EAU SEPTEMBER 2014

PROJECT ID: 1023-00-78
WITH: 1023-01-70

COUNTY: JACKSON

05

ORDER OF SHEETS

TOTAL SHEETS = 280

DESIGN DESIGNATION 1023-00-78 & 1023-01-70

A.A.D.T.	2014	= 25,700
A.A.D.T.	2034	= 32,700
D.H.V.		= 4,450
D.D.		= 58/42
T.		= 29.6%
DESIGN SPEED		= 70 MPH
ESALS		= 26,000,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BLACK RIVER FALLS - TOMAH

PERRY CREEK TO CTH O (EB)

IH 94

JACKSON COUNTY

PERRY CREEK TO CTH O (WB)

IH 94

JACKSON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1023-00-78	WISC 2014344	1
1023-01-70	WISC 2014345	1

STATE PROJECT NUMBER
1023-00-78

R-4-W
TOWN OF BROCKWAY

STATE PROJECT NUMBER
1023-01-70

R-3-W
TOWN OF BROCKWAY

R-2-W
TOWN OF MILLSTON

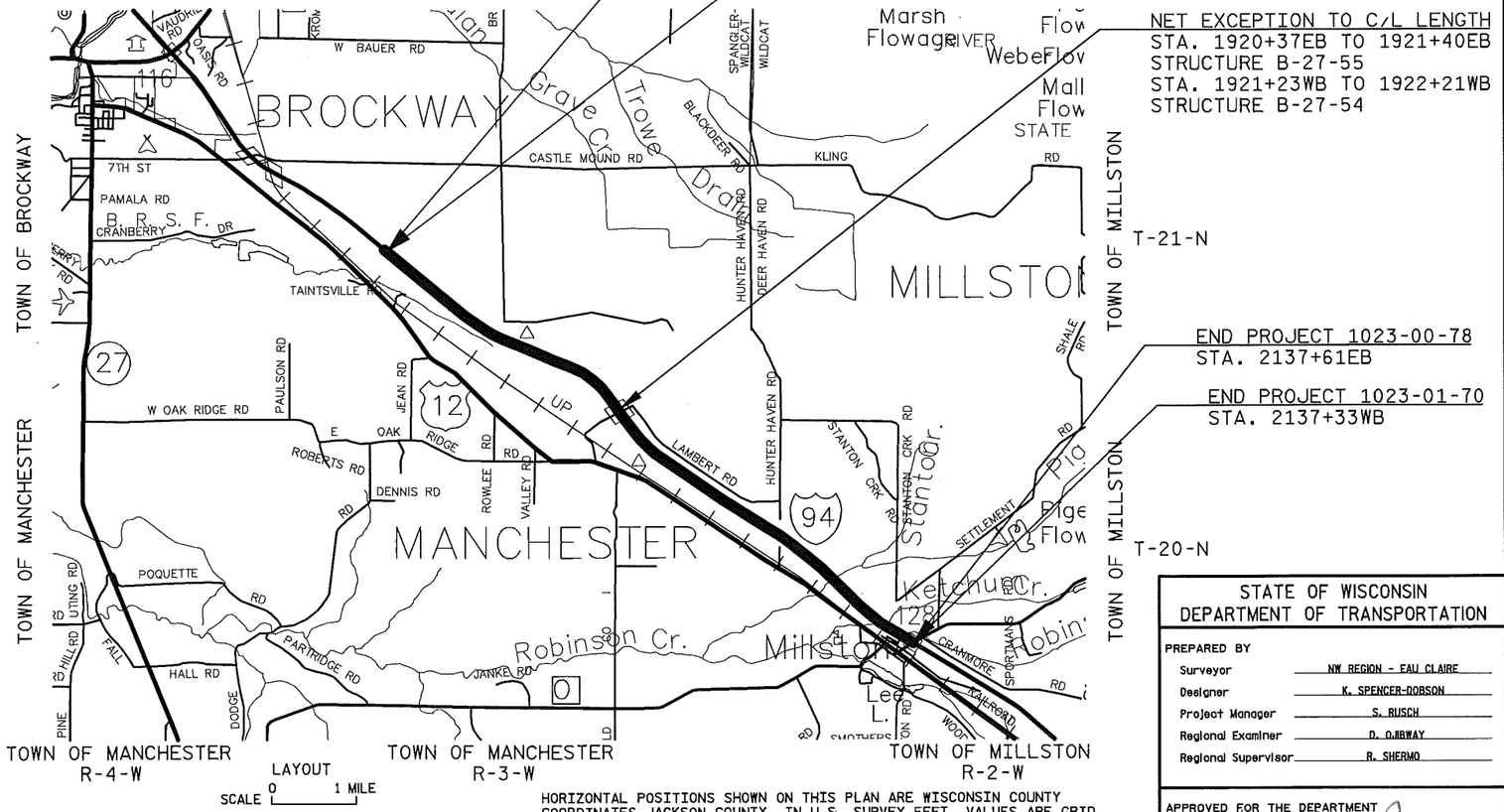
BEGIN PROJECT 1023-00-78
STA. 1765+00EB
X = 110348.13
Y = 82853.41

BEGIN PROJECT 1023-01-70
STA. 1765+00WB
X = 110556.40
Y = 83135.95

NET EXCEPTION TO C/L LENGTH
STA. 1920+37EB TO 1921+40EB
STRUCTURE B-27-55
STA. 1921+23WB TO 1922+21WB
STRUCTURE B-27-54

END PROJECT 1023-00-78
STA. 2137+61EB

END PROJECT 1023-01-70
STA. 2137+33WB



LAYOUT
SCALE 0 1 MILE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, JACKSON COUNTY, IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

TOTAL NET LENGTH OF CENTERLINE = 7.038 MILES PROJECT 1023-00-78
TOTAL NET LENGTH OF CENTERLINE = 7.033 MILES PROJECT 1023-01-70

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION - EAU CLAIRE
Designer	K. SPENCER-DOBSON
Project Manager	S. RUSCH
Regional Examiner	D. O'BRWAY
Regional Supervisor	R. SHERMO

APPROVED FOR THE DEPARTMENT
DATE: 4/29/14 (Signature)

E

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
IMCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE

UTILTIES

AT&T LEGACY - COMMUNICATION LINE
BILL KOENIG
P.O. BOX 244
127 NORTH MAIN
LAKE MILLS, WI 53551
PHONE: (608) 628-0575
EMAIL: JMC140@FRONTIER.COM

JACKSON ELECTRIC COOPERATIVE
KEVIN BABCOCK
P.O. BOX 546
BLACK RIVER FALLS, WI 54615
PHONE: (715) 284-5385
CELL PHONE: (715) 896-2700
E-MAIL: KEVINB@JACKELEC.COM

CENTURYLINK - COMMUNICATION LINE
DONNA SMOTHERS
835 RED IRON ROAD
BLACK RIVER FALLS, WI 54605
PHONE: (715) 284-4375
CELL PHONE: (608) 797-2770

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

GENERAL NOTES

HORIZONTAL CONTROL POINTS AND ANY OTHER SURVEY INFORMATION WILL BE PROVIDED BY NORTHWEST REGIONAL TECHNICAL SERVICES UPON REQUEST.

CURVE DATA IS BASED ON THE ARC DEFINITION.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

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

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE SALVAGE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE COUNTY SURVEYOR REGARDING MONUMENT AND PROPERTY CORNER PRESERVATION.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL DIGGERS HOTLINE PRIOR TO BEGINNING WORK OPERATIONS AND TO CONFIRM ALL UTILITY LOCATIONS.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATIONS AND QUANTITIES OF REMOVING CONCRETE SURFACE PARTIAL DEPTH, REMOVING ASPHALTIC SURFACE BUTT JOINTS, AND CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

MAINTENANCE AND REPAIR OF TEMPORARY WEDGE JOINT WILL BE INCIDENTAL TO THE APPROPRIATE HMA PAVEMENT BID ITEM.

TRAFFIC CONTROL NEEDED DURING MAINTENANCE AND REPAIRS OF TEMPORARY WEDGE JOINT WILL BE INCIDENTAL TO THE TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE BID ITEM.

THE CONTRACTOR SHALL GIVE A ONE WEEK MINIMUM PRIOR NOTICE TO STATE PATROL CONTACT FOR THE COORDINATION OF THE LOCATION OF SPEED ENFORCEMENT LINES.

PLACE HMA PAVEMENT WITH THE FOLLOWING THICKNESSES AND NOMINAL SIZE AGGREGATE:

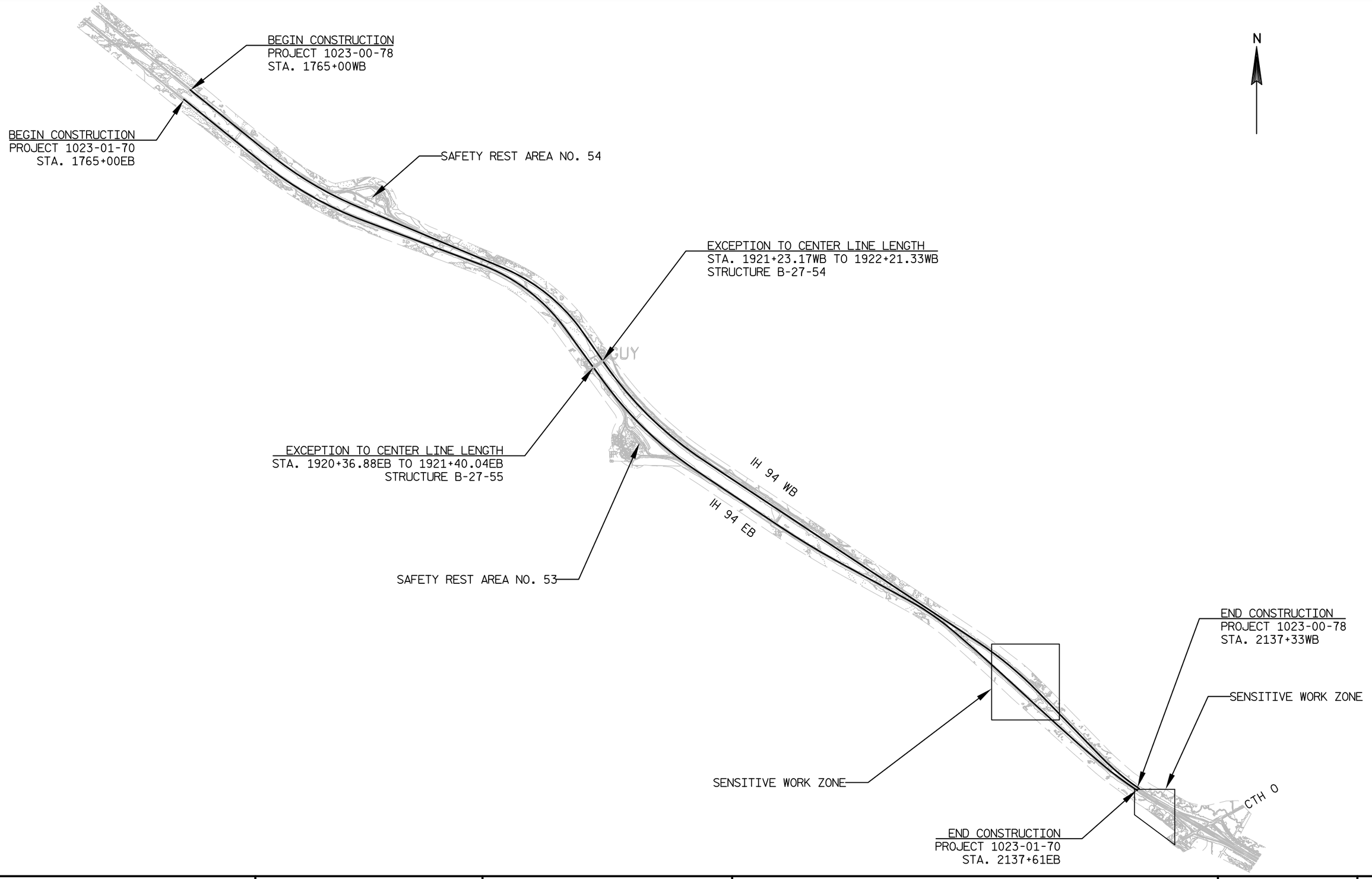
4.5-INCH MAINLINE AND PASSING LANE SHOULDERS
UPPER LAYER THICKNESS = 2-INCH SMA SPECIAL
LOWER LAYER THICKNESS = 2.5-INCH E-10 HMA (19.0 mm)

4.5-INCH DRIVING LANE SHOULDERS
UPPER LAYER THICKNESS = 2-INCH E-0.3 HMA (12.5 mm)
LOWER LAYER THICKNESS = 2.5-INCH E-0.3 GMA (19.0 mm)

WISCONSIN DNR – LIASON

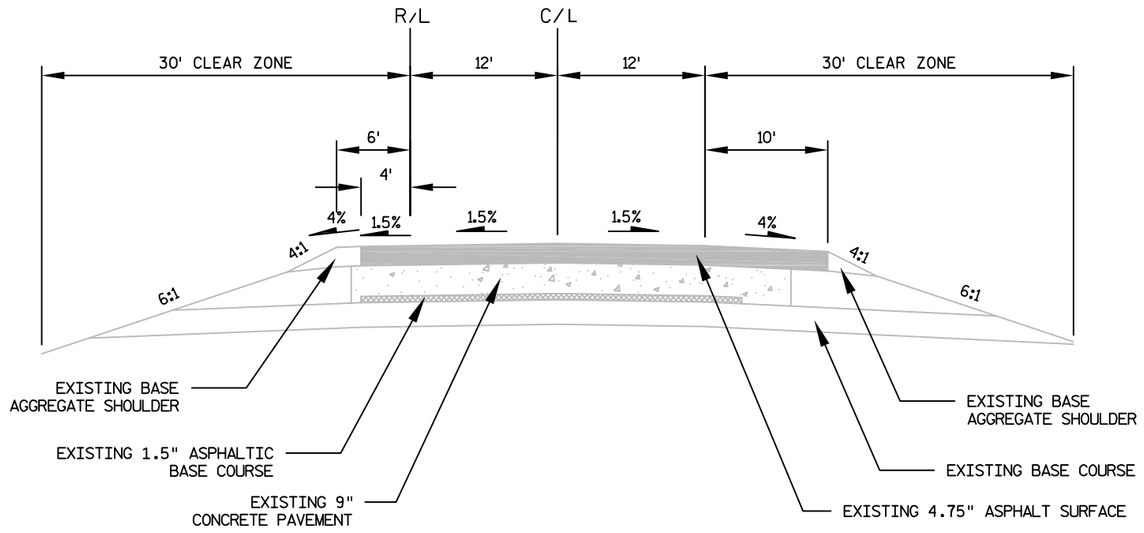
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
WEST CENTRAL REGION SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
PHONE: (608) 785-9000
ATTN: KAREN KALVELAGE

ORDER OF SECTION 2 SHEETS

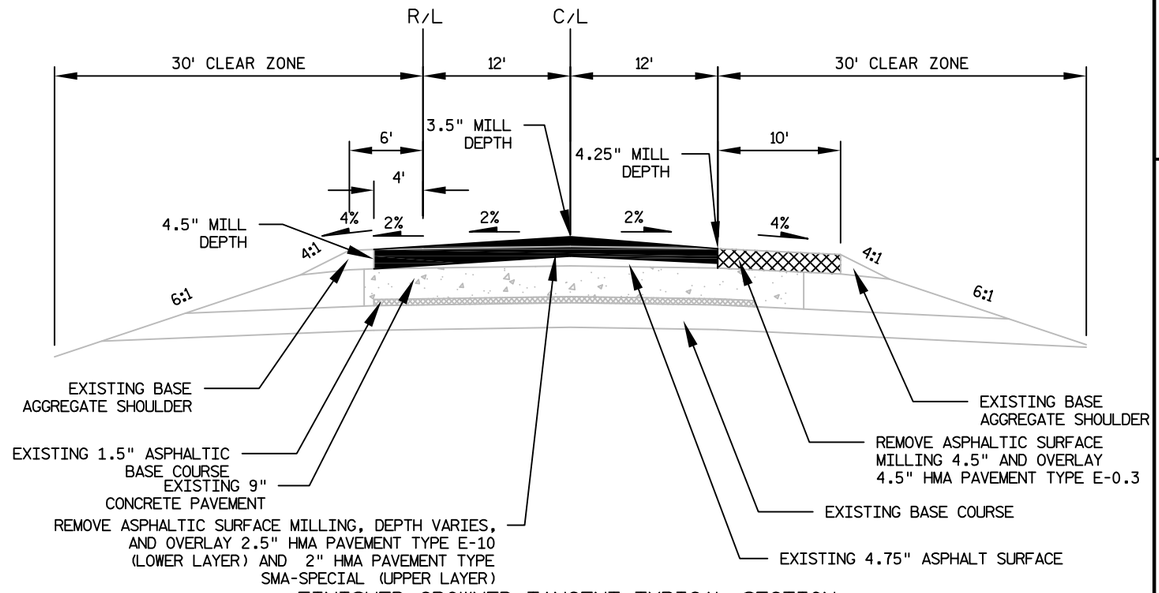


2

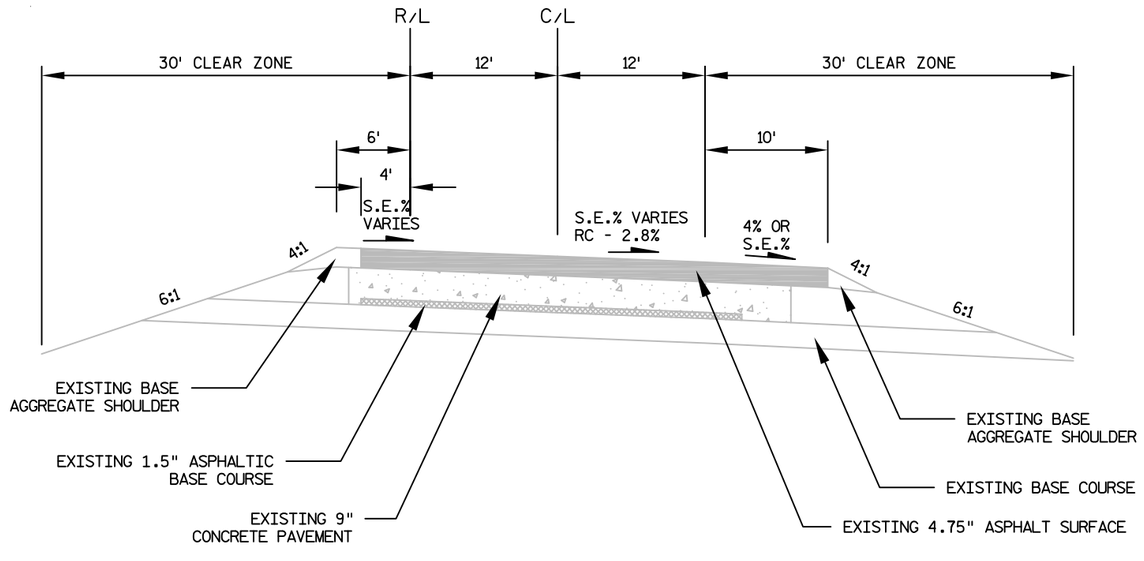
PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	PROJECT OVERVIEW	SHEET	E



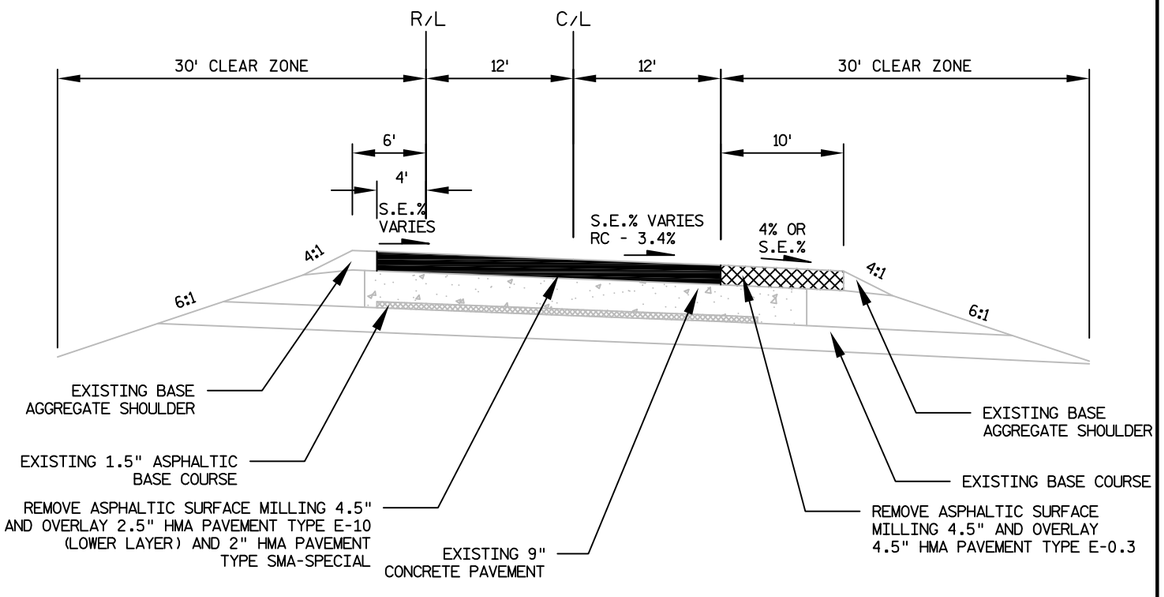
EXISTING CROWNED TANGENT TYPICAL SECTION
IH 94
(EASTBOUND SHOWN: WESTBOUND IS A MIRROR IMAGE)
STA. 1765+00EB - 2137+61EB
STA. 1765+00WB - 2137+33WB



FINISHED CROWNED TANGENT TYPICAL SECTION
IH 94
(EASTBOUND SHOWN: WESTBOUND IS A MIRROR IMAGE)
STA. 1765+00EB - 2137+61EB
STA. 1765+00WB - 2137+33WB

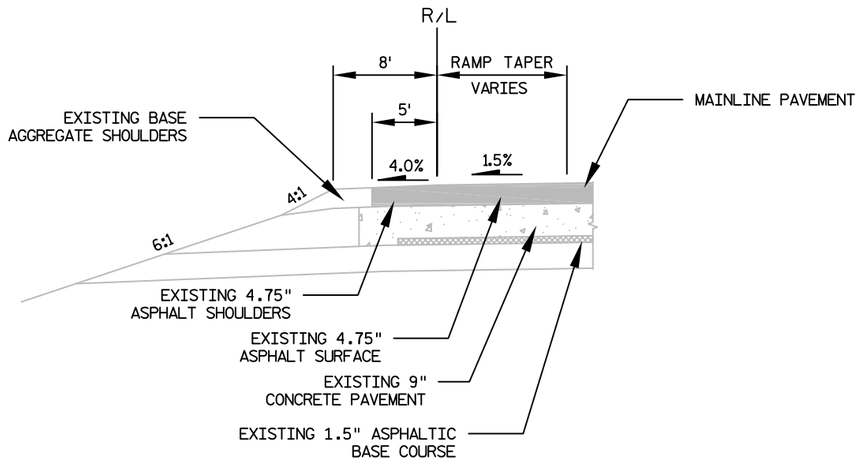


EXISTING SUPERELEVATED TYPICAL SECTION
IH 94
(EASTBOUND SHOWN: WESTBOUND IS A MIRROR IMAGE)
STA. 1765+00EB - 2137+61EB
STA. 1765+00WB - 2137+33WB



FINISHED SUPERELEVATED TYPICAL SECTION
IH 94
(EASTBOUND SHOWN: WESTBOUND IS A MIRROR IMAGE)
STA. 1765+00EB - 2137+61EB
STA. 1765+00WB - 2137+33WB

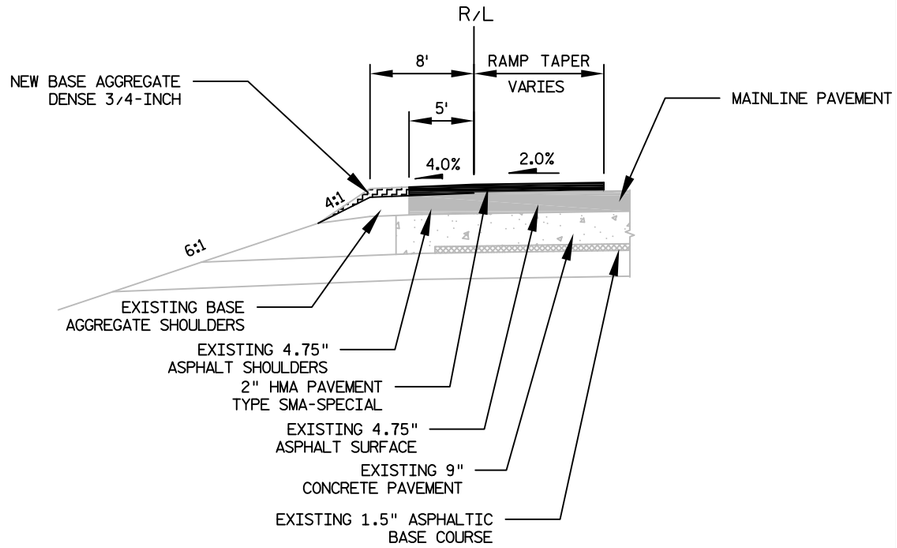
PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	TYPICAL SECTIONS	SHEET	E



EXISTING RAMP TAPER TYPICAL SECTION

IH 94

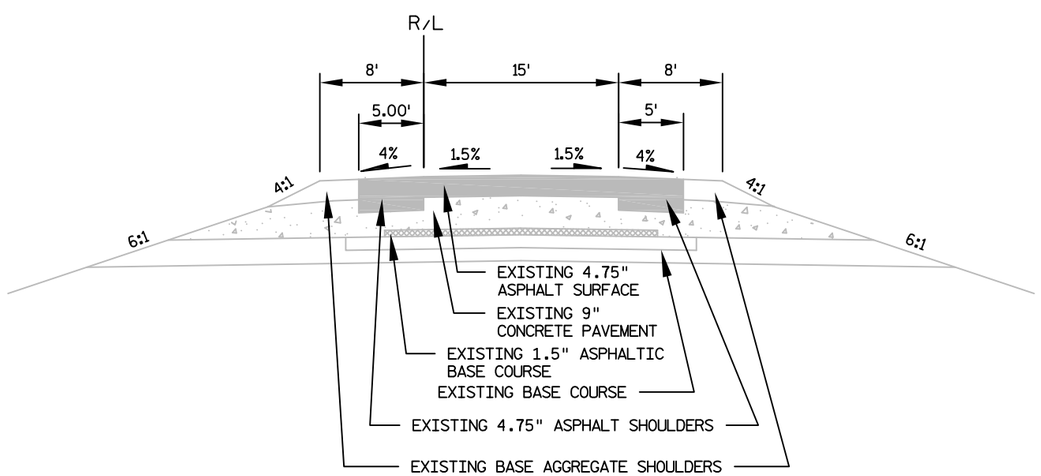
STA. 1+00A - 3+12A
STA. 17+37B - 27+38B



FINISHED RAMP TAPER TYPICAL SECTION

IH 94

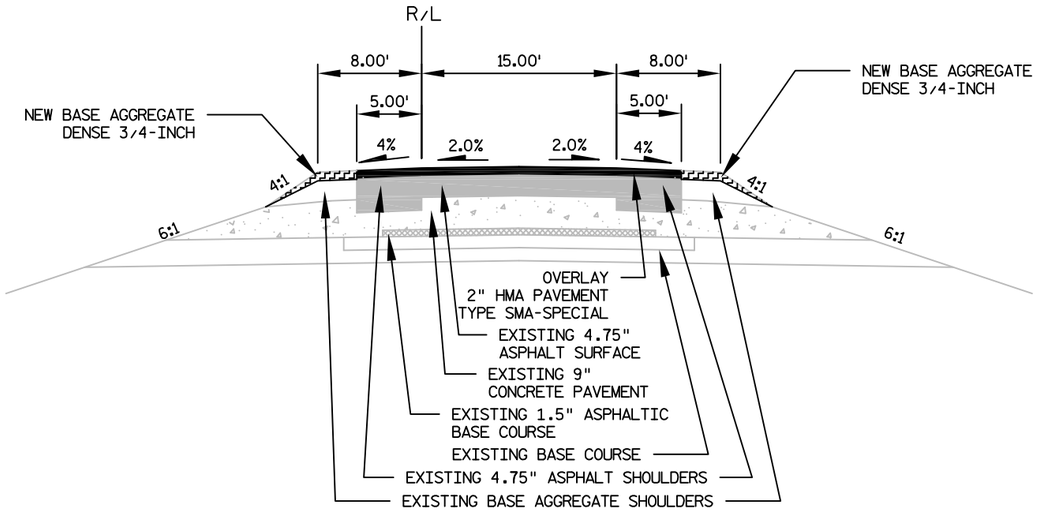
STA. 1+00A - 3+12A
STA. 17+37B - 27+38B



EXISTING RAMP TYPICAL SECTION

IH 94

STA. 3+12A - 13+15A
STA. 2+90B - 17+37B
STA. 1+00C - 4+30C
STA. 11+93C - 15+16C

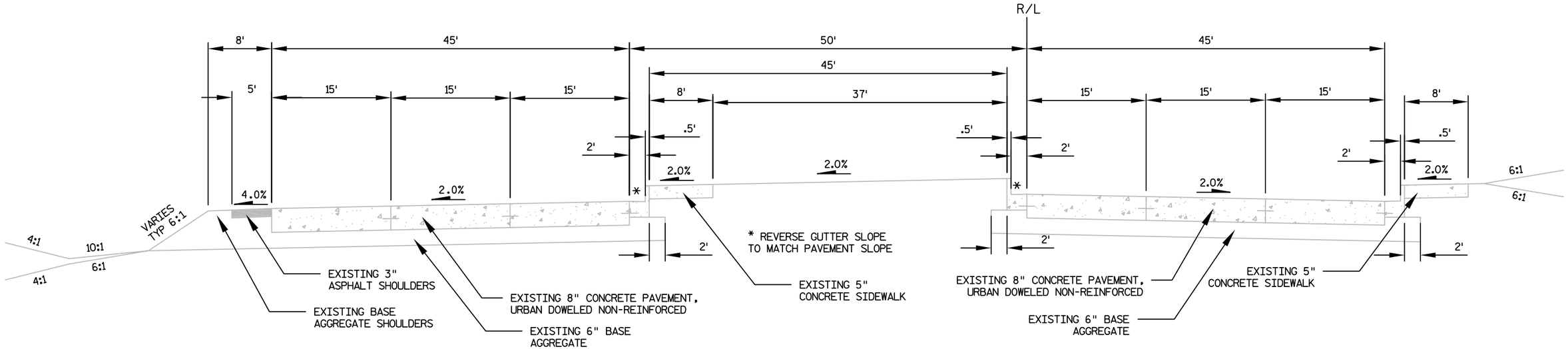


FINISHED RAMP TYPICAL SECTION

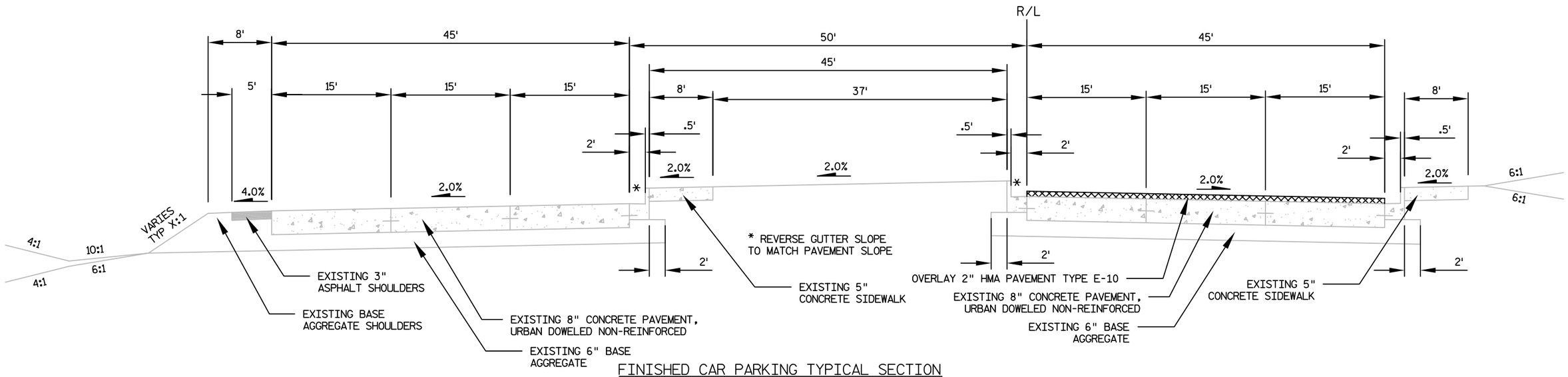
IH 94

STA. 3+12A - 13+15A
STA. 2+90B - 17+37B
STA. 1+00C - 4+30C
STA. 11+93C - 15+16C

PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	TYPICAL SECTIONS - EB REST AREA RAMPS	SHEET	E

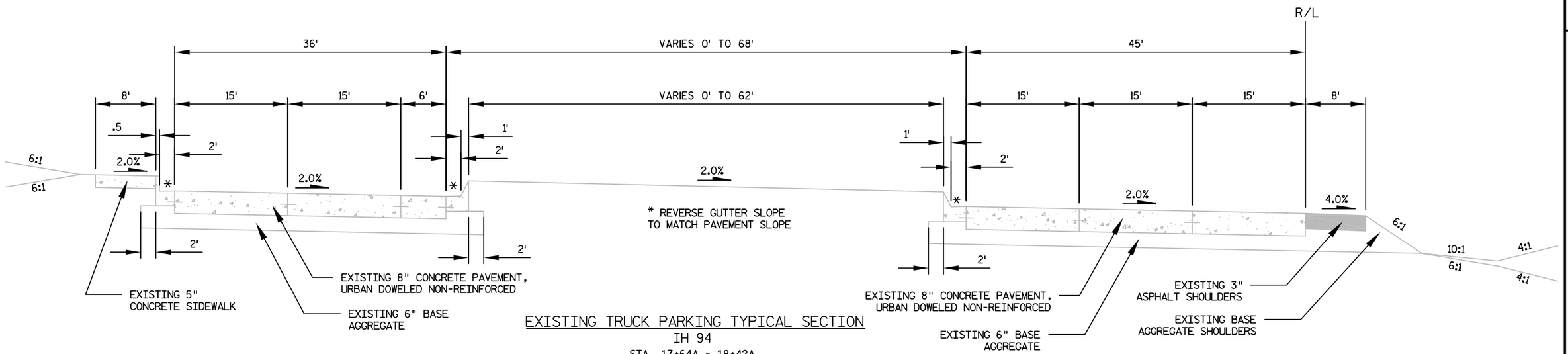


EXISTING CAR PARKING TYPICAL SECTION
IH 94
STA. 4+30C - 11+93C

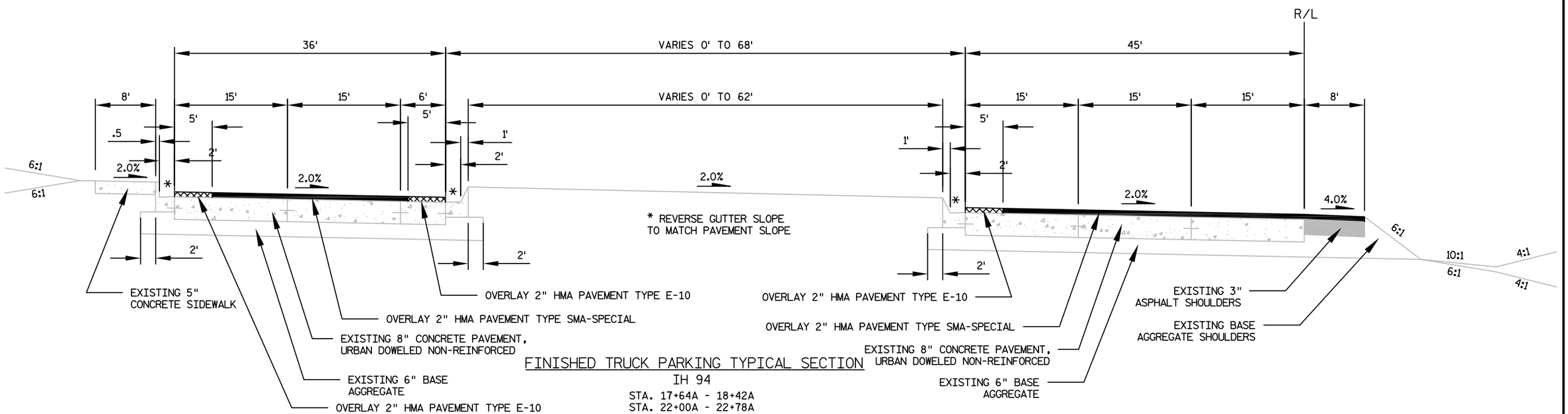


FINISHED CAR PARKING TYPICAL SECTION
IH 94
STA. 4+30C - 11+93C

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	TYPICAL SECTIONS - EB REST AREA CAR PARKING LOT	SHEET	E

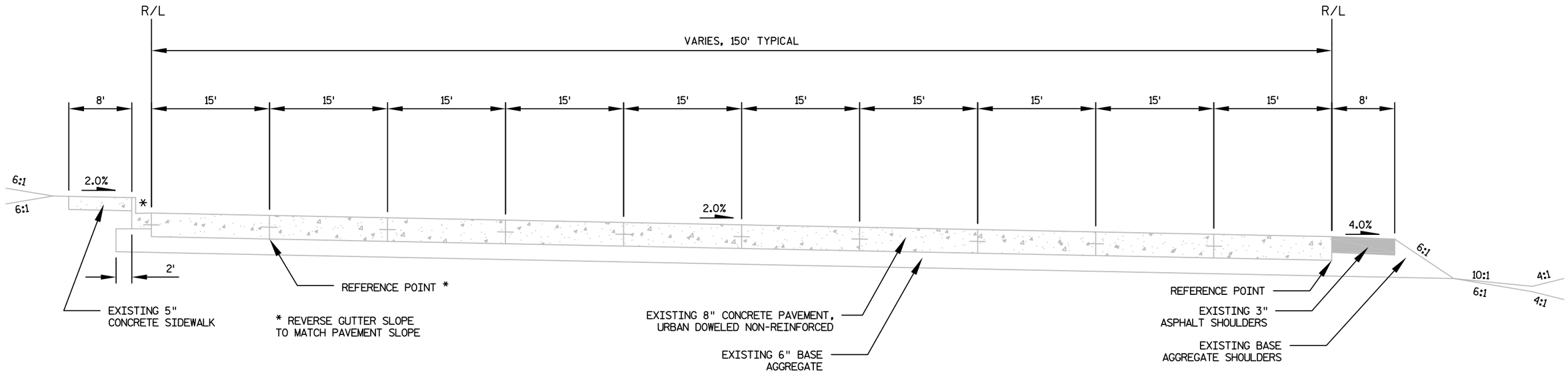


EXISTING TRUCK PARKING TYPICAL SECTION
IH 94
STA. 17+64A - 18+42A
STA. 22+00A - 22+78A



FINISHED TRUCK PARKING TYPICAL SECTION
IH 94
STA. 17+64A - 18+42A
STA. 22+00A - 22+78A

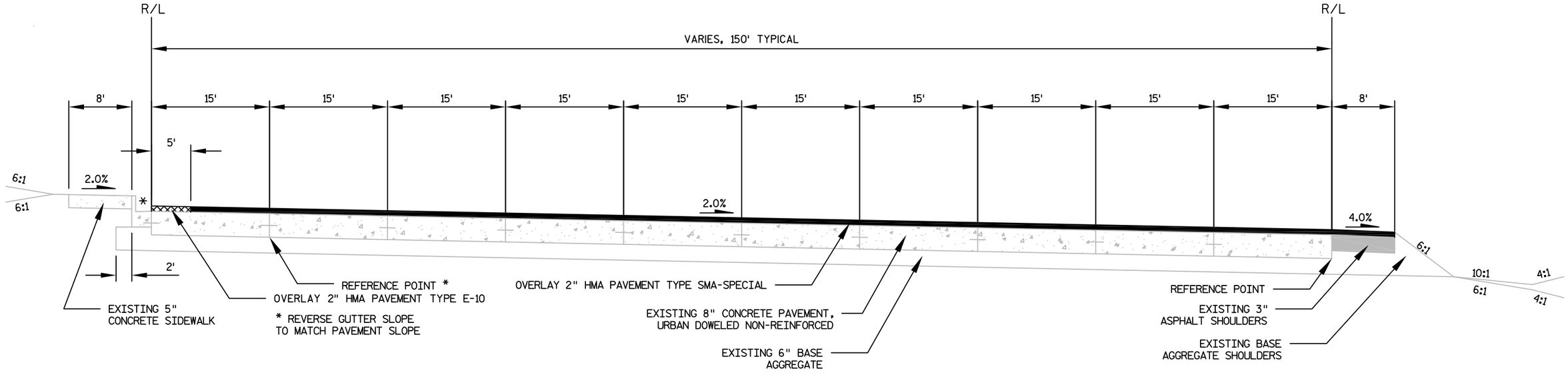
PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	TYPICAL SECTIONS - EB REST AREA TRUCK PARKING LOT	SHEET	E



EXISTING TRUCK PARKING TYPICAL SECTION

IH 94

STA. 13+15A - 17+64A
STA. 18+42A - 22+00A
STA. 22+78A - 24+98A
* STA. 1+00B - 2+90B

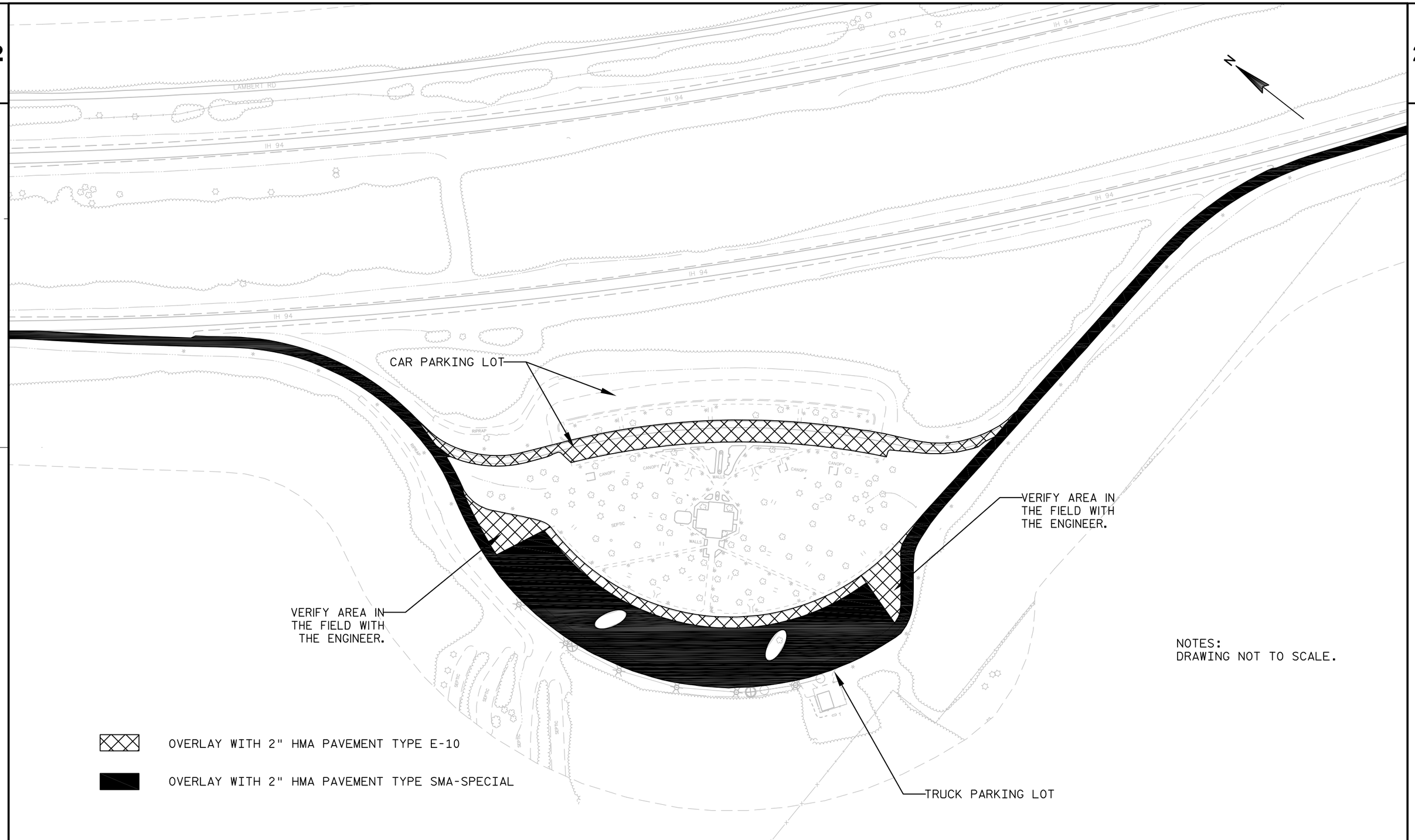


FINISHED TRUCK PARKING TYPICAL SECTION

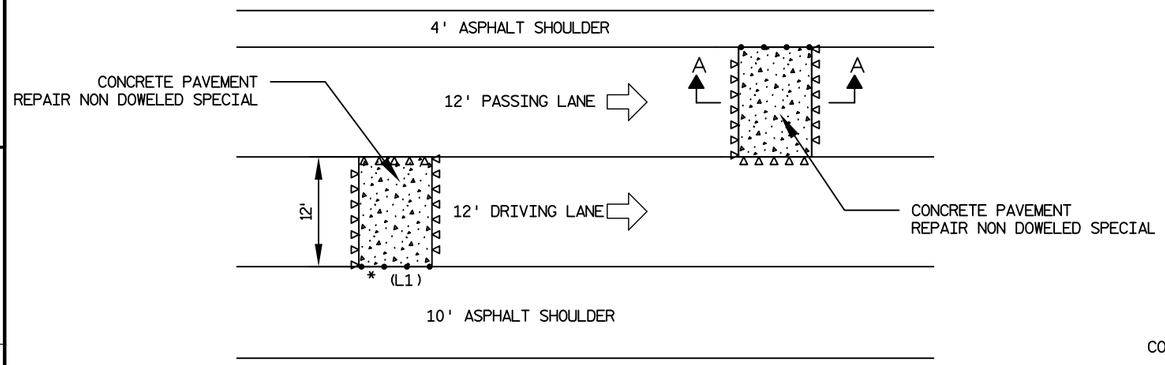
IH 94

STA. 13+15A - 17+64A
STA. 18+42A - 22+00A
STA. 22+78A - 24+98A
* STA. 1+00B - 2+90B

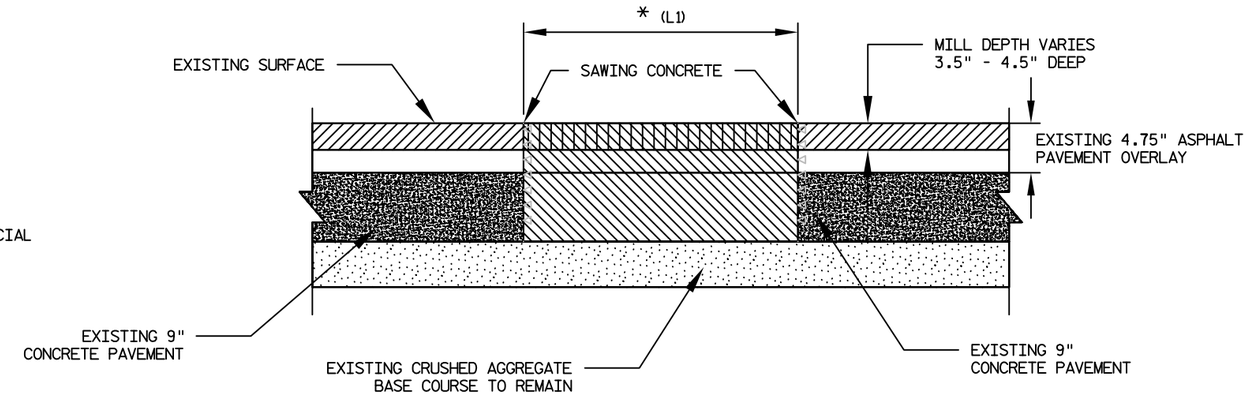
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	TYPICAL SECTIONS - EB REST AREA TRUCK PARKING LOT	SHEET	E



PROJECT NO:1023-00-78	HWY: IH 94	COUNTY: JACKSON	EB REST AREA PAVING PLAN	SHEET	E



PLAN VIEW



SECTION A-A

* (L1) = 4' - 8' TYP. OR AS DIRECTED BY THE ENGINEER.
0'-15' IS REPAIR

REMOVING ASPHALTIC SURFACE MILLING

CONCRETE PAVEMENT REPAIR/REPLACEMENT NON DOWELED SPECIAL

REMOVING CONCRETE SURFACE PARTIAL DEPTH

SAWING CONCRETE

SAWING ASPHALT

NOTES:
CONSTRUCTION CONCRETE PAVEMENT REPAIR PRIOR TO HMA MILL & OVERLAY.

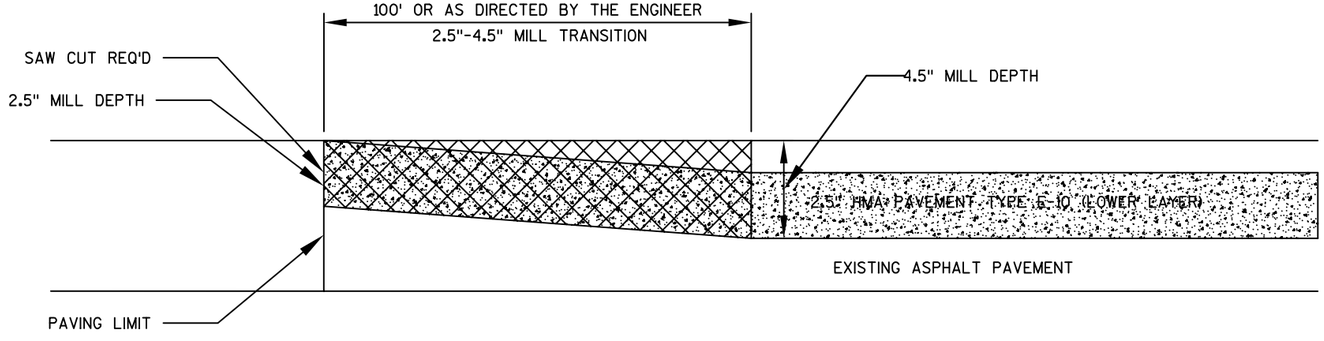
THICKNESS OF CONCRETE REPAIR MAY VARY. 14" AVERAGE THICKNESS IS EXPECTED.

DAMAGE TO EITHER EXISTING PAVEMENTS OR EXISTING SHOULDER SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AND WILL BE INCIDENTAL TO THE ITEMS OF "CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL".

SAWING THROUGH EXISTING ASPHALT PAVEMENT OVERLAY WILL BE INCIDENTAL TO THE ITEM OF "SAWING CONCRETE."

CONCRETE PAVEMENT REPAIRT NON DOWELED SPECIAL DETAIL

LOCATIONS DETERMINED IN THE FIELD BY THE ENGINEER.



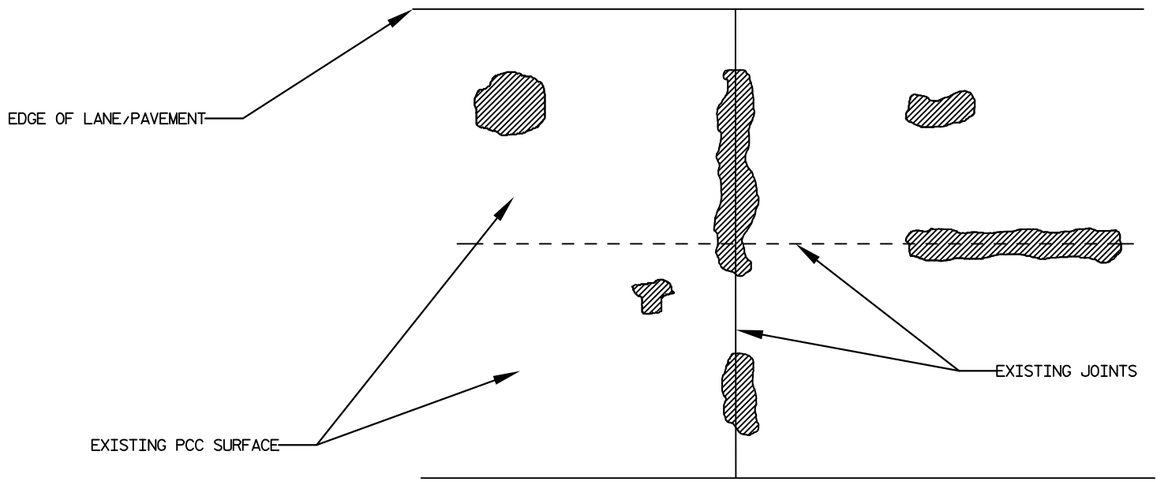
MILL AND REMOVE 4.5" OF EXISTING SURFACE, EXCEPT IN TRANSITION AREA.
MILL AND REMOVE 2.5" TO 4.5" OF EXISTING SURFACE IN TRANSITION AREA.
OVERLAY 2.5" HMA PAVEMENT TYPE E-10 (LOWER LAYER).
(NOTE: WIDTH OF JOINT EXTENDS ACROSS MAINLINE AND INSIDE SHOULDERS.)

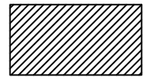
PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINTS"

REMOVING ASPHALTIC SURFACE BUTT JOINT DETAIL

REQUIRED AT BEGIN & END CONSTRUCTION LIMITS,
BRIDGES AND RAMPS PRIOR TO OPENING TO TRAFFIC.
EXACT LOCATIONS AND DIMENSIONS TO BE VERIFIED BY
THE ENGINEER IN THE FIELD.

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CONSTRUCTION DETAILS	SHEET E



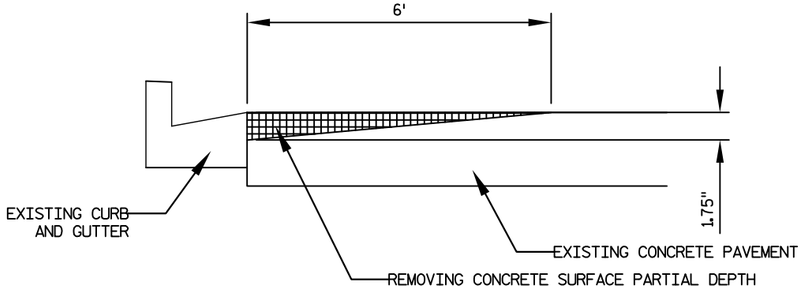


NOTES:

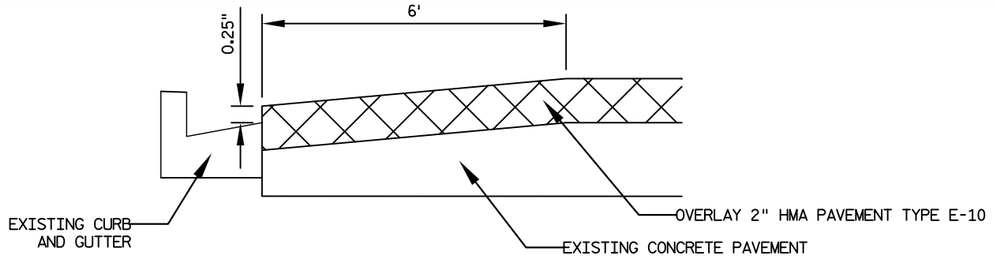
AFTER THE EXISTING PAVEMENT IS GROUND TO THE DEPTH SPECIFIED ON THE PREPARE CURB AND GUTTER FOR ASPHALTIC PAVING DETAIL, REMOVE REMAINDER OF CRACKFILL, PATCHING, AND UNSOUND PCC/HMA TO A MINIMUM DEPTH OF 4" BELOW THE PAVEMENT SURFACE.

REPAVE AREAS WITH ASPHALTIC SURFACE PATCHING PAID SEPARATELY FROM THE ITEM.

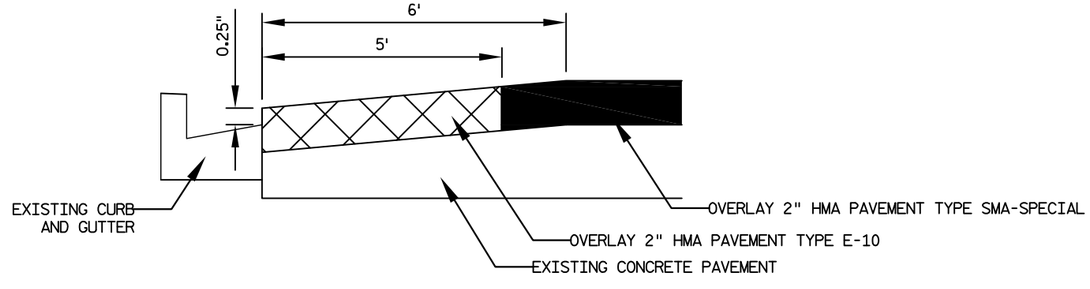
PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL
CLEANING AND REPAIRING DISTRESSED HMA/PCC AREAS



PREPARE CURB AND GUTTER FOR ASPHALTIC PAVING
GRINDING PCC NEXT TO GUTTER TO PREPARE FOR ASPHALTIC PAVING



CAR PARKING LOT DETAIL



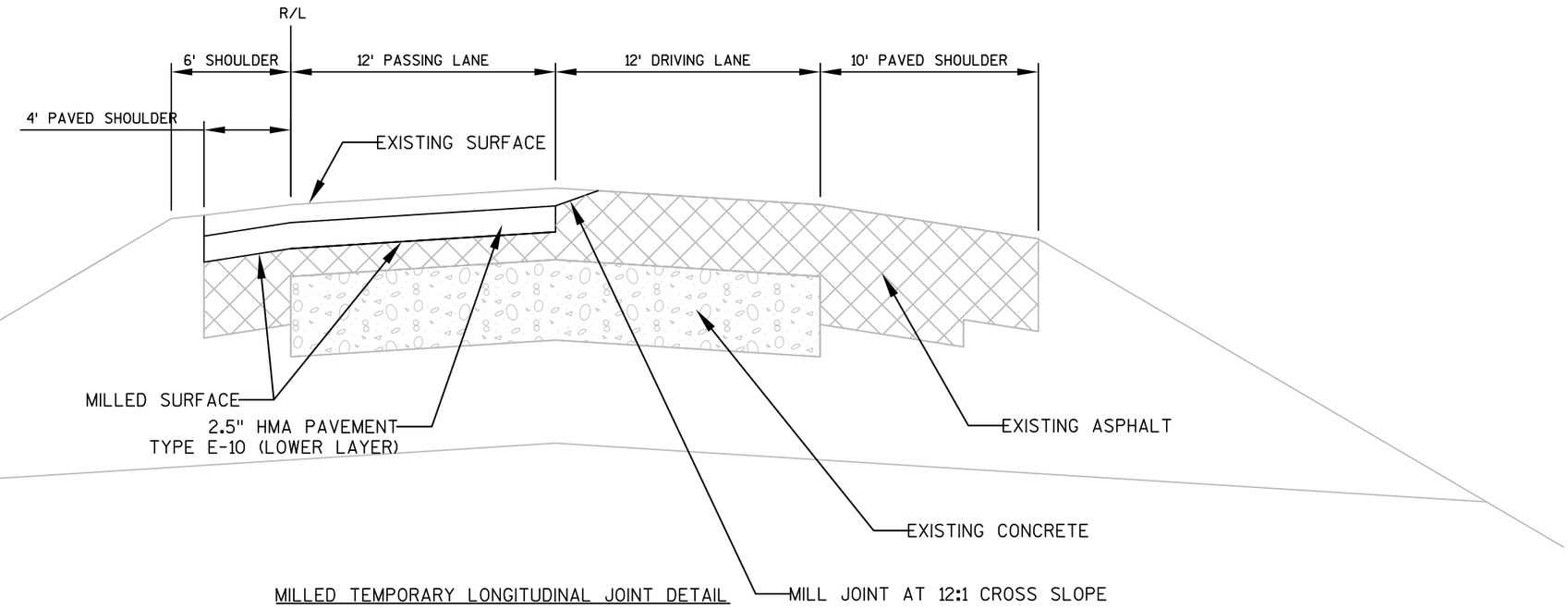
TRUCK PARKING LOT DETAIL

PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	CONSTRUCTION DETAILS	SHEET E

NOTES:
MILL AND REMOVE TEMPORARY JOINT PRIOR TO OPENING LANE TO TRAFFIC.

DETAIL ASSUMES MILL & OVERLAY IN PASSING LANE FIRST. MIRROR JOINT IF MILL & OVERLAY IS COMPLETED IN DRIVING LANE FIRST.

MILLED TEMPORARY LONGITUDINAL JOINT PAID FOR UNDER ITEM "MILLING AND REMOVING TEMPORARY JOINT"



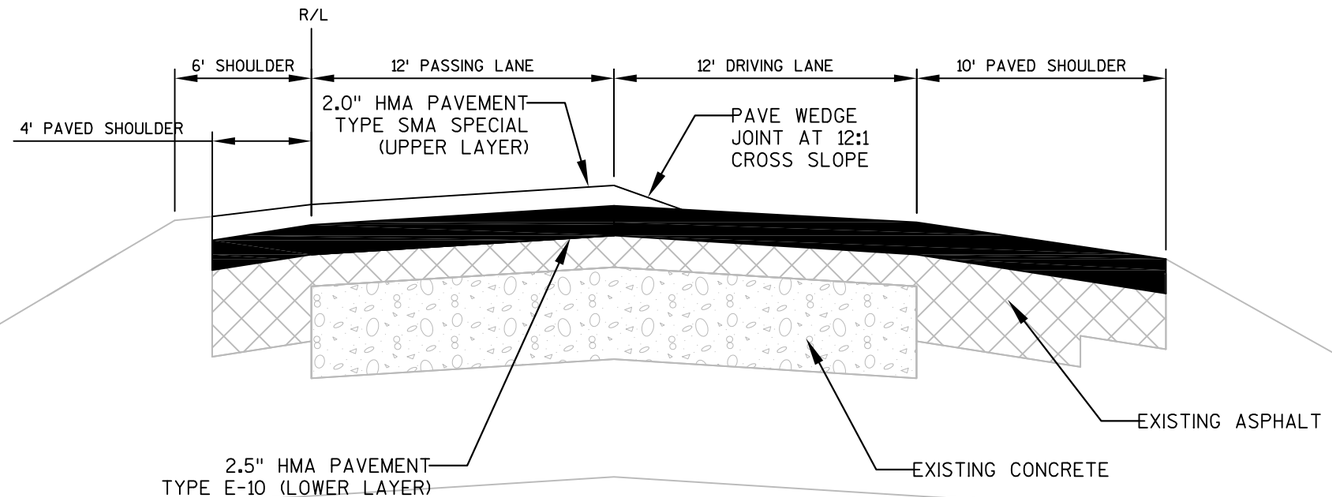
MILLED TEMPORARY LONGITUDINAL JOINT DETAIL

NOTES:
PLACE TEMPORARY WEDGE JOINT PRIOR TO OPENING LANE TO TRAFFIC.

DETAIL ASSUMES MILL & OVERLAY IN PASSING LANE FIRST. MIRROR JOINT IF MILL & OVERLAY IS COMPLETED IN DRIVING LANE FIRST.

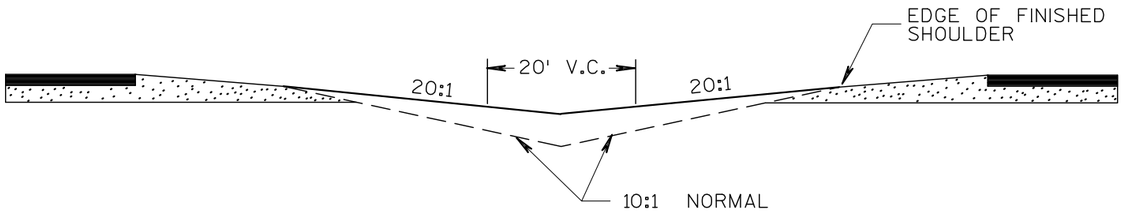
PLACING TEMPORARY WEDGE JOINT PAID FOR UNDER ITEM "HMA PAVEMENT TYPE SMA-SPECIAL"

TEMPORARY WEDGE JOINT REMOVAL PAID FOR UNDER ITEM "MILLING AND REMOVING TEMPORARY JOINT"

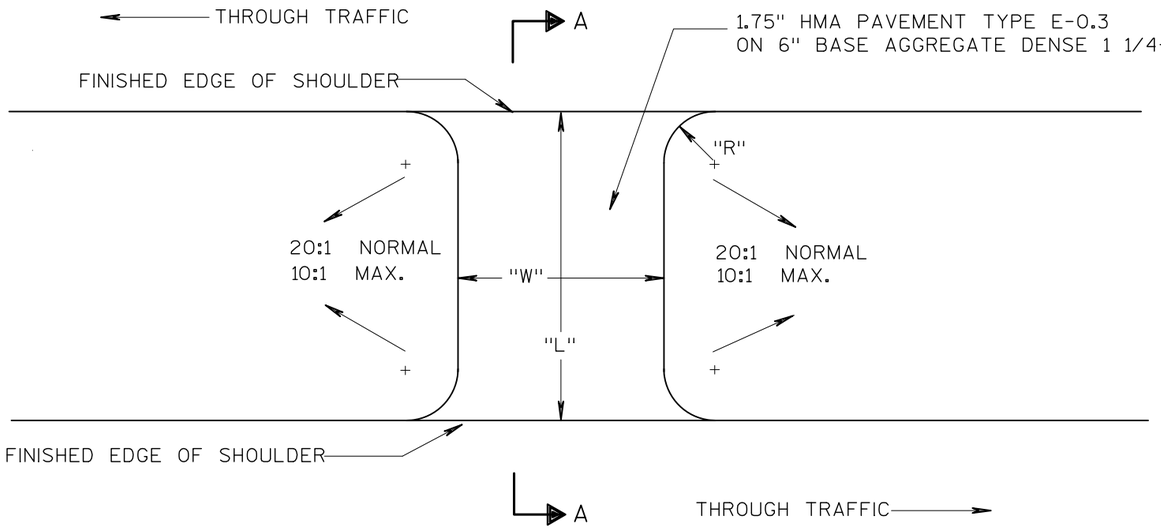


TEMPORARY LONGITUDINAL WEDGE JOINT DETAIL

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CONSTRUCTION DETAILS	SHEET	E

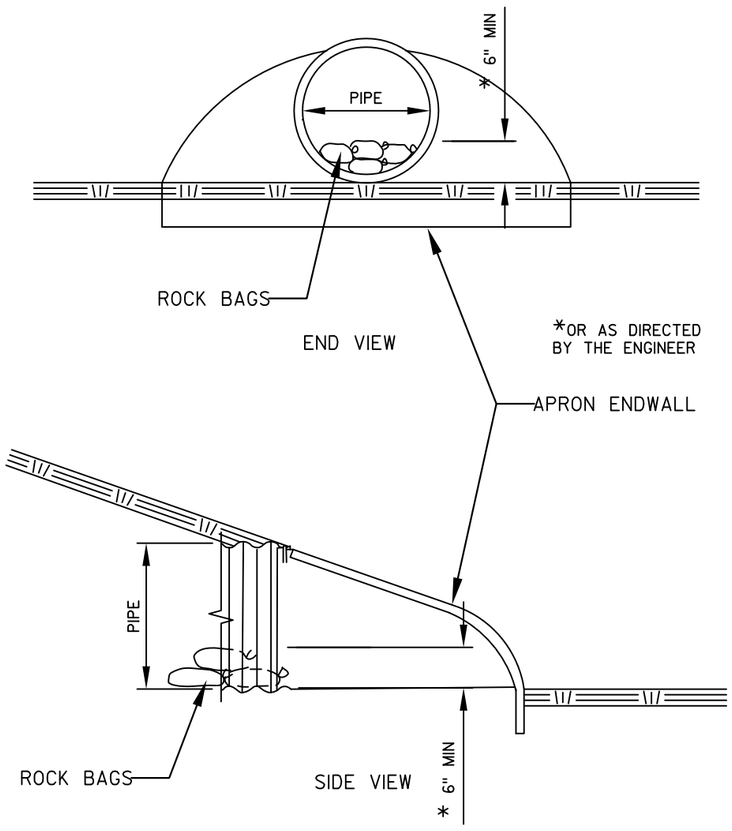


SECTION A-A

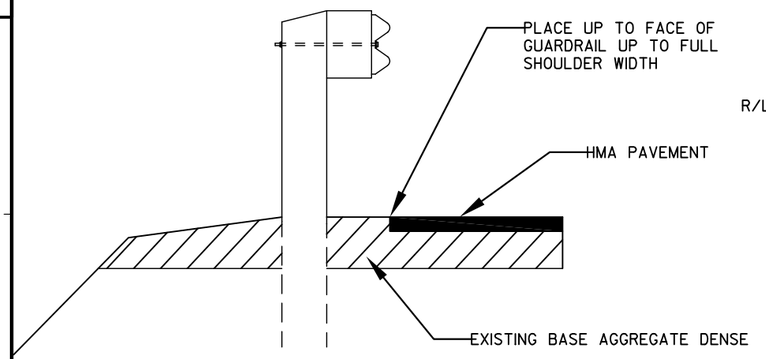


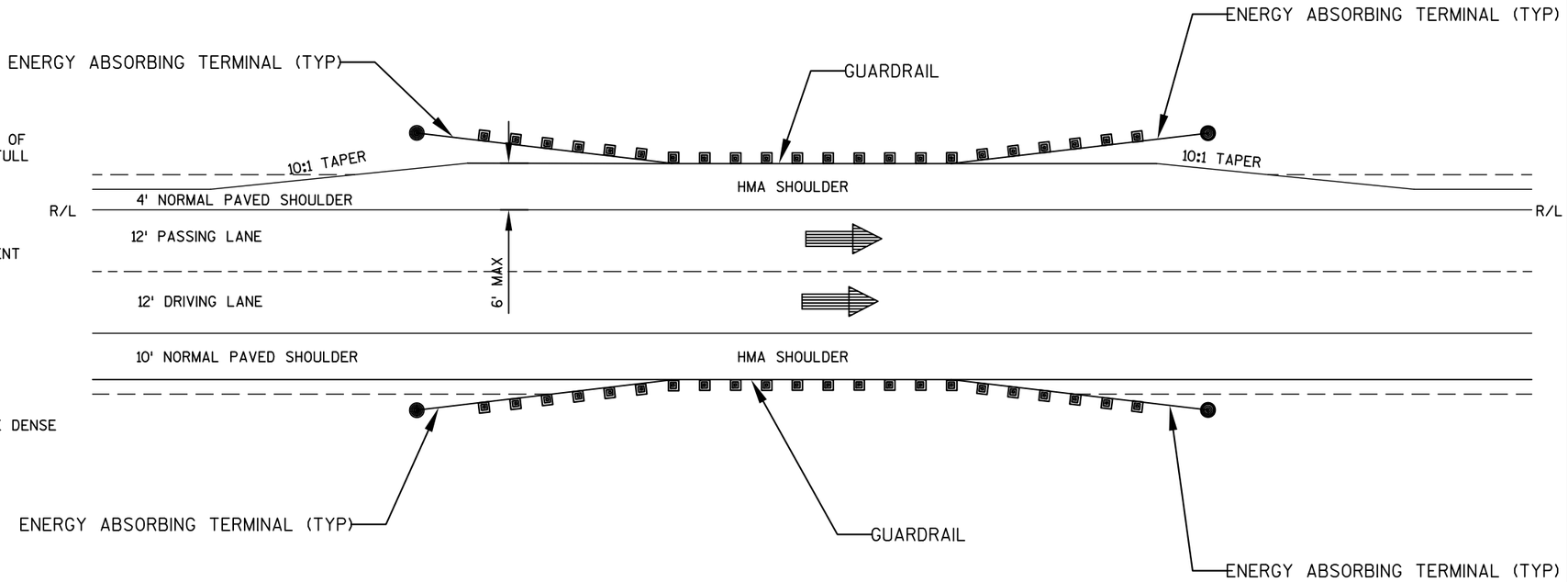
PLAN VIEW

DETAIL FOR MAINTENANCE CROSSOVER



CULVERT PIPE CHECKS





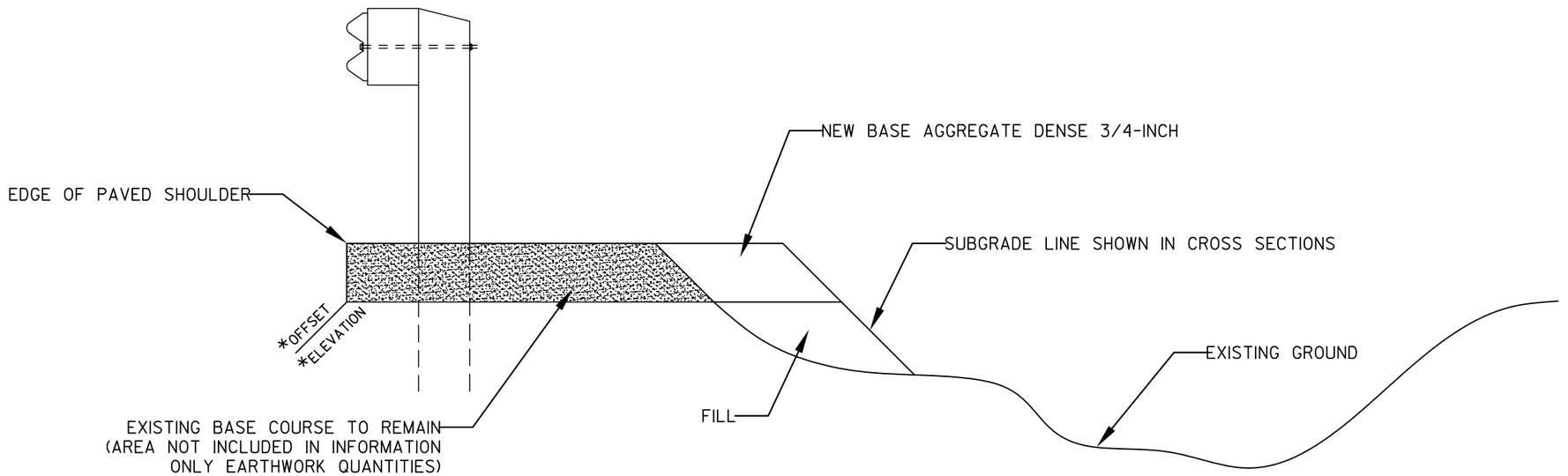
PAVED SHOULDER AT GUARDRAIL DETAIL

NOTES:

GUARDRAIL INSTALLATION LOCATION TO BE MEASURED FROM EXISTING EDGE OF PAVEMENT.

ANY CUT AND FILL REQUIRED IS INCIDENTAL TO THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM

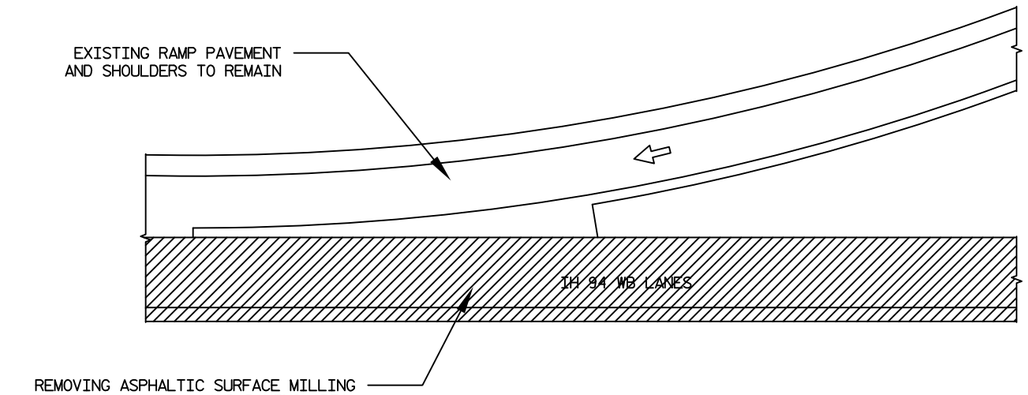
*OFFSET AND ELEVATION PROVIDED FOR REFERENCE ONLY.



SHOULDER WIDENING EARTHWORK & BASE AGGREGATE FOR GUARDRAIL DETAIL

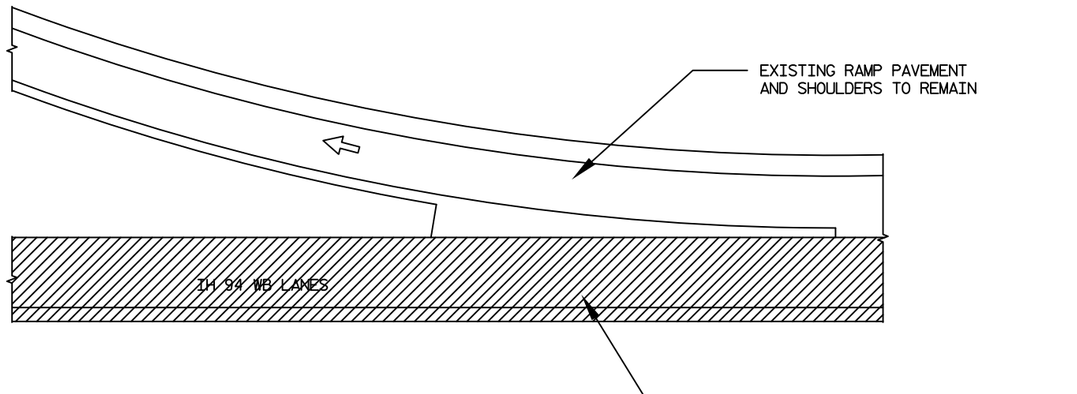
PROJECT NO:1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CONSTRUCTION DETAILS	SHEET	E

2



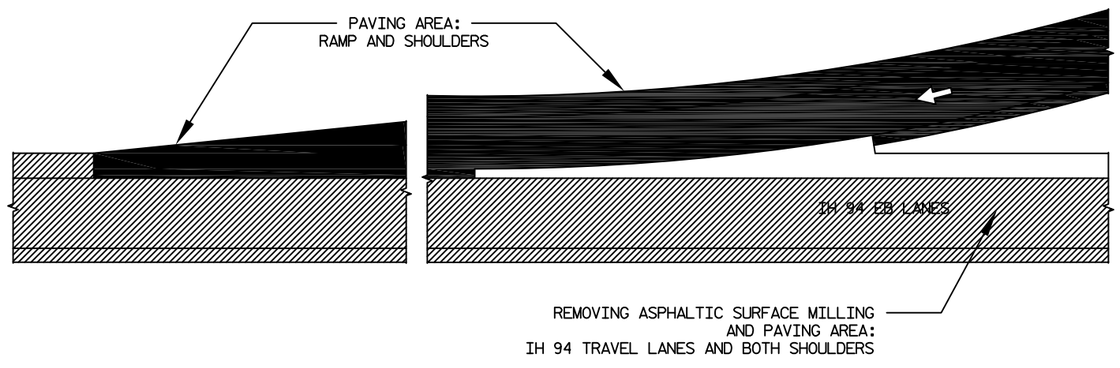
ENTRANCE RAMP DETAIL

WB REST AREA



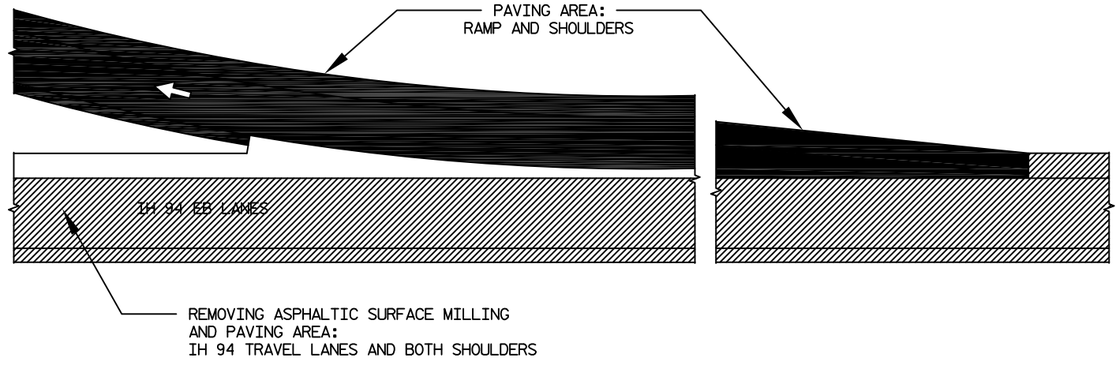
EXIT RAMP DETAIL

WB REST AREA



ENTRANCE RAMP DETAIL

EB REST AREA



EXIT RAMP DETAIL

EB REST AREA

AREAS TO BE OVERLAID

AREAS TO BE MILLED AND OVERLAID

PAVING LIMITS AT RAMPS DETAILS

REST AREA RAMPS

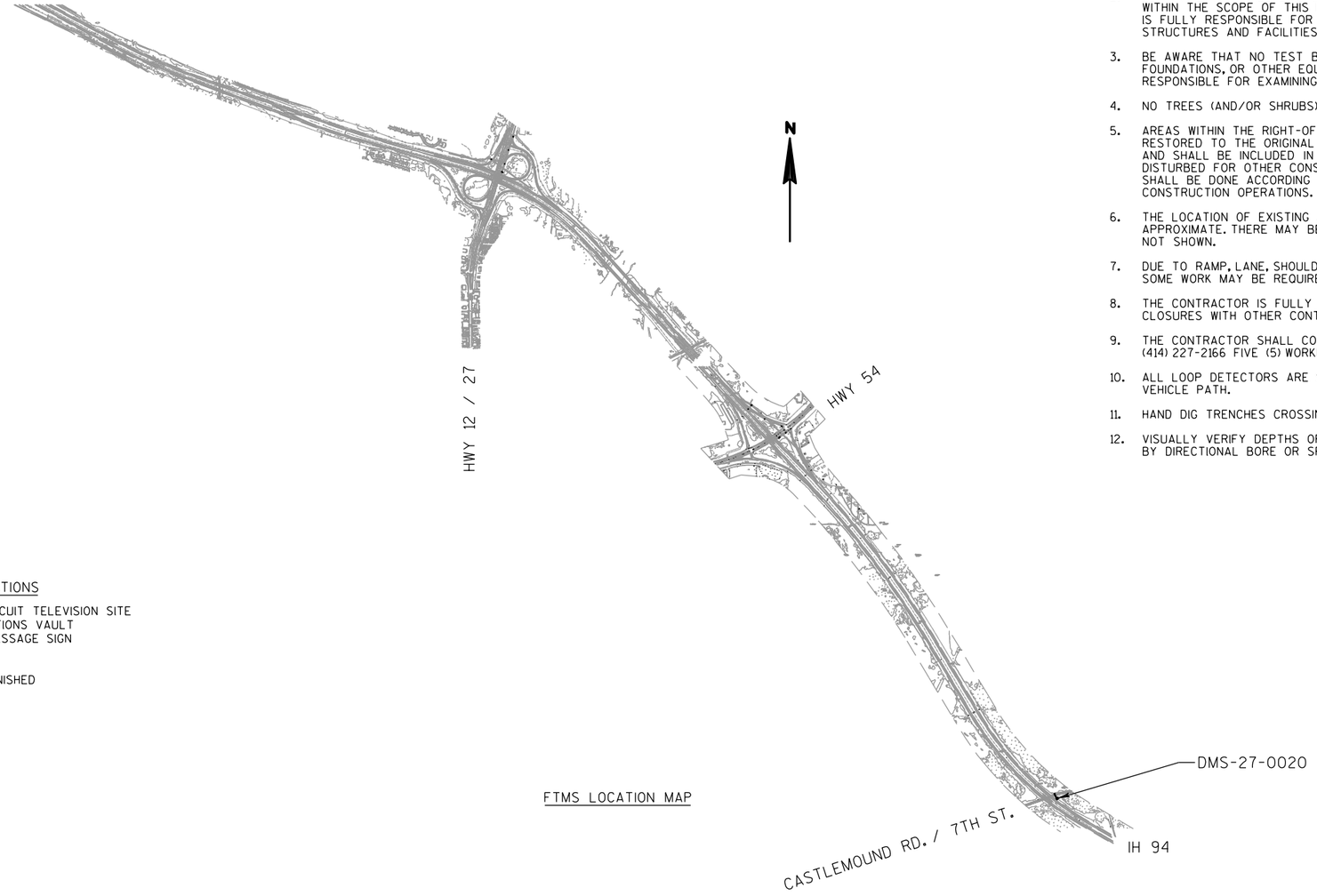
PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	CONSTRUCTION DETAILS	SHEET	E

2

LEGEND

FTMS CONVENTIONAL SYMBOLS

	PROPOSED
CCTV CAMERA AND POLE	
POLE MOUNTED CABINET	
METER BREAKER PEDESTAL	
24"X36" STEEL PULL BOX	
FTMS (ITS) CONDUIT	
BREAKER DISCONNECT BOX	
SIDE MOUNT DMS AND STRUCTURAL STEEL	



FTMS LOCATION MAP

FTMS STANDARD ABBREVIATIONS

CCTV	CLOSED CIRCUIT TELEVISION SITE
CV	COMMUNICATIONS VAULT
DMS	DYNAMIC MESSAGE SIGN
PB	PULL BOX
RG	RAMP GATE
S-F	STATE-FURNISHED

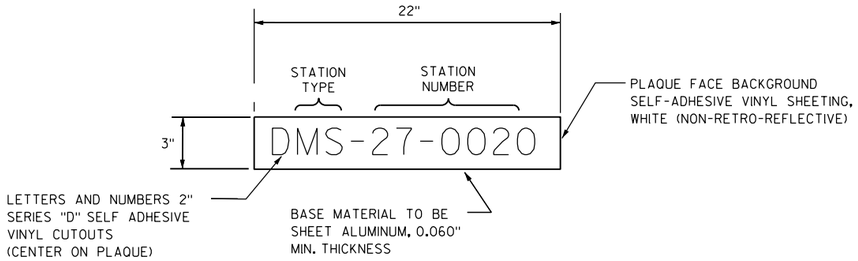
FTMS GENERAL NOTES

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

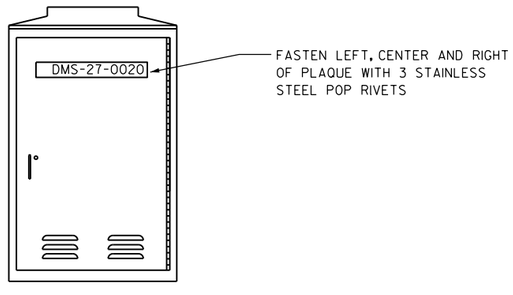
2

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	FTMS PLANS - OVERVIEW	SHEET 16	E

2



ITS FIELD CABINET IDENTIFICATION PLAQUE DETAIL



ITS FIELD CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)

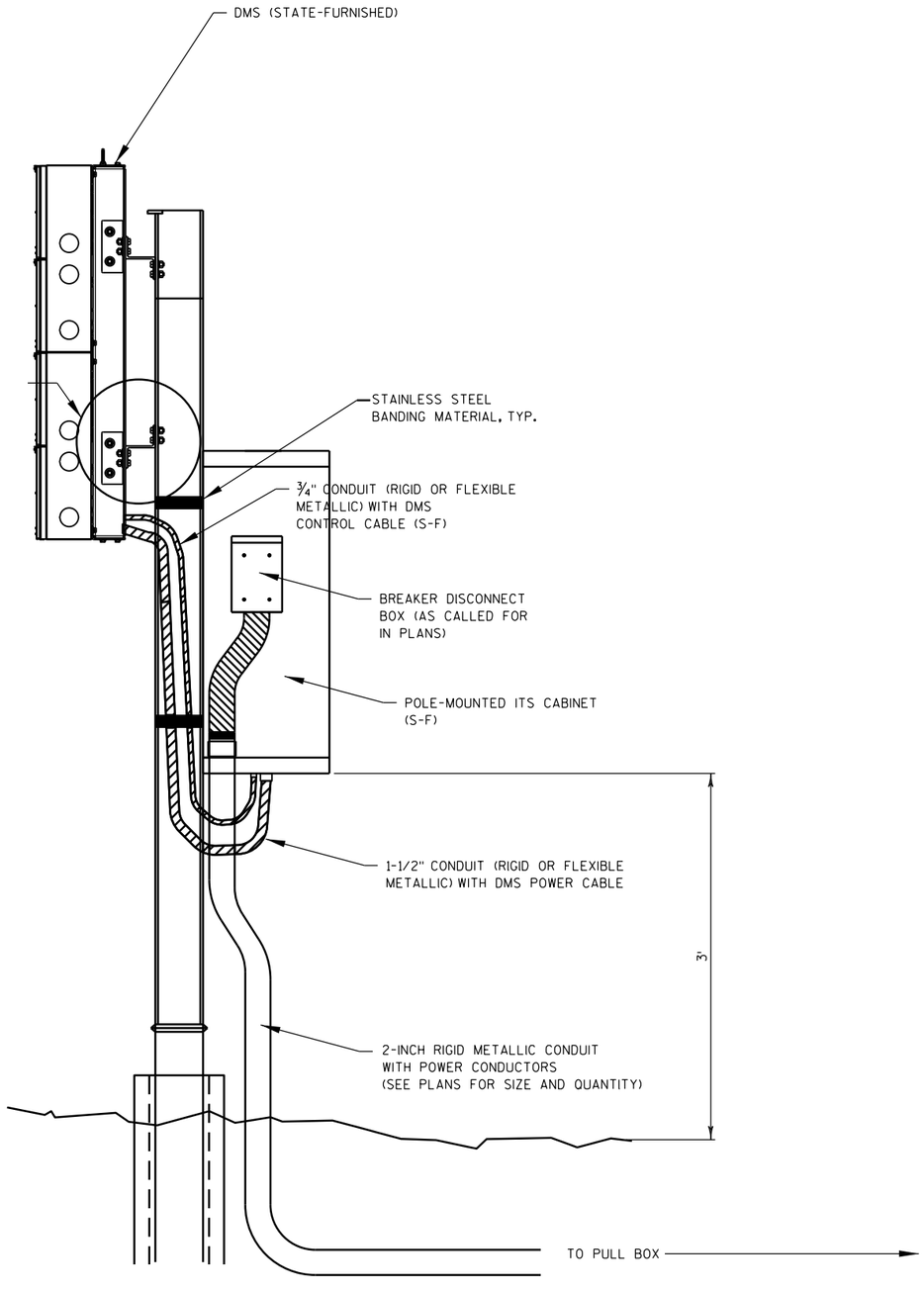
LEGEND STATION TYPE

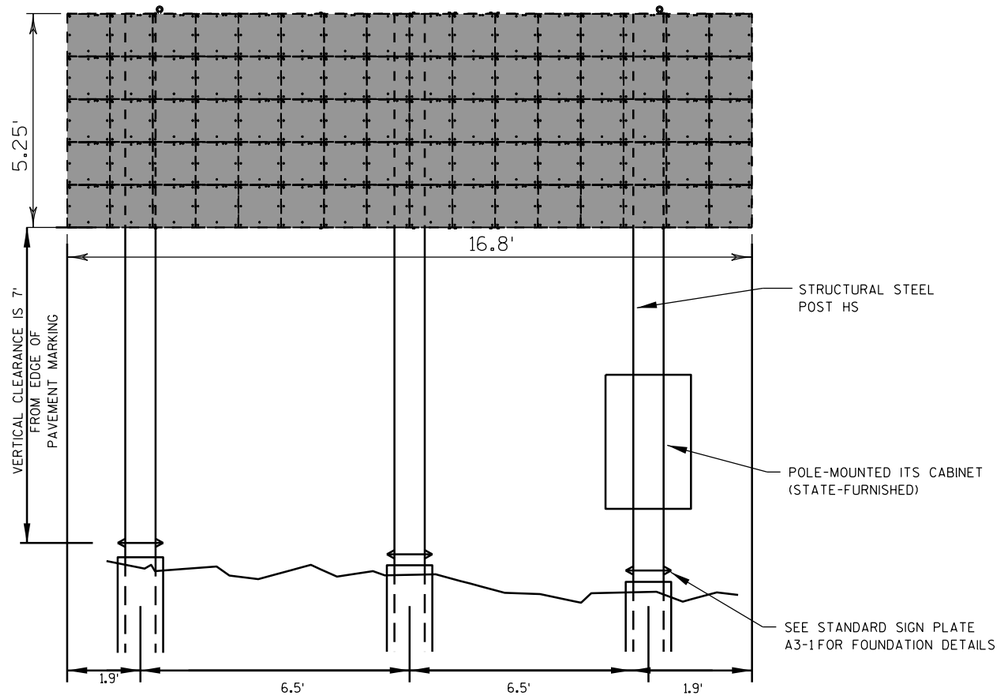
RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR

NOTES

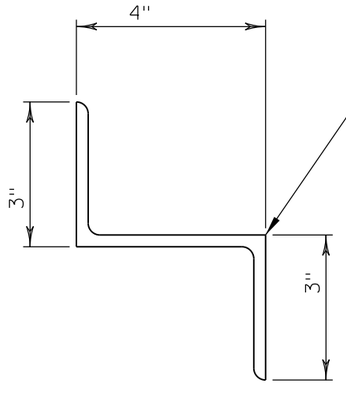
1) TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2) FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3) FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2, FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4) COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.

2





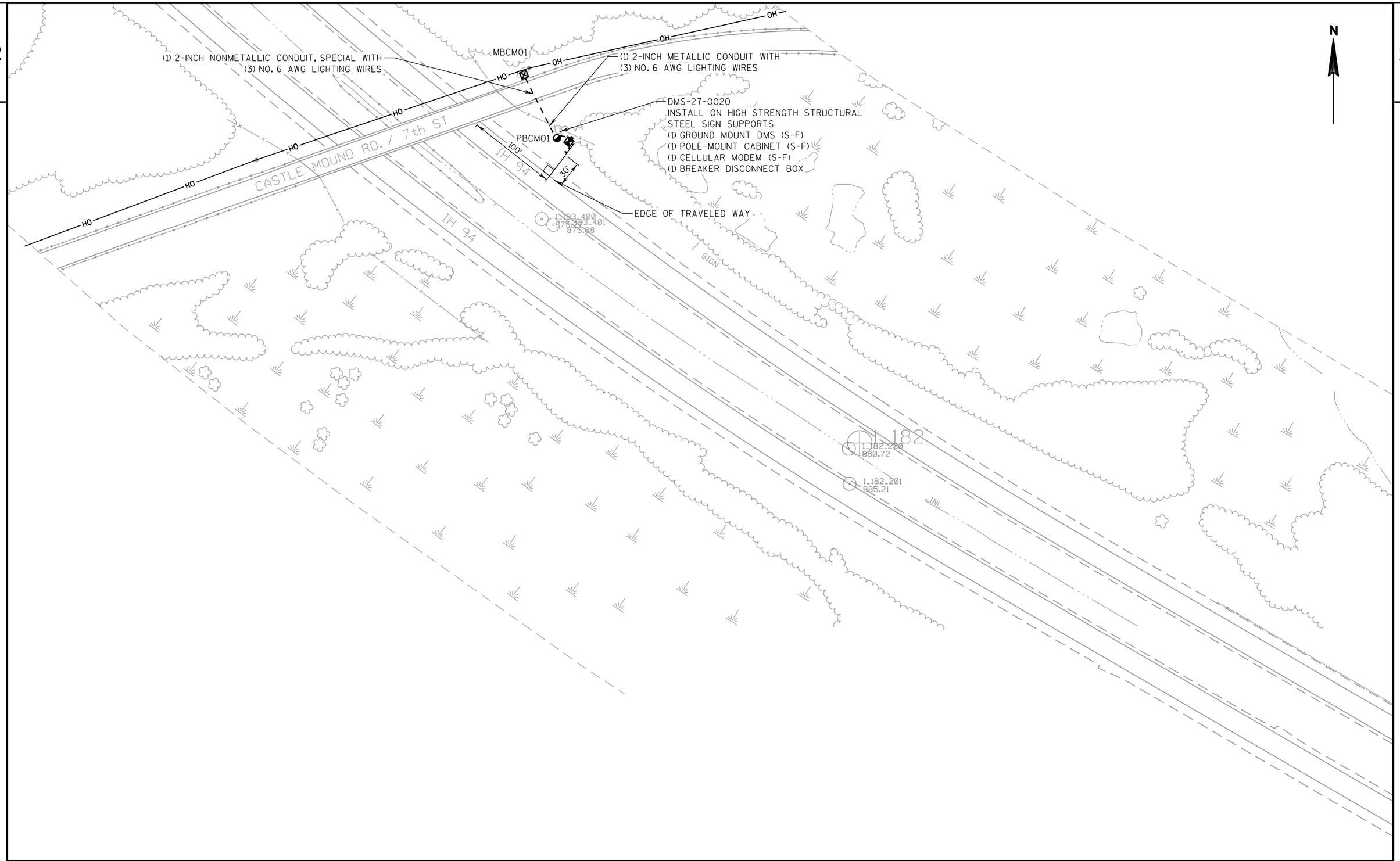
DMS-27-0020: IH 94 WB AT CASTLE MOUND RD.



Z-BRACKETS ARE
3" X 2 11/16 " X 1/4"
WEB X FLANGE X THINKNESS
ALUMINUM 6061-T6-ALLOY

DETAIL A

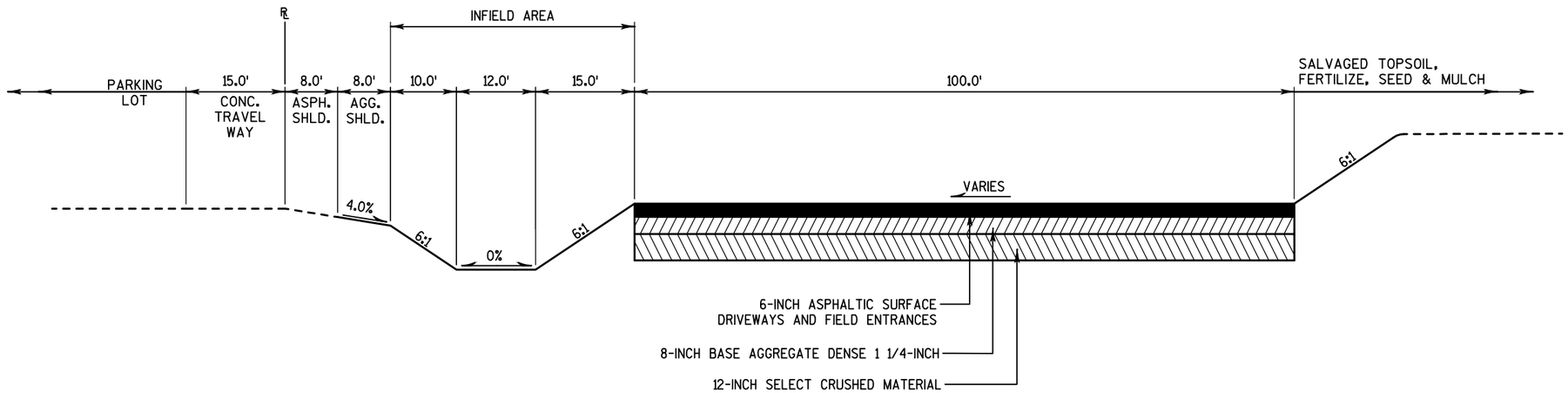
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	FTMS CONSTRUCTION DETAILS	SHEET 18	E



2

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	FTMS PLAN SHEETS	SHEET	E

FILE NAME : \\mlww400\ingrproj\60816\eau_claire\10230170\10230170_FTMS_05.dgn PLOT DATE : 4/21/2014 PLOT BY : PKutz PLOT NAME : PLOT SCALE : 100:1

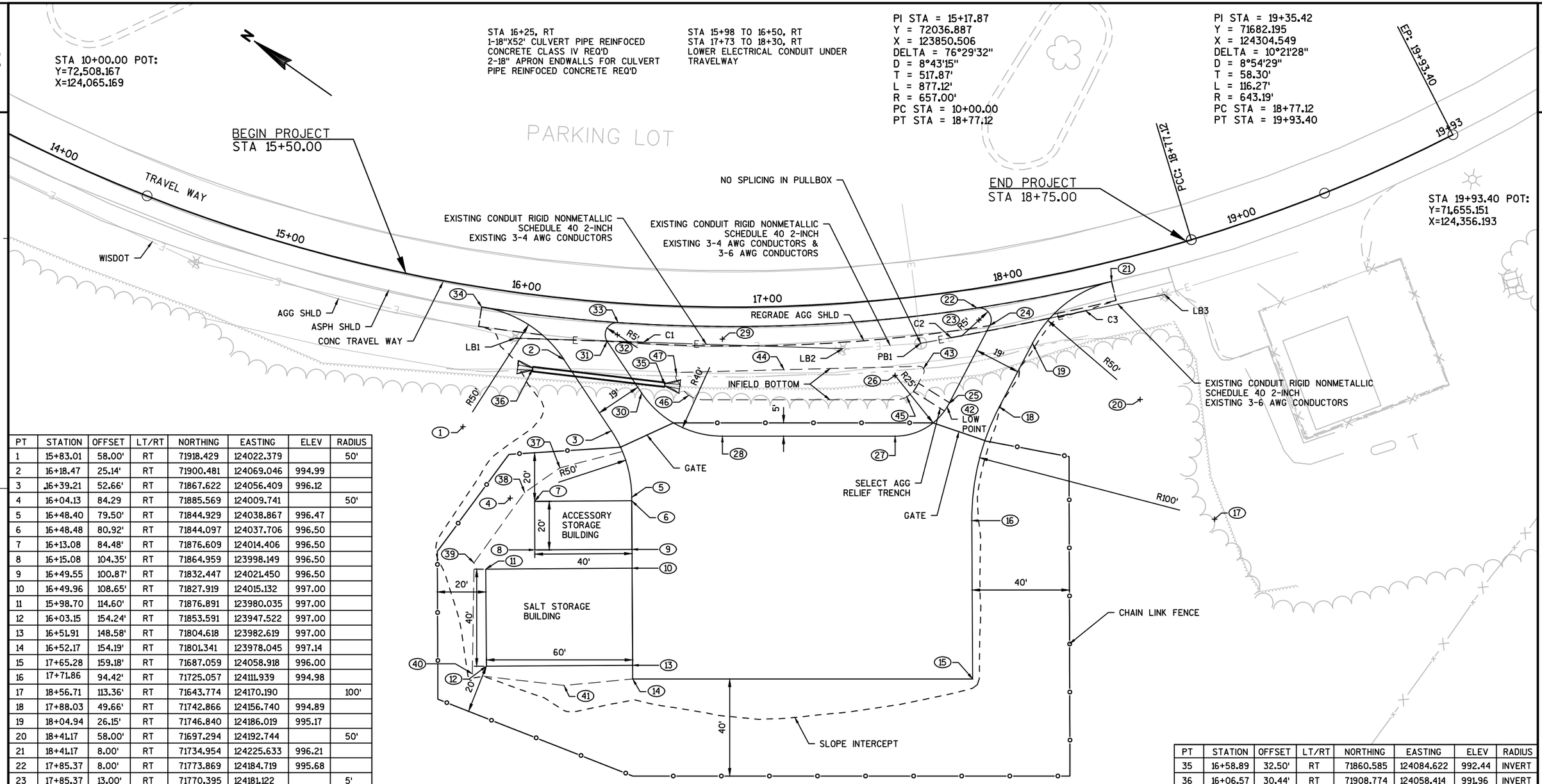


TYPICAL FINISHED SECTION - IH 94

SALT STORAGE PARKIING LOT

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	TYPICAL SECTIONS - SALT STORAGE FACILITY	SHEET	E

FILE NAME : 020301_TS.DWG PLOT DATE : 4/29/2014 2:19 PM PLOT BY : SEH INC LAYOUT NAME : 020301_TS PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



PT	STATION	OFFSET	LT/RT	NORTHING	EASTING	ELEV	RADIUS
1	15+83.01	58.00'	RT	71918.429	124022.379		50'
2	16+18.47	25.14'	RT	71900.481	124069.046	994.99	
3	16+39.21	52.66'	RT	71867.622	124056.409	996.12	
4	16+04.13	84.29	RT	71885.569	124009.741		50'
5	16+48.40	79.50'	RT	71844.929	124038.867	996.47	
6	16+48.48	80.92'	RT	71844.097	124037.706	996.50	
7	16+13.08	84.48'	RT	71876.609	124014.406	996.50	
8	16+15.08	104.35'	RT	71864.959	123998.149	996.50	
9	16+49.55	100.87'	RT	71832.447	124021.450	996.50	
10	16+49.96	108.65'	RT	71827.919	124015.132	997.00	
11	15+98.70	114.60'	RT	71876.891	123980.035	997.00	
12	16+03.15	154.24'	RT	71853.591	123947.522	997.00	
13	16+51.91	148.58'	RT	71804.618	123982.619	997.00	
14	16+52.17	154.19'	RT	71801.341	123978.045	997.14	
15	17+65.28	159.18'	RT	71687.059	124058.918	996.00	
16	17+71.86	94.42'	RT	71725.057	124111.939	994.98	
17	18+56.71	113.36'	RT	71643.774	124170.190		100'
18	17+88.03	49.66'	RT	71742.866	124156.740	994.89	
19	18+04.94	26.15'	RT	71746.840	124186.019	995.17	
20	18+41.17	58.00'	RT	71697.294	124192.744		50'
21	18+41.17	8.00'	RT	71734.954	124225.633	996.21	
22	17+85.37	8.00'	RT	71773.869	124184.719	995.68	
23	17+85.37	13.00'	RT	71770.395	124181.122		5'
24	17+89.30	15.97'	RT	71765.441	124181.795	995.42	
25	17+69.07	45.40'	RT	71760.564	124145.863	994.35	
26	17+49.49	31.43'	RT	71785.337	124142.504		25'
27	17+47.25	56.31'	RT	71770.896	124122.097	994.63	
28	16+81.60	53.17'	RT	71828.977	124080.995	995.00	
29	16+81.37	13.17'	RT	71852.084	124113.646		40'
30	16+49.95	36.35'	RT	71866.438	124076.310	995.00	
31	16+35.03	16.07'	RT	71890.268	124085.475	995.00	
32	16+38.89	13.00'	RT	71888.473	124090.142		5'
33	16+38.89	8.00'	RT	71891.065	124094.417	994.17	
34	15+83.01	8.00'	RT	71940.625	124067.182	993.56	

STA 15+80 - STA 18+00
CLEARING & GRUBBING REQ'D, RT

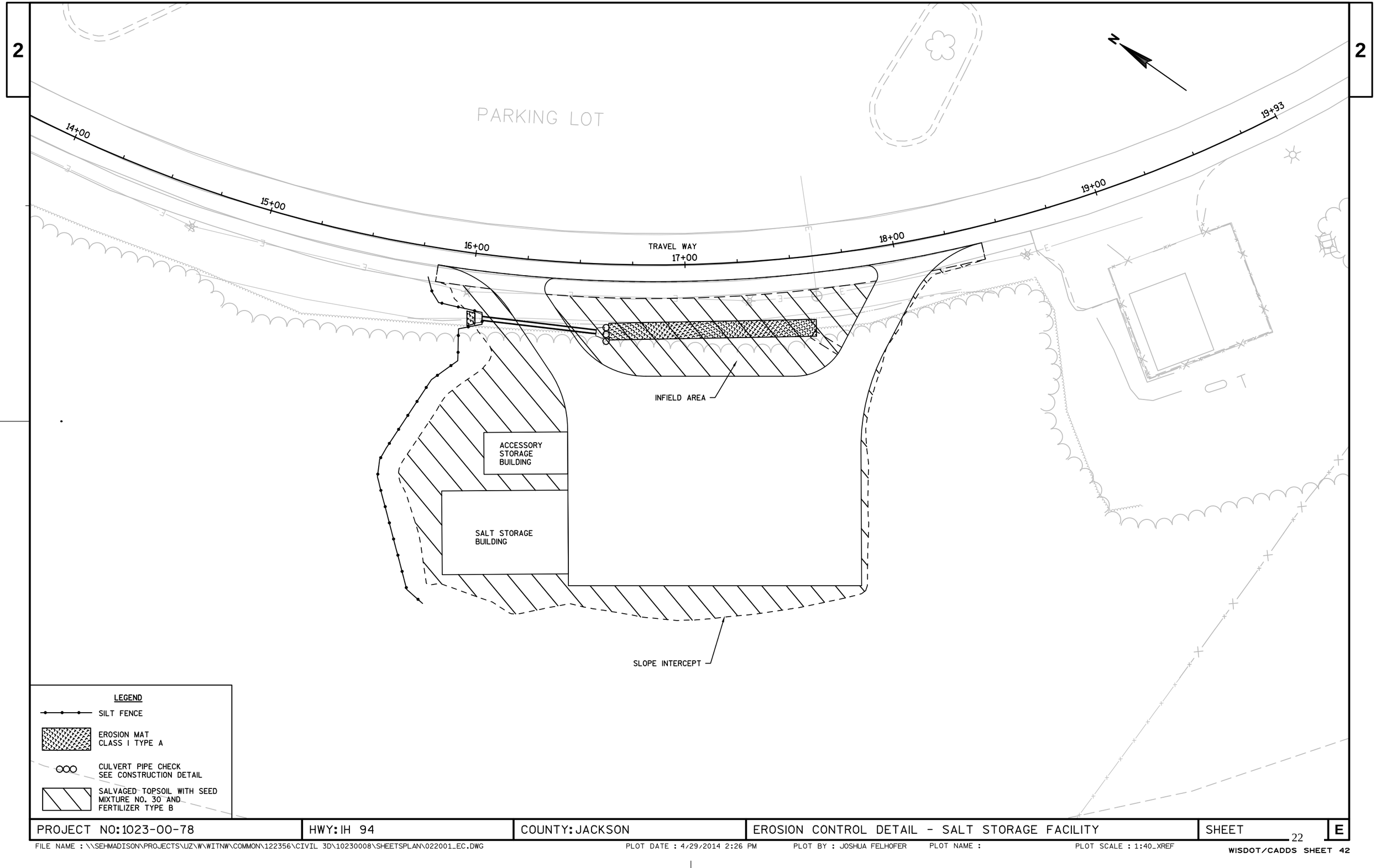
ELECTRICAL WORK

1. REMOVE EXISTING ELECTRICAL WIRE BETWEEN LIGHT BASES AND PULL BOXES. MAINTAIN 3-4 AWG CONDUCTORS BETWEEN LB2 AND PB1. WORK IS
2. INCIDENTAL TO PLACING NEW ELECTRICAL WIRE.
   CUT AND REMOVE EXISTING 2" SCHEDULE 40 PVC CONDUIT AS SHOWN ON
3. PLAN. WORK IS INCIDENTAL TO PLACING NEW ELECTRICAL CONDUIT.
   INSTALL NEW 2" SCHEDULE 40 PVC CONDUIT UNDER TRAVELWAY PER
4. STANDARD DETAIL AND STANDARD SPECIAL PROVISION.
   INSTALL NEW ELECTRICAL WIRE LIGHTING 6 AWG & 4 AWG BETWEEN LIGHT BASES AND PULL BOX.

PT	STATION	OFFSET	LT/RT	NORTHING	EASTING	ELEV	RADIUS
35	16+58.89	32.50'	RT	71860.585	124084.622	992.44	INVERT
36	16+06.57	30.44'	RT	71908.774	124058.414	991.96	INVERT
37	16+21.08	69.68'	RT	71876.073	124031.685	996.00	
38	16+09.12	81.28'	RT	71882.066	124015.063	996.00	
39	15+94.29	112.71'	RT	71882.351	123979.325	996.00	
40	15+98.84	158.08	RT	71856.501	123941.629	996.00	
41	16+29.51	158.79'	RT	71822.892	123959.505	996.00	
42	17+68.21	46.64'	RT	71760.404	124144.336	994.31	
43	17+60.86	29.81'	RT	71777.472	124151.576	992.82	
44	17+05.87	26.08'	RT	71824.089	124118.023	992.62	
45	17+53.16	40.59'	RT	71776.399	124138.132	992.81	
46	16+68.37	36.51'	RT	71850.050	124086.764	992.51	
47	16+63.35	28.23'	RT	71859.016	124090.746	992.51	

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	PLAN DETAIL - SALT STORAGE FACILITY	SHEET	E

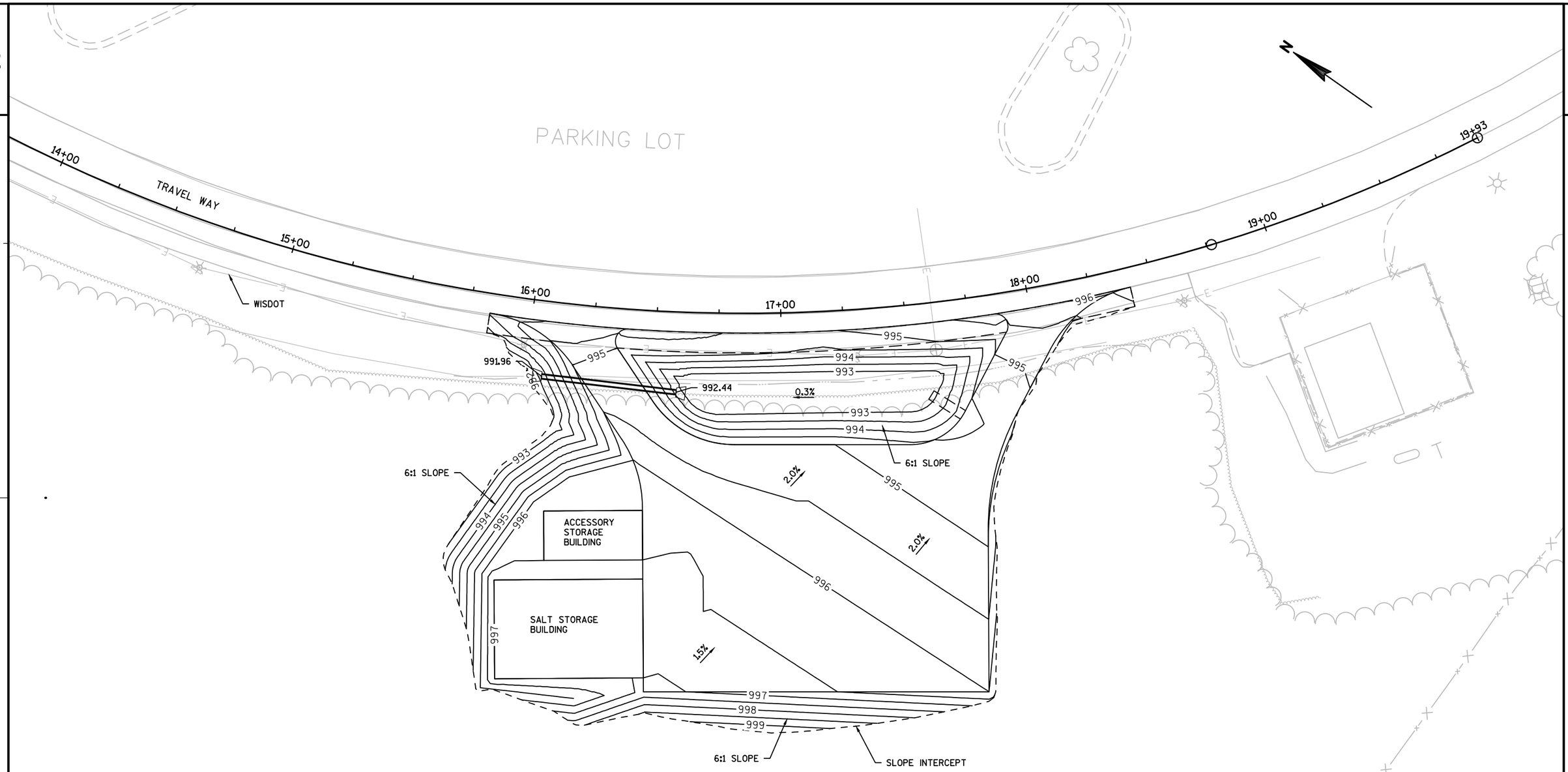
FILE NAME : \\SEHMADISON\PROJECTS\UZ\W\WITNW\COMMON\122356\CIVIL 3D\10230008\SHEETSPLAN\021201_PD.DWG PLOT DATE : 4/29/2014 2:23 PM PLOT BY : JOSHUA FELHOFER PLOT NAME : PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 42



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	EROSION CONTROL DETAIL - SALT STORAGE FACILITY	SHEET	E

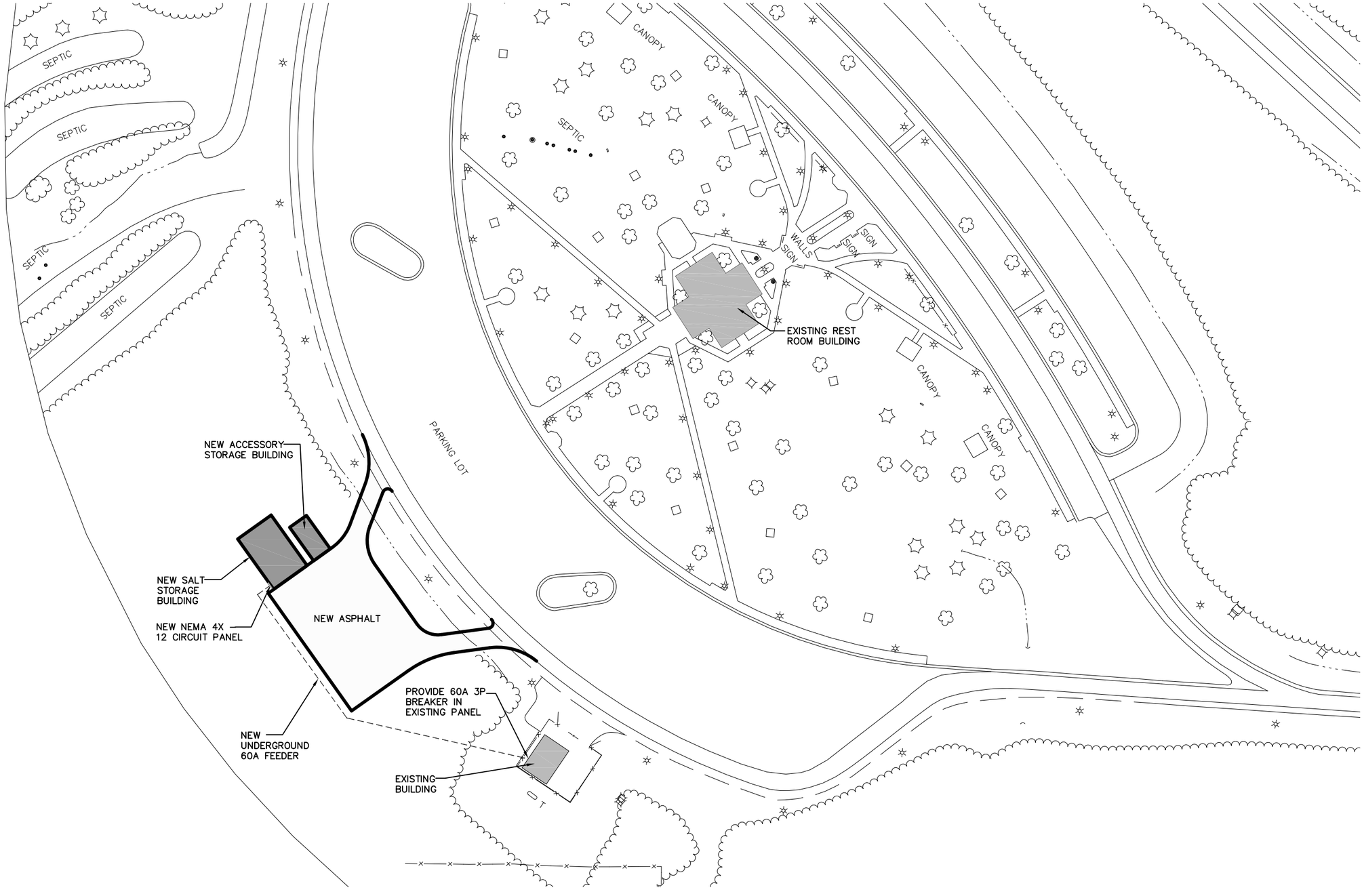
FILE NAME : \\SEHMADISON\PROJECTS\UZ\W\WITNW\COMMON\122356\CIVIL 3D\10230008\SHEETSPLAN\022001_EC.DWG PLOT DATE : 4/29/2014 2:26 PM PLOT BY : JOSHUA FELHOFER PLOT NAME : PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CONTOUR MAP - SALT STORAGE FACILITY	SHEET	E

FILE NAME : \\SEHMADISON\PROJECTS\UZ\W\WITNW\COMMON\122356\CIVIL 3D\10230008\SHEETSPLAN\021601_CM.DWG PLOT DATE : 4/29/2014 2:29 PM PLOT BY : JOSHUA FELHOFER PLOT NAME : PLOT SCALE : 1:40_XREF



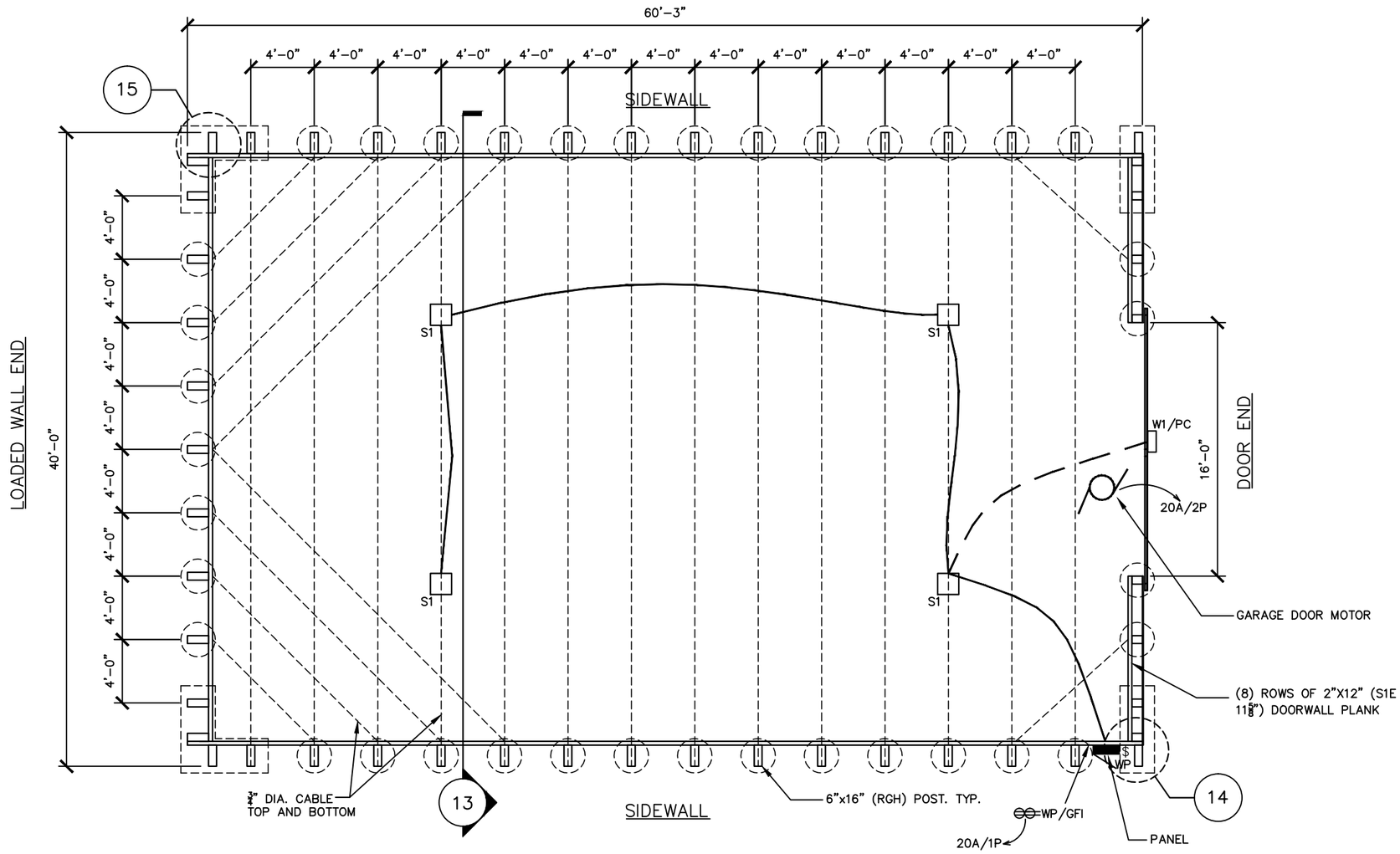
0 OVERALL SITE PLAN

1" = 100'-0"

0 50' 100'

PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	SITE PLAN – SALT STORAGE FACILITY	SHEET	E

FILE NAME : P:\UZ\W\WITNW\122356\5-FINAL-DSGN\51-DRAWINGS\15-ARCH\SALT SHED STORAGE BUILDING.DWG PLOT DATE : 7/1/2014 12:46 PM PLOT BY : JIM LYNCH PLOT NAME : PLOT SCALE :

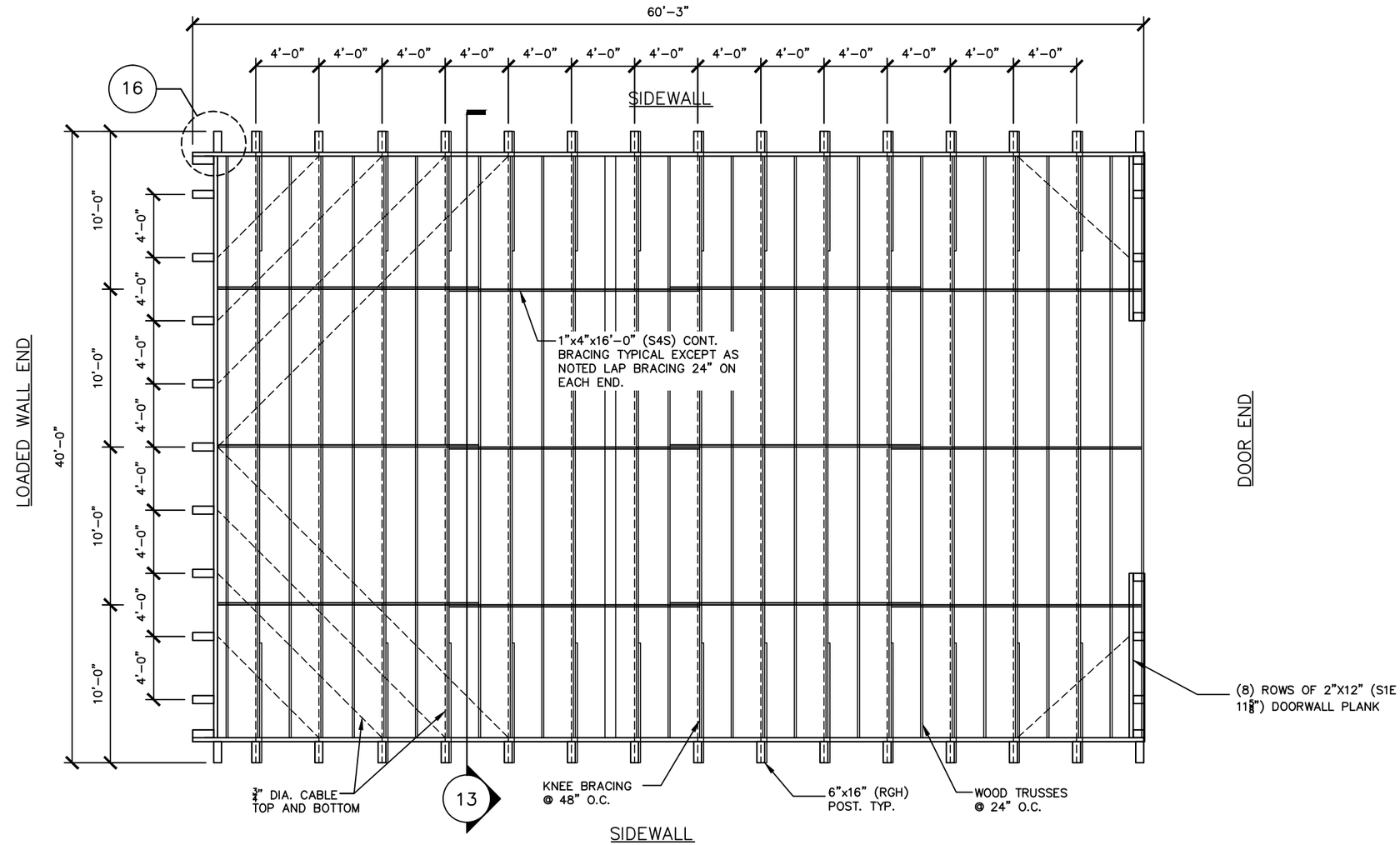


1 FOUNDATION PLAN – SALT STORAGE BUILDING

1/8" = 1'-0"

0 4' 8'

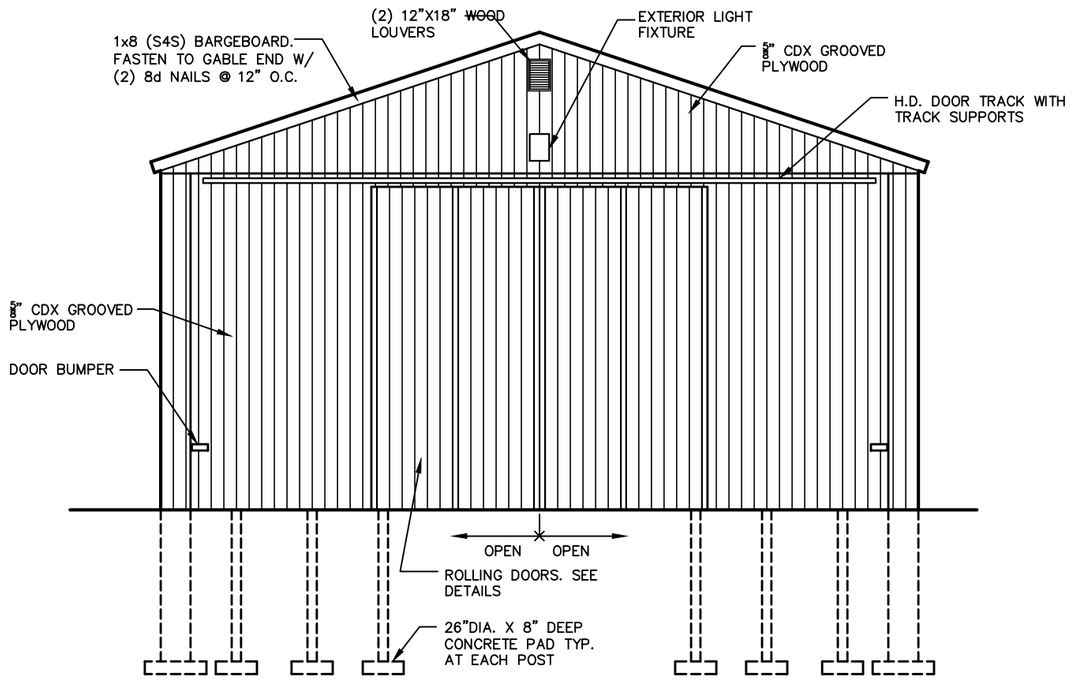
PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	FOUNDATION PLAN – SALT STORAGE BUILDING	SHEET 25	E



2 FLOOR PLAN – SALT STORAGE BUILDING

0 4' 8'

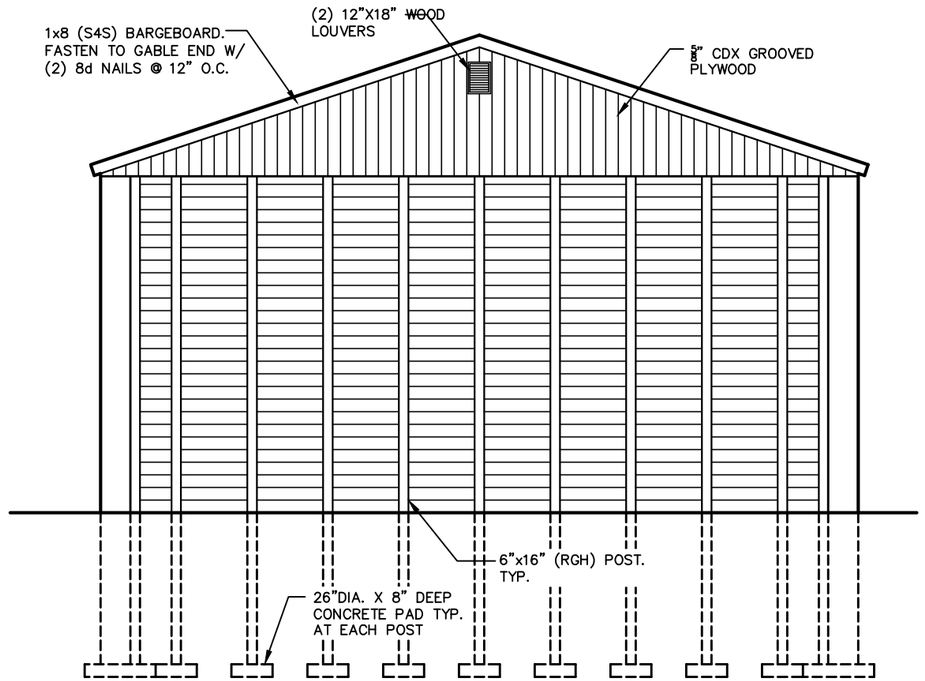
PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	FLOOR PLAN – SALT STORAGE BUILDING	SHEET 26	E



3 EXTERIOR ELEVATION – SALT STORAGE BUILDING

1/8" = 1'-0"

0 4' 8'

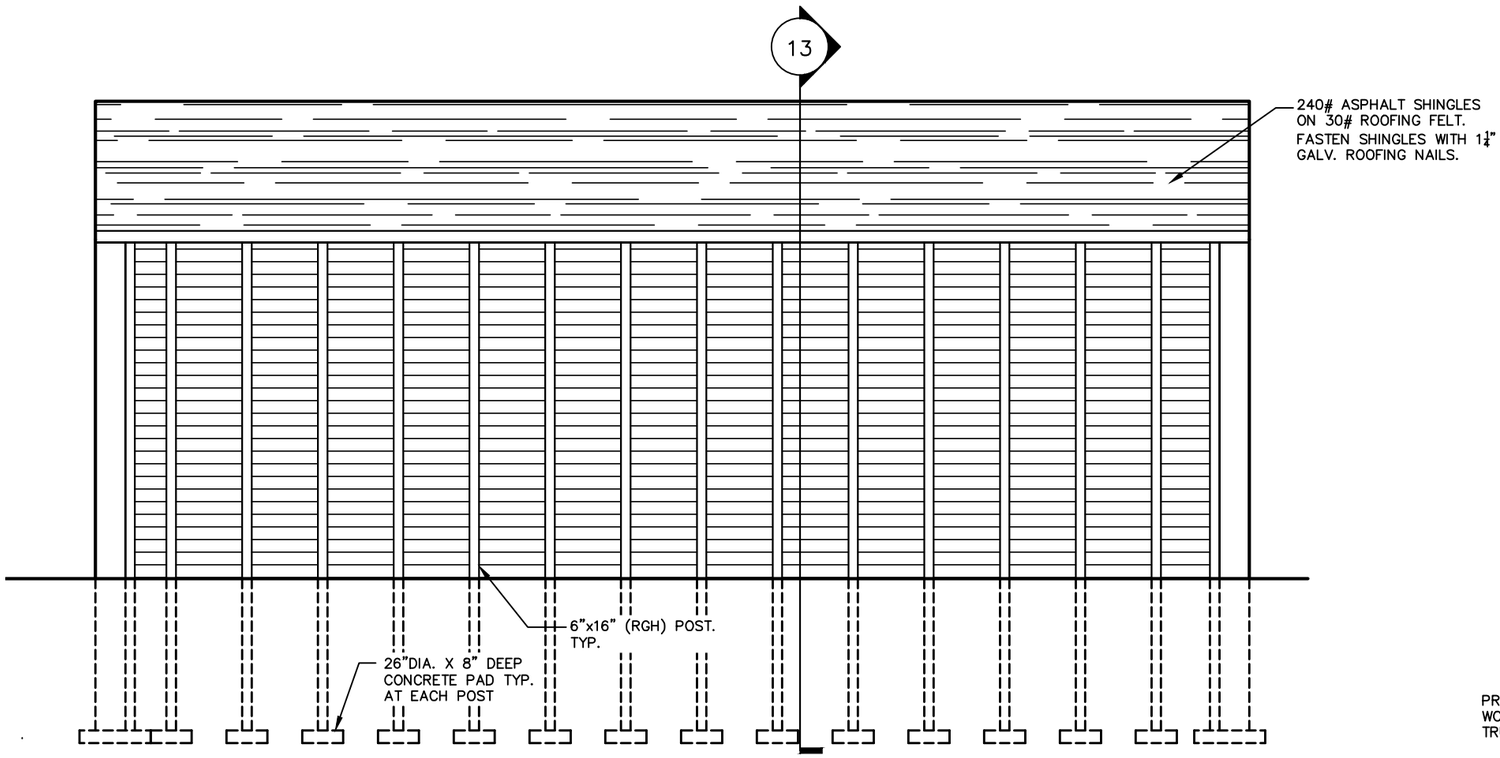


4 EXTERIOR ELEVATION – SALT STORAGE BUILDING

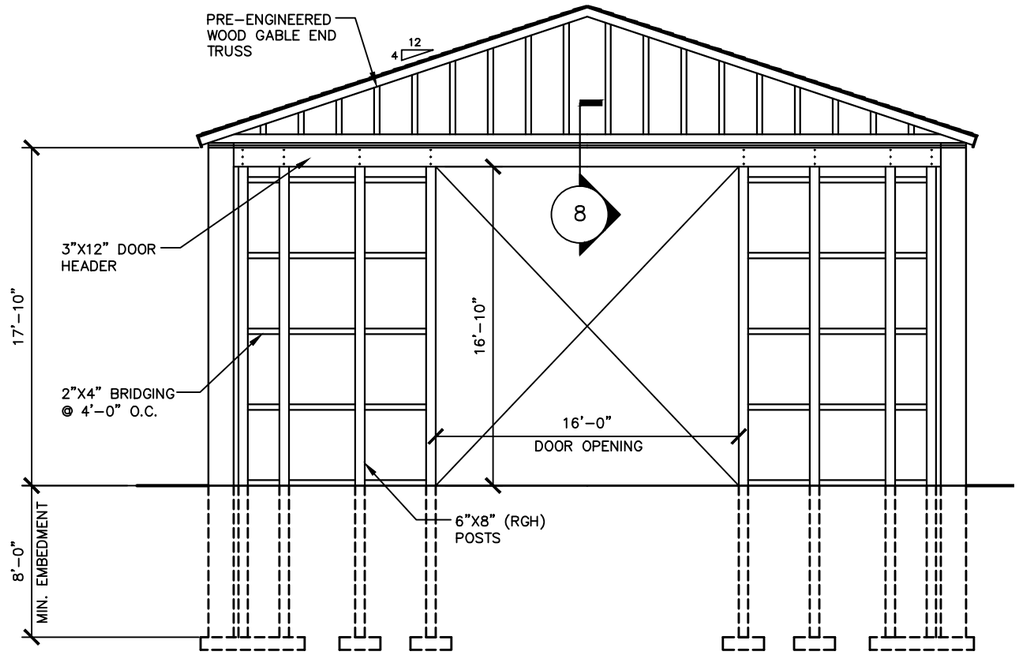
1/8" = 1'-0"

0 4' 8'

PROJECT NO:1023–00–78	HWY:IH 94	COUNTY:JACKSON	EXTERIOR ELEVATIONS – SALT STORAGE BUILDING	SHEET 27	E

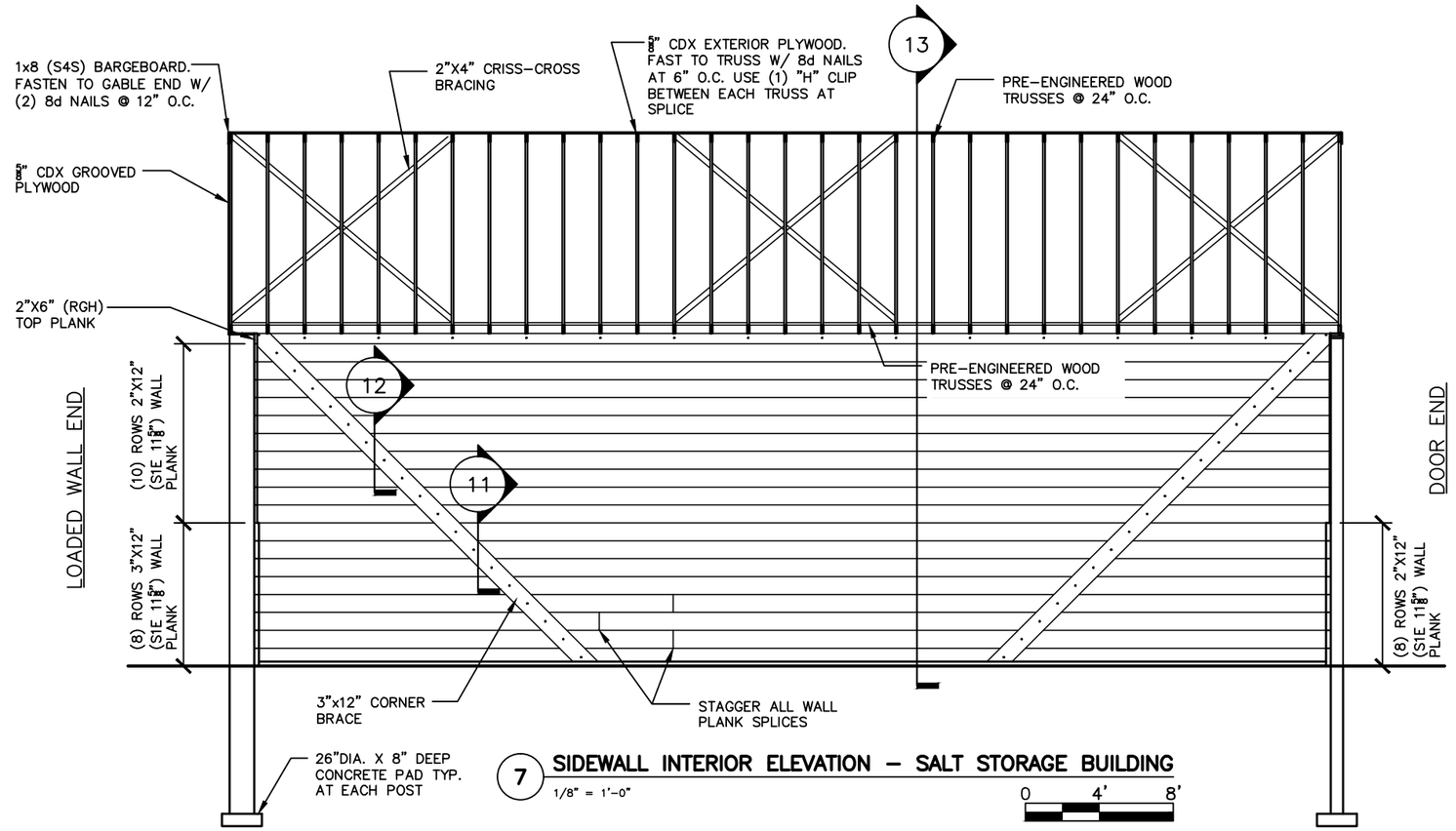


5 EXTERIOR ELEVATION – SALT STORAGE BUILDING
1/8" = 1'–0"
0 4' 8'



6 BUILDING SECTION – SALT STORAGE BUILDING
1/8" = 1'–0"
0 4' 8'

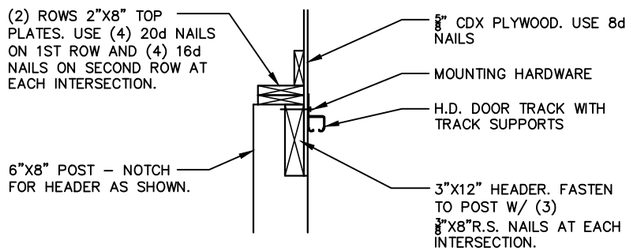
PROJECT NO:1023–00–78	HWY:IH 94	COUNTY:JACKSON	EXTERIOR ELEVATION AND SECTION – SALT STORAGE BUILDING	SHEET 28	E



7 SIDEWALL INTERIOR ELEVATION – SALT STORAGE BUILDING

1/8" = 1'-0"

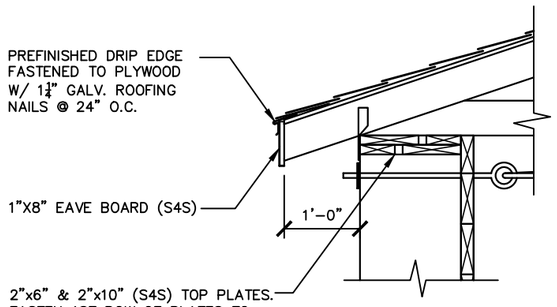
0 4' 8'



8 DOOR HEADER DETAIL

1/2" = 1'-0"

0 1' 2'

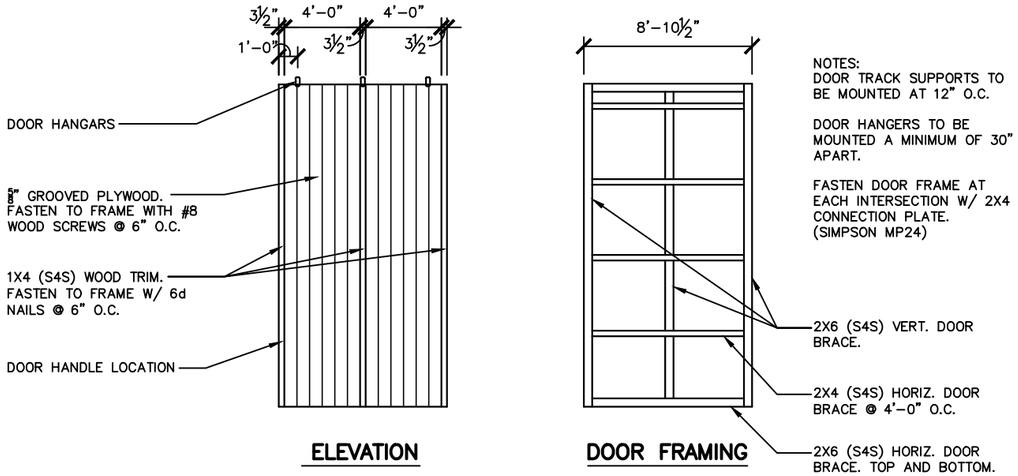


9 EAVE DETAIL

1/2" = 1'-0"

0 1' 2'

PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	ELEVATION AND DETAILS – SALT STORAGE BUILDING	SHEET 29	E



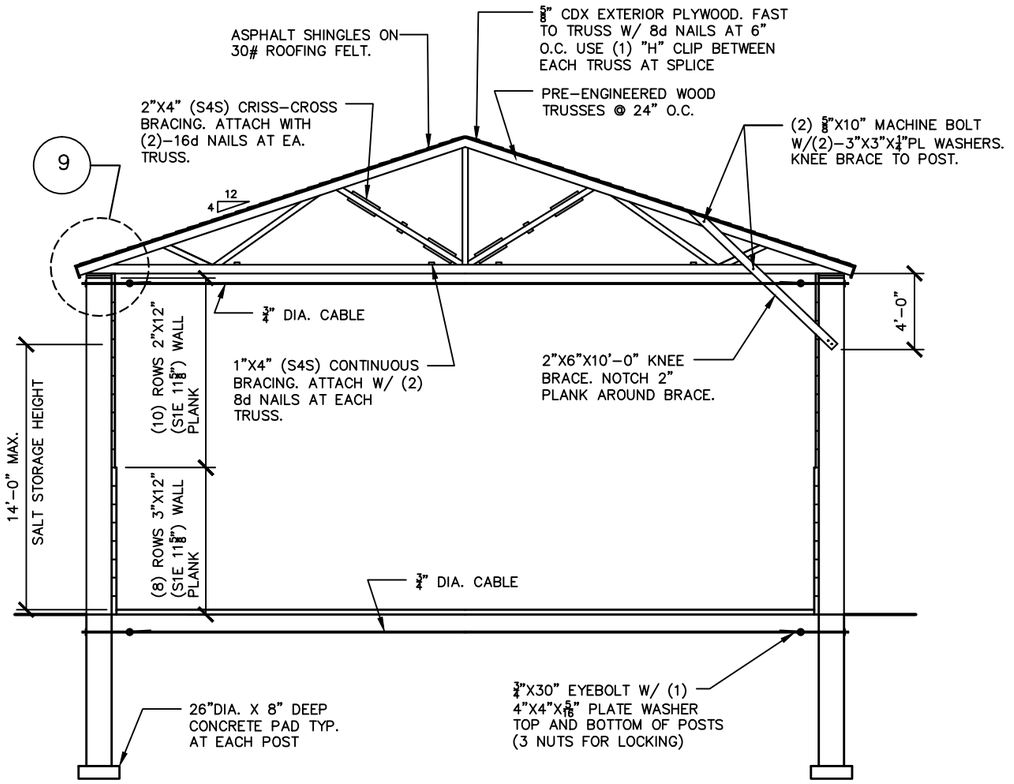
NOTES:
DOOR TRACK SUPPORTS TO BE MOUNTED AT 12" O.C.

DOOR HANGERS TO BE MOUNTED A MINIMUM OF 30" APART.

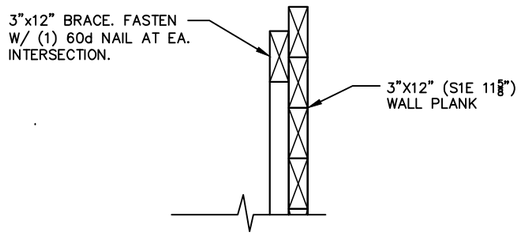
FASTEN DOOR FRAME AT EACH INTERSECTION W/ 2X4 CONNECTION PLATE. (SIMPSON MP24)

ELEVATION **DOOR FRAMING**

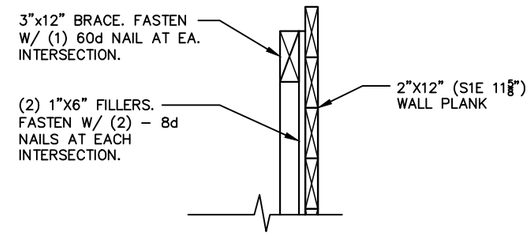
10 SLIDING DOOR DETAILS
1/8" = 1'-0" 0 4' 8'



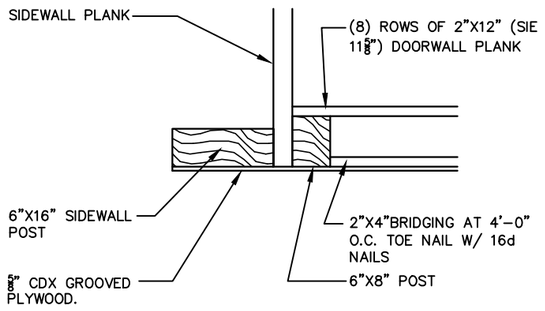
13 BUILDING SECTION – SALT STORAGE BUILDING
1/8" = 1'-0" 0 4' 8'



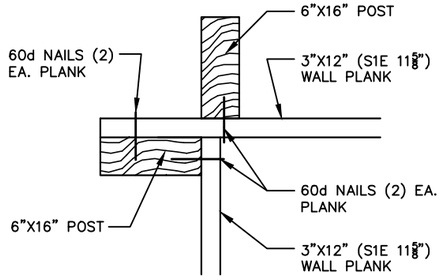
11 BRACING DETAIL
1/2" = 1'-0" 0 1' 2'



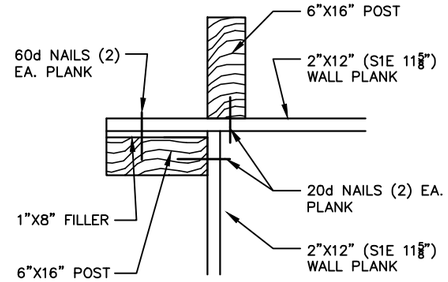
12 BRACING DETAIL
1/2" = 1'-0" 0 1' 2'



14 DOORWALL DETAIL
1/2" = 1'-0" 0 1' 2'

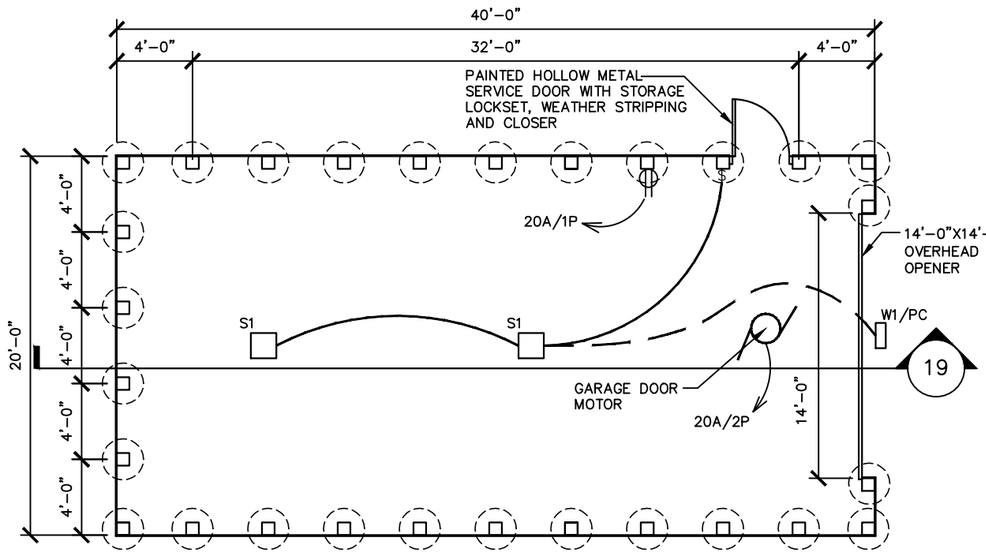


15 CORNER POST DETAIL – LOW
1/2" = 1'-0" 0 1' 2'

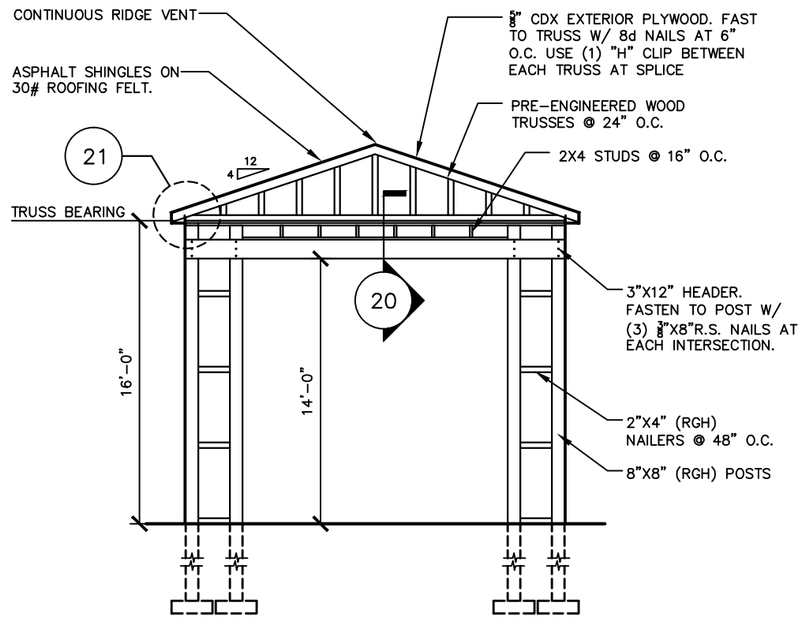


16 CORNER POST DETAIL – HIGH
1/2" = 1'-0" 0 1' 2'

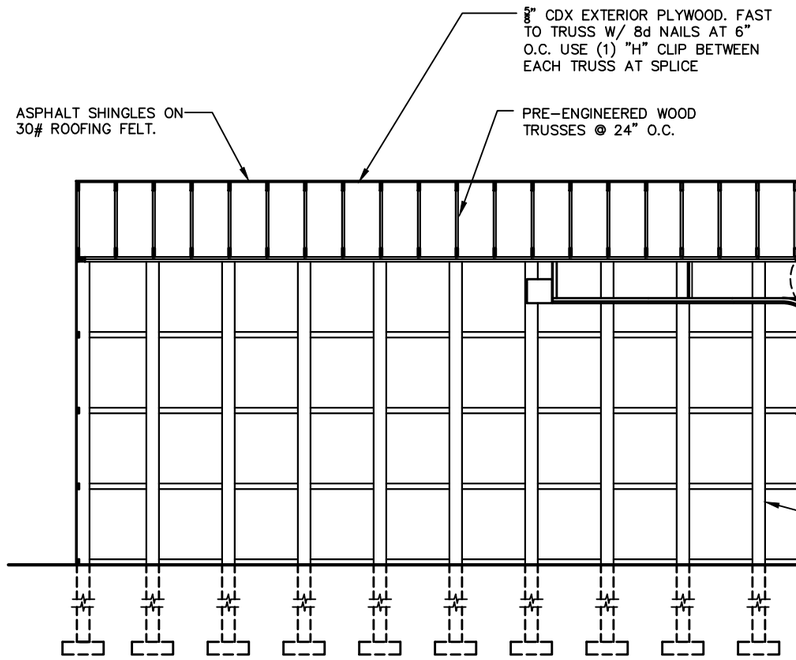
PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	SECTIONS AND DETAILS – SALT STORAGE BUILDING	SHEET 30	E



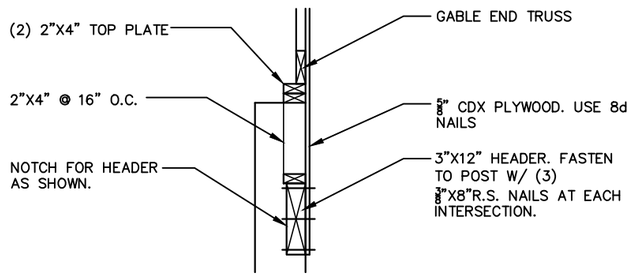
17 FLOOR PLAN – ACCESSORY STORAGE BUILDING
1/8" = 1'-0"
0 4' 8'



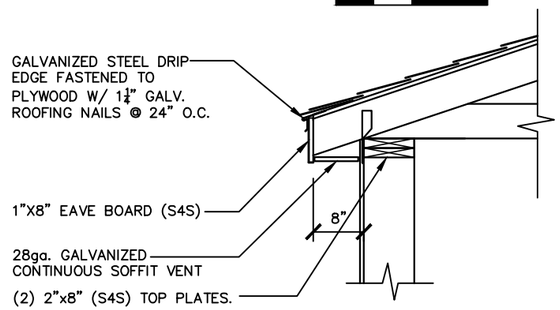
18 BUILDING ENTRY FRAMING – ACCESSORY STORAGE BUILDING
1/8" = 1'-0"
0 4' 8'



19 BUILDING SECTION – ACCESSORY STORAGE BUILDING
1/8" = 1'-0"
0 4' 8'

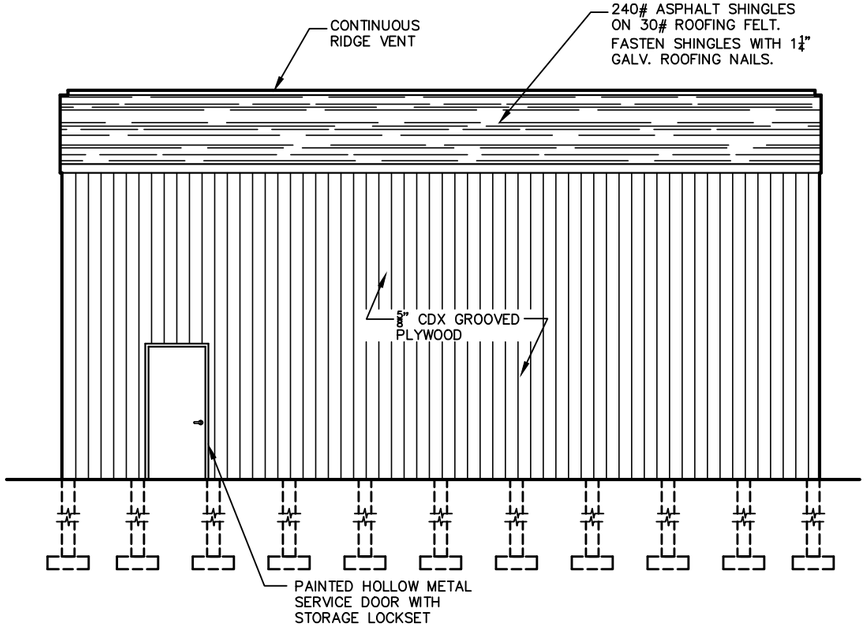


20 HEADER DETAIL
1/2" = 1'-0"
0 1' 2'



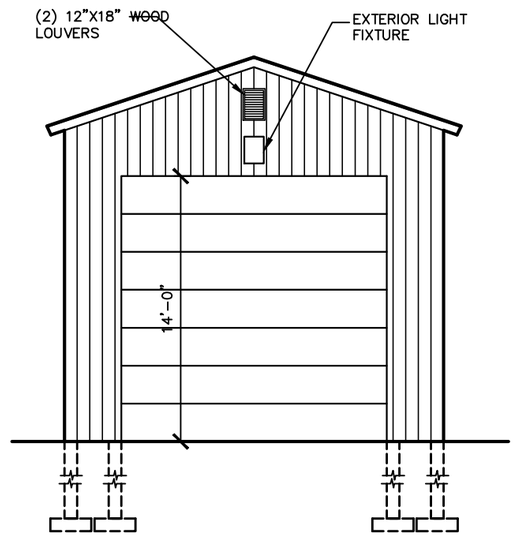
21 EAVE DETAIL
1/2" = 1'-0"
0 1' 2'

PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	ACCESSORY STORAGE BUILDING – PLAN, SECTIONS, DETAILS	SHEET 31	E



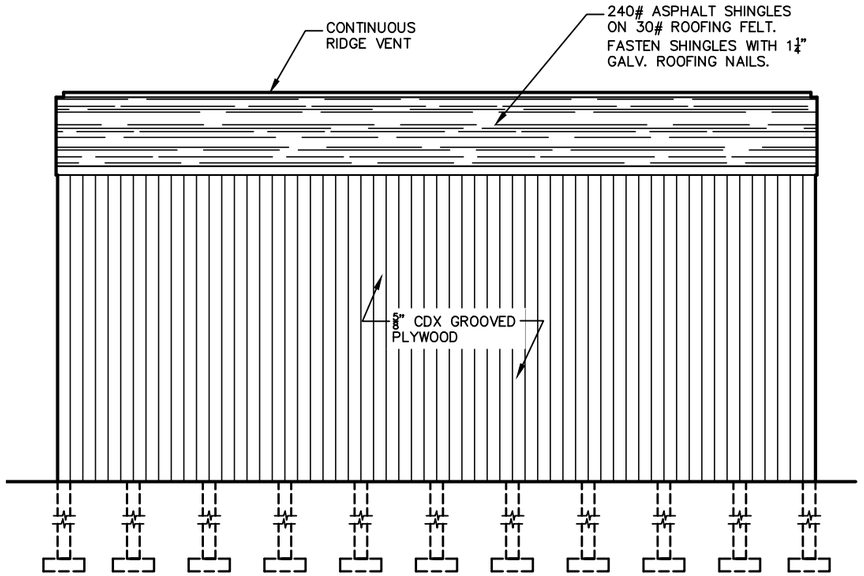
22 BUILDING ELEVATION – ACCESSORY STORAGE BUILDING

0 4' 8'



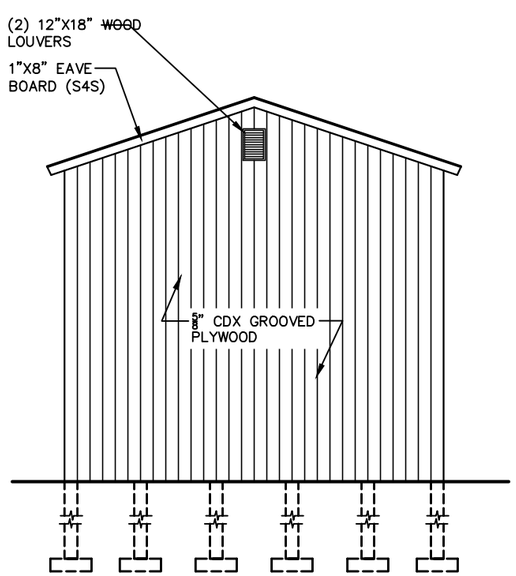
23 BUILDING ELEVATION – ACCESSORY STORAGE BUILDING

0 4' 8'



24 BUILDING ELEVATION – ACCESSORY STORAGE BUILDING

0 4' 8'



25 BUILDING ELEVATION – ACCESSORY STORAGE BUILDING

0 4' 8'

PROJECT NO:1023-00-78	HWY:IH 94	COUNTY:JACKSON	ACCESSORY STORAGE BUILDING – EXTERIOR ELEVATIONS	SHEET 32	E

2

LEGEND

- POST WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- WORK ZONE
- MB — PORTABLE CHANGEABLE MESSAGE SIGN REMOTE CONTROL SEE ALT. ROUTE DETAIL FOR LOCATION
- * — A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHALL BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 TO 3 MILES WITHIN THE LANE CLOSURE.
- ** — SEE SDD 15D12-4 FOR TRAFFIC CONTROL LOCATED WITHIN THE TRANSITION AREA, BUFFER SPACE, AND WORK SPACE (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.

TRAFFIC CONTROL SHOWN IS FOR LANE CLOSURES IN ONE DIRECTION AT ANY GIVEN TIME. IMPLEMENT TRAFFIC CONTROL IN BOTH DIRECTIONS IF LANE CLOSURES ARE IMPLEMENTED FOR BOTH DIRECTIONS.

COORDINATE LOCATIONS OF LANE CLOSURES/SPEED REDUCTION ADVANCED SIGNING WITH DETAILS SHOWN ON ALTERNATE ROUTE DETAIL.

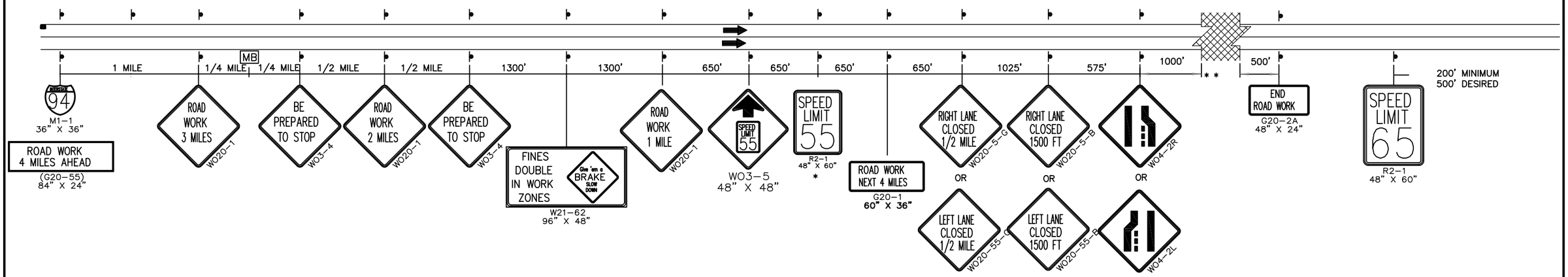
RETURN SPEED LIMIT TO 65 MPH AND COVER SIGNS DURING NON-WORKING HOURS.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

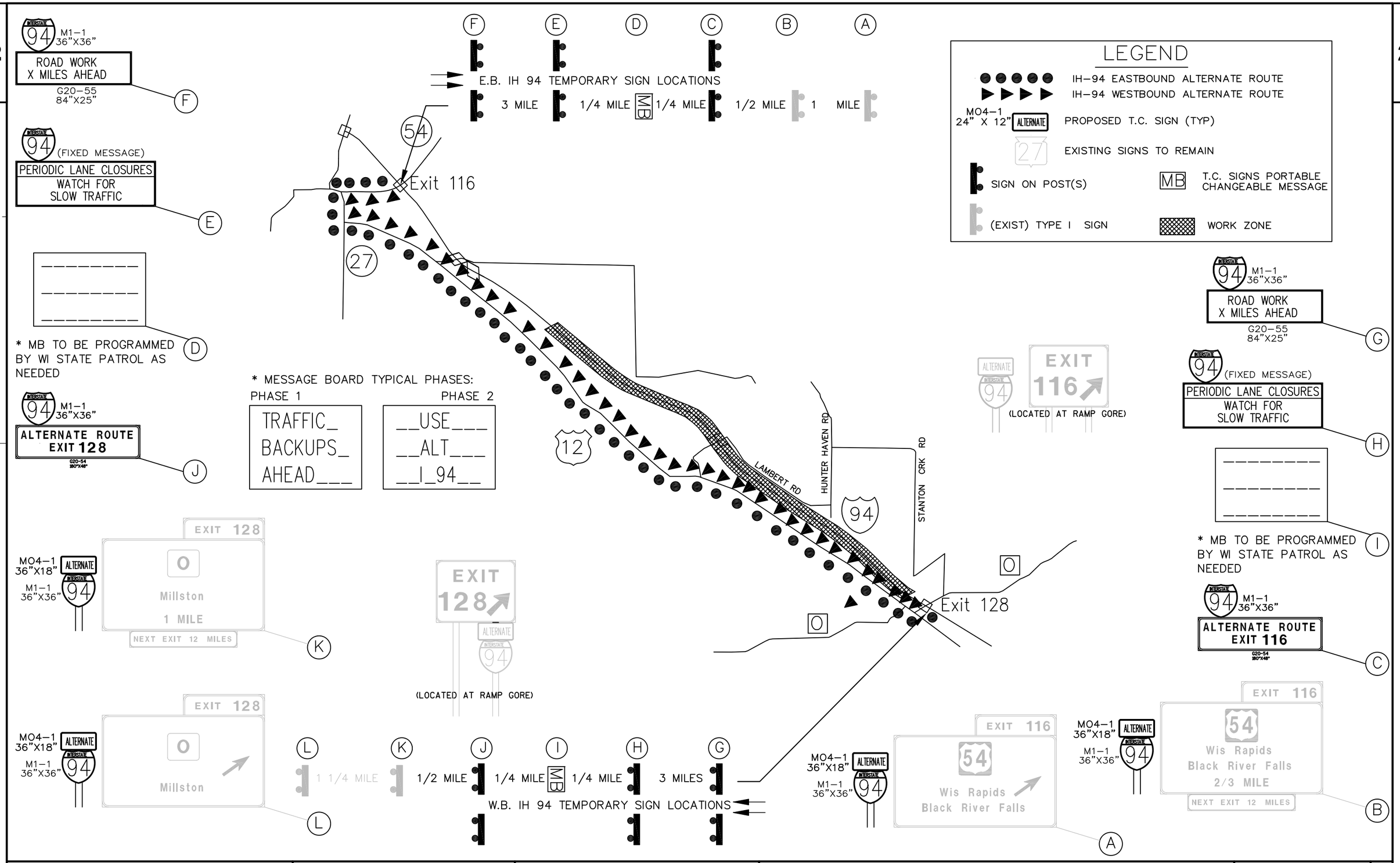
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

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.



PROJECT NO:1023-00-78 & 1023-02-71	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL ADVANCED WARNING	SHEET	E



PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL ALTERNATE ROUTE	SHEET	E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE A WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

*USE MESSAGE ONE WEEK PRIOR TO CLOSURE

PHASE 1

__REST__
__AREA__
CLOSED

PHASE 2

STARTING
__DATE__
____

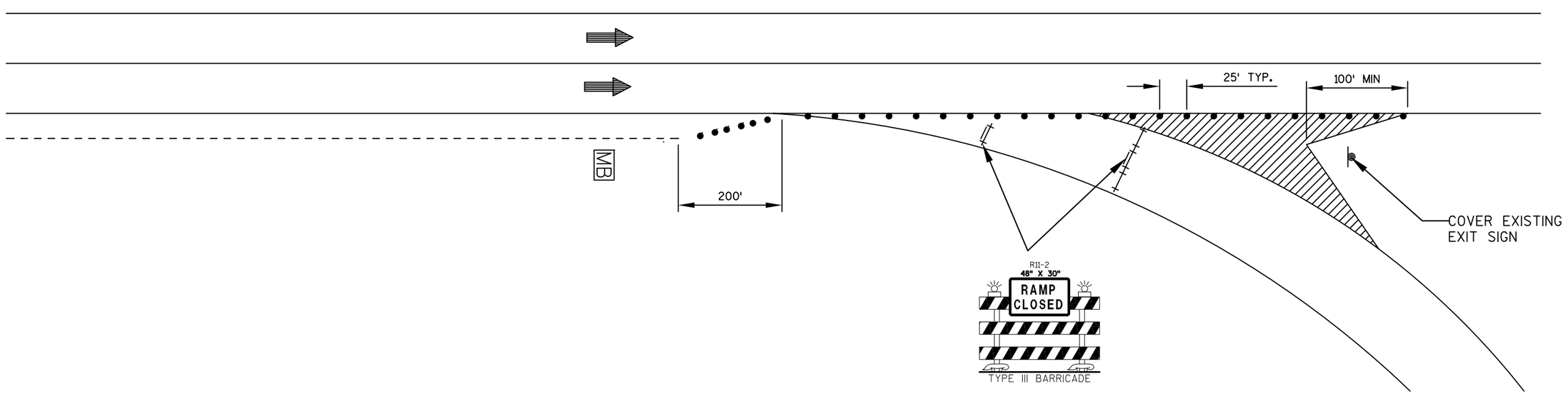
*USE MESSAGE DURING CLOSURE

PHASE 1

__REST__
__AREA__
CLOSED

PHASE 2

__DATE__
___TO___
__DATE__



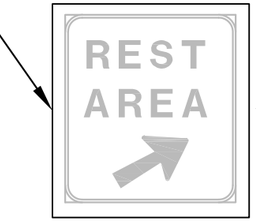
PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	TRAFFIC CONTROL REST AREA CLOSURE	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\TRAFFIC CONTROL.DWG PLOT DATE : 5/1/2014 6:01 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 0.004627

2

2

TRAFFIC CONTROL
COVERING SIGNS
TYPE II



3–4

N

P.T. 1829+06.52WB BK =
1829+06.03WB AH

1820+00WB
1825+00WB
1830+00WB
1835+00WB
1840+00WB
1845+00WB
1850+00

1820+00EB
1825+00EB
1830+00EB
1835+00EB
1840+00EB
1845+00EB
1850+00EB

PT: 1833+33.19EB

IH 94

LEGEND

EXISTING SIGN AND SUPPORT

SIGN MOUNTED ON POST(S)

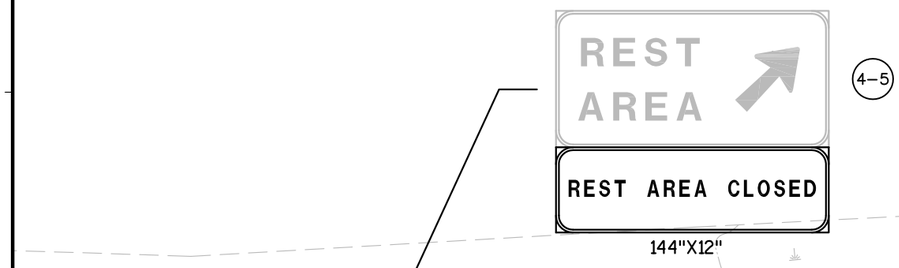
X–X DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL REST AREA CLOSURE	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PERMANENT SIGNING.DWG PLOT DATE : 5/1/2014 5:56 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:200 FT

2



COVER WITH

LEGEND

EXISTING SIGN AND SUPPORT

SIGN MOUNTED ON POST(S)

(X–X) DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL REST AREA CLOSURE	SHEET	E

2

WESTBOUND CURVE DATA
PI STA = 1985+13.50WB
DELTA = 32°16'51"
D = 1°00'00"
T = 1658.14'
L = 3228.08'
R = 5729.58'
PC STA = 1878+55.40WB
PT STA = 1910+83.50WB
SE = 2.8'/FT

PI: 1895+13.50WB

COVER WITH
REST AREA CLOSED
144"X12"

REST AREA
SCENIC
OVERLOOK
1 MILES

WEATHER INFORMATION

NEXT REST AREA
78 MILES

5–1

PI: 1889+58.52EB

PT: 1910+83.50WB

1885+00WB
1890+00WB
1895+00WB
1900+00WB
1905+00WB
1910+00WB

1885+00EB
1890+00EB
1895+00EB
1900+00EB
1905+00EB
1910+00EB

IH 94

PT: 1905+82.00EB

EASTBOUND CURVE DATA
PI STA = 1889+58.52EB
DELTA = 33°27'16"
D = 1°00'00"
T = 1721.92'
L = 3345.44'
R = 5729.58'
PC STA = 1872+36.60EB
PT STA = 1905+82.00EB
SE = 2.8'/FT

LEGEND
EXISTING SIGN AND SUPPORT
SIGN MOUNTED ON POST(S)
(X–X) DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL REST AREA CLOSURE	SHEET	E

2

N

1915+00WB
1920+00WB
PC: 1922+96.30WB
1925+00WB
1930+00WB
1935+00WB
1940+00WB

1915+00EB
1920+00EB
1925+00EB
PC: 1926+28.20EB
1930+00EB
1935+00EB
1940+00EB

LAMBERT RD
IH 94
HO
GUY
120

6-4

REST
AREA

REST AREA CLOSED

144"X12"

6-6

REST
AREA

TRAFFIC CONTROL
COVERING SIGNS
TYPE II

RIPRAP

LEGEND

EXISTING SIGN AND SUPPORT

SIGN MOUNTED ON POST(S)

X-X DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	TRAFFIC CONTROL REST AREA CLOSURE	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PERMANENT SIGNING.DWG PLOT DATE : 5/1/2014 5:58 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

LEGEND

- PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH
- (A) PAVEMENT MARKING SYMBOLS (HANDICAP SYMBOL)
- (B) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
- (C) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 3 FEET CENTER TO CENTER)
- (D) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 10 FEET CENTER TO CENTER)
- CURB RAMP DETECTABLE WARNING FIELD YELLOW

IH 94

D

21'

12'

B

12'

C

21'

12'

B

12'

C

B

12'

C

A

D

36'

36'

PAVEMENT MARKING
STOP LINE EPOXY
18-INCH (WHITE)

CANOPY

CANOPY

WALLS

CANOPY

CANOPY

SEPTIC

WALLS

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	EB REST AREA 53 PAVEMENT MARKING	SHEET	E

2

RIPRAP

RIPRAP

81.5'

81.5'

D

21'

12'

B

12'

21'

12'

C

PAVEMENT MARKING
STOP LINE EPOXY
18-INCH (WHITE)

CANOPY

CANOPY

LEGEND

PAVEMENT MARKING EPOXY 4-INCH (WHITE)

PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH

(A) PAVEMENT MARKING SYMBOLS (HANDICAP SYMBOL)

(B) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)

(C) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 3 FEET CENTER TO CENTER)

(D) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 10 FEET CENTER TO CENTER)

CURB RAMP DETECTABLE WARNING FIELD YELLOW

95'

15'

21'

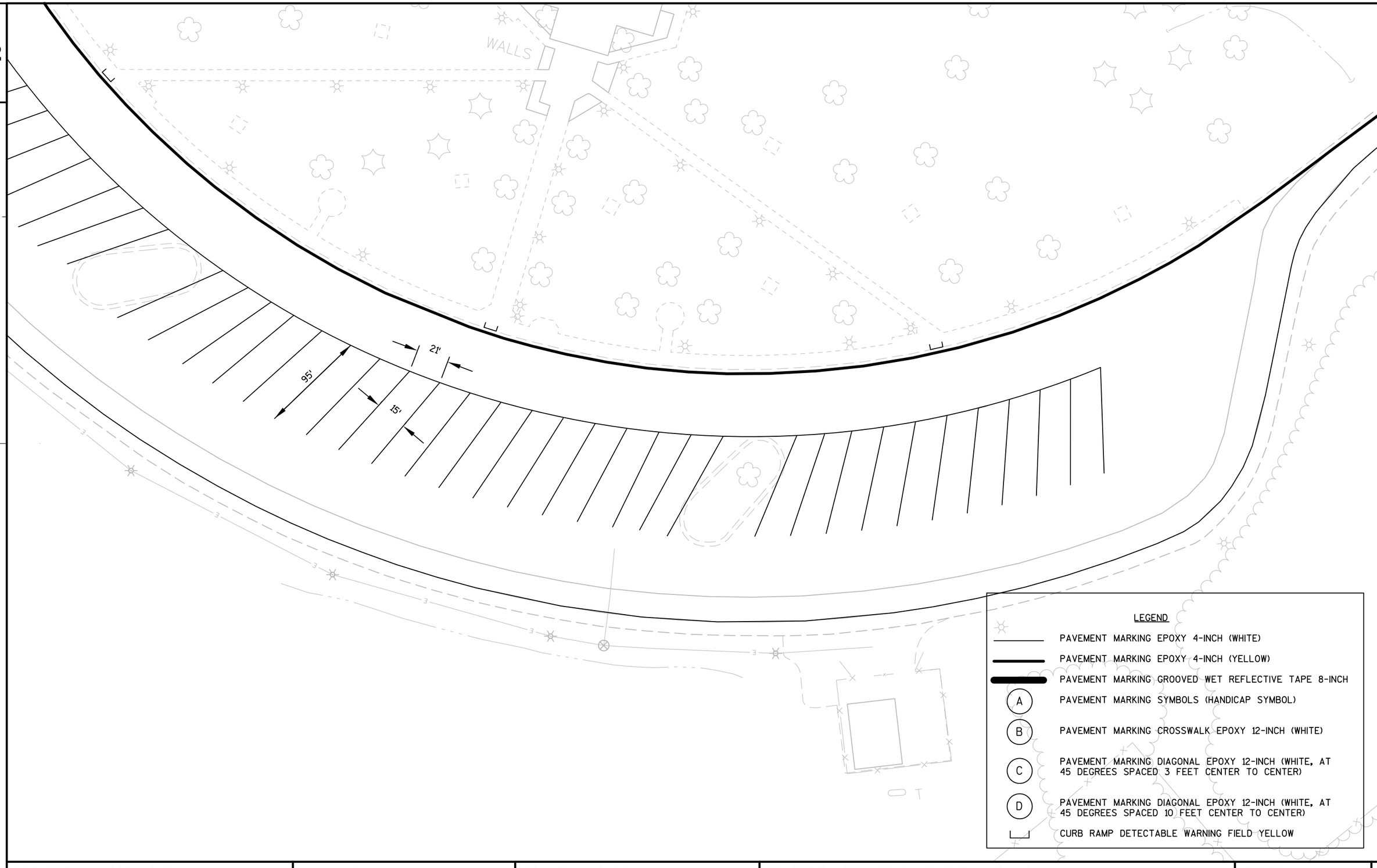
SEPTIC

WALLS

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	EB REST AREA 53 PAVEMENT MARKING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\SHEETSOTHER\REST AREA PM.DWG PLOT DATE : 6/30/2014 9:17 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 0.021403

2

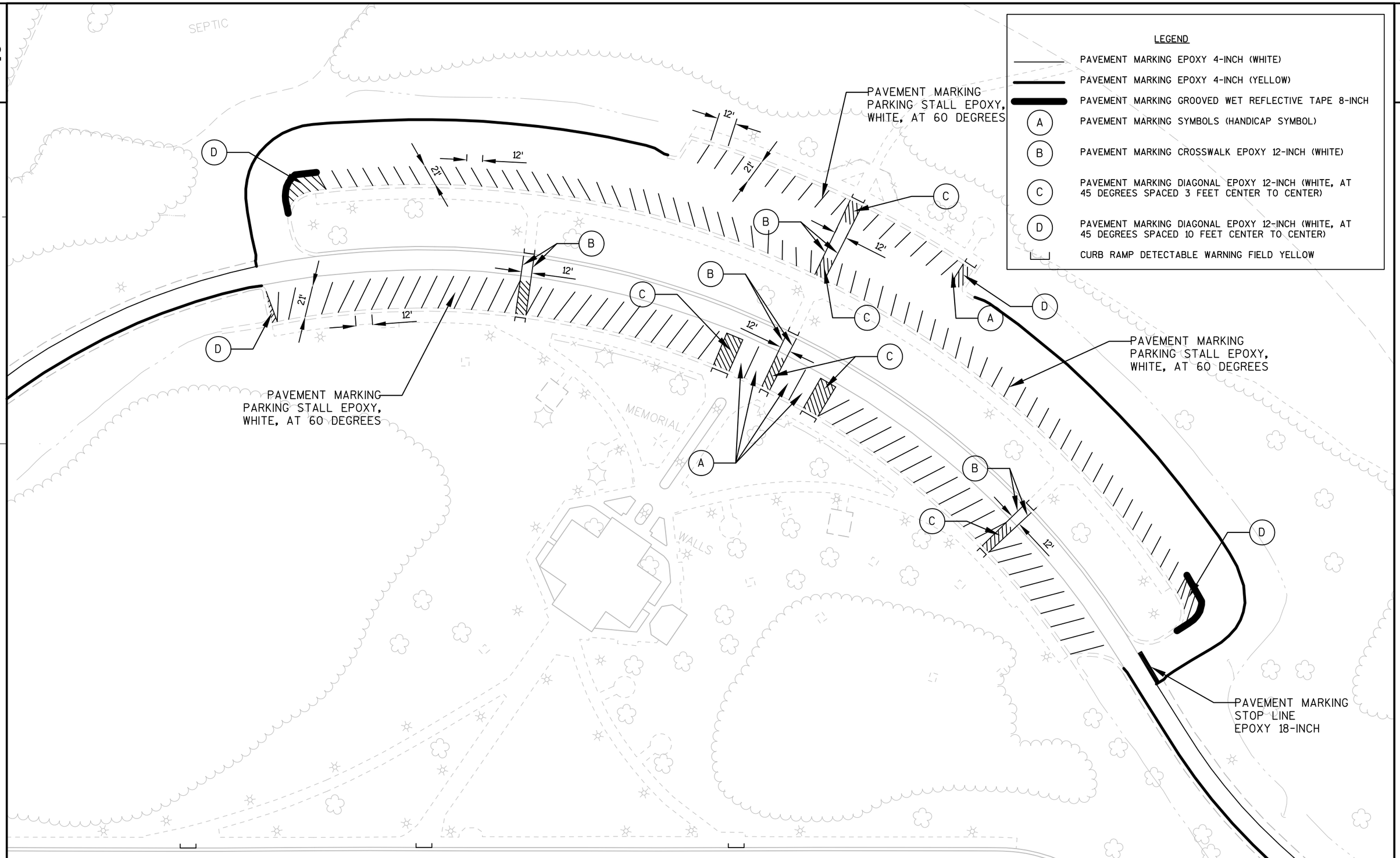


LEGEND

- PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH
- (A) PAVEMENT MARKING SYMBOLS (HANDICAP SYMBOL)
- (B) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
- (C) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 3 FEET CENTER TO CENTER)
- (D) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 10 FEET CENTER TO CENTER)
- CURB RAMP DETECTABLE WARNING FIELD YELLOW

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	EB REST AREA 53 PAVEMENT MARKING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\SHEETSOTHER\REST AREA PM.DWG PLOT DATE : 6/30/2014 9:19 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 0.019069



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	WB REST AREA 54 PAVEMENT MARKING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\SHEETSOTHER\REST AREA PM.DWG PLOT DATE : 6/29/2014 11:34 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 0.015014

2

LEGEND

- PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH
- (A) PAVEMENT MARKING SYMBOLS (HANDICAP SYMBOL)
- (B) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)
- (C) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 3 FEET CENTER TO CENTER)
- (D) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 10 FEET CENTER TO CENTER)
- CURB RAMP DETECTABLE WARNING FIELD YELLOW

103'

142'

103'

20'

21'

15'

95'

PAVEMENT MARKING PARKING STALL EPOXY, WHITE

IH 94

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	WB REST AREA 54 PAVEMENT MARKING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\SHEETSOTHER\REST AREA PM.DWG PLOT DATE : 6/29/2014 11:37 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 0.015121

2

2

PAVEMENT MARKING
STOP LINE EPOXY
18-INCH, WHITE

20'

21'

15'

35'

120'

130'

120'

PAVEMENT MARKING PARKING
STALL EPOXY, WHITE

IH 94

LEGEND

PAVEMENT MARKING EPOXY 4-INCH (WHITE)

PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH

(A) PAVEMENT MARKING SYMBOLS (HANDICAP SYMBOL)

(B) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)

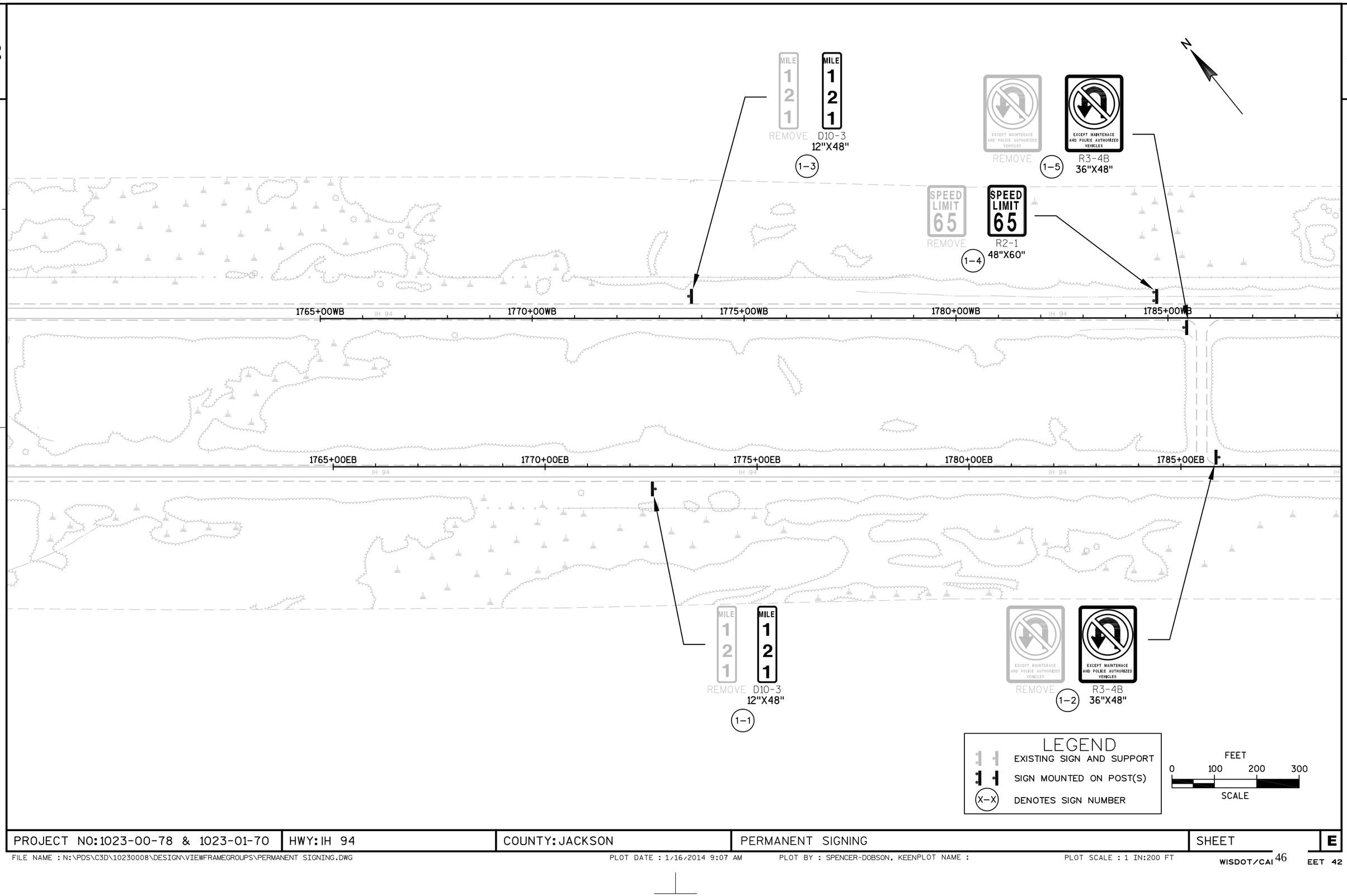
(C) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 3 FEET CENTER TO CENTER)

(D) PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE, AT 45 DEGREES SPACED 10 FEET CENTER TO CENTER)

CURB RAMP DETECTABLE WARNING FIELD YELLOW

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	WB REST AREA 54 PAVEMENT MARKING	SHEET	E

2



PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PERMANENT SIGNING.DWG PLOT DATE : 1/16/2014 9:07 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

WEST INTERSTATE 94 REMOVE

WEST INTERSTATE 94 J4-1

2-1 36"X54"

WESTBOUND CURVE DATA
PI STA = 1813+12.19WB
DELTA = 16°02'57"
D = 0°30'00"
T = 1615.52'
L = 3209.83'
R = 11459.16'
PC STA = 1796+96.70WB
PT STA = 1829+06.53WB
SE = RC

1790+00WB
1795+00WB
PC: 1796+96.70WB
1800+00WB
1805+00WB
1810+00WB
1815+00WB
182

1790+00EB
1795+00EB
PC: 1796+53.80EB
1800+00EB
1805+00EB
1810+00EB
PI: 1813+12.20WB
1815+00EB
1820
PI: 1815+09.49EB

IH 94

LEGEND
EXISTING SIGN AND SUPPORT
SIGN MOUNTED ON POST(S)
X-X DENOTES SIGN NUMBER

EASTBOUND CURVE DATA
PI STA = 1815+09.49EB
DELTA = 18°23'49"
D = 0°30'00"
T = 1855.69'
L = 3679.39'
R = 11459.16'
PC STA = 1796+53.80EB
PT STA = 1833+33.19EB
SE = RC

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

2

N

REMOVE

W4-1R
48" X 48"

3-2

MILE 122

REMOVE

D10-3
12"X48"

3-3

REST AREA

REMOVE

3-4

REST AREA

E5-54
72"X72"

1820+00WB
1825+00WB
P.T. 1829+06.52WB BK =
1829+06.03WB AH
1830+00WB
1835+00WB
1840+00WB
1845+00WB
1850+00

IH 94

320+00EB
1825+00EB
1830+00EB
1835+00EB
1840+00EB
1845+00EB
1850+00EB

PT: 1833+33.19EB

MILE 122

REMOVE

D10-3
12"X48"

3-1

LEGEND

EXISTING SIGN AND SUPPORT

SIGN MOUNTED ON POST(S)

X-X DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

2

Law Enforcement
Tribute
NEXT RIGHT
REMOVE

4-7

Law Enforcement
Tribute
NEXT RIGHT
E3-1
204"X78"

EXIT
35
M.P.H.
REMOVE

EXIT
35
M.P.H.
W13-2
48" X 60"

4-4

REST
AREA
REMOVE

REST
AREA
E5-52
144"X54"

4-5

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
REMOVE

EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R3-4B
36"X48"

4-6

MILE
1
2
3
REMOVE

MILE
1
2
3
D10-3
12"X48"

4-8

PC: 1878+55.40WB

1880+00WB
1875+00WB
1870+00WB
1865+00WB
1860+00WB
1855+00WB
+00WB

IH 94

1875+00EB
1880+00EB
1870+00EB
1865+00EB
1860+00EB
1855+00EB

PC: 1872+36.60EB

MILE
1
2
3
REMOVE

MILE
1
2
3
D10-3
12"X48"

4-2

EXCEPT MAINTENACE AND POLICE AUTHORIZED VEHICLES
REMOVE

EXCEPT MAINTENACE AND POLICE AUTHORIZED VEHICLES
R3-4B
36"X48"

4-1

REST AREA
1 MILES

REST AREA
1 MILES
E5-51
144"X60"

WEATHER INFORMATION

WEATHER INFORMATION
E10-54
120"X12"

NEXT REST AREA
53 MILES
REMOVE

NEXT REST AREA
53 MILES
E5-62
120"X30"

4-3

LEGEND
EXISTING SIGN AND SUPPORT
SIGN MOUNTED ON POST(S)
(X-X) DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

REST AREA
SCENIC
OVERLOOK
1 MILES

WEATHER INFORMATION

NEXT REST AREA
78 MILES

REMOVE

REST AREA
SCENIC
OVERLOOK
1 MILES

WEATHER INFORMATION

NEXT REST AREA
78 MILES

5–1

WESTBOUND CURVE DATA
PI STA = 1985+13.50WB
DELTA = 32°16'51"
D = 1°00'00"
T = 1658.14'
L = 3228.08'
R = 5729.58'
PC STA = 1878+55.40WB
PT STA = 1910+83.50WB
SE = 2.8'/FT

PI: 1895+13.50WB

PI: 1889+58.52EB

SP
144"X102"

E10-54
120"X12"

E5-62
120"X30"

PT: 1910+83.50WB

1885+00WB
1890+00WB
1895+00WB
1900+00WB
1905+00WB
1910+00WB

1885+00EB
1890+00EB
1895+00EB
1900+00EB
1905+00EB
1910+00EB

IH 94

PT: 1905+82.00EB

EASTBOUND CURVE DATA
PI STA = 1889+58.52EB
DELTA = 33°27'16"
D = 1°00'00"
T = 1721.92'
L = 3345.44'
R = 5729.58'
PC STA = 1872+36.60EB
PT STA = 1905+82.00EB
SE = 2.8'/FT

LEGEND
EXISTING SIGN AND SUPPORT
SIGN MOUNTED ON POST(S)
(X–X) DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PERMANENT SIGNING.DWG PLOT DATE : 1/16/2014 9:20 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:200 FT

2

N

REMOVE W5-52R 18" X 54" (6-7)

REMOVE W5-52L 18" X 54" (6-8)

REMOVE MILE 124 / D10-3 12"X48" (6-9)

REMOVE SLOWER TRAFFIC KEEP RIGHT / R4-3 48"X60" (6-10)

1915+00WB 1920+00WB 1925+00WB 1930+00WB 1935+00WB 1940+00WB

PC: 1922+96.30WB

LAMBERT RD

1915+00EB 1920+00EB 1925+00EB 1930+00EB 1935+00EB 1940+00EB

PC: 1926+28.20EB

IH 94

120

REMOVE W5-52L 18" X 54" (6-1)

REMOVE W5-52R 18" X 54" (6-2)

REMOVE MILE 124 / D10-3 12"X48" (6-3)

REMOVE REST AREA (6-4)

REST AREA E5-52 144"X54"

REMOVE EXIT 35 M.P.H. / W13-2 48" X 60" (6-5)

REMOVE REST AREA (6-6)

REST AREA E5-54 72"X72"

LEGEND

- EXISTING SIGN AND SUPPORT
- SIGN MOUNTED ON POST(S)
- (X-X) DENOTES SIGN NUMBER

FEET 0 100 200 300

SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PERMANENT SIGNING.DWG PLOT DATE : 4/24/2014 5:10 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

WESTBOUND CURVE DATA
PI STA = 1944+81.10WB
DELTA = 21°35'20"
D = 0°30'00"
T = 2184.80'
L = 4317.78'
R = 11459.16'
PC STA = 1922+96.30WB
PT STA = 1966+14.08WB
SE = RC

NEXT
10 MILES
REMOVE
7–3

PT: 1966+14.08WB

1945+00WB
1950+00WB
1955+00WB
1960+00WB
1965+00WB
1970+00WB

IH 94

LAMBERT RD

N

PI: 1944+81.10WB

1945+00EB
1950+00EB
1955+00EB
1960+00EB
1965+00EB
1970+00EB

PT: 1966+71.20EB

EASTBOUND CURVE DATA
PI STA = 1946+70.93EB
DELTA = 20°12'54"
D = 0°30'00"
T = 2042.74'
L = 4043.00'
R = 11459.16'
PC STA = 1926+28.20EB
PT STA = 1966+71.20EB
SE = RC

PI: 1946+70.94EB

NEXT
10 MILES
REMOVE
7–1

CANOPY
WALLS
SEPTIC

REMOVE
7–2

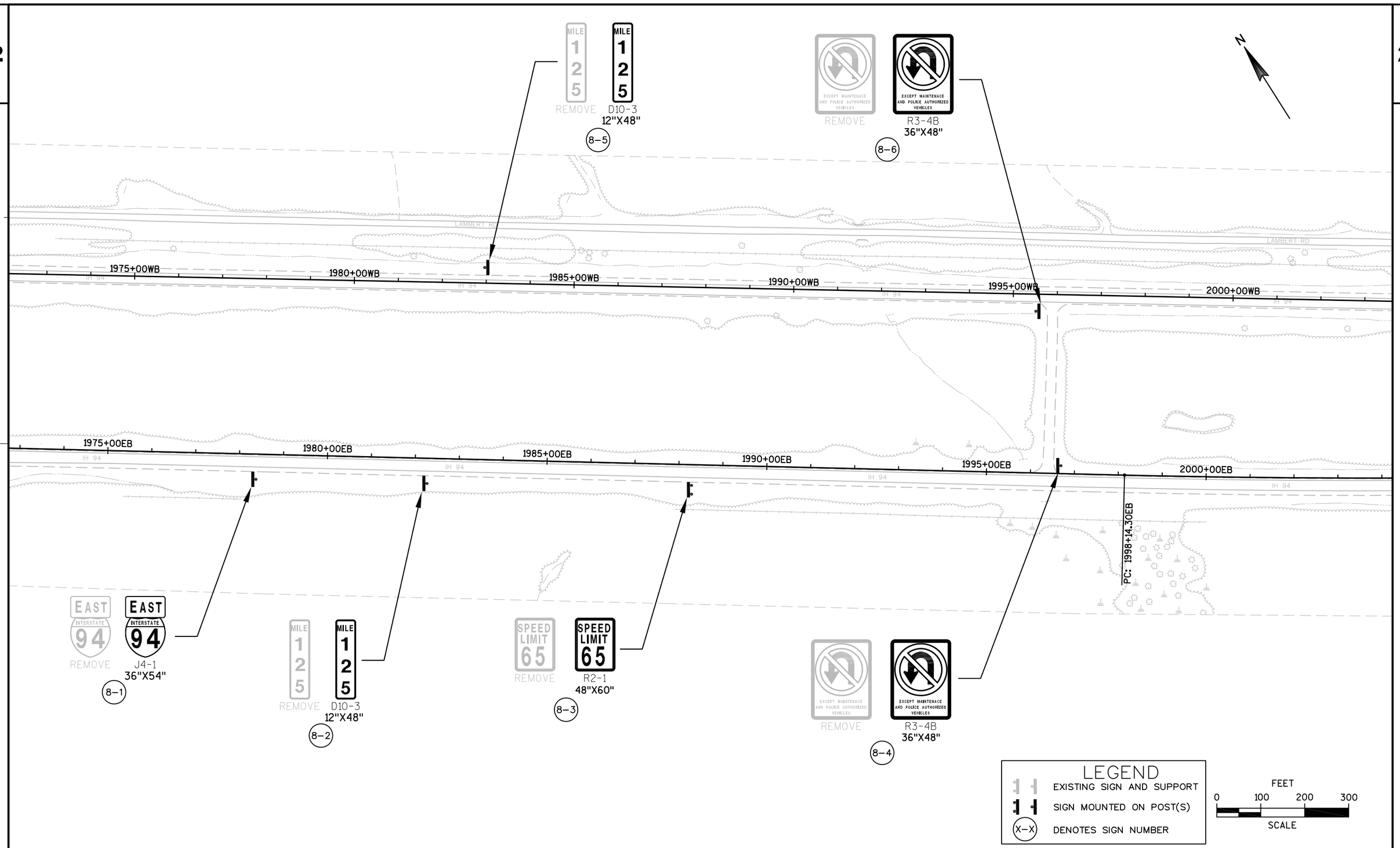
W4-1R
48" X 48"

LEGEND
EXISTING SIGN AND SUPPORT
SIGN MOUNTED ON POST(S)
X–X DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

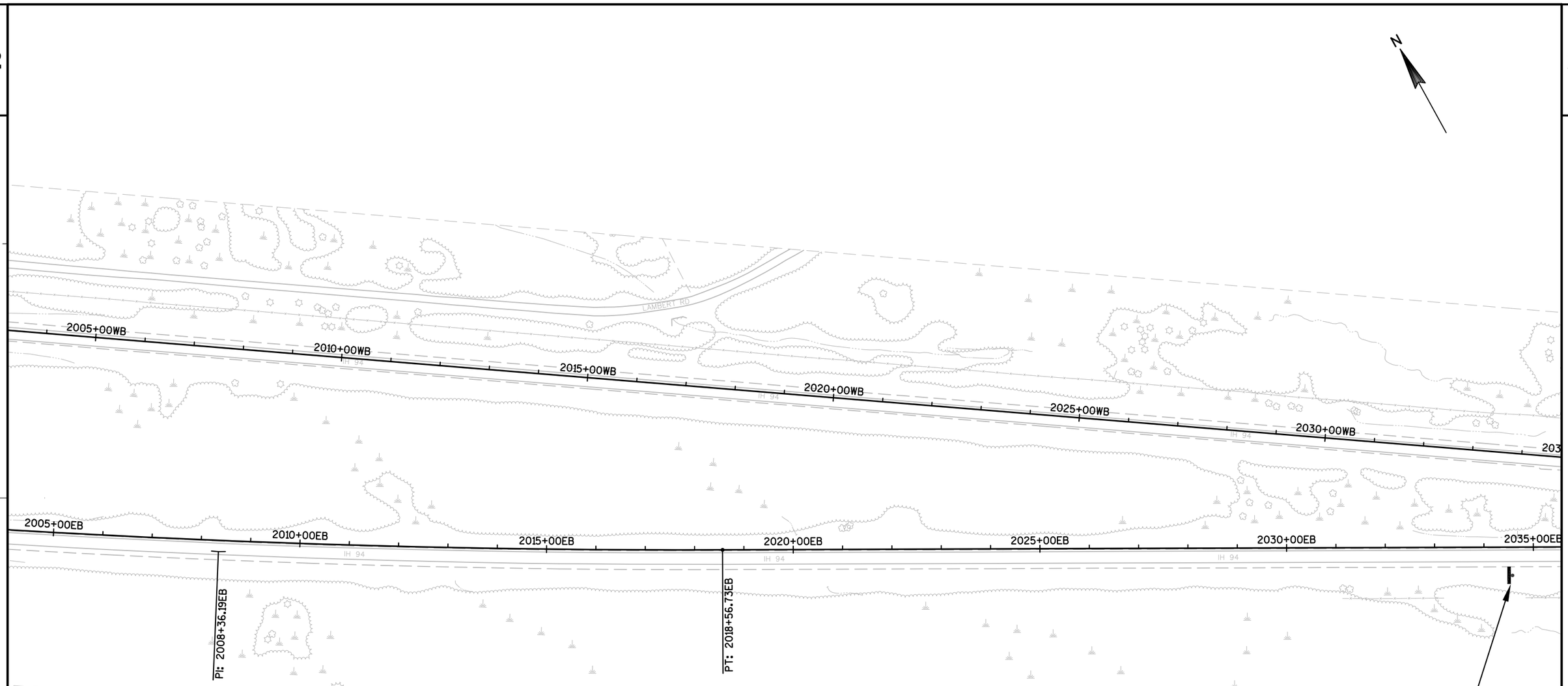
PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

2



PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

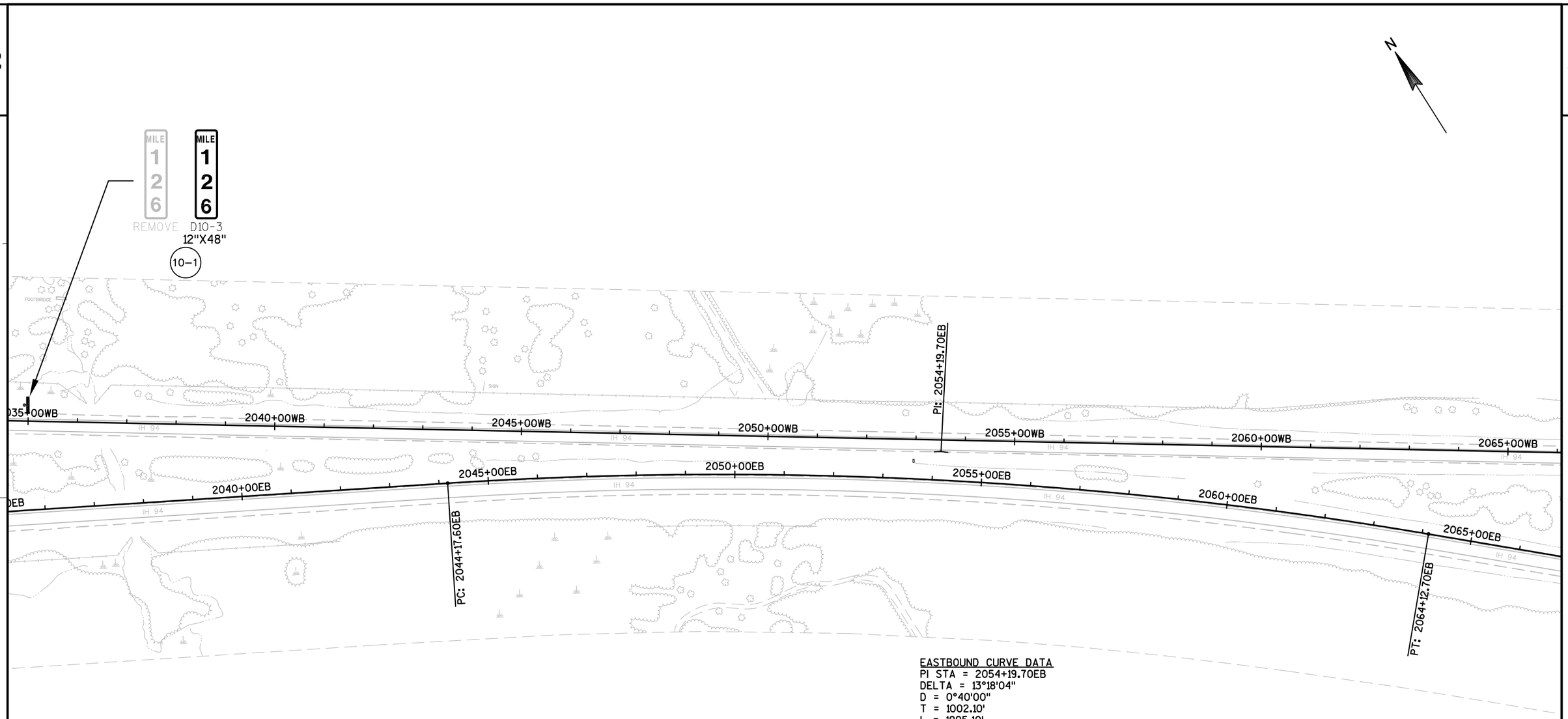
2



EASTBOUND CURVE DATA
PI STA = 2008+36.19EB
DELTA = 5°06'22"
D = 0°15'00"
T = 1021.89'
L = 2042.43'
R = 22918.31'
PC STA = 1998+14.30EB
PT STA = 2018+56.73EB
SE = RC

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

2



EASTBOUND CURVE DATA
PI STA = 2054+19.70EB
DELTA = 13°18'04"
D = 0°40'00"
T = 1002.10'
L = 1995.10'
R = 8594.37'
PC STA = 2044+17.60EB
PT STA = 2064+12.70EB
SE = 2.0'/FT

LEGEND
- EXISTING SIGN AND SUPPORT
- SIGN MOUNTED ON POST(S)
- (X-X) DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

2

WESTBOUND CURVE DATA
PI STA = 2081+49.00WB
DELTA = 12°16'44"
D = 0°30'00"
T = 1232.66'
L = 2456.78'
R = 11459.16'
PC STA = 2069+16.30WB
PT STA = 2093+72.10WB
SE = RC

MILE 127 REMOVE
MILE 127 D10-3 12"X48"
11-3

EMERGENCY STOPPING ONLY REMOVE
EMERGENCY STOPPING ONLY R8-7 48'X36"
11-4

N

PC: 2069+16.30WB
PI: 2081+49.00WB
P.T. 2093+72.10WB BK = 2093+72.50WB AH

2070+00WB
2075+00WB
2080+00WB
2085+00WB
2090+00WB
2095+00WB

IH 94

2070+00EB
2075+00EB
2080+00EB
2085+00EB
2090+00EB
2095+00EB

MILE 127 REMOVE
MILE 127 D10-3 12"X48"
11-1

EXIT 128
COUNTY O
MILLSTON
1 MILE
NEXT EXIT 8 MILES
REMOVE
11-2

EXIT 128 E1-5-P 120"X30"
COUNTY O
MILLSTON
1 MILE
E1-1-A 168"X120"
NEXT EXIT 8 MILES
E2-1A 84"X36"

LEGEND
EXISTING SIGN AND SUPPORT
SIGN MOUNTED ON POST(S)
(X-X) DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

2

2

N

Black River Falls 12
Eau Claire 59
St Paul 143

REMOVE

12–3

Black River Falls 12
Eau Claire 59
St Paul 143

D2-3
264"X84"

SPEED LIMIT 65

REMOVE

SPEED LIMIT 65

R2-1
48"X60"

12–4

2100+00WB
2105+00WB
2110+00WB
2115+00WB
2120+00WB
2125+00WB
IH 94

PC: 2121+61.12WB

2100+00EB
2105+00EB
2110+00EB
2115+00EB
2120+00EB
2125+00EB
IH 94

PC: 2119+88.80EB

State Forest Campground EXIT 128

REMOVE

12–1

State Forest Campground EXIT 128

E3-1
156"X84"

GAS-FOOD NEXT RIGHT

REMOVE

12–2

GAS-FOOD NEXT RIGHT

E10-51B
120"X48"

LEGEND

- EXISTING SIGN AND SUPPORT
- SIGN MOUNTED ON POST(S)
- (X–X) DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PERMANENT SIGNING.DWG PLOT DATE : 1/16/2014 9:52 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

WESTBOUND CURVE DATA
PI STA = 2132+05.50WB
DELTA = 15°34'11"
D = 0°45'00"
T = 1044.38'
L = 2075.96'
R = 7639.44'
PC STA = 2121+61.12WB
PT STA = 2142+37.08WB
SE = 2.1'/FT

WEST INTERSTATE 94
REMOVE

WEST INTERSTATE 94
J4-1
36"X54"
13–2

EXCEPT MAINTENACE AND POLICE AUTHORIZED VEHICLES
REMOVE

EXCEPT MAINTENACE AND POLICE AUTHORIZED VEHICLES
R3-4B
36"X48"
13–3

2130+00WB
2135+00WB
2130+00EB
2135+00EB
IH 94
I 94
ROBINSON DR.
EIDSMOE RD.
EPSTEIN RD.
RAILROAD ST.
CTH "O"
SIGN
PI: 2131+61.40EB
PI: 2132+05.50WB

EASTBOUND CURVE DATA
PI STA = 2131+61.40EB
DELTA = 11°41'08"
D = 0°30'00"
T = 1172.63'
L = 2337.12'
R = 11459.15'
PC STA = 2119+88.80EB
PT STA = 2143+25.90EB
SE = RC

EXCEPT MAINTENACE AND POLICE AUTHORIZED VEHICLES
REMOVE

EXCEPT MAINTENACE AND POLICE AUTHORIZED VEHICLES
R3-4B
36"X48"
13–1

LEGEND
EXISTING SIGN AND SUPPORT
SIGN MOUNTED ON POST(S)
X–X DENOTES SIGN NUMBER

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET	E

DATE 08JUL14 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	1023-00-78 QUANTITY	1023-01-70 QUANTITY
0010	201.0110	CLEARING	SY	3,665.000	3,665.000	
0020	201.0210	GRUBBING	SY	3,665.000	3,665.000	
0030	204.0100	REMOVING PAVEMENT	SY	1,080.000	849.000	231.000
0040	204.0109.S	REMOVING CONCRETE SURFACE PARTIAL DEPTH	SF	78,400.000	49,500.000	28,900.000
0050	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	2,720.000	1,360.000	1,360.000
0060	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	316,026.000	159,349.000	156,677.000
0070	204.0150	REMOVING CURB & GUTTER	LF	252.000	144.000	108.000
0080	204.0155	REMOVING CONCRETE SIDEWALK	SY	224.000	128.000	96.000
0090	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	260.000	130.000	130.000
0100	205.0100	EXCAVATION COMMON	CY	1,919.000	1,919.000	
0110	213.0100	FINISHING ROADWAY (PROJECT) 01. 1023-00-78	EACH	1.000	1.000	
0120	213.0100	FINISHING ROADWAY (PROJECT) 02. 1023-01-70	EACH	1.000		1.000
0130	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,511.000	925.000	586.000
0140	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,000.000	1,000.000	
0150	305.0500	SHAPING SHOULDERS	STA	865.000	473.000	392.000
0160	312.0110	SELECT CRUSHED MATERIAL	TON	1,400.000	1,400.000	
0170	416.0610	DRILLED TIE BARS	EACH	560.000	334.000	226.000
0180	416.0620	DRILLED DOWEL BARS	EACH	5,446.000	4,678.000	768.000
0190	416.1715	CONCRETE PAVEMENT REPAIR SHES	SY	750.000	608.000	142.000
0200	416.1725	CONCRETE PAVEMENT REPLACEMENT SHES	SY	329.000	241.000	88.000
0210	440.4410.S	INCENTIVE IRI RIDE	DOL	56,400.000	28,200.000	28,200.000
0220	455.0105	ASPHALTIC MATERIAL PG58-28	TON	1,160.000	588.000	572.000
0230	455.0140	ASPHALTIC MATERIAL PG64-28P	TON	1,835.000	946.000	889.000
0240	455.0605	TACK COAT	GAL	16,641.000	8,807.000	7,834.000
0250	460.1100	HMA PAVEMENT TYPE E-0.3	TON	21,044.000	10,644.000	10,400.000
0260	460.1110	HMA PAVEMENT TYPE E-10	TON	33,349.000	17,192.000	16,157.000
0270	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	34,830.000	17,820.000	17,010.000
0280	465.0110	ASPHALTIC SURFACE PATCHING	TON	4,825.000	2,825.000	2,000.000
0290	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	700.000	700.000	
0300	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	220.000	110.000	110.000
0310	465.0400	ASPHALTIC SHOULDER RUMBLE STRIPS	LF	148,594.000	74,324.000	74,270.000
0320	522.0318	CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	54.000	54.000	
0330	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	2.000	2.000	
0340	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	252.000	144.000	108.000
0350	602.0410	CONCRETE SIDEWALK 5-INCH	SF	2,016.000	1,152.000	864.000
0360	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	224.000	128.000	96.000
0370	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	20.000	9.000	11.000
0380	614.0920	SALVAGED RAIL	LF	4,308.000	2,286.000	2,022.000
0390	614.2300	MGS GUARDRAIL 3	LF	6,211.000	3,802.000	2,409.000
0400	614.2500	MGS THRIE BEAM TRANSITION	LF	240.000	80.000	160.000
0410	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	18.000	9.000	9.000
0420	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	16.000	7.000	9.000
0430	616.0208	FENCE CHAIN LINK 8-FT	LF	697.000	697.000	
0440	616.0329	GATES CHAIN LINK (WIDTH) 03.26-FT	EACH	2.000	2.000	
0450	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01.1023-00-78	EACH	1.000	1.000	
0460	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02.1023-01-70	EACH	1.000		1.000
0470	619.1000	MOBILIZATION	EACH	1.000	0.500	0.500

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1023-00-78 QUANTITY	1023-01-70 QUANTITY
0480	625.0500	SALVAGED TOPSOIL	SY	1,716.000	1,716.000	
0490	627.0200	MULCHING	SY	1,716.000	1,716.000	
0500	628.1504	SILT FENCE	LF	8,850.000	5,175.000	3,675.000
0510	628.1520	SILT FENCE MAINTENANCE	LF	8,655.000	4,980.000	3,675.000
0520	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	2.000	1.000
0530	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	3.000	2.000
0540	628.2002	EROSION MAT CLASS I TYPE A	SY	114.000	114.000	
0550	628.7010	INLET PROTECTION TYPE B	EACH	3.000	3.000	
0560	628.7555	CULVERT PIPE CHECKS	EACH	6.000	6.000	
0570	629.0210	FERTILIZER TYPE B	CWT	1.100	1.100	
0580	630.0130	SEEDING MIXTURE NO. 30	LB	31.000	31.000	
0590	633.0200	DELINEATORS FLEXIBLE	EACH	304.000	152.000	152.000
0600	633.5200	MARKERS CULVERT END	EACH	2.000	2.000	
0610	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	14.000	7.000	7.000
0620	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	37.000	19.000	18.000
0630	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	7.000	5.000	2.000
0640	635.0200	SIGN SUPPORTS STRUCTURAL STEEL HS	LB	1,469.000		1,469.000
0650	636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	2.700		2.700
0660	636.0500	SIGN SUPPORTS STEEL REINFORCEMENT	LB	150.000		150.000
0670	637.1220	SIGNS TYPE I REFLECTIVE SH	SF	921.500	466.000	455.500
0680	637.2210	SIGNS TYPE II REFLECTIVE H	SF	356.500	145.500	211.000
0690	637.2230	SIGNS TYPE II REFLECTIVE F	SF	99.000	49.500	49.500
0700	638.2601	REMOVING SIGNS TYPE I	EACH	14.000	8.000	6.000
0710	638.2602	REMOVING SIGNS TYPE II	EACH	45.000	21.000	24.000
0720	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	62.000	33.000	29.000
0730	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000	
0740	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01.1023-00-78	DAY	135.000	135.000	
0750	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 02.1023-01-70	DAY	135.000		135.000
0760	643.0300	TRAFFIC CONTROL DRUMS	DAY	120,450.000	60,360.000	60,090.000
0770	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	7,636.000	3,836.000	3,800.000
0780	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	15,272.000	7,672.000	7,600.000
0790	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	8,910.000	4,455.000	4,455.000
0800	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	540.000	270.000	270.000
0810	643.0900	TRAFFIC CONTROL SIGNS	DAY	15,023.000	8,128.000	6,895.000
0820	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	2.000	1.000	1.000
0830	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	160.000	80.000	80.000
0840	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	168.000	156.000	12.000
0850	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	162,210.000	81,412.000	80,798.000
0860	646.0881.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH	LF	20,130.000	10,079.000	10,051.000
0870	646.0883.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH	LF	5,316.000	2,436.000	2,880.000
0880	647.0256	PAVEMENT MARKING SYMBOLS EPOXY	EACH	13.000	6.000	7.000
0890	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	82.000	42.000	40.000
0900	647.0656	PAVEMENT MARKING PARKING STALL EPOXY	LF	15,001.000	7,203.000	7,798.000
0910	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	889.000	330.000	559.000
0920	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	1,252.000	625.000	627.000
0930	647.0803	PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH	LF	48.000		48.000
0940	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	338,994.000	173,252.000	165,742.000
0950	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	4,870.000	2,436.000	2,434.000
0960	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	325.000	325.000	

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1023-00-78 QUANTITY	1023-01-70 QUANTITY
0970	650.5000	CONSTRUCTION STAKING BASE	LF	325.000	325.000	
0980	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	1.000	1.000	
0990	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	79,333.000	42,198.000	37,135.000
1000	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01.1023-00-78	LS	1.000	1.000	
1010	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01.1023-00-78	LS	1.000	1.000	
1020	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02.1023-01-70	LS	1.000		1.000
1030	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	325.000	325.000	
1040	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	15.000		15.000
1050	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	110.000	110.000	
1060	652.0605	CONDUIT SPECIAL 2-INCH	LF	90.000		90.000
1070	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	1.000		1.000
1080	655.0625	ELECTRICAL WIRE LIGHTING 6 AWG	LF	807.000	462.000	345.000
1090	655.0630	ELECTRICAL WIRE LIGHTING 4 AWG	LF	435.000	435.000	
1100	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01.DMS-27-0020	LS	1.000		1.000
1110	656.0500	ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 01.DMS-27-0020	LS	1.000		1.000
1120	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	1.000		1.000
1130	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000		1.000
1140	670.0200	ITS DOCUMENTATION	LS	1.000		1.000
1150	673.0225.S	INSTALL POLE MOUNTED CABINET	EACH	1.000		1.000
1160	690.0150	SAWING ASPHALT	LF	4,850.000	2,450.000	2,400.000
1170	690.0250	SAWING CONCRETE	LF	28,302.000	18,050.000	10,252.000
1180	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	1,000.000	500.000	500.000
1190	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	2,400.000	2,400.000	
1200	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	1,900.000	1,900.000	
1210	SPV.0045	SPECIAL 01.PCMS REMOTE COMMUNICATIONS	DAY	135.000	135.000	
1220	SPV.0060	SPECIAL 01.INSTALL GROUND MOUNT DYNAMIC MESSAGE SIGN	EACH	1.000		1.000
1230	SPV.0090	SPECIAL 01.CLEANING CONCRETE JOINTS AND CRACKS	LF	10,750.000	10,750.000	
1240	SPV.0105	SPECIAL 01.MATERIAL TRANSFER VEHICLE 1023-00-78	LS	1.000	1.000	
1250	SPV.0105	SPECIAL 02.MILLING AND REMOVING TEMPORARY JOINT 1023-00-78	LS	1.000	1.000	
1260	SPV.0105	SPECIAL 03. PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL 1023-00-78	LS	1.000	1.000	
1270	SPV.0105	SPECIAL 04.SALT STORAGE BUILDING	LS	1.000	1.000	
1280	SPV.0105	SPECIAL 05.ACCESSORY STORAGE BUILDING	LS	1.000	1.000	
1290	SPV.0105	SPECIAL 06.CONSTRUCTION STAKING SALT STORAGE BUILDING	LS	1.000	1.000	
1300	SPV.0105	SPECIAL 07. PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING SPECIAL 1023-01-70	LS	1.000		1.000
1310	SPV.0105	SPECIAL 08.MATERIAL TRANSFER VEHICLE 1023-01-70	LS	1.000		1.000
1320	SPV.0105	SPECIAL 09.MILLING AND REMOVING TEMPORARY JOINT 1023-01-70	LS	1.000		1.000
1330	SPV.0170	SPECIAL 01.REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL	STA	779.000	408.000	371.000
1340	SPV.0180	SPECIAL 01.CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL	SY	6,550.000	3,300.000	3,250.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1023-00-78 QUANTITY	1023-01-70 QUANTITY
1350	SPV.0195	SPECIAL 01.HMA PAVEMENT TYPE SMA-SPECIAL	TON	28,927.000	16,000.000	12,927.000
1360	SPV.0195	SPECIAL 02.SMA PAVEMENT COMPACTION ACCEPTANCE	TON	28,927.000	16,000.000	12,927.000

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CLEARING

CATEGORY	STATION TO	STATION	LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY
0030	15+70	18+15	SALT STORAGE BLDG SITE	3665	3665
			TOTAL 0030	3665	3665

REMOVING CONCRETE SURFACE PARTIAL DEPTH

CATEGORY	STATION TO	STATION	LOCATION	204.0109.S SF	REMARKS
0010	1765+00EB	2137+61EB	IH 94 EASTBOUND	29000	UNDISTRIBUTED, CONCRETE REPAIR
			TOTAL 0010	29000	
0020	EB REST AREA 53		CAR PARKING LOT	9150	GRINDING NEAR CURB
0020	EB REST AREA 53		TRUCK PARKING LOT	11350	GRINDING NEAR CURB
			TOTAL 0020	20500	
			PROJECT TOTAL	49500	

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION TO	STATION	LOCATION	204.0120 SY	REMARKS
	EASTBOUND IH 94				
0010	1765+00EB	1920+36EB	PASSING LANE SHOULDER	6905	VARIES
0010	1765+00EB	1920+36EB	PASSING LANE	20715	VARIES
0010	1765+00EB	1920+36EB	DRIVING LANE	20715	VARIES
0010	1765+00EB	1920+36EB	DRIVING LANE SHOULDER	17262	4.5" TYP
0010	1921+35EB	2137+61EB	PASSING LANE SHOULDER	9612	VARIES
0010	1921+35EB	2137+61EB	PASSING LANE	28835	VARIES
0010	1921+35EB	2137+61EB	DRIVING LANE	28835	VARIES
0010	1921+35EB	2137+61EB	DRIVING LANE SHOULDER	24029	4.5" TYP
	MAINTENANCE CROSSOVERS				
0010	1785+50EB		MEDIAN	870	2" TYP
0010	1872+00EB		MEDIAN	440	2" TYP
0010	1995+50EB		MEDIAN	1040	2" TYP
0010	2135+00EB		MEDIAN	91	2" TYP
			TOTAL 0010	159349	

FINISHING ROADWAY (1023-00-78)

CATEGORY	STATION TO	STATION	LOCATION	213.0100 EACH
0010	1765+00EB	2137+61EB	IH 94 EASTBOUND	1
			TOTAL 0010	1

REMOVING PAVEMENT

CATEGORY	STATION TO	STATION	LOCATION	204.0100 SY
0020	EB REST AREA 53		RAMPS	291
0020	EB REST AREA 53		CAR PARKING LOT RAMPS	51
0020	EB REST AREA 53		CAR PARKING LOT	115
0020	EB REST AREA 53		TRUCK PARKING LOT	392
			TOTAL 0020	849

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION TO	STATION	LOCATION	204.0115 SY	REMARKS
0010	1765+00EB	1765+80EB	LOWER LAYER	340	38-FT WIDE
0010	1919+56EB	1920+36EB	LOWER LAYER	250	28-FT WIDE
0010	1919+56EB	1920+36EB	DRIVING LANE SHOULDER	90	10-FT WIDE
0010	1921+35EB	1922+15EB	LOWER LAYER	250	28-FT WIDE
0010	1921+35EB	1922+15EB	DRIVING LANE SHOULDER	90	10-FT WIDE
0010	2136+61EB	2137+61EB	LOWER LAYER	250	28-FT WIDE
0010	2136+61EB	2137+61EB	DRIVING LANE SHOULDER	90	10-FT WIDE
			TOTAL 0010	1360	

REMOVING CURB & GUTTER

CATEGORY	STATION TO	STATION	LOCATION	204.0150 LF	REMARKS
0020	EB REST AREA 53		CAR PARKING LOT RAMPS	117	9' EACH FOR 13 CURB RAMPS
0020	EB REST AREA 53		TRUCK PARKING LOT	27	9' EACH FOR 3 CURB RAMPS
			TOTAL 0020	144	

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION TO	STATION	LOCATION	204.0155 SY	REMARKS
0020	EB REST AREA 53		CAR PARKING LOT RAMPS	104	8 SY EACH FOR 13 CURB RAMPS
0020	EB REST AREA 53		TRUCK PARKING LOT	24	8 SY EACH FOR 3 CURB RAMPS
			TOTAL 0020	128	

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION TO	STATION	LOCATION	204.0180 EACH	REMARKS
0010	1765+00EB	2137+61EB	IH 94 EASTBOUND	130	UNDISTRIBUTED
			TOTAL 0010	130	

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FILE NAME : N:\PDS\Projects-LET\1023-00-08,78 EB AND 1023-01-02,70 WB I94\1023-00-08,78 EB I-94\PSE\misq\10230078_mq.ppt PLOT DATE : February 28, 2014 PLOT BY : dotkmd PLOT NAME : 030200 PLOT SCALE : 1:1

DIVISION	STAGE	CATEGORY CODE	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)	AVAILABLE MATERIAL (2)	UNEXPANDED FILL	EXPANDED FILL (3)	MASS ORDINATE +/- (4)	DIVISION WASTE	208.0100 DIVISION BORROW
					CUT			FACTOR 1.30			
1	1	0030	15+50-18+75	SALT SHED PROJECT AREA	1919	1919	346	450	1469	1469	0
	STAGE 1 SUBTOTAL				1919	1919	346	450	1469	1469	0
DIVISION 1 SUBTOTAL					1919	1919	346	450	1469	1469	0
ITEM TOTALS					1919	1919	346	450	1469	1469	0
					TOTAL COMMON EXC	1919	CY				

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0110 TON	REMARKS
0010	1765+00EB -	2137+61EB	IH 94 EASTBOUND	500	UNDISTRIBUTED SHOULDER
			TOTAL 0010	500	
0020	EB REST AREA 53		RAMPS	305	UNDISTRIBUTED SHOULDERS
0020	EB REST AREA 53		CAR PARKING LOT RAMPS	60	UNDISTRIBUTED SHOULDERS
0020	EB REST AREA 53		TRUCK PARKING LOT	60	UNDISTRIBUTED SHOULDERS
			TOTAL 0020	425	
			PROJECT TOTAL	925	

SHAPING SHOULDERS

CATEGORY	STATION TO	STATION	LOCATION	305.0500 STA
0010	1765+00EB -	1920+36EB	PASSING LANE SHOULDER	155
0010	1921+35EB -	2137+61EB	PASSING LANE SHOULDER	216
			TOTAL 0010	371
0020	EB REST AREA 53		RAMPS OUTSIDE SHOULDER	37
0020	EB REST AREA 53		RAMPS INSIDE SHOULDER	37
0020	EB REST AREA 53		CAR PARKING RAMPS OUTSIDE SHOULDER	7
0020	EB REST AREA 53		CAR PARKING RAMPS INSIDE SHOULDER	7
0020	EB REST AREA 53		TRUCK PARKING SHOULDER	14
			TOTAL 0020	102
			PROJECT TOTAL	473

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	LOCATION	305.0120 TON
0030	SALT STORAGE PROEJCT AREA	903
0030	UNDISTRIBUTED	97
	TOTAL 0030	1000

SELECT CRUSHED MATERIAL

CATEGORY	LOCATION	312.0110 TON
0030	SALT STORAGE PROJECT AREA	1179
0030	UNDISTRIBUTED	221
	TOTAL 0030	1400

FILE NAME : N:\PDS\Projects-LET\1023-00-08,78 EB AND 1023-01-02,70 WB I94\1023-00-08,78 EB I-94\PSE\misq\10230078_mq.ppt PLOT DATE : February 28, 2014 PLOT BY : dotkmd PLOT NAME : 030200 PLOT SCALE : 1:1

ASPHALTIC AND HMA ITEMS

CATEGORY	STATION TO STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG 58-28 TON	455.0140 ASPHALTIC MATERIAL PG 64-28P TON	455.0605 TACK COAT GAL	460.1100 HMA PAVEMENT TYPE E-0.3 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	SPV.0195.01 HMA PAVEMENT TYPE SMA-SPECIAL TON	SPV.0195.02 SMA PAVEMENT COMPACTION ACCEPTANCE TON
	EASTBOUND IH 94								
0010	1765+00EB - 1920+36EB	PASSING LANE SHOULDER	--	53	345	--	967	773	773
0010	1765+00EB - 1920+12EB	PASSING LANE	--	160	1036	--	2900	2320	2320
0010	1765+00EB - 1920+36EB	DRIVING LANE	--	160	1036	--	2900	2320	2320
0010	1765+00EB - 1920+36EB	DRIVING LANE SHOULDER	240	--	863	4350	--	--	--
0010	1921+40EB - 2137+35EB	PASSING LANE SHOULDER	--	74	480	--	1346	1077	1077
0010	1921+40EB - 2137+35EB	PASSING LANE	--	222	1442	--	4037	3230	3230
0010	1921+40EB - 2137+35EB	DRIVING LANE	--	222	1442	--	4037	3230	3230
0010	1921+40EB - 2137+35EB	DRIVING LANE SHOULDER	333	--	1201	6055	--	--	--
		SUBTOTAL EASTBOUND IH 94	573	891	7845	10405	16187	12950	12950
	MAINTENANCE CROSSOVERS								
0010	1785+50EB	MEDIAN	5	--	22	85	--	--	--
0010	1872+00EB	MEDIAN	3	--	11	43	--	--	--
0010	1996+50EB	MEDIAN	6	--	26	102	--	--	--
0010	2135+00EB	MEDIAN	1	--	2	9	--	--	--
		SUBTOTAL MAINT. CROSSOVERS	15	0	61	239	0	0	0
		TOTAL 0010	588	891	7906	10644	16187	12950	12950
0020	EB REST AREA 53	RAMPS	--	--	255	--	--	1140	1140
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	--	11	45	--	203	--	--
0020	EB REST AREA 53	CAR PARKING LOT	--	23	95	--	427	--	--
0020	EB REST AREA 53	TRUCK PARKING LOT	--	21	506	--	375	1910	1910
		TOTAL 0020	0	55	901	0	1005	3050	3050
		PROJECT TOTAL	588	946	8807	10644	17192	16000	16000

DRILLED TIE BARS

CATEGORY	STATION TO STATION	LOCATION	416.0610 EACH	REMARKS
0010	1765+00EB - 2137+61EB	IH 94 EASTBOUND	200	UNDISTRIBUTED, CONCRETE REPAIR
		TOTAL 0010	200	
0020	EB REST AREA 53	CAR PARKING LOT	60	
0020	EB REST AREA 53	TRUCK PARKING LOT	74	
		TOTAL 0020	134	
		PROJECT TOTAL	334	

DRILLED DOWEL BARS

CATEGORY	STATION TO STATION	LOCATION	416.0620 EACH
0020	EB REST AREA 53	RAMPS	1224
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	552
0020	EB REST AREA 53	CAR PARKING LOT	768
0020	EB REST AREA 53	TRUCK PARKING LOT	2134
		TOTAL 0020	4678

3

CONCRETE PAVEMENT REPAIR SHES

CATEGORY	STATION TO STATION	LOCATION	416.1715 SY
0020	EB REST AREA 53	RAMPS	73
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	51
0020	EB REST AREA 53	CAR PARKING LOT	115
0020	EB REST AREA 53	TRUCK PARKING LOT	369
		TOTAL 0020	608

ASPHALTIC SURFACE PATCHING

CATEGORY	STATION TO STATION	LOCATION	465.0110 TON	REMARKS
0010	1765+00EB - 2137+61EB	IH 94 EASTBOUND	2000	UNDISTRIBUTED
		TOTAL 0010	2000	
0020	EB REST AREA 53		825	UNDISTRIBUTED
		TOTAL 0020	825	
		PROJECT TOTAL	2825	

ASPHALTIC SURFACE TEMPORARY

CATEGORY	STATION TO STATION	LOCATION	465.0125 TON	REMARKS
0010	1765+00EB - 1920+36EB	PASSING LANE SHOULDER	25	FILL RUMBLE STRIP
0010	1765+00EB - 1920+36EB	DRIVING LANE SHOULDER	25	FILL RUMBLE STRIP
0010	1921+35EB - 2137+61EB	PASSING LANE SHOULDER	30	FILL RUMBLE STRIP
0010	1921+35EB - 2137+61EB	DRIVING LANE SHOULDER	30	FILL RUMBLE STRIP
		TOTAL 0010	110	

CULVERT PIPES

CATEGORY	STATION TO STATION	INLET ELEV	OUTLET ELEV	SLOPE %	522.0318 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
0030	16+06 - 16+55	992.44	991.96	0.89%	54	2	2	1
				TOTAL 0010	54	2	2	1

CONCRETE PAVEMENT REPLACEMENT SHES

CATEGORY	STATION TO STATION	LOCATION	416.1725 SY
0020	EB REST AREA 53	RAMPS	218
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	--
0020	EB REST AREA 53	CAR PARKING LOT	--
0020	EB REST AREA 53	TRUCK PARKING LOT	23
		TOTAL 0020	241

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	LOCATION	465.0120 TON
0030	SALT STORAGE PROJECT AREA	625
0030	UNDISTRIBUTED	75
	TOTAL 0030	700

ASPHALTIC SHOULDER RUMBLE STRIP

CATEGORY	STATION TO STATION	LOCATION	465.0400 LF
0010	1765+00EB - 1920+36EB	PASSING LANE SHOULDER	15536
0010	1765+00EB - 1920+36EB	DRIVING LANE SHOULDER	15536
0010	1921+35EB - 2137+61EB	PASSING LANE SHOULDER	21626
0010	1921+35EB - 2137+61EB	DRIVING LANE SHOULDER	21626
		TOTAL 0010	74324

CONCRETE CURB & GUTTER 30-INCH TYPE A

CATEGORY	STATION TO STATION	LOCATION	601.0409 LF	REMARKS
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	117	9' EACH FOR 13 CURB RAMPS
0020	EB REST AREA 53	TRUCK PARKING LOT	27	9' EACH FOR 3 CURB RAMPS
		TOTAL 0020	144	

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION TO STATION	LOCATION	614.0010 EACH	* FILL CY	* SALVAGED TOPSOIL SY	* FERTILIZER TYPE B CWT	* SEEDING MIX NO.30 LB	* MULCHING SY
0010	1845+46EB - 1858+00EB	RIGHT	1	25	816	0.51	15	816
0010	1855+54EB - 1858+45EB	LEFT	1	1	176	0.11	3	176
0010	1899+24EB - 1902+65EB	RIGHT	1	2	224	0.14	4	224
0010	1913+94EB - 1920+37EB	RIGHT	1	44	640	0.40	12	640
0010	1913+94EB - 1920+37EB	LEFT	1	1	393	0.25	7	393
0010	2035+44EB - 2038+10EB	RIGHT	1	5	220	0.14	4	220
0010	2034+64EB - 2037+80EB	LEFT	1	25	414	0.26	7	414
0010	2091+96EB - 2094+75EB	RIGHT	1	1	196	0.12	4	196
0010	2091+96EB - 2095+25EB	LEFT	1	1	200	0.13	4	200
		TOTAL 0010	9	105	3279	2.07	59	3279

* ITEMS AND QUANTITIES FOR INFORMATION ONLY IN THIS TABLE.
* ITEMS SHOWN ELSEWHERE IN THE PLAN.

BEAM GUARD ITEMS

CATEGORY	STATION TO STATION	LOCATION	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
0010	1845+46EB - 1858+00EB	RIGHT	1200	--	1	1
0010	1855+54EB - 1858+45EB	LEFT	238	--	1	1
0010	1899+24EB - 1902+65EB	RIGHT	288	--	1	1
0010	1913+94EB - 1920+37EB	RIGHT	550	40	1	--
0010	1913+94EB - 1920+37EB	LEFT	550	40	1	--
0010	2035+44EB - 2038+10EB	RIGHT	213	--	1	1
0010	2034+64EB - 2037+80EB	LEFT	263	--	1	1
0010	2091+96EB - 2094+75EB	RIGHT	225	--	1	1
0010	2091+96EB - 2095+25EB	LEFT	275	--	1	1
		TOTAL 0010	3802	80	9	7

CONCRETE SIDEWALK 5-INCH

CATEGORY	STATION TO STATION	LOCATION	602.0410 SF	REMARKS
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	936	72 SF EACH FOR 13 CURB RAMPS
0020	EB REST AREA 53	TRUCK PARKING LOT	216	72 SF EACH FOR 3 CURB RAMPS
		TOTAL 0020	1152	

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STATION TO STATION	LOCATION	602.0505 SF	REMARKS
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	104	8 SF EACH FOR 13 CURB RAMPS
0020	EB REST AREA 53	TRUCK PARKING LOT	24	8 SF EACH FOR 3 CURB RAMPS
		TOTAL 0020	128	

** SALVAGED RAIL

CATEGORY	STATION TO STATION	LOCATION	614.0920 LF
0010	1855+90EB - 1858+04EB	RIGHT	214
0010	1856+43EB - 1858+57EB	LEFT	214
0010	1900+19EB - 1902+35EB	RIGHT	216
0010	1917+97EB - 1921+13EB	RIGHT	316
0010	1917+97EB - 1921+13EB	LEFT	316
0010	2035+81EB - 2037+71EB	RIGHT	190
0010	2035+54EB - 2037+68EB	LEFT	214
0010	2093+00EB - 2096+03EB	RIGHT	303
0010	2093+00EB - 2096+03EB	LEFT	303
		TOTAL 0010	2286

** LABELED AS "REMOVING EXISTING GUARDRAIL" ON PLAN SHEETS

FENCE ITEMS

CATEGORY	LOCATION	616.0208 FENCE CHAIN LINK 8-FT LF	616.0329 GATES CHAIN LINK 26-FT EACH
0030	SALT SHED PROJECT AREA	697	2
	TOTAL 0030	697	2

MAINTENANCE AND REPAIR OF HAUL ROADS (1023-00-78)

CATEGORY	STATION TO STATION	LOCATION	618.0100 EACH
0010	1765+00EB - 2137+61EB	IH 94 EASTBOUND	1
		TOTAL 0010	1

FILE NAME : N:\PDS\Projects-LET\1023-00-08,78 EB AND 1023-01-02,70 WB I94\1023-00-08,78 EB I-94\PSE\misq\10230078_mq.ppt PLOT DATE : February 28, 2014 PLOT BY : dotkmd PLOT NAME : 030200 PLOT SCALE : 1:1

MOBILIZATION

CATEGORY	STATION TO	STATION	LOCATION	619.1000 EACH
0010	1765+00EB	2137+61EB	IH 94 EASTBOUND	0.5
			TOTAL 0010	0.5

TURF ESTABLISHMENT ITEMS

CATEGORY	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2002 EROSION MAT CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB
0030	SLOPE GRADING	815	815	3	0.5	15
0030	INFIELD AREA	558	558	88	0.4	10
0030	UNDISTRIBUTED	343	343	23	0.2	6
	TOTAL 0030	1716	1716	114	1.1	31

INLET PROTECTION TYPE B

CATEGORY	STATION TO	STATION	LOCATION	628.7010 EACH
0020	EB REST AREA 53			3
			TOTAL 0020	3

EROSION CONTROL ITEMS

CATEGORY	STATION TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.152 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.191 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7555 CULVERT PIPE CHECKS EACH
	PROJECT 1023-00-78			--	--	1	2	--
0010	1845+46EB	1858+00EB	RIGHT	1300	1300	--	--	--
0010	1855+54EB	1858+45EB	LEFT	350	350	--	--	--
0010	1899+24EB	1902+65EB	RIGHT	400	400	--	--	--
0010	1913+94EB	1920+37EB	RIGHT	700	700	--	--	--
0010	1913+94EB	1920+37EB	LEFT	700	700	--	--	--
0010	2035+44EB	2038+10EB	RIGHT	350	350	--	--	--
0010	2034+64EB	2037+80EB	LEFT	375	375	--	--	--
0010	2091+96EB	2094+75EB	RIGHT	350	350	--	--	--
0010	2091+96EB	2095+25EB	LEFT	400	400	--	--	--
			TOTAL 0010	4925	4925	1	2	0
0030	NW FILL SLOPE			202	41	--	--	--
0030	CULVERT PIPE		PIPE INLET	--	--	--	--	3
0030	UNDISTIBURED			48	14	1	1	3
			TOTAL 0030	250	55	1	1	6
			PROJECT TOTAL	5175	4980	2	3	6

DELINEATORS FLEXIBLE

CATEGORY	STATION TO	STATION	LOCATION	633.0200 EACH
0010	1765+00EB	2137+61EB	MAINLINE	85
0010	1765+00EB	2137+61EB	BETWEEN RAMPS	18
0010	1765+00EB	2137+61EB	OFF RAMP TAPER	10
0010	1765+00EB	2137+61EB	OFF RAMP	5
0010	1765+00EB	2137+61EB	ON RAMP	8
0010	1765+00EB	2137+61EB	ON RAMP TAPER	26
			TOTAL 0010	152

FIELD OFFICE TYPE C

CATEGORY	STATION TO	STATION	LOCATION	642.5201 EACH
0010			IH 94	1
			TOTAL 0010	1

3

PERMANENT SIGNING ITEMS

CATEGORY	SIGN GROUP NUMBER	SIGN CODE	SIGN CODE DESCRIPTION	STATION	LOCATION	SIZE	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6-INCH x14-FT EACH	634.0616 POSTS WOOD 4x6-INCH x16-FT EACH	634.0618 POSTS WOOD 4x6-INCH x18-FT EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	1-1	D10-3	MILEPOST MARKER 121	1772+49EB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	1-2	R3-4B	NO U TURN	1785+52EB	LEFT	36" x 48"	--	12.00	--	--	1	--	--	1	1	
0010	3-1	D10-3	MILEPOST MARKER 122	1824+84EB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	4-1	R3-4B	NO U TURN	1872+09EB	LEFT	36" x 48"	--	12.00	--	--	1	--	--	1	1	
0010	4-2	D10-3	MILEPOST MARKER 123	1877+34EB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	4-3	E5-51	REST AREA 1 MILE	1877+90EB	RIGHT	144" x 60"	60.00	--	--	--	--	--	1	--	--	
0010	4-3	E10-54	WEATHER INFORMATION	1877+90EB	RIGHT	120" x 12"	10.00	--	--	--	--	--	1	--	--	
0010	4-3	E5-62	NEXT REST AREA 53 MILES	1877+90EB	RIGHT	120" x 30"	25.00	--	--	--	2	--	1	--	2	
0010	6-1	W5-52L	CLEARANCE STRIPER DOWN	1920+40EB	LEFT	18" x 54"	--	--	6.75	--	1	--	--	1	1	
0010	6-2	W5-52R	CLEARANCE STRIPER DOWN	1920+40EB	RIGHT	18" x 54"	--	--	6.75	--	1	--	--	1	1	
0010	6-3	D10-3	MILEPOST MARKER 124	1929+74EB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	6-4	E5-52	REST AREA ARROW	1930+80EB	RIGHT	144" x 54"	54.00	--	--	--	--	2	1	--	2	
0010	6-5	W13-2	EXIT SPEED 35	1932+25EB	RIGHT	48" x 60"	--	--	20.00	--	2	--	--	1	2	
0010	6-6	E5-54	REST AREA/ARROW RIGHT	1936+27EB	RIGHT	72" x 72"	--	36.00	--	--	2	--	--	1	2	
0010	7-1	W11-3	DEER CROSSING	1945+13EB	RIGHT	48" x 48"	--	--	--	--	--	--	--	1	2	
0010	7-1	W57-51	NEXT 20 MILES	1945+13EB	RIGHT	48" x 24"	--	--	--	--	--	--	--	1	--	
0010	7-2	W4-1R	MERGING TRAFFIC FROM RT	1958+99EB	RIGHT	48" x 48"	--	--	16.00	--	2	--	--	1	2	
0010	8-1	J4-1	EAST / 94	1978+30EB	RIGHT	36" x 54"	--	13.50	--	--	1	--	--	1	1	
0010	8-2	D10-3	MILEPOST MARKER 125	1982+14EB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	8-3	R2-1	SPEED LIMIT 65	1988+30EB	RIGHT	48" x 60"	--	20.00	--	--	2	--	--	1	2	
0010	8-4	R3-4B	NO U TURN	1996+02EB	LEFT	36" x 48"	--	12.00	--	--	1	--	--	1	1	
0010	9-1	D10-3	MILEPOST MARKER 126	2034+55EB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	11-1	D10-3	MILEPOST MARKER 127	2087+01EB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	11-2	E1-5-P	EXIT NUMBER 128	2088+07EB	RIGHT	120" x 30"	25.00	--	--	--	--	--	1	--	--	SEE SIGN DETAILS
0010	11-2	E1-1-A	ADVANCED EXIT GUIDE SIGN, CTH O, MILLSTON, 1 MILE	2088+07EB	RIGHT	168" x 120"	140.00	--	--	--	--	--	1	--	--	SEE SIGN DETAILS
0010	11-2	E2-1A	NEXT EXIT 8 MILES	2088+07EB	RIGHT	84" x 36"	21.00	--	--	--	--	--	1	--	--	
0010	12-1	E3-1	STATE FOREST CAMPGROUND, EXIT 128	2099+61EB	RIGHT	156" x 84"	91.00	--	--	--	2	--	1	--	2	SEE SIGN DETAILS
0010	12-2	E10-51B	GAS - FOOD / NEXT RIGHT	2113+87EB	RIGHT	120" x 48"	40.00	--	--	--	--	3	--	1	3	
0010	13-1	R3-4-B	NO U TURN	2134+37EB	LEFT	36" x 48"	--	12.00	--	--	1	--	--	1	1	
						TOTAL 0010	466.00	145.50	49.50	7	19	5	8	21	33	

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	DAYS	643.0200 SURVEILLANCE AND MAINTENANCE NO.	643.0200 SURVEILLANCE AND MAINTENANCE DAY	643.0300 DRUMS NO.	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAY	643.0800 ARROW BOARDS NO.	643.0800 ARROW BOARDS DAY	643.0900 SIGNS NO.	643.0900 SIGNS DAY	643.1050 SIGNS PCMS NO.	643.1050 SIGNS PCMS DAY	SPV.0045.01 PCMS REMOTE COMMUNICATIONS NO.	SPV.0045.01 PCMS REMOTE COMMUNICATIONS DAY
0010	IH 94 EASTBOUND WORK ZONE	135	1	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0010	ADVANCE WARNING	135	0	0	0	0	0	0	0	0	0	0	0	0	16	2160	0	0	0	0
0010	LANE CLOSURE	135	0	0	444	59940	28	3780	56	7560	33	4455	2	270	35	4725	0	0	0	0
0010	ALTERNATE ROUTE	135	0	0	0	0	0	0	0	0	0	0	0	0	9	1215	1	135	1	135
	TOTAL 0010			135		59940		3780		7560		4455		270		8100		135		135
0020	EB REST AREA 53	14	0	0	30	420	4	56	8	112	0	0	0	0	2	28	1	21	0	0
	TOTAL 0020			0		420		56		112		0		0		28		21		0
	PROJECT TOTAL			135		60360		3836		7672		4455		270		8128		156		135

TRAFFIC CONTROL COVERING SIGNS TYPE II

CATEGORY	STATION	CYCLE	LOCATION	643.0920 EACH	REMARKS
0020	1936+27EB	1	IH 94 EASTBOUND	1	REST AREA CLOSURE
			TOTAL 0020	1	

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	WIDTH	HEIGHT	LOCATION	643.1000 SF	REMARKS
0010	14'-0"	4'-0"	IH 94 EASTBOUND	56	PERIODIC LANE CLOSURES, WATCH FOR SLOW TRAFFIC
			TOTAL 0010	56	
0020	12'-0"	1'-0"	IH 94 EASTBOUND	12	REST AREA CLOSED
0020	12'-0"	1'-0"	IH 94 EASTBOUND	12	REST AREA CLOSED
			TOTAL 0020	24	
			PROJECT TOTAL	80	

3

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.0106 LF	WHITE LF	YELLOW LF	REMARKS
0010	1765+00EB	- 2137+61EB	IH 94 EASTBOUND	35640	35640	--	EDGE LINE
0010	1765+00EB	- 2137+61EB	IH 94 EASTBOUND	37381	--	37381	EDGE LINE
			TOTAL 0010	73021	35640	37381	
0020	EB REST AREA 53			2229	2229	--	OFF RAMP EDGE LINE
0020	EB REST AREA 53			2885	2885	--	ON RAMP EDGE LINE
0020	EB REST AREA 53			1124	1124	--	EDGE LINE
0020	EB REST AREA 53			838	--	838	OFF RAMP EDGE LINE
0020	EB REST AREA 53			1100	--	1110	ON RAMP EDGE LINE
0020	EB REST AREA 53			215	--	215	EDGE LINE
			TOTAL 0020	8391	6238	2163	
			PROJECT TOTAL	81412	41878	39544	

PAVEMENT MARKING SYMBOLS EPOXY

CATEGORY	STATION TO	STATION	LOCATION	647.0256 EACH	REMARKS
0020	EB REST AREA 53			6	HANDICAP SYMBOL
			TOTAL 0020	6	

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

CATEGORY	STATION TO	STATION	LOCATION	647.0566 LF
0020	EB REST AREA 53			42
			TOTAL 0020	42

PAVEMENT MARKING DIAGONAL EPOXY 12-INCH

CATEGORY	STATION TO	STATION	LOCATION	647.0726 LF
0020	EB REST AREA 53			330
			TOTAL 0020	330

PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.0881.S LF
0010	1765+00EB	- 21387+61EB	LANE LINE (WHITE)	9332
0010	1765+00EB	- 21387+61EB	LANE LINE (WHITE)	747
			TOTAL 0010	10079

PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.0883.S LF	REMARKS
0020	EB REST AREA 53			1400	GORE AT ENTRY
0020	EB REST AREA 53			801	GORE AT EXIT
0020	EB REST AREA 53			235	REST AREA
			TOTAL 0020	2436	

PAVEMENT MARKING PARKING STALL EPOXY

CATEGORY	STATION TO	STATION	LOCATION	647.0656 LF
0020	EB REST AREA 53			7203
			TOTAL 0020	7203

PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

CATEGORY	STATION TO	STATION	LOCATION	647.0776 LF
0020	EB REST AREA 53			625
			TOTAL 0020	625

3

TEMPORARY PAVEMENT MARKING 4-INCH

CATEGORY	STATION TO STATION	LOCATION	649.0100 LF	REMARKS
0010	1765+00EB - 2137+61EB	LOWER LAYER	35640	EDGE LINE (WHITE)
0010	1765+00EB - 2137+61EB	UPPER LAYER	35640	EDGE LINE (WHITE)
0010	1765+00EB - 2137+61EB	LOWER LAYER	37381	EDGE LINE (YELLOW)
0010	1765+00EB - 2137+61EB	UPPER LAYER	37381	EDGE LINE (WHITE)
0010	1765+00EB - 2137+61EB	LOWER LAYER	9332	LANE LINES (WHITE)
0010	1765+00EB - 2137+61EB	UPPER LAYER	9332	LANE LINES (WHITE)
0010	1765+00EB - 2137+61EB	LOWER LAYER	747	LANE LINES (WHITE)
0010	1765+00EB - 2137+61EB	UPPER LAYER	747	LANE LINES (WHITE)
		TOTAL 0010	166200	
0020	EB REST AREA 53		2229	OFF RAMP EDGE LINE (WHITE)
0020	EB REST AREA 53		2885	ON RAMP EDGE LINE (WHITE)
0020	EB REST AREA 53		838	OFF RAMP EDGE LINE (YELLOW)
0020	EB REST AREA 53		1100	ON RAMP EDGE LINE (YELLOW)
		TOTAL 0020	7052	
		PROJECT TOTAL	173252	

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION TO STATION	LOCATION	650.8000 LF
0010	1765+00EB - 1920+36EB	INSIDE EDGE OF PAVEMENT	15536
0010	1921+35EB - 2137+61EB	INSIDE EDGE OF PAVEMENT	21626
		TOTAL 0010	37162
0020	EB REST AREA 53	RAMPS	3664
0020	EB REST AREA 53	TRUCK PARKING LOT	1372
		TOTAL 0020	5036
		PROJECT TOTAL	42198

TEMPORARY PAVEMENT MARKING 8-INCH

CATEGORY	STATION TO STATION	LOCATION	649.0701 LF	REMARKS
0020	EB REST AREA 53		1400	GORE AT ENTRY
0020	EB REST AREA 53		801	GORE AT EXIT
0020	EB REST AREA 53		235	REST AREA
		TOTAL 0020	2436	

CONSTRUCTION STAKING ITEMS

CATEGORY	STATION TO STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF
0030	15+50 - 18+75	RT	325	325	325
		TOTAL 0030	325	325	325

LIGHTING AND ELECTRICAL ITEMS

CATEGORY	FROM	TO	STATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF
0030	LB1	C1	15+98 TO 16+50	53	--	--
0030	C2	C3	17+73 TO 18+30	57	--	--
0030	LB1	LB2		--	--	435
0030	LB2	PB1		--	126	--
0030	PB1	LB3		--	336	--
			TOTAL 0030	110	462	435

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FILE NAME : N:\PDS\Projects-LET\1023-00-08,78 EB AND 1023-01-02,70 WB I94\1023-00-08,78 EB I-94\PSE\misq\10230078_mq.ppt PLOT DATE : February 28, 2014 PLOT BY : dotkmd PLOT NAME : 030200 PLOT SCALE : 1:1

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SAWING ASPHALT

CATEGORY	STATION TO STATION	LOCATION	690.0150 LF	REMARKS
0010	1765+00EB - 2137+61EB	IH 94 EASTBOUND	2450	UNDISTRIBUTED, CONCRETE REPAIR/REPLACEMENT
		TOTAL 0010	2450	

SAWING CONCRETE

CATEGORY	STATION TO STATION	LOCATION	690.0250 LF	REMARKS
0010	1765+00EB - 2137+61EB	IH 94 EASTBOUND	10250	UNDISTRIBUTED, CONCRETE REPAIR/REPLACEMENT
		TOTAL 0010	10250	
0020	EB REST AREA 53	RAMPS	1260	
0020	EB REST AREA 53	CAR PARKING LOT RAMPS	690	
0020	EB REST AREA 53	CAR PARKING LOT	1545	
0020	EB REST AREA 53	TRUCK PARKING LOT	3969	
0020	EB REST AREA 53	CURB RAMPS	336	
		TOTAL 0020	7800	
		PROJECT TOTAL	18050	

CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL

CATEGORY	STATION TO STATION	LOCATION	SPV.0180.01 SY	REMARKS
0010	1765+00EB - 2137+61EB	IH 94 EASTBOUND	3300	UNDISTRIBUTED
		TOTAL 0010	3300	

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL

CATEGORY	STATION TO STATION	LOCATION	SPV.0170.01 STA
0010	1765+00EB - 1920+36EB	C/L UPPER LAYER	155
0010	1921+35EB - 2137+33EB	C/L UPPER LAYER	216
		TOTAL 0010	371
0020	EB REST AREA 53	C/L RAMPS	37
		TOTAL 0020	37
		PROJECT TOTAL	408

CLEANING CONCRETE JOINTS AND CRACKS

CATEGORY	STATION TO STATION	LOCATION	SPV.0090.01 LF
0020	EB REST AREA 53		10750
		TOTAL 0020	10750

SALT STORAGE BUILDING

CATEGORY	STATION TO STATION	LOCATION	SPV.0105.04 LS
0030	EB REST AREA 53		1
		TOTAL 0030	1

ACCESSORY STORAGE BUILDING

CATEGORY	STATION TO STATION	LOCATION	SPV.0105.05 LS
0030	EB REST AREA 53		1
		TOTAL 0030	1

CONSTRUCTION STAKING SALT STORAGE BUILDING

CATEGORY	STATION TO STATION	LOCATION	SPV.0105.06 LS
0030	EB REST AREA 53		1
		TOTAL 0030	1

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REMOVING PAVEMENT

CATEGORY	STATION TO STATION	LOCATION	204.0100 SY
0020	WB REST AREA 54	RAMPS	40
0020	WB REST AREA 54	CAR PARKING LOT RAMPS	2
0020	WB REST AREA 54	CAR PARKING LOT	53
0020	WB REST AREA 54	TRUCK PARKING LOT	136
		TOTAL 0020	231

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION TO STATION	LOCATION	204.0115 SY	REMARKS
0010	1765+00WB - 1765+80WB	LOWER LAYER	340	38-FT WIDE
0010	1920+43WB - 1921+23WB	LOWER LAYER	250	28-FT WIDE
0010	1920+43WB - 1921+23WB	DRIVING LANE SHOULDER	90	10-FT WIDE
0010	1922+21WB - 1923+01WB	LOWER LAYER	250	28-FT WIDE
0010	1922+21WB - 1923+01WB	DRIVING LANE SHOULDER	90	10-FT WIDE
0010	2136+53WB - 2137+33WB	LOWER LAYER	250	28-FT WIDE
0010	2136+53WB - 2137+33WB	DRIVING LANE SHOULDER	90	10-FT WIDE
		TOTAL 0010	1360	

REMOVING CURB & GUTTER

CATEGORY	STATION TO STATION	LOCATION	204.0150 LF	REMARKS
0020	WB REST AREA 54	CAR PARKING LOT	81	9' EACH FOR 9 CURB RAMPS
0020	WB REST AREA 54	TRUCK PARKING LOT	27	9' EACH FOR 3 CURB RAMPS
		TOTAL 0020	108	

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION TO STATION	LOCATION	204.0180 EACH	REMARKS
0010	1765+00WB - 2137+33WB	IH 94 WESTBOUND	130	UNDISTRIBUTED
		TOTAL 0010	130	

REMOVING CONCRETE SURFACE PARTIAL DEPTH

CATEGORY	STATION TO STATION	LOCATION	204.0109.S SF	REMARKS
0010	1765+00WB - 2137+33WB	IH 94 WESTBOUND	28900	UNDISTRIBUTED, CONCRETE REPAIR
		TOTAL 0010	28900	

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION TO STATION	LOCATION	204.0120 SY	REMARKS
	WESTBOUND IH 94			
0010	1765+00WB - 1921+23WB	PASSING LANE SHOULDER	6945	VARIES
0010	1765+00WB - 1921+00WB	PASSING LANE	20800	VARIES
0010	1765+00WB - 1921+00WB	DRIVING LANE	20800	VARIES
0010	1765+00WB - 1921+23WB	DRIVING LANE SHOULDER	17360	4.5" TYP
0010	1922+21WB - 2137+33WB	PASSING LANE SHOULDER	9565	VARIES
0010	1922+45WB - 2137+33WB	PASSING LANE	28651	VARIES
0010	1922+45WB - 2137+33WB	DRIVING LANE	28651	VARIES
0010	1922+21WB - 2137+33WB	DRIVING LANE SHOULDER	23905	4.5" TYP
		TOTAL 0010	156677	

REMOVING CONCRETE SIDEWALK

CATEGORY	STATION TO STATION	LOCATION	204.0155 SY	REMARKS
0020	WB REST AREA 54	CAR PARKING LOT	72	8 SY EACH AT 9 CURB RAMPS
0020	WB REST AREA 54	TRUCK PARKING LOT	24	8 SY EACH AT 3 CURB RAMPS
		TOTAL 0020	96	

FINISHING ROADWAY (1023-01-70)

CATEGORY	STATION TO STATION	LOCATION	213.0100 EACH
0010	1765+00WB - 2137+33WB	IH 94 WESTBOUND	1
		TOTAL 0010	1

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SHAPING SHOULDERS

CATEGORY	STATION TO	STATION	LOCATION	305.0500 STA	REMARKS
0010	1765+00WB	- 1921+23WB	PASSING LANE SHOULDER	156	
0010	1922+21WB	- 2137+33WB	PASSING LANE SHOULDER	215	
			TOTAL 0010	371	
0020	WB REST AREA 54		RAMPS	21	FIX LOW SHOULDERS
			TOTAL 0020	21	
			PROJECT TOTAL	392	

DRILLED TIE BARS

CATEGORY	STATION TO	STATION	LOCATION	416.0610 EACH	REMARKS
0010	1765+00WB	- 2137+33WB	IH 94 WESTBOUND	200	UNDISTRIBUTED, CONCRETE REPAIR
			TOTAL 0010	200	
0020	WB REST AREA 54		RAMPS	--	
0020	WB REST AREA 54		CAR PARKING LOT RAMPS	--	
0020	WB REST AREA 54		CAR PARKING LOT	--	
0020	WB REST AREA 54		TRUCK PARKING LOT	26	
			TOTAL 0020	26	
			PROJECT TOTAL	226	

CONCRETE PAVEMENT REPAIR SHES

CATEGORY	STATION TO	STATION	LOCATION	416.1715 SY
0020	WB REST AREA 54		RAMPS	14
0020	WB REST AREA 54		CAR PARKING LOT RAMPS	2
0020	WB REST AREA 54		CAR PARKING LOT	43
0020	WB REST AREA 54		TRUCK PARKING LOT	83
			TOTAL 0020	142

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0110 TON	REMARKS
0010	17650+00WB	- 2137+33WB	IH 94 WESTBOUND	500	UNDISTRIBUTED SHOULDERS
			TOTAL 0010	500	
0020	WB REST AREA 54		RAMPS	86	UNDISTRIBUTED SHOULDERS
			TOTAL 0020	86	
			PROJECT TOTAL	586	

DRILLED DOWEL BARS

CATEGORY	STATION TO	STATION	LOCATION	416.0620 EACH
0020	WB REST AREA 54		RAMPS	168
0020	WB REST AREA 54		CAR PARKING LOT RAMPS	24
0020	WB REST AREA 54		CAR PARKING LOT	216
0020	WB REST AREA 54		TRUCK PARKING LOT	360
			TOTAL 0020	768

CONCRETE PAVEMENT REPLACEMENT SHES

CATEGORY	STATION TO	STATION	LOCATION	416.1725 SY
0020	WB REST AREA 54		RAMPS	26
0020	WB REST AREA 54		CAR PARKING LOT RAMPS	0
0020	WB REST AREA 54		CAR PARKING LOT	10
0020	WB REST AREA 54		TRUCK PARKING LOT	52
			TOTAL 0020	88

ASPHALTIC AND HMA ITEMS

CATEGORY	STATION TO STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG 58-28 TON	455.0140 ASPHALTIC MATERIAL PG 64-28P TON	455.0605 TACK COAT GAL	460.1100 HMA PAVEMENT TYPE E-0.3 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	SPV.0195.01 HMA PAVEMENT TYPE SMA-SPECIAL TON	SPV.0195.02 SMA PAVEMENT COMPACTION ACCEPTANCE TON
	WESTBOUND IH 94								
0010	1765+00WB - 1921+23WB	PASSING LANE SHOULDER	--	53	347	--	972	778	778
0010	1765+00WB - 1921+00WB	PASSING LANE	--	160	1040	--	2912	2330	2330
0010	1765+00WB - 1921+00WB	DRIVING LANE	--	160	1040	--	2912	2330	2330
0010	1765+00WB - 1921+23WB	DRIVING LANE SHOULDER	241	--	868	4375	--	--	--
0010	1922+21WB - 2137+33WB	PASSING LANE SHOULDER	--	74	478	--	1339	1071	1071
0010	1922+45WB - 2137+33WB	PASSING LANE	--	221	1433	--	4011	3209	3209
0010	1922+45WB - 2137+33WB	DRIVING LANE	--	221	1433	--	4011	3209	3209
0010	1922+21WB - 2137+33WB	DRIVING LANE SHOULDER	331	--	1195	6025	--	--	--
		TOTAL 0010	572	889	7834	10400	16157	12927	12927

ASPHALTIC SURFACE PATCHING

CATEGORY	STATION TO STATION	LOCATION	465.0110 TON	REMARKS
0010	1765+00WB - 2137+33WB	IH 94 WESTBOUND	2000	UNDISTRIBUTED
		TOTAL 0010	2000	

ASPHALTIC SURFACE TEMPORARY

CATEGORY	STATION TO STATION	LOCATION	465.0125 TON	REMARKS
0010	1765+00WB - 1921+23WB	PASSING LANE SHOULDER	25	FILL RUMBLE STRIP
0010	1765+00WB - 1921+23WB	DRIVING LANE SHOULDER	25	FILL RUMBLE STRIP
0010	1922+21WB - 2137+33WB	PASSING LANE SHOULDER	30	FILL RUMBLE STRIP
0010	1922+21WB - 2137+33WB	DRIVING LANE SHOULDER	30	FILL RUMBLE STRIP
		TOTAL 0010	110	

ASPHALTIC SHOULDER RUMBLE STRIP

CATEGORY	STATION TO STATION	LOCATION	465.0400 LF
0010	1765+00WB - 1921+23WB	PASSING LANE SHOULDER	15623
0010	1765+00WB - 1921+23WB	DRIVING LANE SHOULDER	15623
0010	1922+21WB - 2137+33WB	PASSING LANE SHOULDER	21512
0010	1922+21WB - 2137+33WB	DRIVING LANE SHOULDER	21512
		TOTAL 0010	74270

CONCRETE CURB & GUTTER 30-INCH TYPE A

CATEGORY	STATION TO STATION	LOCATION	601.0409 LF	REMARKS
0020	WB REST AREA 54	CAR PARKING LOT	81	9' EACH AT 9 CURB RAMPS
0020	WB REST AREA 54	TRUCK PARKING LOT	27	9' EACH AT 3 CURB RAMPS
		TOTAL 0020	108	

CONCRETE SIDEWALK 5-INCH

CATEGORY	STATION TO STATION	LOCATION	602.0410 SF	REMARKS
0020	WB REST AREA 54	CAR PARKING LOT	648	72 SF EACH FOR 9 CURB RAMPS
0020	WB REST AREA 54	TRUCK PARKING LOT	216	72 SF EACH FOR 3 CURB RAMPS
		TOTAL 0020	864	

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STATION TO STATION	LOCATION	602.0505 SF	REMARKS
0020	WB REST AREA 54	CAR PARKING LOT	72	8 SF EACH FOR 9 CURB RAMPS
0020	WB REST AREA 54	TRUCK PARKING LOT	24	8 SF EACH FOR 3 CURB RAMPS
		TOTAL 0020	96	

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** SALVAGED RAIL

CATEGORY	STATION TO	STATION	LOCATION	614.0920 LF
0010	1858+42WB	- 1860+56WB	RIGHT	214
0010	1858+87WB	- 1861+01WB	LEFT	214
0010	1920+20WB	- 1921+13WB	RIGHT	93
0010	1920+20WB	- 1921+13WB	LEFT	93
0010	1922+31WB	- 1924+71WB	RIGHT	240
0010	1922+31WB	- 1923+71WB	LEFT	140
0010	2036+55WB	- 2038+69WB	RIGHT	214
0010	2036+19WB	- 2038+33WB	LEFT	214
0010	2095+00WB	- 2098+00WB	RIGHT	300
0010	2095+00WB	- 2098+00WB	LEFT	300
			TOTAL 0010	2022

** LABELED AS "REMOVING EXISTING GUARDRAIL" ON PLAN SHEETS

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION TO	STATION	LOCATION	614.0010 EACH	* FILL CY	* SALVAGED TOPSOIL SY	* FERTILIZER TYPE B CWT	* SEEDING MIX NO. 30 LB	* MULCHING SY
0010	1858+55WB	- 1861+71WB	RIGHT	1	0	179	0.11	3	179
0010	1858+95WB	- 1861+11WB	LEFT	1	1	72	0.05	1	72
0010	1905+85WB	- 1908+39WB	LEFT	1	8	234	0.15	4	234
0010	1919+33WB	- 1921+24WB	RIGHT	1	0	66	0.04	1	66
0010	1917+83WB	- 1921+24WB	LEFT	1	1	111	0.07	2	111
0010	1922+21WB	- 1925+27WB	RIGHT	1	0	115	0.07	2	115
0010	1922+21WB	- 1924+77WB	LEFT	1	2	11	0.01	0	11
0010	2036+45WB	- 2039+61WB	RIGHT	1	1	84	0.05	2	84
0010	2036+00WB	- 2038+41WB	LEFT	1	5	208	0.13	4	208
0010	2095+65WB	- 2098+81WB	RIGHT	1	2	156	0.10	3	156
0010	2096+00WB	- 2099+04WB	LEFT	1	1	259	0.16	5	259
			TOTAL 0010	11	21	1494	1	27	1495

* ITEMS AND QUANTITIES FOR INFORMATION ONLY.

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GUARDRAIL ITEMS

CATEGORY	STATION TO	STATION	LOCATION	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
0010	1858+55WB	- 1861+71WB	RIGHT	262	--	1	1
0010	1858+95WB	- 1861+11WB	LEFT	162	--	1	1
0010	1905+85WB	- 1908+39WB	LEFT	200	--	1	1
0010	1919+33WB	- 1921+24WB	RIGHT	150	40	--	1
0010	1917+83WB	- 1921+24WB	LEFT	300	40	--	1
0010	1922+21WB	- 1925+27WB	RIGHT	212	40	1	--
0010	1922+21WB	- 1924+77WB	LEFT	162	40	1	--
0010	2036+45WB	- 2039+61WB	RIGHT	262	--	1	1
0010	2036+00WB	- 2038+41WB	LEFT	187	--	1	1
0010	2095+65WB	- 2098+81WB	RIGHT	262	--	1	1
0010	2096+00WB	- 2099+04WB	LEFT	250	--	1	1
			TOTAL 0010	2409	160	9	9

MAINTENANCE AND REPAIR OF HAUL ROADS (1023-01-70)

CATEGORY	STATION TO STATION	LOCATION	618.0100 EACH
0010	1765+00WB - 2137+33WB	IH 94 WESTBOUND	1
		TOTAL 0010	1

MOBILIZATION

CATEGORY	STATION TO STATION	LOCATION	619.1000 EACH
0010	1765+00WB - 2137+33WB	IH 94 WESTBOUND	0.5
		TOTAL 0010	0.5

EROSION CONTROL ITEMS

CATEGORY	STATION TO STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
	PROJECT 1023-01-70		--	--	1	2
0010	1858+55WB - 1861+71WB	RIGHT	375	375	--	--
0010	1858+95WB - 1861+11WB	LEFT	275	275	--	--
0010	1905+85WB - 1908+39WB	LEFT	300	300	--	--
0010	1919+33WB - 1921+24WB	RIGHT	250	250	--	--
0010	1917+83WB - 1921+24WB	LEFT	400	400	--	--
0010	1922+21WB - 1925+27WB	RIGHT	350	350	--	--
0010	1922+21WB - 1924+77WB	LEFT	325	325	--	--
0010	2036+45WB - 2039+61WB	RIGHT	375	375	--	--
0010	2036+00WB - 2038+41WB	LEFT	300	300	--	--
0010	2095+65WB - 2098+81WB	RIGHT	375	375	--	--
0010	2096+00WB - 2099+04WB	LEFT	350	350	--	--
		TOTAL 0010	3675	3675	1	2

DELINEATORS FLEXIBLE

CATEGORY	STATION TO STATION	LOCATION	633.0200 EACH
0010	1765+00WB - 2137+33WB	MAINLINE	85
0010	1765+00WB - 2137+33WB	BETWEEN RAMP	18
0010	1765+00WB - 2137+33WB	OFF RAMP TAPER	10
0010	1765+00WB - 2137+33WB	OFF RAMP	5
0010	1765+00WB - 2137+33WB	ON RAMP	8
0010	1765+00WB - 2137+33WB	ON RAMP TAPER	26
		TOTAL 0010	152

FTMS DYNAMIC MESSAGE SIGNS

CATEGORY	ITEM I.D.	LOCATION	STEEL POST TYPE	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS LB	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	SPV.0060.01 INSTALL GROUND MOUNT DMS EACH	INFO ONLY - POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO. 1 LENGTH FT	POST NO. 2 LENGTH FT	POST NO. 3 LENGTH FT	SIGN OFFSET DISTANCE FT
0030	DMS-27-0020	IH 94 WB @ CASTLE MOUND ROAD	C	1469	2.7	150	1	15.45	16.30	16.80	30
		TOTAL 0030		1469	2.7	150	1				

PERMANENT SIGNING ITEMS

CATEGORY	SIGN GROUP NUMBER	SIGN CODE	SIGN CODE DESCRIPTION	STATION	LOCATION	SIZE	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4x6-INCH x14-FT EACH	634.0616 POSTS WOOD 4x6-INCH x16-FT EACH	634.0618 POSTS WOOD 4x6-INCH x18-FT EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	1-3	D10-3	MILEPOST MARKER 121	1773+82WB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	1-4	R2-1	SPEED LIMIT 65	1784+91WB	RIGHT	48" x 60"	--	20.00	--	--	2	--	--	1	2	
0010	1-5	R3-4-B	NO U TURN	1788+60WB	LEFT	36" x 48"	--	12.00	--	--	1	--	--	1	1	
0010	2-1	J4-1	WEST / 94	1802+25WB	RIGHT	36" x 54"	--	13.50	--	--	1	--	--	1	1	
0010	3-2	W4-1R	MERGING TRAFFIC FROM RT	1821+78WB	RIGHT	48" x 48"	--	--	16.00	--	2	--	--	1	2	
0010	3-3	D10-3	MILEPOST MARKER 122	1824+94WB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	3-4	E5-54	REST AREA/ARROW RT	1847+67WB	RIGHT	72" x 72"	--	36.00	--	--	--	2	--	1	2	
0010	4-4	W13-2	EXIT SPEED 35	1851+55WB	RIGHT	48" x 60"	--	--	20.00	--	2	--	--	1	2	
0010	4-5	E5-52	REST AREA ARROW	1854+20WB	RIGHT	144" x 54"	54.00	--	--	--		--	1	--	--	
0010	4-6	R3-4B	NO U TURN	1872+99WB	LEFT	36" x 48"	--	12.00	--	--	1	--	--	1	1	
0010	4-7	E3-1	LAW ENFORCEMENT / TRIBUTE / NEXT RIGHT	1873+00WB	RIGHT	204" x 78"	110.50	--	--	--	--	--	1	--	--	SEE SIGN DETAILS
0010	4-8	D10-3	MILEPOST MARKER 123	1877+69WB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	5-1	SP	REST AREA / SCENIC / OVERLOOK / 1 MILE	1908+32WB	RIGHT	144" x 102"	102.00	--	--	--	--	--	1	--	--	SEE SIGN DETAILS
0010	5-1	E10-54	WEATHER INFORMATION	1908+32WB	RIGHT	120" x 12"	10.00	--	--	--	--	--	1	--	--	
0010	5-1	E5-62	NEXT REST AREA 78 MILES	1908+32WB	RIGHT	120" x 30"	25.00	--	--	--	--	--	1	--	--	
0010	6-7	W5-52R	CLEARANCE STRIPER DOWN	1923+65WB	RIGHT	18" x 54"	--	--	6.75	--	1	--	--	1	1	
0010	6-8	W5-52L	CLEARANCE STRIPER DOWN	1923+65WB	LEFT	18" x 54"	--	--	6.75	--	1	--	--	1	1	
0010	6-9	D10-3	MILEPOST MARKER 124	1931+23WB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	6-10	R4-3	SLOWER TRAFFIC KEEP RT	1931+23WB	LEFT	48" x 60"	--	20.00	--	--	2	--	--	1	2	
0010	7-3	W11-3	DEER CROSSING SYMBOL	1961+17WB	RIGHT	48" x 48"	--	--	--	--	--	--	--	1	2	
0010	7-3	W57-51	NEXT 10 MILES	1961+17WB	RIGHT	48" x 24"	--	--	--	--	--	--	--	1	--	
0010	8-5	D10-3	MILEPOST MARKER 125	1983+01WB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	8-6	R3-4B	NO U TURN	1997+26WB	LEFT	36" x 48"	--	12.00	--	--	1	--	--	1	1	
0010	10-1	D10-3	MILEPOST MARKER 126	2035+05WB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	11-3	D10-3	MILEPOST MARKER 127	2086+99WB	RIGHT	12" x 48"	--	4.00	--	1	--	--	--	1	1	
0010	11-4	R8-7	EMERGENCY STOPPING ONLY	2095+97WB	RIGHT	48" x 36"	--	12.00	--	--	1	--	--	1	1	
0010	12-3	D2-3	BLACK RIVER FALLS 12 / EAU CLAIRE 59 / ST PAUL 143	2117+34WB	RIGHT	264" x 84"	154.00	--	--	--	--	--	1	--	--	SEE SIGN DETAILS
0010	12-4	R2-1	SPEED LIMIT 65	2126+32WB	RIGHT	48" x 60"	--	20.00	--	--	2	--	--	1	2	
0010	13-2	J4-1	WEST / 94	2135+55WB	RIGHT	36" x 54"	--	13.50	--	--	1	--	--	1	1	
0010	13-3	R3-4B	NO U TURN	2136+32WB	LEFT	36" x 48"	--	12.00	--	--	--	--	--	1	--	
						TOTAL 0010	455.50	211.00	49.50	7	18	2	6	24	29	

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	DAYS	643.0200 SURVEILLANCE AND MAINTENANCE NO.	643.0200 SURVEILLANCE AND MAINTENANCE DAY	643.0300 DRUMS NO.	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAY	643.0800 ARROW BOARDS NO.	643.0800 ARROW BOARDS DAY	643.0900 SIGNS NO.	643.0900 SIGNS DAY	643.105 SIGNS PCMS NO.	643.105 SIGNS PCMS DAY
0010	IH 94 WESTBOUND WORK ZONE	135	1	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0010	ADVANCED WARNING	135	0	0	0	0	0	0	0	0	0	0	0	0	16	2160	0	0
0010	LANE CLOSURE	135	0	0	444	59940	28	3780	56	7560	33	4455	2	270	35	4725	0	0
	TOTAL 0010			135		59940		3780		7560		4455		270		6885		
0020	WB REST AREA 54 RAMPS	5	0	0	30	150	4	20	8	40	0	0	0	0	2	10	1	12
	TOTAL 0020			0		150		20		40		0		0		10		12
	PROJECT TOTAL			135		60090		3800		7600		4455		270		6895		12

TRAFFIC CONTROL COVERING SIGNS TYPE II

CATEGORY	STATION TO	STATION	LOCATION	643.0920 EACH	REMARKS
0020		1847+67WB	IH 94 WESTBOUND	1	REST AREA 54
			TOTAL 0020	1	

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.0106 LF	WHITE LF	YELLOW LF	REMARKS
0010	1765+00WB -	2137+33WB	LEFT	35587	35587	--	EDGE LINE
0010	1765+00WB -	2137+33WB	RIGHT	37276	--	37276	EDGE LINE
0010	1765+00WB -	2137+33WB	RIGHT	42	42	--	DASHED
			TOTAL 0010	72905	35629	37276	
0020	WB REST AREA 54		OFF RAMP	1597	1597	--	EDGE LINE
0020	WB REST AREA 54		ON RAMP	2750	2750	--	EDGE LINE
0020	WB REST AREA 54		OFF RAMP	2786	--	2786	EDGE LINE
0020	WB REST AREA 54		LOTS	760	--	760	EDGE LINE
			TOTAL 0020	7893	4347	3546	
			PROJECT TOTAL	80798	39976	40822	

PAVEMENT MARKING SYMBOLS EPOXY

CATEGORY	STATION TO	STATION	LOCATION	647.0256 EACH	REMARKS
0020	WB REST ARE 54			7	HANDICAP SYMBOL
			TOTAL 0020	7	

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

CATEGORY	STATION TO	STATION	LOCATION	647.0566 LF
0020	WB REST AREA 54			40
			TOTAL 0020	40

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	WIDTH	HEIGHT	LOCATION	643.1000 SF	REMARKS
0010	14'-0"	4'-0"	IH 94 WESTBOUND	56	PERIODIC LANE CLOSURES, WATCH FOR SLOW TRAFFIC
			TOTAL 0010	56	
0020	12'-0"	1'-0"	IH 94 WESTBOUND	12	REST AREA CLOSED
0020	12'-0"	1'-0"	IH 94 WESTBOUND	12	REST AREA CLOSED
			TOTAL 0020	24	
			PROJECT TOTAL	80	

PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.0881.S LF
0010	1765+00WB -	2137+33WB	LANE LINE (WHITE)	9307
0010	1765+00WB -	2137+33WB	LANE LINE (WHITE)	744
			TOTAL 0010	10051

PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH

CATEGORY	STATION TO	STATION	LOCATION	646.0883.S LF
0020	WB REST AREA 54		GORE AT ENTRY	1702
0020	WB REST AREA 54		GORE AT EXIT	732
0020	WB REST AREA 54		OFF RAMP	240
0020	WB REST AREA 54		ON RAMP	206
			TOTAL 0020	2880

PAVEMENT MARKING PARKING STALL EPOXY

CATEGORY	STATION TO	STATION	LOCATION	647.0656 LF
0020	WB REST AREA 54			7798
			TOTAL 0020	7798

PAVEMENT MARKING CROSSWALK EPOXY 12-INCH

CATEGORY	STATION TO	STATION	LOCATION	647.0776 LF	REMARKS
0020	WB REST ARE 54			627	OUTLINE
			TOTAL 0020	627	

TEMPORARY PAVEMENT MARKING 4-INCH

CATEGORY	STATION TO	STATION	LOCATION	649.0100 LF	REMARKS
0010	1765+00WB	2137+33WB	LOWER LAYER	35587	EDGE LINE (WHITE)
0010	1765+00WB	2137+33WB	UPPER LAYER	35587	EDGE LINE (WHITE)
0010	1765+00WB	2137+33WB	LOWER LAYER	37233	EDGE LINE (YELLOW)
0010	1765+00WB	2137+33WB	UPPER LAYER	37233	EDGE LINE (YELLOW)
0010	1765+00WB	2137+33WB	LOWER LAYER	9307	LANE LINES (WHITE)
0010	1765+00WB	2137+33WB	LOWER LAYER	744	LANE LINES (WHITE)
0010	1765+00WB	2137+33WB	UPPER LAYER	9307	LANE LINES (WHITE)
0010	1765+00WB	2137+33WB	UPPER LAYER	744	LANE LINES (WHITE)
			TOTAL 0010	165742	

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION TO	STATION	LOCATION	650.8000 LF
0010	1765+00WB	1921+23WB	INSIDE EDGE OF PAVEMENT	15623
0010	1922+21WB	2137+33WB	INSIDE EDGE OF PAVEMENT	21512
			TOTAL 0010	37135

PAVEMENT MARKING DIAGONAL EPOXY 12-INCH

CATEGORY	STATION TO	STATION	LOCATION	647.0726 LF	REMARKS
0020	WB REST AREA 54			559	WHITE PAVEMENT MARKING
			TOTAL 0020	559	

PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH

CATEGORY	STATION TO	STATION	LOCATION	647.0803 LF	REMARKS
0010	1765+00WB	2137+33WB		48	STATE PATROL TO FIELD LOCATE
			TOTAL 0010	48	

TEMPORARY PAVEMENT MARKING 8-INCH

CATEGORY	STATION TO	STATION	LOCATION	649.0701 LF
0020	WB REST AREA 54		GORE AT ENTRY	1702
0020	WB REST AREA 54		GORE AT EXIT	732
			TOTAL 0020	2434

FTMS CONDUIT

CATEGORY	FROM	TO	LINEAR DISTANCE	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF
0030	MBCM01	PBCM01	65	--	90
	PBCM01	DMS-27-0020	10	15	--
			TOTAL 0030	15	90

3

PULL BOXES STEEL 24X36-INCH

CATEGORY	ITEM ID	LOCATION	653.0135 EACH
0030	PBCM01	IH 94 WB @ CASTLE MOUND RD.	1
		TOTAL 0030	1

FTMS POWER

CATEGORY	ITEM ID	LOCATION	MB I.D.	NUMBER OF WIRES	WIRE LINEAR DISTANCE FROM CABINET TO METER BREAKER PEDESTAL	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL DMS-27-0020 LS	656.0500.01 ELECTRICAL SERVICE BREAKER DISCONNECT BOX DMS-27-0020 LS
0030	DMS-27-0020	IH 94 WB @ CASTLE MOUND RD.	MBCM01	3	90	345	1	1
					TOTAL 0030	345	1	1

FTMS CABINETS AND DYNAMIC MESSAGE SIGN

CATEGORY	ITEM ID	LOCATION	659.0802 PLAQUES SEQUENCE IDENTIFICATION EACH	673.0225.S INSTALL POLE MOUNTED CABINET EACH	SPV.0060.01 INSTALL GROUND MOUNT DYNAMIC MESSAGE SIGN EACH
0030	DMS-27-0020	IH 94 WB @ CASTLE MOUND RD.	1	1	1
		TOTAL 0030	1	1	1

FTMS LUMP SUM MISCELLANEOUS QUANTITIES

CATEGORY	ROAD	LOCATION	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS
0030	IH 94	PROJECT	1	1
		TOTAL 0030	1	1

SAWING ASPHALT

CATEGORY	STATION TO	STATION	LOCATION	690.0150 LF	REMARKS
0010	1765+00WB	2137+33WB	IH 94 WESTBOUND	2400	UNDISTRIBUTED, CONCRETE REPAIR
			TOTAL 0010	2400	

SAWING CONCRETE

CATEGORY	STATION TO	STATION	LOCATION	690.0250 LF	REMARKS
0010	1765+00WB	2137+33WB	IH 94 WESTBOUND	10000	UNDISTRIBUTED, CONCRETE REPAIR
			TOTAL 0010	10000	
0020	WB REST AREA 54		CAR PARKING LOT	189	21' EACH FOR 9 CURB RAMPS
0020	WB REST AREA 54		TRUCK PARKING LOT	63	21' EACH FOR 3 CURB RAMPS
			TOTAL 0020	252	
			PROJECT TOTAL	10252	

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL

CATEGORY	STATION TO	STATION	LOCATION	SPV.0170.01 STA
0010	1765+00WB	1921+23WB	C/L UPPER LAYER	156
0010	1922+21WB	2137+33WB	C/L UPPER LAYER	215
			TOTAL 0010	371

CONCRETE PAVEMENT REPAIR NON DOWELED SPECIAL

CATEGORY	STATION TO	STATION	LOCATION	SPV.0180.01 SY	REMARKS
0010	1765+00WB	2137+33WB	IH 94 WESTBOUND	3250	UNDISTRIBUTED
			TOTAL 0010	3250	

BEGIN PROJECT 1023-01-70
STA. 1765+00WB
X = 110556.40
Y = 83135.95
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

EXISTING MAINTENANCE CROSSOVER
REMOVE ASPHALTIC SURFACE MILLING 1.75"
AND 1.75" OVERLAY HMA PAVEMENT TYPE E-0.3

N

1765+00WB | 1770+00WB | IH 94 WB S51° 07' 20"E 1775+00WB | 1780+00WB | 1785+00WB

5

5

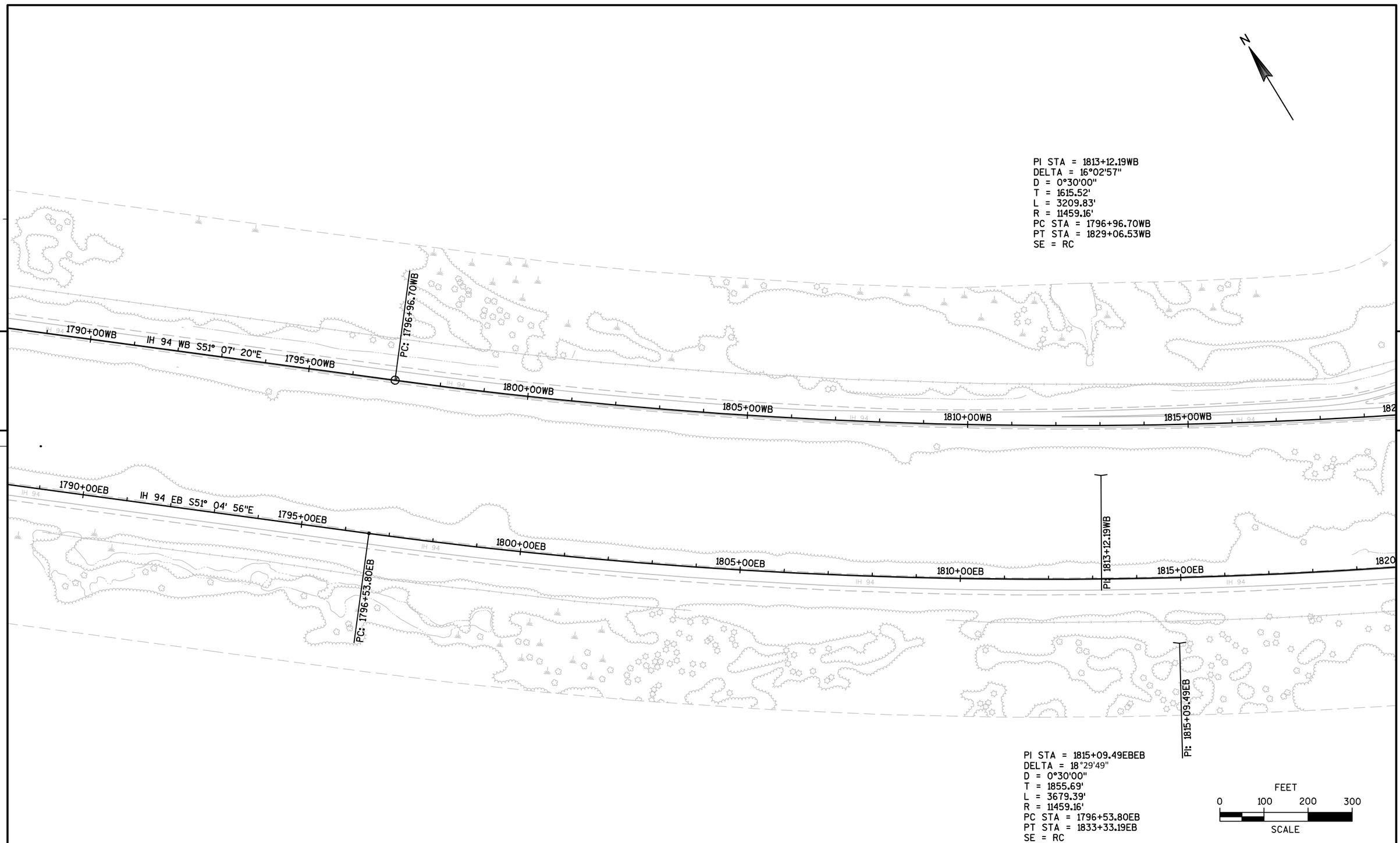
1765+00EB | 1770+00EB | IH 94 EB S51° 04' 56"E 1775+00EB | 1780+00EB | 1785+00EB

IH 94

BEGIN PROJECT 1023-00-78
STA. 1765+00EB
X = 110348.13
Y = 82853.41
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

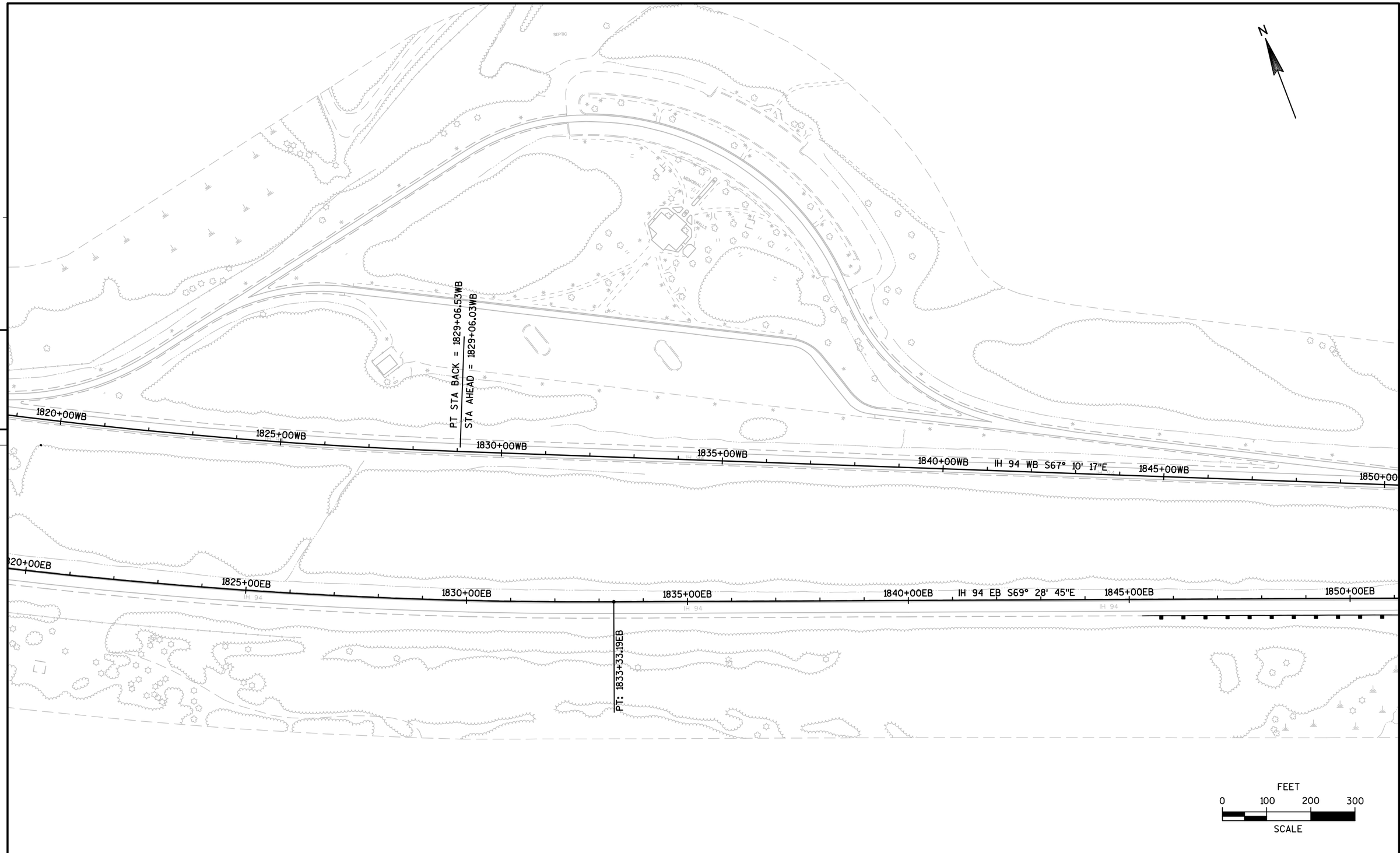
FEET
0 100 200 300
SCALE

PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	IH 94 EB & WB	SHEET 83	E



PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PLAN SHEETS.DWG PLOT DATE : 4/24/2014 6:25 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



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PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PLAN SHEETS.DWG
PLOT DATE : 4/24/2014 6:26 PM
PLOT BY : SPENCER-DOBSON, KEENPLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

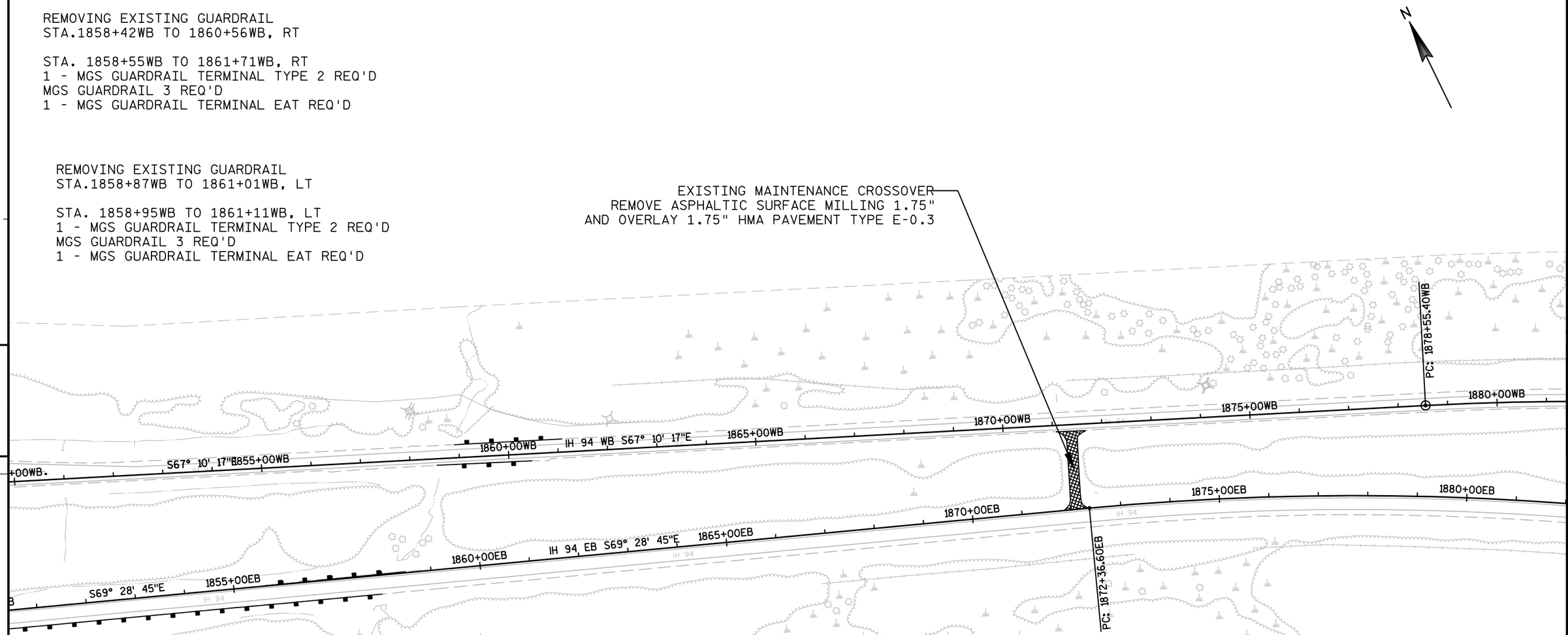
REMOVING EXISTING GUARDRAIL
STA.1858+42WB TO 1860+56WB, RT

STA. 1858+55WB TO 1861+71WB, RT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

REMOVING EXISTING GUARDRAIL
STA.1858+87WB TO 1861+01WB, LT

STA. 1858+95WB TO 1861+11WB, LT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

EXISTING MAINTENANCE CROSSOVER
REMOVE ASPHALTIC SURFACE MILLING 1.75"
AND OVERLAY 1.75" HMA PAVEMENT TYPE E-0.3



REMOVING EXISTING GUARDRAIL
STA.1855+90EB TO 1858+04EB, RT

STA. 1845+46EB TO 1858+00EB, RT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

REMOVING EXISTING GUARDRAIL
STA.1856+43EB TO 1858+57EB, LT

STA. 1855+54EB TO 1858+45EB, LT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

FEET
0 100 200 300
SCALE

PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	IH 94 EB & WB	SHEET 86	E

PI STA = 1895+13.50WB
DELTA = 32°16'51"
D = 1°00'00"
T = 1658.14'
L = 3228.08'
R = 5729.58'
PC STA = 1878+55.40WB
PT STA = 1910+83.50WB
SE = 2.8'/FT

STA. 1905+85WB TO 1908+39WB, LT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D

PI STA = 1889+58.52EB
DELTA = 33°27'16"
D = 1°00'00"
T = 1721.92'
L = 3345.44'
R = 5729.58'
PC STA = 1872+36.60EB
PT STA = 1905+82.00EB
SE = 2.8'/FT

REMOVE EXISTING GUARDRAIL
STA. 1900+19EB TO 1902+35EB, RT

STA. 1899+24EB TO 1902+65EB, RT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET 87	E

REMOVE EXISTING GUARDRAIL
STA. 1920+20WB TO 1921+13WB, LT

STA. 1917+83WB TO 1921+24WB, LT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
MGS THRIE BEAM TRANSITION REQ'D

REMOVE EXISTING GUARDRAIL
STA. 1922+31WB TO 1923+71WB, LT

STA. 1922+21WB TO 1924+77WB, LT
MGS THRIE BEAM TRANSITION REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

EXCEPTION TO CENTERLINE LENGTH
STA. 1921+23.17WB TO 1922+21.33WB
STRUCTURE B-27-54
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

REMOVE EXISTING GUARDRAIL
STA. 1920+20WB TO 1921+13WB, RT

STA. 1919+33WB TO 1921+24WB, RT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
MGS THRIE BEAM TRANSITION REQ'D

REMOVE EXISTING GUARDRAIL
STA. 1922+31WB TO 1924+71WB, RT

STA. 1922+21WB TO 1925+27WB, RT
MGS THRIE BEAM TRANSITION REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

N

1915+00WB IH 94 WB S34° 53' 26"E
1920+00WB
PC: 1922+96.30WB
1925+00WB
1930+00WB
1935+00WB
1940+00WB
LAMBERT RD
IH 94

IH 94 EB
S36° 01' 29"E
1915+00EB
1920+00EB
1925+00EB
1930+00EB
1935+00EB
1940+00EB
PC: 1926+28.20EB
IH 94
HO
LAMBERT RD
RIPRAP

REMOVE EXISTING GUARDRAIL
STA. 1917+97EB TO 1921+13EB, LT

STA. 1913+94EB TO 1920+37EB, LT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
MGS THRIE BEAM TRANSITION REQ'D

REMOVE EXISTING GUARDRAIL
STA. 1917+97EB TO 1921+13EB, RT

STA. 1913+94EB TO 1920+37EB, RT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
MGS THRIE BEAM TRANSITION REQ'D

EXCEPTION TO CENTERLINE LENGTH
STA.1920+36.88EB TO 1921+40.04EB
STRUCTURE B-27-55
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

FEET
0 100 200 300
SCALE

PROJECT NO:1023-00-78 & 1023-01-70	HWY:IH 94	COUNTY:JACKSON	IH 94 EB & WB	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\VIEWFRAMEGROUPS\PLAN SHEETS.DWG PLOT DATE : 4/24/2014 6:28 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

PI STA = 1944+81.10WB
DELTA = 21°35'20"
D = 0°30'00"
T = 2184.80'
L = 4317.78'
R = 11459.16'
PC STA = 1922+96.30WB
PT STA = 1966+14.08WB
SE = RC

PI STA = 1946+70.93EB
DELTA = 20°12'54"
D = 0°30'00"
T = 2042.74'
L = 4043.00'
R = 11459.16'
PC STA = 1926+28.20EB
PT STA = 1966+71.20EB
SE = RC

N

1945+00WB
1950+00WB
1955+00WB
1960+00WB
1965+00WB
IH 94 WB S56° 28' 46"E 1970+00WB
PT: 1966+14.08WB
PI: 1944+81.10WB

1945+00EB
1950+00EB
1955+00EB
1960+00EB
1965+00EB
IH 94 EB S56° 14' 23"E 1970+00EB
PT: 1966+71.20EB
PI: 1946+70.93EB

IH 94
LAMBERT RD
CANOPY
WALLS
SEPTIC

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET 89	E

EXISTING MAINTENANCE CROSSOVER
REMOVE ASPHALTIC SURFACE MILLING 1.75"
AND OVERLAY 1.75" HMA PAVEMENT TYPE E-0.3

N

LAMBERT RD

1975+00WB 1980+00WB 1985+00WB IH 94 WB S56° 28' 46"E 1990+00WB 1995+00WB 2000+00WB

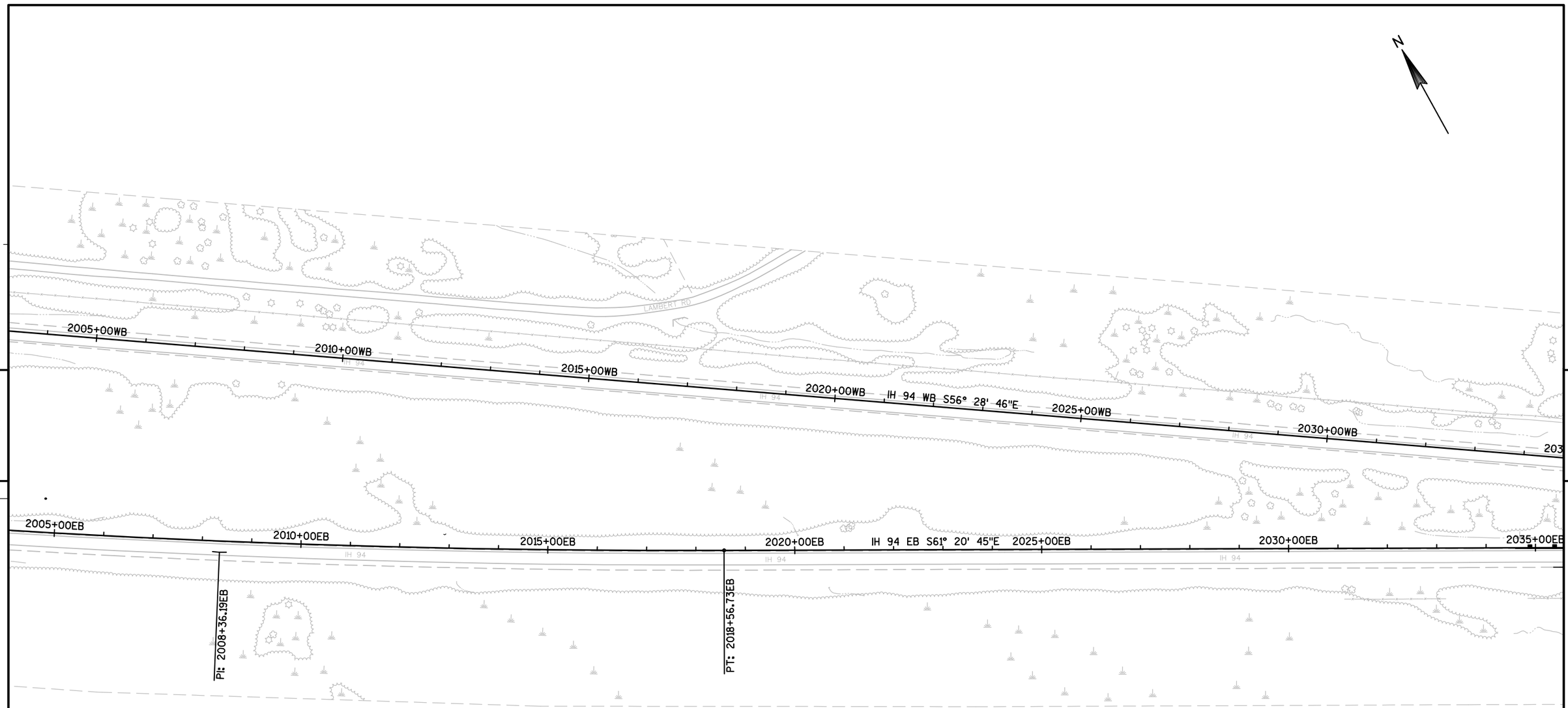
IH 94

1975+00EB 1980+00EB 1985+00EB IH 94 EB S56° 14' 23"E 1990+00EB 1995+00EB 2000+00EB

PC: 1998+14.30EB

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET 90	E



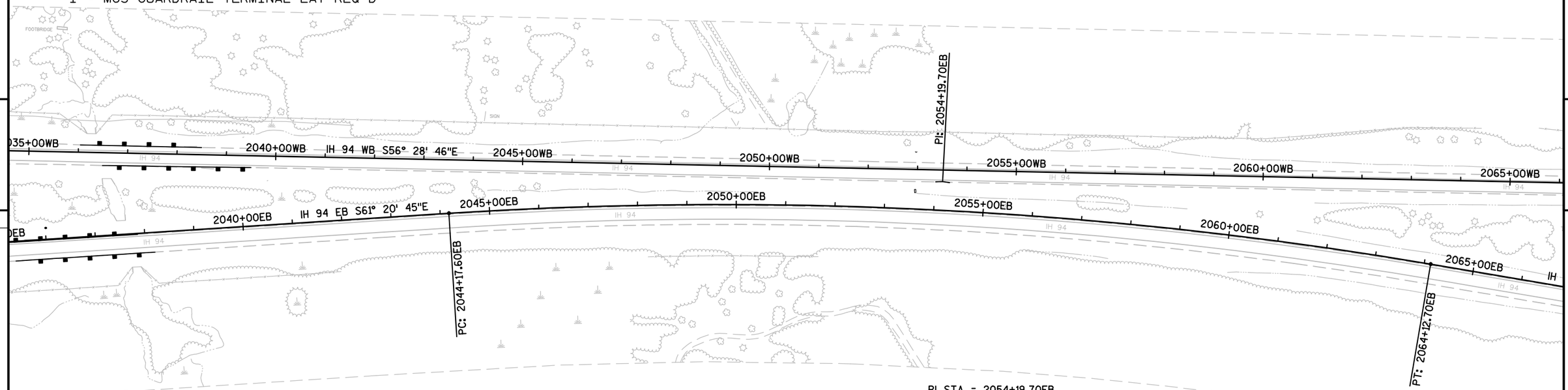
PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET 91	E

REMOVE EXISTING GUARDRAIL
STA. 2036+55WB TO 2038+69WB, RT

STA. 2036+45WB TO 2039+61WB, RT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

REMOVE EXISTING GUARDRAIL
STA. 2036+19WB TO 2038+33WB, LT

STA. 2036+00WB TO 2038+41WB, LT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D



PI STA = 2054+19.70EB
DELTA = 13°18'04"
D = 0°40'00"
T = 1022.10'
L = 1995.10'
R = 8594.37'
PC STA = 2044+17.60EB
PT STA = 2064+12.70EB
SE = 2.0'/FT

REMOVE EXISTING GUARDRAIL
STA. 2035+81EB TO 2037+71EB, RT

STA. 2035+44EB TO 2038+10EB, RT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D

REMOVE EXISTING GUARDRAIL
STA. 2035+54EB TO 2037+68EB, LT

STA. 2034+64EB TO 2037+80EB, LT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D

FEET
0 100 200 300
SCALE

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET 92	E

SENSITIVE WORK ZONE

PI STA = 2081+49.00WB
DELTA = 12°16'44"
D = 0°30'00"
T = 1232.66'
L = 2456.78'
R = 11459.16'
PC STA = 2069+16.30WB
PT STA = 2093+72.10WB
SE = RC

REMOVE EXISTING GUARDRAIL
STA. 2095+00WB TO 2098+00WB. RT

STA. 2095+65WB TO 2098+81WB, RT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

REMOVE EXISTING GUARDRAIL
STA. 2095+00WB TO 2098+00WB. LT

STA. 2096+00WB TO 2099+04WB, LT
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL EAT REQ'D

N

PC: 2069+16.30WB
PI: 2081+49.00WB
PT STA BACK = 2093+72.10WB
STA AHEAD = 2093+72.50WB

IH 94 WB S56° 28' 46"E 2070+00WB 2075+00WB 2080+00WB 2085+00WB 2090+00WB 2095+00WB

IH 94 EB S48° 02' 42"E 2070+00EB 2075+00EB 2080+00EB 2085+00EB 2090+00EB 2095+00EB

IH 94

5

5

REMOVE EXISTING GUARDRAIL
STA. 2093+00EB TO 2096+03EB. RT

STA. 2091+96EB TO 2094+75EB, RT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D

REMOVE EXISTING GUARDRAIL
STA. 2093+00EB TO 2096+03EB. LT

STA. 2091+96EB TO 2095+25EB, LT
1 - MGS GUARDRAIL TERMINAL EAT REQ'D
MGS GUARDRAIL 3 REQ'D
1 - MGS GUARDRAIL TERMINAL TYPE 2 REQ'D

FEET
0 100 200 300
SCALE

PROJECT NO:1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET	E

SENSITIVE WORK ZONE

N

5

5

2100+00WB

IH 94

2105+00WB

IH 94 WB S44° 12' 02"E

2110+00WB

SIGN

IH 94

2115+00WB

IH 94

2120+00WB

PC: 2121+61.12WB

2125+00WB

IH 94

2100+00EB

IH 94

2105+00EB

IH 94 EB S48° 02' 42"E

2110+00EB

IH 94

2115+00EB

IH 94

2120+00EB

IH 94

2125+00EB

IH 94

SIGN

PC: 2119+88.80EB

FEET

0 100 200 300

SCALE

PROJECT NO:1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET	E

EXISTING MAINTENANCE CROSSOVER
REMOVE ASPHALTIC SURFACE MILLING 1.75" AND OVERLAY 1.75" HMA PAVEMENT TYPE E-0.3

PI STA = 2131+05.50WB
DELTA = 15°34'11"
D = 0°45'00"
T = 1044.38'
L = 2075.96'
R = 7639.44'
PC STA = 2121+61.12WB
PT STA = 2142+37.08WB
SE = 2.1'/FT

END PROJECT 1023-01-70
STA. 2137+33WB
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

2130+00WB
2135+00WB
2130+00EB
2135+00EB
PI: 2131+61.40EB
PI: 2131+05.50WB
IH 94
I 94
ROBINSON DR.
EIDSMOE RD.
EPSTEIN RD.
RAILROAD ST.
CTH "O"

END PROJECT 1023-00-78
STA. 2137+61EB
BUTT JOINT REQ'D
SEE CONSTRUCTION DETAIL

PI STA = 2131+61.40EB
DELTA = 11°41'08"
D = 0°30'00"
T = 1172.63'
L = 2337.12'
R = 11459.15'
PC STA = 2119+88.80EB
PT STA = 2143+25.90EB
SE = RC

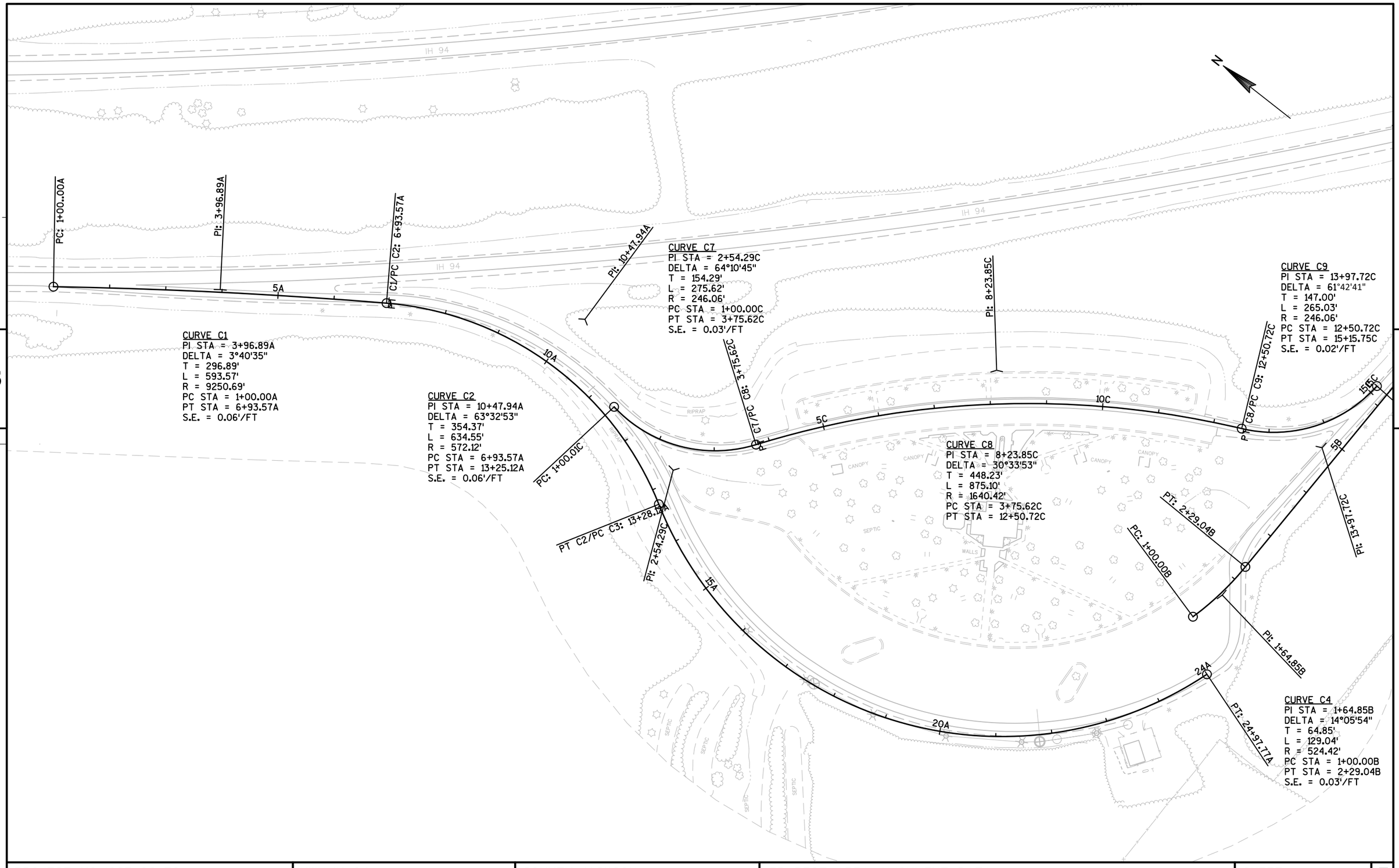
SENSITIVE WORK ZONE

N

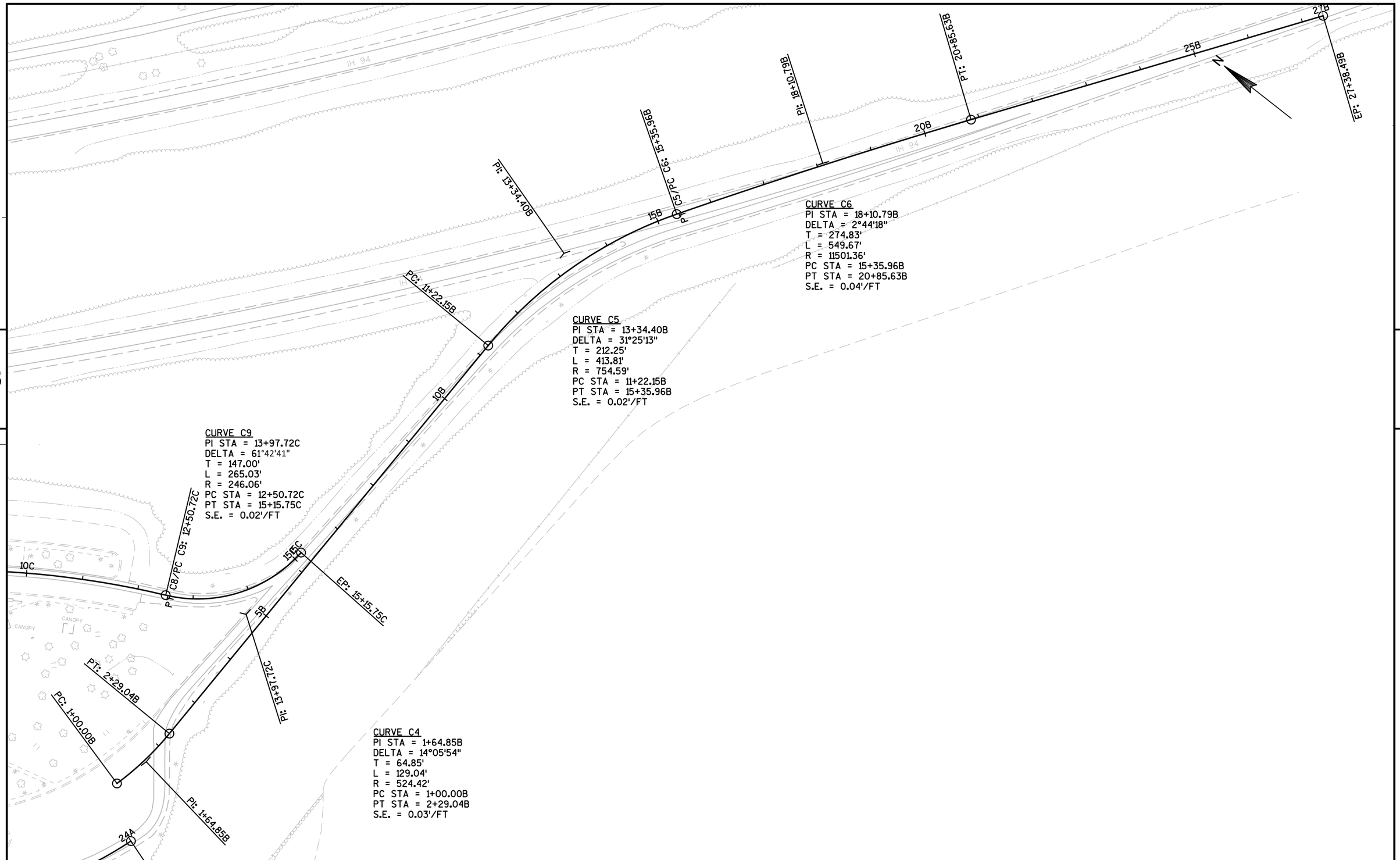
FEET
0 100 200 300
SCALE

5 5

PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	IH 94 EB & WB	SHEET	E



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	EB REST AREA ALIGNMENT DATA	SHEET	E

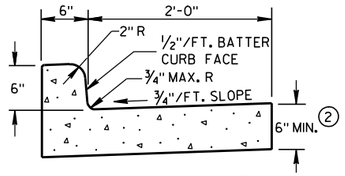


PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	EB REST AREA ALIGNMENT DATA	SHEET	E

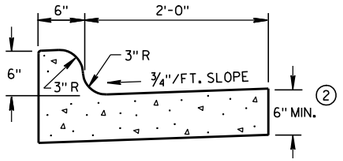
Standard Detail Drawing List

08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
09B02-07	CONDUIT
09B04-10	PULL BOX
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C09-11A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-11C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
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
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-02	FLEXIBLE DELINEATOR POST
15A06-02	DELINEATOR LAYOUT
15B03-13A	FENCE CHAIN LINK
15B03-13B	FENCE CHAIN LINK
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-12A	PAVEMENT MARKING SYMBOLS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C14-01	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D12-04	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

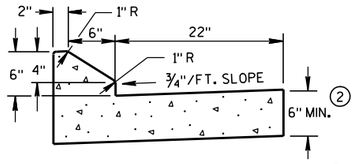
6



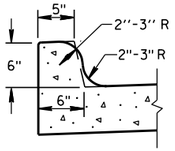
TYPES A & D (1)



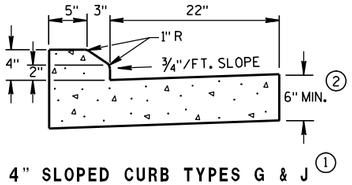
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

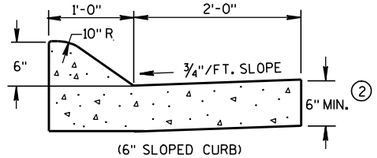


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

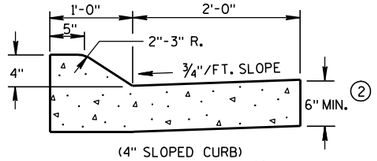


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

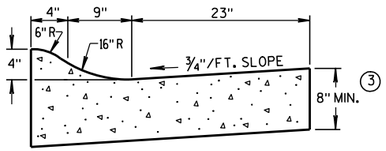


(6" SLOPED CURB)



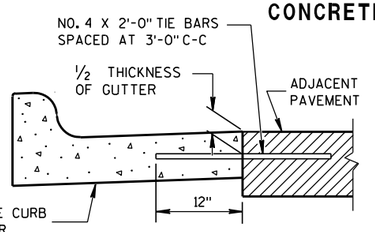
(4" SLOPED CURB)

TYPES A & D (1)

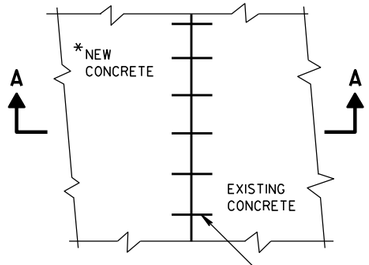


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

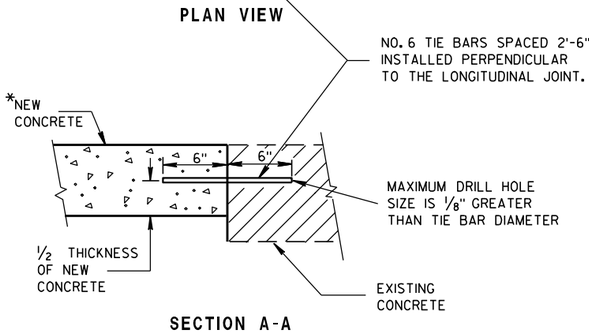


TYPICAL TIE BAR LOCATION (1)



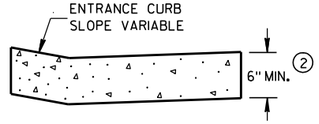
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW



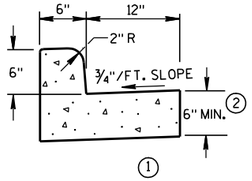
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB

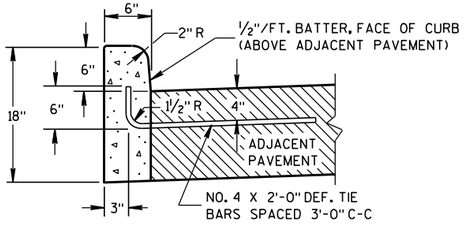
(WHEN DIRECTED BY THE ENGINEER)



(1)

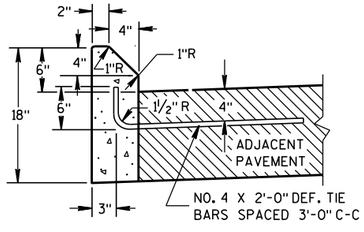
TYPES A & D

CONCRETE CURB & GUTTER 18"



(1)

TYPES A & D



(1)

TYPES G & J

CONCRETE CURB

GENERAL NOTES

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

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

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

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

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

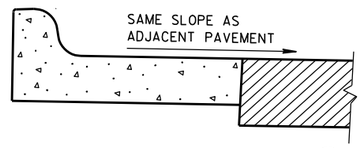
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

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

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

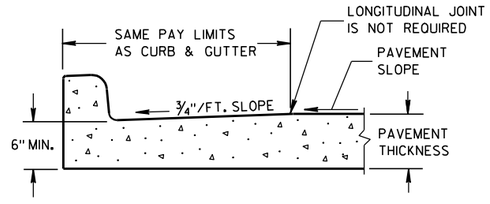
(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

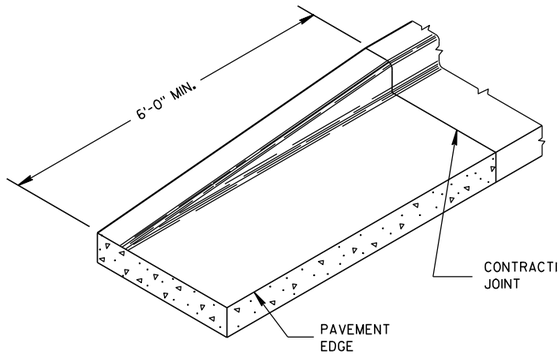


REVERSE SLOPE GUTTER (5)

(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08 DATE

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

99

[illegible] ENT

FHWA

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S.D.D. 8 D 1-17

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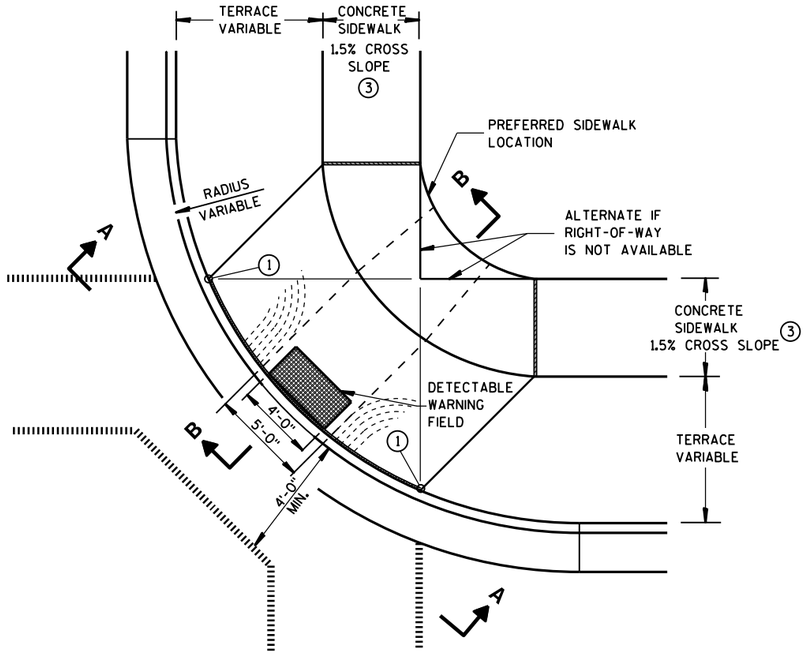
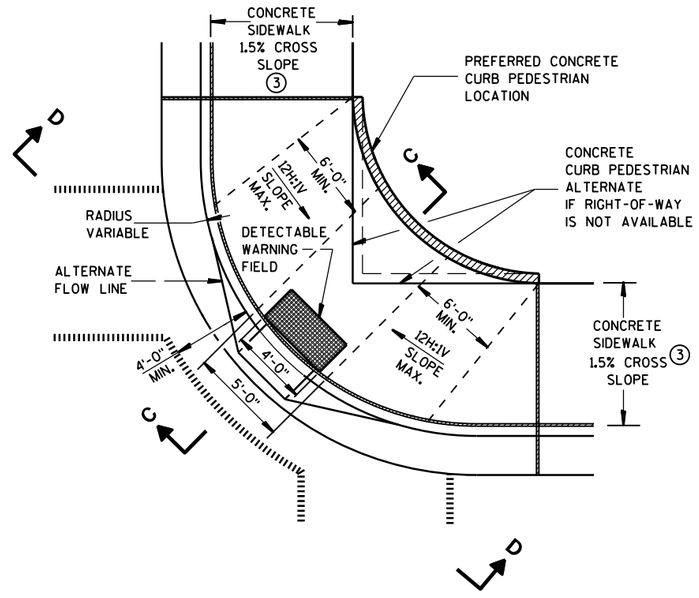
S.D.D. 8 D 1-17



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

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

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

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

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

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

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

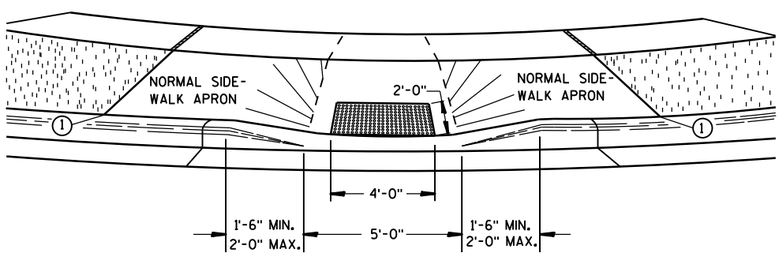
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

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

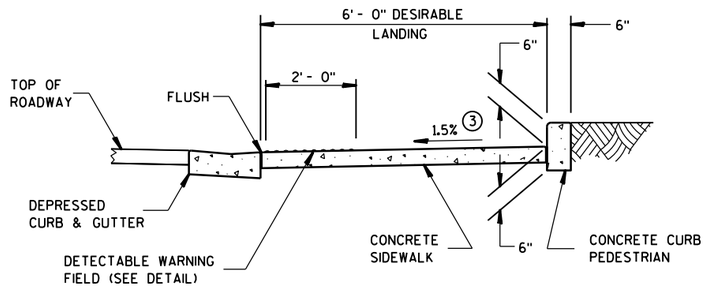
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

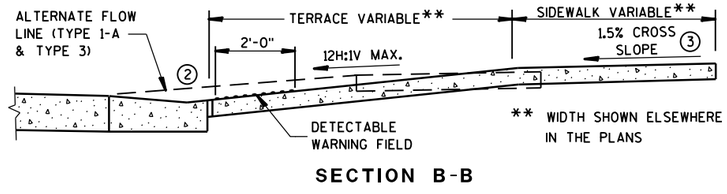
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



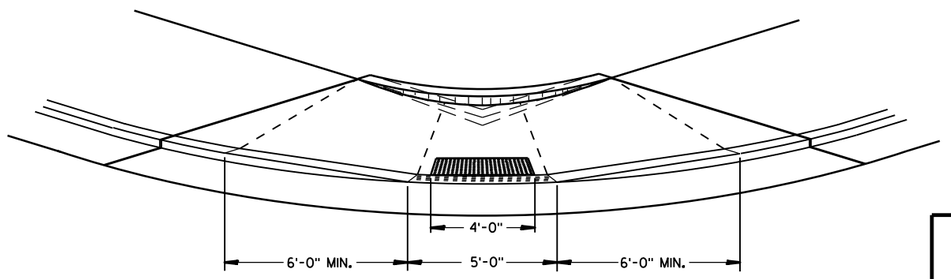
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

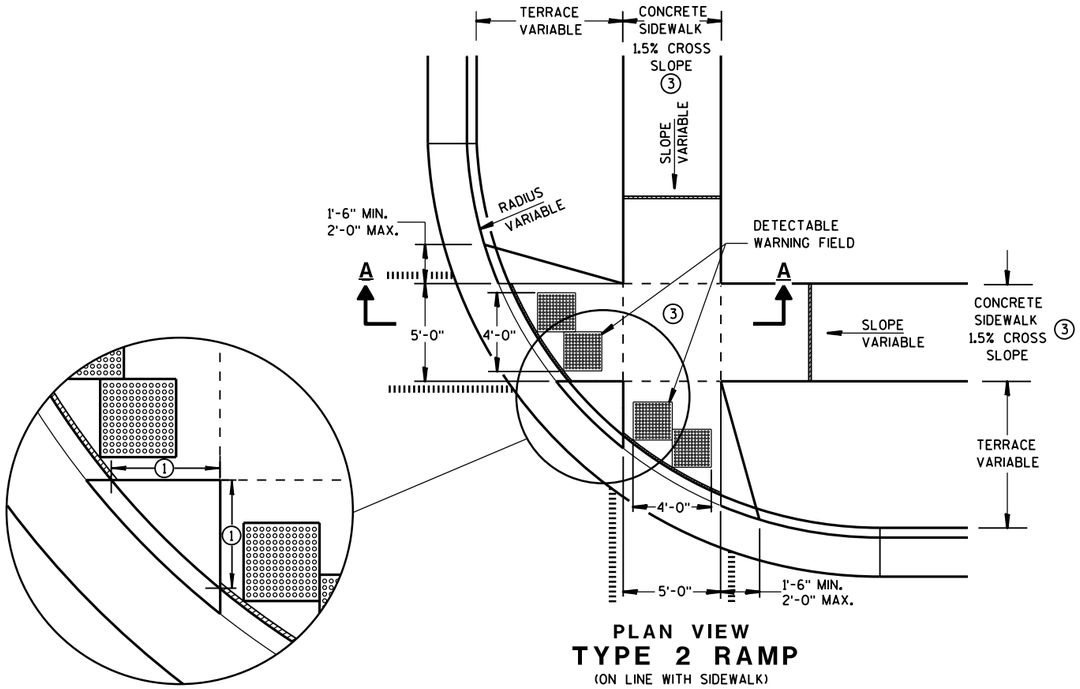
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

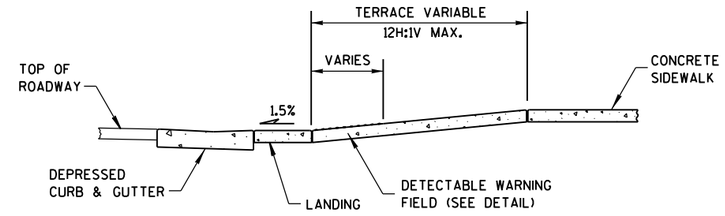
S.D.D. 8 D 5-15a



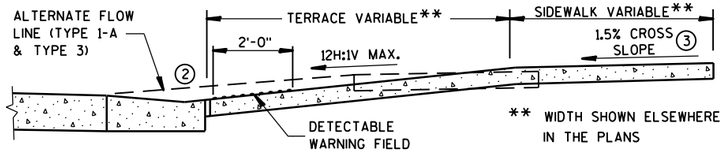
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

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

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

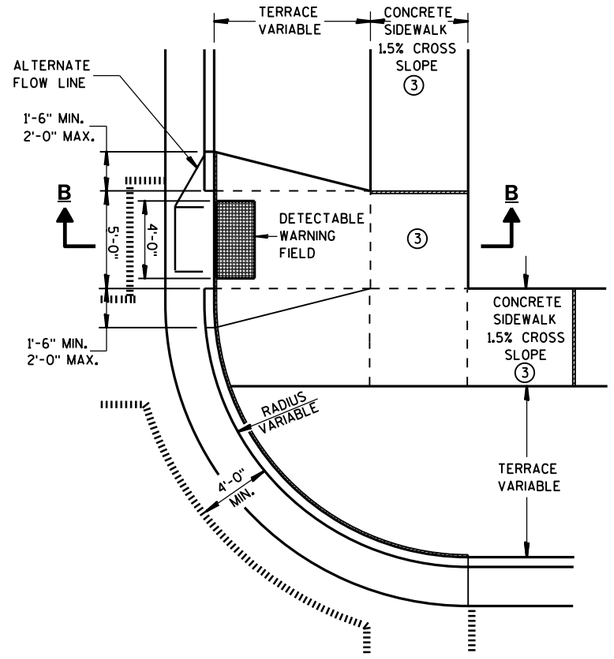
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

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

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

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

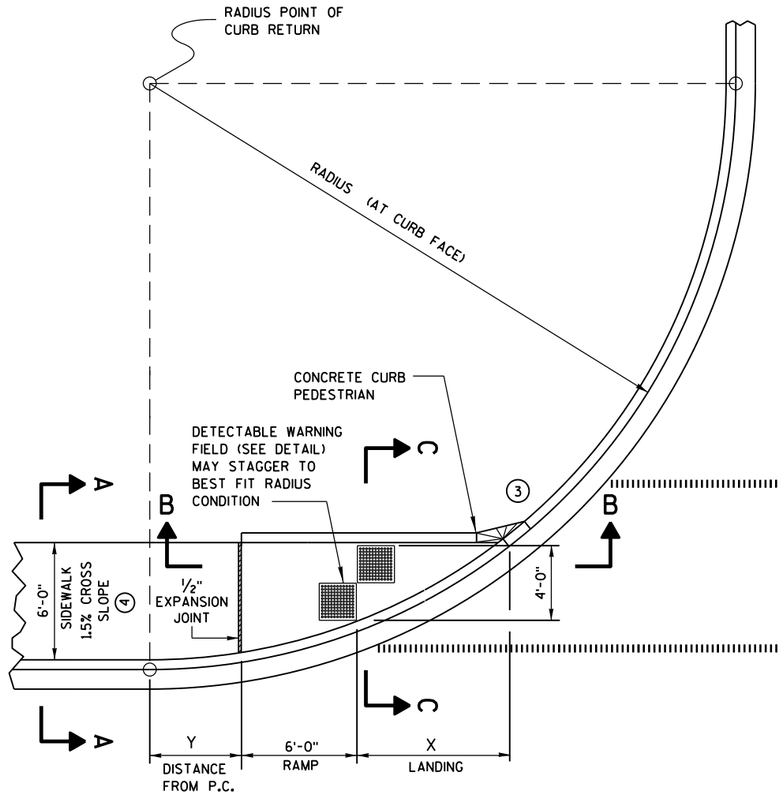
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

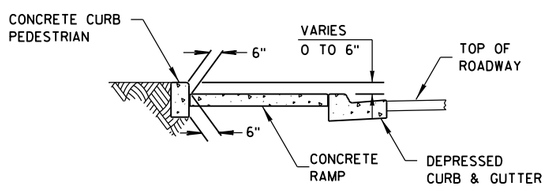
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

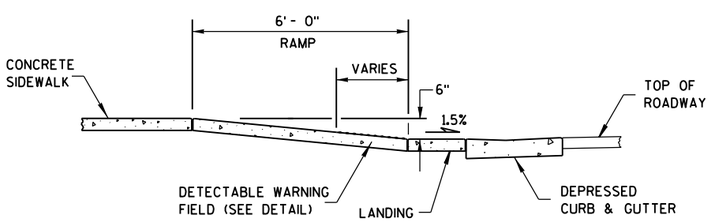
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



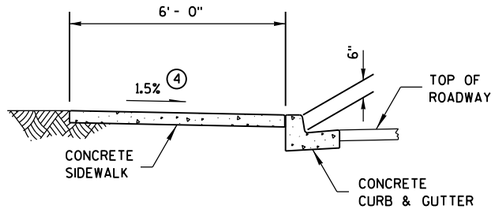
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

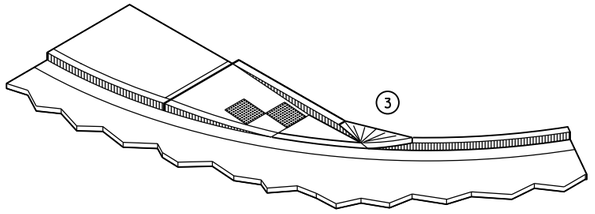
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

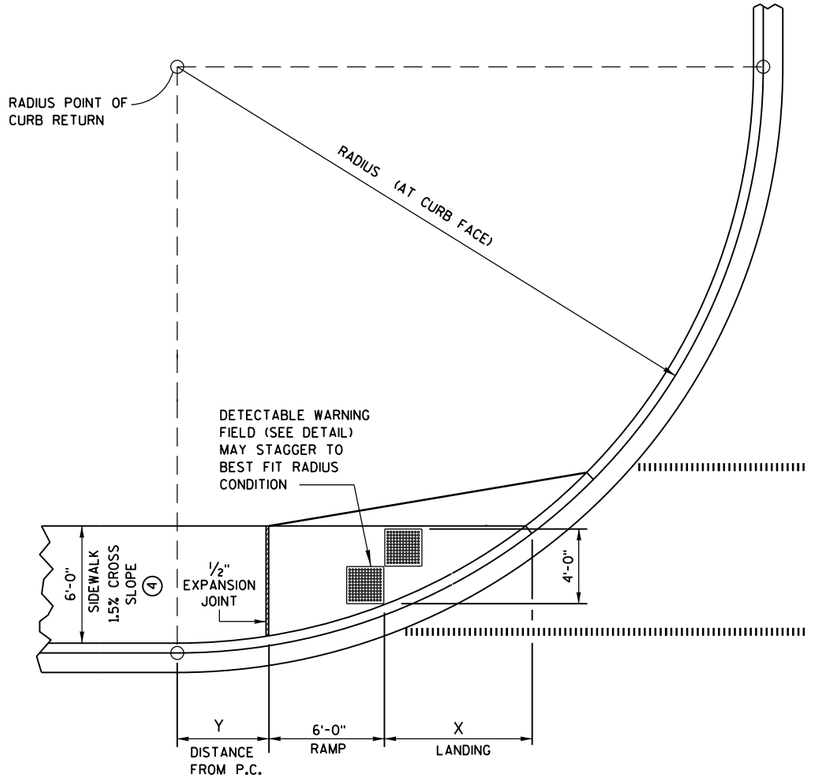
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

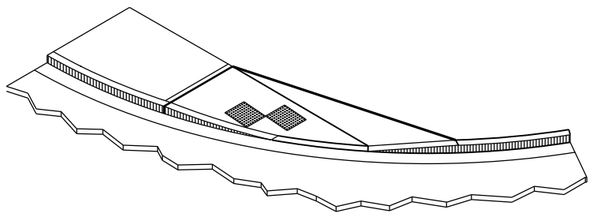
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

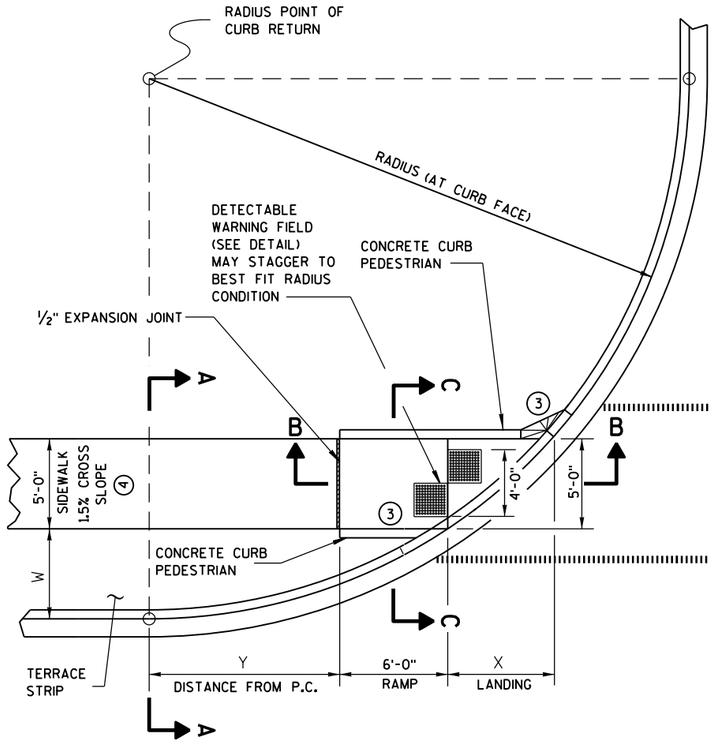
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



CURB RAMP TYPE 4B
PLAN VIEW

LEGEND

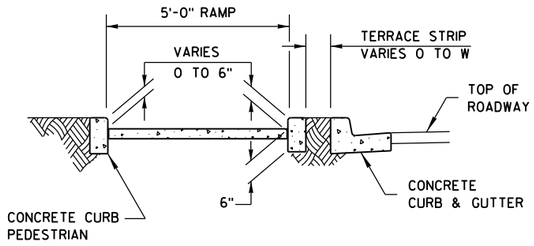
½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B

GENERAL NOTES

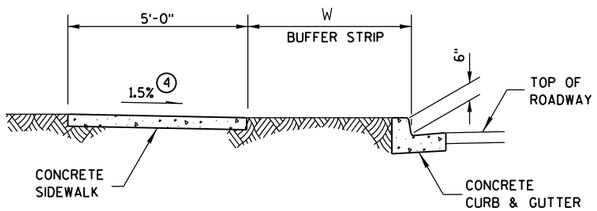
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

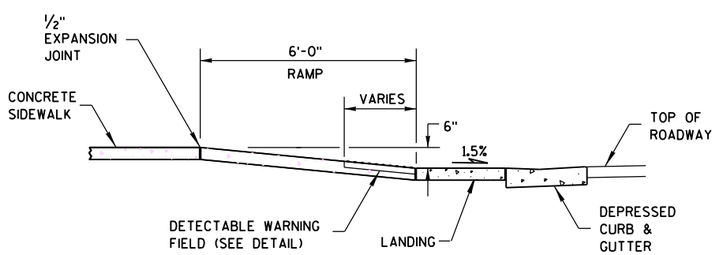
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

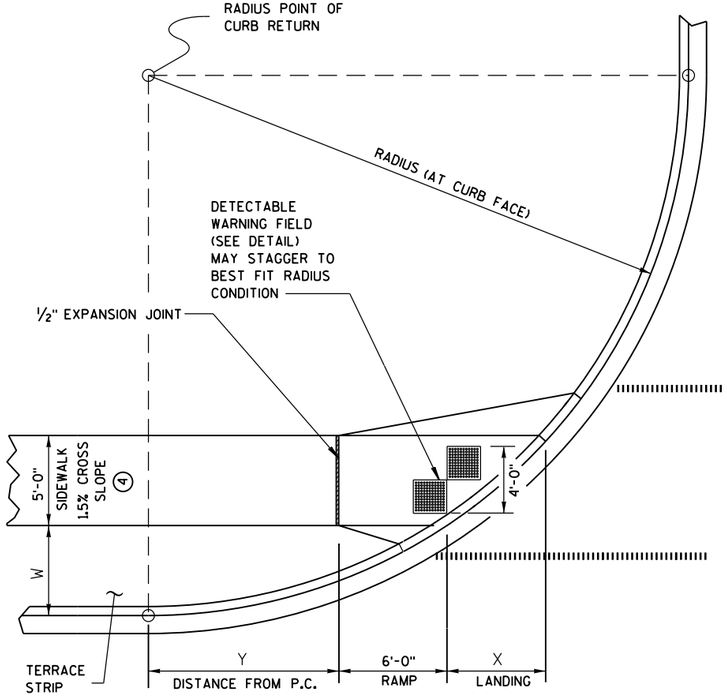
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



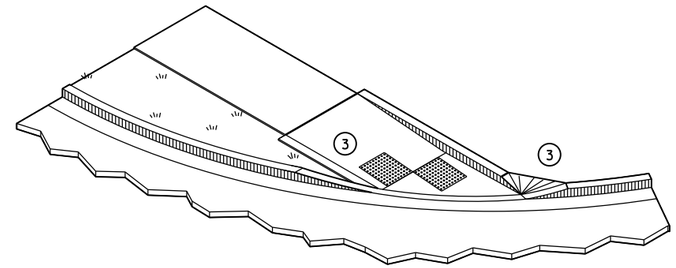
SECTION A-A FOR TYPE 4B



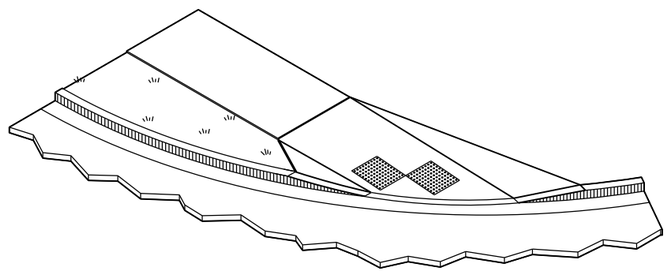
SECTION B-B FOR TYPE 4B



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



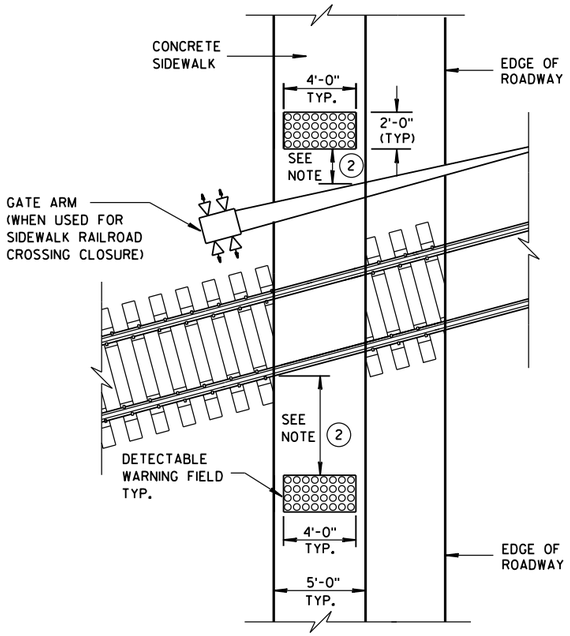
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

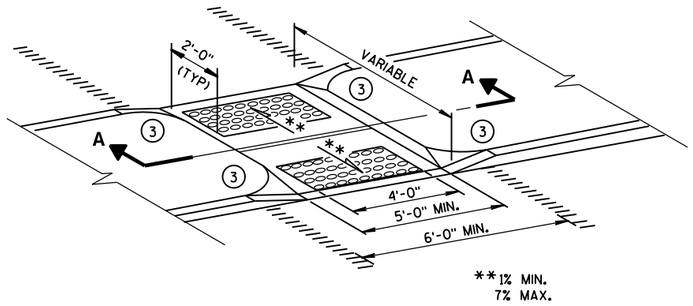
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

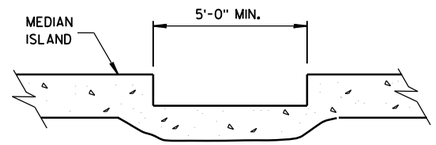
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

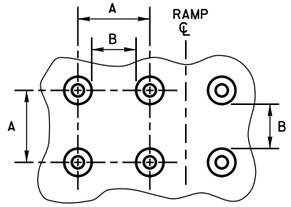
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET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

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

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



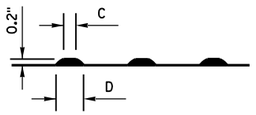
SECTION A-A



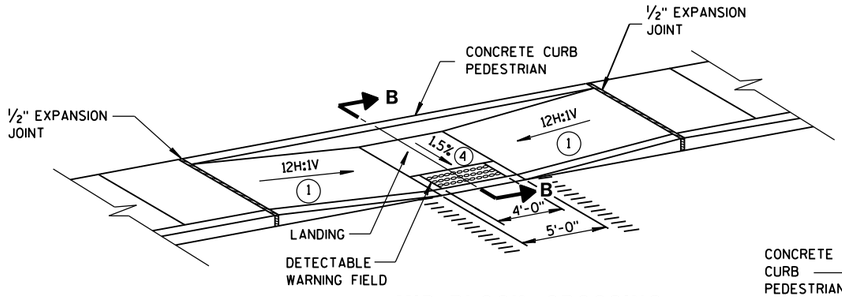
PLAN VIEW

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

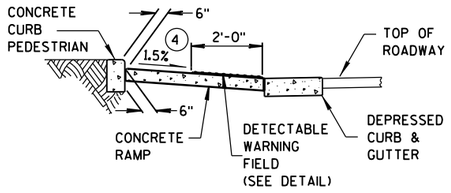
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

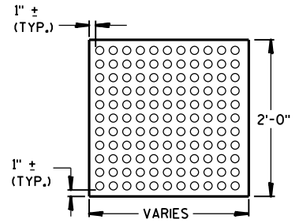


MID-BLOCK CROSSING
TYPE 7A



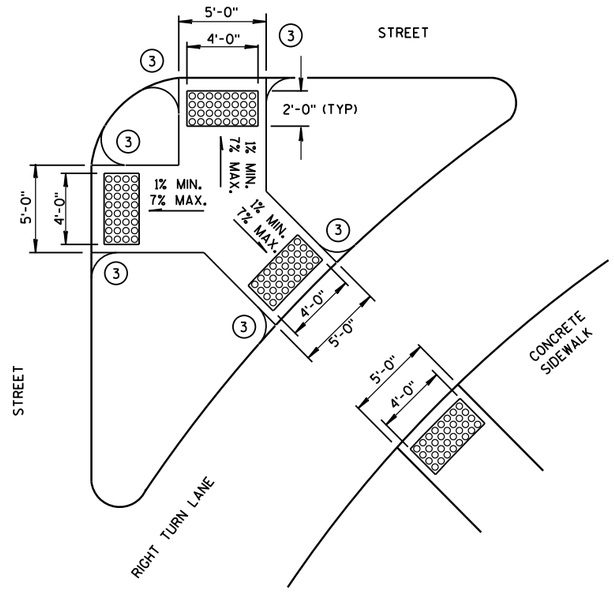
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

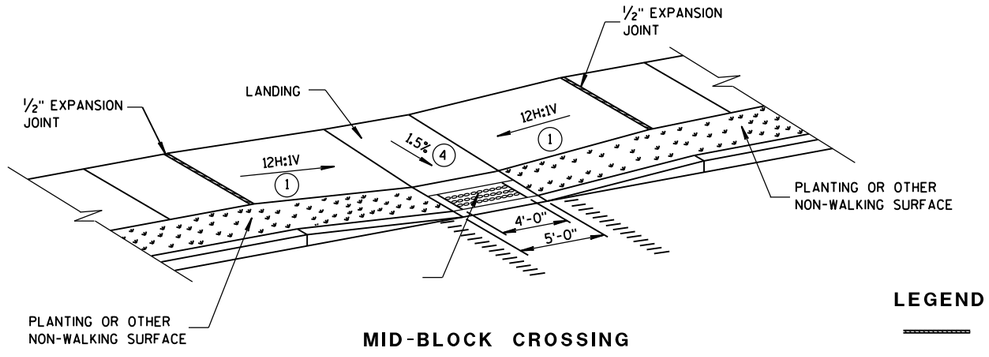


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

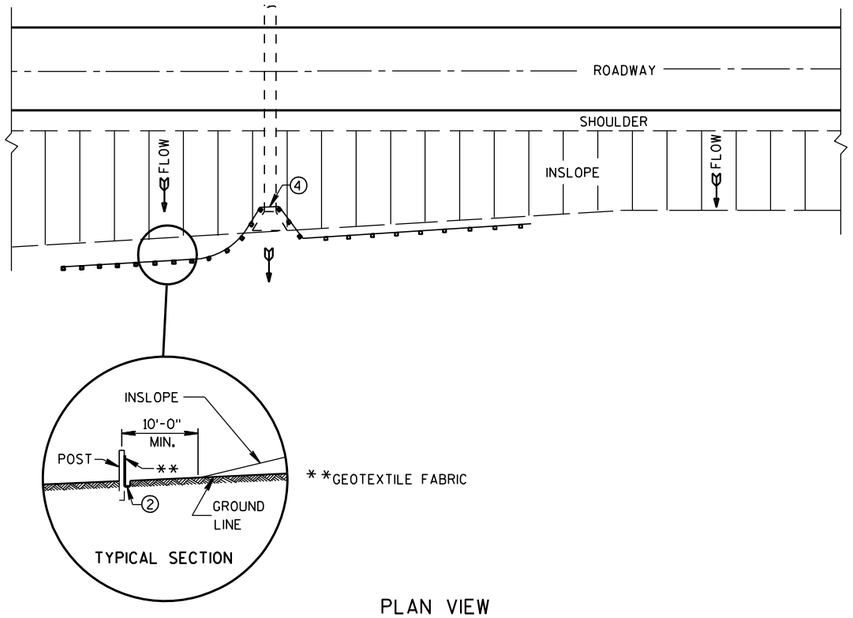
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

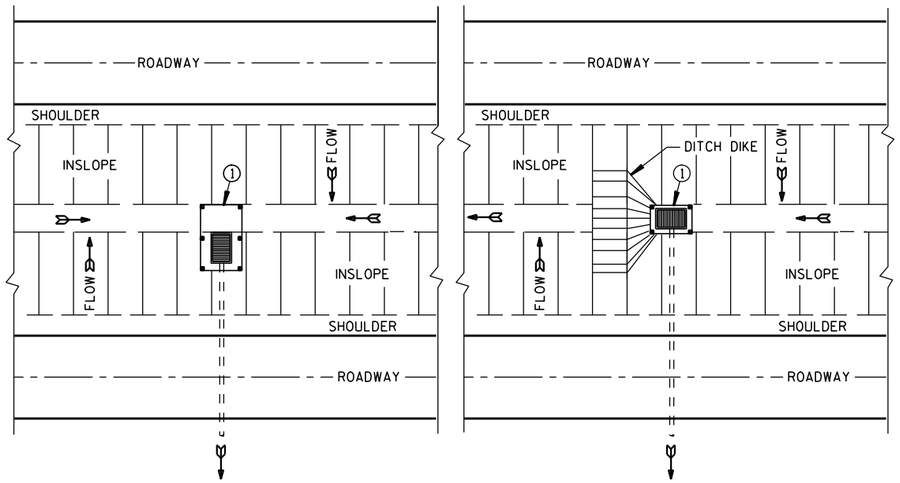
6

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



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



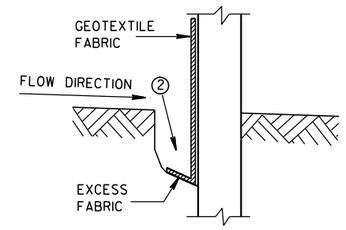
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

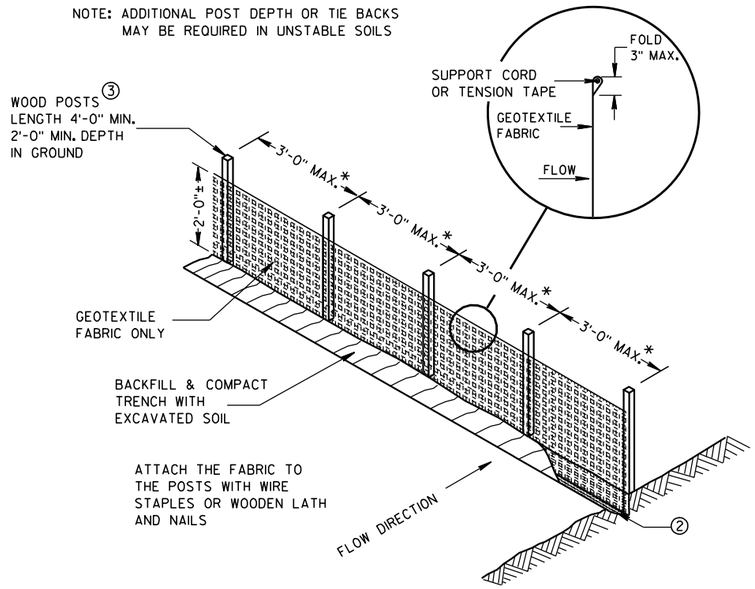
GENERAL NOTES

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.

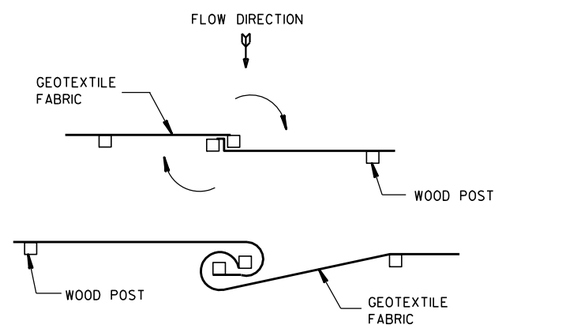


TRENCH DETAIL

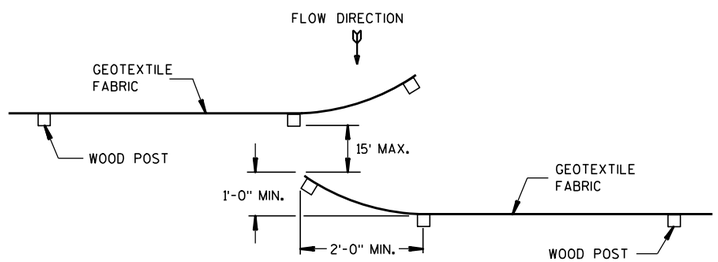


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

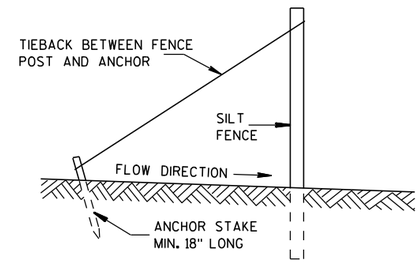


TWIST METHOD



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

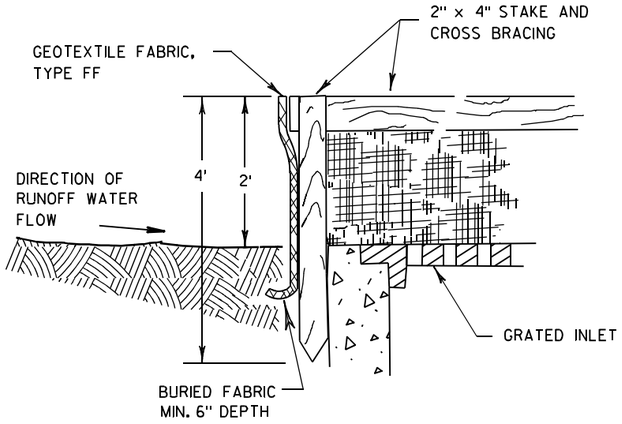
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

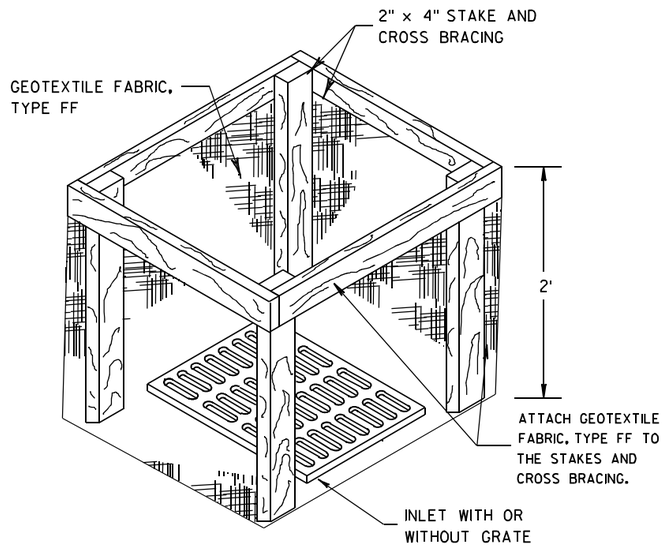
6

S.D.D. 8 E 9-6

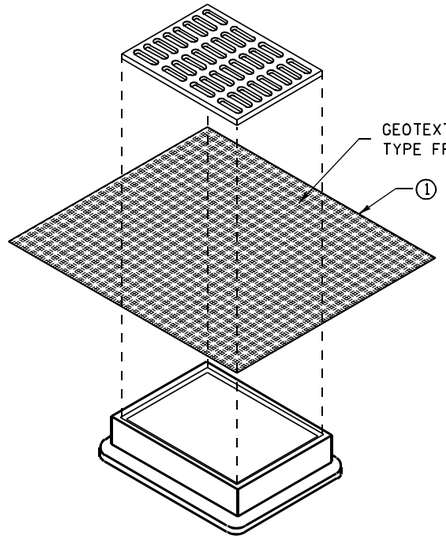
6

S.D.D. 8 E 9-6



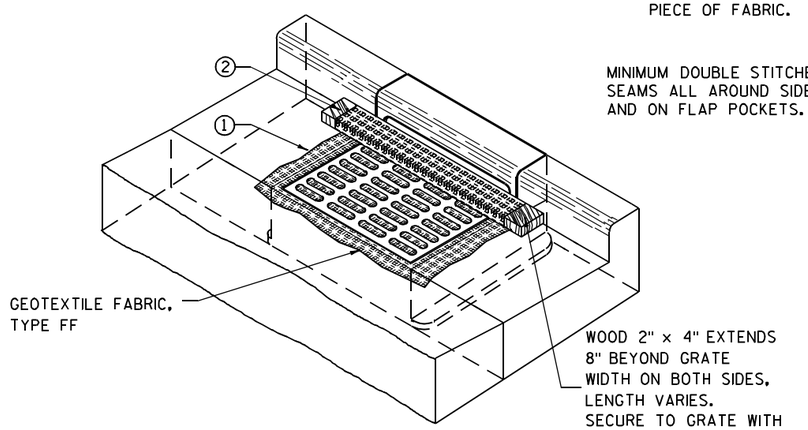


INLET PROTECTION, TYPE A

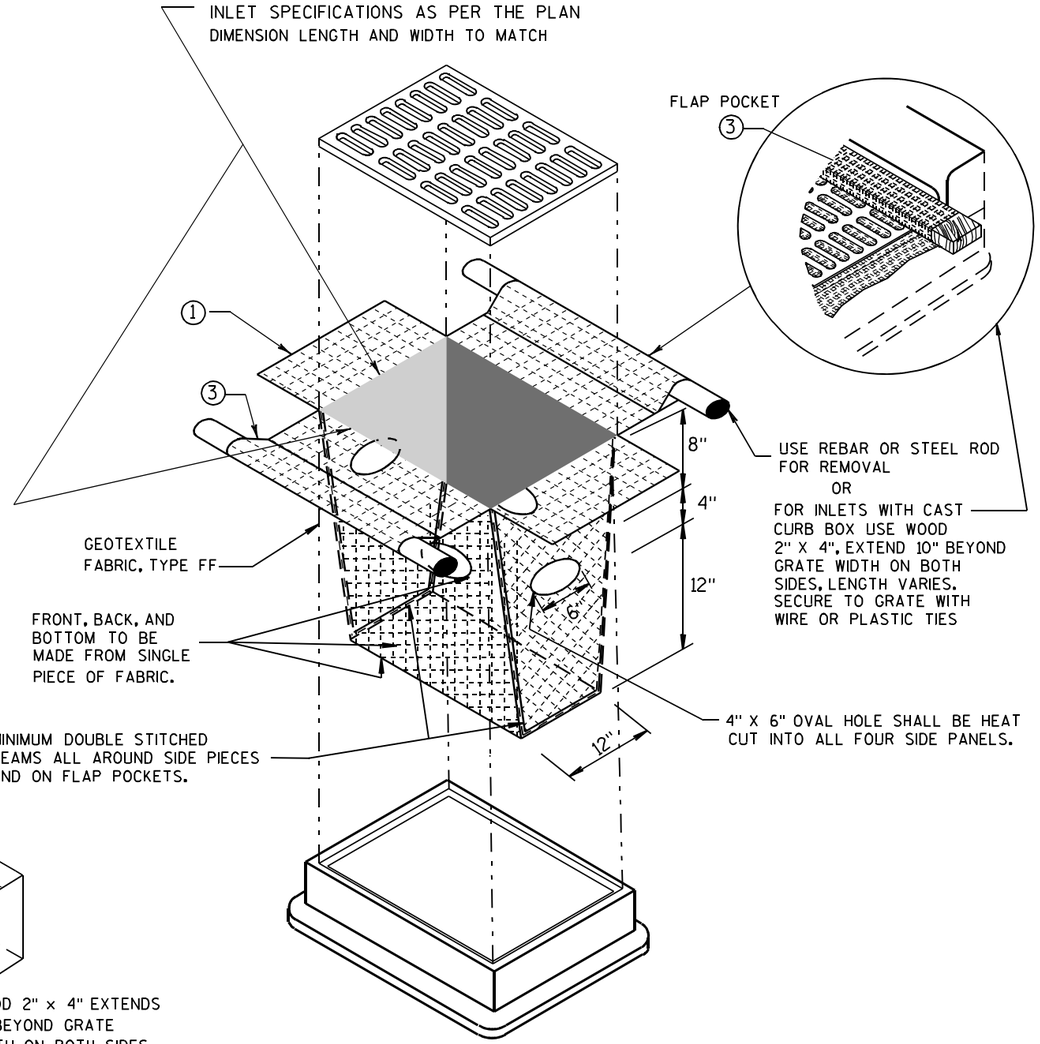


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2

METAL APRON ENDWALLS

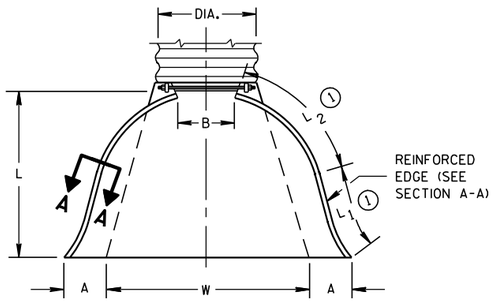
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

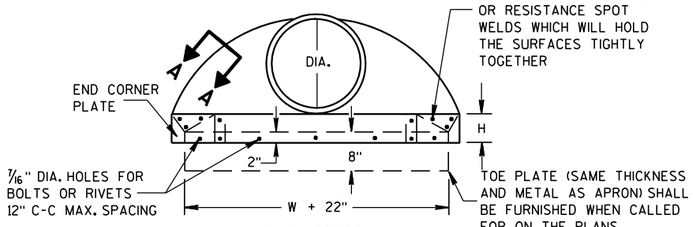
REINFORCED CONCRETE APRON ENDWALLS

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

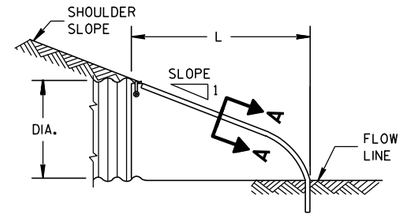
*MINIMUM
**MAXIMUM



PLAN VIEW

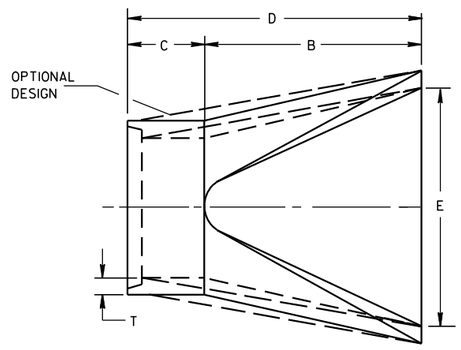


END VIEW

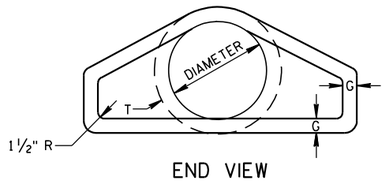


SIDE ELEVATION

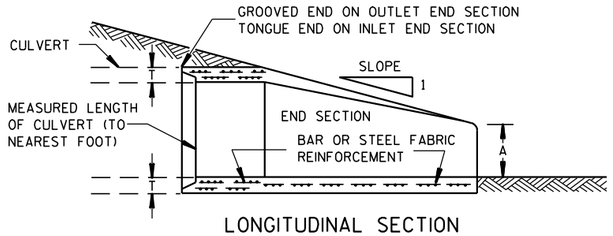
METAL ENDWALLS



PLAN

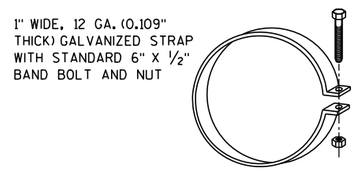


END VIEW



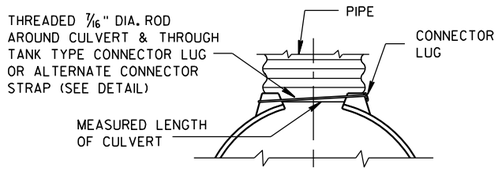
LONGITUDINAL SECTION

CONCRETE ENDWALLS

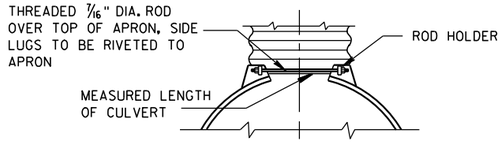


ALTERNATE FOR TYPE 1 CONNECTION

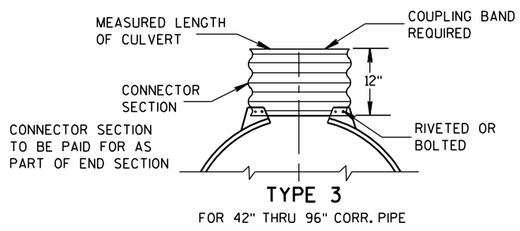
END SECTION CONNECTOR STRAP



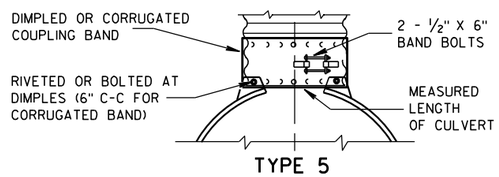
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

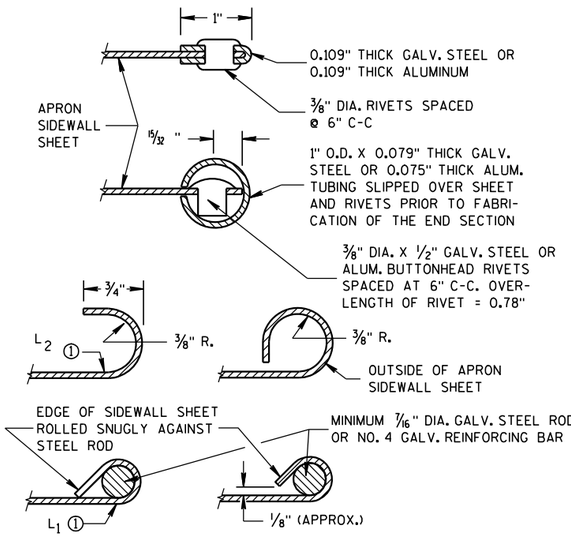
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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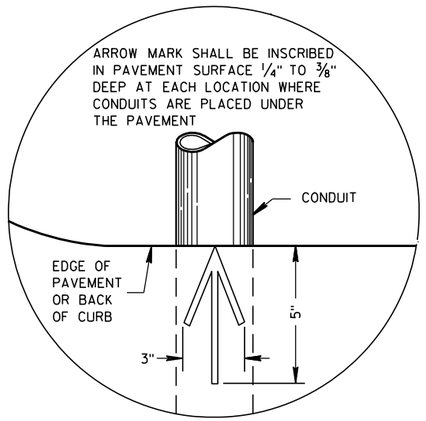
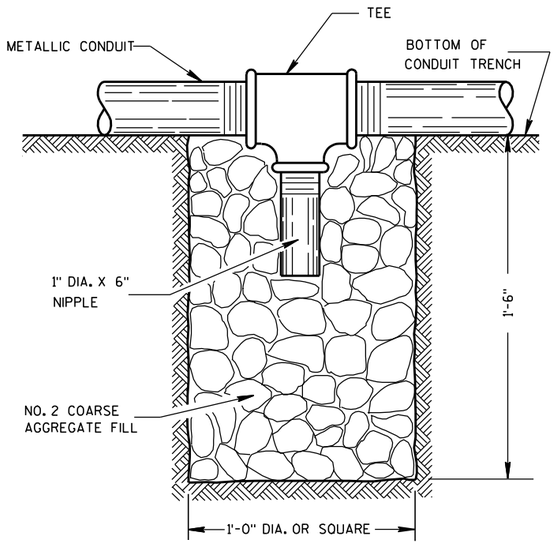
S.D.D. 8 F 1-11



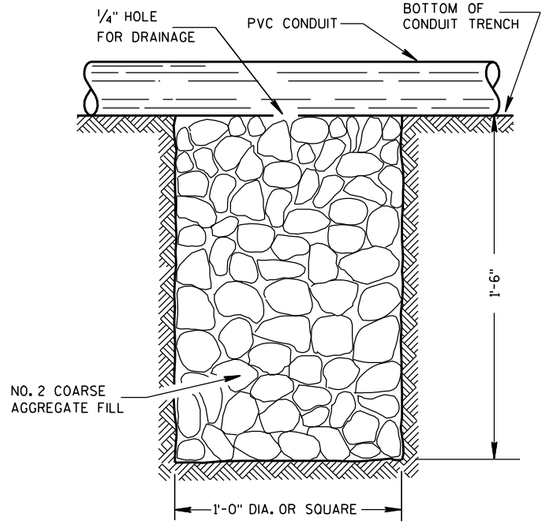
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

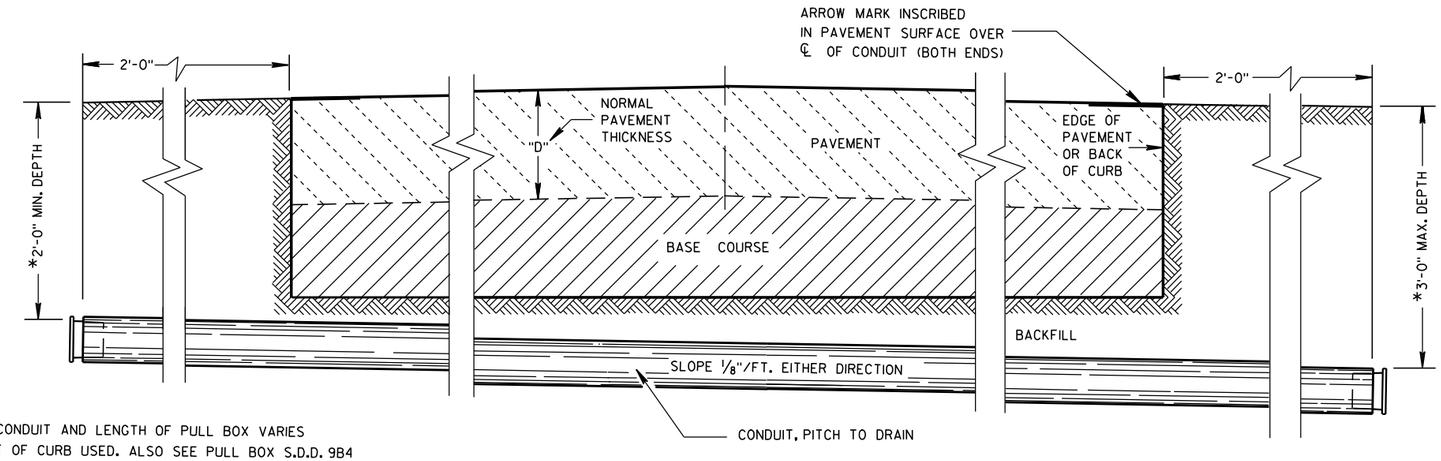
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

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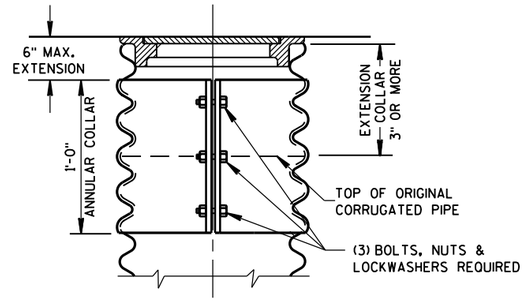
S.D.D. 9 B 2-7

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

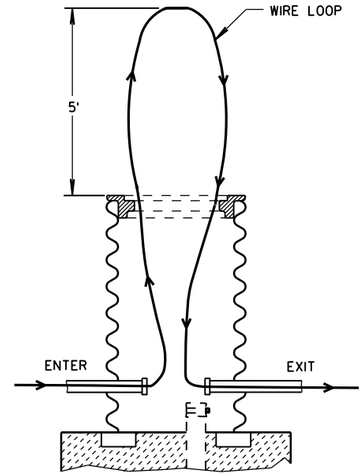
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

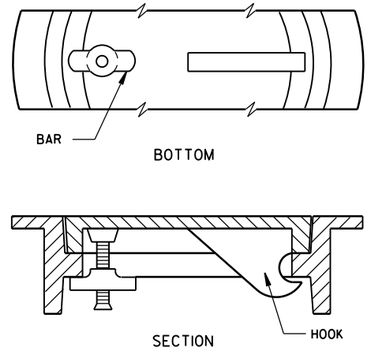
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

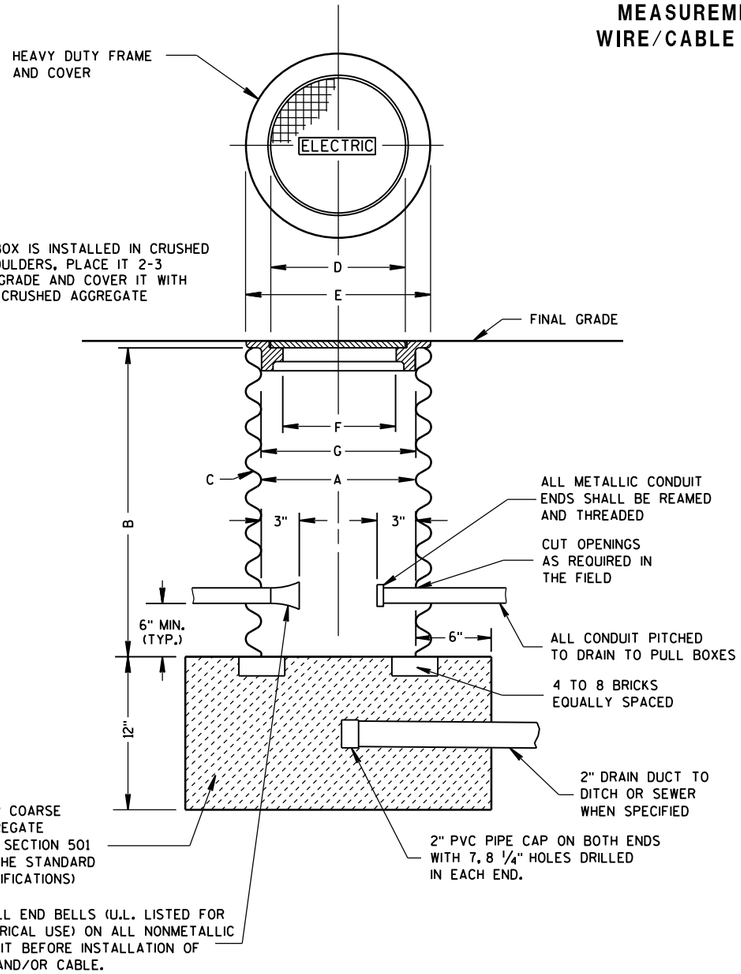


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



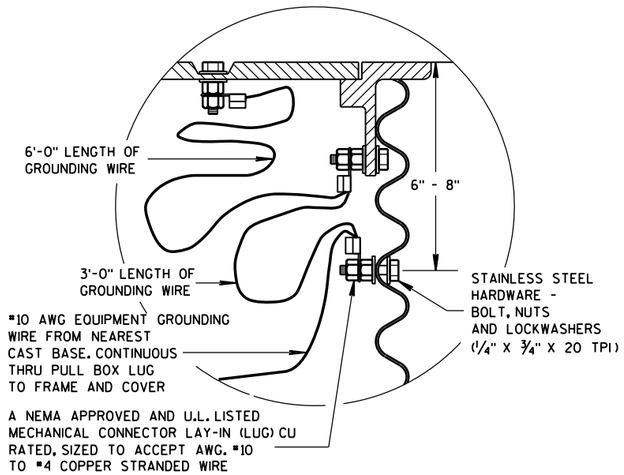
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

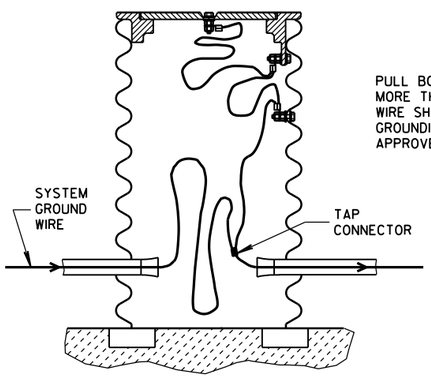


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-7-2013 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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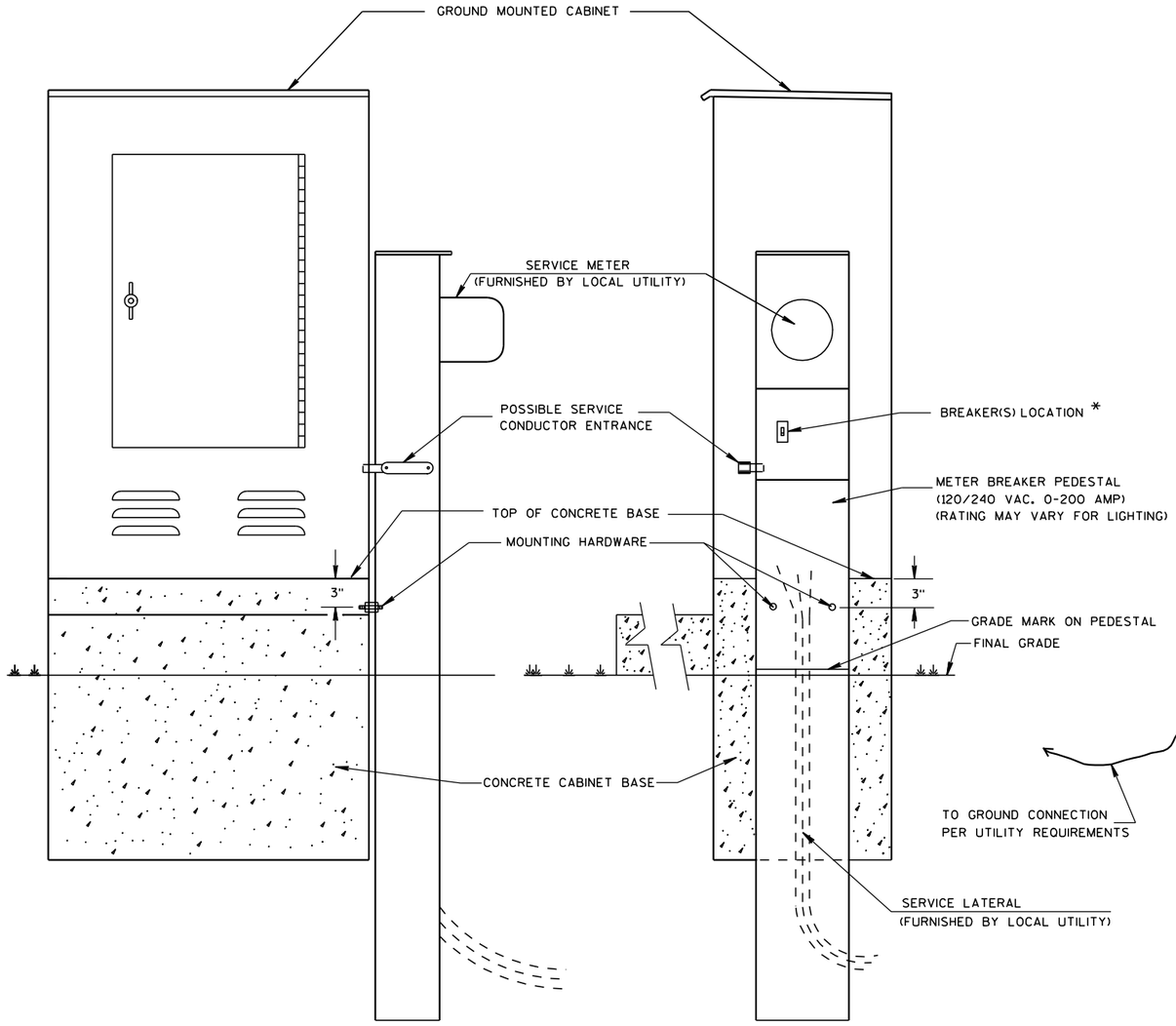

TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 DATE
/S/ Joanna L. Bush STATE ELECTRICAL ENGI
FHWA

HWYS

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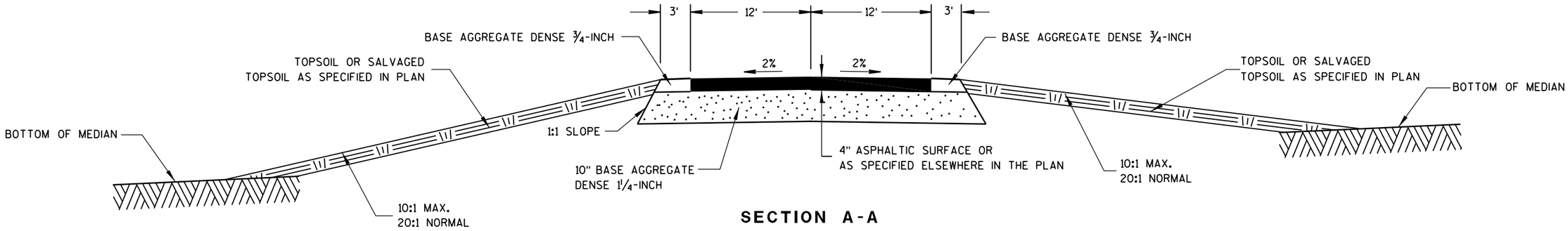
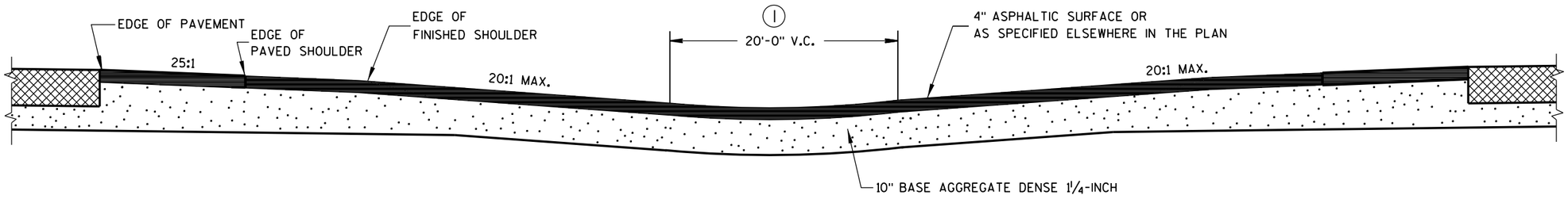
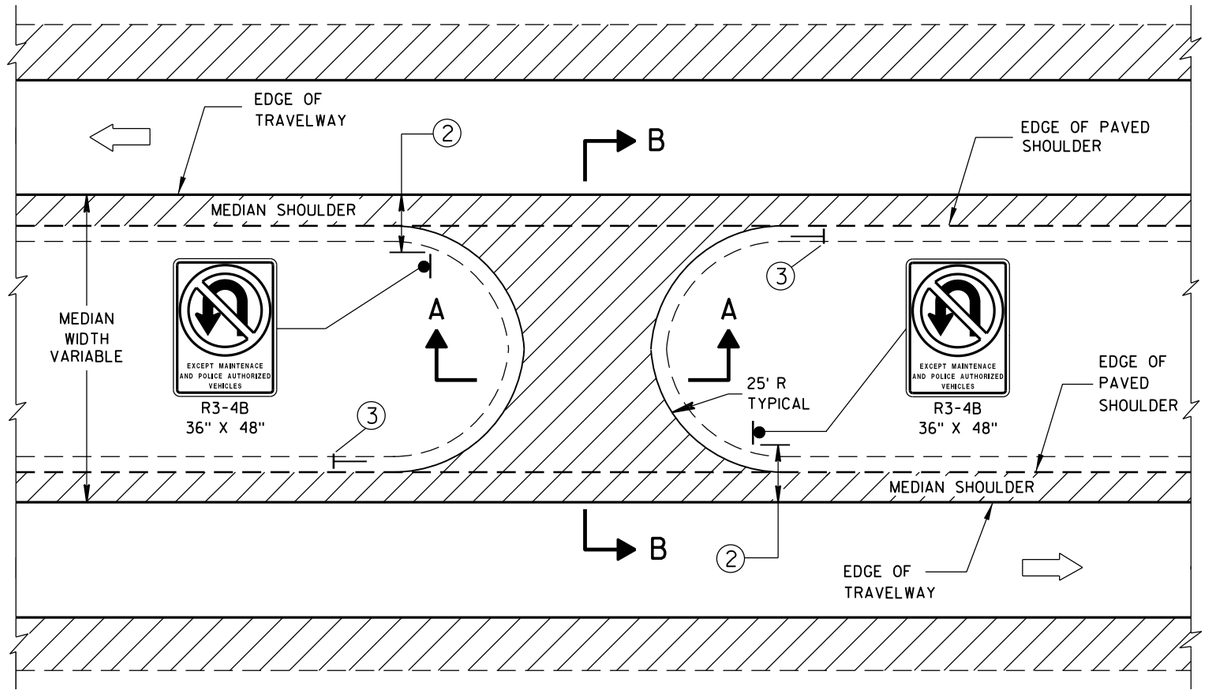


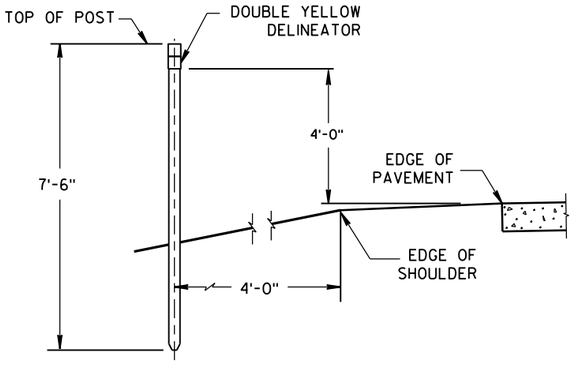
SECTION A-A



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

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S.D.D. 11 A 1-5

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S.D.D. 11 A 1-5

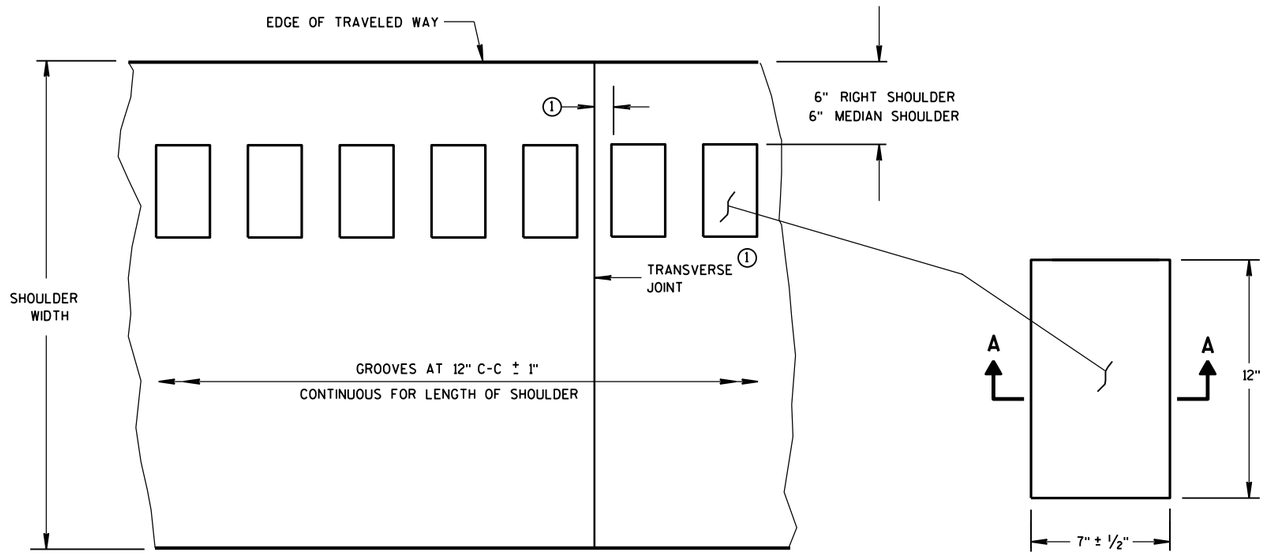
GENERAL NOTES

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.

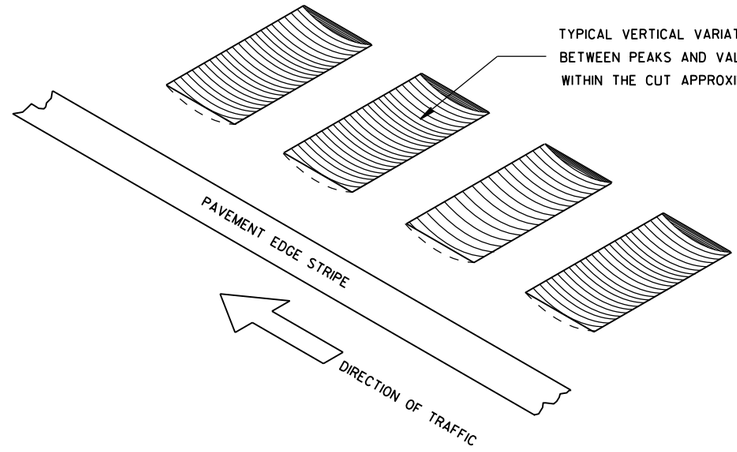
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



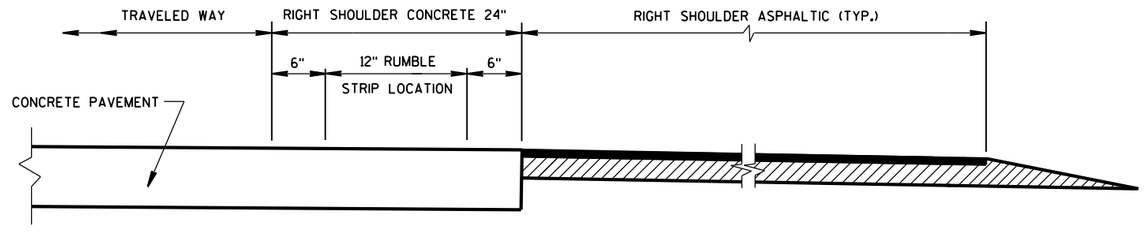
PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

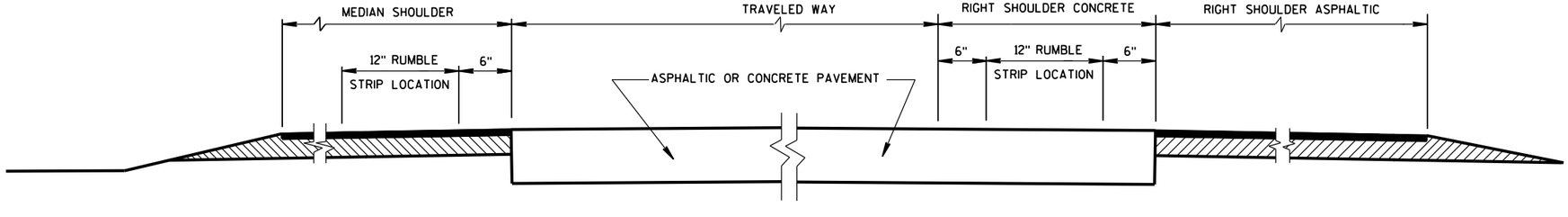
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



ISOMETRIC

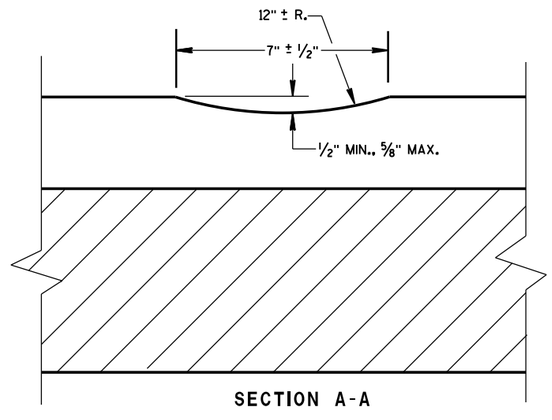


SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



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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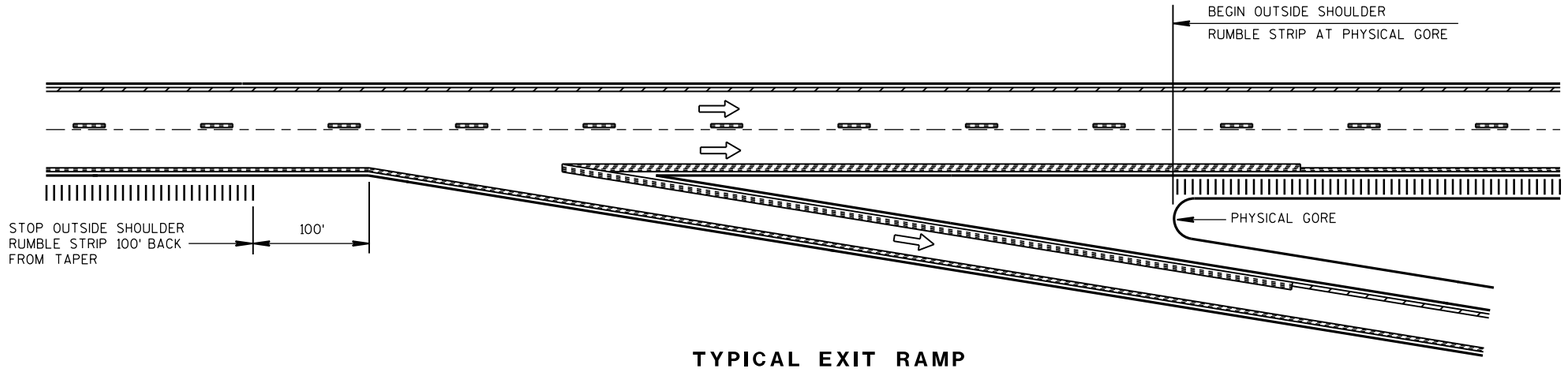
S.D.D. 13 A 5-5a



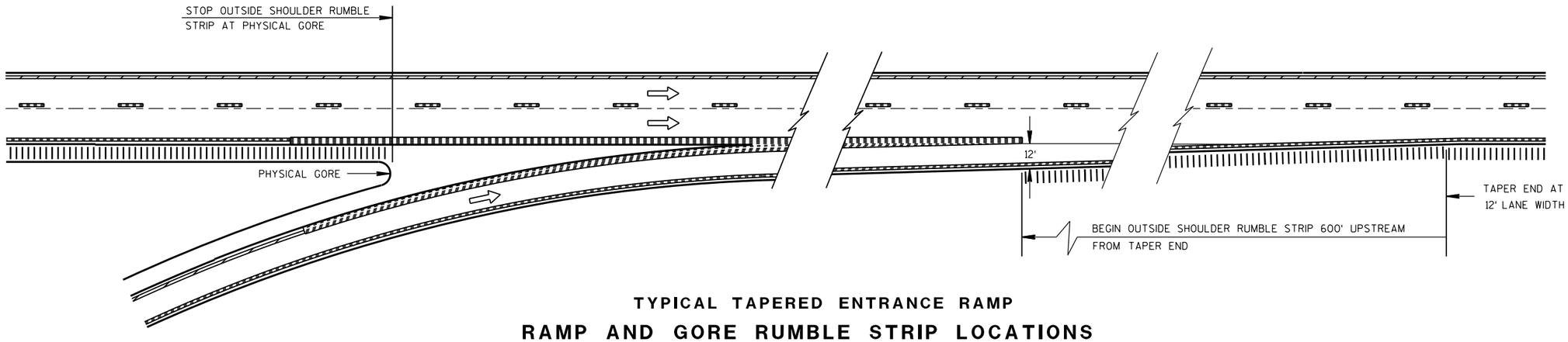
TYPICAL EXIT RAMP

NOTES:

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

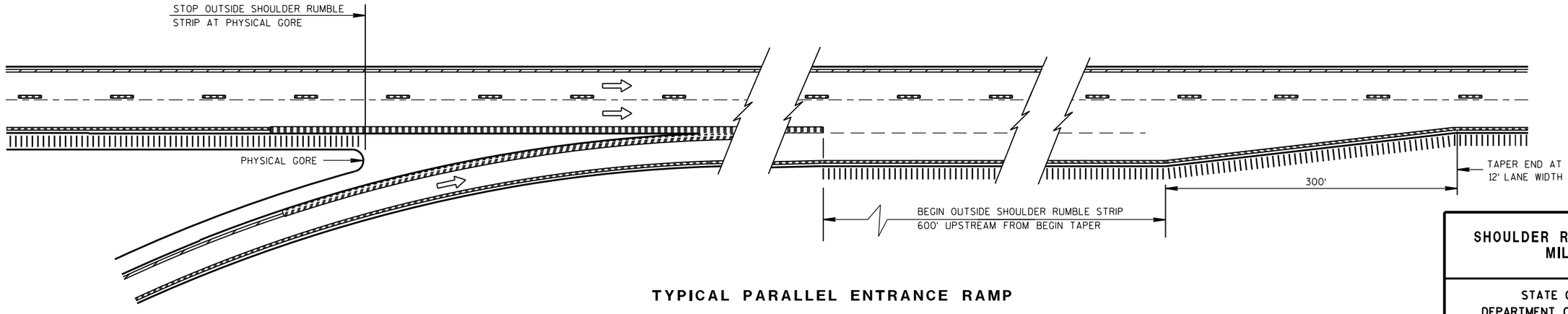
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

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

6

S.D.D. 13 A 5-5b

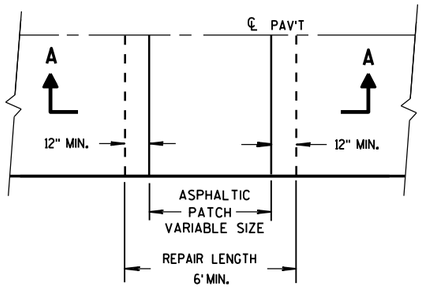
GENERAL NOTES

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

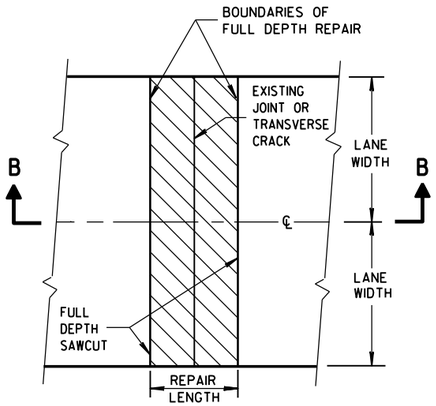
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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

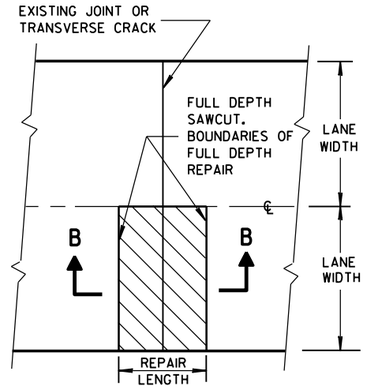
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



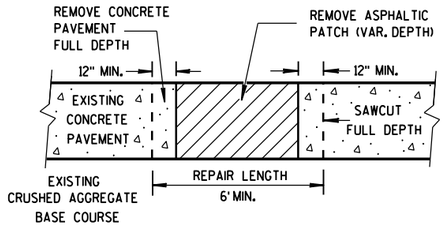
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

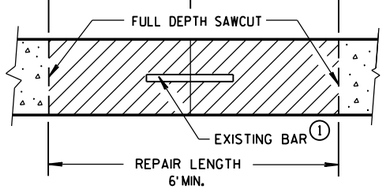
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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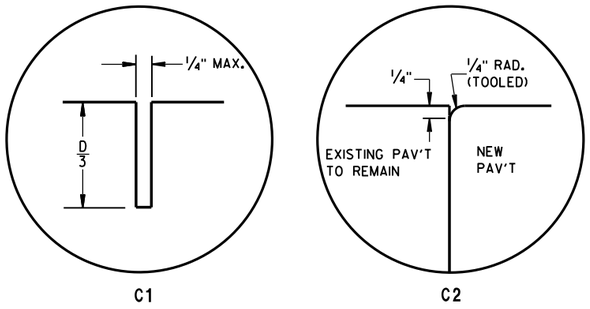
S.D.D. 13 C 9-11a

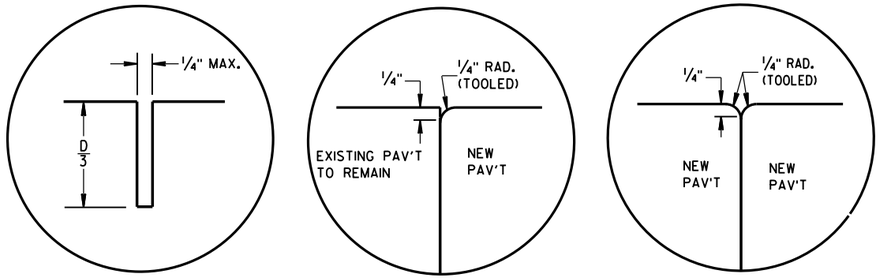


C1 C2

TRANSVERSE JOINTS

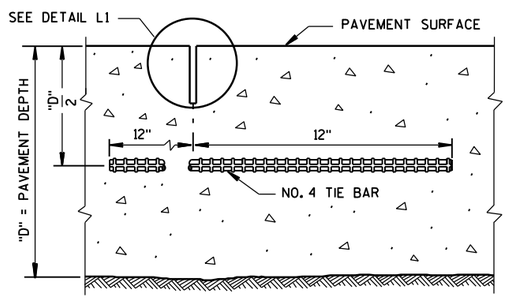
TIE BAR TABLE

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"



L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

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

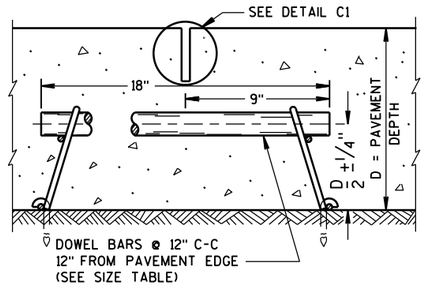
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

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

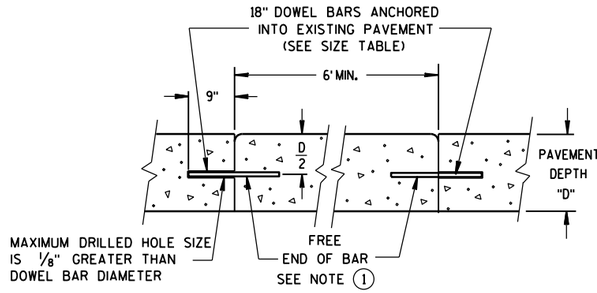
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

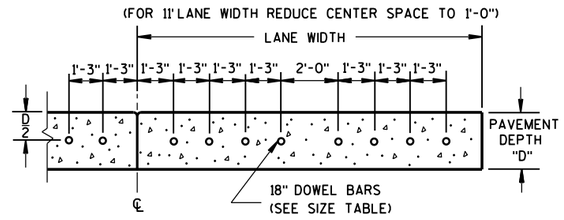


SECTION F-F

CONTRACTION JOINT



SECTION D-D

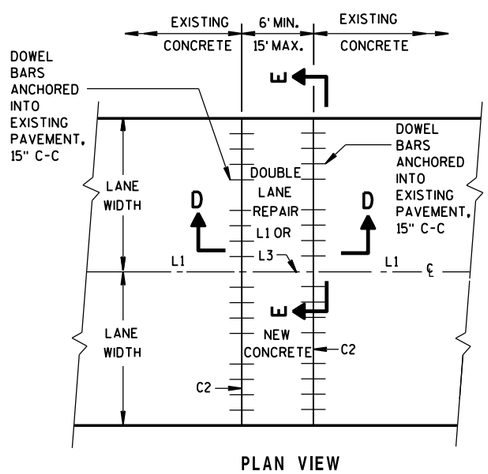


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

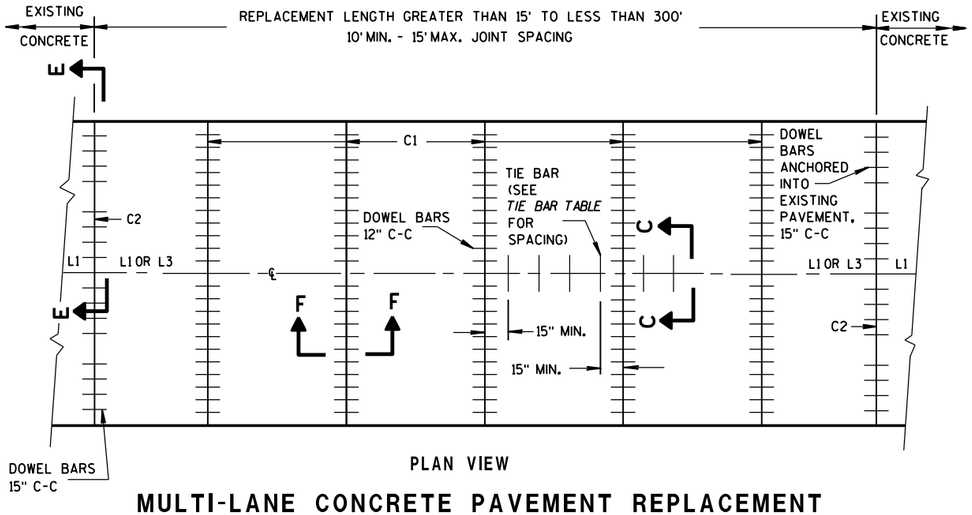
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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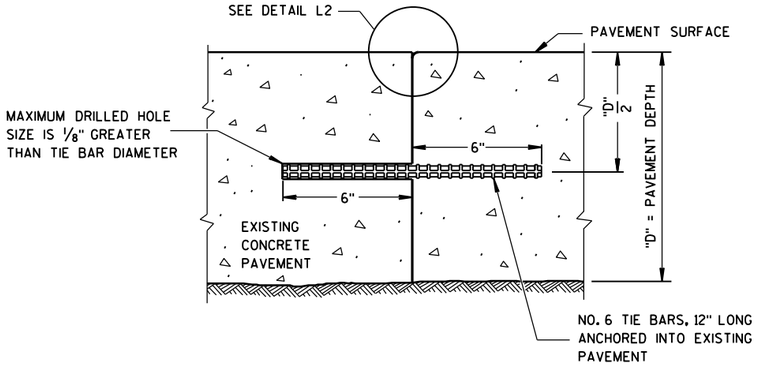
S.D.D. 13 C 9-11b



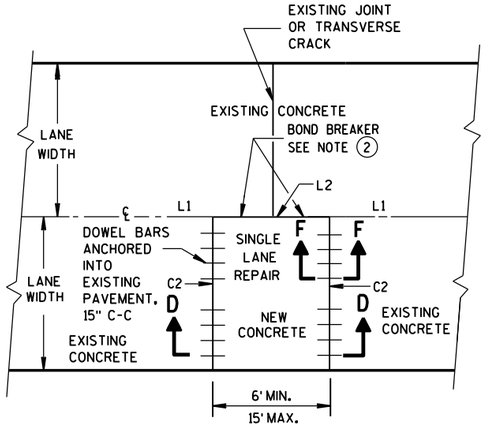
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

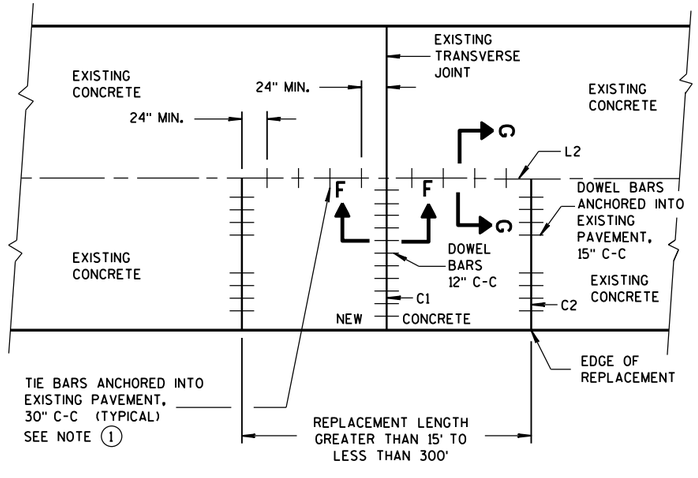
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12-2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE: IEER
FHWA

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S.D.D. 13 C 9-11c

GENERAL NOTES

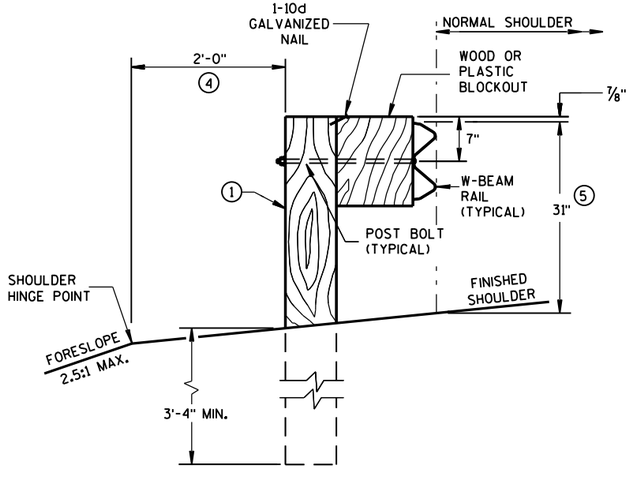
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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

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

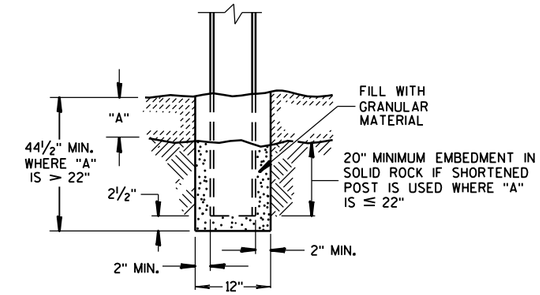
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

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



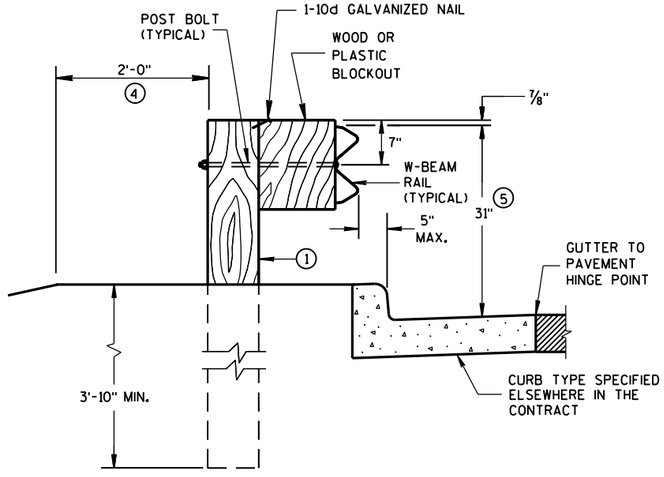
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



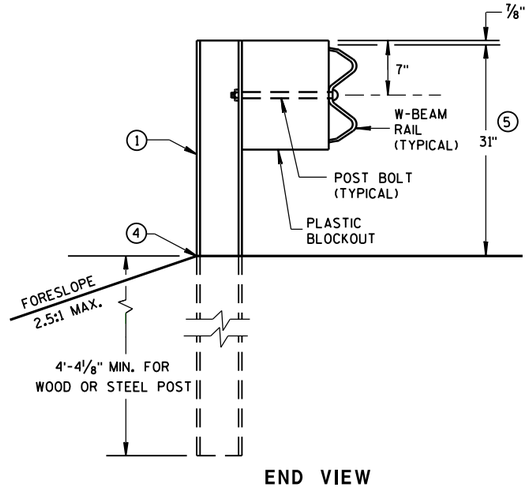
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



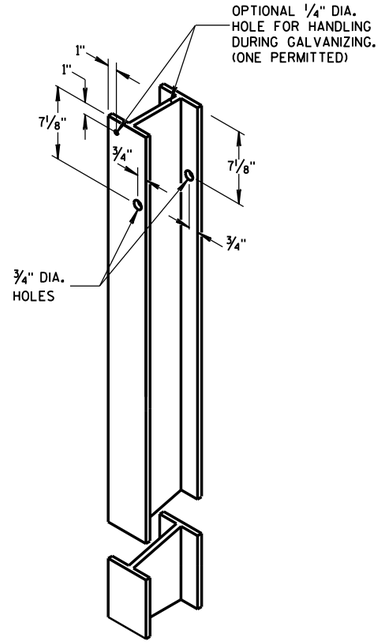
END VIEW

LOCATED ALONG A CURBED ROADWAY

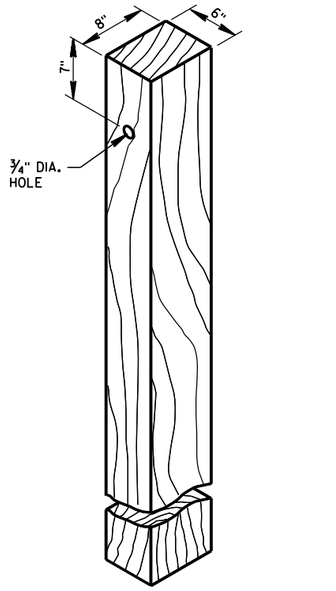


END VIEW

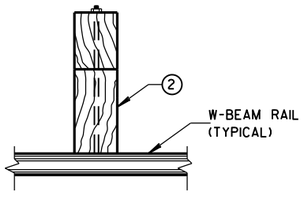
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



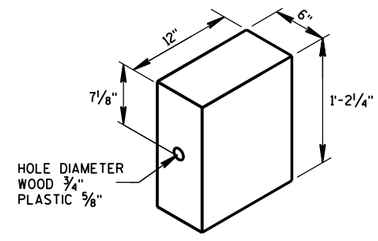
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



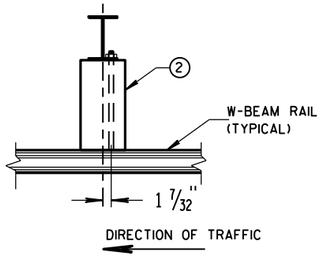
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

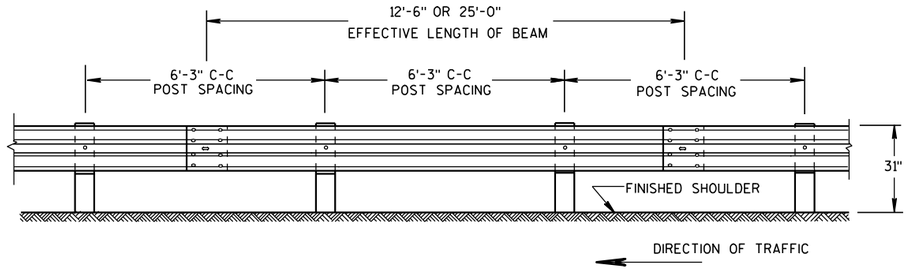


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

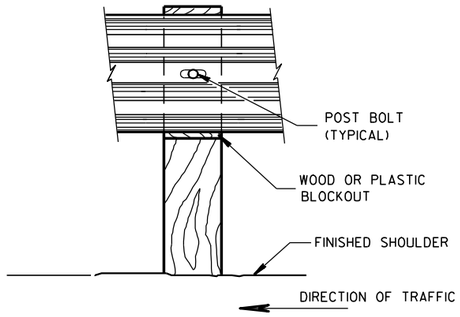
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



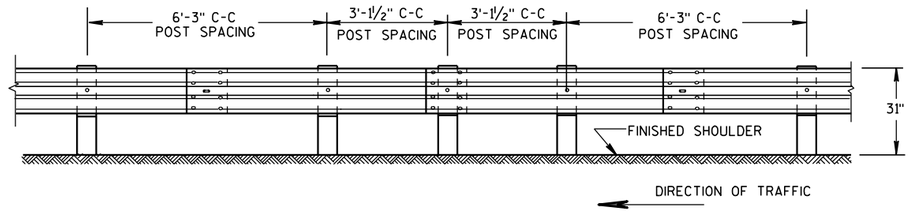
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

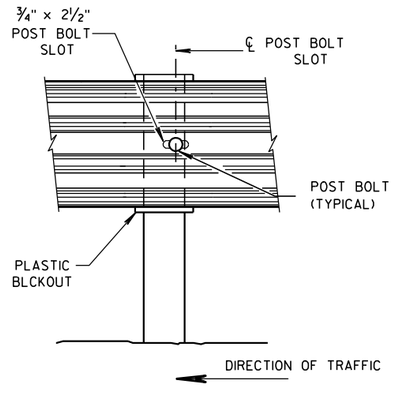
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

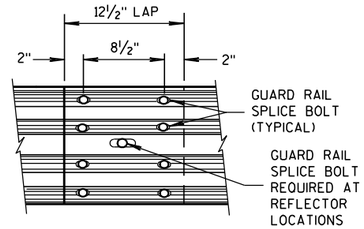


FRONT VIEW

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

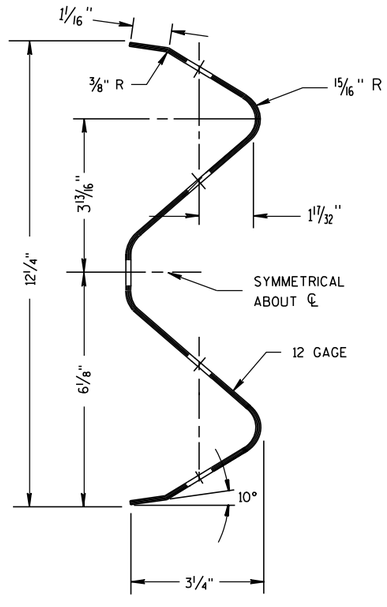


FRONT VIEW AT STEEL POST

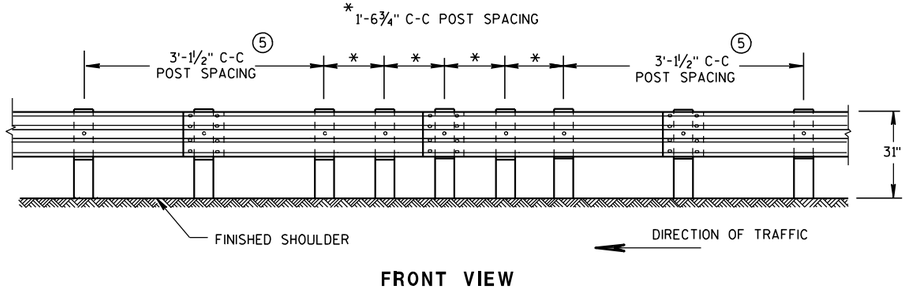


FRONT VIEW

MID-SPAN BEAM SPLICE

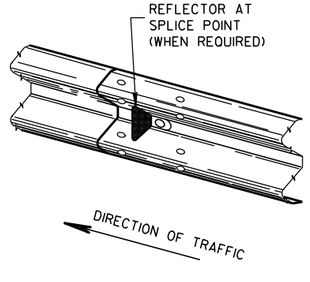


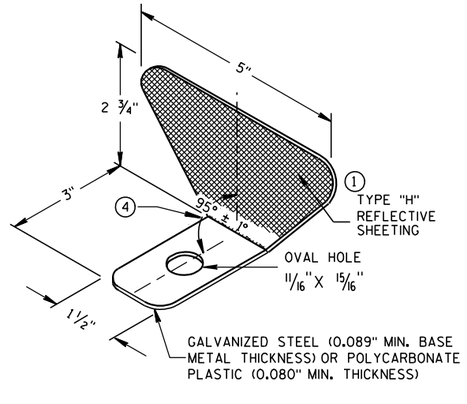
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

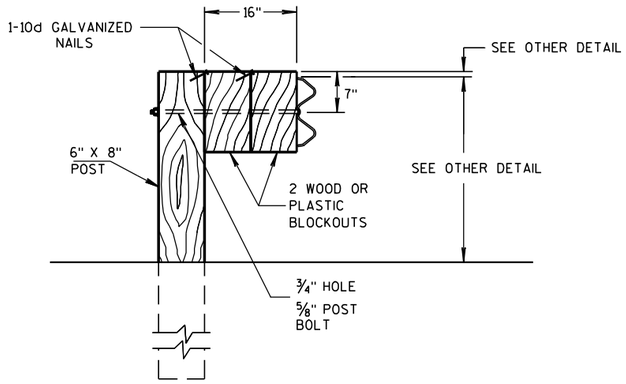
REFLECTOR SPACING ②

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	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 ④	3
	> 200'	100' C-C	2	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

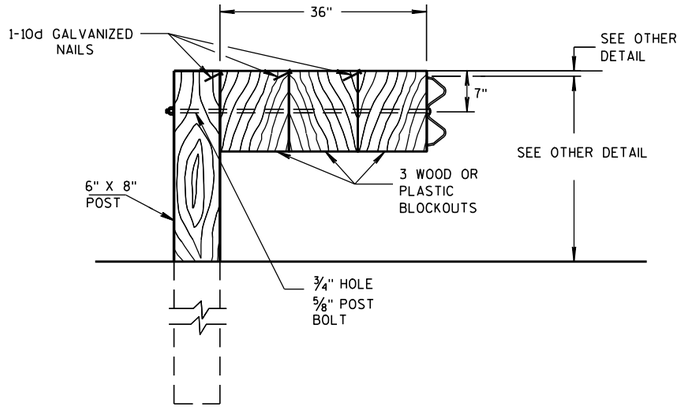
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
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.

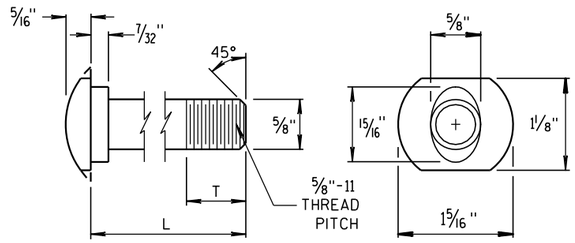


DETAIL FOR 36" BLOCKOUT DEPTH

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.

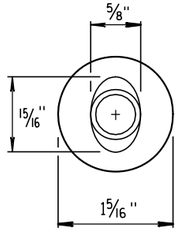
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

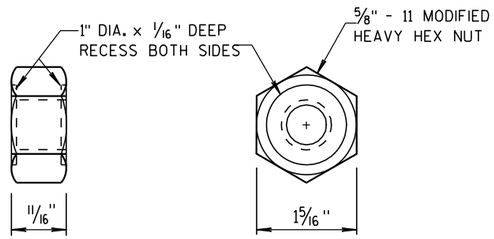


POST BOLT TABLE

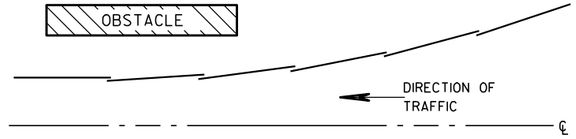
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

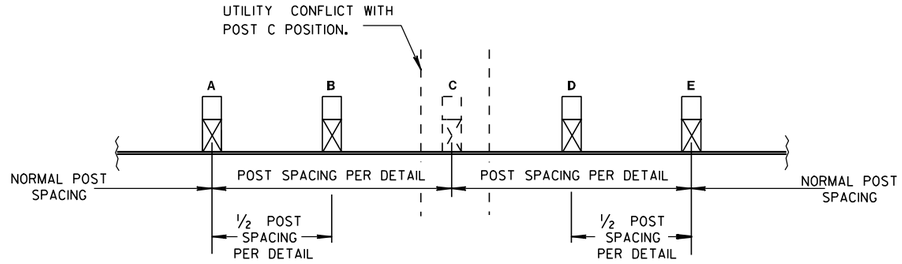


POST BOLT AND RECESS NUT

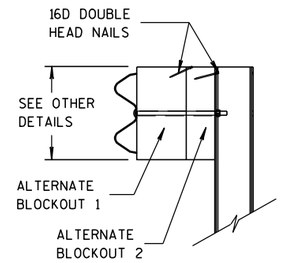


PLAN VIEW

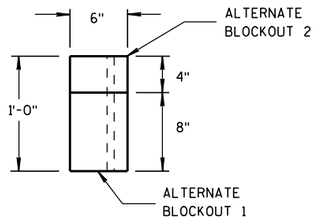
BEAM LAPPING DETAIL



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

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.

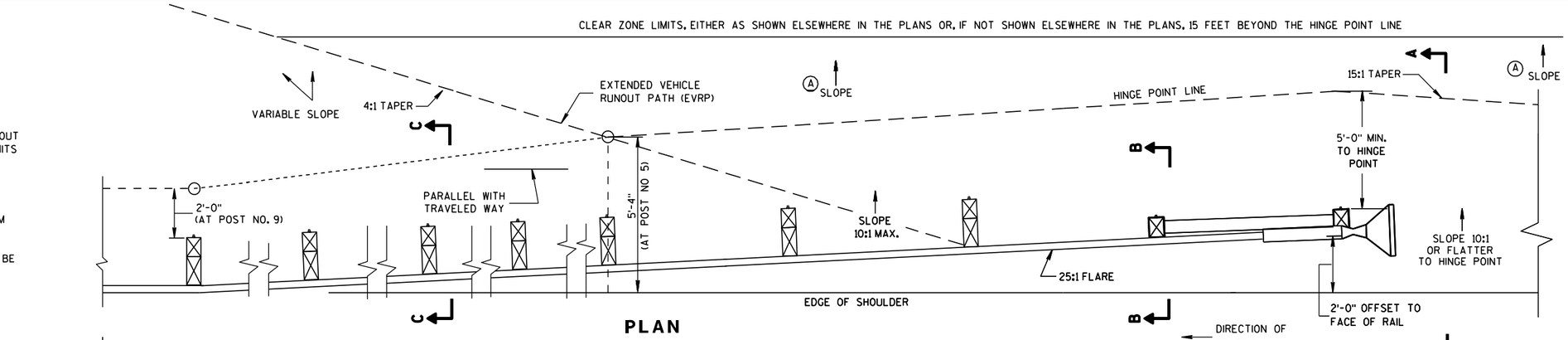
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

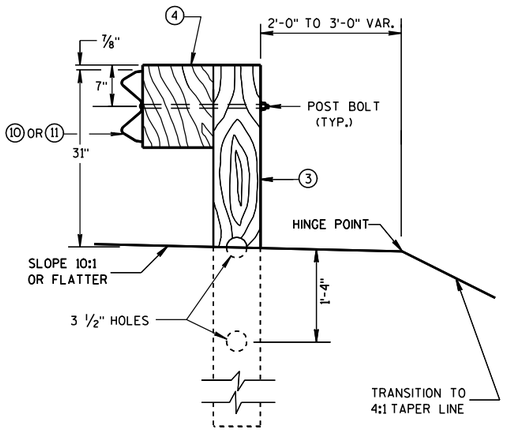
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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.

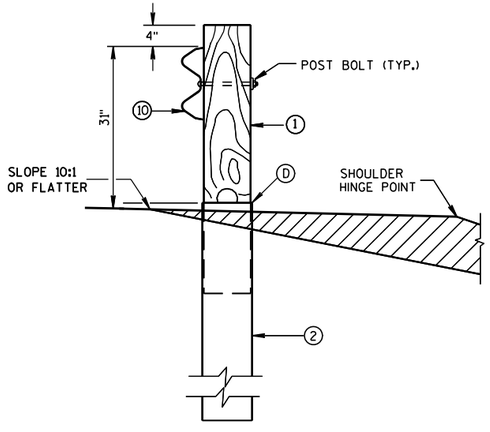
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

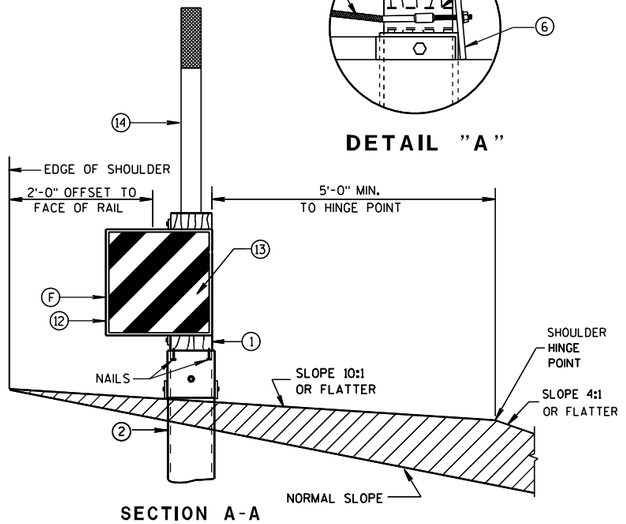




SECTION C-C
TYPICAL AT POST NOS. 3-9

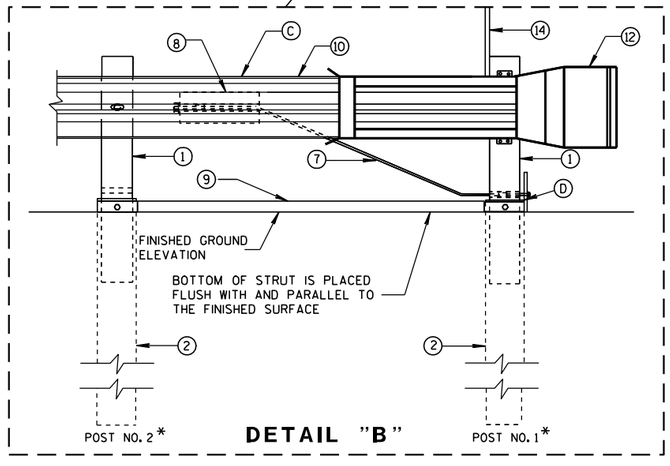


SECTION B-B
TYPICAL AT POST NO. 2*



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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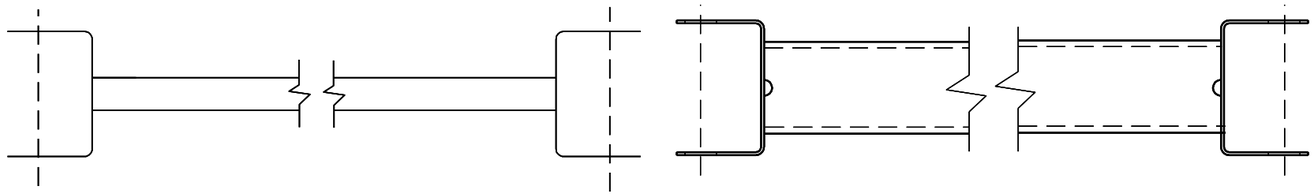
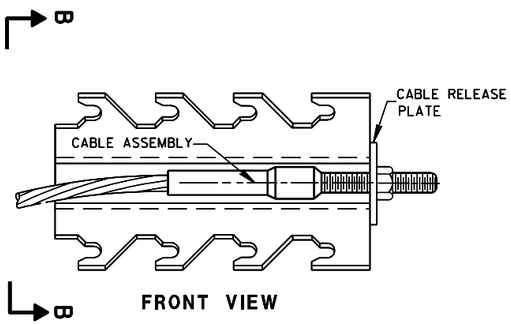


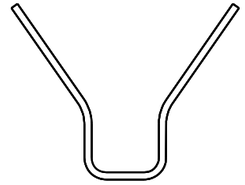
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

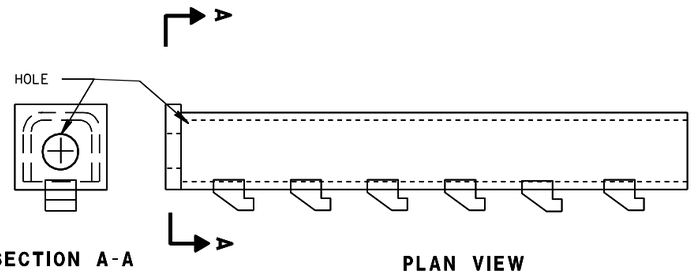
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR 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



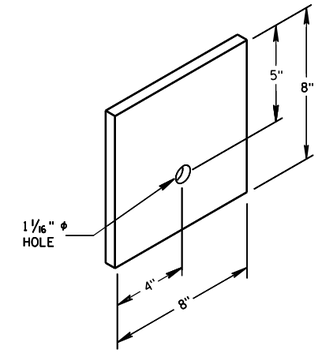
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



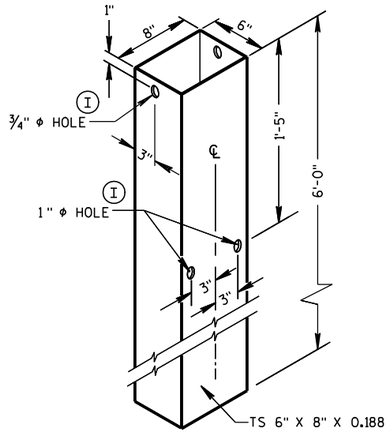
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

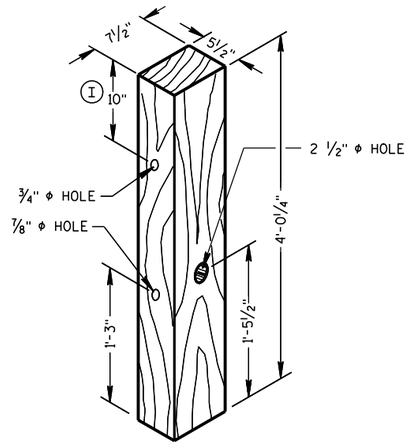
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

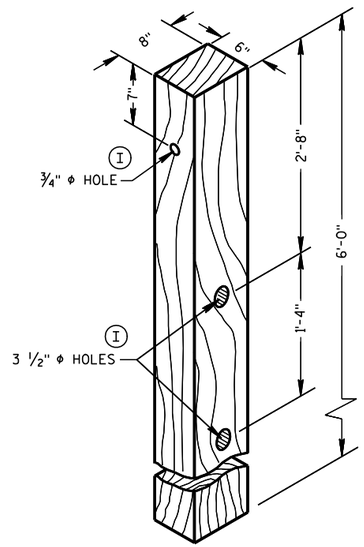


FOUNDATION TUBE (2)



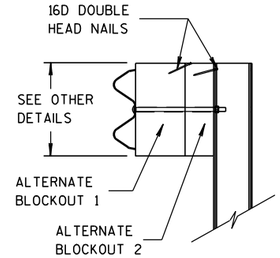
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

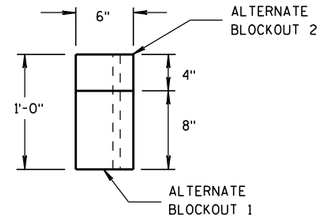


POSTS NUMBER 3-9

WOOD CRT POST (3)

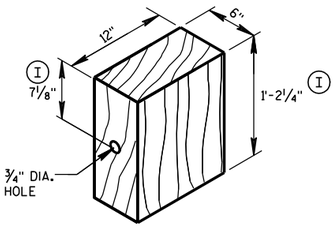


SIDE VIEW



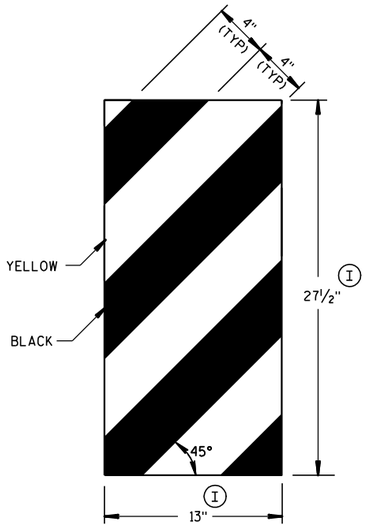
TOP VIEW

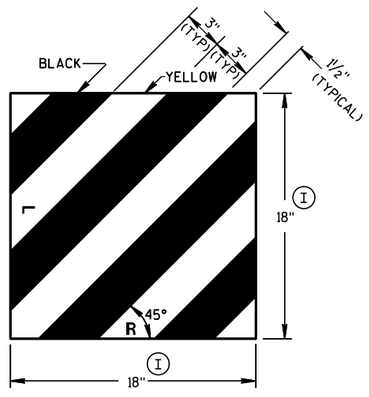
ALTERNATE WOOD BLOCKOUT DETAIL



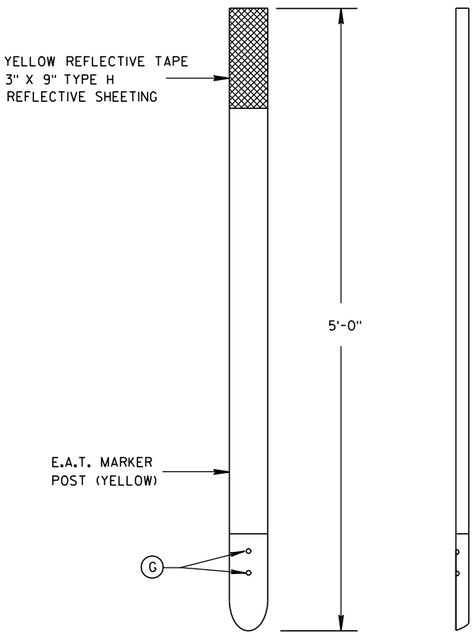
WOOD BLOCKOUT (4)

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





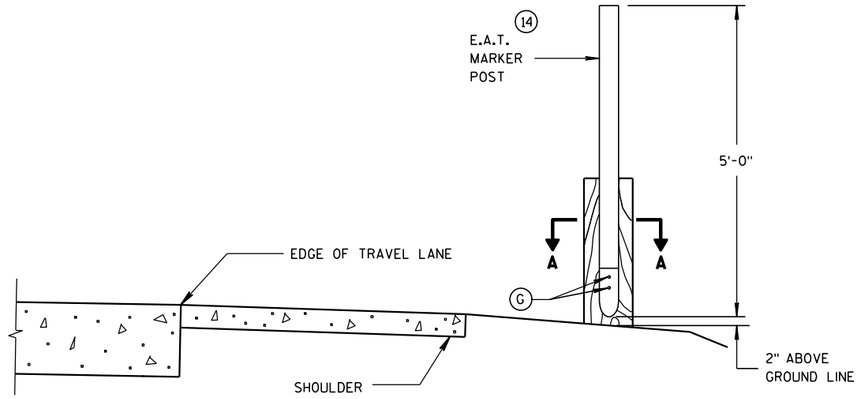
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

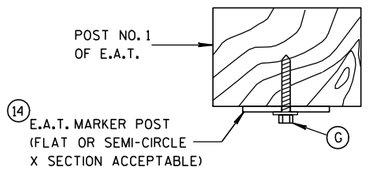
SIDE VIEW

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

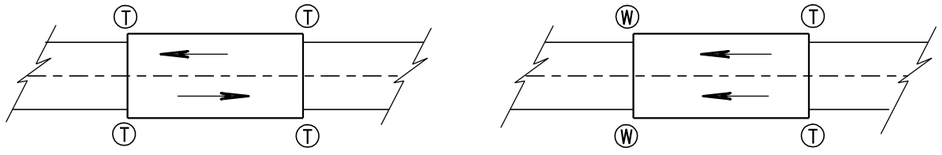
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

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

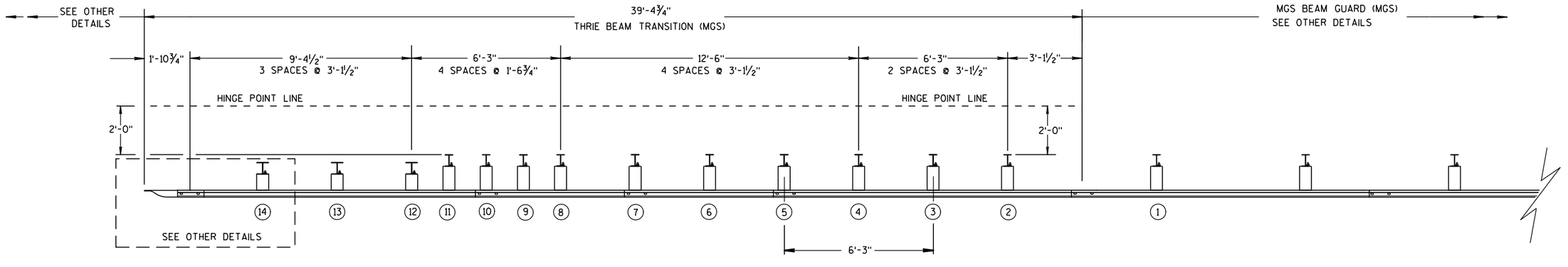
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

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

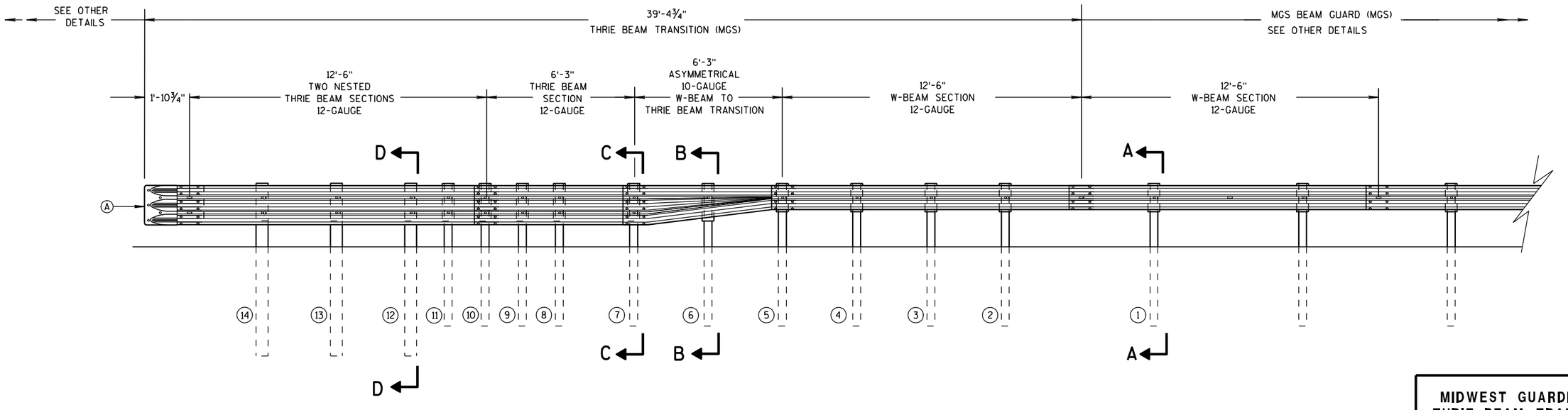
TRANSITION USES STEEL POSTS ONLY.

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

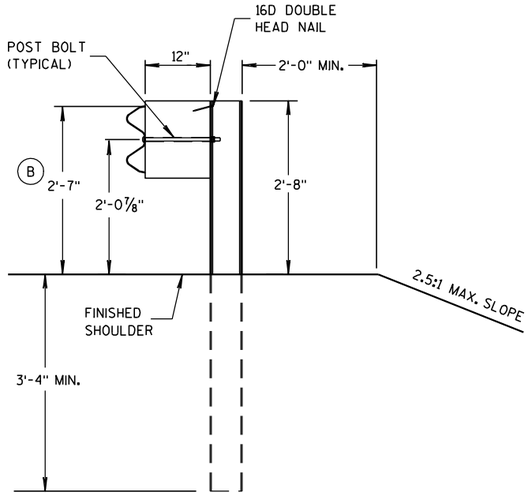
S.D.D. 14 B 45-3a

6

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

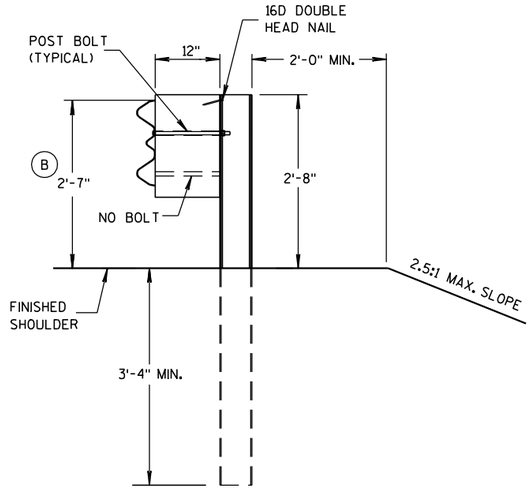
GENERAL NOTES

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



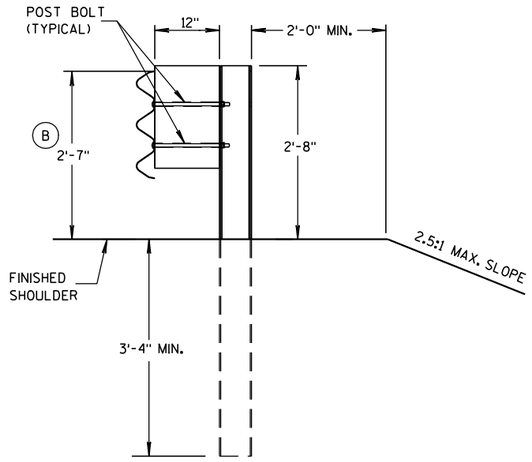
SECTION A-A

POSTS 1-5



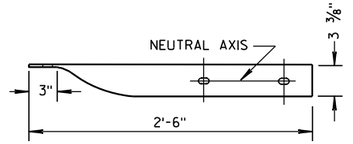
SECTION B-B

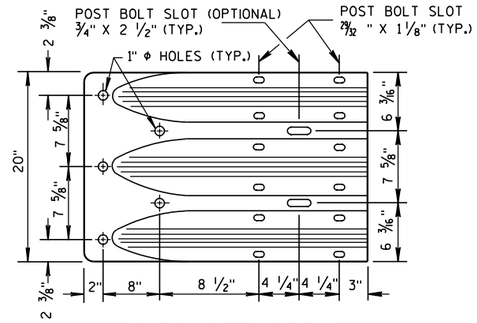
POST 6



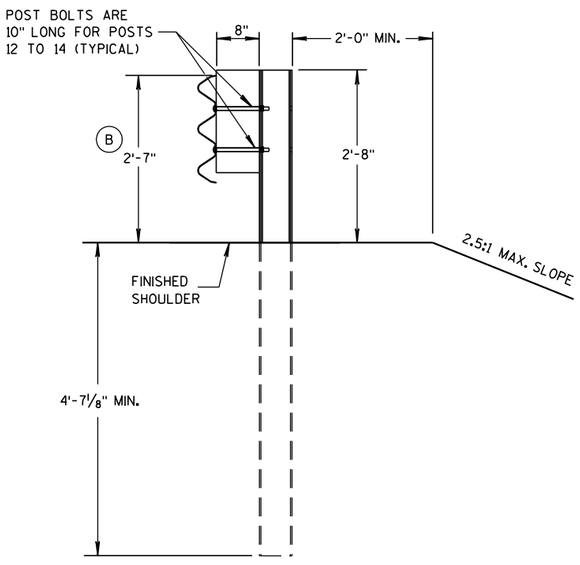
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

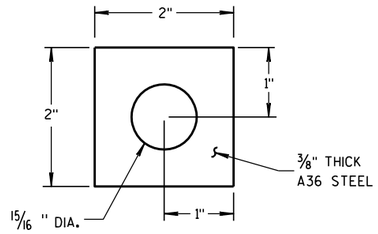
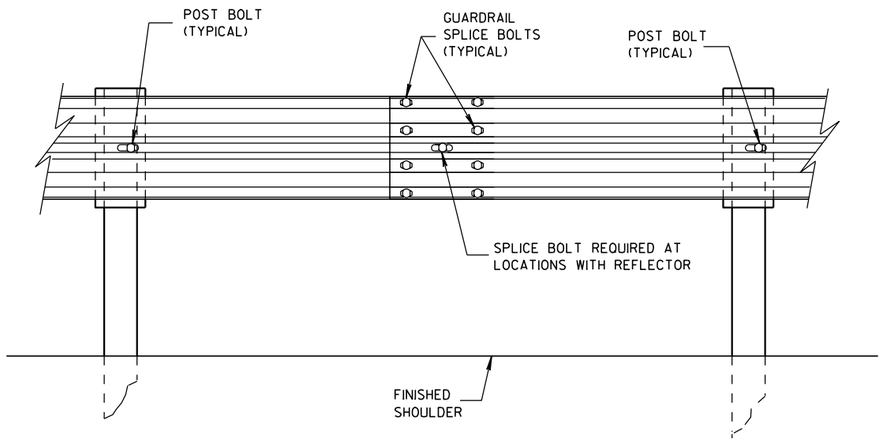
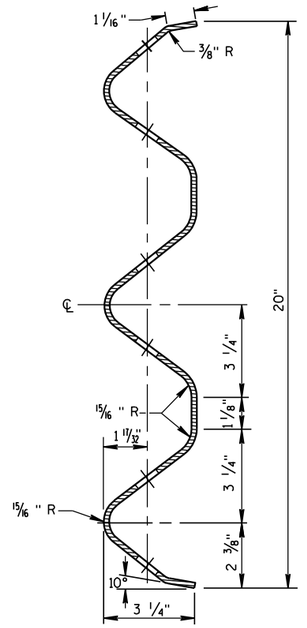


PLATE WASHER DETAIL



SPLICE DETAIL



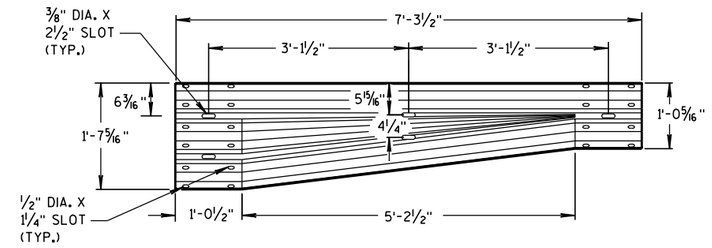
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

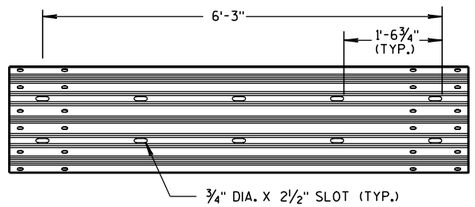
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

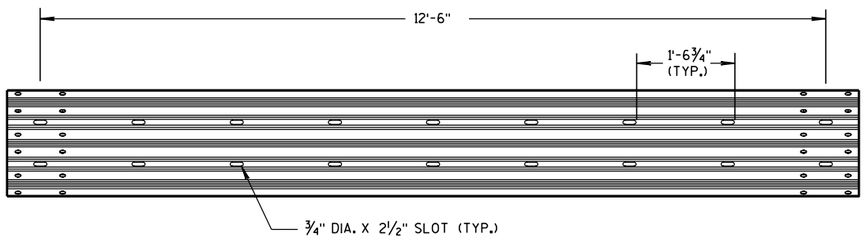
S.D.D. 14 B 45-3b



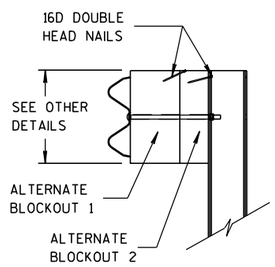
W-BEAM TO THRIE BEAM TRANSITION SECTION



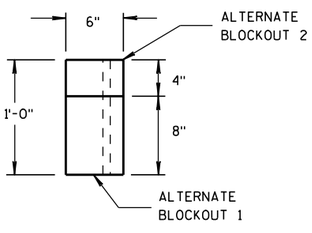
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

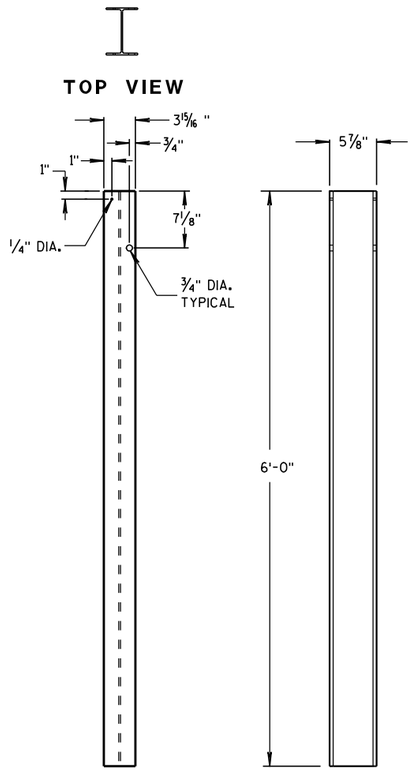


SIDE VIEW

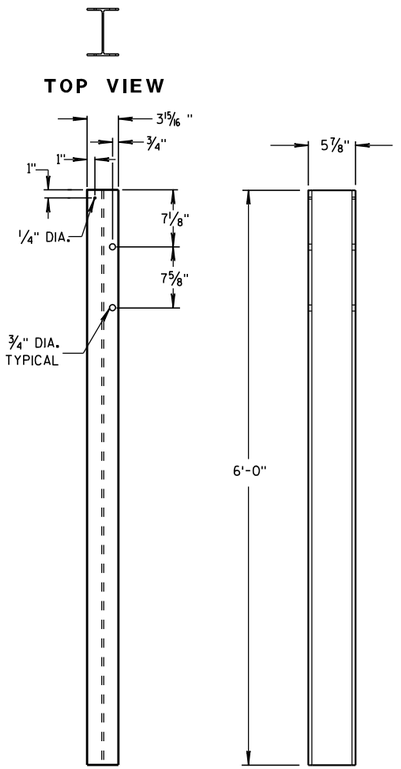


TOP VIEW

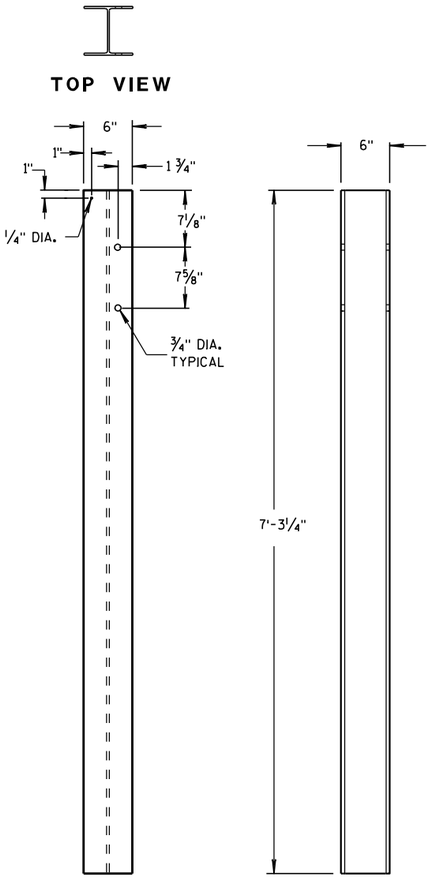
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

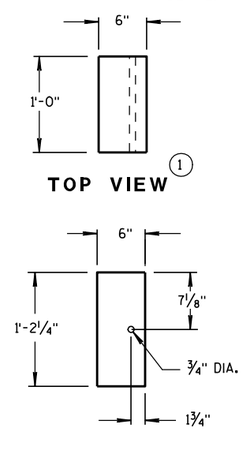


STEEL POSTS 6-11

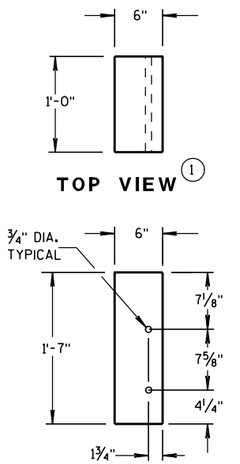


STEEL POSTS 12-14

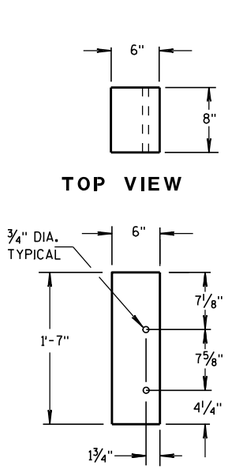
① WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



BLOCKOUT POSTS 1-5



BLOCKOUT POSTS 6-11



BLOCKOUT POSTS 12-14

STEEL POST SIZES

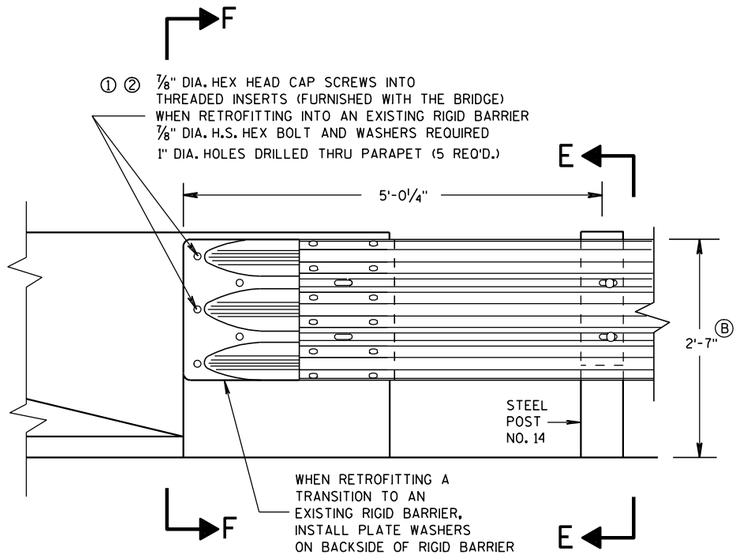
POST NUMBER	SECTION TYPE	LENGTH
①	W6x9	72"
②	W6x9	72"
③	W6x9	72"
④	W6x9	72"
⑤	W6x9	72"
⑥	W6x9	72"
⑦	W6x9	72"
⑧	W6x9	72"
⑨	W6x9	72"
⑩	W6x9	72"
⑪	W6x9	72"
⑫	W6x15	87 1/8"
⑬	W6x15	87 1/8"
⑭	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

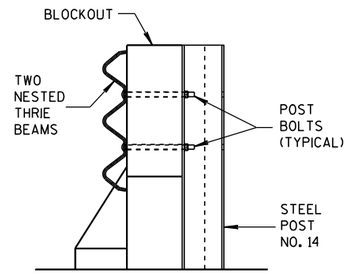
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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



FRONT VIEW



SECTION E-E

GENERAL NOTES

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

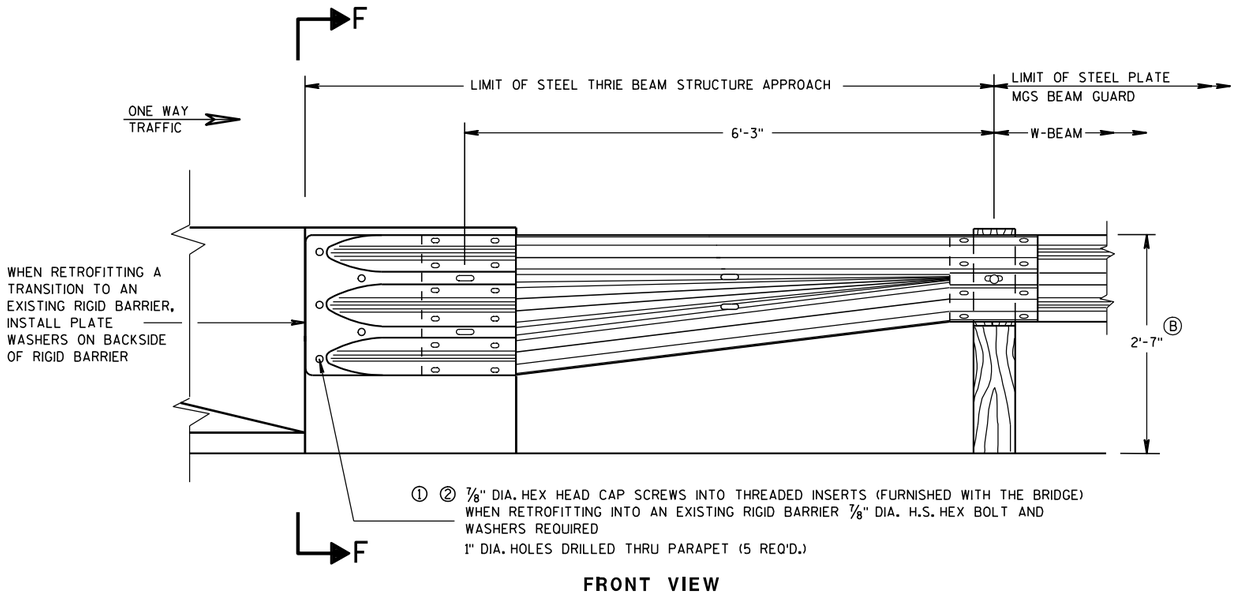
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

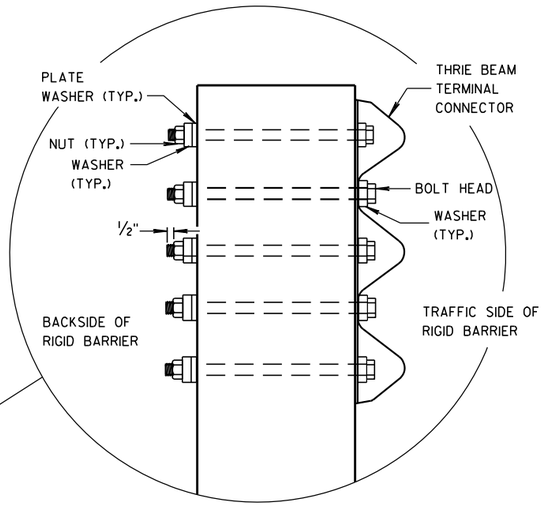
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

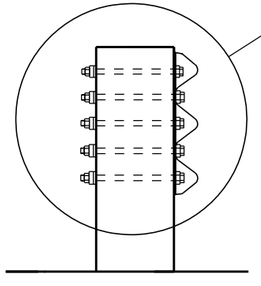
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW





SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

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

FHWA

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.

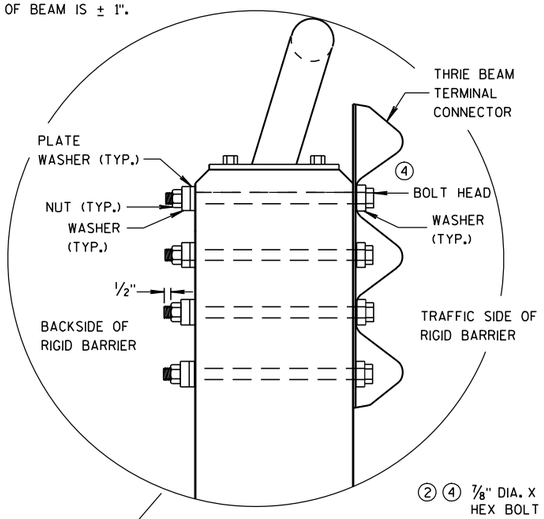
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

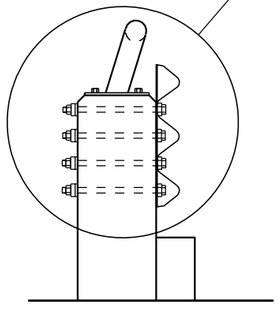
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.

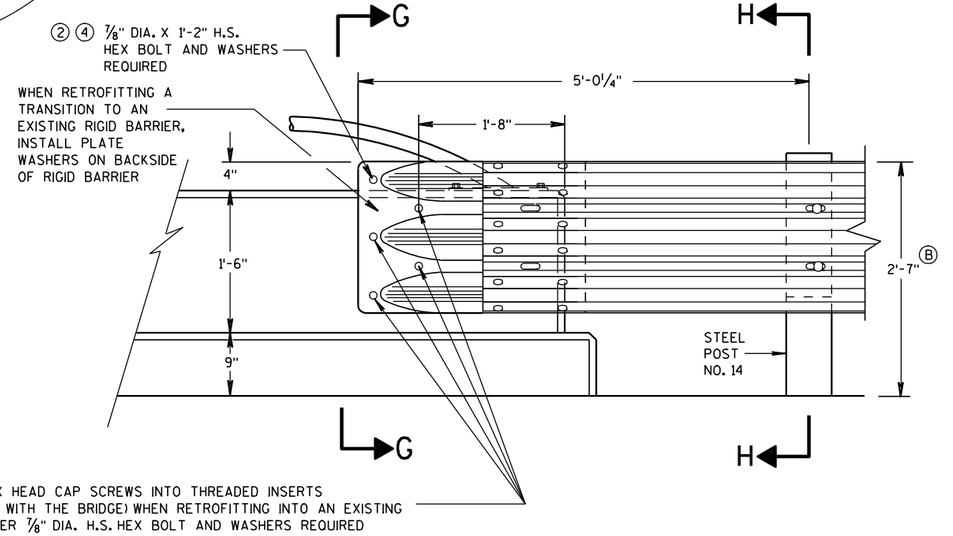
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

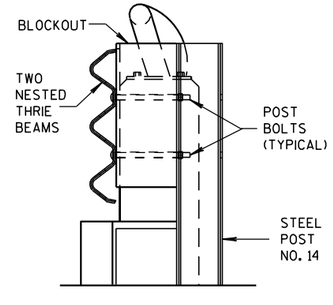




SECTION G-G

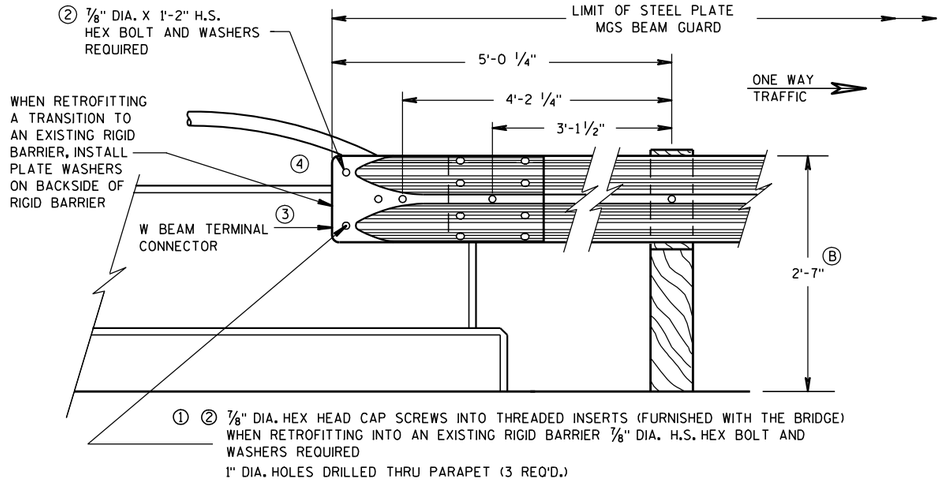


FRONT VIEW



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

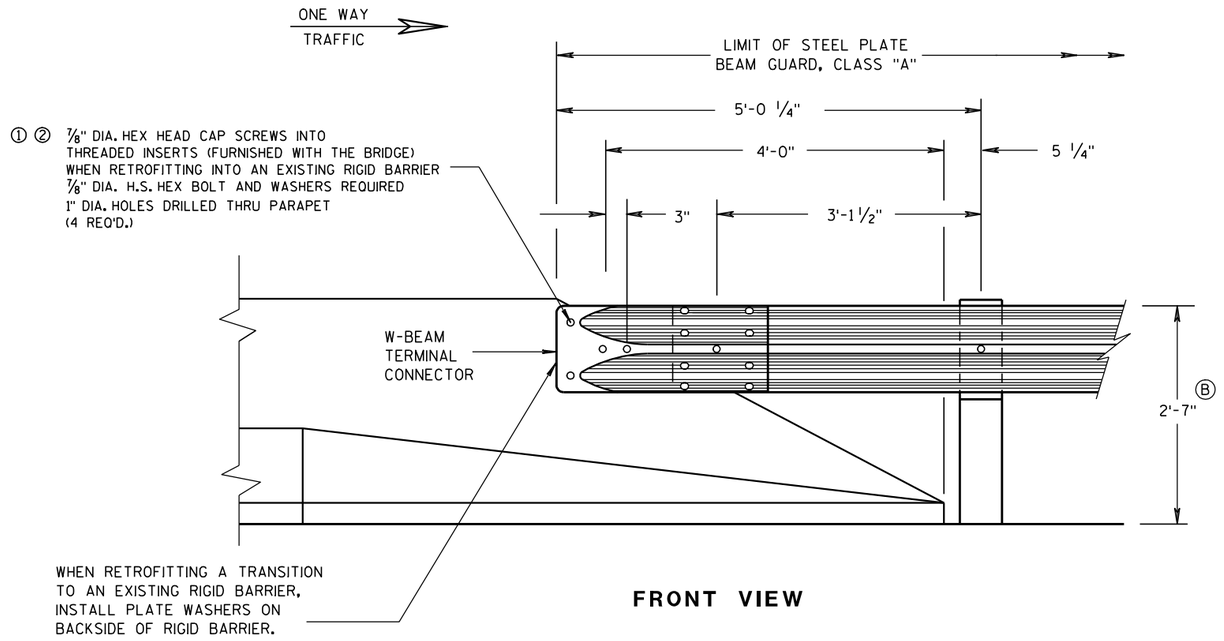
FHWA

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

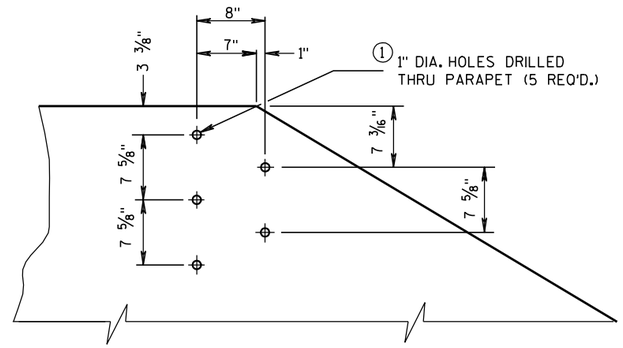
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

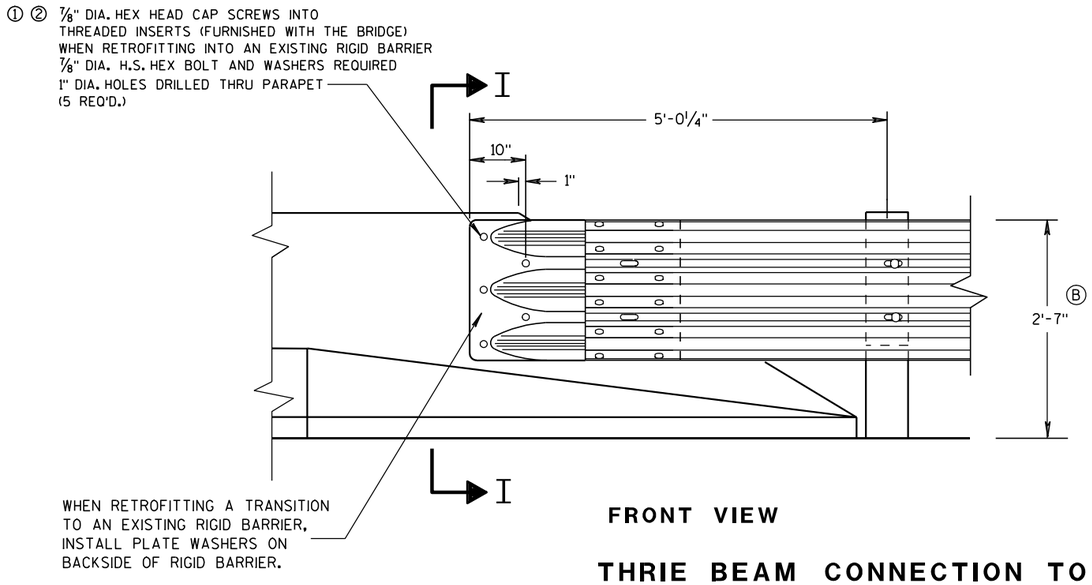
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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.

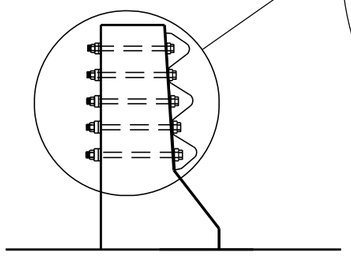
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



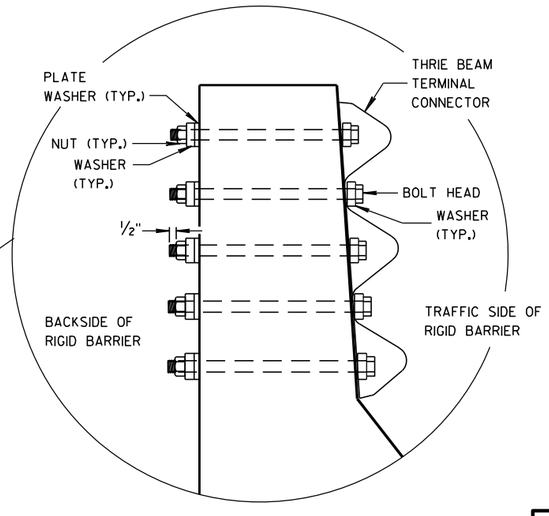
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



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

ENT

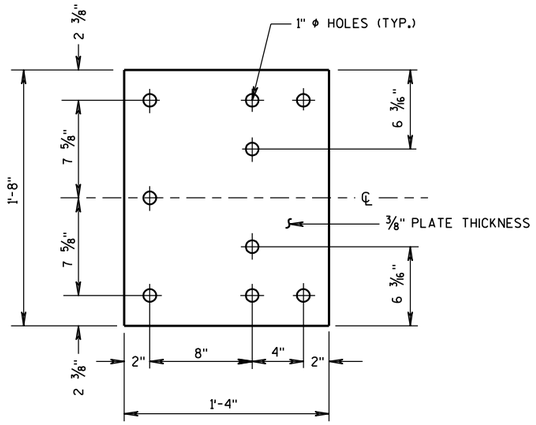
FHWA

6

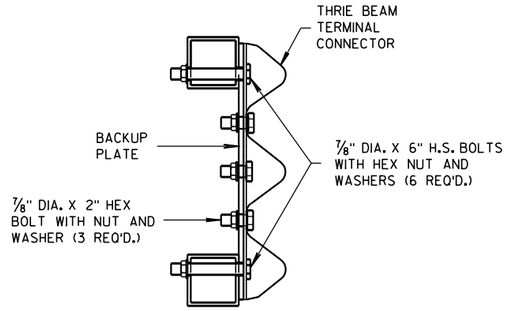
S.D.D. 14 B 45-3f

6

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



BACK-UP PLATE DETAIL

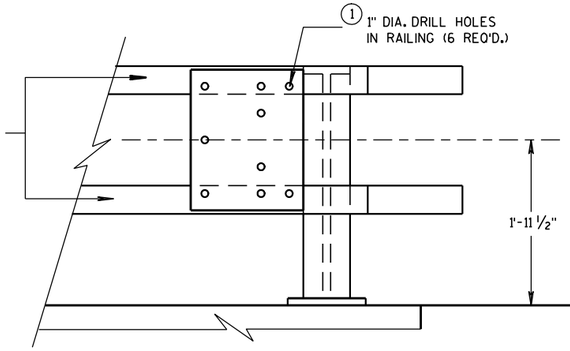


SECTION J-J

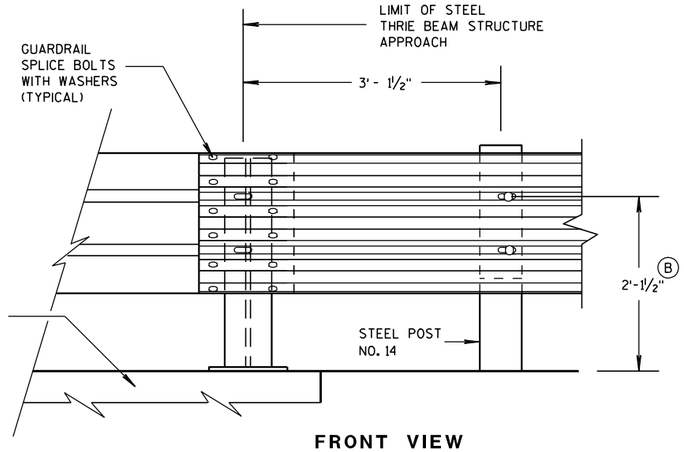
GENERAL NOTES

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

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

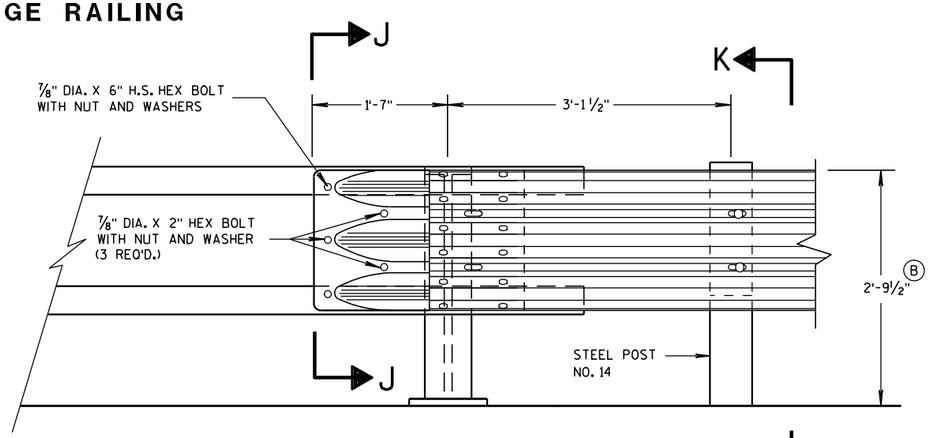


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

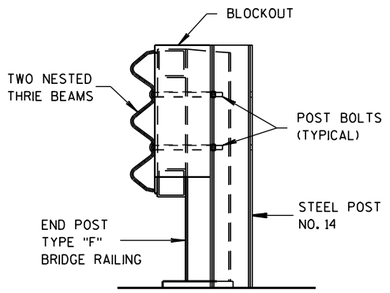


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

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

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

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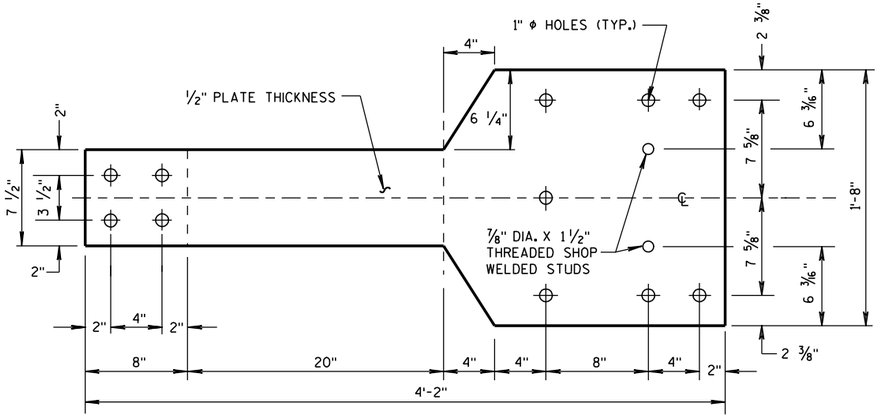
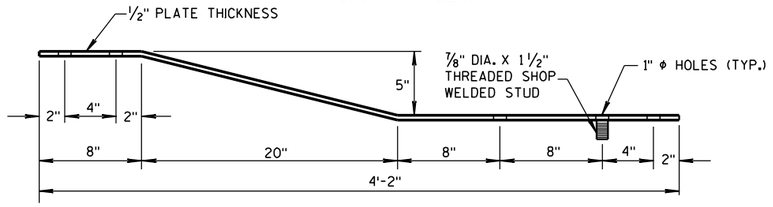
S.D.D. 14 B 45-3g

GENERAL NOTES

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

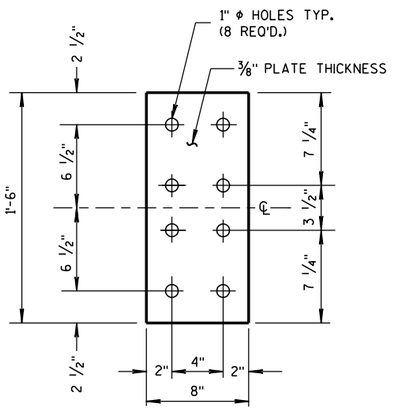


FRONT VIEW



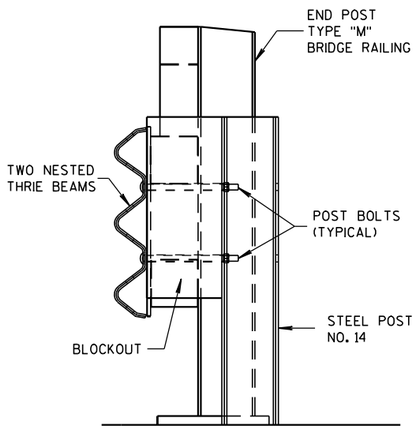
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

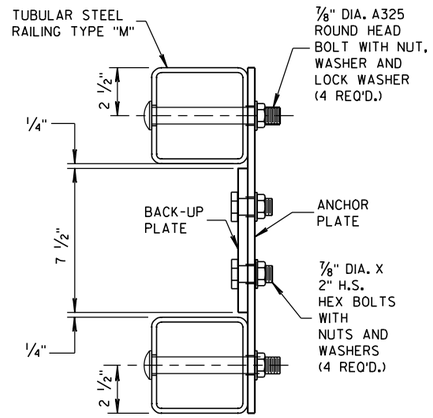


FRONT VIEW

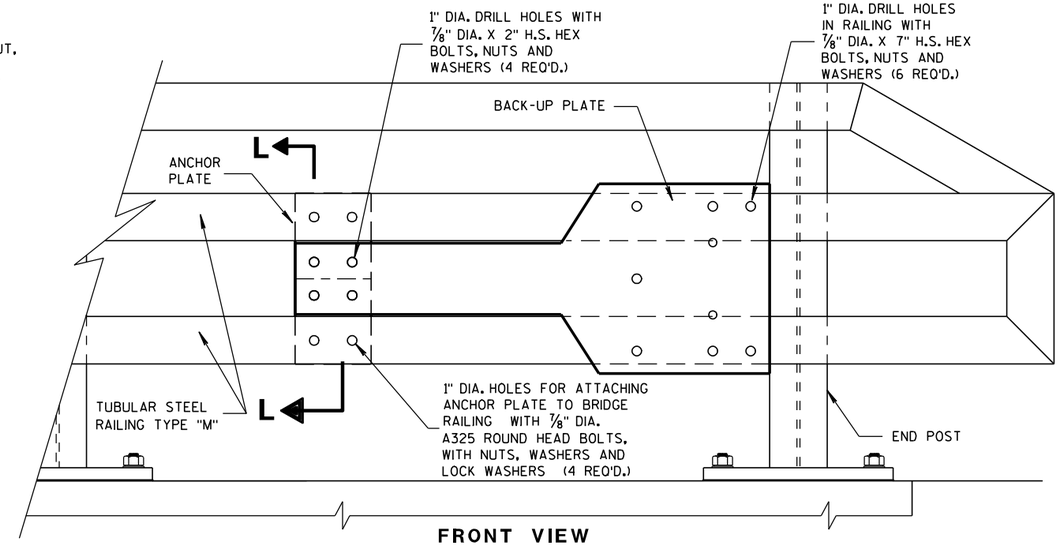
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

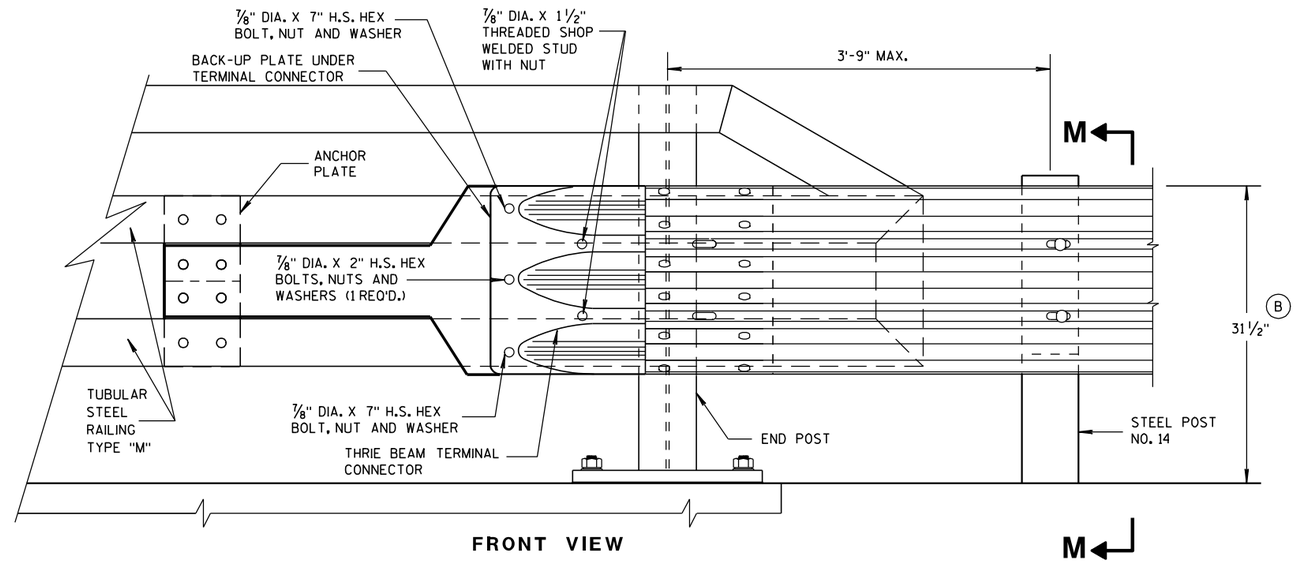


SECTION L-L

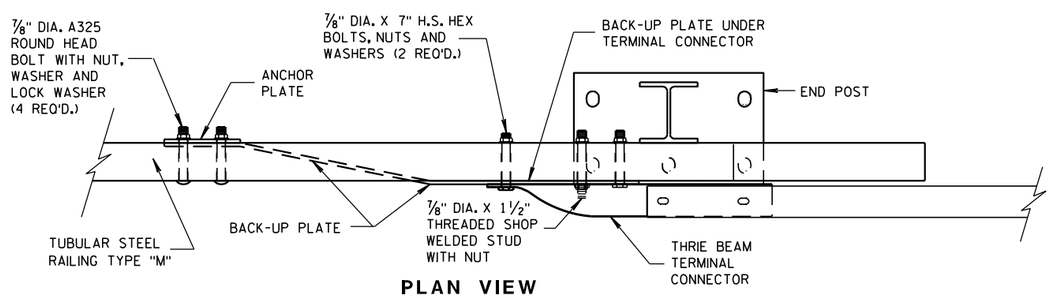


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	130 ENT

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S.D. 14 B 45-3h

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S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

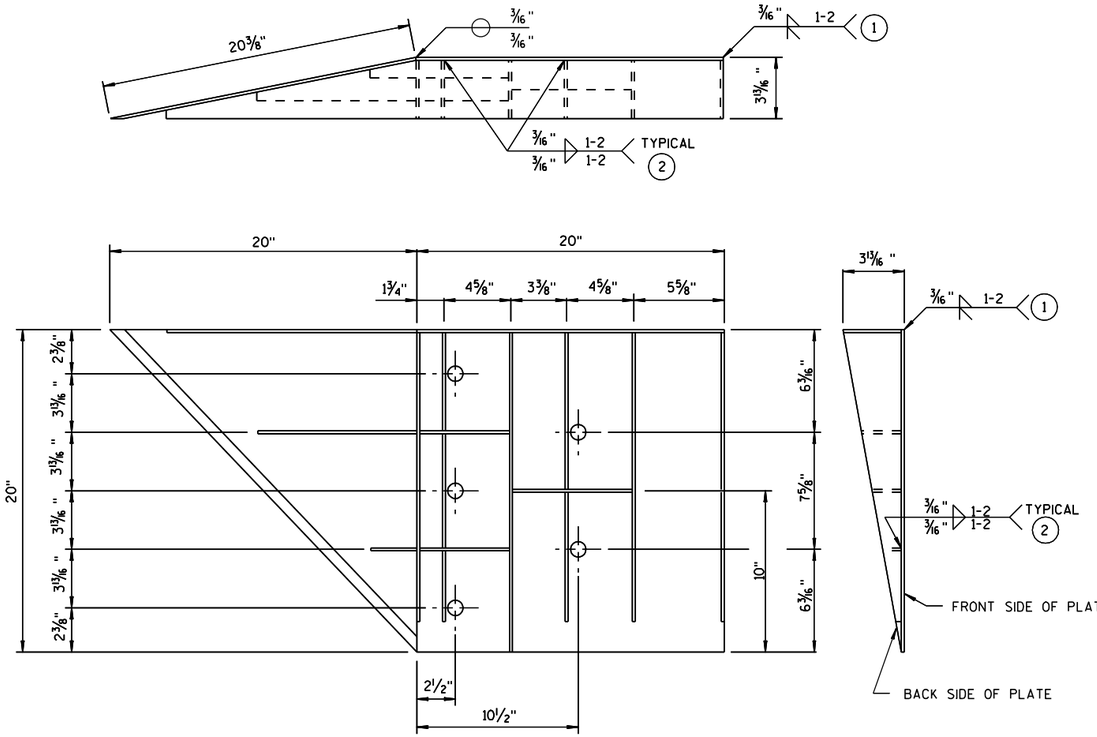
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

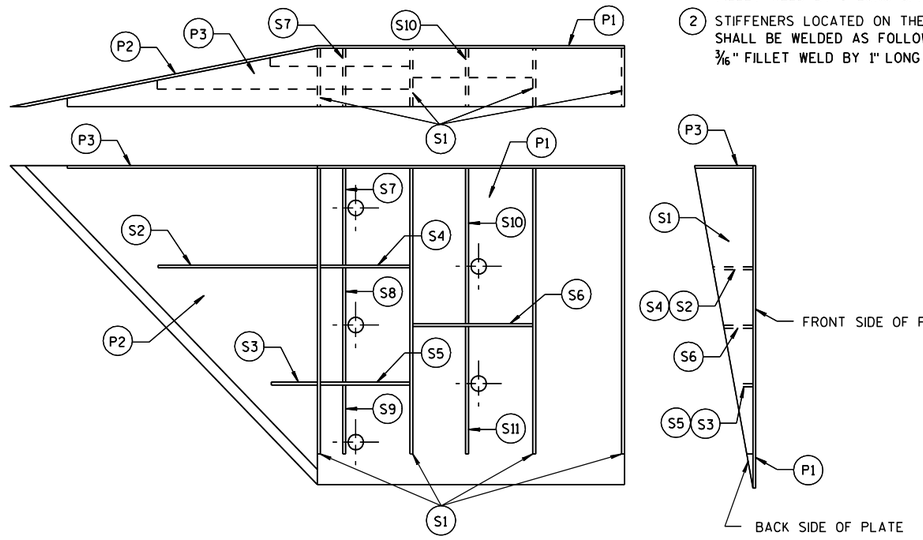


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H ----
ROADWAY STANDARDS ENGINEER
131
FHWA

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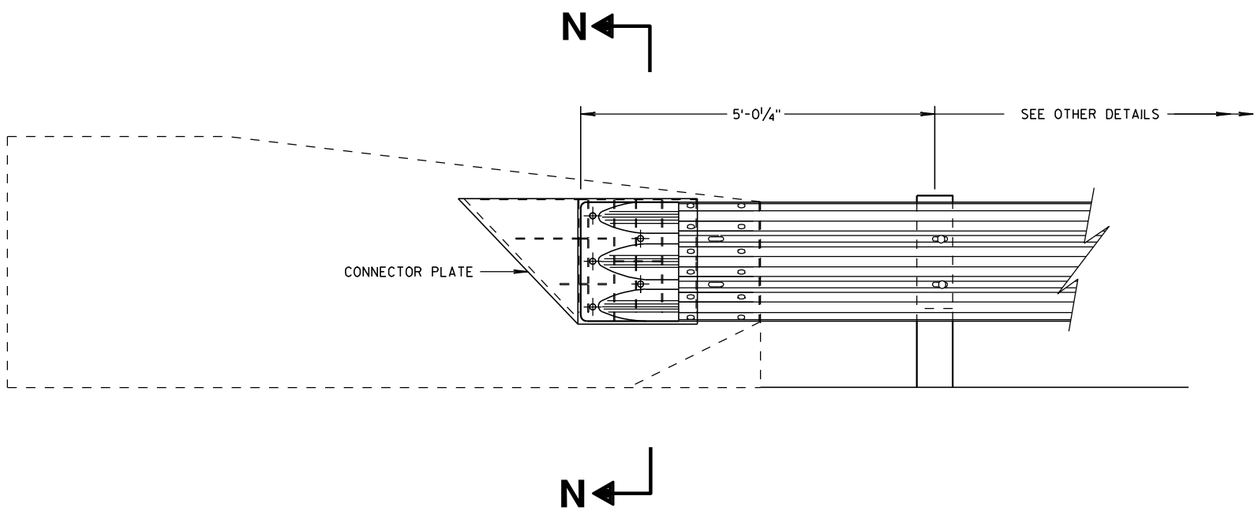
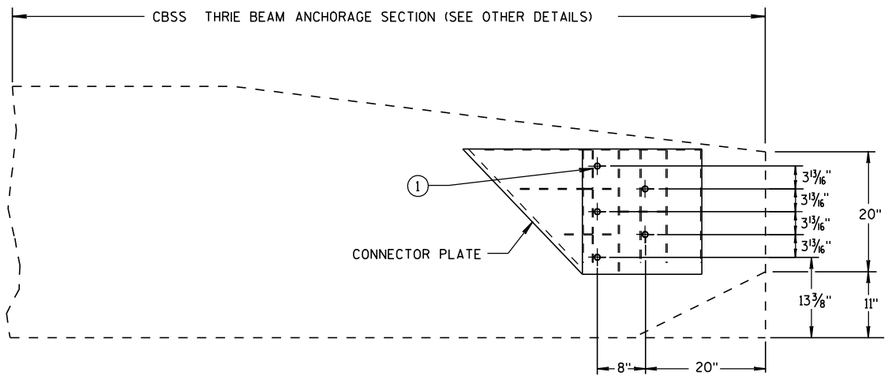
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

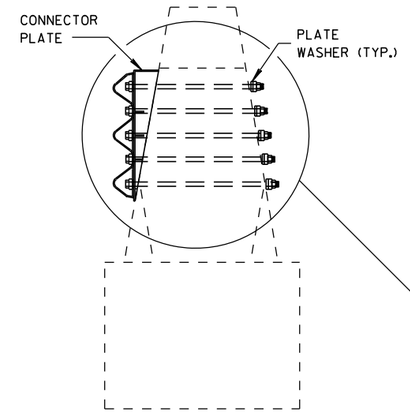


SINGLE SLOPE CONNECTION PLATE PLACEMENT

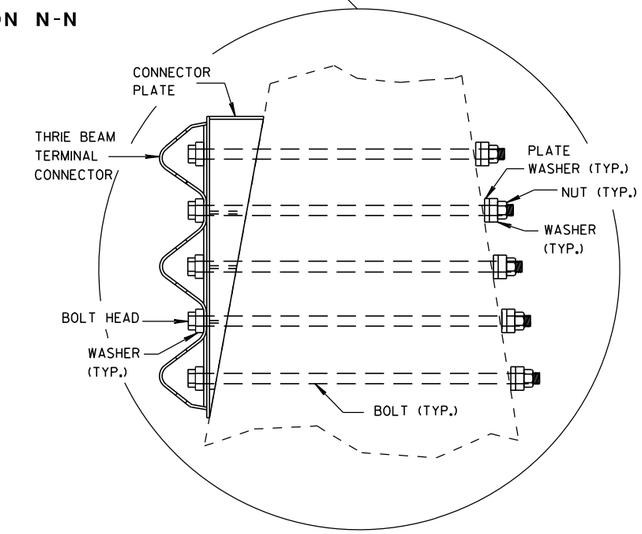
GENERAL NOTES

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

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

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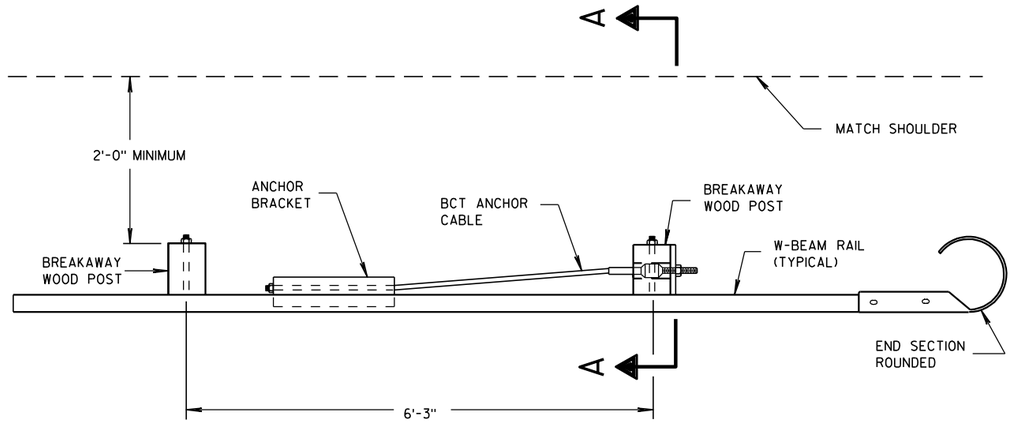
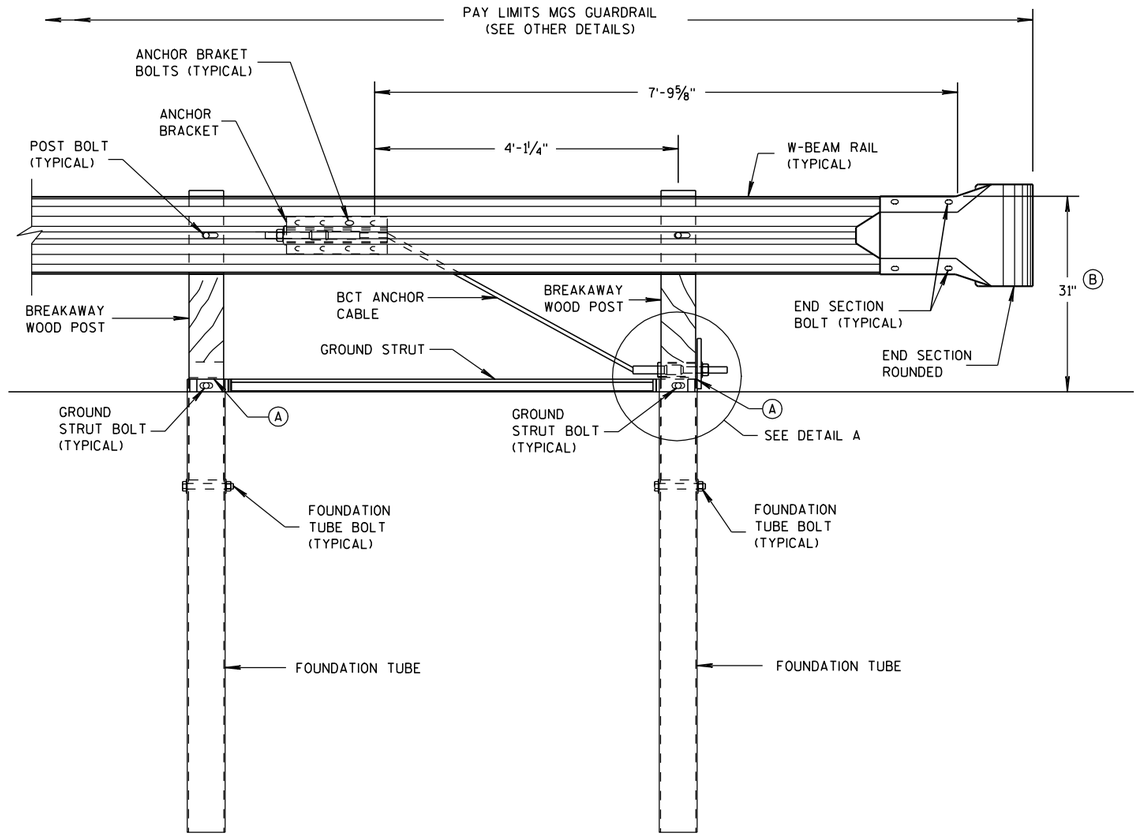
S.D.D. 14 B 45-3j

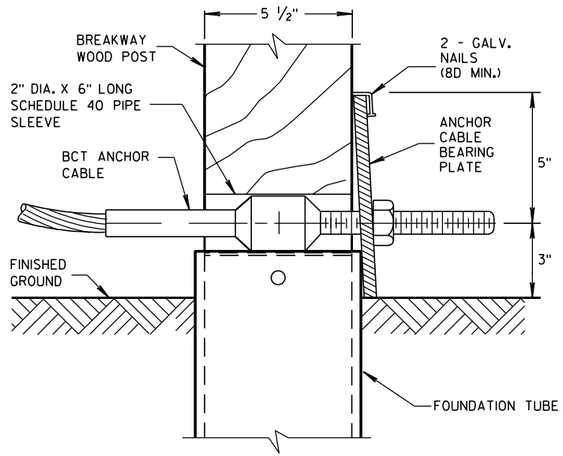


PLAN VIEW



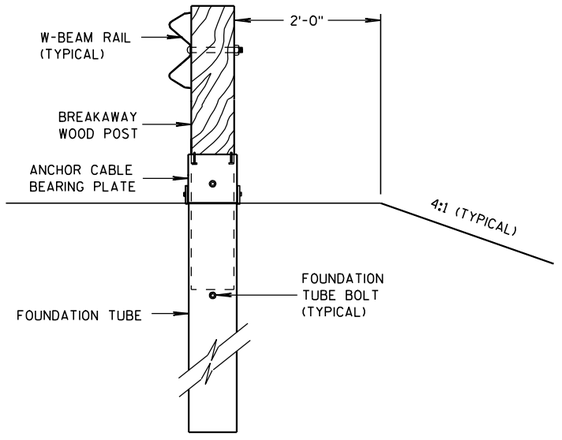
FRONT VIEW

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.

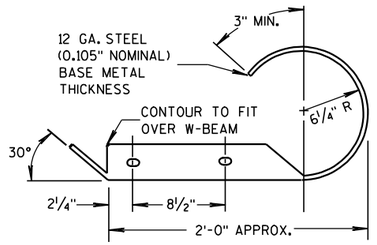
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

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.

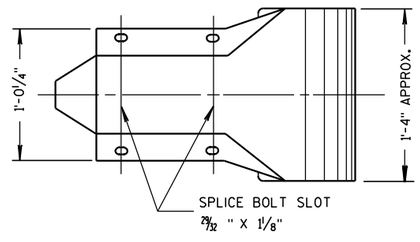
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(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

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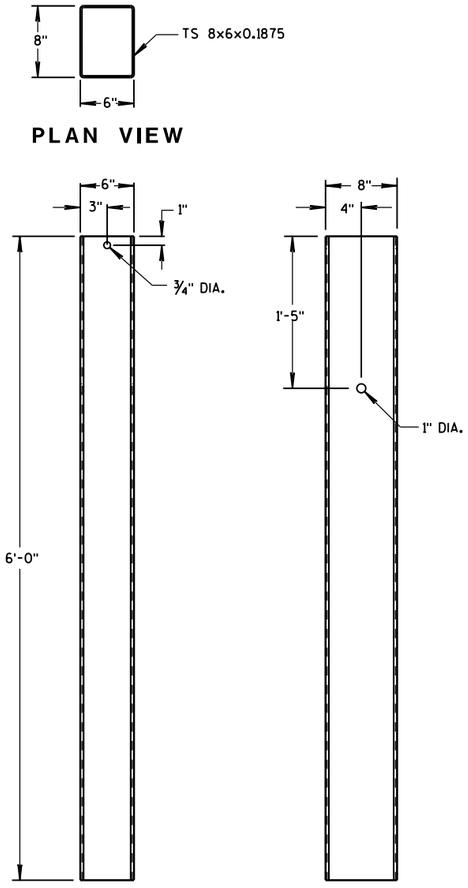
S.D.D. 14 B 47-1a

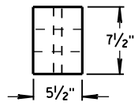


PLAN VIEW

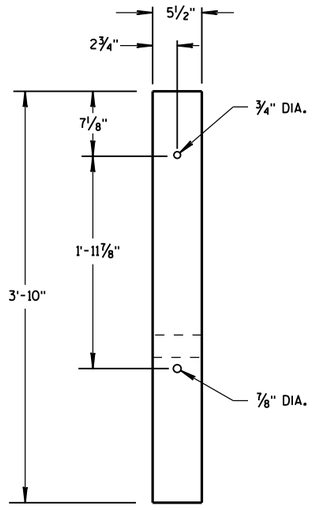
FRONT VIEW

SIDE VIEW

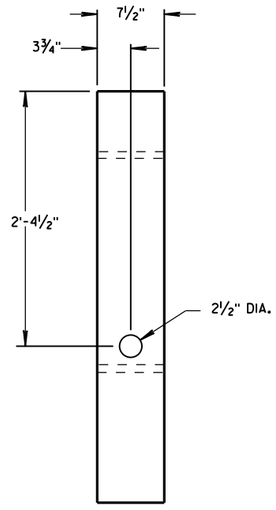
FOUNDATION TUBE



PLAN VIEW



FRONT VIEW

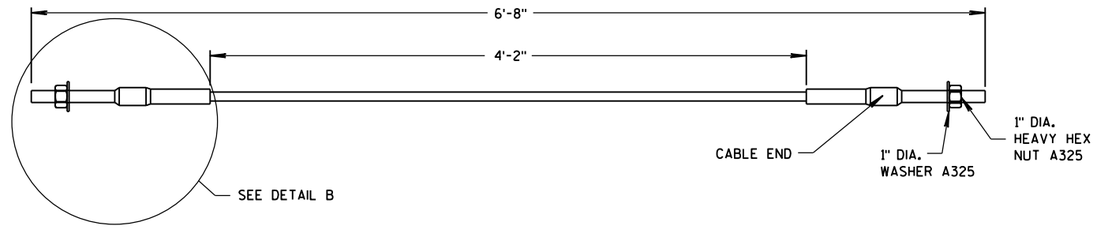


SIDE VIEW

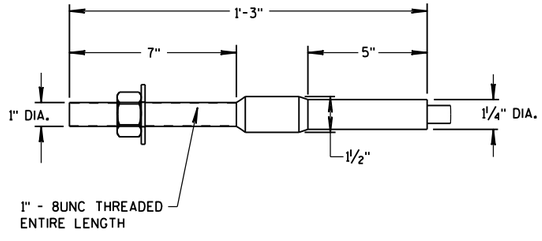
BREAKAWAY WOOD POST

GENERAL NOTES

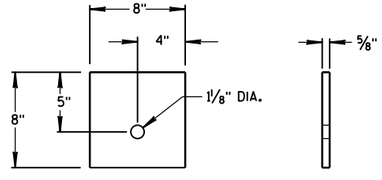
BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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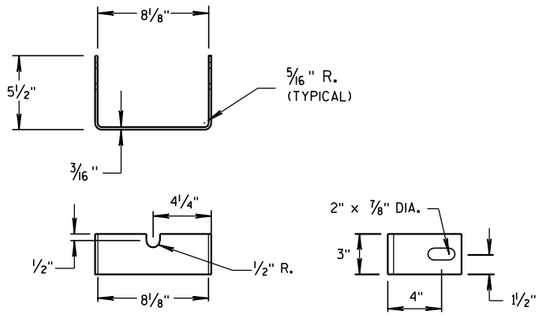
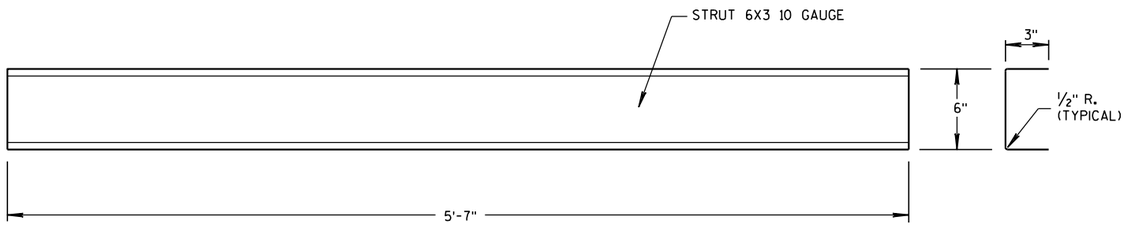
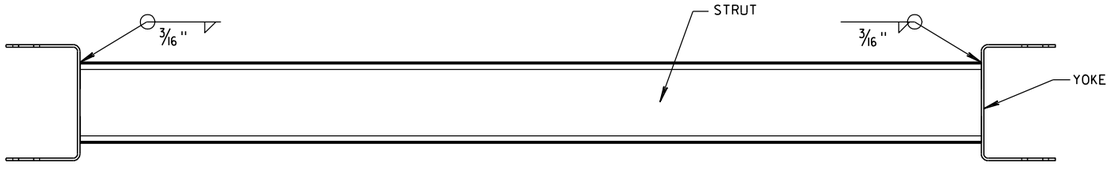
S.D.D. 14 B 47-1b



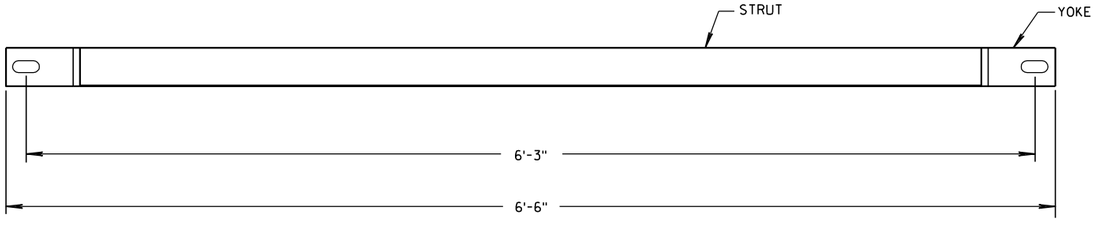
YOKE DETAIL



STRUT DETAIL

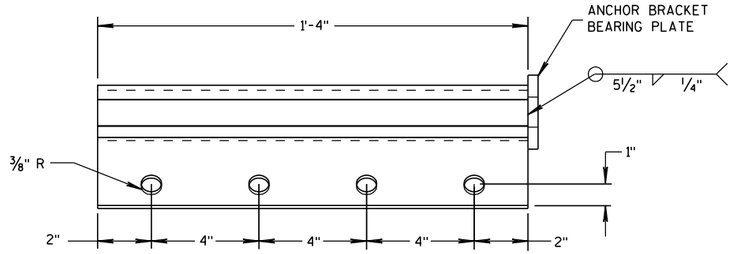


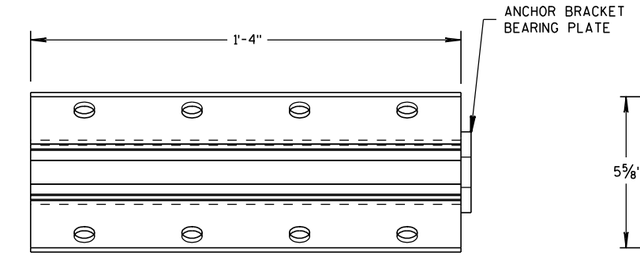
PLAN VIEW

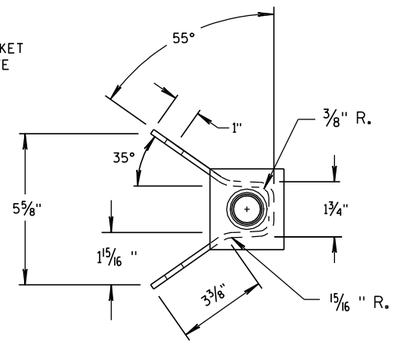


FRONT VIEW

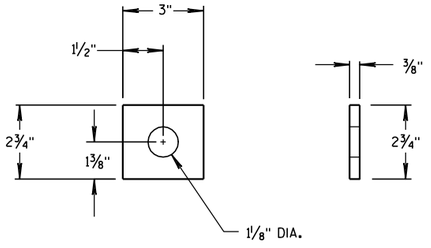
GROUND STRUT DETAIL







ANCHOR BRACKET



ANCHOR BRACKET BEARING PLATE

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S.D.D. 14 B 47-1c

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

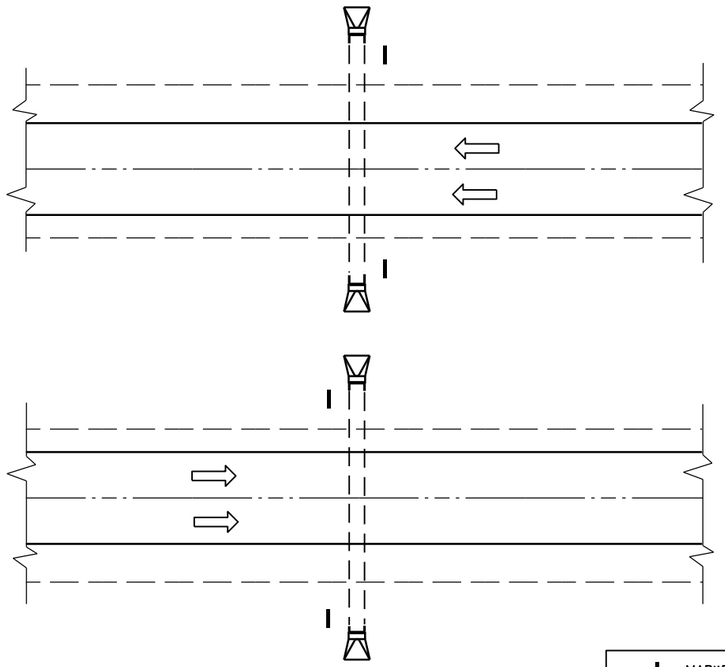
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2011
DATE

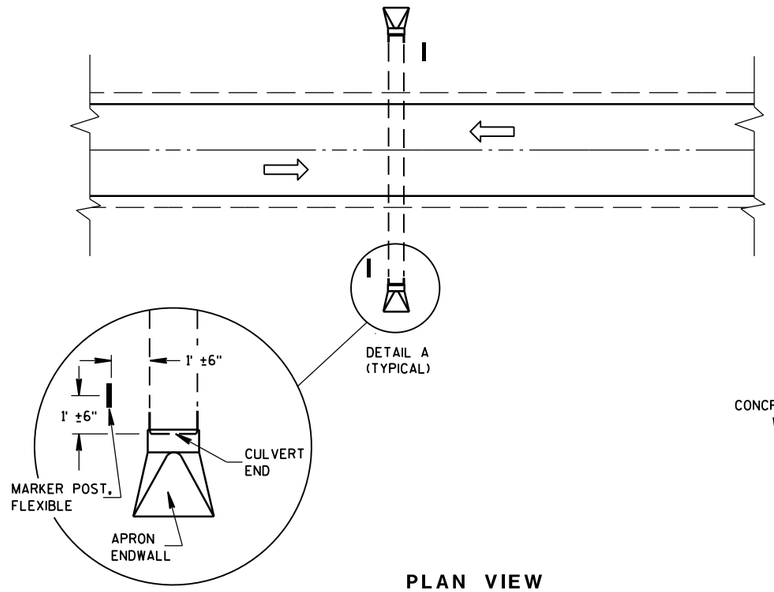
/S/ Jerry H.
ROADWAY STANDARDS ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

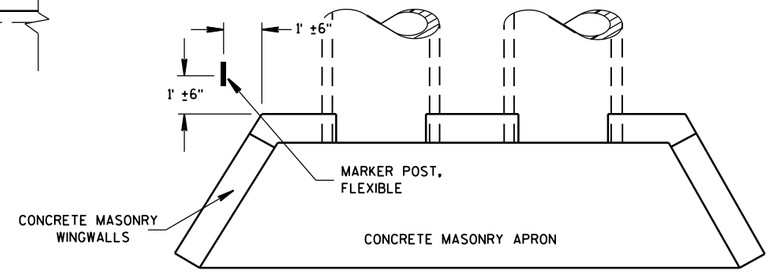
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

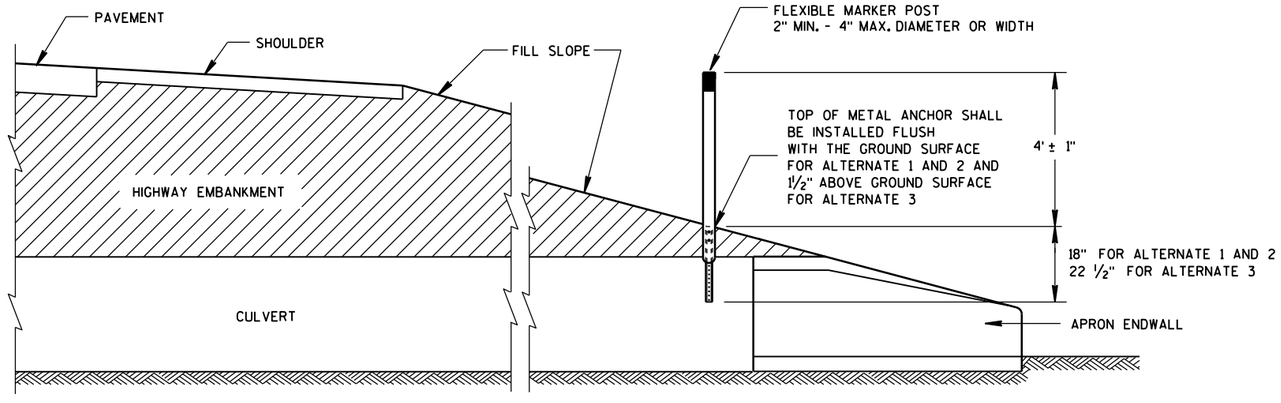
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

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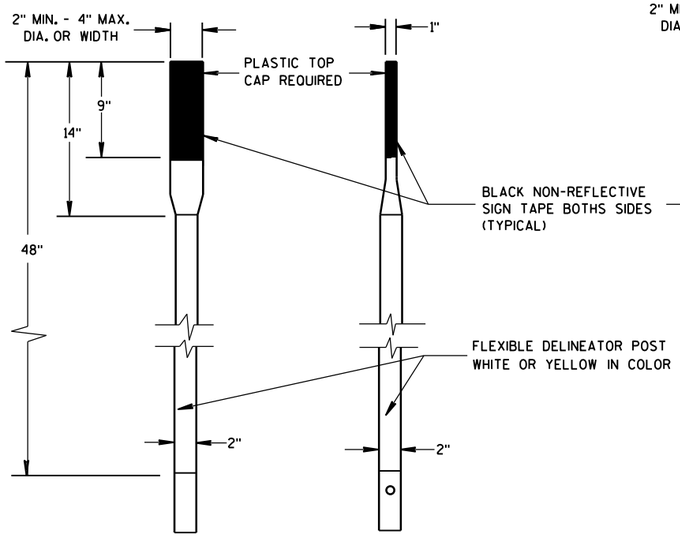
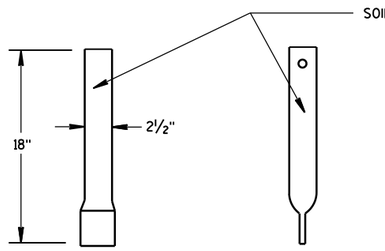
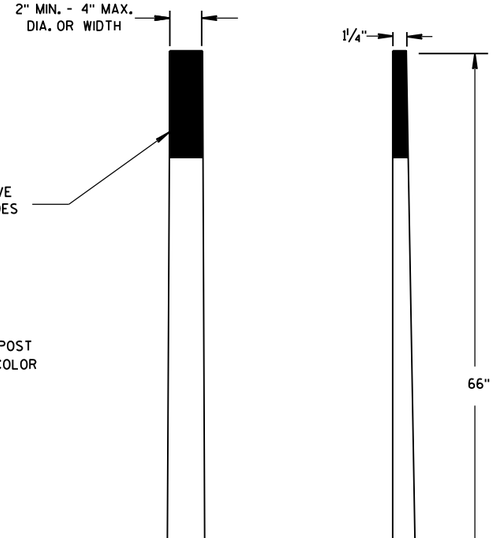
S.D.D. 15 A 3-2a





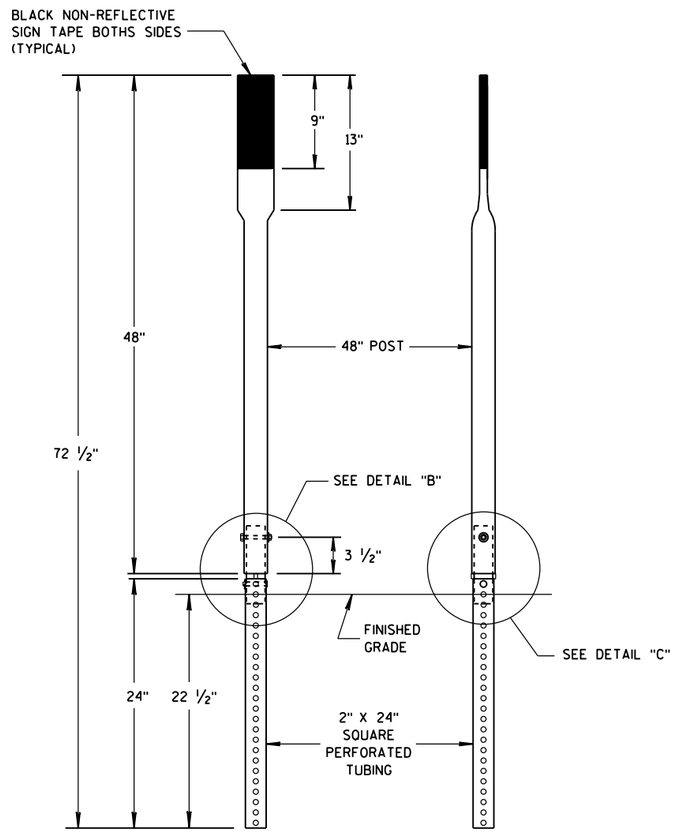
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

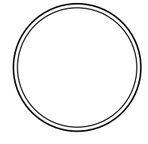
ALTERNATE 2



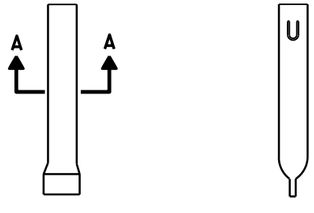
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

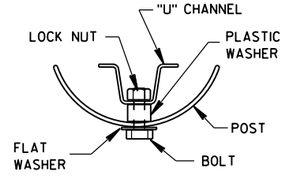


SECTION A-A

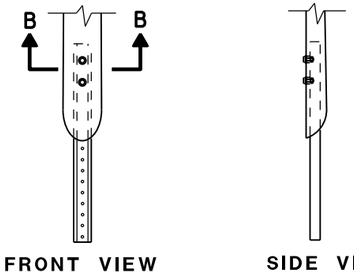


FRONT VIEW SIDE VIEW

ALTERNATE 1

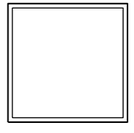


SECTION B-B

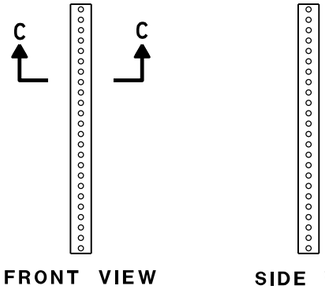


FRONT VIEW SIDE VIEW

ALTERNATE 2



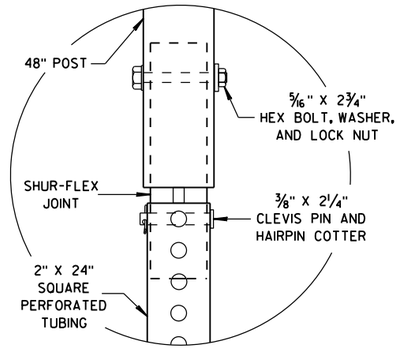
SECTION C-C



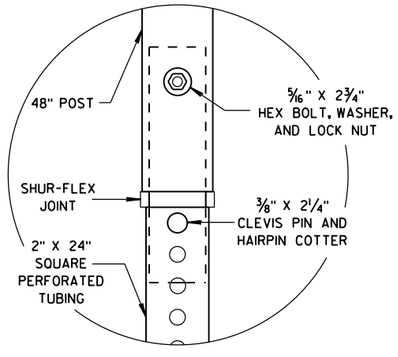
FRONT VIEW SIDE VIEW

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

6

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

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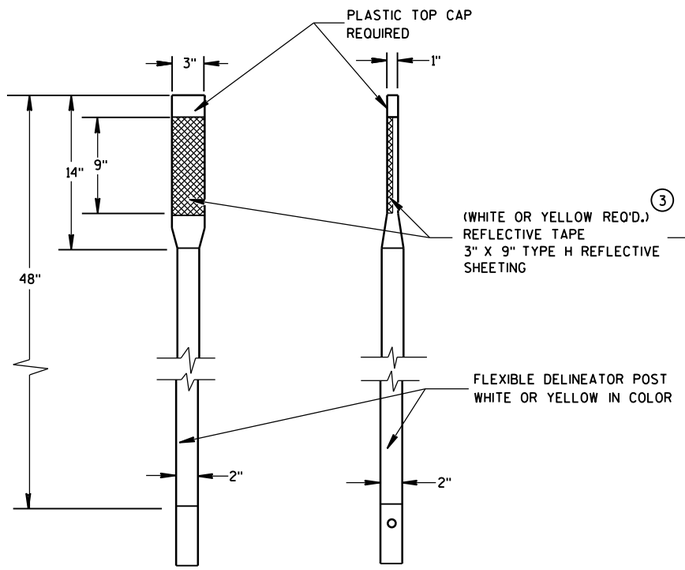
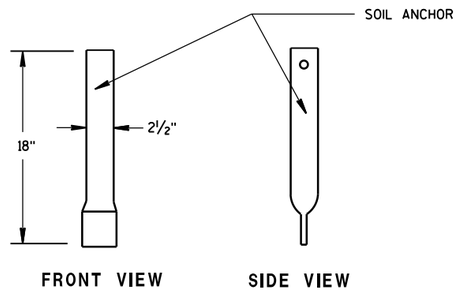
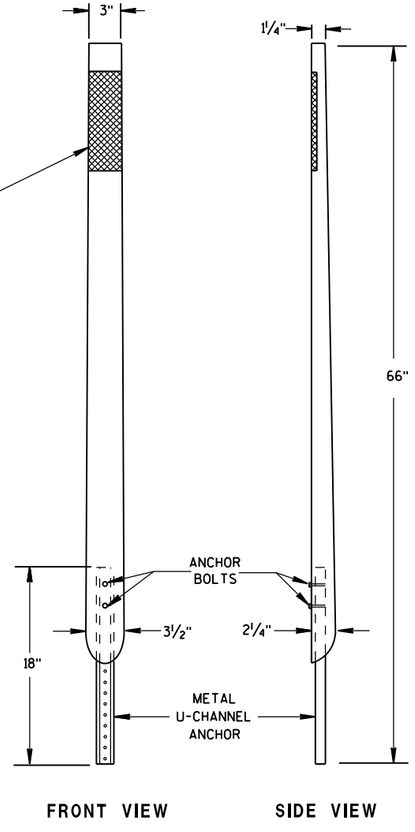
S.D.D. 15 A 3-2b

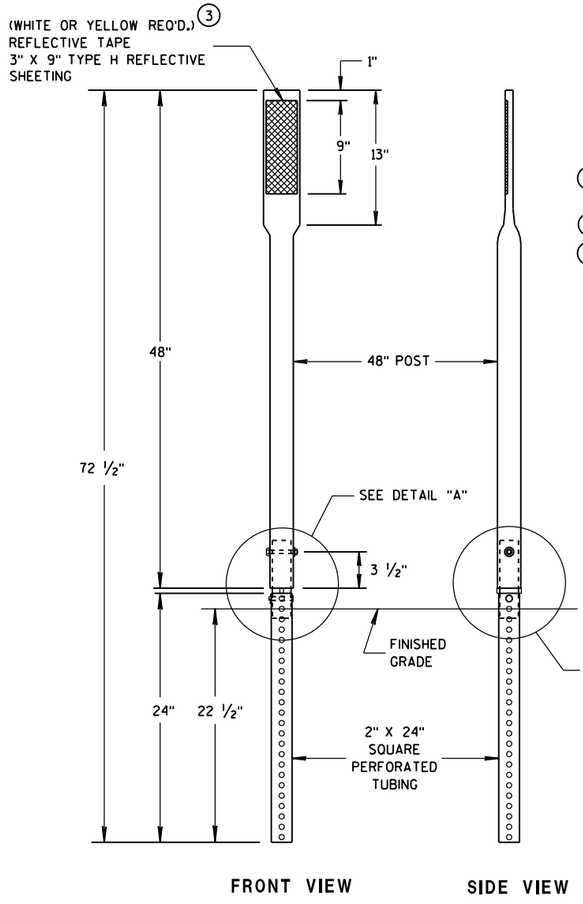




ALTERNATE 1



ALTERNATE 2



ALTERNATE 3

FLEXIBLE DELINEATOR POSTS

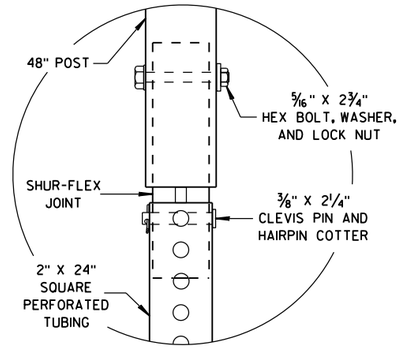
GENERAL NOTES

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

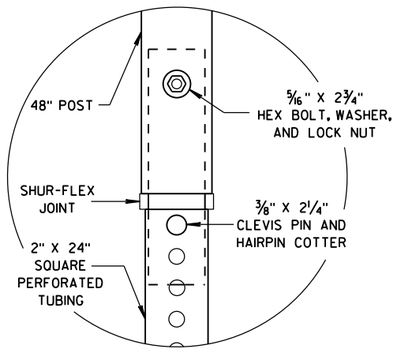
(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

(2) EITHER ALTERNATE NO. 1, NO. 2 OR NO. 3 MAY BE FURNISHED.

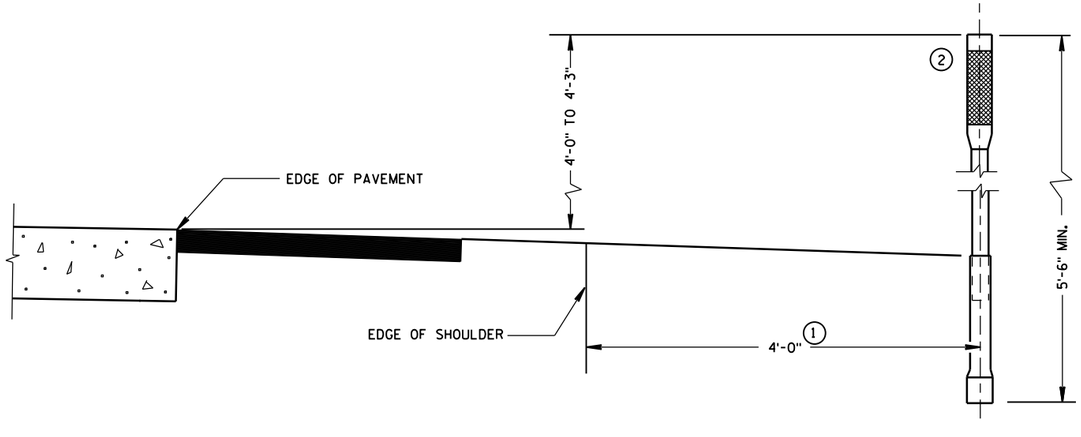
(3) AS PER SECTION 637.2.2.2. OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

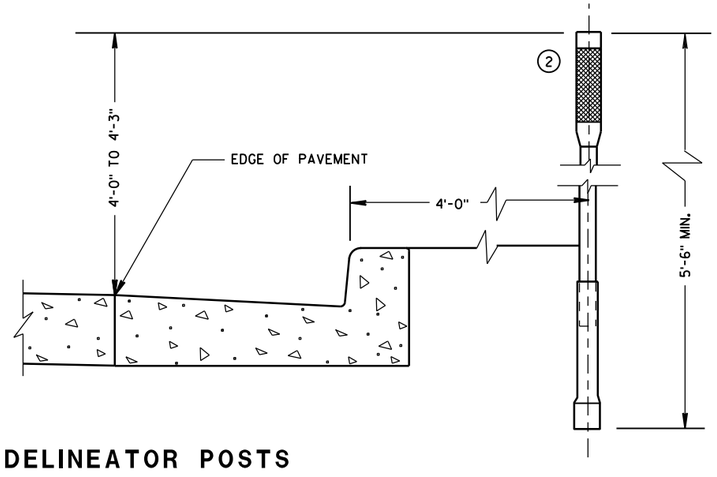


DETAIL A



DETAIL B





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-26-2012
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

6

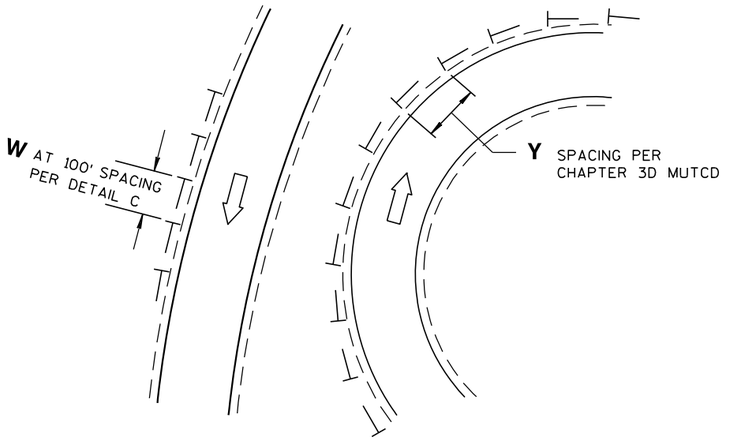
S.D.D. 15 A 4-2

6

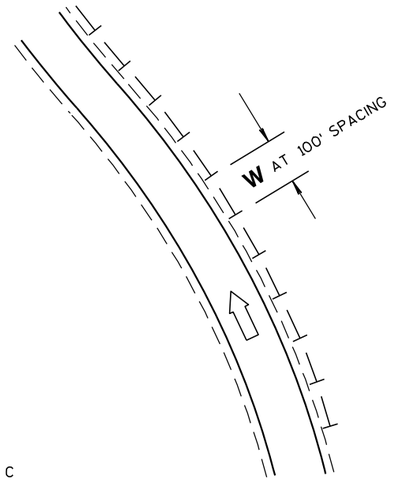
S.D.D. 15 A 4-2

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



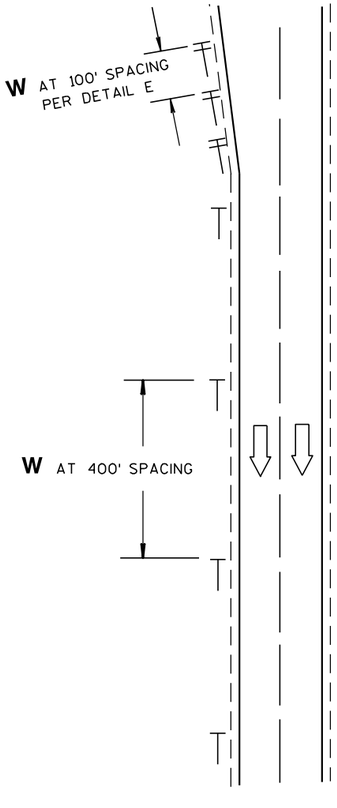
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



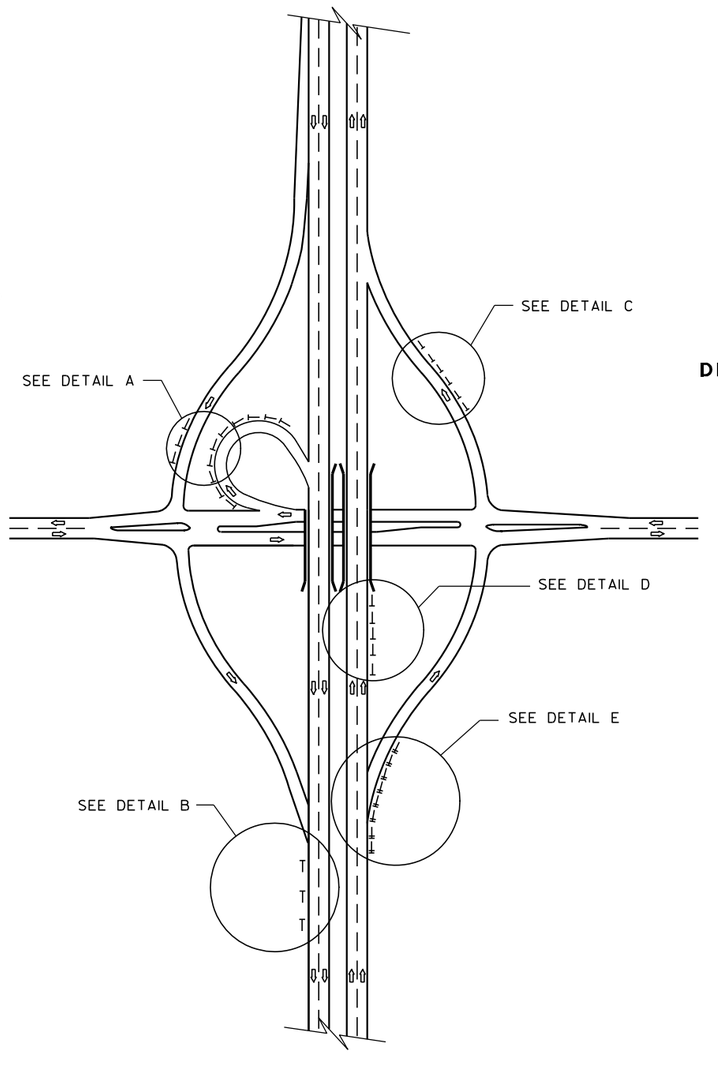
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

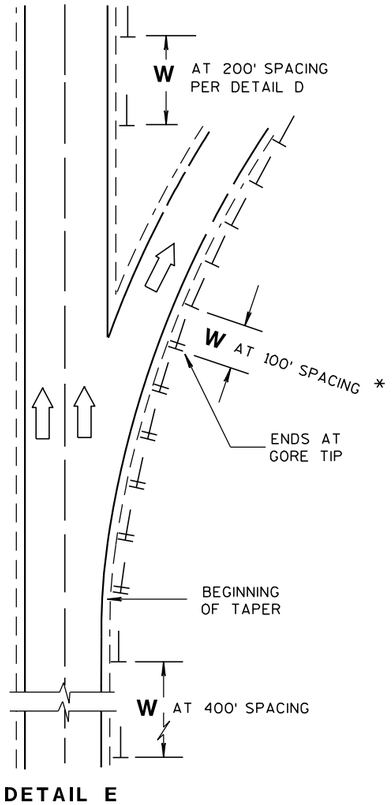
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



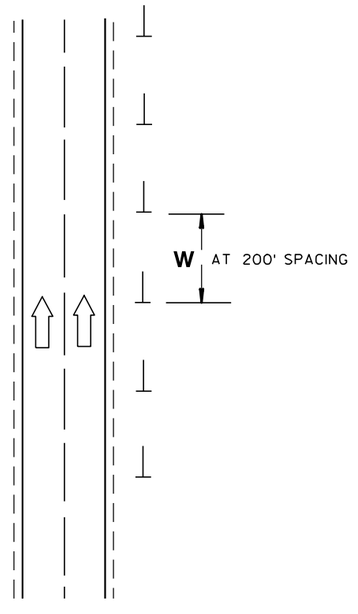
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 6-2

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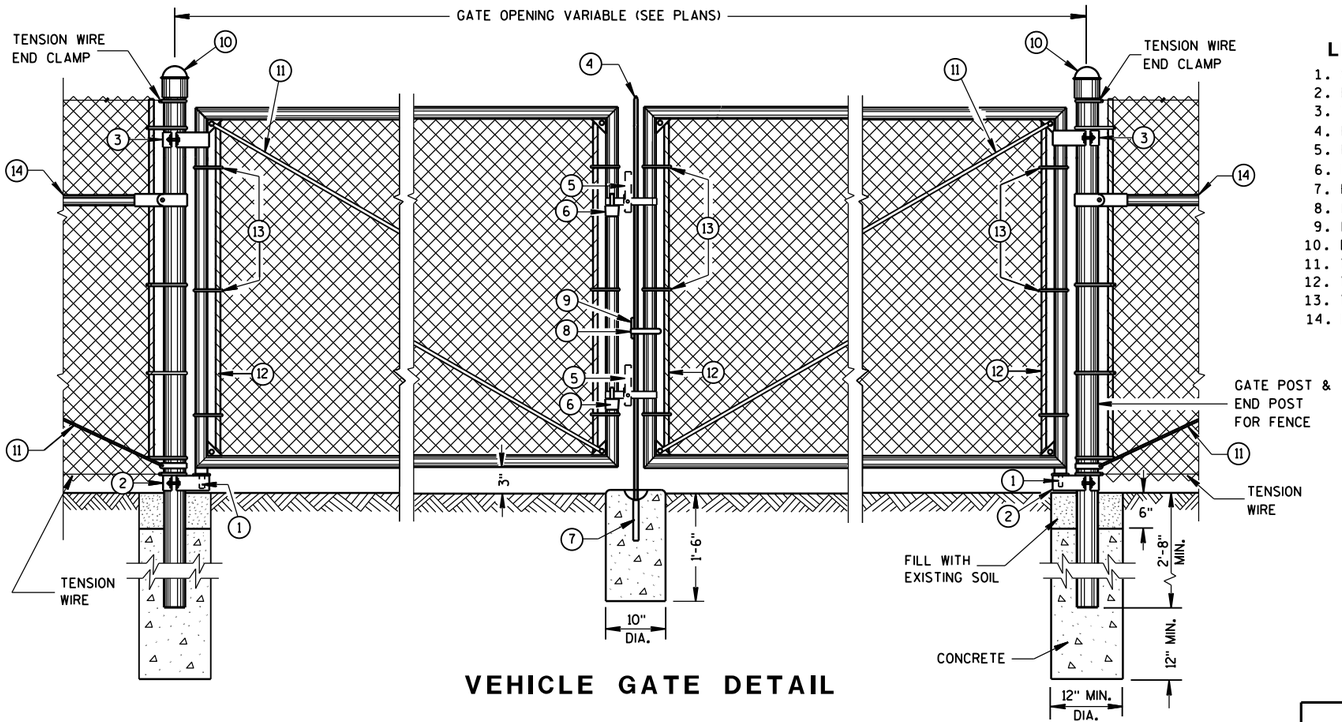
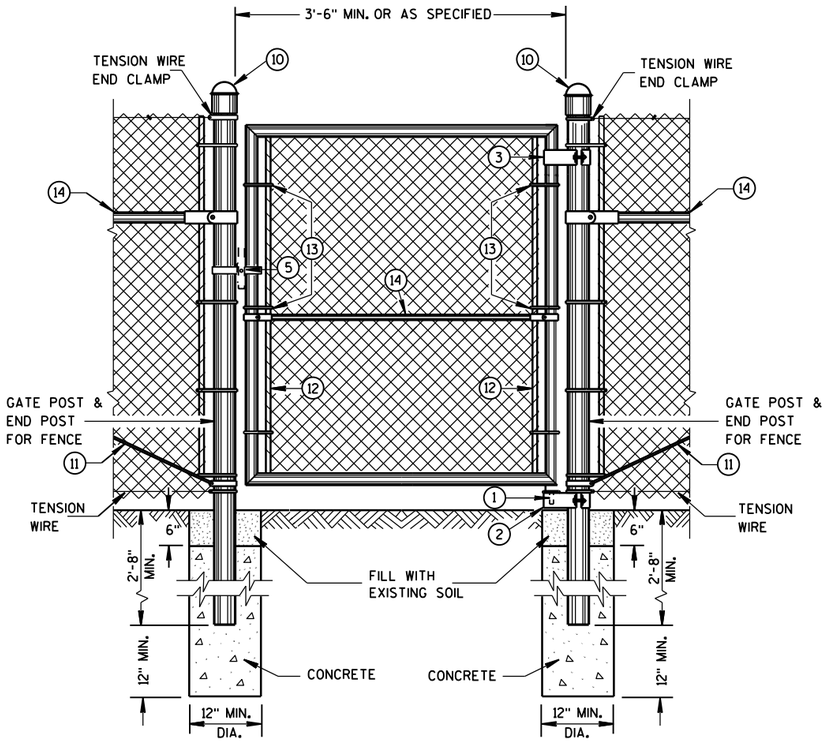
S.D.D. 15 A 6-2



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

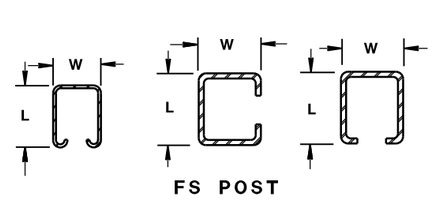
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

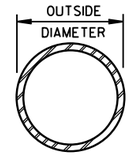
FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.



FS POST



SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

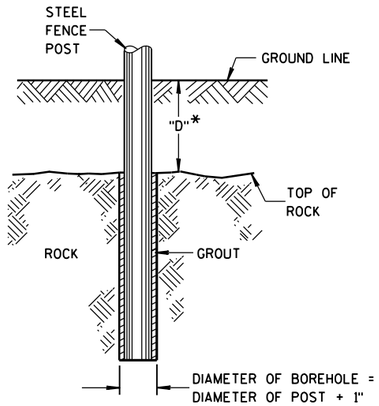
BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

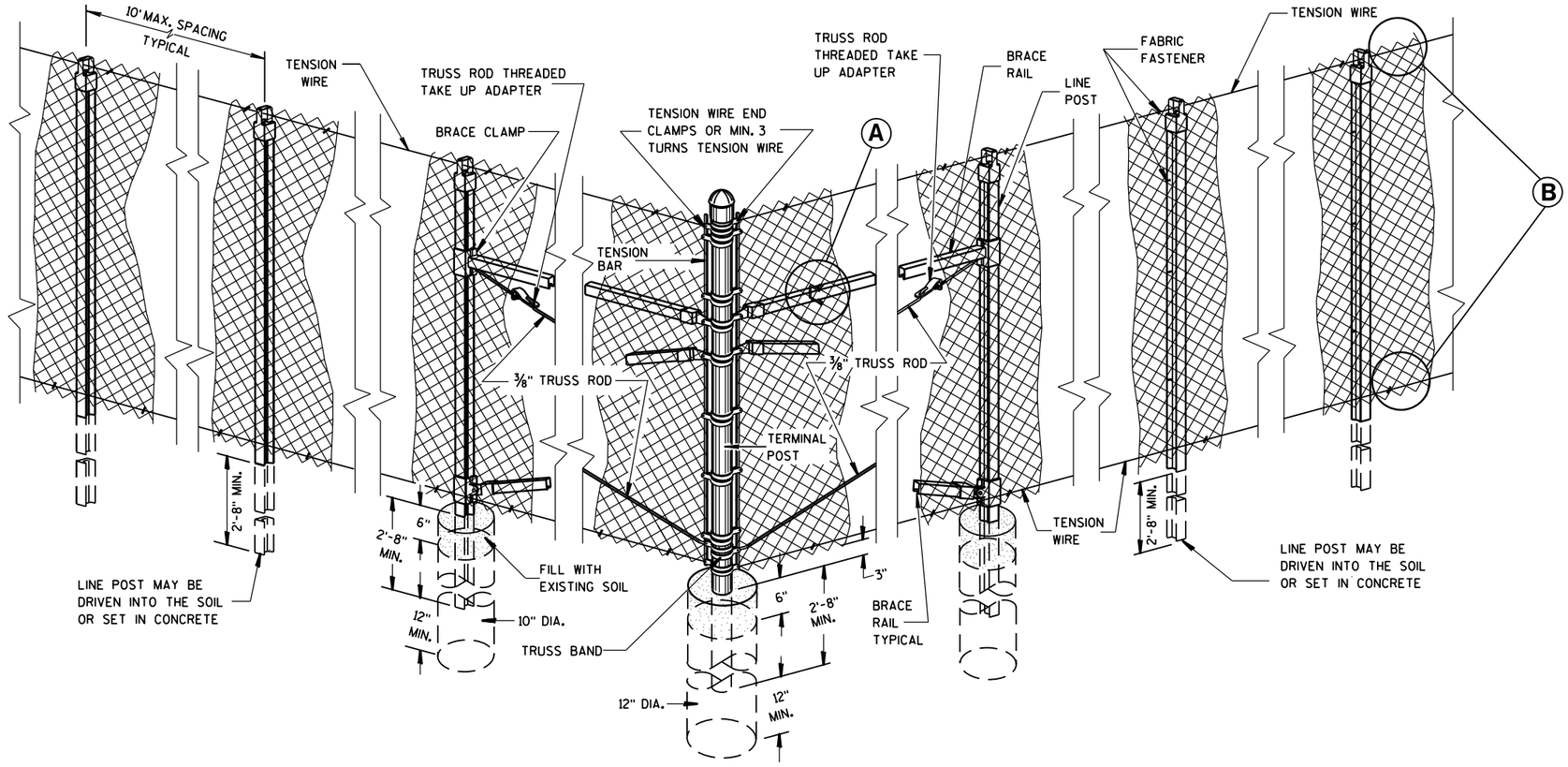
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

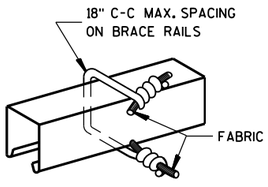


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



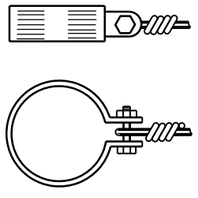
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



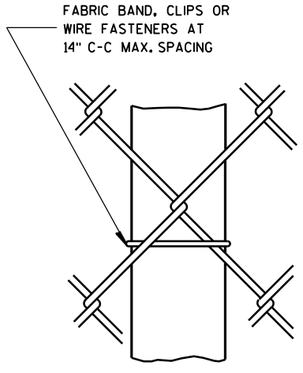
BRACE RAIL

FABRIC FASTENER

Ⓐ



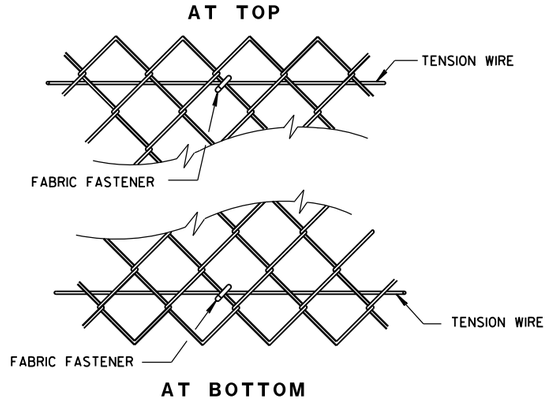
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

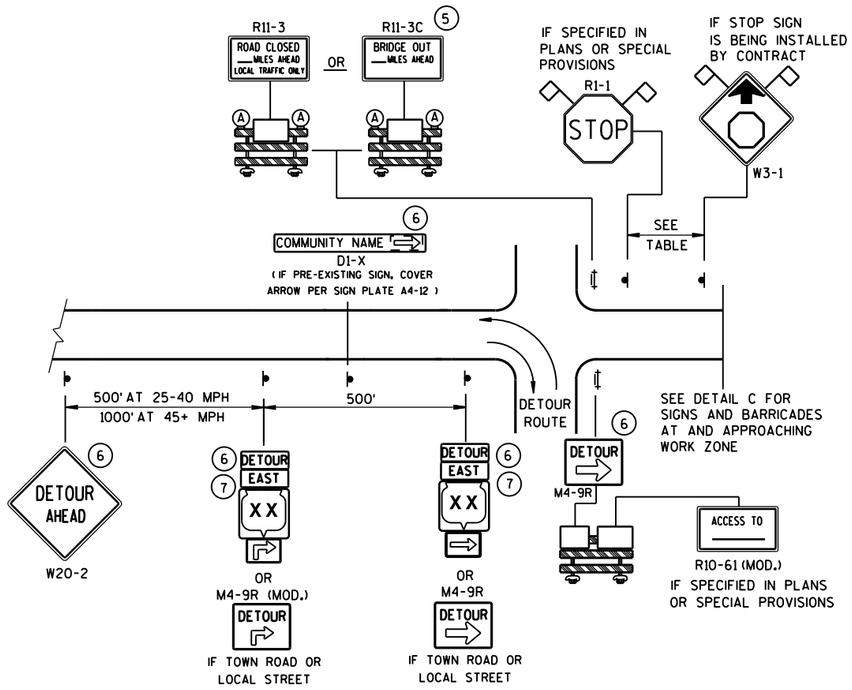
APPROVED
7/16/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 15 B 3-13b

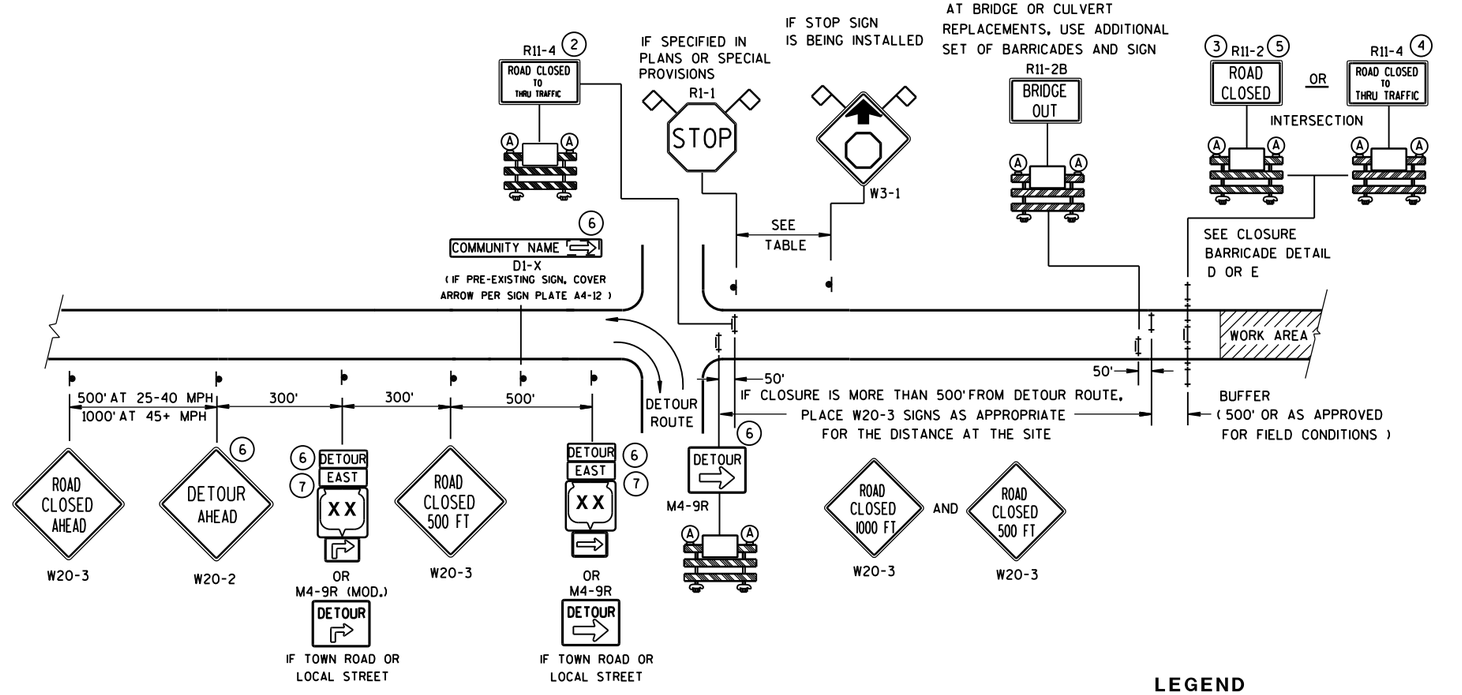
6

S.D.D. 15 B 3-13b



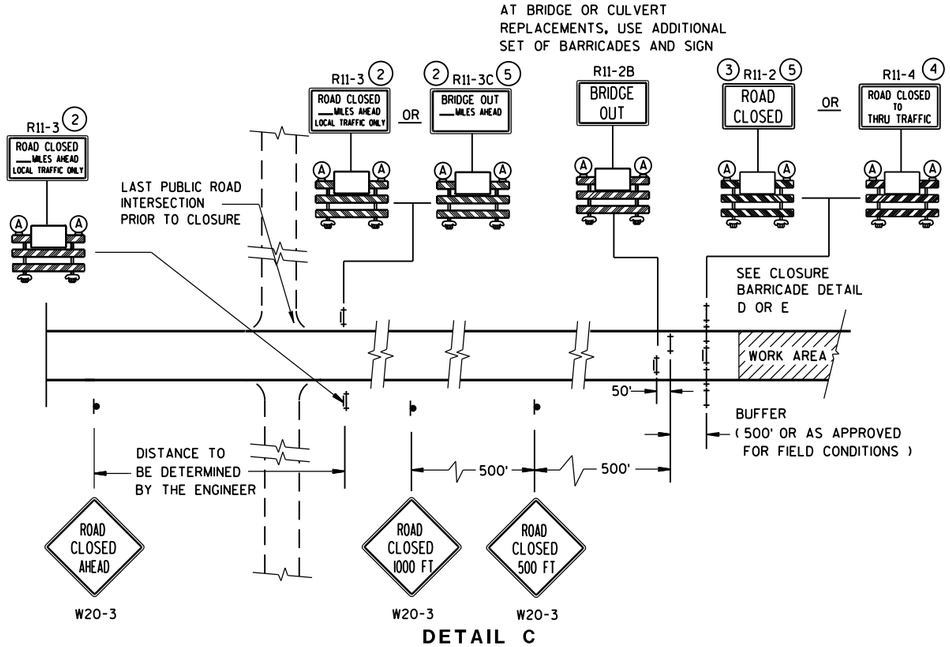
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

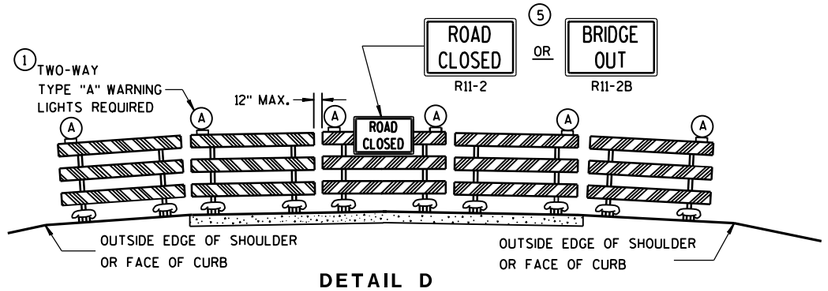
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — DESIGN

FHWA

6

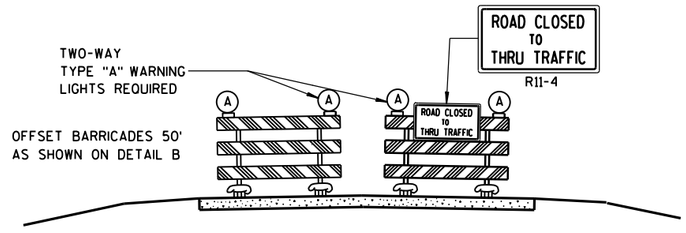
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

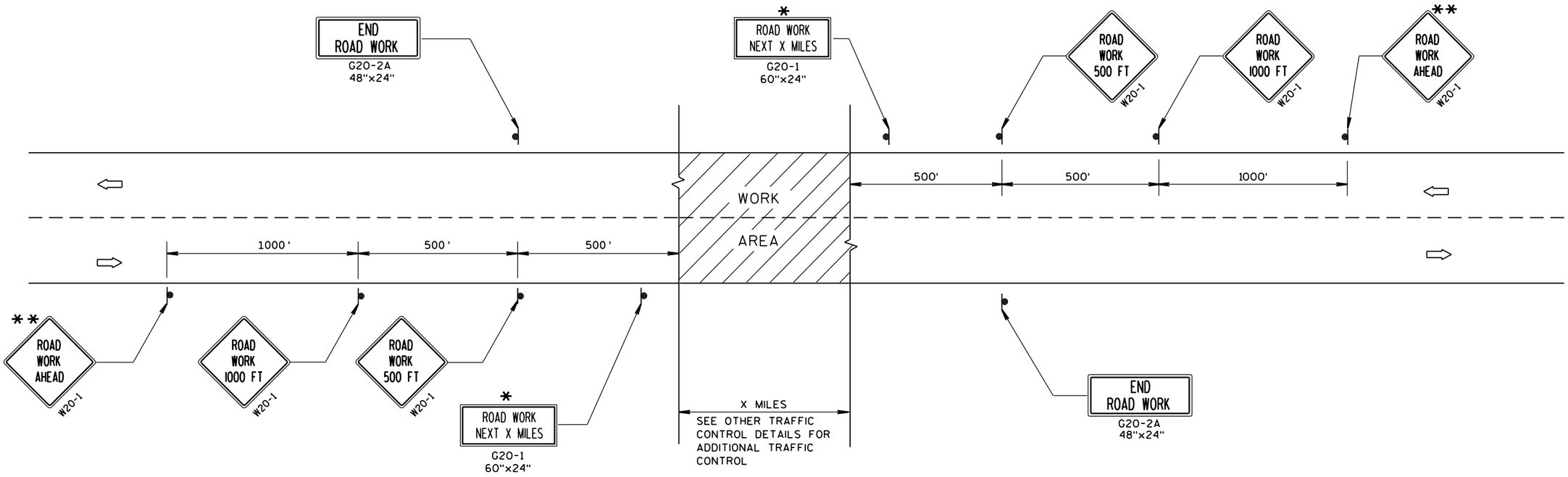
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 C 2-5b



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

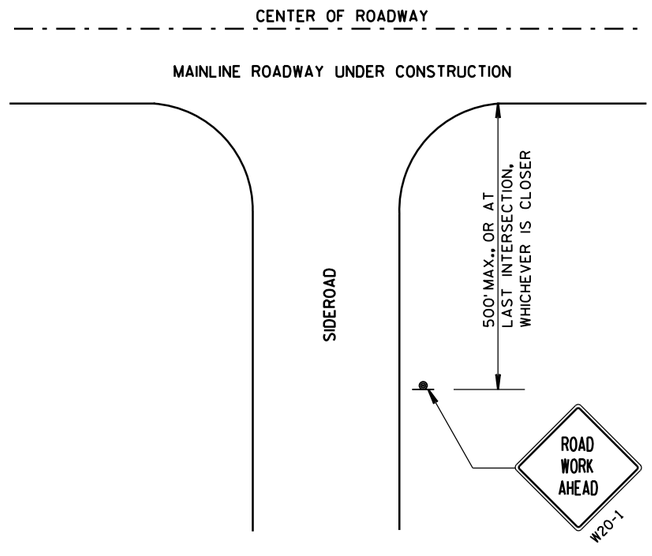
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013	/S/ Travis Feltes	SIGN
DATE	STATE TRAFFIC ENGINEER	

FHWA

6

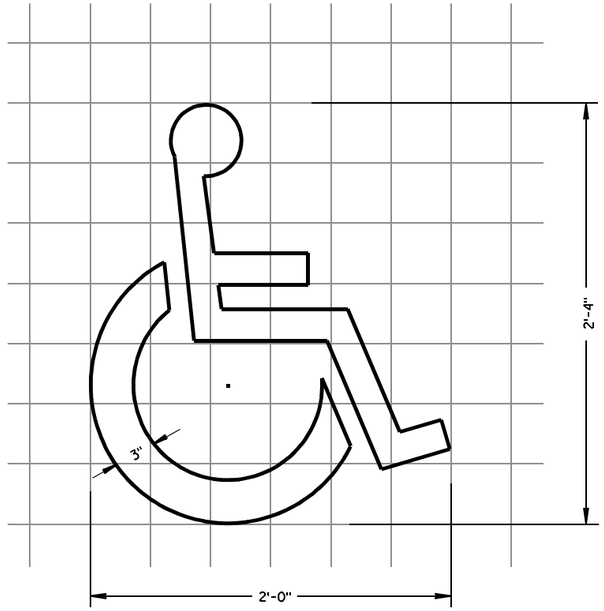
S.D.D. 15 C 4-2

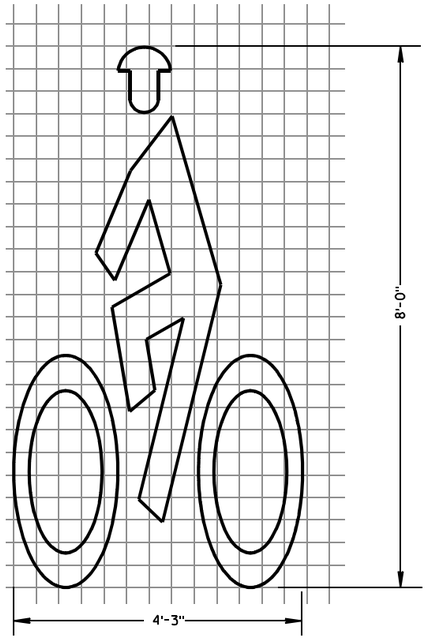
GENERAL NOTES

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.

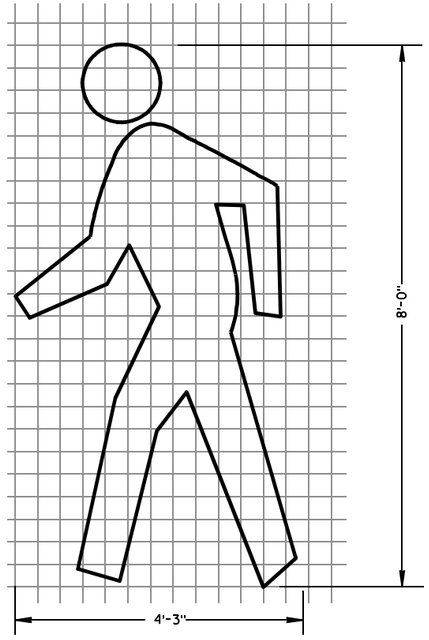
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

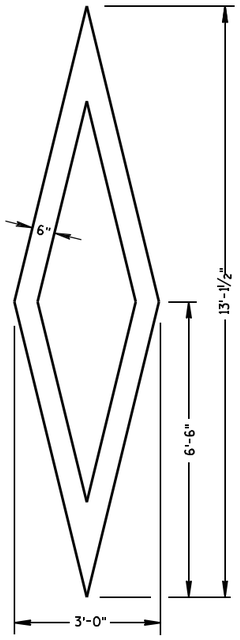




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

/S/ Thomas N Nathan
STATE TRAFFIC ENGINEER

FHWA

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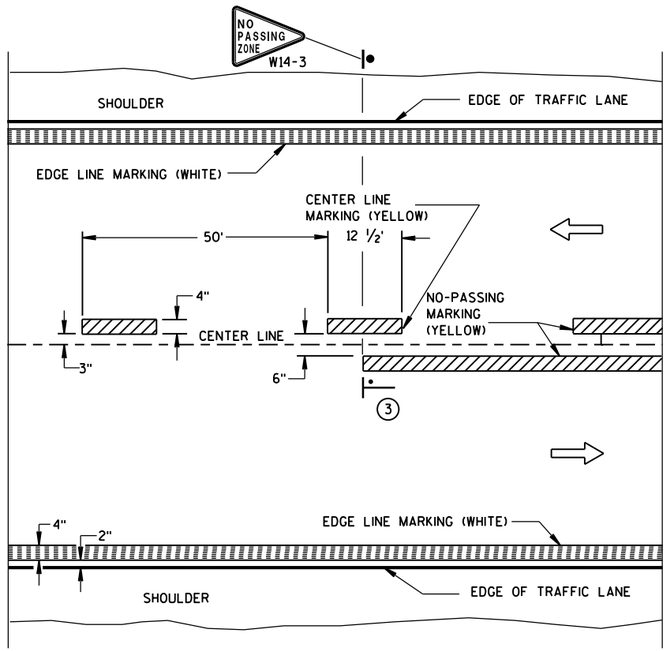
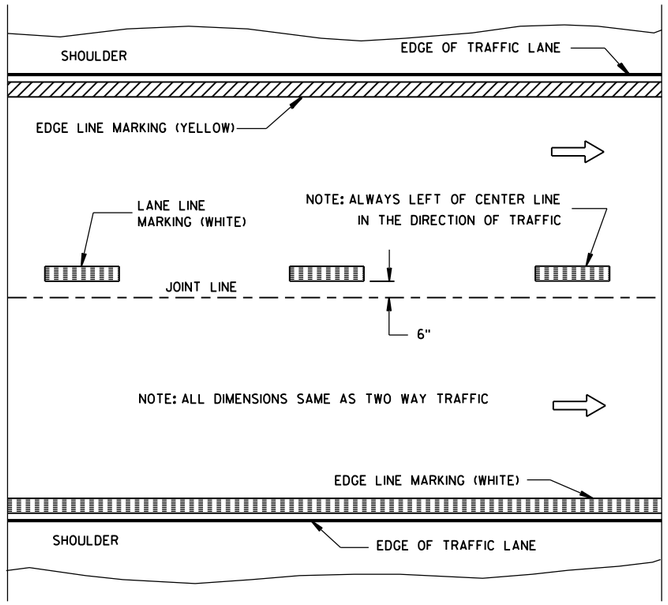
S.D.D. 15 C 7-12a

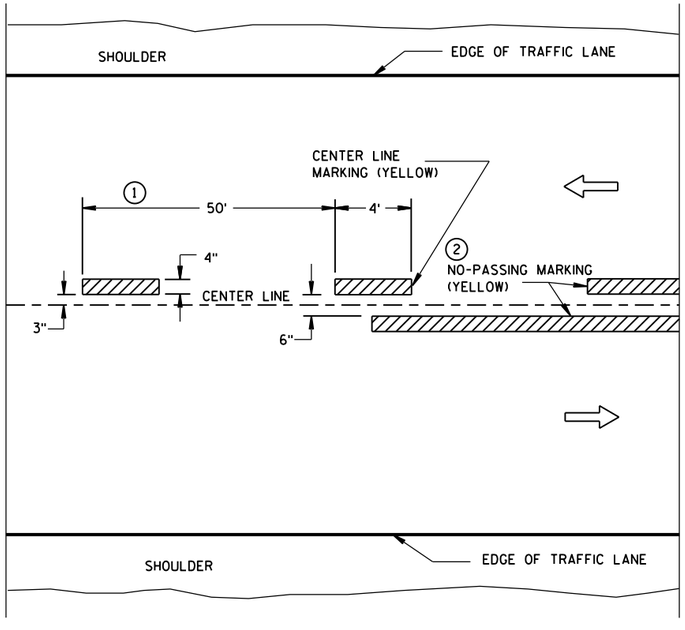


TWO WAY TRAFFIC

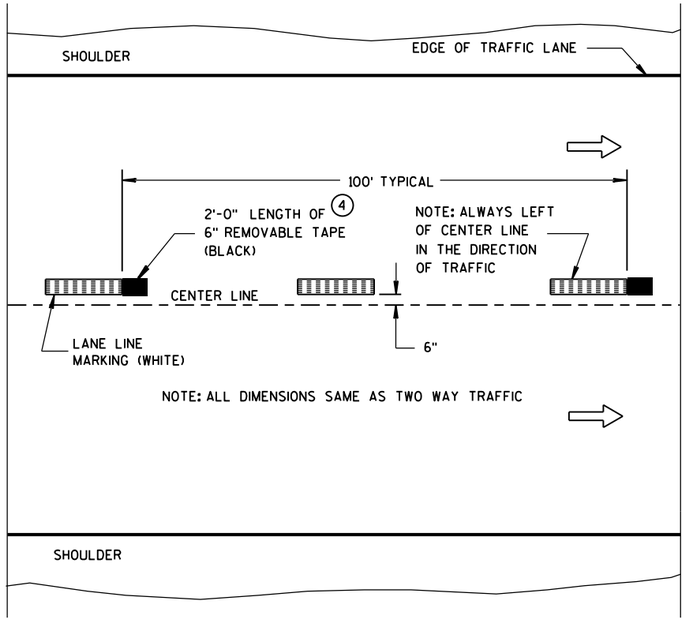


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

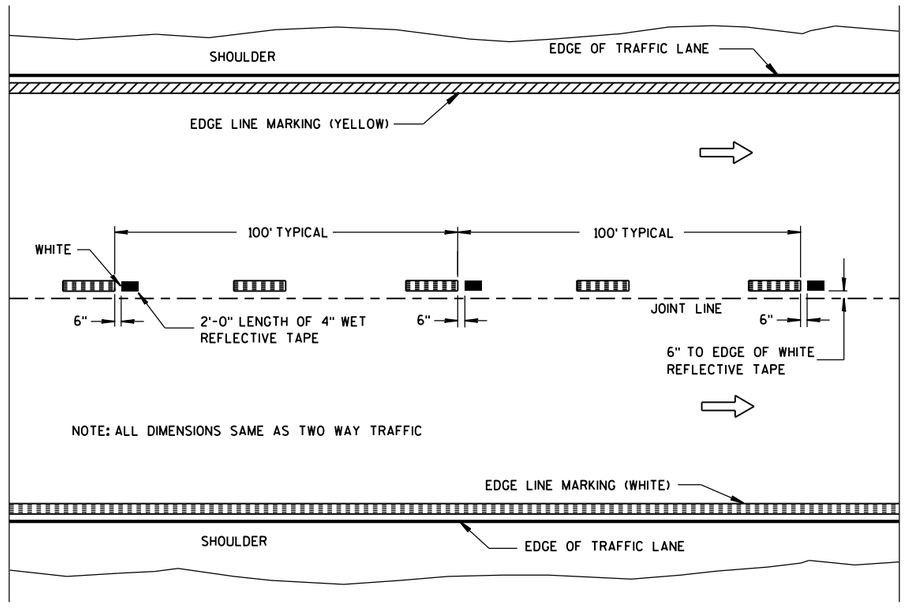
GENERAL NOTES

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

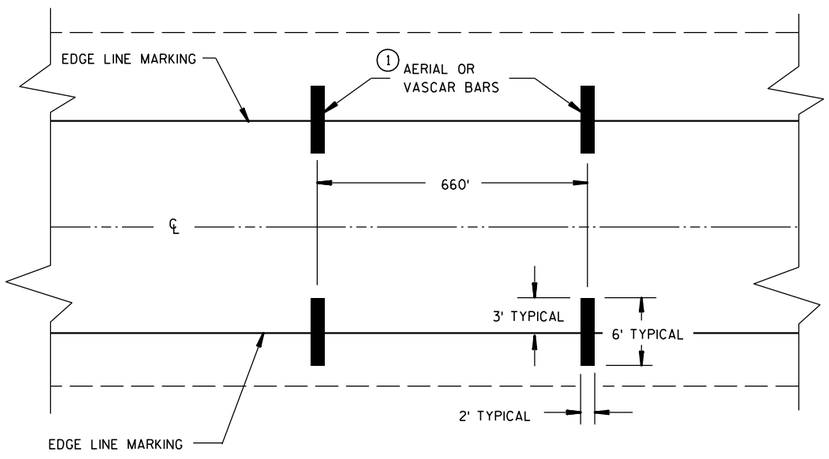
6

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

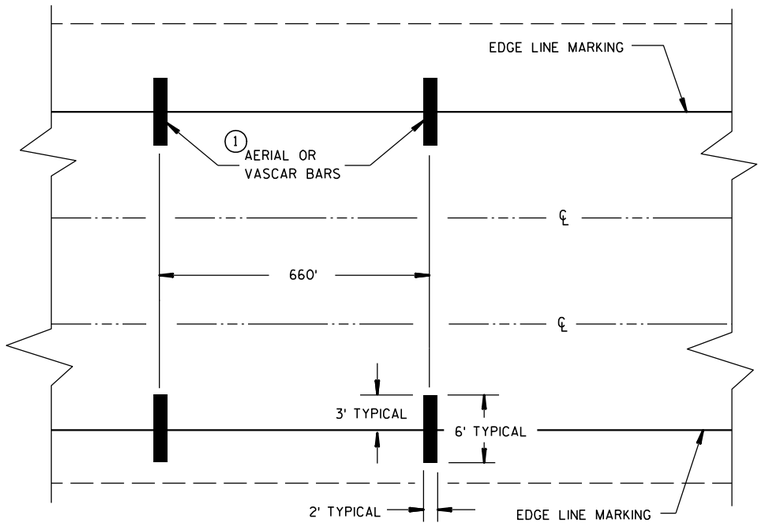
GENERAL NOTES

(1) NUMBER OF VASCAR OR AERIAL BARS SHALL BE A MINIMUM OF 2 OR A MAXIMUM OF 5 AT 660' SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

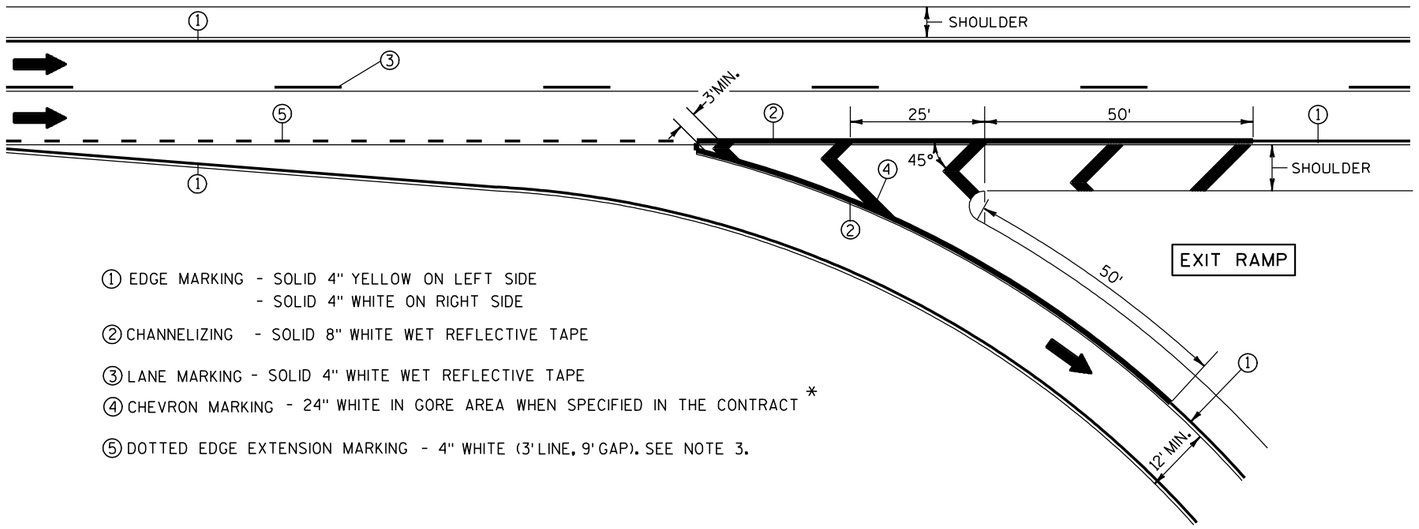
6

S.D.D. 15 C 14-1

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

6

S.D.D. 15 C 14-1



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:

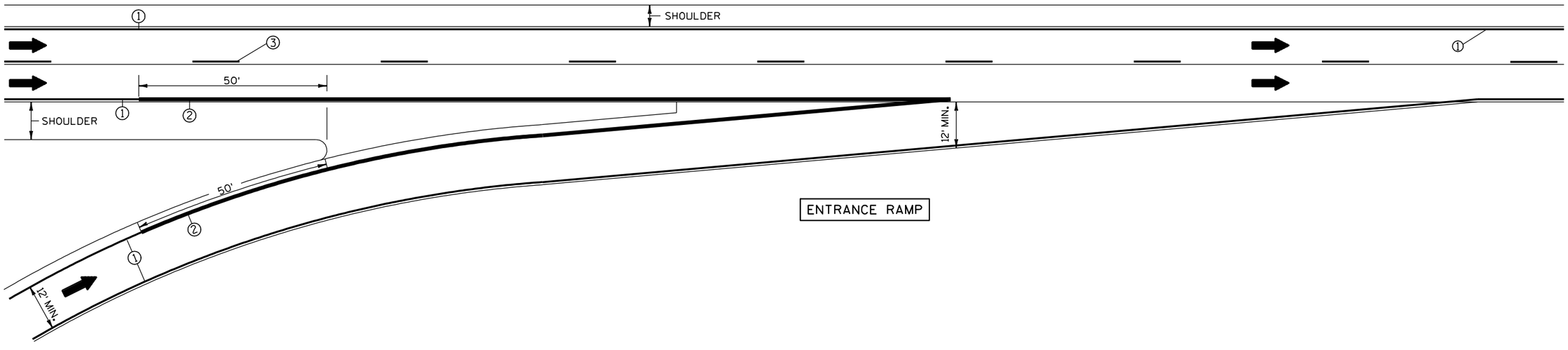
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

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.



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S.D.D. 15 C 31-1a

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- 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.

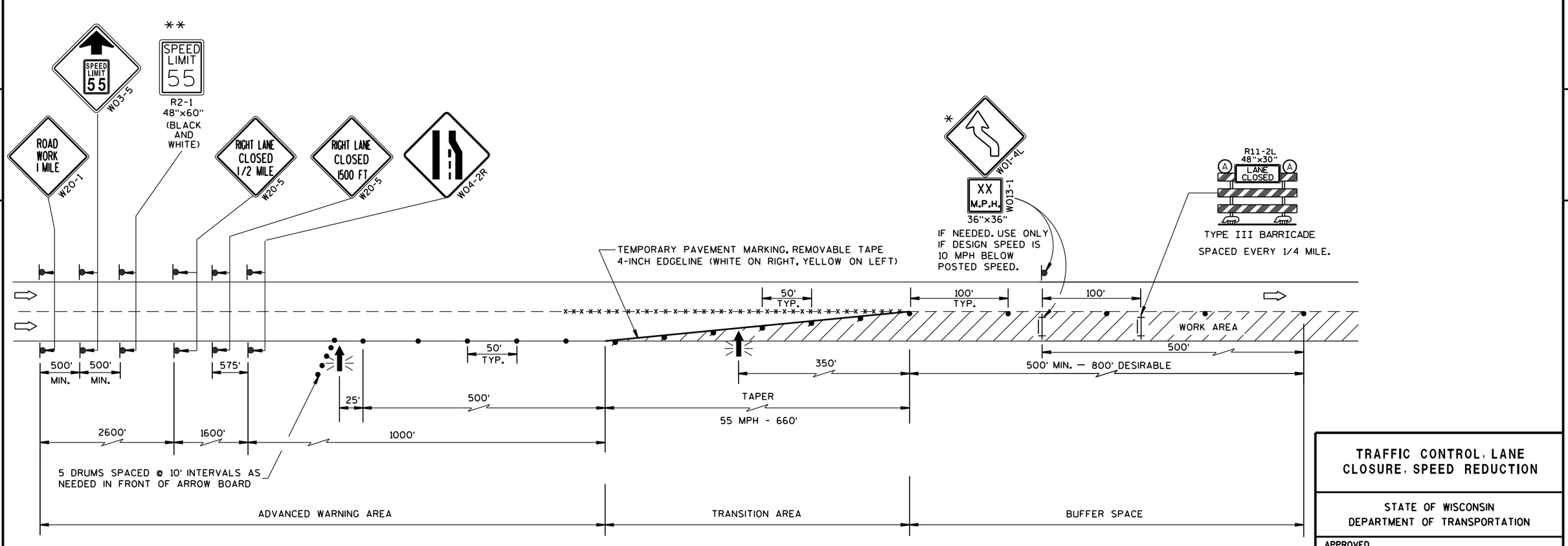
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.

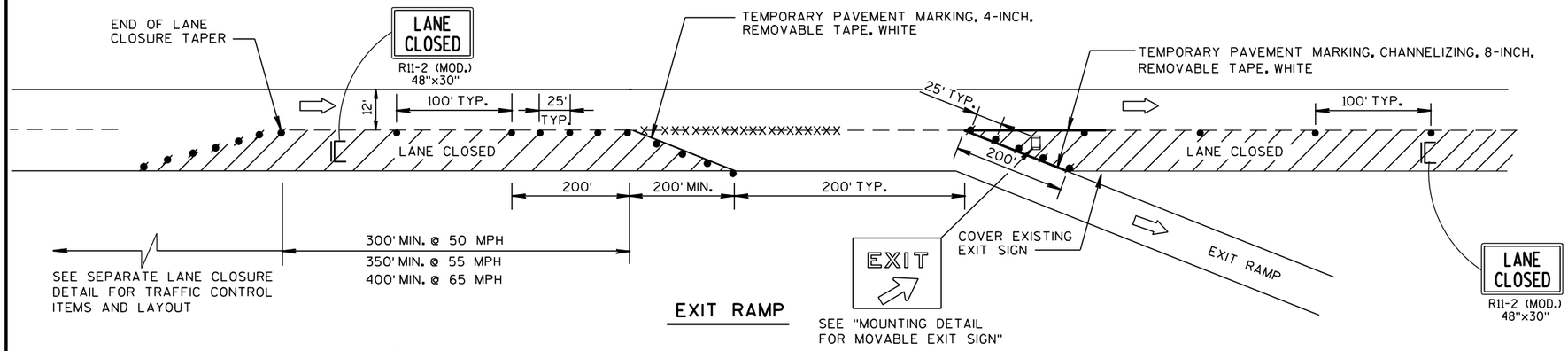


TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

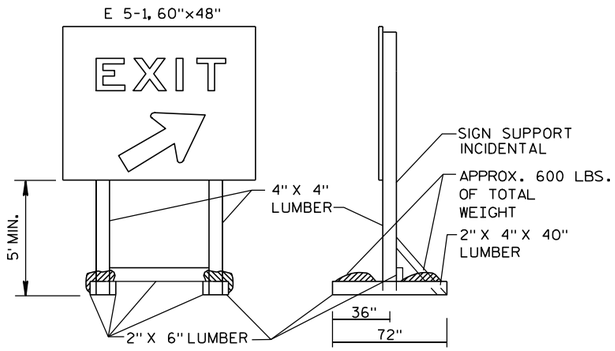
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3-2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6
S.D.D. 15 D 12-4

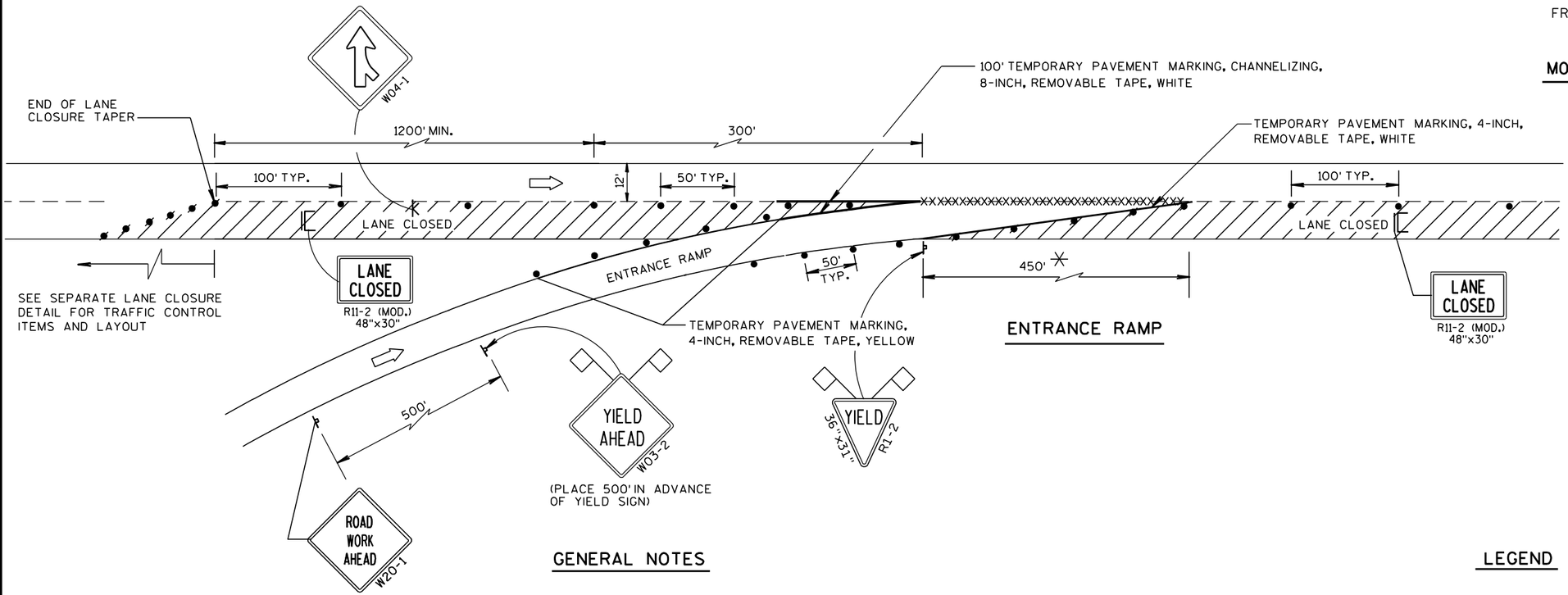


EXIT RAMP



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

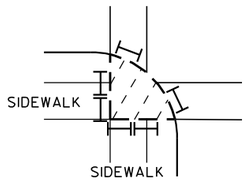
TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

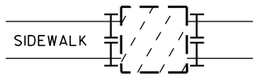
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

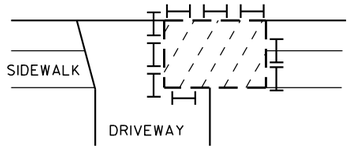
APPROVED
5/24/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

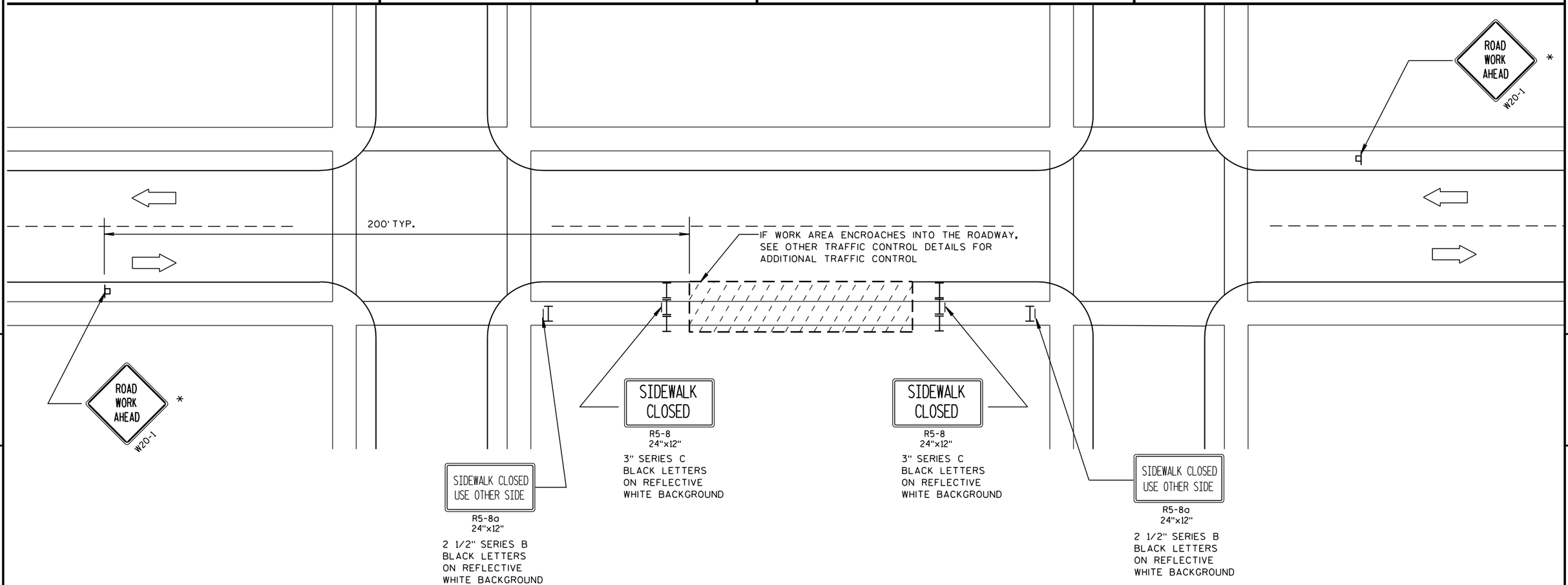
6
S.D.D. 15 D 15-1

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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

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

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

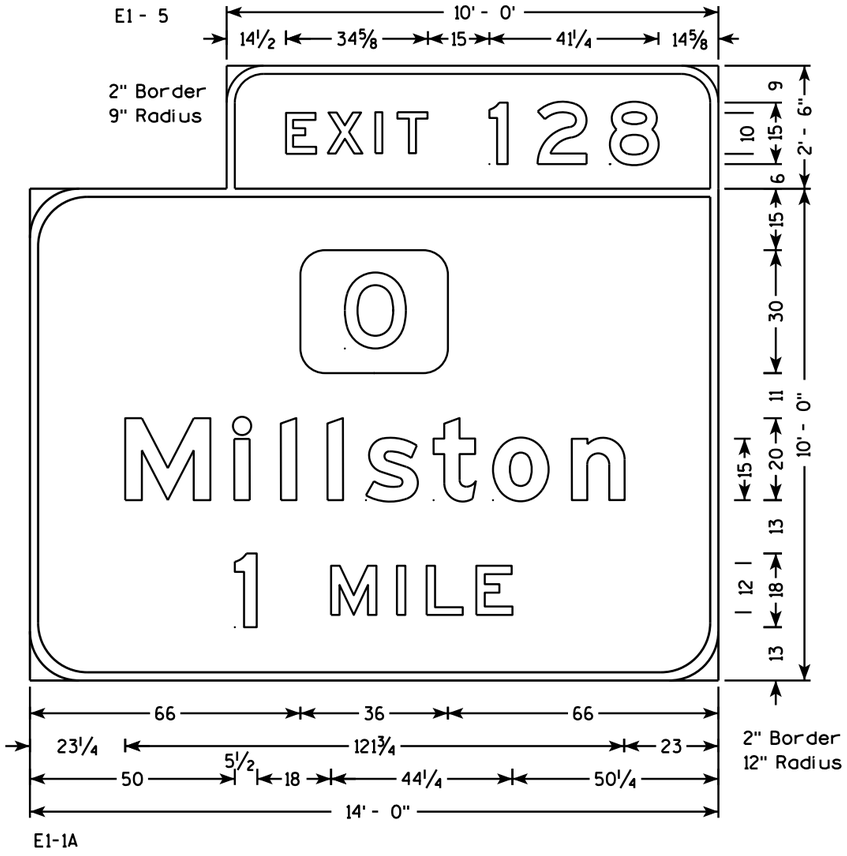
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible]NEER
FHWA

6

S.D.D. 15 D 30-1

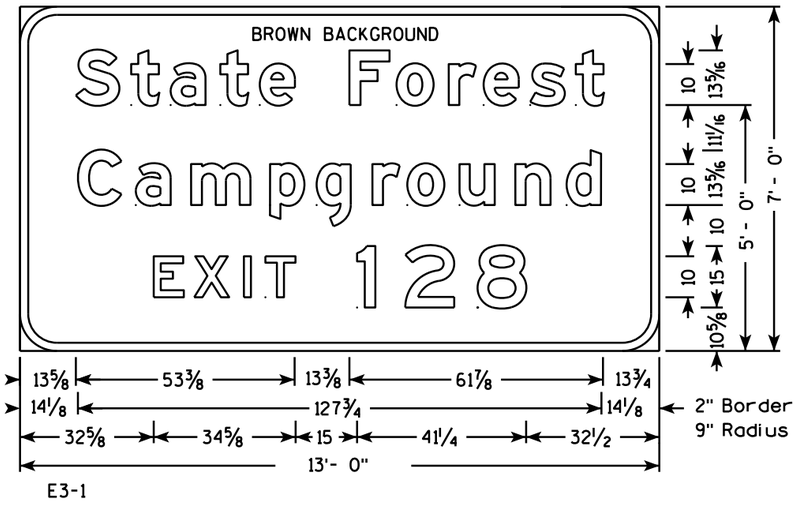
E1 - 5



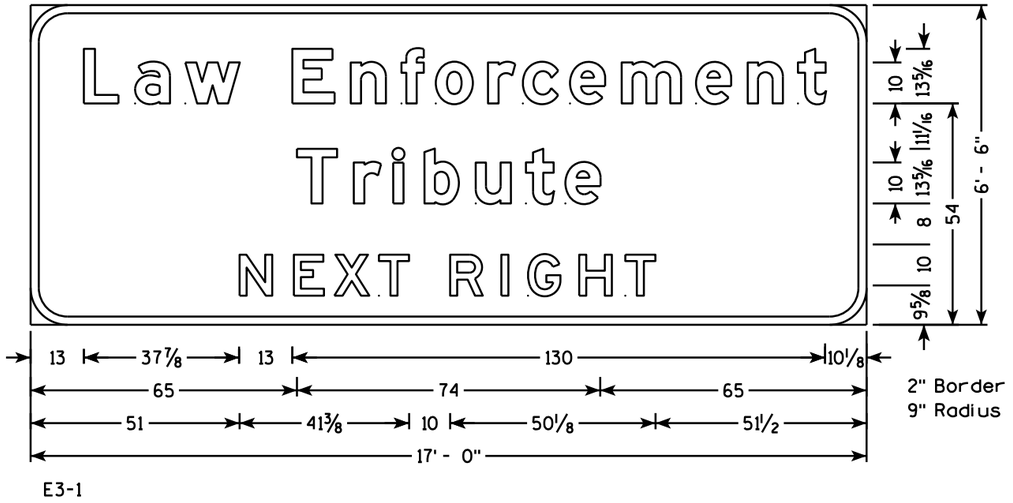
E1-1A

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all cap WORDS are Series E



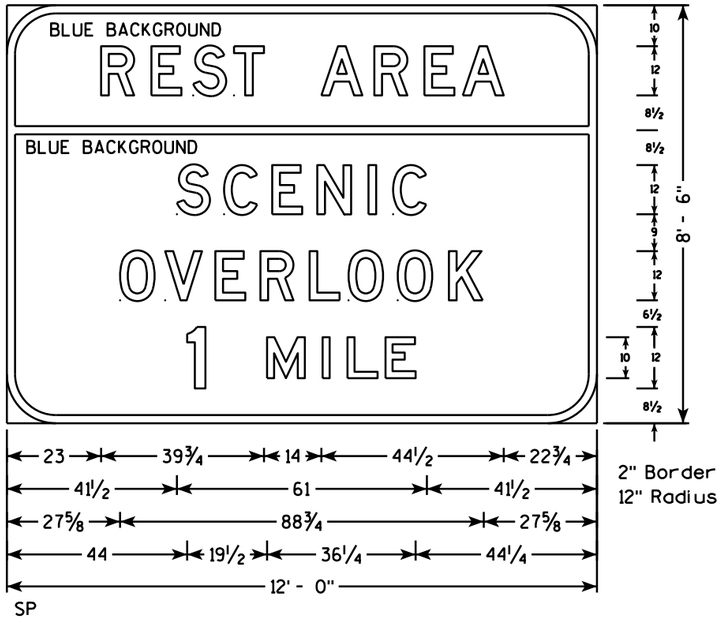
E3-1



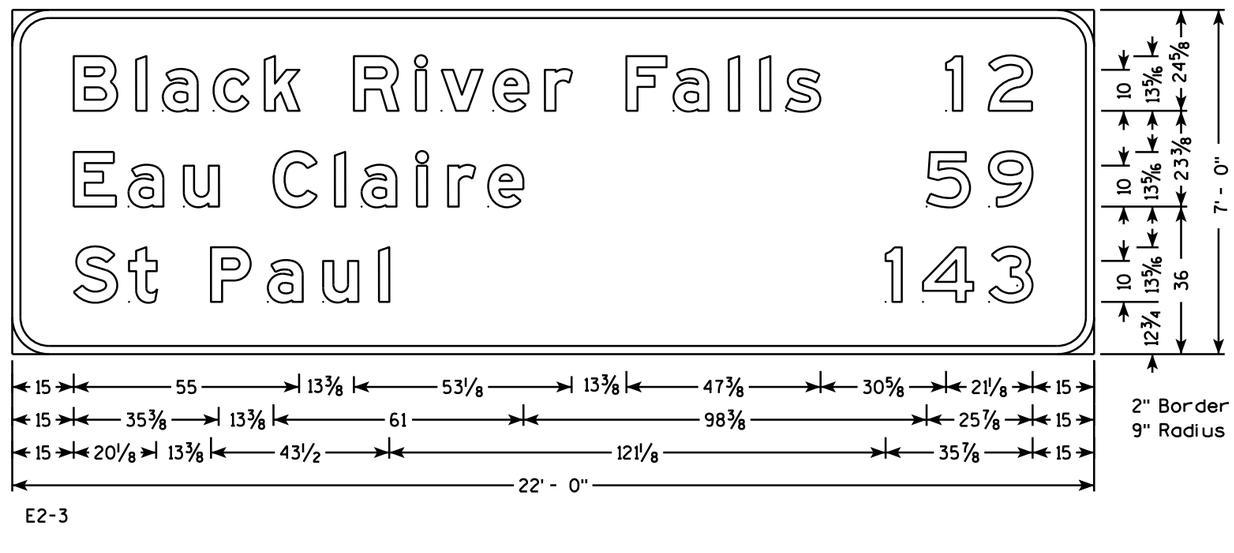
E3-1

NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green except as Shown
   Message - White
3. Message Series - E Modified except all cap WORDS are Series E



SP



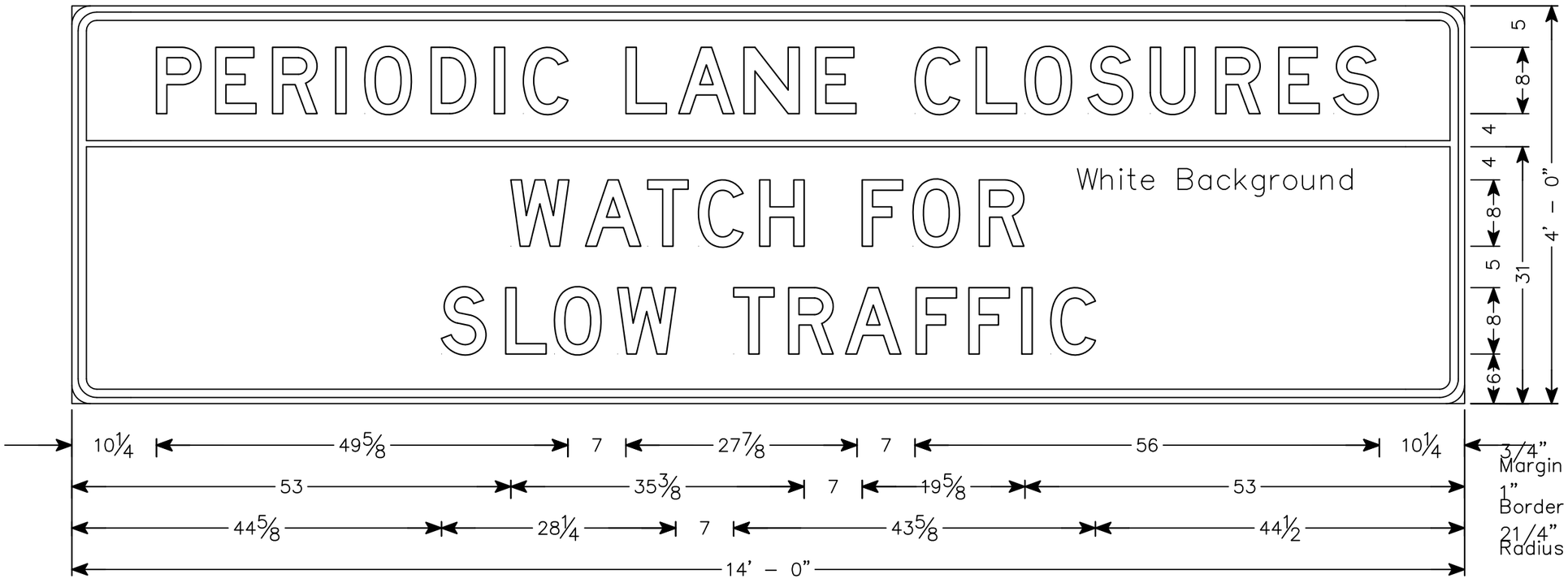
E2-3

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_d5\5272A513.DGN PLOT DATE : 26-JUN-2014 14:03 PLOT BY : mscsjq PLOT NAME : PLOT SCALE : 36.970996:1.000000 WISDOT/CADDS SHEET 42

NOTES

1. All Signs Type II – Reflective – reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background – Orange except as noted
   Message – Black
3. Message Series – D

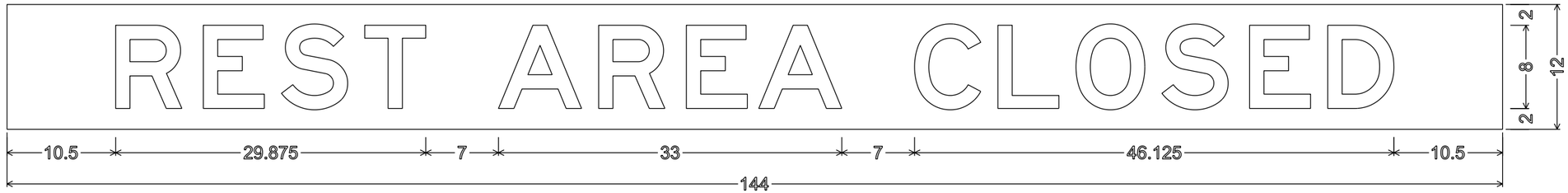


PROJECT NO: 1023-00-78 & 1023-01-70	HWY: IH 94	COUNTY: JACKSON	TEMPORARY SIGNING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\SHEETSPLAN\070120_SD.DWG PLOT DATE : 5/14/2013 2:18 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 0.067340

NOTES

1. Sign is Type I - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E



7

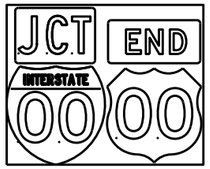
7

PROJECT NO: 1023-01-70 & 1023-00-78	HWY: IH 94	COUNTY: JACKSON	TEMPORARY SIGNING	SHEET NO:	E

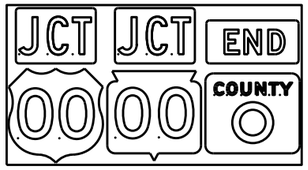
FILE NAME : C:\CAEfiles\Projects\tr_misc\RestAreaClosed.dgn PLOT DATE : 28-APR-2014 16:55 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 13.515007:1.000000

TYPICAL ASSEMBLIES

J1-1

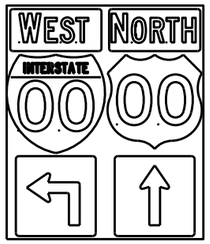


J1-2

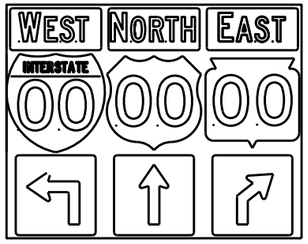


J1-3

J2-1



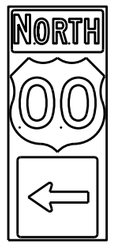
J2-2



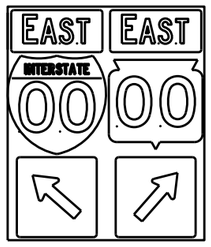
J2-3

JV

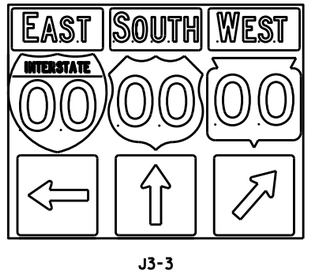
(Typical Vertical J-Assembly
See Note 10 and 11)



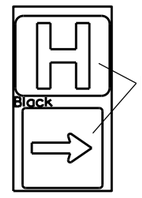
J3-1



J3-2

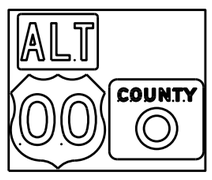


J3-3

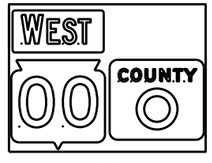


JH-1

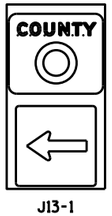
J4-1



J4-2



J4-2



J13-1

J12-1

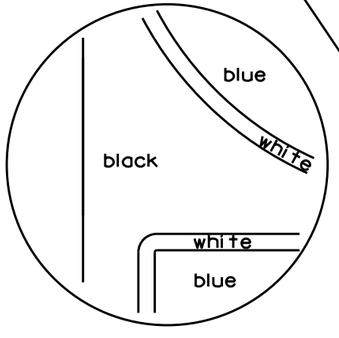
J32-1

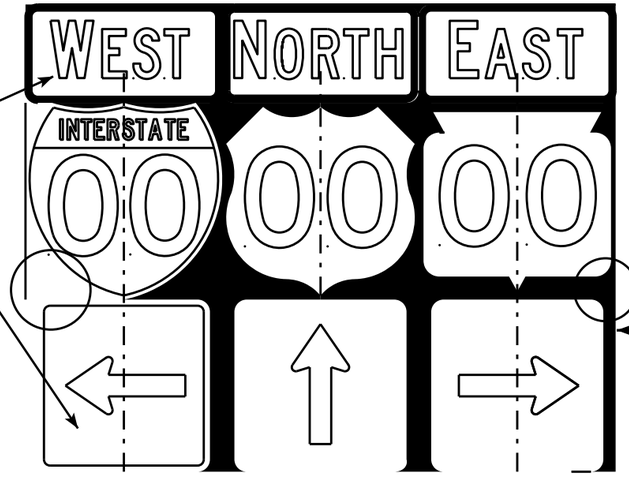
J33-1

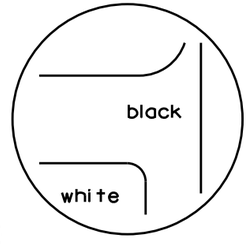
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

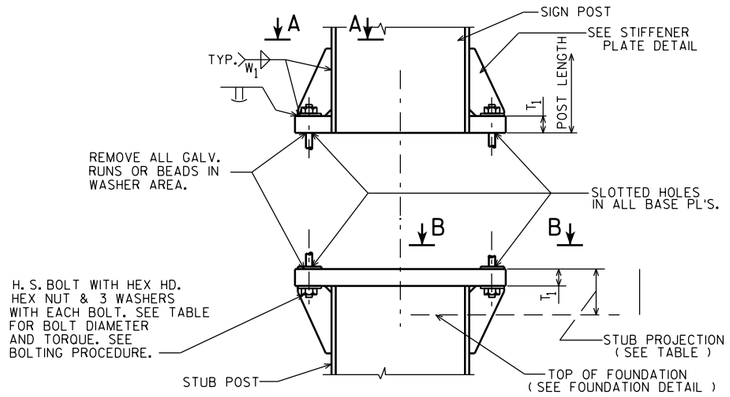
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

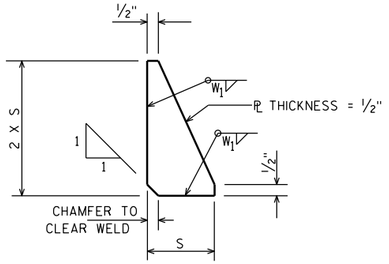
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

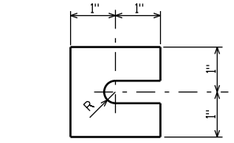


SIGN POST AND STUB POST ELEVATION



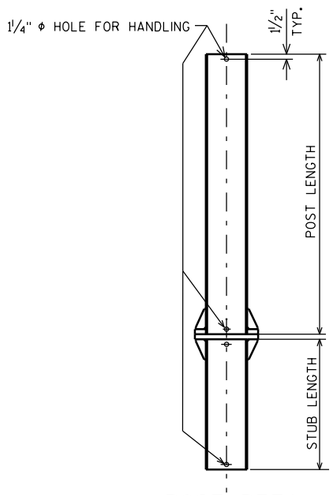
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)

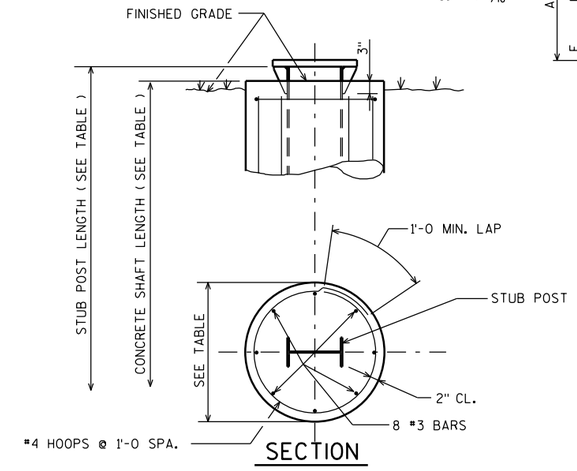


FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

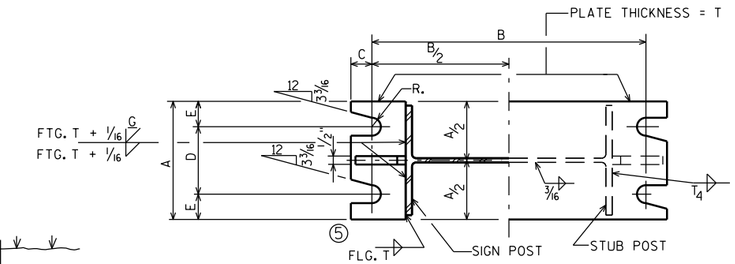
SHIM DETAIL



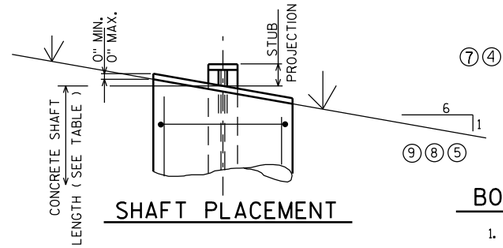
POST DETAIL



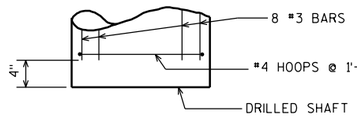
SECTION



SECTION A-A SECTION B-B



SHAFT PLACEMENT



FOUNDATION DETAIL

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.

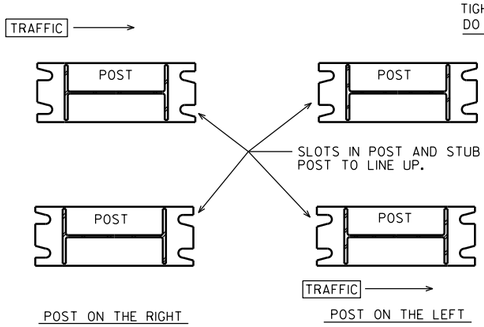
GENERAL NOTES

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.



POST SLOT ORIENTATION (7)

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

BASE CONNECTION DATA TABLE / FOUNDATION DATA

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	(2) 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)

(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.

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

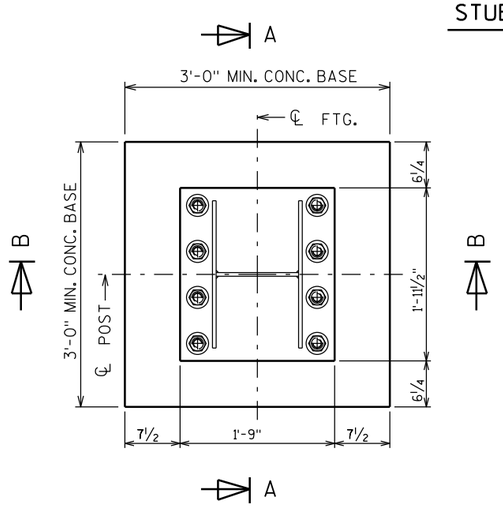
CONST. SPEC. 2011	DRAWN BY JPH	PLANS CK'D.

FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

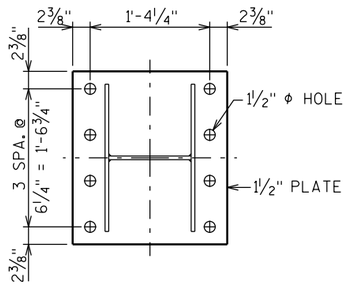
SHEET 157

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

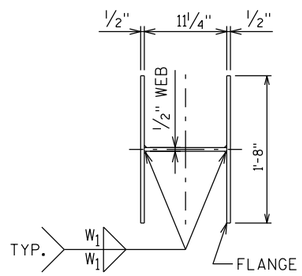
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



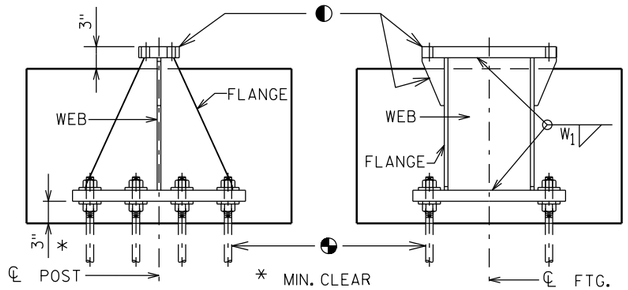
BASE PLATE



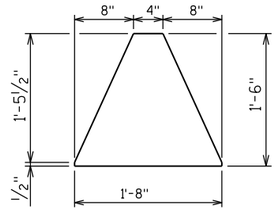
STUB

◐ 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



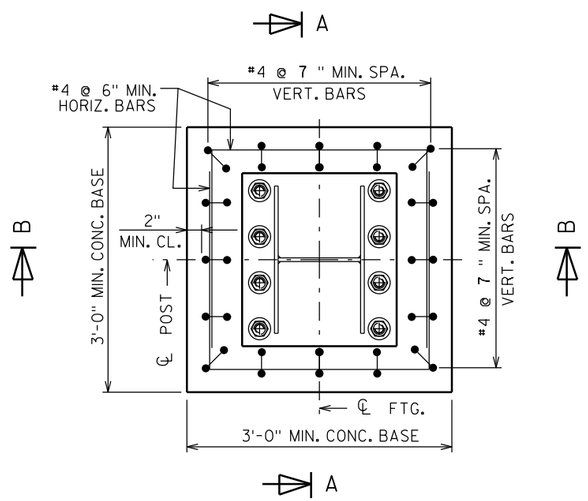
FLANGE

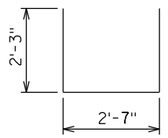
GENERAL NOTES

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

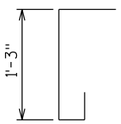
CONCRETE BASE SECTION





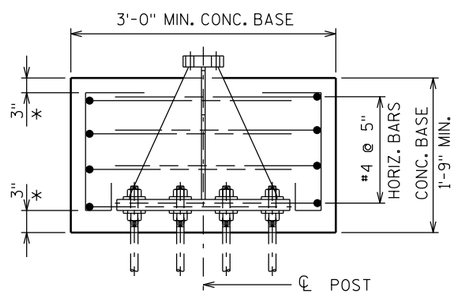
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



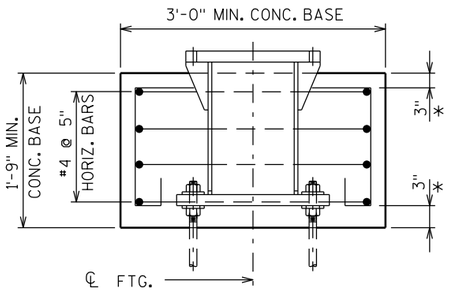
VERTICAL BARS

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

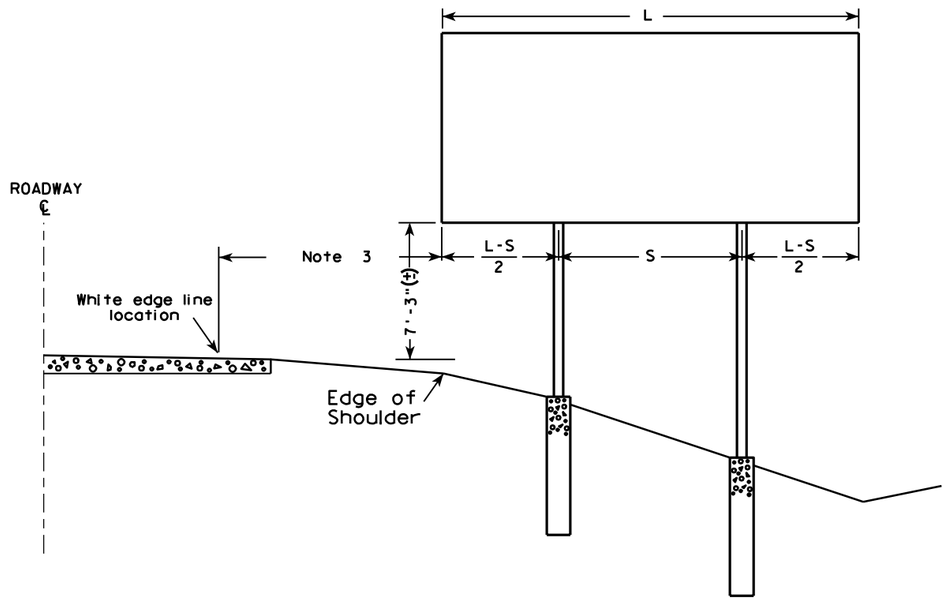
APPROVED Matthew R Rauch
for State Traffic Engineer

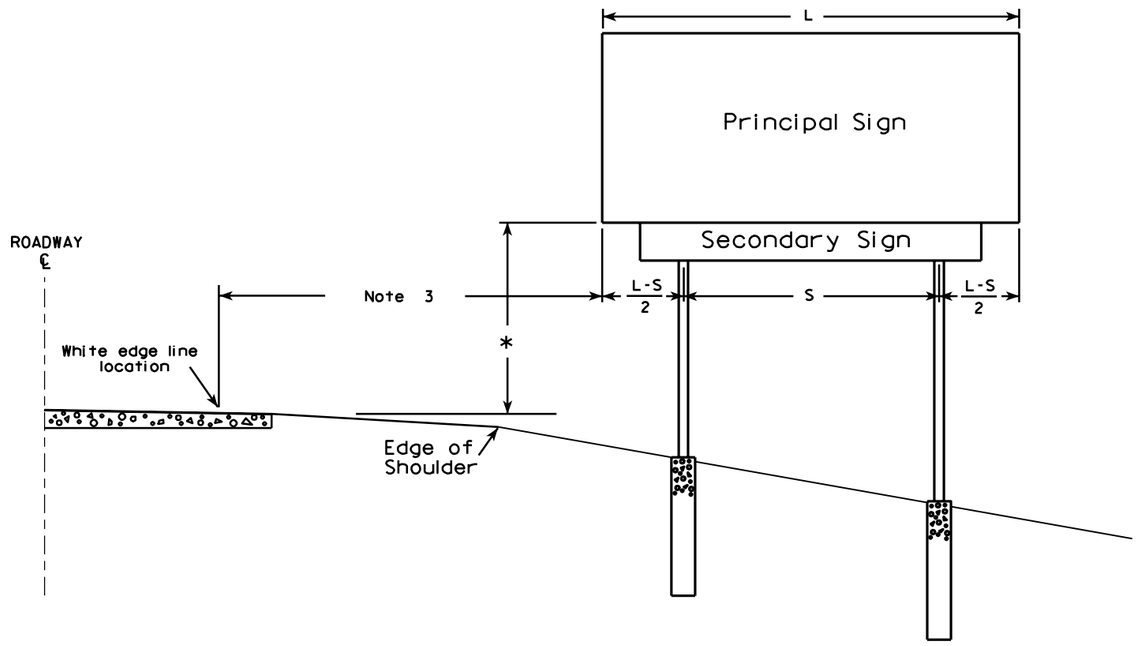
DATE 2/06/2014 PLATE A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h 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"(±).

7

7

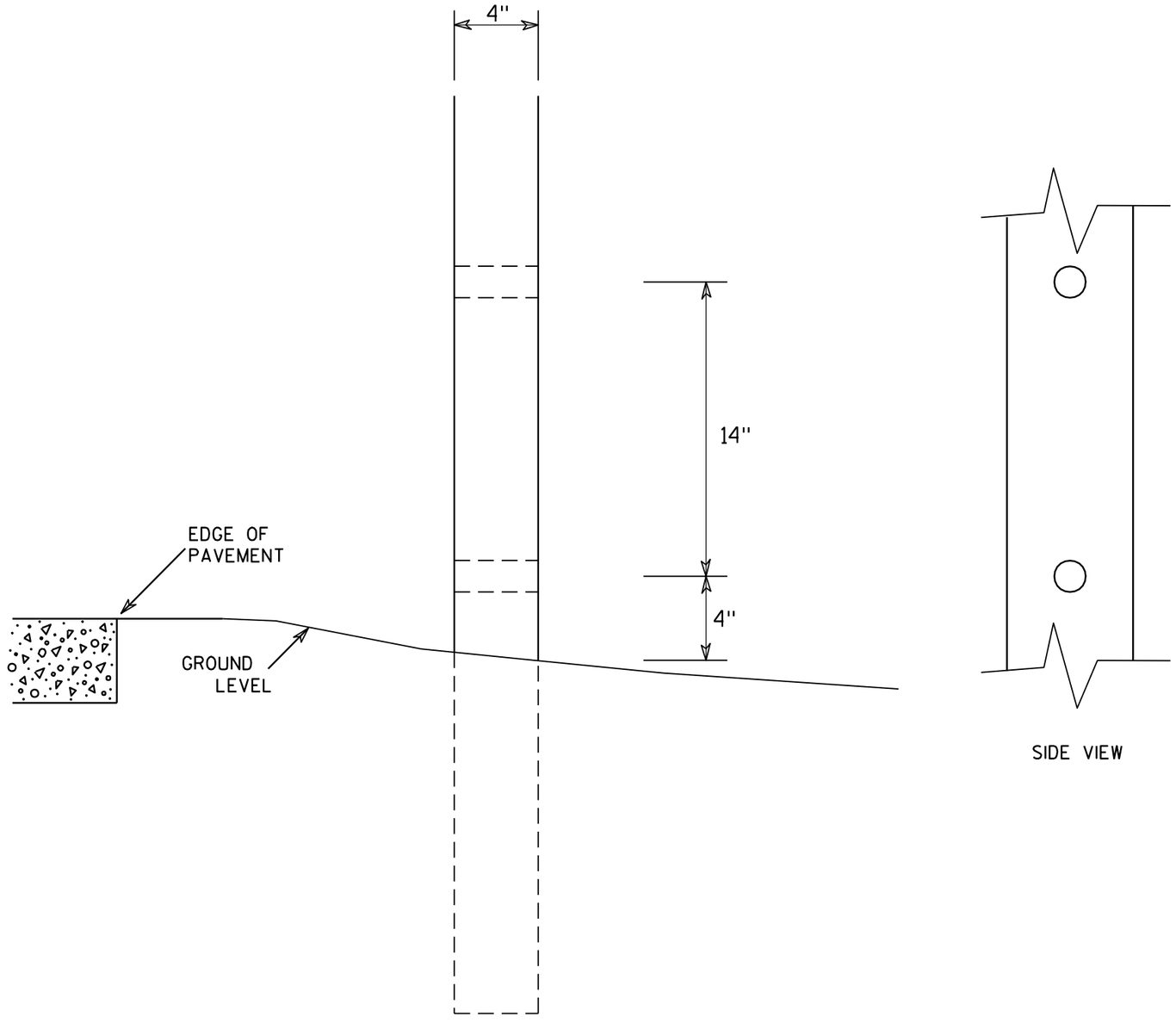
TYPICAL INSTALLATION
OF TYPE I SIGNS

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: 159	E



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

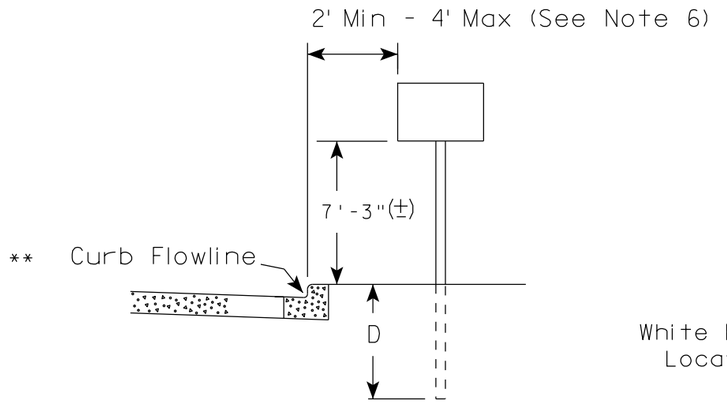
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

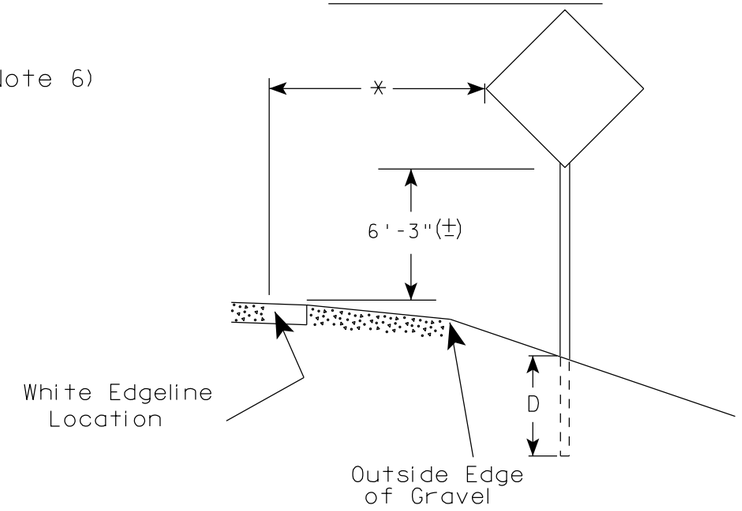
DATE 3/27/97 PLATE NO. A4-11.2

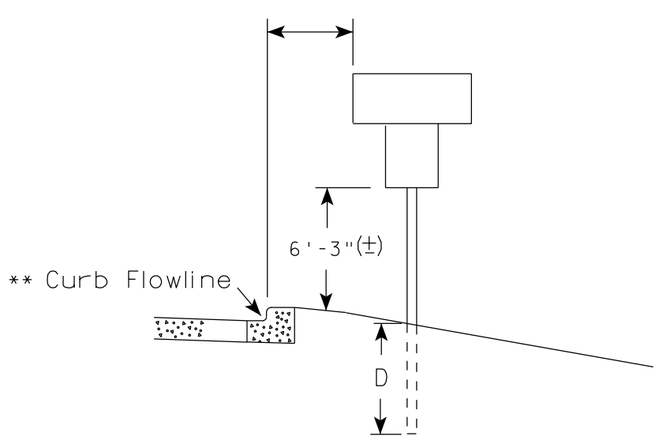
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 160	E

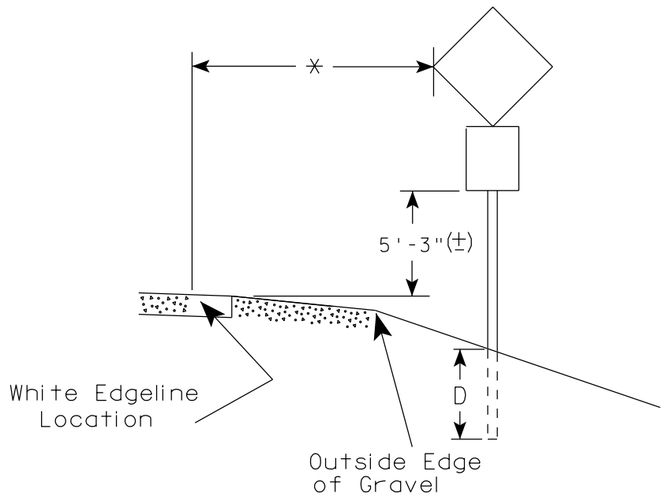
URBAN AREA



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

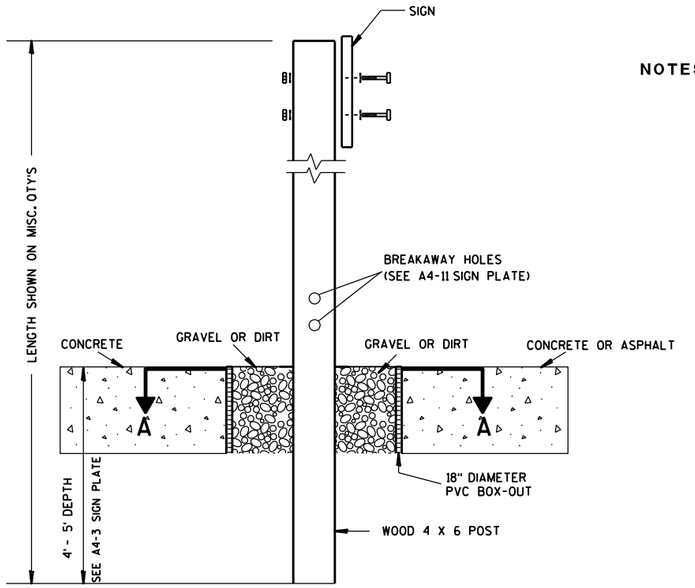
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

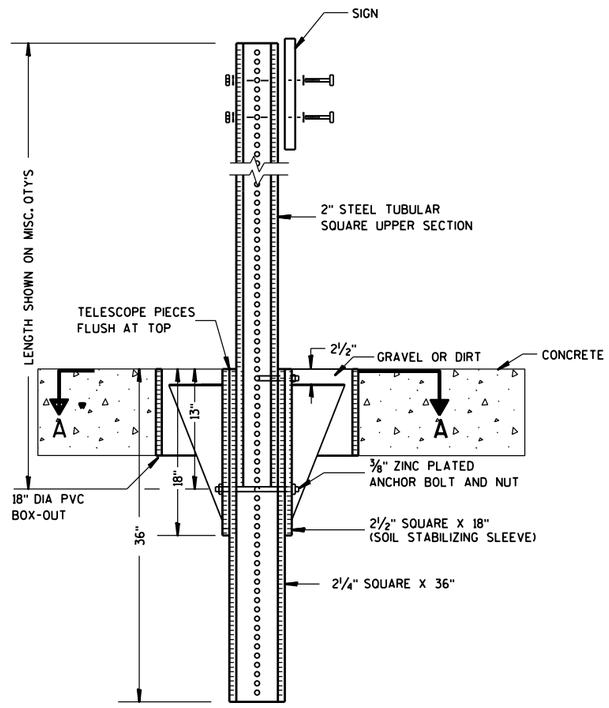
7



ELEVATION VIEW

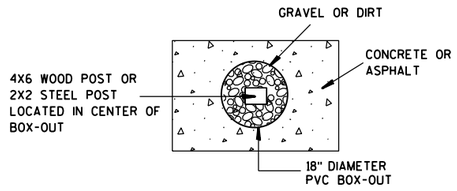
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

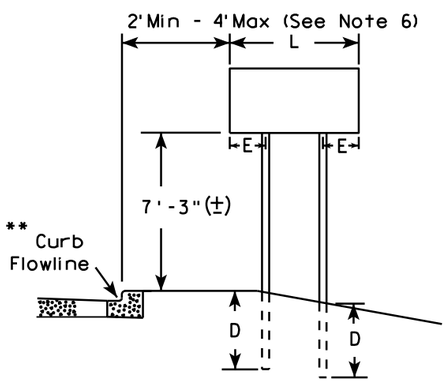
APPROVED Matthew R Rauch
for State Traffic Engineer

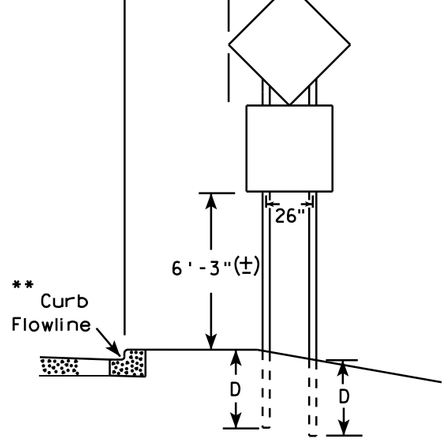
DATE 1/27/14 PLATE NO. A4-3B.1

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

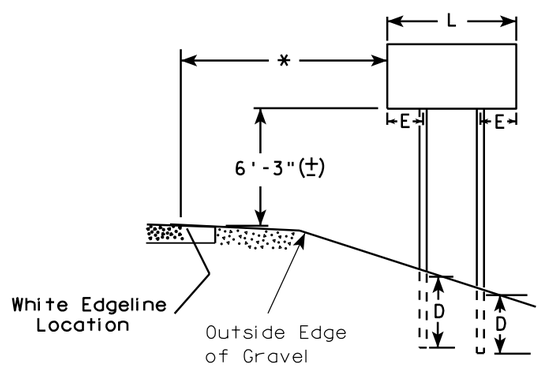
URBAN AREA

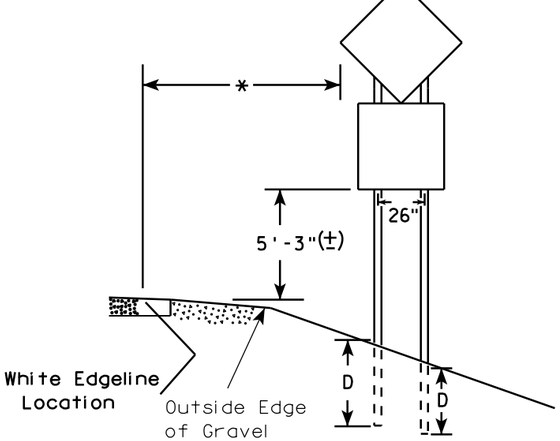




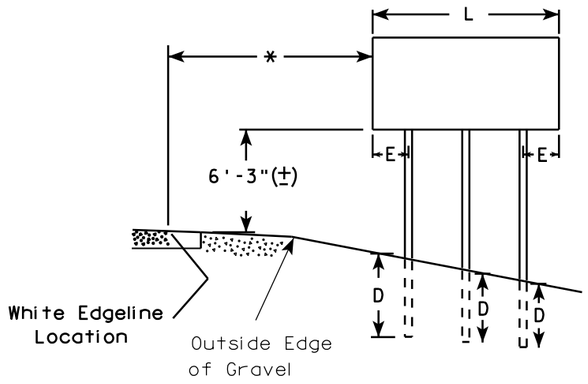
48" DIAMOND WARNING SIGN

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 less than 20 S.F. in area.

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

***

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

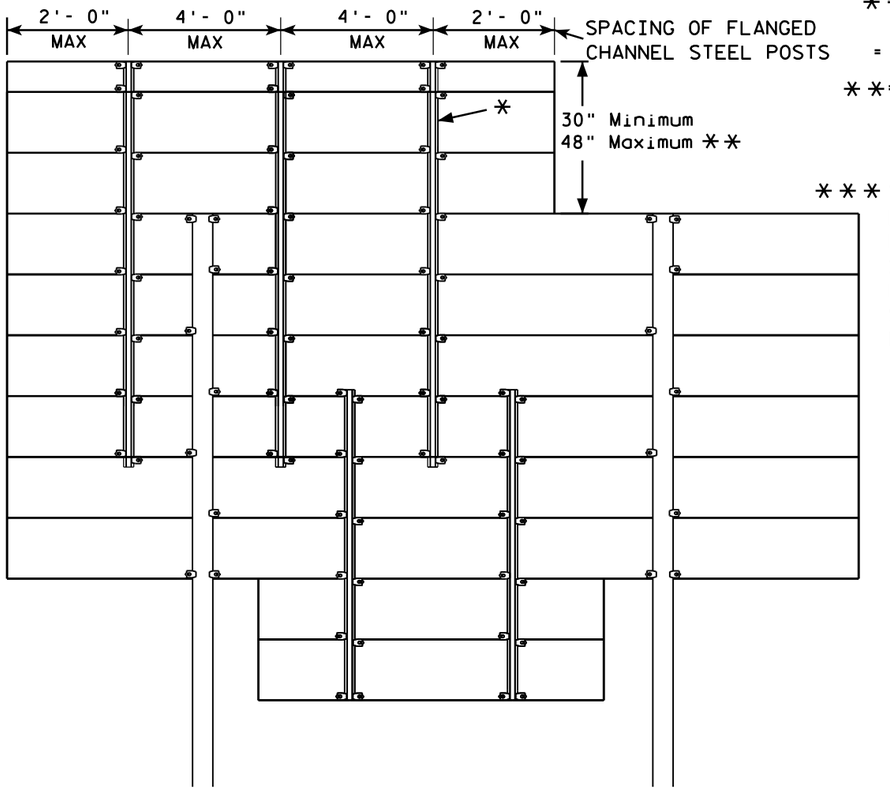
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/29/14 PLATE NO. A4-4 13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

GROUND MOUNTED SIGN

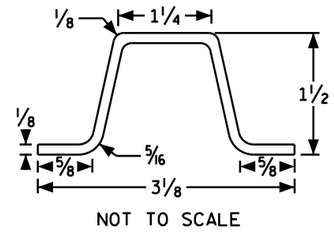


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

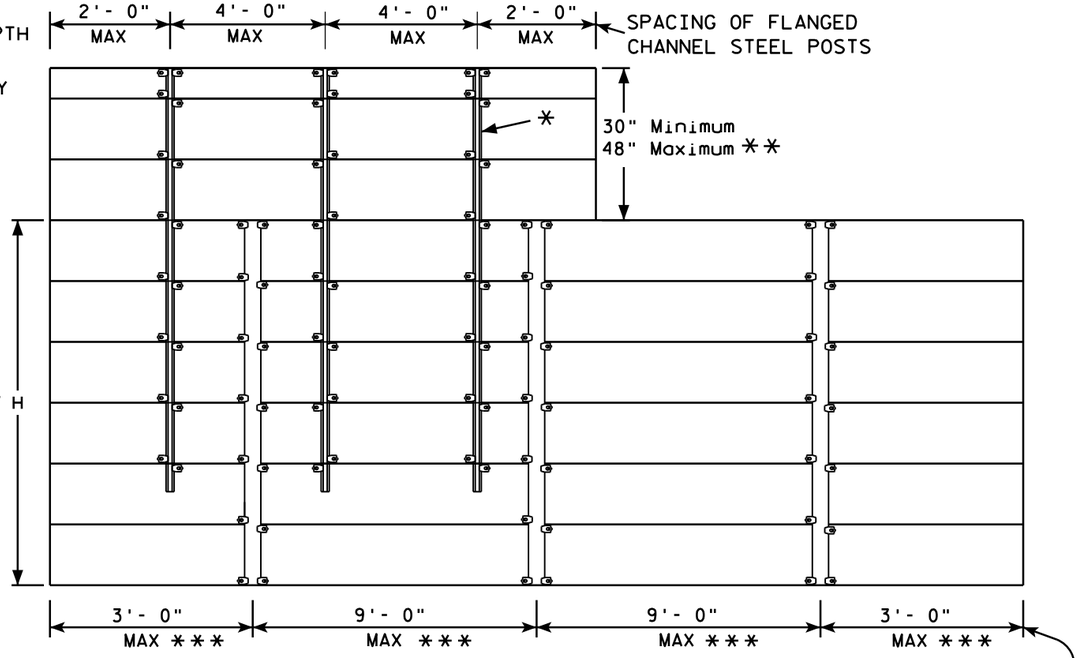
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



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.

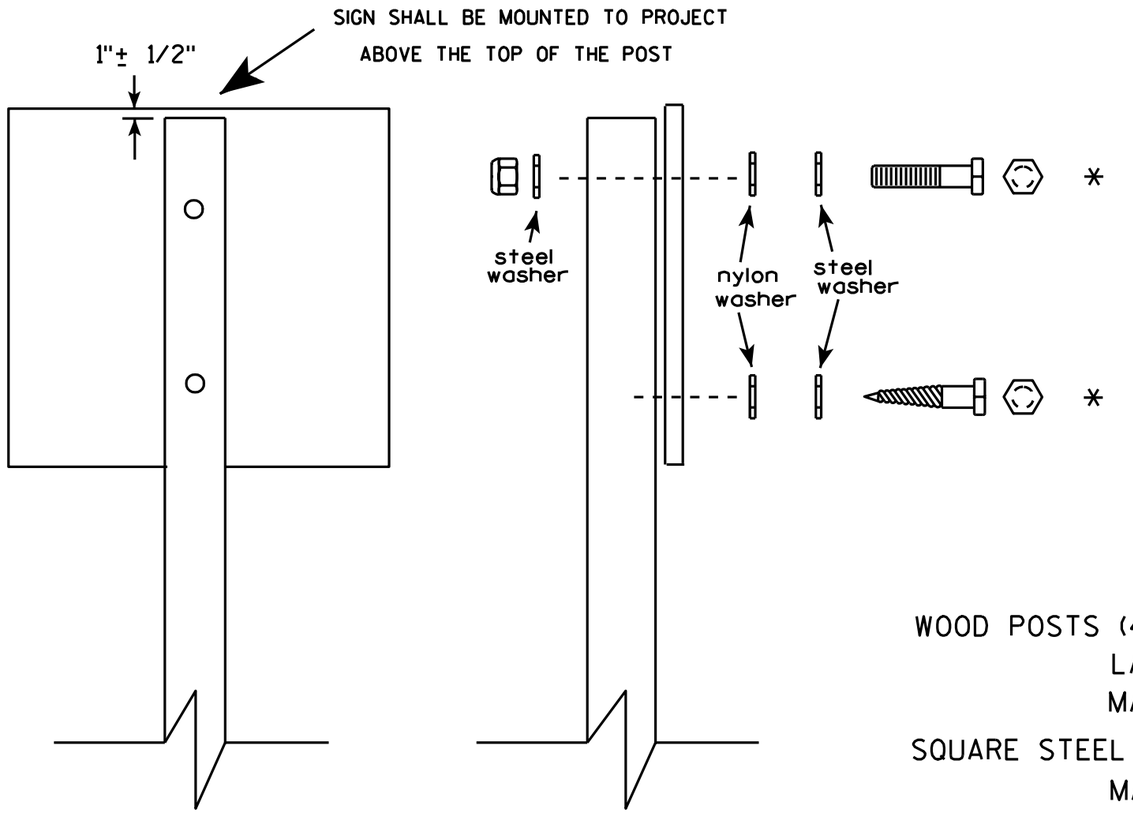
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 164 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

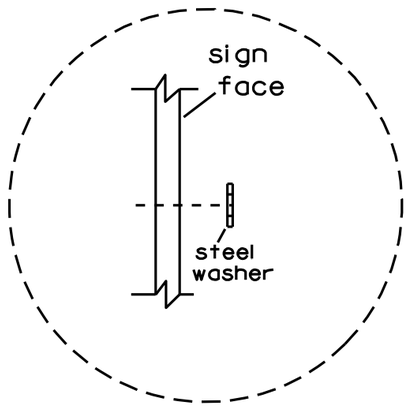
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

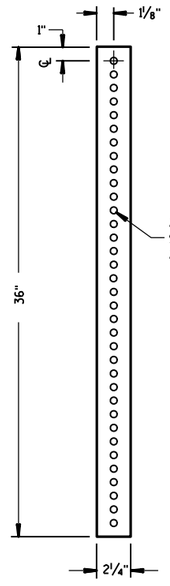
7

PROJECT NO:

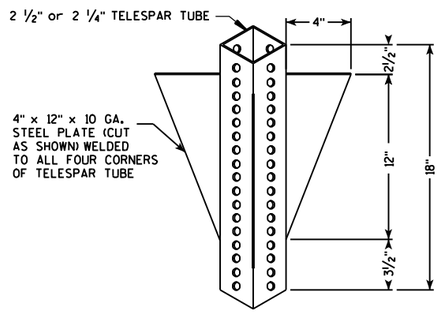
SHEET NO: 165 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

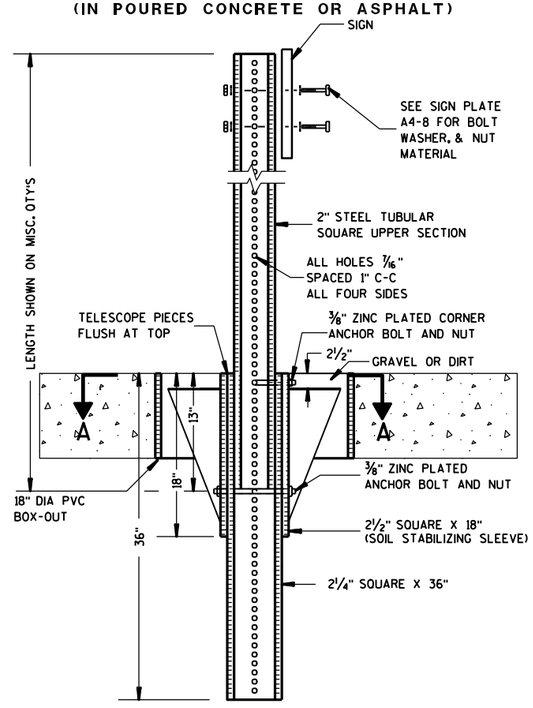
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



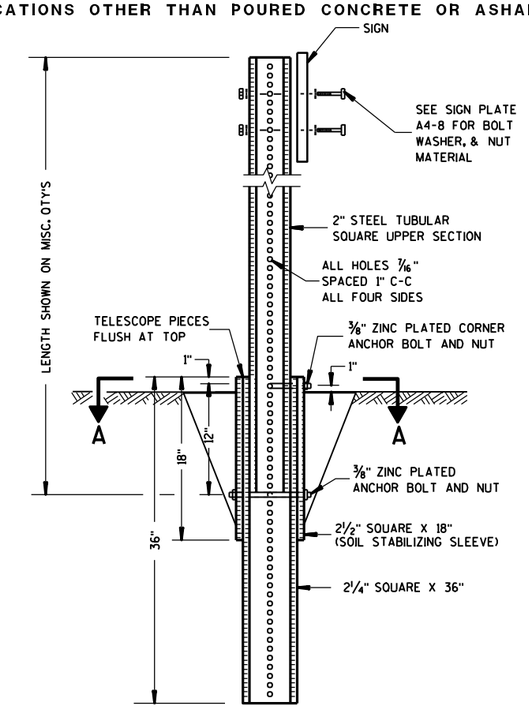
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

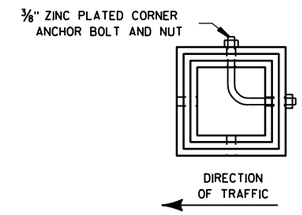


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL SIGN POST A4-9

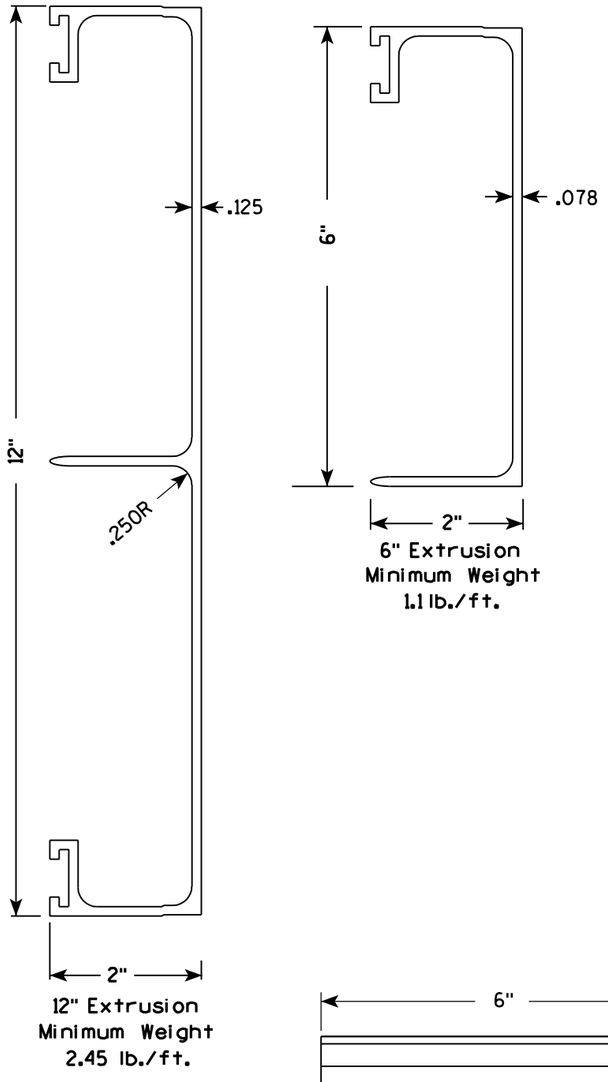
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/30/12 PLATE NO. A4-9.7

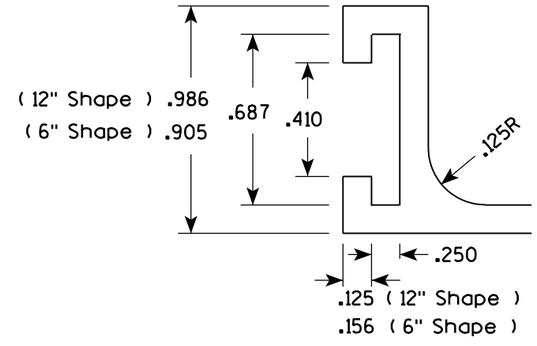
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 166	E

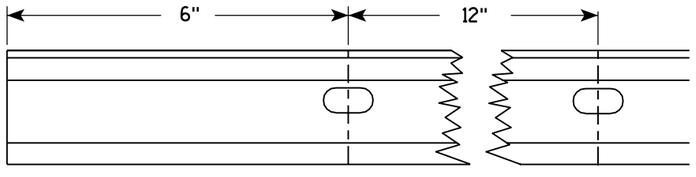
Extruded Shape



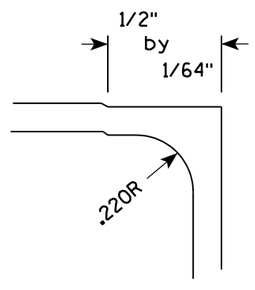
12" Extrusion
Minimum Weight
2.45 lb./ft.

6" Extrusion
Minimum Weight
1.1 lb./ft.





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.

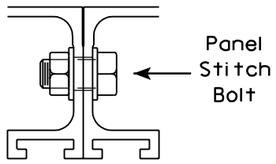


Hardware

STITCH BOLT, WASHER & NUT

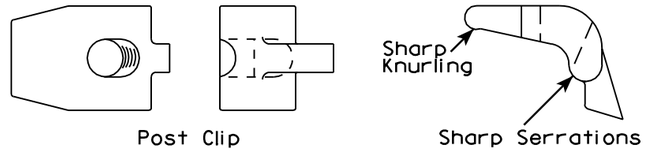
The hardware includes:

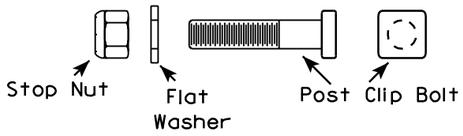
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



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

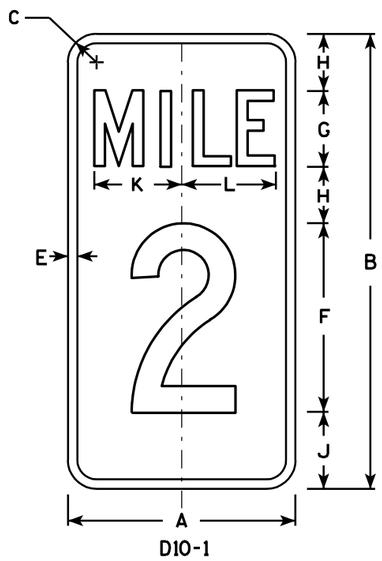
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

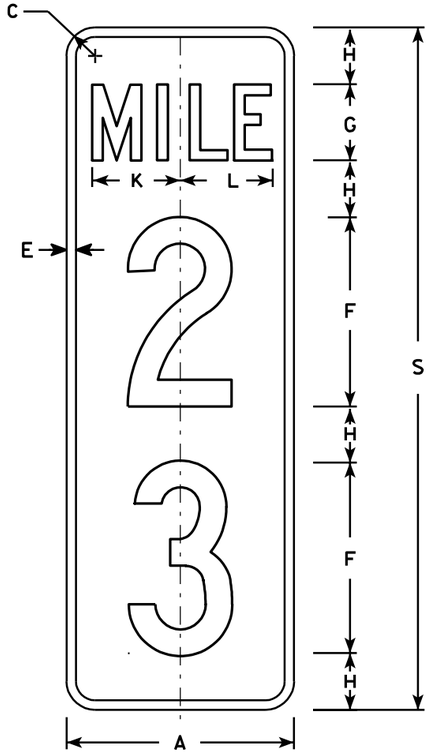
DATE 11/18/99 PLATE NO. A5-2.9

PROJECT NO:

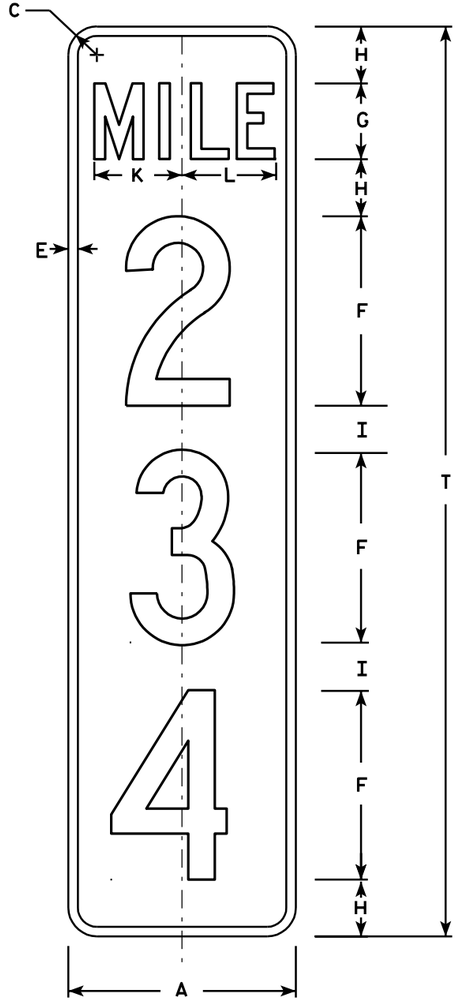
SHEET NO: 167 E



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.

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

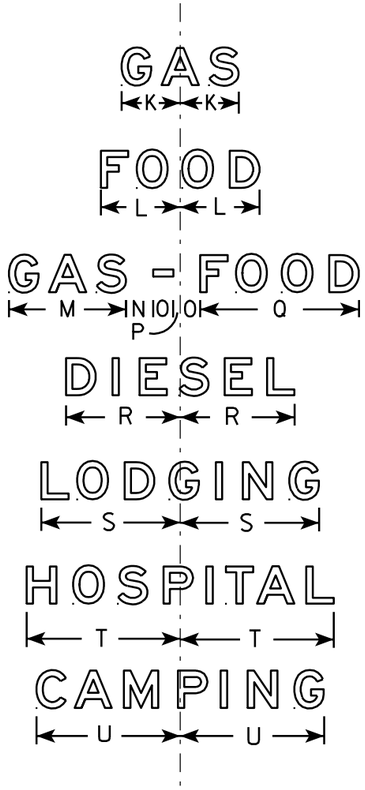
WISCONSIN DEPT OF TRANSPORTATION

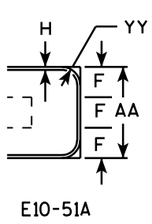
APPROVED Chester J Spang for Director, Office of Traffic

DATE 1/16/02 PLATE NO. D10-3.2

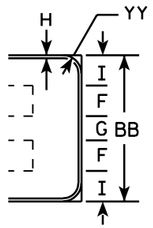
PROJECT NO:

SHEET NO: 168 E

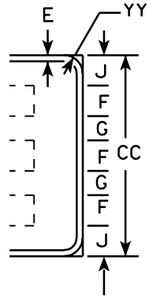




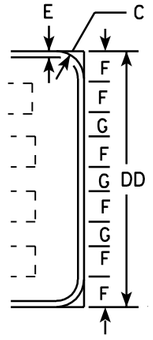
E10-51A



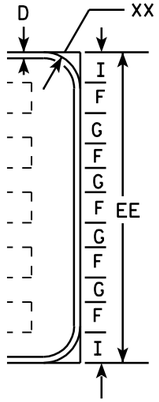
E10-51B



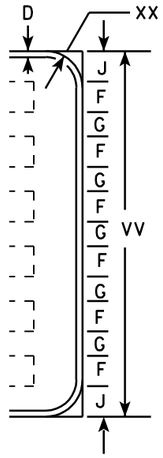
E10-51C



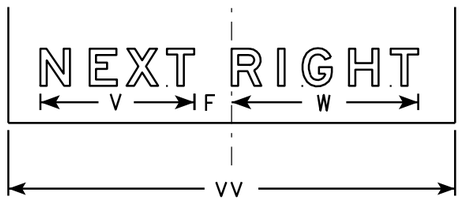
E10-51D

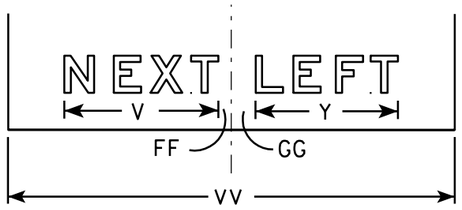


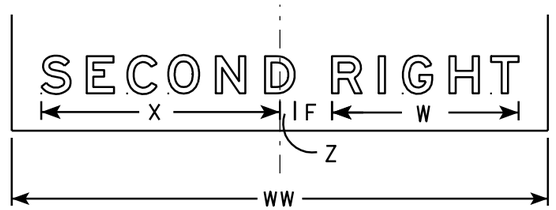
E10-51E



E10-51F







NOTES

1. All Signs Type I or Type III - Type SH - Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
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. The E10-51A is designed for use as a supplementary message sign to be used under any other E10-51 sign.
6. For multiline signs, the order of displaying approved services is as shown, top to bottom.

English	Metric	Area sq.ft.	Area m2
96 X 24	2400 X 600	16.0	1.44
96 X 36	2400 X 900	24.0	2.16
96 X 54	2400 X 1350	36.0	3.24
96 X 66	2400 X 1650	44.0	3.96
96 X 70	2400 X 1950	52.0	4.68
96 X 96	2400 X 2400	64.0	5.76
120 X 24	3000 X 600	20.0	1.80
120 X 30	3000 X 750	25.0	2.25
120 X 36	3000 X 900	30.0	2.70
120 X 48	3000 X 1200	40.0	3.60
120 X 54	3000 X 1350	45.0	4.05
120 X 66	3000 X 1650	55.0	4.95
120 X 70	3000 X 1950	65.0	5.85
120 X 84	3000 X 2100	70.0	6.30
120 X 96	3000 X 2400	80.0	7.20
120 X 102	3000 X 2550	85.0	7.65
120 X 120	3000 X 3000	100.0	9.00
144 X 30	3600 X 750	30.0	2.70
144 X 48	3600 X 1200	48.0	4.32
144 X 66	3600 X 1650	66.0	5.94
144 X 84	3600 X 2100	84.0	7.56
144 X 102	3600 X 2550	102.0	9.18
144 X 120	3600 X 3000	120.0	10.80

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			6	2	1	8	6	1	7	9	12 5/8	17 1/8	25 1/4	6	4 1/2	1 1/2	34 1/8	24 5/8	30	33	30 7/8	33 1/4	40 1/8	51 3/8	30 5/8	3 1/4
5			9	2	2	10	8	1	10	10	15 3/4	21 3/8	31 1/2	7 1/4	5 3/8	1 7/8	42 5/8	30 3/4	37 3/8	41 1/4	38 5/8	41 3/8	50 1/8	64 1/8	38 1/4	4

SIZE	AA	BB	CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ
1																										
2																										
3																										
4	24	36	54	66	70	2 5/8	5 3/8															96	120	9	6	
5	30	48	66	84	102	3 1/2	6 1/2															120	144	12	6	

STANDARD SIGN
E10-51A THRU E10-51F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/8/08 PLATE NO. E10-51.8

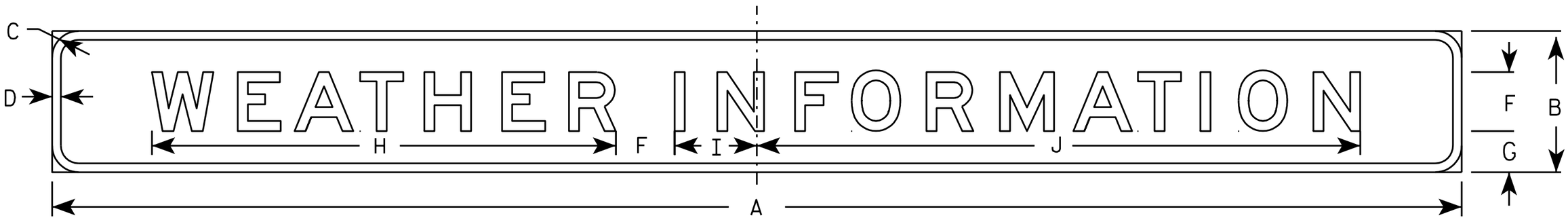
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 169 | E

7

FILE NAME : C:\Users\Projects\tr_stdplate\E1051.DGN PLOT DATE : 14-JAN-2009 09:00 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 55.965000:1.000000
WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E



E10-54

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	
5	3000 mm X 300 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m^2
1																												
2																												
3																												
4																												
5	120	12	2 1/4	3/4		5	3 1/2	39 1/2	7	51 3/8																	10.0	0.90

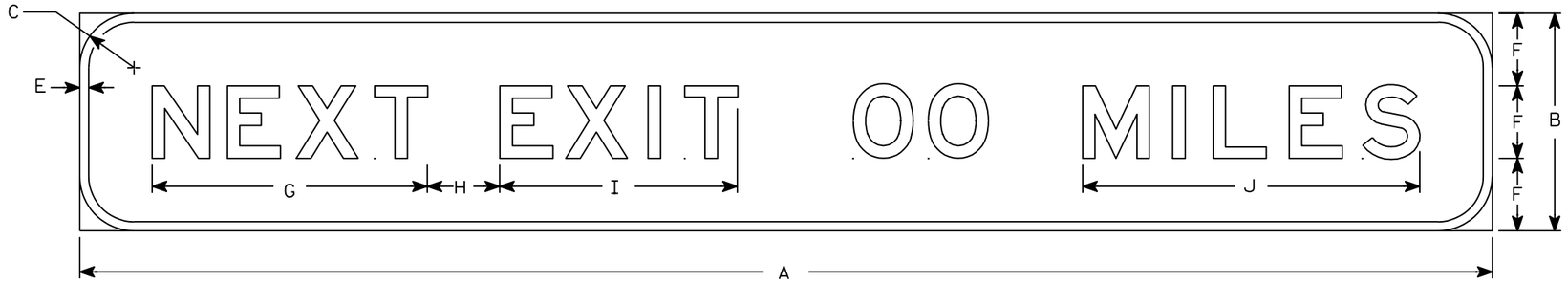
STANDARD SIGN
E10-54

WISCONSIN DEPT OF TRANSPORTATION

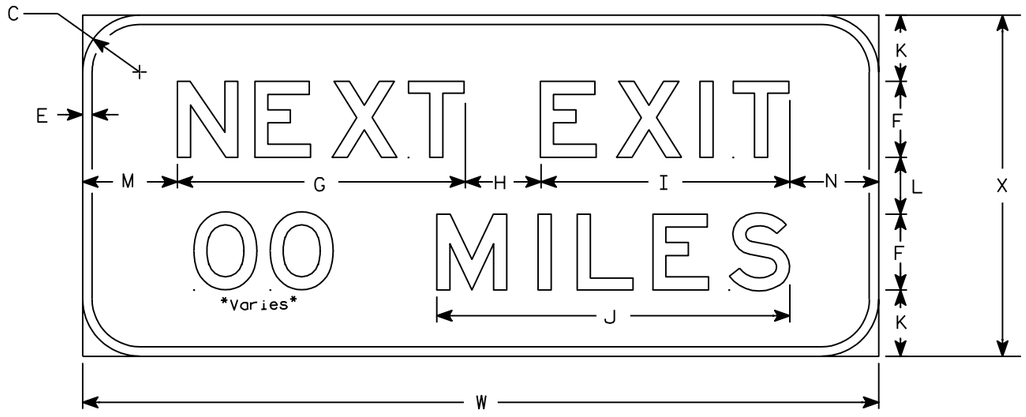
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/8/08 PLATE NO. E10-54.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 170	E



E2-1



E2-1A

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for ROAD and BRIDGE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E
4. Substitute appropriate numerals and adjust spacing as required to achieve proper balance.

E2-1
Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	3900 mm X 600 mm
5	3900 mm X 600 mm

E2-1A
Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	2100 mm X 900 mm
5	2100 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	E2-1 Area sq. ft.	E2-1A Area sq. ft.	E2-1 Area sq. m.	E2-1A Area sq. m.
1																												
2																												
3																												
4	156	24	6		1	8	30 3/8	8	26 1/4	37 1/4	7	6	10	9 3/8									84	36	26.0	21.0	2.42	1.95
5	156	24	6		1	8	30 3/8	8	26 1/4	37 1/4	7	6	10	9 3/8									84	36	26.0	21.0	2.42	1.95

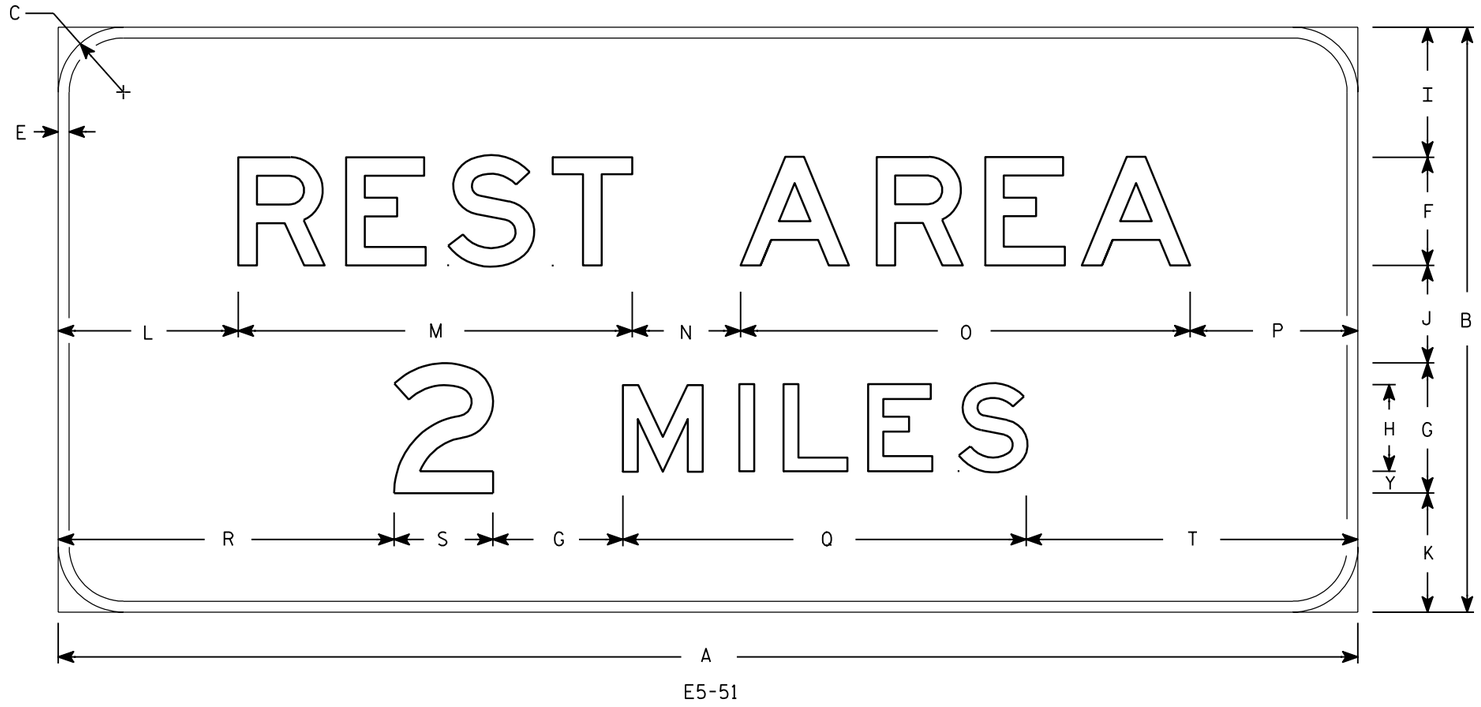
STANDARD SIGN
E2-1 & E2-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/8/08 PLATE NO. E2-1.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 171	E



E5-51

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	3000 mm X 1350 mm
5	3600 mm X 1500 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																												
3																												
4	120	54	6		1	10	12	8	12	9	11	16 5/8	36 3/8	10	41 1/2	15 1/2	37 1/4	31	9 1/8	30 5/8	37 3/4	4	29 1/4	37	2		45.0	4.05
5	144	60	6		2	12	15	10	12	10	11	19 3/4	44 3/4	12	49 1/2	18	46 1/4	36	11	35 3/4	44	4 7/8	36 1/4	43 7/8	2 1/2		60.0	5.40

STANDARD SIGN
E5-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 12/8/08 PLATE NO. E5-51.8

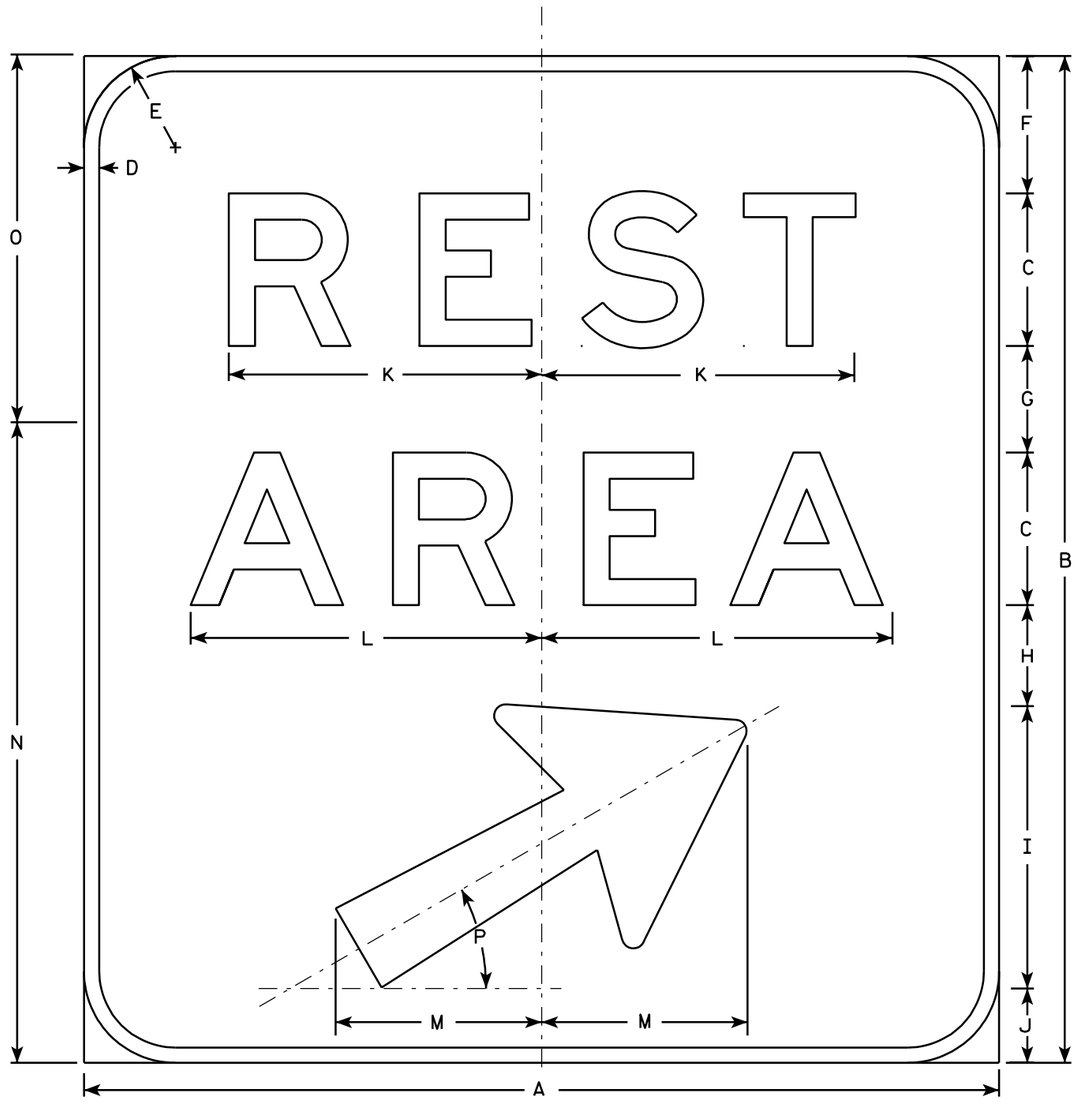
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 172	E

FILE NAME : C:\Users\Projects\tr_stdplate\E551.DGN PLOT DATE : 14-JAN-2009 08:46 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 13.991250:1.000000

WISDOT/CADDS SHEET 42

7

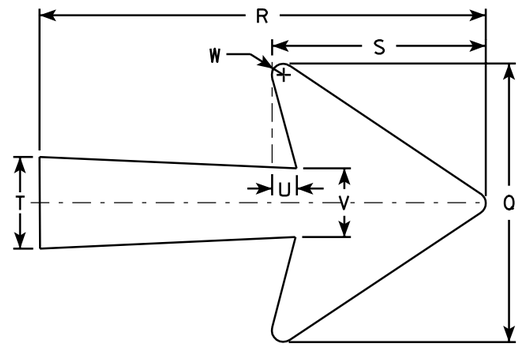
7



E5-54

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 - E
4. Corners may be square or rounded but borders shall be rounded as shown. Base material for this sign shall be plywood.
5. Arrow is Type A as per A1-1 standard
6. Dimensions N & O indicate cutting lines for plywood panels.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	1500 mm X 1650 mm
5	1800 mm X 1800 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																												
3																												
4	60	66	10	1	6	9	7	6 5/8	18 1/2	4 7/8	21	23	13 1/2	42	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				27.5	2.47
5	72	72	12	1	9	9	7	8	18 1/2	5 1/2	25	27	13 1/2	48	24	30°	18 1/4	29 1/4	14	6	1 1/2	4 1/2	3/4				36.0	3.24

STANDARD SIGN
E5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 2/11/97 PLATE NO. E5-54.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 173	E

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - D for Line 1 & Series E for Line 2
4. Substitute appropriate numerals and optically adjust spacing.

E5-62

* See Note 4

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	3000 mm X 750 mm
5	3000 mm X 750 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																												
3																												
4	120	30	6		1	8	5	25 3/8	9	14 7/8	11	29 1/8	25 1/2														25.0	2.25
5	120	30	6		1	8	5	25 3/8	9	14 7/8	11	29 1/8	25 1/2														25.0	2.25

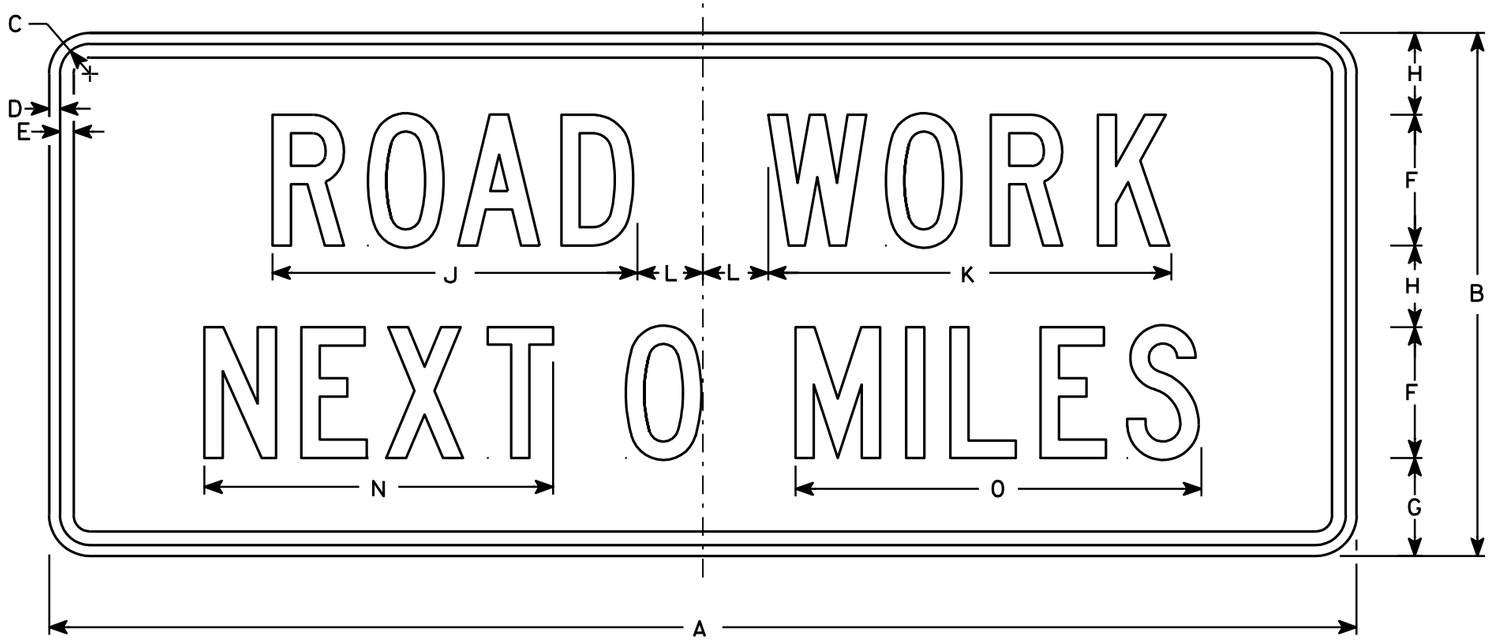
STANDARD SIGN
E5-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/8/08 PLATE NO. E5-62.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 174	E



G20-1

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

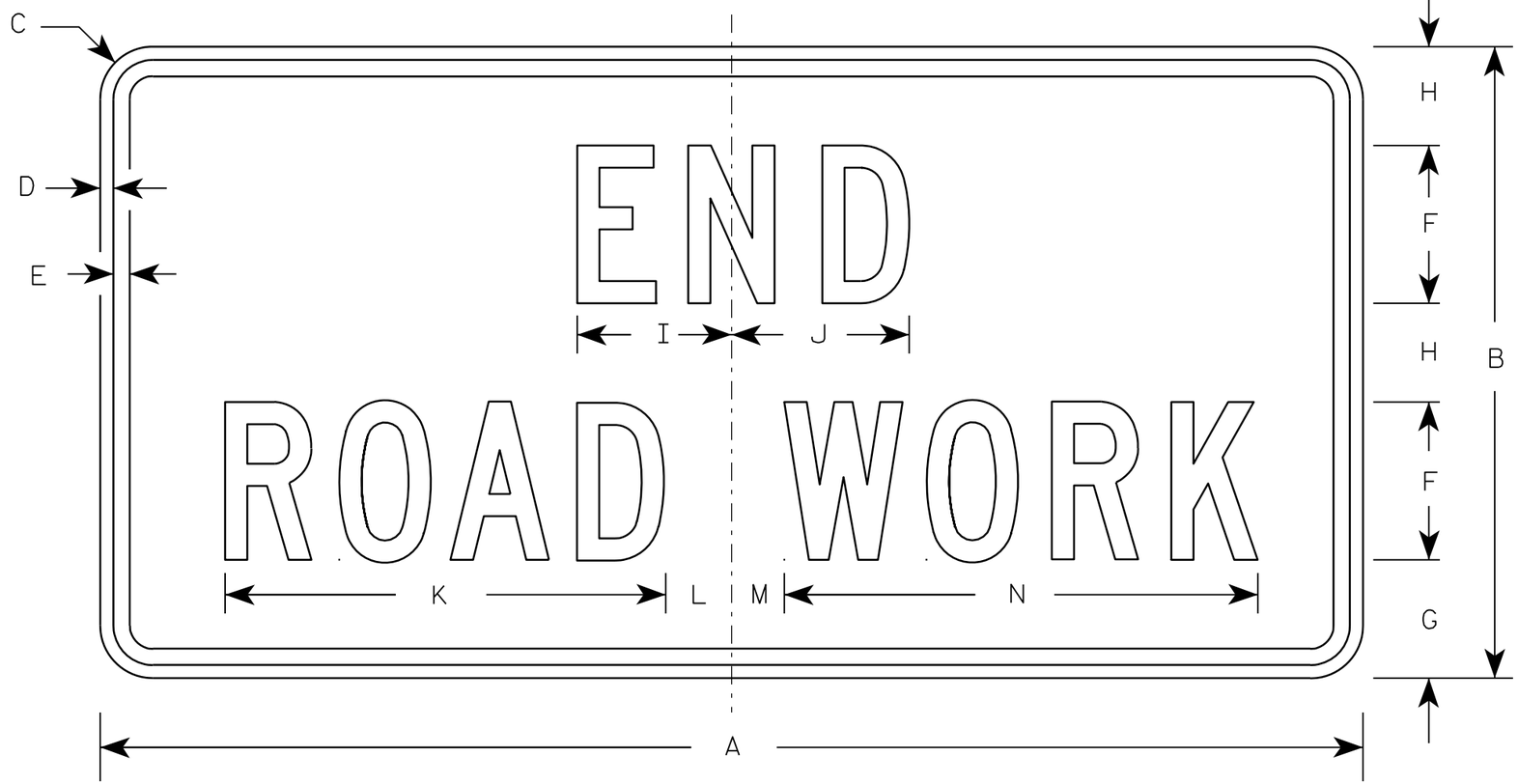
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 175	E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

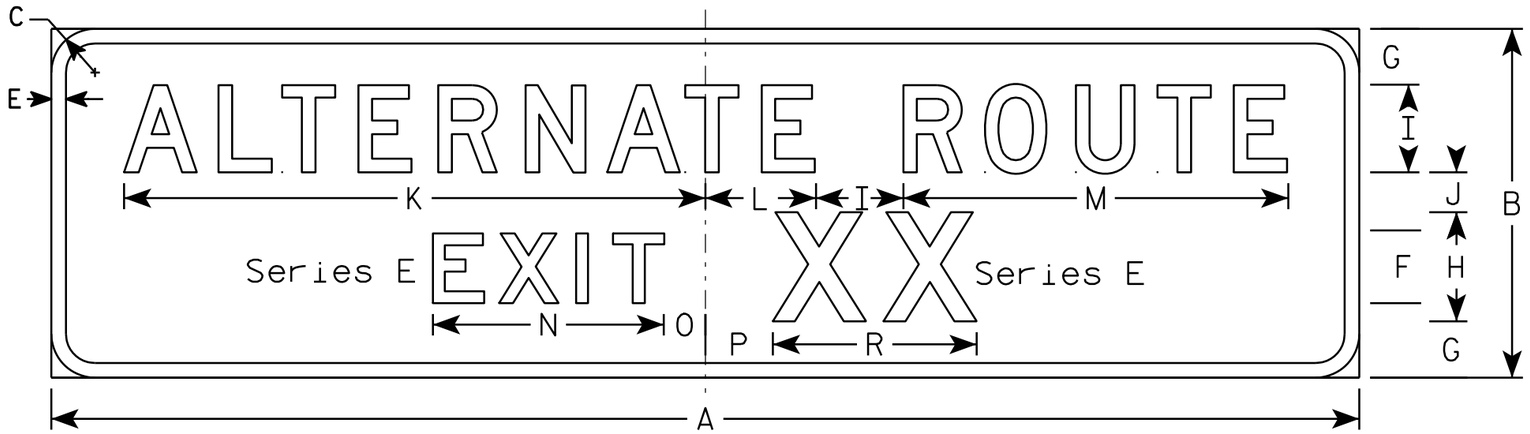
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 176	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D except as noted
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-54

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	4500 mm X 1200 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m²
1																												
2																												
3																												
4	180	48	6		2	10	7 3/4	15	12	5 1/2	80	15 1/4	53	31 3/4	5 3/4	9 1/4		28									60.0	5.4
5																												

STANDARD SIGN
G20-54

WISCONSIN DEPT OF TRANSPORTATION

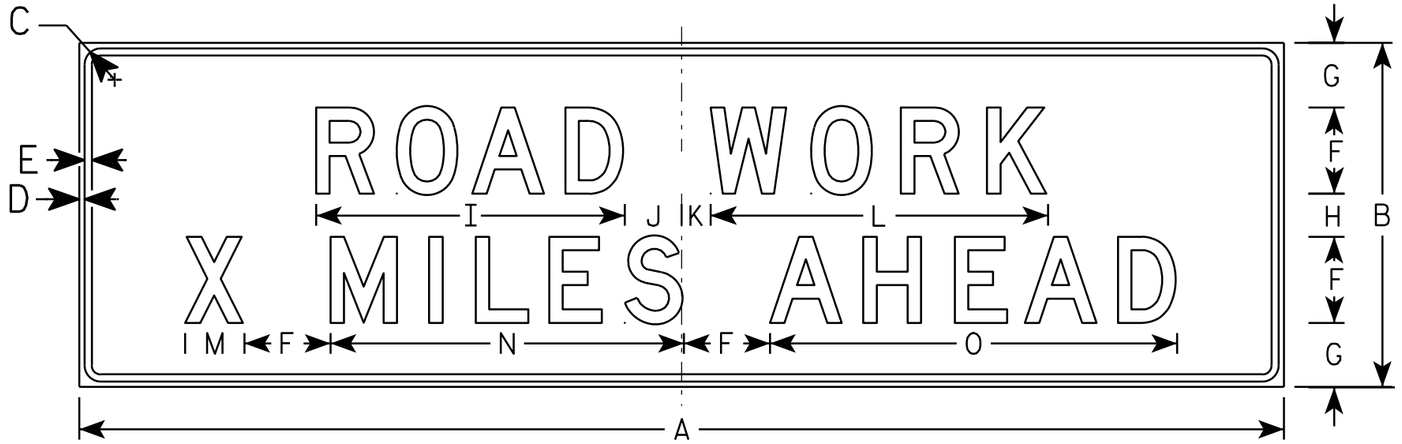
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-54.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 177 | E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-55

Metric equivalent for this sign is:

SIZE	
1	
2	
3	
4	2550 mm X 900 mm
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2																												
3																												
4	84	24	1 1/8	3/8	1/2	6	4 1/2	3	21 1/2	4	2	23 1/2	4 1/8	24 5/8	28 3/8												25.5	2.30
5																												

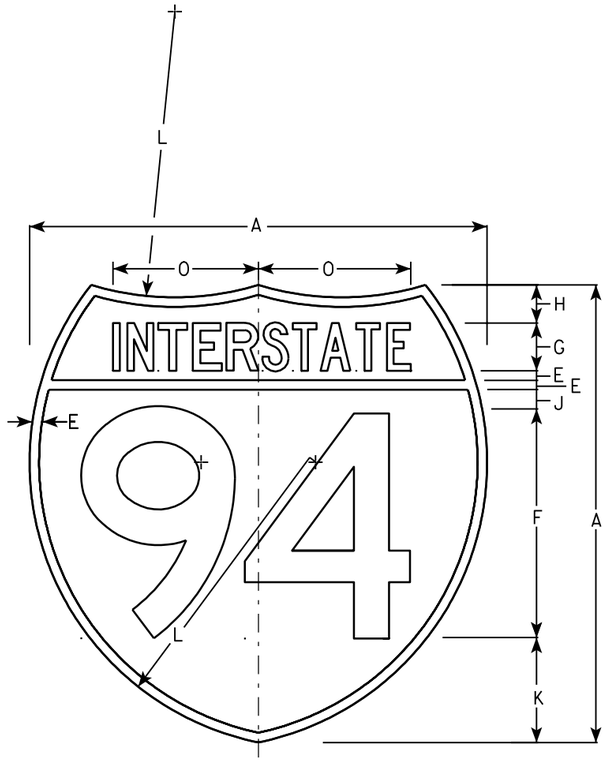
STANDARD SIGN
G20-55

WISCONSIN DEPT OF TRANSPORTATION

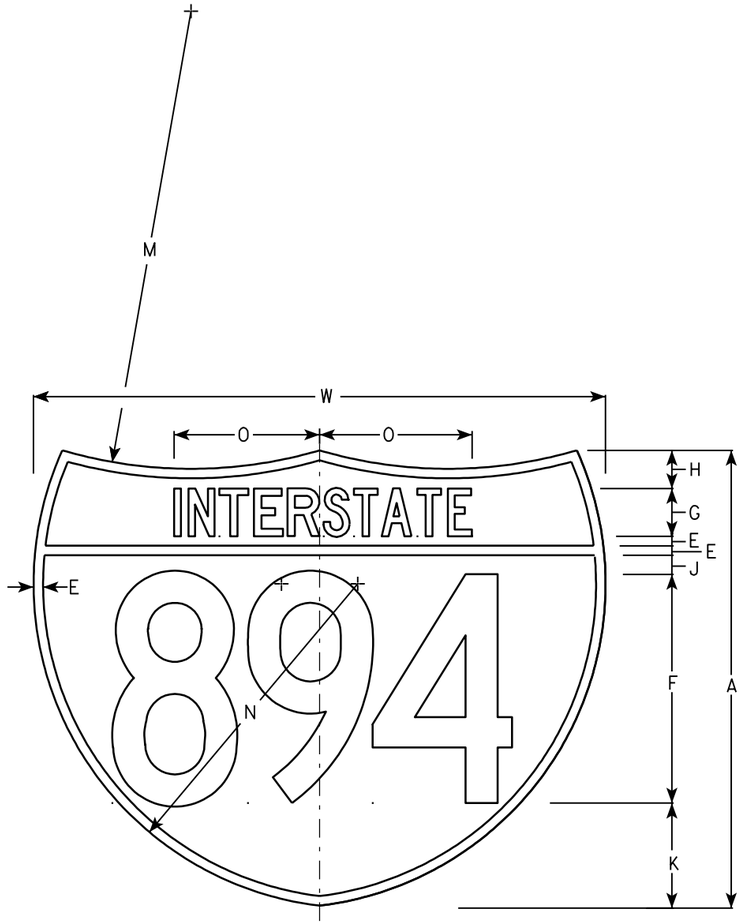
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-55.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 178	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

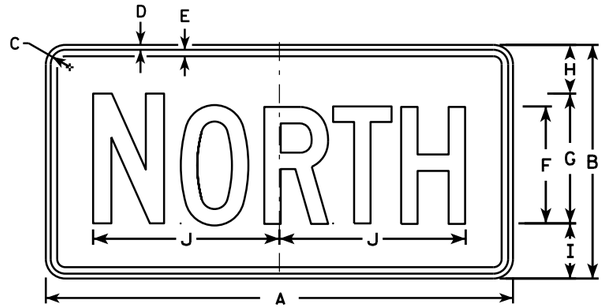
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

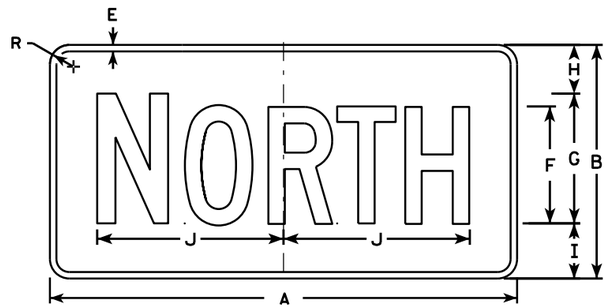
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 179	E



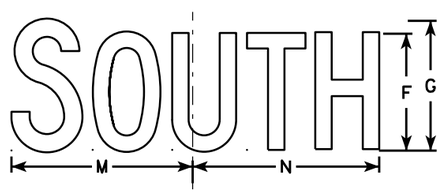
M3-1
MK3-1



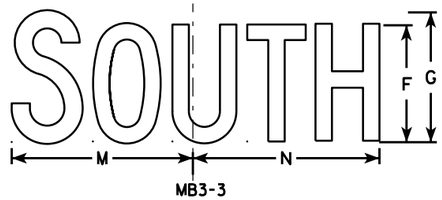
MB3-1
MG3-1
MM3-1
MN3-1

M3-2
MK3-2

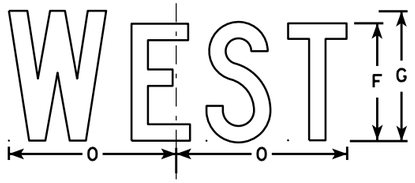
MB3-2
MG3-2
MM3-2
MN3-2



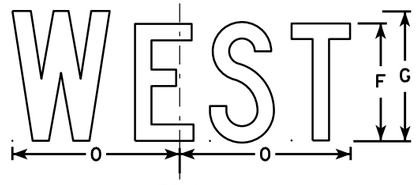
M3-3
MK3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MG3-1 thru MG3-4 Background - Green
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

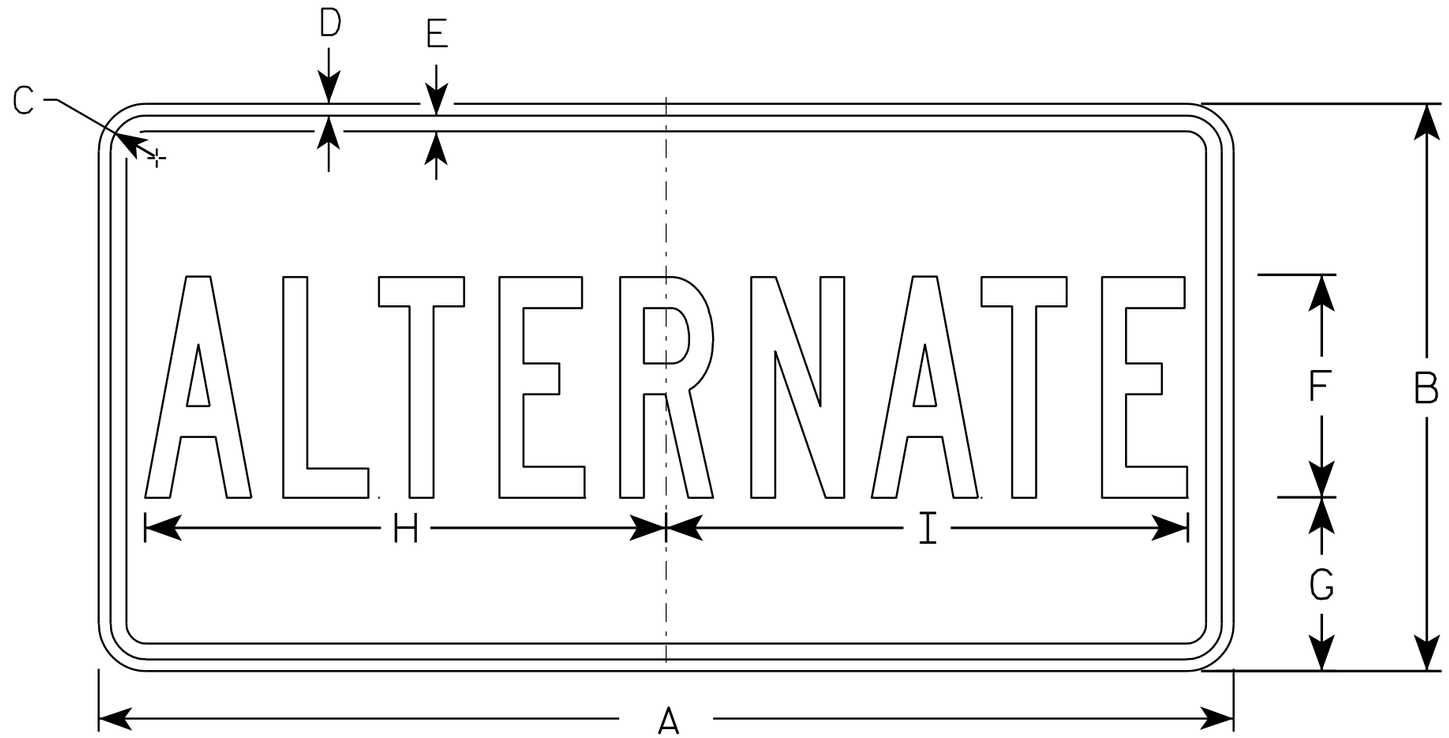
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch
for State Traffic Engineer

DATE 6/19/14 PLATE NO M3-1.13

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 19-JUN-2014 16:50 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000 WISDOT/CADDS SHEET 42



M4 - 1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - 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.
5. M4-1 Background - White - Type H Reflective
   Message - Black

   MB4-1 Background - Blue
   Message - White - Type H Reflective

   M04-1 Background - Orange - Reflective
   Message - Black

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 ½	⅜	⅜	4	4	9 ¾	9 ½																		2.00
3	36	18	1 ½	⅜	½	7	5 ½	16 ⅜	16 ½																		4.5
4	36	18	1 ½	⅜	½	7	5 ½	16 ⅜	16 ½																		4.5
5	36	18	1 ½	⅜	½	7	5 ½	16 ⅜	16 ½																		4.5

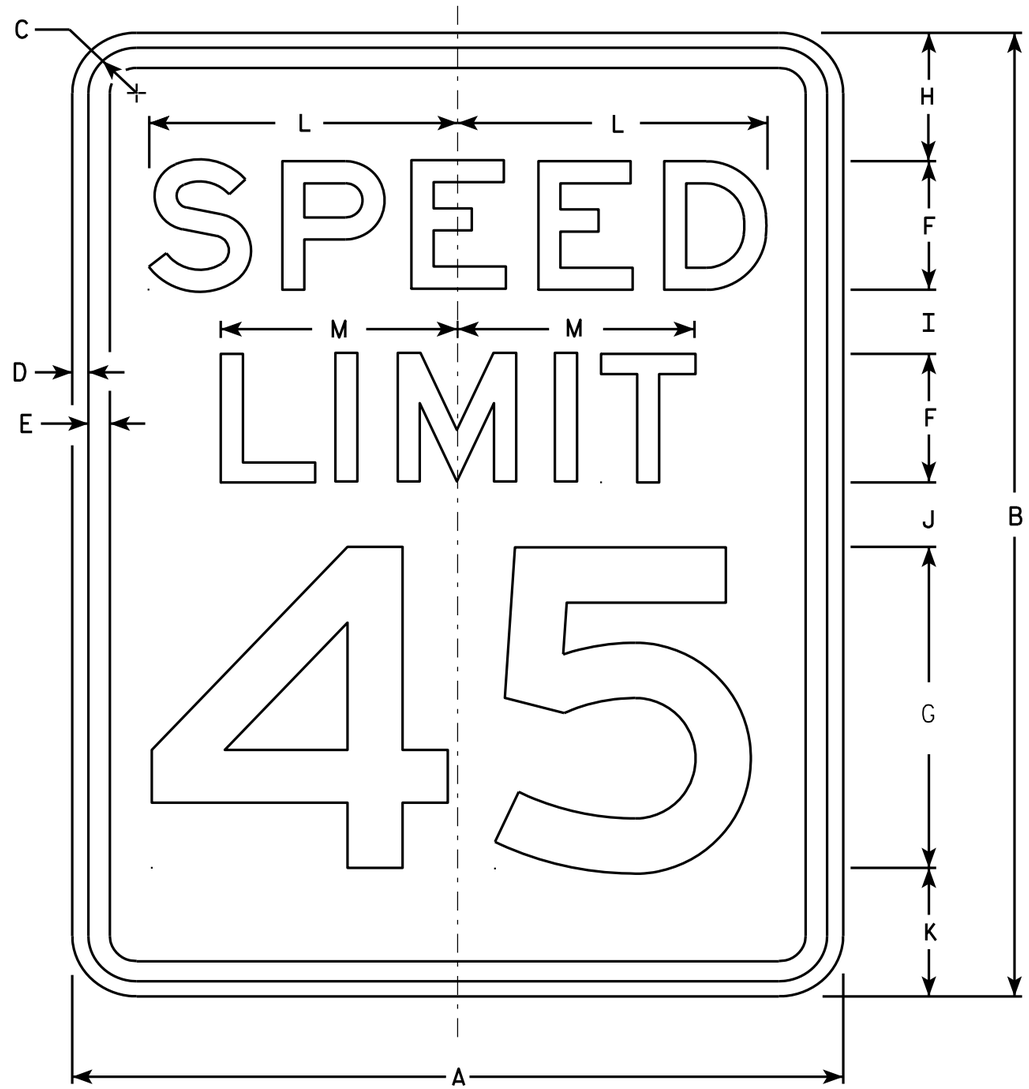
STANDARD SIGN
M4 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-1.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 181 | 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

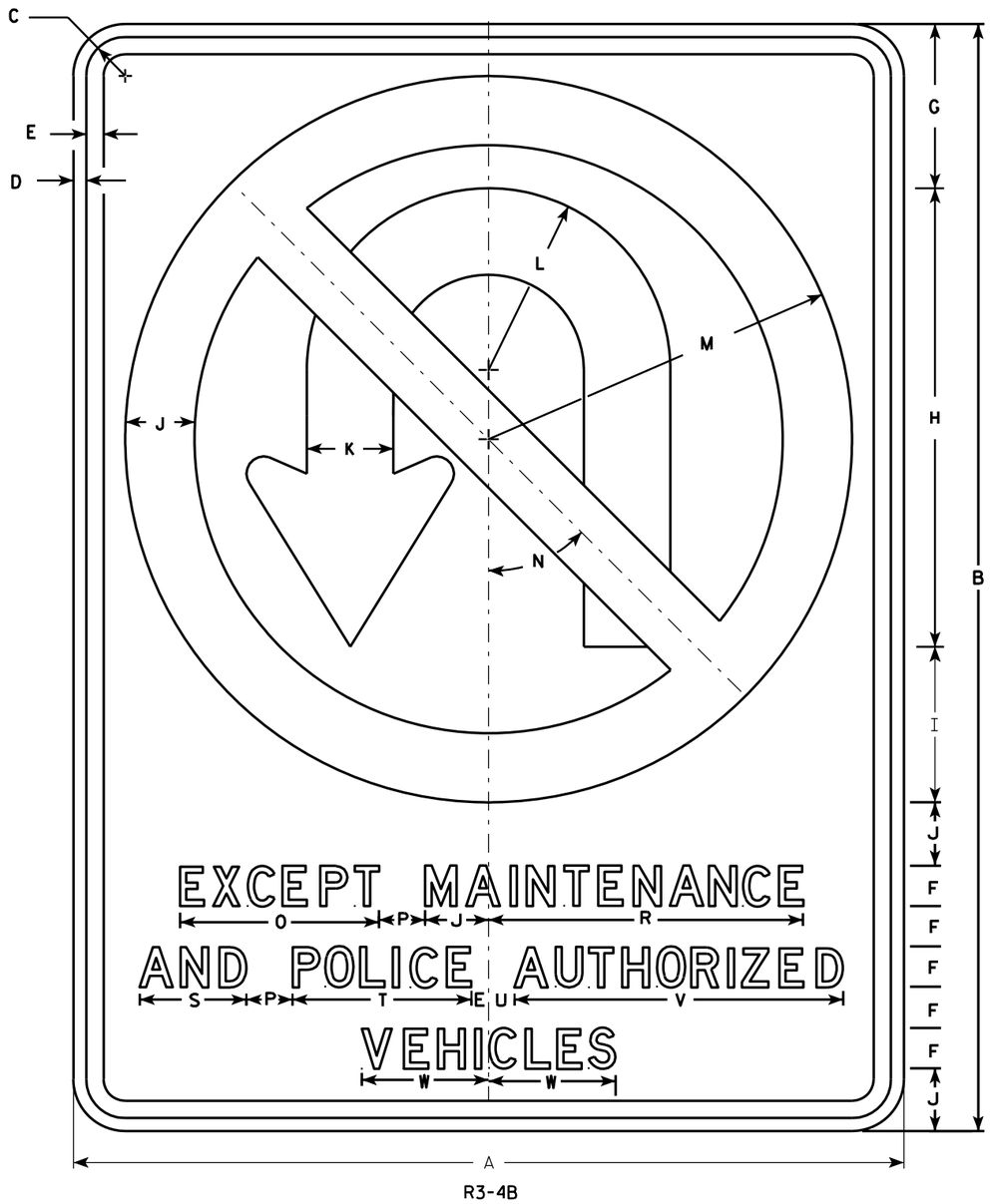
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

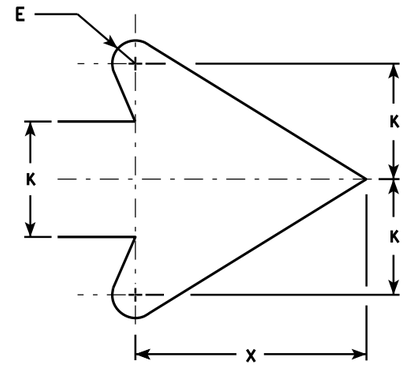
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 182 | E



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

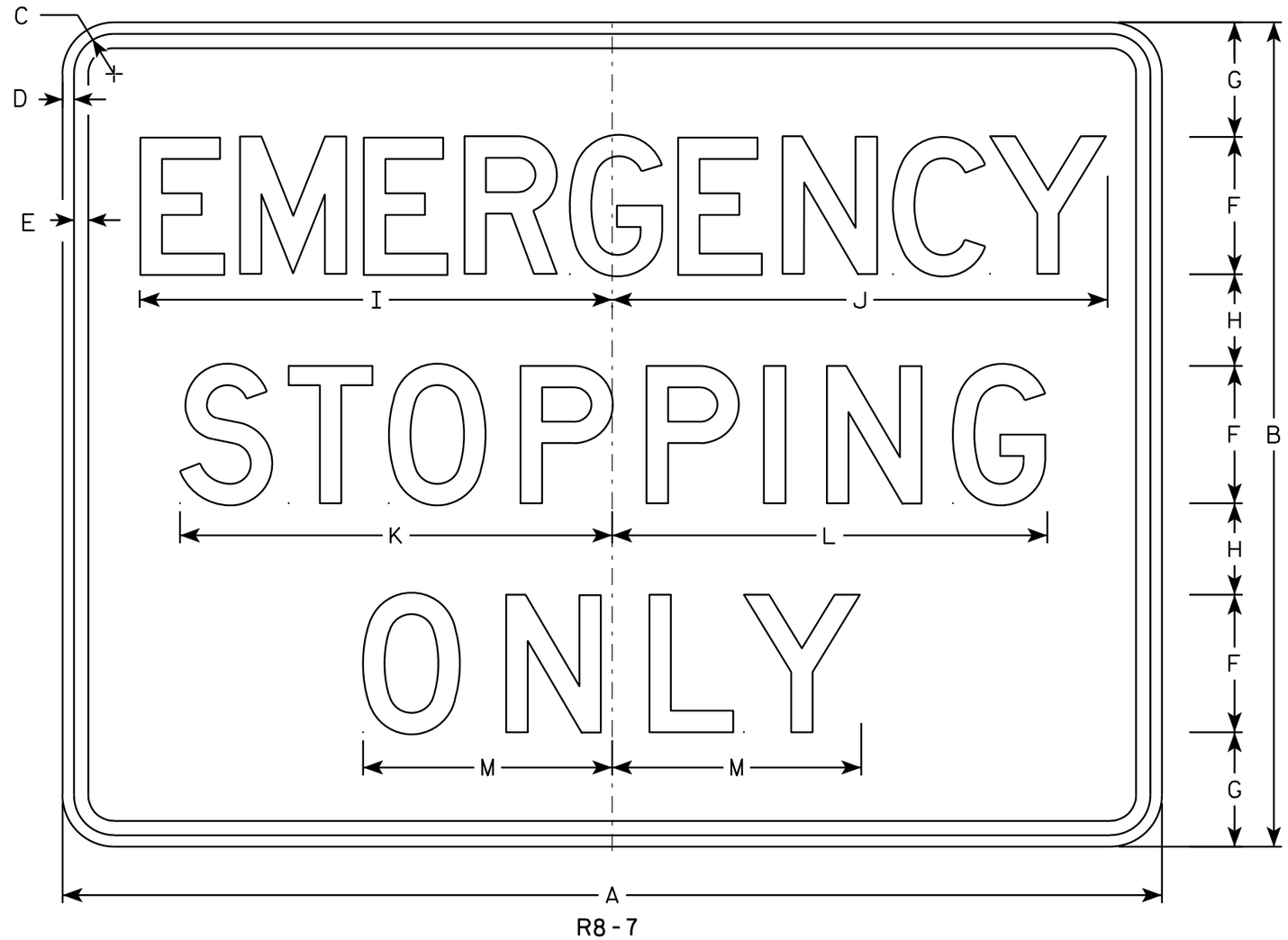
STANDARD SIGN
R3-4B

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: 183	E



R8-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

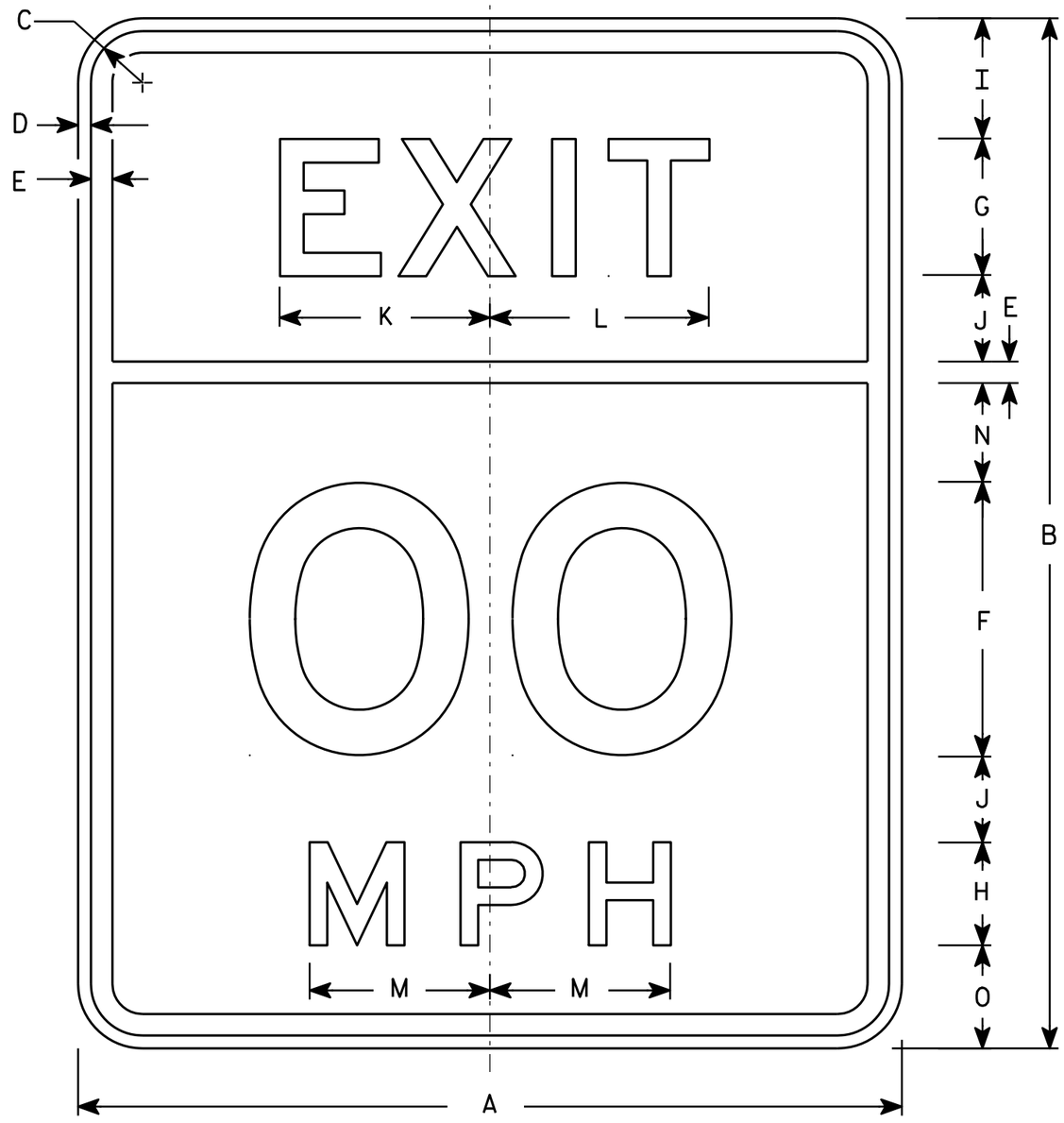
STANDARD SIGN
R8-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 184 | 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

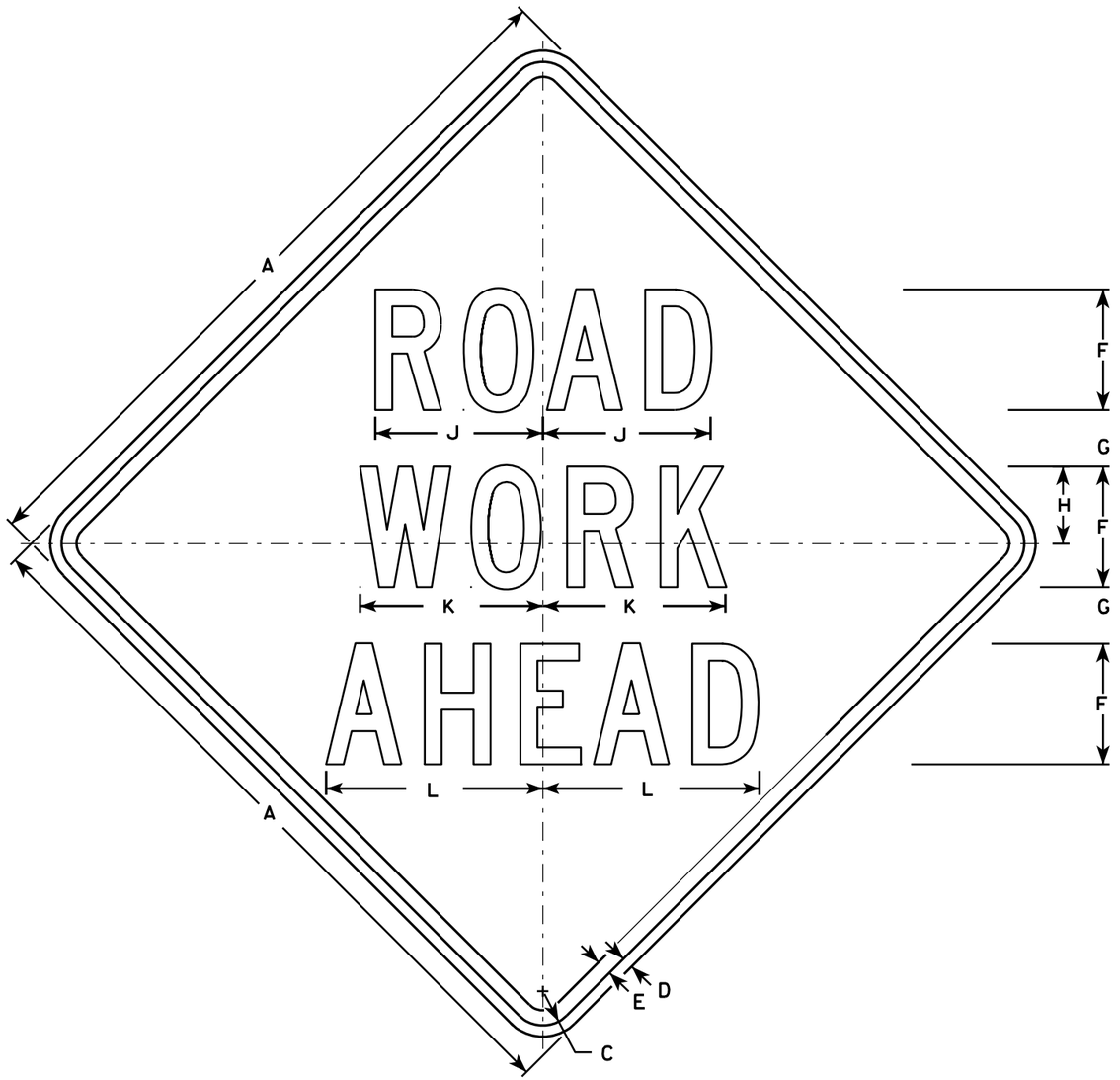
STANDARD SIGN
W13-2

WISCONSIN DEPT OF TRANSPORTATION

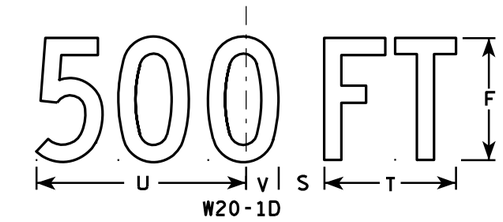
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-2.9

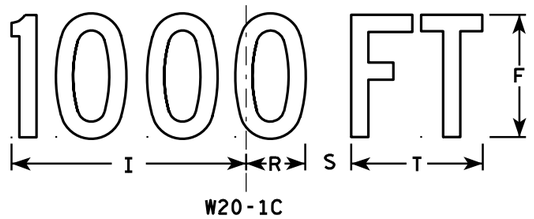
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 185 | E



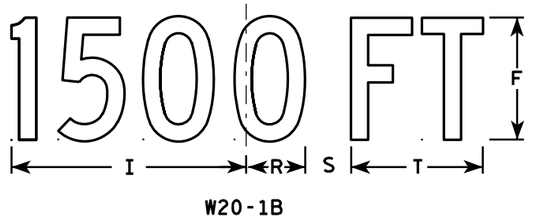
W20-1A



W20-1D

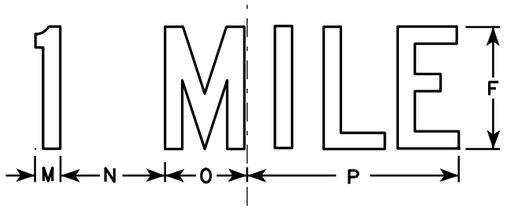


W20-1C



W20-1B

W20-1G



W20-1F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-1.9

PROJECT NO:

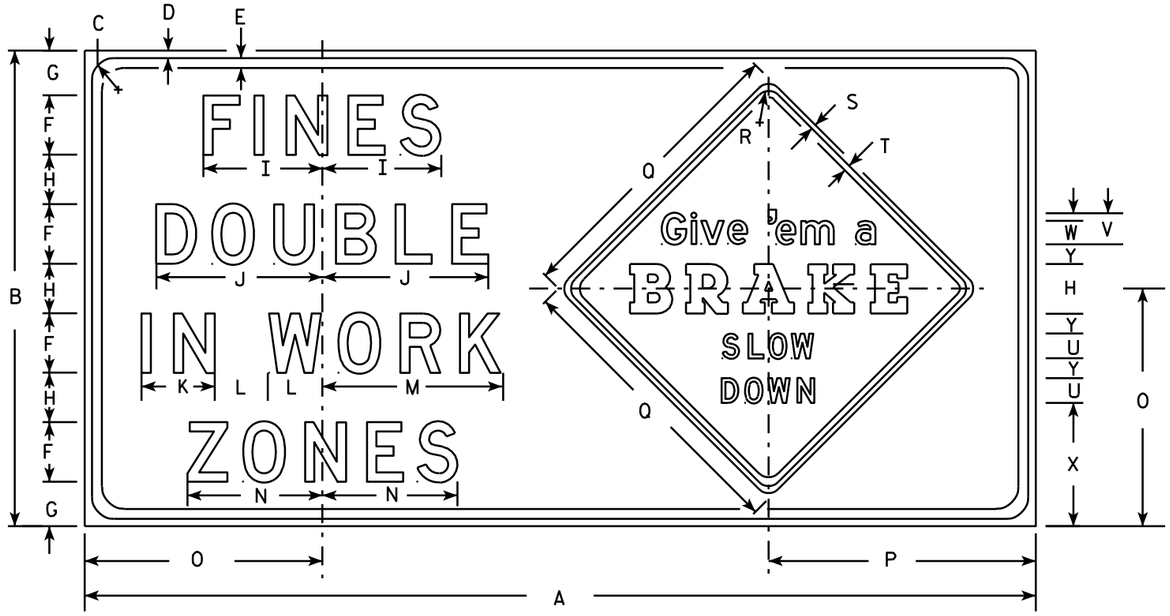
SHEET NO: 186 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W201.DGN PLOT DATE : 18-MAR-2011 09:56 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

7

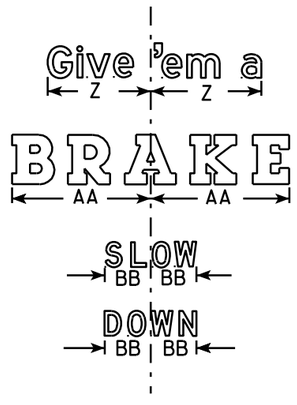
7



W21-62

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 - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.



W21-62P

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	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

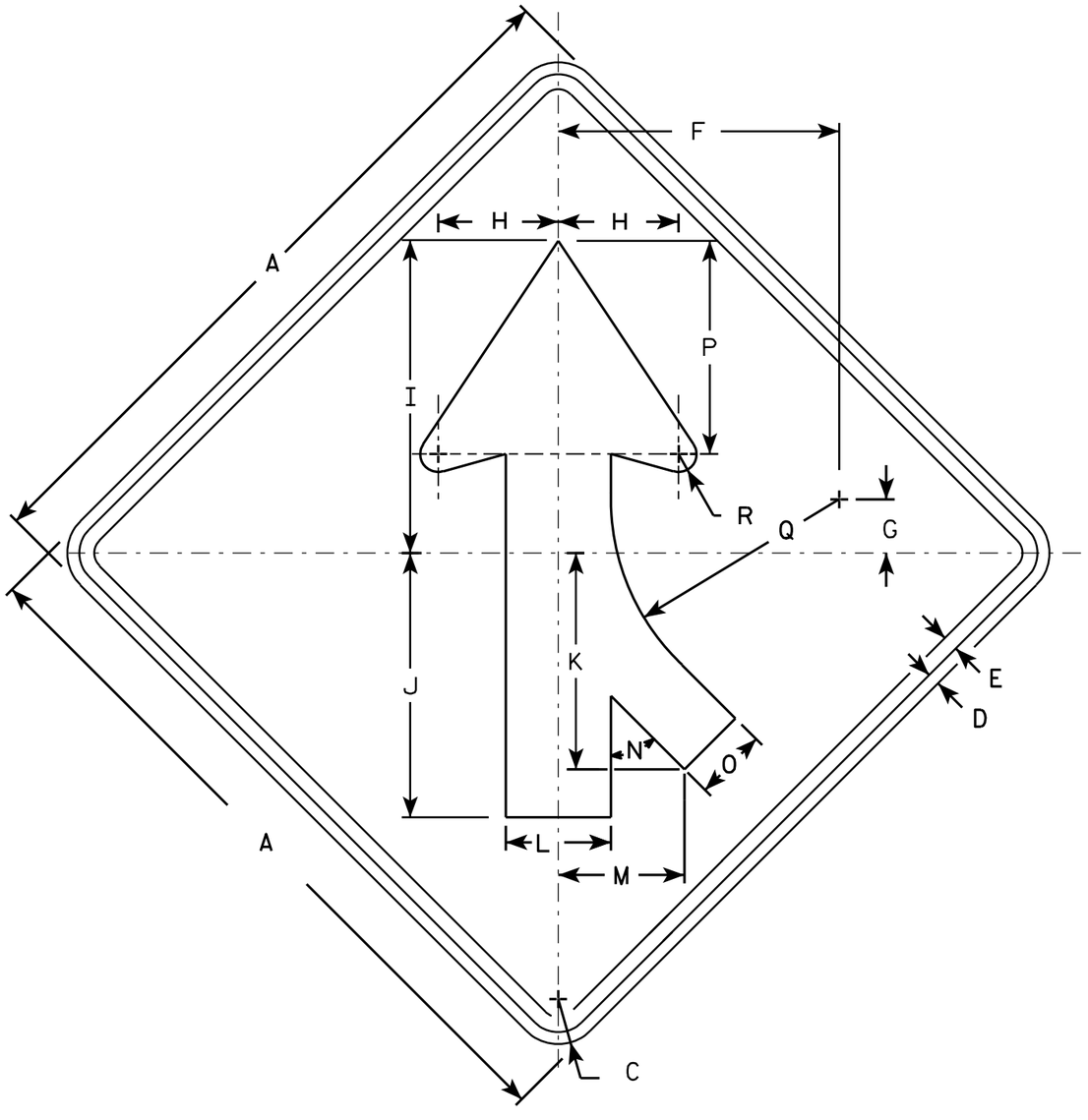
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 187 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W2162.DGN PLOT DATE : 21-MAR-2011 10:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 15.294877:1.000000
WISDOT/CADDS SHEET 42



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

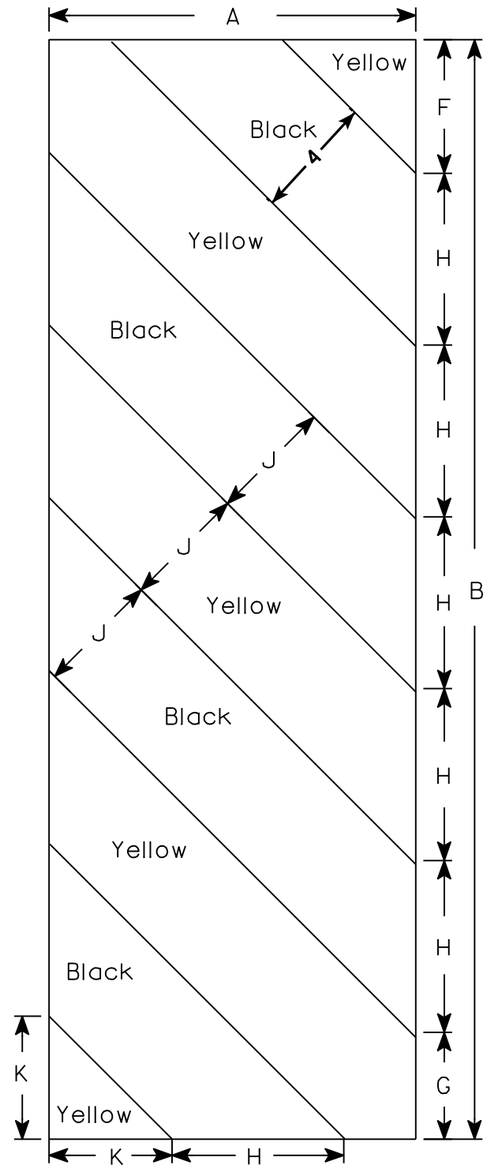
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

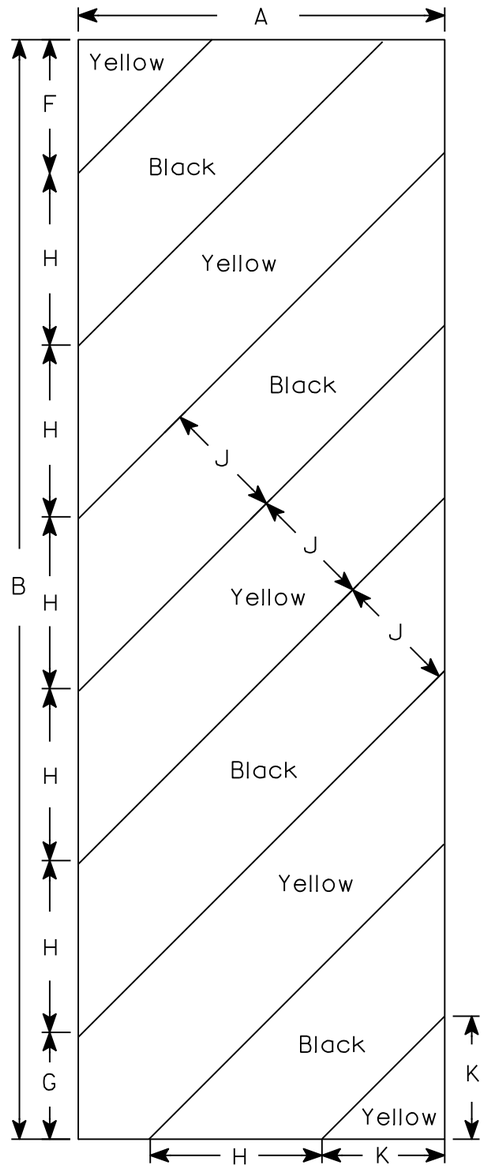
APPROVED Matthew R Rausch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 188	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

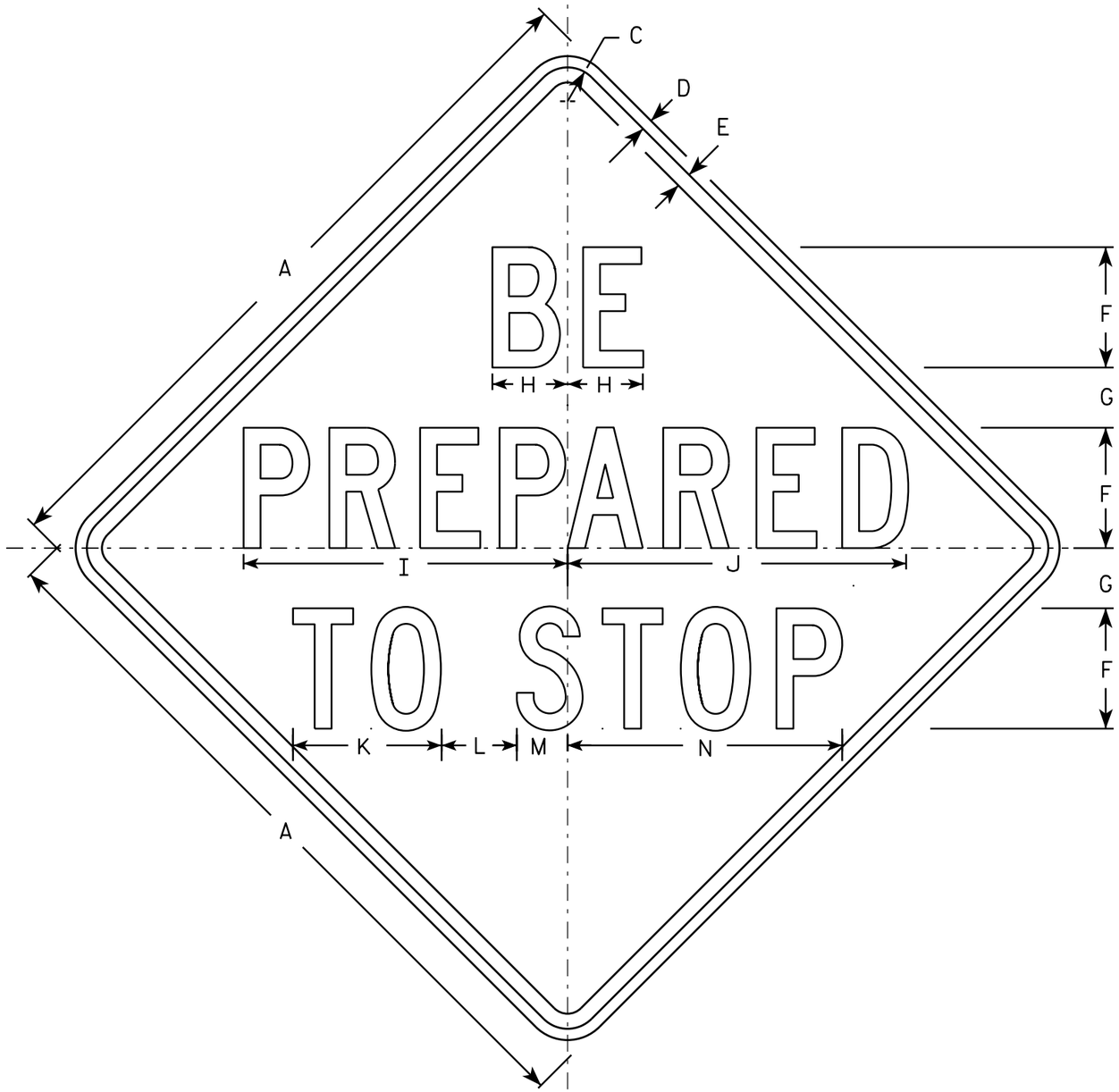
W5-52L & W5-52R

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: 189	E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2S	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
2M	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
3	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

STANDARD SIGN
W03-4

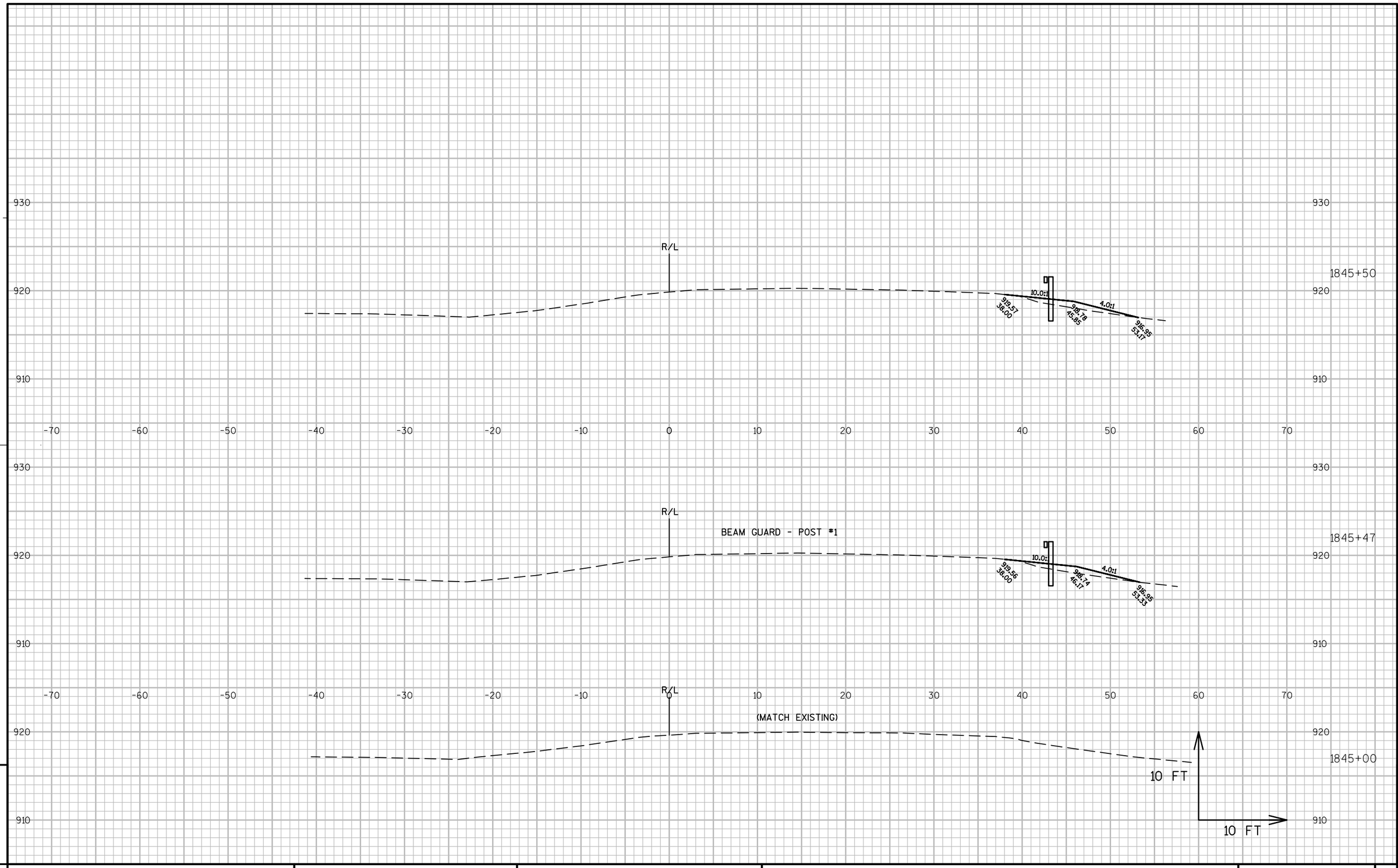
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

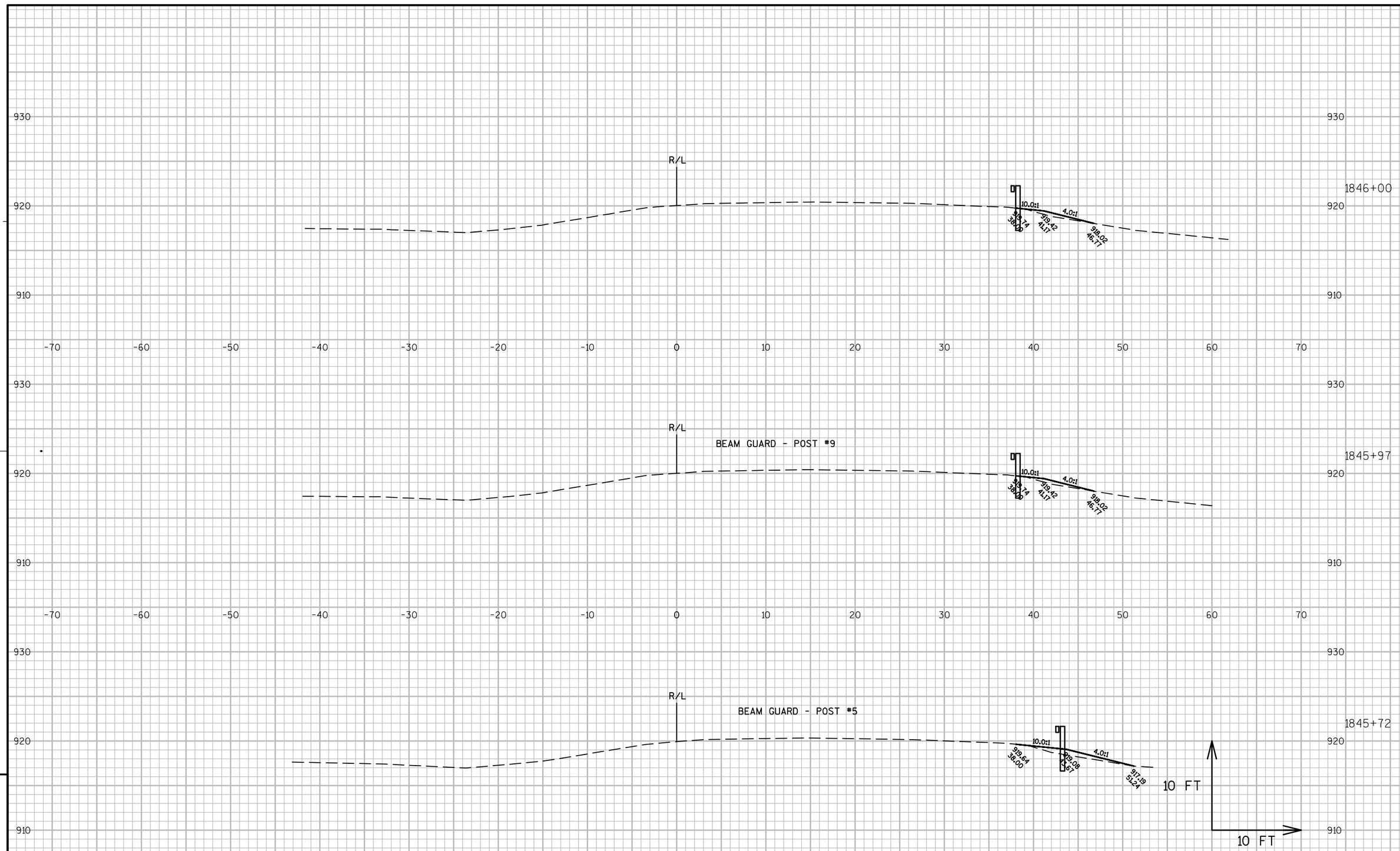
DATE 12/02/13 PLATE NO. W03-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W034.DGN PLOT DATE : 02-DEC-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.999518:1.000000
WISDOT/CADDS SHEET 42



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

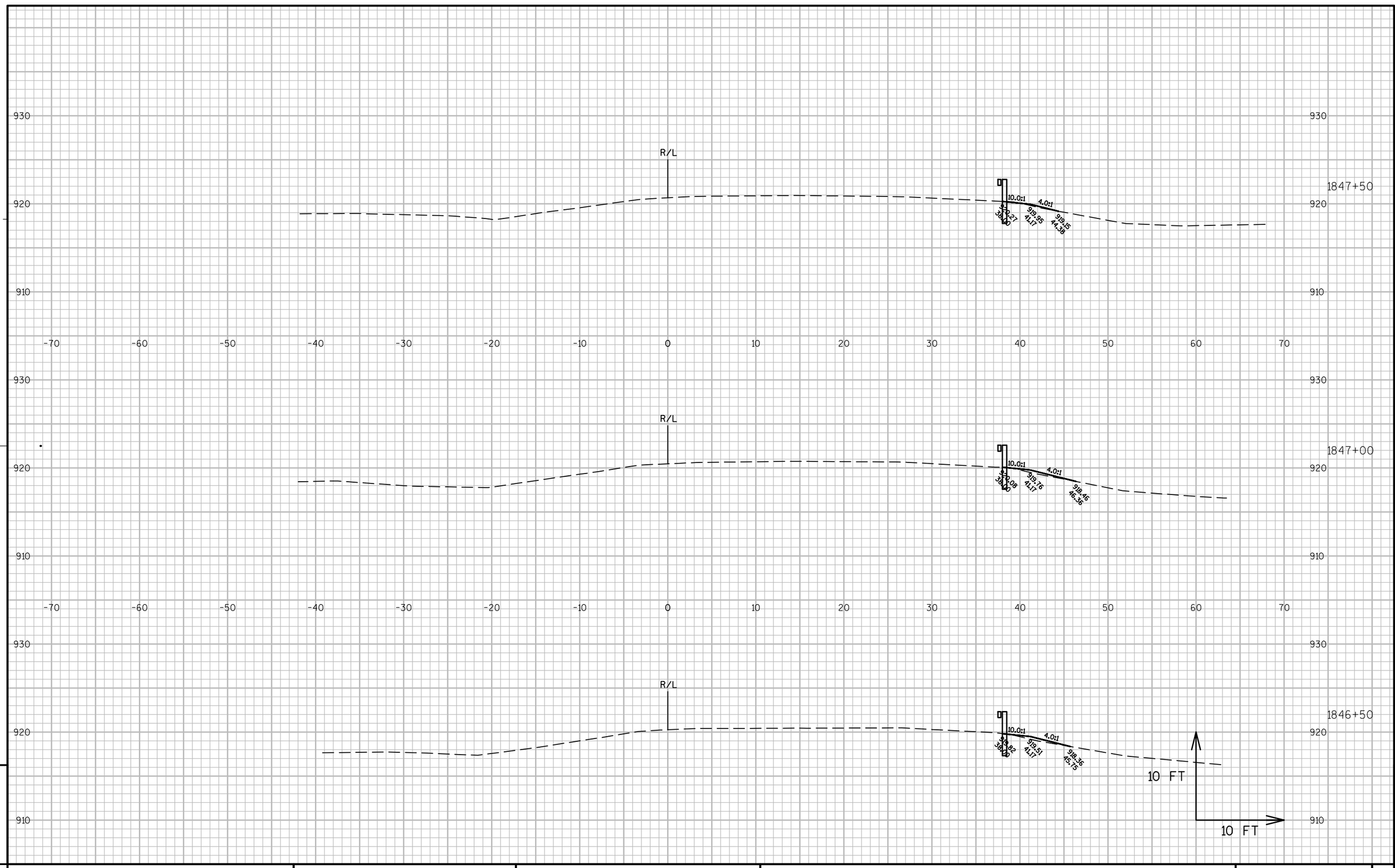


9

9

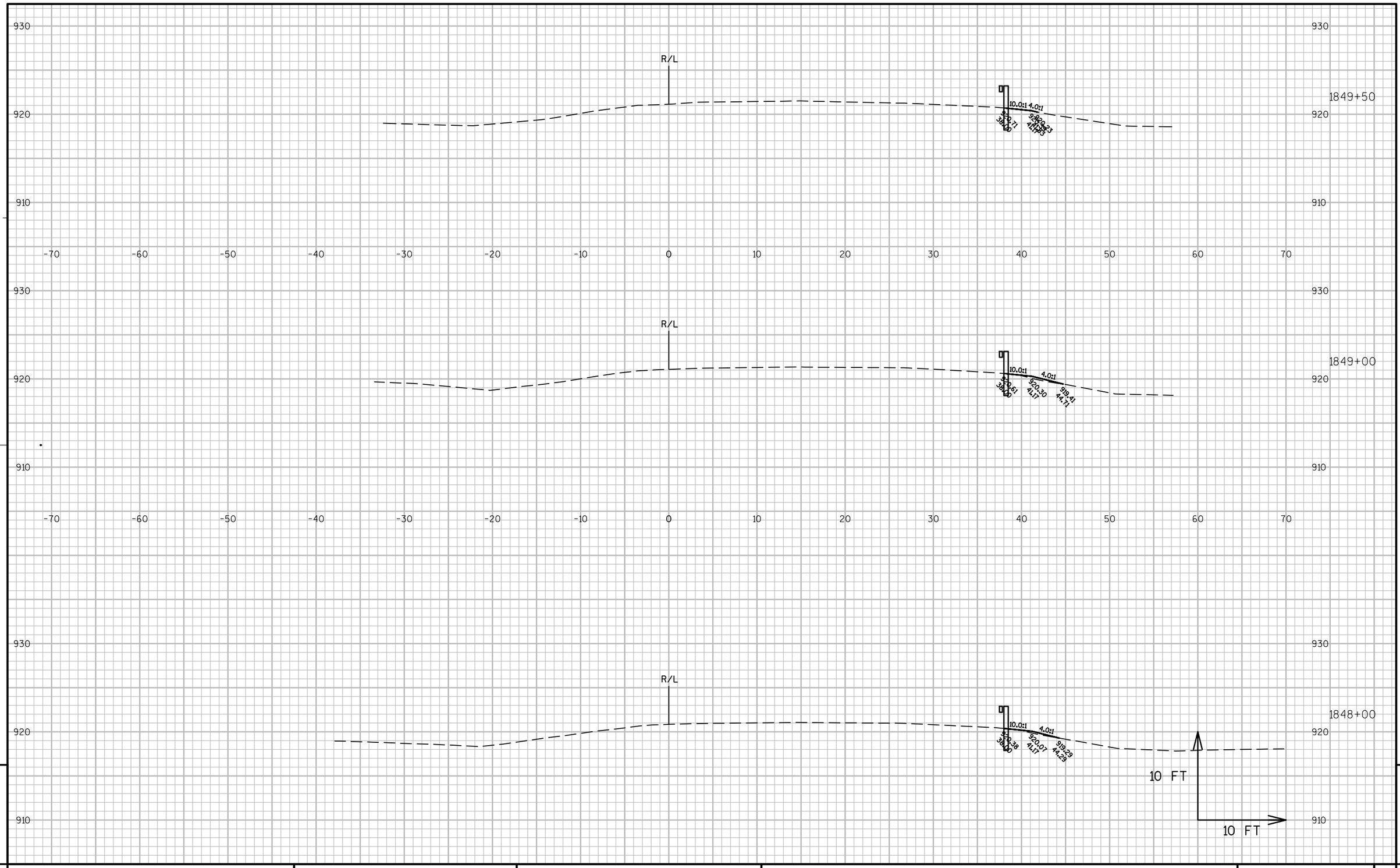
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:02 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:03 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

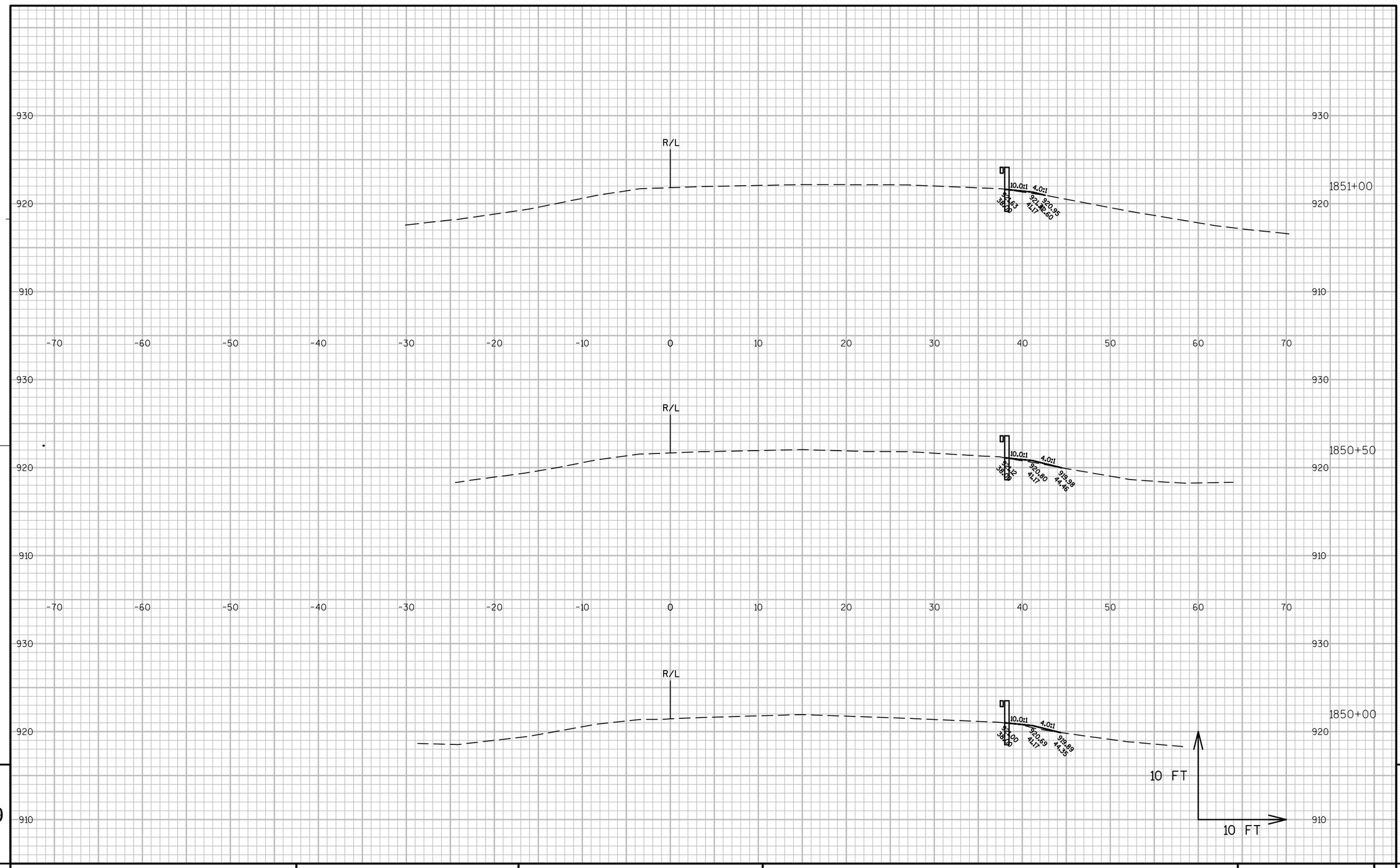


9

9

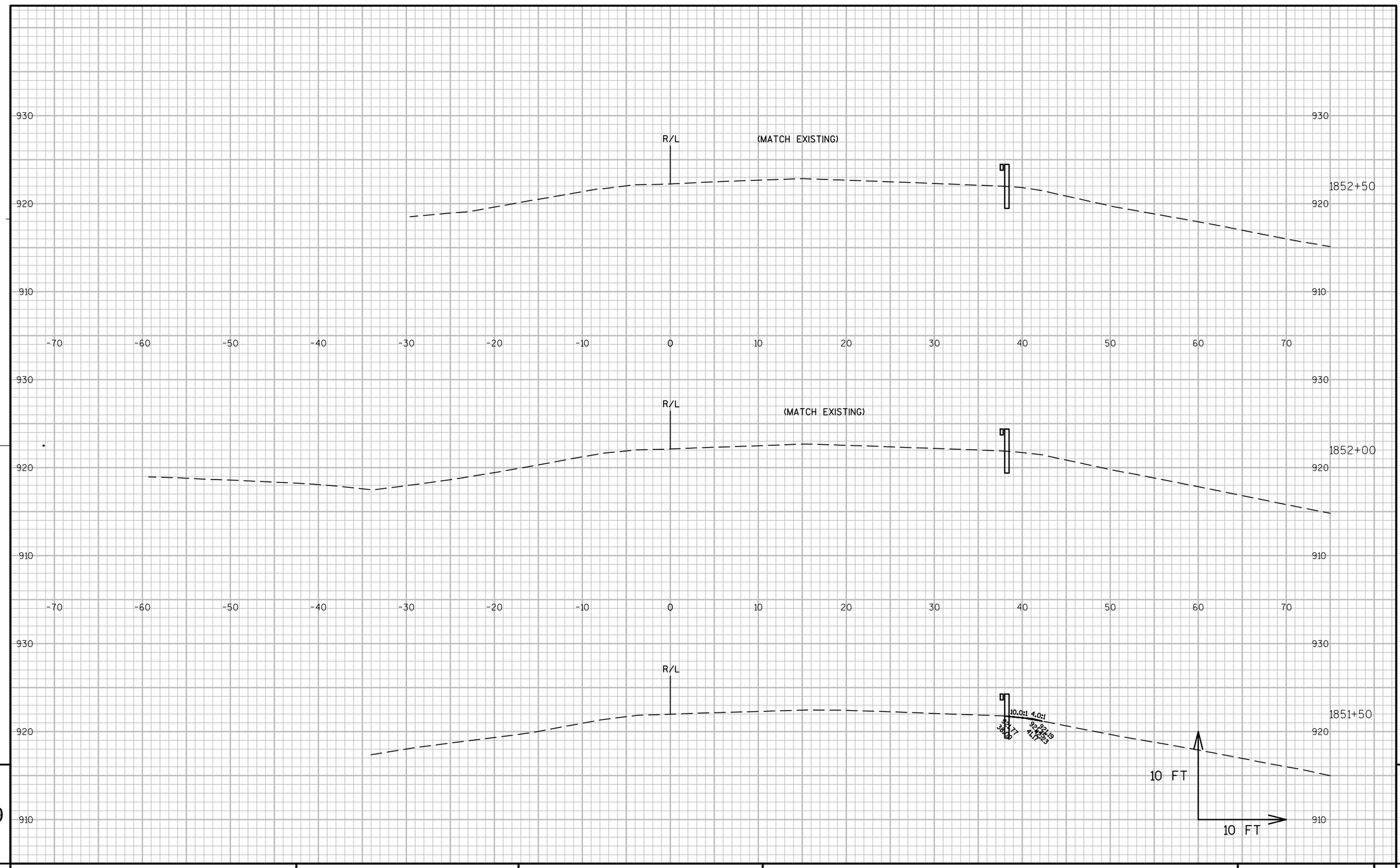
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:04 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



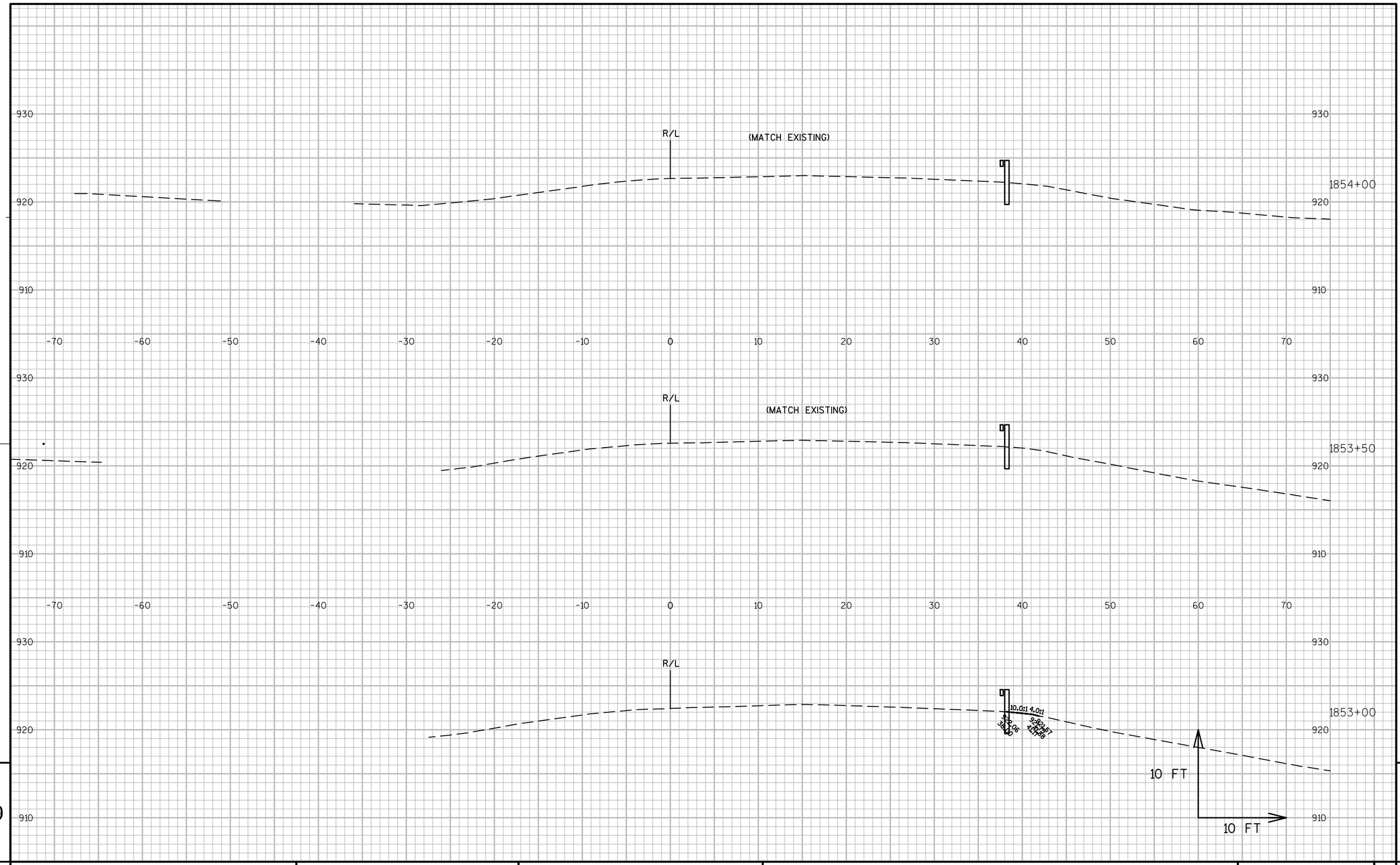
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:05 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



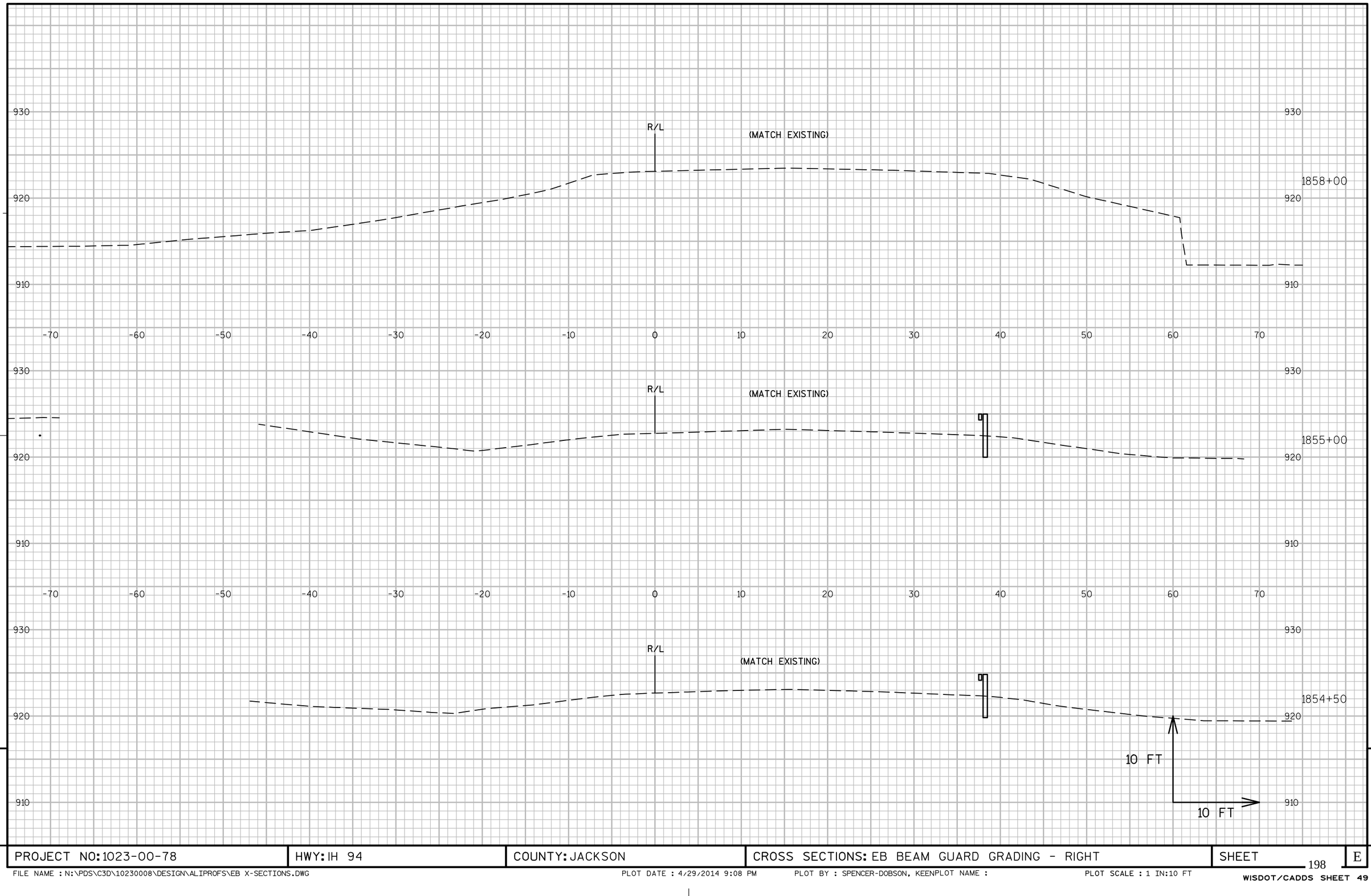
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:06 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



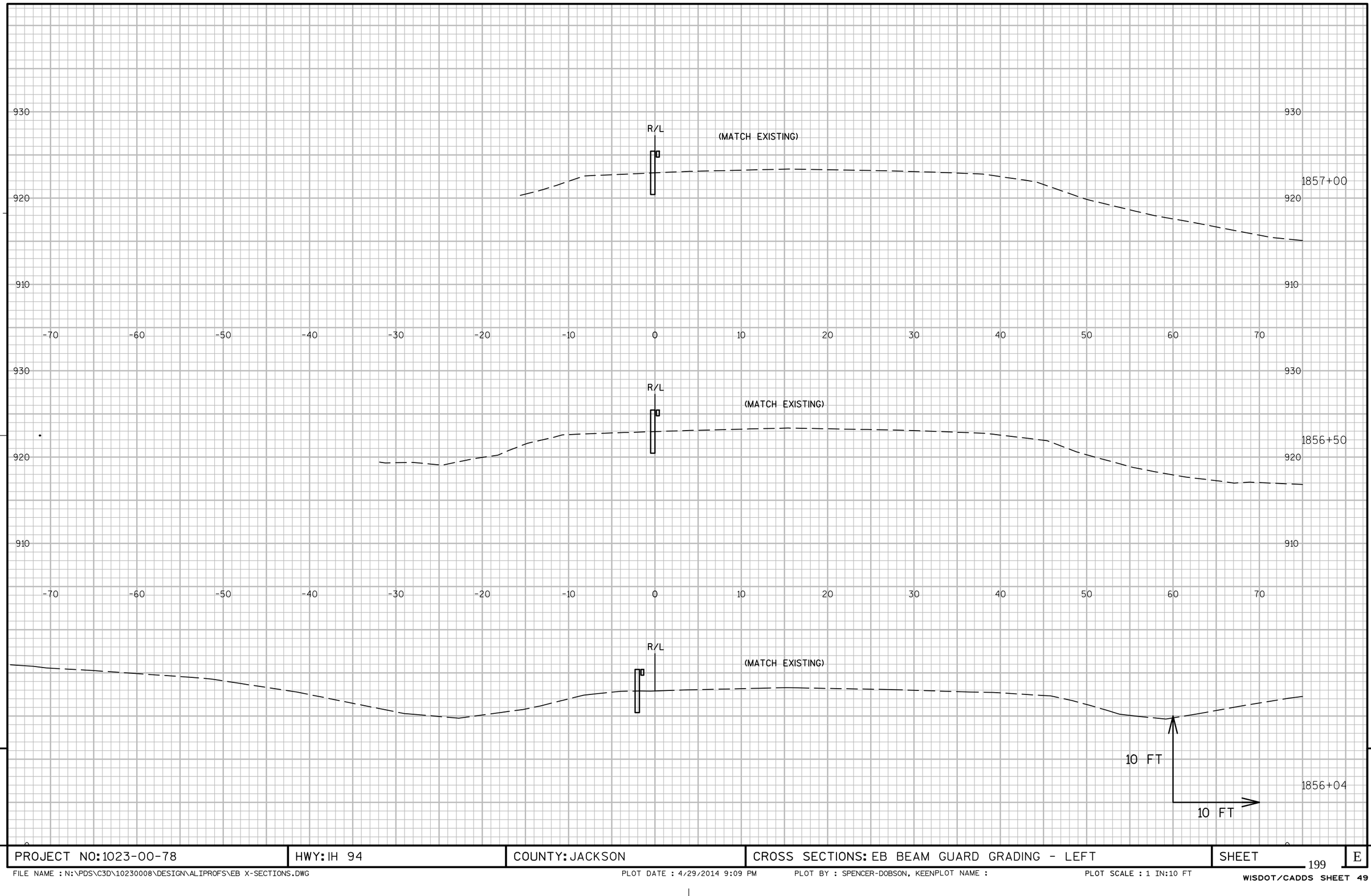
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:07 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 198	E

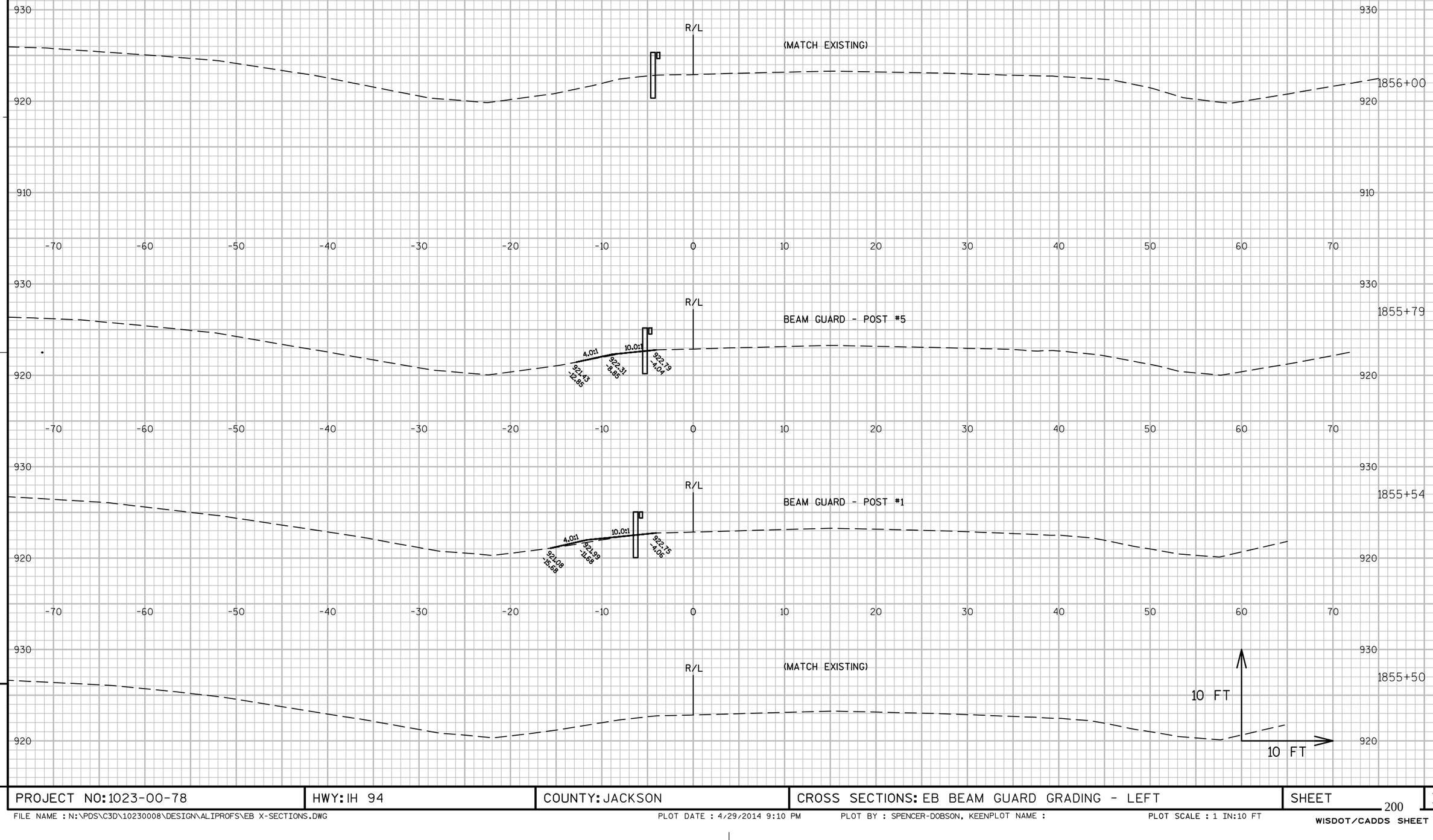


9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:09 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

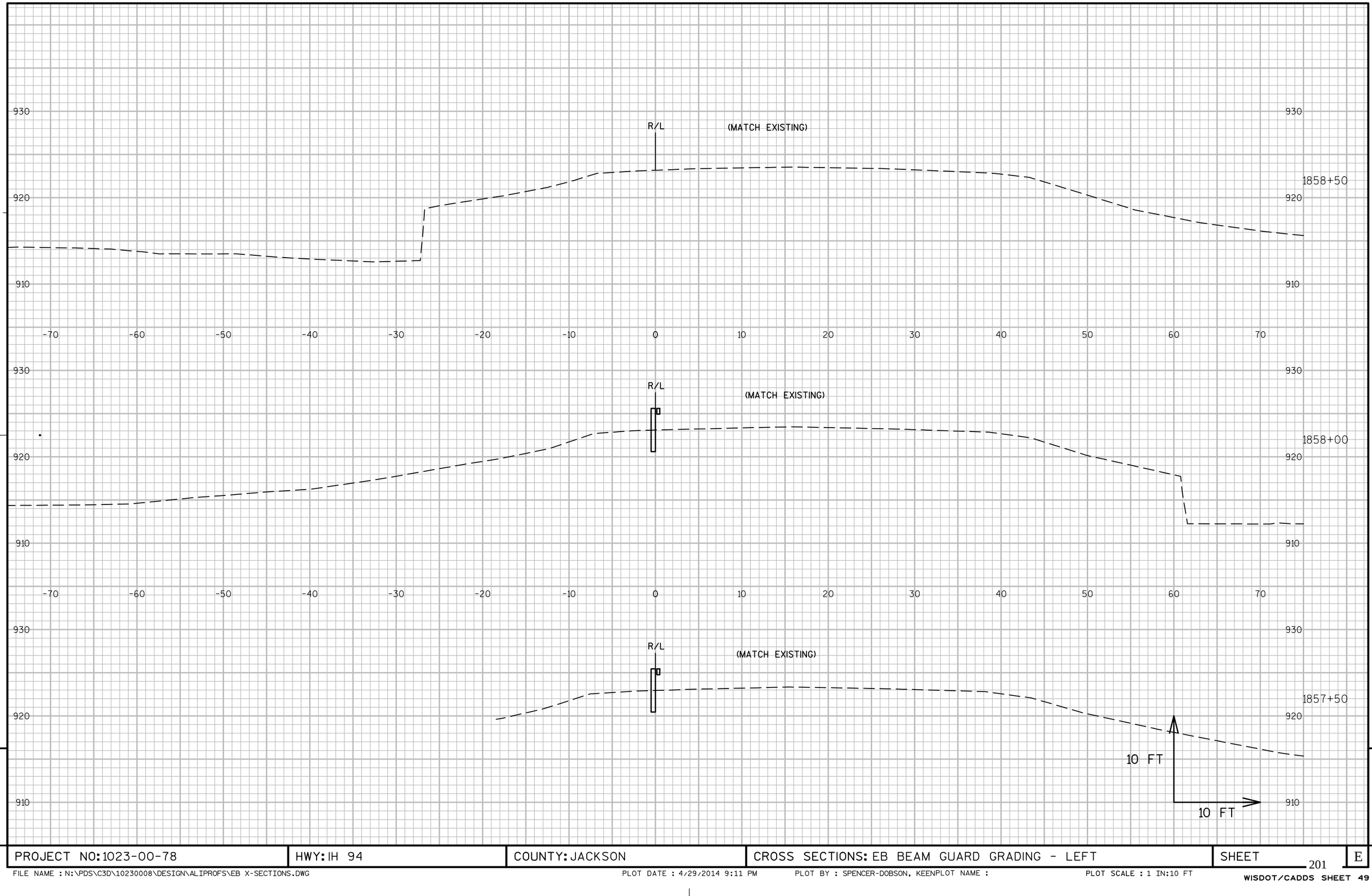
WISDOT/CADDS SHEET 49



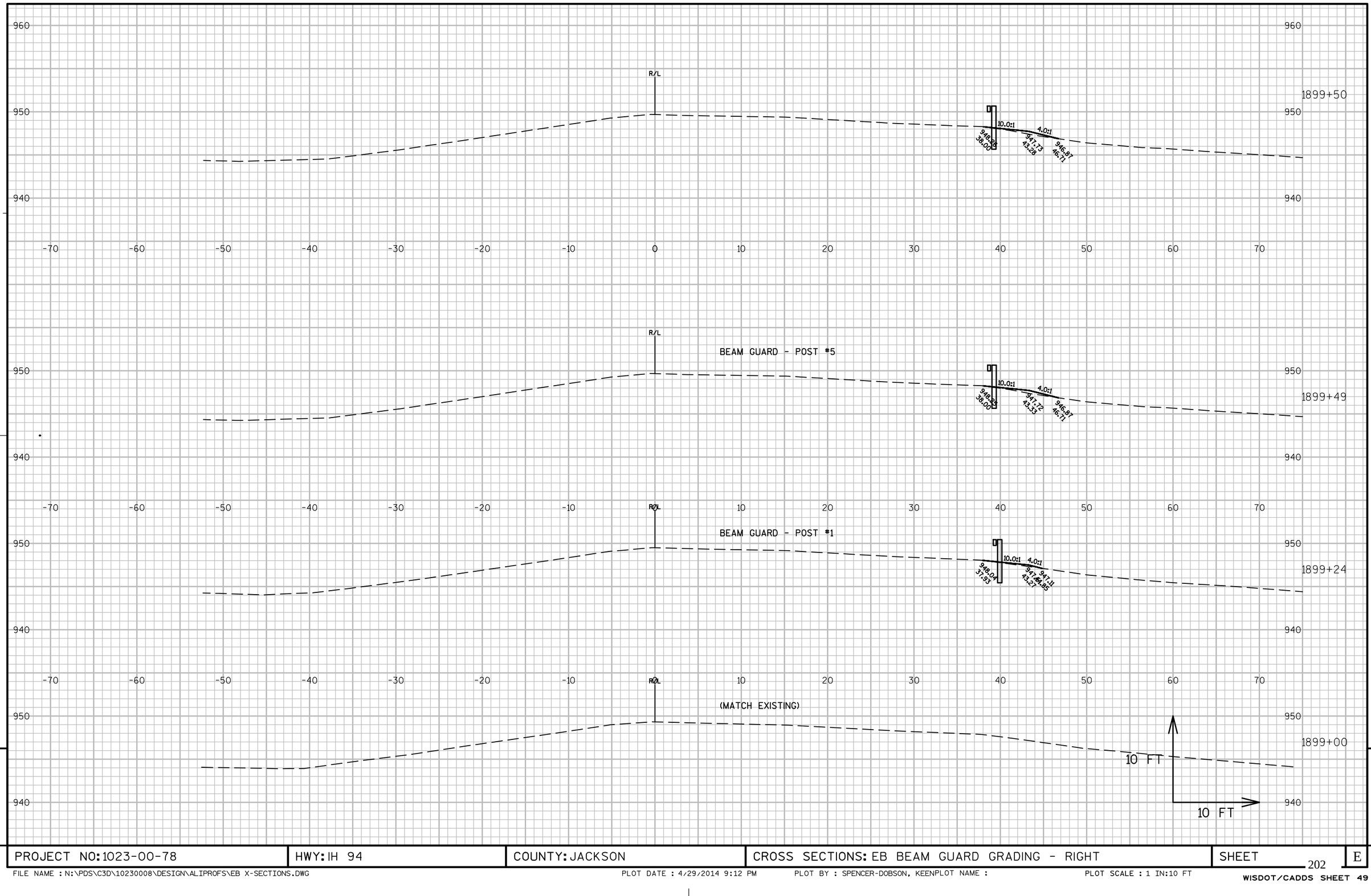
9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 200	E

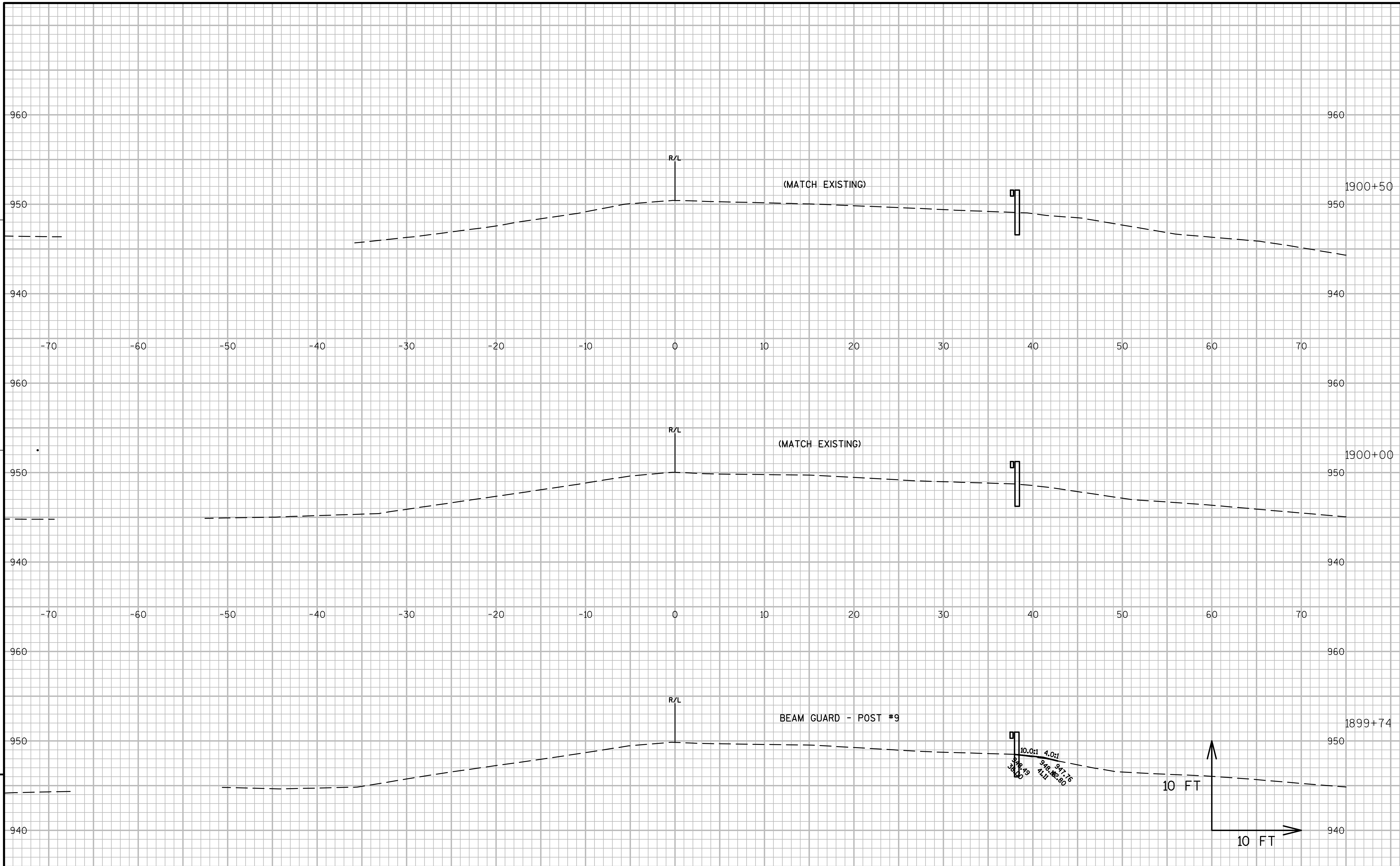
9



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 201	E



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 202	E



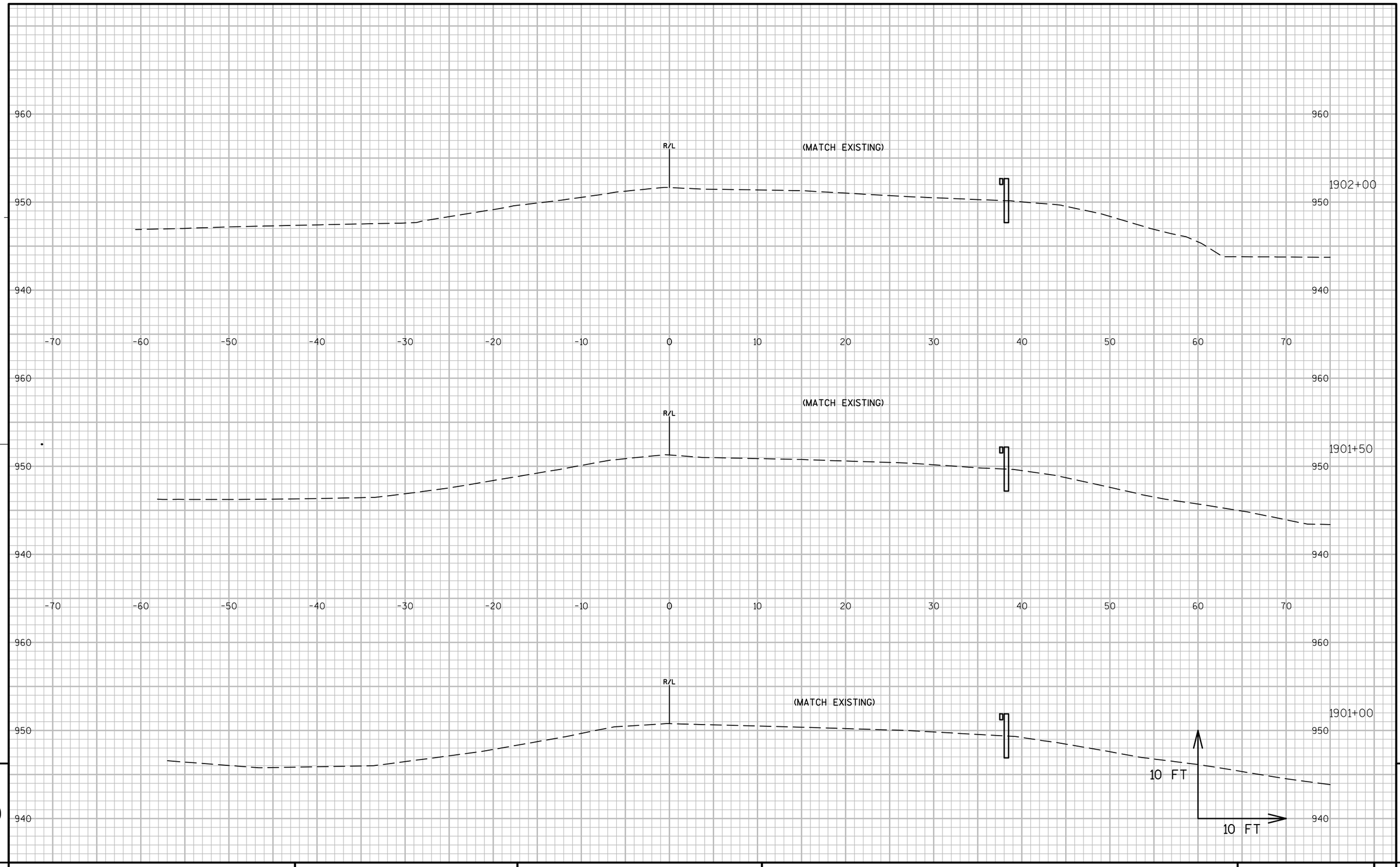
9

9

PROJECT NO:1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 203	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG   PLOT DATE : 4/29/2014 9:12 PM   PLOT BY : SPENCER-DOBSON, KEEN   PLOT NAME :   PLOT SCALE : 1 IN:10 FT

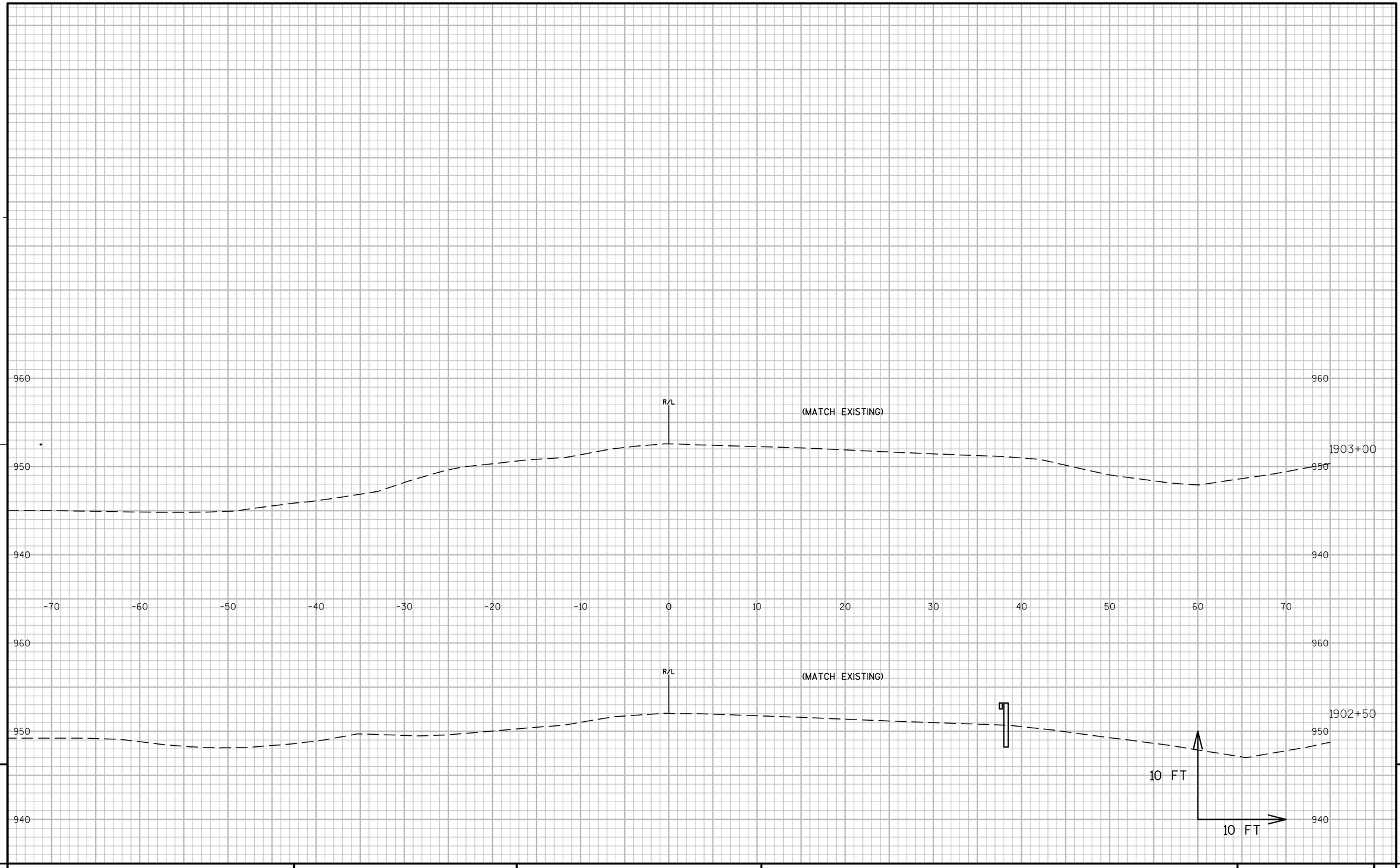
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 204	E

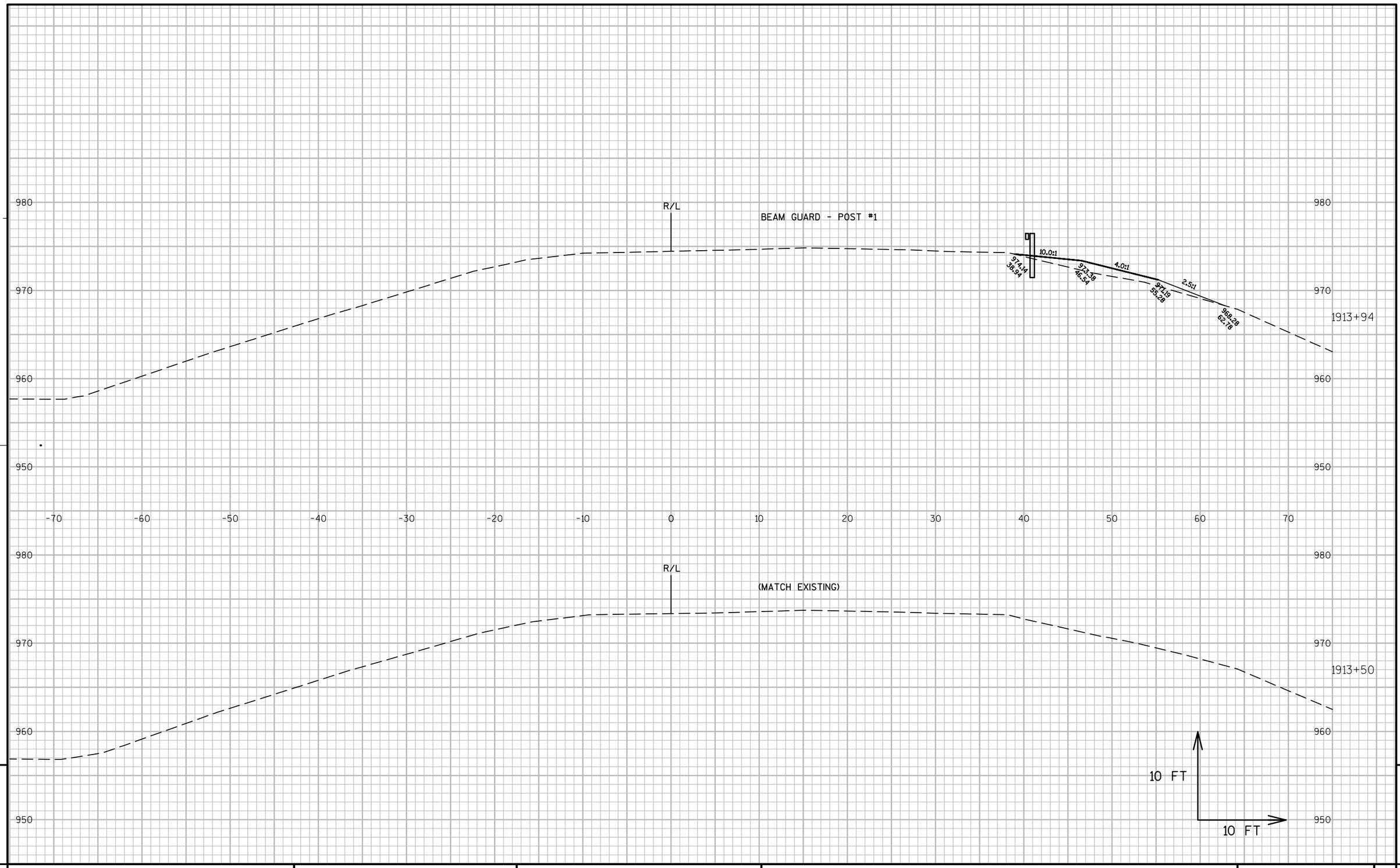


9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

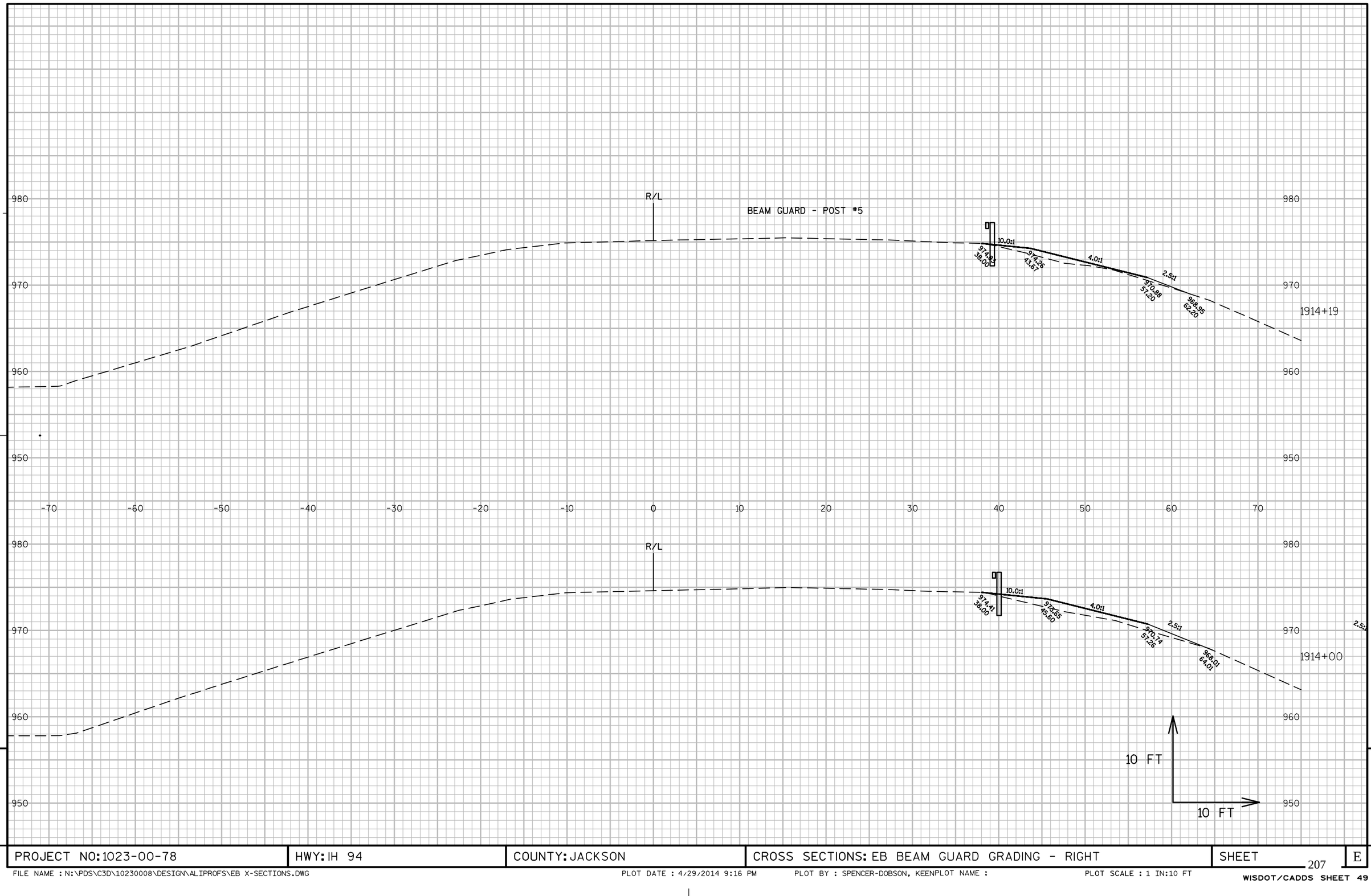
9

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:14 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:15 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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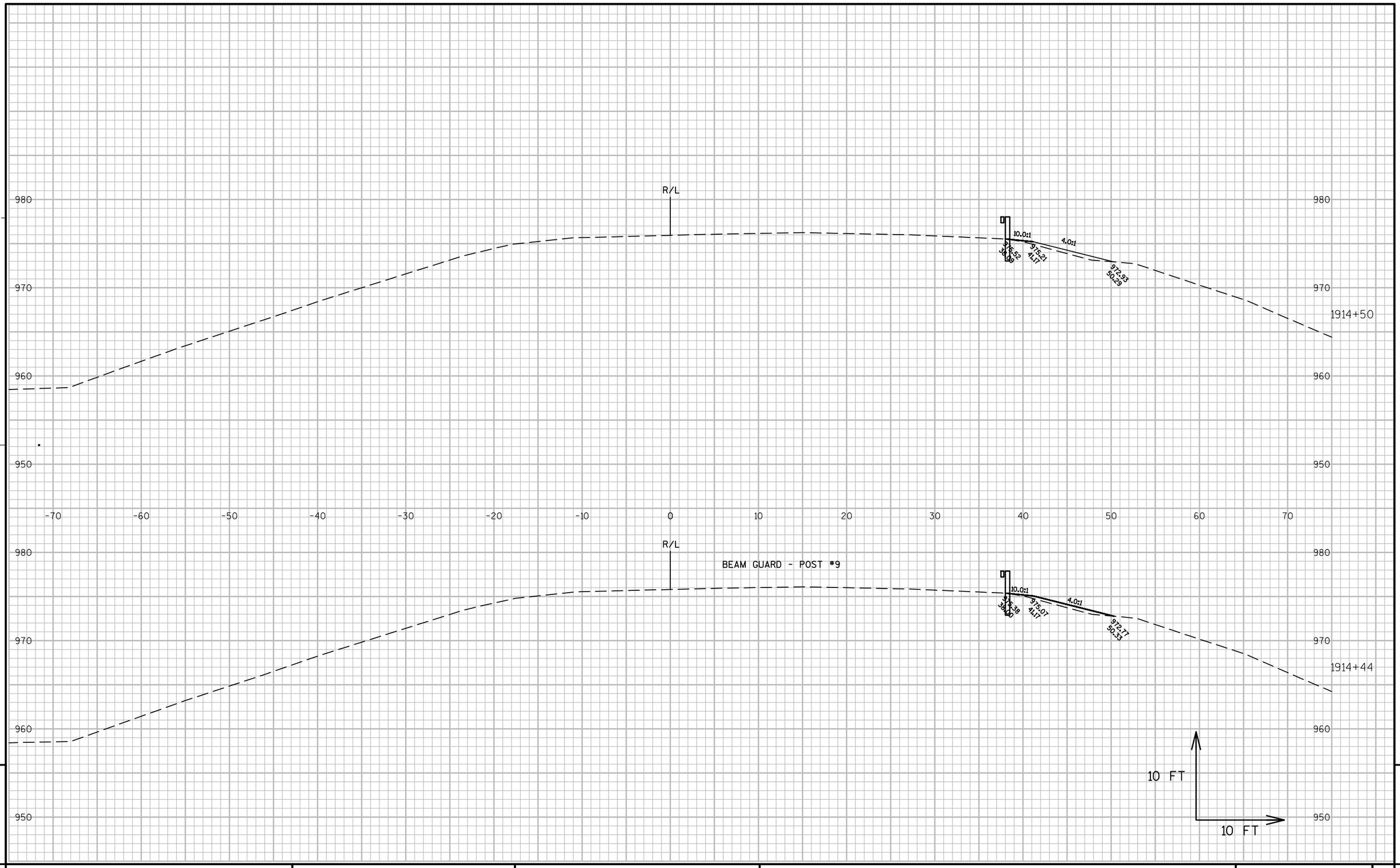
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 207	E

9

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:16 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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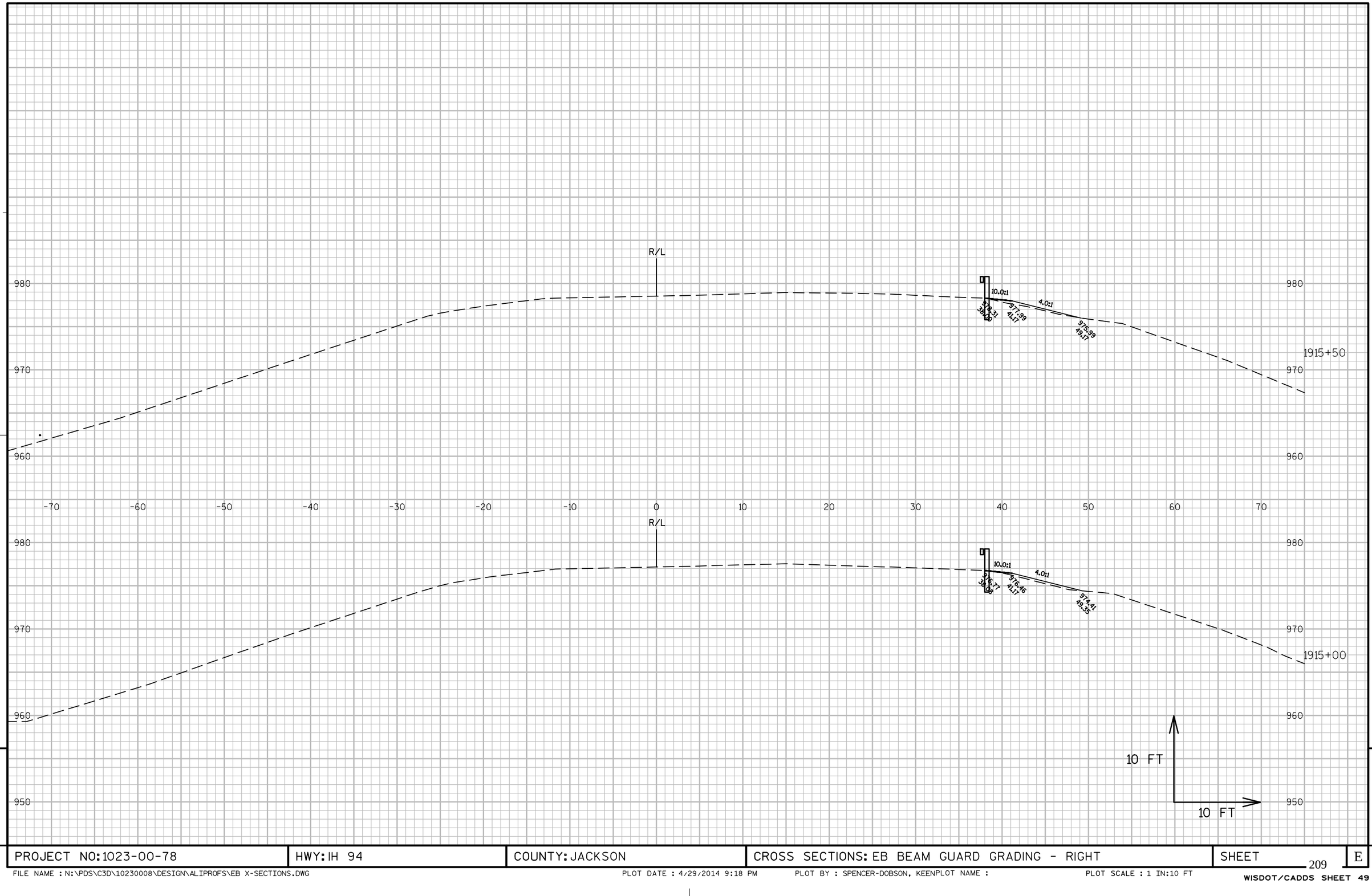
9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:17 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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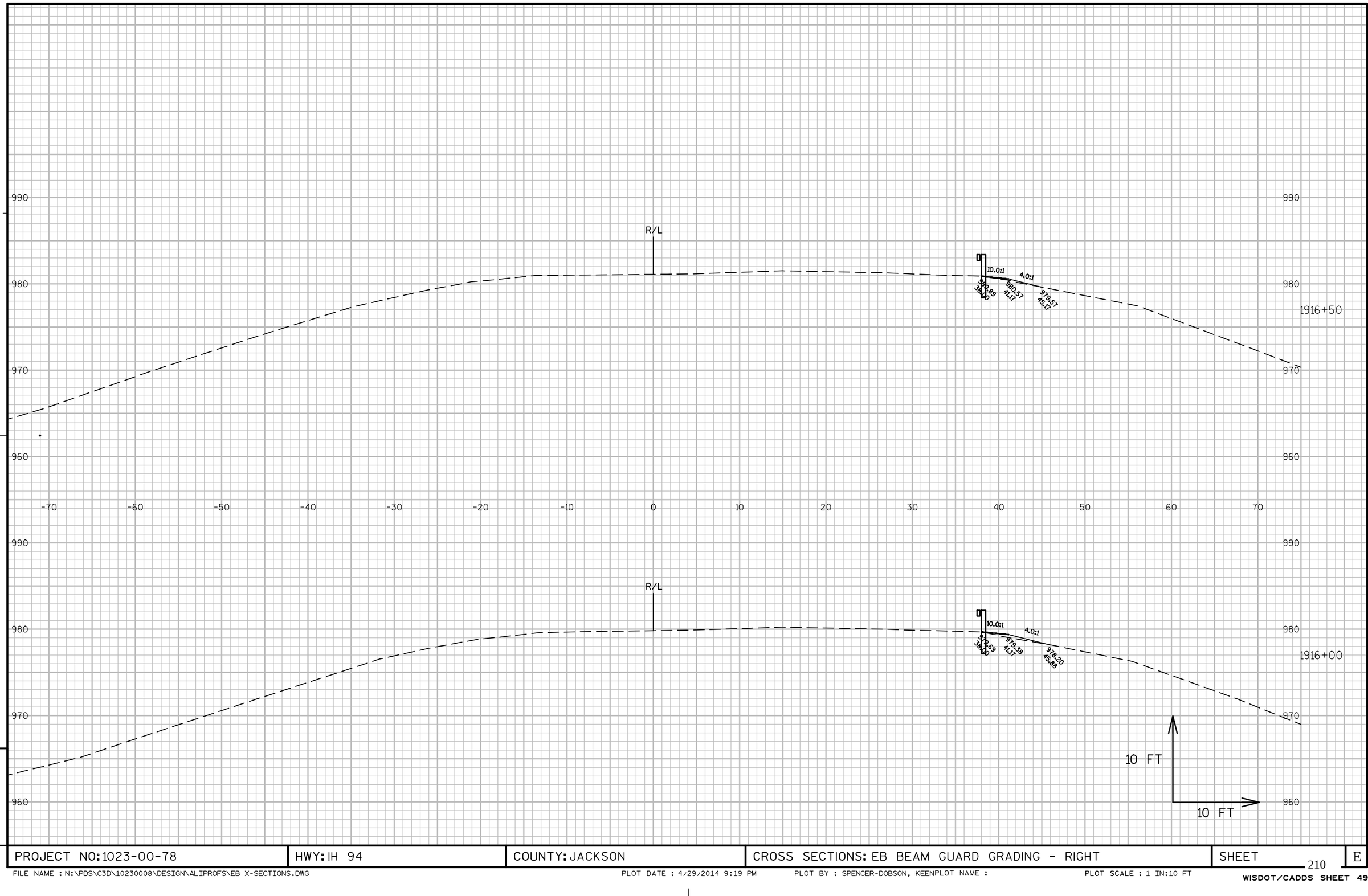
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 209	E

9

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:18 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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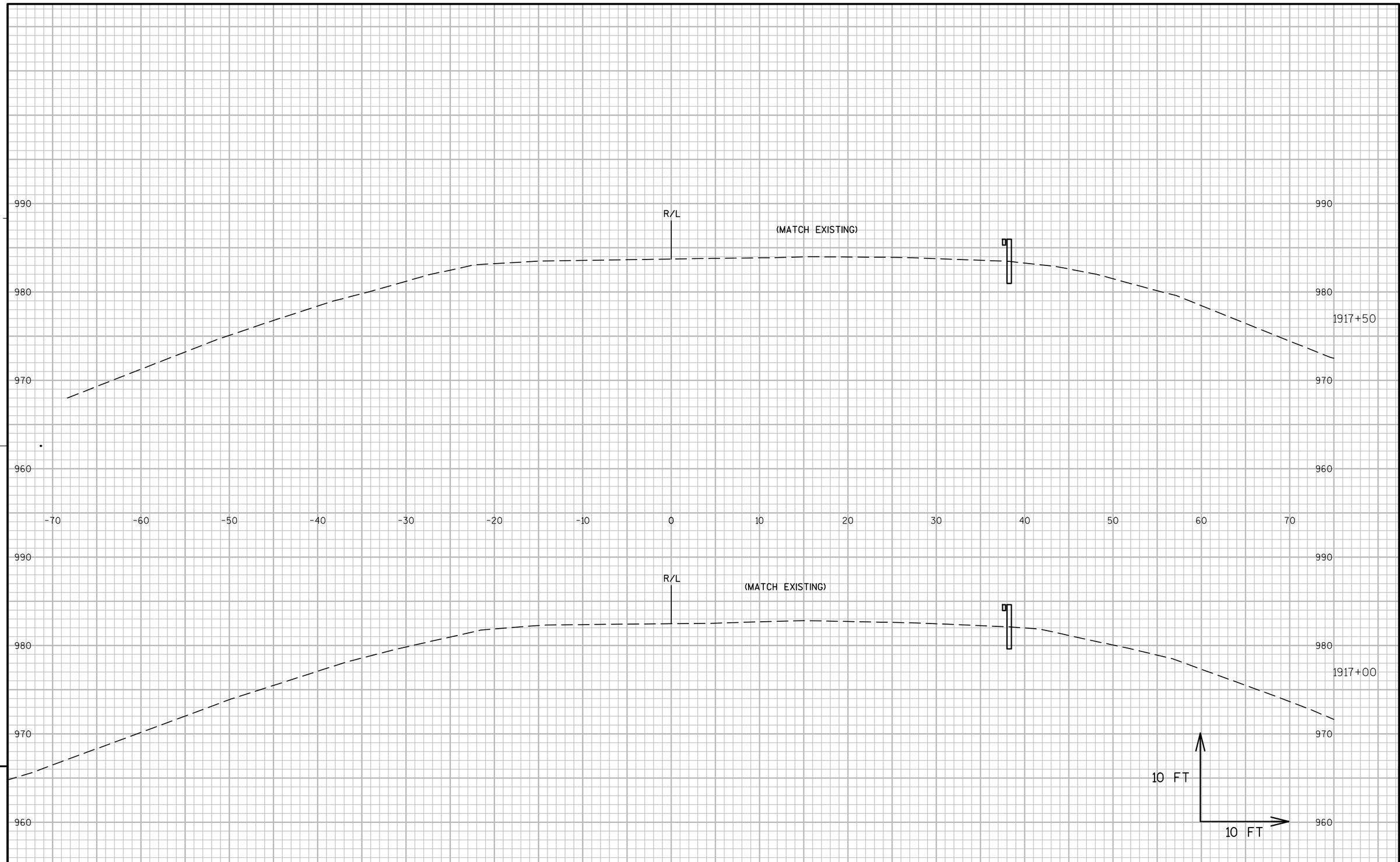
9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 210	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:19 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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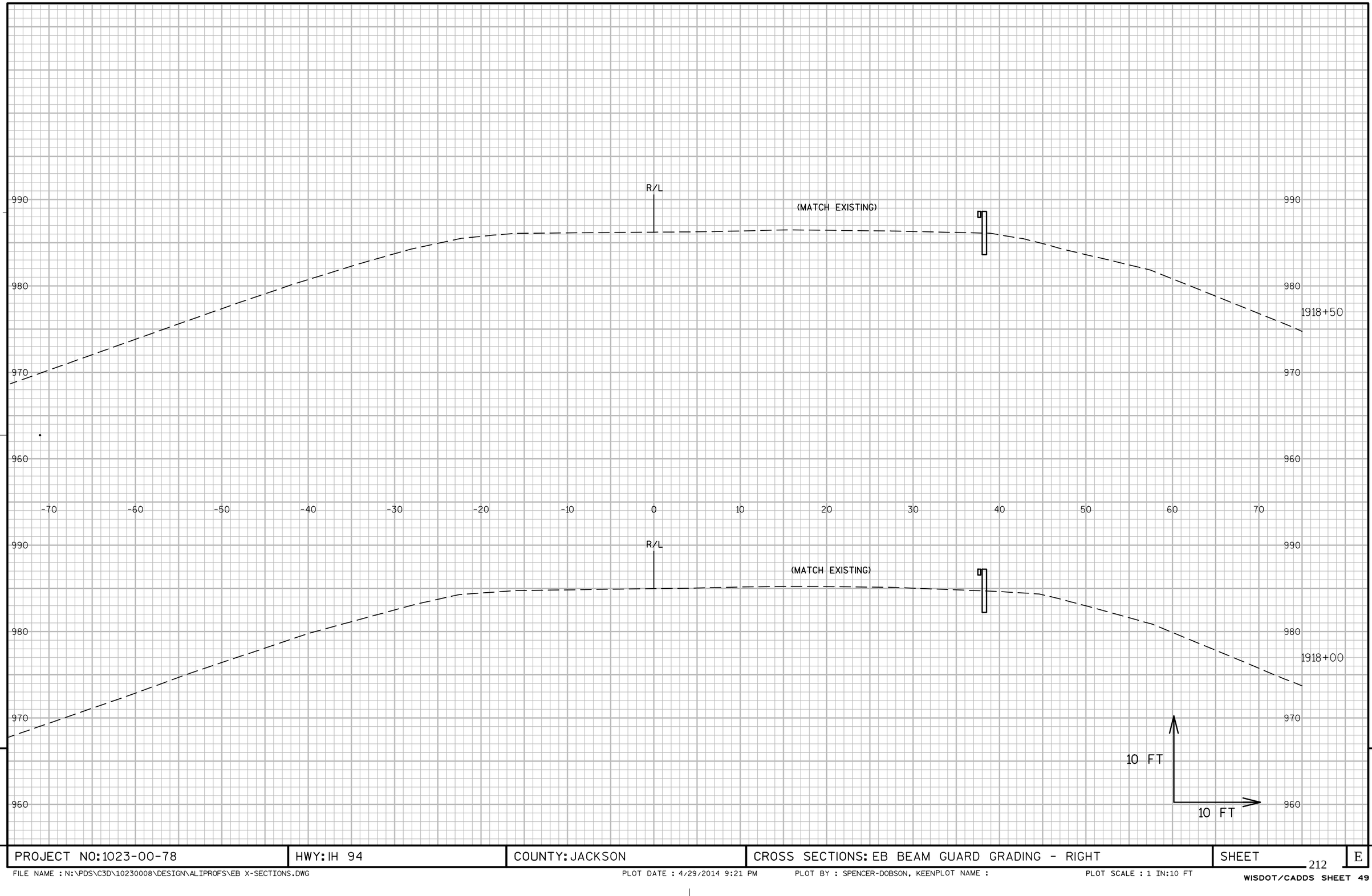
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 211	E

9



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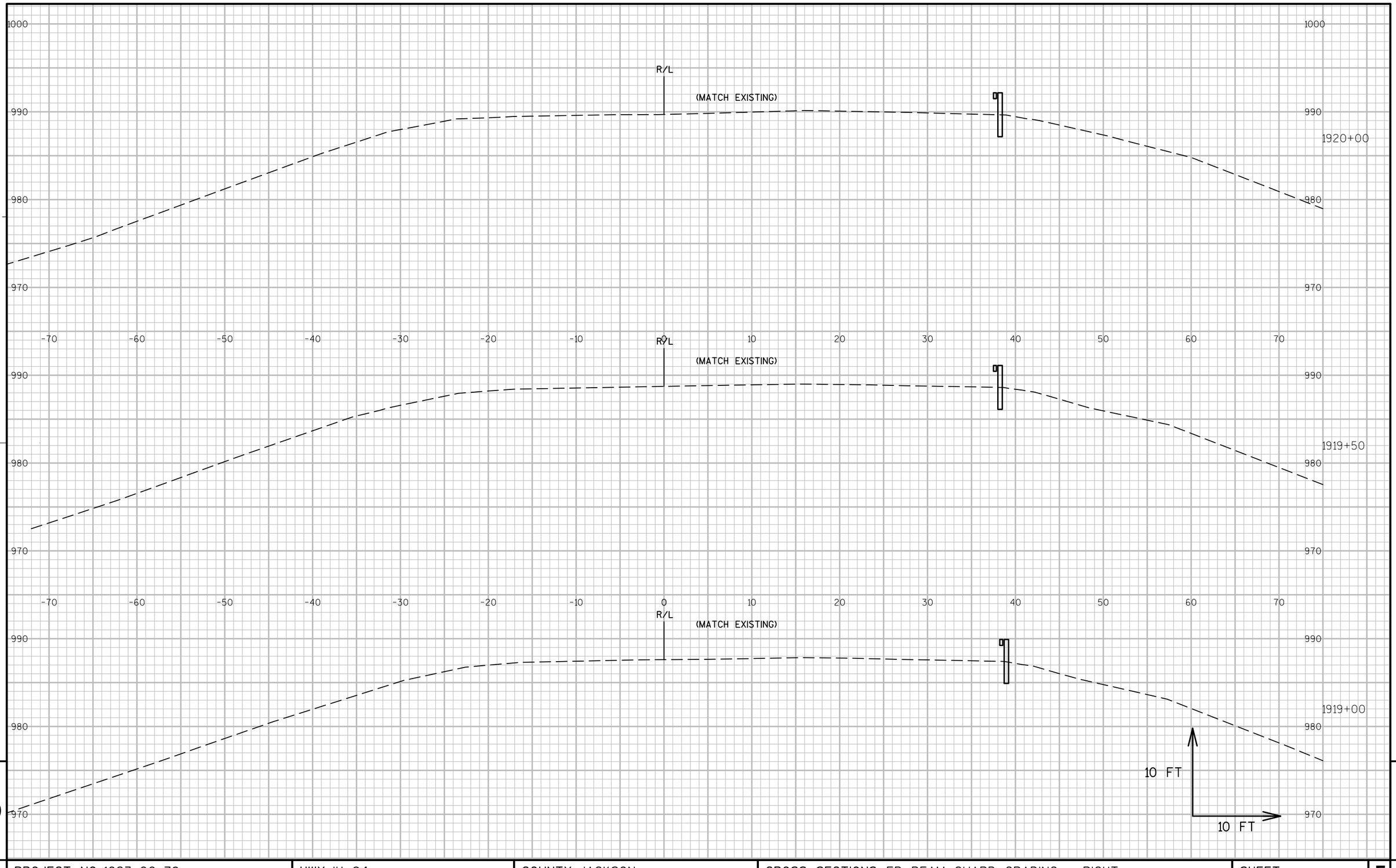
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 212	E



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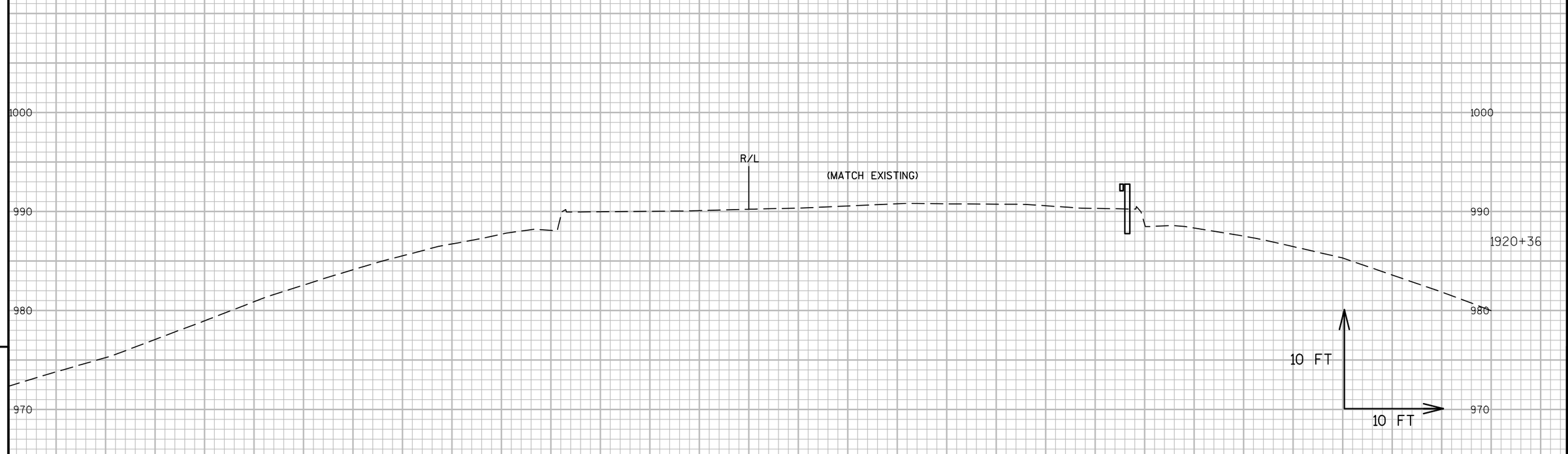
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E



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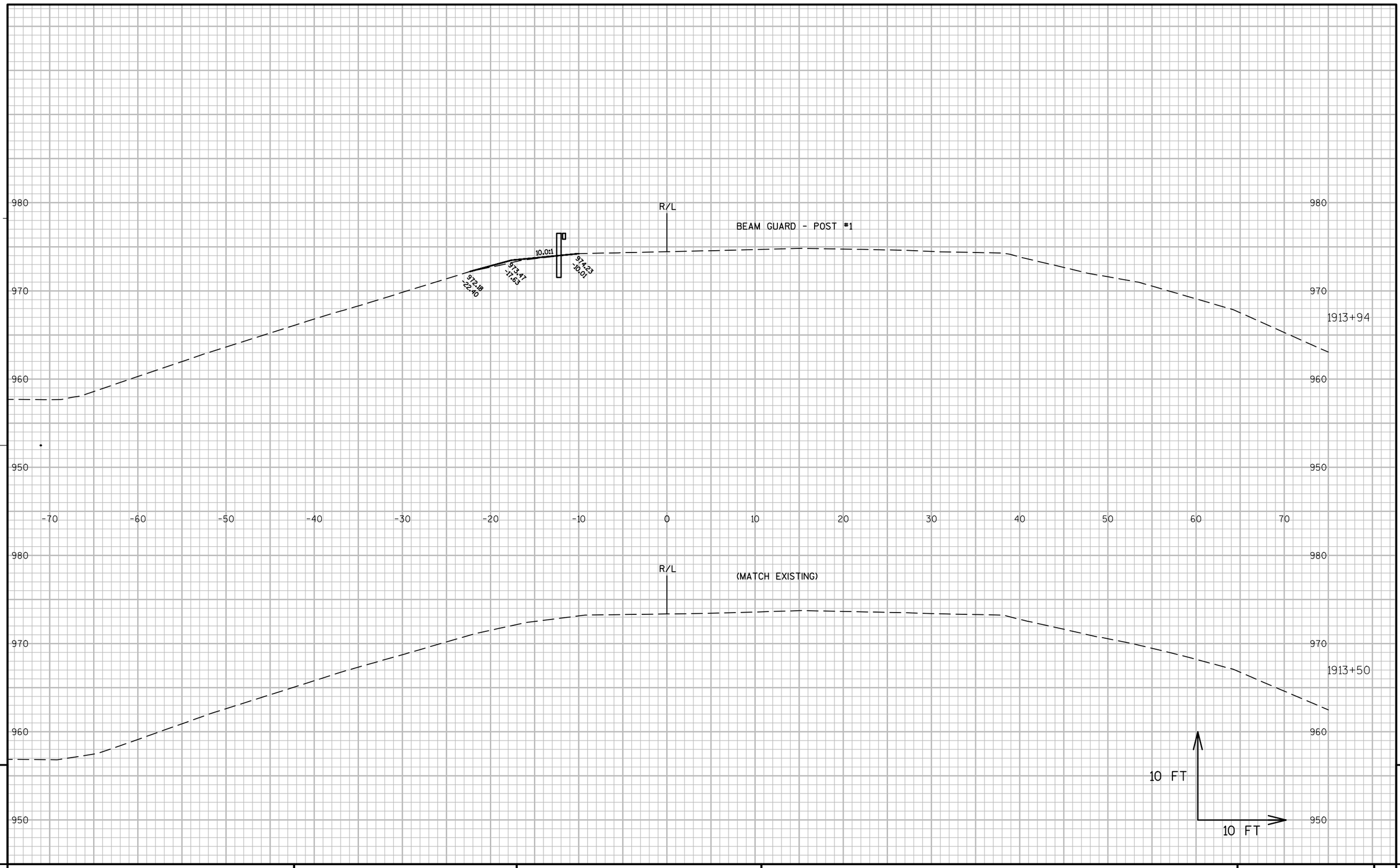
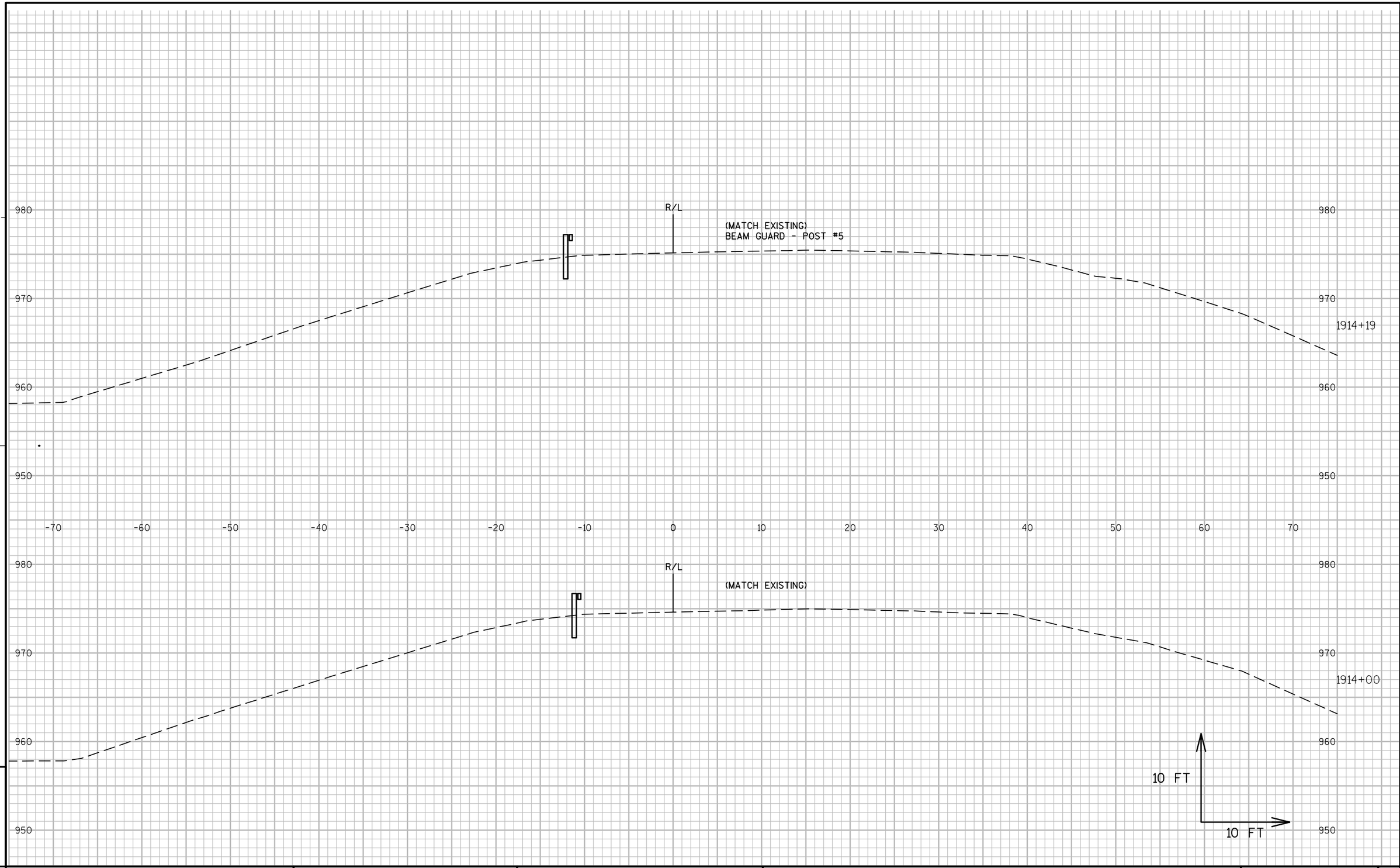
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 214	E



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E



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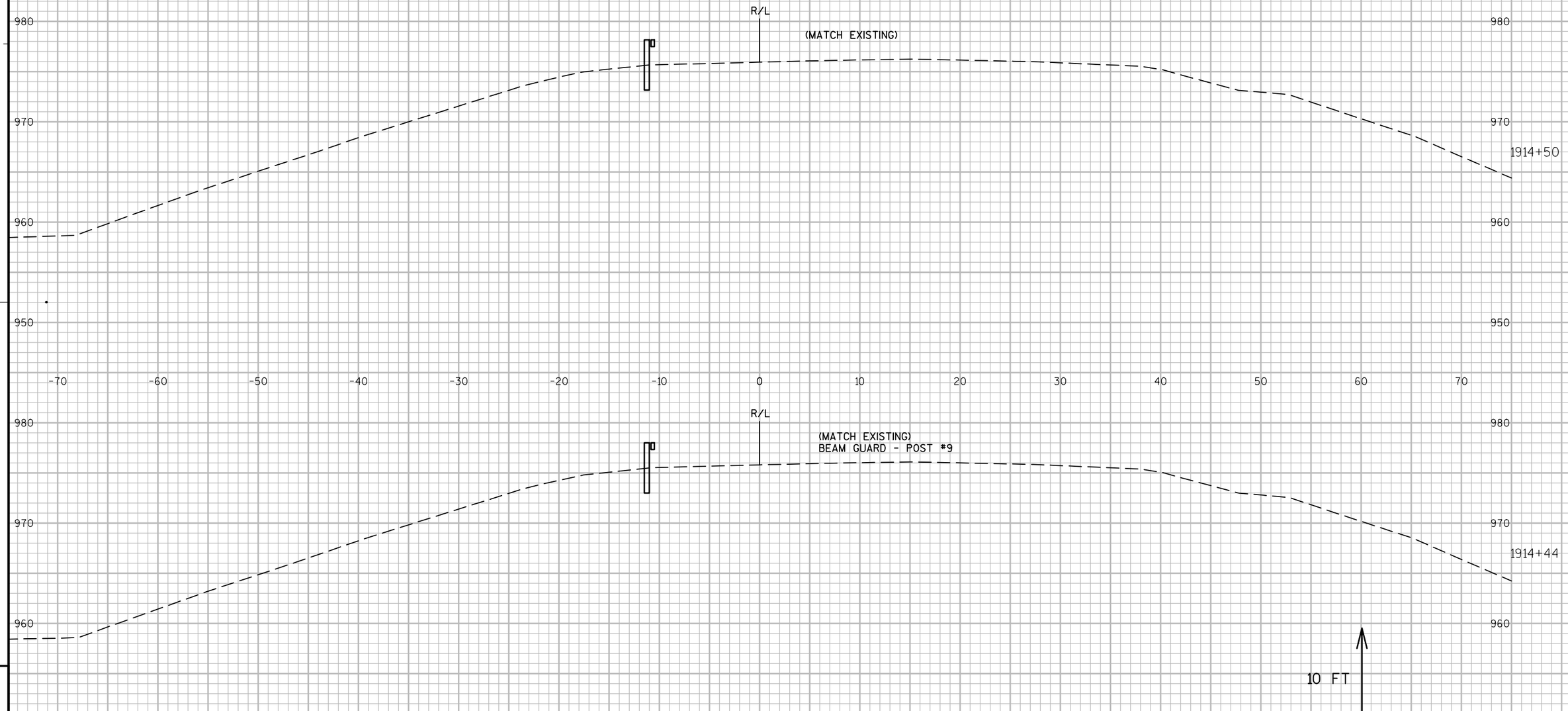
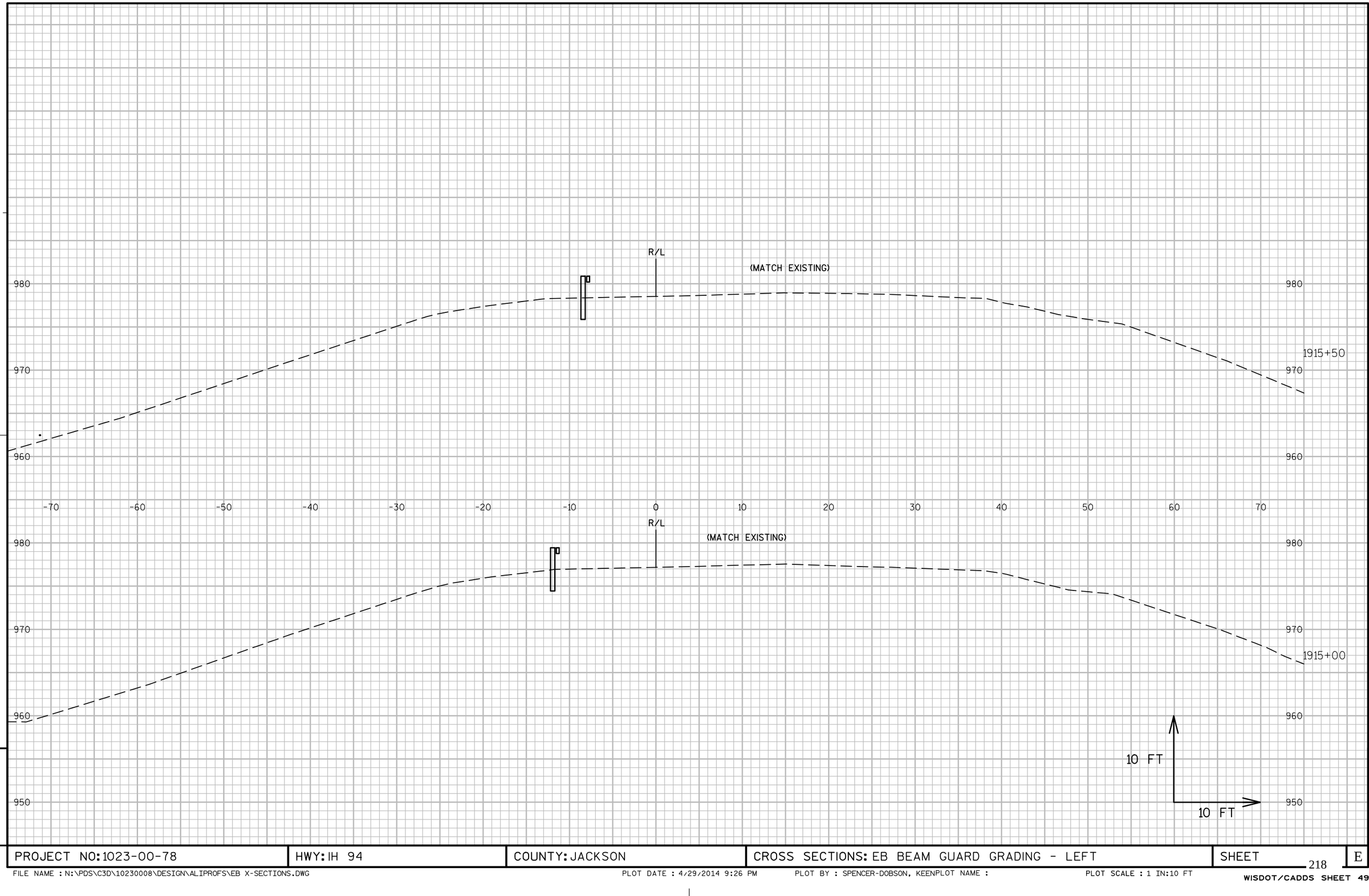
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:24 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:25 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



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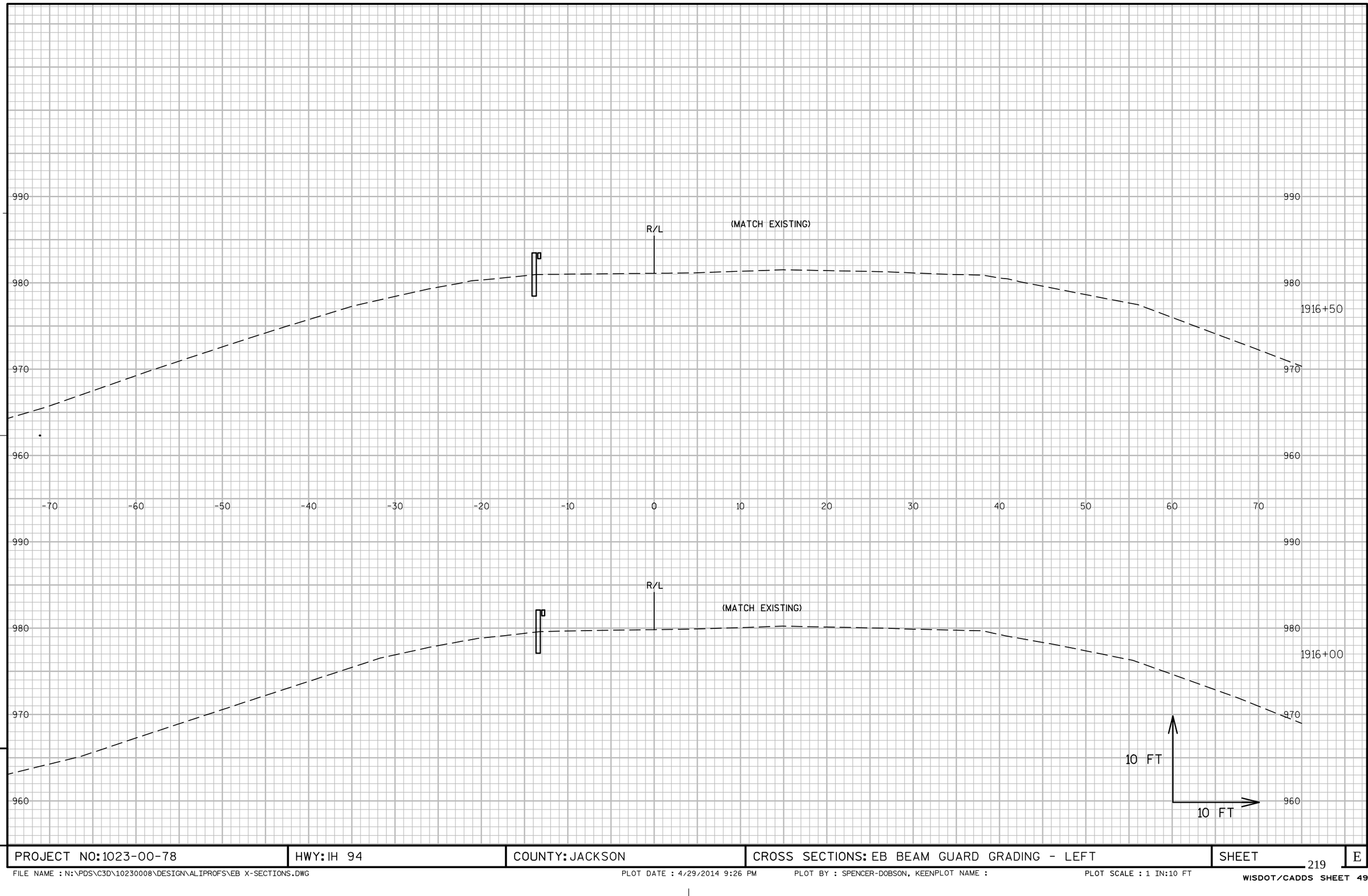
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:26 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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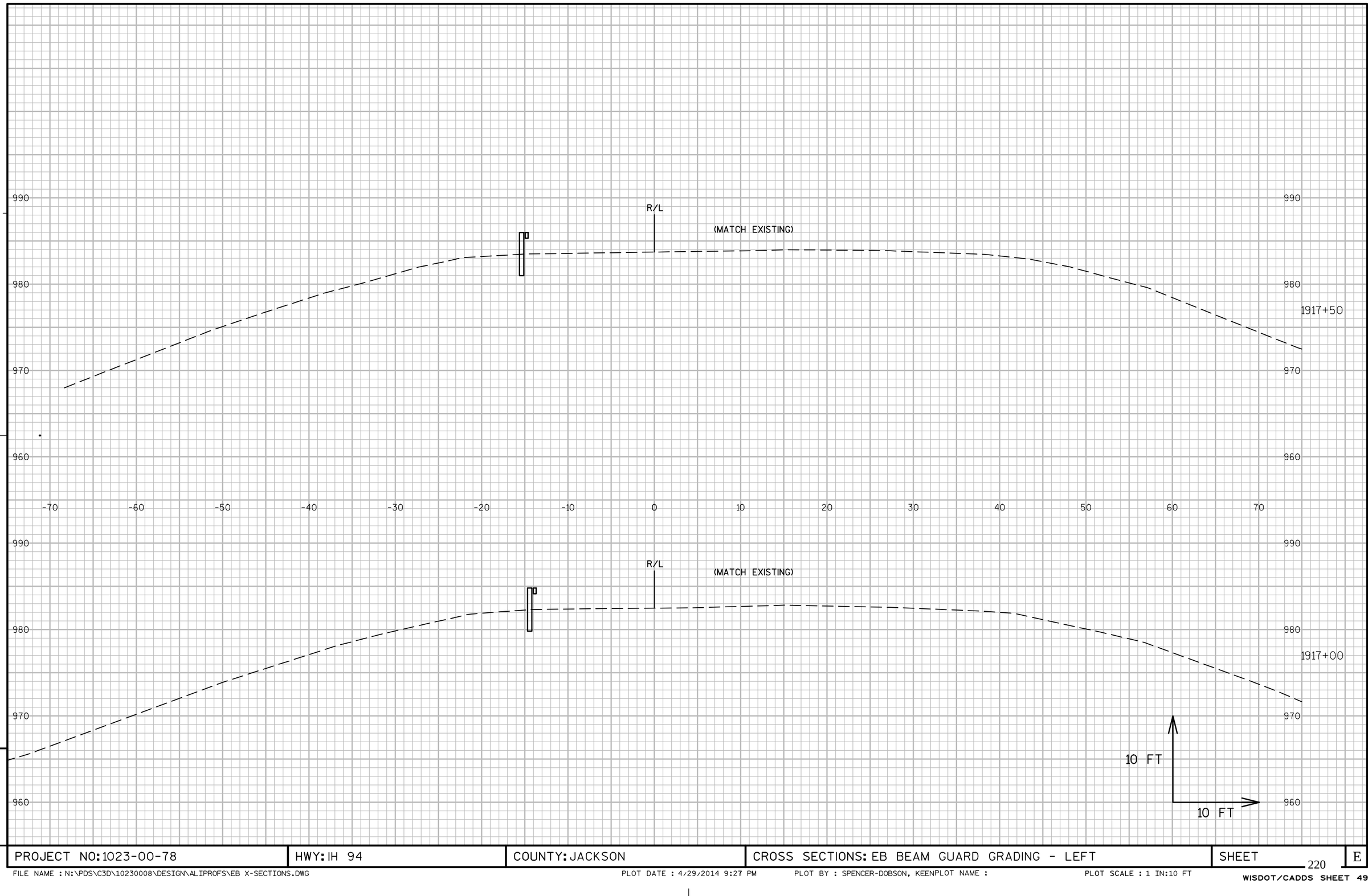
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 219	E



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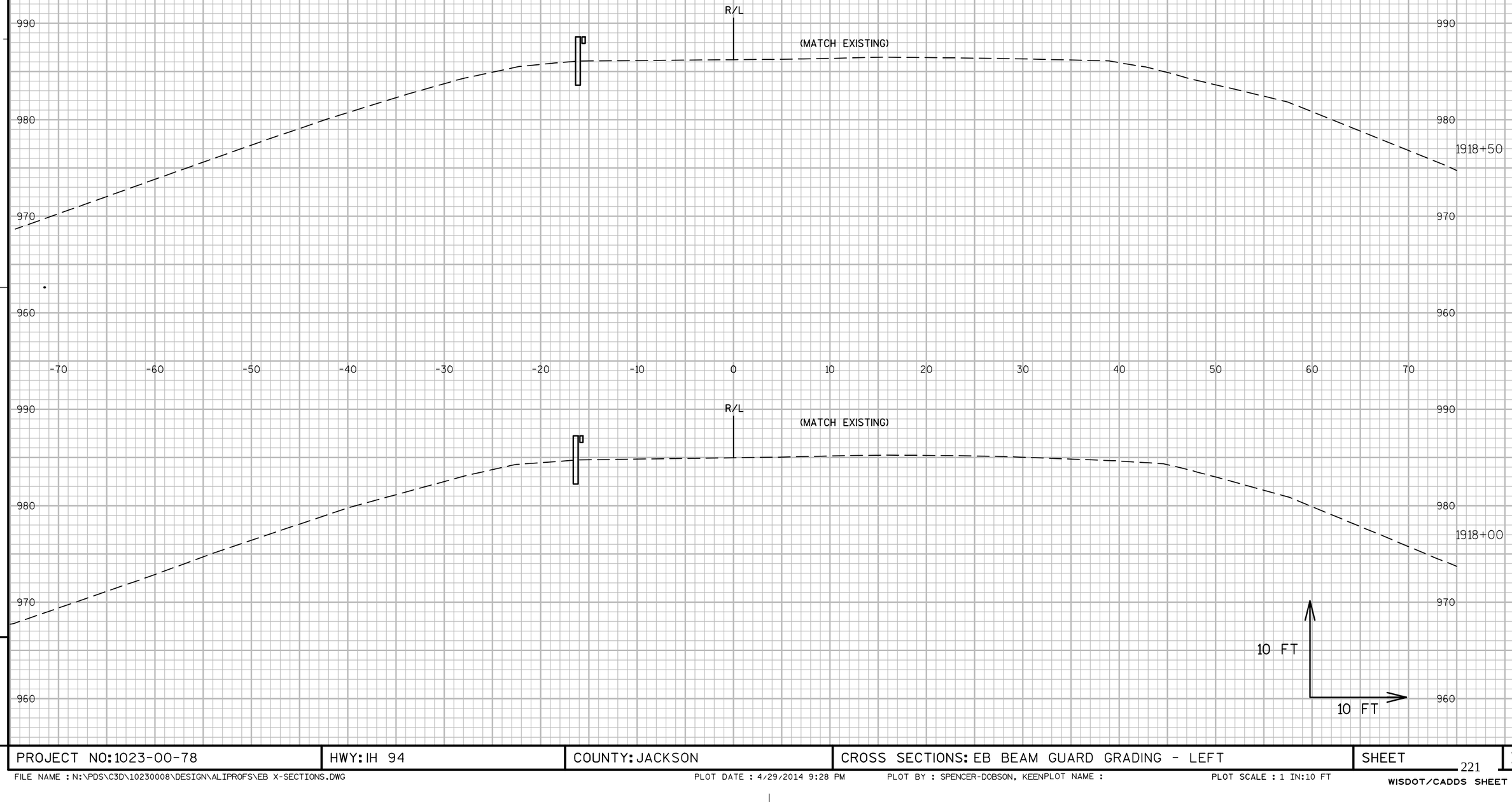
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 220	E



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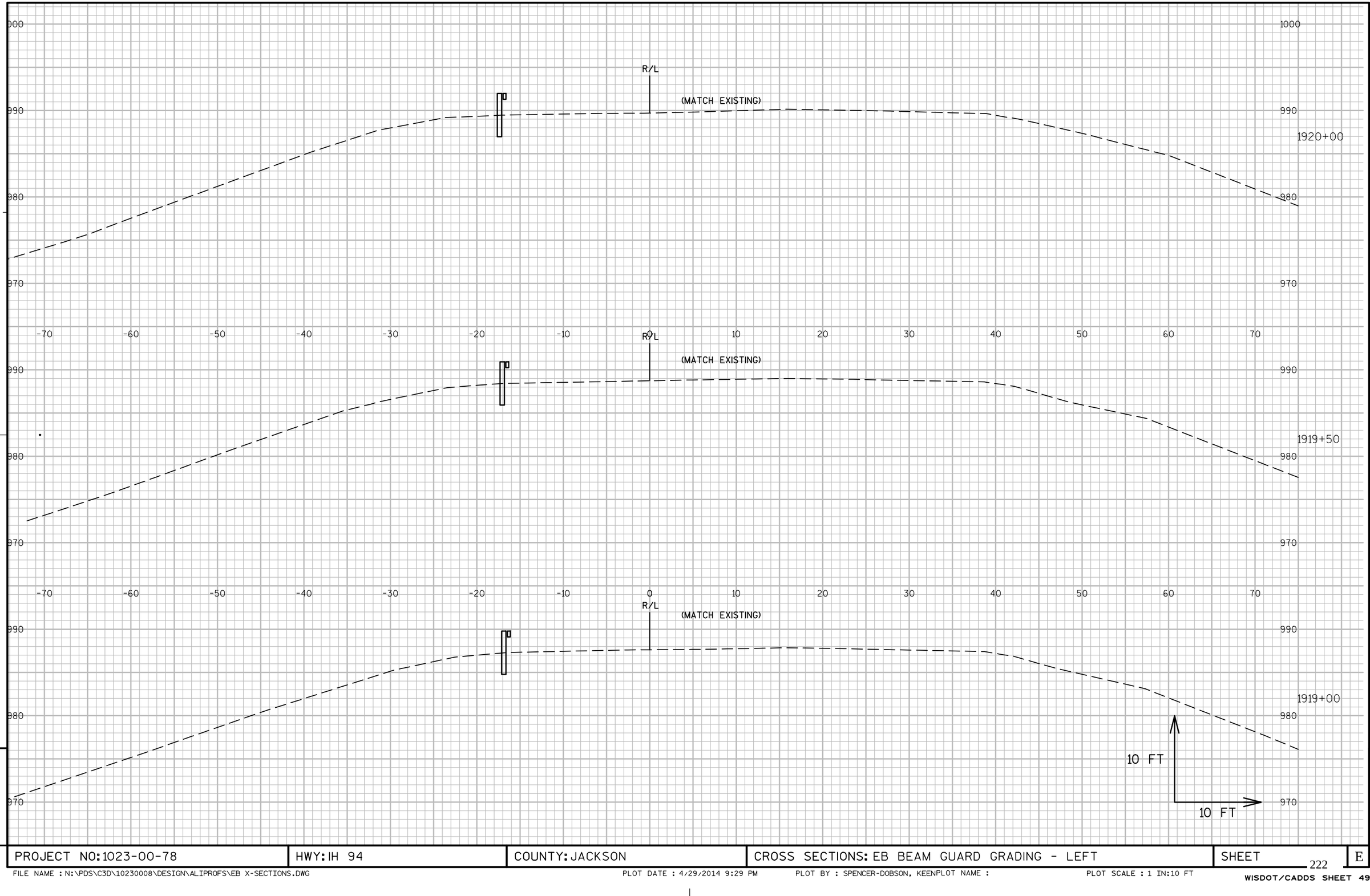
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:28 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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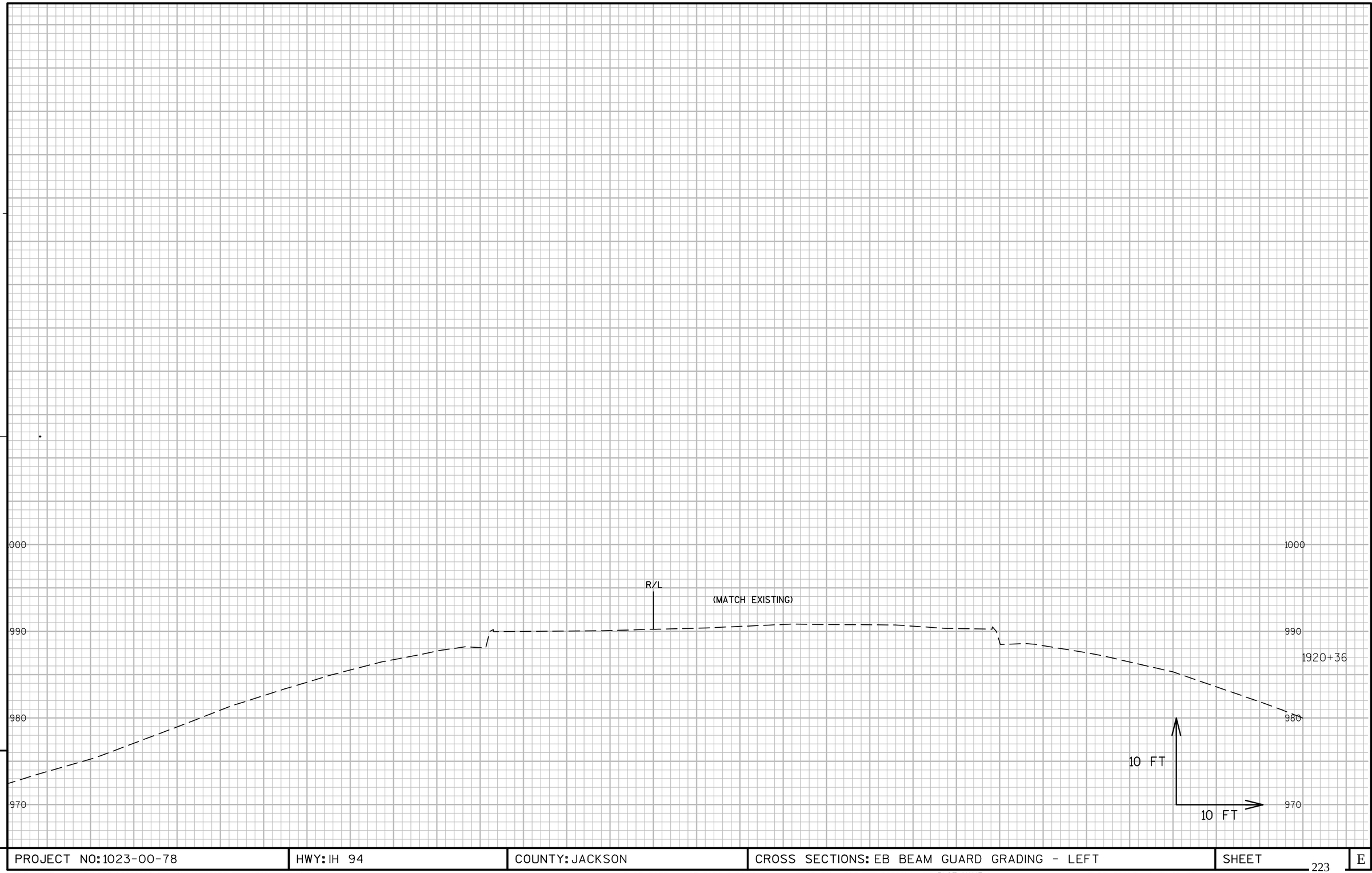
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:29 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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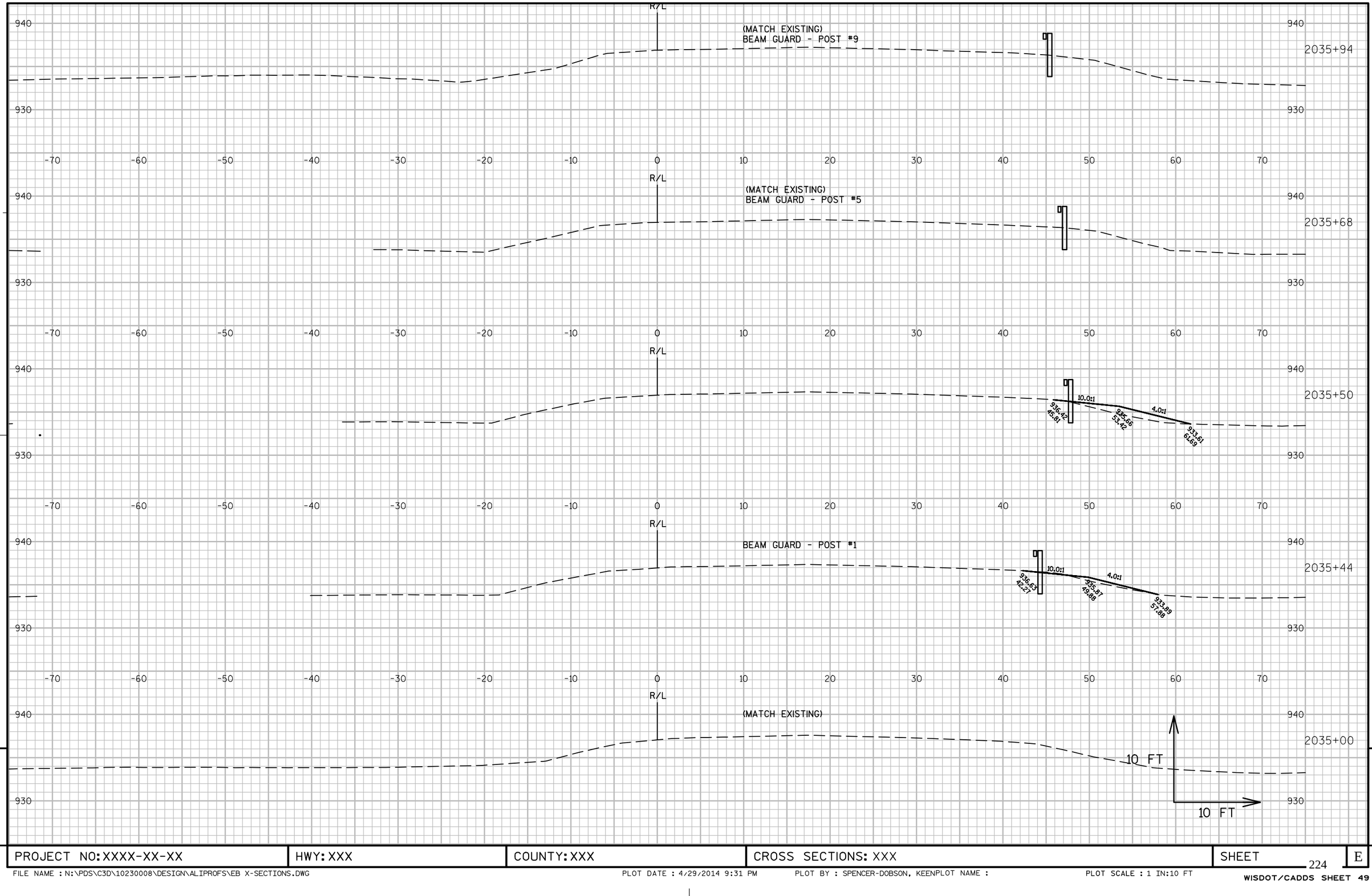
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 223	E



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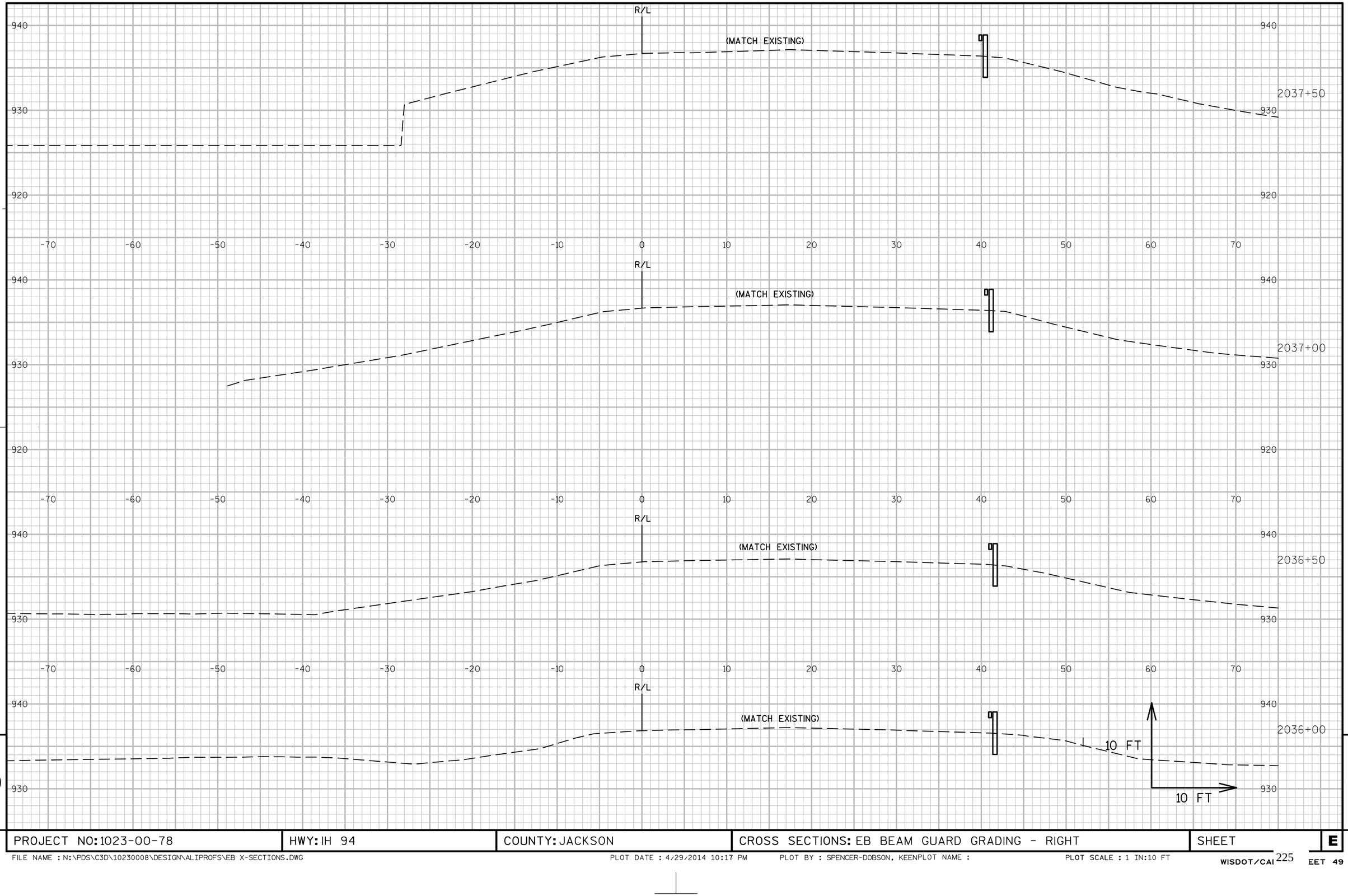
9

PROJECT NO: XXXX-XX-XX	HWY: XXX	COUNTY: XXX	CROSS SECTIONS: XXX	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:31 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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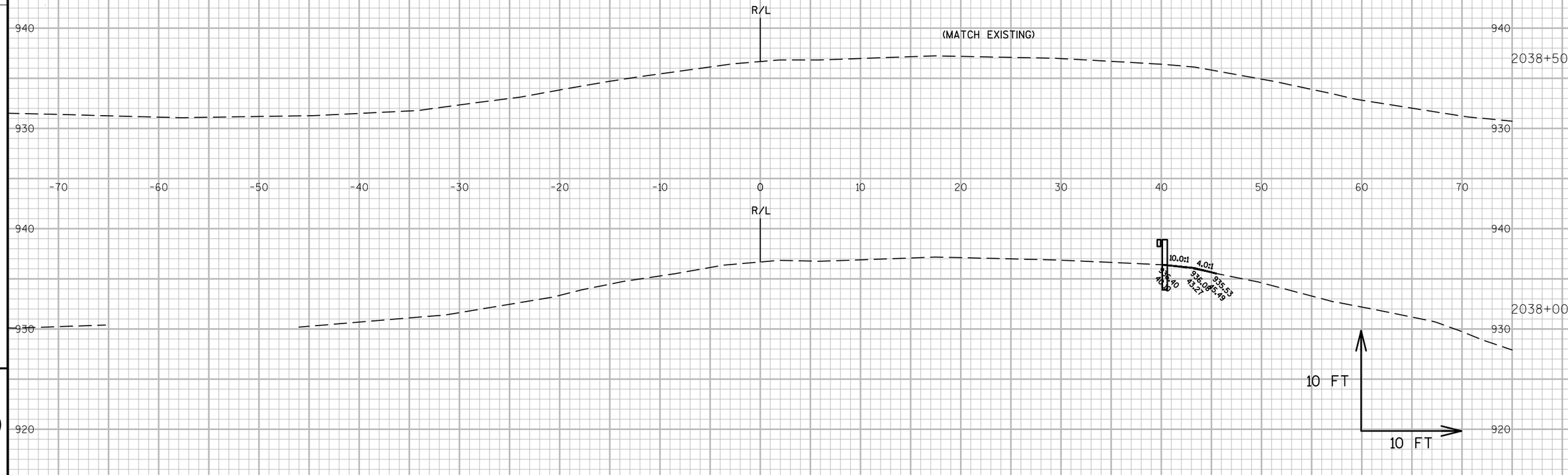
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 10:17 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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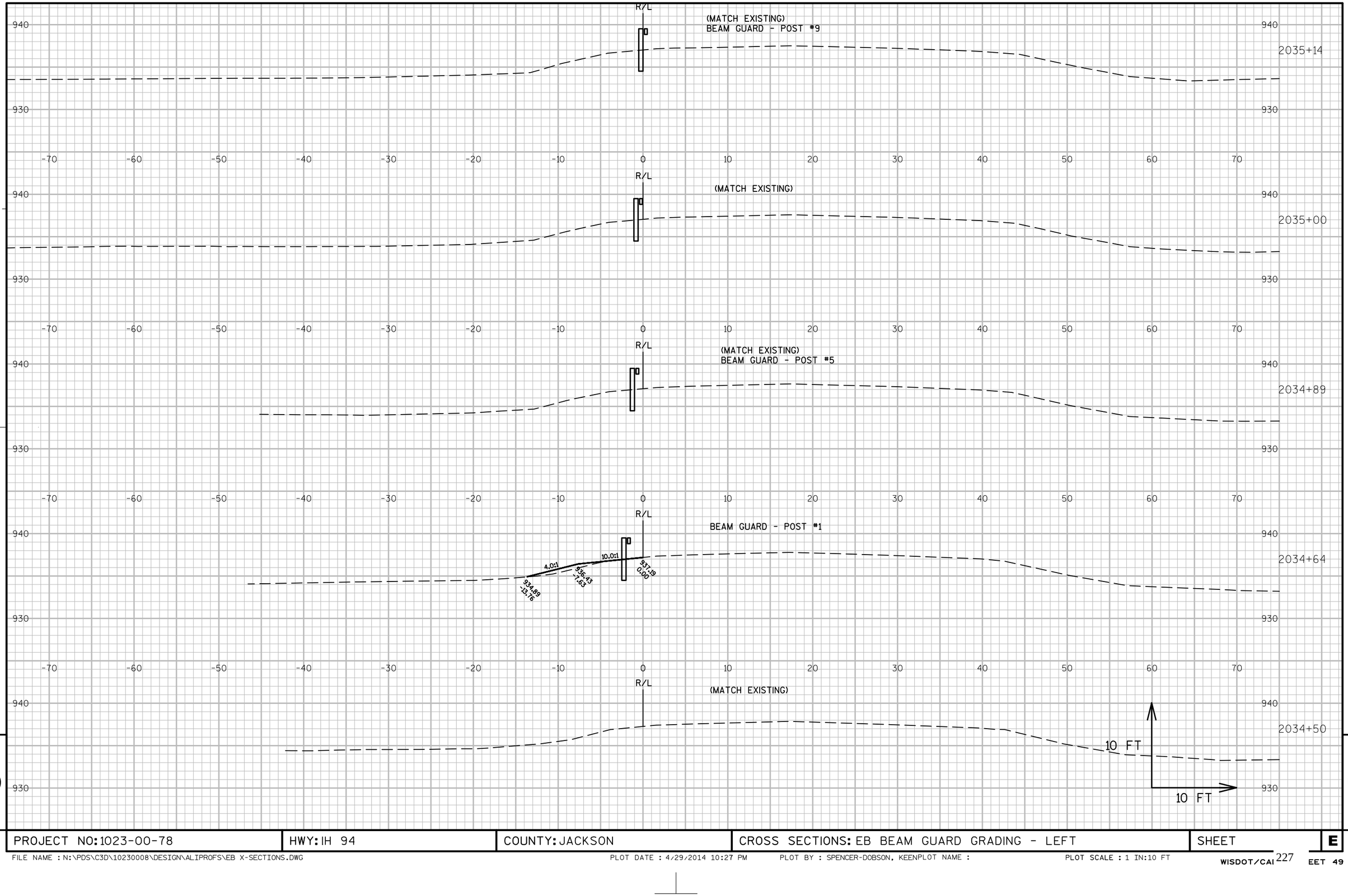
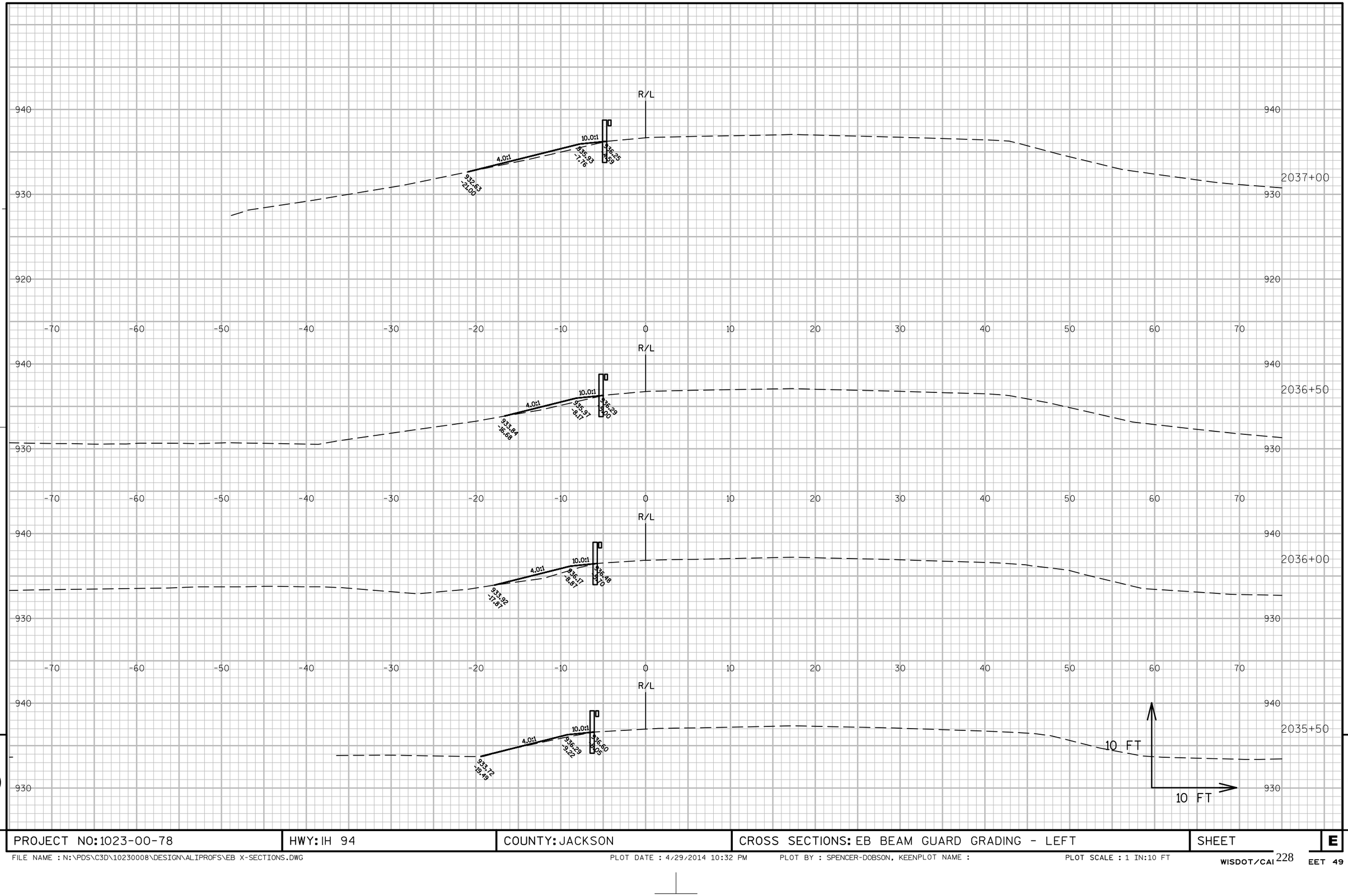
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E



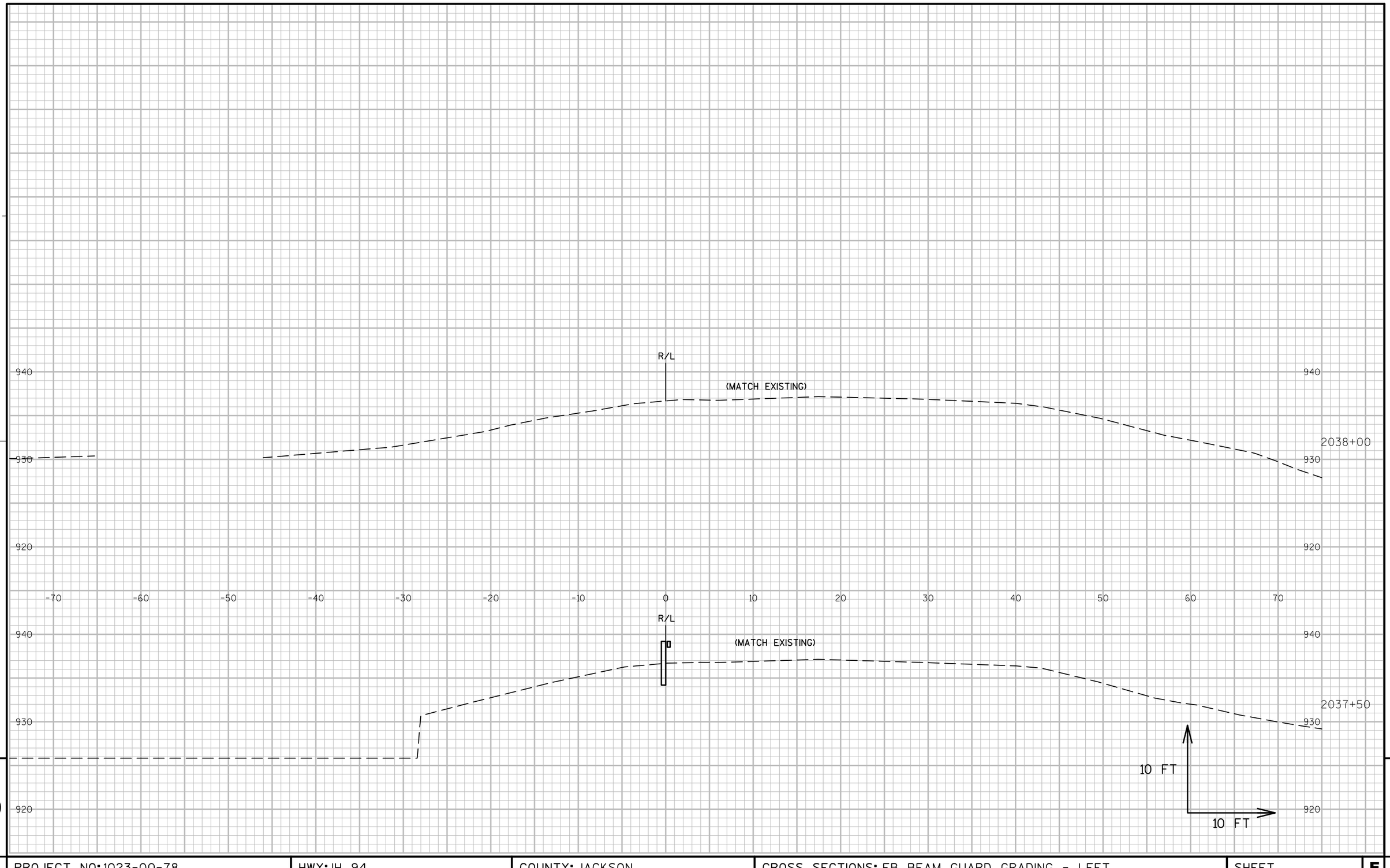
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 10:27 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 10:32 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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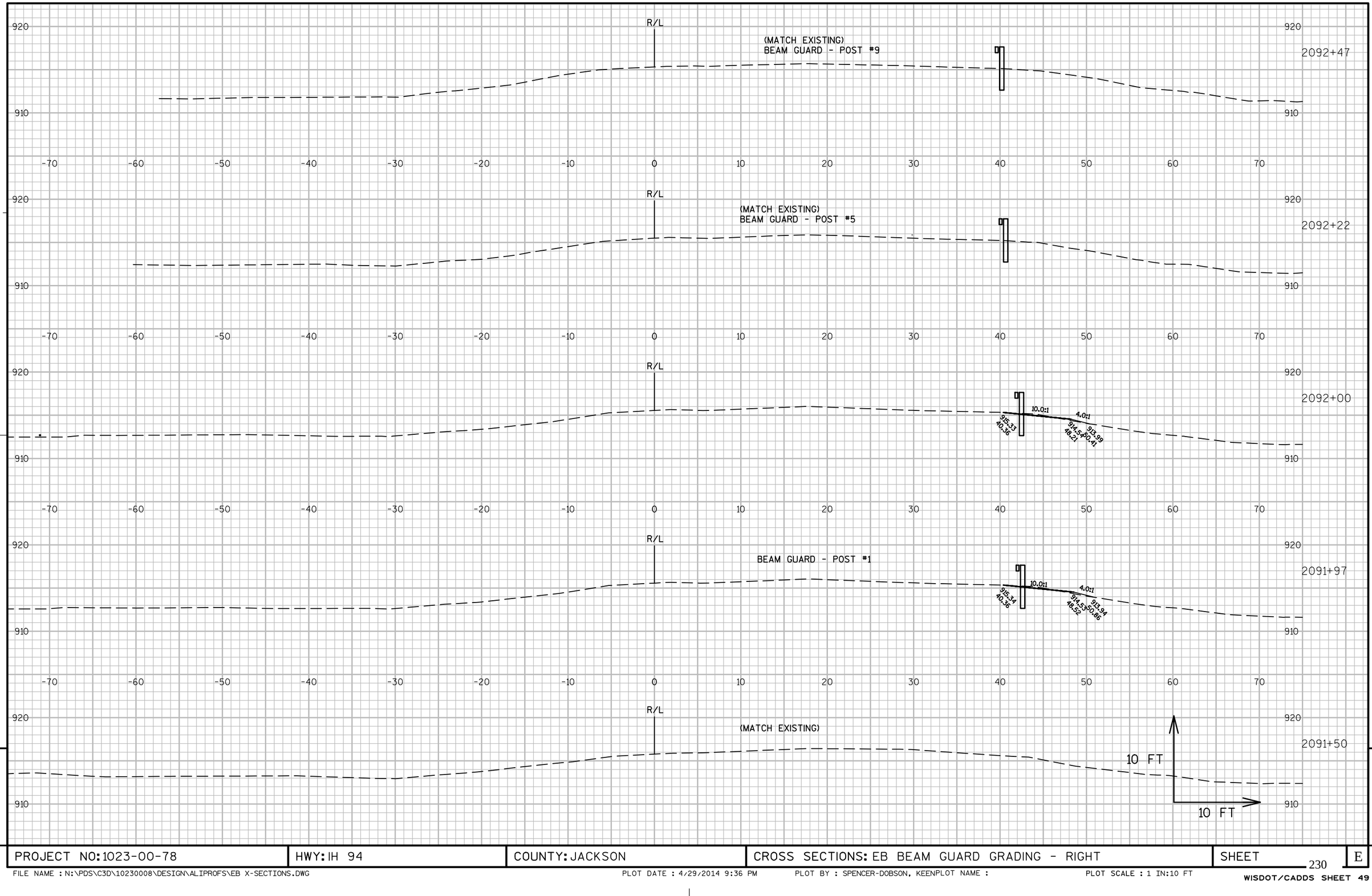
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET E

9



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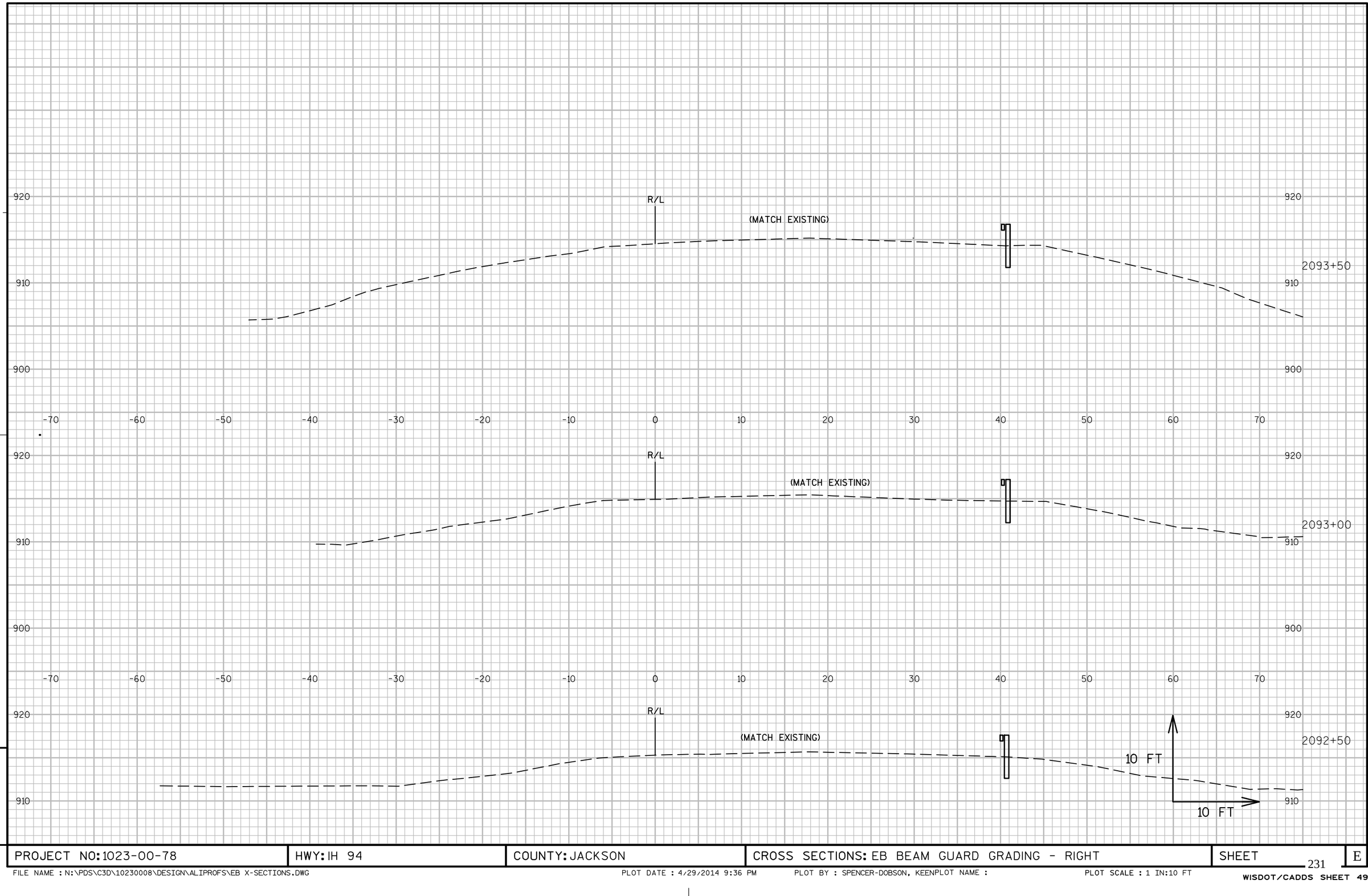
9

PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 230	E

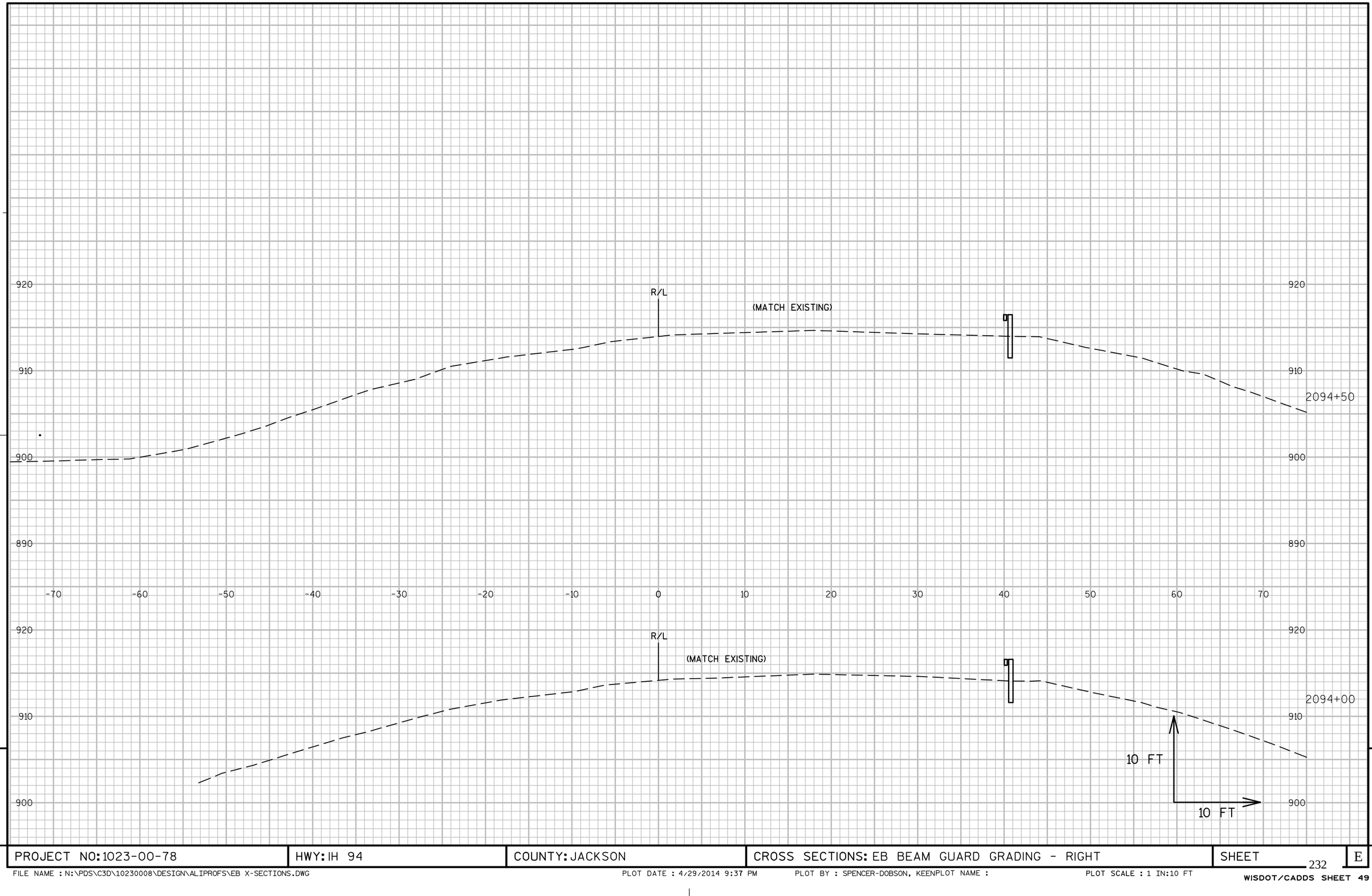
FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:36 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



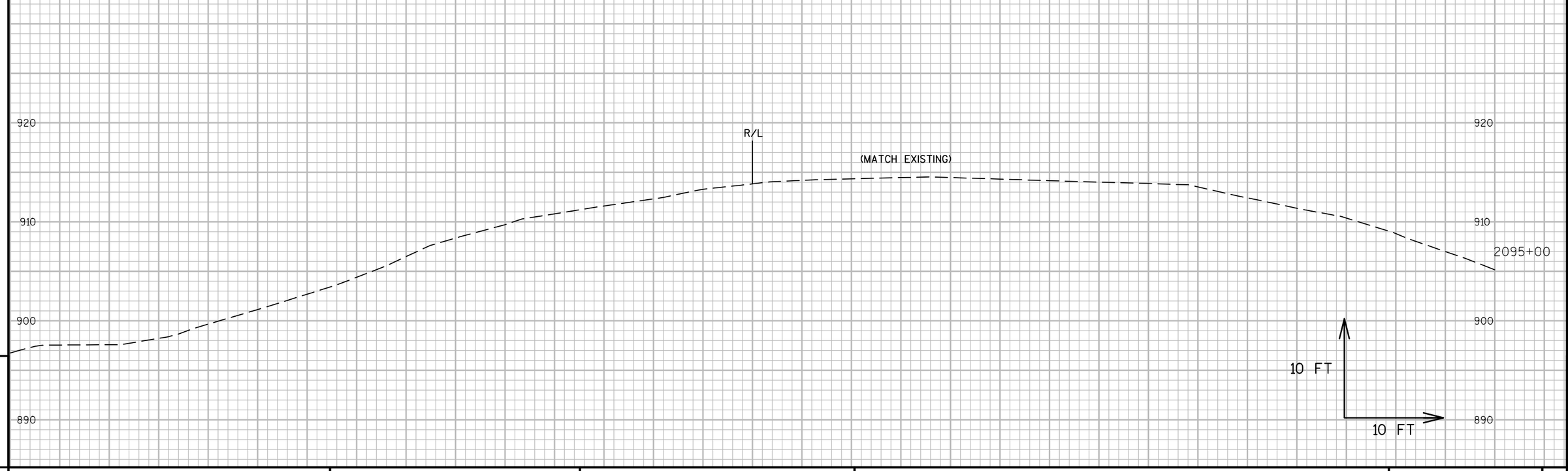
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:36 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 232	E



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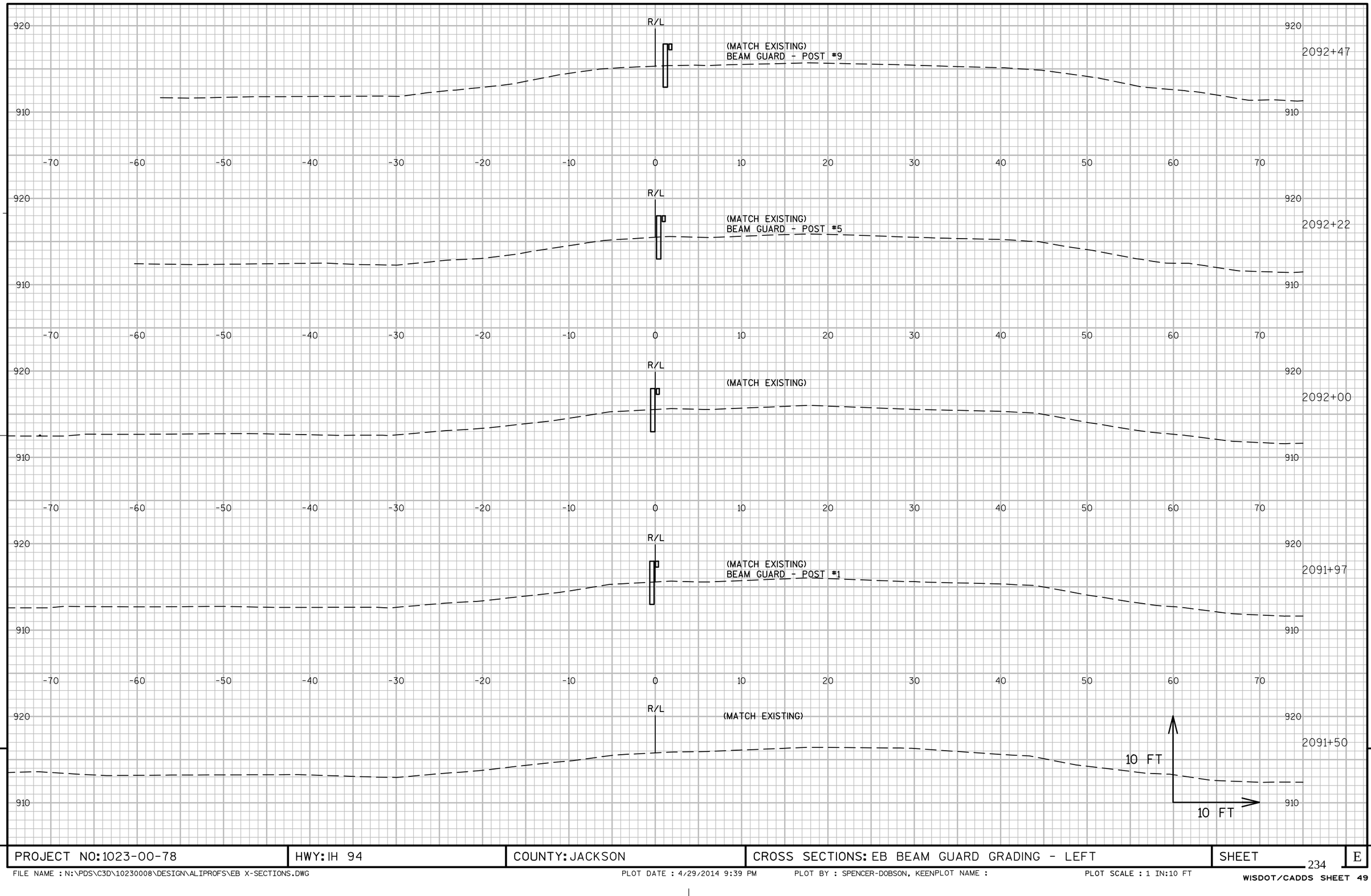
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET 233	E



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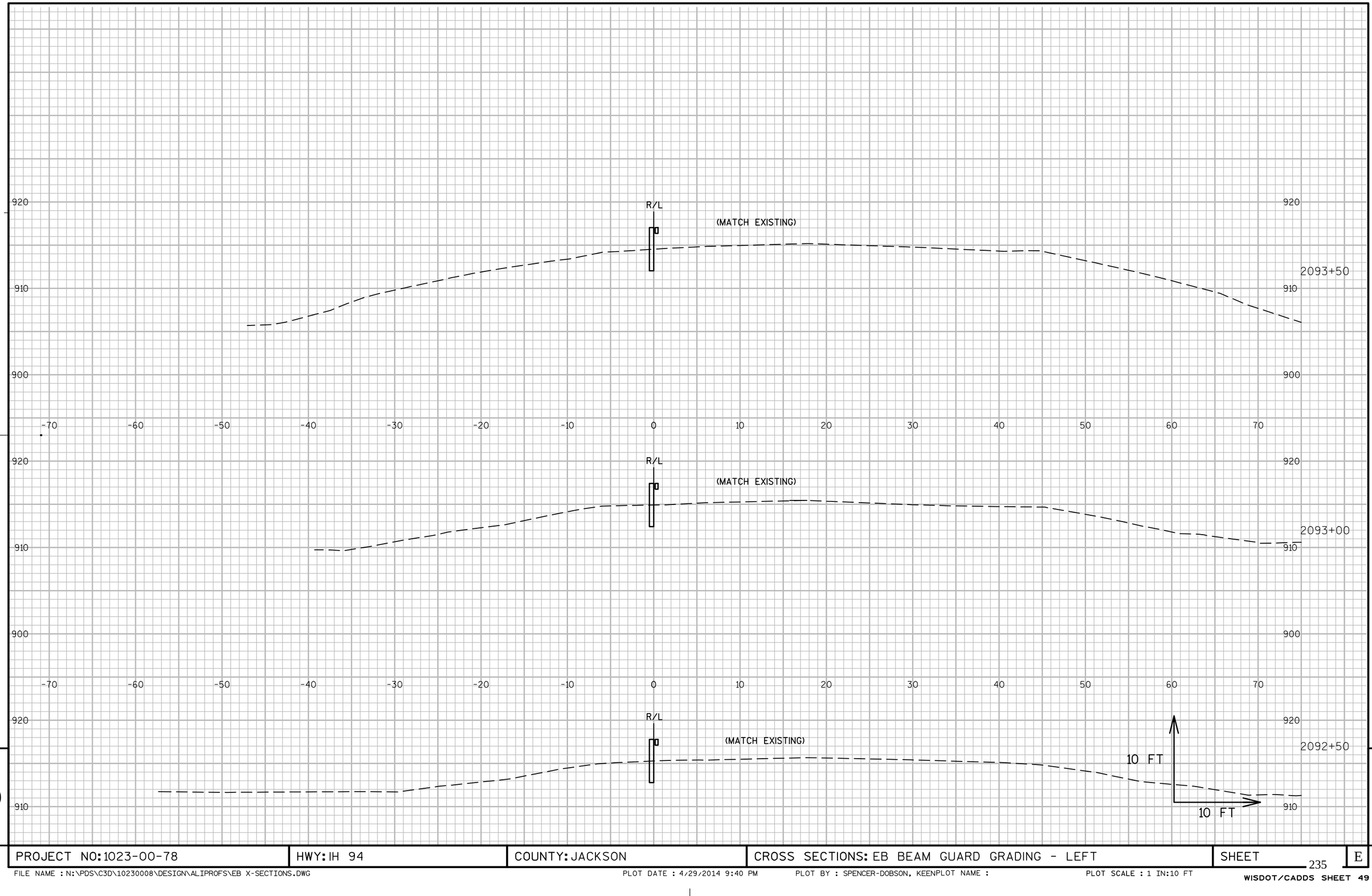
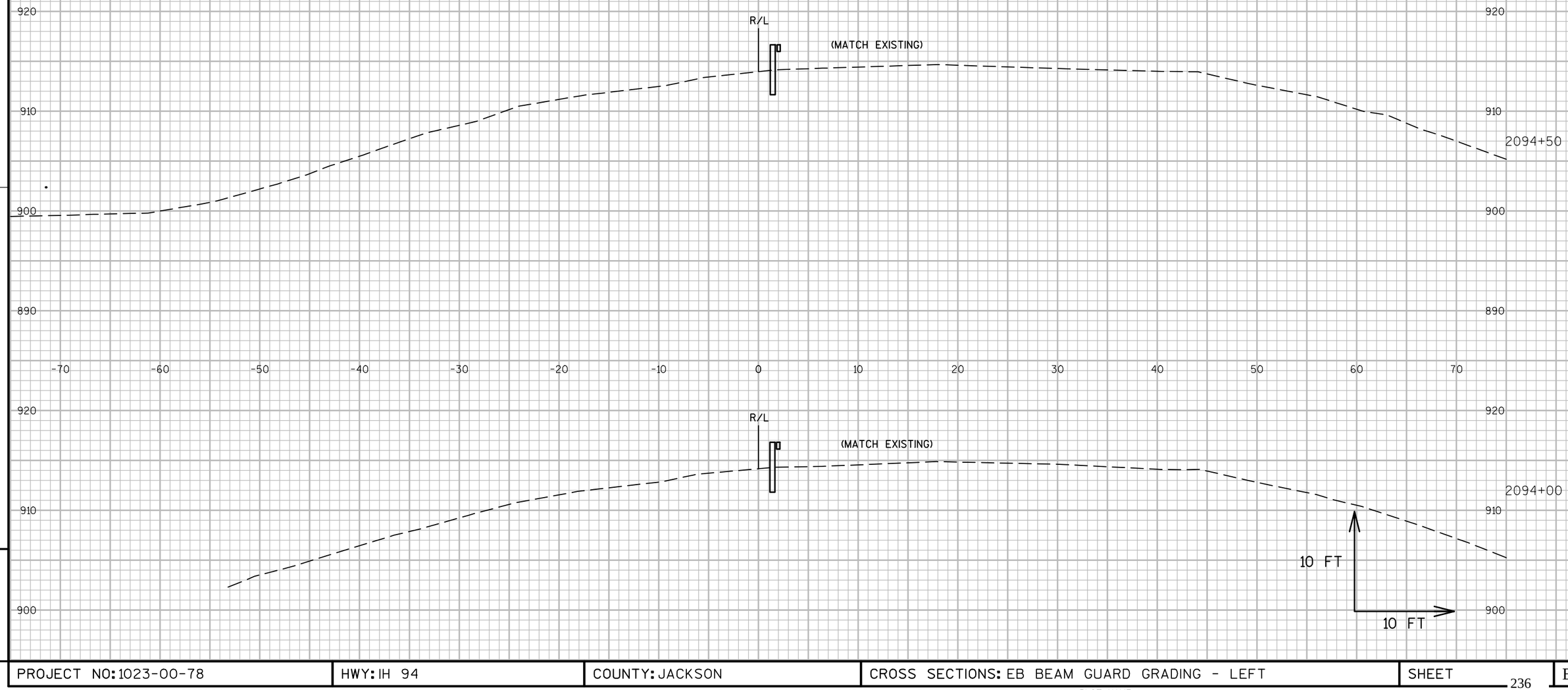
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 234	E

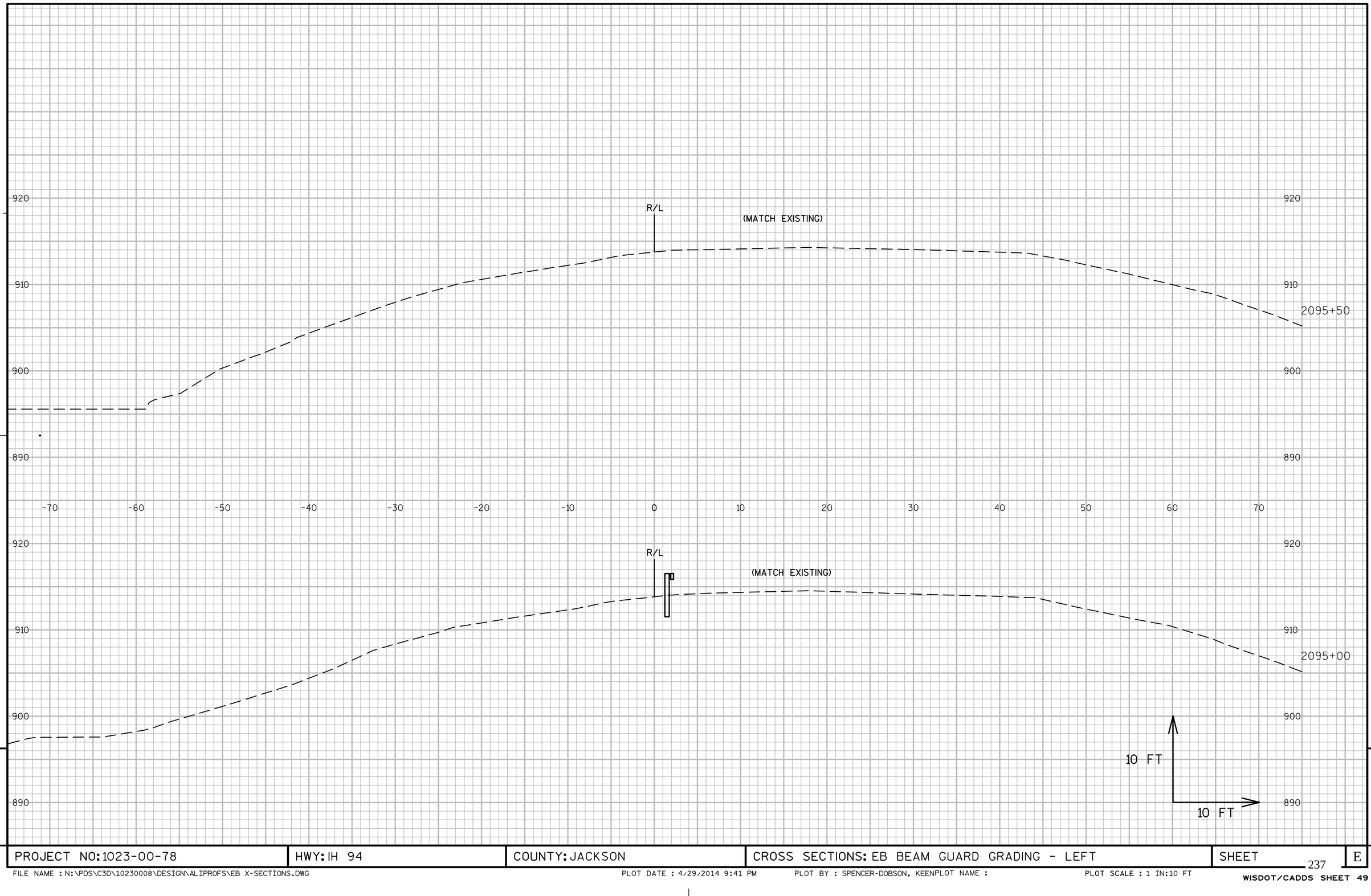


PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 235	E



PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\EB X-SECTIONS.DWG PLOT DATE : 4/29/2014 9:40 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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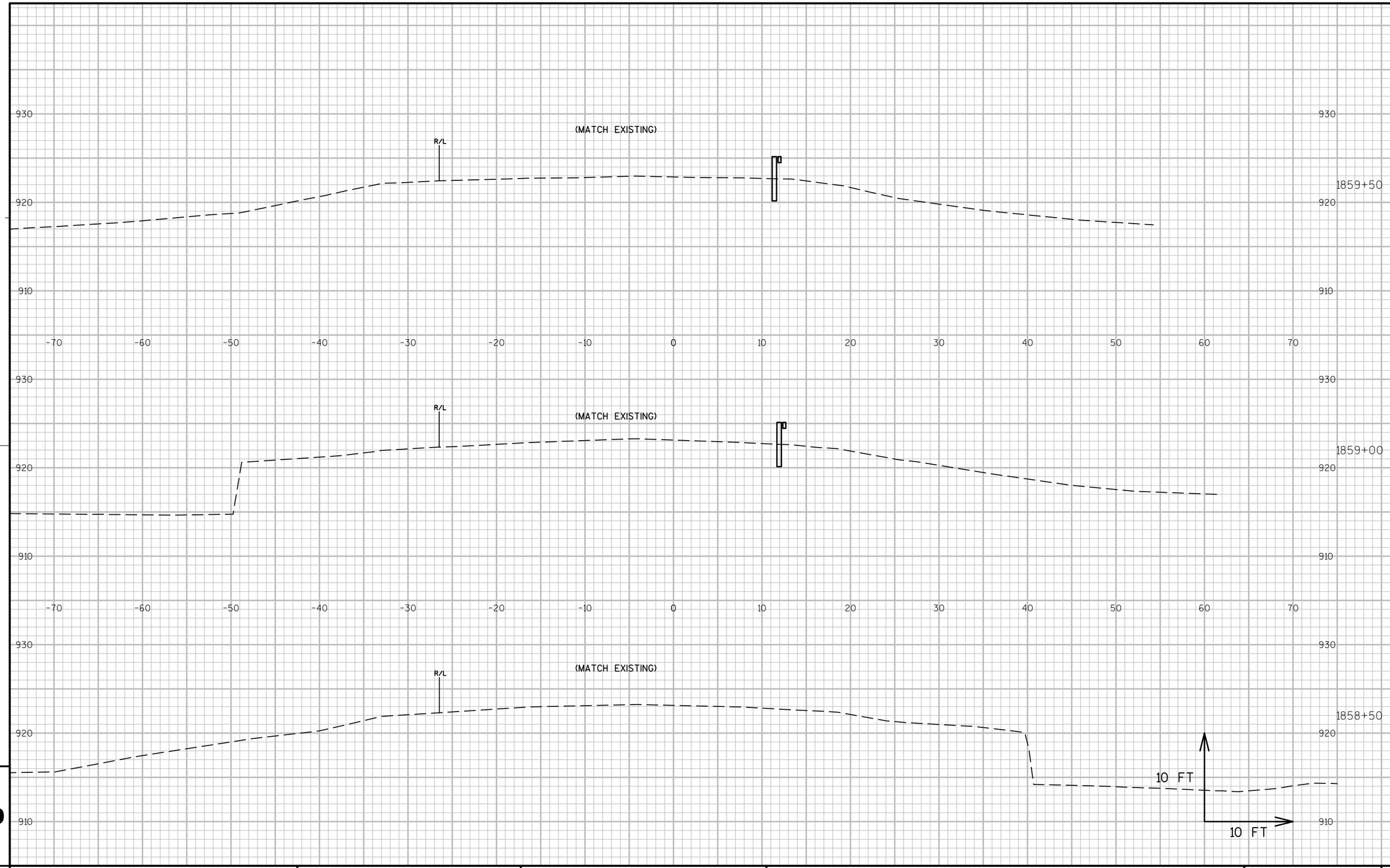
PROJECT NO: 1023-00-78	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - LEFT	SHEET 237	E

9



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9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET E

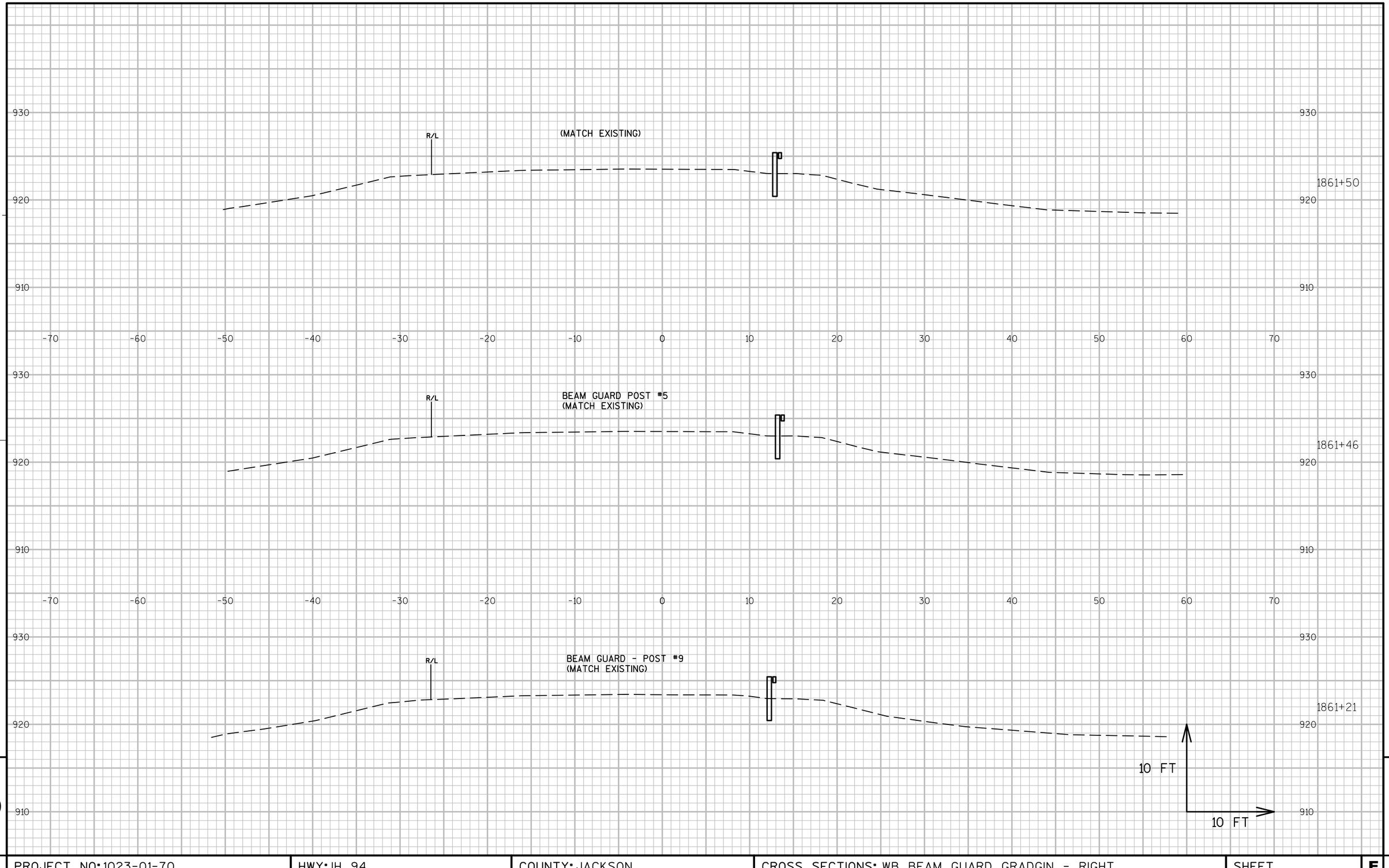
FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 5:39 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

930
920
910
R/L
(MATCH EXISTING)
1861+00
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70
930
920
910
R/L
(MATCH EXISTING)
1860+50
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70
930
920
910
R/L
(MATCH EXISTING)
1860+00
10 FT
10 FT

9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 5:42 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



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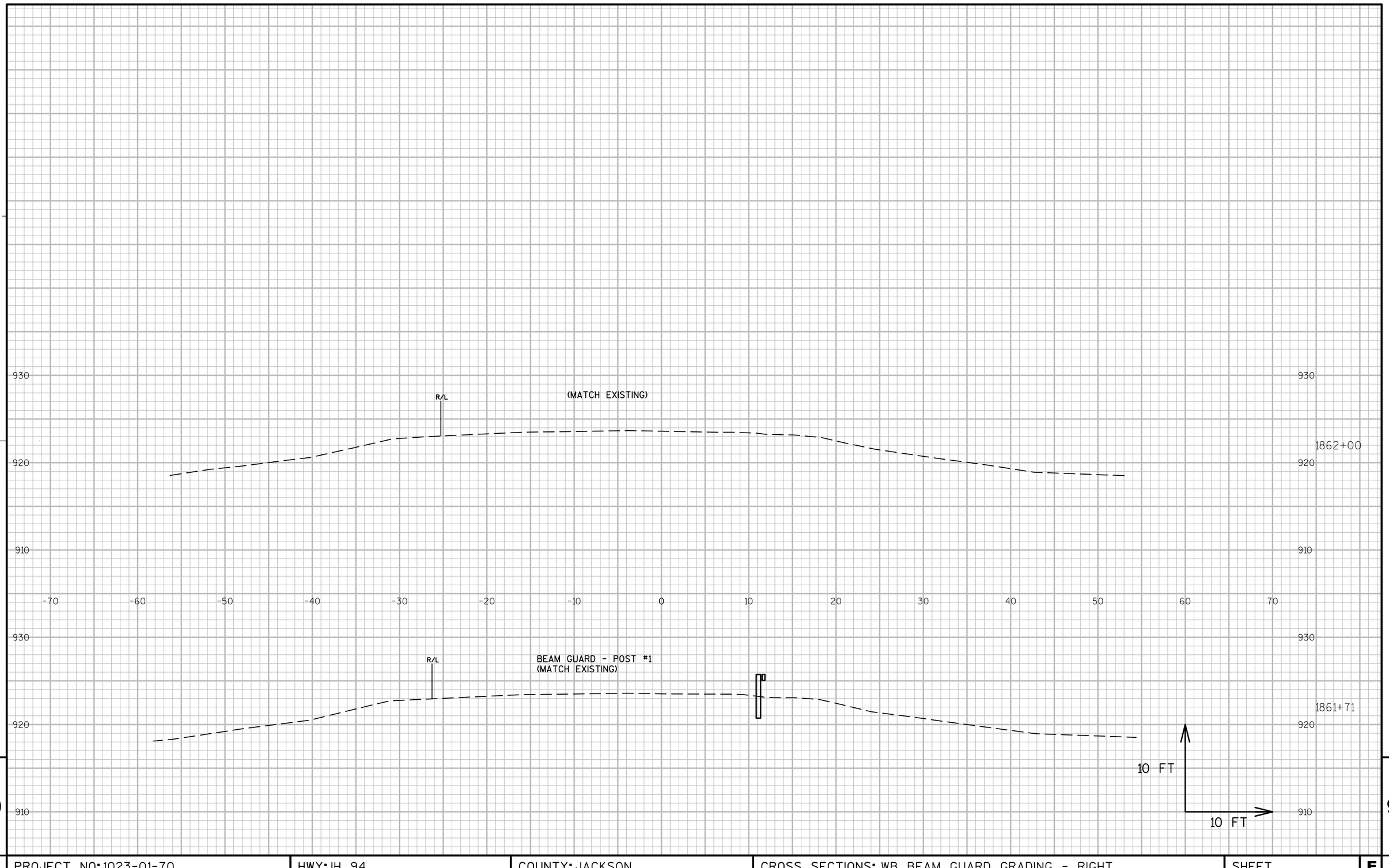
9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADGIN - RIGHT	SHEET	E

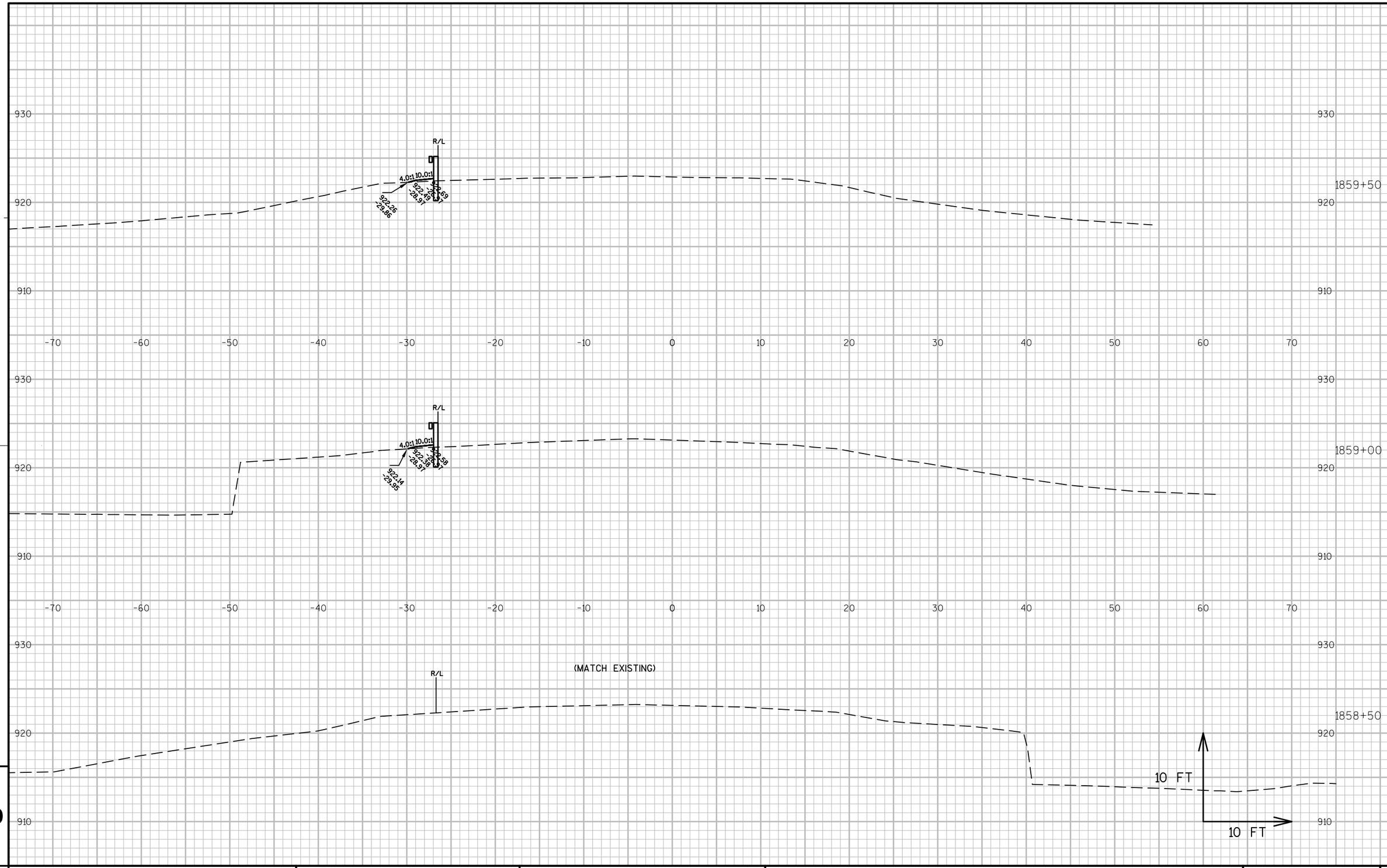
FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 5:45 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



9

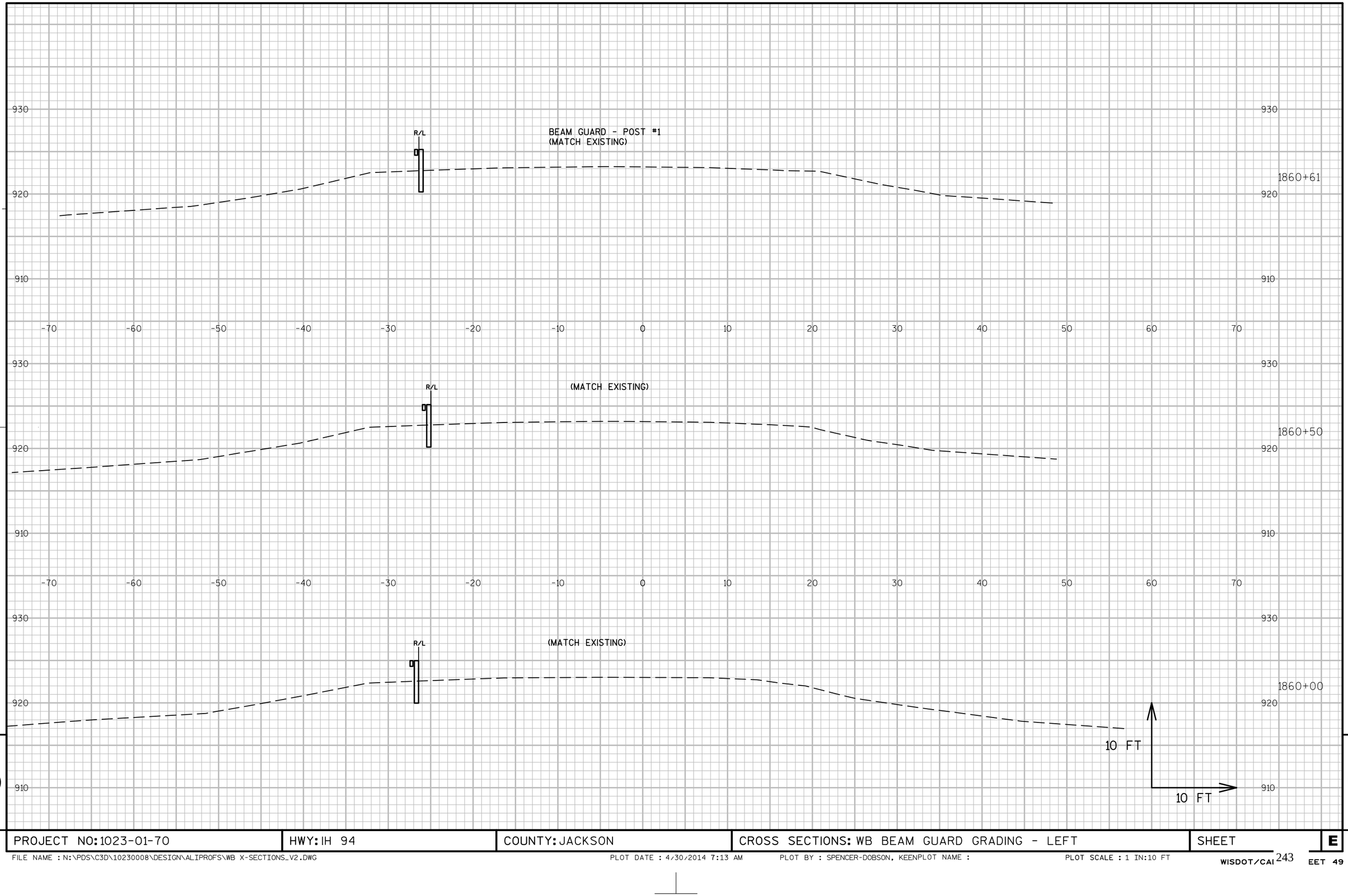
9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 7:10 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

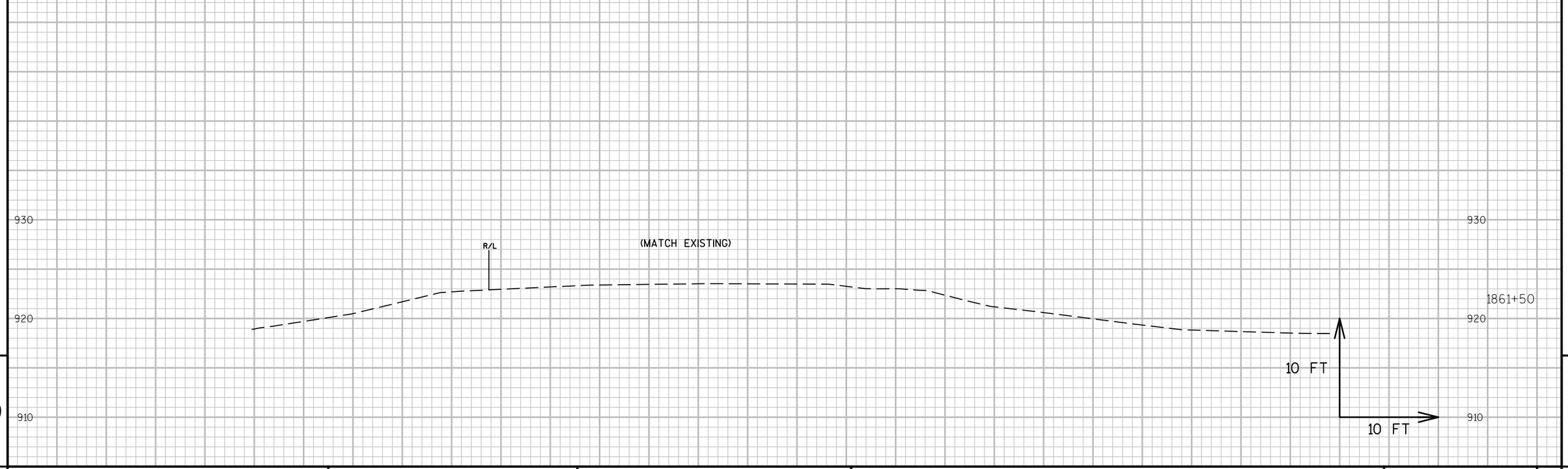
9

930
920
910
R/L
BEAM GUARD - POST #1
(MATCH EXISTING)
1861+11
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70
930
920
910
R/L
(MATCH EXISTING)
1861+00
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70
930
920
910
R/L
BEAM GUARD - POST #5
(MATCH EXISTING)
1860+86
10 FT
10 FT

9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 7:15 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 7:16 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 8:37 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT

970
960
950
970
960
950
970
960
950
940

BEAM GUARD - POST #9
(MATCH EXISTING)

R/L

1907+88

(MATCH EXISTING)

R/L

1907+50

(MATCH EXISTING)

R/L

1907+00

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

10 FT

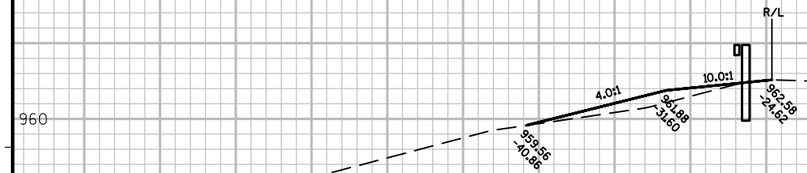
10 FT

9

9

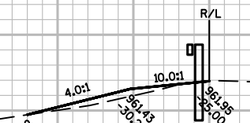
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

BEAM GUARD - POST #1

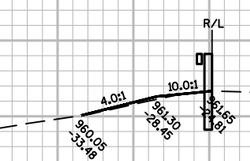


1908+38

BEAM GUARD - POST #5



1908+13



1908+00

10 FT

10 FT

9

9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 9:53 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT

970

960

950

R/L

(MATCH EXISTING)

1908+50

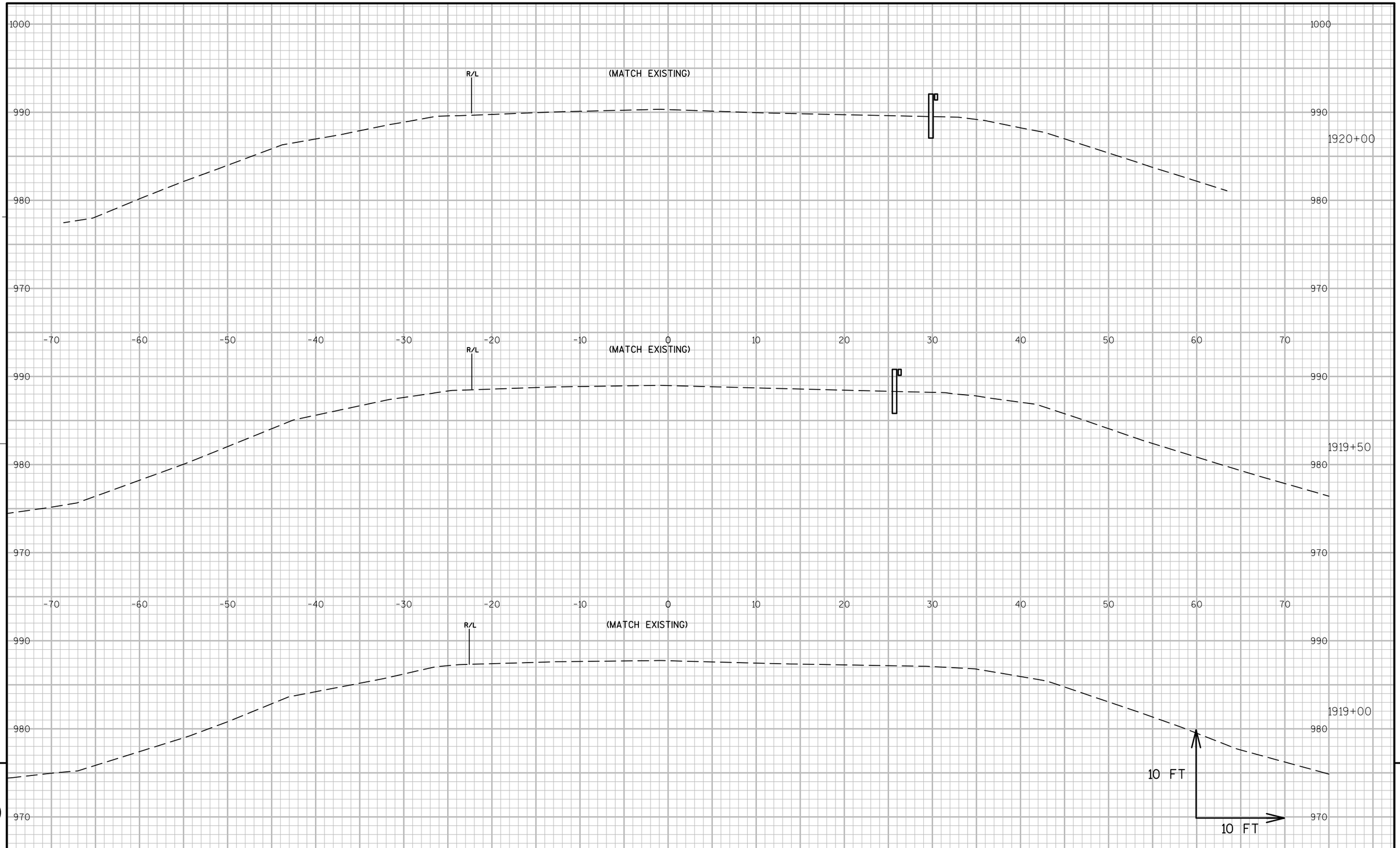
10 FT

10 FT

9

9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E



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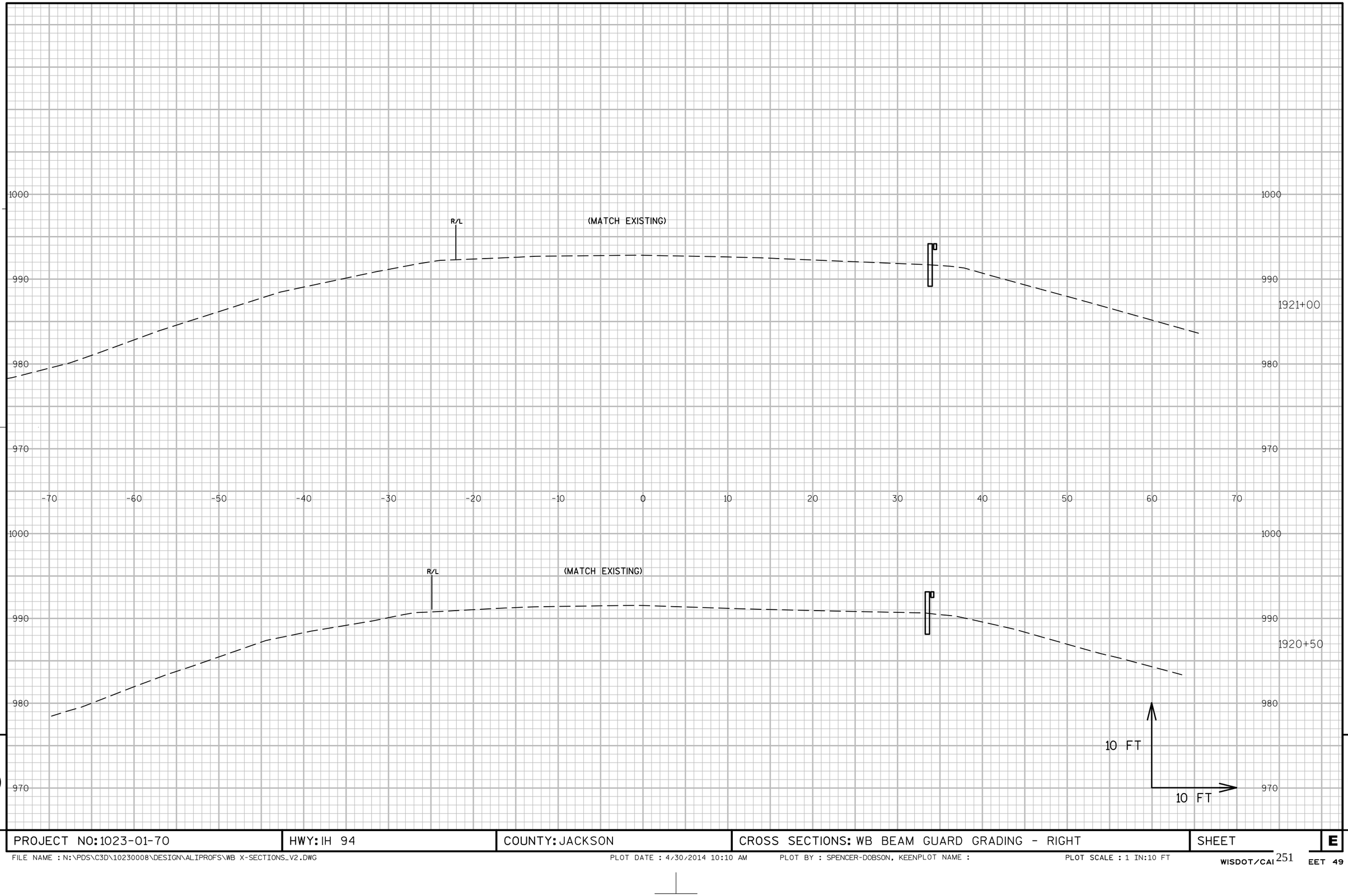
9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E



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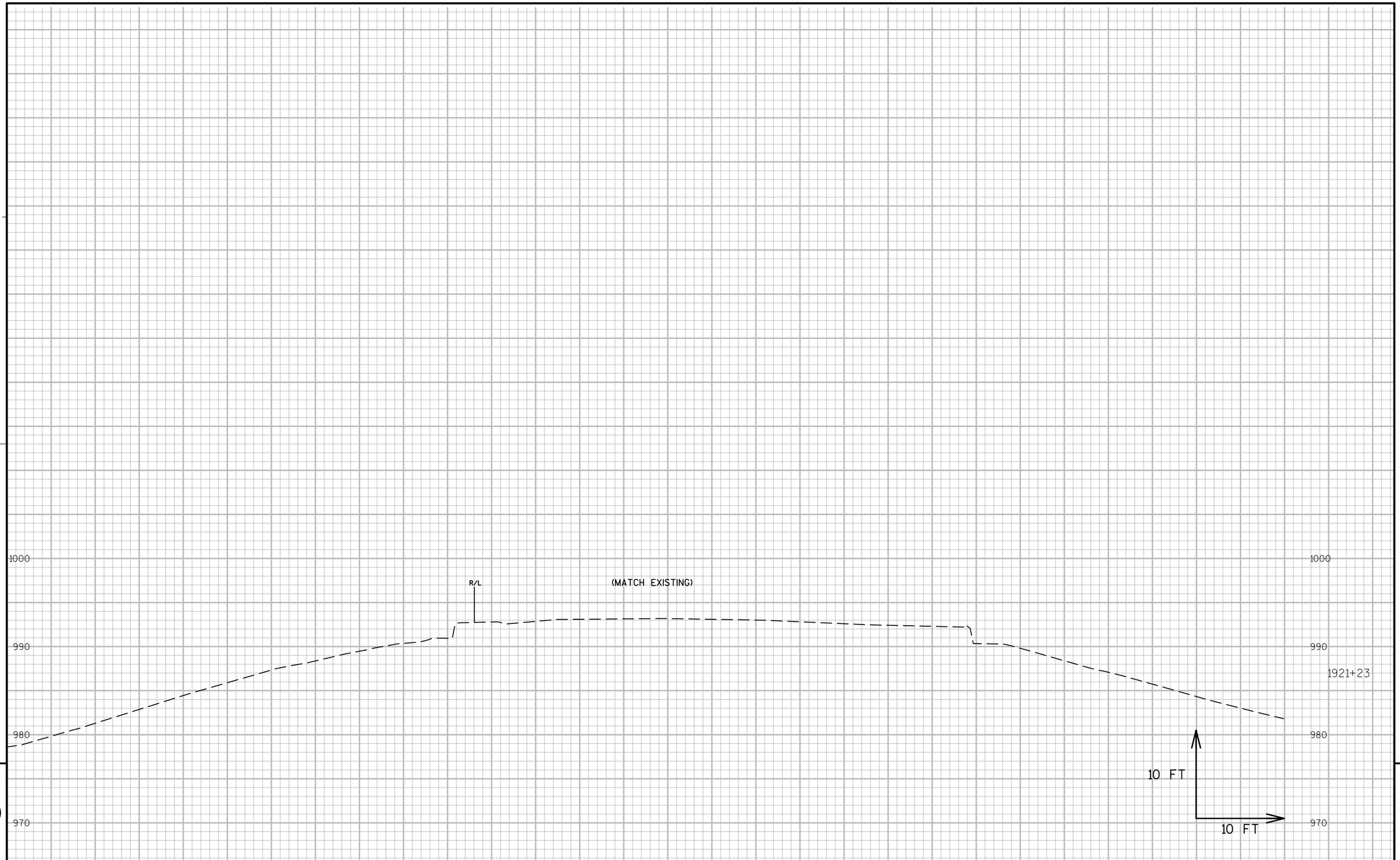
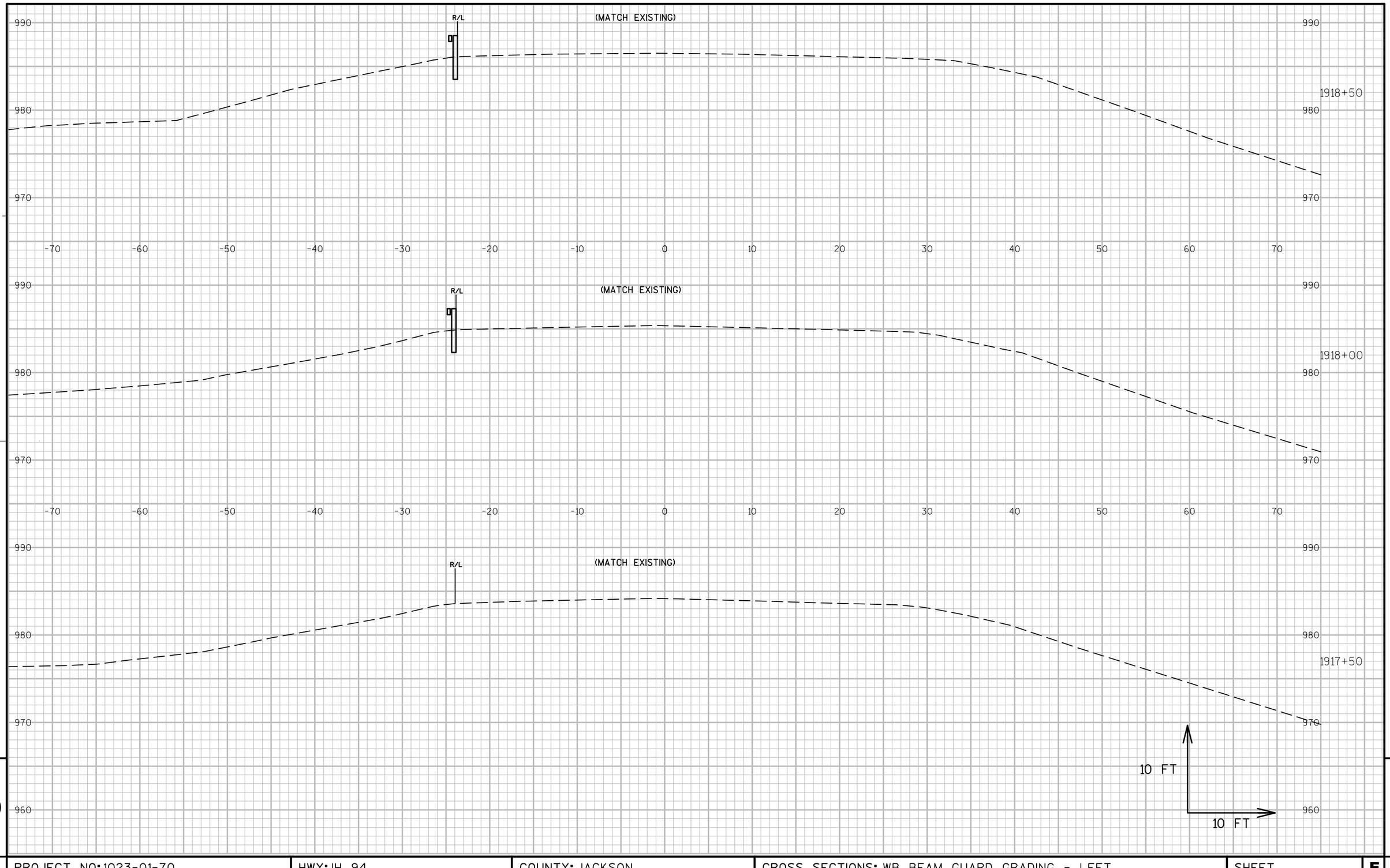
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E

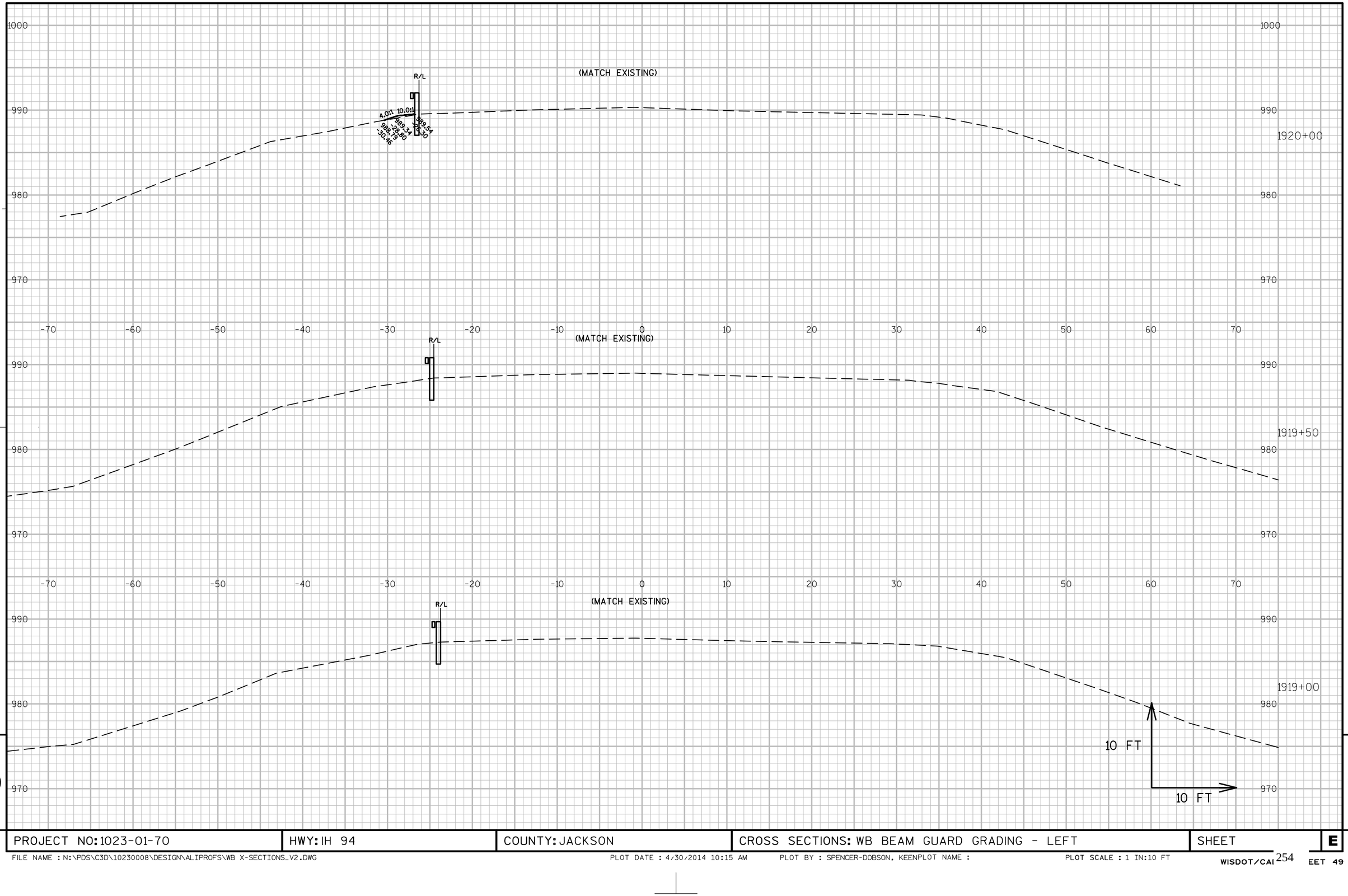


PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADGIN - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 10:11 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E



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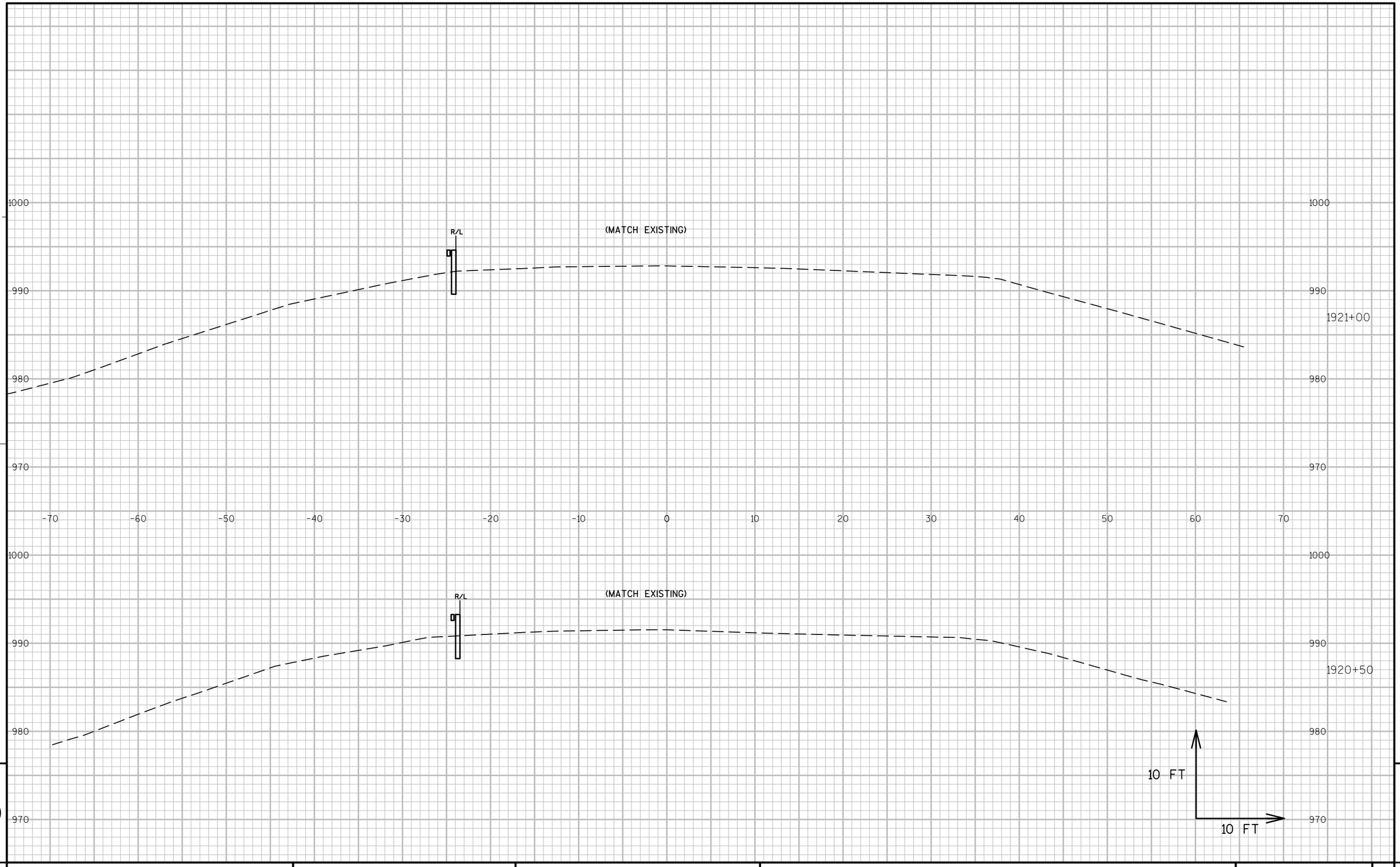
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

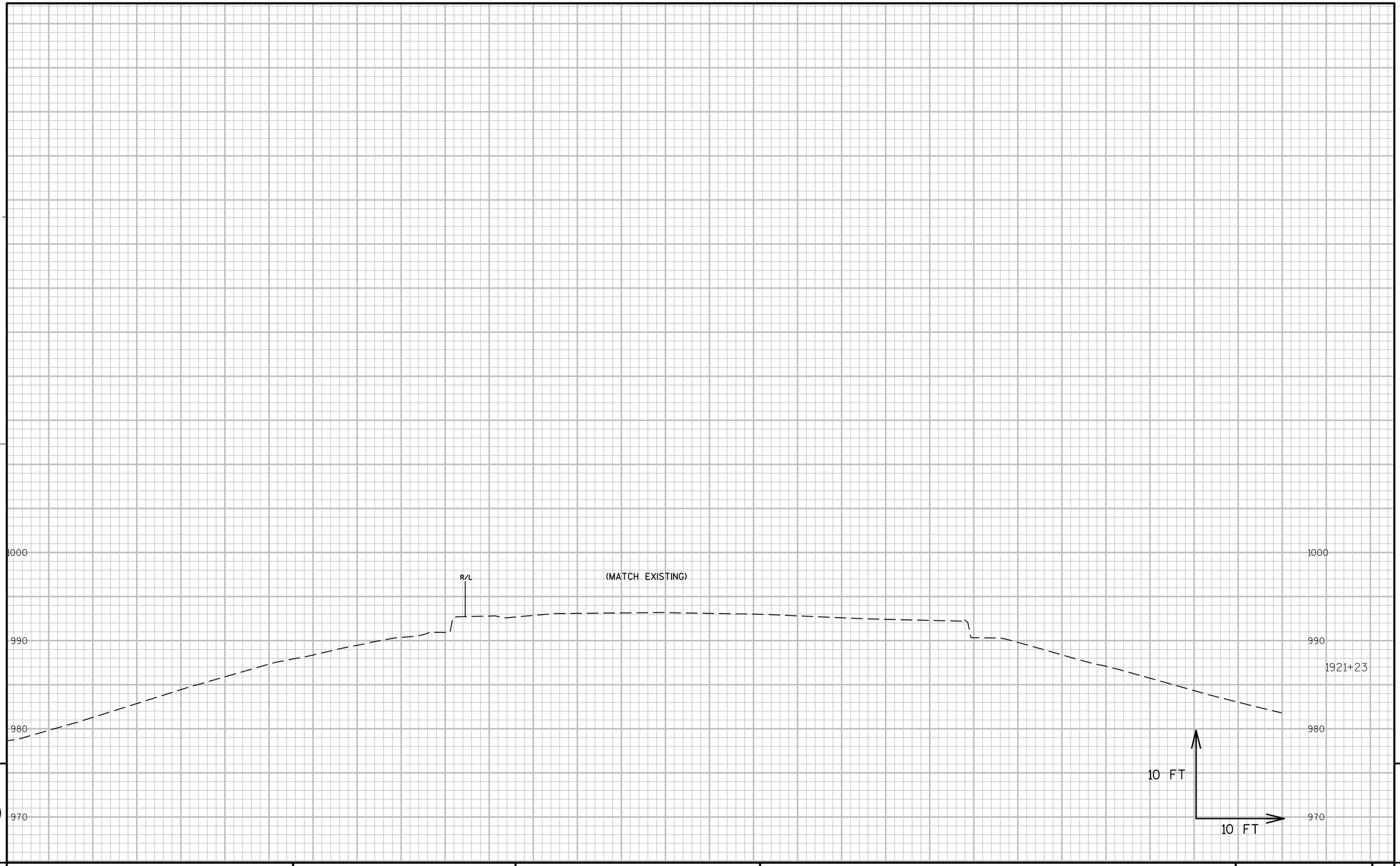
FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 10:15 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 10:16 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT

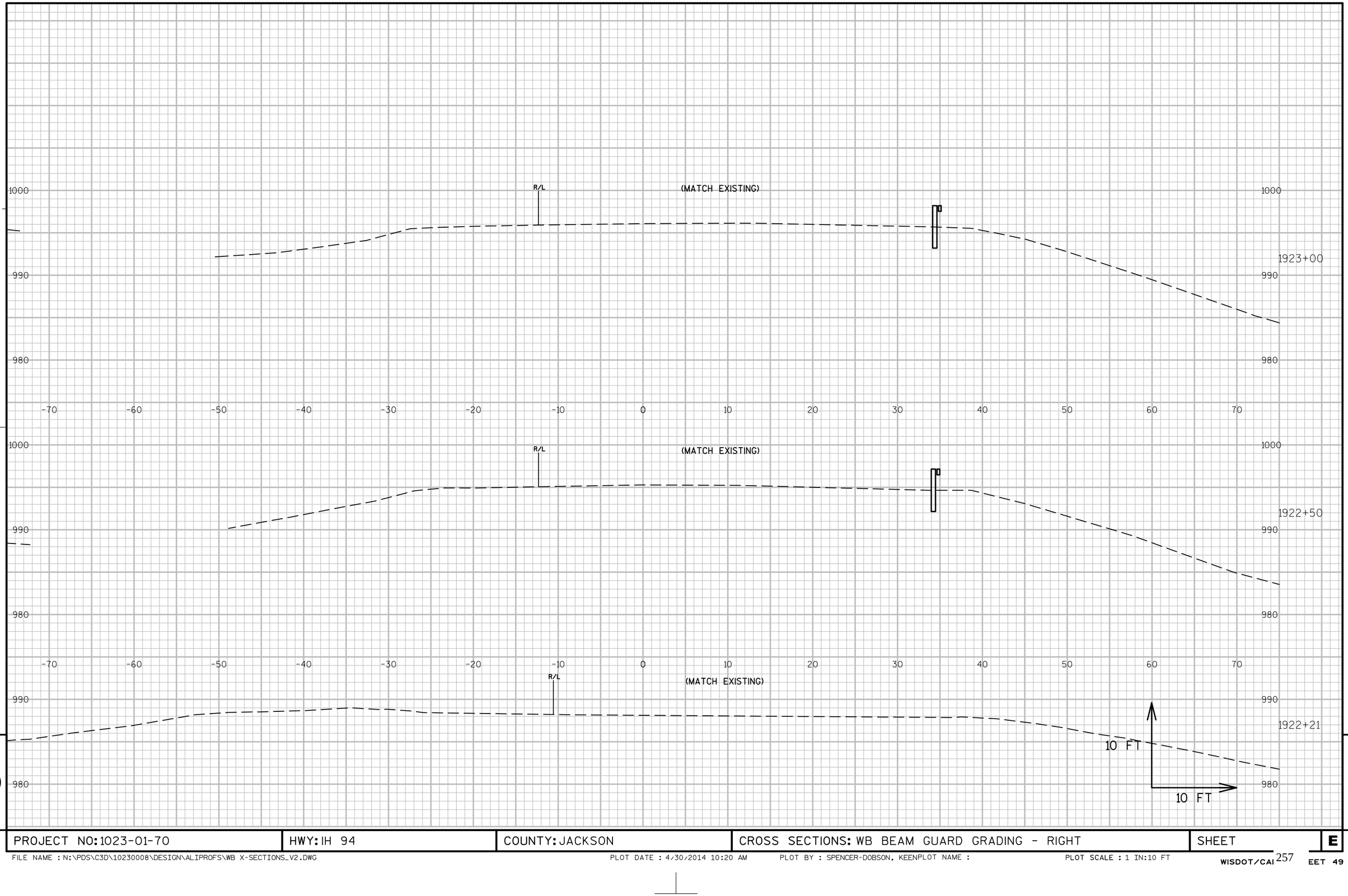


9

9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 10:18 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



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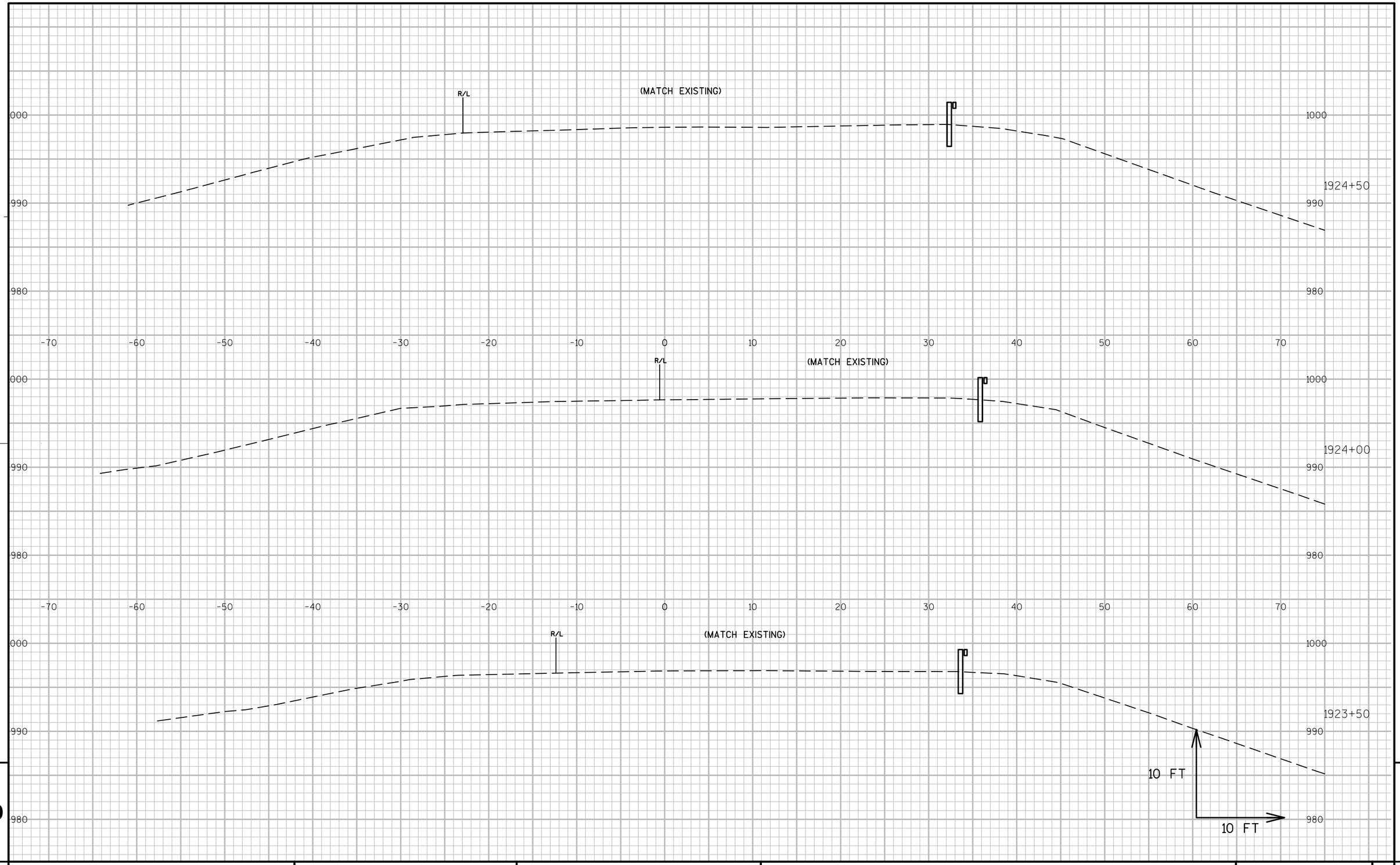
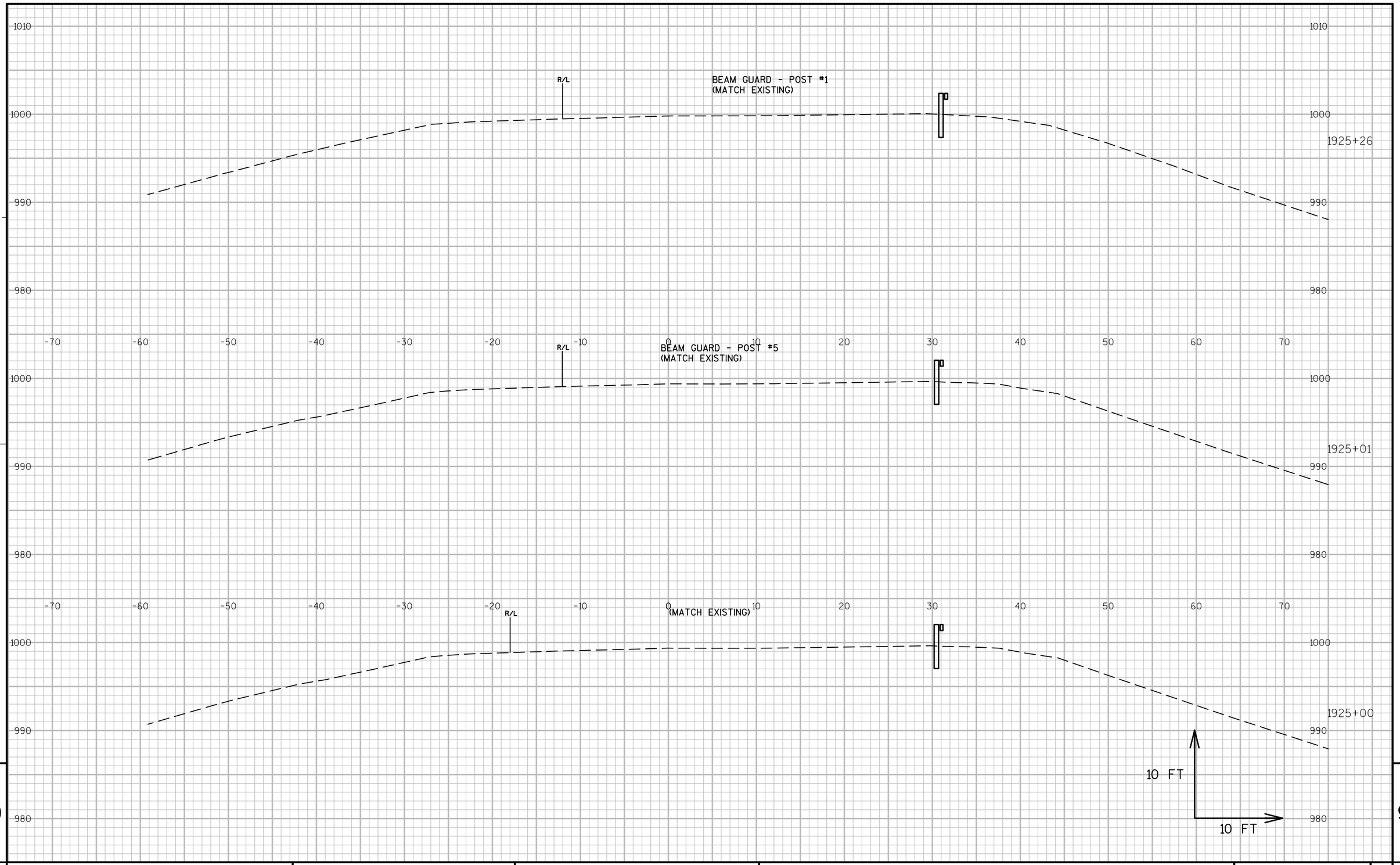
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 10:22 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



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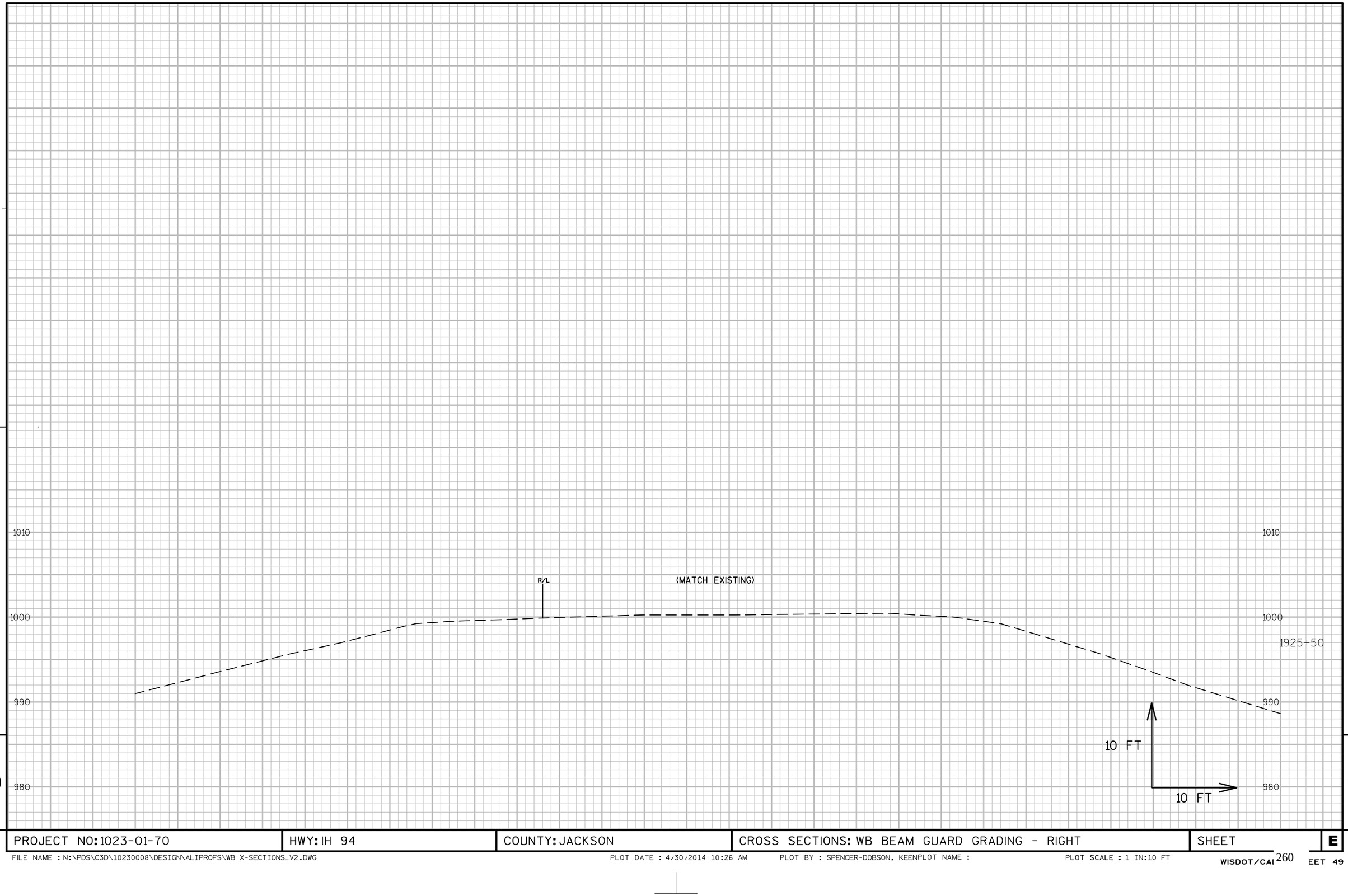
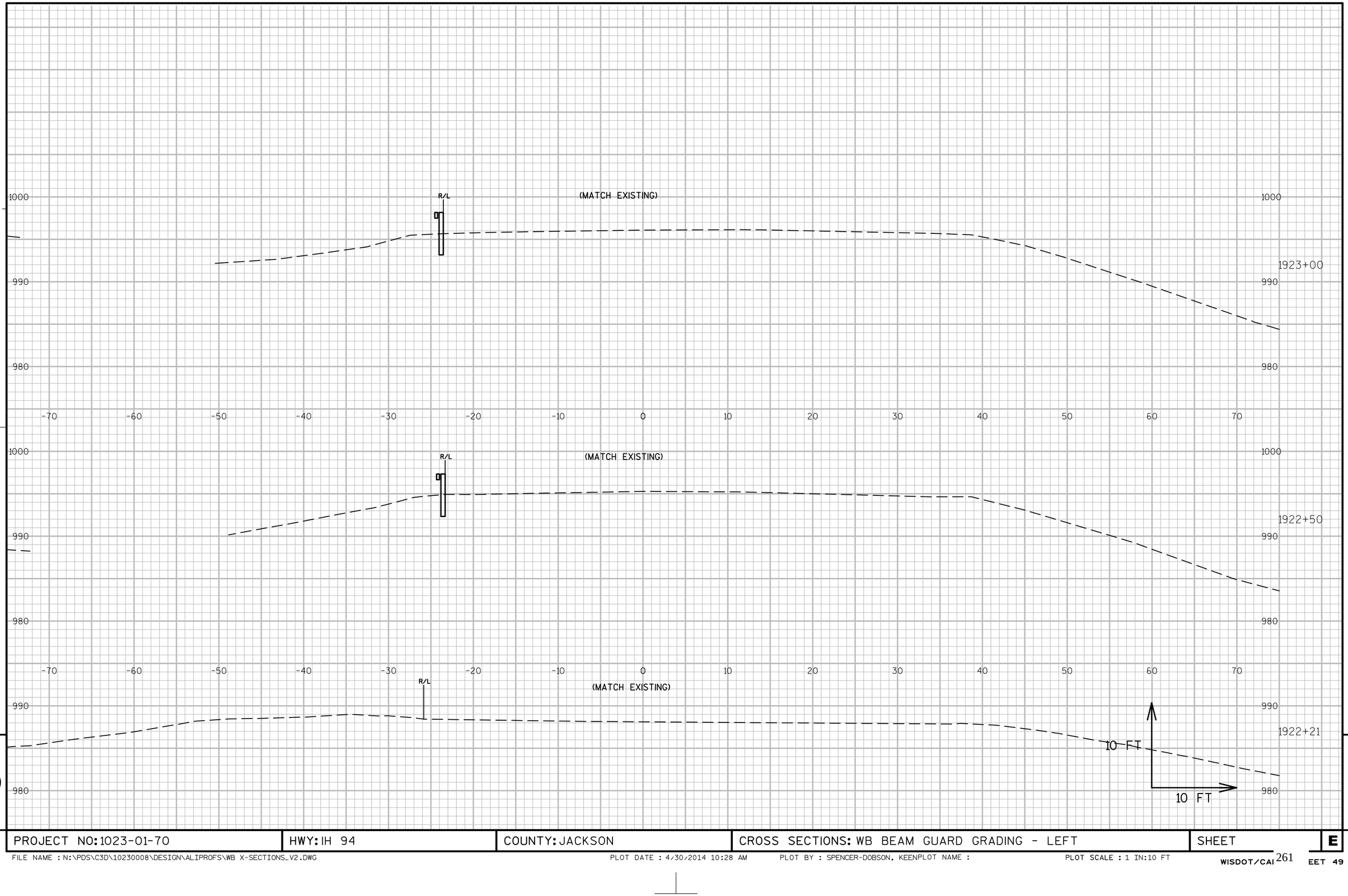
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET E



9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 10:26 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



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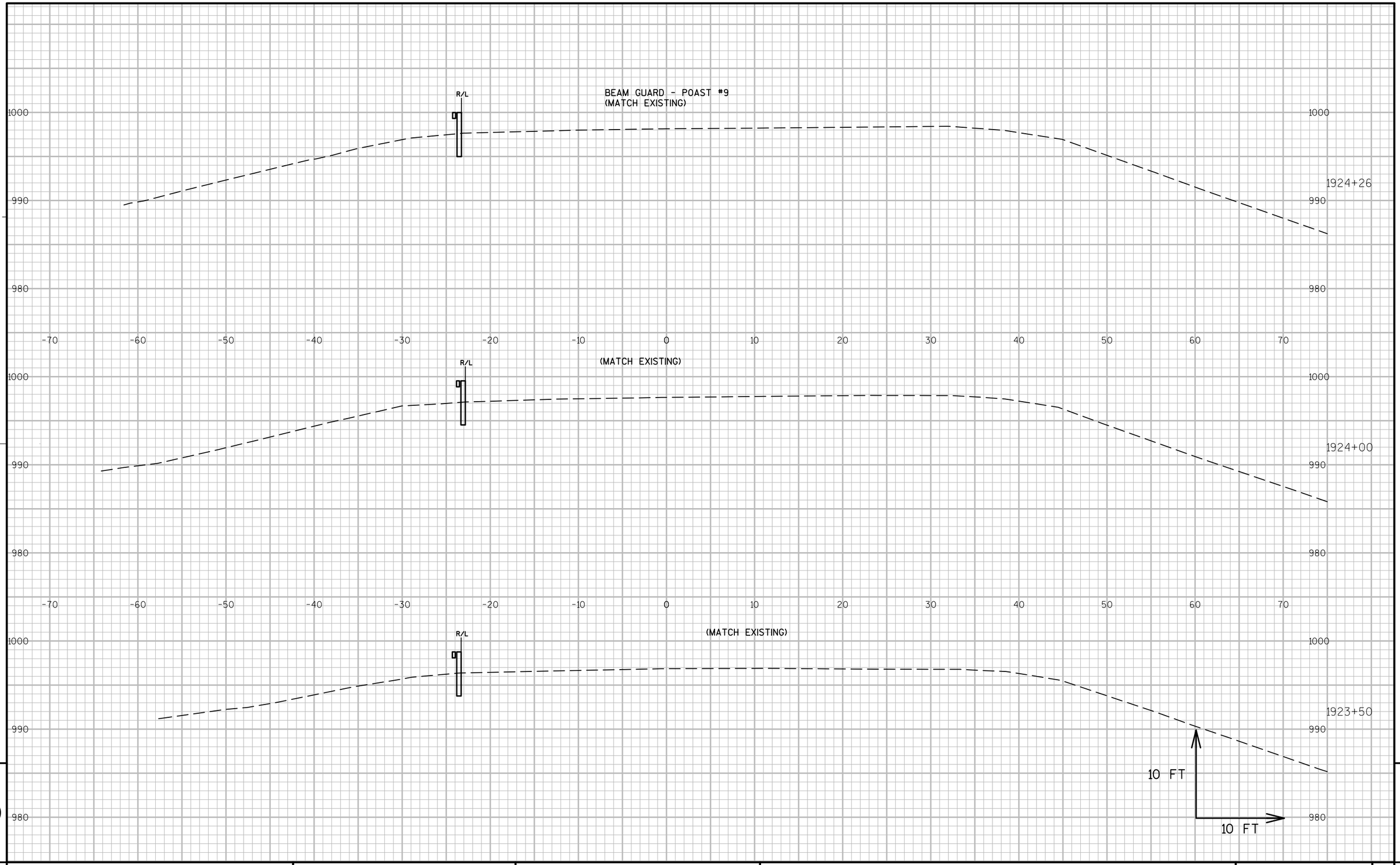
9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

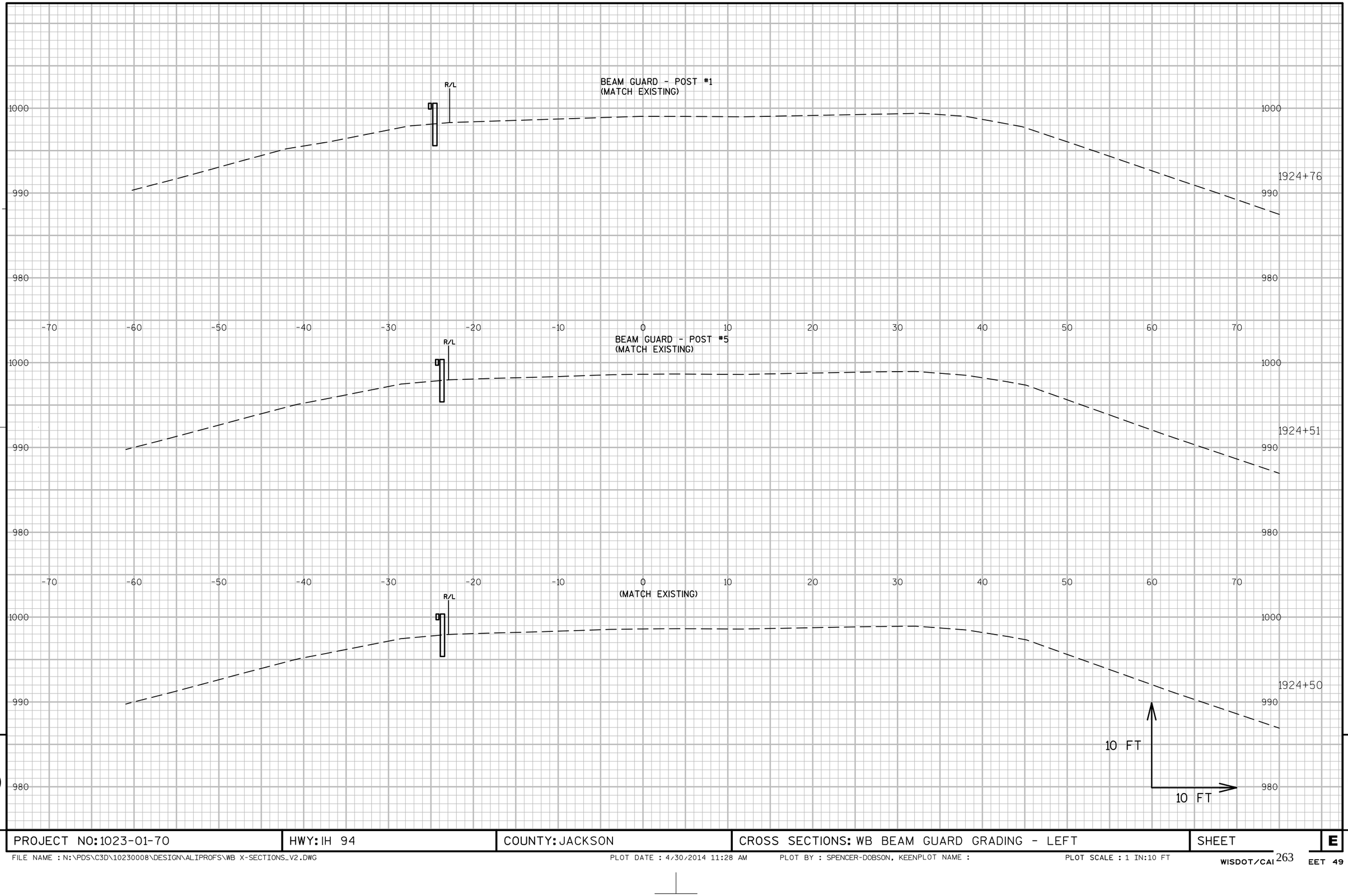


9

9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:31 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

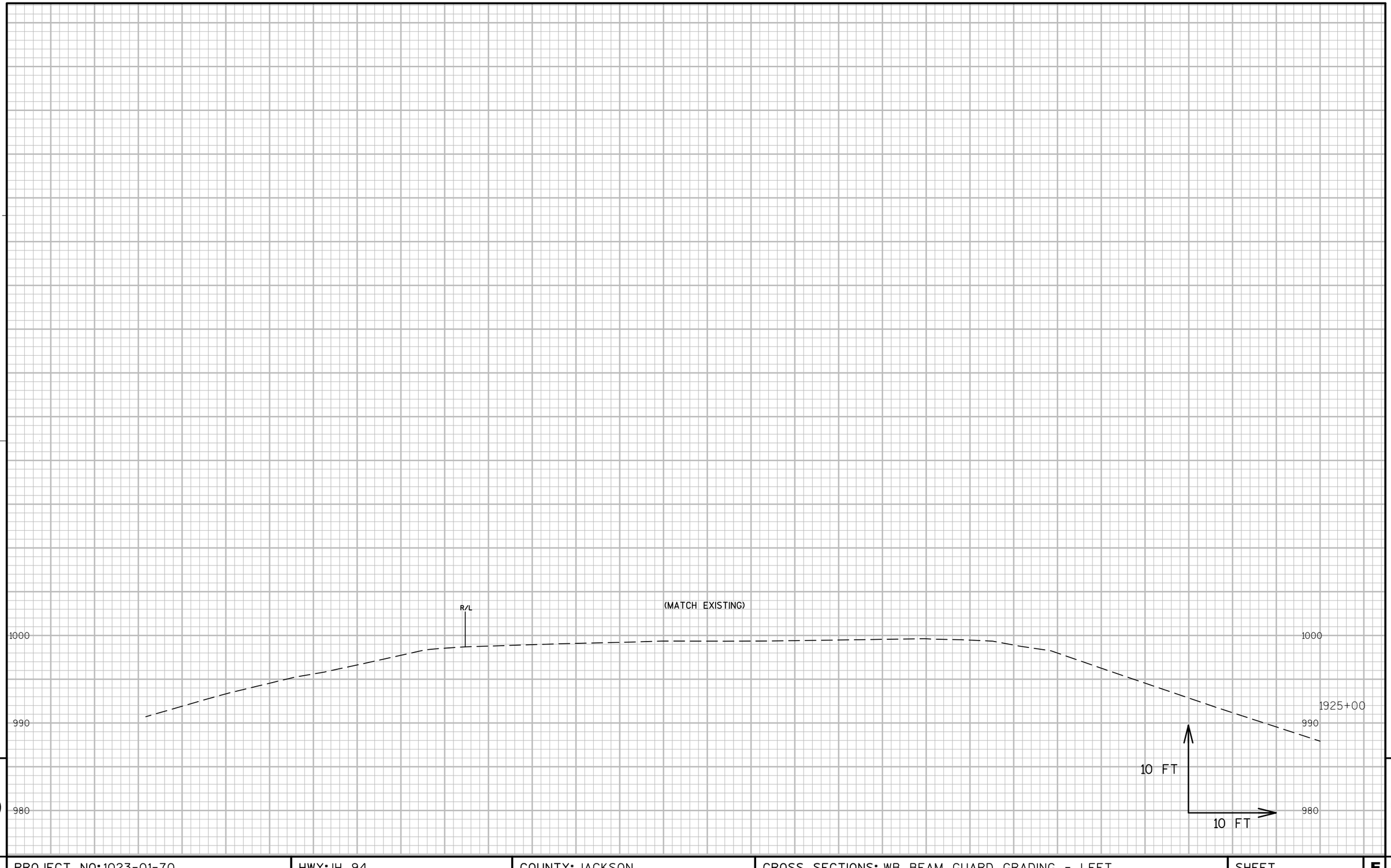


9

9

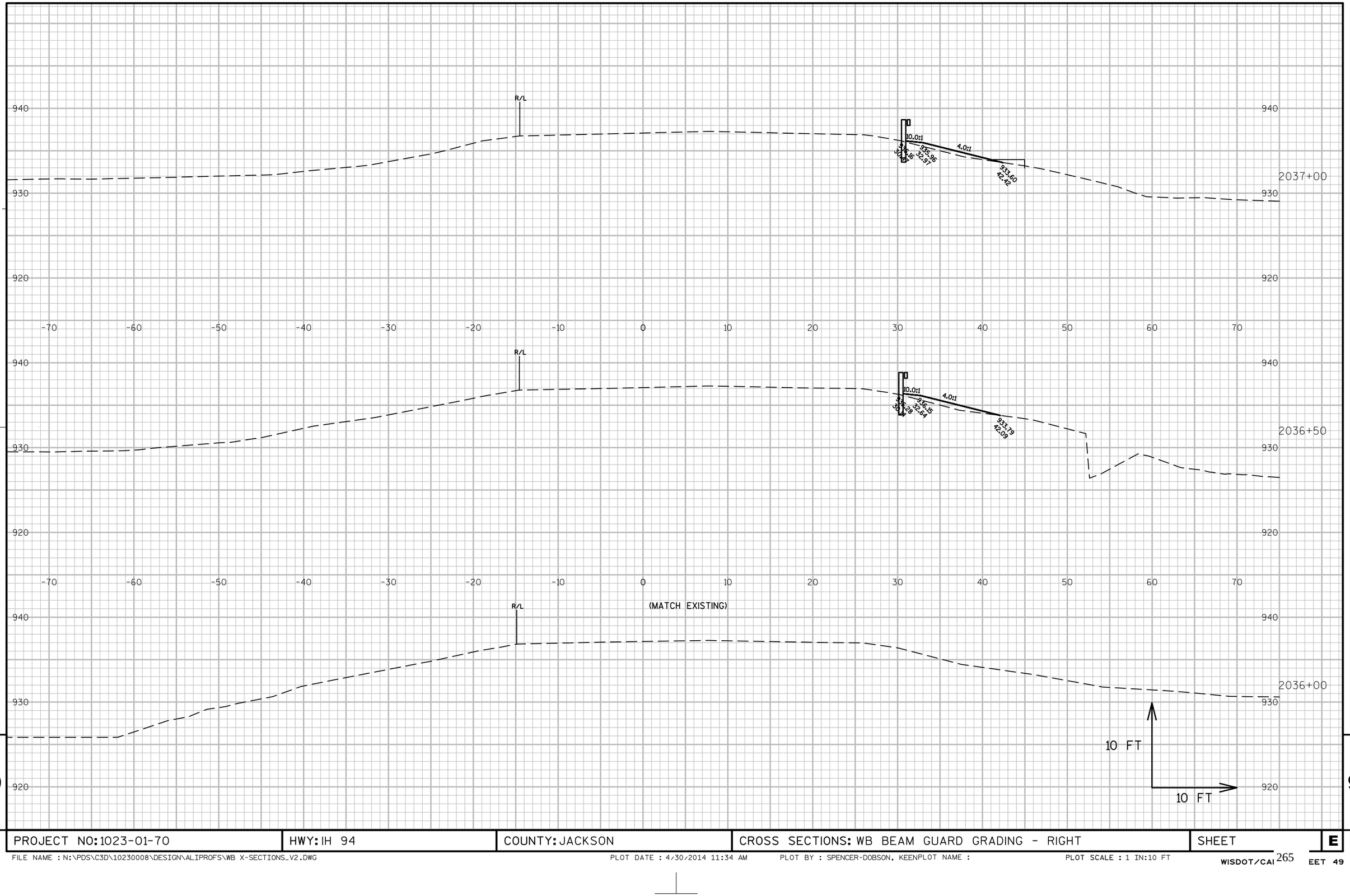
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:28 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

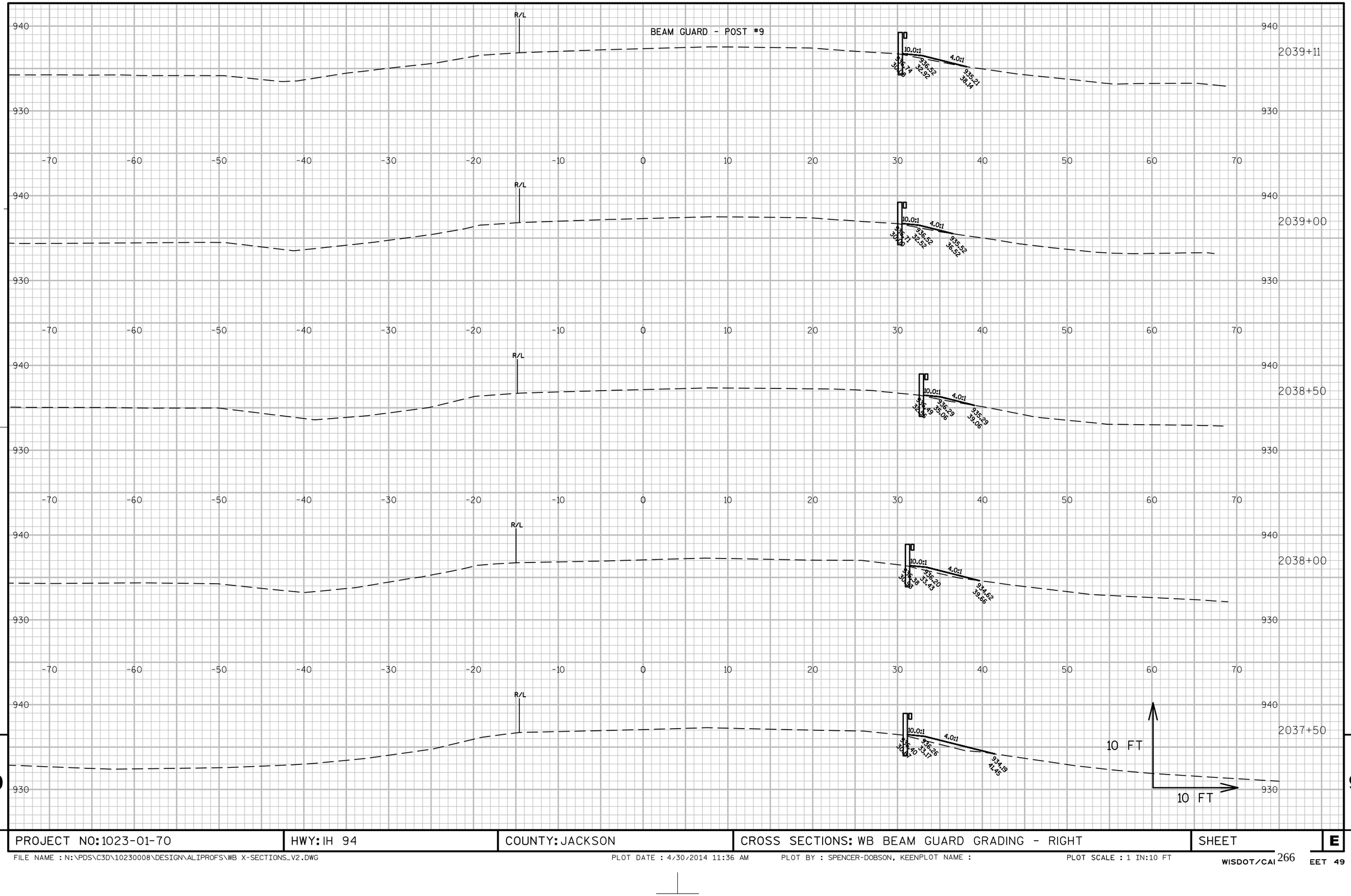
FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:32 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:34 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT

BEAM GUARD - POST #9



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:36 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT

(MATCH EXISTING)

R/L

940
930

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

2040+00

BEAM GUARD - POST #1

R/L

10.0:1
4.0:1
936.08
29.12
936.15
35.72
934.65
42.72

2039+61

2039+50

BEAM GUARD - POST #5

10.0:1
4.0:1
936.14
29.14
936.25
35.02
934.88
40.41

10 FT
10 FT

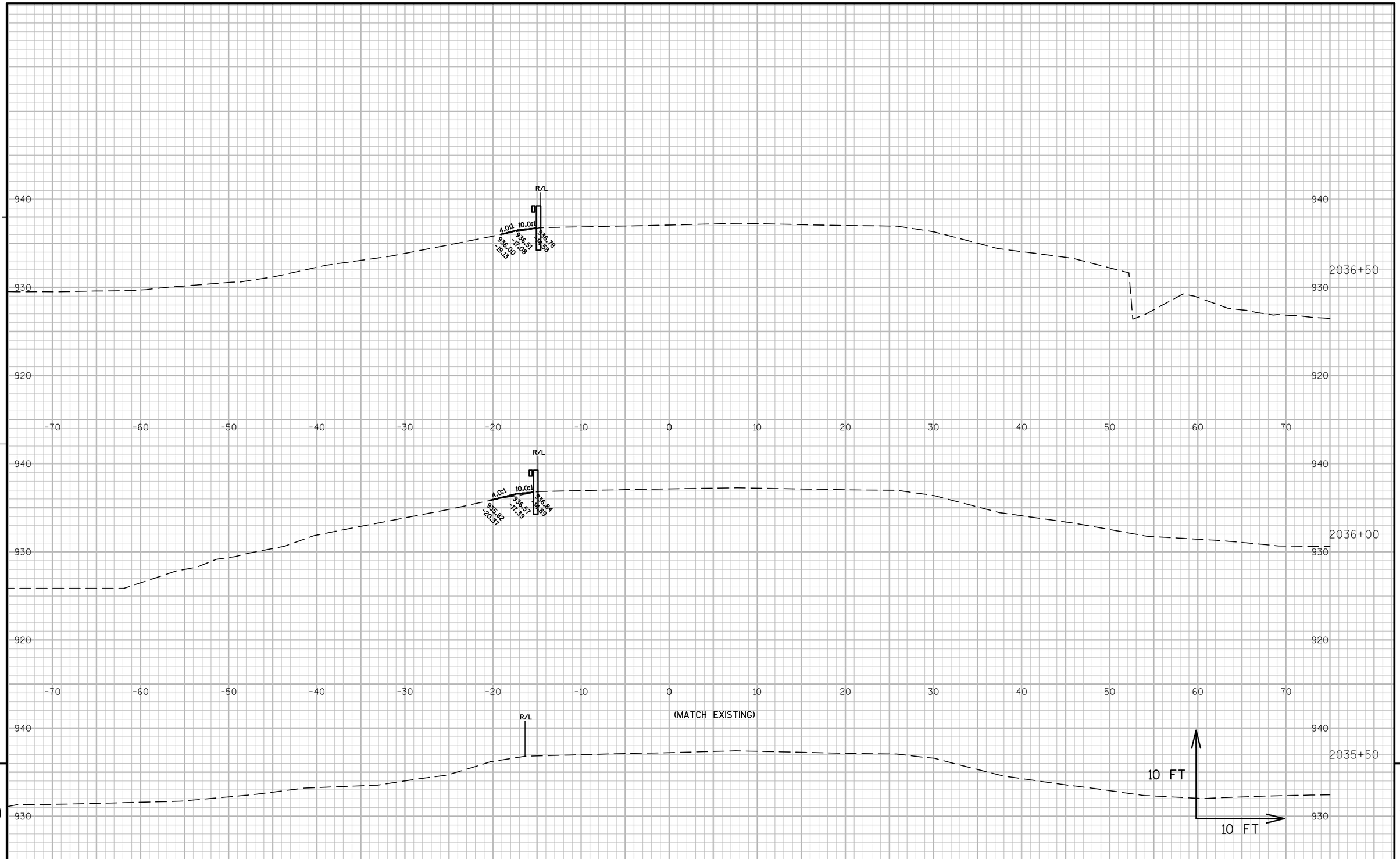
2039+36

9

9

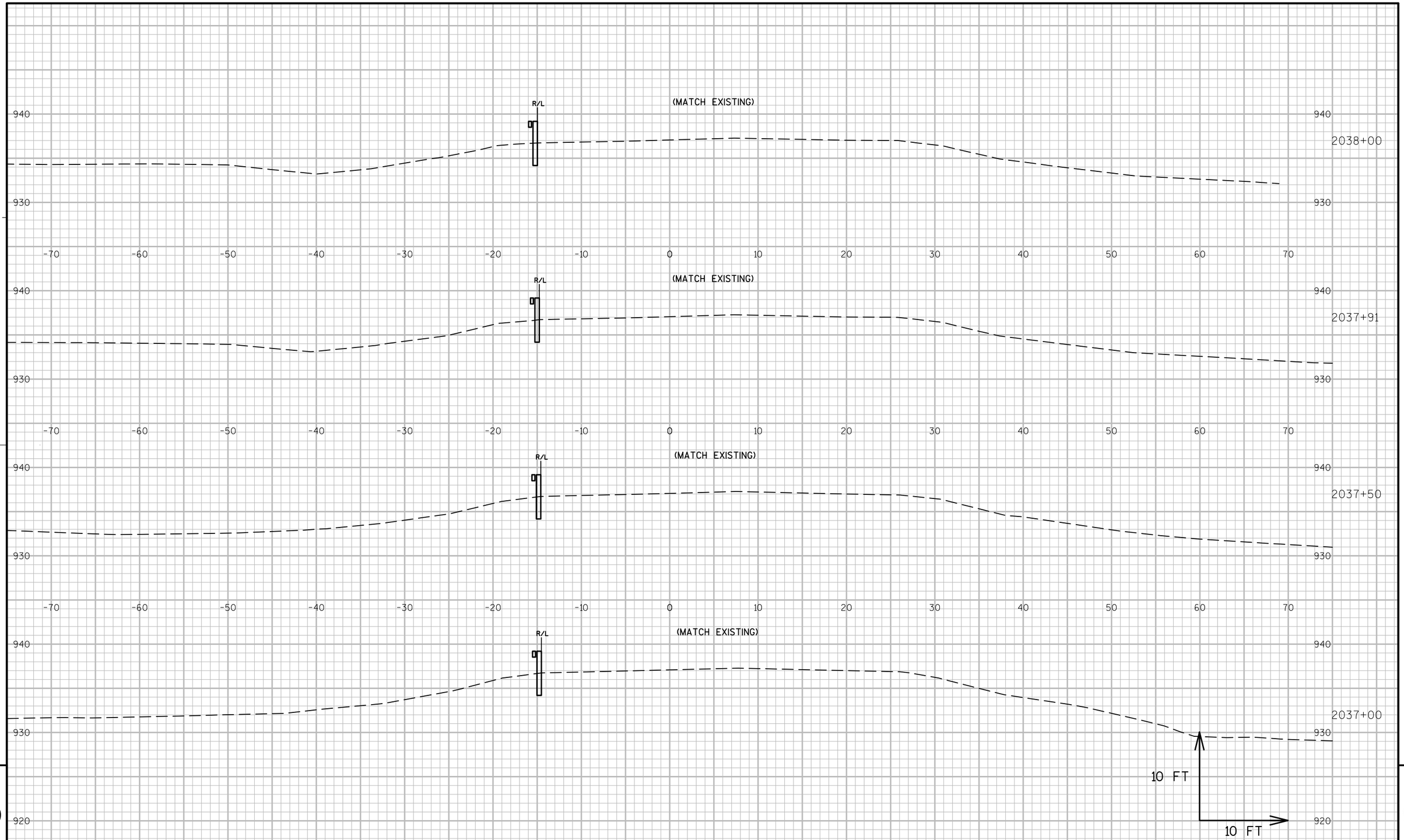
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:38 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



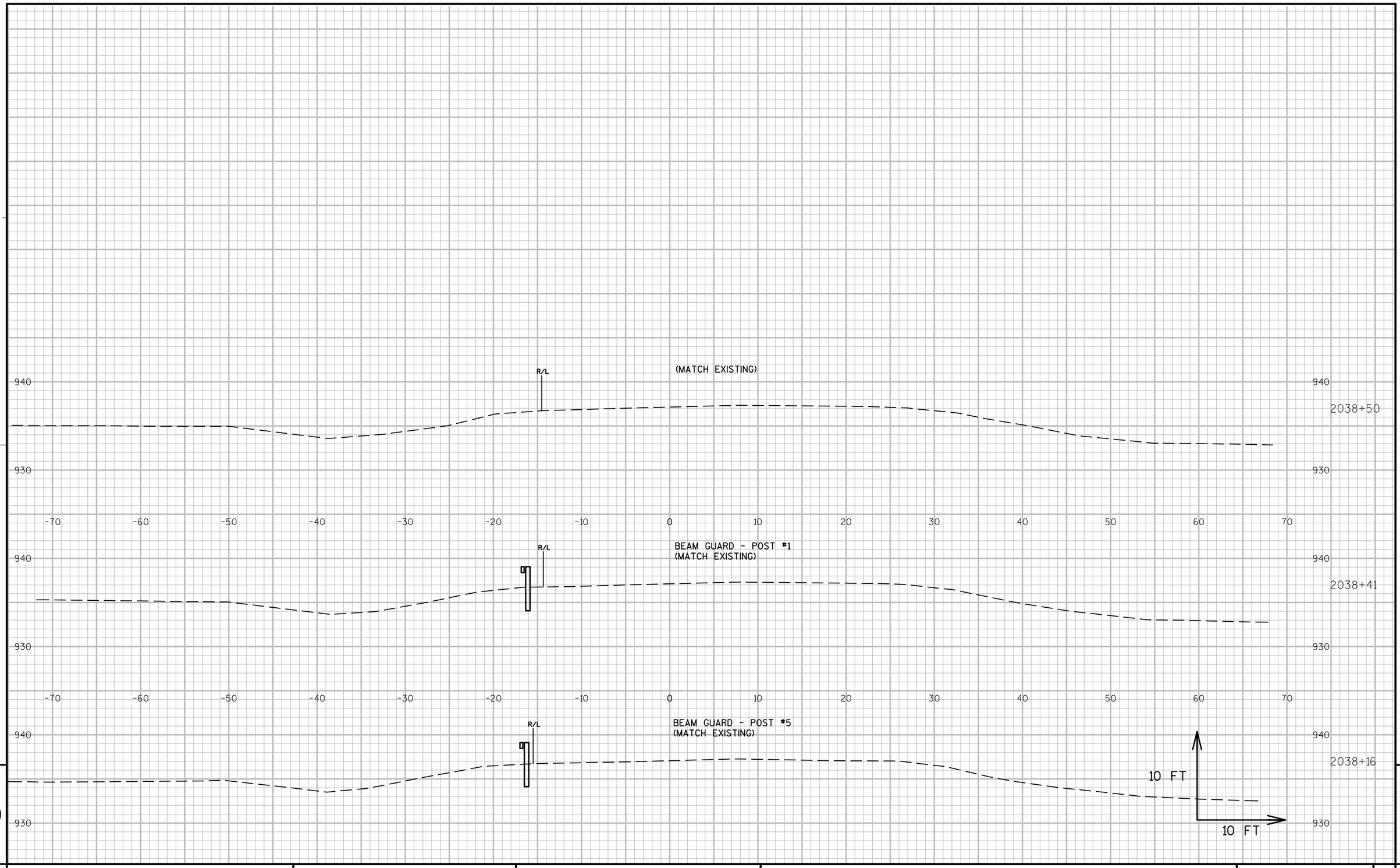
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:40 AM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT

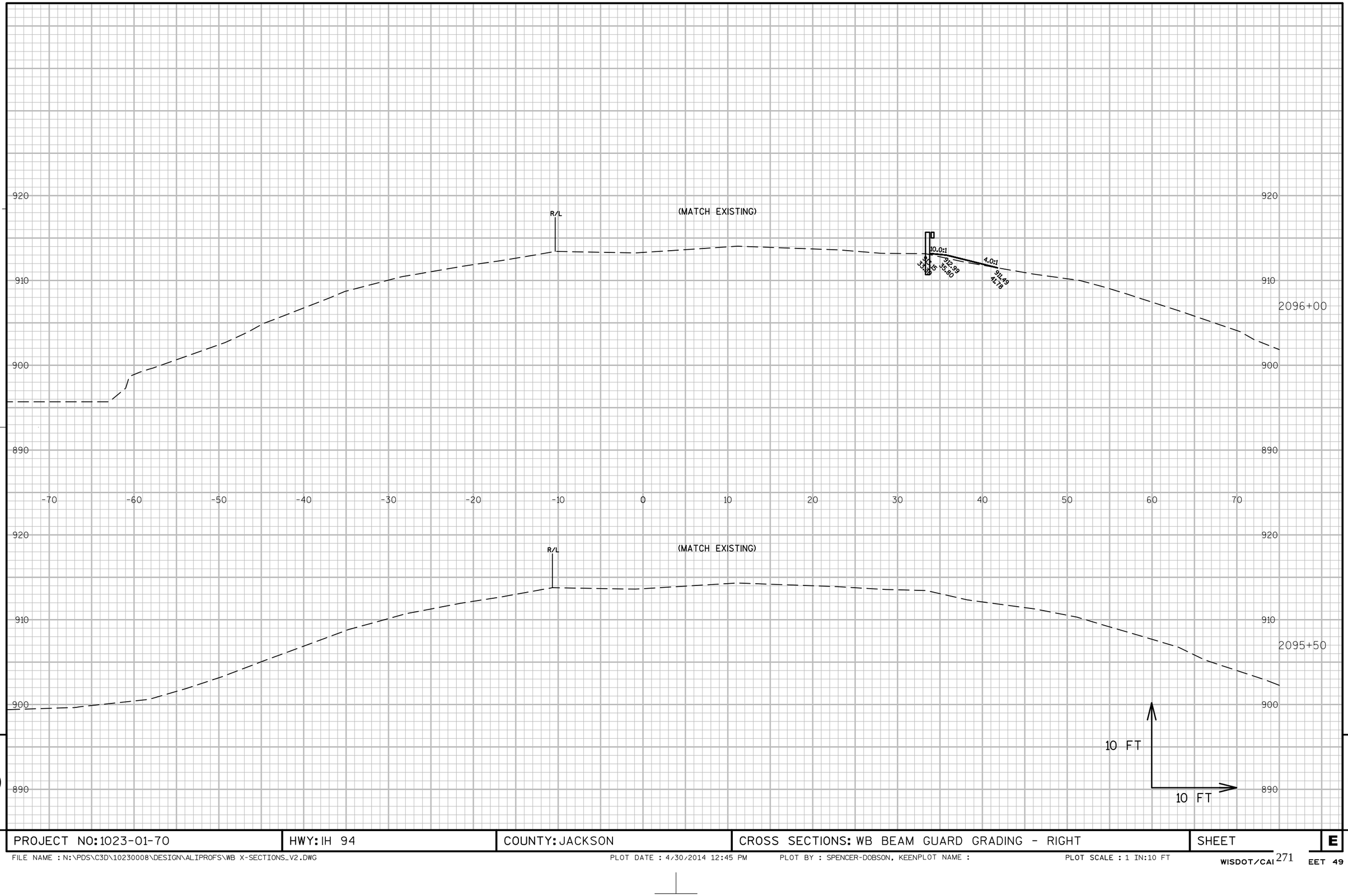


PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 11:42 AM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

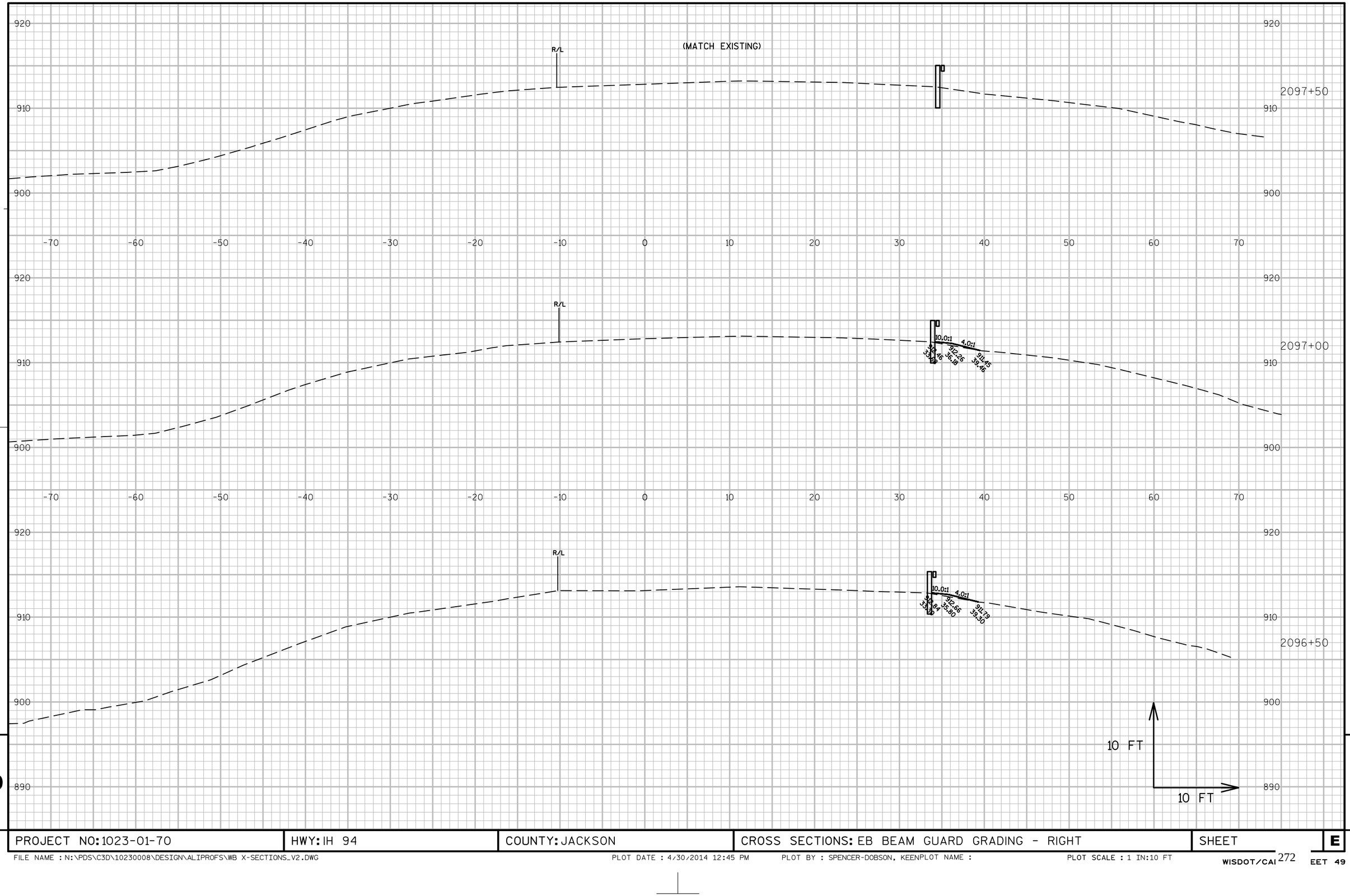


9

9

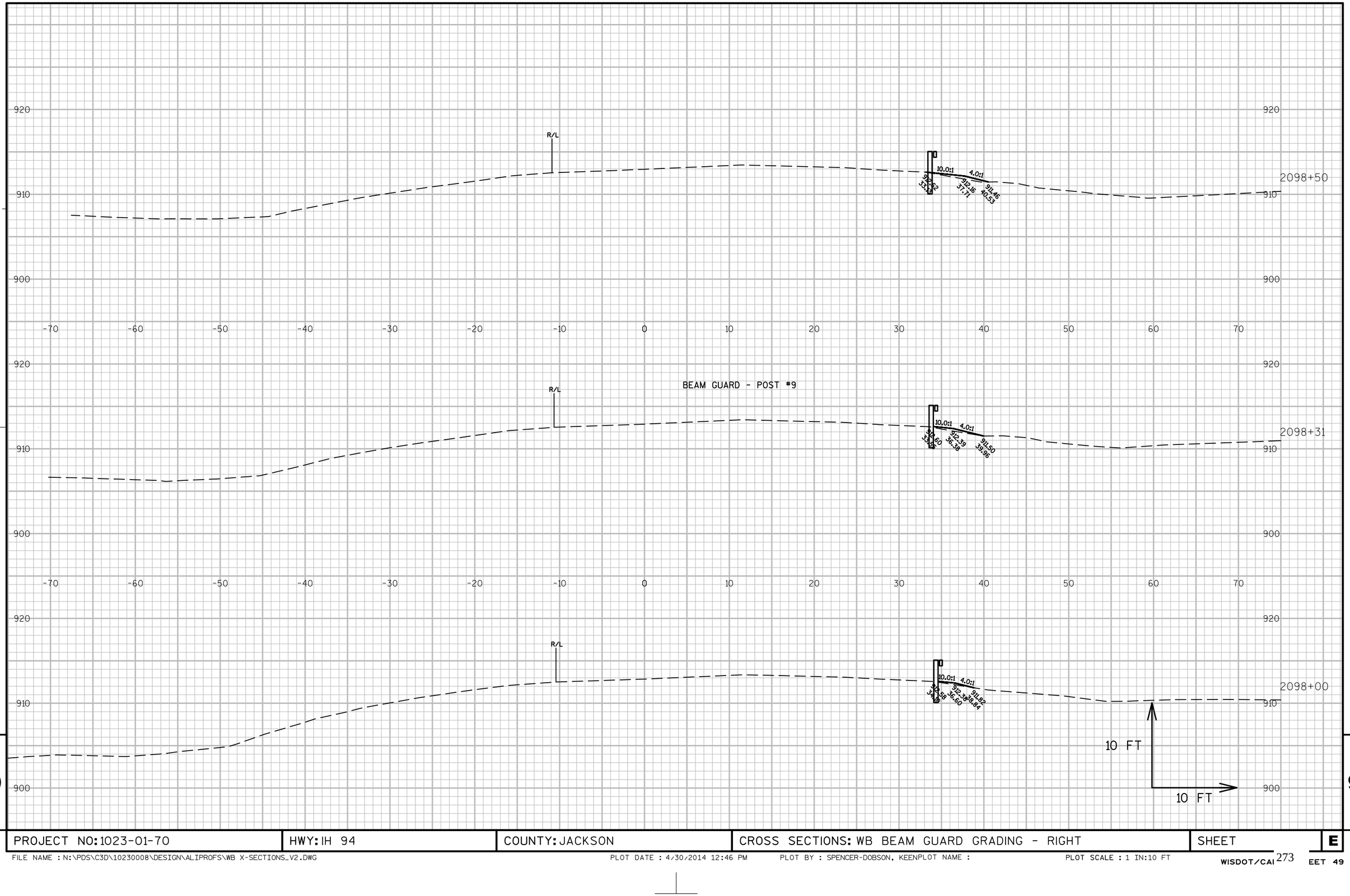
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 12:45 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: EB BEAM GUARD GRADING - RIGHT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 12:45 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E

(MATCH EXISTING)

R/L

2099+00

920
910
900

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

BEAM GUARD - POST #1

R/L

10.0:1 4.0:1

2098+81

920
910
900

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

BEAM GUARD - POST #5

R/L

10.0:1 4.0:1

912.63 353.00 912.10 38.25 911.25 41.64

2098+56

10 FT

10 FT

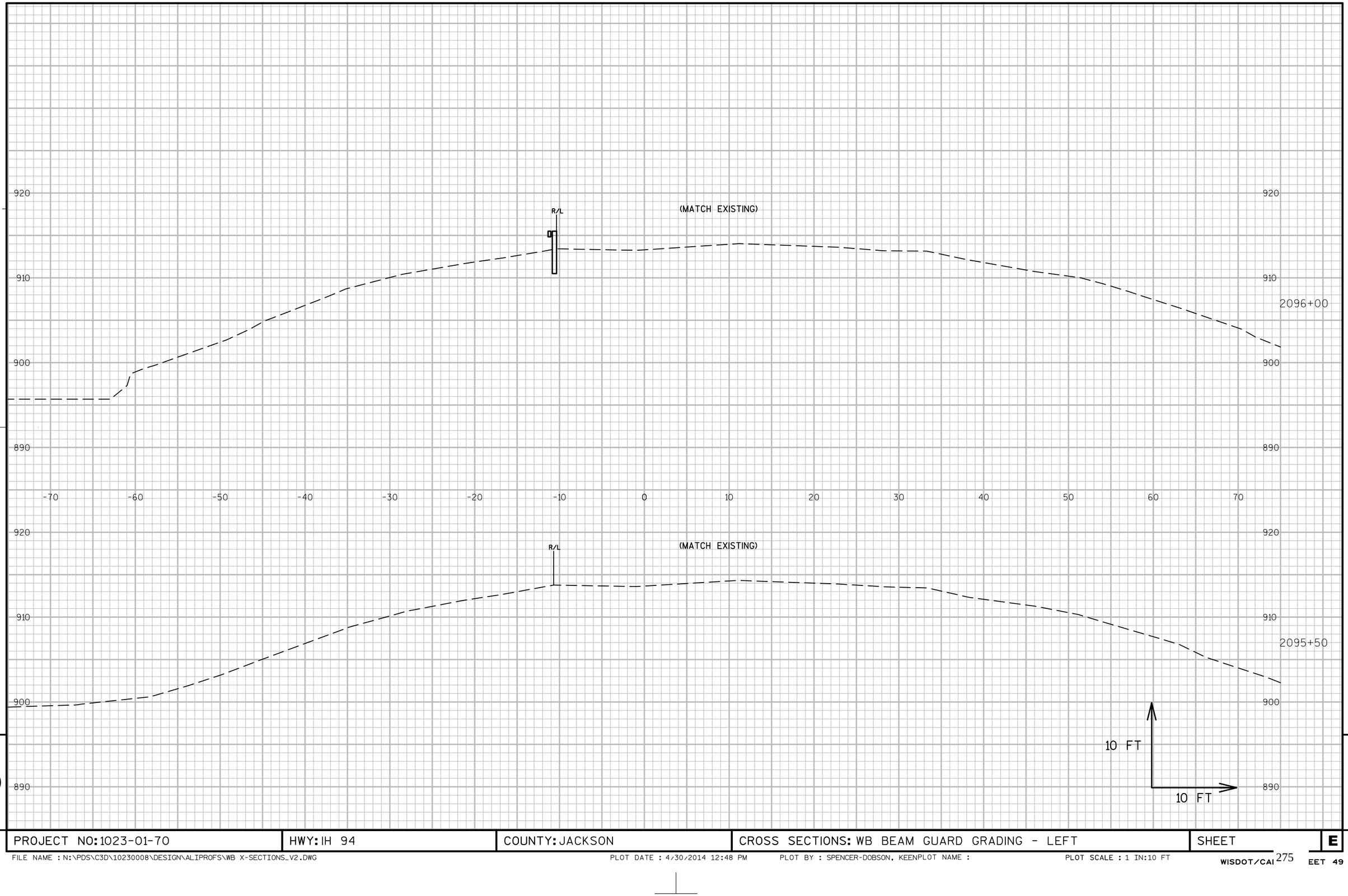
920
910
900

9

9

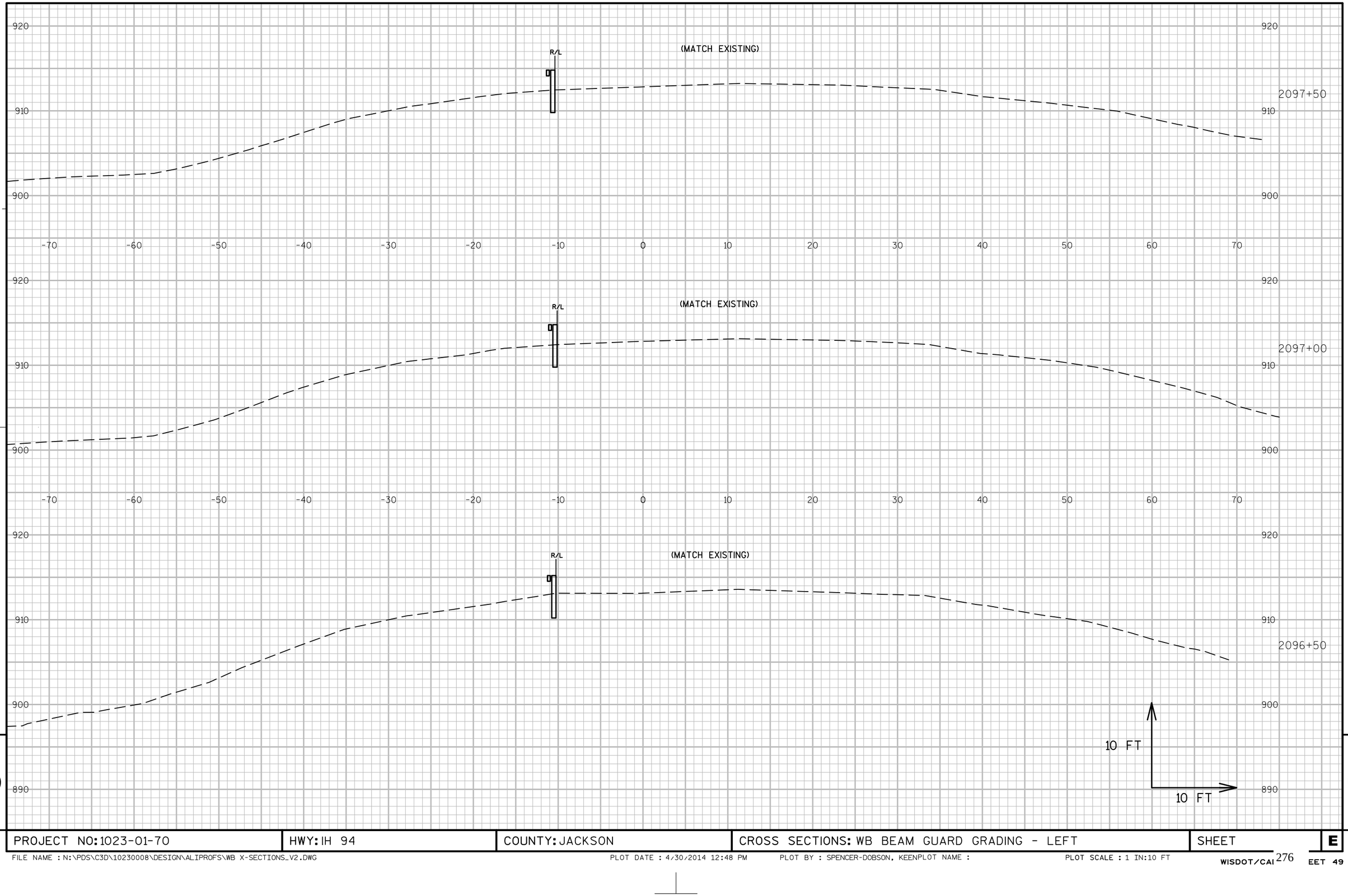
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - RIGHT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 12:47 PM PLOT BY : SPENCER-DOBSON, KEENPLOT NAME : PLOT SCALE : 1 IN:10 FT



9

PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E



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PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

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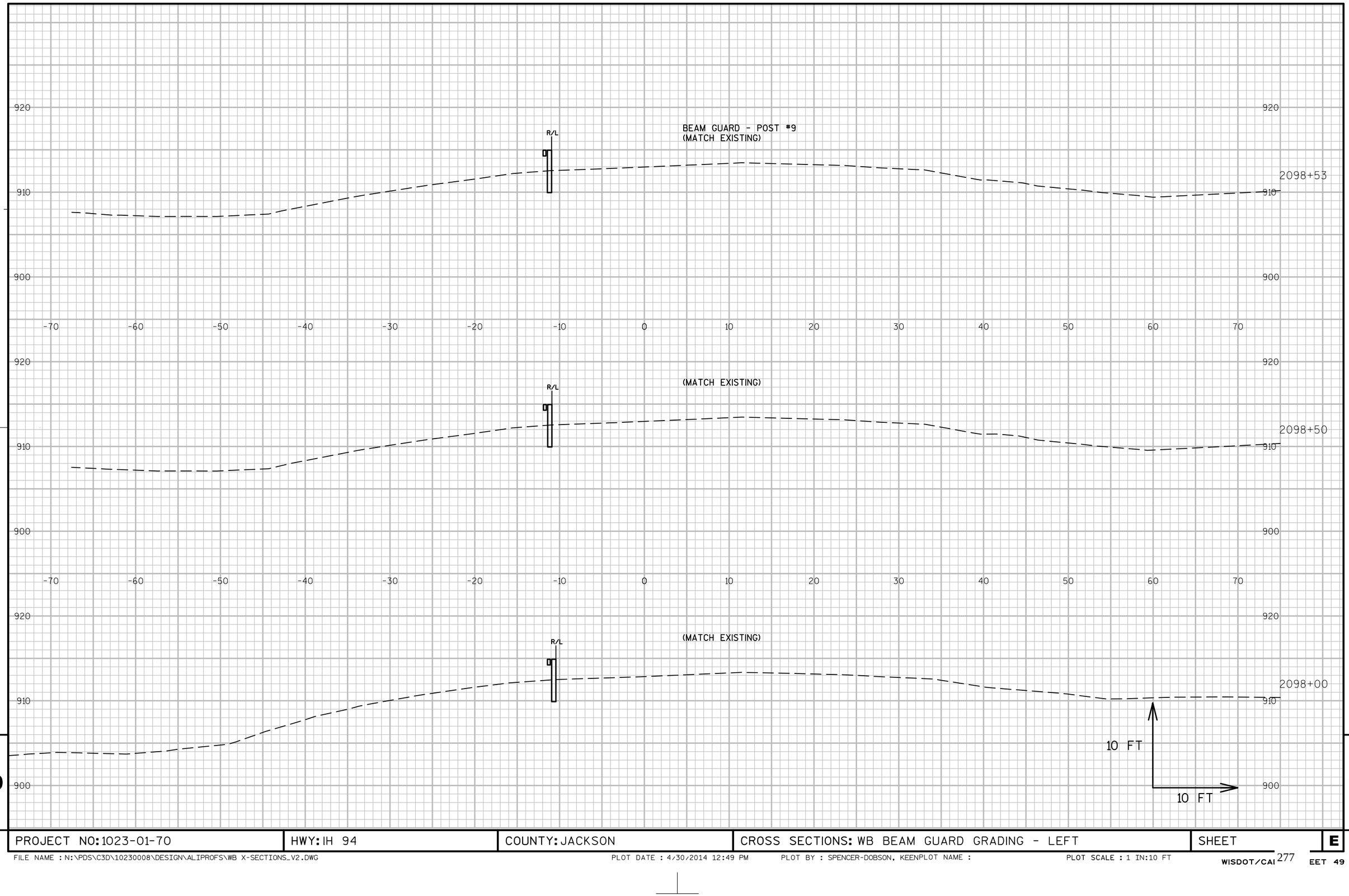
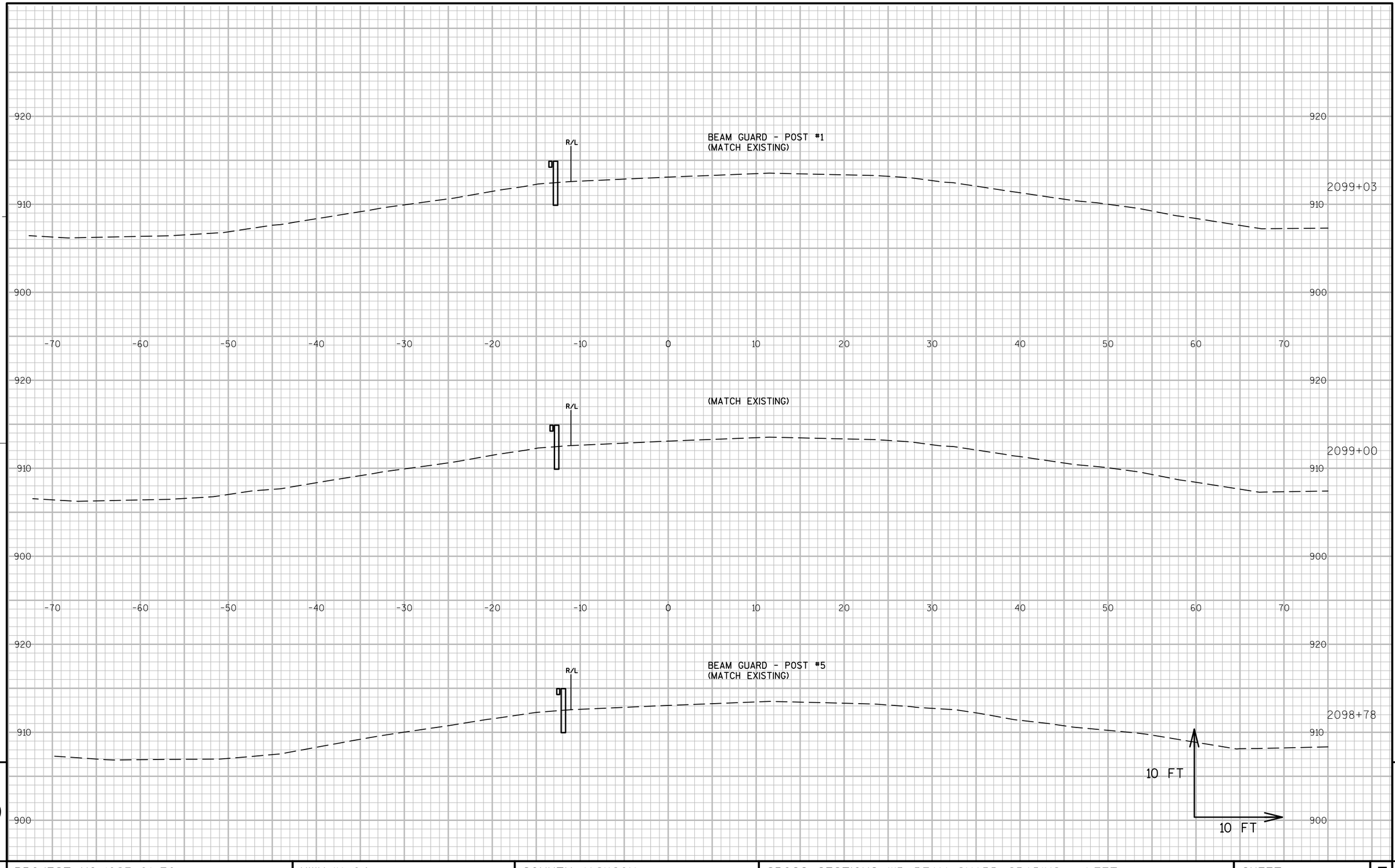


PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 12:49 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT



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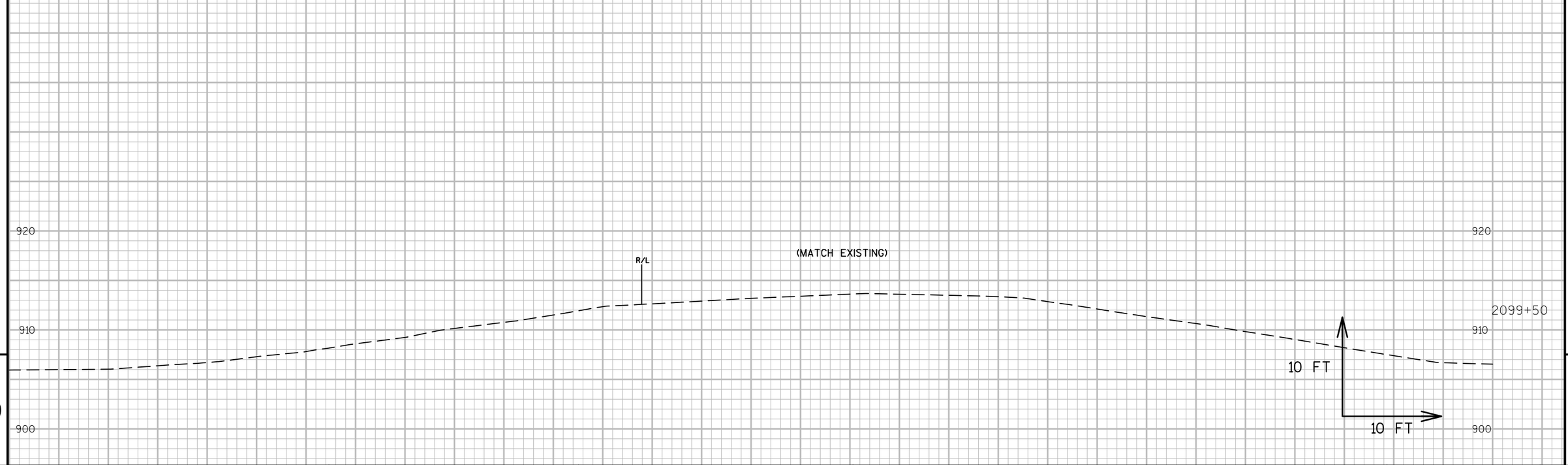
PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET E



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PROJECT NO: 1023-01-70	HWY: IH 94	COUNTY: JACKSON	CROSS SECTIONS: WB BEAM GUARD GRADING - LEFT	SHEET	E

FILE NAME : N:\PDS\C3D\10230008\DESIGN\ALIPROFS\WB X-SECTIONS_V2.DWG PLOT DATE : 4/30/2014 12:51 PM PLOT BY : SPENCER-DOBSON, KEEN PLOT NAME : PLOT SCALE : 1 IN:10 FT

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