WKE

APR 2014

PROJECT ID: 1080-12-71

COUNTY: WALWORTH

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 542

35

N

DESIGN DESIGNATION

		USH 12	STH 50
A.A.D.T. (2014)	=	21,400	18,600
A.A.D.T. (2034)	=	37,000	23,300
D.H.V. (2034)	=	4,500	---
D.D.	=	59/41	---
T.	=	10.2%	---
DESIGN SPEED	=	70 MPH	50 MPH
ESALS	=	2,737,500	---

CONVENTIONAL SYMBOLS

COUNTY LINE
CORPORATE LIMITS
PROPERTY LINE
LIMITED EASEMENT
EXISTING RIGHT OF WAY
PROPOSED OR NEW R/W LINE
FENCE
GUARD RAIL
SLOPE INTERCEPT
ORIGINAL GROUND
MARSH OR ROCK PROFILE (To be noted as such) — ROCK
MARSH AREA
WOODED OR SHRUB AREA
STREAM OR WATER EDGE
BUSH
PINE TREE (SIZE)
TREE (SIZE)
TRAFFIC SIGNAL CONTROL CABINET
TRAFFIC SIGNAL
TRAFFIC SIGNAL MAST-ARM
TRAFFIC SIGNAL WITH LIGHT
EXISTING PULL BOX
BOLLARD

COMBUSTIBLE FLUIDS — CAUTION
UNDERGROUND UTILITIES
GAS (SIZE) G
SANITARY SEWER (SIZE) SAN
STORM SEWER (SIZE) SS
WATER (SIZE) W
ELECTRIC E
TELEPHONE T
FIBER OPTIC FO
CABLE TELEVISION TV
FORCE MAIN FM
MANHOLE MH
UTILITY PEDESTAL
FIBER OPTIC HAND HOLE HH
POWER POLE
TELEPHONE POLE
RAILROAD
HYDRANT
LIGHT POLE
RAILROAD SIGNAL
SIGN
TRANSMISSION TOWER
VALVE (TYPE)
CURB STOP CS
EXISTING CULVERT (SIZE, TYPE)
PROPOSED CULVERT (Box or Pipe)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LAKE GENEVA-ELKHORN

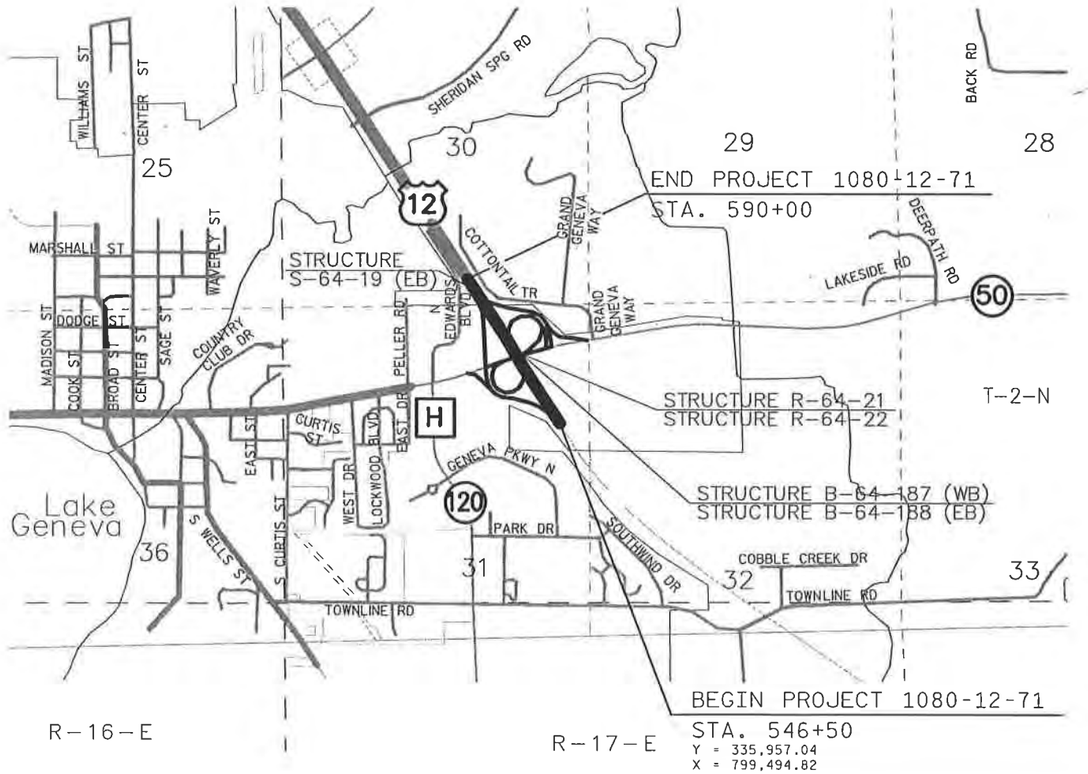
STH 50 INTERCHANGE

USH 12

WALWORTH COUNTY

STATE PROJECT NUMBER
1080-12-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1080-12-71	———	———



LAYOUT
SCALE 0 0.25 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.824 MI.

COORDINATES ON THIS PLAN ARE SCALED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WALWORTH COUNTY, NAD 1983 (2007)

VERTICAL DATUM BASED ON HARN MONUMENT "ELKHORN GPS" WITH AN ELEVATION OF 1031.56', AND HARN MONUMENT "LAKE GENEVA GPS" WITH AN ELEVATION OF 877.63'

ORIGINAL PLANS PREPARED BY
R.A. Smith National
Beyond Surveying and Engineering
16745 W. Bluemound Road, Brookfield WI 53005
262-781-1000 Fax 262-781-8466
www.rasmithnational.com

WISCONSIN JOHN A. ELKIN II E-27875 BROOKFIELD WI PROFESSIONAL ENGINEER

10/29/13 (Date) John A Elkin (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	GAK (R.A.SMITH NATIONAL)
Designer	JAE/AJZ (R.A.SMITH NATIONAL)
Project Manager	AL GILBERTSON
Regional Examiner	
Regional Supervisor	JIM FORSETH
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 10/24/13 (Signature)

E

STANDARD ABBREVIATIONS

AP	ACCESS POINT	NOM	NOMINAL
AC	ACRE	NC	NORMAL CROWN
ADJ	ADJUST	N	NORTH
AECPRC	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	Y	NORTH GRID COORDINATE
		NB	NORTHBOUND
AH	AHEAD	NO	NUMBER
ASPH	ASPHALTIC	OD	OUTSIDE DIAMETER
ACP	ASPHALTIC CONCRETE PAVEMENT	PAVT	PAVEMENT
AVG	AVERAGE	PLE	PERMANENT LIMITED EASEMENT
ADT	AVERAGE DAILY TRAFFIC	PACS	PIPE ARCH CORRUGATED STEEL
BK	BACK	PT	POINT
BAD	BASE AGGREGATE DENSE	PC	POINT OF CURVATURE
BM	BENCHMARK	PI	POINT OF INTERSECTION
CB	CATCH BASIN	PT	POINT OF TANGENCY
C/L	CENTER LINE	PVC	POINT OF VERTICAL CURVE
C/L CONST	CENTER LINE CONSTRUCTION	PVI	POINT OF VERTICAL INTERSECTION
Δ	CENTRAL ANGLE OR DELTA	PVT	POINT OF VERTICAL TANGENCY
CL	CLASS	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	PCC	PORTLAND CEMENT CONCRETE
CONST	CONSTRUCTION	LB	POUND
CMCP	CORRUGATED METAL CULVERT PIPE	PSF	POUNDS PER SQUARE FOOT
CTH	COUNTY TRUNK HIGHWAY	PSI	POUNDS PER SQUARE INCH
CABC	CRUSHED AGGREGATE BASE COURSE	PE	PRIVATE ENTRANCE
CFS	CUBIC FEET PER SECOND	PGL	PROFILE GRADE LINE
CY	CUBIC YARD	PL	PROPERTY LINE
CP	CULVERT PIPE	R	RADIUS
CPCS	CULVERT PIPE CORRUGATED STEEL	R	RANGE
CPRC	CULVERT PIPE REINFORCED CONCRETE	R/L	R/L
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	REINF	REINFORCING OR REINFORCEMENT
		REQD	REQUIRED
C&G	CURB AND GUTTER	RT	RIGHT
D	DEGREE OF CURVE	R/W	RIGHT-OF-WAY
DHV	DESIGN HOUR VOLUME	RD	ROAD
DIA	DIAMETER	RDWY	ROADWAY
DD	DIRECTIONAL DISTRIBUTION	SEC	SECTION
DWY	DRIVEWAY	SHLDR	SHOULDER
E	EAST	S	SOUTH
X	EAST GRID COORDINATE	SB	SOUTHBOUND
EB	EASTBOUND	SQ	SQUARE
EL	ELEVATION	SF	SQUARE FEET
ESALS	EQUIVALENT SINGLE AXLE LOADS	SW	SIDEWALK
EXC	EXCAVATION	SY	SQUARE YARD
EBS	EXCAVATION BELOW SUBGRADE	SDD	STANDARD DETAIL DRAWINGS
EXIST	EXISTING	STH	STATE TRUNK HIGHWAYS
FPS	FEET PER SECOND	STA	STATION
FERT	FERTILIZE	SS	STORM SEWER
FE	FIELD ENTRANCE	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
FL	FLOW LINE	ST	STREET
FT	FOOT	STR	STRUCTURE OR STRUCTURAL
GN	GRID NORTH	SE	SUPERELEVATION
HES	HIGH EARLY STRENGTH	T	TANGENT
HP	HIGH POINT	TEMP	TEMPORARY
HW	HIGH WATER	TI	TEMPORARY INTEREST
HMA	HOT MIX ASPHALT	TLE	TEMPORARY LIMITED EASEMENT
CWT	HUNDREDWEIGHT	t	TON
HWD	HYDRANT	T	TOWN
INL	INLET	T	TRUCKS (PERCENT OF)
ID	INSIDE DIAMETER	TYP	TYPICAL
I	INTERSECTION ANGLE	USH	UNITED STATES HIGHWAY
INV	INVERT	VAR	VARIABLE
IP	IRON PIPE OR PIN	V	VELOCITY OF DESIGN SPEED
JT	JOINT	VERT	VERTICAL
LT	LEFT	VC	VERTICAL CURVE
LT	LENGTH OF CURVE	VOL	VOLUME
LF	LINEAR FOOT	WM	WATERMAIN
LP	LOW POINT	WV	WATER VALVE
LS	LUMP SUM	W	WEST
MH	MANHOLE	WB	WESTBOUND
MAX	MAXIMUM	YD	YARD
Mgal	MEGAGALLON		
MPH	MILES PER HOUR		
MIN	MINIMUM		
MON	MONUMENT		

GENERAL NOTES

1 CURVE DATA SHOWN ON THE PLANS IS "ARC DEFINITION".

2 THE LOCATIONS OF EXISTING OR PROPOSED UTILITIES, AS NOTED ON THE PLANS, ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

3 DIMENSIONS GIVEN FOR EXISTING FEATURES SHALL BE CONSIDERED AS APPROXIMATE AND MEASURED IN FIELD FOR MATCHING PURPOSE.

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

5 ALL DISTURBED AREAS WITHIN THE RIGHT OF WAY THAT ARE NOT A PART OF CONTRACT WORK ITEMS SHALL BE FERTILIZED SEEDED AND MULCHED AT THE CONTRACTORS EXPENSE.

6 THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPALITY OR PUBLIC AGENCY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

7 A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING ASPHALTIC CONCRETE SURFACE.

8 TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. NO WORK MAY BEGIN UNTIL PROPER TRAFFIC CONTROL DEVICES ARE PLACED AND APPROVED BY THE ENGINEER.

9 SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

10 ALL HMA PAVEMENT LOCATIONS SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
USH 12 RECONSTRUCTION	7 3/4"	3" LOWER-LOWER	19.0 mm	PG 64-22
		3" UPPER-LOWER	19.0 mm	PG 64-22
		1 3/4" UPPER	12.5 mm	PG 64-22
RAMP BD, AC, AD RECONSTRUCTION AND STH 50 LANE ADDITIONS	7"	3" LOWER-LOWER	19.0 mm	PG 64-22
		2 1/4" UPPER-LOWER	19.0 mm	PG 64-22
		1 3/4" UPPER	12.5 mm	PG 64-22
USH 12 RESURFACING	4"	0-2 1/4" WEDGING	9.5 mm	PG 64-22
		2 1/4" UPPER-LOWER	19.0 mm	PG 64-22
		1 3/4" UPPER	12.5 mm	PG 64-22
RAMP CA, DA, DB, CB RESURFACING	4"	2 1/4" LEVELING COURSE	19.5 mm	PG 64-22
		1 3/4" UPPER	12.5 mm	PG 64-22
RAMP EF SHOULER RESURFACING	4"	4" UPPER	12.5 mm	PG 64-22

11 EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DEEMS THE MEASURE NO LONGER NECESSARY.

12 RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOPSOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

13 STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.

14 EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQURIED.

ORDER OF SECTION 2 SHEETS

Project Overview
Typical Sections
Construction Details
Paving Details
Erosion Control
Storm Sewer Plan
Temporary Traffic Signals
Existing/Permanent Signing
Pavement Marking
Traffic Control and Construction Staging
Detour
Alignment

2

UTILITY CONTACTS

WE ENERGIES (GAS)
MR. LA TROY BRUMFIELD
333 W. EVERETT ST. – A279
MILWAUKEE, WI 53203
PHONE 414-221-5617
FAX 414-221-2336
latroy.brumfield@we-energies.com

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PO BOX 6113
801 O'KEEFE ROAD
DEPERE, WI 54115
PHONE 920-338-6582
molson@atcllc.com

WALWORTH COUNTY METRO SEWAGE DISTRICT
MS. KARLA ROSE EGGINK
975 WEST WALWORTH AVENUE
DELAVAN, WI 53115
PHONE 262-728-4140
FAX 262-728-4142
keggink@walcomet.com

TIME WARNER CABLE
MR. STEVE CRAMER
1320 N. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE 414-277-4045
FAX 414-277-0638
steve.cramer@twcable.com

ALLIANT ENERGY CORPORATION
MR. JASON HOGAN
4902 BILTMORE LANE, SUITE 1000
MADISON, WI 53718
PHONE 608-458-4871
FAX 563-557-2288
jasonhogan@alliantenergy.com

CITY OF LAKE GENEVA (SANITARY & TRAFFIC SIGNALS)
MR. DANIEL WINKLER
626 GENEVA STREET
LAKE GENEVA, WI 53147
PHONE 262-248-2311
FAX 262-248-4715
LGWater@genevaonline.com

AT&T WISCONSIN
MS. KARIN EWOLDT
316 W WASHINGTON AVE. ROOM 206
MADISON, WI 53703
PHONE 608-252-5423
ke3543@att.com

OTHER CONTACTS

WISDOT SE REGION
ALLEN GILBERTSON
141 NW BARSTOW
PO BOX 798
WAUKESHA, WI 53187
PHONE 262-548-8817
allen.gilbertson@dot.wi.gov

WDNR
CRAIG WEBSTER
141 NW BARSTOW STREET, RM 180
WAUKESHA, WI 53188
PHONE 262-574-2141
FAX 262-574-2128
craig.webster@wisconsin.gov

WALWORTH COUNTY
LARRY PRICE
W4097 COUNTY ROAD NN
ELKHORN, WI 53121
PHONE 262-741-3114
FAX 262-741-3195
lprice@co.walworth.wi.us

CITY OF LAKE GENEVA – PUBLIC WORKS
DANIEL WINKLER
626 GENEVA STREET
LAKE GENEVA, WI 53147
PHONE 262-248-2311
FAX 262-248-4715

WALWORTH COUNTY - CONSERVATION
LAND DISTURBANCE, EROSION CONTROL
AND STORM WATER MANAGEMENT PROGRAMS
FAY AMERSON
100 W. WALWORTH STREET
ELKHORN, WI 53121
PHONE 262-741-4972 EXT. 7909
FAX 262-741-4973
famerson@co.walworth.wi.us

2

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

END PROJECT 1080-12-71
STA. 590+00

N

TOWN OF LYONS

CITY OF LAKE GENEVA

USH 12

N EDWARDS BLVD

GRAND GENEVA WAY

COTTONTAIL TRAIL

RAMP DB

RAMP AC

RAMP AD

RAMP CB

RAMP DA

RAMP BD

RAMP CA

RAMP EF

S-64-19

R-64-21

R-64-22

STRUCTURE B-64-187

STRUCTURE B-64-188

STH 50

WETLAND LIMITS

SIGNAL CONTROLLED

STOP CONTROLLED

SEWAGE TREAMENT POND

POTENTIAL ARCHAEOLOGICAL SITE

RAMP AC R/L

RAMP DB R/L

RAMP BD R/L

USH 12 R/L

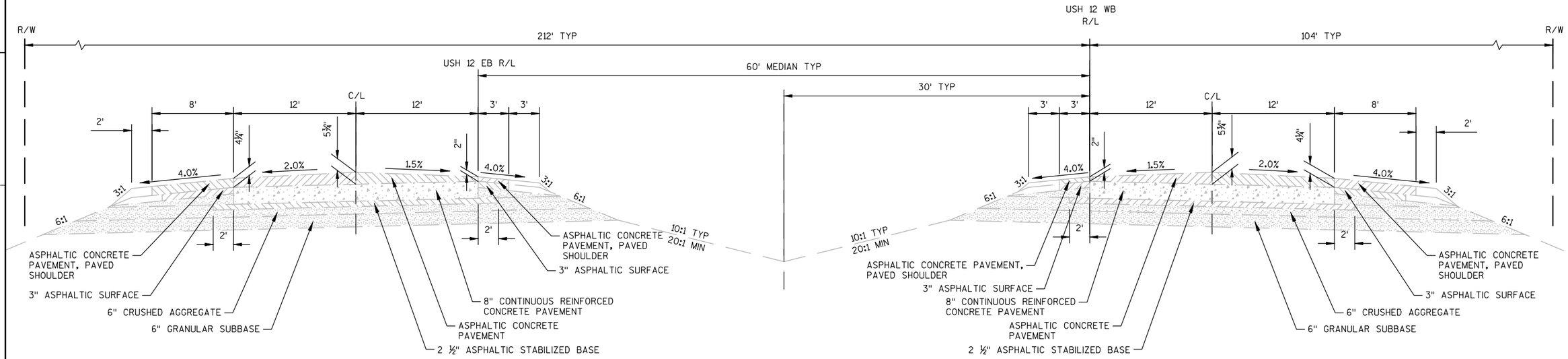
LEGEND
WETLAND LIMITS

BEGIN PROJECT 1080-12-71
STA. 546+50
Y = 335,957.04
X = 799,494.82

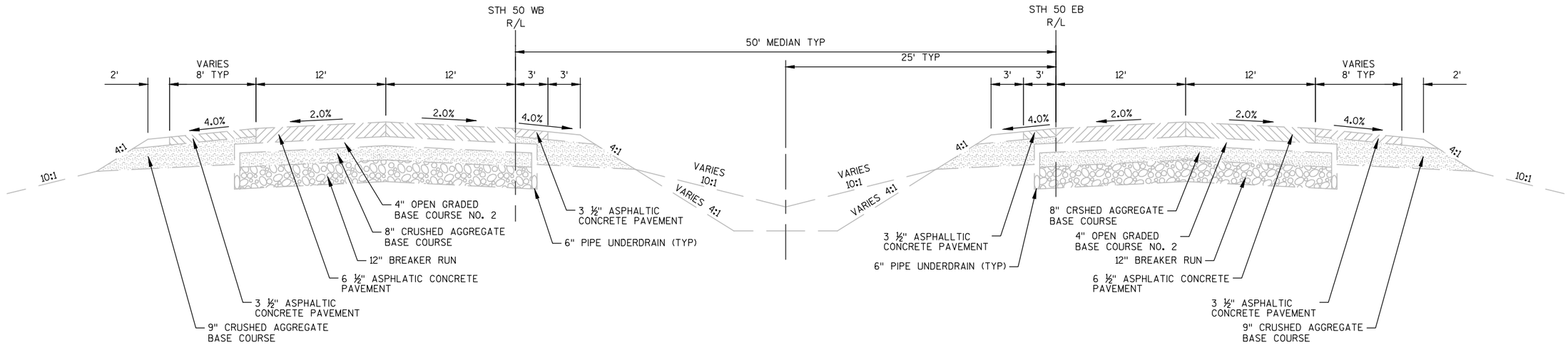
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PROJECT OVERVIEW	SHEET 4 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\020201_PO.DWG PLOT DATE : 2/18/2014 11:50 AM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

EXISTING CONCRETE PAVEMENT IN THE USH 12 RECONSTRUCTION PORTION TO BE REMOVED



TYPICAL EXISTING SECTION
USH 12
STA 546+50 TO STA 590+00



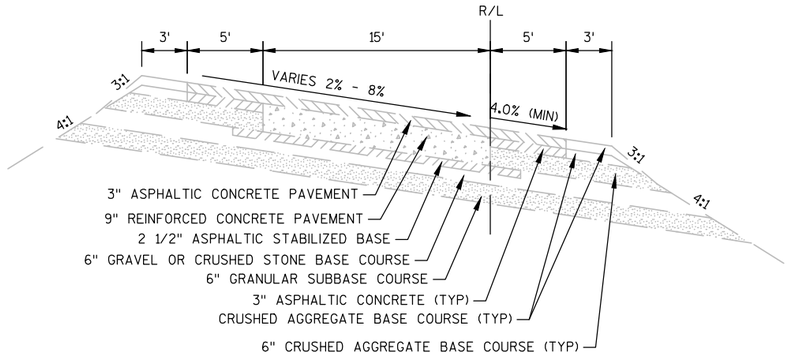
TYPICAL EXISTING SECTION
STH 50
STA 59+00 TO STA 84+38

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 5 - E

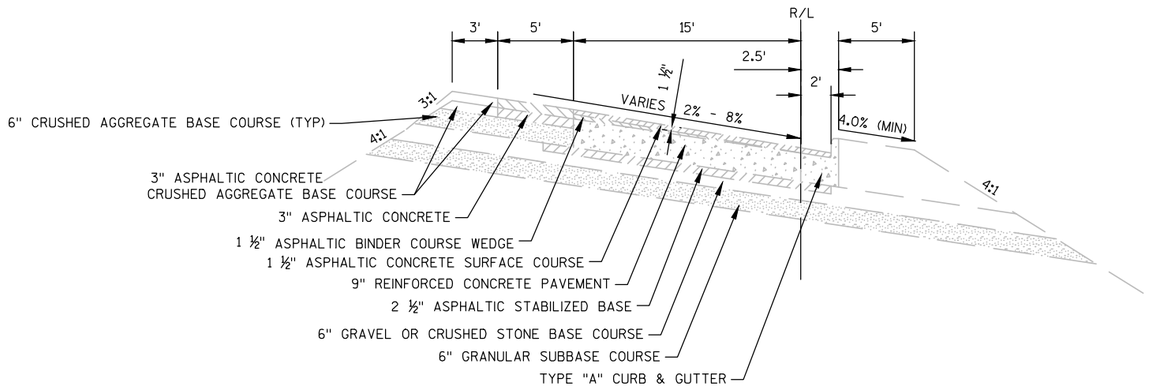
FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\020301_TS.DWG PLOT DATE : 2/18/2014 12:54 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2

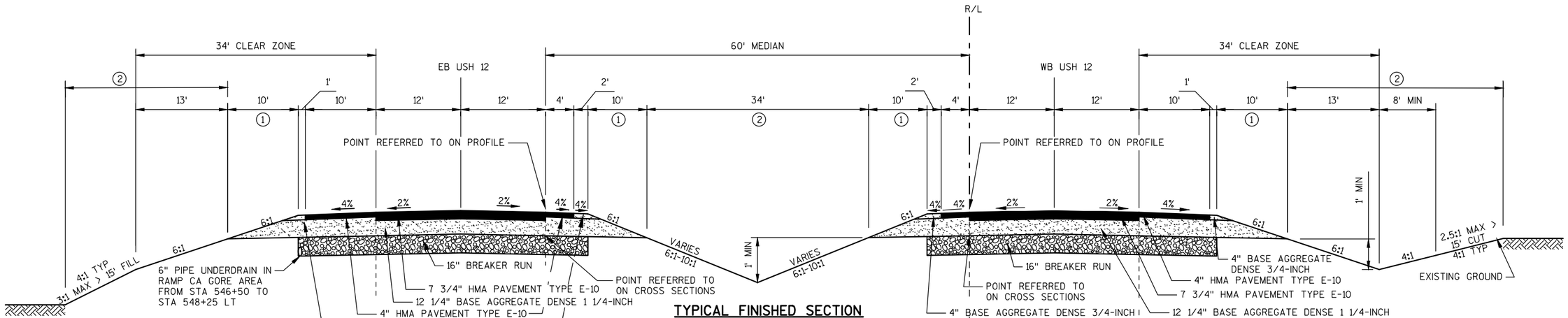
EXISTING CONCRETE PAVEMENT IN THE RAMP BD, AC AND AD RECONSTRUCTION PORTION TO BE REMOVED



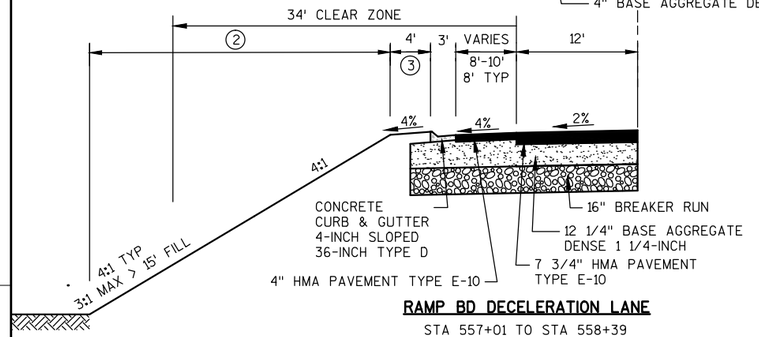
TYPICAL EXISTING SUPER ELEVATED ONE-WAY RAMP SECTION
(WITHOUT BARRIER CURB)



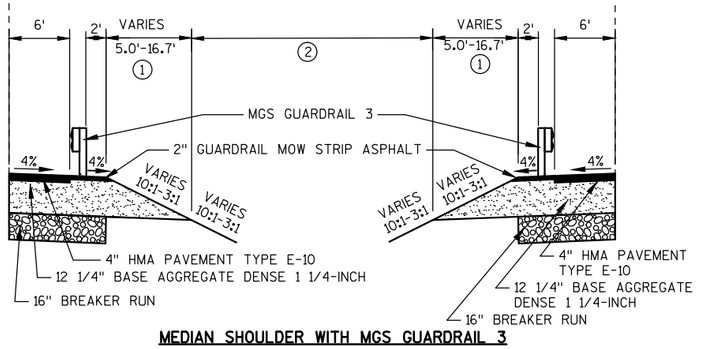
TYPICAL EXISTING SUPER ELEVATED ONE-WAY RAMP SECTION
(WITH BARRIER CURB)



TYPICAL FINISHED SECTION
USH 12 RECONSTRUCTION SECTION
STA 546+50 TO STA 558+39
STA 560+65 TO STA 568+00
V = 70 MPH

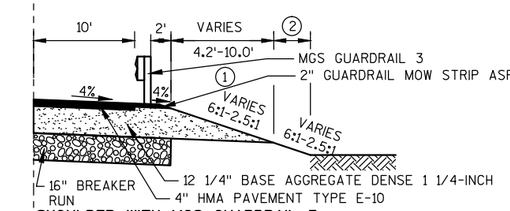


RAMP BD DECELERATION LANE
STA 557+01 TO STA 558+39

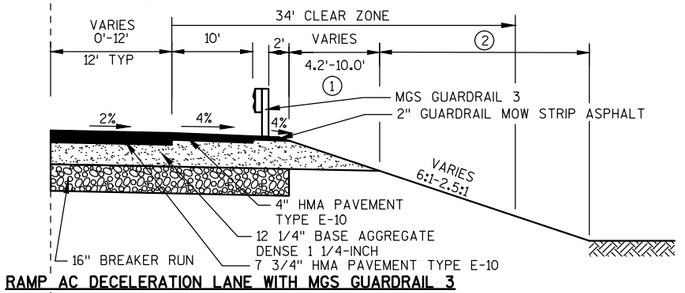


MEDIAN SHOULDER WITH MGS GUARDRAIL 3
USH 12
STA 560+96 TO STA 563+36

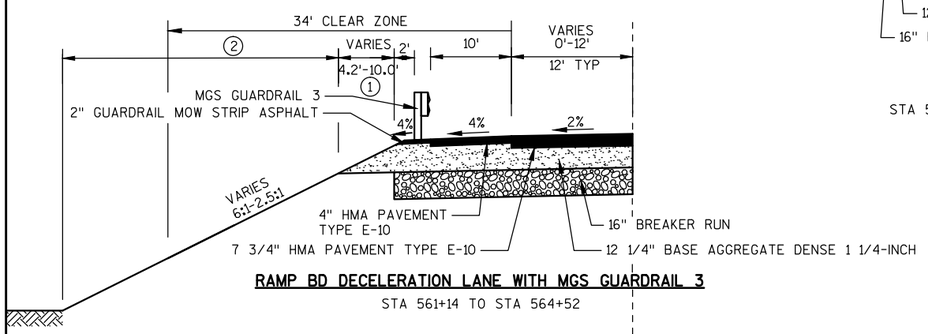
USH 12
STA 555+25 TO STA 558+30



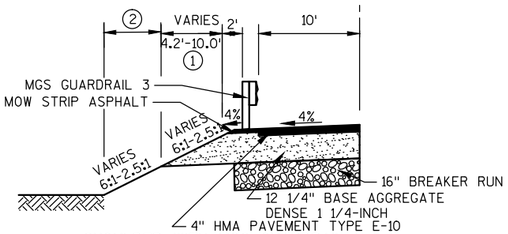
SHOULDER WITH MGS GUARDRAIL 3
USH 12
STA 552+89 TO STA 554+60



RAMP AC DECELERATION LANE WITH MGS GUARDRAIL 3
STA 554+60 TO STA 557+98



RAMP BD DECELERATION LANE WITH MGS GUARDRAIL 3
STA 561+14 TO STA 564+52



SHOULDER WITH MGS GUARDRAIL 3
USH 12
STA 564+52 TO STA 568+00

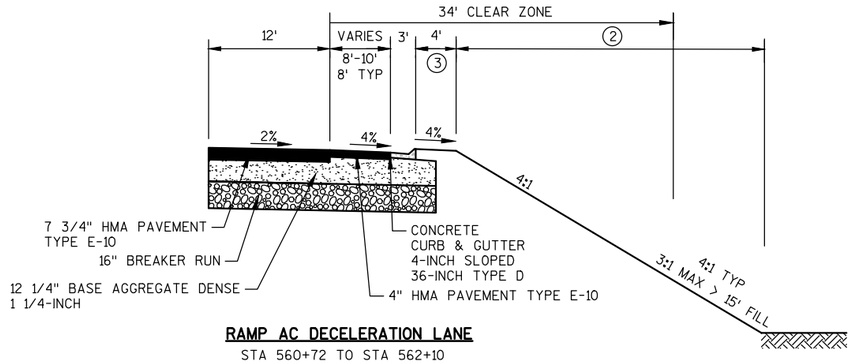
LEGEND

(1) SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

(2) SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 20, AND MULCH OR EROSION MAT ***

(3) TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN

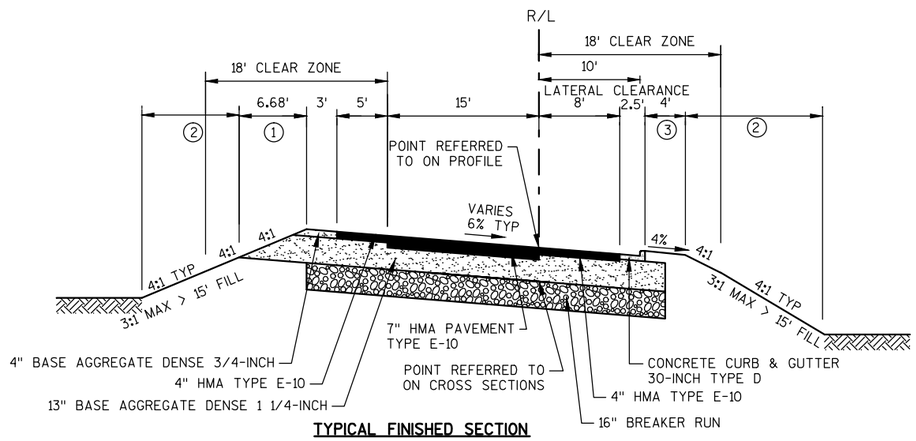
*** SEE EROSION CONTROL PLANS FOR EROSION MAT TYPE AND LOCATIONS



RAMP AC DECELERATION LANE
STA 560+72 TO STA 562+10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 7 - E

EXISTING CONCRETE PAVEMENT IN THE RAMP BD, AC AND AD RECONSTRUCTION PORTION TO BE REMOVED



TYPICAL FINISHED SECTION
RAMP AC
STA 262+10 TO STA 275+29
RAMP BD
STA 143+82 TO STA 157+01
V = 30 MPH
(LOOKING IN DIRECTION OF TRAVEL)

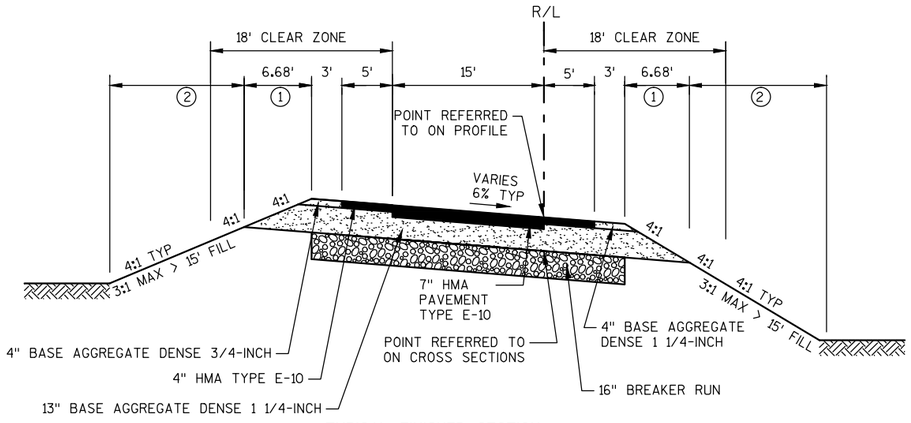
LEGEND

(1) SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

(2) SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 20, AND MULCH OR EROSION MAT ***

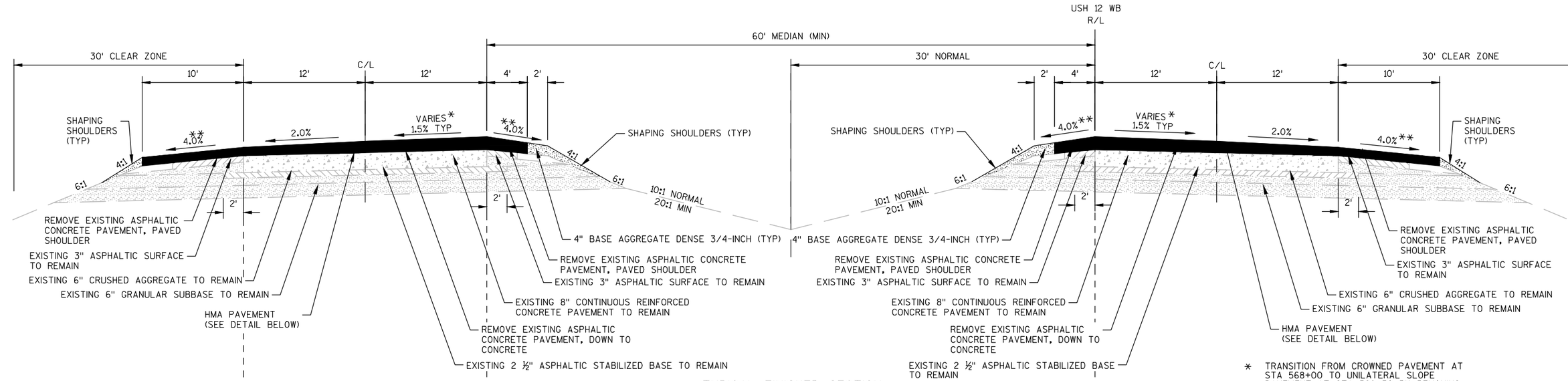
(3) TOPSOIL, FERTILIZER TYPE B, AND SOD LAWN

*** SEE EROSION CONTROL PLANS FOR EROSION MAT TYPE AND LOCATIONS



TYPICAL FINISHED SECTION
RAMP AD
STA 370+33 TO STA 373+44
V = 30 MPH
(LOOKING IN DIRECTION OF TRAVEL)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 8 - E



TYPICAL FINISHED SECTION
USH 12

STA 568+00 TO STA 590+00

V = 70 MPH

* TRANSITION FROM CROWNED PAVEMENT AT STA 568+00 TO UNILATERAL SLOPE PAVEMENT AT STA 569+50 BY REMOVING THE EXISTING ASPHALT AND REINFORCED CONCRETE AND RECONSTRUCTING THE INSIDE LANE WITH 7 3/4" HMA PAVEMENT TYPE E-10 OVER 8" CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR.

AND TRANSITION FROM UNILATERAL SLOPE PAVEMENT AT STA 588+50 TO EXISTING CROWNED PAVEMENT AT STA 590+00.

** RECONSTRUCT SHOULDERS BY REMOVING 5" OF ASPHALT AND BASE COURSE FROM:
STA 504+00 TO STA 555+00 (WB OUTSIDE)
STA 506+00 TO STA 546+50 (EB OUTSIDE)
STA 516+00 TO STA 546+50 (EB MEDIAN)
STA 516+00 TO STA 546+50 (WB MEDIAN)
STA 546+50 TO STA 588+50 (WB MEDIAN)
STA 562+50 TO STA 571+25 (WB OUTSIDE)
STA 581+50 TO STA 588+50 (WB OUTSIDE)
STA 588+50 TO STA 592+00 (EB MEDIAN)
STA 588+50 TO STA 592+00 (WB MEDIAN)
STA 588+50 TO STA 602+50 (EB OUTSIDE)
STA 588+50 TO STA 602+50 (WB OUTSIDE)
(SEE TRAFFIC CONTROL PLANS)

SHOULDER WITH MGS GUARDRAIL 3
USH 12
STA 568+00 TO STA 570+12
STA 573+99 TO STA 577+00

SHOULDER WITH MGS GUARDRAIL 3
USH 12
STA 574+00 TO STA 576+60

SHOULDER WITH MGS GUARDRAIL 3
USH 12
STA 571+05 TO STA 575+25

TRANSITION CROWN PAVEMENT TO UNILATERAL SLOPE PAVEMENT
STA 568+00 TO STA 569+50

TRANSITION CROWN PAVEMENT TO UNILATERAL SLOPE PAVEMENT
STA 568+00 TO STA 569+00

HMA PAVEMENT DETAIL
WB SHOWN EB MIRROR IMAGE

LEGEND

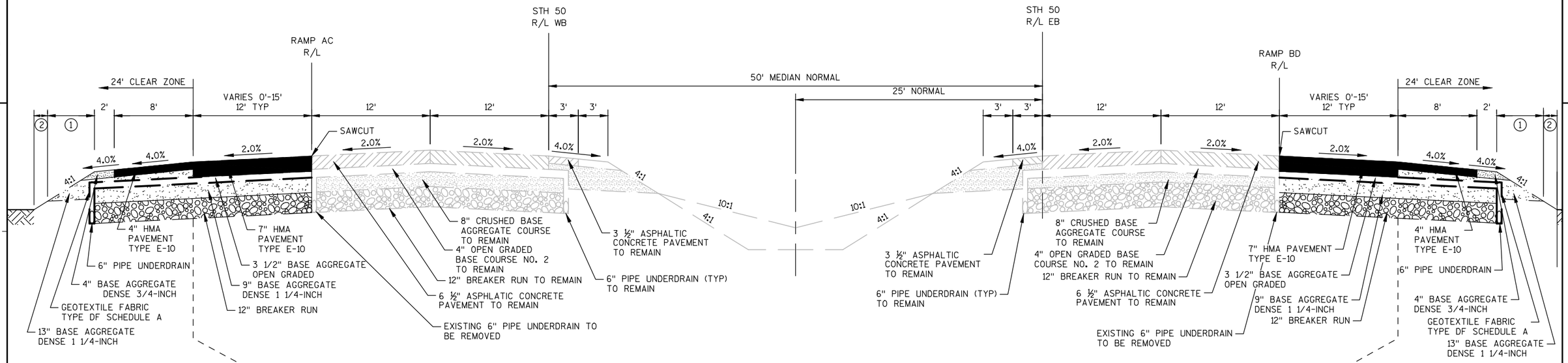
(1) SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

(2) SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 20, AND MULCH OR EROSION MAT ***

*** SEE EROSION CONTROL PLANS FOR EROSION MAT TYPE AND LOCATIONS

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 9 - E

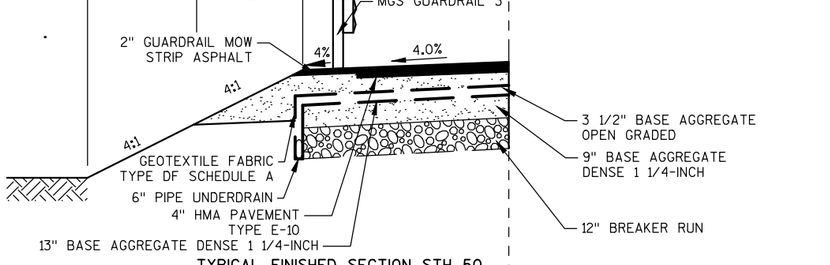
FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\020301_TS.DWG PLOT DATE : 2/18/2014 12:54 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------



TYPICAL FINISHED SECTION STH 50

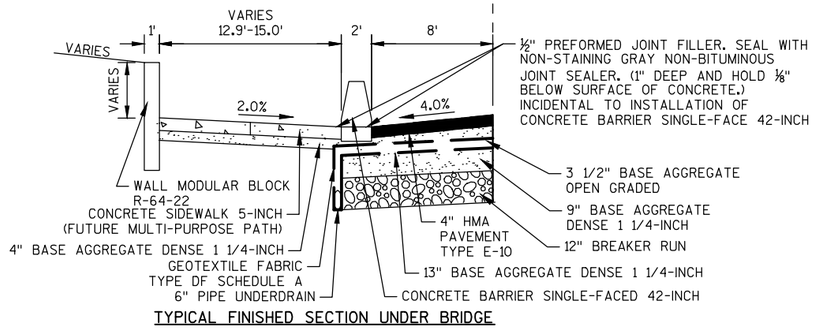
STA 66+72 TO STA 83+09

V = 70 MPH



TYPICAL FINISHED SECTION STH 50 WITH MGS GUARDRAIL 3

STA 66+71 TO STA 69+03
STA 72+52 TO STA 73+66



TYPICAL FINISHED SECTION UNDER BRIDGE

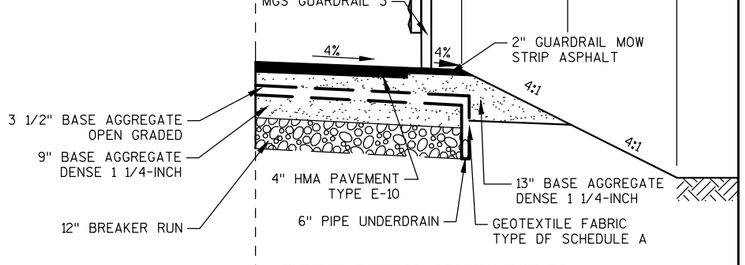
STA 70+84 TO STA 72+52

LEGEND

(1) SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

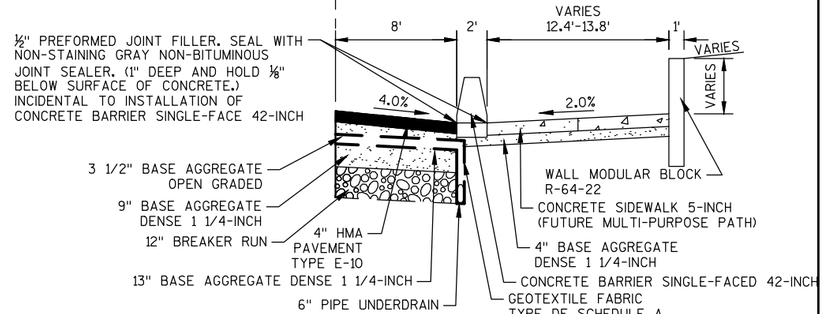
(2) SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 20, AND MULCH OR EROSION MAT ***

*** SEE EROSION CONTROL PLANS FOR EROSION MAT TYPE AND LOCATIONS



TYPICAL FINISHED SECTION STH 50 WITH MGS GUARDRAIL 3

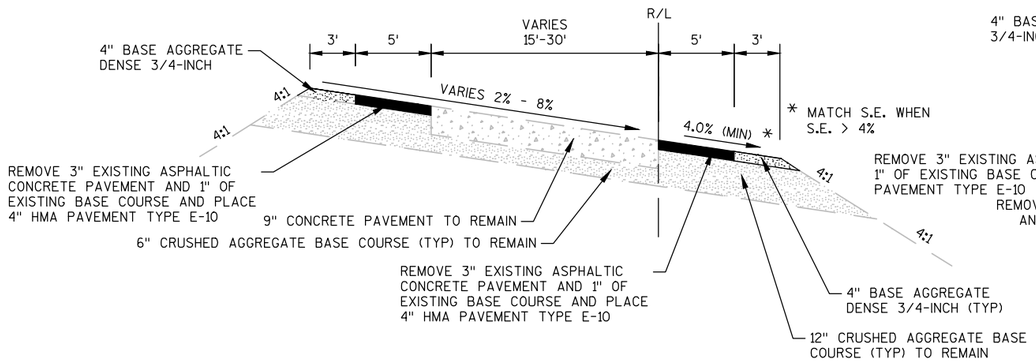
STA 70+13 TO STA 71+28



TYPICAL FINISHED SECTION UNDER BRIDGE

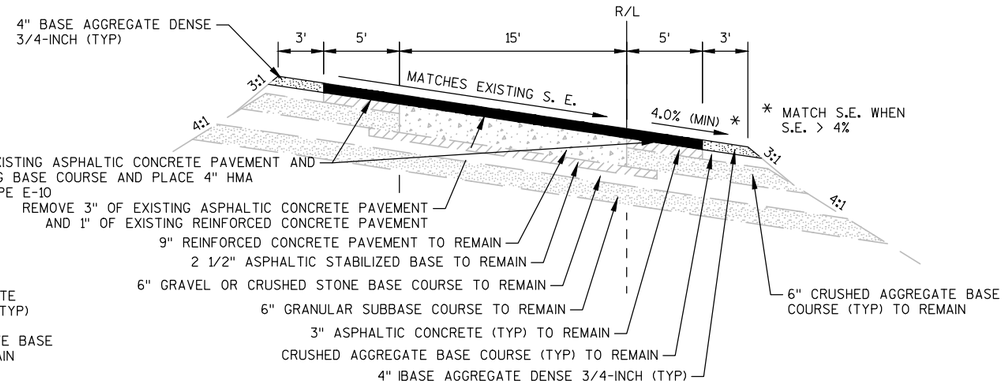
STA 71+28 TO STA 72+96

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TYPICAL SECTIONS	SHEET 10 - E



TYPICAL FINISHED SUPERELEVATED ONE-WAY RAMP SECTION

RAMP EF: STA 561+18 TO STA 571+81



TYPICAL FINISHED SUPERELEVATED ONE-WAY RAMP SECTION

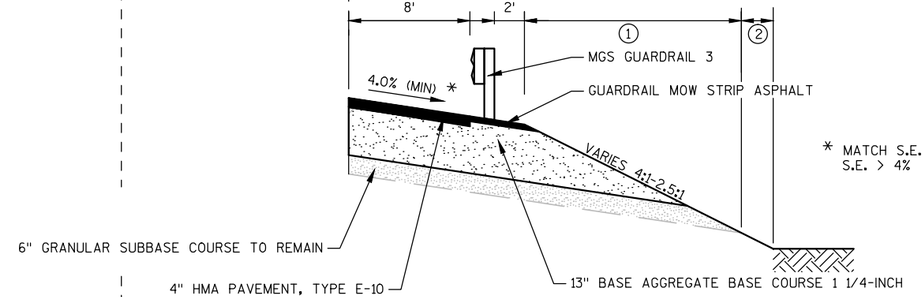
RAMP CA: STA 546+60 TO STA 561+32 LT
STA 547+96 TO STA 556+18 RT
STA 560+37 TO STA 563+67 RT
RAMP CB: STA 556+36 TO STA 557+73 LT
STA 556+36 TO STA 558+59 RT
RAMP DA: STA 591+37 TO STA 593+79 LT
STA 592+72 TO STA 593+79 RT
RAMP DB: STA 557+48 TO STA 558+75 RT
STA 555+19 TO STA 558+60 LT
STA 562+82 TO STA 571+23 LT

LEGEND

① SEEDING MIXTURE NO. 20 AND FERTILIZER TYPE B

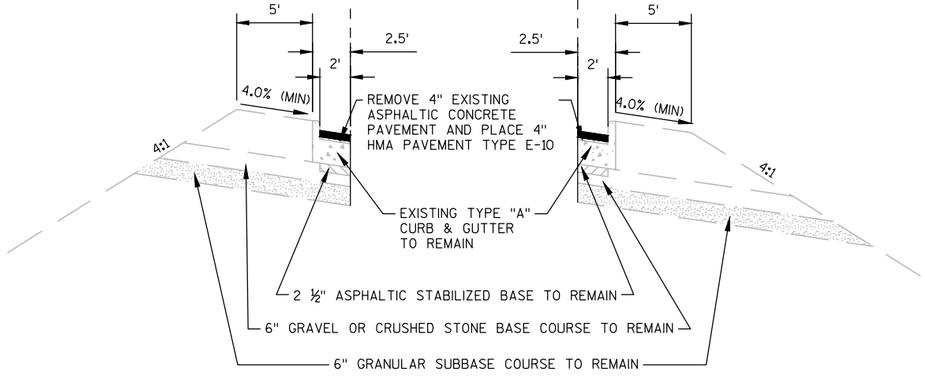
② SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 20, AND MULCH OR EROSION MAT ***

***SEE EROSION CONTROL PLANS FOR EROSION MAT TYPE AND LOCATIONS



TYPICAL FINISHED SUPERELEVATED ONE-WAY RAMP SECTION WITH MGS GUARDRAIL 3

RAMP DB
STA 558+75 TO STA 577+75 RT



TYPICAL FINISHED SUPERELEVATED ONE-WAY RAMP SECTION

RAMP CA: STA 561+32 TO STA 563+67 LT
STA 556+19 TO STA 558+99 RT
RAMP CB: STA 557+73 TO STA 560+12 LT
RAMP DA: STA 589+99 TO STA 592+72 RT
RAMP DB: STA 555+19 TO STA 557+48 RT
STA 560+12 TO STA 562+82 LT

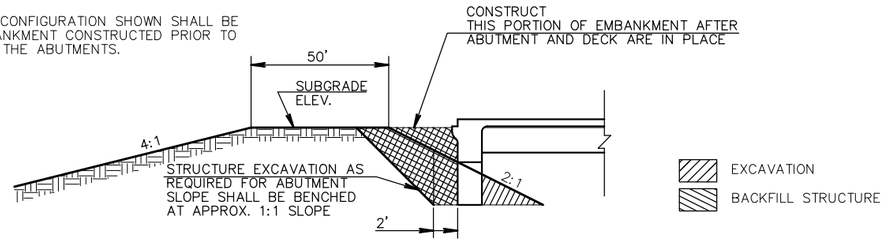
RUNOFF COEFFICIENT TABLE

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

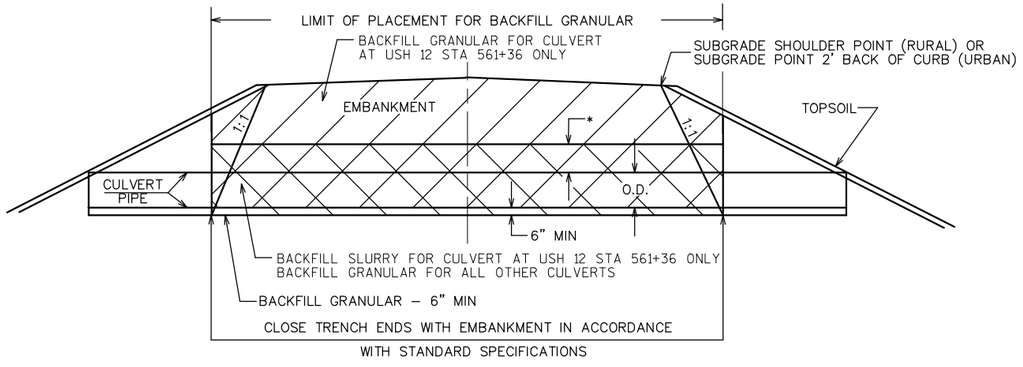
TOTAL PROJECT AREA = 70 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 23 ACRES

NOTE:

THE EMBANKMENT CONFIGURATION SHOWN SHALL BE THE MINIMUM EMBANKMENT CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.



EMBANKMENT CONSTRUCTION & BACKFILL STRUCTURE DETAIL



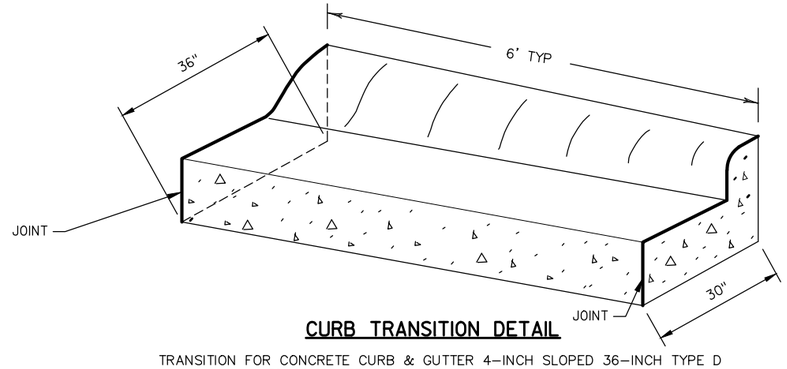
CULVERT BACKFILL DETAIL

SEE MISCELLANEOUS QUANTITY TABLE FOR LOCATIONS

NOTE:

1. SEE CONSTRUCTION DETAILS "DETAIL FOR INSTALLATION OF CROSS CULVERT PIPES THROUGH EXISTING EMBANKMENT" FOR ADDITIONAL INFORMATION.

O.D. = OUTSIDE DIAMETER
* CULVERT PIPE IN NEW EMBANKMENT = 1' MIN

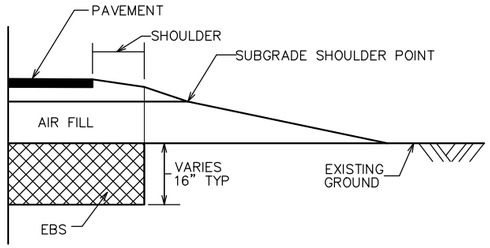


CURB TRANSITION DETAIL

TRANSITION FOR CONCRETE CURB & GUTTER 4–INCH SLOPED 36–INCH TYPE D
TO CONCRETE CURB & GUTTER 30–INCH TYPE D

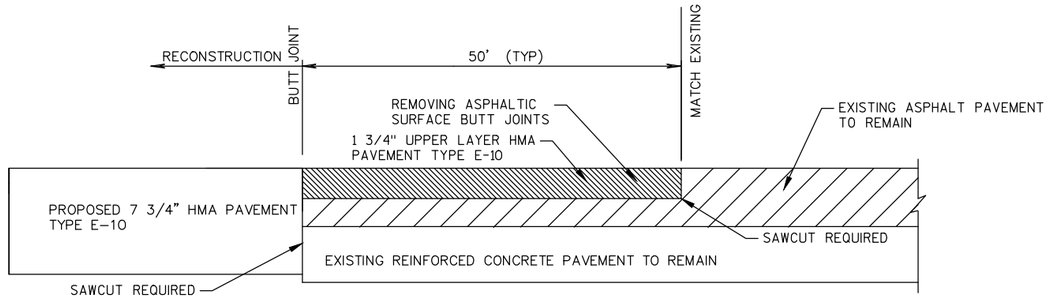
(TO BE MEASURED & PAID FOR AS CONCRETE CURB & GUTTER 4–INCH SLOPED 36–INCH TYPE D)

STA 262+04 – STA 262+10
STA 157+01 – STA 157+06



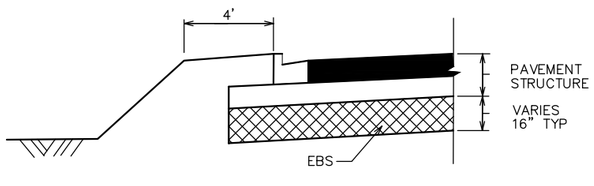
NOTES:
1. EBS SHALL BE PAID FOR AS EXCAVATION COMMON. UNDISTRIBUTED AMOUNT LISTED IN EARTHWORK SUMMARY.
2. EXACT LOCATIONS AND EXTENT OF EBS SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
3. FILL VOID WITH BREAKER RUN.
4. UNDERDRAIN TO BE INSTALLED AT LOW POINTS, DAYLIGHT TO DITCH.

EXCAVATION BELOW SUBGRADE (EBS) - RURAL



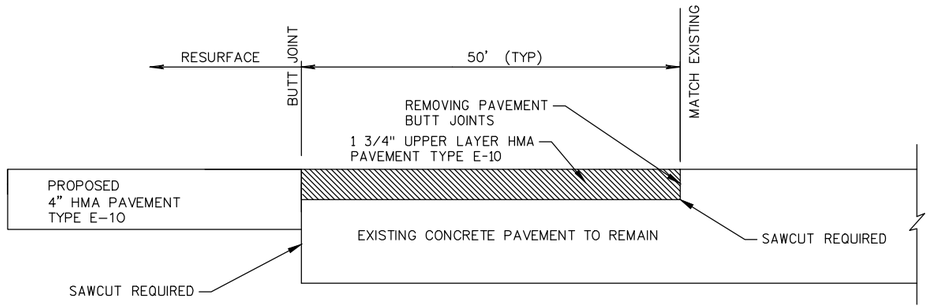
DETAIL OF ASPHALTIC SURFACE BUTT JOINT

*EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD
BUTT JOINT: USH 12 STA 546+00 TO STA 546+50



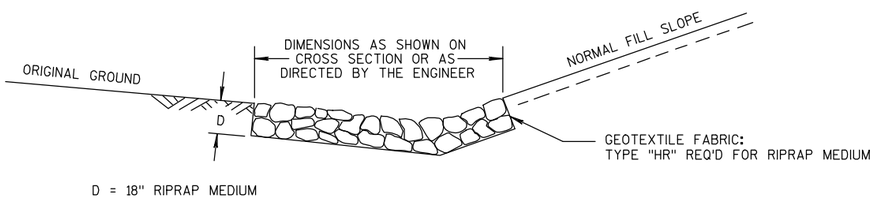
NOTES:
1. USE AS DIRECTED BY ENGINEER FOR AREAS OF UNSTABLE SUBGRADE.
2. EBS SHALL BE PAID FOR AS EXCAVATION COMMON. UNDISTRIBUTED AMOUNT LISTED IN EARTHWORK SUMMARY.
3. FILL VOID WITH BREAKER RUN.

EXCAVATION BELOW SUBGRADE (EBS) – URBAN



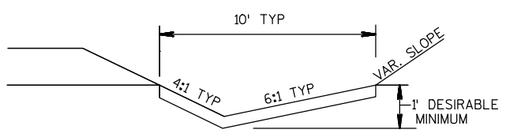
DETAIL OF PAVEMENT BUTT JOINT

*EXACT DIMENSIONS TO BE DETERMINED BY ENGINEER IN FIELD
BUTT JOINT: RAMP EF STA 571+31 TO STA 571+81



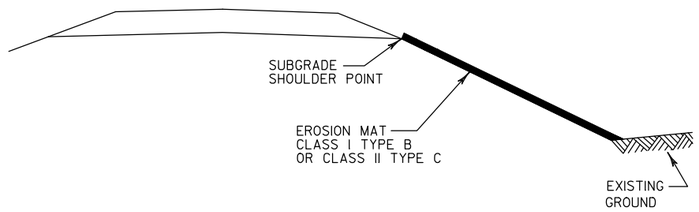
DETAIL FOR RIPRAP IN DITCHES

SEE EROSION CONTROL
PLAN FOR LOCATIONS



EROSION MAT DETAIL FOR DITCHES

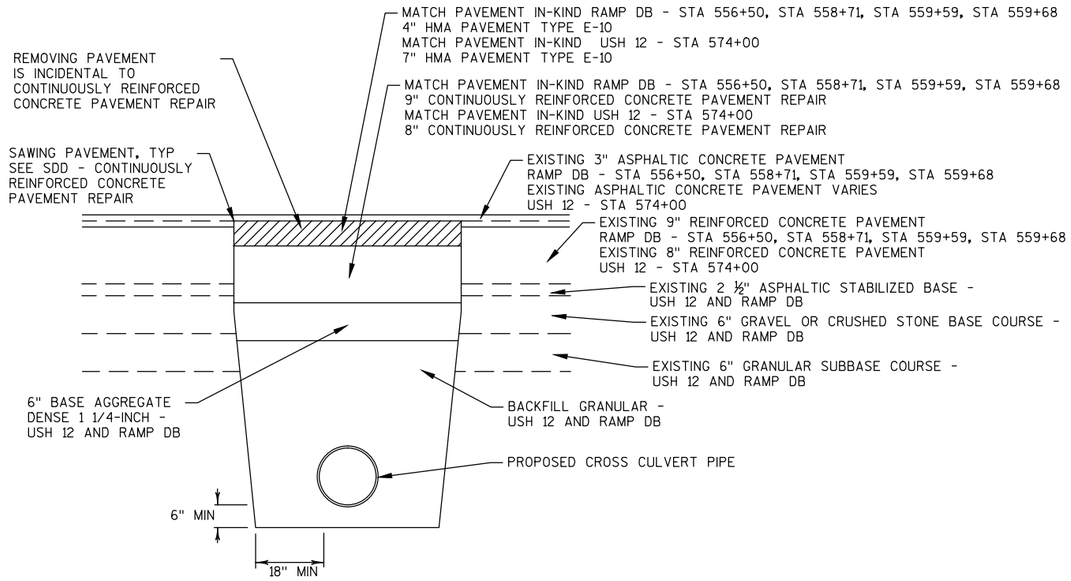
SEE EROSION CONTROL
PLAN FOR LOCATIONS



EROSION MAT DETAIL FOR SLOPES

SEE EROSION CONTROL
PLAN FOR LOCATIONS

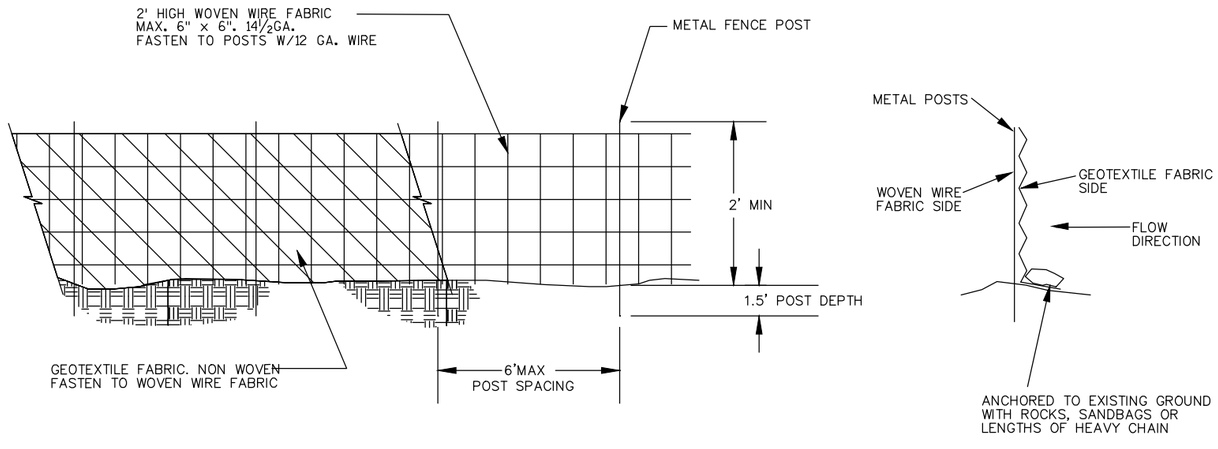
2



DETAIL FOR INSTALLATION OF CROSS CULVERT PIPES

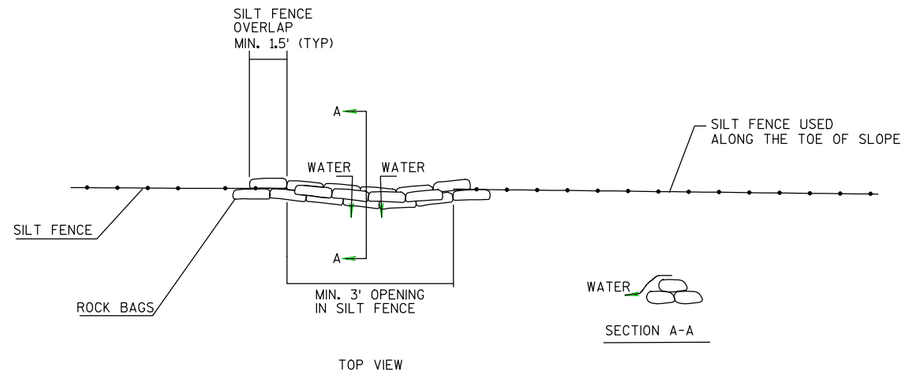
THROUGH EXISTING ROADWAY EMBANKMENT IN RESURFACING AREAS

USH 12 - STA 574+00
RAMP DB - STA 556+50
RAMP DB - STA 558+71
RAMP DB - STA 559+59
RAMP DB - STA 559+68



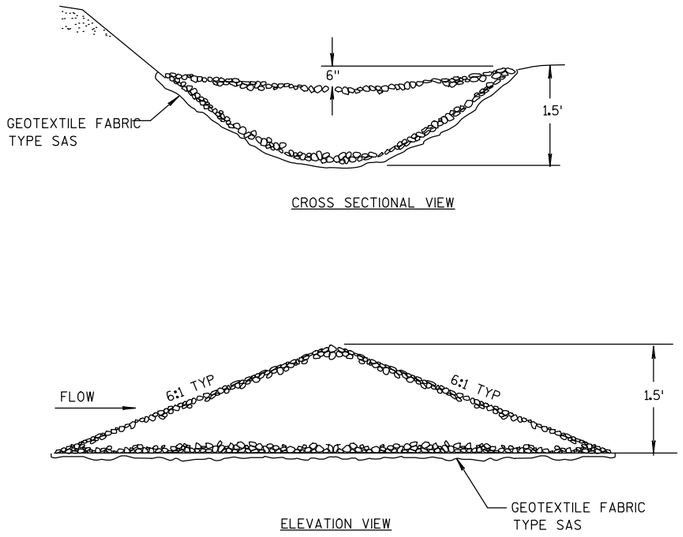
HEAVY DUTY SILT FENCE DETAIL

SEE EROSION CONTROL PLANS FOR LOCATIONS



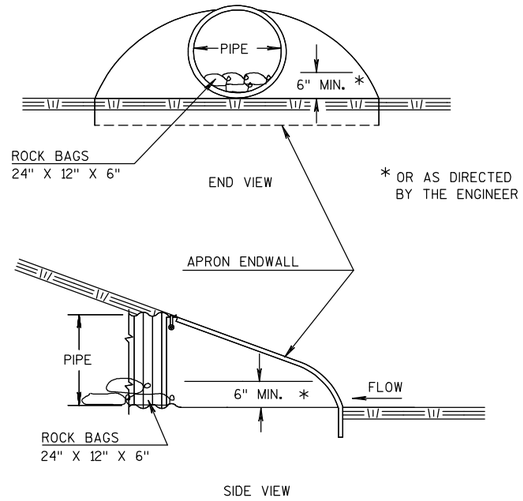
ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

SEE EROSION CONTROL PLANS FOR LOCATIONS



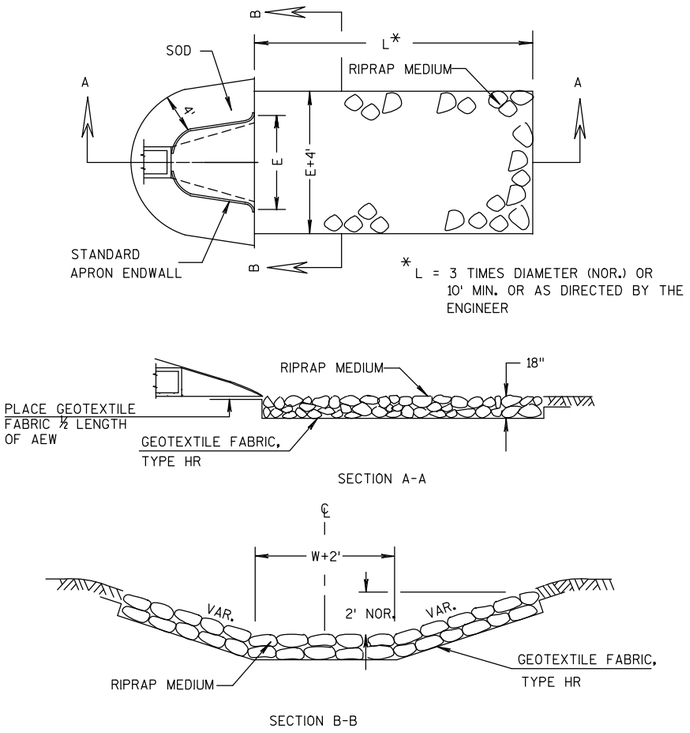
PERMANENT STONE OR ROCK DITCH CHECK DETAIL

SEE EROSION CONTROL
PLAN FOR LOCATIONS



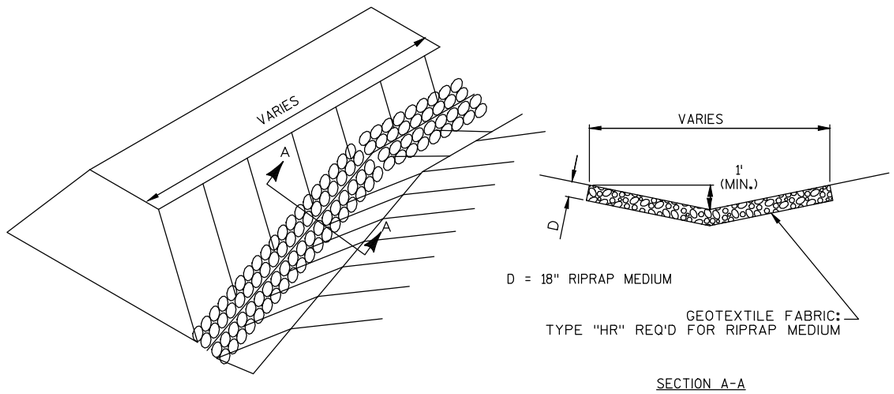
CULVERT PIPE CHECKS

PLACE AT UPSTREAM CULVERTS PIPE END



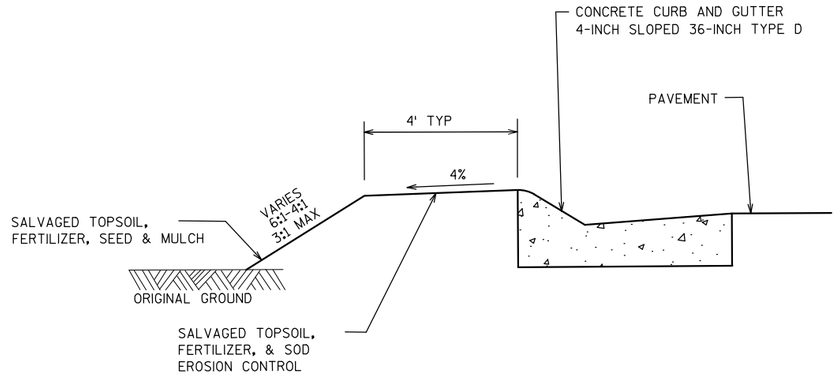
RIPRAP MEDIUM AND GEOTEXTILE FABRIC

SEE EROSION CONTROL
PLAN FOR LOCATIONS



RIPRAP AND GEOTEXTILE FABRIC AT CUT TO FILL TRANSITION DETAIL

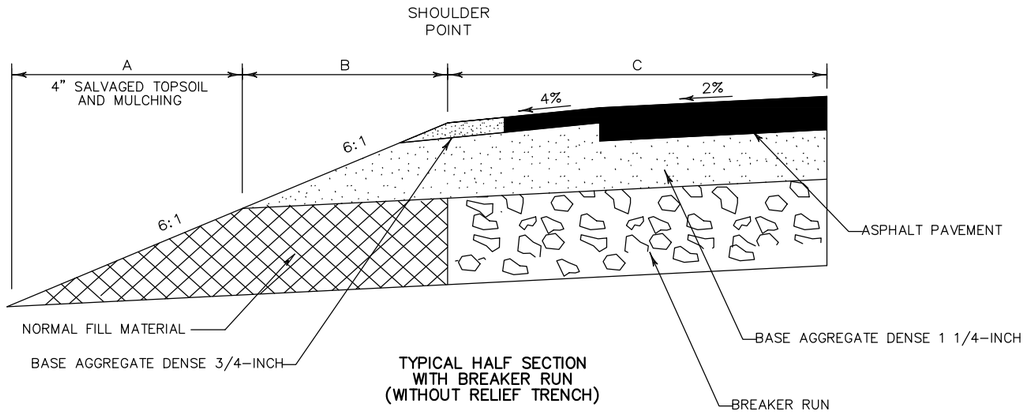
SEE EROSION CONTROL
PLAN FOR LOCATIONS



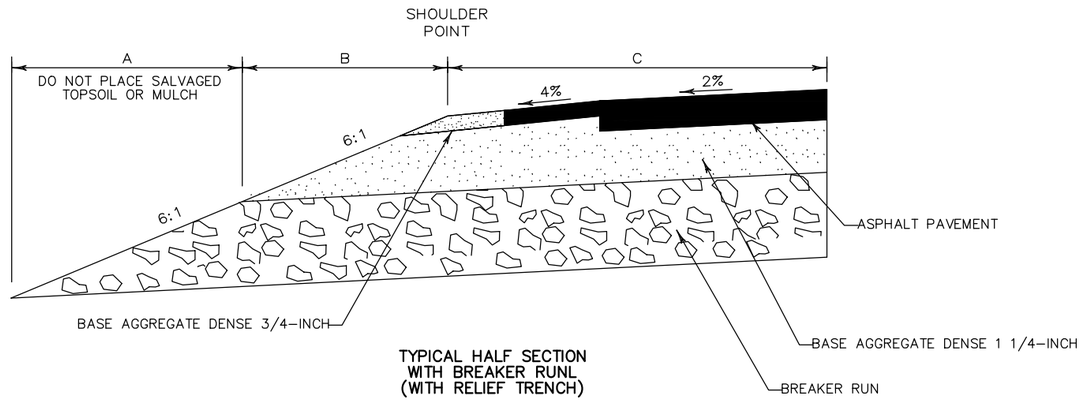
CONCRETE CURB AND GUTTER DETAIL

STA 557+01 TO STA 588+39 RT

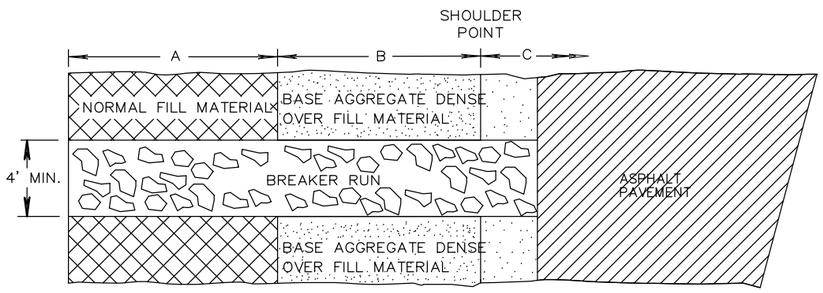
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CONSTRUCTION DETAILS	SHEET 15 - E



TYPICAL HALF SECTION WITH BREAKER RUN (WITHOUT RELIEF TRENCH)



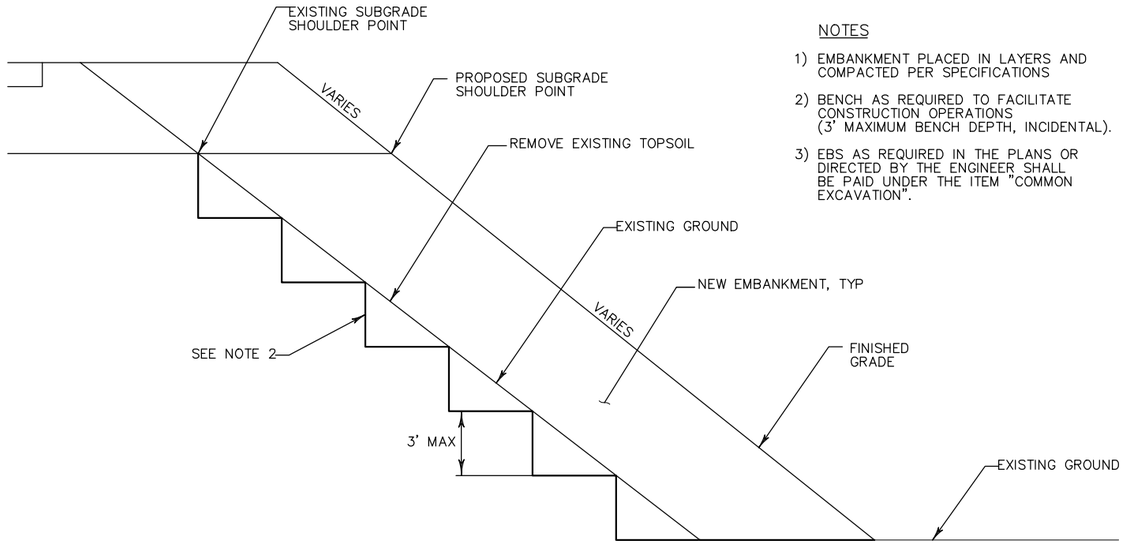
TYPICAL HALF SECTION WITH BREAKER RUNL (WITH RELIEF TRENCH)



RELIEF TRENCH DETAIL PLAN VIEW

RELIEF TRENCH

SEE TYPICAL SECTIONS FOR BREAKER RUN LOCATIONS.
PLACE RELIEF TRENCH EVERY 250' ALONG USH 12 RECONSTRUCTION PORTION, STH 50 ACCELERATION LANE ADDITION PORTION AND AT THE SPECIFIED STATIONS ALONG STH 50: STA 70+25 LT, 71+00 RT, 72+75 LT, 73+50 RT.



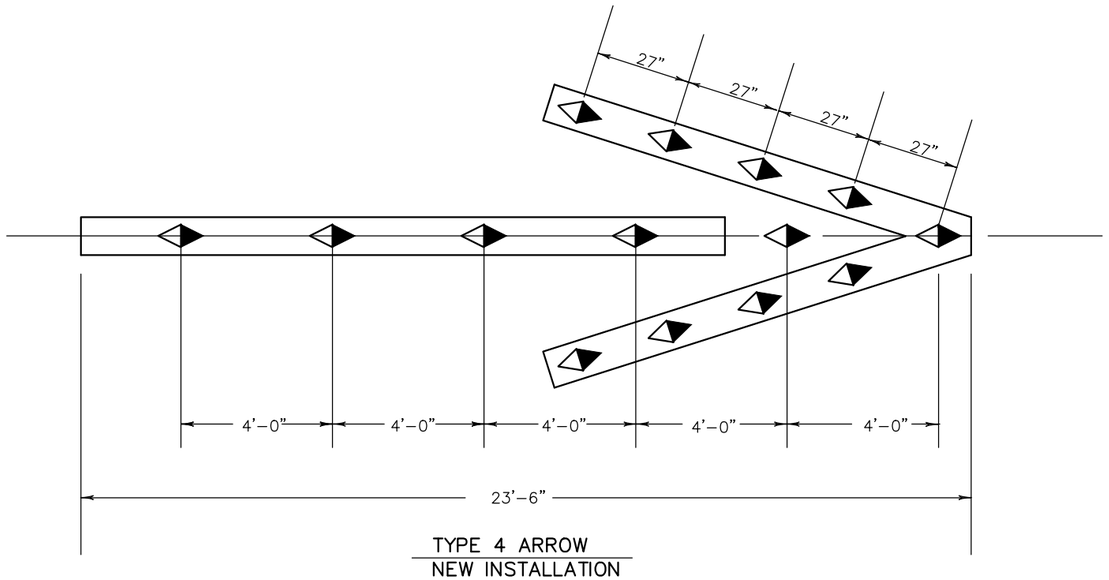
STEPPED EMBANKMENT

EXISTING EMBANKMENT TO REMAIN

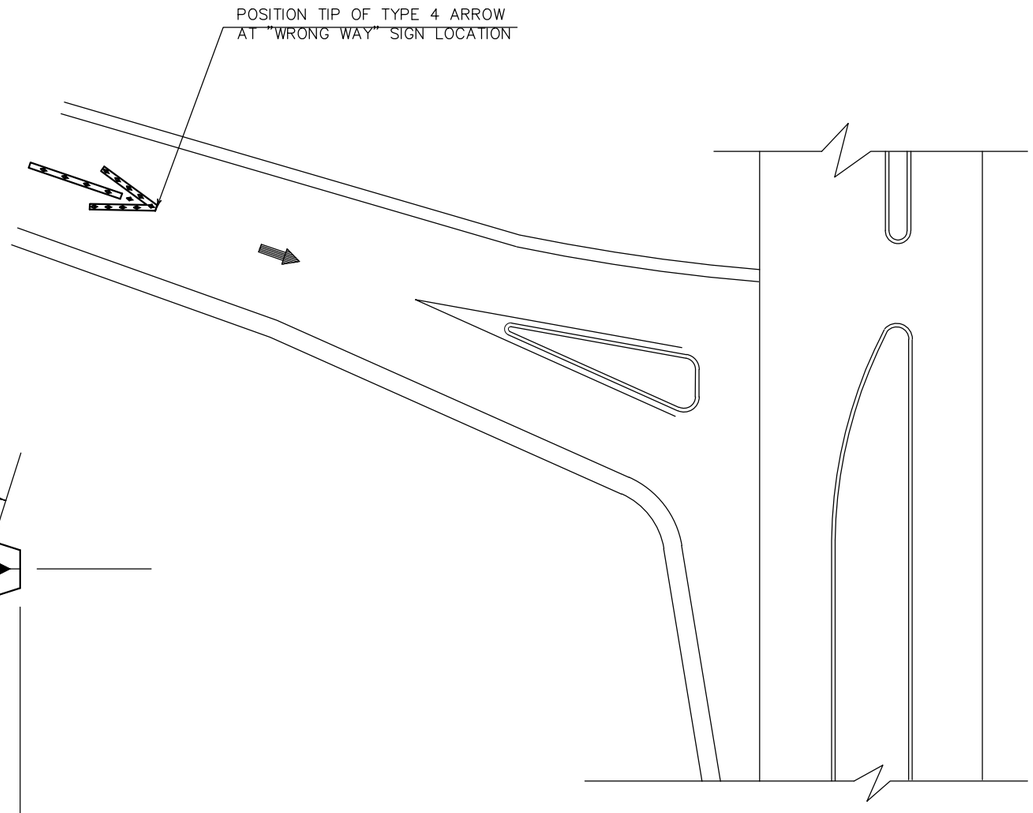
NOTES

1) EMBANKMENT PLACED IN LAYERS AND COMPACTED PER SPECIFICATIONS
2) BENCH AS REQUIRED TO FACILITATE CONSTRUCTION OPERATIONS (3' MAXIMUM BENCH DEPTH, INCIDENTAL).
3) EBS AS REQUIRED IN THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE PAID UNDER THE ITEM "COMMON EXCAVATION".

2



TYPE 4 ARROW
NEW INSTALLATION



EXIT RAMP
PLAN VIEW

GENERAL NOTES

MARKER REFLECTORS INSTALLED IN TYPE 4 ARROWS BEFORE APPLICATION OF THE ARROW MARKING MATERIAL SHALL BE MASKED TO PREVENT COATING.

MARKERS SHALL NOT BE LOCATED DIRECTLY OVER LONGITUDNAL JOINTS. PLACE MARKERS ADJACENT TO THE JOINT LINE TO AVOID TEMPERATURE AND SHRINKAGE AND / OR BREAKAGE OF CONCRETE.

LEGEND

TWO WAY REFLECTOR (OPAQUE WHITE / REFLECTIVE RED REFLECTOR)

DIRECTION OF TRAVEL

2

2

CONCRETE PAVEMENT REPAIR

CONCRETE PAVEMENT REPAIR

559+61 560+00 561+00 562+00 563+00 564+00 565+00 566+00 567+00 568+00

RAMP EF

41

PB16

PB18

REMOVE AND REPLACE LOOP DETECTOR IN-KIND

REMOVE AND REPLACE LOOP DETECTOR IN-KIND

594+00 594+46

RAMP DA

ADJUSTING MANHOLE COVERS

REMOVE SIGNAL POLE DURING STAGE 1A CONSTRUCTION. CONCRETE BASE, METAL BASE CAP AND WIRING TO REMAIN. PROTECT SIGNAL BASE WITH TRAFFIC CONTROL DRUMS. REINSTALL EXISTING SIGNAL POLE PRIOR TO TEMPORARY SIGNAL REMOVAL. SEE TEMPORARY SIGNAL PLANS AND TRAFFIC CONTROL PLANS FOR FURTHER INFORMATION.

EXISTING LOOP DETECTORS TO REMAIN

STH 50

ADJUSTING MANHOLE COVERS

RAMP BD

146+00 145+00 144+00 143+00

68+00 69+00 70+00 71+00

PB2

22

REMOVE AND REPLACE LOOP DETECTORS IN-KIND

PB3

21

SAWCUT AND REMOVE EXISTING ASPHALTIC PAVEMENT REPLACE 7" HMA PAVEMENT TYPE E-10

SLAB

USH 12 EB

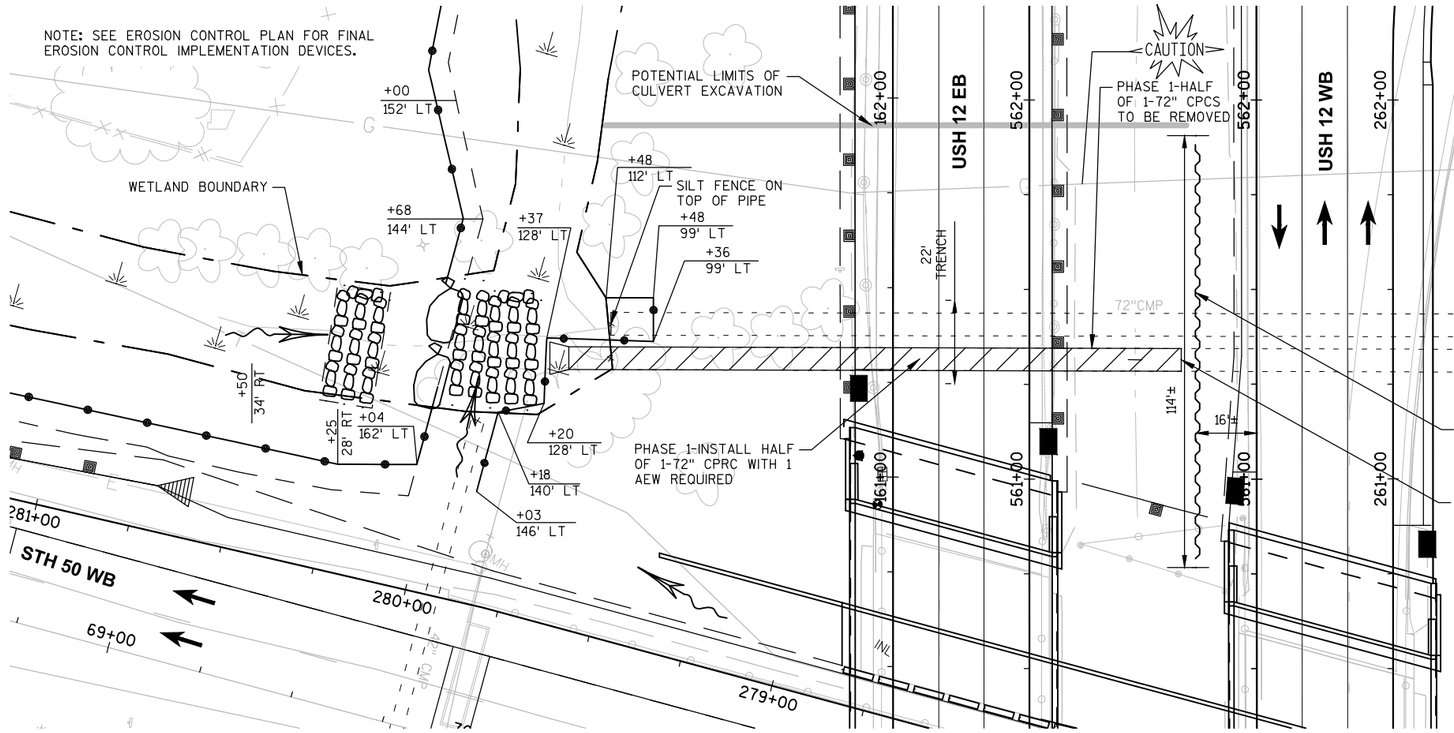
USH 12 WB

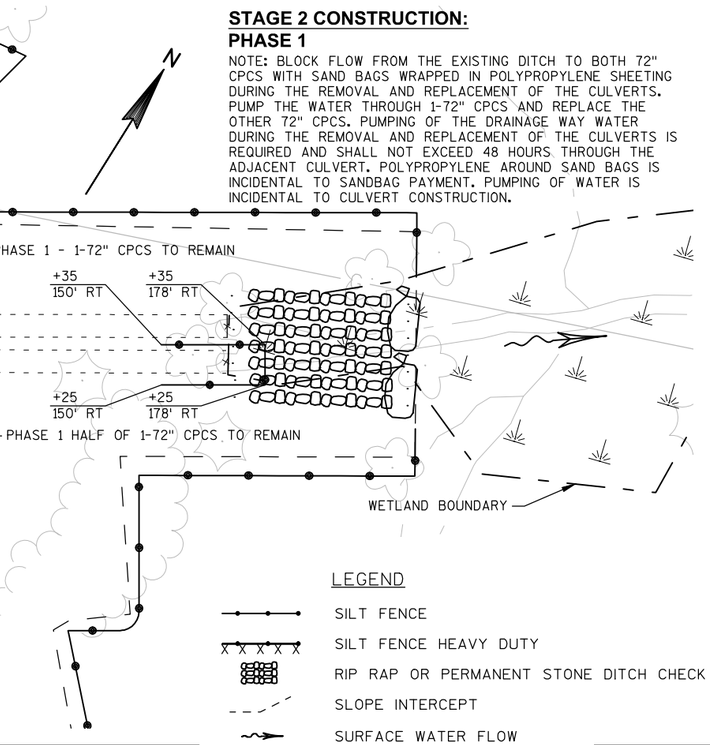
161+00 162+00 163+00 164+00 164+51 565+00 566+00 567+00

PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CONSTRUCTION DETAIL - LOOP DETECTOR REPLACEMENTS	SHEET 18 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\021002_CD.DWG PLOT DATE : 2/18/2014 11:52 AM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 42



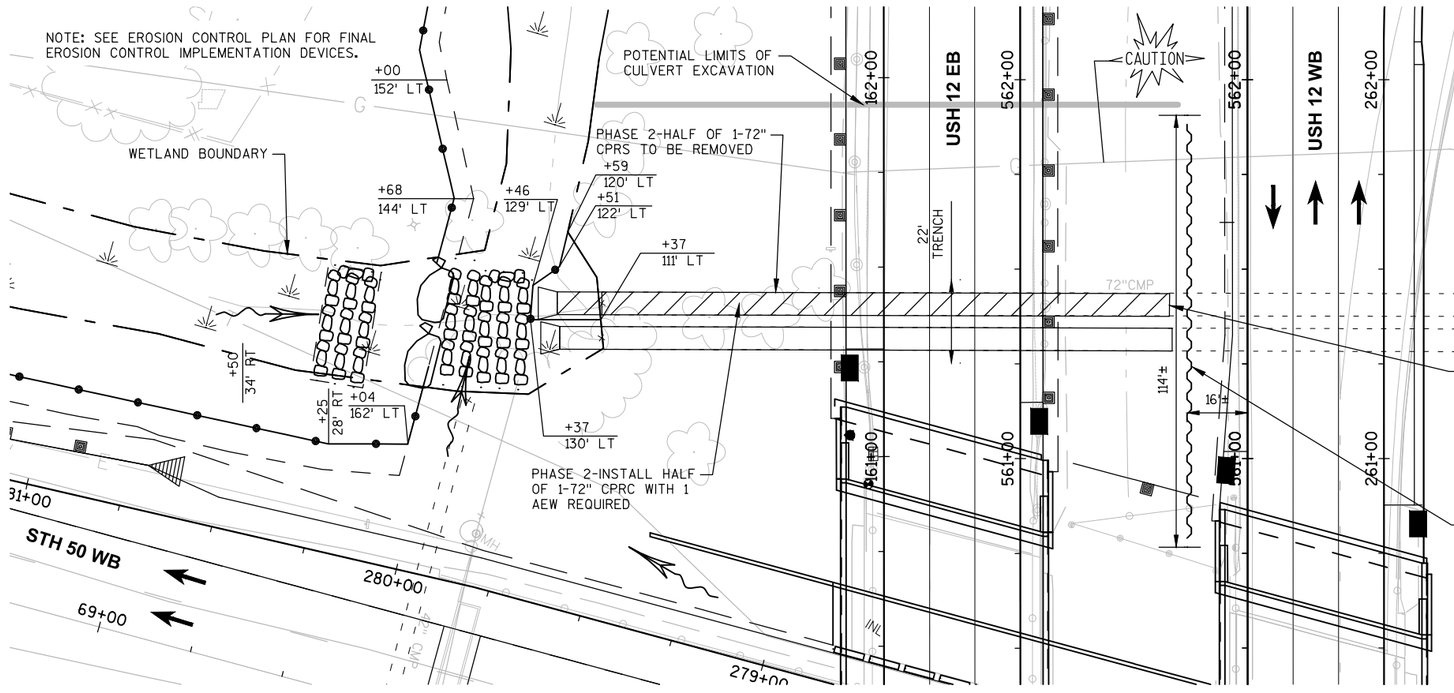


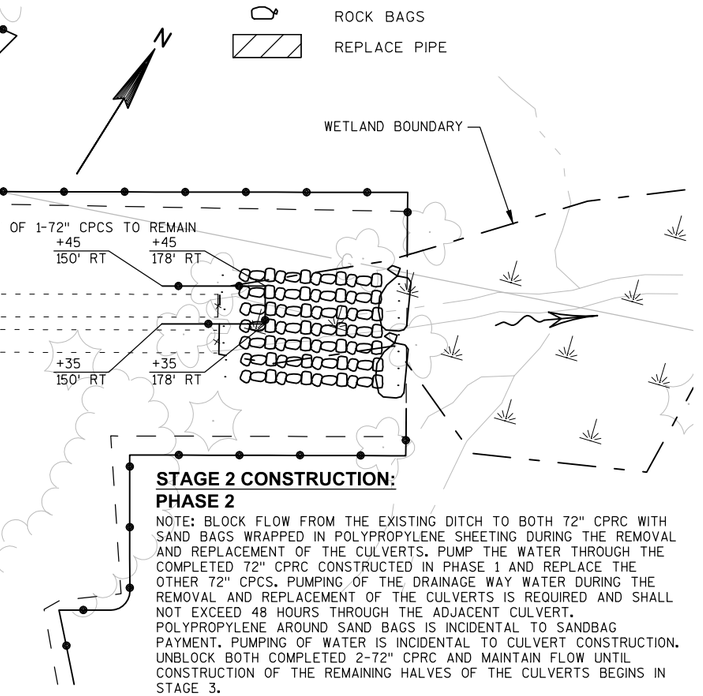
STAGE 2 CONSTRUCTION: PHASE 1

NOTE: BLOCK FLOW FROM THE EXISTING DITCH TO BOTH 72" CPCS WITH SAND BAGS WRAPPED IN POLYPROPYLENE SHEETING DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS. PUMP THE WATER THROUGH 1-72" CPCS AND REPLACE THE OTHER 72" CPCS. PUMPING OF THE DRAINAGE WAY WATER DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS IS REQUIRED AND SHALL NOT EXCEED 48 HOURS THROUGH THE ADJACENT CULVERT. POLYPROPYLENE AROUND SAND BAGS IS INCIDENTAL TO SANDBAG PAYMENT. PUMPING OF WATER IS INCIDENTAL TO CULVERT CONSTRUCTION.

LEGEND

- SILT FENCE
- SILT FENCE HEAVY DUTY
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- ROCK BAGS
- REPLACE PIPE



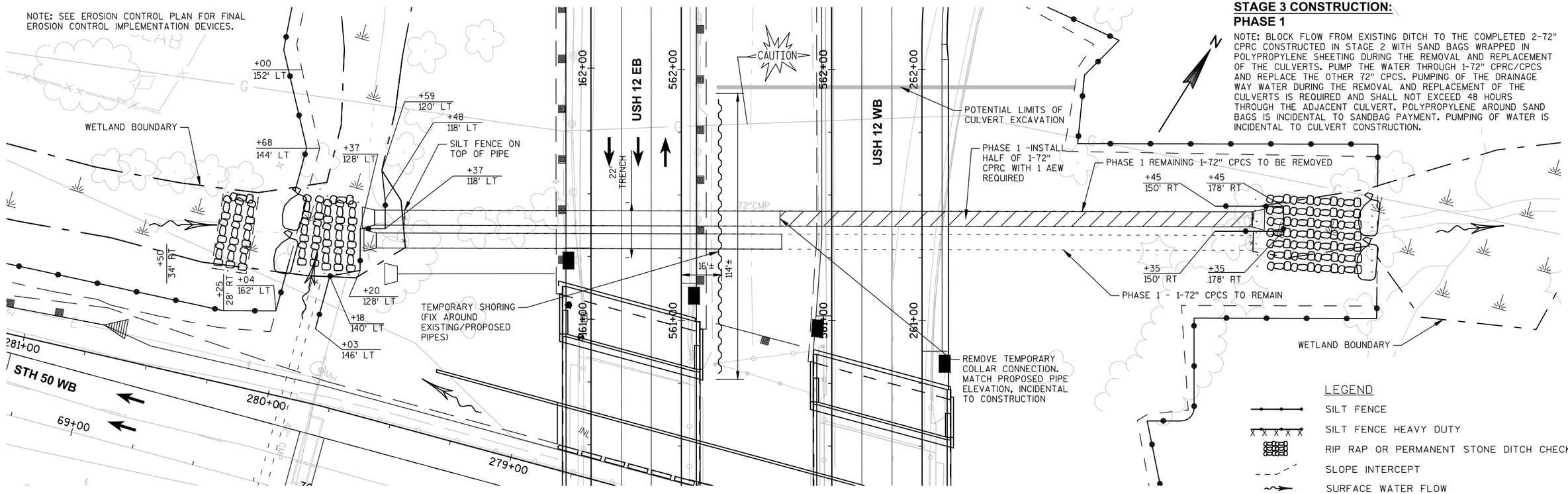


STAGE 2 CONSTRUCTION: PHASE 2

NOTE: BLOCK FLOW FROM THE EXISTING DITCH TO BOTH 72" CPRC WITH SAND BAGS WRAPPED IN POLYPROPYLENE SHEETING DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS. PUMP THE WATER THROUGH THE COMPLETED 72" CPRC CONSTRUCTED IN PHASE 1 AND REPLACE THE OTHER 72" CPCS. PUMPING OF THE DRAINAGE WAY WATER DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS IS REQUIRED AND SHALL NOT EXCEED 48 HOURS THROUGH THE ADJACENT CULVERT. POLYPROPYLENE AROUND SAND BAGS IS INCIDENTAL TO SANDBAG PAYMENT. PUMPING OF WATER IS INCIDENTAL TO CULVERT CONSTRUCTION. UNBLOCK BOTH COMPLETED 2-72" CPRC AND MAINTAIN FLOW UNTIL CONSTRUCTION OF THE REMAINING HALVES OF THE CULVERTS BEGINS IN STAGE 3.

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CONSTRUCTION DETAIL - CULVERT INSTALLATION USH 12	SHEET 19 - E

NOTE: SEE EROSION CONTROL PLAN FOR FINAL EROSION CONTROL IMPLEMENTATION DEVICES.



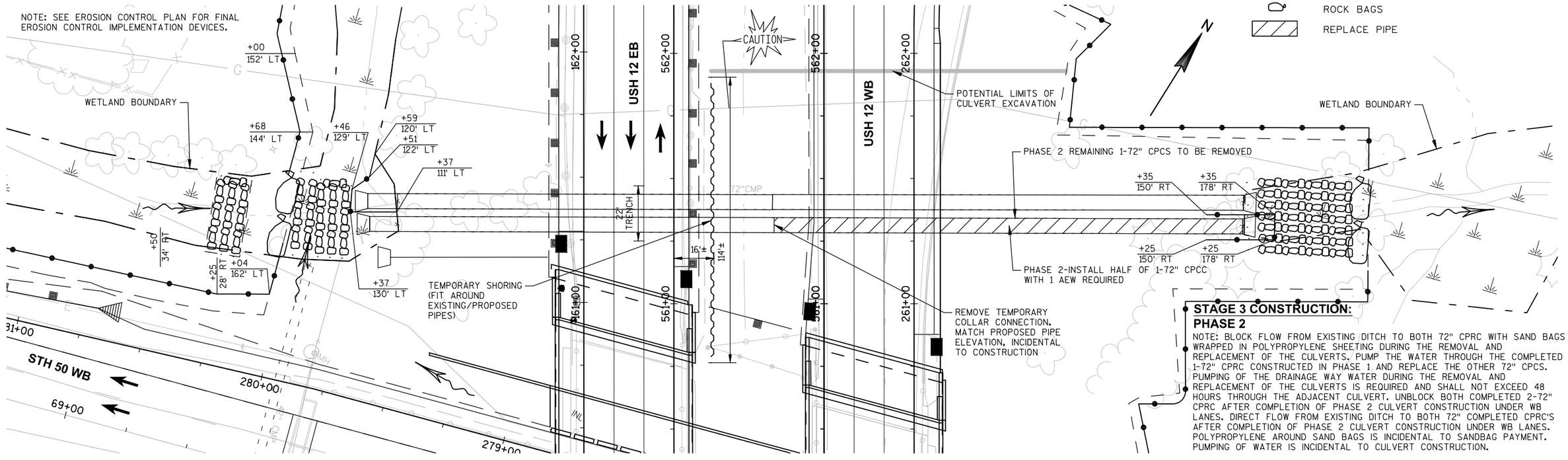
STAGE 3 CONSTRUCTION: PHASE 1

NOTE: BLOCK FLOW FROM EXISTING DITCH TO THE COMPLETED 2-72" CPRC CONSTRUCTED IN STAGE 2 WITH SAND BAGS WRAPPED IN POLYPROPYLENE SHEETING DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS. PUMP THE WATER THROUGH 1-72" CPRC/CPCS AND REPLACE THE OTHER 72" CPCS. PUMPING OF THE DRAINAGE WAY WATER DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS IS REQUIRED AND SHALL NOT EXCEED 48 HOURS THROUGH THE ADJACENT CULVERT. POLYPROPYLENE AROUND SAND BAGS IS INCIDENTAL TO SANDBAG PAYMENT. PUMPING OF WATER IS INCIDENTAL TO CULVERT CONSTRUCTION.

LEGEND

- SILT FENCE
- SILT FENCE HEAVY DUTY
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- ROCK BAGS
- REPLACE PIPE

NOTE: SEE EROSION CONTROL PLAN FOR FINAL EROSION CONTROL IMPLEMENTATION DEVICES.

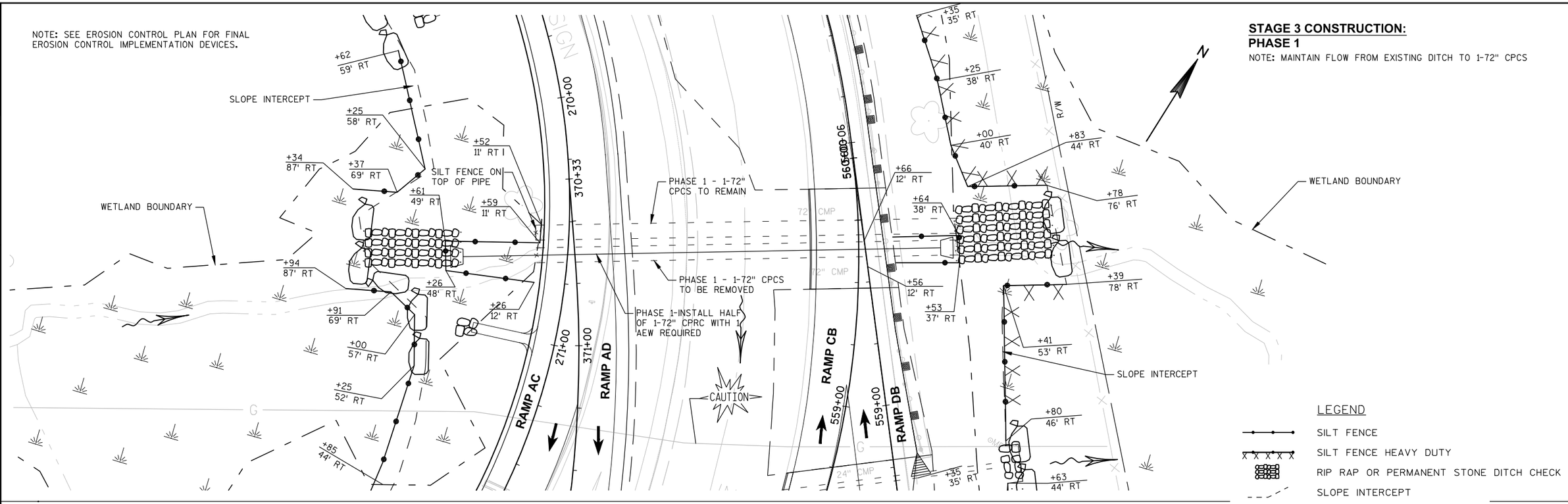


STAGE 3 CONSTRUCTION: PHASE 2

NOTE: BLOCK FLOW FROM EXISTING DITCH TO BOTH 72" CPRC WITH SAND BAGS WRAPPED IN POLYPROPYLENE SHEETING DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS. PUMP THE WATER THROUGH THE COMPLETED 1-72" CPRC CONSTRUCTED IN PHASE 1 AND REPLACE THE OTHER 72" CPCS. PUMPING OF THE DRAINAGE WAY WATER DURING THE REMOVAL AND REPLACEMENT OF THE CULVERTS IS REQUIRED AND SHALL NOT EXCEED 48 HOURS THROUGH THE ADJACENT CULVERT. UNBLOCK BOTH COMPLETED 2-72" CPRC AFTER COMPLETION OF PHASE 2 CULVERT CONSTRUCTION UNDER WB LANES. DIRECT FLOW FROM EXISTING DITCH TO BOTH 72" COMPLETED CPRC'S AFTER COMPLETION OF PHASE 2 CULVERT CONSTRUCTION UNDER WB LANES. POLYPROPYLENE AROUND SAND BAGS IS INCIDENTAL TO SANDBAG PAYMENT. PUMPING OF WATER IS INCIDENTAL TO CULVERT CONSTRUCTION.

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CONSTRUCTION DETAIL - CULVERT INSTALLATION USH 12	SHEET 20 - E

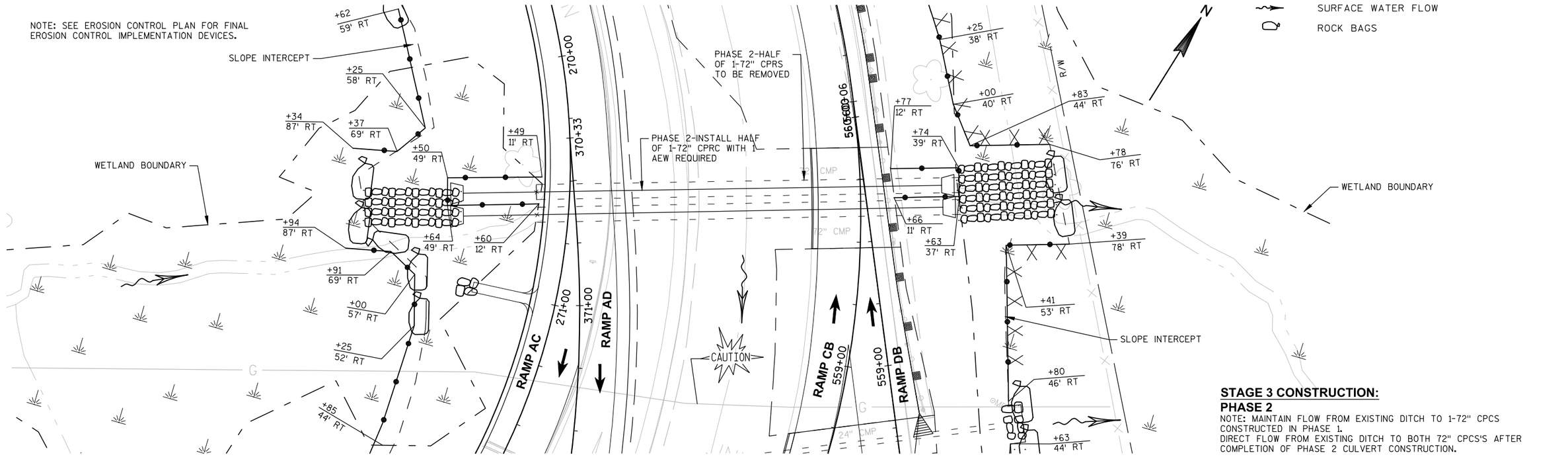
NOTE: SEE EROSION CONTROL PLAN FOR FINAL EROSION CONTROL IMPLEMENTATION DEVICES.



STAGE 3 CONSTRUCTION:
PHASE 1
NOTE: MAINTAIN FLOW FROM EXISTING DITCH TO 1-72" CPCS

LEGEND
- SILT FENCE
- SILT FENCE HEAVY DUTY
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- ROCK BAGS

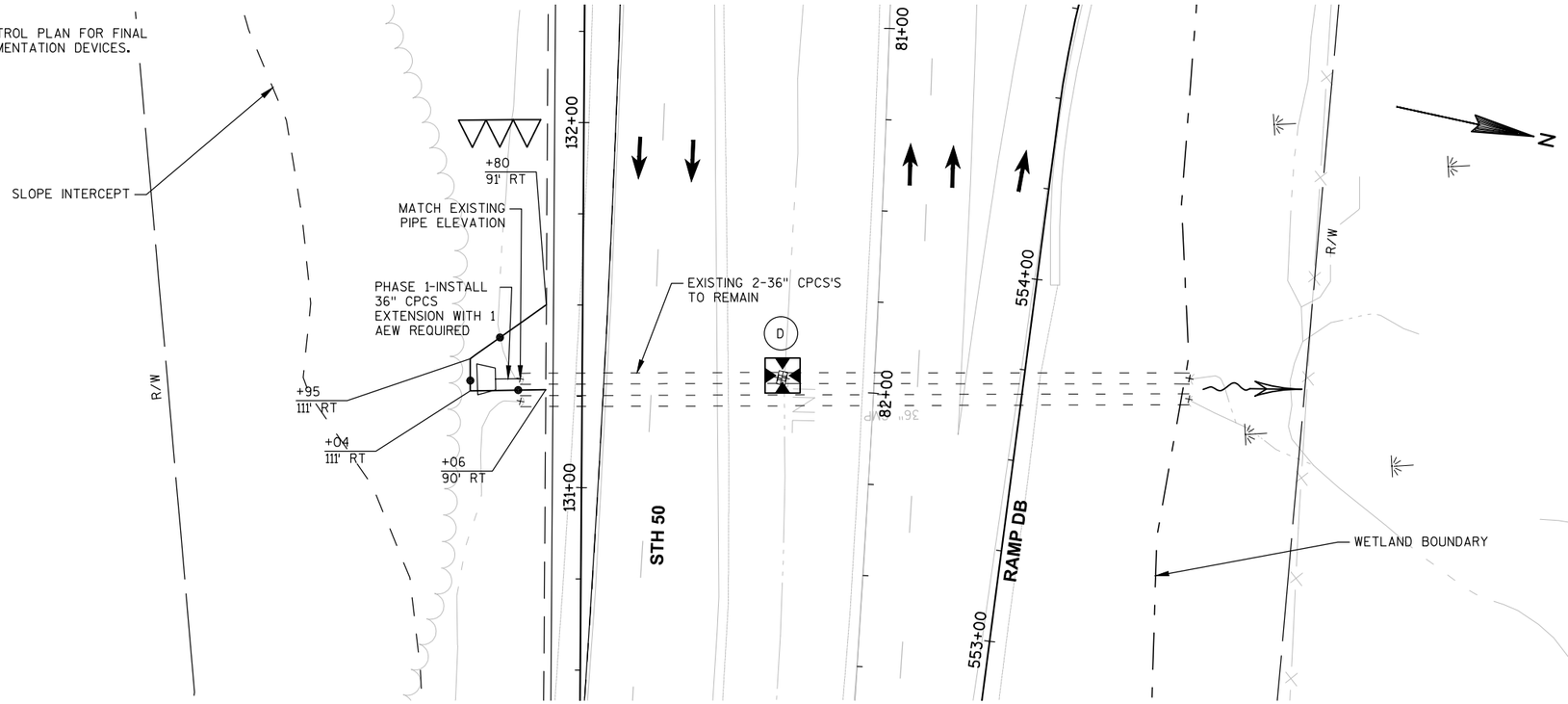
NOTE: SEE EROSION CONTROL PLAN FOR FINAL EROSION CONTROL IMPLEMENTATION DEVICES.



STAGE 3 CONSTRUCTION:
PHASE 2
NOTE: MAINTAIN FLOW FROM EXISTING DITCH TO 1-72" CPCS CONSTRUCTED IN PHASE 1.
DIRECT FLOW FROM EXISTING DITCH TO BOTH 72" CPCS'S AFTER COMPLETION OF PHASE 2 CULVERT CONSTRUCTION.

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CONSTRUCTION DETAIL - CULVERT INSTALLATION RAMP AC/DB	SHEET 21 - E

NOTE: SEE EROSION CONTROL PLAN FOR FINAL EROSION CONTROL IMPLEMENTATION DEVICES.

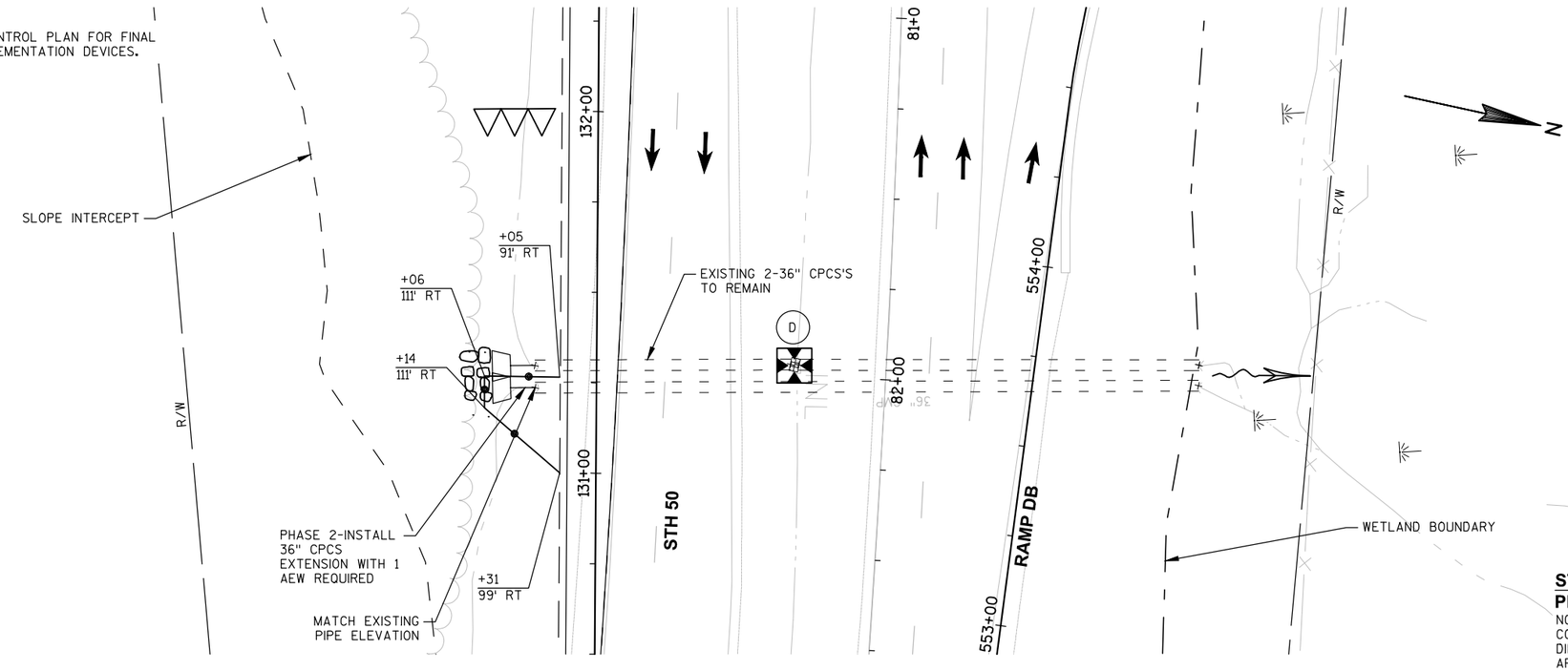


STAGE 2 CONSTRUCTION:
PHASE 1
NOTE: MAINTAIN FLOW FROM EXISTING DITCH TO 1-36" CPCS

LEGEND

- SILT FENCE
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- D — INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW

NOTE: SEE EROSION CONTROL PLAN FOR FINAL EROSION CONTROL IMPLEMENTATION DEVICES.



STAGE 2 CONSTRUCTION:
PHASE 2
NOTE: MAINTAIN FLOW FROM EXISTING DITCH TO 1-36" CPCS CONSTRUCTED IN PHASE 1.
DIRECT FLOW FROM EXISTING DITCH TO BOTH 36" CPCS'S AFTER COMPLETION OF CULVERT CONSTRUCTION.

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CONSTRUCTION DETAIL - CULVERT INSTALLATION STH 50	SHEET 22 - E

2

BEGIN PROJECT 1080-12-71
STA. 546+50

BEGIN RESUFACING
RAMP CA

USH 12 PGL

ASPHALTIC SURFACE BUTT JOINT
SEE CONSTRUCTION DETAILS

R/W

RAMP CA

USH 12 EB

USH 12 WB

USH 12 R/L

R/W

BEGIN RECONSTRUCTION
STA 546+50
SEE PLAN & PROFILE SHEETS

SLOPE INTERCEPT

STA 550+00

MATCHLINE

536 540 545 545 550

540 545 545 550

535 540

530

525

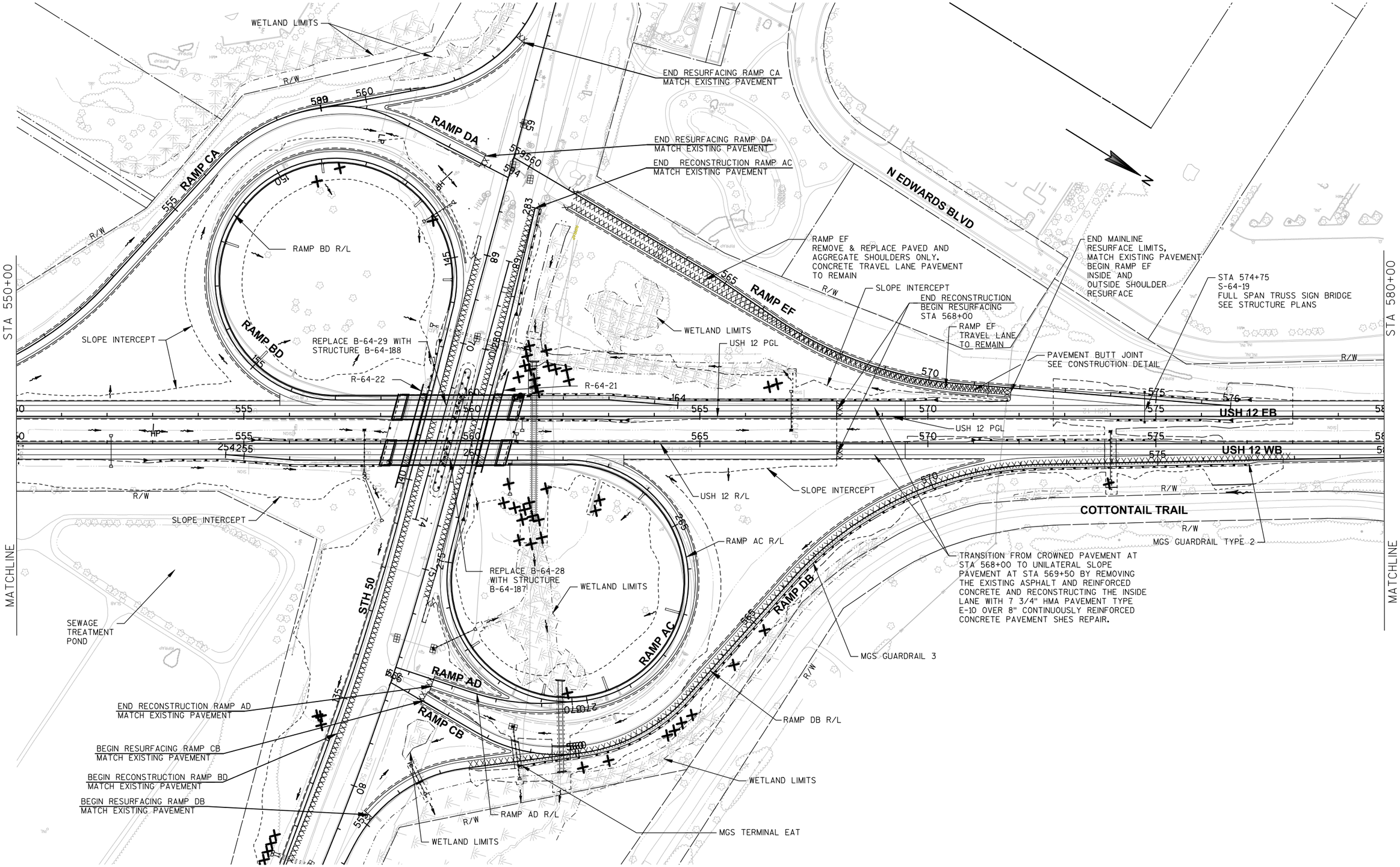
520

30" CMP

24" PVC

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAIL	SHEET 23 - E

2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAIL	SHEET 24 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\021202_PD.DWG PLOT DATE : 2/18/2014 11:56 AM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2

STA 580+00

TRANSITION FROM A UNILATERAL CROSS SLOPE ON USH 12 AT STA 588+50 TO A CROWN SECTION AT THE EXISTING USH 12 MATCH POINT AT STA 590+00

WHITE RIVER

SHERIDAN SPRINGS ROAD

N

R/W

USH 12 EB

USH 12 WB

USH 12 R/L

585 590 595 600 605 610

ASPH

CONC

CONCRETE BOX CULVERT

18" RCP

6MP

END PROJECT 1080-12-71
STA. 590+00

MATCHLINE

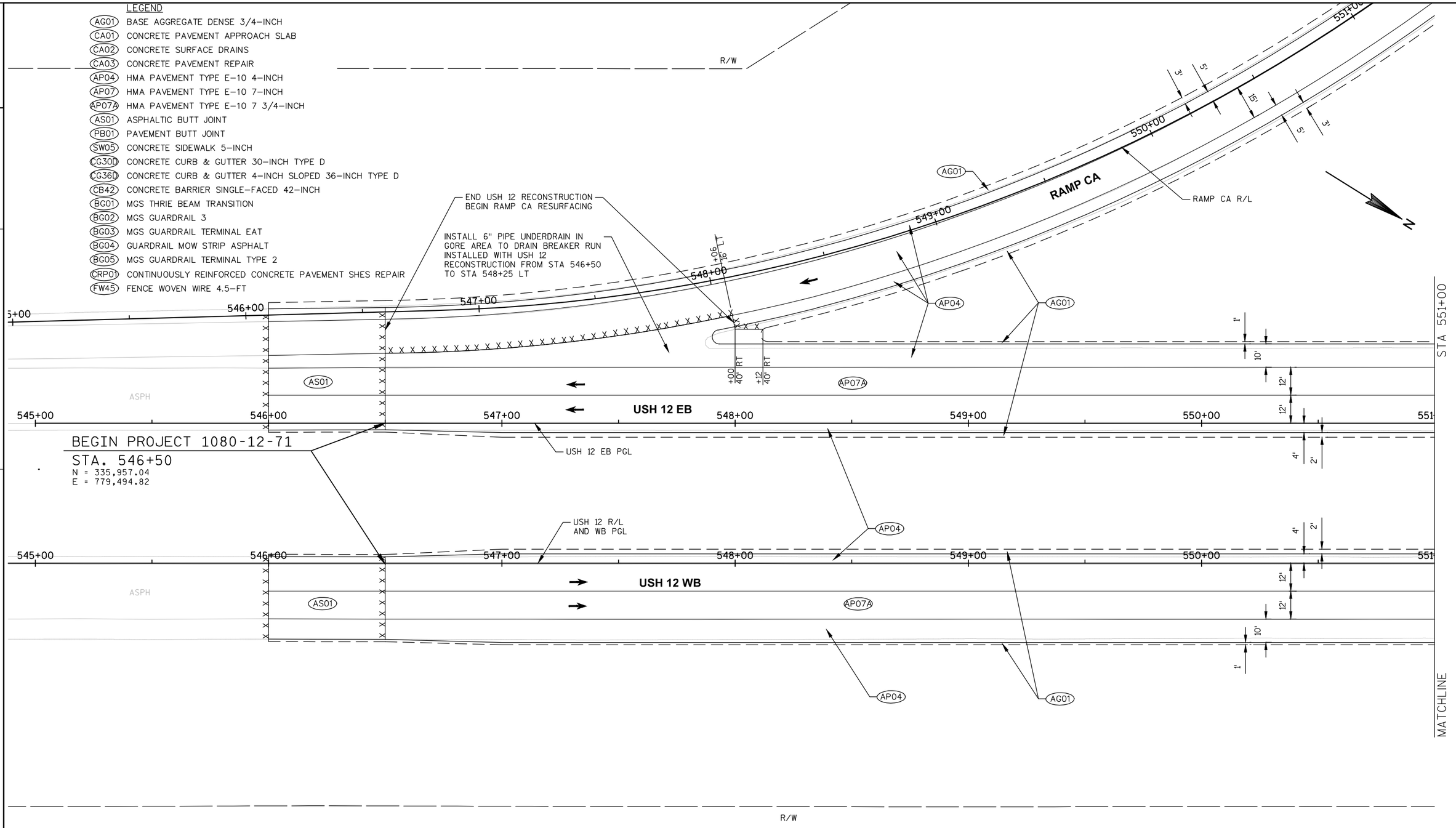
WHITE RIVER

SHERIDAN SPRINGS ROAD

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN DETAIL	SHEET 25 - E

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH
CA01	CONCRETE PAVEMENT APPROACH SLAB
CA02	CONCRETE SURFACE DRAINS
CA03	CONCRETE PAVEMENT REPAIR
AP04	HMA PAVEMENT TYPE E-10 4-INCH
AP07	HMA PAVEMENT TYPE E-10 7-INCH
AP07A	HMA PAVEMENT TYPE E-10 7 3/4-INCH
AS01	ASPHALTIC BUTT JOINT
PB01	PAVEMENT BUTT JOINT
SW05	CONCRETE SIDEWALK 5-INCH
CG30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG36D	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
CB42	CONCRETE BARRIER SINGLE-FACED 42-INCH
BG01	MGS THRIE BEAM TRANSITION
BG02	MGS GUARDRAIL 3
BG03	MGS GUARDRAIL TERMINAL EAT
BG04	GUARDRAIL MOW STRIP ASPHALT
BG05	MGS GUARDRAIL TERMINAL TYPE 2
CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
FW45	FENCE WOVEN WIRE 4.5-FT



BEGIN PROJECT 1080-12-71

STA. 546+50

N = 335,957.04

E = 779,494.82

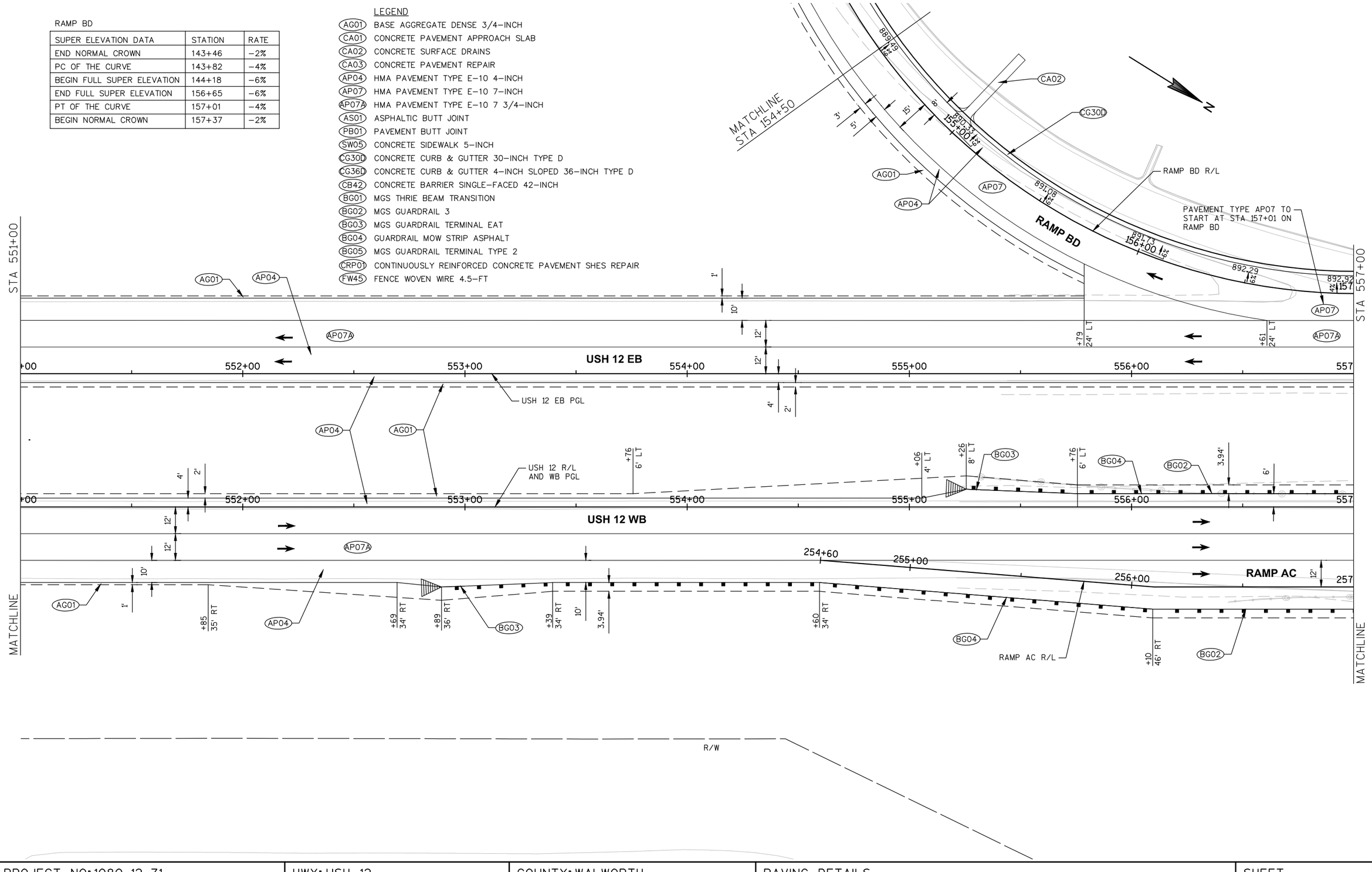
PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS	SHEET 26 - E

RAMP BD

SUPER ELEVATION DATA	STATION	RATE
END NORMAL CROWN	143+46	−2%
PC OF THE CURVE	143+82	−4%
BEGIN FULL SUPER ELEVATION	144+18	−6%
END FULL SUPER ELEVATION	156+65	−6%
PT OF THE CURVE	157+01	−4%
BEGIN NORMAL CROWN	157+37	−2%

LEGEND

- AG01 BASE AGGREGATE DENSE 3/4−INCH
- CA01 CONCRETE PAVEMENT APPROACH SLAB
- CA02 CONCRETE SURFACE DRAINS
- CA03 CONCRETE PAVEMENT REPAIR
- AP04 HMA PAVEMENT TYPE E−10 4−INCH
- AP07 HMA PAVEMENT TYPE E−10 7−INCH
- AP07A HMA PAVEMENT TYPE E−10 7 3/4−INCH
- AS01 ASPHALTIC BUTT JOINT
- PB01 PAVEMENT BUTT JOINT
- SW05 CONCRETE SIDEWALK 5−INCH
- CG30D CONCRETE CURB & GUTTER 30−INCH TYPE D
- CG36D CONCRETE CURB & GUTTER 4−INCH SLOPED 36−INCH TYPE D
- CB42 CONCRETE BARRIER SINGLE−FACED 42−INCH
- BG01 MGS THRIE BEAM TRANSITION
- BG02 MGS GUARDRAIL 3
- BG03 MGS GUARDRAIL TERMINAL EAT
- BG04 GUARDRAIL MOW STRIP ASPHALT
- BG05 MGS GUARDRAIL TERMINAL TYPE 2
- CRP01 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
- FW45 FENCE WOVEN WIRE 4.5−FT



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS	SHEET 27 - E

RAMP BD

SUPER ELEVATION DATA	STATION	RATE
END NORMAL CROWN	143+46	−2%
PC OF THE CURVE	143+82	−4%
BEGIN FULL SUPER ELEVATION	144+18	−6%
END FULL SUPER ELEVATION	156+65	−6%
PT OF THE CURVE	157+01	−4%
BEGIN NORMAL CROWN	157+37	−2%

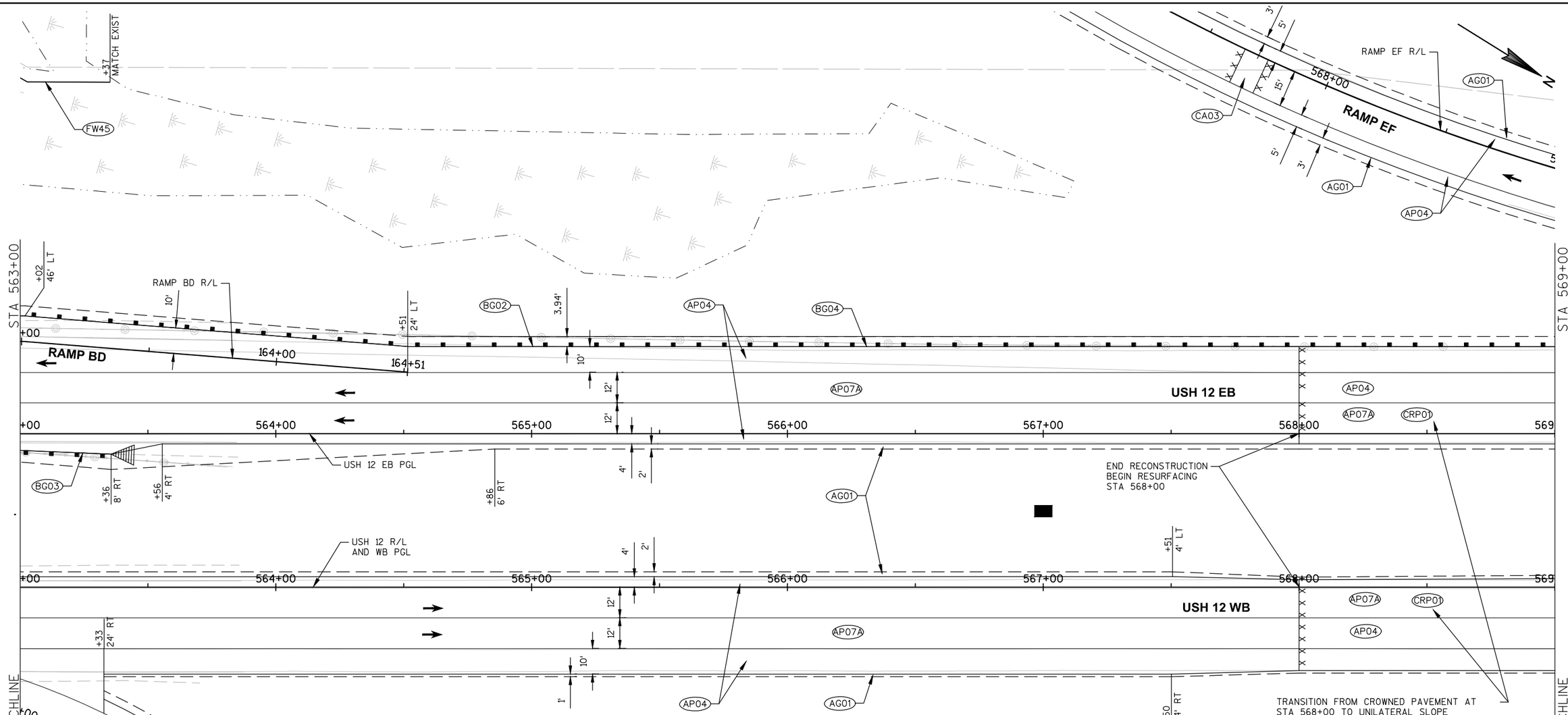
RAMP AC

SUPER ELEVATION DATA	STATION	RATE
END NORMAL CROWN	261+74	−2%
PC OF THE CURVE	262+10	−4%
BEGIN FULL SUPER ELEVATION	262+46	−6%
END FULL SUPER ELEVATION	274+93	−6%
PT OF THE CURVE	275+29	−4%
BEGIN NORMAL CROWN	275+65.24	−2%

LEGEND

AG01	BASE AGGREGATE DENSE 3/4−INCH
CA01	CONCRETE PAVEMENT APPROACH SLAB
CA02	CONCRETE SURFACE DRAINS
CA03	CONCRETE PAVEMENT REPAIR
AP04	HMA PAVEMENT TYPE E−10 4−INCH
AP07	HMA PAVEMENT TYPE E−10 7−INCH
AP07A	HMA PAVEMENT TYPE E−10 7 3/4−INCH
AS01	ASPHALTIC BUTT JOINT
PB01	PAVEMENT BUTT JOINT
SW05	CONCRETE SIDEWALK 5−INCH
CG30D	CONCRETE CURB & GUTTER 30−INCH TYPE D
CG36D	CONCRETE CURB & GUTTER 4−INCH SLOPED 36−INCH TYPE D
CB42	CONCRETE BARRIER SINGLE−FACED 42−INCH
BG01	MGS THRIE BEAM TRANSITION
BG02	MGS GUARDRAIL 3
BG03	MGS GUARDRAIL TERMINAL EAT
BG04	GUARDRAIL MOW STRIP ASPHALT
BG05	MGS GUARDRAIL TERMINAL TYPE 2
CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
FW45	FENCE WOVEN WIRE 4.5−FT

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS	SHEET 28 - E



RAMP AC

SUPER ELEVATION DATA	STATION	RATE
END NORMAL CROWN	261+74	−2%
PC OF THE CURVE	262+10	−4%
BEGIN FULL SUPER ELEVATION	262+46	−6%
END FULL SUPER ELEVATION	274+93	−6%
PT OF THE CURVE	275+29	−4%
BEGIN NORMAL CROWN	275+65	−2%

LEGEND

AG01	BASE AGGREGATE DENSE 3/4−INCH	CG30D	CONCRETE CURB & GUTTER 30−INCH TYPE D
CA01	CONCRETE PAVEMENT APPROACH SLAB	CG36D	CONCRETE CURB & GUTTER 4−INCH SLOPED 36−INCH TYPE D
CA02	CONCRETE SURFACE DRAINS	CB42	CONCRETE BARRIER SINGLE−FACED 42−INCH
CA03	CONCRETE PAVEMENT REPAIR	BG01	MGS THRIE BEAM TRANSITION
AP04	HMA PAVEMENT TYPE E−10 4−INCH	BG02	MGS GUARDRAIL 3
AP07	HMA PAVEMENT TYPE E−10 7−INCH	BG03	MGS GUARDRAIL TERMINAL EAT
AP07A	HMA PAVEMENT TYPE E−10 7 3/4−INCH	BG04	GUARDRAIL MOW STRIP ASPHALT
AS01	ASPHALTIC BUTT JOINT	BG05	MGS GUARDRAIL TERMINAL TYPE 2
PB01	PAVEMENT BUTT JOINT	CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
SW05	CONCRETE SIDEWALK 5−INCH	FW45	FENCE WOVEN WIRE 4.5−FT

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS	SHEET 29 - E

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
CA01	CONCRETE PAVEMENT APPROACH SLAB	CG36D	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
CA02	CONCRETE SURFACE DRAINS	CB42	CONCRETE BARRIER SINGLE-FACED 42-INCH
CA03	CONCRETE PAVEMENT REPAIR	BG01	MGS THRIE BEAM TRANSITION
AP04	HMA PAVEMENT TYPE E-10 4-INCH	BG02	MGS GUARDRAIL 3
AP07	HMA PAVEMENT TYPE E-10 7-INCH	BG03	MGS GUARDRAIL TERMINAL EAT
AP07A	HMA PAVEMENT TYPE E-10 7 3/4-INCH	BG04	GUARDRAIL MOW STRIP ASPHALT
AS01	ASPHALTIC BUTT JOINT	BG05	MGS GUARDRAIL TERMINAL TYPE 2
PB01	PAVEMENT BUTT JOINT	CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
SW05	CONCRETE SIDEWALK 5-INCH	FW45	FENCE WOVEN WIRE 4.5-FT

R/W

69+00 570+00 571+00 572+00 573+00 574+00 575

EXISTING TRAVEL LANE CONCRETE PAVEMENT TO REMAIN

END MAINLINE RESURFACE LIMITS BEGIN RAMP EF INSIDE AND OUTSIDE SHOULDER RESURFACE

BEGIN SHOULDER RECONSTRUCTION

RAMP EF R/L

PROPOSED SIGN BRIDGE S-64-19

RAMP EF

STA 569+00

STA 575+00

USH 12 EB

USH 12 EB PGL

TRANSITION FROM CROWNED PAVEMENT AT STA 568+00 TO UNILATERAL SLOPE PAVEMENT AT STA 569+50 BY REMOVING THE EXISTING ASPHALT AND REINFORCED CONCRETE AND RECONSTRUCTING THE INSIDE LANE WITH 7 3/4" HMA PAVEMENT TYPE E-10 OVER 8" CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR.

BEGIN SHOULDER RECONSTRUCTION

USH 12 R/L AND WB PGL

USH 12 WB

MATCHLINE

MATCHLINE

RAMP DB

RAMP DB R/L

569+00 570+00 571+00 572+00 573+00 574+00 575

R/W

+90 MATCH EXIST

+15 MATCH EXIST

PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS	SHEET 30 - E

2

N EDWARDS BLVD

R/W

LEGEND

AG01	BASE AGGREGATE DENSE 3/4–INCH
CA01	CONCRETE PAVEMENT APPROACH SLAB
CA02	CONCRETE SURFACE DRAINS
CA03	CONCRETE PAVEMENT REPAIR
AP04	HMA PAVEMENT TYPE E–10 4–INCH
AP07	HMA PAVEMENT TYPE E–10 7–INCH
AP07A	HMA PAVEMENT TYPE E–10 7 3/4–INCH
AS01	ASPHALTIC BUTT JOINT
PB01	PAVEMENT BUTT JOINT
SW05	CONCRETE SIDEWALK 5–INCH
CG30D	CONCRETE CURB & GUTTER 30–INCH TYPE D
CG36D	CONCRETE CURB & GUTTER 4–INCH SLOPED 36–INCH TYPE D
CB42	CONCRETE BARRIER SINGLE–FACED 42–INCH
BG01	MGS THRIE BEAM TRANSITION
BG02	MGS GUARDRAIL 3
BG03	MGS GUARDRAIL TERMINAL EAT
BG04	GUARDRAIL MOW STRIP ASPHALT
BG05	MGS GUARDRAIL TERMINAL TYPE 2
CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
FW45	FENCE WOVEN WIRE 4.5–FT

STA 575+00

STA 581+00

BG04 BG02 RAMP EF R/L +30 34' LT BG03 +00 36' LT +06 35' LT 10' 1' AP04

+00 RAMP EF 576+00 576+64

AP04 12'

+00 576+00 577+00 USH 12 EB 578+00 579+00 580+00 581

+10 6' RT +60 8' RT +80 4' RT +80 6' RT 2' 4' USH 12 EB PGL

AP04

+25 6' LT +45 4' LT +45 6' LT

+00 576+00 577+00 578+00 USH 12 R/L AND WB PGL 579+00 580+00 581

USH 12 WB

+86 24' RT AP04

5+00 RAMP DB 576+00 577+00 578+00 579+00 580+00 58

AP04

MATCHLINE

BG04 BG02 RAMP DB R/L BG05 +04 45' RT +24 40' RT +79 42' RT

MATCHLINE

FW45

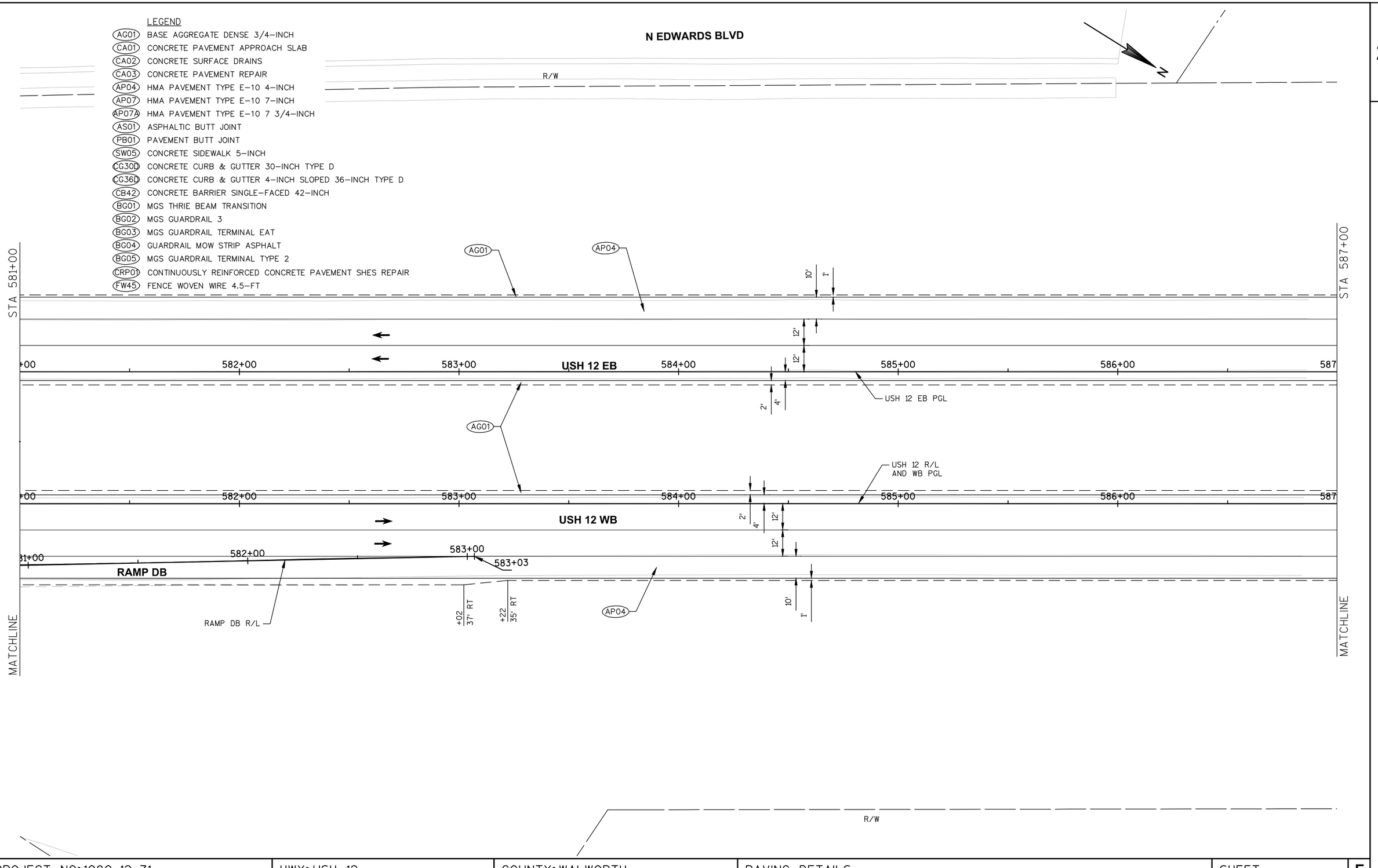
+24 MATCH EXIST +15 MATCH EXIST

R/W

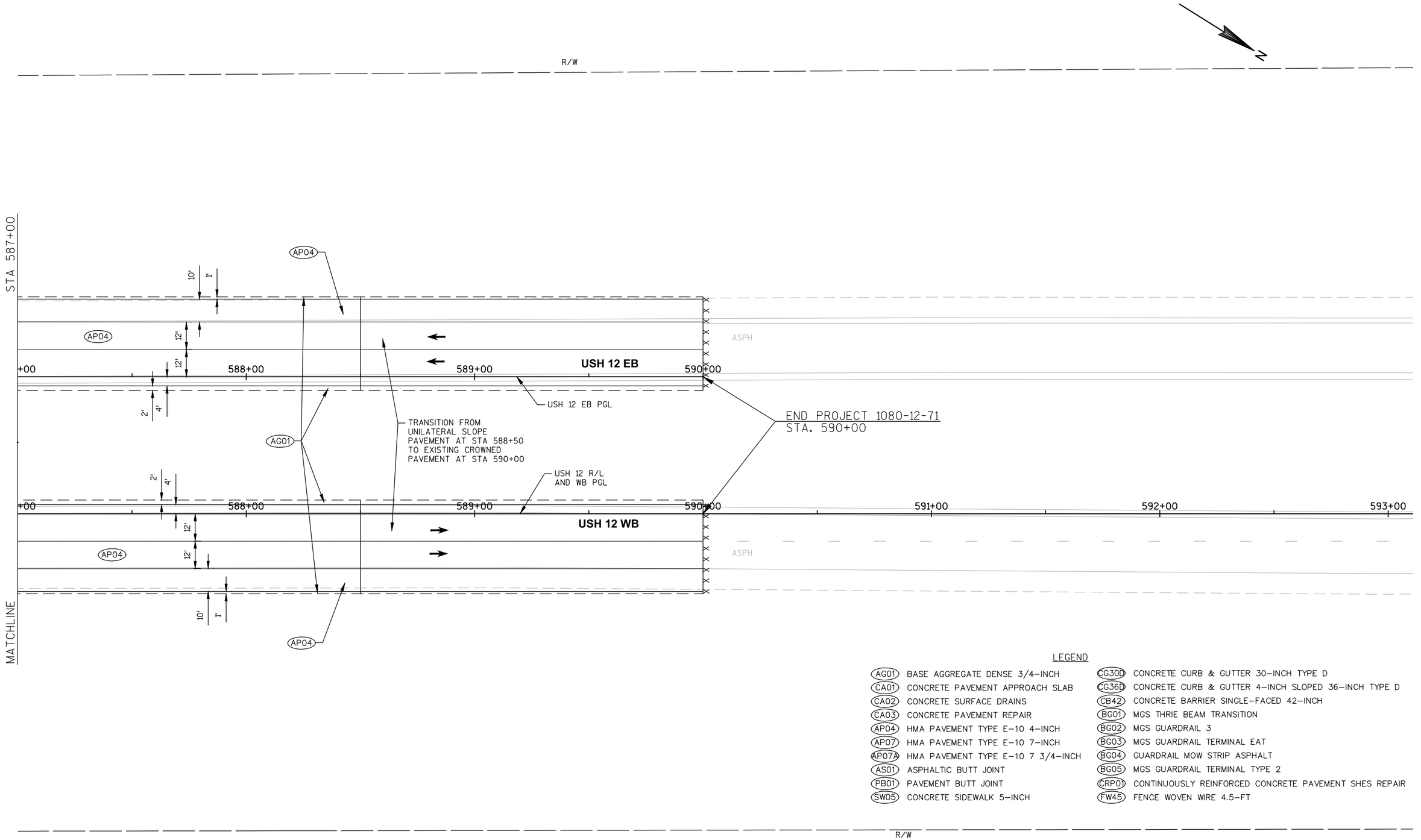
PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS	SHEET 31 - E

LEGEND

- AG01 BASE AGGREGATE DENSE 3/4–INCH
- CA01 CONCRETE PAVEMENT APPROACH SLAB
- CA02 CONCRETE SURFACE DRAINS
- CA03 CONCRETE PAVEMENT REPAIR
- AP04 HMA PAVEMENT TYPE E–10 4–INCH
- AP07 HMA PAVEMENT TYPE E–10 7–INCH
- AP07A HMA PAVEMENT TYPE E–10 7 3/4–INCH
- AS01 ASPHALTIC BUTT JOINT
- PB01 PAVEMENT BUTT JOINT
- SW05 CONCRETE SIDEWALK 5–INCH
- CG30D CONCRETE CURB & GUTTER 30–INCH TYPE D
- CG36D CONCRETE CURB & GUTTER 4–INCH SLOPED 36–INCH TYPE D
- CB42 CONCRETE BARRIER SINGLE–FACED 42–INCH
- BG01 MGS THRIE BEAM TRANSITION
- BG02 MGS GUARDRAIL 3
- BG03 MGS GUARDRAIL TERMINAL EAT
- BG04 GUARDRAIL MOW STRIP ASPHALT
- BG05 MGS GUARDRAIL TERMINAL TYPE 2
- CRP01 CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
- FW45 FENCE WOVEN WIRE 4.5–FT



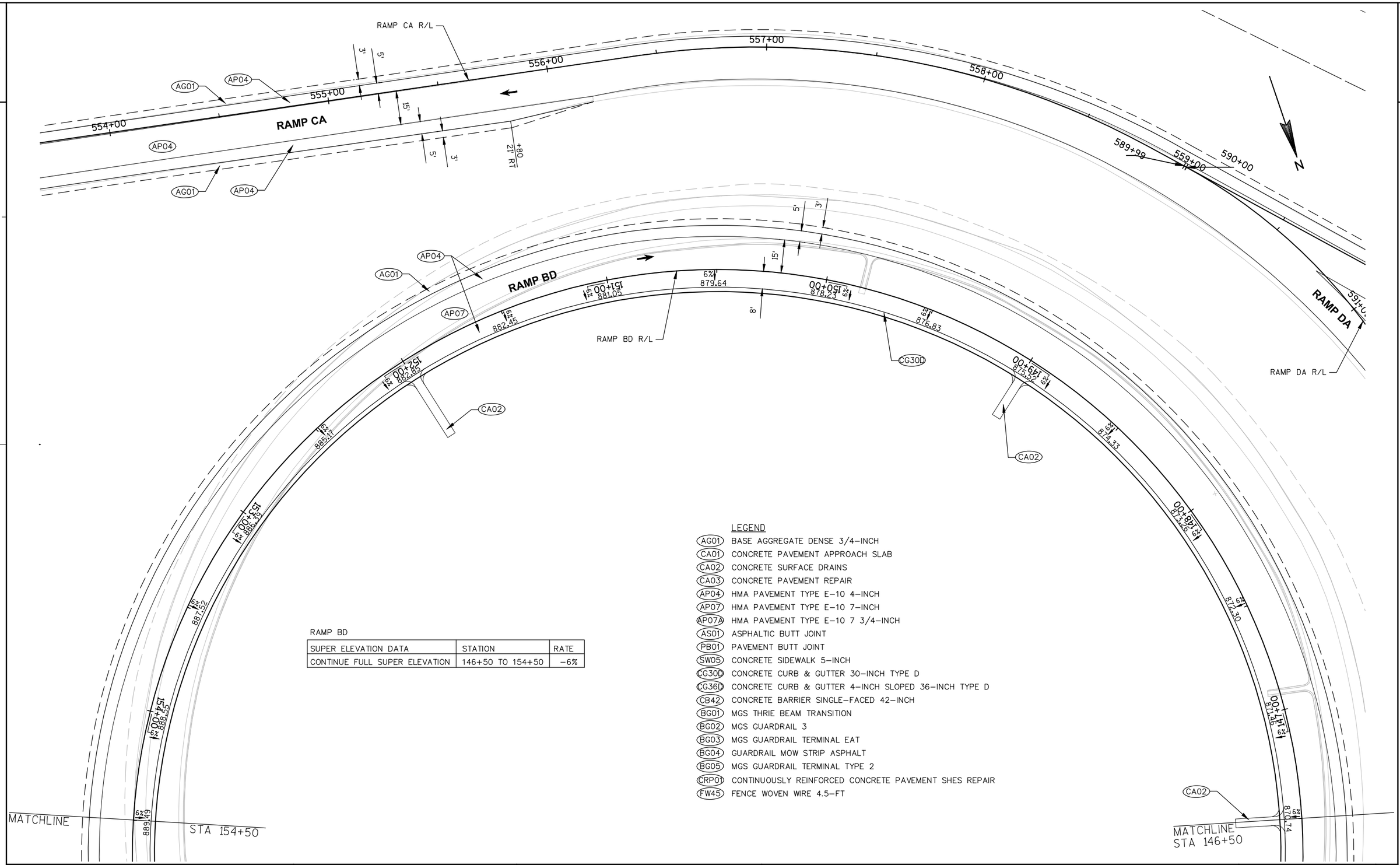
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS	SHEET 32 - E



LEGEND

AG01	BASE AGGREGATE DENSE 3/4–INCH	CG30D	CONCRETE CURB & GUTTER 30–INCH TYPE D
CA01	CONCRETE PAVEMENT APPROACH SLAB	CG36D	CONCRETE CURB & GUTTER 4–INCH SLOPED 36–INCH TYPE D
CA02	CONCRETE SURFACE DRAINS	CB42	CONCRETE BARRIER SINGLE–FACED 42–INCH
CA03	CONCRETE PAVEMENT REPAIR	BG01	MGS THRIE BEAM TRANSITION
AP04	HMA PAVEMENT TYPE E–10 4–INCH	BG02	MGS GUARDRAIL 3
AP07	HMA PAVEMENT TYPE E–10 7–INCH	BG03	MGS GUARDRAIL TERMINAL EAT
AP07A	HMA PAVEMENT TYPE E–10 7 3/4–INCH	BG04	GUARDRAIL MOW STRIP ASPHALT
AS01	ASPHALTIC BUTT JOINT	BG05	MGS GUARDRAIL TERMINAL TYPE 2
PB01	PAVEMENT BUTT JOINT	CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
SW05	CONCRETE SIDEWALK 5–INCH	FW45	FENCE WOVEN WIRE 4.5–FT

2



RAMP BD

SUPER ELEVATION DATA	STATION	RATE
CONTINUE FULL SUPER ELEVATION	146+50 TO 154+50	−6%

LEGEND

AG01	BASE AGGREGATE DENSE 3/4−INCH
CA01	CONCRETE PAVEMENT APPROACH SLAB
CA02	CONCRETE SURFACE DRAINS
CA03	CONCRETE PAVEMENT REPAIR
AP04	HMA PAVEMENT TYPE E−10 4−INCH
AP07	HMA PAVEMENT TYPE E−10 7−INCH
AP07A	HMA PAVEMENT TYPE E−10 7 3/4−INCH
AS01	ASPHALTIC BUTT JOINT
PB01	PAVEMENT BUTT JOINT
SW05	CONCRETE SIDEWALK 5−INCH
CG30D	CONCRETE CURB & GUTTER 30−INCH TYPE D
CG36D	CONCRETE CURB & GUTTER 4−INCH SLOPED 36−INCH TYPE D
CB42	CONCRETE BARRIER SINGLE−FACED 42−INCH
BG01	MGS THRIE BEAM TRANSITION
BG02	MGS GUARDRAIL 3
BG03	MGS GUARDRAIL TERMINAL EAT
BG04	GUARDRAIL MOW STRIP ASPHALT
BG05	MGS GUARDRAIL TERMINAL TYPE 2
CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
FW45	FENCE WOVEN WIRE 4.5−FT

PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS - RAMP BD & CA	SHEET 34 - E

LEGEND

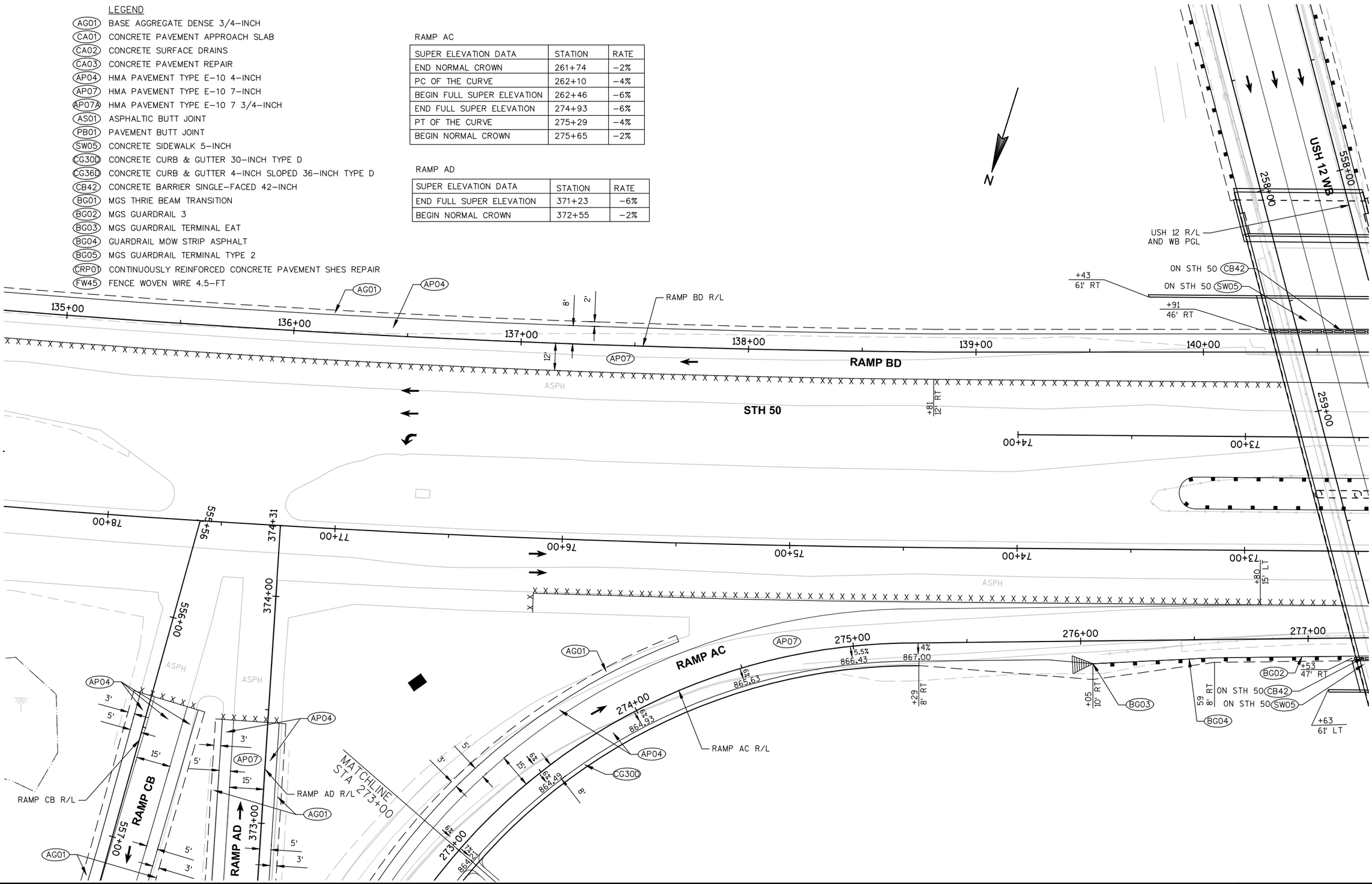
AG01	BASE AGGREGATE DENSE 3/4–INCH
CA01	CONCRETE PAVEMENT APPROACH SLAB
CA02	CONCRETE SURFACE DRAINS
CA03	CONCRETE PAVEMENT REPAIR
AP04	HMA PAVEMENT TYPE E–10 4–INCH
AP07	HMA PAVEMENT TYPE E–10 7–INCH
AP07A	HMA PAVEMENT TYPE E–10 7 3/4–INCH
AS01	ASPHALTIC BUTT JOINT
PB01	PAVEMENT BUTT JOINT
SW05	CONCRETE SIDEWALK 5–INCH
CG30D	CONCRETE CURB & GUTTER 30–INCH TYPE D
CG36D	CONCRETE CURB & GUTTER 4–INCH SLOPED 36–INCH TYPE D
CB42	CONCRETE BARRIER SINGLE–FACED 42–INCH
BG01	MGS THRIE BEAM TRANSITION
BG02	MGS GUARDRAIL 3
BG03	MGS GUARDRAIL TERMINAL EAT
BG04	GUARDRAIL MOW STRIP ASPHALT
BG05	MGS GUARDRAIL TERMINAL TYPE 2
CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
FW45	FENCE WOVEN WIRE 4.5–FT

RAMP AC

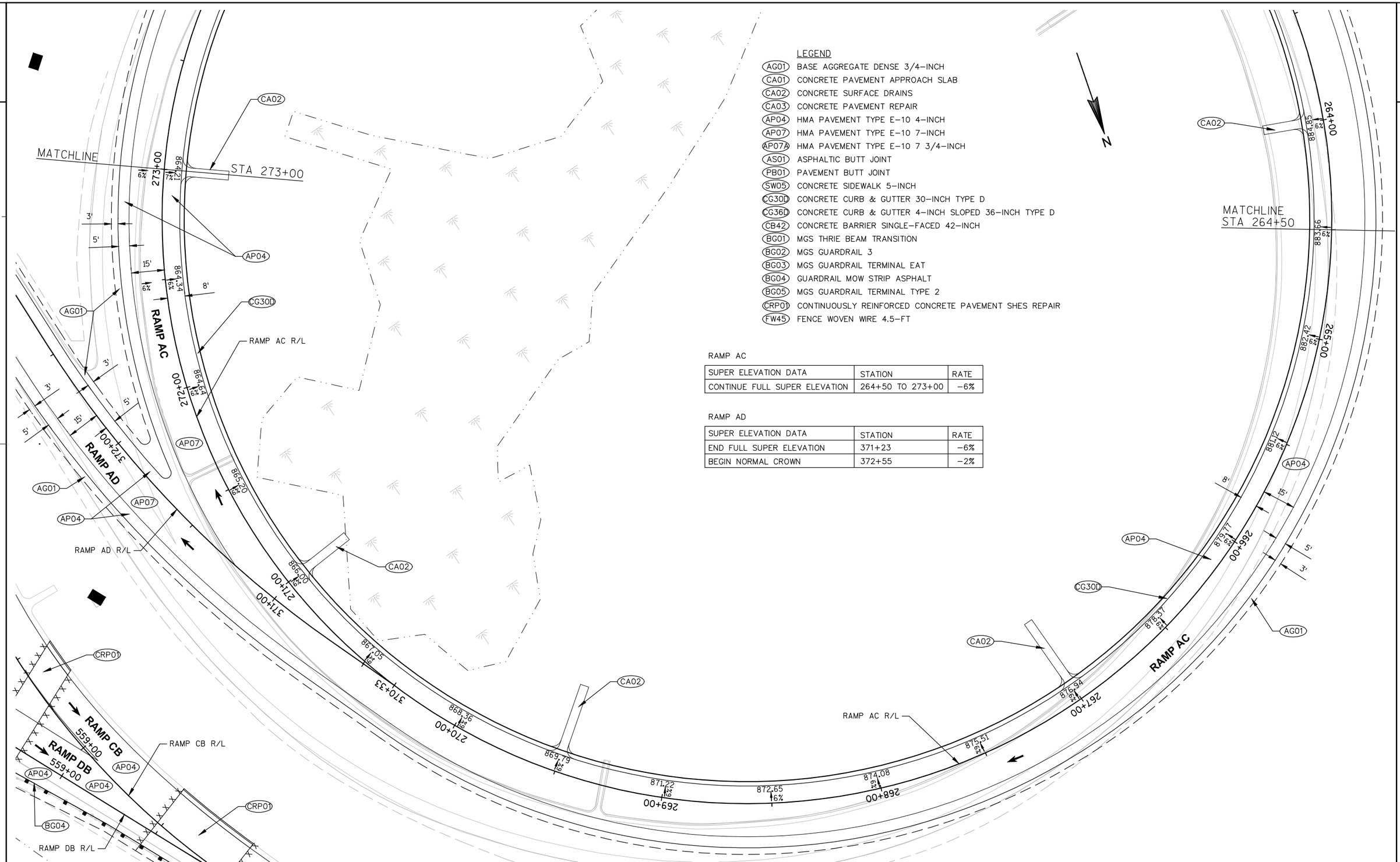
SUPER ELEVATION DATA	STATION	RATE
END NORMAL CROWN	261+74	–2%
PC OF THE CURVE	262+10	–4%
BEGIN FULL SUPER ELEVATION	262+46	–6%
END FULL SUPER ELEVATION	274+93	–6%
PT OF THE CURVE	275+29	–4%
BEGIN NORMAL CROWN	275+65	–2%

RAMP AD

SUPER ELEVATION DATA	STATION	RATE
END FULL SUPER ELEVATION	371+23	–6%
BEGIN NORMAL CROWN	372+55	–2%



PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS - RAMP AC	SHEET 35 - E



LEGEND

AG01	BASE AGGREGATE DENSE 3/4–INCH
CA01	CONCRETE PAVEMENT APPROACH SLAB
CA02	CONCRETE SURFACE DRAINS
CA03	CONCRETE PAVEMENT REPAIR
AP04	HMA PAVEMENT TYPE E–10 4–INCH
AP07	HMA PAVEMENT TYPE E–10 7–INCH
AP07A	HMA PAVEMENT TYPE E–10 7 3/4–INCH
AS01	ASPHALTIC BUTT JOINT
PB01	PAVEMENT BUTT JOINT
SW05	CONCRETE SIDEWALK 5–INCH
CG30D	CONCRETE CURB & GUTTER 30–INCH TYPE D
CG36D	CONCRETE CURB & GUTTER 4–INCH SLOPED 36–INCH TYPE D
CB42	CONCRETE BARRIER SINGLE–FACED 42–INCH
BG01	MGS THRIE BEAM TRANSITION
BG02	MGS GUARDRAIL 3
BG03	MGS GUARDRAIL TERMINAL EAT
BG04	GUARDRAIL MOW STRIP ASPHALT
BG05	MGS GUARDRAIL TERMINAL TYPE 2
CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
FW45	FENCE WOVEN WIRE 4.5–FT

RAMP AC

SUPER ELEVATION DATA	STATION	RATE
CONTINUE FULL SUPER ELEVATION	264+50 TO 273+00	–6%

RAMP AD

SUPER ELEVATION DATA	STATION	RATE
END FULL SUPER ELEVATION	371+23	–6%
BEGIN NORMAL CROWN	372+55	–2%

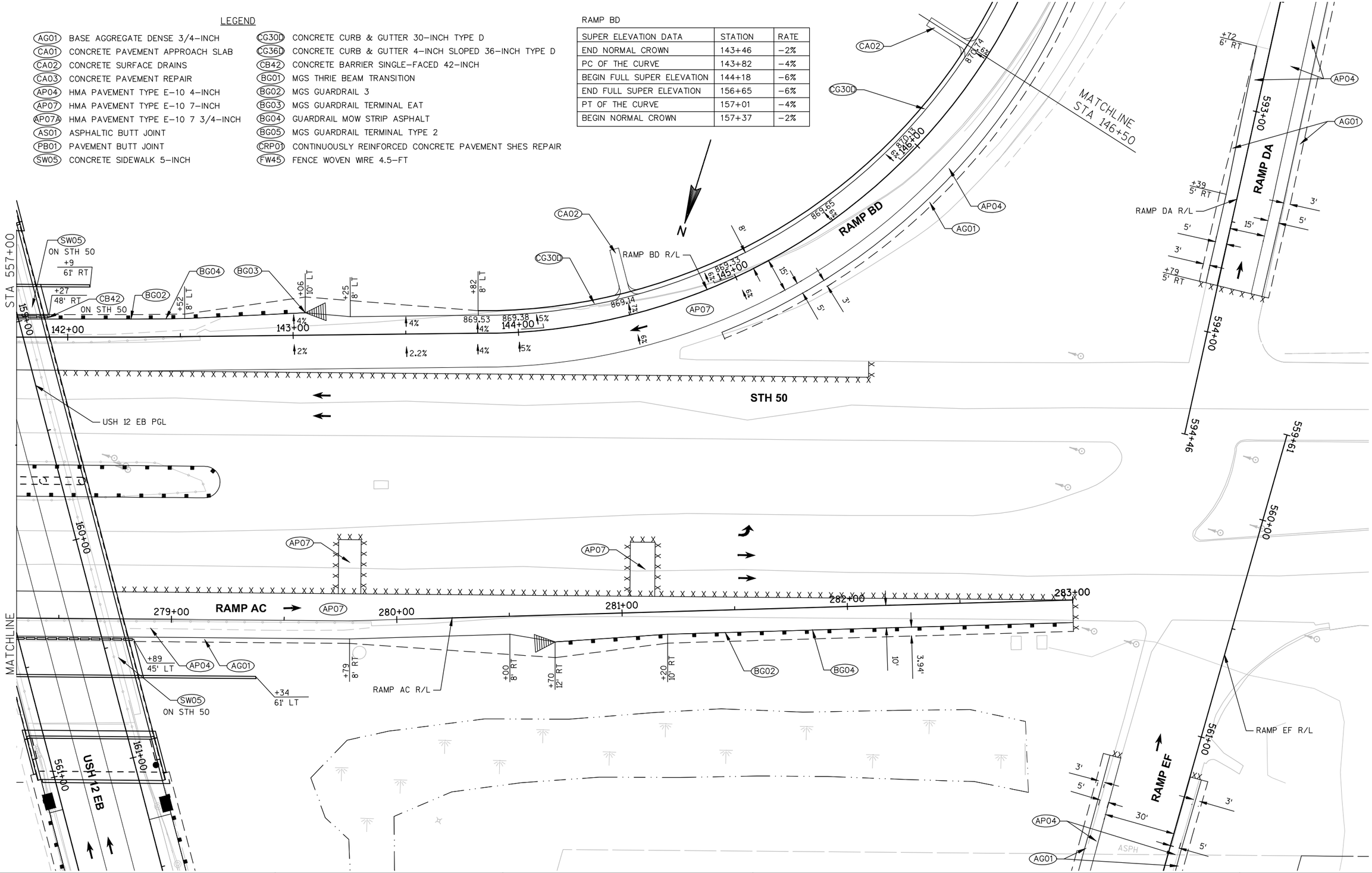
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS - RAMP AC	SHEET 36 - E

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	CG30D	CONCRETE CURB & GUTTER 30-INCH TYPE D
CA01	CONCRETE PAVEMENT APPROACH SLAB	CG36D	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D
CA02	CONCRETE SURFACE DRAINS	CB42	CONCRETE BARRIER SINGLE-FACED 42-INCH
CA03	CONCRETE PAVEMENT REPAIR	BG01	MGS THRIE BEAM TRANSITION
AP04	HMA PAVEMENT TYPE E-10 4-INCH	BG02	MGS GUARDRAIL 3
AP07	HMA PAVEMENT TYPE E-10 7-INCH	BG03	MGS GUARDRAIL TERMINAL EAT
AP07A	HMA PAVEMENT TYPE E-10 7 3/4-INCH	BG04	GUARDRAIL MOW STRIP ASPHALT
AS01	ASPHALTIC BUTT JOINT	BG05	MGS GUARDRAIL TERMINAL TYPE 2
PB01	PAVEMENT BUTT JOINT	CRP01	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR
SW05	CONCRETE SIDEWALK 5-INCH	FW45	FENCE WOVEN WIRE 4.5-FT

RAMP BD

SUPER ELEVATION DATA	STATION	RATE
END NORMAL CROWN	143+46	-2%
PC OF THE CURVE	143+82	-4%
BEGIN FULL SUPER ELEVATION	144+18	-6%
END FULL SUPER ELEVATION	156+65	-6%
PT OF THE CURVE	157+01	-4%
BEGIN NORMAL CROWN	157+37	-2%



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVING DETAILS - RAMP BD & AC	SHEET 37 - E

2

RAMP CA

RAMP BD

STH 50

R/W

STAGE 2 EROSION CONTROL

PLACE CULVERT PIPE CHECK ON EXISTING PIPE DURING STAGE 2 CONSTRUCTION

USH 12 PGL

USH 12 EB

USH 12 WB

USH 12 R/L

EXISTING 18" CMCP TO BE REMOVED DURING STAGE 3 CONSTRUCTION

STAGE 3 EROSION CONTROL

SLOPE INTERCEPT

RIP RAP MEDIUM

EXISTING 18" CMCP TO BE REMOVED DURING STAGE 3 CONSTRUCTION

PERMANENT STONE DITCH CHECK

RIP RAP MEDIUM

EXISTING 24" TO BE REMOVED

SEWAGE TREATMENT POND

+50 63' LT

+96 66' LT

+05 66' LT

+25 50' LT

+74 57' LT

+20 65' LT

+79 57' LT

+93 41' LT

+41 99' LT

+46 36' LT

+95 60' LT

+06 59' LT

+01 65' LT

LEGEND

- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SILT FENCE HEAVY DUTY
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- ROCK BAGS
- APPROXIMATE LIMITS OF EROSION CONTROL STAGE IMPLEMENTATION (EXCLUDES SEEDING TEMPORARY)

NOTE:
SEE THE CROSS OVER TRAFFIC CONTROL SHEETS STAGE 1A FROM STA 503+69 TO STA 513+04 FOR ADDITIONAL EROSION CONTROL ITEMS.

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET 38 - E

2

N EDWARDS BLVD

PERMANENT STONE DITCH CHECK

WETLAND LIMITS

RAMP EF

RIP RAP MEDIUM

STAGE 2 EROSION CONTROL

R/W

EXISTING INLET AND CMCP TO BE REMOVED

USH 12 EB

USH 12 WB

USH 12 PGL

USH 12 R/L

SLOPE INTERCEPT

STAGE 3 EROSION CONTROL

RAMP AC

RAMP DB

WETLAND LIMITS

RIP RAP MEDIUM

RIP RAP MEDIUM

RIP RAP MEDIUM

LEGEND

- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SILT FENCE HEAVY DUTY
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- ROCK BAGS
- APPROXIMATE LIMITS OF EROSION CONTROL STAGE IMPLEMENTATION (EXCLUDES SEEDING TEMPORARY)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET 39 - E

2

2

N EDWARDS BLVD

R/W

SLOPE INTERCEPT

STAGE 2
EROSION
CONTROL

+45 50' RT
+64 78' RT
+00 66' RT
+00 51' RT

RAMP EF

575 576

USH 12 EB

575 580 585 590

575 580 585 590

575 RAMP DB

USH 12 WB

580 583

USH 12 R/L

+00 23' RT
+97 23' RT
+77 24' RT
+22 69' RT

STAGE 3
EROSION
CONTROL

R/W

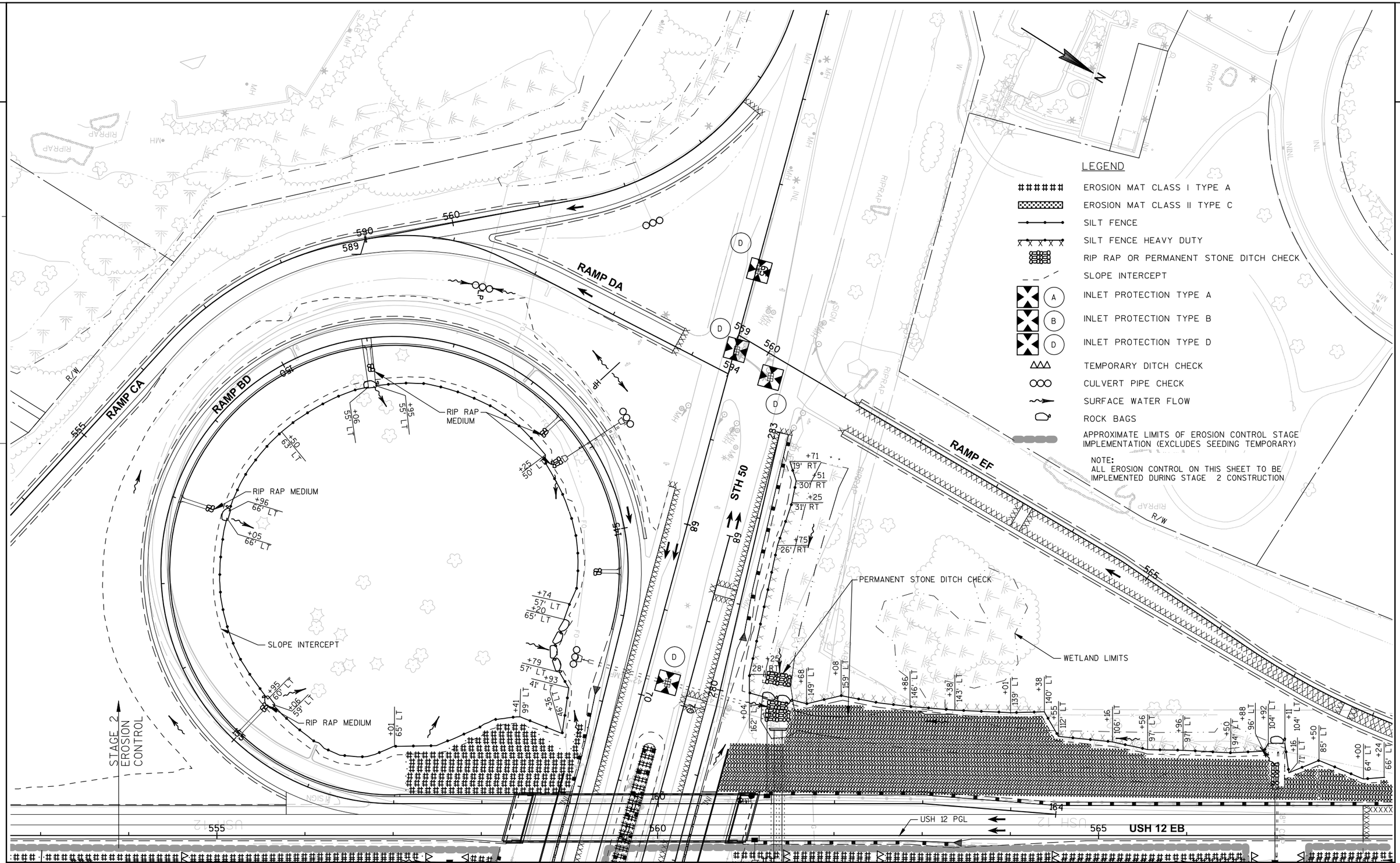
LEGEND

- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SILT FENCE HEAVY DUTY
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- A — INLET PROTECTION TYPE A
- B — INLET PROTECTION TYPE B
- D — INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- ROCK BAGS
- APPROXIMATE LIMITS OF EROSION CONTROL STAGE IMPLEMENTATION (EXCLUDES SEEDING TEMPORARY)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET 40 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\022003_EC.DWG PLOT DATE : 2/18/2014 12:03 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET 41 - E

2

RIP RAP MEDIUM

STAGE 2 EROSION CONTROL

SEWAGE TREATMENT POND

PLACE RIP RAP MEDIUM WHERE BENCHING DITCH MEETS ROADWAY DITCH

STH 50

R/W

STAGE 2 EROSION CONTROL

STAGE 3 EROSION CONTROL

RIP RAP MEDIUM

STAGE 3 EROSION CONTROL

RAMP AD

RAMP CB

RAMP AC

RAMP DB

WETLAND LIMITS

RIP RAP MEDIUM

RIP RAP MEDIUM

RIP RAP MEDIUM

RIP RAP MEDIUM

RIP RAP MEDIUM

SLOPE INTERCEPT

N

NOIS

R/W

LEGEND

- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SILT FENCE HEAVY DUTY
- RIP RAP OR PERMANENT STONE DITCH CHECK
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW
- ROCK BAGS
- APPROXIMATE LIMITS OF EROSION CONTROL STAGE IMPLEMENTATION (EXCLUDES SEEDING TEMPORARY)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	EROSION CONTROL	SHEET 42 - E

2

STA 557+64, 30.0' LT
INLET 1G-MS, NO SLOPE
1

RAMP BD R/L

RAMP BD

CAUTION

STH 50

5A STA 561+24, 193.9' LT
INLET 2X2, V

SLOPE INTERCEPT

WETLAND LIMITS

5 STA 561+24, 105.0' LT
INLET 2X2, V

4 STA 561+10, 55.0' LT
INLET 2X2, V

BM129

EXISTING 18" CMCP
TO BE REMOVED

6A STA 567+00, 112.0' LT
1-18" AEW, CONC

RAMP EF

STA 570+00

USH 12 EB PGL

USH 12 EB

EXISTING 18" CMCP
TO BE REMOVED

18" SSPRC
1 AEW REQUIRED

4A STA 561+10, 32.0' LT
1-12" AEW, STEEL

3A STA 560+97, 19.3' LT
1-12" AEW, STEEL

LP

USH 12 WB

BM128

STA 557+64, 62.9' RT
1-18" AEW, CONC
1A

REMOVE CONCRETE
SURFACE DRAIN

3 STA 560+97, 5.7' LT
INLET 2X2, V

USH 12 R/L
AND WB PGL

6 STA 567+00, 29.7' LT
INLET 1G-MS, NO SLOPE

RAMP AC

STA 557+66, 76.2' RT
1-24" AEW, STEEL
1B

SLOPE INTERCEPT

NOTE: ALL STATIONS AND OFFSETS ARE
FROM USH 12 R/L, UNLESS NOTED
OTHERWISE

RAMP BD STA 139+00, 36.7' LT
1-24" AEW, STEEL
1C

2 STA 560+83, 45.0' RT
INLET 2X2, V

RAMP BD

MATCHLINE

RAMP AC R/L

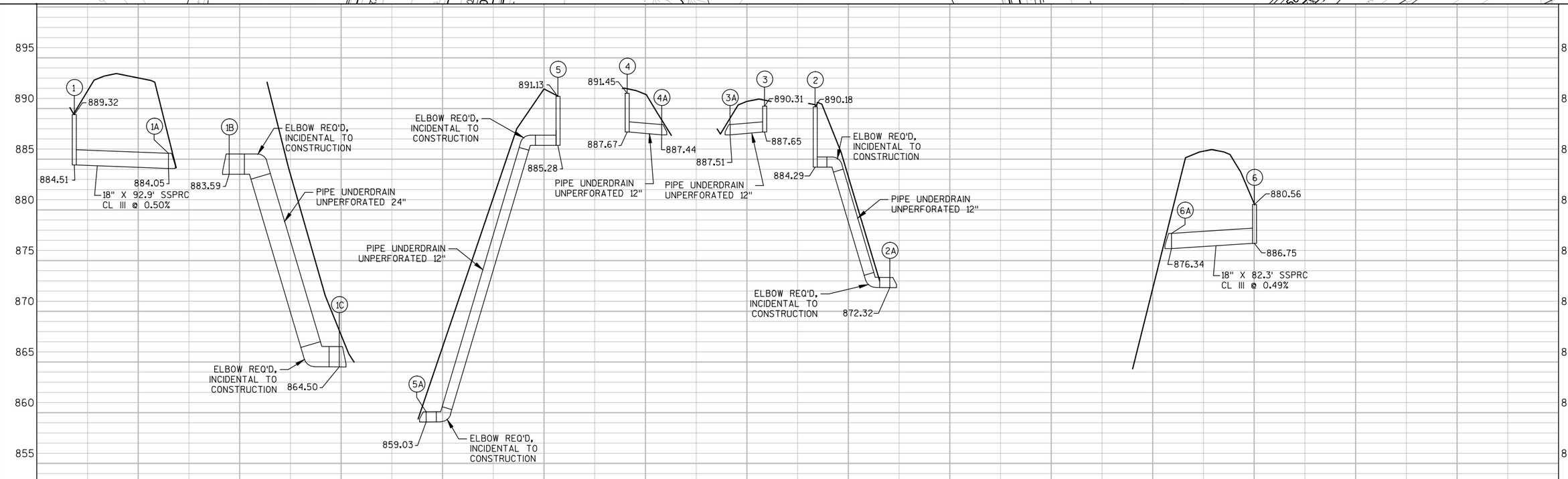
2A STA 560+83, 108.1' RT
1-12" AEW, STEEL

LEGEND

X X X SAWING

CITY OF LAKE GENEVA

EXISTING 24" CMCP
TO BE REMOVED



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET 43 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\022501_SS.DWG PLOT DATE : 2/18/2014 12:05 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2

STA 570+00

MATCHLINE

N EDWARDS BLVD

R/W

RAMP EF R/L

RAMP EF

571+00 572+00 573+00 574+00 575+00 576+00 576+64

USH 12 EB

575 580

7 STA 574+00, 27.1' LT
INLET 1G-MS, NO SLOPE

SLOPE INTERCEPT

USH 12 EB PGL

USH 12 WB

575 580

571+00 572+00 573+00 574+00 575+00 576+00 577+00 578+00 579+00 580+00 581+00 582+00

RAMP DB

RAMP DB R/L

USH 12 R/L
AND WB PGL

EXISTING 18" CMCP
TO BE REMOVED

SLOPE INTERCEPT

7A STA 574+00, 78.2' RT
1-18" AEW, CONC

NOTE: ALL STATIONS AND OFFSETS ARE FROM USH 12 R/L, UNLESS NOTED OTHERWISE

LEGEND

X X X SAWING

895 890 885 880 875 870 865 860 855

7

880.92

874.92

18" X 105.5' SSPRC
CL III @ 3.0%

7A

871.76

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET 44 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\022502_SS.DWG PLOT DATE : 2/18/2014 12:06 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 42

2

RAMP DB R/L

EXIST 24" CMCP
TO BE REMOVED

9A RAMP DB STA 558+70, 35.5' RT
1-24" AEW, CONC

9 RAMP DB STA 558+70, 77.1' LT
INLET 2G-MS, NO SLOPE

RAMP DB

RAMP CB

RAMP AD

RAMP AC

RAMP AC R/L

RAMP BD R/L

EXISTING INLET
TO BE REMOVED

RAMP AC STA 273+35, 65.1' LT
INLET 1G-MS, NO SLOPE 8

SLOPE INTERCEPT

RAMP AC STA 273+32, 33.7' RT
1-18" AEW, CONC 8A

EXISTING 18" CMCP
TO BE REMOVED

EXISTING INLET
TO BE REMOVED

INLET TO REMAIN

STH 50

R/W

RIPRAP

SLAB

CITY OF LAKE GENEVA

N

NOTE: ALL STATIONS AND OFFSETS ARE FROM USH 12 R/L, UNLESS NOTED OTHERWISE

LEGEND

X X X SAWING

CAUTION

8
860.97
857.63
8A
857.15
18" X 98.9' SSPRC
CL III @ 0.50%

9
860.63
853.63
9A
853.06
24" X 112.6' SSPRC
CL III @ 0.51%

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STORM SEWER	SHEET -45	E

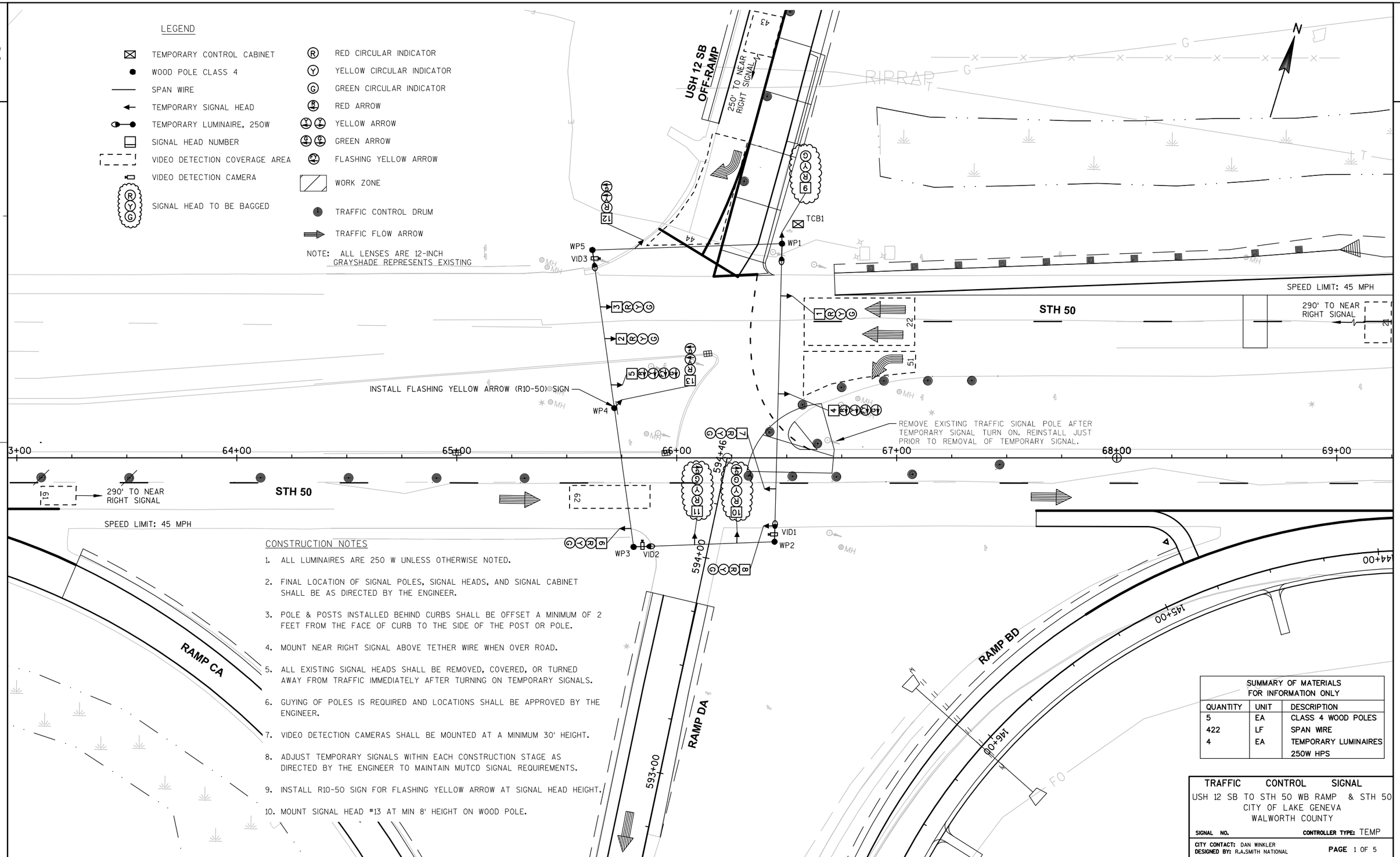
FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\022503_SS.DWG PLOT DATE : 2/18/2014 12:06 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 42

LEGEND

- TEMPORARY CONTROL CABINET
- WOOD POLE CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- VIDEO DETECTION COVERAGE AREA
- VIDEO DETECTION CAMERA
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- FLASHING YELLOW ARROW
- WORK ZONE
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES

1. ALL LUMINAIRES ARE 250 W UNLESS OTHERWISE NOTED.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL HEADS, AND SIGNAL CABINET SHALL BE AS DIRECTED BY THE ENGINEER.
3. POLE & POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
4. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
5. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
6. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
7. VIDEO DETECTION CAMERAS SHALL BE MOUNTED AT A MINIMUM 30' HEIGHT.
8. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
9. INSTALL R10-50 SIGN FOR FLASHING YELLOW ARROW AT SIGNAL HEAD HEIGHT.
10. MOUNT SIGNAL HEAD #13 AT MIN 8' HEIGHT ON WOOD POLE.

SUMMARY OF MATERIALS FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
5	EA	CLASS 4 WOOD POLES
422	LF	SPAN WIRE
4	EA	TEMPORARY LUMINAIRES 250W HPS

TRAFFIC CONTROL SIGNAL

USH 12 SB TO STH 50 WB RAMP & STH 50
CITY OF LAKE GENEVA
WALWORTH COUNTY

SIGNAL NO. CONTROLLER TYPE: TEMP

CITY CONTACT: DAN WINKLER
DESIGNED BY: R.A.SMITH NATIONAL

PAGE 1 OF 5

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TEMPORARY SIGNAL PLAN - STAGE 1A	SHEET 46 - E

LEGEND

- TEMPORARY CONTROL CABINET
- WOOD POLE CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- VIDEO DETECTION COVERAGE AREA
- VIDEO DETECTION CAMERA
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- FLASHING YELLOW ARROW
- WORK ZONE
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

RAMP EF
250' TO NEAR RIGHT SIGNAL
RIPRAP
TCB1
WP1
WP5
VID3
WP4
WP3
VID2
VID1
WP2
SPEED LIMIT: 45 MPH
290' TO NEAR RIGHT SIGNAL
STH 50
63+00
64+00
65+00
66+00
67+00
68+00
69+00
594+46
594+00
593+00
RAMP CA
RAMP DA
RAMP BD
145+00
146+00
44+00
FO

TRAFFIC CONTROL SIGNAL
USH 12 SB TO STH 50 WB RAMP & STH 50
CITY OF LAKE GENEVA
WALWORTH COUNTY

SIGNAL NO. — CONTROLLER TYPE: TEMP
CITY CONTACT: DAN WINKLER
DESIGNED BY: R.A.SMITH NATIONAL
PAGE 2 OF 5

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TEMPORARY SIGNAL PLAN - STAGE 1B	SHEET 47 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\024001B_SP.DWG
PLOT DATE : 2/18/2014 12:07 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

LEGEND

- TEMPORARY CONTROL CABINET
- WOOD POLE CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- VIDEO DETECTION COVERAGE AREA
- VIDEO DETECTION CAMERA
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- FLASHING YELLOW ARROW
- WORK ZONE
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

BAG HEADS #4 AND #5 AND
OMIT PHASE 5 AS DIRECTED BY
THE ENGINEER TO ACCOMMODATE
LONG-TERM RAMP CLOSURES

RAMP EF
250' TO NEAR RIGHT SIGNAL
RIPRAP
TCB1
WP5
VID3
WP1
SPEED LIMIT: 45 MPH
STH 50
290' TO NEAR RIGHT SIGNAL
63+00
64+00
65+00
66+00
67+00
68+00
69+00
290' TO NEAR RIGHT SIGNAL
STH 50
SPEED LIMIT: 45 MPH
WP3
VID2
VID1
WP2
RAMP CA
RAMP DA
RAMP BD
593+00
594+00
594+46
145+00
146+00
44+00

TRAFFIC CONTROL SIGNAL	
USH 12 SB TO STH 50 WB RAMP & STH 50 CITY OF LAKE GENEVA WALWORTH COUNTY	
SIGNAL NO.	CONTROLLER TYPE: TEMP
CITY CONTACT: DAN WINKLER DESIGNED BY: R.A.SMITH NATIONAL	PAGE 3 OF 5

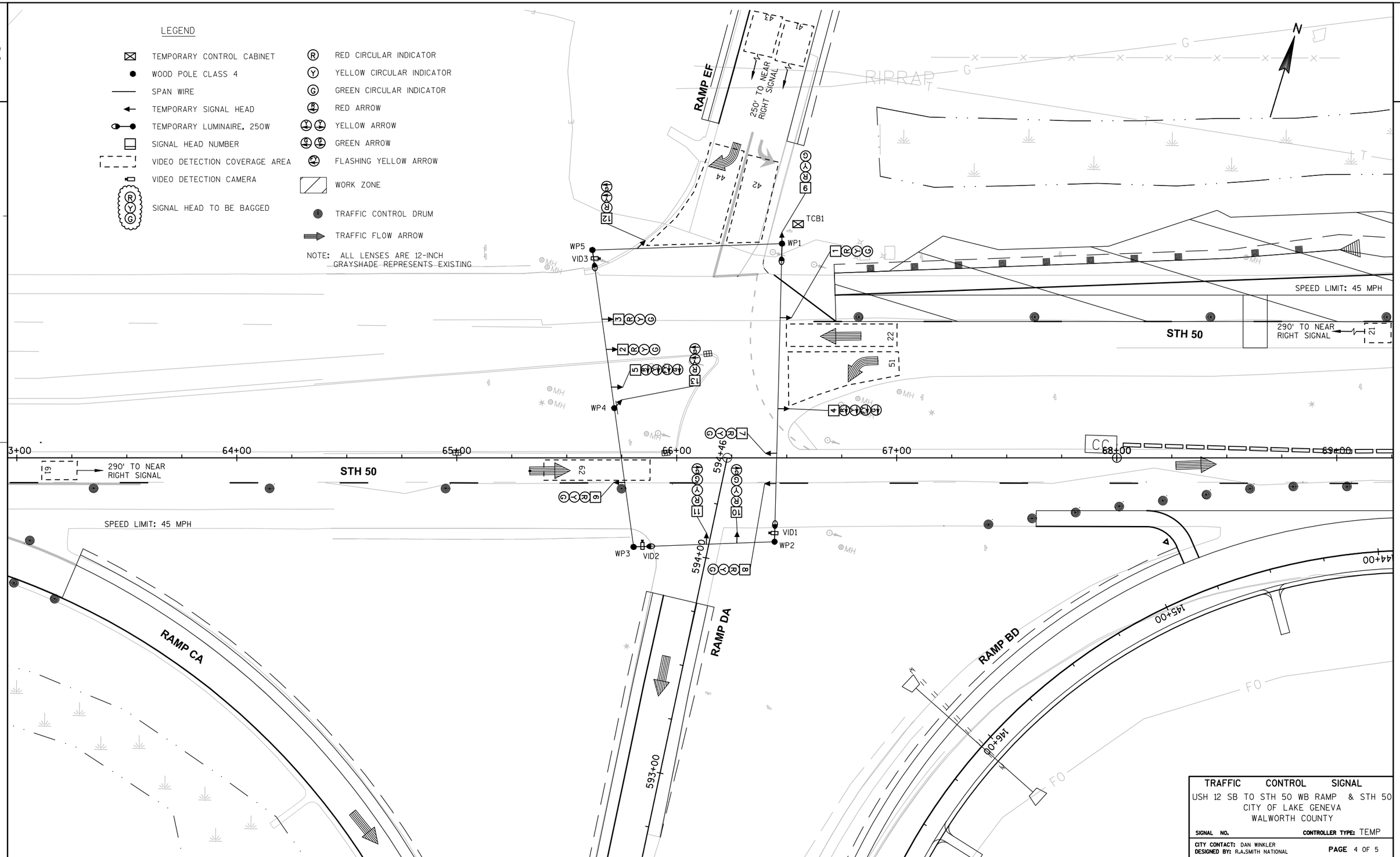
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TEMPORARY SIGNAL PLAN - STAGE 2	SHEET 48 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\024002_SP.DWG
PLOT DATE : 2/18/2014 12:08 PM
PLOT BY : GUILLAMA, TINA R.
PLOT NAME : ----------

LEGEND

- TEMPORARY CONTROL CABINET
- WOOD POLE CLASS 4
- SPAN WIRE
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W
- SIGNAL HEAD NUMBER
- VIDEO DETECTION COVERAGE AREA
- VIDEO DETECTION CAMERA
- SIGNAL HEAD TO BE BAGGED
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- FLASHING YELLOW ARROW
- WORK ZONE
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



TRAFFIC CONTROL SIGNAL	
USH 12 SB TO STH 50 WB RAMP & STH 50 CITY OF LAKE GENEVA WALWORTH COUNTY	
SIGNAL NO.	CONTROLLER TYPE: TEMP
CITY CONTACT: DAN WINKLER DESIGNED BY: R.A.SMITH NATIONAL	PAGE 4 OF 5

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TEMPORARY SIGNAL PLAN - STAGE 3	SHEET 49 - E

2

SEQUENCE OF OPERATION

		01							02							03							04							FLASH
			CLEAR TO							CLEAR TO							CLEAR TO							CLEAR TO						
	HEAD NUMBERS	R/W	**		Ø4				R/W	**						R/W	**						R/W	**		Ø1				
01																														
02	1,2,3	R	R	R					G	Y	R												R	R	R					R
03																														
04	9,10,11	R	R	R					R	R	R												G, G	Y	R					R
RING 1 05	4,5	–	–	–					–	–	–												–	–	–					R
06	6,7,8	R	R	R					R	R	R												R	R	R					R
07																														
08																														
OLA																														
OLB																														
OLC	4,5	R	R	R					R	R	R												R	R	R					R
OLD																														
OLE	12,13	G	Y	R	G	G			R	R	R												G	Y	R	G	G			R

		05							06							07							08						
			CLEAR TO							CLEAR TO							CLEAR TO							CLEAR TO					
	HEAD NUMBERS	R/W	**						R/W	**						R/W	**						R/W	**					
01																													
02	1,2,3	R	R	R					R	R	R																		
03																													
RING 2 04	9,10,11	R	R	R					R	R	R																		
05	4,5	G	–	–					–	–	–																		
06	6,7,8	R	R	R					G	Y	R																		
07																													
08																													
OLA																													
OLB																													
OLC	4,5	–	Y	R					FY	Y	R																		
OLD																													
OLE	12,13	R	R	R					R	R	R																		

N

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

FY = FLASHING YELLOW ARROW

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4
2	5 OR 6	1,4
3		
4	NONE	1,2,5,6
5	1 OR 2	4,6
6	1 OR 2	4,5
7		
8		

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
21		X			2	2					VIDEO
22		X			2	2					VIDEO
41				X		4			X		VIDEO
42		X			4	4					VIDEO
43				X		1,4			X		VIDEO
44		X			1,4	1,4		X			VIDEO
51		X			5	5					VIDEO
61		X			6	6					VIDEO
62		X			6	6					VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN.	X
3				
4				X
5		2		X
6	X	2	MIN.	X
7				
8				

PROGRAMMED OVERLAPS

O.L. "E" = 1, 4

SPECIAL OVERLAPS

	PROTECTIVE	PERMISSIVE
O.L."A"		
O.L."B"		
O.L."C"	5	6
O.L."D"		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S–	
SIGNAL SYSTEM #: SS– –	

TYPE OF PRE–EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

USH 12 SB TO STH 50 WB RAMP
& STH 50
CITY OF LAKE GENEVA
WALWORTH COUNTY

SIGNAL NO.

CONTROLLER TYPE: TEMP

DATE 10/13

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\024005_SP-SO.DWG PLOT DATE : 2/18/2014 12:08 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 42

2

N

REMOVE

162

R3-4B(5)

USH 12 EB

498+00 500+00 502+00 504+00 506+00 508+00 510+00 512+00

USH 12 WB

161

R3-4B(5)

REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 1 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 51	E

2

N

ESTR

536+59 538+00 540+00 542+00 544+00 546+00 548+00

USH 12 EB

545+00 546+00 548+00

INL

534+00 536+00 538+00 540+00 542+00 544+00 546+00 548+00

USH 12 WB

SIGN

SIGN

SLOWER TRAFFIC KEEP RIGHT
R4-3(5)
156

SLOWER TRAFFIC KEEP RIGHT
REMOVE

(SIS)
GAS | LODGING

ESTR
CONTACT DERSE
TO MOVE
1-800-345-5772
IF NECESSARY
TO MOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

SHEET 2 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 52	E

2

MATCHLINE SEE SHEET 5

ENTRANCE RAMP

EXIT RAMP

USH 12 EB

USH 12 WB

548+00 550+00 552+00 554+00 556+00 558+00 560+00 562+00

254+60 256+00 258+00 260+00 262+00

154+00 156+00 158+00 160+00 162+00

70+00 72+00 74+00 76+00 78+00 80+00

136+80 138+80 140+00 142+00 214 216 218

STH 50

SIGN

HW

24" CMP

18" CMP

72" CMP

9 REMOVE

W4-1(5)

120 H NORTH AHEAD

REMOVE

3

120 H NORTH AHEAD

TYPE I
ON NEW STEEL POSTS

EXIT 25 M.P.H.

REMOVE

8 REMOVE

W5-52R(3)
4' MOUNTING HEIGHT

EXIT 25 MPH

W13-2B(2M)

5

1 EXIT 20 MPH

W13-2B(2M)

EXIT 20 M.P.H.

REMOVE

4 W5-52R(3)
4' MOUNTING HEIGHT

REMOVE

6 7 W5-52L

REMOVE

2a EXIT 330 A-B

SOUTH
50 120 H
Lake Geneva
Kenosha

2

TYPE I
ON NEW STEEL POSTS
PLACE AT START OF TAPER

EXIT 330 A-B

SOUTH
50 120 H
Lake Geneva
Kenosha

REMOVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 3 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 53	E

FILE NAME : J:\projects\d2_10801212\023203_ps.dgn PLOT DATE : 28-OCT-2013 11:24 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

REMOVE

MILE 330

15

16

D10-3(5)

EXIT 330B

50 EAST

Kenosha

REMOVE

14a

EXIT 330B

50 EAST

Kenosha

14

INSTALL TYPE I SIGN
ON NEW STEEL POSTS

13a

EXIT 330A

WEST SOUTH

50 120 H

Lake Geneva

13

INSTALL TYPE I SIGN
ON SIGN BRIDGE

EXIT 330A

WEST SOUTH

50 120 H

Lake Geneva

11

REMOVE TYPE I SIGN
AND STEEL POSTS

MATCHLINE SEE SHEET 6

568+00

EXIT RAMP

570+00

572+00

574+00

576+00

576+64

NEW SIGN
BRIDGE
S-64-19

SIGN

INL

INL

INL

INL

164+00

164+51

564+00

566+00

568+00

570+00

572+00

574+00

576+00

USH 12 EB

USH 12 WB

NOISE

264+00

ENTRANCE RAMP

MATCHLINE SEE SHEET 7

10

W4-1(5)

REMOVE

12a

12

EXIT 330B

50 EAST

Kenosha

1/4 MILE

INSTALL TYPE I SIGN
ON SIGN BRIDGE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 4 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 54 E

FILE NAME : J:\projects\d2_10801212\023204_ps.dgn PLOT DATE : 28-OCT-2013 11:24 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

N

SIS
GAS LODGING
MOVE BY DERSE
CALL 1-800-345-5772
TO MOVE SIGN

EXIT 50 M.P.H.
REMOVE

17
EXIT 50 M.P.H.
W13-2(5)

SPEED LIMIT 65
REMOVE

19
20
SPEED LIMIT 65
R2-1(5)

SIGN
SIGN
INL
INL
INL
INL
INL
INL
N EDWARDS BLVD
SIGN

USH 12 EB
578+00 580+00 582+00 584+00 586+00 588+00 590+00

SIGN
USH 12 WB
578+00 580+00 582+00 584+00 586+00 588+00 590+00 592+00
578+00 580+00 582+00 583+00
18mm CMP

SIGN
SIGN

18
50 EAST
2ND RIGHT
TYPE I SIGN
REUSE STEEL POSTS

50 EAST
2ND RIGHT
REMOVE

22
WEST
M3-4
12
M1-4
J4-1(5)

WEST
12
REMOVE

21a
EXIT 328
NORTH 120 H TO 36
Lake Geneva
Burlington
1/2 MILE
21
TYPE I SIGN
REUSE STEEL SUPPORTS

EXIT 328
NORTH 120 H TO 36
Lake Geneva
Burlington
1/2 MILE
REMOVE

LEGEND

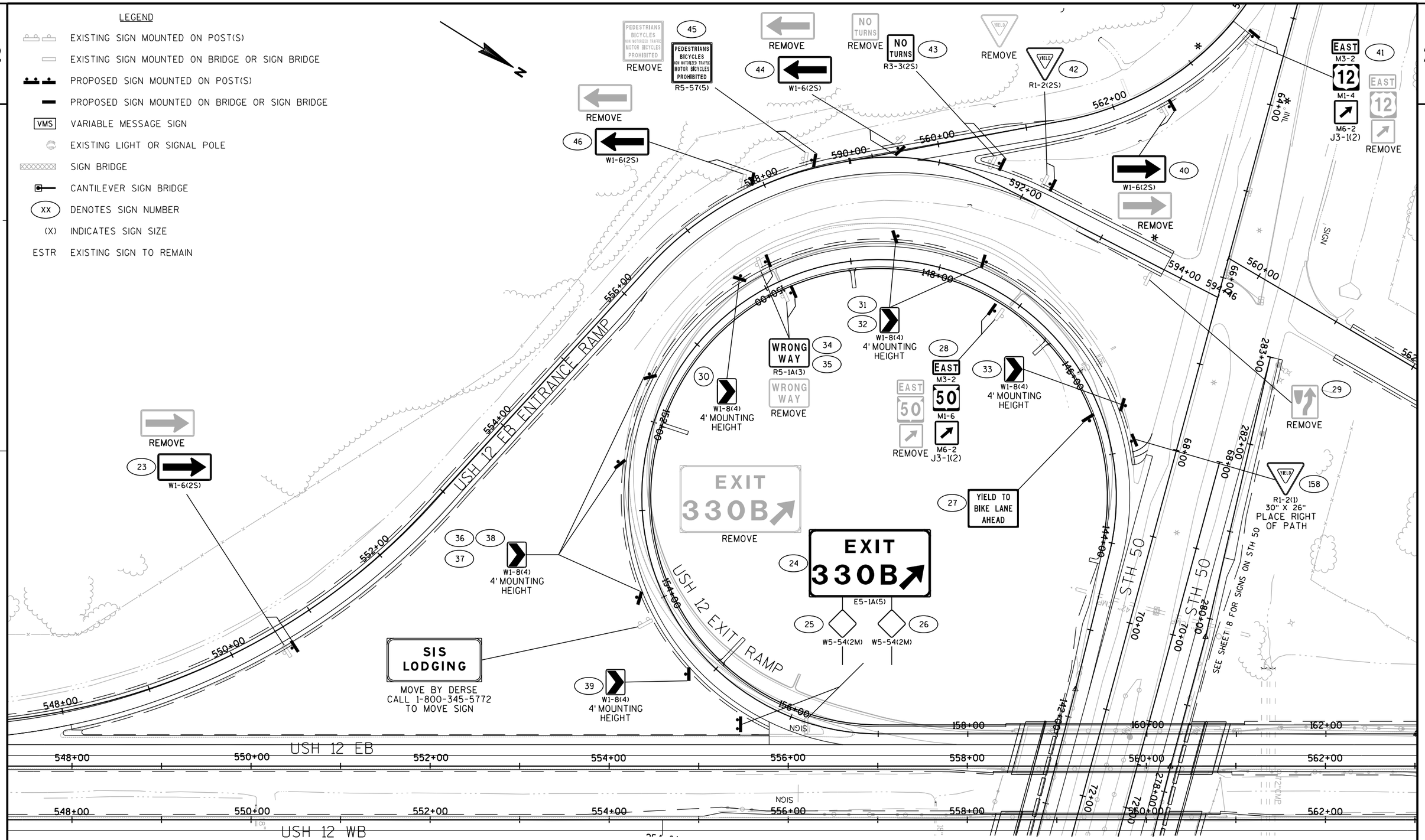
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

SHEET 5 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 55	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN



SHEET 6 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 56 E

FILE NAME : J:\projects\d2_10801212\023206_ps.dgn PLOT DATE : 28-OCT-2013 11:24 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

NO TURN ON RED FROM LEFT LANE — 54 — R10-11F(2S)

STOP — REMOVE

STOP — 51 — R1-1F(3) ON SIGNAL POLE

ONE WAY — 50 — R6-2L(2S)

DO NOT ENTER — 152 — R5-1(2S)

WRONG WAY — 160 — R5-1A(2S)

STOP — REMOVE

STOP — 52 — R1-1F(3) ON SIGNAL POLE

DO NOT ENTER — REMOVE

47 — DO NOT ENTER — R5-1(3)

48 — WRONG WAY — R5-1A(2S) 3" HEIGHT UNDER R5-1

ONLY ONLY — REMOVE

55 / 56 — ONLY ONLY — R3-8MM(2S)

49 — R3-2(2M)

REMOVE

53 — STOP — R1-1F(3) ON SIGNAL POLE

STOP — REMOVE

WRONG WAY — 57 / 58 — R5-1A(3)

WRONG WAY — REMOVE

SOUTH / SOUTH / WEST — COUNTY H / 120 / 50 — USE LEFT LANE / USE LEFT LANE

REMOVE

59 / 153 — SOUTH M3-3 / SOUTH M3-3 / WEST M3-4 — COUNTY H M1-5A / 120 M1-6 / 50 M1-6 — USE LEFT LANE R3-54L / USE LEFT LANE R3-54L / M5-1R

J2-3(2S)

60 — W3-3(2S)

REMOVE

EXIT 330A

REMOVE

61 — EXIT 330A — E5-1A(5)

62 — W5-54(2M) — 63 — W5-54(2M)

(SIS) — ESTR

(SIS) — ESTR

CONTACT DERSE TO MOVE 1-800-345-5772 IF NECESSARY TO MOVE

N EDWARDS BLVD

STH 50

USH 12 EB EXIT RAMP

USH 12 EB

USH 12 WB

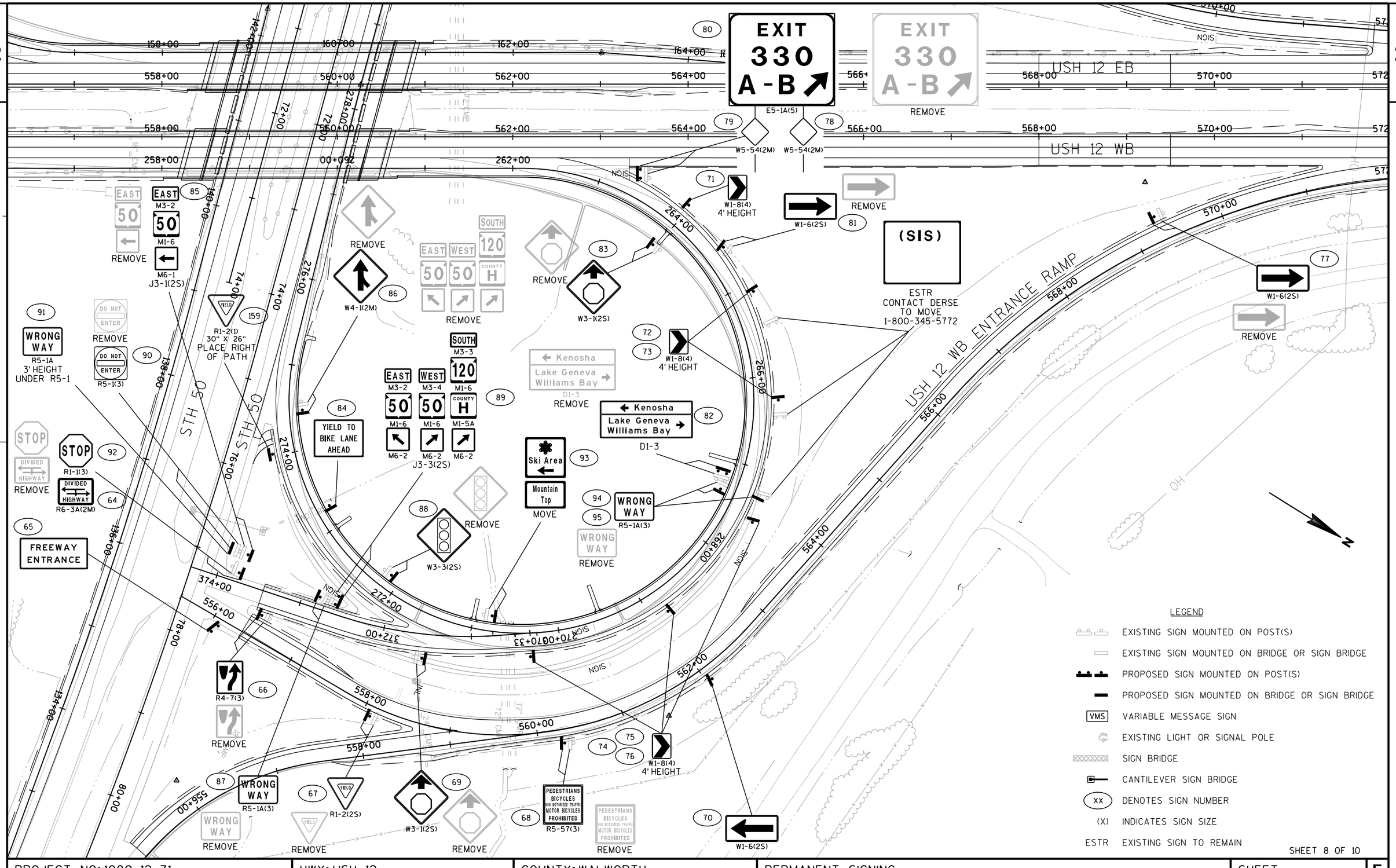
SIGN

SHEET 7 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 57	E

FILE NAME : J:\projects\d2_10801212\023207_ps.dgn PLOT DATE : 28-OCT-2013 11:24 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



SHEET 8 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 58	E

FILE NAME : J:\projects\d2_10801212\023208_ps.dgn PLOT DATE : 28-OCT-2013 11:24 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XX — DENOTES SIGN NUMBER
- (X) — INDICATES SIGN SIZE
- ESTR — EXISTING SIGN TO REMAIN

STH 50

STH 50

USH 12 EB

USH 12 WB

58+00 60+00 62+00 64+00 66+00 68+00 70+00 72+00

594+00 592+00 590+00 588+00 586+00 584+00 582+00 580+00 578+00 576+00 574+00

562+00 560+00 283+00 282+00 280+00 278+00

144+00 146+00 148+00 150+00 152+00

96 SOUTH M3-3 120 M1-6 M6-1 / SOUTH M3-3 COUNTY H M1-5A M6-1 J3-2(2S)

REMOVE: SOUTH 120 / SOUTH COUNTY H

ESTR

97 SPEED LIMIT 45 R2-1(2M)

REMOVE: SPEED LIMIT 45

Downtown Lake Geneva
Lake Geneva Business Park
ESTR

ONLY
ESTR

127 154 Reduced Ahead 40 M.P.H. REMOVE

SPEED LIMIT 40 W3-5(2M)

126 SOUTH M3-3 120 M1-6 M6-1 / SOUTH M3-3 COUNTY H M1-5A M6-1 J3-2(2S)

REMOVE: SOUTH 120 / SOUTH COUNTY H

SOUTH M3-3 120 M1-6 M5-1L / SOUTH M3-3 COUNTY H M1-5A M5-1L / WEST M3-4 50 M1-6 M6-1 124 125 J2-3(2S)

REMOVE: SOUTH 120 / SOUTH COUNTY H / WEST 50

Lake Geneva POPULATION 7489
ESTR

SIGN

DO NOT ENTER R5-1(2M) 119

REMOVE: DO NOT ENTER

120 REMOVE R3-1(2M)

EAST M3-2 12 M1-4 M6-1 J3-1(2S) 118

REMOVE: EAST 12

JCT M2-1 120 M1-6 / COUNTY H M1-5A J1-1(2S) 116 117

REMOVE: JCT 120 / COUNTY H

WRONG WAY R5-1A(2M) 115

REMOVE: WRONG WAY

Chicago D1-1 112

REMOVE: Chicago

W3-3(2M) 113 114

REMOVE

101 BEGIN RIGHT TURN LANE YIELD TO BIKES R4-4(2S)

Kenosha Madison / Chicago D1-2 99

REMOVE: Kenosha Madison / Chicago

98 NORTH M3-1 120 M1-6 / COUNTY H M1-5A / WEST M3-4 12 M1-4 M6-1 / EAST M3-2 50 M1-6 M6-1 / EAST M3-2 12 M1-4 M5-2R J3-4(2S)

REMOVE: NORTH 120 / COUNTY H / WEST 12 / EAST 50 / EAST 12

100 RAMP 35 M.P.H. W13-3(2M)

REMOVE: RAMP 35 M.P.H.

Big Foot Beach State Park
ESTR

104 R3-2(2M)

REMOVE

102 DO NOT ENTER R5-1(2M)

REMOVE: DO NOT ENTER

103 R3-1(2M)

REMOVE

121 122 STOP R1-1F(3) ON SIGNAL POLE

REMOVE: STOP

107 BIKE LANE R3-17(2S)

105 R4-7(3)

REMOVE

106 W4-1(2M)

REMOVE

123 STOP R1-1F(3) ON SIGNAL POLE

REMOVE: STOP

108 WEST M3-4 12 M1-4 M5-1L / NORTH M3-1 120 M1-6 / COUNTY H M1-5A M5-1L J2-2(2S)

REMOVE: NORTH 120 / WEST 12 / COUNTY H

110 111 SPEED LIMIT 45 R2-1(2M)

REMOVE: SPEED LIMIT 45

109 WEST M3-4 12 M1-4 M5-1L / NORTH M3-1 120 M1-6 / COUNTY H M1-5A M5-1L J2-2(2S)

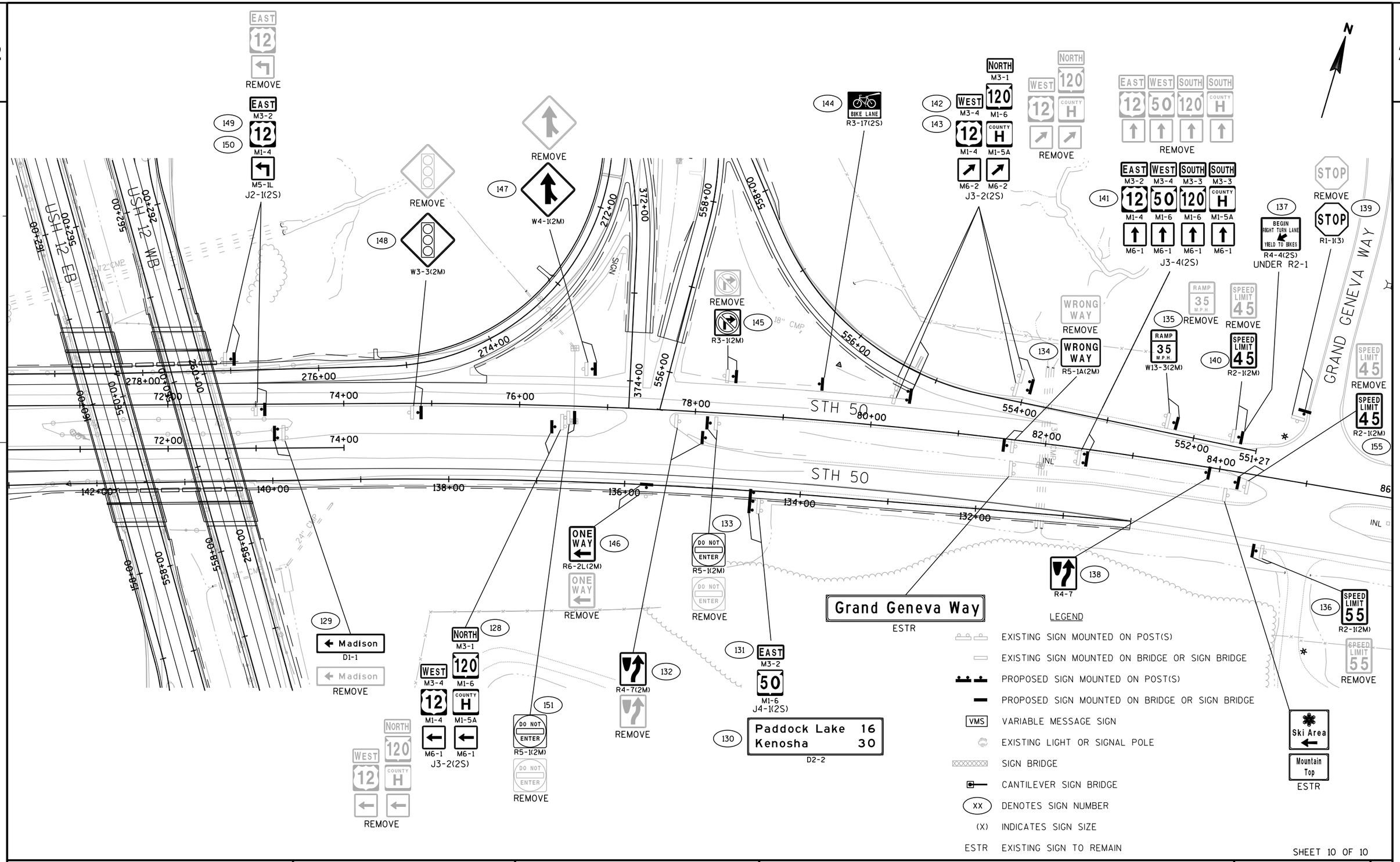
REMOVE: NORTH 120 / WEST 12 / COUNTY H

SHEET 9 OF 10

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 59 E

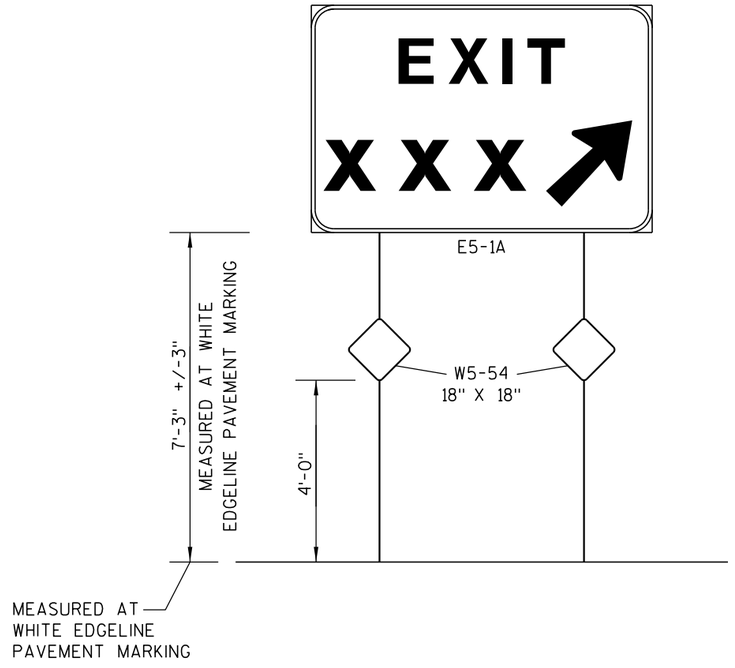
FILE NAME : J:\projects\d2_10801212\023209_ps.dgn PLOT DATE : 19-FEB-2014 13:13 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PERMANENT SIGNING	SHEET 60	E

2

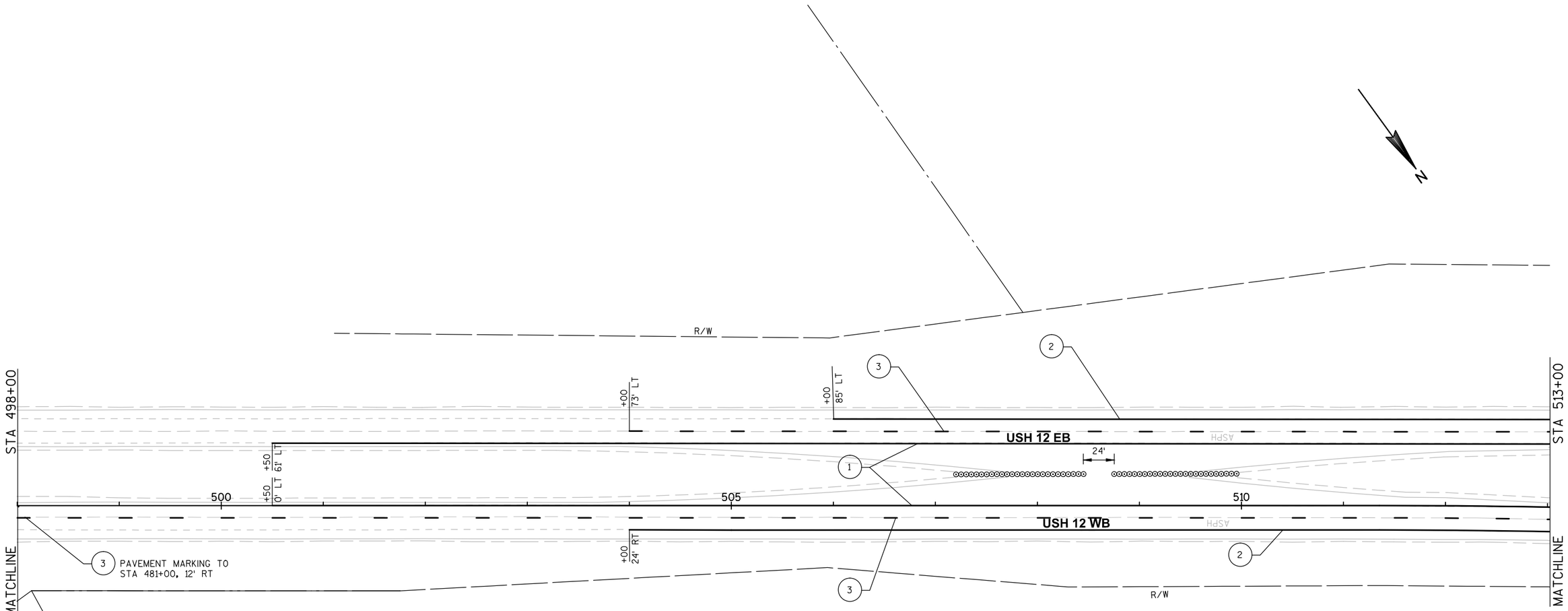


SEE STATE PLATE A4-2
FOR LOCATION LATERALLY
OF E5-1A SIGN.

EXIT GORE SIGN DETAIL

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	EXIT GORE SIGN DETAIL	SHEET 61	E

2



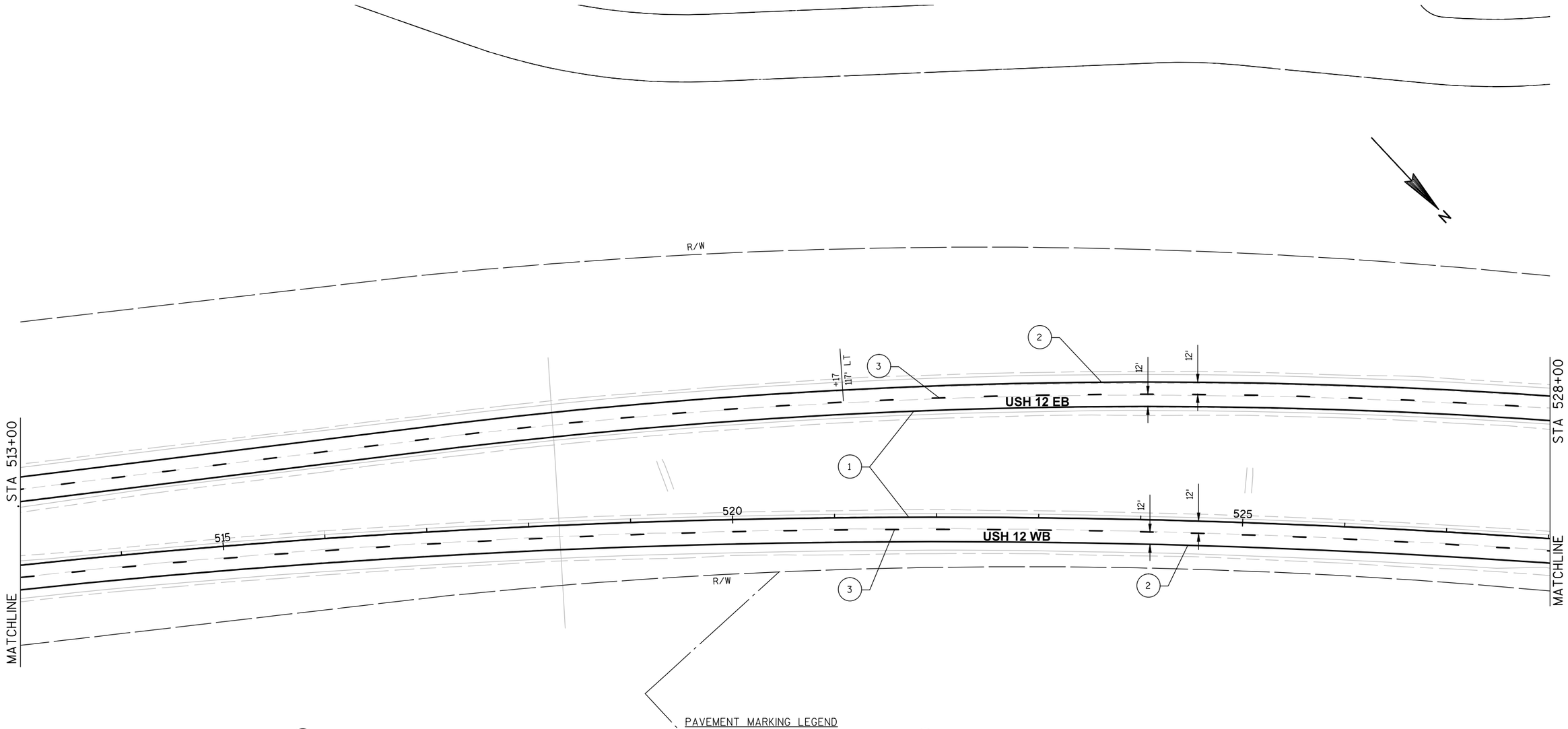
PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 62 - E

2

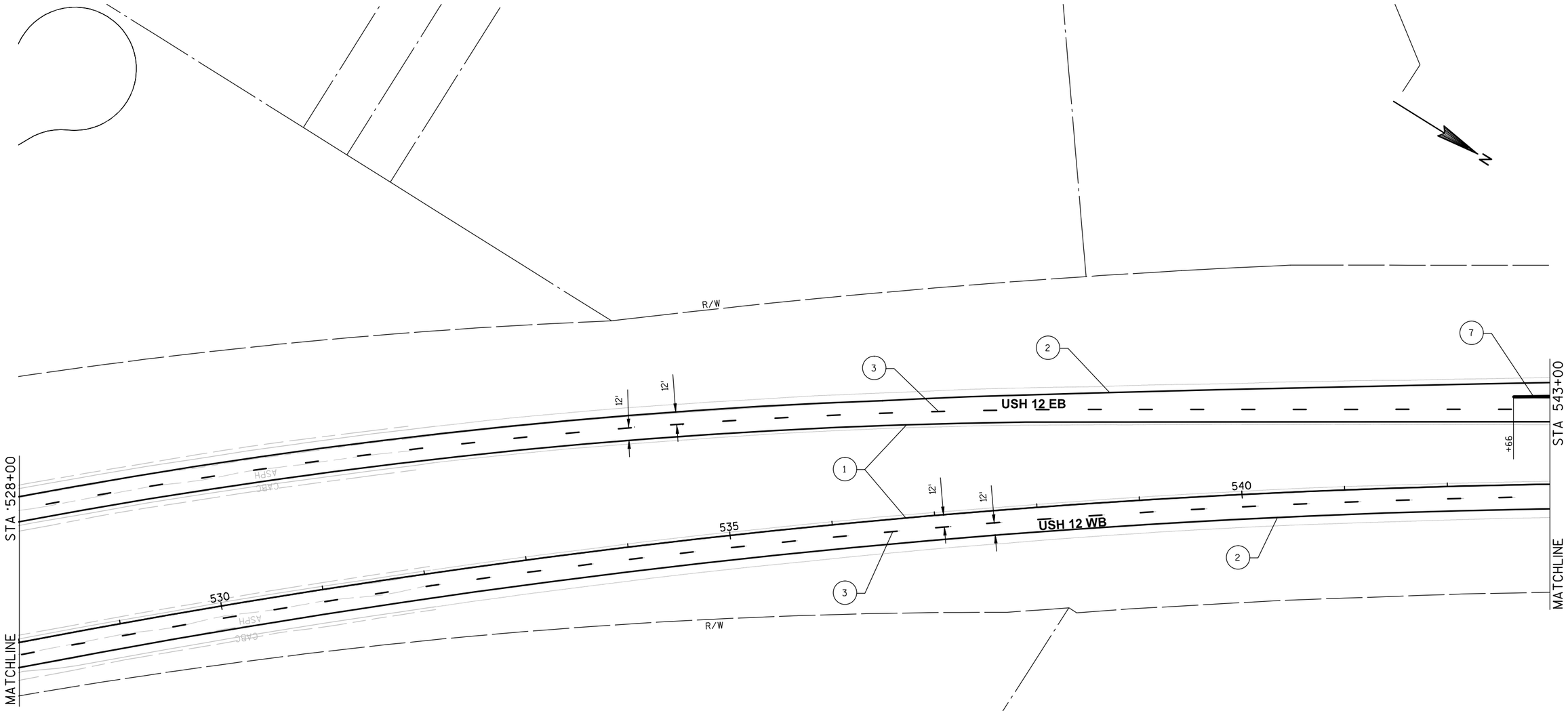


PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

2

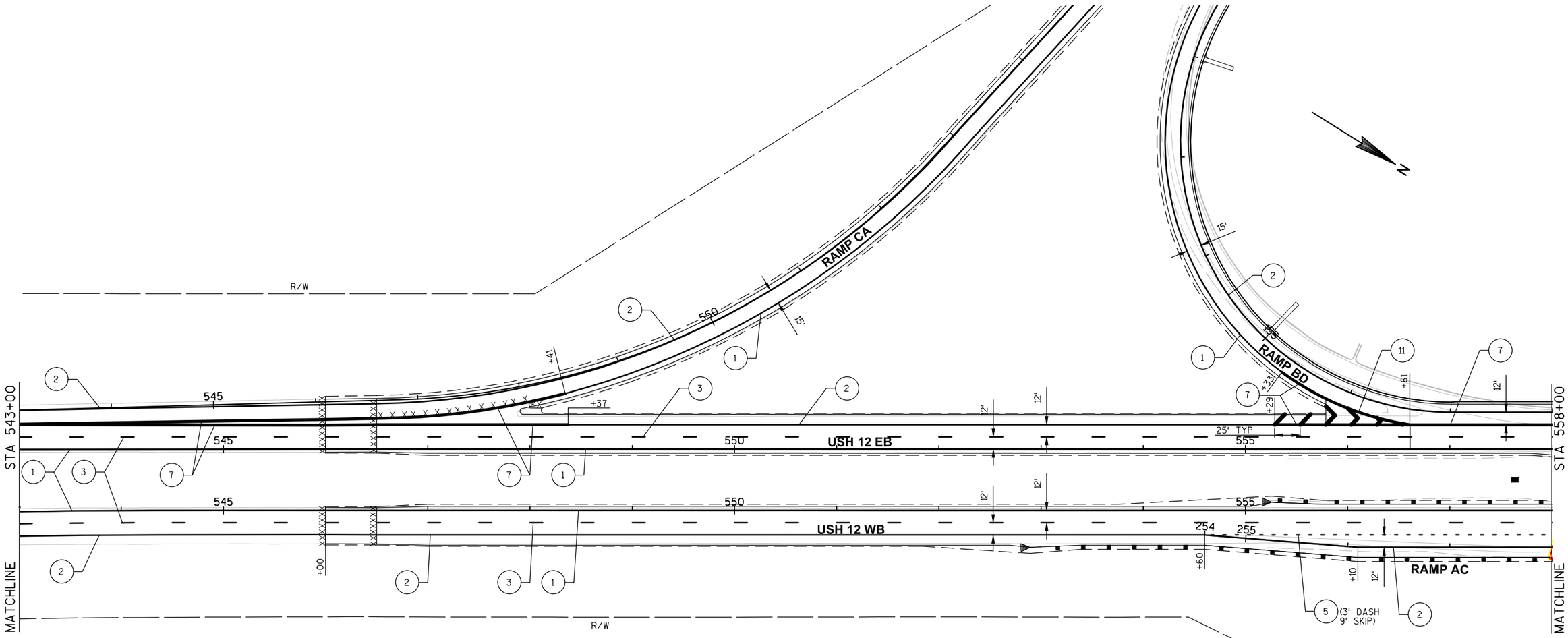


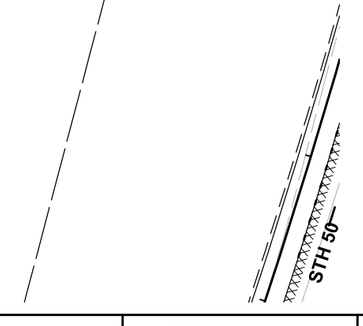
PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 64 - E





PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

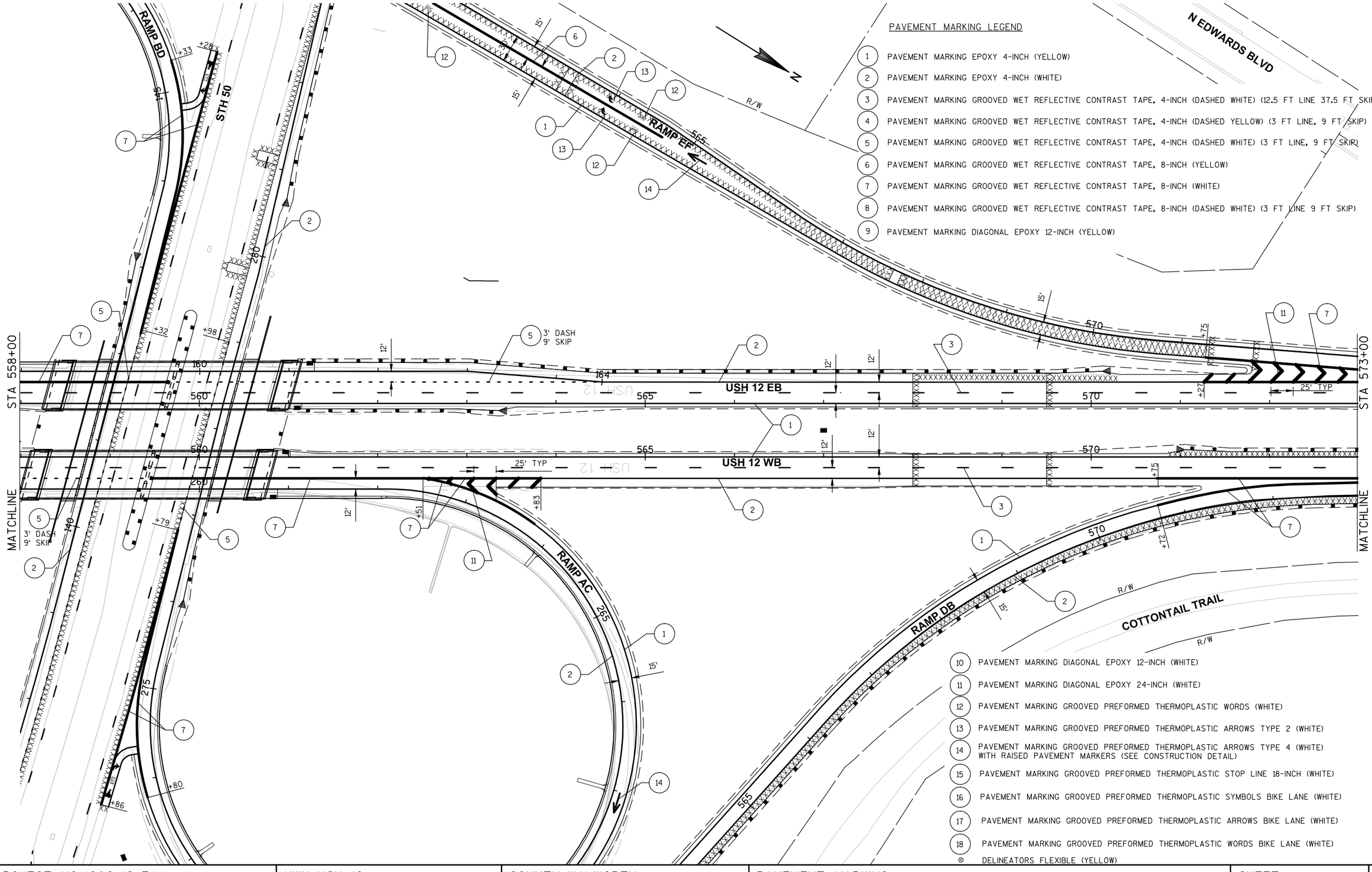
⊙ DELINEATORS FLEXIBLE (YELLOW)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 65 - E

2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)



10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 66 - E

2

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
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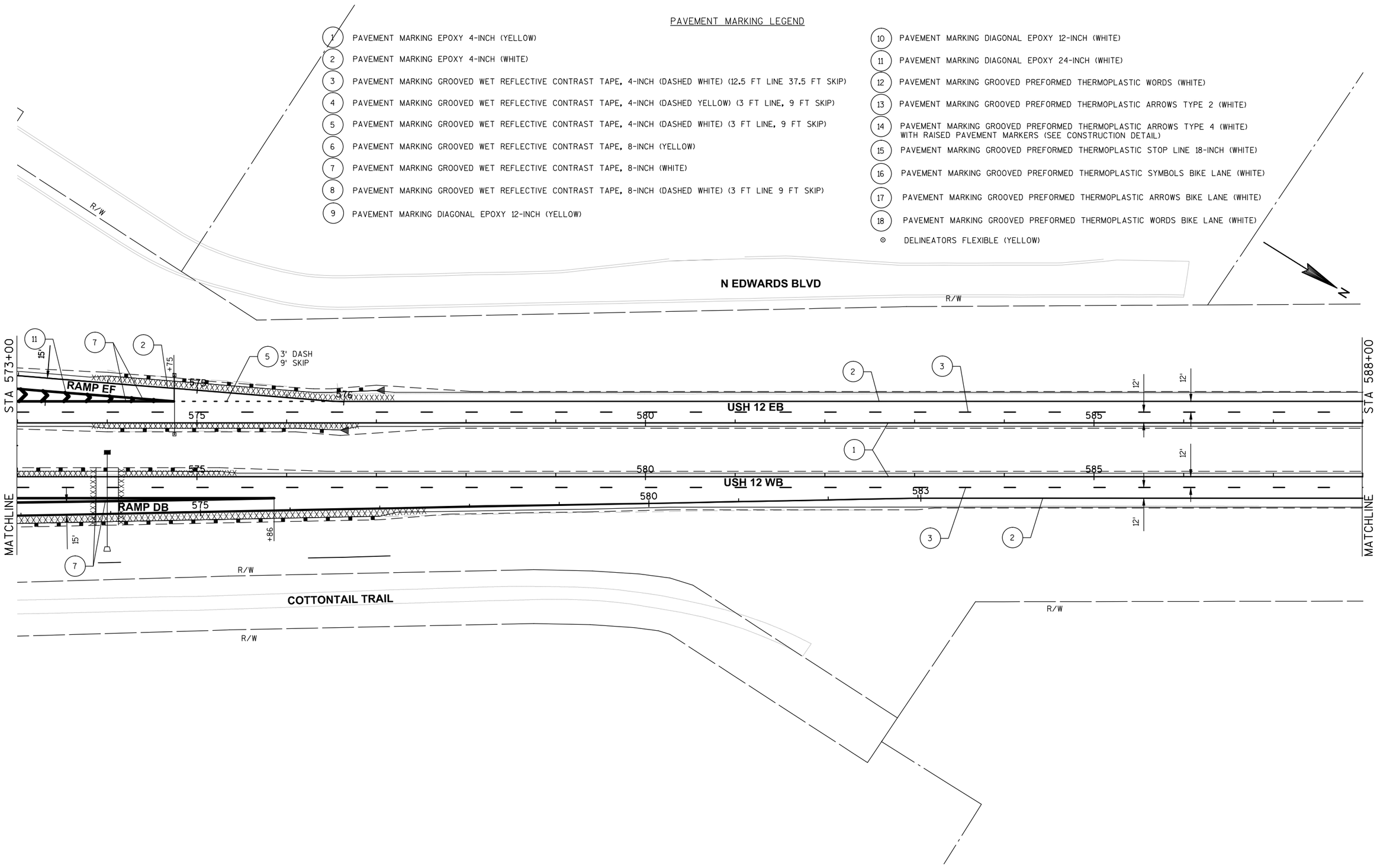
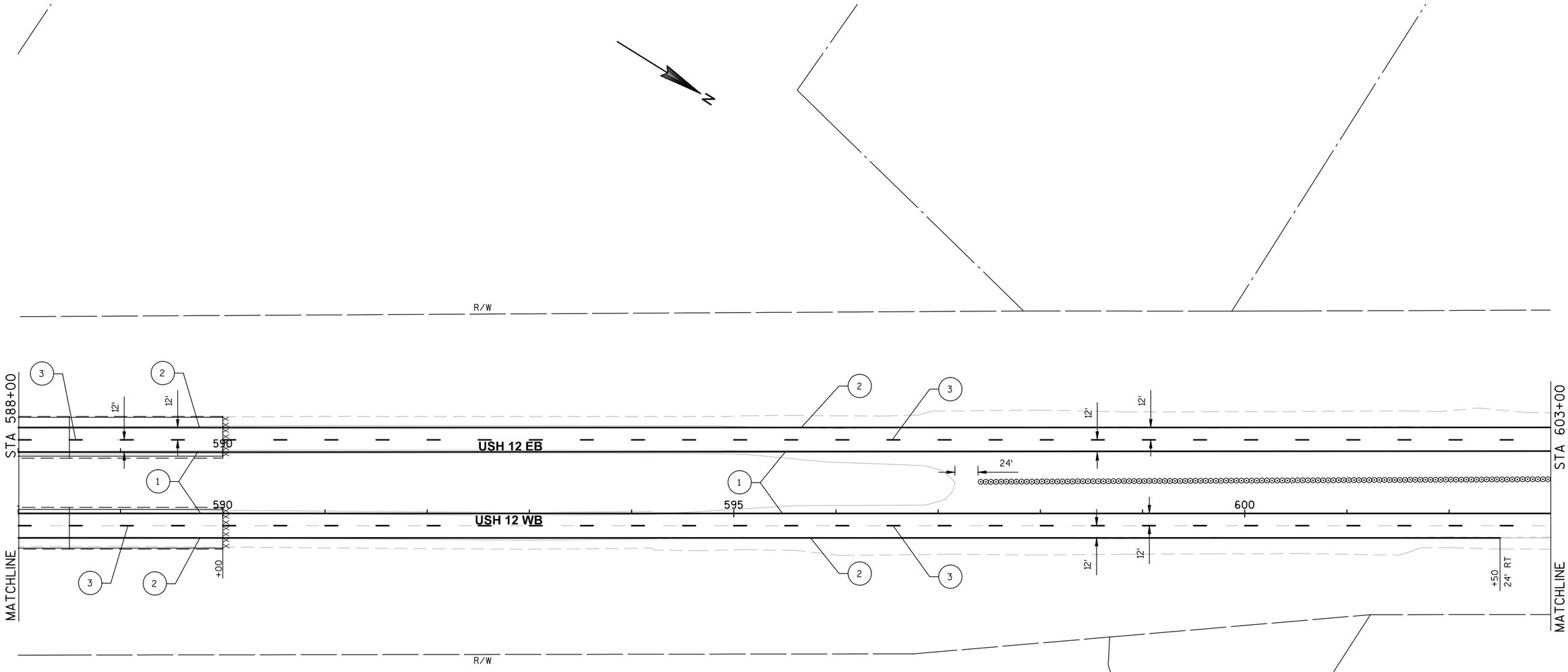
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 67 - E

2



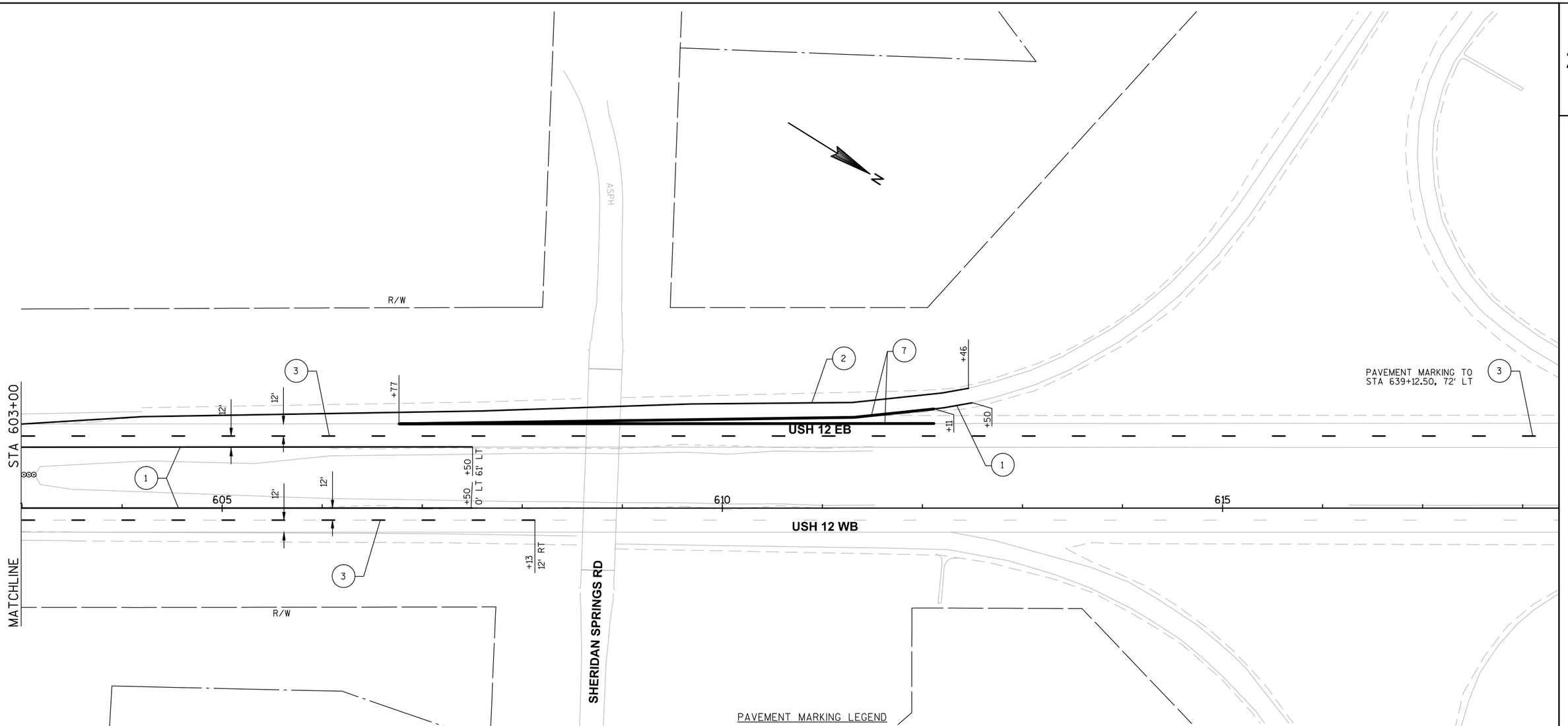
PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 68 - E

2



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
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7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 69 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\024506_PM.DWG PLOT DATE : 2/18/2014 12:11 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

RAMP CA
RAMP DA
RAMP BD
RAMP EF
STH 50
R/W
YIELD
N

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 70 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\024507_PM.DWG PLOT DATE : 2/18/2014 12:11 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

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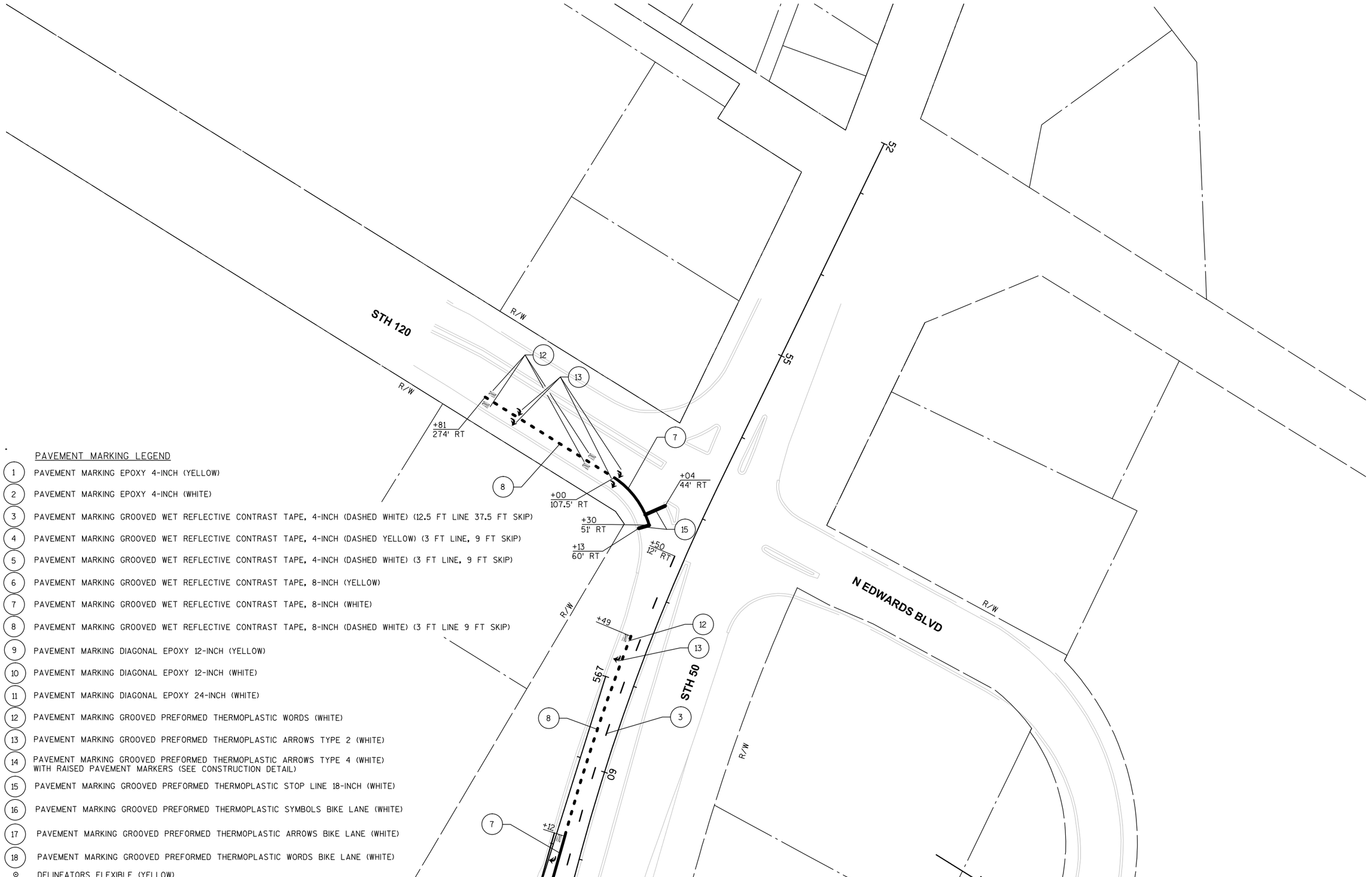


PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)

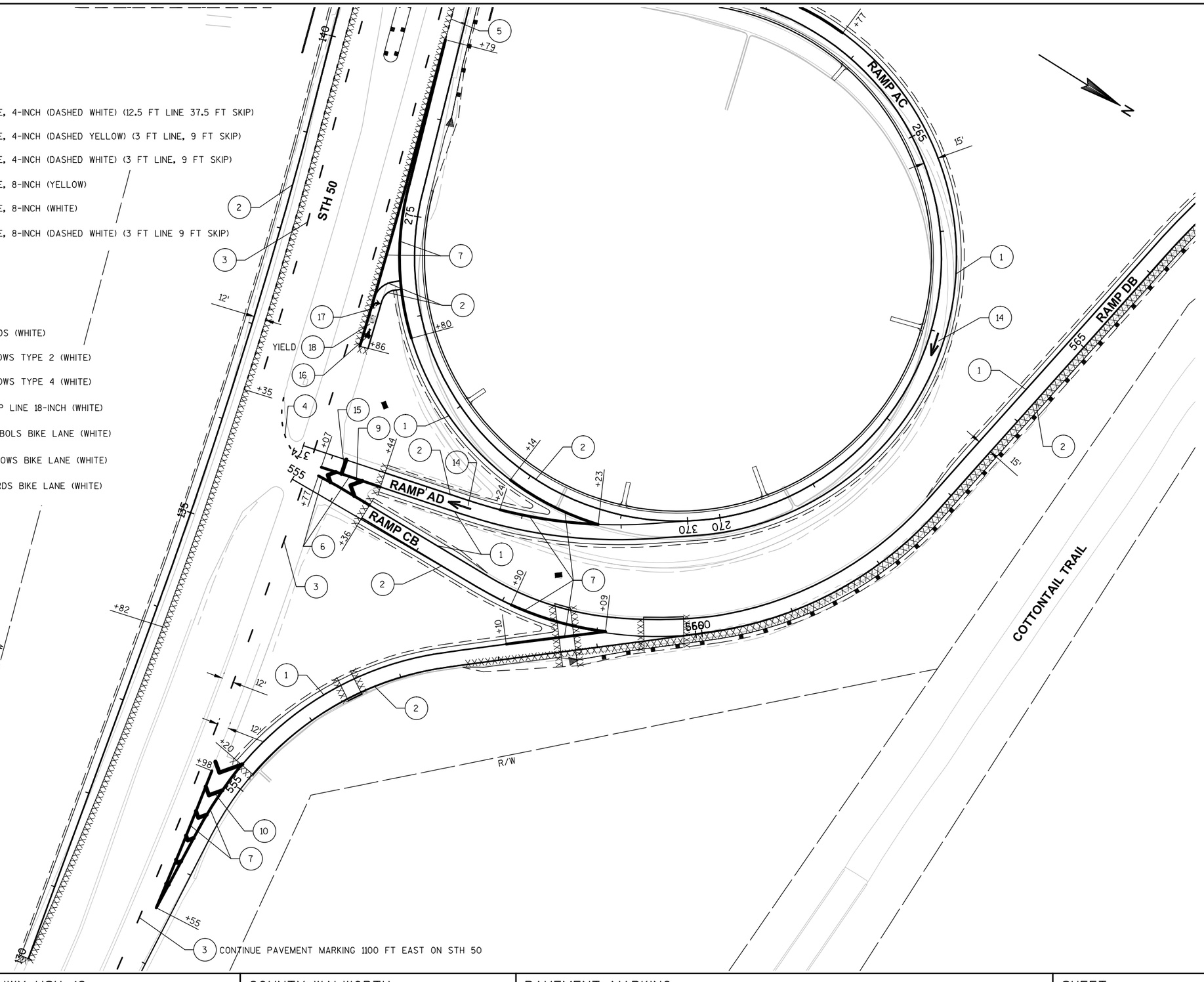
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 71 - E

2

PAVEMENT MARKING LEGEND

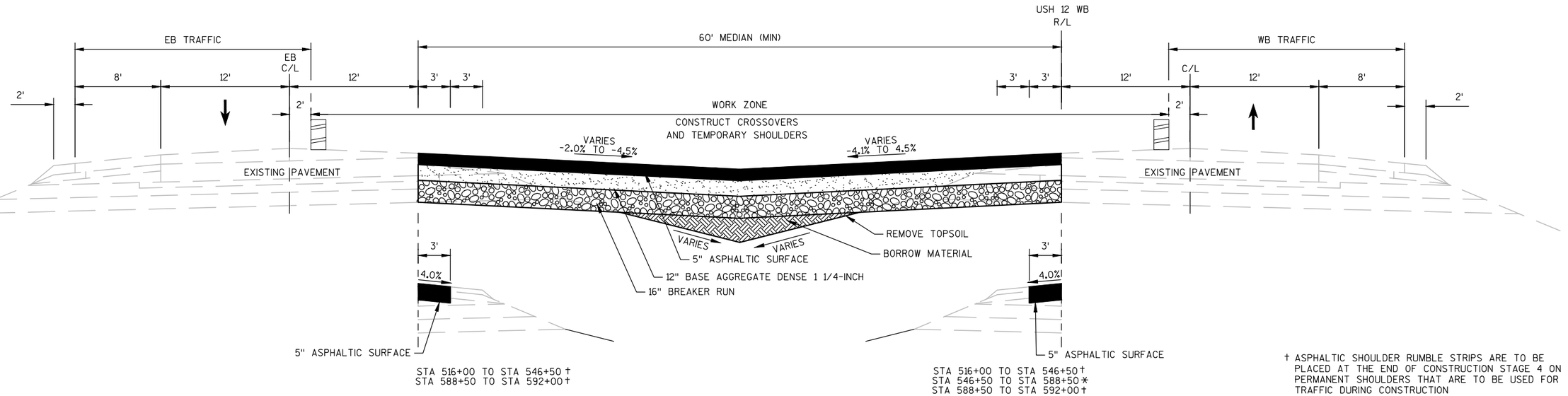
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED YELLOW) (3 FT LINE, 9 FT SKIP)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (DASHED WHITE) (3 FT LINE, 9 FT SKIP)
6. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (WHITE)
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (DASHED WHITE) (3 FT LINE 9 FT SKIP)
9. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS (WHITE)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 (WHITE)
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4 (WHITE) WITH RAISED PAVEMENT MARKERS (SEE CONSTRUCTION DETAIL)
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)
16. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE (WHITE)
18. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE (WHITE)

⊙ DELINEATORS FLEXIBLE (YELLOW)



3 CONTINUE PAVEMENT MARKING 1100 FT EAST ON STH 50

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PAVEMENT MARKING	SHEET 72 - E



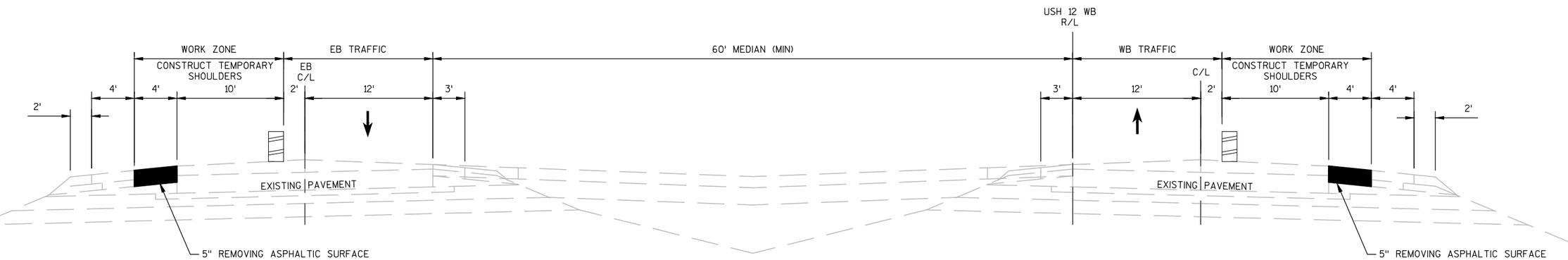
CROSSOVER TYPICAL SECTION - STAGE 1A
USH 12

STA 500+50 TO STA 516+00
STA 592+00 TO STA 607+50 **

† ASPHALTIC SHOULDER RUMBLE STRIPS ARE TO BE PLACED AT THE END OF CONSTRUCTION STAGE 4 ON PERMANENT SHOULDERS THAT ARE TO BE USED FOR TRAFFIC DURING CONSTRUCTION

* USE 5" ASPHALTIC SURFACE TEMPORARY

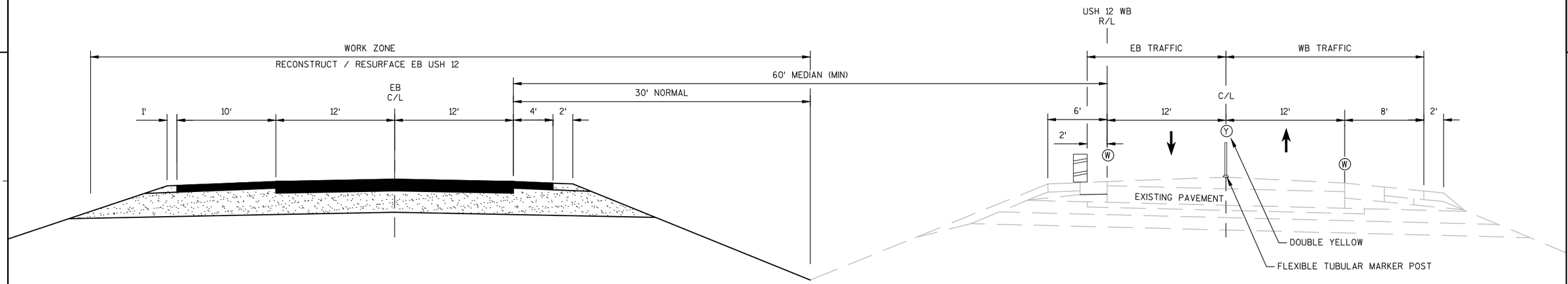
** RESURFACE EXISTING CROSSOVER ONLY. 5" REMOVING ASPHALTIC SURFACE MILLING AND REPLACE WITH 5" ASPHALTIC SURFACE



TYPICAL SECTION - STAGE 1B
USH 12

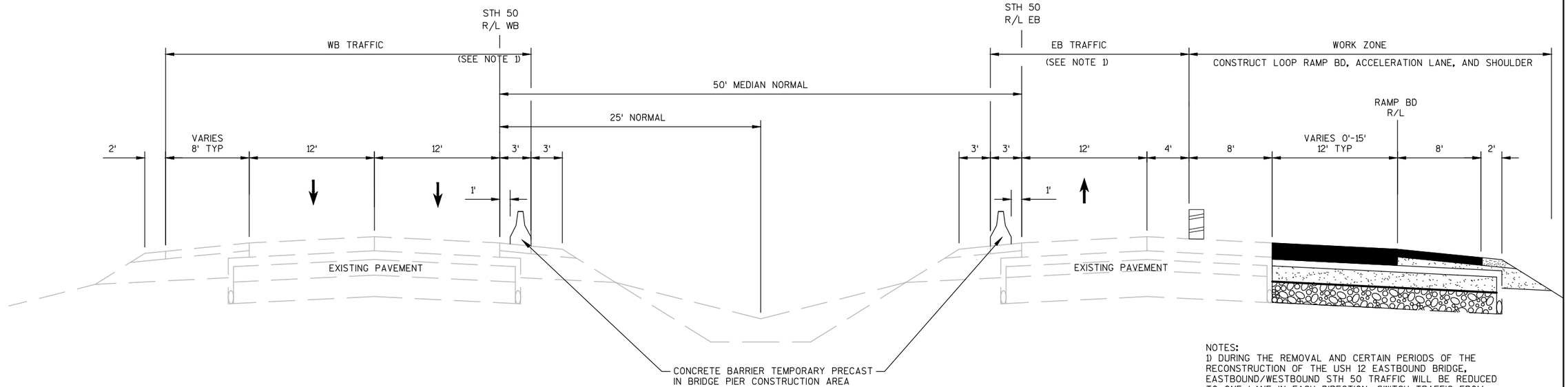
STA 504+00 TO STA 602+50

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 73	E



TYPICAL SECTION - STAGE 2
USH 12

STA 546+00 TO STA 590+00

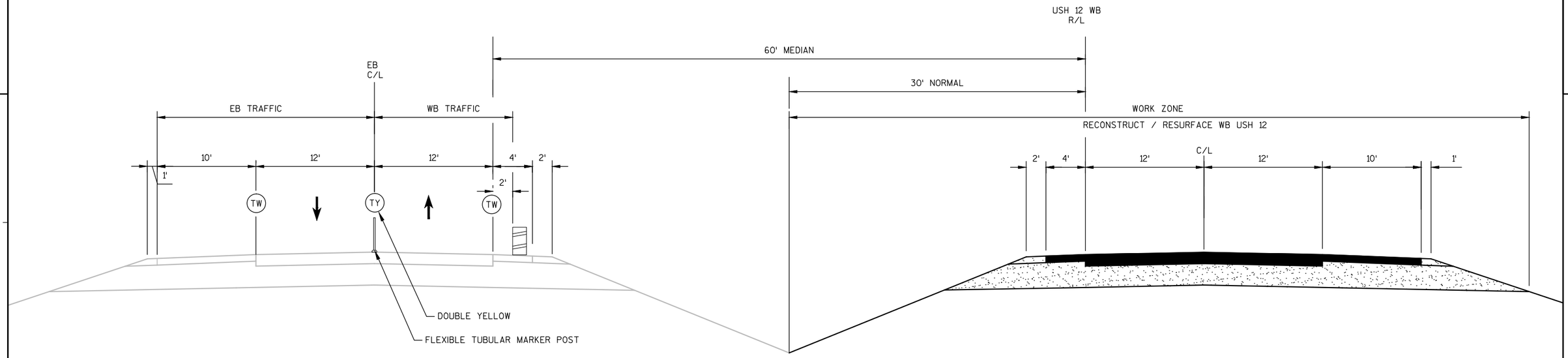


TYPICAL SECTION - STAGE 2
STH 50

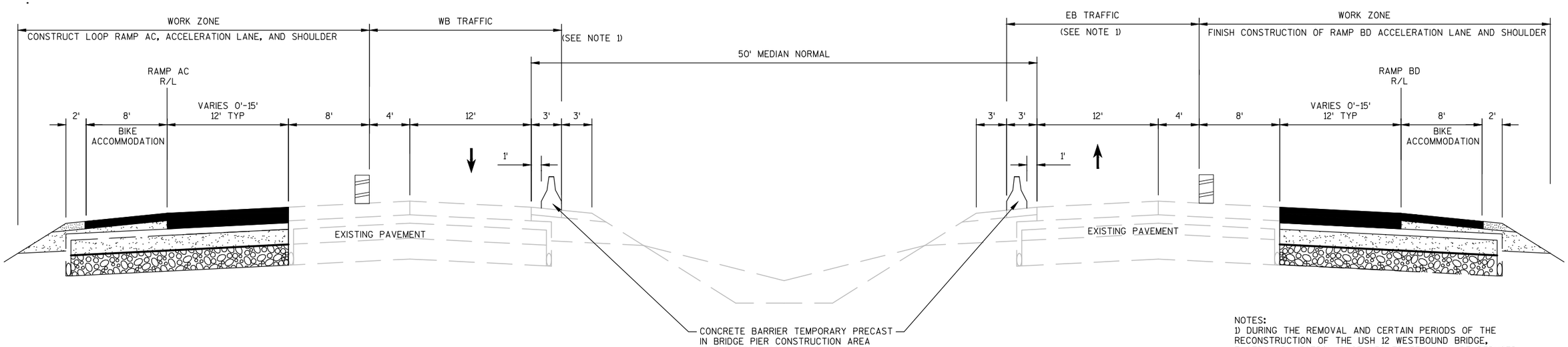
STA 66+72 TO STA 83+09
STA 130+23 TO STA 139+00 (RAMP BD)
STA 142+50 TO STA 145+00 (RAMP BD)

NOTES:
1) DURING THE REMOVAL AND CERTAIN PERIODS OF THE RECONSTRUCTION OF THE USH 12 EASTBOUND BRIDGE, EASTBOUND/WESTBOUND STH 50 TRAFFIC WILL BE REDUCED TO ONE LANE IN EACH DIRECTION. SWITCH TRAFFIC FROM EITHER LANE DEPENDING ON WHICH PART OF THE USH 12 EASTBOUND BRIDGE IS BEING REMOVED OR CONSTRUCTED. REMOVAL OF GIRDERS OR PLACEMENT OF NEW GIRDERS WILL REQUIRE PERIODIC NIGHTTIME ROLLING STOPS. SEE SPECIAL PROVISIONS.

LEGEND
- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)



TYPICAL SECTION - STAGE 3
USH 12
STA 546+00 TO STA 590+00



TYPICAL SECTION - STAGE 3
STH 50
STA 66+72 TO STA 83+09
STA 139+00 TO STA 142+50 (RAMP BD)
STA 274+00 TO STA 283+00 (RAMP AC)

NOTES:
1) DURING THE REMOVAL AND CERTAIN PERIODS OF THE RECONSTRUCTION OF THE USH 12 WESTBOUND BRIDGE, EASTBOUND/WESTBOUND STH 50 TRAFFIC WILL BE REDUCED TO ONE LANE IN EACH DIRECTION. SWITCH TRAFFIC FROM EITHER LANE DEPENDING ON WHICH PART OF THE USH 12 WESTBOUND BRIDGE IS BEING REMOVED OR CONSTRUCTED. REMOVAL OF GIRDERS OR PLACEMENT OF NEW GIRDERS WILL REQUIRE PERIODIC NIGHTTIME ROLLING STOPS.

LEGEND
(TY) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
(TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 75	E

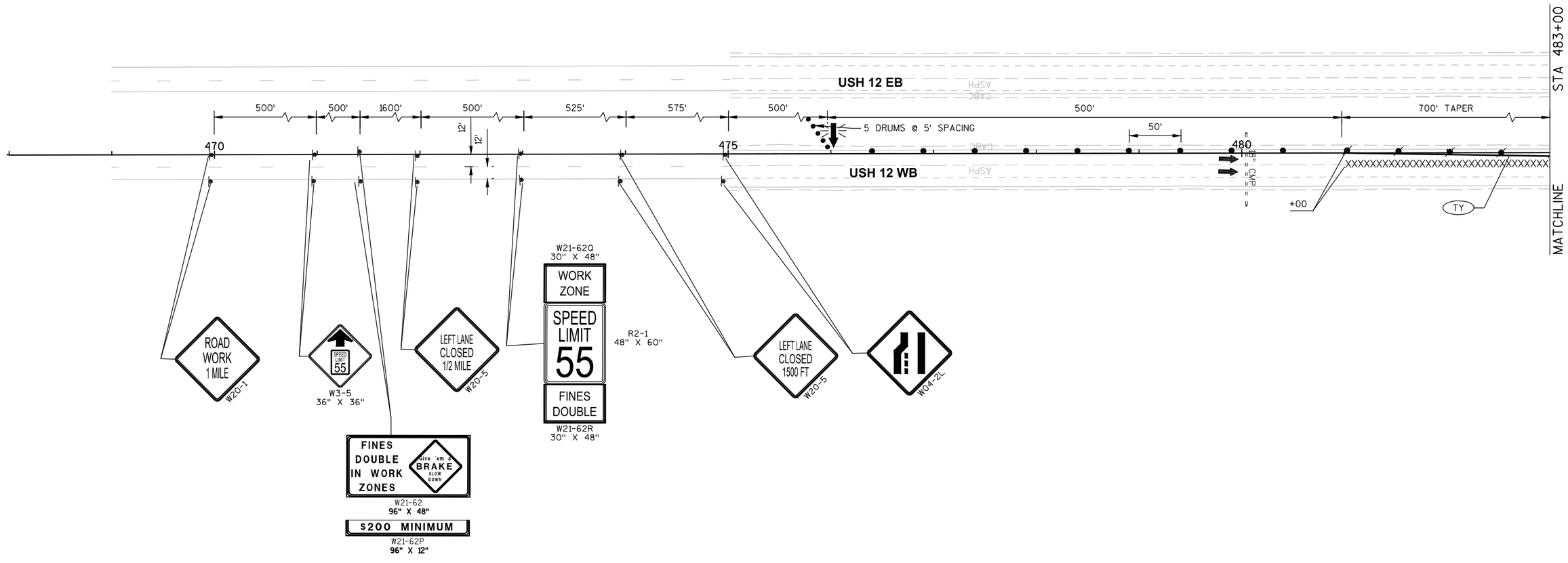
GENERAL NOTES FOR CONSTRUCTION STAGING AND TRAFFIC CONTROL

1. ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
3. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
4. ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND/OR AS DIRECTED BY THE ENGINEER. NO "WORKING" LIGHTS SHALL BE VISIBLE ON A COVERED OR LAID DOWN SIGN.
5. ALL EXISTING CONFLICTING PAVEMENT MARKING SHALL BE REMOVED.
6. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK/CLOSED" AREAS IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR SHALL INSTALL PERMANENT SIGNS AND PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
8. ADEQUATE TURNING PROVISION SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS AS DIRECTED BY THE ENGINEER.
9. PLACE TEMPORARY RAISED PAVEMENT MARKERS THROUGH ALL CROSSOVER AND LANE SHIFTS.

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY

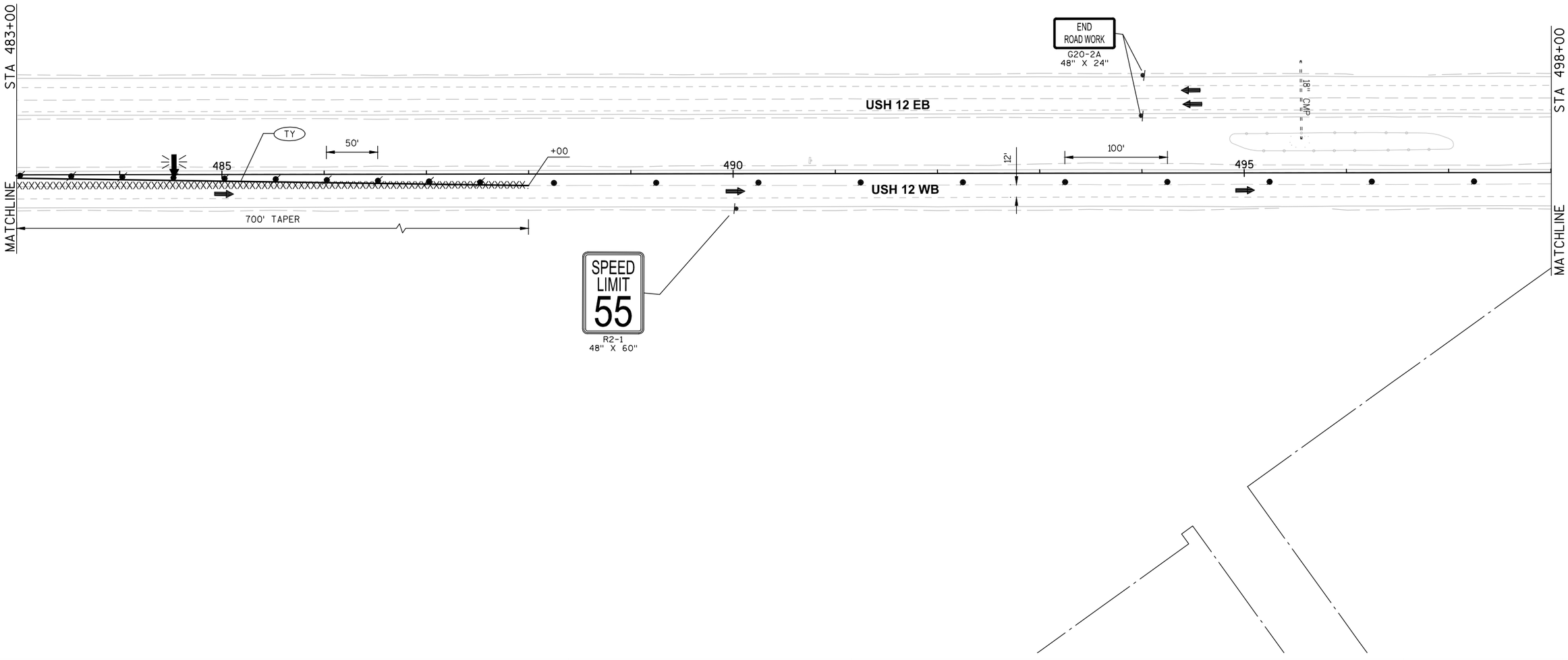


2

LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY



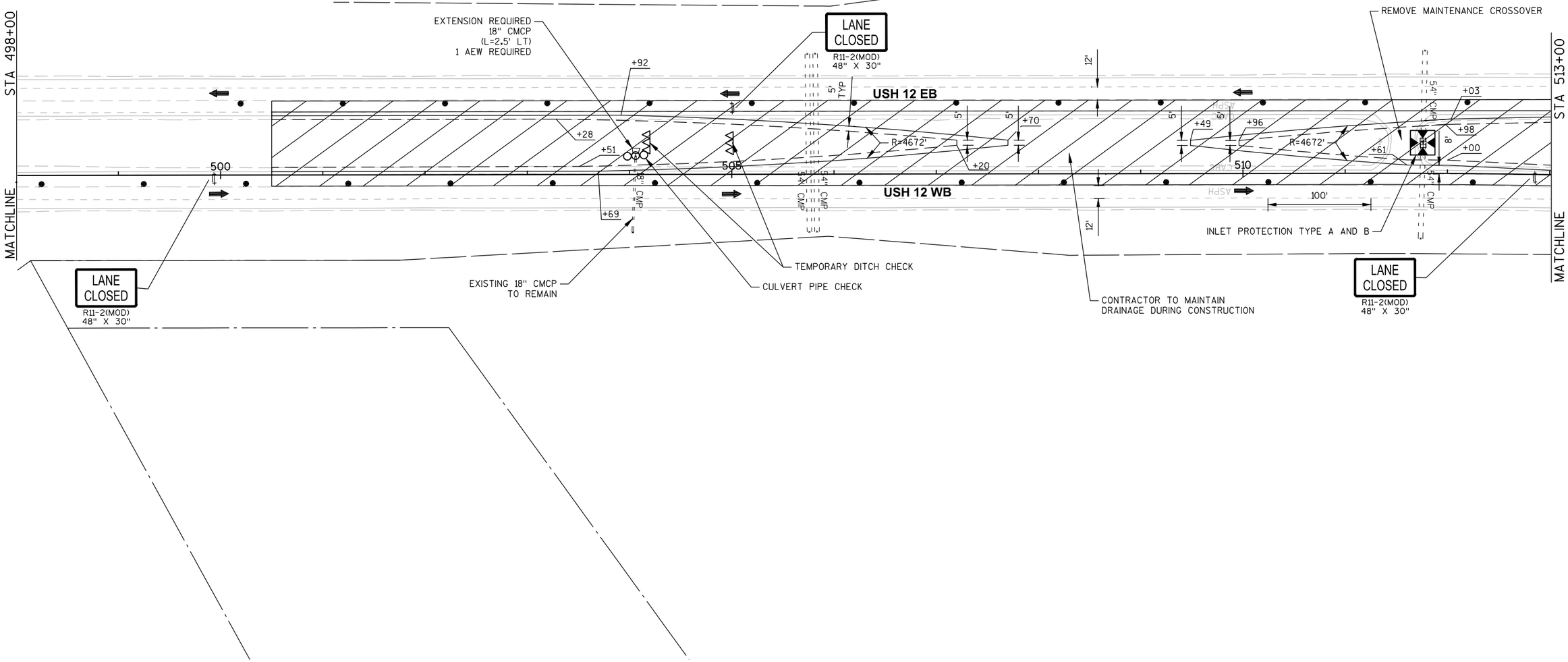
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 77 - E

2

LEGEND

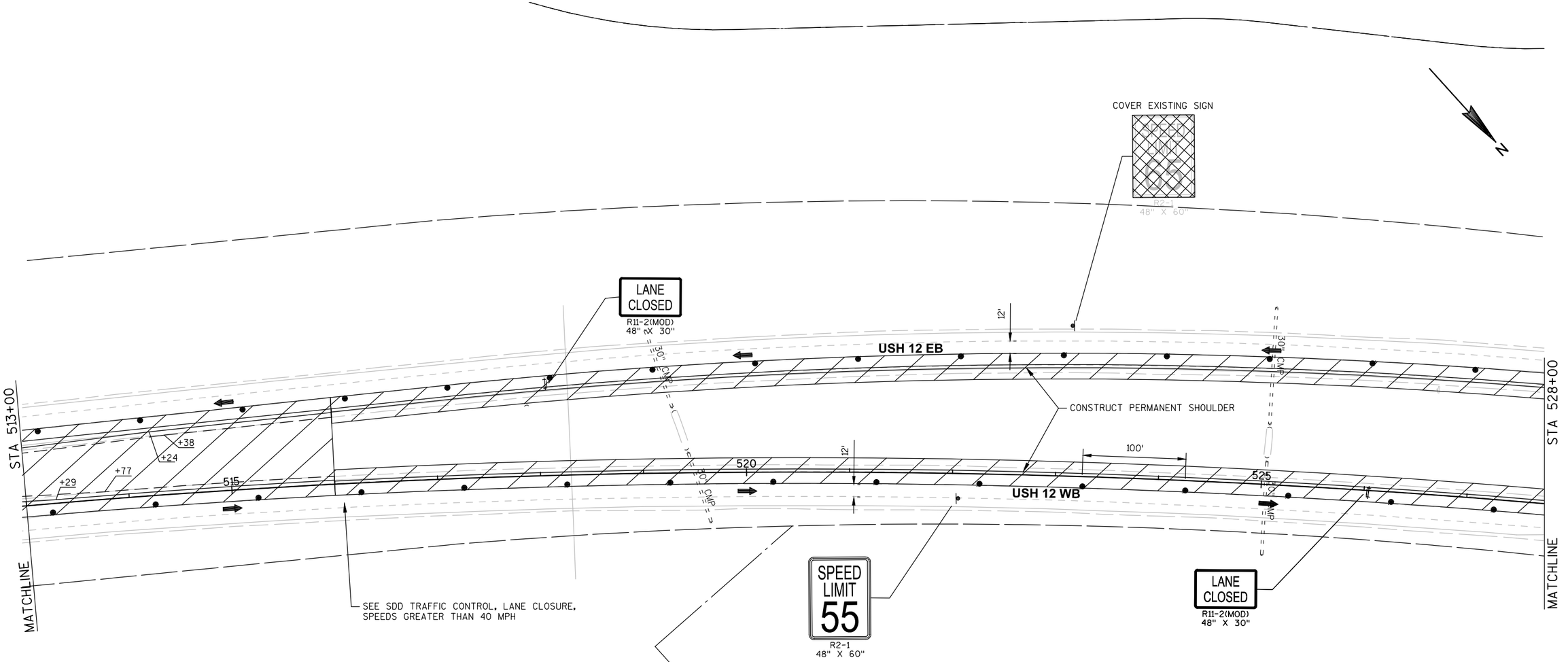
Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 78 - E

2



LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING
	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 79 - E

2

2

LANE CLOSED
R11-2(MOD)
48" X 30"

12'

100'

USH 12 EB

CONSTRUCT PERMANENT SHOULDER

STA 543+00

MATCHLINE

540

535

USH 12 WB

12'

530

STA 528+00

MATCHLINE

LANE CLOSED
R11-2(MOD)
48" X 30"

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 80 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026103_TC-1A.DWG PLOT DATE : 2/18/2014 12:15 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

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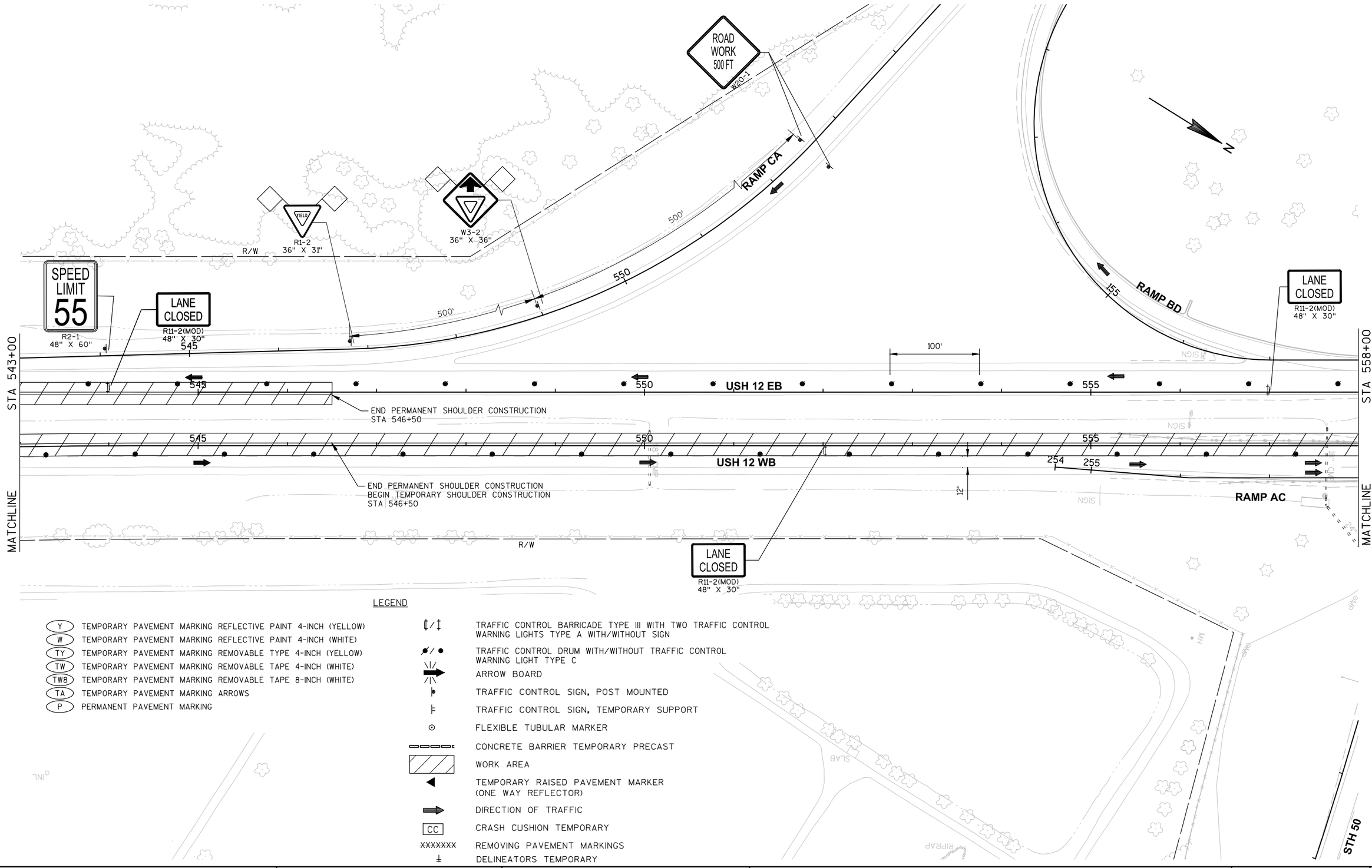


LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 81 - E

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

RAMP BD

RAMP EF

RAMP DB

RAMP AC

STH 50

USH 12 EB

USH 12 WB

STA 558+00

STA 573+00

MATCHLINE

MATCHLINE

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK 500 FT
W20-1

CONSTRUCT TEMPORARY SHOULDER

TA

50'

100'

15'

12'

12'

R/W

R/W

RIPRAP

SIGN

LEGEND

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 82 - E

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

N

COVER EXISTING SIGN

N EDWARDS BLVD

R/W

STA 573+00

STA 588+00

RAMP EF

575

576

100'

12'

575

580

USH 12 EB

LANE CLOSED
R11-2(MOD)
48" X 30"

585

CONSTRUCT TEMPORARY SHOULDER

MATCHLINE

575

580

USH 12 WB

583

585

MATCHLINE

RAMP DB

575

500'

580

LANE CLOSED
R11-2(MOD)
48" X 30"

12'

SPEED LIMIT 55
R2-1
48" X 60"

R/W

W3-2
36" X 36"

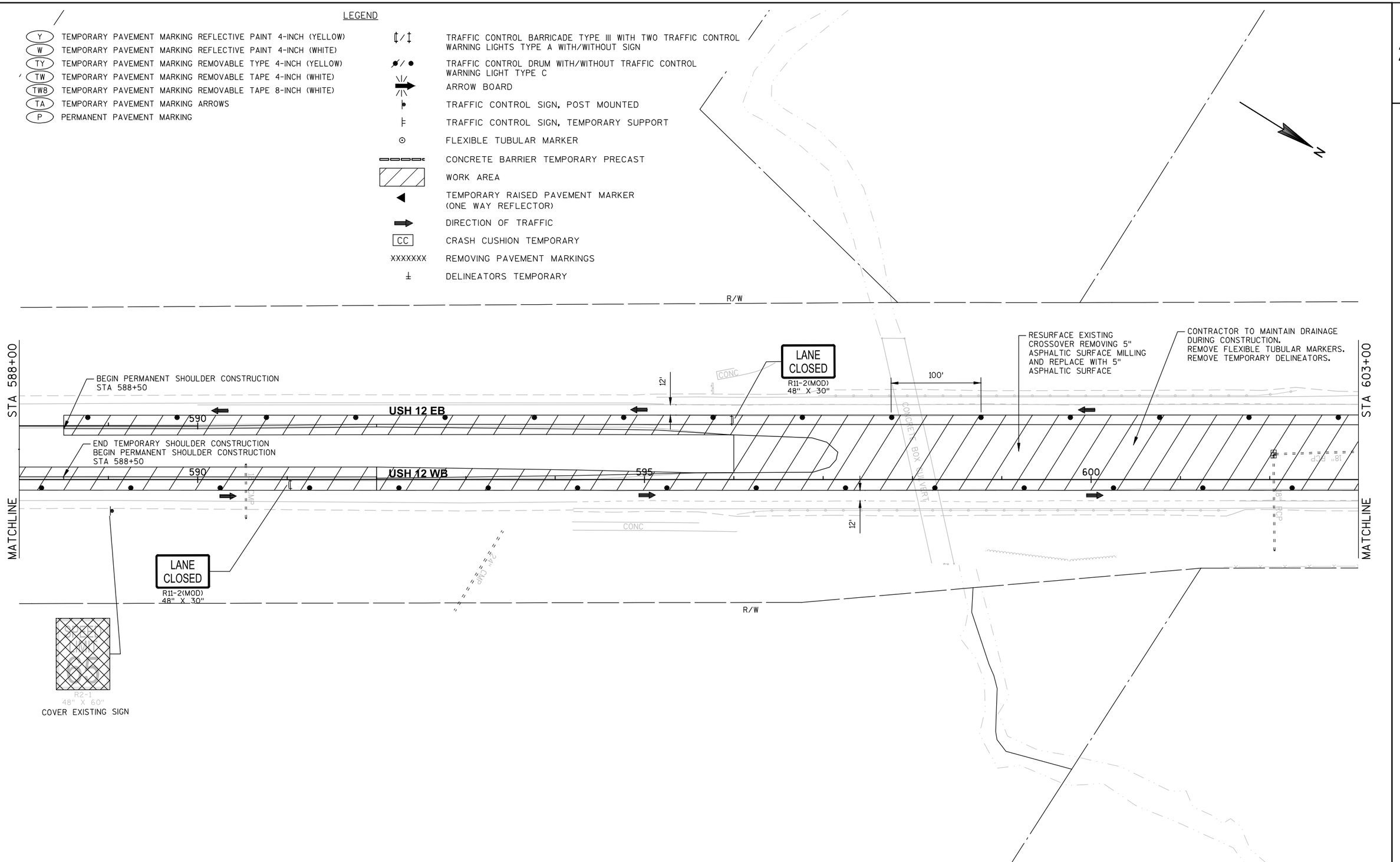
YIELD
R1-2
36" X 31"

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 83 - E

LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING

‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
⊙	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
◀	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 84 - E

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

N

STA 603+00

MATCHLINE

RESURFACE EXISTING CROSSOVER REMOVING 5" ASPHALTIC SURFACE MILLING AND REPLACE WITH 5" ASPHALTIC SURFACE

SPEED LIMIT 55
R2-1
48" X 60"

W3-2
36" X 36"

R1-2
36" X 31"

500'

LANE CLOSED
R11-2(MOD)
48" X 30"

100'

USH 12 EB

USH 12 WB

605

610

615

12'

+00

TY

700' TAPER

50'

END ROAD WORK
G20-2A
48" X 24"

R/W

SHERIDAN SPRINGS RD

SHERIDAN SPRINGS ROAD

ASPH

CURB

GUARD

OMP

STA 618+00

MATCHLINE

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 85 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026108_TC-1A.DWG PLOT DATE : 2/18/2014 12:17 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

W04-2L

LEFT LANE CLOSED 1500 FT W20-5

R2-1 48" X 60"

W21-62Q 30" X 48"

WORK ZONE

SPEED LIMIT 55

FINES DOUBLE

W21-62R 30" X 48"

LEFT LANE CLOSED 1/2 MILE W20-5

FINES DOUBLE IN WORK ZONES — Give 'em a BRAKE SLOW DOWN

W21-62 96" X 48"

$200 MINIMUM

W21-62P 96" X 12"

SPEED LIMIT 55

W3-5 36" X 36"

ROAD WORK 1 MILE W20-1

N

STA 618+00

+00

700' TAPER

TY

620

625

630

MATCHLINE

USH 12 EB

USH 12 WB

50'

500'

5 DRUMS @ 5' SPACING

500'

575'

525'

500'

1600'

500'

500'

SIGN

POST

STH 120

48" RCP

30" CMP

FO

FES

R/W

CONC

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 86 - E

2

N EDWARDS BLVD

ROAD WORK AHEAD W20-1

LEFT LANE CLOSED AHEAD W20-5

W04-2L

500'

500'

500'

END ROAD WORK G20-2A 48" X 24"

5 DRUMS AT 5' SPACING

STH 50

567

565

RAMP CA

LANE CLOSED R11-2(MOD) 48" X 30"

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50 30" X 36"

INSTALL TEMPORARY SIGNALS AT THE EASTBOUND USH 12 OFF RAMP (RAMP EF) INTERSECTION WITH STH 50. TEMPORARY ASPHALT PAVING WILL BE REQUIRED IN THE STH 50 MEDIAN. SEE TEMPORARY SIGNAL PLAN.

REMOVE SIGNAL POLE DURING STAGE 1A CONSTRUCTION. CONCRETE BASE, METAL BASE CAP AND WIRING TO REMAIN. PROTECT SIGNAL BASE WITH TRAFFIC CONTROL DRUMS. REINSTALL EXISTING SIGNAL POLE PRIOR TO TEMPORARY SIGNAL REMOVAL. SEE TEMPORARY SIGNAL PLANS FOR FURTHER INFORMATION.

LANE CLOSED R11-2(MOD) 48" X 30"

565

REMOVE EXISTING RIGHT-TURN ARROWS

RAMP EF

50'

15'

TA

+18

TW8

2' LINE 6' GAP TY

CONSTRUCT TEMPORARY SHOULDER

TA

LANE CLOSED R11-2(MOD) 48" X 30"

+51

+57

283

560

559

594

RAMP DA

RAMP BD

560

N

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1A	SHEET 87 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026110_TC-1A-STH50.DWG PLOT DATE : 2/18/2014 12:18 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2

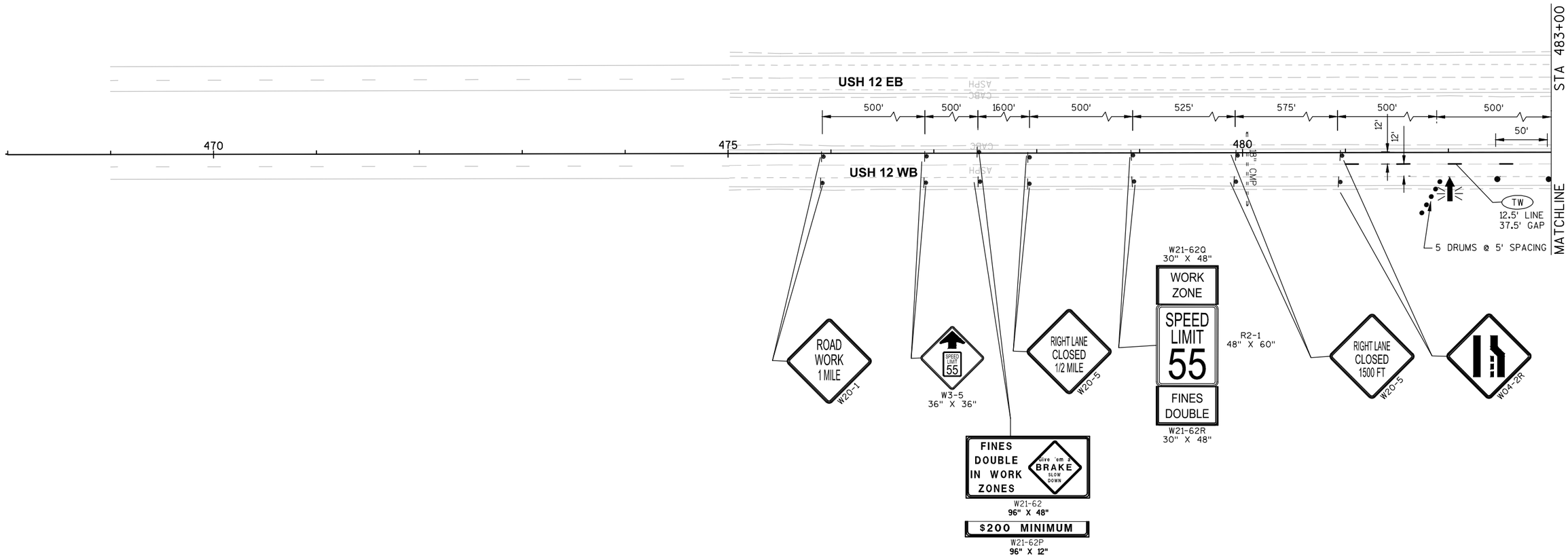
GENERAL NOTES FOR CONSTRUCTION STAGING AND TRAFFIC CONTROL

1. ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
3. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
4. ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND/OR AS DIRECTED BY THE ENGINEER. NO "WORKING" LIGHTS SHALL BE VISIBLE ON A COVERED OR LAID DOWN SIGN.
5. ALL EXISTING CONFLICTING PAVEMENT MARKING SHALL BE REMOVED.
6. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK/CLOSED" AREAS IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR SHALL INSTALL PERMANENT SIGNS AND PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
8. ADEQUATE TURNING PROVISION SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS AS DIRECTED BY THE ENGINEER.
9. PLACE TEMPORARY RAISED PAVEMENT MARKERS THROUGH ALL CROSSOVER AND LANE SHIFTS.

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC CRASH CUSHION TEMPORARY
- XXXXXXX REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY



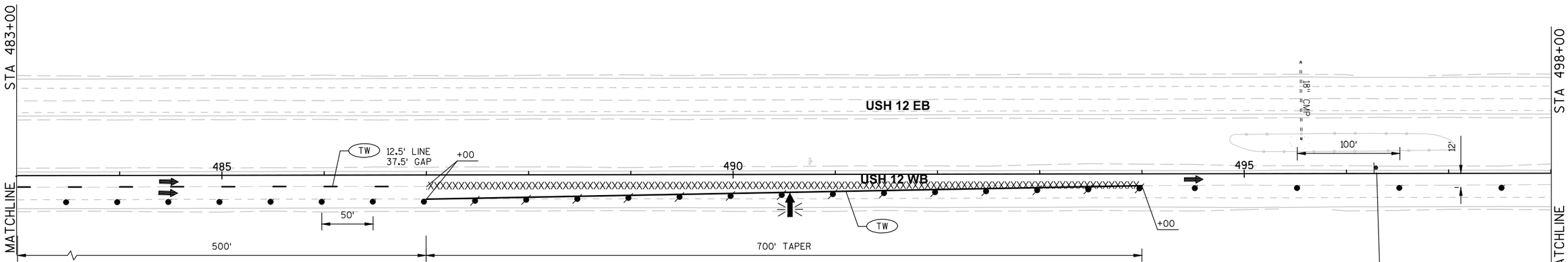
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 88 - E

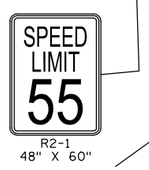
2

LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY





R2-1
48" X 60"

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 89 - E

LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING
‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
⊙	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
◀	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

N

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2(MOD)
48" X 30"

STA 498+00

STA 513+00

USH 12 EB

USH 12 WB

BEGIN PERMANENT SHOULDER CONSTRUCTION
STA 506+00

BEGIN PERMANENT SHOULDER CONSTRUCTION
STA 504+00

500 505 510

100'

12'

12'

8" CMP

3'4" CMP

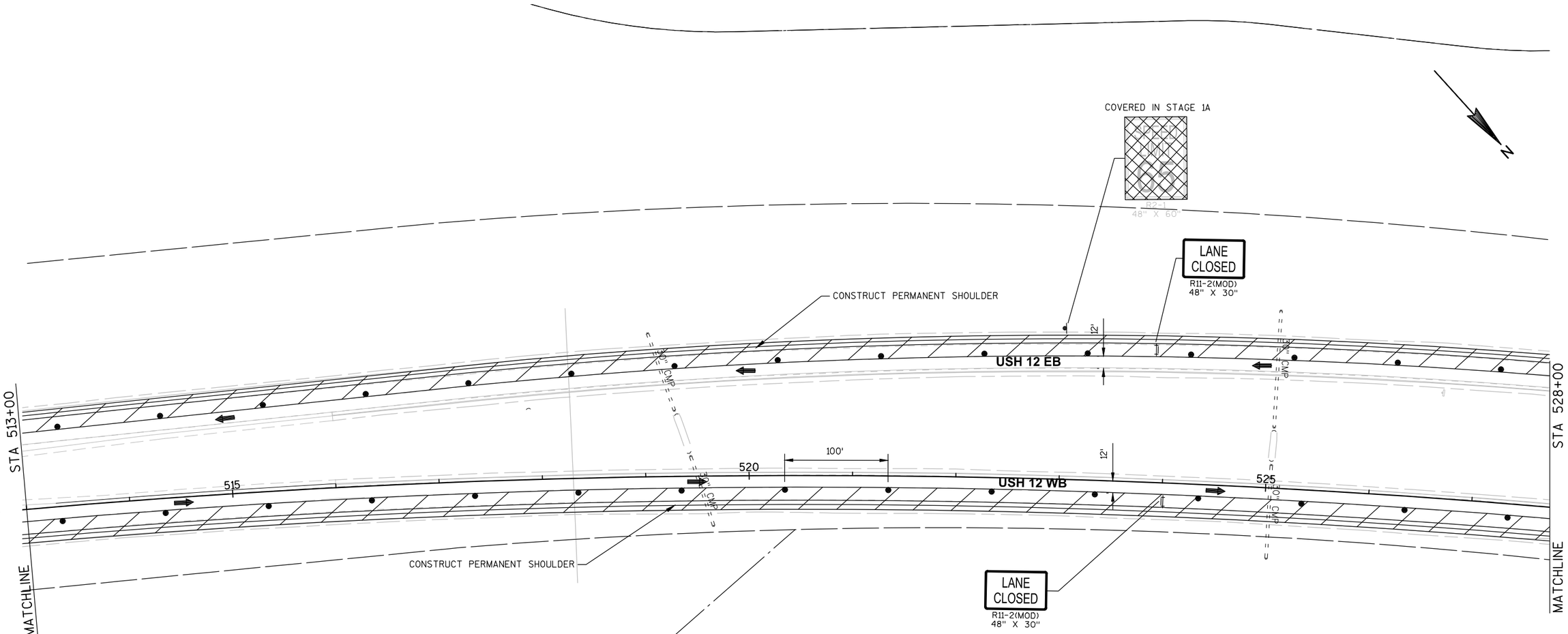
MATCHLINE

MATCHLINE

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED
R11-2(MOD)
48" X 30"

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 91 - E

2

LANE CLOSED
R11-2(MOD)
48" X 30"

CONSTRUCT PERMANENT SHOULDER

12'

USH 12 EB

STA 543+00

12'

540

USH 12 WB

535

100'

CONSTRUCT PERMANENT SHOULDER

STA 528+00

530

MATCHLINE

LANE CLOSED
R11-2(MOD)
48" X 30"

MATCHLINE

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

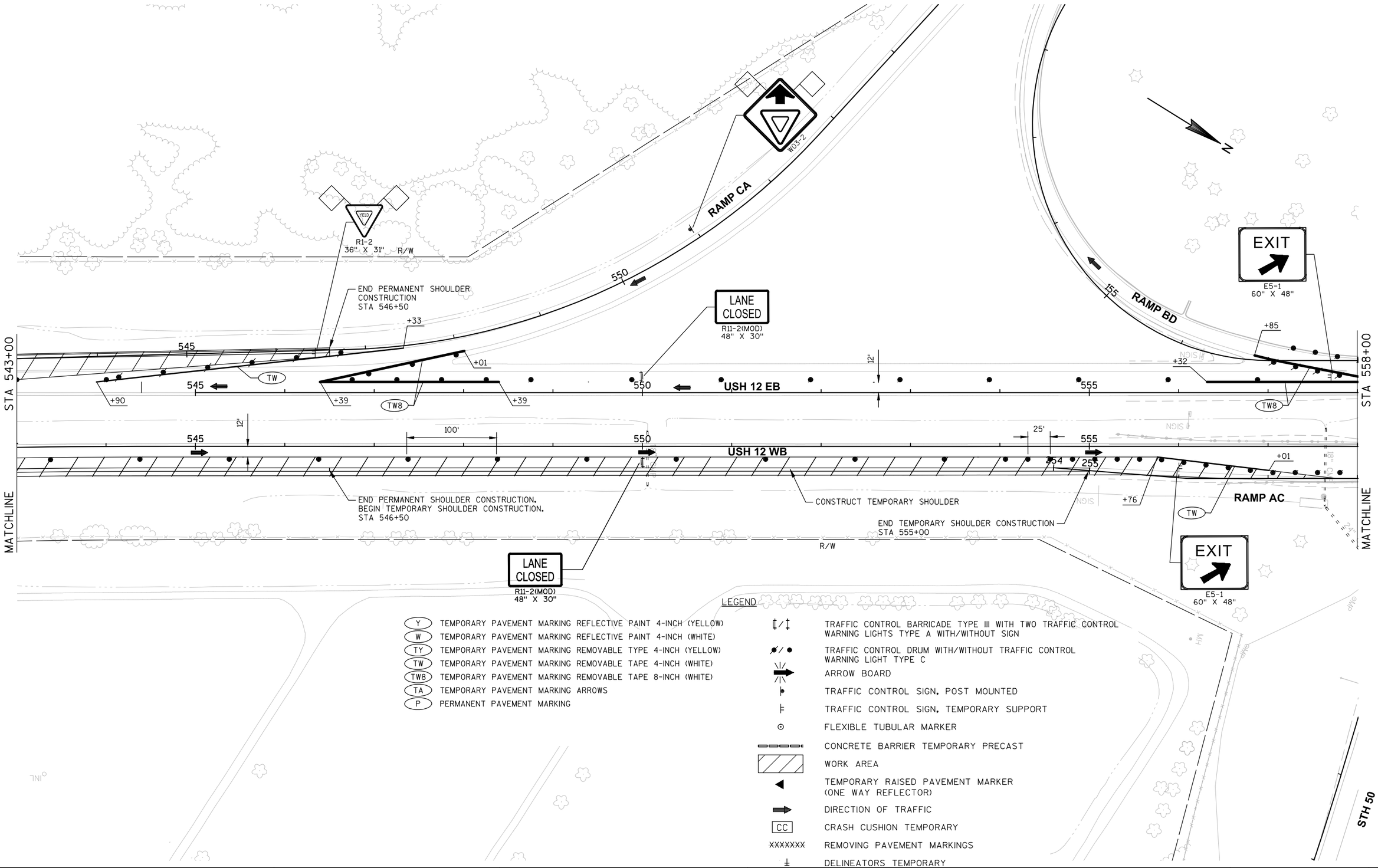
LEGEND

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 92 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026113_TC-1B.DWG PLOT DATE : 2/18/2014 12:20 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
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	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

2

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

RAMP BD

RAMP EF

RAMP AC

STH 50

USH 12 EB

USH 12 WB

STA 558+00

STA 573+00

MATCHLINE

MATCHLINE

ONLY ONLY
R3-8F
36"X30"

LANE CLOSED
R11-2(MOD)
48" X 30"

NEW TRAFFIC PATTERN AHEAD
W23-2

LANE CLOSED
R11-2(MOD)
48" X 30"

EXIT
E5-1
60" X 48"

LANE CLOSED
R11-2(MOD)
48" X 30"

BEGIN TEMPORARY SHOULDER CONSTRUCTION
STA 562+50

END TEMPORARY SHOULDER CONSTRUCTION
STA 571+25

ROAD WORK AHEAD
W20-1

W03-2

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 94 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026115_TC-1B.DWG PLOT DATE : 2/18/2014 12:21 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

N

COVERED IN STAGE 1A

R2-1
48" X 60"

EXIT

E5-1
60" X 48"

N EDWARDS BLVD

R/W

STA 573+00

STA 588+00

RAMP EF

+32 +75 575 +32 576

575

+64 TW +64

580

25'

12'

USH 12 EB

585

TW8

+00 575

RAMP DB

50'

+00

580

+50

USH 12 WB

583

980

TW

12'

585

MATCHLINE

MATCHLINE

100'

BEGIN TEMPORARY SHOULDER CONSTRUCTION
STA 581+50

CONSTRUCT TEMPORARY SHOULDER

R/W

R/W

EXISTING SIGN TO BE MOVED

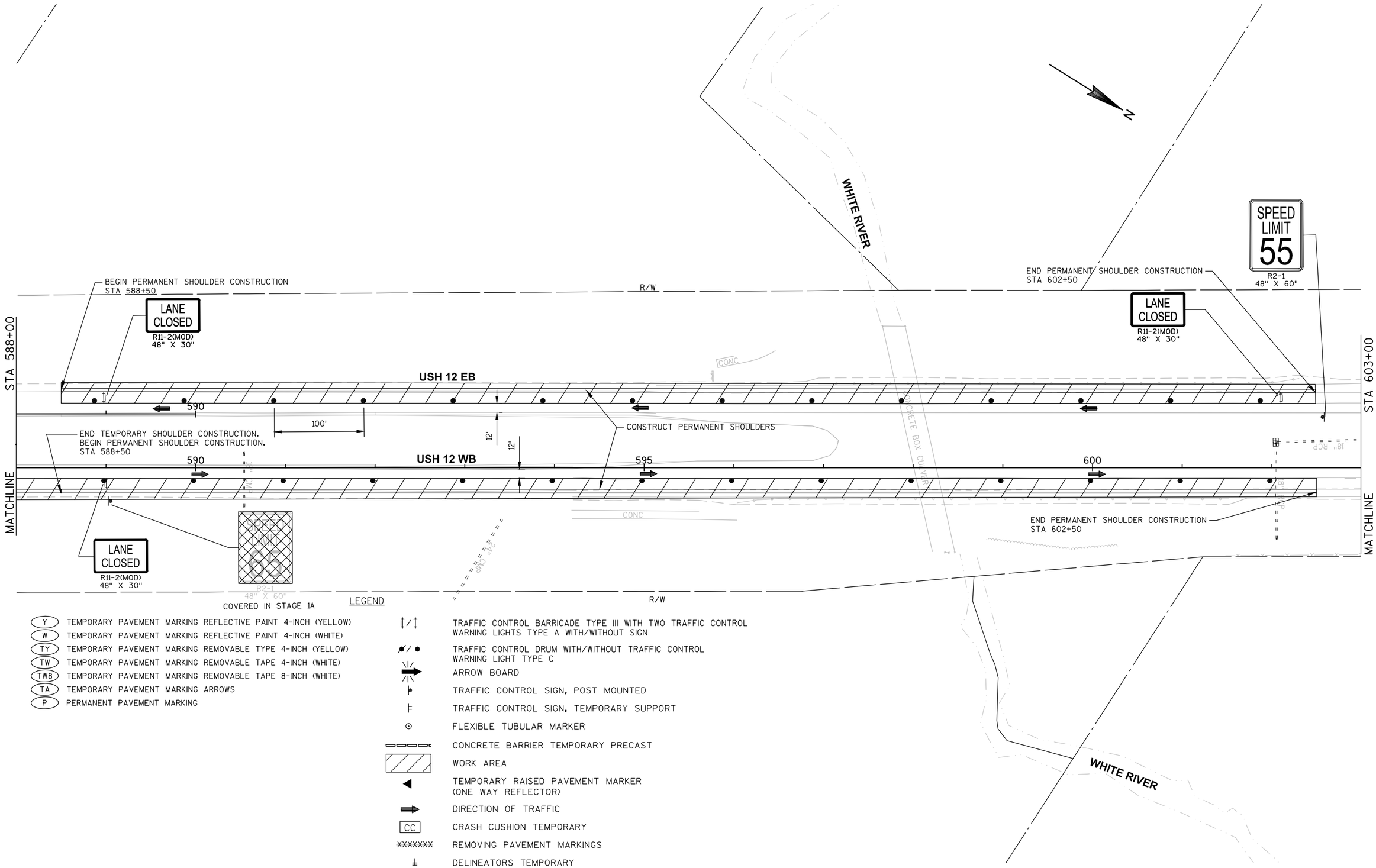
YIELD
R1-2
36" X 31"

SPEED LIMIT 55
R2-1
48" X 60"

LANE CLOSED
R11-2(MOD)
48" X 30"

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 95 - E

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)	ARROW BOARD
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)	TRAFFIC CONTROL SIGN, POST MOUNTED
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
TA	TEMPORARY PAVEMENT MARKING ARROWS	FLEXIBLE TUBULAR MARKER
P	PERMANENT PAVEMENT MARKING	CONCRETE BARRIER TEMPORARY PRECAST
		WORK AREA
		TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
		DIRECTION OF TRAFFIC
CC		CRASH CUSHION TEMPORARY
XXXXXXX		REMOVING PAVEMENT MARKINGS
±		DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 96 - E

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

R1-2
36" X 31"
R/W

EXISTING SIGN
TO BE MOVED

W03-2

ROAD
WORK
AHEAD
W20-1

STA 603+00

STA 618+00

TW8 +68 200' 50' TW +06 500' +50 50' TW 12.5' LINE 37.5' GAP

12'

+30 TW8 +50 700' TAPER +00 500'

+00

605 610 615

USH 12 EB

USH 12 WB

MATCHLINE

MATCHLINE

END
ROAD WORK
G20-2A
48" X 24"

R/W

SHERIDAN SPRINGS RD

SHERIDAN SPRINGS ROAD

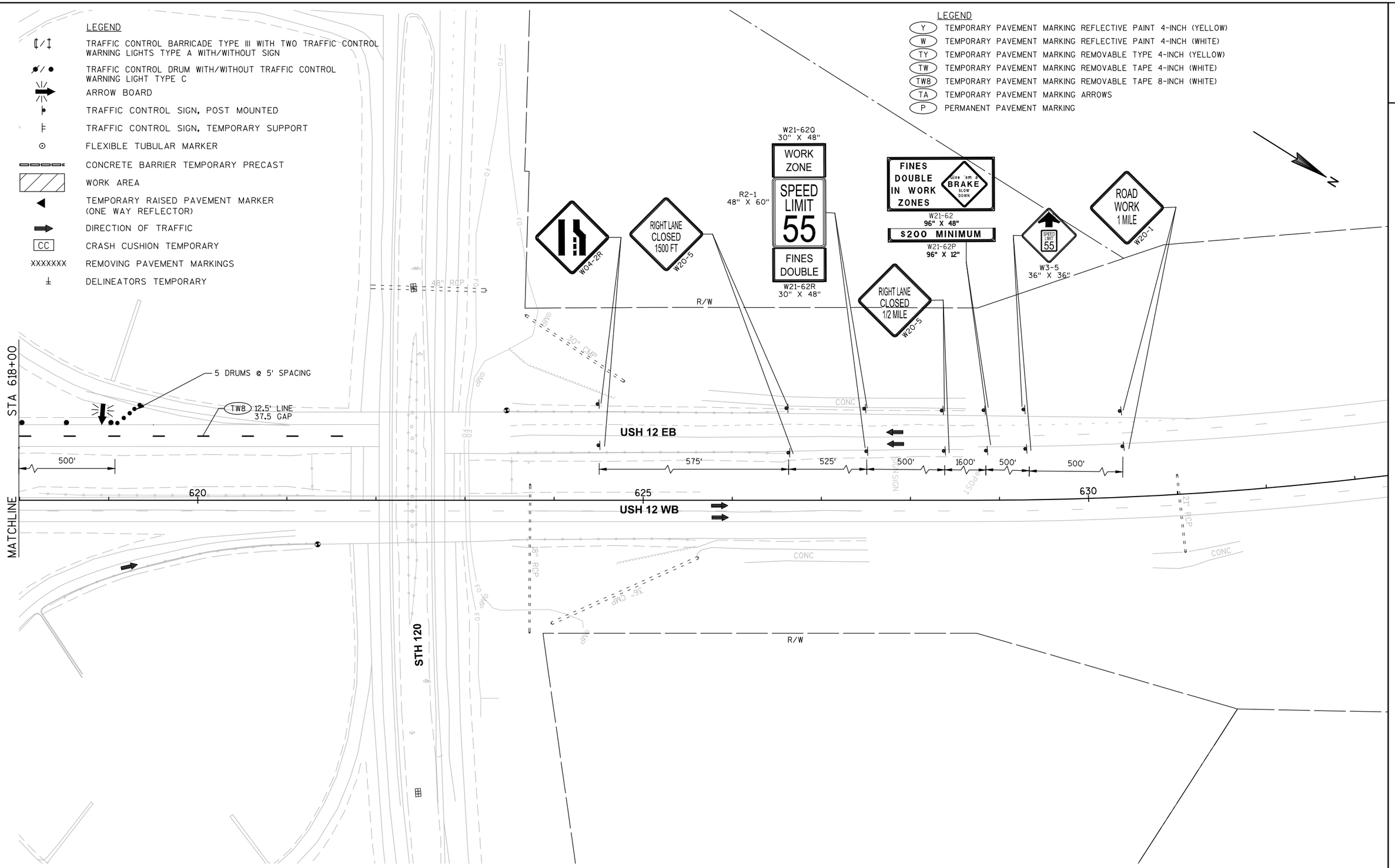
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 97 - E

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 1B	SHEET 98 - E

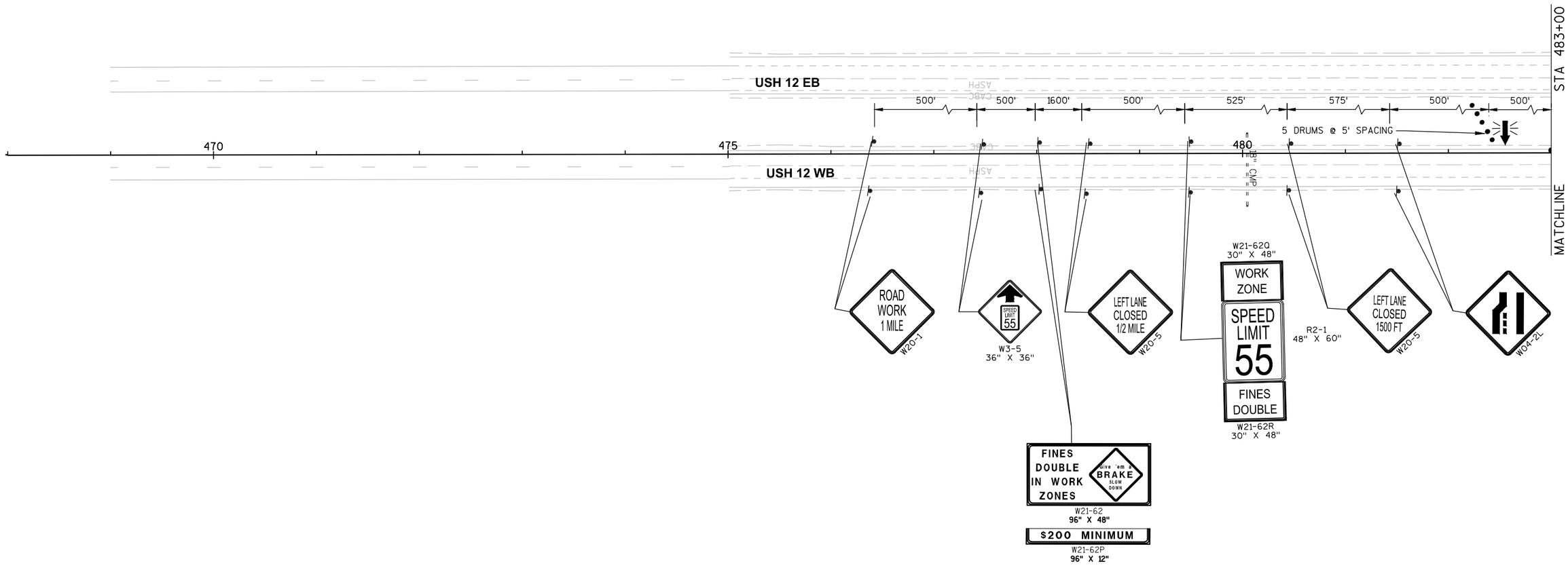
GENERAL NOTES FOR CONSTRUCTION STAGING AND TRAFFIC CONTROL

1. ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
3. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
4. ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND/OR AS DIRECTED BY THE ENGINEER. NO "WORKING" LIGHTS SHALL BE VISIBLE ON A COVERED OR LAID DOWN SIGN.
5. ALL EXISTING CONFLICTING PAVEMENT MARKING SHALL BE REMOVED.
6. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK/CLOSED" AREAS IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR SHALL INSTALL PERMANENT SIGNS AND PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
8. ADEQUATE TURNING PROVISION SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS AS DIRECTED BY THE ENGINEER.
9. PLACE TEMPORARY RAISED PAVEMENT MARKERS THROUGH ALL CROSSOVER AND LANE SHIFTS.

NOTES:
1. ALL CONFLICTING PAVEMENT MARKING SHALL BE REMOVED.

LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING
‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
⌀/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
⊙	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
◀	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY



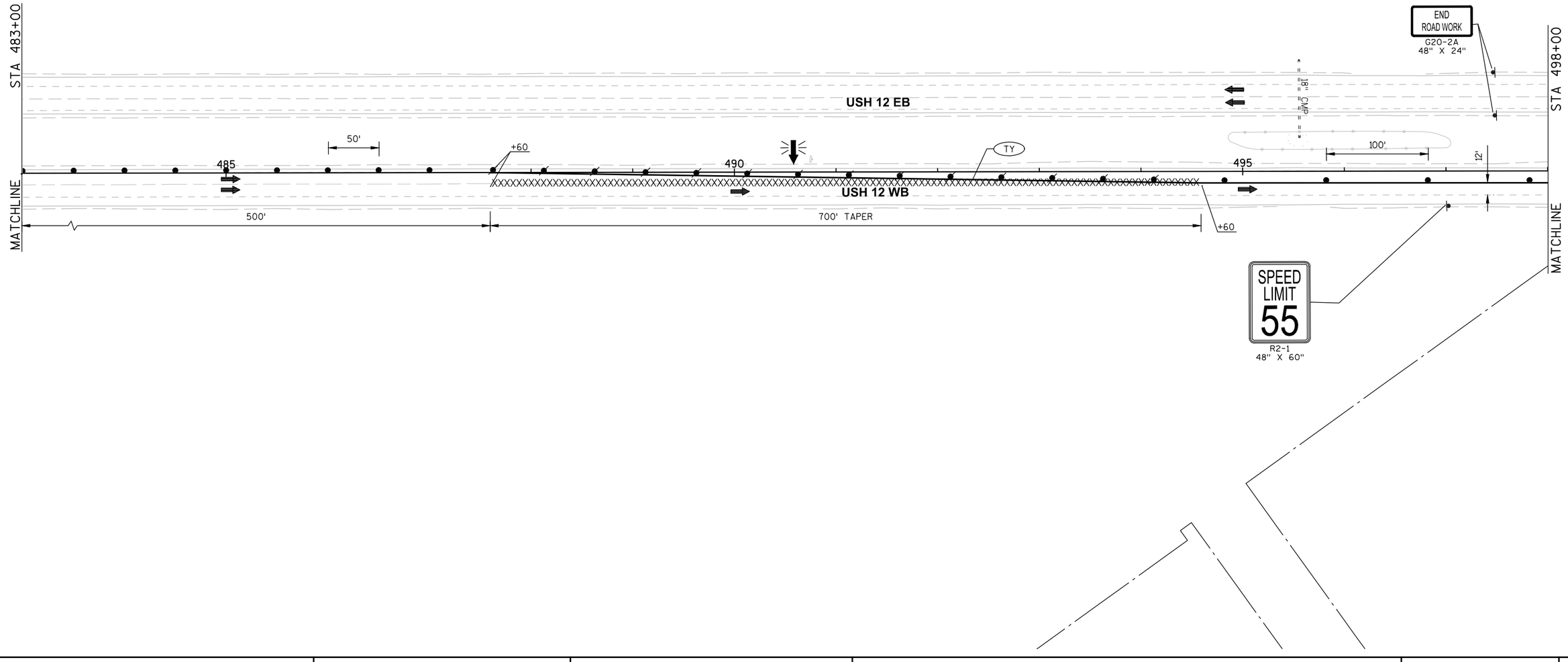
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 99 - E

2

LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 100 - E

2

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

N

W4-3
36" X 36"

STA 498+00

MATCHLINE

USH 12 EB

USH 12 WB

+31

+53

50'

500

505

510

100'

+00

38" CMP

34" CMP

54" CMP

TY

CC

TW

25'

+61

+00

ASPH

CONCRETE BARRIER TEMPORARY PRECAST

DOUBLE YELLOW

W5-52L
18" X 54"

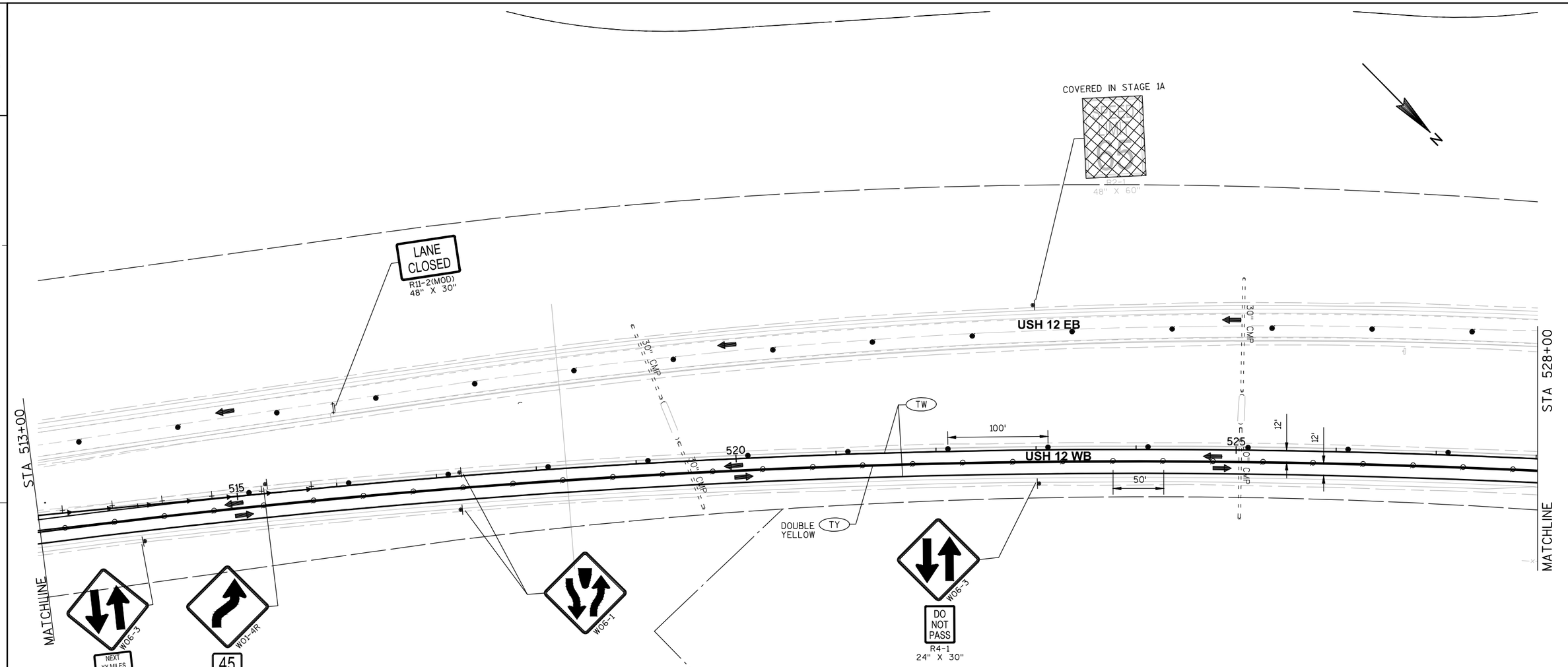
R4-7
24" X 30"

STA 513+00

MATCHLINE

PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 101 - E

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
⁄ ●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
⊢	TRAFFIC CONTROL SIGN, POST MOUNTED
⊢	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
⊙	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
◀	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

2

LANE CLOSED
R11-2(MOD)
48" X 30"

SPEED LIMIT 55
R2-1
48" X 60"

LANE CLOSED
R11-2(MOD)
48" X 30"

USH 12 EB

USH 12 WB

STA 528+00

STA 543+00

MATCHLINE

MATCHLINE

530

535

540

100'

12'

12'

50'

TY DOUBLE YELLOW

TW

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
●/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
⊙	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 103 - E

2

2

RAMP CA

R/W

RAMP BD CLOSED

RAMP BD

N

STA 543+00

STA 558+00

545

550

555

50'

USH 12 EB

USH 12 WB

12'

12'

100'

50'

25'

254

255

+56

+56

RAMP AC

DOUBLE YELLOW

TY

TW

DOUBLE YELLOW

Y

W

MATCHLINE

MATCHLINE

R/W

SPEED LIMIT 55

R2-1
48" X 60"

STH 50

LEGEND

Y	TEMPORARY PAVEMENT MARKING PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING PAINT 4-INCH (WHITE)
W8	TEMPORARY PAVEMENT MARKING PAINT 8-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
ø/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
⊙	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
◀	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 104 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026213_TC-ST2B.DWG PLOT DATE : 2/18/2014 12:25 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

STA 558+00

STA 573+00

MATCHLINE

MATCHLINE

RAMP BD

STH 50

LANE CLOSED
R11-2(MOD)
48" X 30"

ONLY ONLY
R3-8F
36" X 30"

CONTRACTOR TO MAINTAIN TRAFFIC ON RAMP EXIT DURING CONSTRUCTION

RAMP EF

N EDWARDS BLVD

Ski Area
MOUNTAIN TOP

EAST 50 | SOUTH COUNTY H | SOUTH 120 | WEST 50

COVER EXISTING SIGNS

R/W

NEW TRAFFIC PATTERN AHEAD

USH 12 EB

USH 12 WB

INSTALL PERMANENT GUARDRAIL PRIOR TO THE BEGINNING OF STAGE 3 CONSTRUCTION
+00

CONCRETE BARRIER TEMPORARY PRECAST

CC

Y DOUBLE YELLOW

100'

50'

W

TW8

W 3' LINE 9' GAP

EXIT
E5-1
60" X 48"

EXISTING SIGN TO BE MOVED
W04-1

W3-2
36" X 36"

RAMP DB

RAMP AC

ROAD WORK 500 FT
W20-1

DURING THE REMOVAL AND CERTAIN PERIODS OF THE RECONSTRUCTION OF THE USH 12 EASTBOUND BRIDGE, WESTBOUND/EASTBOUND STH 50 TRAFFIC WILL BE REDUCED TO ONE LANE OF TRAFFIC FROM EITHER LANE DEPENDING ON WHICH PART OF THE USH 12 EASTBOUND BRIDGE IS BEING REMOVED OR CONSTRUCTED. REMOVAL OF GIRDERS OR PLACEMENT OF NEW GIRDERS WILL REQUIRE PERIODIC NIGHTTIME ROLLING STOPS. SEE SPECIAL PROVISIONS FOR MORE INFORMATION.

LEGEND

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 105 - E

2

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
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- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
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- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

COVER NEWLY INSTALLED TYPE 1 SIGNS ON SIGN BRIDGE

EXIT 330B
50 EAST
RENOSHA
½ MILE

Exit 330A
WEST
SOUTH
50 120 H
Lake Geneva

CONTRACTOR TO MAINTAIN TRAFFIC ON RAMP EXIT DURING CONSTRUCTION

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

N EDWARDS BLVD

R/W

SPEED LIMIT 55
R2-1
48" X 60"

COVER EXISTING SIGN

LANE CLOSED
R11-2(MOD)
48" X 30"

EXISTING SIGN TO REMAIN
SIS

COVER NEWLY INSTALLED R2-1 SIGN
SPEED LIMIT 65
R2-1
48" X 60"

LANE CLOSED
R11-2(MOD)
48" X 30"

STA 573+00

STA 588+00

RAMP EB

USH 12 EB

USH 12 WB

RAMP DB

575 576 580 585 583

+20 +57 +05

100'

12'

50'

DOUBLE YELLOW

MATCHLINE

MATCHLINE

R/W

YIELD
R1-2
36" X 31"

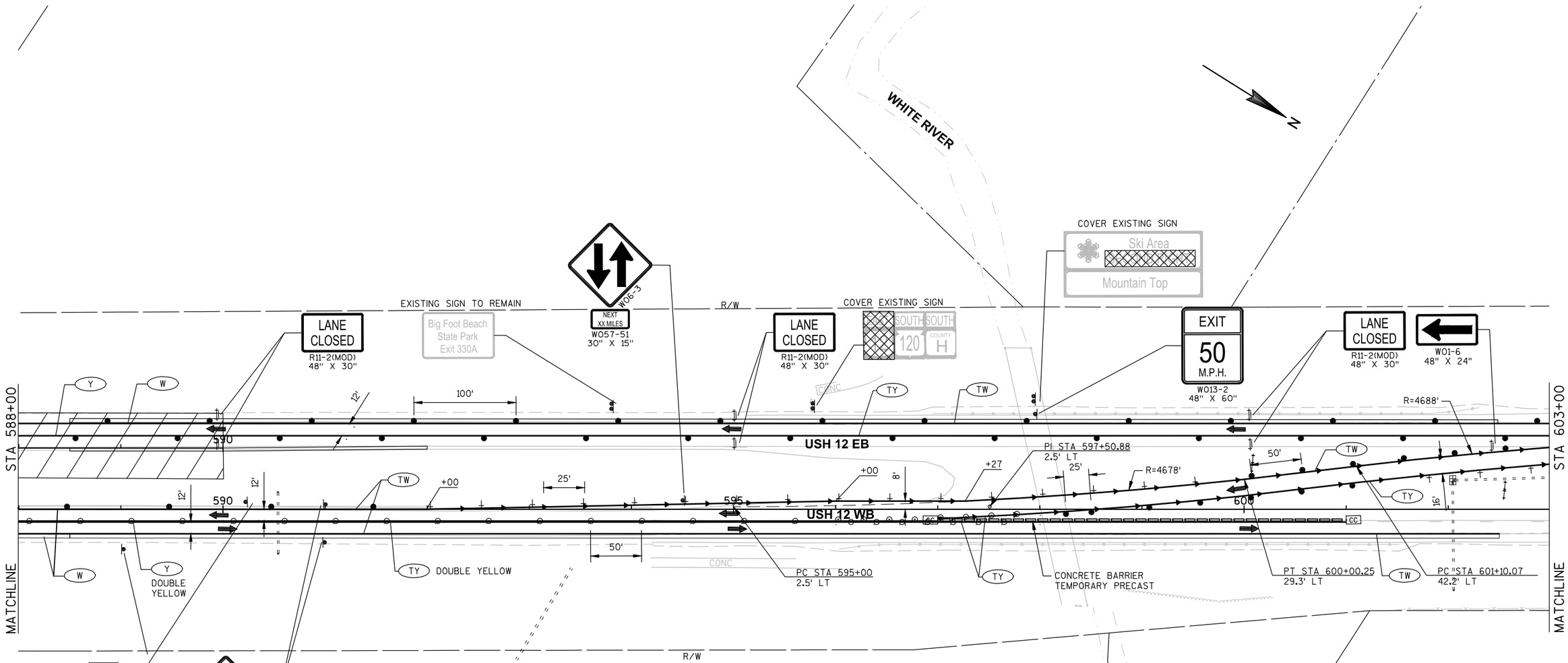
W06-3

DO NOT PASS
R4-1
24" X 30"

PROJECT NO:1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 106 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026215_TC-ST2B.DWG PLOT DATE : 2/18/2014 12:26 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 107 - E

2

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY

EXIT
E5-1
72" X 60"

PT STA 606+40.27
74.2' LT

FIXED MESSAGE SIGN SEE DETAIL 5
6 Exits 330A-B
SOUTH
50 120 COUNTY H
Lake Geneva
Kenosha

COVER EXISTING SIGN
Exits 330A
SOUTH
50 120 COUNTY H
Lake Geneva
Kenosha
COVER WITH 500 FT
7 FIXED MESSAGE SIGN SEE DETAIL

R1-2
36" X 31"

W3-2
36" X 36"

ROAD WORK AHEAD
W20-1

500'

9 FIXED MESSAGE SIGN SEE DETAIL
EAST 12
KEEP LEFT AHEAD
SOUTH
50 120 COUNTY H
KEEP RIGHT

EXISTING SIGN TO BE MOVED
W04-1

STA 603+00

STA 618+00

MATCHLINE

+12 TW8 +12 TW 3' LINE 9' GAP TW +12 +65 +20 TW8 +49 +15 +15 +55 +12

25'

12'

100'

605 610 615

USH 12 EB

USH 12 WB

8 EAST 12 KEEP LEFT
FIXED MESSAGE SIGN SEE DETAIL

W01-4L
45 M.P.H.
W013-1
36" X 36"

SPEED LIMIT 55
R2-1
48" X 60"

END ROAD WORK
G20-2A
48" X 24"

PI STA 603+74.26
73.3' LT

R/W

SHERIDAN SPRINGS RD

LEGEND

- Y — TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- W — TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- TY — TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- TW — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- TW8 — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- TA — TEMPORARY PAVEMENT MARKING ARROWS
- P — PERMANENT PAVEMENT MARKING

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 108 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026217_TC-ST2B.DWG PLOT DATE : 2/18/2014 12:27 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

N

11 FIXED MESSAGE SIGN SEE DETAIL
GAS/LODGING
EXIT 330 A
BP MOBIL
COMFORT SUITES
HARBOR SHORES
CHATEAU ROYALE
GRAND GENEVA RESORT

12 FIXED MESSAGE SIGN SEE DETAIL
FOOD EXIT 330 A
MCDONALDS
TACO BELL
CULVERS
BURGER KING
STARBUCKS
GINOS EAST

FIXED MESSAGE SIGN SEE DETAIL
10
RECREATION EXIT 330 A
BIG FOOT BEACH
STATE PARK
MOUNTAIN TOP
SKI AREA

EXIT
E5-1
72" X 60"

SPEED LIMIT 55
R2-1
48" X 60"

STA 618+00
STA 633+00
MATCHLINE
MATCHLINE

+00
TW8
100'
+00
+00
USH 12 EB
+00
TW
CONC
200' TAPER
+50
700' TAPER
CONC
CONC

620
625
630
USH 12 WB

STH 120

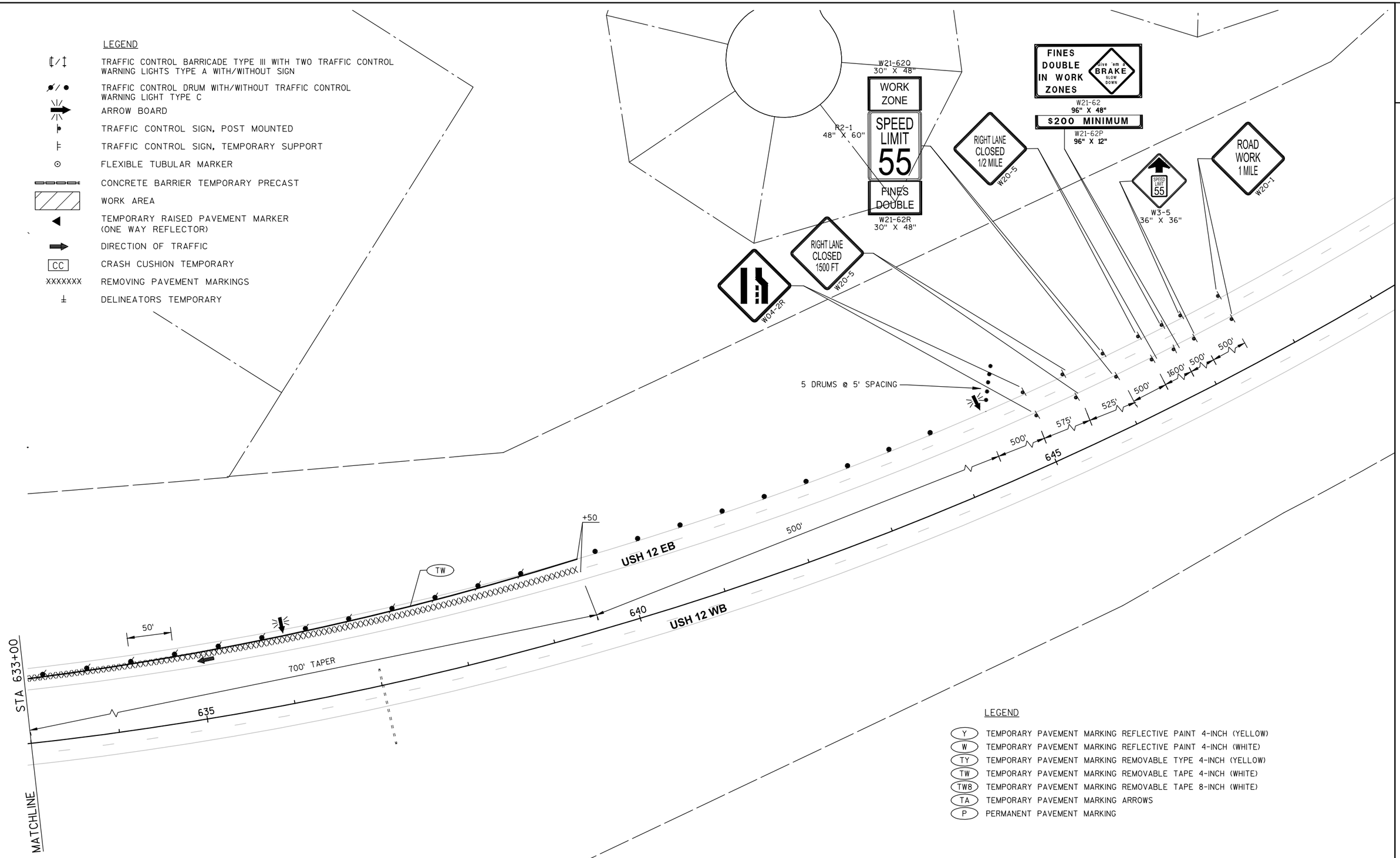
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 109 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026218_TC-ST2B.DWG PLOT DATE : 2/18/2014 12:27 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 42

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY



LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ROAD WORK AHEAD W20-1

ROAD WORK 500 FT W20-1

N EDWARDS BLVD

500'

300'

50'

LANE CLOSED
R11-2(MOD)
48" X 30"

ROAD WORK AHEAD W20-1

ROAD WORK 500 FT W20-1

500' 500' 500'

55

300' 50'

LANE CLOSED AHEAD

ONLY ONLY ONLY ONLY

COVER EXISTING SIGN

STH 120

125'

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

TW

ONLY

COVER EXISTING SIGN

STH 50

+37

60

25'

567

565

200'

+56

200'

TW8

TW

RAMP CA

R/W

CONTRACTOR TO MAINTAIN TRAFFIC ON RAMP ENTRANCE DURING CONSTRUCTION

EAST 12

EXISTING SIGN TO BE MOVED

LANE CLOSED
R11-2(MOD)
48" X 30"

100'

65

12'

559

560

584

CONTRACTOR TO MAINTAIN RAMP EF SB TO STH 50 EB TRUCK TURNING MOVEMENT DURING CONSTRUCTION

RAMP EF

RAMP DA

RAMP BD

HP

LP

595

283

68

N

LEGEND

‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 111 - E

2

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
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- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

RAMP EF

USH 12 EB

USH 12 WB

RAMP AC

RAMP AD

RAMP CB

RAMP DB

RAMP BD

STH 50

ROAD WORK 500 FT W20-1

LANE CLOSED R11-2(MOD) 48" X 30"

LANE CLOSED R11-2(MOD) 48" X 30"

R/W

DURING THE REMOVAL AND CERTAIN PERIODS OF THE RECONSTRUCTION OF THE USH 12 EASTBOUND BRIDGE, WESTBOUND/EASTBOUND STH 50 TRAFFIC WILL BE REDUCED TO ONE LANE OF TRAFFIC FROM EITHER LANE DEPENDING ON WHICH PART OF THE USH 12 EASTBOUND BRIDGE IS BEING REMOVED OR CONSTRUCTED. REMOVAL OF GIRDERS OR PLACEMENT OF NEW GIRDERS WILL REQUIRE PERIODIC NIGHTTIME ROLLING STOPS. SEE SPECIAL PROVISIONS FOR MORE INFORMATION.

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 112	E

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

ROAD WORK AHEAD
W20-1

GRAND GENEVA WAY

WALLS

R/W

551

85

100'

100' TAPER

OEI

STH 50

88

INL

TW

END ROAD WORK
G20-2A
48" X 24"

N

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 2	SHEET 113 - E

GENERAL NOTES FOR CONSTRUCTION STAGING AND TRAFFIC CONTROL

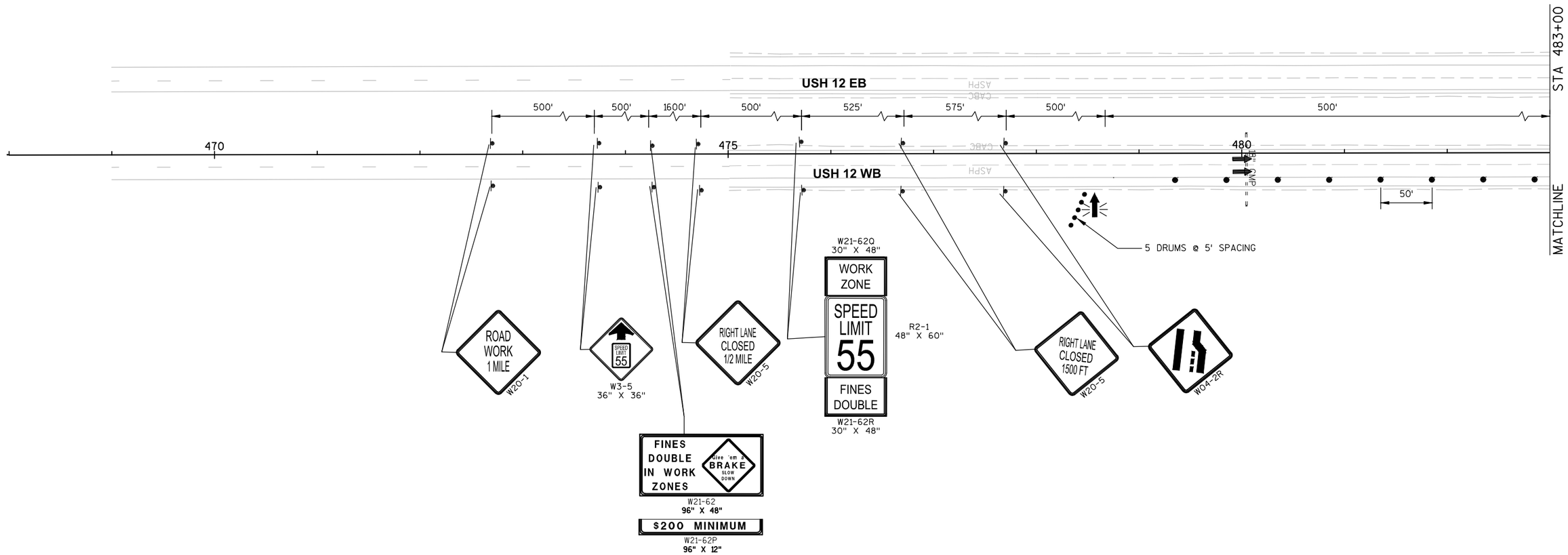
1. ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.
3. SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATION AND SPACING MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER TO MEET FIELD CONDITIONS.
4. ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND/OR AS DIRECTED BY THE ENGINEER. NO "WORKING" LIGHTS SHALL BE VISIBLE ON A COVERED OR LAID DOWN SIGN.
5. ALL EXISTING CONFLICTING PAVEMENT MARKING SHALL BE REMOVED.
6. A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE "WORK/CLOSED" AREAS IF WARRANTED BY CONDITIONS AND/OR AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR SHALL INSTALL PERMANENT SIGNS AND PERMANENT PAVEMENT MARKING WHEN APPROPRIATE DURING CONSTRUCTION STAGING AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.
8. ADEQUATE TURNING PROVISION SHALL BE MAINTAINED FOR ALL VEHICLES, INCLUDING TRUCKS AS DIRECTED BY THE ENGINEER.
9. PLACE TEMPORARY RAISED PAVEMENT MARKERS THROUGH ALL CROSSOVER AND LANE SHIFTS.

NOTES:
1. ALL CONFLICTING PAVEMENT MARKING SHALL BE REMOVED.

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY



2

LEGEND

(Y)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
(W)	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
(TY)	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
(TW)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
(TW8)	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
(TA)	TEMPORARY PAVEMENT MARKING ARROWS
(P)	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
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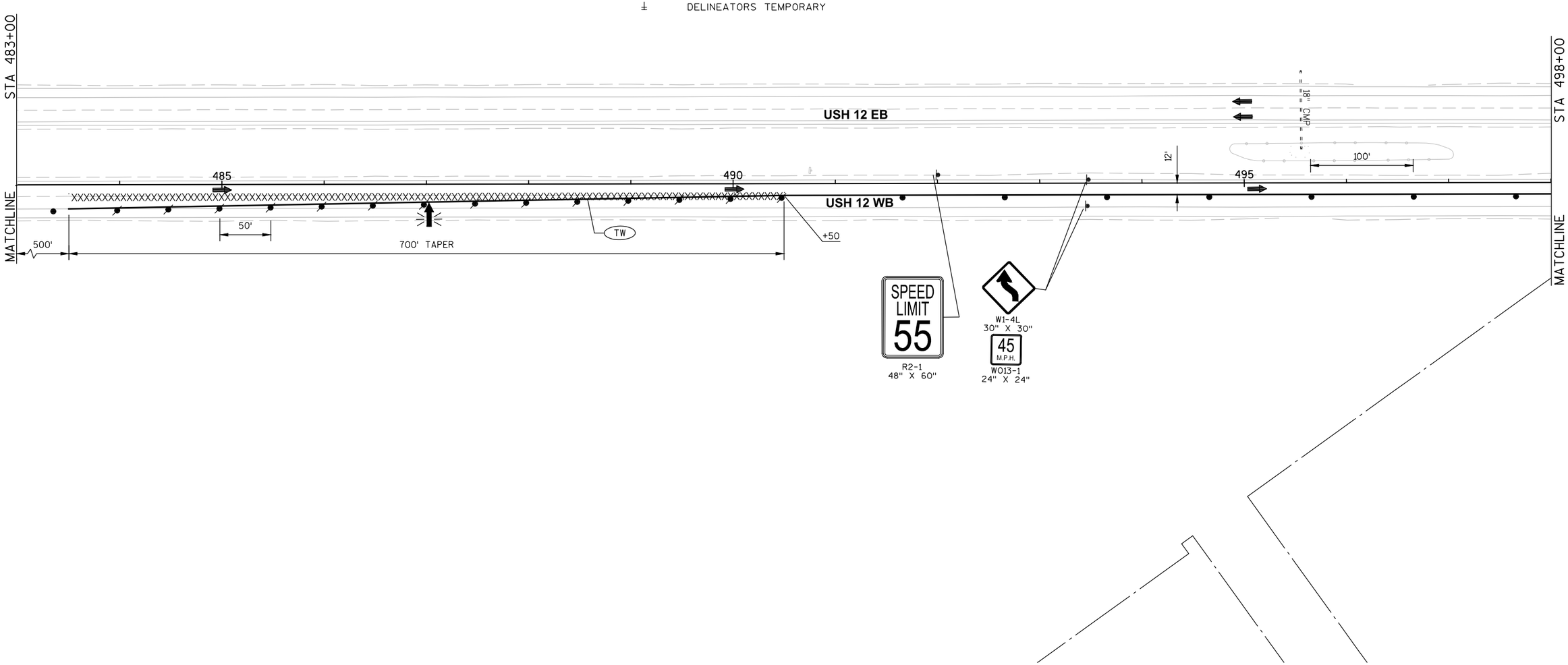
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 115 - E

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN

TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C

ARROW BOARD

TRAFFIC CONTROL SIGN, POST MOUNTED

TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT

FLEXIBLE TUBULAR MARKER

CONCRETE BARRIER TEMPORARY PRECAST

WORK AREA

TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)

DIRECTION OF TRAFFIC

CC CRASH CUSHION TEMPORARY

XXXXXXX REMOVING PAVEMENT MARKINGS

DELINEATORS TEMPORARY

N

END ROAD WORK
G20-2A
48" X 24"

R4-7
24" X 30"

STA 498+00

STA 513+00

MATCHLINE

MATCHLINE

TY

CONCRETE BARRIER TEMPORARY PRECAST

TW

TY DOUBLE YELLOW

CC

+13

+02

USH 12 EB

USH 12 WB

500

505

510

100'

50'

+50

+00

+00

P 12.5' LINE 37.5' GAP

P

W01-6
48" X 24"

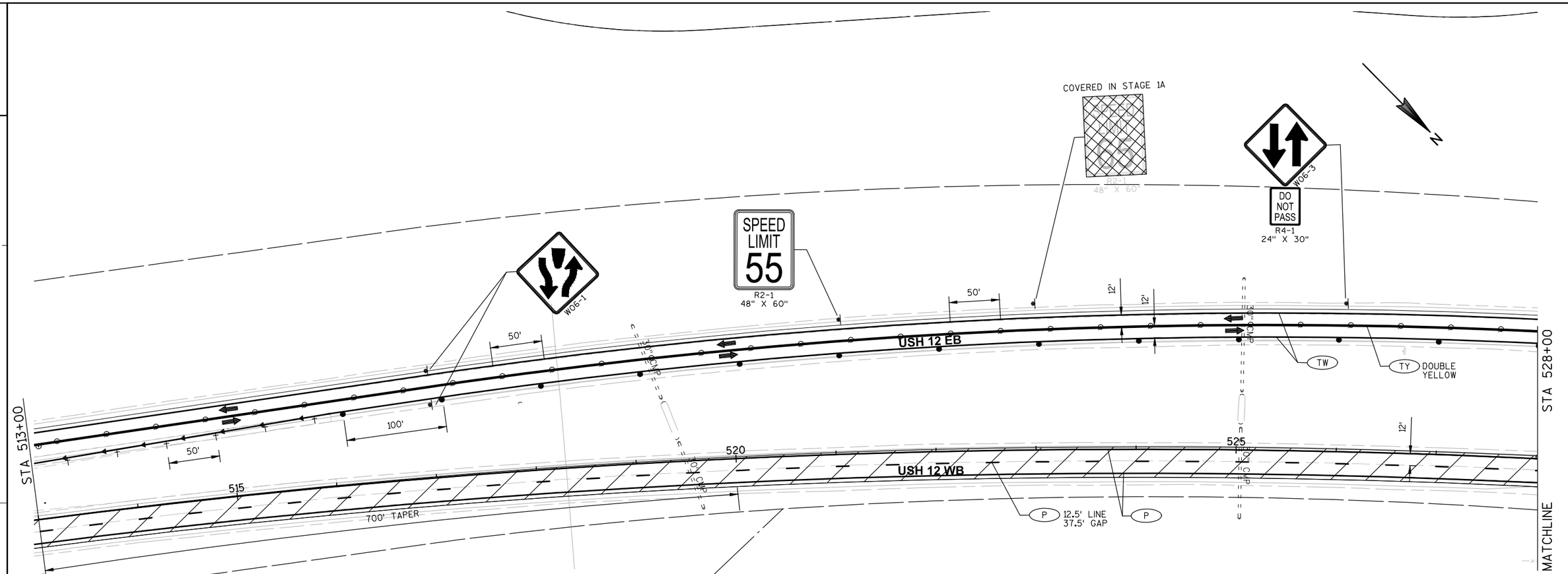
ROAD CLOSED
R11-2
48" X 30"

W06-3

NEXT XX MILES
W057-51
30" X 15"

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 116 - E

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
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	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
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	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 117 - E

2

13 FIXED MESSAGE SIGN
SEE DETAIL

FOOD
FOLLOW DETOUR
MCDONALDS
TACO BELL
CULVERS
BURGER KING
STARBUCKS
GINOS EAST

14 FIXED MESSAGE SIGN
SEE DETAIL

GAS/LODGING
FOLLOW DETOUR
BP MOBIL
COMFORT SUITES
HARBOR SHORES
CHATEAU ROYALE
GRAND GENEVA RESORT

W06-3
NEXT XX MILES
W057-51
30" X 15"

15 FIXED MESSAGE SIGN
SEE DETAIL

RECREATION
FOLLOW DETOUR
BIG FOOT BEACH
STATE PARK
MOUNTAIN TOP
SKI AREA

YIELD
R1-2
36" X 31"

TY DOUBLE YELLOW

50'
100'
12'
12'

USH 12 EB
USH 12 WB

TW

P 12.5' LINE
37.5' GAP

STA 528+00
MATCHLINE
STA 543+00
MATCHLINE

530
535
540

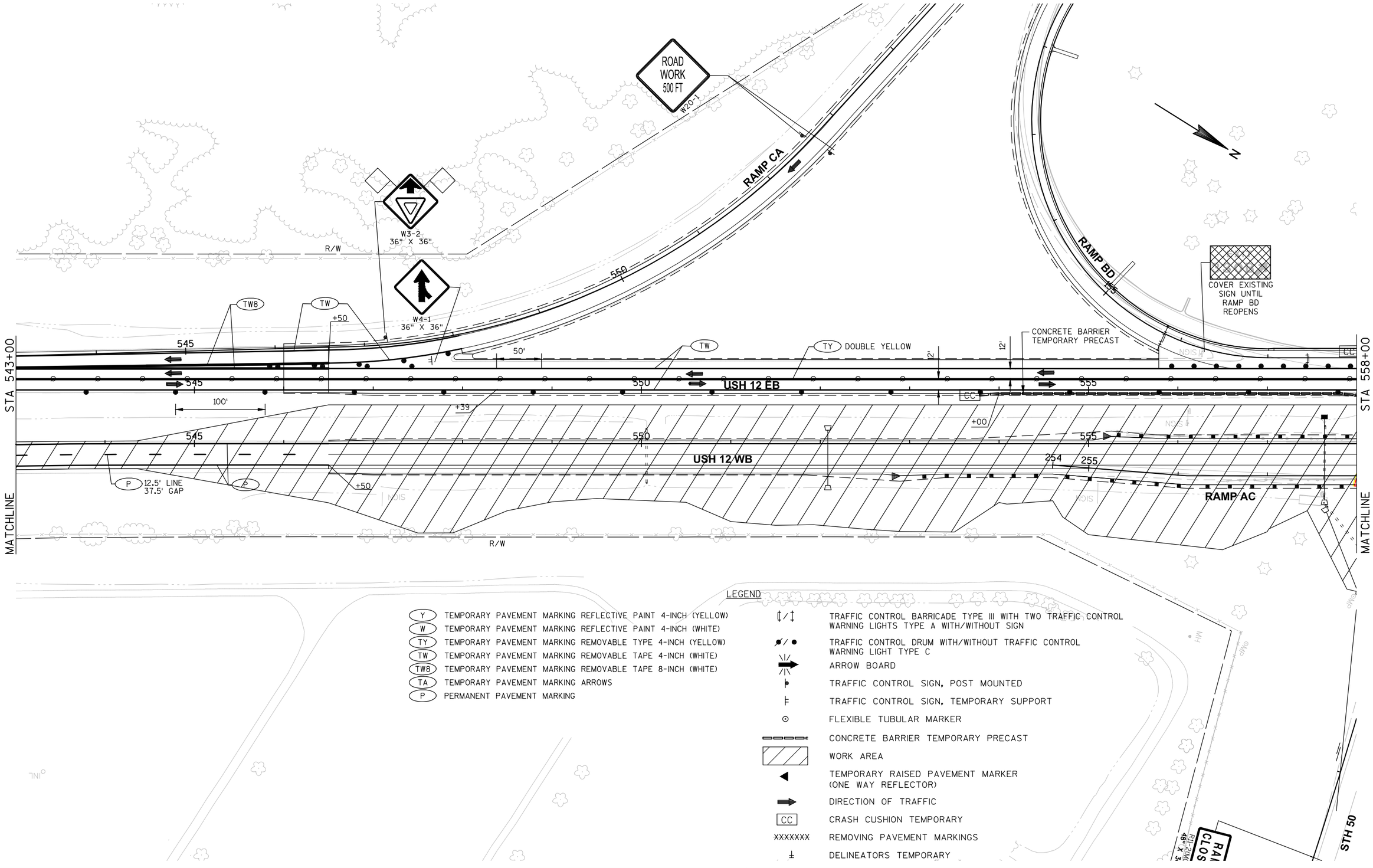
LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 118 - E

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)	‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)	⁄ / ●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)		ARROW BOARD
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)		TRAFFIC CONTROL SIGN, POST MOUNTED
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)		TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
TA	TEMPORARY PAVEMENT MARKING ARROWS	⊙	FLEXIBLE TUBULAR MARKER
P	PERMANENT PAVEMENT MARKING		CONCRETE BARRIER TEMPORARY PRECAST
			WORK AREA
		◀	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
			DIRECTION OF TRAFFIC
		CC	CRASH CUSHION TEMPORARY
		XXXXXXX	REMOVING PAVEMENT MARKINGS
		±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 119 - E

2

RAMP BD

STH 50

RAMP EF

N EDWARDS BLVD

R3-8F
36" X 30"

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

TA

Ski Area
MOUNTAIN TOP

EAST | SOUTH | SOUTH | WEST
50 | COUNTY H | 120 | 50

COVERED IN STAGE 2. KEEP SIGNS COVERED UNTIL RAMP BD REOPENS.

EXIT
E5-1
60" X 48"

NEW TRAFFIC PATTERN AHEAD
W23-2

COMPLETE CONSTRUCTION OF RAMP BD ACCELERATION LANE AFTER USH 12 WESTBOUND BRIDGE REMOVAL DURING THE REMOVAL OF THE USH 12 WESTBOUND BRIDGE KEEP RAMP BD CLOSED. REOPEN RAMP BD AFTER COMPLETION OF THE ENTIRE RAMP BD ACCELERATION LANE. COVER OR REMOVE ALL CONFLICTING SIGN.

COVER EXISTING SIGNS UNTIL RAMP BD REOPENS

DURING THE REMOVAL AND CERTAIN PERIODS OF THE RECONSTRUCTION OF THE USH 12 WESTBOUND BRIDGE, WESTBOUND/EASTBOUND STH 50 TRAFFIC WILL BE REDUCED TO ONE LANE OF TRAFFIC FROM EITHER LANE DEPENDING ON WHICH PART OF THE USH 12 WESTBOUND BRIDGE IS BEING REMOVED OR CONSTRUCTED. REMOVAL OF GIRDERS OR PLACEMENT OF NEW GIRDERS WILL REQUIRE PERIODIC NIGHTTIME ROLLING STOPS. SEE SPECIAL PROVISIONS FOR MORE INFORMATION.

CRASH CUSHION TEMPORARY

CONCRETE BARRIER TEMPORARY PRECAST

STA 558+00

STA 573+00

USH 12 EB

USH 12 WB

TW

TY DOUBLE YELLOW

CRASH CUSHION TEMPORARY

CONCRETE BARRIER TEMPORARY PRECAST

MATCHLINE

MATCHLINE

LOOP RAMP AC CLOSED. SEE DETOUR PLAN.

DO NOT PASS
R4-1
24" X 30"
W06-3

CONTRACTOR TO MAINTAIN RAMP ENTRANCE TRAFFIC DURING CONSTRUCTION

RAMP DB

RAMP AC

ROAD WORK 500 FT
W20-1

LEGEND

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 120 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026315_TC-ST3B.DWG PLOT DATE : 2/18/2014 12:31 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 42

2

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- (CC) CRASH CUSHION TEMPORARY
- XXXXXXX REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

COVERED IN STAGE 2. KEEP SIGNS COVERED UNTIL RAMP BD REOPENS.

EXIT 330B 50 EAST RENOSHA 10 MILE

Exit 330A WEST 50 SOUTH 50 120 H Lake Geneva

CONCRETE BARRIER TEMPORARY PRECAST

N EDWARDS BLVD

R/W

CRASH CUSHION TEMPORARY

TW8

+75

+52

RAMP EF

25'

50' EAST NEXT RIGHT

COVER NEWLY INSTALLED TYPE 1 SIGN. KEEP SIGN COVERED UNTIL RAMP BD REOPENS.

WEST 12 EXISTING SIGN TO BE MOVED

TW

TY DOUBLE YELLOW

FIXED MESSAGE SIGN SEE DETAIL

16 RAMP TO 50 EAST CLOSED AHEAD USE EXIT 330A

REMOVE SIGN WHEN RAMP BD REOPENS.

COVERED IN STAGE 2

R2-1 48" X 60"

STA 573+00

STA 588+00

+80

575

50'

580

USH 12 EB

585

2'

12'

100'

575

580

USH 12 WB

583

585

575

RAMP DB

MATCHLINE

MATCHLINE

LANE CLOSED R11-2(MOD) 48" X 30"

R/W

LANE CLOSED R11-2(MOD) 48" X 30"

R/W

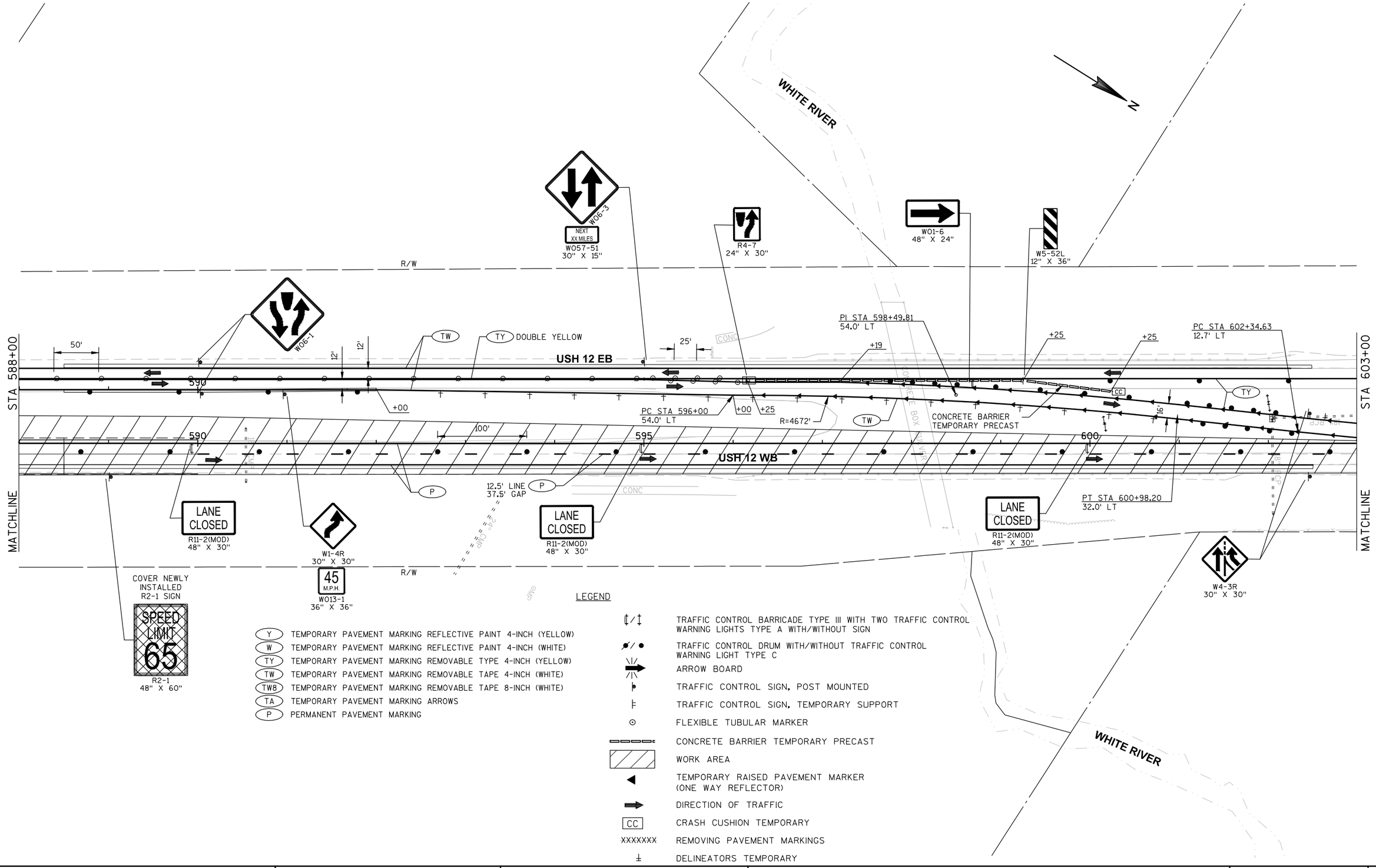
CONTRACTOR TO MAINTAIN TRAFFIC ON RAMP DB ENTRANCE TO CROSSOVER DURING CONSTRUCTION

SPEED LIMIT 55 R2-1 48" X 60"

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 121 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026316_TC-ST3B.DWG PLOT DATE : 2/18/2014 12:32 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

2



LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 122 - E

2

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

N

W3-2
36" X 36"

EXISTING SIGN TO REMAIN
Exits 330A-B
SOUTH
50 120 H
Lake Geneva
Kenosha
3/4 Mile

R1-2
36" X 31"

R/W

STA 603+00

STA 618+00

TY

+25

100'

R=5515'

+34

605

610

615

+72

TW

+00

PI STA 605+02.50
16.0' RT

PT STA 607+34.04
16.0' RT

USH 12 EB

USH 12 WB

700' TAPER

50'

+25

P 12.5' LINE
37.5 GAP

500'

END
ROAD WORK
G20-2A
48" X 24"

MATCHLINE

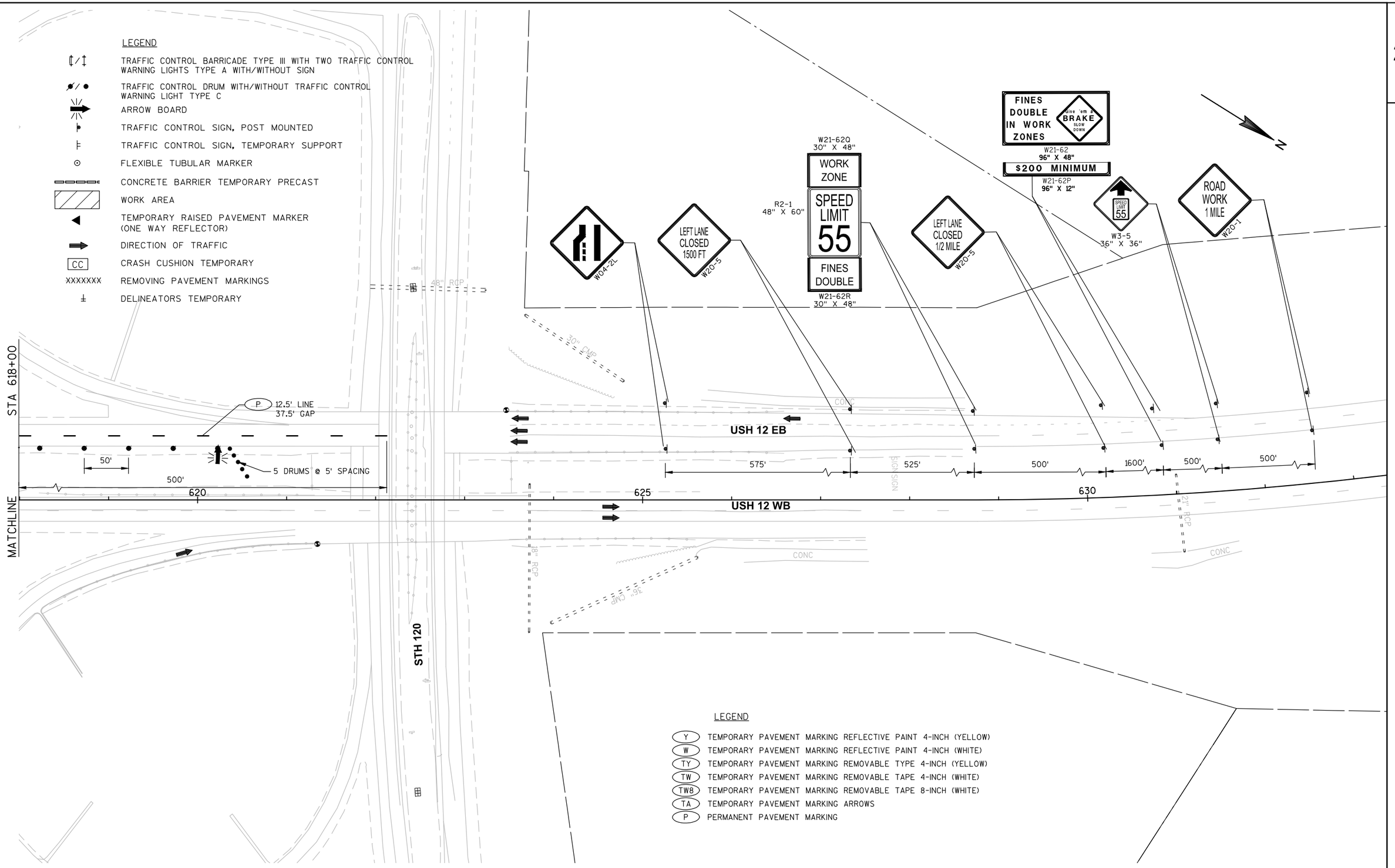
MATCHLINE

SHERIDAN SPRINGS RD

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 123 - E

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- ± — DELINEATORS TEMPORARY



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 124 - E

2

LÉGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

N

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ROAD WORK AHEAD
W20-1

ROAD WORK 500 FT
W20-1

ROAD WORK AHEAD
W20-1

ROAD WORK 500 FT
W20-1

LANE CLOSED
R11-2(MOD)
48" X 30"

LANE CLOSED AHEAD

N EDWARDS BLVD

STH 50

STH 120

RAMP EF

RAMP CA

RAMP DA

RAMP BD

END ROAD WORK
G20-2A
48" X 24"

EXISTING SIGN TO BE MOVED

LANE CLOSED
R11-2(MOD)
48" X 30"

CONTRACTOR TO MAINTAIN RAMP EF SB TO STH 50 EB TRUCK TURNING MOVEMENT DURING CONSTRUCTION

COVER EXISTING SIGN

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

COVER EXISTING SIGN

LEGEND

‡/‡	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
⁄/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
⊙	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
◀	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
±	DELINEATORS / TEMPORARY

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 125 - E

2

RAMP EF

USH 12 EB

USH 12 WB

STH 50

RAMP AC

RAMP AD

RAMP CB

RAMP DB

RAMP BD

DURING THE REMOVAL AND CERTAIN PERIODS OF THE RECONSTRUCTION OF THE USH 12 WESTBOUND BRIDGE, WESTBOUND/EASTBOUND STH 50 TRAFFIC WILL BE REDUCED TO ONE LANE OF TRAFFIC FROM EITHER LANE DEPENDING ON WHICH PART OF THE USH 12 WESTBOUND BRIDGE IS BEING REMOVED OR CONSTRUCTED. REMOVAL OF GIRDERS OR PLACEMENT OF NEW GIRDERS WILL REQUIRE PERIODIC NIGHTTIME ROLLING STOPS. SEE SPECIAL PROVISIONS FOR MORE INFORMATION.

CONTRACTOR TO MAINTAIN TRAFFIC ON RAMP ENTRANCES DURING CONSTRUCTION

TOP OF PIPE - INVERT FILLED

EXISTING SIGN TO BE MOVED

100' TAPER

COMPLETE CONSTRUCTION OF RAMP BD ACCELERATION LANE AFTER USH 12 WESTBOUND BRIDGE REMOVAL
DURING THE REMOVAL OF THE USH 12 WESTBOUND BRIDGE KEEP RAMP BD CLOSED. REOPEN RAMP BD AFTER COMPLETION OF THE ENTIRE RAMP BD ACCELERATION LANE. COVER OR REMOVE ALL CONFLICTING SIGN

RAMP CLOSED
R11-2(MOD)
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

NORTH 120 WEST 12 COUNTY H

LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- ARROW BOARD
- TRAFFIC CONTROL SIGN, POST MOUNTED
- TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
- FLEXIBLE TUBULAR MARKER
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- DIRECTION OF TRAFFIC
- CC — CRASH CUSHION TEMPORARY
- XXXXXXX — REMOVING PAVEMENT MARKINGS
- DELINEATORS TEMPORARY

LEGEND

- (Y) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
- (W) TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
- (TY) TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
- (TW) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (TW8) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (TA) TEMPORARY PAVEMENT MARKING ARROWS
- (P) PERMANENT PAVEMENT MARKING

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 126 - E

2

LEGEND

Y	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (YELLOW)
W	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH (WHITE)
TY	TEMPORARY PAVEMENT MARKING REMOVABLE TYPE 4-INCH (YELLOW)
TW	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
TW8	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
TA	TEMPORARY PAVEMENT MARKING ARROWS
P	PERMANENT PAVEMENT MARKING

	TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
	ARROW BOARD
	TRAFFIC CONTROL SIGN, POST MOUNTED
	TRAFFIC CONTROL SIGN, TEMPORARY SUPPORT
	FLEXIBLE TUBULAR MARKER
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	DIRECTION OF TRAFFIC
CC	CRASH CUSHION TEMPORARY
XXXXXXX	REMOVING PAVEMENT MARKINGS
	DELINEATORS TEMPORARY

GRAND GENEVA WAY

ROAD WORK AHEAD W20-1

ROAD WORK 500 FT W20-1

500'

500'

GN
ED

+04

200' TAPER

TW

25'

+04

+14

+14

551

85

130

+86

50'

68

R/W

660' TAPER

5 DRUMS @ 5' SPACING

W04-2R

RIGHT LANE CLOSED AHEAD W20-5

ROAD WORK AHEAD W20-1

500'

1000'

1000'

INL

STH 50

STH 50

R/W

N

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	STAGE CONSTRUCTION - STAGE 3	SHEET 127 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\026320_TC-ST3-STH50.DWG PLOT DATE : 2/18/2014 12:34 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

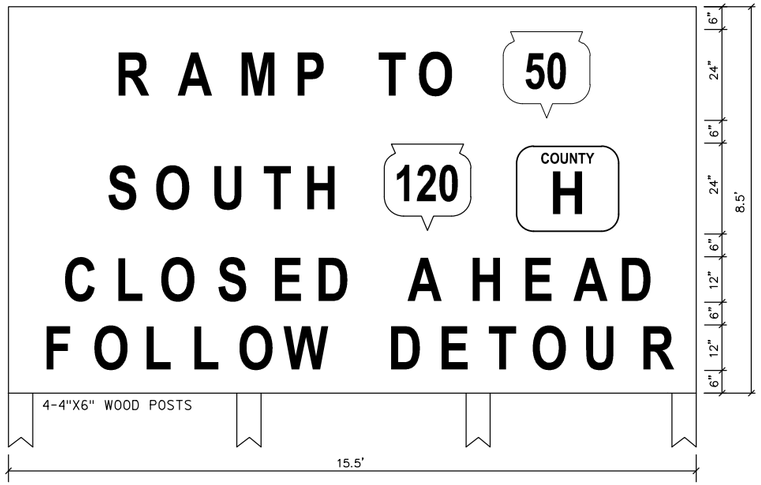
NOTES

1) ALL SIGNS TO HAVE STANDARD REFLECTIVE SHEETING - REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION." LATEST EDITION.
2) AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
3) ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"X6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS.
4) POSTS SHALL MEET THE BREAKAWAY REQUIREMENTS OF SECTON 643.2.9.1 OF THE STANDARD SPECIFICATIONS AND SIGN PLATE A4-11.
5) SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".
6) SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.
7) ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS: 12" CAPS SHALL BE SERIES "D"
8) BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.
9) CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
10) SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.
11) DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

NOTES: FIXED MESSAGE SIGNS

1) CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGNS.
2) ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3) SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGN LAYOUT SHEETS FOR MORE INFORMATION.
4) COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
5) SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

1



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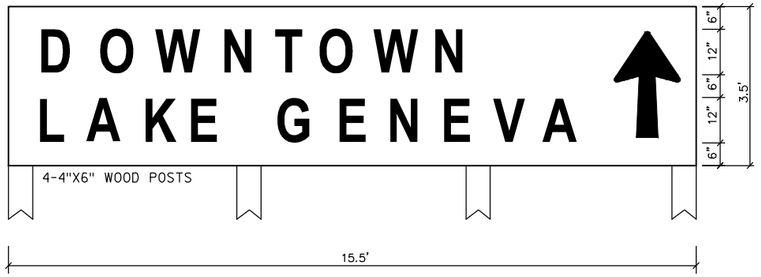

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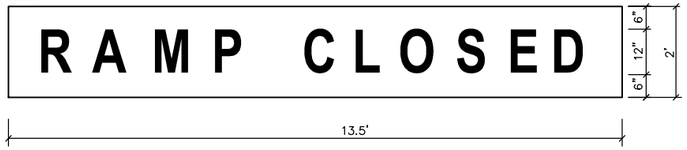

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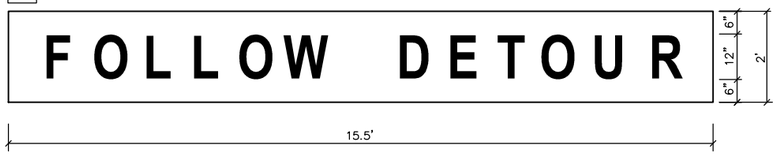

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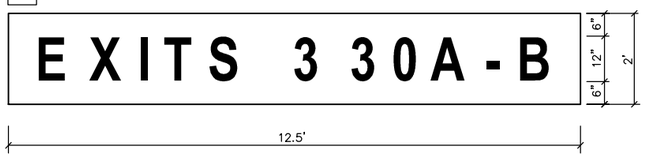

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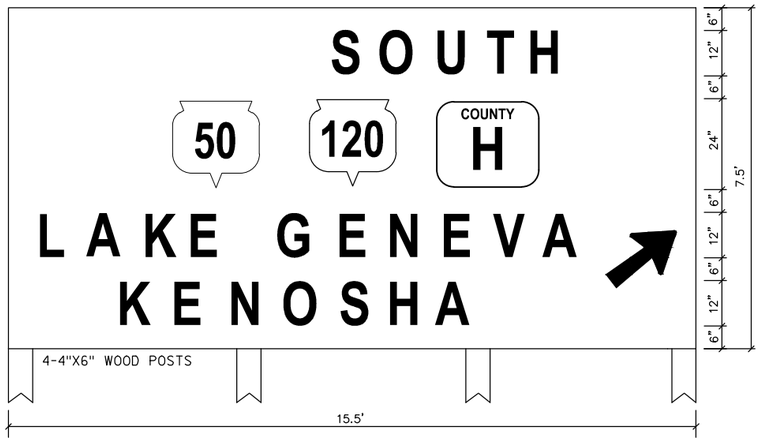

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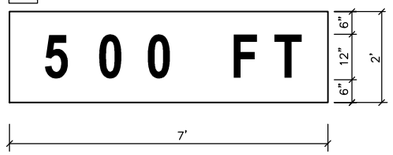
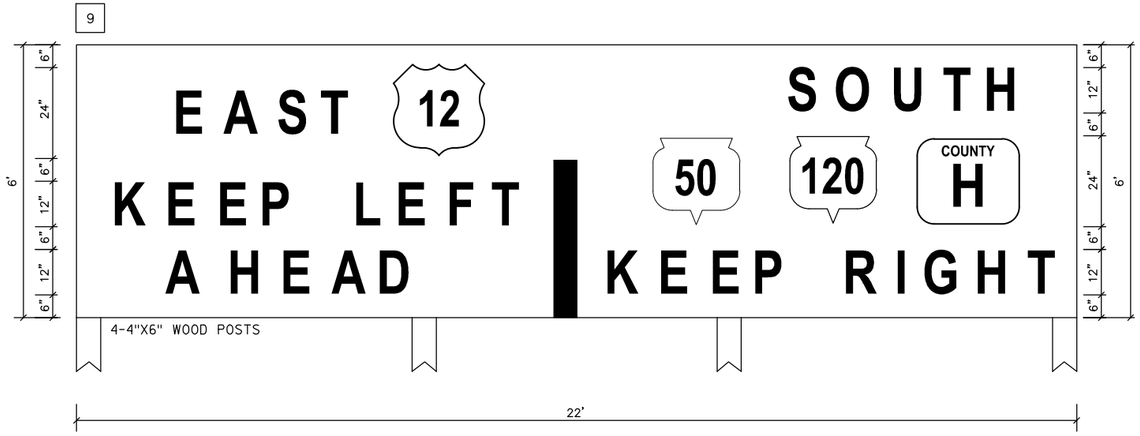

500 FT
6"
12"
6"
2'
7'

8

EAST
12
KEEP LEFT
3-4"X6" WOOD POSTS
6"
24"
6"
12"
6"
4.5'
10.5'

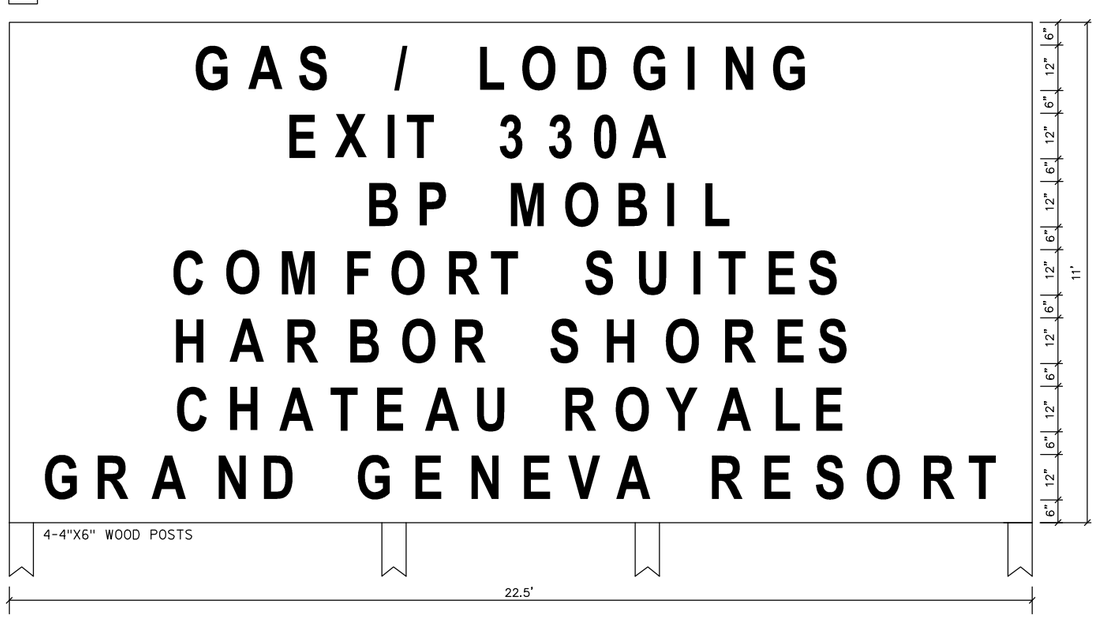
9


EAST
12
KEEP LEFT
AHEAD
SOUTH
50
120
COUNTY
H
KEEP RIGHT
4-4"X6" WOOD POSTS
6"
24"
6"
12"
6"
6'
22'

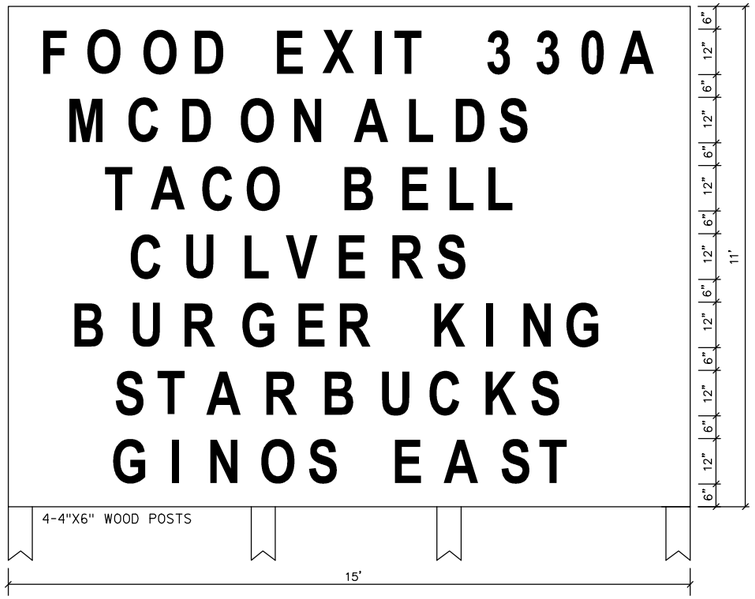
10

RECREATION
EXIT 330A
BIG FOOT BEACH
STATE PARK
MOUNTAIN TOP
SKI AREA
4-4"X6" WOOD POSTS
6"
12"
9.5'
15.5'

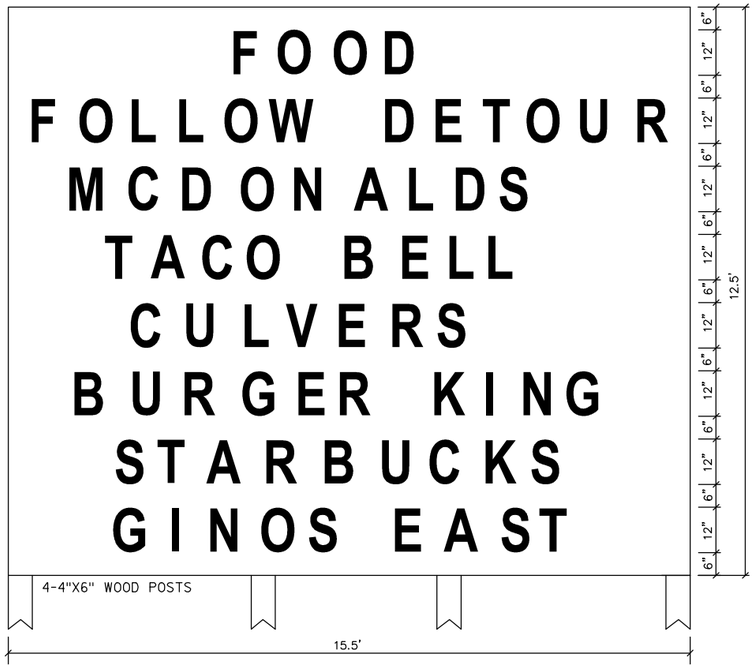
11


GAS / LODGING
EXIT 330A
BP MOBIL
COMFORT SUITES
HARBOR SHORES
CHATEAU ROYALE
GRAND GENEVA RESORT
4-4"X6" WOOD POSTS
6"
12"
11'
22.5'

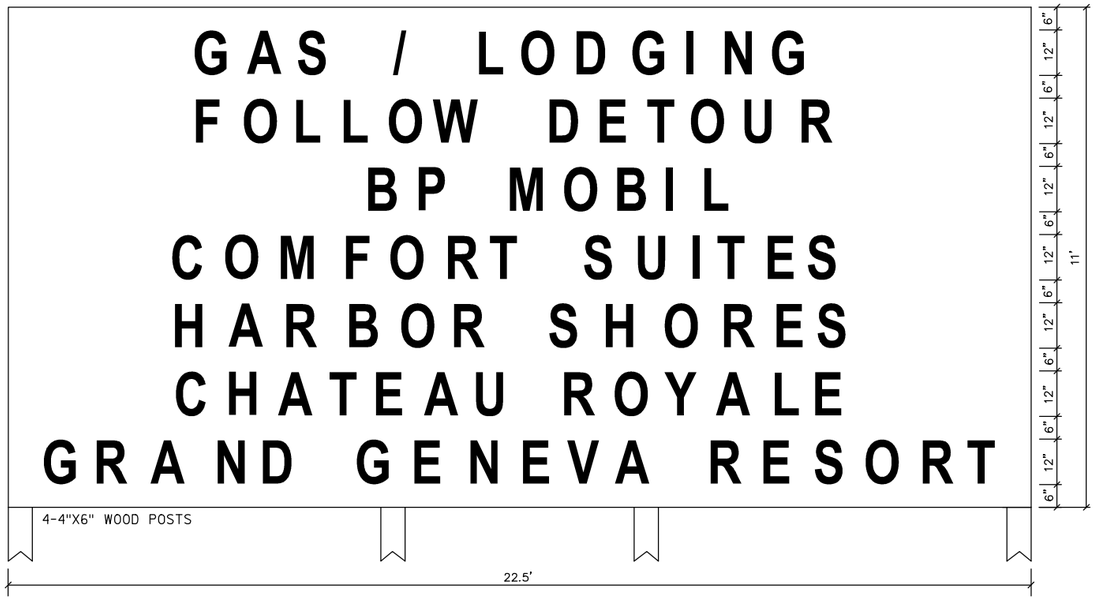
12


FOOD EXIT 330A
MCDONALDS
TACO BELL
CULVERS
BURGER KING
STARBUCKS
GINOS EAST
4-4"X6" WOOD POSTS
15'
11'

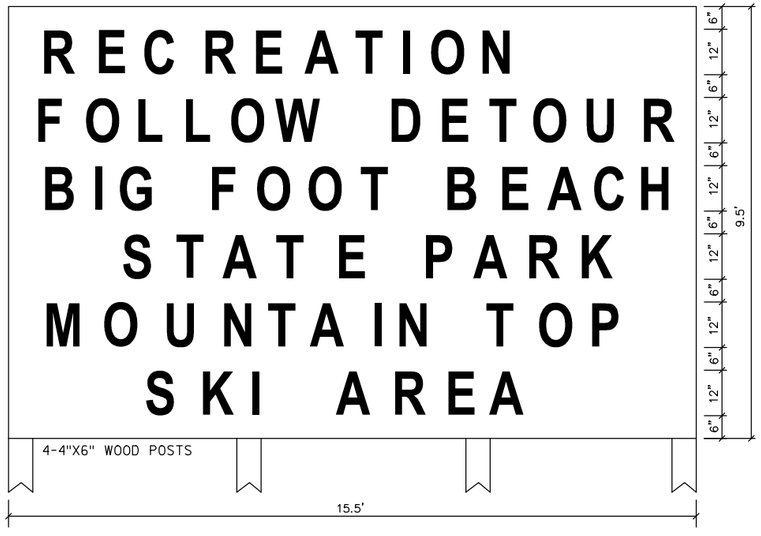
13


FOOD
FOLLOW DETOUR
MCDONALDS
TACO BELL
CULVERS
BURGER KING
STARBUCKS
GINOS EAST
4-4"X6" WOOD POSTS
15.5'
12.5'

14

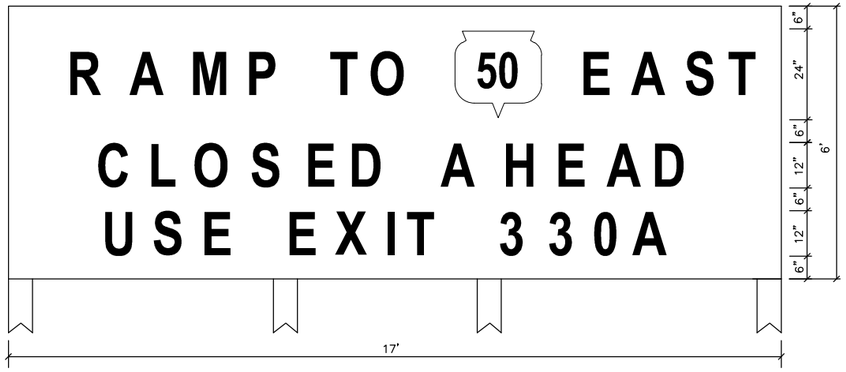

GAS / LODGING
FOLLOW DETOUR
BP MOBIL
COMFORT SUITES
HARBOR SHORES
CHATEAU ROYALE
GRAND GENEVA RESORT
4-4"X6" WOOD POSTS
22.5'
11'

15

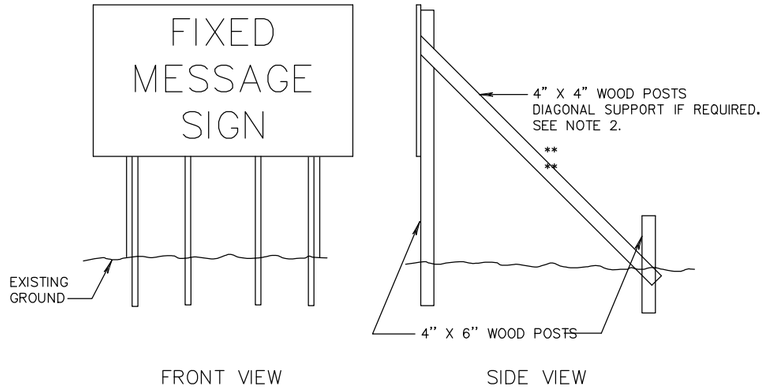

RECREATION
FOLLOW DETOUR
BIG FOOT BEACH
STATE PARK
MOUNTAIN TOP
SKI AREA
4-4"X6" WOOD POSTS
15.5'
9.5'

2

16



PROJECT NO:1080-12-71	HWY:USH 12	COUNTY:WALWORTH	TRAFFIC CONTROL SIGN DETAIL	SHEET 131 - E



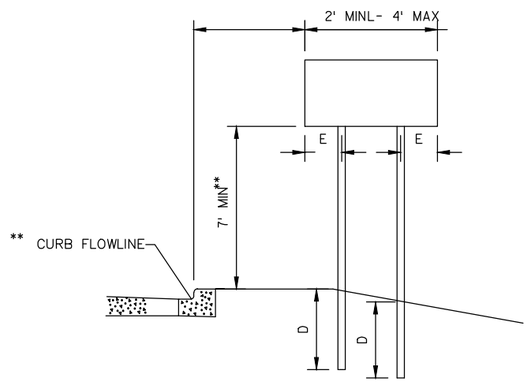
FRONT VIEW SIDE VIEW

NOTES

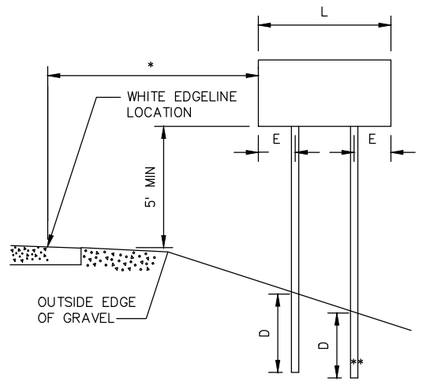
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS TO BE INCLUDED FOR EACH SIGN OVER 12' LONG AND HIGHER THAN 8'. DIAGONAL SUPPORTS TO BE AFFIXED TO THE OUTSIDE SUPPORTS AND TO BE INCIDENTAL TO THE "TRAFFIC CONTROL FIXED MESSAGE SIGN" ITEM. IF DIAGONAL SUPPORTS ARE USED, SIGN TO BE SHIELDED BEHIND CONCRETE BARRIER OR PLACED OUTSIDE THE CLEAR ZONE.
3. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

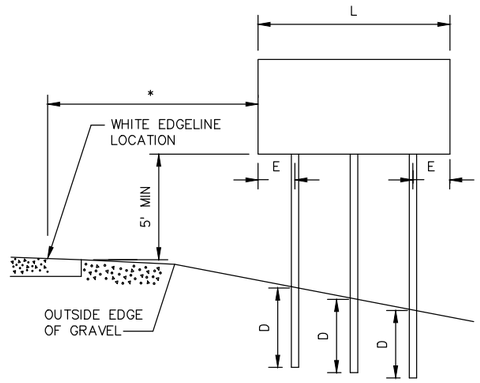
* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER. SEE NOTE 2 FOR OFFSET REQUIREMENTS WHERE DIAGONAL SUPPORTS ARE USED.

** THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.



URBAN AREA





RURAL AREA

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	
60" TO 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	

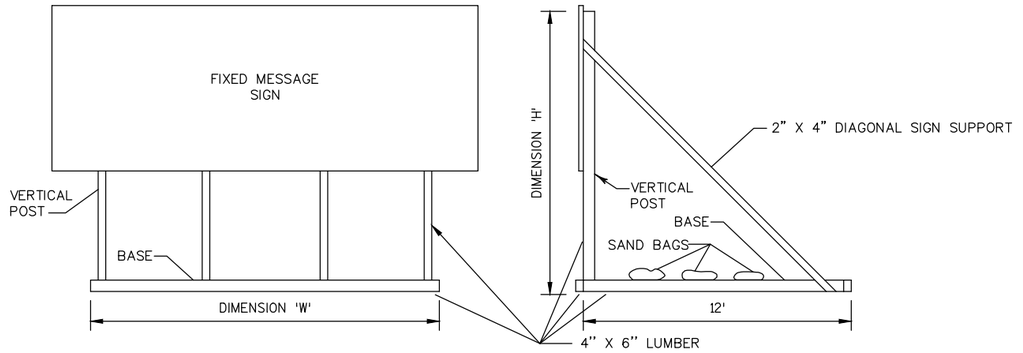
SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	

POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
GREATER THAN 20	5'

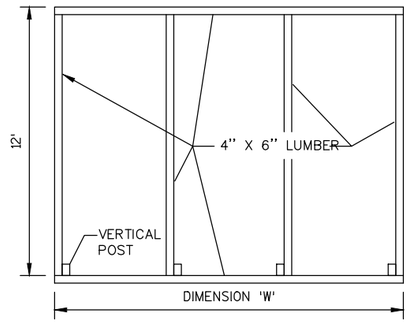
POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS

2



FRONT VIEW

SIDE VIEW



BASE PLAN VIEW

ANTICIPATED DIMENSIONS & POSTS REQUIRED

(FOR INFORMATION ONLY, CONTRACTOR IS TO VERIFY)

SIGN NO.	'W' (FT)	'H' (FT)	NO. OF POSTS OF HEIGHT 'H'
1	15.5	8.5	4
2	15.5	3.5	4
3	13.5	2.0	-
4	15.5	2.0	-
5	12.5	2.0	-
6	15.5	7.5	4
7	7.0	2.0	-
8	10.5	4.5	3
9	22.0	6.0	4
10	15.5	9.5	4
11	22.5	11.0	4
12	15.0	11.0	4
13	15.5	12.5	4
14	22.5	11.0	4
15	15.5	9.5	4
16	17.0	6.0	4

NOTES

1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS SHALL BE INCLUDED AND AFFIXED TO THE OUTSIDE SUPPORTS.
3. DIAGONAL SUPPORTS, VERTICAL POSTS AND BASE LUMBER ARE ALL INCLUDED IN THE "FIXED MESSAGE SIGN PORTABLE SUPPORT" ITEM.
4. PROVIDE AN ADEQUATE NUMBER OF SAND BAGS TO HOLD THE SIGN IN PLACE. SAND BAGS ARE INCLUDED IN THE "FIXED MESSAGE SIGN PORTABLE SUPPORT" ITEM.
5. SEE "TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS" SIGN PLATE FOR ADDITIONAL REQUIREMENTS.

101007

FIXED MESSAGE SIGN PORTABLE SUPPORT

2

(1) DETOUR M4-8 36" X 18" / EAST M3-2 36" X 18" / 12 M1-4 36" X 36"

(2) DETOUR M4-8 24" X 12"

(3) END M4-6 24" X 12" / DETOUR M4-8 24" X 12"

(4) DETOUR AHEAD W20-2 48" X 48" / 14'-10" W012-2 48" X 48" / EAST M3-2 24" X 12" / 12 M1-4 24" X 24"

(5) DETOUR M4-8 24" X 12" / EAST M3-2 24" X 12" / 12 M1-4 24" X 24"

(A) M06-1 21" X 21"

(B) M06-1 21" X 21"

(C) M06-2 30" X 30"

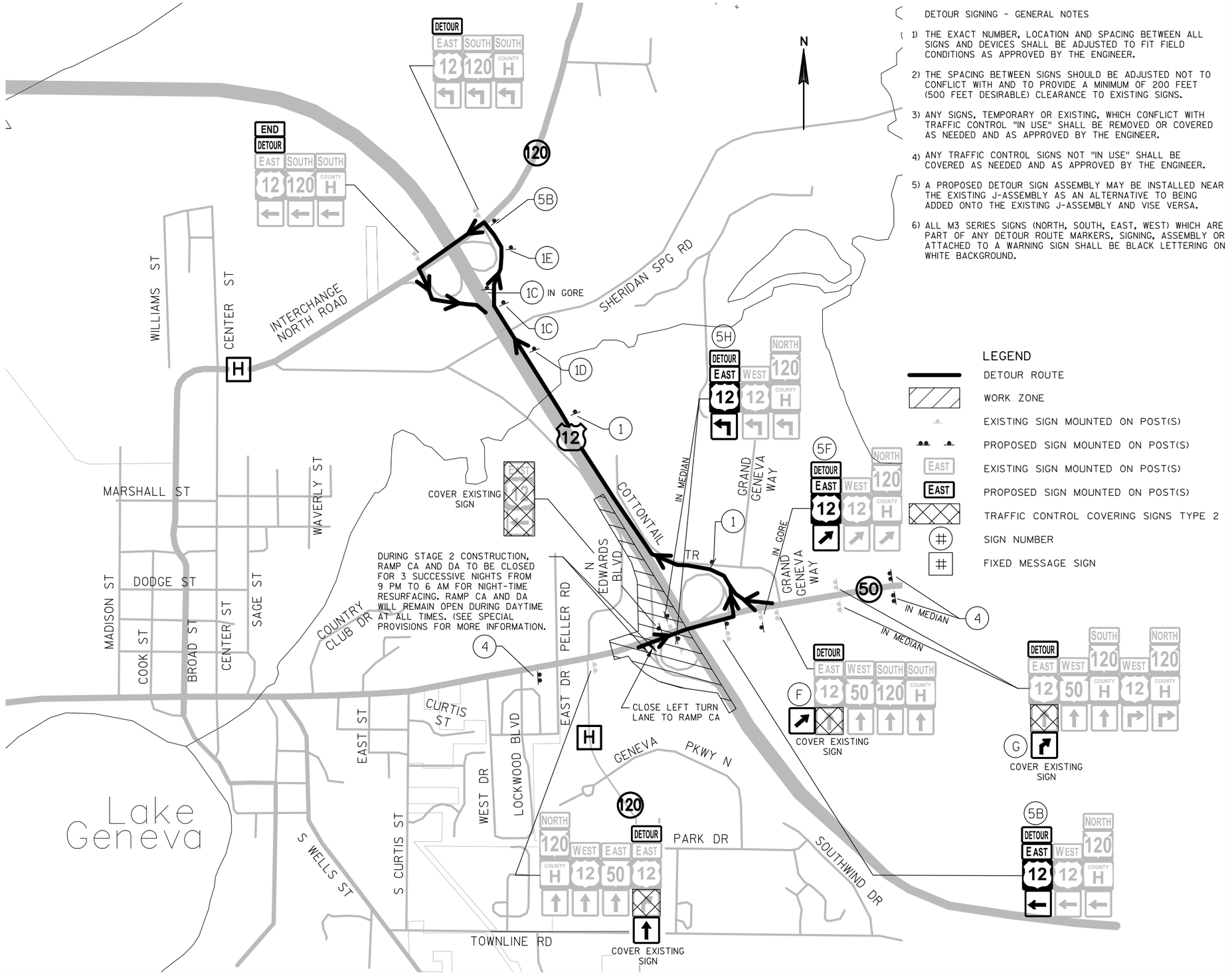
(D) M05-2R 30" X 30"

(E) M05-1L 30" X 30"

(F) M06-2 21" X 21"

(G) M05-2R 21" X 21"

(H) M05-1L 21" X 21"



DETOUR SIGNING - GENERAL NOTES

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

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

3) 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.

4) ANY TRAFFIC CONTROL SIGNS NOT "IN USE" SHALL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

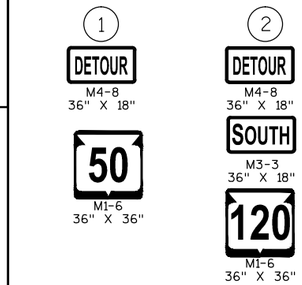
5) A PROPOSED DETOUR SIGN ASSEMBLY MAY BE INSTALLED NEAR THE EXISTING J-ASSEMBLY AS AN ALTERNATIVE TO BEING ADDED ONTO THE EXISTING J-ASSEMBLY AND VISE VERSA.

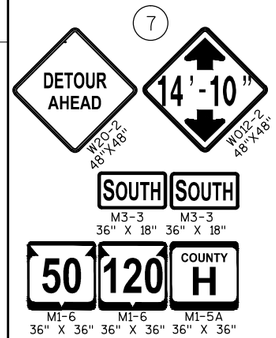
6) ALL M3 SERIES SIGNS (NORTH, SOUTH, EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKERS, SIGNING, ASSEMBLY OR ATTACHED TO A WARNING SIGN SHALL BE BLACK LETTERING ON WHITE BACKGROUND.

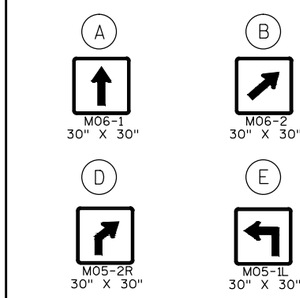
LEGEND

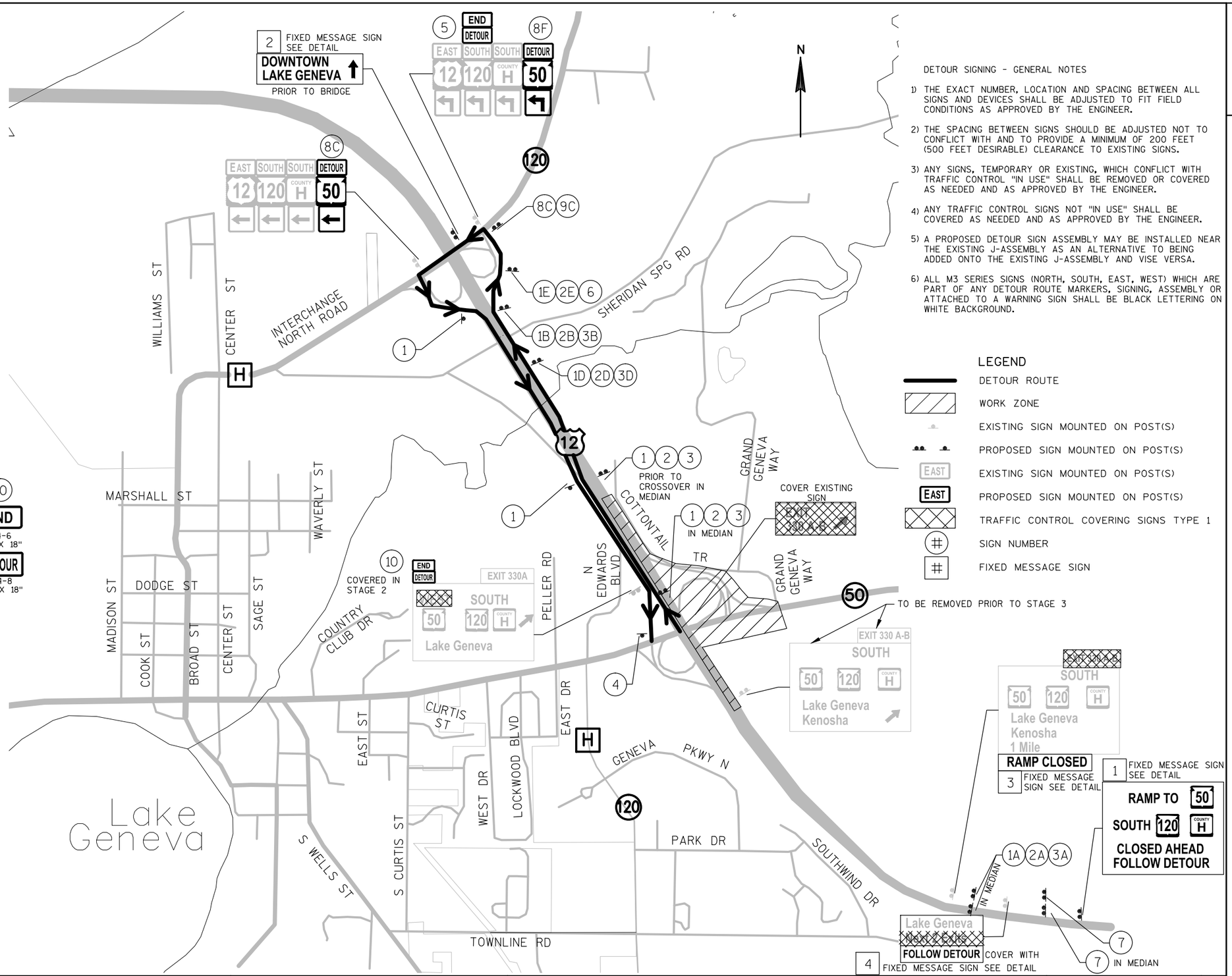
- DETOUR ROUTE
- WORK ZONE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL COVERING SIGNS TYPE 2
- SIGN NUMBER
- FIXED MESSAGE SIGN

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	DETOUR PLAN - STAGE 2 SHORT TERM STH 50 TO USH 12 EB	SHEET 134 - E









DETOUR SIGNING - GENERAL NOTES

1) THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2) THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.
3) 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.
4) ANY TRAFFIC CONTROL SIGNS NOT "IN USE" SHALL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
5) A PROPOSED DETOUR SIGN ASSEMBLY MAY BE INSTALLED NEAR THE EXISTING J-ASSEMBLY AS AN ALTERNATIVE TO BEING ADDED ONTO THE EXISTING J-ASSEMBLY AND VISE VERSA.
6) ALL M3 SERIES SIGNS (NORTH, SOUTH, EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKERS, SIGNING, ASSEMBLY OR ATTACHED TO A WARNING SIGN SHALL BE BLACK LETTERING ON WHITE BACKGROUND.

LEGEND

- DETOUR ROUTE
- WORK ZONE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- EAST — EXISTING SIGN MOUNTED ON POST(S)
- EAST — PROPOSED SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL COVERING SIGNS TYPE 1
- # — SIGN NUMBER
- # — FIXED MESSAGE SIGN

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	DETOUR PLAN - STAGE 3 LONG TERM USH 12 WB TO STH 50	SHEET 135 - E

2

1
DETOUR
M4-8
24" X 12"
WEST
M3-4
24" X 12"
12
M1-4
24" X 24"

2
DETOUR
M4-8
24" X 12"
NORTH
M3-1
24" X 12"
120
M1-6
24" X 24"

3
DETOUR
M4-8
24" X 12"
NORTH
M3-1
24" X 12"
COUNTY H
M1-5A
24" X 24"

4
END
M4-6
24" X 12"
DETOUR
M4-8
24" X 12"

5
END
M4-6
24" X 12"
DETOUR
M4-8
24" X 12"
COUNTY H
M1-5A
24" X 24"

6
EAST
M3-2
24" X 12"

7
DETOUR AHEAD
W20-2
48"X48"
14'-5"
W012-2
48"X48"
NORTH
M3-1
24" X 12"
NORTH
M3-1
24" X 12"
WEST
M3-4
24" X 12"
120
M1-6
24" X 24"
COUNTY H
M1-5A
24" X 24"
12
M1-4
24" X 24"

8
DETOUR
M4-8
24" X 12"

A
M05-1R
21" X 21"

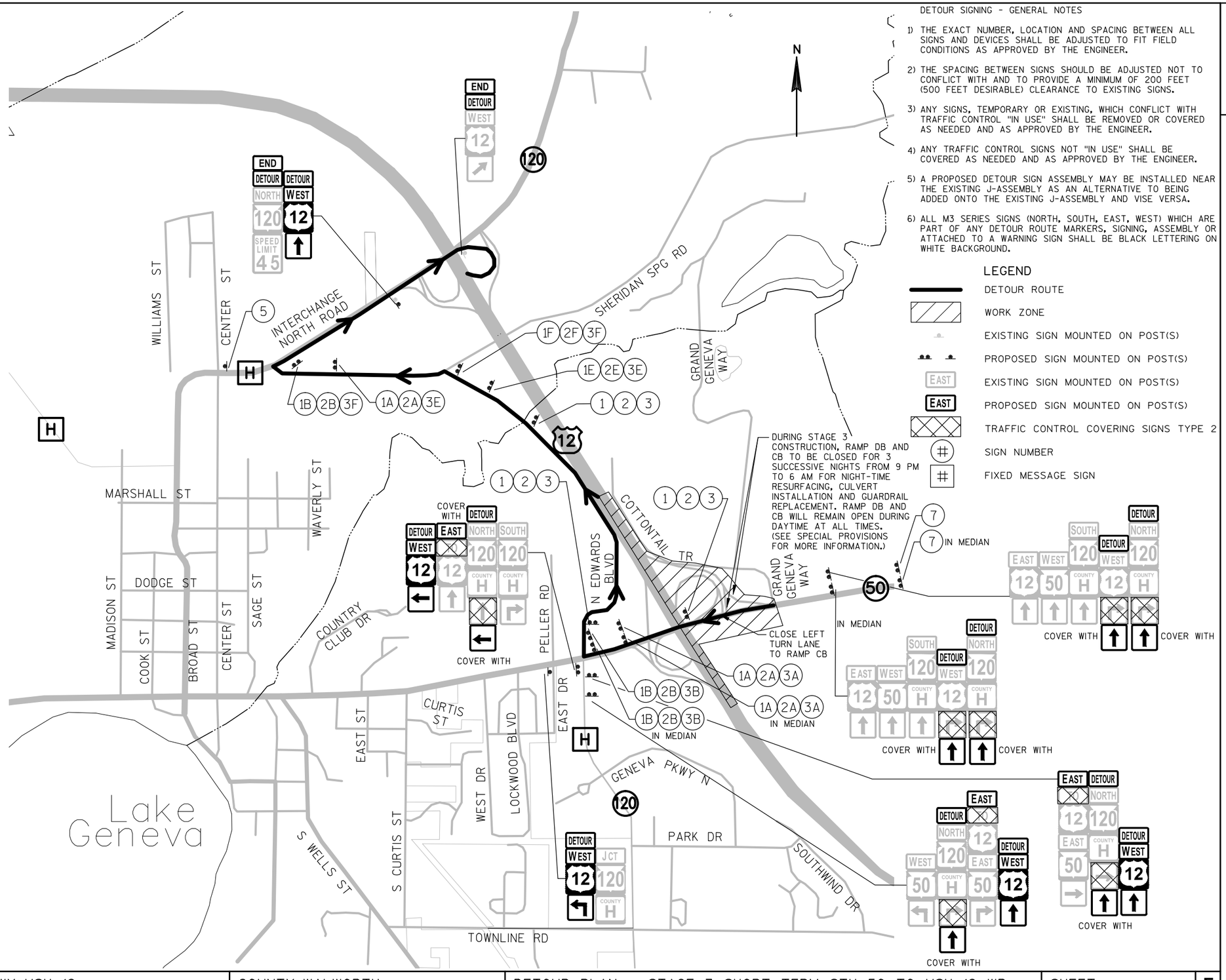
B
M06-1
21" X 21"

C
M06-1
21" X 21"

D
M06-2
21" X 21"

E
M05-1L
21" X 21"

F
M06-1
21" X 21"



DETOUR SIGNING - GENERAL NOTES

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

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

3) 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.

4) ANY TRAFFIC CONTROL SIGNS NOT "IN USE" SHALL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

5) A PROPOSED DETOUR SIGN ASSEMBLY MAY BE INSTALLED NEAR THE EXISTING J-ASSEMBLY AS AN ALTERNATIVE TO BEING ADDED ONTO THE EXISTING J-ASSEMBLY AND VISE VERSA.

6) ALL M3 SERIES SIGNS (NORTH, SOUTH, EAST, WEST) WHICH ARE PART OF ANY DETOUR ROUTE MARKERS, SIGNING, ASSEMBLY OR ATTACHED TO A WARNING SIGN SHALL BE BLACK LETTERING ON WHITE BACKGROUND.

LEGEND

- DETOUR ROUTE
- WORK ZONE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL COVERING SIGNS TYPE 2
- SIGN NUMBER
- FIXED MESSAGE SIGN

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	DETOUR PLAN - STAGE 3 SHORT TERM STH 50 TO USH 12 WB	SHEET 136 - E

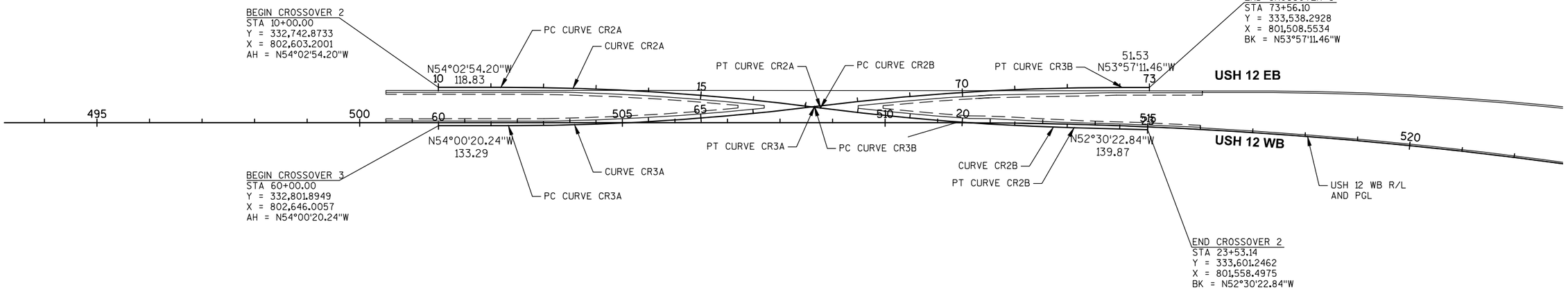
2

CURVE CR2A
PI STA = 14+24.36
Y = 332992.02
X = 802259.67
DELTA = 7°28'14"
D = 1°13'27"
T = 305.53
L = 610.20
R = 4680.00
PC STA = 11+18.83
PT STA = 17+29.03
BK = N54°02'54.20"W
SE = X%

CURVE CR2B
PI STA = 19+71.37
Y = 333368.61
X = 801861.75
DELTA = 5°55'42"
D = 1°13'27"
T = 242.34
L = 484.24
R = 4680.00
PC STA = 17+29.03
PT STA = 22+13.27
AH = N52°30'22.84"W
SE = X%

CURVE CR3A
PI STA = 64+25.74
Y = 333052.11
X = 802301.55
DELTA = 7°09'05"
D = 1°13'27"
T = 292.45
L = 584.14
R = 4680.00
PC STA = 61+33.29
PT STA = 67+17.43
BK = N54°00'20.24"W
SE = X%

CURVE CR3B
PI STA = 70+11.38
Y = 333334.99
X = 801787.89
DELTA = 7°12'14"
D = 1°13'37"
T = 293.95
L = 587.13
R = 4669.72
PC STA = 67+17.43
PT STA = 73+04.56
AH = N53°57'11.46"W
SE = X%



2

CURVE RAMP CA1
PI STA = 549+94.62
Y = 336178.98
X = 799218.31
DELTA = 45°54'07"
D = 7°44'34"
T = 313.36
L = 592.84
R = 740.00
PC STA = 546+81.26
PT STA = 552+74.10
BK = N33°34'17.29"W
AH = N79°28'24.59"W
SE = 8%

CURVE RAMP CA2
PI STA = 557+65.47
Y = 336326.00
X = 798427.12
DELTA = 36°48'43"
D = 15°29'07"
T = 123.13
L = 237.72
R = 370.00
PC STA = 556+42.35
PT STA = 558+80.07
BK = N79°28'24.59"W
AH = N42°39'41.19"W
SE = 8%

CURVE RAMP BD1
PI STA = 136+31.93
Y = 337134.16
X = 799271.11
DELTA = 5°04'49"
D = 1°00'55"
T = 250.36
L = 500.39
R = 5643.58
PC STA = 133+81.57
PT STA = 138+81.96
BK = S78°08'19.39"W
AH = S72°40'10.30"W
SE = 2%

CURVE RAMP BD2
PI STA = 141+79.28
Y = 336969.82
X = 798748.68
DELTA = 285°08'48"
D = 21°37'16"
T = 202.80
L = 1318.83
R = 265.00
PC STA = 143+82.08
PT STA = 157+00.92
BK = S72°00'53.25"W
AH = N32°00'13.99"W
SE = 6%

CURVE RAMP DA
PI STA = 590+84.44
Y = 336493.30
X = 798272.95
DELTA = 37°50'40"
D = 22°55'06"
T = 85.70
L = 165.13
R = 250.00
PC STA = 589+98.74
PT STA = 591+63.87
AH = N04°49'01.08"W
SE = 8%

CURVE RAMP EF1
PI STA = 564+65.17
Y = 337351.44
X = 798185.60
DELTA = 4°01'23"
D = 28°38'52"
T = 7.02
L = 14.04
R = 200.00
PC STA = 564+58.15
PT STA = 564+72.19
BK = N01°28'32.11"W
AH = N02°32'51.38"E
SE = 8%

CURVE RAMP EF2
PI STA = 568+56.75
Y = 337742.64
X = 798203.01
DELTA = 29°55'54"
D = 6°44'26"
T = 227.21
L = 444.05
R = 850.00
PC STA = 566+29.53
PT STA = 570+73.58
BK = N02°32'51.38"E
AH = N27°23'03.01"W
SE = 8%

SEC C L4 COR
N:335,351.5130
E:797,401.2320

SEC C L4 COR
N:335,321.6180
E:800,032.1310

BEGIN USH 12 EB PGL
STA 545+00.00
Y = 335,798.0661
X = 799,523.4385

BEGIN CONSTRUCTION
USH 12 EB PGL
STA 546+50.00

PC RAMP CA1

PT RAMP CA1

CURVE RAMP CA1

PI 1 RAMP BD R/L
STA 142+31.67
Y = 336,957.4464
X = 798,697.6587
BK = S72°40'10.30"W
AH = S72°00'53.25"W

PT RAMP CA2

CURVE RAMP CA2

PC RAMP CA2

PC RAMP DA

CURVE RAMP DA

PT RAMP DA

MATCHLINE STA 560+00 RAMP CA

BEGIN RAMP EF R/L
STA 559+60.70
Y = 336,847.1383
X = 798,198.5917
AH = N01°28'32.11"W

BEGIN RAMP DA R/L
STA 589+98.74
Y = 336,430.2727
X = 798,331.0234
AH = N04°49'01.08"W

END RAMP DA R/L
STA 594+46.45
Y = 336,860.2826
X = 798,242.0196
BK = N04°49'01.08"W

END RAMP AC R/L
STA 283+00.00 =
STH 50 EB R/L
STA 66+71.98, 74' LT
Y = 336,945.3231
X = 798,267.5435

BEGIN STH 50 R/L
STA 68+00.00
Y = 336,561.0432
X = 798,699.9183

PC RAMP BD2

CURVE RAMP BD2

PT RAMP BD2

PI 2 RAMP AC R/L
STA 279+78.98
Y = 337,049.7410
X = 798,571.1103
BK = S73°09'37.99"W
AH = S71°15'05.04"W

PI 1 RAMP AC R/L
STA 278+28.98
Y = 337,093.1947
X = 798,714.6784
BK = S72°00'53.331"W
AH = S73°09'37.99"W

PI 2 RAMP BD R/L
STA 163+00.92
Y = 337,306.6459
X = 798,538.1787
BK = N32°00'13.99"W
AH = N27°25'47.87"W

END RAMP BD R/L
STA 164+51.40 =
USH 12 EB PGL
STA 564+51.46
Y = 337,440.2075
X = 798,468.8583

BEGIN PROJECT 1080-12-71
USH 12 WB R/L
STA 546+50.00
Y = 335,957.04
X = 799,494.82

USH 12 WB R/L
AND PGL

USH 12 EB PGL

USH 12 EB N32° 00' 13.99"W 4500.00

USH 12 WB N32° 00' 13.99"W 8440.57

BEGIN RAMP AC R/L
STA 254+59.51 =
USH 12 WB R/L
STA 554+59.99, 24' RT
Y = 336,656.6683
X = 799,085.8985

STA 558+82.63 =
STA 140+80.93

CP494

PT RAMP BD1

END STH 50 R/L
STA 74+00.00
Y = 337,085.3994
X = 798,985.7914

PC STH 50 1A

CURVE RAMP BD1

PI 1 RAMP AC R/L
STA 256+09.99
Y = 336,790.2299
X = 799,016.5781
BK = N27°25'47.87"W
AH = N32°00'13.99"W

BEGIN RAMP CB R/L
STA 555+55.81
Y = 337,228.6549
X = 799,317.7559
AH = N01°49'10.62"W

STH 50 1A

PC RAMP BD1

BEGIN RAMP DB R/L
STA 551+27.40 =
STH 50 WB R/L
STA 84+37.25, 27' RT
Y = 337,375.7630
X = 799,981.2259
AH = S85°13'18.13"W

SEC NE COR
N:337,961.7400
E:800,039.2650

PT STH 50 1A

PT RAMP AC1

CURVE RAMP AC1

PC RAMP AC1

STA 560+12.07 =
STA 277+67.75

END RAMP AD R/L
STA 374+31.12
Y = 337,220.2318
X = 799,283.4493

BEGIN RAMP AD R/L
STA 370+33.00
Y = 337,588.0550
X = 799,142.7482

CP495

PT RAMP AD1

PC RAMP AD1

PC RAMP CB1

RAMP CB1

PT RAMP CB1

END RAMP CB R/L
STA 560+06.25
Y = 337,660.3376
X = 799,231.0429

PT RAMP DB2

CURVE RAMP DB2

PC RAMP DB2

PT RAMP DB1

CURVE RAMP DB1

PC RAMP DB1

CURVE RAMP DB3

PC RAMP DB3

MATCHLINE STA 568+00

CURVE RAMP AC1
PI STA = 260+07.26
Y = 337127.11
X = 798806.04
DELTA = 285°09'52"
D = 21°37'16"
T = 202.74
L = 1318.92
R = 265.00
PC STA = 262+09.99
PT STA = 275+28.91
BK = N32°00'13.99"W
AH = S72°00'53.33"W
SE = 6%

CURVE RAMP CA3
PI STA = 563+36.49
Y = 336752.18
X = 798034.38
DELTA = 62°00'38"
D = 17°54'18"
T = 192.32
L = 346.33
R = 320.00
PC STA = 561+44.18
PT STA = 564+90.51
BK = N42°39'41.19"W
AH = S75°19'40.40"W
SE = 8%

END RAMP CA R/L
STA 567+93.77
Y = 336,626.6583
X = 797,554.9594
BK = S75°19'40.40"W

PT RAMP CA3

CURVE RAMP CA3

PC RAMP CA3

MATCHLINE STA 560+00 RAMP CA

STH 50 R/L

CURVE STH 50 1A
PI STA = 79+38.52
Y = 337289.26
X = 799486.74
DELTA = 10°00'00"
D = 1°00'00"
T = 501.27
L = 1000.00
R = 5729.58
PC STA = 74+37.25
PT STA = 84+37.25
BK = N73°09'37.99"E
AH = N83°09'37.99"E

CURVE RAMP AD1
PI STA = 371+62.62
Y = 337483.52
X = 799219.39
DELTA = 22°34'14"
D = 12°00'42"
T = 95.19
L = 187.91
R = 477.00
PC STA = 370+67.43
PT STA = 372+55.34
BK = S36°14'45.65"E
AH = S13°40'31.39"E
SE = 6%

CURVE RAMP CB1
PI STA = 558+95.52
Y = 337568.20
X = 799306.97
DELTA = 37°40'14"
D = 16°22'13"
T = 119.39
L = 230.12
R = 350.00
PC STA = 557+76.13
PT STA = 560+06.25
BK = N01°49'10.62"W
SE = 8%

BEGIN RAMP BD R/L
STA 130+22.87 =
STH 50 WB R/L
STA 83+08.50, 74' LT
Y = 337,258.9312
X = 799,867.2541

CURVE RAMP DB1
PI STA = 556+11.53
Y = 337335.43
X = 799498.78
DELTA = 55°17'17"
D = 18°00'00"
T = 166.72
L = 307.16
R = 318.31
PC STA = 554+44.81
PT STA = 557+51.97
BK = S85°13'18.13"E
AH = N39°29'24.89"W
SE = 8%

CURVE RAMP DB2
PI STA = 561+51.46
Y = 337772.40
X = 799138.70
DELTA = 40°46'01"
D = 15°16'00"
T = 139.45
L = 267.03
R = 375.30
PC STA = 560+12.01
PT STA = 562+79.04
BK = N39°29'24.89"W
AH = N80°15'26.28"W
SE = 8%

CURVE RAMP DB3
PI STA = 569+54.89
Y = 337910.37
X = 798335.16
DELTA = 47°06'17"
D = 7°30'00"
T = 333.00
L = 628.06
R = 763.94
PC STA = 566+21.89
PT STA = 572+49.95
BK = N80°15'26.28"W
AH = N33°09'09.75"W
SE = 8%

CONTROL POINT TABLE

NO.	LOCATION	DESCRIPTION	ELEV.
CP492	Y = 339,158.388 X = 797,325.634	39" BERNTSEN FENO MON WITH ALUMINUM CAP, SET ON THE WEST SIDE OF USH 12, APPROX. 2500' NW OF THE STH 50 & USH12 INTERCHANGE	897.66
CP493	Y = 338,092.822 X = 798,118.820	39" BERNTSEN FENO MON WITH ALUMINUM CAP, SET IN THE MEDIAN OF USH 12, APPROX 1200' NW OF THE STH 50 AND USH 12 INTERCHANGE	881.71
CP494	Y = 336,873.012 X = 799,079.245	39" BERNTSEN FENO MON WITH ALUMINUM CAP, SET IN THE SE QUADRANT, OF THE USH 12 AND STH 50 INTERCHANGE	906.00
CP495	Y = 337,283.310 X = 799,337.173	39" BERNTSEN FENO MON WITH ALUMINUM CAP, SET AT THE NE CORNER OF THE INTERSECTION OF STH 50 AND THE USH 12 NB ENTRANCE RAMP	862.93
CP496	Y = 336,803.201 X = 798,266.727	39" BERNTSEN FENO MON WITH ALUMINUM CAP, SET AT THE SE CORNER OF THE INTERSECTION OF STH 50 AND THE USH 12 SB ENTRANCE RAMP	871.90

ALL CONTROL POINTS ARE 8" SPIKES

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	ALIGNMENT PLAN	SHEET 138 - E

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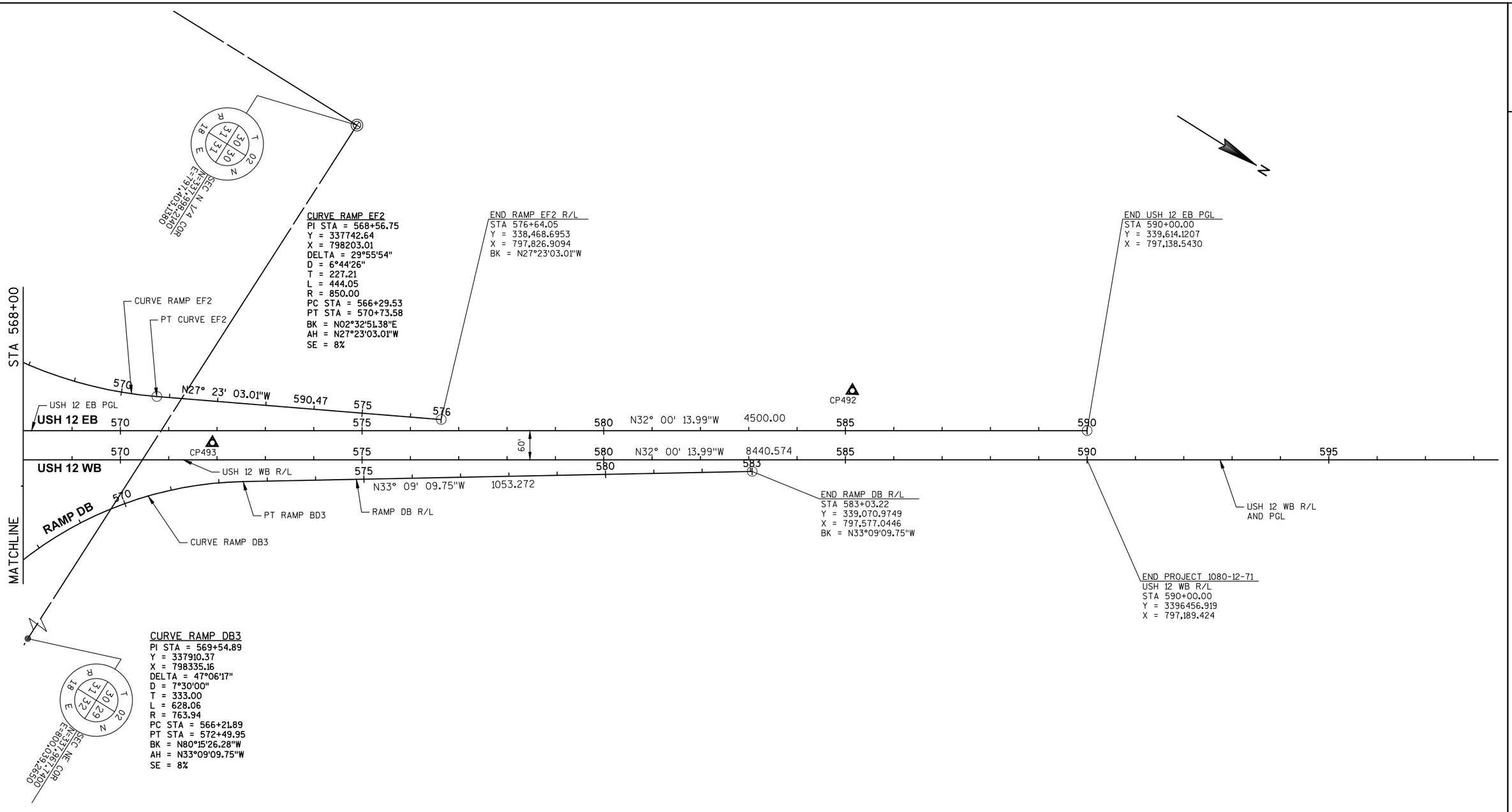

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	ALIGNMENT PLAN	SHEET 139 - E

DATE 26FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE 1080-12-71

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	19.000	19.000
0020	201.0205	GRUBBING	STA	19.000	19.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	13.000	13.000
0040	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 561+36 LT	LS	1.000	1.000
0050	203.0200	REMOVING OLD STRUCTURE (STATION) 02. 561+36 RT	LS	1.000	1.000
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 03. 270+59	LS	1.000	1.000
0070	203.0200	REMOVING OLD STRUCTURE (STATION) 04. 270+68	LS	1.000	1.000
0080	203.0200	REMOVING OLD STRUCTURE (STATION) 05. 559+47.60 12' RT	LS	1.000	1.000
0090	203.0200	REMOVING OLD STRUCTURE (STATION) 06. 559+47.60 72' LT	LS	1.000	1.000
0100	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 01. B-64-28	LS	1.000	1.000
0110	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 02. B-64-29	LS	1.000	1.000
0120	204.0100	REMOVING PAVEMENT	SY	16,860.000	16,860.000
0130	204.0105	REMOVING PAVEMENT BUTT JOINTS	SY	140.000	140.000
0140	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	490.000	490.000
0150	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	29,700.000	29,700.000
0160	204.0150	REMOVING CURB & GUTTER	LF	2,900.000	2,900.000
0170	204.0165	REMOVING GUARDRAIL	LF	3,680.000	3,680.000
0180	204.0170	REMOVING FENCE	LF	160.000	160.000
0190	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	57.000	57.000
0200	204.0190	REMOVING SURFACE DRAINS	EACH	7.000	7.000
0210	204.0220	REMOVING INLETS	EACH	3.000	3.000
0220	205.0100	EXCAVATION COMMON	CY	40,100.000	40,100.000
0230	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-64-187	LS	1.000	1.000
0240	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02. B-64-188	LS	1.000	1.000
0250	206.6000.S	TEMPORARY SHORING	SF	4,900.000	4,900.000
0260	208.0100	BORROW	CY	6,287.000	6,287.000
0270	209.0100	BACKFILL GRANULAR	CY	19,675.000	19,675.000
0280	210.0100	BACKFILL STRUCTURE	CY	665.000	665.000
0290	213.0100	FINISHING ROADWAY (PROJECT) 01. 1080-12-71	EACH	1.000	1.000
0300	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,860.000	1,860.000
0310	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	42,526.000	42,526.000
0320	305.0410	AGGREGATE DETOURS	TON	100.000	100.000
0330	305.0500	SHAPING SHOULDERS	STA	145.000	145.000
0340	310.0110	BASE AGGREGATE OPEN GRADED	TON	1,100.000	1,100.000
0350	311.0110	BREAKER RUN	TON	36,328.000	36,328.000
0360	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	540.000	540.000
0370	416.0610	DRILLED TIE BARS	EACH	1,093.000	1,093.000
0380	416.0620	DRILLED DOWEL BARS	EACH	72.000	72.000
0390	416.1010	CONCRETE SURFACE DRAINS	CY	54.000	54.000
0400	416.1710	CONCRETE PAVEMENT REPAIR	SY	55.000	55.000
0410	440.4410.S	INCENTIVE IRI RIDE	DOL	6,600.000	6,600.000
0420	455.0115	ASPHALTIC MATERIAL PG64-22	TON	1,068.000	1,068.000
0430	455.0605	TACK COAT	GAL	3,720.000	3,720.000
0440	460.1110	HMA PAVEMENT TYPE E-10	TON	19,216.000	19,216.000
0450	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	12,340.000	12,340.000

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DATE 26FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1080-12-71 QUANTITY
0460	465.0105	ASPHALTIC SURFACE	TON	4,980.000	4,980.000
0470	465.0115	ASPHALTIC SURFACE DETOURS	TON	100.000	100.000
0480	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	705.000	705.000
0490	465.0400	ASPHALTIC SHOULDER RUMBLE STRIP	LF	40,480.000	40,480.000
0500	502.0100	CONCRETE MASONRY BRIDGES	CY	1,643.000	1,643.000
0510	502.3200	PROTECTIVE SURFACE TREATMENT	SY	3,590.000	3,590.000
0520	503.0155	PRESTRESSED GIRDER TYPE I 54W-INCH	LF	3,258.000	3,258.000
0530	504.0900	CONCRETE MASONRY ENDWALLS	CY	60.000	60.000
0540	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	27,410.000	27,410.000
0550	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	312,150.000	312,150.000
0560	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	56.000	56.000
0570	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-64-187	EACH	24.000	24.000
0580	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 02. B-64-188	EACH	24.000	24.000
0590	513.2050.S	RAILING PIPE	LF	464.000	464.000
0600	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	56.000	56.000
0610	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	3.000	3.000
0620	521.0136	CULVERT PIPE CORRUGATED STEEL 36-INCH	LF	24.000	24.000
0630	521.0142	CULVERT PIPE CORRUGATED STEEL 42-INCH	LF	8.000	8.000
0640	521.0342	APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1	EACH	1.000	1.000
0650	521.0436	APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1	EACH	2.000	2.000
0660	521.1012	APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	EACH	4.000	4.000
0670	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	1.000	1.000
0680	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	2.000	2.000
0690	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	135.000	135.000
0700	522.0172	CULVERT PIPE REINFORCED CONCRETE CLASS III 72-INCH	LF	400.000	400.000
0710	522.0572	CULVERT PIPE REINFORCED CONCRETE CLASS V 72-INCH	LF	696.000	696.000
0720	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	4.000	4.000
0730	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	5.000	5.000
0740	523.0419	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH	LF	62.000	62.000
0750	523.0519	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	EACH	2.000	2.000
0760	550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	4,860.000	4,860.000
0770	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	2,635.000	2,635.000
0780	601.0553	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	LF	280.000	280.000
0790	602.0410	CONCRETE SIDEWALK 5-INCH	SF	4,650.000	4,650.000
0800	603.1142	CONCRETE BARRIER TYPE S42	LF	350.000	350.000
0810	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	5,320.000	5,320.000

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DATE 26FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1080-12-71 QUANTITY
0820	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	5,320.000	5,320.000
0830	604.0400	SLOPE PAVING CONCRETE	SY	785.000	785.000
0840	606.0200	RIPRAP MEDIUM	CY	495.000	495.000
0850	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	380.000	380.000
0860	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	113.000	113.000
0870	611.0642	INLET COVERS TYPE MS	EACH	6.000	6.000
0880	611.0654	INLET COVERS TYPE V	EACH	4.000	4.000
0890	611.3220	INLETS 2X2-FT	EACH	4.000	4.000
0900	611.3901	INLETS MEDIAN 1 GRATE	EACH	4.000	4.000
0910	611.3902	INLETS MEDIAN 2 GRATE	EACH	1.000	1.000
0920	611.8110	ADJUSTING MANHOLE COVERS	EACH	5.000	5.000
0930	612.0106	PIPE UNDERDRAIN 6-INCH	LF	2,670.000	2,670.000
0940	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	420.000	420.000
0950	612.0212	PIPE UNDERDRAIN UNPERFORATED 12-INCH	LF	189.000	189.000
0960	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	1,239.000	1,239.000
0970	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.000	4.000
0980	614.0220	STEEL THRIE BEAM BULLNOSE TERMINAL	EACH	2.000	2.000
0990	614.0230	STEEL THRIE BEAM	LF	380.000	380.000
1000	614.0396	GUARDRAIL MOW STRIP ASPHALT	SY	2,402.000	2,402.000
1010	614.0905	CRASH CUSHIONS TEMPORARY	EACH	24.000	24.000
1020	614.2300	MGS GUARDRAIL 3	LF	4,430.000	4,430.000
1030	614.2500	MGS THRIE BEAM TRANSITION	LF	240.000	240.000
1040	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	11.000	11.000
1050	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	5.000	5.000
1060	616.0100	FENCE WOVEN WIRE (HEIGHT) 01. 4.5 FEET	LF	170.000	170.000
1070	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1080-12-71	EACH	1.000	1.000
1080	619.1000	MOBILIZATION	EACH	1.000	1.000
1090	623.0200	DUST CONTROL SURFACE TREATMENT	SY	14,700.000	14,700.000
1100	624.0100	WATER	MGAL	221.000	221.000
1110	625.0100	TOPSOIL	SY	1,615.000	1,615.000
1120	625.0500	SALVAGED TOPSOIL	SY	70,700.000	70,700.000
1130	627.0200	MULCHING	SY	29,673.000	29,673.000
1140	628.1104	EROSION BALES	EACH	1,440.000	1,440.000
1150	628.1504	SILT FENCE	LF	5,725.000	5,725.000
1160	628.1520	SILT FENCE MAINTENANCE	LF	12,490.000	12,490.000
1170	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	12.000	12.000
1180	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	7.000	7.000
1190	628.2002	EROSION MAT CLASS I TYPE A	SY	30,310.000	30,310.000
1200	628.2027	EROSION MAT CLASS II TYPE C	SY	14,050.000	14,050.000
1210	628.6510	SOIL STABILIZER TYPE B	ACRE	3.750	3.750
1220	628.7005	INLET PROTECTION TYPE A	EACH	12.000	12.000
1230	628.7010	INLET PROTECTION TYPE B	EACH	12.000	12.000
1240	628.7020	INLET PROTECTION TYPE D	EACH	9.000	9.000
1250	628.7504	TEMPORARY DITCH CHECKS	LF	741.000	741.000
1260	628.7555	CULVERT PIPE CHECKS	EACH	14.000	14.000
1270	628.7560	TRACKING PADS	EACH	13.000	13.000
1280	628.7560.S	STONE OR ROCK DITCH CHECKS	CY	32.000	32.000
1290	628.7570	ROCK BAGS	EACH	935.000	935.000
1300	629.0210	FERTILIZER TYPE B	CWT	63.000	63.000

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DATE 26FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1080-12-71 QUANTITY
1310	630.0120	SEEDING MIXTURE NO. 20	LB	2,345.000	2,345.000
1320	630.0200	SEEDING TEMPORARY	LB	1,158.000	1,158.000
1330	630.0300	SEEDING BORROW PIT	LB	90.000	90.000
1340	631.0300	SOD WATER	MGAL	42.000	42.000
1350	631.1000	SOD LAWN	SY	1,615.000	1,615.000
1360	633.0200	DELINEATORS FLEXIBLE	EACH	166.000	166.000
1370	633.1100	DELINEATORS TEMPORARY	EACH	121.000	121.000
1380	633.5200	MARKERS CULVERT END	EACH	33.000	33.000
1390	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	135.000	135.000
1400	635.0200	SIGN SUPPORTS STRUCTURAL STEEL HS	LB	2,200.000	2,200.000
1410	635.0300	SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS	EACH	6.000	6.000
1420	636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	28.000	28.000
1430	636.0500	SIGN SUPPORTS STEEL REINFORCEMENT	LB	180.000	180.000
1440	636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	4,303.000	4,303.000
1450	637.1210	SIGNS TYPE I REFLECTIVE H	SF	1,559.000	1,559.000
1460	637.2210	SIGNS TYPE II REFLECTIVE H	SF	1,356.080	1,356.080
1470	637.2215	SIGNS TYPE II REFLECTIVE H FOLDING	SF	44.760	44.760
1480	637.2230	SIGNS TYPE II REFLECTIVE F	SF	411.500	411.500
1490	638.2102	MOVING SIGNS TYPE II	EACH	14.000	14.000
1500	638.2601	REMOVING SIGNS TYPE I	EACH	7.000	7.000
1510	638.2602	REMOVING SIGNS TYPE II	EACH	109.000	109.000
1520	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	108.000	108.000
1530	638.3100	REMOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	6.000	6.000
1540	641.6600	SIGN BRIDGE (STRUCTURE) 01. S-64-19	LS	1.000	1.000
1550	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
1560	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1080-12-71	EACH	1.000	1.000
1570	643.0300	TRAFFIC CONTROL DRUMS	DAY	186,203.000	186,203.000
1580	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	2,538.000	2,538.000
1590	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	7,928.000	7,928.000
1600	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	480.000	480.000
1610	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	480.000	480.000
1620	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	16,069.000	16,069.000
1630	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	21,802.000	21,802.000
1640	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	1,960.000	1,960.000
1650	643.0900	TRAFFIC CONTROL SIGNS	DAY	48,055.000	48,055.000
1660	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	19.000	19.000
1670	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	131.000	131.000
1680	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	1,829.000	1,829.000
1690	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	1,116.000	1,116.000
1700	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 1080-12-71	EACH	1.000	1.000
1710	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	16,368.000	16,368.000
1720	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	1,495.000	1,495.000
1730	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	1,445.000	1,445.000
1740	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	130.000	130.000
1750	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	49,028.000	49,028.000
1760	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	9,750.000	9,750.000
1770	646.0600	REMOVING PAVEMENT MARKINGS	LF	7,950.000	7,950.000
1780	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH	LF	8,287.000	8,287.000
1790	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	LF	8,365.000	8,365.000

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DATE 26FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1080-12-71 QUANTITY
1800	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	148.000	148.000
1810	647.0746	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	LF	432.000	432.000
1820	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	20,950.000	20,950.000
1830	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	79,090.000	79,090.000
1840	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	7,570.000	7,570.000
1850	649.1800	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	EACH	2.000	2.000
1860	649.2100	TEMPORARY RAISED PAVEMENT MARKERS	EACH	261.000	261.000
1870	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	20.000	20.000
1880	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	12,810.000	12,810.000
1890	650.5000	CONSTRUCTION STAKING BASE	LF	12,810.000	12,810.000
1900	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	2,915.000	2,915.000
1910	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	14.000	14.000
1920	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-64-187	LS	1.000	1.000
1930	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. S-64-19	LS	1.000	1.000
1940	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. B-64-188	LS	1.000	1.000
1950	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 03. R-64-21	LS	1.000	1.000
1960	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 04. R-64-22	LS	1.000	1.000
1970	650.7500	CONSTRUCTION STAKING CONCRETE BARRIER	LF	350.000	350.000
1980	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	9,790.000	9,790.000
1990	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1080-12-71	LS	1.000	1.000
2000	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	12,810.000	12,810.000
2010	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	12.000	12.000
2020	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	325.000	325.000
2030	652.0800	CONDUIT LOOP DETECTOR	LF	332.000	332.000
2040	653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	1.000	1.000
2050	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	1,573.000	1,573.000
2060	655.0800	LOOP DETECTOR WIRE	LF	892.000	892.000
2070	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 01. STH 50/RAMP EF INTERSECTION	LS	1.000	1.000
2080	690.0150	SAWING ASPHALT	LF	2,630.000	2,630.000
2090	690.0250	SAWING CONCRETE	LF	8,740.000	8,740.000
2100	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	500.000	500.000
2110	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	9,852.000	9,852.000
2120	SPV.0035	SPECIAL 01. BACKFILL SLURRY	CY	860.000	860.000
2130	SPV.0060	SPECIAL 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	EACH	10.000	10.000
2140	SPV.0060	SPECIAL 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 4	EACH	3.000	3.000
2150	SPV.0060	SPECIAL 03. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS	EACH	10.000	10.000

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DATE 26FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1080-12-71 QUANTITY
2160	SPV.0060	SPECIAL 04. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC SYMBOLS BIKE LANE	EACH	2.000	2.000
2170	SPV.0060	SPECIAL 05. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS BIKE LANE	EACH	2.000	2.000
2180	SPV.0060	SPECIAL 06. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS BIKE LANE	EACH	2.000	2.000
2190	SPV.0060	SPECIAL 07. RAISED PAVEMENT MARKERS	EACH	28.000	28.000
2200	SPV.0060	SPECIAL 08. EXPOSING EXISTING UTILITY	EACH	15.000	15.000
2210	SPV.0060	SPECIAL 09. SAND BAGS	EACH	150.000	150.000
2220	SPV.0085	SPECIAL 01. BAR STEEL REINFORCEMENT HS STAINLESS BRIDGE	LB	3,740.000	3,740.000
2230	SPV.0090	SPECIAL 01. HEAVY DUTY SILT FENCE	LF	2,600.000	2,600.000
2240	SPV.0090	SPECIAL 02. PIPE UNDERDRAIN UNPERFORATED 24-INCH	LF	97.000	97.000
2250	SPV.0090	SPECIAL 03. CONSTRUCTION STAKING SUPERELEVATION TRANSITIONS	LF	292.000	292.000
2260	SPV.0090	SPECIAL 04. GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH	LF	97.000	97.000
2270	SPV.0105	SPECIAL 01. REMOVE LOOP DETECTOR WIRE AND LEAD- IN CABLE STH 50/RAMP EF INTERSECTION	LS	1.000	1.000
2280	SPV.0105	SPECIAL 02. TEMP VEHICULAR VIDEO DETECTION SYS FOR INT STH 50/RAMP EF INT	LS	1.000	1.000
2290	SPV.0105	SPECIAL 03. REMOVE, SALVAGE & REINSTALL TRAFFIC SIGNAL EQUIPMENT STH 50/RAMP EF INT	LS	1.000	1.000
2300	SPV.0165	SPECIAL 01. WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	2,445.000	2,445.000
2310	SPV.0180	SPECIAL 01. GEOTEXTILE FABRIC TYPE FF	SY	900.000	900.000
2320	SPV.0180	SPECIAL 02. CONTINUOUSLY REINFORCED CONCRETE PAVEMENT SHES REPAIR	SY	1,500.000	1,500.000
2330	SPV.0195	SPECIAL 01. QMP BAS AGGREGATE DENSE 1 1/4 INCH COMPACTION	TON	41,670.000	41,670.000

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EARTHWORK SUMMARY

ID 1080-12-71 CATEGORY 0010			A	B	C	D	E	F	G	H	I
			Item #205.0100		*	*	Item #311.0110	*	*	*	Item #208.0100
Stage	From/To Station	Location	Excavation Common CY		Salvaged/Unusable Pavement Material (5)	Available Material (6)	***Breaker Run = EBS Backfill (3)(7) CY	Unexpanded Fill	Expanded Fill (8) CY	Mass Ordinate (9)	Borrow (10)
			Cut	EBS Excavation (2)(3)(4)			Factor		Factor		
			CY	CY	CY	CY	1.00	CY	1.30	CY	CY
Stage 1A	STA 503+69 - STA 513+04	USH 12 Cross Over**	2,475	---	0	2,475	---	244	317	2,158	
Stage 1A Subtotals			2,475	0	0	2,475	0	244	317	2,158	-2,158
Stage 2	STA 546+50 - STA 558+50	USH 12	5,917	420	1,586	4,331	420	2,307	3,000	1,331	
	STA 560+62 - STA 578+00	USH 12	1,597	220	1,057	540	220	4,576	5,949	-5,409	
	†STA 561+36 Culvert Installation	USH 12	---	---	---	9,750	---	---	---	9,750	
	STA 130+23 - STA 157+00	Ramp BD	14,308	350	1,822	12,486	350	14,608	18,991	-6,505	
	STA 561+18 - STA 571+81	Ramp EF	---	85	---	---	85	---	---	---	
	STA 546+60 - STA 563+67	Ramp CA & Ramp DA	---	130	---	---	130	---	---	---	
Stage 2 Subtotals			21,822	1,205	4,466	27,106	1,205	21,492	27,939	-833	833
Stage 3	STA 546+50 - STA 558+50	USH 12	5,917	420	1,586	4,331	420	2,307	3,000	1,331	
	STA 560+62 - STA 576+50	USH 12	2,044	170	1,057	987	170	4,538	5,899	-4,912	
	†STA 561+36 Culvert Installation	USH 12	---	---	---	10,950	---	---	---	10,950	
	STA 262+10 - STA 283+00	Ramp AC	3,934	370	1,822	2,112	370	12,257	15,934	-13,823	
	STA 371+23 - STA 374+00	Ramp AD	241	35	312	-71	35	523	680	-751	
	STA 556+36 - STA 559+00	Ramp CB	---	24	---	---	24	---	---	---	
	STA 557+63 - STA 577+75	Ramp DB	1,307	136	615	692	136	846	1,100	-408	
Stage 3 Subtotals			13,442	1,155	5,393	19,000	1,155	20,471	26,612	-7,612	7,612
Grand Totals			37,740	2,360	9,858	48,582	2,360	42,207	54,869	-6,287	6,287
		Total Excavation Common =	40,100				4,248 TON				

* = NOT A BID ITEM. COLUMN SHOWN FOR INFORMATION ONLY.
** = ASSUMED 4-INCHES OF TOPSOIL TO BE REMOVED FOR THE CROSSOVER CONSTRUCTION.
*** = ADDITIONAL QUANTITIES SHOWN ELSEWHERE, SEE "BASE AGGREGATE" TABLE.
†QUANTITY CALCULATED FOR INFORMATION ONLY AND NOT INCLUDED IN EXCAVATION COMMON (A) PAY ITEM, INCIDENTAL TO CULVERT INSTALLATION. MATERIAL AVAILABLE (D) INCLUDED TO REDUCE BORROW (I) QUANTITY.
1) EXCAVATION COMMON IS THE SUM OF THE CUT(A) AND EBS EXCAVATION (B) COLUMNS (ITEM #205.0100).
2) EBS EXCAVATION (B) IS ASSUMED TO BE 10% OF THE TOTAL ROADWAY AREA AND IS ASSUMED TO BE UNDISTRIBUTED UNLESS OTHERWISE NOTED. TO BE PAID AS EXCAVATION COMMON (ITEM #205.0100).
3) EBS EXCAVATION (B) TO BE BACKFILLED WITH BREAKER RUN (E) (ITEM 311.0110).
4) IT IS ASSUMED THAT ALL EBS EXCAVATION COMMON (B) WILL BE WASTED.
5) SALVAGED/UNUSABLE PAVEMENT MATERIAL (C) IS INCLUDED IN CUT (A). THIS SUMMARY ASSUMES THAT THE EXISTING PAVEMENT WILL BE SALVAGED. THE EXISTING PAVEMENT STRUCTURE IS NOT SHOWN IN THE CROSS SECTIONS.
6) AVAILABLE MATERIAL (D) = CUT (A) - SALVAGED/UNUSABLE PAVEMENT MATERIAL (C)
7) EBS BACKFILL (E) - IT IS ASSUMED THAT EBS EXCAVATION WILL BE BACKFILLED WITH BREAKER RUN. EBS BACKFILL IS NOT INCLUDED AS PART OF THE MASS ORDINATE. ASSUMED UNIT WEIGHT OF BREAKER RUN = 1.8 TONS/CY.
8) EXPANDED FILL (G) = UNEXPANDED FILL (F) * FILL FACTOR
9) THE MASS ORDINATE (H) = AVAILABLE MATERIAL (D) - EXPANDED FILL (G) + or - QTY CALCULATED FOR EACH ROADWAY. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL. MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL.
10) BORROW (I) (ITEM 208.0100) = AVAILABLE MATERIAL (D) - EXPANDED FILL (G).

REMOVALS

LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	204.0100 REMOVING PAVEMENT SY	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF	204.0170 REMOVING FENCE LF	204.0180 REMOVING DELINEATORS AND MARKERS EACH	204.0190 REMOVING SURFACE DRAINS EACH
STAGE 1											
USH 12	---	---	---	---	---	---	---	---	---	---	---
STAGE 2				---							
USH 12	4	4	6,000	---	290	9,600	1,430	910	40	7	---
STH 50	3	3	---	---	---	---	---	670	---	---	---
RAMP BD	2	2	2,100	---	---	---	---	---	---	15	3
RAMP CA & RAMP DA	---	---	---	---	---	3,550	---	---	---	---	---
RAMP EF	---	---	---	140	---	1450†	---	---	---	---	---
STAGE 3											
USH 12	---	---	6,000	---	200	9,600	60	1,000	120	7	1
STH 50	---	---	60*	---	---	---	---	540	---	---	---
RAMP AC & RAMP AD	4	4	2,700	---	---	---	---	---	---	16	3
RAMP CB & BD	6	6	---	---	---	5,500	1,410	560	---	12	---
TOTALS	**19**	**19**	**16,860**	**140**	**490**	**29,700**	**2,900**	**3,680**	**160**	**57**	**7**

†RAMP EF REMOVING ASPHALTIC SURFACE MILLING ONLY ON SHOULDERS, SEE PLAN DETAILS.
*QUANTITY CALCULATED FOR THE INSTALLATION OF THE LOOP DETECTORS IN THE ASPHALT PAVEMENT ON STH 50.

BASE AGGREGATE

	BASE AGGREGATE							
	***	***			****	**		*
LOCATION	305.0110 DENSE 3/4-INCH TON	305.0120 DENSE 1 1/4-INCH TON	305.0410 AGGREGATE DETOURS TON	305.0500 SHAPING SHOULDERS STA	310.0110 OPEN GRADED TON	311.0110 BREAKER RUN TON	623.0200 DUST CONTROL SURFACE TREATMENT SY	624.0100 WATER MGAL
STAGE 1								
USH 12	---	3,700	---	---	---	4,350	---	---
STAGE 2								
USH 12	430	10,400	---	37	---	7,650	5,150	38
STH 50	50	1,490	---	---	500	1,510	---	7
RAMP BD	100	5,450	---	---	---	4,280	2,200	20
RAMP CA & RAMP DA	240	---	---	31	---	---	---	1
RAMP EF	200	---	---	22	---	---	---	1
STAGE 3								
USH 12	350	9,510	---	37	---	7,600	5,150	35
STH 50	30	2,250	---	---	600	1,755	---	9
RAMP AC & RAMP AD	130	5,650	---	---	---	4,935	2,200	22
RAMP DB & RAMP CB	330	3,220	---	18	---	---	---	8
UNDISTRIBUTED	---	---	100	---	---	---	---	80
TOTALS	**1,860**	**41,670**	**100**	**145**	**1,100**	**32,080**	**14,700**	**221**

* UNDISTRIBUTED AMOUNT IS FOR COMMON EXCAVATION.
** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "EARTHWORK SUMMARY" TABLE. ASSUMED UNIT WEIGHT OF BREAKER RUN = 1.8 TONS/CY.
*** QUANTITIES CALCULATED USING AN ASSUMED UNIT WEIGHT OF 2.2 TONS/CY (2.0 TONS/CY PLUS 10% ADDITIONAL FOR UNDISTRIBUTED AREAS)
**** QUANTITIES CALCULATED USING AN ASSUMED UNIT WEIGHT OF 2.1 TONS/CY (1.9 TONS/CY PLUS 10% ADDITIONAL FOR UNDISTRIBUTED AREAS)

TEMPORARY SHORING

LOCATION	* 206.6000.S TEMPORARY SHORING SF
STAGE 2	
USH 12	2,200
STAGE 3	
USH 12	2,300
TOTAL	**4,500**

*FOR 72-INCH CULVERT INSTALLATION AT STA 561+36.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

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ASPHALT

LOCATION	440.4410.S INCENTIVE IRI RIDE DOL	455.0115 ASPHALTIC MATERIAL PG 64-22 TON	455.0605 TACK COAT GAL	460.1110 HMA PAVEMENT TYPE E-10 TON	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL	465.0105 ASPHALTIC SURFACE TON	465.0115 ASPHALTIC SURFACE DETOURS TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0400 ASPHALTIC SHOULDER RUMBLE STRIP LF
STAGE 1									
USH 12	---	---	---	---	---	4,980	---	705	---
STAGE 2									
USH 12	3,300	330	1,150	5,945	3,810	---	---	---	7,300
STH 50	---	33	130	585	380	---	---	---	---
RAMP BD	---	84	350	1,520	980	---	---	---	---
RAMP CA & RAMP DA	---	67	150	1,210	780	---	---	---	---
RAMP EF	---	12	30	201	130	---	---	---	---
STAGE 3									
USH 12	3,300	320	1,100	5,760	3,690	---	---	---	8,400
STH 50	---	45	210	805	520	---	---	---	1,380
RAMP AC & RAMP AD	---	91	400	1,640	1,050	---	---	---	---
RAMP DB & RAMP CB	---	86	200	1,550	1,000	---	---	---	---
STAGE 4									
USH 12	---	---	---	---	---	---	---	---	23,400
UNDISTRIBUTED	---	---	---	---	---	---	100	---	---
TOTALS	**6,600**	**1,068**	**3,720**	**19,216**	**12,340**	**4,980**	**100**	**705**	**40,480**

CONCRETE

LOCATION	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	* 416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1010 CONCRETE SURFACE DRAINS CY	* 416.1710 CONCRETE PAVEMENT REPAIR SY	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	603.1142 CONCRETE BARRIER TYPE S42 LF	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	* SPV.0180.02 CONTINUOUSLY REFINFORCED CONCRETE PAVEMENT SHES REPAIR SY
STAGE 1													
USH 12	---	---	---	---	---	---	---	---	---	---	---	---	---
STAGE 2													
USH 12	270	---	---	6	---	---	140	---	---	1,260	1,260	5	---
STH 50	---	---	---	---	---	---	---	---	---	1,110	1,110	5	---
RAMP BD	---	---	---	21	---	1,280	---	---	---	---	---	---	---
RAMP CA & RAMP DA	---	---	---	---	---	---	---	---	---	---	---	---	---
RAMP EF	---	---	72**	---	55**	---	---	---	---	---	---	---	---
STAGE 3													
USH 12	270	67†	---	6	---	---	140	---	---	1,350	1,350	8	115†
STH 50	---	---	---	---	---	---	---	4,650	350	1,110	1,110	4	---
RAMP AC & RAMP AD	---	---	---	21	---	1,280	---	---	---	---	---	---	---
RAMP DB & RAMP CB	---	126†	---	---	---	75	---	---	---	---	---	---	185†
UNDISTRIBUTED	---	900	---	---	---	---	---	---	---	490	490	2	1,200
TOTALS	**540**	**1,093**	**72**	**54**	**55**	**2,635**	**280**	**4,650**	**350**	**5,320**	**5,320**	**24**	**1,500**

*UNDISTRIBUTED AMOUNT IS FOR THE RESURFACING PORTION OF USH 12, RAMP CA, RAMP DA, RAMP DB AND RAMP CB.
**QUANTITY CALCULATED FOR THE INSTALLATION OF THE LOOP DETECTORS IN THE CONCRETE AREA OF RAMP EF.
†QUANTITY CALCULATED FOR THE INSTALLATION OF THE CULVERTS IN THE RESURFACING PORTION OF USH 12 AND RAMP DB.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CULVERT PIPE REINFORCED CONCRETE & ENDWALLS

	INLET			OUTLET						** 203.0100 REMOVING SMALL PIPE CULVERTS	203.0200 REMOVING OLD STRUCTURE	* REMOVAL	** 209.0100 BACKFILL GRANULAR	SPV.0035.01 BACKFILL SLURRY	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH	521.0136 CULVERT PIPE CORRUGATED STEEL 36-INCH	521.0142 CULVERT PIPE CORRUGATED STEEL 42-INCH	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	522.0172 CULVERT PIPE REINFORCED CONCRETE CLASS III 72-INCH	522.0572 CULVERT PIPE REINFORCED CONCRETE CLASS V 72-INCH	523.0419 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH
STATION	ROADWAY	OFFSET	ELEV.	STATION	ROADWAY	OFFSET	ELEV.	NOTES	SLOPE (%)	EACH	LS	DESCRIPTION	CY	CY	LF	LF	LF	LF	LF	LF	LF
STAGE 1																					
504+06	USH 12	20.13' LT	856.22	504+06	USH 12	17.66' LT	856.11	EXTENSION	4.45	---	---	---	---	---	3	---	---	---	---	---	---
STAGE 2																					
561+36† LT	USH 12	179.85' LT	856.57	561+36†	USH 12	24.35' LT	855.40	CROSS DRAIN	0.75	---	1	338' - 72" CMCP	8700	460	---	---	---	---	---	312	---
131+23	RAMP BD	28.65' LT	853.34	131+23	RAMP BD	16.92' LT	852.99	EXTENSION	2.98	1	---	AEW	---	---	---	12	---	---	---	---	---
131+30	RAMP BD	29.10' LT	853.27	131+30	RAMP BD	17.04' LT	852.92	EXTENSION	2.89	1	---	AEW	---	---	---	12	---	---	---	---	---
143+41	RAMP BD	34.59' LT	861.13	143+41	RAMP BD	26.65' LT	861.01	EXTENSION	1.51	1	---	AEW	---	---	---	---	8	---	---	---	---
146+06	RAMP BD	39.99' RT	865.74	146+06	RAMP BD	31.19' LT	863.38	CROSS DRAIN	3.31	1	---	61'-18" CMCP	25	---	---	---	---	71	---	---	---
STAGE 3																					
552+08	USH 12	15.09' LT	888.68	552+08	USH 12	46.66' RT	888.25	CROSS DRAIN	0.70	1	---	61' - 18" CMCP	30	---	---	---	---	---	---	---	62
561+36† RT	USH 12	24.35' LT	855.40	561+36†	USH 12	167.56' RT	853.94	CROSS DRAIN	0.76	---	1	338' - 72" CMCP	8800	400	---	---	---	---	---	384	---
270+59	RAMP AC	45.92' RT	849.93	559+59	RAMP DB	34.59' RT	849.80	CROSS DRAIN	0.13	---	1	170' - 72" CMCP	750	---	---	---	---	---	200	---	---
270+68	RAMP AC	45.92' RT	849.93	559+68	RAMP DB	34.59' RT	849.80	CROSS DRAIN	0.06	---	1	170' - 72" CMCP	750	---	---	---	---	---	200	---	---
556+50	RAMP DB	36.87' LT	854.69	556+50	RAMP DB	26.60' RT	853.09	CROSS DRAIN	2.52	1	---	81' - 18" CMCP	55	---	---	---	---	64	---	---	---
TOTALS										**6**	**4**		**19110**	**860**	**3**	**24**	**8**	**135**	**400**	**696**	**62**

*FOR INFORMATION ONLY

**ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "STORM SEWER PIPE REINFORCED CONCRETE & ENDWALLS".

† STATIONS AND OFFSETS ARE TO CENTER OF THE TWO CULVERT PIPES. BOTH PIPES ARE INCLUDED UNDER 203.0200 REMOVING OLD STRUCTURE LUMP SUM ITEM.

1. STATIONS AND OFFSETS ARE TO THE END OF PIPE NOT TO THE END OF THE APRON ENDWALLS. FIELD VERIFY CULVERT PIPE LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION.

2. JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE CULVERT PIPE REINFORCED CONCRETE.

CONTINUED ON NEXT SHEET

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CULVERT PIPE REINFORCED CONCRETE & ENDWALLS (CONTINUED)

STATION	INLET ROADWAY	INLET OFFSET	INLET ELEV.	OUTLET STATION	OUTLET ROADWAY	OUTLET OFFSET	OUTLET ELEV.	NOTES	SLOPE (%)	504.0900 CONCRETE MASONRY ENDWALLS CY	521.0342 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 42-INCH 4 TO 1 EACH	521.0436 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 6 TO 1 EACH	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	** 522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	523.0519 APRON ENDWALS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	* JOINT TIES EACH	** 633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
STAGE 1																		
504+06	USH 12	20.13' LT	856.22	504+06	USH 12	17.66' LT	856.11	EXTENSION	4.45	---	---	---	1	---	---	---	1	1
STAGE 2																		
561+36† LT	USH 12	179.85' LT	856.57	561+36†	USH 12	24.35' LT	855.40	CROSS DRAIN	0.75	15	---	---	---	---	---	6	1	2
131+23	RAMP BD	28.65' LT	853.34	131+23	RAMP BD	16.92' LT	852.99	EXTENSION	2.98	---	---	1	---	---	---	---	2	1
131+30	RAMP BD	29.10' LT	853.27	131+30	RAMP BD	17.04' LT	852.92	EXTENSION	2.89	---	---	1	---	---	---	---	2	1
143+41	RAMP BD	34.59' LT	861.13	143+41	RAMP BD	26.65' LT	861.01	EXTENSION	1.51	---	1	---	---	---	---	---	2	1
146+06	RAMP BD	39.99' RT	865.74	146+06	RAMP BD	31.19' LT	863.38	CROSS DRAIN	3.31	---	---	---	---	2	---	6	2	1
STAGE 3																		
552+08	USH 12	15.09' LT	888.68	552+08	USH 12	46.66' RT	888.25	CROSS DRAIN	0.70	---	---	---	---	---	2	6	2	1
561+36† RT	USH 12	24.35' LT	855.40	561+36†	USH 12	167.56' RT	853.94	CROSS DRAIN	0.76	15	---	---	---	---	---	6	1	2
270+59	RAMP AC	45.92' RT	849.93	559+59	RAMP DB	34.59' RT	849.80	CROSS DRAIN	0.13	15	---	---	---	---	---	6	1	1
270+68	RAMP AC	45.92' RT	849.93	559+68	RAMP DB	34.59' RT	849.80	CROSS DRAIN	0.06	15	---	---	---	---	---	6	1	1
556+50	RAMP DB	36.87' LT	854.69	556+50	RAMP DB	26.60' RT	853.09	CROSS DRAIN	2.52	---	---	---	---	2	---	6	2	1
TOTALS										**60**	**1**	**2**	**1**	**4**	**2**	**42**	**17**	**14**

*FOR INFORMATION ONLY

**ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "STORM SEWER PIPE REINFORCED CONCRETE & ENDWALLS".

† STATIONS AND OFFSETS ARE TO CENTER OF THE TWO CULVERT PIPES. BOTH PIPES ARE INCLUDED UNDER 203.0200 REMOVING OLD STRUCTURE LUMP SUM ITEM.

1. STATIONS AND OFFSETS ARE TO THE END OF PIPE NOT TO THE END OF THE APRON ENDWALLS. FIELD VERIFY CULVERT PIPE LOCATIONS AND ELEVATIONS PRIOR TO INSTALLATION.

2. JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE CULVERT PIPE REINFORCED CONCRETE.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

STORM SEWER STRUCTURES, PIPE AND ENDWALLS

STRUCTURE NUMBER	ROADWAY	STATION	OFFSET	611.3220 INLETS 2X2-FT EACH	611.3901 INLET MEDIAN 1 GRATE (NO SLOPE) EACH	611.3902 INLET MEDIAN 2 GRATE (NO SLOPE) EACH	611.0642 INLET COVERS TYPE MS EACH	611.0654 INLET COVERS TYPE V EACH	RIM OR FLANGE ELEV	STR DEPTH FEET	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE (%)	** 203.0100 REMOVING SMALL PIPE CULVERTS EACH	* REMOVAL DESCRIPTION	204.0220 REMOVING INLETS	** 209.0100 BACKFILL GRANULAR CY	608.0318 CLASS III 18" LF	608.0324 CLASS III 24" LF	612.0212 PIPE UNDERDRAIN UNPERFORATED 12" LF	SPV.0090.02 PIPE UNDERDRAIN UNPERFORATED 24" LF	521.1012 AEW FOR CULVERT PIPE STEEL 12" EACH	521.1024 AEW FOR CULVERT PIPE STEEL 24" EACH	522.1018 AEW FOR CULVERT PIPE REIN. CONC. 18" EACH	** 522.1024 AEW FOR CULVERT PIPE REIN. CONC. 24" EACH	* JOINT TIES EACH	** 633.5200 MARKERS CULVERT END EACH	650.4000 CONSTRUCTION STAKING STORM SEWER
STAGE 2																														
4	USH 12	561+10	55.0' LT	1	---	---	---	1	891.45	2.6	4	4A	887.67	887.44	1.00%	---	---	---	---	---	---	23.0	---	---	---	---	---	---	---	1
4A	USH 12	561+10	32.0' LT	---	---	---	---	---	---	---	4A	AEW	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	1
5	USH 12	561+24	105.0' LT	1	---	---	---	1	891.13	4.7	5	5A	885.28	859.03	29.53%	1	12" UNDERDRAIN	1	---	---	---	88.9	---	---	---	---	---	---	---	1
5A	USH 12	561+24	193.9' LT	---	---	---	---	---	---	---	5A	AEW	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	1
6	USH 12	567+00	29.7' LT	---	1	---	1	---	880.56	3.8	6	6A	876.75	876.34	0.50%	1	118' - 18" CMCP	---	25	82.3	---	---	---	---	---	---	---	---	1	1
6A	USH 12	567+00	112.0' LT	---	---	---	---	---	---	---	6A	AEW	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	3	1	1
STAGE 3																														
1	USH 12	557+64	30.0' LT	---	1	---	1	---	889.32	4.8	1	1A	884.51	884.05	0.50%	1	79' - 18" CMCP	---	30	92.9	---	---	---	---	---	---	---	---	1	1
1A	USH 12	557+64	62.9' RT	---	---	---	---	---	---	---	1A	AEW	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	3	1	1
1B	USH 12	557+66	76.2' RT	---	---	---	---	---	---	---	1B	1C	883.59	864.50	19.84%	1	89' - 24" CMCP	---	---	---	---	---	96.2	---	1	---	---	3	1	1
1C	RAMP BD	139+00	36.7' LT	---	---	---	---	---	---	---	1C	AEW	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	3	1	1
2	USH 12	560+83	45.0' RT	1	---	---	---	1	890.18	4.7	2	2A	884.29	872.32	18.97%	---	---	---	---	---	---	63.1	---	---	---	---	---	---	---	1
2A	USH 12	560+83	108.1' RT	---	---	---	---	---	---	---	2A	AEW	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	1
3	USH 12	560+97	5.7' LT	1	---	---	---	1	890.31	1.5	3	3A	887.65	887.51	1.03%	---	---	---	---	---	---	13.6	---	---	---	---	---	---	---	1
3A	USH 12	560+97	19.3' LT	---	---	---	---	---	---	---	3A	AEW	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	1	1
7	USH 12	574+00	27.1' LT	---	1	---	1	---	880.92	6.0	7	7A	874.92	871.76	3.00%	1	124' - 18" CMCP	---	350	105.5	---	---	---	---	---	---	---	---	1	1
7A	USH 12	574+00	78.2' RT	---	---	---	---	---	---	---	7A	AEW	---	---	---	---	---	---	---	---	---	---	---	---	---	1	---	3	1	1
8	RAMP AC	273+35	65.1' LT	---	1	---	1	---	860.97	3.3	8	8A	857.63	857.15	0.50%	1	85' - 18" CMCP	1	20	98.9	---	---	---	---	---	---	---	---	1	1
8A	RAMP AC	273+32	33.7' RT	---	---	---	---	---	---	---	8A	AEW	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3	1	1
9	RAMP DB	558+70	77.1' LT	---	---	1	2	---	860.63	7.0	9	9A	853.63	853.06	0.51%	1	89' - 24" CMCP	1	140	---	112.6	---	---	---	---	---	---	---	1	1
9A	RAMP DB	558+70	35.5' RT	---	---	---	---	---	---	---	9A	AEW	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3	1	1
TOTALS				**4**	**4**	**1**	**6**	**4**								**7**		**3**	**565**	**380**	**113**	**189**	**97**	**4**	**2**	**4**	**1**	**21**	**16**	**20**

1. RIM ELEVATIONS ARE GIVEN AT THE CENTER OF THE STRUCTURE FOR MEDIAN INLETS AND AT FLANGLINE FOR BRIDGE INLETS.
2. STATIONS AND OFFSETS ARE TO THE CENTER OF STRUCTURES OR TO THE END OF PIPE WHERE THERE IS AN ENDWALL.
3. PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.
4. STR DEPTH (MEDIAN INLETS) = RIM ELEV - INV
5. STR DEPTH (2X2 INLETS) = RIM ELEV - INV - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 10" FOR TYPE V COVERS
   ADJUSTMENT = 4" TYPICAL
6. JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL REINFORCED CONCRETE APRON ENDWALL LOCATIONS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE REINFORCED CONCRETE STORM SEWER PIPE.

* NOT A BID ITEM. FOR INFORMATION PURPOSES ONLY.
** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "CULVERT PIPE REINFORCED CONCRETE & ENDWALLS".

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

GUARDRAIL ITEMS

LOCATION	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.0396 GUARDRAIL MOW STRIP ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
STAGE 1							
USH 12	---	---	---	---	---	---	---
STAGE 2							
USH 12	---	---	665	1430	80	4	2
STH 50	---	---	---	---	---	---	---
RAMP BD	---	---	---	---	---	---	---
Ramp CA	---	---	---	---	---	---	---
Ramp DA	---	---	---	---	---	---	---
STAGE 3							
USH 12	---	---	585	1000	80	3	1
STH 50	2	380	272	220	80	3	1
RAMP AC	---	---	---	---	---	---	---
RAMP AD	---	---	---	---	---	---	---
RAMP DB	---	---	880	1780	---	1	1
RAMP CB	---	---	---	---	---	---	---
TOTALS	**2**	**380**	**2,402**	**4,430**	**240**	**11**	**5**

FENCING ITEMS

LOCATION	STATION		STATION	SIDE	616.0100 FENCE WOVEN WIRE 4.5-FT EACH
STAGE 2					
USH 12	562+96	-	563+37	LT	45
STAGE 3					
USH 12	573+90	-	574+15	RT	30
	576+24	-	577+15	RT	95
TOTALS					**170**

3

ADJUSTING MANHOLE COVER

STATION	STATION	LOCATION	611.8100 EACH
CATEGORY 0010			
STAGE 3			
RAMP AC	281+13	10' RT	1
	282+15	10' RT	1
	282+67	10' RT	1
	282+94	11' RT	1
TOTAL (CAT 0010)			**4**
CATEGORY 0070			
STAGE 3			
STH 50	69+92	52' LT	1
TOTAL (CAT 0070)			**1**
PROJECT TOTALS			**5**

LANDSCAPING

LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.6510 SOIL STABILIZER TYPE B ACRE	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
STAGE 1										
USH 12	----	900	900	----	1	30	----	----	----	----
STAGE 2										
USH 12	---	10,800	2,800	---	10	400	200	---	---	---
STH 50	---	7,400	---	---	6	230	115	---	---	---
RAMP BD	630	9,300	7,900	---	7	280	140	---	16	630
RAMP CA & RAMP DA	---	---	---	---	---	---	---	---	---	---
RAMP EF	---	---	---	---	---	---	---	---	---	---
STAGE 3										
USH 12	---	10,300	350	0.08	9	380	190	---	---	---
STH 50	---	2,300	1,740	0.36	2	65	33	---	---	---
RAMP AC & RAMP AD	620	11,600	7,300	1.51	9	350	175	---	16	620
RAMP DB & RAMP CB	35	3,900	---	---	4	140	70	---	1	35
UNDISTRIBUTED	330	14,200	8,683	1.80	15	470	235	90	9	330
TOTALS	**1,615**	**70,700**	**29,673**	**3.75**	**63**	**2,345**	**1,158**	**90**	**42**	**1,615**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

3

EROSION CONTROL ITEMS

LOCATION	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	SPV.0090.01 HEAVY DUTY SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7560 TRACKING PADS EACH
STAGE 1												
USH 12	---	---	---	---	1	1	---	---	1*	1*	---	2
STAGE 2												
USH 12	80	340	880	1,830	4	2	2,650	5,350	3	3	---	2
STH 50	40	85	---	130	---	---	7,400	---	---	---	7	2
RAMP BD	40	1,400	---	2,100	---	---	1,400	---	---	---	---	---
RAMP CA	---	---	---	---	---	---	---	---	---	---	---	---
RAMP DA	---	---	---	---	---	---	---	---	---	---	---	---
STAGE 3												
USH 12	80	---	---	---	4	2	9,950	---	4	4	---	2
STH 50	40	---	---	---	---	---	560	---	---	---	---	2
RAMP AC & RAMP AD	40	1,700	---	2,550	---	---	900	3,400	---	---	---	---
RAMP DB & RAMP CB	---	1,050	1,200	3,380	---	---	1,400	2,500	1	1	---	---
UNDISTRIBUTED	1120	1150	520	2500	3	2	6050	2800	3	3	2	3
TOTALS	**1,440**	**5,725**	**2,600**	**12,490**	**12**	**7**	**30,310**	**14,050**	**12**	**12**	**9**	**13**

* SEE THE CROSS OVER TRAFFIC CONTROL SHEETS STAGE 1A FROM STA 503+69 TO STA 513+04 FOR EROSION CONTROL ITEMS.

EROSION CONTROL ITEMS CONTINUED

LOCATION	606.0200 RIPRAP MEDIUM CY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560.S STONE OR ROCK DITCH CHECKS CY	628.7570 ROCK BAGS EACH	SPV.0060.09 SAND BAGS EACH	645.0120 GEOTEXTILE FABRIC TYPE HR SY	645.0140 GEOTEXTILE FABRIC TYPE SAS SY	SPV.0180.01 GEOTEXTILE FABRIC TYPE FF SY
STAGE 1									
USH 12	---	36*	1*	---	---	---	---	---	---
STAGE 2									
USH 12	70	425	2	---	85	60	200	---	180
STH 50	20	130	---	---	---	---	80	---	90
RAMP BD	100	---	4	---	170	---	165	---	90
RAMP CA	---	---	1	---	---	---	---	---	---
RAMP DA	---	---	1	---	---	---	---	---	---
STAGE 3									
USH 12	60	---	1	20	60	60	200	80	180
STH 50	---	---	---	5	---	---	---	20	90
RAMP AC & RAMP AD	90	---	---	---	310	---	330	---	90
RAMP DB & RAMP CB	55	---	1	---	120	---	180	---	---
UNDISTRIBUTED	100	150	3	7	190	30	290	30	180
TOTALS	**495**	**741**	**14**	**32**	**935**	**150**	**1,445**	**130**	**900**

* SEE THE CROSS OVER TRAFFIC CONTROL SHEETS STAGE 1A FROM STA 503+69 TO STA 513+04 FOR EROSION CONTROL ITEMS.

UNDERDRAIN ITEMS

LOCATION	612.0106 PIPE UNDERDRAIN 6-INCH LF	645.0111 GEOTEXTILE FABRIC TYPE DF SCHEDULE A SY
STAGE 2		
USH 12	170	95
STH 50	1,200	670
STAGE 3		
STH 50	1,300	730
TOTALS	**2,670**	**1,495**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

TRAFFIC CONTROL

	* ESTIMATED DURATION	633.1100 DELINEATORS TEMPORARY EACH	* 643.0300 DRUMS EACH	DRUMS DAYS	* 643.0410 BARRICADES TYPE II EACH	BARRICADES TYPE II DAYS	** 643.0420 BARRICADES TYPE III EACH	BARRICADES TYPE III DAYS	643.0500 FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 FLEXIBLE TUBULAR MARKER BASES EACH	** 643.0705 WARNING LIGHTS TYPE A EACH	WARNING LIGHTS TYPE A DAYS	* 643.0715 WARNING LIGHTS TYPE C EACH	WARNING LIGHTS TYPE C DAYS	* 643.0800 ARROW BOARDS EACH	ARROW BOARDS DAYS	** 638.2102 MOVING SIGNS TYPE II EACH	* 643.0900 SIGNS EACH	SIGNS DAYS	** 643.0910 COVERING SIGNS TYPE I EACH	* NUMBER OF CYCLES	* NUMBER OF SIGNS	** 643.0920 COVERING SIGNS TYPE II EACH	* NUMBER OF CYCLES	* NUMBER OF SIGNS	** 643.1050 SIGNS PCMS EACH	SIGNS PCMS DAYS
STAGE 1	32 DAYS	---	724	23,170	9	290	37	1,180	---	---	74	2,370	103	3,296	9	288	2	167	5,340	---	---	---	3	1	3	8	256
STAGE 2	78 DAYS	50	480	37,440	8	620	23	1,790	195	195	46	3,590	44	3,432	4	312	3	131	10,220	6	1	6	7	1	7	4	312
STAGE 3	78 DAYS	47	487	37,990	6	470	16	1,250	189	189	32	2,500	59	4,602	5	390	5	130	10,140	4	1	4	1	1	1	4	312
STAGE 4	5 DAYS	---	112	560	---	---	1	5	---	---	2	10	10	50	1	5	---	31	160	---	---	---	---	---	---	4	20
UNDISTRIBUTED		24	451	87,043	6	1,158	19	3,667	96	96	39	7,527	54	10,422	5	965	3	115	22,195	3			3			---	---
TOTALS	**193 DAYS**	**121**		**186,203**		**2,538**		**7,892**	**480**	**480**		**15,997**		**21,802**		**1,960**	**13**		**48,055**	**13**			**14**				**900**

* FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "DETOUR SIGNS" & "TYPE I & II PERMANENT SIGNING".

FIXED MESSAGE SIGN

SIGN NUMBER	CODE	* SIGN SIZE W X H (FT) X (FT)	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
1	---	15.5 X 8.5	132
2	---	15.5 X 3.5	54
3	---	13.5 X 2	27
4	---	15.5 X 2	31
5	---	12.5 X 2	25
6	---	15.5 X 7.5	116
7	---	7 X 2	14
8	---	10.5 X 4.5	47
9	---	22 X 6	132
10	---	15.5 X 9.5	147
11	---	22.5 X 11	248
12	---	15 X 11	165
13	---	15.5 X 12.5	194
14	---	22.5 X 11	248
15	---	15.5 X 9.5	147
16	---	17 X 6	102
TOTAL			**1,829**

* FOR INFORMATION ONLY

DETOUR SIGNS

	* ESTIMATED DURATION		** 643.0420 BARRICADES TYPE III EACH	BARRICADES TYPE III DAYS	** 643.0705 WARNING LIGHTS TYPE A EACH	WARNING LIGHTS TYPE A DAYS	*** 643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	TRAFFIC CONTROL DETOUR SIGNS DAYS	** 643.1050 SIGNS PCMS EACH	SIGNS PCMS DAYS	** 643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	* NUMBER OF CYCLES	* NUMBER OF SIGNS	** 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	* NUMBER OF CYCLES	* NUMBER OF SIGNS
STAGE 2 - RAMP CA & RAMP DA	6	DAYS	2	12	4	24	65	390	2	56	---	---	---	42	6	7
STAGE 3 - RAMP AC & RAMP AD	78	DAYS	---	---	---	---	108	8,424	1	14	3	1	3	---	---	---
STAGE 3 RAMP DB & RAMP CB	6	DAYS	2	12	4	24	179	1,074	2	56	---	---	---	60	6	10
UNDISTRIBUTED			2	12	4	24	72	6480	1	90	3			15		
TOTALS				**36**		**72**		**16,368**		**216**	**6**			**117**		

* FOR INFORMATION ONLY

** ADDITIONAL QUANTITIES LISTED ELSEWHERE, SEE "TRAFFIC CONTROL".

*** PLACE AT THE BEGINNING OF THE DETOUR ROUTE 14 DAYS PRIOR TO CLOSURE.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

PAVEMENT MARKING

LOCATION	646.0406 SAME DAY EPOXY 4-INCH WHITE LF	646.0406 SAME DAY EPOXY 4-INCH YELLOW LF	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	646.0600 REMOVING PAVEMENT MARKINGS LF	GROOVED PREFORMED THERMOPLASTIC SPV.0060.01 ARROWS TYPE 2 WHITE EACH	SPV.0060.02 ARROWS TYPE 4 WHITE EACH	SPV.0060.03 WORDS WHITE EACH	SPV.0060.04 SYMBOLS BIKE LANE WHITE EACH	SPV.0060.05 ARROWS BIKE LANE WHITE EACH	SPV.0060.06 WORDS BIKE LANE WHITE EACH
STAGE 1											
USH 12	---	---	---	---	2,770	---	---	---	---	---	---
STAGE 2											
USH 12	---	---	---	---	2,680	---	---	---	---	---	---
STH 50	---	---	---	---	190	---	---	---	---	---	---
RAMP BD	---	---	1,320	1,060	---	---	---	---	---	---	---
Ramp CA & Ramp DA	2,260	1,720	---	---	---	---	---	---	---	---	---
Ramp EF	1,020	1,090	---	---	---	---	---	---	---	---	---
STAGE 3											
USH 12	---	---	9,670	9,810	1,960	---	---	---	---	---	---
STH 50	---	---	885	---	350	---	---	---	1	1	1
RAMP AC	---	---	1,320	865	---	---	1	---	---	---	---
RAMP AD	---	---	123	330	---	---	1	---	---	---	---
RAMP DB & Ramp CB	1,930	1,730	---	---	---	---	---	---	---	---	---
STAGE 4											
USH 12	---	---	9,820	11,700	---	---	---	---	---	---	---
STH 50	---	---	1,600	---	---	6	---	6	1	1	1
RAMP BD	---	---	---	---	---	---	---	---	---	---	---
Ramp CA & Ramp DA	---	---	---	---	---	---	---	---	---	---	---
RAMP EF	---	---	525	---	---	4	1	4	---	---	---
RAMP AC	---	---	---	---	---	---	---	---	---	---	---
RAMP AD	---	---	---	---	---	---	---	---	---	---	---
RAMP DB & Ramp CB	---	---	---	---	---	---	---	---	---	---	---
SUBTOTAL	5,210	4,540	25,263	23,765	7,950	10	3	10	2	2	2
TOTALS	**9,750**		**49,028**		**7,950**	**10**	**3**	**10**	**2**	**2**	**2**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

PAVEMENT MARKING CONTINUED

LOCATION	* 633.0200 DELINEATORS FLEXIBLE YELLOW EACH	647.0726 DIAGONAL EPOXY 12-INCH WHITE LF	647.0726 DIAGONAL EPOXY 12-INCH YELLOW LF	647.0746 DIAGONAL EPOXY 24-INCH WHITE LF	SPV.0060.07 RAISED PAVEMENT MARKERS EACH	646.0841.S GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH WHITE LF	646.0841.S GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH YELLOW LF	646.0843.S GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH WHITE LF	646.0843.S GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH YELLOW LF	SPV.0090.04 GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH LF
STAGE 1										
USH 12	---	---	---	---	---	---	---	---	---	---
STAGE 2										
USH 12	---	---	---	---	---	---	---	---	---	---
STH 50	---	---	---	---	---	---	---	---	---	---
RAMP BD	---	---	---	---	---	---	---	---	---	---
Ramp CA & Ramp DA	---	---	---	---	---	---	---	---	---	---
Ramp EF	---	---	---	---	---	---	---	230	---	---
STAGE 3										
USH 12	---	---	---	92	---	2,710	---	1,610	---	---
STH 50	---	---	---	---	---	58	---	630	---	---
RAMP AC	---	---	---	---	14	---	---	205	---	---
RAMP AD	---	---	43	---	14	---	---	---	---	17
RAMP DB & Ramp CB	---	105	---	---	---	---	---	205	---	---
STAGE 4										
USH 12	166	---	---	340	---	4,170	---	3,490	---	---
STH 50	---	---	---	---	---	1,330	19	1,460	125	37
RAMP BD	---	---	---	---	---	---	---	---	---	---
Ramp CA & Ramp DA	---	---	---	---	---	---	---	---	---	---
RAMP EF	---	---	---	---	---	---	---	410	---	43
RAMP AC	---	---	---	---	---	---	---	---	---	---
RAMP AD	---	---	---	---	---	---	---	---	---	---
RAMP DB & Ramp CB	---	---	---	---	---	---	---	---	---	---
SUBTOTAL	166	105	43	432	28	8,268	19	8,240	125	97
TOTALS	**166**	**148**		**432**	**28**	**8,287**		**8,365**		**97**

* LEAVE 24 FT GAP AT CROSSOVERS FOR MAINTENANCE VEHICLES. SEE PAVEMENT MARKING PLAN.

ALL ITEMS CATEGORY 0010 UNLESS NOTED

CONSTRUCTION STAKING

LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.7500 CONCRETE BARRIER LF	650.8000 RESURFACING REFERENCE LF	650.9920 SLOPE STAKES LF	SPV.0090.03 SUPERELEVATION TRANSITIONS LF	650.6500 STRUCTURES LS
CATEGORY 0010								
STAGE 1								
USH 12	---	---	---	---	---	---	---	---
STAGE 2								
USH 12	2,990	2,990	140	---	2,200	2,990	---	---
STH 50	1,270	1,270	---	---	---	1,270	---	---
RAMP BD	1,360	1,360	1,280	---	---	1,360	146	---
Ramp CA & RAMP DA	---	---	---	---	2,220	---	---	---
Ramp EF	---	---	---	---	---	---	---	---
STAGE 3								
USH 12	2,790	2,790	140	---	2,200	2,790	---	---
STH 50	780	780	---	350	---	780	---	---
RAMP AC & RAMP AD	1,600	1,600	1,280	---	---	1,600	146	---
RAMP DB & RAMP CB	2,020	2,020	75	---	3,170	2,020	---	---
TOTALS (CAT 0010)	**12,810**	**12,810**	**2,915**	**350**	**9,790**	**12,810**	**292**	**---**
CATEGORY 0020								
STAGE 2								
B-64-188	**---**	**---**	**---**	**---**	**---**	**---**	**---**	1
TOTALS (CAT 0020)	**---**	**---**	**---**	**---**	**---**	**---**	**---**	**1**
CATEGORY 0030								
STAGE 3								
B-64-187	---	---	---	---	---	---	---	1
TOTALS (CAT 0030)	---	---	---	---	---	---	---	**1**
CATEGORY 0040								
STAGE 3								
S-64-19	---	---	---	---	---	---	---	1
TOTALS (CAT 0040)	---	---	---	---	---	---	---	**1**
CATEGORY 0050								
STAGE 3								
R-64-21	---	---	---	---	---	---	---	1
TOTALS (CAT 0050)	---	---	---	---	---	---	---	**1**
CATEGORY 0060								
STAGE 3								
R-64-22	---	---	---	---	---	---	---	1
TOTALS (CAT 0060)	---	---	---	---	---	---	---	**1**
PROJECT TOTALS	**12,810**	**12,810**	**2,915**	**350**	**9,790**	**12,810**	**292**	**5**

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE

STAGE	649.0400 4-INCH WHITE LF	649.0400 4-INCH YELLOW LF	649.0801 8-INCH WHITE LF	649.1800 ARROWS EACH	649.2100 TEMPORARY RAISED PAVEMENT MARKERS WHITE EACH	649.2100 TEMPORARY RAISED PAVEMENT MARKERS YELLOW EACH
STAGE 1						
USH 12	3,460	1,590	2,840	2	---	---
STAGE 2						
USH 12	14,150	14,300	2,400	---	76	59
STH 50	520	---	380	---	---	---
RAMP BD	---	---	---	---	---	---
RAMP CA & RAMP DA	---	---	---	---	---	---
RAMP EF	---	---	---	---	---	---
STAGE 3						
USH 12	22,450	21,300	1,450		68	58
STH 50	1,120	---	400	---	---	---
RAMP AC & RAMP AD	---	---	---	---	---	---
RAMP DB & RAMP CB	---	---	---	---	---	---
STAGE 4						
USH 12	100	100	100	---	---	---
STH 50	---	---	---	---	---	---
RAMP BD	---	---	---	---	---	---
Ramp CA & Ramp DA	---	---	---	---	---	---
RAMP EF	---	---	---	---	---	---
RAMP AC	---	---	---	---	---	---
RAMP AD	---	---	---	---	---	---
RAMP DB & Ramp CB	---	---	---	---	---	---
SUBTOTAL	41,800	37,290	7,570	2	144	117
TOTALS	**79,090**		**7,570**	**2**	**261**	

TEMPORARY PAVEMENT MARKING PAINT

ROADWAY	649.0200 REFLECTIVE PAINT 4-INCH WHITE LF	649.0200 REFLECTIVE PAINT 4-INCH YELLOW LF
STAGE 1	---	---
STAGE 2	10,300	10,650
STAGE 3	---	---
STAGE 4	---	---
SUBTOTAL	10,300	10,650
TOTAL	**20,950**	

EXPOSING EXISTING UTILITY

LOCATION	SPV.0060.08 EACH
UNDISTRIBUTED	15
TOTAL	**15**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

3

SAWING

LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
STAGE 1		
USH 12	---	---
STAGE 2		---
USH 12	---	1,280
STH 50	1,550	---
RAMP EF	---	2,200
RAMP BD	---	---
Ramp CA	---	42
Ramp DA	---	26
STAGE 3		
USH 12	---	1,000
STH 50	1,080	---
RAMP AC	---	---
RAMP AD	---	26
RAMP DB	---	2,700
RAMP CB	---	26
UNDISTRIBUTED	---	1,440
TOTAL	**2,630**	**8,740**

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	ROADWAY	STATION	LOCATION	SIZE	SDD INSTALLATION REFERENCE	NO. OF TURNS	PAVEMENT TYPE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB3	STH 50 WB	STA 69+90	17' LT	6'x28'	9F8-3	3	ASPHALT	106	195	254
22	PB2	STH 50 WB	STA 68+59	14' LT	6'x22'	9F8-3	3	ASPHALT	94	325	218
41	PB16	RAMP EF	STA 563+38	15' RT	6'x20'	9F15-3A	3	CONCRETE	76	314	192
S1	PB18	RAMP EF	STA 567+67	7' RT	6'x10'	9F15-3A	6	CONCRETE	56	739	228
TOTALS									332	1573	892

9F8-3 LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE(NEW ASPHALTIC PAVEMENT)
9F15-3A LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

3

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.01 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.
STH 50/RAMP EF INTERSECTION	1
TOTAL	**1**

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	SPV.0105.01 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE L.S.
STH 50/RAMP EF INTERSECTION	1
TOTAL	**1**

TEMPORARY TRAFFIC SIGNAL VIDEO DETECTION

LOCATION	SPV.0105.02 TEMPORARY VEHICULAR VIDEO DETECTION SYSTEM FOR FOR INTERSECTIONS L.S.
STH 50/RAMP EF INTERSECTION	1
TOTAL	**1**

REMOVE, SALVAGE & REINSTALL TRAFFIC SIGNAL EQUIPMENT

LOCATION	SPV.0105.03 REMOVE, SALVAGE & REINSTALL TRAFFIC SIGNAL EQUIPMENT L.S.
STH 50/RAMP EF INTERSECTION	1
TOTAL	**1**

ALL ITEMS CATEGORY 0010 UNLESS NOTED

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFELC H [SF]	637.2215 SIGNS TYPE II REFLECT FOLDING H [SF]	637.2230 SIGNS TYPE II REFLEC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CON. BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
1	W13-2B(2M)	II	PRETZEL LOOP 20 MPH	48 x 90	--	--	30.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
2	---	I	SOUTH [50] [120] [H] LAKE GENEVA [A] KENOSHA	-- x --	--	--	--	--	--	--	--	--	--	23 x 14.5	333.50	1	2	D	1.8	112	1600	--	--	--	--	--
2A	E1-5P	I	EXIT 330 A-B	-- x --	--	--	--	--	--	--	--	--	--	14 x 2.5	35.00	--	--	--	--	--	--	--	--	--	--	--
3	---	I	[120] [H] NORTH AHEAD	-- x --	--	--	--	--	--	--	--	--	RE-USE STEEL POSTS	22 x 8.5	187.00	1	--	--	--	--	--	2	--	--	--	--
4	W5-52R(3)	II	BRIDGE CLEARANCE MARKER	18 x 54	--	--	6.75	1	1	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
5	W13-2B(2M)	II	PRETZEL LOOP 25 MPH	48 x 90	--	--	30.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
6	W5-52L(3)	II	BRIDGE CLEARANCE MARKER	18 x 54	--	--	6.75	1	1	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
7	W5-52L(3)	II	BRIDGE CLEARANCE MARKER	18 x 54	--	--	6.75	1	1	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
8	W5-52R(3)	II	BRIDGE CLEARANCE MARKER	18 x 54	--	--	6.75	1	1	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
9	W4-1(5)	II	MERGING TRAFFIC	48 x 48	--	--	16.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
10	W4-1(5)	II	MERGING TRAFFIC	48 x 48	--	--	16.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
11	---	I	WEST SOUTH [50] [120] [H] [ARROW] LAKE GENEVA	-- x --	--	--	--	--	--	--	--	--	--	x	0.00	1	2	--	--	--	--	--	--	--	--	--
12	---	I	[50] EAST KENOSHA 1/4 MILE	-- x --	--	--	--	--	--	--	--	--	INSTALL ON S-64-19 I BEAMS INCIDENTAL	12 x 9.5	114.00	--	--	--	--	--	--	--	--	--	--	--
12A	E1-5P	I	EXIT 330 B	-- x --	--	--	--	--	--	--	--	--	--	12 x 2.5	30.00	--	--	--	--	--	--	--	--	--	--	--
13	---	I	WEST SOUTH [50] [120] [H] [ARROW] LAKE GENEVA	-- x --	--	--	--	--	--	--	--	--	INSTALL ON S-64-19 I BEAMS INCIDENTAL	20 x 9	180.00	--	--	--	--	--	--	--	--	--	--	--
13A	E1-5P	I	EXIT 330 A	-- x --	--	--	--	--	--	--	--	--	--	13 x 2.5	32.50	--	--	--	--	--	--	--	--	--	--	--
14	---	I	[50] EAST KENOSHA [A]	-- x --	--	--	--	--	--	--	--	--	--	18 x 8	144.00	1	2	A	1.2	68	600	--	--	--	--	--
14A	E1-5P	I	EXIT 330 B	-- x --	--	--	--	--	--	--	--	--	--	12 x 2.5	30.00	1	--	--	--	--	--	--	--	--	--	--
15	D10-3(5)	II	MILE 330	12 x 48	4.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
16	D10-3(5)	II	MILE 330	12 x 48	4.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
17	W13-2(5)	II	EXIT 50 MPH	48 x 60	20.00	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
18	---	I	[50] EAST KENOSHA [A]	-- x --	--	--	--	--	--	--	--	--	RE-USE STEEL POSTS	16 x 8	128.00	1	--	--	--	--	--	2	--	--	--	--
19	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
20	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
21	---	I	NORTH [TO] [120] [H] [36] LAKE GENEVA BURLINGTON 1/2 MILE	-- x --	--	--	--	--	--	--	--	--	RE-USE STEEL POSTS	20 x 16	320.00	1	--	--	--	--	--	2	--	--	--	--
21A	E5-1P	I	EXIT 328	-- x --	--	--	--	--	--	--	--	--	--	10 x 2.5	25.00	--	--	--	--	--	--	--	--	--	--	--
22	J4-1(5)	II	--	36 x 54	13.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	36 x 18	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	36 x 36	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
23	W1-6(2S)	II	NIGHT ARROW	48 x 24	--	--	8.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
24	E5-1A(5)	II	EXIT 330B [A]	108 x 60	45.00	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
25	W5-54(2M)	II	CLEARANCE MARKER	18 x 18	--	--	2.25	--	--	--	--	#24	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
26	W5-54(2M)	II	CLEARANCE MARKER	18 x 18	--	--	2.25	--	--	--	--	#24	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
27	--	II	YIELD TO BIKE LANE AHEAD	48 x 36	12.00	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
28	J3-1(2S)	II	--	24 x 57	9.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFELC H [SF]	637.2215 SIGNS TYPE II REFLECT FOLDING H [SF]	637.2230 SIGNS TYPE II REFLEC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CON. BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
29	R4-7(2M)	II	KEEP RIGHT	x	--	--	--	1	1	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
30	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
31	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
32	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
33	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
34	R5-1A(3)	II	WRONG WAY	42 x 30	8.75	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
35	R5-1A(3)	II	WRONG WAY	42 x 30	8.75	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
36	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
37	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
38	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
39	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
40	W1-6(2S)	II	NIGHT ARROW	48 x 24	--	--	8.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
41	J3-1(2S)	II	--	24 x 57	9.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
42	R1-2(2S)	II	YIELD	36 x 31	3.88	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
43	R3-3(2S)	II	NO TURNS	24 x 24	4.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
44	W1-6(2S)	II	NIGHT ARROW	48 x 24	--	--	8.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
45	R5-57(5)	II	PEDESTRIANS PROHIBITED	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
46	W1-6(2S)	II	NIGHT ARROW	48 x 24	--	--	8.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
47	R5-1(3)	II	DO NOT ENTER	36 x 36	9.00	--	--	1	--	--	--	#49	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
48	R5-1A(2S)	II	WRONG WAY	36 x 24	6.00	--	--	--	--	--	--	#47	3' MOUNTING HEIGHT UNDER R5-1	x	0.00	--	--	--	--	--	--	--	--	--	--	--
49	R3-2(2M)	II	NO LEFT	36 x 36	9.00	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
50	R6-2L(2S)	II	ONE WAY	24 x 30	5.00	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
51	R1-1F(3)	II	FOLDING STOP	36 x 36	--	7.46	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
52	R1-1F(3)	II	FOLDING STOP	36 x 36	--	7.46	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
53	R1-1F(3)	II	FOLDING STOP	36 x 36	--	7.46	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
54	R10-11F(2S)	II	NO TURN ON RED	30 x 36	7.50	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
55	R3-8MM(2S)	II	LANE CONTROL	36 x 30	7.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
56	R3-8MM(2S)	II	LANE CONTROL	36 x 30	7.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
57	R5-1A(3)	II	WRONG WAY	42 x 30	8.75	--	--	1	--	--	--	# 59	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
58	R5-1A(3)	II	WRONG WAY	42 x 30	8.75	--	--	1	--	--	--	#153	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
59	J2-3(2S)	II	--	72 x 60	30.00	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M4-20L		USE LEFT LANE	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M4-20L		USE LEFT LANE	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1R		ADV RIGHT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
60	W3-3(2S)	II	SIGNAL AHEAD	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
61	E5-1A(5)	II	EXIT 330A [A]	108 x 60	45.00	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
62	W5-54(2M)	II	CLEARANCE MARKER	18 x 18	--	--	2.25	--	--	--	--	#61	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
63	W5-54(2M)	II	CLEARANCE MARKER	18 x 18	--	--	2.25	--	--	--	--	#61	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
64	R6-3A(2M)	II	DIVIDED HIGHWAY	30 x 24	5.00	--	--	1	--	--	--	#92	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
65	--	II	FREEWAY ENTRANCE	66 x 30	13.75	--	--	--	--	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
66	R4-7(3)	II	KEEP RIGHT	36 x 48	12.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
67	R1-2(2S)	II	YIELD	36 x 31	3.88	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
68	R5-57(5)	II	PEDESTRIANS PROHIBITED	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
69	W3-1(2S)	II	STOP AHEAD	36 x 36	--	--	9.00	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
70	W1-6(2S)	II	NIGHT ARROW	48 x 24	--	--	8.00	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
71	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFELC H [SF]	637.2215 SIGNS TYPE II REFLECT FOLDING H [SF]	637.2230 SIGNS TYPE II REFLEC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CON. BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
72	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
73	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
74	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
75	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
76	W1-8(4)	II	CHEVRON	30 x 36	--	--	7.50	--	--	1	--	--	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
77	W1-6(2S)	II	NIGHT ARROW	48 x 24	--	--	8.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
78	W5-54(2M)	II	CLEARANCE MARKER	18 x 18	--	--	2.25	--	--	--	--	#80	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
79	W5-54(2M)	II	CLEARANCE MARKER	18 x 18	--	--	2.25	--	--	--	--	#80	4' MOUNTING HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
80	E5-1A(5)	II	EXIT 330 [A] A-B	96 x 90	60.00	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
81	W1-6(2S)	II	NIGHT ARROW	48 x 24	--	--	8.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
82	D1-3	II	[A] KENOSHA LAKE GENEVA [A] WILLIAMS BAY	90 x 36	22.50	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
83	W3-1(2S)	II	STOP AHEAD	36 x 36	--	--	9.00	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
84	--	II	YIELD TO BIKE LANE AHEAD	48 x 36	12.00	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
85	J3-1(2S)	II	--	24 x 57	9.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
86	W4-1(2M)	II	MERGING TRAFFIC	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
87	R5-1A(3)	II	WRONG WAY	42 x 30	8.75	--	--	1	--	--	--	# 89	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
88	W3-3(2S)	II	SIGNAL AHEAD	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
89	J3-3(2S)	II	--	72 x 81	40.50	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
90	R5-1A(2S)	II	WRONG WAY	36 x 24	6.00	--	--	1	--	--	--	# 85	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
91	R5-1A(2S)	II	WRONG WAY	36 x 24	6.00	--	--	--	--	--	--	#90	3' MOUNTING HEIGHT UNDER R5-1	x	0.00	--	--	--	--	--	--	--	--	--	--	--
92	R1-1(3)	II	STOP	36 x 36	7.46	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
93	--	II	SKI AREA * [A]	-- x --	--	--	--	--	--	1	1	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
94	R5-1A(3)	II	WRONG WAY	42 x 30	8.75	--	--	1	--	--	--	# SIS	MOUNT ON BACK OF SIS	x	0.00	--	--	--	--	--	--	--	--	--	--	--
95	R5-1A(3)	II	WRONG WAY	42 x 30	8.75	--	--	1	--	--	--	# 82	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
96	J3-2(2S)	II	--	48 x 57	19.00	--	--	1	2	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
97	R2-1(2M)	II	SPEED LIMIT 45	30 x 36	7.50	--	--	1	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFELC H [SF]	637.2215 SIGNS TYPE II REFLECT FOLDING H [SF]	637.2230 SIGNS TYPE II REFLEC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CON. BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
98	J3-4(2S)	II	--	96 x 81	54.00	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-1		NORTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
99	D1-3	II	[A] KENOSHA MADISON CHICAGO [A]	66 x 36	16.50	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
100	W13-3(2M)	II	RAMP 35 MPH	24 x 30	--	--	5.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
101	R4-4(2S)	II	RIGHT TURN YIELD TO BIKES	36 x 30	7.50	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
102	R5-1(3)	II	DO NOT ENTER	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
103	R3-1(2M)	II	NO RIGHT TURN	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
104	R3-2(2M)	II	NO LEFT TURN	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
105	R4-7(3)	II	KEEP RIGHT	36 x 48	12.00	--	--	1	--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
106	W4-1(2M)	II	MERGING TRAFFIC	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
107	R3-17(2S)	II	BIKE LANE	30 x 24	5.00	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
108	J2-2(2S)	II	--	48 x 81	27.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-1		NORTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
109	J2-2(2S)	II	--	48 x 81	27.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-1		NORTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
110	R2-1(2M)	II	SPEED LIMIT 45	30 x 36	7.50	--	--	1	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
111	R2-1(2M)	II	SPEED LIMIT 45	30 x 36	7.50	--	--	1	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
112	D1-1	II	[A] CHICAGO	66 x 18	8.25	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
113	W3-3(2M)	II	SIGNAL AHEAD	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
114	W3-3(2M)	II	SIGNAL AHEAD	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
115	R5-1A(2M)	II	WRONG WAY	42 x 30	8.75	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
116	J1-1(2S)	II	--	24 x 63	10.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M2-1		JCT	21 x 15	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
117	J1-1(2S)	II	--	24 x 63	10.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M2-1		JCT	21 x 15	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFELC H [SF]	637.2215 SIGNS TYPE II REFLECT FOLDING H [SF]	637.2230 SIGNS TYPE II REFLEC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CON. BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
118	J3-1(2S)	II	--	24 x 57	9.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
119	R5-1(2M)	II	DO NOT ENTER	36 x 36	9.00	--	--	1	--	--	--	#118	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
120	R3-1(2M)	II	NO RIGHT TURN	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
121	R1-1F(3)	II	FOLDING STOP	36 x 36	--	7.46	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
122	R1-1F(3)	II	FOLDING STOP	36 x 36	--	7.46	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
123	R1-1F(3)	II	FOLDING STOP	36 x 36	--	7.46	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
124	J2-3(2S)	II	--	72 x 57	28.50	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
125	J2-3(2S)	II	--	72 x 57	28.50	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
126	J3-2(2S)	II	--	48 x 57	19.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
127	W3-5(2M)	II	SPEED LIMIT 40 AHEAD	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
128	J3-2(2S)	II	--	48 x 81	27.00	--	--	2	2	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-1		NORTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
129	D1-1	II	[A] MADISON	66 x 18	8.25	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
130	D2-2	II	PADDOCK LAKE 16 KENOSHA 30	132 x 36	33.00	--	--	1	2	3	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
131	J4-1(2S)	II	--	24 x 36	6.00	--	--	1	--	--	--	#130	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFELC H [SF]	637.2215 SIGNS TYPE II REFLECT FOLDING H [SF]	637.2230 SIGNS TYPE II REFLEC F [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CON. BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
132	R4-7(3)	II	KEEP RIGHT	36 x 48	12.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
133	R5-1(2M)	II	DO NOT ENTER	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
134	R5-1A(2M)	II	WRONG WAY	42 x 30	8.75	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
135	W13-3(2M)	II	RAMP 35 MPH	24 x 30	--	--	5.00	1	2	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
136	R2-1(2M)	II	SPEED LIMIT 45	30 x 36	7.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
137	R4-4(2S)	II	RIGHT TURN YIELD TO BIKES	36 x 30	7.50	--	--	--	--	--	--	#140	MOUNT UNDER SIGN #140	x	0.00	--	--	--	--	--	--	--	--	--	--	--
138	R4-7(3)	II	KEEP RIGHT	36 x 48	12.00	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
139	R1-1(2M)	II	STOP	36 x 36	7.46	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
140	R2-1(2M)	II	SPEED LIMIT 45	30 x 36	7.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
141	J3-4(2S)	II	--	96 x 57	38.00	--	--	1	2	2	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-1		ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
142	J3-2(2S)	II	--	48 x 81	27.00	--	--	2	2	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-1		NORTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
143	J3-2(2S)	II	--	48 x 81	27.00	--	--	2	2	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-1		NORTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M6-2		TILT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
144	R3-17(2S)	II	BIKE LANE	30 x 24	5.00	--	--	--	--	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
145	R3-1(2M)	II	NO RIGHT TURN	36 x 36	9.00	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
146	R6-2L(2M)	II	ONE WAY	30 x 36	7.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
147	W4-1(2M)	II	MERGING TRAFFIC	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
148	W3-3(2M)	II	SIGNAL AHEAD	36 x 36	--	--	9.00	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
149	J2-1(2S)	II	--	72 x 57	28.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
150	J2-1(2S)	II	--	72 x 57	28.50	--	--	1	1	1	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-2		EAST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-4		USH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1L		ADV LEFT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
151	R5-1(2M)	II	DO NOT ENTER	36 x 36	9.00	--	--	1	--	--	--	#128	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
152	R5-1(3)	II	DO NOT ENTER	36 x 36	9.00	--	--	--	--	1	--	--	SHEET 6	x	0.00	--	--	--	--	--	--	--	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFELC H [SF]	637.2215 SIGNS TYPE II REFLECT FOLDING H [SF]	637.2230 SIGNS TYPE II REFLEC F [SF]	638.2602 REM SIGNS TYPE II (EA)	638.3000 REM SMALL SIGN SUP (EA)	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.] x H [FT.]	637.0101 SIGNS TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	635.0300 SIGN SUPPORTS REPLACING BASE CON. BOLTS [EA]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
153	J2-3(2S)	II	--	72 x 60	30.00	--	--	1	2	2	--	--	SHEET 6	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-5A		CTH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M4-20L		USE LEFT LANE	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-3		SOUTH	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M4-20L		USE LEFT LANE	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M3-4		WEST	24 x 12	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M1-6		STH	24 x 24	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
	M5-1R		ADV RIGHT ARROW	21 x 21	--	--	--	--	--	--	--	--	--	x	0.00	--	--	--	--	--	--	--	--	--	--	--
154	W3-5(2M)	II	SPEED LIMIT 40 AHEAD	36 x 36	--	--	9.00	1	--	--	--	--	MOUNT ON UPRIGHT OF SIGN BRIDGE	x	0.00	--	--	--	--	--	--	--	--	--	--	--
155	R2-1(2M)	II	SPEED LIMIT 45	30 x 36	7.50	--	--	1	1	1	--	--	SHEET 9	x	0.00	--	--	--	--	--	--	--	--	--	--	--
156	R4-3(5)	II	SLOWER TRAFFIC KEEP RIGHT	48 x 60	20.00	--	--	1	1	1	--	--		x	0.00	--	--	--	--	--	--	--	--	--	--	--
157	*NOT USED*	--	--		--	--	--	--	--	--	--	--		x	0.00	--	--	--	--	--	--	--	--	--	--	--
158	R1-2(1)	II	YIELD	30 x 26	2.70	--	--	--	--	1	--	--		x	0.00	--	--	--	--	--	--	--	--	--	--	--
159	R1-2(1)	II	YIELD	30 x 26	2.70	--	--	--	--	1	--	--		x	0.00	--	--	--	--	--	--	--	--	--	--	--
160	R5-1A(2S)	--	WRONG WAY	36 x 24	6.00	--	--	--	--	--	--	--	MOUNT UNDER R5-1 3-FT HEIGHT	x	0.00	--	--	--	--	--	--	--	--	--	--	--
161	R3-4B(5)	II	NO U TURN EXCEPT.....	36 x 48	12.00	--	--	2	1	1	--	--		x	0.00	--	--	--	--	--	--	--	--	--	--	--
162	R3-4B(5)	II	NO U TURN EXCEPT.....	36 x 48	12.00	--	--	2	1	1	--	--		x	0.00	--	--	--	--	--	--	--	--	--	--	--
	TOTALS	--			1356.080	44.760	411.500	109	108	135	1	--			1559.000	7	6	--	3	180	2200	6				

LAKE GENEVA LAND CO

R/W

END USH 12 RECONSTRUCTION
BEGIN RAMP CA RESURFACING

INSTALL 6" PIPE UNDERDRAIN IN GORE AREA TO DRAIN BREAKER RUN INSTALLED WITH USH 12 RECONSTRUCTION FROM STA 546+50 TO STA 548+25 LT

RAMP CA

ASPHALTIC SURFACE BUTT JOINTS

USH 12 EB PGL

USH 12 EB

USH 12 WB

212.30'

104.78'

HMA

USH 12 R/L AND WB PGL

EXIST 18" CMCP TO BE REMOVED

SLOPE INTERCEPT

1-19"X30" CPRCHE CLASS HE-IV 2 AEW REQUIRED

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

LP

HP

STA 555+00

MATCHLINE

254+60255

R/W

CITY OF LAKE GENEVA

CITY OF LAKE GENEVA

LEGEND

CLEARING & GRUBBING

X X X SAWING

BEGIN PROJECT 1080-12-71

STA. 546+50

N = 335,957.04

E = 779,494.82

STA 546+50.00 EB
ELEV 895.94 EB

STA 546+50.00 WB
ELEV 895.88 WB

FINISHED WB PROFILE

EXISTING EB PROFILE

-0.71% WB

-0.84% EB

FINISHED EB PROFILE

VPC STA 549+60.00 EB
VPC EL 893.34 EB

VPC STA 550+25.00 WB
VPC EL 893.22 WB

VCL = 350.00 EB
K = 256.82 EB

VPI STA 551+35.00 EB
VPI EL 891.87 EB

VPI STA 551+50.00 WB
VPI EL 892.34 WB

551+72.18 WB
892.70 WB

888.25

0.50% WB

551+75.99 EB
892.43 EB

VPT STA 552+75.00 WB
VPT EL 892.96 WB

VPT STA 553+10.00 EB
VPT EL 892.78 EB

VPC STA 553+30.00 WB
VPC EL 893.23 WB

0.52% EB

VPC STA 553+95.00 EB
VPC EL 893.22 EB

VCL = 450.00 EB
K = 426.26 EB

VCL = 500.00 WB
K = 406.21 WB

VCL = 250.00 WB
K = 207.69 WB

EXISTING EB PROFILE ELEVATION

FINISHED EB PROFILE ELEVATION

FINISHED WB PROFILE ELEVATION

STA	EXISTING EB	FINISHED EB	FINISHED WB
540	896.64		
541	896.40		
542	896.16		
543	895.94	895.65	895.44
544	895.94	895.52	895.10
545	895.88	895.53	895.17
546	895.65	895.44	895.13
547	895.52	894.95	894.68
548	895.53	894.26	894.82
549	895.44	894.70	894.26
550	895.10	893.84	894.46
551	895.17	894.11	894.70
552	895.13	894.32	893.84
553	894.68	893.42	894.11
554	894.82	893.75	894.32
555	894.95	894.11	893.42
	894.26	893.03	893.75
	894.46	893.40	894.11
	894.70	893.89	893.03
	893.84	892.74	893.40
	894.11	893.06	893.89
	894.32	893.55	892.74
	893.42	892.54	893.06
	893.75	892.83	893.55
	894.11	893.26	892.54
	893.03	892.44	892.83
	893.40	892.71	893.26
	893.89	893.03	892.44
	892.74	892.44	892.71
	893.06	892.72	893.03
	893.55	892.85	892.44
	892.54	892.54	892.72
	892.83	892.85	892.85
	893.26	892.60	892.54
	892.44	892.73	892.85
	892.71	893.08	892.60
	893.03	892.39	892.73
	892.44	892.99	893.08
	892.72	893.32	892.39
	892.85	892.16	892.99
	892.54	893.25	893.32
	892.85	893.51	892.16
	892.60	891.93	893.25
	892.73	893.47	893.51
	893.08	893.64	891.93
	892.39	891.68	893.47
	892.99	893.64	893.64
	893.32	893.71	891.68
	892.16		893.64
	893.25		893.71
	893.51		

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN AND PROFILE	SHEET 166 - E

REPLACE B-64-29 WITH STRUCTURE B-64-188

CAUTION

RAMP BD R/L

CONCRETE SIDEWALK 5-INCH

CONCRETE PAVEMENT APPROACH SLAB

STH 50

2-72" CPRC CLASS V 2 CONCRETE MASONRY ENDWALLS REQUIRED

WETLAND LIMITS

MGS THRIE BEAM TRANSITION

SLOPE INTERCEPT

EXISTING 18" CMCP TO BE REMOVED

MGS GUARDRAIL TERMINAL EAT

RAMP EF

USH 12 EB PGL

USH 12 EB

REMOVING GUARDRAIL

MGS GUARDRAIL 3

EXISTING INLET & CMCP TO BE REMOVED

USH 12 WB

USH 12 R/L AND WB PGL

REMOVE CONCRETE SURFACE DRAIN

R-64-22

R-64-21

ADD 3' BERM TO DIRECT WATER INTO CULVERTS

REPLACE B-64-28 WITH STRUCTURE B-64-187

EXISTING 72" CMCP TWIN TO BE REMOVED

RAMP AC

RAMP AC R/L

RAMP BD

END RECONSTRUCTION

BEGIN RESURFACING STA. 568+00

MATCHLINE

CITY OF LAKE GENEVA

EXISTING 24" CMCP TO BE REMOVED

LEGEND

CLEARING & GROUNDING

SAWING

BM128

BM129

LP

R/W

N

5

5

VCL = 450.00 EB

K = 426.26 EB

VCL = 400.00 EB

K = 476.47 EB

VCL = 500.00 WB

K = 406.21 WB

VCL = 200.00 EB

K = 229.00 EB

VCL = 200.00 WB

K = 569.71 WB

VCL = 150.00 WB

K = 255.59 WB

STA 559+48
STRUCTURE B-64-187 (WB)
STRUCTURE B-64-188 (EB)
2 SPAN 54" W PRESTRESSED GIRDERS
52' CLEAR ROADWAY WIDTH
SKEW 15° 09' 52"

STA 559+48
REMOVE STRUCTURE B-64-29
REMOVE STRUCTURE B-64-28
4 SPAN CONTINUOUS STEEL GIRDER
222' OVERALL LENGTH
47' OVERALL WIDTH

FINISHED EB PROFILE

FINISHED WB PROFILE

EXISTING EB PROFILE

EXISTING EB PROFILE ELEVATION

FINISHED EB PROFILE ELEVATION

FINISHED WB PROFILE ELEVATION

-0.53% EB

-0.74% WB

-1.37% EB

-1.09% WB

+0.50% EB

-0.50% WB

884.05

876.34

16'-9" MIN. VERTICAL CLEARANCE

555+31.11 WB 893.73 WB

VPI STA 555+80.00 WB VPI EL 894.47 WB

VPI STA 556+20.00 EB VPI EL 894.40 EB

556+17.43 SB 893.80 SB

VPT STA 558+45.00 EB VPT EL 893.19 EB

VPT STA 558+30.00 WB VPT EL 892.63 WB

VPC STA 561+00.00 EB VPC EL 891.83 EB

VPI STA 563+00.00 EB VPI EL 890.77 EB

VPC STA 563+15.00 WB VPC EL 889.06 WB

VPI STA 564+15.00 WB VPI EL 888.32 WB

VPT STA 565+00.00 EB VPT EL 888.02 EB

VPT STA 565+15.00 WB VPT EL 887.23 WB

VPC STA 565+50.00 EB VPC EL 887.33 EB

VPC STA 565+55.00 WB VPC EL 886.80 WB

VPI STA 566+30.00 WB VPI EL 885.98 WB

VPI STA 566+50.00 EB VPI EL 885.96 EB

VPT STA 567+50.00 EB VPT EL 885.46 EB

VPT STA 567+05.00 WB VPT EL 885.61 WB

STA 568+00.00 EB ELEV 885.21 EB

STA 568+00.00 WB ELEV 885.13 WB

BENCHMARKS

NO.	STATION	DESCRIPTION	ELEV.
BM128	558+19.34, 40.28' RT	SE CORNER OF USH 12 NB BRIDGE	889.98
BM129	560+93.35, 100.04' LT	NW CORNER OF USH 12 SB BRIDGE	888.55

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN AND PROFILE	SHEET	167 - E

2 EXTENSIONS REQUIRED
36" CMCP
(L=12' LT)
2 AEW REQUIRED

CITY OF LAKE GENEVA

LEGEND
CLEARING & GRUBBING
SAWING

R/W

USH 12 R/L

RAMP BD R/L

RAMP BD

B-64-187
R-64-21

B-64-188

CAUTION

EXTENSION REQUIRED
42" CMCP
(L=8' LT)
1 AEW REQUIRED

CONCRETE
SURFACE DRAIN

MATCHLINE
STA 146+00

INLET TO REMAIN

EXISTING 42" CMCP
TO REMAIN

STH 50

WETLAND LIMITS

RAMP DB

RAMP DB R/L

RAMP CB

RAMP AB

RAMP AC

RAMP AC R/L

STEEL THRIE BEAM
BULL NOSE TERMINAL

REMOVING GUARDRAIL
R-64-22

USH 12 WB

USH 12 EB

N

5

5

VCL = 170.00
K = 124.20

VCL = 410.00
K = 212.03

VPC STA 143+85.00
VPC EL 869.85

VPC STA 145+55.00
VPC EL 870.17

144+46.11
869.69

POINT PROFILE
STA 143+82.44

-0.49%

0.88%

VPI STA 144+70.00
VPI EL 869.43

FINISHED PROFILE

EXISTING PROFILE

EXISTING PROFILE ELEVATION

FINISHED PROFILE ELEVATION

131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146
859.33	859.41	859.51	859.61	859.73	859.85	859.98	860.03	860.50	860.33	861.08	861.02	861.66	861.67	862.05	862.30	862.61	862.94	863.21	863.59	864.00	864.38	864.83	865.30	865.66	866.14	866.52	866.71	867.30	867.34	867.92	867.91	868.44	868.45	868.85	868.82	869.25	869.12	869.49	869.39	869.55	869.66	869.62	869.85	869.82	869.96	870.06	869.78	869.87	869.70	869.17	869.81	868.87	870.13	867.85	870.61

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN AND PROFILE - RAMP BD	SHEET 168 E

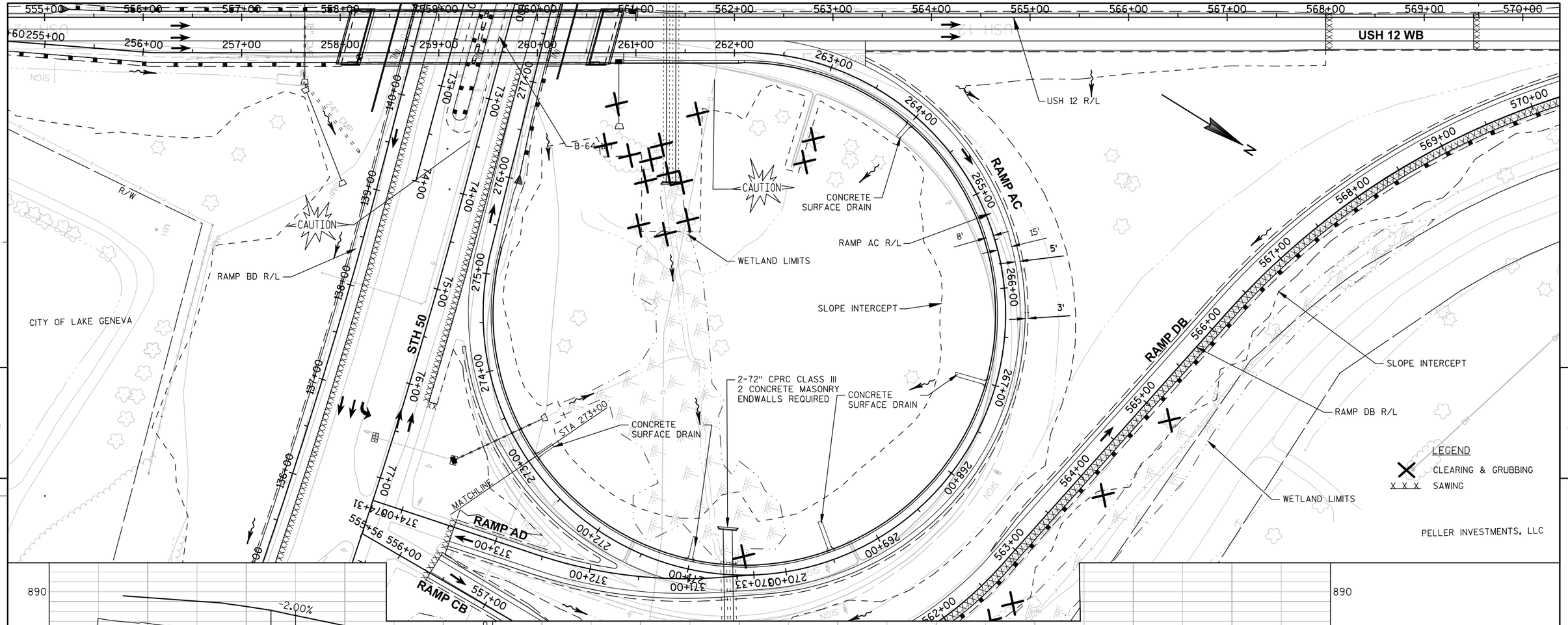
WETLAND LIMITS
REMOVING GUARDRAIL
INLET TO REMAIN
CONCRETE SURFACE DRAIN
MATCHLINE
STA 147+00
EXIST 18" CMP TO BE REMOVED
1-24"CPRC CLASS III 2 AEW REQUIRED
CONCRETE SURFACE DRAIN
CONCRETE SURFACE DRAIN
RAMP BD R/L
CONCRETE SURFACE DRAIN
CONCRETE CURB AND GUTTER 30-INCH TYPE A
SLOPE INTERCEPT
CITY OF LAKE GENEVA
USH 12 R/L
USH 12 PGL
USH 12 WB
USH 12 EB
STH 50
RAMP EF
RAMP DA
RAMP CA
RAMP BD
R/W
RIPRAP
SIGN
MH
INL
HP
LP
8'
15'
5'
3'

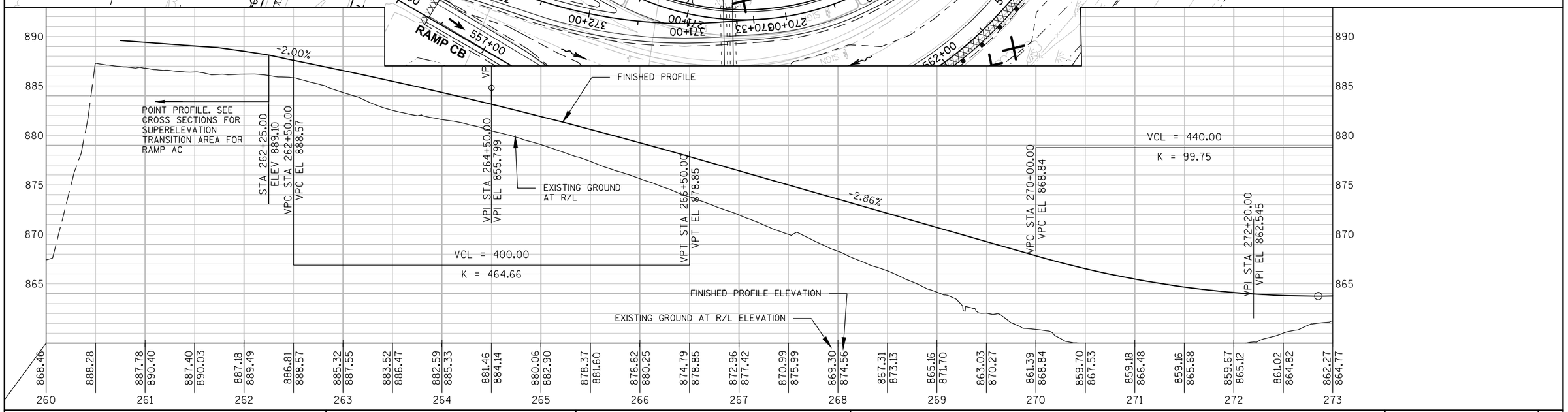
LEGEND
CLEARING & GRUBBING
X X X SAWING

VCL = 410.00
K = 212.03
VPT STA 149+65.00
VPT EL 877.73
VPI STA 147+60.00
VPI EL 871.97
2.81%
FINISHED PROFILE
0.98%
VPI STA 154+20.00
VPI EL 890.52
VPC STA 151+80.00
VPC EL 883.77
EXISTING GROUND AT R/L
VPT STA 156+60.00
VPT EL 892.87
STA 156+64.58
ELEV 892.91
VCL = 480.00
K = 262.12
POINT PROFILE. SEE CROSS SECTIONS FOR SUPERELEVATION TRANSITION AREA FOR RAMP BD
EXISTING GROUND AT R/L ELEVATION
FINISHED PROFILE ELEVATION
865.74

146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
867.85 / 870.61	866.90 / 871.22	866.45 / 871.94	865.73 / 872.78	865.95 / 873.74	866.63 / 874.81	867.79 / 876.00	869.24 / 877.31	871.01 / 878.71	872.92 / 880.12	874.60 / 881.53	876.50 / 882.93	877.74 / 884.33	879.34 / 885.65	880.94 / 886.87	882.50 / 888.00	883.99 / 889.03	885.34 / 889.97	886.55 / 890.81	886.83 / 891.56	888.06 / 892.21	889.61 / 892.77	889.83 / 893.24	889.52 / 893.35	889.40 / 893.17	889.11 / 892.93	871.22	869.56	868.88

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN AND PROFILE - RAMP BD	SHEET 169 - E





PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN AND PROFILE RAMP AC	SHEET 170 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\050106_PP.DWG PLOT DATE : 1/16/2013 3:23 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 44

LEGEND

CLEARING & GRUBBING

X X X SAWING

STH 50

USH 12 WB

USH 12 EB

BM 12 (HSTA) 258.00

STEEL THRIE BEAM BULLNOSE TERMINAL

INLET TO REMAIN

1-24" CPRC CLASS III
2 AEW REQUIRED

WETLAND LIMITS

EXISTING INLET TO BE REMOVED

RAMP DB

RAMP CB

RAMP AD

RAMP AC

RAMP BD

RAMP DA

RAMP EF

MATCHLINE

STA 273+00

RAMP AC R/L

EXIST 18" CMCP TO BE REMOVED

SLOPE INTERCEPT

EXIST 18" CMCP TO BE REMOVED

RAMP DB R/L

USH 12 R/L

R-64-22

B-64-187

B-64-188

RAMP BD R/L

REMOVING GUARDRAIL

INLET TO REMAIN

CAUTION

R-64-21

ADJUSTING MANHOLE COVER

MGS GUARDRAIL 3
REMOVE GUARDRAIL

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL TYPE 2

WETLAND LIMITS

USH 12 PGL

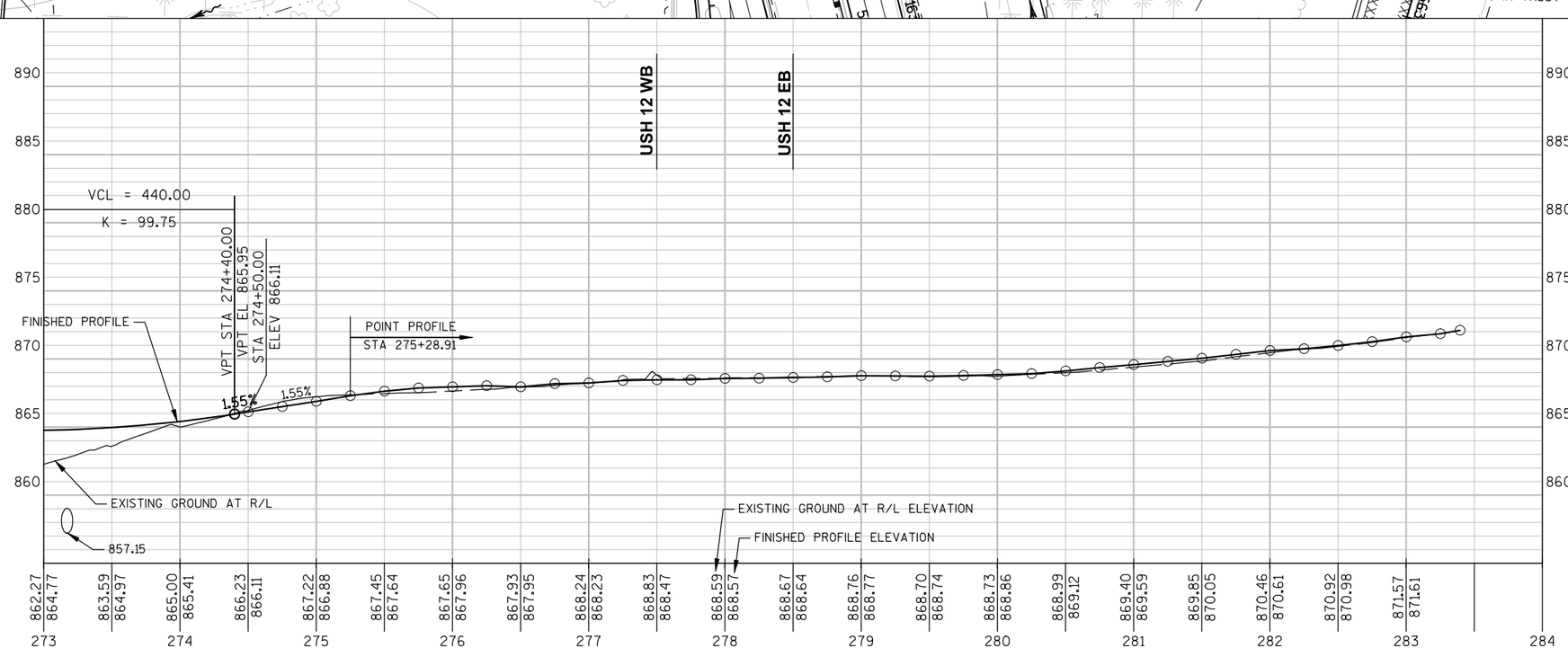
EDWIN PELLER

CITY OF LAKE GENEVA, IN TRUST

R/W

5

5



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	PLAN AND PROFILE - RAMP AC	SHEET 171 - E

FILE NAME : T:\1092703\CADD\CIVIL3D\10801200\SHEETSPLAN\050109_PP-RAMPAC.DWG PLOT DATE : 2/18/2014 1:05 PM PLOT BY : GUILLAMA, TINA R. PLOT NAME : ----------

WISDOT/CADDS SHEET 44

WETLAND LIMITS
RAMP DB R/L
EXIST 24" CMCP TO BE REMOVED
RAMP DB
RAMP CB
RAMP AD
RAMP AC
RAMP AC R/L
RAMP BD R/L
EXISTING INLET TO BE REMOVED
CONCRETE SURFACE DRAIN
CONCRETE SURFACE DRAIN
SLOPE INTERCEPT
INLET TO REMAIN
WETLAND LIMITS
STH 50
CITY OF LAKE GENEVA
RIPRAP
SLAB
R/W
N
LEGEND
CLEARING & GRUBBING
SAWING

CAUTION

VCL = 100.00
K = 81.31

STA 371+23.24
ELEV 867.03
-0.52%
VPC STA 371+35.00
VPC EL 866.97
VPI STA 371+85.00
VPI EL 866.71
-1.75%
VPT STA 372+35.00
VPT EL 865.84
-0.80%
STA 373+44.42
ELEV 864.67

FINISHED PROFILE
EXISTING GROUND AT R/L

VPC STA 372+35.00
VPC EL 865.84
VPI STA 372+85.00
VPI EL 864.96
VPT STA 373+35.00
VPT EL 864.71

VCL = 100.00
K = 79.97

EXISTING GROUND AT R/L ELEVATION
FINISHED PROFILE ELEVATION

| | | |

Standard Detail Drawing List

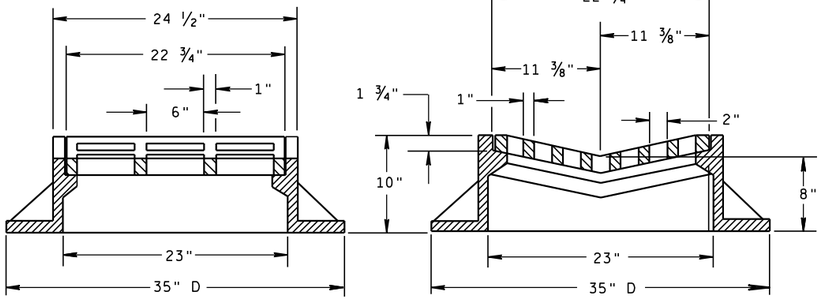
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D03-06	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D15-04B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-04C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09F08-03	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F15-03A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09G01-03B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A07-02	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
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
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B26-02A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B28-02	GUARDRAIL MOW STRIP
14B32-02A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-01G	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B33-01H	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

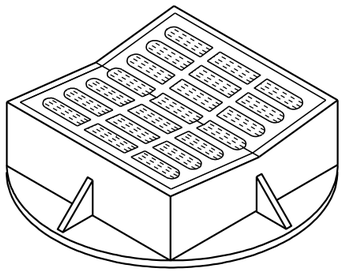
6

Standard Detail Drawing List

14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-08	DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C29-03A	BICYCLE LANE MARKING
15C29-03B	BICYCLE LANE MARKING
15C29-03C	URBAN BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-01B	LANE DROP PAVEMENT MARKING
15C31-01C	PAVEMENT MARKING MAJOR SPLIT FREEWAY TO FREEWAY
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D04-01	TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING
15D05-03	TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER
15D06-03	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D10-03	TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT WITH BARRIER
15D11-04	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-02	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-02	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

6

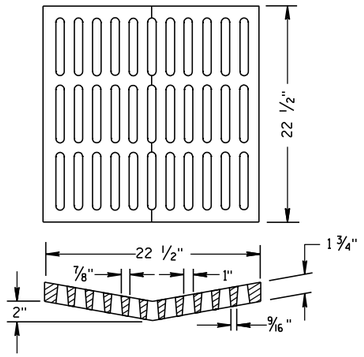




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

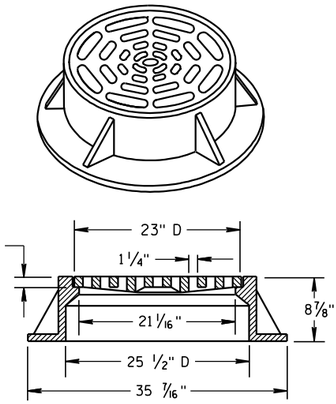


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

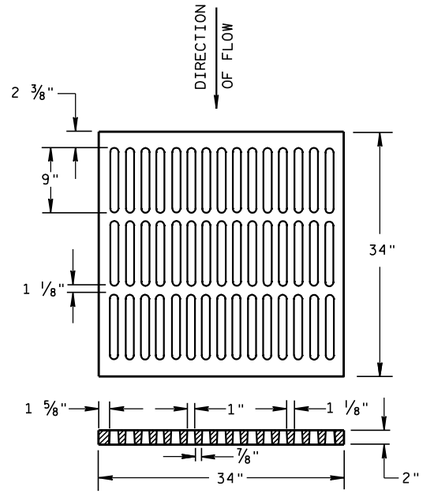
GENERAL NOTES

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

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

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

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

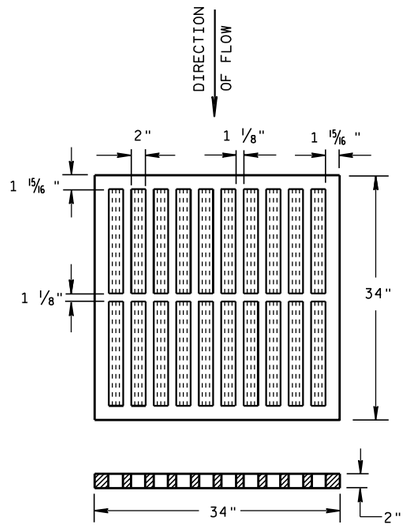


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

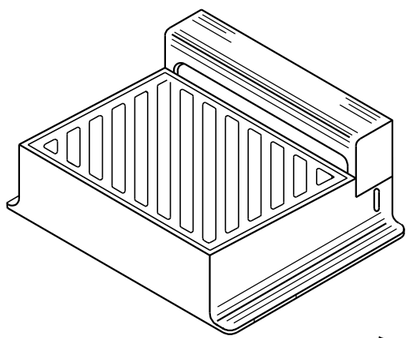


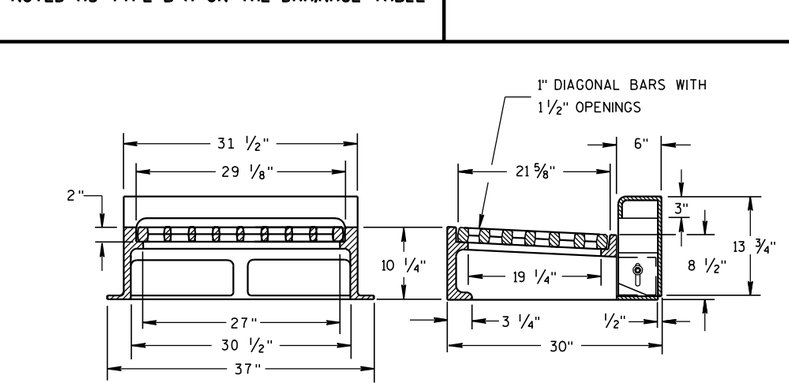
TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

DIRECTION OF FLOW

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

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

175

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FHWA

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S.D.D. 8 A 5-18b

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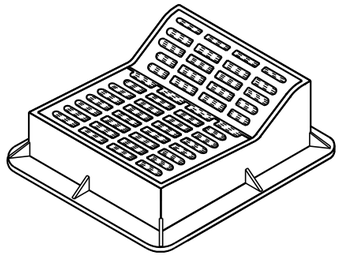
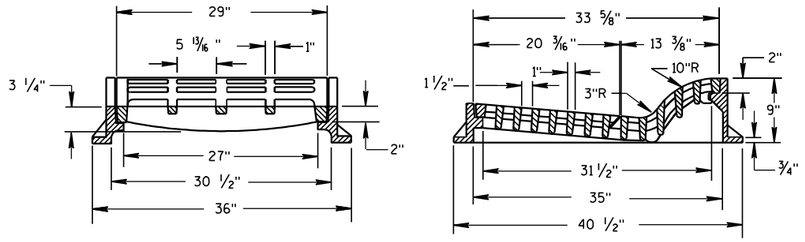
S.D.D. 8 A 5-18b



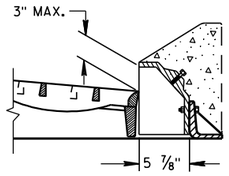


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

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

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



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

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

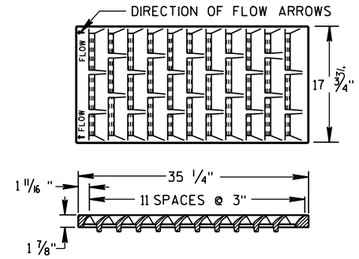
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

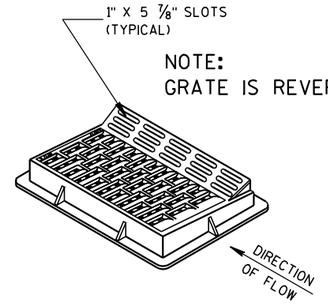
GENERAL NOTES

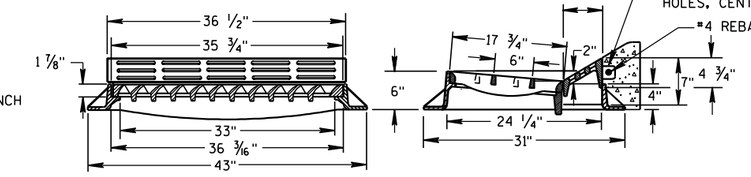
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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





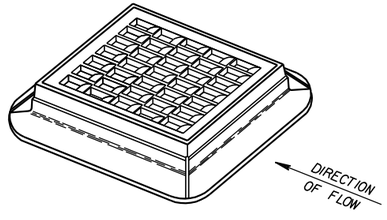


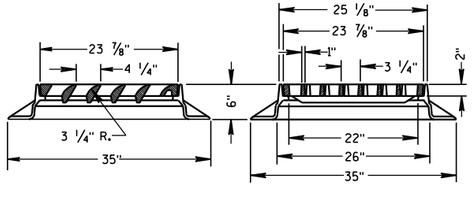
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

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

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

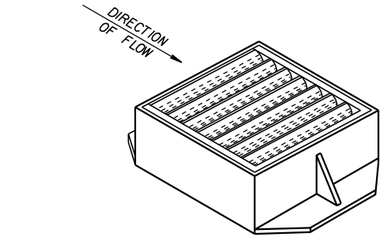


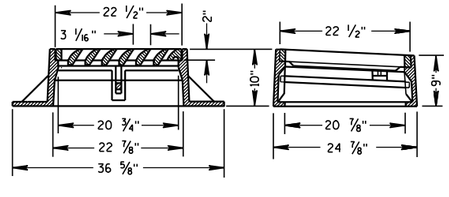


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

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

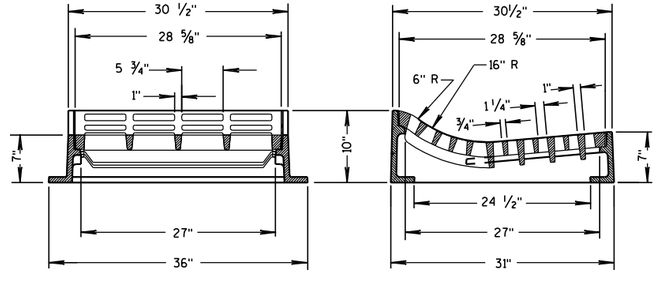




TYPE "V"

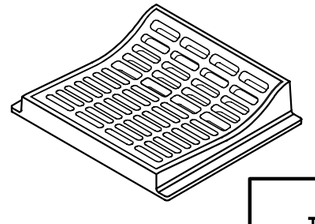
(APPROXIMATE WEIGHT 410 LBS.)

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



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 A 5-18c

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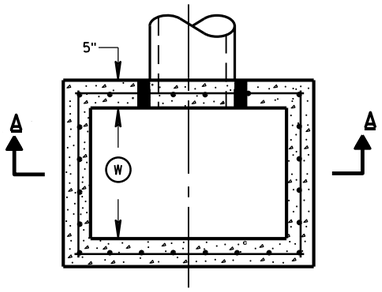
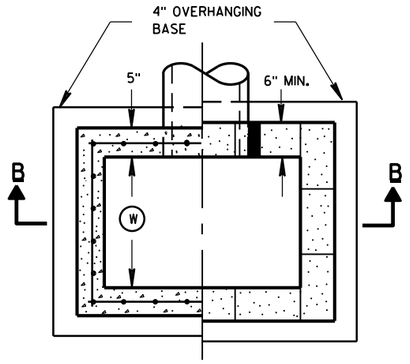
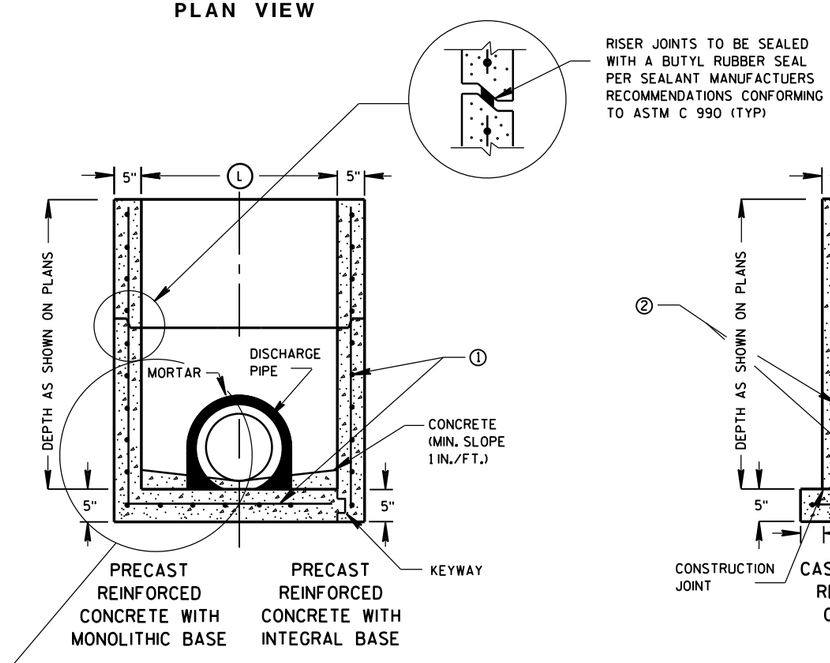
S.D.D. 8 A 5-18c



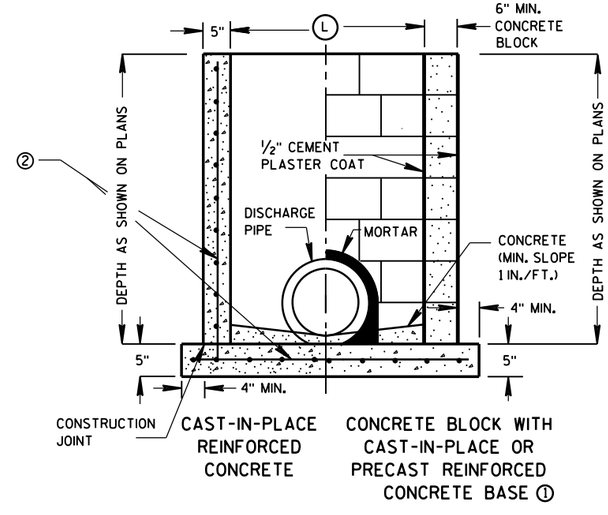
PLAN VIEW



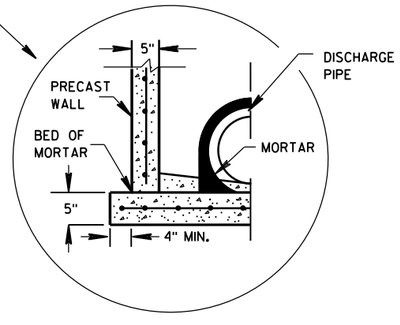
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

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

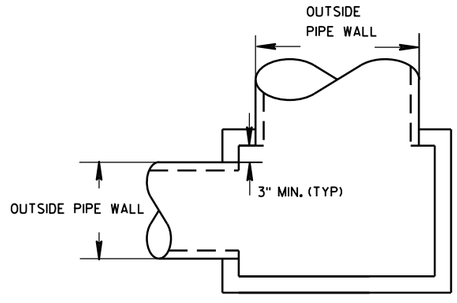
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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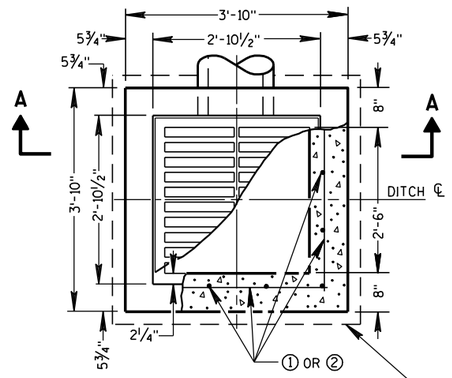
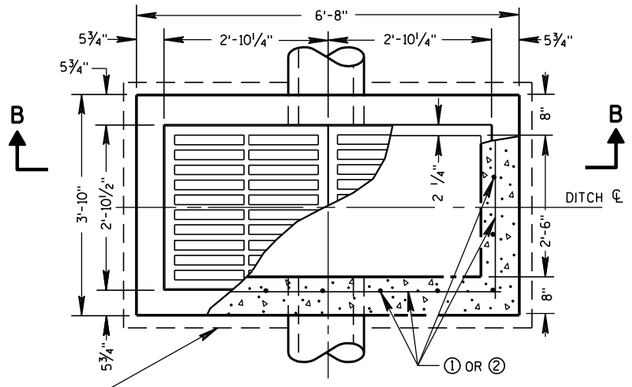
S.D.D. 8 C 7-1

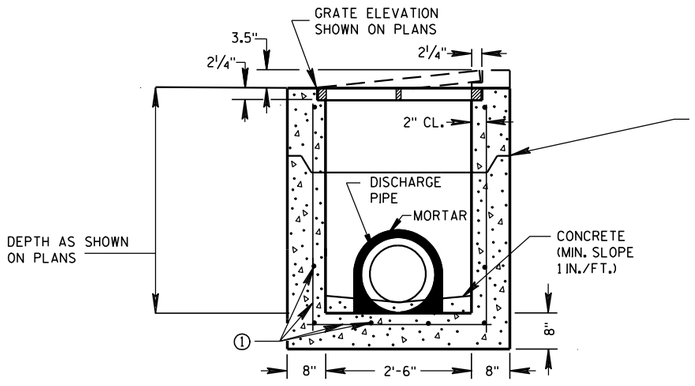


PLAN VIEW

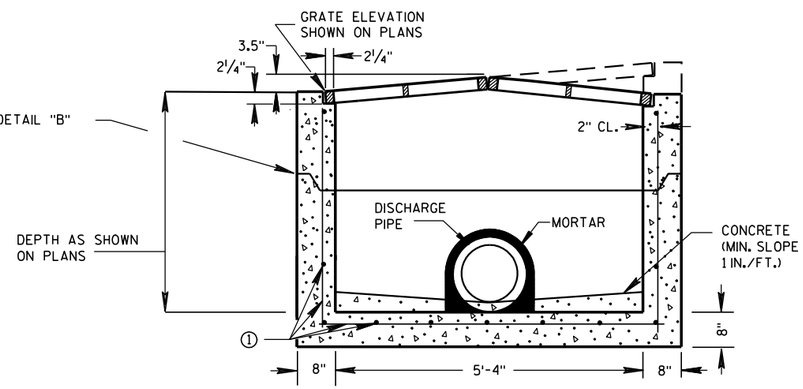


PLAN VIEW

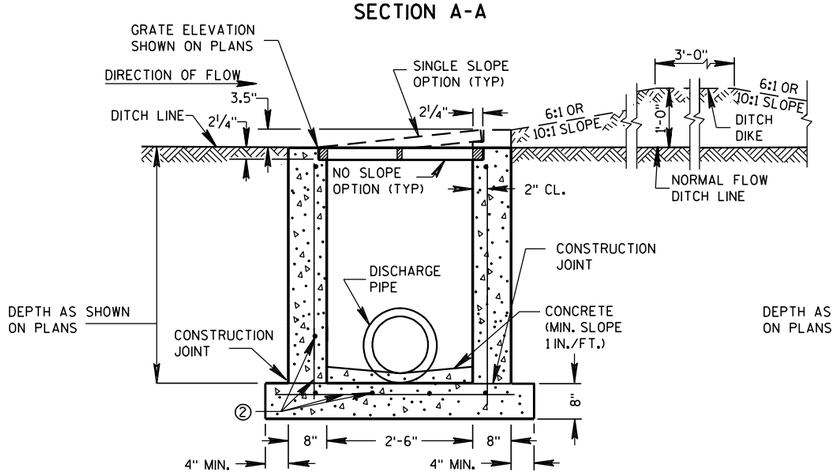
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



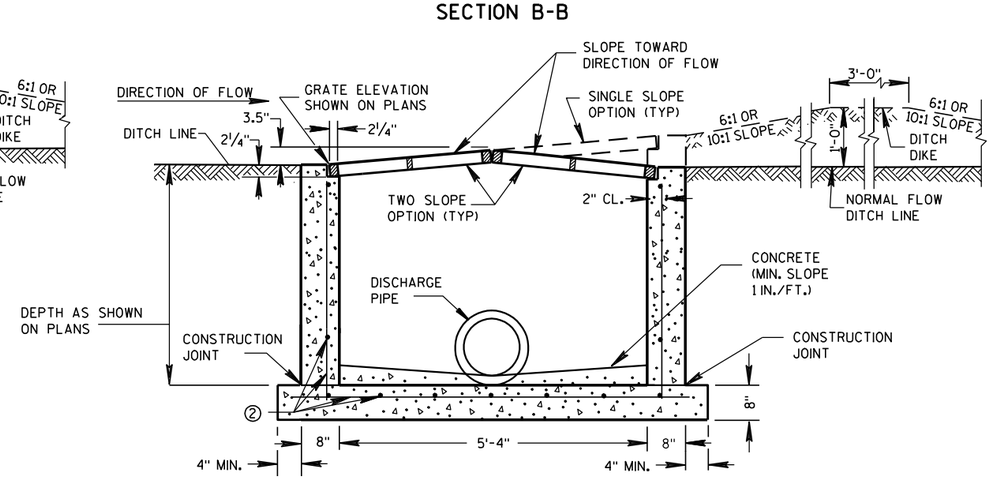
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

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

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

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

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

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

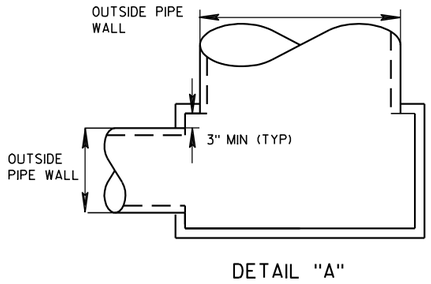
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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

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

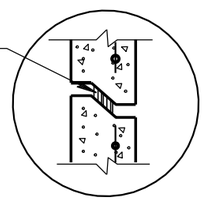
PIPE MATRIX

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



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 C 8-1

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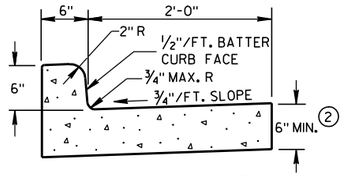
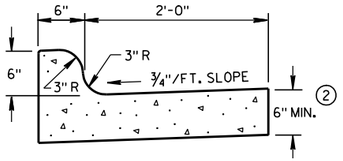
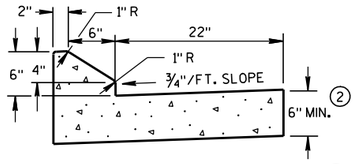
S.D.D. 8 C 8-1



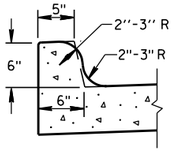
TYPES A & D (1)



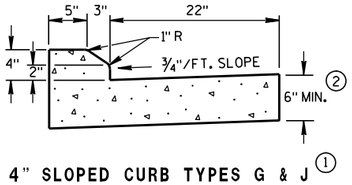
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

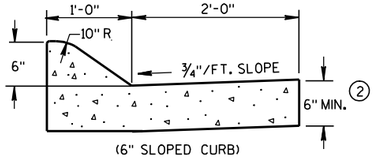


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

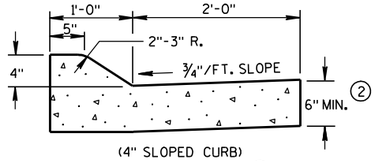


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

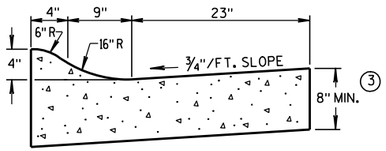


(6" SLOPED CURB)



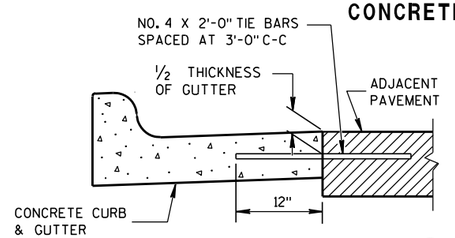
(4" SLOPED CURB)

TYPES A & D (1)

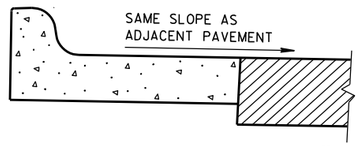


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



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

GENERAL NOTES

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

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

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

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

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

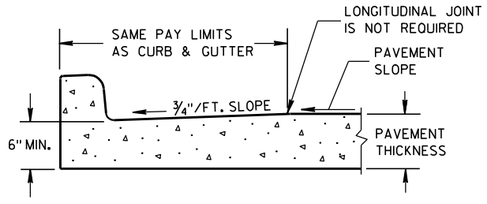
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

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

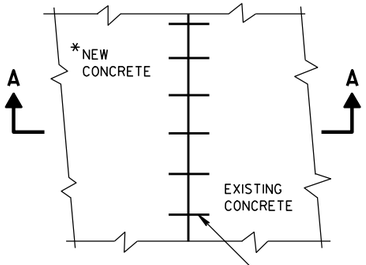
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

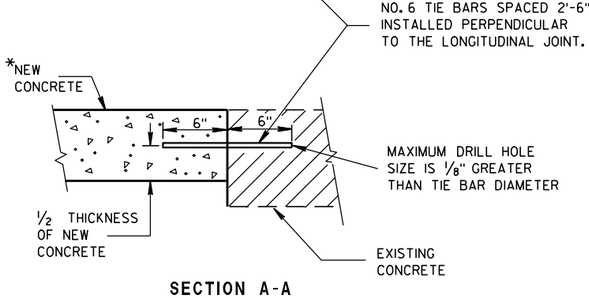


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



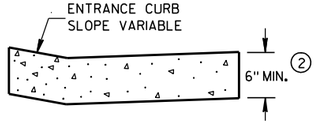
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW

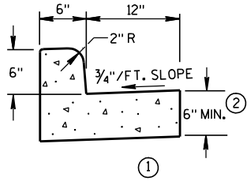


SECTION A-A

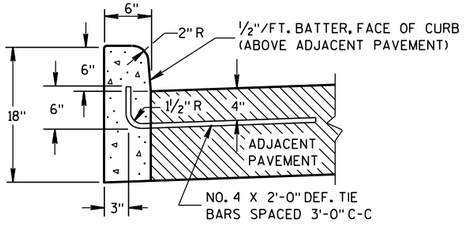
TIE BARS DRILLED INTO EXISTING PAVEMENT



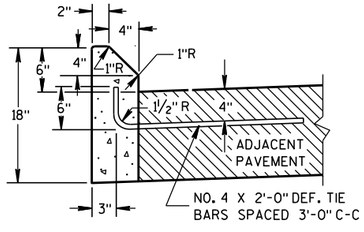
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



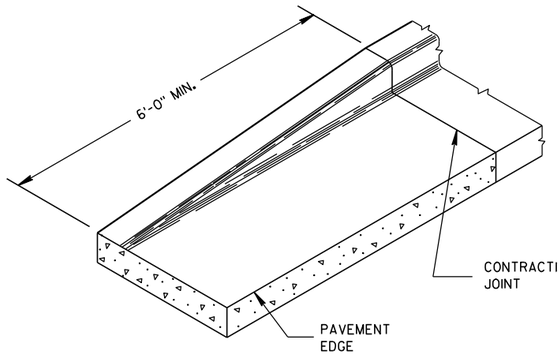
(1)
TYPES A & D
CONCRETE CURB & GUTTER 18"



(1)
TYPES A & D



(1)
TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

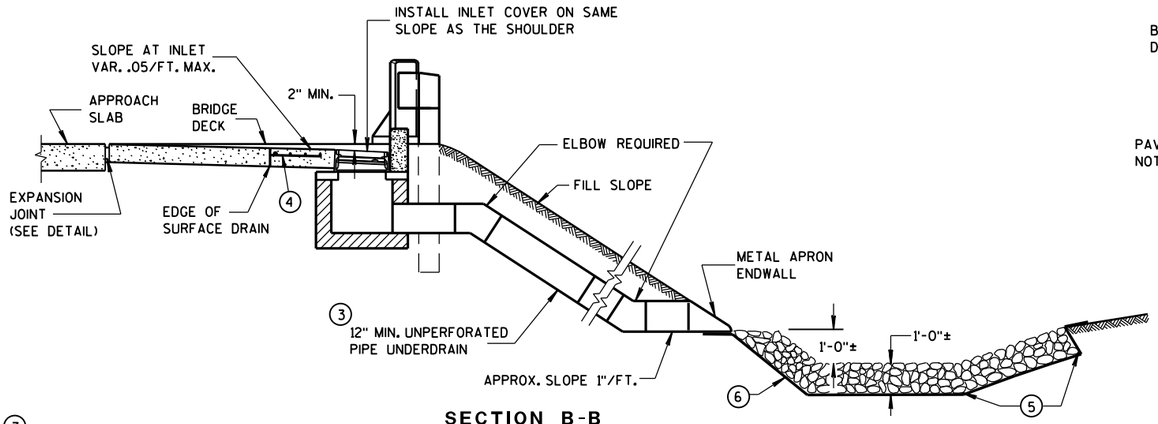
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

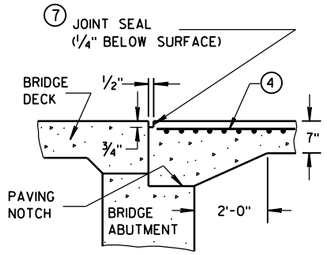
FHWA

6

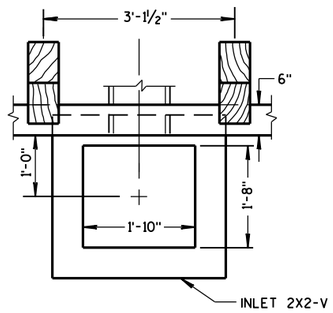
S.D.D. 8 D 1-17



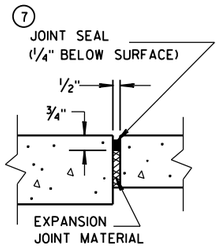
SECTION B-B



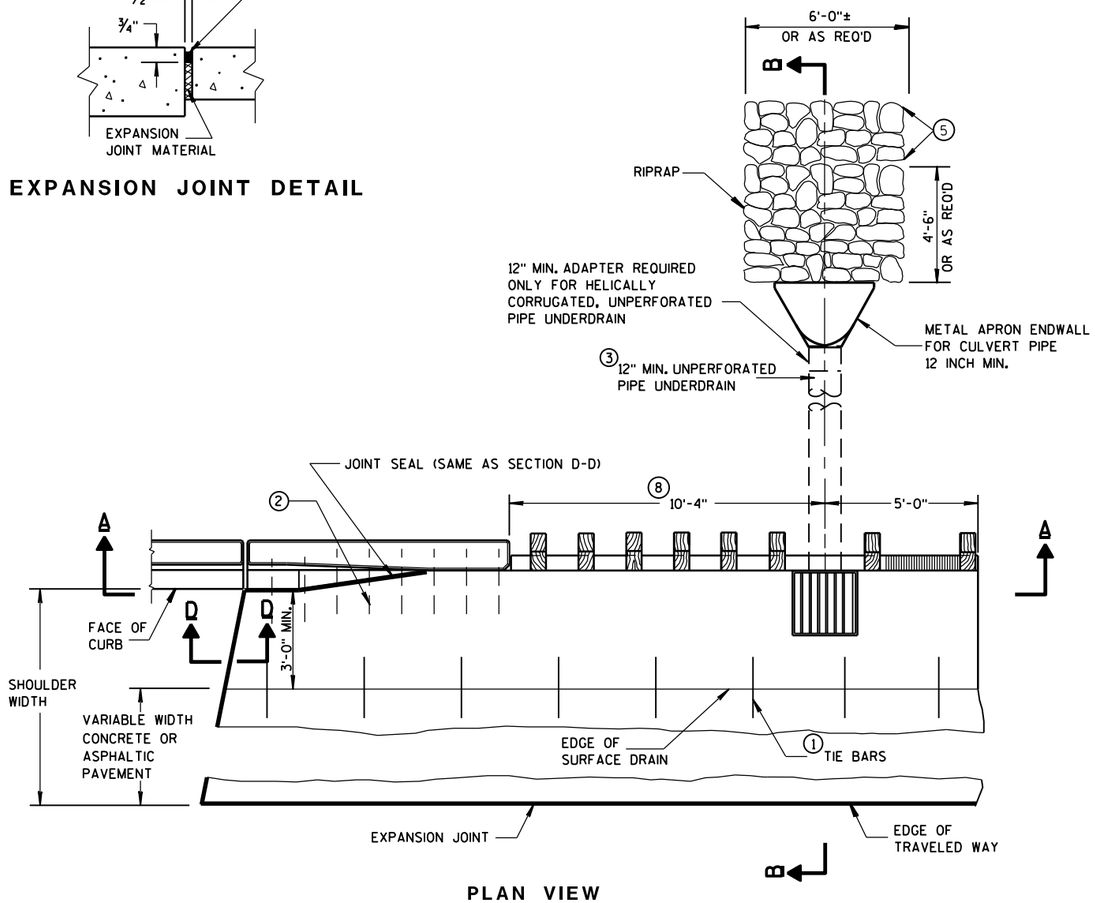
SECTION D-D



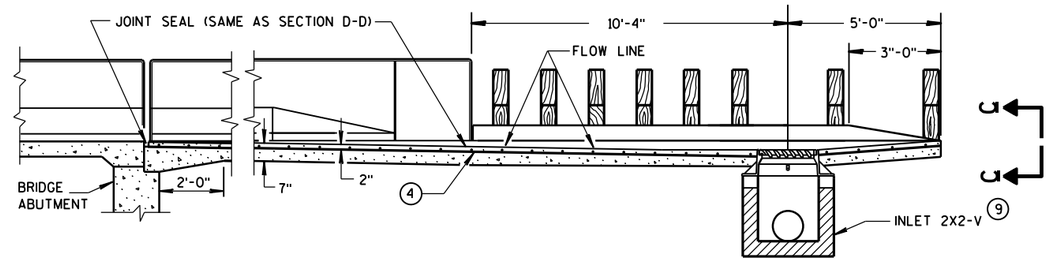
PLAN VIEW



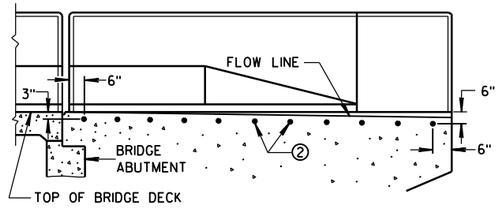
EXPANSION JOINT DETAIL



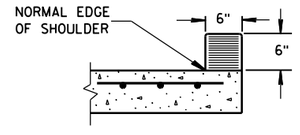
PLAN VIEW



SECTION A-A



LOCATION OF TIE BARS IN WINGWALL



SECTION C-C

GENERAL NOTES

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

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'-1½".

(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

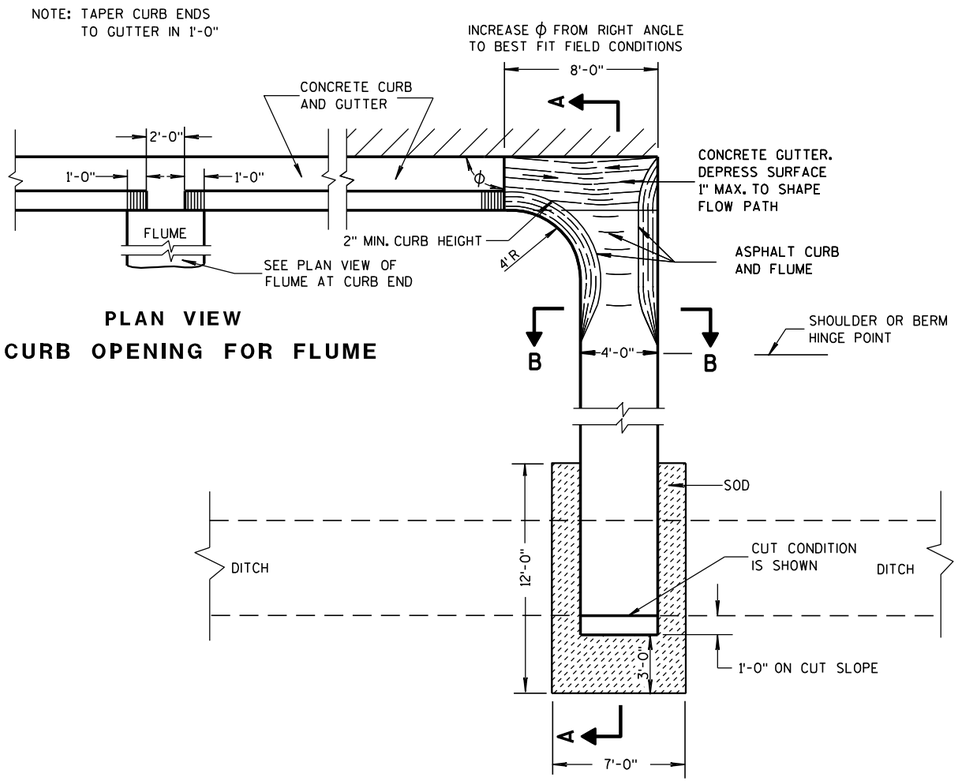
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

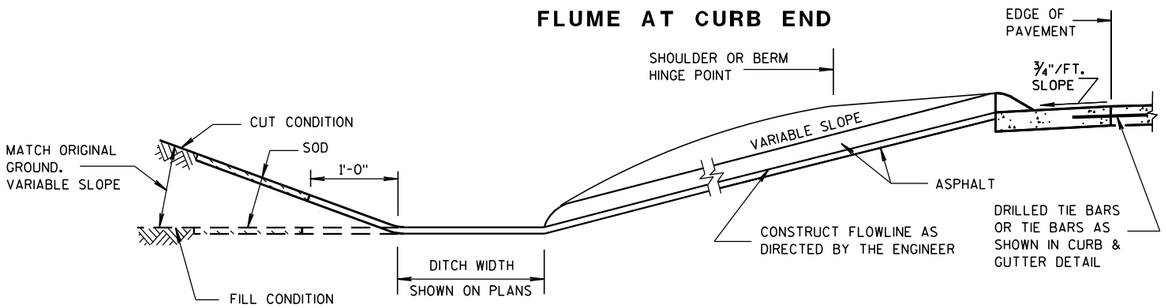
S.D.D. 8 D 3-6

ASPHALTIC FLUME

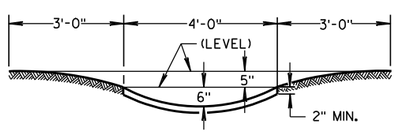


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

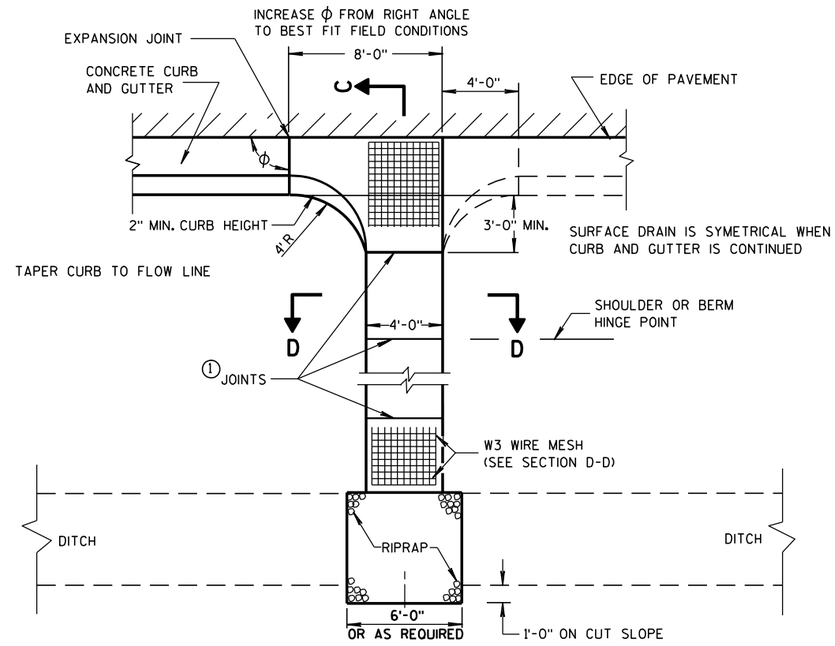
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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

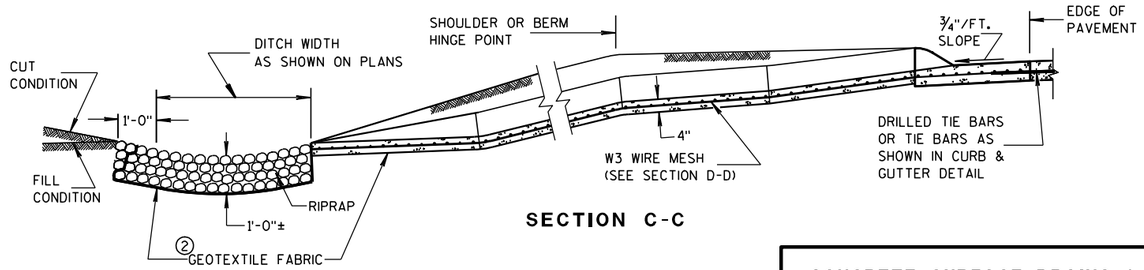
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

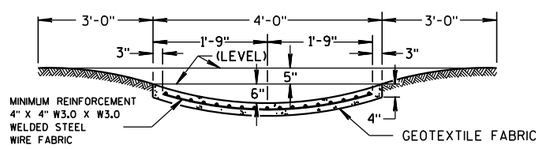
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08 DATE — /S/ Jerry H. ... ROADWAY STANDARDS ENGINEER — MENT

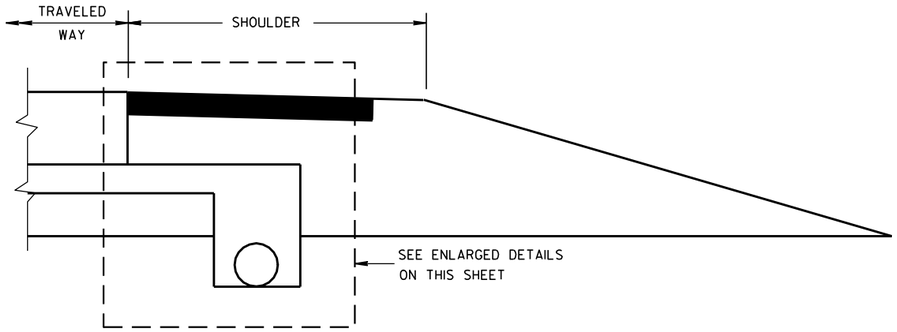
FHWA

6

S.D.D. 8 D 4-5

6

S.D.D. 8 D 4-5



RURAL CROSS SECTION

GENERAL NOTES

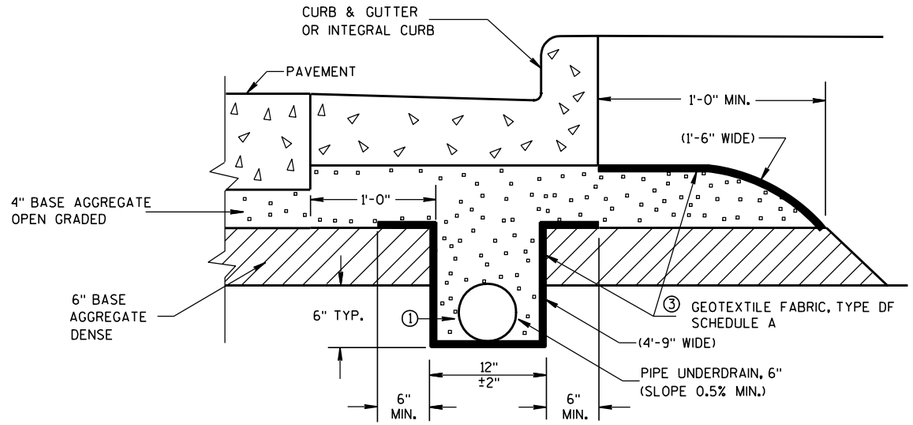
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

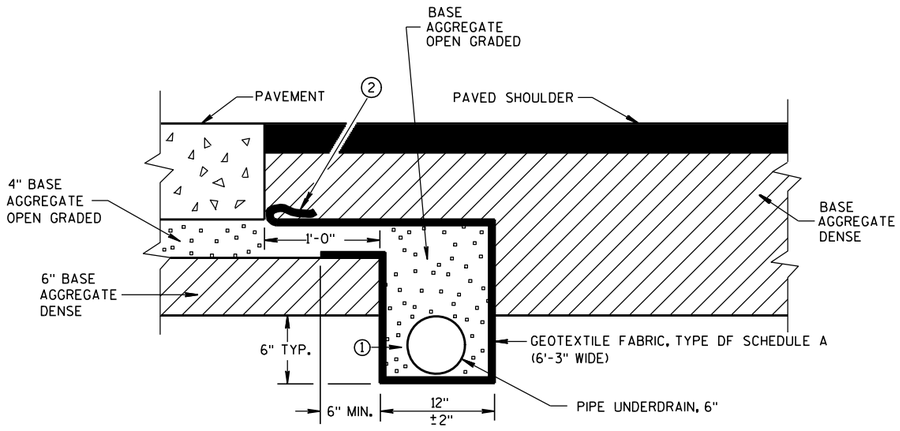
① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.

② FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

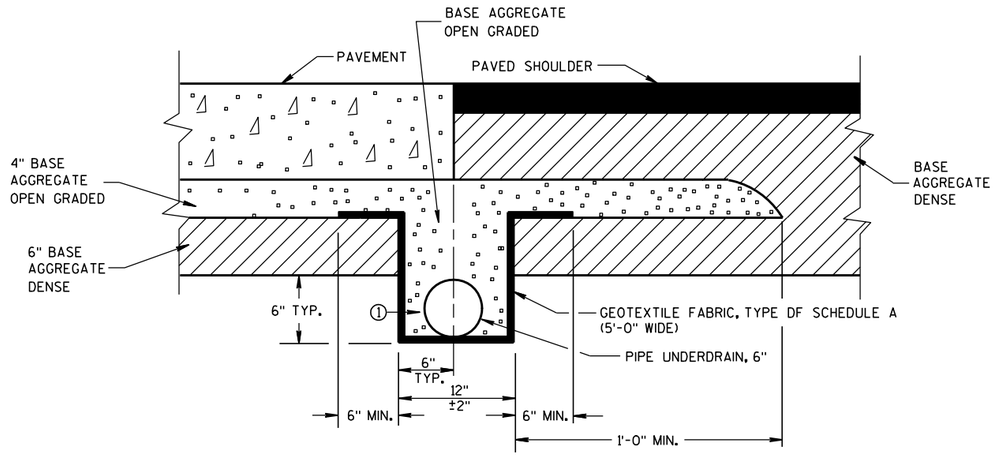
③ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

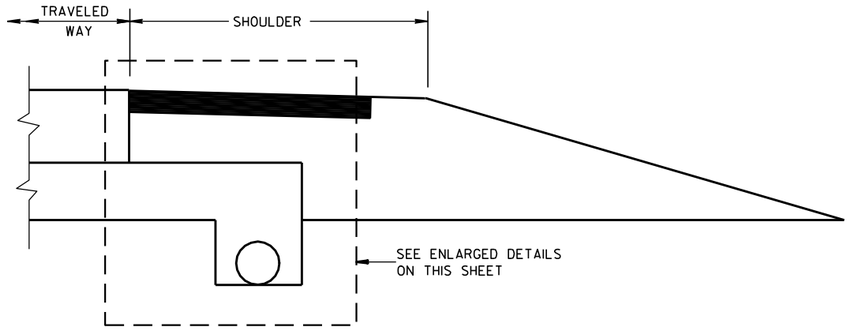
APPROVED

3/21/07 DATE — /S/ Steven W. [illegible] CHIEF MATERIALS MANAGER

FHWA

6

S.D.D. 8 D 15-4b



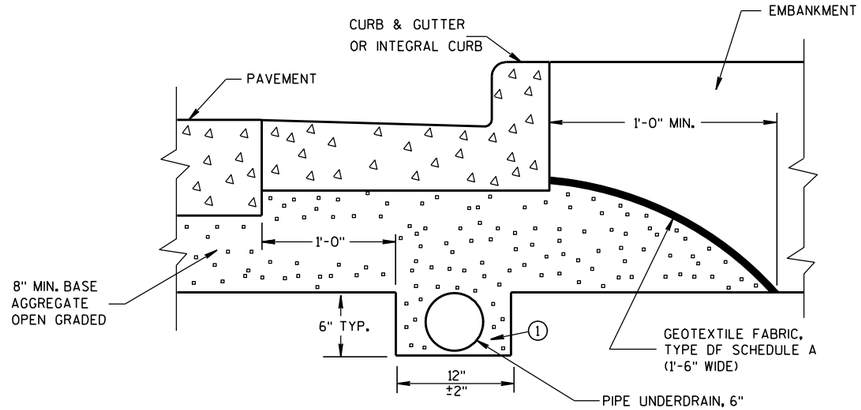
RURAL CROSS SECTION

GENERAL NOTES

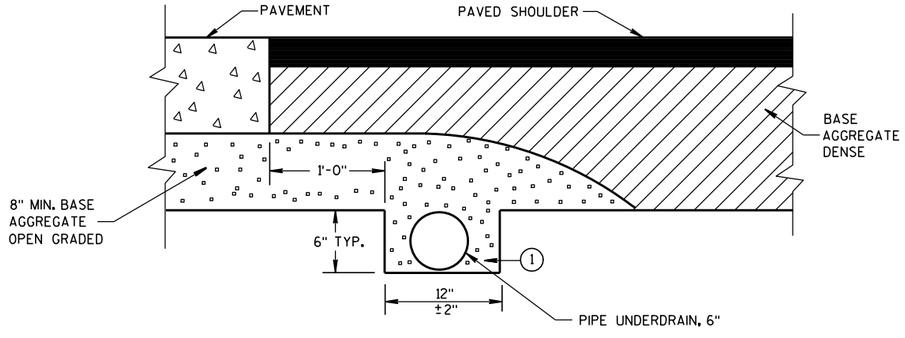
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

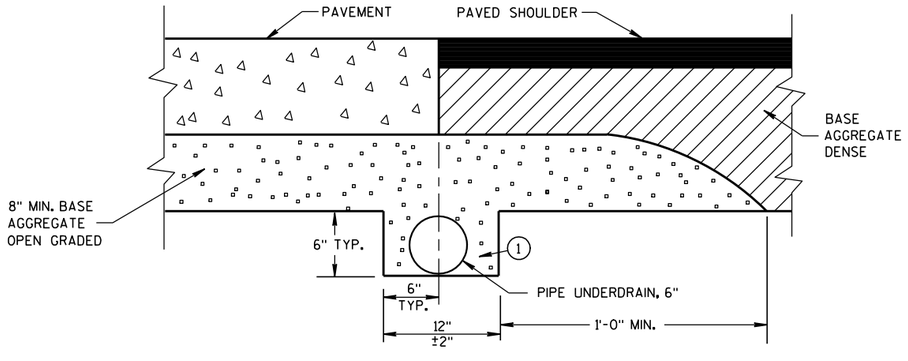
(1) TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

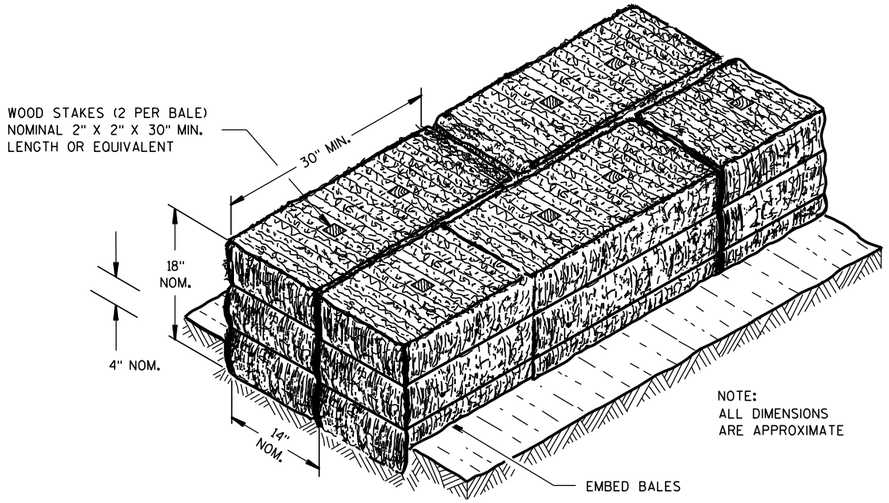
APPROVED
3/21/07 DATE
/S/ Steven W. Krebs
CHIEF MATERIALS MANAGER
FHWA

6

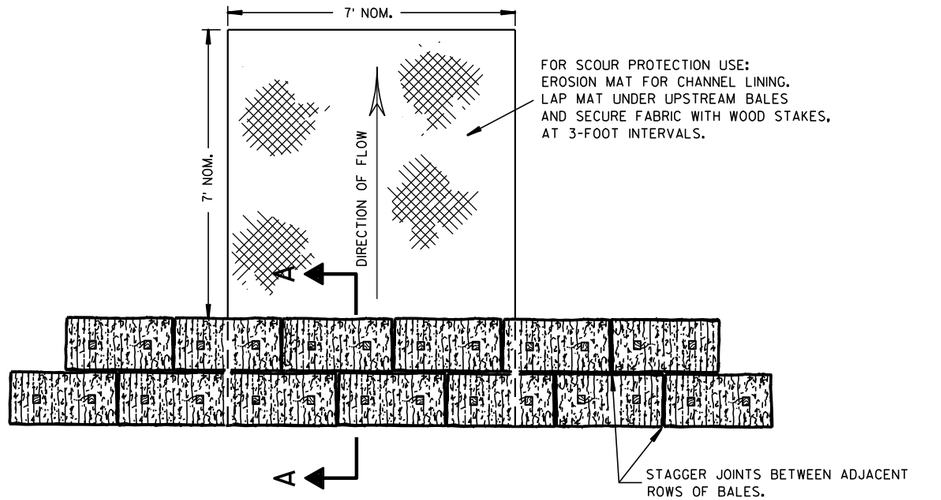
S.D.D. 8 D 15-4c

6

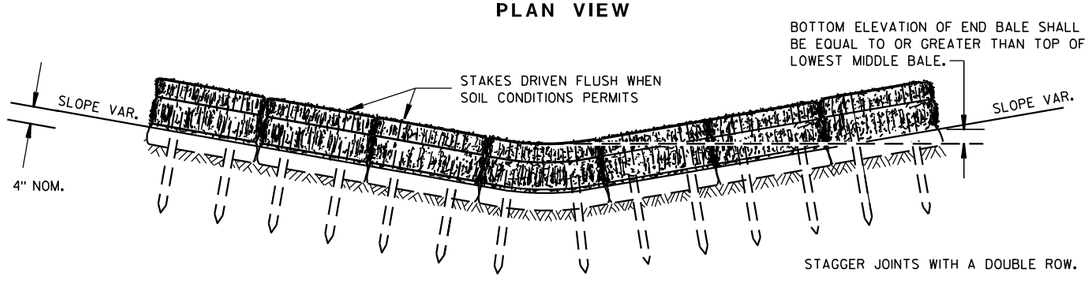
S.D.D. 8 D 15-4c



SECTION A-A



PLAN VIEW



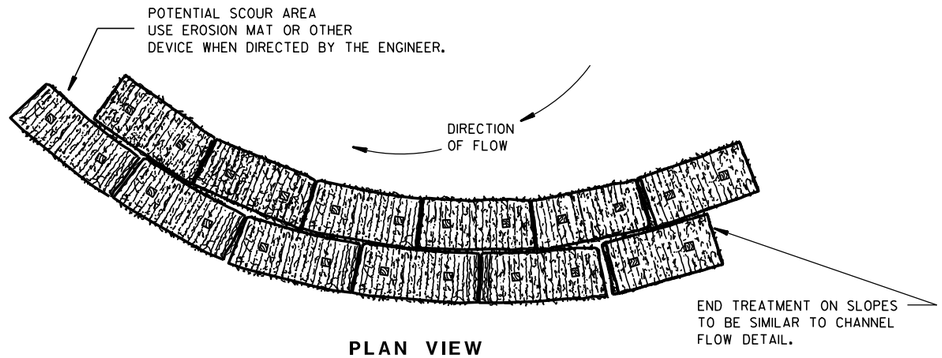
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

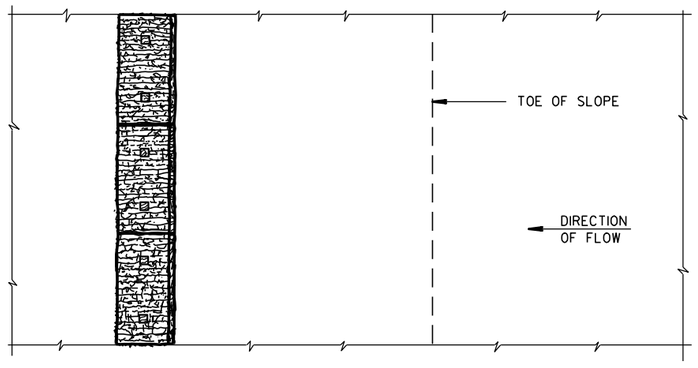
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

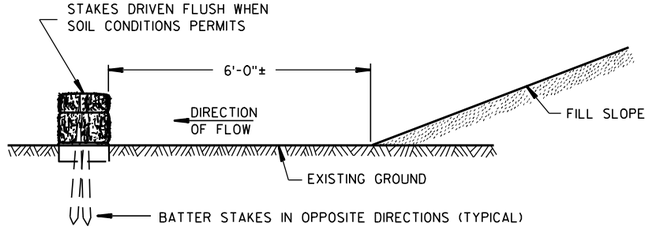


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

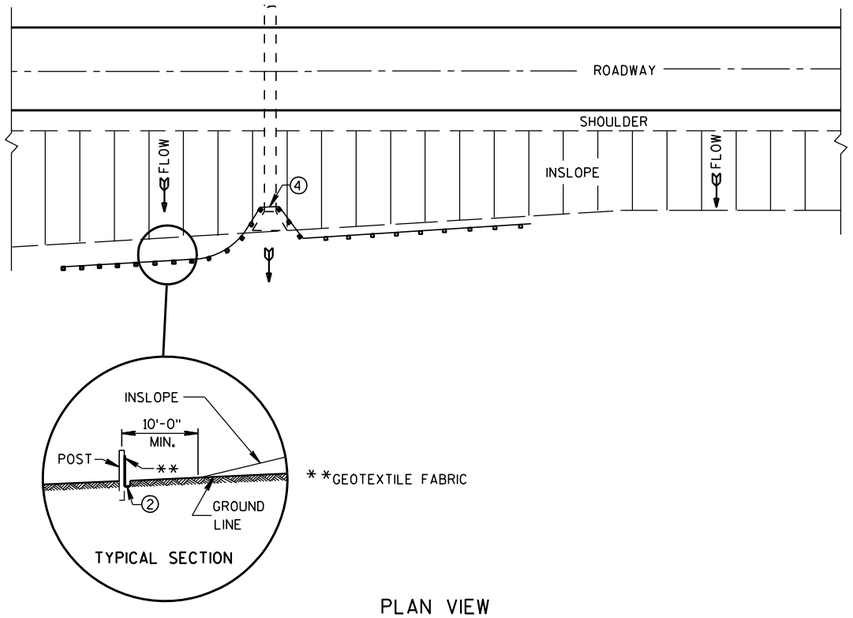
FHWA

6

S.D.D. 8 E 8-3

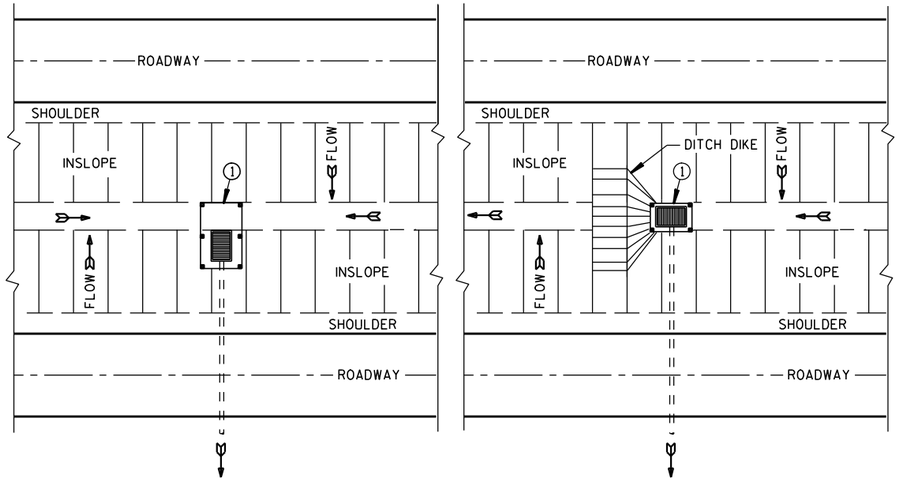
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



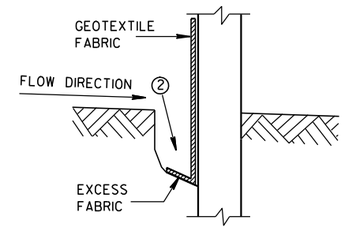
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

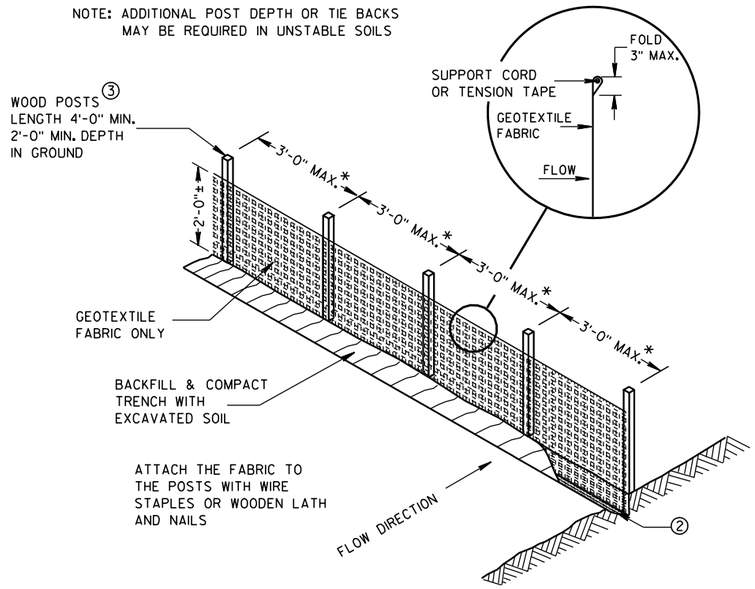
GENERAL NOTES

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

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

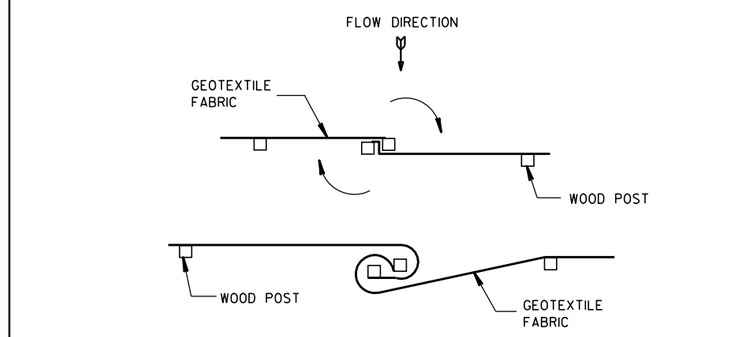


TRENCH DETAIL

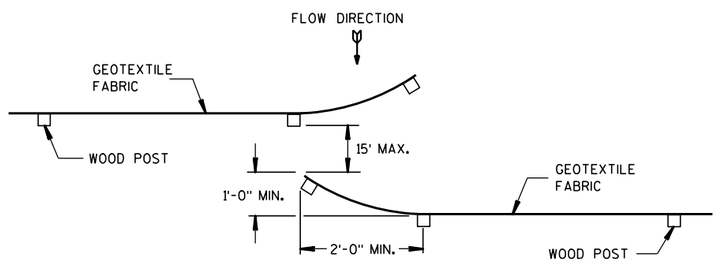


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

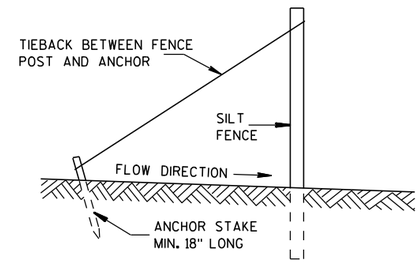


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

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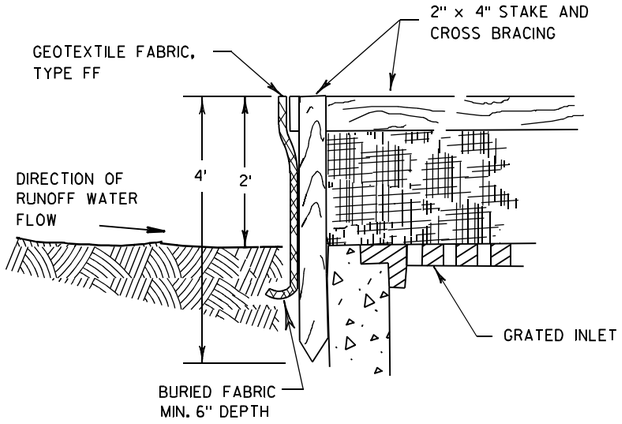
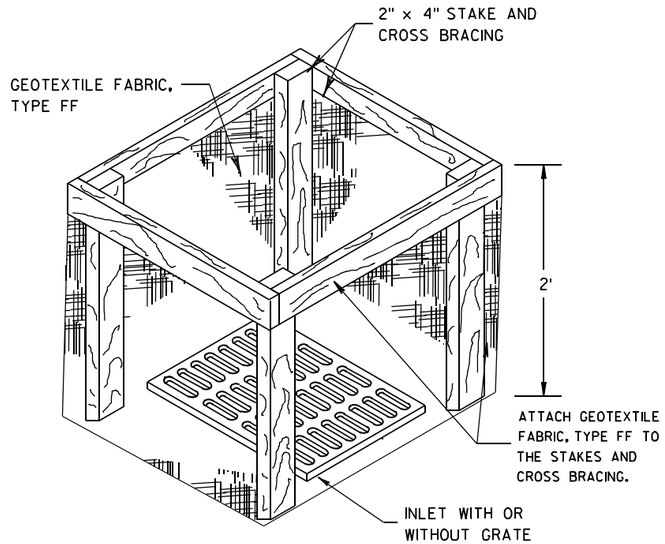
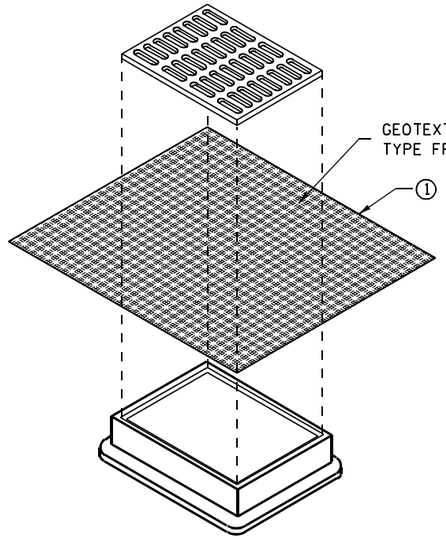
S.D.D. 8 E 9-6



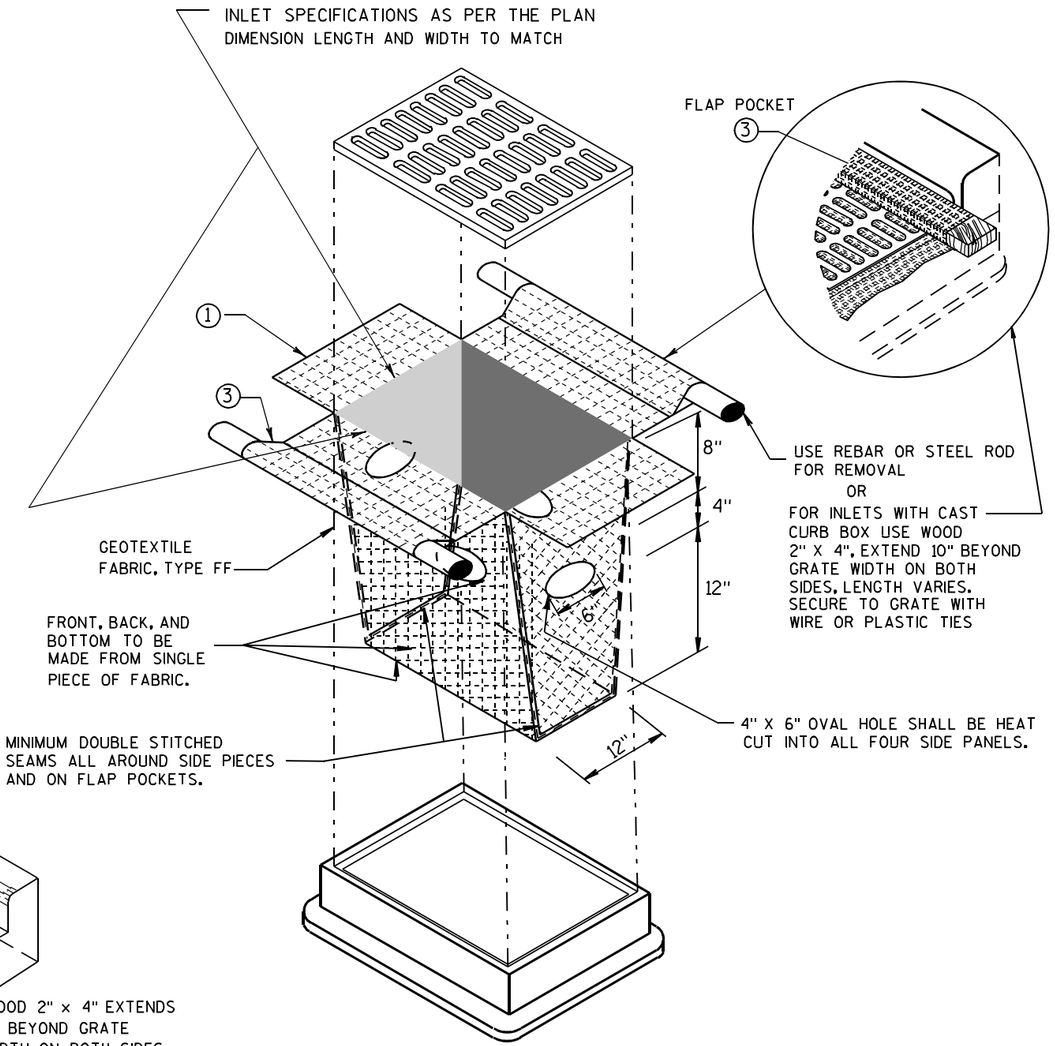


INLET PROTECTION, TYPE A



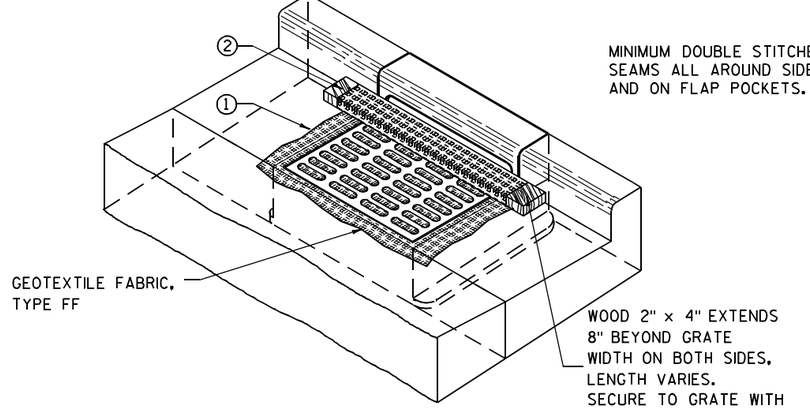
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

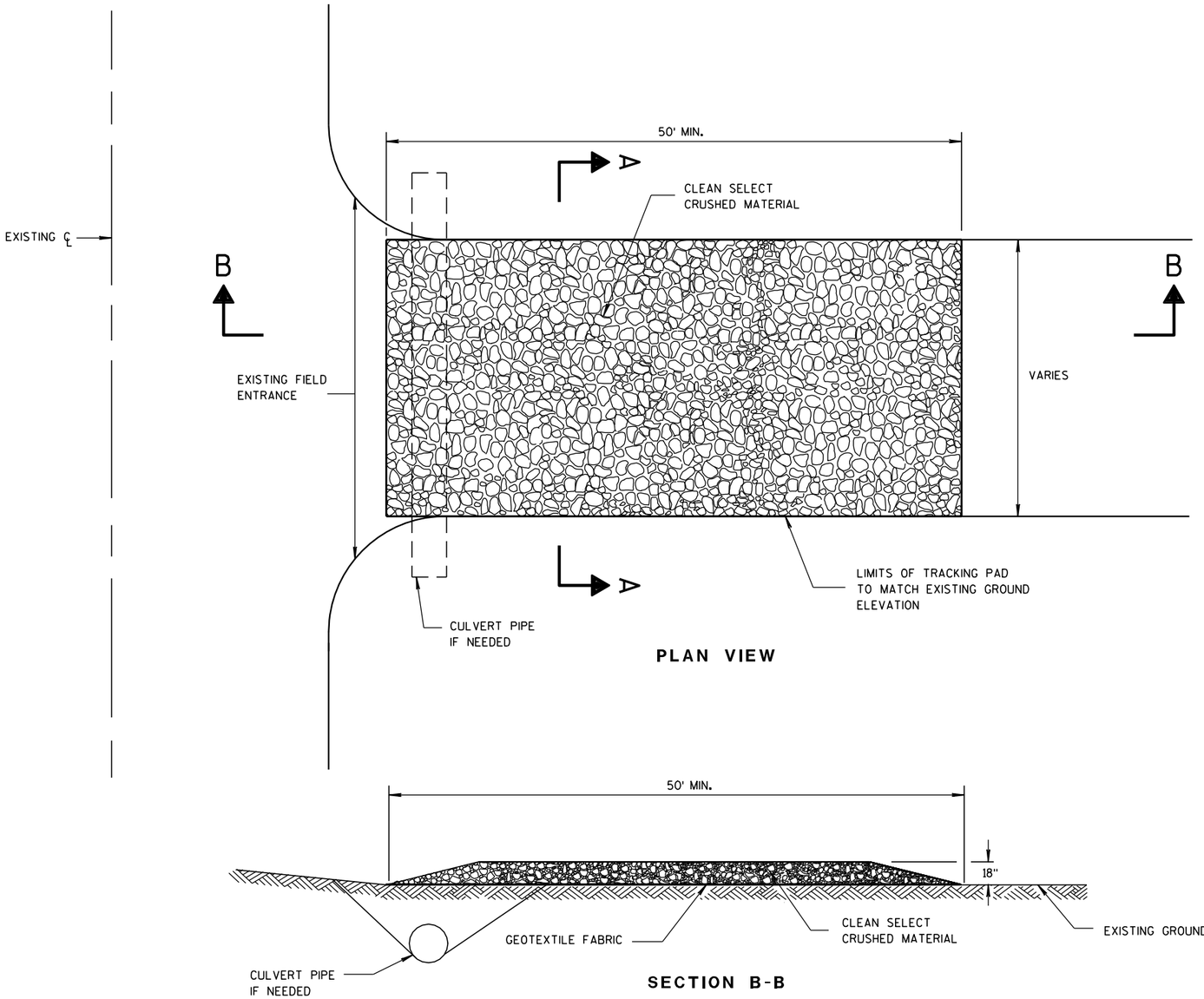
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

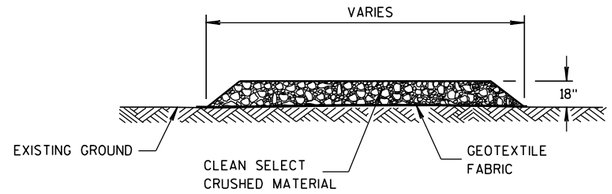
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER

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S.D.D. 8 E 14-1

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METAL APRON ENDWALLS

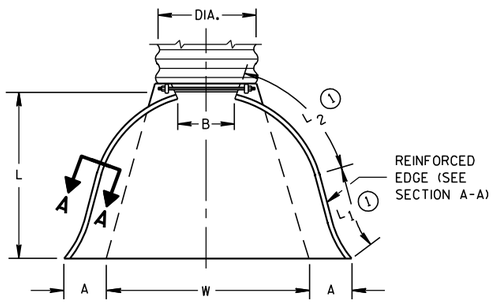
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

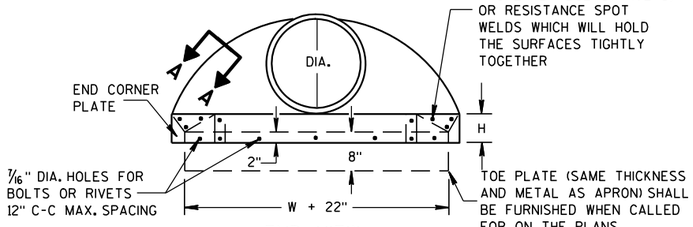
REINFORCED CONCRETE APRON ENDWALLS

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

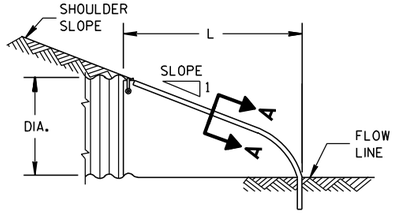
*MINIMUM
**MAXIMUM



PLAN VIEW

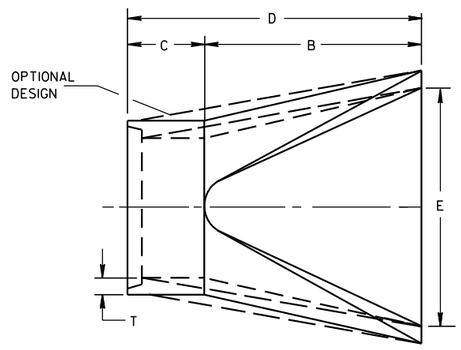


END VIEW

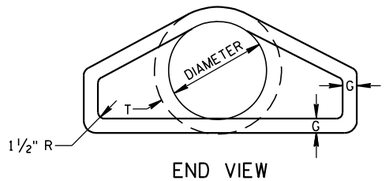


SIDE ELEVATION

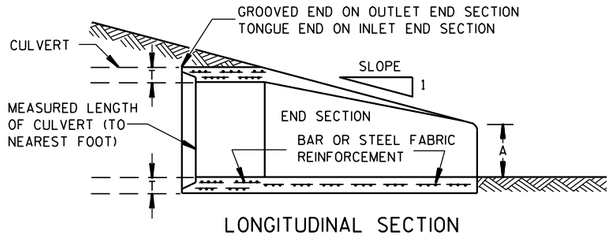
METAL ENDWALLS



PLAN

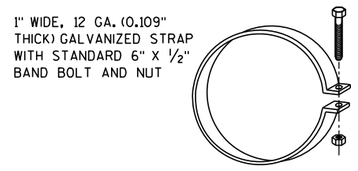


END VIEW



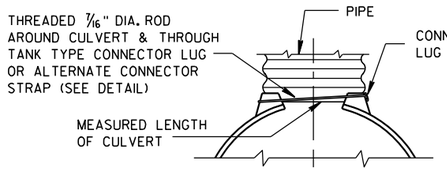
LONGITUDINAL SECTION

CONCRETE ENDWALLS

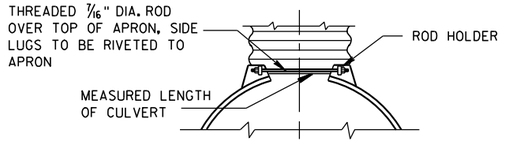


ALTERNATE FOR TYPE 1 CONNECTION

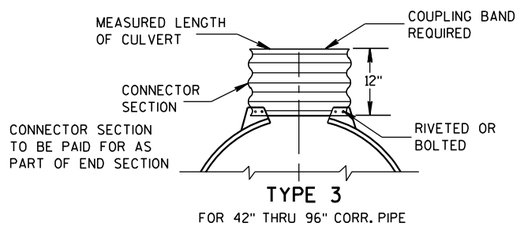
END SECTION CONNECTOR STRAP



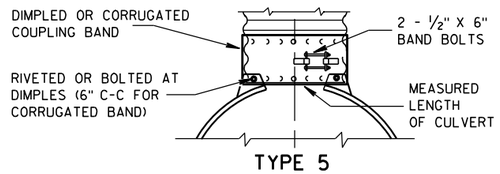
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

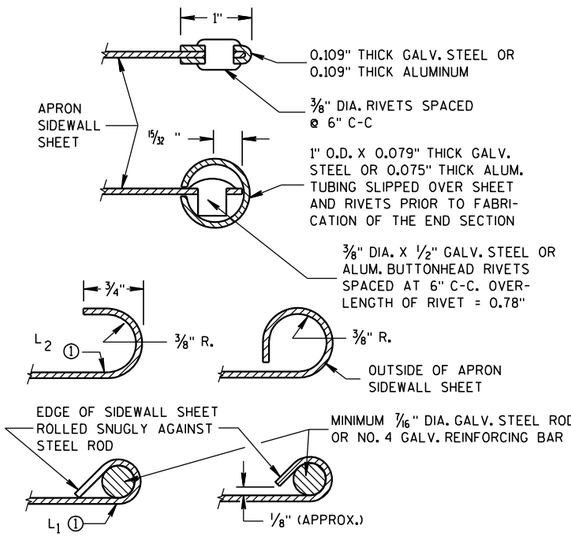
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

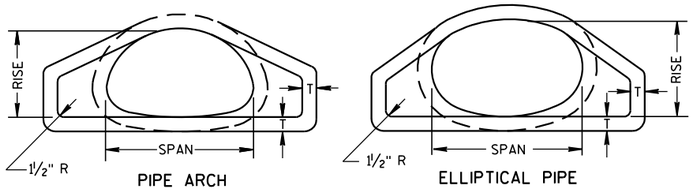
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

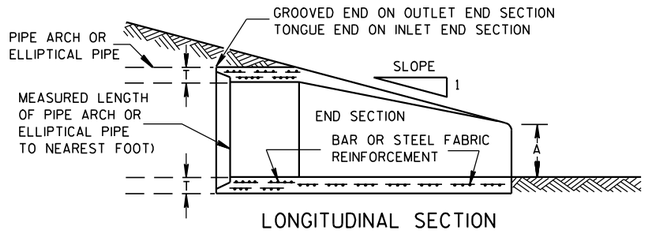
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

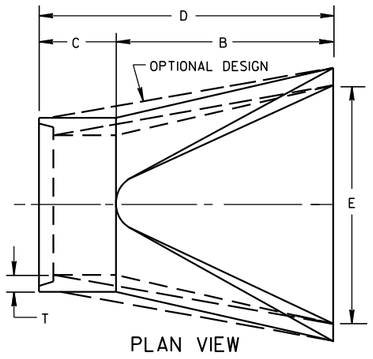
6
S.D.D. 8 F 1-11



END VIEW

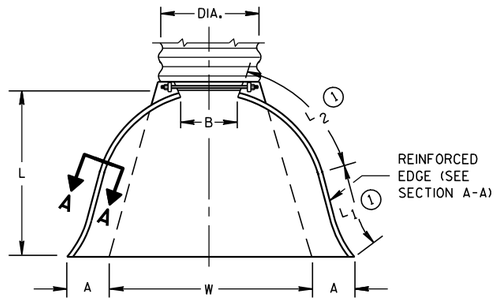


LONGITUDINAL SECTION

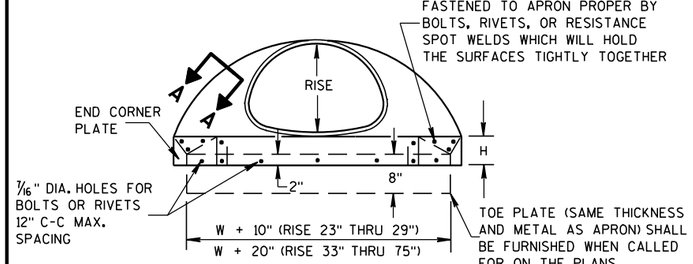


PLAN VIEW

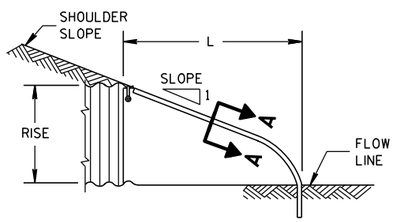
CONCRETE ENDWALLS



PLAN VIEW

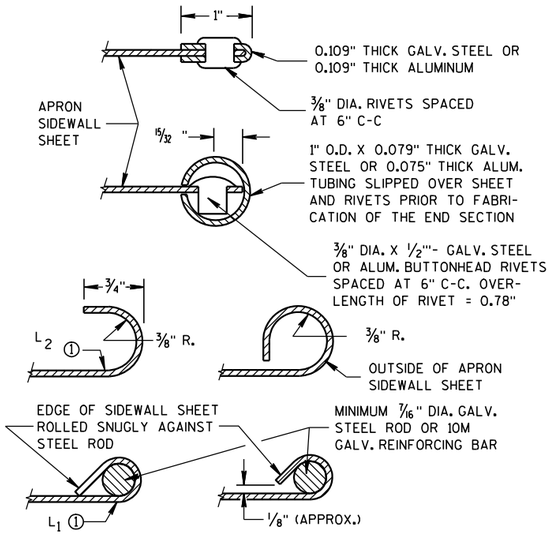


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

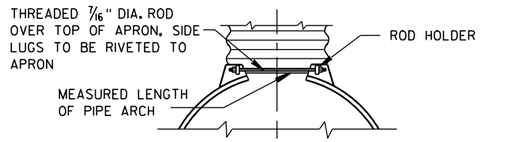
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

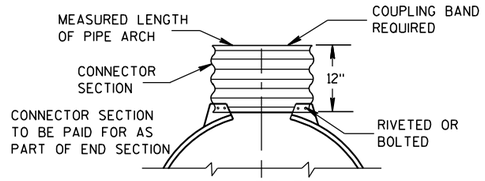
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



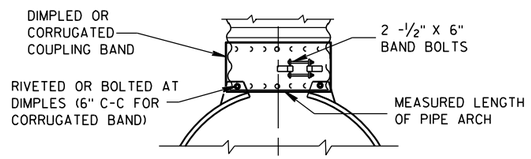
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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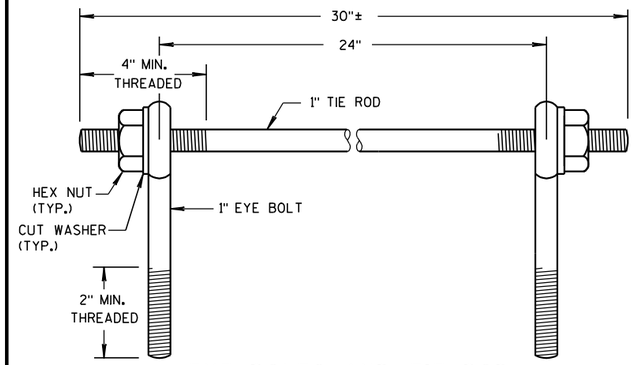
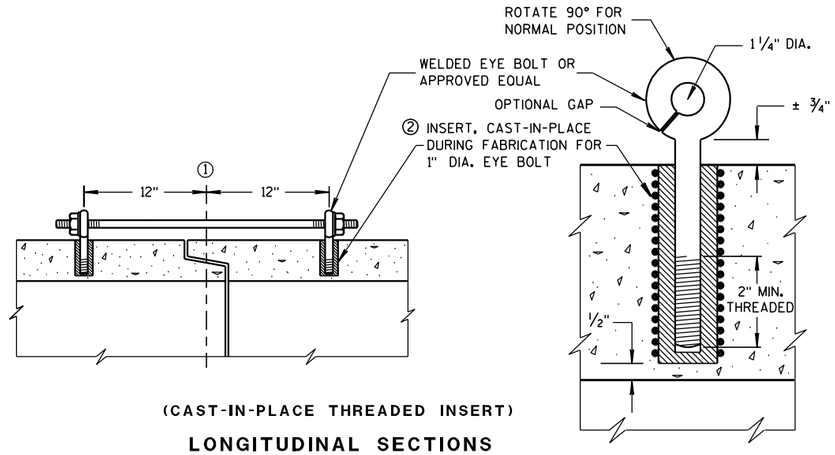
S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

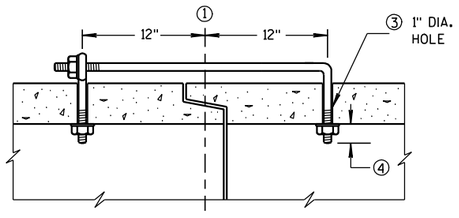
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

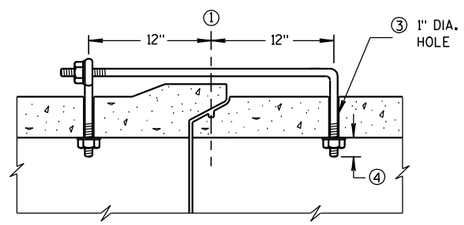
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

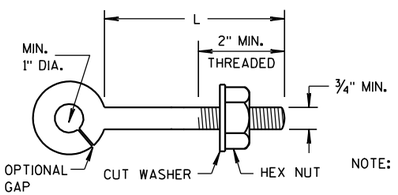


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

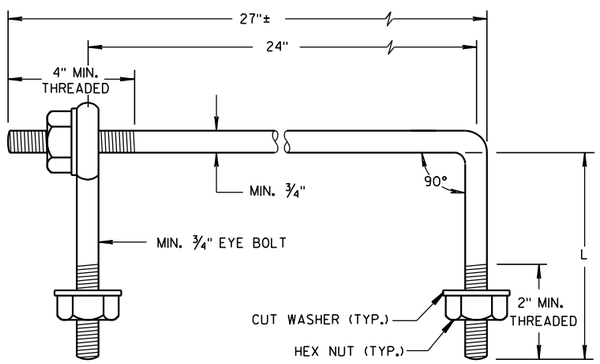
EYE BOLT DIMENSION TABLE

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



EYE BOLT

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



EYE BOLT AND TIE ROD

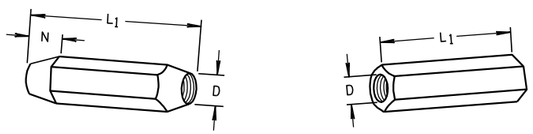
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

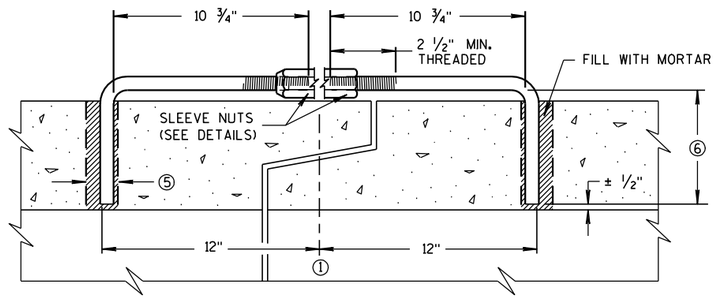
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

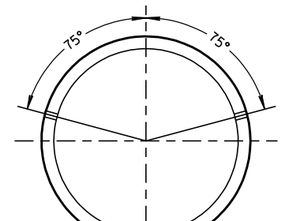
SLEEVE NUTS



LONGITUDINAL SECTION

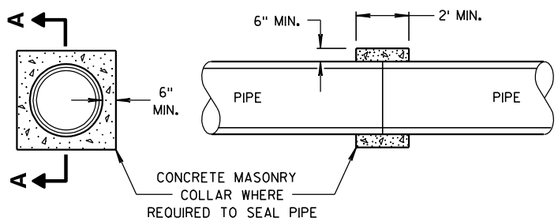
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

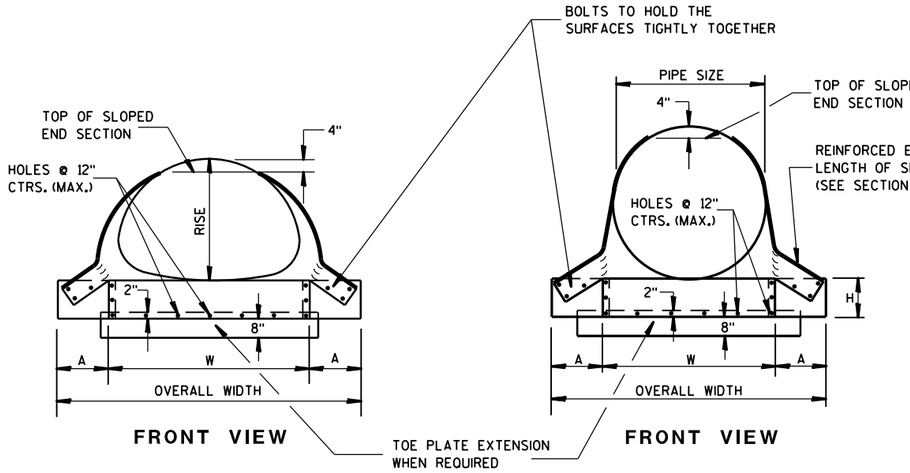
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

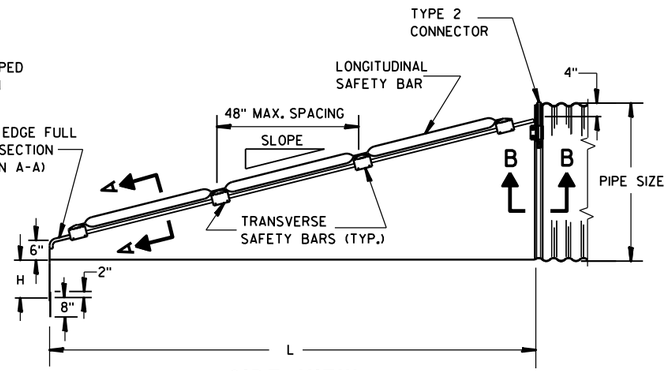
6

S.D.D. 8 F 4-7



FRONT VIEW

FRONT VIEW



SIDE VIEW
(48" SIZE ILLUSTRATED)

GENERAL NOTES

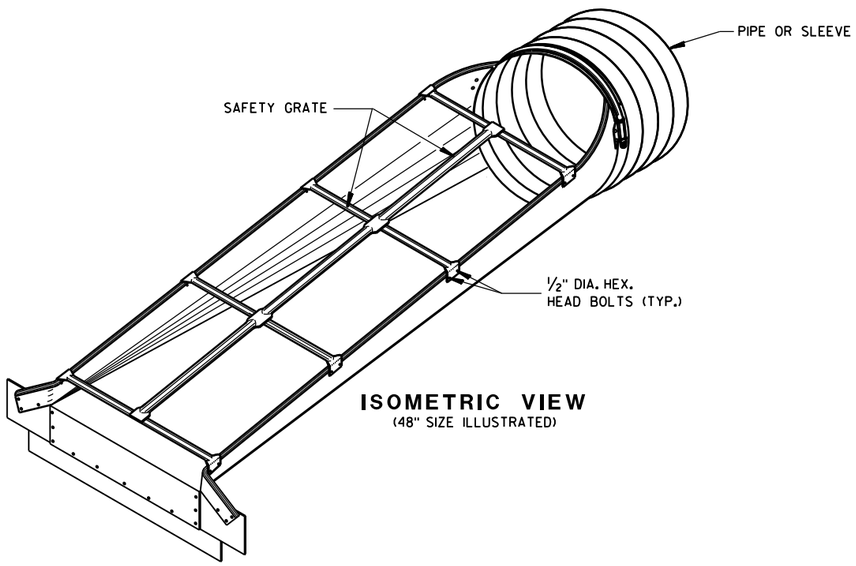
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

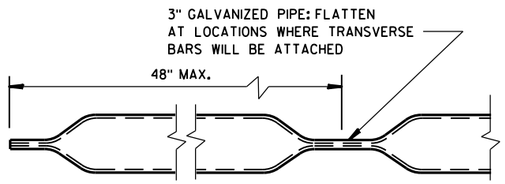
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS

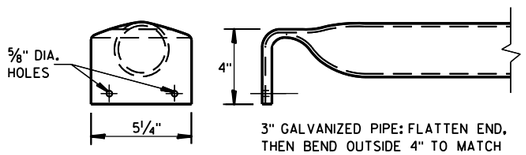
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300



ISOMETRIC VIEW
(48" SIZE ILLUSTRATED)



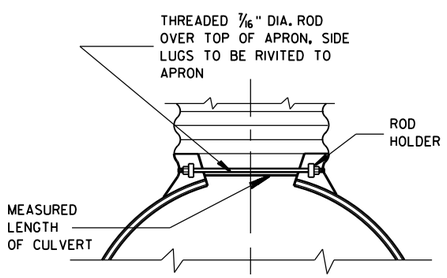
LONGITUDINAL SAFETY BAR



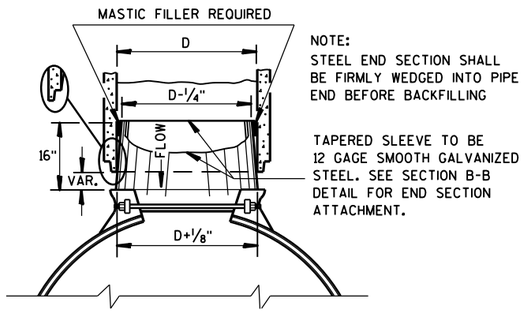
TRANSVERSE SAFETY BAR

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

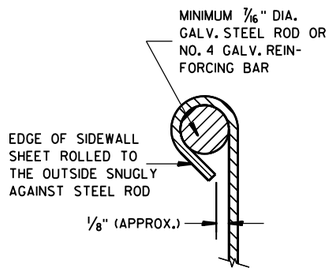
EQUIV. DIA. (IN.)	INCHES		MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	SPAN	RISE	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



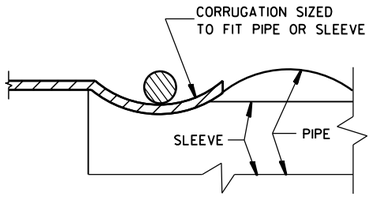
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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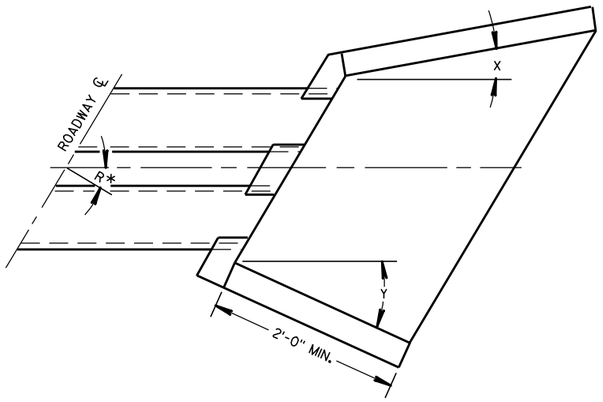


WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

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.

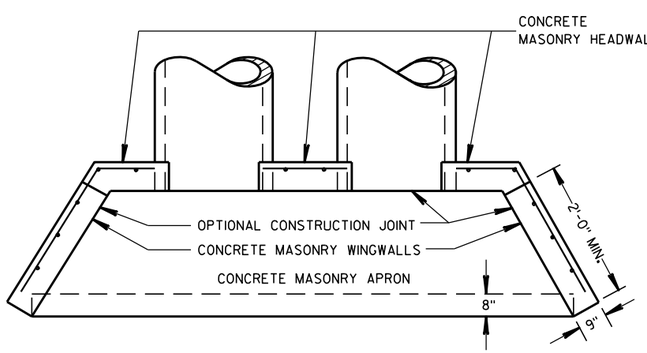
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

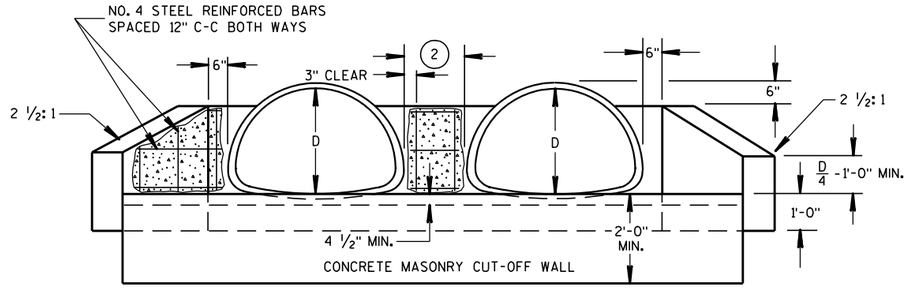
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



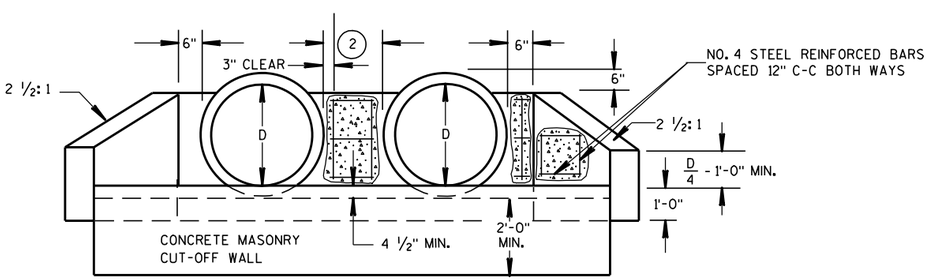
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



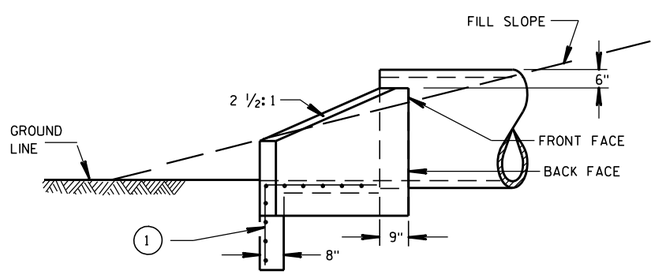
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/98 DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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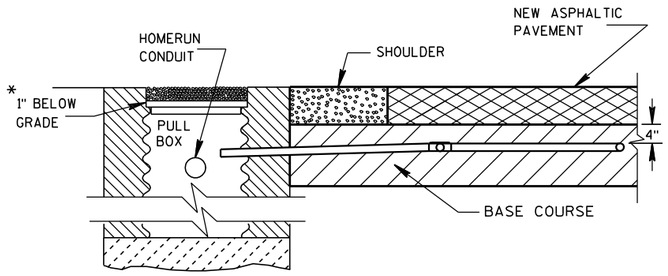
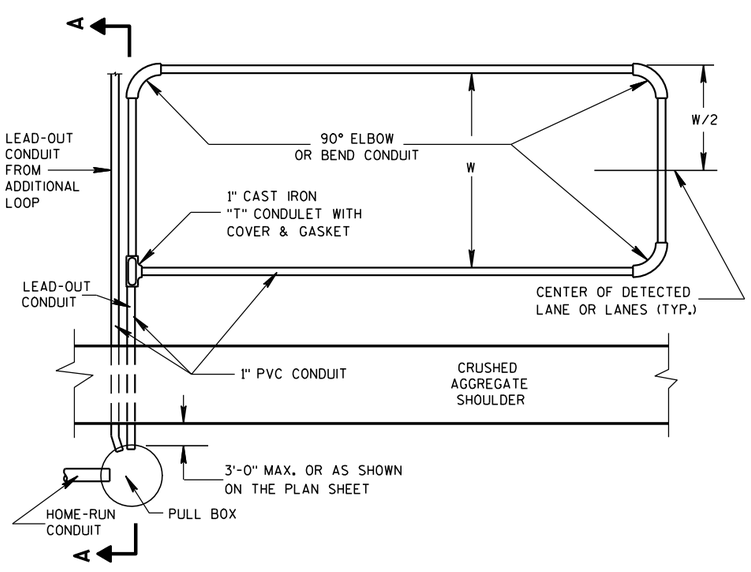


SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

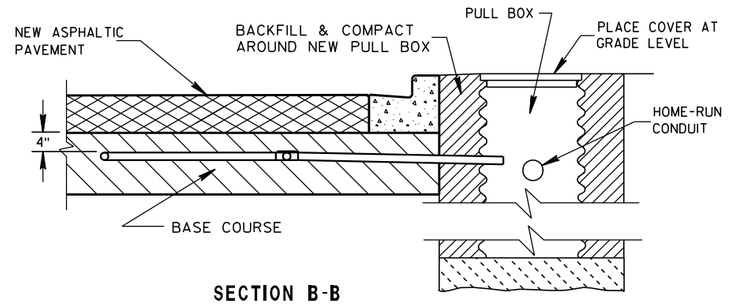
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

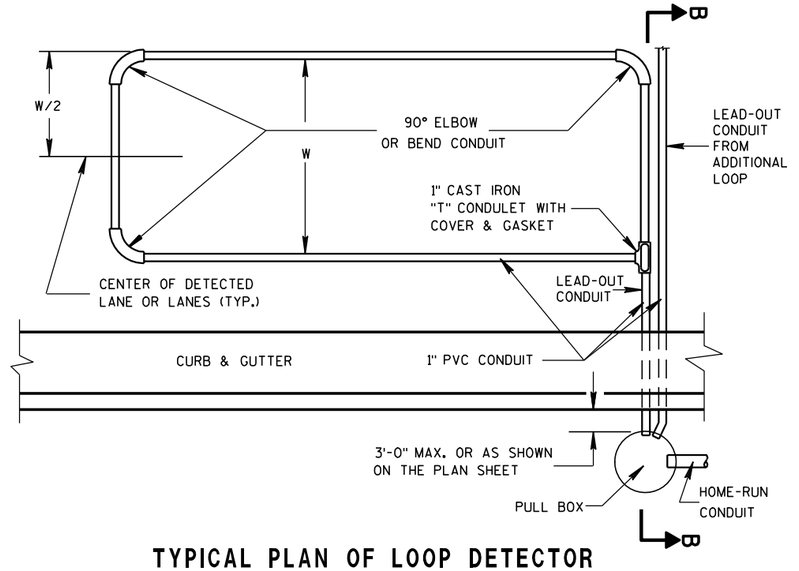
SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

DRIVE A 1½" MAX. PK NAIL INTO THE NEW ASPHALTIC PAVEMENT AND DIRECTLY ABOVE THE CONDULET AFTER THE FINAL LAYER OF NEW ASPHALTIC PAVEMENT IS COMPLETELY INSTALLED, IF REQUIRED BY THE DISTRICT TRAFFIC SECTION.



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/7/06 — DATE

/S/ Balu Ananthar[illegible]an — STATE ELECTRICAL ENGI

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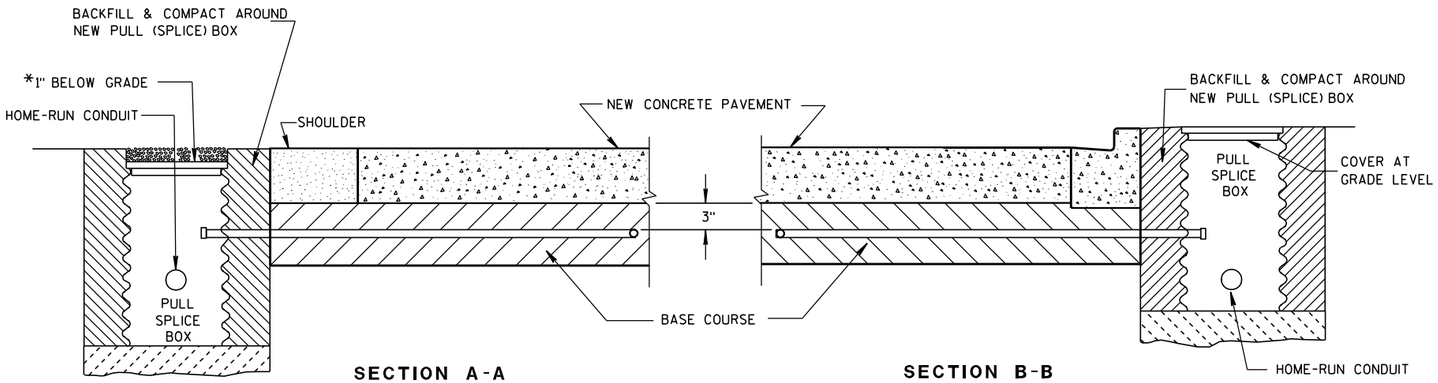


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

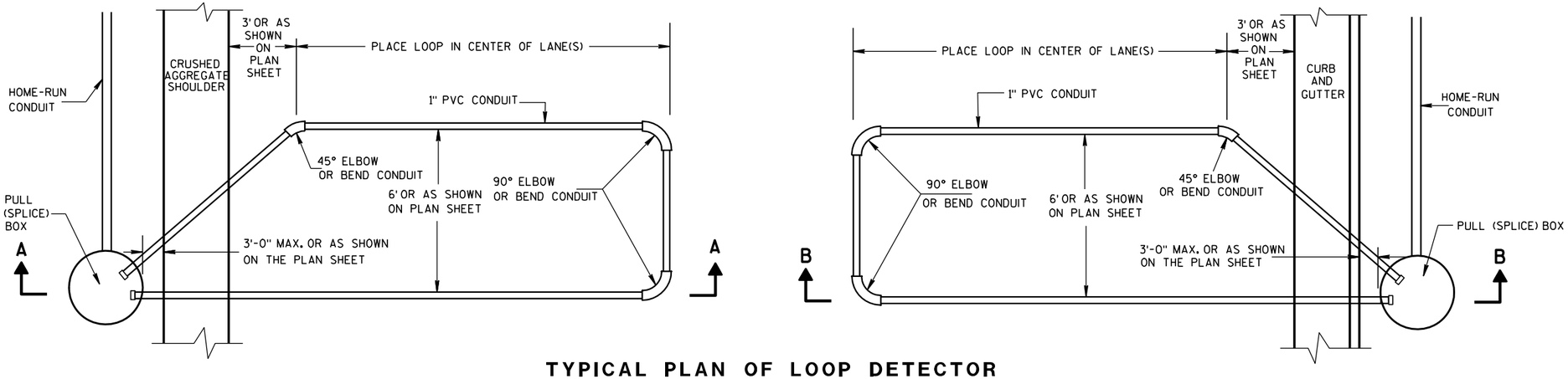
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/7/06 — DATE
/S/ Balu Aganthanarayanan — STATE ELECTRICAL ENGI — HWYS
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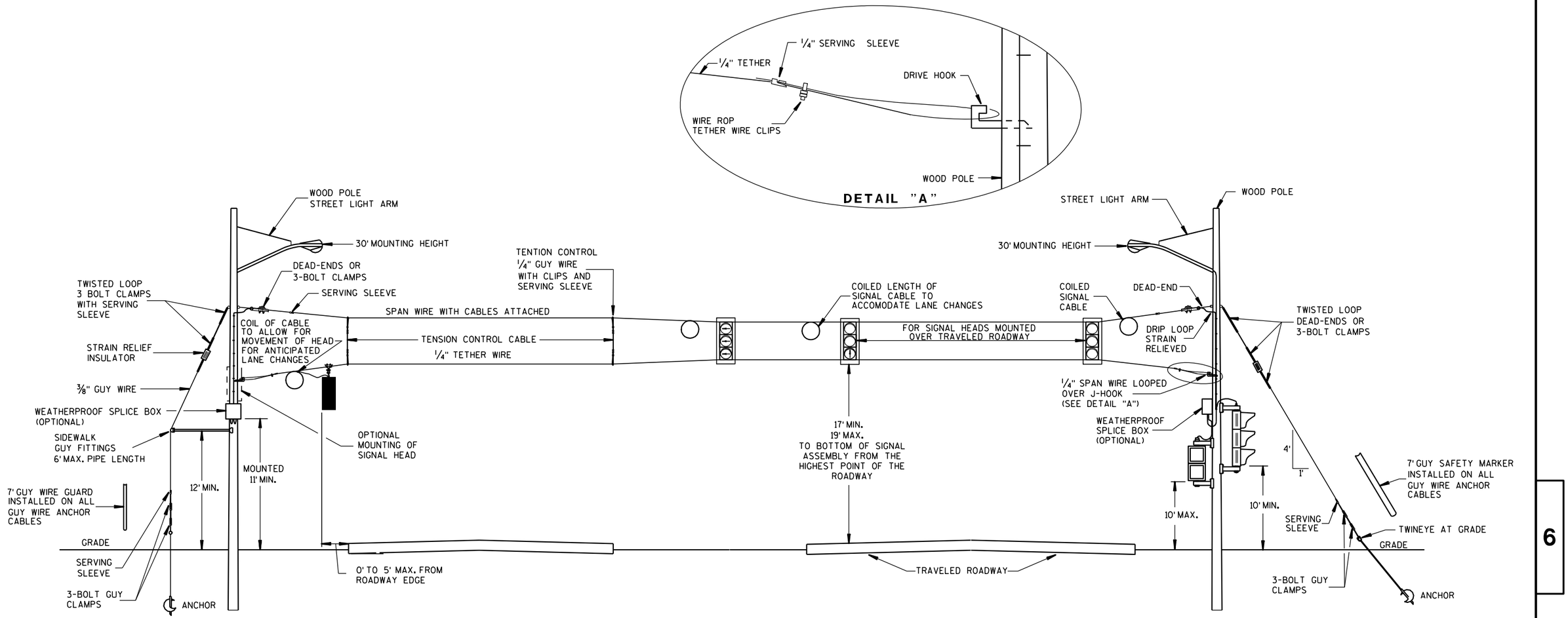

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

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

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE — /S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI 195 HWYS

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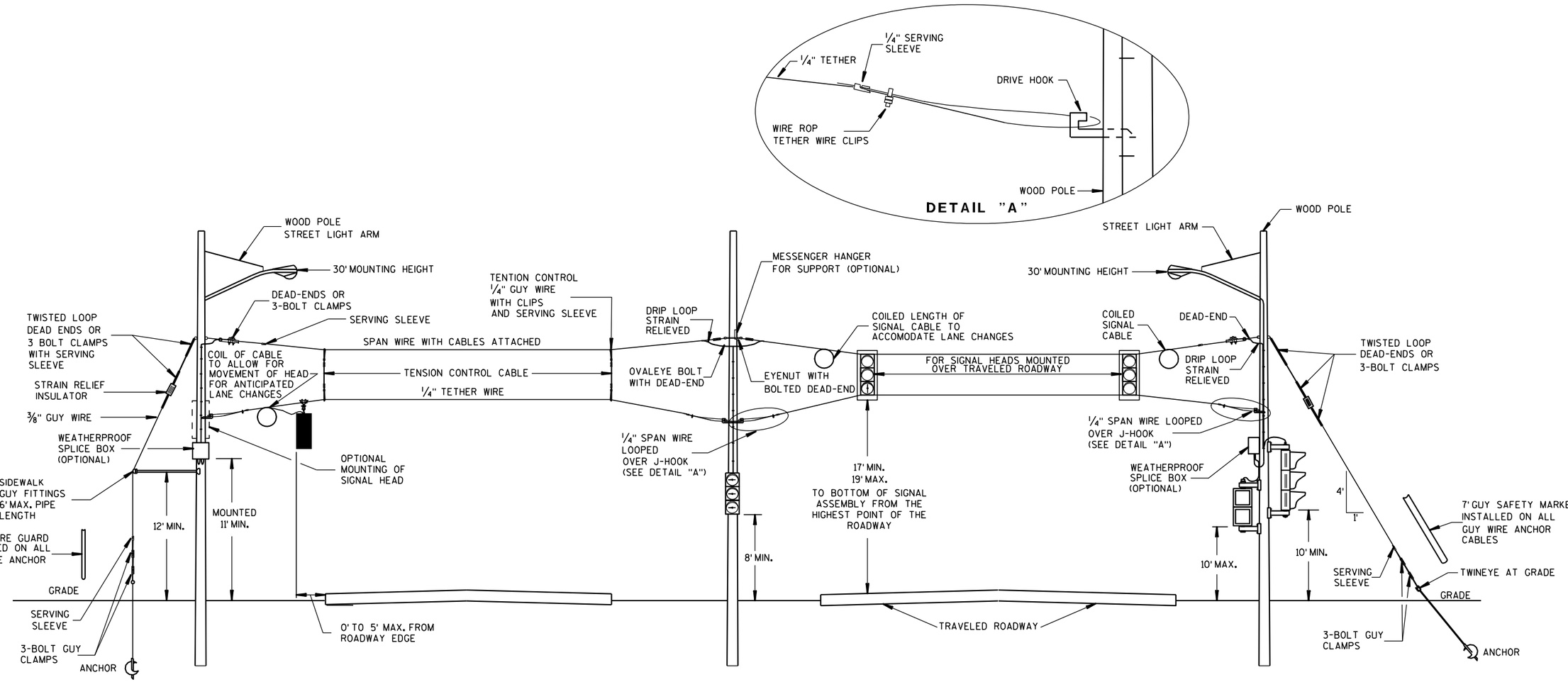

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

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

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI

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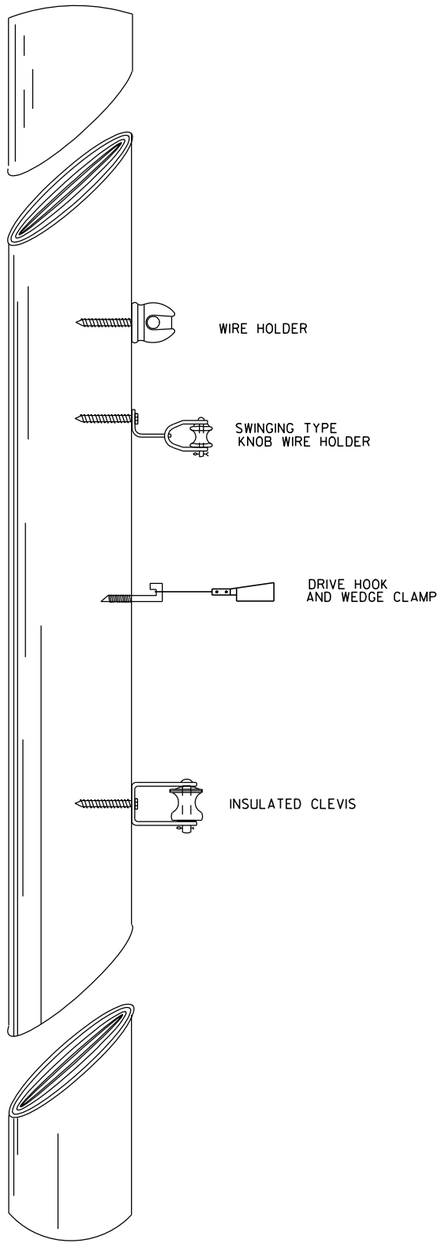
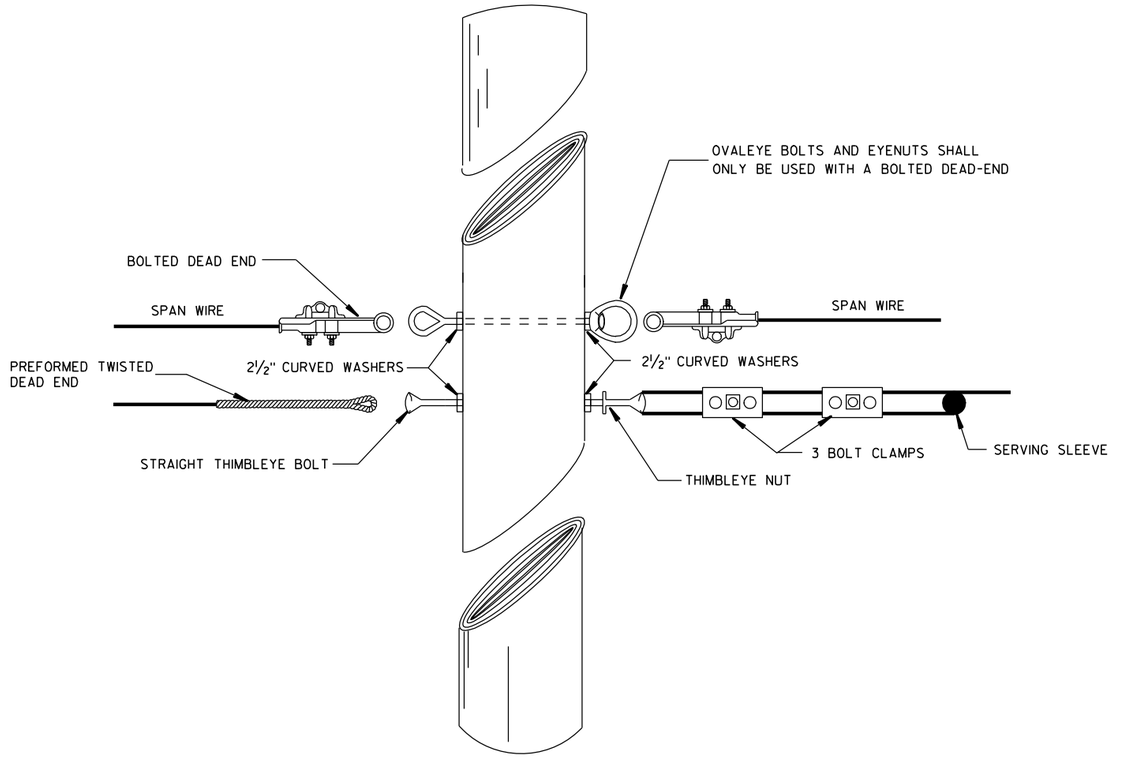


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

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SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08
DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI
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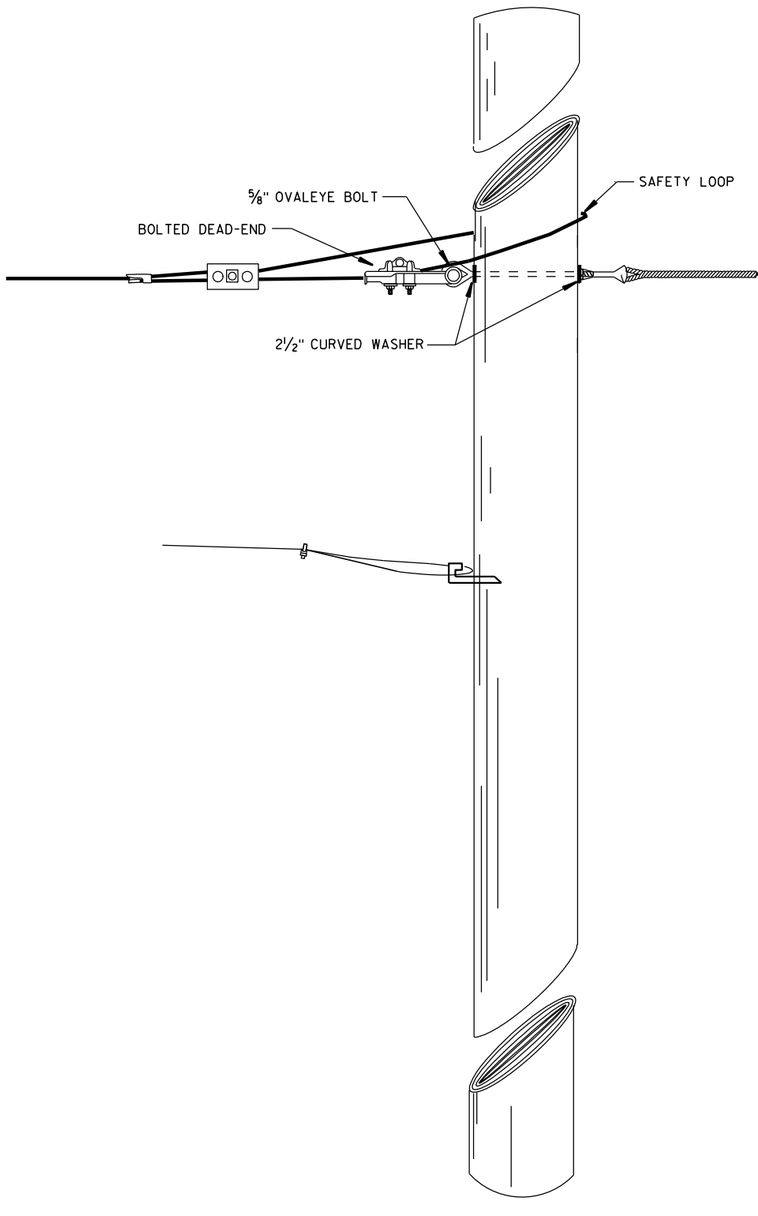
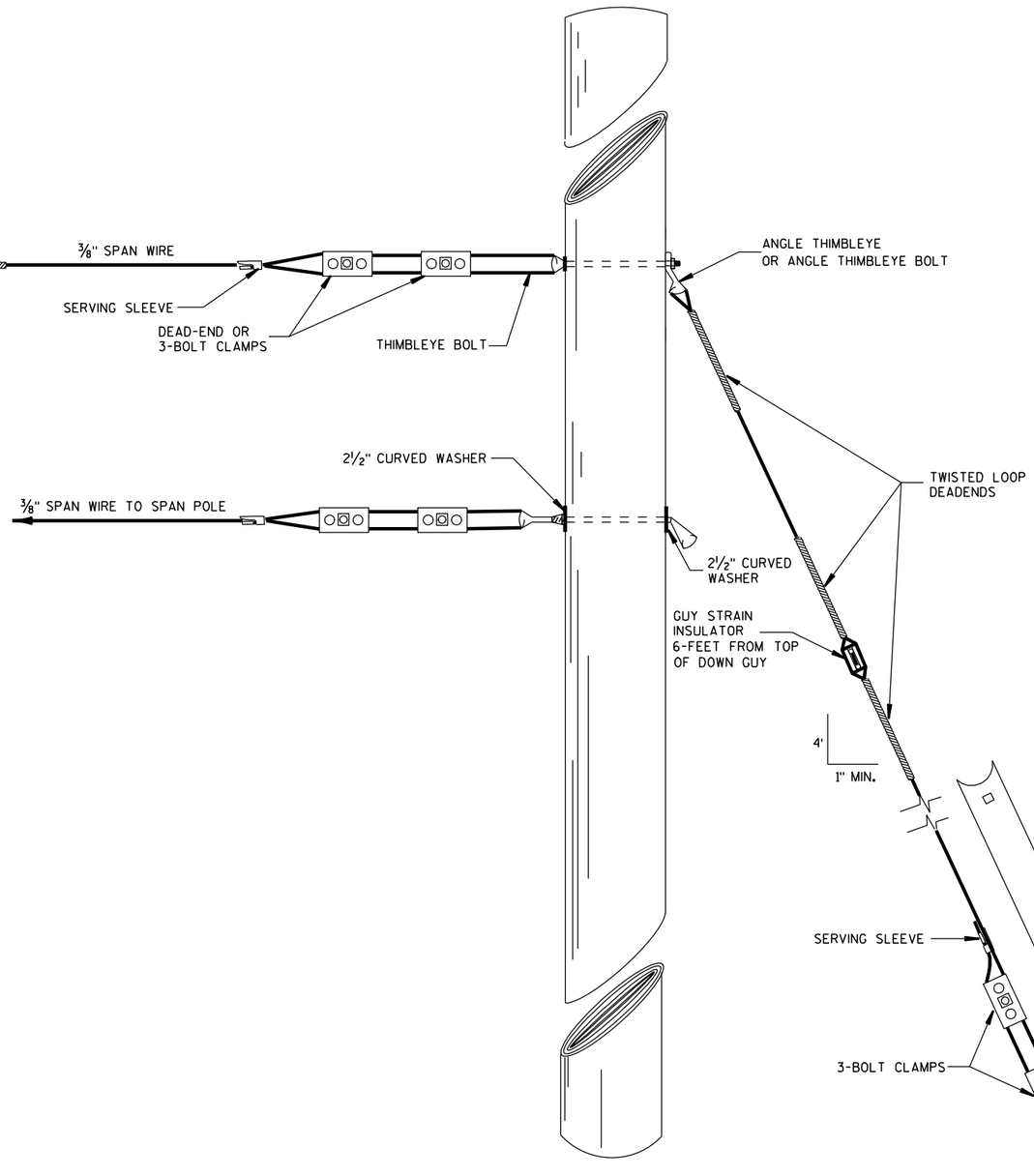
GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI 198 HWYS
FHWA

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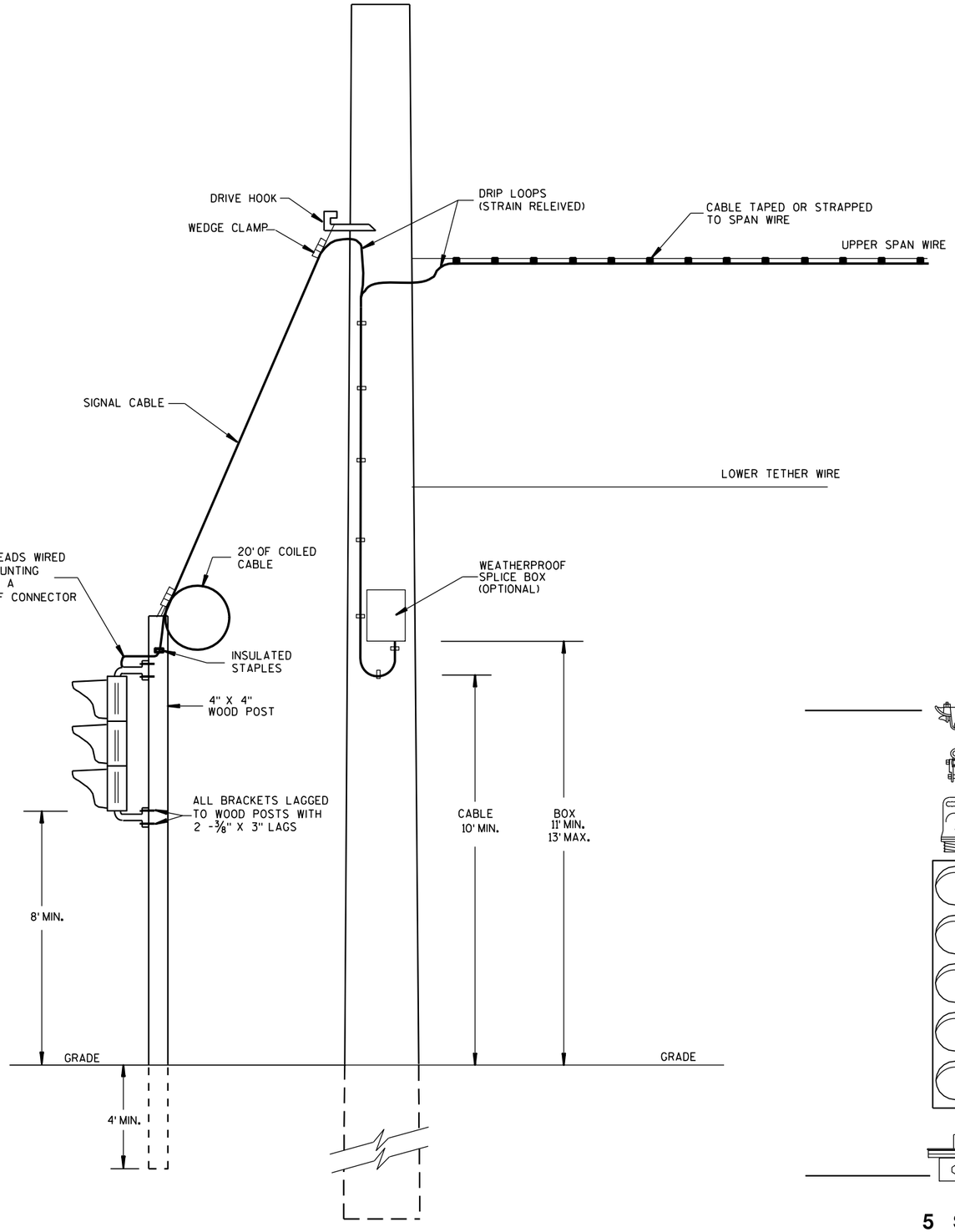
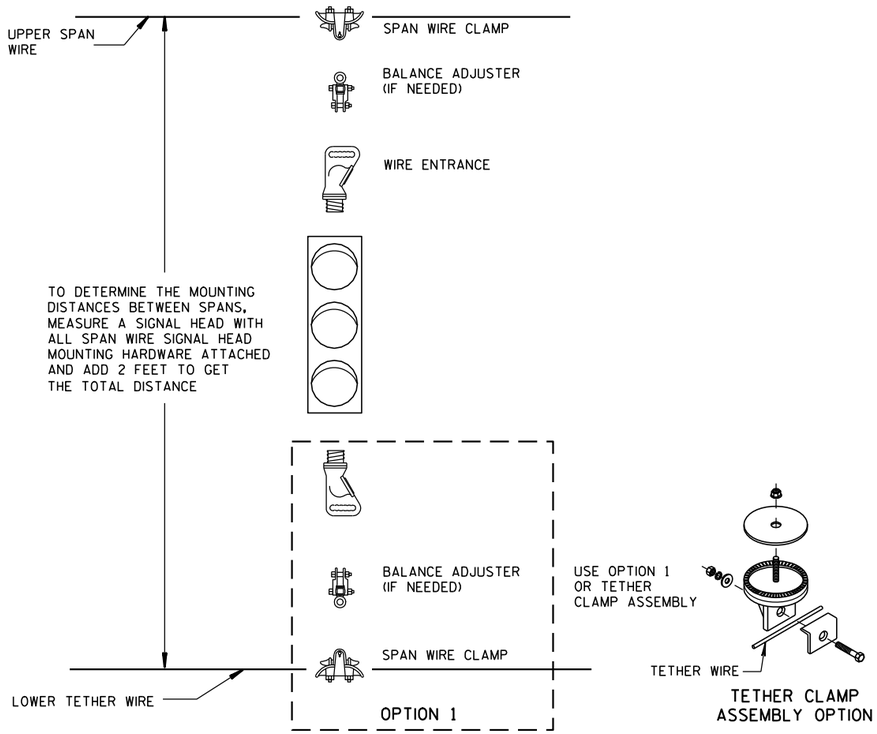
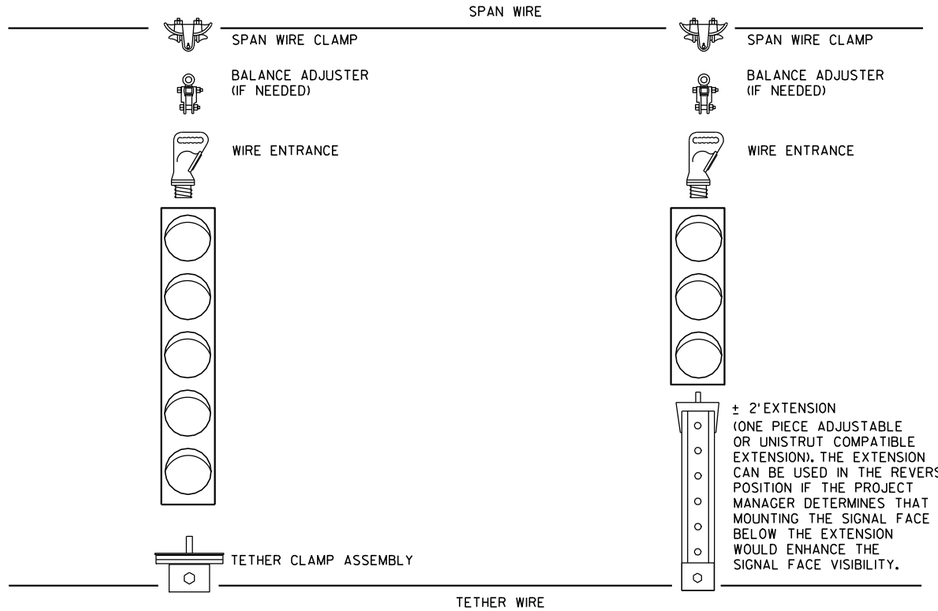


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Aganthangarayanan
STATE ELECTRICAL ENGI
FHWA

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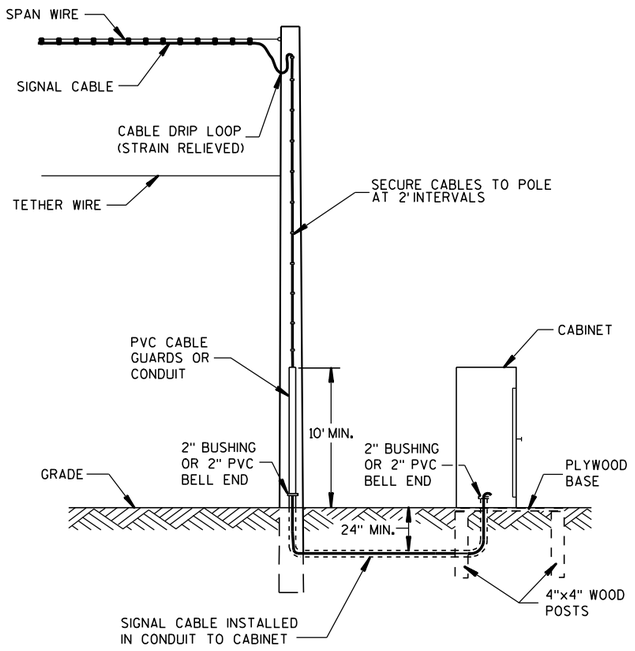
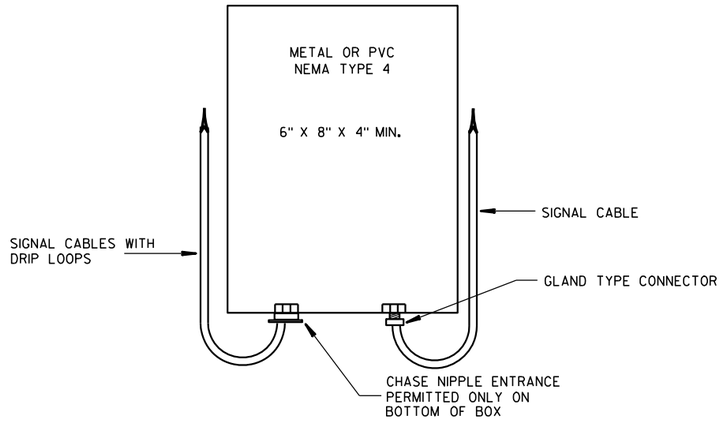
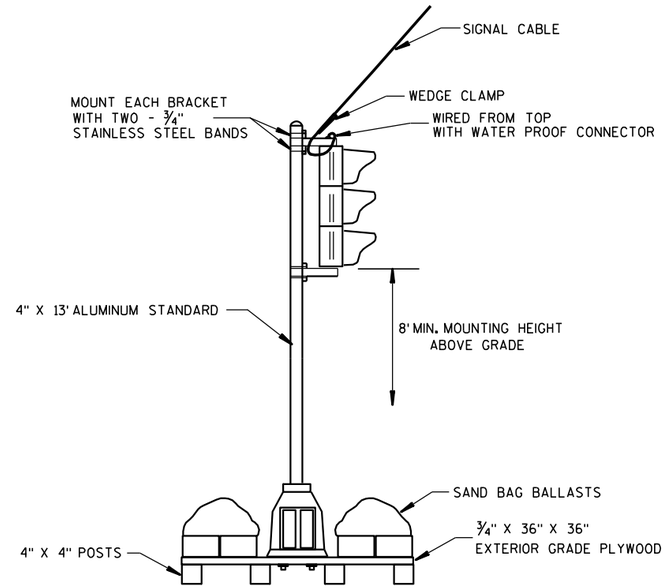
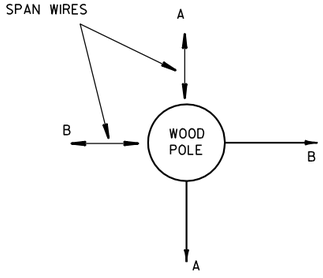




SPLICE BOX

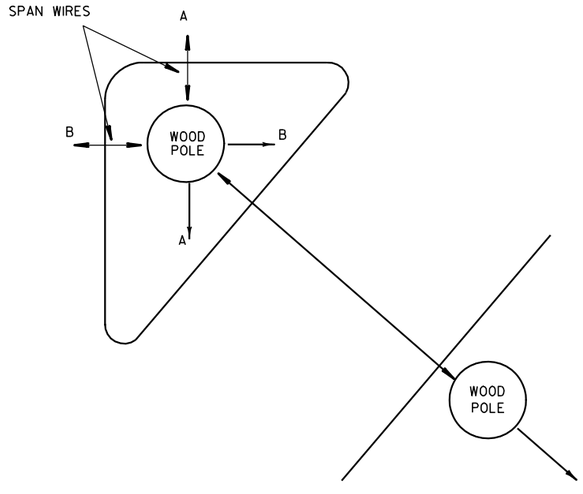


TYPICAL SKID TYPE TEMPORARY

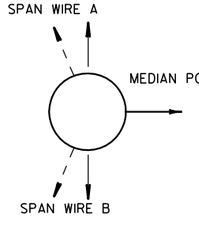


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
DATE

/S/ Balu Aganthangayagan
STATE ELECTRICAL ENGI

200

HWYS

FHWA

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S.D.D. 9 G 1-3g

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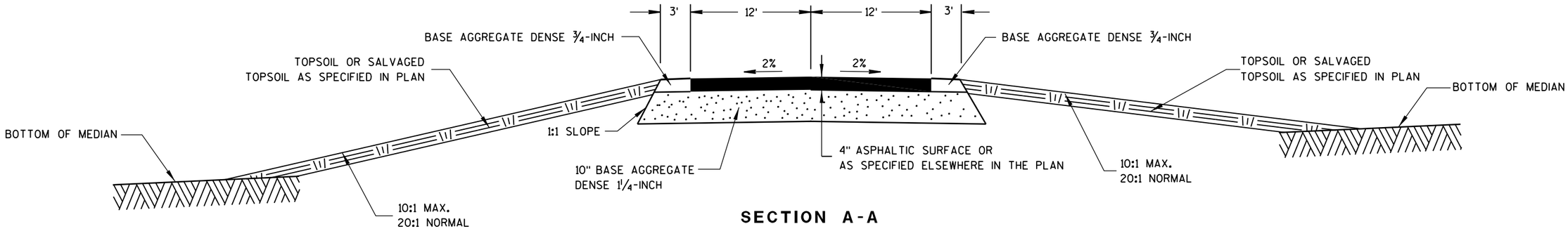
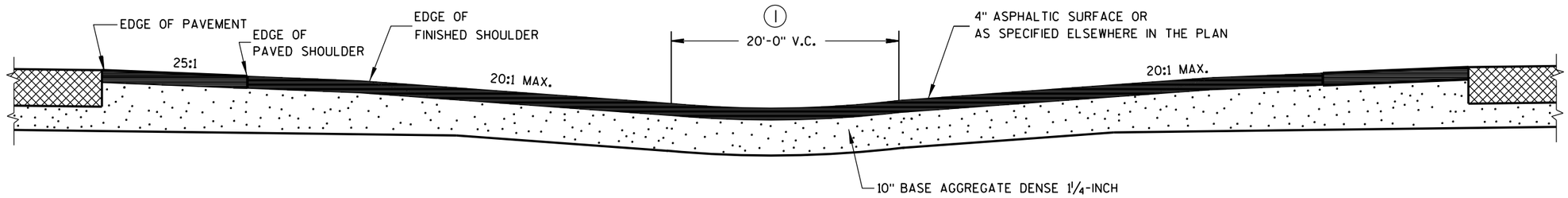
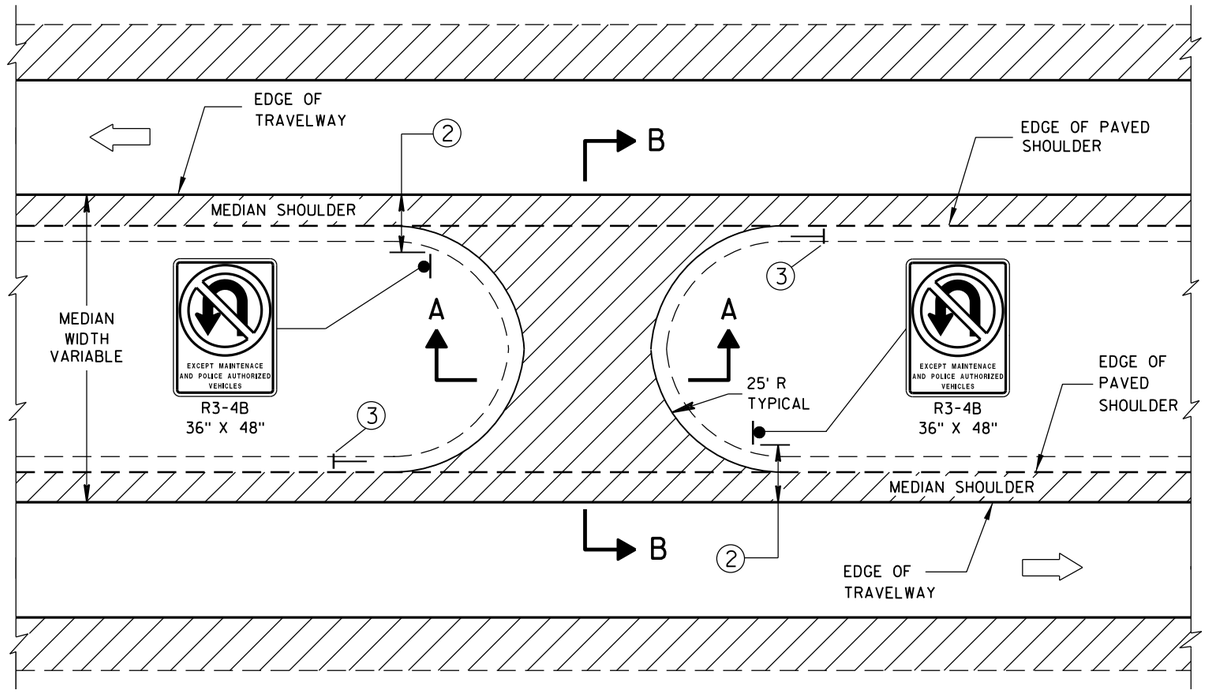
S.D.D. 9 G 1-3g



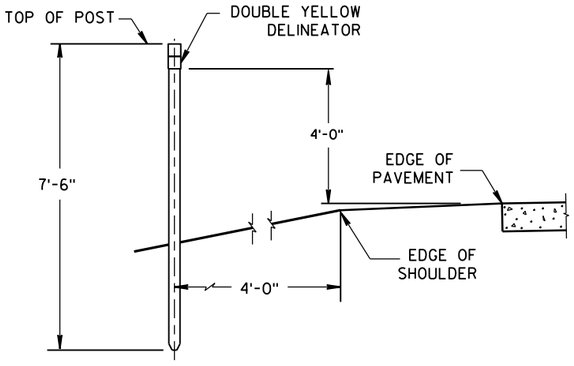
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

GENERAL NOTES

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

(1) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

(3) INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

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

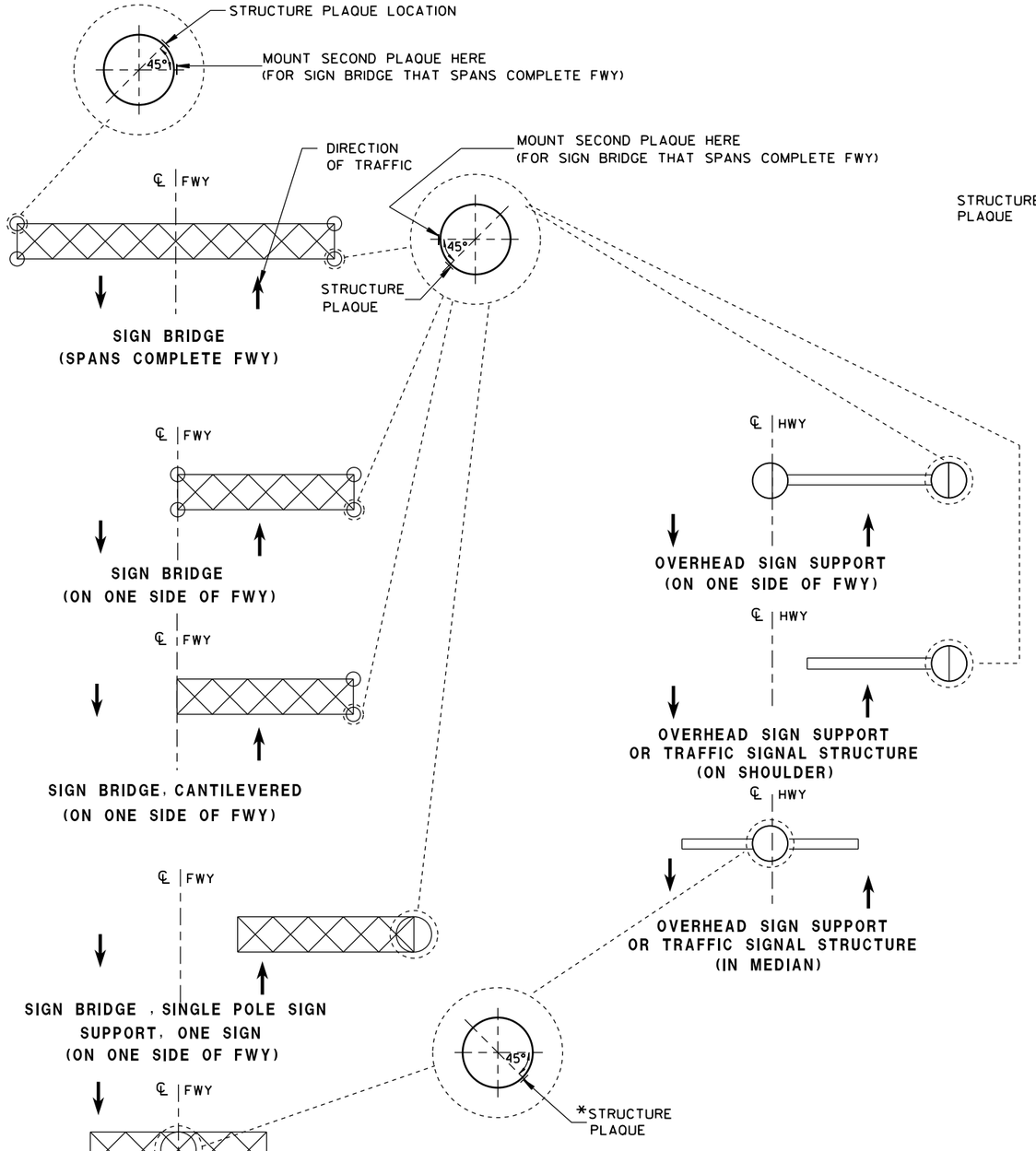
FHWA

6

S.D.D. 11 A 1-5

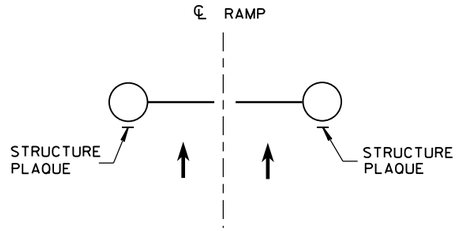
6

S.D.D. 11 A 1-5

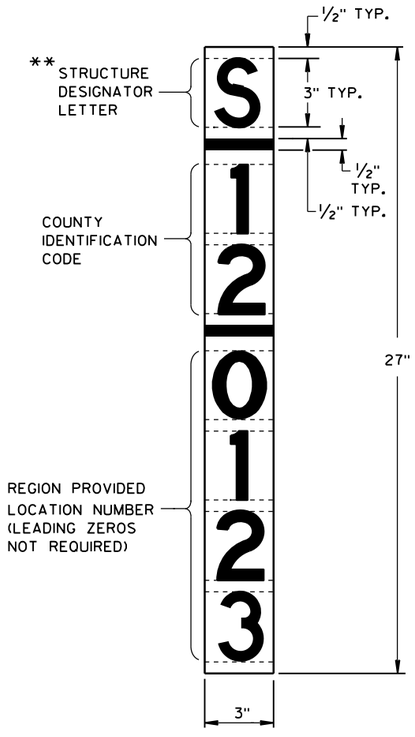


LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES

*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

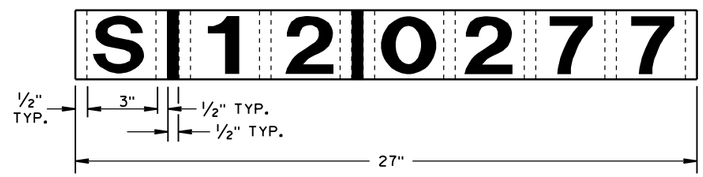
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 12 A 4-3

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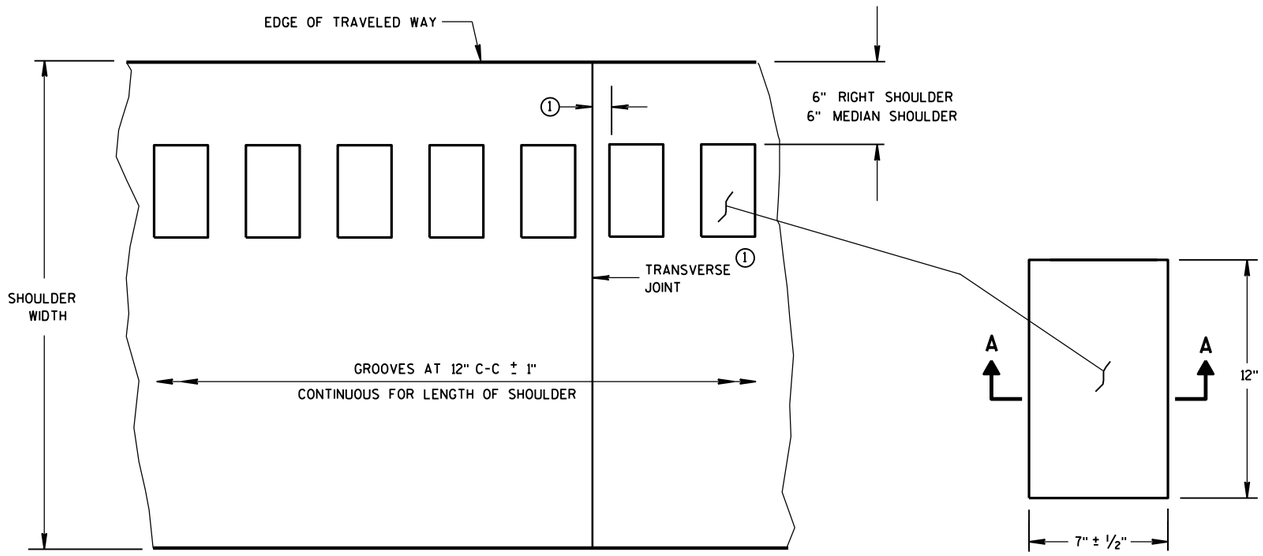
S.D.D. 12 A 4-3



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

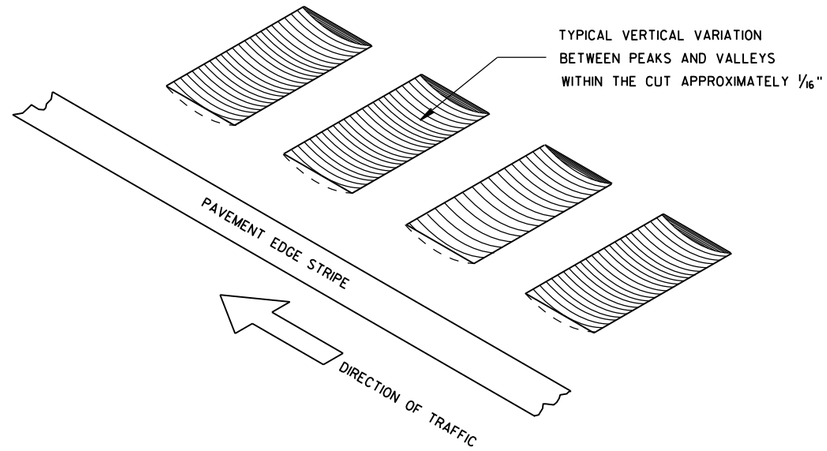
GENERAL NOTES

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

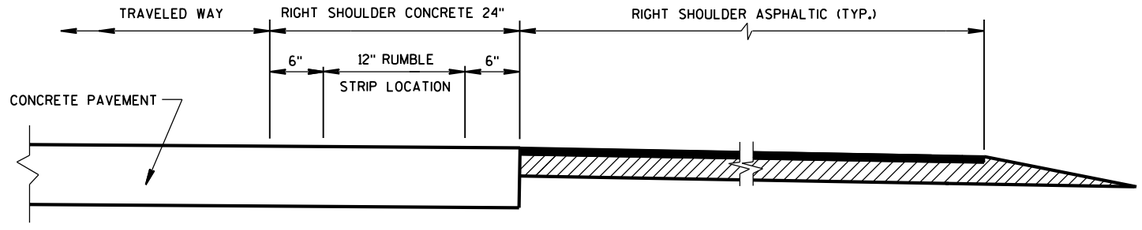
RUMBLE STRIPS ON EXPRESSWAYS

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.

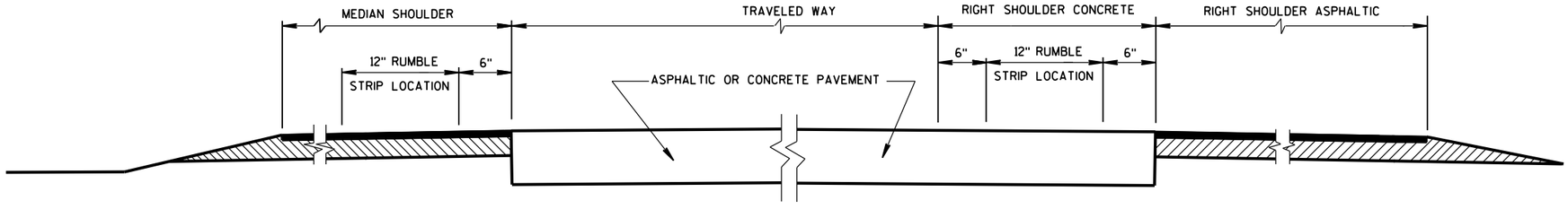
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



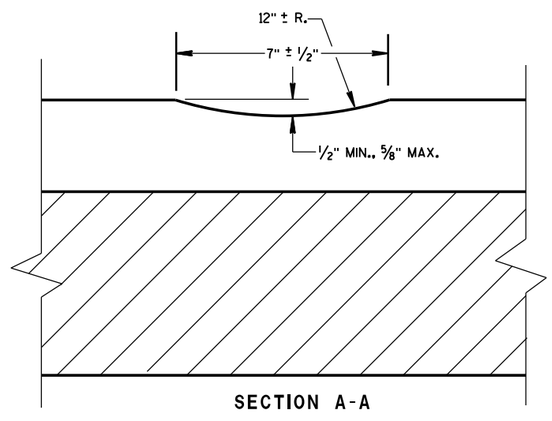
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



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 TRANSPOI

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S.D.D. 13 A 5-5a

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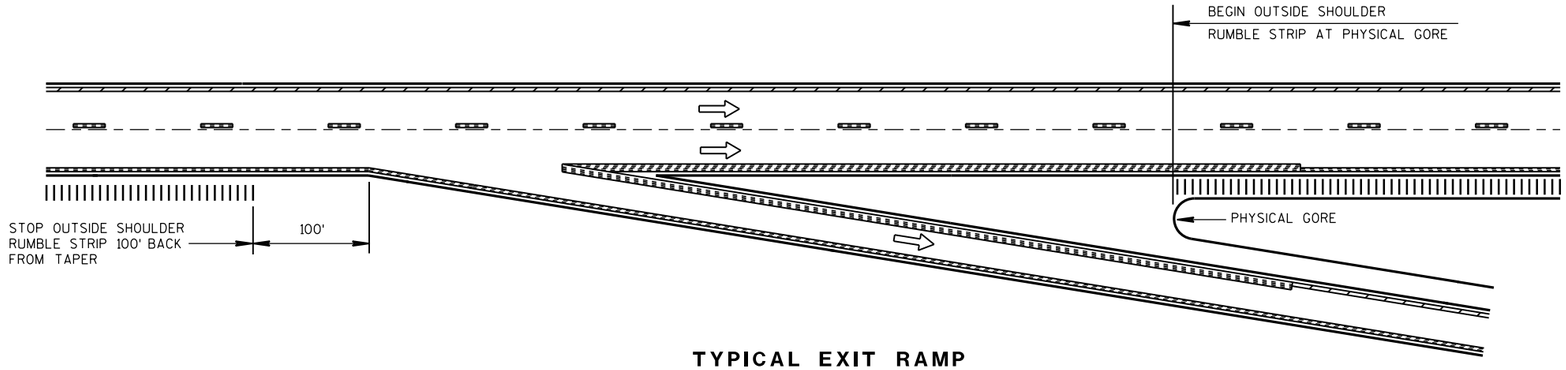
S.D.D. 13 A 5-5a



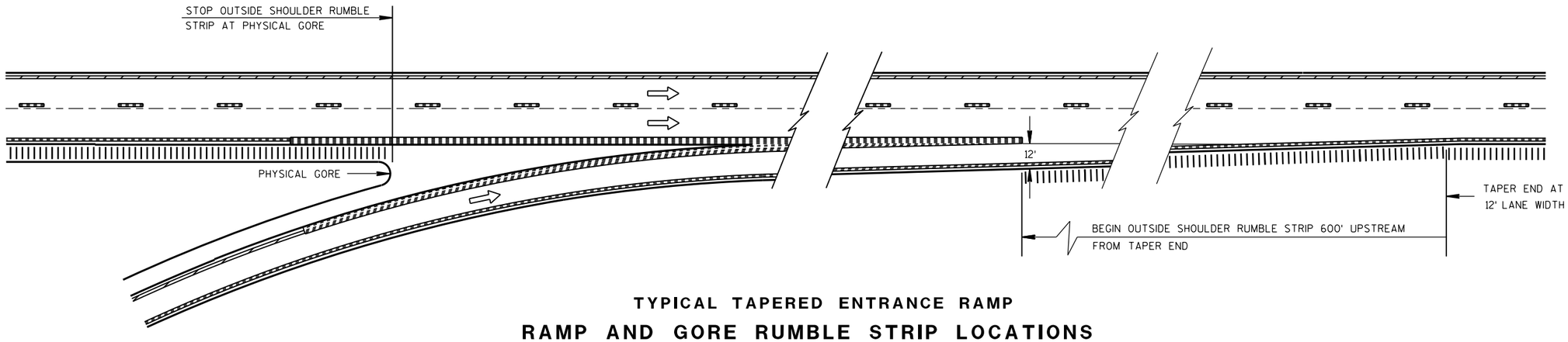
TYPICAL EXIT RAMP

NOTES:

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

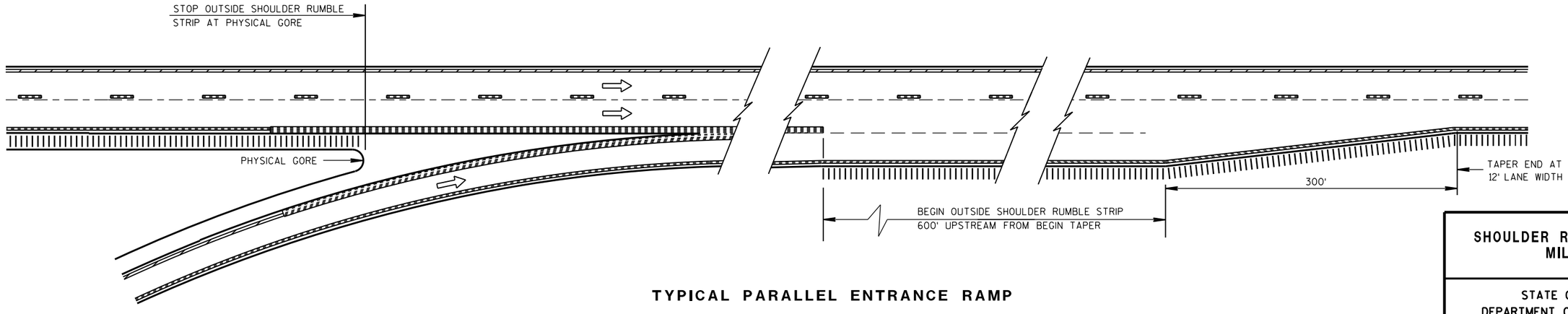
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

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

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

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S.D.D. 13 A 5-5b

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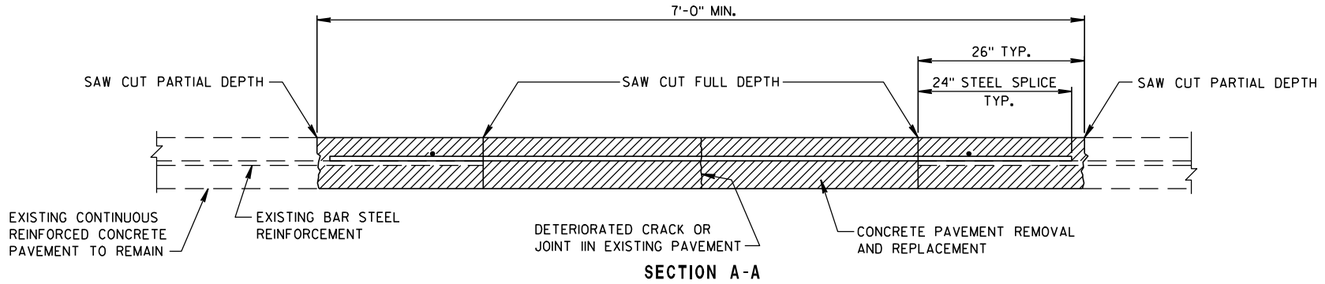
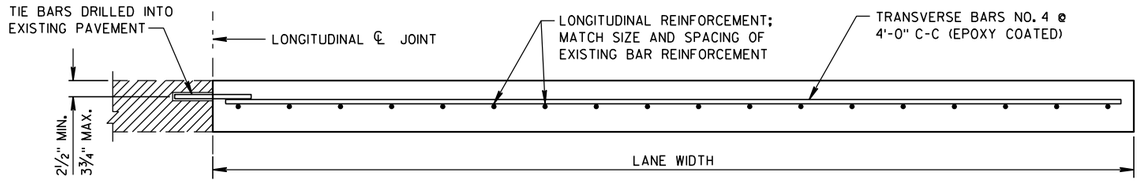
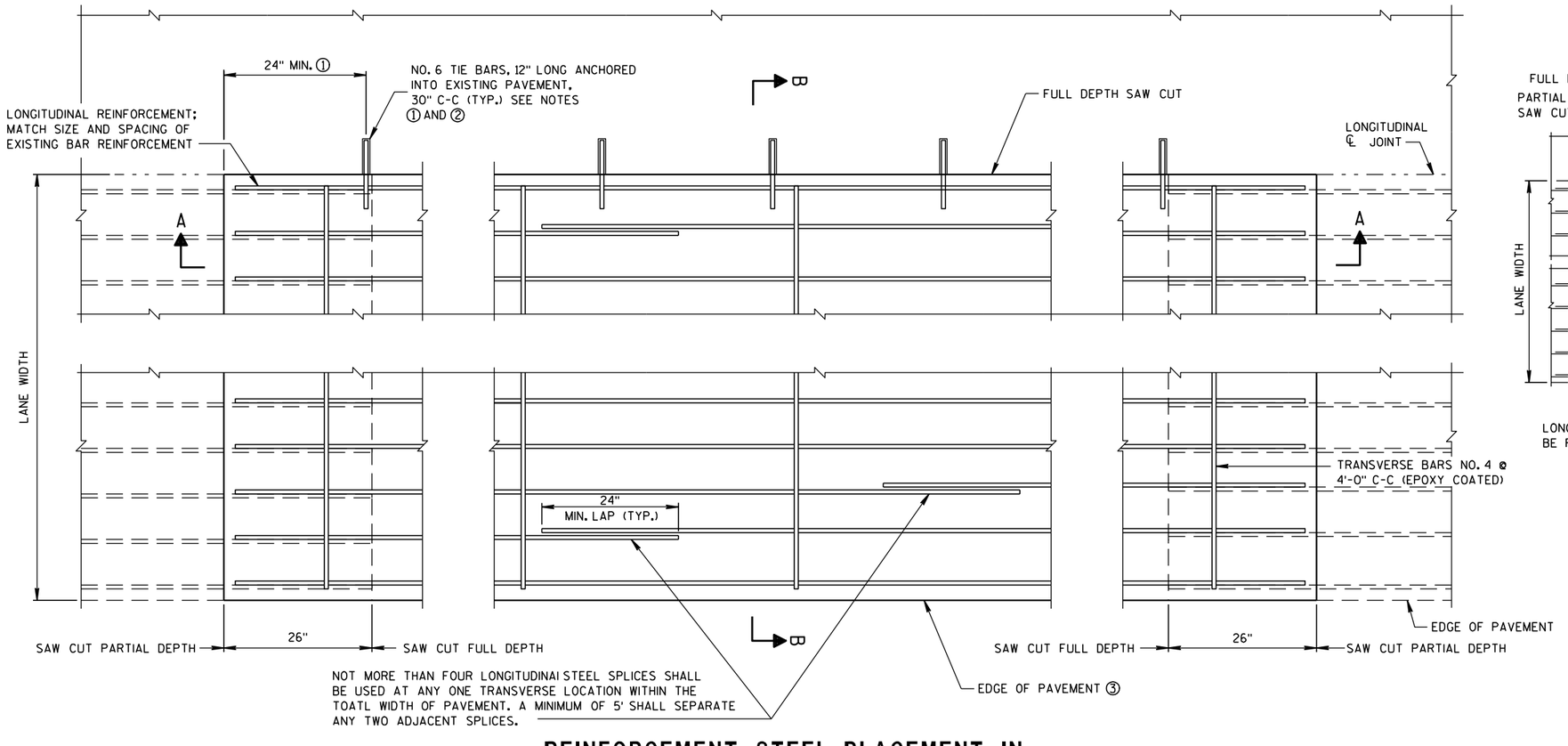
S.D.D. 13 A 5-5b



SECTION A-A



SECTION B-B



NOT MORE THAN FOUR LONGITUDINAI STEEL SPLICES SHALL BE USED AT ANY ONE TRANSVERSE LOCATION WITHIN THE TOATL WIDTH OF PAVEMENT. A MINIMUM OF 5' SHALL SEPARATE ANY TWO ADJACENT SPLICES.

REINFORCEMENT STEEL PLACEMENT IN CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPLACEMENT

GENERAL NOTES

PLACE ALL BAR STEEL REINFORCEMENT AT MID PAVEMENT DEPTH UNLESS OTHERWISE NOTED.

PAY FOR THE TRANSVERSE AND LONGITUDINAL JOINT SAW CUT AS LINEAR FEET OF "SAWING CONCRETE".

WHEN THE PASSING AND TRAVELING LANES ARE TO BE REPLACED, REPLACE THE PASSING LANE FIRST.

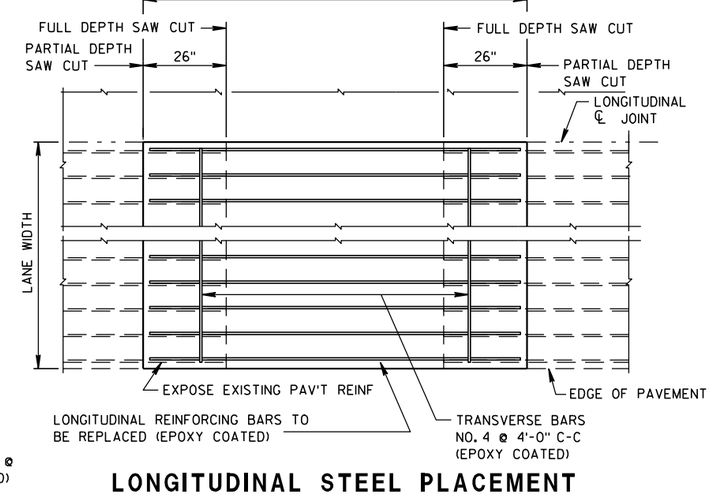
ADD TRANSVERSE STEEL BARS TO REPAIRS GREATER THAN 6'IN LENGTH, USE NO. 4 BARS PLACED TRANSVERSELY AND SPACED 4'C-C. PAYMENT SHALL BE INCIDENTAL TO "CONCRETE PAVEMENT CONTINUOUS REINFORCEMENT".

TIE ALL CONCRETE PAVEMENT REPAIRS WHICH ARE GREATER THAN 15'IN LENGTH, AND ARE ADJACENT TO EXISING CONCRETE PAVEMENT, TO THE EXISTING PAVEMENT USING TIE BARS. DETAILS FOR TIE BAR CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND STANDARD DETAIL DRAWINGS.

① PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

② ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

③ SAW CUT THE LONGITUDINAL EDGE JOINT IF THE ADJACENT SHOULDER IS CONCRETE.



LONGITUDINAL STEEL PLACEMENT IN CRCP REPAIRS

PLAN VIEW

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/1/2011 — DATE

/S/ Deb Bischoff — PAVEMENT POLICY & DE205 NEER

FHWA

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S.D.D. 13 A 7-2

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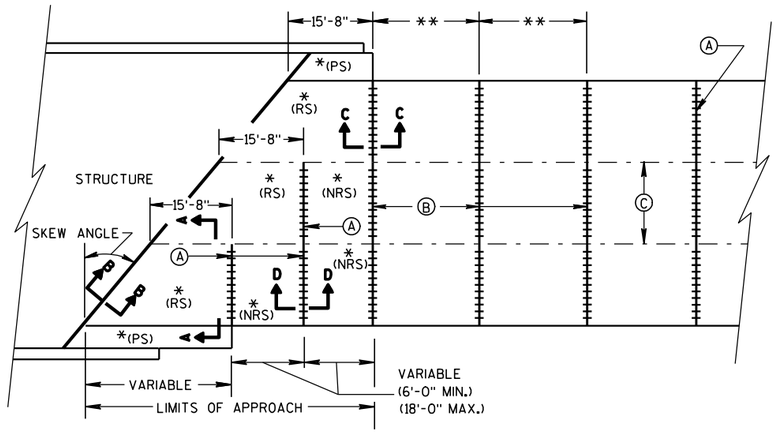
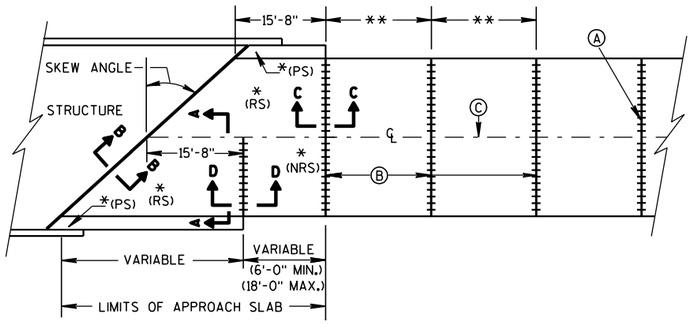
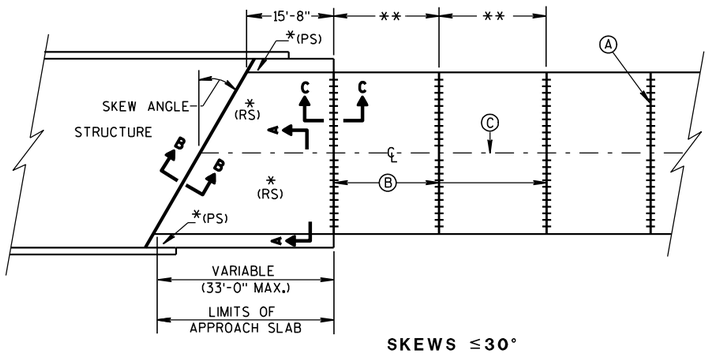
S.D.D. 13 A 7-2



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



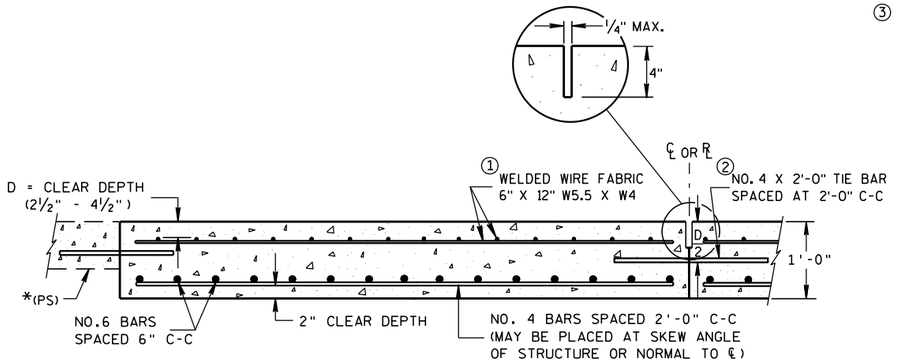
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

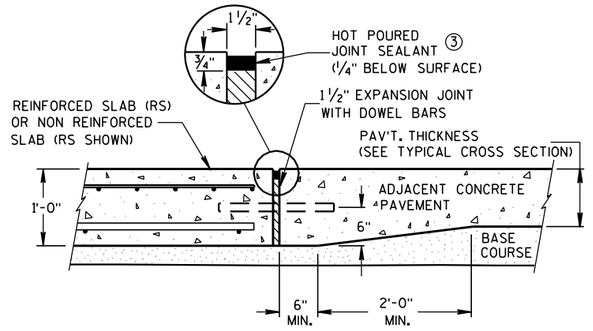
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

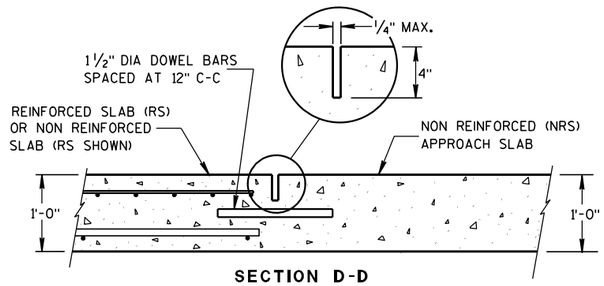
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



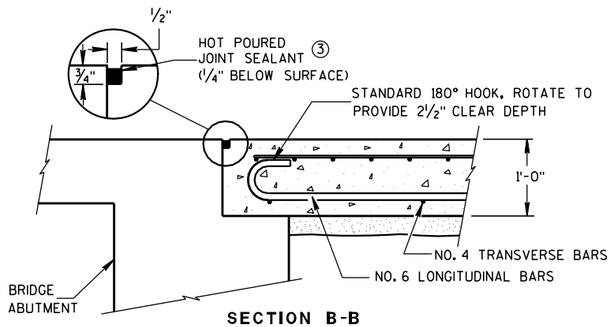
SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

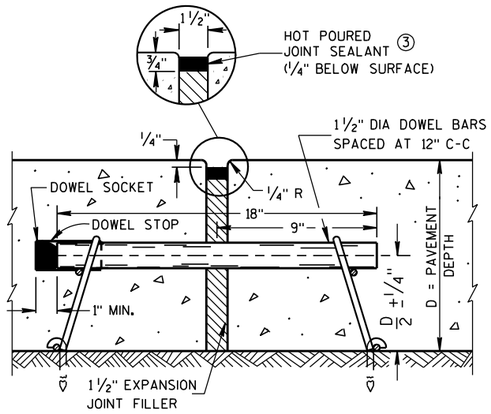
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

1. THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
2. THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
3. USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DESIGNER
FHWA

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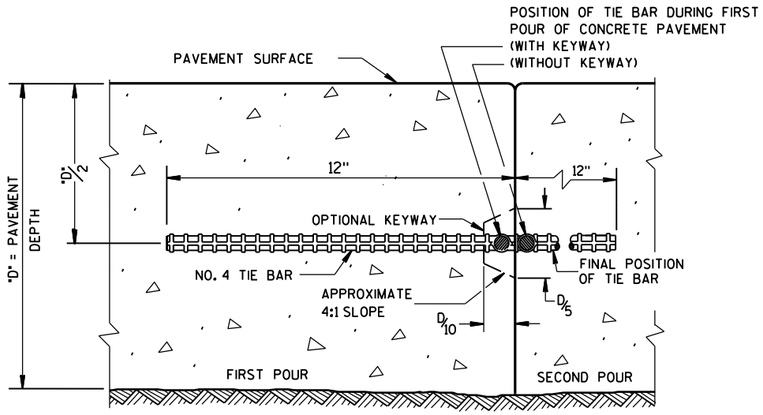
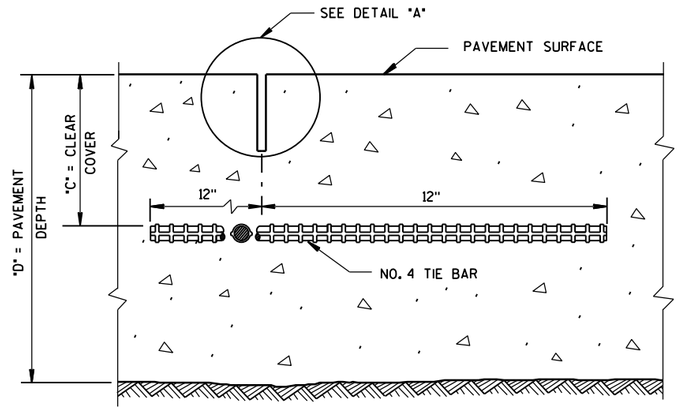
S.D.D. 13 B 2-6



CONSTRUCTION JOINT



SAWED JOINT

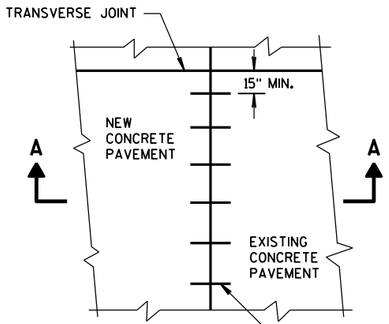
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

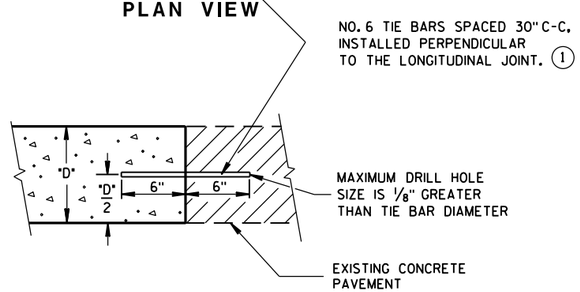
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

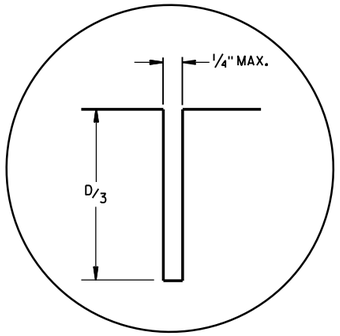


PLAN VIEW



SECTION A-A

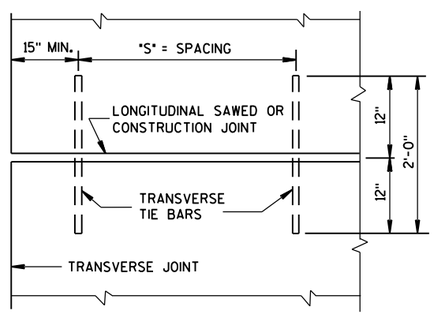
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

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"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE

FHWA

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S.D.D. 13 C 1-16

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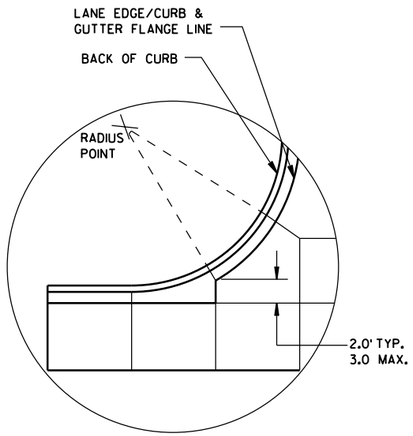
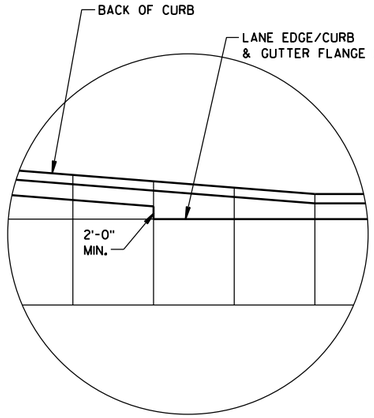
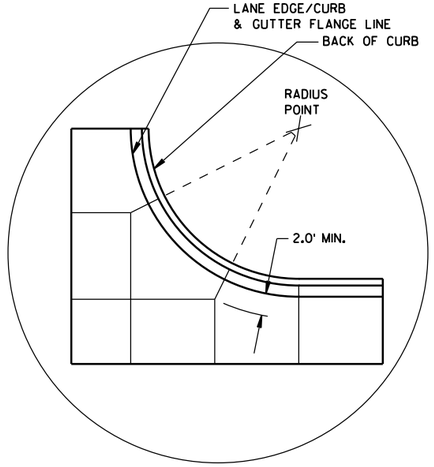
S.D.D. 13 C 1-16



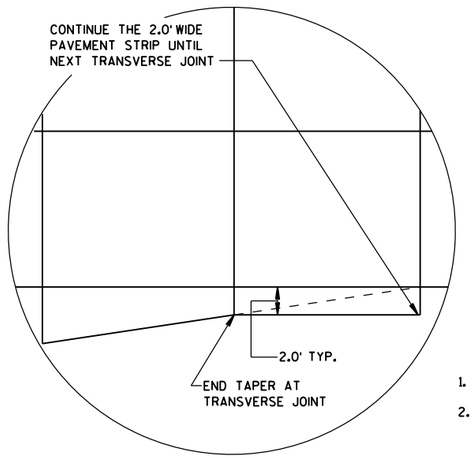
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

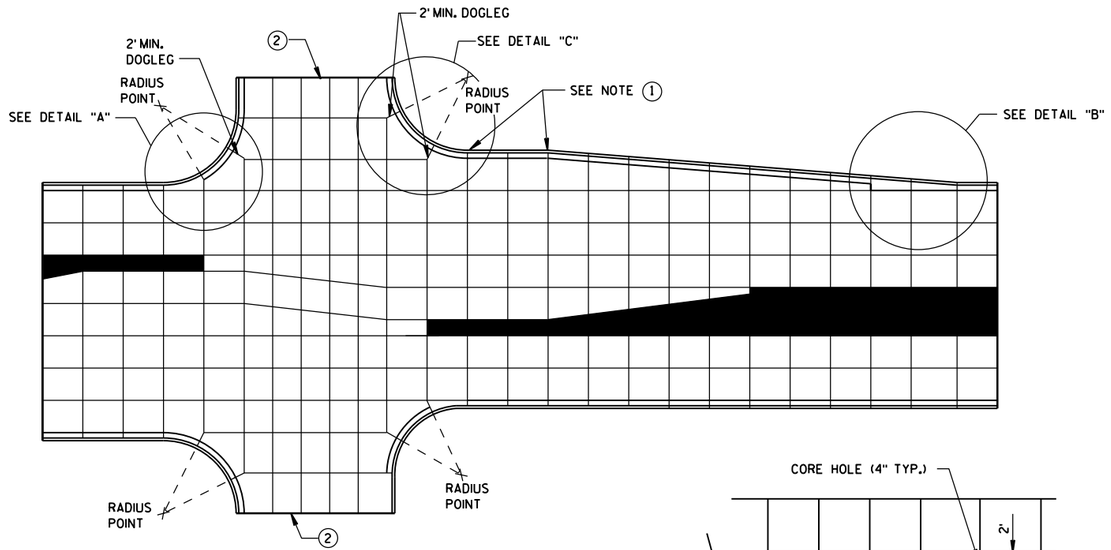
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

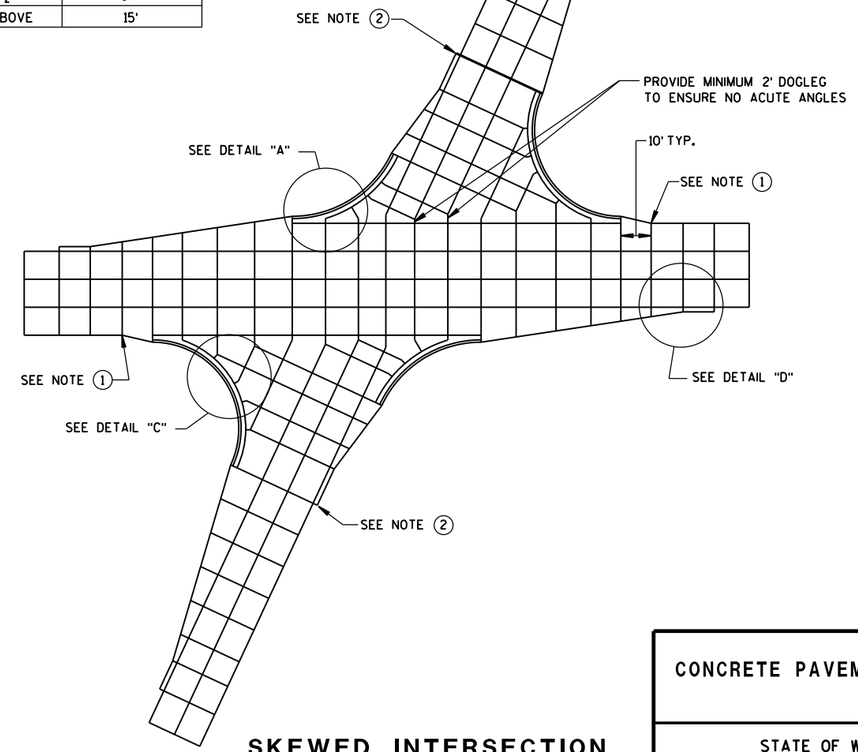
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



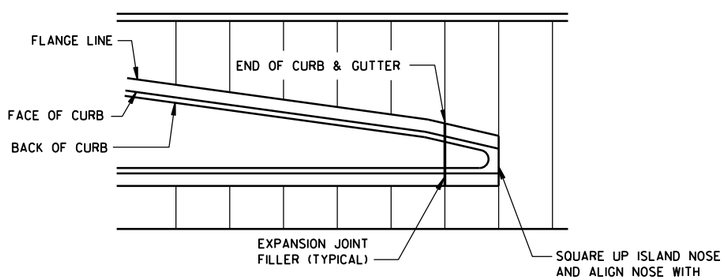
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

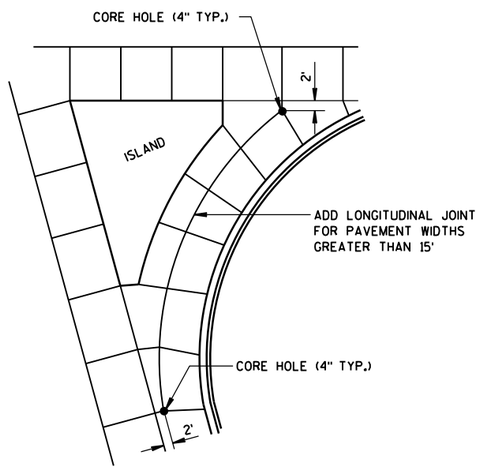
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

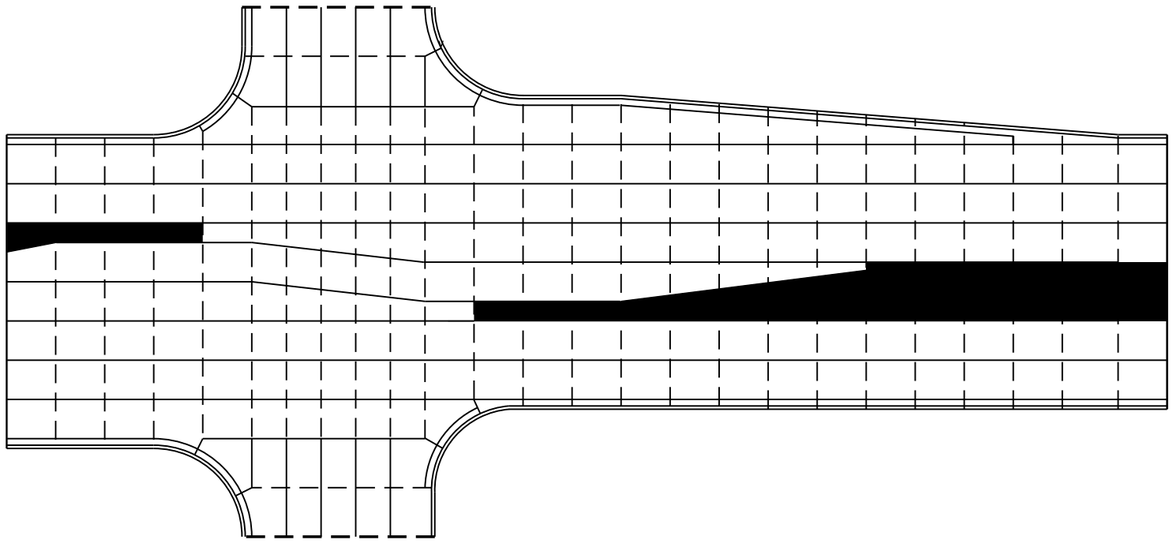
6
S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

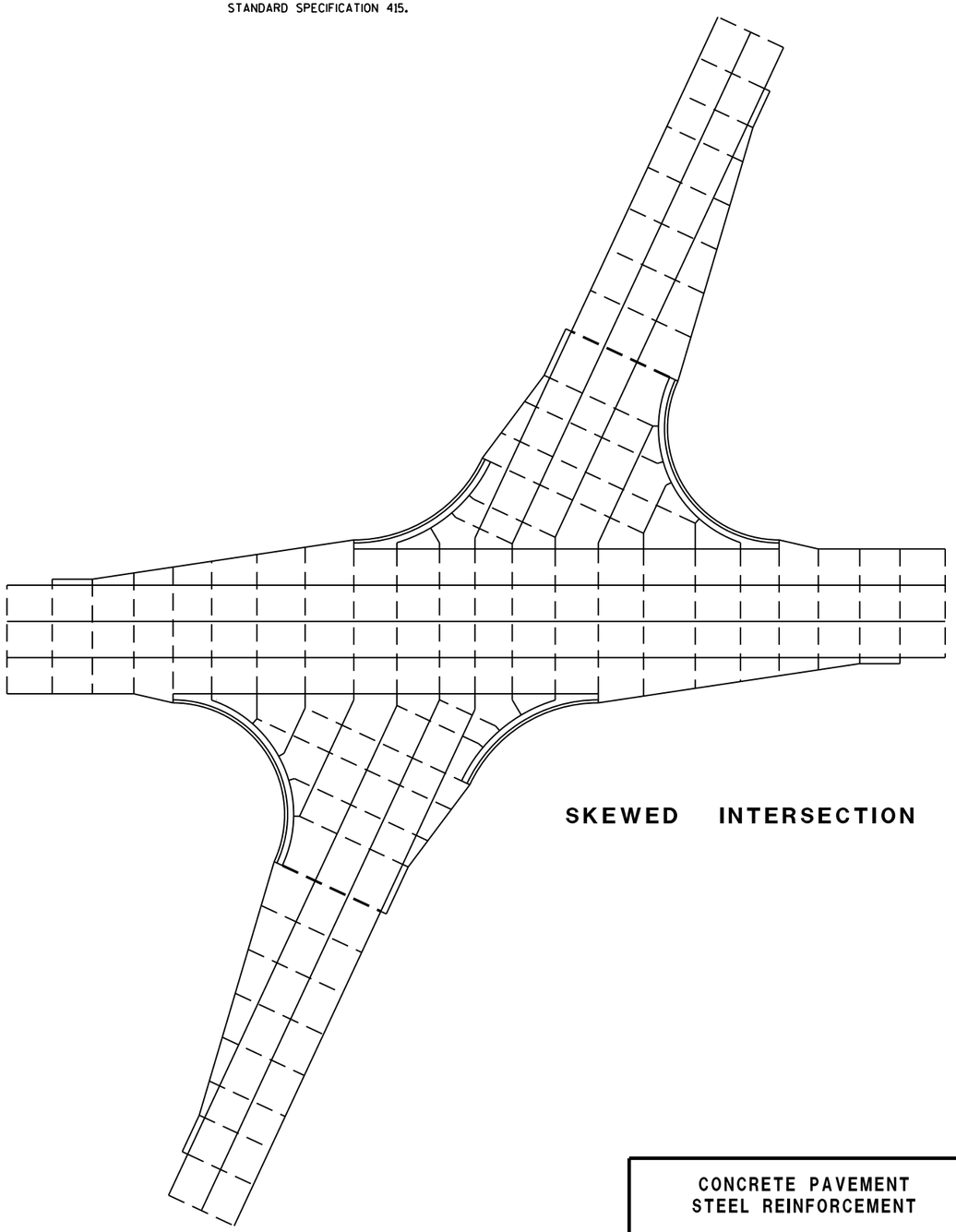
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 18-2b

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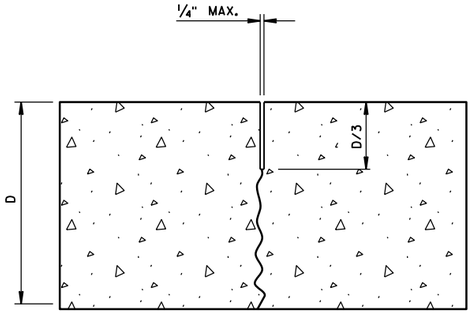
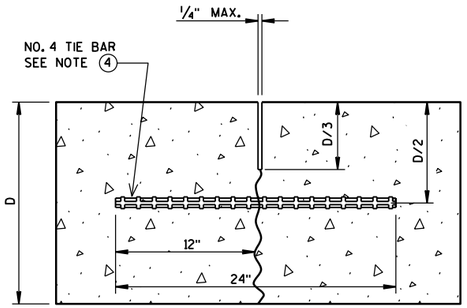
S.D.D. 13 C 18-2b



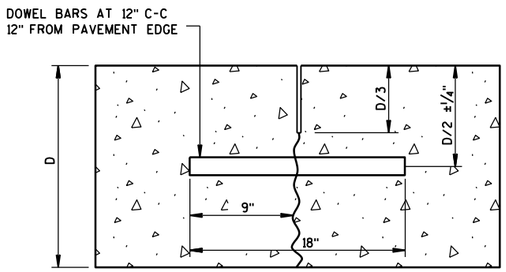
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

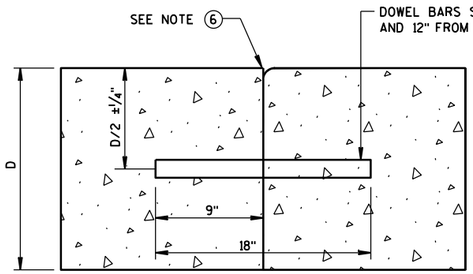
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



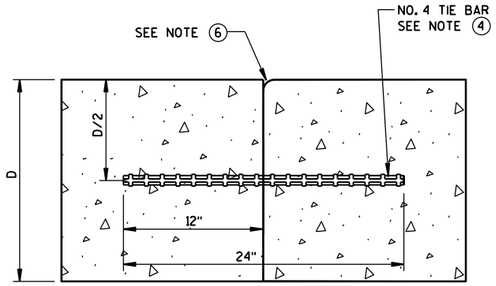
DOWELED-TRANSVERSE

CONTRACTION JOINTS

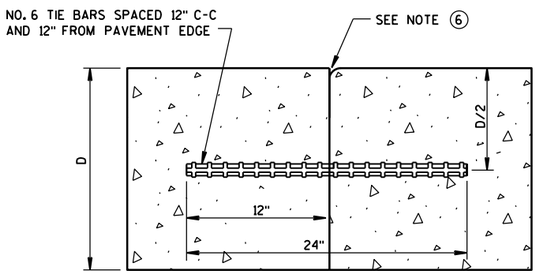
SEE NOTE (2)



DOWELED TRANSVERSE

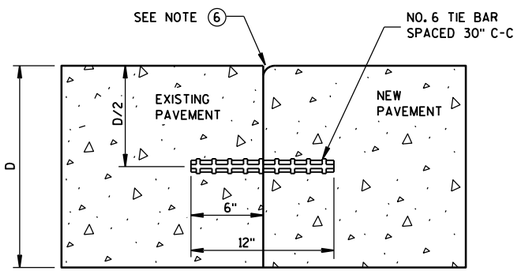


TIED LONGITUDINAL



TIED TRANSVERSE

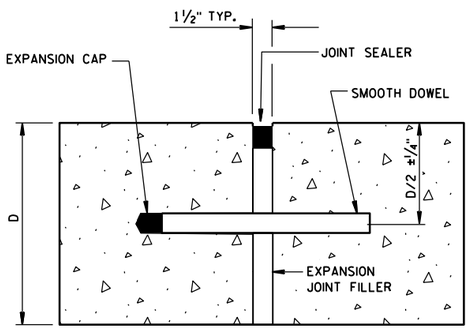
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

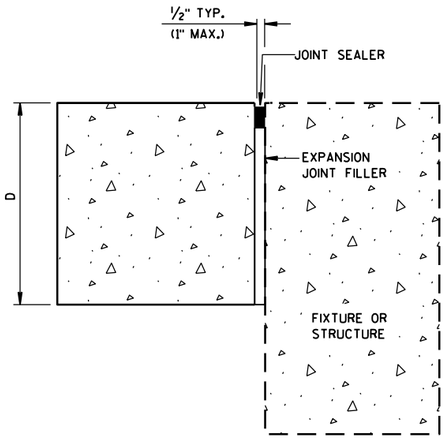
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 C 18-2c

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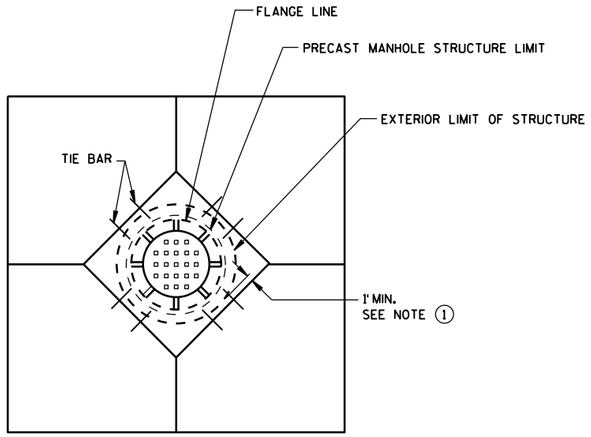
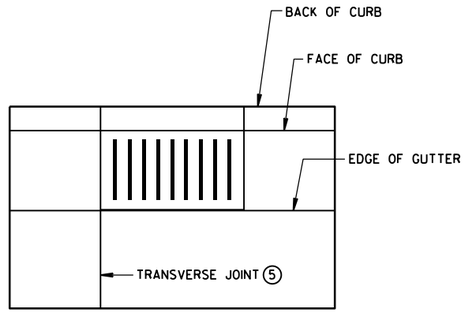
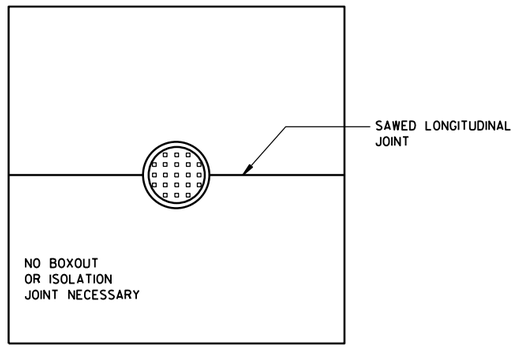
S.D.D. 13 C 18-2c



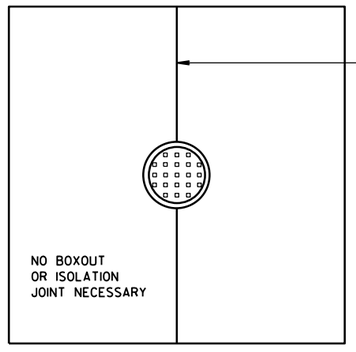
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



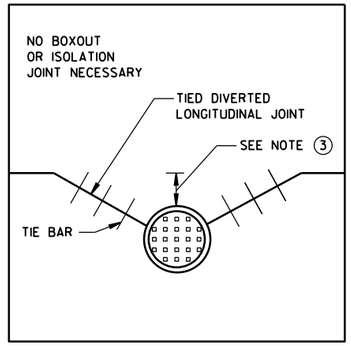
INLET WITH TRANSVERSE JOINT



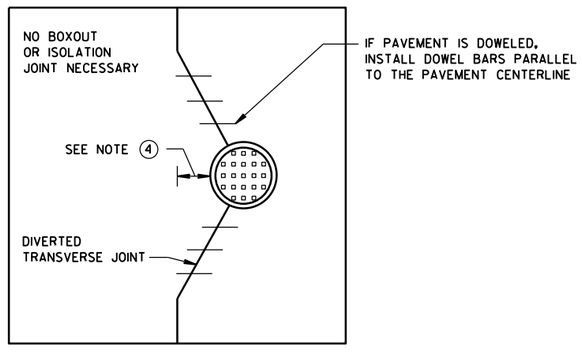
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013	/S/ Deb Bischoff	
DATE	PAVEMENT POLICY & DE	NEER

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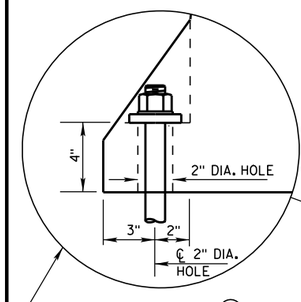
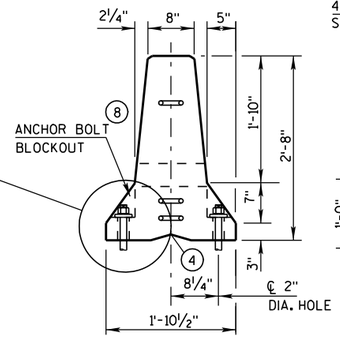
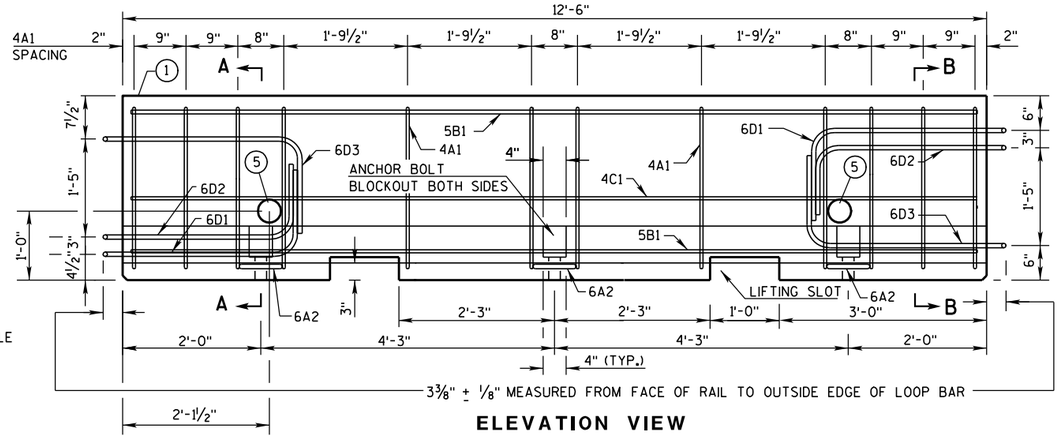
S.D.D. 13 C 18-2d



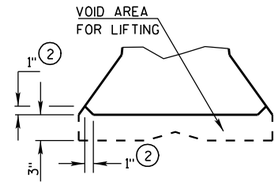
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



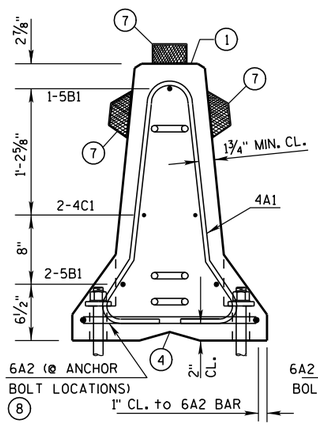
END VIEW



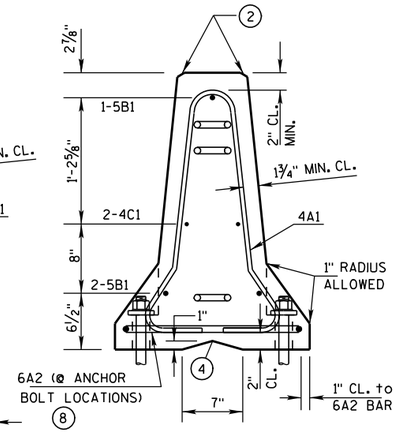
ELEVATION VIEW



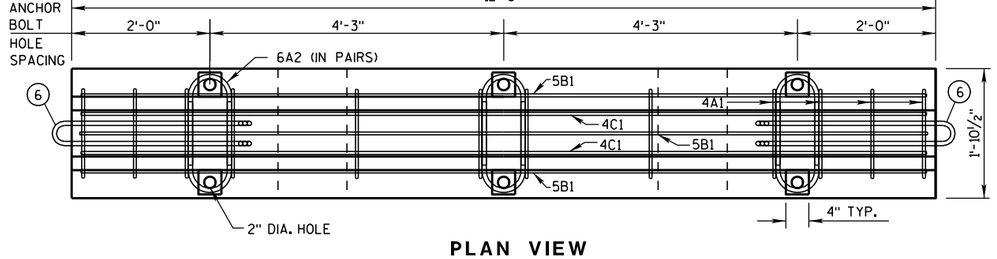
DETAIL "B" LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

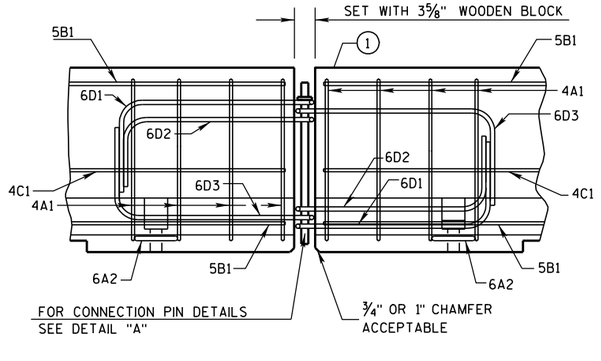


SECTION B-B
(STIRRUP PLACEMENT)

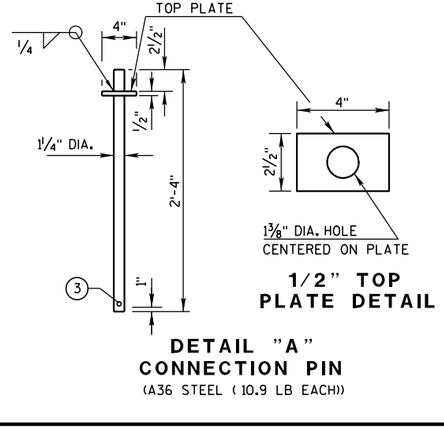


PLAN VIEW

DETAILS OF BARRIER SECTION

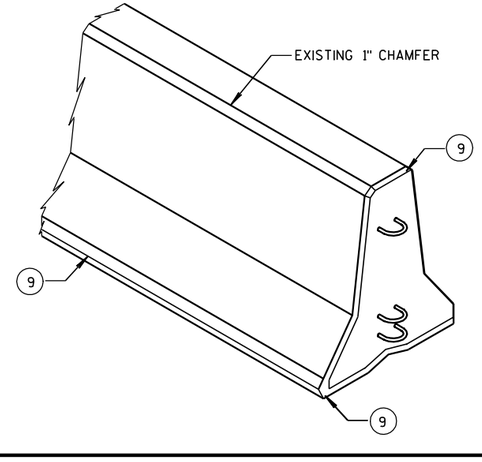


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

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



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

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

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

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

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

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

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

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

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

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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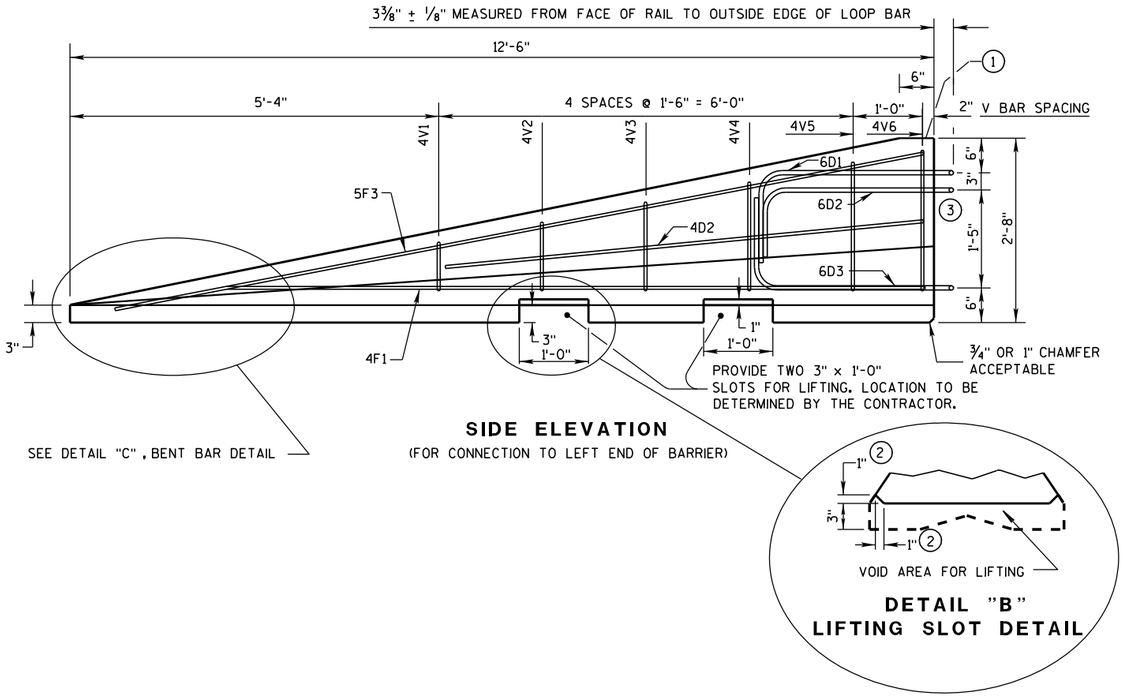
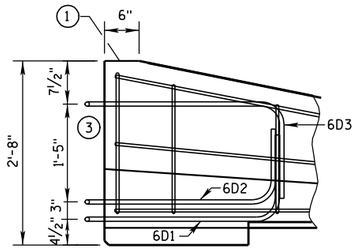
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL

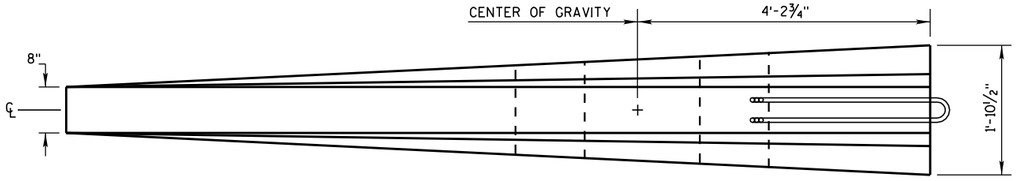


SIDE ELEVATION

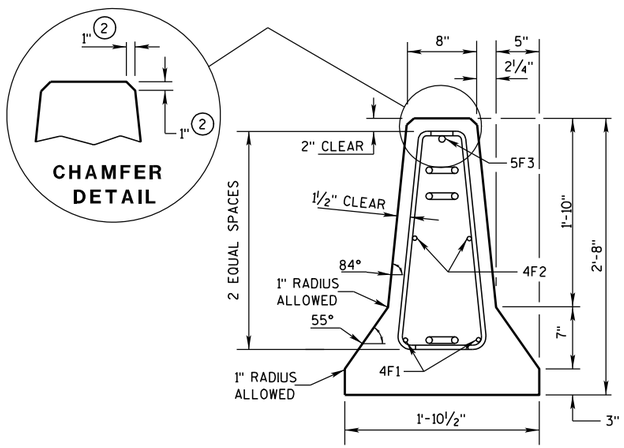
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

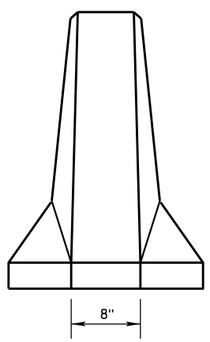
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



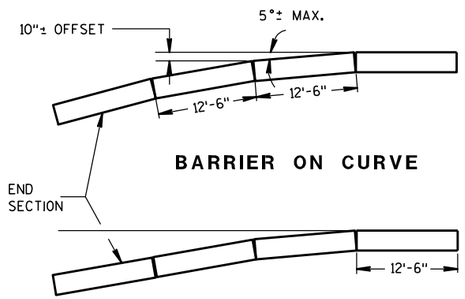
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

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

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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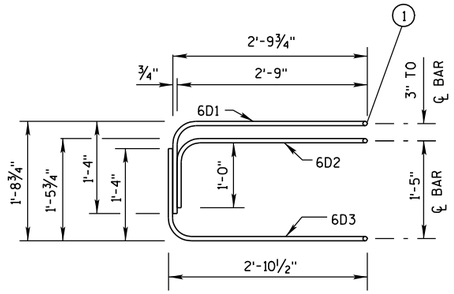
S.D.D. 14 B 7-13b

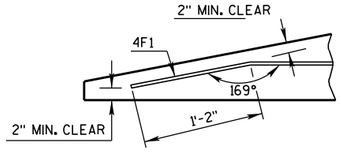
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

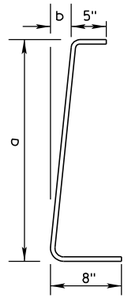
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

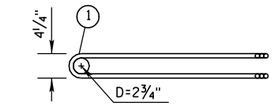
GENERAL NOTES

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

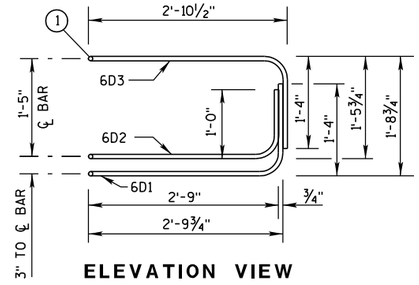
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

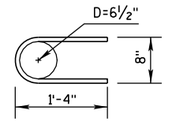
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



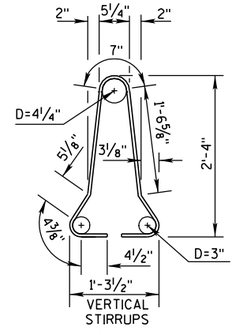
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



ELEVATION VIEW



6A2



4A1

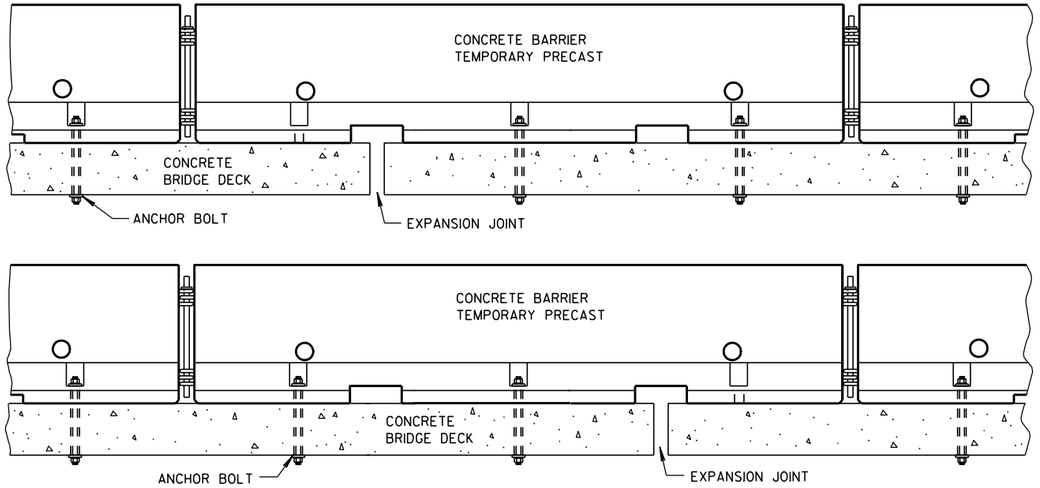
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

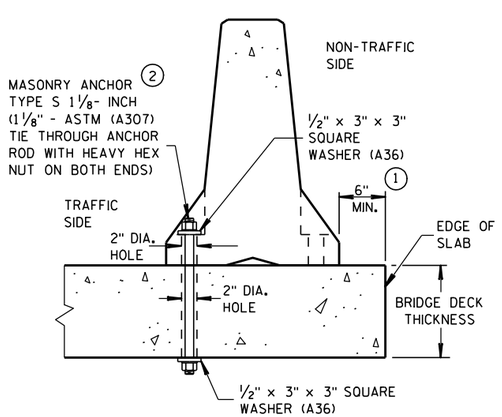
6

S.D.D. 14 B 7-13c



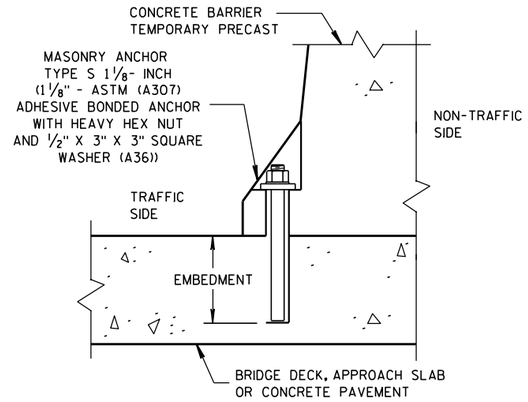
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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 NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



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

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

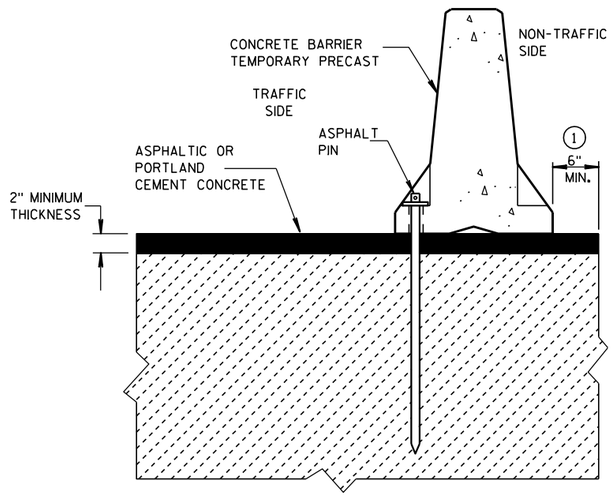
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE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

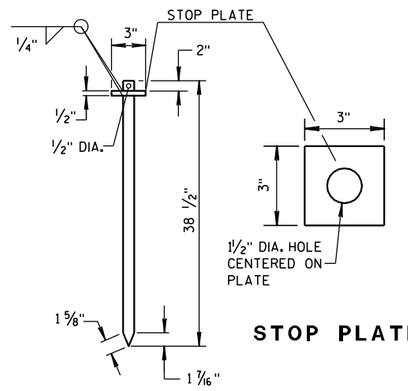
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

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



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

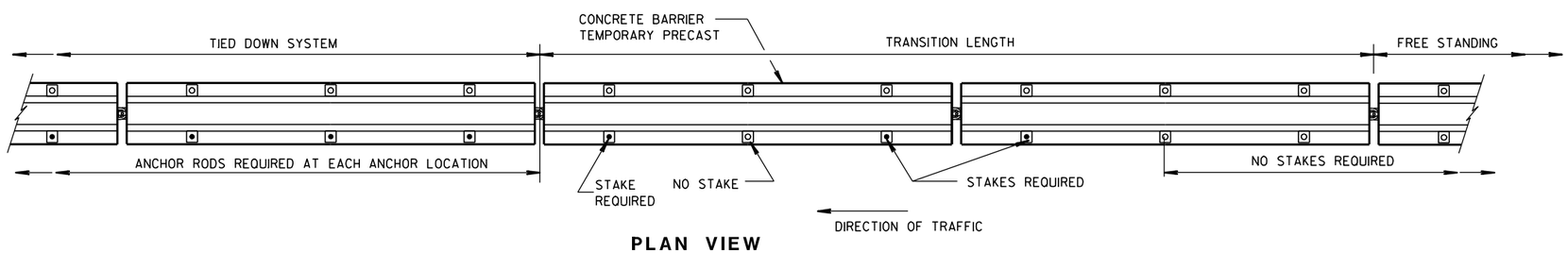
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



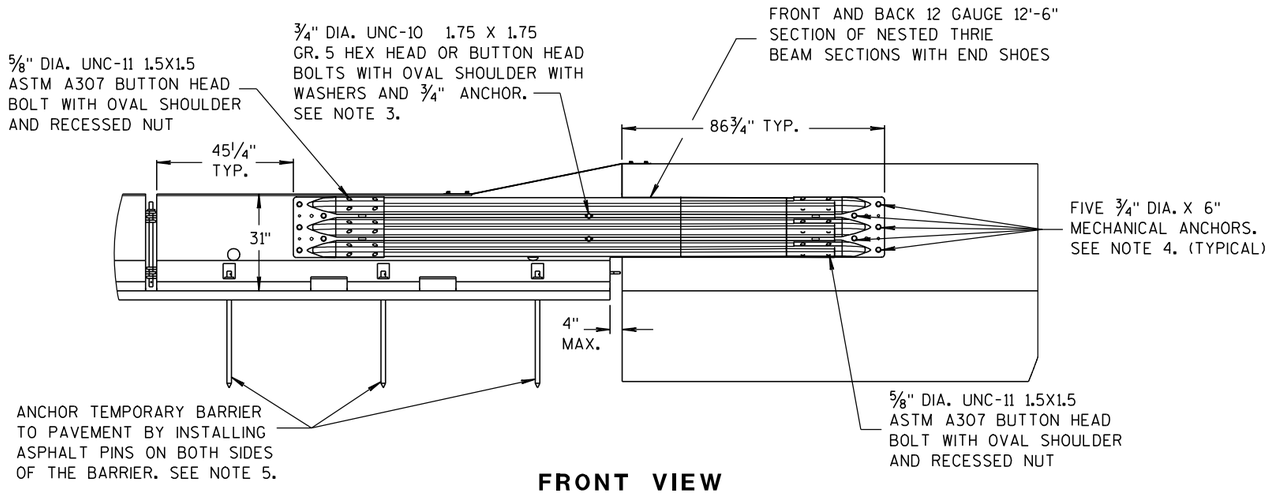
PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

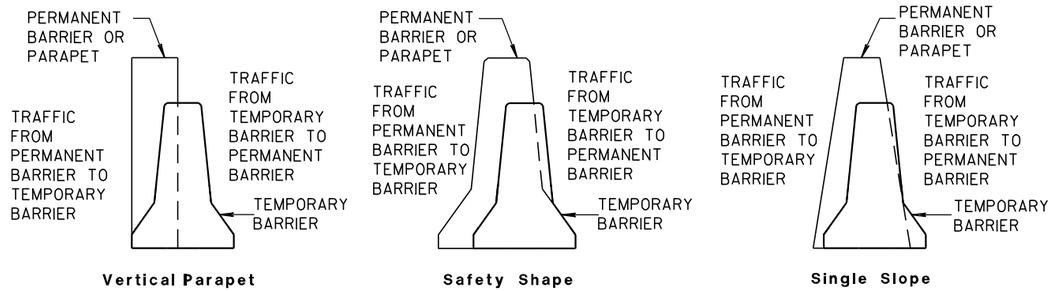
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...



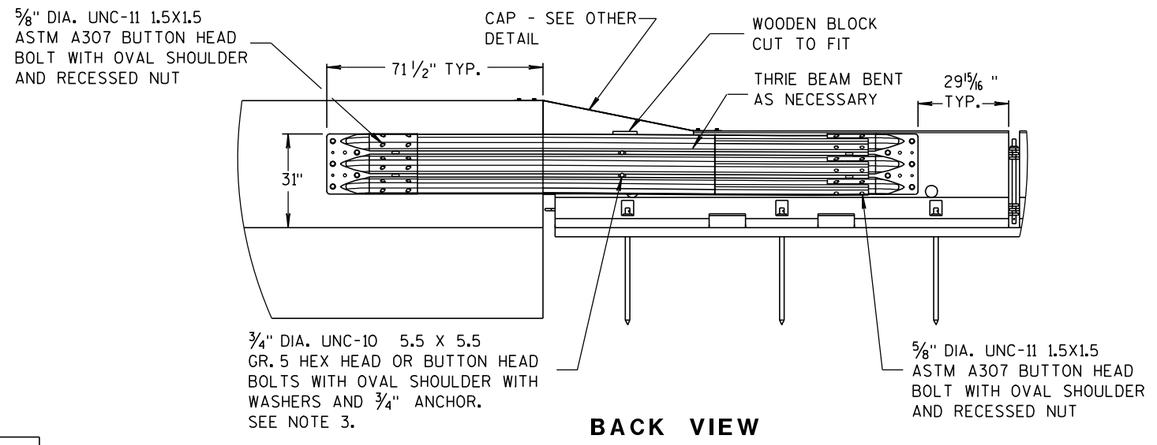
FRONT VIEW

NOTES

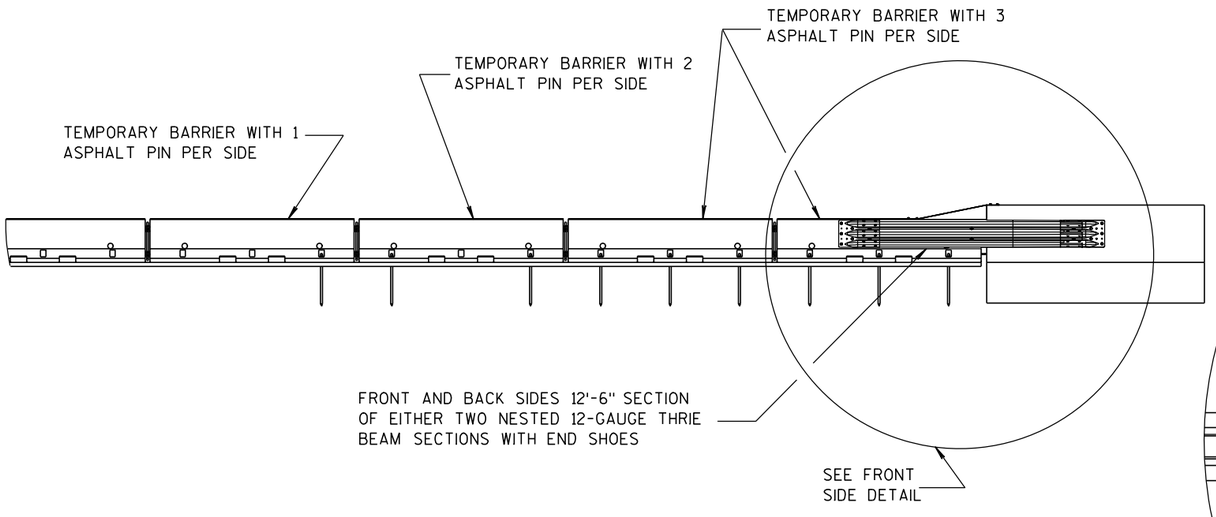
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48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



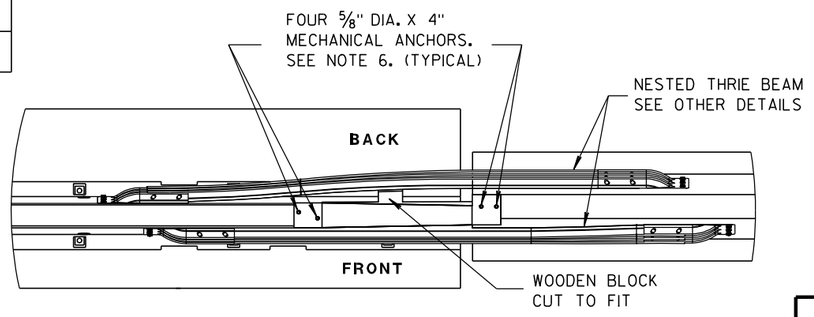
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13e

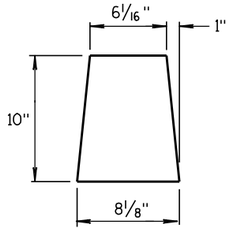
GUSSET 1

GUSSET 2

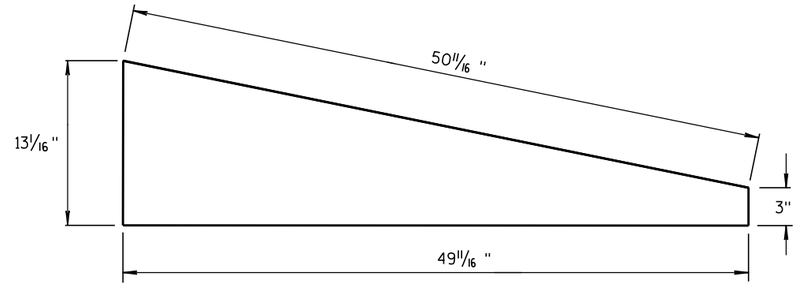
GUSSET 3

GUSSET 4

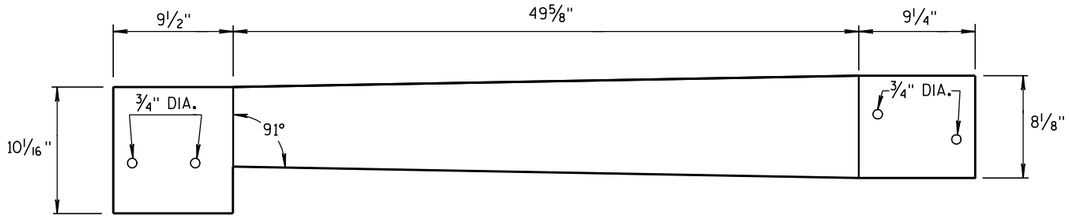
GUSSETS

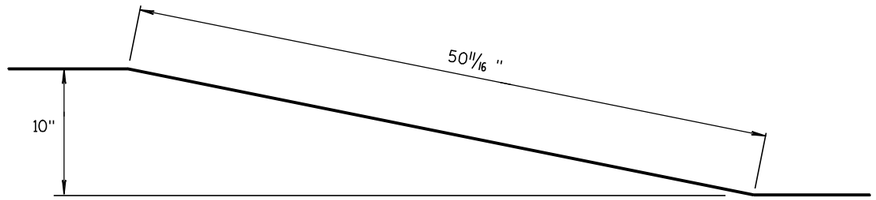


END PLATE

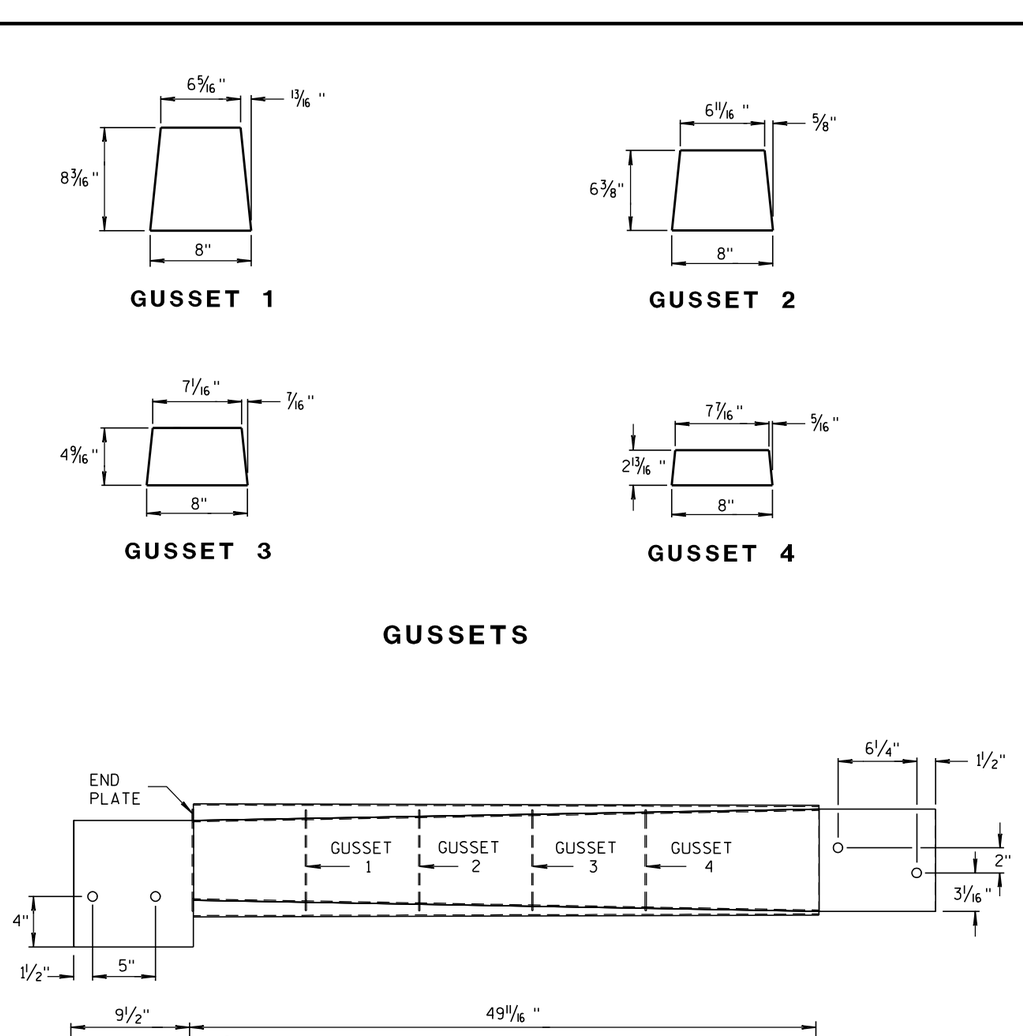


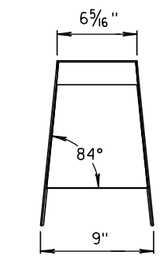
SIDE PLATE





TOP PLATE





SECTION C-C

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.

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

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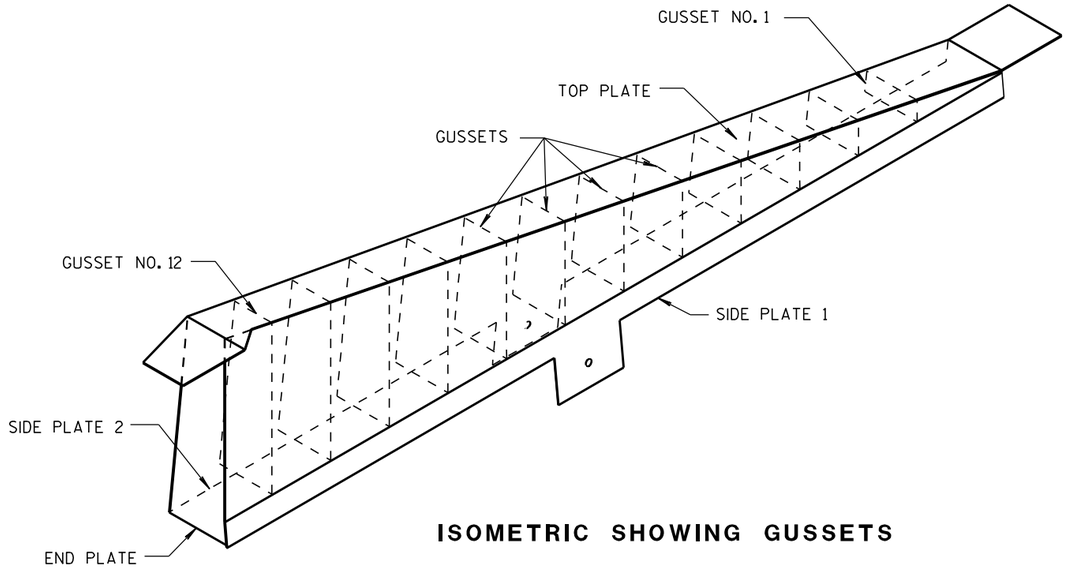
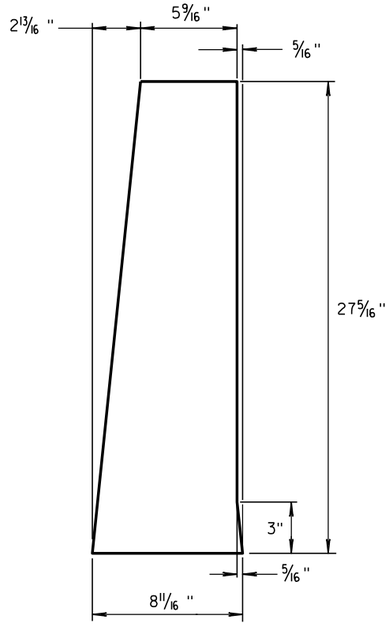
S.D.D. 14 B 7-13f

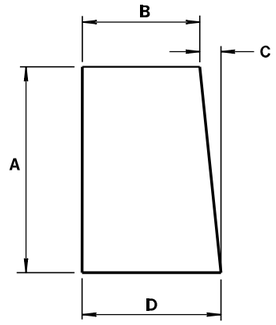


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



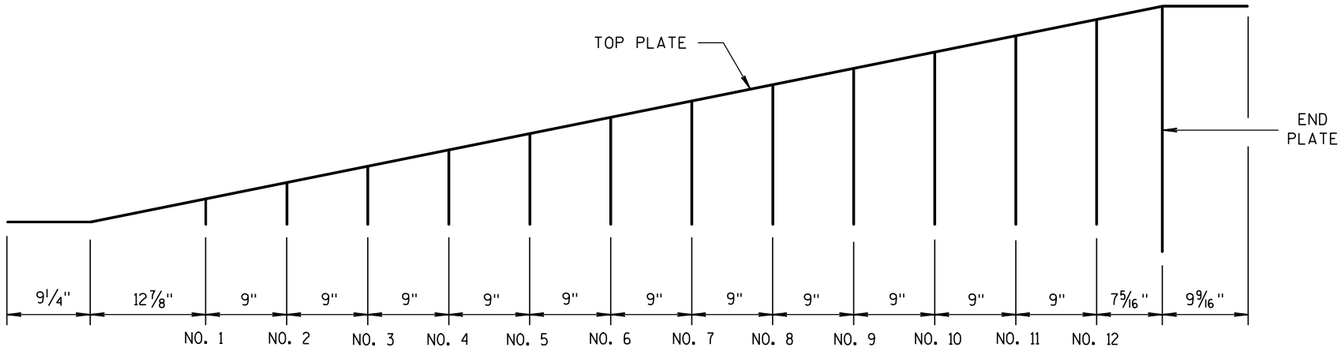
GUSSETS 1 - 12

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 15/16"	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.



GUSSET LOCATION

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

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

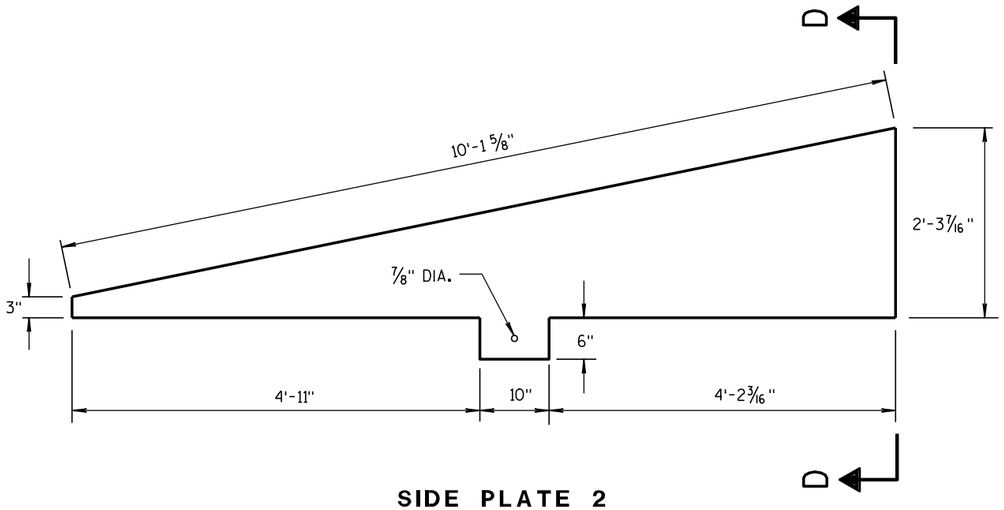
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

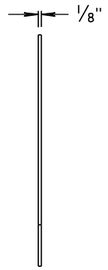
S.D.D. 14 B 7-13g

6

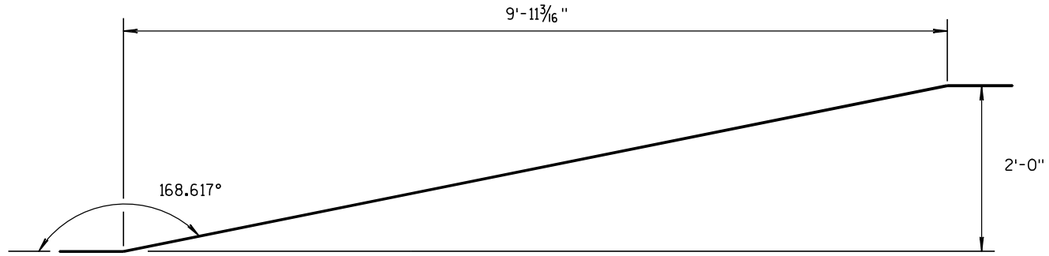
S.D.D. 14 B 7-13g



SIDE PLATE 2

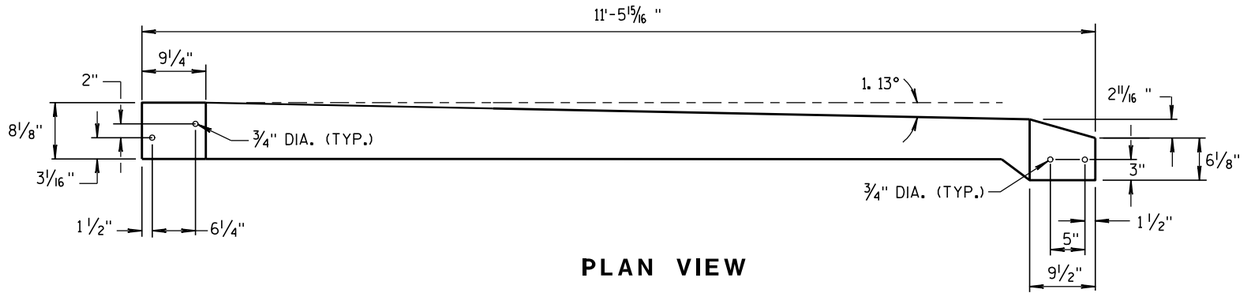


END VIEW



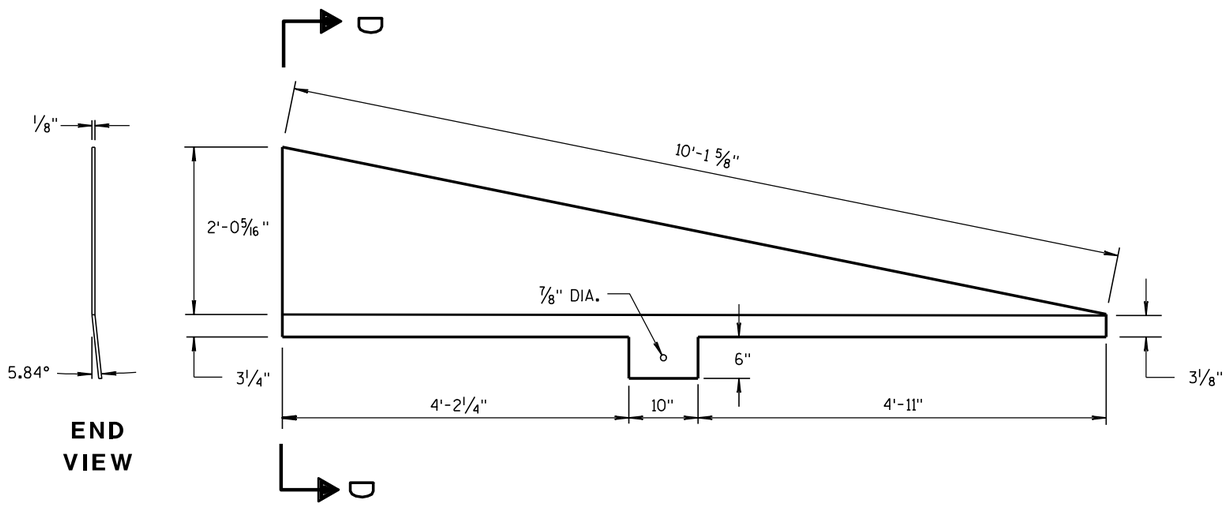
SIDE VIEW

TOP PLATE



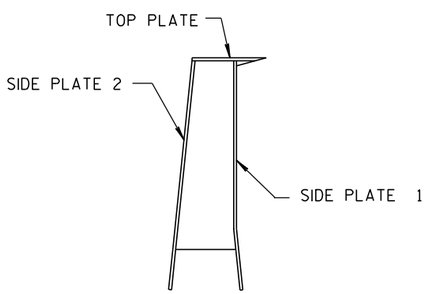
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

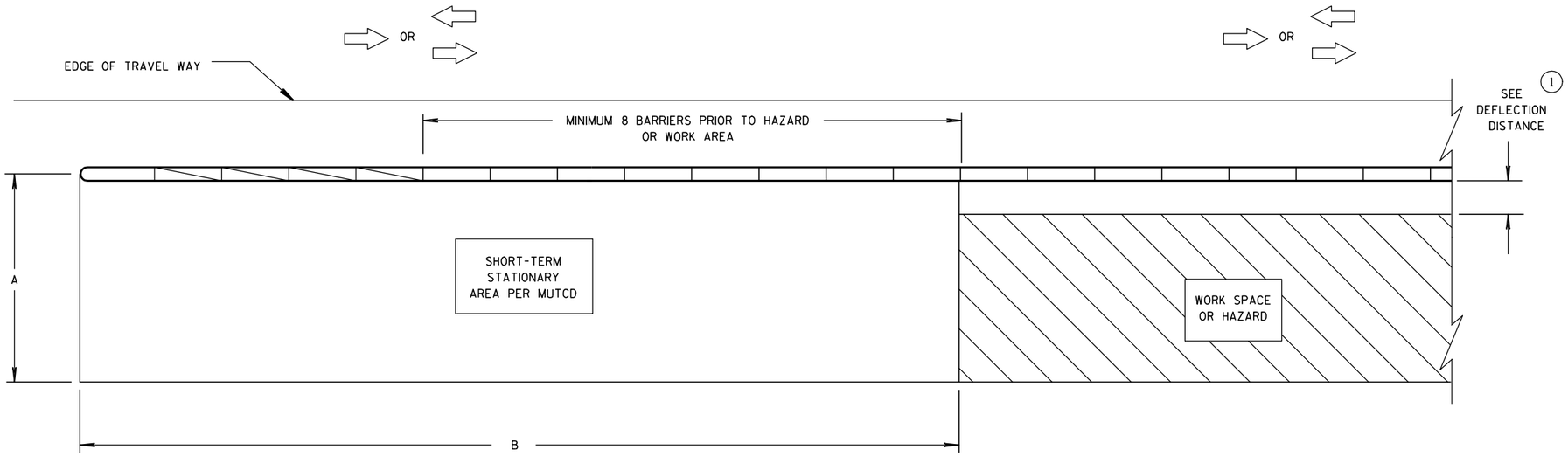
APPROVED
8/31/2012
DATE
/S/ Jerry H. ---
ROADWAY STANDARDS ENGINEER
219
ENT
FHWA

6

S.D.D. 14 B 7-13h

6

S.D.D. 14 B 7-13h



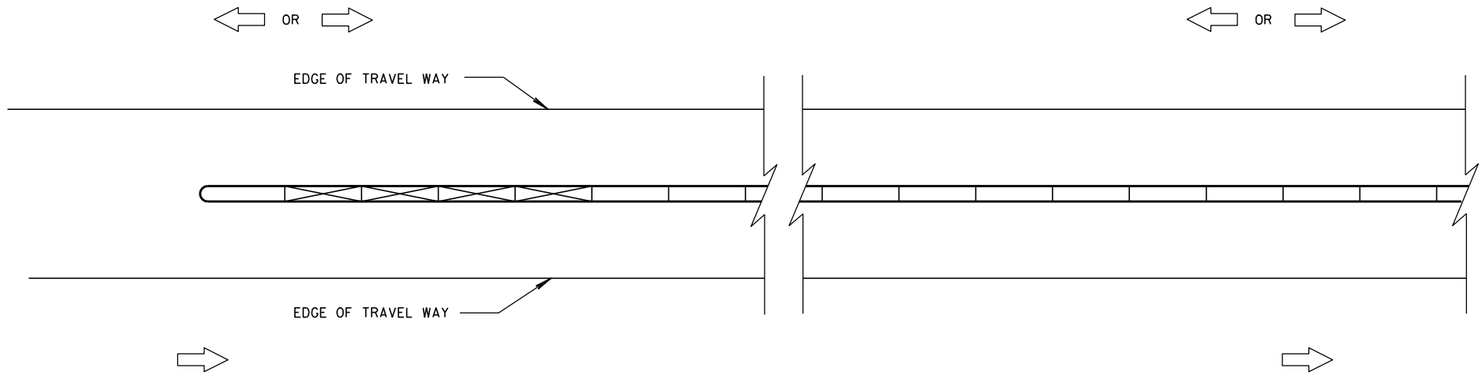
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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



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

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.

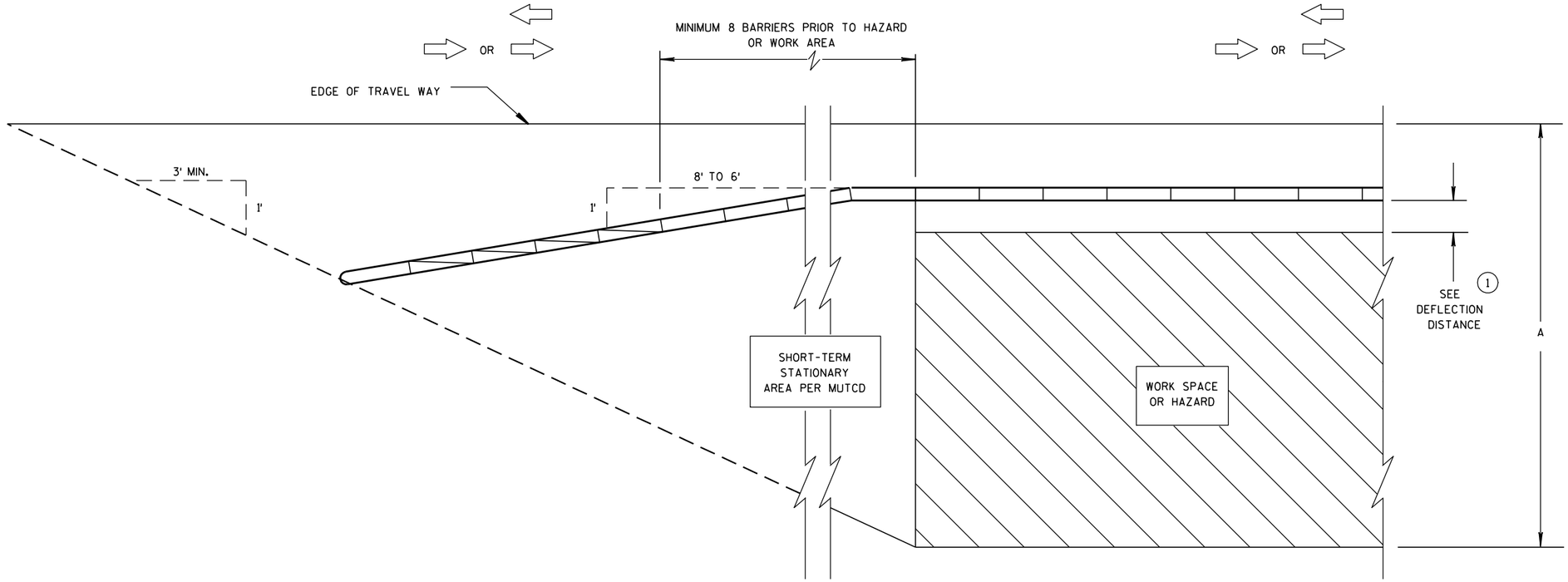
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

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

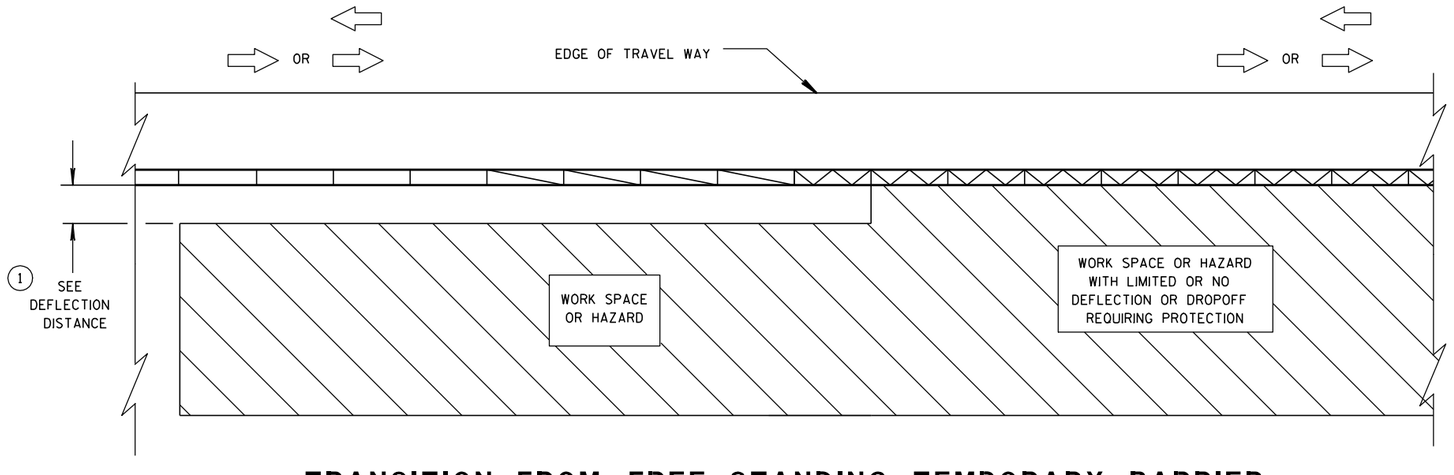
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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



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

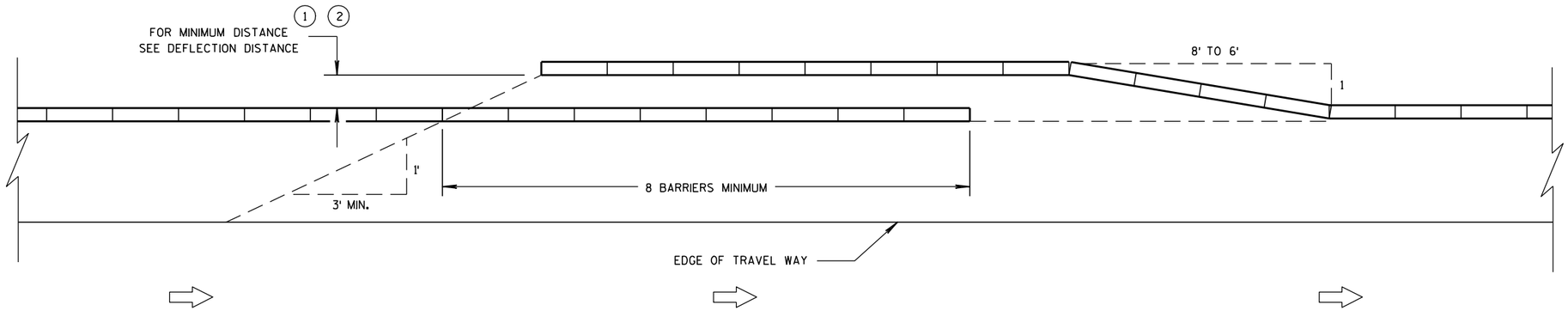
LEGEND

- 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

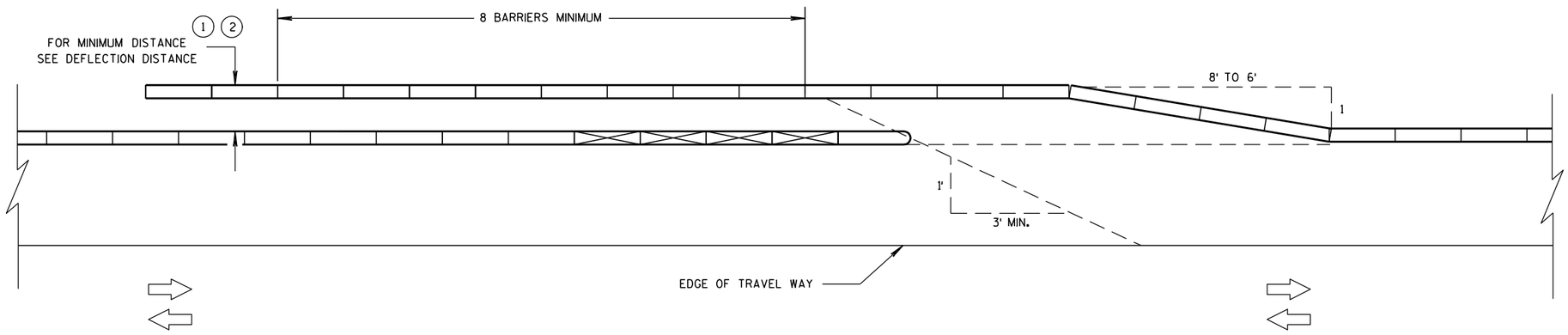
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

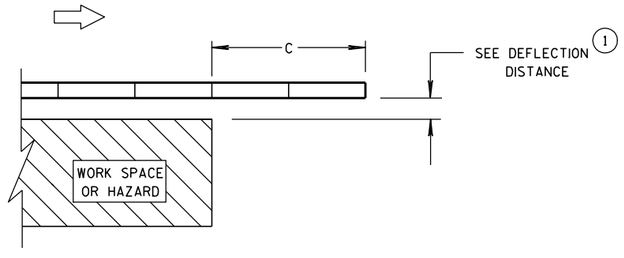
6
S.D.D. 14 B 8-1b



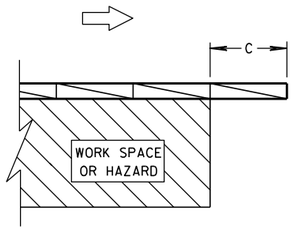
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

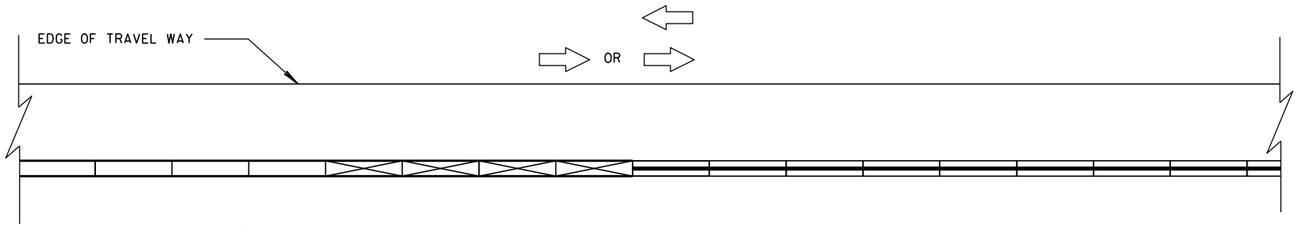
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

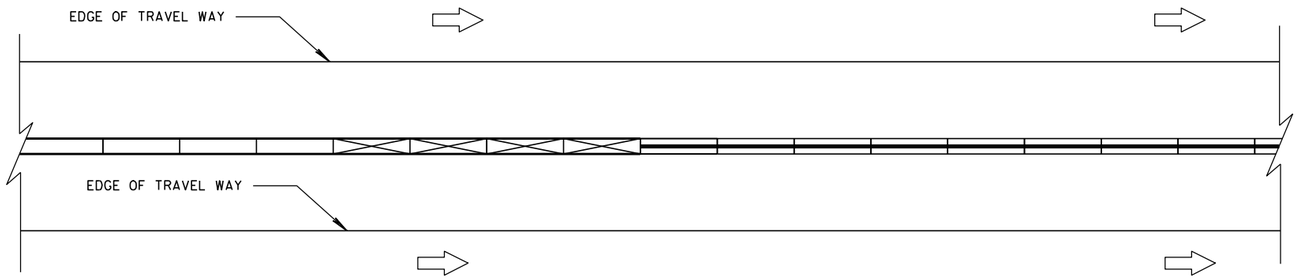
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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



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

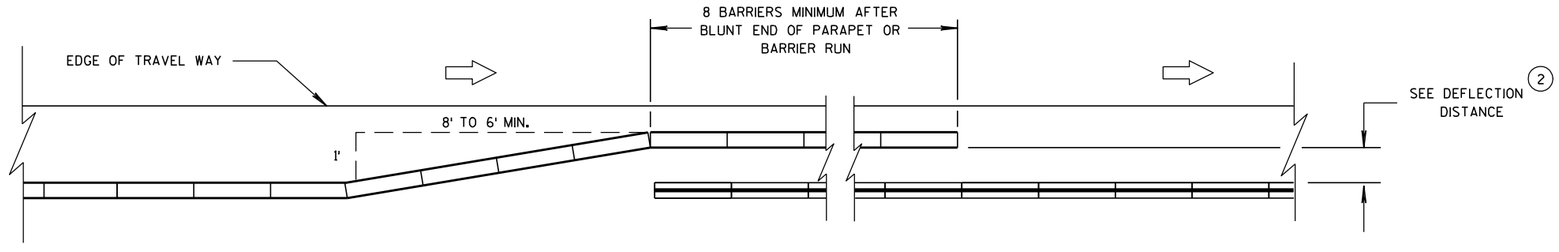
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

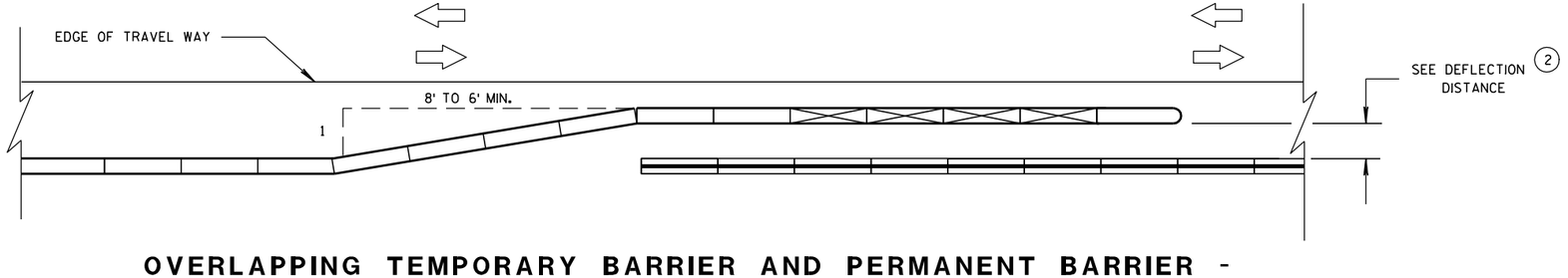
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

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 TRANSPO...

6
S.D.D. 14 B 8-1d

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

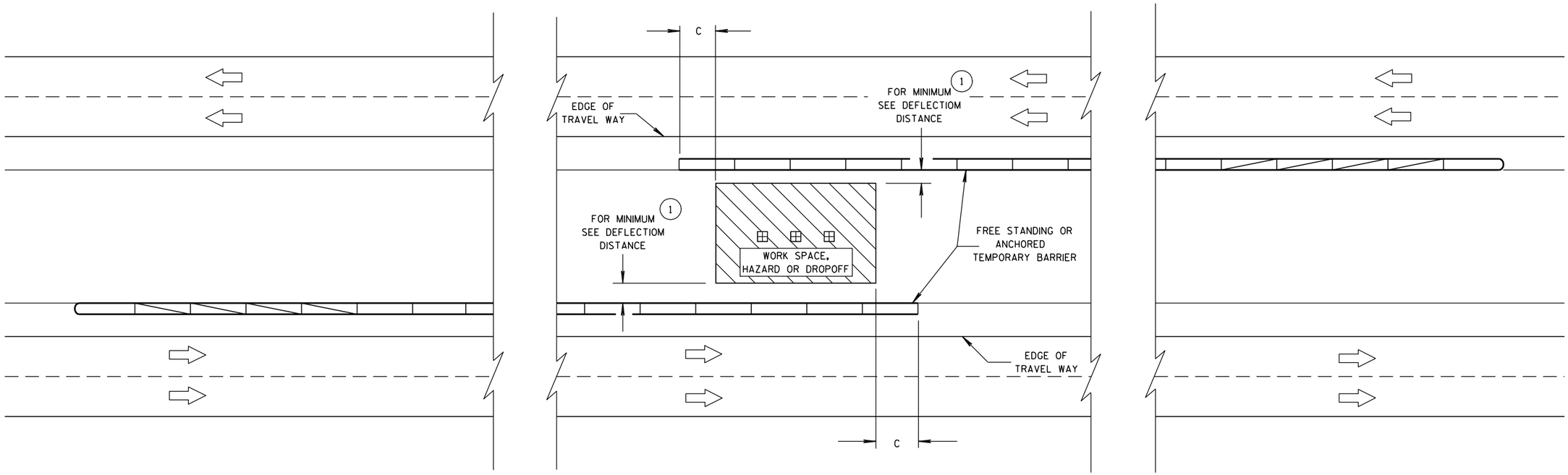
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

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



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINNER
FHWA	224

6
S.D.D. 14 B 8-1e

GENERAL NOTES

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

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

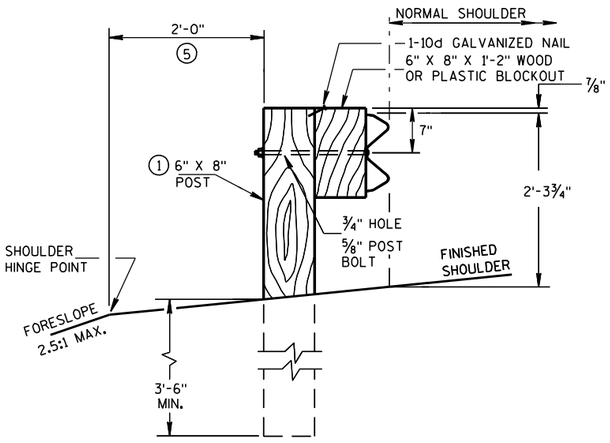
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

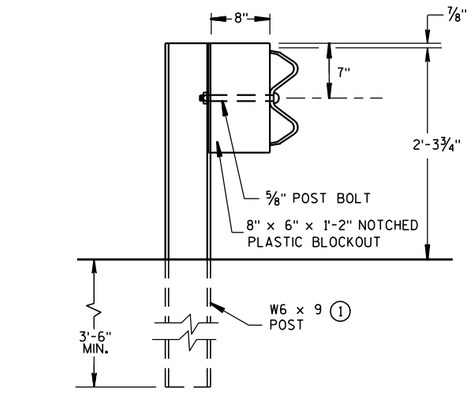
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

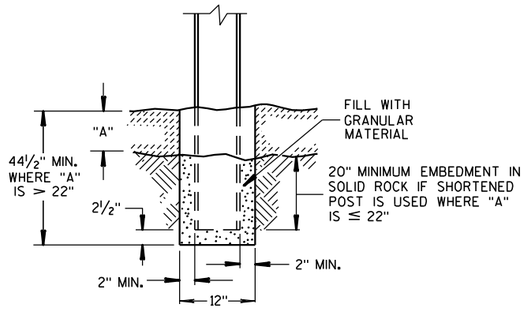
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



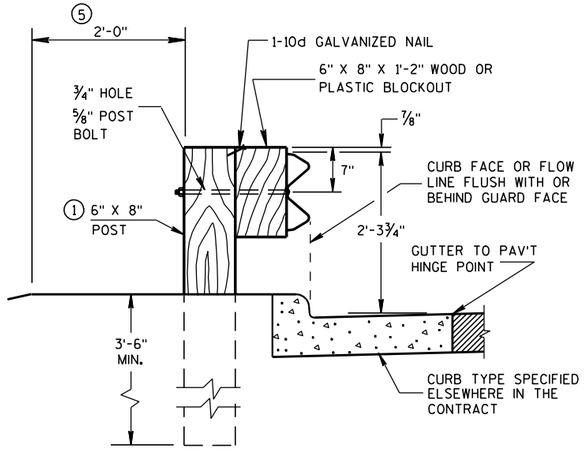
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



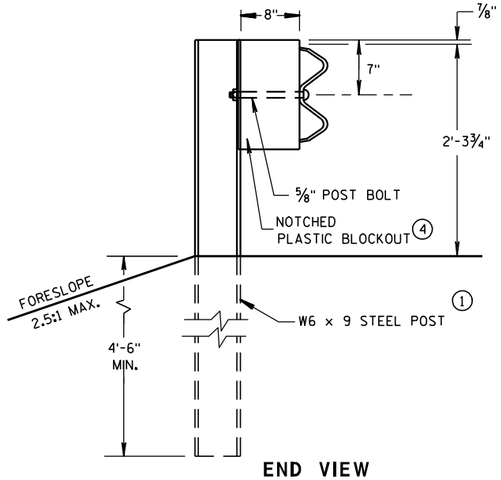
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



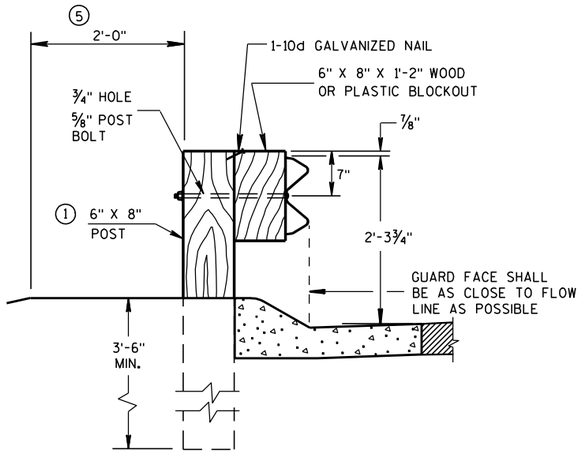
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



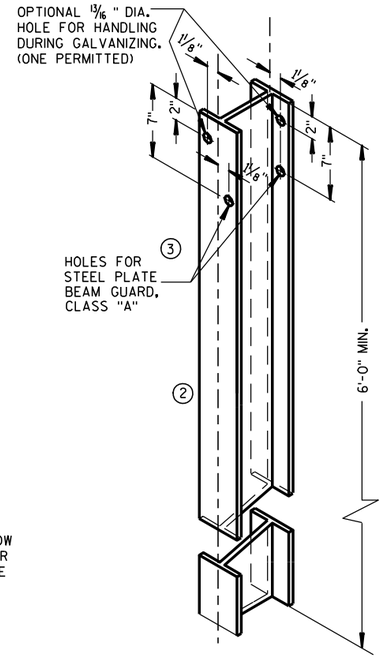
END VIEW
LOCATED ALONG A CURBED ROADWAY



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

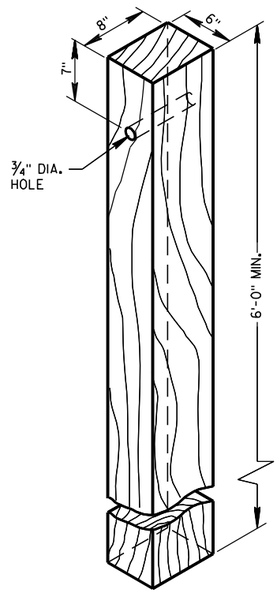


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

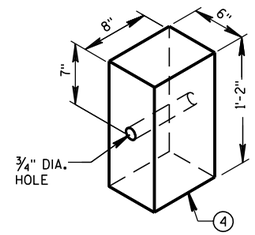


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

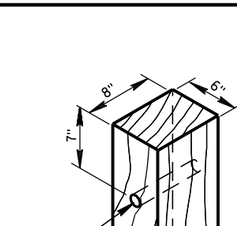
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



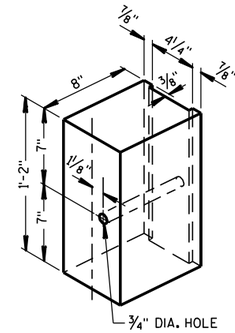
WOOD POST
(6"X8") NOMINAL



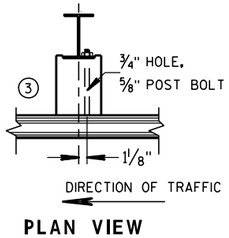
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



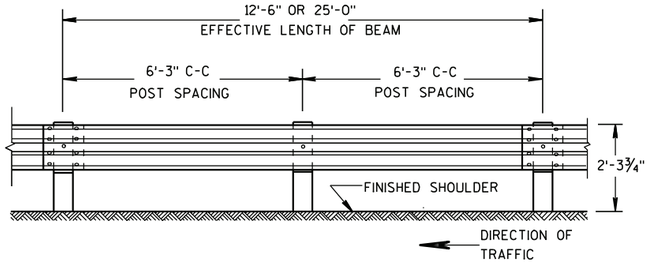
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

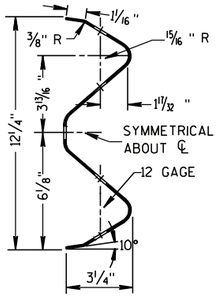
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

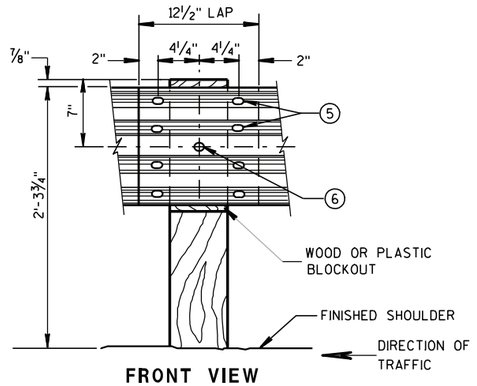


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

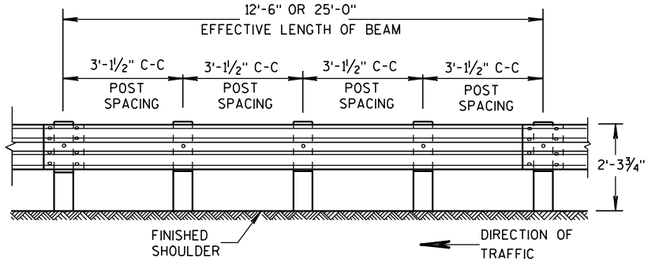


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

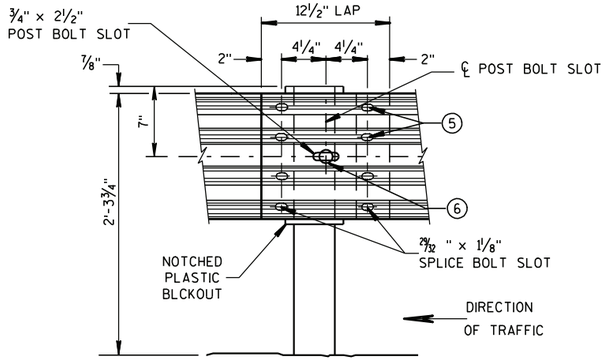
GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 8 - 5/8" ϕ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
6. 5/8" ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.



FRONT VIEW

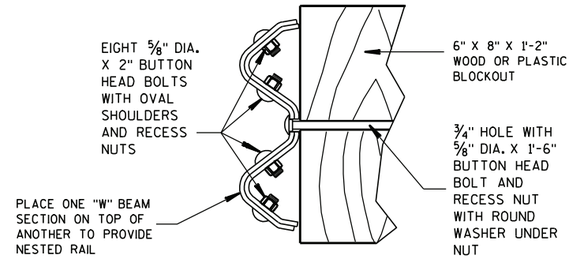
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

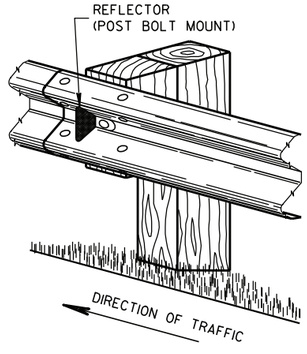


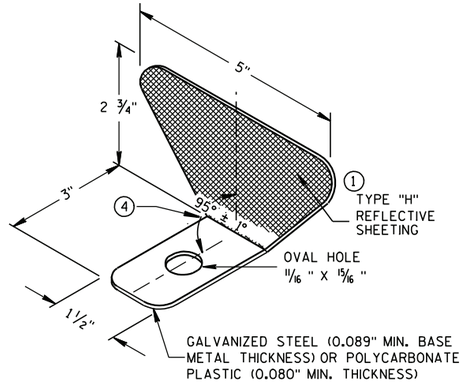
NESTED W BEAM (NW)

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

REFLECTOR SPACING (2)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 (3)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 (4)	





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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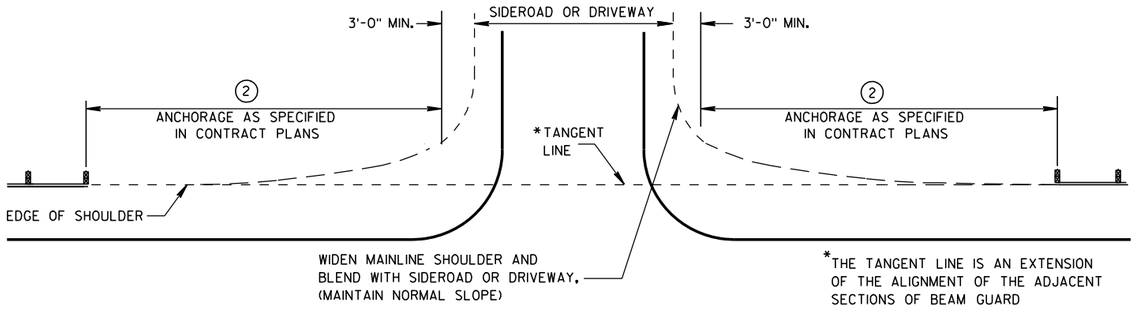
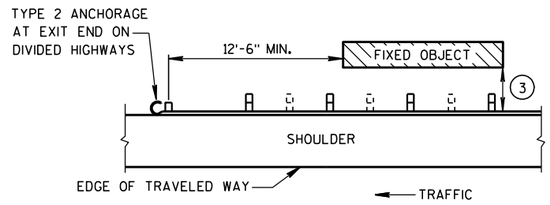


BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

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

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

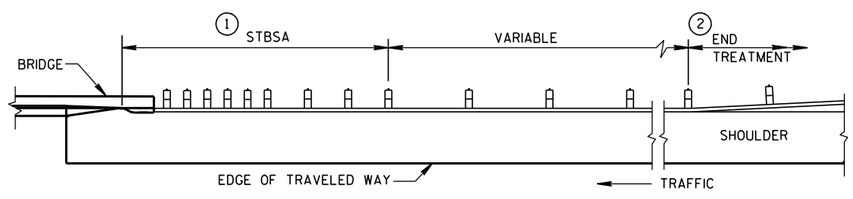
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

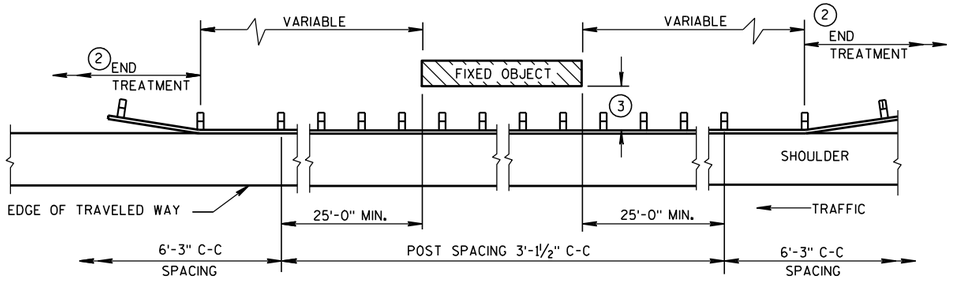
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

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

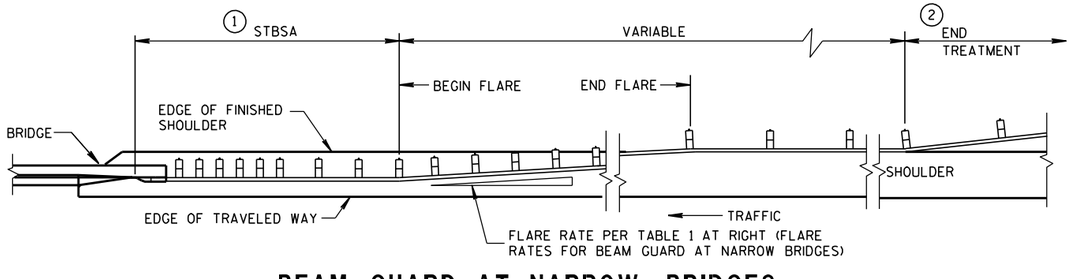


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

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



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

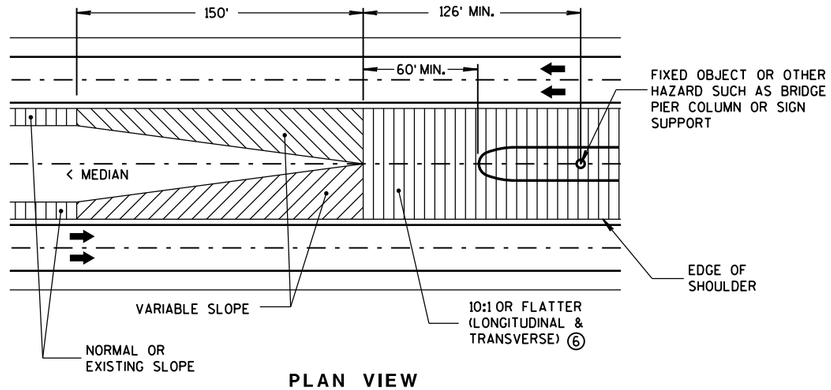
TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

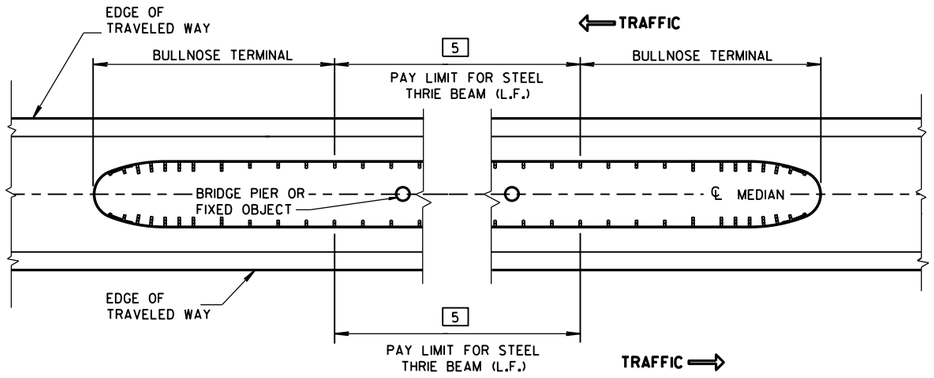
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

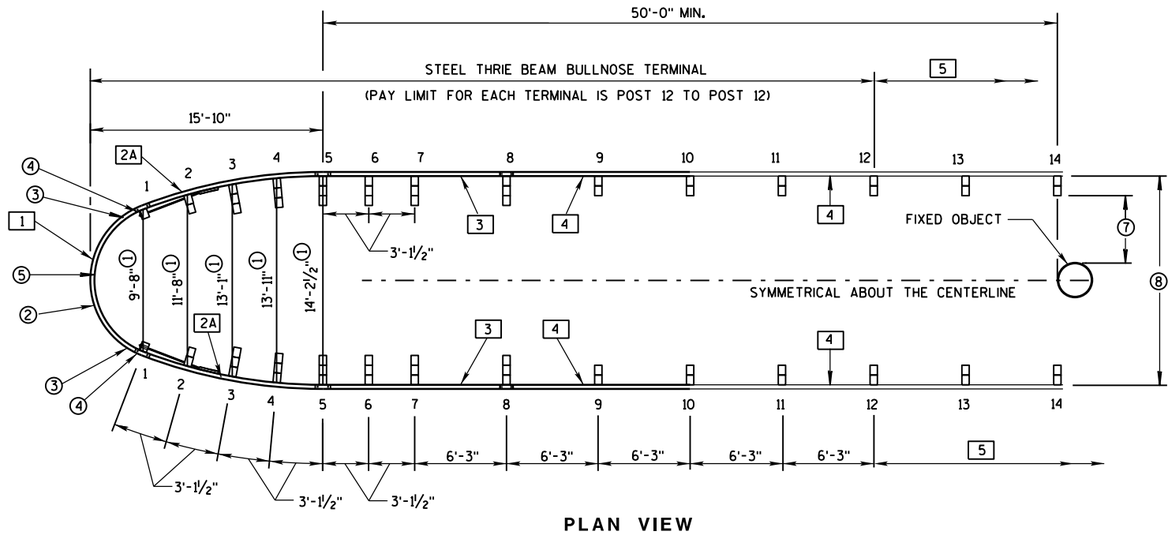


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

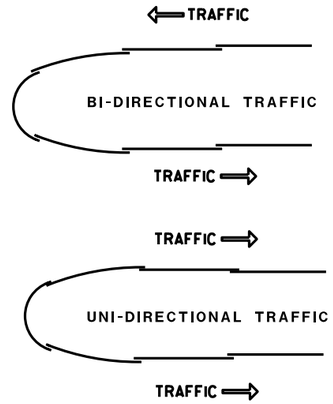


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

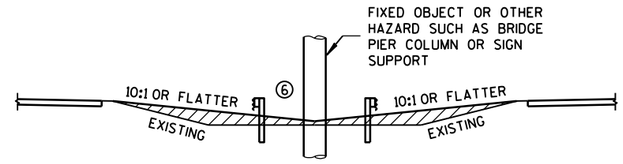
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

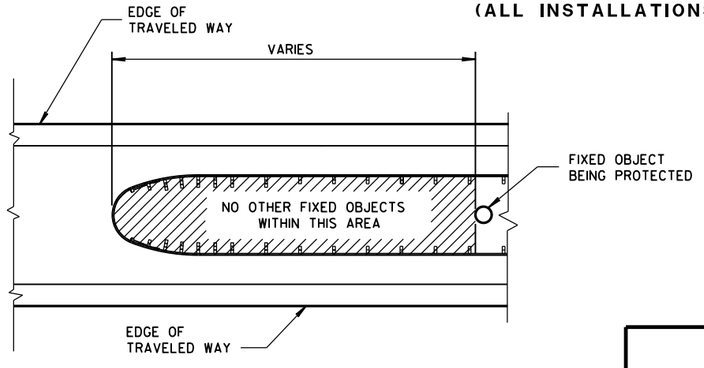
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)



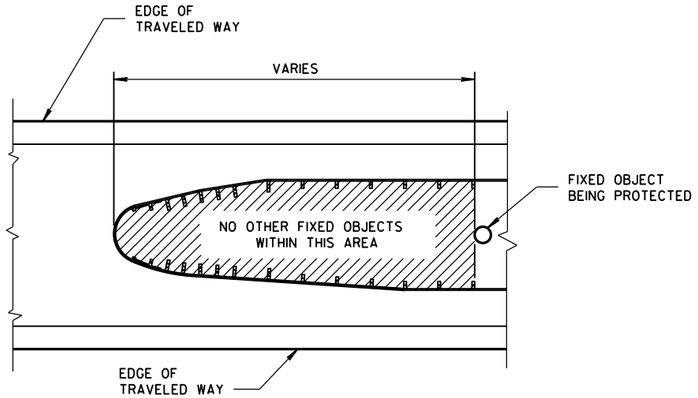
HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 26-2a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

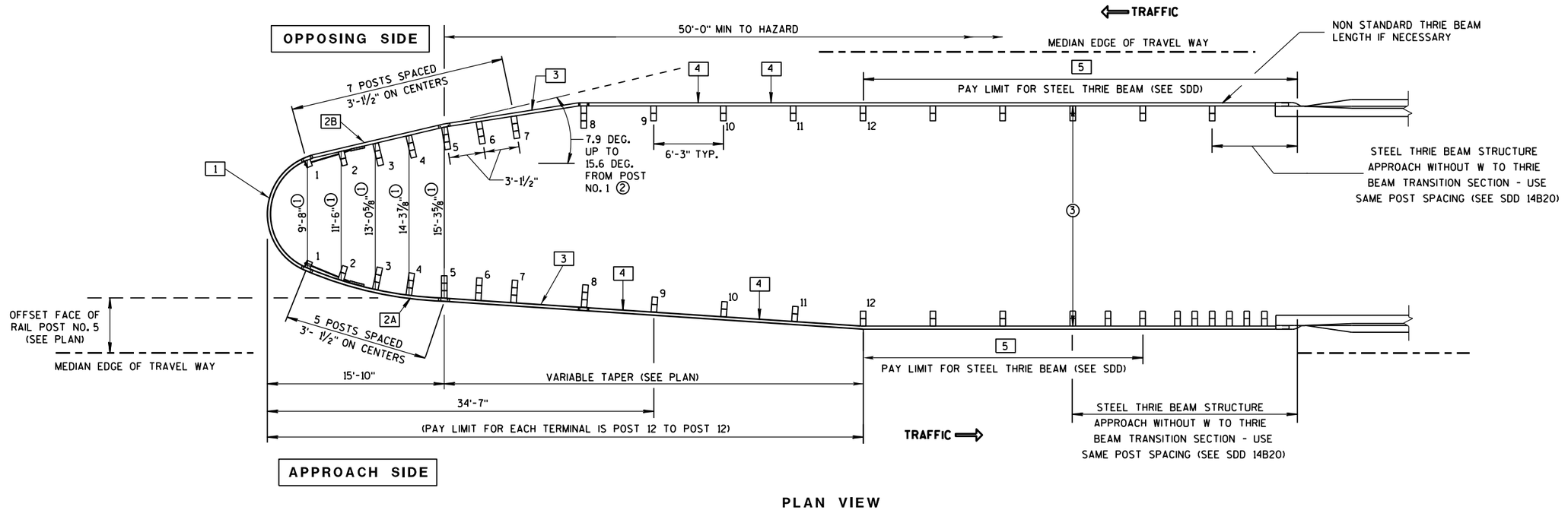
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

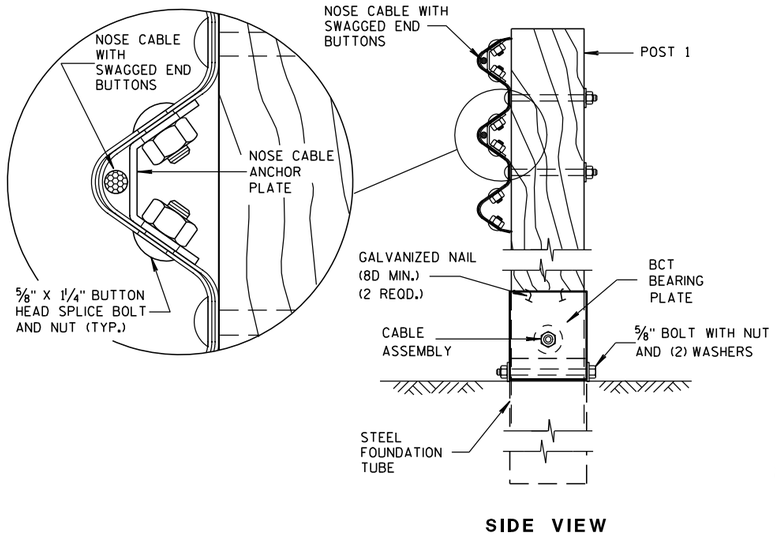
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

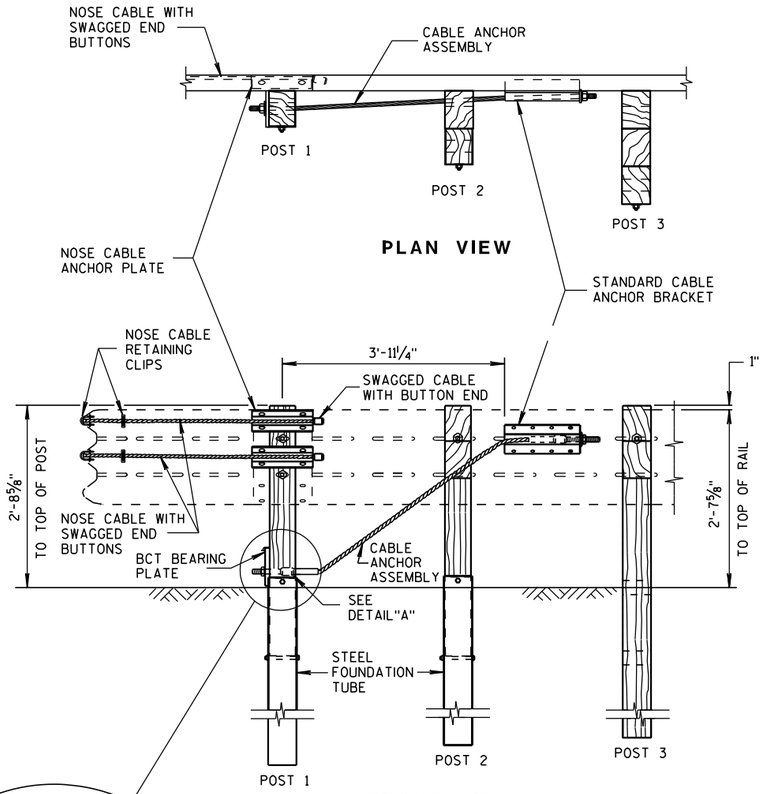
6

S.D.D. 14 B 26-2b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



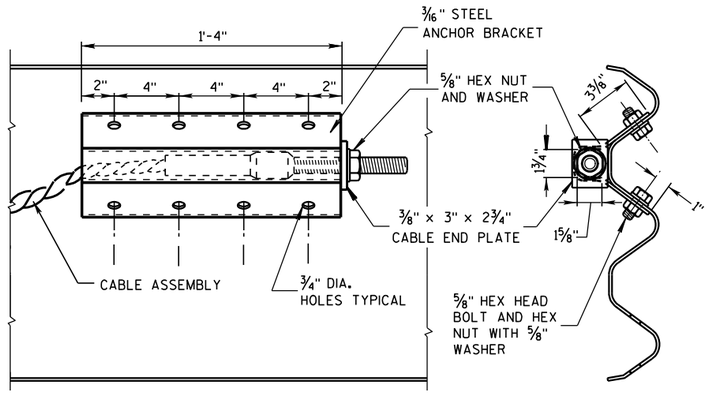
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

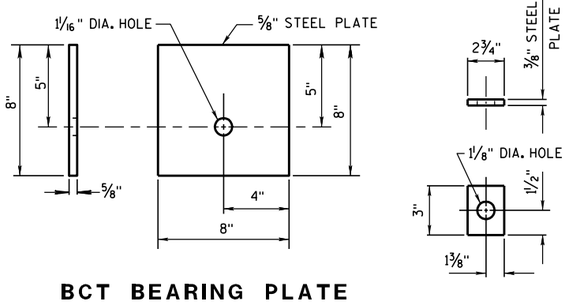
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



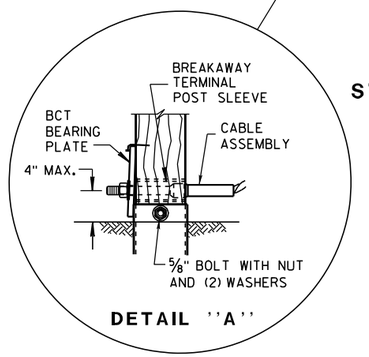
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

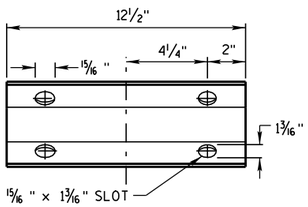


BCT BEARING PLATE

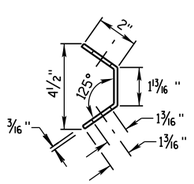
CABLE END PLATE



DETAIL ''A''



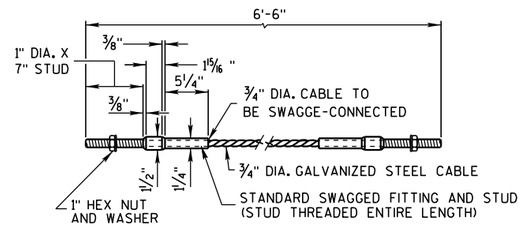
ELEVATION VIEW



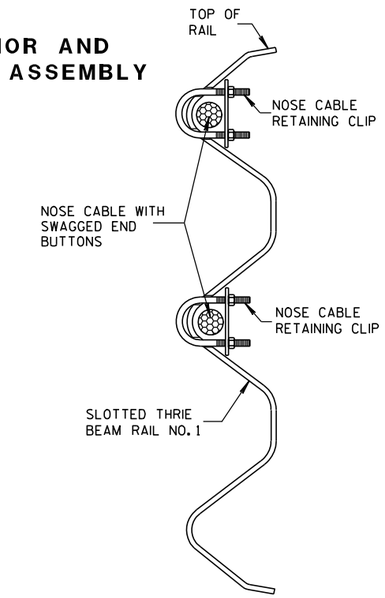
END VIEW

NOSE CABLE ANCHOR PLATE

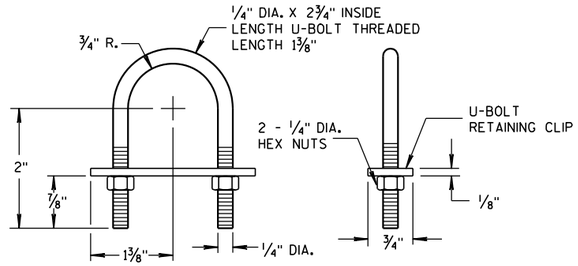
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



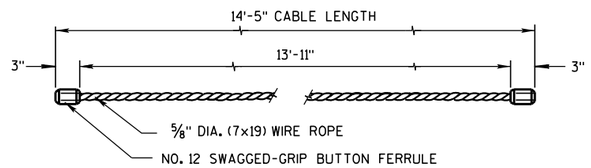
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

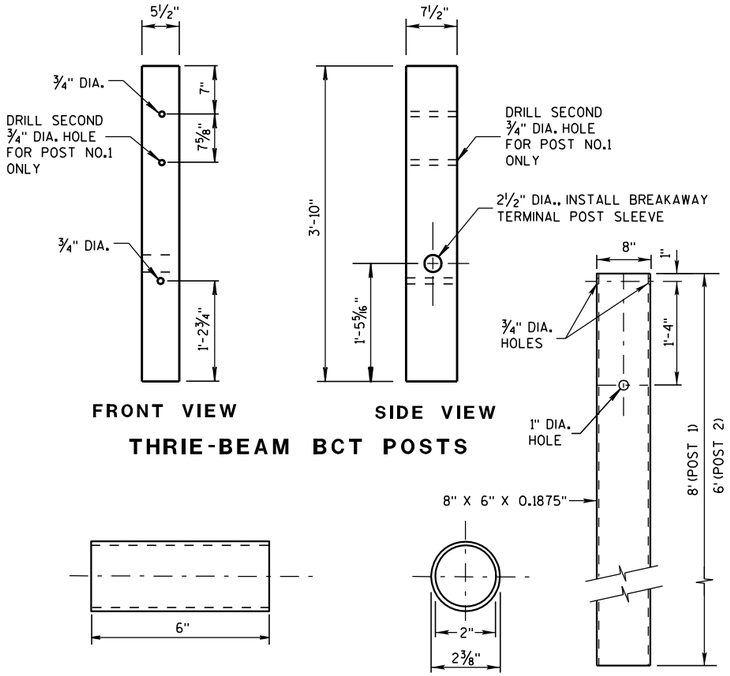
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

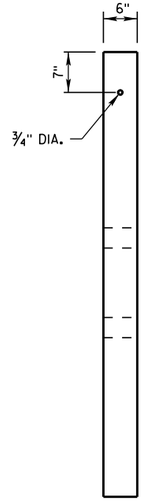
S.D.D. 14 B 26-2c

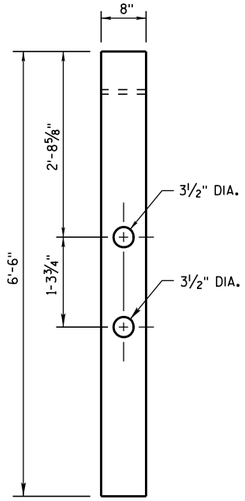


THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

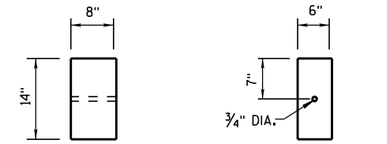




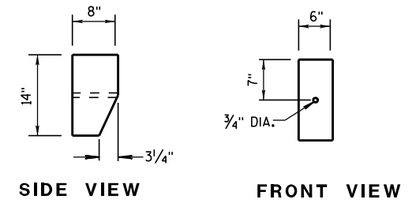
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

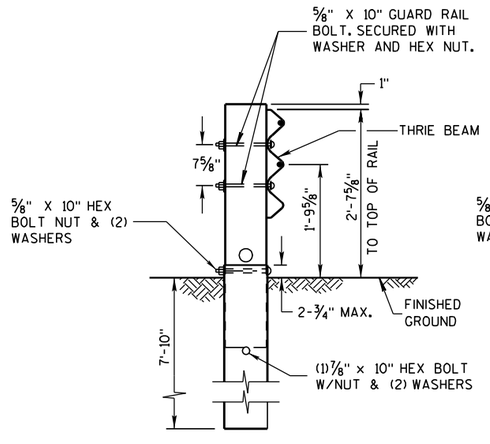
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

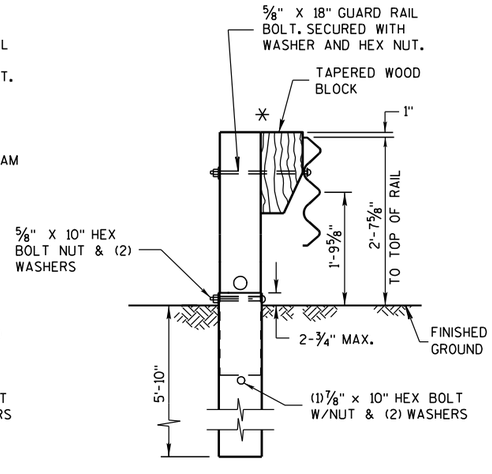


TAPERED WOOD BLOCK



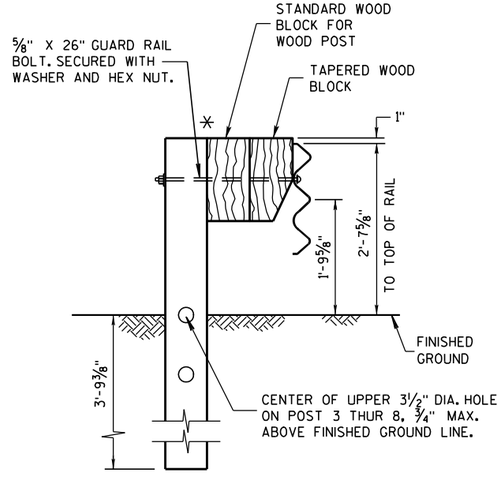
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



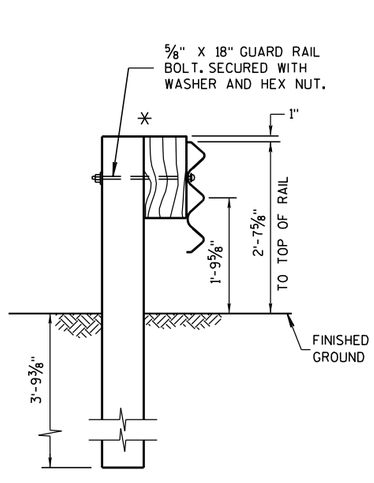
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12
(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

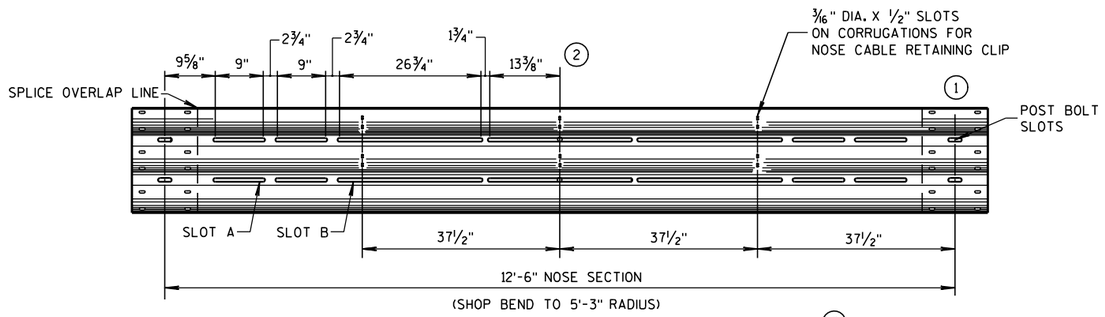
✳ IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

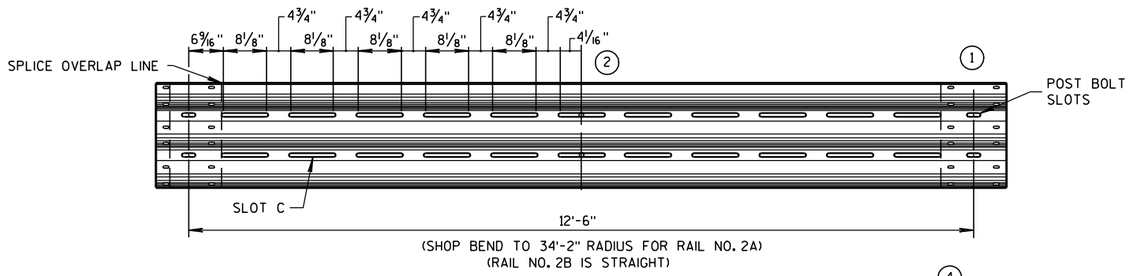
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

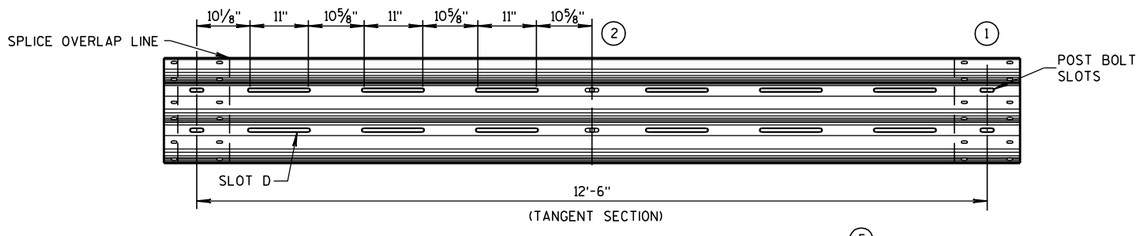
S.D.D. 14 B 26-2d



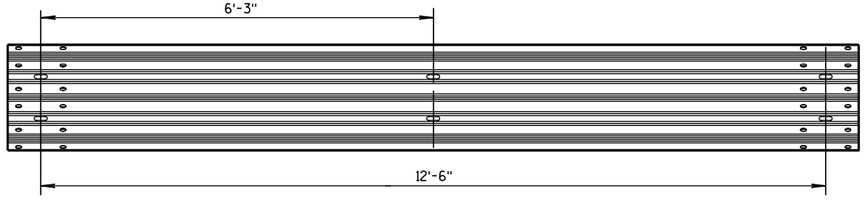
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

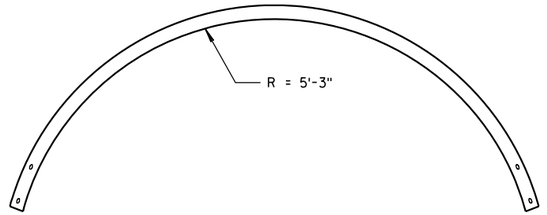
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

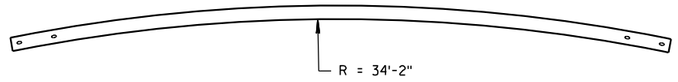
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



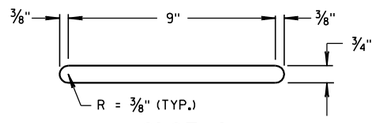
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

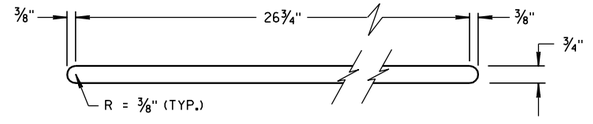


PLAN VIEW

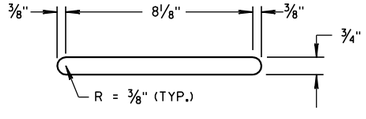
SLOTTED THRIE BEAM RAIL NO. 2A



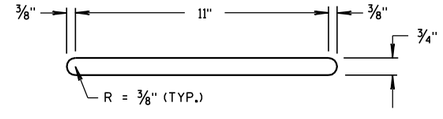
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM BULLNOSE TERMINAL

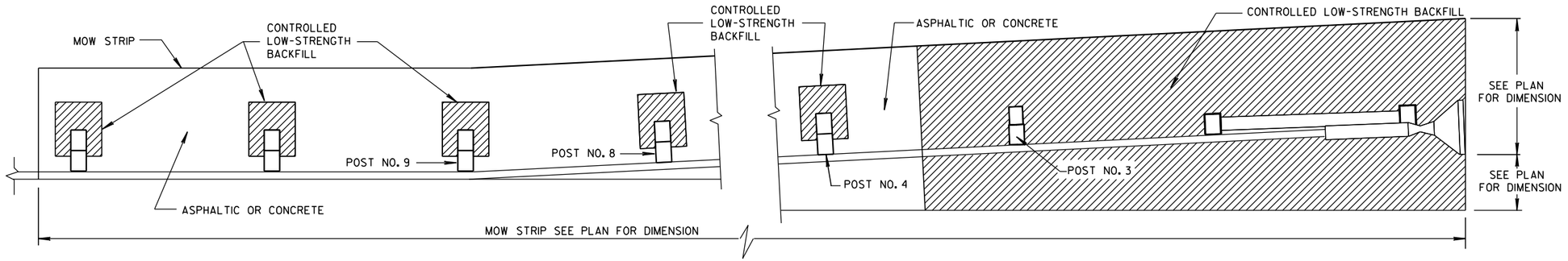
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-2010 — DATE

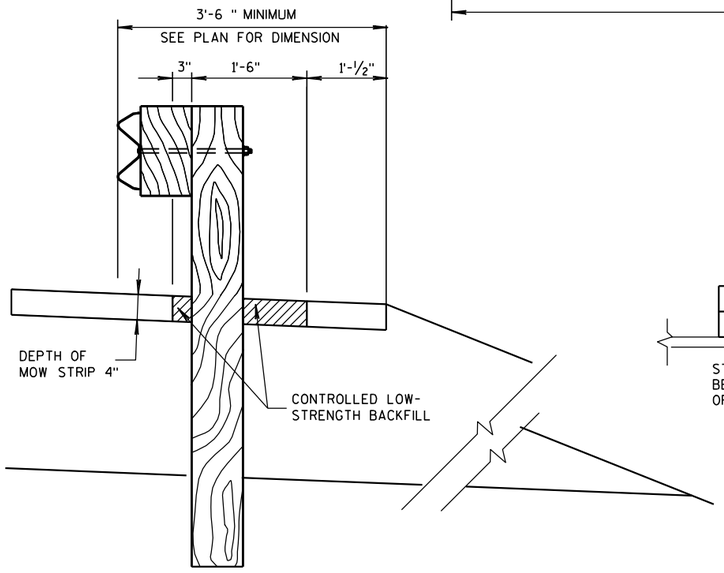
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER

FHWA

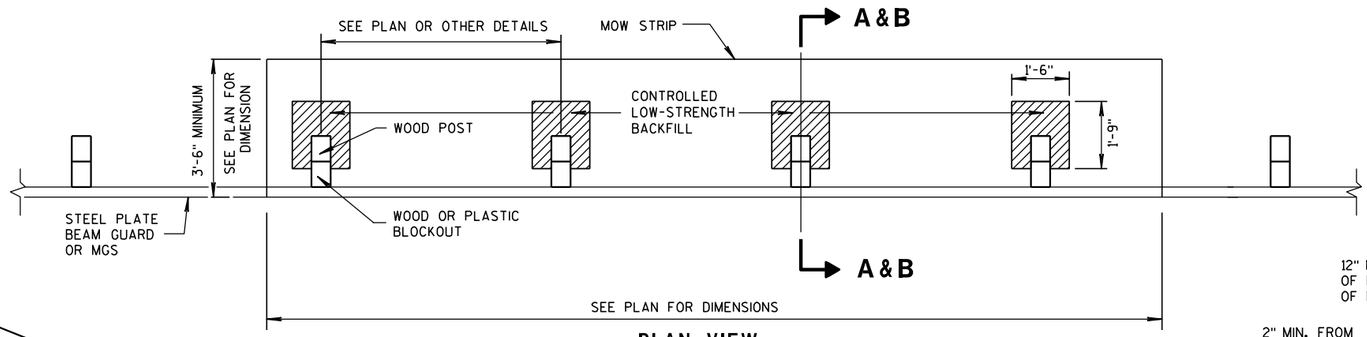


PLAN VIEW

MOW STRIP FOR STEEL PLATE BEAM GUARD ENERGY ABORBING TERMINAL

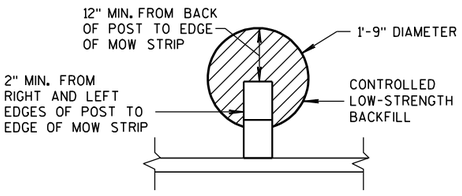


SECTION A-A

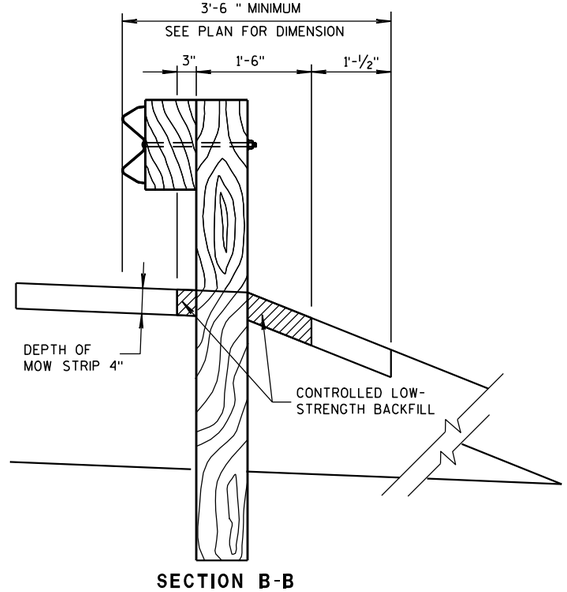


PLAN VIEW

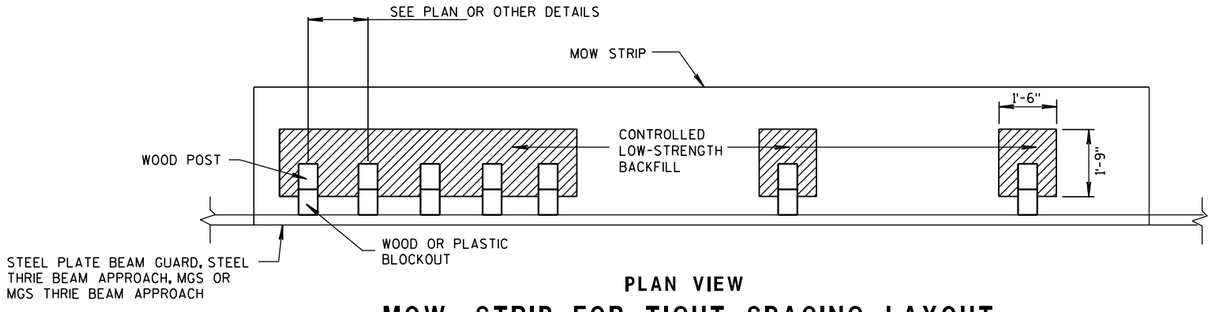
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



ALTERNATIVE HMA
MOW STRIP DESIGN

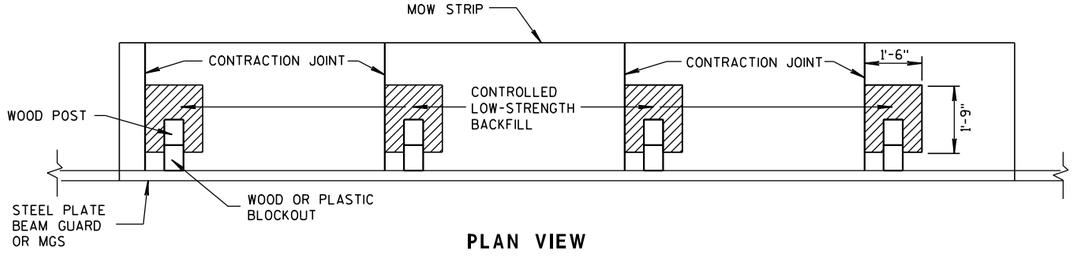


SECTION B-B



PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/27/12
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS 1233
ENGINEER

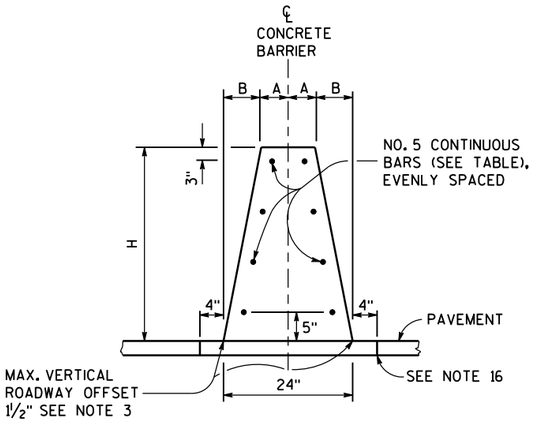
FHWA

6

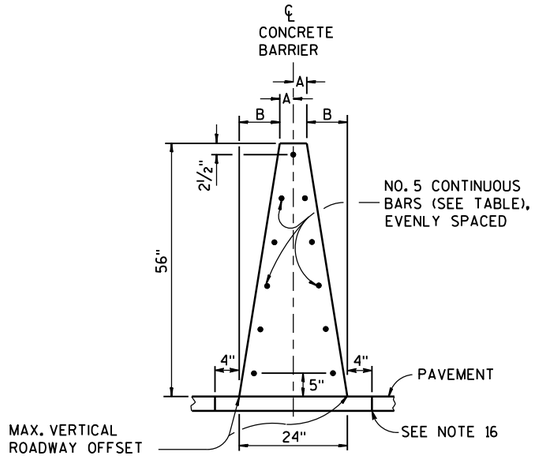
S.D.D. 14 B 28-2

6

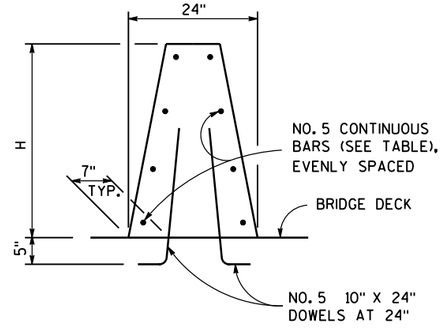
S.D.D. 14 B 28-2



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



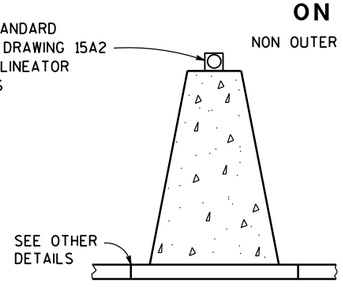
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.
16. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCERET BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



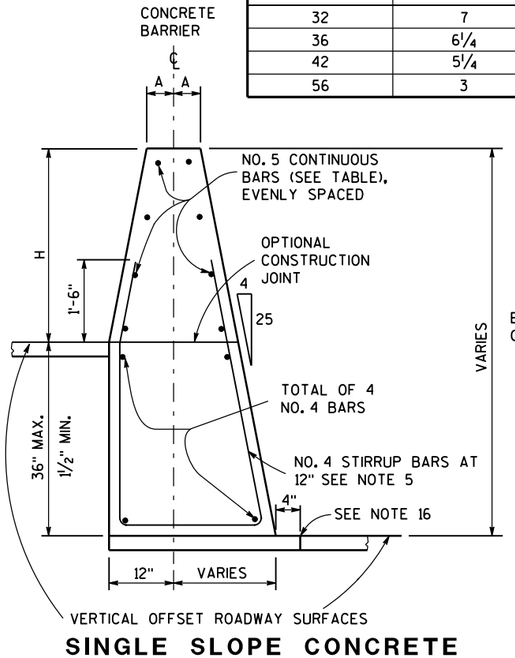
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

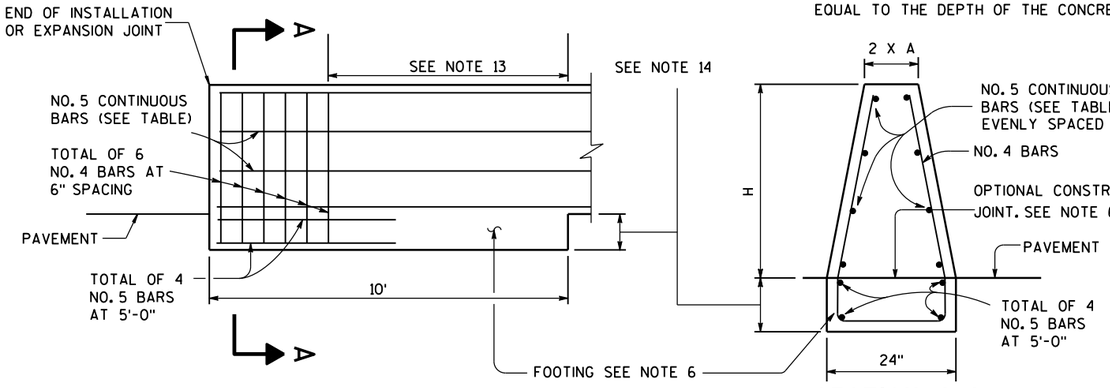
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

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



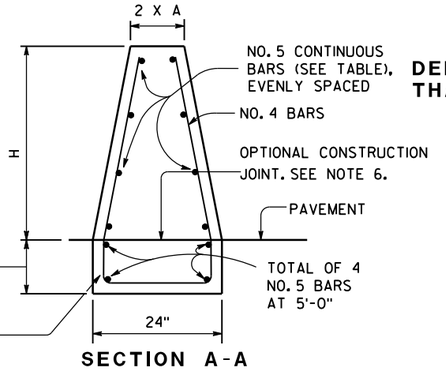
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT

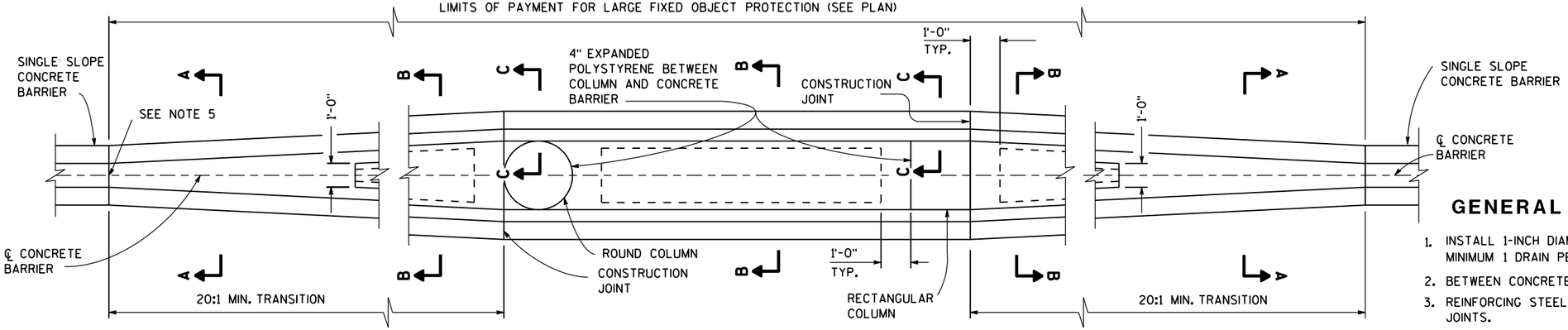


SECTION A-A

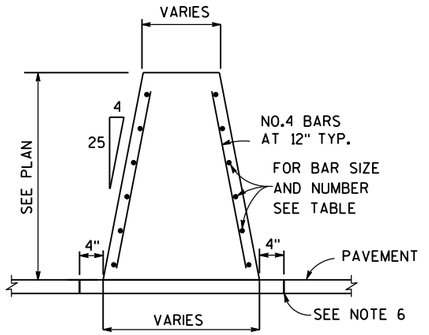
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

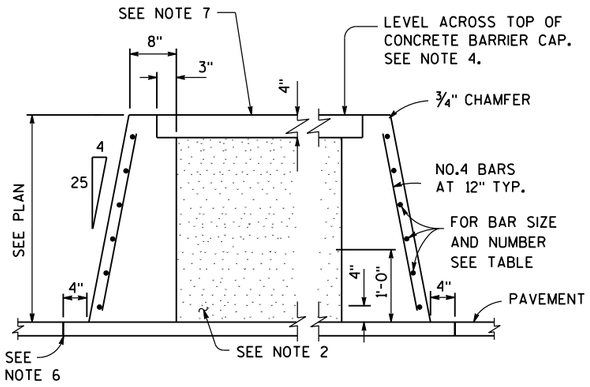
6
S.D.D. 14 B 32-2a



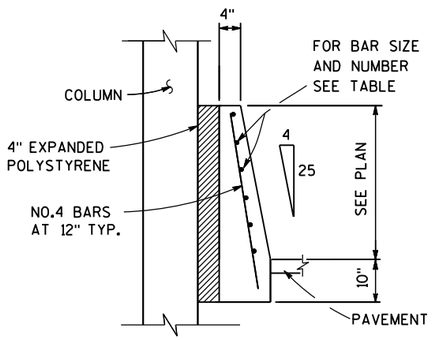
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



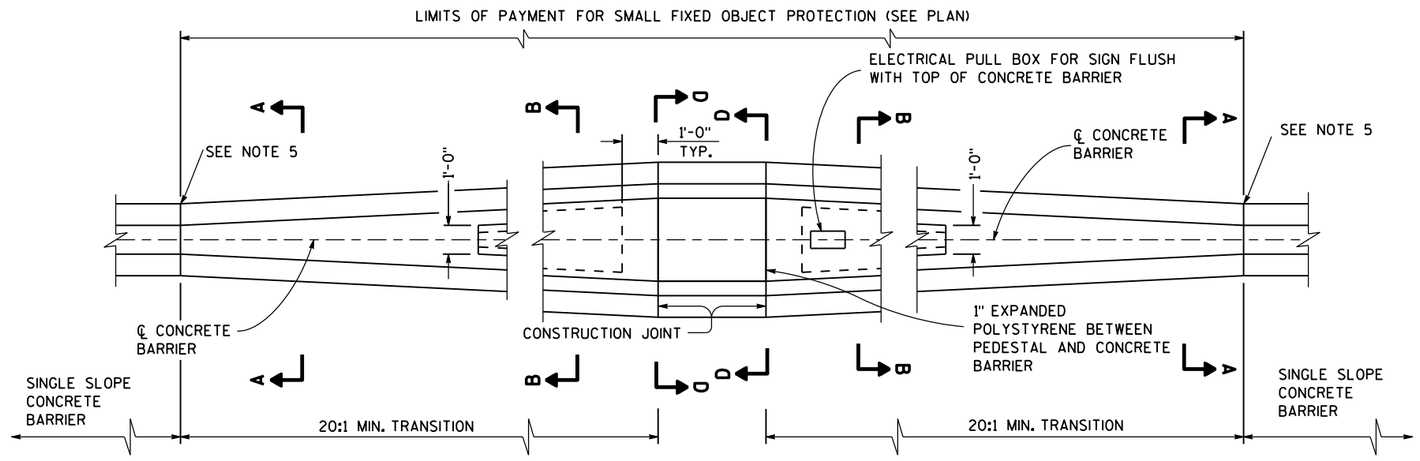
SECTION A-A



SECTION B-B



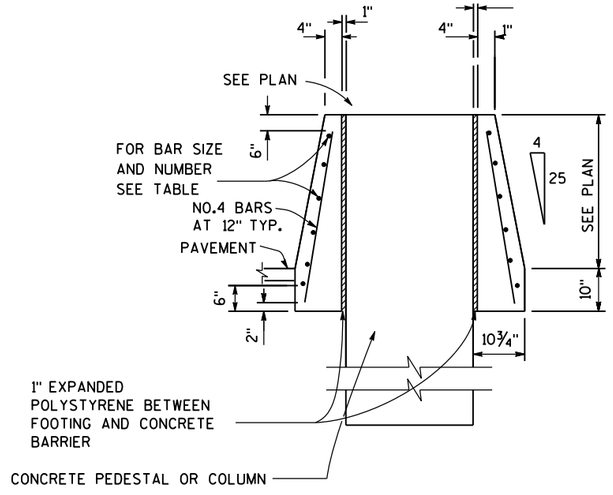
SECTION C-C



SMALL FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56

GENERAL NOTES

1. INSTALL 1-INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B-B. MINIMUM 1 DRAIN PER CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH GRANULAR BACKFILL GRADE 2
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.
6. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
7. USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.



SECTION D-D

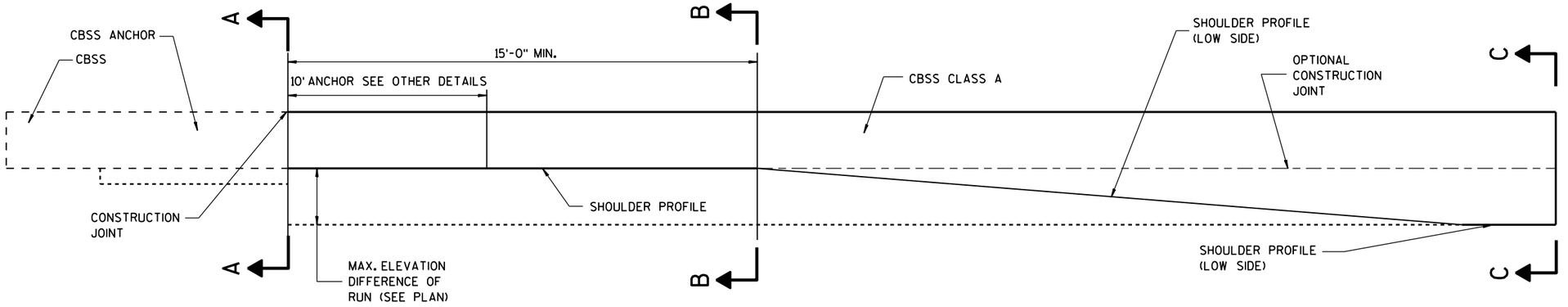
BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

CONCRETE BARRIER SINGLE SLOPE (CBSS)

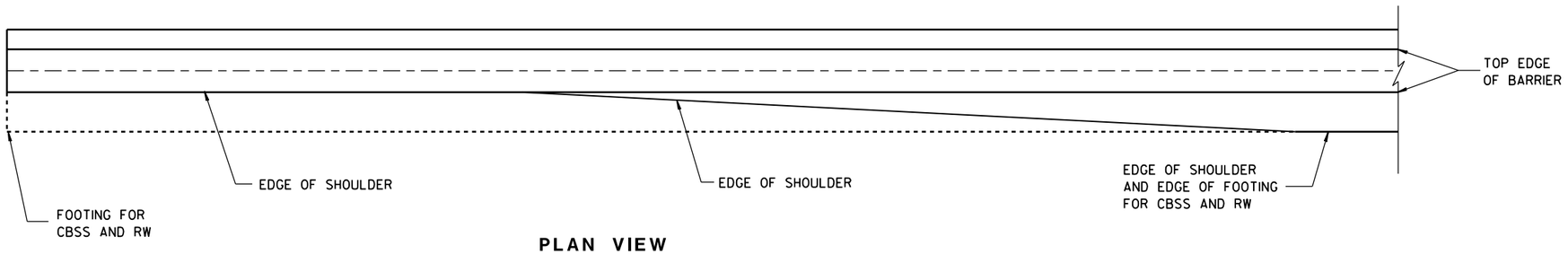
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

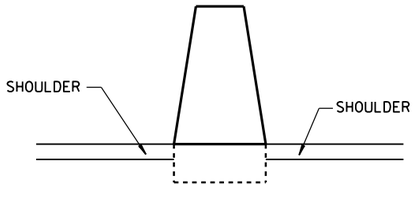
S.D.D. 14 B 32-2b



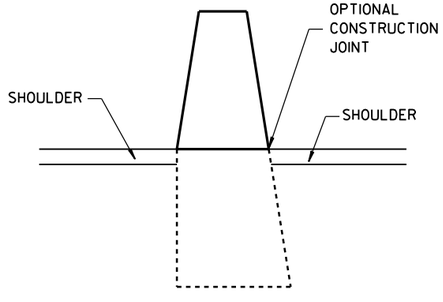
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



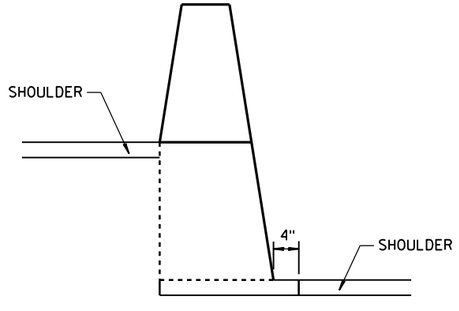
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



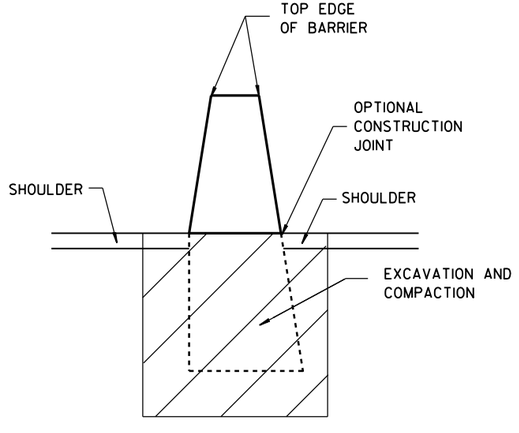
SECTION A-A



SECTION B-B



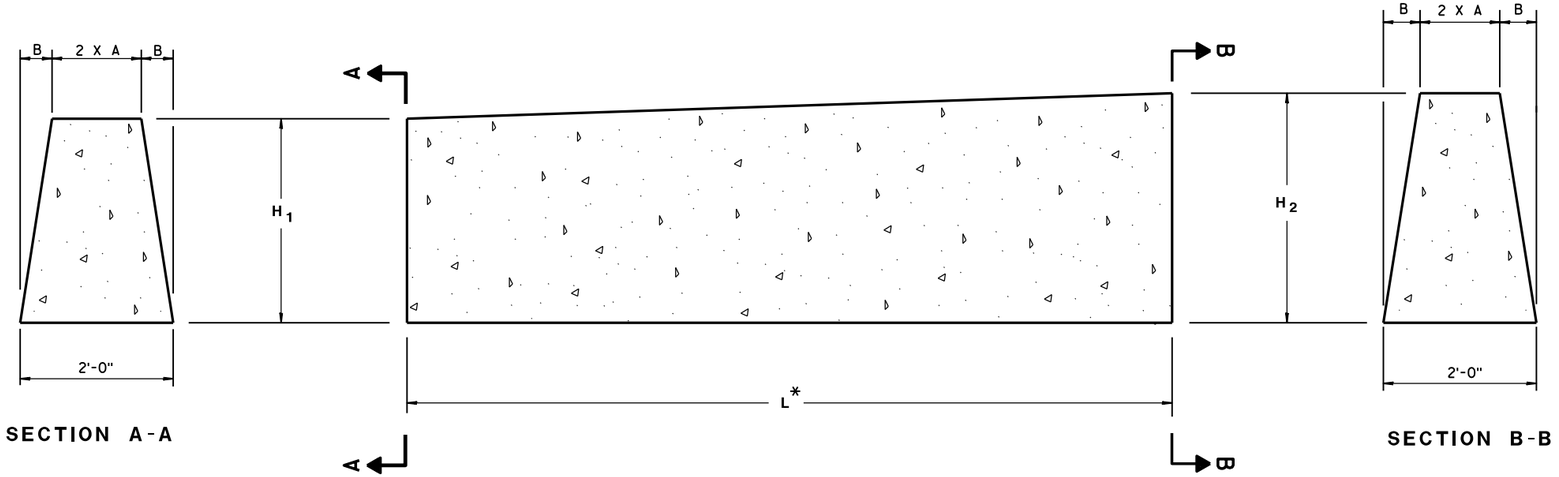
SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 32-2c



SECTION A-A

SECTION B-B

DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

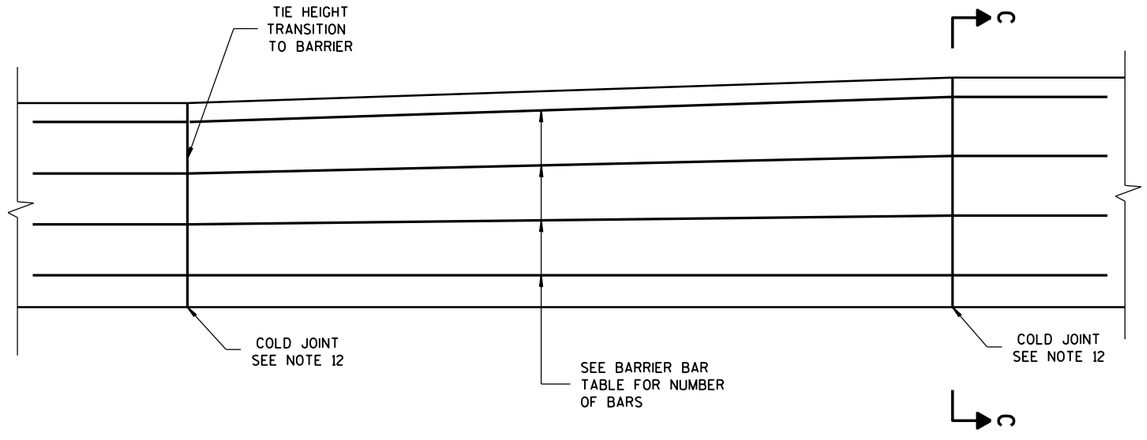
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

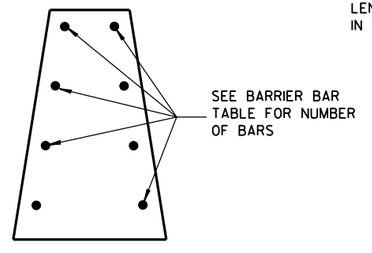
BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10'-0"	8
36"	42"	10'-6"	10
42"	56"	24'-6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-10-2013
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

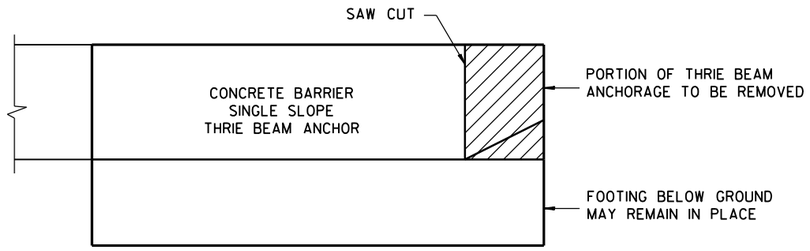
FHWA

6

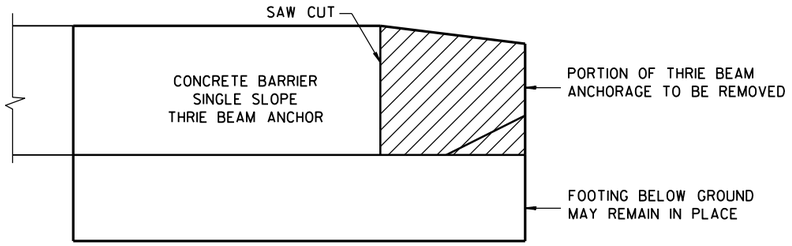
S.D.D. 14 B 32-2d

6

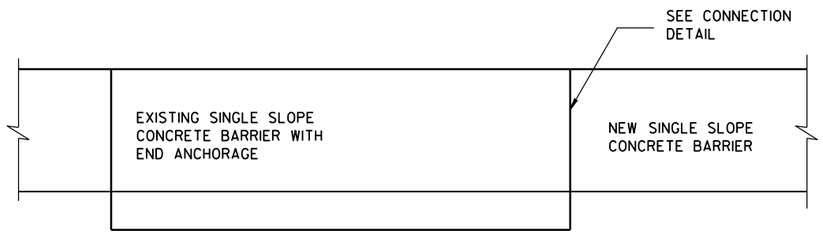
S.D.D. 14 B 32-2d



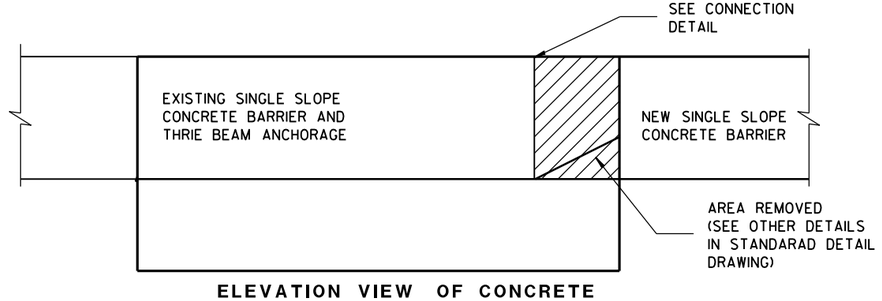
REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE



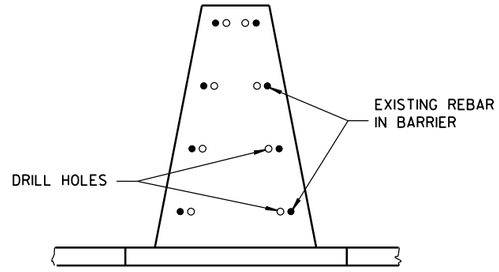
REMOVAL AREA OF CONCRETE THRIE BEAM
ANCHORAGE WITH HEIGHT GREATER THAN 32"



ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR END ANCHORAGE



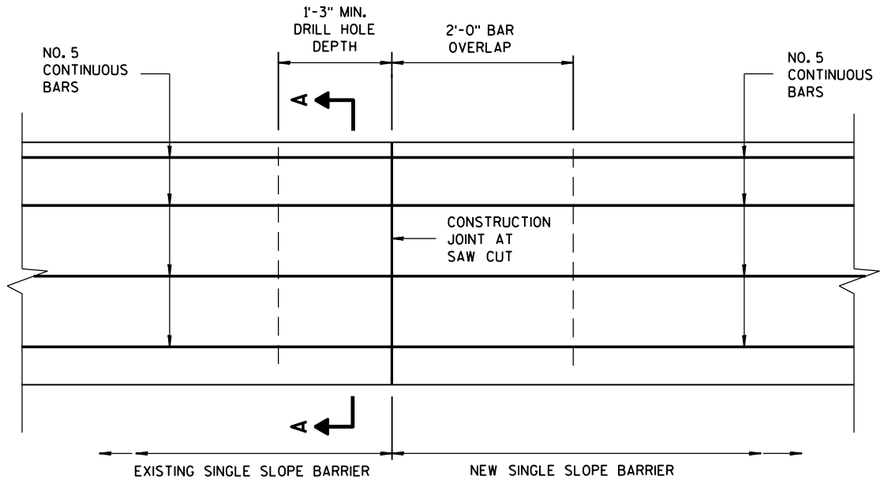
ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR THRIE BEAM TERMINAL



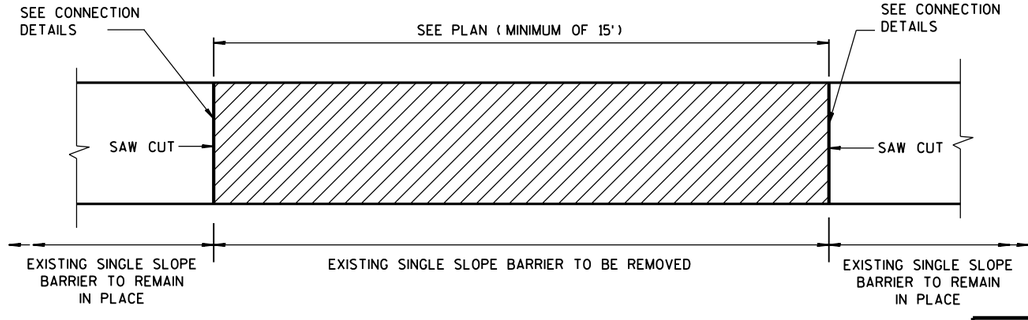
SECTION A-A

GENERAL NOTES

1. THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF REBAR IN BARRIER (SEE OTHER DETAILS).
2. MINIMUM DEPTH OF DRILL HOLES IS 1'-3".
3. DRILL HOLES TO BE A MINIMUM OF 4 INCHES FROM THE EDGE OF CONCRETE.
4. INSTALL EPOXY COATED NO. 5 BARS IN DRILL HOLES.
5. END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIER.
6. REMOVE THRIE BEAM ANCHORAGE AS SHOWN.
7. ALL ITEMS INCLUDED WITH CONCRETE BARRIER ITEMS EXCEPT FOR REMOVAL.



CONNECTION OF EXISTING SINGLE SLOPE CONCRETE BARRIER TO
NEW SINGLE SLOPE CONCRETE BARRIER



ELEVATION FILE
BARRIER REMOVAL AND REPLACEMENT

CONCRETE BARRIER
SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-10-2013
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

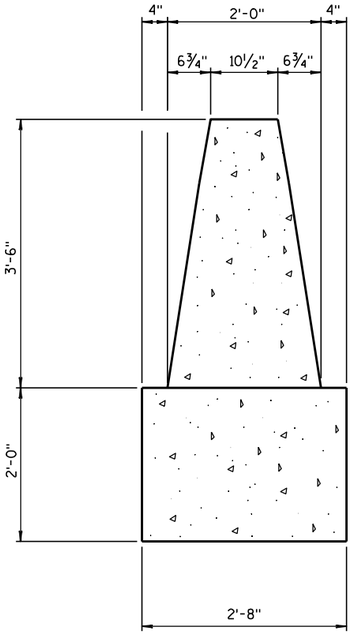
RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

6

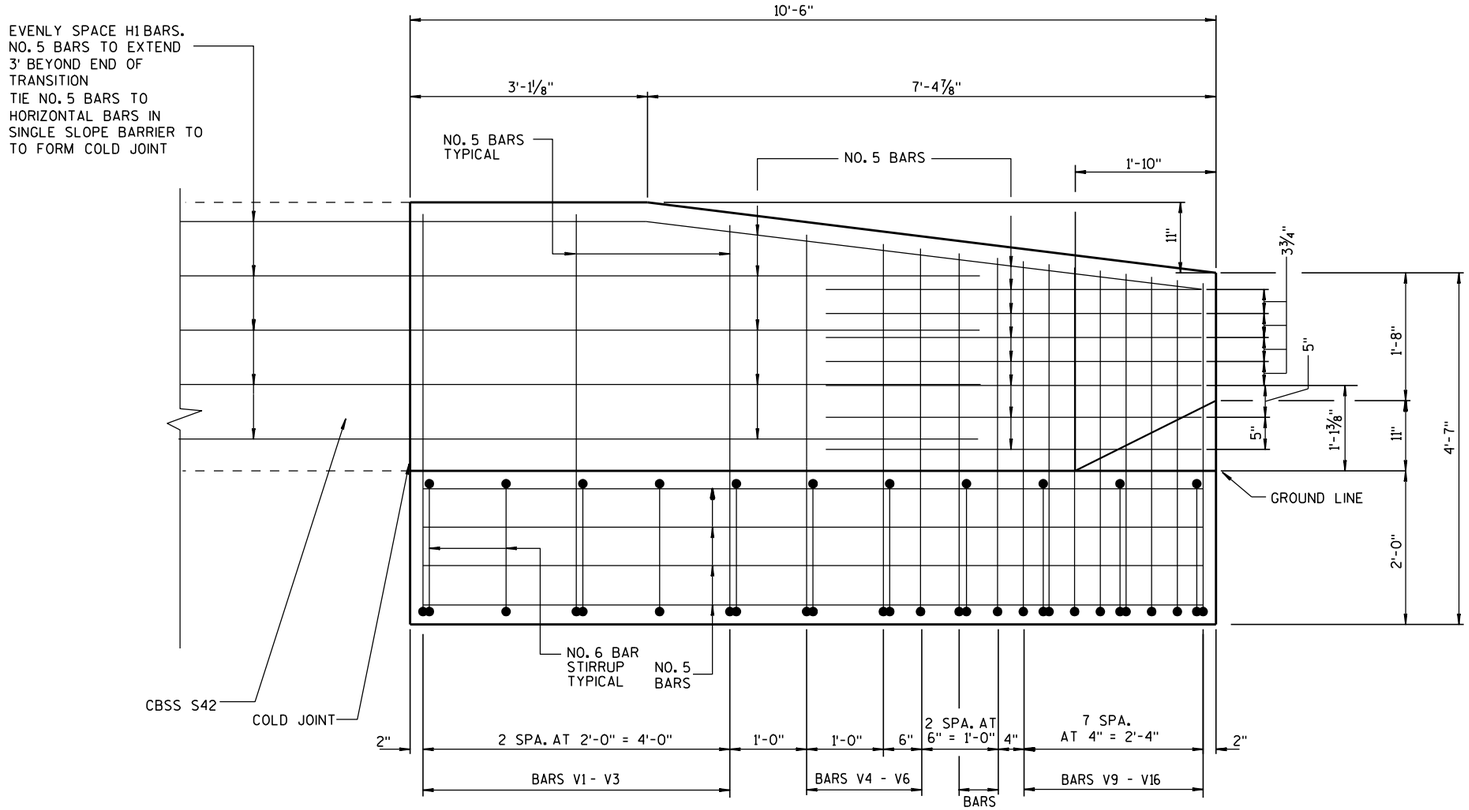
S.D.D. 14 B 32-2e

6

S.D.D. 14 B 32-2e

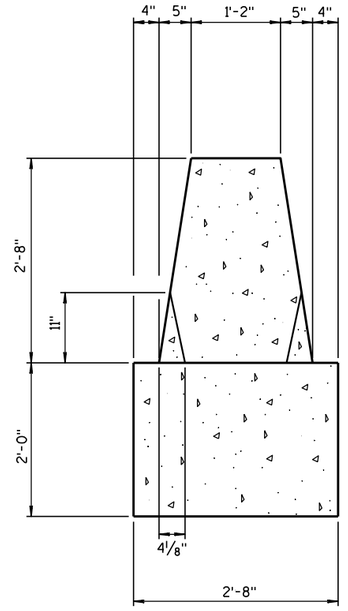


SECTION A-A

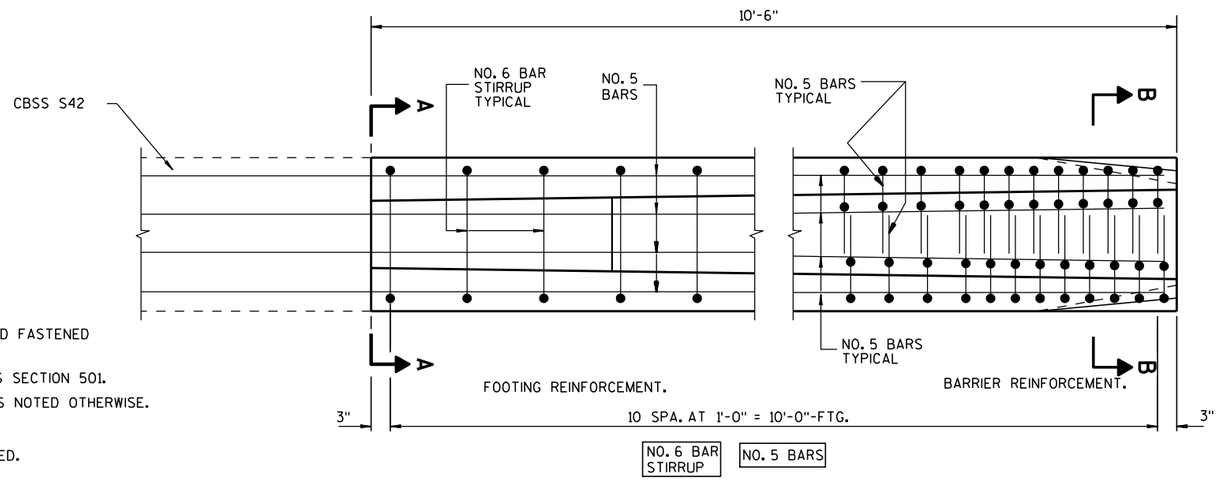


SEE SECTIONS ① THRU ⑯

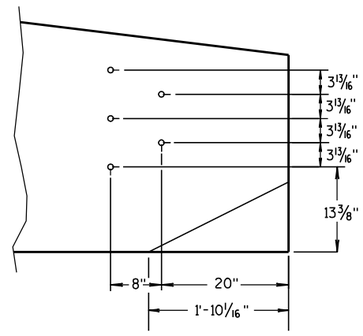
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE of BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

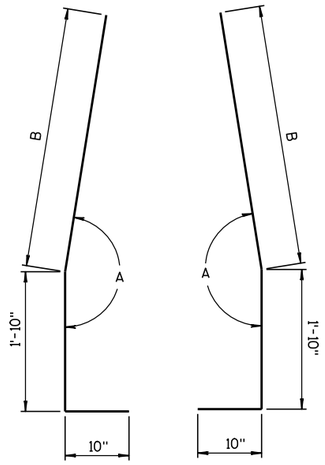
CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 33-1g

BAR CHART
SECTIONS V1 - V11

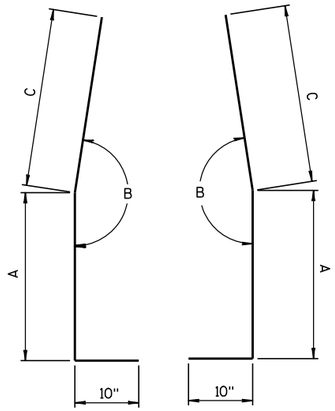
BAR	A	B
V1	170°-50'	3'-4½"
V2	171°-20'	3'-4½"
V3	171°-30'	3'-2½"
V4	171°-25'	3'-1½"
V5	171°-15'	3'-0"
V6	171°-15'	2'-11"
V7	171°-20'	2'-10½"
V8	171°-10'	2'-9½"
V9	171°-10'	2'-9"
V10	171°-05'	2'-8½"
V11	171°-10'	2'-8"



BAR BENDING DETAIL
FOR BARS V1 - V11

BAR CHART
SECTIONS V12 - V13

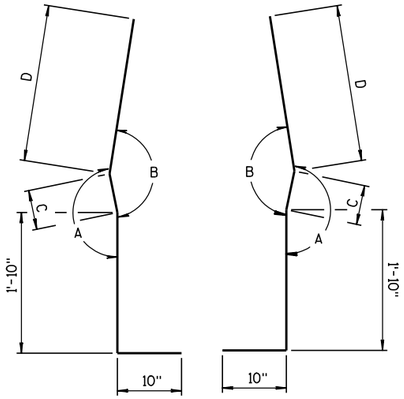
BAR	A	B	C
V12	2'-2"	171°-15'	2'-3½"
V13	2'-7"	171°-05'	1'-10"



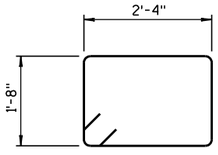
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

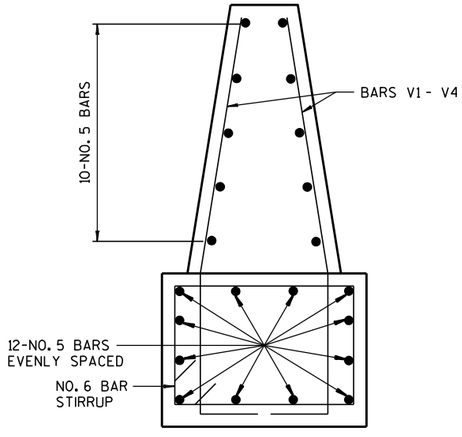
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



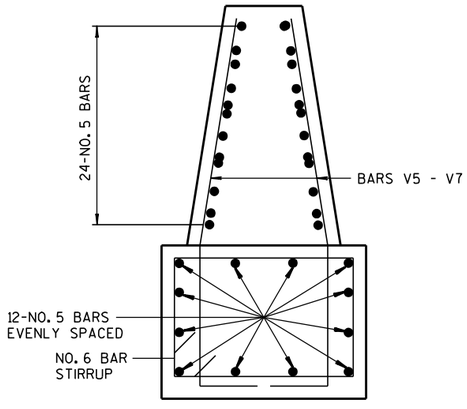
BAR BENDING DETAIL
FOR BARS V14 - V16



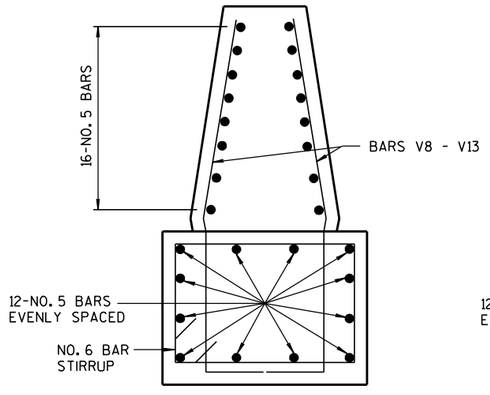
STIRRUP BAR
BENDING DETAIL



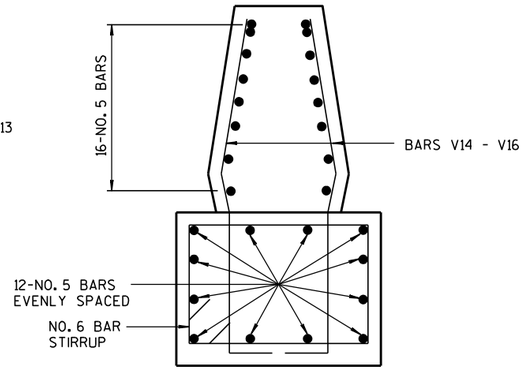
BAR DETAIL
SECTIONS V1 - V4



BAR DETAIL
SECTIONS V5 - V7



BAR DETAIL
SECTIONS V8 - V13



BAR DETAIL
SECTIONS V14 - V16

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-3-2010 DATE
/S/ Jerry H. Z--- ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 33-1h

GENERAL NOTES

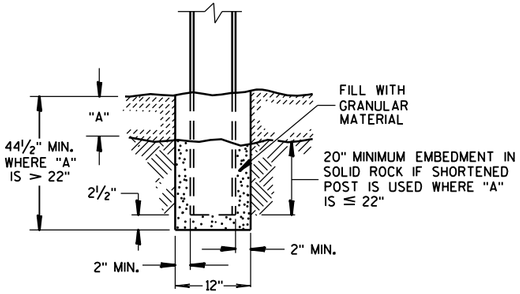
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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

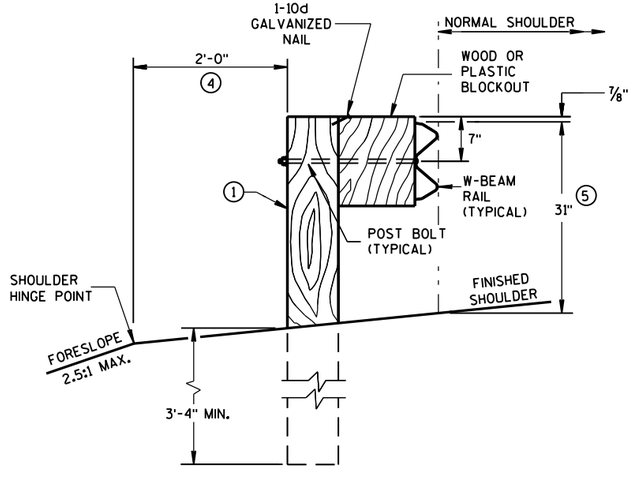
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO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

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

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

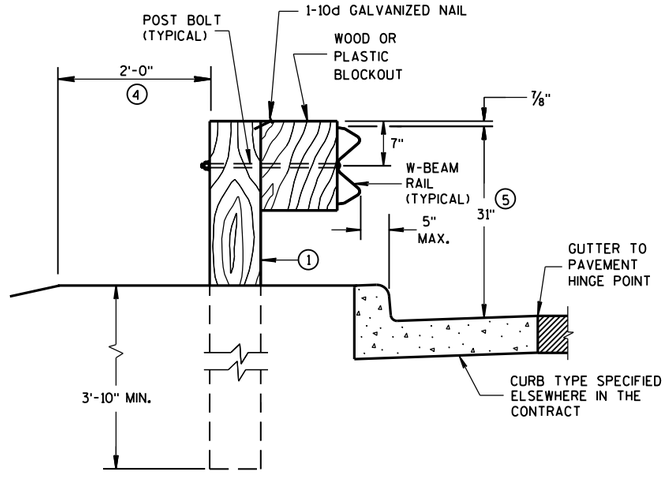


END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



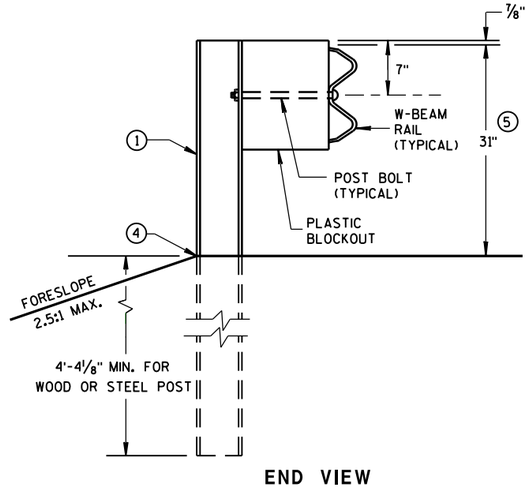
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



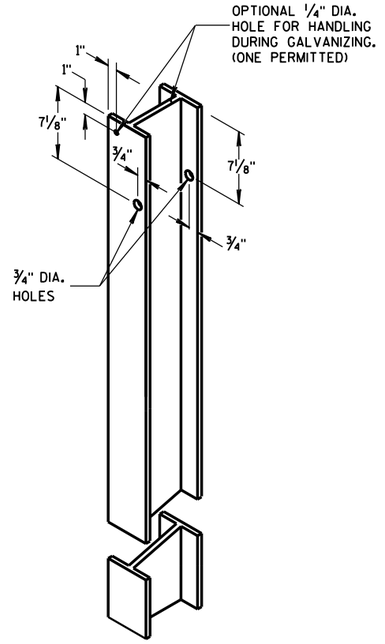
END VIEW

LOCATED ALONG A CURBED ROADWAY

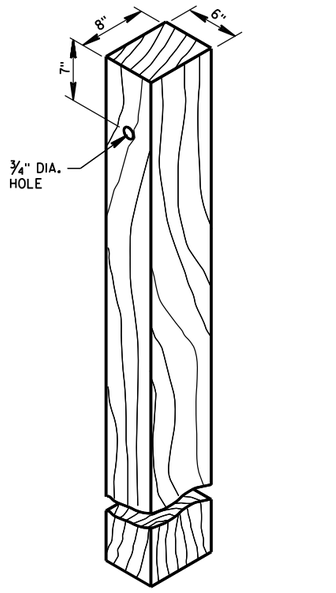


END VIEW

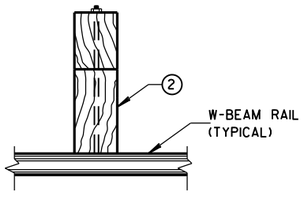
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



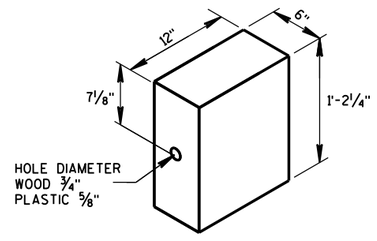
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



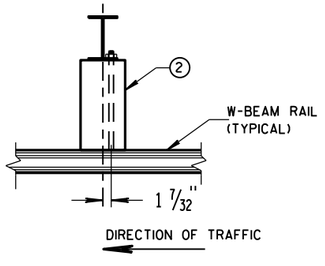
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

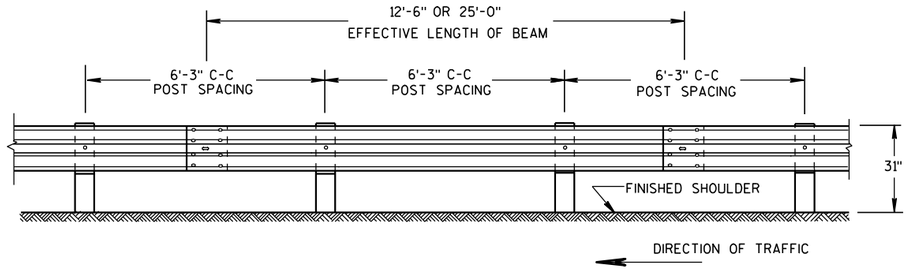


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

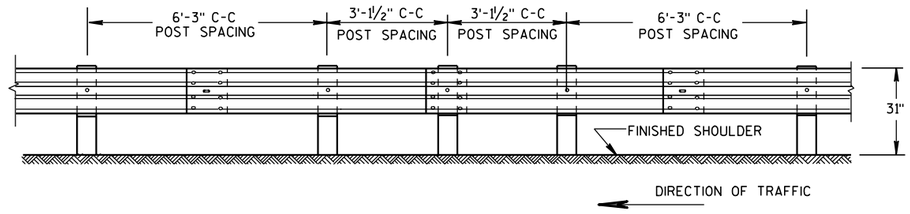
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



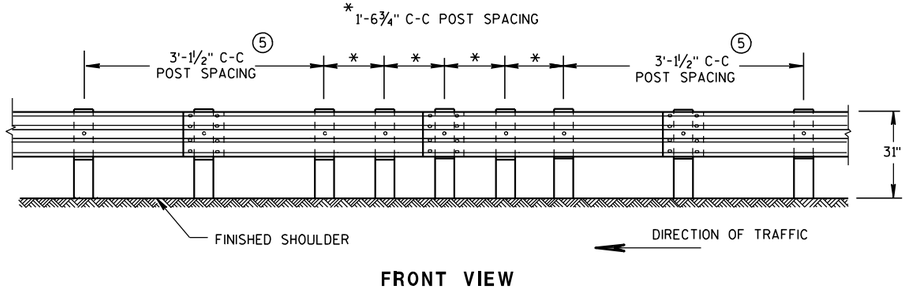
FRONT VIEW

POST SPACING STANDARD INSTALLATION



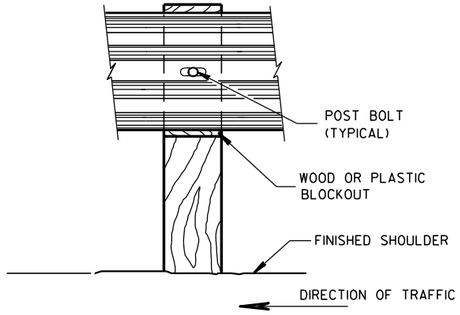
FRONT VIEW

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

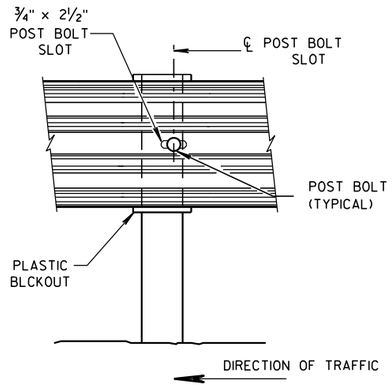


FRONT VIEW

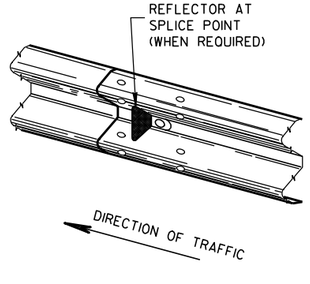
QUARTER POST SPACING (QS)

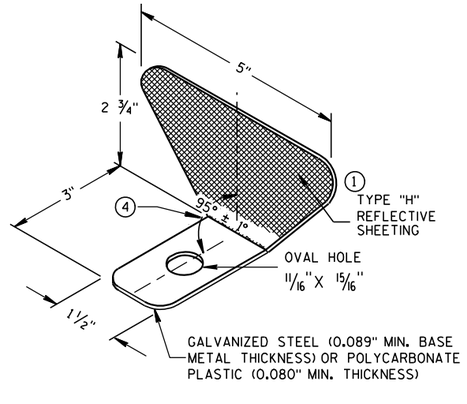


FRONT VIEW AT WOOD POST

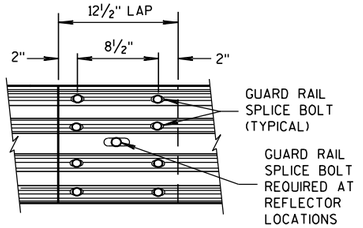


FRONT VIEW AT STEEL POST

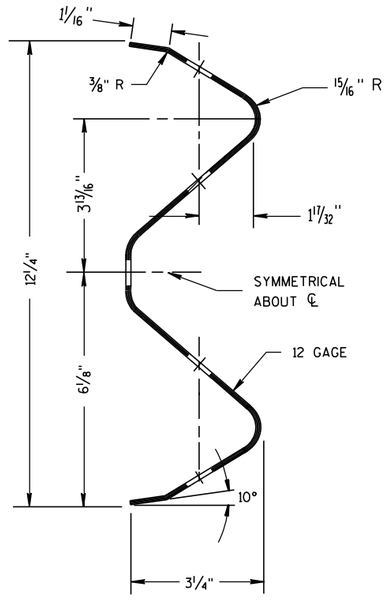




ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

GENERAL NOTES

① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.

② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

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

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

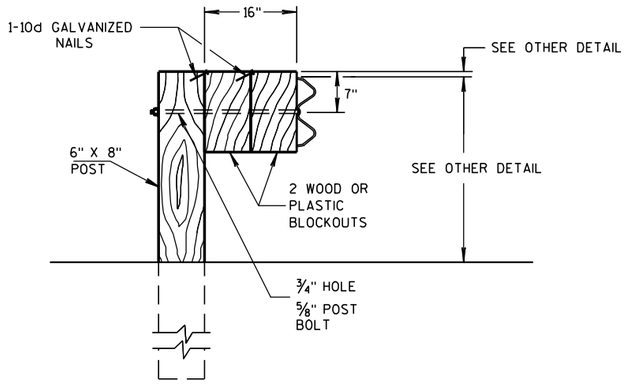
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

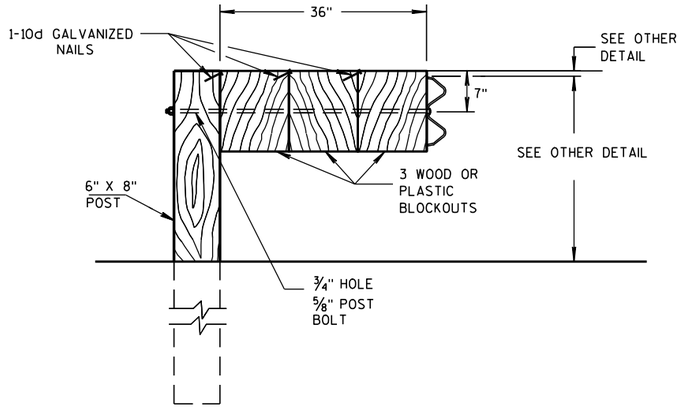
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

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

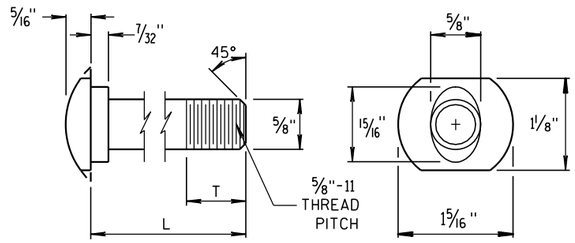


DETAIL FOR 36" BLOCKOUT DEPTH

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

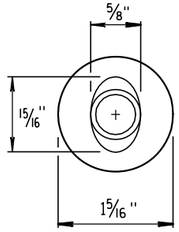
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

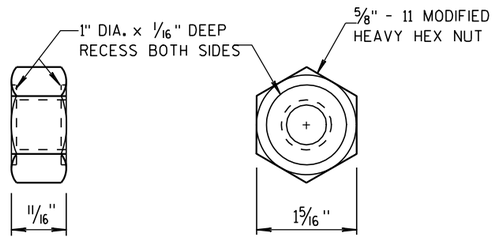


POST BOLT TABLE

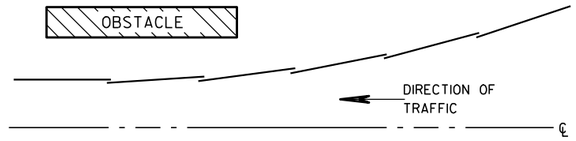
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

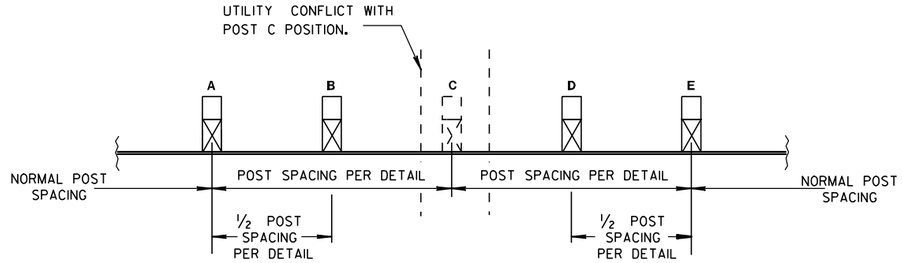


POST BOLT AND RECESS NUT

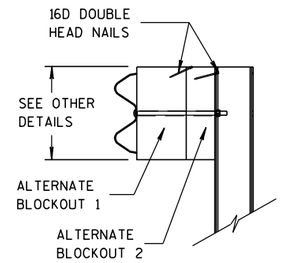


PLAN VIEW

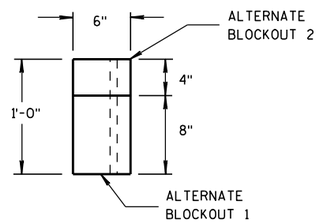
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

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

FHWA

ENT

6

S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

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

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

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

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

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

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

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

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

SEE SDD 14B42 FOR MORE INFORMATION.

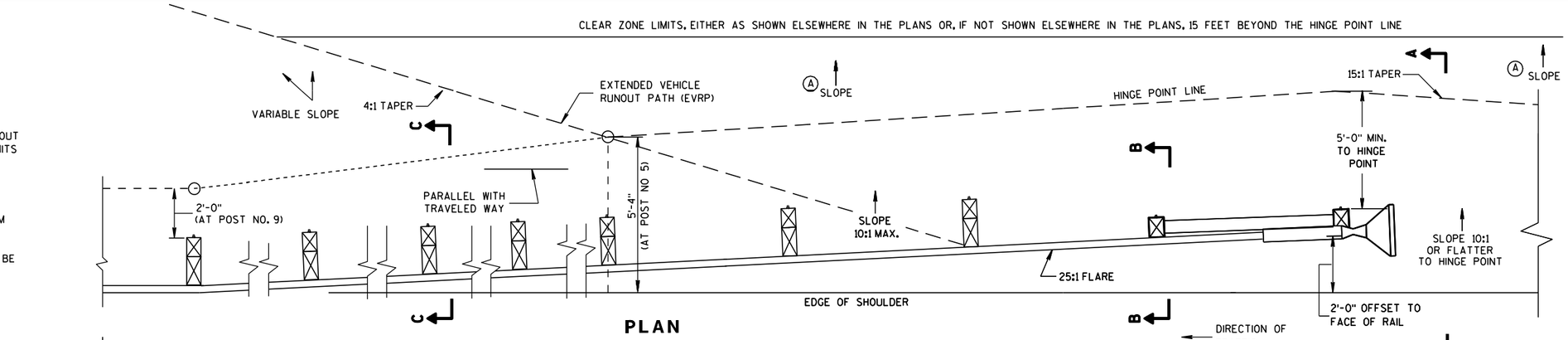
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

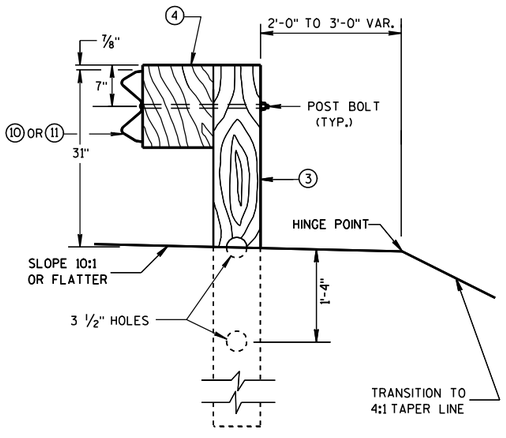
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

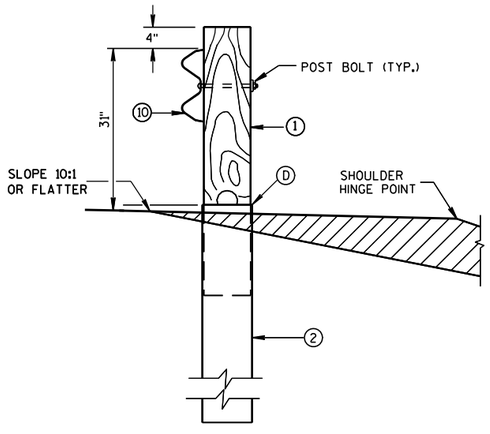
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

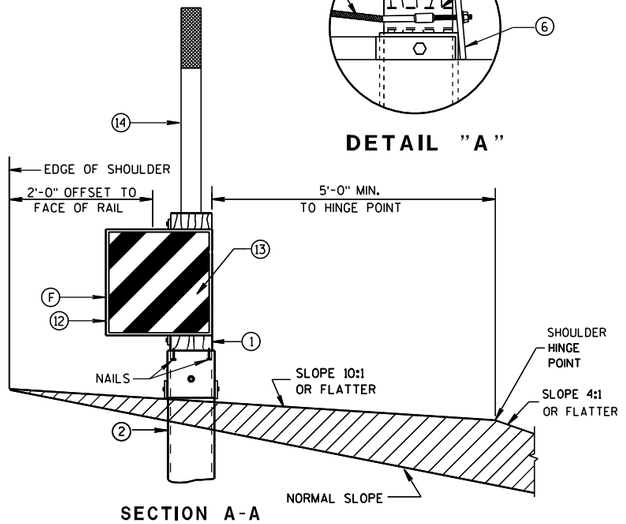




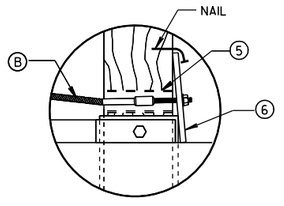
SECTION C-C
TYPICAL AT POST NOS. 3-9



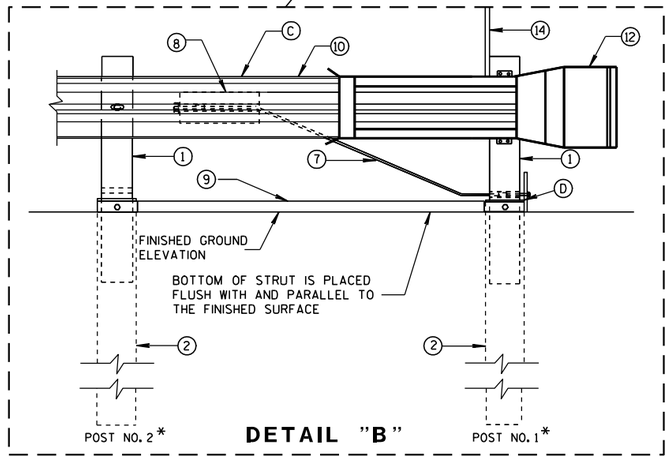
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 44-1a

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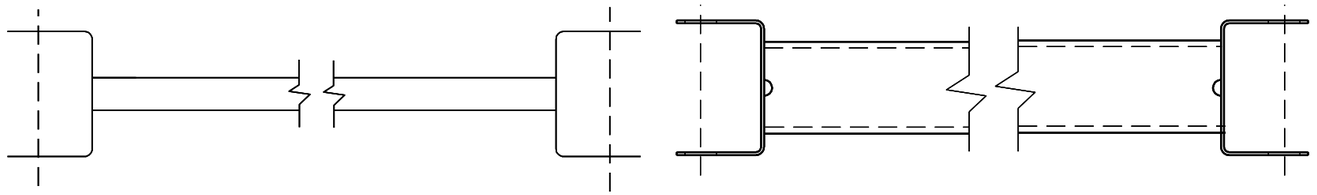
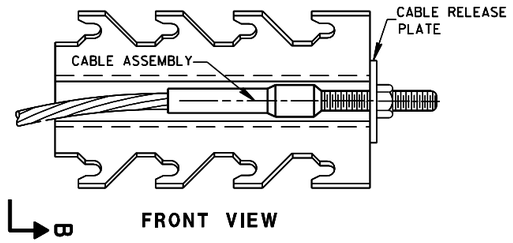


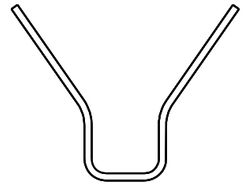
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

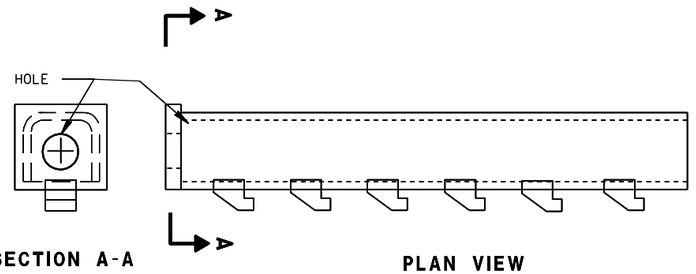
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR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



FRONT VIEW



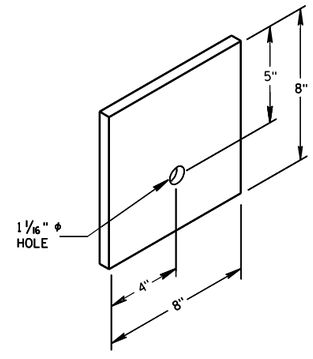
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)

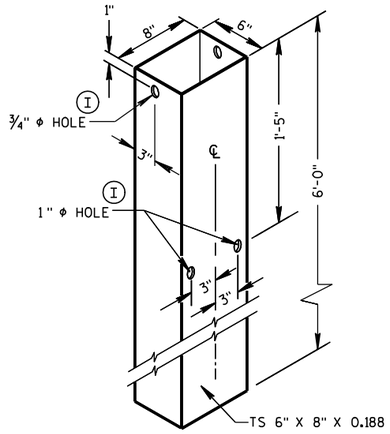


BEARING PLATE (6)

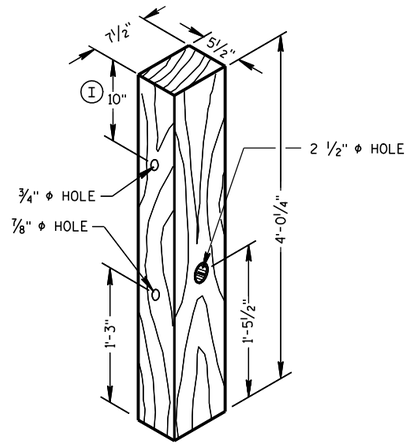
MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 44-1b

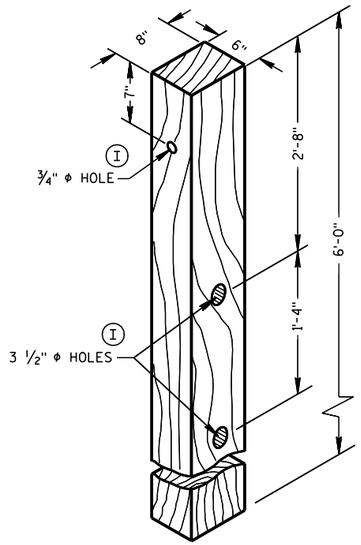


FOUNDATION TUBE (2)



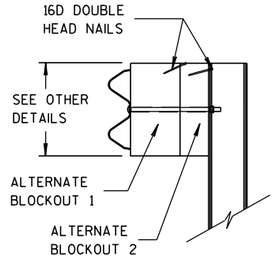
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

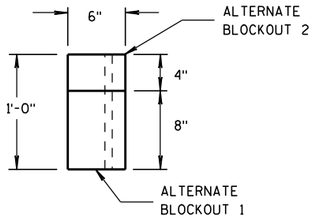


POSTS NUMBER 3-9

WOOD CRT POST (3)

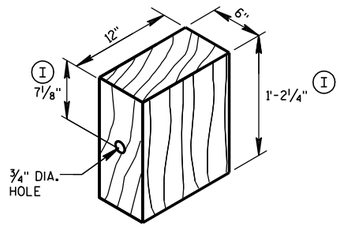


SIDE VIEW



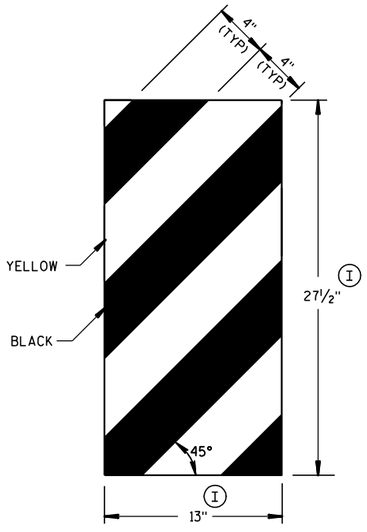
TOP VIEW

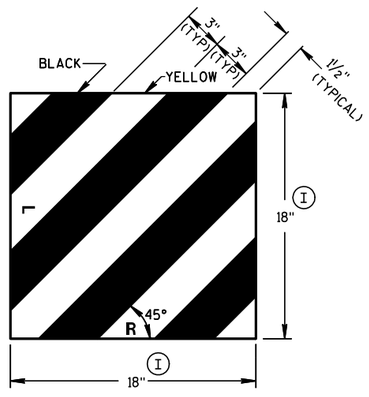
ALTERNATE WOOD BLOCKOUT DETAIL



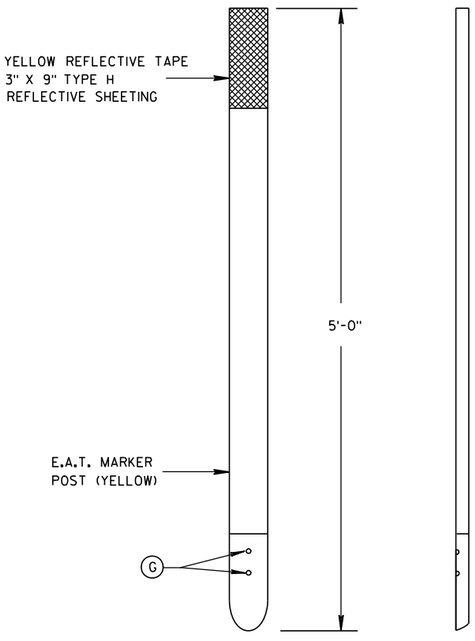
WOOD BLOCKOUT (4)

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



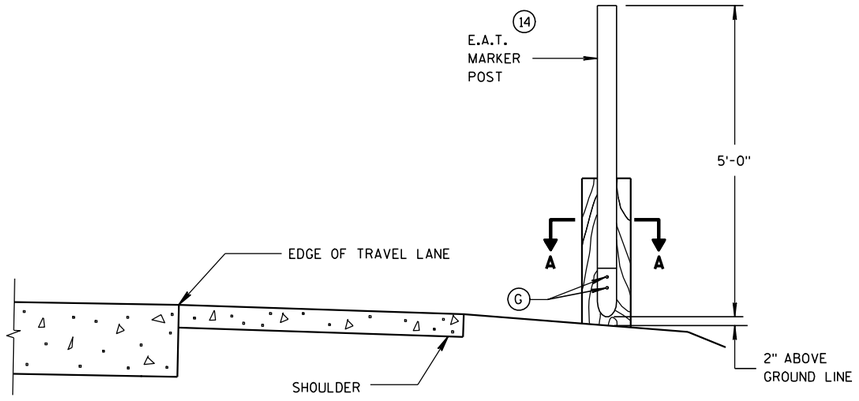


GENERIC REFLECTIVE SHEETING (13) (H)



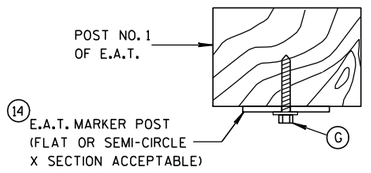
FRONT VIEW **SIDE VIEW**

E.A.T. MARKER POST (14)



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

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



SECTION A-A

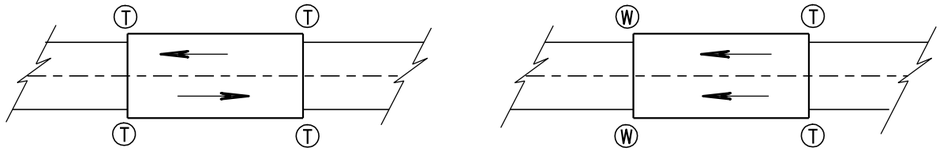
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

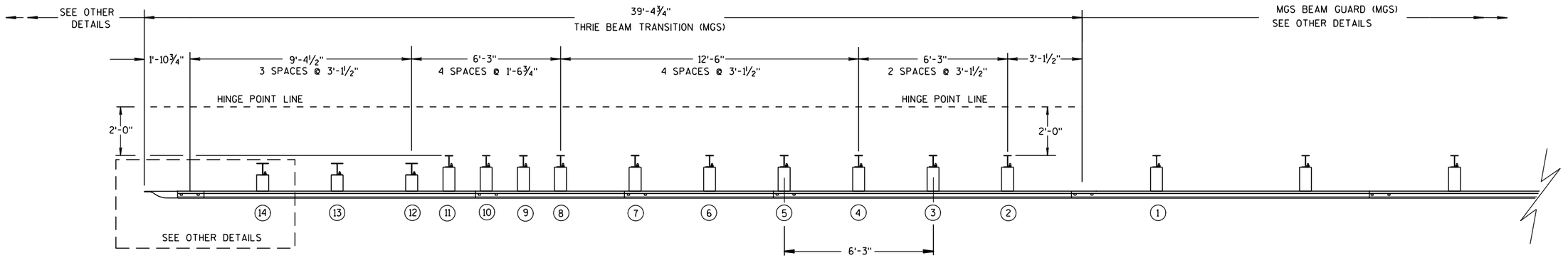
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

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

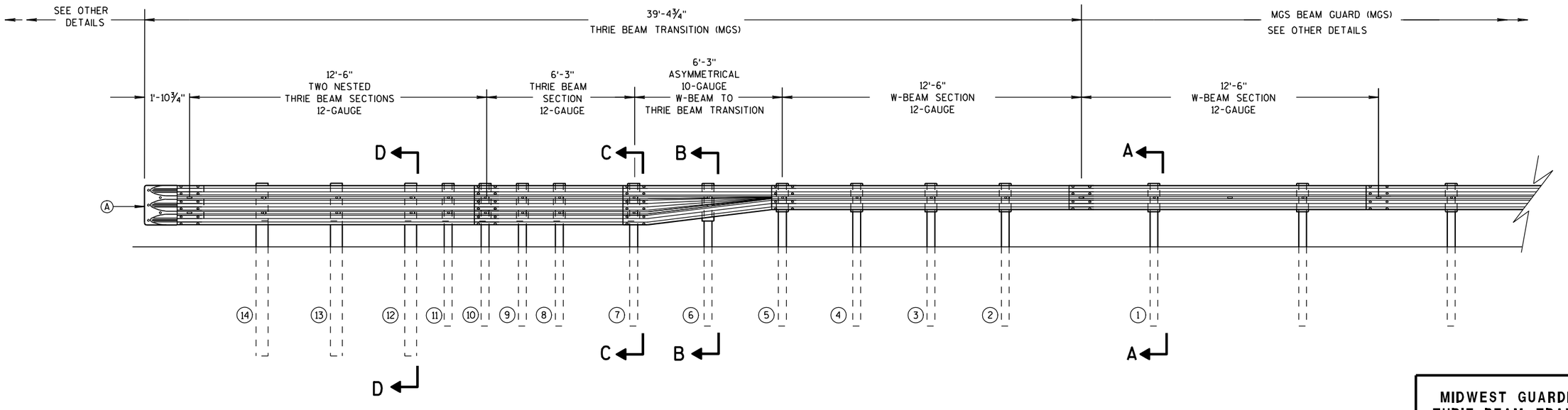
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

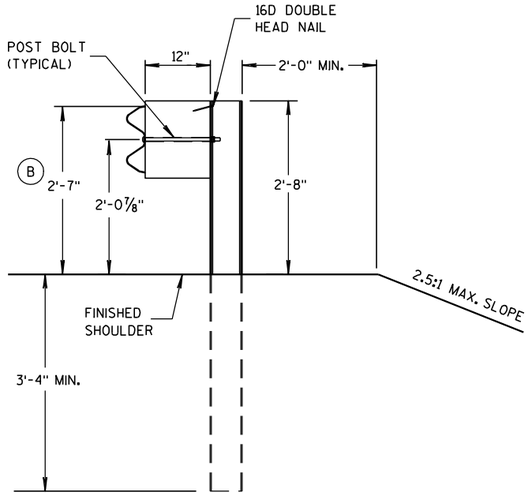
S.D.D. 14 B 45-3a

6

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

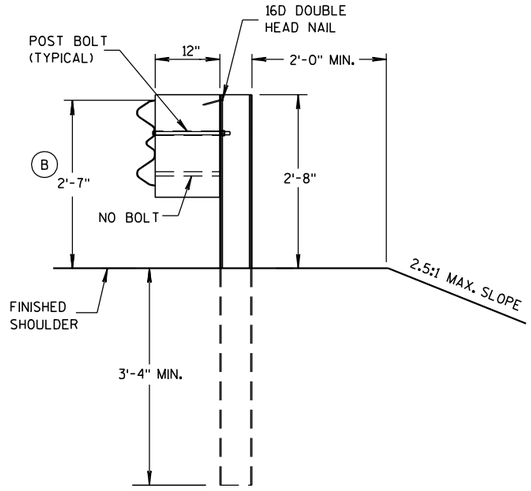
GENERAL NOTES

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



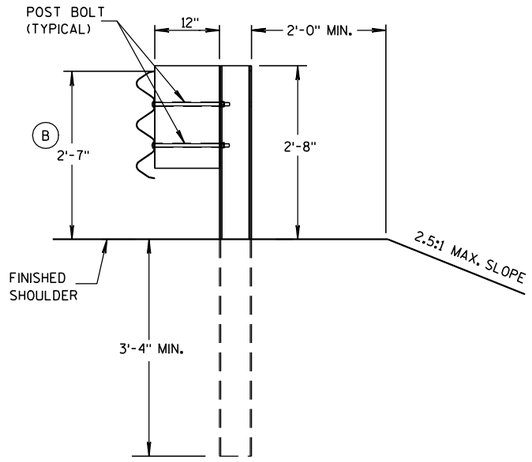
SECTION A-A

POSTS 1-5



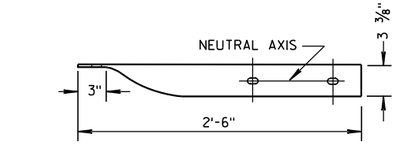
SECTION B-B

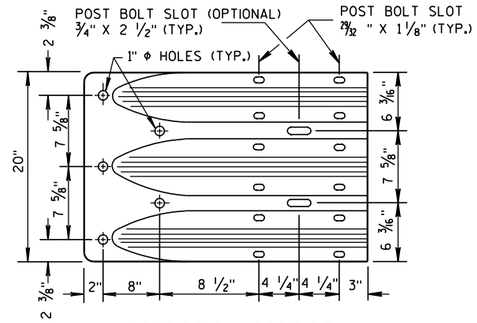
POST 6



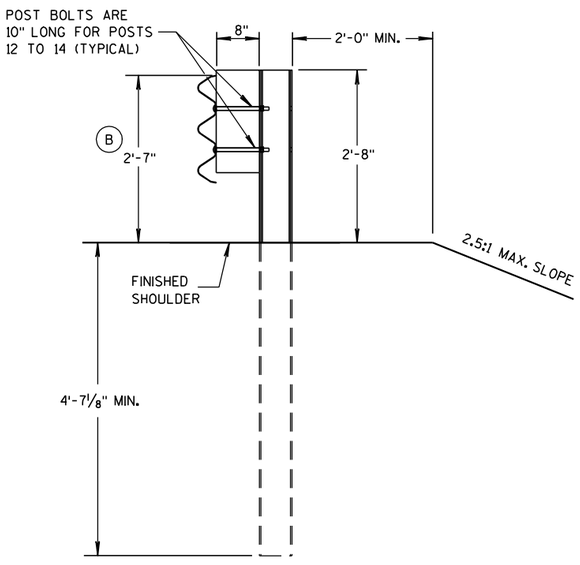
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

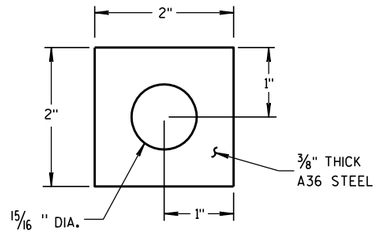
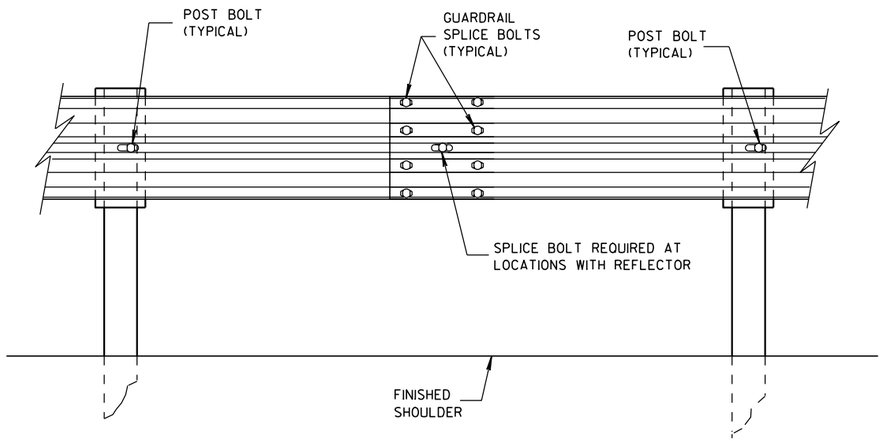
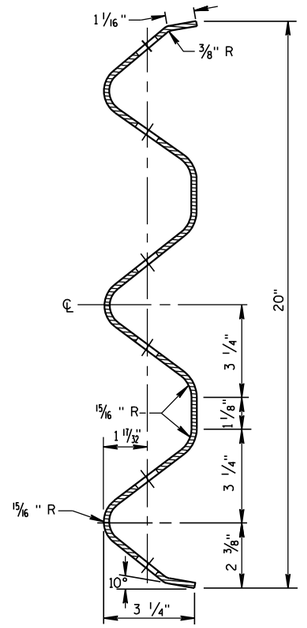


PLATE WASHER DETAIL



SPLICE DETAIL



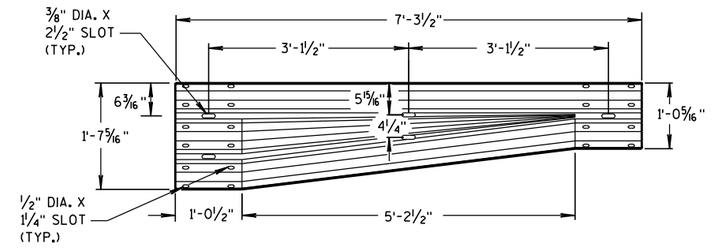
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

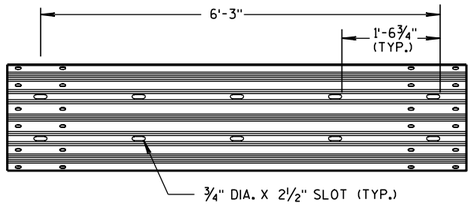
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

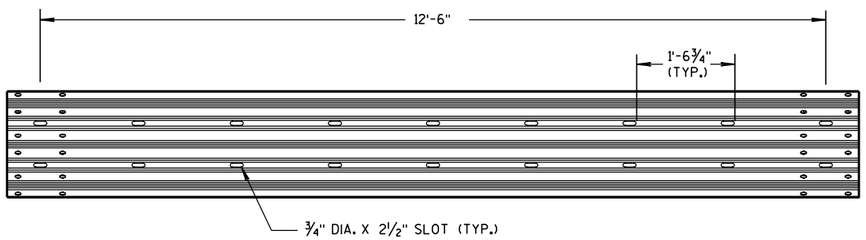
S.D.D. 14 B 45-3b



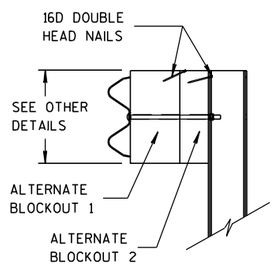
W-BEAM TO THRIE BEAM TRANSITION SECTION



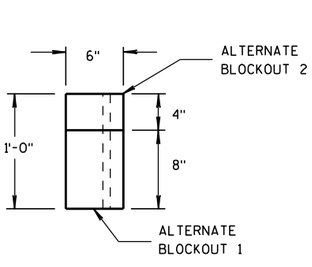
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

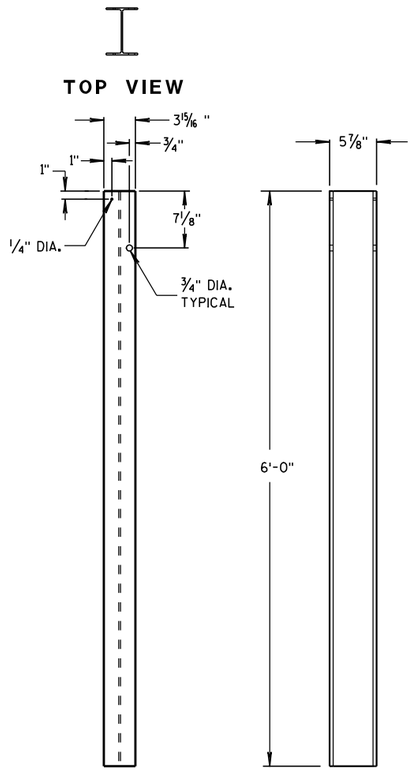


SIDE VIEW

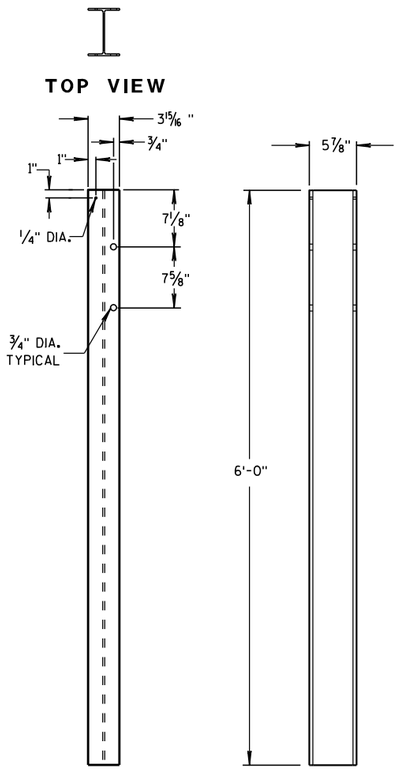


TOP VIEW

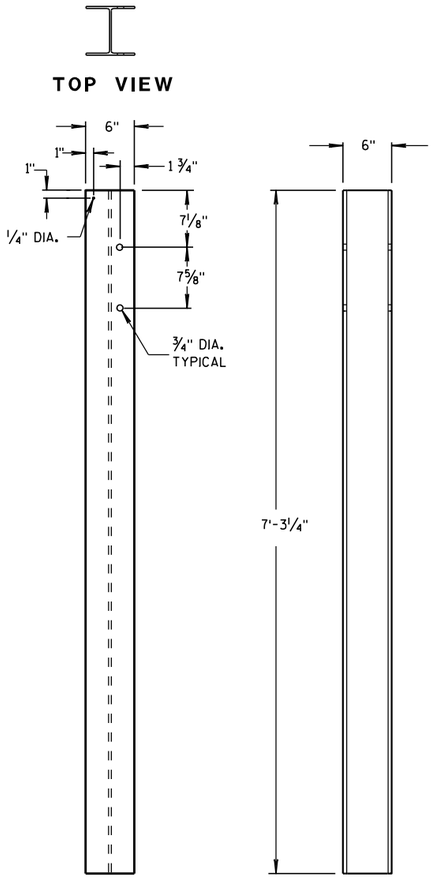
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

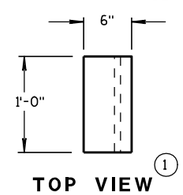


STEEL POSTS 6-11

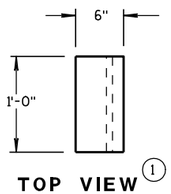


STEEL POSTS 12-14

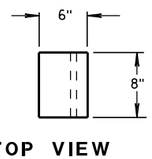
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



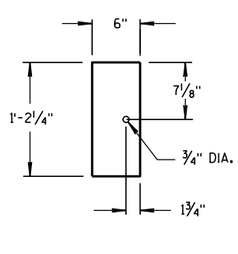
TOP VIEW (1)



TOP VIEW (1)

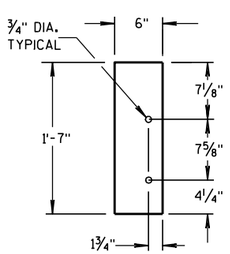


TOP VIEW



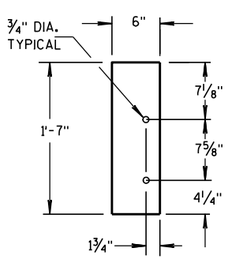
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

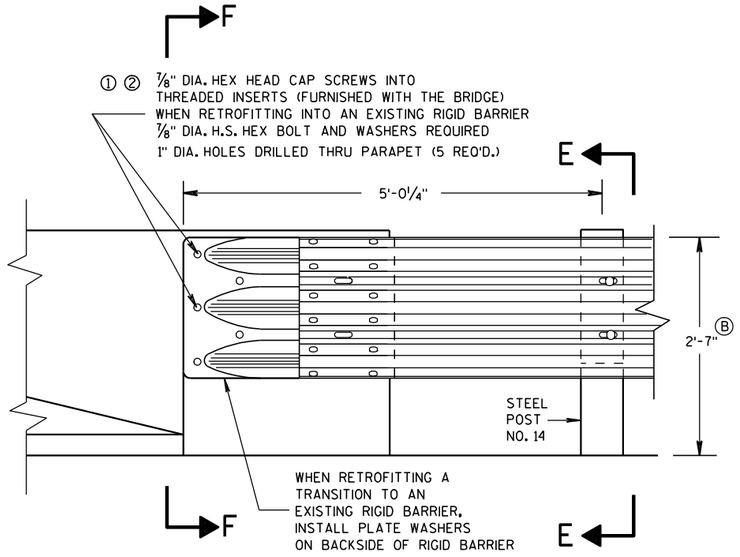
STEEL POST SIZES

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

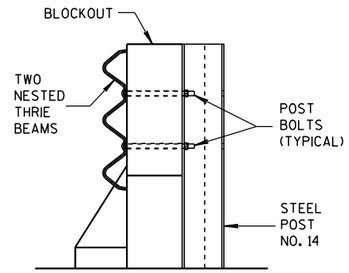
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



FRONT VIEW



SECTION E-E

GENERAL NOTES

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

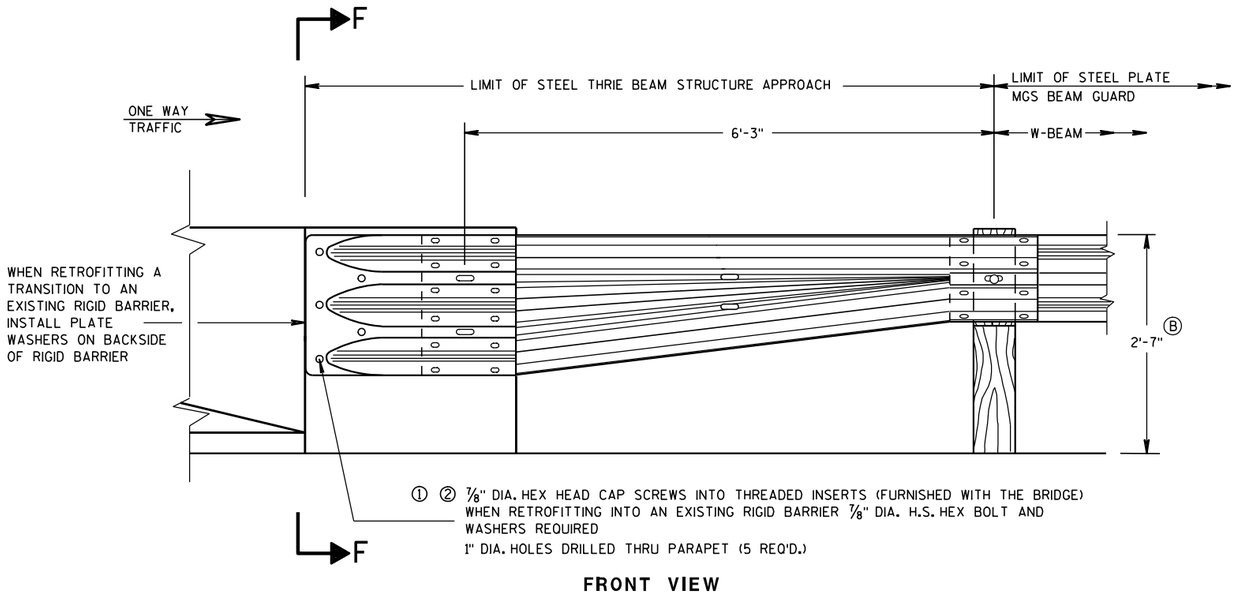
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

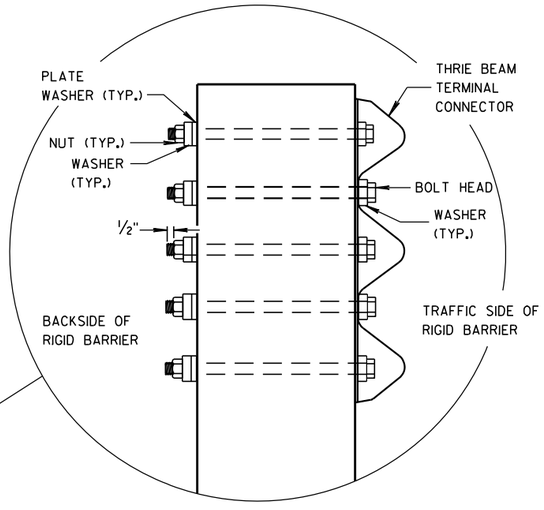
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

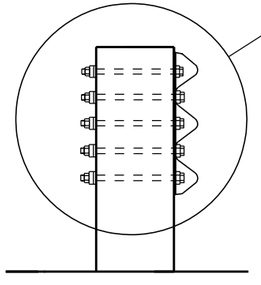
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS (250) ENGINEER

FHWA

6

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

6

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

GENERAL NOTES

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

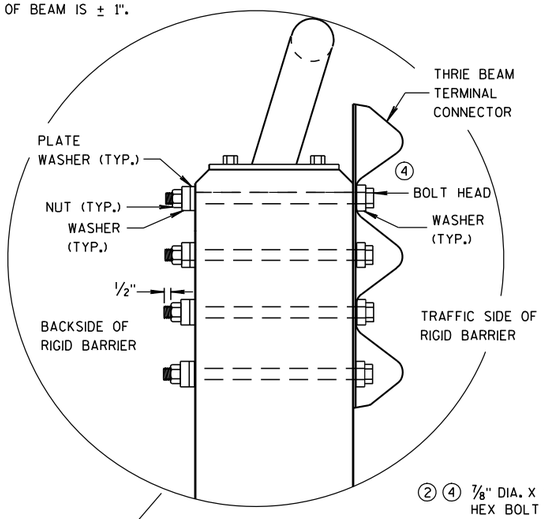
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

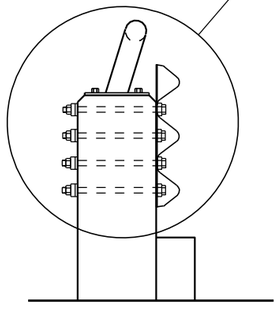
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

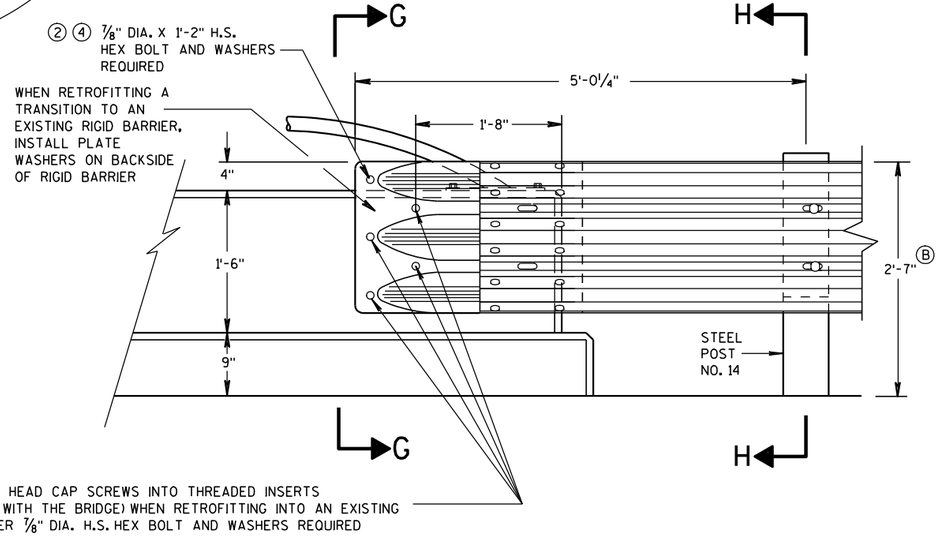
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

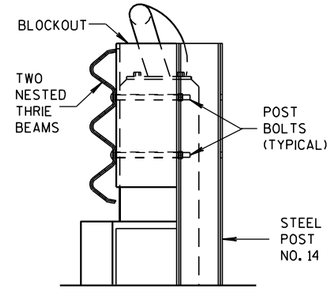




SECTION G-G

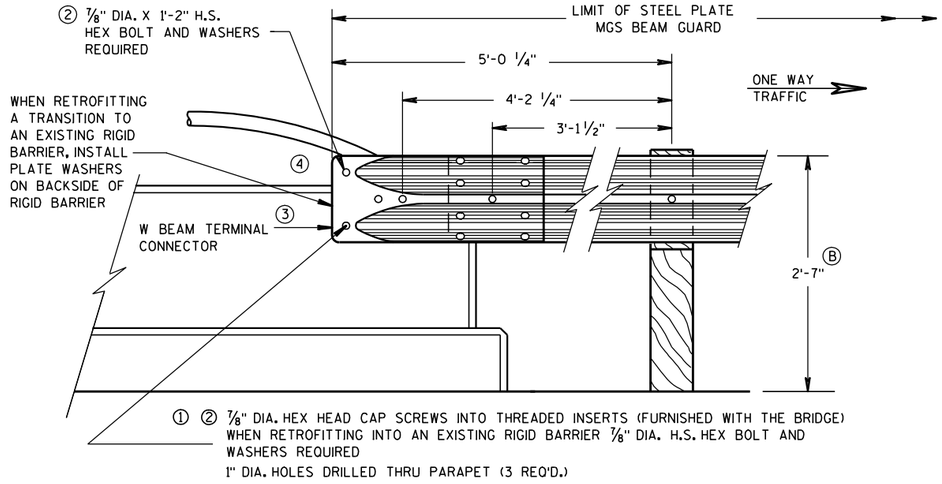


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

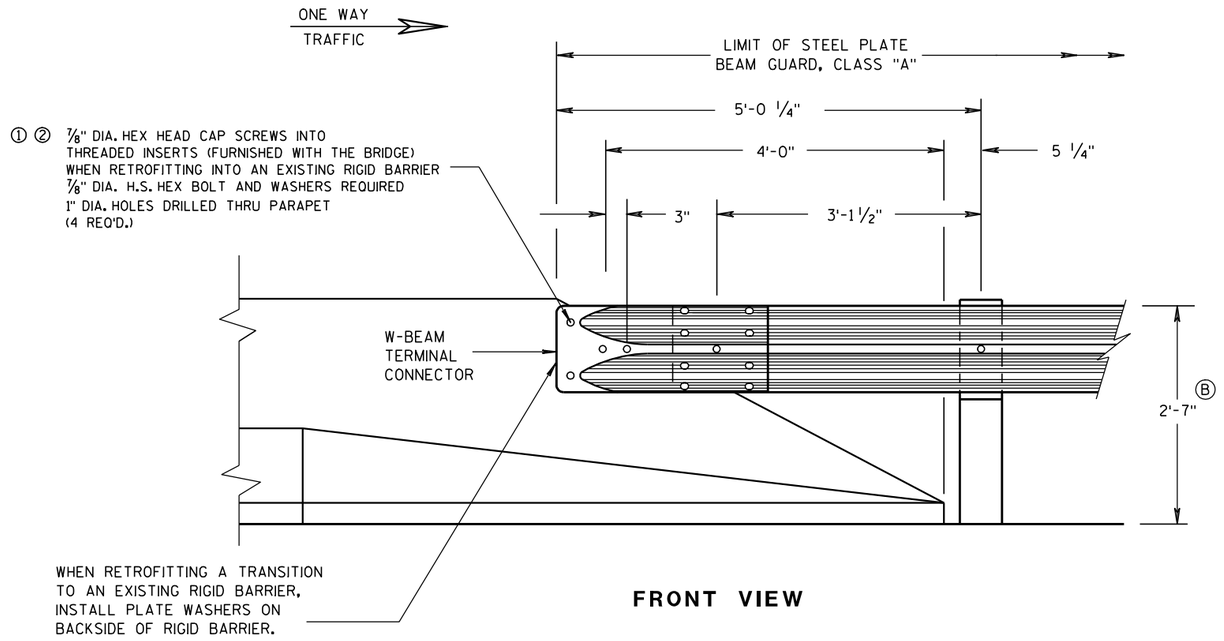
FHWA

6

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

6

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



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

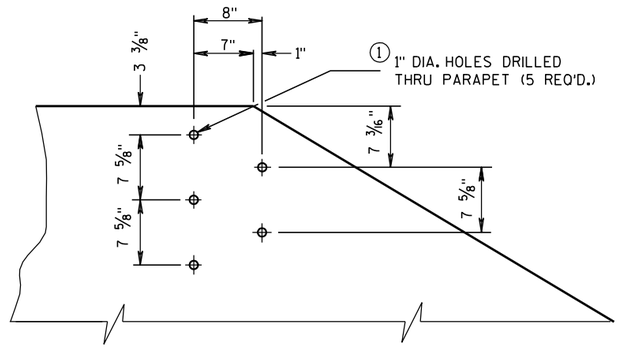
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

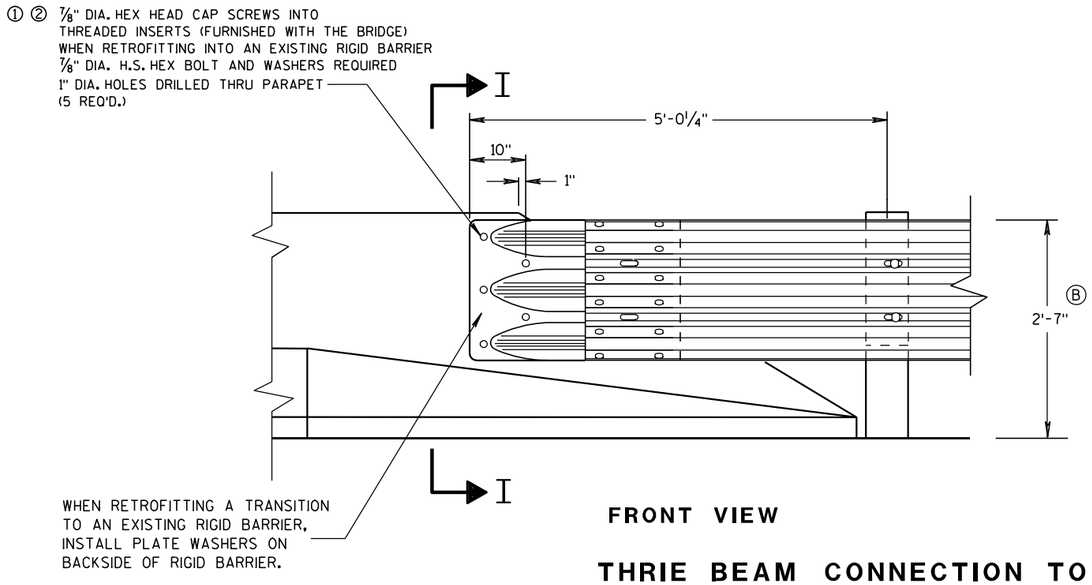
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

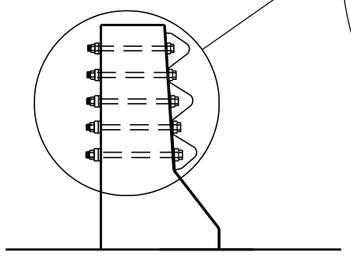
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



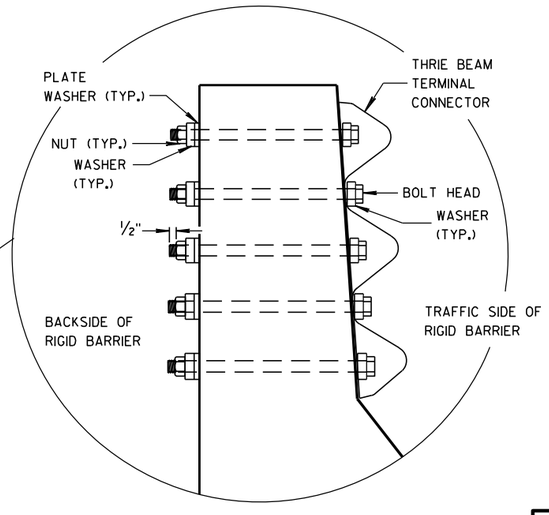
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

252

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FHWA

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

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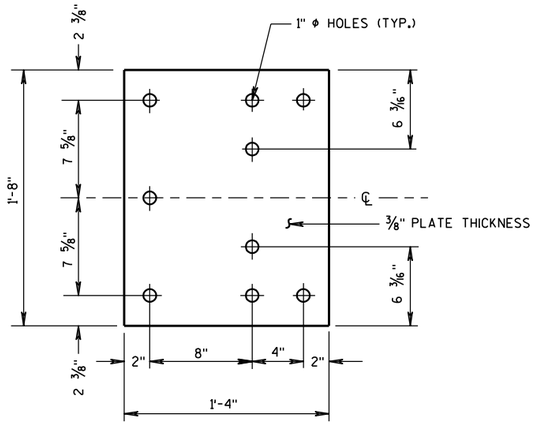
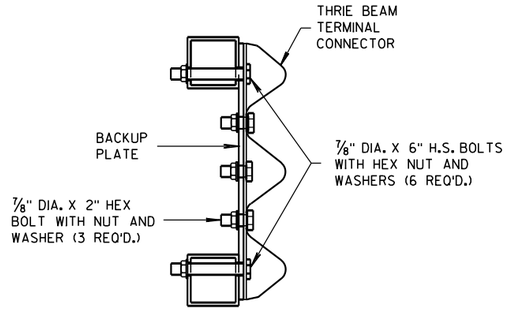


BACK-UP PLATE DETAIL

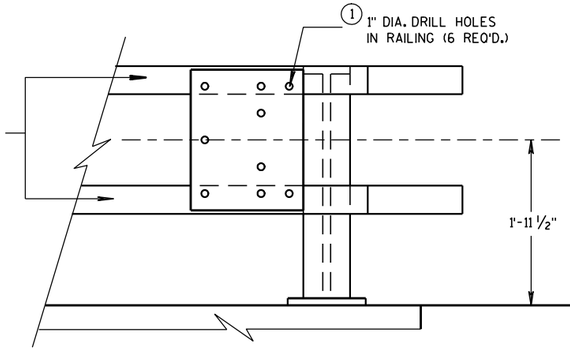


SECTION J-J

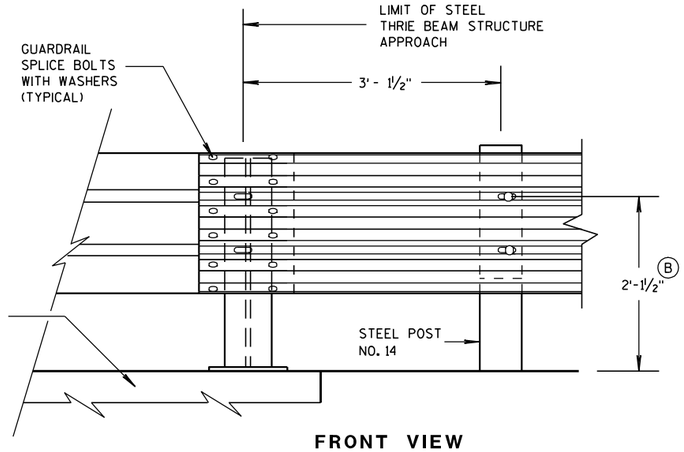
GENERAL NOTES

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

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

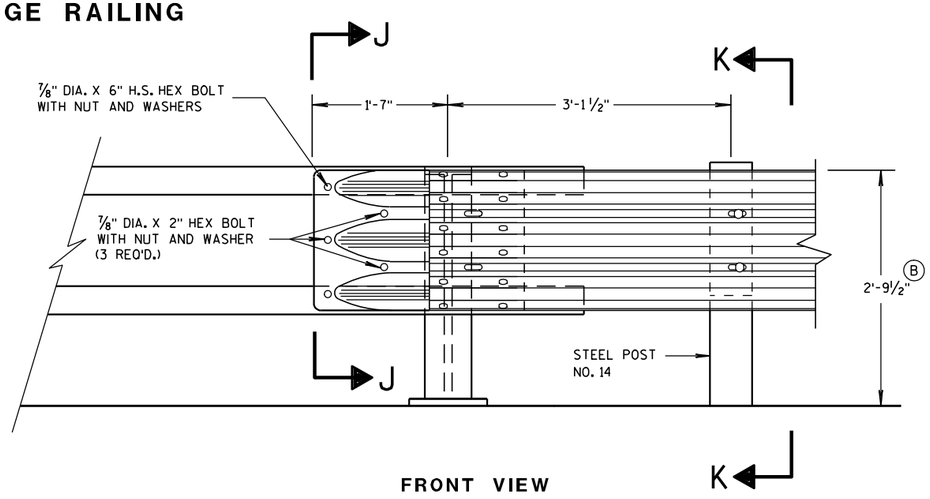


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

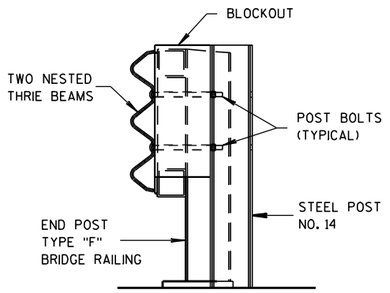


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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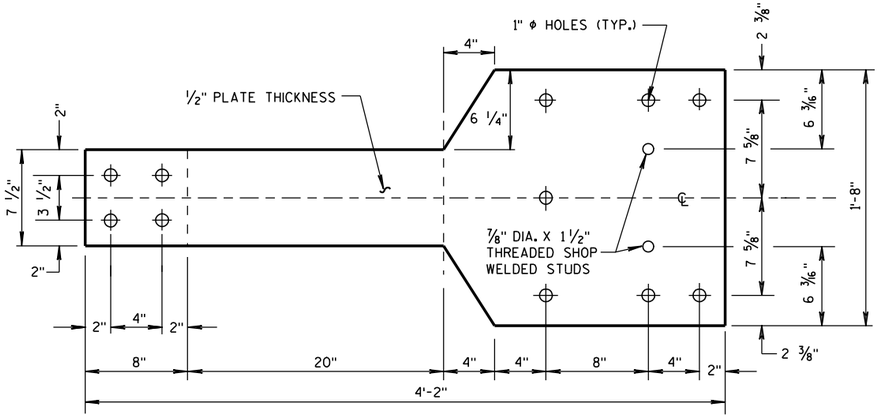
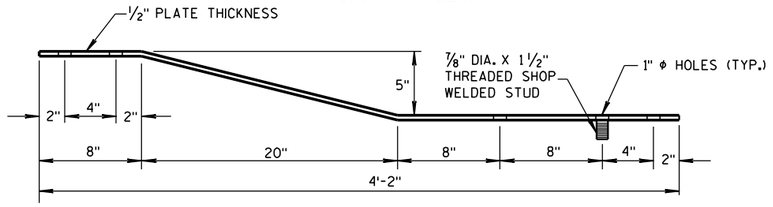
GENERAL NOTES

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

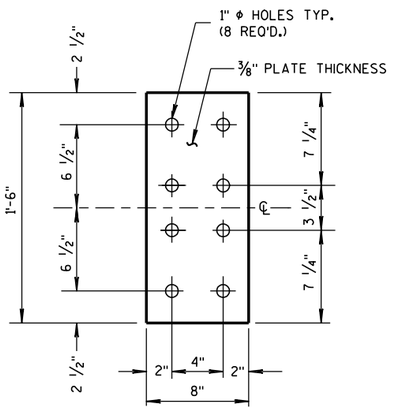


FRONT VIEW



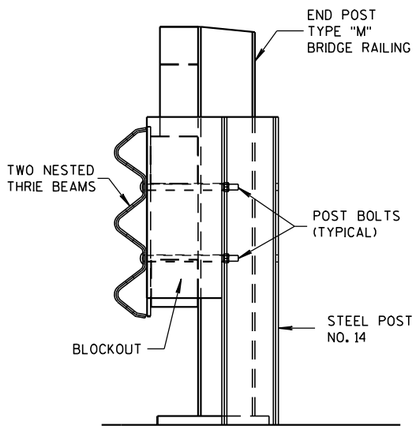
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

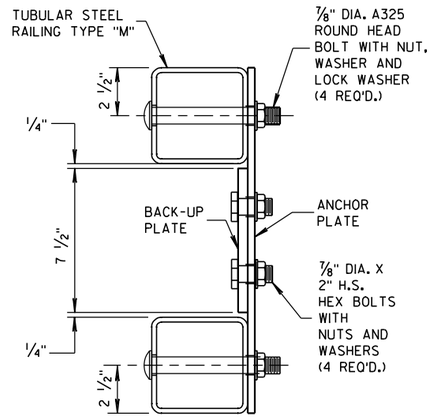


FRONT VIEW

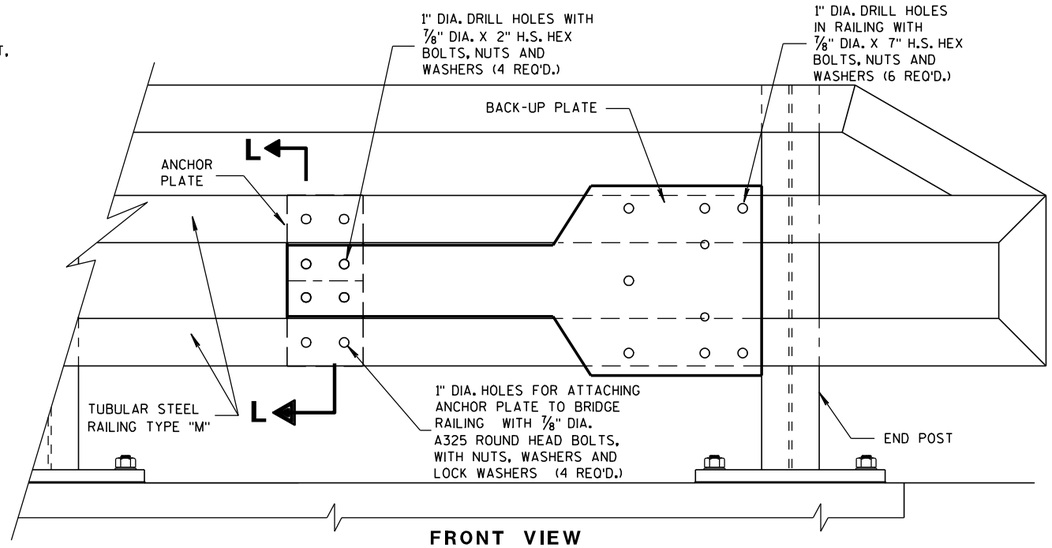
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

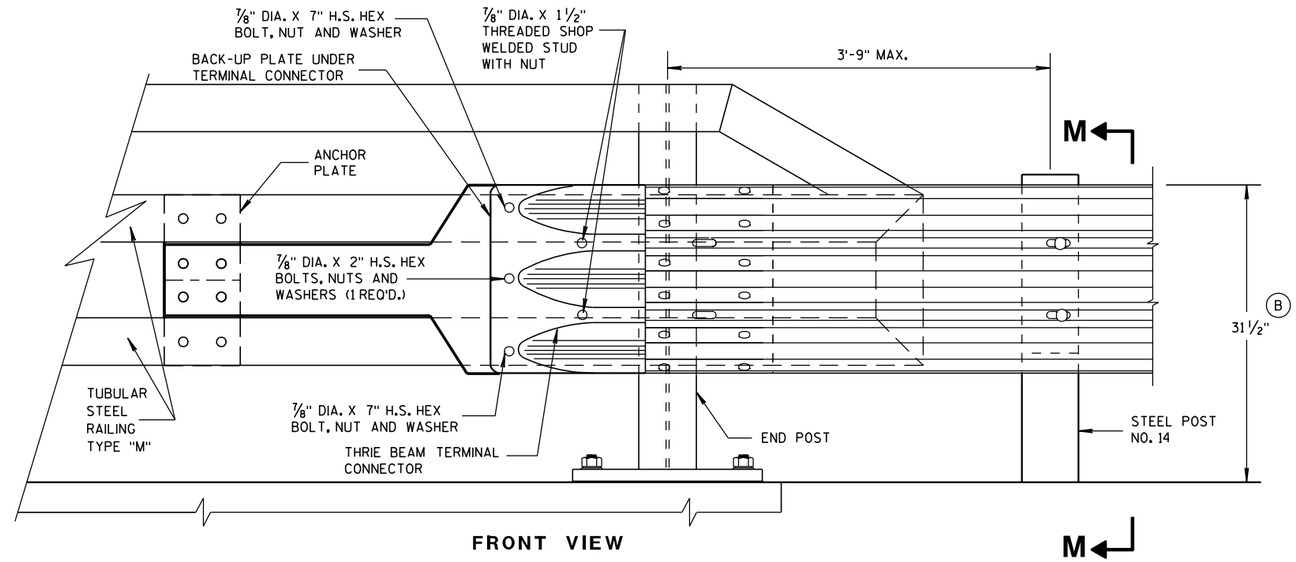


SECTION L-L

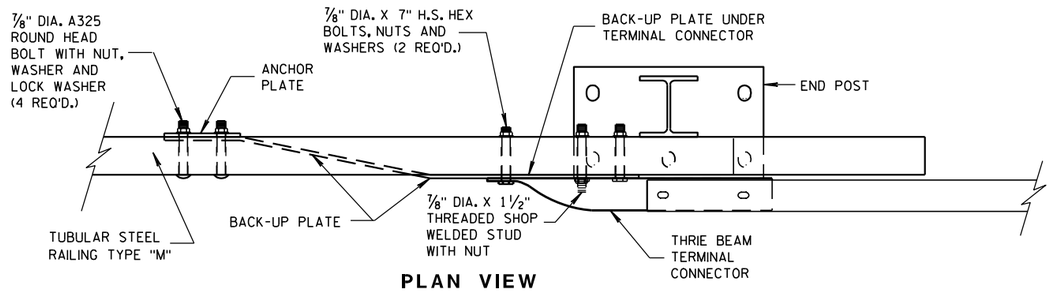


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
254 ENT
FHWA

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

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

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

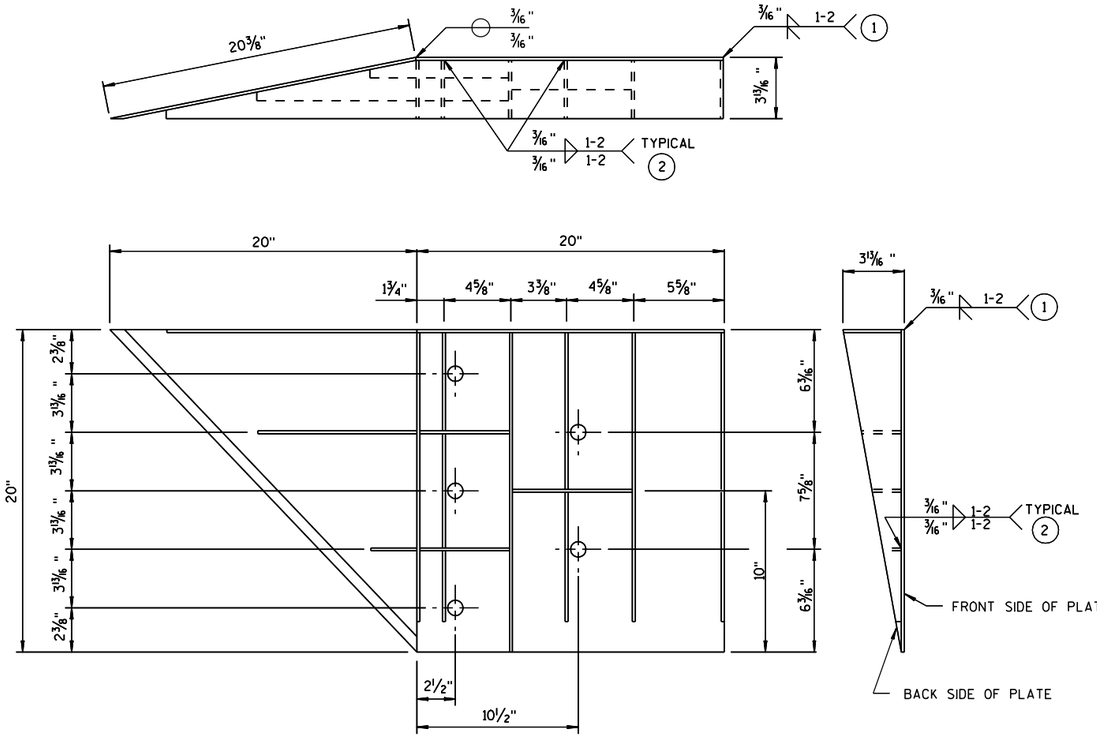
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

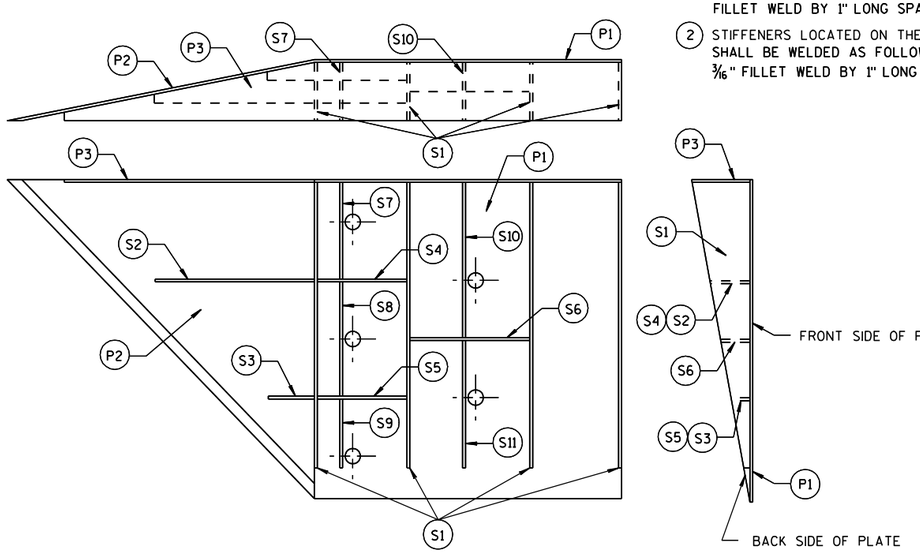


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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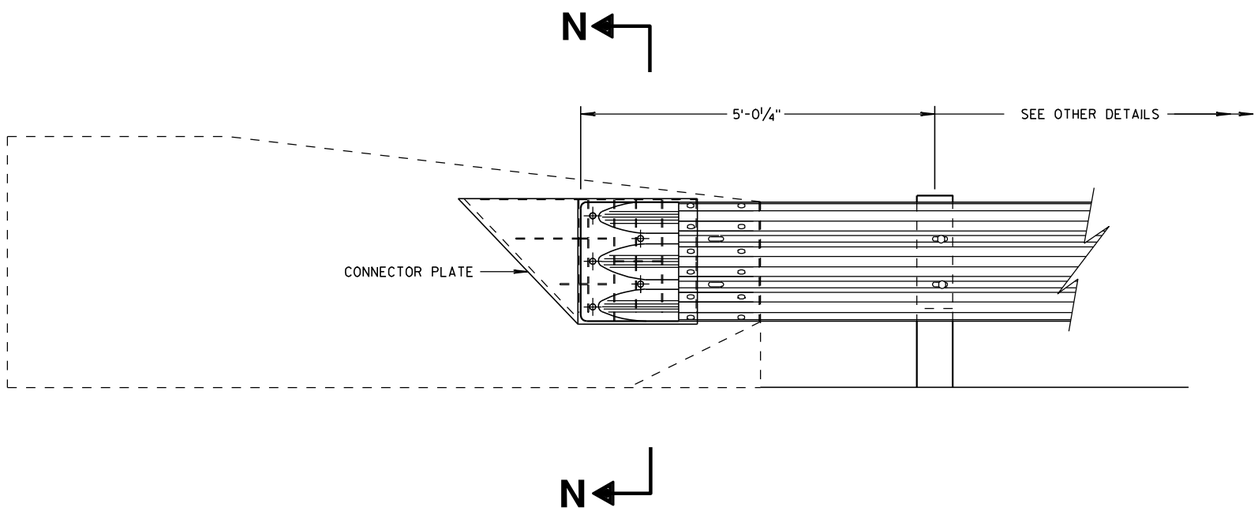
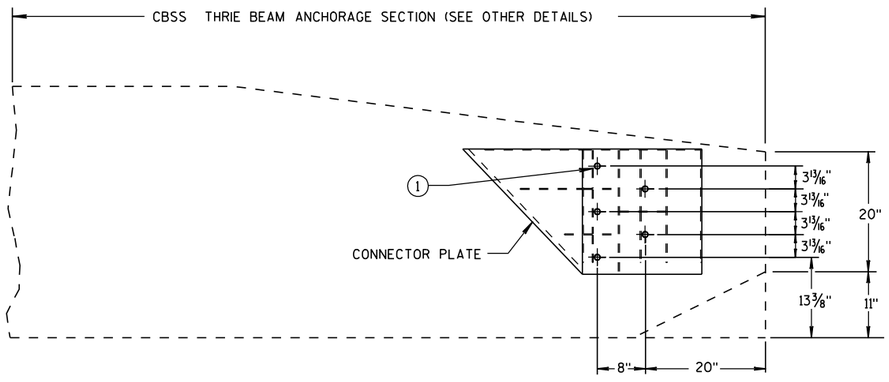
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

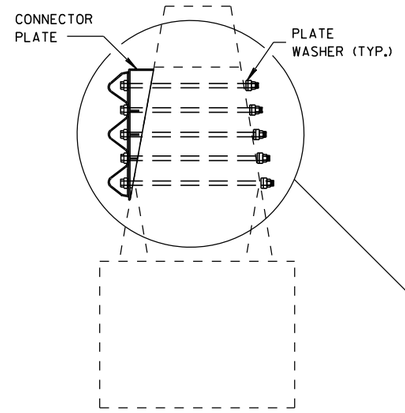


SINGLE SLOPE CONNECTION PLATE PLACEMENT

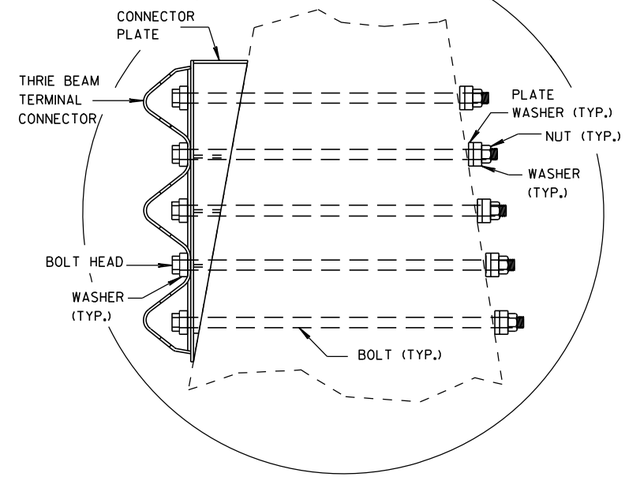
GENERAL NOTES

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

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

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

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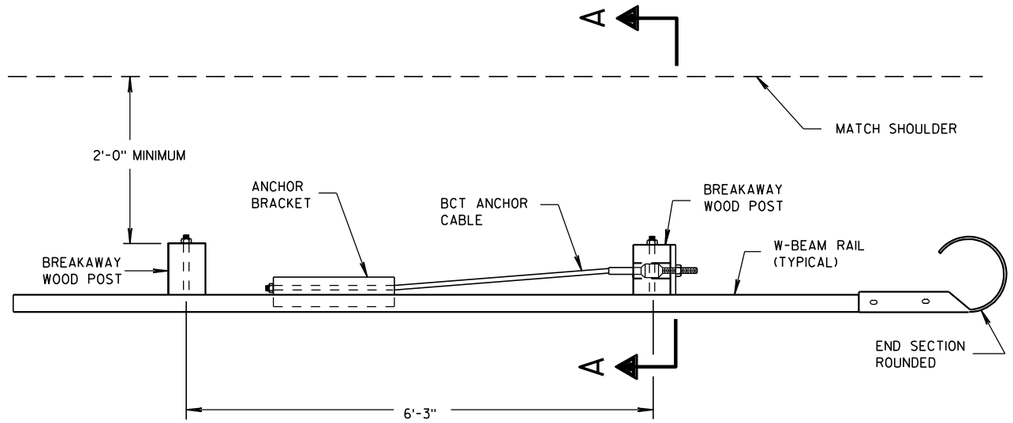
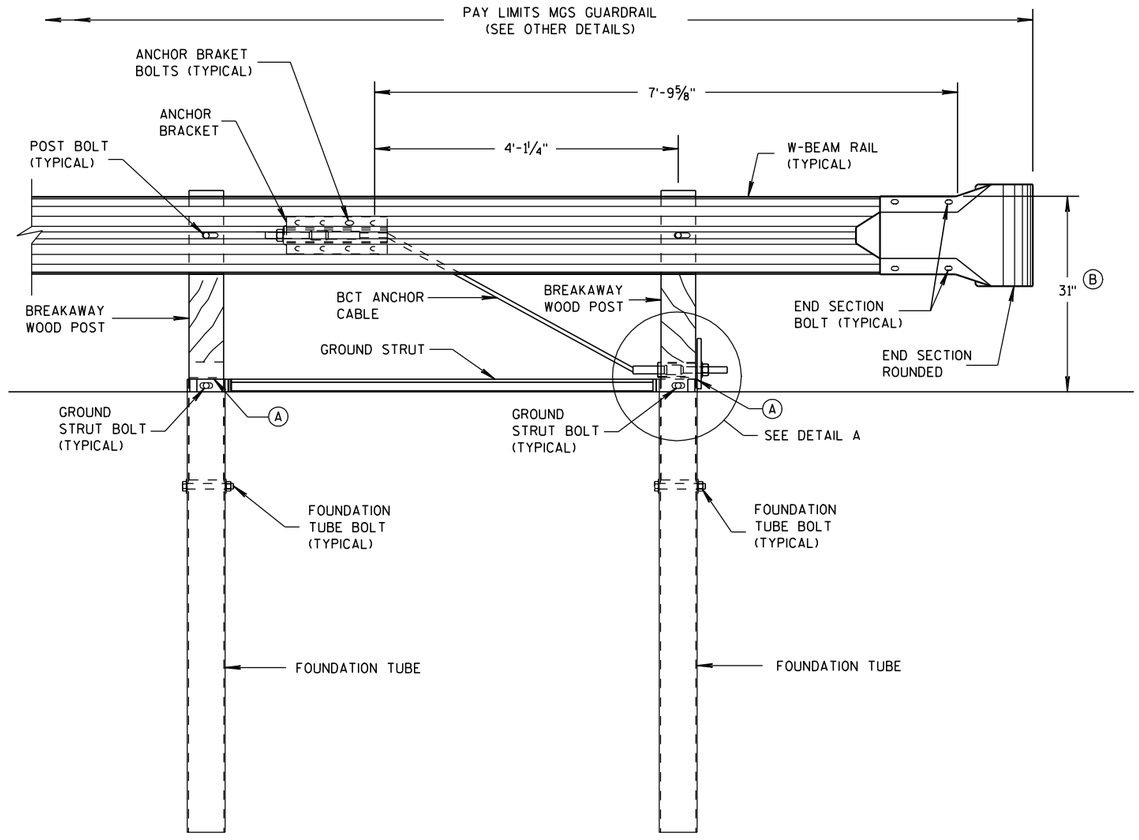
S.D.D. 14 B 45-3j

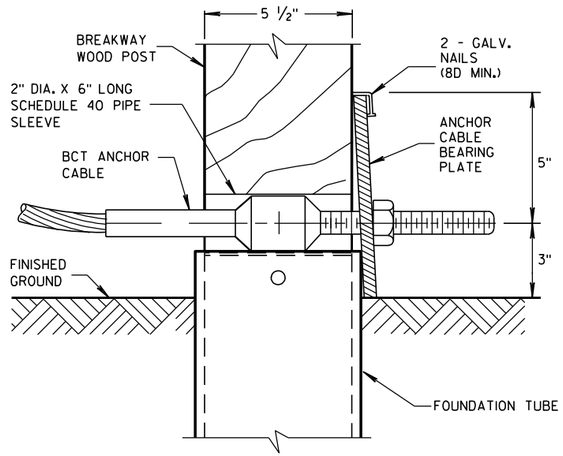


PLAN VIEW



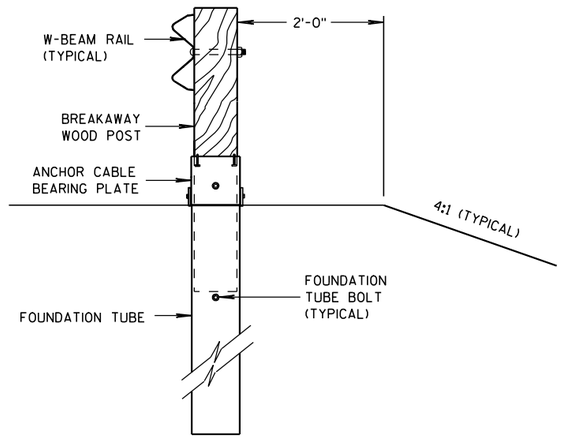
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

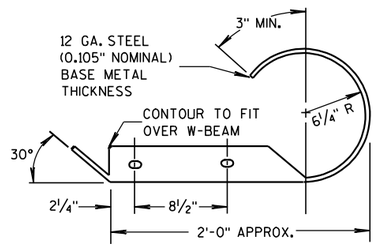
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

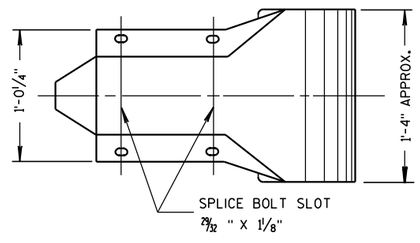
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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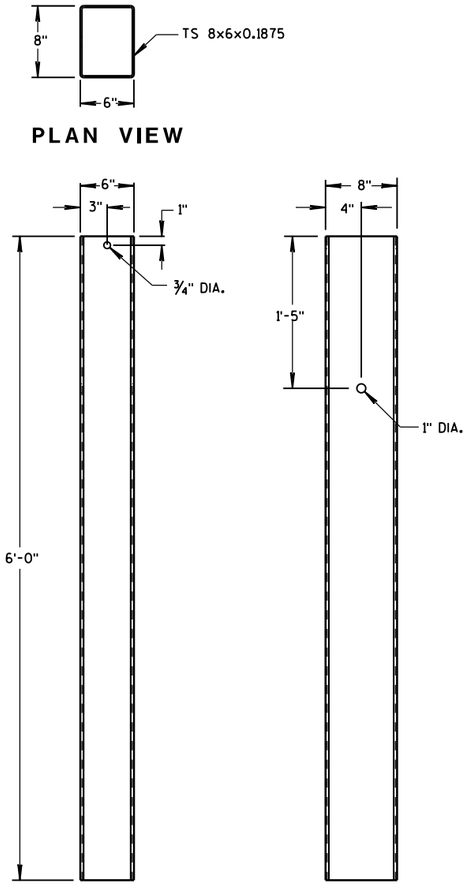
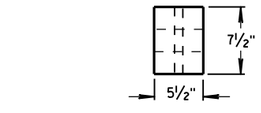
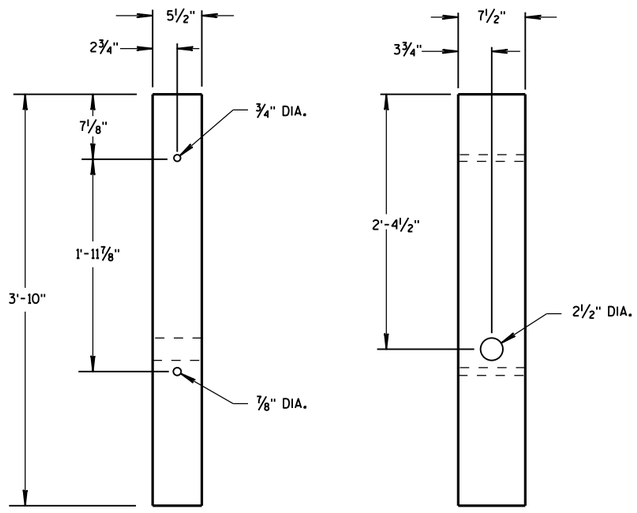
S.D.D. 14 B 47-1a



FOUNDATION TUBE



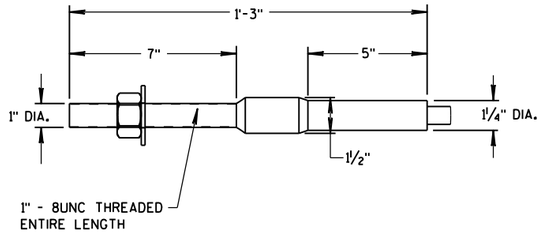


BREAKAWAY WOOD POST

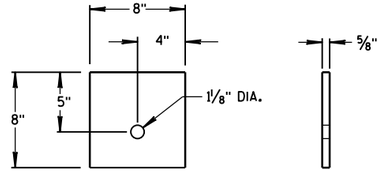
GENERAL NOTES

BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.

BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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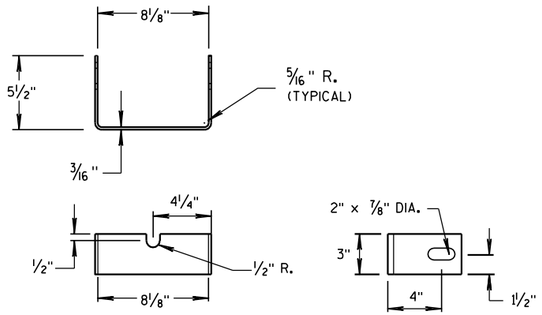
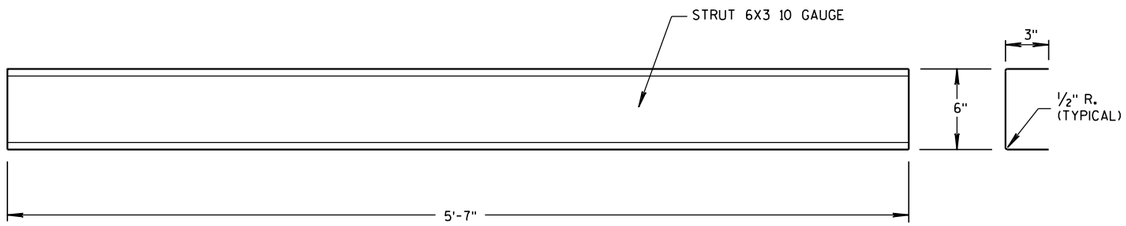
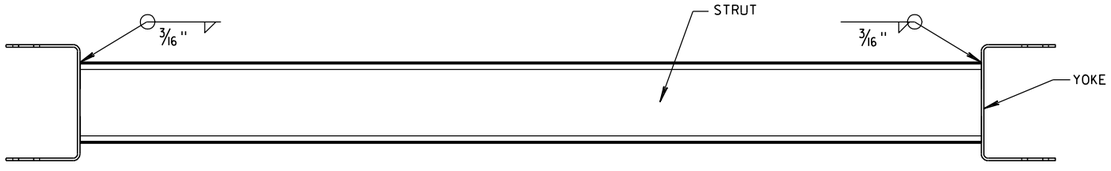
S.D.D. 14 B 47-1b



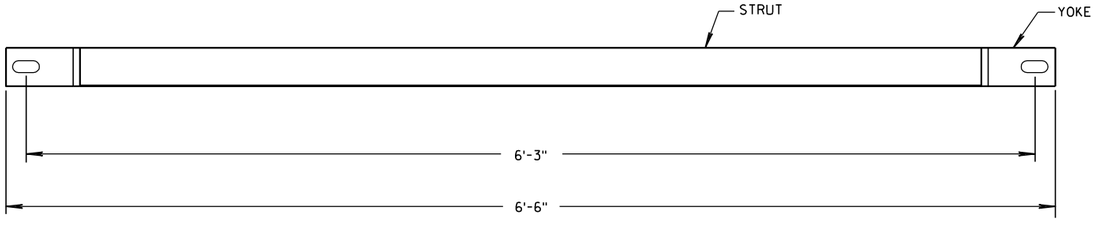
YOKE DETAIL



STRUT DETAIL

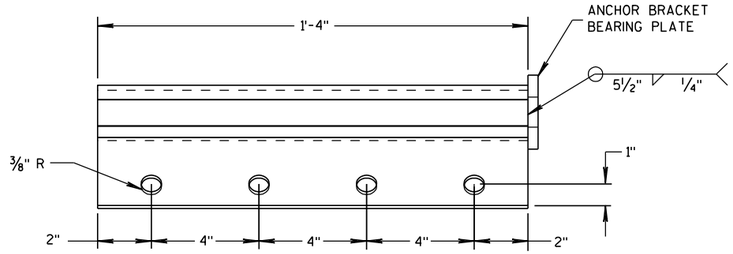


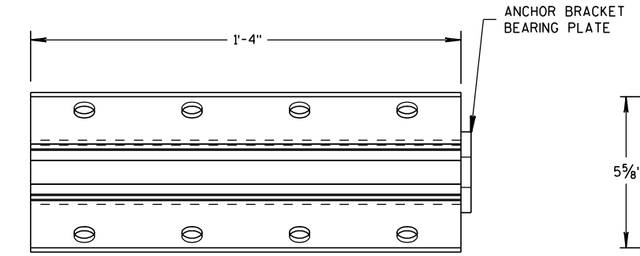
PLAN VIEW

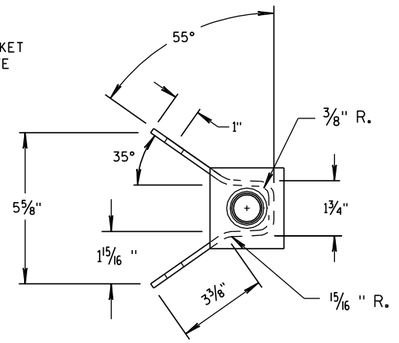


FRONT VIEW

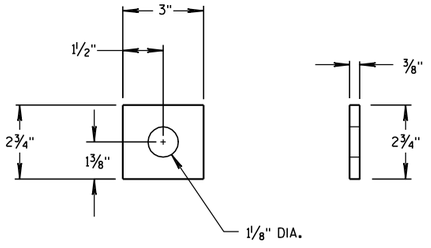
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

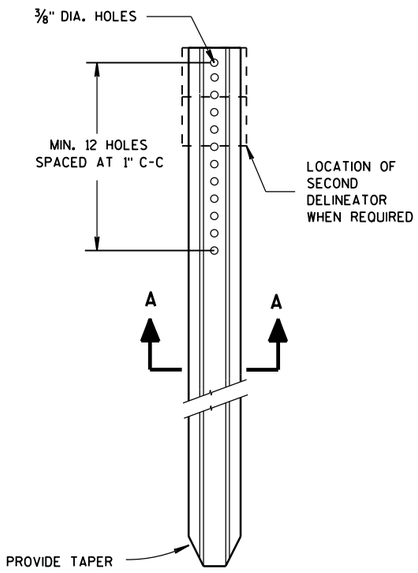
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

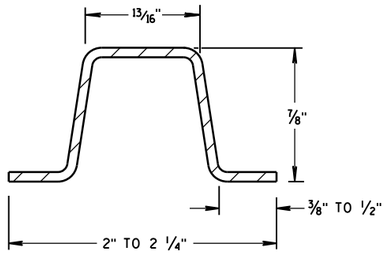
APPROVED
5/23/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 47-1c

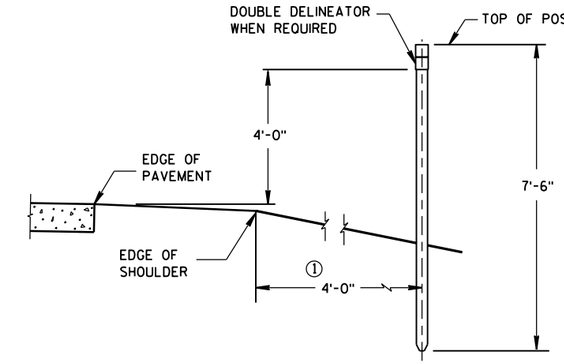


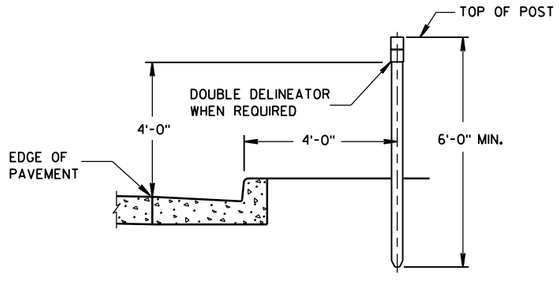
DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.



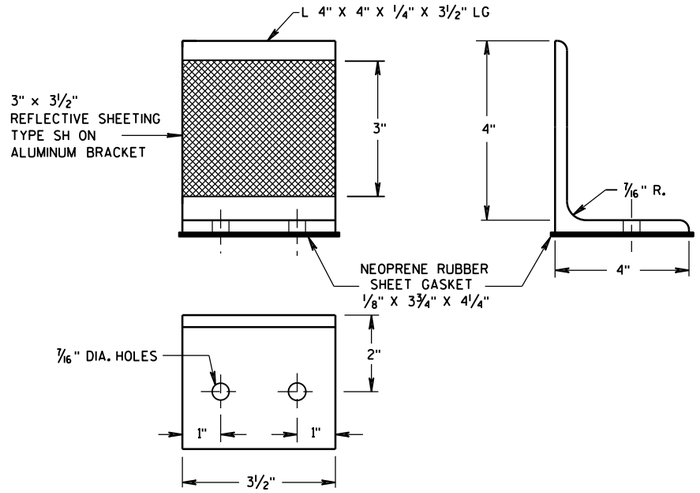


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

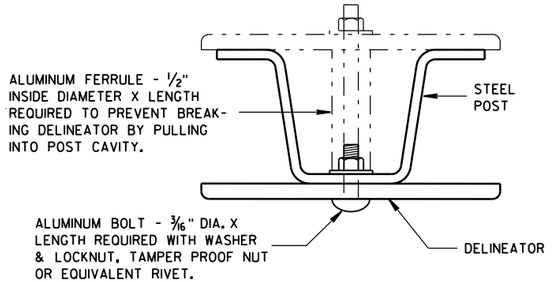
GENERAL NOTES

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

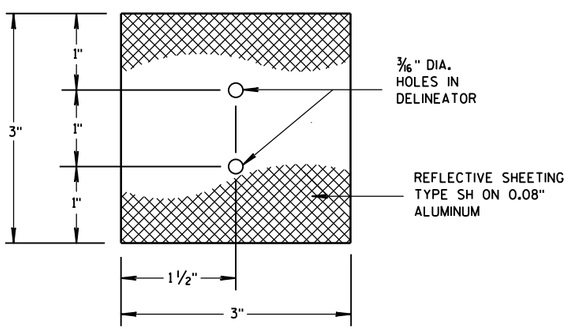
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



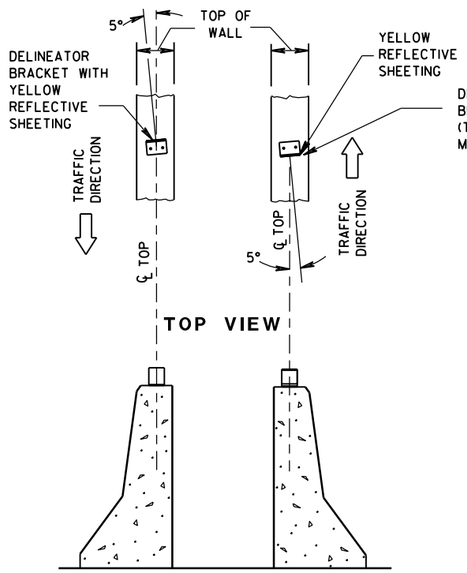
DELINEATOR BRACKET



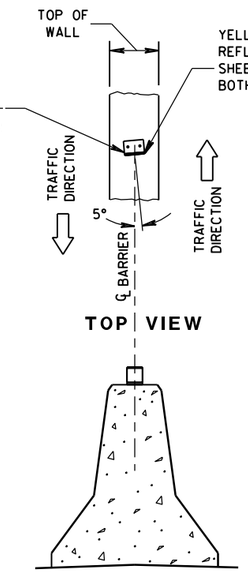
MOUNTING DETAIL FOR DELINEATOR



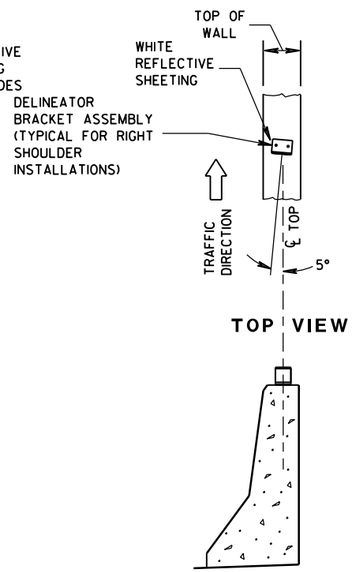
3"x 3" DELINEATOR



DOUBLE BARRIERS IN MEDIAN

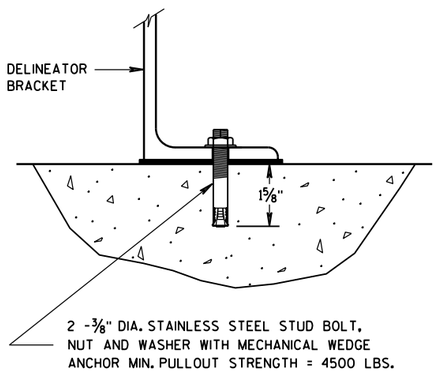


MEDIAN BARRIER



BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

6

S.D.D. 15 A 2-8

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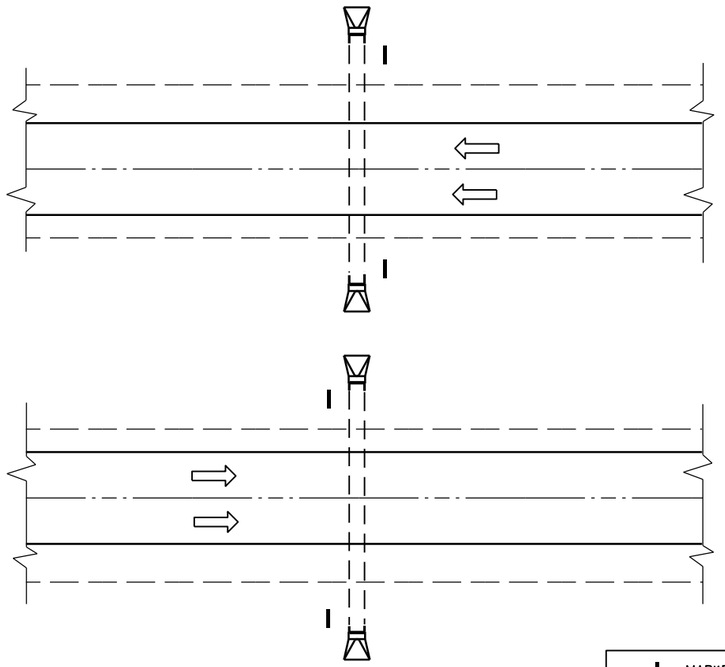
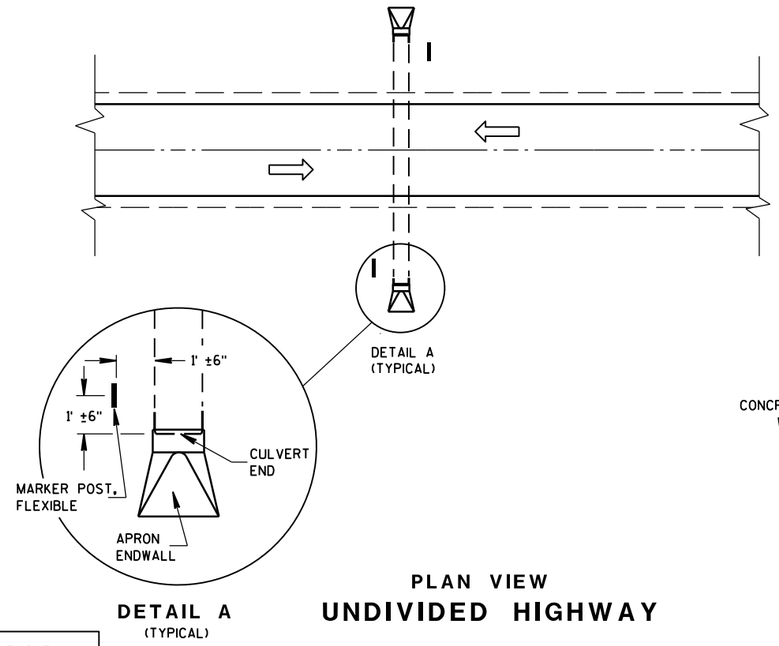
S.D.D. 15 A 2-8



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

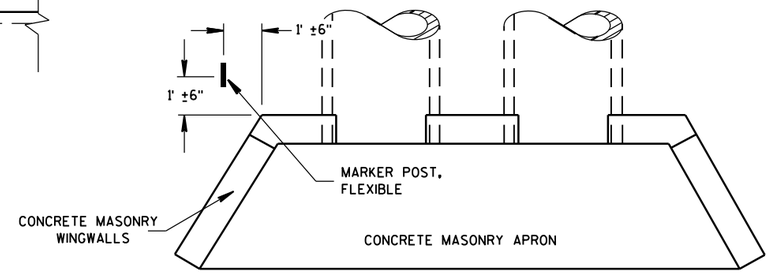
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

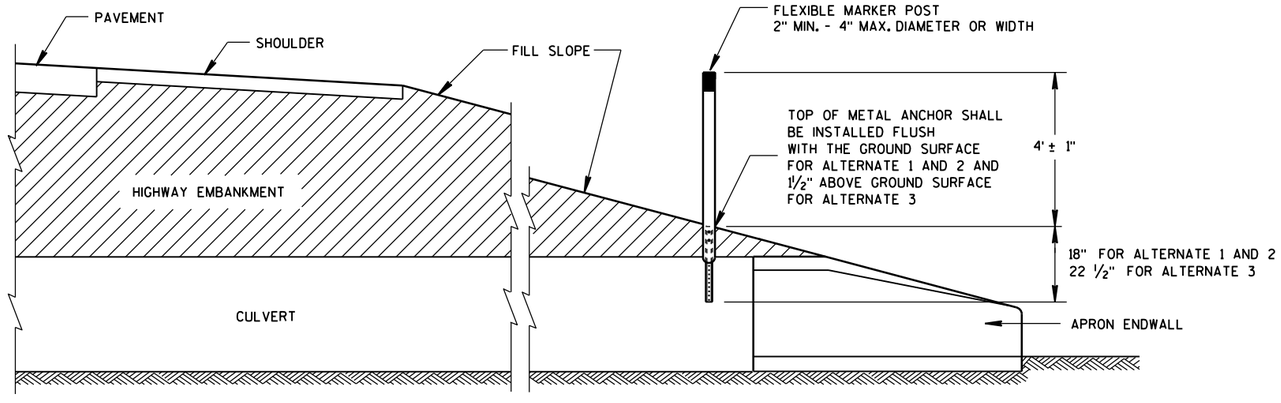
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

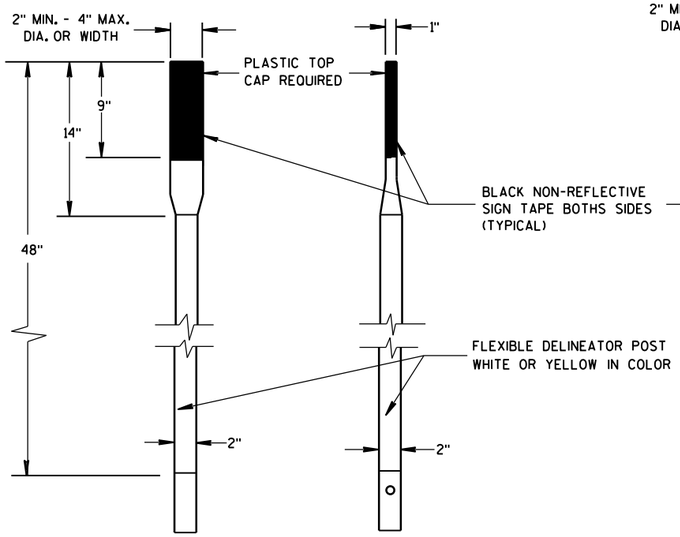
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

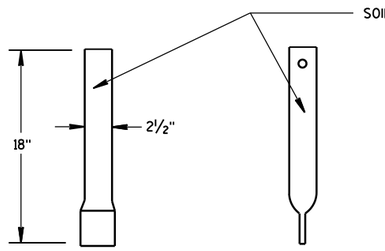
6

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

6

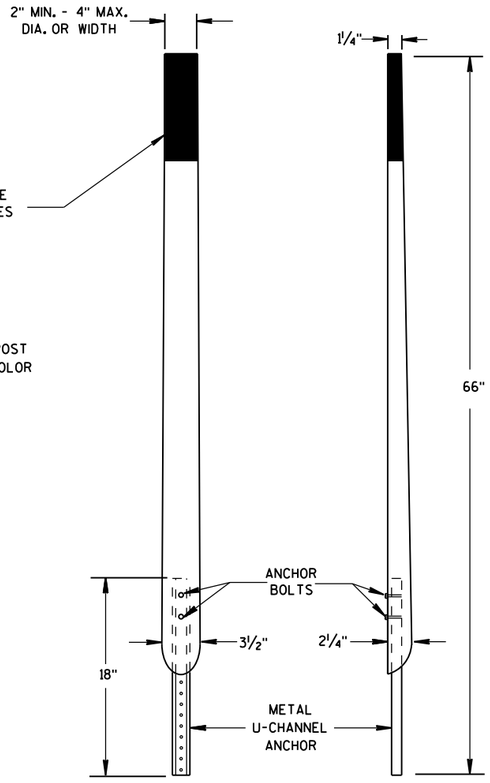
S.D.D. 15 A 3-2a





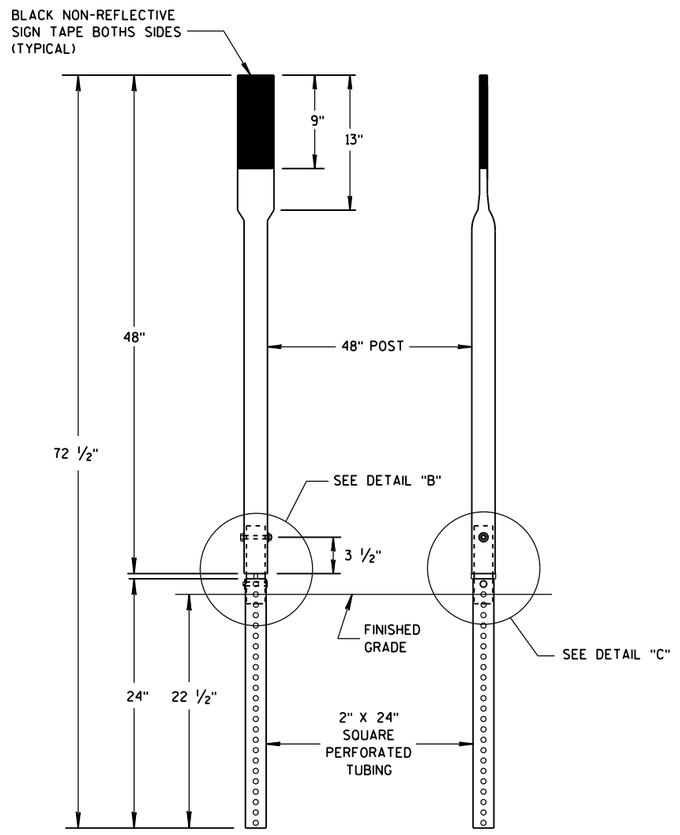
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

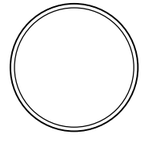
ALTERNATE 2



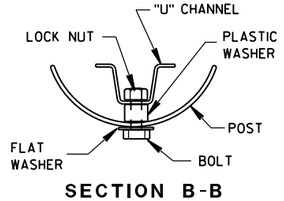
FRONT VIEW SIDE VIEW

ALTERNATE 3

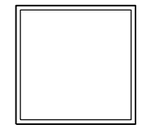
FLEXIBLE MARKER POSTS



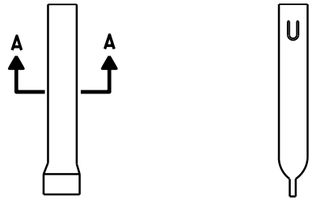
SECTION A-A



SECTION B-B

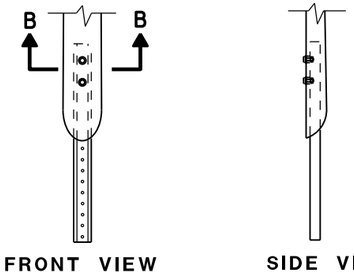


SECTION C-C



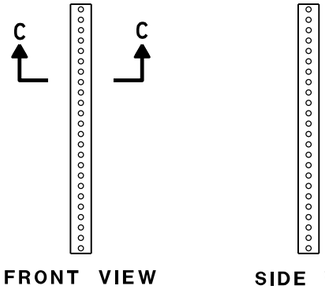
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

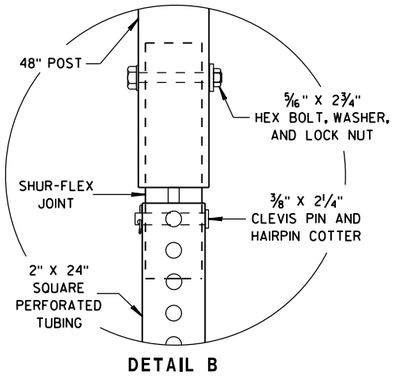
ALTERNATE 2



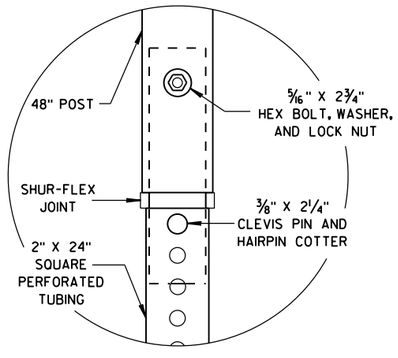
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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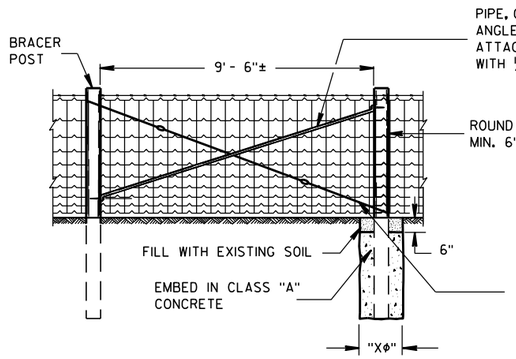
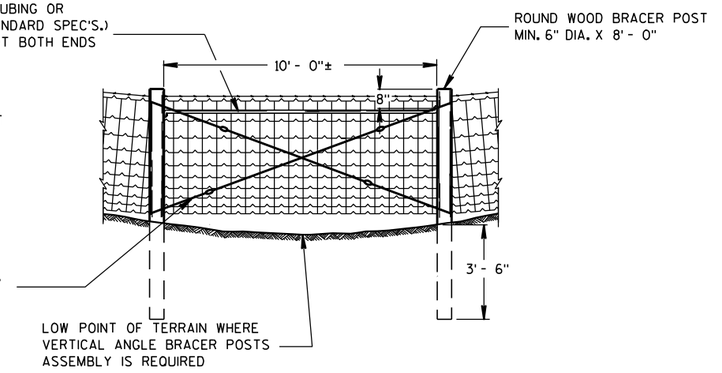
S.D.D. 15 A 3-2b

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

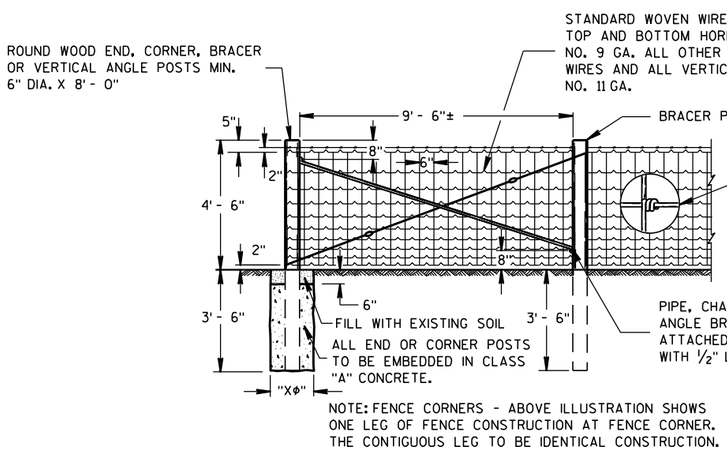
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

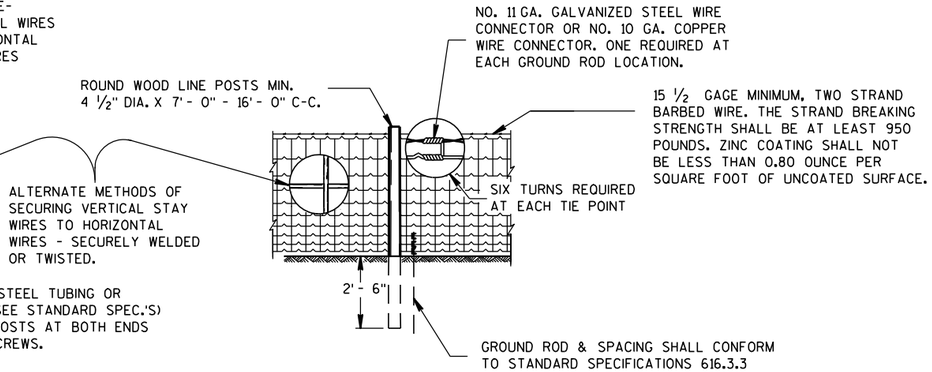
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



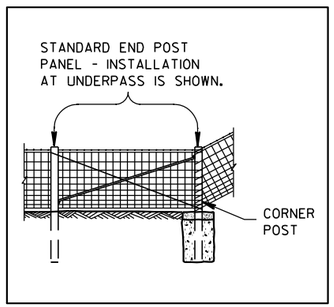
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

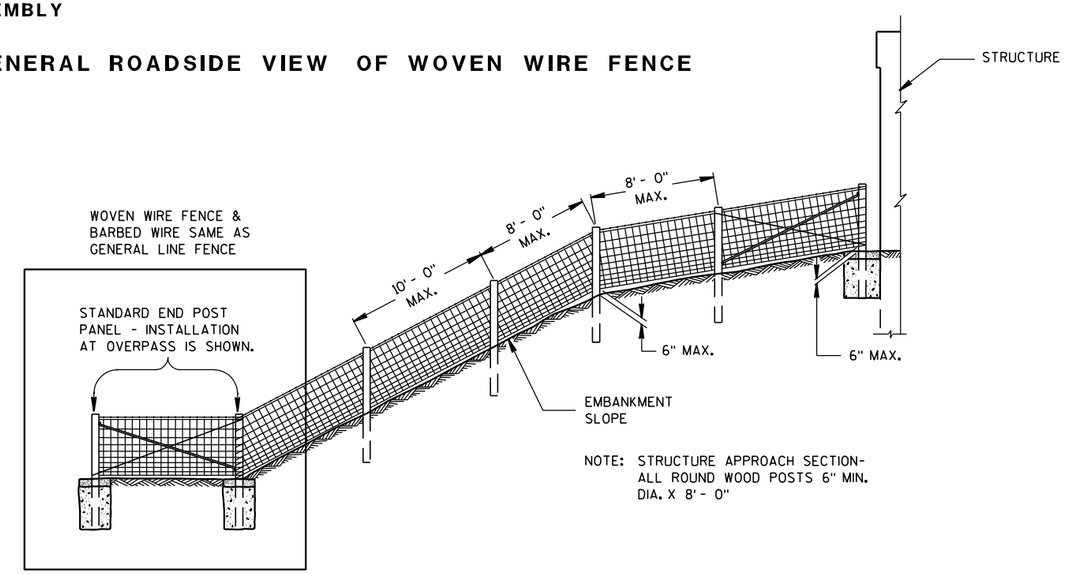


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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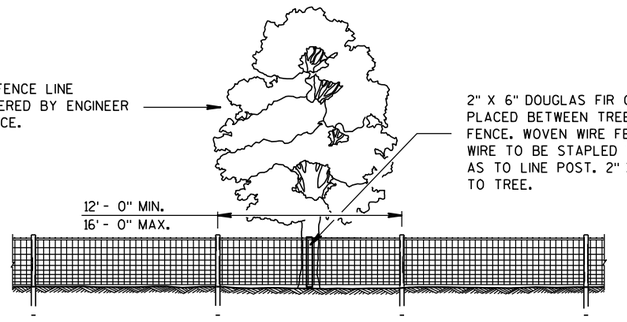
S.D.D. 15 B 1-8a

6

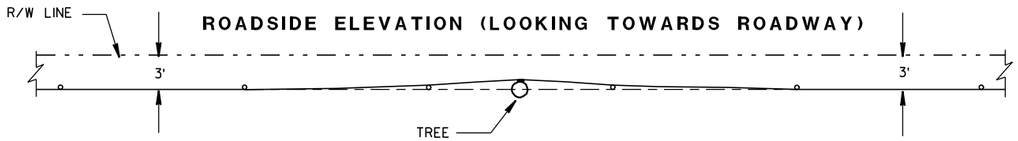
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

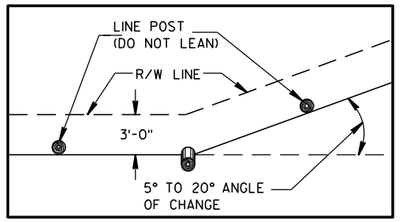


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

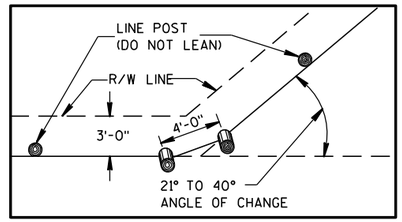


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

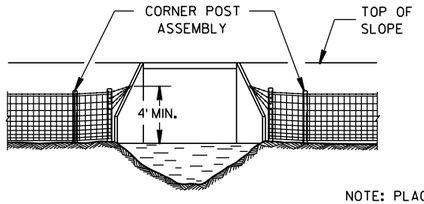


PLAN VIEW
DOUBLE POST CORNER

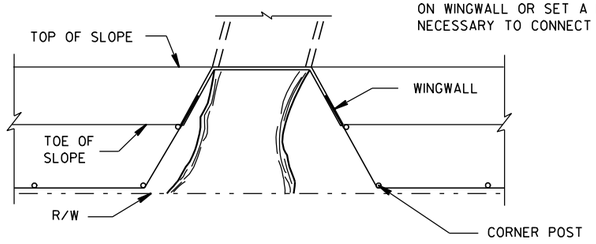
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

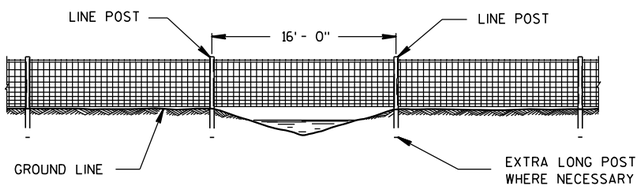
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



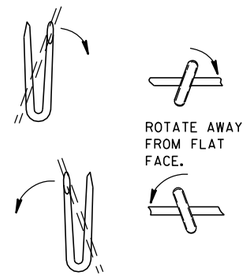
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

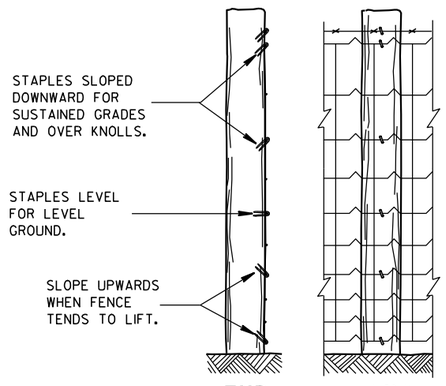


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



LINE POST

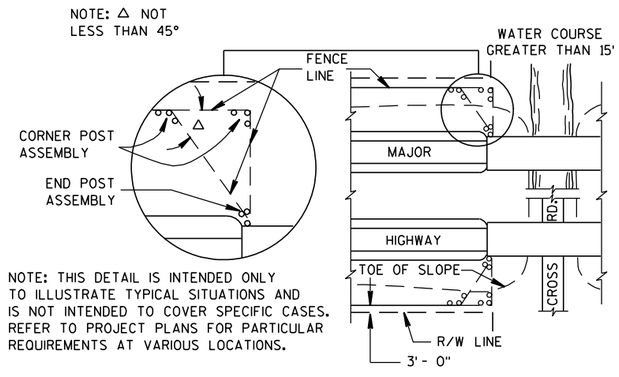
NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION — FARM SIDE ELEVATION

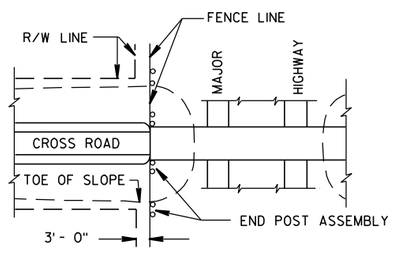
FENCE MOUNTING DETAIL

NOTE: △ NOT LESS THAN 45°



NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008 — DATE
/S/ Jerry H. Z--- — ROADWAY STANDARDS ENGINEER
FHWA

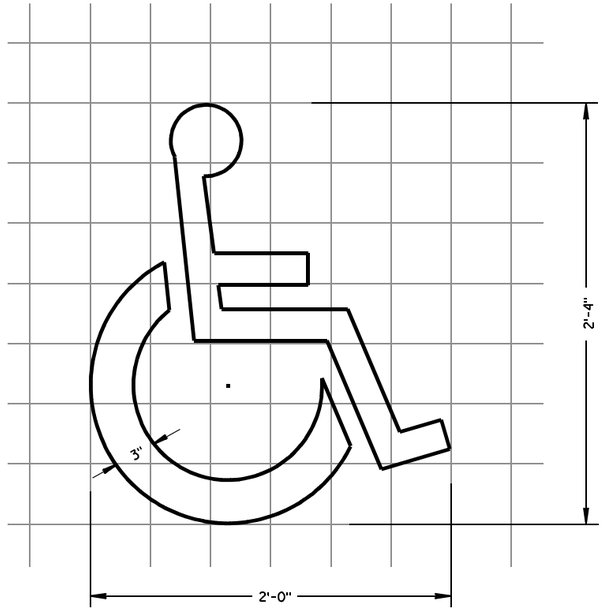
S.D.D. 15 B 1-8b
6

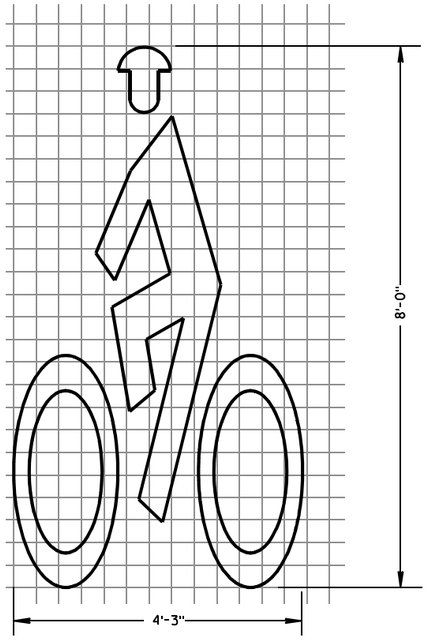
GENERAL NOTES

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

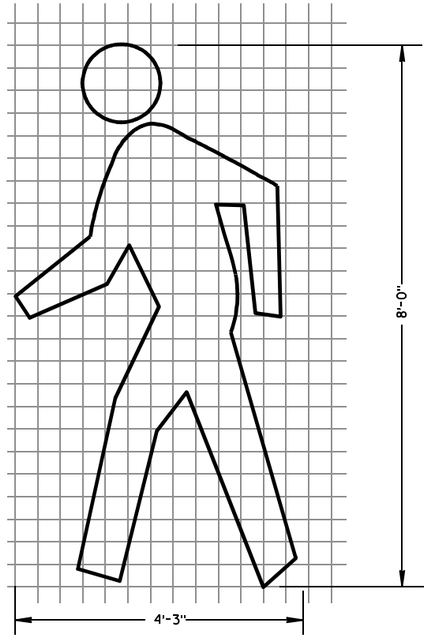
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

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

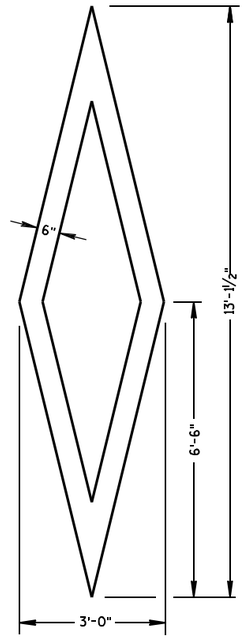




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-12a

S.D.D. 15 C 7-12a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

/S/ Thomas N Nathan
STATE TRAFFIC ENGINEER

FHWA

GENERAL NOTES

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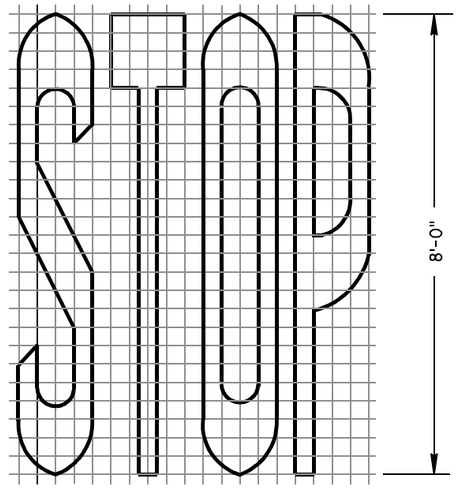
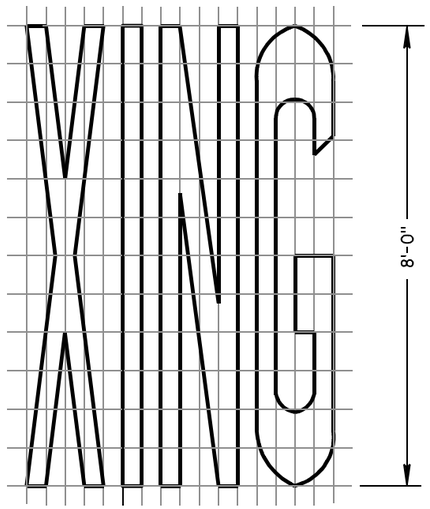
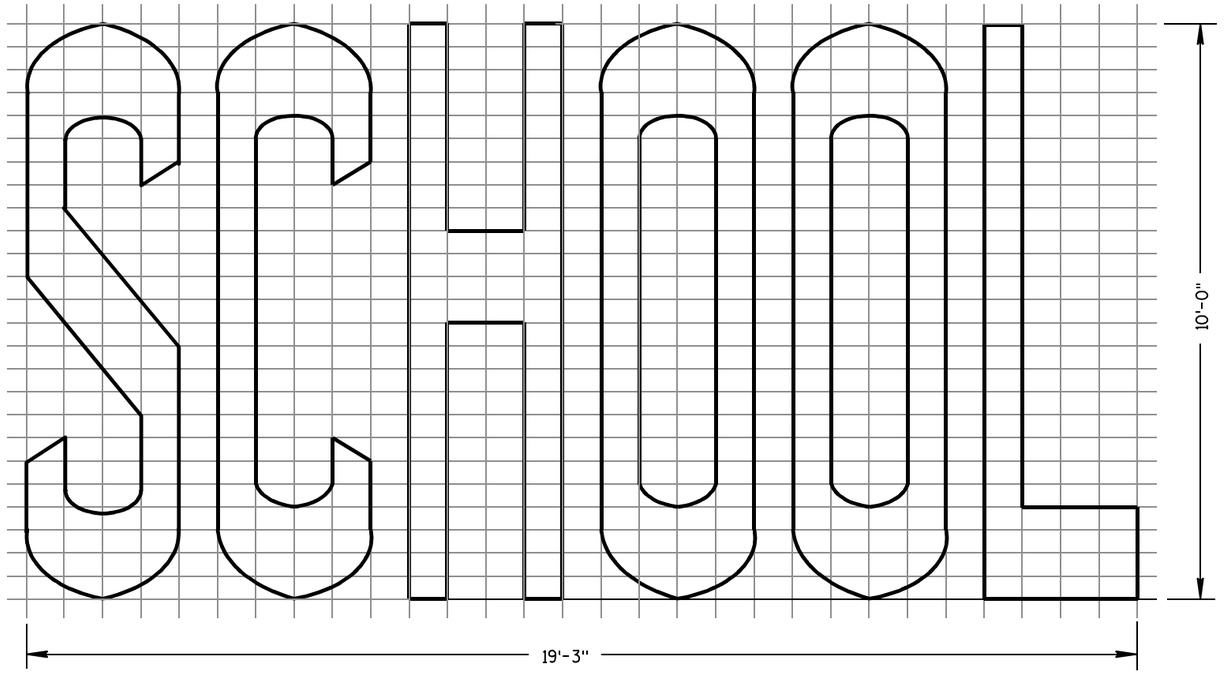
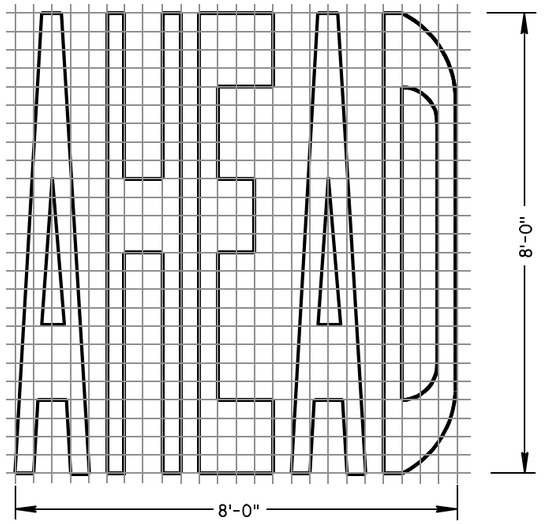
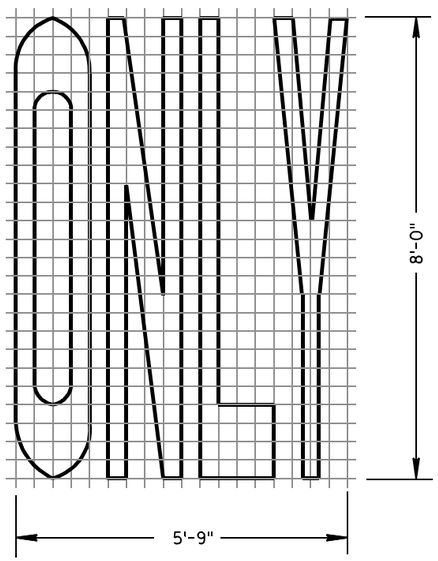


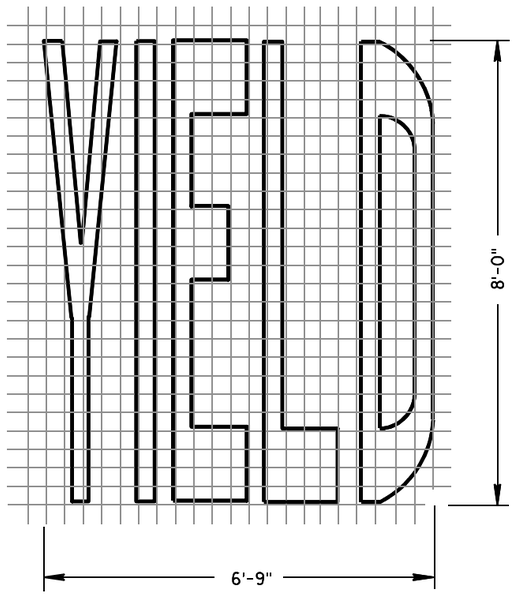


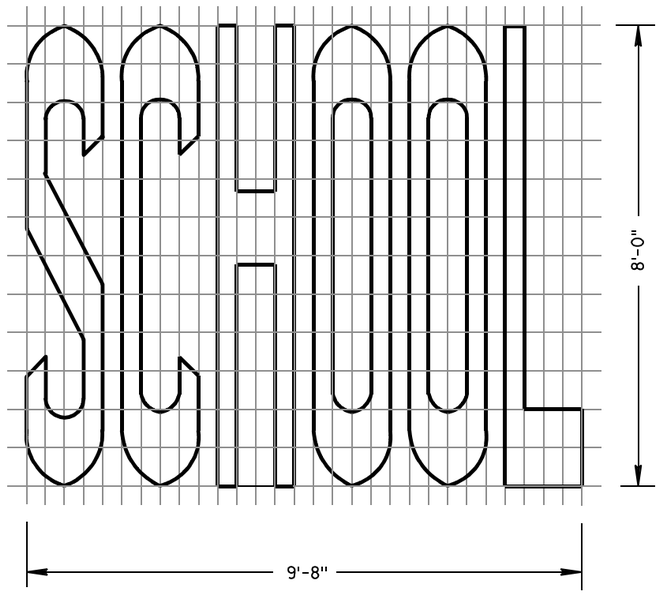


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nottbohm STATE TRAFFIC ENGINEER — IGN

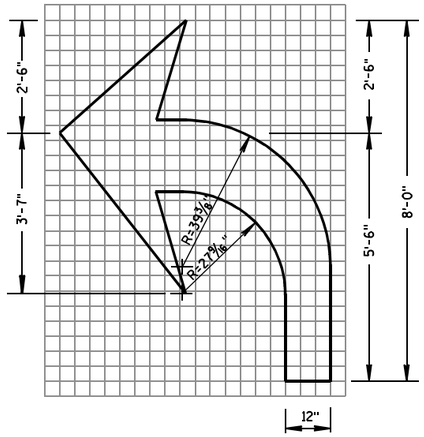
FHWA

6

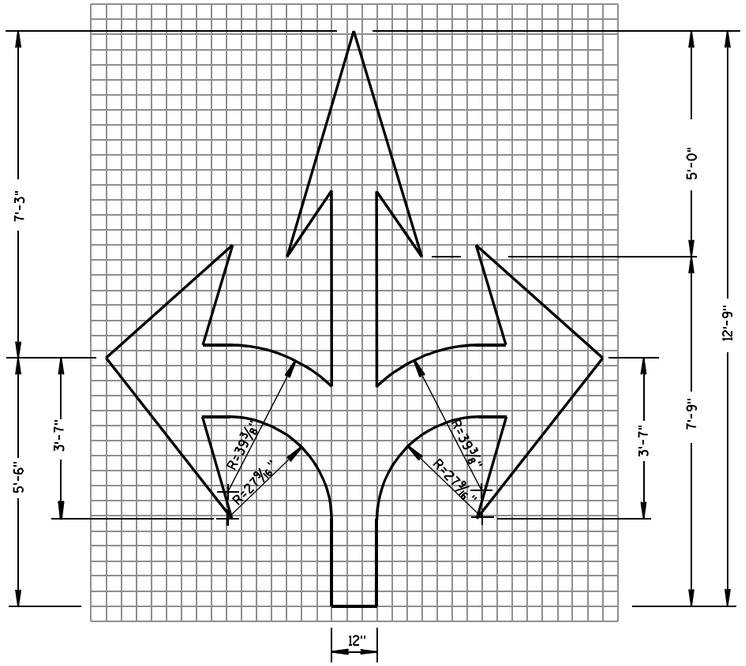
S.D.D. 15 C 7-12b

6

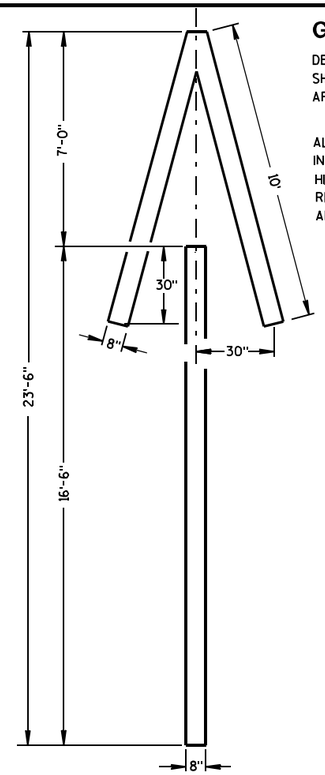
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6



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.

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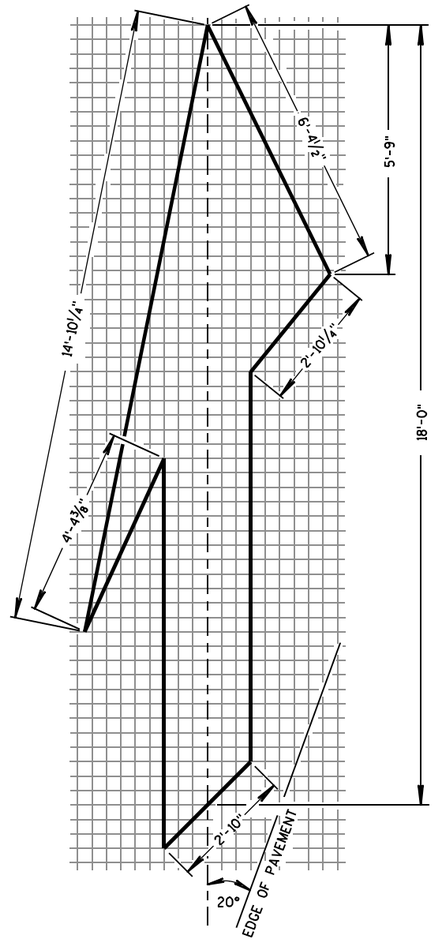
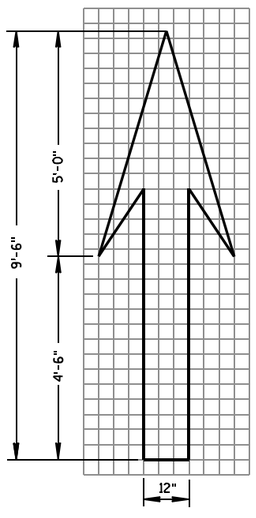
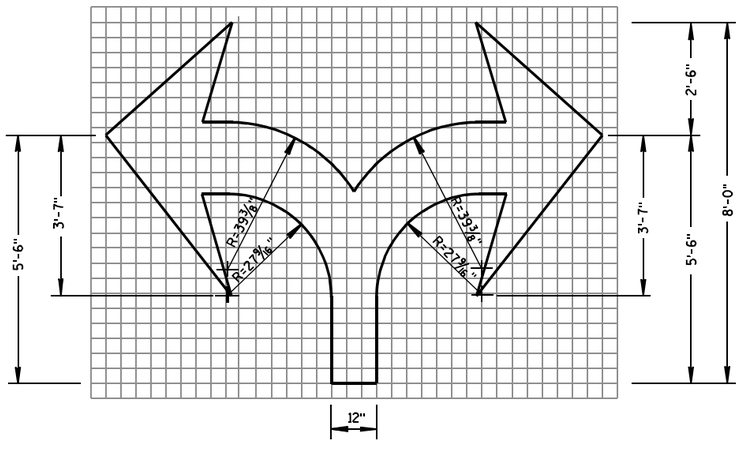


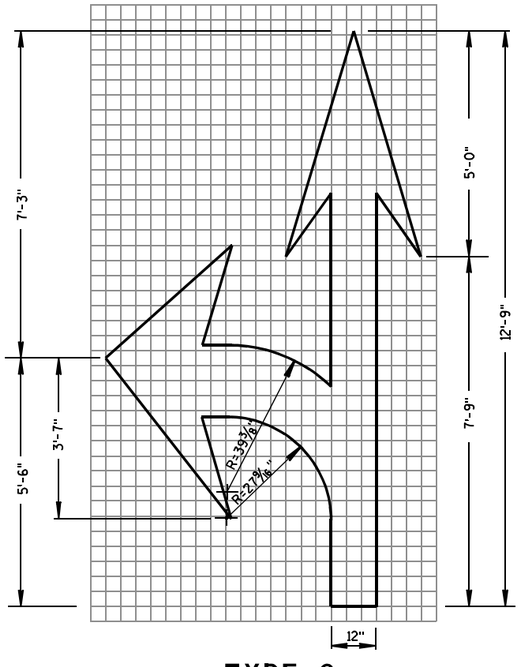
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

6

S.D.D. 15 C 7-12c

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

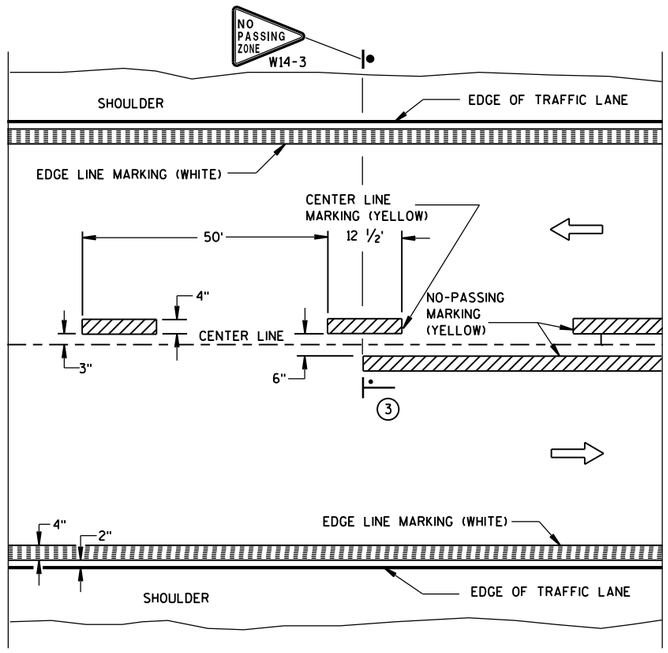
7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

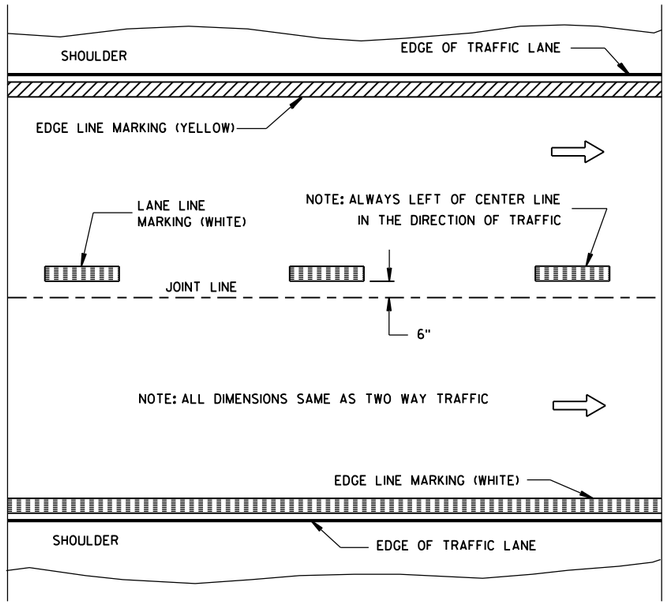
FHWA

6

S.D.D. 15 C 7-12c

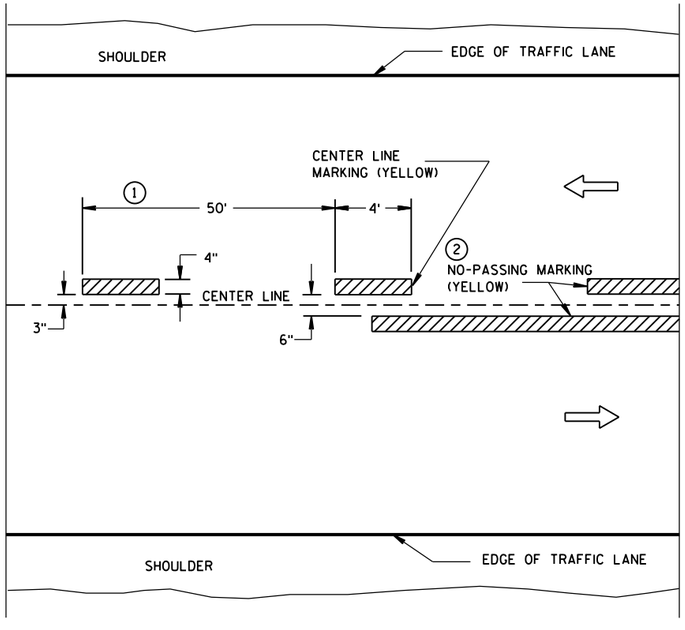


TWO WAY TRAFFIC

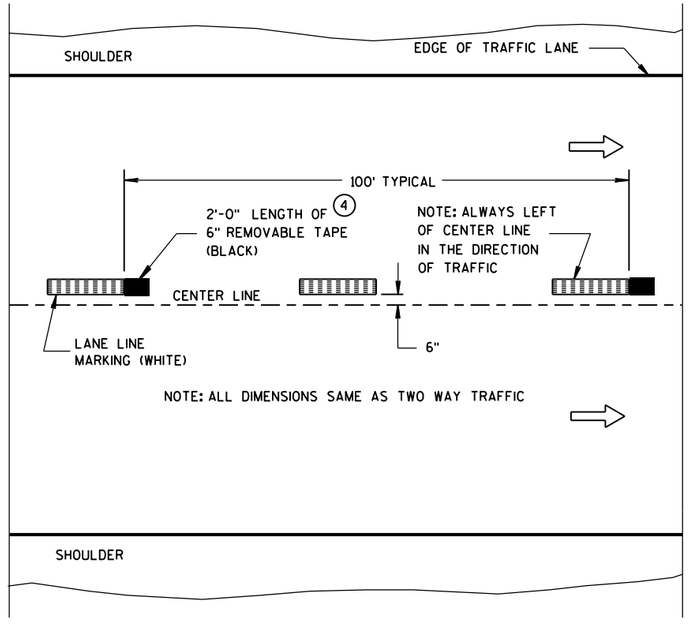


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

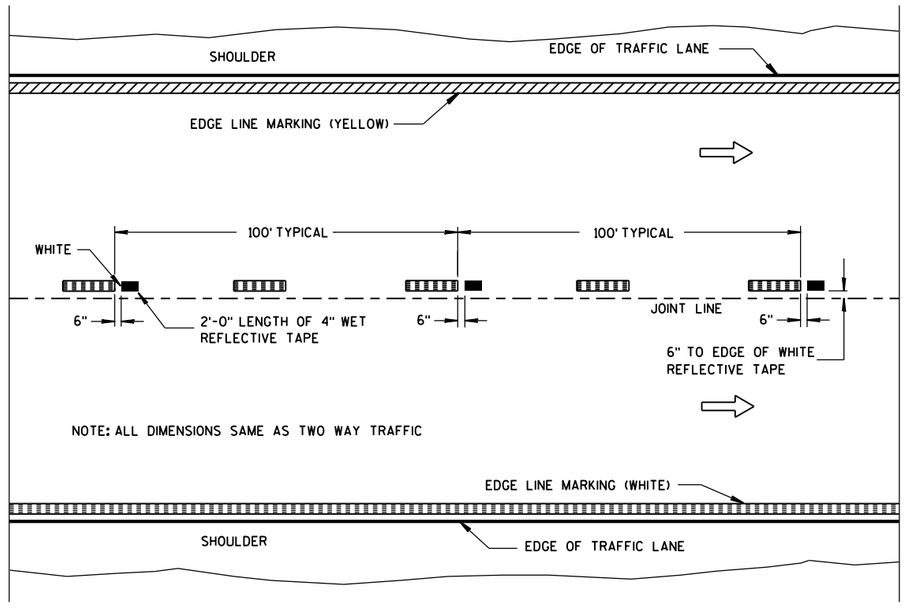
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

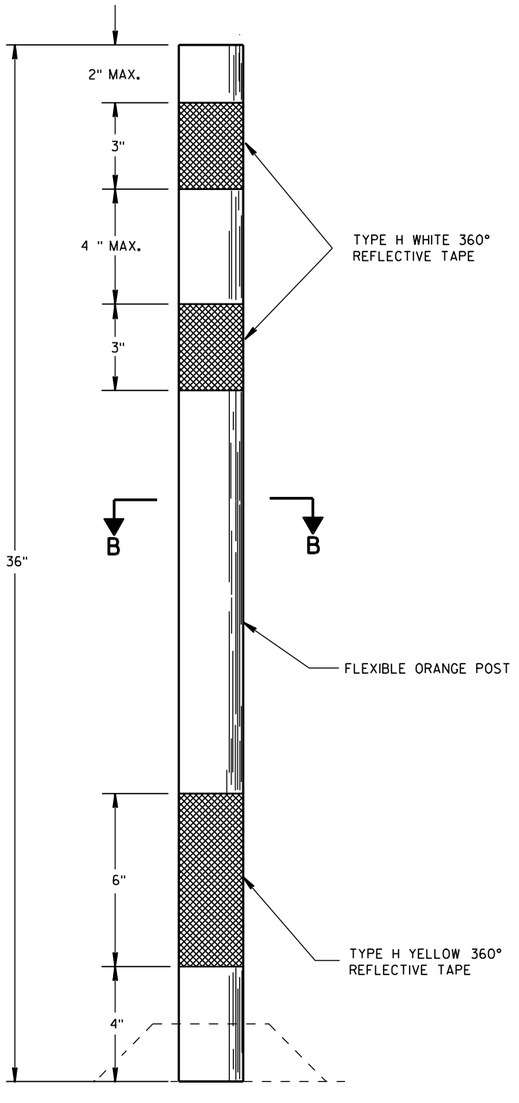
FHWA

6

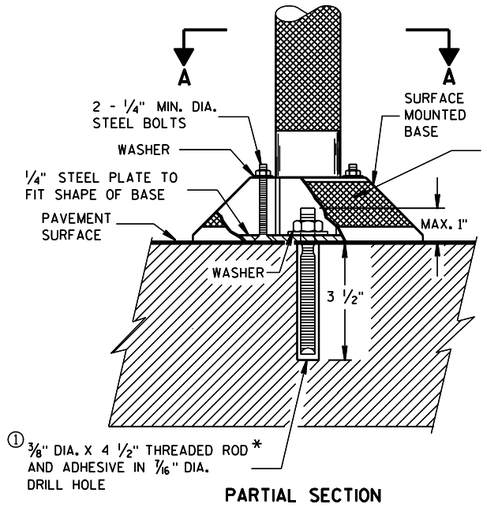
S.D.D. 15 C 8-16a

6

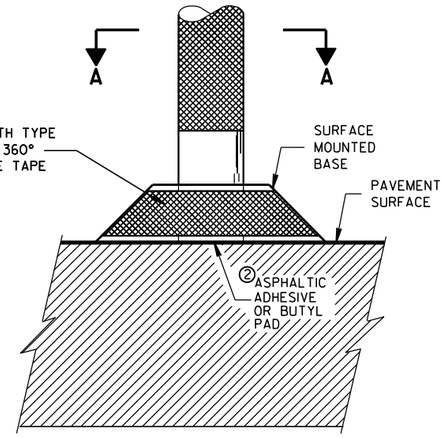
S.D.D. 15 C 8-16a



FLEXIBLE TUBULAR MARKER POST



PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT

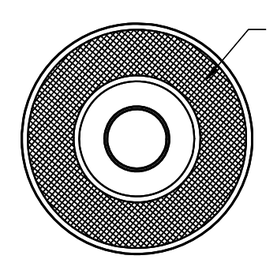
GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

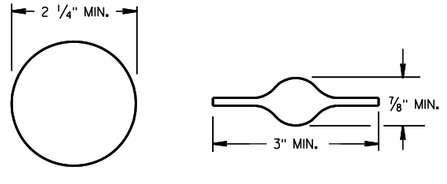
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



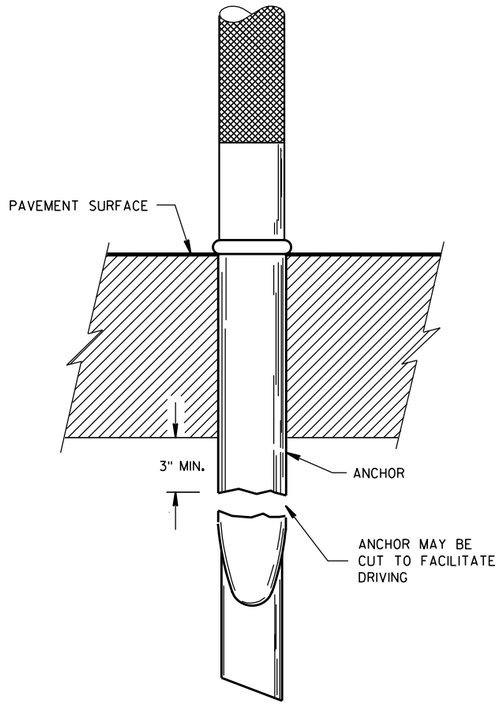
SECTION A-A

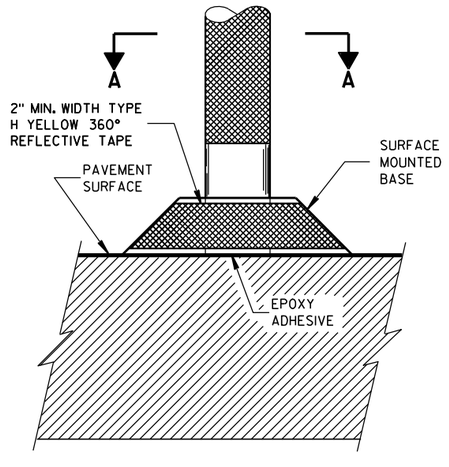
SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

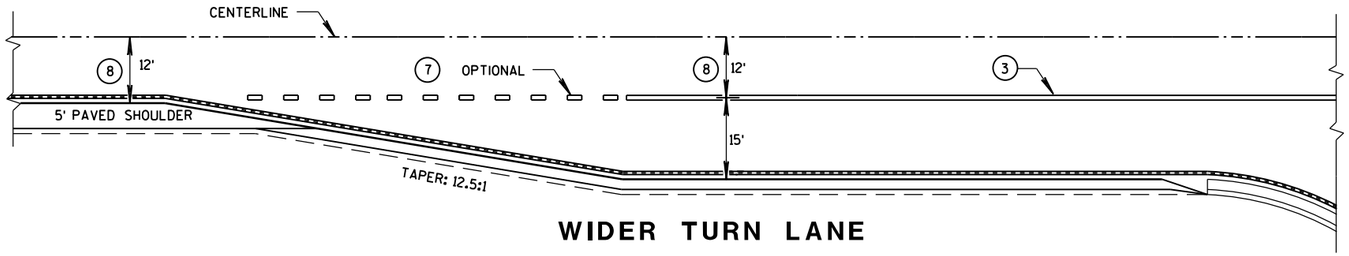
FHWA

6

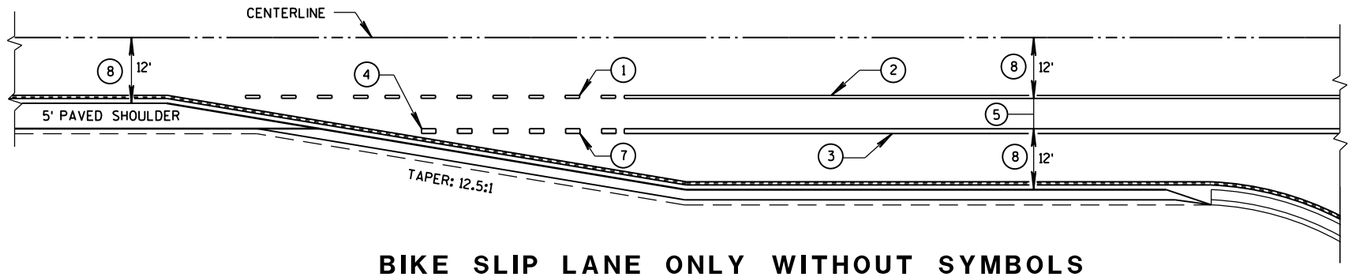
S.D.D. 15 C 11-5

6

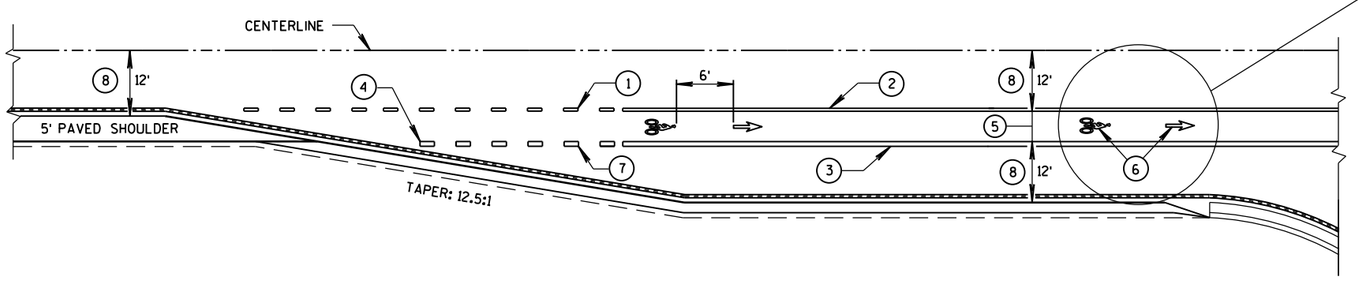
S.D.D. 15 C 11-5



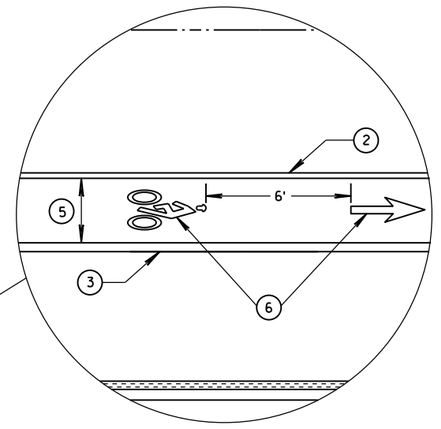
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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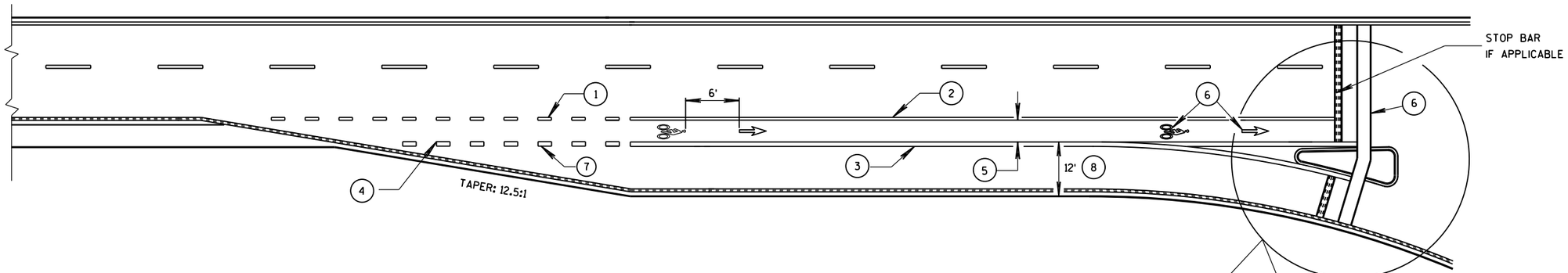
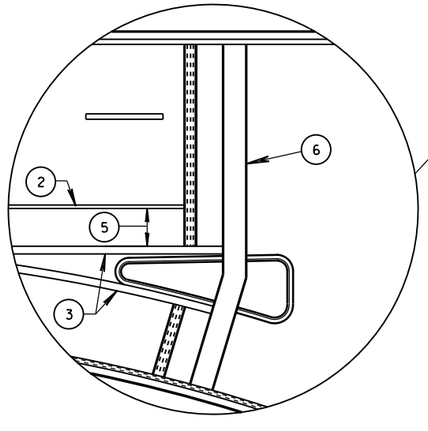
S.D.D. 15 C 29-3a

GENERAL NOTES

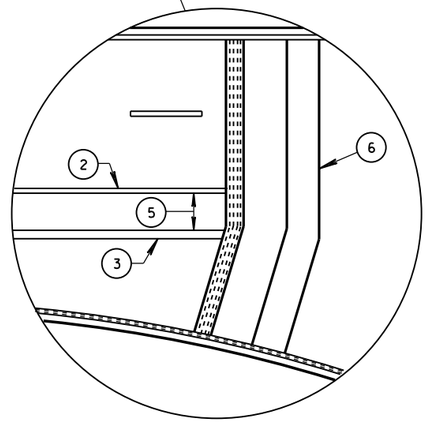
1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. 5' TYPICAL.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE



4 LANE DIVIDED WITH ISLAND



4 LANE DIVIDED WITHOUT ISLAND

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 C 29-3b

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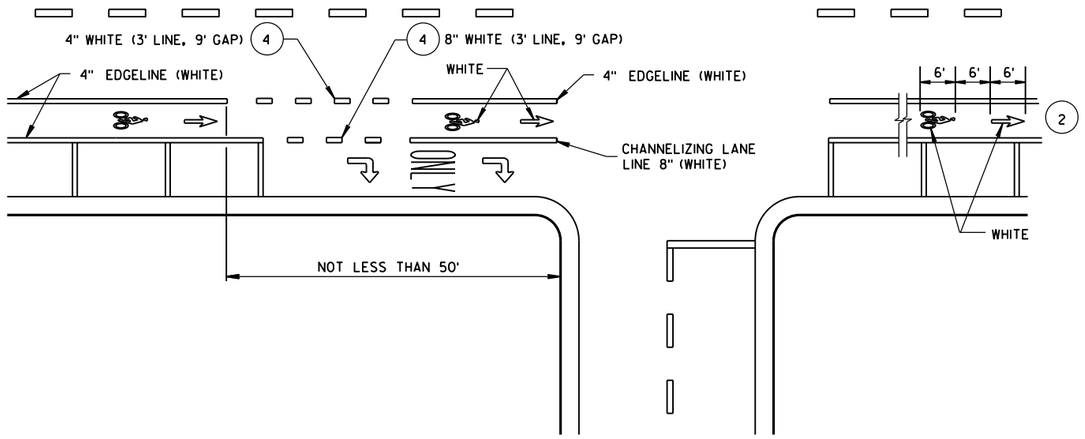
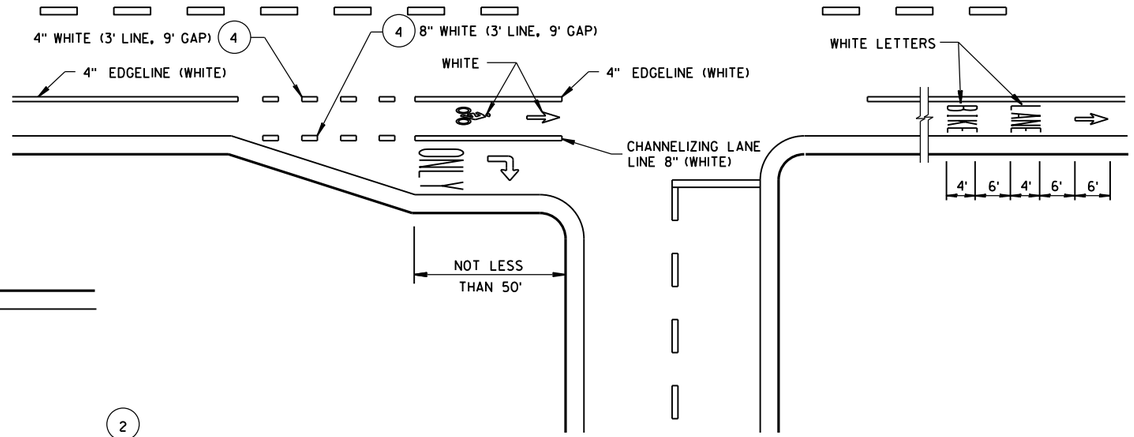
S.D.D. 15 C 29-3b



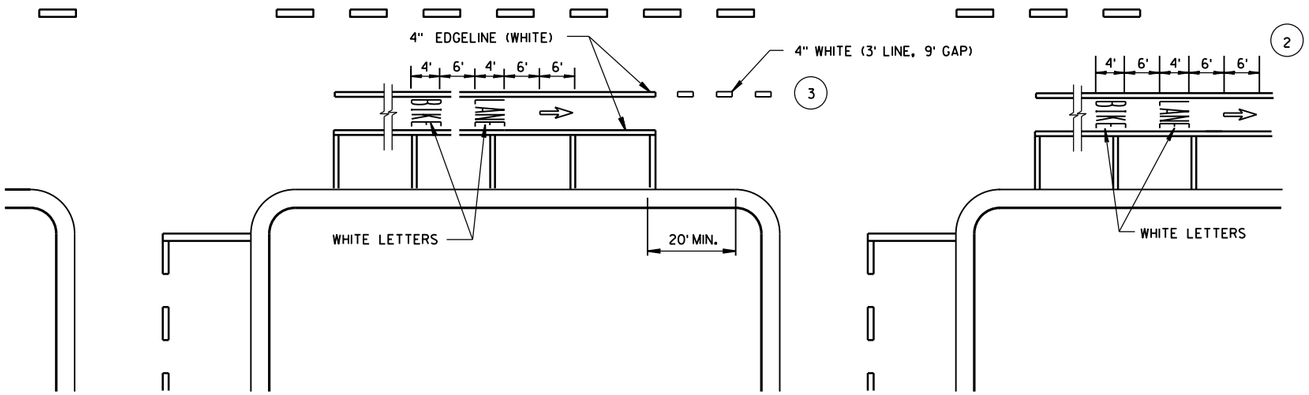
DESIGNATED BICYCLE LANE

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. WHEN SPECIFIED IN THE CONTRACT.



DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC E
FHWA

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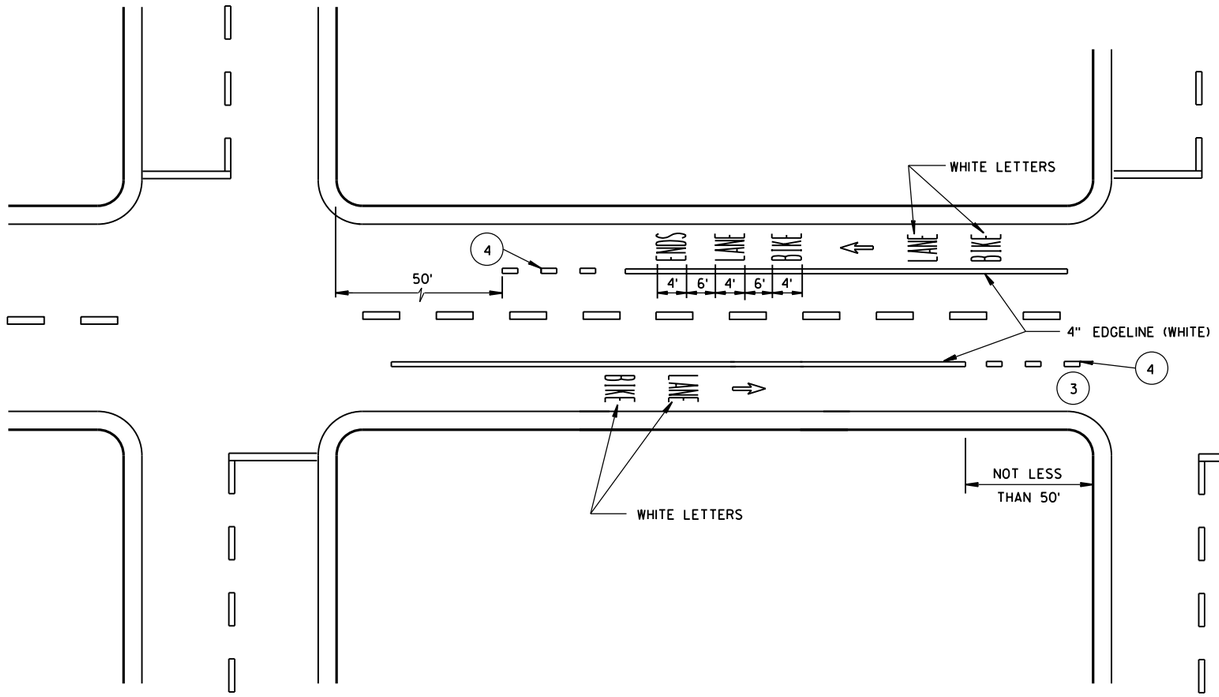
S.D.D. 15 C 29-3c

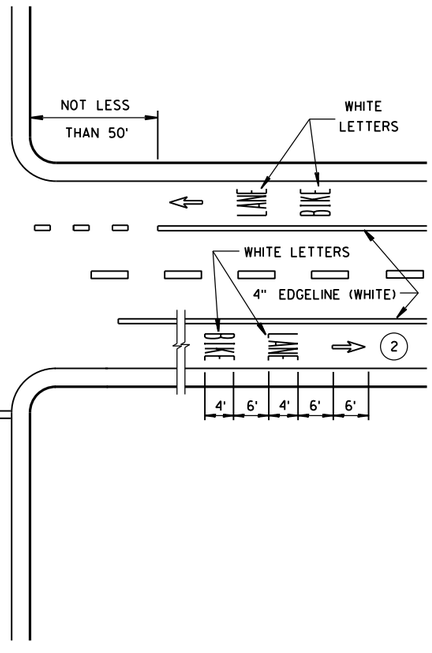
6

S.D.D. 15 C 29-3c

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/30/2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN 273
FHWA	

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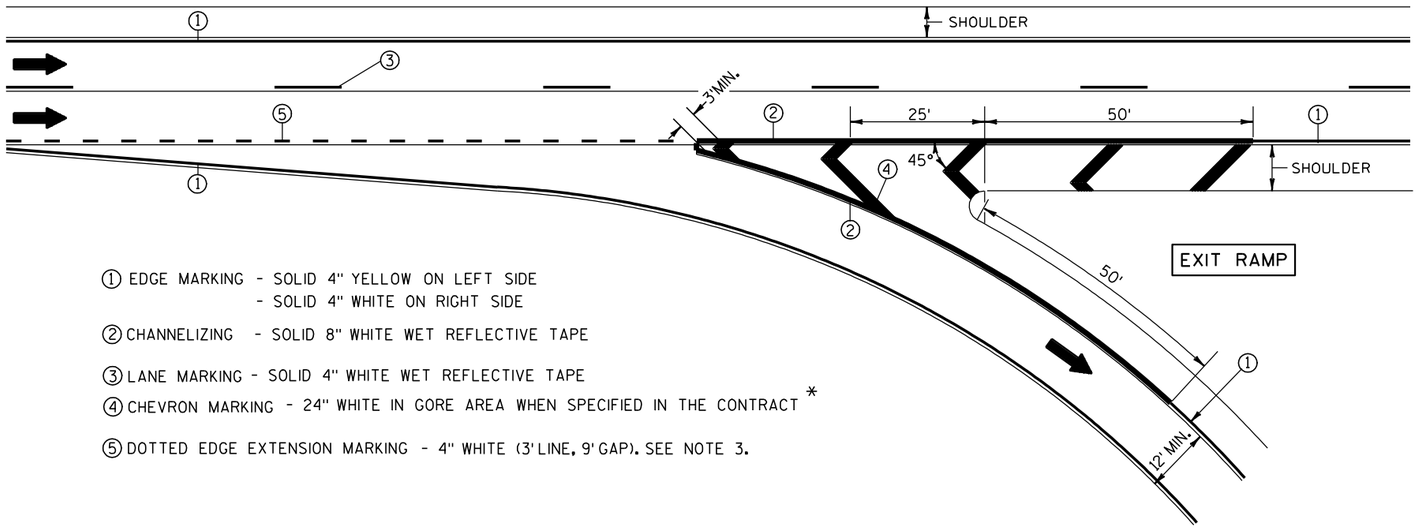
S.D.D. 15 C 29-3d



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:

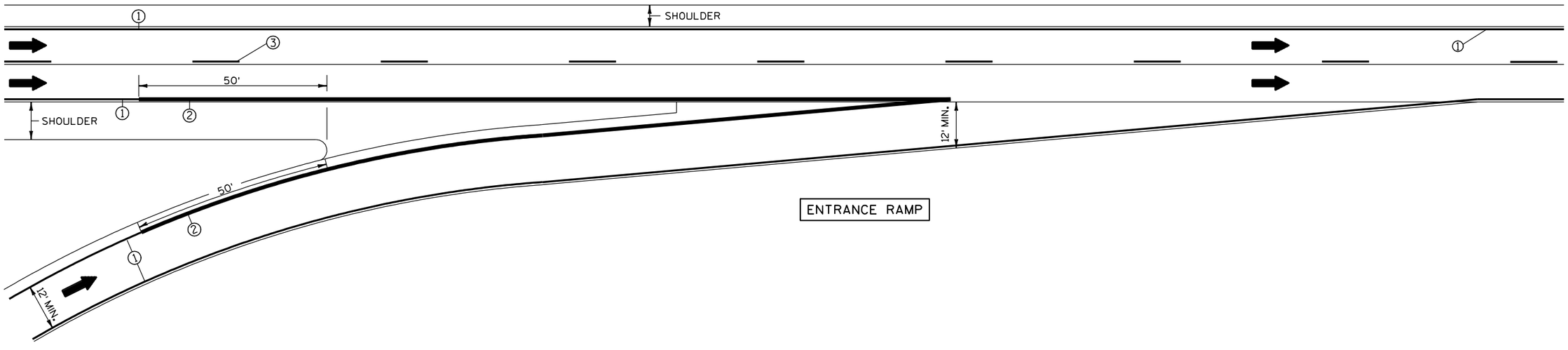
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

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.



6

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 31-1a

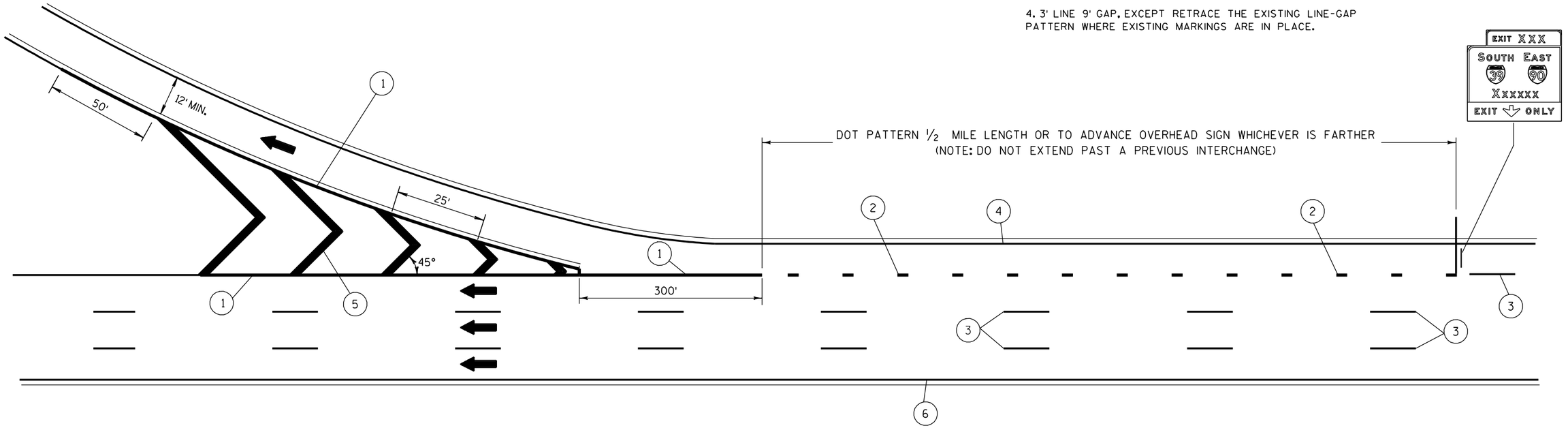
NOTES:

1. SEE STANDARD DETAIL DRAWING 15 C 10 FOR SPRAYED OR NON WET REFLECTIVE LINE SEGMENTS.

2. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

3. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

4. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.



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

6

S.D.D. 15 C 31-1b
S.D.D. 15 C 31-1b

NOTES:

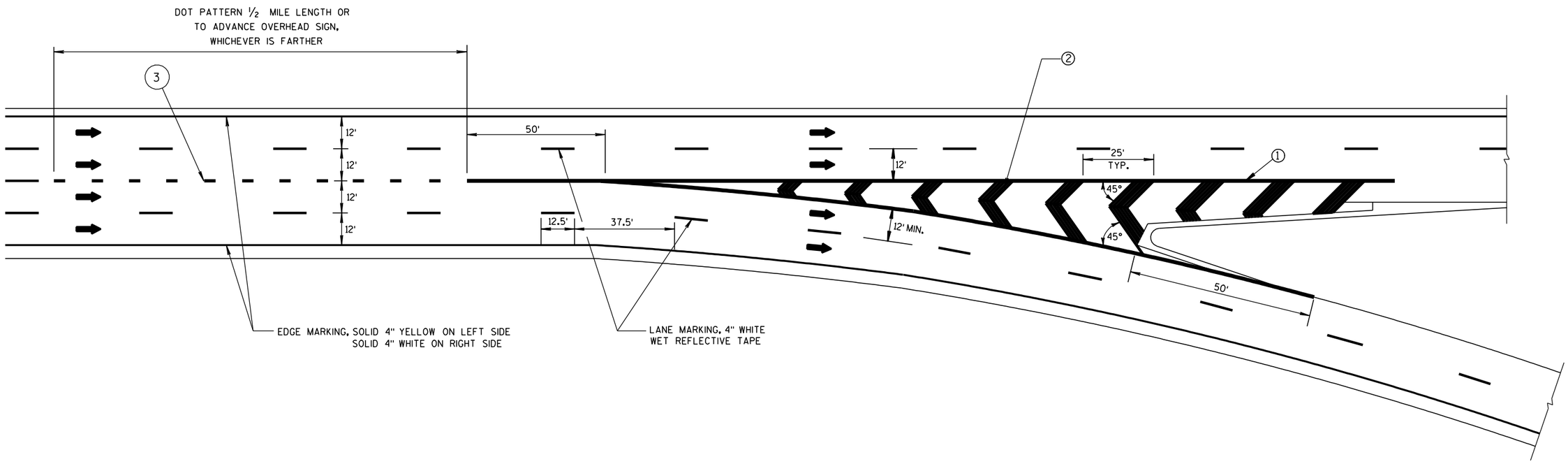
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE.

② CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

③ 3' LINE, 9' GAP SOLID 8" WHITE WET REFLECTIVE TAPE.



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6

S.D.D. 15 C 31-1c

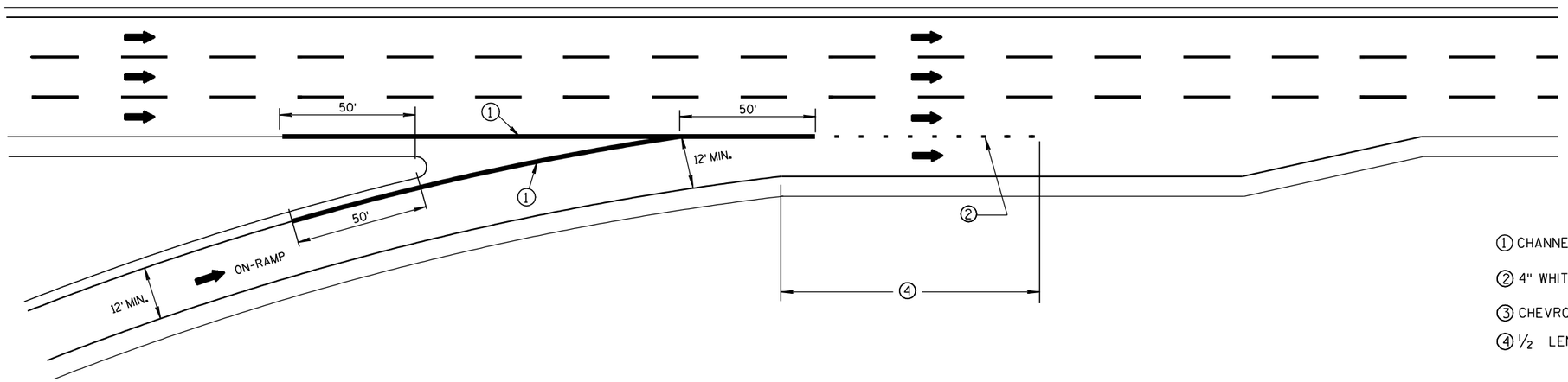
S.D.D. 15 C 31-1c

PAVEMENT MARKING
MAJOR SPLIT
FREEWAY TO FREEWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

NOTES:

1. AHEAD 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. RETRACE EXISTING DIAGONAL MARKINGS.



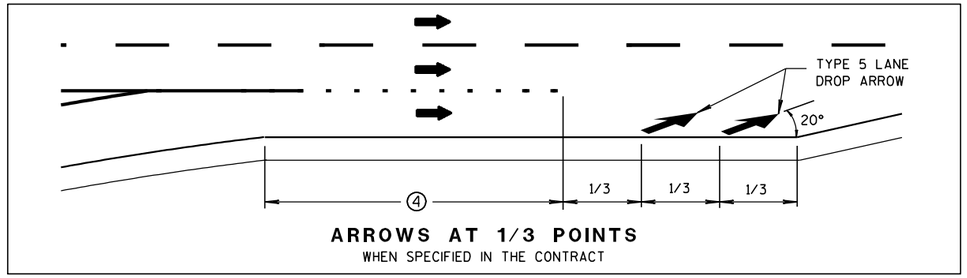
① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE IN GORE AREA.

② 4" WHITE (3' LINE, 9' GAP).

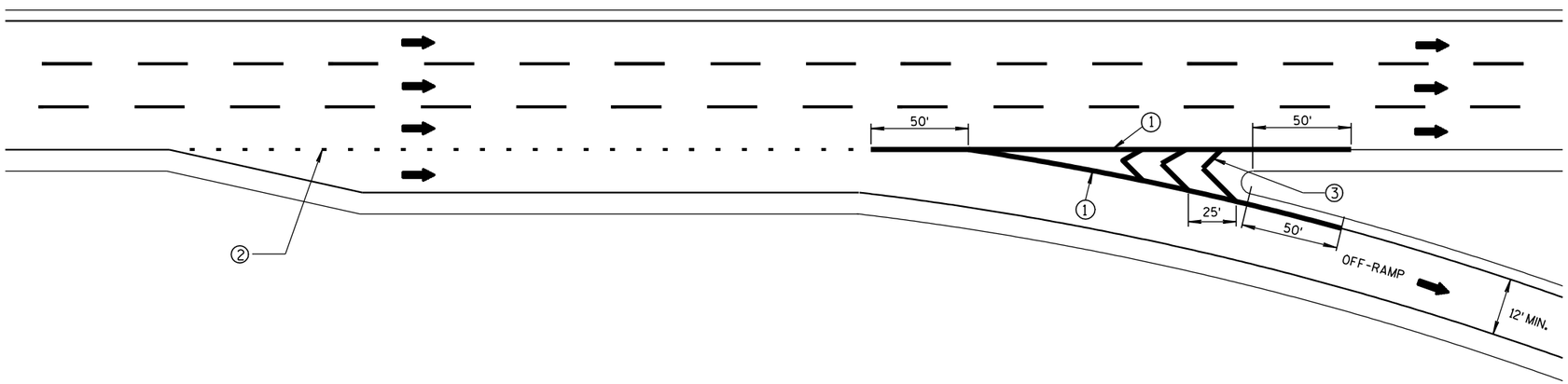
③ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

④ 1/2 LENGTH OF FULL WIDTH ACCELERATION LANE.

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP



ARROWS AT 1/3 POINTS
WHEN SPECIFIED IN THE CONTRACT



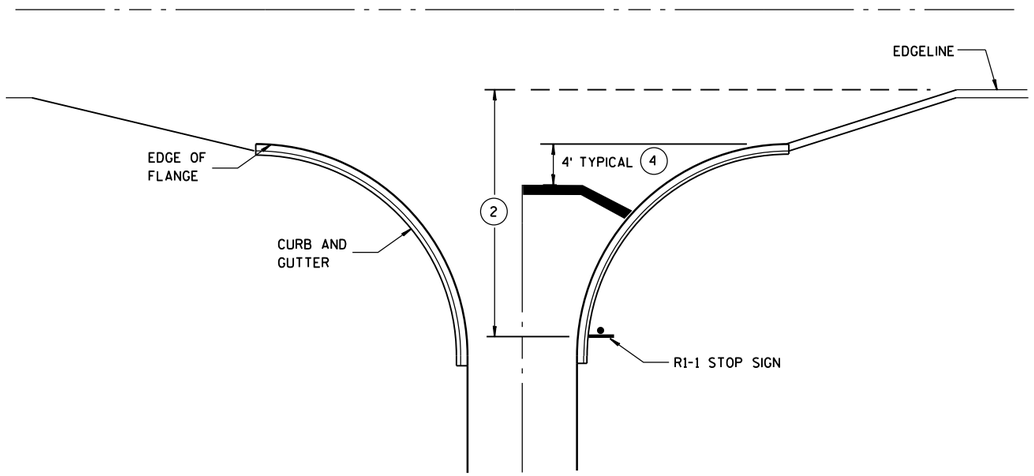
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

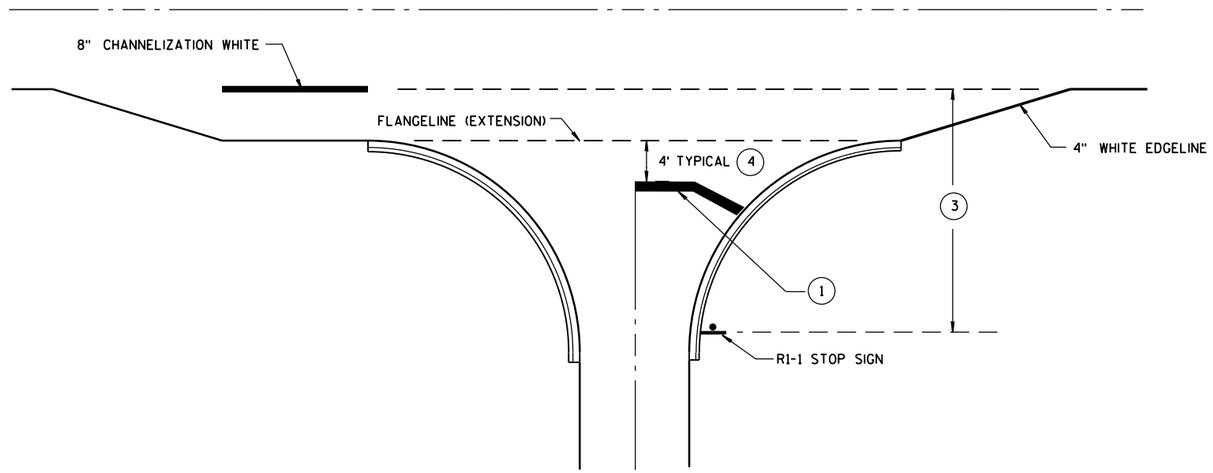
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/23/2011 DATE
/S/ Thomas N. Nothem
STATE TRAFFIC ENGINE 277 SIGN
FHWA

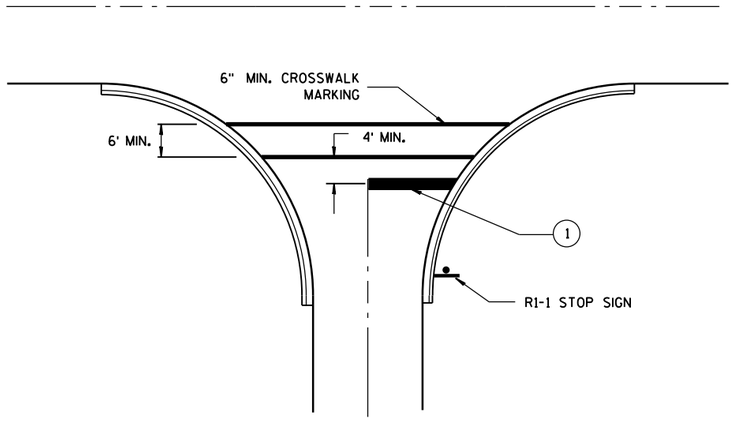
6
S.D.D. 15 C 31-1d



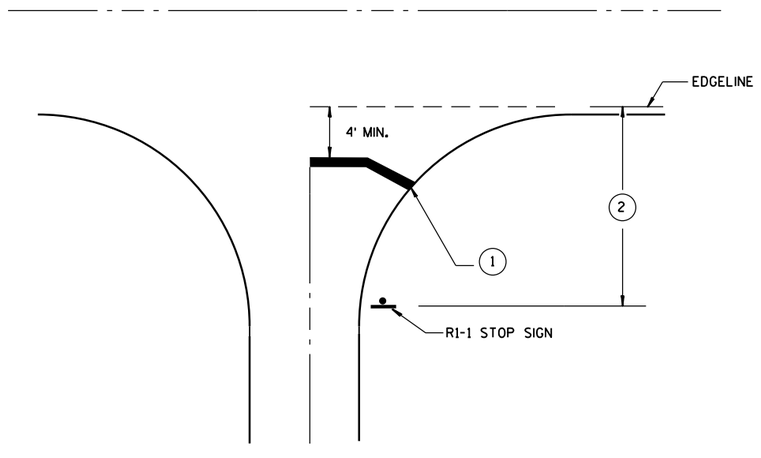
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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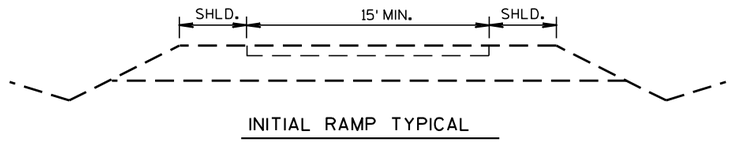
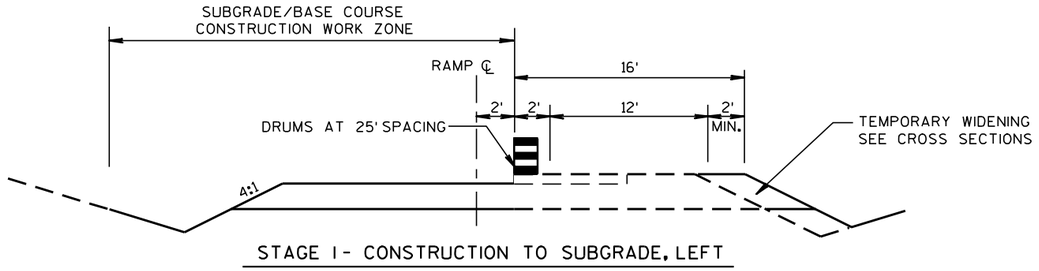
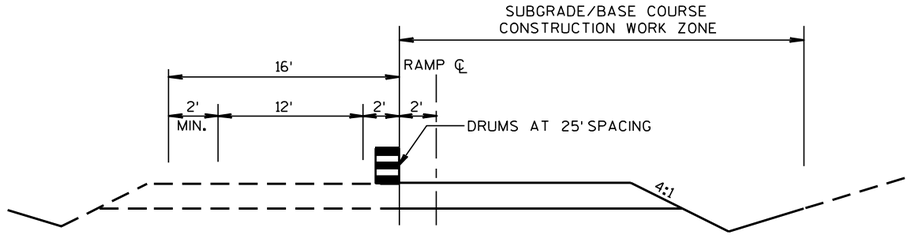
S.D.D. 15 C 33-1



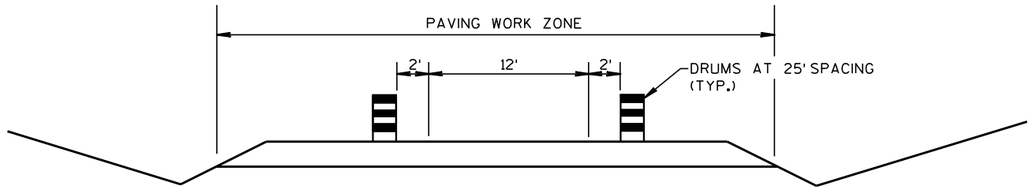
INITIAL RAMP TYPICAL



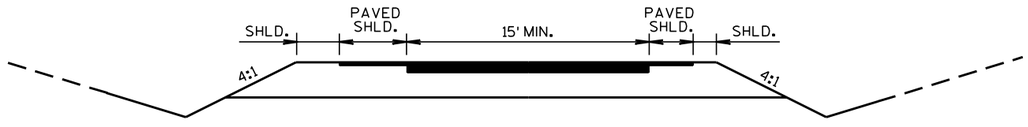
STAGE I - CONSTRUCTION TO SUBGRADE, LEFT



STAGE II - CONSTRUCTION TO SUBGRADE, RIGHT



STAGE III - TRAFFIC ON BASE COURSE



STAGE IV - PAVING

GENERAL NOTES :

WORK SHALL BE SCHEDULED FOR ALL STAGES TO MINIMIZE INCONVENIENCE TO THE TRAFFIC USING THE RAMP WHILE IT IS ONLY BASE COURSE.

IN STAGE III, A MINIMUM 12' LANE WIDTH SHALL BE DELINEATED WITH DRUMS ALONG BOTH EDGES AT ALL TIMES UNTIL PAVED AND PAVEMENT MARKINGS ARE PLACED.

TRAFFIC CONTROL, RAMP CONSTRUCTION STAGING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-94
DATE

/S/ Chester J. [illegible]
DIRECTOR, OFFICE [illegible]

FHWA

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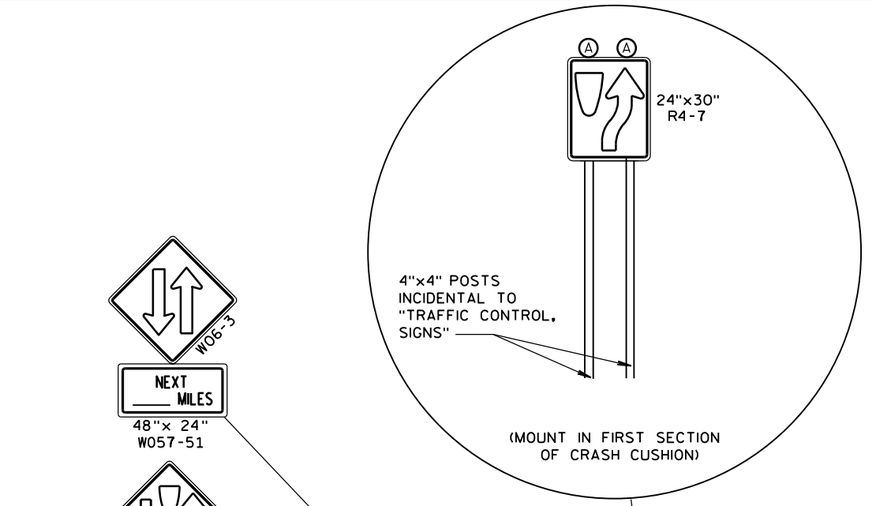
S.D.D. 15 D 4-1



** NOTE: SEE SDD 15 D 12 FOR LANE CLOSURE DETAILS.

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

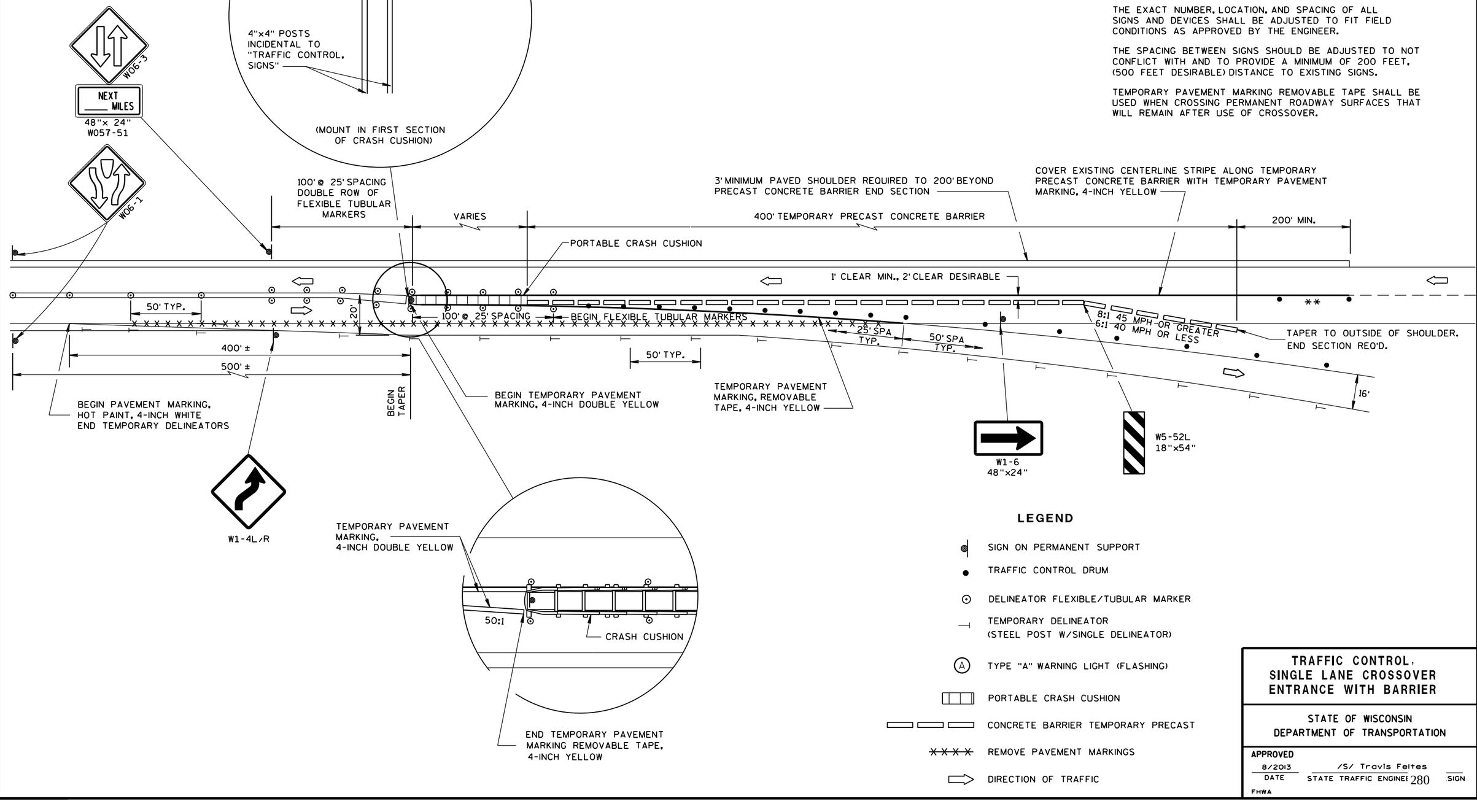
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE 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.

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.

TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.



LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR)
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- PORTABLE CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, SINGLE LANE CROSSOVER ENTRANCE WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 15 D 5-3

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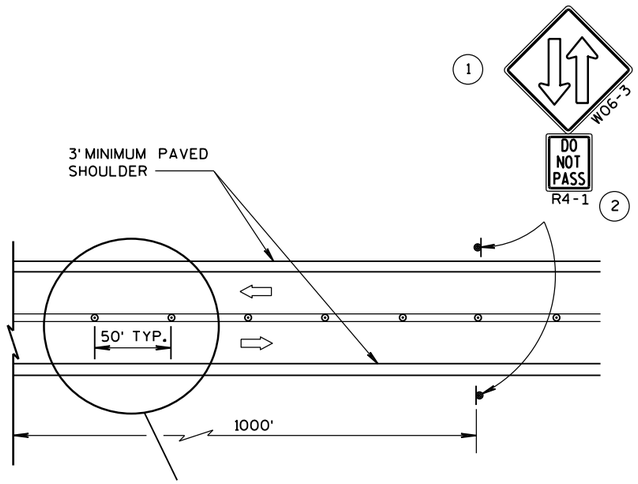
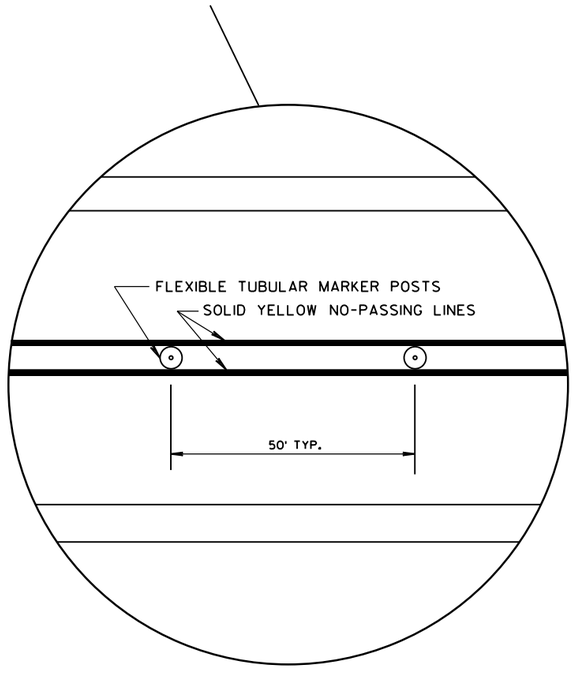
S.D.D. 15 D 5-3



TWO LANE, TWO WAY OPERATION



LEGEND

- SIGN ON PERMANENT SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE 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.

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.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50-FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500 FEET BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

(2) CONVENTIONAL: 24"x30"
FREEWAY AND EXPRESSWAY: 36"x48"

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

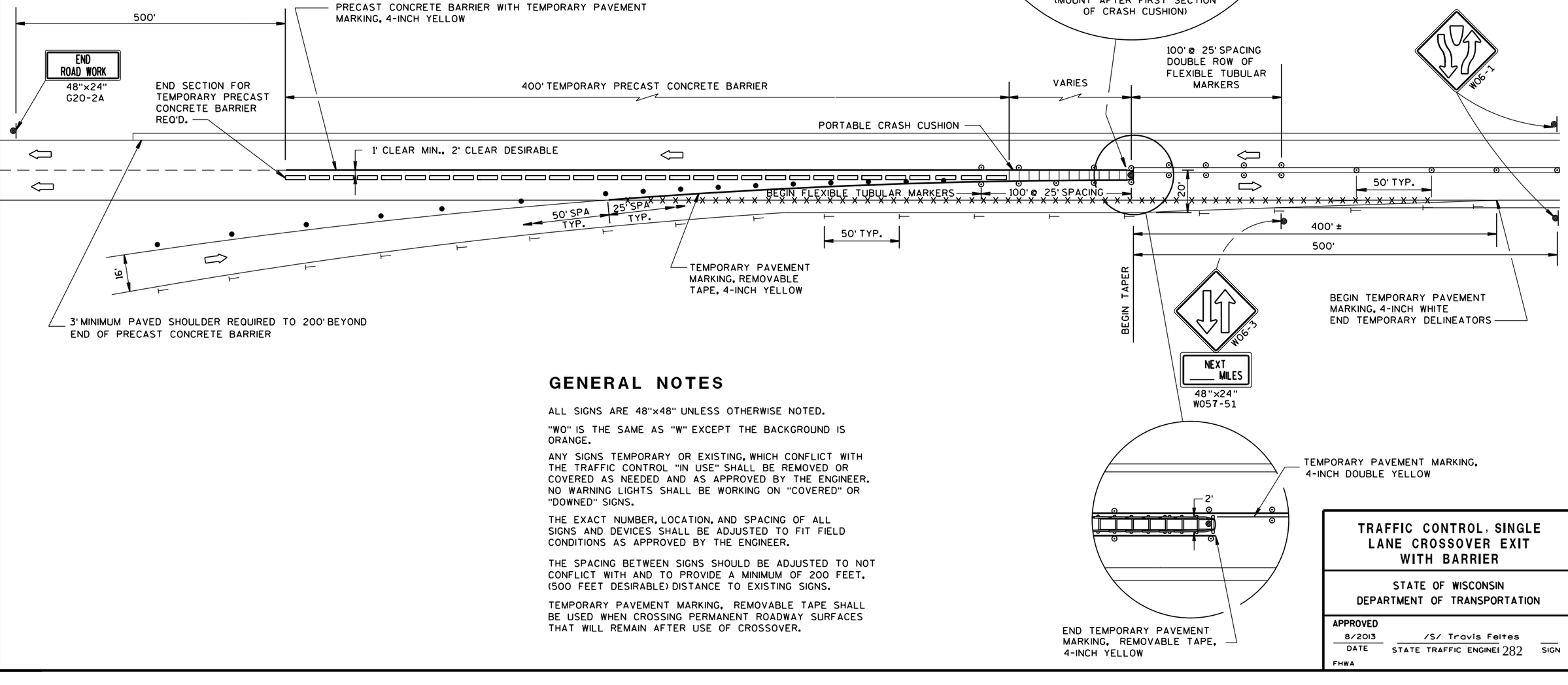
APPROVED
8/2013 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
SIGN
FHWA

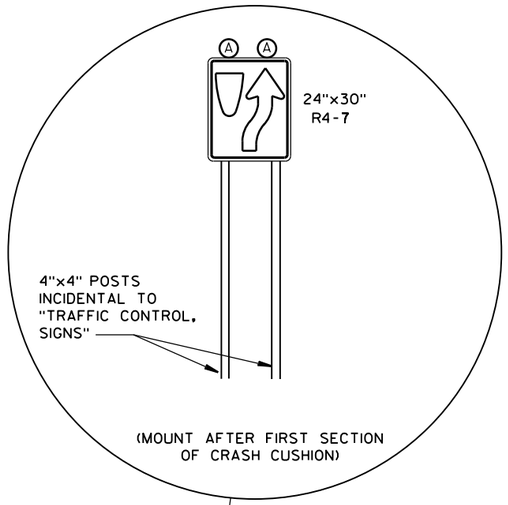
6

S.D.D. 15 D 6-3

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- PORTABLE CRASH CUSHION
- CONCRETE BARRIER TEMPORARY PRECAST
- ~~XXXX~~ REMOVE PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC





GENERAL NOTES

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 THE 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.

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.

TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.

TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes STATE TRAFFIC ENGINEER

282

SIGN

FHWA

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S.D.D. 15 D 10-3

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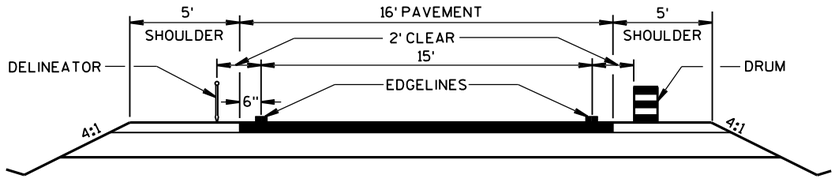
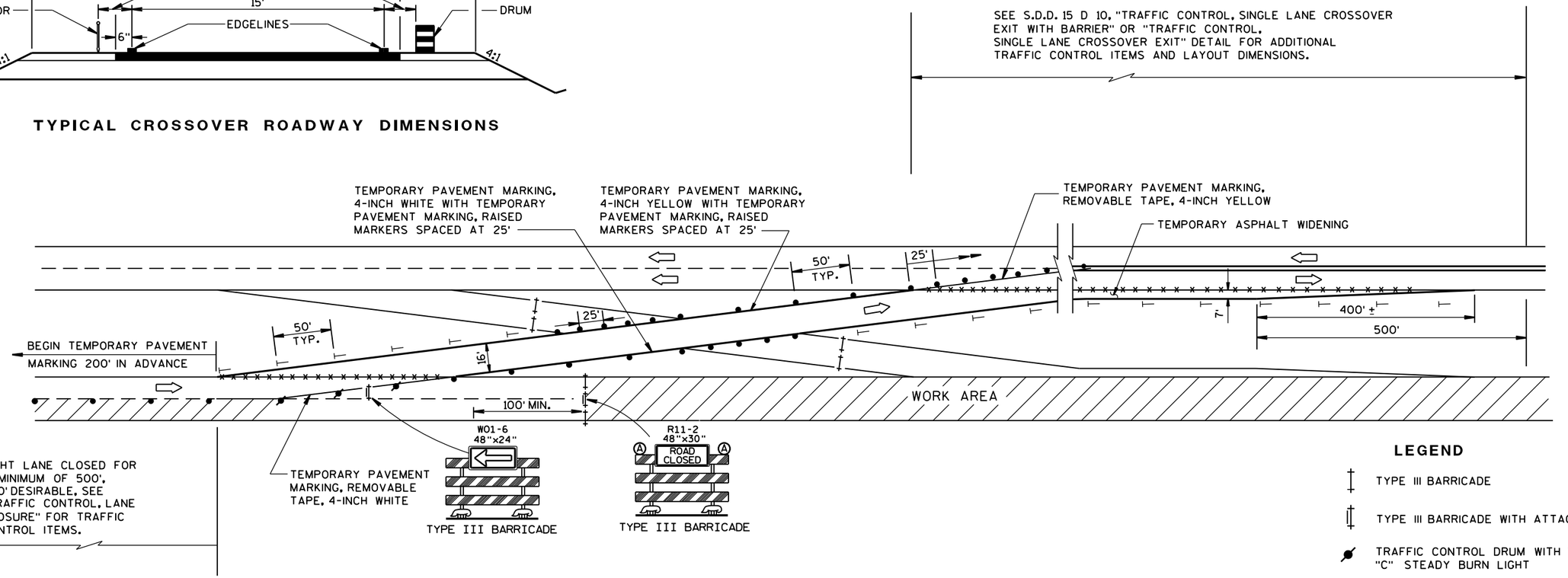
S.D.D. 15 D 10-3



TYPICAL CROSSOVER ROADWAY DIMENSIONS



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- REMOVING PAVEMENT MARKINGS
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- DIRECTION OF TRAFFIC
- WORK AREA

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 PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

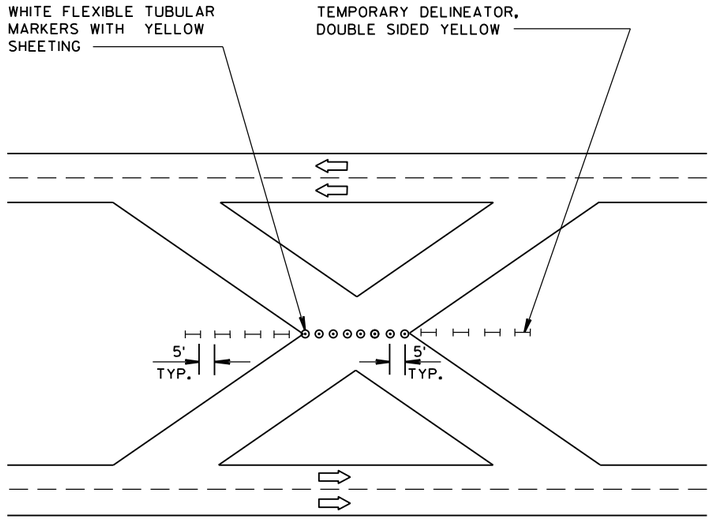
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

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 THE 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.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.



PROTECTION OF CROSSOVER NOT IN USE WHEN CONSTRUCTION IS NOT TAKING PLACE

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 15 D 11-4

6

S.D.D. 15 D 11-4

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- POST WITH ATTACHED SIGN IN DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

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 DESIREABLE) DISTANCE TO EXISTING SIGNS.

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

ALL SIGNS ARE 48"×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.

CONSIDER 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 DRUMS.

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 LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

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

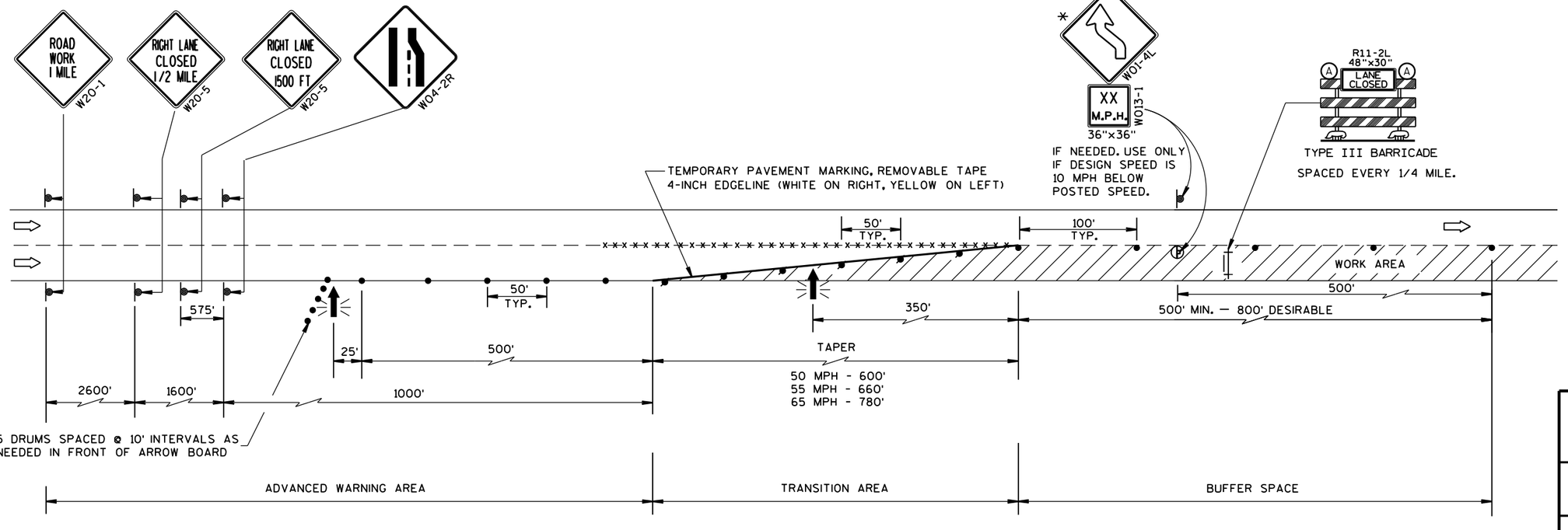
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN 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.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

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

R2-1
48"×60"
(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.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

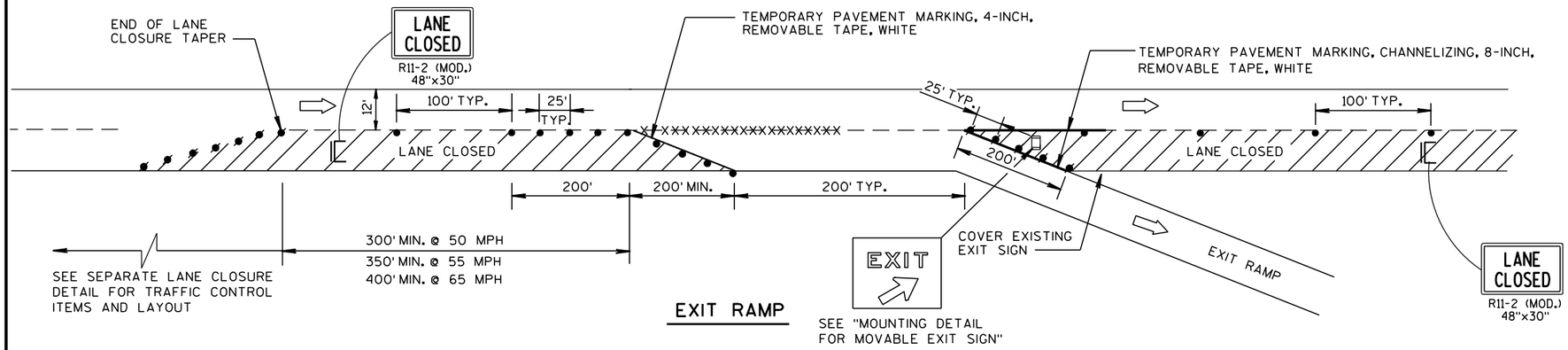
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

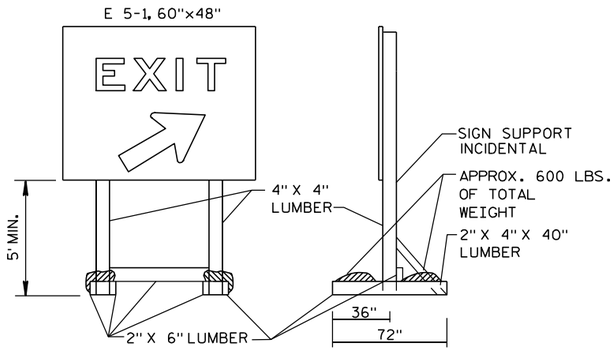
S.D.D. 15 D 12-3

6

S.D.D. 15 D 12-3

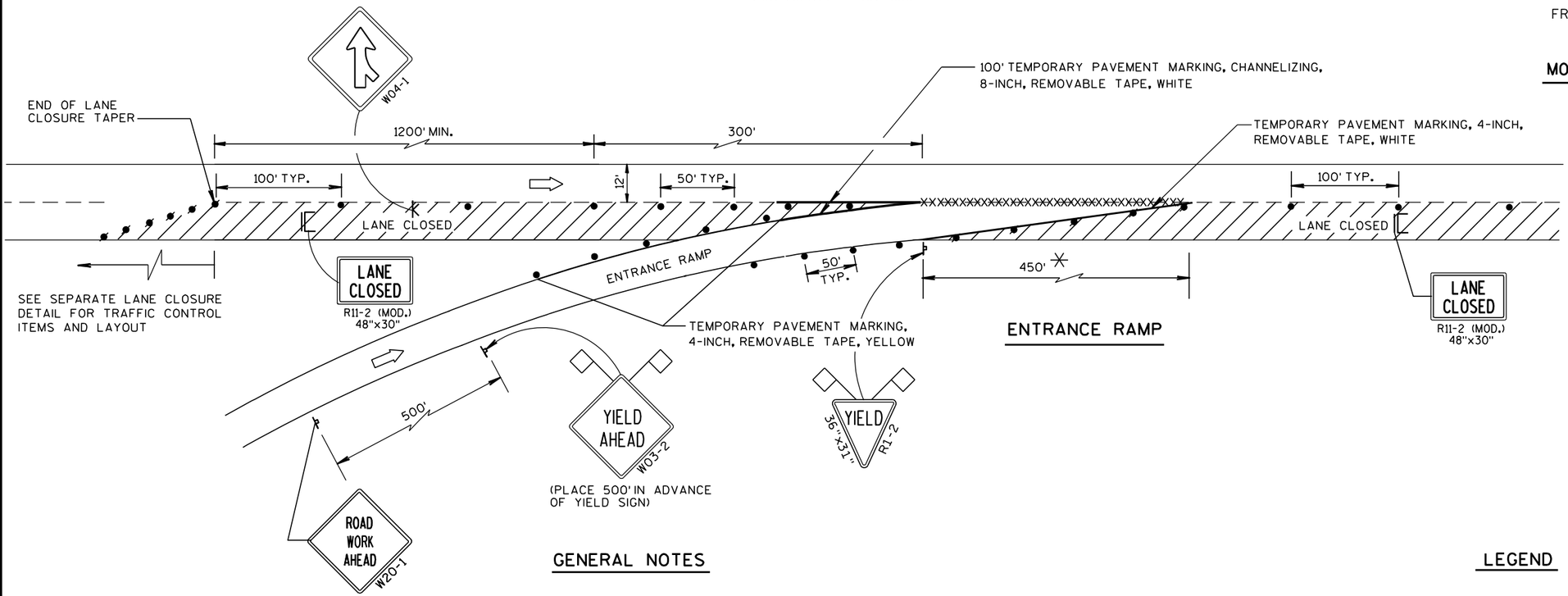


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

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. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6
S.D.D. 15 D 15-1

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.

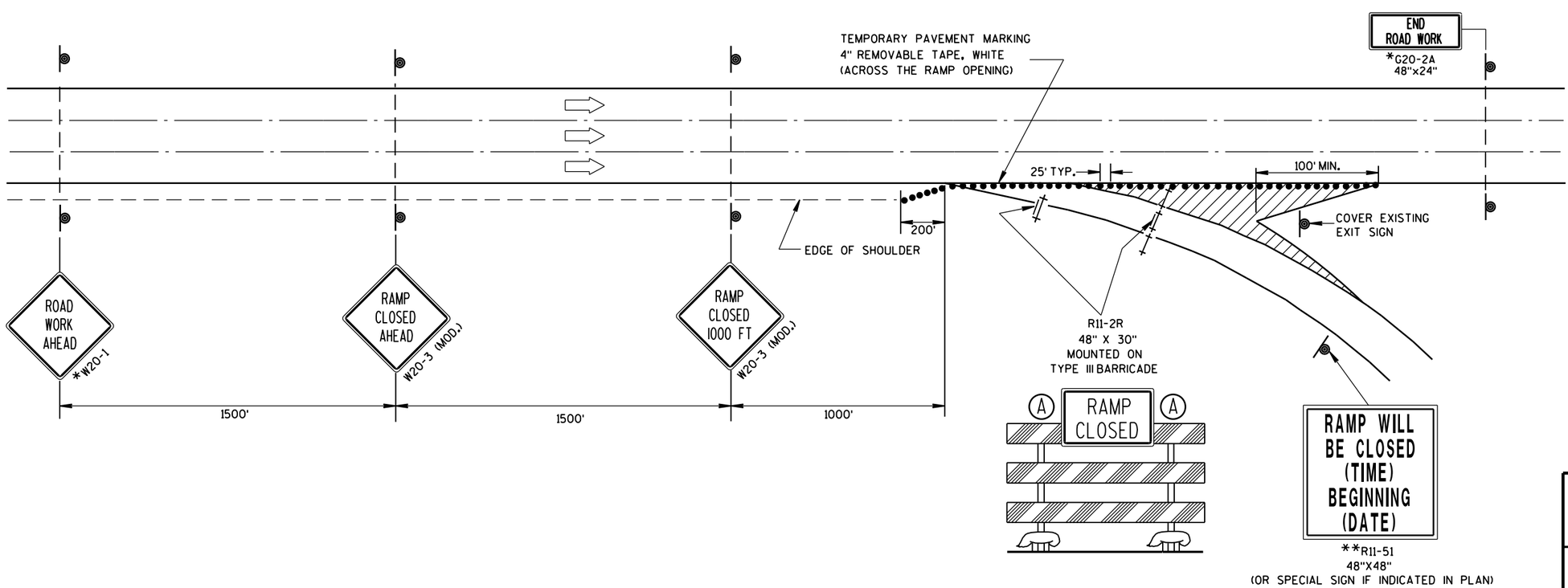
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

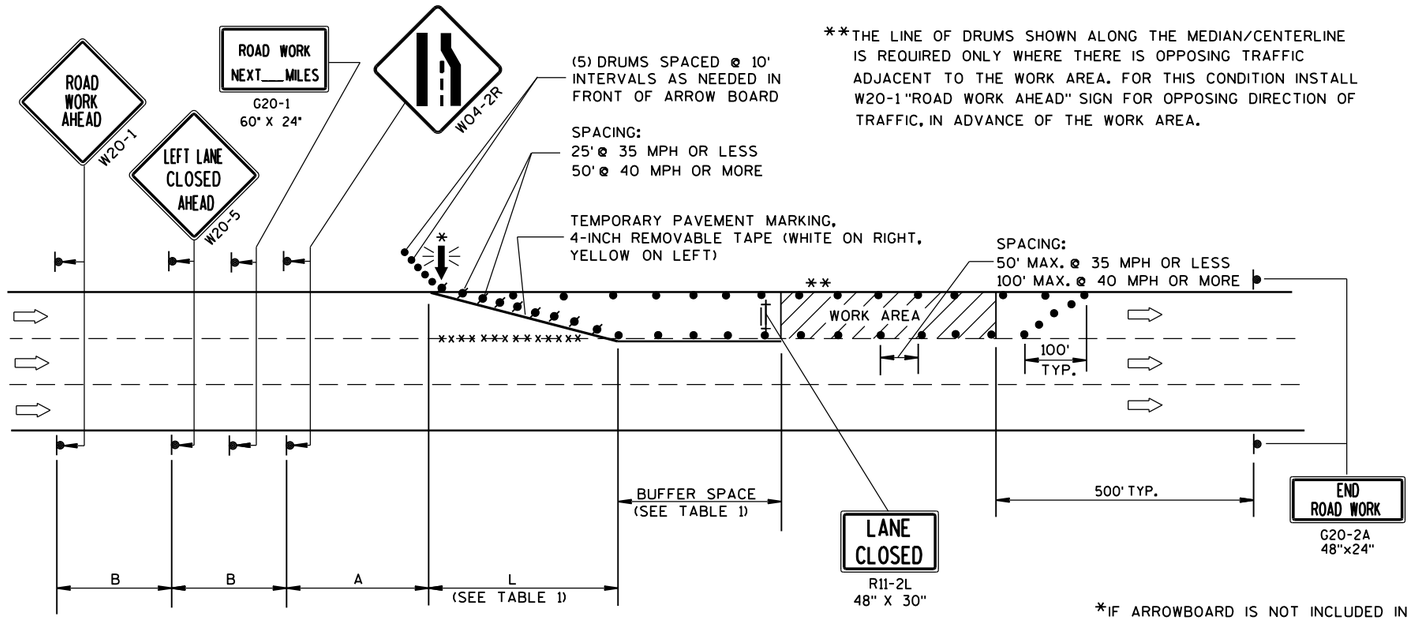
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

DESIGN

FHWA

6

S.D.D. 15 D 16-2



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

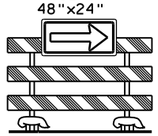


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

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

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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.

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

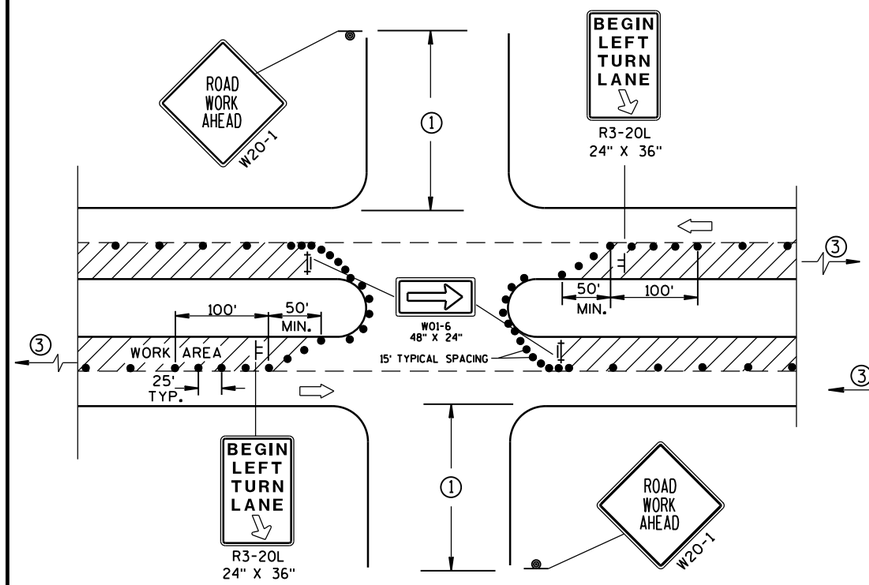
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

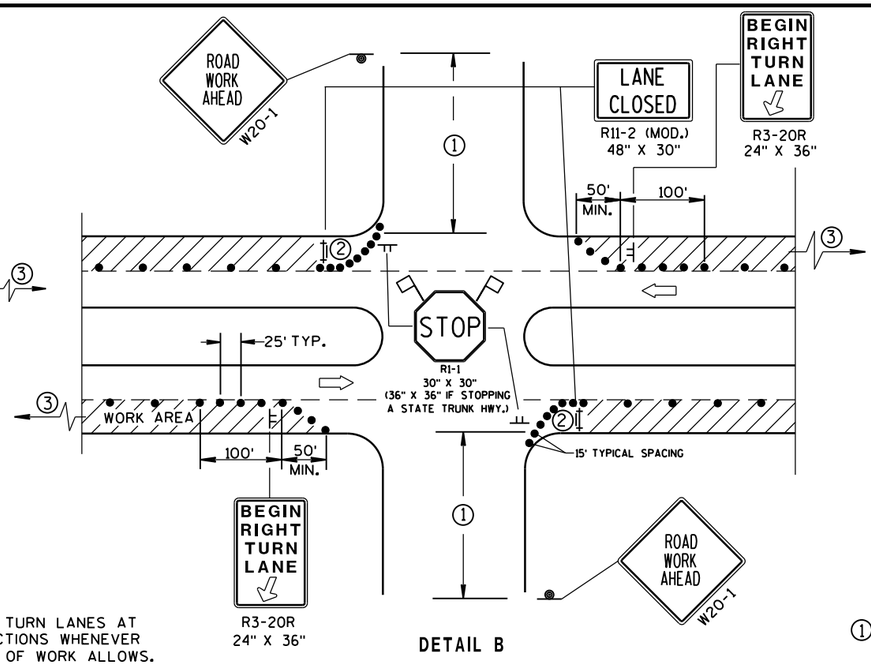
S.D.D. 15 D 20-2



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

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 SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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, OR THAT WILL BE PLACED IN A CLOSED LANE, 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.

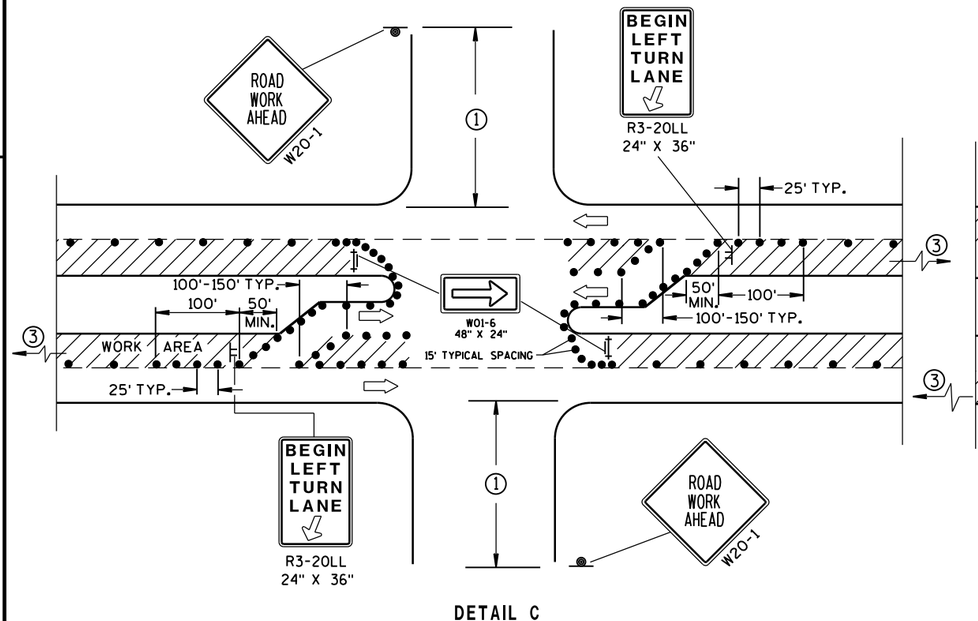
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

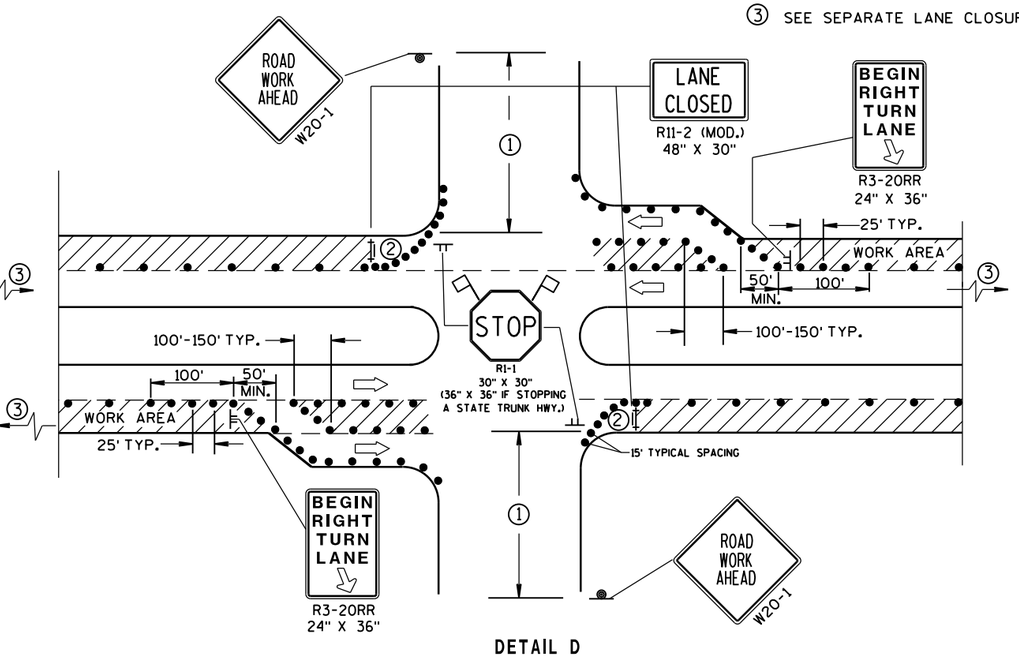
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

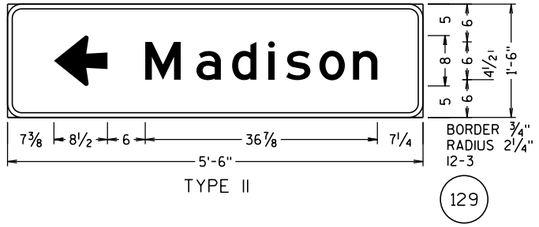
APPROVED

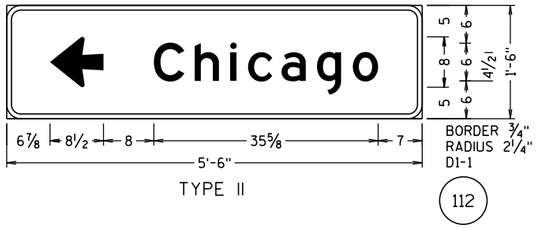
8/2013	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINEER

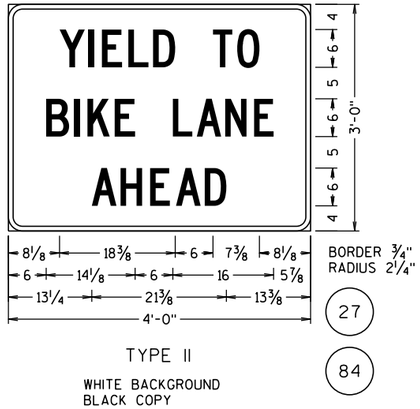
FHWA

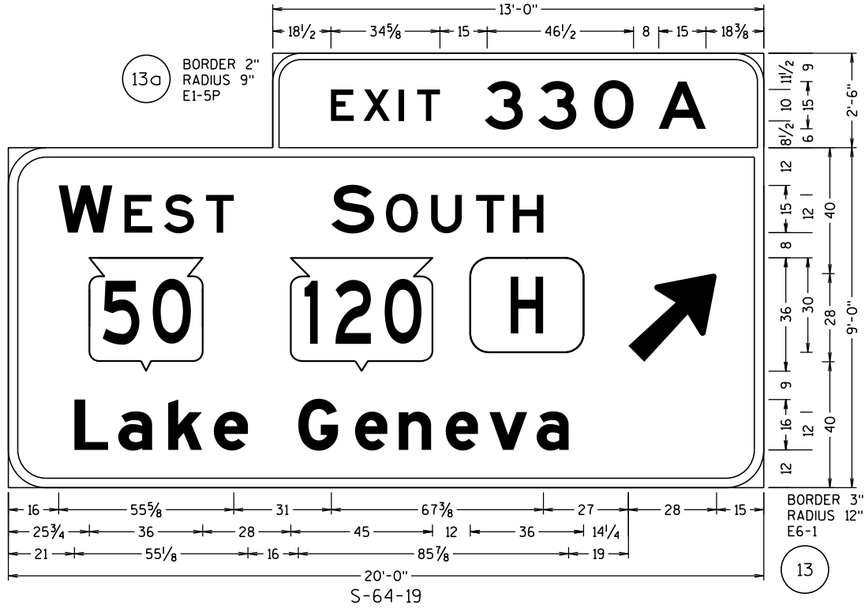
6

S.D.D. 15 D 21-2



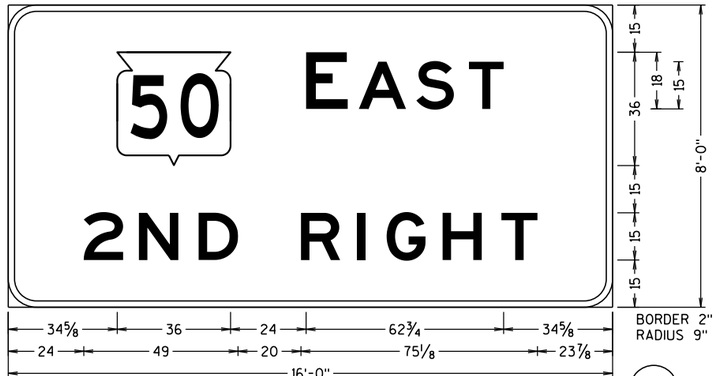


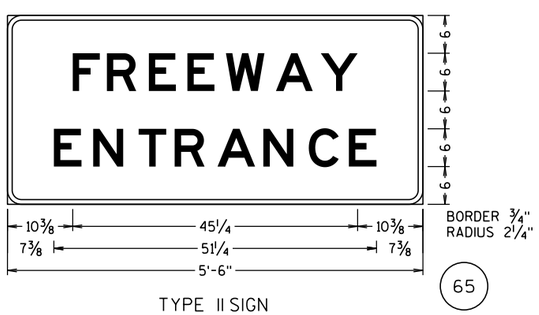


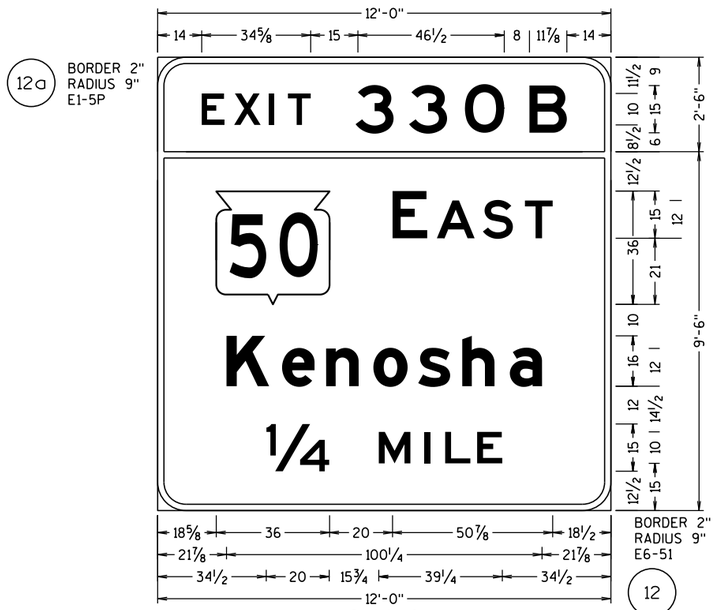


GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.





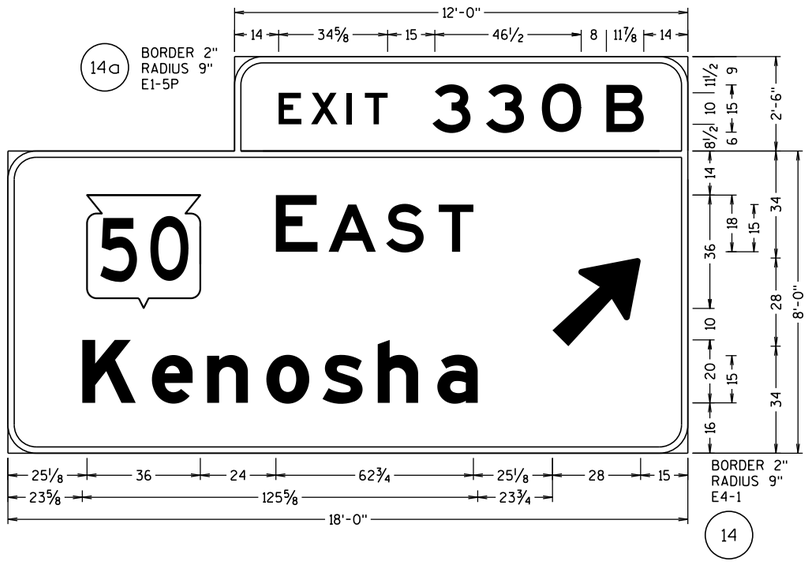


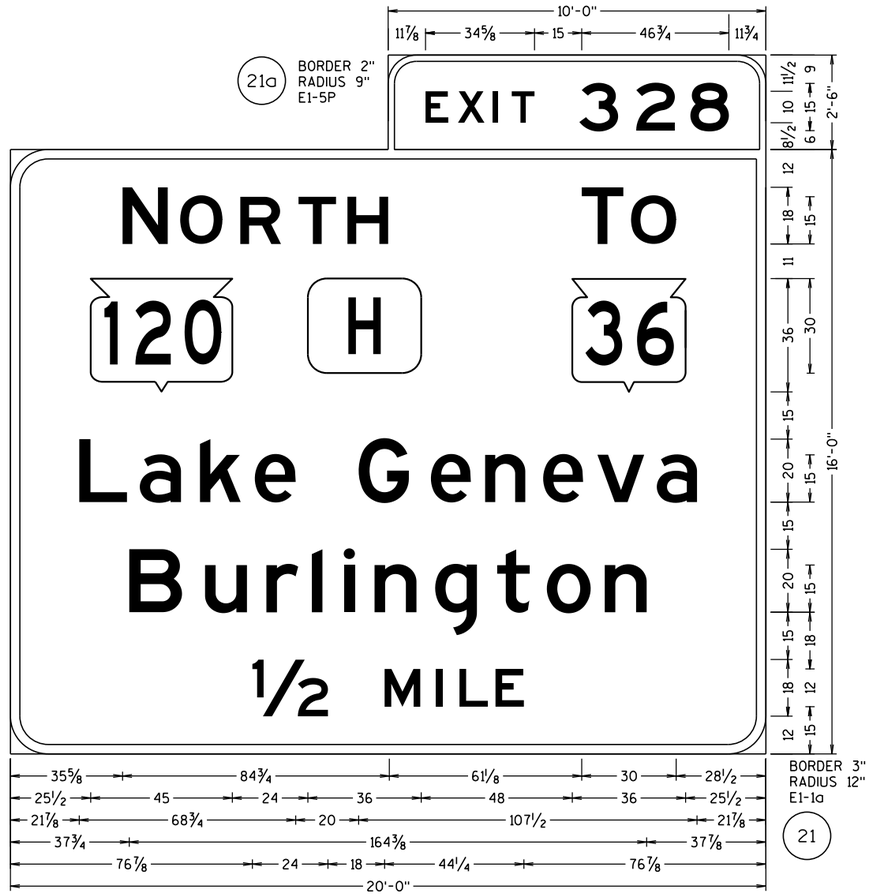
SHEET 1 OF 3

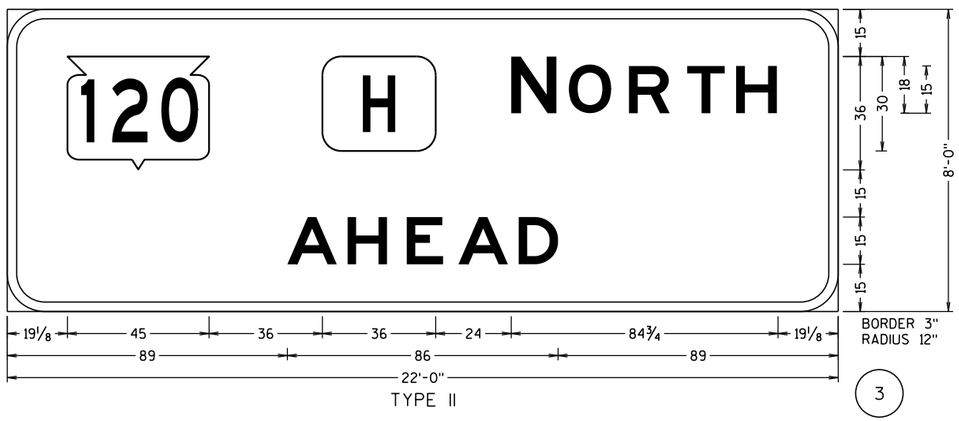
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 289	E

FILE NAME : J:\projects\d2_10801212\070101_ms.dgn PLOT DATE : 04-OCT-2013 09:36 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1

WISDOT/CADDS SHEET 47







TYPE II

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
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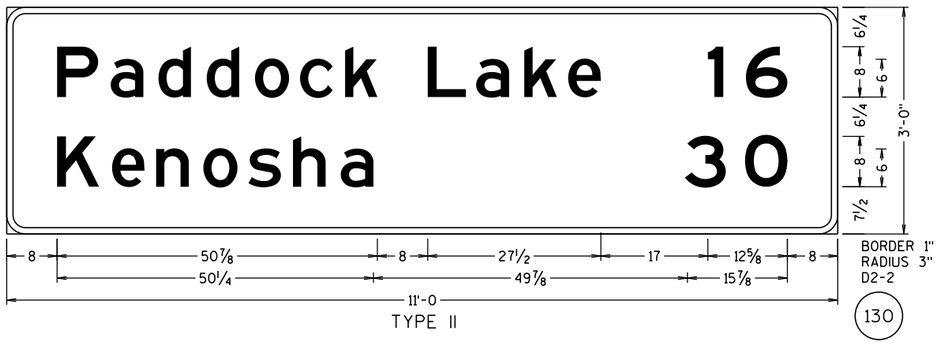
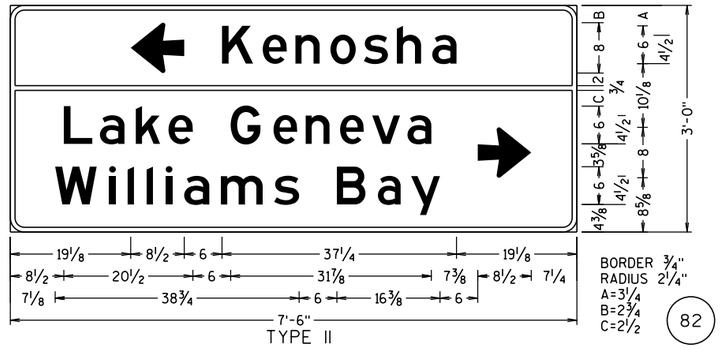
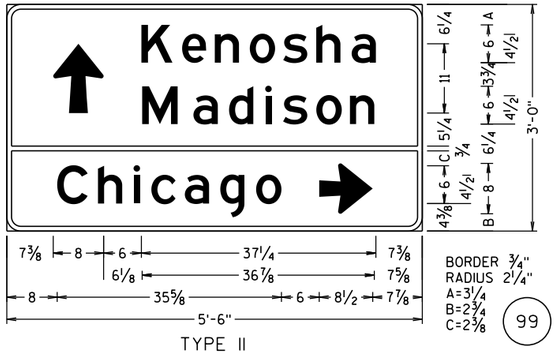
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 ½" 1"	SHEET 290	E

FILE NAME : J:\projects\d2_10801212\070101_ms.dgn PLOT DATE : 04-OCT-2013 09:36 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 48.125:1
WISDOT/CADDS SHEET 47







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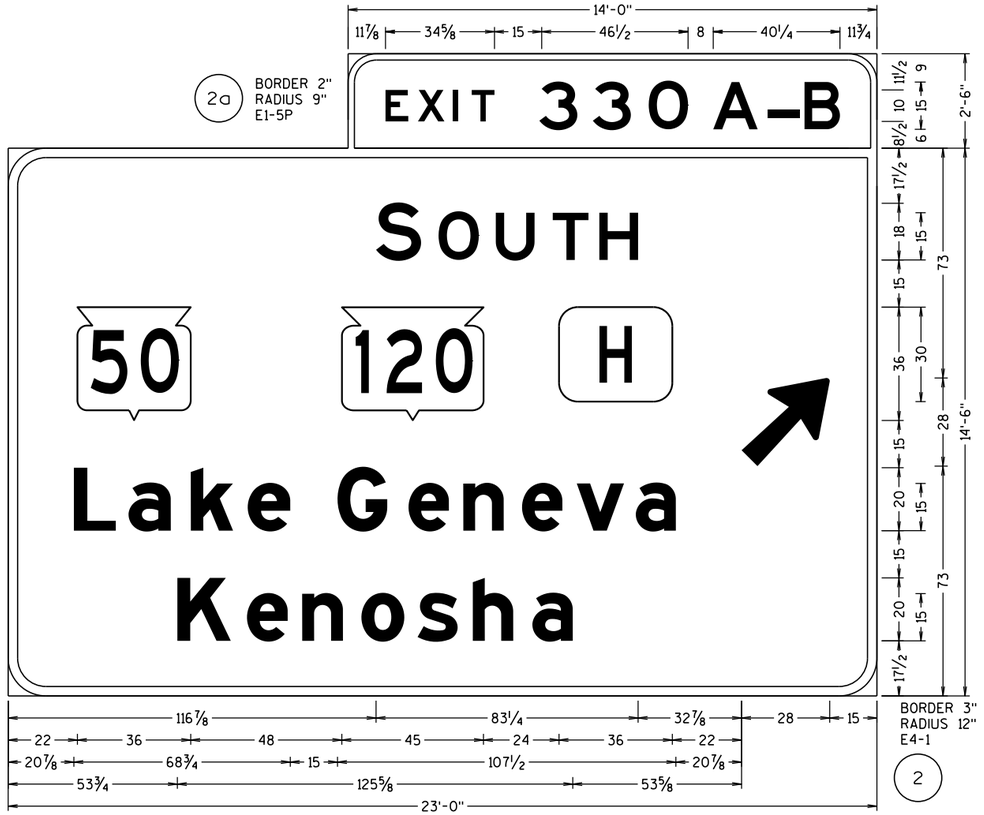
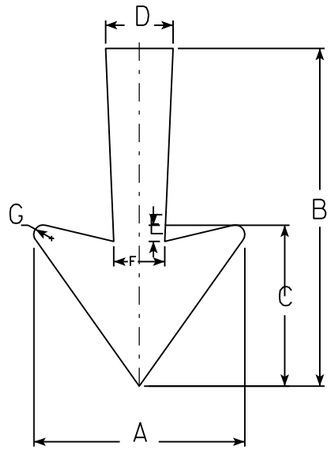




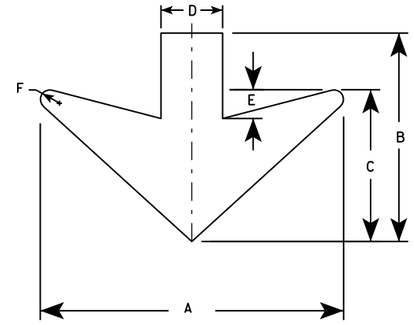
Type "A" & "B"

Type "A"

Copy Size	A	B	C	D	E	F	G
13.33 u.c. 10", 12" Caps	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4
16" U. C.	22 1/4	35 5/8	17	7 1/8	1 3/4	5 3/8	1

Type "B"

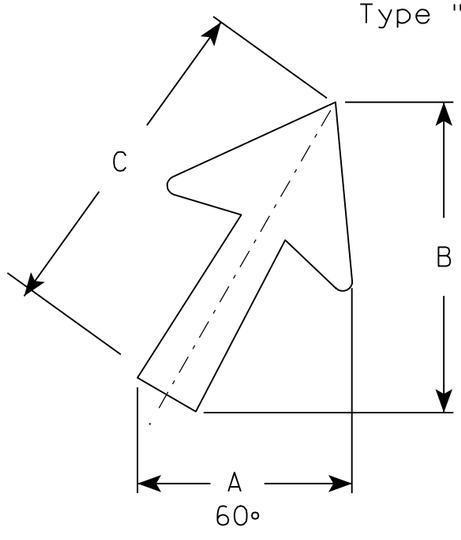
Copy Size	A	B	C	D	E	F	G
10" Caps	14 1/4	17 1/4	9 7/8	4 1/2	1 3/8	3 3/8	3/4
13.33 u.c. 12" Caps	17 1/2	20 1/4	11 3/4	5 5/8	1 1/2	4 3/8	7/8
16" U. C.	21 7/8	25	14 1/4	6 3/4	1 3/4	5	1



Type "C"

Type "C"

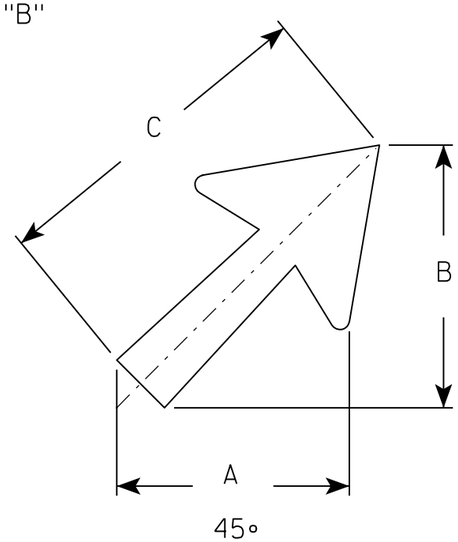
Copy Size	A	B	C	D	E	F
Overhead	32	22	16	6 1/2	3	1
Minimum	24	16	12 1/4	5	1 5/8	3/4



60°

Type "A"

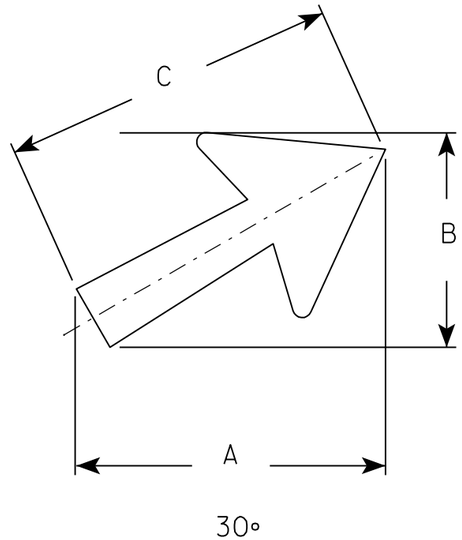
Angle	Arrow Size	A	B	C
60°	10.67" - 13" U.C. 10"- 12" Caps	18 1/2	27	29 1/4
	15" Caps - 16" U.C.	22 5/8	32 3/4	35 5/8
45°	10.67" - 13" U.C. 10"- 12" Caps	23	23	29 1/4
	15" Caps - 16" U.C.	28	28	35 5/8
30°	10.67" - 13" U.C. 10"- 12" Caps	27	18 1/2	29 1/4
	15" Caps - 16" U.C.	32 3/4	22 5/8	35 5/8



45°

Type "B"

Angle	Arrow Size	A	B	C
60°	8" - 10" Caps, 10.67 U.C.	12 1/2	16 1/8	17 1/4
	12" Caps - 13" U.C.	15 1/2	19	20 1/4
	15" Caps - 16" U.C.	19 1/8	23 1/2	25
45°	8" - 10" Caps, 10.67 U.C.	14	14	17 1/4
	12" Caps - 13" U.C.	16 5/8	16 5/8	20 1/4
	15" Caps - 16" U.C.	20 3/8	20 3/8	25
30°	8" - 10" Caps, 10.67 U.C.	16 1/8	12 1/2	17 1/4
	12" Caps - 13" U.C.	19	15 1/2	20 1/4
	15" Caps - 16" U.C.	23 1/2	19 1/8	25



30°

NOTES

1. Arrows to be of same material as other message units on each sign.
2. Taper should be held constant for longer or shorter shaft lengths on Type "A" & "B" arrows.

STANDARD ARROWS
FOR LARGE GUIDE SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 10/8/82 PLATE NO. A1-1.4

PROJECT NO:

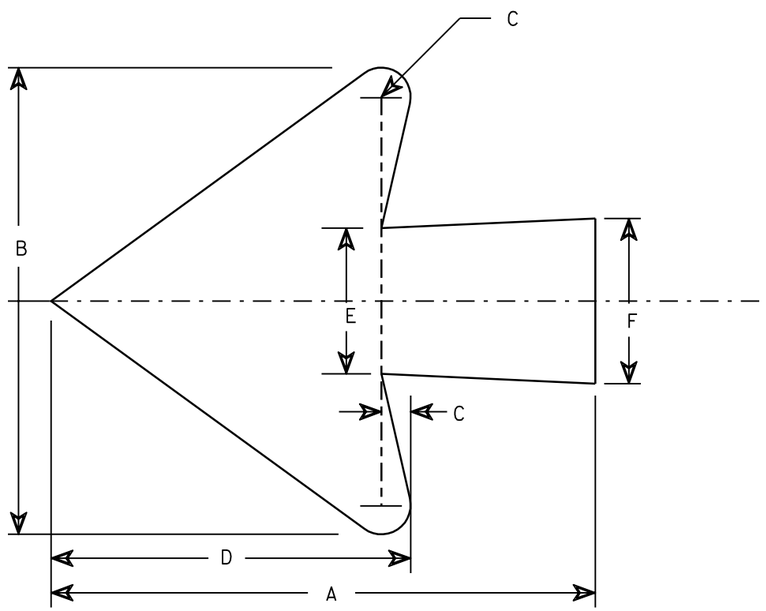
SHEET NO: 292 E

FILE NAME : C:\Users\Projects\tr_stdplate\A11.DGN PLOT DATE : 28-SEP-2005 06:57 PLOT BY : DOTDZK PLOT NAME :

WISDOT/CADDS SHEET 42

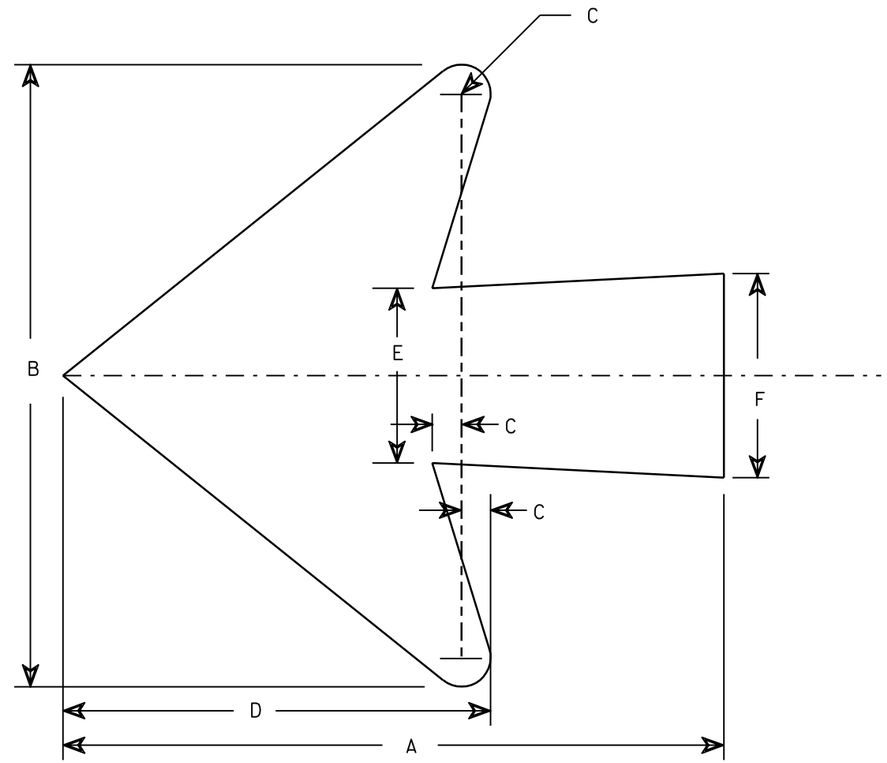
7

7



Lower Case Copy Size	A Right or Left	A * 2 Town	A * 3 Town	B	C	D	E	F
3¾ Series C	7	11	18	6	⅜	4⅝	1⅞	2⅛

* Indicates Ahead and Tilt for 2 & 3 Town applications.



Lower Case Copy Size	A Right or Left	A * 2 Town	A * 3 Town	B	C	D	E	F
4½ Series D&E	8½	11	18	8	⅜	5½	2¼	2⅝
6 Series D&E	12	18	24	10¾	½	7⅜	3¼	3½
8 Series E	15½	24	30	14¼	¾	9¾	4¼	4½

* Indicates Ahead and Tilt for 2 & 3 Town applications.

STANDARD ARROWS
FOR D1 GUIDE SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

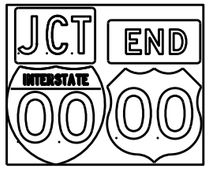
DATE 8/10/92 PLATE NO. A1-2.3

PROJECT NO:

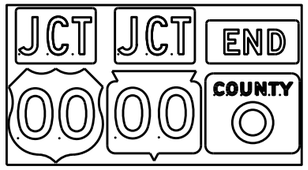
SHEET NO: 293 E

TYPICAL ASSEMBLIES

J1-1

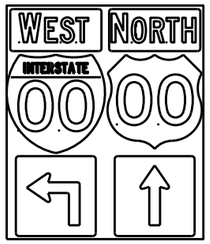


J1-2

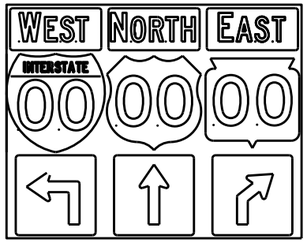


J1-3

J2-1



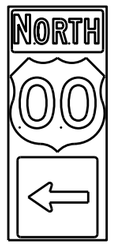
J2-2



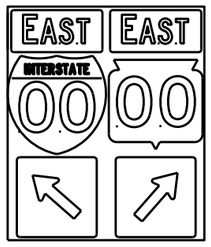
J2-3

JV

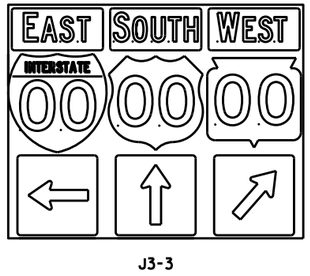
(Typical Vertical J-Assembly
See Note 10 and 11)



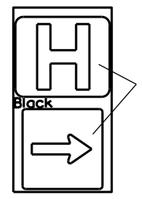
J3-1



J3-2



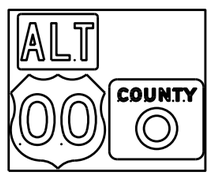
J3-3



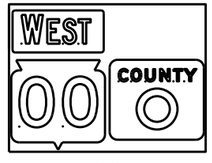
Blue Background

JH-1

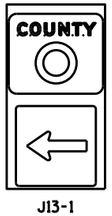
J4-1



J4-2



J4-2



J13-1

J12-1

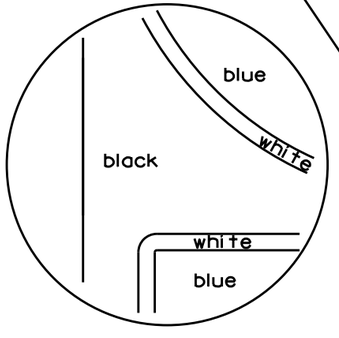
J32-1

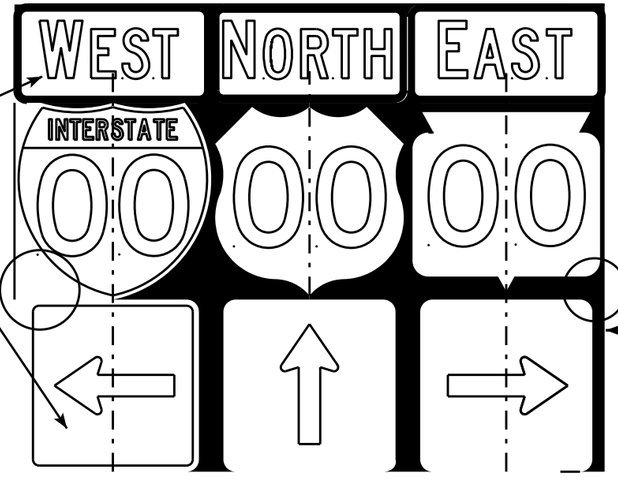
J33-1

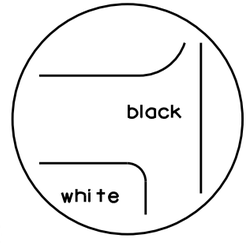
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

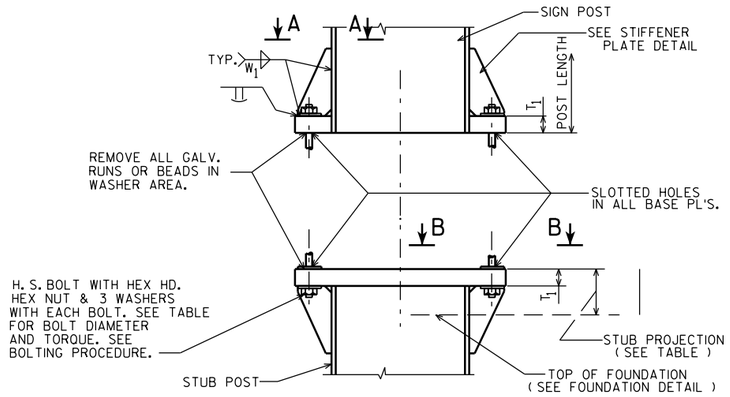
DATE 2/06/14 PL... A2-1S.8

PROJECT NO:

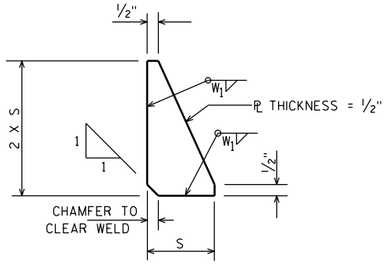
SHEET NO: E

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

WISDOT/CADDS SHEET 42

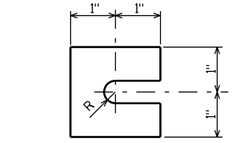


SIGN POST AND STUB POST ELEVATION



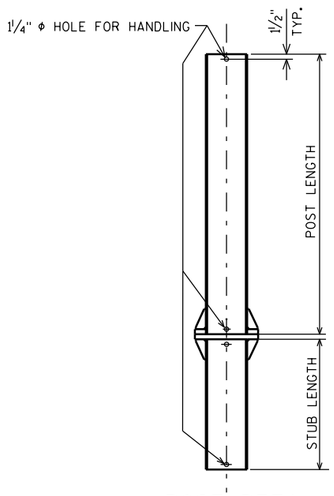
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

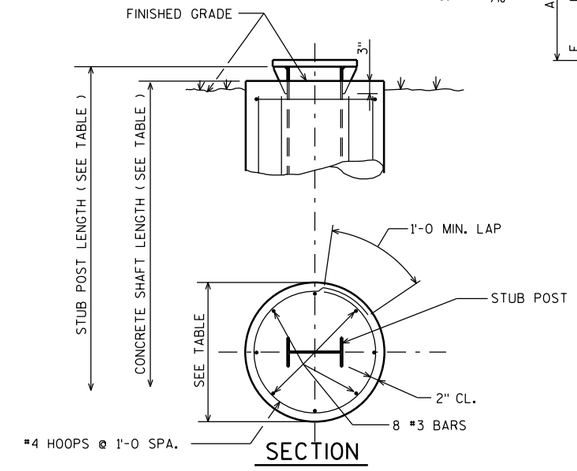


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

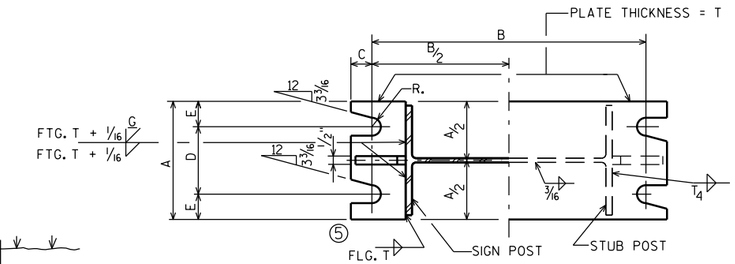
SHIM DETAIL



POST DETAIL

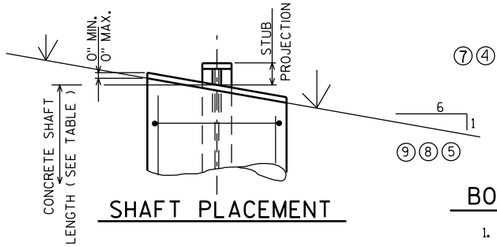


SECTION

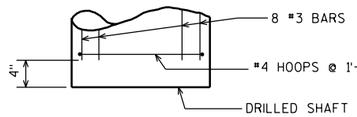


SECTION A-A

SECTION B-B



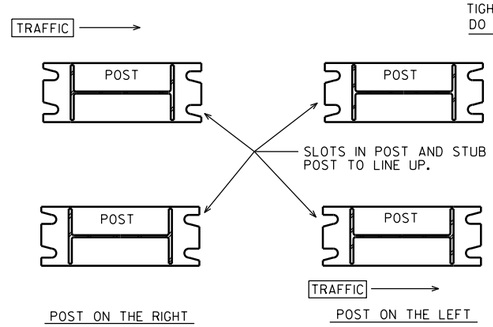
SHAFT PLACEMENT



FOUNDATION DETAIL

QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
7 E	1.0	62

REINF.	TYPE	#3	#4
	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
7	E	8 @ 7'-11	9 @ 6'-3



POST SLOT ORIENTATION 7

	TYPE	DIMENSION / POST SIZE	BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	K
4	A	W10"X12.0 #/FT.	¾" Φ @ 75#-FT.	5¼"	1'-0⅜"	⅞"	3½"	⅞"	1"	3/16"	5/16"	13/32"	2⅛"	3'-6	3"	2'-0 Φ	5'-0	76.0# 4
4	B	W12"X16.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1¼"	¼"	5/16"	15/32"	3"	5'-6	3"	2'-0 Φ	7'-0	146.5# 4
	C	W12"X19.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	5/16"	5/16"	15/32"	3"	6'-0	3"	2'-0 Φ	7'-6	182.1#
	D	W12"X22.0 #/FT.	⅞" Φ @ 85#-FT.	5½"	1'-4¼"	1"	3½"	1"	1½"	3/8"	5/16"	15/32"	3"	6'-6	3"	2'-0 Φ	8'-0	210.5#
3	E	W12"X26.0 #/FT.	1" Φ @ 90#-FT.	7"	1'-4¼"	1¼"	4"	1½"	1½"	3/8"	5/16"	17/32"	3"	7'-0	3"	2'-0 Φ	8'-6	293.0# 3

② ① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD & WIND	140
3. DEAD, ICE & ½ WIND[4]	140 [4]25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = 1½T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50.
9 THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION.
H.S. BOLTS, WASHERS & NUTS SHALL BE A325 GALVANIZED WHEN POSTS, POST STUBS AND ATTACHMENTS ARE A709 GRADE 50 AND GALVANIZED.

BOLTING PROCEDURE - BASE CONNECTION

1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN. DO NOT OVERTIGHTEN.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 2/06/14 PLATE NO. A3-1.14

NO.	DATE	REVISION
10	1-21-14	LUBRICATION OF BASE BOLTS
9	4-26-11	REMOVE NON-GALVANIZED
8	10-30-96	NOT GALVANIZED/GALVANIZED
7	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
6	8-24-87	BASE CONN. WELD
5	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
4	10-19-79	POST A & B, A572 GR. 50, & K
2	11-28-78	"K" 3 4-23-79 TYPE "E"
1	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

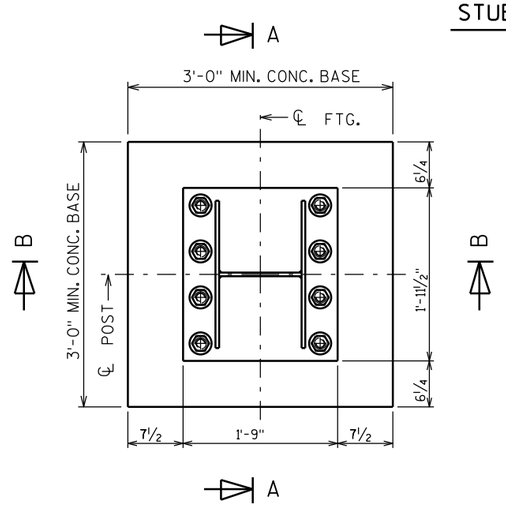
CONST. SPEC. 2011 | DRAWN BY JPH | PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

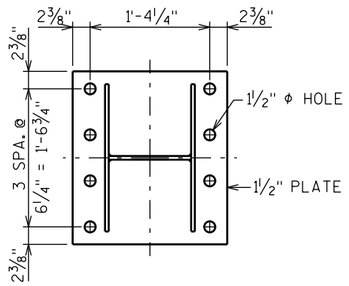
SHEET 295

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

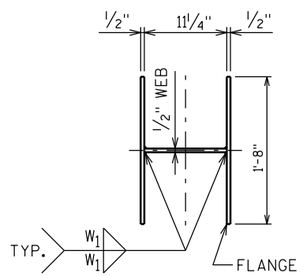
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



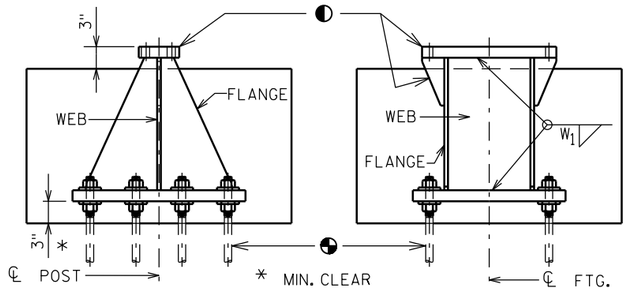
BASE PLATE



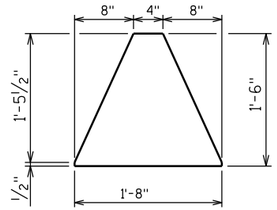
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



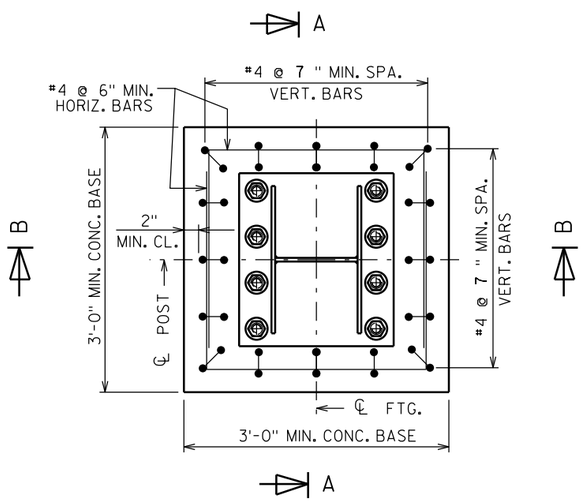
FLANGE

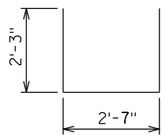
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

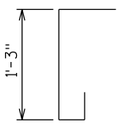
CONCRETE BASE SECTION





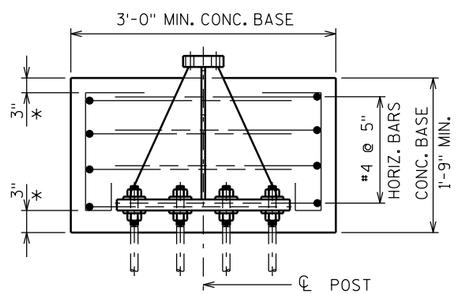
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



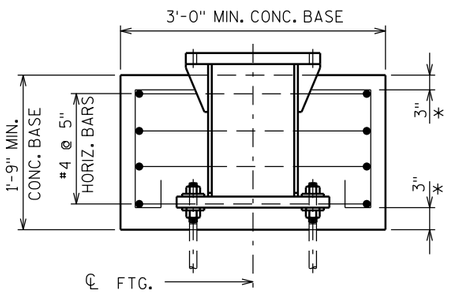
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

WISCONSIN DEPT OF TRANSPORTATION

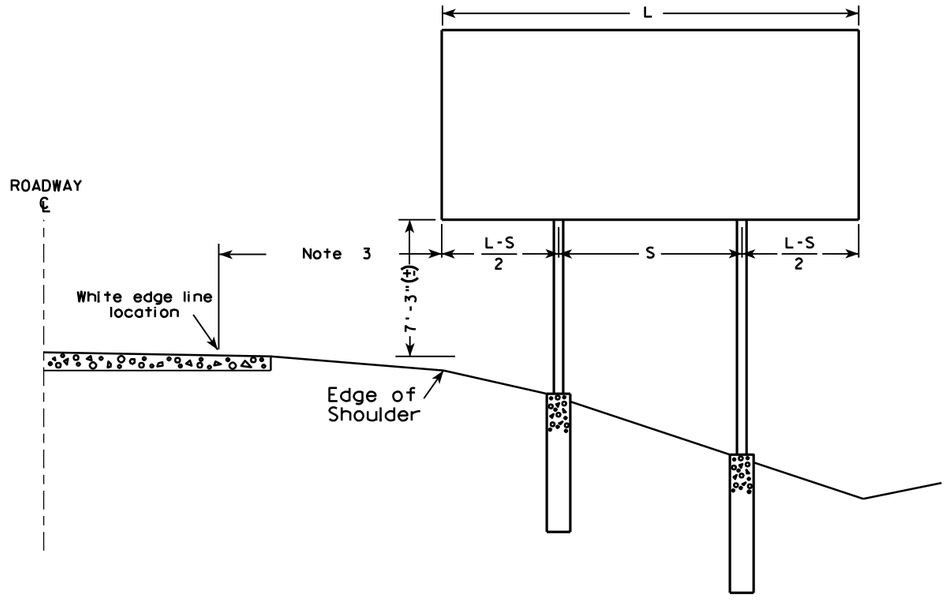
APPROVED Matthew R Rauch for State Traffic Engineer

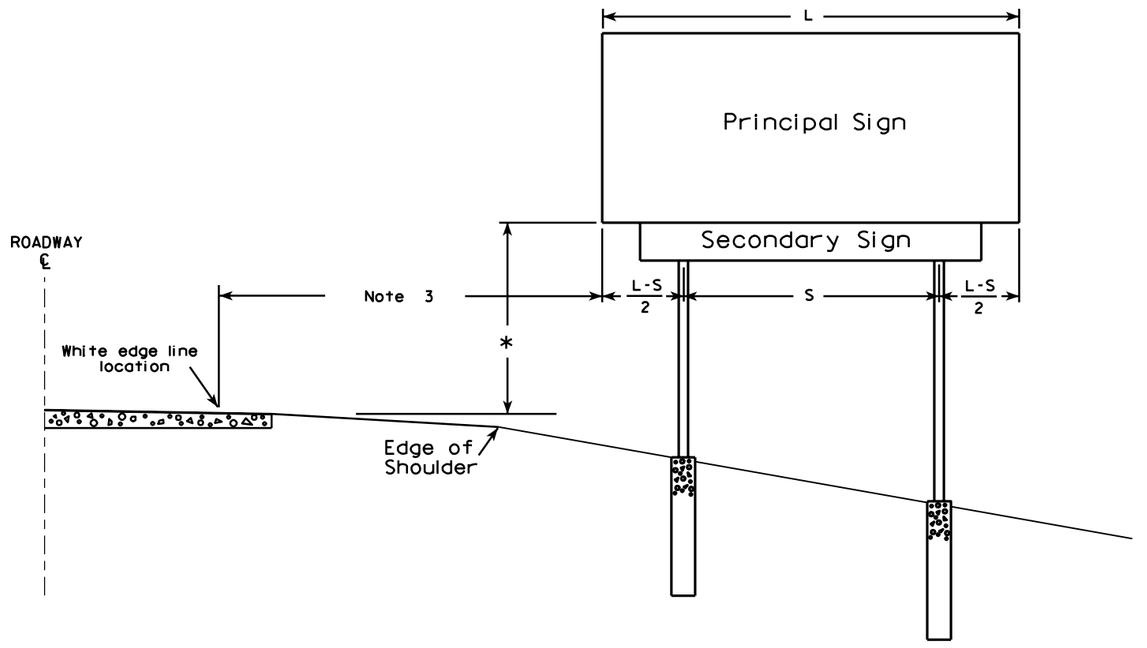
DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A31M.dgn PLOT DATE : 06-FEB-2014 13:46 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 1.556674:1.000000

WISDOT/CADDS SHEET 42





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

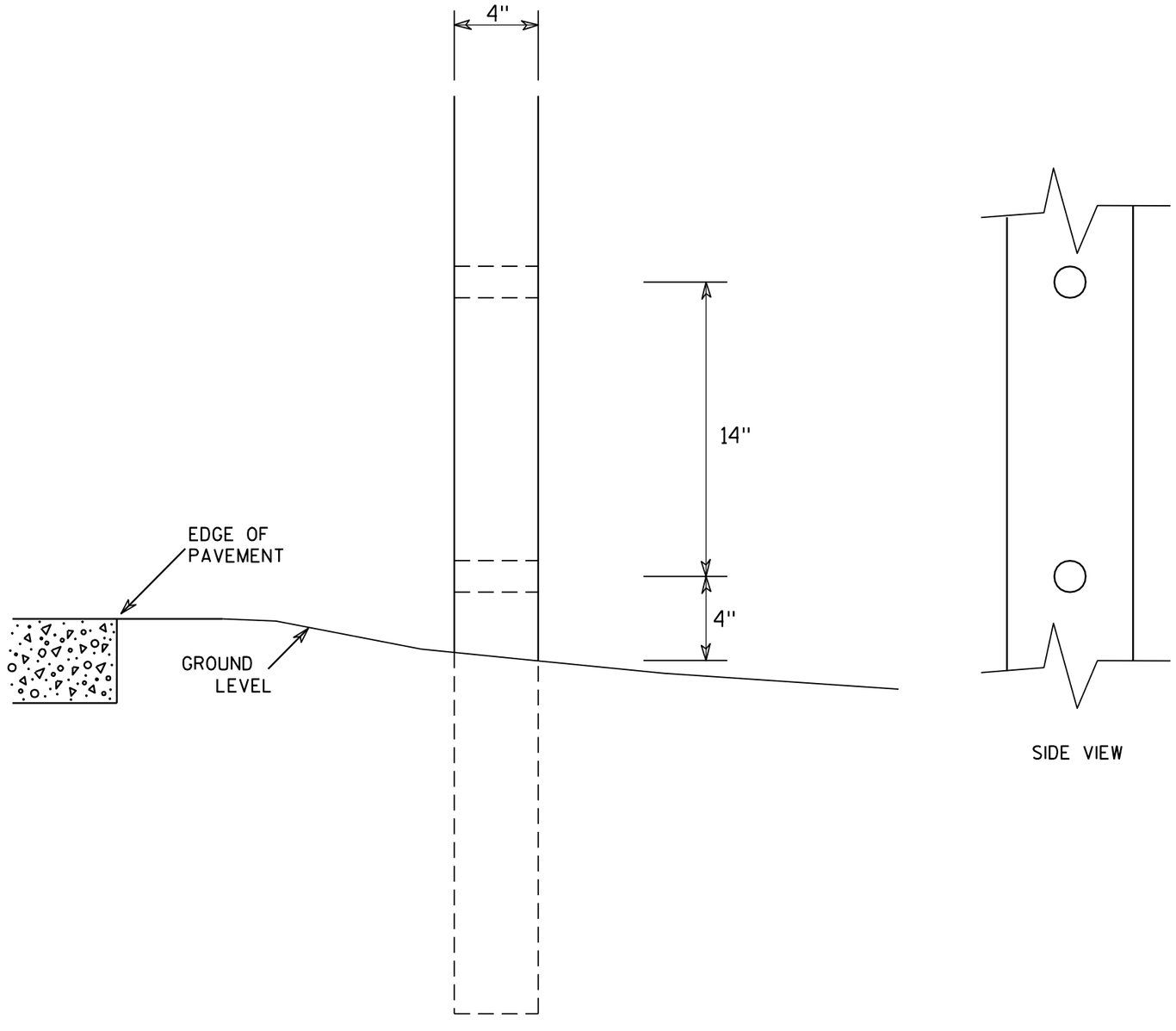
TYPICAL INSTALLATION OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 297	E



SIDE VIEW

GENERAL NOTES

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

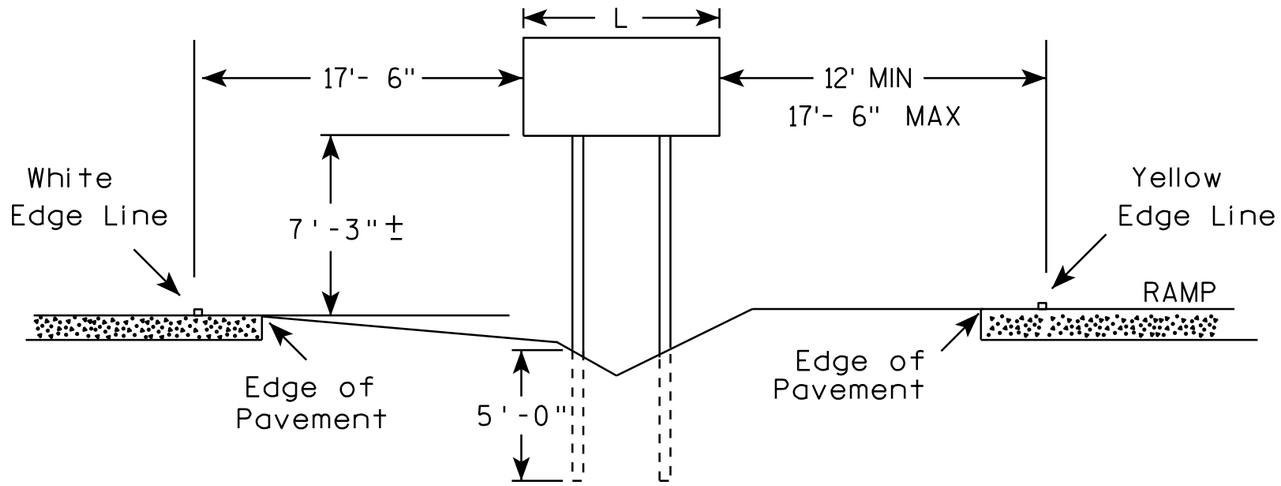
4 X 6 WOOD POST MODIFICATIONS

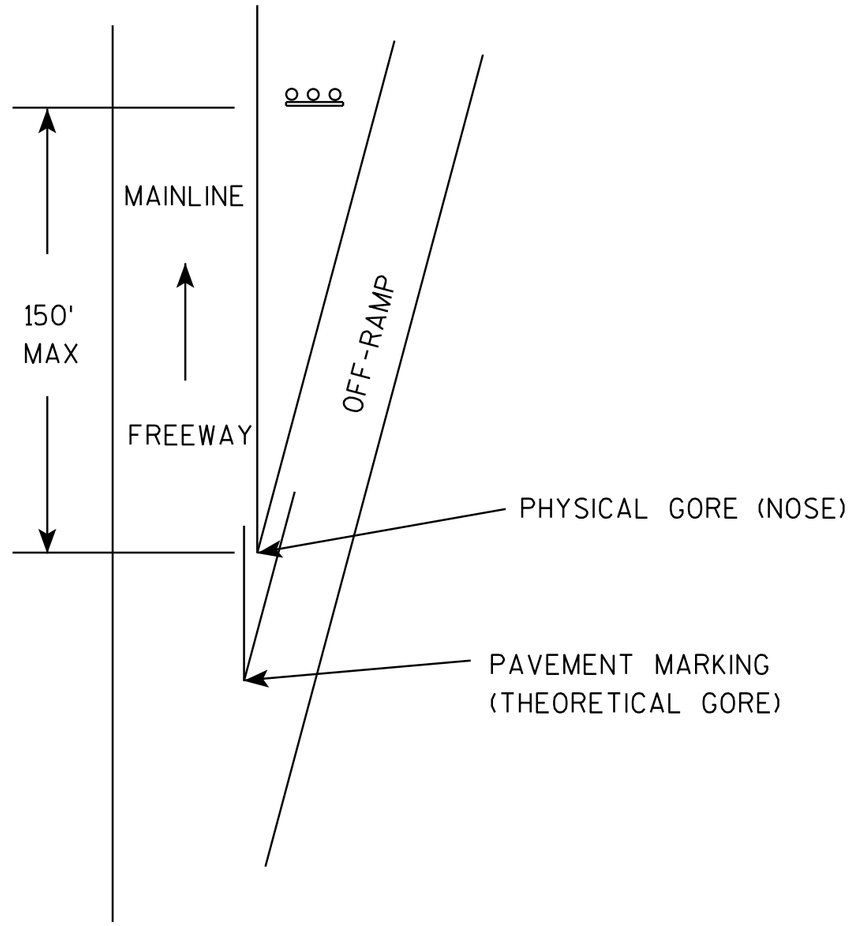
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 298	E





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

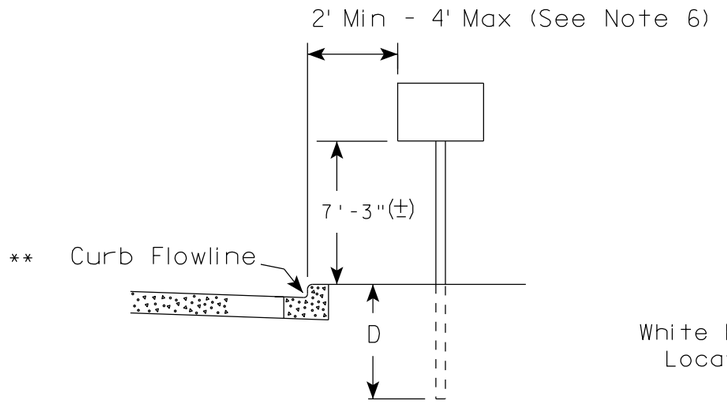
DATE 2/06/14 PLA... A4-2.3

PROJECT NO: | SHEET NO: E

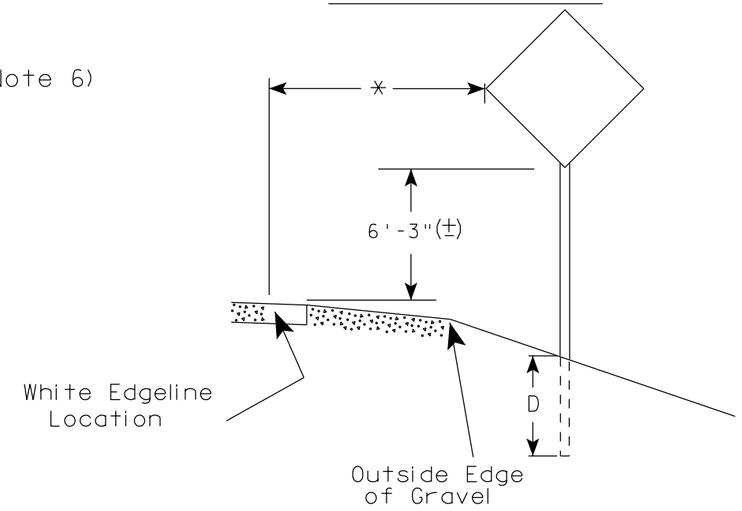
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A42.DGN PLOT DATE : 06-FEB-2014 12:36 PLOT BY : mscsja

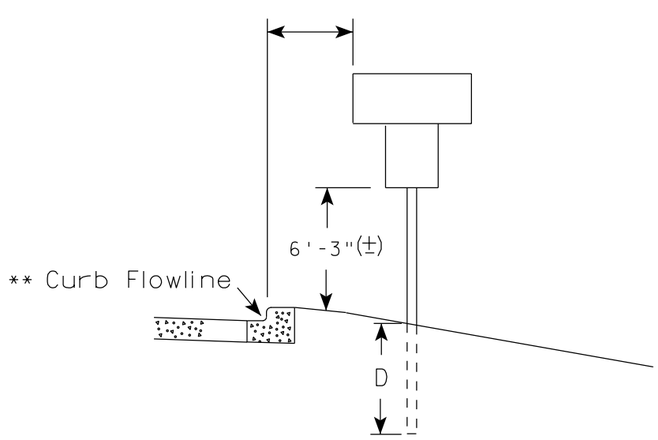
WISDOT/CADDS SHEET 42

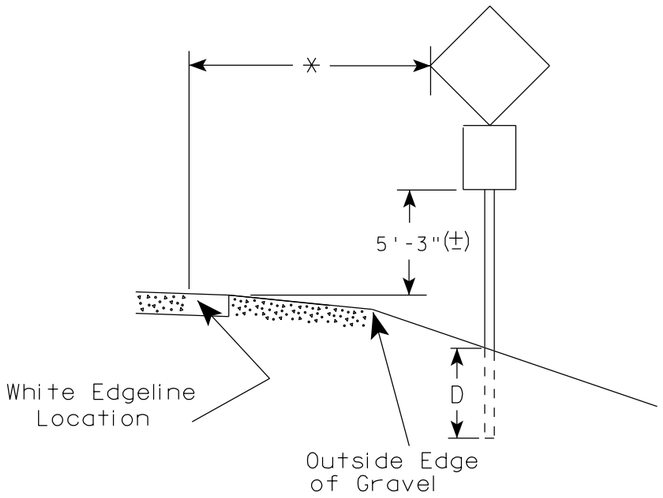
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

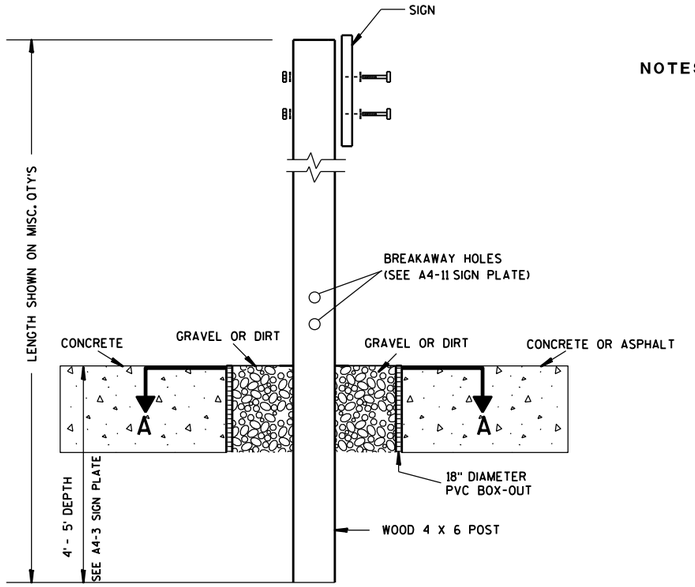
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

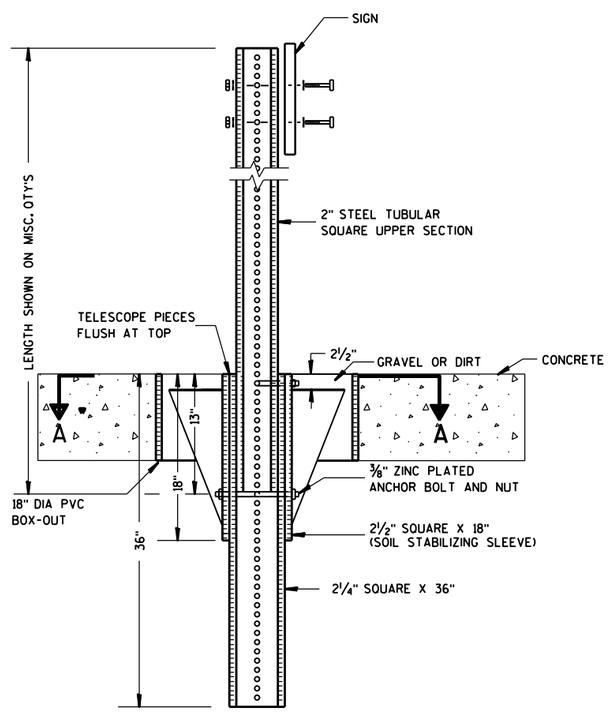
7



ELEVATION VIEW

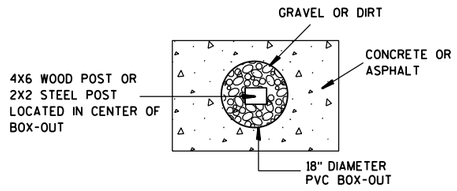
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

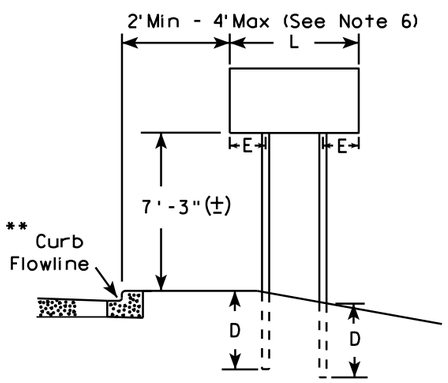
APPROVED Matthew R Rauch
for State Traffic Engineer

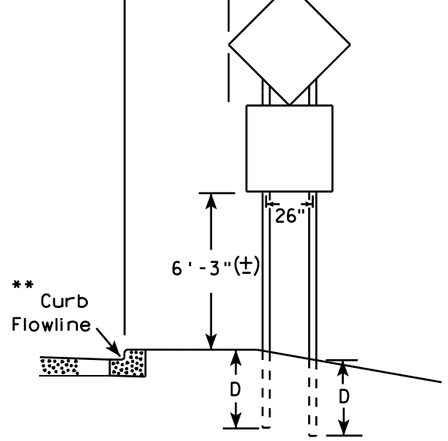
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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

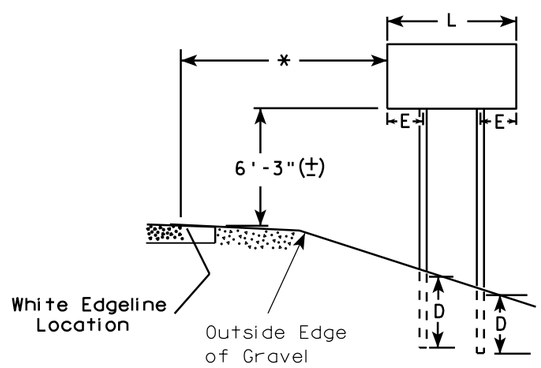
URBAN AREA

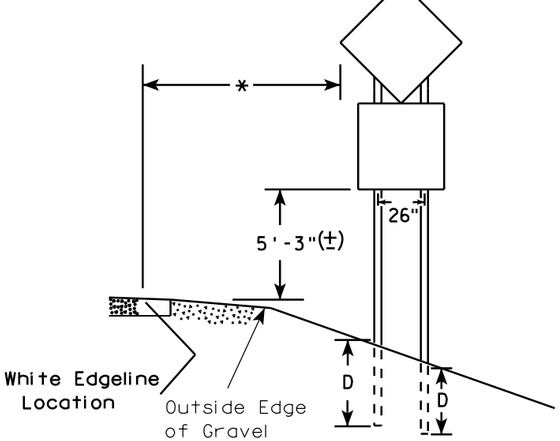




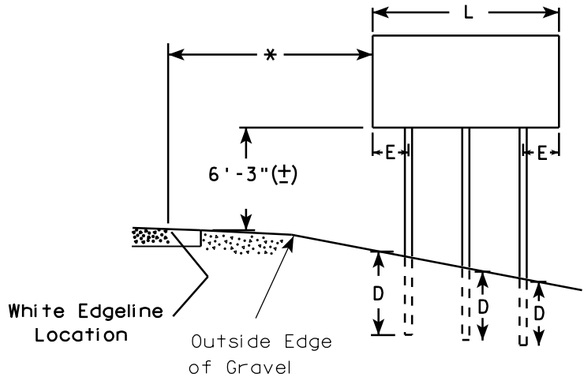
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

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

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

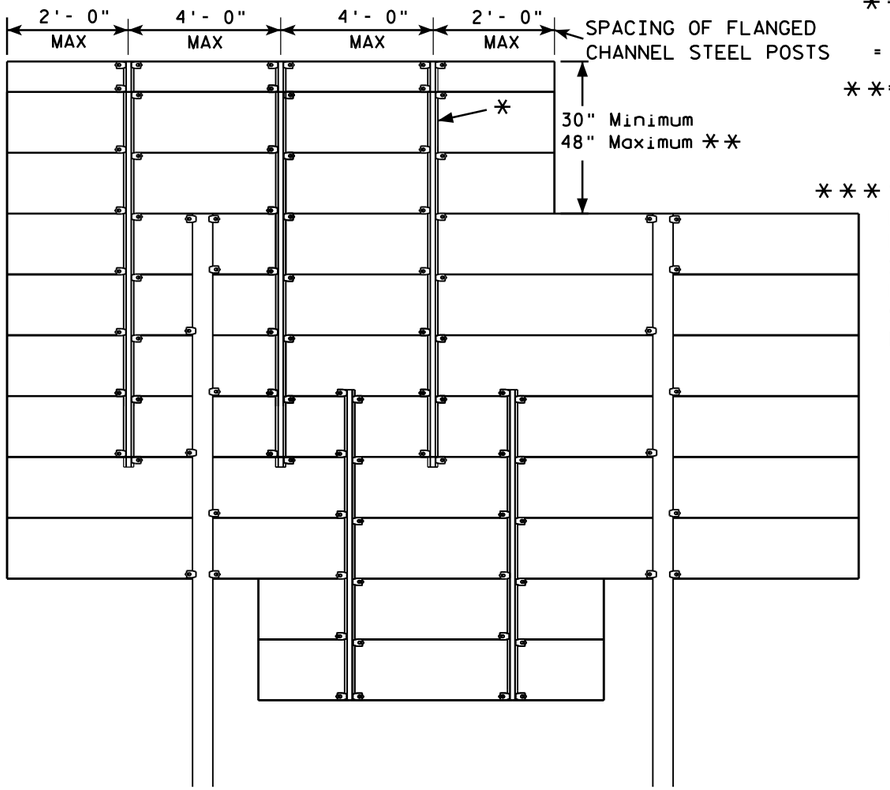
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42

GROUND MOUNTED SIGN

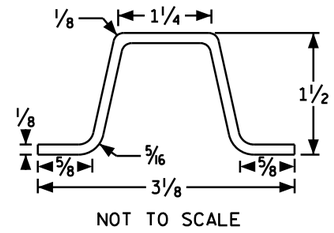


*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

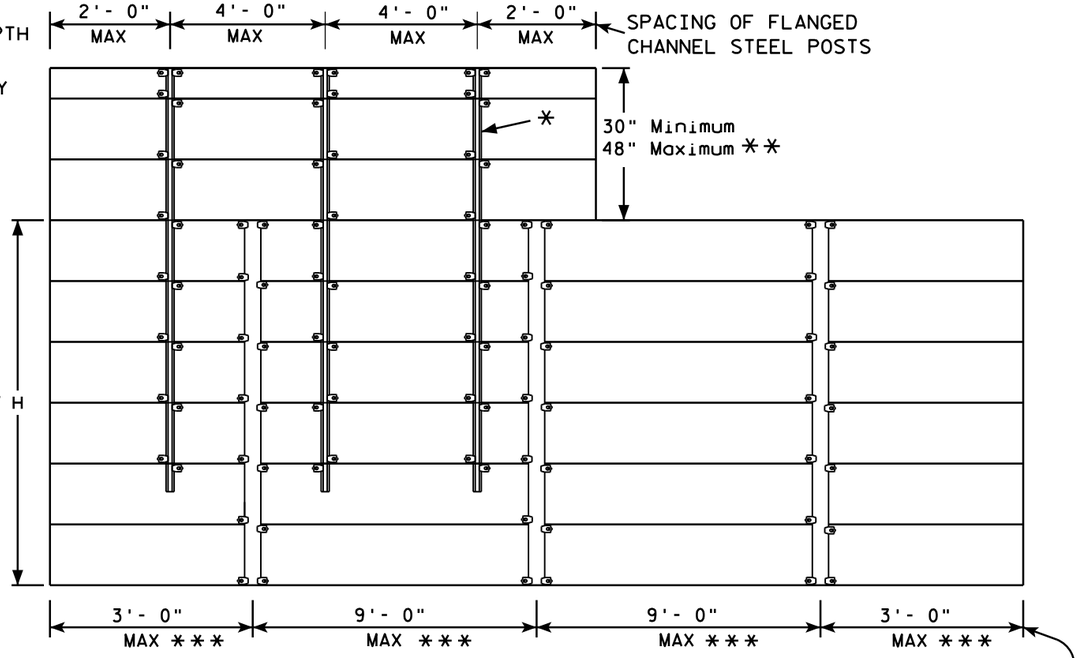
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



SPACING OF ALUMINUM SIGN SUPPORTS
5" X 3.5" X 3.7 LBS./ft.

GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

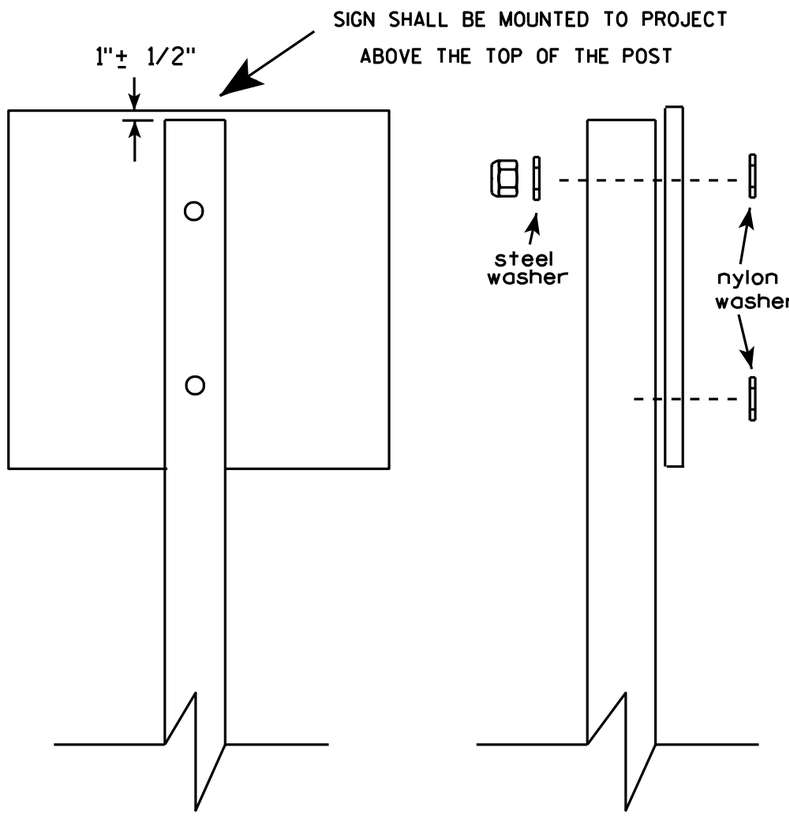
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

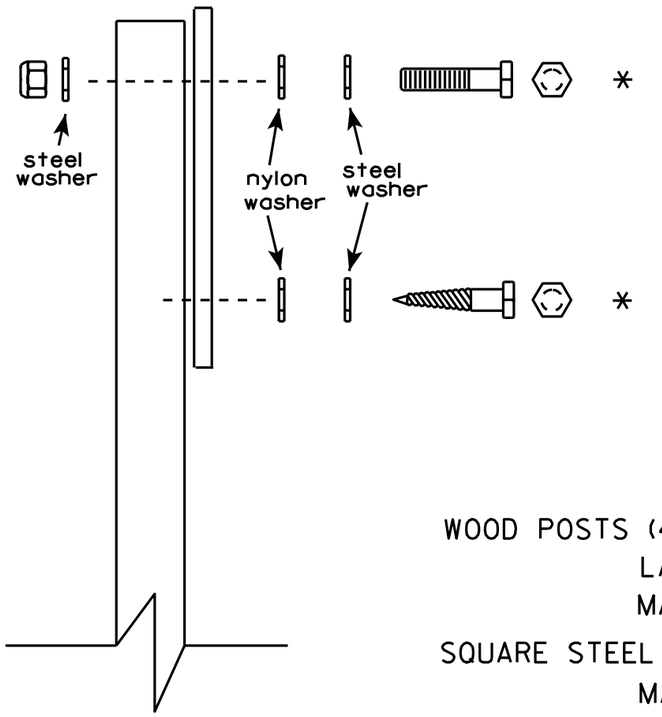
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 303 A4-6.12

PROJECT NO: | SHEET NO: E





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

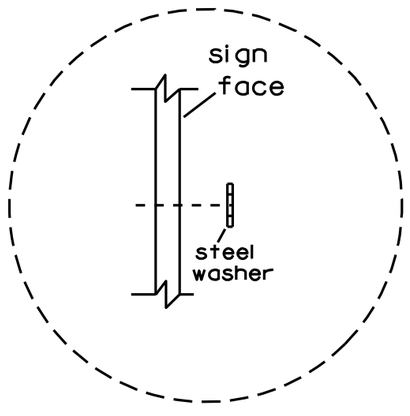
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

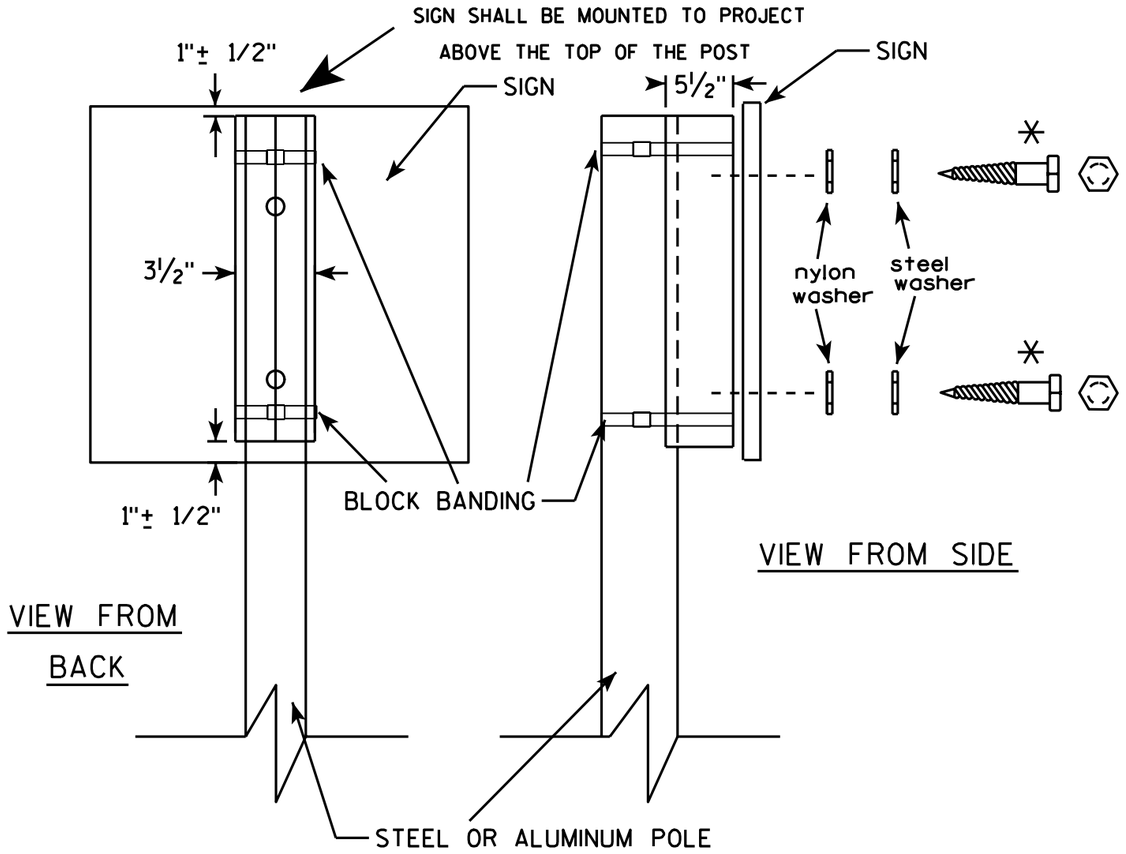
DATE 3/23/10 PLATE NO. A4-8.7

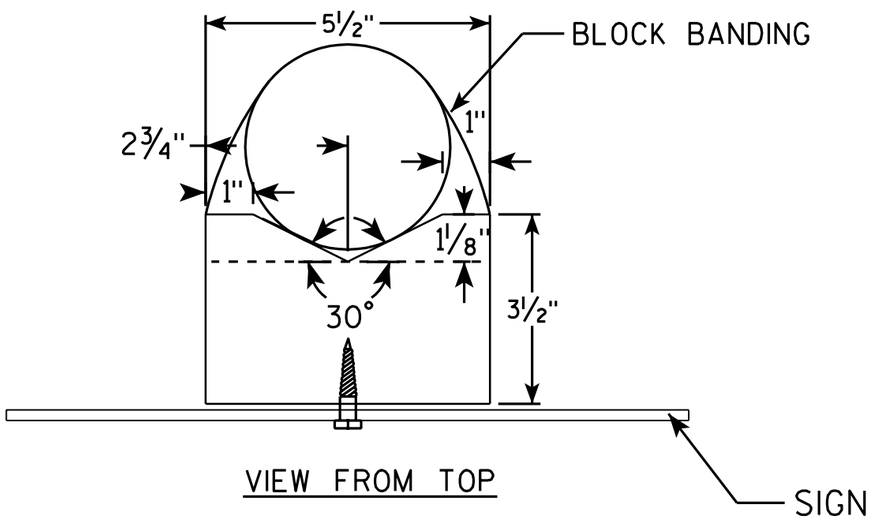
7

7

PROJECT NO:

SHEET NO: 304 E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

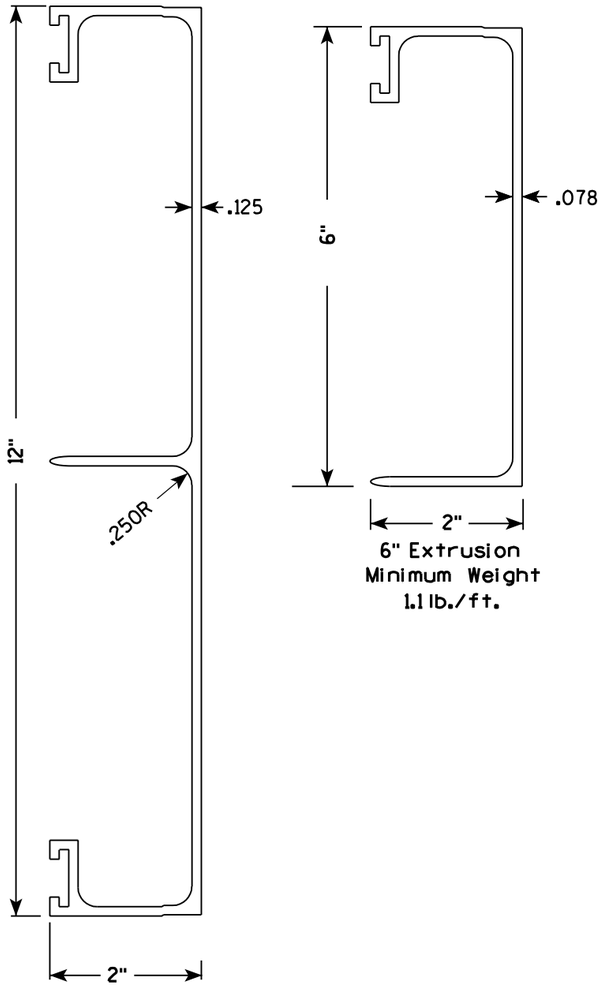
PROJECT NO:

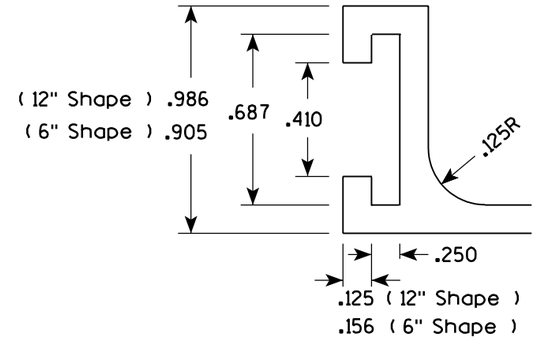
SHEET NO: 305 E

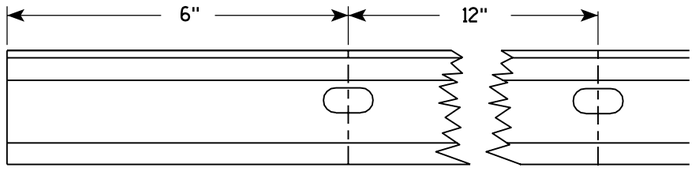
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

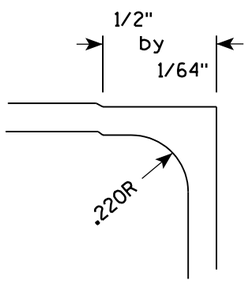
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

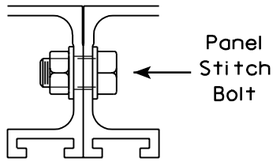


Hardware

STITCH BOLT, WASHER & NUT

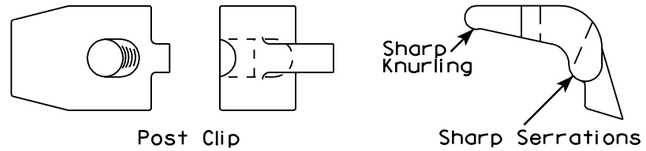
The hardware includes:

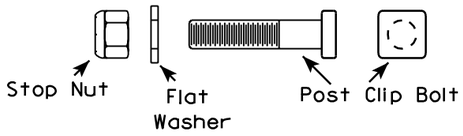
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

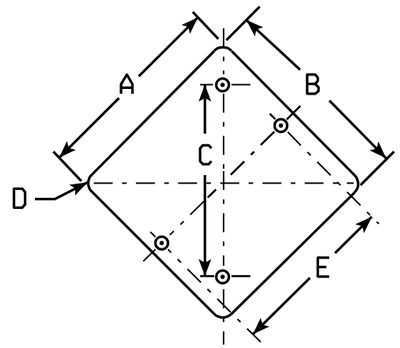
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 11/18/99 PLATE NO. A5-2.9

PROJECT NO:

SHEET NO: 306 E



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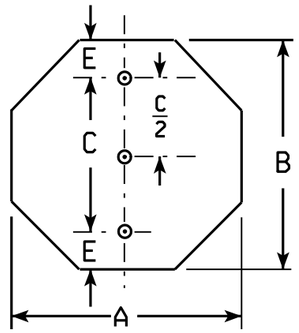

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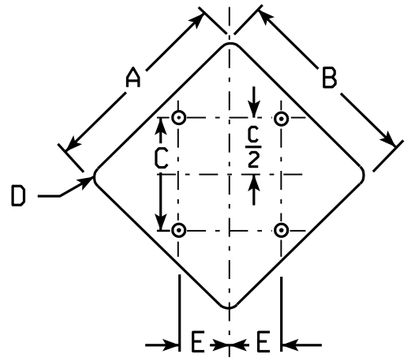

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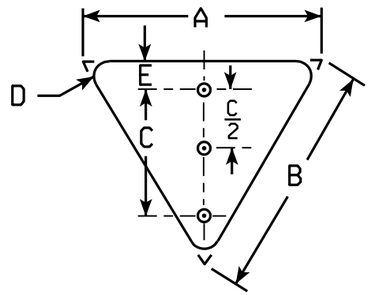
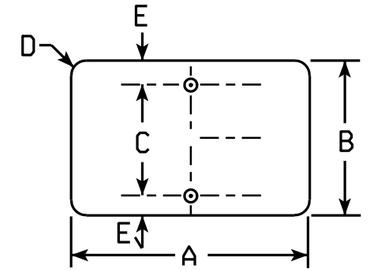


4



5

TYPE 1							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
18	18	18	1 1/2	14	2.25	.080	2
24	24	24	1 1/2	20	4.0	.080	2
30	30	30	1 7/8	22	6.25	.080	2
36	36	36	2 1/4	26	9.0	.100	2

TYPE 2						
A	B	C	E	Area Sq. Ft.	THICK NESS	Mounting Holes
24	24	20	2	3.31	.080	2
30	30	24	3	5.18	.100	2
36	36	28	4	7.46	.125	2
48	48	36	6	13.25	.125	3

TYPE 3							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
48	48	26	3	13	16.0	.125	4

TYPE 4							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
36	36	24	2	2	3.9	.100	2
48	48	32	3	3	7.0	.125	2

TYPE 5							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
8	8	6	1 1/2	1	0.44	.080	2
12	12	9	1 1/2	1 1/2	1.00	.080	2
18	18	14	1 1/2	2	2.25	.080	2
21	15	11	1 1/2	2	2.19	.080	2
21	21	17	1 1/2	2	3.06	.080	2
24	12	8	1 1/2	2	2.0	.080	2
24	18	14	1 1/2	2	3.0	.080	2
24	24	20	1 1/2	2	4.0	.080	2
30	12	8	1 1/2	2	2.5	.080	2
30	15	11	1 1/2	2	3.13	.080	2
30	18	14	1 1/2	2	3.75	.080	2
30	21	17	1 1/2	2	4.37	.080	2
30	24	20	1 1/2	2	5.0	.080	2

TYPE 5 CONT'D.							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
30	30	22	1 7/8	4	6.25	.080	2
36	12	8	1 1/2	2	3.0	.100	2
36	18	14	1 1/2	2	4.5	.100	2
36	24	20	1 1/2	2	6.0	.100	2
36	36	26	2 1/4	5	9.0	.100	2
40	18	14	1 1/2	2	5.00	.100	2
42	30	22	1 7/8	4	8.75	.125	2
48	48	32	3	8	16.0	.125	4

NOTES

1. All sign blanks shall have 7/16" Diameter mounting hole.

STANDARD LAYOUT OF ALUMINUM SIGN BLANKS

SHEET 1 OF 3

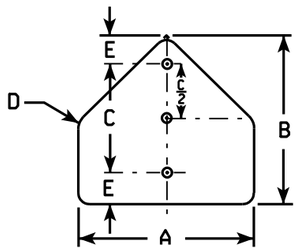
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13

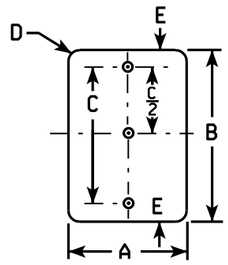
PLATE NO. A5-3A.21

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 307 | E



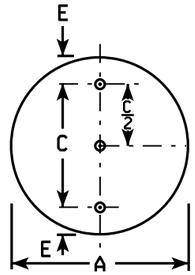
6

TYPE 6							
A	B	C	D	E	Area Sq. Ft	THICK NESS	Mounting Holes
30	30	24	$1\frac{3}{8}$	3	4.68	.080	2
36	36	26	$1\frac{5}{8}$	5	6.75	.100	2
48	48	32	$1\frac{7}{8}$	8	12.0	.125	3



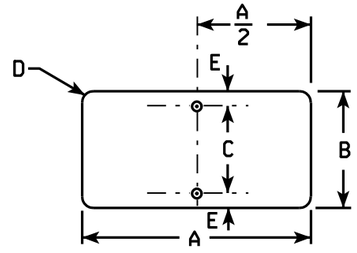
7

TYPE 7							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
12	18	15	$1\frac{1}{2}$	$1\frac{1}{2}$	1.5	.080	2
12	24	20	$1\frac{1}{2}$	2	2.0	.080	2
12	36	24	$1\frac{1}{2}$	6	3.0	.100	2
12	48	32	$1\frac{1}{2}$	8	4.0	.125	3
15	21	18	$1\frac{1}{2}$	$1\frac{1}{2}$	2.19	.080	2
18	24	20	$1\frac{1}{2}$	2	3.0	.080	2
18	36	24	$1\frac{1}{2}$	6	4.5	.100	2
18	54	36	$2\frac{1}{2}$	9	6.75	.080	3
21	60	40	$1\frac{1}{2}$	10	8.75	.080	3
21	72	52	$1\frac{1}{2}$	10	10.5	.080	3
24	30	22	$1\frac{1}{2}$	4	5.0	.080	2
24	36	24	$1\frac{1}{2}$	6	6.0	.100	2
24	39	27	$1\frac{1}{2}$	6	6.5	.080	3
24	45	32	$1\frac{7}{8}$	6	7.5	.080	3
24	48	32	$1\frac{7}{8}$	8	8.0	.125	3
24	57	37	$1\frac{7}{8}$	10	9.5	.080	3
36	48	32	$1\frac{7}{8}$	8	12.0	.125	3
30	36	24	$1\frac{7}{8}$	6	7.5	.100	2
36	54	36	$2\frac{1}{4}$	9	12.75	.100	3
36	57	37	$1\frac{7}{8}$	10	14.25	.100	3
48	39	27	$1\frac{7}{8}$	10	13.0	.125	3
48	45	32	$1\frac{7}{8}$	10	14.0	.125	3
48	57	37	3	6	19.0	.125	3



8

TYPE 8						
A	B	C	E	Area Sq. Ft.	THICK NESS	Mounting Holes
30	—	24	3	4.91	.080	2
36	—	26	5	7.07	.100	2
48	—	32	8	12.5	.125	3



9

TYPE 9							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
48	24	20	$1\frac{7}{8}$	2	8.0	.125	2

NOTES

1. All sign blanks shall have $\frac{7}{16}$" Diameter mounting holes.

STANDARD LAYOUT OF ALUMINUM SIGN BLANKS

SHEET 2 OF 3

WISCONSIN DEPT OF TRANSPORTATION

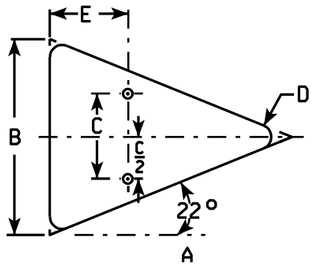
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-3A.21

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 308 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A53.DGN PLOT DATE : 16-AUG-2013 13:53 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 1.984759:1.000000 WISDOT/CADDS SHEET 42



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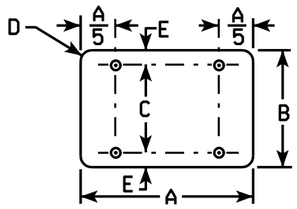

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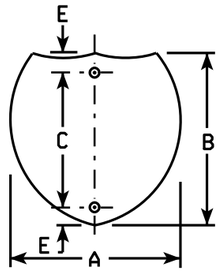

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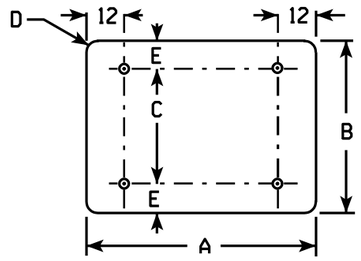


13

TYPE 10 (NOTE 1)							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
48	36	14	2 1/4	16	6.0	.125	2

TYPE 11							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
48	48	32	3	8	16.0	.125	4

TYPE 12 (NOTE 2)						
A	B	C	E	Area Sq. Ft.	THICK NESS	Mounting Holes
24	24	18	3	3.13	.080	2
30	24	18	3	3.91	.080	2
36	36	28	4	7.03	.100	2
45	36	28	4	8.79	.125	2

TYPE 13							
A	B	C	D	E	Area Sq. Ft.	THICK NESS	Mounting Holes
48	60	40	3	10	20.0	.125	4
48	24	20	1 7/8	2	8.0	.125	4
48	30	22	1 7/8	4	10.0	.125	4
54	18	14	1 1/2	2	6.75	.125	4
60	24	20	1 7/8	2	10.0	.125	4
60	30	22	1 7/8	4	12.5	.125	4

NOTES

1. Dimension A on type #10 is measured to the theoretical intersections of the edges.
2. Shape of type #12 shall conform to FHWA standard for interstate route markers.

STANDARD LAYOUT OF ALUMINUM SIGN BLANKS

SHEET 3 OF 3

WISCONSIN DEPT OF TRANSPORTATION

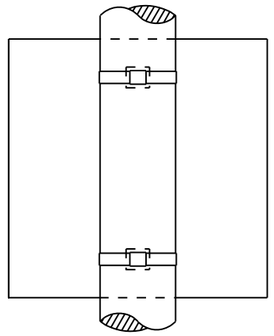
APPROVED Matthew R Rauch
for State Traffic Engineer

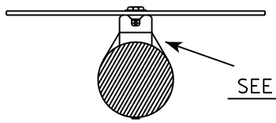
DATE 8/16/13 PLATE NO. A5-3A.21

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 309 | E

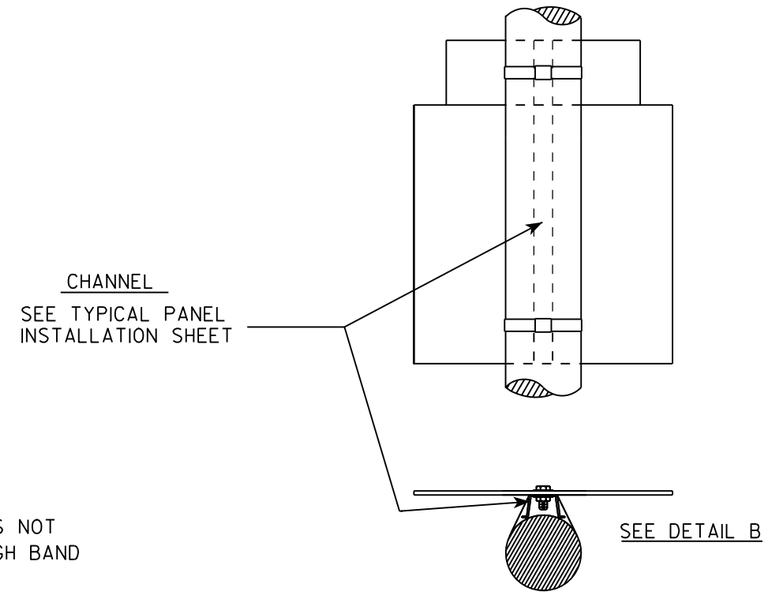
BANDING

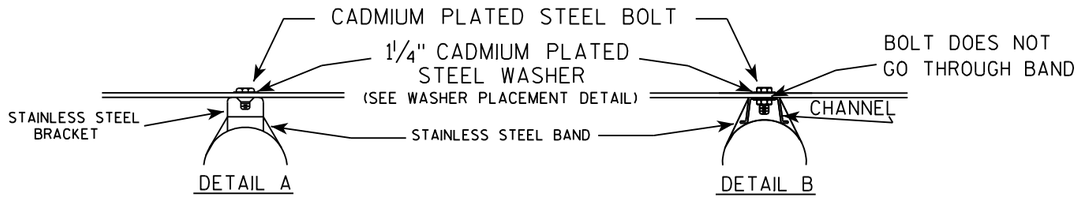
SINGLE SIGN



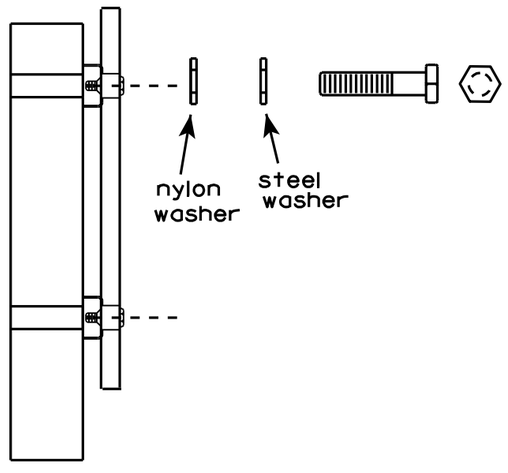


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

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

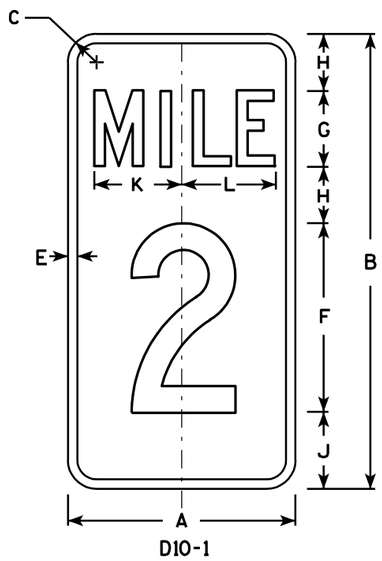
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

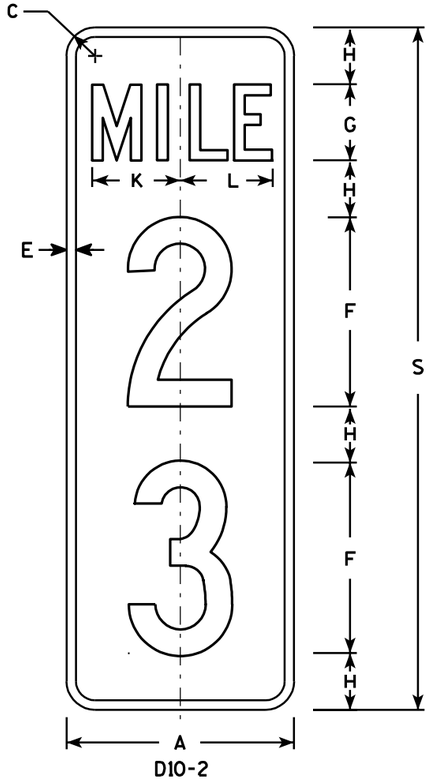
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

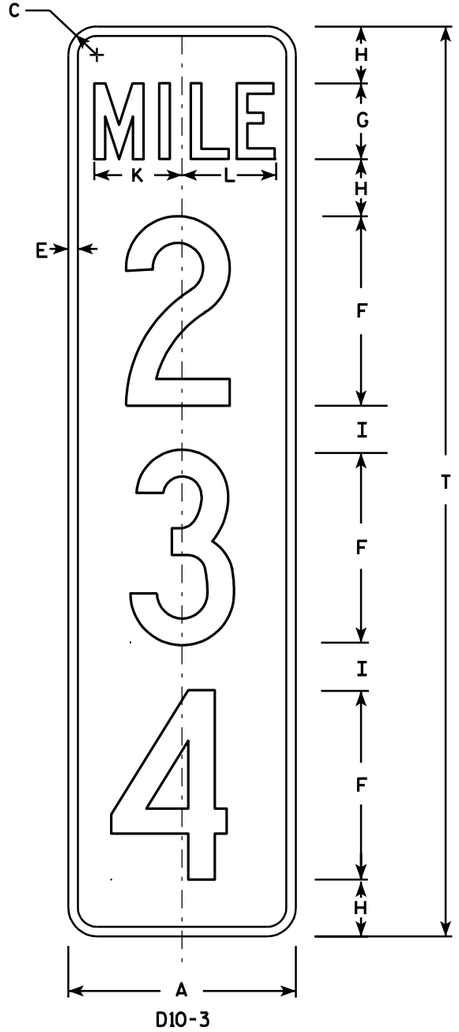
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 310	E



D10-1



D10-2



D10-3

NOTES

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

7

Metric equivalent for this sign is:

PHY. SIZE	
12 X 24	300 mm X 600 mm
12 X 36	300 mm X 900 mm
12 X 48	300 mm X 1200 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1																										
2																										
3																										
4	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						
5	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						

D10-1	D10-2	D10-3
Area sq. ft.	Area sq. ft.	Area sq. ft.
2.0	3.0	4.0
Area m2	Area m2	Area m2
.19	.28	.38

STANDARD SIGN
D10-1 , D10-2 & D10-3

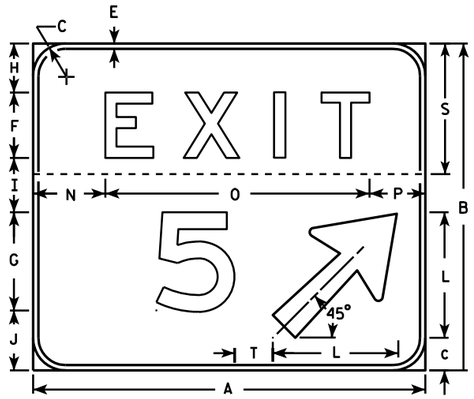
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for Director, Office of Traffic

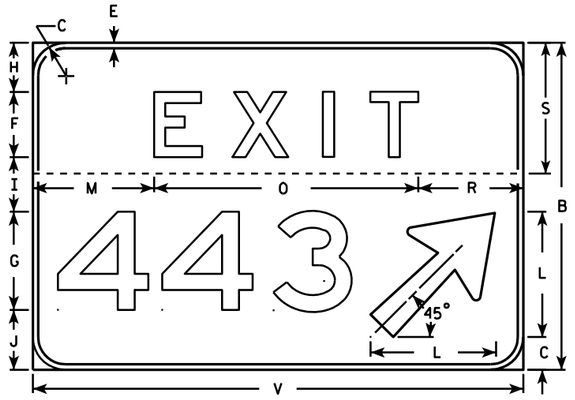
DATE 1/16/02 PLATE NO. D10-3.2

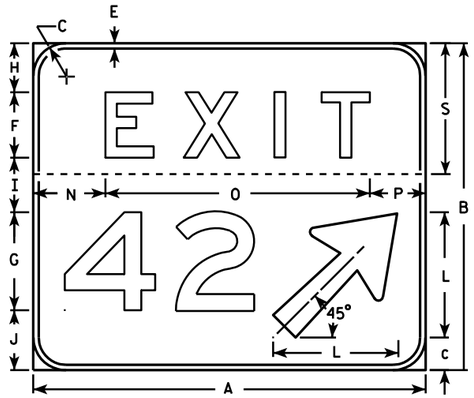
PROJECT NO:

SHEET NO: 311 E



NOTE: T diminision shall be measured from the back of the number to the front of the arrow





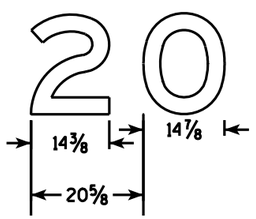
NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

EXAMPLE FOR USING SPACING CHART



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

STANDARD SIGN E5-1A

WISCONSIN DEPT OF TRANSPORTATION

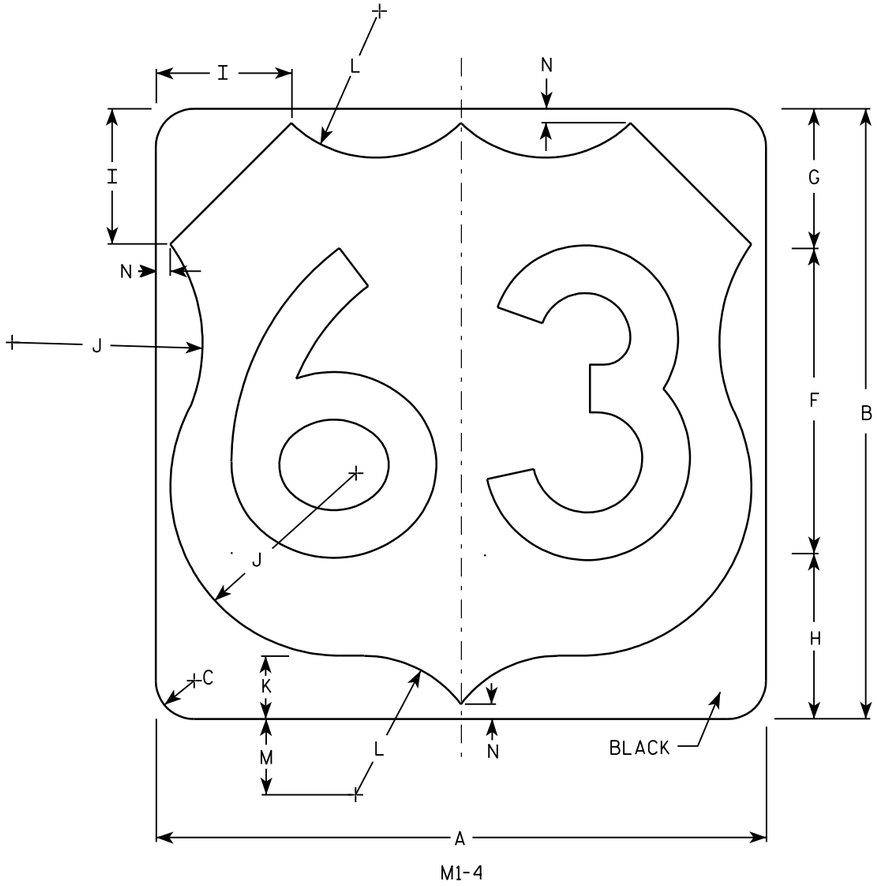
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

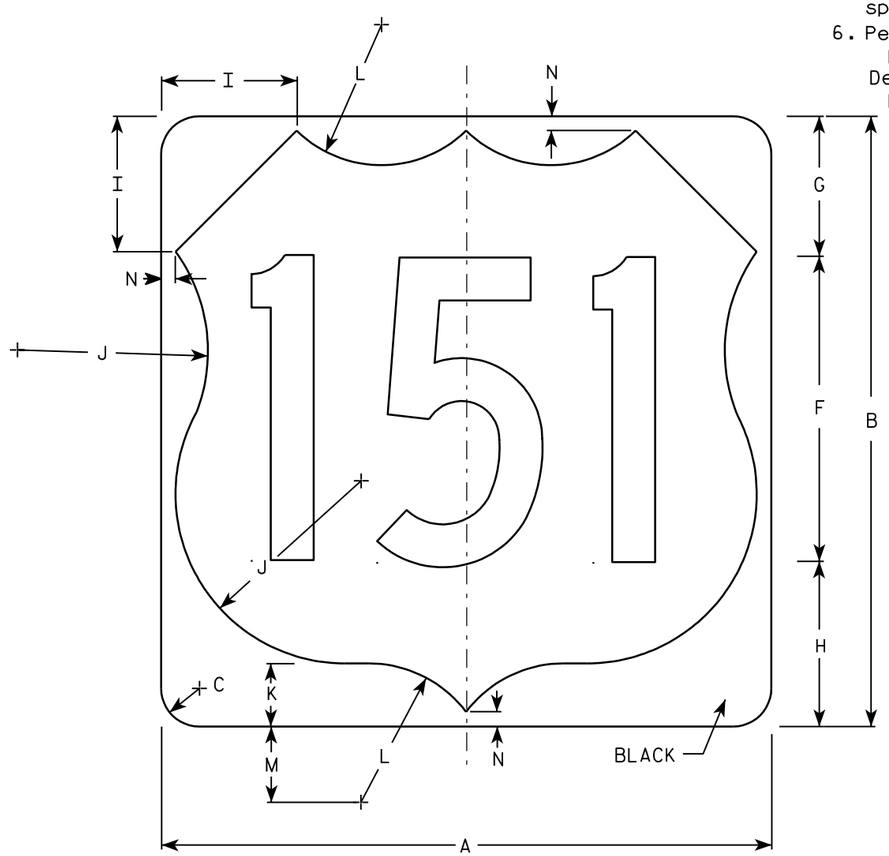
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 312 | E

NOTES

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



M1-4



M1-4

7

7

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

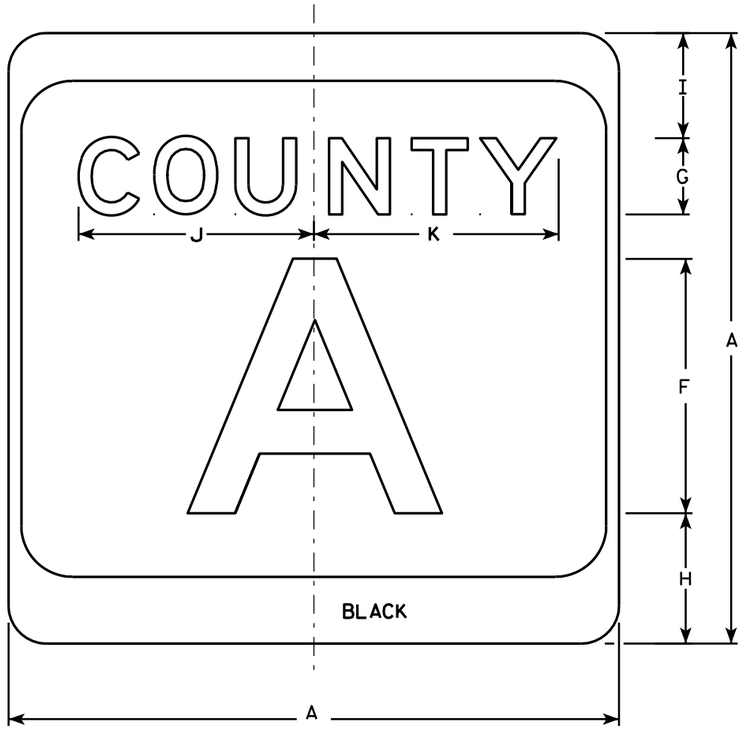
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

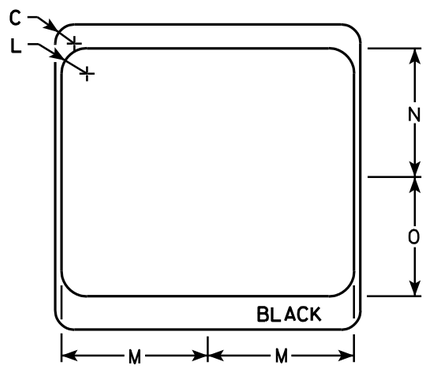
APPROVED Matthew R Rauch
for State Traffic Engineer

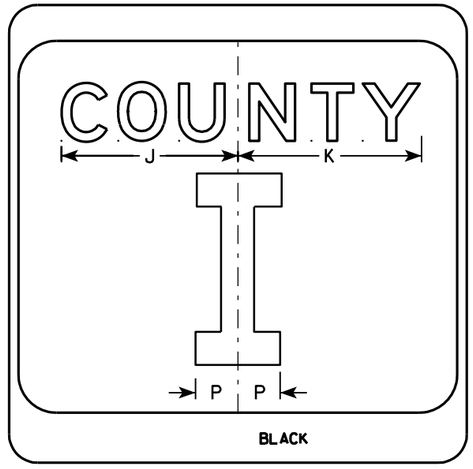
DATE 08/25/05 PLATE NO. M1-4.9

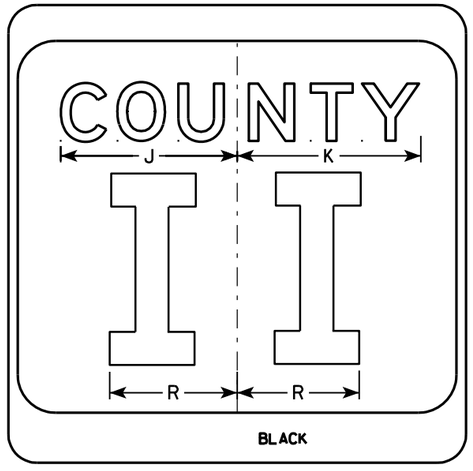
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 313	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

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

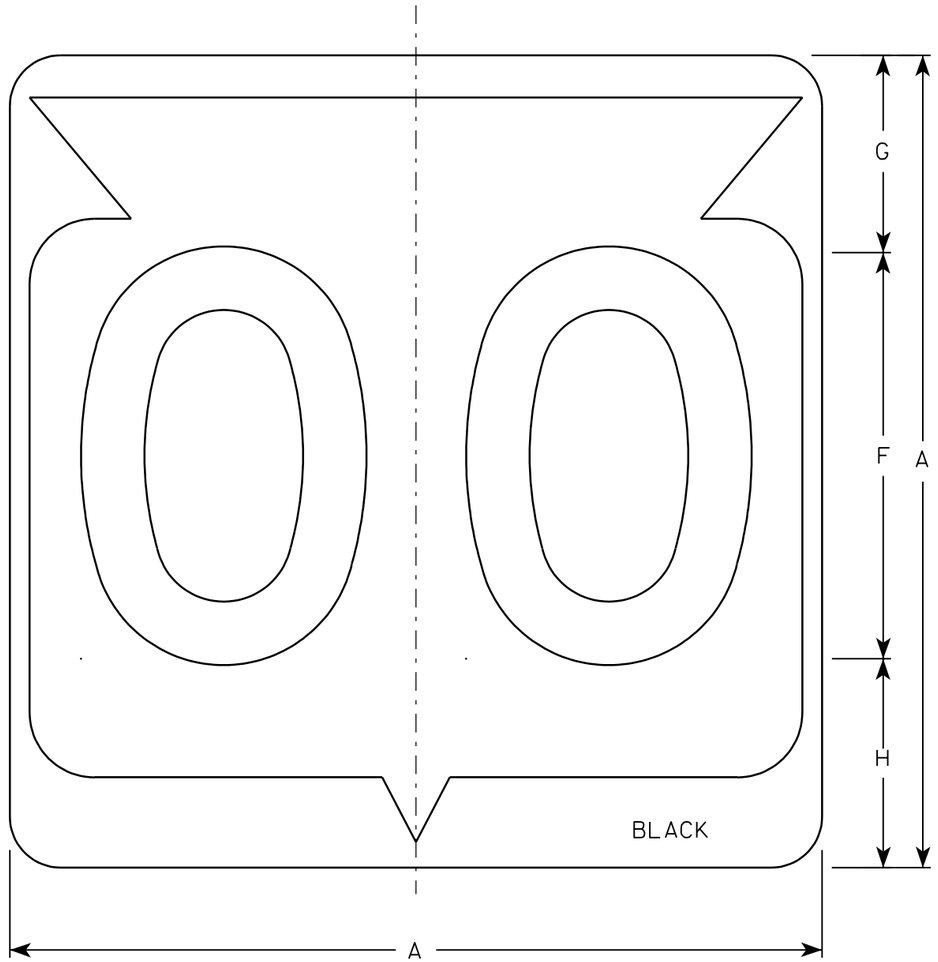
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

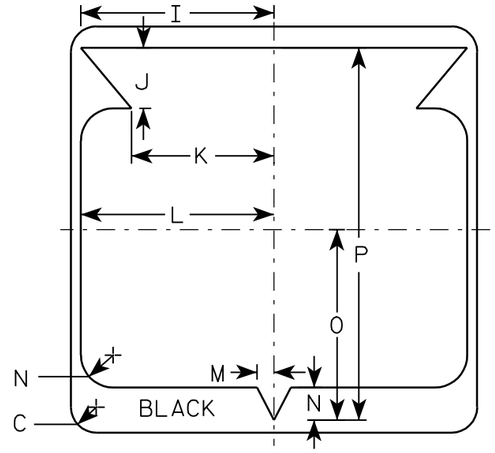
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 314	E



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

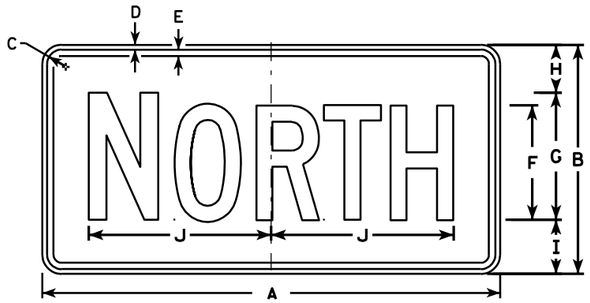
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

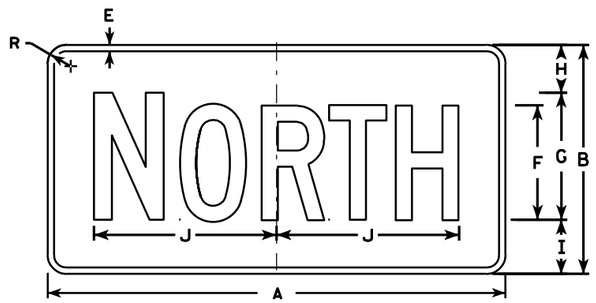
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 315	E



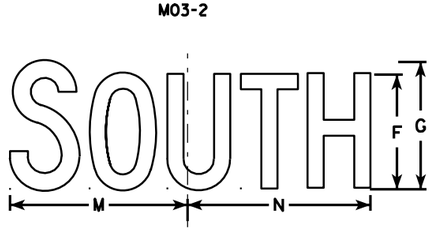
M3-1
MK3-1
MO3-1



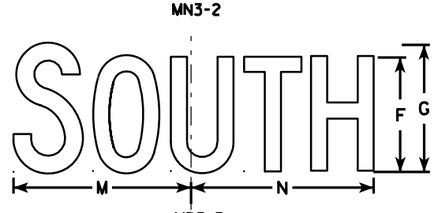
MB3-1
MG3-1
MM3-1
MN3-1

M3-2
MK3-2
MO3-2

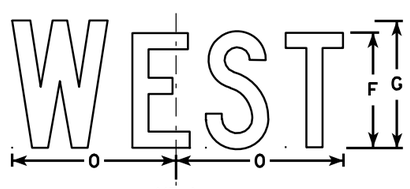
MB3-2
MG3-2
MM3-2
MN3-2



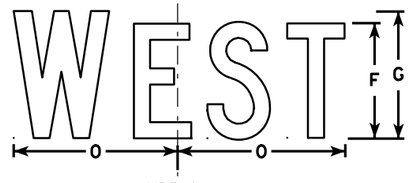
M3-3
MK3-3
MO3-3



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



M3-4
MK3-4
MO3-4



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

NOTES

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

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

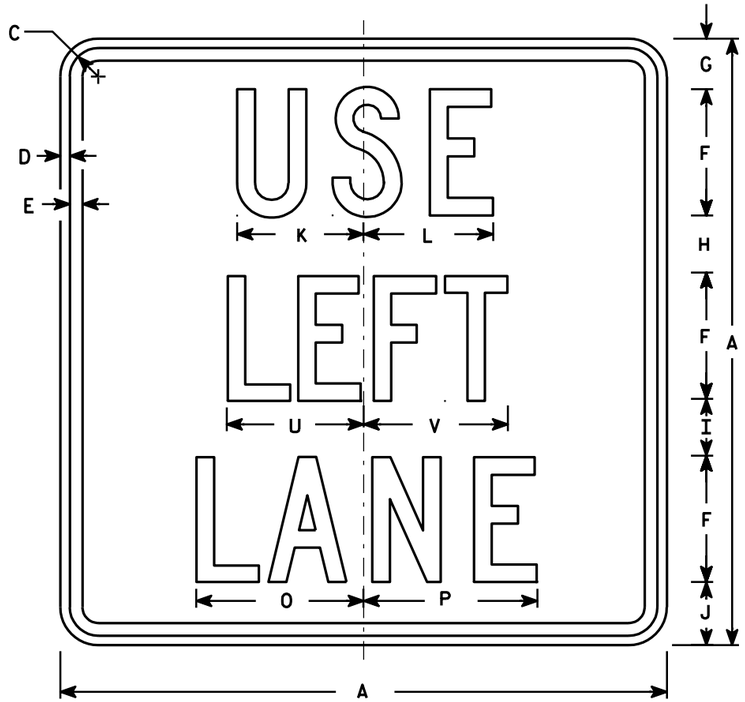
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

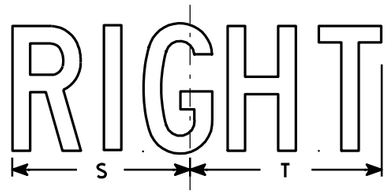
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 316	E



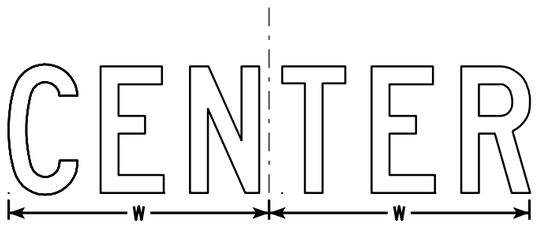
M4-20L

NOTES

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



M4-20R



M4-20C

7

7

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8			6 5/8	6 7/8			7	7 5/8	5 3/8	5 3/4	10 1/4				4.0	0.36
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4			9 7/8	10 1/4			10 3/8	11 3/8	8	8 5/8	14 3/8				9.0	0.81
4																												
5																												

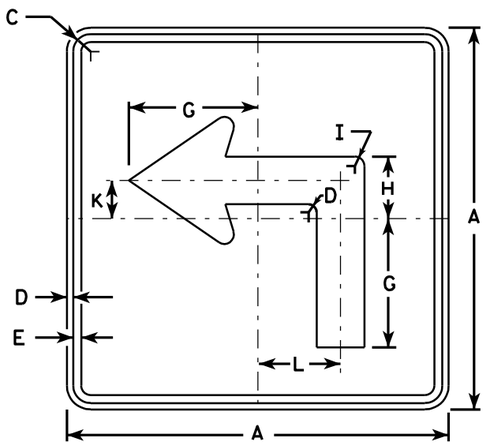
STANDARD SIGN
M4-20

WISCONSIN DEPT OF TRANSPORTATION

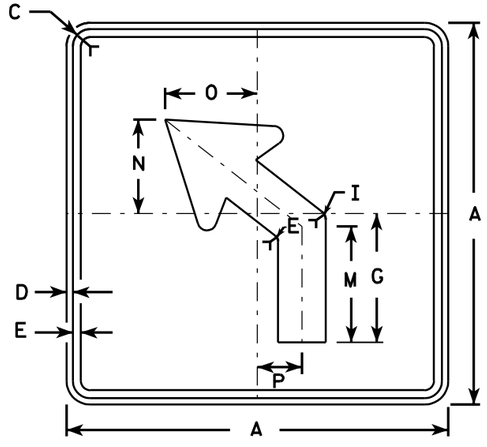
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/09 PLATE NO. M4-20.2

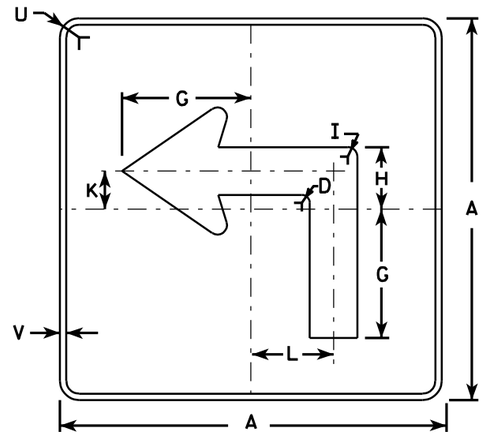
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 317	E



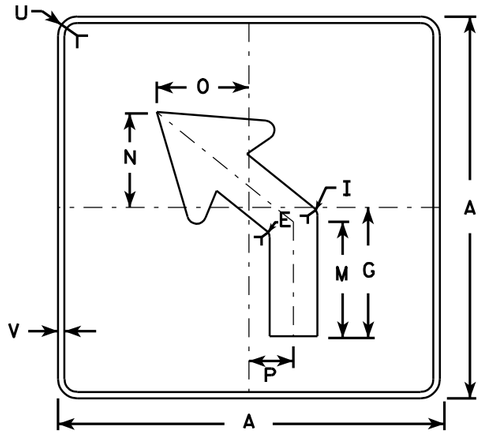
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



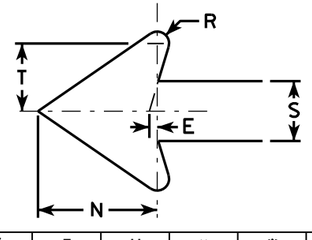
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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



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



NOTES

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

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

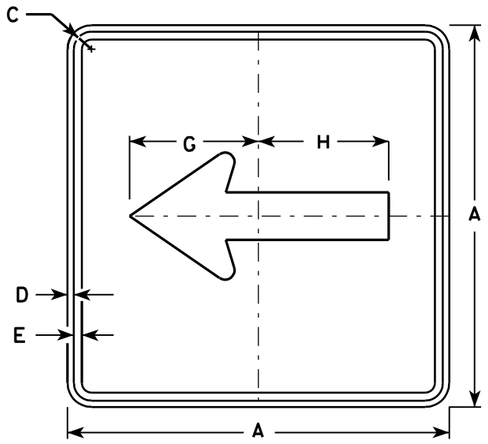
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

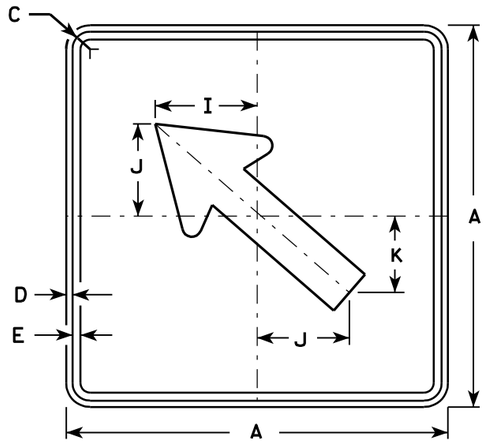
APPROVED Matthew R Rauch
for State Traffic Engineer

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

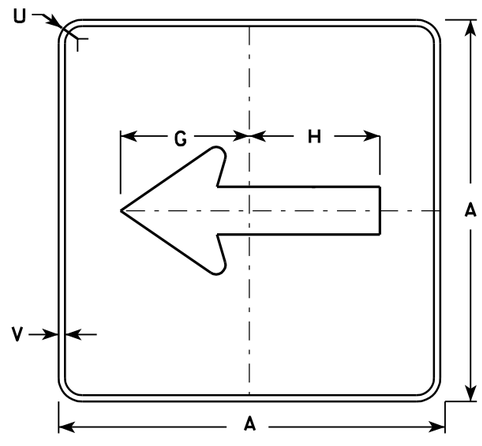
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 318 | E



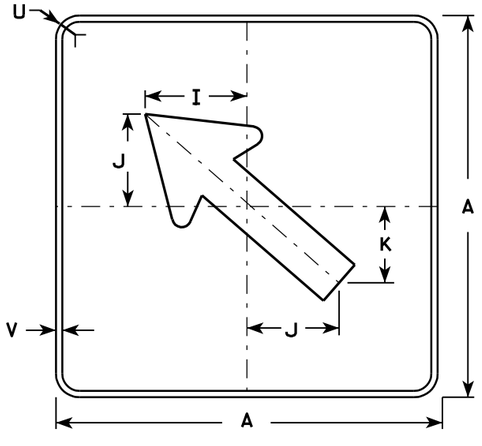
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



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



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

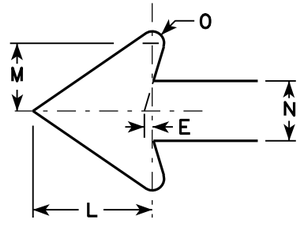
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



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

STANDARD SIGN M6-1 & M6-2 SERIES

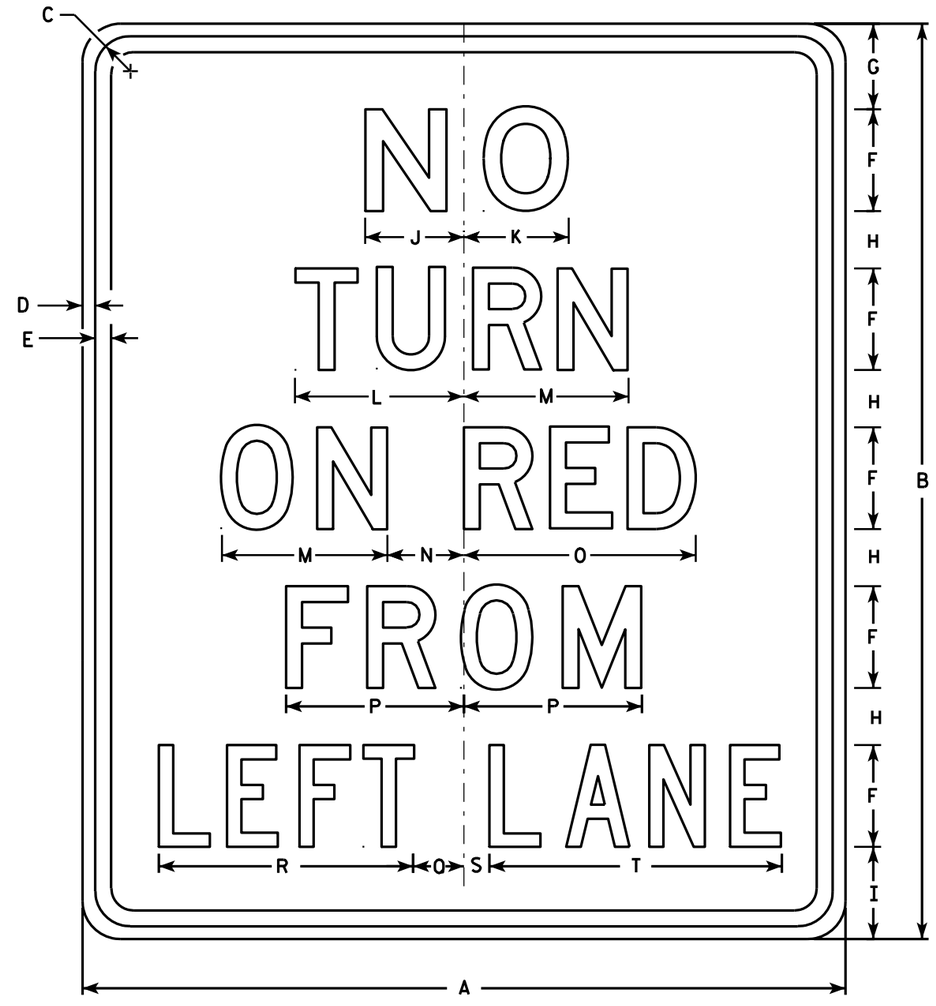
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 319 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 29-JUL-2013 13:57 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000 WISDOT/CADDS SHEET 42



R10-11F

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series E.
   Lines 2, 3 and 4 are Series D.
   Line 5 is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	4	3 3/8	2 1/4	3 5/8	3 7/8	4 1/8	6 5/8	6 1/2	3	9 1/8	7	2	10	1	11 1/2							7.5
2M	30	36	1 3/8	1/2	5/8	4	3 3/8	2 1/4	3 5/8	3 7/8	4 1/8	6 5/8	6 1/2	3	9 1/8	7	2	10	1	11 1/2							7.5
3																											
4																											
5																											

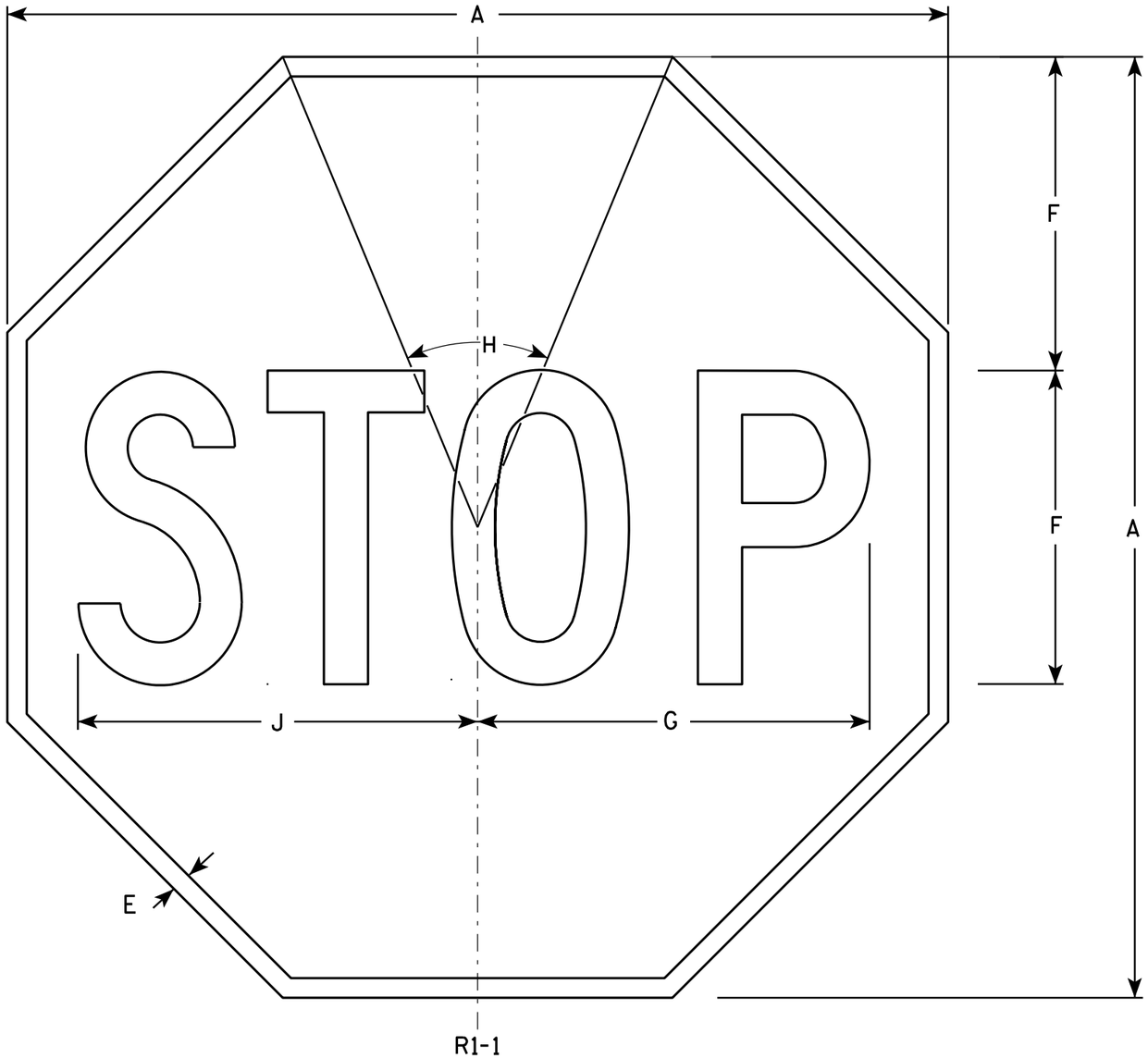
STANDARD SIGN
R10-11F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-11F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 320	E



NOTES

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

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

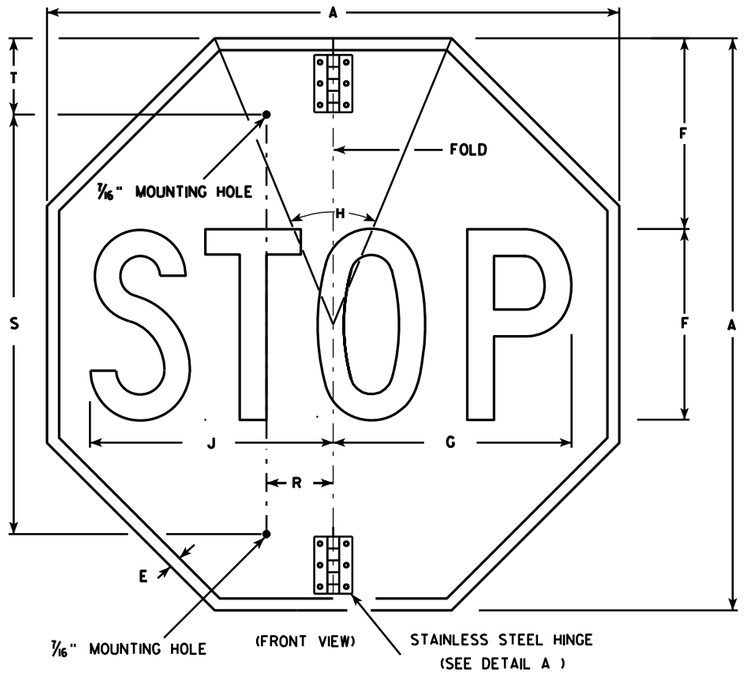
STANDARD SIGN
R1-1

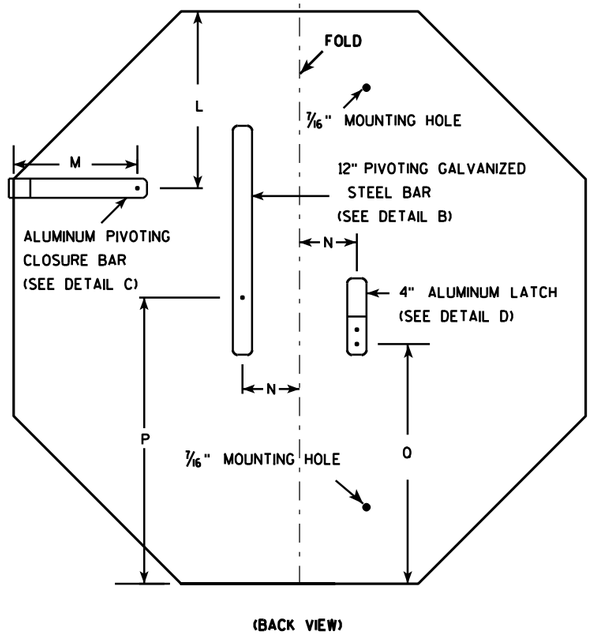
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

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

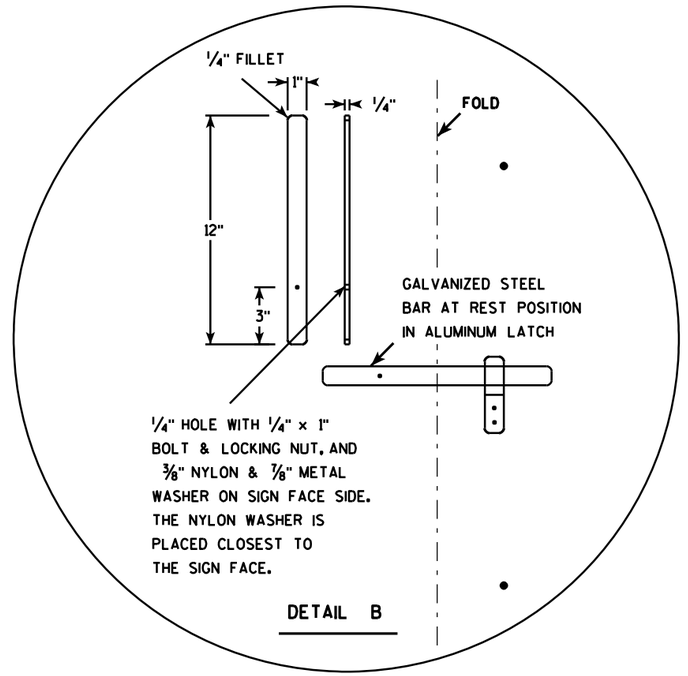
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 321	E



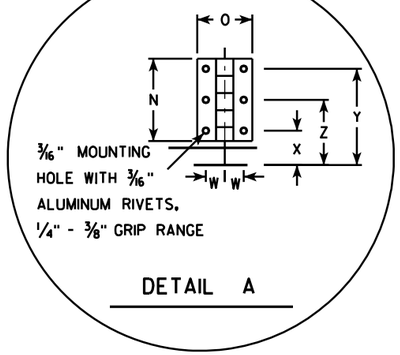


NOTES

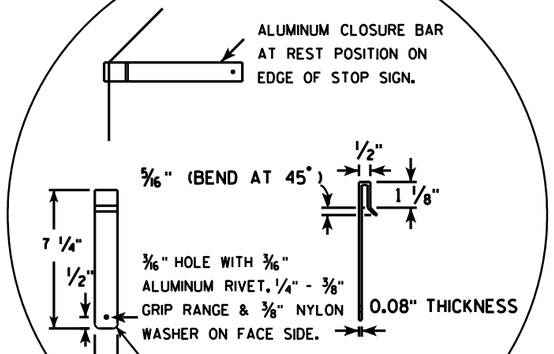
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



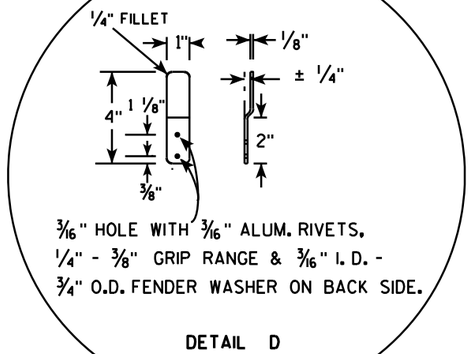
DETAIL B



DETAIL A



DETAIL C



DETAIL D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

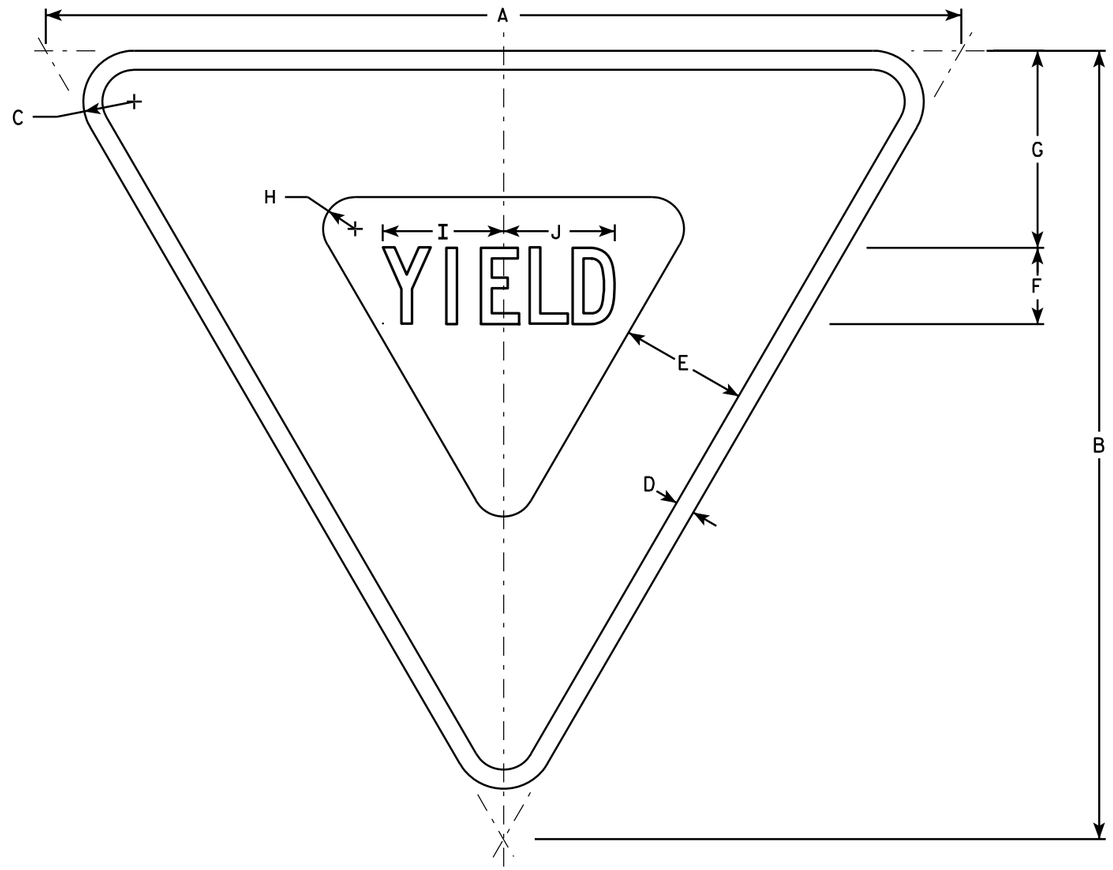
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 322	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

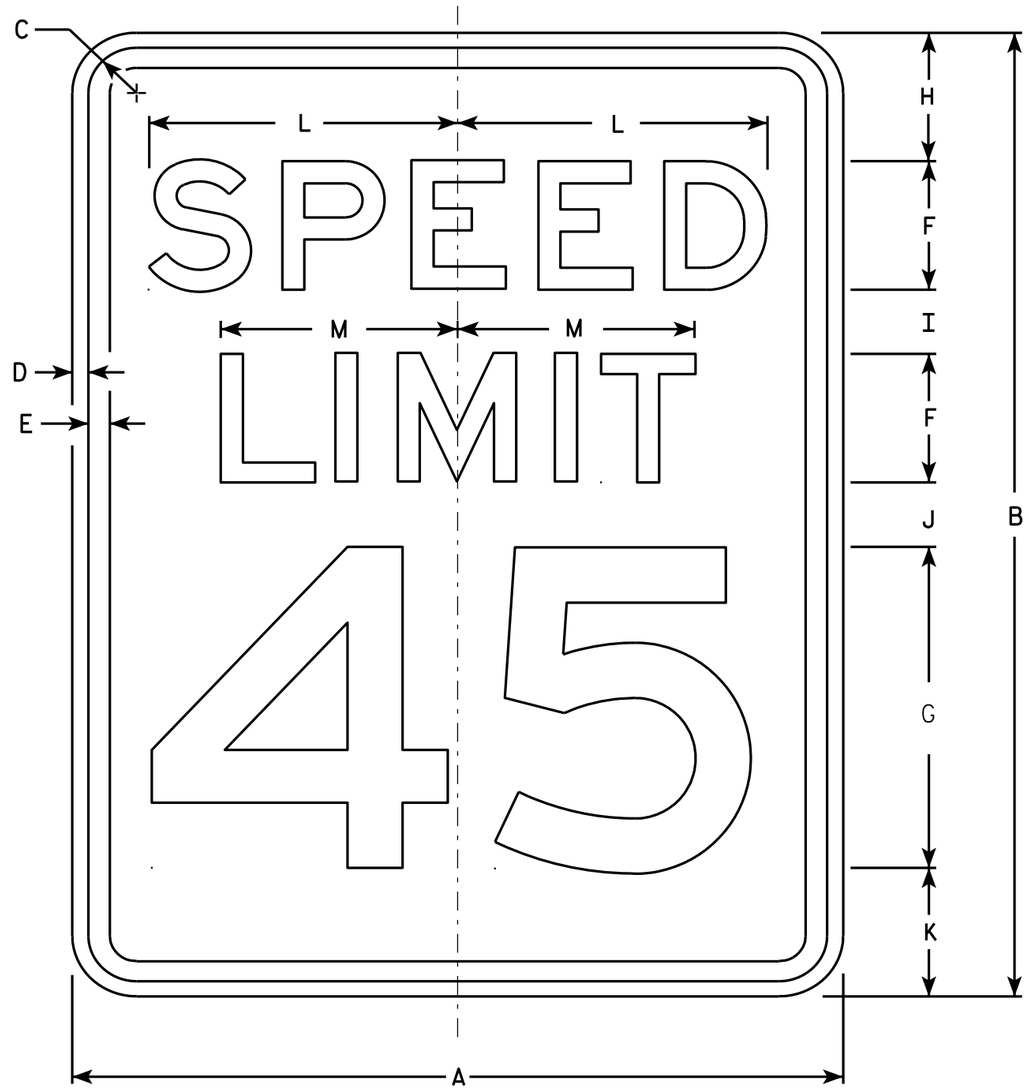
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 323 | E



R2-1

NOTES

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

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

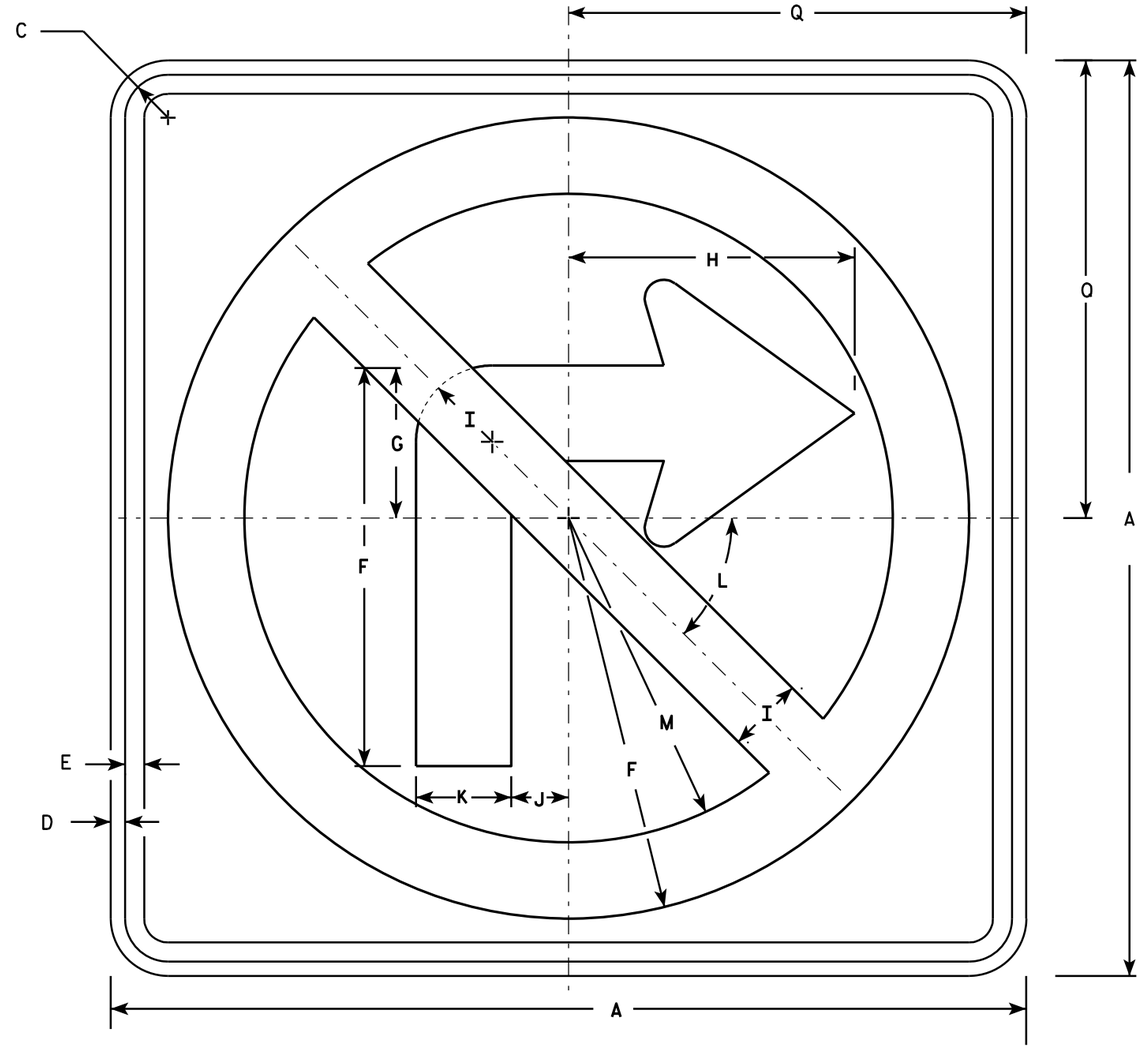
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

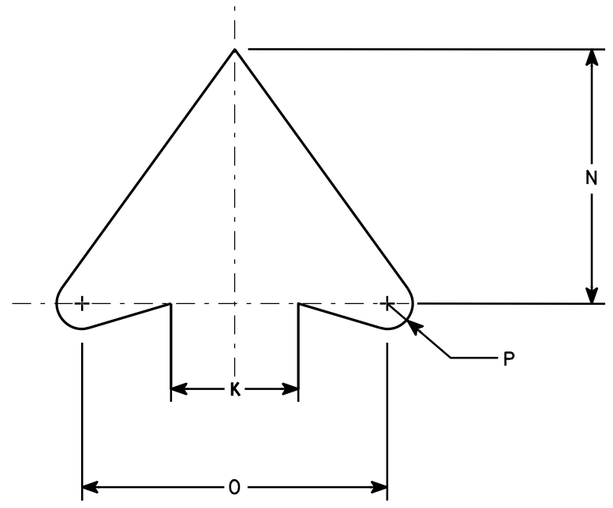
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 324	E



R3-1

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

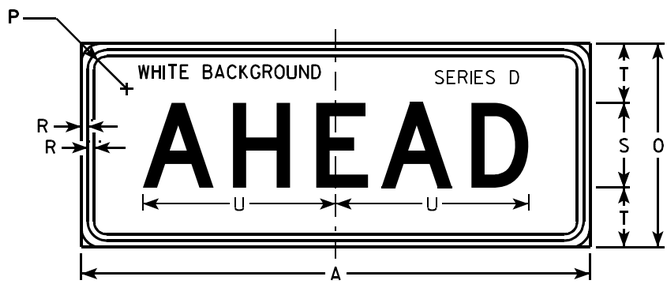
DATE 12/08/10 PLATE NO. R3-1.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 325	E

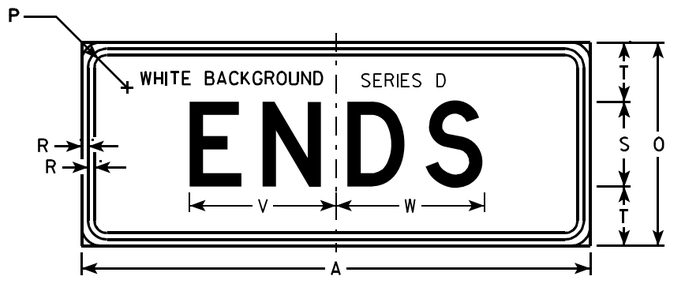
R3-17

NOTES

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



R3-17ap



R3-17bp

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

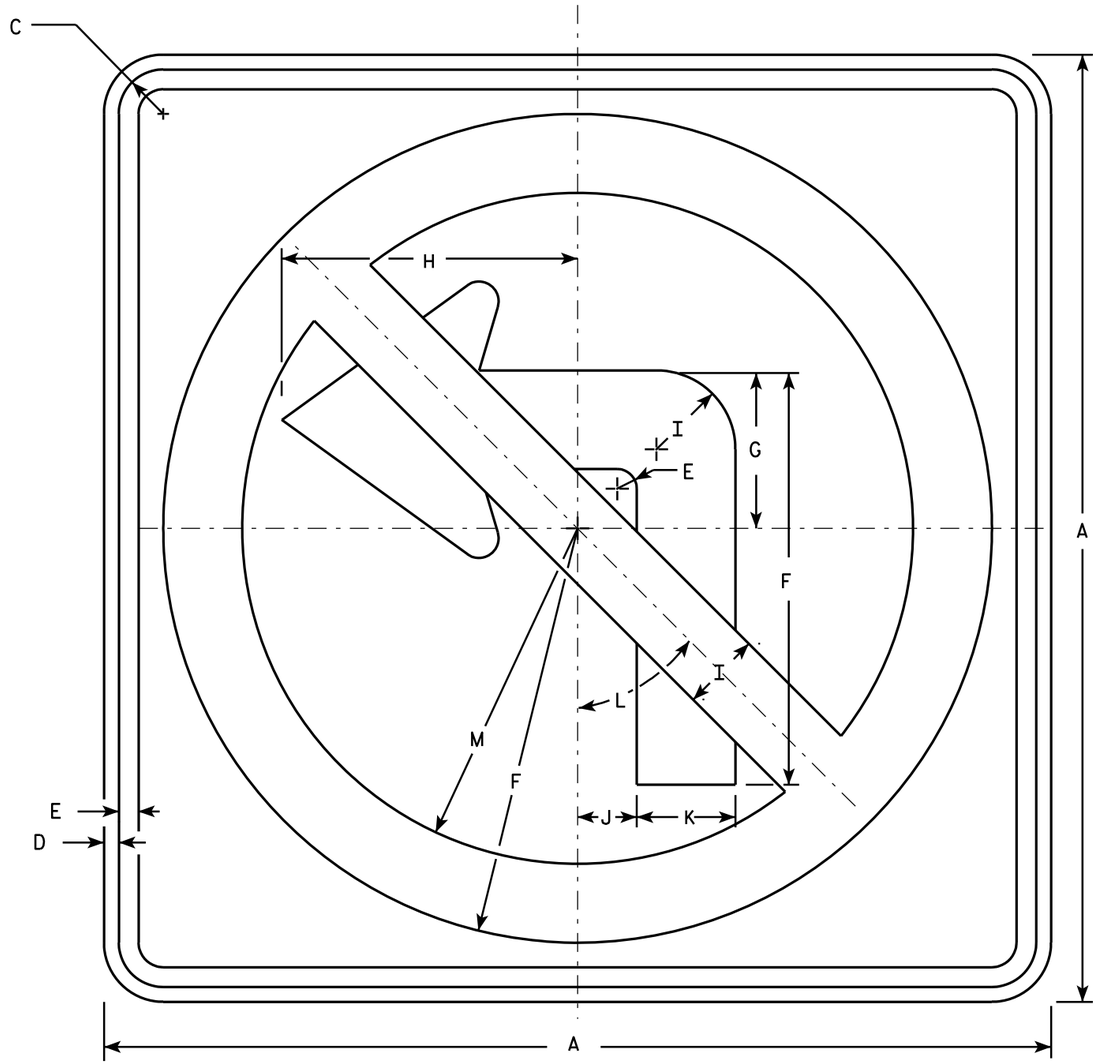
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

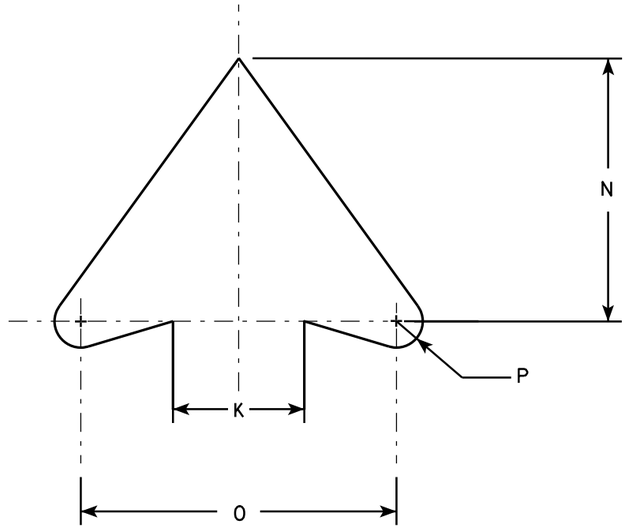
SHEET NO: 326 E



R3-2

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

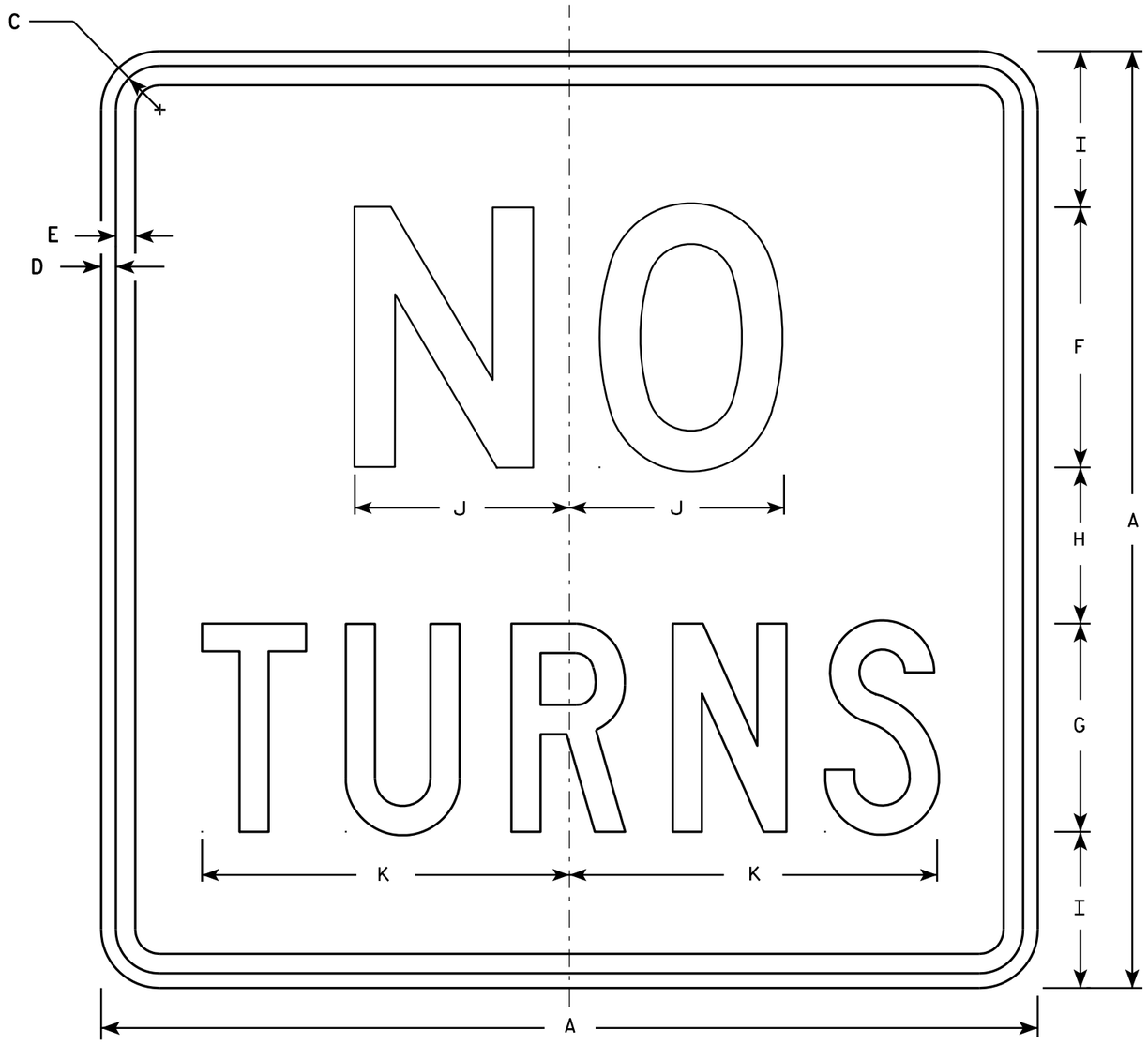
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 327	E



R3-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D and Line 2 is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2	6	5	4	4 1/2	5 1/8	8 3/4																4.0
2M	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
3	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
4	36		1 5/8	5/8	3/4	10	8	6	6	8 1/4	14 1/8																9.0
5	48		2 1/4	3/4	1	12	10	8	9	10 1/4	17 5/8																16.0

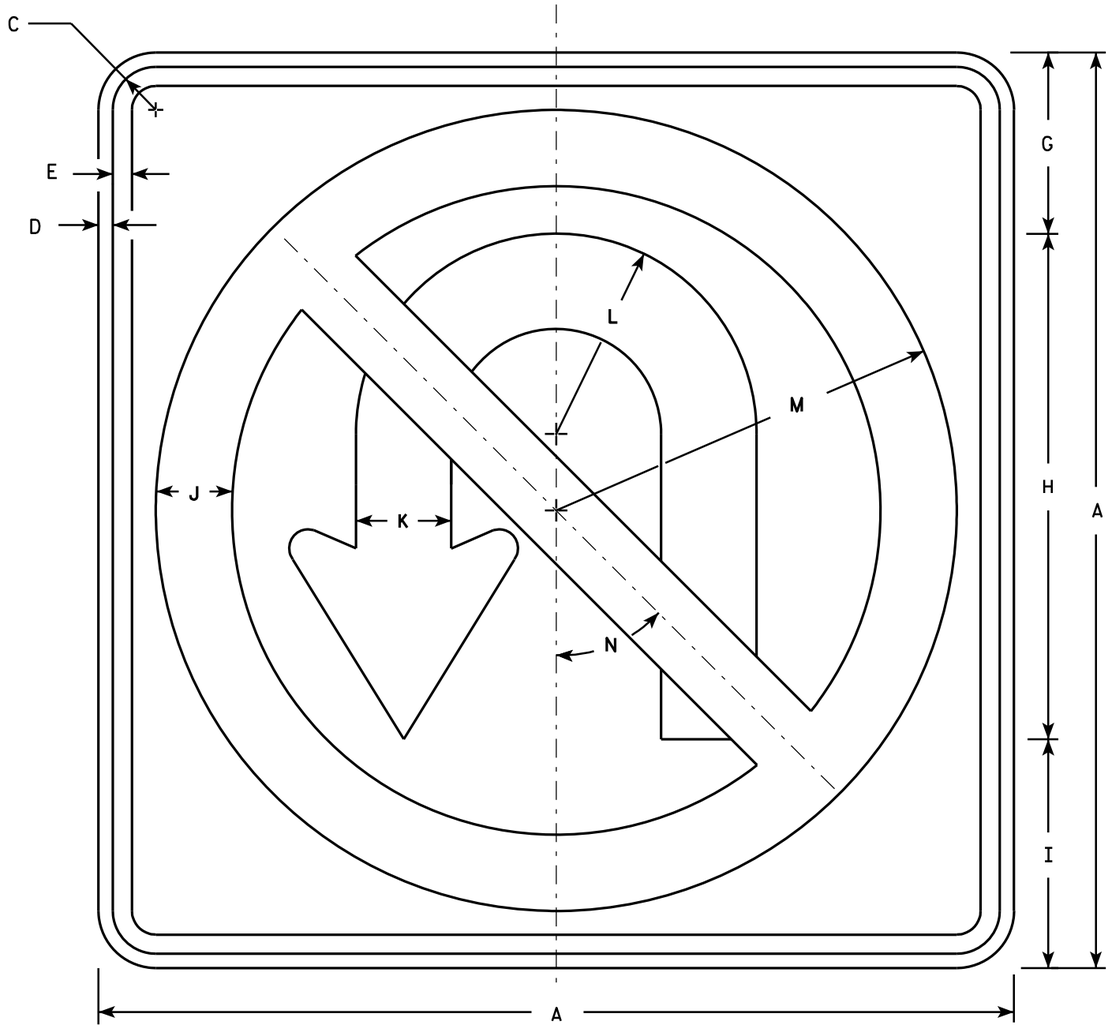
STANDARD SIGN
R3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-3.10

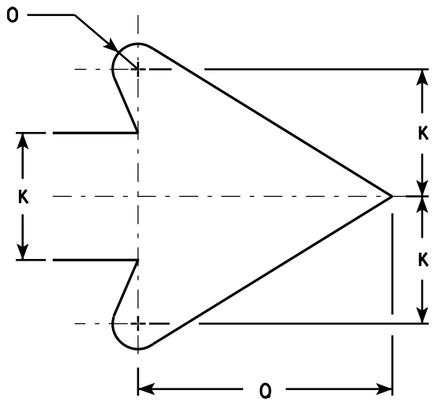
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 328 | E



R3-4

NOTES

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



ARROW DETAIL

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

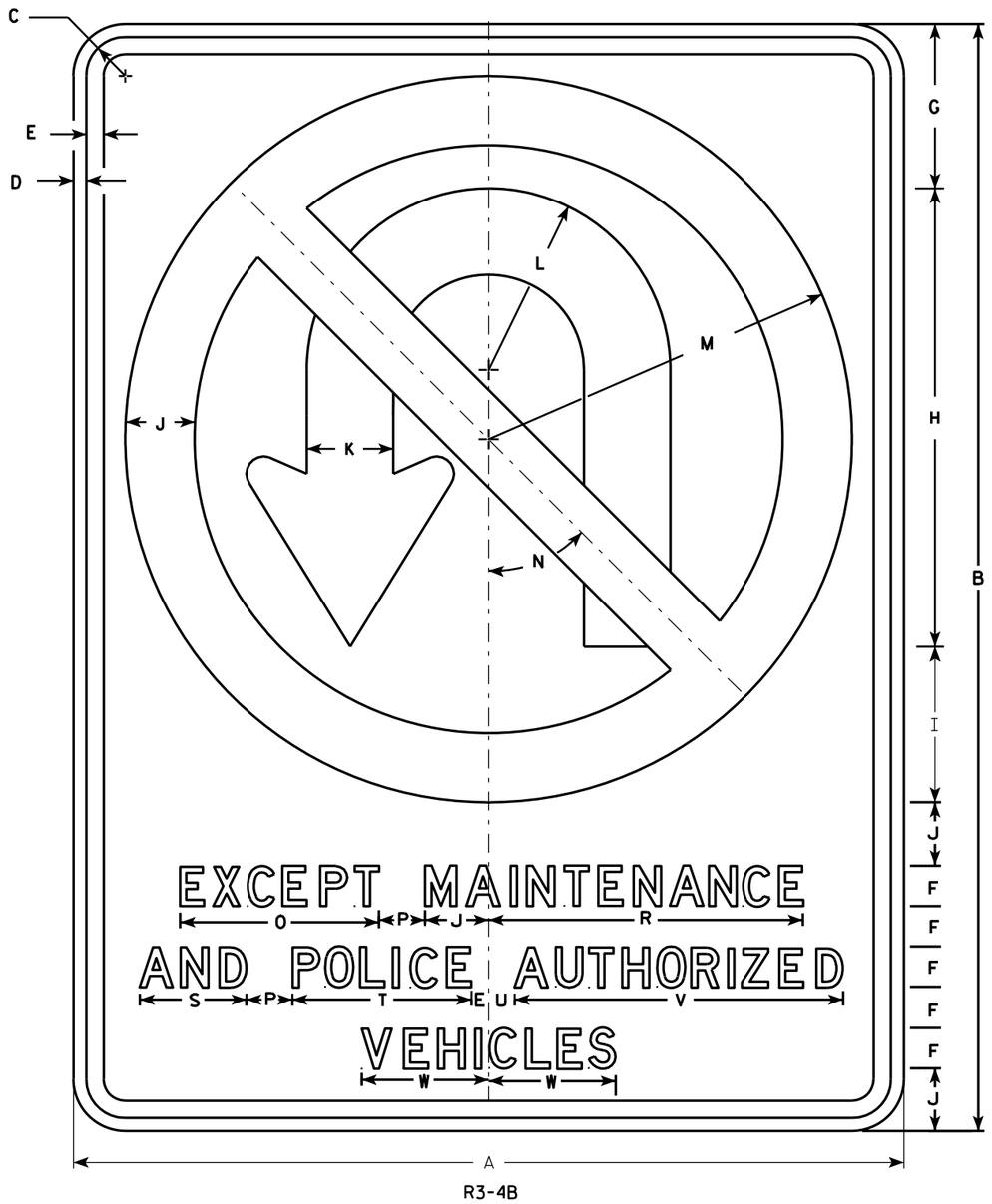
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

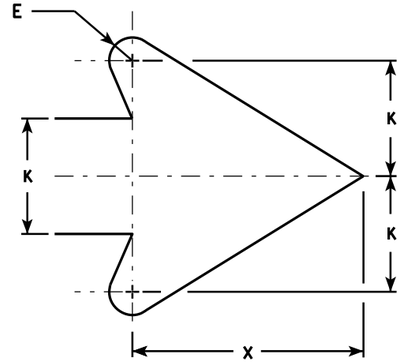
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 329	E



R3-4B

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0
5	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0

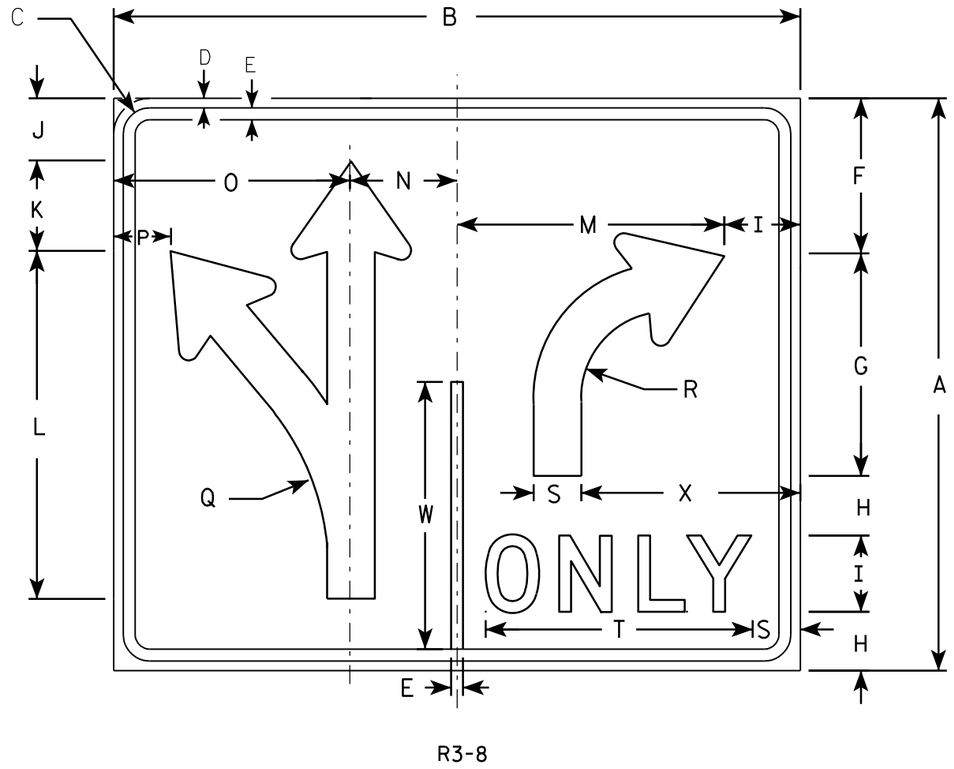
STANDARD SIGN
R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

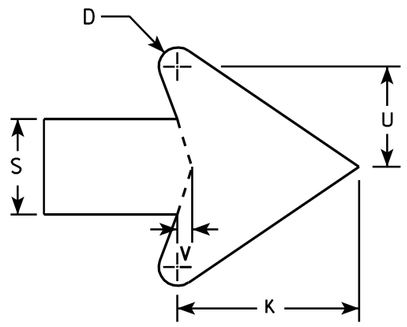
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 330	E



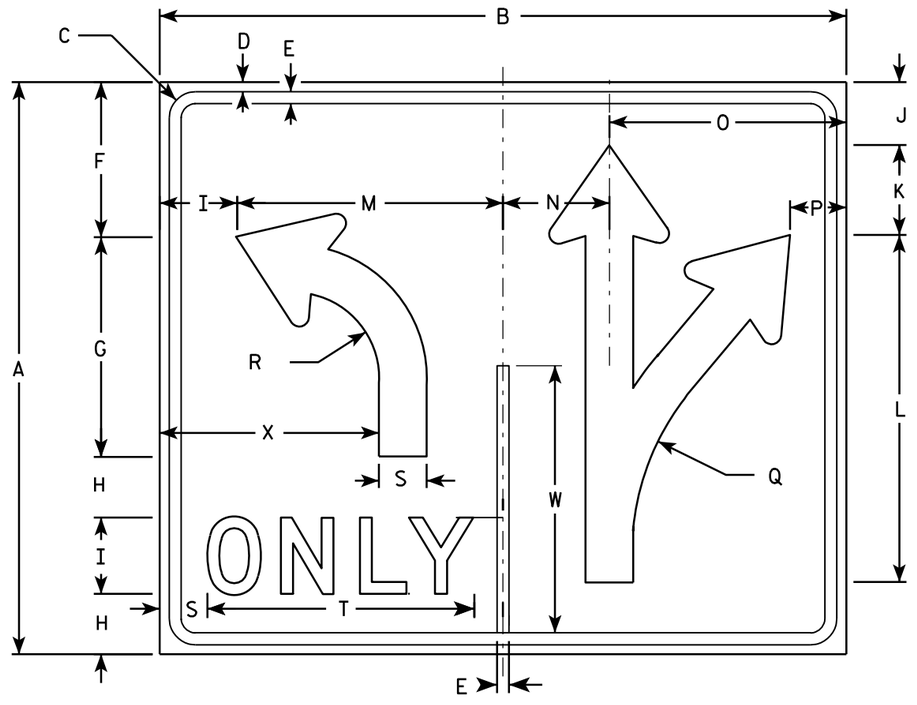
R3-8

NOTES

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



ARROW DETAIL



R3-8A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	3 1/4	4 3/4	18 1/4	14	5 5/8	12 3/8	3	13 1/4	4 1/2	2 1/2	14	2 5/8	3/8	14	11 1/2			7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	5 1/4	7 1/8	29 1/8	21	8 3/8	18 5/8	4 3/8	21 7/8	7 1/4	3 3/4	20 5/8	4	5/8	22 3/8	17 1/4			18.0

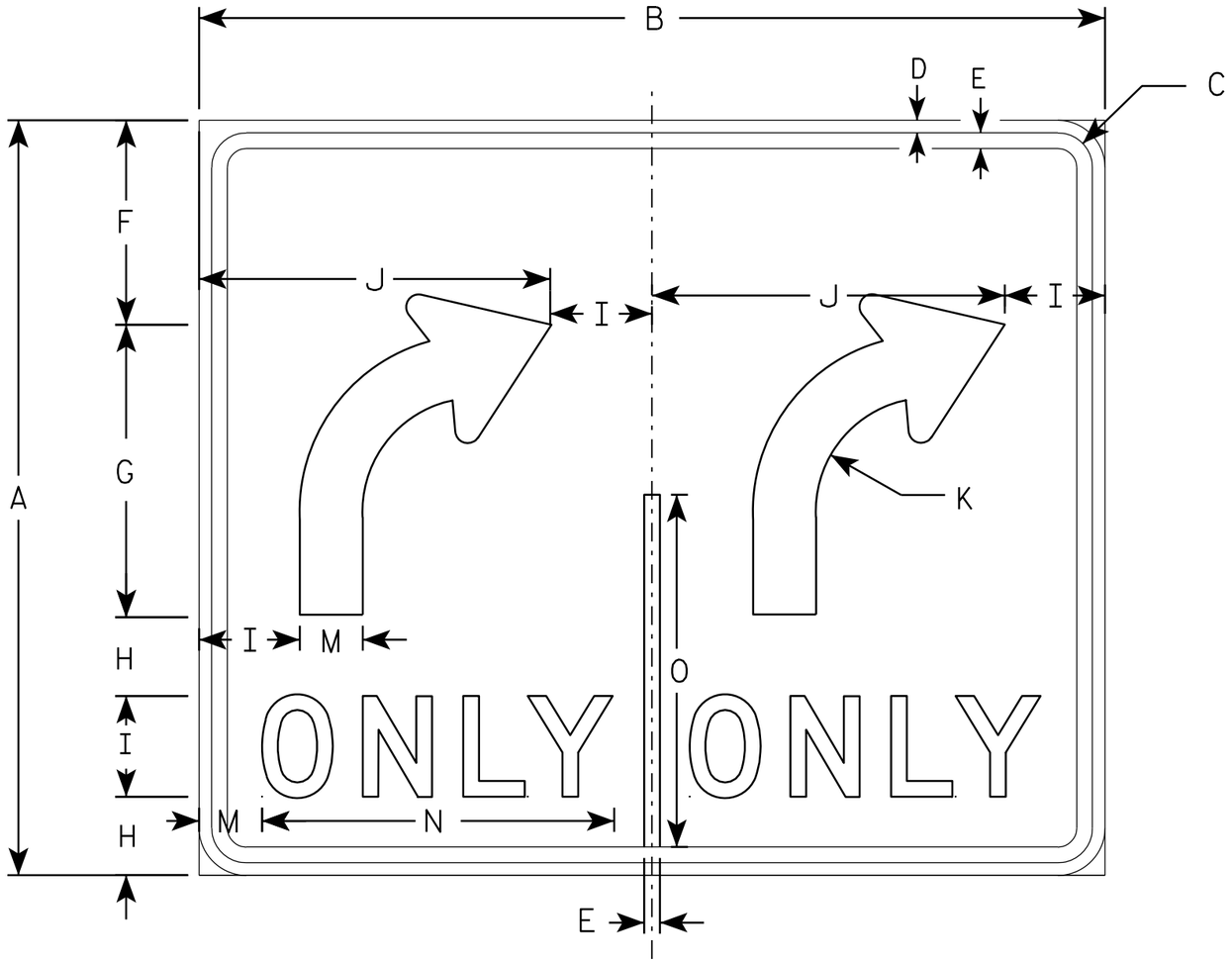
STANDARD SIGN
R3-8 & R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8.5

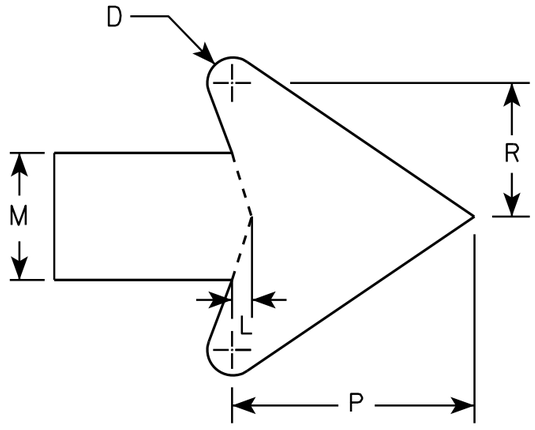
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 331	E



R3-8MM

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	3/8	2 1/2	14	14	4 3/4		2 5/8									7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	3/8	2 1/2	14	14	4 3/4		2 5/8									7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	5/8	3 3/4	20 5/8	22 3/8	7 1/8		4									18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	5/8	3 3/4	20 5/8	22 3/8	7 1/8		4									18.0

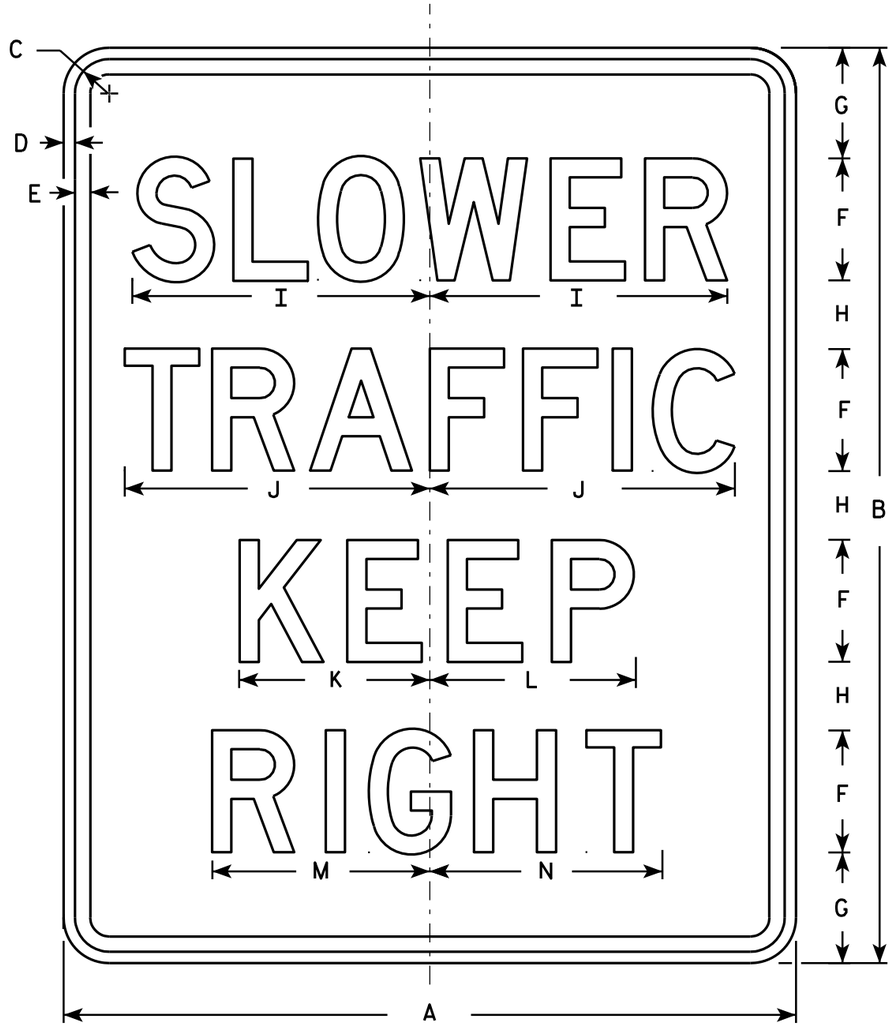
STANDARD SIGN
R3-8MM

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/2011 PLATE NO. R3-8MM.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 332	E



R4-3

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

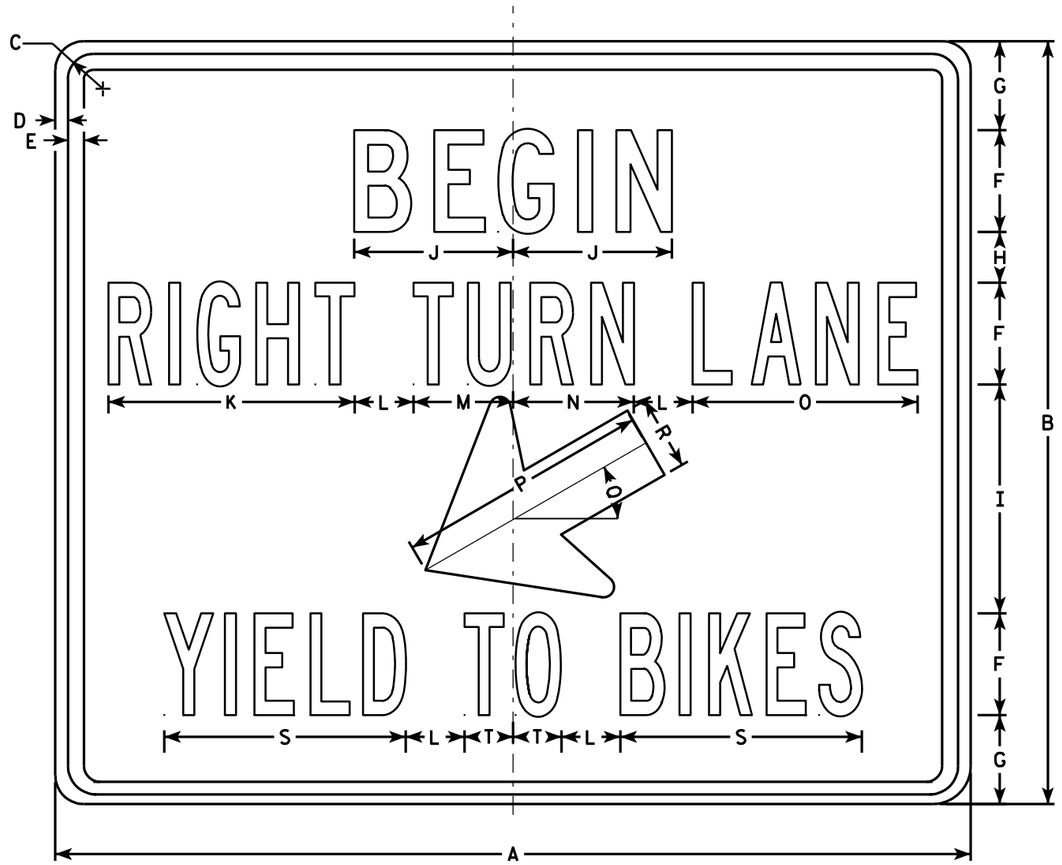
SHEET NO: 333 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

7



R4-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 & 3 are Series B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
2M	36	30	1 3/8	1/2	5/8	4	3 1/2	2	9	6 1/4	9 3/4	2 3/8	3 7/8	4 3/4	8 7/8	10	30°	2 7/8	9 1/2	1 7/8							7.5
3																											
4																											
5																											

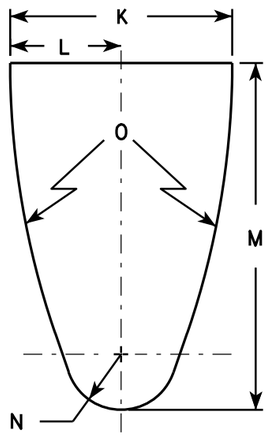
STANDARD SIGN
R4-4

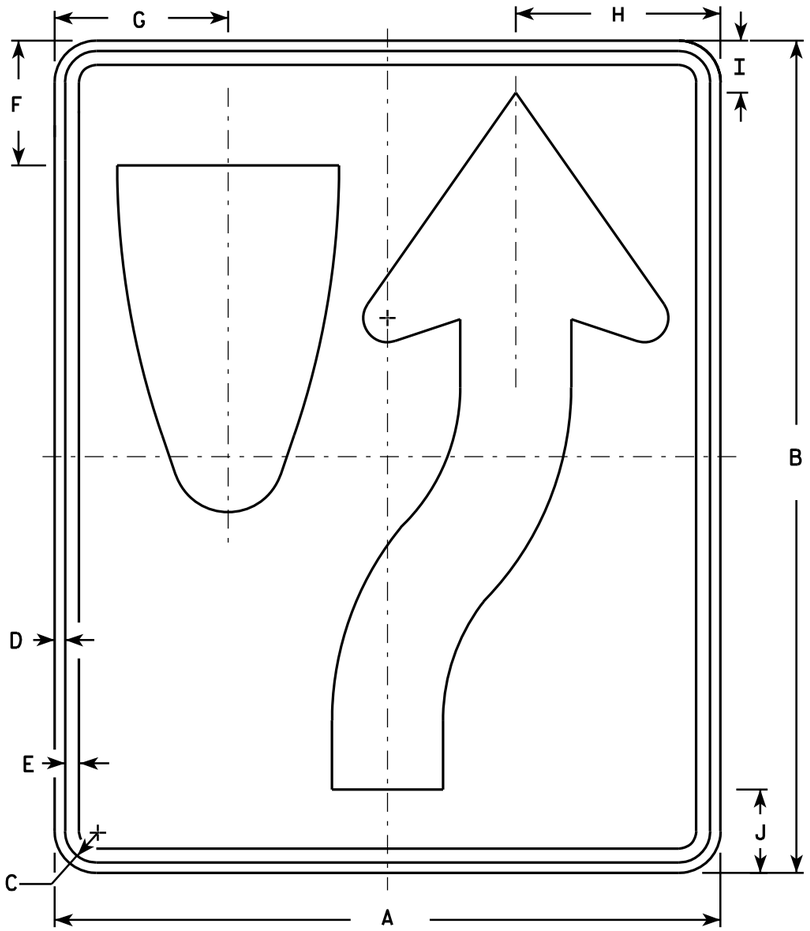
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 334	E

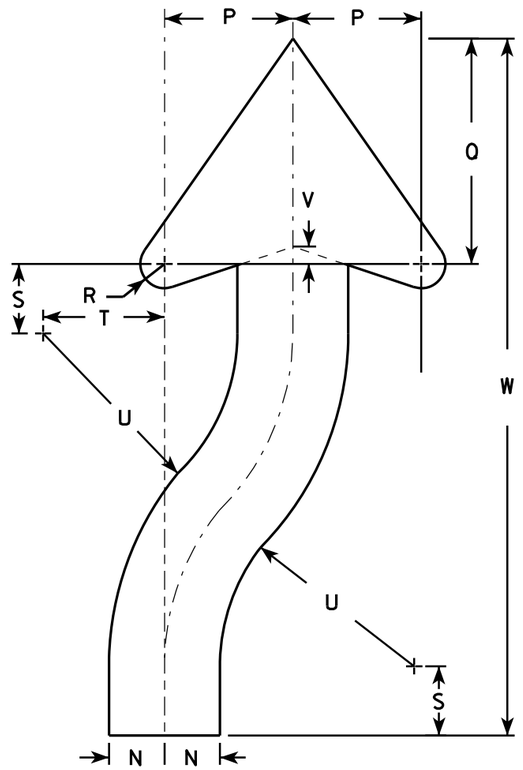




R4-7

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

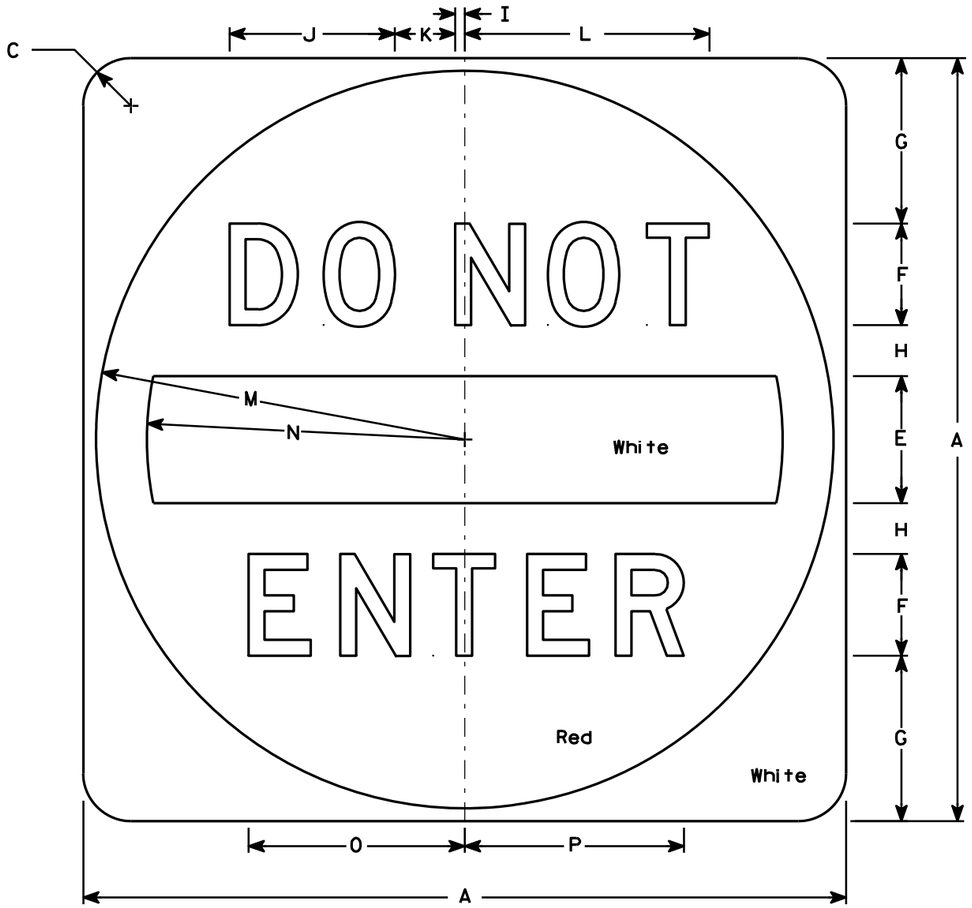
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 335	E



R5-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

STANDARD SIGN
R5-1

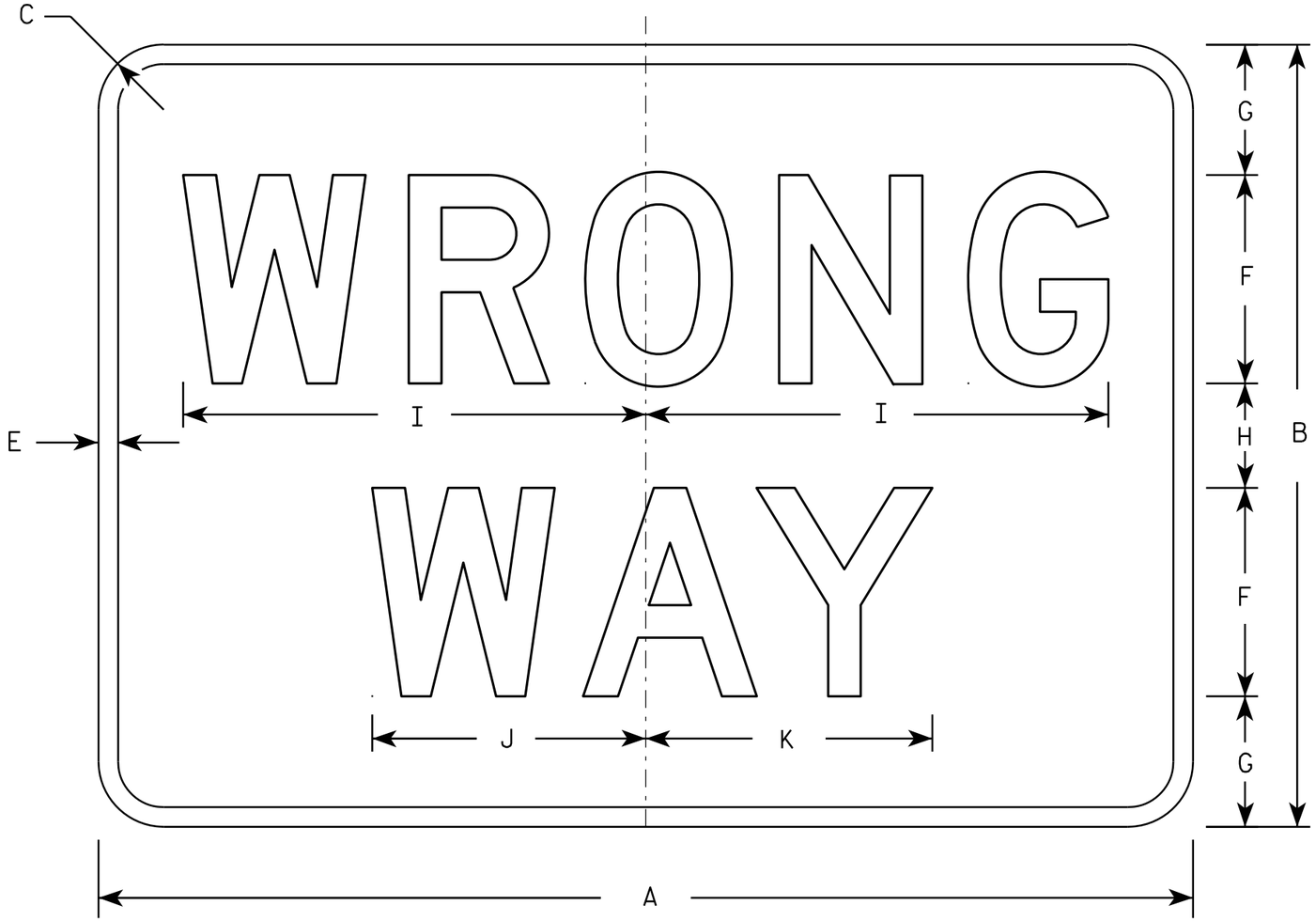
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 336 | E

7



R5-1A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 337 | E

R5-57

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Lines 1, 2, and 5 are Series C.
   Lines 3 and 4 are Series B.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

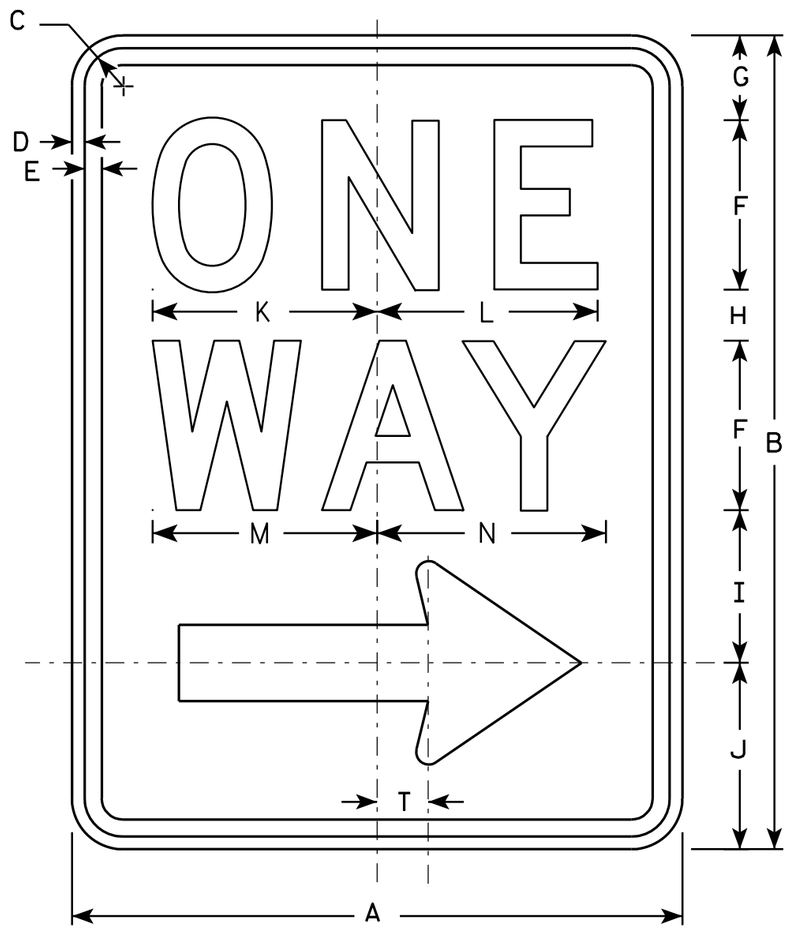
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 338 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R557.DGN PLOT DATE : 29-MAR-2011 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

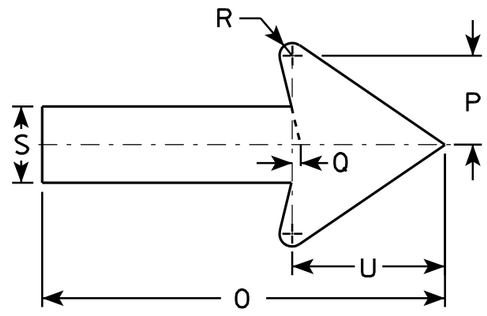
7



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

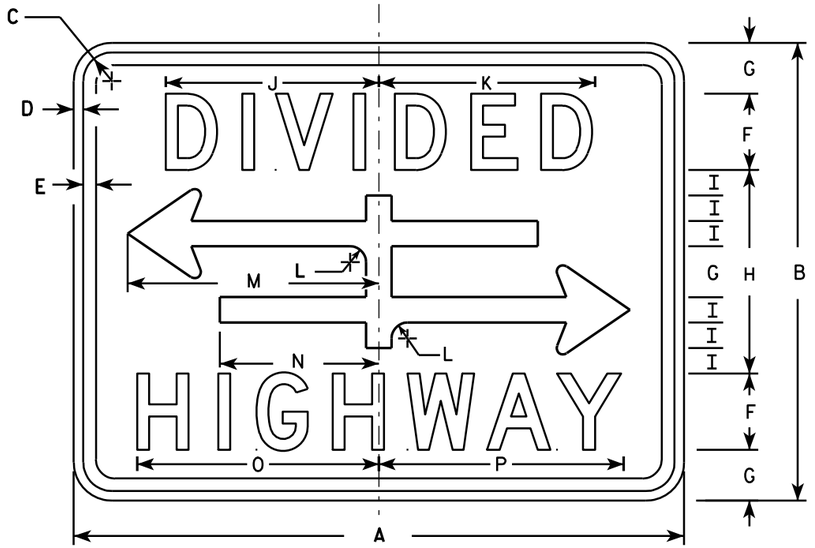
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

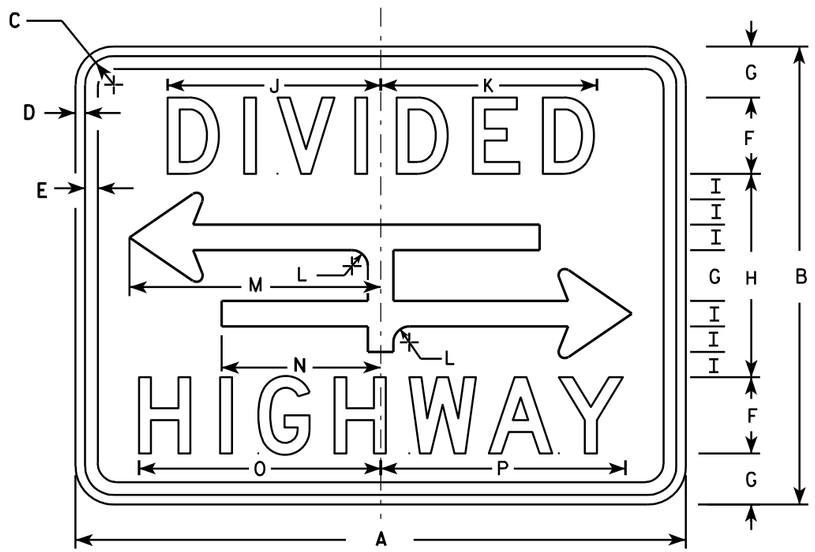
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 339	E



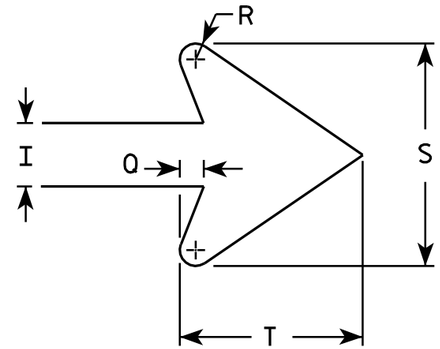
R6-3

NOTES

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



R6-3A



ARROW DETAIL

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

STANDARD SIGN
R6-3 & R6-3A

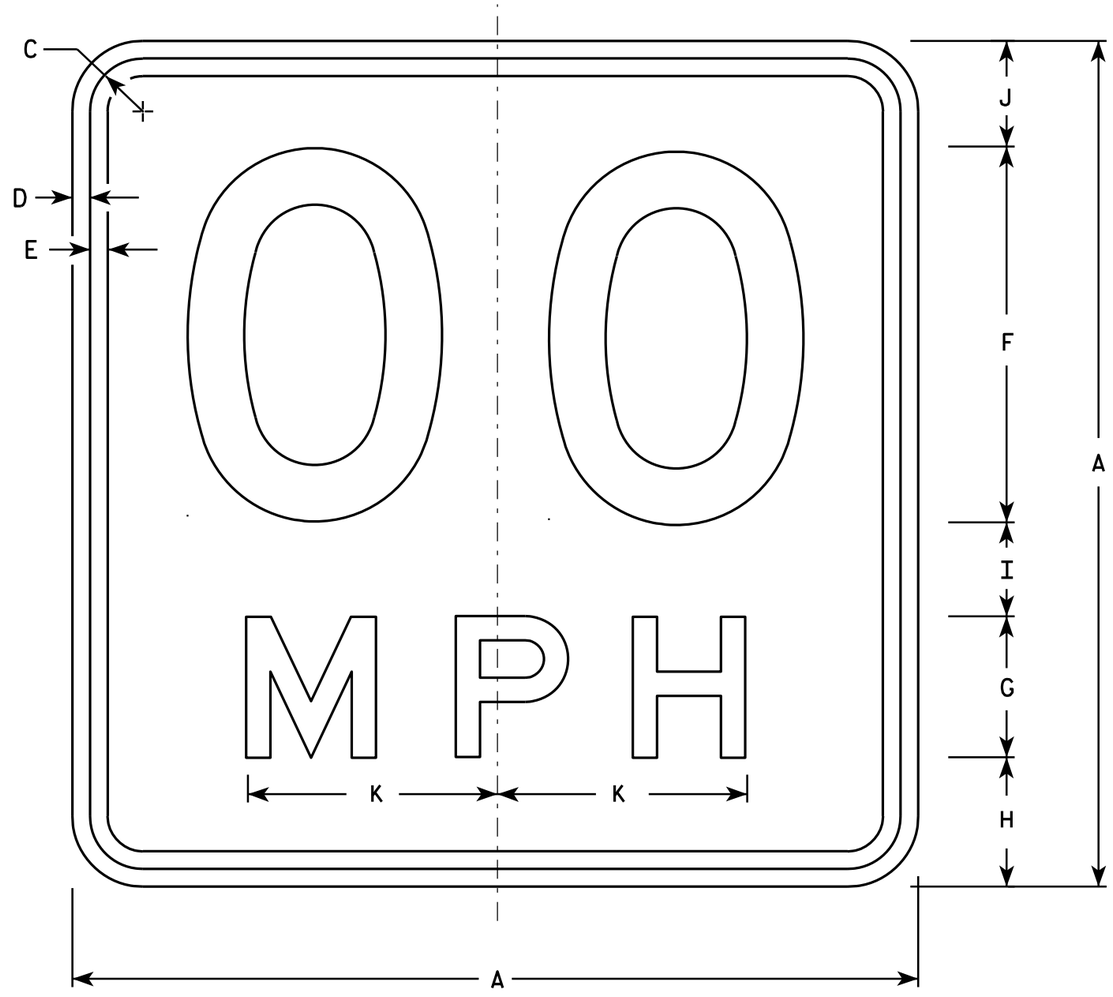
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 340 E



W13-1

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

NOTES

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

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

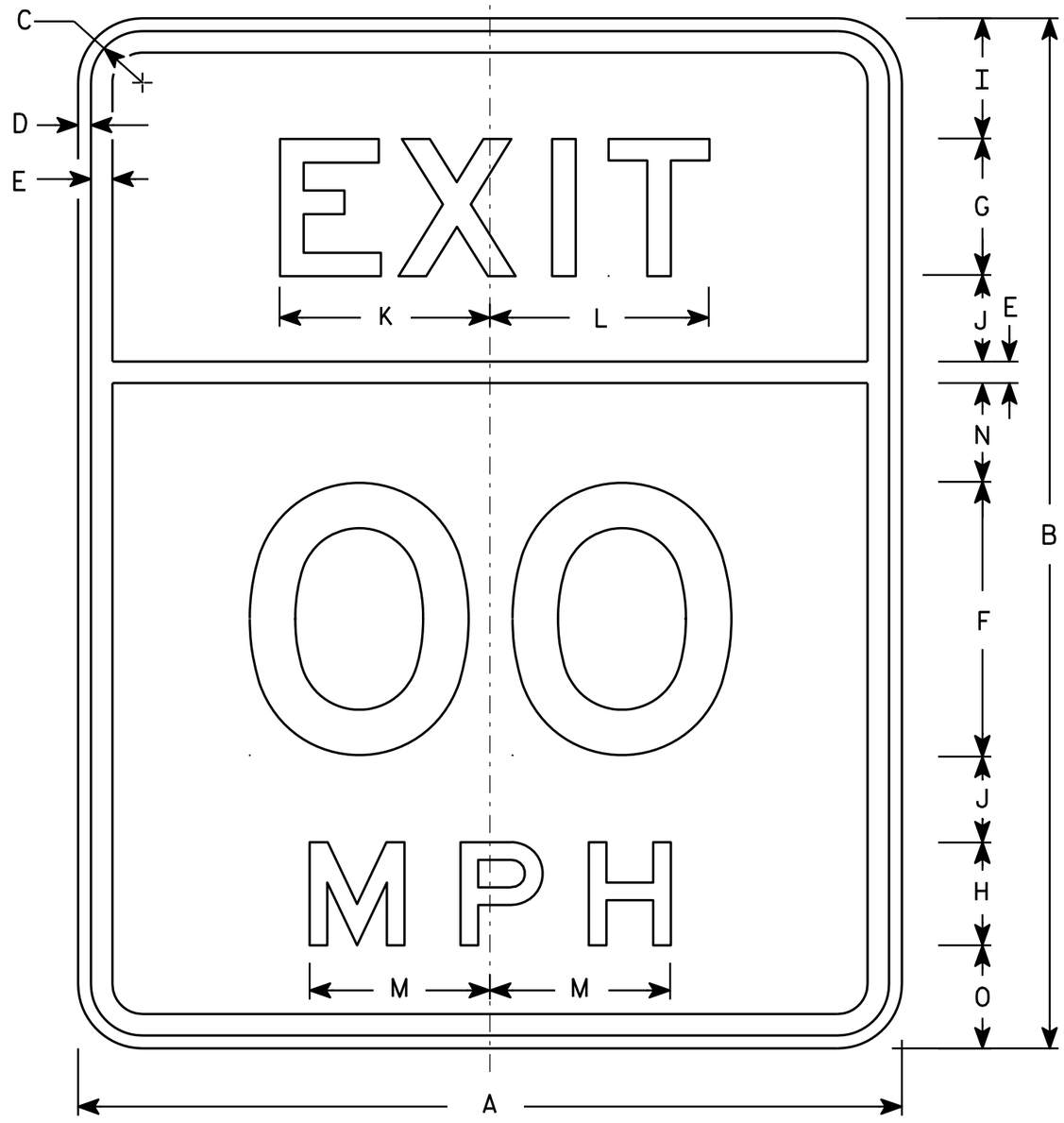
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 341 | E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
2M	24	30	1 1/2	3/8	5/8	8	4	3	3 1/2	2 1/2	6 1/8	6 3/8	5 1/4	2 7/8	3												5.0
3	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
4	36	48	2 1/4	5/8	7/8	12	6	4	6	4	9 1/4	9 1/2	7 1/8	5 1/8	6												12.0
5	48	60	2 1/4	3/4	1	16	8	6	7	5	12 1/4	12 3/4	10 5/8	5 3/4	6												20.0

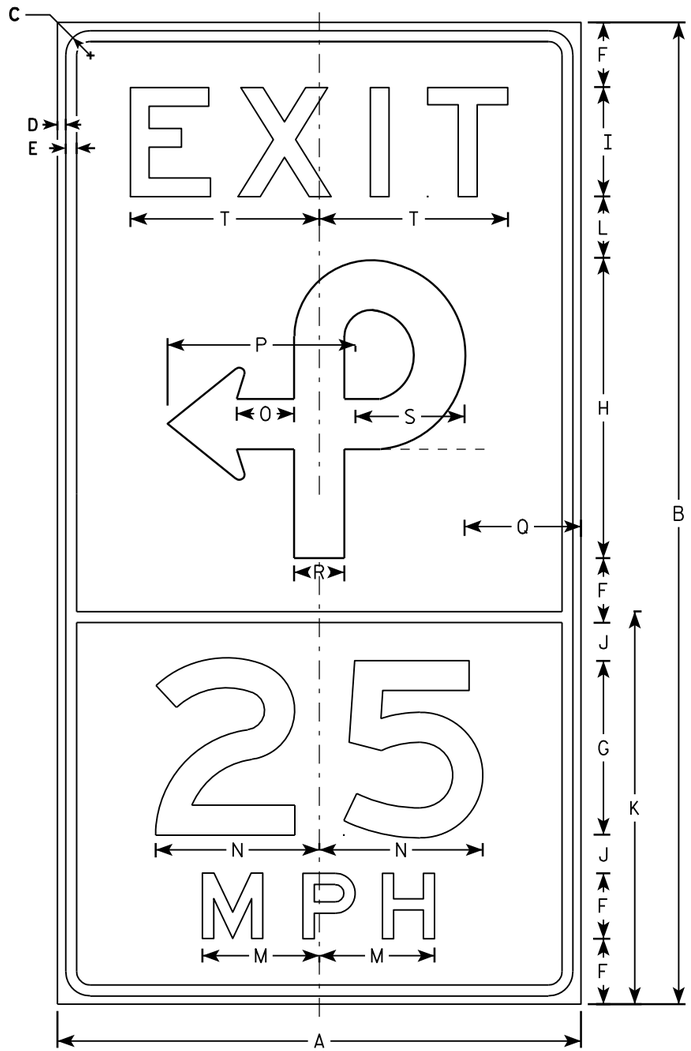
STANDARD SIGN
W13-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 342 | E



W13-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	90	2 1/4	3/4	1	6	16	27 1/2	10	3 1/2	36	5 1/2	10 3/4	15	5 1/4	17 1/4	10 3/4	4 5/8	10	17 3/8							30
2M	48	90	2 1/4	3/4	1	6	16	27 1/2	10	3 1/2	36	5 1/2	10 3/4	15	5 1/4	17 1/4	10 3/4	4 5/8	10	17 3/8							30
3																											
4																											
5																											

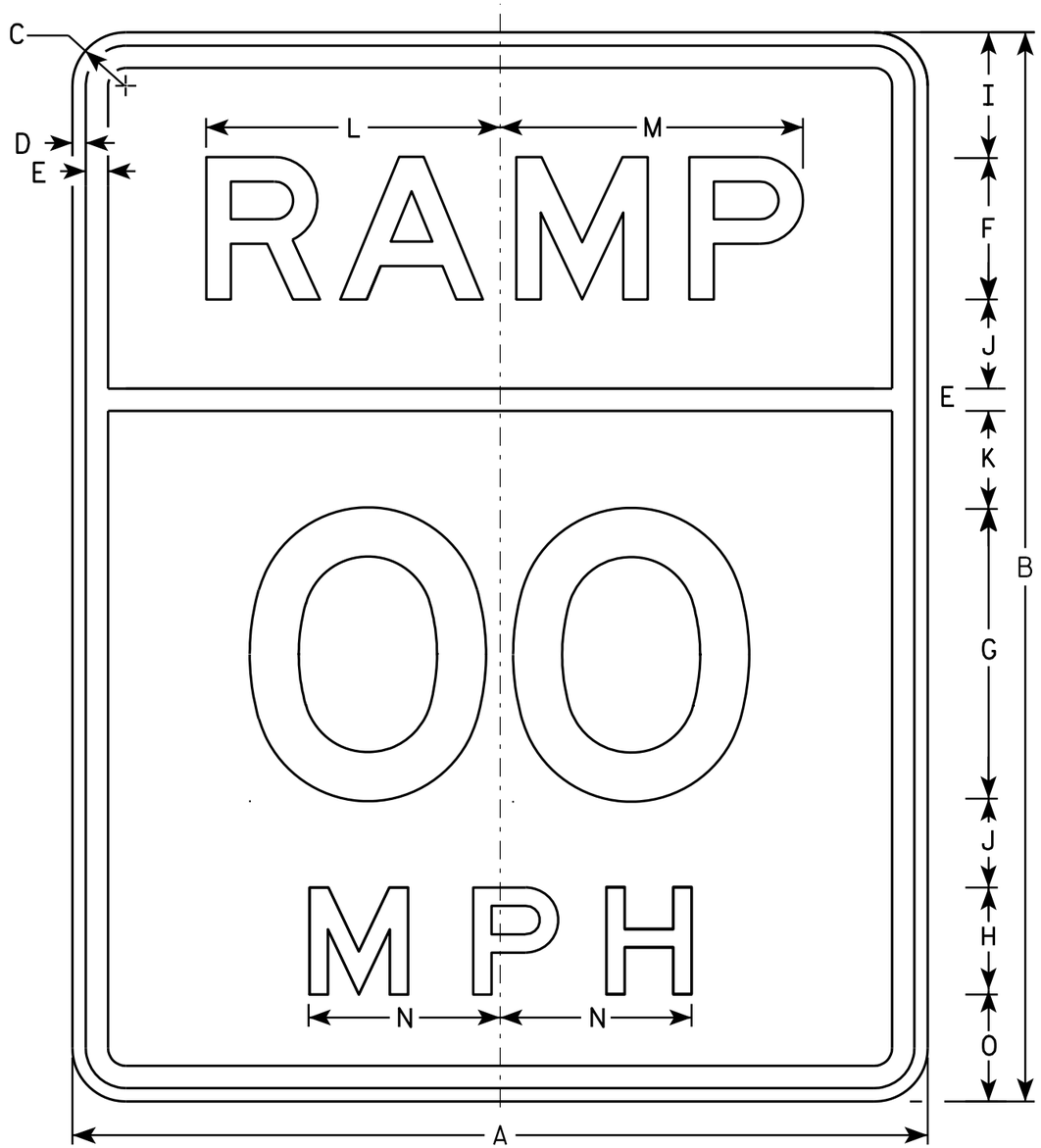
STANDARD SIGN
W13-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 343	E



W13-3

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3																											
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

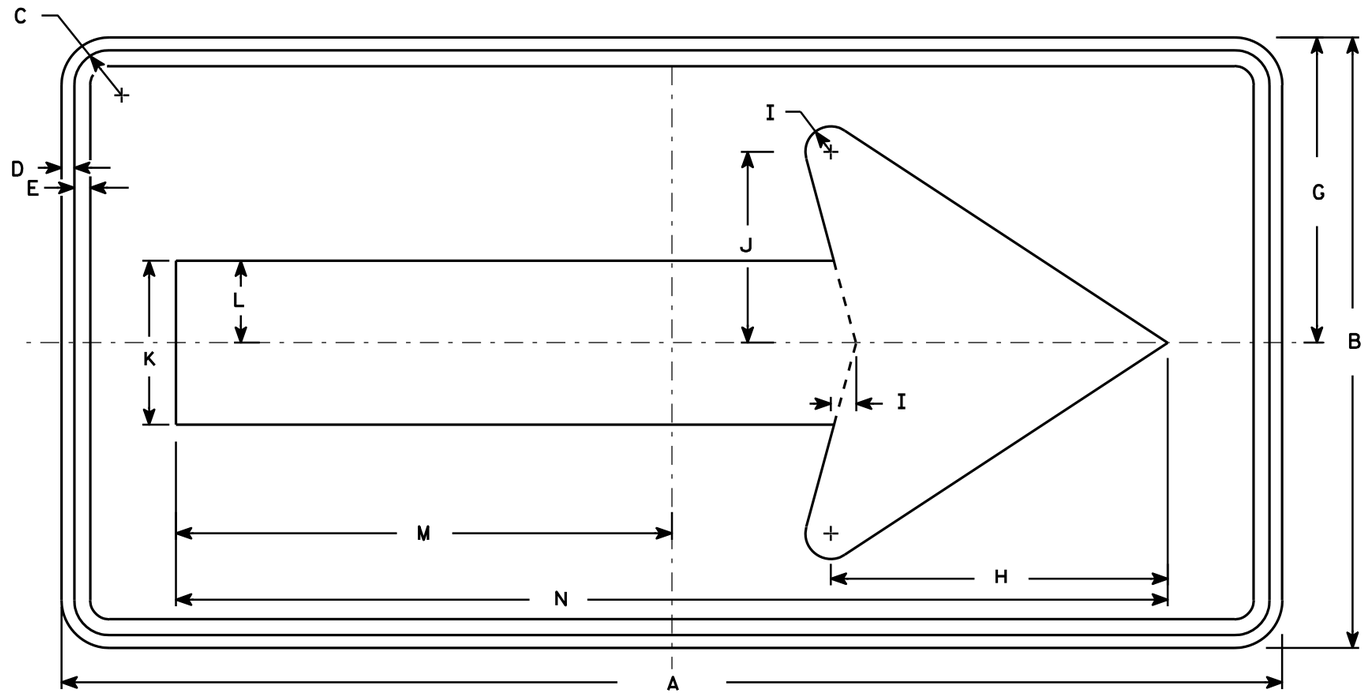
STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/13/13 PLATE NO. W13-3.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 344 | E



W1-6

NOTES

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

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

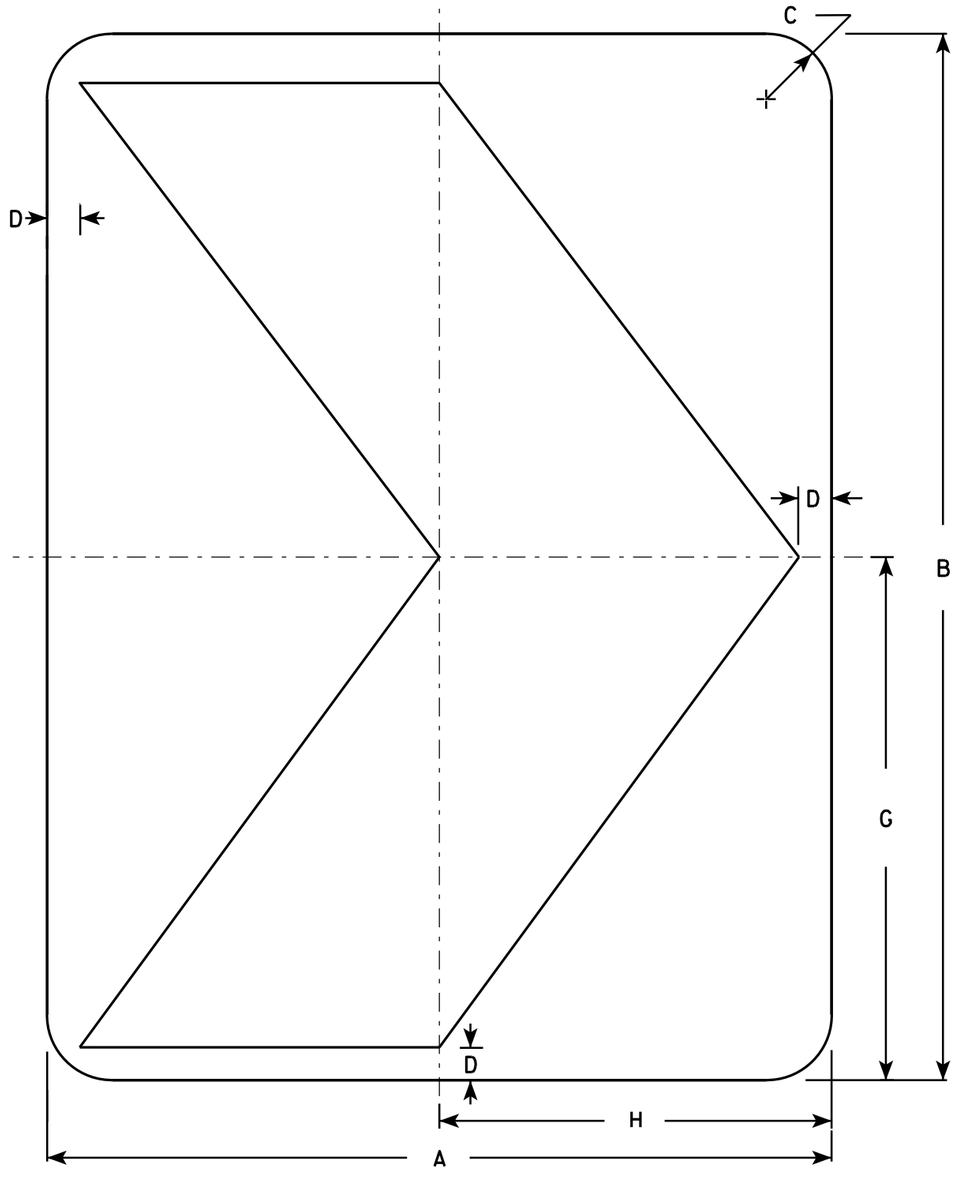
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 345



W1-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

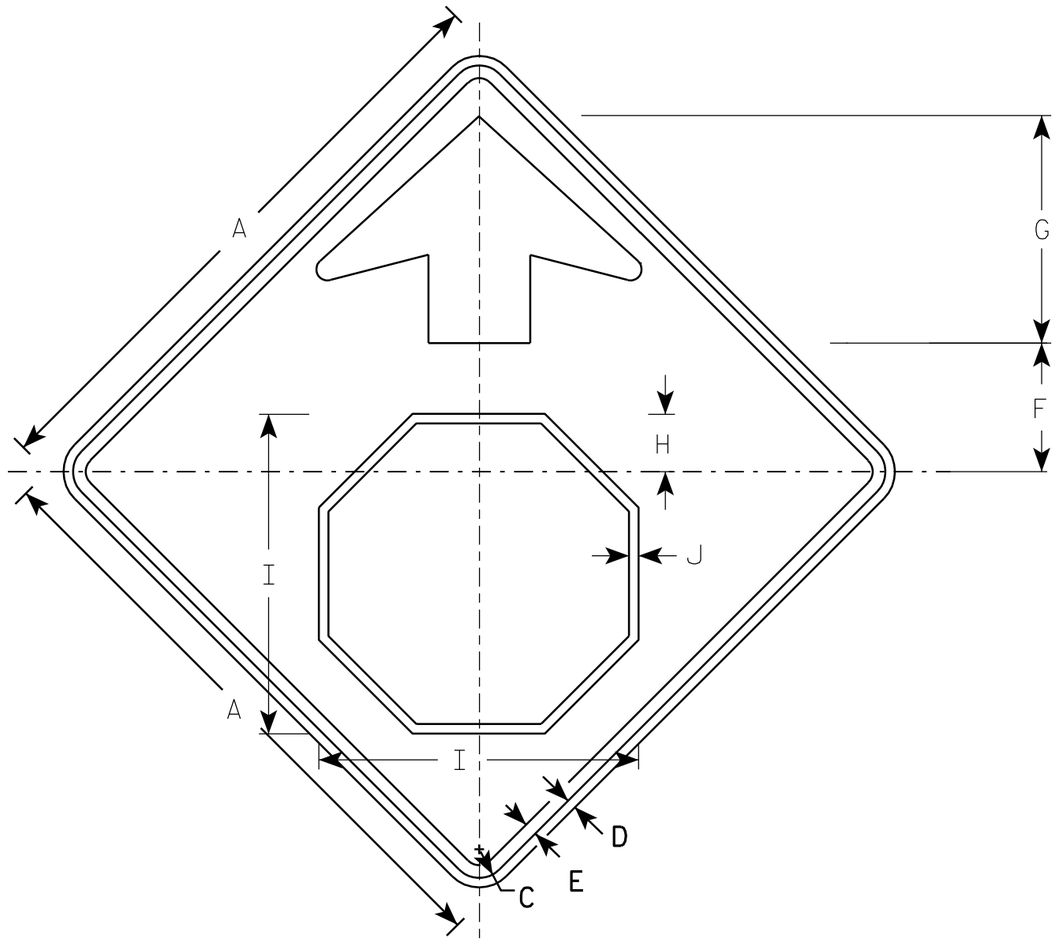
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

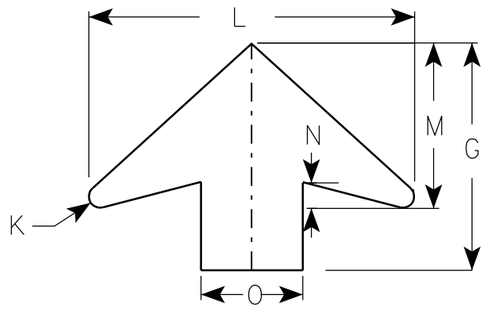
SHEET NO: 346 E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

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

STANDARD SIGN
W3-1

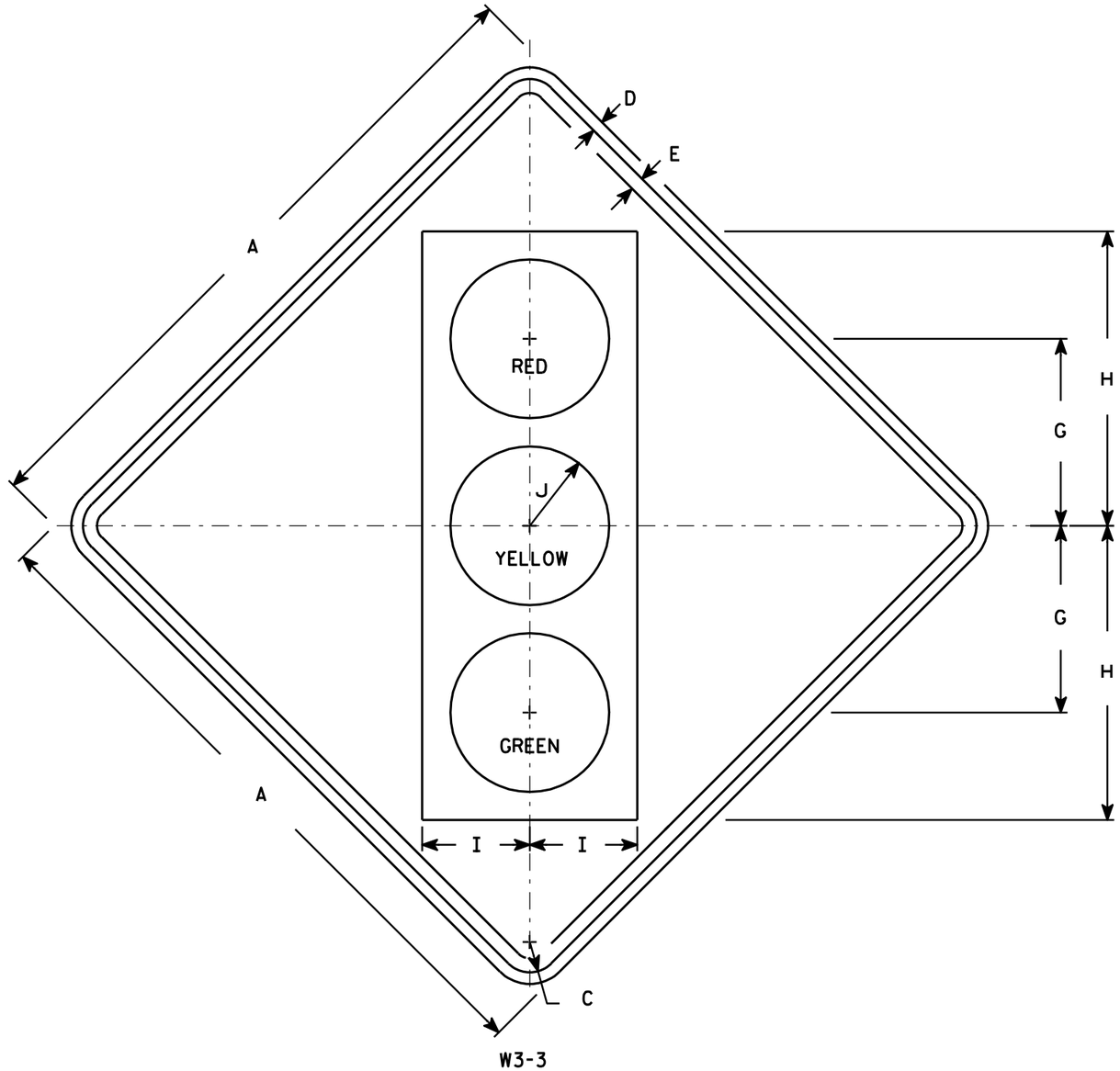
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 347 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

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

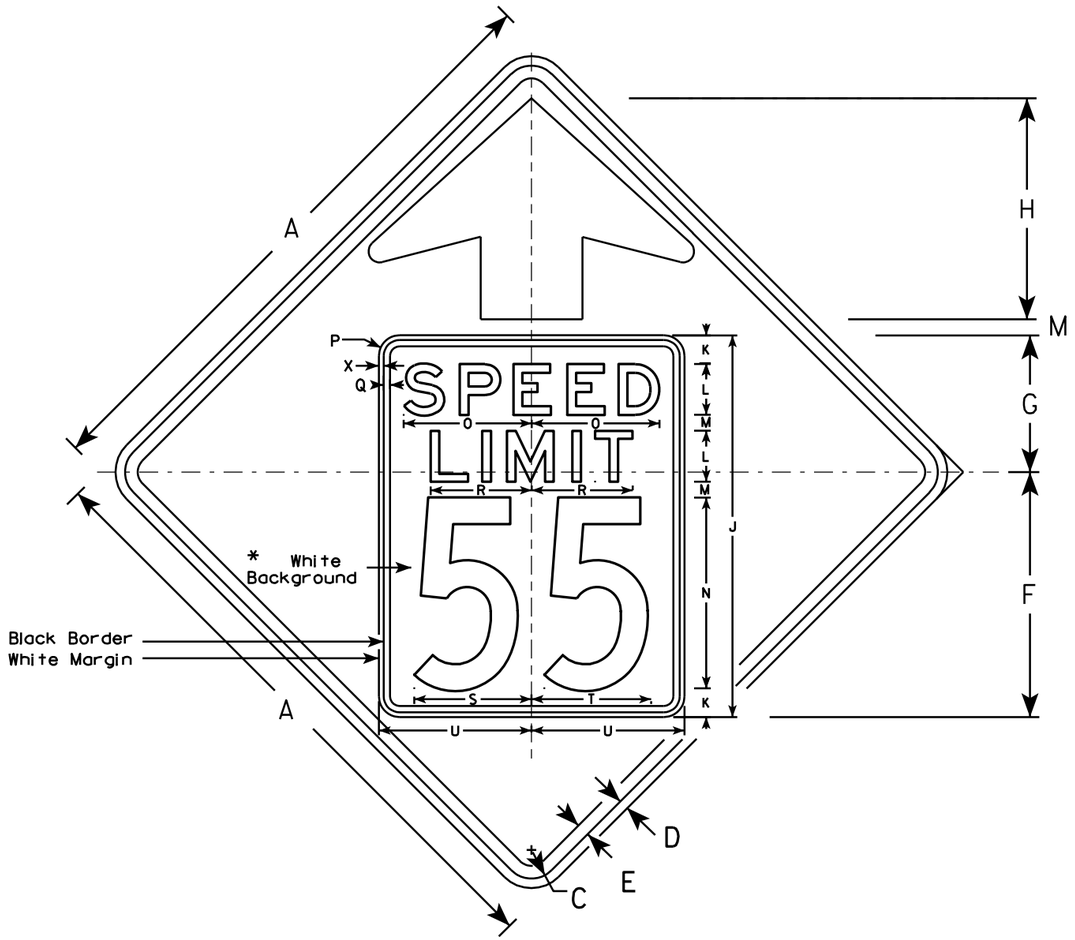
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 348 | E

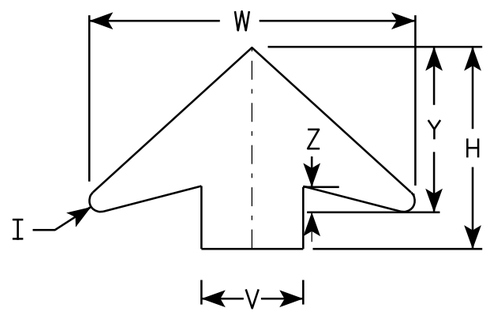


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

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

STANDARD SIGN
W3-5

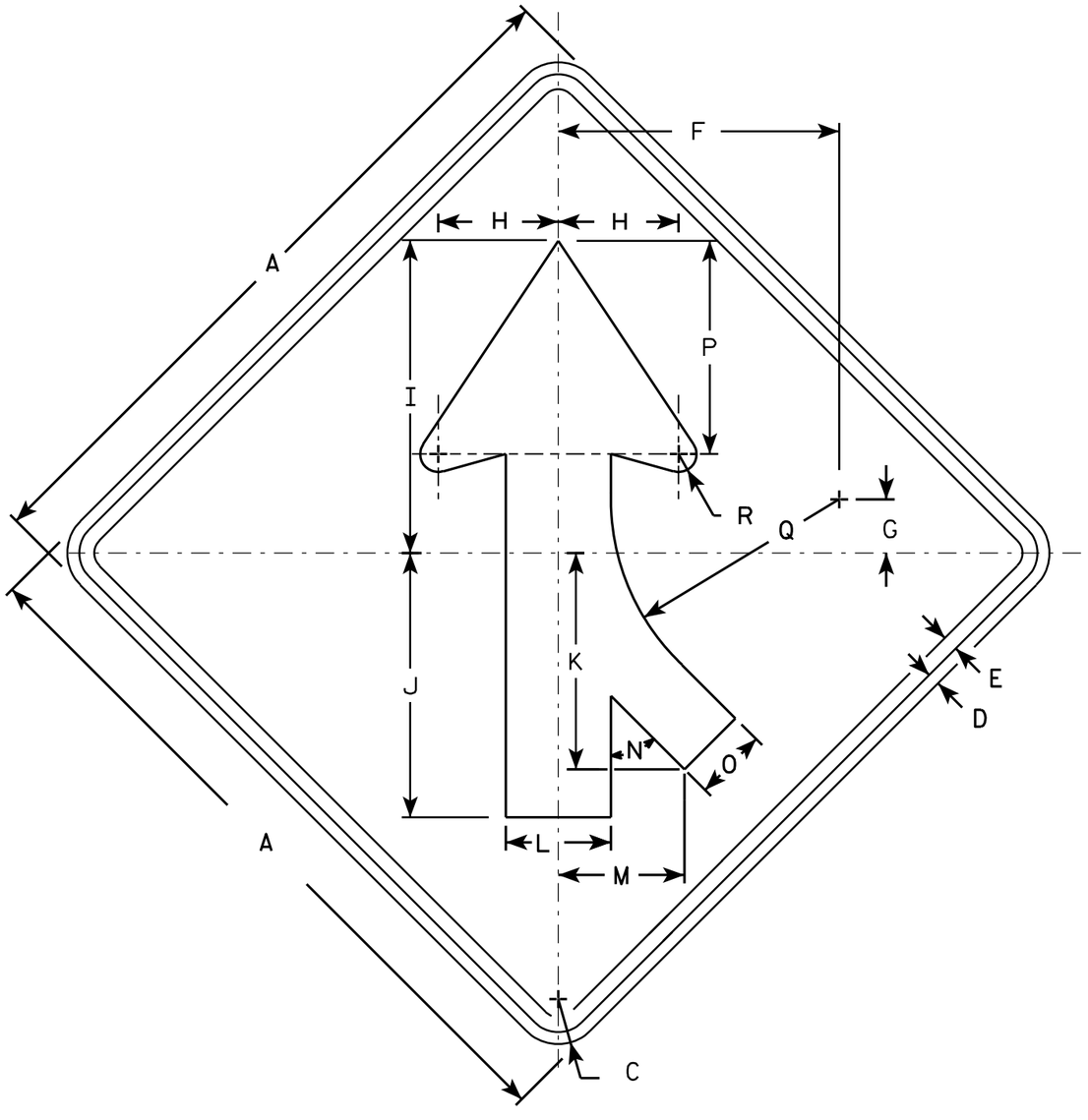
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 349 E



W4-1 R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

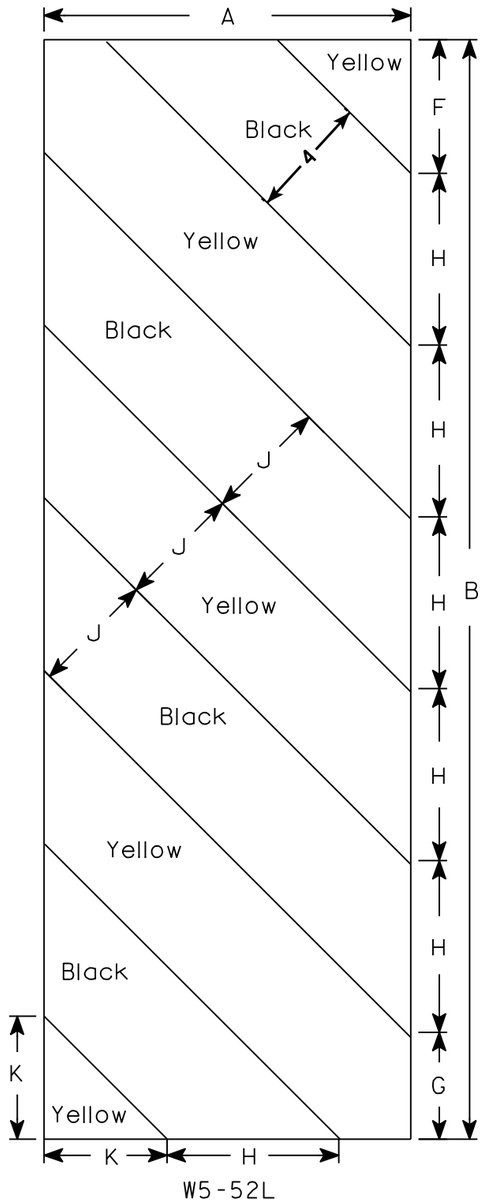
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

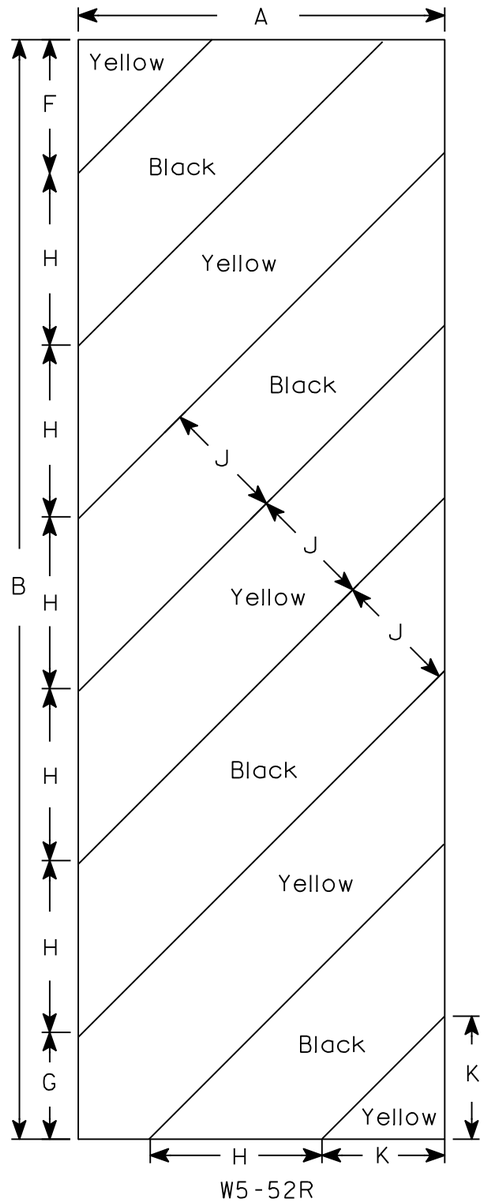
APPROVED Matthew R Rausch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 350	E



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

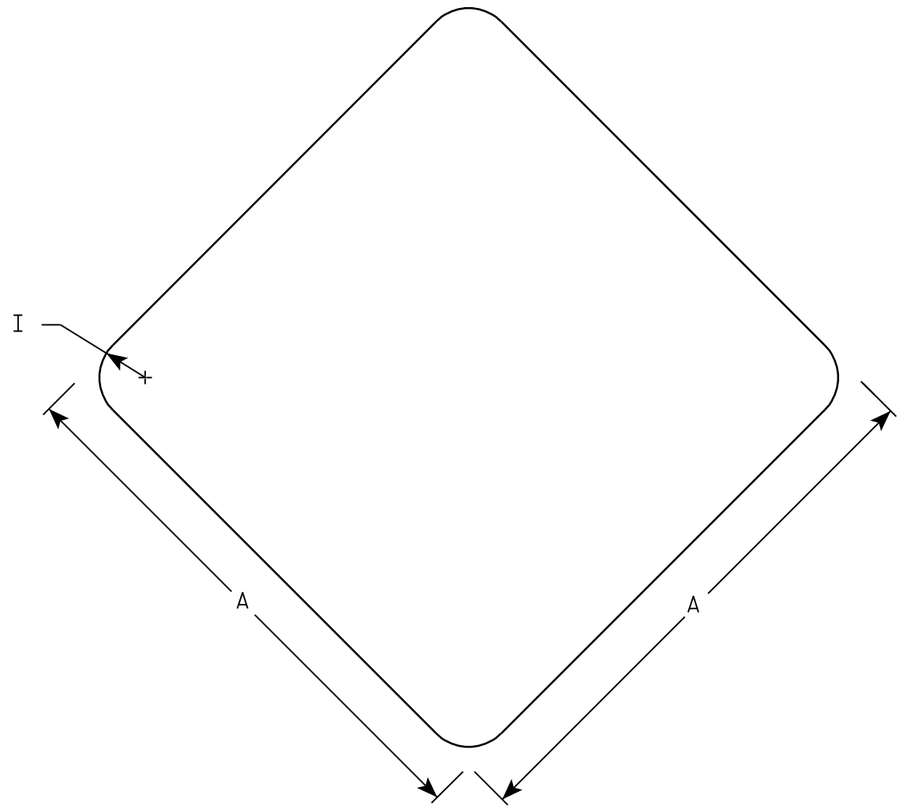
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 351	E



W5-54

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

STANDARD SIGN
W5-54

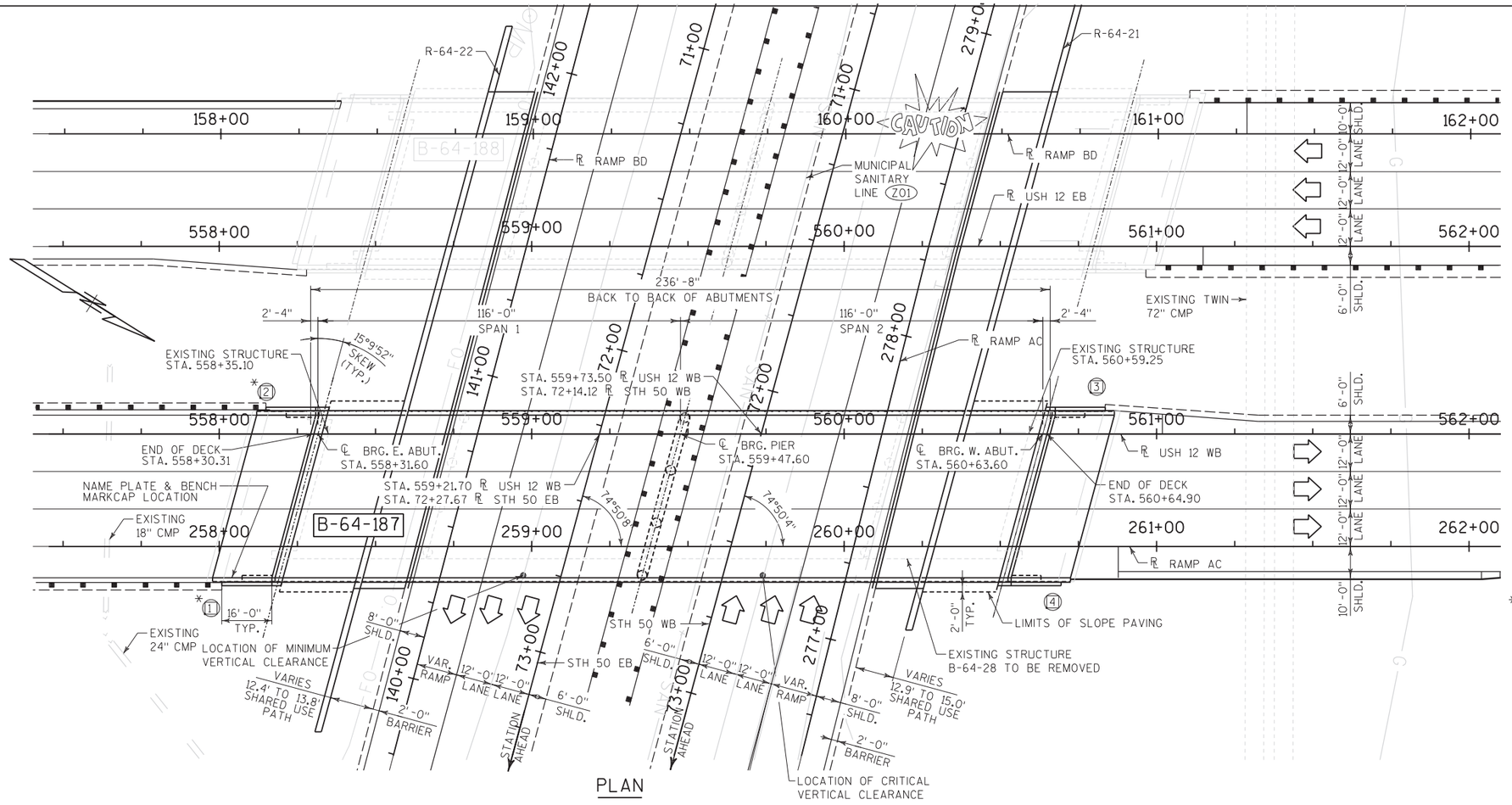
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-54.8

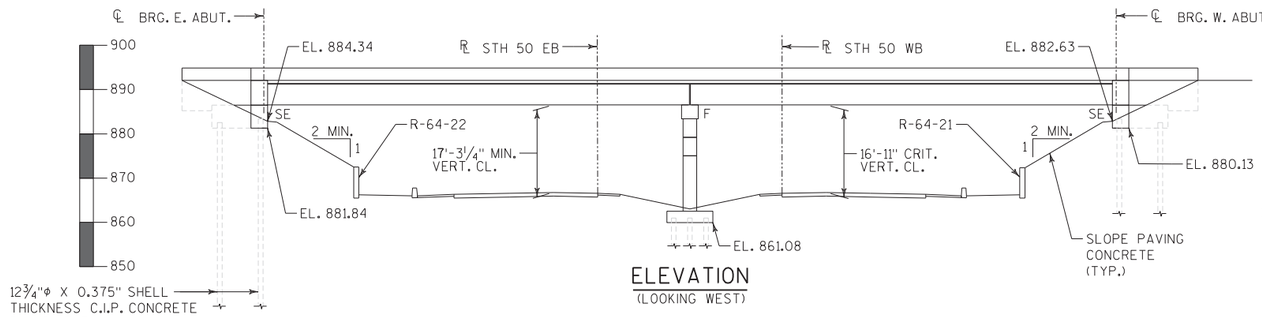
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 352 | E

STATE PROJECT NUMBER
1080-12-71



PLAN

(2 SPAN 54W" PRESTRESSED GIRDERS)



ELEVATION

(LOOKING WEST)

DESIGN DATA

LIVE LOAD:

DESIGN RATING; HL-93
INVENTORY RATING; RF- 1.11
OPERATIONAL RATING; RF- 1.43
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 Kips.

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY
SUPERSTRUCTURE ---------- f'c = 4,000 P.S.I.
ALL OTHER ---------- f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT,
GRADE 60 ---------- fy = 60,000 P.S.I.

54W" PRESTRESSED GIRDERS,
CONCRETE MASONRY ---------- f'c = 8,000 P.S.I.
PRESTRESSING STRANDS - 0.6"ϕ WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS AND PIER TO BE SUPPORTED ON 12¾"ϕ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION.
ESTIMATED 50'-0" LONG AT ABUTMENTS.
ESTIMATED 45'-0" LONG AT PIER.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

NOTES

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

(n) - INDICATES WING NUMBER

TRAFFIC VOLUME

USH 12	STH 50
A.D.T. = 19,800 (2012)	A.D.T. = 18,100 (2012)
A.D.T. = 21,400 (2014)	A.D.T. = 18,600 (2014)
A.D.T. = 37,000 (2034)	A.D.T. = 23,300 (2034)
R.D.S. = 70 M.P.H.	R.D.S. = 50 M.P.H.

(Z01) THE SANITARY LINE IS TO REMAIN IN SERVICE THROUGH CONSTRUCTION, AND SHALL BE PROTECTED FROM DAMAGE DURING ALL CONSTRUCTION OPERATIONS.

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS-SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. EAST ABUTMENT
5. EAST ABUTMENT DETAILS
6. ABUTMENT WING WALL 1
7. ABUTMENT WING WALL 2
8. WEST ABUTMENT
9. WEST ABUTMENT DETAILS
10. ABUTMENT WING WALL 3
11. ABUTMENT WING WALL 4
12. PIER
13. PIER DETAILS
14. 54W" PRESTRESSED GIRDER
15. 54W" PRESTRESSED GIRDER DETAILS
16. STEEL DIAPHRAGM
17. SUPERSTRUCTURE
18. SUPERSTRUCTURE CROSS-SECTION
19. SUPERSTRUCTURE BILL OF BARS
20. SUPERSTRUCTURE DETAILS 1
21. SUPERSTRUCTURE DETAILS 2
22. SINGLE SLOPE PARAPET 32SS
23. STRUCTURAL APPROACH SLAB
24. STRUCTURAL APPROACH SLAB DETAILS

WISCONSIN
ANN C. THIELMANN
E-42457
MADISON
WI
PROFESSIONAL ENGINEER
2/26/14

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

CONSULTANT CONTACT:
ANN THIELMANN (608) 229-1414

NO.	DATE	REVISION	BY

DAAR ENGINEERING, INC.
www.daarcorp.com
Madison, WI 53703
608-249-0140

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher 2/26/14
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-64-187

USH 12 WB OVER STH 50

COUNTY	VILLAGE
WALWORTH	LAKE GENEVA

DESIGN SPEC. AASHTO LRFD SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ACT	JFR	TRW	ACT

GENERAL PLAN & ELEVATION

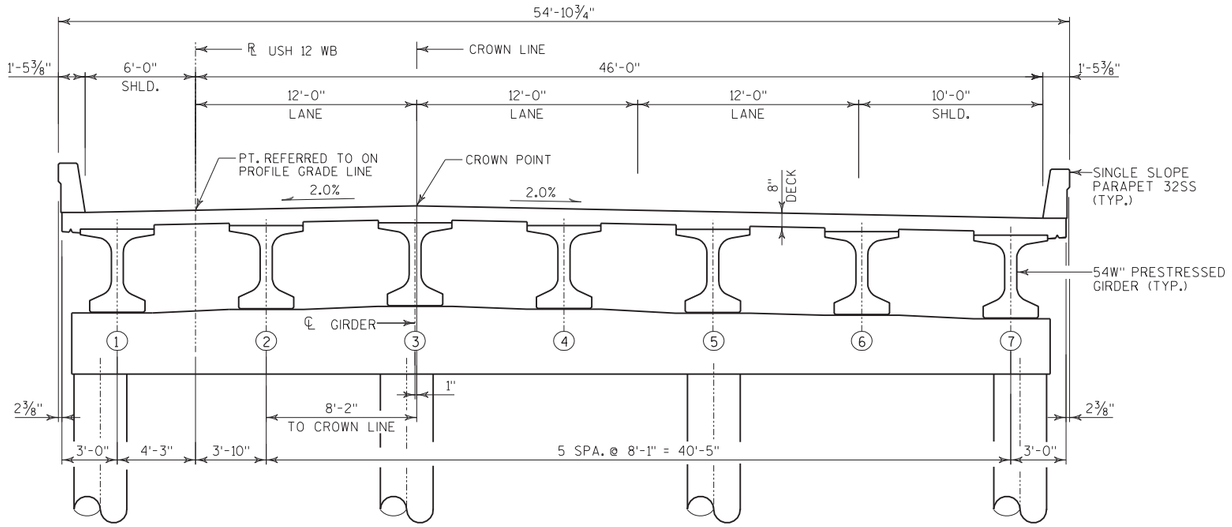
SHEET 1 OF 24

353

2/26/2014

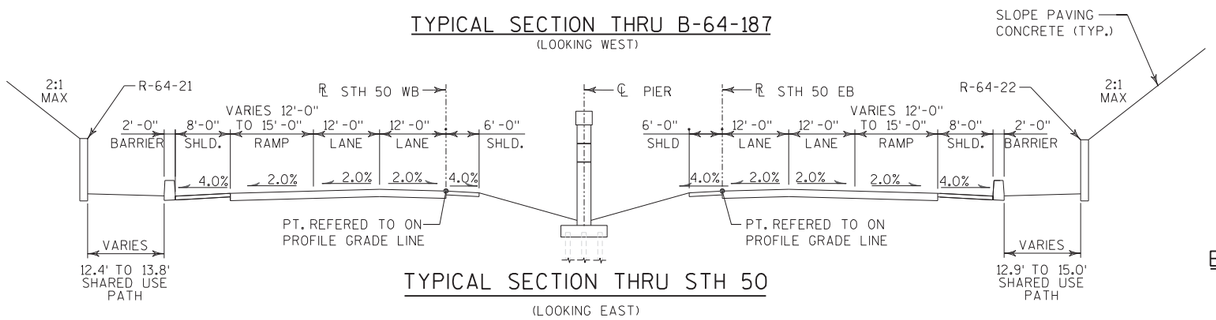
m:\2_prjts\10801200_us12\plns\str\Final\B-64-187 WB USH 12\B-64-187-01 GP.dgn

STATE PROJECT NUMBER
1080-12-71



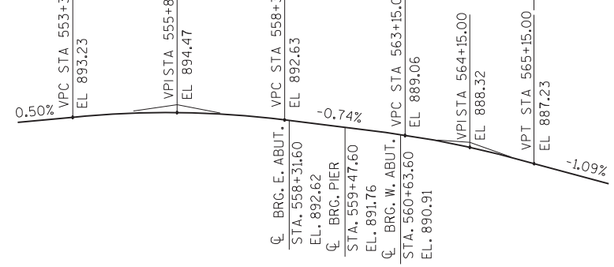
TYPICAL SECTION THRU B-64-187

(LOOKING WEST)

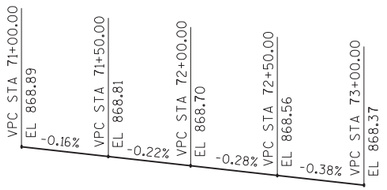


TYPICAL SECTION THRU STH 50

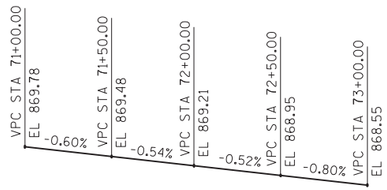
(LOOKING EAST)



PROFILE GRADE LINE USH 12 WB



EXISTING PROFILE GRADE LINE STH 50 WB



EXISTING PROFILE GRADE LINE STH 50 EB

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	EAST APPROACH APRON	EAST ABUT.	PIER	WEST ABUT.	WEST APPROACH APRON	SUPER.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 559+47.60, OFFSET 12' RT	LS	-	-	-	-	-	-	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-64-28	LS	-	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURE, BRIDGES B-64-187	LS	-	-	-	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	-	166	-	166	-	-	331
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	214	-	-	-	214	-	428
502.0100	CONCRETE MASONRY BRIDGES	CY	65	60	64	61	65	506	821
502.3200	PROTECTIVE SURFACE TREATMENT	SY	132	-	-	-	132	1531	1795
503.0155	PRESTRESSED GRIDER TYPE 154W-INCH	LF	-	-	-	-	-	1629	1629
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	-	4884	4021	4889	-	-	13800
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	12480	-	15666	-	12480	115423	156060
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	7	14	7	-	-	28
506.4000	STEEL DIAPHRAGMS B-64-187	EACH	-	-	-	-	-	24	24
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	14	-	14	-	-	28
550.2126	PILING CIP CONCRETE 12 3/4" X 0.375-INCH	LF	-	600	1260	540	-	-	2400
604.0400	SLOPED PAVING CONCRETE	SY	-	196	-	196	-	-	392
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	80	-	80	-	-	160
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	120	74	-	74	120	-	388
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	-	-	-	-	2
SPV.0085.700	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGE	LB	935	-	-	-	935	-	1870
	NON-BID ITEMS								
	FILLER	SIZE							½" & ¾"

ALL ITEMS ARE CATEGORY 0020

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEVATION
BM128	STA. 558+19.34, 40.28' RT	SE CORNER OF USH 12 NB BRIDGE	889.98
BM129	STA. 560+93.35, 100.04' LT	NW CORNER OF USH 12 SB BRIDGE	888.55

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.

THE EXISTING STRUCTURE, B-64-28, IS A FOUR SPAN STEEL DECK GIRDER BRIDGE WITH AN OVERALL WIDTH OF 47'-0" AND AN OVERALL LENGTH OF 222'-0⅞" AND IS TO BE REMOVED.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE ROADWAY DECK, THE FRONT FACE AND THE TOP OF THE PARAPETS.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

AT THE BACKFACE OF ABUTMENT ALL VOLUME THAT CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

(X) INDICATES THE GIRDER NUMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

CROSS-SECTION & QUANTITIES

SHEET 2 OF 24

354

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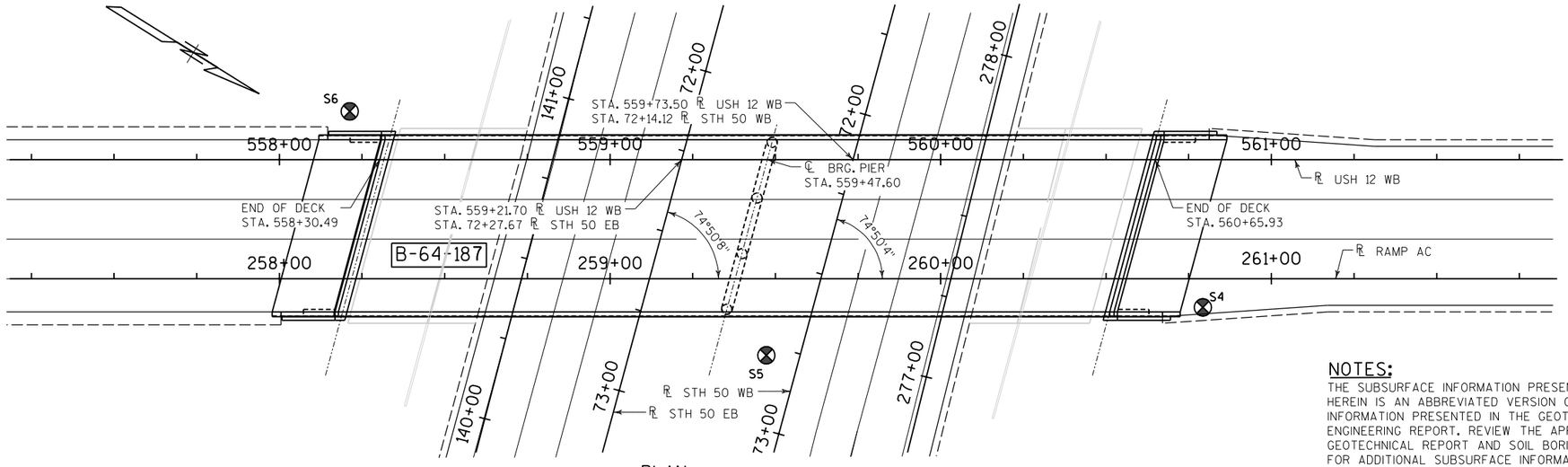
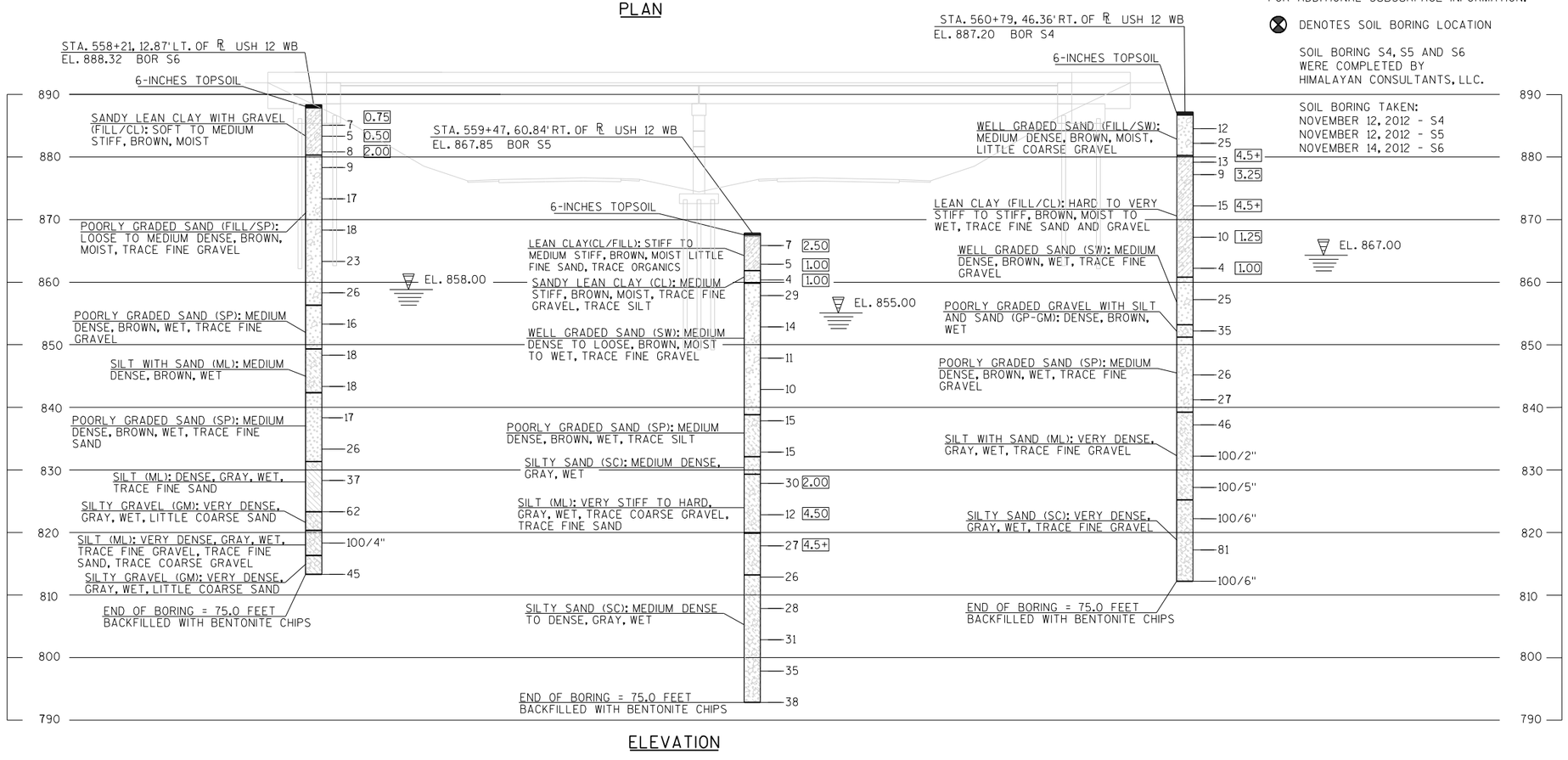
2/26/2014



PLAN



ELEVATION

NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊗ DENOTES SOIL BORING LOCATION

SOIL BORINGS S4, S5 AND S6 WERE COMPLETED BY HIMALAYAN CONSULTANTS, LLC.

SOIL BORING TAKEN:
NOVEMBER 12, 2012 - S4
NOVEMBER 12, 2012 - S5
NOVEMBER 14, 2012 - S6

STATE PROJECT NUMBER

1080-12-71

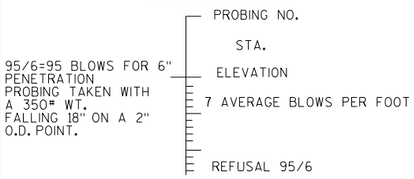
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

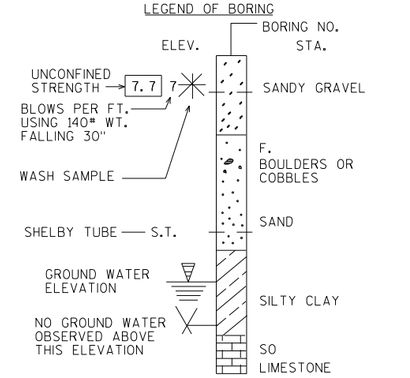
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

SUBSURFACE EXPLORATION

SHEET 3 OF 24

355

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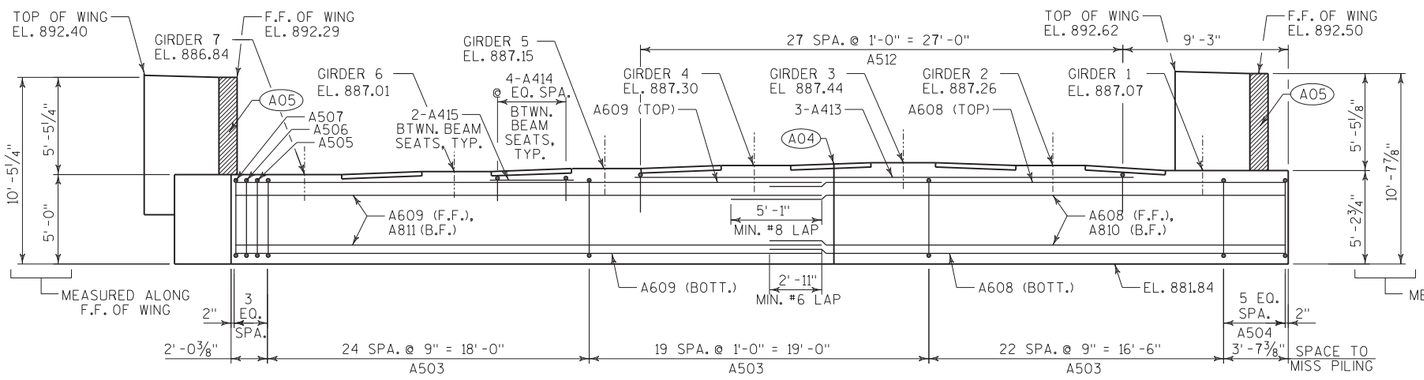
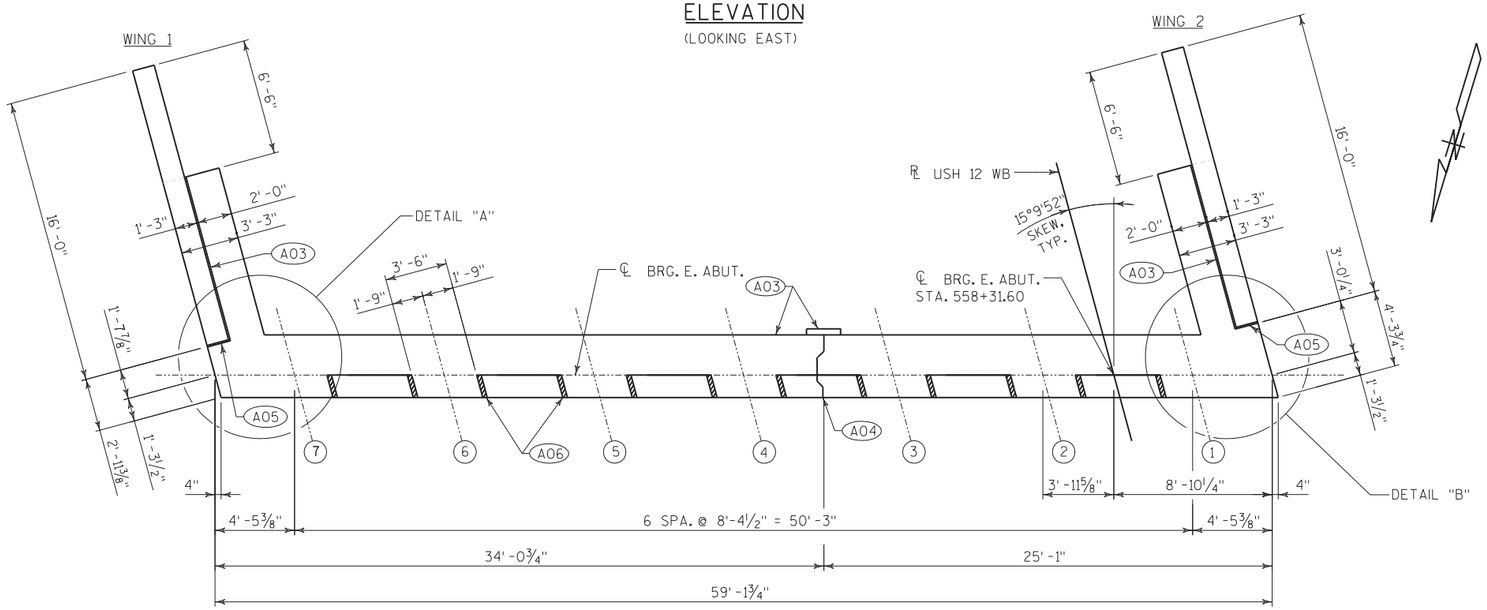
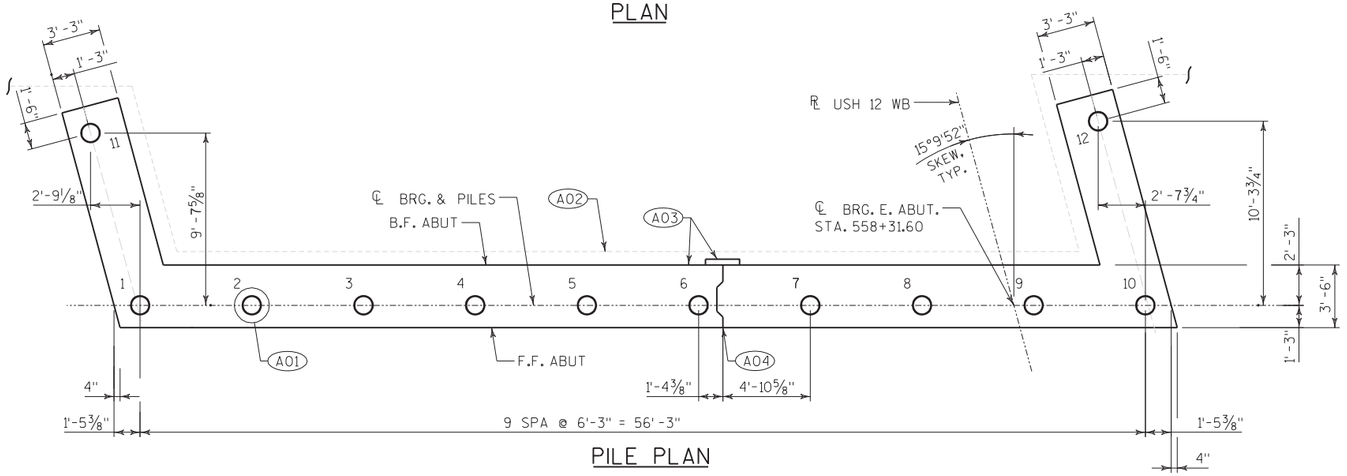


ELEVATION

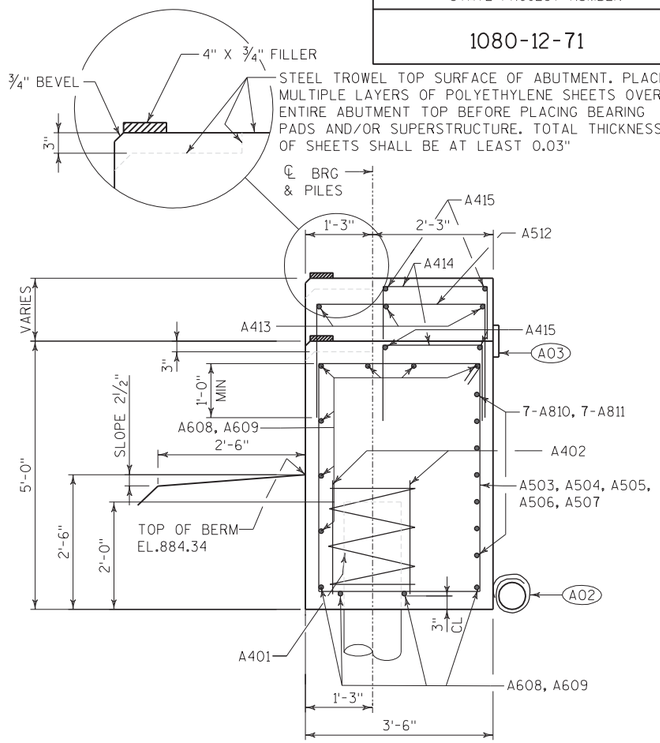
(LOOKING EAST)



PLAN



PILE PLAN



SECTION THRU BODY

LEGEND:

(A01) ABUTMENTS TO BE SUPPORTED ON 12 3/4"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(A02) PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END AND CAP UPPER END. THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THE DETAIL SHOWN TO DETAIL SHOWN ON SHEET 5. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPI COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH (2) TWO OR MORE NO. 10X1-INCH STAINLESS SHEET METAL SCREWS AND SHALL BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(A04) KEYED CONST JOINT FORMED BY BEVELED 2" X 8" WITH 3/4" V-GROOVE. SEE SHEET 5 FOR ALTERNATE CONSTRUCTION JOINT DETAIL. RUN BAR STEEL THRU JOINT.

(A05) 1/2" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ & VERT SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A06) 3/4" CORK FILLER UP VERT BEAM SEAT FACES THAT RUN PARALLEL TO GIRDER, TYP.

SEE SHEET 5 FOR PILE SPLICE DETAIL.

SEE SHEET 5 FOR DETAILS A & B.

(X) INDICATES GIRDER NUMBER.

STATE PROJECT NUMBER
1080-12-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

EAST ABUTMENT

SHEET 4 OF 24

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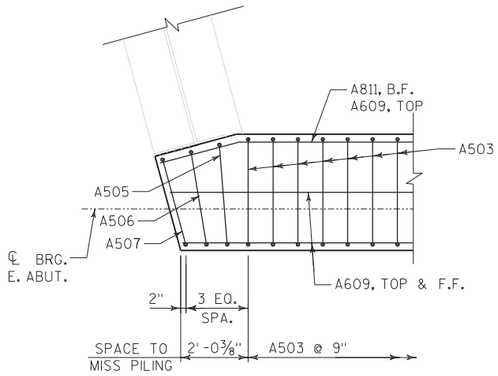
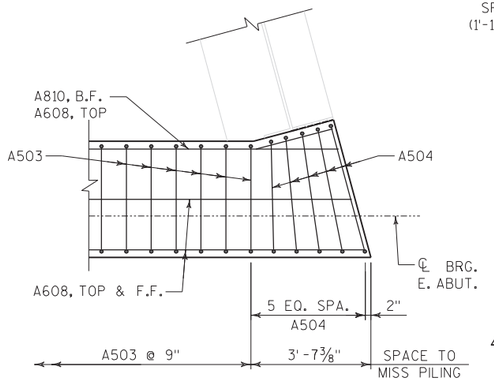
STATE PROJECT NUMBER
1080-12-71



DETAIL "A"



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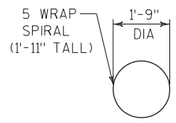
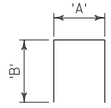
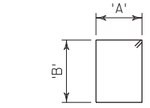


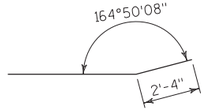
A401



BAR MARK	DIM. A	DIM. B
A512	3'-2"	1'-9"
A414	1'-11"	1'-0"
A523	11"	5'-9"
A527	11"	7'-4"



BAR MARK	DIM. A	DIM. B
⚠ A503	3'-2"	4'-4"
A504	VARIES	4'-4"
A505	3'-0"	4'-4"
A506	2'-10"	4'-4"
A507	2'-8"	4'-4"
A522	2'-9"	4'-6"
A528	2'-9"	4'-9"



A810, A811

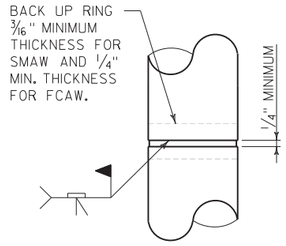
A721

BILL OF BARS

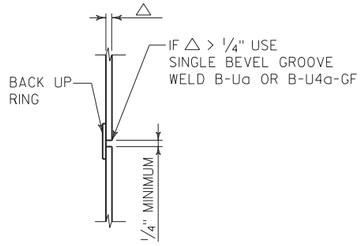
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
A401	-	10	28'-0"	X	-	ABUTMENT PILES - 1 PER PILE	VERTICAL
A402	-	20	2'-3"	-	-	ABUTMENT PILES - 2 PER PILE	VERTICAL
A503	-	66	15'-7"	X	-	ABUTMENT BODY STIRRUPS	VERTICAL
A504	-	5	16'-6"	X	X	ABUTMENT BODY STIRRUPS - S END	VERTICAL
A505	-	1	15'-3"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
A506	-	1	14'-11"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
A507	-	1	14'-7"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
A608	-	11	28'-1"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
A609	-	11	33'-3"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
A810	-	7	29'-8"	X	-	ABUTMENT BODY BF	HORIZONTAL
A811	-	7	34'-2"	X	-	ABUTMENT BODY BF	HORIZONTAL
A512	-	28	6'-5"	X	-	ABUTMENT BODY	VERTICAL
A413	-	3	27'-0"	-	-	ABUTMENT BODY	HORIZONTAL
A414	-	24	3'-9"	X	-	ABUTMENT BODY - TOP BTWN SEATS	VERTICAL
A415	-	12	6'-9"	-	-	ABUTMENT BODY - BTWN SEATS	HORIZONTAL
-	-	-	-	-	-	-	-
A520	-	12	12'-0"	-	-	WING WALL 1 & 2	HORIZONTAL
A721	-	18	11'-8"	X	-	WING WALL 1 & 2	HORIZONTAL
A522	-	10	15'-1"	X	-	WING WALL 1	VERTICAL
A523	X	18	12'-2"	X	-	WING WALL 1 & 2 EXTENSION	VERTICAL
A424	X	22	15'-6"	-	-	WING WALL 1 & 2 EXTENSION	HORIZONTAL
A625	X	4	15'-6"	-	-	WING WALL 1 & 2 EXTENSION TOP	HORIZONTAL
A426	X	4	7'-8"	-	-	WING WALL 1 & 2 EXTENSION	HORIZONTAL
A527	X	26	15'-4"	X	-	WING WALL 1 & 2 EXTENSION	VERTICAL
A528	-	10	15'-7"	X	-	WING WALL 2	VERTICAL

BAR SERIES

BAR MARK	NO. REQ'D.	"A"	LENGTH	LOCATION
A504	1 SERIES OF 5	3'-4" TO 3'-11"	15'-11" TO 17'-1"	ABUT



PILE SPLICE DETAIL



CIP PILE WELD DETAIL

LEGEND

(A07) USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

⚠ SEE BAR SERIES TABLE.

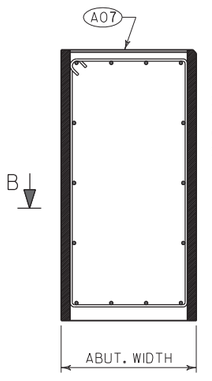
NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

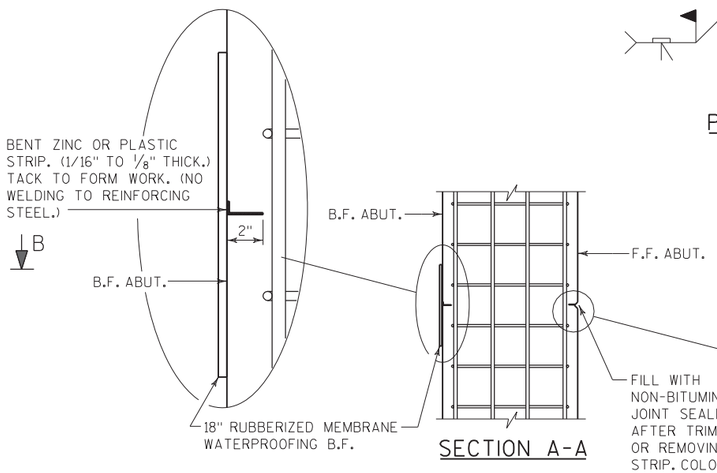
VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION.

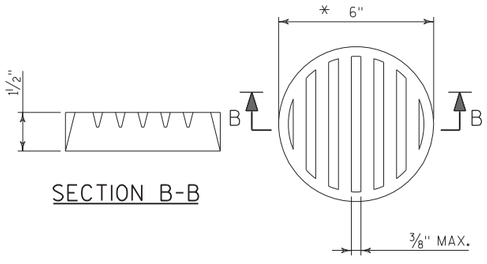


SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT



SECTION B-B

RODENT SHIELD

* DIMENSIONS ARE APPROXIMATE, THE GRATE IS SIZED TO FIT INTO PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

EAST ABUTMENT DETAILS

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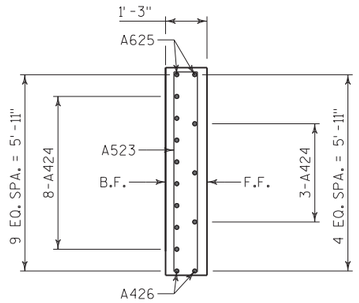
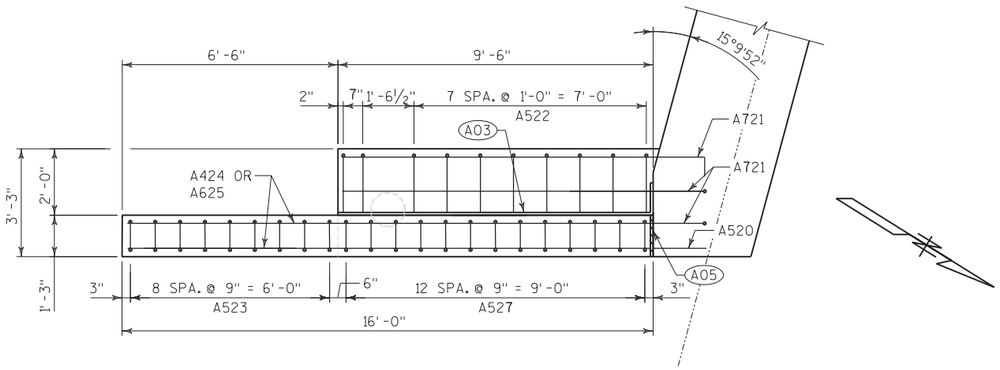
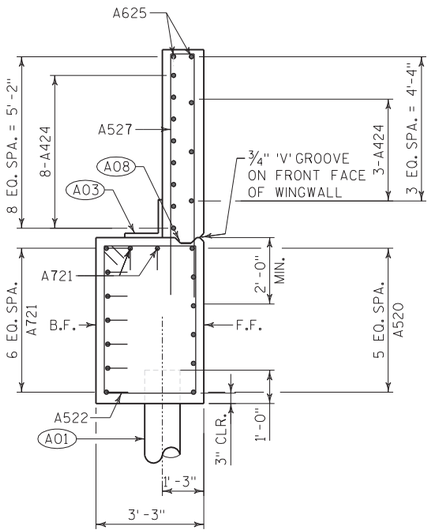
STATE PROJECT NUMBER
1080-12-71



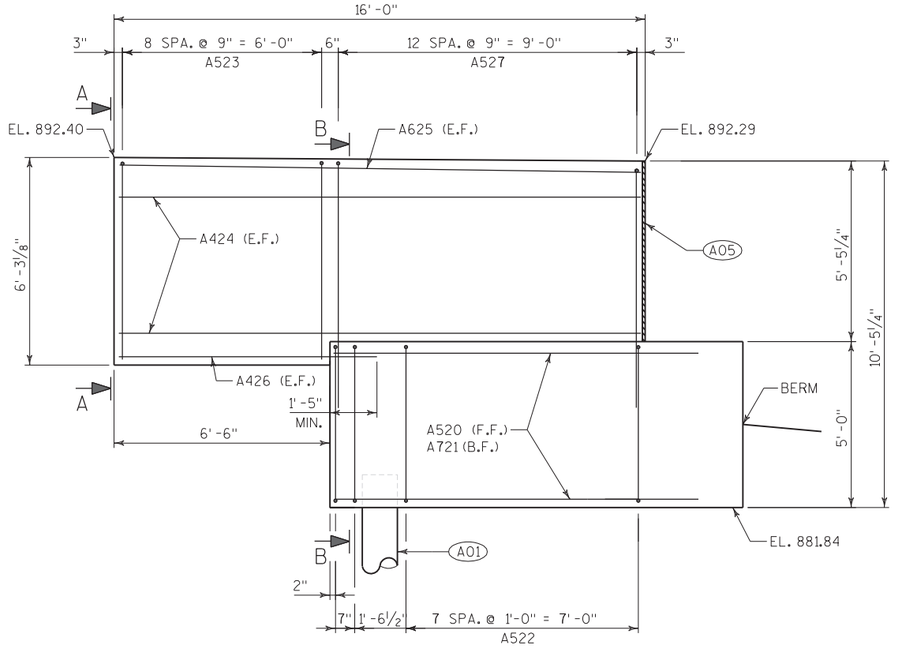
SECTION A-A



WING 1 PLAN



SECTION B-B



WING 1 ELEVATION
(FRONT FACE)

LEGEND:

(A01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

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(A08) OPTIONAL CONSTRUCTION JOINT FORMED BY 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

SEE SHEET 5 FOR BILL OF BARS AND BENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT
WING WALL 1

SHEET 6 OF 24

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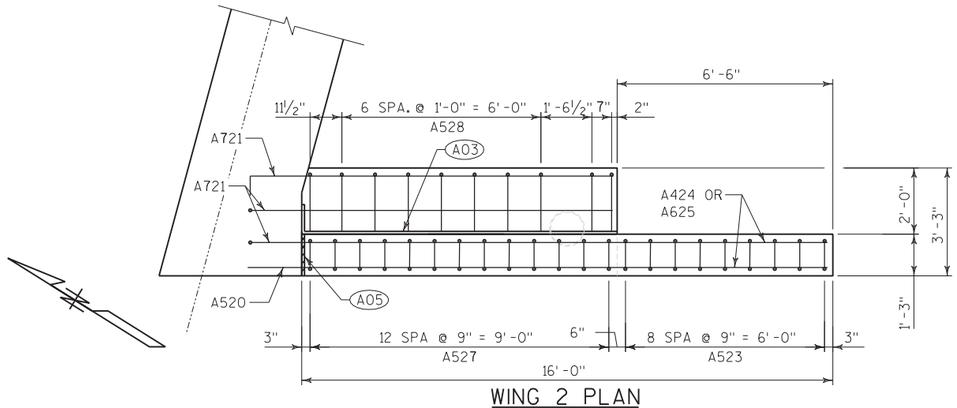
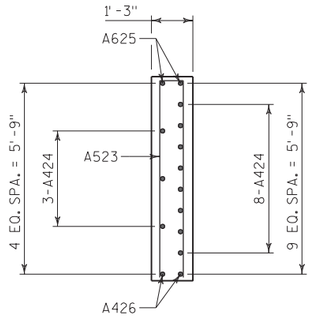
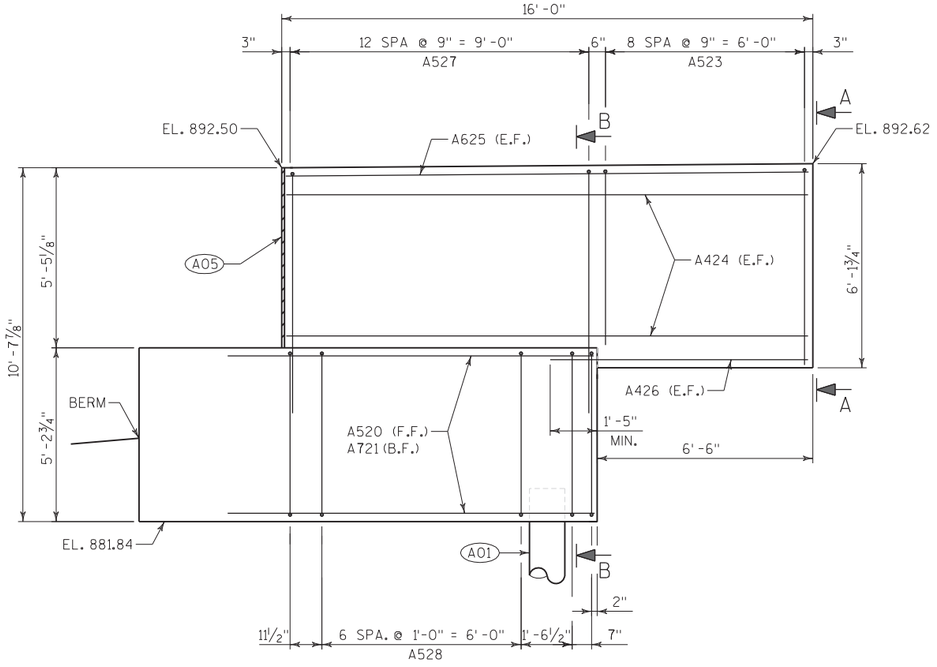
STATE PROJECT NUMBER
1080-12-71



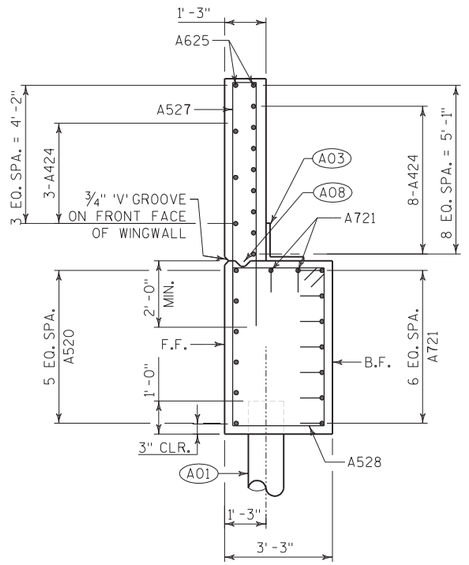
WING 2 PLAN



SECTION A-A



WING 2 ELEVATION
(FRONT FACE)



SECTION B-B

LEGEND:

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SEE SHEET 5 FOR BILL OF BARS AND BENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT
WING WALL 2

SHEET 7 OF 24

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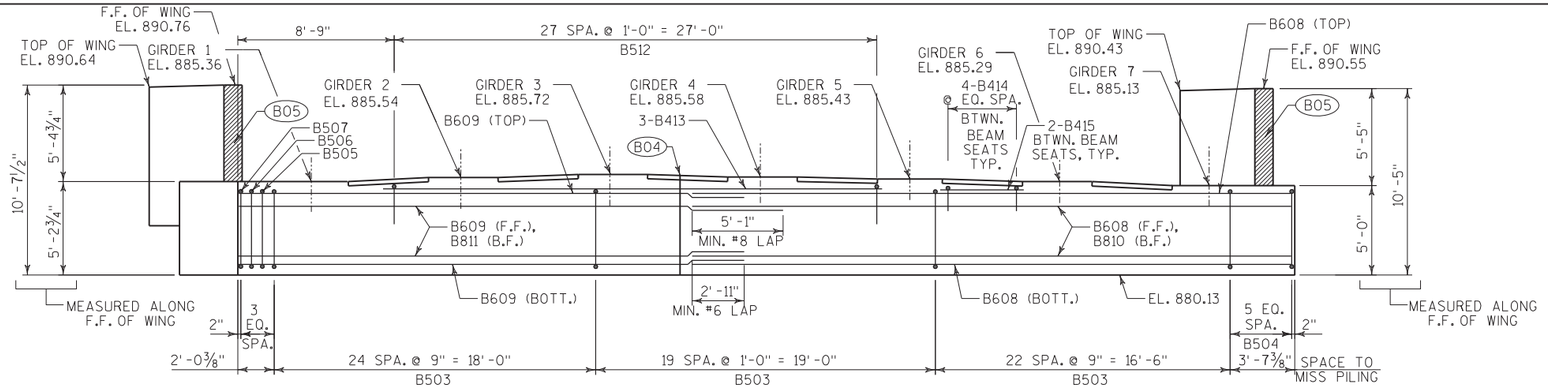
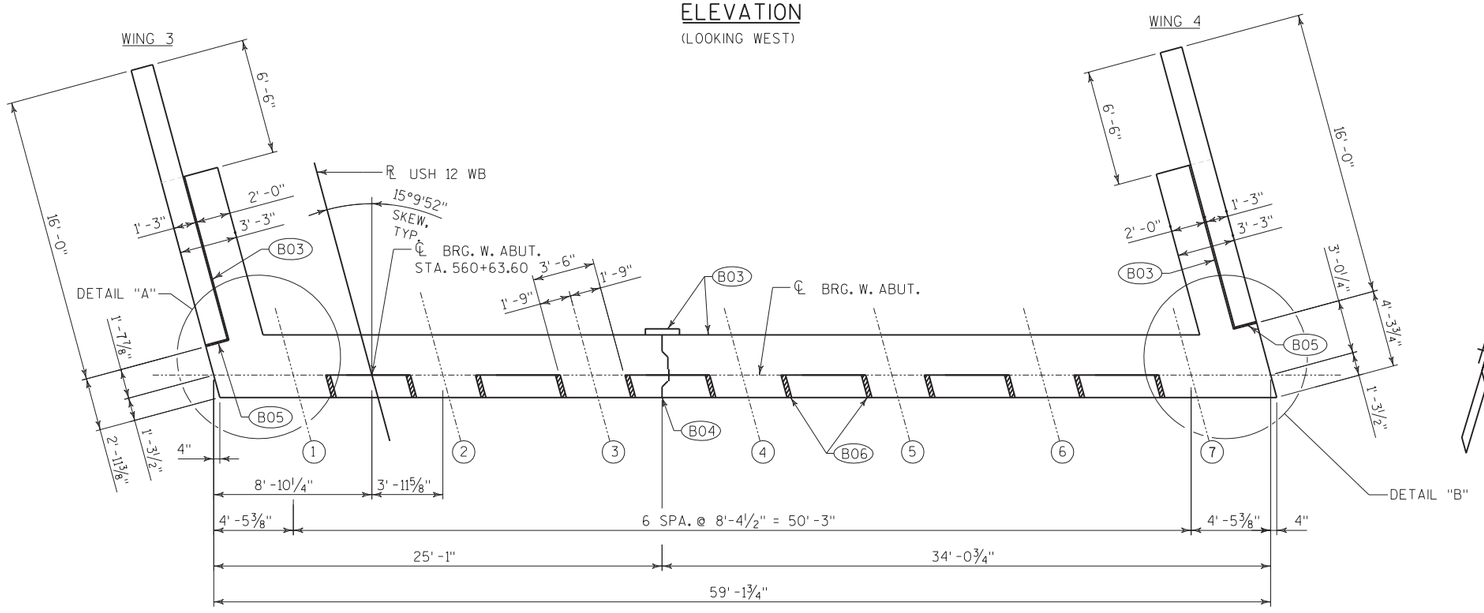
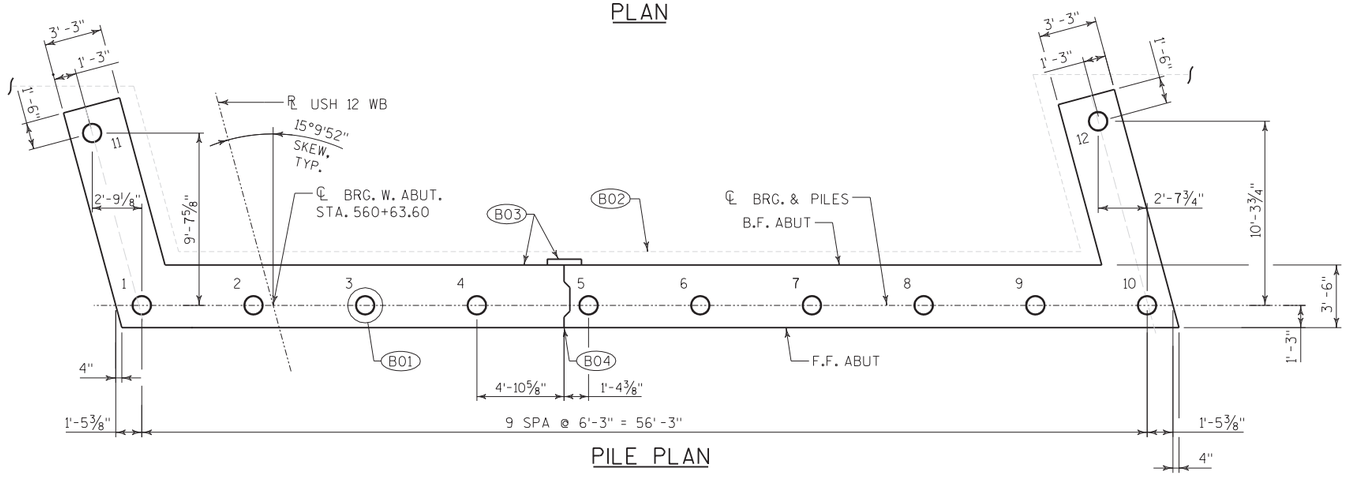


ELEVATION

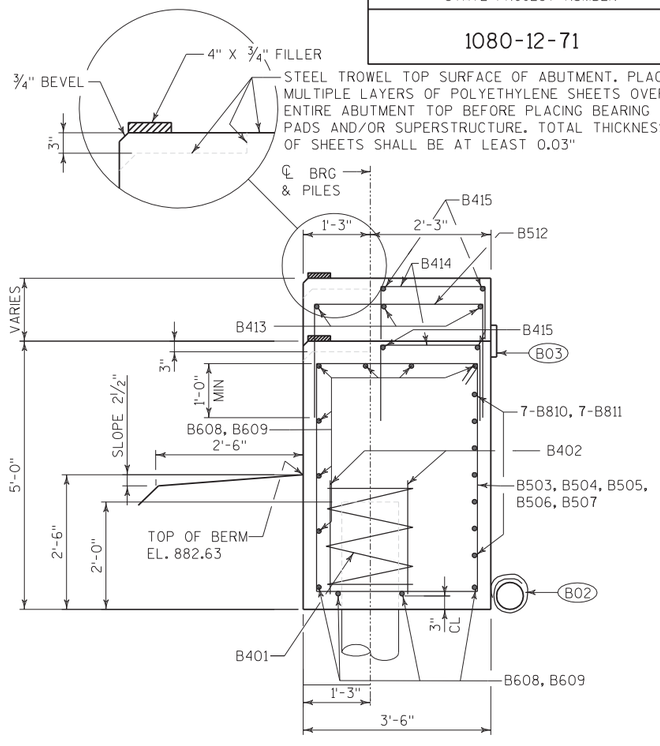
(LOOKING WEST)



PLAN



PILE PLAN



SECTION THRU BODY

LEGEND:

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(B06) ¾" CORK FILLER UP VERT BEAM SEAT FACES THAT RUN PARALLEL TO GIRDER, TYP.

SEE SHEET 5 FOR PILE SPLICE DETAIL.

SEE SHEET 9 FOR DETAILS A & B.

(X) INDICATES GIRDER NUMBER.

STATE PROJECT NUMBER

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

WEST ABUTMENT

SHEET 8 OF 24

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STATE PROJECT NUMBER

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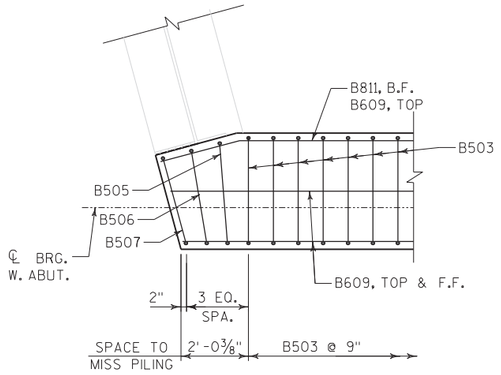
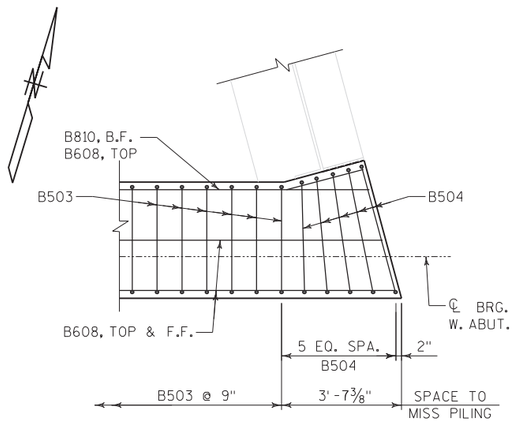
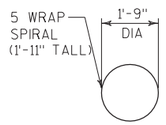


DETAIL "A"



DETAIL "B"



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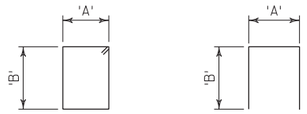
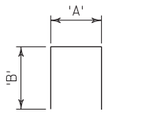
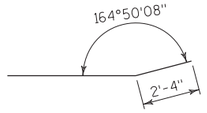


BAR MARK	DIM. A	DIM. B
B503	3'-2"	4'-4"
B504	VARIES	4'-4"
B505	3'-0"	4'-4"
B506	2'-10"	4'-4"
B507	2'-8"	4'-4"
B522	2'-9"	4'-9"
B528	2'-9"	4'-6"



BAR MARK	DIM. A	DIM. B
B512	3'-2"	1'-9"
B414	1'-11"	1'-0"
B526	11"	5'-11"
B527	11"	6'-8"
B529	11"	7'-3"
B530	11"	4'-11"



B810, B811

B721

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
B401	-	10	28'-0"	X	-	ABUTMENT PILES - 1 PER PILE	VERTICAL
B402	-	20	2'-3"	-	-	ABUTMENT PILES - 2 PER PILE	VERTICAL
B503	-	66	15'-7"	X	-	ABUTMENT BODY STIRRUPS	VERTICAL
B504	-	5	16'-6"	X	X	ABUTMENT BODY STIRRUPS - S END	VERTICAL
B505	-	1	15'-3"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
B506	-	1	14'-11"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
B507	-	1	14'-7"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
B608	-	11	33'-11"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
B609	-	11	27'-10"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
B810	-	7	32'-10"	X	-	ABUTMENT BODY BF	HORIZONTAL
B811	-	7	30'-10"	X	-	ABUTMENT BODY BF	HORIZONTAL
B512	-	28	6'-5"	X	-	ABUTMENT BODY	VERTICAL
B413	-	3	27'-0"	-	-	ABUTMENT BODY	HORIZONTAL
B414	-	24	3'-9"	X	-	ABUTMENT BODY - TOP BTWN SEATS	VERTICAL
B415	-	12	6'-9"	-	-	ABUTMENT BODY - BTWN SEATS	HORIZONTAL
-	-	-	-	-	-	-	-
B520	-	12	12'-1"	-	-	WING WALL 3 & 4	HORIZONTAL
B721	-	18	11'-8"	X	-	WING WALL 3 & 4	HORIZONTAL
B522	-	10	15'-7"	X	-	WING WALL 3	VERTICAL
B423	X	5	7'-8"	-	-	WING WALL 3 & 4 EXTENSION	HORIZONTAL
B424	X	21	15'-6"	-	-	WING WALL 3 & 4 EXTENSION	HORIZONTAL
B625	X	4	15'-6"	-	-	WING WALL 3 & 4 EXTENSION TOP	HORIZONTAL
B526	X	9	12'-6"	X	-	WING WALL 3 EXTENSION	VERTICAL
B527	X	13	14'-0"	X	-	WING WALL 3 EXTENSION	VERTICAL
B528	-	10	15'-1"	X	-	WING WALL 4	VERTICAL
B529	X	13	15'-2"	X	-	WING WALL 4 EXTENSION	VERTICAL
B530	X	9	10'-5"	X	-	WING WALL 4 EXTENSION	VERTICAL

BAR SERIES

BAR MARK	NO. REQ'D.	"A"	LENGTH	LOCATION
B504	1 SERIES OF 5	3'-4" TO 3'-11"	15'-11" TO 17'-1"	ABUT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION.

⚠ SEE BAR SERIES TABLE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

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WEST ABUTMENT DETAILS

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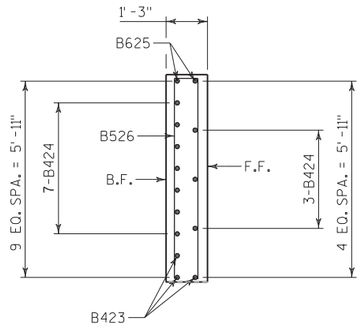
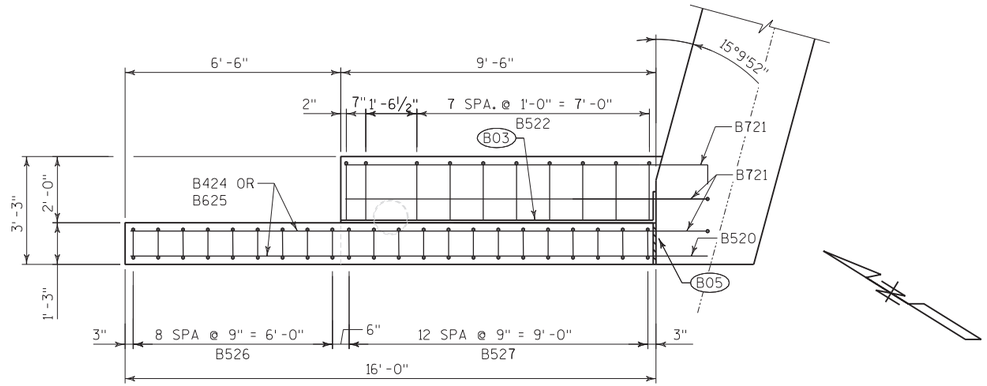
STATE PROJECT NUMBER

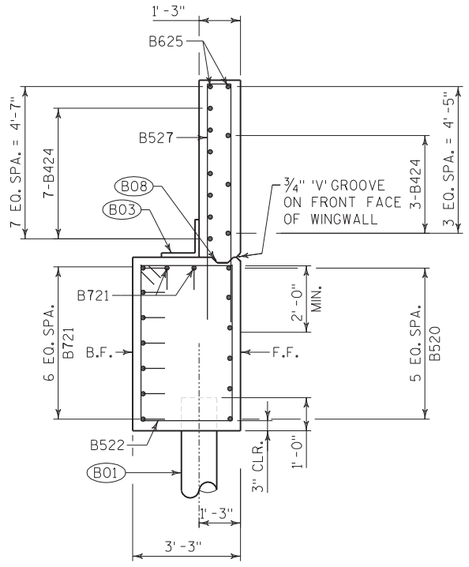
1080-12-71



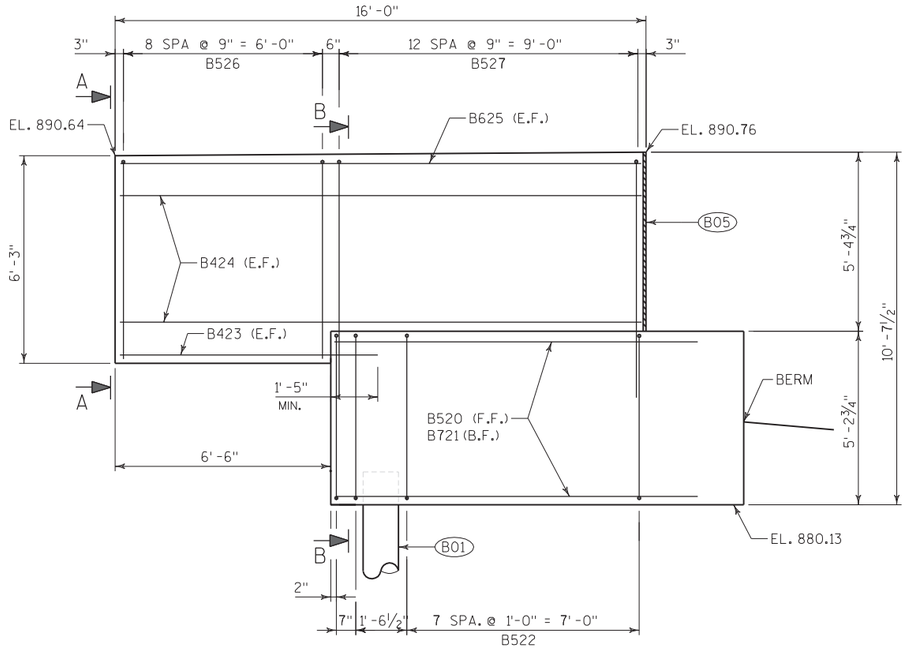
SECTION A-A



WING 3 PLAN



SECTION B-B



WING 3 ELEVATION

(FRONT FACE)

LEGEND:

(B01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(B05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(B08) OPTIONAL CONSTRUCTION JOINT FORMED BY 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

SEE SHEET 9 FOR BILL OF BARS AND BENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT
WING WALL 3

SHEET 10 OF 24

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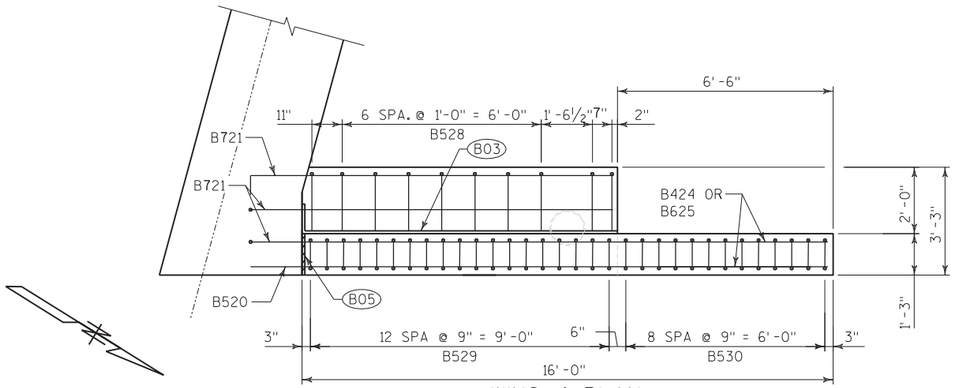
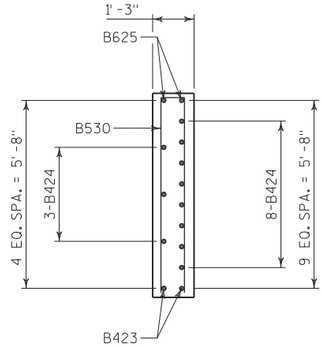
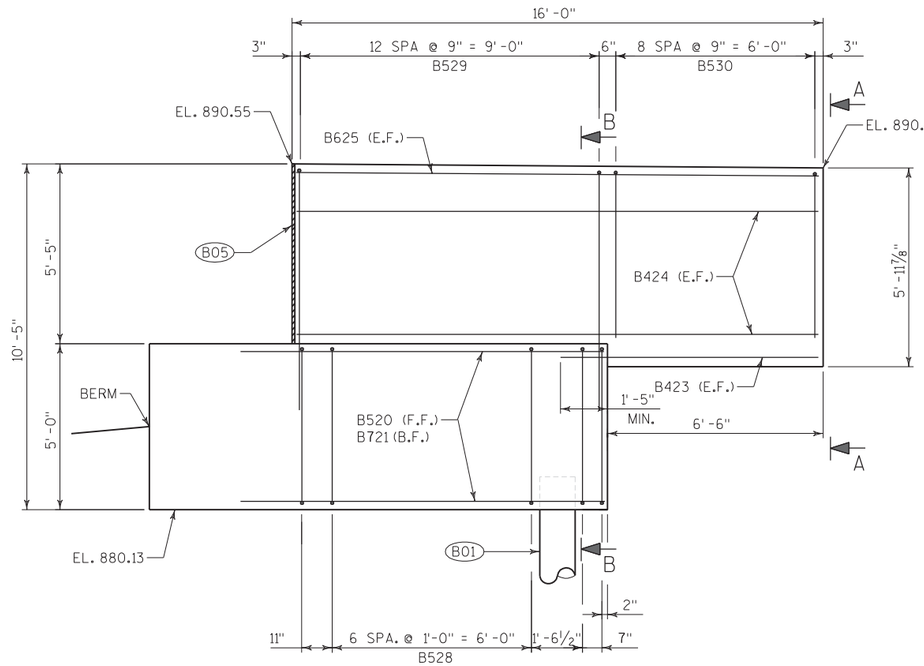
1080-12-71



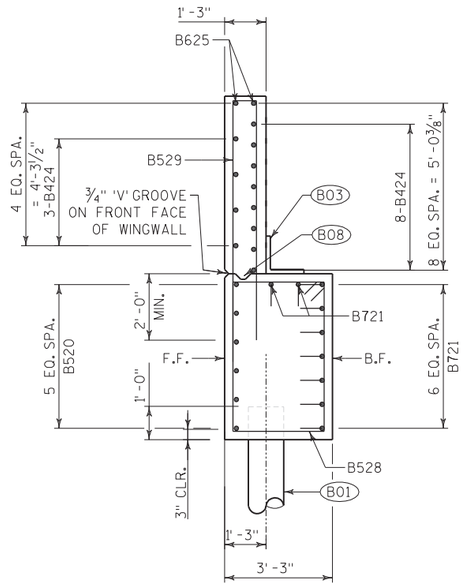
WING 4 PLAN



SECTION A-A



WING 4 ELEVATION
(FRONT FACE)



SECTION B-B

LEGEND:

(B01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(B05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(B08) OPTIONAL CONSTRUCTION JOINT FORMED BY 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

SEE SHEET 9 FOR BILL OF BARS AND BENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT
WING WALL 4

SHEET 11 OF 24

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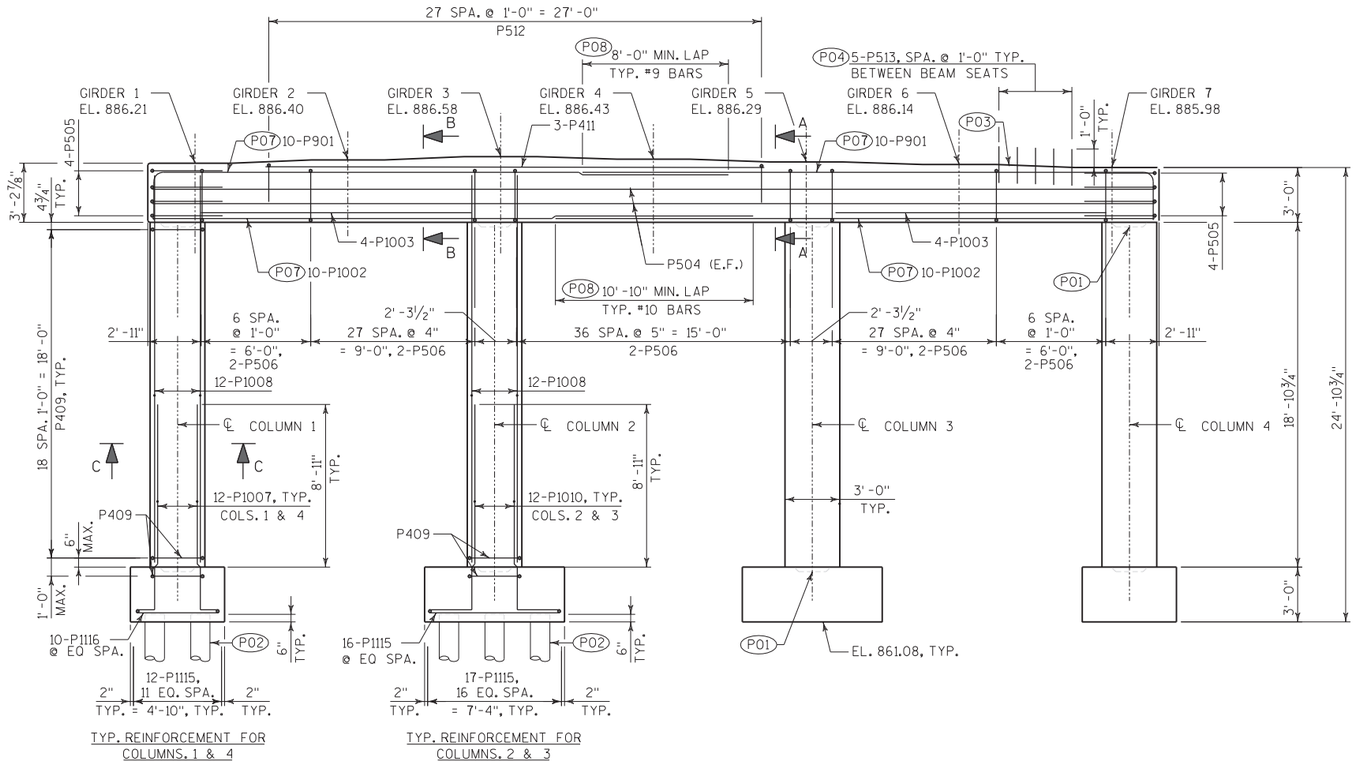
STATE PROJECT NUMBER
1080-12-71

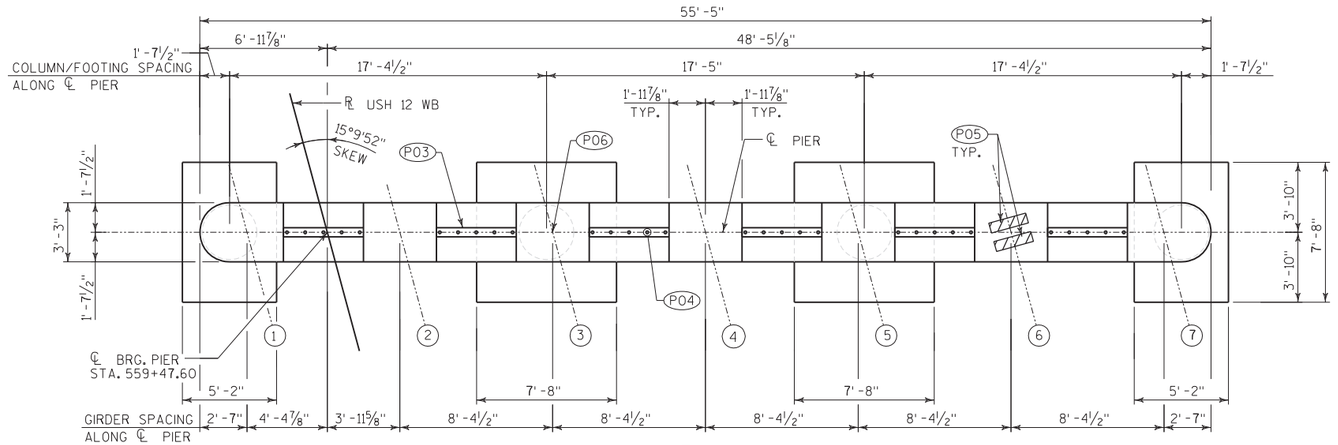


TYP. REINFORCEMENT FOR COLUMNS. 1 & 4

TYP. REINFORCEMENT FOR COLUMNS. 2 & 3

ELEVATION PIER

(LOOKING WEST)



PLAN

LEGEND

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 1'-3" X 1'-3" X 2", TYPICAL TOP AND BOTTOM OF ALL COLUMNS.

(P02) PIER TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 40'-0" LONG.

(P03) 2" X 6" BEVELED KEYWAY BETWEEN BEAM SEATS.

(P04) P513 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

(P05) ½" THICK ELASTOMERIC BEARING PAD, SEE 'SUPERSTRUCTURE DETAILS' SHEET FOR DETAILS.

(P06) ELEVATIONS ARE GIVEN AT THE TOP OF THE CONCRETE AT THE INTERSECTION OF THE ℄ GIRDER AND ℄ PIER.

(P07) OFFSET BARS AT ENDS OF PIER CAP AS REQUIRED TO MAINTAIN EDGE CLEARANCES.

(P08) LAPS SHOWN ARE MINIMUM LENGTH & LOCATION OF LAPS WILL VARY BASED ON VARIABLE EXTENSIONS OF BARS INTO RADIUS OF PIER CAP.

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT. WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SEE SHEET 13 FOR SECTION A-A, B-B & C-C.

SEE SHEET 9 FOR PILE SPLICE DETAIL.

SEE SHEET 13 FOR BILL OF BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

PIER

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STATE PROJECT NUMBER
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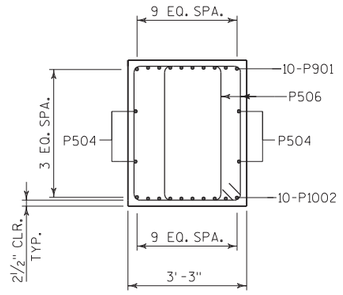
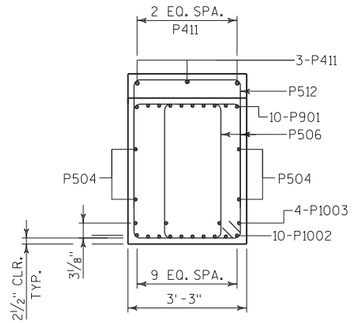
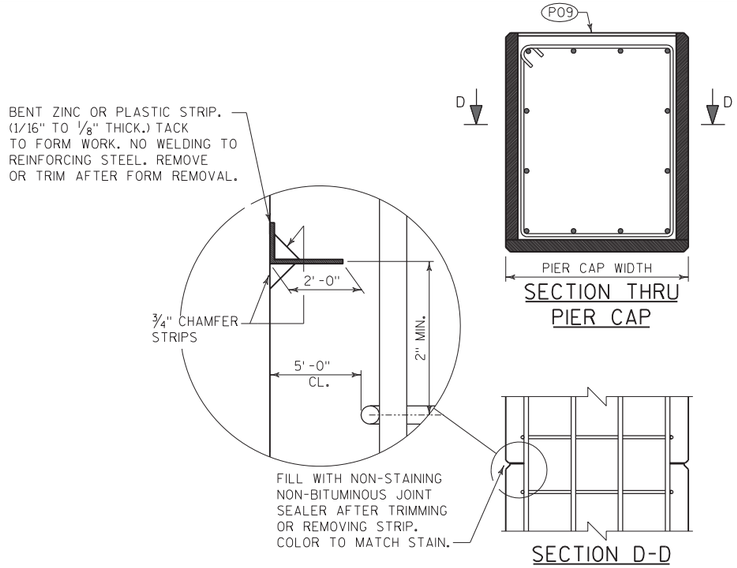


SECTION A-A



SECTION B-B



SECTION THRU PIER CAP

SECTION D-D

ALTERNATE CONSTRUCTION JOINT AT PIER CAP

ALTERNATE CONSTRUCTION JOINT NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

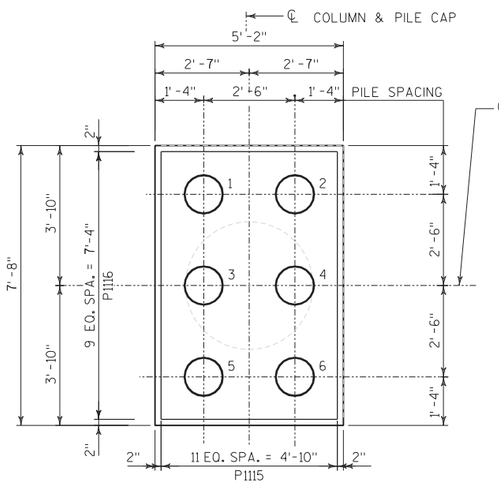
VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

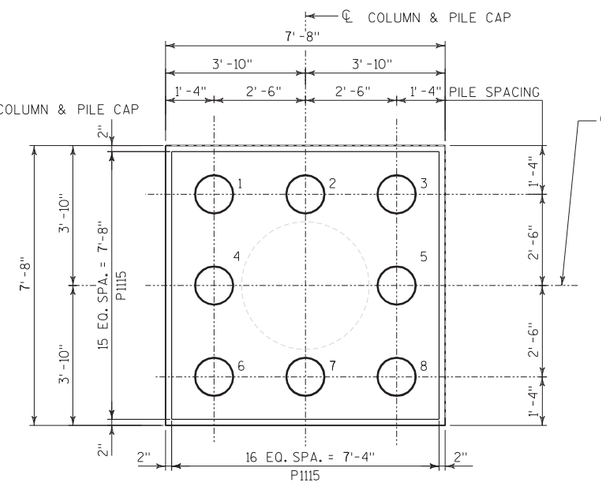
(P09) USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

BILL OF BARS

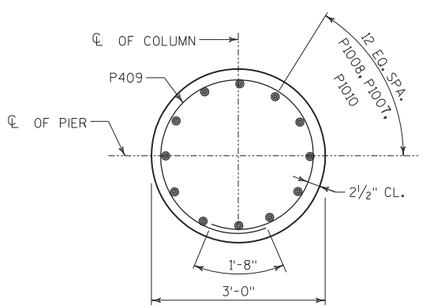
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
P901	X	20	33'-0"	X	_	CAP - TOP	HORIZONTAL
P1002	X	20	32'-11"	-	_	CAP - BOTT	HORIZONTAL
P1003	X	8	14'-10"	-	_	CAP - BOTT	HORIZONTAL
P504	X	4	52'-2"	-	_	CAP - SIDES	HORIZONTAL
P505	X	8	8'-0"	X	_	CAP - STIRRUPS, ENDS	HORIZONTAL
P506	X	210	9'-7"	X	_	CAP - STIRRUPS	VERTICAL
P1007	X	24	12'-1"	X	_	COLUMN - 1 & 4 BOTT	VERTICAL
P1008	X	48	21'-0"	-	_	COLUMN	VERTICAL
P409	X	80	9'-10"	X	_	COLUMN - STIRRUP	HORIZONTAL
P1010	X	24	12'-7"	X	_	COLUMN - 2 & 3 BOTT	VERTICAL
P411	X	3	27'-0"	-	_	CAP - TOP	HORIZONTAL
P512	X	28	5'-9"	X	_	CAP - STIRRUPS	VERTICAL
P513	X	30	2'-0"	-	_	CAP - DOWEL BARS	VERTICAL
-	-	-	-	-	_	-	
P1115	-	90	7'-4"	-	_	FOOTING	HORIZONTAL
P1116	-	20	4'-10"	-	_	FOOTING	HORIZONTAL



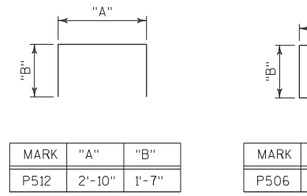
PILE CAP PLAN
COLUMN 1 & 4

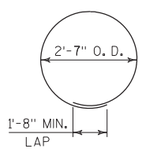


PILE CAP PLAN
COLUMN 2 & 3



SECTION C-C





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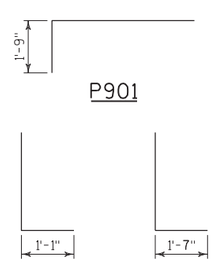

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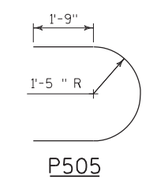

P505

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

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PIER DETAILS

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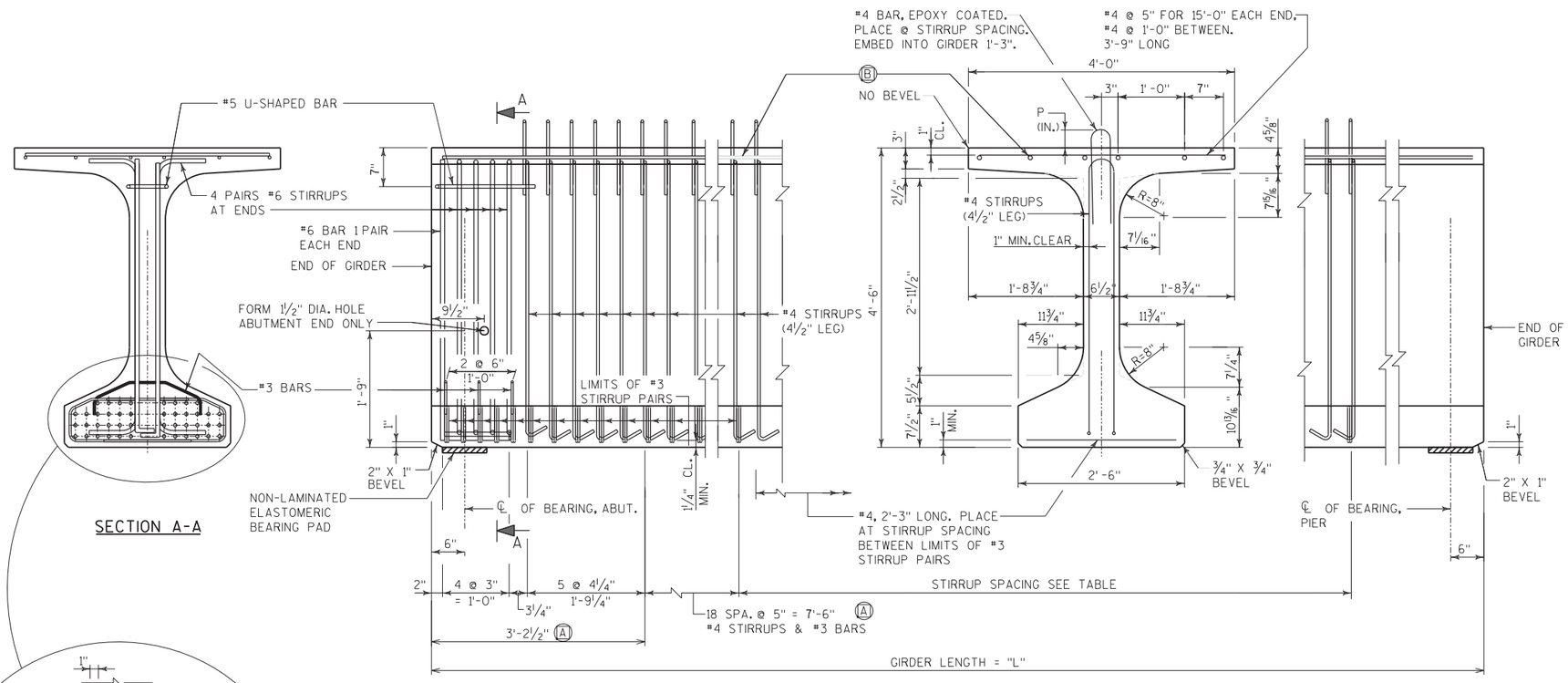
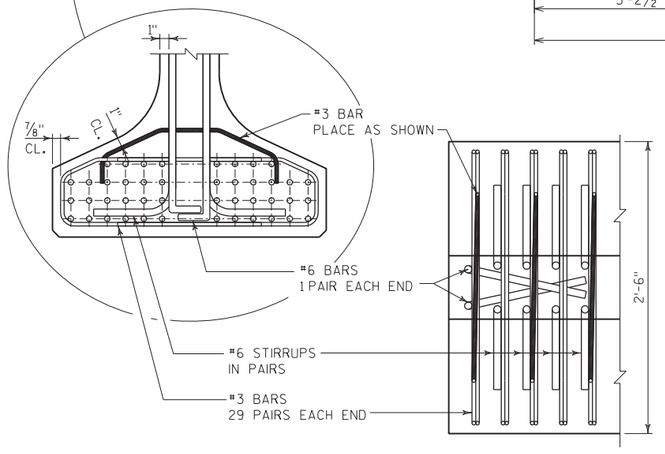


SECTION A-A

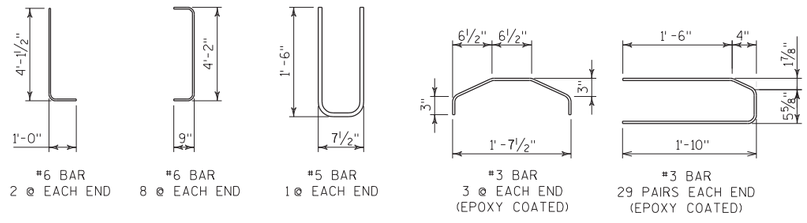
SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-5"



BOTTOM FLANGE



NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

ALL ITEMS SHOWN SHALL BE INCLUDED IN THE BID ITEM "PRESTRESSED GIRDER TYPE 154W-INCH."

PRESTRESSING STRANDS SHALL BE 0.6 DIA.-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

STIRRUP SPACING

SPAN	LOCATION	BAR SIZE	SPACING
1 & 2	FROM END TO 10'-8½"	AS SHOWN	AS SHOWN
	FROM 10'-8½" TO 34'-6"	#4	8"
	FROM 34'-6" TO MIDSPAN	#4	14"

SPACING IS SYMETRICAL ABOUT MIDSPAN OF GIRDER

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P"	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	1	116'-4½"	0.5	1.0	1.3	1.6	1.6	1.5	1.3	0.9	0.5	8000	7	0.6	36	6000	46	16	19	5
	2-6	116'-4½"	0.6	1.1	1.5	1.8	1.8	1.8	1.5	1.1	0.5	8000	7	0.6	36	6000	46	16	19	5
	7	116'-4½"	0.5	1.0	1.3	1.6	1.6	1.5	1.3	0.9	0.5	8000	7	0.6	36	6000	46	16	19	5
2	1	116'-4½"	0.5	0.9	1.3	1.5	1.6	1.6	1.3	1.0	0.5	8000	7	0.6	36	6000	46	16	19	5
	2-6	116'-4½"	0.5	1.1	1.5	1.8	1.8	1.8	1.5	1.1	0.6	8000	7	0.6	36	6000	46	16	19	5
	7	116'-4½"	0.5	0.9	1.3	1.5	1.6	1.6	1.3	1.0	0.5	8000	7	0.6	36	6000	46	16	19	5

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

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STRUCTURE B-64-187

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54W" PRESTESSED GIRDER

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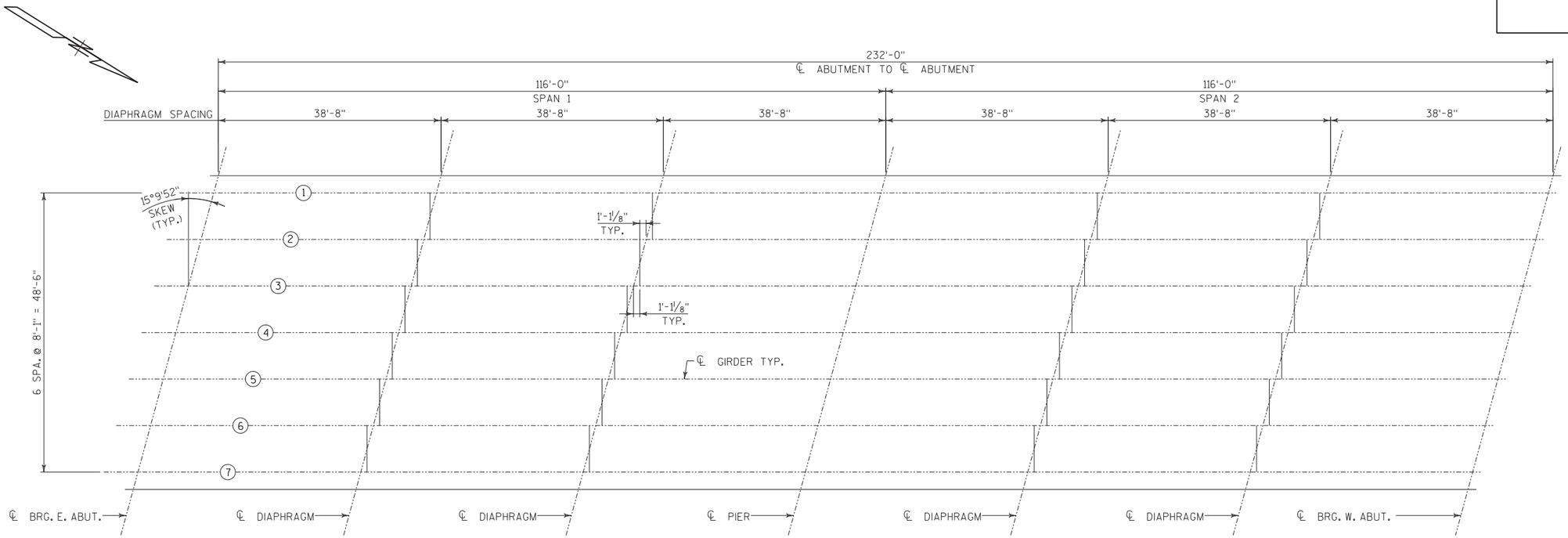
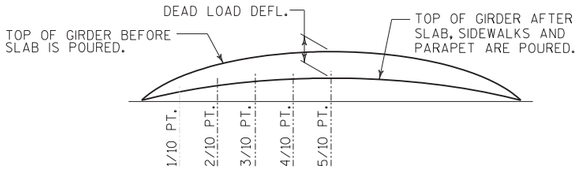
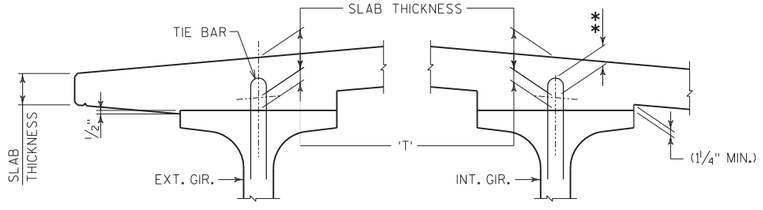


FRAMING PLAN



DEAD LOAD DEFLECTION DIAGRAM



SLAB HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION

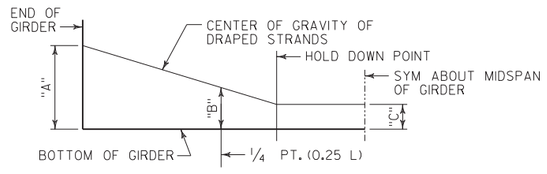
** IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR, IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

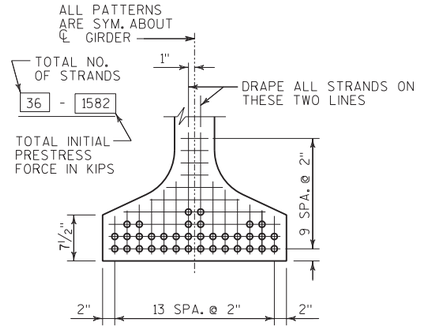
TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2.57" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DRAPED STRAND PROFILE



SPAN 1 & 2 STRAND PATTERN

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	5.8
2	5.8

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STRUCTURE B-64-187

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54W" PRESTESSED GIRDER DETAILS

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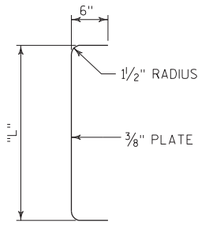
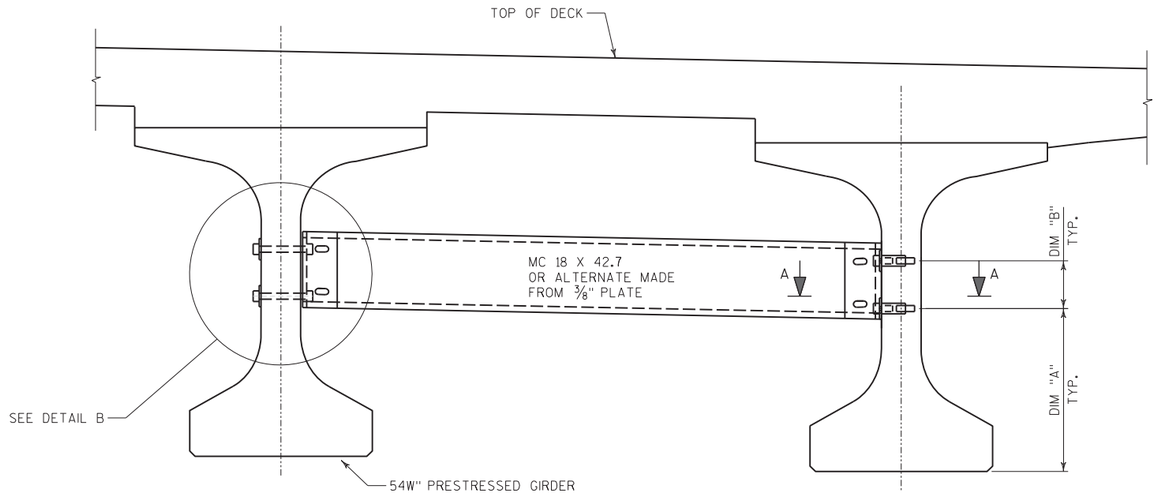
TABLE

GIRDER HEIGHT	DIM "A"	DIM "B"	DIM "L"	* DIM "X"
54W"	1'-9 1/8"	1'-5 7/8"	1'-9 1/2"	4 1/4"

* DIM "X" = 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM.



SECTION THRU ALTERNATE DIAPHRAGM



PART TRANSVERSE SECTION AT DIAPHRAGM

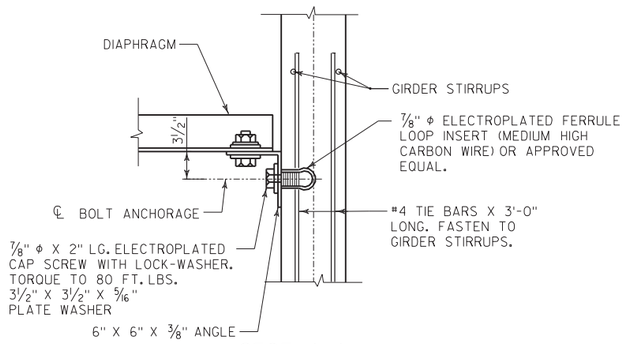
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-64-187", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

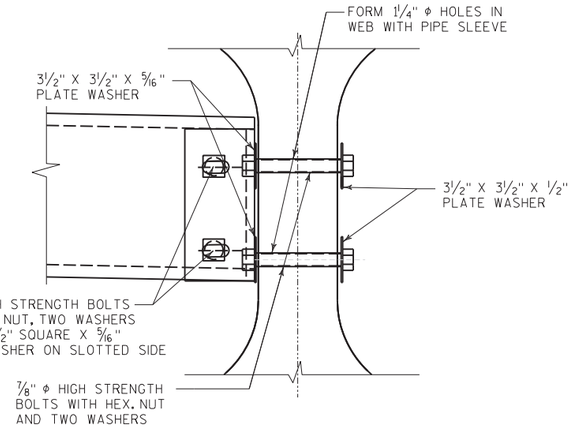
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

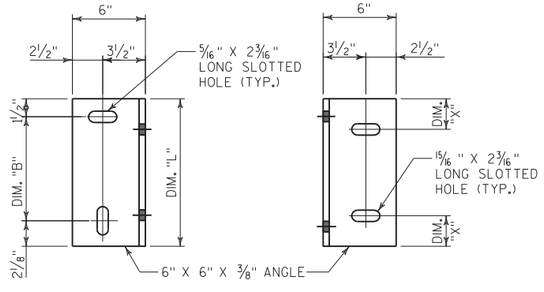


SECT. A-A

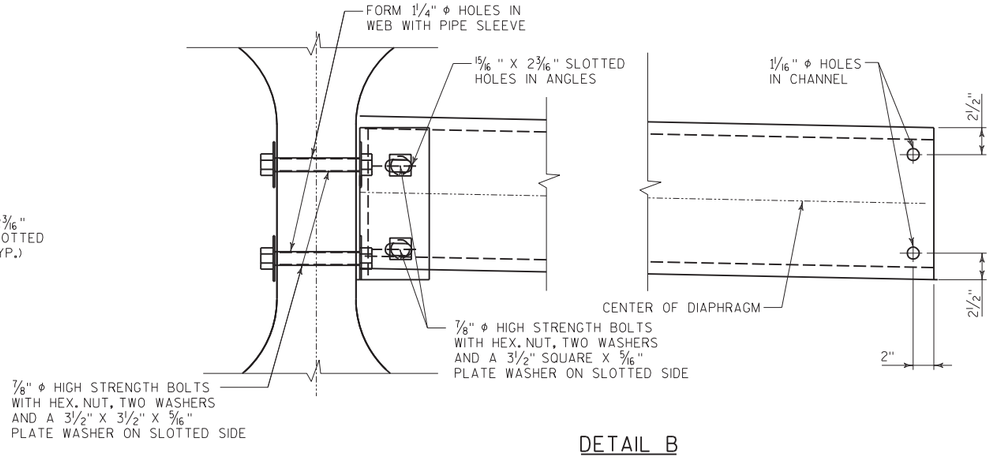
(FOR EXTERIOR ATTACMENT)



SECTION AT INTERIOR GIRDERS THRU DIAPRAGM FOR SKEW ANGLES > 10°



DIAPHRAGM SUPPORT



DETAIL B

(SECTION AT INTERIOR GIRDERS)

NO.	DATE	REVISION	BY

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STRUCTURE B-64-187

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STEEL DIAPHRAGM

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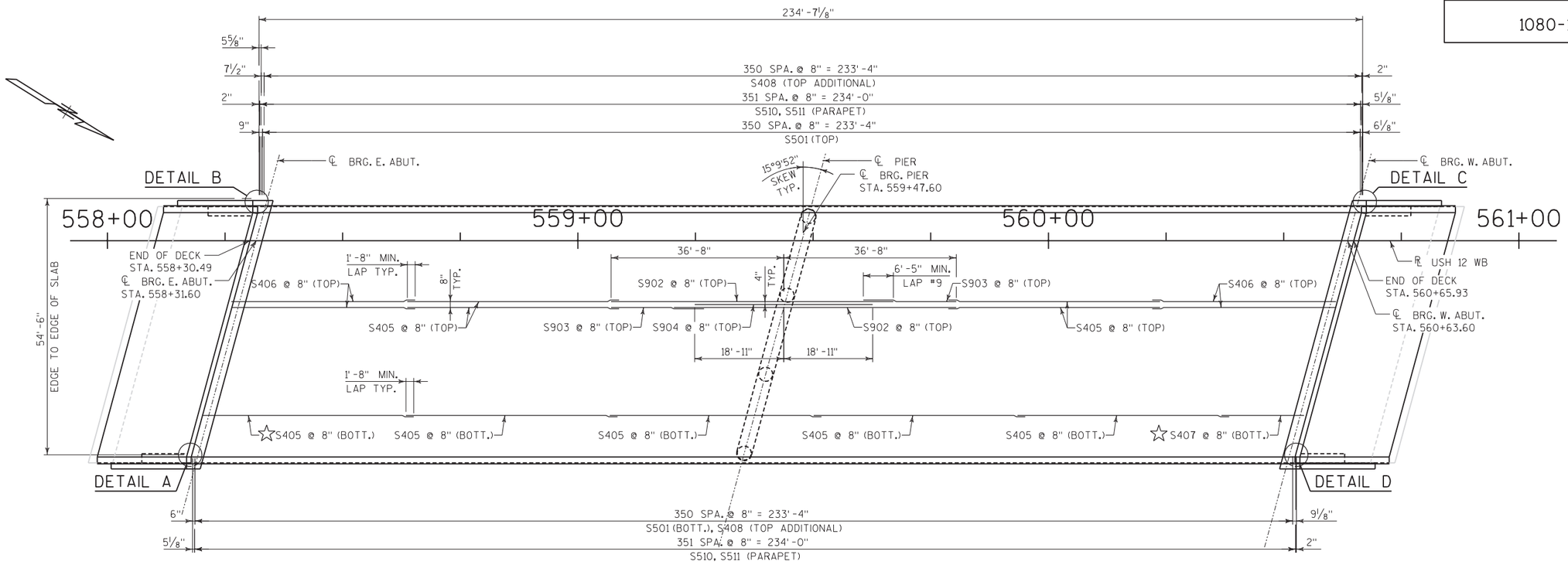


PLAN

(2-SPAN, 54W PRESTRESSED GIRDER STRUCTURE)

TOP OF DECK ELEVATIONS

LOCATION	E. ABUT.	SPAN 1									PIER 1	SPAN 2									W. ABUT.
		0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.		0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	
FF PARAPET	892.49	892.40	892.32	892.23	892.14	892.06	891.97	891.89	891.80	891.72	891.63	891.55	891.46	891.38	891.29	891.21	891.12	891.03	890.95	890.86	890.78
G1	892.52	892.44	892.35	892.27	892.18	892.10	892.01	891.93	891.84	891.76	891.67	891.59	891.50	891.41	891.33	891.24	891.16	891.07	890.99	890.90	890.82
PLG WB	892.62	892.53	892.45	892.36	892.28	892.19	892.11	892.02	891.94	891.85	891.76	891.68	891.59	891.51	891.42	891.34	891.25	891.17	891.08	891.00	890.91
G2	892.70	892.62	892.53	892.44	892.36	892.27	892.19	892.10	892.01	891.93	891.84	891.75	891.67	891.58	891.50	891.41	891.33	891.24	891.16	891.07	890.99
G3	892.88	892.79	892.71	892.62	892.54	892.45	892.36	892.28	892.19	892.10	892.02	891.93	891.85	891.76	891.68	891.59	891.51	891.42	891.33	891.25	891.16
CROWN	892.88	892.80	892.71	892.62	892.54	892.45	892.36	892.28	892.19	892.11	892.02	891.93	891.85	891.76	891.68	891.59	891.51	891.42	891.34	891.25	891.17
G4	892.74	892.65	892.57	892.48	892.39	892.31	892.22	892.13	892.05	891.96	891.88	891.79	891.71	891.62	891.53	891.45	891.36	891.28	891.19	891.11	891.02
G5	892.59	892.51	892.42	892.33	892.25	892.16	892.08	891.99	891.90	891.82	891.73	891.64	891.56	891.47	891.39	891.30	891.22	891.13	891.05	890.96	890.88
G6	892.45	892.36	892.27	892.19	892.10	892.02	891.93	891.84	891.76	891.67	891.58	891.50	891.41	891.33	891.24	891.16	891.07	890.99	890.90	890.82	890.73
G7	892.30	892.22	892.13	892.04	891.96	891.87	891.78	891.70	891.61	891.53	891.44	891.35	891.27	891.18	891.10	891.01	890.93	890.84	890.76	890.67	890.59
FF PARAPET	892.27	892.18	892.10	892.01	891.93	891.84	891.75	891.67	891.58	891.49	891.41	891.32	891.24	891.15	891.07	890.98	890.90	890.81	890.72	890.64	890.55

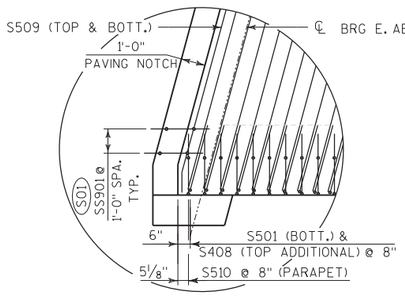
LEGEND:

☆ ALTERNATE/REVERSE BARS S405 & S407 BOTTOM MAT BAR PATTERN TO RANDOMIZE SPLICE LOCATIONS.

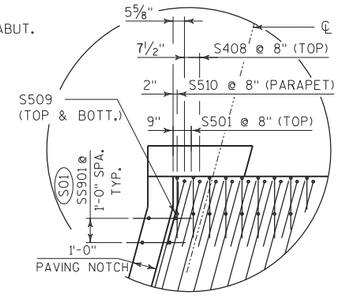
NOTES

1. TRANSVERSE BAR STEEL REINFORCEMENT (S501, S408) SHALL BE PLACED ALONG SKEW, WHILE PARAPET REINFORCEMENT (S510) SHALL BE PLACED PERPENDICULAR TO GIRDERS.
2. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
3. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.
4. SEE SHEET 19 FOR BILL OF BARS.

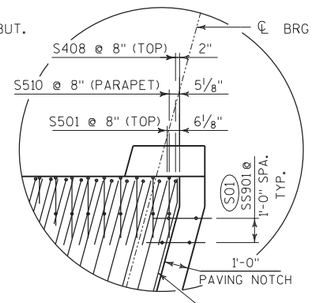
(S01) SEE SHEET 23 FOR SS901 BAR SPACING.



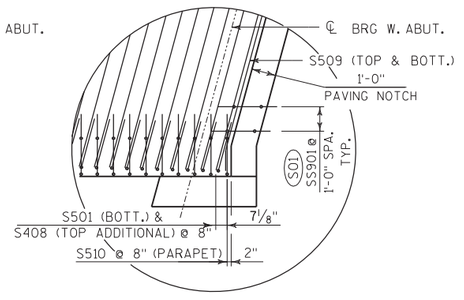
DETAIL A



DETAIL B



DETAIL C



DETAIL D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

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SUPERSTRUCTURE

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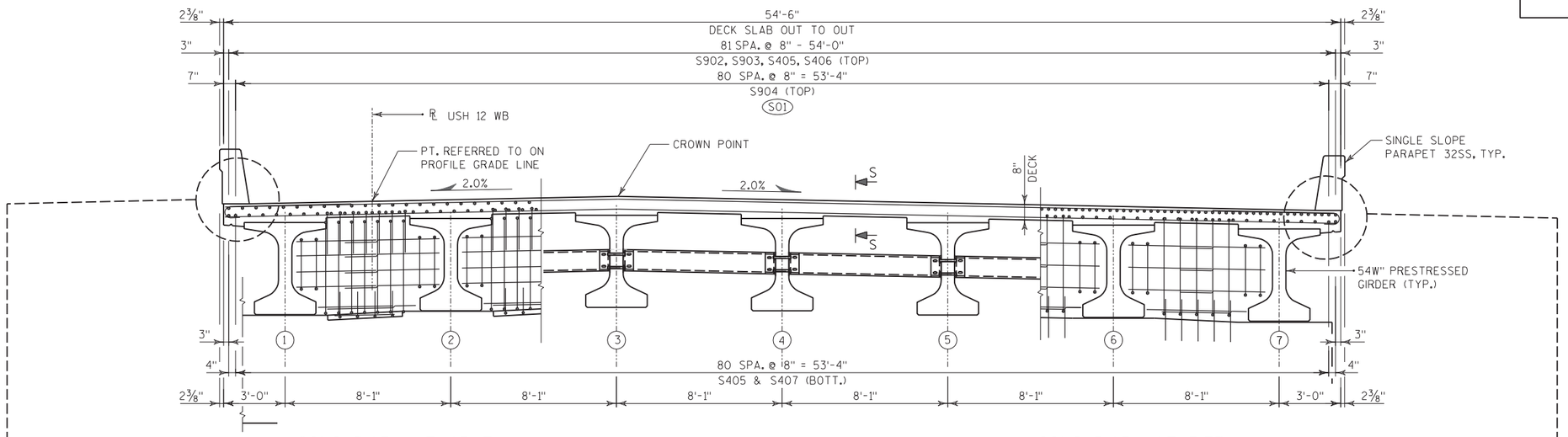
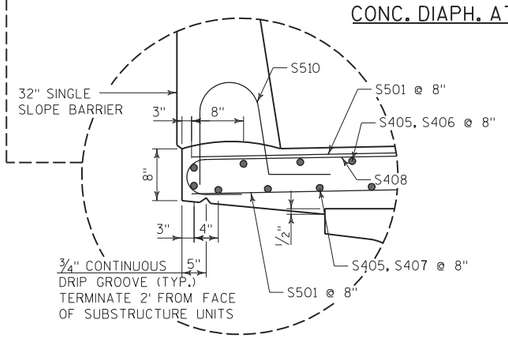
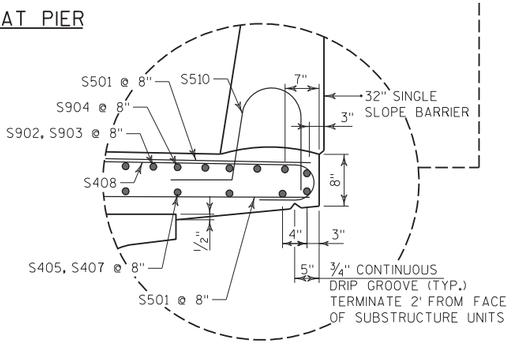
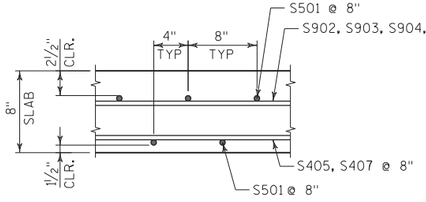


CROSS-SECTION THROUGH ROADWAY

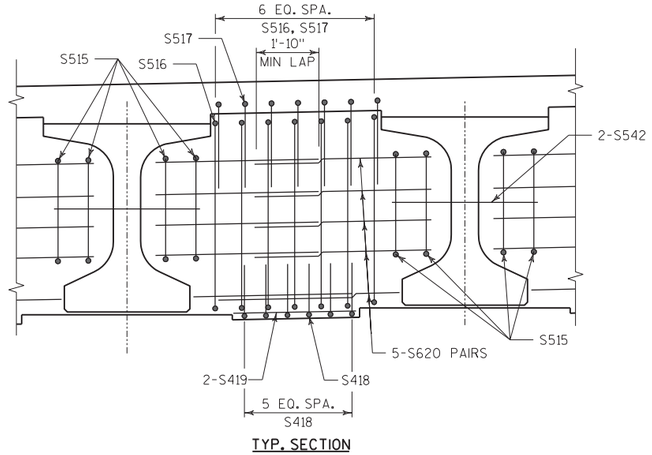
(LOOKING WEST)

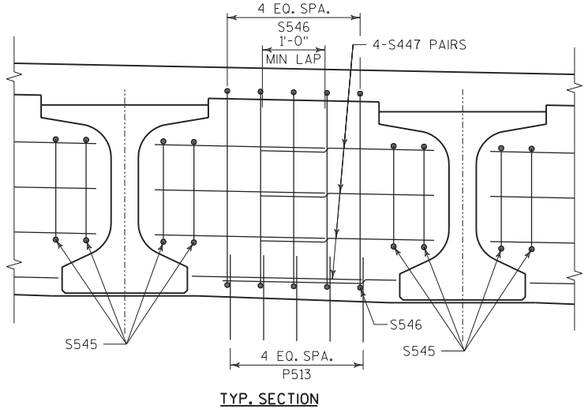






SECTION S-S





NOTES

SEE SHEET 19 FOR BILL OF BARS.

(S01) SEE SHEET 23 FOR SS901 SPACING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

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SUPERSTRUCTURE CROSS-SECTION

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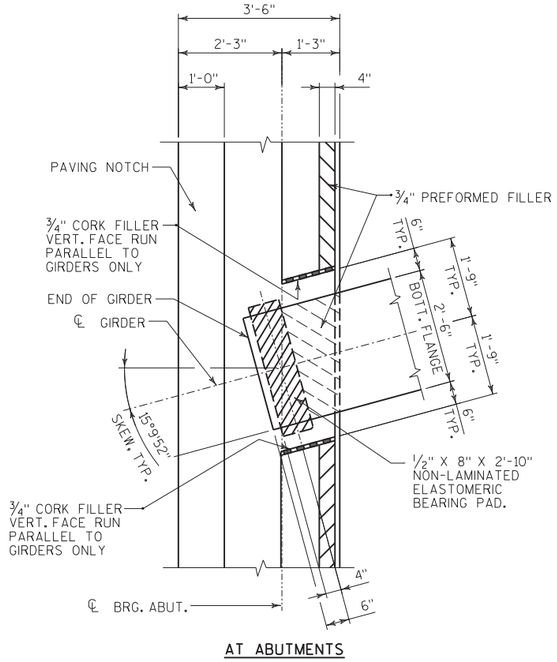
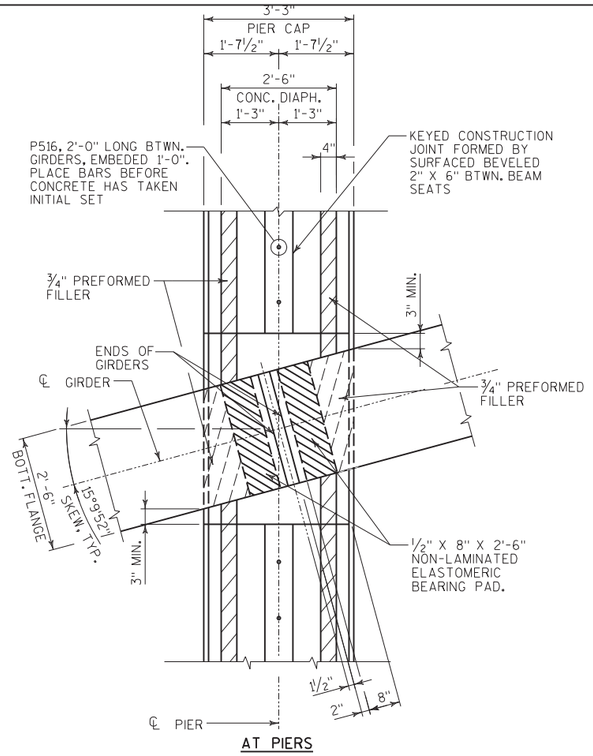
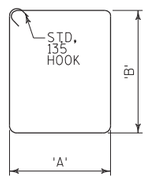


AT ABUTMENTS

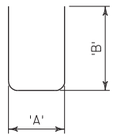


AT PIERS

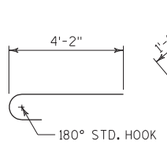
BEARING PAD DETAILS



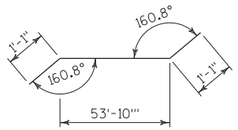
BAR MARK	DIM. 'A'	DIM. 'B'
S515	3'-3"	2'-8"
S516	3'-3"	3'-9"
S525	2'-11"	5'-0
S526	2'-9"	5'-0
S527	2'-8"	5'-0
S530	3'-2"	3'-9"
S531	3'-0"	3'-9"
S534	3'-5"	3'-9"
S535	3'-7"	3'-9"
S536	3'-8"	5'-0
S537	3'-10"	5'-0
S538	3'-11"	5'-0
S545	2'-3"	2'-8"



BAR MARK	DIM. 'A'	DIM. 'B'
S517	2'-3"	2'-3"
S418	11"	1'-3"
S523	2'-1"	2'-3"
S524	1'-11"	2'-3"
S532	2'-4"	2'-3"
S533	2'-6"	2'-3"



S408



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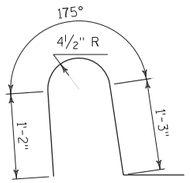

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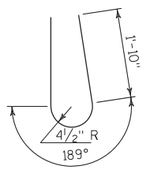

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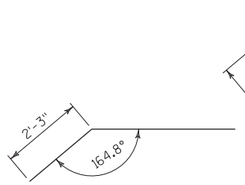

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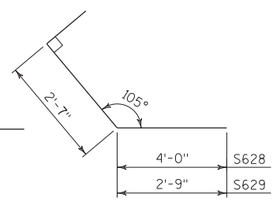
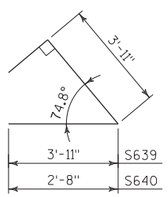
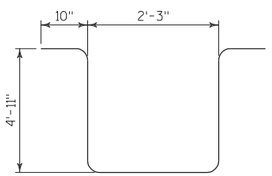


S628, S629



S639, S640



S546

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
S501	X	702	56'-1"	-	-	SLAB - TOP & BOTT	TRANSVERSE
S902	X	82	60'-0"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S903	X	82	19'-9"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S904	X	81	37'-10"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S405	X	579	45'-0"	-	-	SLAB - TOP & BOTT	LONGITUDINAL
S406	X	164	39'-1"	-	-	SLAB - TOP	LONGITUDINAL
S407	X	83	17'-7"	-	-	SLAB - BOTT	LONGITUDINAL
S408	X	703	4'-8"	X	-	SLAB - TOP	TRANSVERSE
S509	X	4	56'-0"	X	-	SLAB - ENDS, TOP & BOTT	TRANSVERSE
S510	X	704	4'-5"	X	-	PARAPET	VERTICAL
S511	X	704	5'-0"	X	-	PARAPET	VERTICAL
S512	X	60	48'-3"	-	-	PARAPET	HORIZONTAL
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
S515	X	56	12'-5"	X	-	ABUT DIAPHRAGM - GIRDER STIRRUPS	VERTICAL
S516	X	84	14'-7"	X	-	ABUT DIAPHRAGM - STIRRUPS	VERTICAL
S517	X	84	6'-6"	X	-	ABUT DIAPHRAGM - STIRRUPS	VERTICAL
S418	X	72	3'-3"	X	-	ABUT DIAPHRAGM @ NOTCH	VERTICAL
S419	X	24	4'-5"	-	-	ABUT DIAPHRAGM @ NOTCH	HORIZONTAL
S620	X	120	4'-8"	-	-	ABUT DIAPHRAGM - FF BTWN GIRDERS	HORIZONTAL
S621	X	12	58'-7	X	-	ABUT DIAPHRAGM - BF & TOP	HORIZONTAL
S622	X	2	58'-8"	-	-	ABUT DIAPHRAGM - TOP	HORIZONTAL
S523	X	2	6'-4"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S524	X	2	6'-1"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S525	X	2	16'-5"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S526	X	2	16'-1"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S527	X	2	15'-11"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S628	X	8	8'-8"	X	-	ABUT DIAPHRAGM - SW & NE END	HORIZONTAL
S629	X	2	7'-5"	X	-	ABUT DIAPHRAGM - SW & NE END	HORIZONTAL
S530	X	2	14'-5"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S531	X	2	14'-1"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S532	X	2	6'-7"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S533	X	2	6'-9"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S534	X	2	14'-11"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S535	X	2	15'-3"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S536	X	2	17'-11"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S537	X	2	18'-3"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S538	X	2	18'-5"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S639	X	8	10'-0"	X	-	ABUT DIAPHRAGM - NW & SE END	HORIZONTAL
S640	X	2	8'-8"	X	-	ABUT DIAPHRAGM - NW & SE END	HORIZONTAL
S441	X	8	5'-0"	-	-	ABUT DIAPHRAGM - ENDS	VERTICAL
S542	X	28	6'-0"	-	-	ABUT DIAPHRAGM - THRU GRIDER	HORIZONTAL
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
S545	X	24	10'-5"	X	-	PIER DIAPHRAGM - GIRDER STIRRUPS	VERTICAL
S546	X	30	13'-3"	X		PIER DIAPHRAGM - STIRRUPS	VERTICAL
S447	X	96	4'-3"	-	-	PIER DIAPHRAGM - BTWN GIRDERS	HORIZONTAL

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STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE BILL OF BARS

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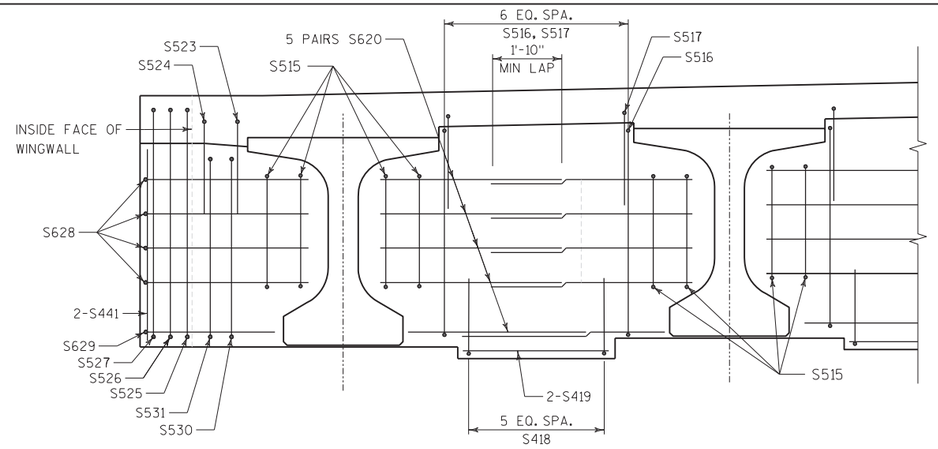
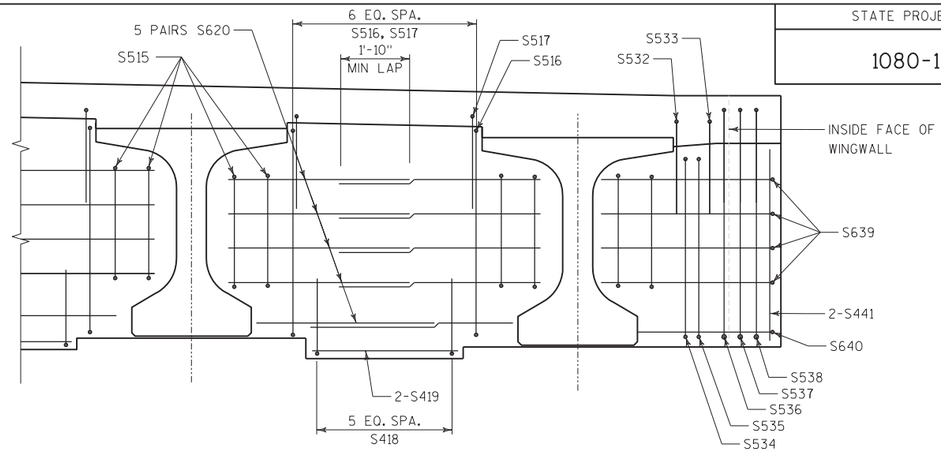
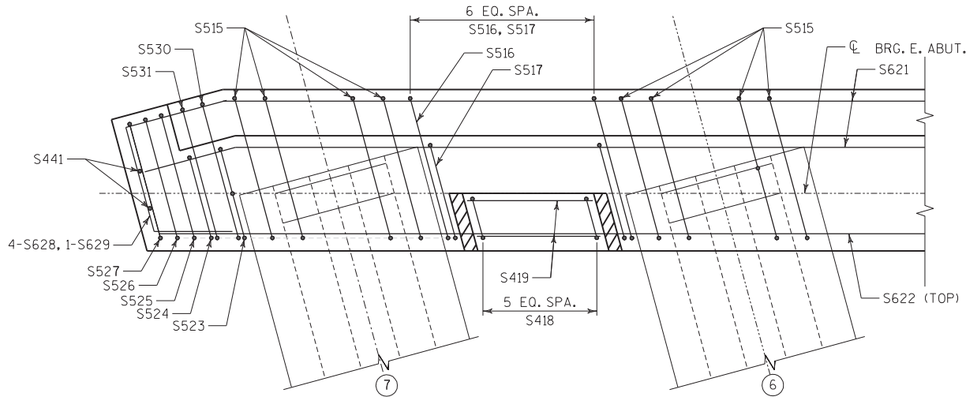
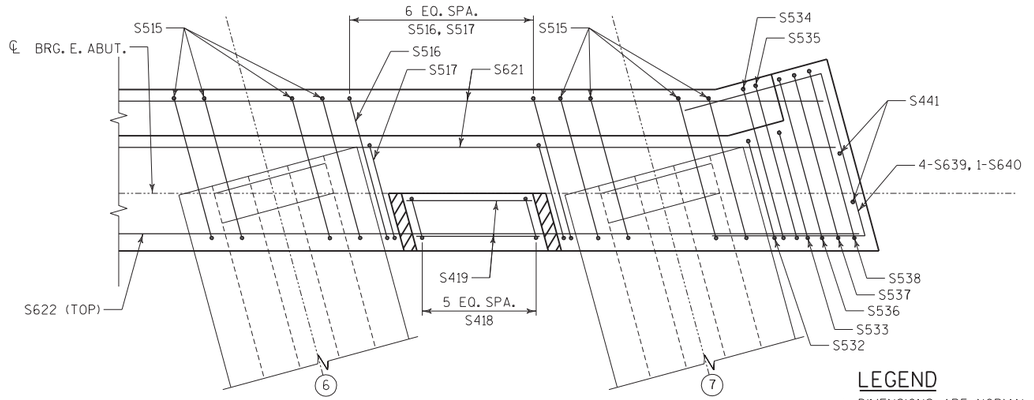
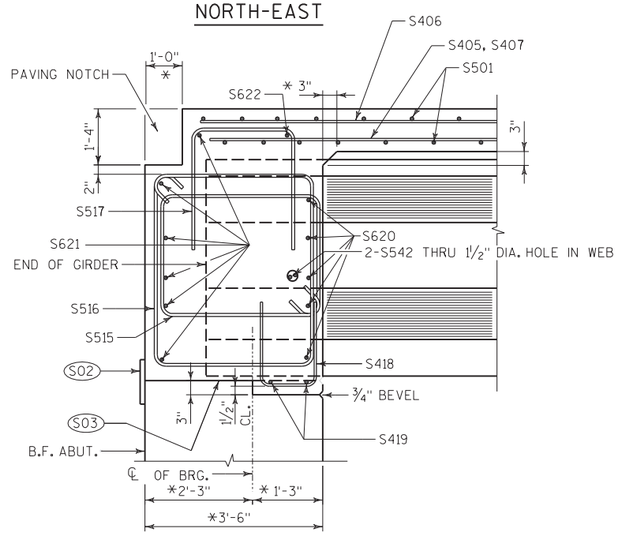








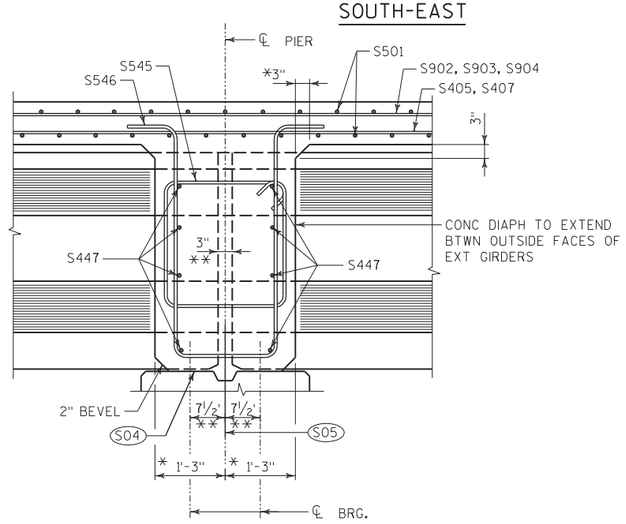
NORTH-EAST



DIAPHRAGM AT ABUTMENTS

(BTWN. GIRDERS, TYP.)

SOUTH-EAST



DIAPHRAGM AT PIERS

(BTWN. GIRDERS, TYP.)

PART LONGIT SECTION

LEGEND

* DIMENSIONS ARE NORMAL TO ℄ OF SUBSTRUCTURE UNITS

** DIMENSIONS ARE PARALLEL TO THE GIRDER

NOTES

ALL VERTICAL BAR STEEL REINFORCMENT IN CONCRETE DIAPHRAGMS SHALL BE PLACED PARALLEL TO THE GIRDERS.

(S02) RUBBERIZED MEMBRANE WATERPROOFING.

(S03) ½" X 8" X 2'-10" NON-LAMINATED ELASTOMERIC BEARING PAD AND 4" X ¾" PREFORMED FILLER.

(S04) ½" NON-LAMINATED ELASTOMERIC BEARING PAD AND ¾" PREFORMED FILLER.

(S05) P513 @ 1'-0" CENTERS BETWEEN GIRDERS. EMBED 1'-0", PLACE BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.

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STATE OF WISCONSIN
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STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE DETAILS 1

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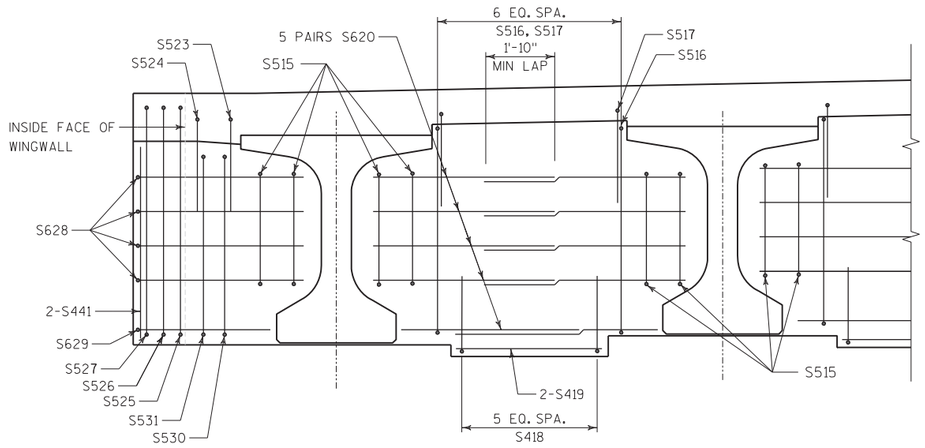
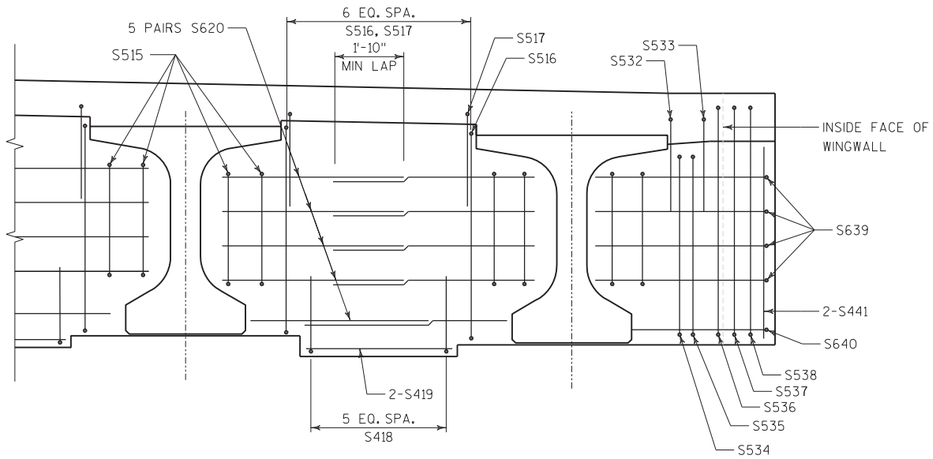
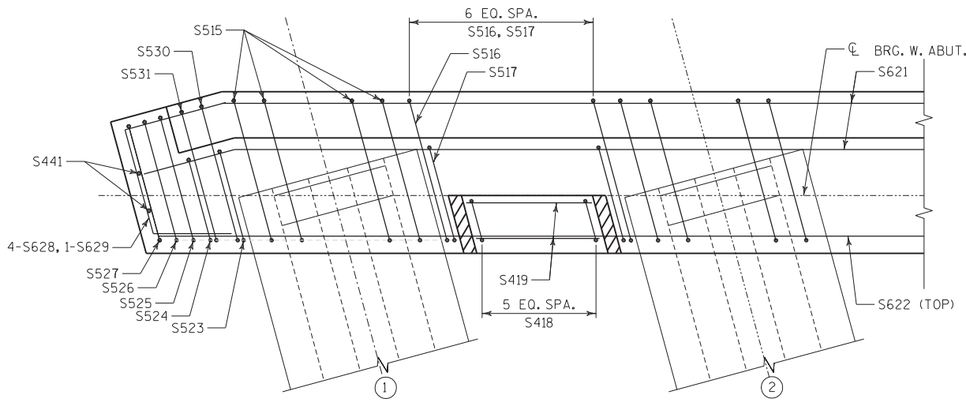
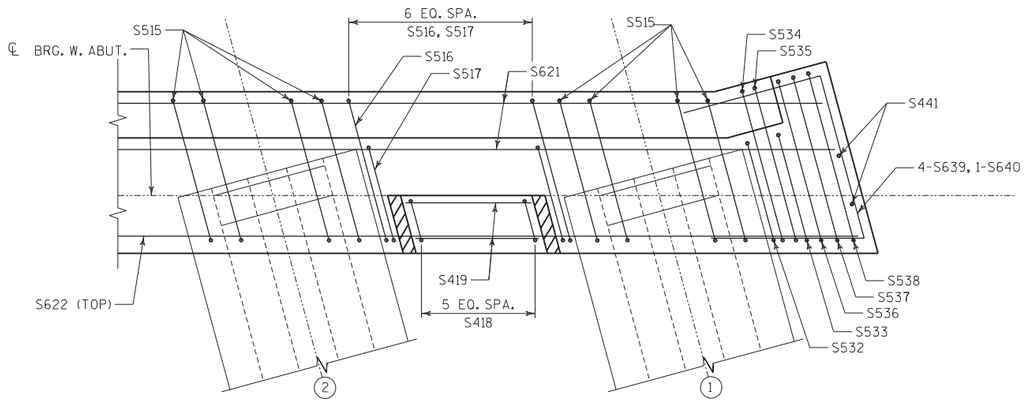






SOUTH-WEST



NORTH-WEST

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NOTES

ALL VERTICAL BAR STEEL REINFORCMENT IN CONCRETE DIAPHRAGMS SHALL BE PLACED PARALLEL TO THE GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE DETAILS 2

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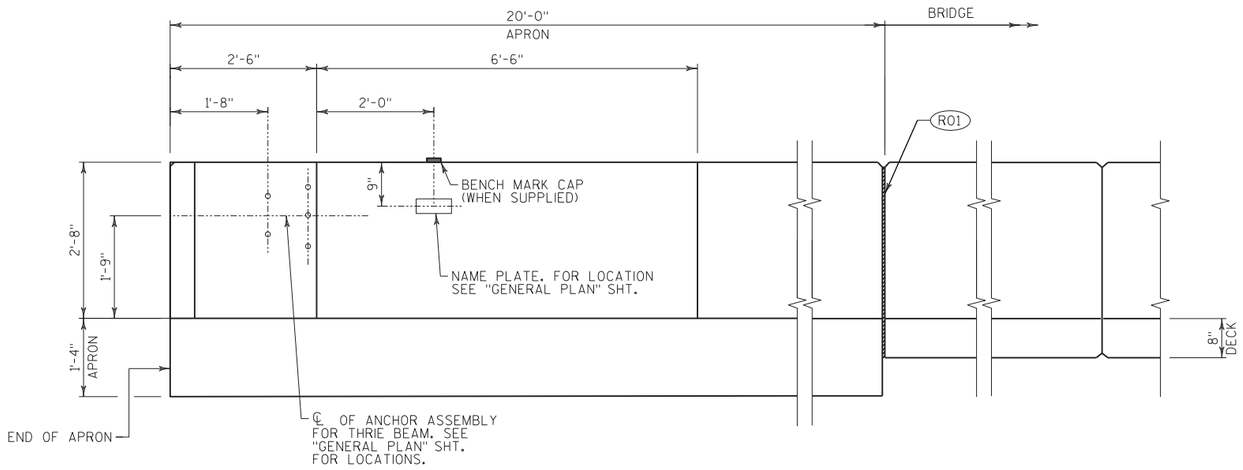
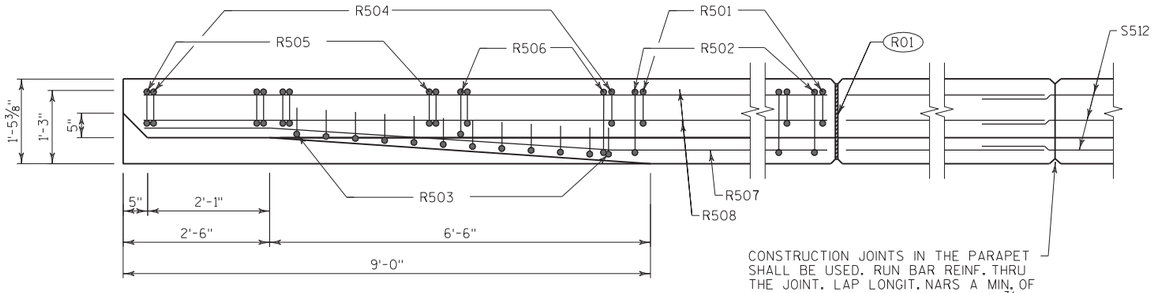


INSIDE ELEVATION



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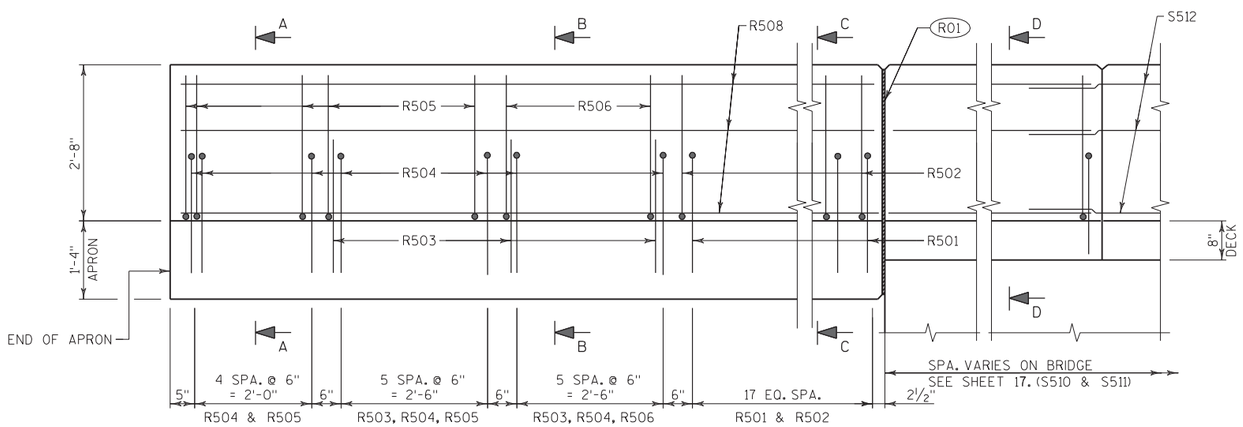

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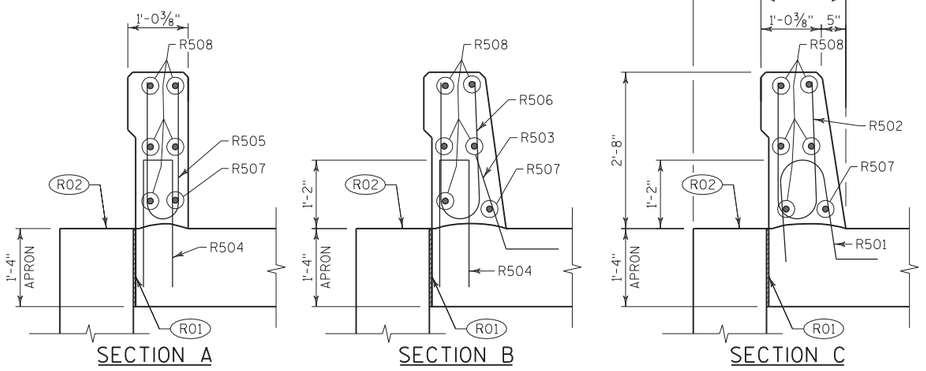
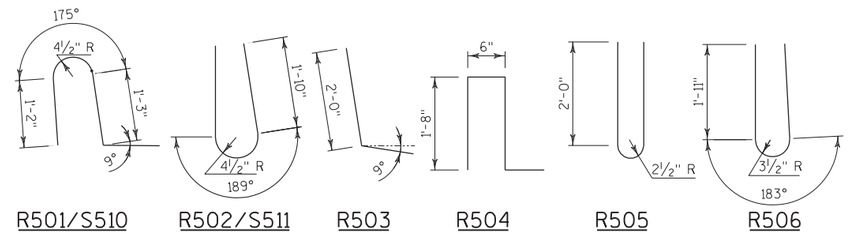
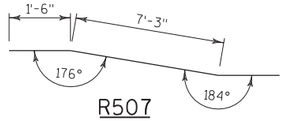
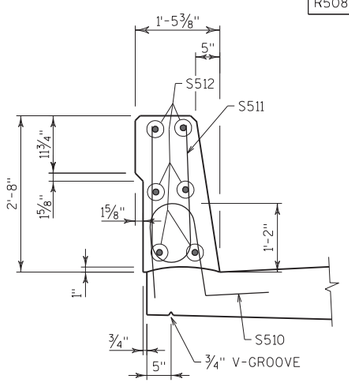




BILL OF BARS



BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
R501	X	72	4'-5"	X	-	PARAPET	VERTICAL
R502	X	72	5'-0"	X	-	PARAPET	VERTICAL
R503	X	48	2'-9"	X	-	PARAPET	VERTICAL
R504	X	68	4'-4"	X	-	PARAPET	VERTICAL
R505	X	44	4'-9"	X	-	PARAPET	VERTICAL
R506	X	24	4'-10"	X	-	PARAPET	VERTICAL
R507	X	4	19'-5"	X	-	PARAPET	HORIZONTAL
R508	X	20	19'-8"	-	-	PARAPET	HORIZONTAL



SECTION D THRU PARAPET ON BRIDGE

SEE SHEET 17 FOR REBAR SPACING ON BRIDGE.
SEE SHEET 19 FOR BILL OF BARS.

NOTE

(R01) ½" FILLER. SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(R02) SLOPE FOR DRAINAGE.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

SINGLE SLOPE PARAPET 32SS

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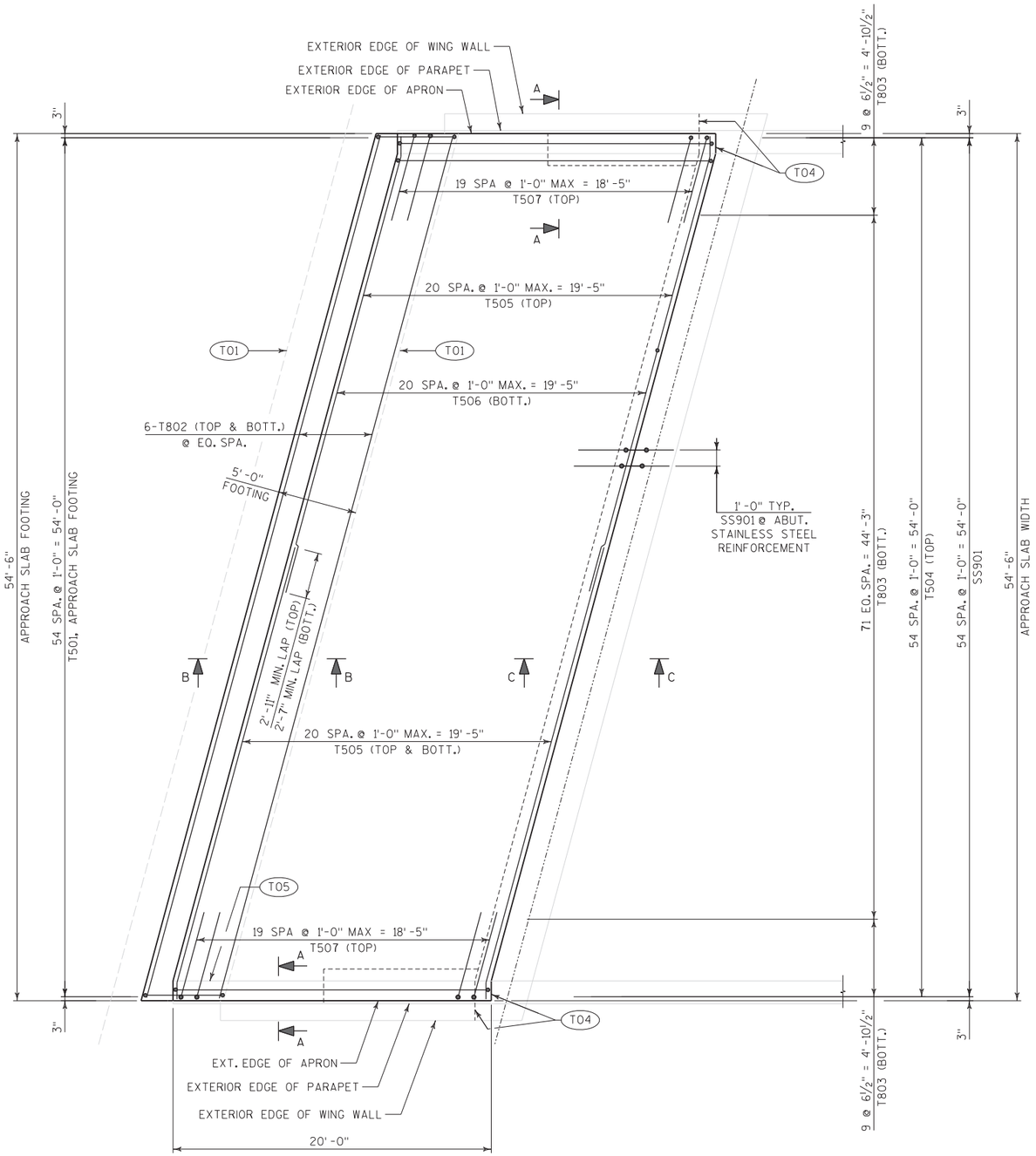

DESIGN DATA:

ALLOWABLE SOIL BEARING PRESSURE:	2,000 P.S.F.
CONCRETE STRENGTH F'C:	4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60, FY:	60,000 P.S.I.

NOTES AND LEGEND:

(T01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(T04) ½" FILLER (INCLUDED IN PARAPET/SLAB LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(T05) SEE SHEET 22 FOR LOCATION OF NAME PLATE AND BENCH MARK WITH RESPECT TO THE END OF PARAPET.

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NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

STRUCTURAL APPROACH SLAB

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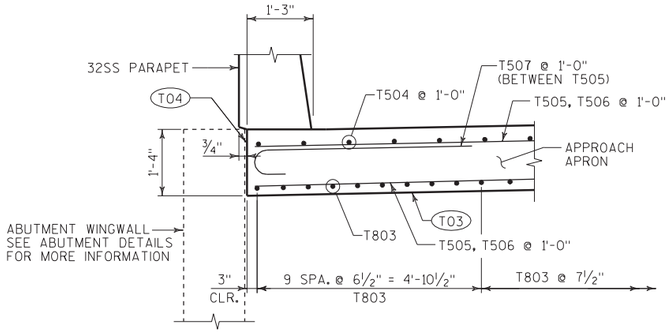
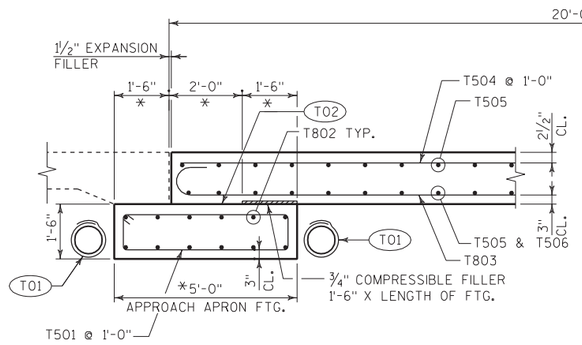
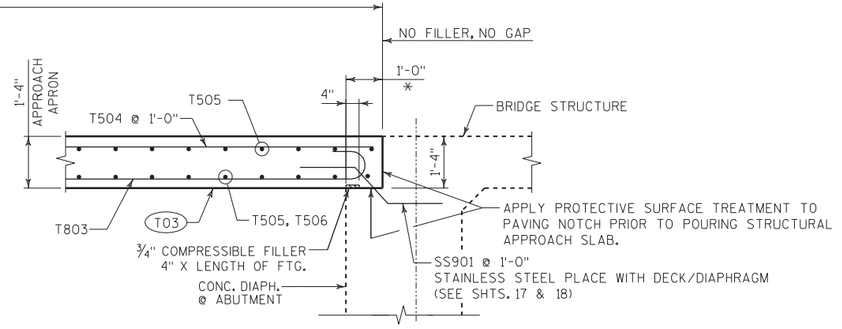


SECTION A-A

(AT WINGWALLS PARALLEL TO BRIDGE)



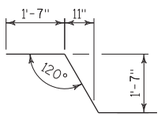
SECTION B-B



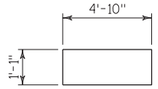
SECTION C-C

TRANSVERSE SECTION THRU APPROACH APRON

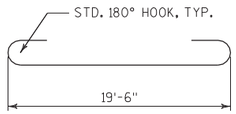
* MEASURED NORMAL TO ABUTMENT



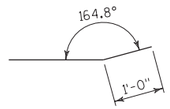
SS901



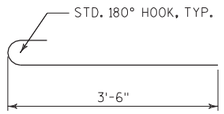
T501



T803



T505, T506



T507

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
T501	X	110	12'-5"	X	-	APRON FOOTING - STIRRUP	VERTICAL
T802	X	24	55'-11"	-	-	APRON FOOTING	TRANS
T803	X	180	21'-4"	X	-	APRON SLAB - BOTT	LONG
T504	X	110	19'-6"	-	-	APRON SLAB - TOP	LONG
T505	X	126	29'-5"	X	-	APRON SLAB - TOP & BOTT	TRANS
T506	X	42	29'-1"	X	-	APRON SLAB - BOTT	TRANS
T507	X	80	4'-1"	X	-	APRON SLAB - EDGES	TRANS

BILL OF BARS

STAINLESS STEEL →

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
SS901	-	110	5'-0"	X	-	CONC. ABUT. DIAPH. TO APPROACH SLAB

LEGEND:

(T01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE SUBGRADE.

(T04) 1/2" FILLER (INCLUDED IN PARAPET/SLAB LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

DESIGNER NOTES:

SEE PARAPET STANDARDS FOR REINFORCEMENT AND OTHER DETAILS SHEET 22.

BELOW THE APPROACH SLAB FOOTING AND STRUCTURAL APPROACH SLAB, SHOW BASE AGGREGATE DENSE 1 1/4INCH AS PER FDM 14-5.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-187

DRAWN BY TRW | PLANS CK'D. ACT

STRUCTURAL APPROACH SLAB DETAILS

SHEET 24 OF 24

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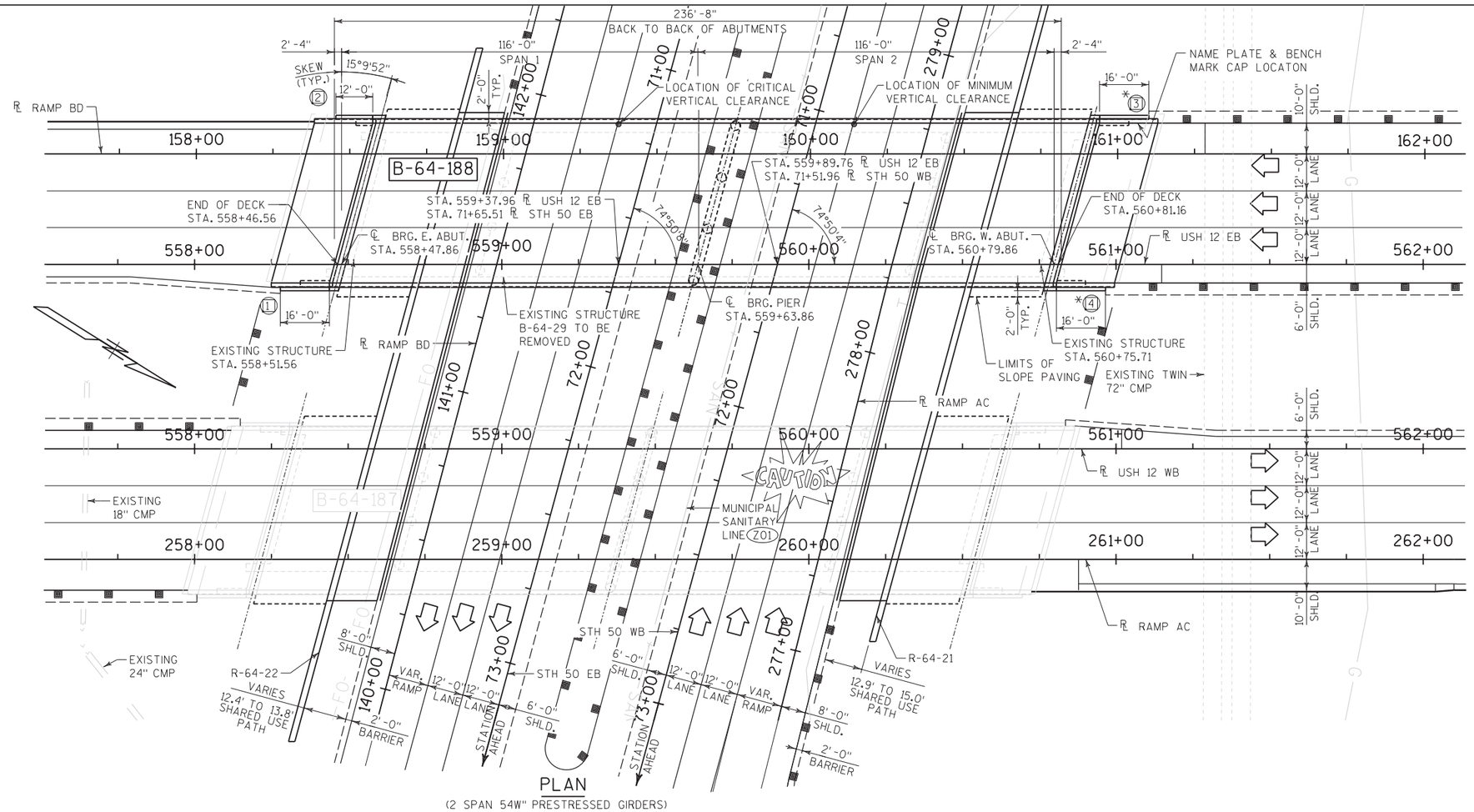
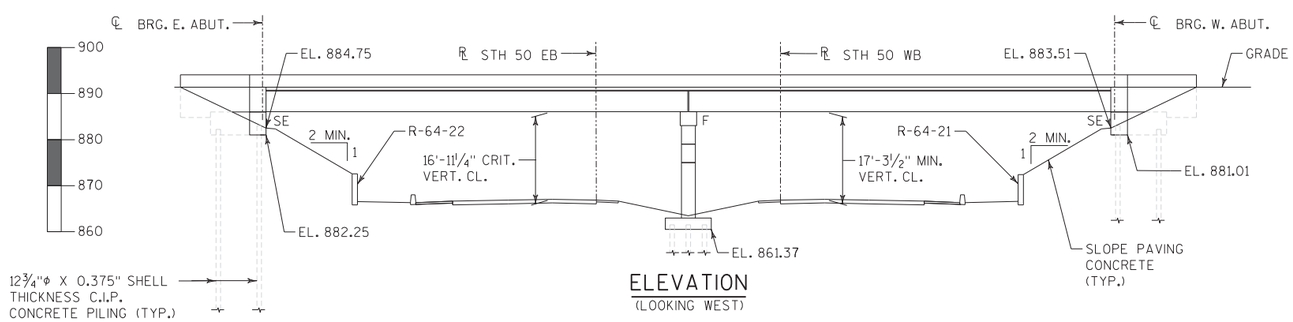
STATE PROJECT NUMBER
1080-12-71



PLAN
(2 SPAN 54W" PRESTRESSED GIRDERS)



ELEVATION
(LOOKING WEST)

DESIGN DATA

LIVE LOAD:

DESIGN RATING; HL-93
INVENTORY RATING; RF- 1.11
OPERATIONAL RATING; RF- 1.43
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 Kips.

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY
SUPERSTRUCTURE ---------- f'c = 4,000 P.S.I.
ALL OTHER ---------- f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT,
GRADE 60 ---------- fy = 60,000 P.S.I.

54W" PRESTRESSED GIRDERS,
CONCRETE MASONRY ---------- f'c = 8,000 P.S.I.
PRESTRESSING STRANDS - 0.6"ϕ WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS AND PIER TO BE SUPPORTED ON 12¾"ϕ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION.
ESTIMATED 50'-0" LONG AT ABUTMENTS.
ESTIMATED 45'-0" LONG AT PIER.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

NOTES

* PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

(n) - INDICATES WING NUMBER

TRAFFIC VOLUME

USH 12	STH 50
A.D.T. = 19,800 (2012)	A.D.T. = 18,100 (2012)
A.D.T. = 21,400 (2014)	A.D.T. = 18,600 (2014)
A.D.T. = 37,000 (2034)	A.D.T. = 23,300 (2034)
R.D.S. = 70 M.P.H.	R.D.S. = 50 M.P.H.

(Z01) THE SANITARY LINE IS TO REMAIN IN SERVICE THROUGH CONSTRUCTION, AND SHALL BE PROTECTED FROM DAMAGE DURING ALL CONSTRUCTION OPERATIONS.

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS-SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. EAST ABUTMENT
5. EAST ABUTMENT DETAILS
6. ABUTMENT WING WALL 1
7. ABUTMENT WING WALL 2
8. WEST ABUTMENT
9. WEST ABUTMENT DETAILS
10. ABUTMENT WING WALL 3
11. ABUTMENT WING WALL 4
12. PIER
13. PIER DETAILS
14. 54W" PRESTRESSED GIRDER
15. 54W" PRESTRESSED GIRDER DETAILS
16. STEEL DIAPHRAGM
17. SUPERSTRUCTURE
18. SUPERSTRUCTURE CROSS-SECTION
19. SUPERSTRUCTURE BILL OF BARS
20. SUPERSTRUCTURE DETAILS 1
21. SUPERSTRUCTURE DETAILS 2
22. SINGLE SLOPE PARAPET 32SS
23. STRUCTURAL APPROACH SLAB
24. STRUCTURAL APPROACH SLAB DETAILS

WISCONSIN
ANN C. THIELMANN
E-42457
MADISON
WI
PROFESSIONAL ENGINEER
2/26/14

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

CONSULTANT CONTACT:
ANN THIELMANN (608) 229-1414

NO.	DATE	REVISION	BY

DAAR ENGINEERING, INC.
www.daarcorp.com
Madison, WI 53793
608-249-0148

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher — CHIEF STRUCTURES DESIGN ENGINEER — 2/26/14 DATE

STRUCTURE B-64-188

USH 12 EB OVER STH 50

COUNTY	VILLAGE
WALWORTH	LAKE GENEVA

DESIGN SPEC. AASHTO LRFD SPEC.

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ACT	JFR	TRW	ACT

GENERAL PLAN & ELEVATION

SHEET 1 OF 24

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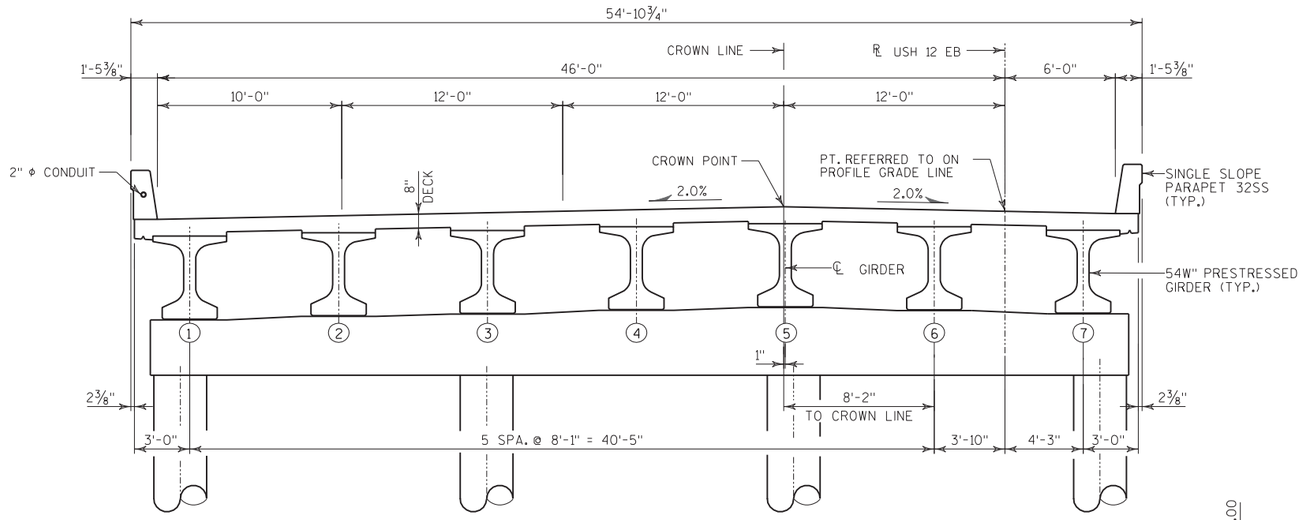
2/26/2014

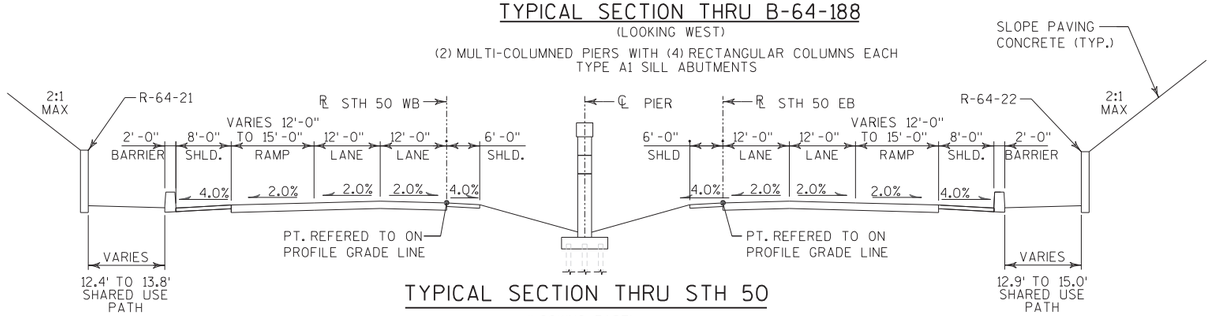
STATE PROJECT NUMBER
1080-12-71



TYPICAL SECTION THRU B-64-188

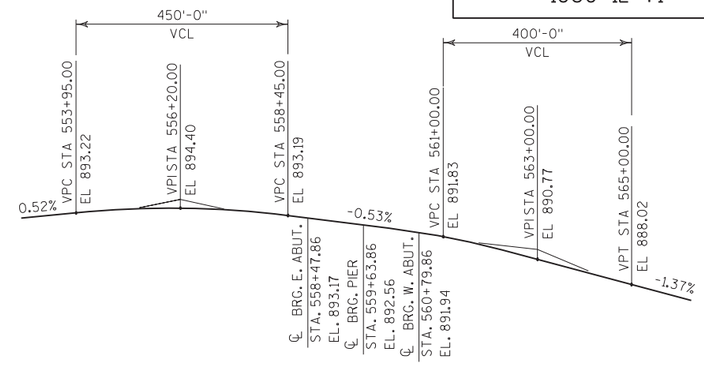
(LOOKING WEST)

(2) MULTI-COLUMNED PIERS WITH (4) RECTANGULAR COLUMNS EACH
TYPE A1 SILL ABUTMENTS

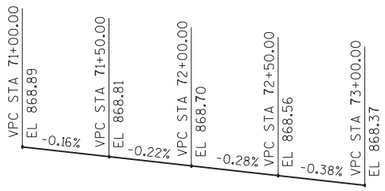


TYPICAL SECTION THRU STH 50

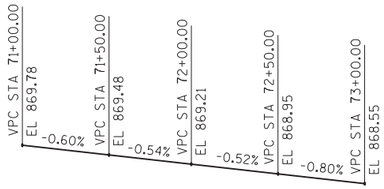
(LOOKING EAST)



PROFILE GRADE LINE USH 12 EB



EXISTING PROFILE GRADE LINE STH 50 WB



EXISTING PROFILE GRADE LINE STH 50 EB

BENCH MARKS

NO.	LOCATION	DESCRIPTION	ELEVATION
BM128	STA. 558+19.34, 40.28' RT	SE CORNER OF USH 12 NB BRIDGE	889.98
BM129	STA. 560+93.35, 100.04' LT	NW CORNER OF USH 12 SB BRIDGE	888.55

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	EAST APPROACH APRON	EAST ABUT.	PIER	WEST ABUT.	WEST APPROACH APRON	SUPER.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 559+63.86, OFFSET 72'LT	LS	-	-	-	-	-	-	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-64-29	LS	-	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURE, BRIDGES B-64-188	LS	-	-	-	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	-	167	-	167	-	-	334
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	214	-	-	-	214	-	428
502.0100	CONCRETE MASONRY BRIDGES	CY	65	60	65	62	65	506	822
502.3200	PROTECTIVE SURFACE TREATMENT	SY	132	-	-	-	132	1531	1795
503.0155	PRESTRESSED GRIDER TYPE I54W-INCH	LF	-	-	-	-	-	1629	1629
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	-	4564	4021	5025	-	-	13610
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	12480	-	15867	-	12480	115261	156090
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	7	14	7	-	-	28
506.4000	STEEL DIAPHRAGMS B-64-188	EACH	-	-	-	-	-	24	24
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	14	-	14	-	-	28
550.2126	PILING CIP CONCRETE 12 3/4" X 0.375-INCH	LF	-	600	1260	600	-	-	2460
604.0400	SLOPE PAVING CONCRETE	SY	-	197	-	196	-	-	393
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	-	80	-	80	-	-	160
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	120	74	-	74	120	-	388
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	-	-	2	-	2
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	3	-	-	-	3	6	12
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	24	-	-	-	24	277	325
653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	-	-	-	-	-	1	1
SPV.0085.700	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGE	LB	935	-		-	935	-	1870
	NON-BID ITEMS								
	FILLER	SIZE							½" & ¾"

ALL ITEMS ARE CATEGORY 0020

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES. ALL STATIONS AND ELEVATIONS ARE IN FEET.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.

THE EXISTING STRUCTURE, B-64-29, IS A FOUR SPAN STEEL DECK GIRDER BRIDGE WITH AN OVERALL WIDTH OF 47'-0" AND AN OVERALL LENGTH OF 222'-0⅛" AND IS TO BE REMOVED.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE ROADWAY DECK, THE FRONT FACE AND THE TOP OF THE PARAPETS.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

AT THE BACKFACE OF ABUTMENT ALL VOLUME THAT CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

(X) INDICATES THE GIRDER NUMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

CROSS-SECTION & QUANTITIES

SHEET 2 OF 24

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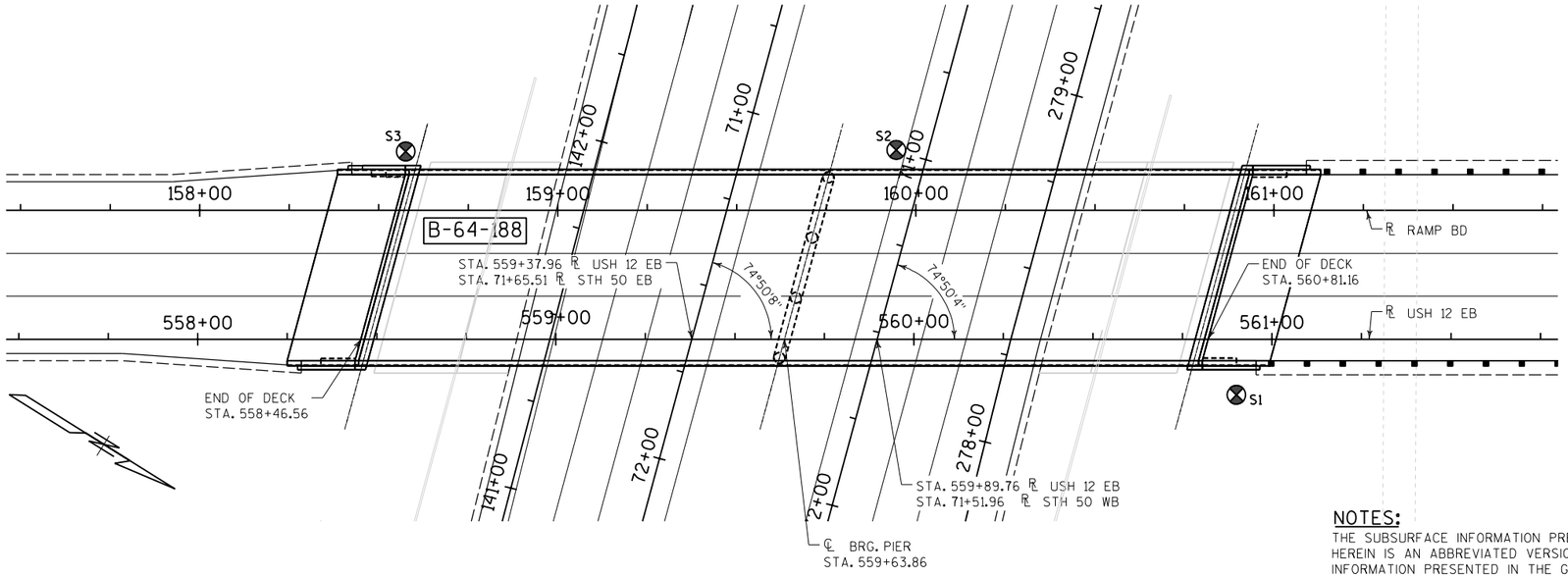


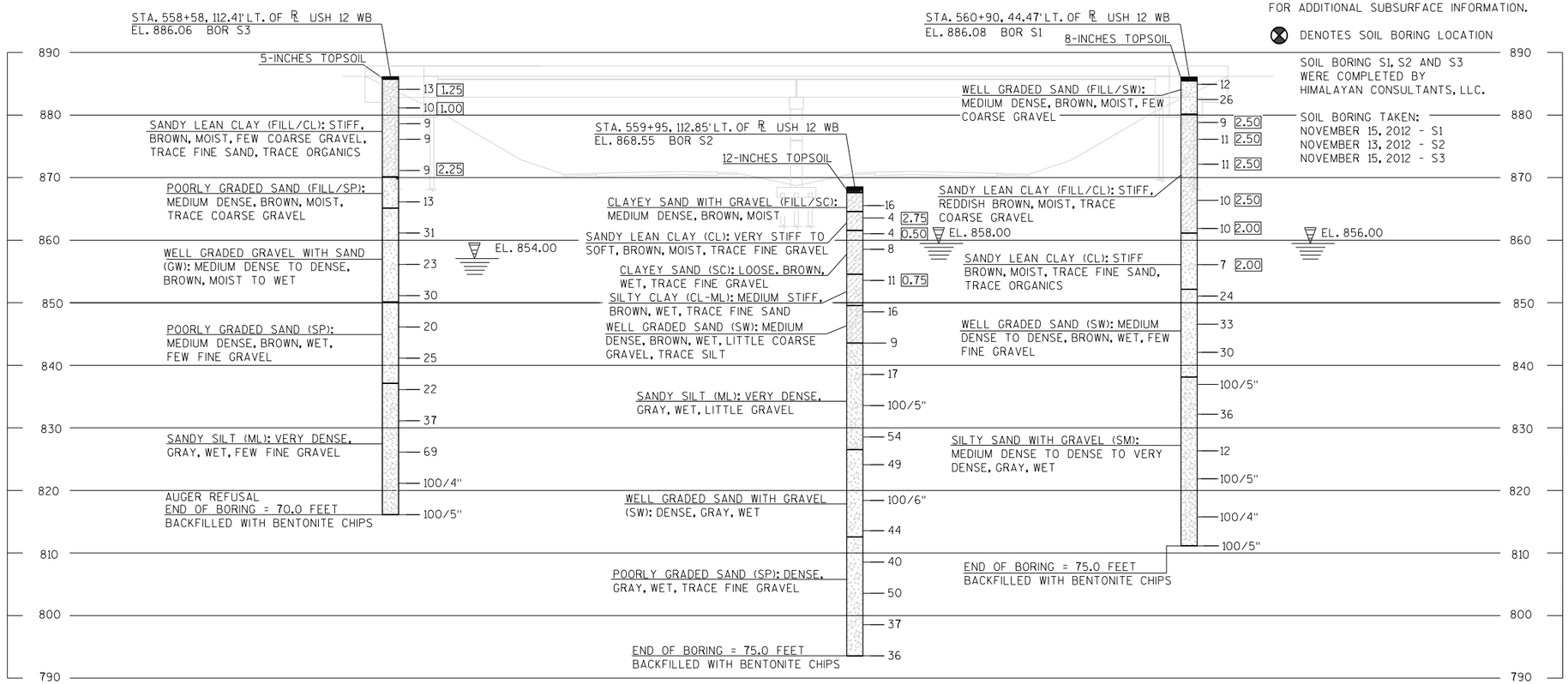
NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊗ DENOTES SOIL BORING LOCATION

SOIL BORINGS S1, S2 AND S3 WERE COMPLETED BY HIMALAYAN CONSULTANTS, LLC.

SOIL BORING TAKEN:
NOVEMBER 15, 2012 - S1
NOVEMBER 13, 2012 - S2
NOVEMBER 15, 2012 - S3



STATE PROJECT NUMBER

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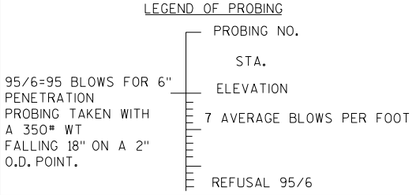
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

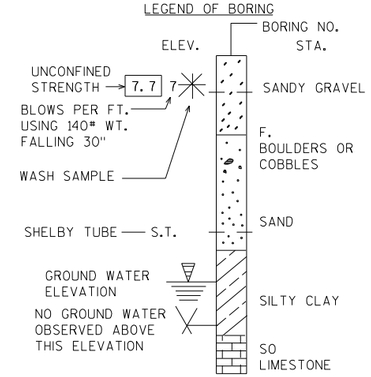
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

SUBSURFACE EXPLORATION

SHEET 3 OF 24

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2/26/2014

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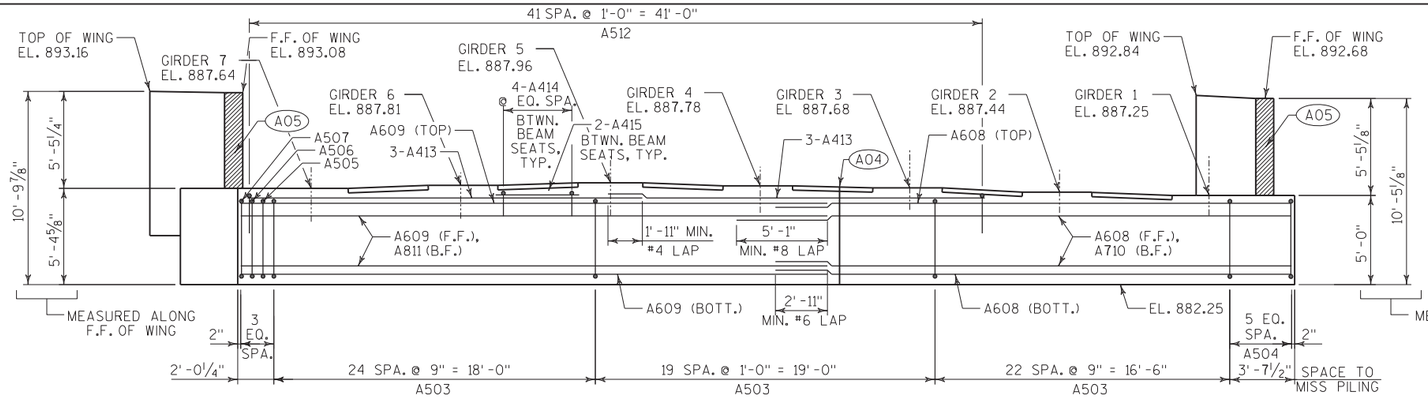
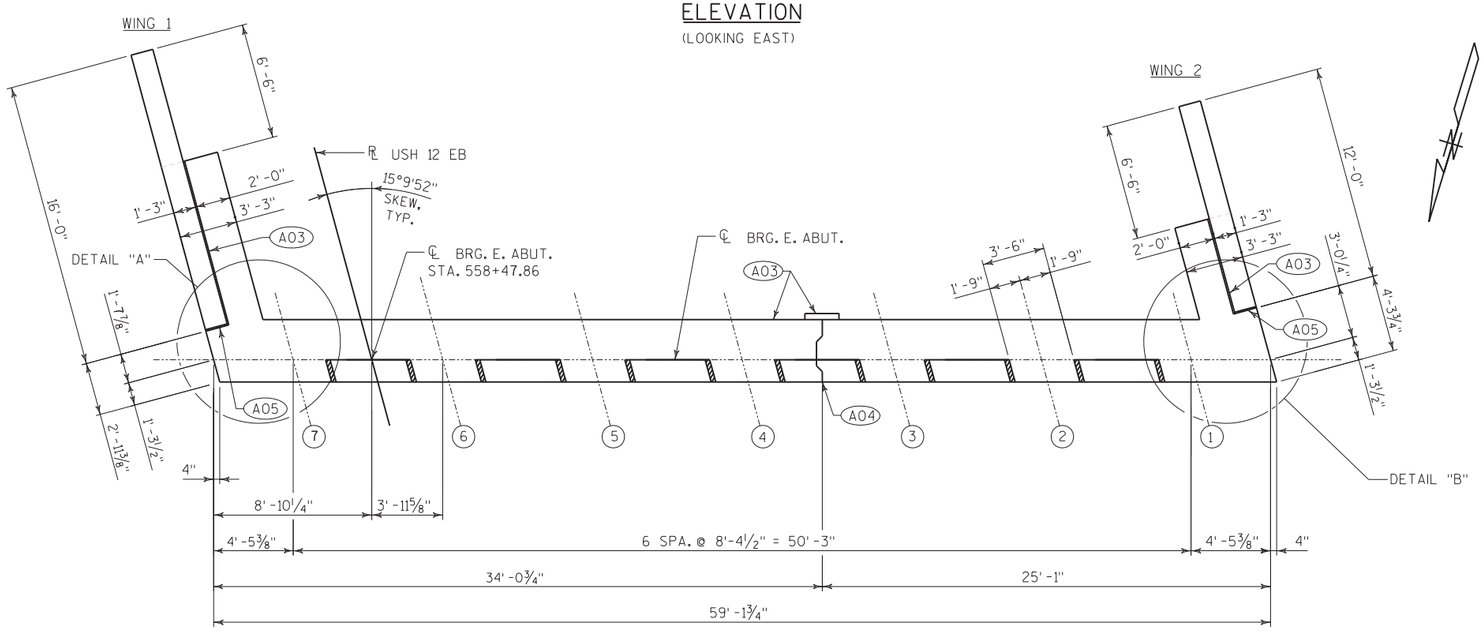
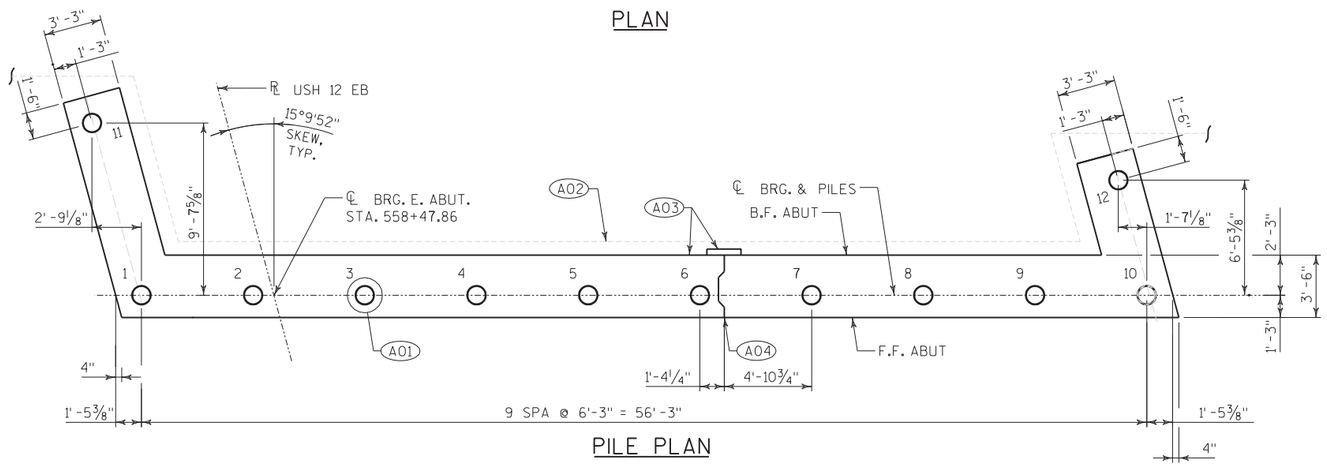


ELEVATION

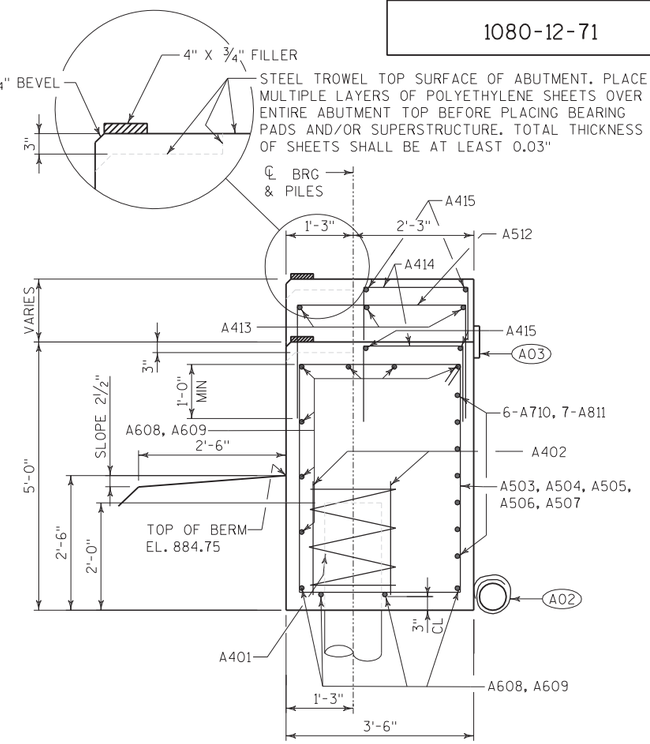
(LOOKING EAST)



PLAN



PILE PLAN



SECTION THRU BODY

LEGEND:

(A01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(A02) PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END AND CAP UPPER END. THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THE DETAIL SHOWN TO DETAIL SHOWN ON SHEET 5. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPI COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH (2) TWO OR MORE NO. 10X1-INCH STAINLESS SHEET METAL SCREWS AND SHALL BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(A04) KEYED CONST JOINT FORMED BY BEVELED 2" X 8" WITH ¾" V-GROOVE. SEE SHEET 5 FOR ALTERNATE CONSTRUCTION JOINT DETAIL. RUN BAR STEEL THRU JOINT.

(A05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ & VERT SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A06) ¾" CORK FILLER UP VERT BEAM SEAT FACES THAT RUN PARALLEL TO GIRDER, TYP.

SEE SHEET 5 FOR PILE SPLICE DETAIL.

SEE SHEET 5 FOR DETAILS A & B.

(X) INDICATES GIRDER NUMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

EAST ABUTMENT

SHEET 4 OF 24

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STATE PROJECT NUMBER

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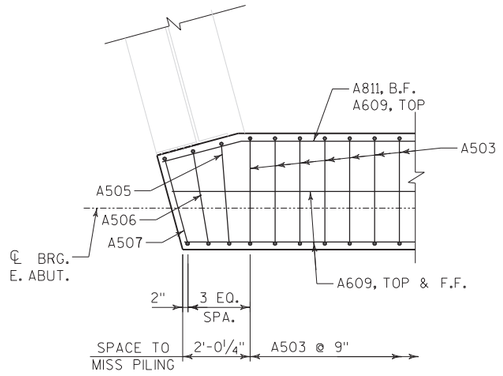
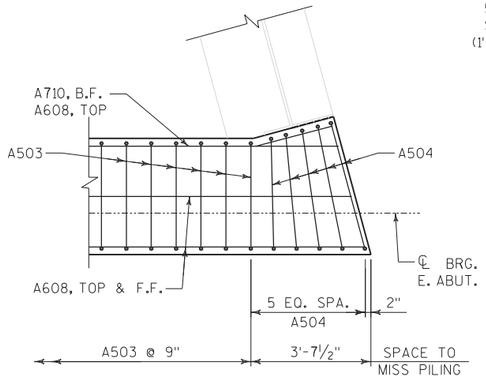


DETAIL "A"



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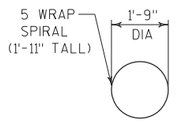
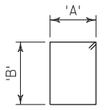
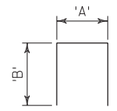


A401

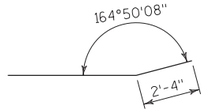


BAR MARK	DIM. A	DIM. B
A503	3'-2"	4'-4"
A504	VARIES	4'-4"
A505	3'-0"	4'-4"
A506	2'-10"	4'-4"
A507	2'-8"	4'-4"
A522	2'-9"	4'-10"
A528	2'-9"	4'-6"

⚠



BAR MARK	DIM. A	DIM. B
A512	3'-2"	1'-9"
A414	1'-11"	1'-0"
A525	11"	5'-4"
A526	11"	7'-4"
A532	11"	6'-3"

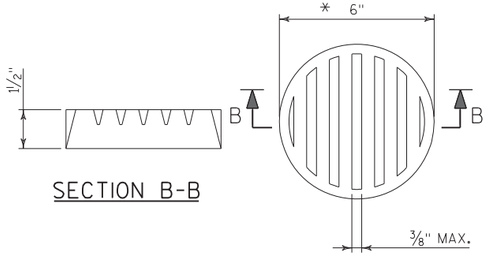


A710, A811

A721

BILL OF BARS

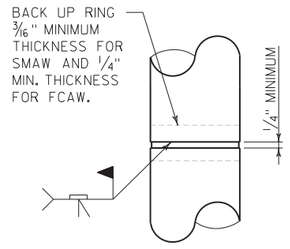
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
A401	-	10	28'-0"	X	-	ABUTMENT PILES - 1 PER PILE	VERTICAL
A402	-	20	2'-3"	-	-	ABUTMENT PILES - 2 PER PILE	VERTICAL
A503	-	66	15'-7"	X	-	ABUTMENT BODY STIRRUPS	VERTICAL
A504	-	5	16'-6"	X	X	ABUTMENT BODY STIRRUPS - S END	VERTICAL
A505	-	1	15'-3"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
A506	-	1	14'-11"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
A507	-	1	14'-7"	X	-	ABUTMENT BODY STIRRUPS - N END	VERTICAL
A608	-	11	28'-5"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
A609	-	11	33'-4"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
A710	-	6	28'-5"	X	-	ABUTMENT BODY BF	HORIZONTAL
A811	-	7	34'-0"	X	-	ABUTMENT BODY BF	HORIZONTAL
A512	-	42	6'-5"	X	-	ABUTMENT BODY	VERTICAL
A413	-	6	21'-6"	-	-	ABUTMENT BODY	HORIZONTAL
A414	-	24	3'-9"	X	-	ABUTMENT BODY - TOP BTWN SEATS	VERTICAL
A415	-	12	6'-9"	-	-	ABUTMENT BODY - BTWN SEATS	HORIZONTAL
-	-	-	-	-	-	-	-
A520	-	7	7'-11"	-	-	WING WALL 1	HORIZONTAL
A721	-	9	11'-8"	X	-	WING WALL 1	HORIZONTAL
A522	-	10	15'-9"	X	-	WING WALL 1	VERTICAL
A423	X	11	15'-6"	-	-	WING WALL 1 EXTENSION	HORIZONTAL
A624	X	2	15'-6"	-	-	WING WALL 1 EXTENSION TOP	HORIZONTAL
A525	X	9	11'-4"	X	-	WING WALL 1 EXTENSION	VERTICAL
A526	X	21	15'-4"	X	-	WING WALL 1 & 2 EXTENSION	VERTICAL
A527	-	15	7'-11"	-	-	WING WALL 2	HORIZONTAL
A528	-	6	15'-1"	X	-	WING WALL 2	VERTICAL
A429	X	6	7'-8"	-	-	WING WALL 1 & 2 EXTENSION	HORIZONTAL
A430	X	12	11'-6"	-	-	WING WALL 2 EXTENSION	HORIZONTAL
A631	X	2	11'-6"	-	-	WING WALL 2 EXTENSION TOP	HORIZONTAL
A532	X	9	13'-2"	X	-	WING WALL 2 EXTENSION	VERTICAL



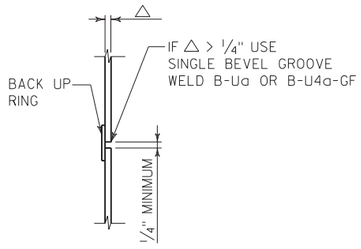
SECTION B-B

RODENT SHIELD

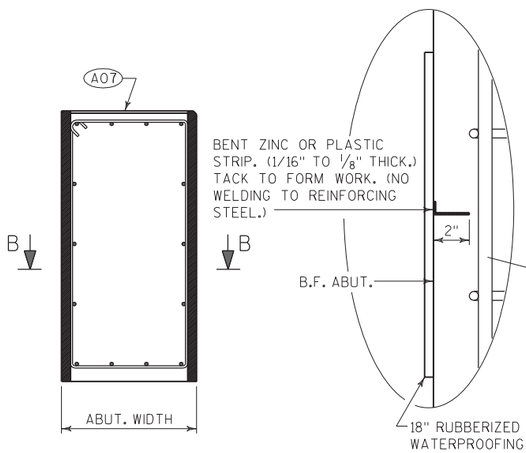
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.



PILE SPLICE DETAIL



CIP PILE WELD DETAIL



SECTION THRU ABUTMENT BODY

SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

BAR SERIES

BAR MARK	NO. REQ'D.	"A"	LENGTH	LOCATION
A504	1 SERIES OF 5	3'-4" TO 3'-11"	15'-11" TO 17'-1"	ABUT

LEGEND

(A07) USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

⚠ SEE BAR SERIES TABLE.

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

EAST ABUTMENT DETAILS

SHEET 5 OF 24

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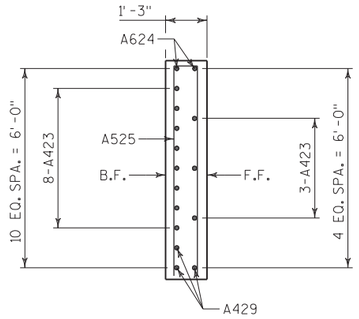
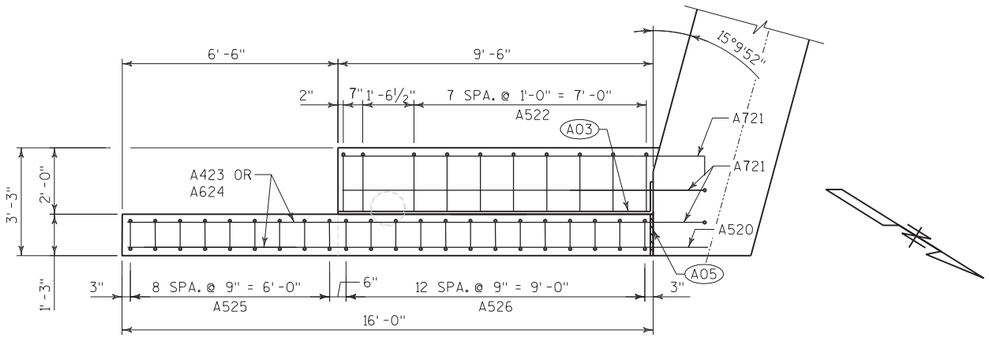
2/26/2014

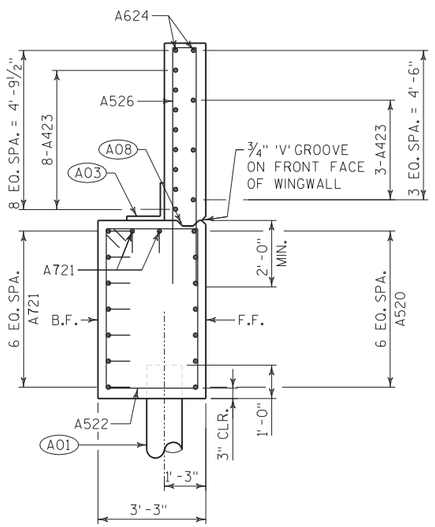
STATE PROJECT NUMBER
1080-12-71



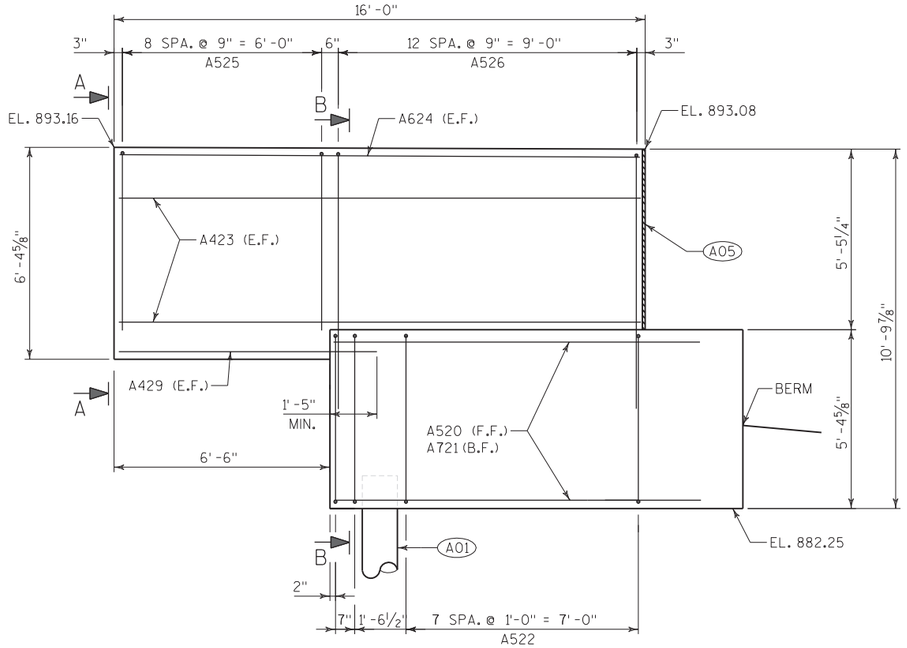
SECTION A-A



WING 1 PLAN



SECTION B-B



WING 1 ELEVATION
(FRONT FACE)

LEGEND:

(A01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(A05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A08) OPTIONAL CONSTRUCTION JOINT FORMED BY 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

SEE SHEET 5 FOR BILL OF BARS AND BENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT
WING WALL 1

8

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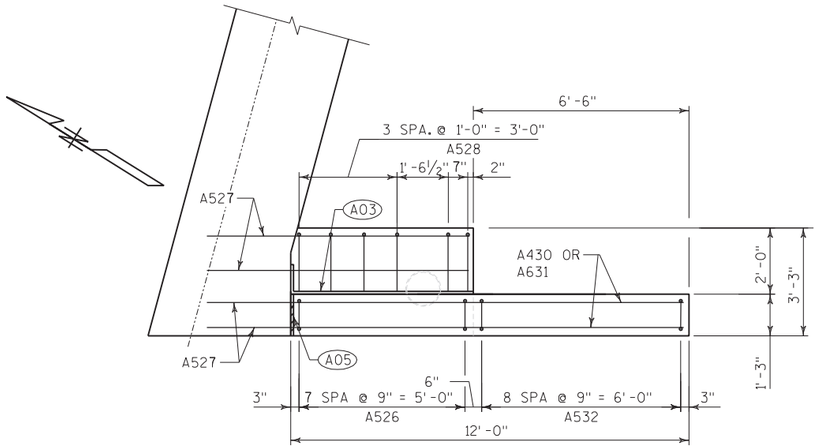
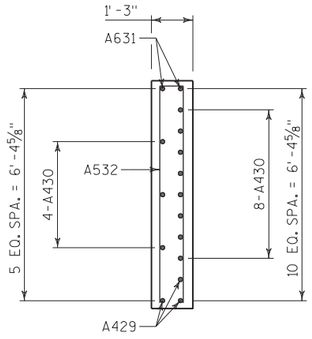
2/26/2014

STATE PROJECT NUMBER

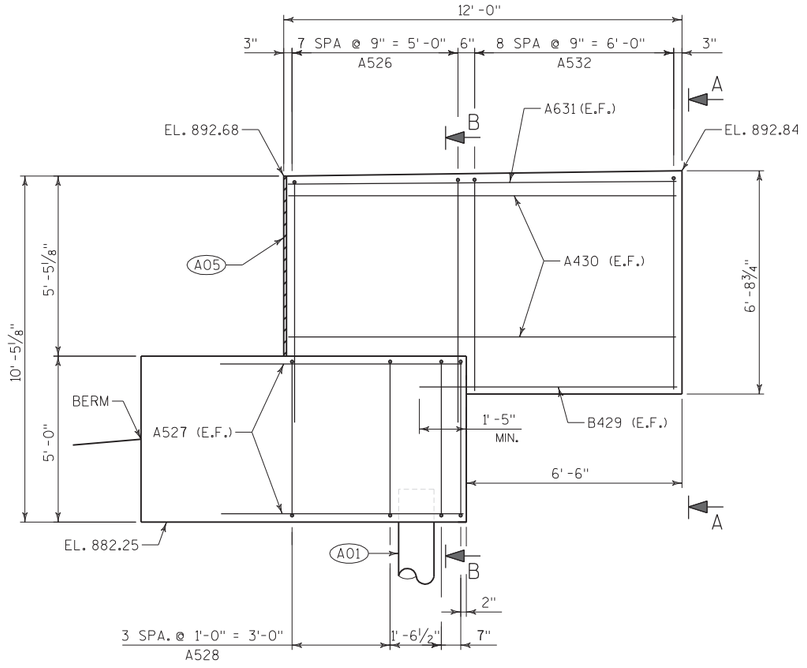
1080-12-71



WING 2 PLAN

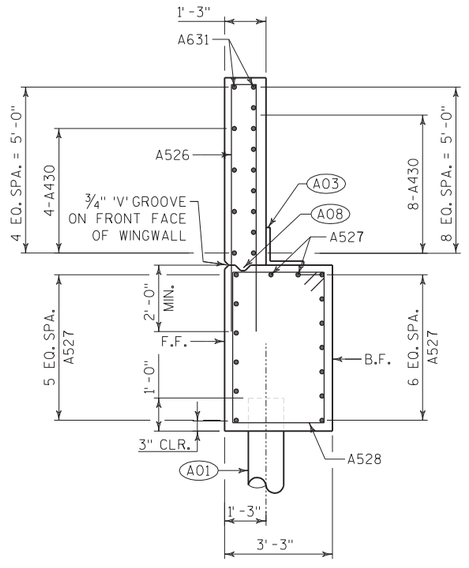


SECTION A-A



WING 2 ELEVATION

(FRONT FACE)



SECTION B-B

LEGEND:

(A01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(A03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(A05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A08) OPTIONAL CONSTRUCTION JOINT FORMED BY 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

SEE SHEET 5 FOR BILL OF BARS AND BENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT
WING WALL 2

SHEET 7 OF 24

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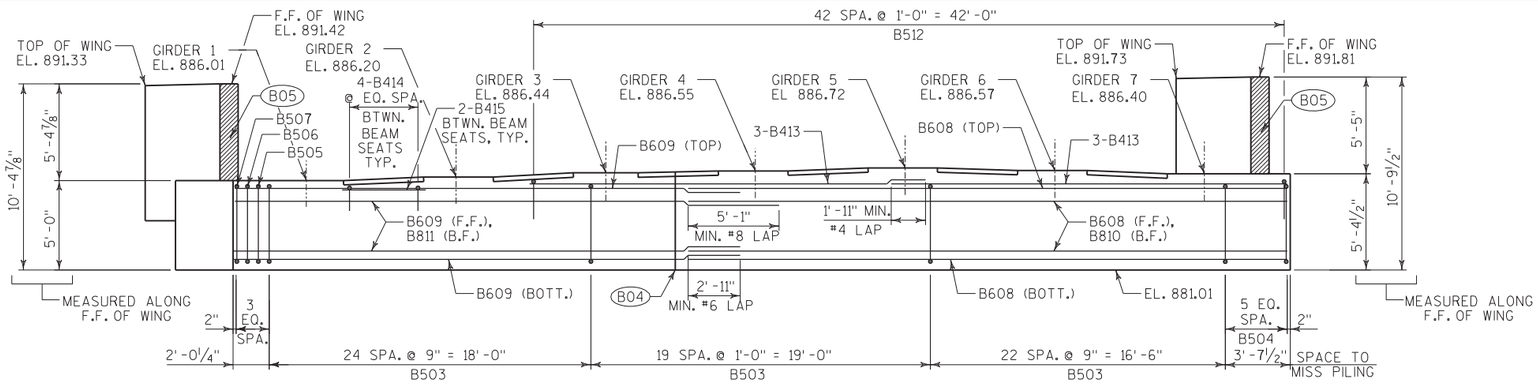
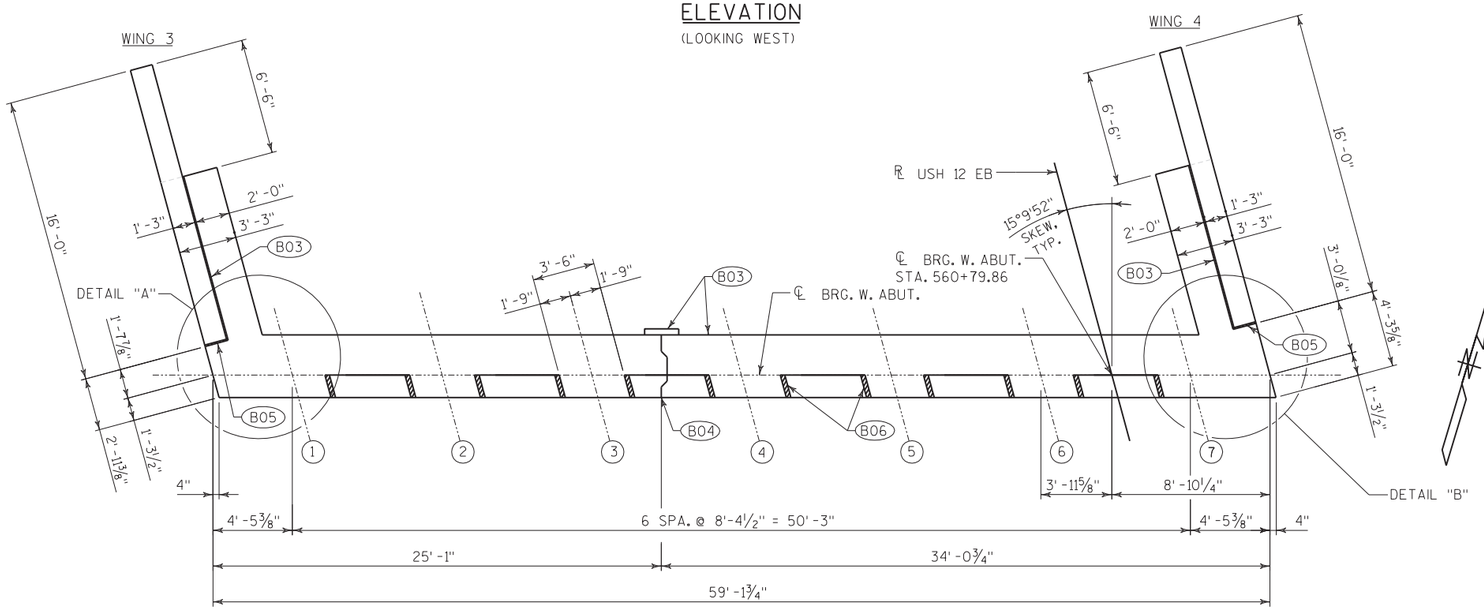
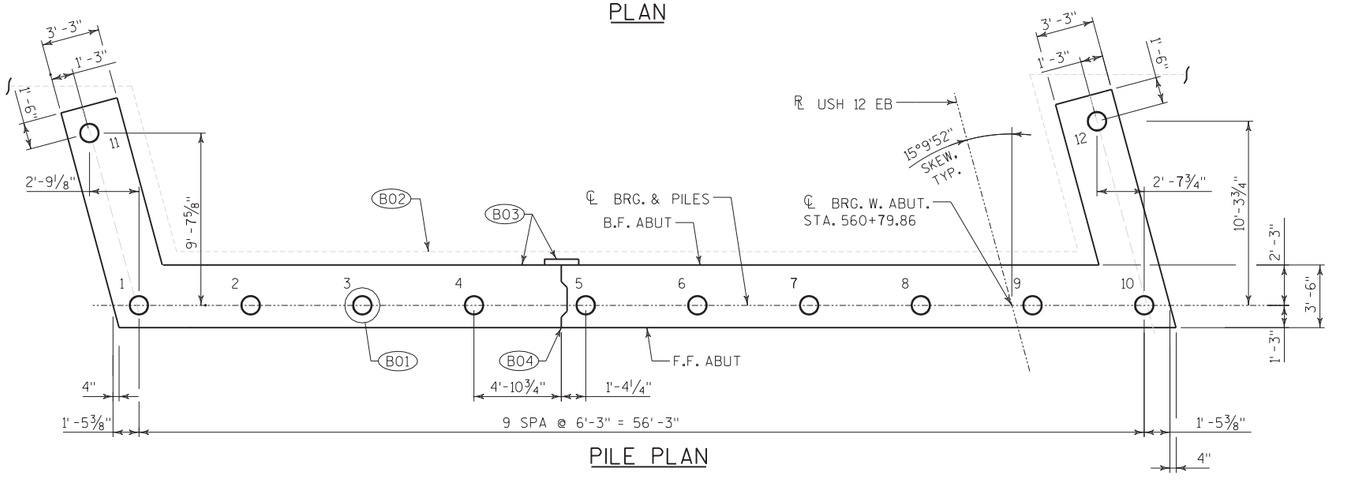


ELEVATION

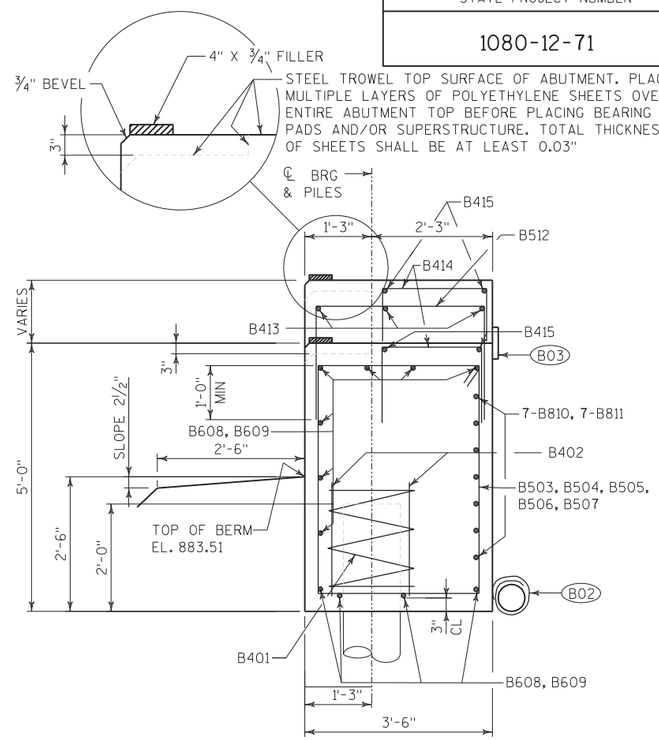
(LOOKING WEST)



PLAN



PILE PLAN



SECTION THRU BODY

LEGEND:

(B01) ABUTMENTS TO BE SUPPORTED ON 12 3/4"ϕ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(B02) PIPE UNDERDRAIN WRAPPED, 6-INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT END AND CAP UPPER END. THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THE DETAIL SHOWN TO DETAIL SHOWN ON SHEET 5. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPI COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH (2) TWO OR MORE NO. 10X1-INCH STAINLESS SHEET METAL SCREWS AND SHALL BE INCLUDED IN BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(B04) KEYED CONST JOINT FORMED BY BEVELED 2" X 8" WITH 3/4" V-GROOVE. SEE SHEET 5 FOR ALTERNATE CONSTRUCTION JOINT DETAIL. RUN BAR STEEL THRU JOINT.

(B05) 1/2" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ & VERT SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(B06) 3/4" CORK FILLER UP VERT BEAM SEAT FACES THAT RUN PARALLEL TO GIRDER, TYP.

SEE SHEET 5 FOR PILE SPLICE DETAIL.

SEE SHEET 9 FOR DETAILS A & B.

(X) INDICATES GIRDER NUMBER.

STATE PROJECT NUMBER

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

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WEST ABUTMENT

SHEET 8 OF 24

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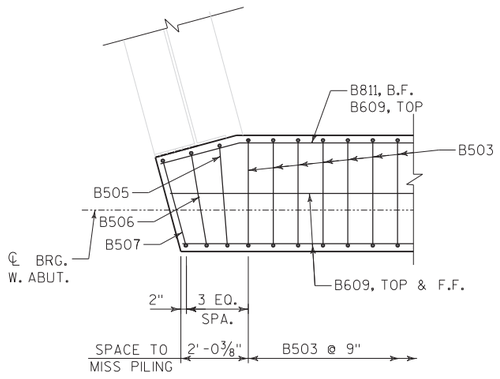
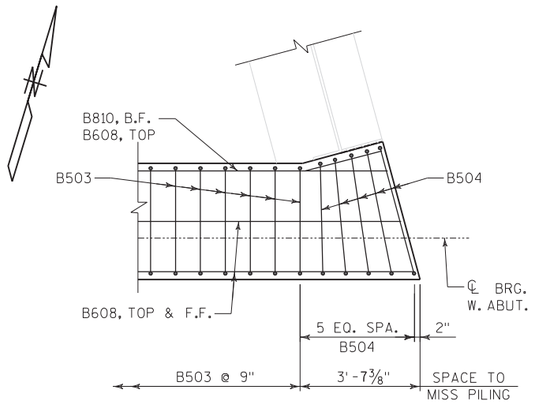
STATE PROJECT NUMBER

1080-12-71



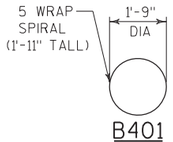
DETAIL "A"



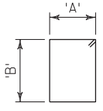
DETAIL "B"

BILL OF BARS

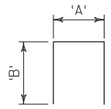
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
B401	-	10	28'-0"	X	-	ABUTMENT PILES - 1 PER PILE	VERTICAL
B402	-	20	2'-3"	-	-	ABUTMENT PILES - 2 PER PILE	VERTICAL
B503	-	66	15'-7"	X	-	ABUTMENT BODY STIRRUPS	VERTICAL
B504	-	5	16'-6"	X	X	ABUTMENT BODY STIRRUPS	VERTICAL
B505	-	1	15'-3"	X	-	ABUTMENT BODY STIRRUPS	VERTICAL
B506	-	1	14'-11"	X	-	ABUTMENT BODY STIRRUPS	VERTICAL
B507	-	1	14'-7"	X	-	ABUTMENT BODY STIRRUPS	VERTICAL
B608	-	11	33'-11"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
B609	-	11	27'-10"	-	-	ABUTMENT BODY FF, TOP & BOTT	HORIZONTAL
B810	-	7	32'-10"	X	-	ABUTMENT BODY BF	HORIZONTAL
B811	-	7	30'-10"	X	-	ABUTMENT BODY BF	HORIZONTAL
B512	-	43	6'-5"	X	-	ABUTMENT BODY	VERTICAL
B413	-	6	22'-0"	-	-	ABUTMENT BODY	HORIZONTAL
B414	-	24	3'-9"	X	-	ABUTMENT BODY - TOP BTWN SEATS	VERTICAL
B415	-	12	6'-9"	-	-	ABUTMENT BODY - BTWN SEATS	HORIZONTAL
-	-	-	-	-	-	-	-
B520	-	12	11'-9"	-	-	WING WALL 3 & 4	HORIZONTAL
B721	-	18	11'-8"	X	-	WING WALL 3 & 4	HORIZONTAL
B522	-	10	15'-1"	X	-	WING WALL 3	VERTICAL
B423	X	6	7'-8"	-	-	WING WALL 3 & 4 EXTENSION	HORIZONTAL
B424	X	20	15'-6"	-	-	WING WALL 3 & 4 EXTENSION	HORIZONTAL
B625	X	4	15'-6"	-	-	WING WALL 3 & 4 EXTENSION TOP	HORIZONTAL
B526	X	9	11'-10"	X	-	WING WALL 3 EXTENSION	VERTICAL
B527	X	26	15'-2"	X	-	WING WALL 3 & 4 EXTENSION	VERTICAL
B528	X	9	12'-4"	X	-	WING WALL 4 EXTENSION	VERTICAL
B529	-	10	16'-1"	X	-	WING WALL 4	VERTICAL



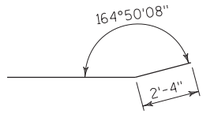
B401



BAR MARK	DIM. A	DIM. B
B503	3'-2"	4'-4"
⚠ B504	VARIES	4'-4"
B505	3'-0"	4'-4"
B506	2'-10"	4'-4"
B507	2'-8"	4'-4"
B522	2'-9"	4'-6"
B529	2'-9"	5'-0"



BAR MARK	DIM. A	DIM. B
B512	3'-2"	1'-9"
B414	1'-11"	1'-0"
B526	11"	5'-7"
B527	11"	7'-3"
B528	11"	5'-10"



B810, B811

B721

BAR SERIES

BAR MARK	NO. REQ'D.	"A"	LENGTH	LOCATION
B504	1 SERIES OF 5	3'-4" TO 3'-11"	15'-11" TO 17'-1"	ABUT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION.

⚠ SEE BAR SERIES TABLE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-64-188

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WEST ABUTMENT DETAILS

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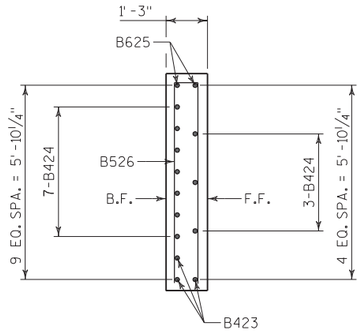
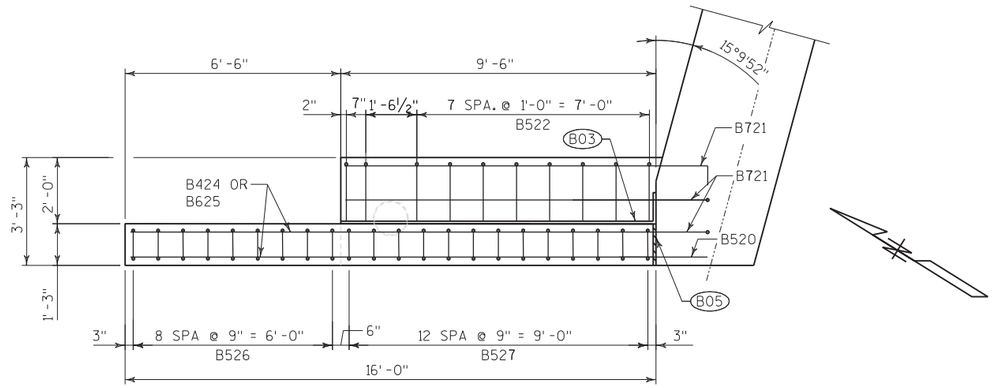
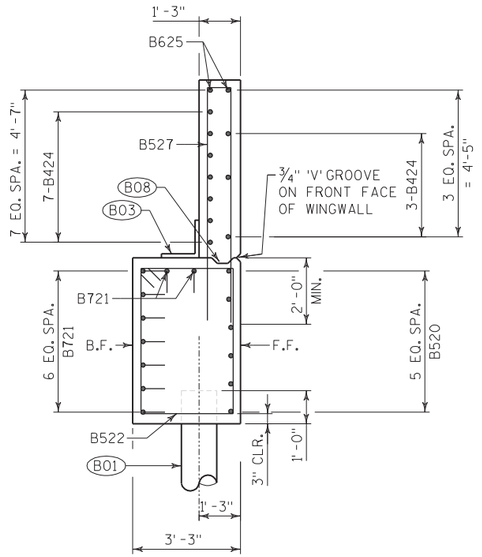


SECTION A-A



WING 3 PLAN



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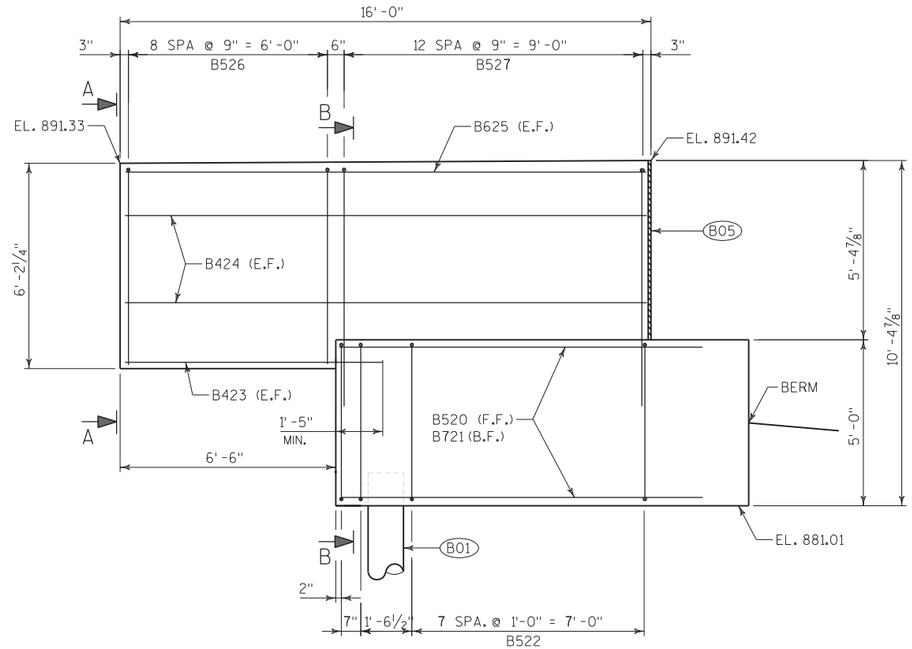

WING 3 ELEVATION
(FRONT FACE)

LEGEND:

(B01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(B05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(B08) OPTIONAL CONSTRUCTION JOINT FORMED BY 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

SEE SHEET 9 FOR BILL OF BARS AND BENDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-64-188

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ABUTMENT
WING WALL 3

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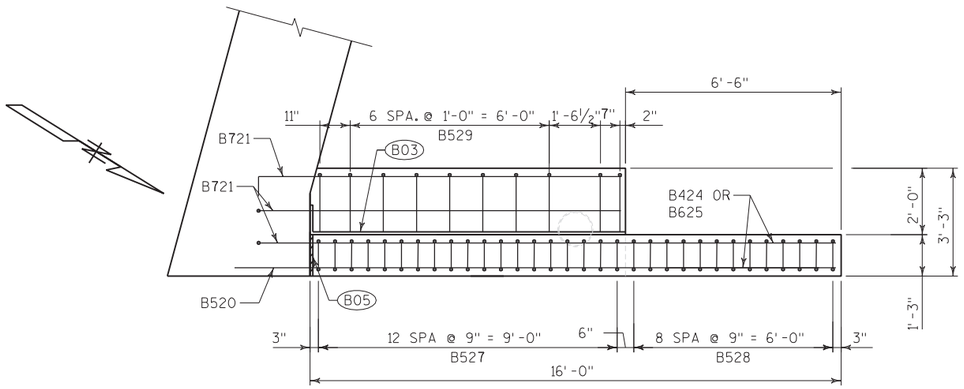
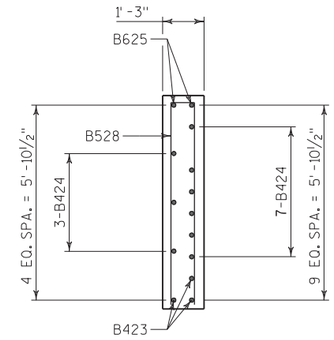
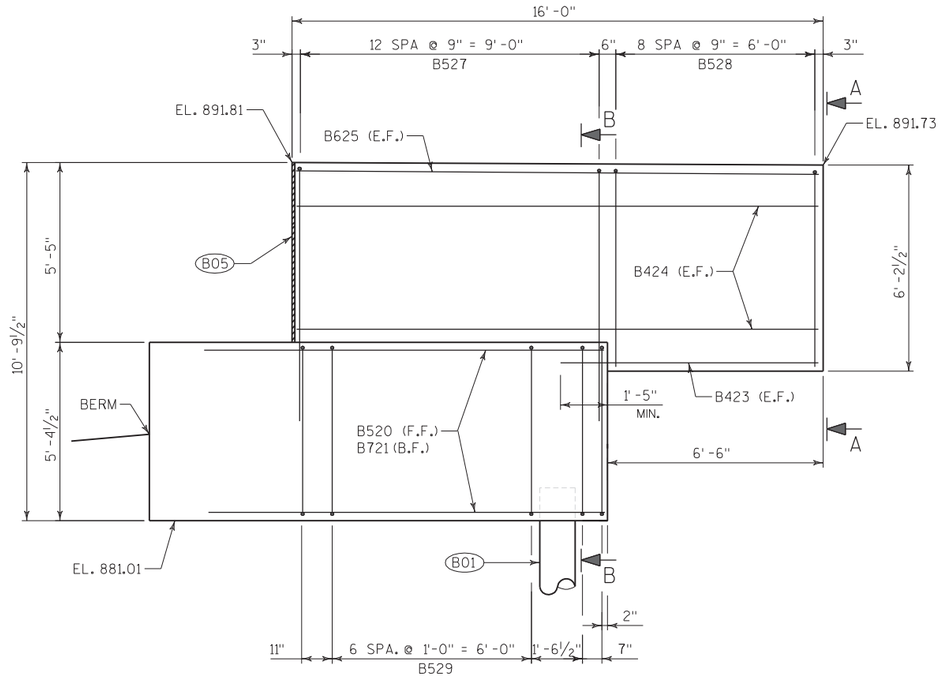


WING 4 PLAN

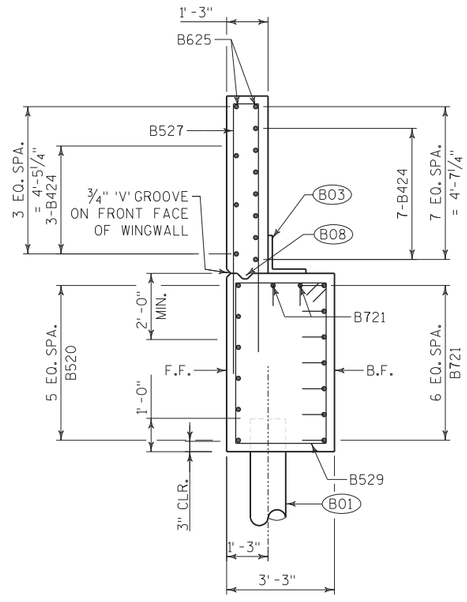


SECTION A-A



WING 4 ELEVATION

(FRONT FACE)



SECTION B-B

LEGEND:

(B01) ABUTMENTS TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 50'-0" LONG.

(B03) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACKFACE.

(B05) ½" FILLER (INCLUDED IN WING LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(B08) OPTIONAL CONSTRUCTION JOINT FORMED BY 2" X 6" KEYWAY WITH MEMBRANE ON BACK FACE.

SEE SHEET 9 FOR BILL OF BARS AND BENDS.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

ABUTMENT
WING WALL 4

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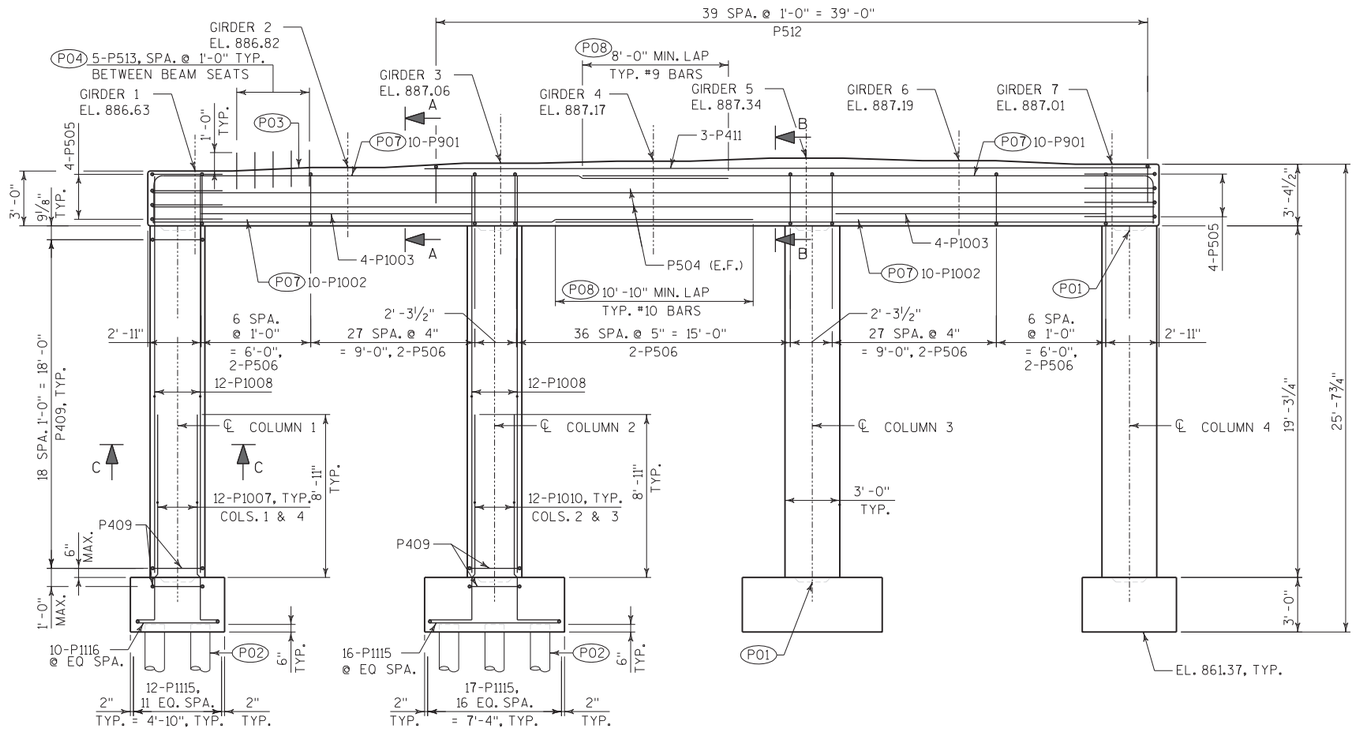
1080-12-71

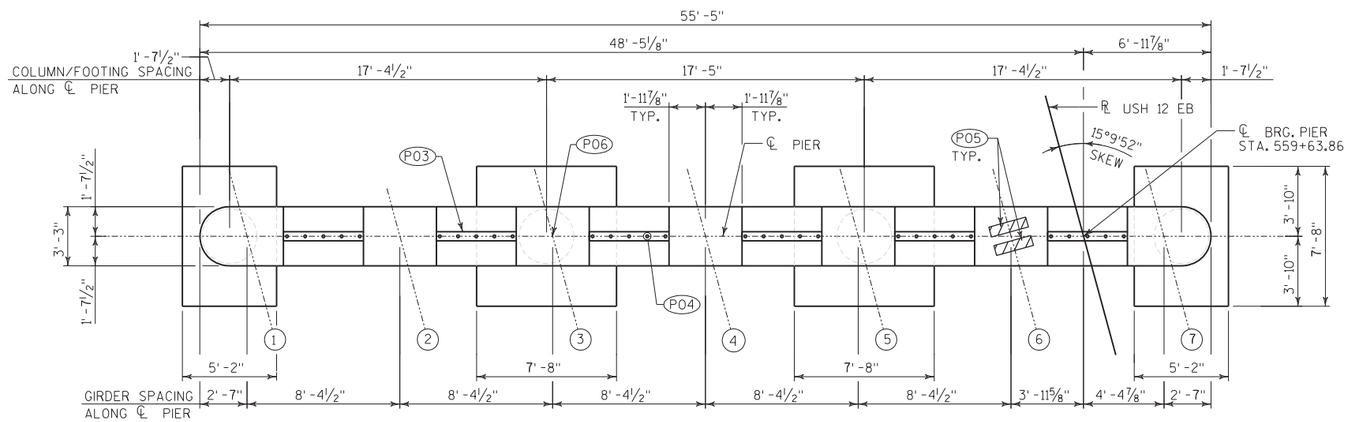


TYP. REINFORCEMENT FOR COLUMNS. 1 & 4

TYP. REINFORCEMENT FOR COLUMNS. 2 & 3

ELEVATION PIER

(LOOKING WEST)



PLAN

LEGEND

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 1'-3" X 1'-3" X 2", TYPICAL TOP AND BOTTOM OF ALL COLUMNS.

(P02) PIER TO BE SUPPORTED ON 12¾"Φ X 0.375" SHELL THICKNESS C.I.P. CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 40'-0" LONG.

(P03) 2" X 6" BEVELED KEYWAY BETWEEN BEAM SEATS.

(P04) P513 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

(P05) ½" THICK ELASTOMERIC BEARING PAD. SEE 'SUPERSTRUCTURE DETAILS' SHEET FOR DETAILS.

(P06) ELEVATIONS ARE GIVEN AT THE TOP OF THE CONCRETE AT THE INTERSECTION OF THE ℄ GIRDER AND ℄ PIER.

(P07) OFFSET BARS AT ENDS OF PIER CAP AS REQUIRED TO MAINTAIN EDGE CLEARANCES.

(P08) LAPS SHOWN ARE MINIMUM LENGTH & LOCATION OF LAPS WILL VARY BASED ON VARIABLE EXTENSIONS OF BARS INTO RADIUS OF PIER CAP.

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT. WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SEE SHEET 13 FOR SECTION A-A, B-B & C-C.

SEE SHEET 9 FOR PILE SPLICE DETAIL.

SEE SHEET 13 FOR BILL OF BARS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

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PIER

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STATE PROJECT NUMBER
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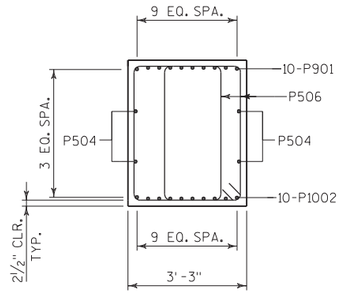
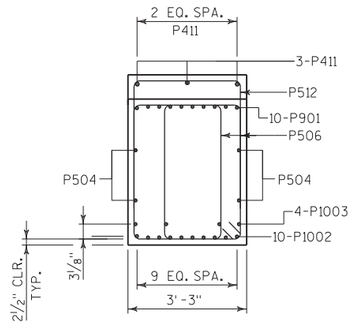


SECTION A-A



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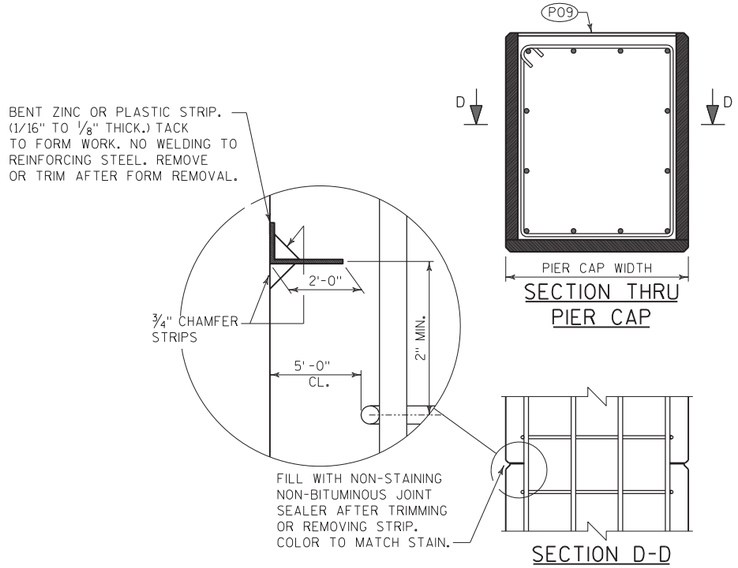


SECTION THRU PIER CAP

SECTION D-D

ALTERNATE CONSTRUCTION JOINT AT PIER CAP

ALTERNATE CONSTRUCTION JOINT NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

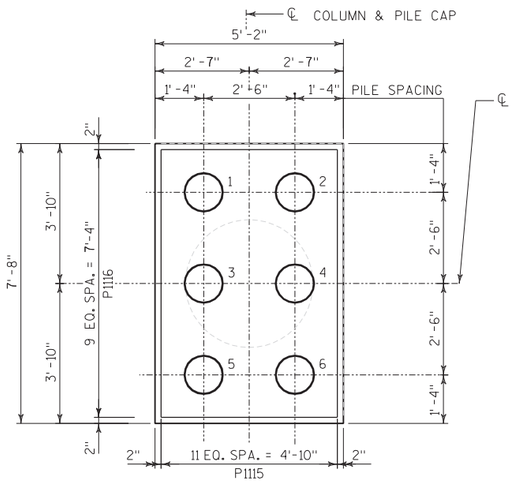
VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

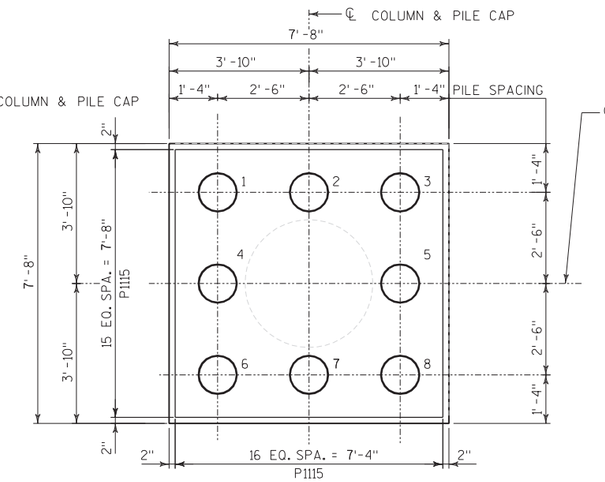
(P09) USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

BILL OF BARS

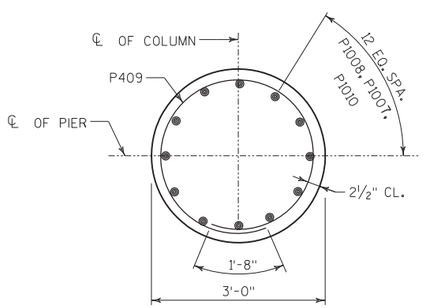
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
P901	X	20	33'-0"	X	-	CAP - TOP	HORIZONTAL
P1002	X	20	32'-11"	-	-	CAP - BOTT	HORIZONTAL
P1003	X	8	14'-10"	-	-	CAP - BOTT	HORIZONTAL
P504	X	4	52'-2"	-	-	CAP - SIDES	HORIZONTAL
P505	X	8	8'-0"	X	-	CAP - STIRRUPS, ENDS	HORIZONTAL
P506	X	210	9'-7"	X	-	CAP - STIRRUPS	VERTICAL
P1007	X	24	12'-1"	X	-	COLUMN - 1 & 4 BOTT	VERTICAL
P1008	X	48	21'-6"	-	-	COLUMN	VERTICAL
P409	X	80	9'-10"	X	-	COLUMN - STIRRUP	HORIZONTAL
P1010	X	24	12'-7"	X	-	COLUMN - 2 & 3 BOTT	VERTICAL
P411	X	3	40'-0"	-	-	CAP - TOP	HORIZONTAL
P512	X	40	5'-9"	X	-	CAP - STIRRUPS	VERTICAL
P513	X	30	2'-0"	-	-	CAP - DOWEL BARS	VERTICAL
-	-	-	-	-	-	-	
P1115	-	90	7'-4"	-	-	FOOTING	HORIZONTAL
P1116	-	20	4'-10"	-	-	FOOTING	HORIZONTAL



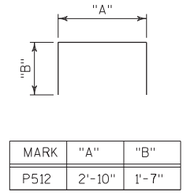
PILE CAP PLAN
COLUMN 1 & 4



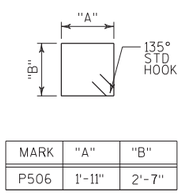
PILE CAP PLAN
COLUMN 2 & 3



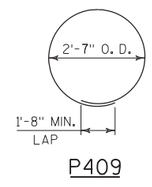
SECTION C-C



MARK	"A"	"B"
P512	2'-10"	1'-7"



MARK	"A"	"B"
P506	1'-11"	2'-7"



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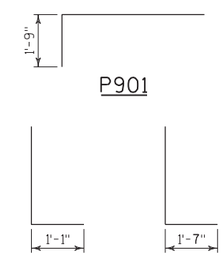

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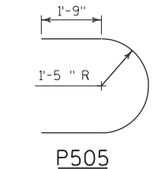

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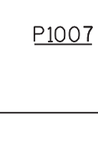

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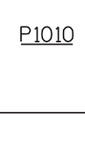

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

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PIER DETAILS

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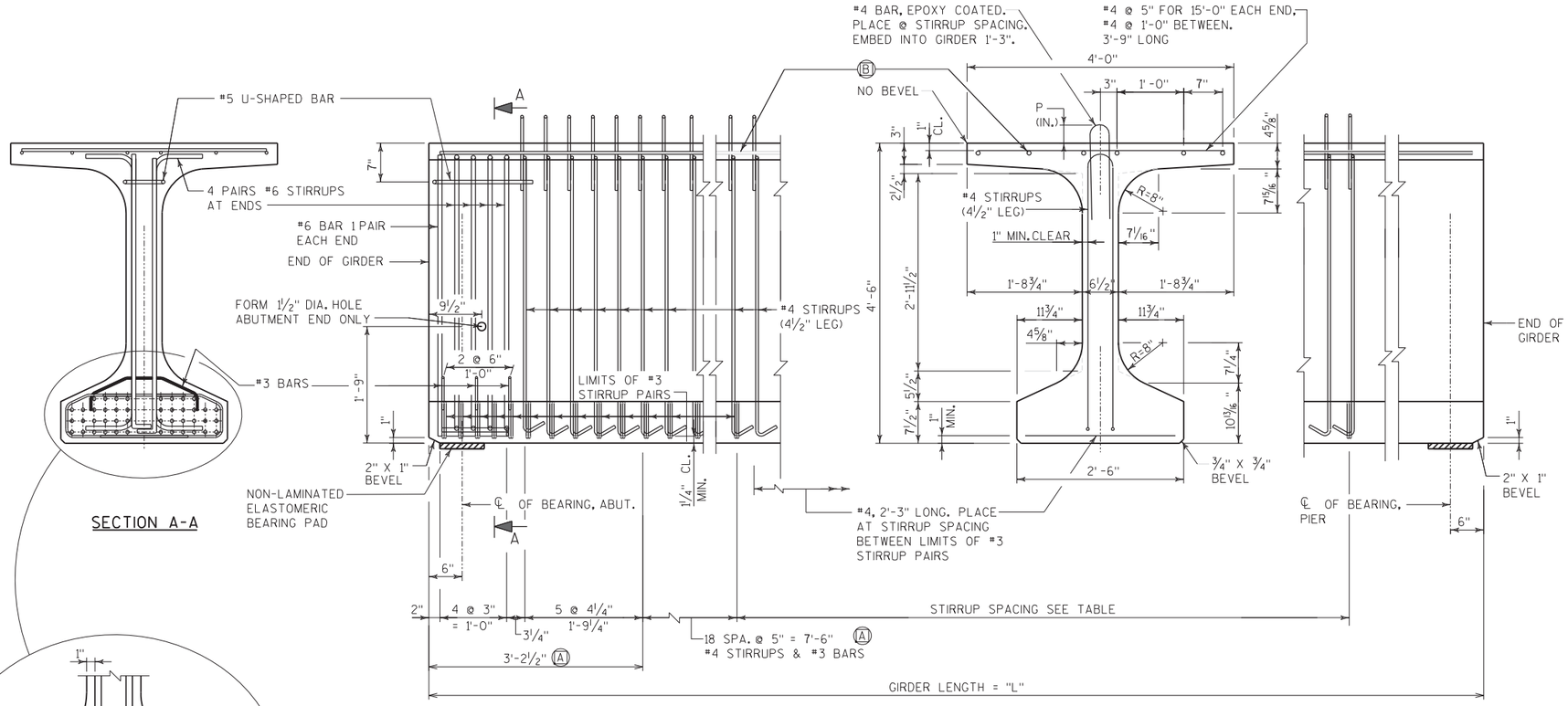


NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, ONE OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

ALL ITEMS SHOWN SHALL BE INCLUDED IN THE BID ITEM "PRESTRESSED GIRDER TYPE 154W-INCH."

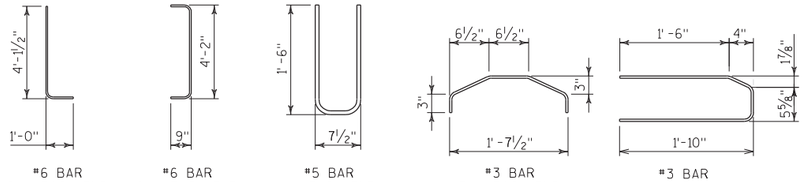
PRESTRESSING STRANDS SHALL BE 0.6 DIA.-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-5"



STIRRUP SPACING

SPAN	LOCATION	BAR SIZE	SPACING
1 & 2	FROM END TO 10'-8½"	AS SHOWN	AS SHOWN
	FROM 10'-8½" TO 34'-6"	#4	8"
	FROM 34'-6" TO MIDSPAN	#4	14"

SPACING IS SYMETRICAL ABOUT MIDSPAN OF GIRDER

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P"	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	1	116'-4½"	0.5	1.0	1.3	1.6	1.6	1.5	1.3	0.9	0.5	8000	7	0.6	36	6000	46	16	19	5
	2-6	116'-4½"	0.6	1.1	1.5	1.8	1.8	1.8	1.5	1.1	0.5	8000	7	0.6	36	6000	46	16	19	5
	7	116'-4½"	0.5	1.0	1.3	1.6	1.6	1.5	1.3	0.9	0.5	8000	7	0.6	36	6000	46	16	19	5
2	1	116'-4½"	0.5	0.9	1.3	1.5	1.6	1.6	1.3	1.0	0.5	8000	7	0.6	36	6000	46	16	19	5
	2-6	116'-4½"	0.5	1.1	1.5	1.8	1.8	1.8	1.5	1.1	0.6	8000	7	0.6	36	6000	46	16	19	5
	7	116'-4½"	0.5	0.9	1.3	1.5	1.6	1.6	1.3	1.0	0.5	8000	7	0.6	36	6000	46	16	19	5

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

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54W" PRESTESSED GIRDER

SHEET 14 OF 24

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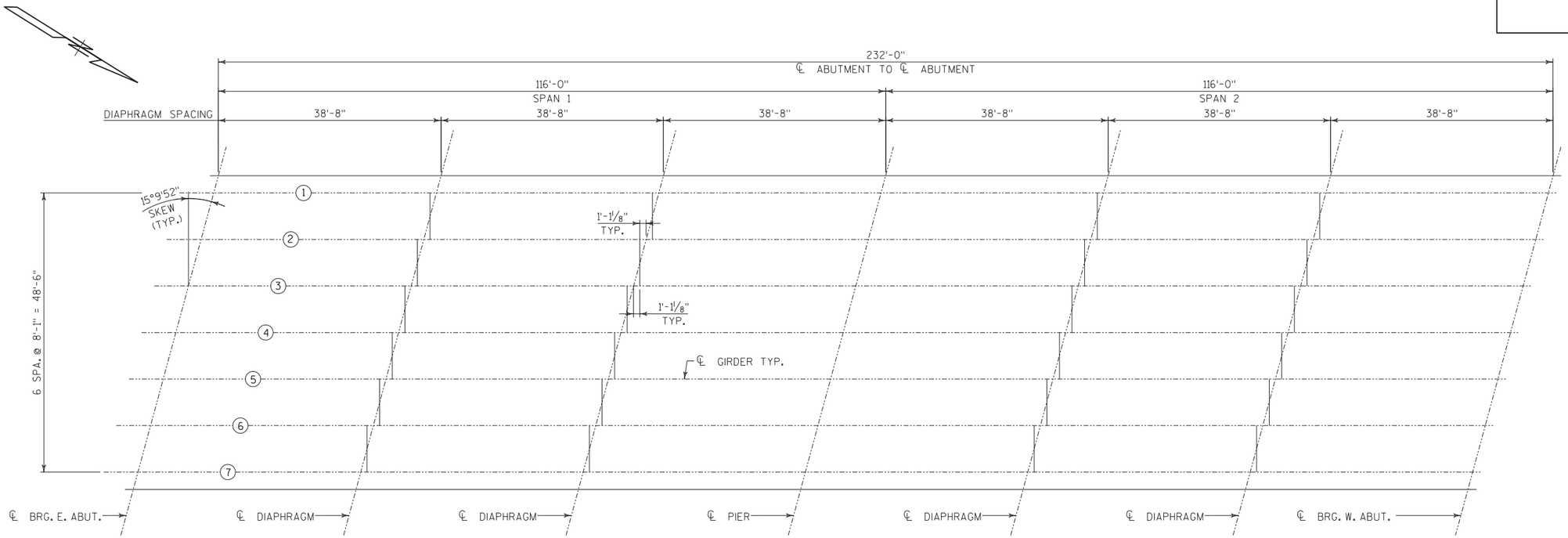
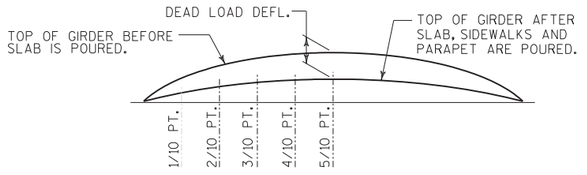
2/26/2014

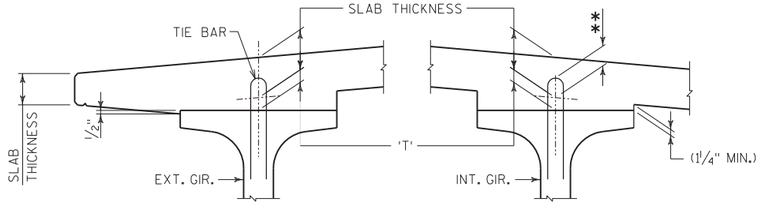
STATE PROJECT NUMBER
1080-12-71



FRAMING PLAN



DEAD LOAD DEFLECTION DIAGRAM



SLAB HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION

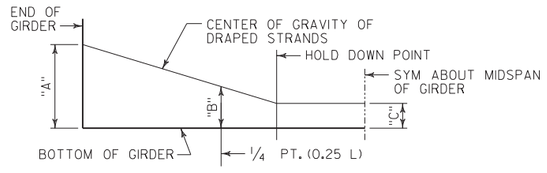
** IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR, IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

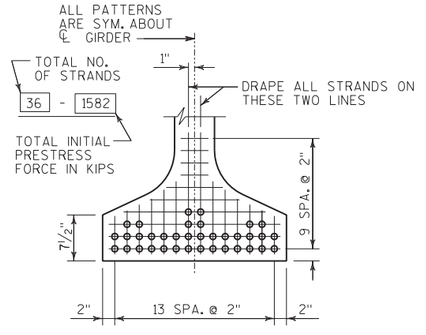
TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2.55" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DRAPED STRAND PROFILE



SPAN 1 & 2 STRAND PATTERN

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	5.8
2	5.8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

54W" PRESTESSED GIRDER DETAILS

SHEET 15 OF 24

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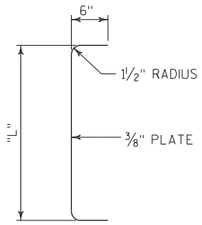
STATE PROJECT NUMBER
1080-12-71

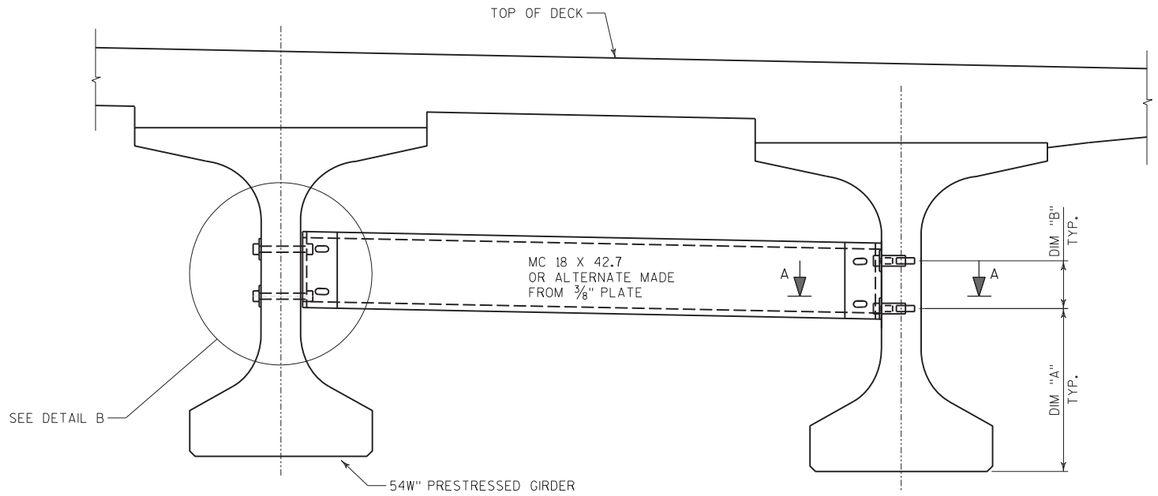
TABLE

GIRDER HEIGHT	DIM "A"	DIM "B"	DIM "L"	* DIM "X"
54W"	1'-9 1/8"	1'-5 7/8"	1'-9 1/2"	4 1/4"

* DIM "X" = 2 1/2" FOR ALTERNATE PLATE DIAPHRAGM.



SECTION THRU ALTERNATE DIAPHRAGM



PART TRANSVERSE SECTION AT DIAPHRAGM

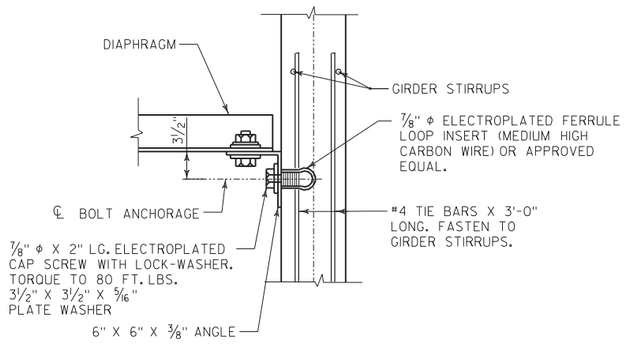
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-64-187", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

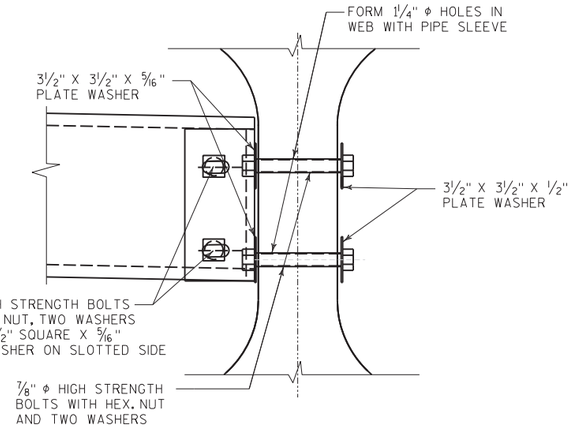
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

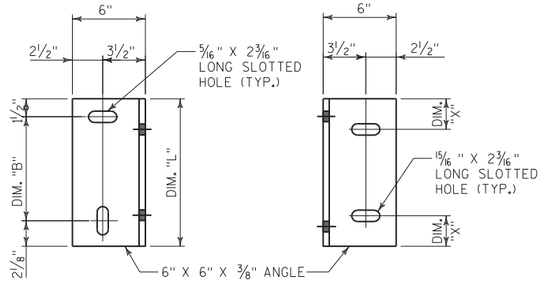


SECT. A-A

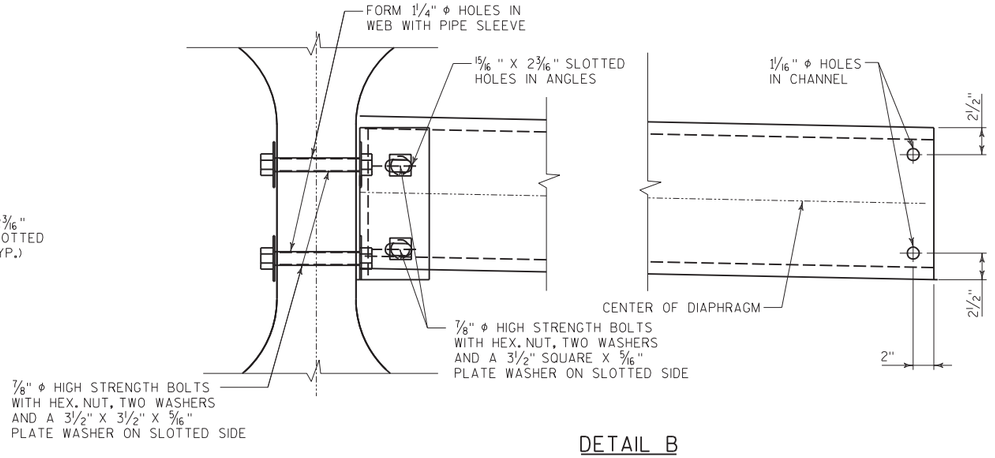
(FOR EXTERIOR ATTACMENT)



SECTION AT INTERIOR GIRDERS THRU DIAPRAGM FOR SKEW ANGLES > 10°



DIAPHRAGM SUPPORT



DETAIL B

(SECTION AT INTERIOR GIRDERS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

STEEL DIAPHRAGM

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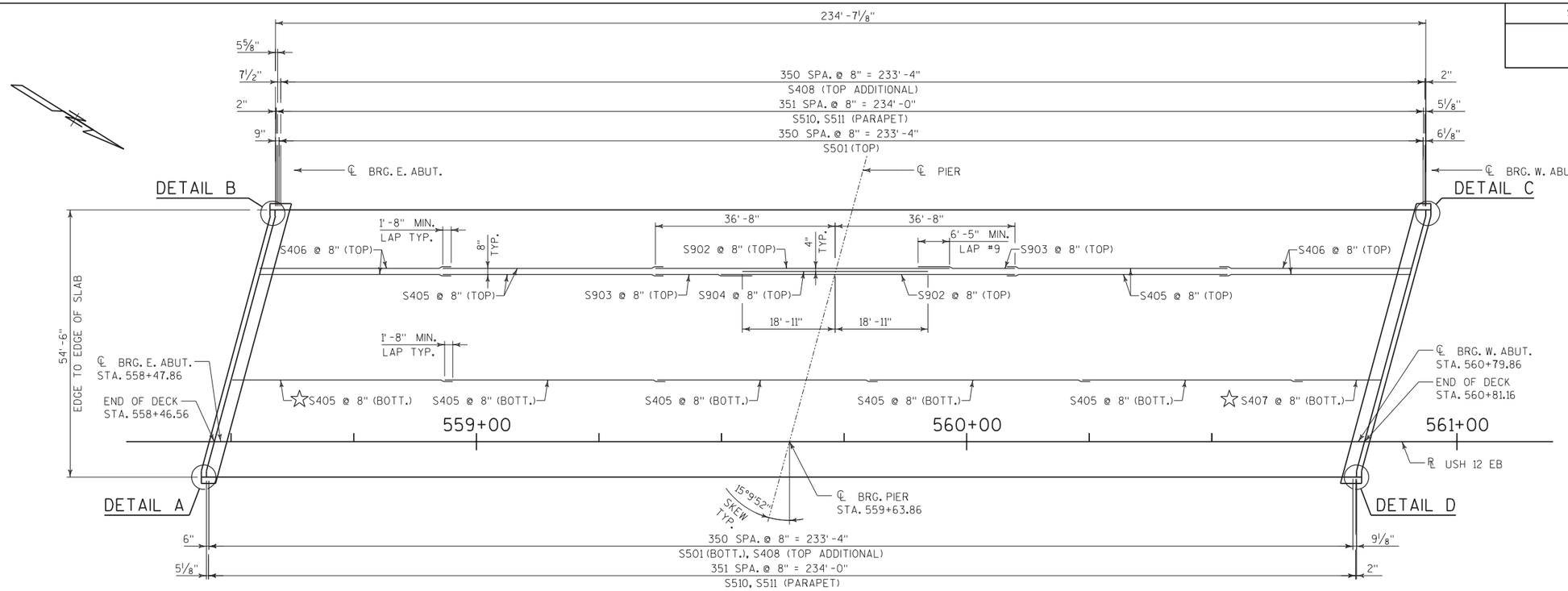
2/26/2014

STATE PROJECT NUMBER
1080-12-71



PLAN

(2-SPAN, 54W PRESTRESSED GIRDER STRUCTURE)

TOP OF DECK ELEVATIONS

LOCATION	E. ABUT.	SPAN 1									PIER 1	SPAN 2									W. ABUT.
		0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.		0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	
FF PARAPET	892.67	892.61	892.54	892.48	892.42	892.36	892.30	892.24	892.17	892.11	892.05	891.99	891.93	891.86	891.80	891.74	891.68	891.62	891.55	891.49	891.43
G1	892.71	892.64	892.58	892.52	892.46	892.40	892.33	892.27	892.21	892.15	892.09	892.03	891.96	891.90	891.84	891.78	891.72	891.65	891.59	891.53	891.47
G2	892.88	892.82	892.76	892.69	892.63	892.57	892.51	892.45	892.38	892.32	892.26	892.20	892.14	892.07	892.01	891.95	891.89	891.83	891.77	891.70	891.64
G3	893.12	893.05	892.99	892.93	892.87	892.81	892.75	892.68	892.62	892.56	892.50	892.44	892.37	892.31	892.25	892.19	892.13	892.07	892.00	891.94	891.88
G4	893.23	893.16	893.10	893.04	892.98	892.92	892.85	892.79	892.73	892.67	892.61	892.55	892.48	892.42	892.36	892.30	892.24	892.17	892.11	892.05	891.99
CROWN	893.40	893.34	893.27	893.21	893.15	893.09	893.03	892.96	892.90	892.84	892.78	892.72	892.66	892.59	892.53	892.47	892.41	892.35	892.28	892.22	892.16
G5	893.40	893.33	893.27	893.21	893.15	893.09	893.02	892.96	892.90	892.84	892.78	892.72	892.65	892.59	892.53	892.47	892.41	892.34	892.28	892.22	892.16
G6	893.25	893.18	893.12	893.06	893.00	892.94	892.87	892.81	892.75	892.69	892.63	892.57	892.50	892.44	892.38	892.32	892.26	892.19	892.13	892.07	892.01
PLG EB	893.17	893.11	893.05	892.99	892.93	892.87	892.80	892.74	892.68	892.62	892.56	892.49	892.43	892.37	892.31	892.25	892.18	892.12	892.06	892.00	891.94
G7	893.10	893.03	892.97	892.91	892.85	892.78	892.72	892.66	892.60	892.53	892.47	892.41	892.35	892.29	892.22	892.16	892.10	892.04	891.98	891.91	891.85
FF PARAPET	893.06	893.00	892.94	892.88	892.81	892.75	892.69	892.63	892.56	892.50	892.44	892.38	892.32	892.25	892.19	892.13	892.07	892.01	891.94	891.88	891.82

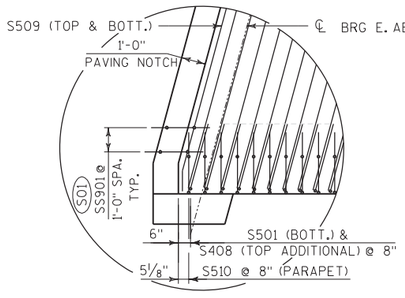
LEGEND:

☆ ALTERNATE/REVERSE BARS S405 & S407 BOTTOM MAT BAR PATTERN TO RANDOMIZE SPLICE LOCATIONS.

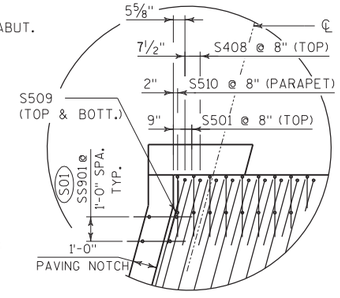
NOTES

1. TRANSVERSE BAR STEEL REINFORCEMENT (S501, S408) SHALL BE PLACED ALONG SKEW, WHILE PARAPET REINFORCEMENT (S510) SHALL BE PLACED PERPENDICULAR TO GIRDERS.
2. THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.
3. THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.
4. SEE SHEET 19 FOR BILL OF BARS.

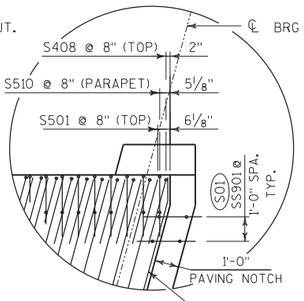
(S01) SEE SHEET 23 FOR SS901 BAR SPACING.



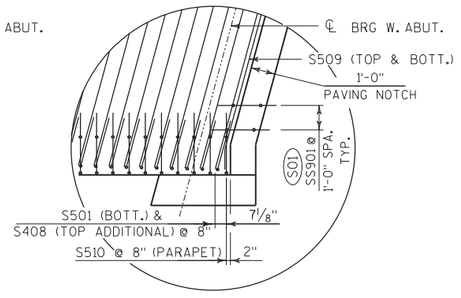
DETAIL A



DETAIL B



DETAIL C



DETAIL D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE

SHEET 17 OF 24

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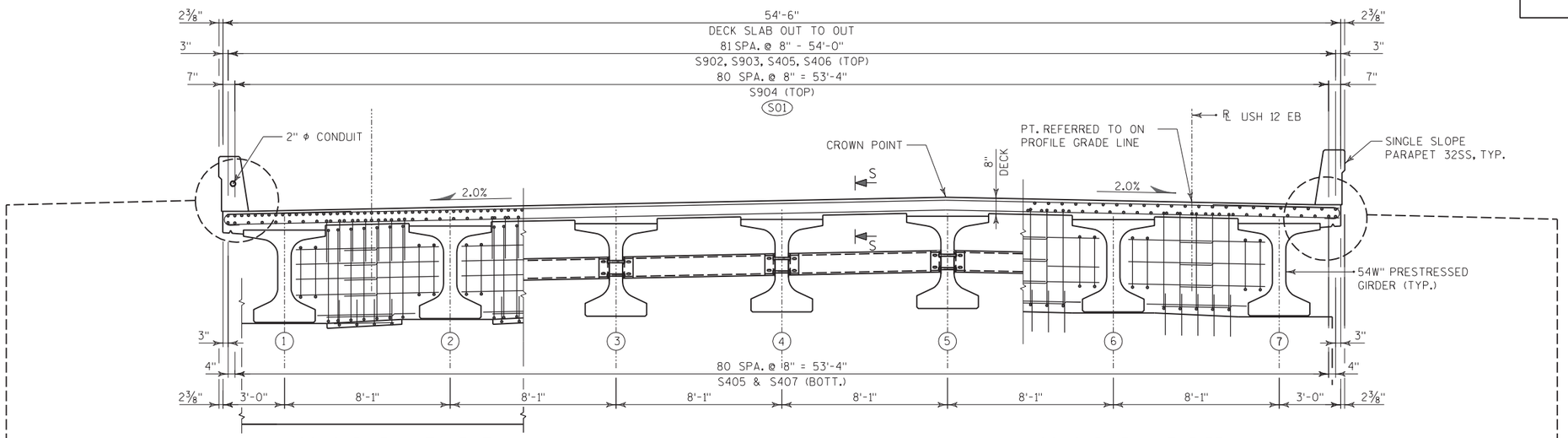
2/26/2014

STATE PROJECT NUMBER
1080-12-71

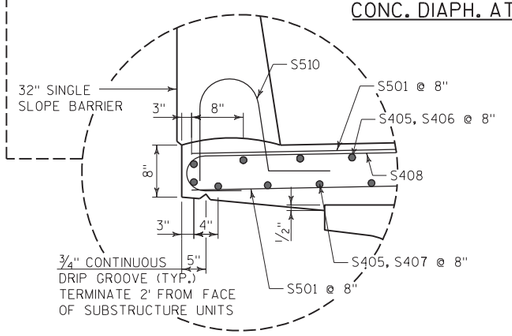


CONC. DIAPH. AT ABUT.

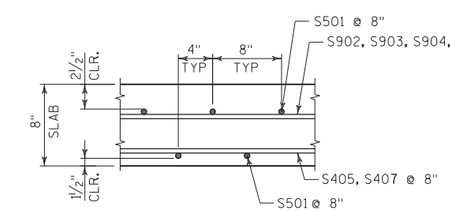
CROSS-SECTION THROUGH ROADWAY

(LOOKING WEST)

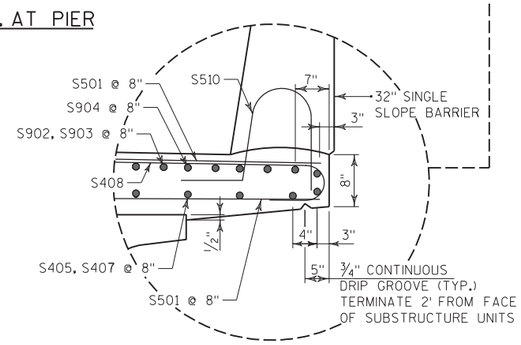
CONC. DIAPH. AT PIER



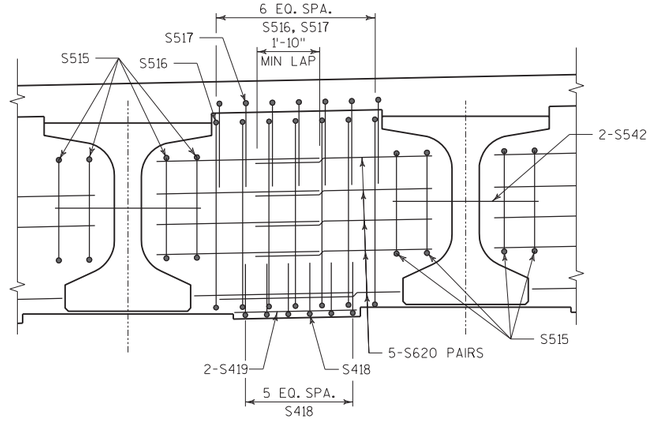
AT MIDSPAN



SECTION S-S

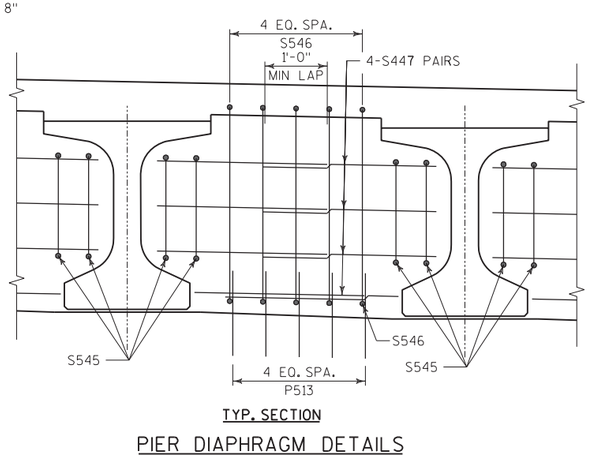


AT PIER



TYP. SECTION

ABUTMENT DIAPHRAGM DETAILS



TYP. SECTION

PIER DIAPHRAGM DETAILS

NOTES

SEE SHEET 19 FOR BILL OF BARS.

(S01) SEE SHEET 23 FOR SS901 SPACING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE CROSS-SECTION

SHEET 18 OF 24

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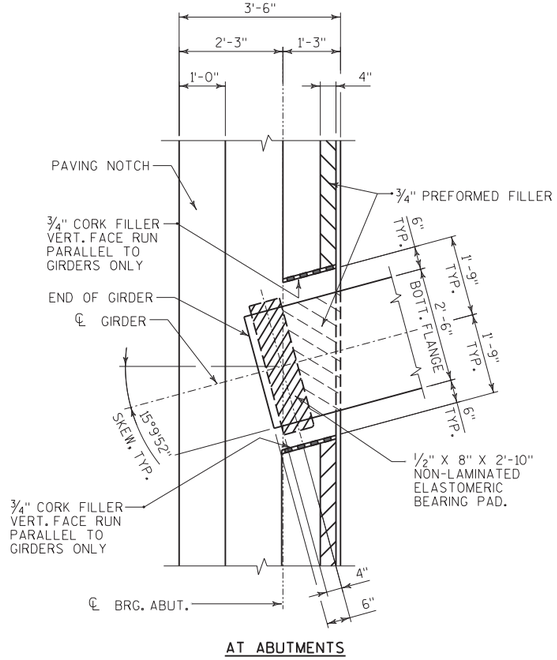
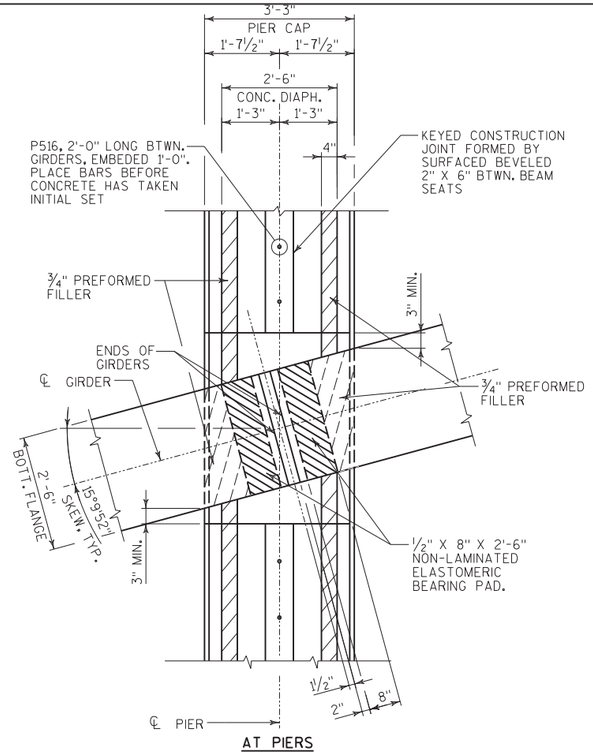
2/26/2014

STATE PROJECT NUMBER
1080-12-71



AT ABUTMENTS

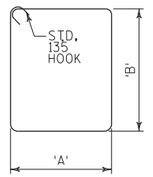


AT PIERS

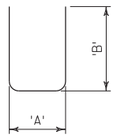
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
S501	X	702	56'-1"	-	-	SLAB - TOP & BOTT	TRANSVERSE
S902	X	82	60'-0"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S903	X	82	19'-9"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S904	X	81	37'-10"	-	-	SLAB - OVER PIERS	LONGITUDINAL
S405	X	579	45'-0"	-	-	SLAB - TOP & BOTT	LONGITUDINAL
S406	X	164	39'-1"	-	-	SLAB - TOP	LONGITUDINAL
S407	X	83	17'-7"	-	-	SLAB - BOTT	LONGITUDINAL
S408	X	703	4'-8"	X	-	SLAB - TOP	TRANSVERSE
S509	X	4	56'-0"	X	-	SLAB - ENDS, TOP & BOTT	TRANSVERSE
S510	X	704	4'-5"	X	-	PARAPET	VERTICAL
S511	X	704	5'-0"	X	-	PARAPET	VERTICAL
S512	X	60	48'-3"	-	-	PARAPET	HORIZONTAL
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
S515	X	56	12'-5"	X	-	ABUT DIAPHRAGM - GIRDER STIRRUPS	VERTICAL
S516	X	84	14'-7"	X	-	ABUT DIAPHRAGM - STIRRUPS	VERTICAL
S517	X	84	6'-6"	X	-	ABUT DIAPHRAGM - STIRRUPS	VERTICAL
S418	X	72	3'-3"	X	-	ABUT DIAPHRAGM @ NOTCH	VERTICAL
S419	X	24	4'-5"	-	-	ABUT DIAPHRAGM @ NOTCH	HORIZONTAL
S620	X	120	4'-8"	-	-	ABUT DIAPHRAGM - FF BTWN GIRDERS	HORIZONTAL
S621	X	12	58'-7	X	-	ABUT DIAPHRAGM - BF & TOP	HORIZONTAL
S622	X	2	58'-8"	-	-	ABUT DIAPHRAGM - TOP	HORIZONTAL
S523	X	2	6'-4"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S524	X	2	6'-1"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S525	X	2	16'-5"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S526	X	2	16'-1"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S527	X	2	15'-11"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S628	X	8	8'-8"	X	-	ABUT DIAPHRAGM - SW & NE END	HORIZONTAL
S629	X	2	7'-5"	X	-	ABUT DIAPHRAGM - SW & NE END	HORIZONTAL
S530	X	2	14'-5"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S531	X	2	14'-1"	X	-	ABUT DIAPHRAGM - SW & NE END	VERTICAL
S532	X	2	6'-7"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S533	X	2	6'-9"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S534	X	2	14'-11"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S535	X	2	15'-3"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S536	X	2	17'-11"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S537	X	2	18'-3"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S538	X	2	18'-5"	X	-	ABUT DIAPHRAGM - NW & SE END	VERTICAL
S639	X	8	10'-0"	X	-	ABUT DIAPHRAGM - NW & SE END	HORIZONTAL
S640	X	2	8'-8"	X	-	ABUT DIAPHRAGM - NW & SE END	HORIZONTAL
S441	X	8	5'-0"	-	-	ABUT DIAPHRAGM - ENDS	VERTICAL
S542	X	28	6'-0"	-	-	ABUT DIAPHRAGM - THRU GRIDER	HORIZONTAL
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
S545	X	24	10'-5"	X	-	PIER DIAPHRAGM - GIRDER STIRRUPS	VERTICAL
S546	X	30	13'-3"	X		PIER DIAPHRAGM - STIRRUPS	VERTICAL
S447	X	96	4'-3"	-	-	PIER DIAPHRAGM - BTWN GIRDERS	HORIZONTAL

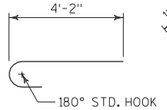
BEARING PAD DETAILS



BAR MARK	DIM. 'A'	DIM. 'B'
S515	3'-3"	2'-8"
S516	3'-3"	3'-9"
S525	2'-11"	5'-0
S526	2'-9"	5'-0
S527	2'-8"	5'-0
S530	3'-2"	3'-9"
S531	3'-0"	3'-9"
S534	3'-5"	3'-9"
S535	3'-7"	3'-9"
S536	3'-8"	5'-0
S537	3'-10"	5'-0
S538	3'-11"	5'-0
S545	2'-3"	2'-8"



BAR MARK	DIM. 'A'	DIM. 'B'
S517	2'-3"	2'-3"
S418	11"	1'-3"
S523	2'-1"	2'-3"
S524	1'-11"	2'-3"
S532	2'-4"	2'-3"
S533	2'-6"	2'-3"



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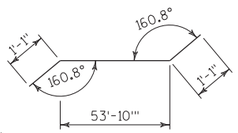

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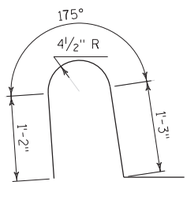

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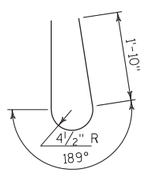

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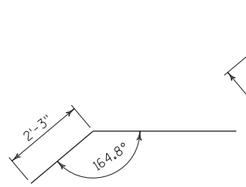
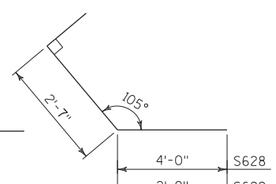
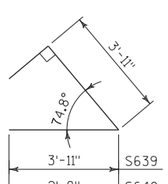




S621 S628, S629



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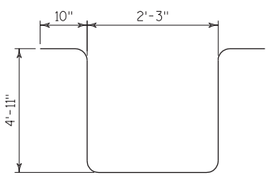

S546

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE BILL OF BARS

SHEET 19 OF 24

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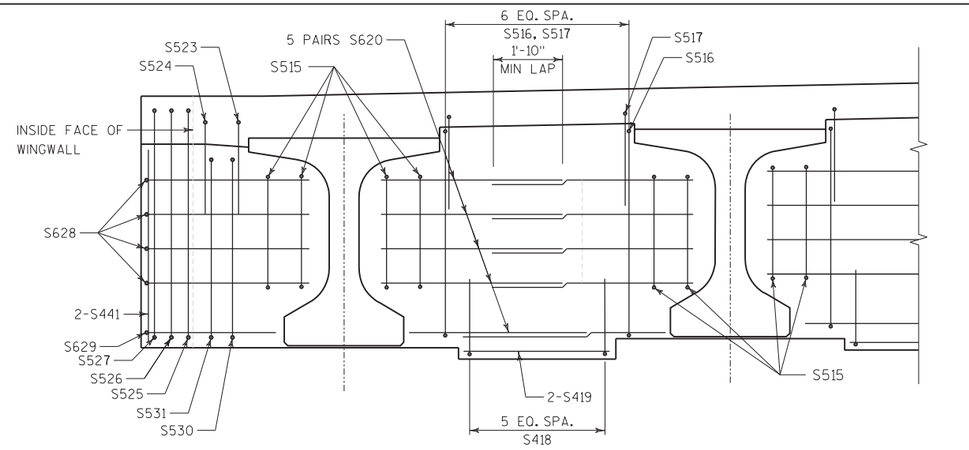
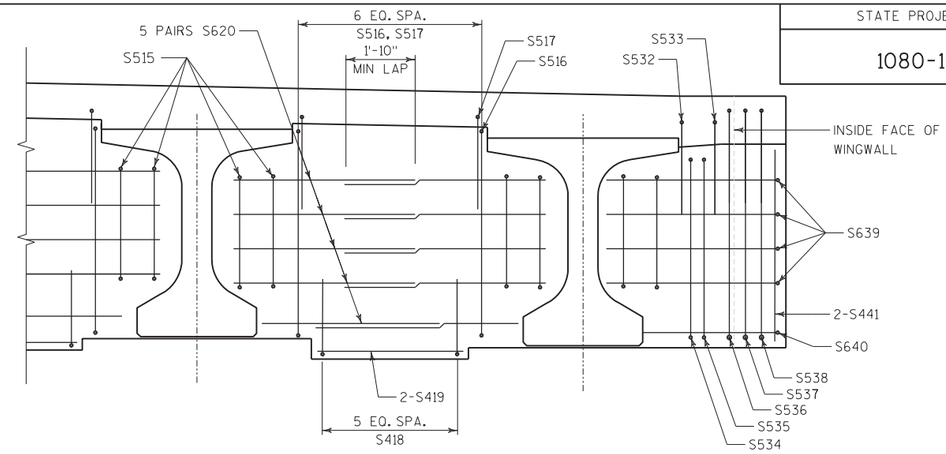
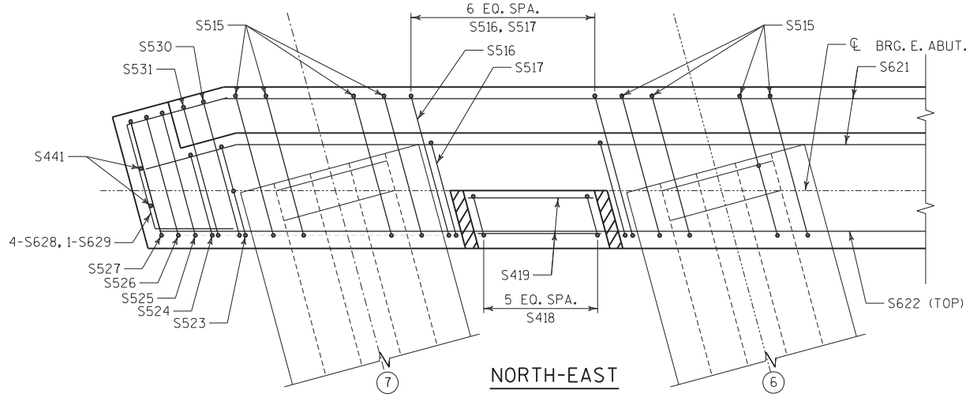
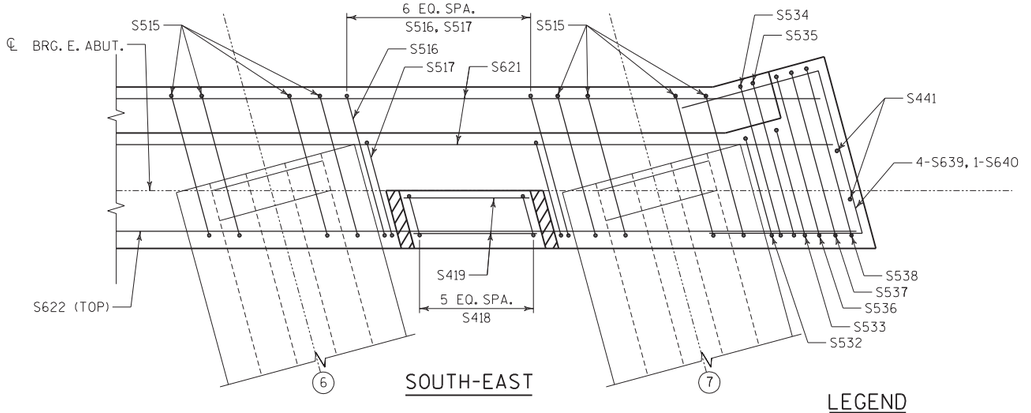


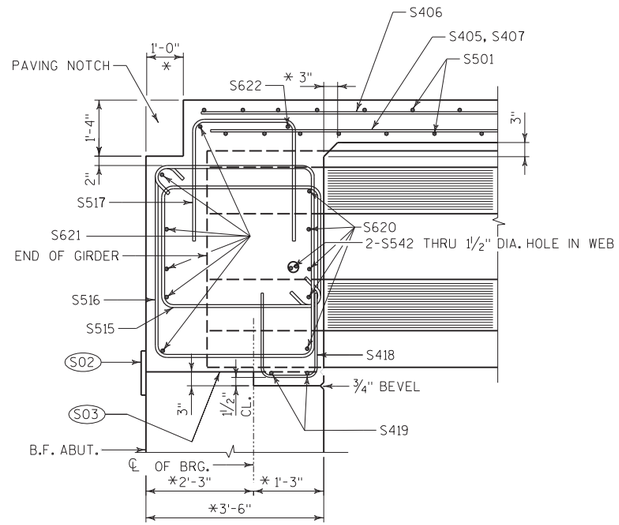




NORTH-EAST



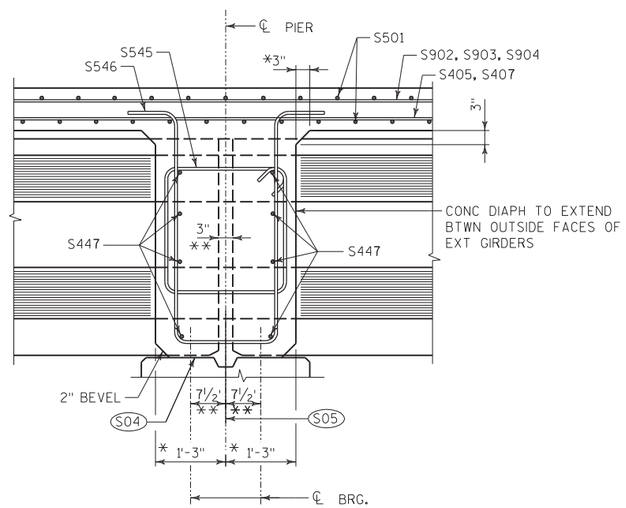
SOUTH-EAST



DIAPHRAGM AT ABUTMENTS

(BTWN. GIRDERS, TYP.)

PART LONGIT SECTION



DIAPHRAGM AT PIERS

(BTWN. GIRDERS, TYP.)

LEGEND

* DIMENSIONS ARE NORMAL TO ℄ OF SUBSTRUCTURE UNITS

** DIMENSIONS ARE PARALLEL TO THE GIRDER

NOTES

ALL VERTICAL BAR STEEL REINFORCMENT IN CONCRETE DIAPHRAGMS SHALL BE PLACED PARALLEL TO THE GIRDERS.

(S02) RUBBERIZED MEMBRANE WATERPROOFING.

(S03) ½" X 8" X 2'-10" NON-LAMINATED ELASTOMERIC BEARING PAD AND 4" X ¾" PREFORMED FILLER.

(S04) ½" NON-LAMINATED ELASTOMERIC BEARING PAD AND ¾" PREFORMED FILLER.

(S05) P513 @ 1'-0" CENTERS BETWEEN GIRDERS. EMBED 1'-0", PLACE BARS BEFORE CONCRETE HAS TAKEN INITIAL SET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE DETAILS 1

SHEET 20 OF 24

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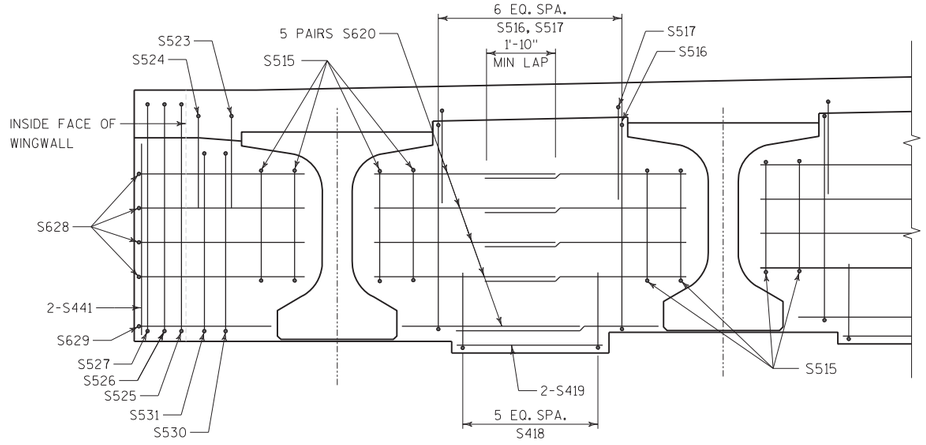

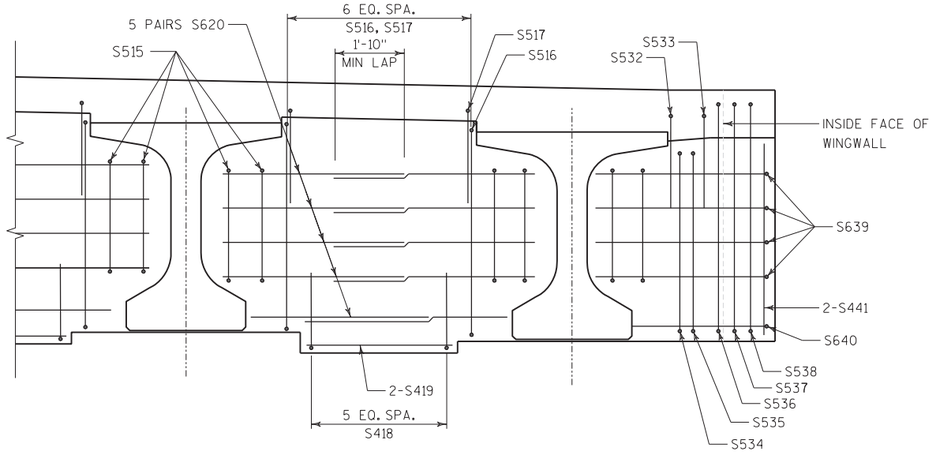

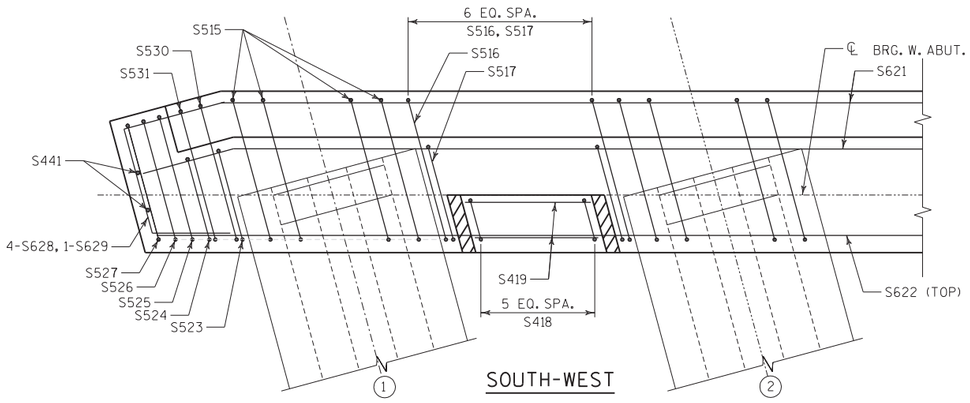

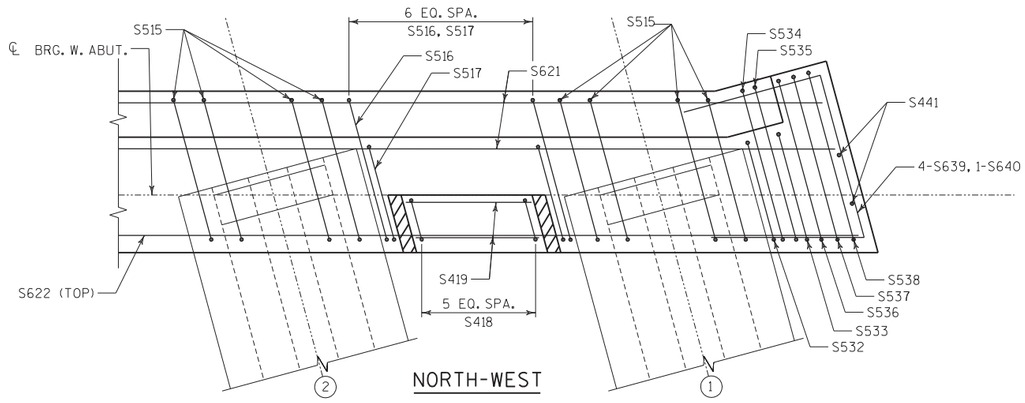

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NOTES

ALL VERTICAL BAR STEEL REINFORCMENT IN CONCRETE DIAPHRAGMS SHALL BE PLACED PARALLEL TO THE GIRDERS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

SUPERSTRUCTURE DETAILS 2

SHEET 21 OF 24

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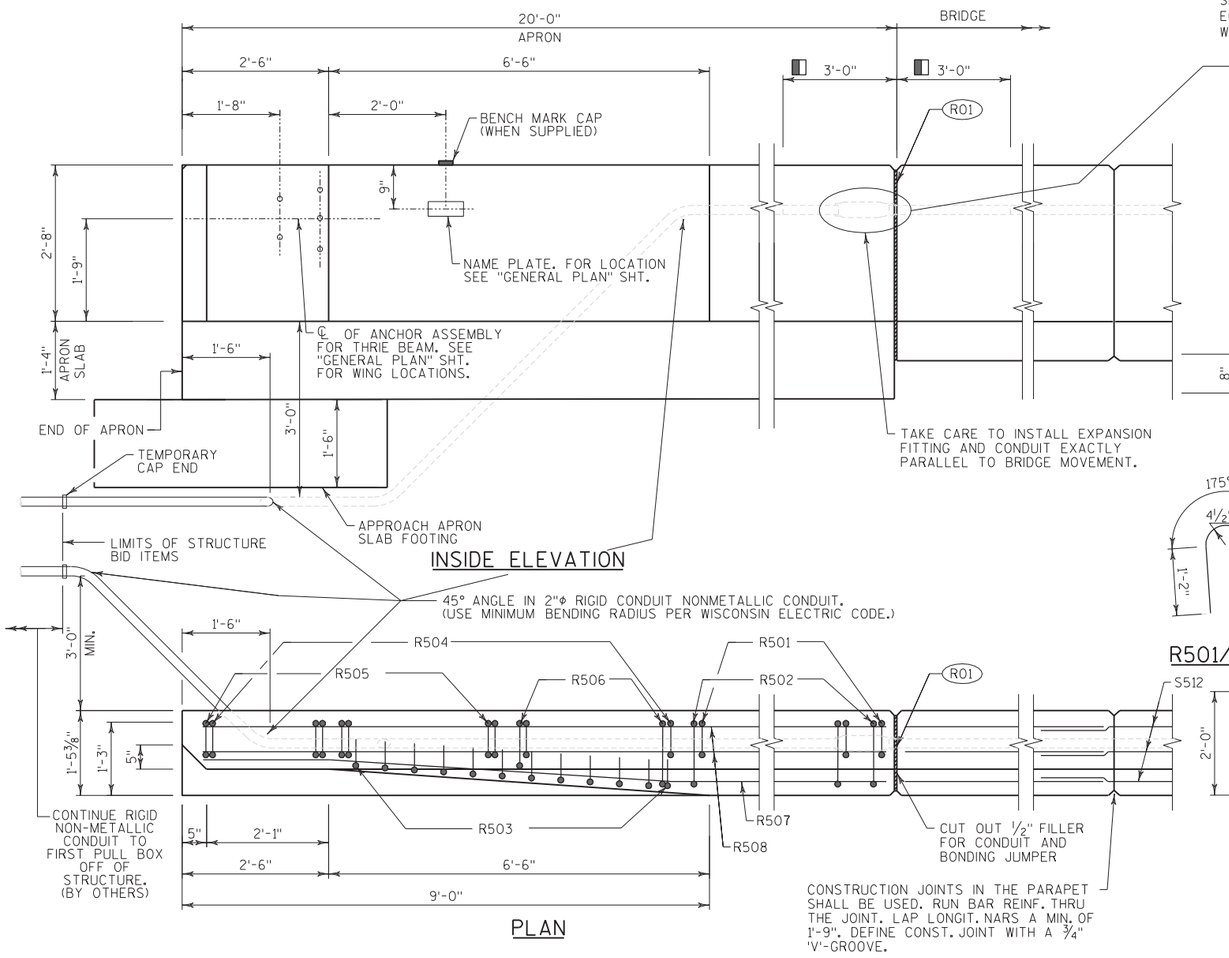
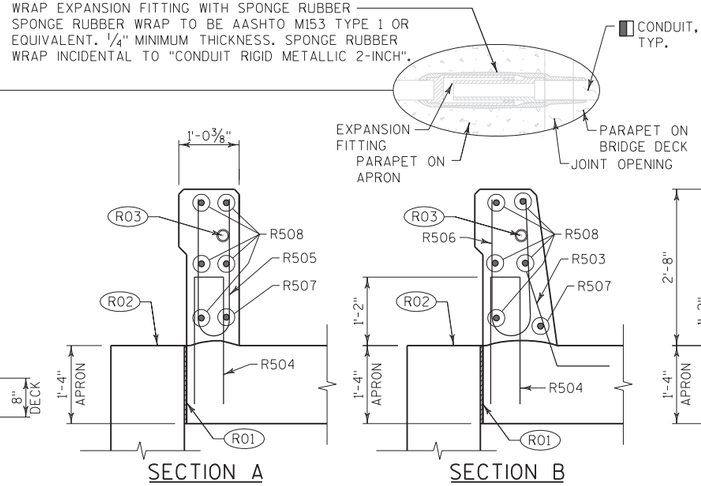
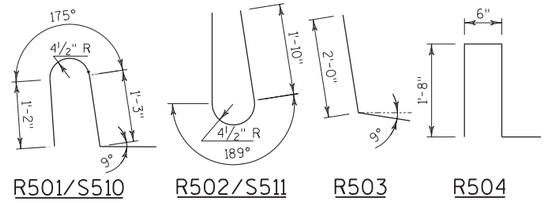
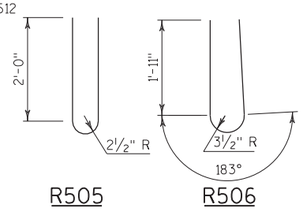
STATE PROJECT NUMBER

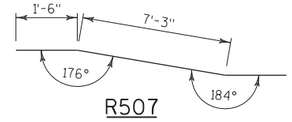
1080-12-71





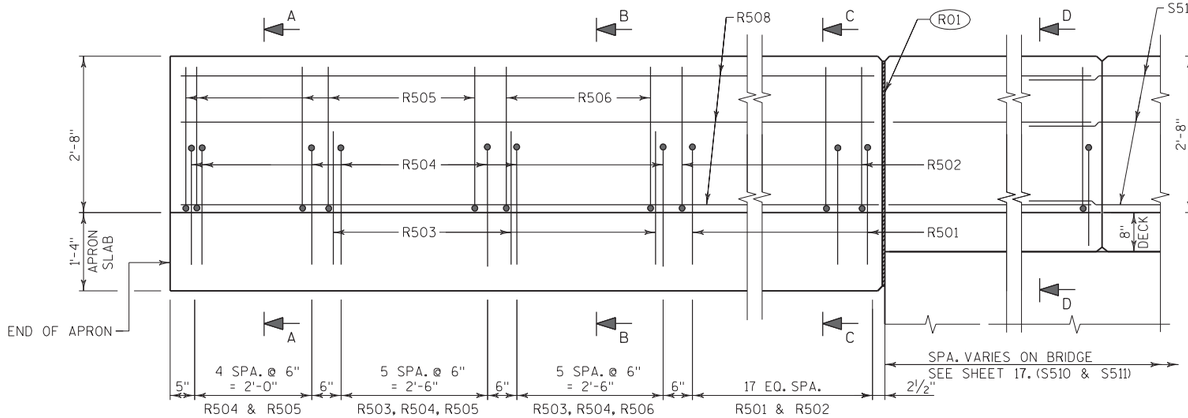


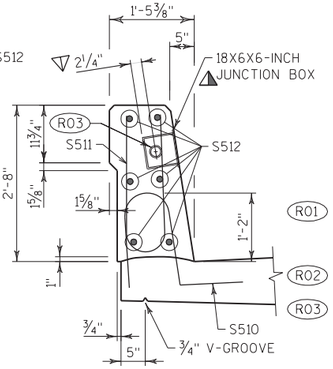




BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
R501	X	72	4'-5"	X	-	PARAPET	VERTICAL
R502	X	72	5'-0"	X	-	PARAPET	VERTICAL
R503	X	48	2'-9"	X	-	PARAPET	VERTICAL
R504	X	68	4'-4"	X	-	PARAPET	VERTICAL
R505	X	44	4'-9"	X	-	PARAPET	VERTICAL
R506	X	24	4'-10"	X	-	PARAPET	VERTICAL
R507	X	4	19'-5"	X	-	PARAPET	HORIZONTAL
R508	X	20	19'-8"	-	-	PARAPET	HORIZONTAL





SECTION D THRU PARAPET ON BRIDGE

SEE SHEET 17 FOR REBAR SPACING ON BRIDGE. SEE SHEET 19 FOR BILL OF BARS.

NOTES

BID ITEMS SHALL BE:

"JUNCTION BOXES 18X6X6-INCH", EACH.
"CONDUIT RIGID NON-METALLIC SCHEDULE 40 2-INCH".
"CONDUIT RIGID METALLIC 2-INCH".

EXPANSION FITTINGS, ANGLES AND ADPATER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH.

WHEN CONNECTING NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING.
O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).
O-Z/GEDNEY TYPE AX-8-200 AND BONDING JUMPER (8" TOTAL CONDUIT MOVEMENT).
O-Z/GEDNEY TYPE EX-200 WITH PBS-200-12S AND BONDING JUMPER (10" TOTAL CONDUIT MOVEMENT).

(R01) ½" FILLER. SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(R02) SLOPE FOR DRAINAGE.

(R03) SOUTH PARAPET ONLY, USE 2"ϕ RIGID NON-METALLIC CONDUIT EXCEPT AT EXPANSION FITTING AND APPROACH APRON. AT EXPANSION FITTING, USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK SIDE.

USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON DECK AND APRON SIDES OF THE JOINT OPENING.

CUT OUT ± OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

SINGLE SLOPE PARAPET 32SS

SHEET 22 OF 24

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STATE PROJECT NUMBER
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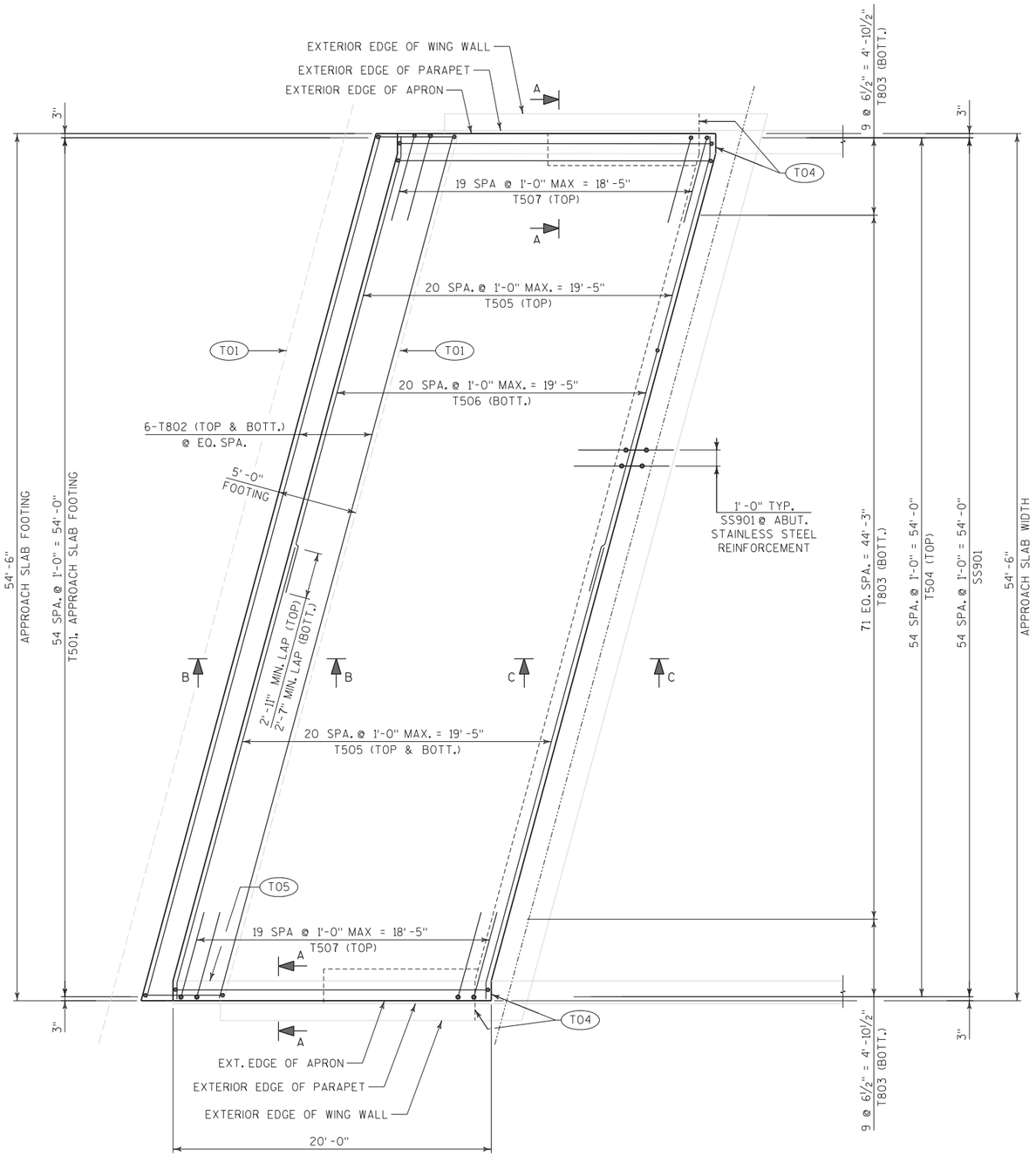

DESIGN DATA:

ALLOWABLE SOIL BEARING PRESSURE:	2,000 P.S.F.
CONCRETE STRENGTH F'C:	4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60, FY:	60,000 P.S.I.

NOTES AND LEGEND:

(T01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(T04) ½" FILLER (INCLUDED IN PARAPET/SLAB LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(T05) SEE SHEET 22 FOR LOCATION OF NAME PLATE AND BENCH MARK WITH RESPECT TO THE END OF PARAPET.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

STRUCTURAL APPROACH SLAB

SHEET 23 OF 24

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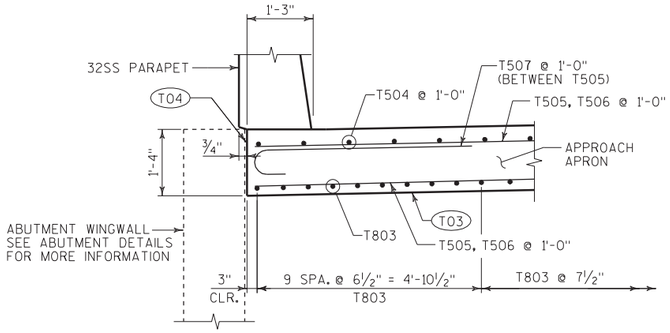
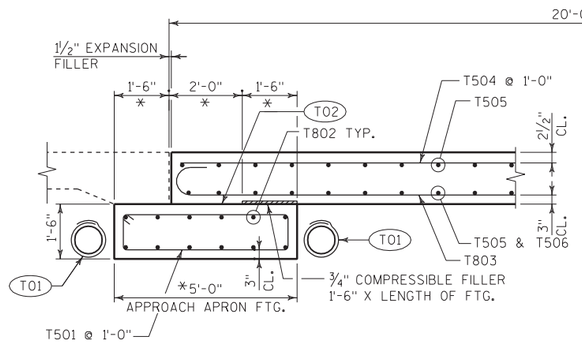
STATE PROJECT NUMBER
1080-12-71

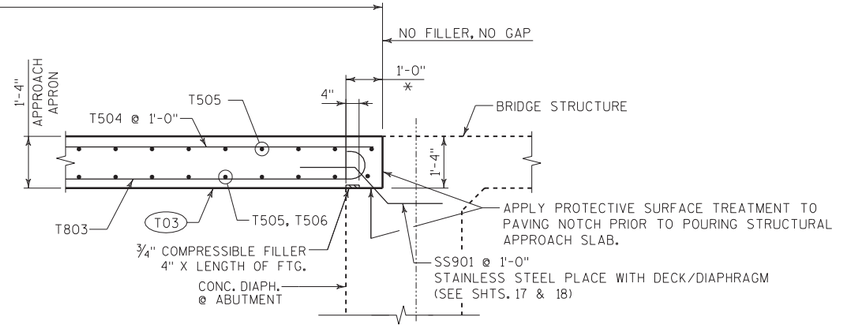


SECTION A-A

(AT WINGWALLS PARALLEL TO BRIDGE)



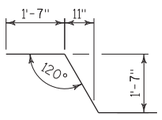
SECTION B-B



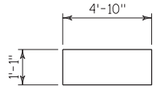
SECTION C-C

TRANSVERSE SECTION THRU APPROACH APRON

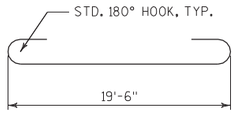
* MEASURED NORMAL TO ABUTMENT



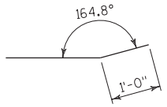
SS901



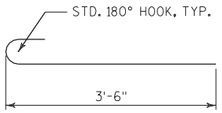
T501



T803



T505, T506



T507

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
T501	X	110	12'-5"	X	-	APRON FOOTING - STIRRUP	VERTICAL
T802	X	24	55'-11"	-	-	APRON FOOTING	TRANS
T803	X	180	21'-4"	X	-	APRON SLAB - BOTT	LONG
T504	X	110	19'-6"	-	-	APRON SLAB - TOP	LONG
T505	X	126	29'-5"	X	-	APRON SLAB - TOP & BOTT	TRANS
T506	X	42	29'-1"	X	-	APRON SLAB - BOTT	TRANS
T507	X	80	4'-1"	X	-	APRON SLAB - EDGES	TRANS

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
SS901	-	110	5'-0"	X	-	CONC. ABUT. DIAPH. TO APPROACH SLAB

LEGEND:

(T01) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED.

(T02) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.

(T03) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE LENGTH OF THE SUBGRADE.

(T04) 1/2" FILLER (INCLUDED IN PARAPET/SLAB LENGTH). SEAL ALL EXPOSED HORIZ. & VERT. SURFACE OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

DESIGNER NOTES:

SEE PARAPET STANDARDS FOR REINFORCEMENT AND OTHER DETAILS SHEET 22.

BELOW THE APPROACH SLAB FOOTING AND STRUCTURAL APPROACH SLAB, SHOW BASE AGGREGATE DENSE 1 1/4INCH AS PER FDM 14-5.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-64-188

DRAWN BY TRW | PLANS CK'D. ACT

STRUCTURAL APPROACH SLAB DETAILS

SHEET 24 OF 24

400

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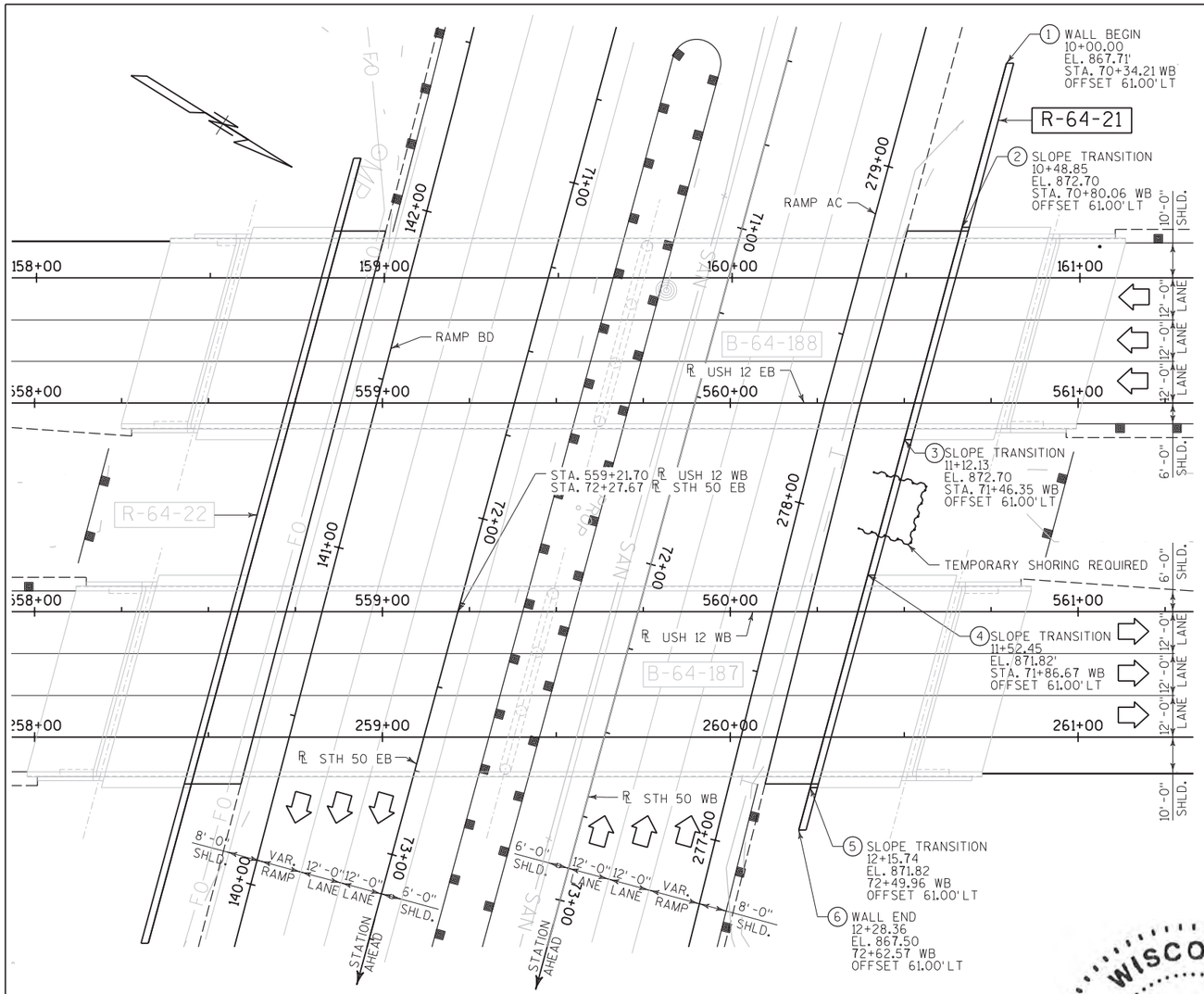
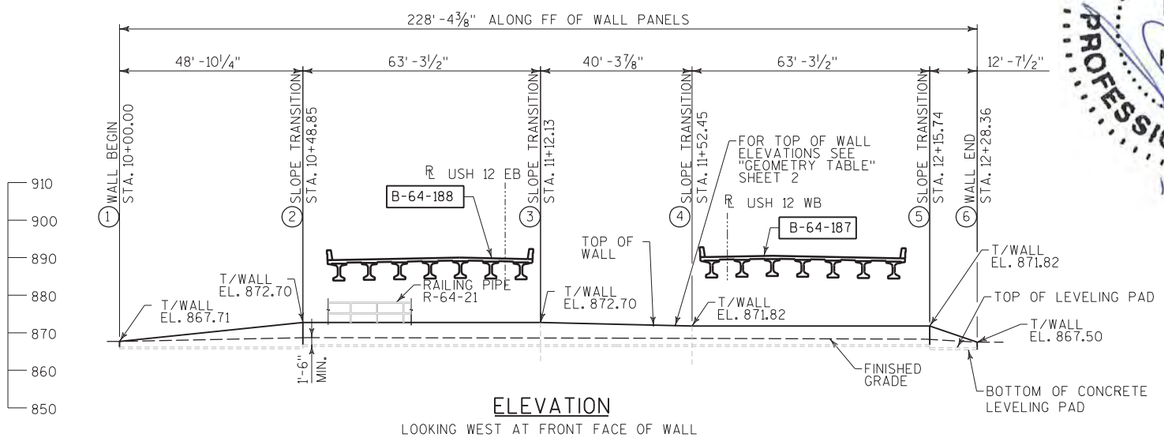
STATE PROJECT NUMBER
1080-12-71



PLAN



ELEVATION

LOOKING WEST AT FRONT FACE OF WALL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE RETAINING WALL IS TO BE DESIGNED USING THE ELEVATIONS GIVEN IN THE GEOMETRY TABLE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE PLAN QUANTITY FOR THE ITEM "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL. THE TOP OF LEVELING PAD IS ASSUMED TO BE A CONSTANT 1'-6" BELOW FINISHED GRADE.

THE CONTRACTOR MUST COORDINATE CONSTRUCTION OF THIS WALL WITH CONSTRUCTION OF THE WEST ABUTMENTS OF STRUCTURES B-64-187 AND B-64-188.

WALL STATIONS ARE ALONG THE ℄ FOR R-64-21 WHICH IS THE POINT OF THE WALL CROSS-SECTION PROJECTING CLOSEST TO THE ℄ STH 50 WB. STATION AND OFFSET DATA REFERENCES THE STH 50 WB ALIGNMENT.

ALL EARTHWORK, CONCRETE AND REINFORCEMENT FOR COPING AND LEVELING PAD, IS INCIDENTAL TO BID ITEM SPV.0165.01 "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD".

DESIGN DATA

LIVE LOAD
LIVE LOAD SURCHARGE _____ 100 P.S.F.

MATERIAL PROPERTIES PER MODULAR BLOCK WALL VENDOR, AND THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

DESIGN FOR RETAINING WALL TO PROVIDE FOR SLOPED FINISHED GRADE BEHIND WALL AS SHOWN.

TRAFFIC DATA:

USH 12

A.D.T. = ------ 19,800 (2012)
A.D.T. = ------ 21,400 (2014)
A.D.T. = ------ 37,000 (2034)
R.D.S. = 70 M.P.H.

STH 50

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R.D.S. = 50 M.P.H.

WISCONSIN
JOHN F. RUBLEIN
E-38700
MADISON
WI
PROFESSIONAL ENGINEER
1/13/14

LIST OF DRAWINGS:

1. GENERAL PLAN & ELEVATION
2. GEOMETRY TABLE, CROSS SECTION & QUANTITIES
3. RAILING PIPE DETAIL
4. SUBSURFACE EXPLORATION

BUREAU OF STRUCTURES:
WILLIAM DREHER (608) 266-8489
CONSULTANT CONTACT:
JOHN RUBLEIN (608) 229-1434

NO.	DATE	REVISION	BY

DAAR ENGINEERING, INC.
www.daarcorp.com
Madison, WI 53703
608-249-8340

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 02/25/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-64-21

COUNTY	VILLAGE
WALWORTH	LAKE GENEVA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ACT	JFR	TRW	ACT

GENERAL PLAN AND ELEVATION

SHEET 1 OF 4
401

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1/9/2014

STATE PROJECT NUMBER

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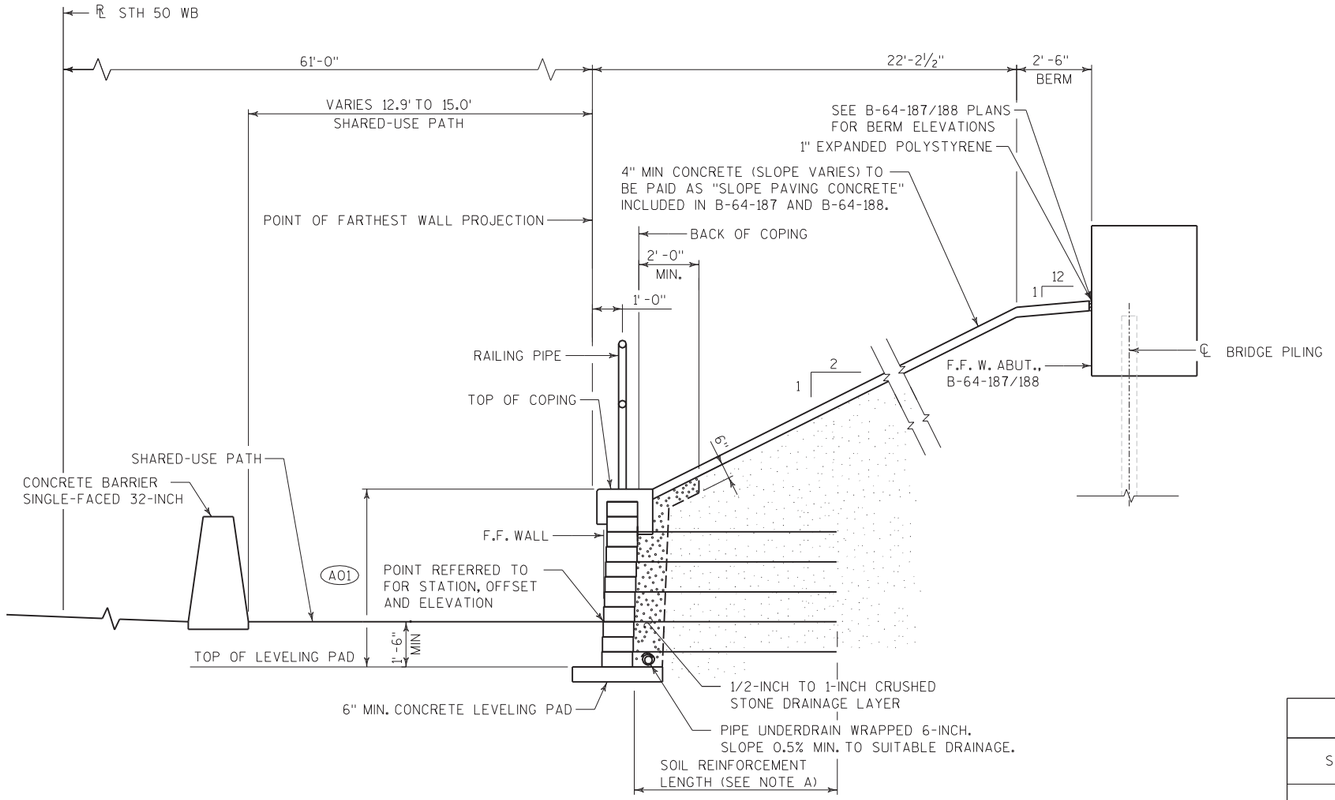
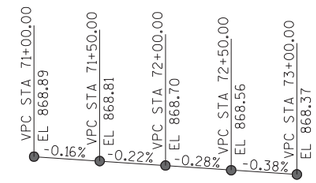


CROSS SECTION THRU ABUTMENT AT MSE WALL

(LOOKING SOUTH)



EXISTING PROFILE GRADE LINE STH 50 WB

NOTES

(A01) PAY LIMIT FOR BID ITEM "WALL MODULAR BLOCK MECHNICALLY STABILIZED EARTH, STRUCTURE R-64-21"

NOTE A:
SEE EXTERNAL STABILITY EVALUATION TABLE FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

DESIGN PARAMETERS - SOIL PROPERTIES

STRUCTURE INFORMATION	SOIL ZONE AND ELEVATION (FT)	SOIL DESCRIPTION	MOIST UNIT WEIGHT (γ) (psf)	COHESION (psf)*	INTERNAL ANGLE OF FRICTION (DEGREES)*
STRUCTURE ID: R-64-21 MODULAR BLOCK MSE WALL	RETAINED FILL SOILS TOW EL. 872.70	SANDS AND LEAN CLAYS (FILL)	120	0	30
	FOUNDATION SOILS FOOTING EL. 866.58	LEAN CLAYS (FILL)	125	0	30
		STRUCTURAL FILL	130	0	34

NOTES

1. EBS = EXCAVATION BELOW SUBGRADE; TOW = TOP OF WALL; EL = ELEVATION; FEET (FEET); MSE = MECHANICALLY STABILIZED EARTH; pcf = POUNDS PER CUBIC FOOT; psf = POUNDS PER SQUARE FOOT; deg = DEGREES; bgs = BELOW GROUND SURFACE.
2. * = EFFECTIVE STRESS PARAMETERS
3. WALL EMBEDMENT DEPTH = 1.5FT; CONCRETE LEVELING PAD THICKNESS = 0.5 FT.
4. SEE SECTION 3.3 OF THE GEOTECHNICAL MEMORANDUM FOR REINFORCED BACK FILL SOIL PROPERTIES USED IN EXTERNAL AND GLOBAL STABILITY ANALYSIS OF MSE WALLS.
5. AN EBS OF APPROXIMATELY 5 FEET IS RECOMMENDED FOR SECTIONS of R-64-21 TO RE-ESTABILISH THE FOOTING GRADES USING STRUCTURAL FILL (1.25-INCH AND/OR 3-INCH DENSE GRADED BASE) FOLLOWING FIELD VERIFICATION OF BEARING RESISTANCE OF LEAN CLAYS ENCOUNTERED IN TEST BORING S-4.
6. ELEVATIONS ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929).

TOTAL ESTIMATED QUANTITIES

BID - ITEM NUMBER	BID - ITEM	UNITS	QUANTITY
206.6000.S	TEMPORARY SHORING	SF	200
513.2050.S	RAILING PIPE	LF	230
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	50
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	229
SPV.0165.01	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	1087
	NON BID - ITEM		
	FILLER	SIZE	½" & 1"

ALL ITEMS ARE CATEGORY 0050

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
BM128	258+19.31	NW CORNER OF BRIDGE ON EB USH 12	890.0020
BM129	260+93.58	SW CORNER OF BRIDGE ON WB USH 12	888.5770

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATION
WALL STA.	10+48.85
BORING USED	S-1 & S-4
WALL HEIGHT[1] (FEET)	5.62
EXPOSED WALL HEIGHT (FEET)	4.12
MINIMUM LENGTH OF REINFORCEMENT[2] (FEET)	8
LENGTH OF REIN. / WALL HEIGHT	1.42
CAPACITY TO DEMAND RATIO (CDR)	
SLIDING (CDR>1.0)	1.12
ECCENTRICITY (CDR>1.0)	3.03
OVERALL STABILITY[3] (CDR>1.0)	1.07
BEARING RESISTANCE (CDR>1.0)	3.00
FACTORED BEARING RESISTANCE (PSF)	5000

NOTES:
1. WALL HEIGHT SHOWS ONLY THE MAXIMUM HEIGHT IN THE SECTION AND INCLUDES 1.5 FEET OF EMBEDMENT.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH FOR THE MAXIMUM WALL HEIGHT AT THE EVALUATED SECTION.
3. CDR FOR OVERALL STABILITY = MINIMUM SERVICE STABILITY RATIO TIMES Φ = 0.75 PER WISDOT LRFD BRIDGE MANUAL

GEOMETRY TABLE

WALL STATION	STH 50 WB STATION	OFFSET TO F.F. WALL	TOP OF WALL	FINISHED GROUND
10+00.00	70+34.21	61.00 LT	867.71	867.71
10+48.85	70+80.06	61.00 LT	872.70	868.69
11+12.13	71+46.35	61.00 LT	872.70	868.58
11+52.45	71+86.67	61.00 LT	871.82	868.49
12+15.74	72+49.96	61.00 LT	871.82	868.25
12+28.36	72+62.57	61.00 LT	867.50	867.50

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-64-21

DRAWN BY TRW | PLANS CK'D. ACT

GEOMETRY TABLE, CROSS-SECTION, & QUANTITIES

SHEET 2 OF 4

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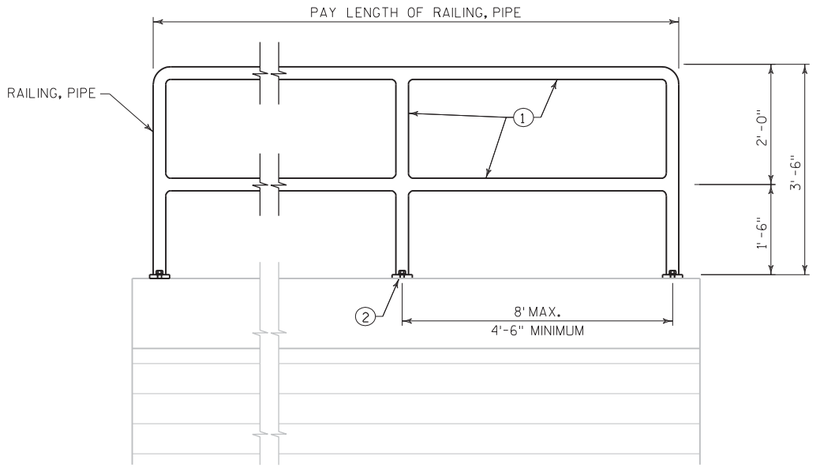
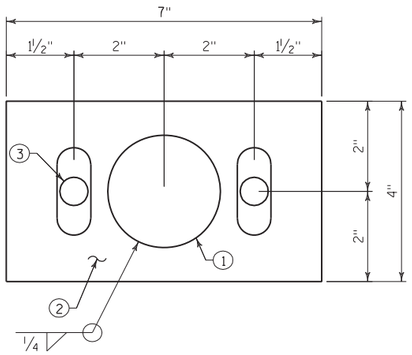
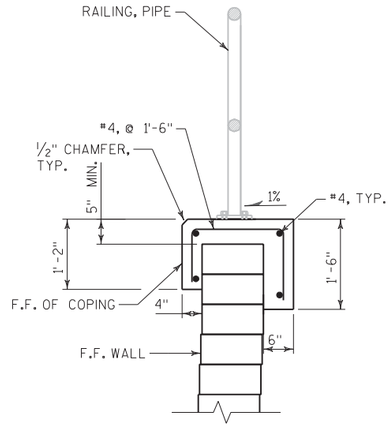


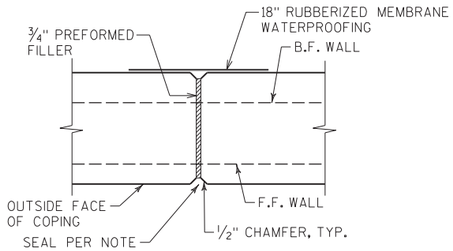
ELEVATION VIEW



RAILING BASE PLATE



COPING DETAIL



COPING CONSTRUCTION JOINT (A02)

DO NOT RUN BAR STEEL THRU JOINT. MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF BLOCK.

RAILING, PIPE - NOTES

BID ITEMS SHALL BE "RAILING PIPE" WHICH INCLUDES ALL ITEMS SHOWN INCLUDING COATING.

RAILING BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIALS EXCEPT ANCHOR BOLTS SHALL BE EPOXY COATED AFTER FABRICATION. COLOR SHALL BE 1989 FEDERAL STANDARD 595B NUMBER 27040 (BLACK).

SHIM AS REQUIRED TO OBTAIN VERTICAL POST ALIGNMENT. FILL EXPOSED OPENINGS BETWEEN SHIMS, BASE PLATE AND TOP OF CONCRETE AND POST ANCHOR BOLT HOLES WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

LEGEND

(1) 2½" DIA. STEEL PIPE CONFORMING TO SECTION 506 OF THE STANDARD SPECIFICATIONS. NOTE: RAIL TO BE PARALLEL WITH TOP OF WALK.

(2) BASE PLATE ½"X4"X7" CONFORMING TO ASTM DESIGNATION A709 GRADE 36 WITH 11/16 "X1½" SLOTTED HOLES FOR HEX BOLTS. WELD TO NO.(1) AS SHOWN.

(3) CONCRETE MASONRY ANCHORS, TYPE S ⅝", PULLOUT STRENGTH SHALL BE 3.6 KIPS. TWO REQUIRED PER POST. PLACE NORMAL TO PLATE NO.(2) EMBED 4 INCHES INTO COCRETE WALK.

(A02) SPACE CONSTRUCTION JOINTS 20'-0" MAX. SPACE JOINTS UNIFORMLY BETWEEN SLOPE TRANSITIONS.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE R-64-21

DRAWN BY TRW | PLANS CK'D. ACT

RAILING PIPE DETAIL

SHEET 3 OF 4

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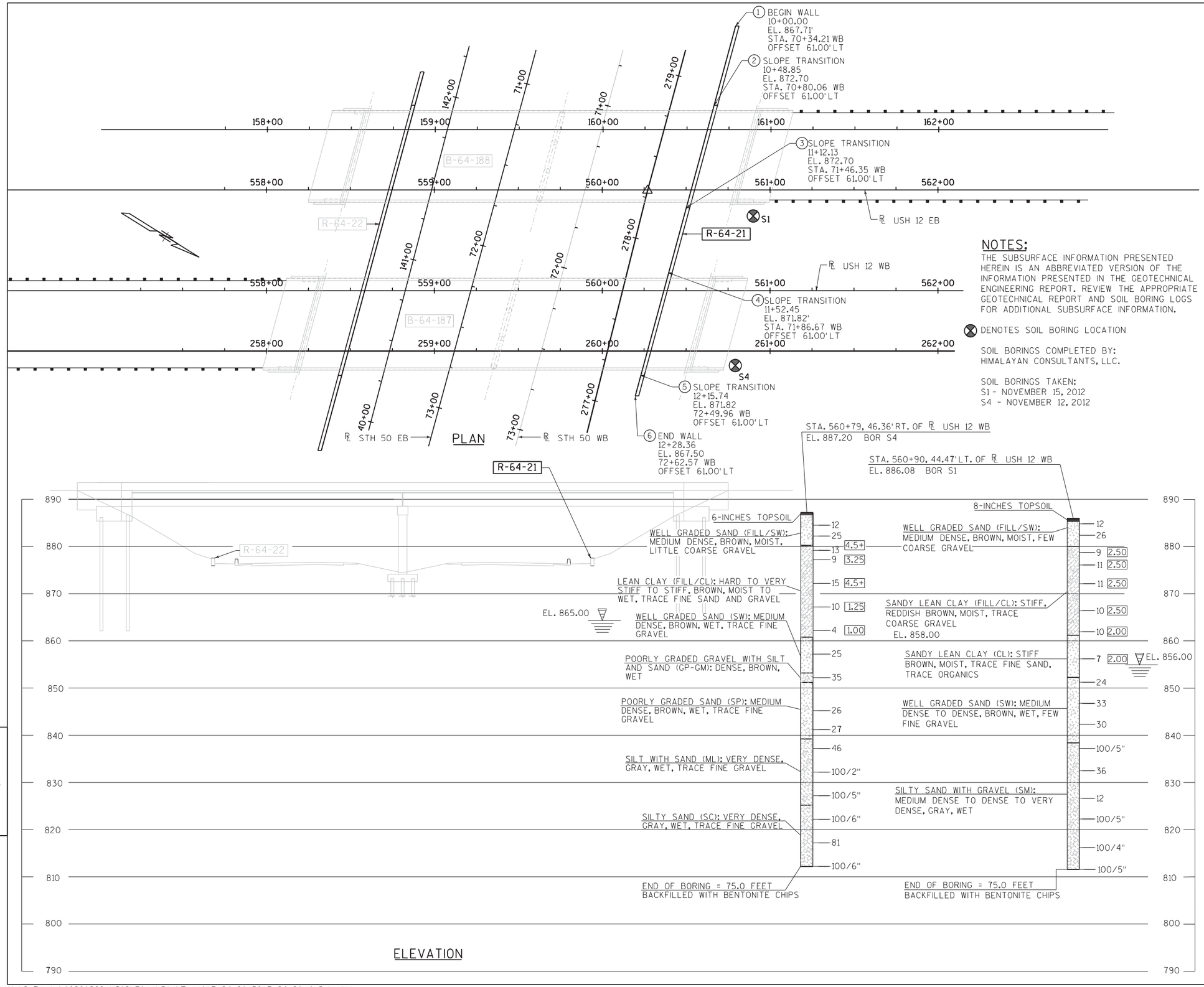

NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊗ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
HIMALAYAN CONSULTANTS, LLC.

SOIL BORINGS TAKEN:
S1 - NOVEMBER 15, 2012
S4 - NOVEMBER 12, 2012

STATE PROJECT NUMBER

1080-12-71

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

BORING NO.
ELEV. STA.
UNCONFINED STRENGTH — 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-64-21

DRAWN BY TRW | PLANS CK'D. ACT

SUBSURFACE EXPLORATION

SHEET 4 OF 4

404

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1/9/2014

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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THE CONTRACTOR MUST COORDINATE CONSTRUCTION OF THIS WALL WITH CONSTRUCTION OF THE EAST ABUTMENTS OF STRUCTURES B-64-187 AND B-64-188.

WALL STATIONS ARE ALONG THE ℄ FOR R-64-22 WHICH IS THE POINT OF THE WALL CROSS-SECTION PROJECTING CLOSEST TO THE ℄ STH 50 EB. STATION AND OFFSET REFERENCES THE STH 50 EB ALIGNMENT.

ALL EARTHWORKS, CONCRETE AND REINFORCEMENT FOR COPING AND LEVELING PAD, IS INCIDENTAL TO BID ITEM SPV.0165.01 "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD".

DESIGN DATA

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MATERIAL PROPERTIES PER MODULAR BLOCK WALL VENDOR, AND THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

DESIGN FOR RETAINING WALL TO PROVIDE FOR SLOPED FINISHED GRADE BEHIND WALL AS SHOWN.

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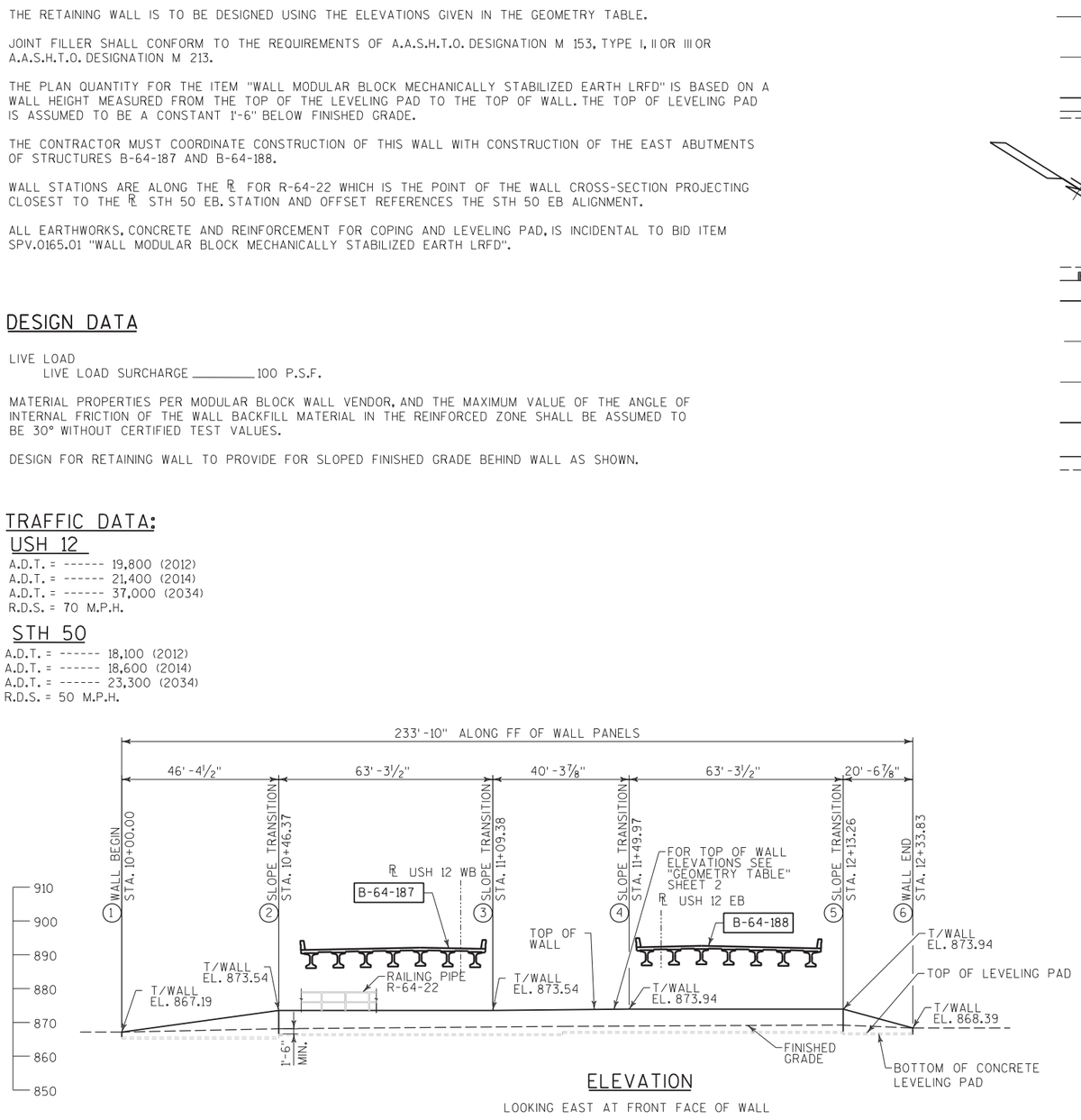
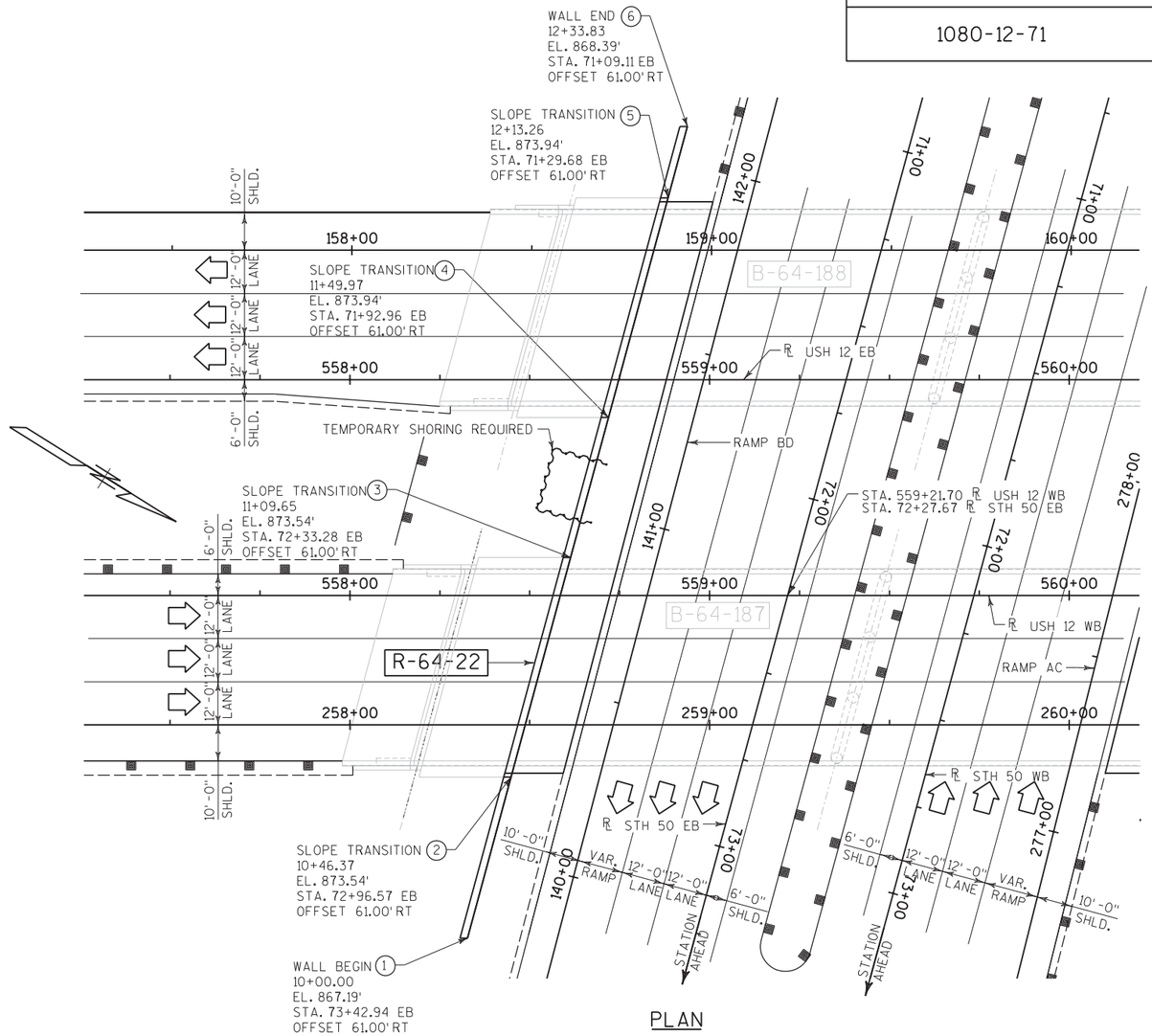


ELEVATION

LOOKING EAST AT FRONT FACE OF WALL



PLAN

LIST OF DRAWINGS:

1. GENERAL PLAN & ELEVATION
2. GEOMETRY TABLE, CROSS SECTION & QUANTITIES
3. RAILING PIPE DETAIL
4. SUBSURFACE EXPLORATION

WISCONSIN
JOHN F. RUBLEIN
E-38700
MADISON
WI
PROFESSIONAL ENGINEER
1/13/14

BUREAU OF STRUCTURES:
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CONSULTANT CONTACT:
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NO.	DATE	REVISION	BY

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www.daarcorp.com
Madison, WI 53703
608-249-8340

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 02/25/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-64-22

COUNTY	VILLAGE
WALWORTH	LAKE GENEVA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	ACT	DESIGN CK'D.	JFR	DRAWN BY	TRW	PLANS CK'D.	ACT

GENERAL PLAN AND ELEVATION

SHEET 1 OF 4

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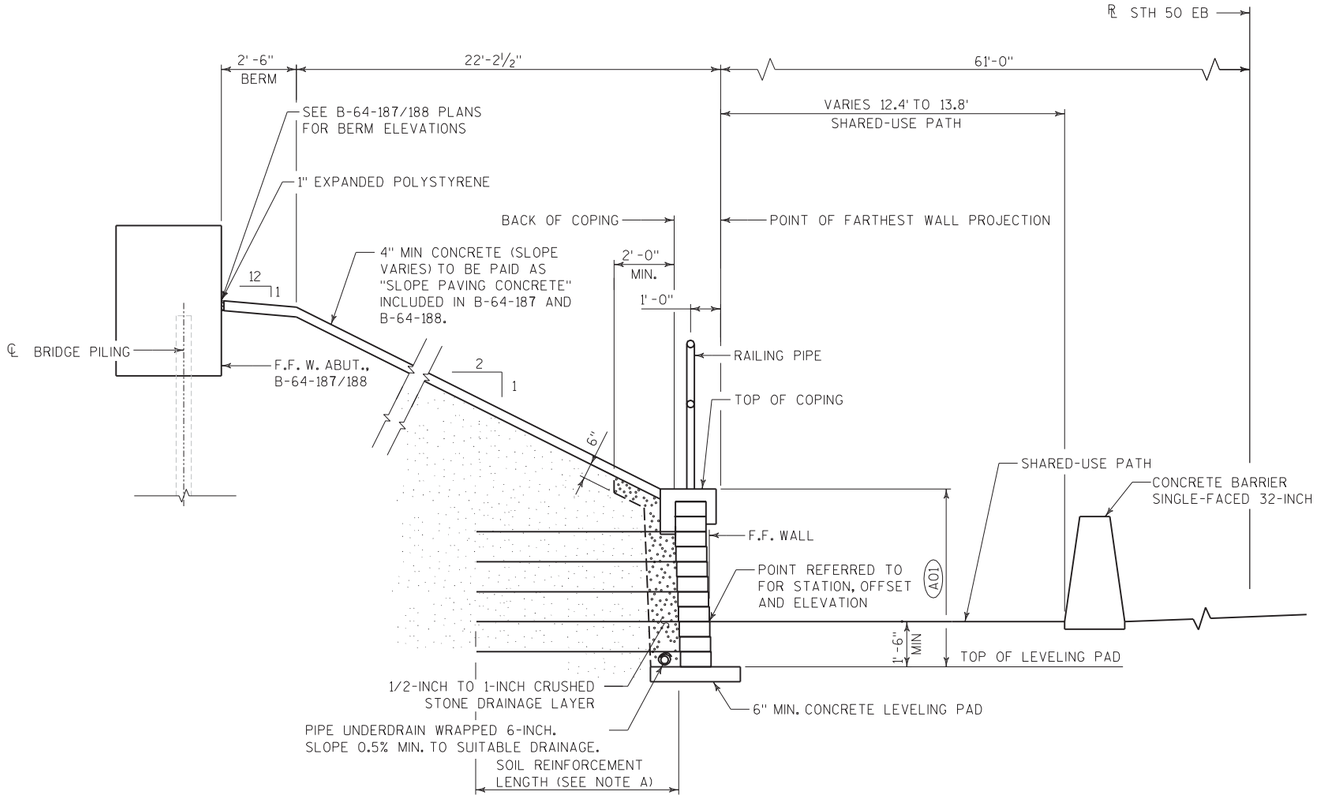
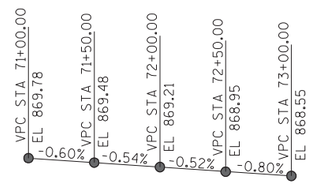
STATE PROJECT NUMBER

1080-12-71



CROSS SECTION THRU ABUTMENT AT MSE WALL

(LOOKING SOUTH)



EXISTING PROFILE GRADE LINE STH 50 EB

NOTES

(A01) PAY LIMIT FOR BID ITEM "WALL MODULAR BLOCK MECHNICALLY STABILIZED EARTH, STRUCTURE R-64-22"

NOTE A:
SEE EXTERNAL STABILITY EVALUATION TABLE FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

DESIGN PARAMETERS - SOIL PROPERTIES

STRUCTURE INFORMATION	SOIL ZONE AND ELEVATION (FT)	SOIL DESCRIPTION	MOIST UNIT WEIGHT (γ) (psf)	COHESION (psf)*	INTERNAL ANGLE OF FRICTION (DEGREES)*
STRUCTURE ID: R-64-22 MODULAR BLOCK MSE WALL	RETAINED FILL SOILS TOW EL. 873.54	SANDS AND LEAN CLAYS (FILL)	120	0	30
	FOUNDATION SOILS FOOTING EL. 866.12	SAND (FILL)	125	0	32

NOTES

1. EBS = EXCAVATION BELOW SUBGRADE; TOW = TOP OF WALL; EL = ELEVATION; FEET (FEET); MSE = MECHANICALLY STABILIZED EARTH; pcf = POUNDS PER CUBIC FOOT; psf = POUNDS PER SQUARE FOOT; deg = DEGREES; bgs = BELOW GROUND SURFACE.
2. * = EFFECTIVE STRESS PARAMETERS
3. WALL EMBEDMENT DEPTH = 1.5FT; CONCRETE LEVELING PAD THICKNESS = 0.5 FT.
4. SEE SECTION 3.3 OF THE GEOTECHNICAL MEMORANDUM FOR REINFORCED BACK FILL SOIL PROPERTIES USED IN EXTERNAL AND GLOBAL STABILITY ANALYSIS OF MSE WALLS.
5. AN EBS OF APPROXIMATELY 5 FEET IS RECOMMENDED FOR SECTIONS of R-64-21 TO RE-ESTABILISH THE FOOTING GRADES USING STRUCTURAL FILL (1.25-INCH AND/OR 3-INCH DENSE GRADED BASE) FOLLOWING FIELD VERIFICATION OF BEARING RESISTANCE OF LEAN CLAYS ENCOUNTERED IN TEST BORING S-4.
6. ELEVATIONS ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929).

TOTAL ESTIMATED QUANTITIES

BID - ITEM NUMBER	BID - ITEM	UNITS	QUANTITY
206.6000.S	TEMPORARY SHORING	SF	200
513.2050.S	RAILING PIPE	LF	234
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	50
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	234
SPV.0165.01	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	1358
	NON BID - ITEM		
	FILLER	SIZE	½" & 1"

ALL ITEMS ARE CATEGORY 0060

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEVATION
BM128	258+19.31	NW CORNER OF BRIDGE ON EB USH 12	890.0020
BM129	260+93.58	SW CORNER OF BRIDGE ON WB USH 12	888.5770

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS	EVALUATED LOCATION
WALL STA.	10+46.37
BORING USED	S-3 & S-6
WALL HEIGHT[1] (FEET)	6.92
EXPOSED WALL HEIGHT (FEET)	5.42
MINIMUM LENGTH OF REINFORCEMENT[2] (FEET)	8
LENGTH OF REIN. / WALL HEIGHT	1.16
CAPACITY TO DEMAND RATIO (CDR)	
SLIDING (CDR>1.0)	1.06
ECCENTRICITY (CDR>1.0)	2.04
OVERALL STABILITY[3] (CDR>1.0)	1.13
BEARING RESISTANCE (CDR>1.0)	2.33
FACTORED BEARING RESISTANCE (PSF)	5000

NOTES:
1. WALL HEIGHT SHOWS ONLY THE MAXIMUM HEIGHT IN THE SECTION AND INCLUDES 1.5 FEET OF EMBEDMENT.
2. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH FOR THE MAXIMUM WALL HEIGHT AT THE EVALUATED SECTION.
3. CDR FOR OVERALL STABILITY = MINIMUM SERVICE STABILITY RATIO TIMES = 0.75 PER WISDOT LRFD BRIDGE MANUAL

GEOMETRY TABLE

WALL STATION	STH 50 EB STATION	OFFSET TO F.F. WALL	TOP OF WALL	FINISHED GROUND
10+00.00	73+42.94	61.00' RT	867.19	867.19
10+46.37	72+96.57	61.00' RT	873.54	868.12
11+09.65	72+33.28	61.00' RT	873.54	868.64
11+49.97	71+92.96	61.00' RT	873.94	868.92
12+13.26	71+29.68	61.00' RT	873.94	869.21
12+33.83	71+09.11	61.00' RT	868.39	868.39

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-64-22

DRAWN BY TRW | PLANS CK'D. ACT

GEOMETRY TABLE, CROSS-SECTION, & QUANTITIES

SHEET 2 OF 4

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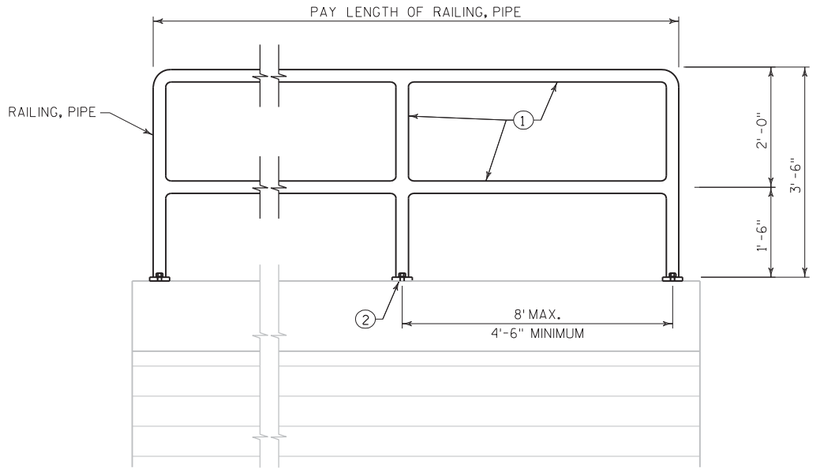
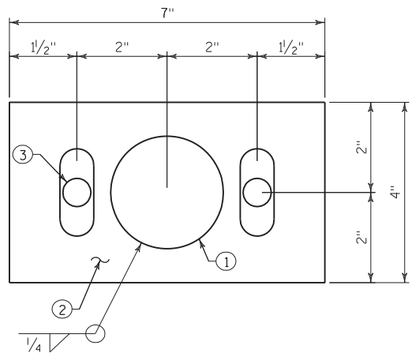
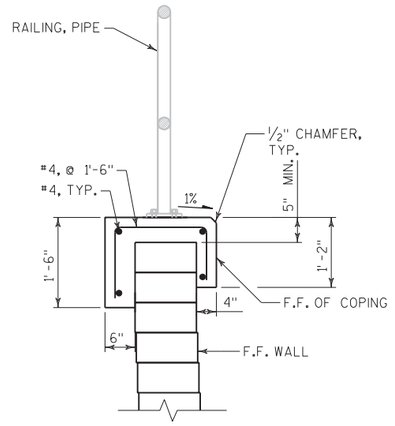


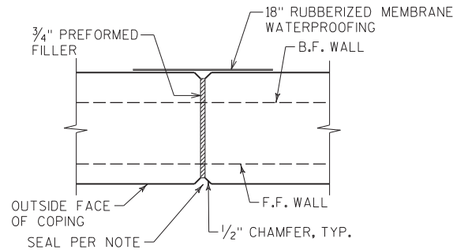
ELEVATION VIEW



RAILING BASE PLATE



COPING DETAIL



COPING CONSTRUCTION JOINT (A02)

DO NOT RUN BAR STEEL THRU JOINT. MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF BLOCK.

RAILING, PIPE - NOTES

BID ITEMS SHALL BE "RAILING PIPE" WHICH INCLUDES ALL ITEMS SHOWN INCLUDING COATING.

RAILING BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIALS EXCEPT ANCHOR BOLTS SHALL BE EPOXY COATED AFTER FABRICATION. COLOR SHALL BE 1989 FEDERAL STANDARD 595B NUMBER 27040 (BLACK).

SHIM AS REQUIRED TO OBTAIN VERTICAL POST ALIGNMENT. FILL EXPOSED OPENINGS BETWEEN SHIMS, BASE PLATE AND TOP OF CONCRETE AND POST ANCHOR BOLT HOLES WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

LEGEND

(1) 2½" DIA. STEEL PIPE CONFORMING TO SECTION 506 OF THE STANDARD SPECIFICATIONS. NOTE: RAIL TO BE PARALLEL WITH TOP OF WALK.

(2) BASE PLATE ½"X4"X7" CONFORMING TO ASTM DESIGNATION A709 GRADE 36 WITH 11/16 "X1½" SLOTTED HOLES FOR HEX BOLTS. WELD TO NO. (1) AS SHOWN.

(3) CONCRETE MASONRY ANCHORS, TYPE S ⅝", PULLOUT STRENGTH SHALL BE 3.6 KIPS. TWO REQUIRED PER POST. PLACE NORMAL TO PLATE NO. (2) EMBED 4 INCHES INTO COCRETE WALK.

(A02) SPACE CONSTRUCTION JOINTS 20'-0" MAX. SPACE JOINTS UNIFORMLY BETWEEN SLOPE TRANSITIONS.

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STRUCTURE R-64-22

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RAILING PIPE DETAIL

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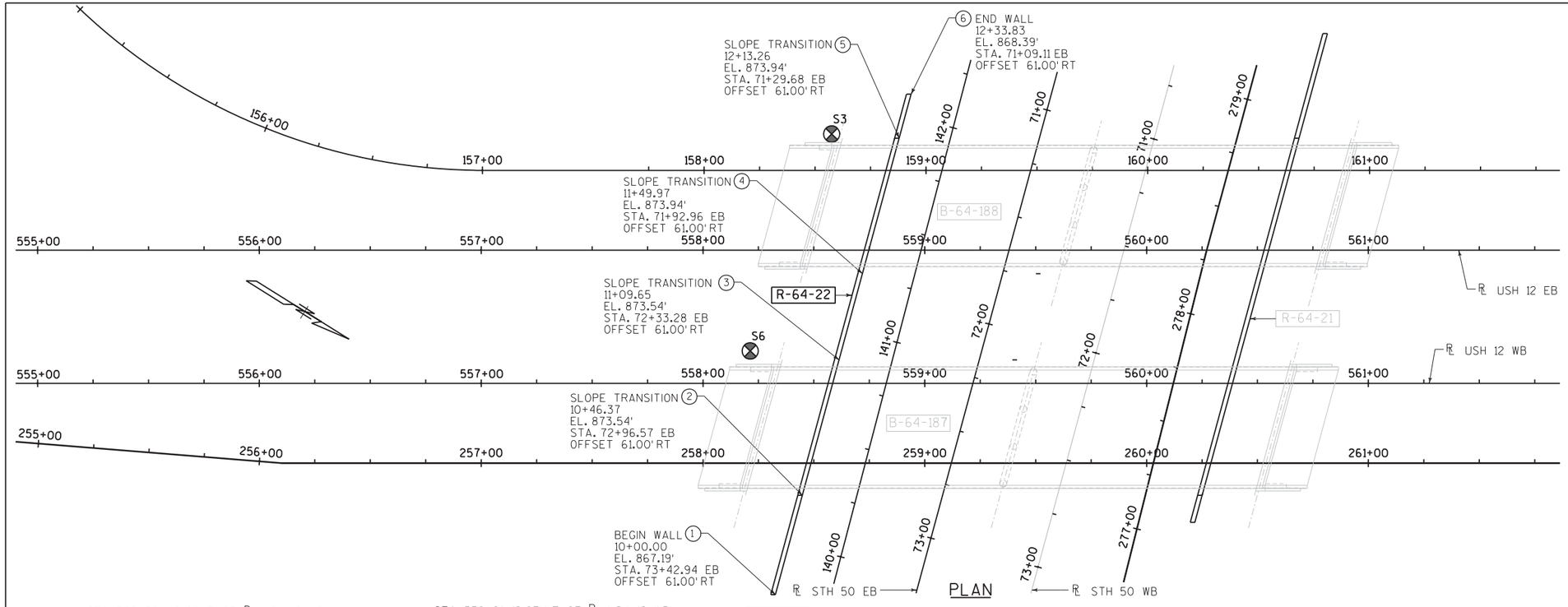
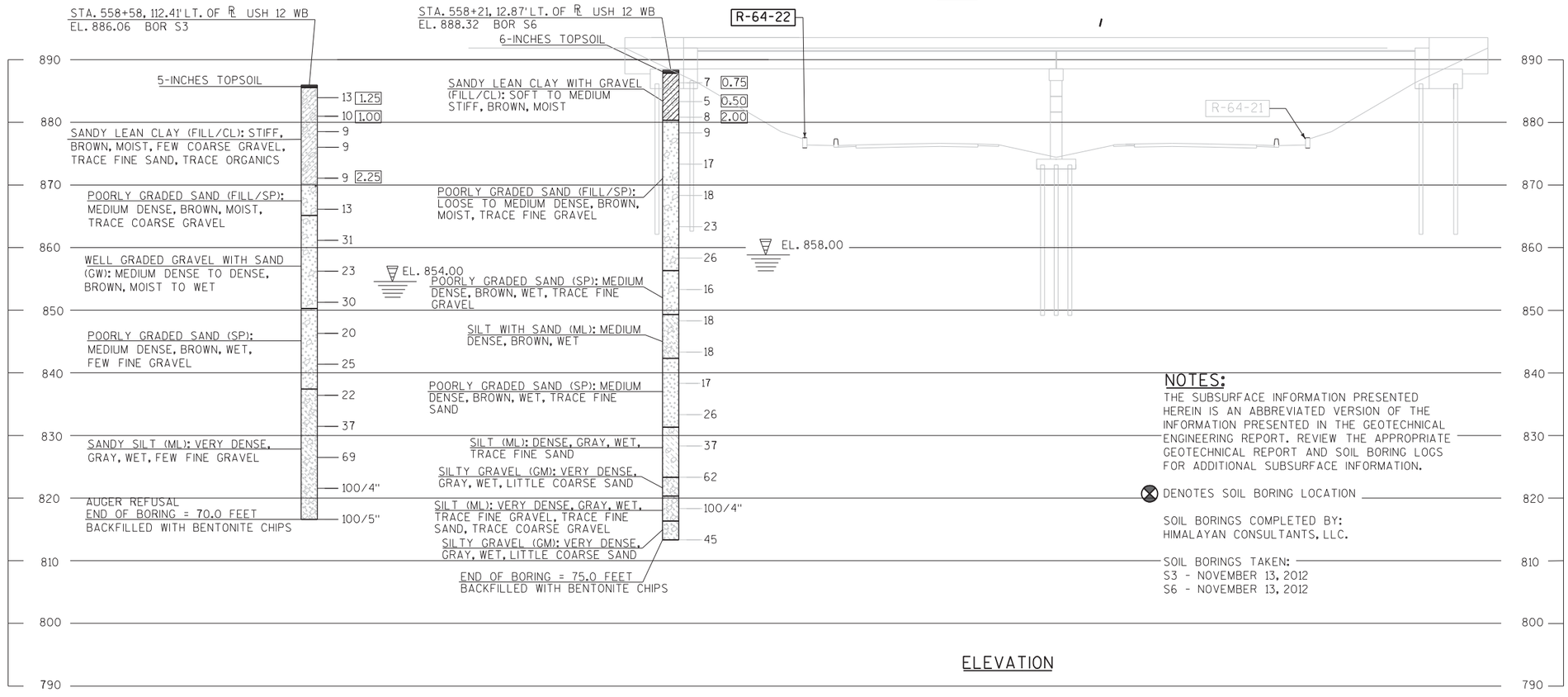


PLAN



ELEVATION

NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊗ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
HIMALAYAN CONSULTANTS, LLC.

SOIL BORINGS TAKEN:
S3 - NOVEMBER 13, 2012
S6 - NOVEMBER 13, 2012

STATE PROJECT NUMBER

1080-12-71

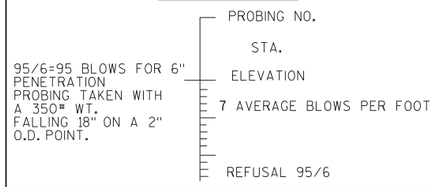
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

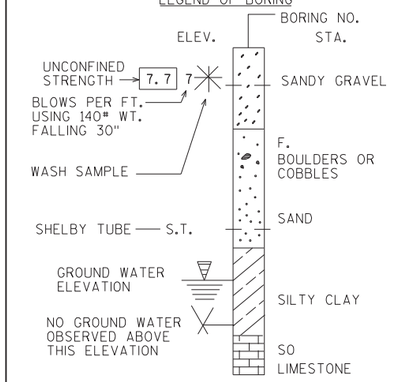
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

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STRUCTURE R-64-22

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SUBSURFACE EXPLORATION

SHEET 4 OF 4

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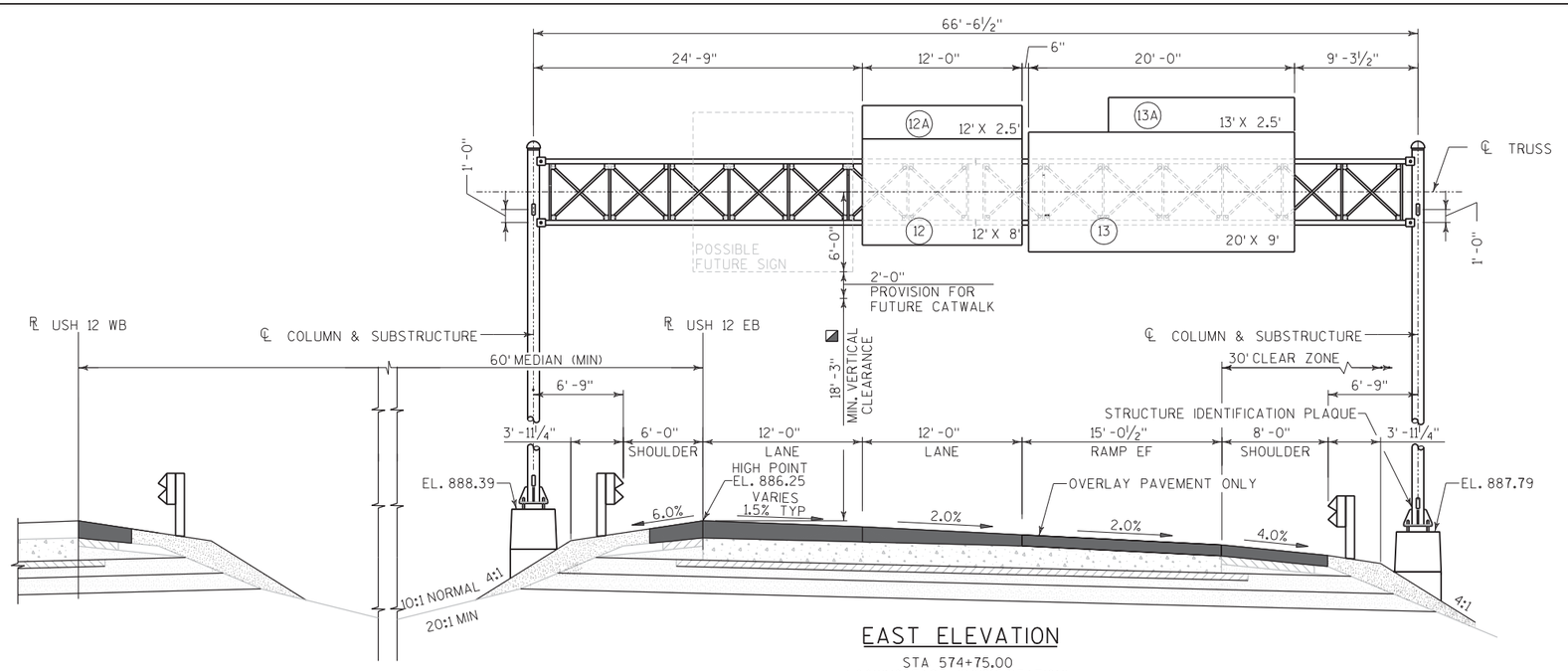
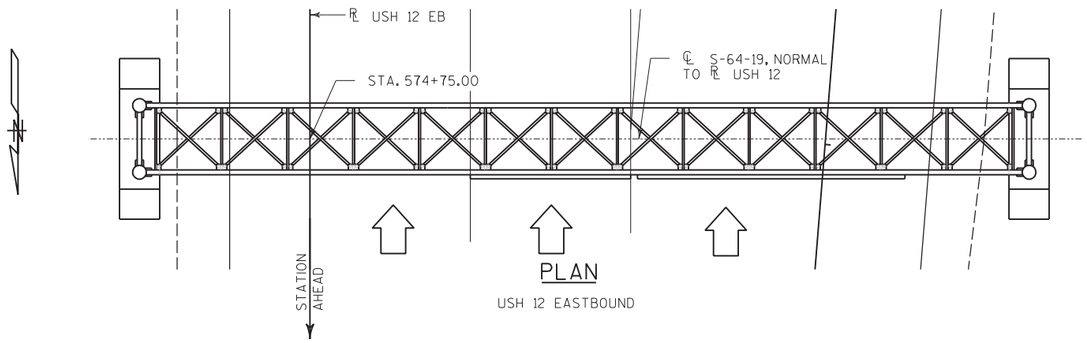


EAST ELEVATION

STA 574+75.00
LOOKING EAST (DOWN STATION)
AT FRONT FACE OF SIGN



PLAN

USH 12 EASTBOUND

DESIGN DATA

DESIGN SIGN AREA: 576 SF
DESIGN SIGN DEPTH: 12 FT

DESIGNED ACCORDING TO A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS", 6TH EDITION, 2013.

DEAD LOAD - WT. OF SIGN, SUPPORTING STRUCTURE, FUTURE WALKWAY, FUTURE LIGHTS AND FUTURE RAILING.

LIVE LOAD - SINGLE LINE LOAD OF 500 LBS. DISTRIBUTED OVER 2'-0" OF FUTURE CATWALK. PER A.A.S.H.T.O. SIGN SPEC. 3.6, THIS LOAD IS NOT USED IN THE DESIGN OF THE STRUCTURE.

ICE LOAD - 3 P.S.F. TO 1 FACE OF SIGN & AROUND SURFACE OF MEMBERS.

WIND PRESSURE - 90 M.P.H. (3-SECOND GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS.

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE +½WIND	133

NOTE: WIND LOAD FOR GROUP 3 LOADING SHALL NOT BE LESS THAN 25 P.S.F.

WISCONSIN
JOHN F. RUBLEIN
E-38700
MADISON
WI
PROFESSIONAL ENGINEER
12/18/13

TOTAL ESTIMATED QUANTITIES

BID - ITEM NUMBER	BID - ITEM	UNITS	QUANTITY
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	25
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	4303
◑ 641.6600	SIGN BRIDGE STRUCTURE S-64-19	LS	1
	NON BID - ITEM		
	FILLER	SIZE	½" & 1"

ALL ITEMS ARE CATEGORY 0040

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

SIGN BRIDGE IDENTIFICATION PLAQUES SHALL BE CONSIDERED INCIDENTAL TO SIGN BRIDGES.

CENTER SIGNS 12 AND 13 VERTICALLY ON TRUSS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

ROADWAY CONSTRUCTION IS FOR OVERLAY ONLY. CONTRACTOR SHALL FIELD VERIFY ALL ELEVATIONS AND CLEARANCES TO ENSURE CORRECT PLACEMENT, VERTICAL CLEARANCE AND FABRICATION OF STRUCTURE AND FOUNDATION ELEMENTS.

LEGEND

◹ VERTICAL CLEARANCE TO ACCOUNT FOR MAXIMUM SIGN DEPTH PLUS 2'-0" FUTURE CATWALK, WITH 18'-3" CLEARANCE TO BOTTOM OF FUTURE CATWALK.

◑ LUMP SUM PAY ITEM 641.6600 INCLUDES HORIZONTAL TRUSS, VERTICAL STEEL COLUMNS AND ANCHORAGE ASSEMBLIES.

LIST OF DRAWINGS

1. SIGN BRIDGE LAYOUT
2. FOOTING DETAILS
3. 4-CHORD GALVANIZED STEEL SIGN BRIDGE
4. 4-CHORD SIGN BRIDGE DETAILS
5. HANDHOLE DETAILS
6. SUBSURFACE EXPLORATION

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
JOHN RUBLEIN (608) 229-1434

NO.	DATE	REVISION	BY

DAAR ENGINEERING, INC.
www.daarcorp.com
Madison, WI 53703
608-249-6140

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 01/02/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-64-19

SIGN BRIDGE AT STA. 574+75 EB USH 12

COUNTY	TOWN
WALWORTH	LYONS

DESIGN SPEC.
AASHTO SIGN SPEC. 6TH ED. 2013

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ACT	JFR	TRW	JFR

SIGN BRIDGE LAYOUT

SHEET 1 OF 6

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12/18/2013

STATE PROJECT NUMBER

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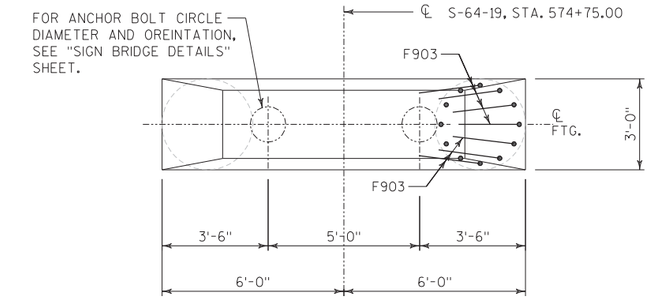
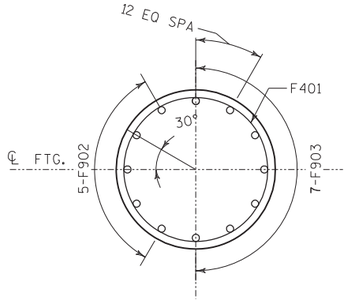


PLAN



SECTION A-A

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY ---------- f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ---------- fy = 60,000 psi

PLATE AND BARS - ASTM A709 GRADE 36 - fy = 36,000 psi

HIGH STRENGTH BOLTS - A325 ---------- fy = 92,000 psi

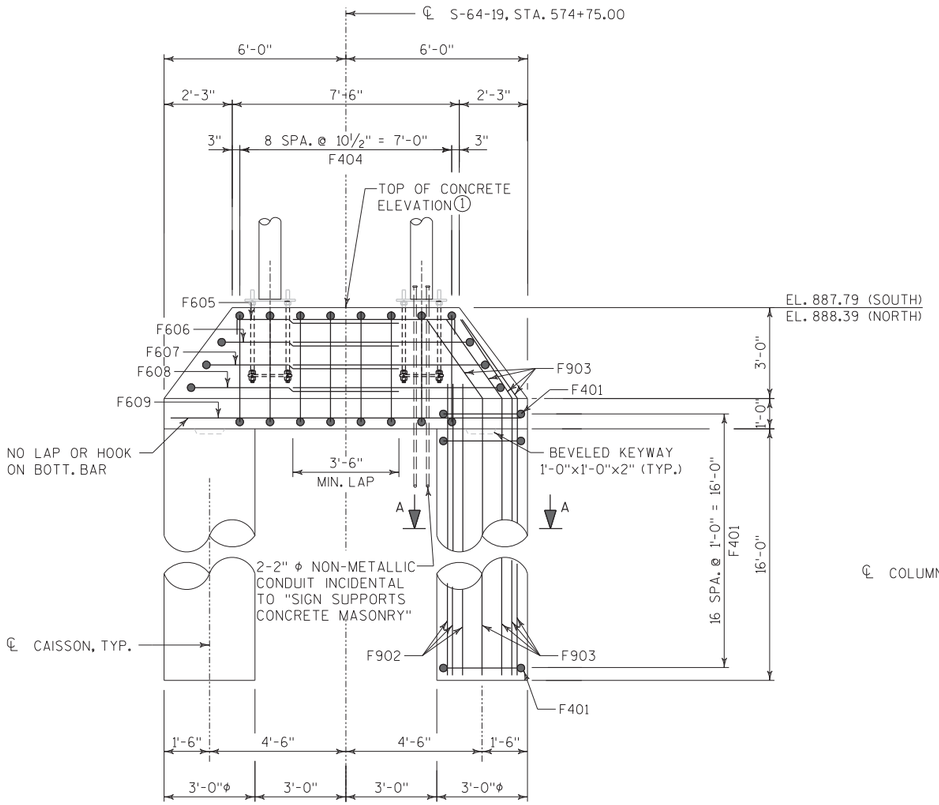
ANCHOR BOLTS - AASHTO M314 GRADE 55--- fy = 55,000 psi

HARDWARE GALVANIZED ---------- ASTM A153 CLASS C

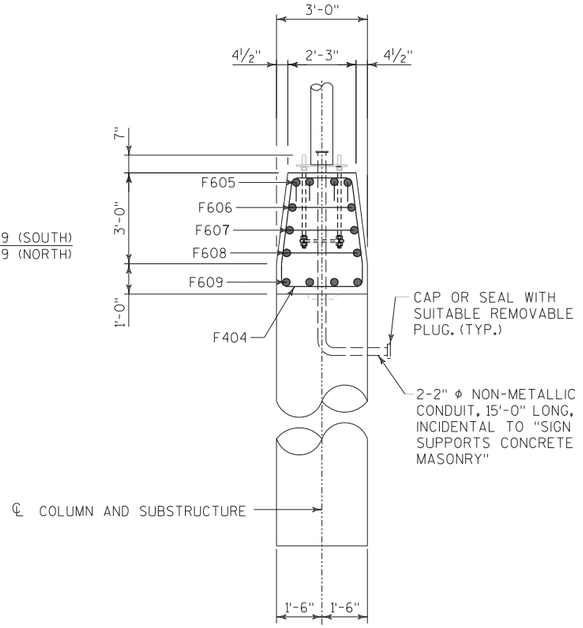
FOUNDATION DATA

SUBSURFACE PARAMETERS USED IN THE DESIGN OF THE FOUNDATION ARE BASED ON THE SUBSURFACE INVESTIGATION SHOWN ON SHEET 6. IF VARIATIONS IN THE ASSUMED DESIGN PARAMETERS ARE FOUND DURING CONSTRUCTION, NOTIFY THE PROJECT ENGINEER FOR REQUIRED MODIFICATION TO THE FOUNDATION SYSTEM.

APPROXIMATE BOTTOM ELEVATION (FEET)	COHESION (psf)	FRICTION ANGLE (DEGREES)	MOIST UNIT WEIGHT (pcf)	NOMINAL SIDE RESISTANCE (psf)	NOMINAL BASE RESISTANCE (psf)
EAST SHAFT BORING S-13					
879.39	3,000	0	130	N/A	N/A
873.39	3,000	0	130	1,600	27,000
868.39	3,700	0	135	1,900	33,300
853.39	2,400	0	125	1,300	21,600
WEST SHAFT BORING S-12					
878.47	3,000	0	130	N/A	N/A
873.47	2,900	0	125	1,600	26,100
862.97	0	34	125	900	19,200
853.47	2,300	0	130	1,200	20,700
852.47	0	36	130	2,500	27,000



ELEVATION



END VIEW

NOTES

DRAWINGS SHALL NOT BE SCALED.

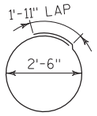
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 3" CLEAR FOR SURFACES CAST AGAINST THE EARTH AND 2½" FOR FORMED SURFACES.

SEE SHEET 4 FOR ANCHOR DETAILS.

① ENTIRE CONCRETE SURFACE SHALL BE TROWEL FINISHED AND SLOPED TO DRAIN.

BILL OF BARS

BAR MARK	COAT	NO. REQD	LENGTH	BENT	LOCATION	
F401	-	68	9'-10"	X	FOOTING - HOOPS	HORIZONTAL
F902	-	20	18'-3"	-	FOOTING	VERTICAL
F903	-	28	19'-11"	X	FOOTING	VERTICAL
F404	-	18	12'-4"	X	FOOTING - STIRRUPS	VERTICAL
F605	-	16	6'-4"	X	FOOTING	HORIZONTAL
F606	-	4	14'-0"	X	FOOTING	HORIZONTAL
F607	-	4	15'-7"	X	FOOTING	HORIZONTAL
F608	-	4	17'-0"	X	FOOTING	HORIZONTAL
F609	-	8	11'-6"	-	FOOTING	HORIZONTAL



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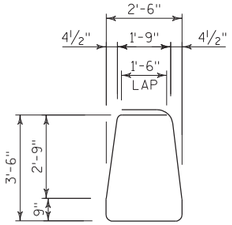

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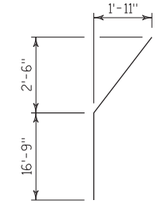
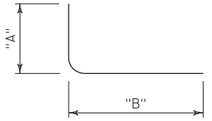
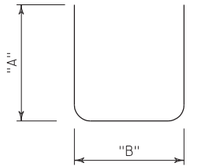


F903



BAR MARK	DIM. A	DIM. B
F605	5'-6"	1'-0"



BAR MARK	DIM. A	DIM. B
F606	2'-0"	6'-2"
F607	2'-3"	6'-10"
F608	2'-6"	7'-5"

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STRUCTURE S-64-19

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FOOTING DETAILS

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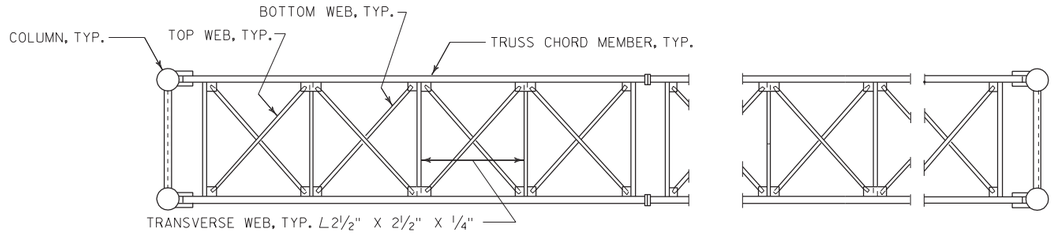
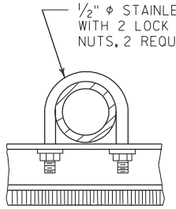
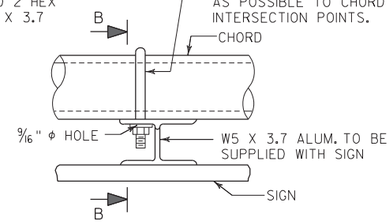


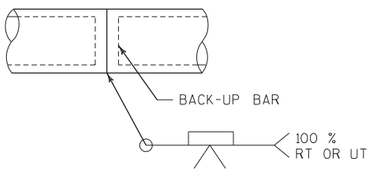
PLAN



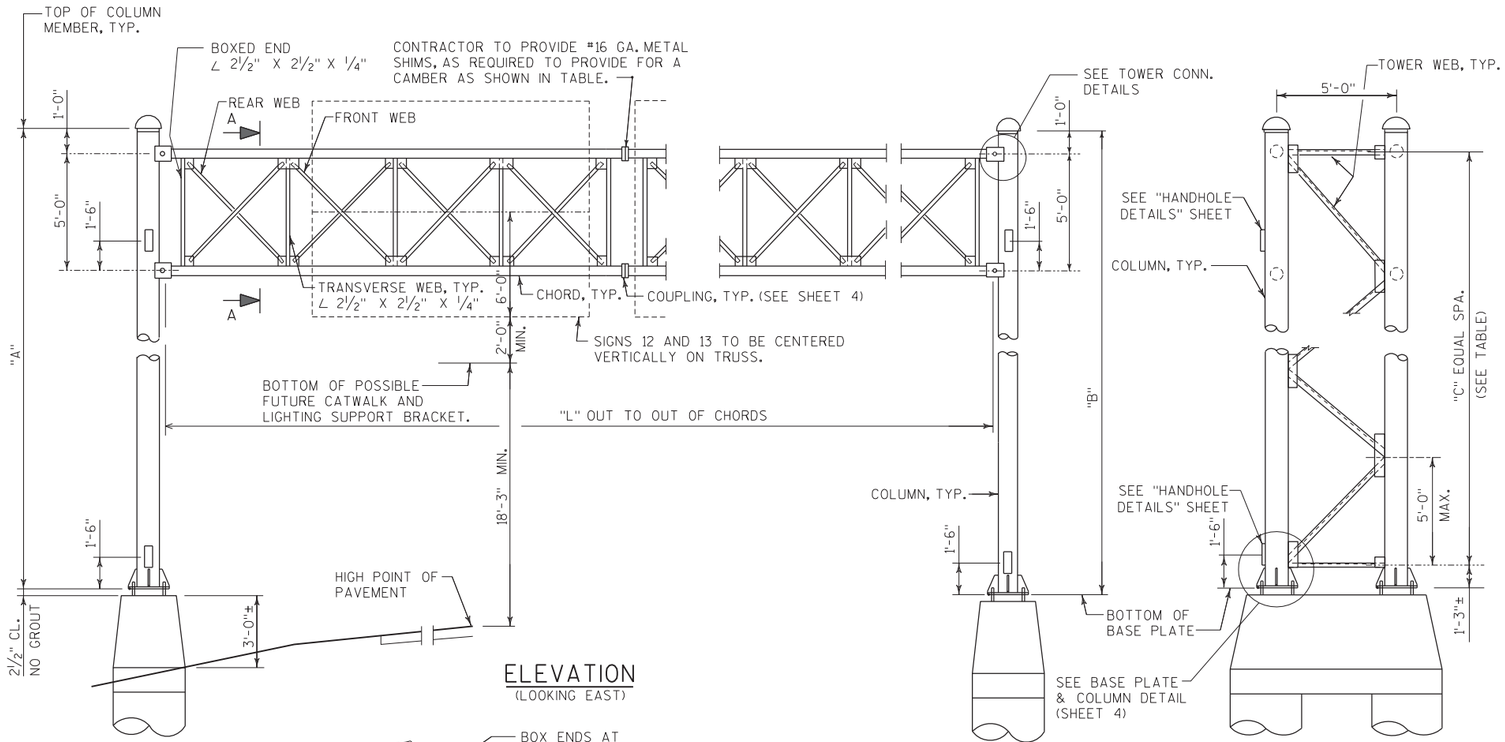
SECTION B



TYPICAL SIGN CONNECTION

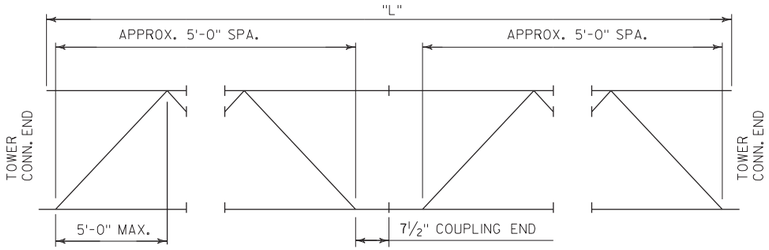


CHORD SPLICE



ELEVATION
(LOOKING EAST)

END VIEW



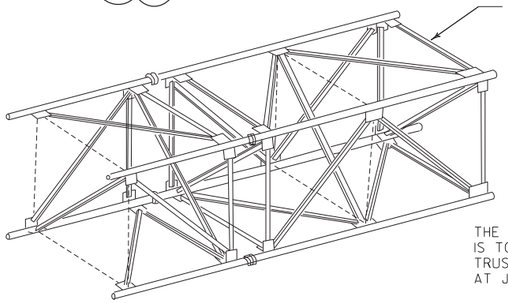
TRUSS ARRANGEMENT

FABRICATOR MAY MAKE TRUSSES ANY LENGTH KEEPING A SECTION A MINIMUM OF 20'-0" & A MULTPLE OF 5'-0". CHORD FIELD SPLICES SHALL BE MADE WITH COUPLINGS. CHORD SHOP SPLICE SHALL BE THE WELDED SPLICE SHOWN ABOVE.

COLUMN, TYP.

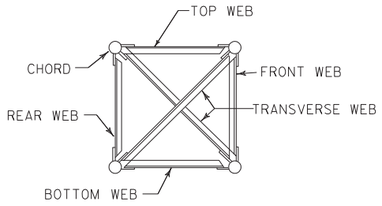
NOTES

DRAWINGS SHALL NOT BE SCALED.
STEEL COLUMN PIPE SHALL BE A.P.I. SPEC. 5L GRADE X42 Fy = 42,000 P.S.I.
ALL STEEL PIPE MEMBERS OF TRUSS SHALL BE A.P.I. SPEC. 5L GRADE X42 Fy = 42,000 P.S.I.
PLATES, BARS, STRUCTURAL ANGLES SHALL BE A.S.T.M. A709 GRADE 36 Fy = 36,000 P.S.I.
ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED.
ALL BOLTED CONNECTIONS SHALL BE MADE WITH ¾" ϕ A325 BOLTS, GALVANIZED A.S.T.M. A153, CLASS C.
WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF UNIT CAN BE GALVANIZED IN ONE PIECE.
STEEL ANCHOR BOLTS SHALL BE A.A.S.H.T.O. M314-90 GRADE 55. Fy = 55,000 P.S.I.
SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION.
BLANKS SHALL BE ¼ THE LENGTH OF THE BRIDGE, 2'-0" DEEPER THAN C TO C OF CHORDS & SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED IN PLANS.
THE UPPER 12" OF ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE A.A.S.H.T.O. SPECIFICATION AS STATED IN SECTION 641. OF THE WIS. D.O.T. STANDARD SPECIFICATIONS.
WELD TEST AS PER AWS D1.1.



THE GENERAL PATTERN SHOWN ABOVE IS TO BE MAINTAINED WHEN ASSEMBLING TRUSSES. NOTE DIRECTION OF DIAGONALS AT JOINTS.

TYPICAL TRUSS SECTION



SECTION A

TABLE

STRUCTURE	A	B	C	CHORDS O.D. X THK.	TOP & BOTTOM WEB	FRONT & REAR WEB	COUPLING PLATE "D1" & "T"	BOLT CIRCLE DIA. "D2"	NO. OF BOLTS IN COUPLING	CAMBER	COLUMN O.D. X THK.	TOWER WEBS	"L"
S-64-19	27'-4 7/8"	28'-0"	6	4" X 0.226"	3" X 3" X ¼"	3" X 3" X ¼"	10" X 1"	7"	6	1"	10¾" X 0.25"	4"x4"x⅜"	65'-4¾"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE S-64-19

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4-CHORD GALVANIZED STEEL SIGN BRIDGE

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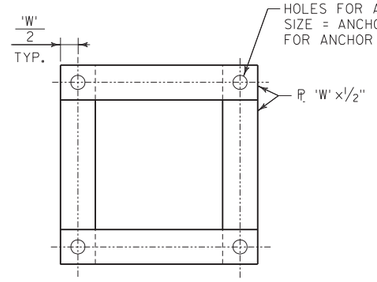
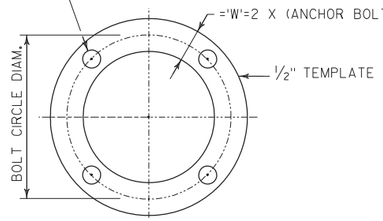
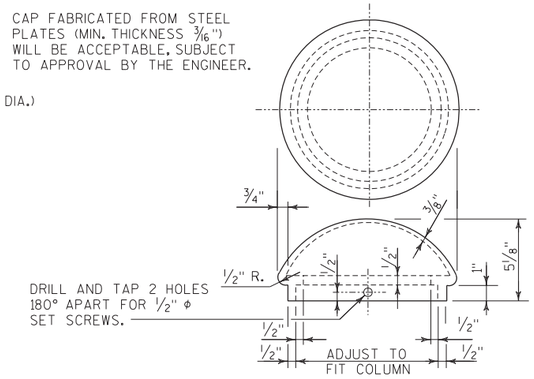


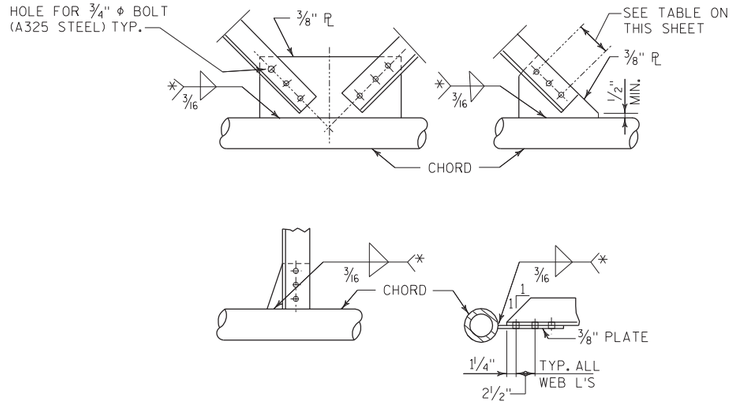
ALTERNATE
ANCHOR PLATE/TEMPLATE PLAN



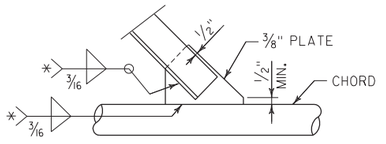
ANCHOR PLATE/TEMPLATE PLAN



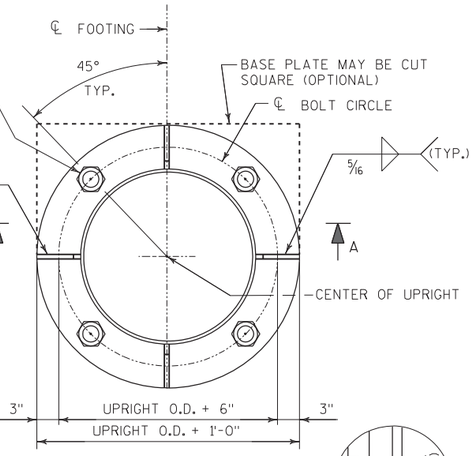
TOWER CAP DETAIL



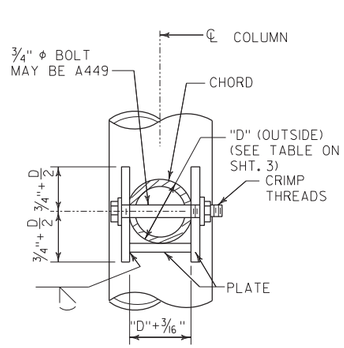
TYPICAL TRUSS CONNECTION DETAILS



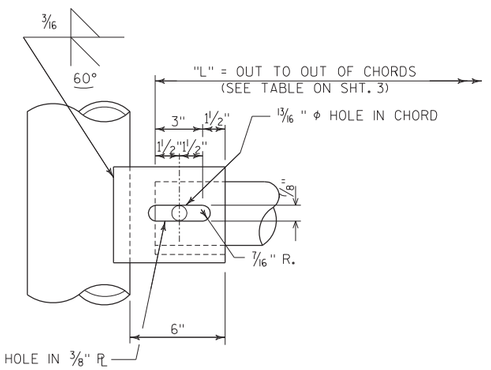
TYPICAL WELDED ALTERNATE



PLAN VIEW
(Base Plate)

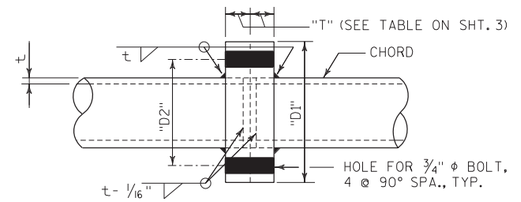


TOWER CONNECTION DETAIL



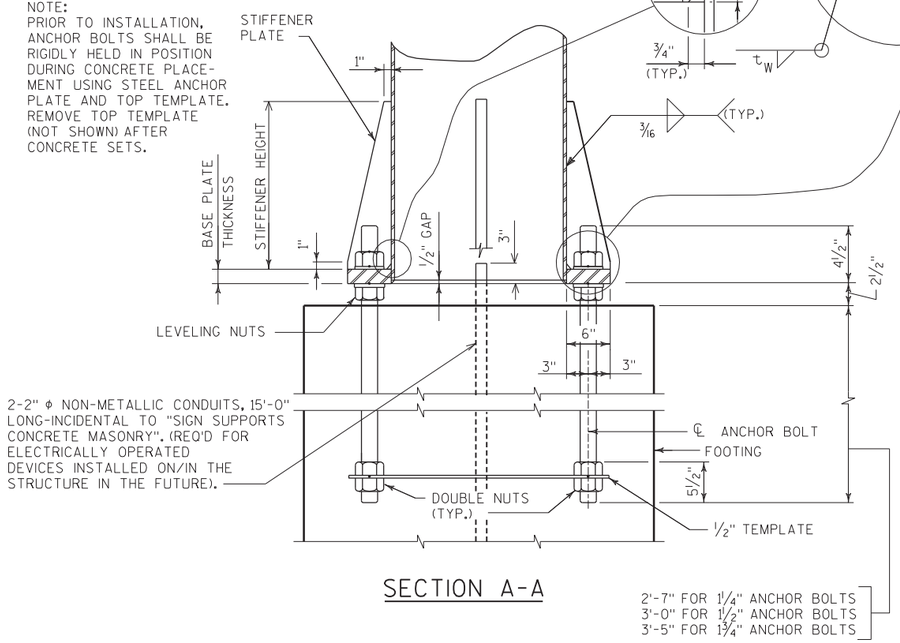
*ANGLE	WELD LENGTH	NO. OF BOLTS
● 2 1/2"x2 1/2"x1/4"	11"	3
3"x3"x3/16"	10"	3
3"x3"x1/4"	13"	4
3"x3"x5/16"	16 1/2"	5
3"x3"x3/8"	19 1/2"	6
4"x4"x1/4"	18"	5
4"x4"x5/16"	22"	6
4"x4"x3/8"	26"	8
4"x4"x7/16"	30"	9
4"x4"x1/2"	34"	10

● ONLY USED FOR BOXED END AND TRANSVERSE BRACING.



COUPLING DETAIL

NOTE:
PRIOR TO INSTALLATION, ANCHOR BOLTS SHALL BE RIGIDLY HELD IN POSITION DURING CONCRETE PLACEMENT USING STEEL ANCHOR PLATE AND TOP TEMPLATE. REMOVE TOP TEMPLATE (NOT SHOWN) AFTER CONCRETE SETS.



SECTION A-A

BASE PLATE & UPRIGHT COLUMN DETAILS

STRUCTURE	COLUMN O.D. X THK.	ANCHOR BOLTS	BASE PLATE THICKNESS (IN.)	STIFFENER PLATE THICKNESS (IN.)	STIFFENER PLATE HEIGHT (IN.)	t_W (IN.)
S-64-19	10 3/4" x .25"	1 1/2"	2"	1/2"	12"	5/16"

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STATE OF WISCONSIN
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STRUCTURE S-64-19

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4-CHORD SIGN BRIDGE DETAILS

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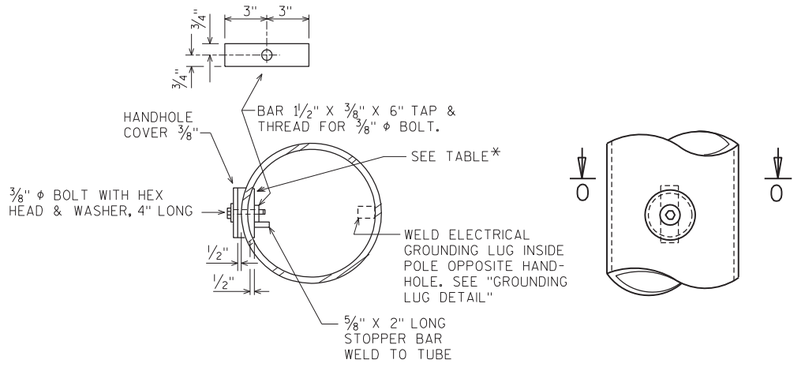


SECTION 'O'

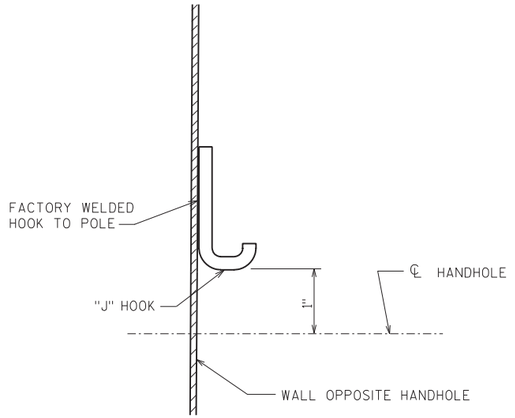
HANDHOLE DETAILS

HANDHOLE NOTES

HANDHOLES SHALL BE LOCATED IN THE STEEL COLUMNS ON THE SIGN SIDE OF THE SIGN BRIDGE STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE IN THE FUTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE FUTURE ELECTRICAL SERVICE ENTRANCE WITH THE DISTRICT TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN BRIDGE COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN IN THIS PLAN SET.

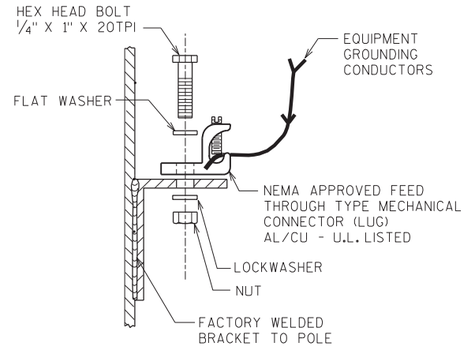
*

UPRIGHT DIAM. SIZE	HANDHOLE PIPE O.D. X MIN. THK.
UP TO AND INCLD. 16" X .375"	5.562" X .500"
GREATER THAN 16" X .375" TO AND INCLD. 24" X .562"	6.625" X .562"



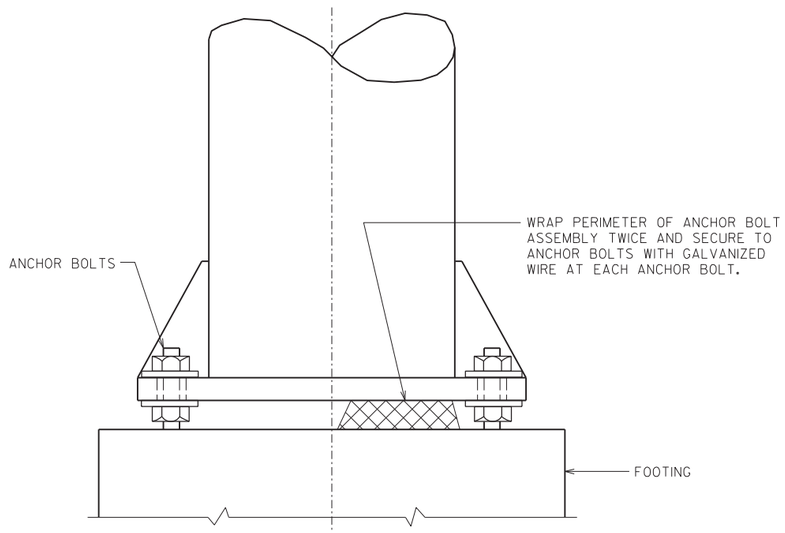
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.



GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

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HANDHOLE DETAILS

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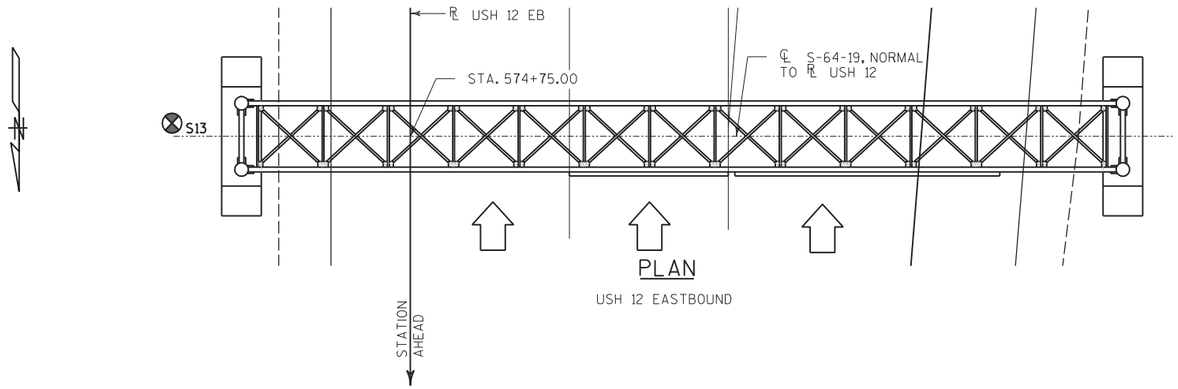


PLAN

USH 12 EASTBOUND

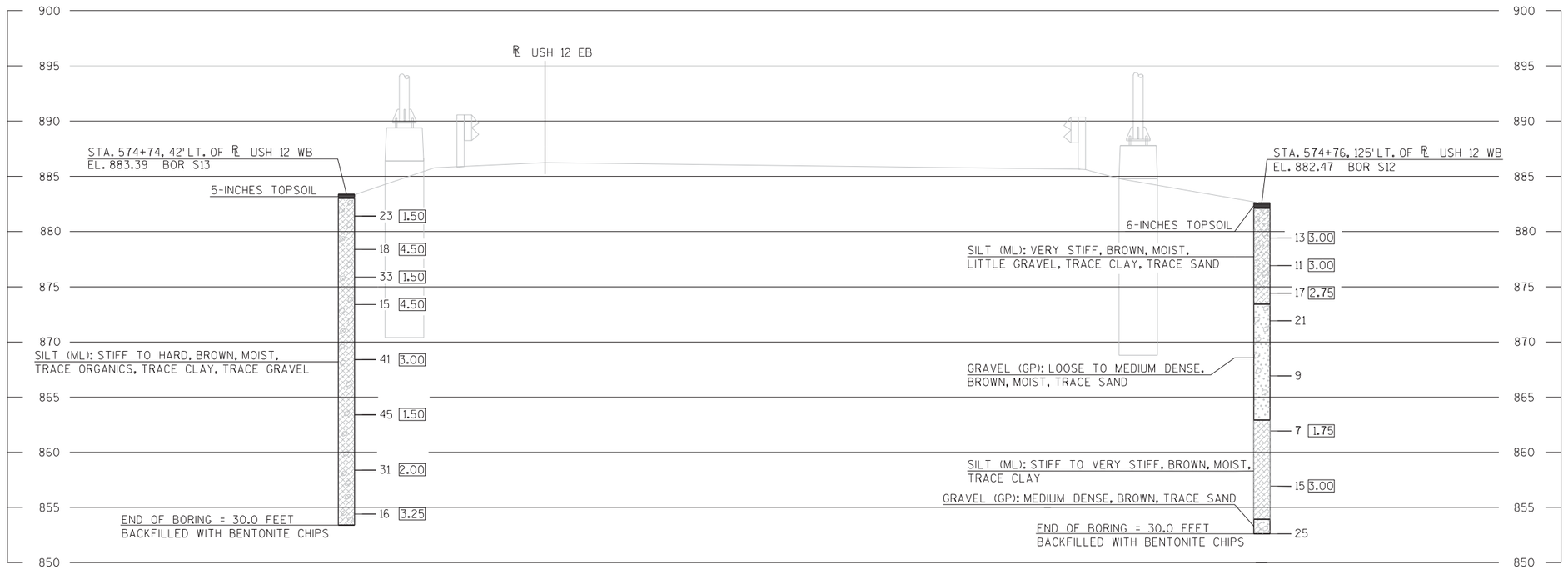
NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊗ DENOTES SOIL BORING LOCATION

SOIL BORING S12 AND S13 WERE COMPLETED BY HIMALAYAN CONSULTANTS, LLC.

SOIL BORING TAKEN:
OCTOBER 3, 2013 - S12
OCTOBER 3, 2013 - S13



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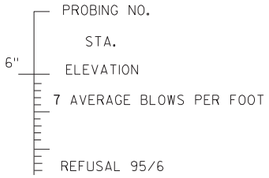
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

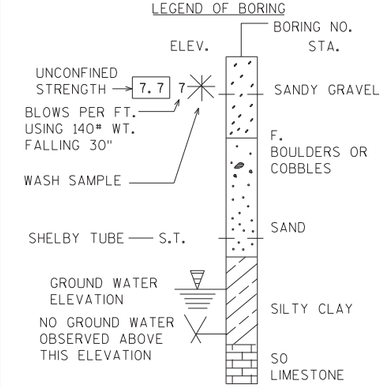
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

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SUBSURFACE EXPLORATION

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12/3/2013

USH 12 Crossover - Stage 1A Construction

STATION	Real Station	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY *Note 9
			Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	
503+69 AHEAD	50369	0	31.8	0.0	0	0	0	0	0
504+06	50406	37	69.0	0.0	69	0	69	0	113
505+00	50500	94	73.3	0.0	248	0	317	0	472
506+00	50600	100	74.3	0.0	273	0	590	0	864
507+00	50700	100	70.4	4.6	268	9	858	11	1239
507+61	50761	61	69.4	14.2	158	21	1,016	39	1442
508+00	50800	39	67.4	18.1	99	23	1,115	69	1557
509+00	50900	100	67.2	19.3	249	69	1,364	159	1835
509+61	50961	61	66.3	18.0	151	42	1,515	214	2003
510+00	51000	39	63.7	17.8	94	26	1,609	247	2109
511+00	51100	100	67.6	5.6	243	43	1,852	303	2415
511+76	51200	100	95.0	0.0	301	10	2,153	317	2821
512+00	51300	100	73.3	0.0	312	0	2,465	317	3251
513+04 BACK	51304	4	70.0	0.0	11	0	2,475	317	3266

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

EB USH 12 - Stage 2 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY *Note 9
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	
546+50 AHEAD	0	111.4	10.2	0	0	0	0	0
547+00	50	117.9	16.8	212	25	212	32	239
547+87	87	150.2	14.7	432	51	644	98	708
548+00	13	138.5	8.0	69	5	714	106	786
549+00	100	161.9	2.2	556	19	1,270	130	1436
550+00	100	185.0	3.5	642	11	1,912	144	2183
551+00	100	220.9	1.0	752	8	2,664	155	3043
552+00	100	226.1	2.5	828	7	3,492	163	3981
552+89	89	233.5	11.8	758	24	4,249	194	4813
553+00	11	201.5	13.9	89	5	4,338	201	4908
553+14	14	190.6	15.9	102	8	4,440	211	5016
553+39	33	182.2	23.5	228	24	4,668	242	5252
554+00	53	78.7	49.1	256	71	4,924	335	5478
554+60	60	54.7	81.7	148	145	5,072	524	5508
555+00	40	80.2	101.1	100	135	5,172	700	5480
555+25	26	88.7	114.7	81	104	5,253	835	5457
555+51	25	143.5	118.8	107	108	5,361	975	5453
555+76	25	112.7	108.7	119	105	5,479	1,112	5465
556+00	24	128.8	108.6	107	97	5,587	1,238	5475
556+10	10	131.9	110.9	48	41	5,635	1,290	5482
557+00	90	17.4	135.5	249	411	5,884	1,824	5304
558+00	100	0.1	184.3	33	592	5,916	2,594	4715
558+27	27	0.3	227.9	0	206	5,916	2,862	4495
558+50	23	0.0	20.5	0	106	5,917	3,000	4398

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

EB USH 12 - Stage 2 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	Mass Ordinate CY *Note 9
560+62	0	0.0	0.6	0	0	0	0	0
560+84	22	0.0	156.4	0	64	0	83	-83
561+00	16	0.0	157.0	0	93	0	204	-190
561+10	10	0.0	143.9	0	56	0	276	-244
562+00	90	0.0	334.6	0	798	0	1313	-1121
562+10	10	0.0	376.1	0	132	0	1484	-1275
562+86	76	0.0	345.4	0	1015	0	2804	-2459
563+00	14	0.0	343.1	0	178	0	3036	-2667
563+36	36	0.0	307.9	0	434	0	3601	-3174
564+00	64	34.7	225.1	41	632	41	4422	-3865
564+51	51	43.6	135.7	74	341	115	4865	-4169
565+00	49	56.3	95.5	91	210	206	5138	-4293
566+00	100	85.0	40.4	262	252	467	5465	-4239
567+00	100	102.0	22.2	346	116	814	5615	-3925
568+00	100	102.6	17.6	379	74	1193	5711	-3524
569+00	100	8.1	3.3	205	39	1398	5762	-4364
569+55	55	8.2	7.9	17	11	1414	5777	-4362
569+62	7	8.2	6.8	2	2	1416	5779	-4363
569+87	25	8.4	5.9	8	6	1424	5787	-4363
570+00	13	8.6	5.4	4	3	1428	5790	-4362
570+12	12	8.5	3.8	4	2	1432	5793	-4361
571+00	88	7.5	2.2	26	10	1458	5806	-4348
571+05	5	7.3	1.9	1	0	1459	5806	-4347
571+30	25	6.7	0.7	6	1	1466	5808	-4342
571+55	25	6.6	0.1	6	0	1472	5808	-4336
571+75	20	0.0	0.0	2	0	1474	5808	-4334
572+00	25	4.9	5.0	2	2	1477	5811	-4335
572+75	75	5.1	5.3	14	14	1490	5830	-4339
573+00	25	5.3	5.8	5	5	1495	5836	-4341
574+00	100	4.5	5.3	18	20	1513	5863	-4350
574+75	75	4.8	5.0	13	14	1526	5881	-4355
575+00	25	5.1	4.8	5	5	1531	5887	-4357
575+25	25	5.1	4.5	5	4	1535	5893	-4357
576+00	75	5.5	4.0	15	12	1550	5908	-4358
576+10	10	5.6	3.8	2	1	1552	5910	-4358
576+35	25	6.4	3.5	6	3	1558	5914	-4357
576+45	10	6.2	3.3	2	1	1560	5916	-4356
576+50	5	6.3	3.0	1	1	1561	5917	-4355
576+60	10	10.5	5.5	3	2	1564	5919	-4354
576+75	15	8.5	5.0	5	3	1570	5923	-4353
577+00	25	6.5	4.5	7	4	1577	5928	-4352
578+00 BACK	100	4.5	4.0	20	16	1597	5949	-4352

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

Ramp BD - Stage 2 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY *Note 9
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	
130+23 AHEAD	0	35.1	0.5	0	0	0	0	0
130+50.000	27	38.6	0.1	37	0	37	0	36
131+00	50	70.1	13.1	101	12	137	16	121
131+50	50	158.5	14.6	212	26	349	50	299
132+00	50	168.3	6.4	303	19	652	75	577
132+50	50	375.4	3.3	503	9	1155	87	1068
133+00	50	441.8	1.4	757	4	1912	92	1819
133+50	50	437.1	0.0	814	1	2726	94	2632
134+00	50	340.0	0.0	720	0	3445	94	3351
134+50	50	254.2	0.0	550	0	3995	94	3901
135+00	50	303.5	0.0	516	0	4512	94	4418
135+50	50	422.2	0.0	672	0	5184	94	5090
136+00	50	573.1	0.0	922	0	6105	94	6011
136+50	50	729.4	0.0	1206	0	7311	94	7217
137+00	50	704.0	0.0	1327	0	8639	94	8545
137+50	50	591.0	0.0	1199	0	9838	94	9744
138+00	50	439.0	0.2	954	0	10791	94	10697
138+50	50	144.8	1.1	541	1	11332	96	11236
139+00	50	86.7	2.9	214	4	11546	100	11446
139+50	50	55.4	0.0	132	3	11678	104	11574
140+00	50	58.7	0.0	106	0	11784	104	11680
140+50	50	260.0	0.0	295	0	12079	104	11975
141+00	50	222.2	0.0	446	0	12525	104	12421
141+50	50	169.2	0.0	362	0	12888	104	12784
142+00	50	68.0	0.0	220	0	13107	104	13003
142+50	50	62.6	0.0	121	0	13228	104	13124
143+00	50	65.6	9.0	119	8	13347	115	13232
143+50	50	86.2	39.3	141	45	13487	173	13314
144+00	50	105.6	17.8	178	53	13665	242	13423
144+50	50	130.7	6.3	219	22	13884	271	13613
145+00	50	93.4	32.3	207	36	14091	317	13774
145+50	50	54.4	74.9	137	99	14228	446	13782
146+00	50	15.0	132.9	64	192	14292	696	13596
146+50	50	0.0	161.6	14	273	14306	1051	13255
147+00	50	0.0	217.0	0	351	14306	1506	12800
147+50	50	1.3	316.9	1	494	14307	2149	12158
148+00	50	0.0	340.0	1	608	14308	2940	11369
148+50	50	0.0	383.4	0	670	14308	3810	10498
149+00	50	0.0	411.5	0	736	14308	4767	9541
149+50	50	0.0	432.3	0	781	14308	5783	8525
150+00	50	0.0	447.5	0	815	14308	6842	7466
150+50	50	0.0	450.4	0	831	14308	7923	6386
151+00	50	0.0	459.5	0	843	14308	9018	5290
151+50	50	0.0	447.6	0	840	14308	10110	4199
152+00	50	0.0	467.2	0	847	14308	11211	3097
152+50	50	0.0	498.0	0	894	14308	12373	1936
153+00	50	0.0	505.0	0	929	14308	13580	728
153+50	50	0.0	492.3	0	923	14308	14780	-472
154+00	50	0.0	434.0	0	858	14308	15895	-1587
154+50	50	0.0	359.1	0	734	14308	16850	-2542
155+00	50	0.0	313.8	0	623	14308	17660	-3352
155+50	50	0.0	207.5	0	483	14308	18288	-3979
156+00	50	0.0	90.7	0	276	14308	18647	-4338
156+50	50	0.0	52.8	0	133	14308	18819	-4511
157+00 BACK	50	0.0	89.9	0	132	14308	18991	-4683

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

WB USH 12 - Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY *Note 9
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	
546+50 AHEAD	0	111.4	10.2	0	0	0	0	0
547+00	50	117.9	16.8	212	25	212	32	239
547+87	87	150.2	14.7	432	51	644	98	708
548+00	13	138.5	8.0	69	5	714	106	786
549+00	100	161.9	2.2	556	19	1,270	130	1436
550+00	100	185.0	3.5	642	11	1,912	144	2183
551+00	100	220.9	1.0	752	8	2,664	155	3043
552+00	100	226.1	2.5	828	7	3,492	163	3981
552+89	89	233.5	11.8	758	24	4,249	194	4813
553+00	11	201.5	13.9	89	5	4,338	201	4908
553+14	14	190.6	15.9	102	8	4,440	211	5016
553+39	33	182.2	23.5	228	24	4,668	242	5252
554+00	53	78.7	49.1	256	71	4,924	335	5478
554+60	60	54.7	81.7	148	145	5,072	524	5508
555+00	40	80.2	101.1	100	135	5,172	700	5483
555+25	26	88.7	114.7	81	104	5,253	835	5465
555+51	25	143.5	118.8	107	108	5,361	975	5470
555+76	25	112.7	108.7	119	105	5,479	1,112	5491
556+00	24	128.8	108.6	107	97	5,587	1,238	5514
556+10	10	131.9	110.9	48	41	5,635	1,290	5527
557+00	90	17.4	135.5	249	411	5,884	1,824	5402
558+00	100	0.1	184.3	33	592	5,916	2,594	4842
558+27	27	0.3	227.9	0	206	5,916	2,862	4622
558+50	23	0.0	20.5	0	106	5,917	3,000	4526

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

WB USH 12 - Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	Mass Ordinate CY *Note 9
560+62	0	5.0	0.6	0	0	0	0	0
560+84	22	21.4	156.4	11	64	11	83	-72
561+00	16	19.0	157.0	12	93	23	192	-169
561+10	10	18.9	143.9	7	56	30	259	-229
562+00	90	65.9	334.6	141	798	171	1296	-1124
562+10	10	73.8	376.1	26	132	197	1467	-1270
562+86	76	38.4	345.4	158	1015	355	2787	-2432
563+00	14	38.6	343.1	20	178	375	3019	-2644
563+36	36	44.6	307.9	55	434	430	3583	-3153
564+00	64	34.7	225.1	94	632	524	4404	-3880
564+51	51	43.6	135.7	74	341	598	4847	-4249
565+00	49	56.3	95.5	91	210	689	5120	-4431
566+00	100	85.0	40.4	262	252	950	5447	-4497
567+00	100	102.0	22.2	346	116	1297	5598	-4301
568+00	100	102.6	17.6	379	74	1676	5693	-4018
569+00	100	8.1	3.3	205	39	1881	5744	-3863
569+55	55	8.2	7.9	17	11	1897	5759	-3862
569+62	7	8.2	6.8	2	2	1899	5761	-3862
569+87	25	8.4	5.9	8	6	1907	5769	-3862
570+00	13	8.6	5.4	4	3	1911	5773	-3861
570+12	12	8.5	3.8	4	2	1915	5775	-3860
571+00	88	7.5	2.2	26	10	1941	5788	-3847
571+05	5	7.3	1.9	1	0	1942	5788	-3846
571+30	25	6.7	0.7	6	1	1949	5790	-3841
571+55	25	6.6	0.1	6	0	1955	5790	-3836
571+75	20	0.0	0.0	2	0	1957	5790	-3833
572+00	25	4.9	5.0	2	2	1960	5793	-3834
572+75	75	5.1	5.3	14	14	1973	5812	-3839
573+00	25	5.3	5.8	5	5	1978	5819	-3840
574+00	100	4.5	5.3	18	20	1996	5845	-3849
574+75	75	4.8	5.0	13	14	2009	5864	-3855
575+00	25	5.1	4.8	5	5	2014	5869	-3856
575+25	25	5.1	4.5	5	4	2018	5875	-3857
576+00	75	5.5	4.0	15	12	2033	5890	-3857
576+10	10	5.6	3.8	2	1	2035	5892	-3857
576+35	25	6.4	3.5	6	3	2041	5897	-3856
576+45	10	6.2	3.3	2	1	2043	5898	-3855
576+50 BACK	5	6.3	3.0	1	1	2044	5899	-3855

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

Ramp AC - Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	Mass Ordinate CY *Note 9
262+10 AHEAD	0	19.3	38.9	0	0	0	0	0
262+50	40	32.0	29.3	38	50	38	66	-28
263+00	50	31.8	34.7	59	59	97	143	-46
263+50	50	9.9	114.0	39	138	136	322	-186
264+00	50	9.5	206.0	18	296	154	707	-553
264+50	50	5.6	231.2	14	405	167	1233	-1066
265+00	50	2.1	276.4	7	470	174	1844	-1669
265+50	50	0.0	306.1	2	539	176	2545	-2369
266+00	50	0.0	330.3	0	589	176	3311	-3135
266+50	50	0.0	380.5	0	658	176	4166	-3990
267+00	50	0.0	370.9	0	696	176	5071	-4894
267+50	50	4.9	379.8	5	695	181	5974	-5793
268+00	50	0.0	454.5	5	772	186	6979	-6793
268+50	50	0.0	470.7	0	857	186	8092	-7907
269+00	50	0.0	457.3	0	859	186	9209	-9024
269+50	50	0.0	439.5	0	830	186	10289	-10103
270+00	50	0.0	453.1	0	826	186	11363	-11178
270+50	50	50.7	534.3	47	914	232	12552	-12319
271+00	50	0.0	471.4	47	931	279	13762	-13483
271+20	20	0.0	281.2	0	279	279	14125	-13845
271+50	30	0.0	250.0	0	295	279	14508	-14229
272+00	50	0.0	194.3	0	411	279	15043	-14764
272+50	50	0.0	122.7	0	293	279	15425	-15145
273+00	50	21.0	62.4	19	171	299	15647	-15349
273+50	50	56.8	49.7	72	104	371	15782	-15412
274+00	50	98.5	20.1	144	65	514	15866	-15352
274+50	50	113.6	6.7	196	25	711	15899	-15188
275+00	50	100.0	2.9	198	9	909	15910	-15002
275+29	29	92.2	4.6	103	4	1012	15915	-14904
275+50	21	73.0	0.0	64	2	1076	15918	-14842
276+00	50	65.9	5.2	129	5	1205	15924	-14719
276+05	5	65.6	6.7	12	1	1217	15925	-14709
276+25	20	65.2	3.5	48	4	1265	15930	-14665
276+50	25	71.6	1.0	63	2	1329	15933	-14605
277+00	50	70.9	0.0	132	1	1461	15934	-14474
277+50	50	280.1	0.0	325	0	1786	15934	-14149
278+00	50	240.8	0.0	482	0	2268	15934	-13667
278+50	50	331.1	0.0	530	0	2797	15934	-13137
279+00	50	62.7	0.0	365	0	3162	15934	-12772
279+50	50	58.5	0.0	112	0	3274	15934	-12660
279+79	42	78.7	0.0	107	0	3381	15934	-12553
280+00	8	67.2	0.0	22	0	3402	15934	-12532
280+50	50	57.2	0.0	115	0	3518	15934	-12417
280+69	19	54.3	0.0	39	0	3557	15934	-12378
280+94	25	51.8	0.0	49	0	3606	15934	-12328
281+00	6	51.3	0.0	11	0	3617	15934	-12317
281+19	19	49.2	0.0	35	0	3653	15934	-12282
281+50	31	45.3	0.0	54	0	3707	15934	-12227
282+00	50	42.7	0.0	81	0	3788	15934	-12146
282+50	50	43.2	0.0	80	0	3868	15934	-12066
283+00 BACK	50	27.8	0.0	66	0	3934	15934	-12001

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

Ramp AD - Stage 3 Construction

STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	Mass Ordinate CY *Note 9
371+23 AHEAD	0	0.0	306.9	0	0	0	0	0
371+50	27	0.0	130.9	0	219	0	285	-285
372+00	50	0.0	70.5	0	186	0	527	-527
372+50	50	45.5	24.1	42	88	42	641	-599
373+00	50	84.6	4.1	120	26	162	675	-512
373+50	50	0.0	0.0	78	4	241	680	-439
374+00 BACK	50	0.0	0.0	0	0	241	680	-439

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

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PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	EARTHWORK DATA	SHEET NO: 421	E

Ramp DB - Stage 3 Construction

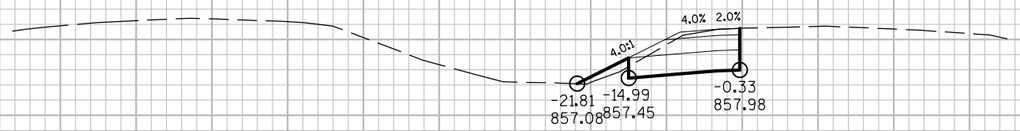
STATION	Distance	AREA (SF)		Unadjusted Incremental Vol (CY)		Cumulative Vol (CY)		Mass Ordinate CY *Note 9
		Cut	Fill	Cut	Fill	Cut	Expanded Fill 1.30 *Note 8	
557+63 AHEAD	0	17.4	0.2	0	0	0	0	0
558+00	37	16.5	5.8	23	4	23	5	18
558+50	87	17.7	18.4	55	39	78	56	22
559+00	50	17.7	42.1	33	56	111	129	-18
559+05	5	17.8	42.8	3	8	114	139	-25
559+29	24	15.0	56.9	15	44	129	197	-68
559+50	21	14.4	102.7	11	62	140	277	-137
560+00	50	12.6	14.2	25	108	165	418	-253
560+50	50	11.6	15.4	22	27	188	454	-266
561+00	50	12.2	9.5	22	23	210	484	-274
561+50	50	12.0	9.0	22	17	232	506	-274
562+00	50	12.3	17.4	23	24	255	538	-283
562+50	50	12.4	16.0	23	31	277	578	-300
563+00	50	14.4	3.5	25	18	302	601	-299
563+50	50	17.3	0.2	29	3	332	606	-274
564+00	50	15.3	2.4	30	2	362	609	-247
564+50	50	15.2	9.1	28	11	390	623	-233
565+00	50	16.7	8.9	30	17	420	644	-225
565+50	50	15.4	31.8	30	38	449	693	-244
566+00	50	15.0	19.3	28	47	478	755	-277
566+50	50	17.1	4.7	30	22	507	783	-276
567+00	50	18.0	1.5	32	6	540	791	-251
567+50	50	17.4	0.5	33	2	572	793	-221
568+00	50	17.2	3.3	32	4	604	798	-193
568+50	50	19.5	8.8	34	11	638	812	-174
569+00	50	16.6	7.8	33	15	672	832	-161
569+50	50	18.7	1.6	33	9	704	844	-139
570+00	50	21.3	0.0	37	1	741	846	-104
570+50	50	21.4	0.0	40	0	781	846	-65
571+00	50	20.7	0.1	39	0	820	846	-26
571+50	50	20.8	0.0	38	0	858	846	13
572+00	50	21.2	0.0	39	0	897	846	51
572+50	50	17.3	0.9	36	1	933	847	86
573+00	50	18.8	1.4	33	2	966	850	117
573+50	50	17.3	4.2	33	5	1000	856	143
574+00	50	18.8	0.8	33	5	1033	862	171
574+50	50	19.0	4.8	35	5	1068	869	199
575+00	50	19.2	0.2	35	5	1103	875	229
575+50	50	19.8	1.0	36	1	1140	876	263
576+00	50	20.2	0.1	37	1	1177	878	299
576+50	50	19.9	56.0	37	52	1214	945	269
577+00	50	19.3	36.0	36	85	1250	1056	194
577+50	50	21.6	0.2	38	34	1288	1099	188
577+75 BACK	25	19.8	0.0	19	0	1307	1100	207

*See Earthwork Summary in Miscellaneous Quantities for Earthwork Notes.

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 1A

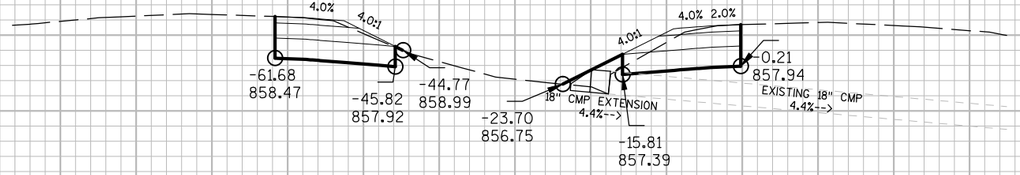
503+69

BEGIN CROSS-OVER CONSTRUCTION

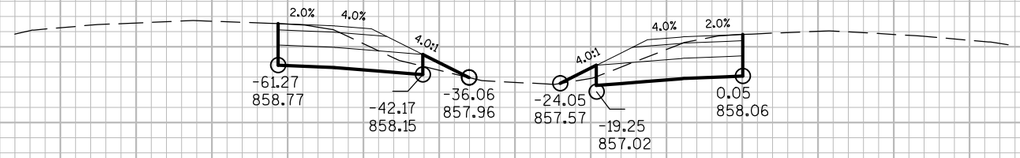


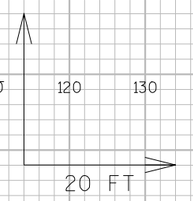
504+06

CROSS CULVERT UNDER WB LANES



505+00





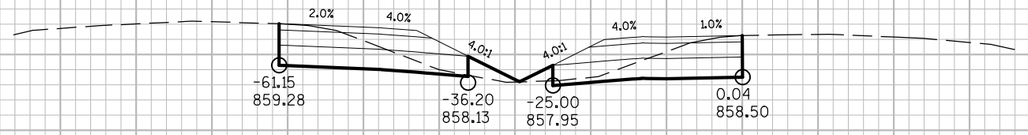
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12 CROSSOVER	SHEET 423	E

FILE NAME = T:\1092703\CADD\CIVIL3D\1080120\DESIGN\CORRIDORS\CORRIDOR-USH 12 CROSSOVER.DWG PLOT DATE = 11/1/2013 8:52 AM PLOT BY = CUTLAMA, TINA R PLOT NAME = PLOT SCALE = 1" = 20' XREF XREF

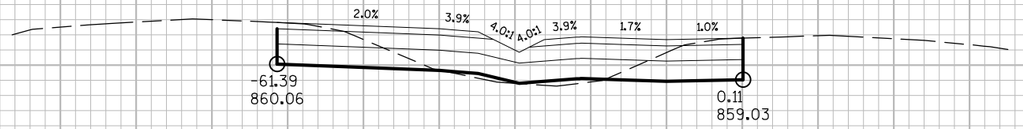
9 9

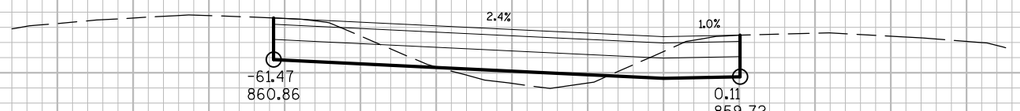
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 1A

506+00



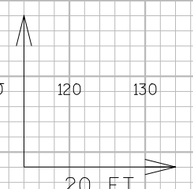
507+00





507+61

BEGIN FULL WIDTH PAVED MEDIAN



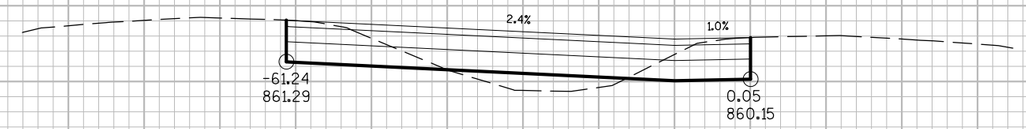
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12 CROSSOVER	SHEET 424	E

9

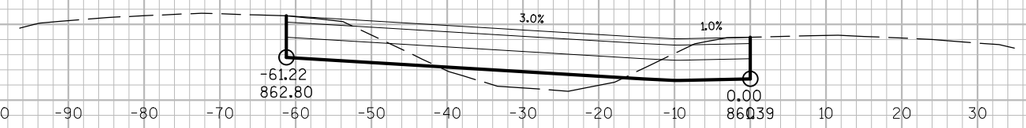
FILE NAME: T:\1093703\CADD\CIVIL 3D\1080120\DESIGN\CORRIDORS\CORRIDOR-USH 12 CROSSOVER.DWG PLOT DATE: 11/1/2013 10:01 AM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 1A

508+00

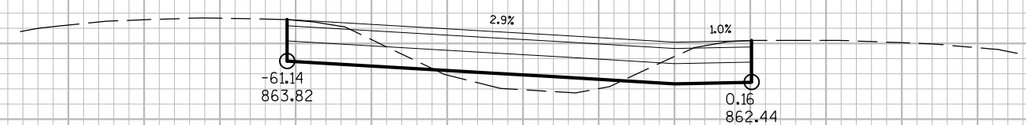


509+00

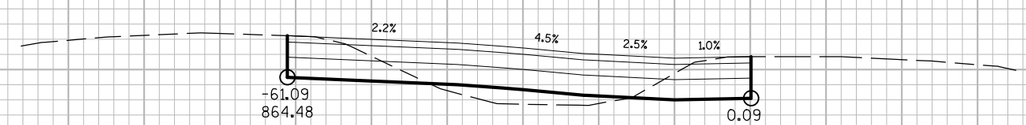


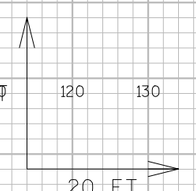
509+61

END FULL WIDTH PAVED MEDIAN



510+00

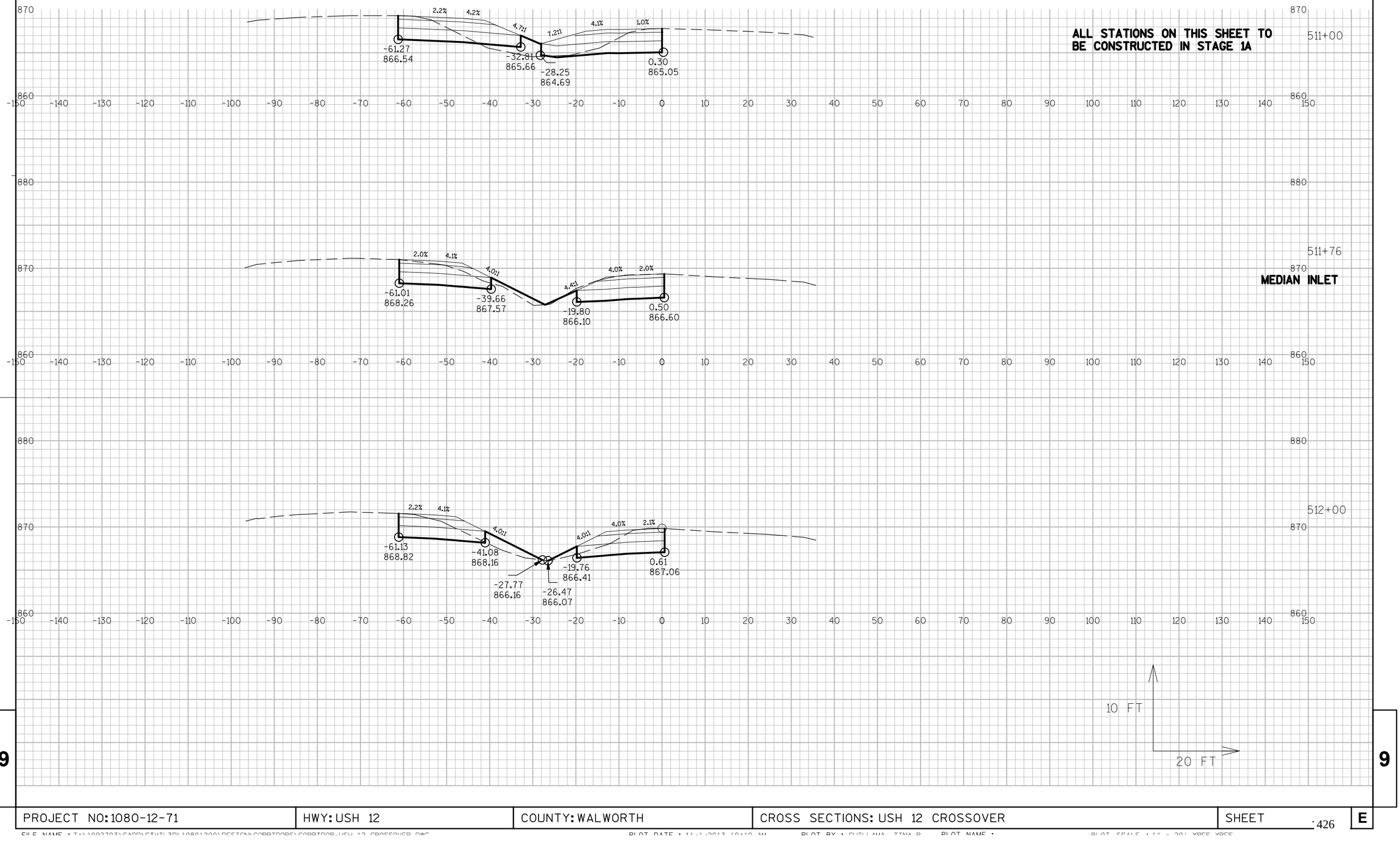




PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12 CROSSOVER	SHEET 425	E

FILE NAME • T:\1092703\CADD\CIVIL3D\1080120\DESIGN\CORRIDORS\CORRIDOR-USH 12 CROSSOVER.DWG PLOT DATE • 11/1/2013 10:10 AM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

9



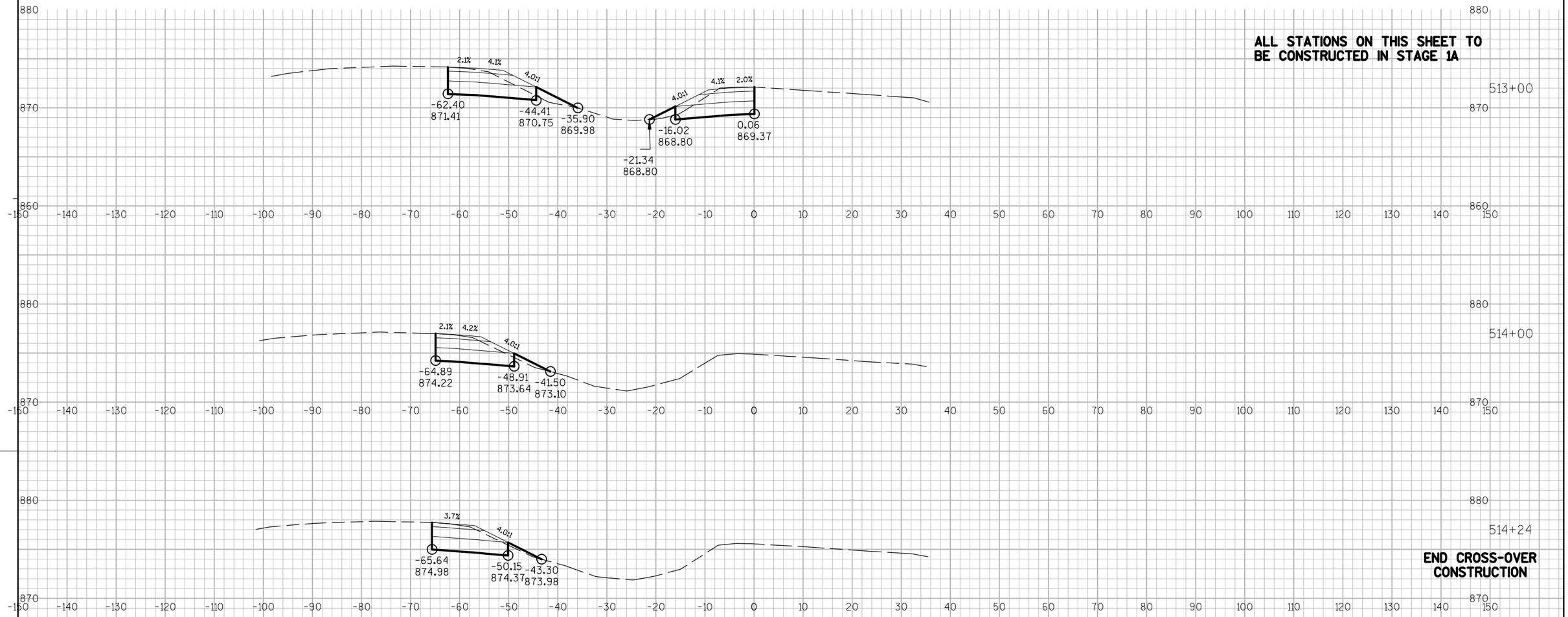
9

9

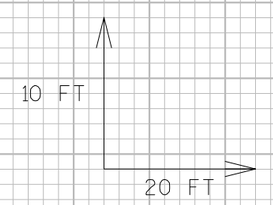
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12 CROSSOVER	SHEET 426	E

FILE NAME: T:\1092703\CADD\CIVIL 3D\1080120\DESIGN\CORRIDORS\CORRIDOR-USH 12 CROSSOVER.DWG PLOT DATE: 11/1/2013 10:10 AM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 1A



END CROSS-OVER CONSTRUCTION



9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12 CROSSOVER	SHEET 427	E

FILE NAME: T:\1093703\CADD\CIVIL3D\1080120\DESIGN\CORRIDORS\CORRIDOR-USH 12 CROSSOVER.DWG PLOT DATE: 11/1/2013 10:11 AM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

USH 12 EB PGL

USH 12 WB R/L

RW

546+00

546+50

547+00

BEGIN USH 12 MAINLINE RECONSTRUCTION

M/L RAMP CA

STAGE 2 CONSTRUCTION

STAGE 3 CONSTRUCTION

CONSTRUCT STAGE 2 SLOPE

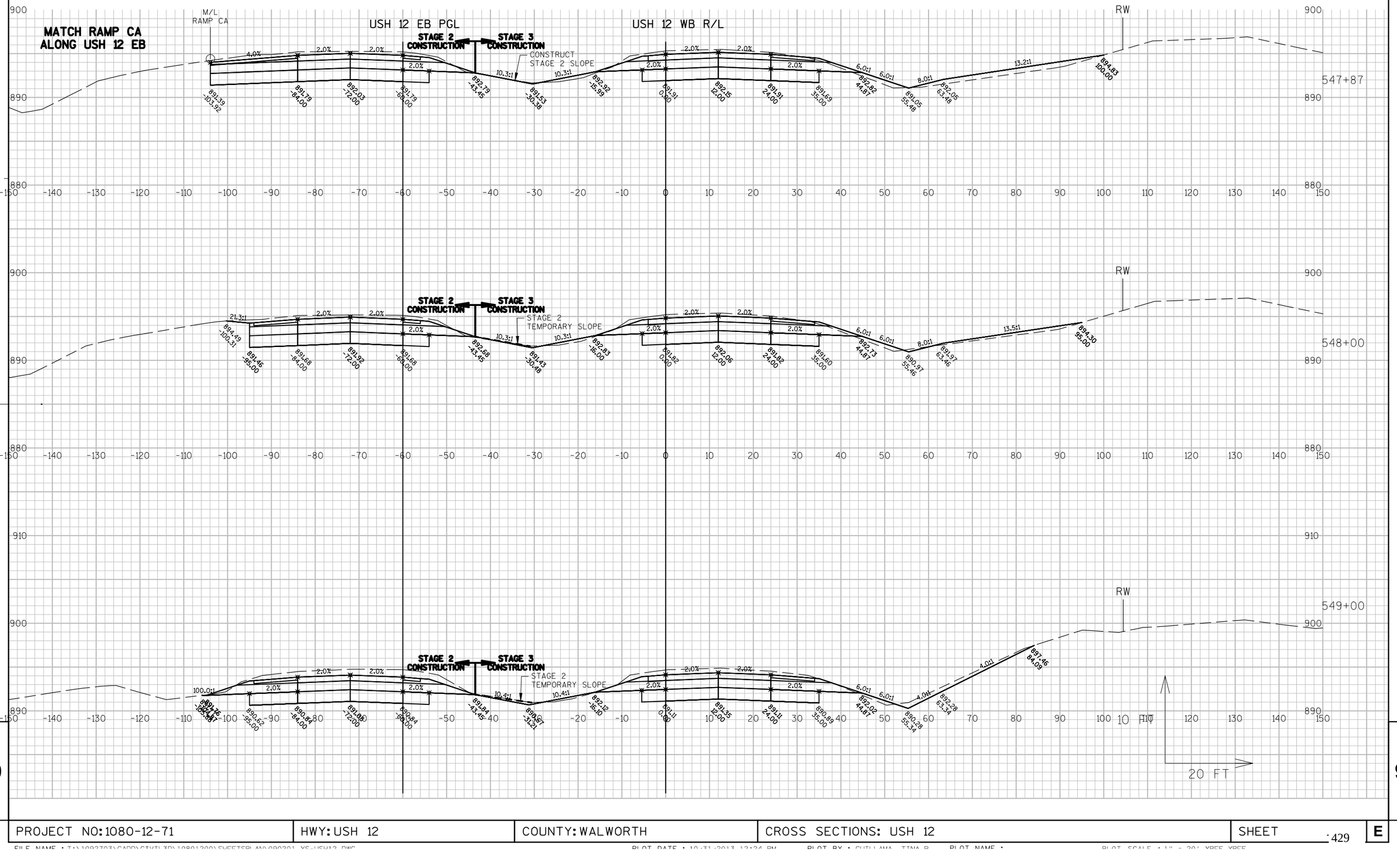
10 FT

20 FT

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E

FILE NAME • T:\1092703\CADD\CIVIL 3D\1080120Q\SHEETS\PLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 4:52 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

MATCH RAMP CA ALONG USH 12 EB



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 429	E

FILE NAME: T:\1092703\CADD\CIVIL 3D\1080120QS\SHEETS\PLAN\080201_XS-USH12.DWG PLOT DATE: 10/31/2013 12:24 PM PLOT BY: CUTLLAMA_TINA_R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

USH 12 EB PGL

USH 12 WB R/L

STAGE 2 CONSTRUCTION

STAGE 3 CONSTRUCTION

STAGE 2 TEMPORARY SLOPE

RW

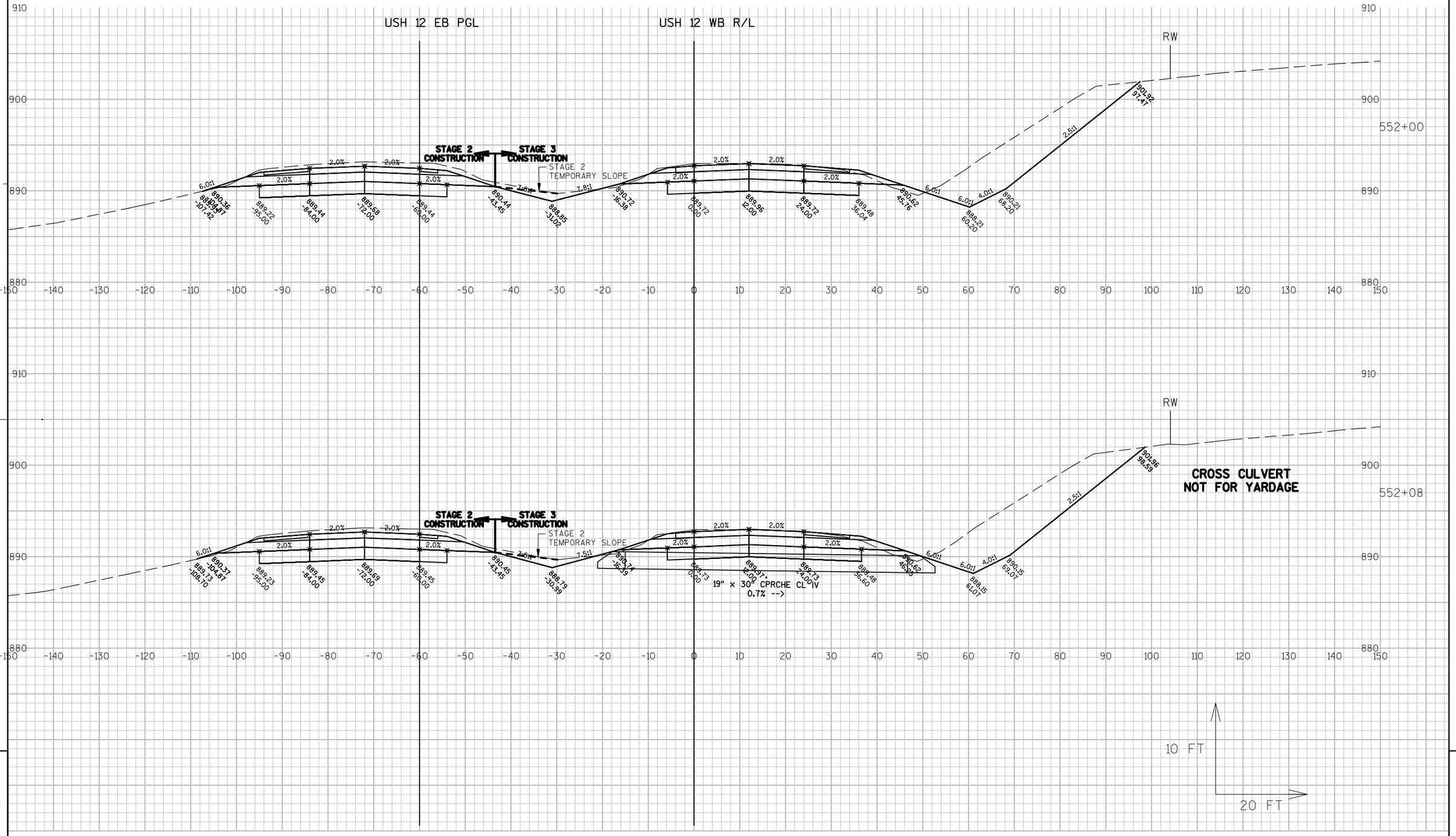
550+00

551+00

10 FT

20 FT

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 430	E



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 431	E

9

9

FILE NAME • T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:25 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

USH 12 EB PGL

USH 12 WB R/L

STAGE 2 CONSTRUCTION

STAGE 3 CONSTRUCTION

STAGE 2 TEMPORARY SLOPE

RW

GUARDRAIL POST #1 RT
ALONG USH 12 WB

552+89

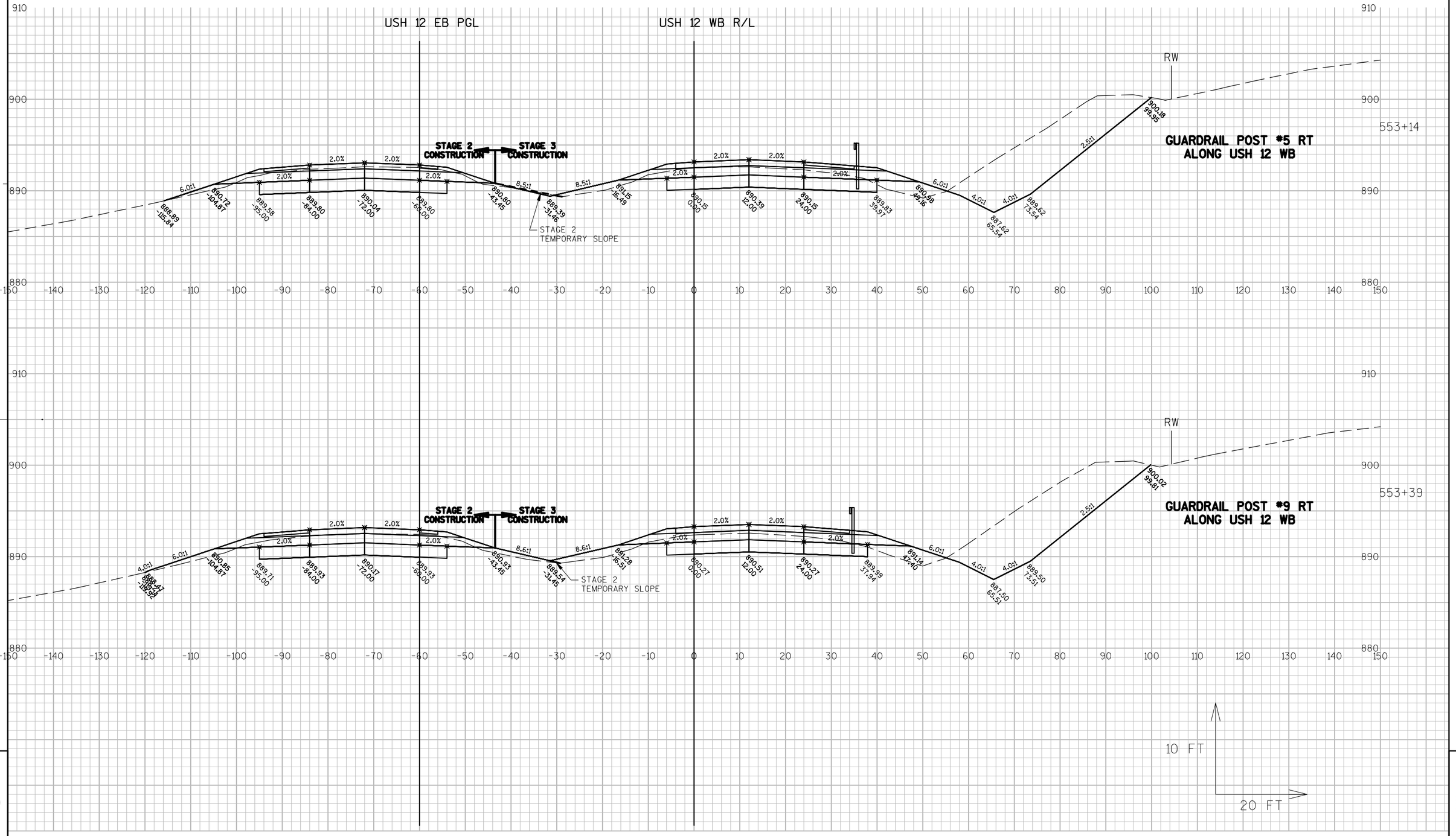
553+00

10 FT

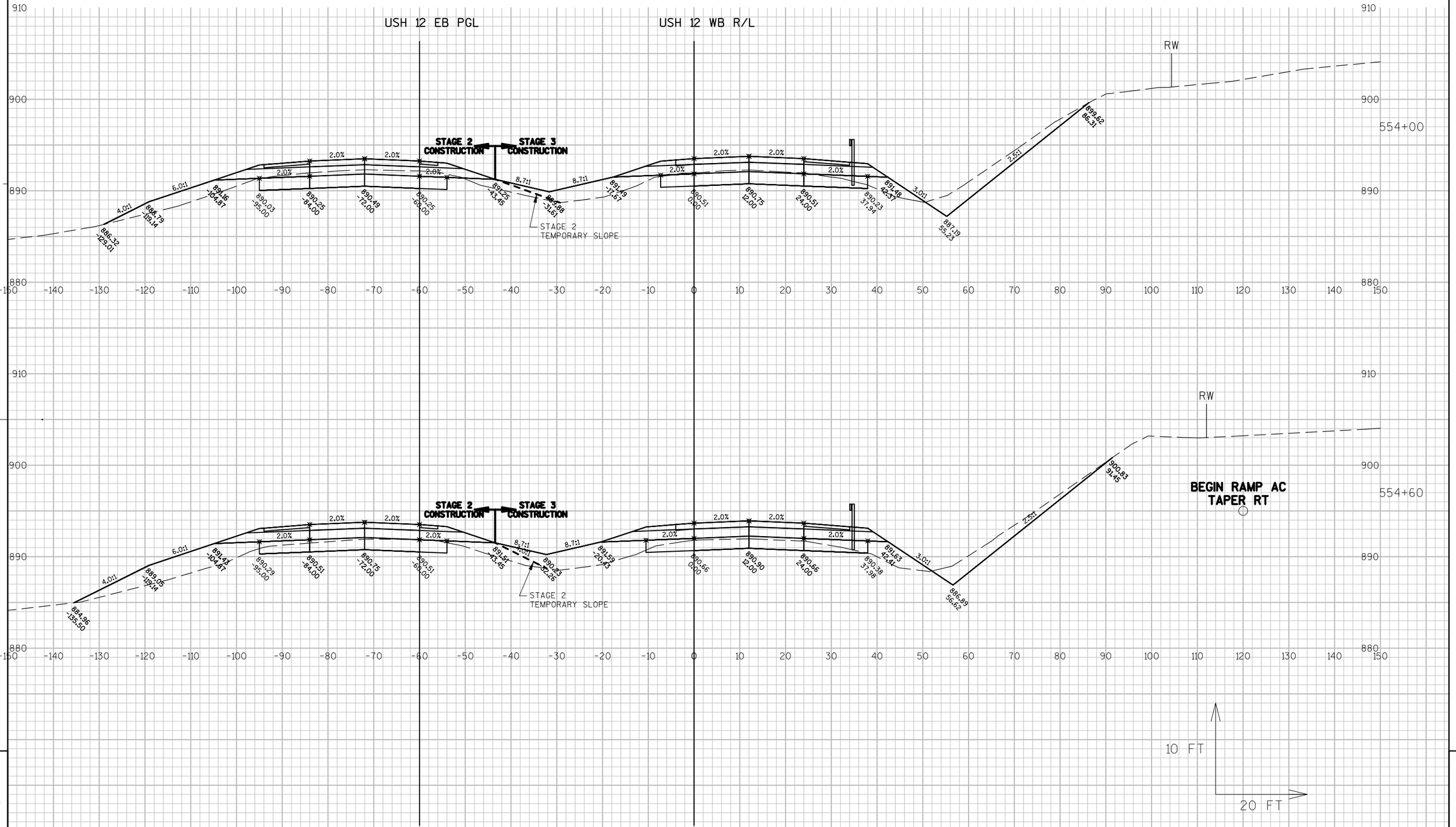
20 FT

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 432	E

9



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 434	E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\090201_XS_USH12.DWG PLOT DATE • 10/31/2013 12:27 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

USH 12 EB PGL

USH 12 WB R/L

RW

555+00

M/L
RAMP BD

6.0:1

2.0%

STAGE 2
CONSTRUCTION

STAGE 3
CONSTRUCTION

9.1:1

3.0:1

STAGE 2
TEMPORARY SLOPE

2.5:1

3.0:1

890.42
-95.00

890.64
-84.00

890.88
-72.00

890.64
-56.00

890.64
-43.45

890.45
-24.98

891.60
-22.29

890.71
0.00

890.95
12.00

890.52
24.00

890.65
29.20

891.60
46.25

886.69
60.98

904.51
103.51

910
900
890
880

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

RW

555+26

GUARDRAIL POST #1 LT
ALONG USH 12 WB

M/L
RAMP BD

6.0:1

2.0%

STAGE 2
CONSTRUCTION

STAGE 3
CONSTRUCTION

9.6:1

3.0:1
MAX.

STAGE 2
TEMPORARY SLOPE

2.5:1

3.0:1

890.45
-11.89

890.48
-25.00

890.70
-84.00

890.94
-72.00

890.70
-56.00

891.71
-43.45

890.50
-24.98

891.59
-22.48

890.72
0.00

890.95
12.00

890.72
24.00

890.62
29.25

891.57
48.30

886.55
63.32

904.92
109.22

910
900
890
880

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

10 FT

20 FT

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 435	E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:27 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

USH 12 EB PGL

USH 12 WB R/L

M/L
RAMP BD

STAGE 2
CONSTRUCTION

STAGE 3
CONSTRUCTION

STAGE 2
TEMPORARY SLOPE

GUARDRAIL POST #5 LT
ALONG USH 12 WB

555+51

GUARDRAIL POST #9 LT
ALONG USH 12 WB

555+76

10 FT

20 FT

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E

USH 12 EB PGL

USH 12 WB R/L

M/L
RAMP BD

STAGE 2
CONSTRUCTION

STAGE 3
CONSTRUCTION

STAGE 2
TEMPORARY SLOPE

2.0%

8.1:1

7.9:1

3.0:1
MAX

3.0%

2.5:1

890.80
-84.00

891.04
-72.00

890.80
-56.00

891.80
-43.45

890.25
-30.93

891.60
-19.95

890.67
0.00

890.91
12.00

890.67
24.00

890.44
36.00

891.39
51.25

886.19
69.06

905.88
119.07

556+00

890.80
-84.00

891.04
-72.00

890.80
-56.00

891.80
-43.45

890.20
-30.93

891.58
-19.95

890.65
0.00

890.89
12.00

890.65
24.00

890.41
36.00

891.36
55.01

886.14
70.67

905.98
120.25

BEGIN RAMP AC
DECELERATION RT
ALONG USH 12 WB

556+10

910
900
890
880

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

10 FT

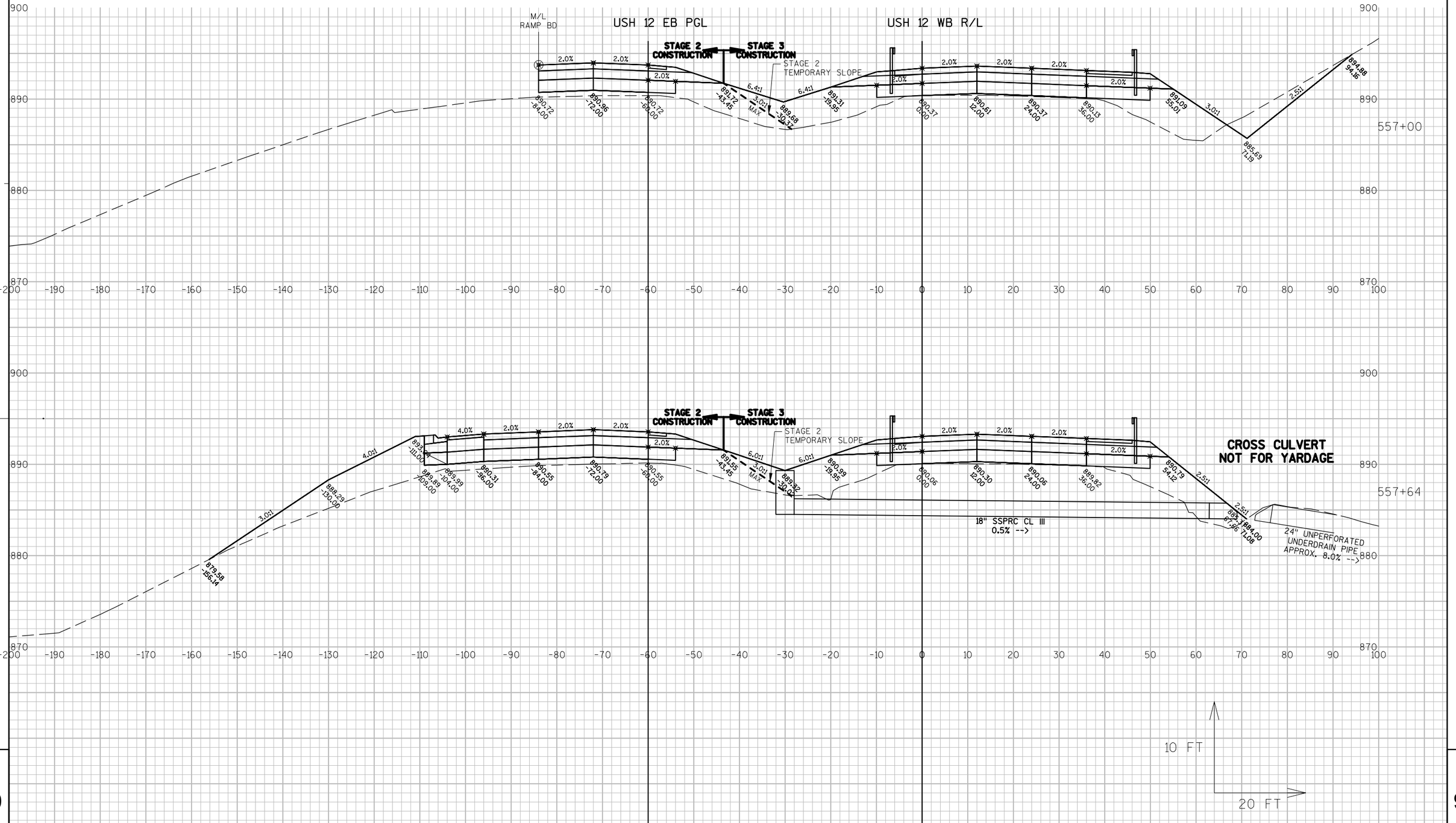
20 FT

9

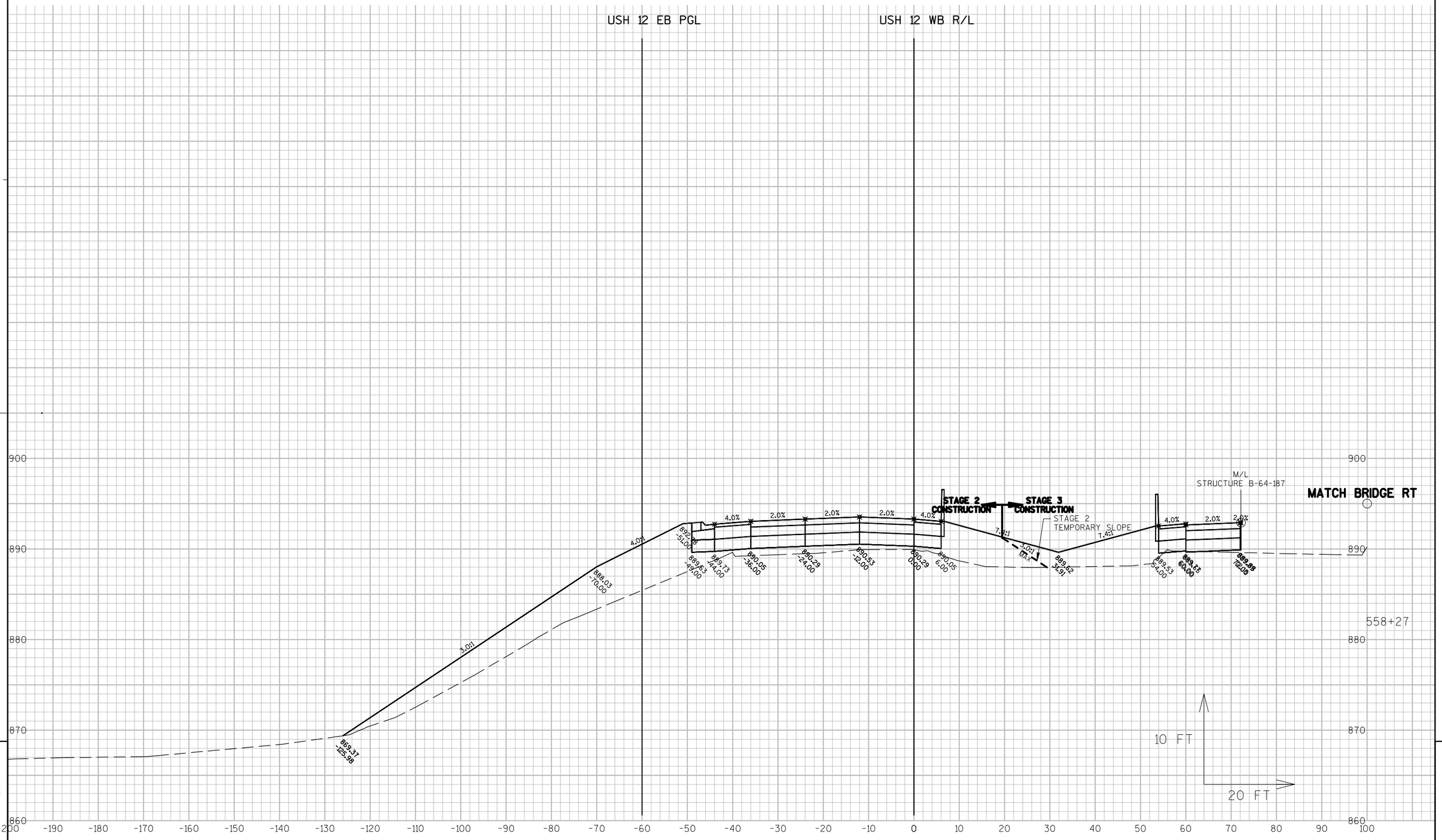
9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 437	E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLANS\080201_XS_USH12.DWG PLOT DATE • 10/31/2013 12:28 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 438	E



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 439	E

USH 12 EB PGL

900
890
880
870
860

M/L
STRUCTURE B-64-188
STAGE 2
CONSTRUCTION
4.0%
2.0%
2.0%
2.0%
888.73
-46.00
890.13
-36.00
890.37
-25.99
890.61
-14.99

MATCH BRIDGE LT

558+50

-200 -190 -180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

B-64-188

B-64-187

10 FT
20 FT

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E

FILE NAME • T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:29 PM PLOT BY • CUTLLAMA_TINA.B PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

USH 12 EB PGL

USH 12 WB PGL

M/L
STRUCTURE B-64-187

STAGE 3
CONSTRUCTION

2.0% 2.0% 2.0% 4.0%

888.36 0.00
888.12 24.00
887.88 36.00
887.48 46.00

MATCH BRIDGE RT

560+62

STAGE 2
CONSTRUCTION

STAGE 3
CONSTRUCTION

M/L
STRUCTURE B-64-188

MATCH BRIDGE LT

STAGE 2
TEMPORARY SLOPE

2.0% 2.0% 4.0% 6.4:1 2.0:1 MAX 6.4:1 4.0% 2.0% 2.0% 2.0% 4.0% 4.0:1 3.0:1

865.46 -72.00
888.04 -60.00
886.86 -54.00
887.52 -29.86
887.51 -6.00
887.75 0.00
887.98 12.00
887.75 24.00
887.51 36.00
887.19 44.00
887.09 49.00
890.24 51.00
865.49 70.00
873.75 105.23

560+84

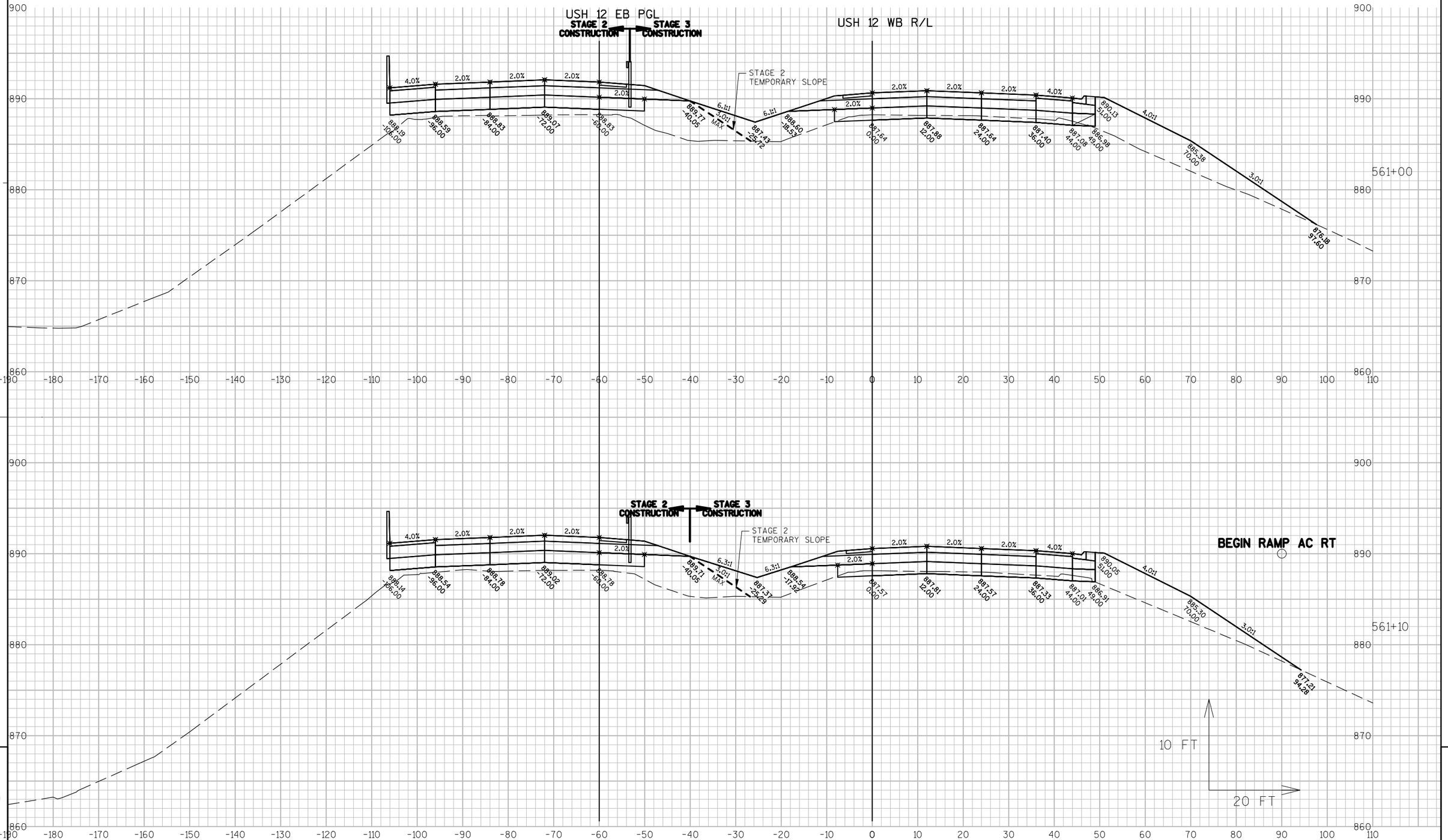
10 FT
20 FT

900 890 880 870 860

-180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

9 9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 441	E



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 442 E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080120\SHEETS\PLAN\080201_XS-USH12.DWG PLOT DATE • 12/9/2013 11:38 AM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

CROSS CULVERT
NOT FOR YARDAGE

STAGE 2 CONSTRUCTION | STAGE 3 CONSTRUCTION

USH 12 EB PGL

USH 12 WB R/L

STAGE 2
TEMPORARY SLOPE

2.5:1

6.7:1

3.0:1 MAX

6.7:1

4.0:1

3.0:1

2.0%

4.0%

889.39 -144.12
888.42 -96.00
888.55 -84.00
888.90 -72.00
888.55 -60.00
889.59 -40.05
887.24 -24.40
888.41 -16.64
887.41 0.00
887.65 12.00
887.41 24.00
887.17 36.00
886.95 44.00
886.75 49.00
889.90 51.00
885.15 70.00
877.90 91.75
561+31

857.84 -192.99

WETLAND

72" CPRC CL V
0.75% -->

889.33 -144.12
888.36 -96.00
888.60 -84.00
888.84 -72.00
888.60 -60.00
889.53 -40.05
887.19 -24.30
888.34 -16.55
887.34 0.00
887.58 12.00
887.34 24.00
887.10 36.00
886.78 44.00
886.68 49.00
889.83 51.00
885.08 70.00
877.78 91.89
561+41

857.84 -193.59

WETLAND

10 FT

20 FT

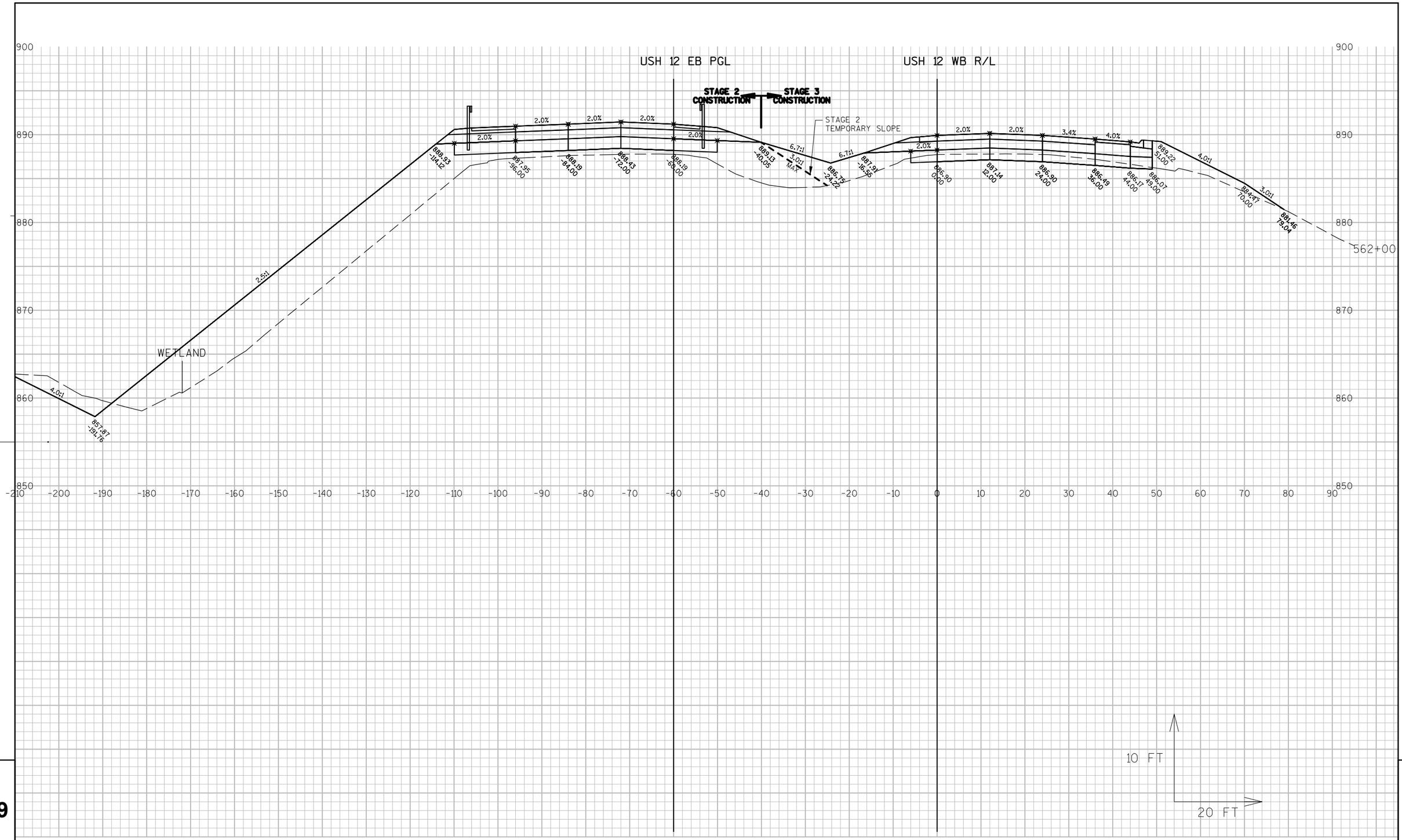
72" CPRC CL V
0.75% -->

890 880 870 860 855

-210 -200 -190 -180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90

9 9

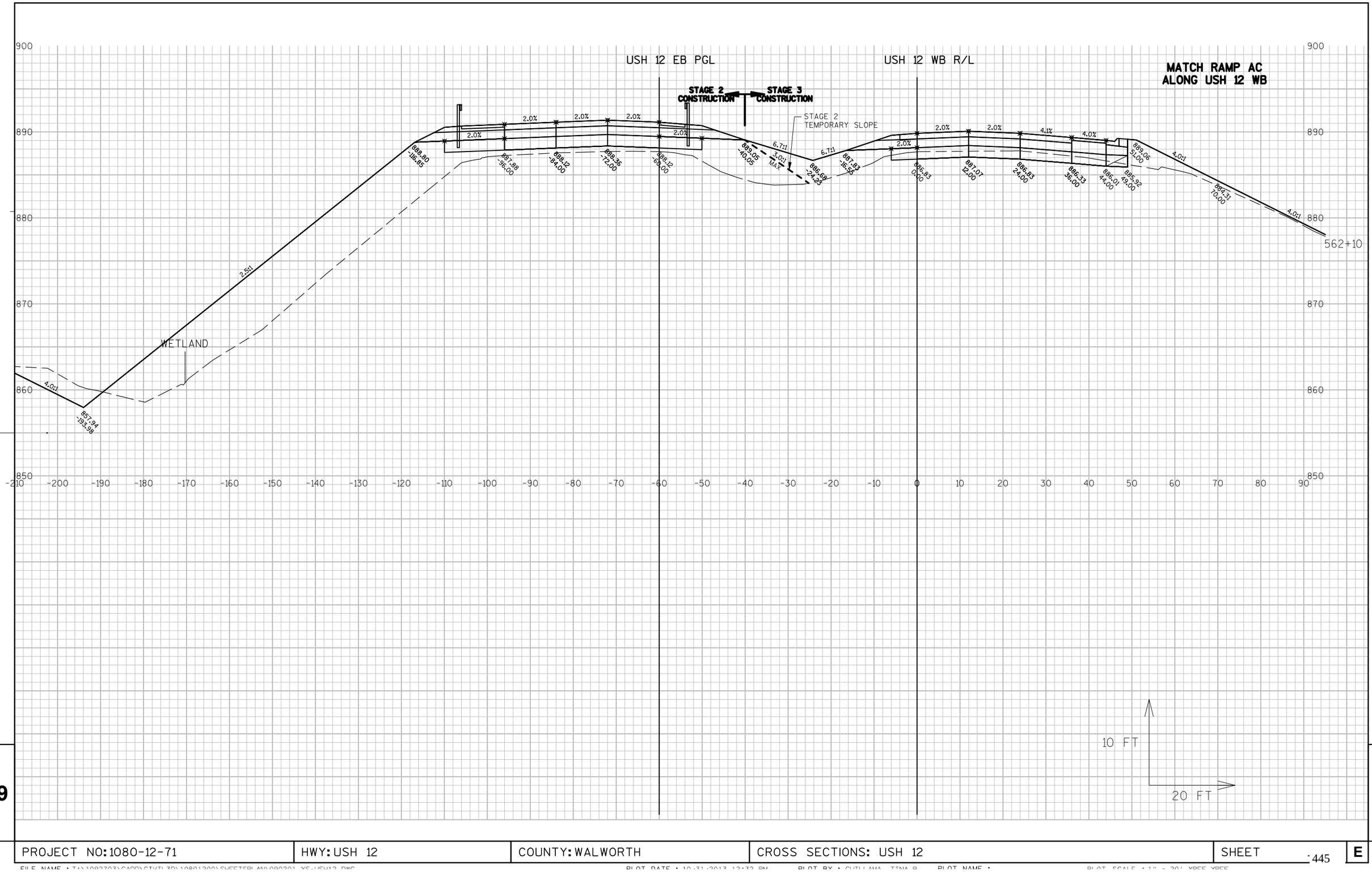
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 443	E



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 444 E

FILE NAME: T:\1092703\CADD\CIVIL3D\1080120\SHEETSPLAN\080201_XS_USH12.DWG PLOT DATE: 10/31/2013 12:31 PM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

9 9

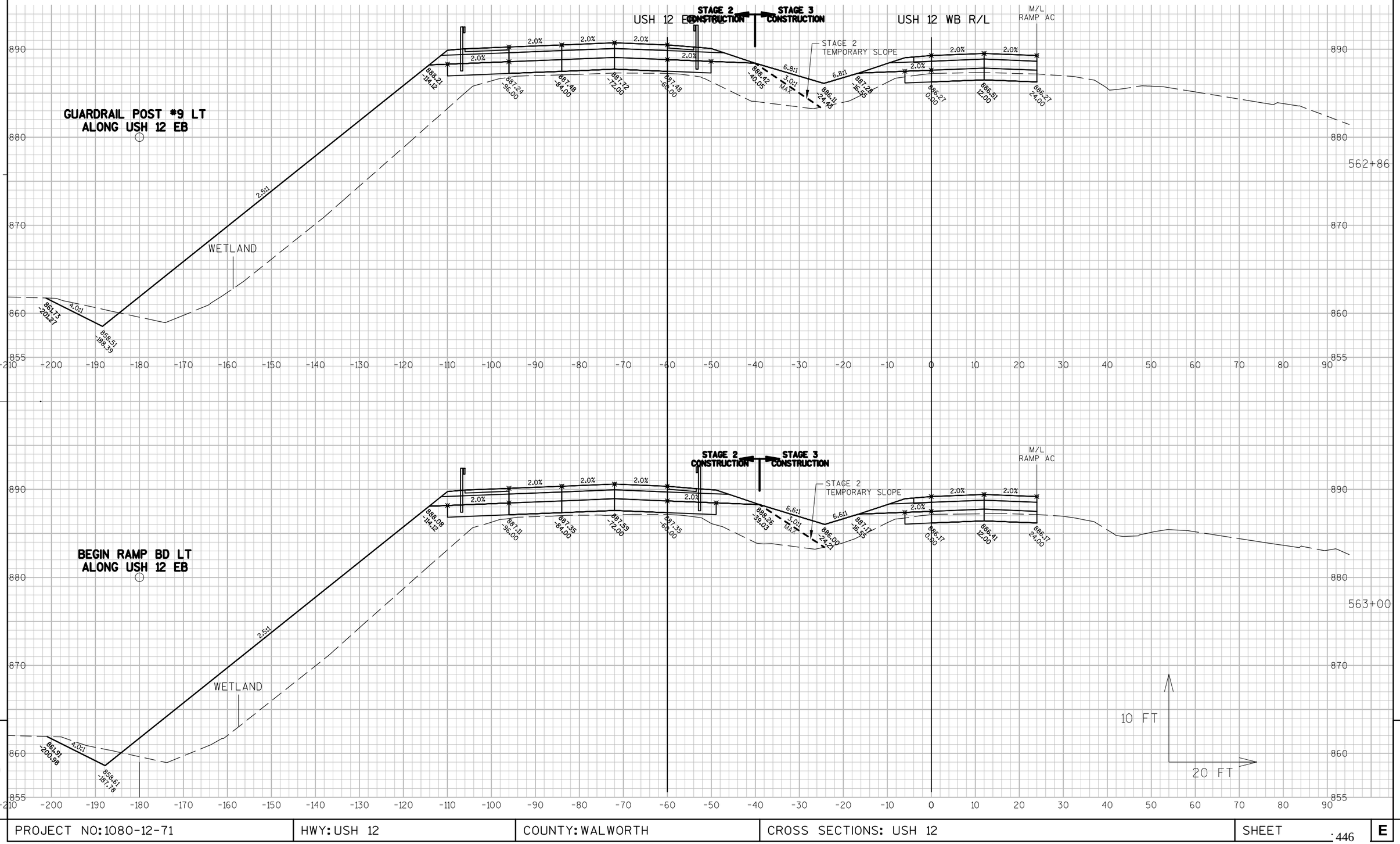


9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 445	E

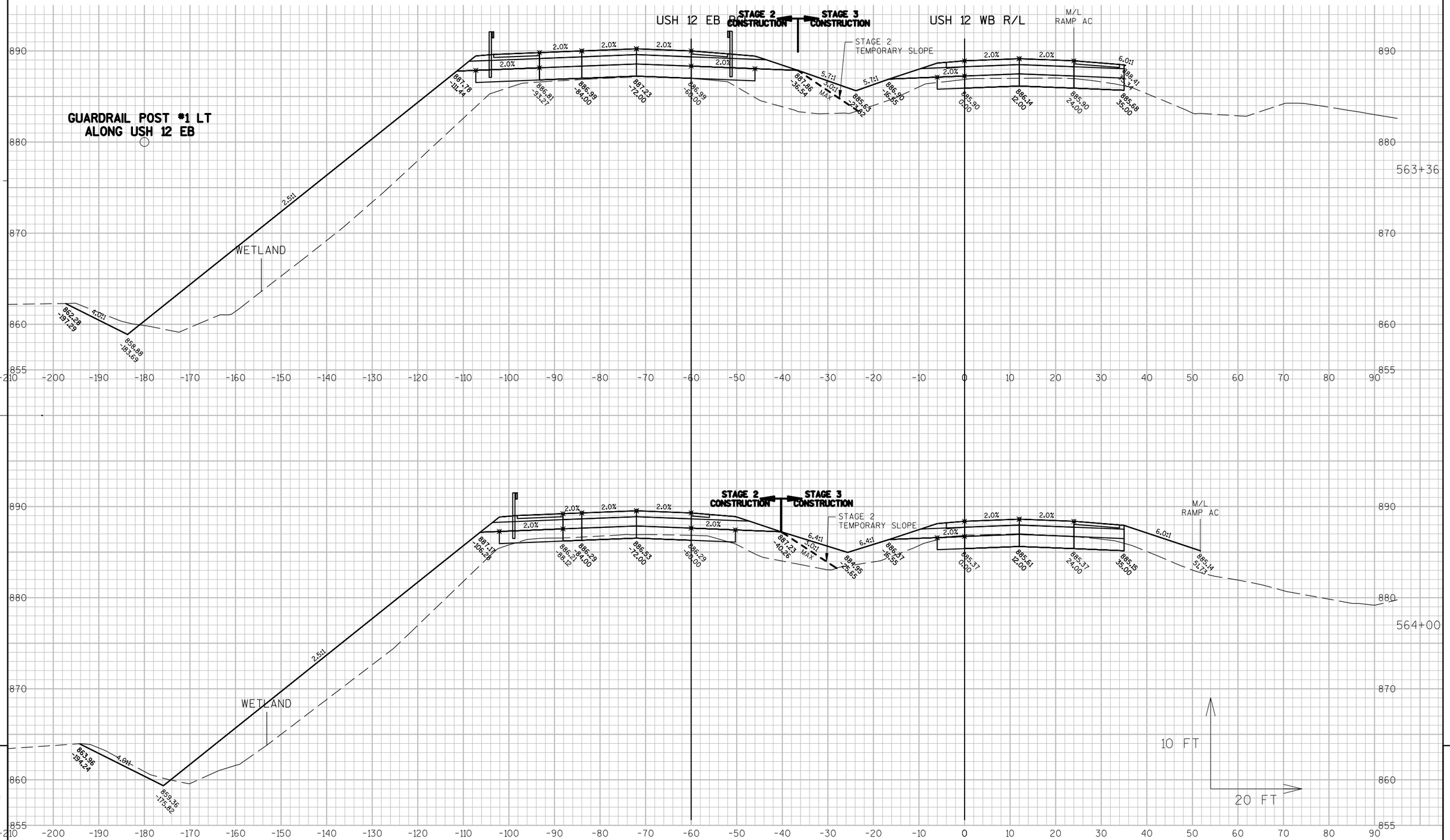
9

FILE NAME • T:\1093703\CADD\CIVIL 3D\1080120\SHEETSPLAN\080201_XS_USH12.DWG PLOT DATE • 10/31/2013 12:32 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 446 E

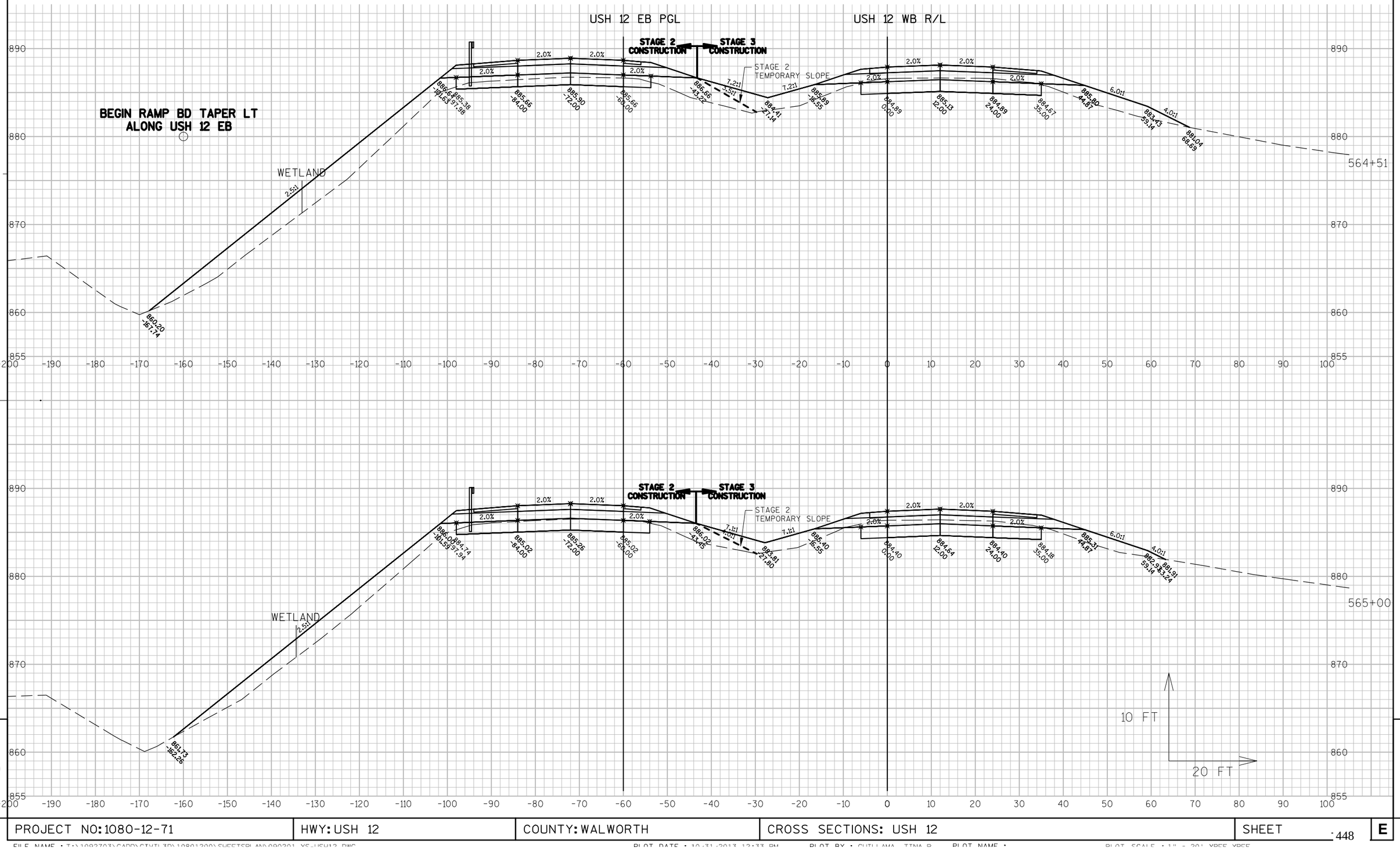
FILE NAME • T:\1092703\CADD\CIVIL 3D\1080120O\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:32 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 447	E

9

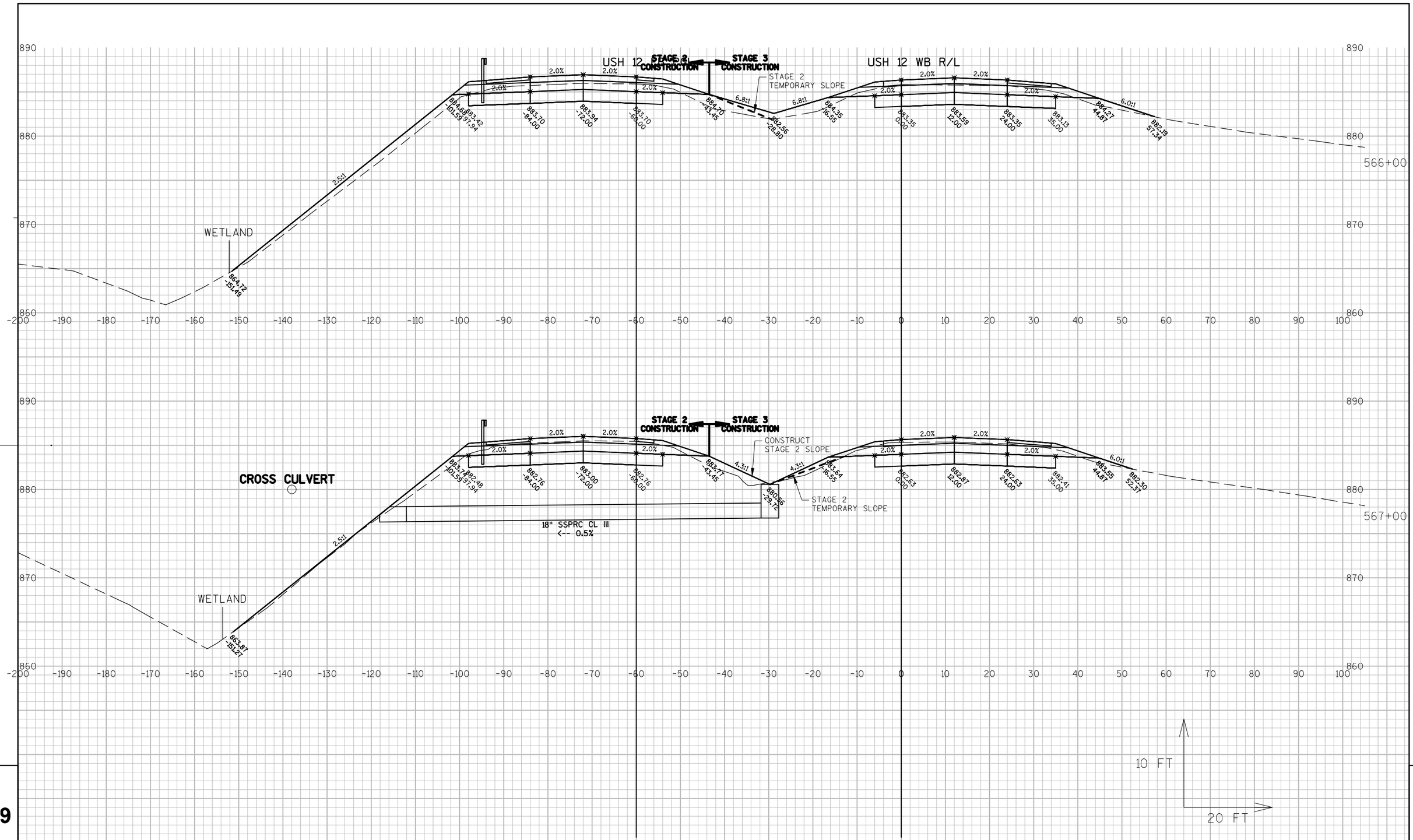
FILE NAME • T:\1092703\CADD\CIVIL 3D\1080120\SHEETS\PLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:33 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 448

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080120\SHEETS\PLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:33 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

9 E 9



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 449 E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLANS\090201_XS_USH12.DWG PLOT DATE • 10/31/2013 12:34 PM PLOT BY • CUTULAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

USH 12 EB PGL

STAGE 2 CONSTRUCTION

STAGE 3 CONSTRUCTION

CONSTRUCT STAGE 2 SLOPE

USH 12 WB R/L

2.0%

2.5:1

6.4:1

6.0:1

865.19 -101.59

881.93 -97.94

876.22 -119.01

882.21 -84.00

882.45 -72.00

882.21 -58.00

883.21 -43.45

881.06 -29.76

883.14 -16.55

882.13 0.00

882.37 12.00

882.13 24.00

881.81 35.00

865.05 44.87

881.23 55.81

568+00

END USH 12 MAINLINE RECONSTRUCTION

USH 12 EB SHOULDER RECONSTRUCTION

STAGE 2 CONSTRUCTION

882.71 -101.15

878.73 -111.10

569+00

BEGIN USH 12 WB SHOULDER RECONSTRUCTION

STAGE 2 CONSTRUCTION

STAGE 3 CONSTRUCTION

882.99 -16.21

569+55

10 FT

20 FT

890 880 870 900

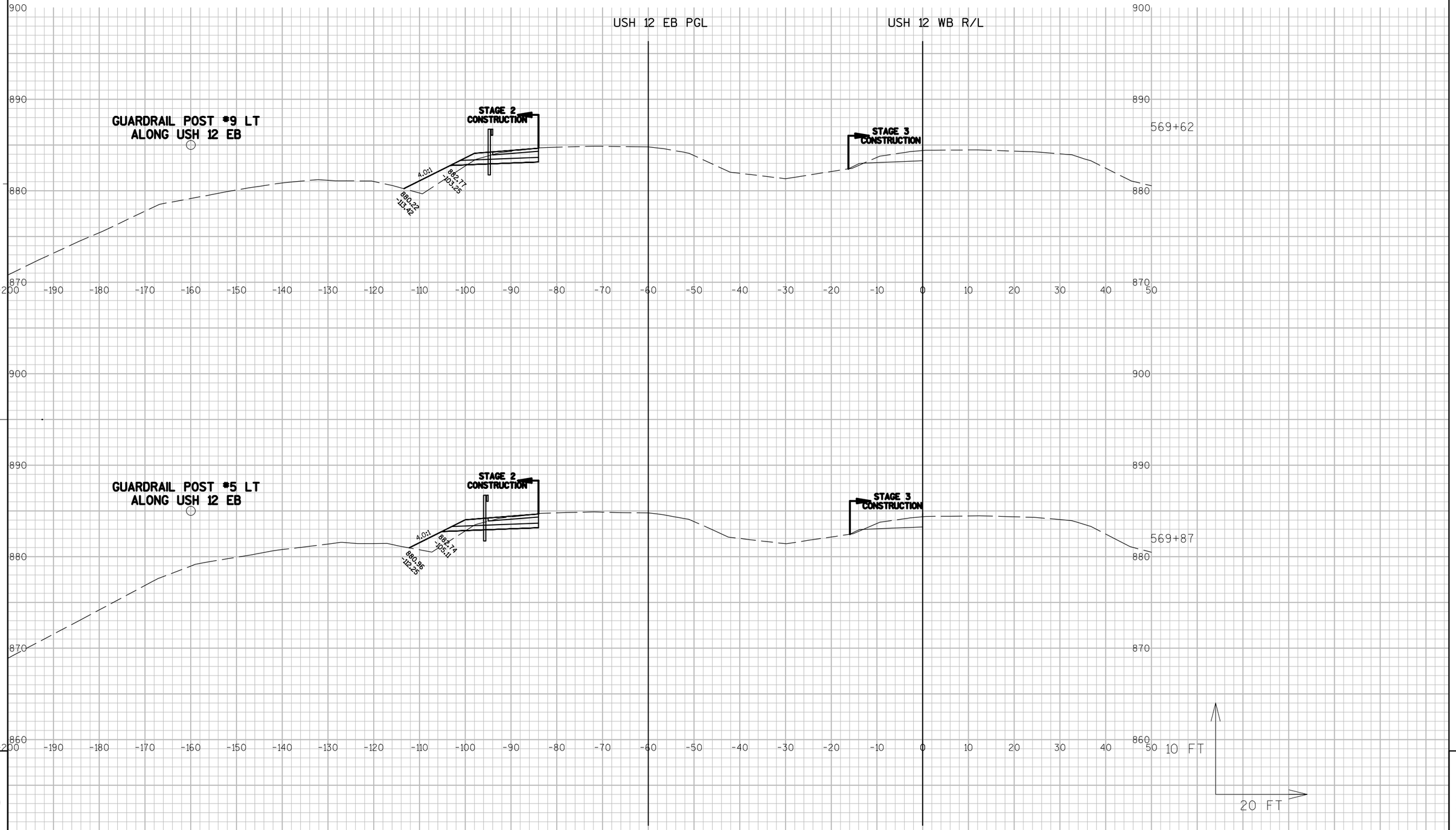
-200 -190 -180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 450	E

FILE NAME • T:\1082703\CADD\CIVIL3D\1080120\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:34 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 451	E

FILE NAME • T:\1092703\CADD\CIVIL 3D\1080120\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE • 10/31/2013 12:35 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

USH 12 EB PGL

USH 12 WB R/L

STAGE 2 CONSTRUCTION

STAGE 3 CONSTRUCTION

4.0:1

882.73
-106.05

881.23
-111.91

882.94
-15.67

570+00

GUARDRAIL POST #1 LT
ALONG USH 12 EB

STAGE 2 CONSTRUCTION

4.0:1

882.69
-106.96

881.56
-111.51

STAGE 3 CONSTRUCTION

570+12

10 FT

20 FT

900 890 880 870 860

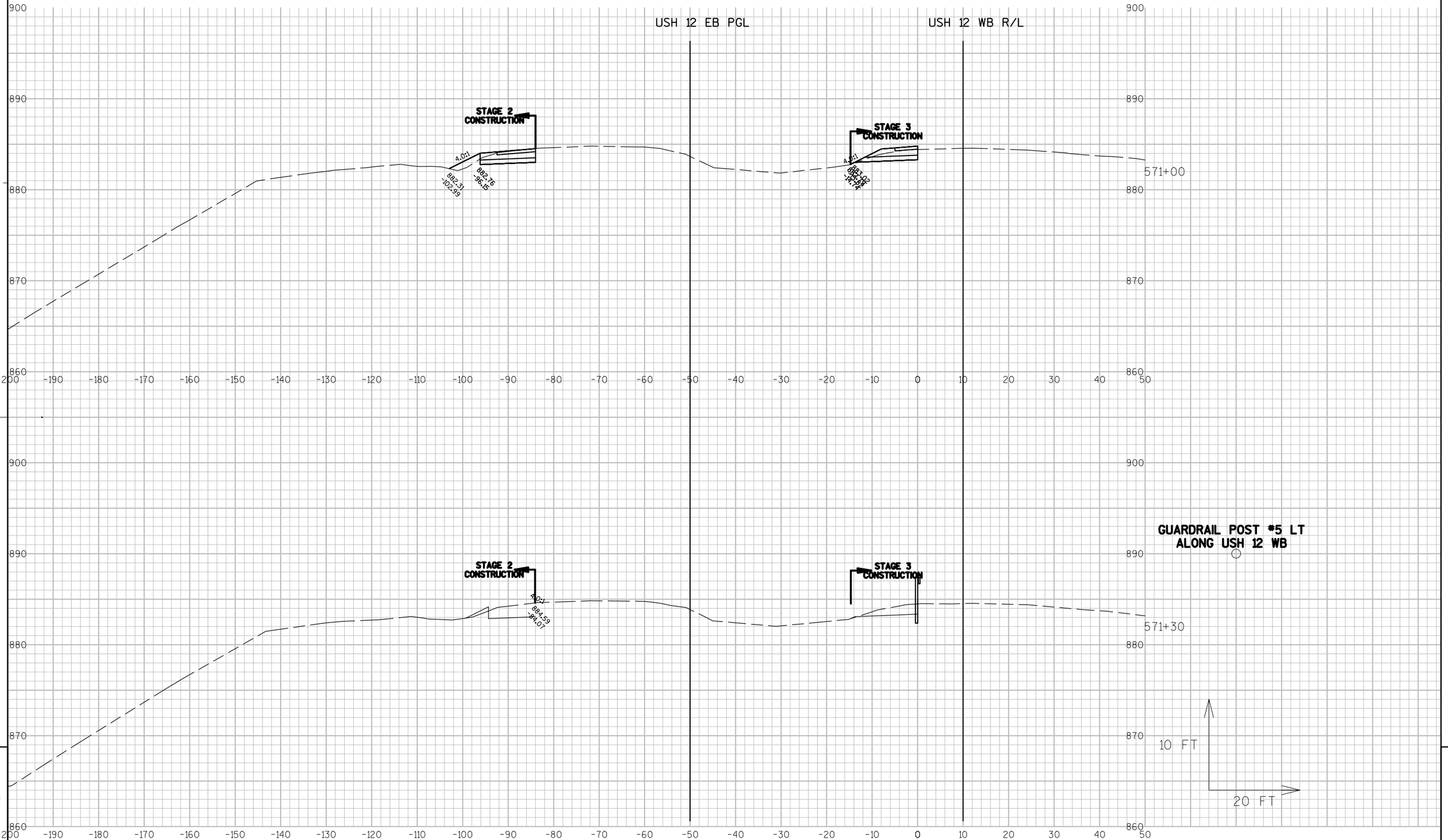
-200 -190 -180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 452	E

FILE NAME: T:\1092703\CADD\CIVIL 3D\1080120\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE: 10/31/2013 12:35 PM PLOT BY: CUTLLAMA_TINA_R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF



9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 453	E

USH 12 EB PGL

USH 12 WB R/L

GUARDRAIL POST #9 LT
ALONG USH 12 WB

END USH 12 EB
SHOULDER RECONSTRUCTION

STAGE 2 CONSTRUCTION

STAGE 3 CONSTRUCTION

ASH
884.66
-94.07

4.0:1
884.95
-95.99

571+55

571+75

10 FT

20 FT

900
890
880
870
860

-200 -190 -180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 454	E

USH 12 EB PGL

USH 12 WB R/L

STAGE 3 CONSTRUCTION

890
880
870
860
855

572+00

-200 -190 -180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

10 FT

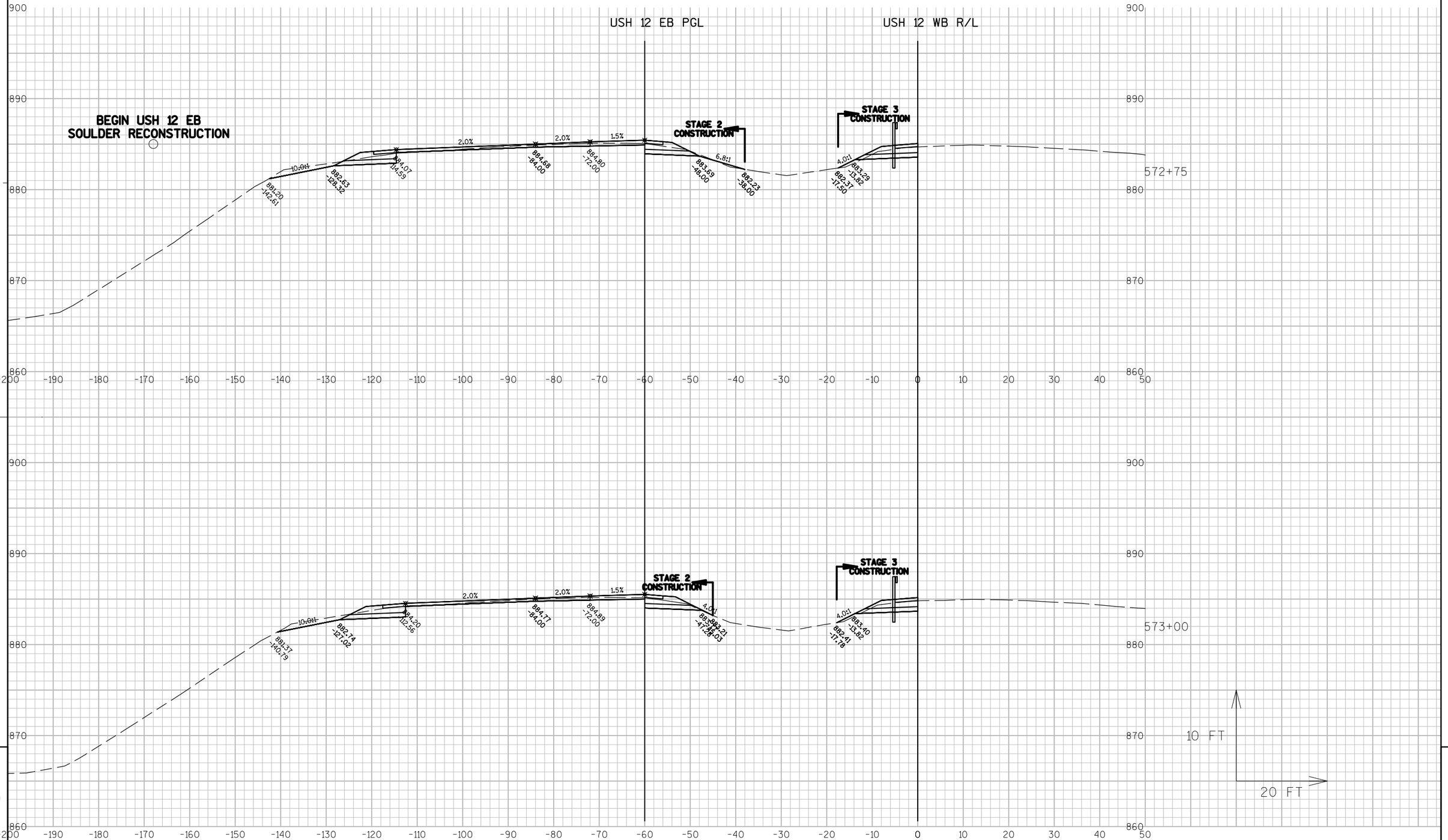
20 FT

9

9

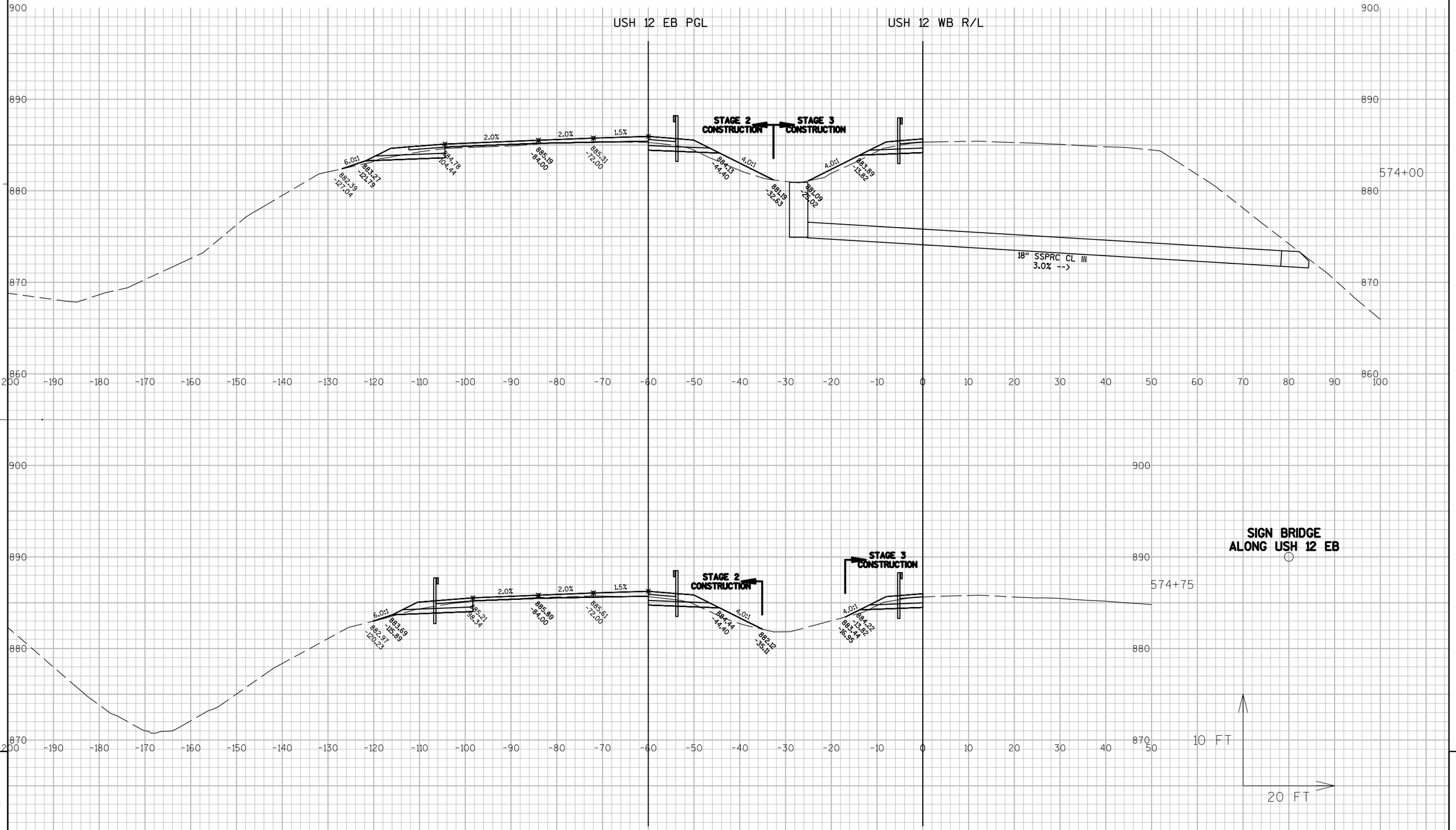
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 455	E

FILE NAME: T:\1092703\CADD\CIVIL 3D\1080120\SHEETSPLAN\080201_XS-USH12.DWG PLOT DATE: 10/31/2013 12:36 PM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 456 E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080120001\SHEETSPLANS\080201_XS-USH12.DWG PLOT DATE • 11/18/2013 2:44 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

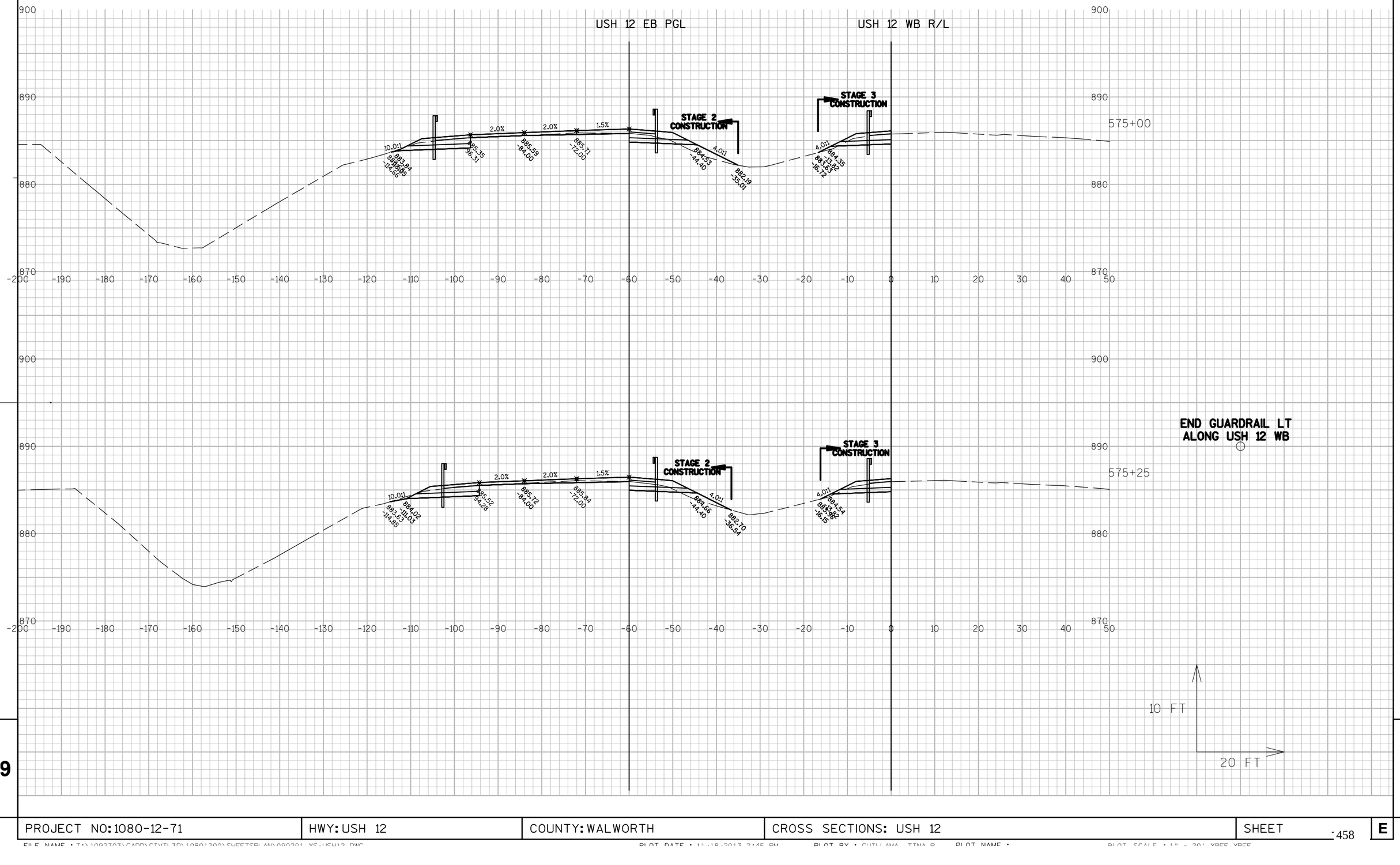


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 457 E

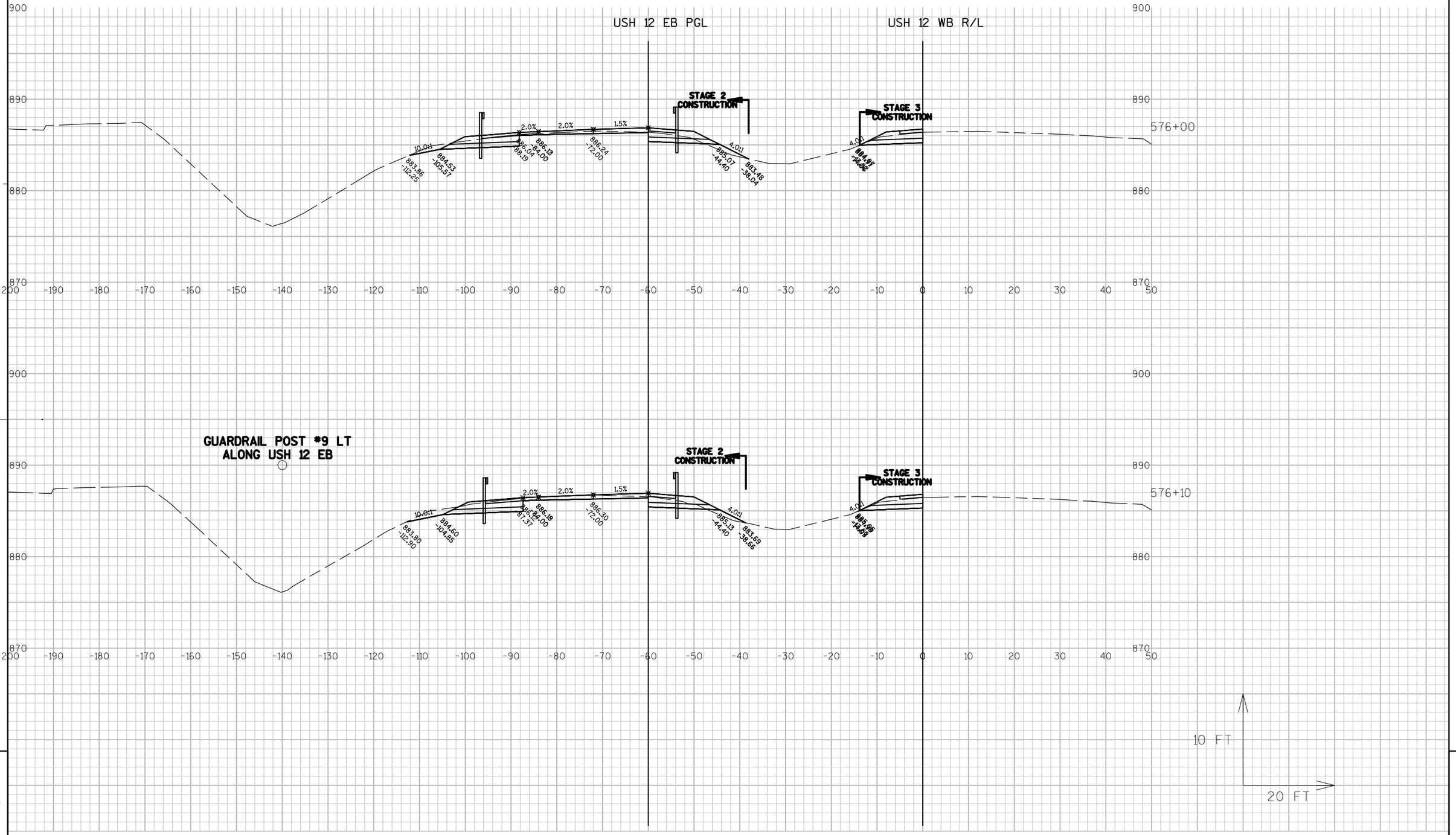
FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLANS\080201_XS-USH12.DWG PLOT DATE • 11/18/2013 2:44 PM PLOT BY • CUTLLAMA_TTNA PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

9

9

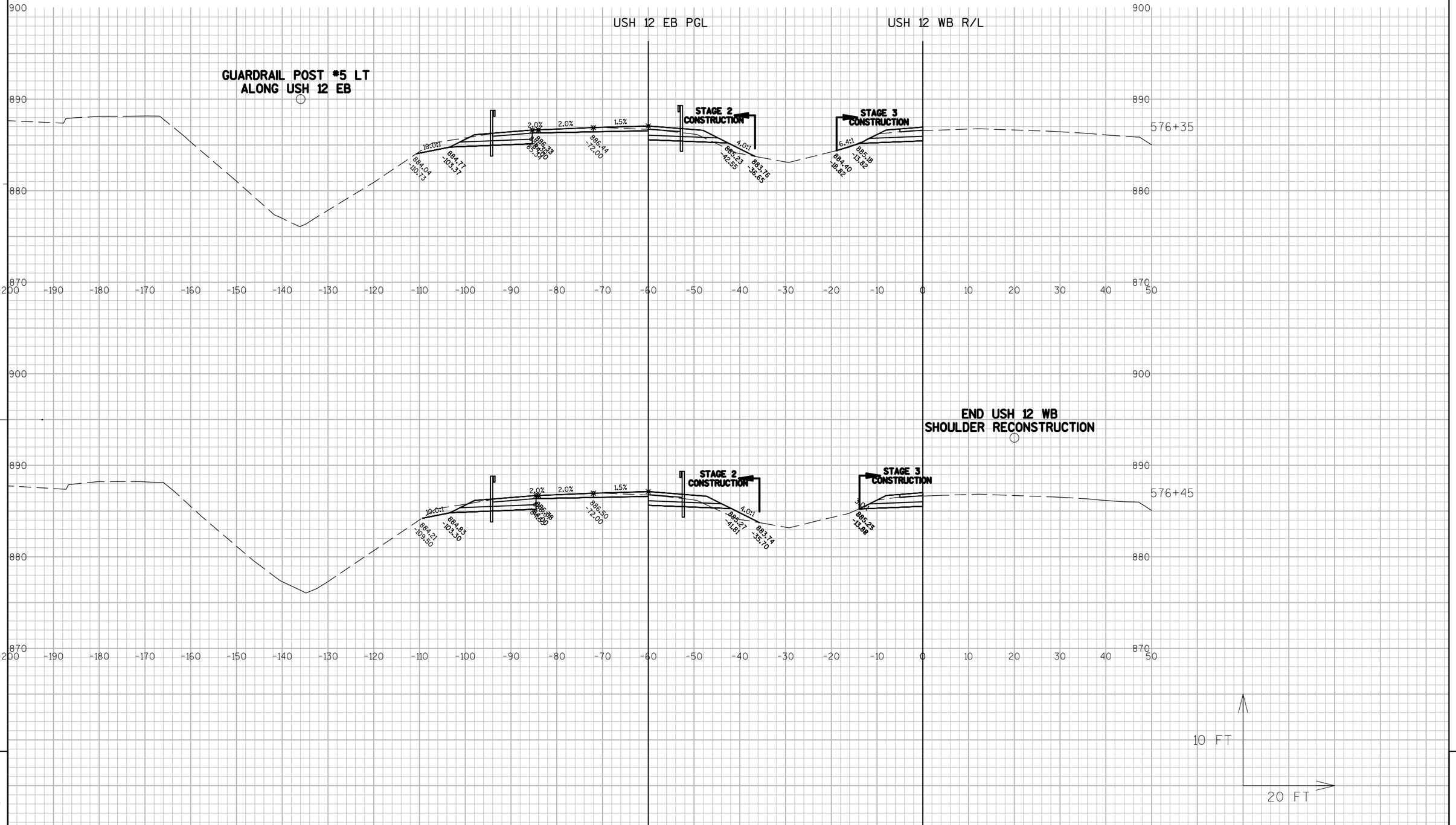


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080120051\SHEETSPLANS\080201_XS-USH12.DWG PLOT DATE • 11/18/2013 2:45 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



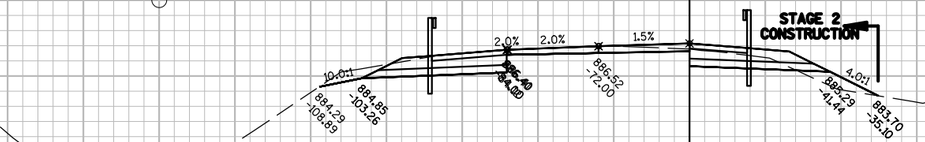
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET 460 E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLANS\080201_XS_USH12.DWG PLOT DATE • 11/18/2013 2:46 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

USH 12 EB PGL

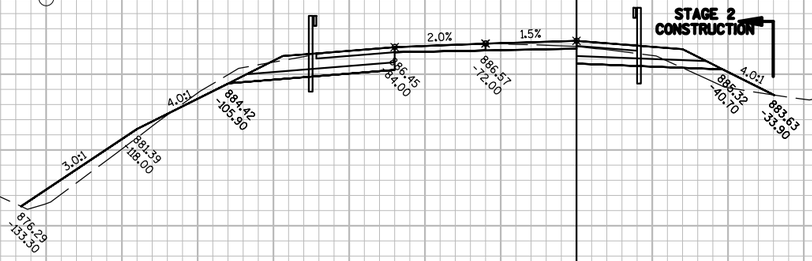
USH 12 WB R/L

GUARDRAIL POST #9 LT
ALONG USH 12 EB



576+50

GUARDRAIL POST #1 LT
ALONG USH 12 EB



576+60

10 FT

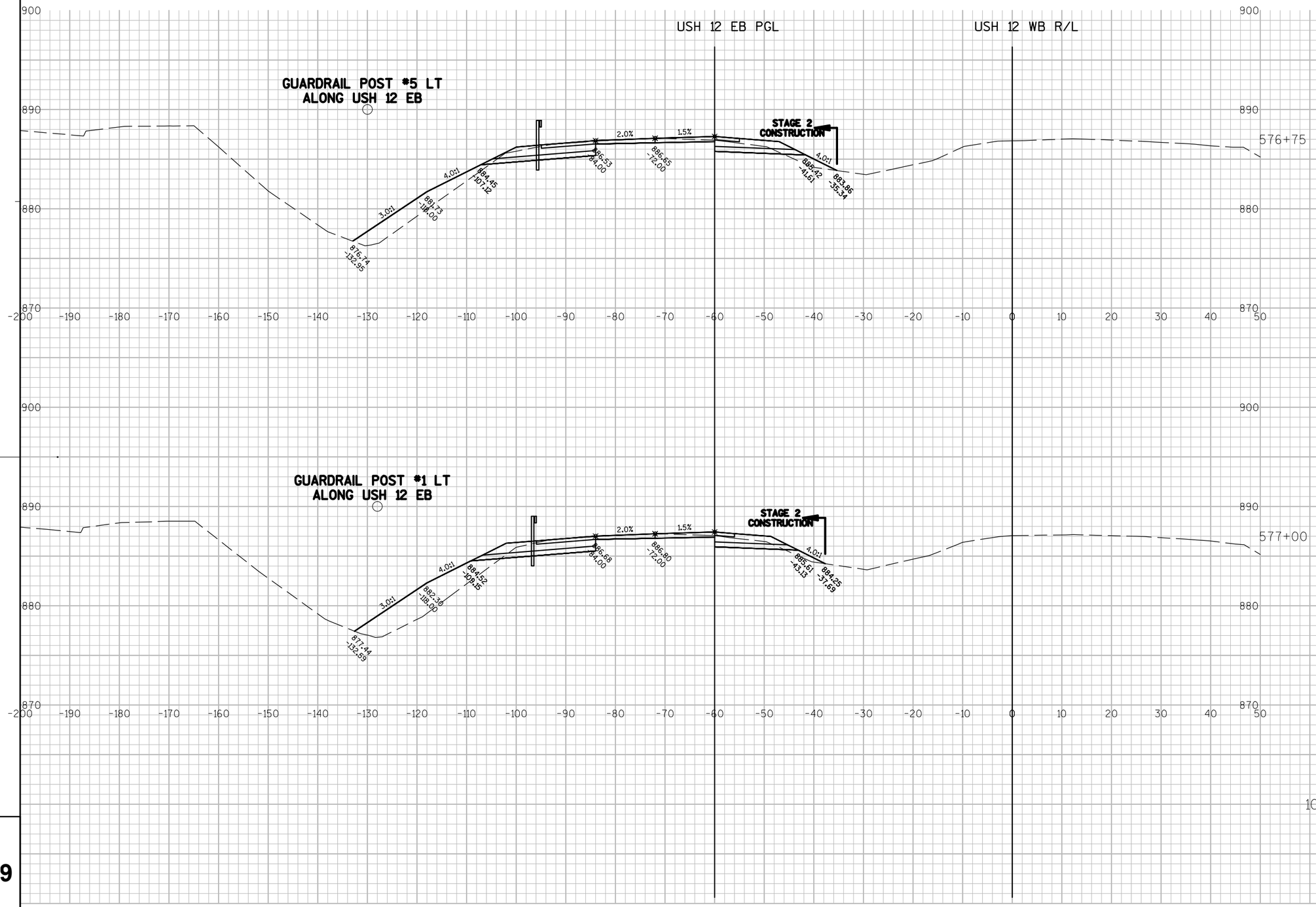
20 FT

9

9

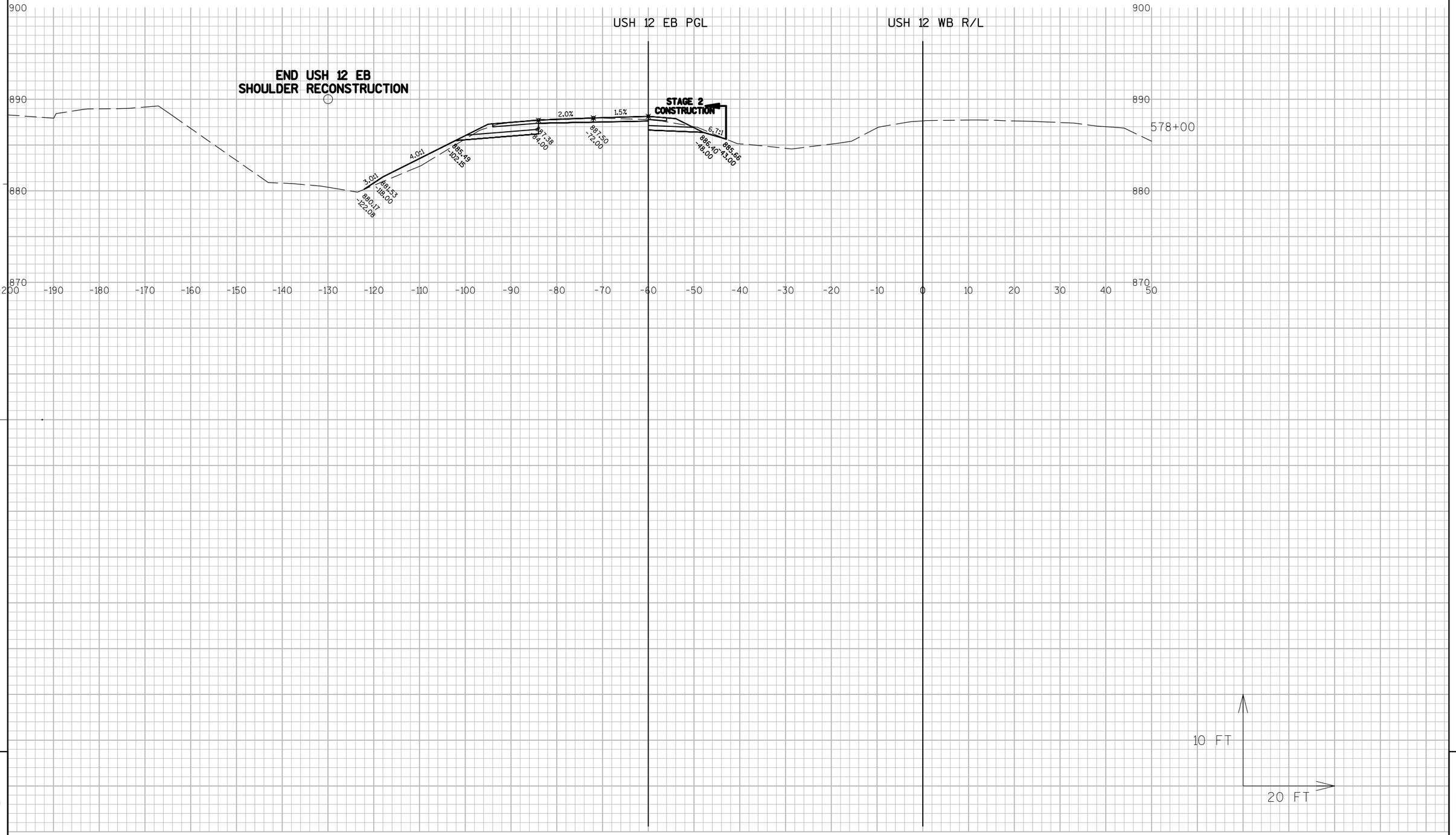
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLANS\080201_XS-USH12.DWG PLOT DATE • 11/18/2013 2:46 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET	E

FILE NAME: T:\1082703\CADD\CIVIL 3D\1080120001\SHEETSPLANS\080201_XS-USH12.DWG PLOT DATE: 11/18/2013 2:47 PM PLOT BY: CUTLLAMA_TINA_R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: USH 12	SHEET E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080-12-00\SHEETSPLANS\080201_XS-USH12.DWG PLOT DATE • 11/18/2013 2:47 PM PLOT BY • CUTLLAMA_TINA.B PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

R/L

BEGIN RAMP BD RECONSTRUCTION

RW

M/L STH 50

130+23

6.2:1 | 10.0:1 | 2.0% | 2.0%

857.64 -43.42 | 856.34 -35.42 | 857.05 -28.34 | 856.46 -10.00 | 856.66 0.00

130+50

2.5:1 | 6:1 | 7.0:1 | 2.0% | 2.0%

857.85 -43.91 | 856.69 -41.69 | 855.54 -35.69 | 857.22 -21.94 | 856.50 -10.00 | 856.73 0.00

10 FT

20 FT

890 880 870 860 850

-180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

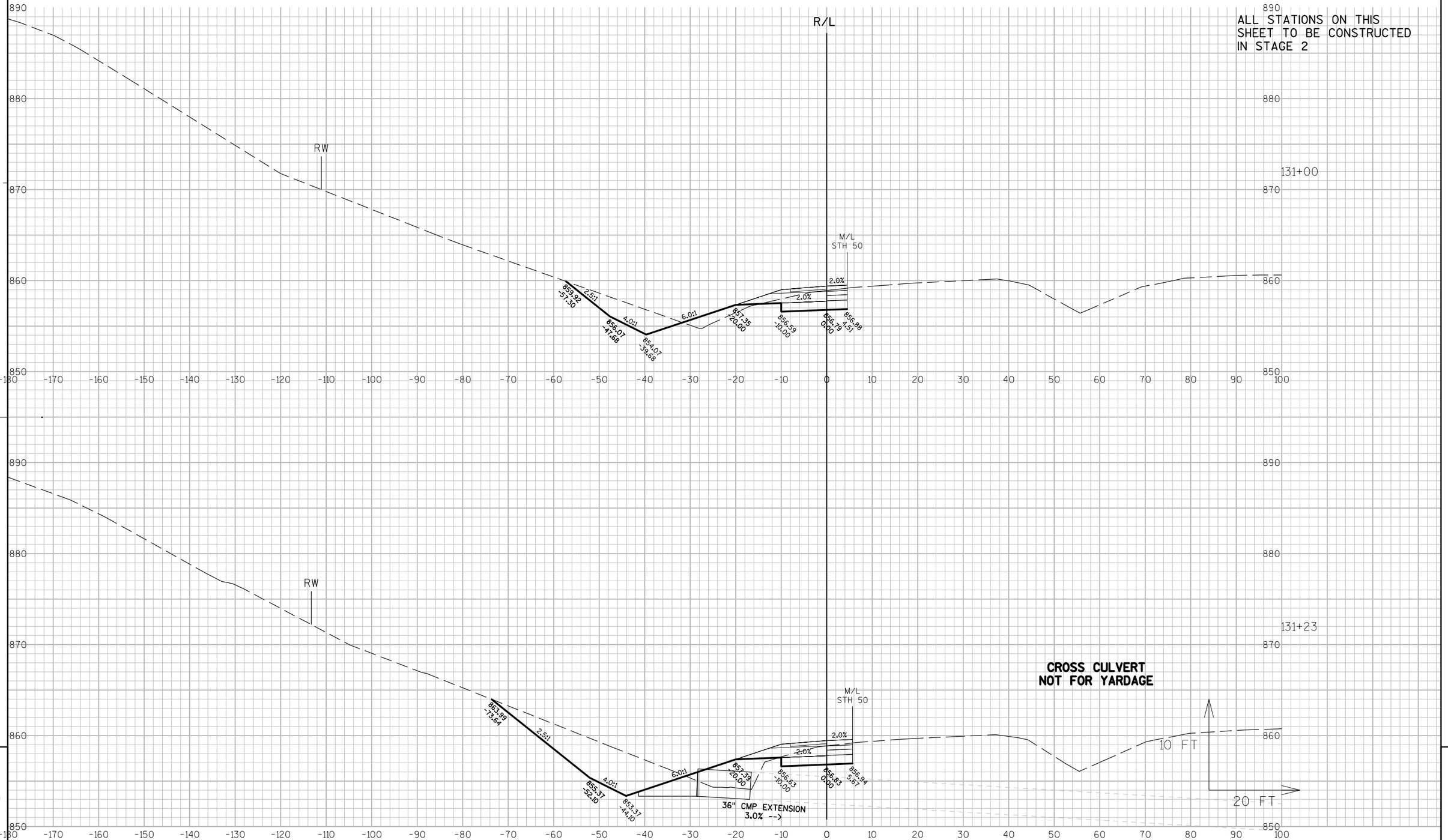
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME: T:\1083703\CADD\CIVIL 3D\1080120071\SHEETSPLAN\080303_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:35 PM PLOT BY: CUTLLAMA_TINA_R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

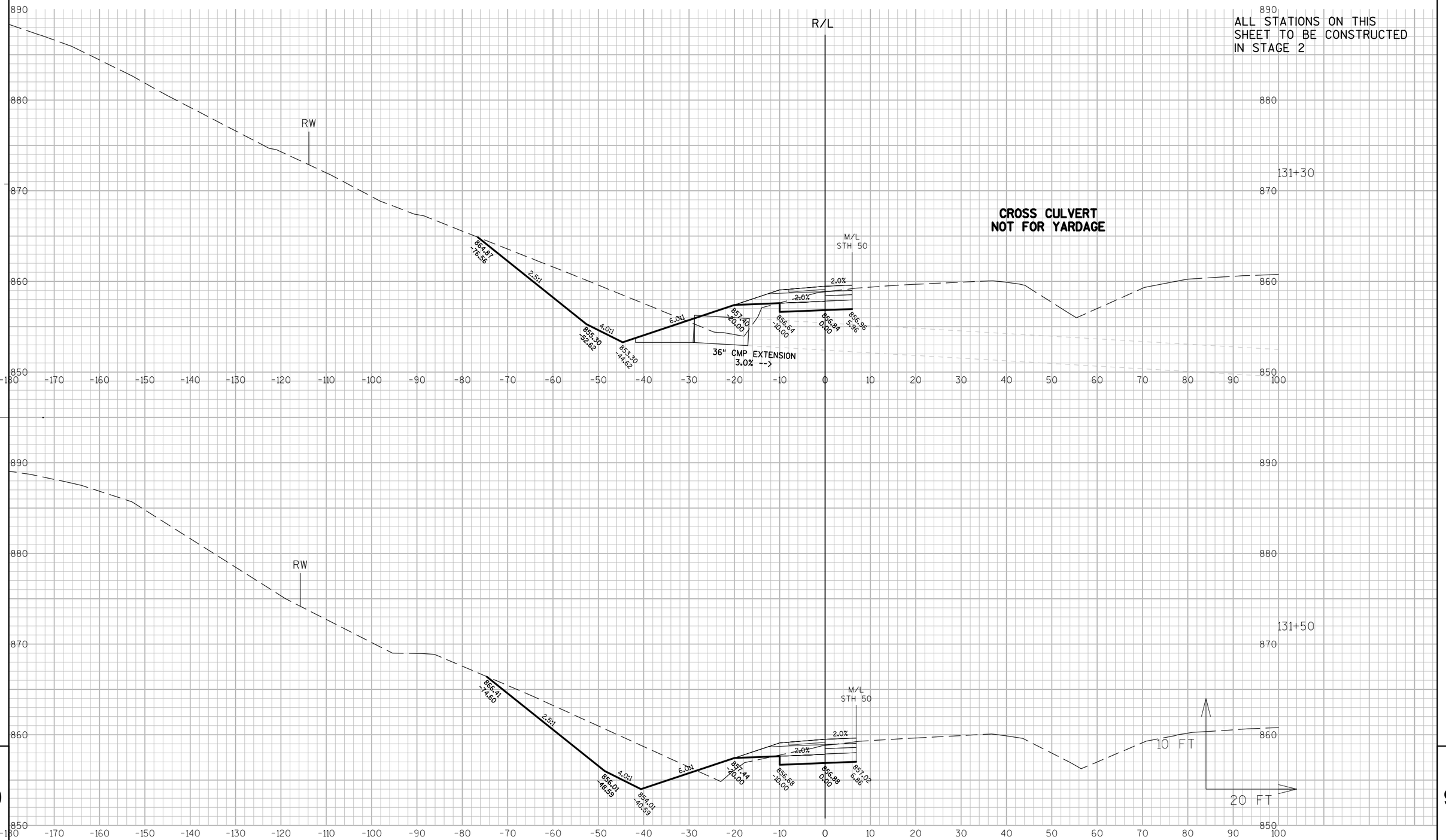
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 9 E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080112001\SHEETSPLANS\080203_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:36 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

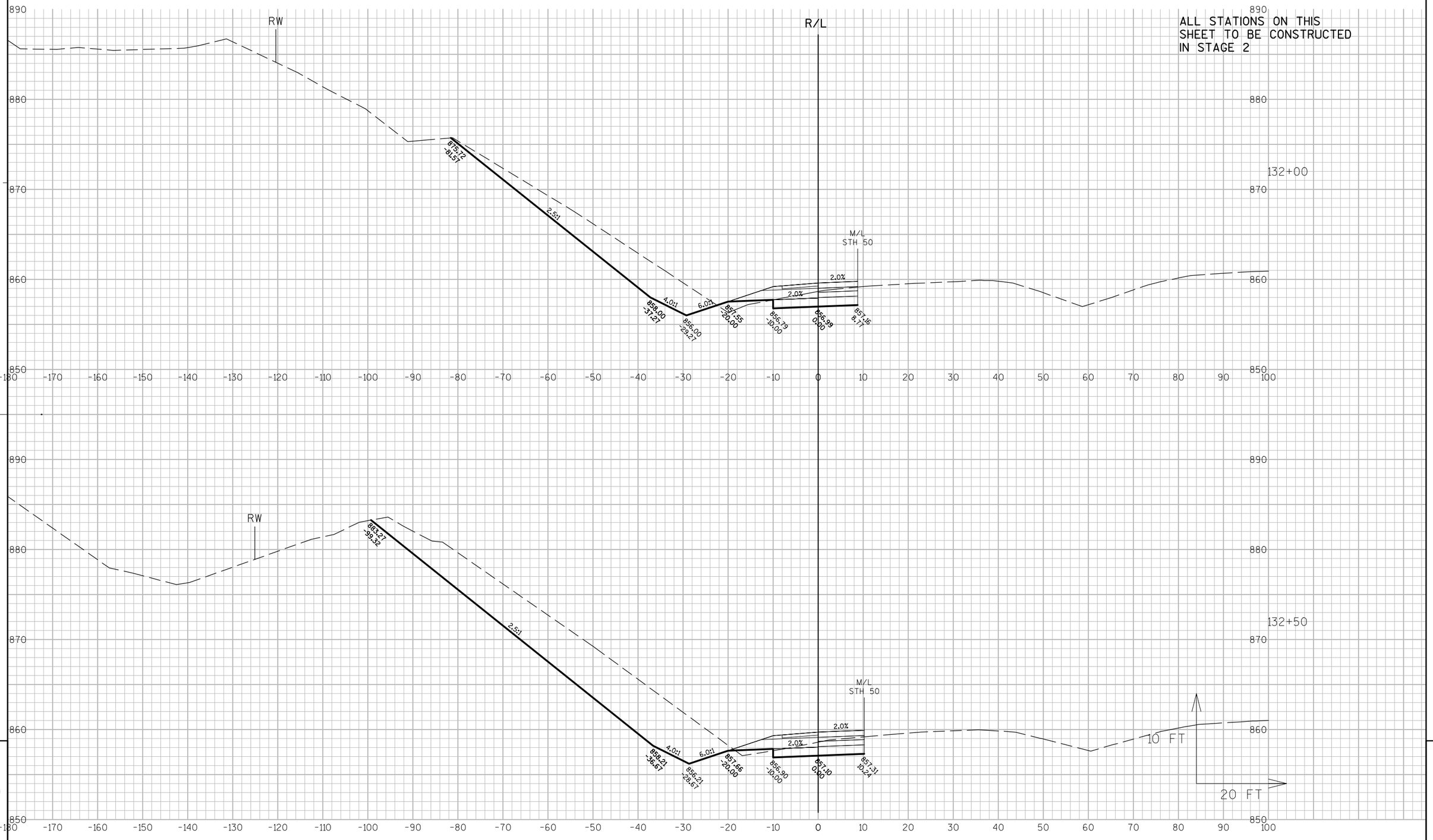
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLAN\080203_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:36 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

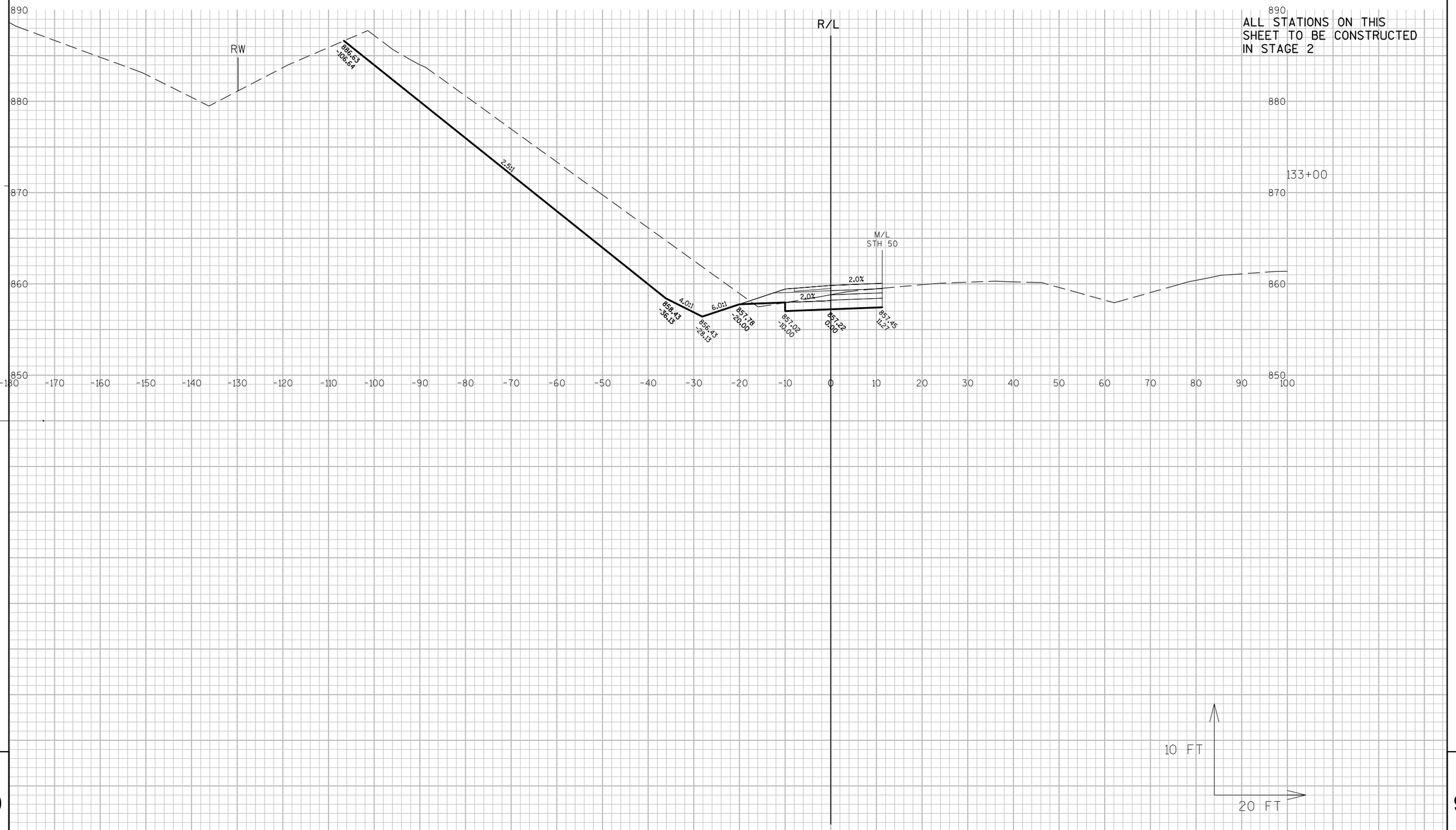
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 467	E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLANS\080202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:37 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

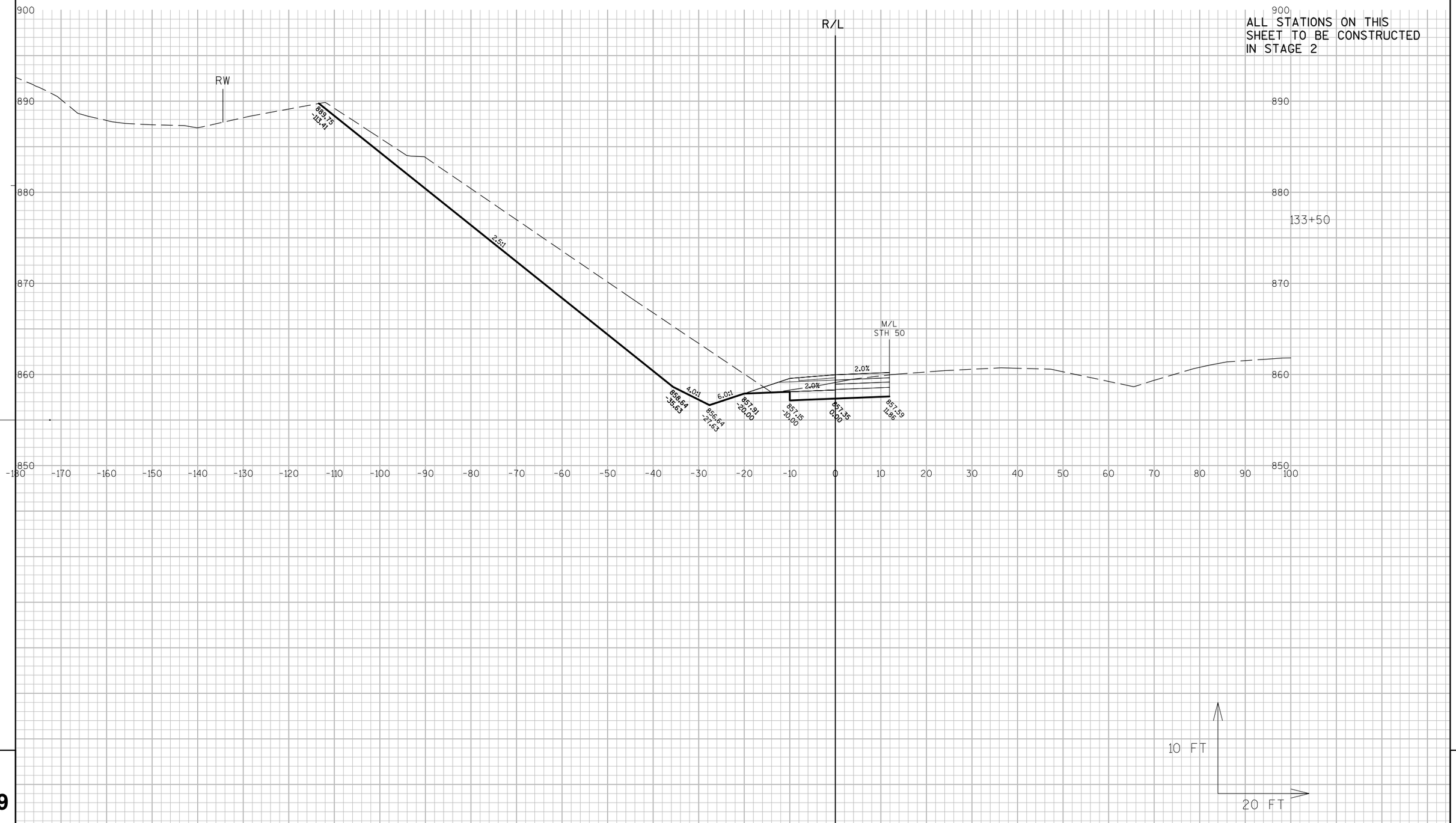
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLANS\080203_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:37 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

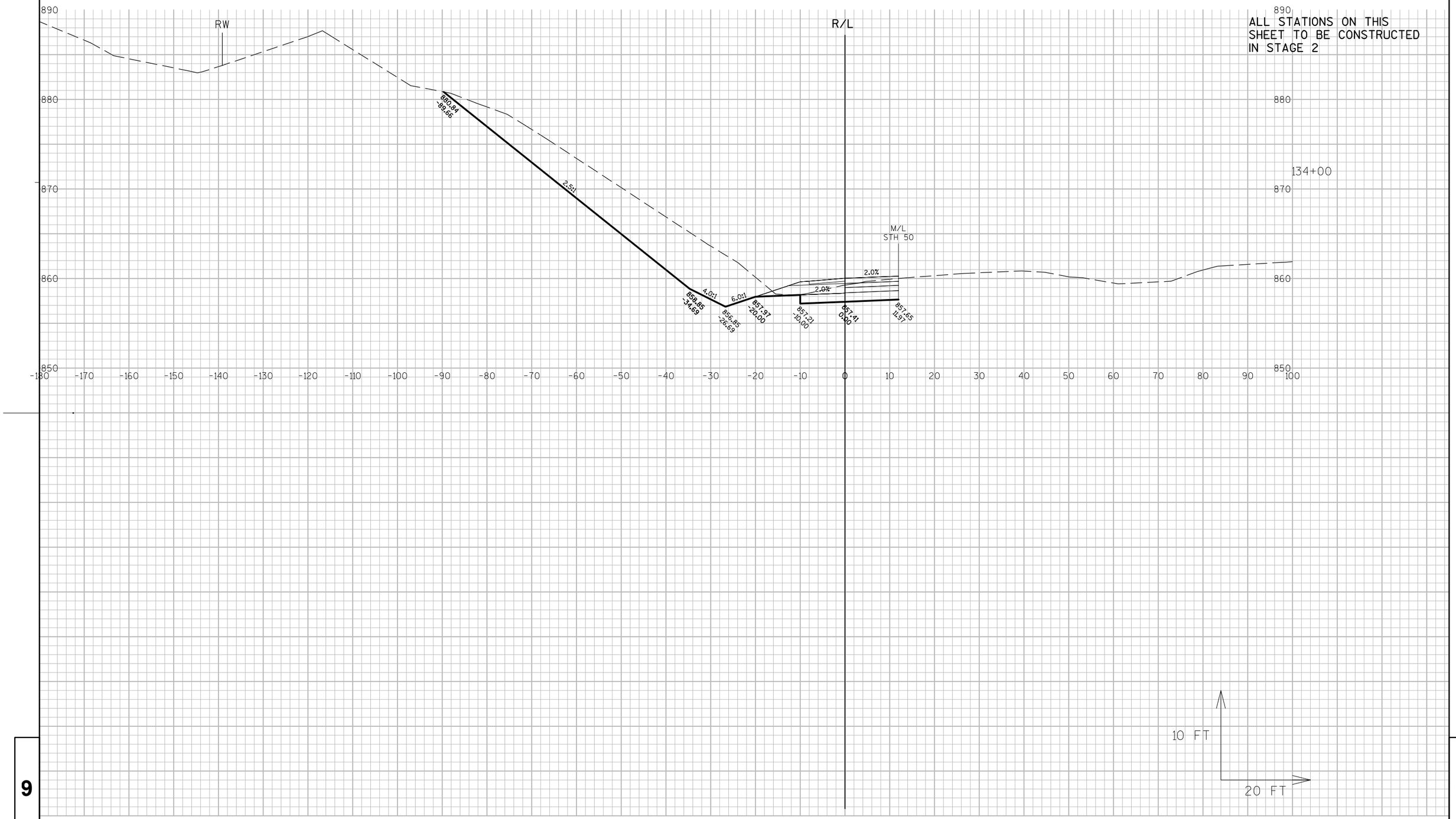


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 469	E

9

FILE NAME: T:\1092703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLAN\080202_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:37 PM PLOT BY: CUTLLAMA_TTNA_P PLOT NAME: PLOT SCALE: 1" = 20' YREF: YREF:

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



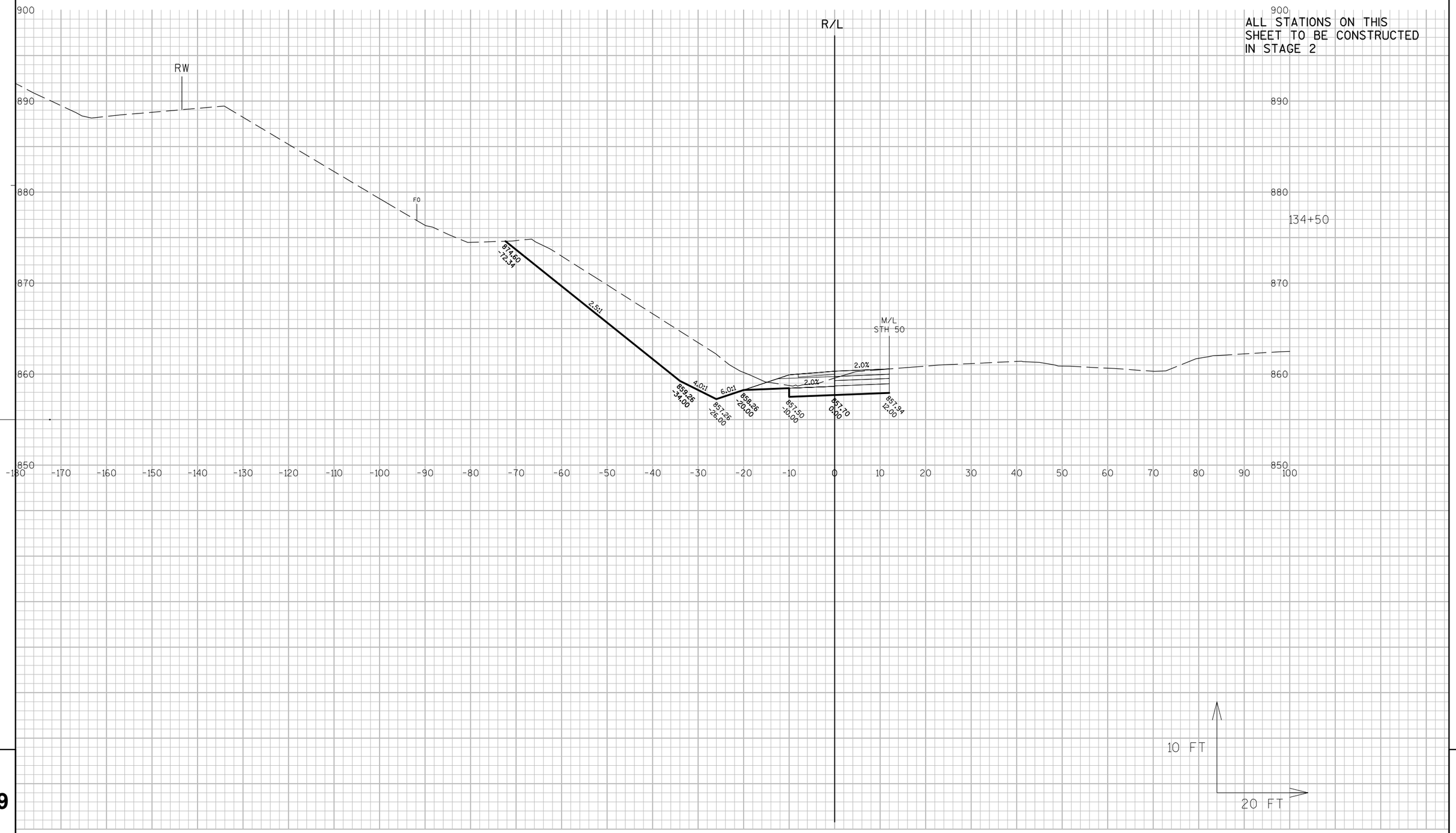
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080\1200\SHEETSPLANS\080203_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:38 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080120051\SHEETSPLANS\080303_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:38 PM PLOT BY • CUTLLAMA_TINA_B PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

910
900
890
880
870
860
850

R/L

RW

F0

879.82
-81.17

25:1

M/L
STH 50

4.0:1
859.95
-34.00

6.0:1
857.95
-26.00

859.95
-20.00

858.20
-10.00

2.0%

858.40
0.00

2.0%

858.64
12.00

135+00

-180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

10 FT

20 FT

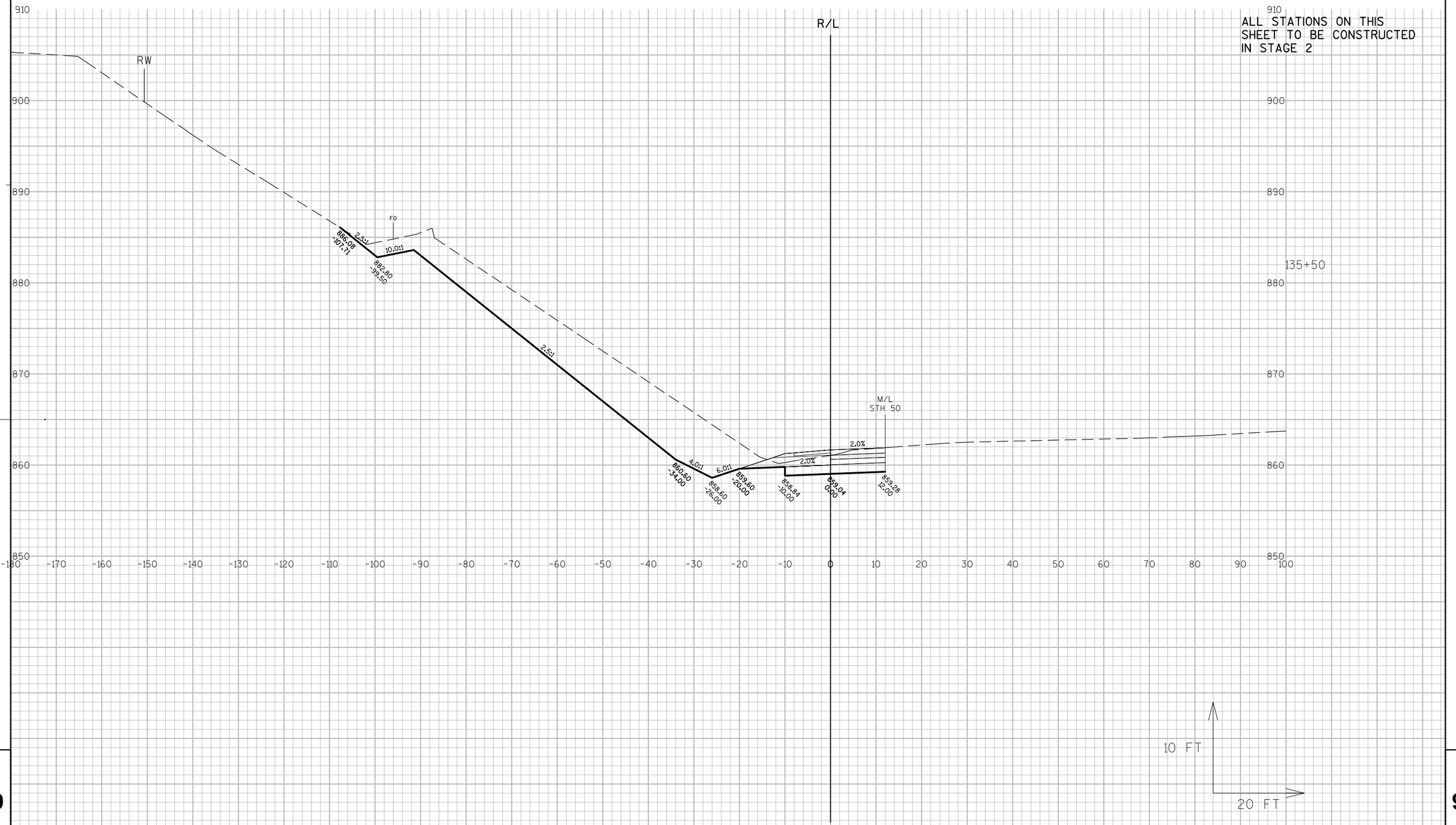
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 472	E

FILE NAME: T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:39 PM PLOT BY: CHRISTIAN_TINA_R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

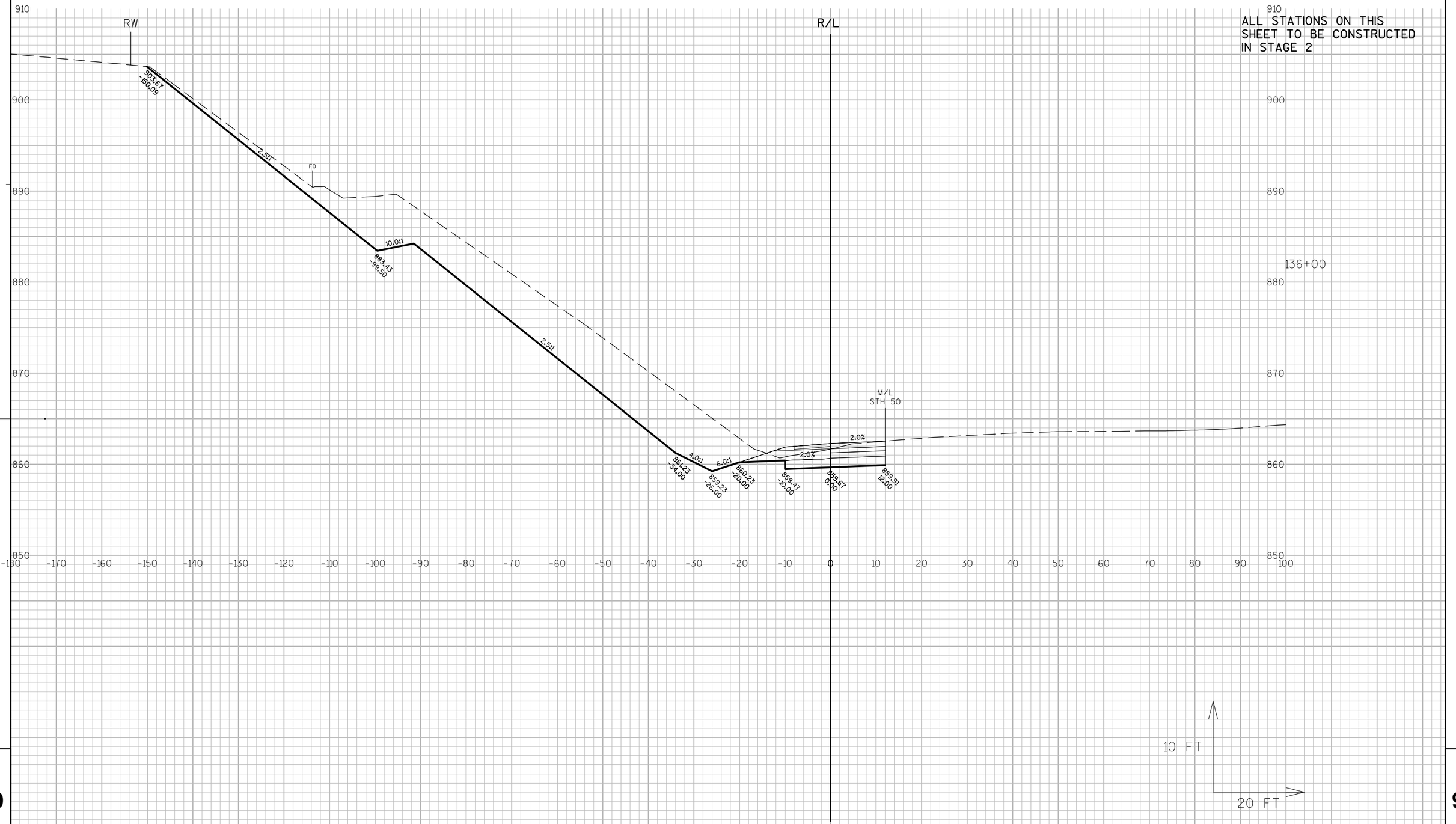


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 473	E

9

FILE NAME: T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLANS\090202_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:39 PM PLOT BY: CUTULAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 474	E

FILE NAME = T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLANS\090202_XS-RAMP_BD.DWG PLOT DATE = 10/30/2013 4:39 PM PLOT BY = CUTULAMA_TINA.B PLOT NAME = PLOT SCALE = 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

RW

R/L

M/L STH 50

F0

903.39 -147.28

2.5:1

10.0:1

884.07 -99.50

2.5:1

4.0:1

861.87 -34.00

6.0:1

859.87 -26.00

860.87 -20.00

2.0%

860.11 -10.00

2.0%

860.31 0.00

860.55 12.00

136+50

10 FT

20 FT

910 900 890 880 870 860 850

-180 -170 -160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 475	E

FILE NAME: T:\1083703\CADD\CIVIL3D\1080112001\SHEETSPLANS\080202_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:40 PM PLOT BY: CUTLLAMA_TTNA_B PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

RW

FG

901.28
-140.88

2.5:1

10.0:1

884.72
-98.50

2.5:1

4.0:1

862.52
-34.00

6.0:1

861.52
-26.00

860.52
-26.00

2.0%

2.0%

860.76
-16.00

860.96
0.00

861.20
16.00

R/L

M./L
STH 50

137+00

10 FT

20 FT

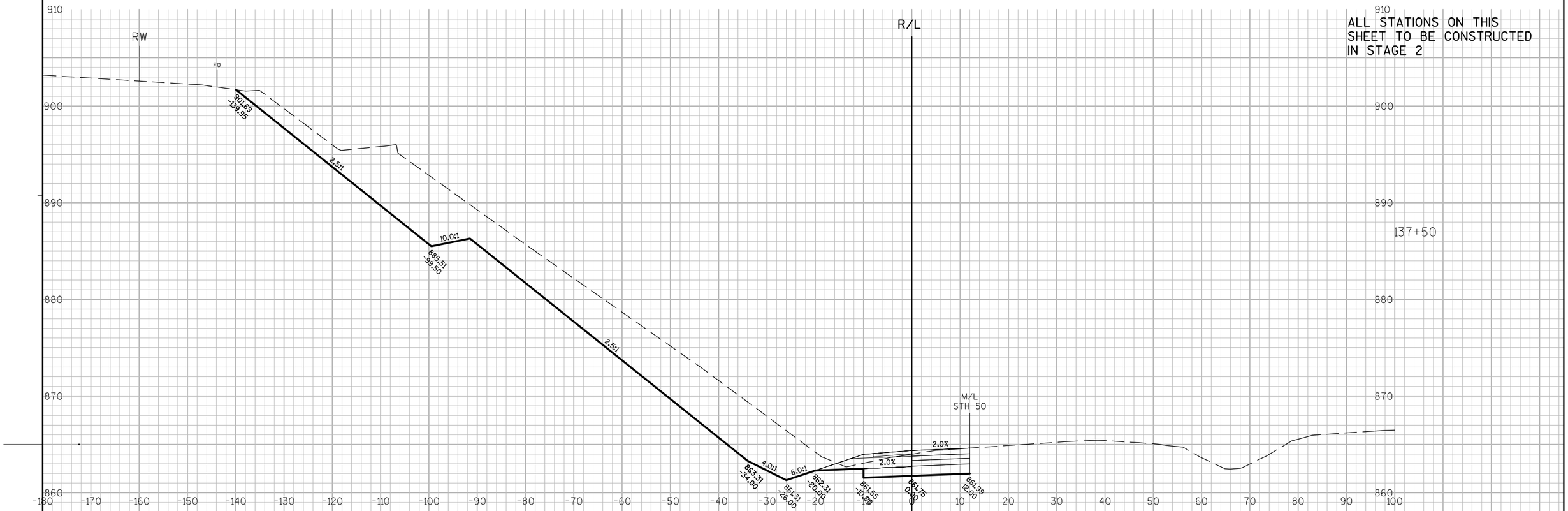
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME = T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\090202_XS-RAMP_BD.DWG PLOT DATE = 10/30/2013 4:40 PM PLOT BY = CUTLLAMA_TINA.B PLOT NAME = PLOT SCALE = 1" = 20' XREF XREF

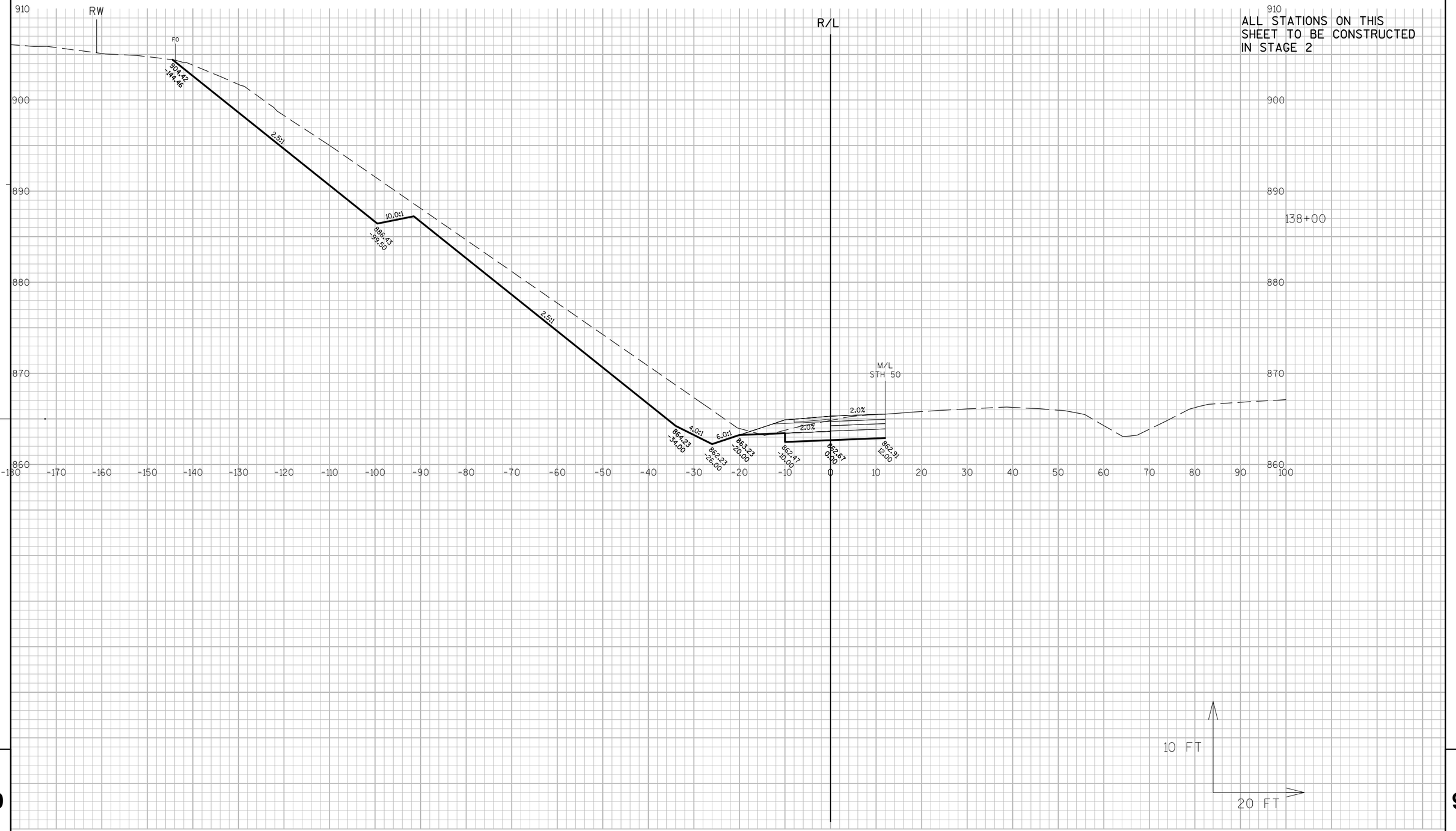
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 477	E

FILE NAME = T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE = 10/30/2013 4:41 PM PLOT BY = CUTLLAMA_TINA.B PLOT NAME = PLOT SCALE = 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



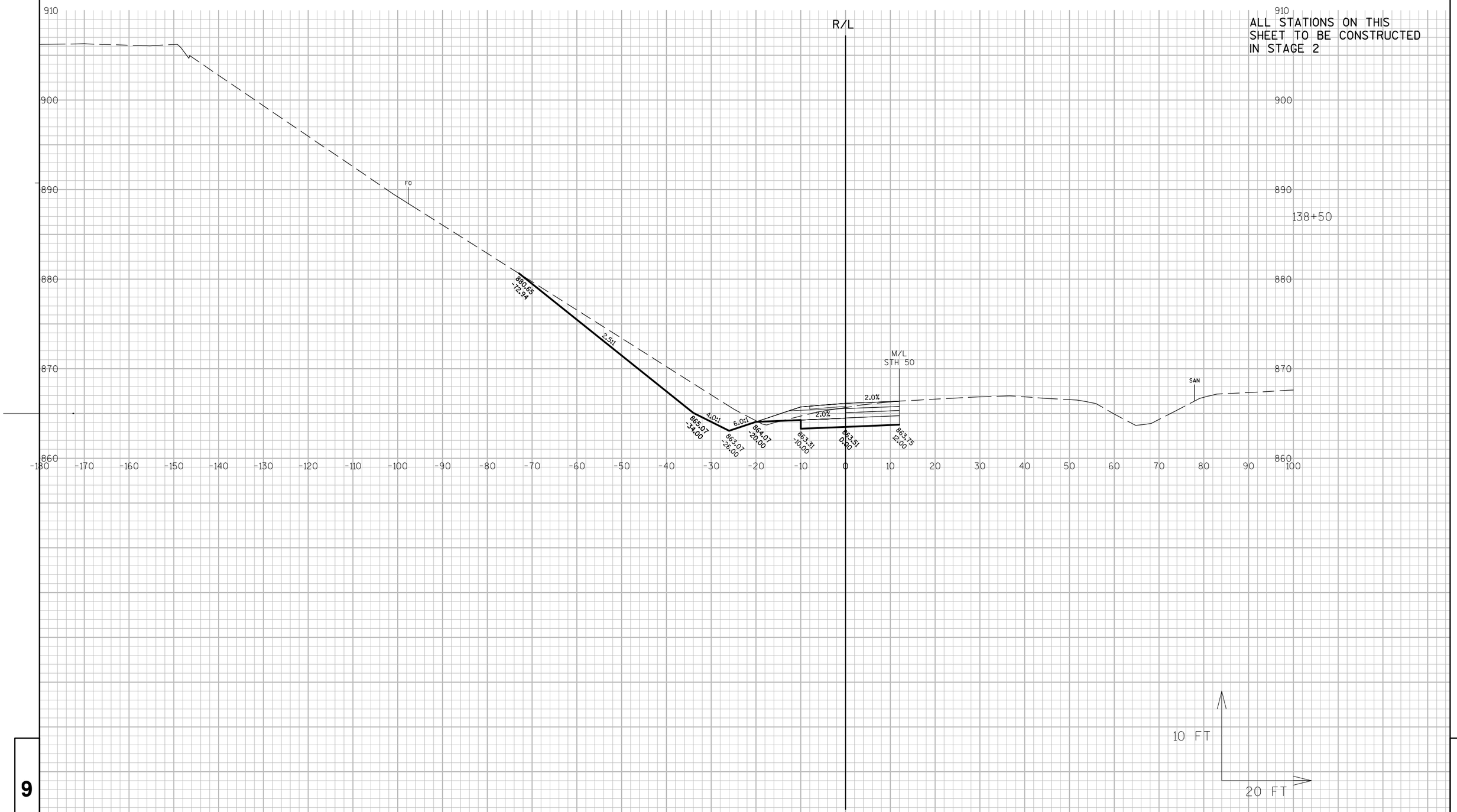
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME: T:\1083703\CADD\CIVIL 3D\1080112001\SHEETSPLANS\080202_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:41 PM PLOT BY: CUTLLAMA_TINA.B PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

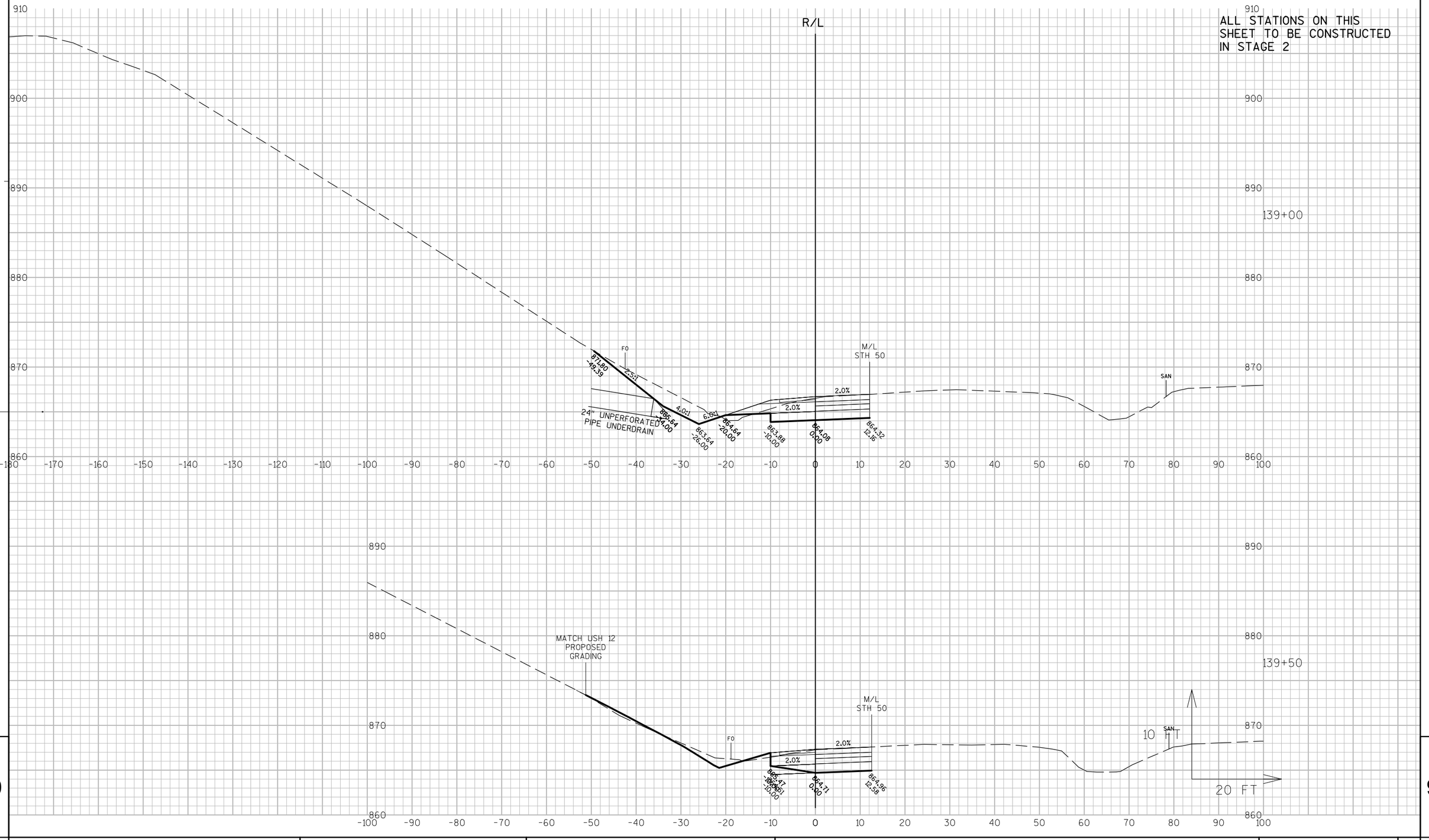
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 479	E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLANS\090202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:42 PM PLOT BY • CHRISTIANA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 480

FILE NAME = T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE = 10/30/2013 4:42 PM PLOT BY = CUTLLAMA_TTNA_P PLOT NAME = PLOT SCALE = 1.0000 XREF XREF

9 E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

MATCH USH 12 PROPOSED GRADING

R/L

M/L STH 50

FO

SAN

2.0%

2.0%

865.04 -10.00

865.29 0.00

865.55 13.01

140+00

B-64-187

864.30 -45.17

2.0%

1.5%

2.0%

865.67 -10.00

865.83 0.00

866.10 13.44

140+50

10 FT

20 FT

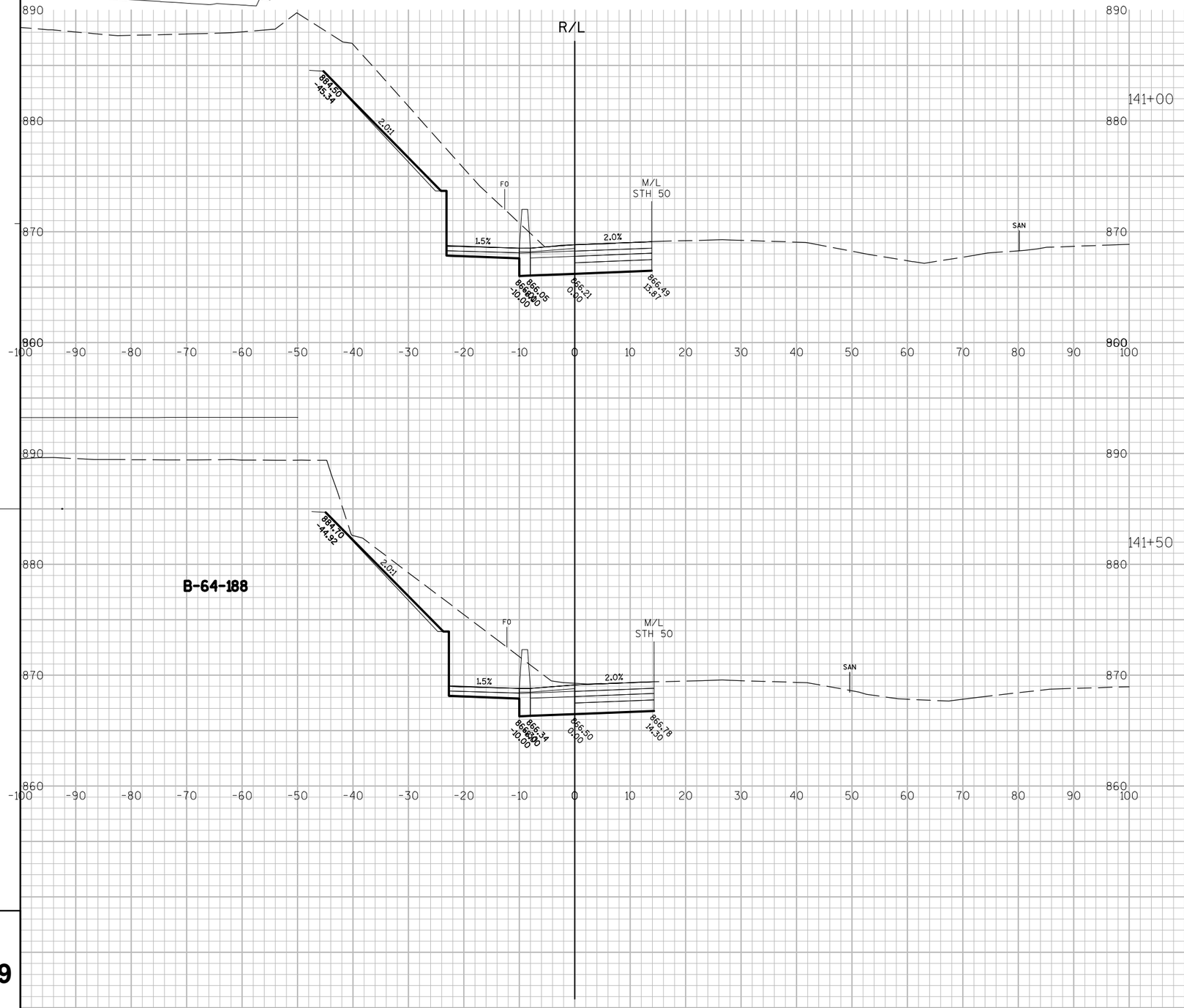
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLAN\090202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:42 PM PLOT BY • CUTLLAMA_TTNA_B PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

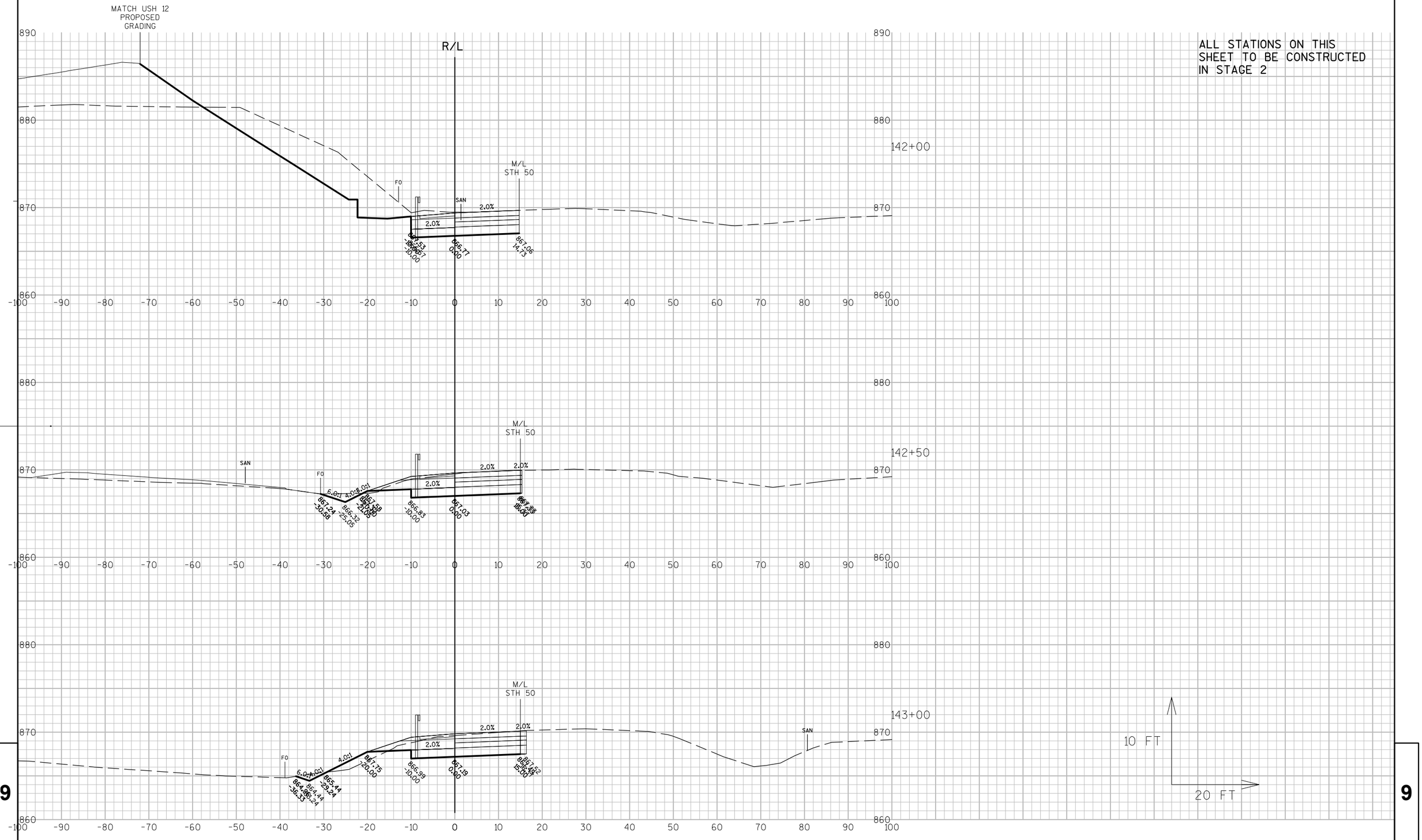
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:43 PM PLOT BY • CHRISTIANA TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

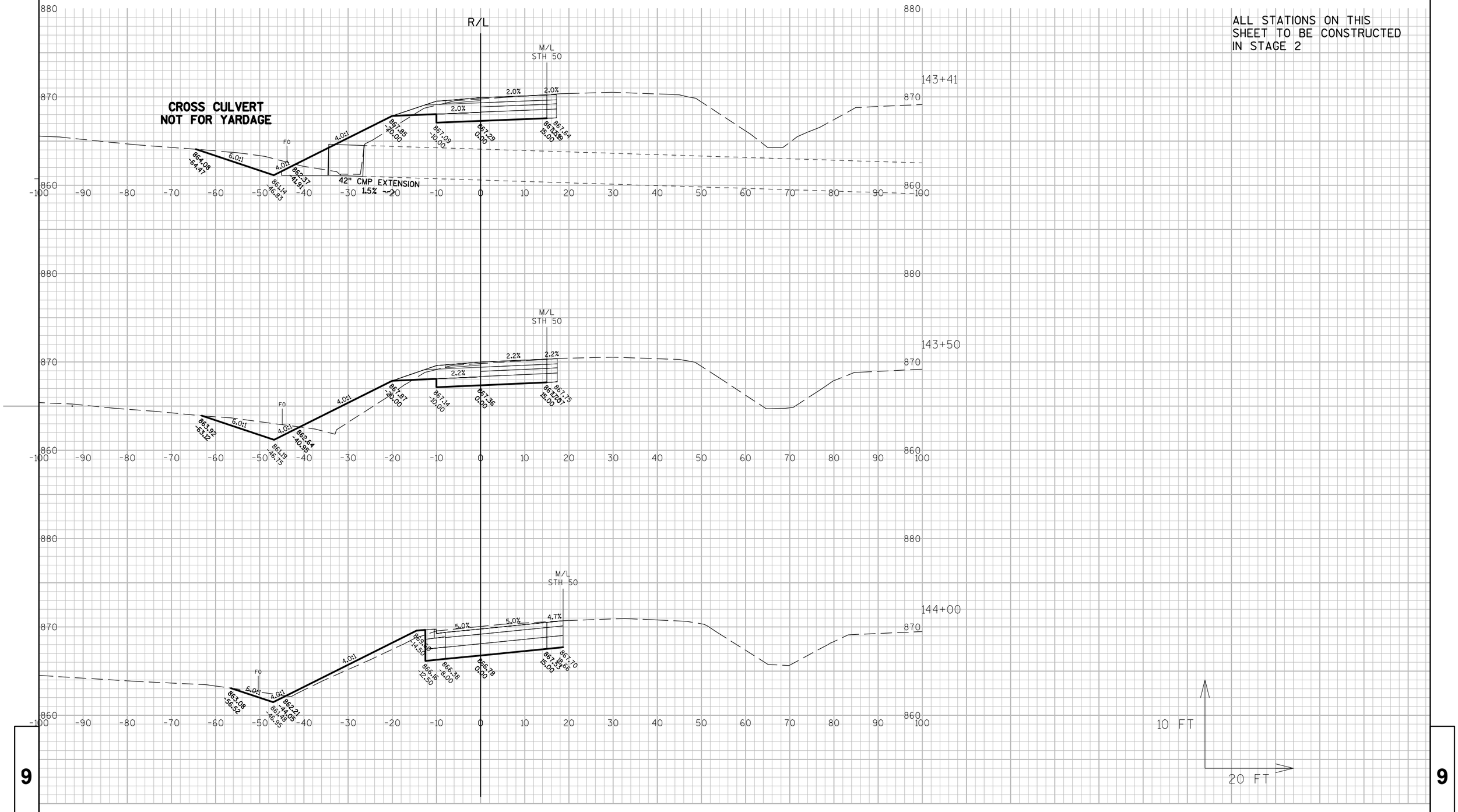
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 483	E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:43 PM PLOT BY • CHU LAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

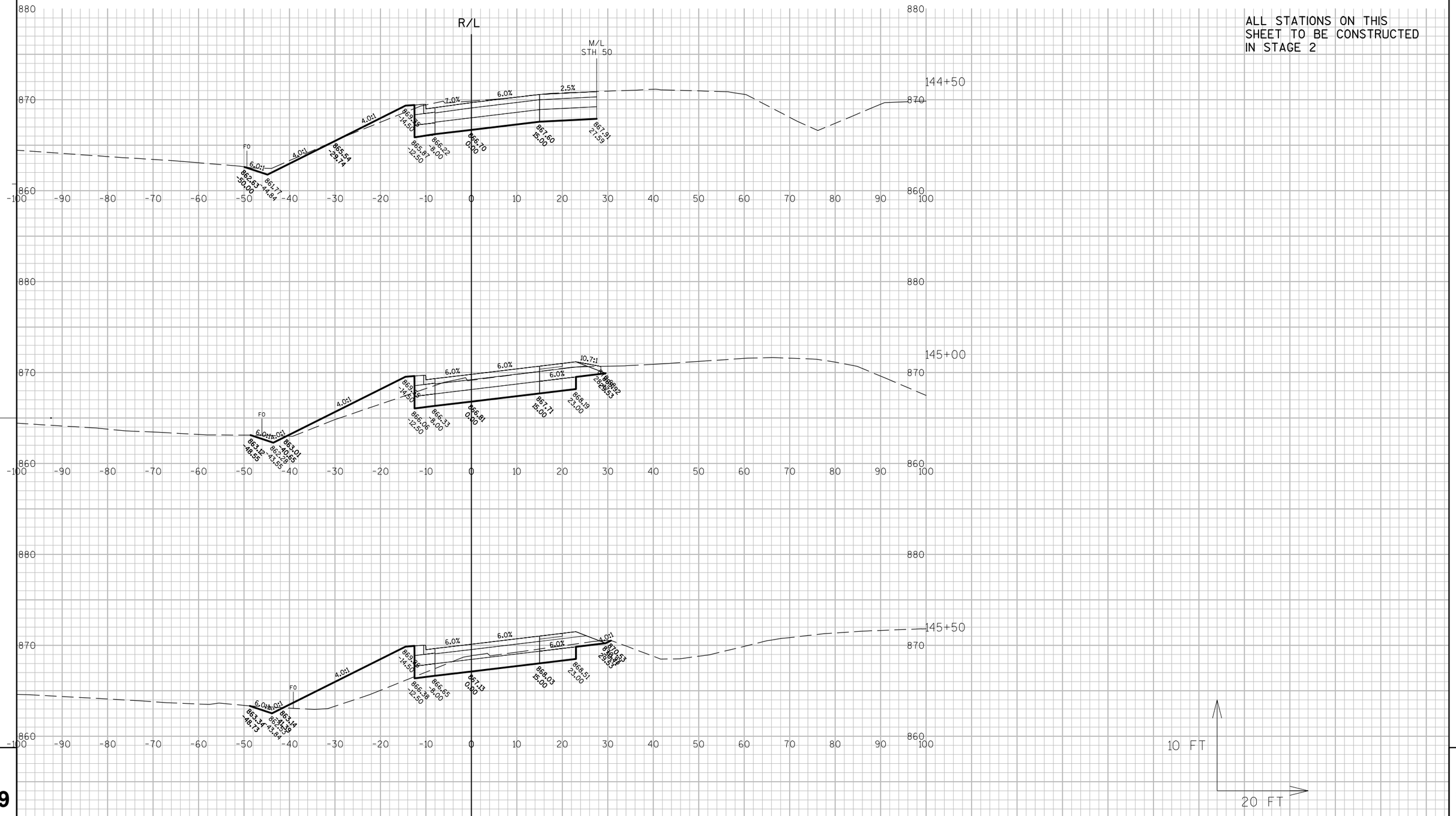
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080I200\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:44 PM PLOT BY • CUTLLAMA_TTNA_P PLOT NAME • PLOT SCALE • 1" = 20' XREF_XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

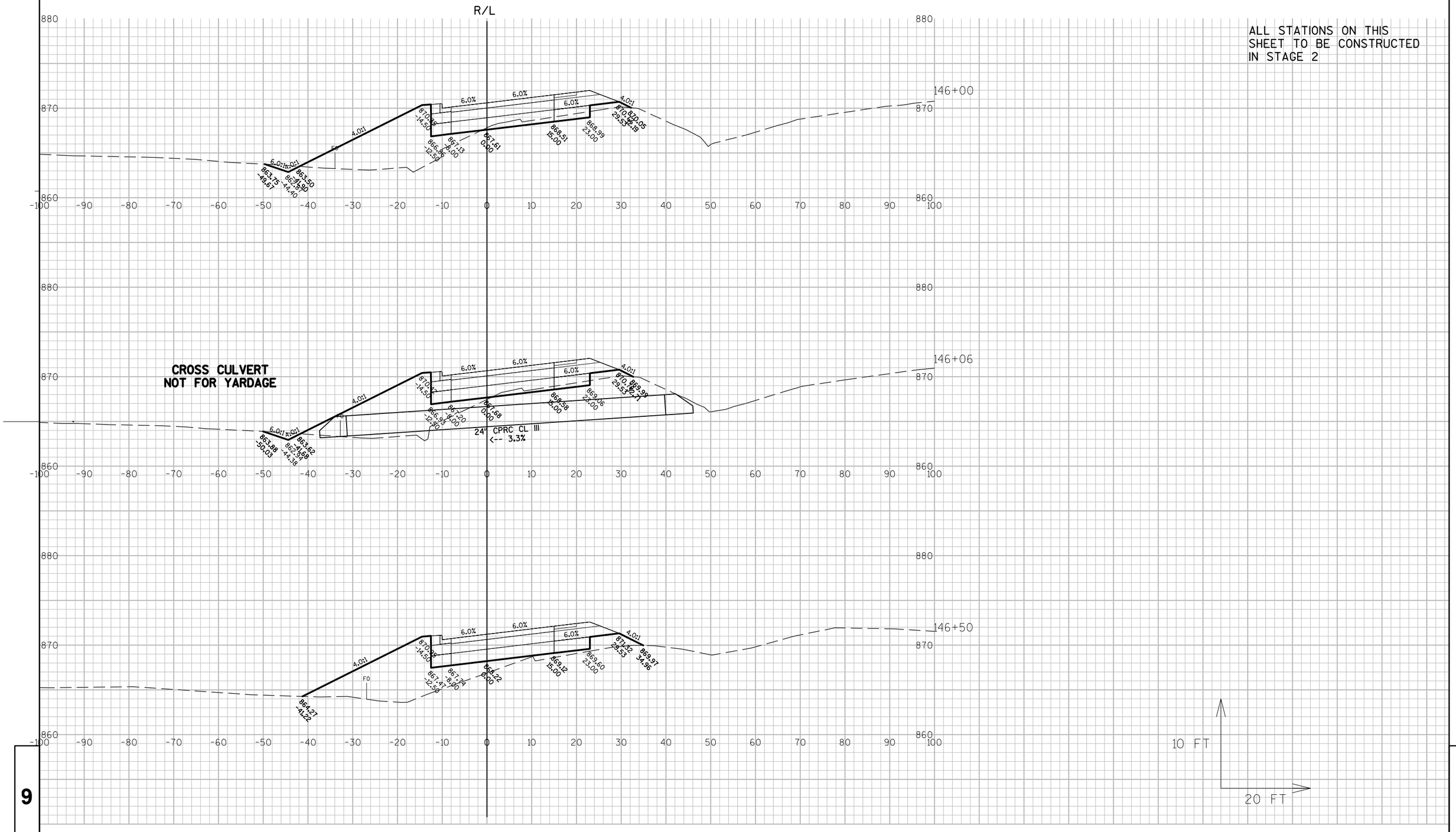


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 485 E

9

9

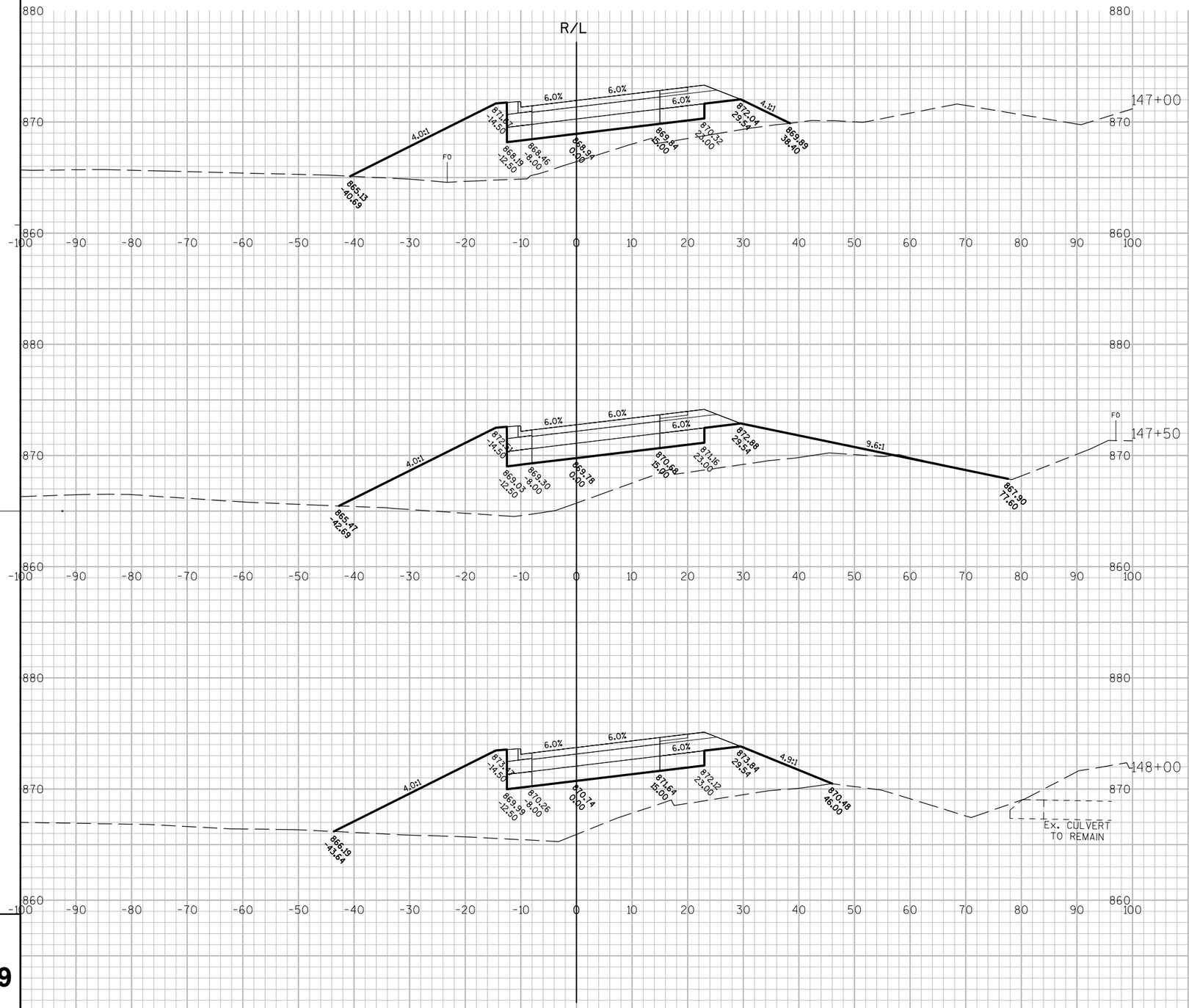
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME: T:\1082703\CADD\CIVIL3D\1080I200\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:44 PM PLOT BY: CUTLLAMA_TTNA PLOT NAME: PLOT SCALE: 1" = 20' XREF: XREF

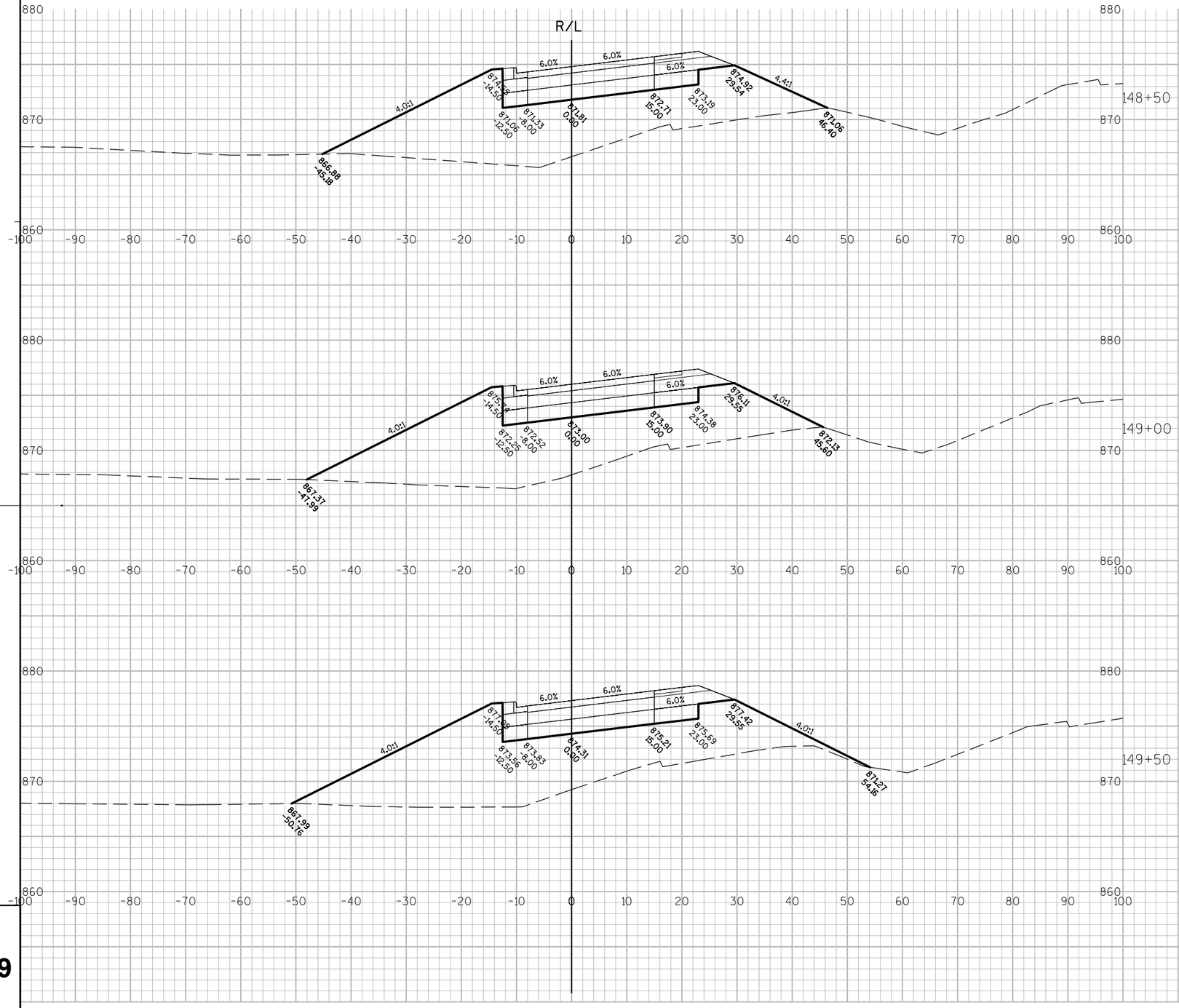
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 487	E

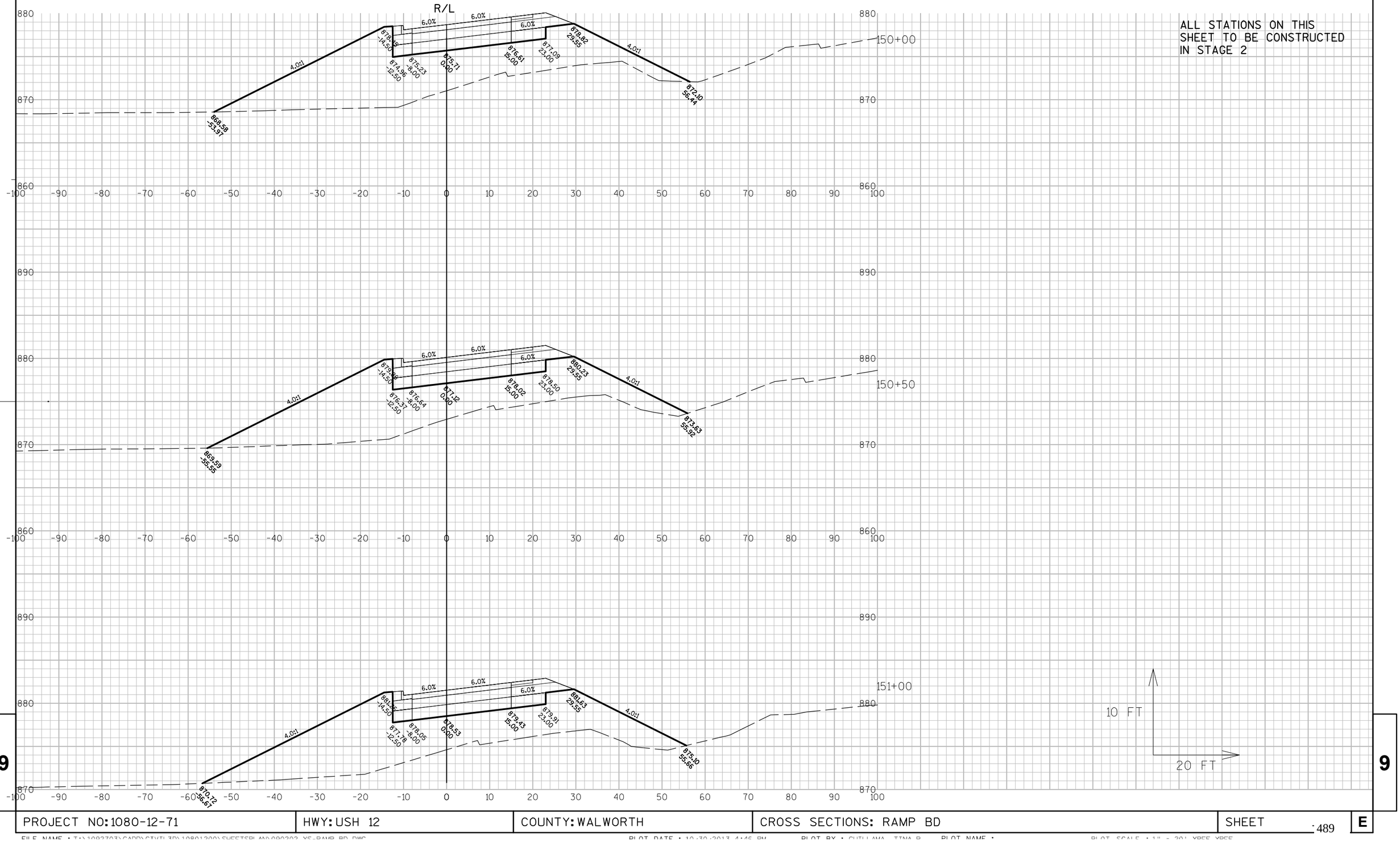
FILE NAME • T:\1092703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLAN\080202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:46 PM PLOT BY • CUTLAMA_TTNA PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

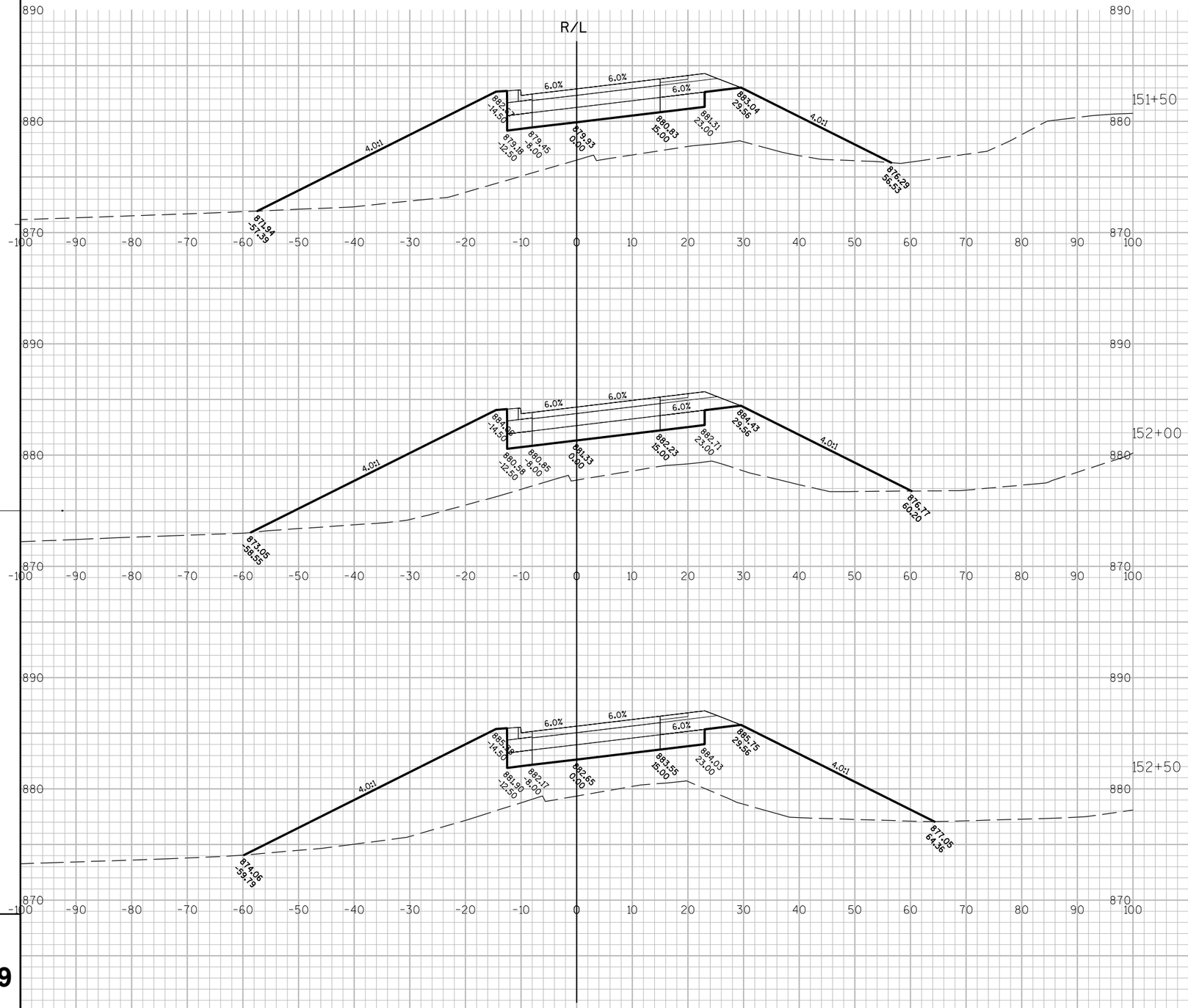
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080-12-00\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:46 PM PLOT BY • CHRISTIAN TINA P PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

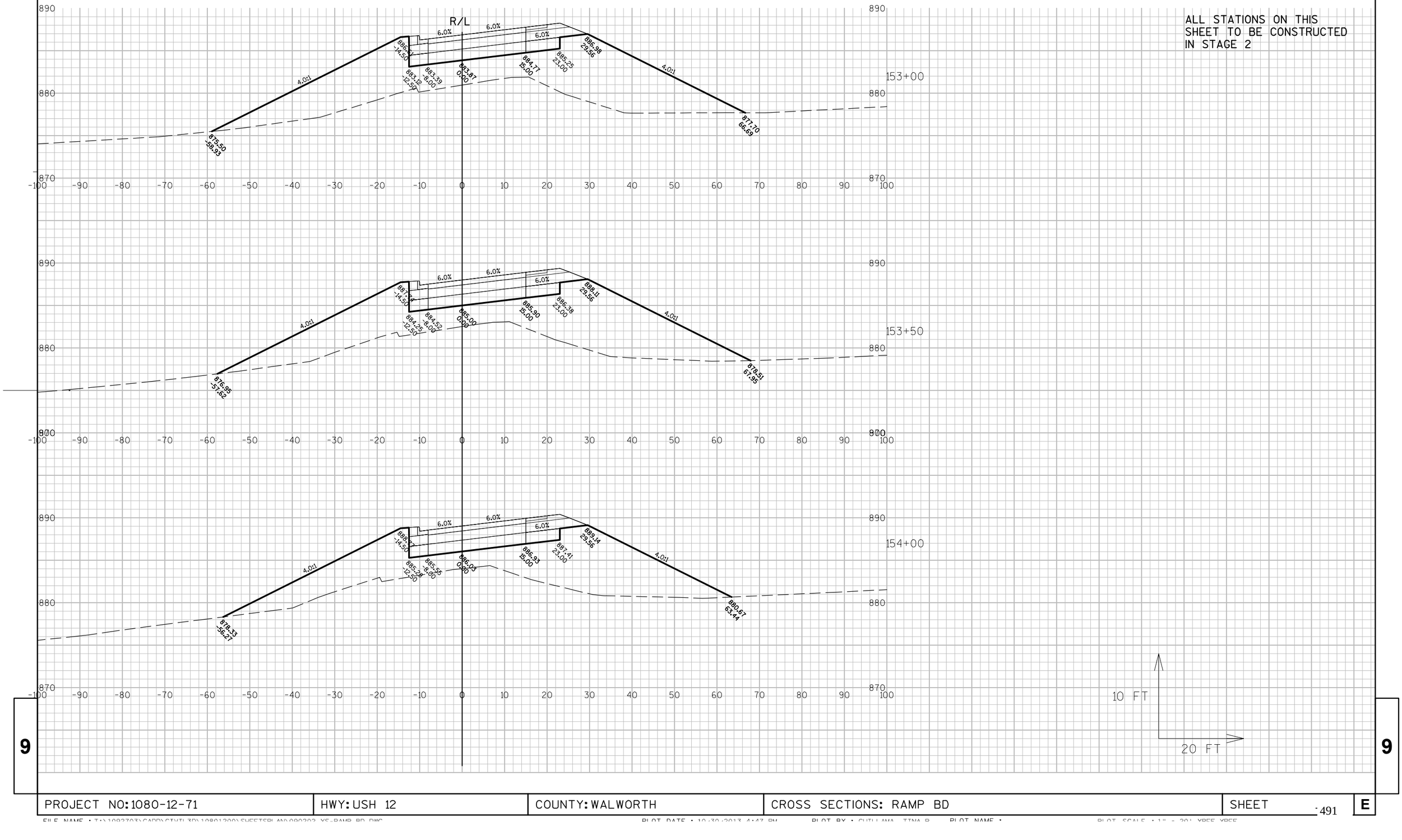
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 490	E

FILE NAME • T:\1092703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLAN\080202_XS_RAMP_BD.DWG PLOT DATE • 10/30/2013 4:46 PM PLOT BY • CUTLAMA_TTNA PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

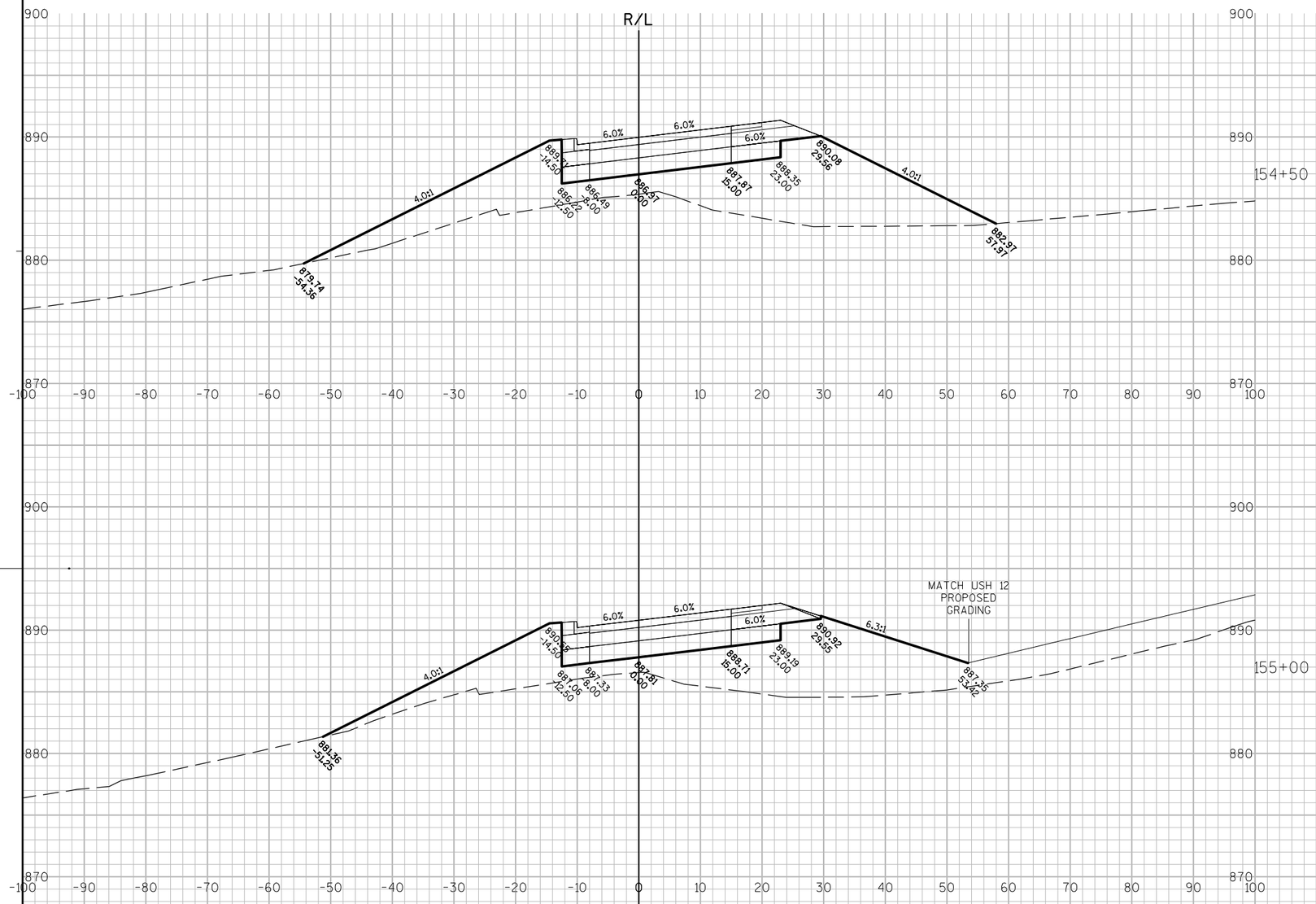
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2

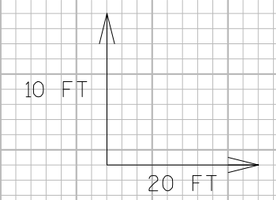


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET 491 E

FILE NAME • T:\1092703\CADD\CIVIL 3D\1080120@\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:47 PM PLOT BY • CUTLLAMA_TTNA_P PLOT NAME • PLOT SCALE • 1" = 20' YREF YREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2





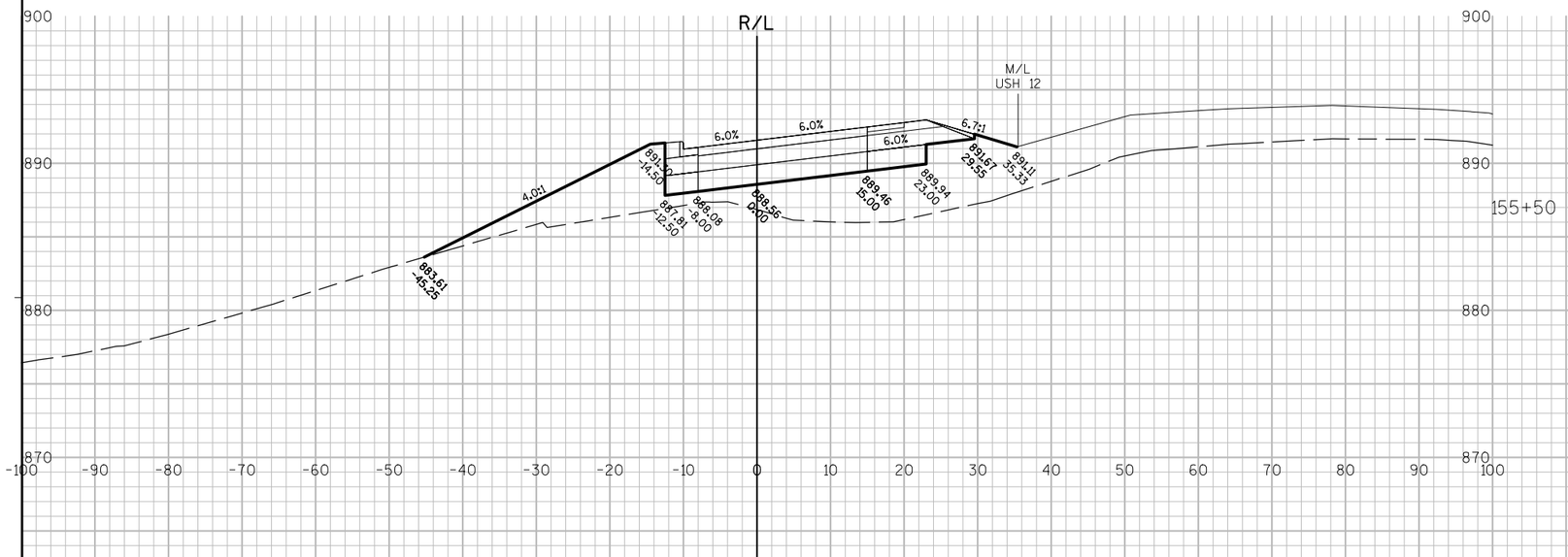
9

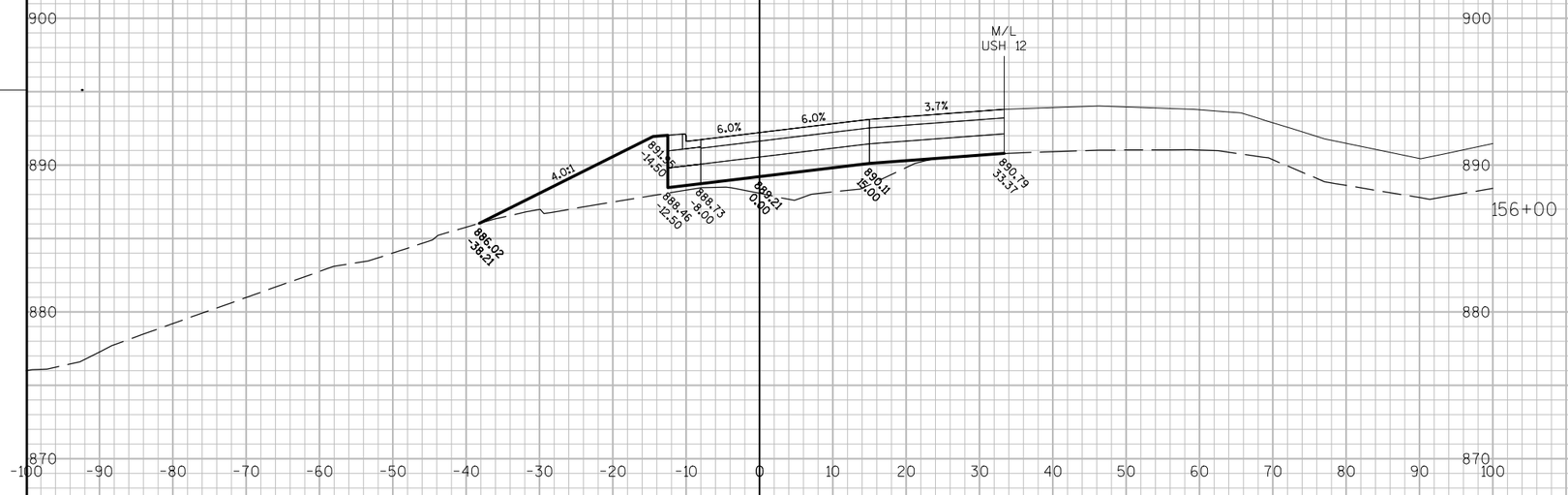
9

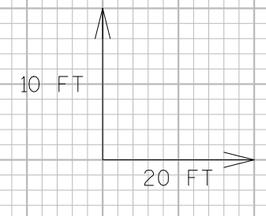
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLANS\080203_XS-RAMP_BD.DWG PLOT DATE • 10/30/2013 4:47 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2







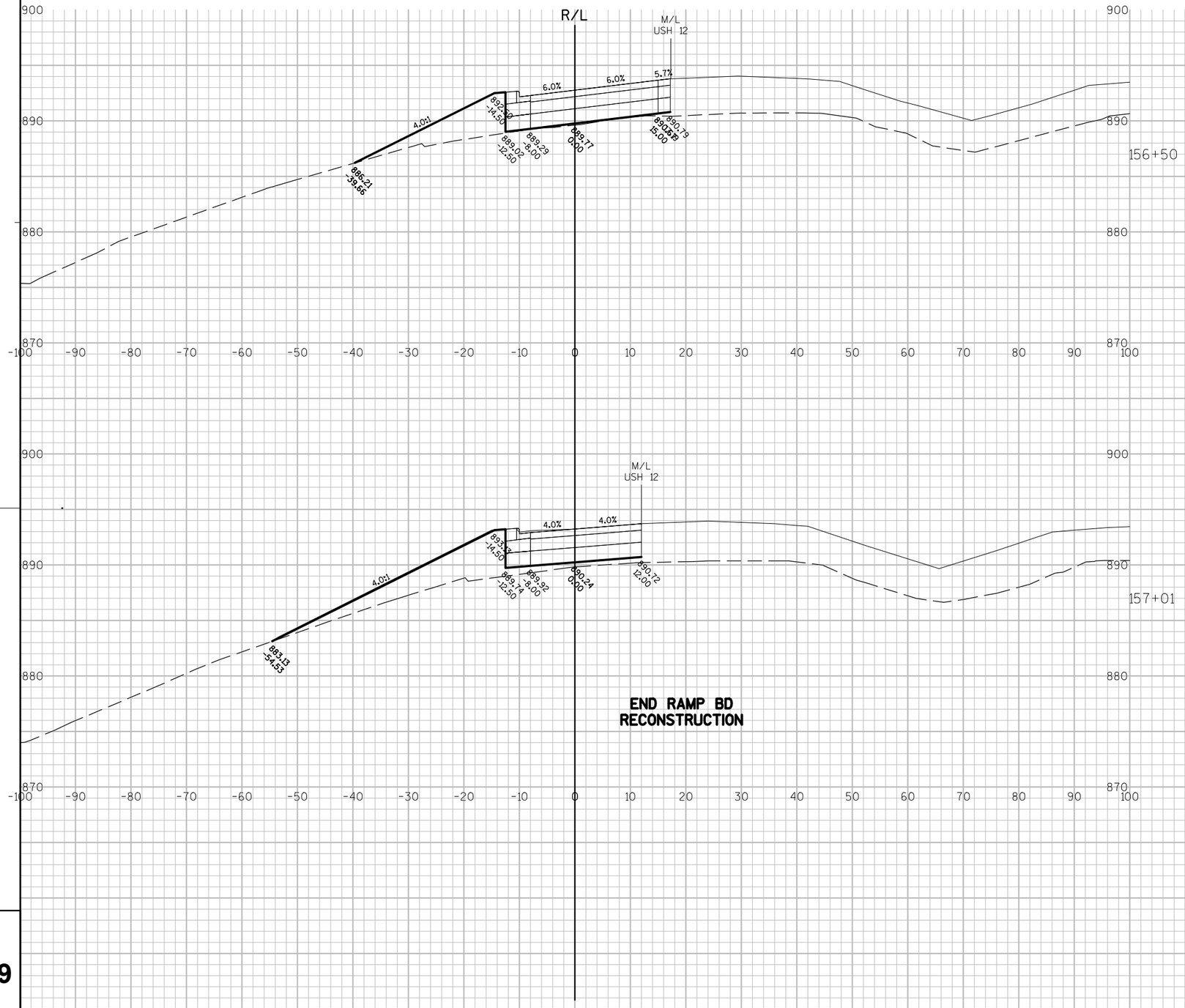
9

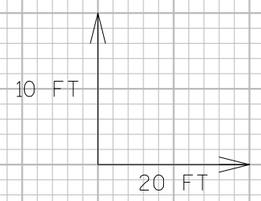
9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME: T:\p1092703\CADD\CIVIL3D\1080\1200\SHEETSPLAN\080202_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:47 PM PLOT BY: CUTLLAMA_TINA_B PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 2





9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP BD	SHEET	E

FILE NAME: T:\10823703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLANS\080203_XS-RAMP_BD.DWG PLOT DATE: 10/30/2013 4:48 PM PLOT BY: CUTLLAMA_TINA_R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

M/L
USH 12

R/L

4.1%

4.0%

886.83
12.00

886.33
0.00

886.01
8.00

885.83
12.50

888.23
14.50

3.9:1

871.73
59.50

262+10

BEGIN RAMP AC RECONSTRUCTION

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

M/L
USH 12

10.5%

6.0%

6.0%

886.47
12.00

885.57
0.00

885.05
8.00

884.82
12.50

888.31
14.50

5.0:1

884.62
32.90

262+50

10 FT

20 FT

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME: T:\1082703\CADD\CIVIL3D\1080120\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE: 10/30/2013 4:48 PM PLOT BY: CUTLLAMA_TTNA_P PLOT NAME: PLOT SCALE: 1" = 20' XREF: XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

M/L
USH 12

R/L

4.4%
6.0%
6.0%
5.5:1
886.05 -28.78
885.45 -15.00
884.55 0.00
884.05 8.00
883.80 12.50
887.28 14.50
883.50 35.30

263+00

M/L
USH 12

16.4:1
6.0%
6.0%
6.0%
5.4:1
887.11 -35.03
886.57 -29.55
884.85 -23.00
884.37 -15.00
883.47 0.00
882.95 8.00
882.72 12.50
886.20 14.50
882.13 36.50

263+50

890
880
870
860

-160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

10 FT
20 FT

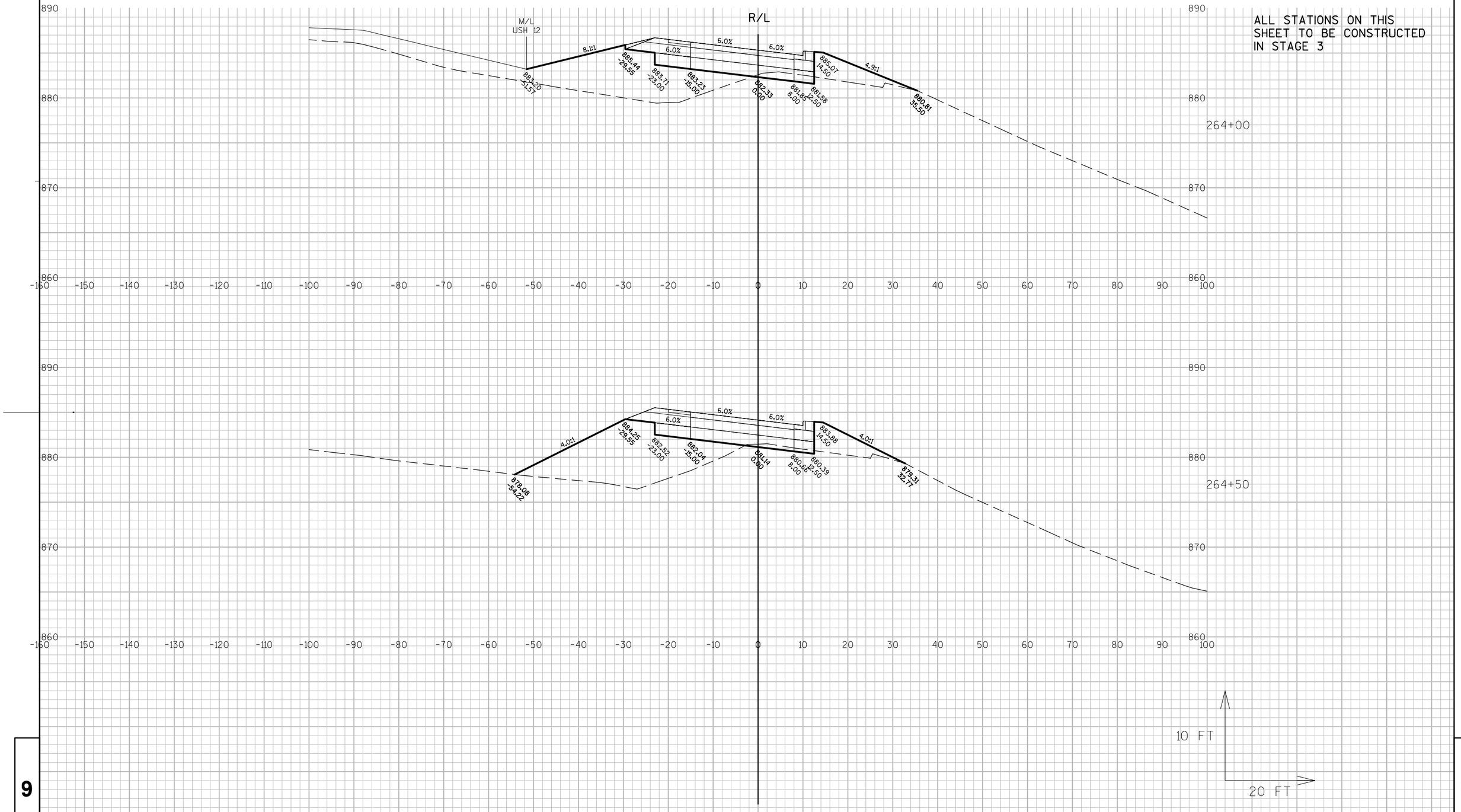
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 496	E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\090203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:49 PM PLOT BY • CHRISTIANA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



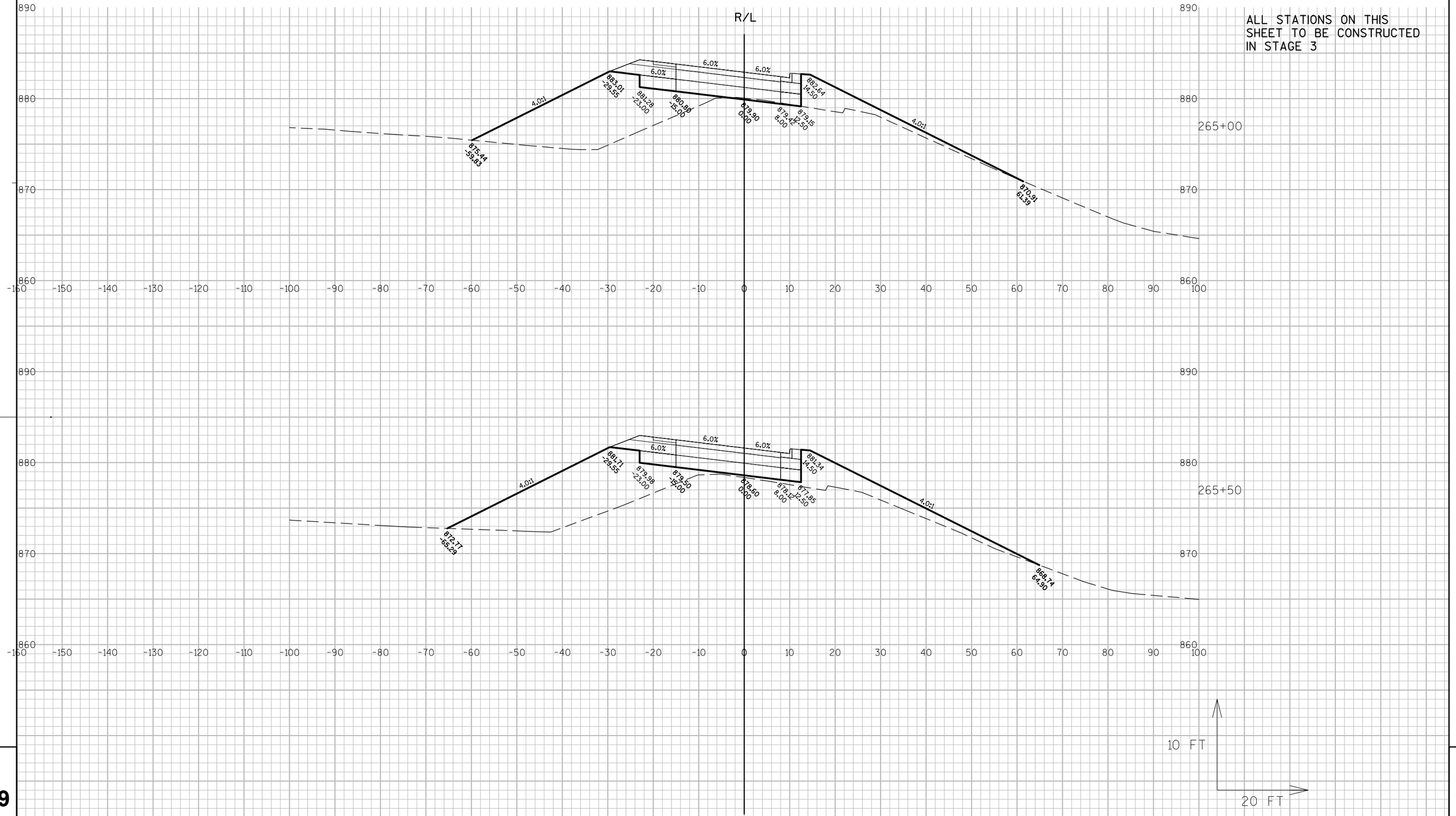
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:50 PM PLOT BY • CUTLLAMA_TINA_B PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

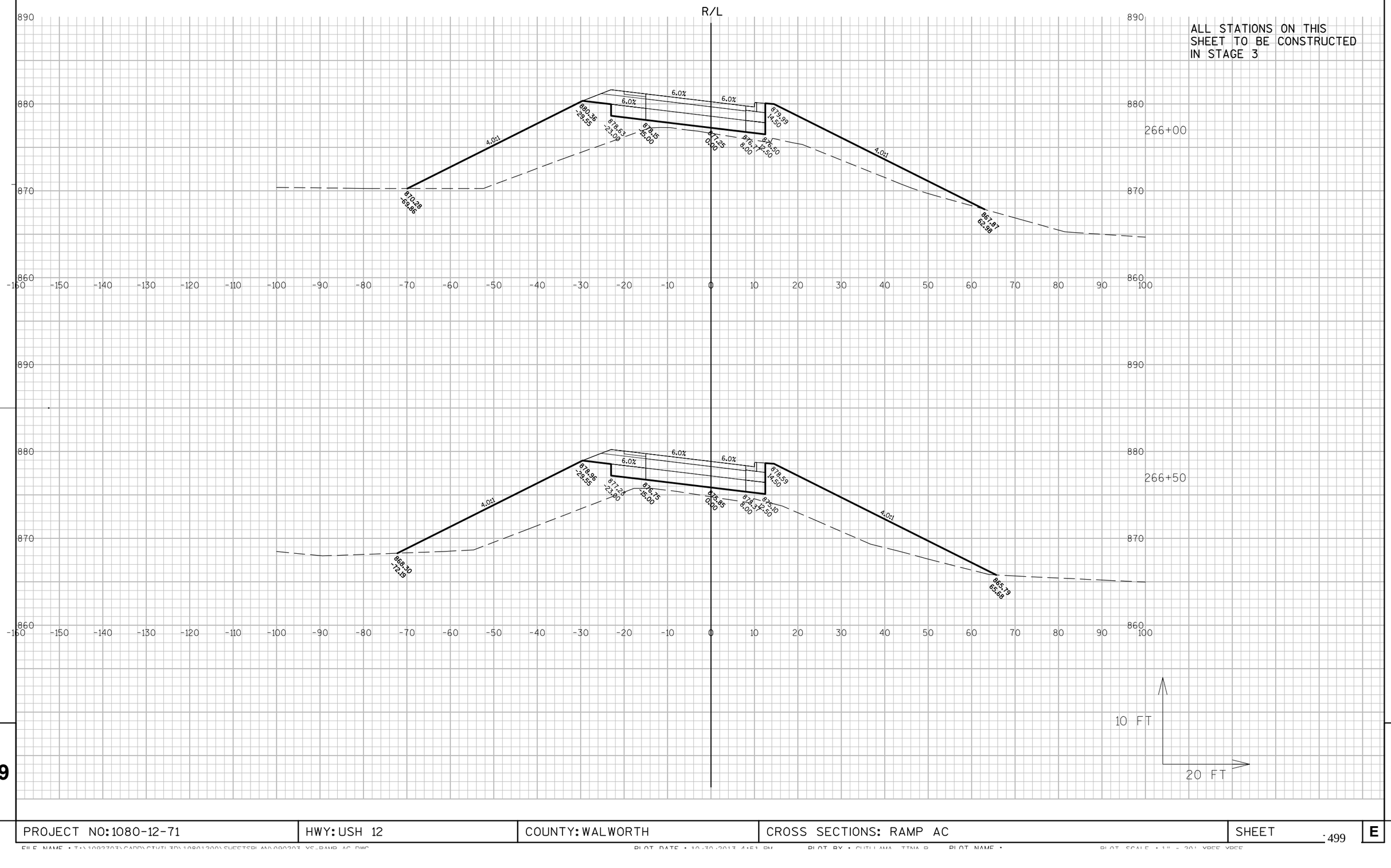
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLAN\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:50 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

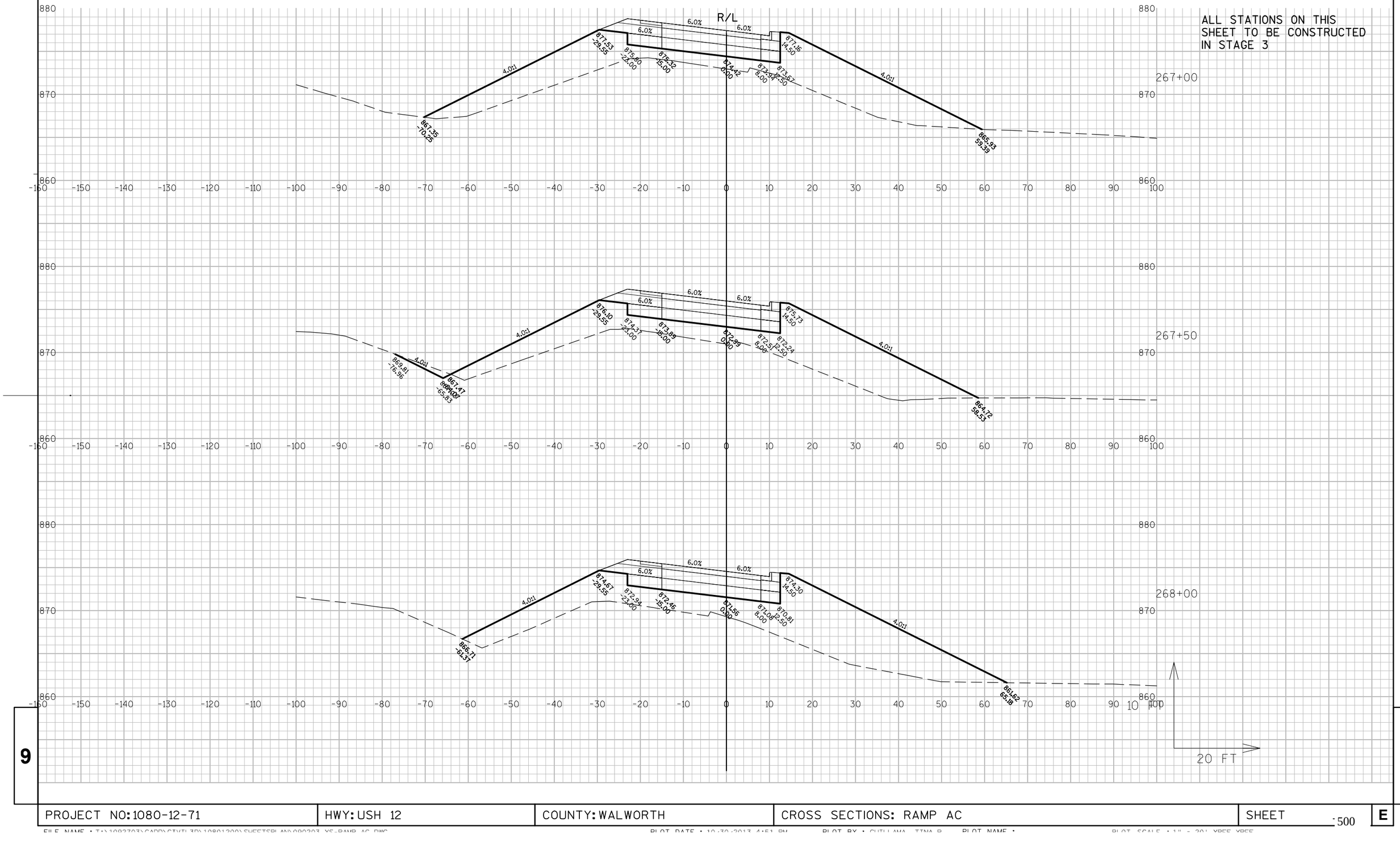
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLANS\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:51 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

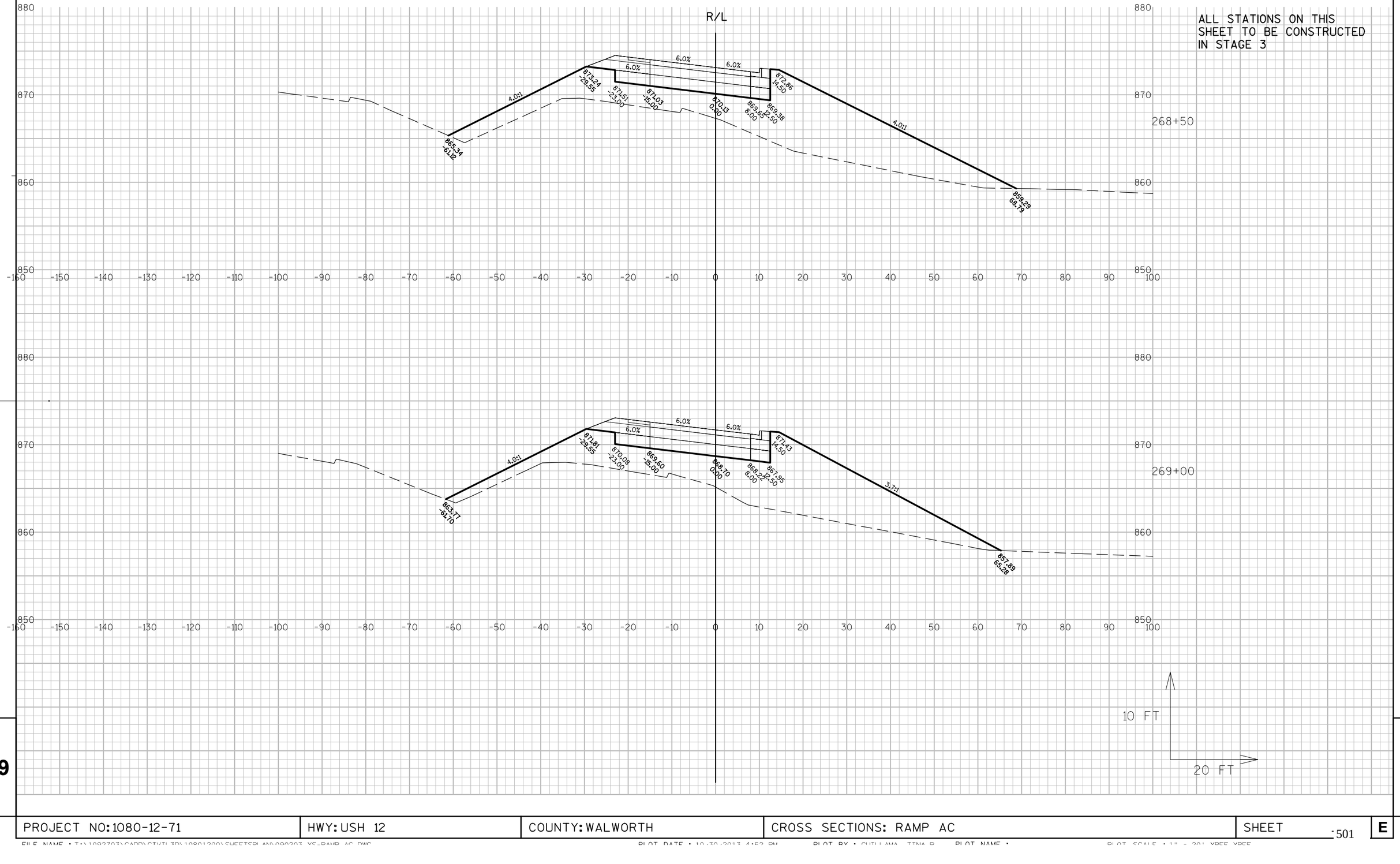


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 500	E

FILE NAME • T:\1082703\CADD\CIVIL3D\1080I200\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:51 PM PLOT BY • CUTLLAMA_TTNA.P PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

9 9

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080120@\SHEETSPLANS\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:52 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

R/L

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

269+50

6.0%
6.0%
6.0%
3:1
3:1
870.37
-29.55
868.65
-25.00
868.17
-15.00
867.27
0.00
866.77
8.00
866.52
14.50
870.00
14.50
865.73
-53.90
856.23
59.28

270+00

WETLAND

6.0%
6.0%
6.0%
5:1
3:1
868.94
-29.55
867.22
-25.00
866.74
-15.00
865.84
0.00
865.34
8.00
865.09
14.50
868.57
14.50
865.64
-46.40
855.06
55.03

10 FT
20 FT

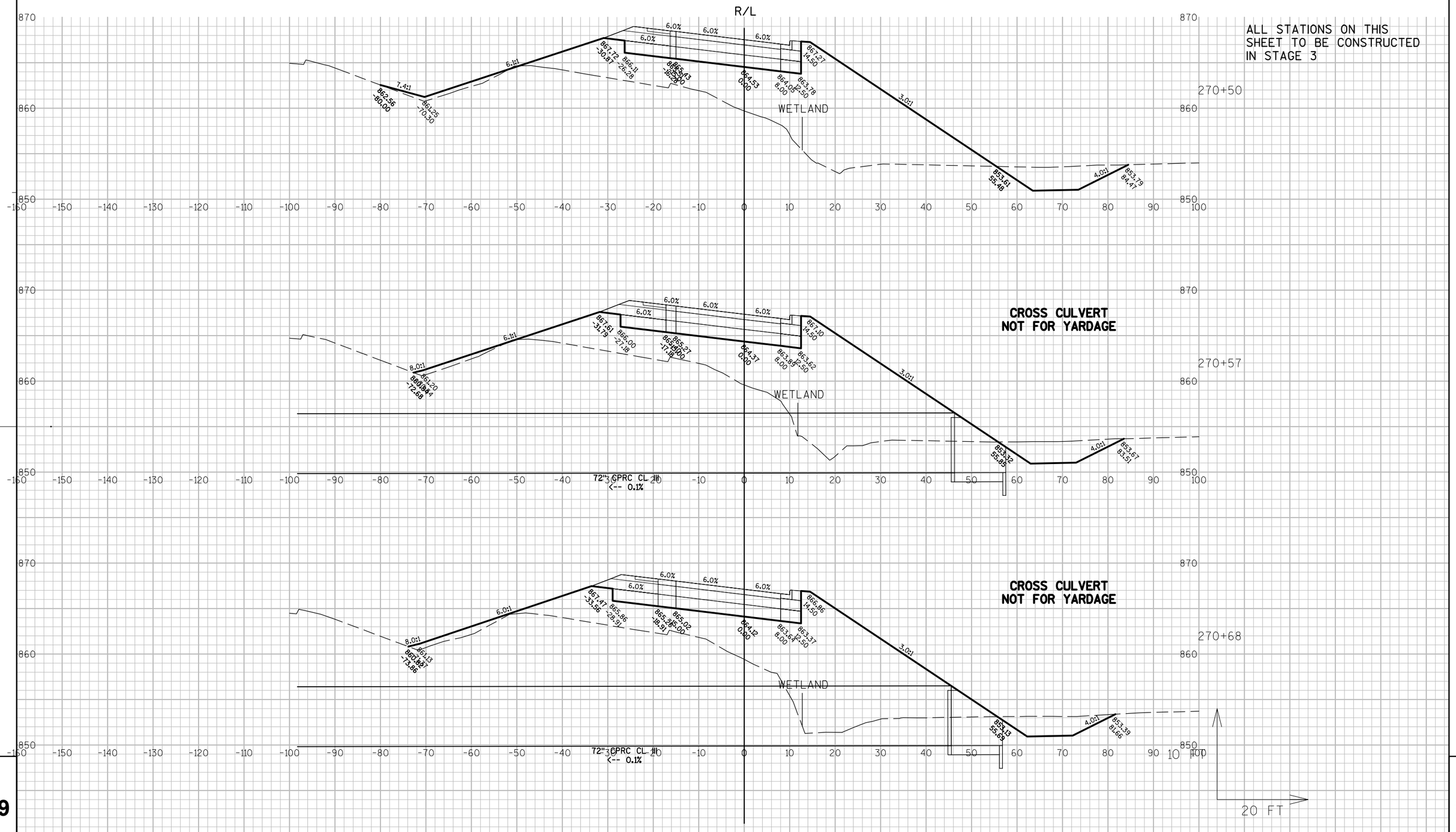
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080120071\SHEETSPLANS\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:52 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET E

FILE NAME = T:\1083703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE = 10/30/2013 4:53 PM PLOT BY = CUTLLAMA_TTNA PLOT NAME = PLOT SCALE = 1' = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

R/L

6.0% 6.0% 6.0% 6.0%

9.3:1 5.4:1 3.0:1

862.63 -90.00 | 860.93 -74.19 | 867.22 -40.19 | 865.61 -35.98 | 865.01 -25.38 | 864.38 -15.00 | 863.48 0.00 | 863.00 8.00 | 862.73 14.50 | 866.21 14.50 | 851.53 52.55

WETLAND

271+00

M/L RAMP AD

6.0% 6.0% 6.0%

GAS

864.03 -15.00 | 863.13 0.00 | 862.63 8.00 | 862.38 14.50 | 865.87 14.50 | 854.50 48.50

MATCH RAMP AD

WETLAND

271+20

M/L RAMP AD

6.0% 6.0% 6.0%

853.65 -19.25 | 863.58 -15.00 | 862.68 0.00 | 862.25 8.00 | 861.93 14.50 | 865.41 14.50 | 855.60 43.97

WETLAND

GAS

271+50

10

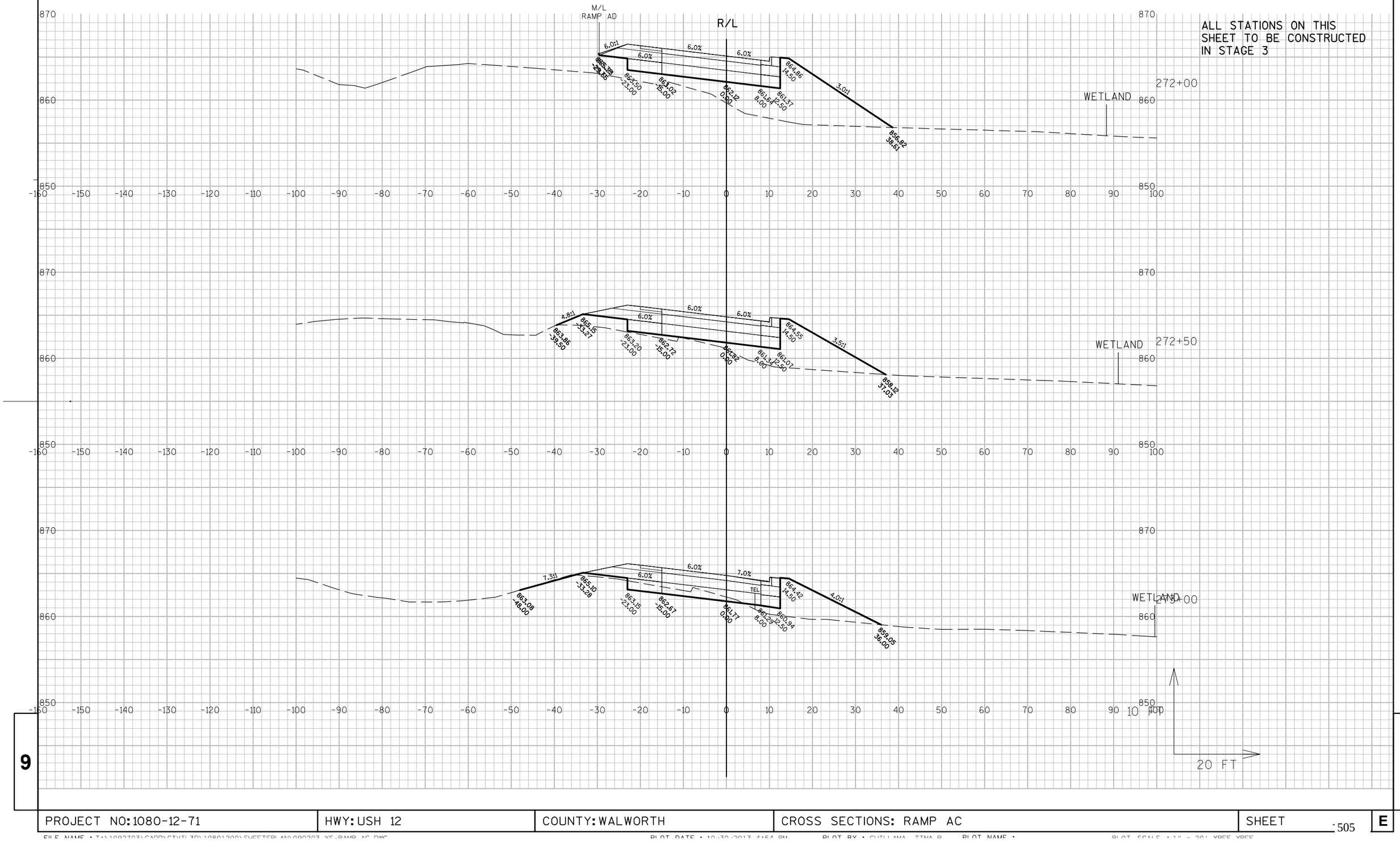
20 FT

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 504	E

FILE NAME: T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE: 10/30/2013 4:53 PM PLOT BY: CUTLLAMA_TTNA PLOT NAME: PLOT SCALE: 1" = 20' XREF: XREF

9 9

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

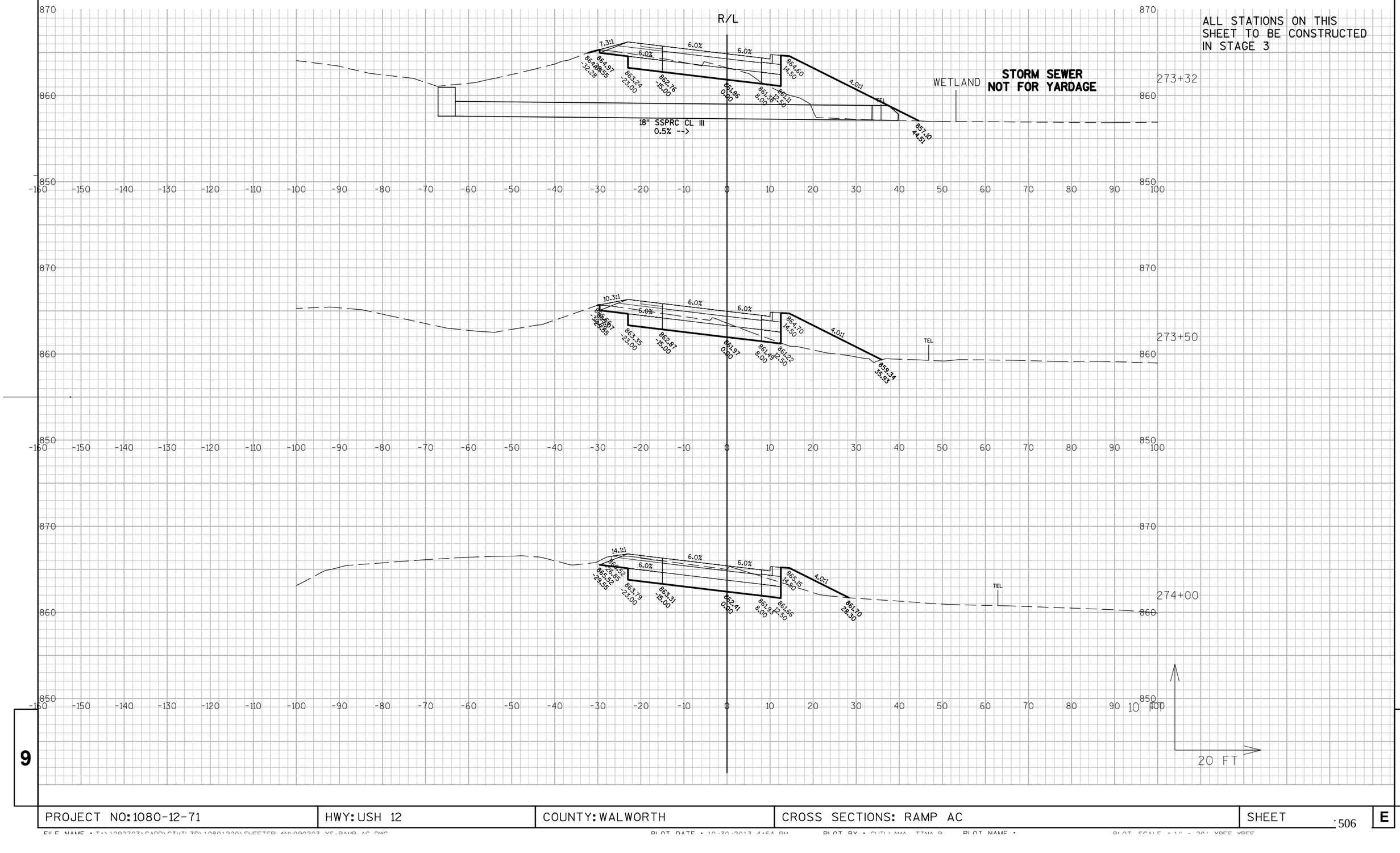


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 505 E

FILE NAME • T:\1083703\CADD\CIVIL3D\1080\1200\SHEETSPLANS\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:54 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

9 9

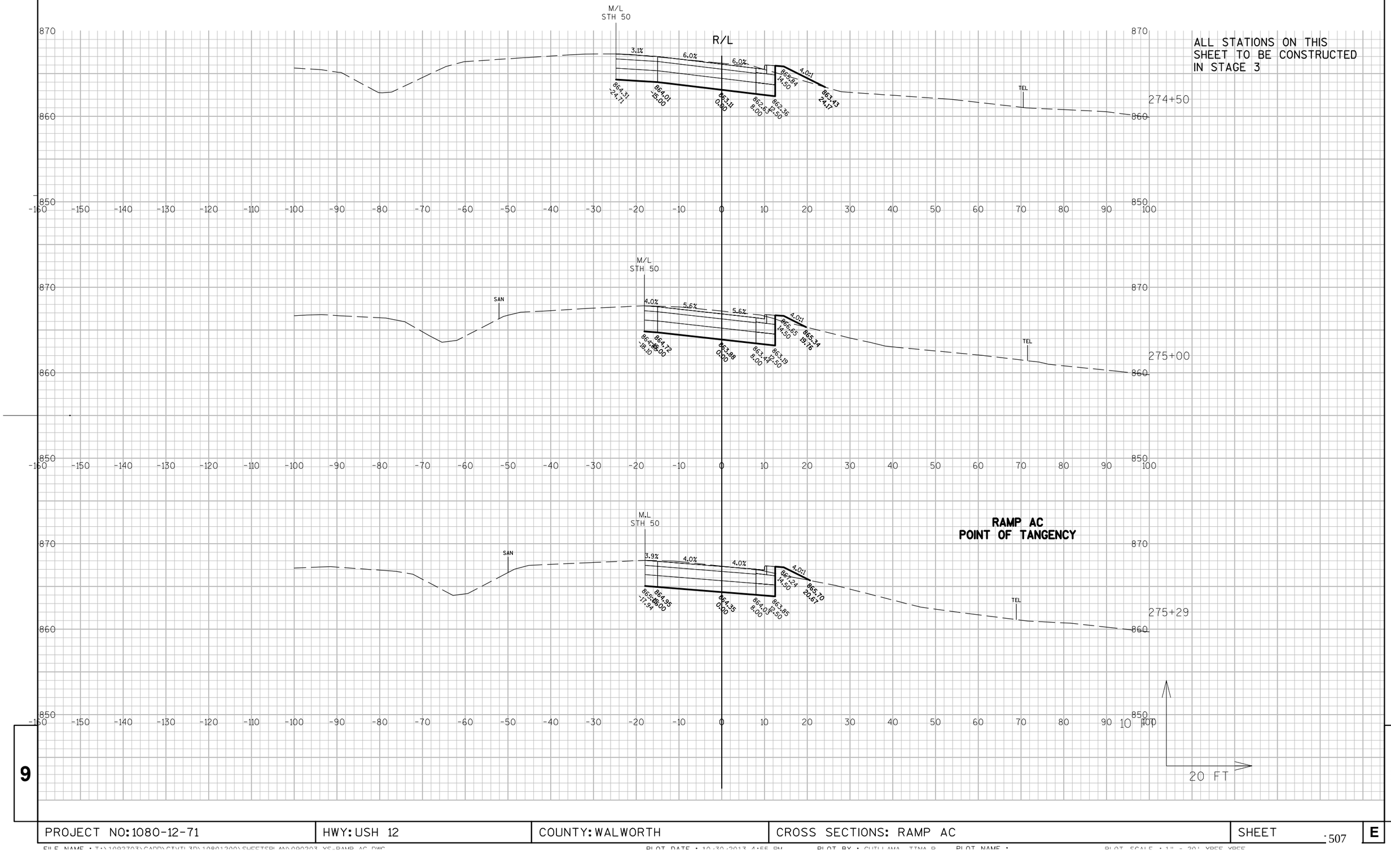
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080112001\SHEETSPLANS\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:54 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

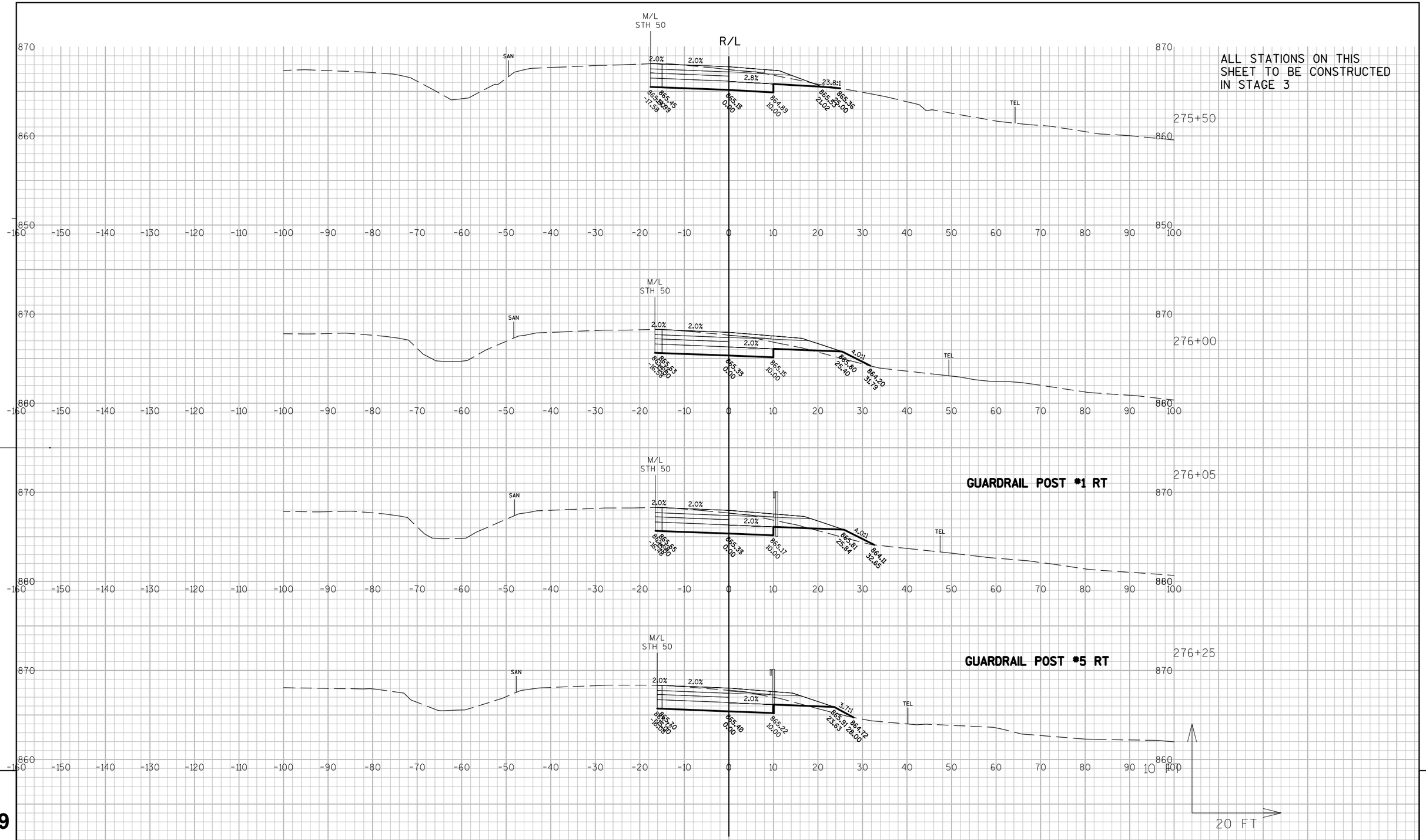
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 507	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080120\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:55 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 508	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\1080120\SHEETS\PLANS\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:55 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

276+50

GUARDRAIL POST #9 RT

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

M/L STH 50

R/L

SAN

TEL

2.0%

865.62 -15.00

865.35 0.00

865.15 10.00

865.73 28.92

MATCH USH 12 PROPOED GRADING

B-64-187

277+00

865.89 -14.58

865.85 0.00

865.65 8.00

865.45 10.00

277+50

882.58 45.64

1.5%

1.9%

865.42 13.58

865.84 0.00

865.64 8.00

865.80 10.00

20 FT

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME • T:\...\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:56 PM PLOT BY • CUTLLAMA_TINA_B PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

R/L

278+00

M/L STH 50

SAN

TEL

2.0%

1.5%

1.5:1

882.82
46.54

865.19
-12.58

865.94
0.00

865.74
8.00

890
880
870
860

-160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

B-64-188

278+50

M/L STH 50

SAN

TEL

2.0%

1.5%

1.5:1

883.46
47.21

866.25
-12.00

866.01
0.00

865.81
8.00

10 FT

20 FT

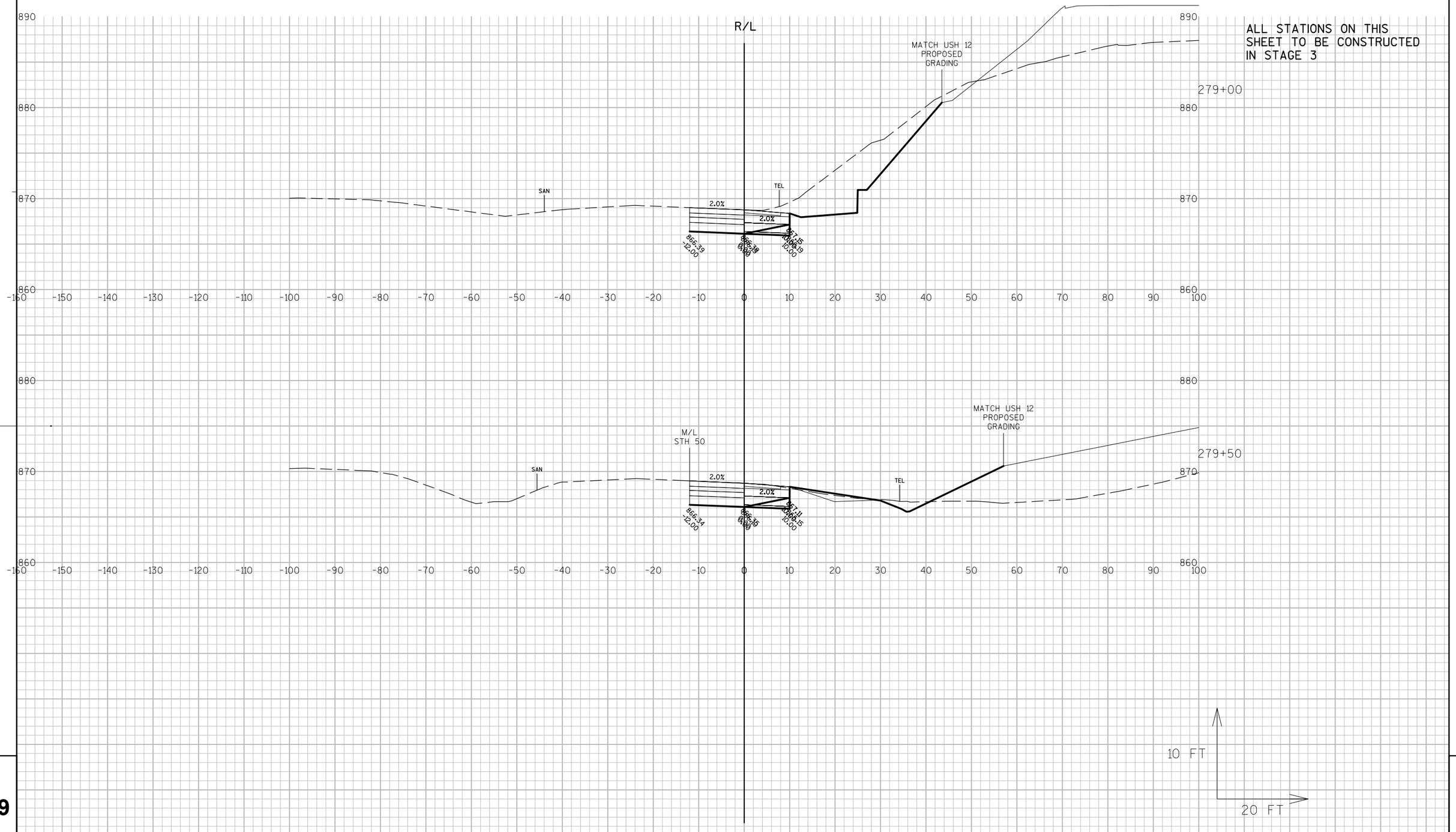
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 510	E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\090203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:56 PM PLOT BY • CUTULAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

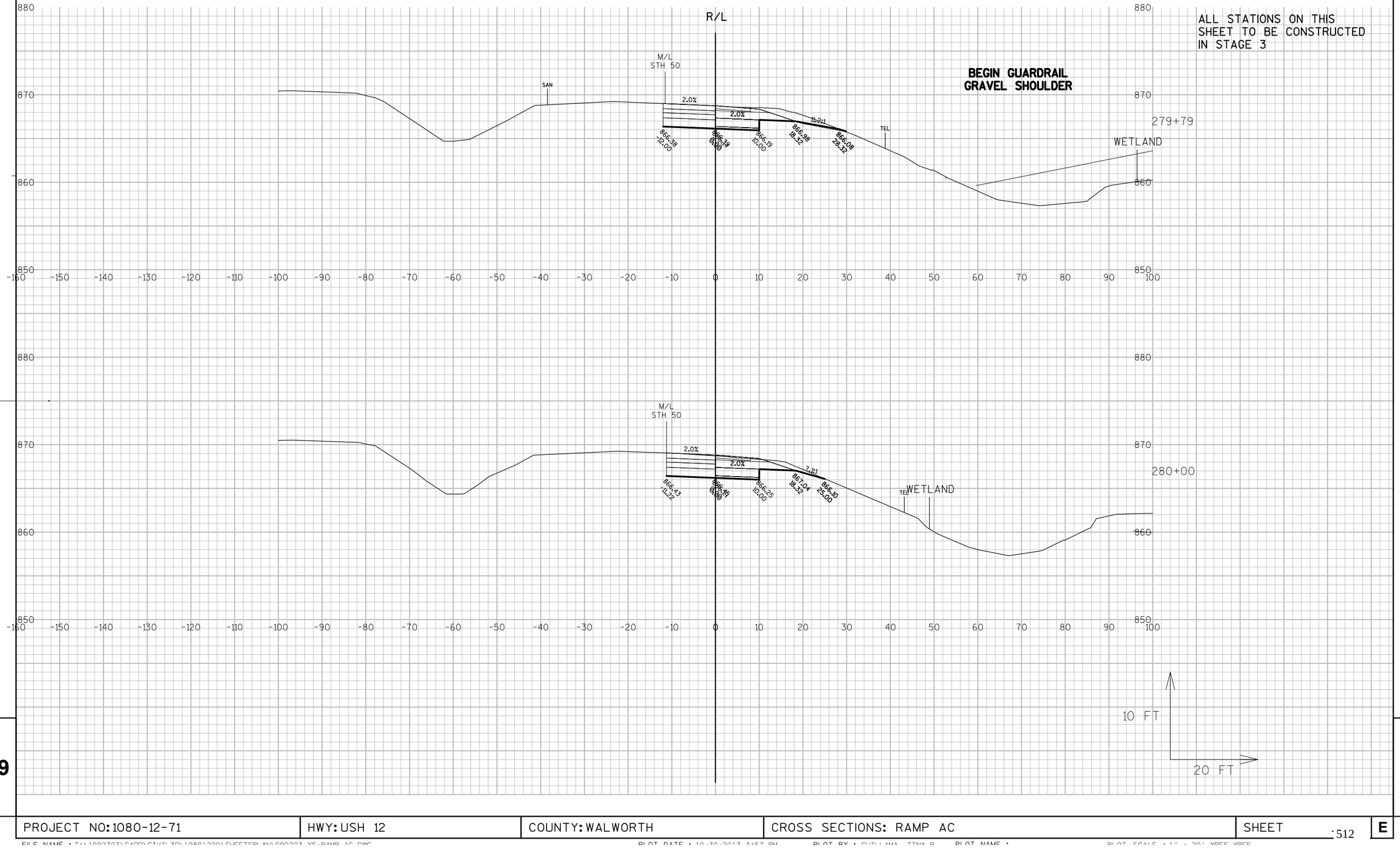
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME • T:\1083703\CADD\CIVIL3D\1080I200\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:57 PM PLOT BY • CUTLLAMA_TTNA.P PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME: T:\1083703\CADD\CIVIL 3D\1080-12-00\SHEETS\PLANS\080203_XS-RAMP_AC.DWG PLOT DATE: 10/30/2013 4:57 PM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

R/L

M/L STH 50

2.0%

2.0%

10.3:1

866.66
19.35

866.08
0.000

865.52
10.00

867.38
15.30

866.83
20.30

280+50

WETLAND

TEL

880
870
860
850

-160 -150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100

M/L STH 50

GUARDRAIL POST #1

2.0%

2.0%

10.5:1

866.83
5.84

866.25
0.000

865.71
10.00

867.58
15.30

867.08
20.30

280+69

WETLAND

TEL

10 FT

20 FT

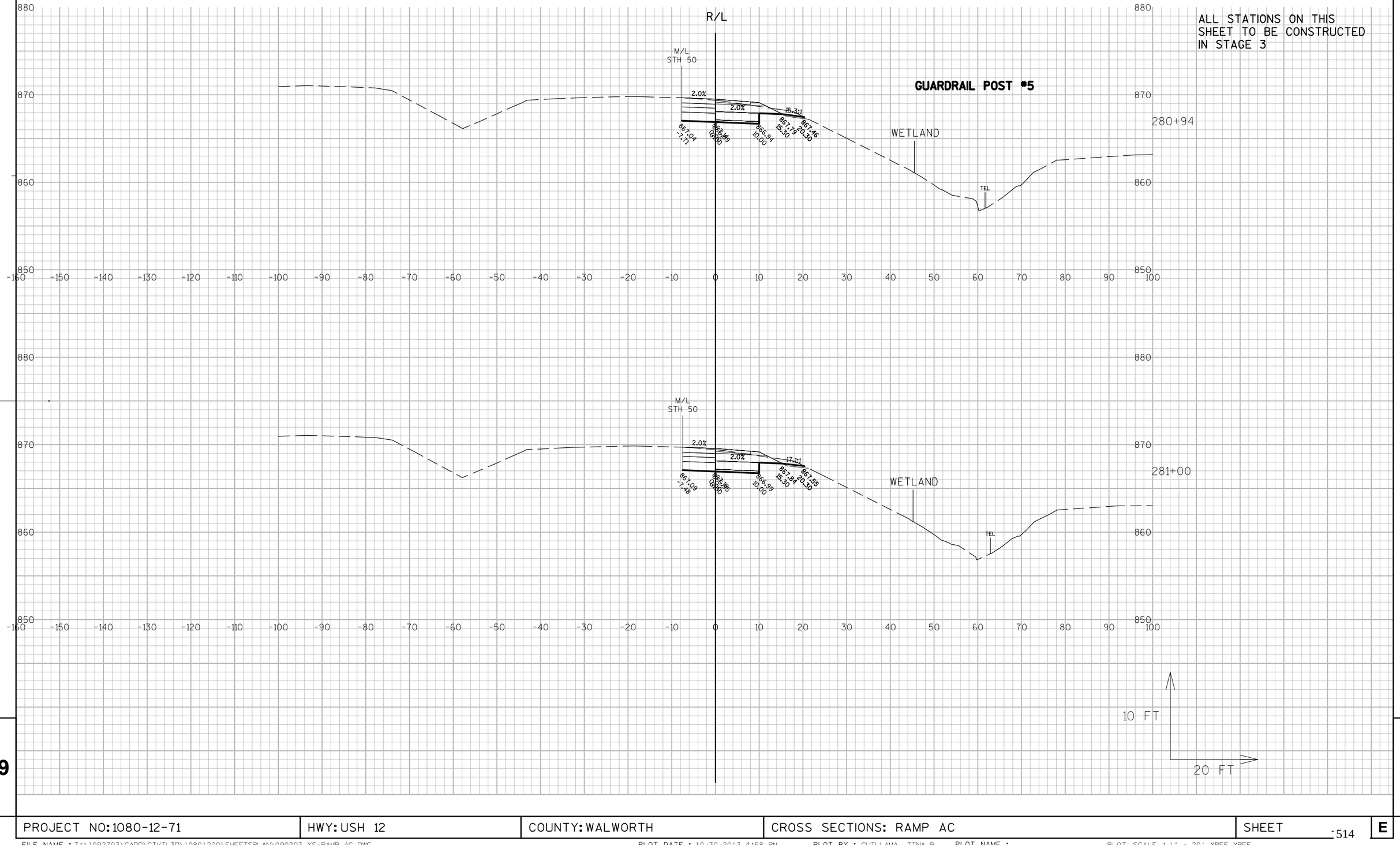
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME = T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\090203_XS-RAMP_AC.DWG PLOT DATE = 10/30/2013 4:58 PM PLOT BY = CHILLAMA, TINA R PLOT NAME = PLOT SCALE = 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

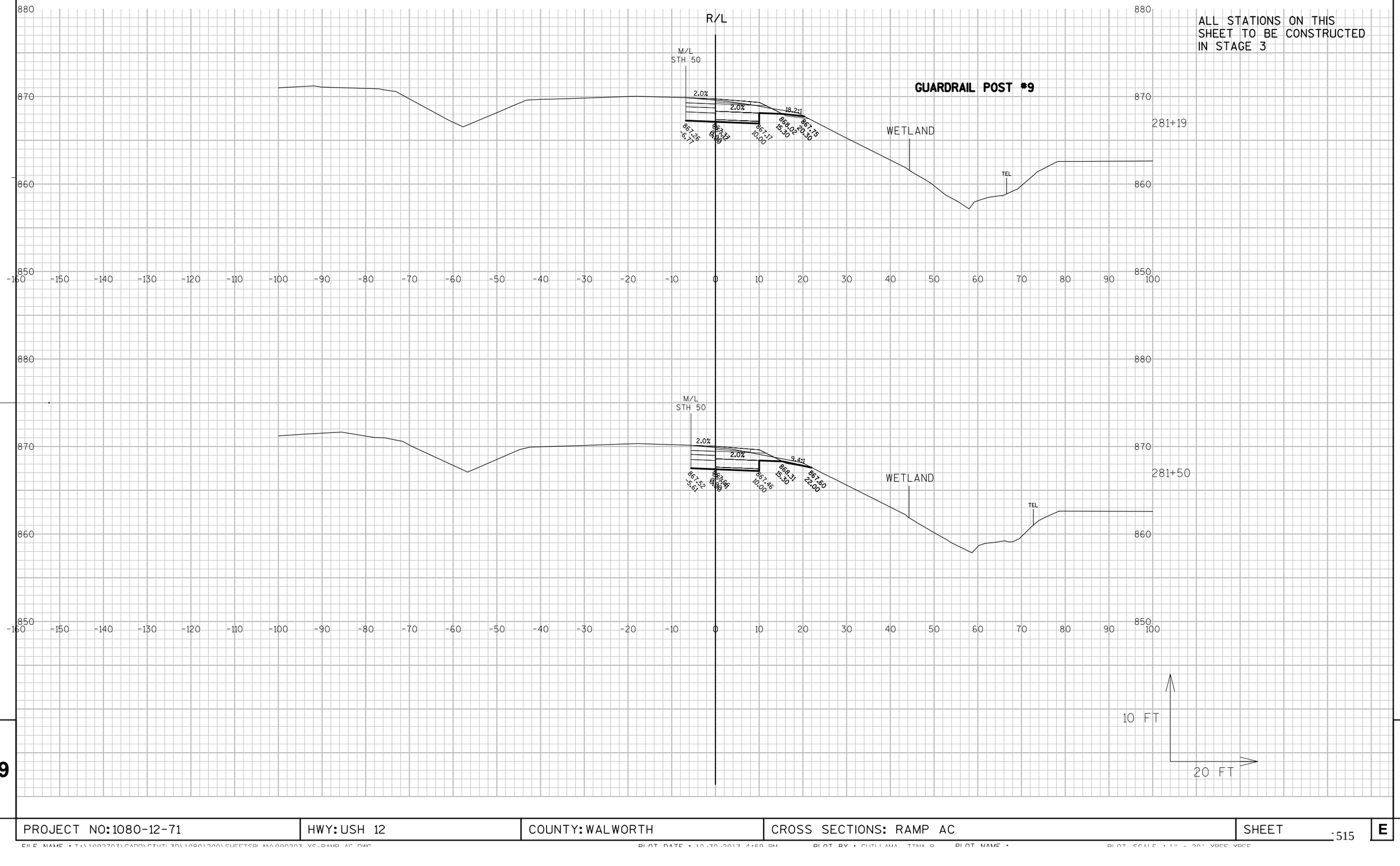


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET	E

FILE NAME: T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE: 10/30/2013 4:58 PM PLOT BY: CHILLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

GUARDRAIL POST #9

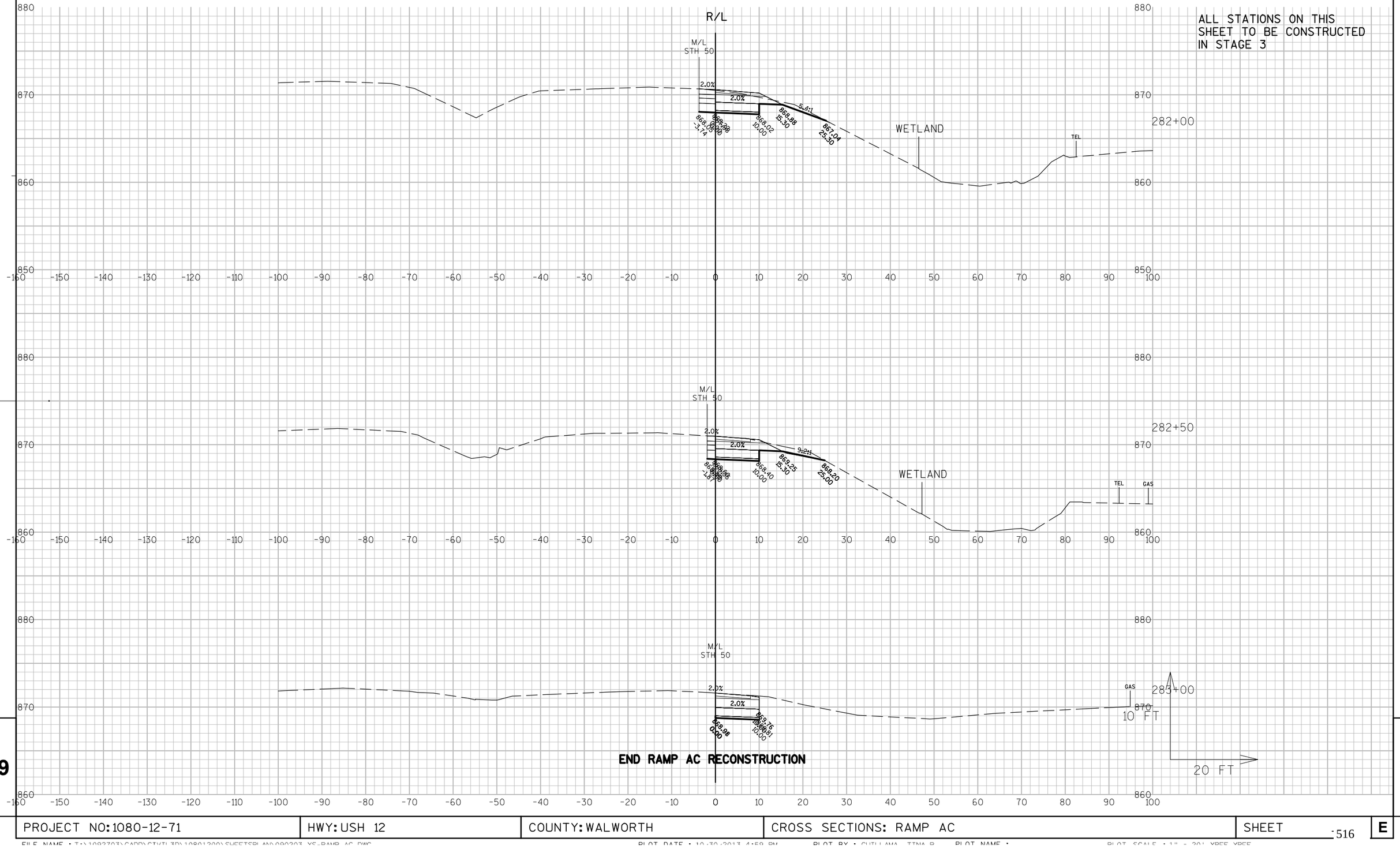


9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET 515	E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

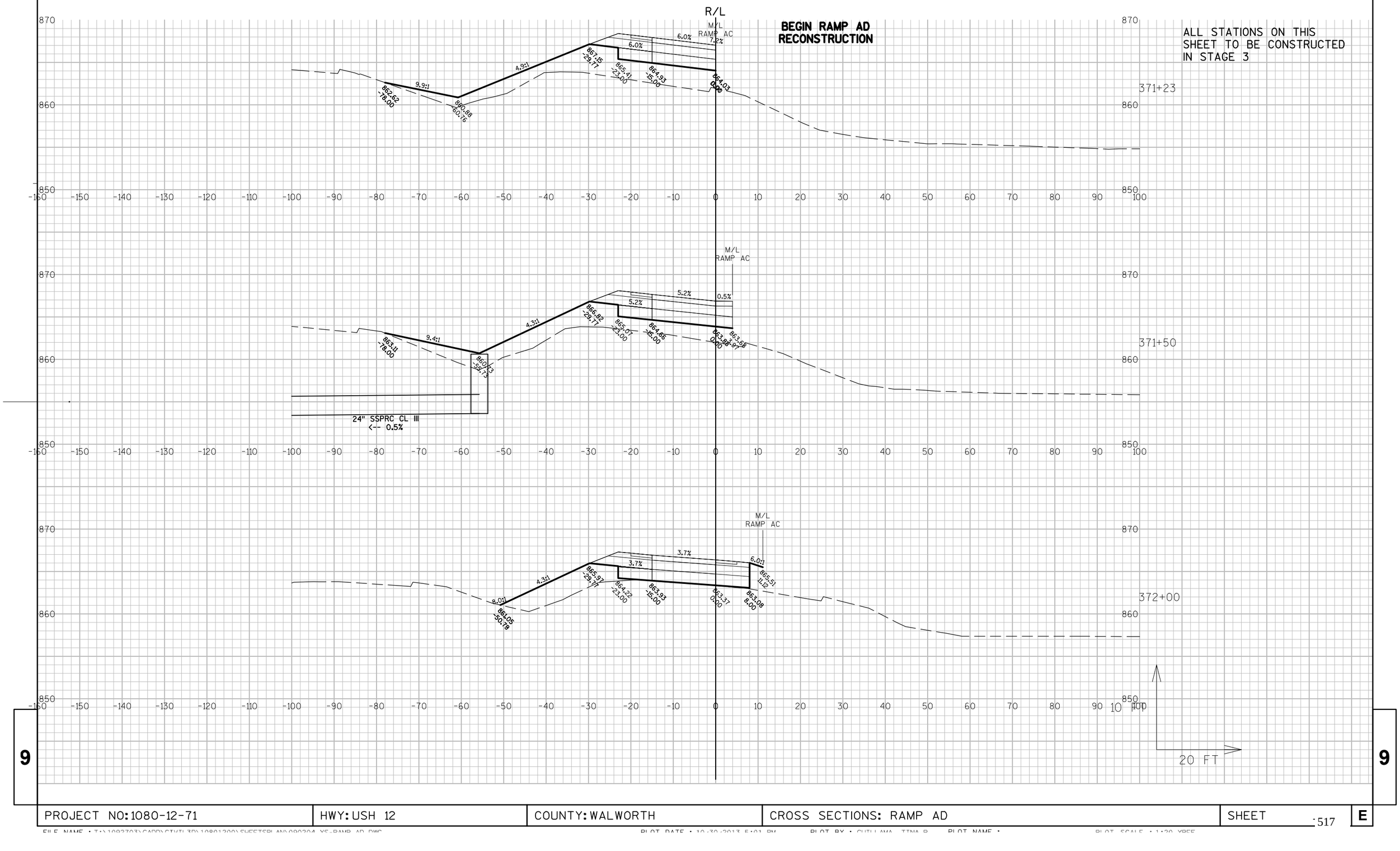


END RAMP AC RECONSTRUCTION

9 9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AC	SHEET E

FILE NAME • T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080203_XS-RAMP_AC.DWG PLOT DATE • 10/30/2013 4:59 PM PLOT BY • CUTLLAMA_TINA.B PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF



9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AD	SHEET	E

FILE NAME • T:\1082703\CADD\CIVIL3D\1080I200\SHEETSPLAN\080204_XS-RAMP_AD.DWG PLOT DATE • 10/30/2013 5:01 PM PLOT BY • CUTLLAMA_TTNA PLOT NAME • PLOT SCALE • 1:20 XREF

R/L

M/L
RAMP AC

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

372+50

373+00

373+44

TEL

END RAMP AD
RECONSTRUCTION

20 FT

9

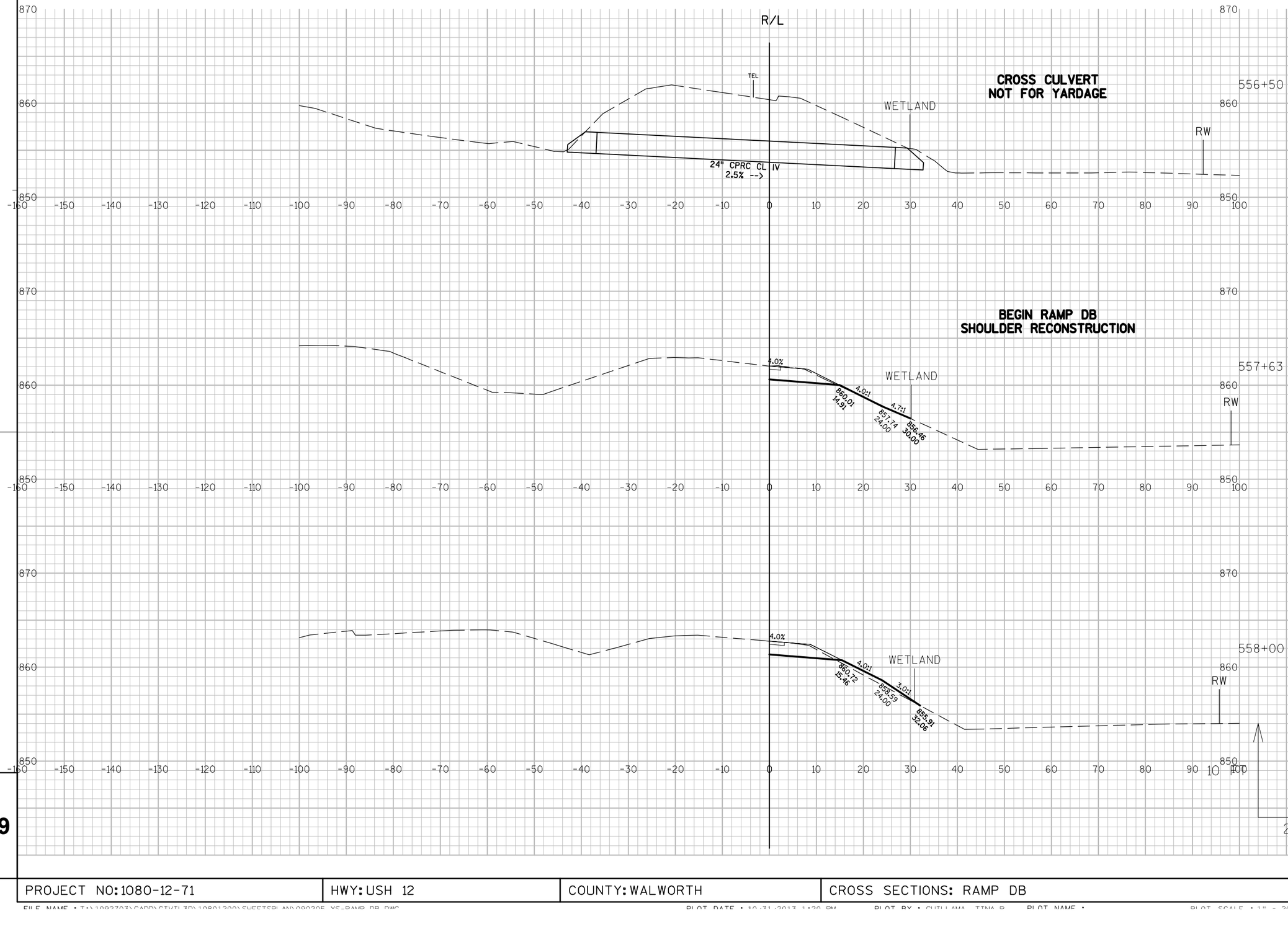
9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP AD	SHEET	E

FILE NAME • T:\10823703\CADD\CIVIL 3D\1080\1200\SHEETSPLANS\080204_XS-RAMP_AD.DWG PLOT DATE • 10/30/2013 5:01 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1:20 XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

CROSS CULVERT NOT FOR YARDAGE



BEGIN RAMP DB SHOULDER RECONSTRUCTION

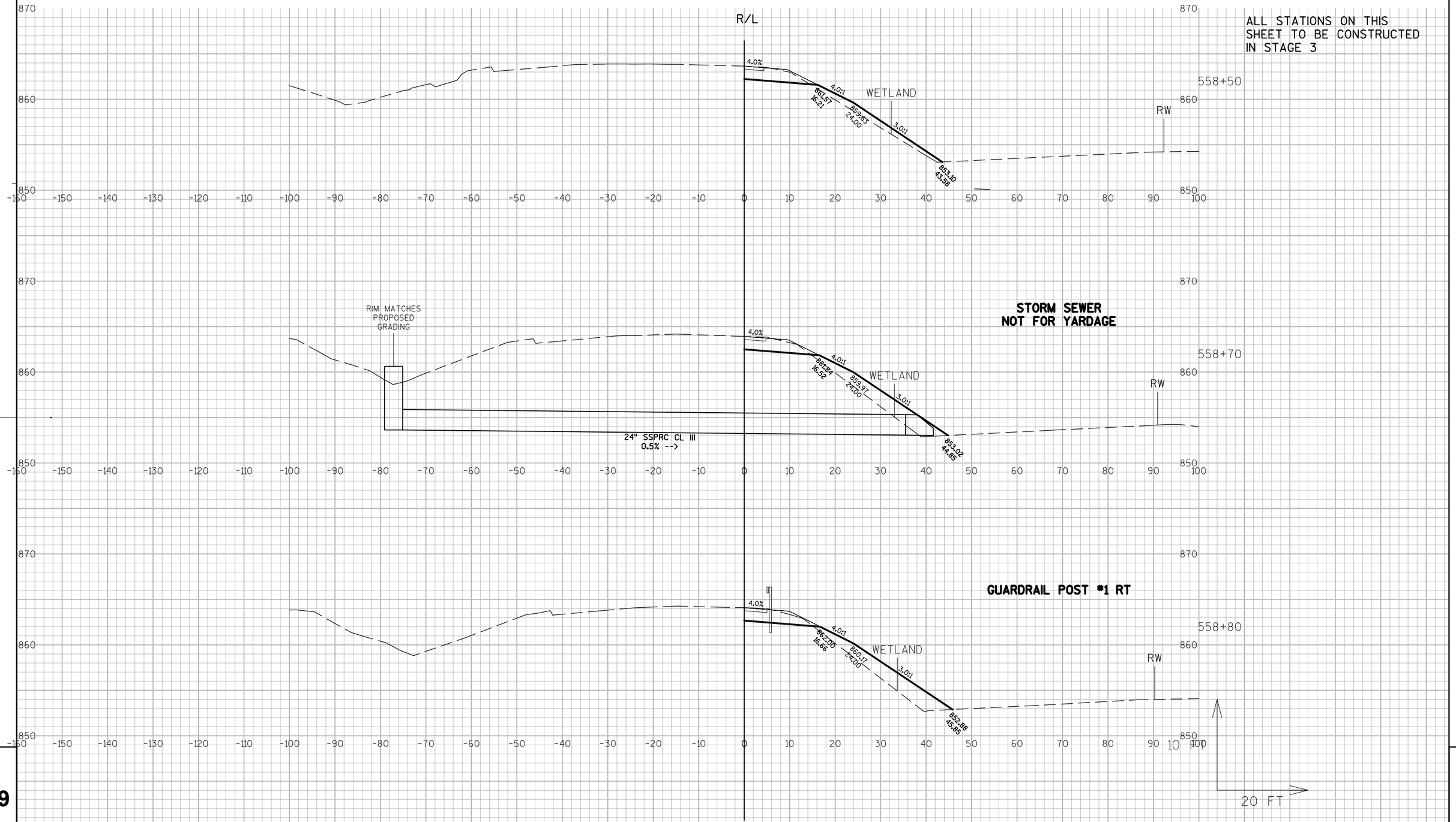
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET	E

FILE NAME: T:\p\1092703\CADD\CIVIL3D\1080120\SHEETSPLAN\080205_XS-RAMP_DB.DWG PLOT DATE: 10/31/2013 1:20 PM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

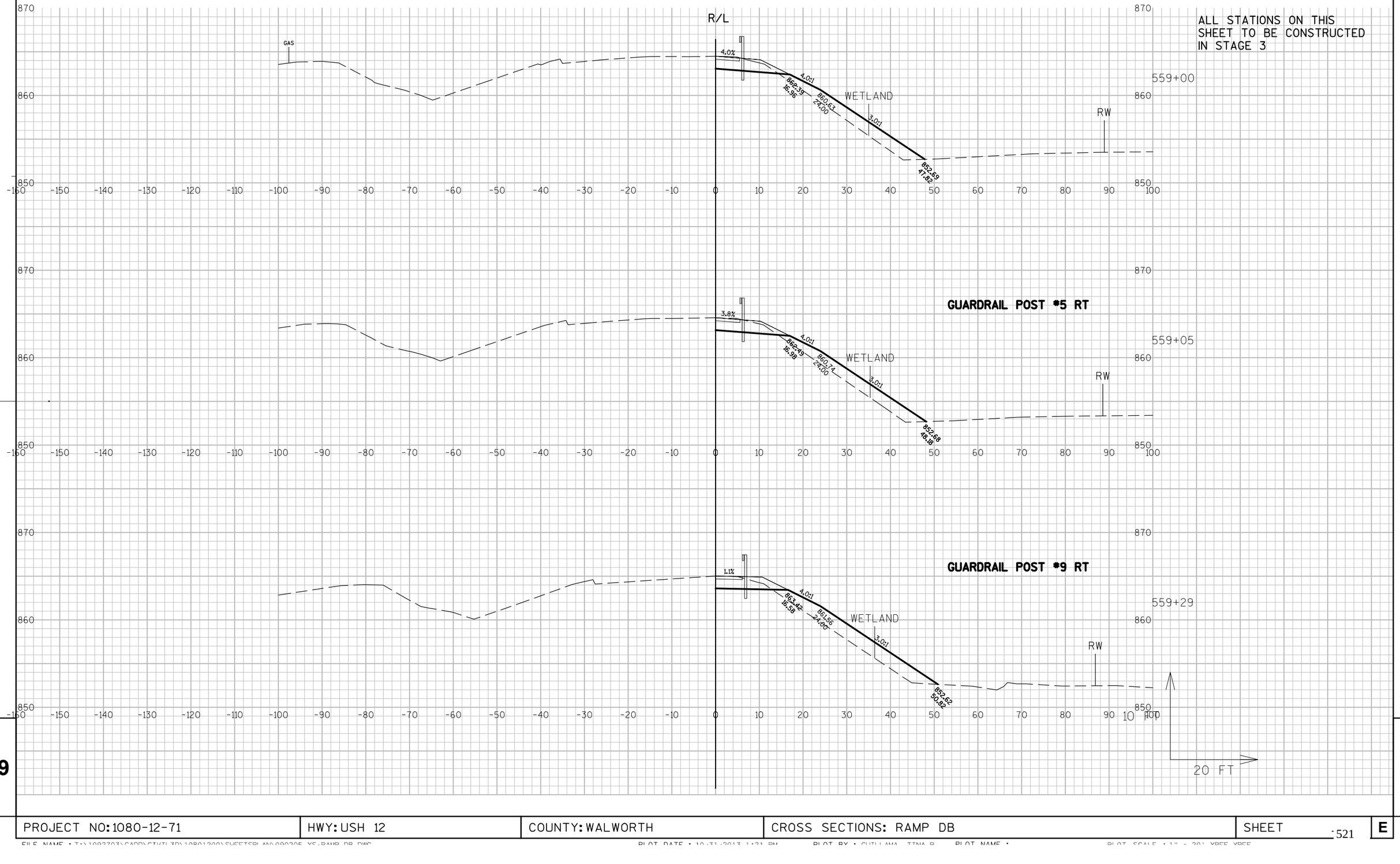


9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 520	E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 521	E

FILE NAME • T:\1092703\CADD\CIVIL 3D\1080120\SHEETSPLAN\080205_XS_RAMP_DB.DWG PLOT DATE • 10/31/2013 1:21 PM PLOT BY • GUTLLAMA_TTNA_P PLOT NAME • PLOT SCALE • 1" = 20' XREF XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

R/L

0.8%

4.0:1

864.07
16.46

862.18
24.00

WETLAND

3.0:1

RW

862.03
54.44

559+50

CROSS CULVERT NOT FOR YARDAGE

1.5%

864.29
14.52

2.5:1

WETLAND

RW

862.29
48.25

879.80
34.29

72" CPRC 3CL IV
0.1% -->

559+59

CROSS CULVERT NOT FOR YARDAGE

2.1%

864.51
14.50

2.5:1

WETLAND

RW

861.95
46.00

879.80
34.29

72" CPRC 3CL IV
0.1% -->

559+68

10 FT

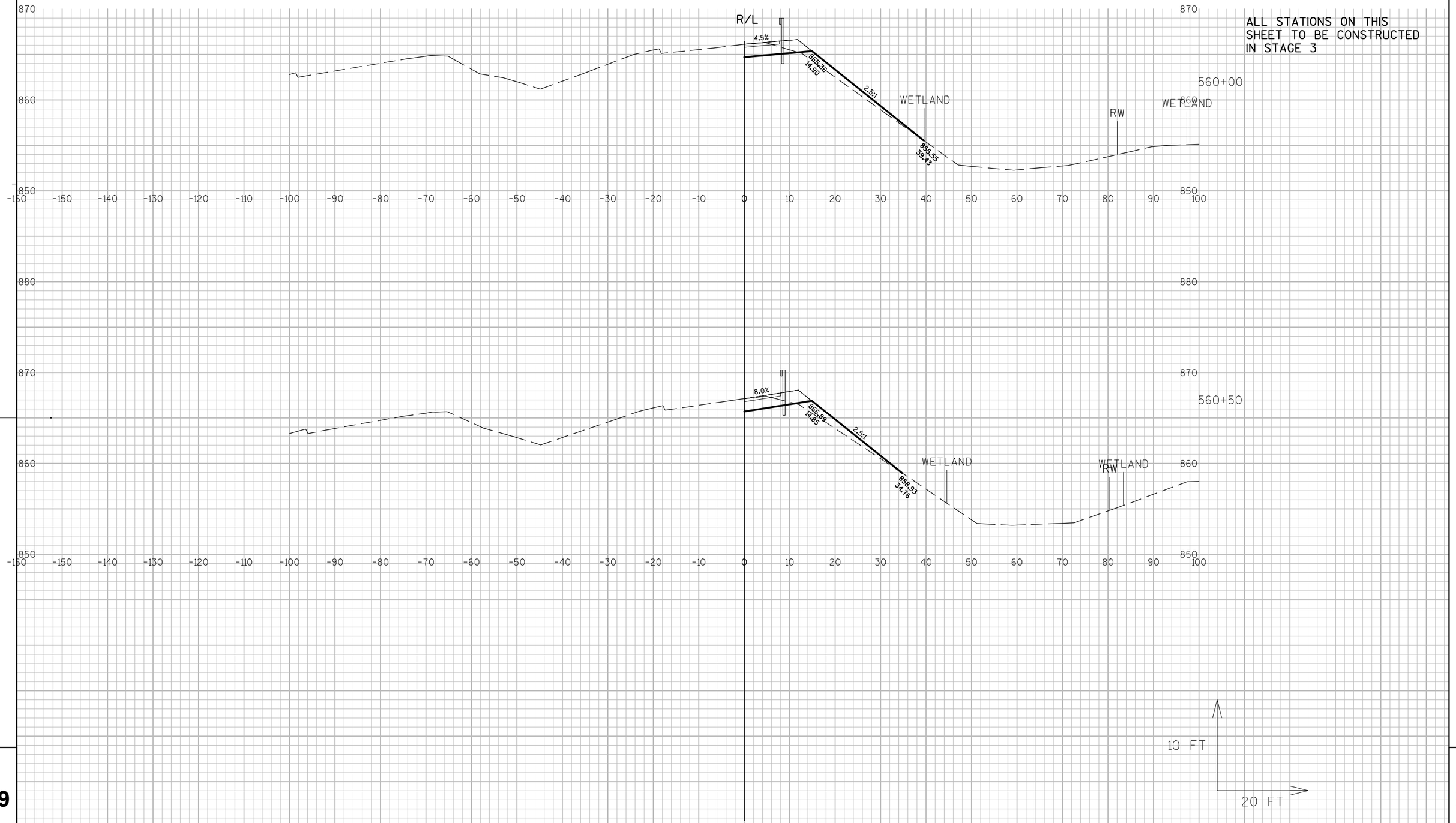
20 FT

9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 522	E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

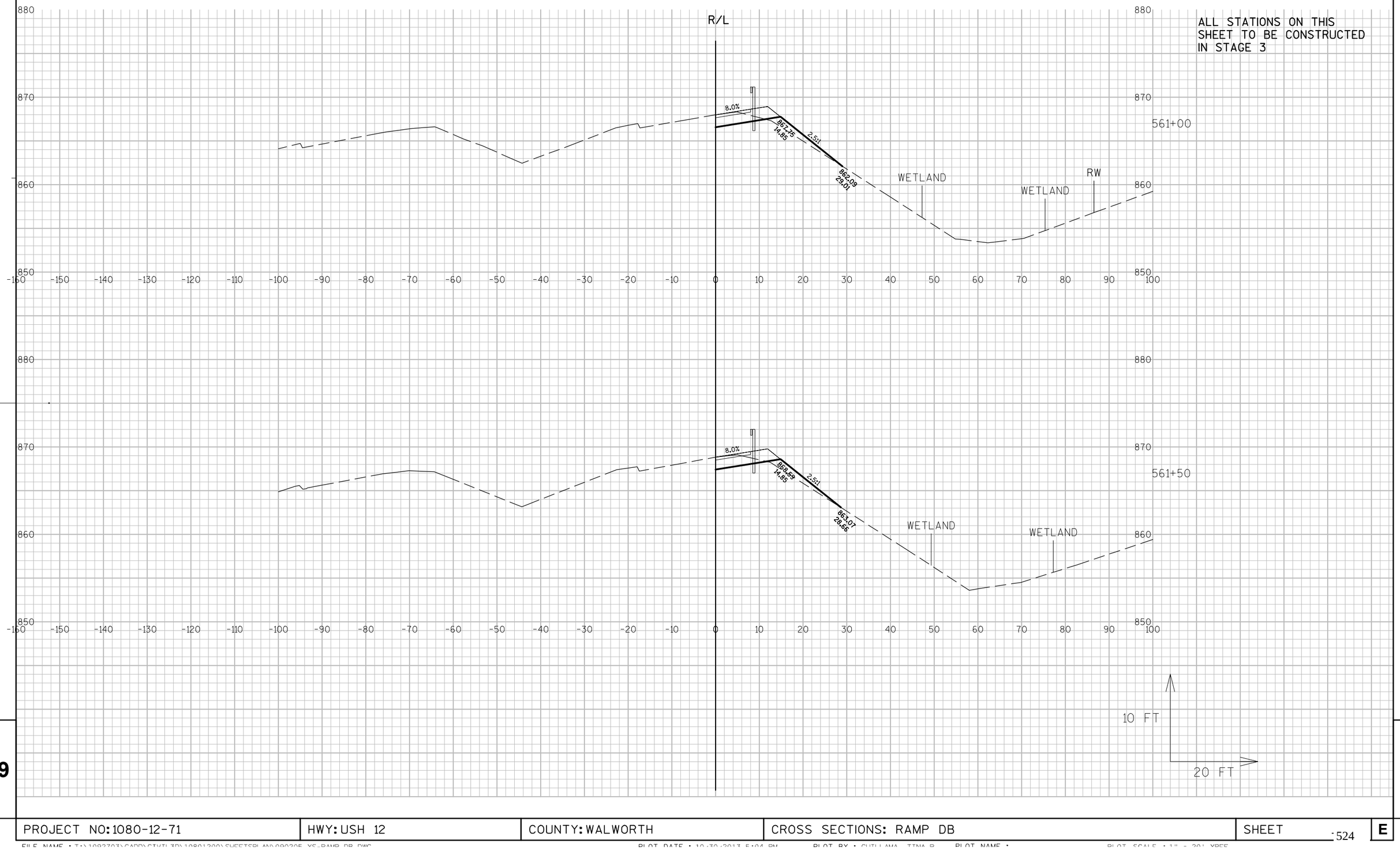


9

9

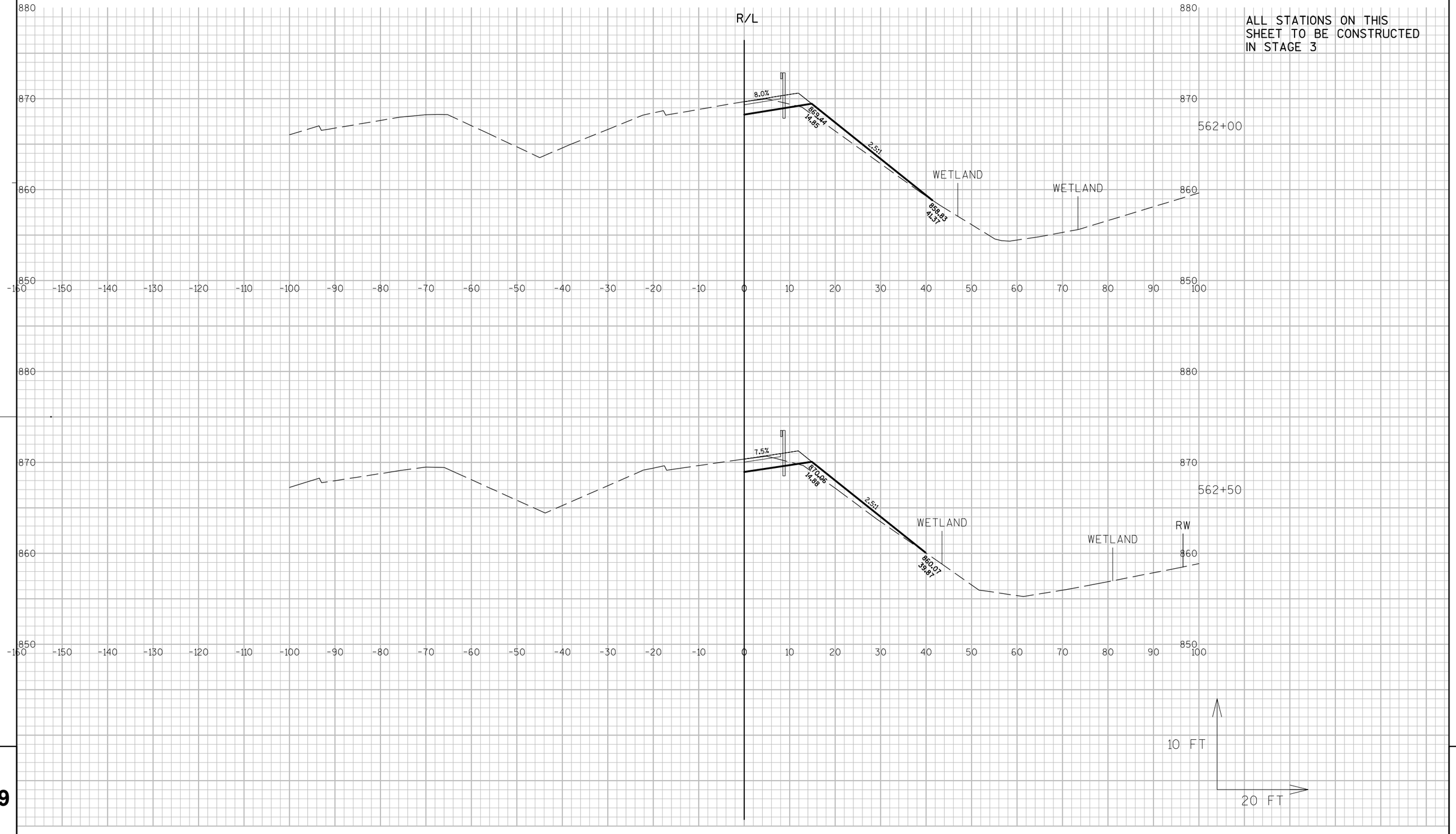
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 523	E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 524	E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

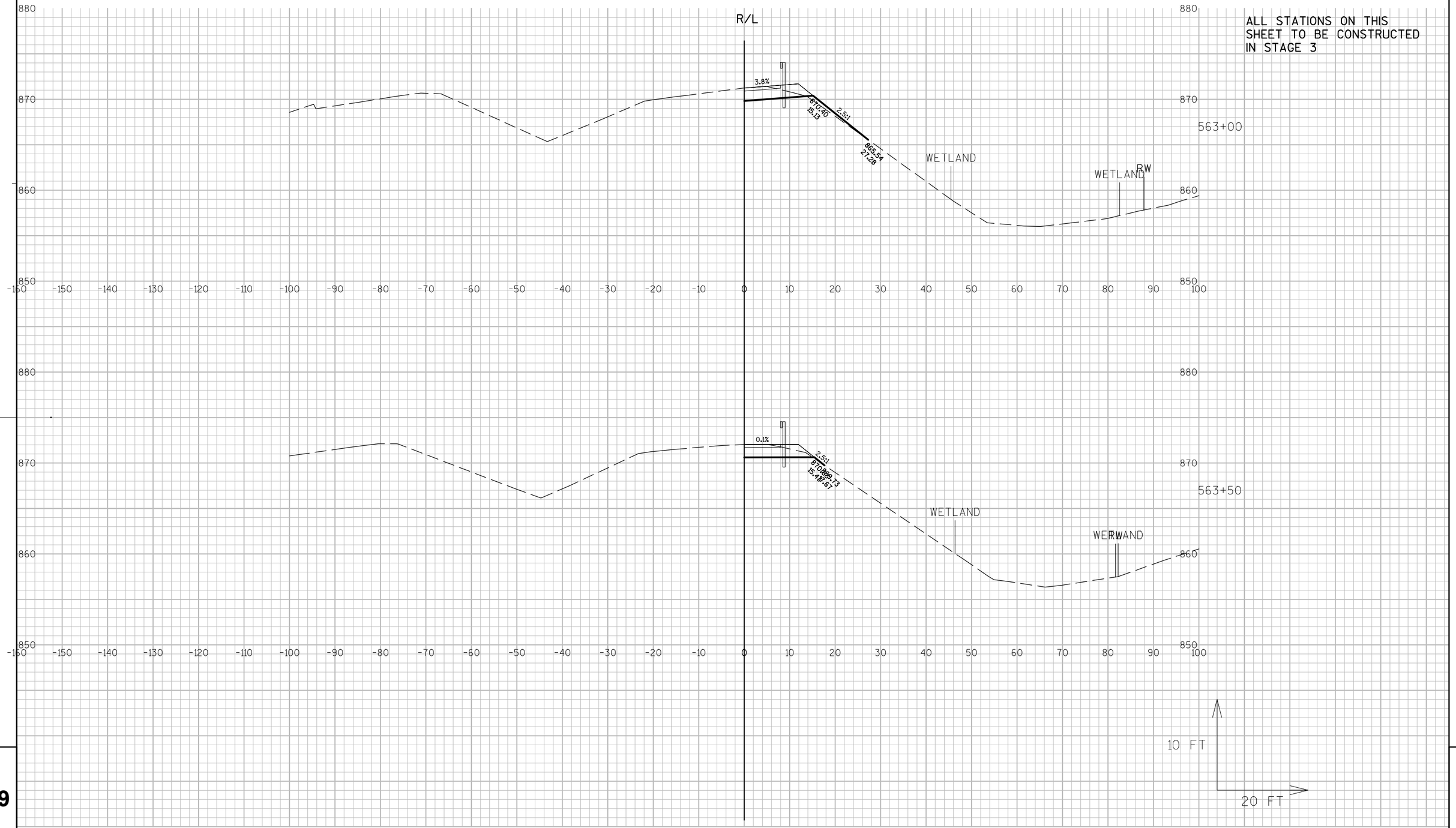


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 525	E

9

FILE NAME: T:\1092703\CADD\CIVIL 3D\1080120QS\SHEETSPLAN\080205E_XS-RAMP_DB.DWG PLOT DATE: 10/30/2013 5:04 PM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF

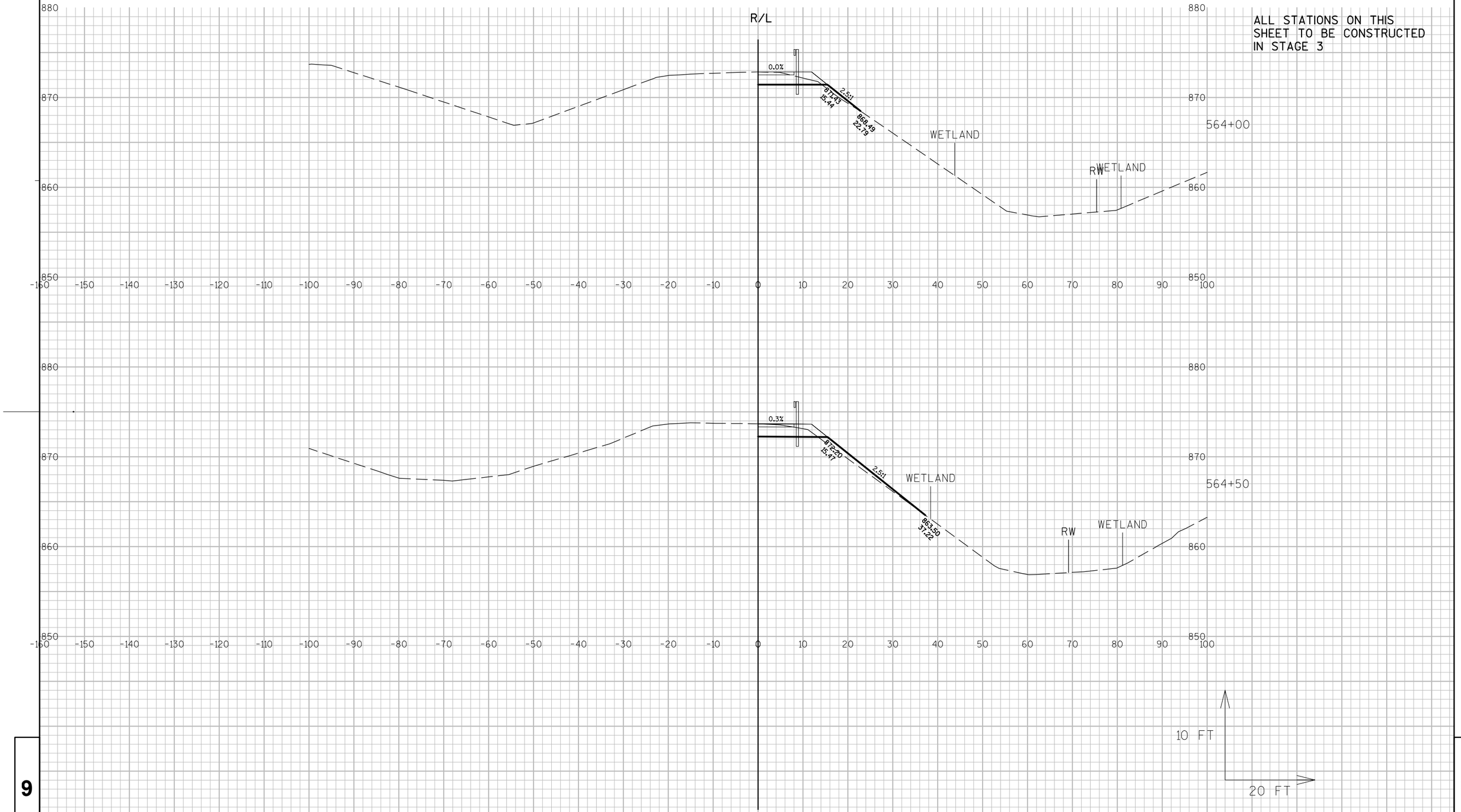
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET E

FILE NAME • T:\1082703\CADD\CIVIL 3D\1080112001\SHEETSPLAN\080205_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:05 PM PLOT BY • CHITLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

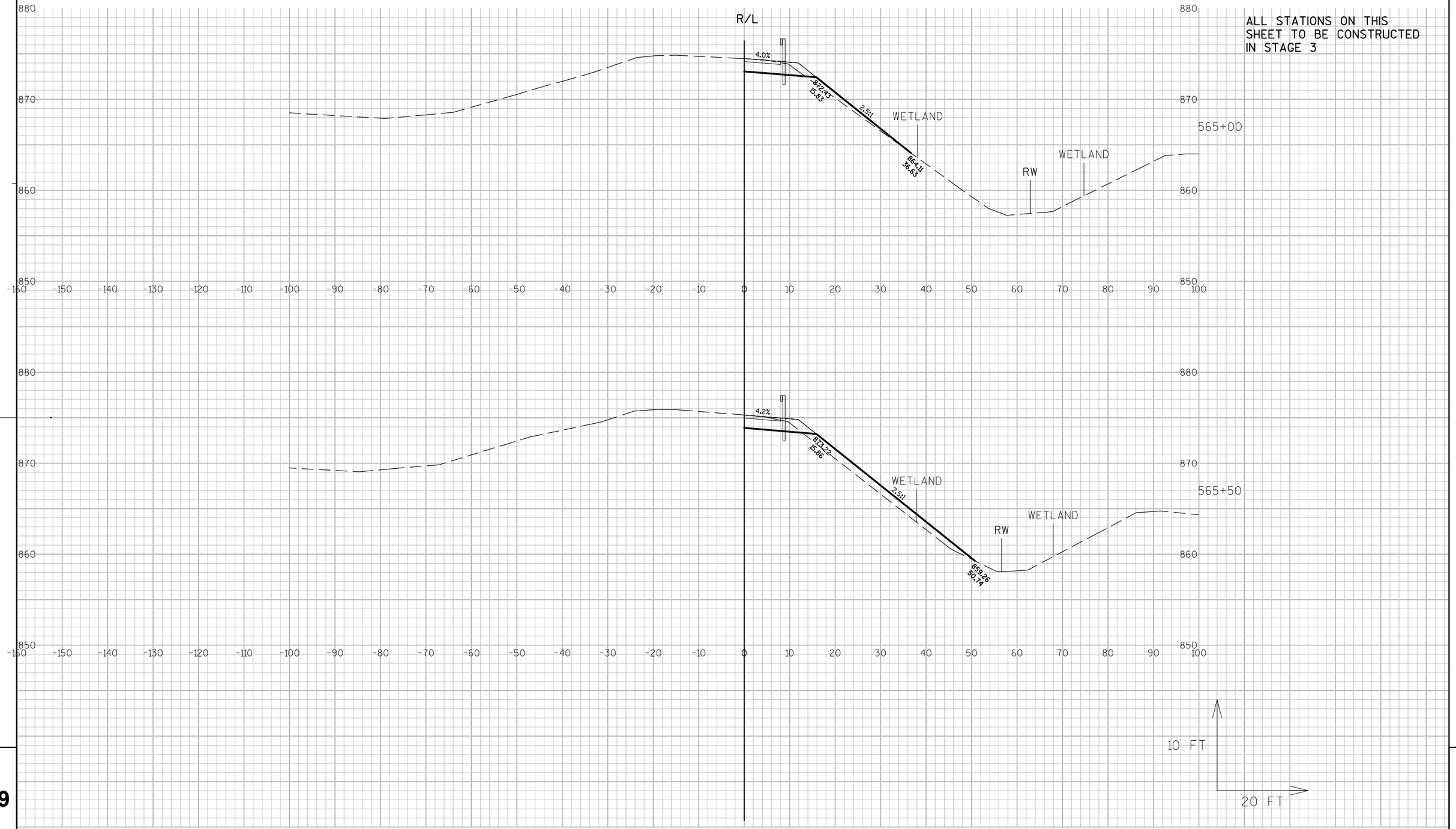


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 527	E

9

FILE NAME • T:\1083703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080205_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:05 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF

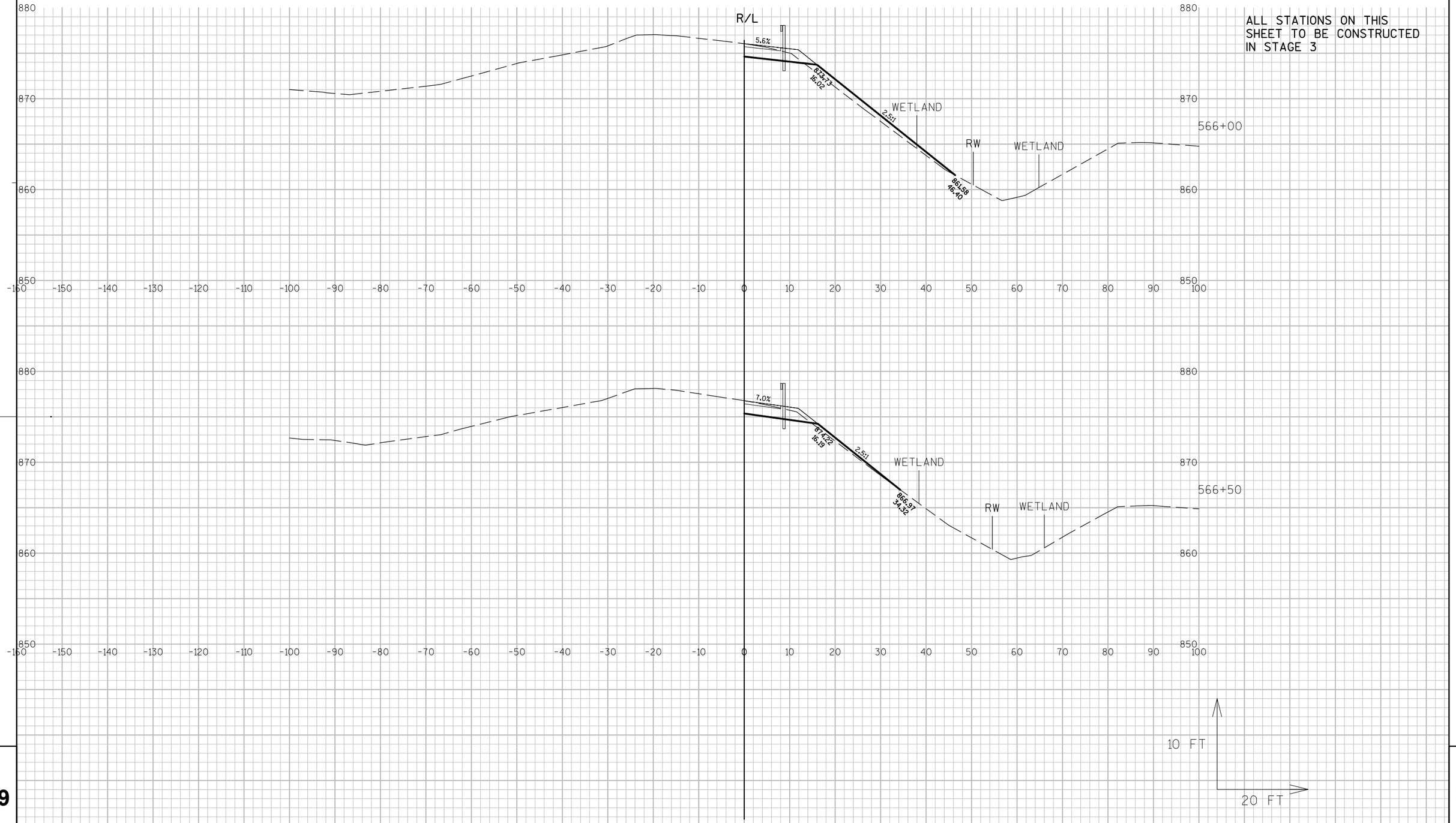
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 528	E

FILE NAME = T:\1083703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080205_XS-RAMP_DB.DWG PLOT DATE = 10/30/2013 5:06 PM PLOT BY = CUTLLAMA_TTNA PLOT NAME = PLOT SCALE = 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



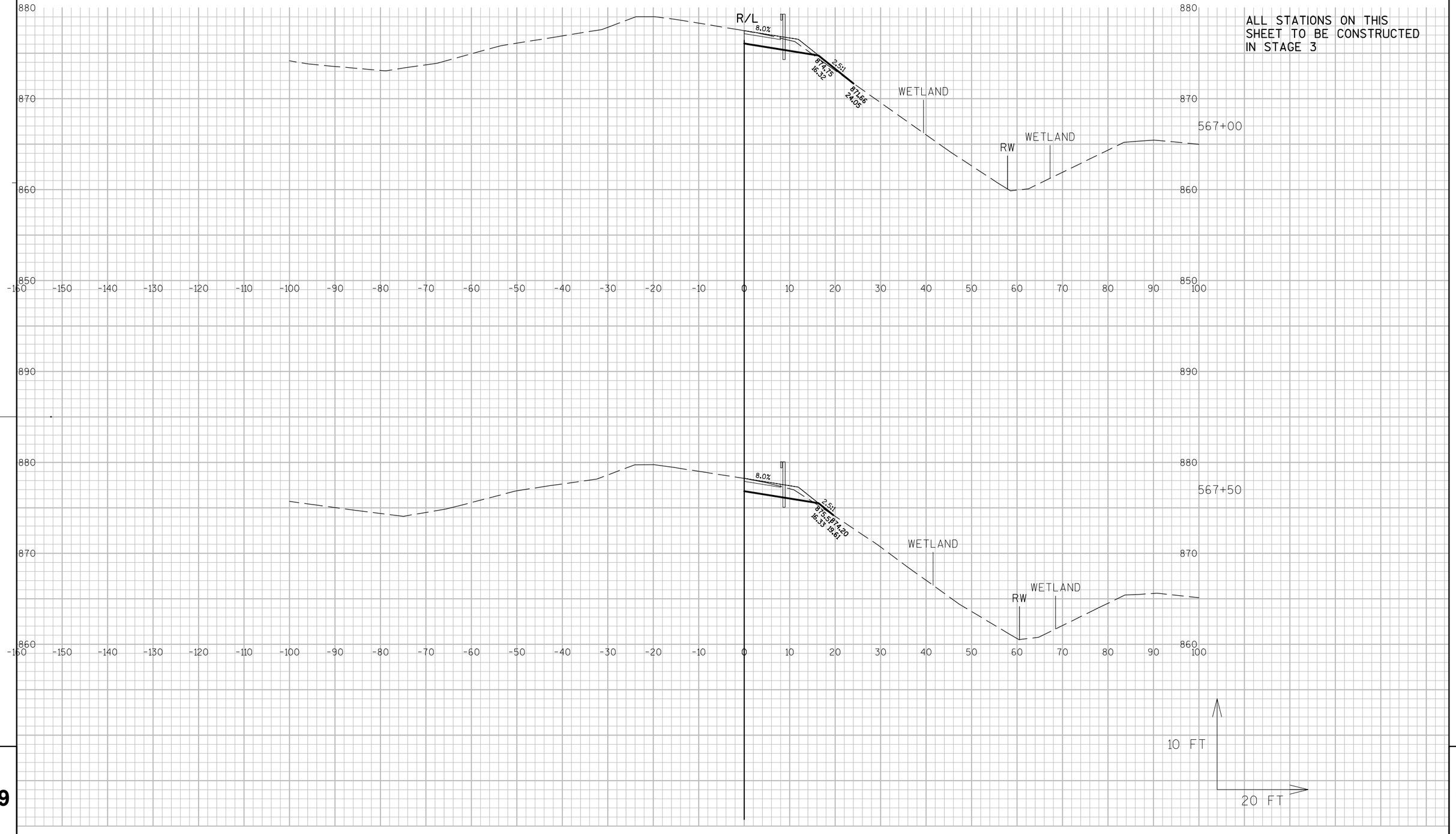
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 529	E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLAN\090205_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:06 PM PLOT BY • CHRISTIANA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF

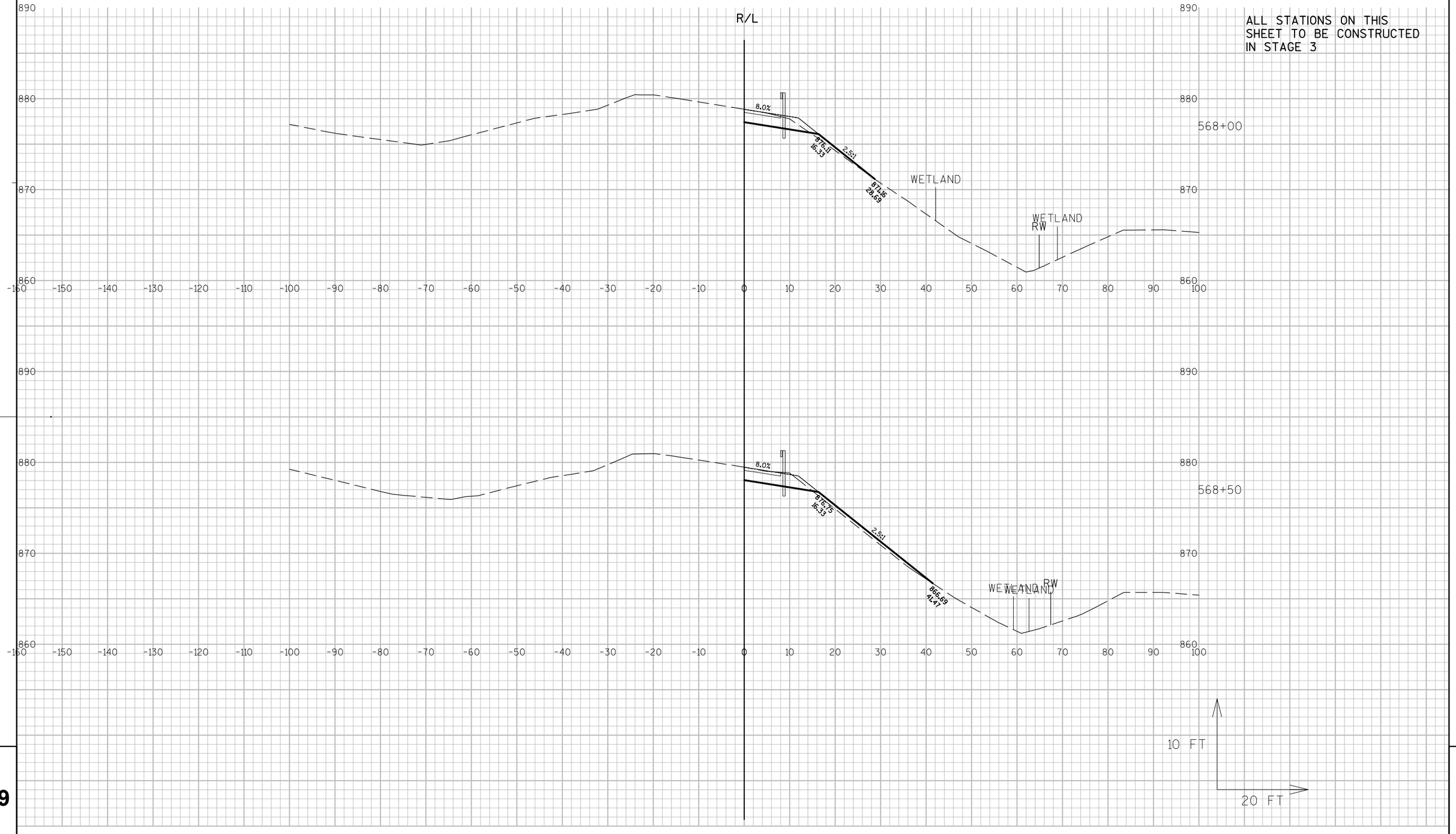
ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 530	E

FILE NAME • T:\1093703\CADD\CIVIL3D\1080120QS\SHEETSPLAN\080206_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:06 PM PLOT BY • CUTLLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



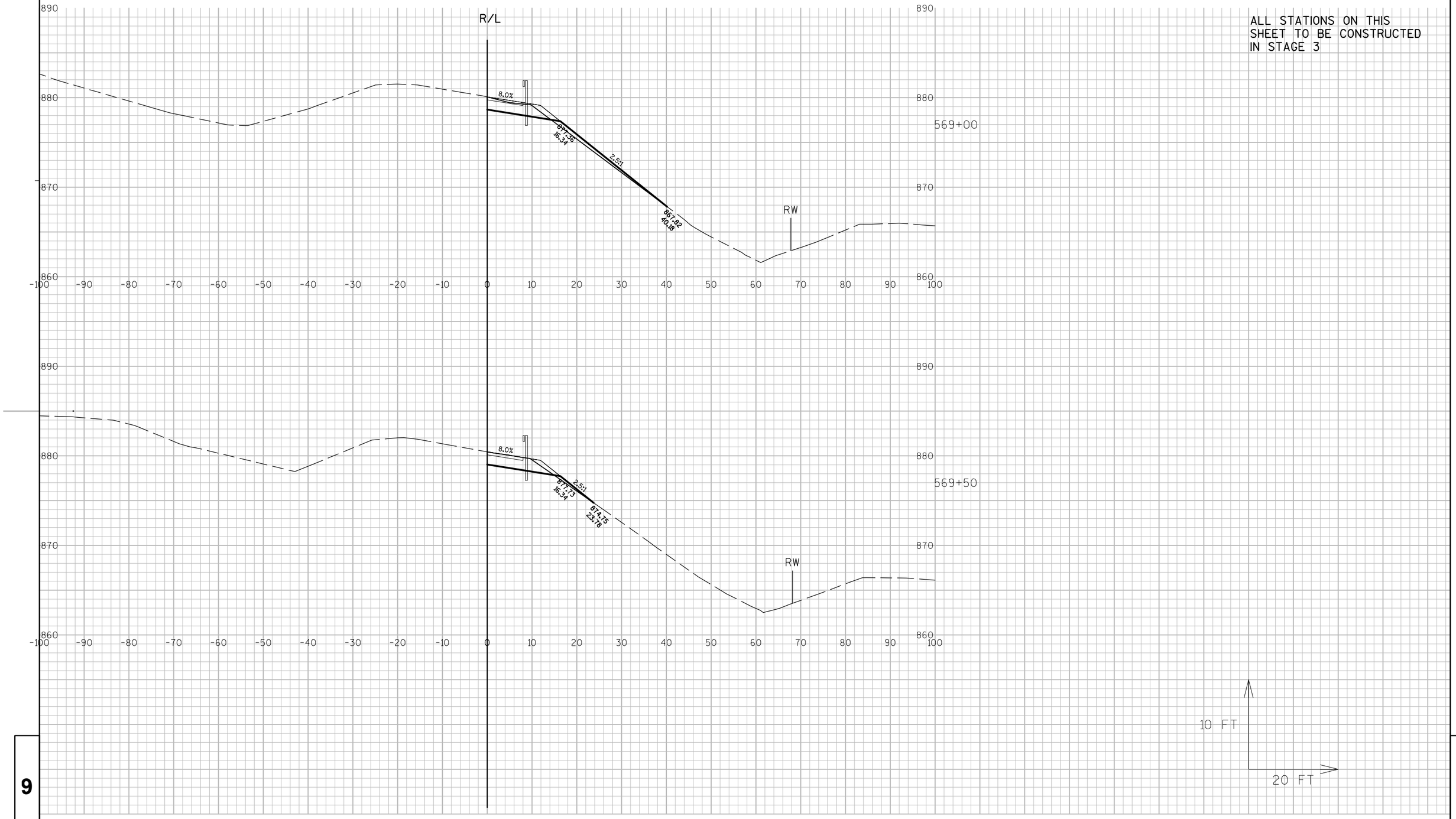
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET	E

FILE NAME: T:\1092703\CADD\CIVIL 3D\1080120QS\SHEETSPLAN\080120E_XS-RAMP_DB.DWG PLOT DATE: 10/30/2013 5:07 PM PLOT BY: CUTLLAMA, TINA R PLOT NAME: PLOT SCALE: 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



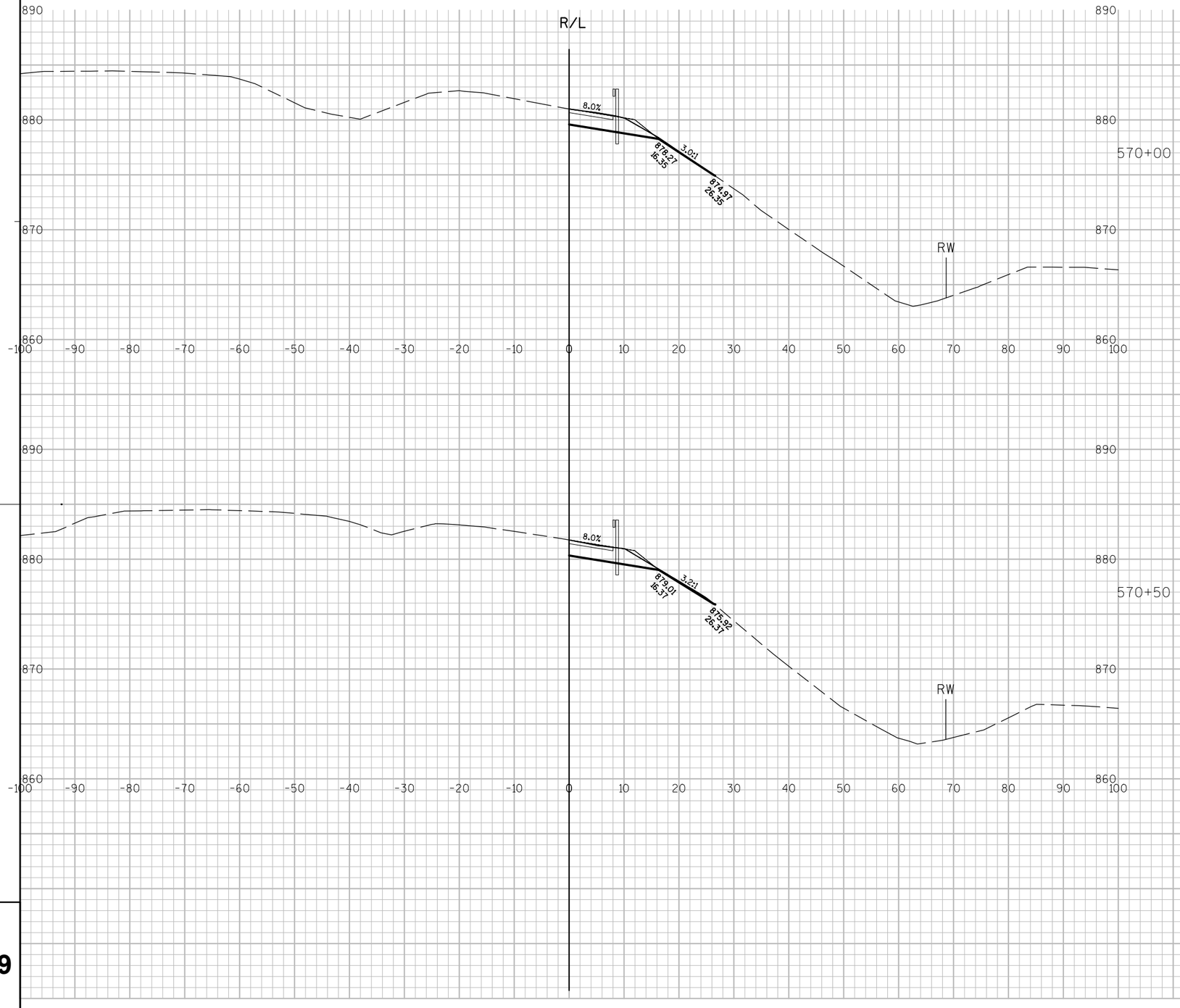
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 532	E

FILE NAME = T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\090205_XS-RAMP_DB.DWG PLOT DATE = 10/30/2013 5:07 PM PLOT BY = CUTLLAMA_TINA_B PLOT NAME = PLOT SCALE = 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

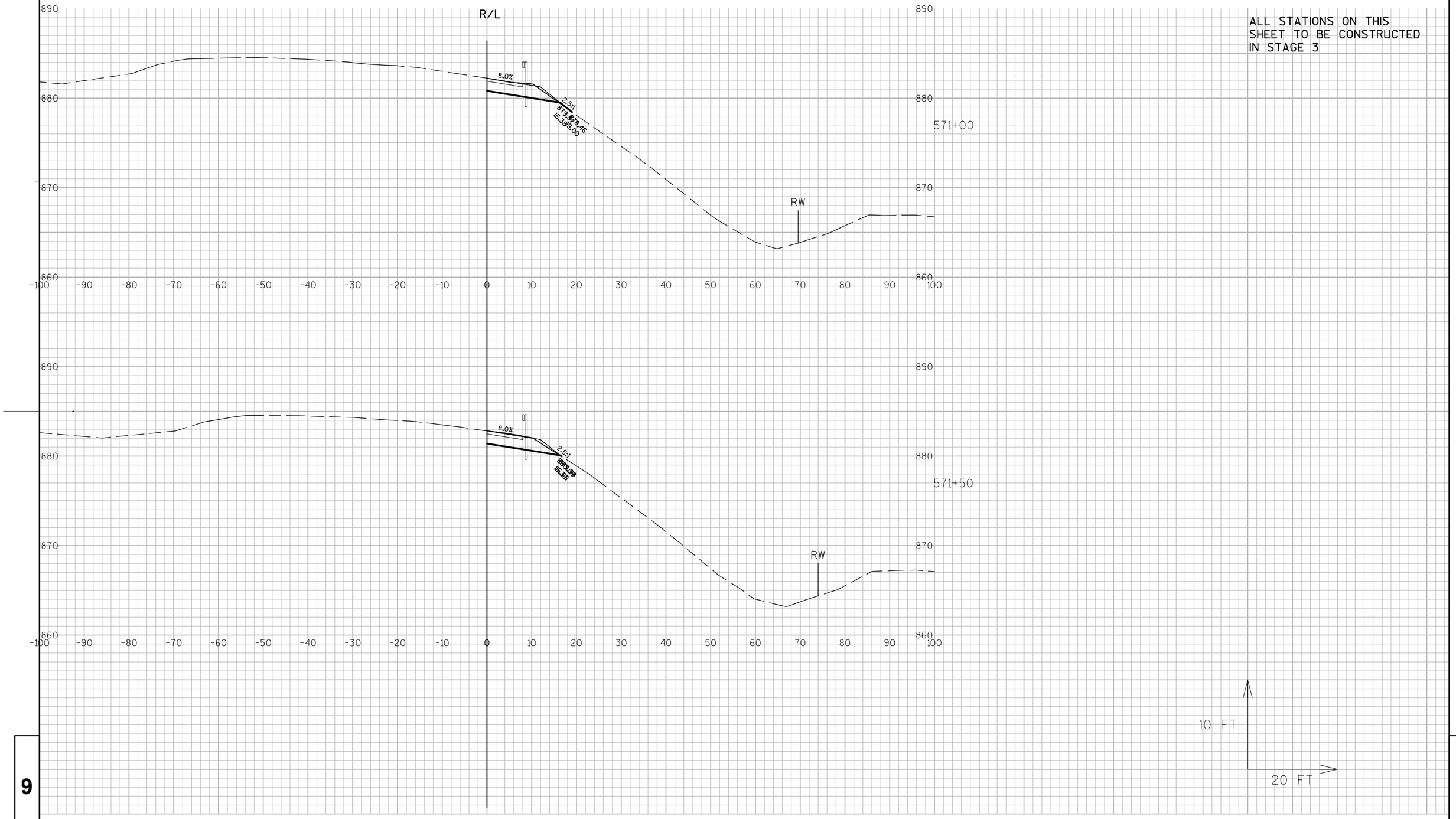


PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 533	E

9

FILE NAME: T:\1083703\CADD\CIVIL3D\1080\1200\SHEETSPLAN\090205_XS-RAMP_DB.DWG PLOT DATE: 10/30/2013 5:08 PM PLOT BY: CUTLLAMA_TTNA PLOT NAME: PLOT SCALE: 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



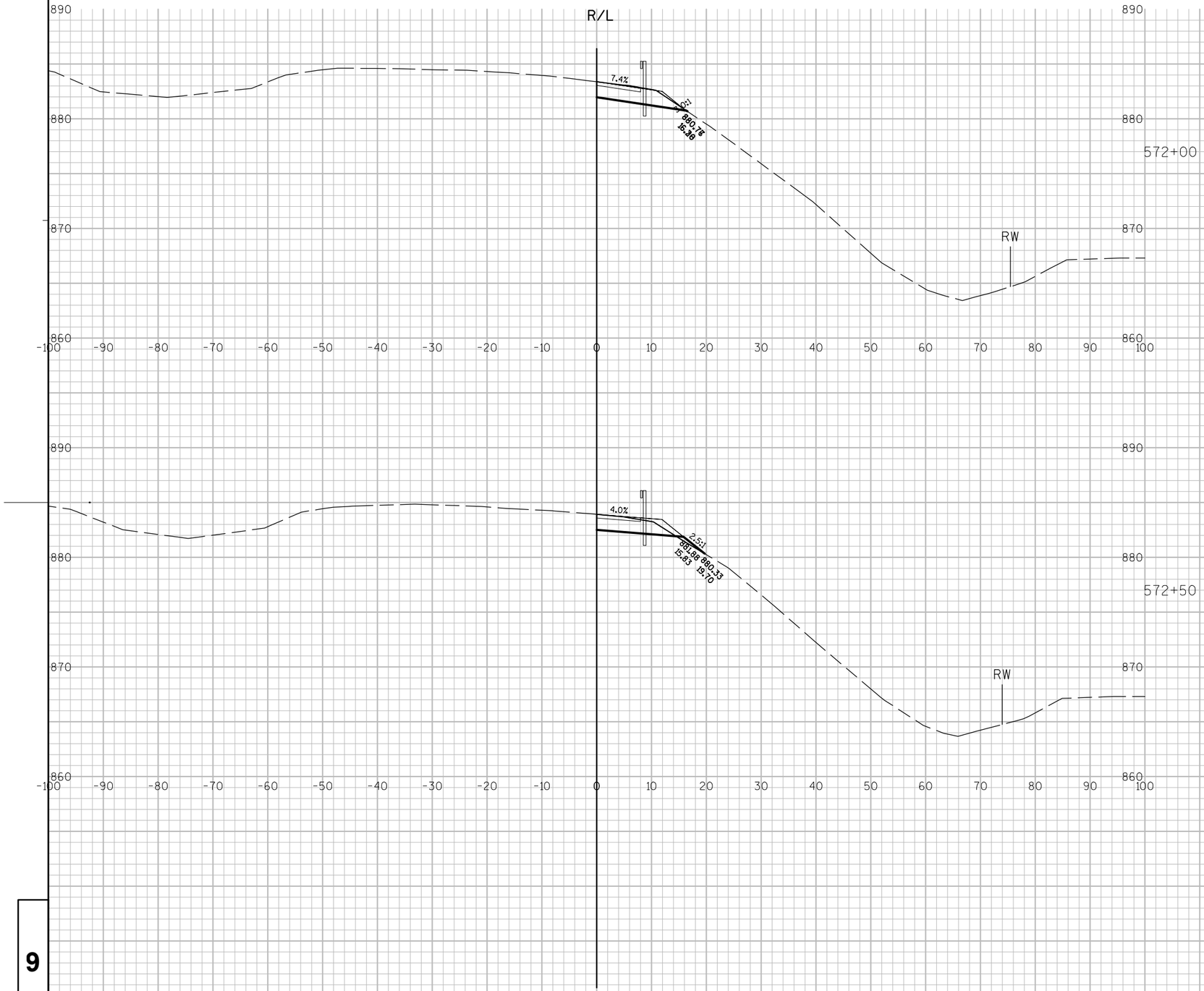
9

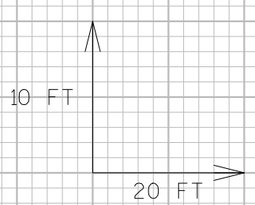
9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 534	E

FILE NAME • T:\1082703\CADD\CIVIL3D\1080112001\SHEETSPLAN\080205_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:08 PM PLOT BY • CHILLAMA, TINA R PLOT NAME • PLOT SCALE • 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3





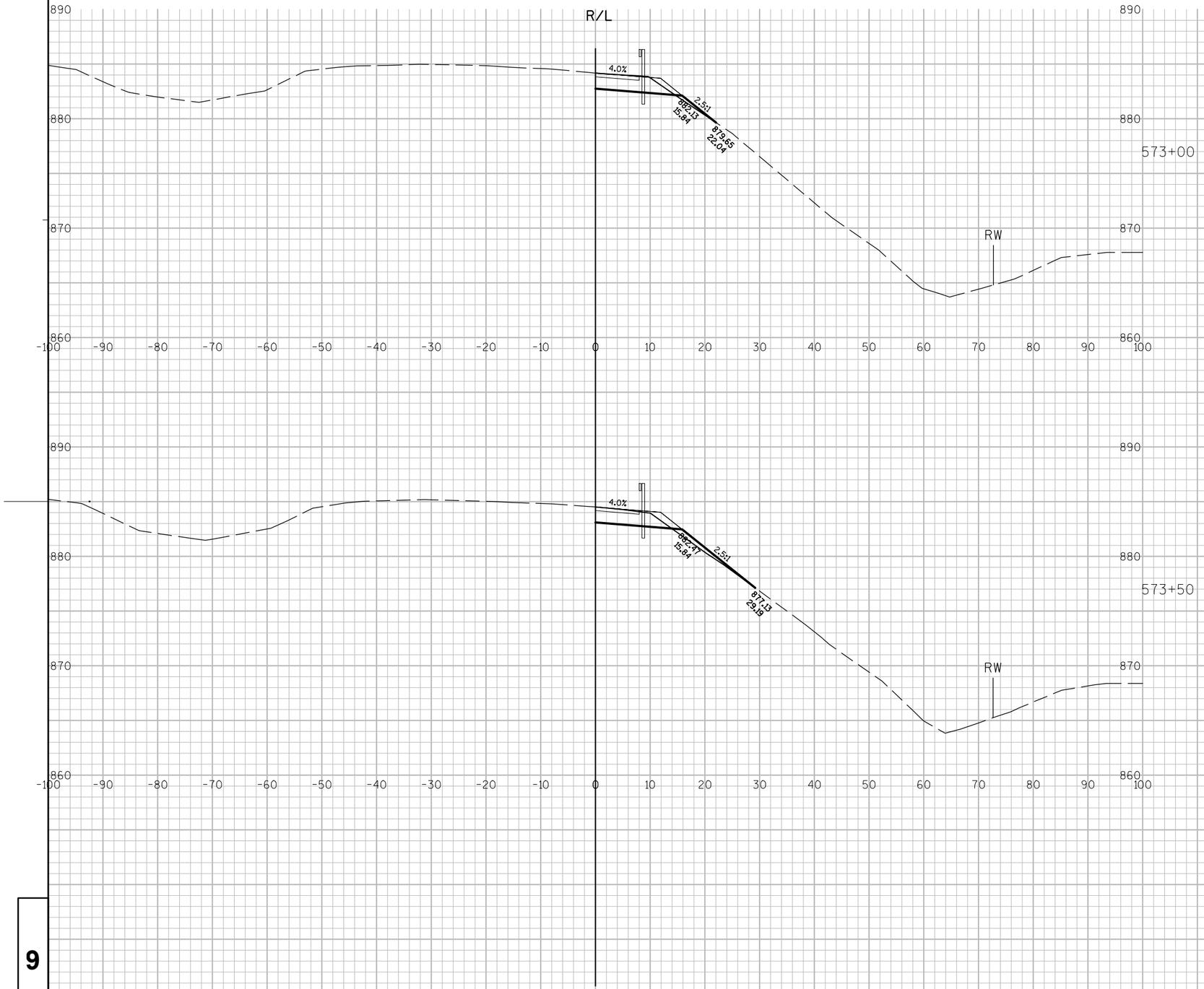
9

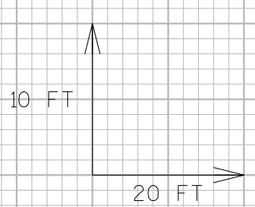
9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 535	E

FILE NAME • T:\1082703\CADD\CIVIL3D\10801200\SHEETSPLANS\090205_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:08 PM PLOT BY • CUTLLAMA_TINA_B PLOT NAME • PLOT SCALE • 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



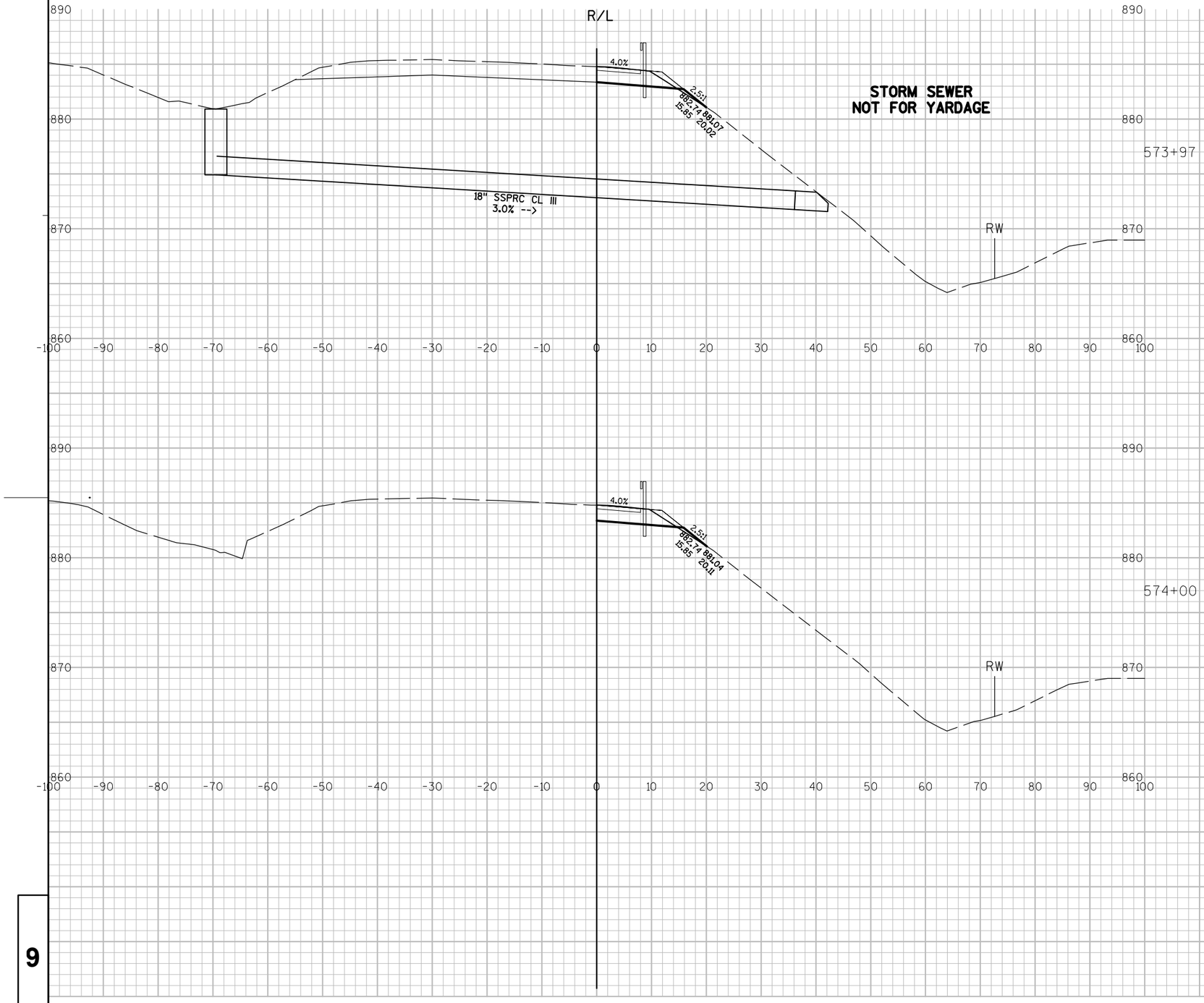


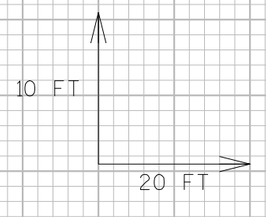
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 536	E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



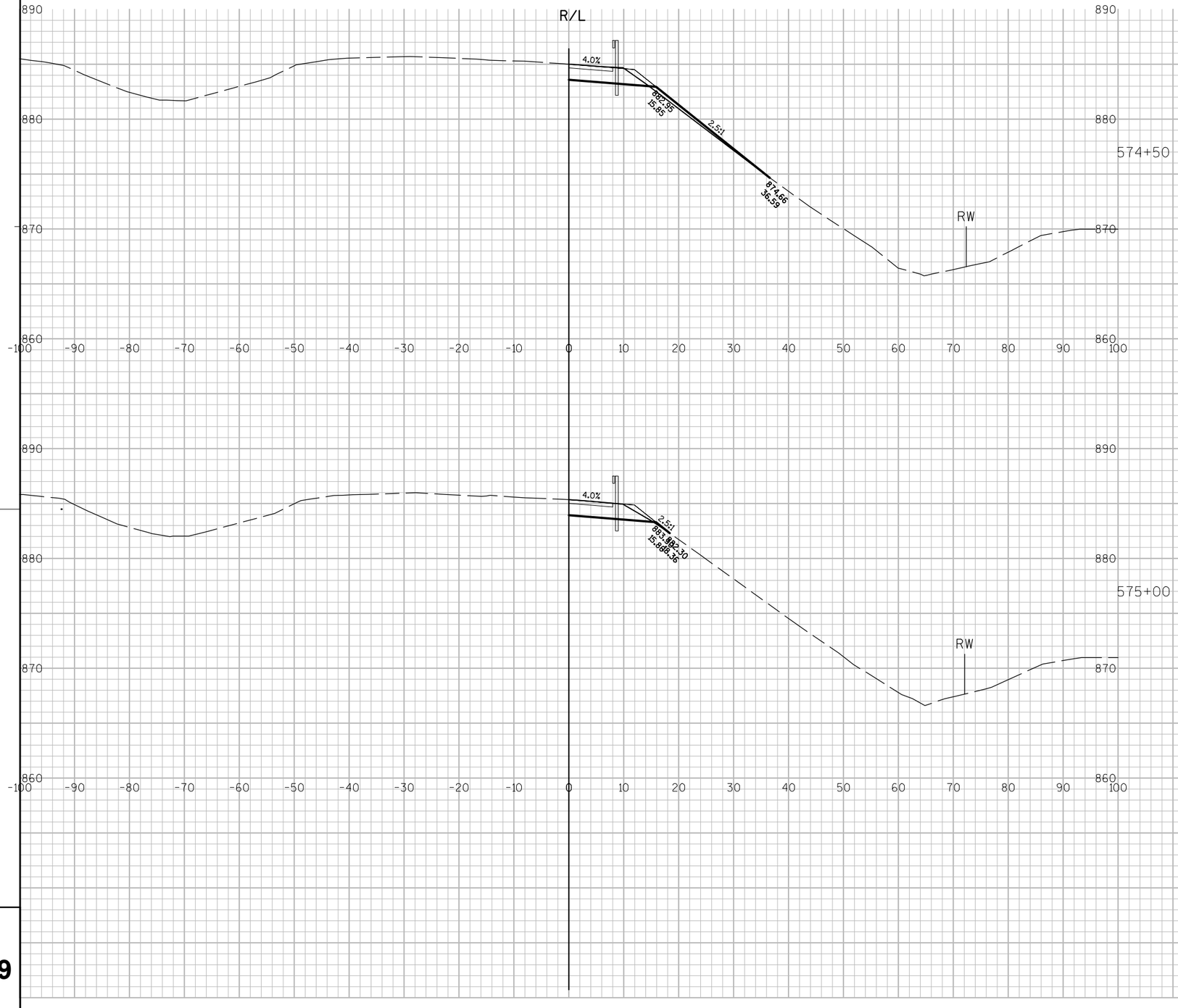


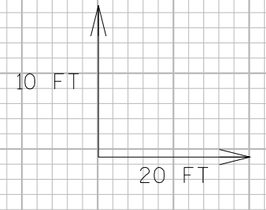
9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 537	E

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3





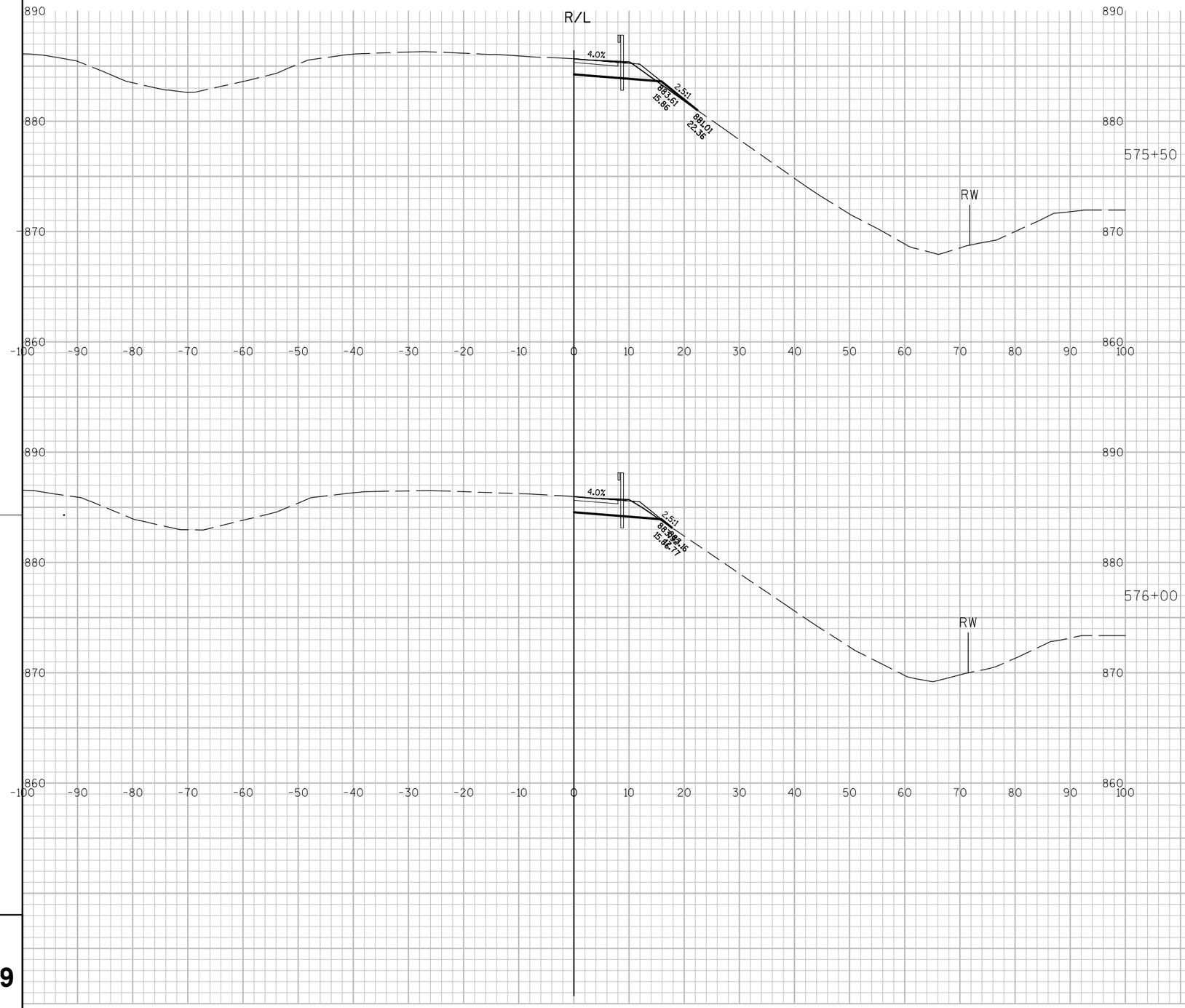
9

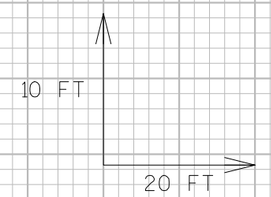
9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 538	E

FILE NAME = T:\1083703\CADD\CIVIL3D\1080120\SHEETSPLAN\080205_XS-RAMP_DB.DWG PLOT DATE = 10/30/2013 5:10 PM PLOT BY = CUTLLAMA_TINA_R PLOT NAME = PLOT SCALE = 1" = 20' YREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3





9

9

PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 539	E

FILE NAME • T:\1083703\CADD\CIVIL3D\1080I200\SHEETSPLAN\080205_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:10 PM PLOT BY • CUTLLAMA_TINA_B PLOT NAME • PLOT SCALE • 1" = 20' XREF

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3

R/L

576+50

4.0%
4.0:1
3.0:1
RW
884.45
18.58
881.35
30.00
870.74
6.85

END GUARDRAIL RT

577+00

4.0%
4.0:1
3.0:1
RW
884.34
18.58
881.72
30.00
875.09
5.89

577+50

4.0%
4.0:1
3.0:1
RW
885.02
15.56
880.85
30.00

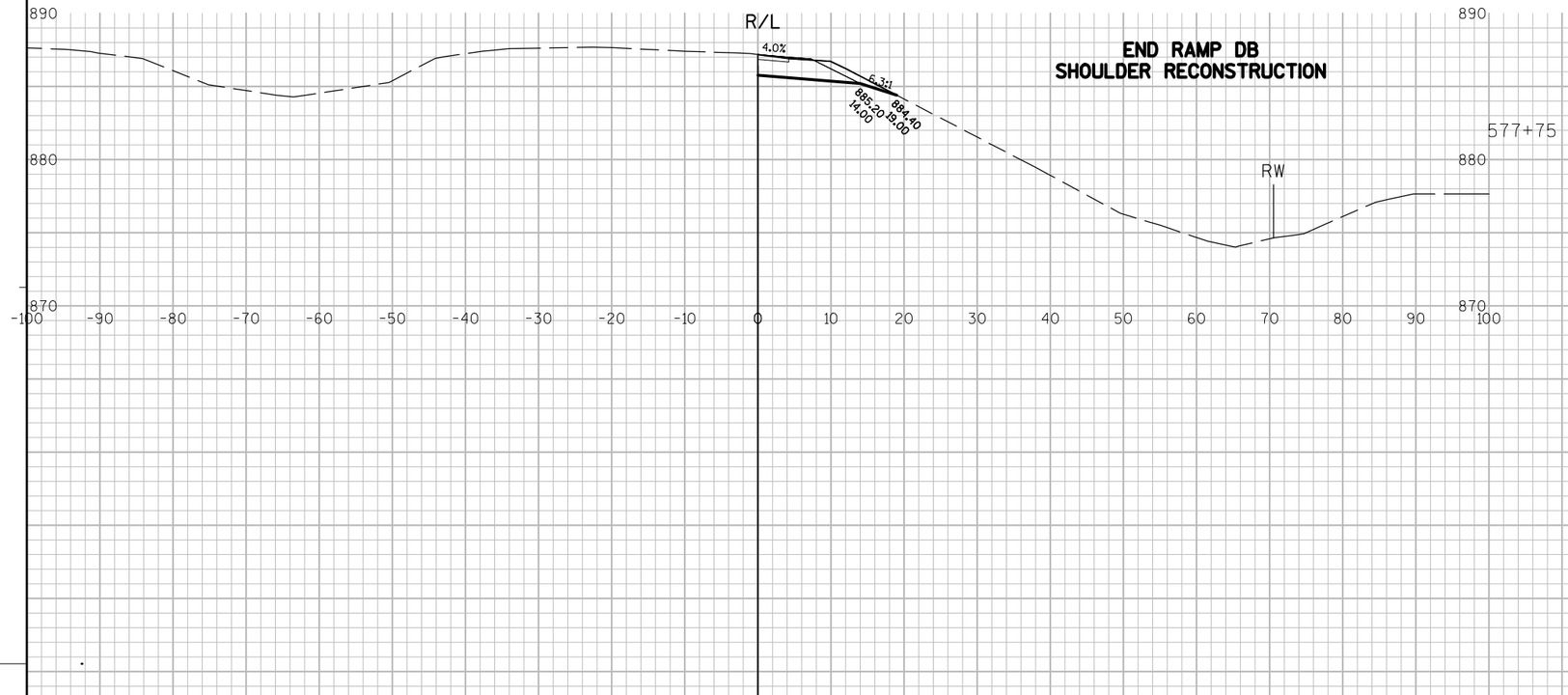
10 FT
20 FT

9

9

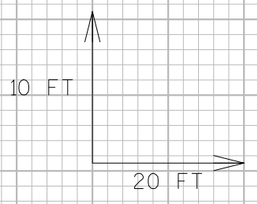
PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET	E

FILE NAME • T:\1082703\CADD\CIVIL3D\1080120QS\SHEETSPLANS\080205E_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:10 PM PLOT BY • CUTLLAMA_TINA_R PLOT NAME • PLOT SCALE • 1" = 20' XREF



END RAMP DB
SHOULDER RECONSTRUCTION

ALL STATIONS ON THIS SHEET TO BE CONSTRUCTED IN STAGE 3



PROJECT NO: 1080-12-71	HWY: USH 12	COUNTY: WALWORTH	CROSS SECTIONS: RAMP DB	SHEET 541	E

FILE NAME • T:\1083703\CADD\CIVIL 3D\10801200\SHEETSPLAN\090205_XS-RAMP_DB.DWG PLOT DATE • 10/30/2013 5:11 PM PLOT BY • CUTLLAMA_TTNA_P PLOT NAME • PLOT SCALE • 1" = 20' XREF

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov