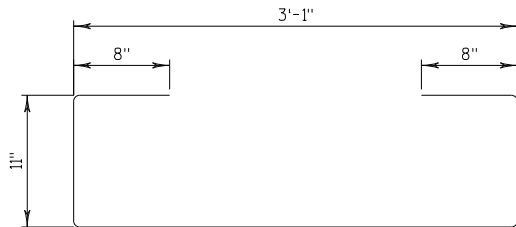


A400, A410,
A420, A430

A502, A512,
A522, A532



S400, S410,
S420, S430



S401, S411,
S421, S431

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BILL OF BARS						
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A400	X	31	3'-2"		X	PAVING NOTCH STIRRUP STAGE 1, N ABUT.
A501	X	15	8'-0"			PAVING NOTCH TRANS. STAGE 1, N ABUT.
A502	X	31	2'-11"		X	PAVING NOTCH DOWEL STAGE 1, N ABUT.
A410	X	57	3'-2"		X	PAVING NOTCH STIRRUP STAGE 2, N ABUT.
A511	X	24	8'-0"			PAVING NOTCH TRANS. STAGE 2, N ABUT.
A512	X	57	2'-11"		X	PAVING NOTCH DOWEL STAGE 2, N ABUT.
S400	X	17	5'-5"		X	DIAPH. STIRRUP STAGE 1, N ABUT.
S401	X	23	5'-11"		X	DIAPH. STIRRUP STAGE 1, N ABUT.
S502	X	2	33'-11"			DECK TRANS. STAGE 1, N ABUT.
S603	X	15	9'-6"			DIAPH. TRANS. BOT. STAGE 1, N ABUT.
S404	X	6	10'-0"			DIAPH. TRANS. TOP STAGE 1, N ABUT.
S405	X	6	10'-0"			TRANS. BARS AT JOINT STAGE 1, N ABUT.
S606	X	5	4'-4"			DIAPH. TRANS. BOT. STAGE 1, GIRDER 8-9, N ABUT.
S407	X	2	4'-7"			DIAPH. TRANS. TOP STAGE 1, GIRDER 8-9, N ABUT.
S408	X	2	4'-7"			TRANS. BARS AT JOINT STAGE 1, GIRDER 8-9, N ABUT.
S410	X	24	5'-5"		X	DIAPH. STIRRUP STAGE 2, N ABUT.
S411	X	45	5'-11"		X	DIAPH. STIRRUP STAGE 2, N ABUT.
S512	X	2	57'-6"			DECK TRANS. STAGE 2, N ABUT.
S613	X	20	9'-6"			DIAPH. TRANS. BOT. STAGE 2, N ABUT.
S414	X	8	10'-0"			DIAPH. TRANS. TOP STAGE 2, N ABUT.
S415	X	8	10'-0"			TRANS. BARS AT JOINT STAGE 2, N ABUT.
A420	X	45	3'-2"		X	PAVING NOTCH STIRRUP STAGE 1, S ABUT.
A521	X	21	8'-0"			PAVING NOTCH TRANS. STAGE 1, S ABUT.
A522	X	45	2'-11"		X	PAVING NOTCH DOWEL STAGE 1, S ABUT.
A430	X	55	3'-2"		X	PAVING NOTCH STIRRUP STAGE 2, S ABUT.
A531	X	24	8'-0"			PAVING NOTCH TRANS. STAGE 2, S ABUT.
A532	X	55	2'-11"		X	PAVING NOTCH DOWEL STAGE 2, S ABUT.
S420	X	17	5'-5"		X	DIAPH. STIRRUP STAGE 1, S ABUT.
S421	X	27	5'-11"		X	DIAPH. STIRRUP STAGE 1, S ABUT.
S522	X	2	46'-0"			DECK TRANS. STAGE 1, S ABUT.
S623	X	15	9'-4"			DIAPH. TRANS. BOT. STAGE 1, S ABUT.
S424	X	6	9'-10"			DIAPH. TRANS. TOP STAGE 1, S ABUT.
S425	X	6	9'-10"			TRANS. BARS AT JOINT STAGE 1, S ABUT.
S626	X	5	12'-2"			DIAPH. TRANS. BOT. STAGE 1, GIRDER 8-9, S ABUT.
S427	X	2	12'-10"			DIAPH. TRANS. TOP STAGE 1, GIRDER 8-9, S ABUT.
S428	X	2	12'-10"			TRANS. BARS AT JOINT STAGE 1, GIRDER 8-9, S ABUT.
S429	X	4	6'-5"		X	DIAPH. STIRRUP STAGE 1, S ABUT.
S430	X	24	5'-5"		X	DIAPH. STIRRUP STAGE 2, S ABUT.
S431	X	45	5'-11"		X	DIAPH. STIRRUP STAGE 2, S ABUT.
S532	X	2	54'-1"			DECK TRANS. STAGE 2, S ABUT.
S633	X	20	9'-4"			DIAPH. TRANS. BOT. STAGE 2, S ABUT.
S434	X	8	9'-10"			DIAPH. TRANS. TOP STAGE 2, S ABUT.
S435	X	8	9'-10"			TRANS. BARS AT JOINT STAGE 2, S ABUT.

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

LEGEND

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ A502, A512 MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" INTO CONCRETE. SPACE AT 1'-0". TURN 10" LEG AS NECESSARY TO FIT.

▲ DIMENSIONS GIVEN ARE NORMAL TO CL OF SUBSTRUCTURE UNIT. UTILIZE EXISTING REINFORCEMENT.

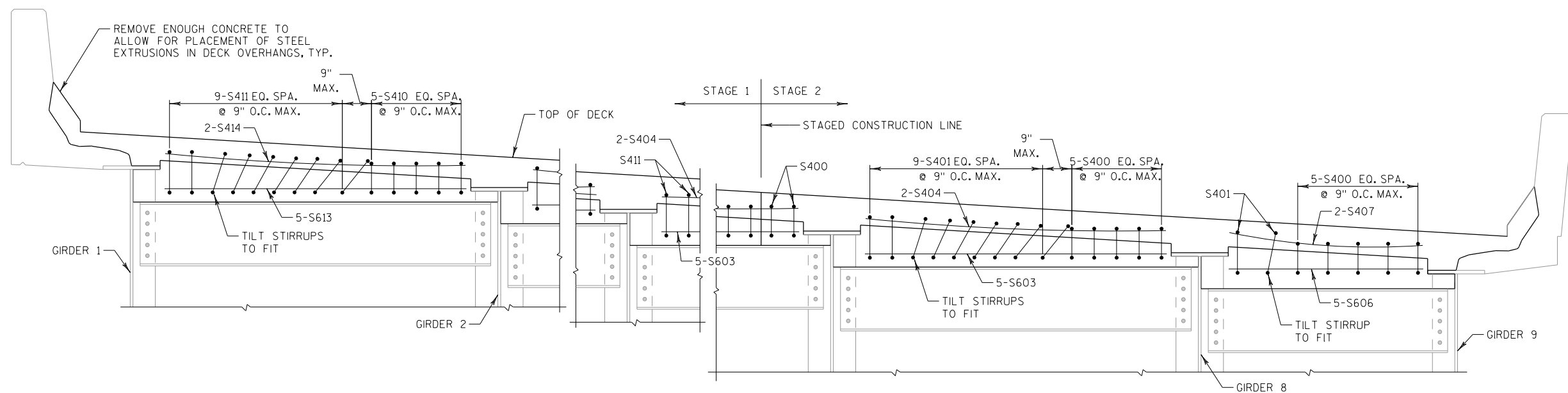
◆ BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO CL GIRDERS.

EXISTING CONCRETE TO BE REMOVED.

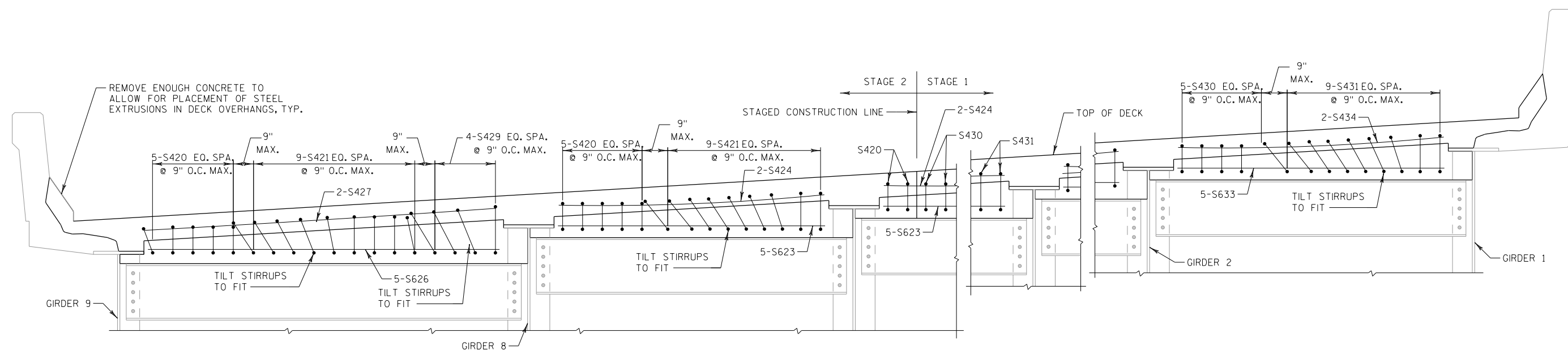
* DIMENSION IS TAKEN NORMAL TO CL ABUTMENT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE DETAILS		SHEET 3 OF 10	
		USH 41	

FILE =
SCALE =

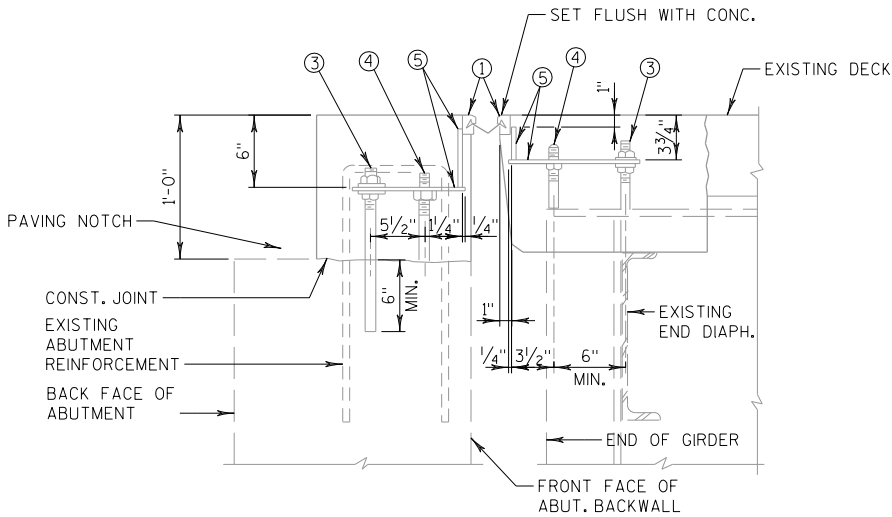


PART TRANSVERSE SECTION AT DIAPHRAGM
EXPANSION END
(LOOKING NORTH)



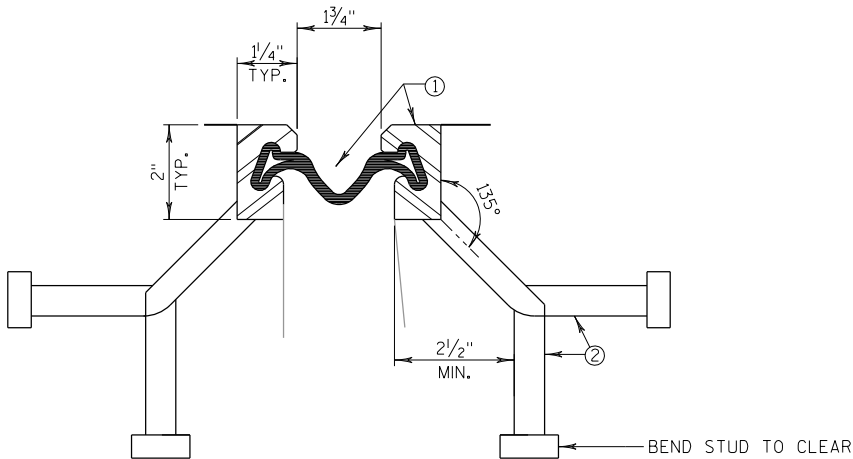
PART TRANSVERSE SECTION AT DIAPHRAGM
EXPANSION END
(LOOKING SOUTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE DETAILS		SHEET 4 OF 10	
		USH 41	



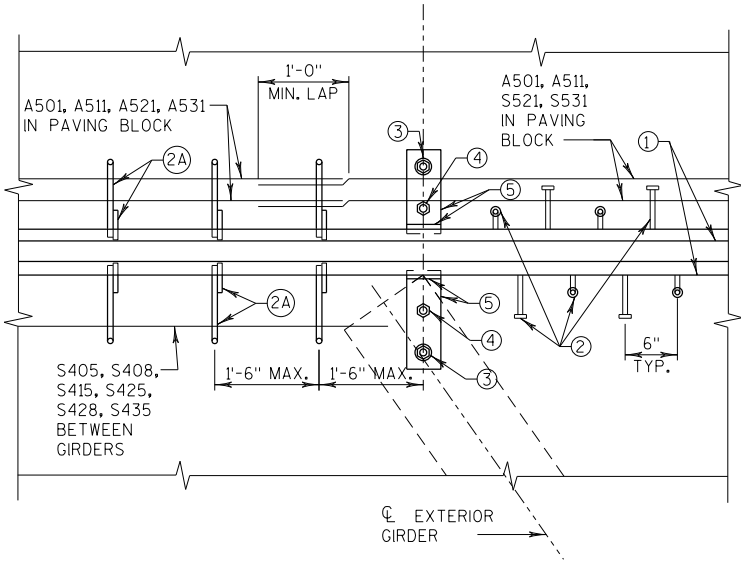
TYPICAL SECTION THRU JOINT AT STEEL GIRDER

NORMAL TO CL SUBSTRUCTURE

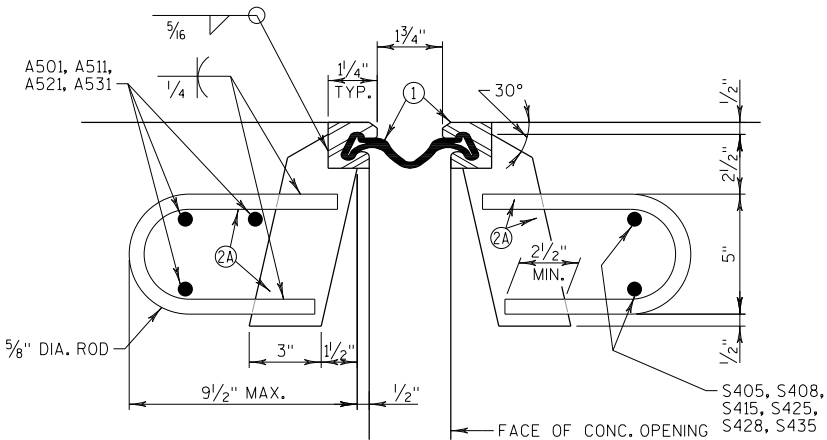


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF SLAB AND AT PARAPETS, MEDIANS & SIDEWALKS



PART PLAN

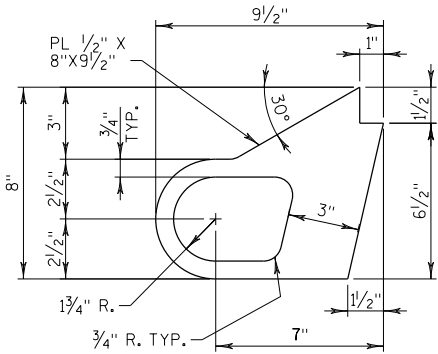


AT PAVING BLOCK

AT DECK

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS SYM. ABOUT CL JOINT UNLESS OTHERWISE SHOWN OR NOTED



ALTERNATE STRIP SEAL ANCHOR

LEGEND

1. NEOPRENE STRIP SEAL (4-INCH) & STEEL EXTRUSIONS. SET JOINT OPENING AT 1 3/4".
2. STUDS 5/8" ϕ $\times$ 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS & BEND AS SHOWN AFTER WELDING.
- 2A. 1/2" THICK ANCHOR PLATE WITH 5/8" ϕ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PL. TO NO. 1 AT 1'-6" CTRS. BETWEEN GIRDERS.
3. 3/4" ϕ THREADED ROD WITH 2 NUTS AND 2 PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE, GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. 3/4" ϕ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" $\times$ 1/2" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1/2" ϕ HOLE FOR NO. 3 & 1" ϕ HOLE FOR NO. 4.
6. GALVANIZED PLATE 3/8" $\times$ 10 1/2" $\times$ 2'-2" WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. 3/4" ϕ $\times$ 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. 3/4" ϕ $\times$ 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. 3/4" ϕ $\times$ 2 1/4" GALVANIZED THREADED COUPLING.
10. NOT USED
11. 1" $\times$ 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE IS PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST & SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN & SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

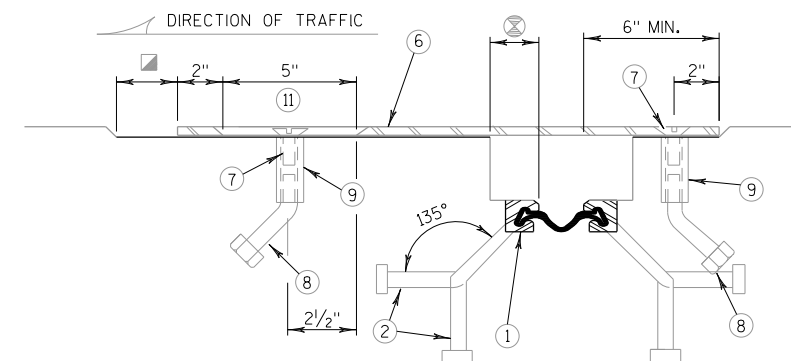
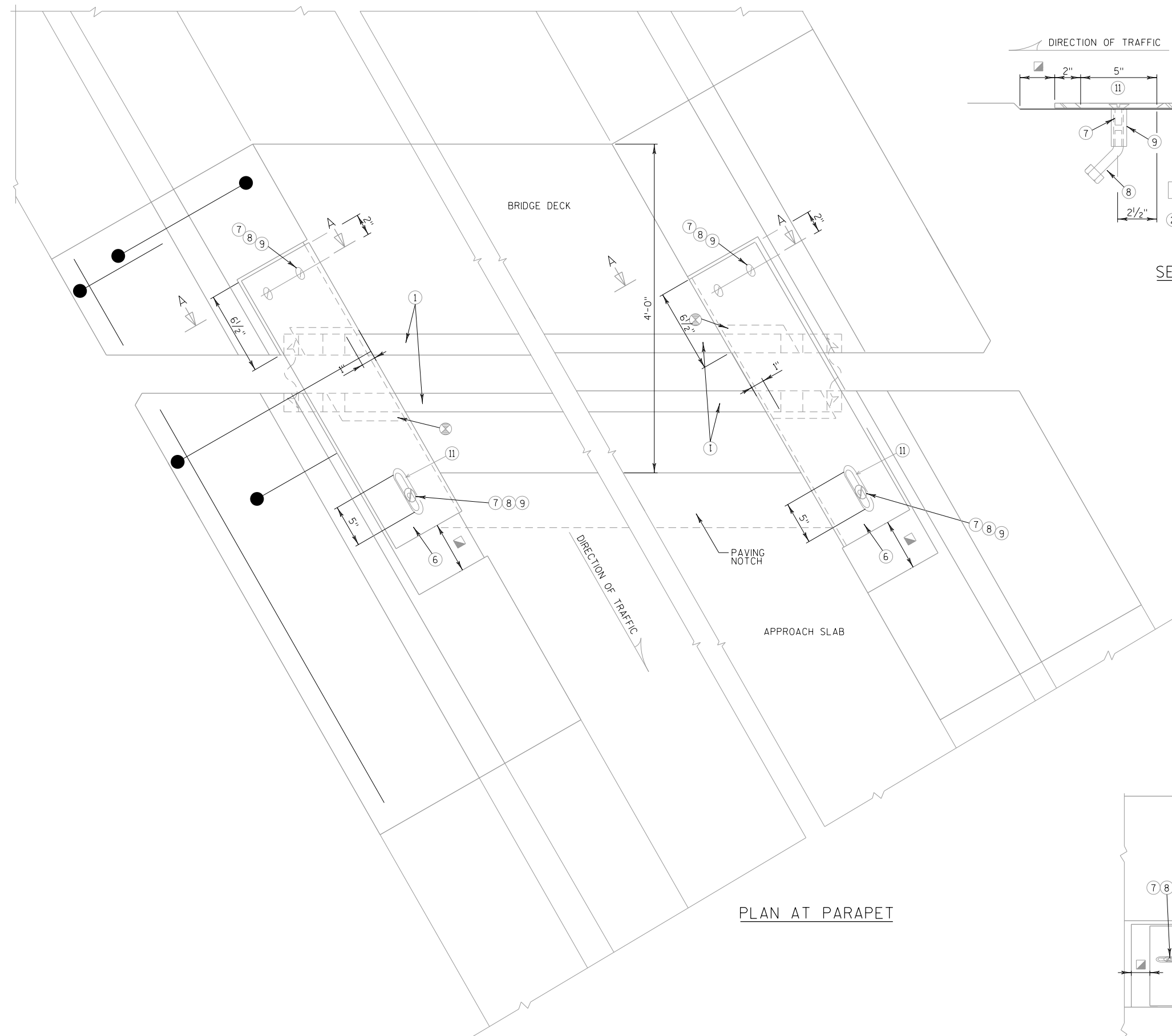
SANDBLAST PLATES & EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 & NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C & D.

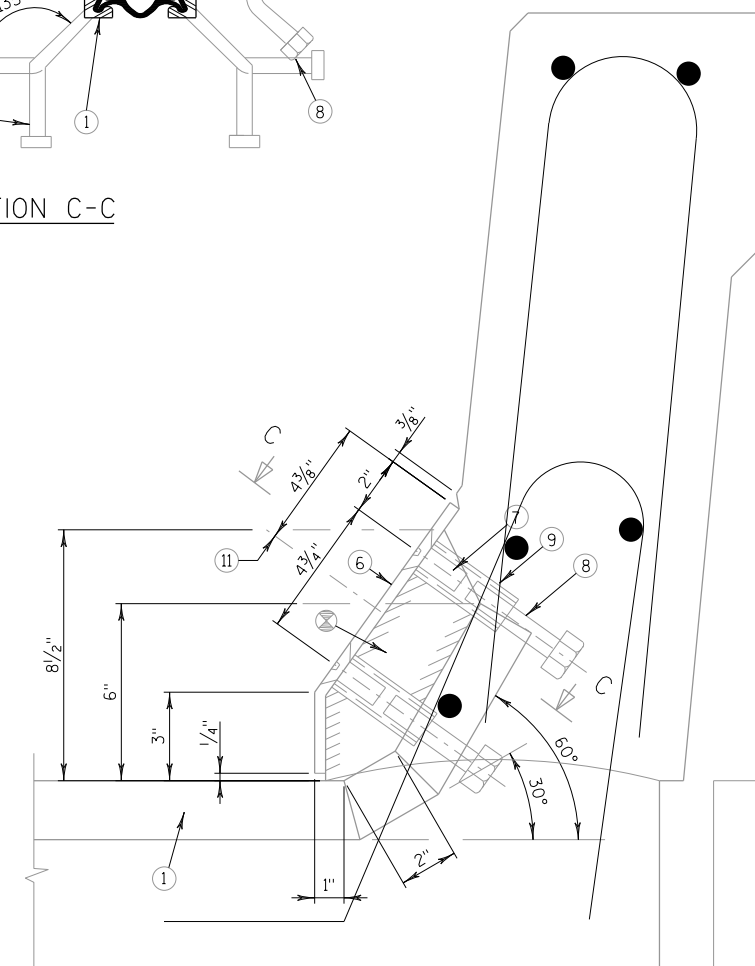
STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS & HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-44-157".

STATE PROJECT NUMBER	
1124-54-60	

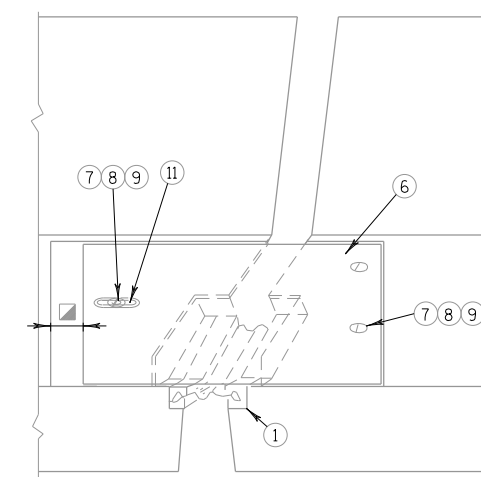
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 5 OF 10	
		USH 41	



SECTION C-C



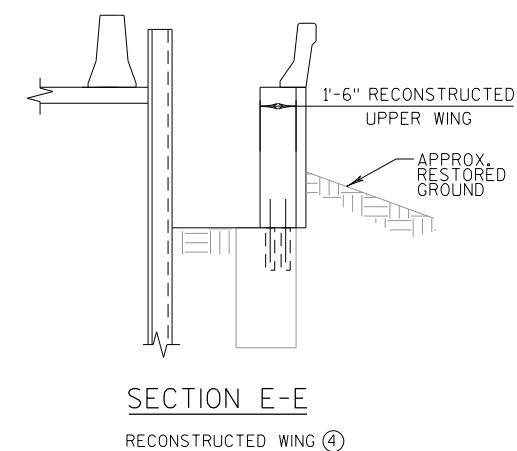
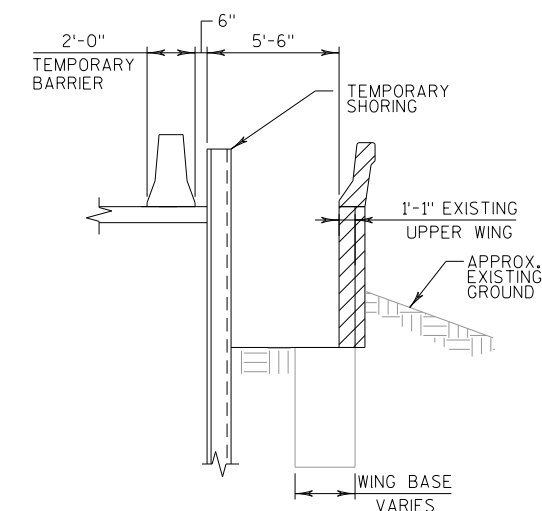
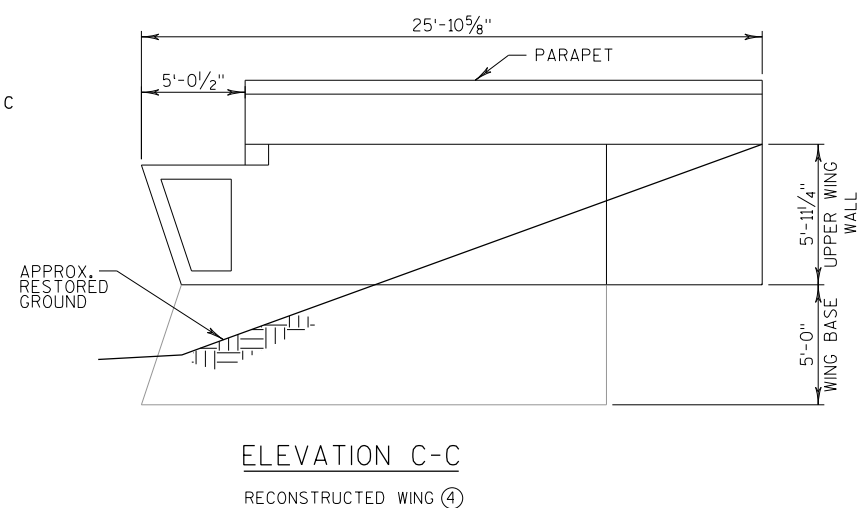
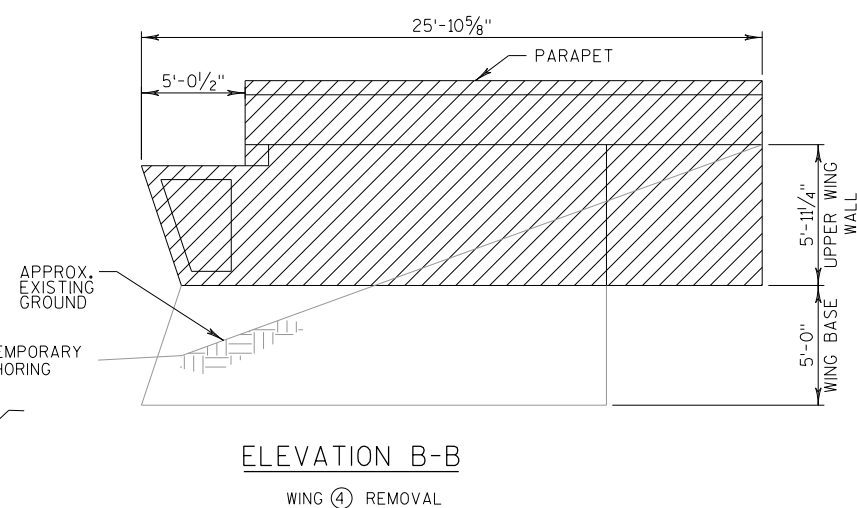
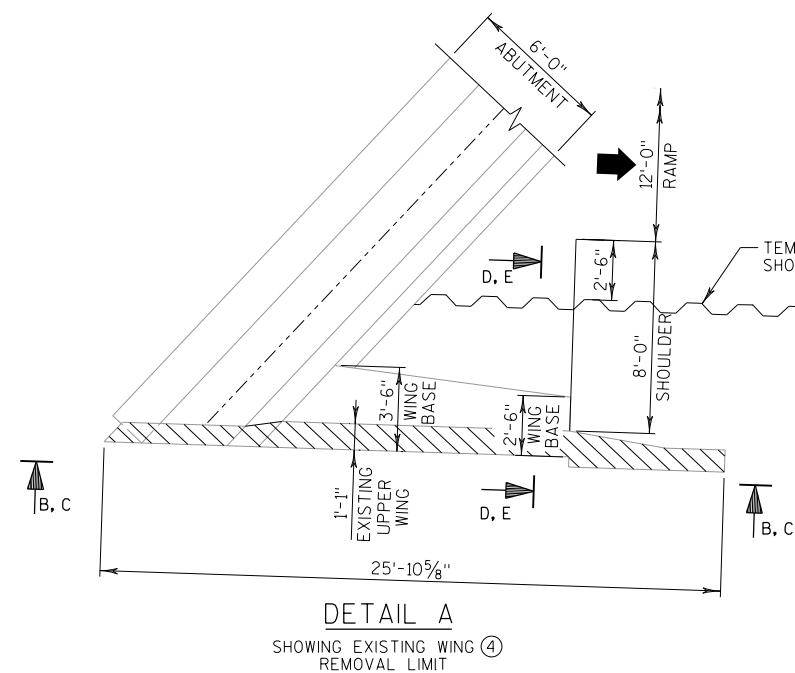
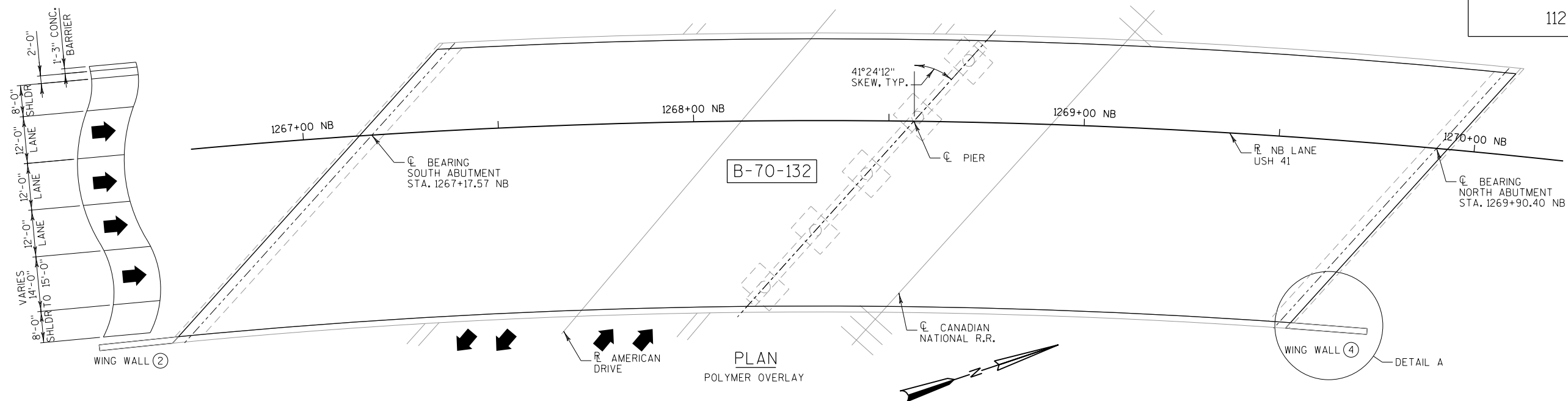
SECTION A-A



VIEW OF PARAPET PLATES FROM ROADWAY

- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE FOR JOINT OPENING
- ▣ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"
- ⊕ SEE SHEET 3 FOR LEGEND
- ▽ SAW CUT PARAPET & CURB & REMOVE ORIGINAL DECK TO TOP OF WINGWALL. PRESERVE EXISTING LONGITUDINAL REINFORCEMENT
- ⊕ DECK REMOVAL - REMOVE DECK AND PRESERVE EXISTING LONGITUDINAL REINFORCEMENT
- ⌋ PRESERVE PARAPET DOWELS IN WINGWALLS IN THIS AREA.

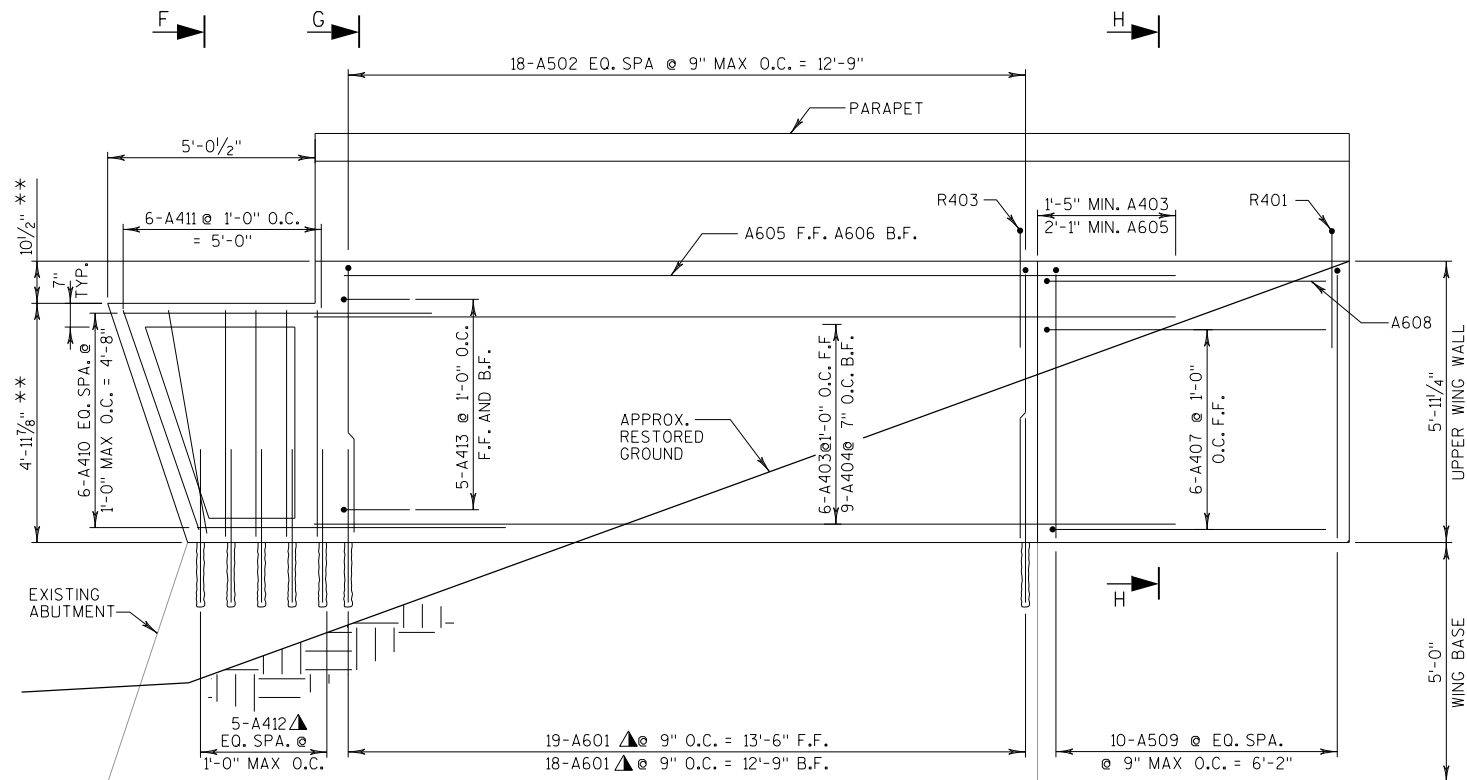
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
STRIP SEAL EXPANSION JOINT		SHEET 6 OF 10	
		USH 41	



LEGEND

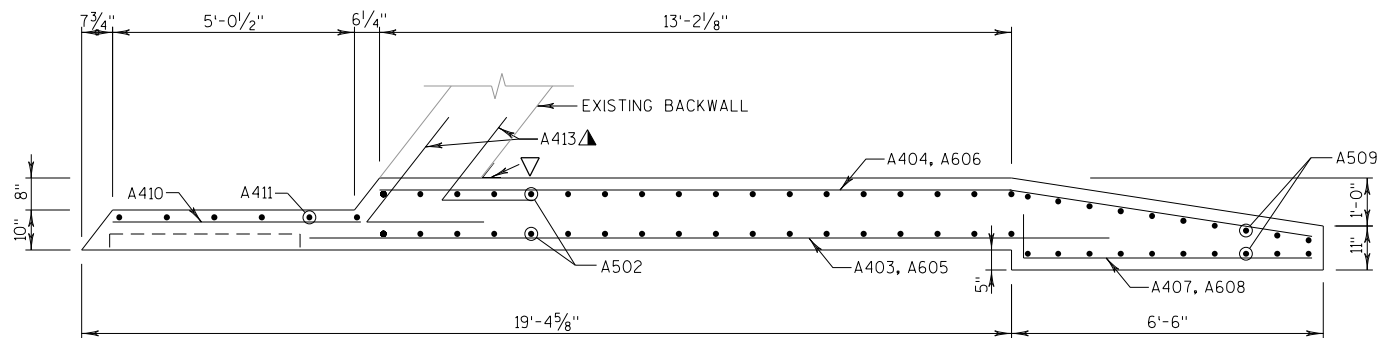
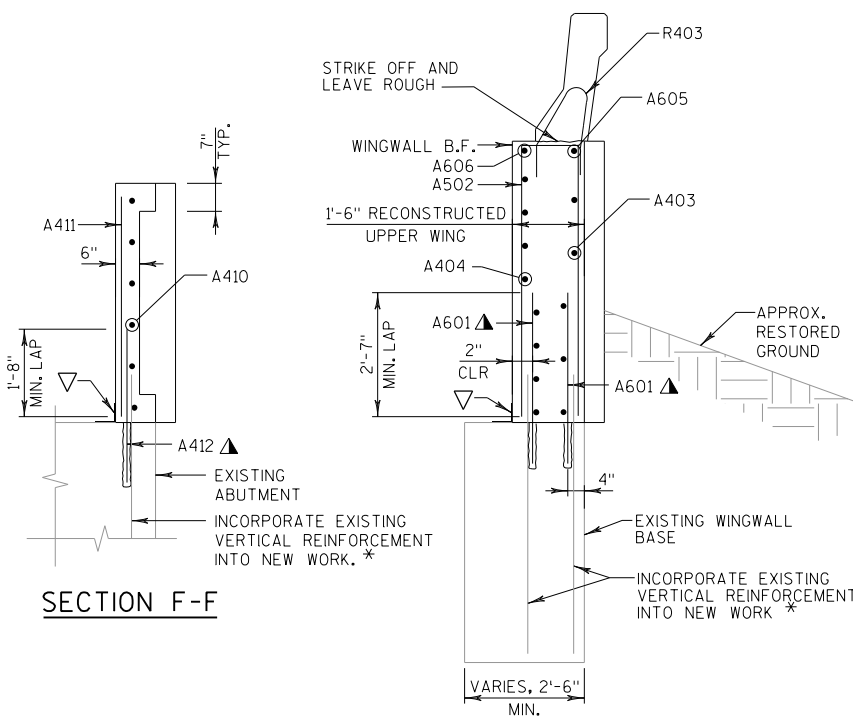
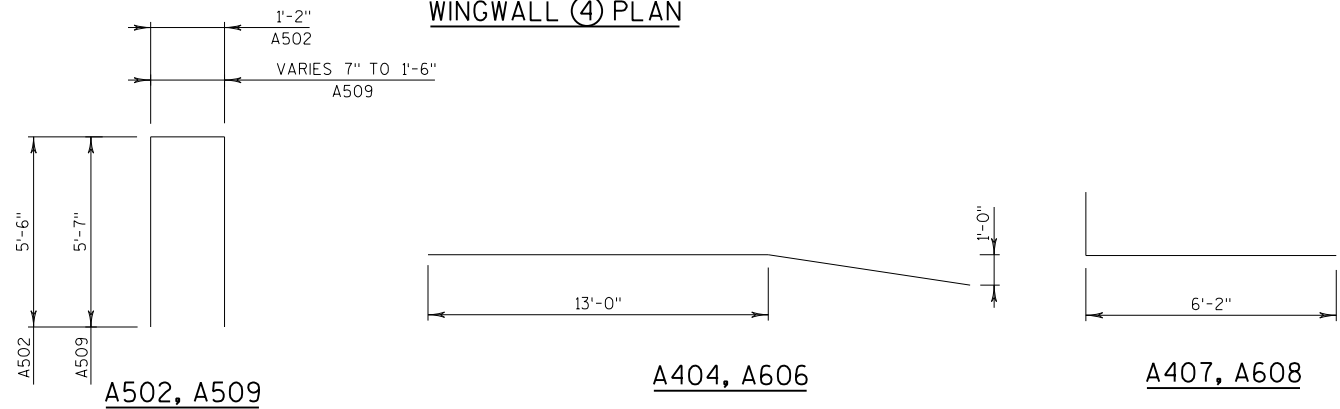
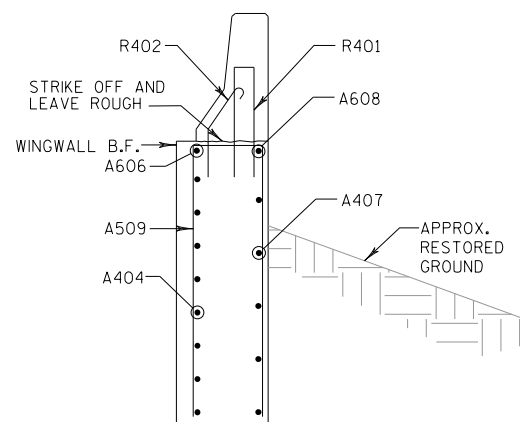
= CONCRETE REMOVAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
CONCRETE REMOVAL DETAILS		SHEET 7 OF 10	
		USH 41	

**WINGWALL ④ ELEVATION**

LOOKING WEST

(FRONT FACE REINFORCEMENT SHOWN)

**WINGWALL ④ PLAN****SECTION F-F****SECTION G-G****SECTION H-H**

WING 4 - BILL OF BARS						
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A601	X	37	3'-6"			WINGWALL DOWELS
A502	X	18	11'-11"		X	WINGWALL VERTICALS
A403	X	6	16'-9"			WINGWALL HORIZONTAL F.F.
A404	X	9	19'-4"		X	WINGWALL HORIZONTAL B.F.
A605	X	1	17'-5"			WINGWALL HORIZONTAL F.F. TOP
A606	X	1	19'-4"		X	WINGWALL HORIZONTAL B.F. TOP
A407	X	6	6'-9"		X	WINGWALL HORIZONTAL F.F.
A608	X	1	7'-0"		X	WINGWALL HORIZONTAL F.F. TOP
A509	X	10	12'-0"	X	X	WINGWALL VERTICALS
A410	X	6	7'-0"			SIDEWALL HORIZONTAL
A411	X	6	4'-8"			SIDEWALL VERTICAL
A412	X	5	2'-6"			SIDEWALL DOWELS
A413	X	10	2'-0"		X	BACKWALL DOWELS

THE FIRST DIGIT OR FIRST TWO DIGITS OF A BAR MARK INDICATES THE BAR SIZE.

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.

BAR SERIES TABLE		
MARK	NO REQ'D	LENGTH
A509	1 SERIES OF 10	11'-6" TO 12'-5"

LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR LENGTH CALCULATIONS. SEE BAR SERIES FOR ACTUAL LENGTHS.

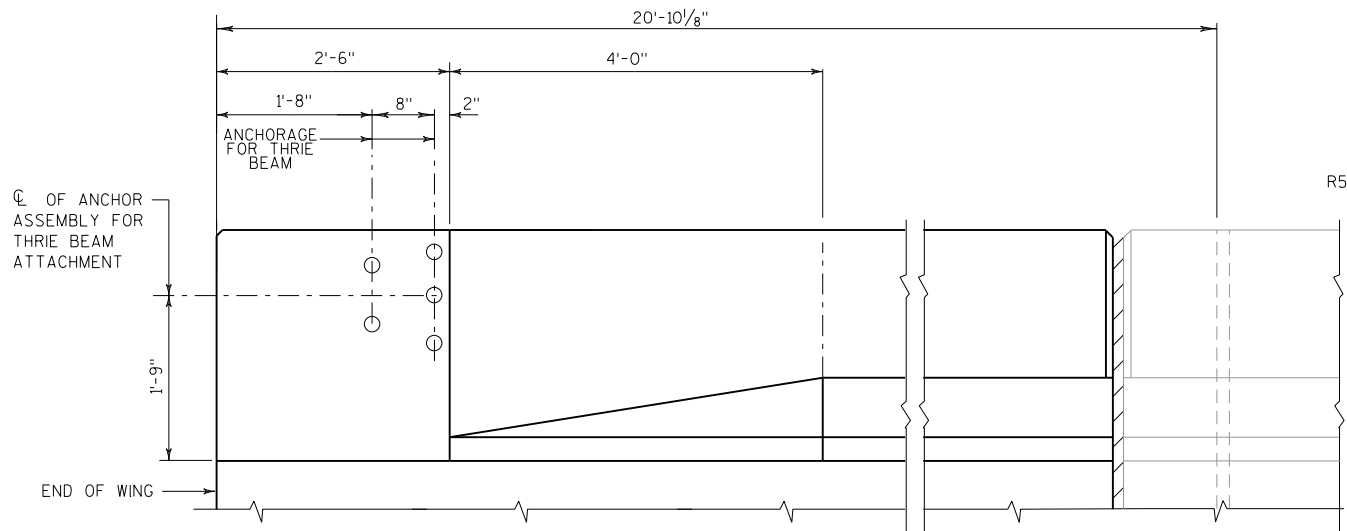
BUNDLE AND TAG EACH SERIES SEPARATELY.

LEGEND

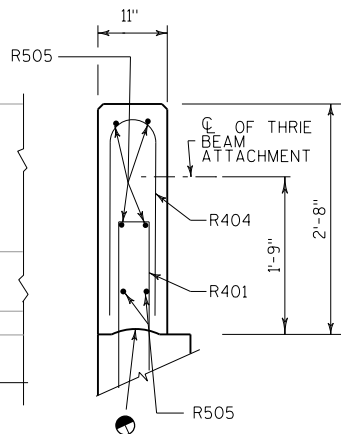
- ** - DIMENSIONS ARE GIVEN AT F.F. OF ABUTMENT BACKWALL.
- ▲ A601 - "MASONRY ANCHORS TYPE L NO. 6 BARS" EMBED 8" IN CONCRETE MINIMUM.
- ▲ A412, A413 - "MASONRY ANCHORS TYPE L NO. 4 BARS" EMBED 6" IN CONCRETE MINIMUM.
- ▽ - 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- * - EXTEND EXISTING BARS A MINIMUM OF 24 BAR DIAMETERS INTO NEW WORK.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
EAST WINGWALL		SHEET 8 OF 10	
		USH 41	

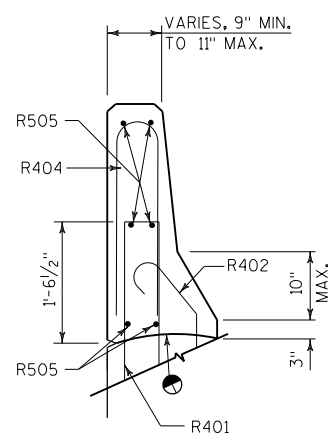
FILE =
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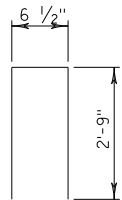
INSIDE ELEVATION



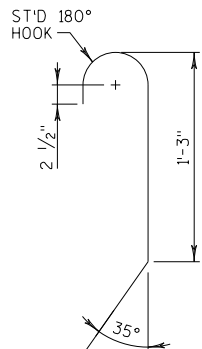
SECTION A



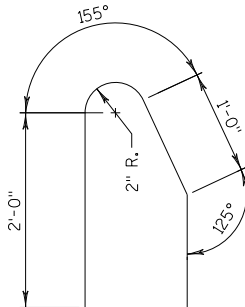
SECTION B



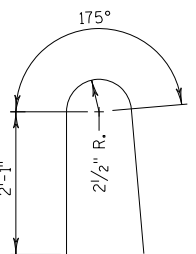
R401



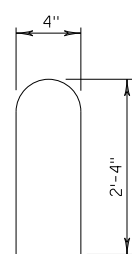
R402



R403



R404

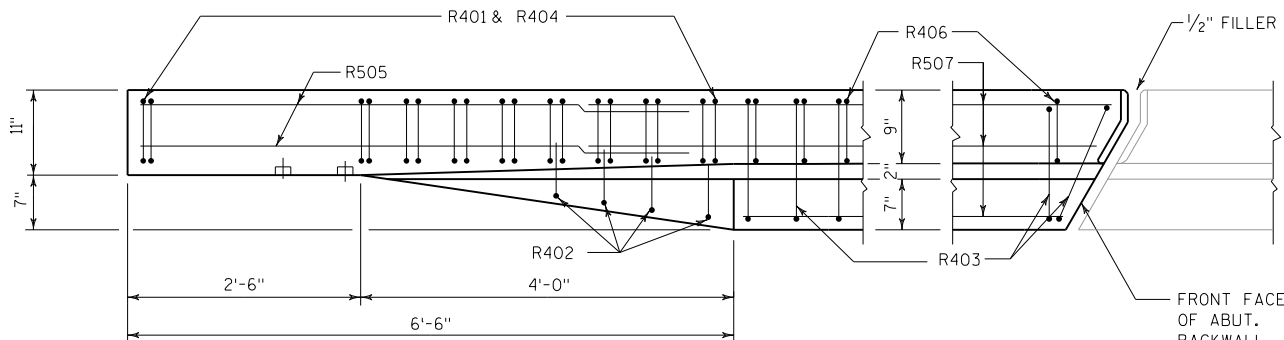


R406

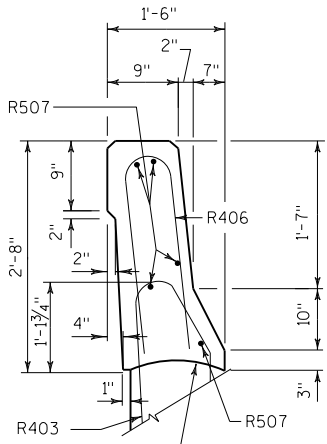
BILL OF BARS

FOR ABUTMENT PARAPETS ON WING 4

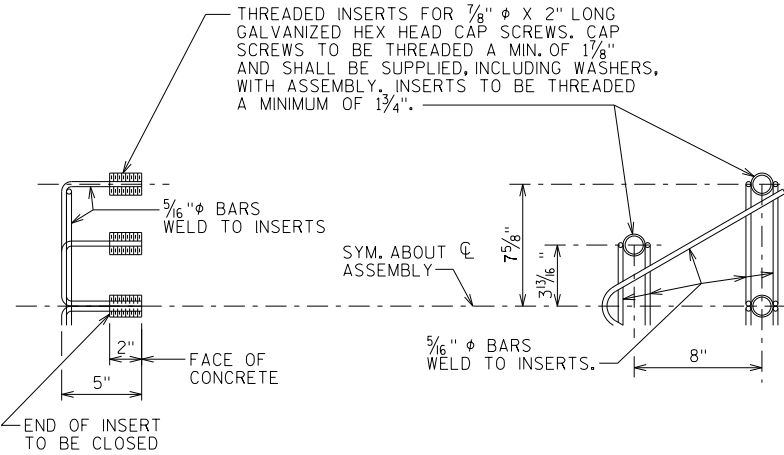
BAR MARK	COAT	NORTH ABUT.	LENGTH	BENT	LOCATION
R401	X	15	5-11	X	WINGS STIRRUPS
R402	X	4	3-1	X	WINGS
R403	X	19	4-7	X	WINGS STIRRUPS
R404	X	15	4-9	X	WINGS
R505	X	6	6-2		WINGS
R406	X	19	4-10	X	WINGS
R507	X	5	16-3		WING 4



PLAN



SECTION C



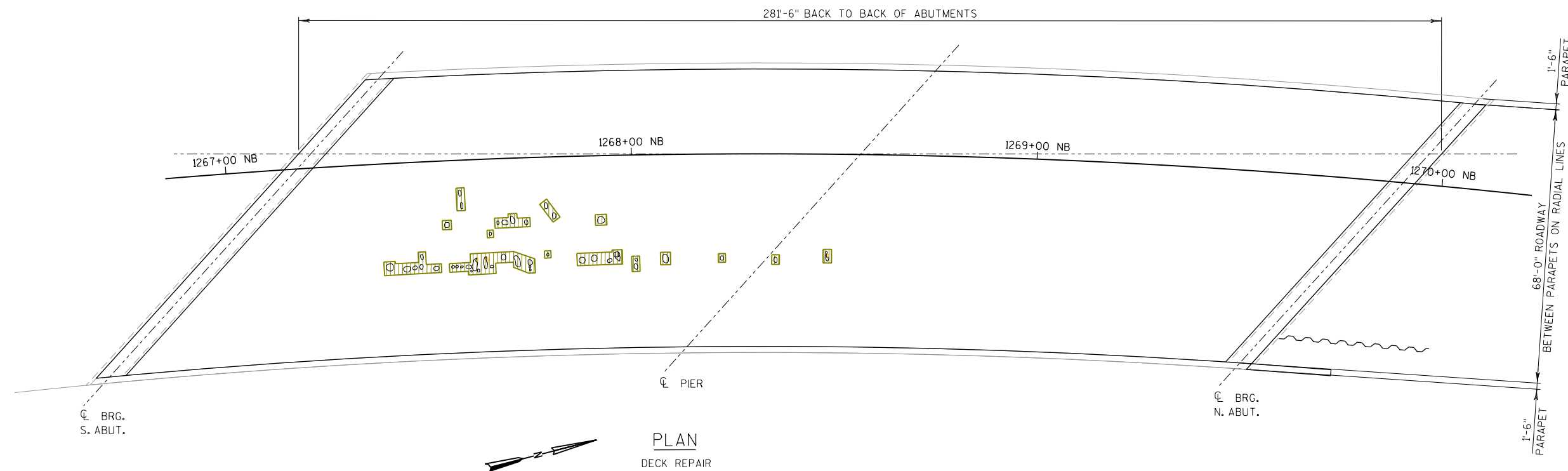
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX. HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C. ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD" - EACH

CONST. JOINT - STRIKE OFF AS SHOWN & FINISH WITH A WOODEN TROWEL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
SLOPED FACE PARAPET		SHEET 9 OF 10	
		USH 41	

FILE= SCALE =



DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-131		LEGEND			
ITEM	UNIT	QUANT.	%				
TOTAL AREA	yd²	2226.2		DECK PREPARATION AREA		DELAMINATION	
SHADE/DEBRIS	yd²	0				SPALL	
PREPARATION, DECKS, TYPE 1	yd²	27.8	1.2	SHADE/DEBRIS		DEBOND	
PREPARATION, DECKS, TYPE 2	yd²	20.9	0.9			ASPHALT PATCH	
FULL DEPTH DECK REPAIR	yd²	1.0	<0.1			CONCRETE PATCH	

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/20/13
INFRARED SURVEY TAKEN BY AECOM

- FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-70-132			
DRAWN BY		AMZ	PLANS CK'D. JSR
DECK REPAIR		SHEET 10 OF 10	
		USH 41	

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-133, IS A SINGLE SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 72 FEET AND AN OVERALL LENGTH OF 41.69 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS26 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS35 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....f'c = 4,000 PSI

TRAFFIC DATA

USH41
A.D.T. = 39,350 (2014)
= 46,050 (2034)

LIST OF DRAWINGS

1. DECK REPAIR

DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-133		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	320.0		DECK PREPARATION AREA SHADE/DEBRIS	DELAMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	1.0	<0.1		DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	3.0	<0.1		ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: ESTIMATED PER ROUTINE INSPECTION 3/12/13
INFRARED SURVEY TAKEN BY ESTIMATED PER ROUTINE INSPECTION 3/12/13

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-133	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	2
* 509.0302	PREPARATION DECKS TYPE 2	SY	4
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRTE MASONRY OVERLAY DECKS	CY	1
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	20

LEGEND

- BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

- * QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.



STRUCTURE DESIGN CONTACTS
BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY
PLANS PREPARED BY: GRAEF 1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> CHIEF STRUCTURES DESIGN ENGINEER		6/19/14 DATE	
STRUCTURE B-70-133			
USH 41 SOUTHBOUND OVER MENASHA CREEK			
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	MENASHA
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	AMZ	DESIGN CK'D.	JSR
DRAWN BY	AMZ	PLANS CK'D.	JSR
DECK REPAIR			SHEET 1 OF 1

GENERAL NOTES

THE PROPOSED WORK INCLUDES DECK REPAIR.

DRAWINGS NOT TO BE SCALED.

THE EXISTING STRUCTURE, B-70-135, IS A TWO SPAN PRESTRESSED CONCRETE GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 60 FEET AND AN OVERALL LENGTH OF 181.67 FEET.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT.

EXCAVATION REQUIRED TO COMPLETE THE SURFACE REPAIRS AT THE ABUTMENTS IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AS DIRECTED BY PROJECT ENGINEER. DECK INSPECTION RESULTS AND DECK REPAIR AREAS SHOWN FOR REFERENCE ONLY.

TRAFFIC WILL BE STAGED TO PERFORM REPAIRS ONE HALF AT A TIME.

FIELD ENGINEER TO VERIFY EXACT LOCATION AND QUANTITY OF REPAIRS.

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20 (TAKEN FROM HSI, 01/20/2014)
INVENTORY RATING:
HS21 (TAKEN FROM HSI, 01/20/2014)
OPERATING RATING:
HS38 (TAKEN FROM HSI, 01/20/2014)
WISCONSIN STANDARD PERMIT VEHICLE
(WIS-SPV) = 250 KIPS
(TAKEN FROM HSI, 01/20/2014)

ULTIMATE DESIGN STRESSES (NEW WORK):
CONCRETE MASONRY.....F_c = 4,000 PSI

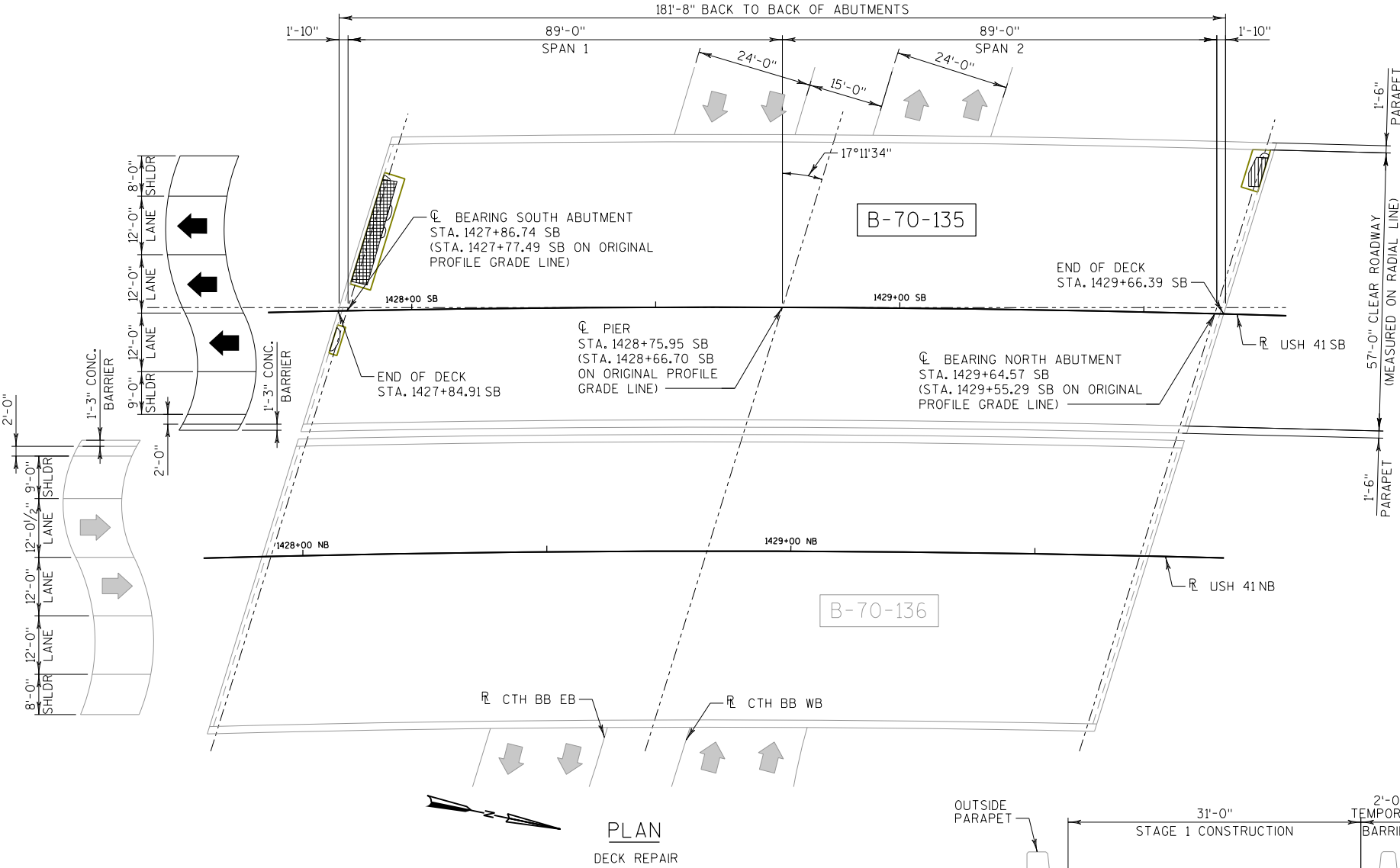
TRAFFIC DATA

USH41
A.D.T. = 41,550 (2014)
= 49,350 (2034)

CTH BB
A.D.T. = 14,500 (2010)

LIST OF DRAWINGS

1. DECK REPAIR



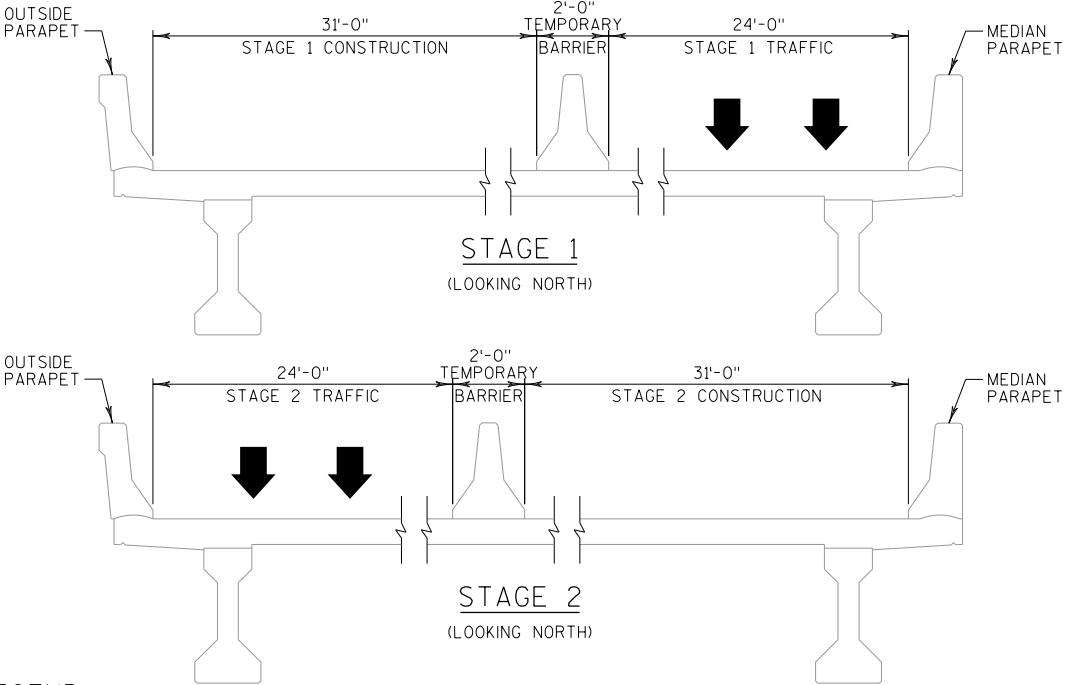
DECK REPAIR

DECK REPAIR AREAS		S.N. B-70-135		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	yd ²	1211.3		DECK PREPARATION AREA SHADE/DEBRIS	DELMINATION
SHADE/DEBRIS	yd ²	0			SPALL
PREPARATION, DECKS, TYPE 1	yd ²	15.9	1.3		DEBOND
PREPARATION, DECKS, TYPE 2	yd ²	11.9	1.0		ASPHALT PATCH
FULL DEPTH DECK REPAIR	yd ²	1.0	<0.1		CONCRETE PATCH

SURFACE TYPE: CONCRETE - NO OVERLAY
INFRARED INSPECTION DATE: 6/19/13
INFRARED SURVEY TAKEN BY AECOM

ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTALS
203.0225.S	DEBRIS CONTAINMENT B-70-135	LS	1
* 509.0301	PREPARATION DECKS TYPE 1	SY	18
* 509.0302	PREPARATION DECKS TYPE 2	SY	14
509.2000	FULL-DEPTH DECK REPAIR	SY	1
● 509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	2
SPV.0090.02	SAWING PAVEMENT DECK PREPARATION AREAS	LF	180



LEGEND

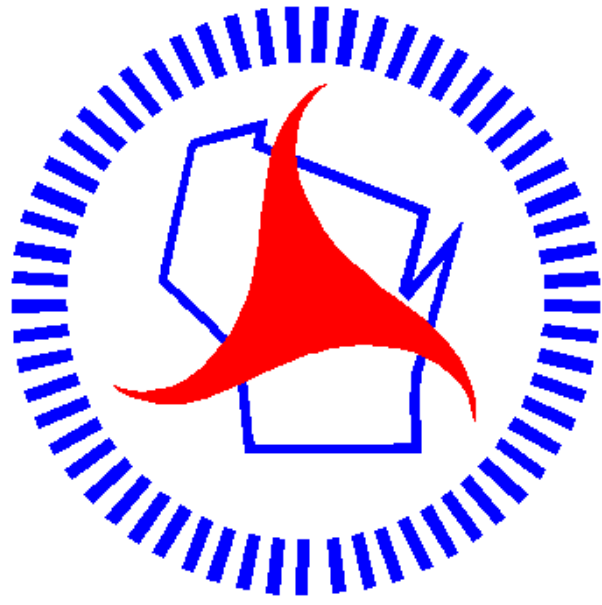
● BID ITEM INCLUDES CONCRETE QUANTITY FOR PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR ITEMS. CONCRETE TO CONFORM TO REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 509.2(4).

* QUANTITIES SHOWN INCLUDE A 10% INCREASE TO ACCOUNT FOR ADDITIONAL DETERIORATION BETWEEN THE TIME OF INSPECTION AND THE TIME OF CONSTRUCTION.

STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
JEFFREY S. ROSNER, P.E. (920) 592-9440

NO.	DATE	REVISION	BY		
PLANS PREPARED BY: GRAEF 1150 Springhurst Drive Suite 201 Green Bay, WI 54304 920 / 592-9440 920 / 592-9445 fax www.graef-usa.com					
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION					
ACCEPTED <i>William C. Dreher</i> 6/19/14		CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-70-135					
USH 41 SOUTHBOUND OVER CTH BB					
COUNTY	WINNEBAGO	TOWN/CITY/VILLAGE	MENASHA		
DESIGN SPEC. REHABILITATION N/A					
DESIGNED BY	AMZ	DESIGN CK'D.	JSR		
DRAWN BY	AMZ	PLANS CK'D.	JSR		
DECK REPAIR			SHEET 1 OF 1		



Wisconsin Department of Transportation

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