GRE DEC 2017

PROJECT ID: 9995-00-64

WITH: N/A

COUNTY: MARINETTE

ORDER OF SHEETS

TOTAL SHEETS = 210

N

2018019

DESIGN DESIGNATION 9995-00-64

A.A.D.T.	(2018)	= 3,200
A.A.D.T.	(2038)	= 3,600
D.H.V.		= 450
D.D.		= 59/41
T.		= 3.3%
DESIGN SPEED		= 30 MPH
ESALS		= 430,000

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

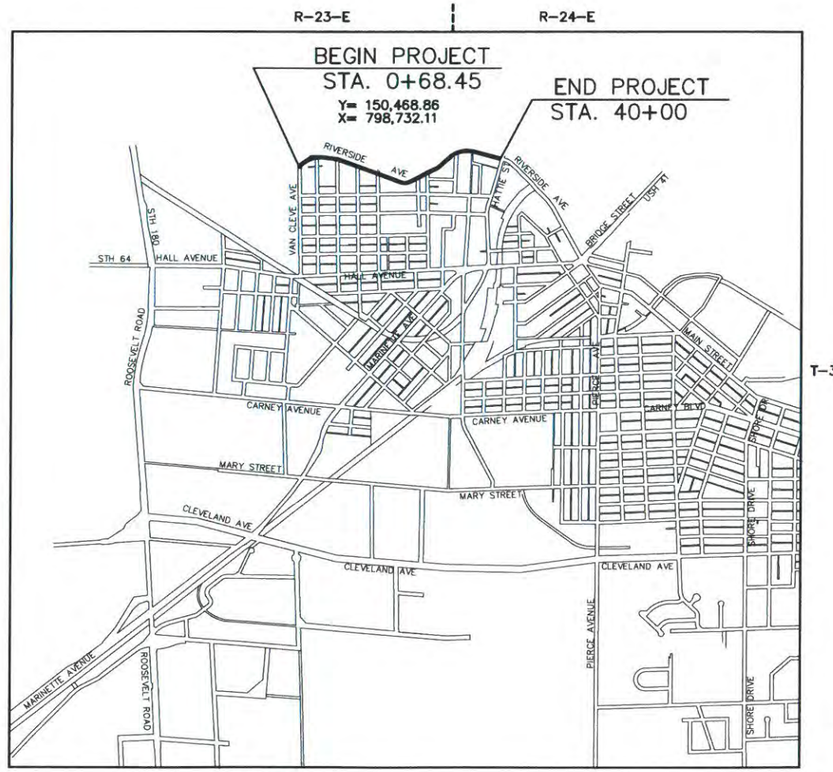
C MARINETTE, RIVERSIDE AVE

HATTIE ST - VANCLEVE AVE

LOCAL STREET

MARINETTE COUNTY

STATE PROJECT NUMBER
9995-00-64



LAYOUT

SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.745 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MARINETTE COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ALL ELEVATIONS ON THE PLAN ARE REFERENCED TO THE CITY OF MARINETTE VERTICAL DATUM.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9995-00-64	WISC 2018019	1

ACCEPTED FOR CITY OF MARINETTE

7-24-17 (Date)

Brian R. Miller City Engineer (Signature & Title of Offical)

ORIGINAL PLANS PREPARED BY

THE CITY OF MARINETTE ENGINEERING DEPARTMENT

WISCONSIN
BRIAN R. MILLER
E-31743
MARINETTE
WIS.
PROFESSIONAL ENGINEER

7-24-17 (Date) Brian R. Miller (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor: CITY OF MARINETTE

Designer: CITY OF MARINETTE

Management Consultant: JT ENGINEERING, INC.

APPROVED FOR THE DEPARTMENT

DATE: 7/25/17 (Management Consultant Signature)

E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\RIVERSIDETITLE SHEET 1.DWG
LAYOUT NAME - ####

PLOT DATE : 7/6/2017 2:25 PM

PLOT BY : MATT RASTALL

PLOT NAME :

WISDOT/CADDS SHEET 10

LEGEND

- CONTROL POINT
- STREET SIGN
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING TREE
- EXISTING BUSH
- PROPOSED STORM SEWER (LABELED)
- PROPOSED SANITARY SEWER (LABELED)
- PROPOSED WATERMAIN (LABELED)
- PROPOSED CURB & GUTTER
- NEW CONCRETE SIDEWALK AND DRIVEWAY
- NEW ASPHALT DRIVEWAY
- EXISTING HYDRANT
- PROPOSED HYDRANT
- PROPERTY FENCE
- SILT FENCE
- PROPERTY LINE
- SAWCUT
- DITCH
- EXISTING WATER CURB BOX
- PROPOSED WATER CURB BOX

UTILITIES WITHIN PROJECT AREA

WISCONSIN PUBLIC SERVICE
S 54301 2850 ASHLAND AVE.
GREEN BAY, WI. 54304
TEL. 920-617-2775
ROBERT LASKOWSKI
EMAIL: rlaskowski@wisconsinpublicservice.com

CHARTER COMMUNICATIONS
3520 E. DESTINATION DR.
APPLETON WI. 65915
TEL. (920) 831-9249
VINCE ALBIN
EMAIL: vince.albin@charter.com

AMERICAN TRANSMISSION COMPANY
(ELECTRIC)
801 O'KEEFE ROAD
PO BOX 6113
DEPERE, WI 54115-6113
TEL. (920) 338-6582
MICHAEL OLSEN
EMAIL: molsen@atcllc.com

MARINETTE WATER & SEWER
501 WATER STREET
MARINETTE, WI. 54143
TEL. (715) 732-5180
WARREN HOWARD
EMAIL: whoward@marinette.wi.us

CENTURYLINK
1727 STEPHENSON STREET
MARINETTE, WI. 54143
TEL. (715) 735-0059
PETE JOHNSON
EMAIL: peter.s.johnson@centurylink.com

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

DNR LIAISION

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVENUE
P.O. BOX 10448
GREEN BAY, WISCONSIN, 54307-0448
ATTN. JIM DOPERALSKI JR.
PHONE: 920-412-0165
EMAIL: james.doperalski@wisconsin.gov

GENERAL NOTES

1) THE LOCATION OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL INSPECT THE PROJECT SITE AND PLAN CONSTRUCTION ACCORDINGLY. NO EXTRA COMPENSATION WILL BE PAID TO CONTRACTOR FOR WORKING AROUND UNDERGROUND UTILITIES.
2) THE ENGINEER SHALL FURNISH HORIZONTAL ALIGNMENT CONTROL POINTS AND VERTICAL CONTROL.
3) "ARC DEFINITION CURVE DATA IS SHOWN ON THE PLANS.
4) CURB RADII ARE SHOWN TO THE BACK OF THE CURB.
5) CURB AND GUTTER ELEVATIONS ARE ALONG THE FLANGE LINE UNLESS OTHERWISE NOTED.
6) NO TREES OR SHRUBS WILL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
7) THE EXACT LOCATION AND WIDTH OF PRIVATE DRIVEWAYS AND COMMERCIAL DRIVEWAYS SHALL BE DETERMINED BY ENGINEER IN THE FIELD.
8) THE EXACT LOCATION AND WIDTH OF TEMPORARY ACCESS FOR DRIVEWAYS SHALL BE DETERMINED BY ENGINEER IN THE FIELD.
9) EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADIUS POINTS IN THE CURB AND GUTTER.
10) THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED ENGINEER IN THE FIELD.
11) SAWCUTTING CONCRETE PAVEMENT SHALL BE DONE AT CONSTRUCTION JOINTS OR AT MID PANEL INSTEAD OF LEAVING A SLIVER OF CONCRETE.
12) DRIVEWAYS SHALL BE REPLACED IN KIND. BASE AGGREGATE DENSE SHALL BE USED UNDER ALL DRIVEWAYS.
13) AFTER CONSTRUCTION OF ANY INLET, CONTRACTOR SHALL CONSTRUCT THE EROSION CONTROL PROTECTION IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS TO MINIMIZE SEDIMENTATION IN THE INLET AND STORM SEWER.
14) ALL MANHOLE AND INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.
15) THE COST OF CONNECTING EXISTING STORM SEWERS OR DRAINAGE STRUCTURES TO THE NEW STORM SEWER SHALL BE INCIDENTAL TO THE COST OF THE STORM SEWER PIPE.
16) FINAL SAWCUTTING LIMITS ON STREETS AND DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
17) ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE CITY OF MARINETTE DATUM. 0.00 CITY DATUM= 482.17 NGVD
18) IF CONCRETE MESH IS FOUND IN THE EXISTING PAVEMENT, THE REMOVAL OF THE MESH IS INCIDENTAL TO REMOVING CONCRETE PAVEMENT.

STANDARD ABBREVIATIONS

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

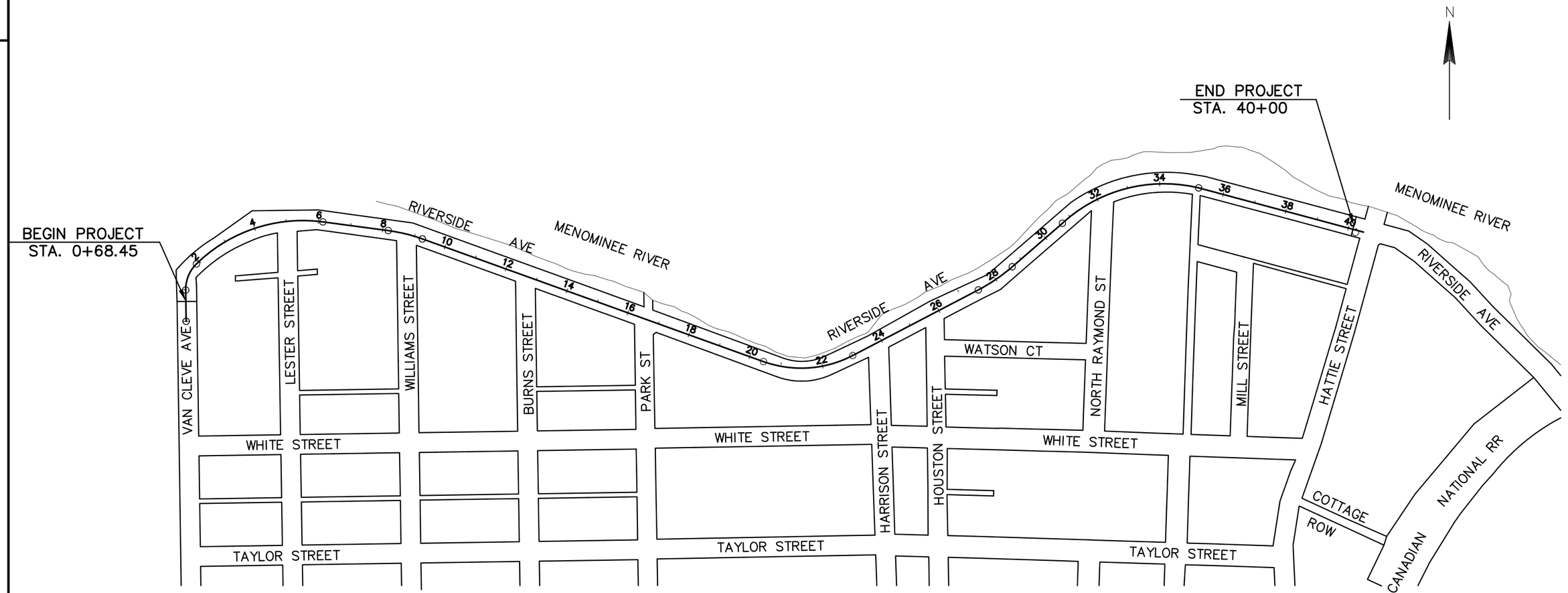
RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 7.13 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 6.60 ACRES

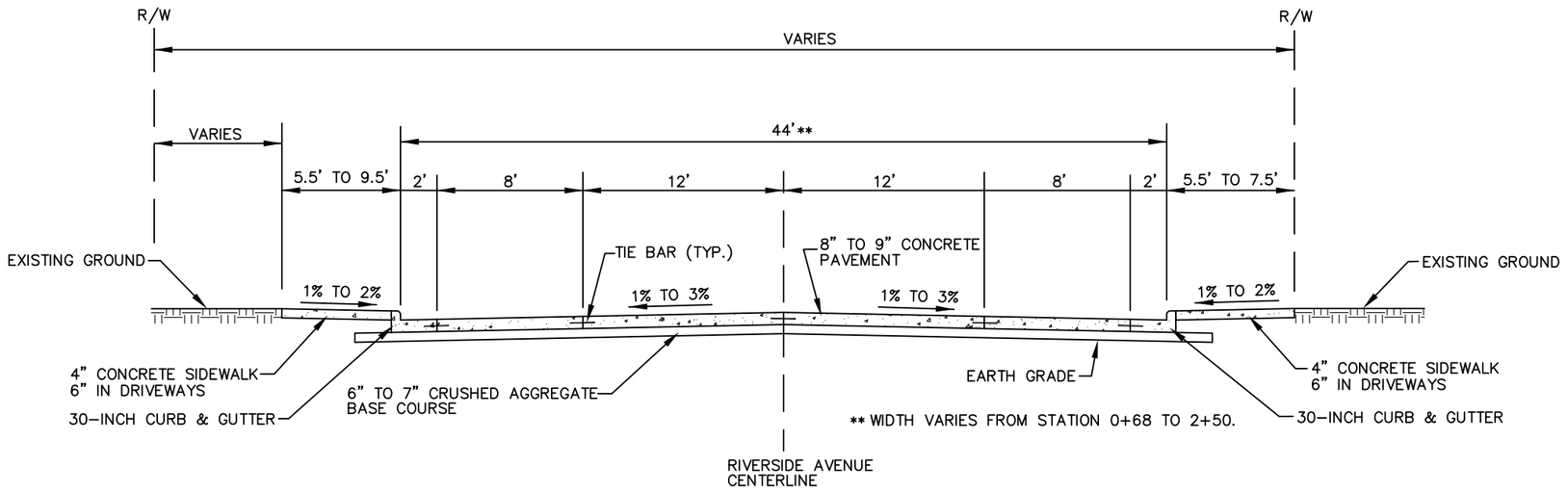
PROJECT NO:9995-00-64	HWY:RIVERSIDE AVENUE	COUNTY:MARINETTE	GENERAL NOTES	SHEET 2	E

2



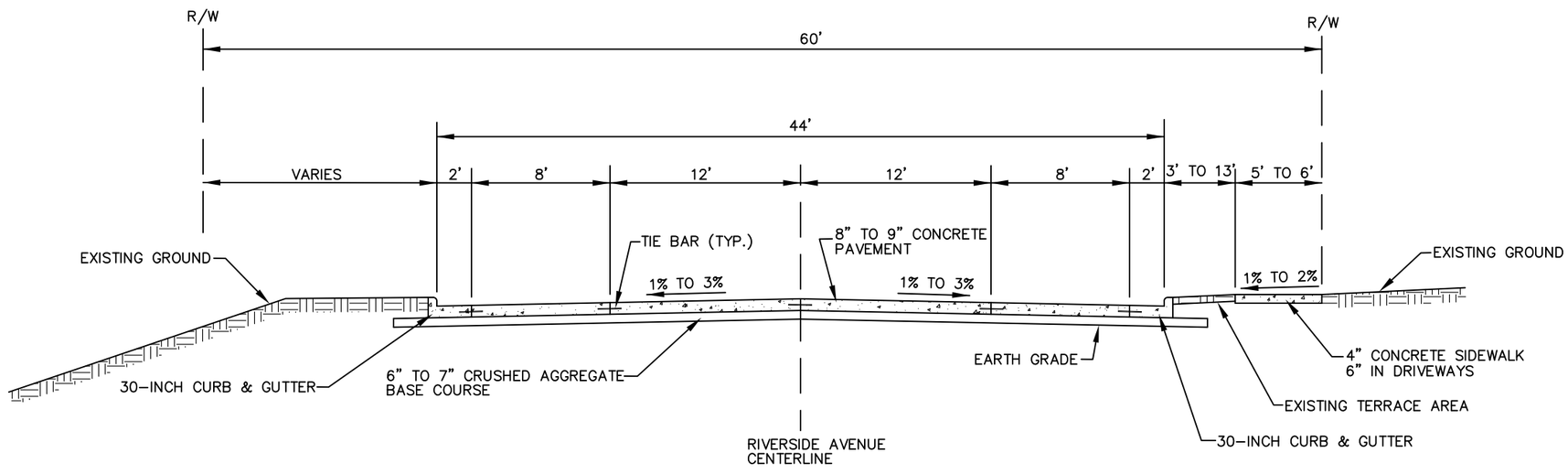
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PROJECT OVERVIEW	SHEET 3	E

2



EXISTING TYPICAL SECTION RIVERSIDE AVENUE

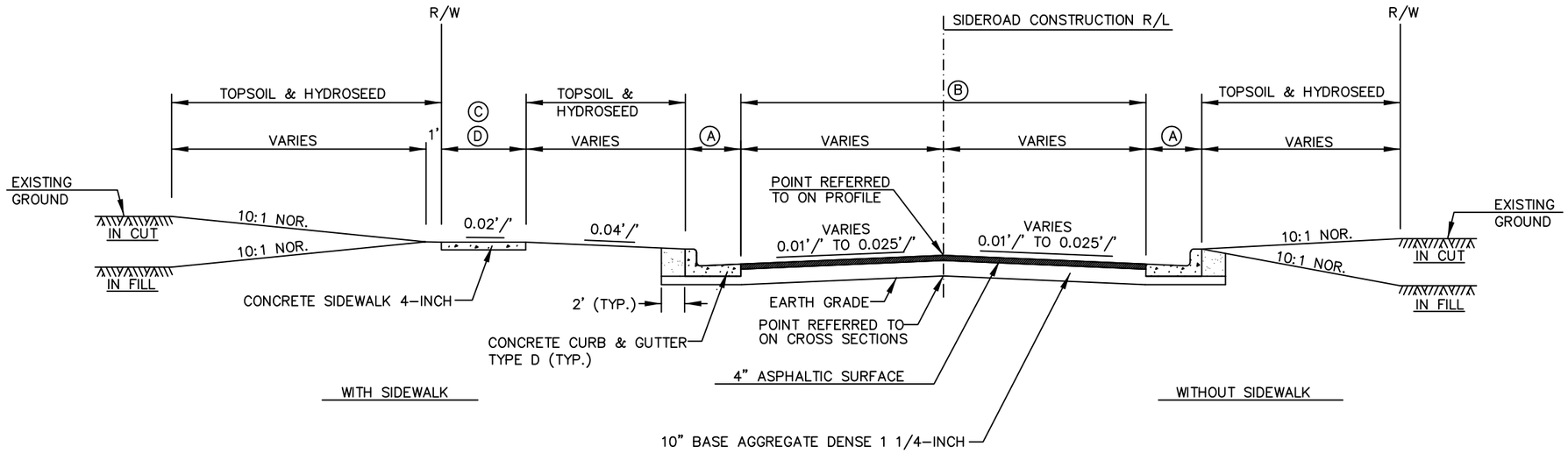
STATION 0+68 – STATION 5+00



EXISTING TYPICAL SECTION RIVERSIDE AVENUE

STATION 5+00 – STATION 40+00

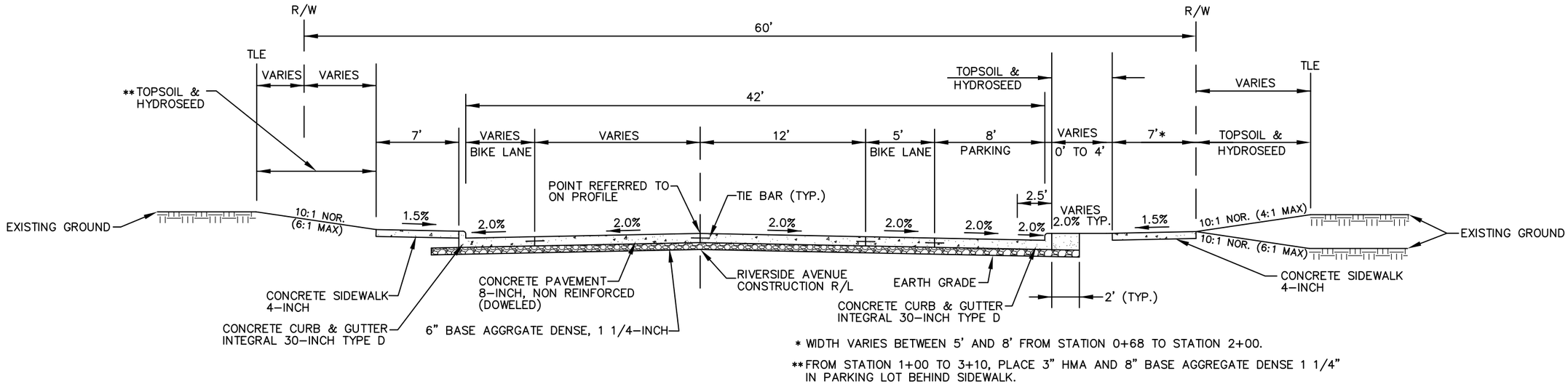
PROJECT NO:9995-00-64	HWY:RIVERSIDE AVENUE	COUNTY:MARINETTE	TYPICAL SECTIONS	SHEET 4	E



TYPICAL FINISHED SECTION: SIDE ROADS

SIDEROAD	Ⓐ CURB & GUTTER WIDTH (IN.)	Ⓑ ROADWAY WIDTH (FT.)	Ⓒ LT. SIDEWALK WIDTH (FT.)	Ⓓ RT. SIDEWALK WIDTH (FT.)
LESTER STREET	30	32	–	–
WILLIAMS STREET	30	32	–	–
BURNS STREET	30	32	–	–
PARK STREET	30	32	5	5
HARRISON STREET	30	32	6	5
HOUSTON STREET	24	34	–	–
NORTH RAYMOND STREET	30	35	6	6
STATE STREET	*30	14	–	–

* CONCRETE CURB & GUTTER 4– INCH SLOPED 30–INCH TYPE TBT

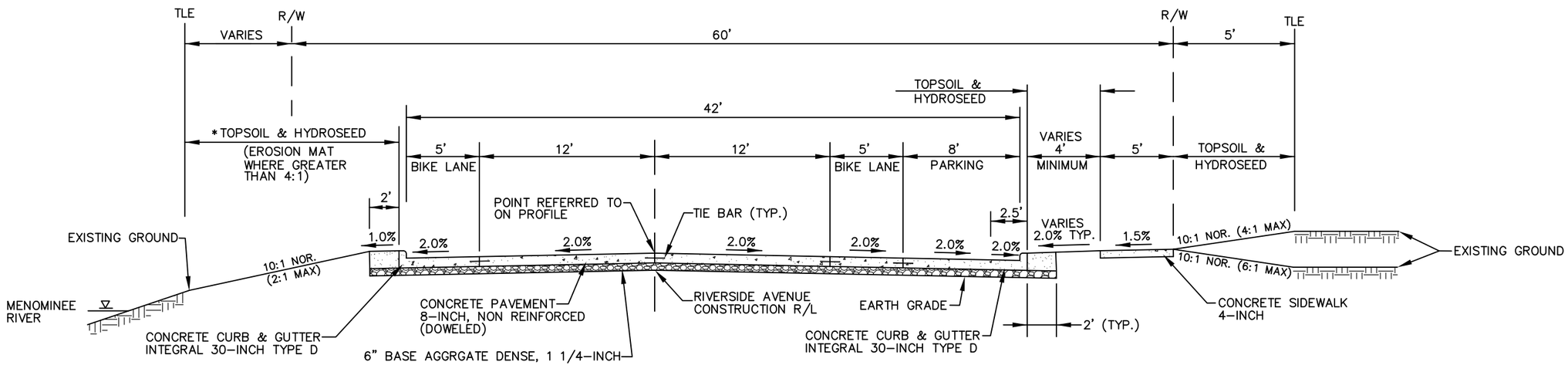


* WIDTH VARIES BETWEEN 5' AND 8' FROM STATION 0+68 TO STATION 2+00.

** FROM STATION 1+00 TO 3+10, PLACE 3" HMA AND 8" BASE AGGREGATE DENSE 1 1/4" IN PARKING LOT BEHIND SIDEWALK.

TYPICAL FINISHED SECTION RIVERSIDE AVENUE

STATION 0+68 – STATION 5+00



* RIP RAP FROM STATION 18+35 TO STATION 31+00. (SEE EROSION CONTROL PLAN)

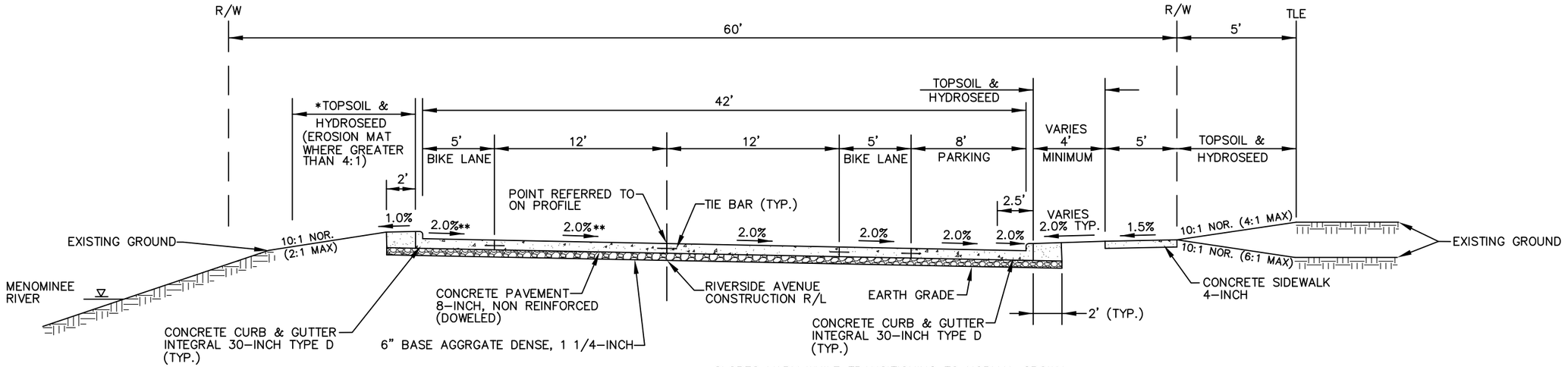
TYPICAL FINISHED SECTION RIVERSIDE AVENUE

STATION 5+00 – STATION 30+00
STATION 37+00 – STATION 40+00

PROJECT NO:9995-00-64	HWY:RIVERSIDE AVENUE	COUNTY:MARINETTE	TYPICAL SECTIONS	SHEET 6	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\TYPICAL SECTIONS\TYPICAL SECTION 2 RIVERSIDE.DWG PLOT DATE : 10/27/2017 2:11 PM PLOT BY : MATT RASTALL PLOT NAME : PLOT SCALE : #######
LAYOUT NAME – ####
WISDOT/CADDS SHEET 42

2



** SLOPES VARY WHILE TRANSITIONING TO NORMAL CROWN.

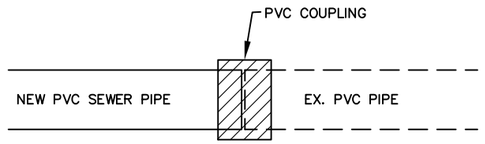
* RIP RAP FROM STATION 30+00 TO STATION 31+00. (SEE EROSION CONTROL PLAN)

TYPICAL FINISHED SECTION RIVERSIDE AVENUE

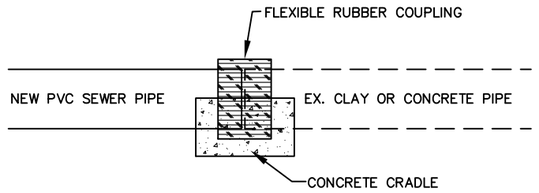
STATION 30+00 – STATION 37+00

PROJECT NO:9995-00-64	HWY:RIVERSIDE AVENUE	COUNTY:MARINETTE	TYPICAL SECTIONS	SHEET 7	E

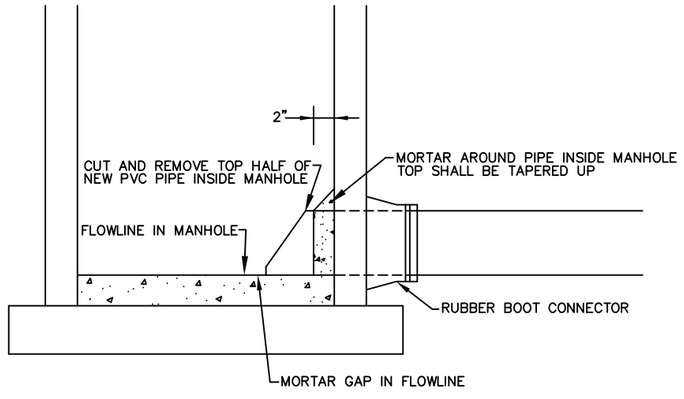
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\TYPICAL SECTIONS\TYPICAL SECTION 3 RIVERSIDE.DWG PLOT DATE : 10/27/2017 2:12 PM PLOT BY : MATT RASTALL PLOT NAME : PLOT SCALE : ####### WISDOT/CADDS SHEET 42
LAYOUT NAME – ####



SEWER PIPE CONNECTION DETAIL
CONNECTION TO PVC PIPE



SEWER PIPE CONNECTION DETAIL
CONNECTION TO CMP, CONCRETE OR CLAY PIPE



SANITARY MANHOLE DETAIL
NEW SANITARY PIPE ENTERING MANHOLE

GENERAL UTILITY NOTES

1) TAPPING SANITARY MANHOLES WILL BE INCIDENTAL TO PLACING THE SANITARY SEWER PIPE.

2) THE CONTRACTOR SHALL CONTACT DNR PRIVATE WATER SUPPLY SECTION FOR A PERMIT FOR ALL DEWATERING WELLS INSTALLED FOR WHICH SINGLE OR AGGREGATE CAPACITY MAY BE IN EXCESS OF 70 GALLONS PER MINUTE. WELL PERMITS MAY BE OBTAINED BY APPLYING AT THE FOLLOWING OFFICE: DEPARTMENT OF NATURAL RESOURCES
PRIVATE WATER SUPPLY SECTION
BOX 7921
MADISON, WI. 53707

3) THE CONTRACTOR SHALL COORDINATE WITH THE WATER DEPARTMENT FOR WATERMAIN SERVICE CLOSURES. THE CONTRACTOR SHALL NOTIFY THE WATER UTILITY A MINIMUM OF 24 HOURS PRIOR TO TURNING OFF THE WATER (SEE SPECIAL PROVISIONS).

4) THE CONTRACTOR WILL BULKHEAD ALL ABANDONED SANITARY AND WATERMAIN PIPES THAT ARE NOT REMOVED. BULKHEADING ABANDONED PIPES THAT ARE 8" OR SMALLER IN DIAMETER, WILL BE INCIDENTAL TO THE THE PLACEMENT OF NEW SANITARY SEWER AND WATERMAIN PIPES.

5) REMOVAL AND DISPOSAL OF SANITARY MANHOLES THAT ARE IN THE SAME TRENCH AS THE NEW SEWER IS INCIDENTAL TO THE PLACEMENT OF THE NEW SEWER.

6) ANY WORK INVOLVING CAPPING EXISTING WATERMAIN TO KEEP IT IN SERVICE DURING OTHER CONSTRUCTION ACTIVITIES WILL BE INCIDENTAL TO THE PLACEMENT OF THE NEW WATERMAIN. THE CONTRACTOR MAY ALSO HAVE TO MAKE TAPS IN THESE LOCATIONS TO REMOVE AIR FROM THE WATERMAIN AT THE DIRECTION OF THE WATER DEPT.

7) THE REMOVAL OF UNSUITABLE MATERIAL FROM SEWER AND WATERMAIN TRENCHES WILL BE DONE SO AT THE DIRECTION OF THE ENGINEER IN THE FIELD.

8) THE CONTRACTOR SHALL BYPASS EXISTING SEWAGE WHILE PLACING NEW SANITARY SEWER. THIS WILL BE INCIDENTAL TO THE PLACEMENT OF THE NEW SANITARY SEWER.

9) THE CONTRACTOR SHALL MAKE A TEMPORARY CONNECTION BETWEEN THE NEW PIPE AND THE EXISTING SANITARY SEWER AT THE END OF EACH DAY WHILE PLACING THE NEW SEWER. THIS WILL BE INCIDENTAL TO THE PLACEMENT OF THE NEW SEWER.

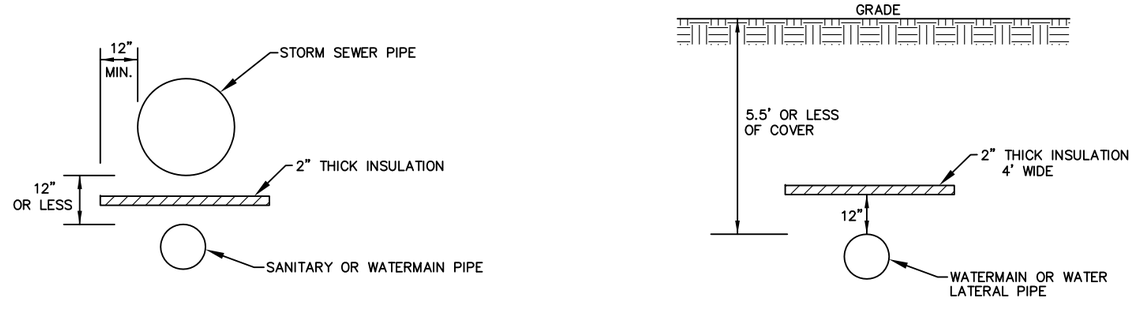
10) ALL NEW WATER SERVICES SHALL BE PLACED FROM THE NEW WATERMAIN TO THE NEW CURB STOP WITHOUT ANY UNIONS OR COUPLINGS, UNLESS PRE APPROVED BY THE ENGINEER IN THE FIELD.

11) ANY OLD SANITARY SEWER MAIN PIPES THAT ARE OUTSIDE THE NORMAL TRENCH WIDTH OF ANY NEW UTILITY SHALL BE ABANDONED IN PLACE BY FILLING THE PIPES FULLY WITH FLOWABLE CELLULAR CONCRETE AT THE CONTRACT UNIT PRICE PER LIN. FT.

12) TRENCH WIDTH IS DEFINED IN THE STANDARD SEWER AND WATER SPECIFICATIONS AS THE OUTSIDE DIAMETER OF THE PIPE PLUS 24 INCHES. THE REMOVAL OF ANY PIPES WITHIN THIS ZONE WILL BE INCIDENTAL TO OTHER PAY ITEMS.

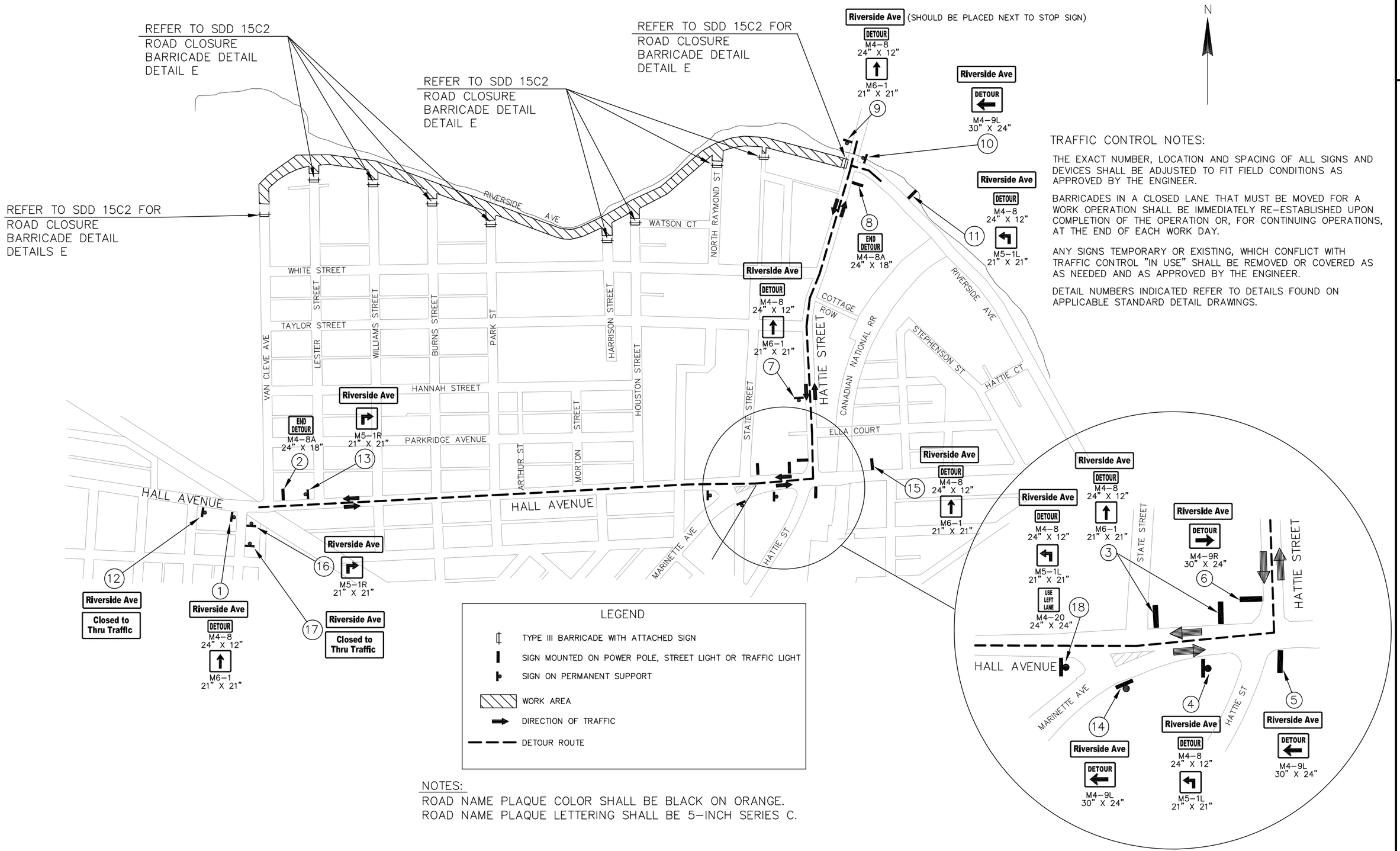
13) ANY OLD WATERMAIN PIPES THAT ARE NOT REMOVED DURING CONSTRUCTION SHALL BE BULKHEADED AND LEFT IN PLACE. THE REMOVAL AND DISPOSAL OF WATERMAIN PIPES IN NEW UTILITY TRENCHES WILL BE INCIDENTAL TO OTHER PAY ITEMS.

14) WHILE PLACING CASTINGS AND MASONRY BUILD UP RINGS ON MANHOLES, THE CONTRACTOR SHALL TAKE CARE TO PREVENT ANY MORTAR FROM DROPPING INTO FLOWLINES OR PIPE INVERTS. IF ANY MORTAR FALLS INTO THE MANHOLE, IT SHALL BE CLEANED OUT IMMEDIATELY.



UTILITY TRENCH INSULATION
SANITARY AND WATERMAIN PIPES AND LATERALS

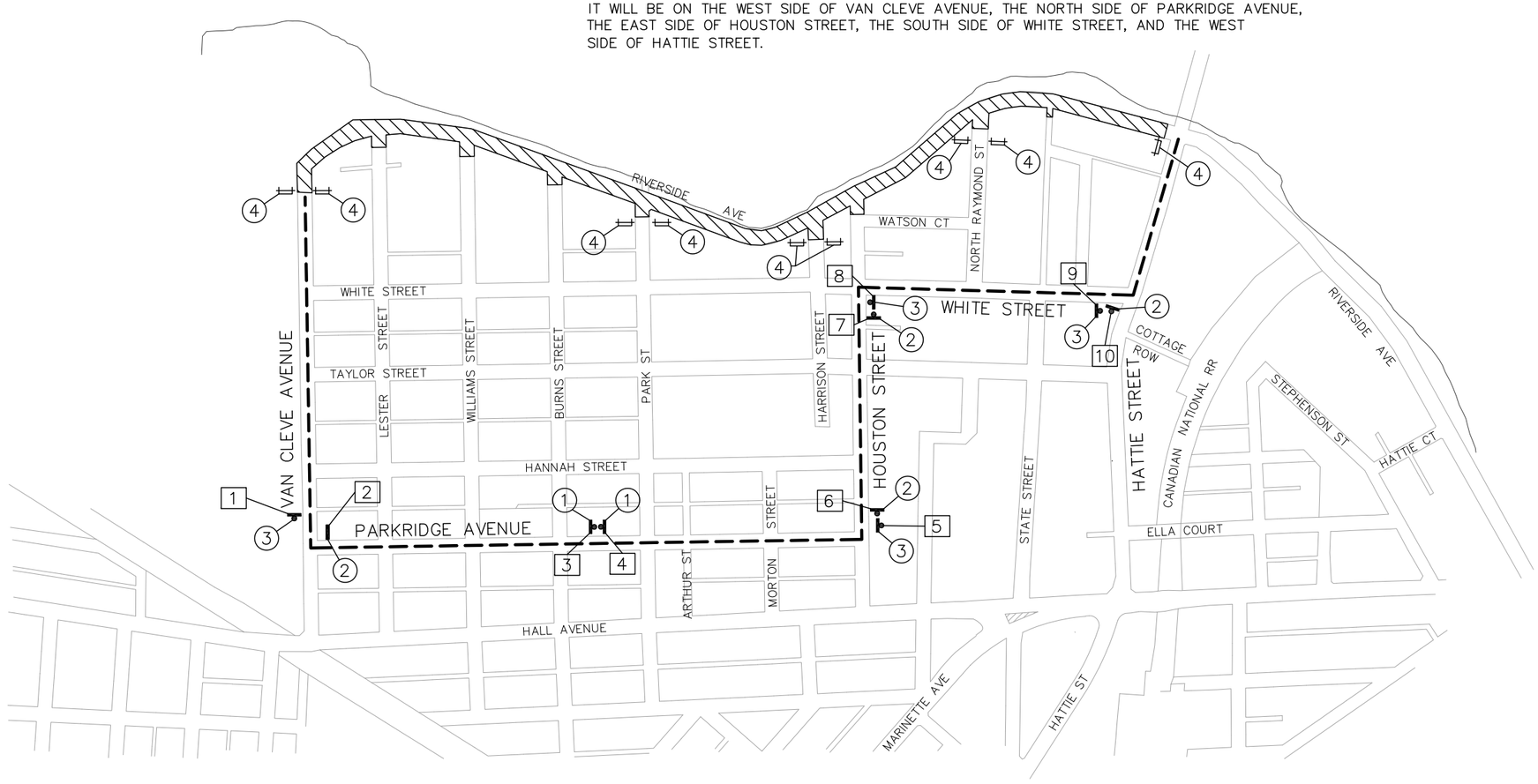
2



NOTES:
ROAD NAME PLAQUE COLOR SHALL BE BLACK ON ORANGE.
ROAD NAME PLAQUE LETTERING SHALL BE 5-INCH SERIES C.

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	DETOUR PLAN	SHEET 9	E

NOTE: THE PEDESTRIAN ROUTE IS DESIGNATED ON ONLY ONE SIDE OF EACH STREET. IT WILL BE ON THE WEST SIDE OF VAN CLEVE AVENUE, THE NORTH SIDE OF PARKRIDGE AVENUE, THE EAST SIDE OF HOUSTON STREET, THE SOUTH SIDE OF WHITE STREET, AND THE WEST SIDE OF HATTIE STREET.



LEGEND

- TYPE II BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN MOUNTED ON POWER POLE
- WORK AREA
- PEDESTRIAN DETOUR ROUTE
- [#] SIGN NUMBER

PEDESTRIAN DETOUR

(1) M6-1 21" X 21"

PEDESTRIAN DETOUR

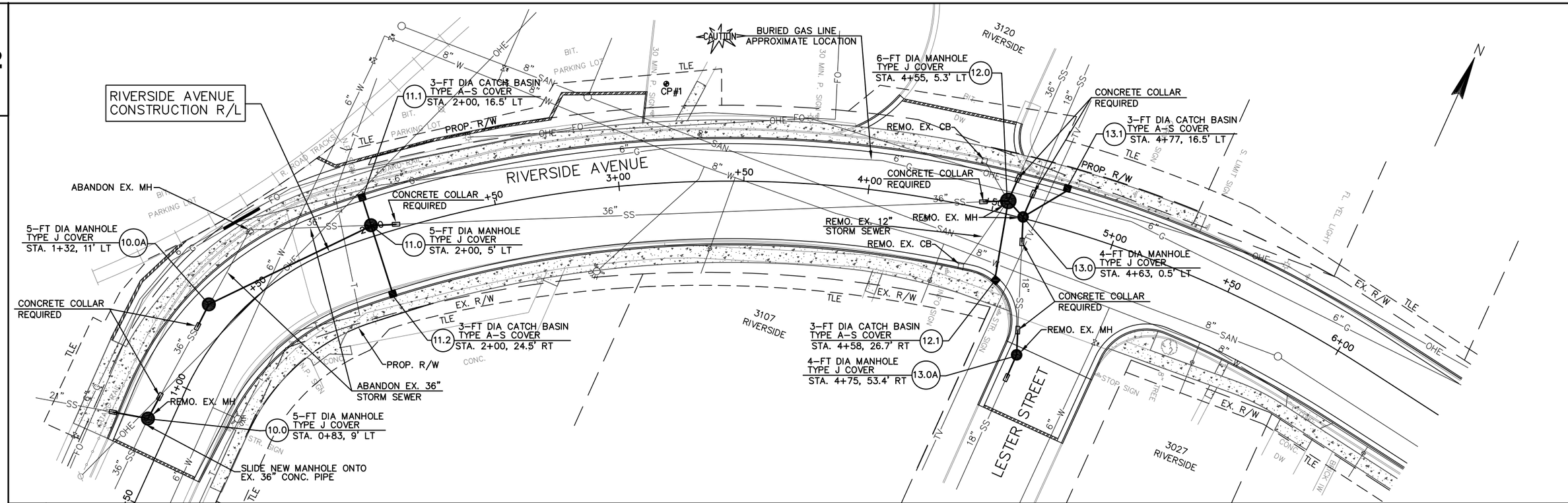
(2) M5-1R 21" X 21"

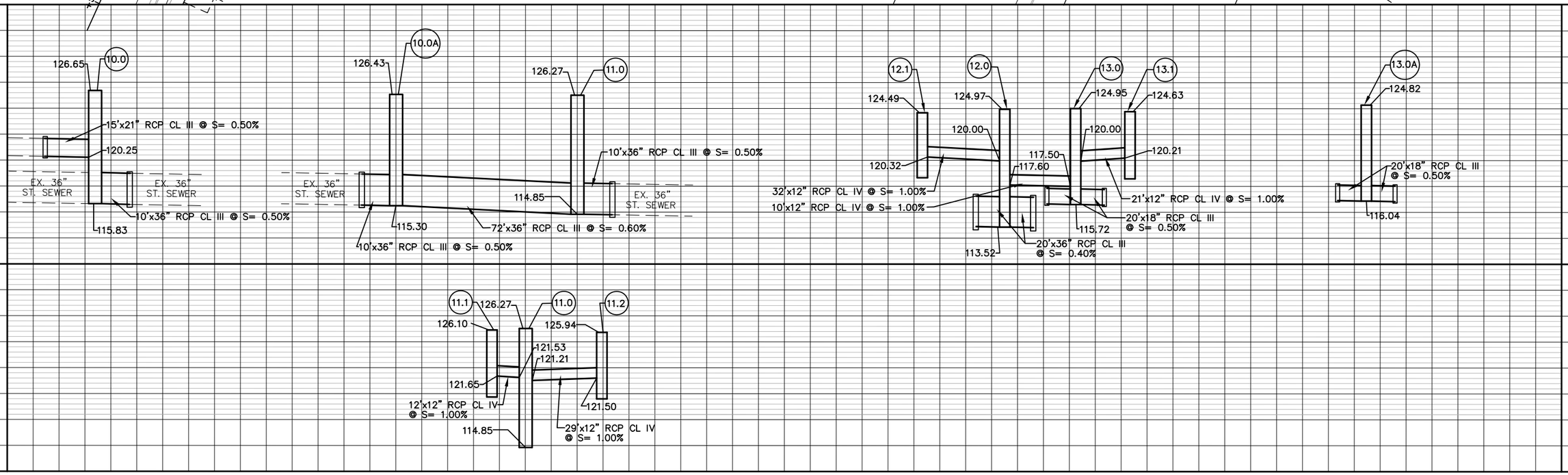
PEDESTRIAN DETOUR

(3) M5-1L 21" X 21"

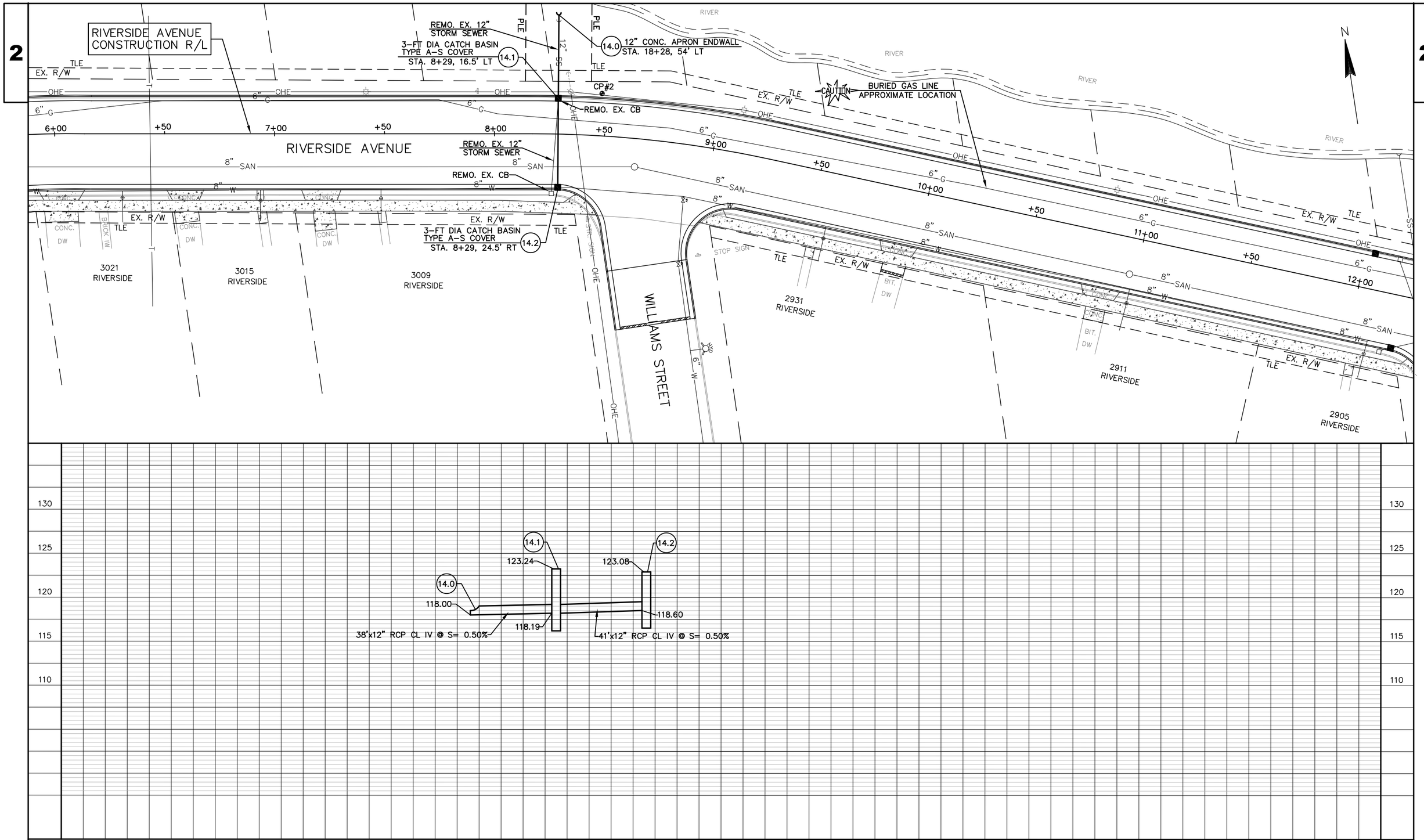
(4) SIDEWALK CLOSED R9-9 24" X 12"

PROJECT NO:9995-00-64	HWY:RIVERSIDE AVENUE	COUNTY:MARINETTE	PEDESTRIAN DETOUR PLAN	SHEET 10	E





PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	STORM SEWER: RIVERSIDE AVENUE	SHEET 11	E



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	STORM SEWER: RIVERSIDE AVENUE	SHEET 12	E

RIVERSIDE AVENUE CONSTRUCTION R/L

RIVERSIDE AVENUE

15.1 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 12+04, 16.5' LT

15.0 7-FT DIA MANHOLE TYPE J COVER STA. 12+29, 0.5' LT

17.1 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 13+00, 16.5' LT

18.1 15" CONC. APRON ENDWALL STA. 16+27, 59.5' LT

18.0 4-FT DIA MANHOLE TYPE J COVER STA. 16+48, 13' LT.

18.2 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 16+87, 16.5' LT.

16.0 7-FT DIA MANHOLE TYPE J COVER STA. 12+39, 25.5' RT

17.0 4-FT DIA MANHOLE TYPE J COVER STA. 13+00, ON C/L

19.2 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 16+87, 24.5' RT

16.1 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 12+20, 24.5' RT

17.2 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 13+00, 24.5' RT

19.1 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 16+27, 41.5' RT

19.3 EXISTING MANHOLE STA. 16+62, 49.5' RT

19.0 4-FT DIA MANHOLE TYPE J COVER STA. 16+56, 20.5' RT.

INVERT ELEV.=117.60

PLACE 63 L.F. OF 4" SDR 40 PVC W/CAPPED ENDS STATION 14+21

INVERT ELEV.=117.60

REMO. EX. 12" STORM SEWER

REMO. EX. CB

REMO. EX. MH

BURIED GAS LINE APPROXIMATE LOCATION

CONC. COLLAR REQ'D.

CP#3

CP#4

(4) 9" TREES

2905 RIVERSIDE

2829 RIVERSIDE

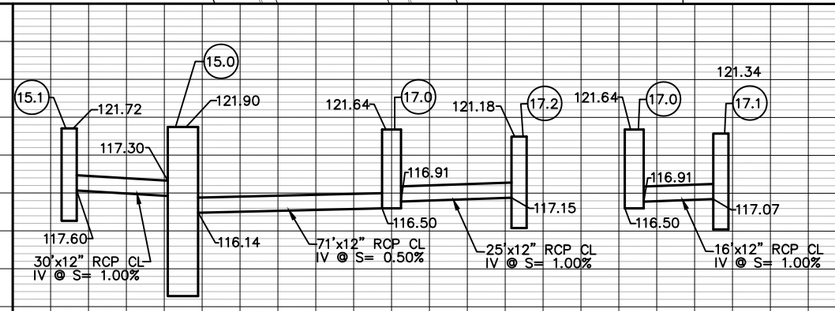
2815 RIVERSIDE

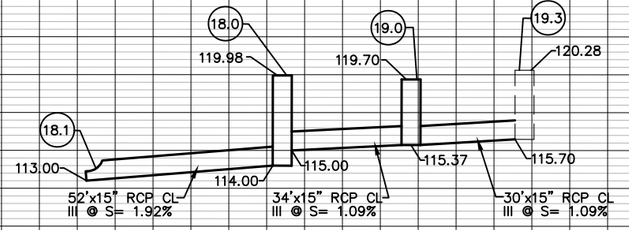
2803 RIVERSIDE

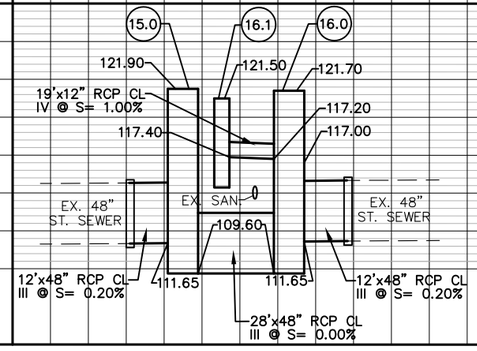
2739 RIVERSIDE

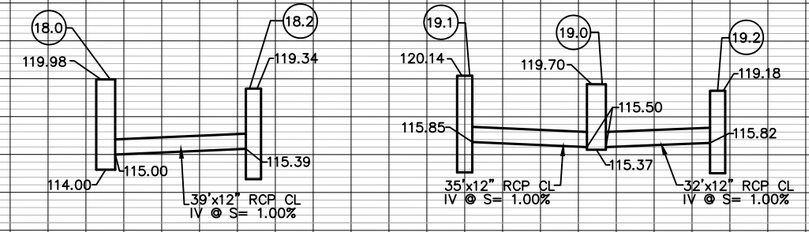
BURNS STREET

PARK STREET

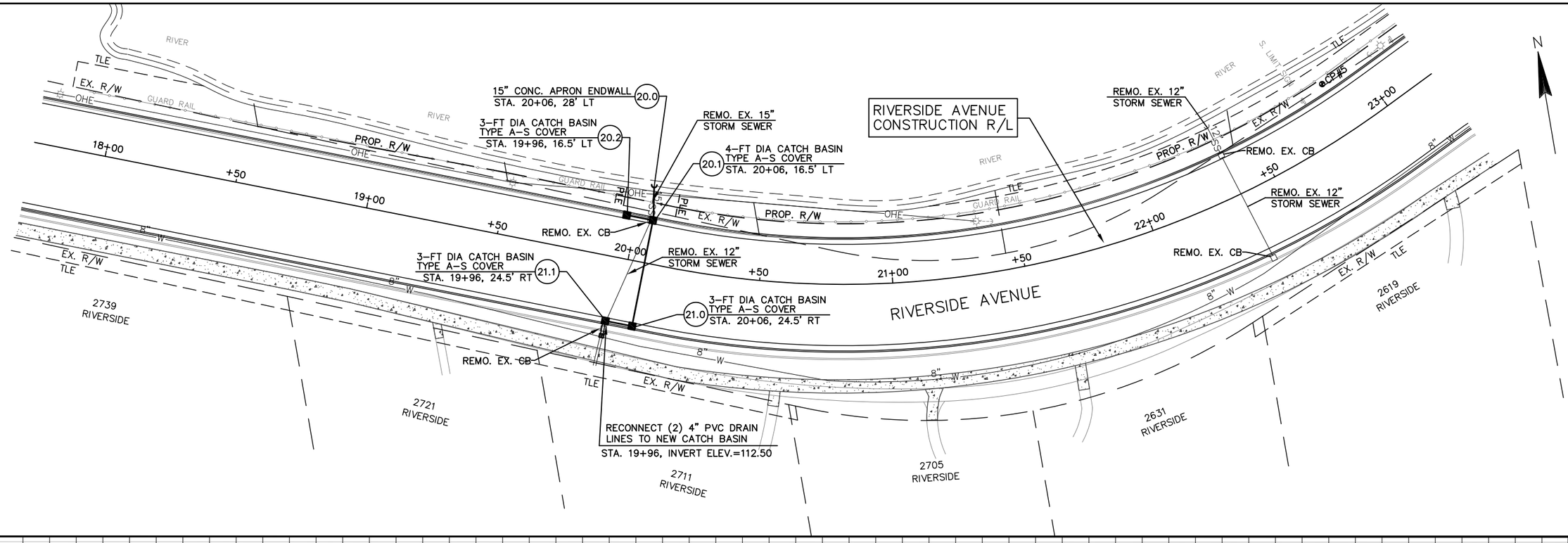


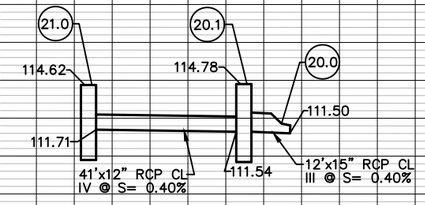


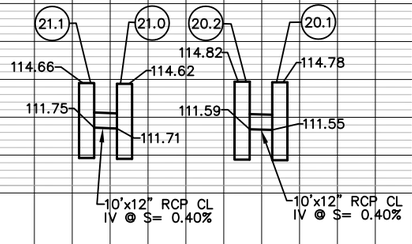




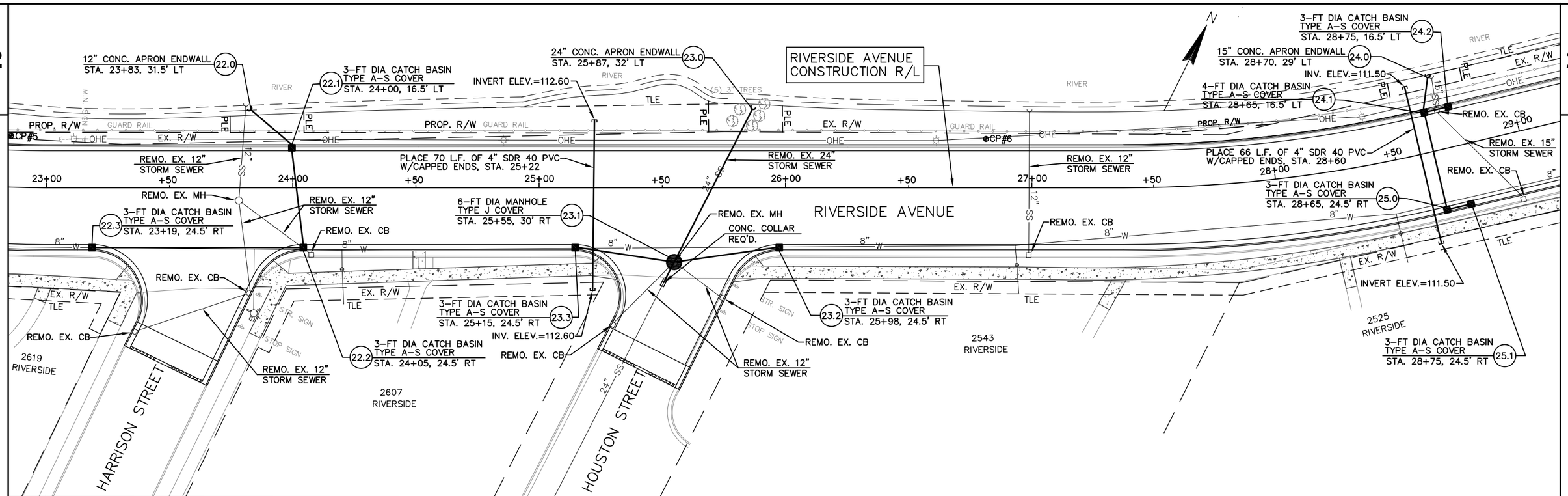
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	STORM SEWER: RIVERSIDE AVENUE	SHEET 13	E

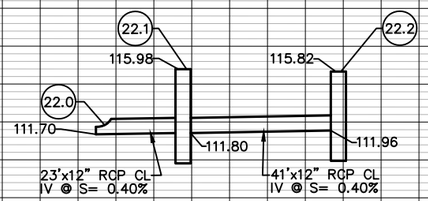


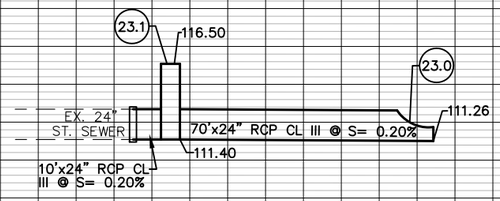


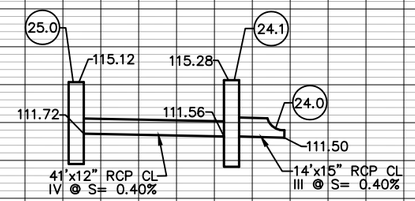


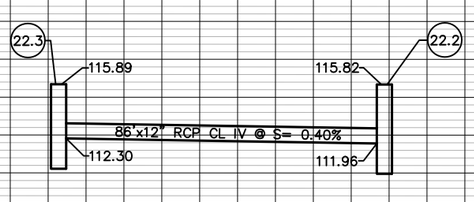
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	STORM SEWER: RIVERSIDE AVENUE	SHEET 14	E

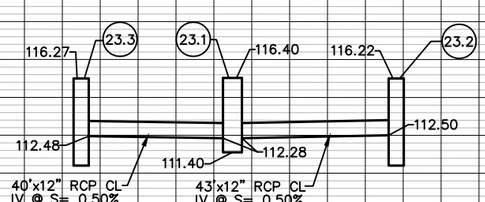


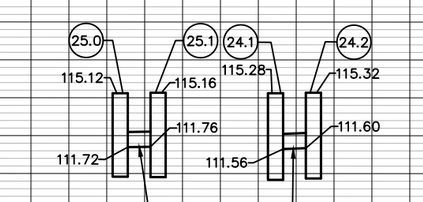












PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	STORM SEWER: RIVERSIDE AVENUE	SHEET 15	E

2

RIVERSIDE AVENUE CONSTRUCTION R/L

RIVERSIDE AVENUE

N. RAYMOND STREET

REMO. EX. 8" STORM SEWER

REMO. EX. CB

REMO. EX. 18" STORM SEWER

REMO. EX. 12" STORM SEWER

4-FT DIA MANHOLE TYPE J COVER STA. 31+90, 12' LT (27.0)

4-FT DIA MANHOLE TYPE J COVER STA. 33+54, 12.5' LT (28.0)

3-FT DIA CATCH BASIN TYPE A-S COVER STA. 31+38, 58' RT (26.1)

BULKHEAD 18" PIPE STA. 31+37, 58' RT (26.2)

4-FT DIA MANHOLE TYPE J COVER STA. 31+49, 60' RT (26.0)

3-FT DIA CATCH BASIN TYPE A-S COVER STA. 32+00, 40.2' RT (27.1)

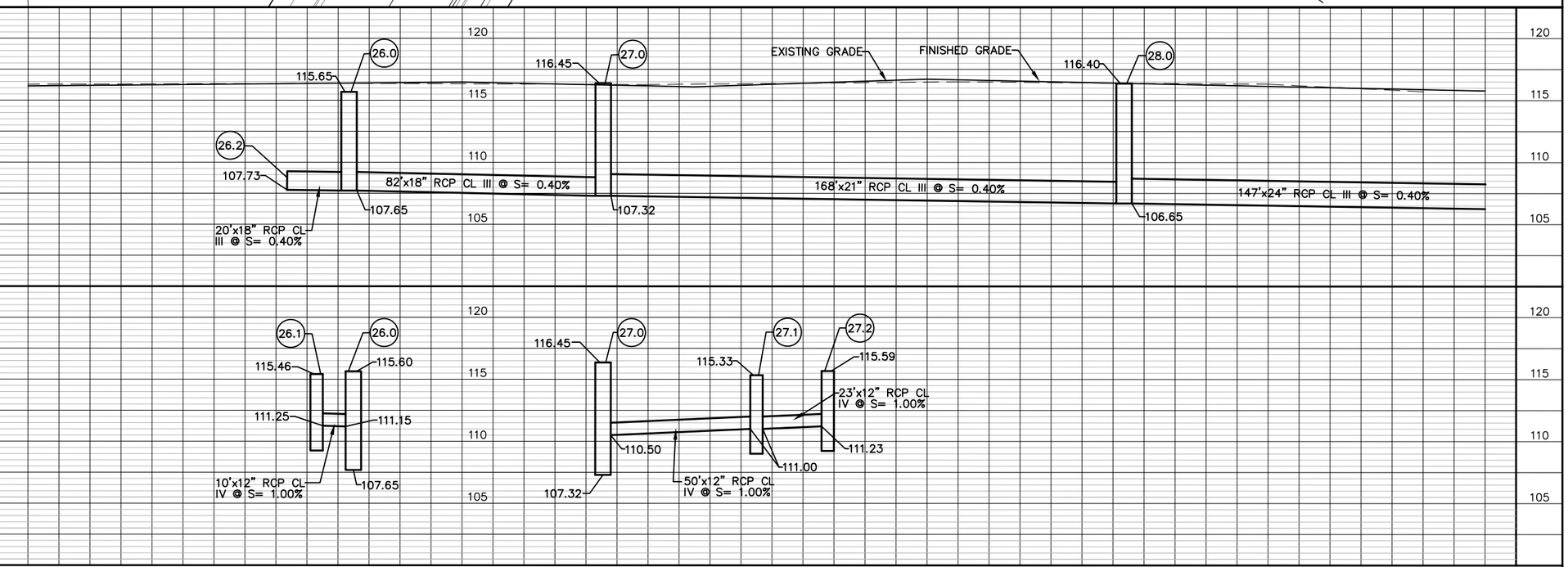
3-FT DIA CATCH BASIN TYPE A-S COVER STA. 32+23, 24.5' RT (27.2)

CAUTION BURIED GAS LINE APPROXIMATE LOCATION

2525 RIVERSIDE

2511 RIVERSIDE

2411 RIVERSIDE



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	STORM SEWER: RIVERSIDE AVENUE	SHEET 16 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\STORM SEWER\STORM SEWER 6.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 2:44 PM
PLOT BY : MATT RASTALL
PLOT NAME :
PLOT SCALE : #######
WISDOT/CADDS SHEET 44

2

RIVERSIDE AVENUE CONSTRUCTION R/L

RIVERSIDE AVENUE

HATTIE STREET

STATE ST.

(4) 24" TREES

INV. ELEV.=111.50

BULKHEAD 8" STORM SEWER

REMO. EX. 12" STORM SEWER

REMO. EX. 8" STORM SEWER

REMO. EX. MH

REMO. EX. CB

29.0 5-FT DIA MANHOLE TYPE J COVER STA. 35+01, 11' LT

CP#8

CP#9

24" CONC. APRON ENDWALL 31.1 STA. 38+49, 51' LT

3-FT DIA CATCH BASIN TYPE A-S COVER 31.2 STA. 38+38, 16.5' LT

31.3 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 38+54, 16.5' LT

31.0 5-FT DIA MANHOLE TYPE J COVER STA. 38+46, 12' LT

PLACE 72 L.F. OF 4" SDR 40 PVC W/CAPPED ENDS, STA. 35+11

CONC. COLLAR REQ'D.

INV. ELEV.=111.50

30.0 4-FT DIA MANHOLE TYPE J COVER STA. 35+07, 27.5' RT

30.1 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 34+69, 24.5' LT

31.4 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 38+35, 24.5' RT

31.5 3-FT DIA CATCH BASIN TYPE A-S COVER STA. 38+50, 24.5' RT

CAUTION BURIED GAS LINE APPROXIMATE LOCATION

2411 RIVERSIDE

2351 RIVERSIDE

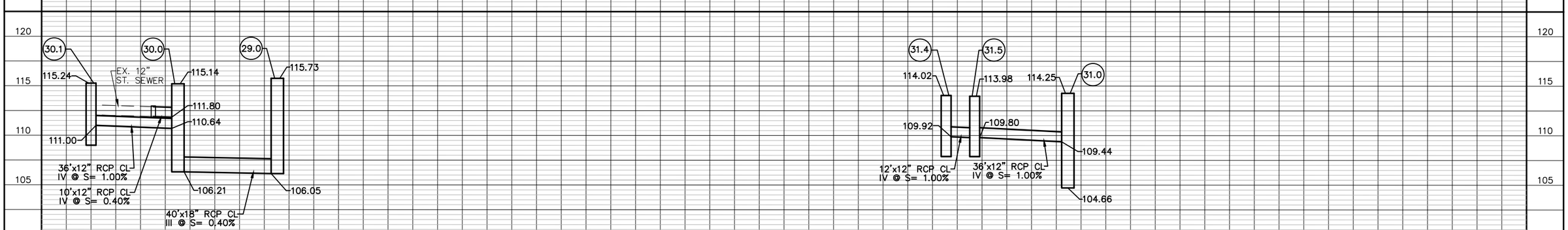
2335 RIVERSIDE

2325 RIVERSIDE

2315 RIVERSIDE

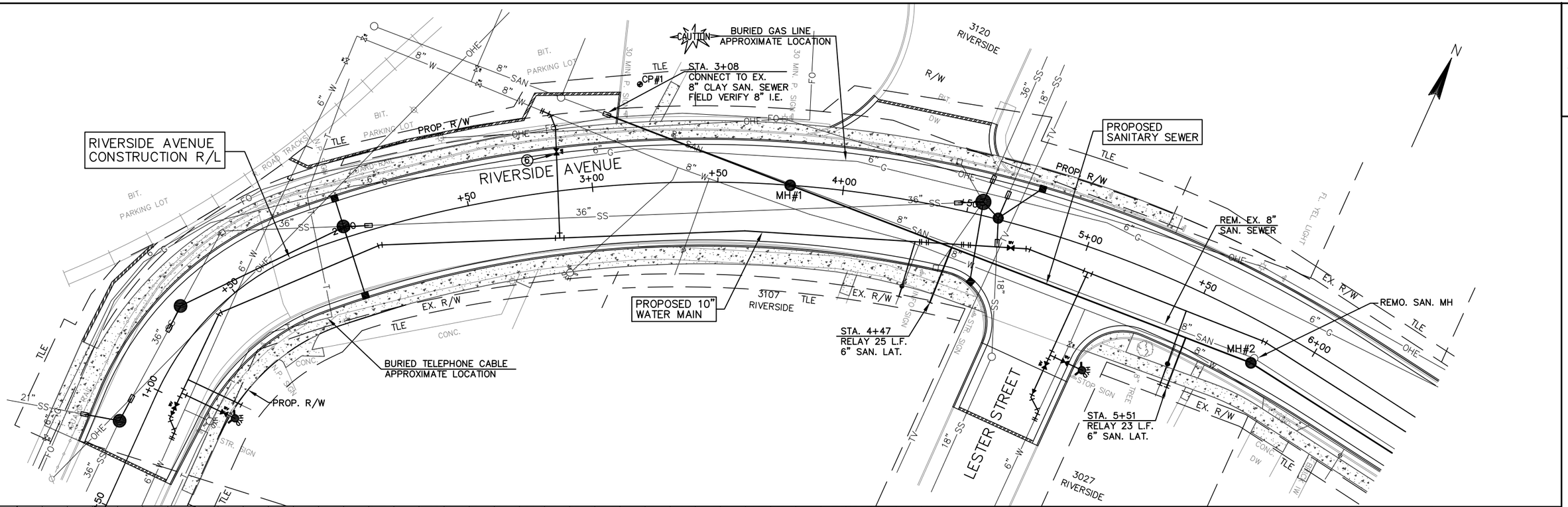
2311 RIVERSIDE

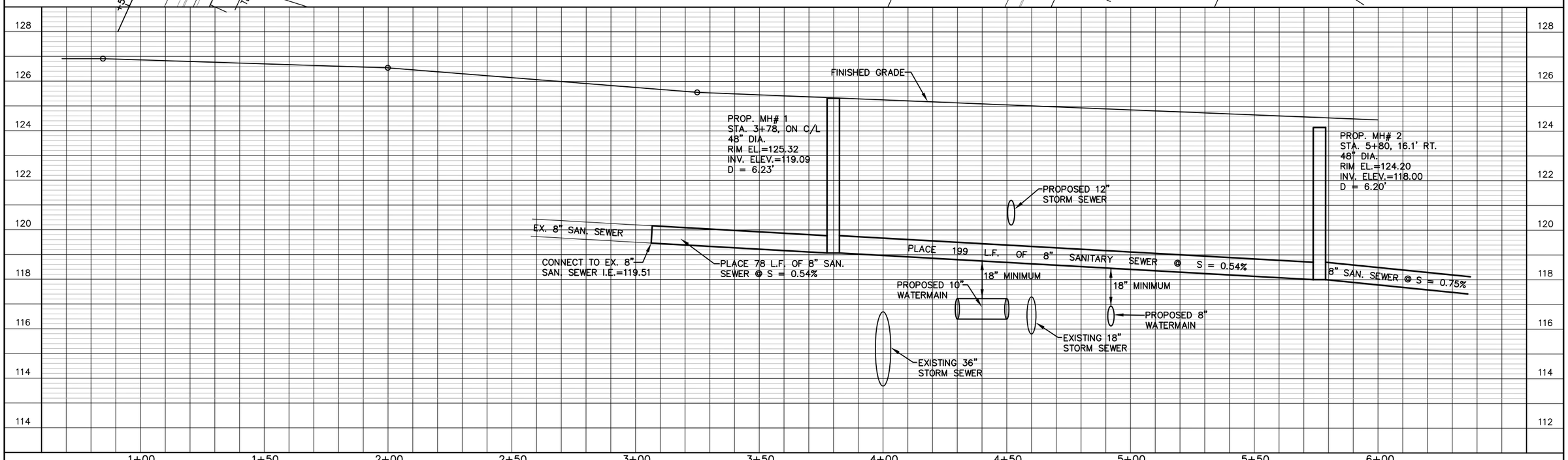
2307 RIVERSIDE



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	STORM SEWER: RIVERSIDE AVENUE	SHEET 17	E

2





PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	SANITARY SEWER: RIVERSIDE AVENUE	SHEET 18	E

RIVERSIDE AVENUE CONSTRUCTION R/L

PROPOSED 10" WATER MAIN

REM. EX. 8" SAN. SEWER

RIVERSIDE AVENUE

CP#2

CAUTION BURIED GAS LINE APPROXIMATE LOCATION

REMO. SAN. MH

MH#3

MH#4

PROPOSED SANITARY SEWER

REMO. SAN. MH

WILLIAMS STREET

STA. 6+43
RELAY 21 L.F.
6" SAN. LAT.

STA. 6+91
RELAY 22 L.F.
6" SAN. LAT.

STA. 7+51
RELAY 22 L.F.
6" SAN. LAT.

STA. 9+58
RELAY 21 L.F.
6" SAN. LAT.

STA. 11+27
RELAY 21 L.F.
6" SAN. LAT.

3021 RIVERSIDE

3015 RIVERSIDE

3009 RIVERSIDE

2931 RIVERSIDE

2911 RIVERSIDE

2905 RIVERSIDE

FINISHED GRADE

PROP. MH# 3
STA. 8+64, 14' RT.
48" DIA.
RIM EL.=123.10
INV. ELEV.=115.77
D = 7.33'

PROP. MH# 4
STA. 11+23, 17.5' RT.
48" DIA.
RIM EL.=121.98
INV. ELEV.=115.00
D = 6.98'

PROPOSED 12" STORM SEWER

PROPOSED 8" WATERMAIN

6" MINIMUM

PLACE 284 L.F. OF 8" SANITARY SEWER @ S = 0.75%

PLACE 259 L.F. OF 8" SANITARY SEWER @ S = 0.30%

8" SAN. SEWER @ S = 0.30%

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	SANITARY SEWER: RIVERSIDE AVENUE	SHEET 19 E

2

RIVER

RIVER

RIVER

RIVER

(4) 9" TREES

RIVERSIDE AVENUE CONSTRUCTION R/L

PROPOSED STORM SEWER

PROPOSED SANITARY SEWER

S. LIMIT SIGN

48" SS

12" SS

CAUTION — BURIED GAS LINE APPROXIMATE LOCATION

STA. 16+33
CONNECT TO EX. 8" PVC SAN. SEWER W/PVC COLLAR
FIELD VERIFY 8" I.E.

PROPOSED 10" WATER MAIN

TLE
EX. R/W
OHE
6" G
CP#3
CP#4
GUARD RAIL

12+00 +50 13+00 +50 14+00 +50 15+00 +50 16+00 +50 17+00 +50 18+00

RIVERSIDE AVENUE

MH#5

8" SAN
8" W

REMO. SAN. MH

REM. EX. 8" SAN. SEWER

STA. 12+12
RELAY 21 L.F.
6" SAN. LAT.

STA. 13+31
RELAY 21 L.F.
6" SAN. LAT.

STA. 14+52
RELAY 20 L.F.
6" SAN. LAT.

STA. 15+79
RELAY 19 L.F.
6" SAN. LAT.

BRICK TW
CONC.
DW
STR. SIGN
STOP SIGN
BUSH
30" TREE
N. WATCH SIGN

BURNS STREET

PARK STREET

2905 RIVERSIDE

2829 RIVERSIDE

2815 RIVERSIDE

2803 RIVERSIDE

2739 RIVERSIDE

124
122
120
118
116
114
112
110

FINISHED GRADE

PROP. MH# 5
STA. 13+81, 17.5' RT.
48" DIA.
RIM EL.=121.49
INV. ELEV.=114.23
D = 7.26'

EX. SANITARY MANHOLE

PROPOSED 8" WATERMAIN
6" MINIMUM

PLACE 258 L.F. OF 8" SANITARY SEWER @ S = 0.30%

PLACE 253 L.F. OF 8" SANITARY SEWER @ S = 0.30%

PROPOSED 48" STORM SEWER

PROPOSED 15" STORM SEWER

PROPOSED 12" STORM SEWER

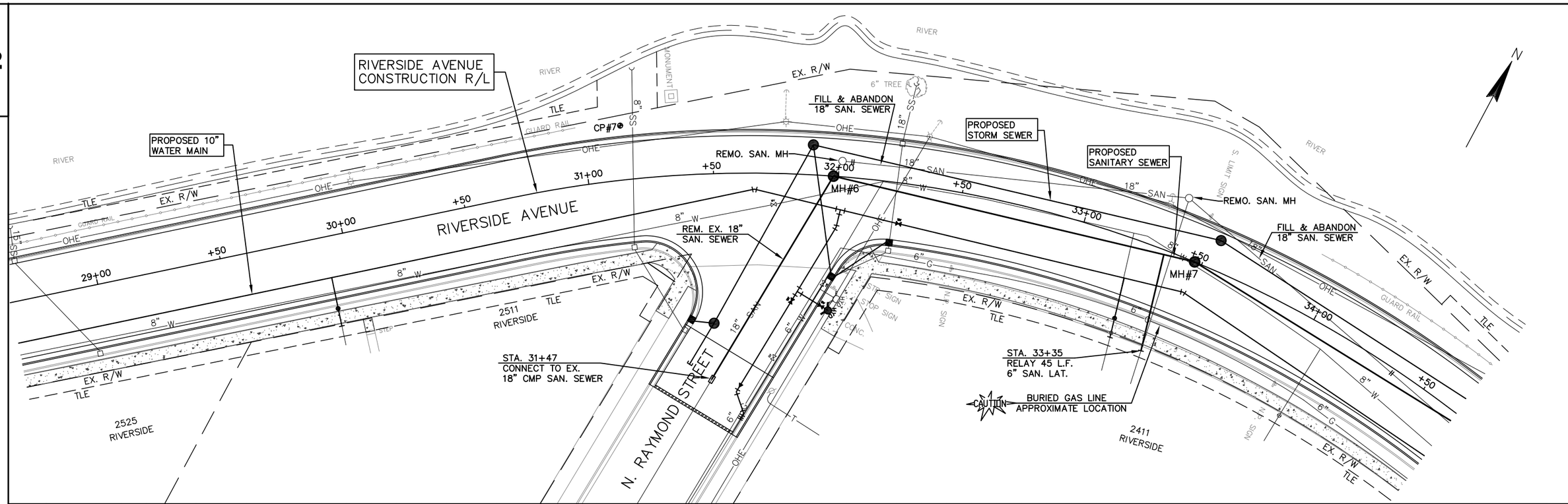
PROPOSED 8" WATERMAIN

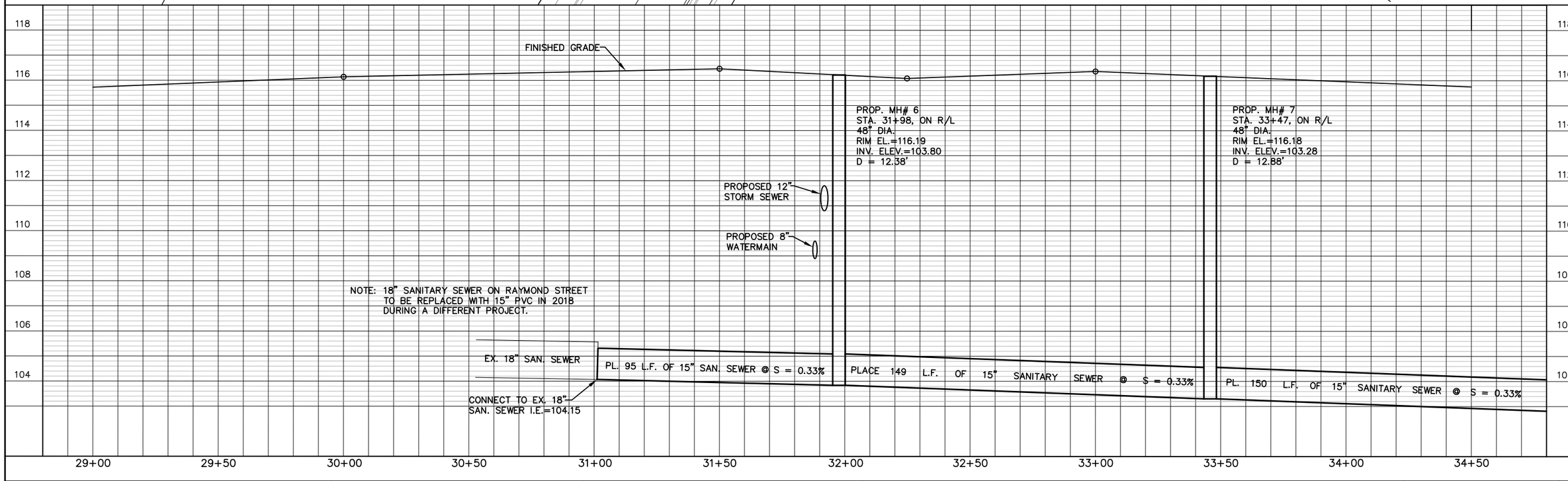
CONNECT TO EX. 8" SAN. SEWER I.E.=113.46

12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00 16+50 17+00 17+50 18+00

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	SANITARY SEWER: RIVERSIDE AVENUE	SHEET 20	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\SANITARY SEWER\SANITARY SEWER 3.DWG
LAYOUT NAME - ####
PLOT DATE : 7/26/2017 11:18 AM
PLOT BY : MATT RASTALL
PLOT NAME :
PLOT SCALE : #######
WISDOT/CADDS SHEET 44





PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	SANITARY SEWER: RIVERSIDE AVENUE	SHEET 21	E

2

(4) 24" TREES

RIVER

TLE

12" SS

8" SS

N.P. SIGN

EX. R/W

GUARD RAIL

CP#8

OHE

PROPOSED SANITARY SEWER

PROPOSED STORM SEWER

RIVERSIDE AVENUE CONSTRUCTION R/L

PROPOSED 10" WATER MAIN

PLE

20" TREE

60" TREE

8" SS

CP#9

STA. 39+89
CONNECT TO EX. 15" PVC SAN. SEWER W/PVC COLLAR FIELD VERIFY 15" I.E.

HATTIE STREET

RIVERSIDE AVENUE

MH#8

MH#9

35+00

36+00

37+00

38+00

39+00

40+00

+50

18" SAN

8" W

REMO. SAN. MH

FILL & ABANDON 18" SAN. SEWER

REM. EX. 18" SAN. SEWER

15" SAN

30" SAN

10" W

FO

6" C

CONC. DW

BIT. DW

STOP SIGN

FL. STOP SIGN

STATE ST.

STA. 35+01
CONNECT TO EX. 8" PVC SAN. SEWER W/PVC COLLAR I.E=104.15
FIELD VERIFY 8" I.E.

PLACE 20 L.F. OF 8" SAN. SEWER @ S = 0.33%

STA. 36+69
RELAY 42 L.F.
6" SAN. LAT.

STA. 37+28
RELAY 42 L.F.
6" SAN. LAT.

CAUTION
BURIED GAS LINE
APPROXIMATE LOCATION

STA. 38+54
RELAY 39 L.F.
6" SAN. LAT.

STA. 39+04
RELAY 37 L.F.
6" SAN. LAT.

BURIED FIBER OPTIC CABLE
APPROXIMATE LOCATION

2411 RIVERSIDE

2351 RIVERSIDE

2335 RIVERSIDE

2325 RIVERSIDE

2315 RIVERSIDE

2311 RIVERSIDE

2307 RIVERSIDE

FINISHED GRADE

PROP. MH #8
STA. 34+97, ON R/L
48" DIA.
RIM EL.=115.58
INV. ELEV.=102.78
8" INV. EL. S.=103.48
D = 12.80'

PROP. MH# 9
STA. 37+74, ON R/L
48" DIA.
RIM EL.=114.83
INV. ELEV.=101.85
D = 12.98'

PROPOSED 10" WATERMAIN

PROPOSED 18" STORM SEWER

PROPOSED 12" STORM SEWER

15" SAN. SEWER @ S = 0.33%

PLACE 278 L.F. OF 15" SANITARY SEWER @ S = 0.33%

PLACE 216 L.F. OF 15" SANITARY SEWER @ S = 0.33%

EX. 15" SAN. SEWER

CONNECT TO EX. 15" SAN. SEWER I.E.=101.13

116 114 112 110 108 106 104 102 100

34+50 35+00 35+50 36+00 36+50 37+00 37+50 38+00 38+50 39+00 39+50 40+00 40+50

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	SANITARY SEWER: RIVERSIDE AVENUE	SHEET 22	E

2

CAP AND ABANDON EX. 6" WATERMAIN

RIVERSIDE AVENUE CONSTRUCTION R/L

BURIED TELEPHONE CABLE APPROXIMATE LOCATION

CAUTION BURIED GAS LINE APPROXIMATE LOCATION

RIVERSIDE AVENUE

PROP. R/W

EX. R/W

PROPOSED 10" WATER MAIN

PROPOSED SANITARY SEWER

REMOVE HYDRANT & ABANDON LEAD

REMOVE HYDRANT & ABANDON LEAD

STA. 1+13
PLACE 25 L.F.
2" WATER LAT.

STA. 4+29
PLACE 24 L.F.
1" WATER LAT.

STA. 5+50
PLACE 33 L.F.
1" WATER LAT.

PROP. HYDRANT #1
(1) 10" X 6" TEE
(1) 6" VALVE & BOX
24 L.F. OF 6" W.M.
HYD. 7'-0" BURY DEPTH
STA. 1+03, 32.5' RT.

PROP. HYDRANT #2
(1) 10" X 6" TEE
(1) 6" VALVE & BOX
14 L.F. OF 6" W.M.
HYD. 7'-6" BURY DEPTH
STA. 5+15, 47' RT.

LESTER STREET

3120 RIVERSIDE

3107 RIVERSIDE

3027 RIVERSIDE

① CONNECT TO EX. 6" W.M.
(1) 6" DUO SLEEVE, (1) 10" X 6" REDUCER
(2) 6" 45 DEG. BENDS, 15 L.F. OF 6" W.M.,
FIELD VERIFY EX. 6" W.M. I.E.
STA. 0+85, 13' RT.

② 10" VALVE & BOX
STA. 0+97, 9' RT.

③ 10" 45 DEG. BEND
STA. 1+40, 2' RT.

④ 10" 22.5 DEG. BEND
STA. 2+12, 7' RT.

⑤ 10" X 8" TEE
STA. 2+85, 18.5' RT.

⑥ 8" VALVE & BOX
STA. 2+87, 15.5' LT.

⑦ CONNECT TO EX. 8" W.M.
(1) 8" DUO SLEEVE, (1) 45 DEG. BEND
(1) 8" 22.5 DEG. BEND, 55 L.F. OF 8" W.M.,
FIELD VERIFY EX. 8" W.M. I.E.
STA. 2+84, 32.5' LT.

⑧ 10" VALVE & BOX
STA. 4+71, 9.5' RT.

⑨ 10" 22.5 DEG. BEND
STA. 4+78, 8' RT.

⑩ 10" X 8" TEE
STA. 5+04, 10' RT.
(TIP TEE DOWN)

⑪ 8" VALVE & BOX
STA. 5+00, 50.5' RT.

⑫ CONNECT TO EX. 6" W.M.
(1) 6" DUO SLEEVE, (1) 8" X 6" REDUCER
(2) 6" 45 DEG. BENDS, 15 L.F. OF 6" W.M.,
55 L.F OF 8" W.M., FIELD VERIFY EX. 6" W.M. I.E.
STA. 5+03, 72' RT.

⑬ 10" 11.25 DEG. BEND
STA. 5+80, 6' RT.

⑭ (4) 10" 45 DEG. BENDS
STA. 4+42, 14.5' RT.

⑮ (3) 8" 45 DEG. BENDS
STA. 5+03, 20' RT.

PLACE 505 L.F. OF 10" D.I.P. CLASS 52 WATERMAIN W/POLYWRAP

FINISHED GRADE

6.5' OF COVER (MINIMUM)

EX. 6" W.M.

PROPOSED 10" WATERMAIN

PROPOSED 12" STORM SEWER

PROPOSED 8" SAN. SEWER

18" MINIMUM

6" MINIMUM

EXISTING 18" STORM SEWER

PROPOSED 8" WATERMAIN

STA. 1+04 10"X6" WM TEE I.E.=119.4
10" WM I.E.=119.2
10" WM I.E.=119.0
10" WM I.E.=118.6
STA. 2+63 10"X8" WM TEE I.E.=118.3
10" WM I.E.=118.0
10" WM I.E.=117.7
STA. 4+30 10" WM I.E.=117.6
STA. 4+40 10" WM I.E.=116.4
STA. 4+50 10" WM I.E.=117.7
STA. 4+60 10" WM I.E.=117.7
STA. 5+02 10"X8" WM TEE I.E.=117.4
10" WM I.E.=117.2
10" WM I.E.=117.0

128 126 124 122 120 118 116 114 112

1+00 1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00 5+50 6+00

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	WATERMAIN: RIVERSIDE AVENUE	SHEET 23 E

RIVERSIDE AVENUE CONSTRUCTION R/L

PROPOSED 10" WATER MAIN

RIVERSIDE AVENUE

2 HR. P. SIGN

12" SS

CP#2

CAUTION BURIED GAS LINE APPROXIMATE LOCATION

RIVER

N

STA. 6+31
PLACE 31 L.F.
1" WATER LAT.

STA. 6+93
PLACE 31 L.F.
1" WATER LAT.

STA. 7+48
PLACE 31 L.F.
1" WATER LAT.

STA. 9+56
PLACE 31 L.F.
1" WATER LAT.

STA. 10+97
PLACE 31 L.F.
1" WATER LAT.

STA. 12+08
PLACE 31 L.F.
1" WATER LAT.

① 10" VALVE & BOX
STA. 8+35, 6' RT.

② 10" 11.25 DEG. BEND
STA. 8+65, 4' RT.

③ 10" X 8" TEE
STA. 8+75, 5' RT.

④ 8" 22.5 DEG. BEND
STA. 8+74, 15' RT.

⑤ 8" VALVE & BOX
STA. 8+80, 34' RT.

⑥ CONNECT TO EX. 6" W.M.
(1) 6" DUO SLEEVE, (1) 8" X 6" REDUCER
(2) 6" 45 DEG. BENDS, 15 L.F. OF 6" W.M.,
60 L.F. OF 8" W.M., FIELD VERIFY EX. 6" W.M. I.E.
STA. 8+96, 69' RT.

3021 RIVERSIDE
3015 RIVERSIDE
3009 RIVERSIDE
2931 RIVERSIDE
2911 RIVERSIDE
2905 RIVERSIDE

WILLIAMS STREET

STOP SIGN

PROPOSED SANITARY SEWER

PLACE 600 L.F. OF 10" D.I.P. CLASS 52 WATERMAIN W/POLYWRAP

FINISHED GRADE

PROPOSED 12" STORM SEWER

PLACE INSULATION OVER PROPOSED WATERMAIN

6.5' OF COVER (MINIMUM)

6" MIN.

PROPOSED 8" SAN. SEWER

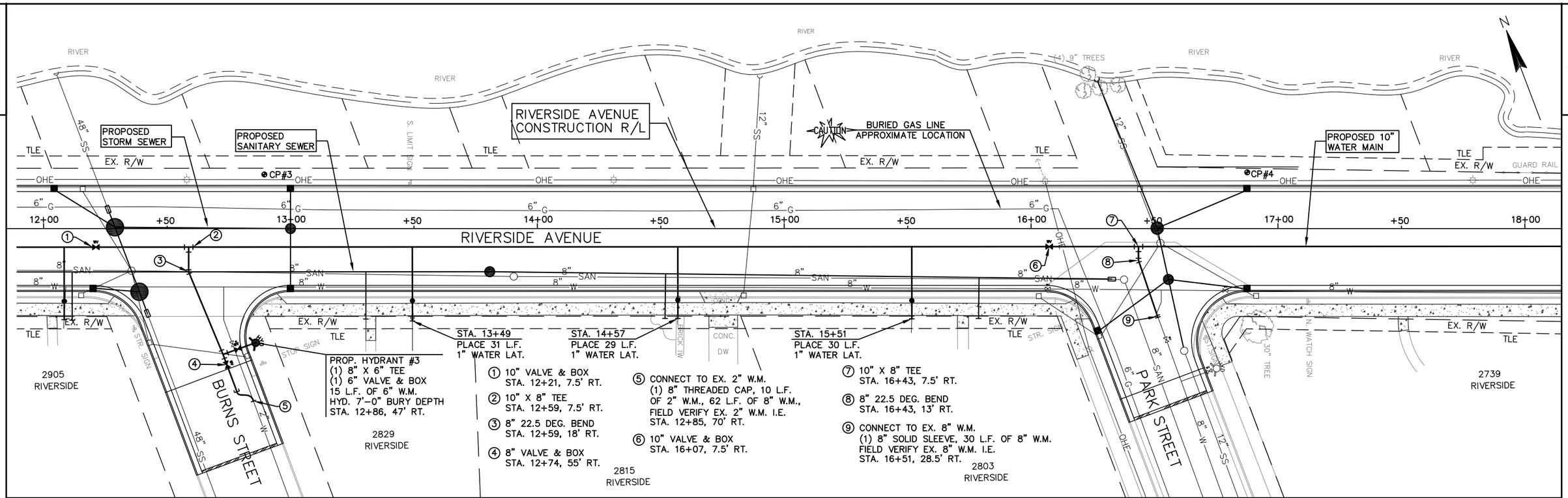
PROPOSED 10" WATERMAIN

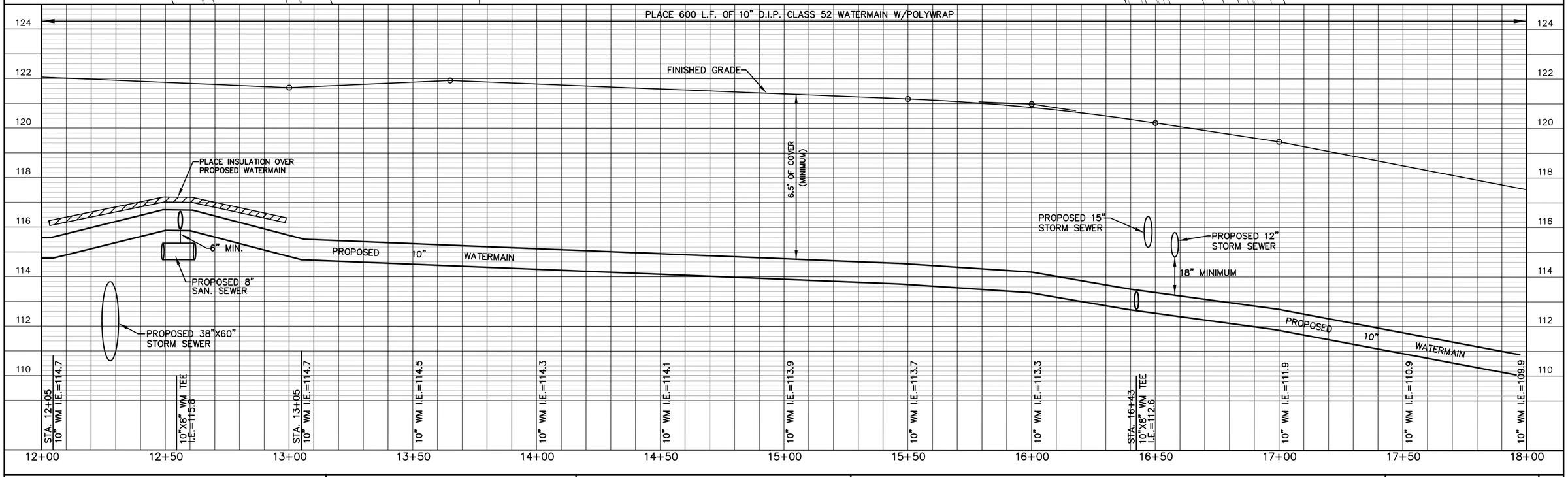
10" WM I.E.=117.0
10" WM I.E.=116.8
10" WM I.E.=116.5
10" WM I.E.=116.3
10" WM I.E.=116.1
STA. 8+22 10" WM I.E.=116.0
STA. 8+72 10"X8" WM TEE I.E.=117.0
STA. 9+20 10" WM I.E.=115.9
10" WM I.E.=115.6
10" WM I.E.=115.4
10" WM I.E.=115.2
10" WM I.E.=115.0
10" WM I.E.=114.8
10" WM I.E.=114.6

126 124 122 120 118 116 114 112

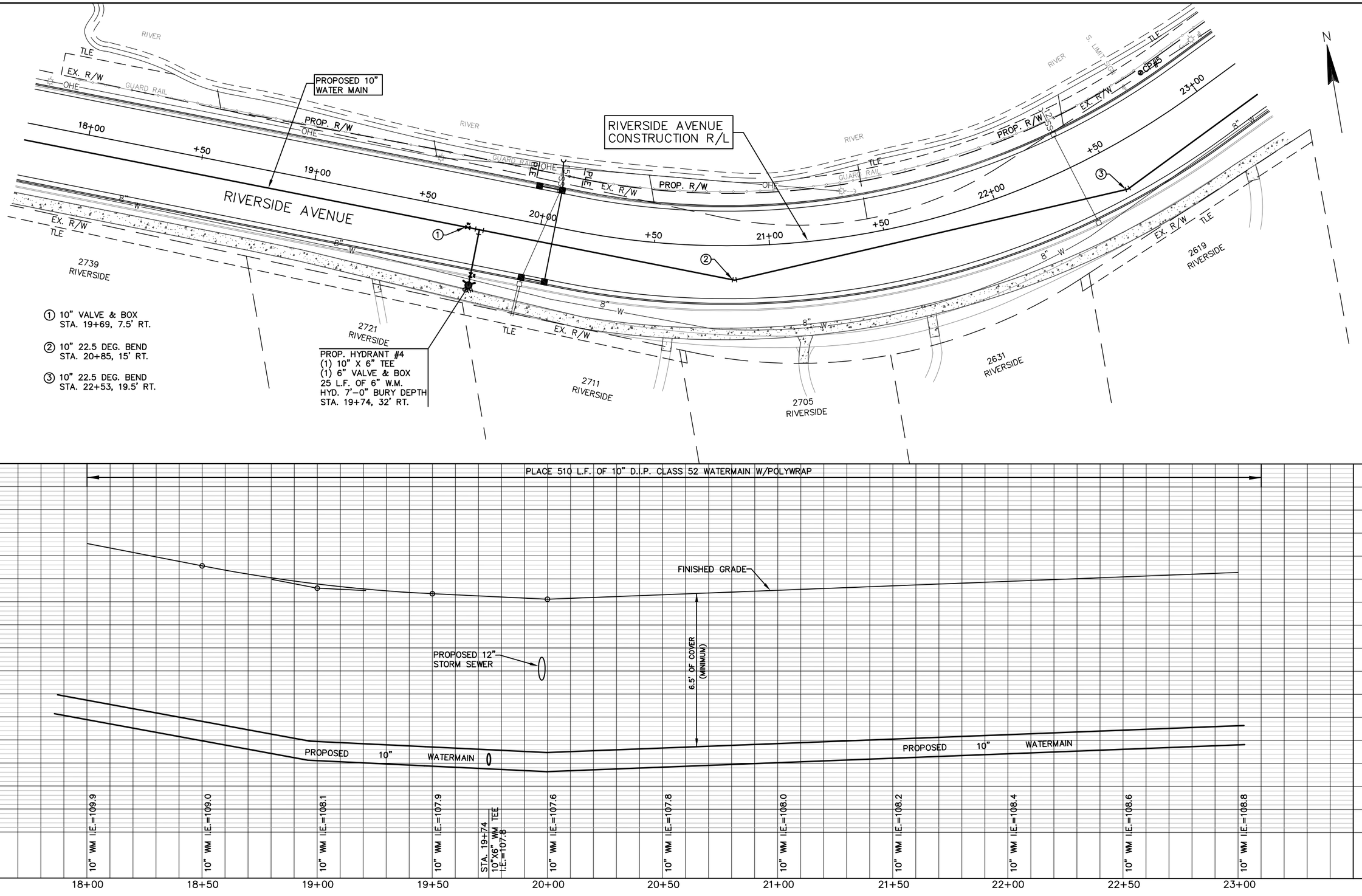
6+00 6+50 7+00 7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	WATERMAIN: RIVERSIDE AVENUE	SHEET 24 E





PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	WATERMAIN: RIVERSIDE AVENUE	SHEET 25	E



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	WATERMAIN: RIVERSIDE AVENUE	SHEET 26	E

PROPOSED 10" WATER MAIN

RIVERSIDE AVENUE CONSTRUCTION R/L

RIVERSIDE AVENUE

RIVER

(5) 3" TREES

PROP. R/W

EX. R/W

GUARD RAIL

OHE

TLE

CP#5

CP#6

12" SS

24" SS

23+00 +50 24+00 +50 25+00 +50 26+00 +50 27+00 +50 28+00 +50 29+00

8" W

REMOVE HYDRANT & ABANDON LEAD

STA. 24+20
PLACE 25 L.F.
1" WATER LAT.

STA. 25+81
PLACE 27 L.F.
1" WATER LAT.

STA. 26+94
PLACE 23 L.F.
1" WATER LAT.

STA. 28+46
PLACE 22 L.F.
1" WATER LAT.

STR. SIGN

STOP SIGN

2619 RIVERSIDE

2607 RIVERSIDE

2543 RIVERSIDE

2525 RIVERSIDE

HARRISON STREET

HOUSTON STREET

PROP. HYDRANT #5
(1) 10" X 6" TEE
(1) 6" VALVE & BOX
16 L.F. OF 6" W.M.
HYD. 7'-0" BURY DEPTH
STA. 24+11, 32.5' RT.

PROP. HYDRANT #6
(1) 10" X 6" TEE
(1) 6" VALVE & BOX
25 L.F. OF 6" W.M.
HYD. 7'-0" BURY DEPTH
STA. 27+80, 38.5' RT.

① 10" VALVE & BOX
STA. 24+06, 16.5' RT.

② 10" VALVE & BOX
STA. 27+75, 13.5' RT.

PLACE 600 L.F. OF 10" D.I.P. CLASS 52 WATERMAIN W/POLYWRAP

FINISHED GRADE

6.5' OF COVER (MINIMUM)

18" MINIMUM

PROPOSED 12" STORM SEWER

PROPOSED 24" STORM SEWER

PROPOSED 10" WATERMAIN

10" WM I.E.=108.8

10" WM I.E.=109.0

STA. 24+11
10"X6" WM TEE
I.E.=108.7

10" WM I.E.=109.0

10" WM I.E.=109.2

10" WM I.E.=109.0

10" WM I.E.=109.0

10" WM I.E.=109.0

10" WM I.E.=108.8

10" WM I.E.=108.6

STA. 27+80
10"X6" WM TEE
I.E.=108.4

10" WM I.E.=108.2

STA. 27+70
10" WM I.E.=108.1

10" WM I.E.=108.1

120 118 116 114 112 110 108 106

23+00 23+50 24+00 24+50 25+00 25+50 26+00 26+50 27+00 27+50 28+00 28+50 29+00

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	WATERMAIN: RIVERSIDE AVENUE	SHEET 27 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\WATERMAIN\WATERMAIN 5.DWG
LAYOUT NAME - ####

PLOT DATE : 7/6/2017 2:59 PM PLOT BY : MATT RASTALL PLOT NAME : PLOT SCALE : 1" = 1'

WISDOT/CADDS SHEET 44

RIVERSIDE AVENUE CONSTRUCTION R/L

PROPOSED 10" WATER MAIN

PROPOSED STORM SEWER

PROPOSED SANITARY SEWER

RIVERSIDE AVENUE

N. RAYMOND STREET

2525 RIVERSIDE

2511 RIVERSIDE

2411 RIVERSIDE

STA. 29+92
PLACE 21 L.F.
1" WATER LAT.

STA. 33+22
PLACE 26 L.F.
1" WATER LAT.

REMOVE HYDRANT & ABANDON LEAD

PROP. HYDRANT #7
(1) 10" X 6" TEE
(1) 6" VALVE & BOX
14 L.F. OF 6" W.M.
HYD. 7'-0" BURY DEPTH
STA. 32+00, 54' RT.

CAUTION — BURIED GAS LINE APPROXIMATE LOCATION

① 10" 22.5 DEG. BEND
STA. 31+66, 6.5' RT.

② CONNECT TO EX. 6" W.M.
(1) 6" DUO SLEEVE, (1) 8" X 6" REDUCER
(2) 6" 45 DEG. BENDS, 15 L.F. OF 6" W.M.,
83 L.F. OF 8" W.M., FIELD VERIFY EX. 6" W.M. I.E.
STA. 31+60, 98' RT.

③ 8" VALVE & BOX
STA. 31+83, 51' RT.

④ 8" 22.5 DEG. BEND
STA. 32+01, 20.5' RT.

⑤ 10" X 8" TEE
STA. 32+02, 13' RT.

⑥ 10" VALVE & BOX
STA. 32+26, 16' RT.

⑦ 10" 22.5 DEG. BEND
STA. 33+47, 13' RT.

⑧ (2) 10" 45 DEG. BENDS
STA. 31+89, 11' RT.

PLACE 550 L.F. OF 10" D.I.P. CLASS 52 WATERMAIN W/POLYWRAP

FINISHED GRADE

6.5' OF COVER (MINIMUM)

PLACE INSULATION OVER PROPOSED WATERMAIN

PROPOSED 12" STORM SEWER

18" MINIMUM

6" MINIMUM

PROPOSED 10" WATERMAIN

PROPOSED 18" SAN. SEWER

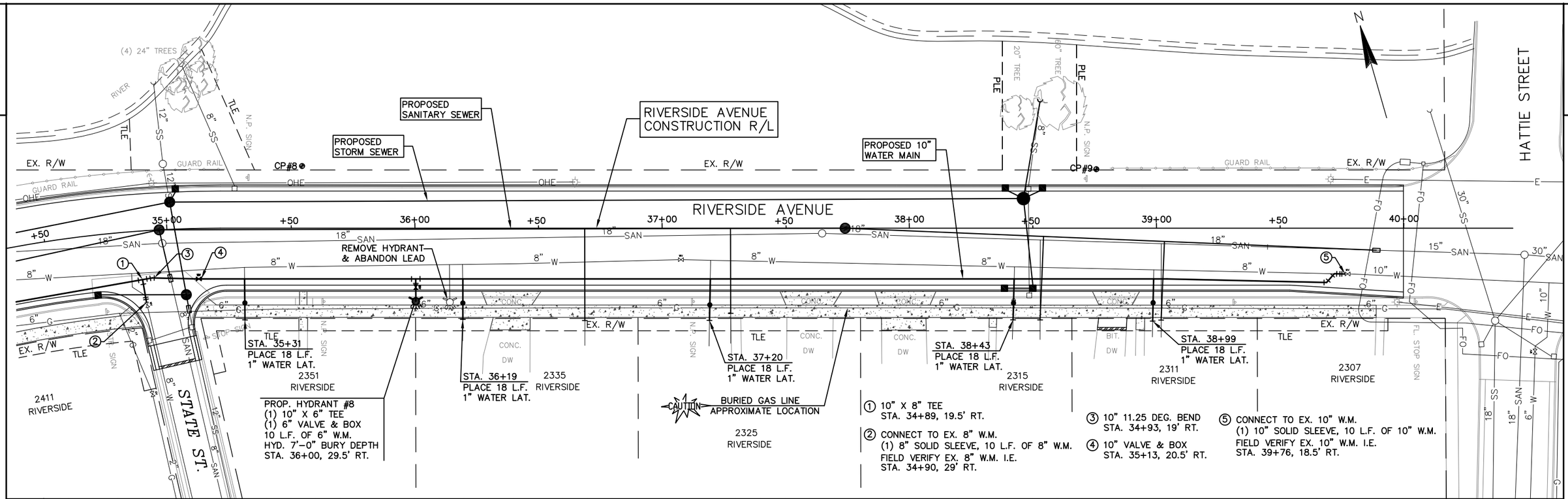
10" WM I.E.=108.1 | 10" WM I.E.=108.4 | 10" WM I.E.=108.6 | 10" WM I.E.=108.7 | 10" WM I.E.=108.8 | STA. 31+30 10" WM I.E.=108.9 | 10" WM I.E.=109.1 | STA. 31+76 10" WM I.E.=109.4 | STA. 31+90 10" WM I.E.=108.4 | STA. 32+02 10"X8" WM TEE I.E.=108.5 | 10" WM I.E.=108.6 | 10" WM I.E.=108.8 | 10" WM I.E.=108.6 | 10" WM I.E.=108.4 | 10" WM I.E.=108.2

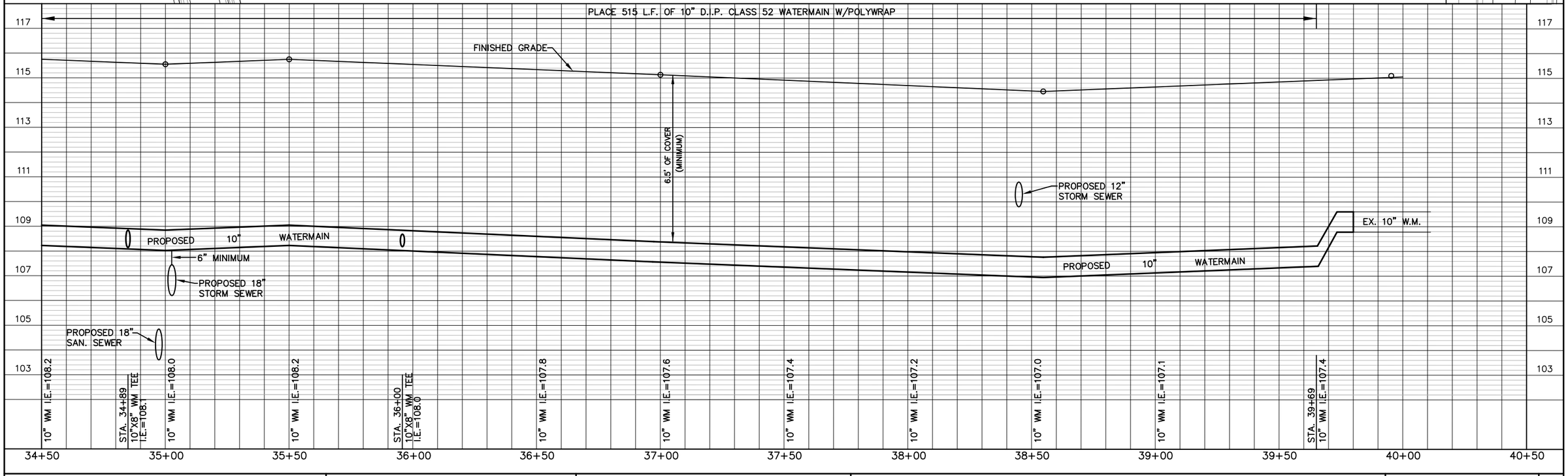
29+00 29+50 30+00 30+50 31+00 31+50 32+00 32+50 33+00 33+50 34+00 34+50

118 116 114 112 110 108 106 104

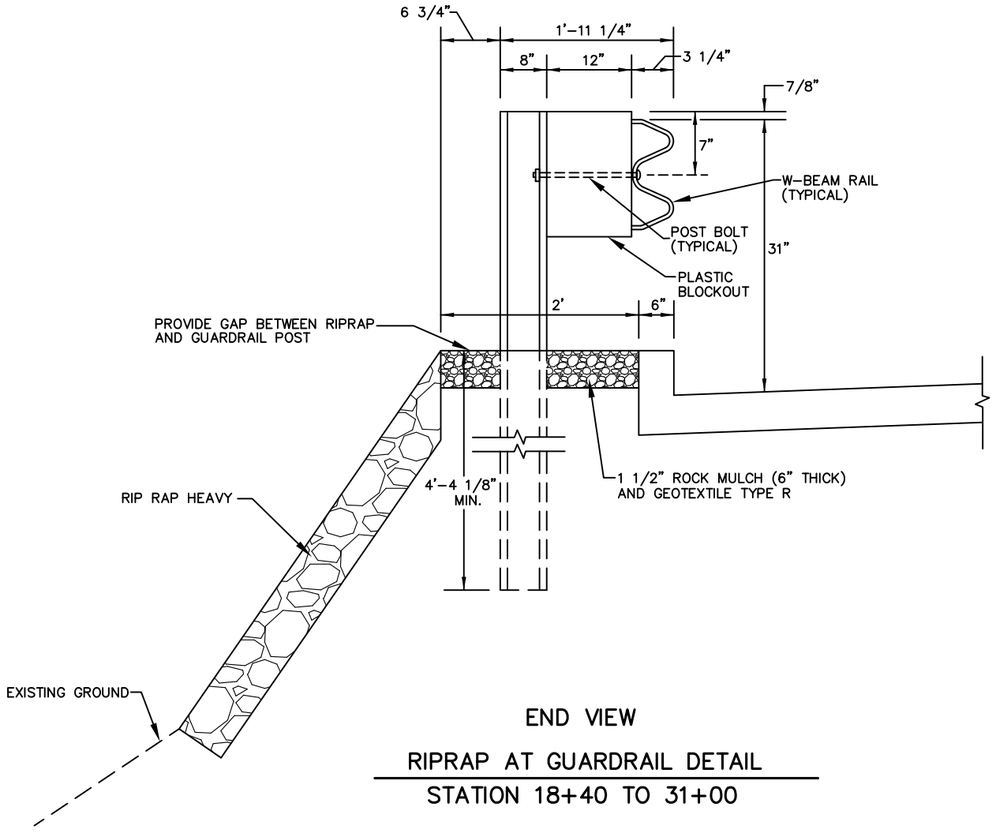
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	WATERMAIN: RIVERSIDE AVENUE	SHEET 28 E

2



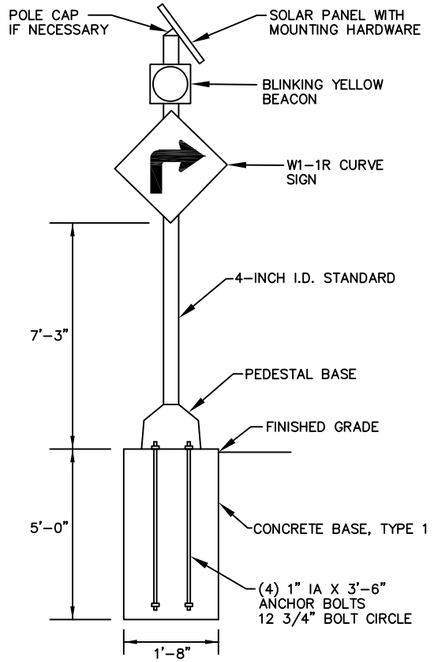


PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	WATERMAIN: RIVERSIDE AVENUE	SHEET 29	E



END VIEW

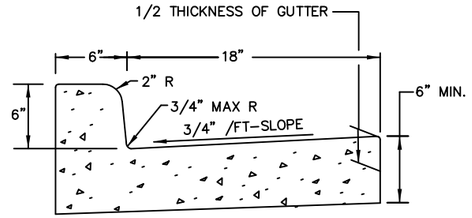
RIPRAP AT GUARDRAIL DETAIL
STATION 18+40 TO 31+00



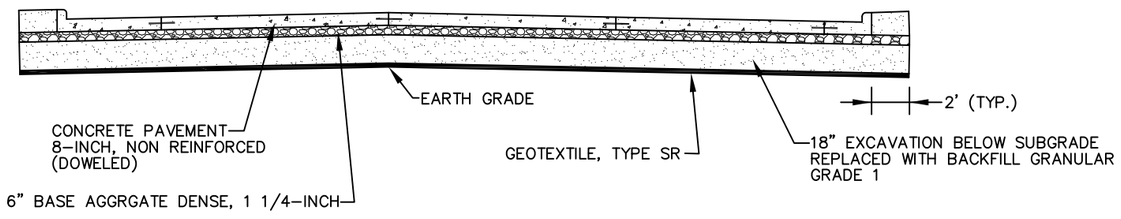
NOTES:

1. ANCHOR BOLTS SHALL BE THREADED 12" IN LENGTH ON EACH END. WASHERS AND LOCK WASHERS ARE REQUIRED. ANCHOR ROD SHALL PROJECT 3–INCHES FROM TOP OF CONCRETE BASE.
2. CONTROL/BATTERY CABINET SHALL BE LOCATED PER OWNERS PREFERENCE AND WISDOT SPECIFICATIONS.

SOLAR POWERED SINGLE BLINKER BEACON

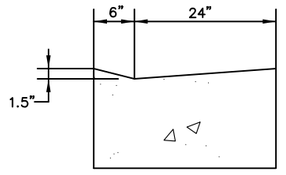


CONCRETE CURB AND GUTTER 24" TYPE D

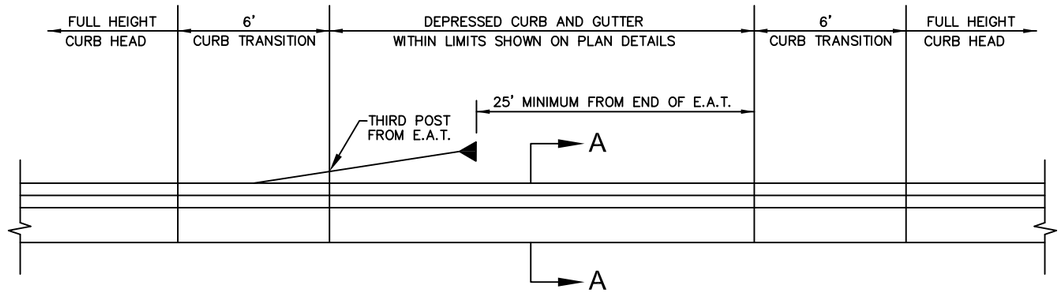


EXCAVATION BELOW SUBGRADE LOCATIONS ARE SHOWN ON PLAN AND PROFILE SHEETS.

EXCAVATION BELOW SUBGRADE DETAIL



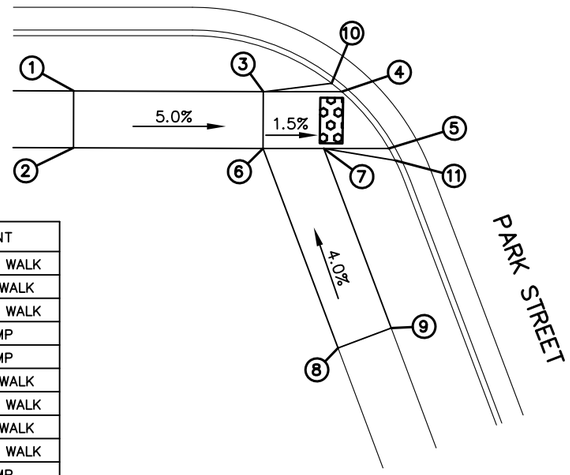
SECTION A–A
DEPRESSED CURB



DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL

PROJECT NO:9995–00–64	HWY:RIVERSIDE AVENUE	COUNTY:MARINETTE	CONSTRUCTION DETAILS	SHEET 30	E

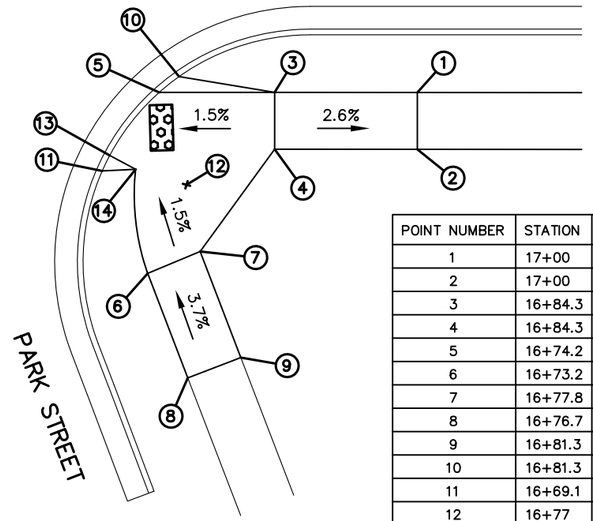
RIVERSIDE AVENUE



POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	15+92	30.34 RT	121.39	FRONT OF WALK
2	15+92	35.34 RT	121.47	BACK OF WALK
3	16+12	30.42 RT	120.39	FRONT OF WALK
4	16+19	35.42 RT	120.33	BEGIN RAMP
5	16+23	35.42 RT	120.24	BEGIN RAMP
6	16+12	35.42 RT	120.55	BACK OF WALK
7	16+17.3	35.42 RT	120.47	FRONT OF WALK
8	16+20.6	58.45 RT	121.55	BACK OF WALK
9	16+25.3	56.69 RT	120.47	FRONT OF WALK
10	16+18	29.69 RT	120.75	BEGIN RAMP
11	16+24.5	36.96 RT	120.63	BEGIN RAMP

CURB RAMP DETAIL
PARK STREET SW QUADRANT

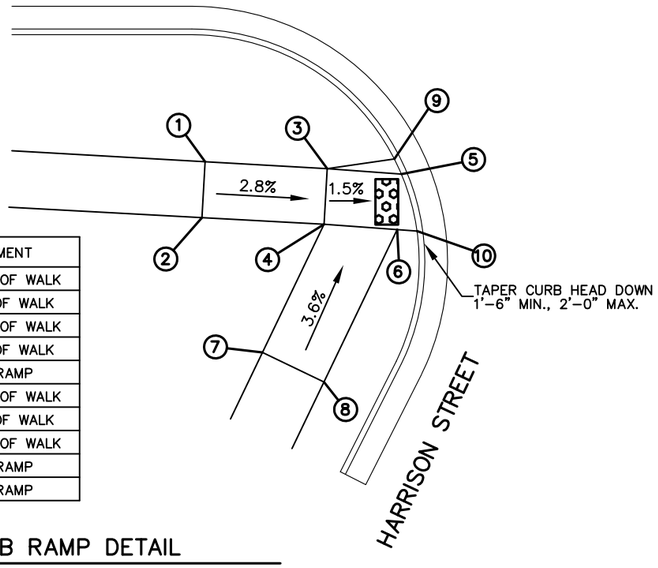
RIVERSIDE AVENUE



POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	17+00	30.54 RT	119.56	FRONT OF WALK
2	17+00	35.54 RT	119.64	BACK OF WALK
3	16+84.3	30.54 RT	119.95	FRONT OF WALK
4	16+84.3	35.54 RT	120.03	BACK OF WALK
5	16+74.2	30.57 RT	119.73	BEGIN RAMP
6	16+73.2	46.49 RT	120.10	FRONT OF WALK
7	16+77.8	44.56 RT	120.18	BACK OF WALK
8	16+76.7	55.69 RT	120.47	FRONT OF WALK
9	16+81.3	53.90 RT	120.55	BACK OF WALK
10	16+81.3	30.08 RT	119.97	BEGIN RAMP
11	16+69.1	37.48 RT	120.26	BEGIN RAMP
12	16+77	38.93 RT	119.85	END RAMP
13	16+69.2	37.32 RT	119.85	BEGIN RAMP
14	16+72	38.56 RT	119.85	FRONT OF WALK

CURB RAMP DETAIL
PARK STREET SE QUADRANT

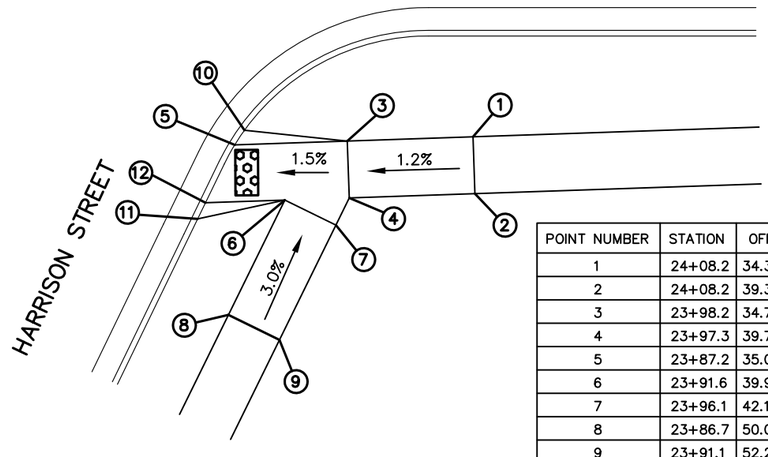
RIVERSIDE AVENUE



POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	23+20.5	36.72 RT	116.52	FRONT OF WALK
2	23+20.5	41.72 RT	116.60	BACK OF WALK
3	23+30.5	37.29 RT	116.24	FRONT OF WALK
4	23+30.5	42.29 RT	116.33	BACK OF WALK
5	23+37	37.66 RT	116.14	BEGIN RAMP
6	23+36.7	42.53 RT	116.24	FRONT OF WALK
7	23+24.8	53.46 RT	116.68	BACK OF WALK
8	23+30.2	56.05 RT	116.59	FRONT OF WALK
9	23+36.2	36.17 RT	116.54	BEGIN RAMP
10	23+38.3	42.62 RT	116.20	BEGIN RAMP

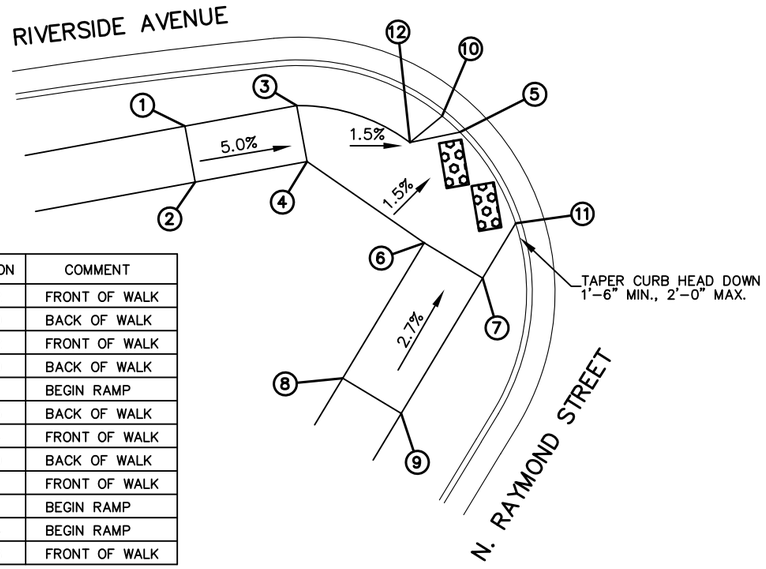
CURB RAMP DETAIL
HARRISON STREET SW QUADRANT

RIVERSIDE AVENUE



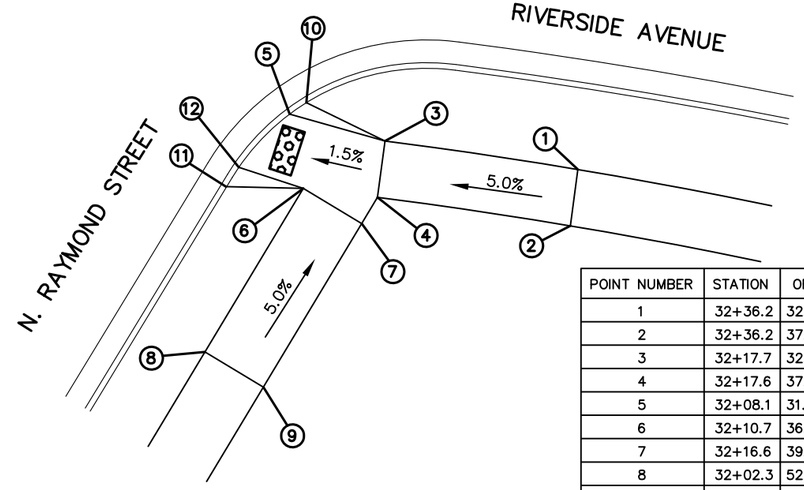
POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	24+08.2	34.37 RT	116.46	FRONT OF WALK
2	24+08.2	39.37 RT	116.54	BACK OF WALK
3	23+98.2	34.71 RT	116.34	FRONT OF WALK
4	23+97.3	39.75 RT	116.42	BACK OF WALK
5	23+87.2	35.09 RT	116.17	BEGIN RAMP
6	23+91.6	39.94 RT	116.32	FRONT OF WALK
7	23+96.1	42.14 RT	116.42	BACK OF WALK
8	23+86.7	50.03 RT	116.62	FRONT OF WALK
9	23+91.1	52.20 RT	116.70	BACK OF WALK
10	23+88	33.83 RT	116.55	BEGIN RAMP
11	23+84	41.60 RT	116.63	BEGIN RAMP
12	23+84.6	40.18 RT	116.22	BEGIN RAMP

CURB RAMP DETAIL
HARRISON STREET SE QUADRANT



POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	31+09.5	29.83 RT	116.42	FRONT OF WALK
2	31+09.5	34.83 RT	116.50	BACK OF WALK
3	31+20.1	29.08 RT	115.92	FRONT OF WALK
4	31+20.1	34.08 RT	116.00	BACK OF WALK
5	31+30.5	32.80 RT	115.71	BEGIN RAMP
6	31+31.1	42.06 RT	115.83	BACK OF WALK
7	31+36.5	45.51 RT	115.74	FRONT OF WALK
8	31+22.1	53.35 RT	116.20	BACK OF WALK
9	31+27.6	56.87 RT	116.15	FRONT OF WALK
10	31+34	31.33 RT	116.13	BEGIN RAMP
11	31+40	40.84 RT	115.64	BEGIN RAMP
12	31+30.6	33.18 RT	115.78	FRONT OF WALK

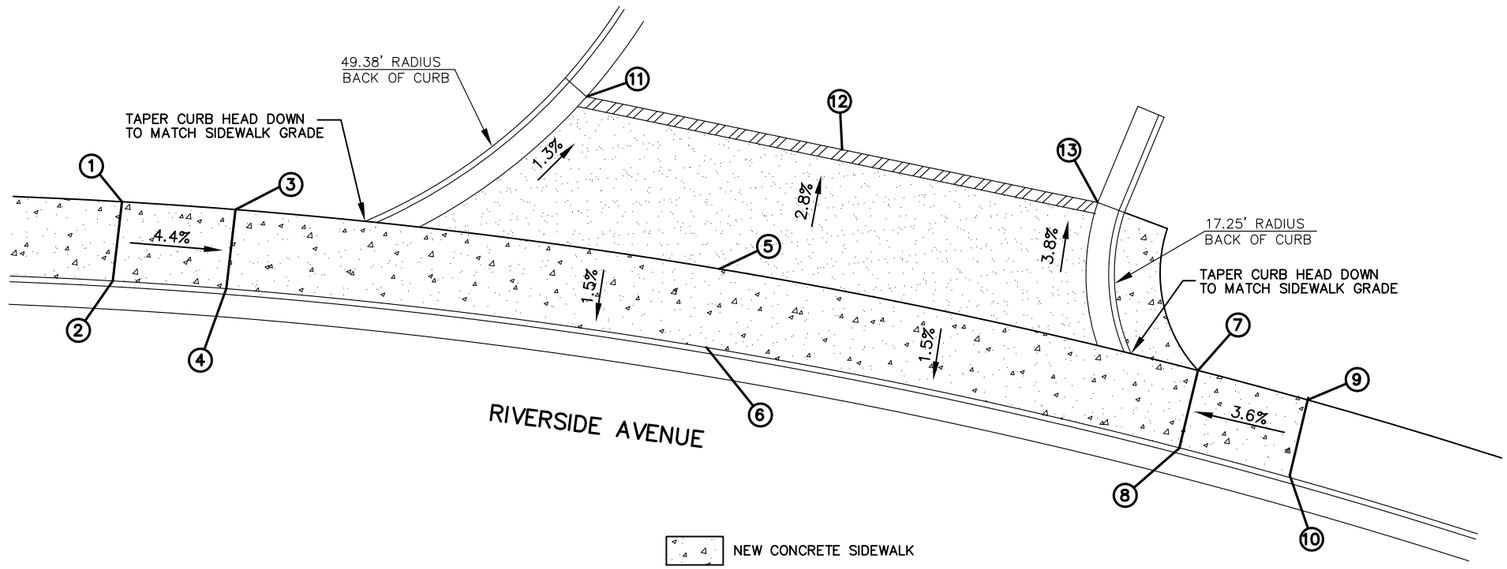
CURB RAMP DETAIL
NORTH RAYMOND STREET SW QUADRANT



POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	32+36.2	32.63 RT	116.35	FRONT OF WALK
2	32+36.2	37.63 RT	116.40	BACK OF WALK
3	32+17.7	32.43 RT	115.62	FRONT OF WALK
4	32+17.6	37.43 RT	115.62	BACK OF WALK
5	32+08.1	31.29 RT	115.49	BEGIN RAMP
6	32+10.7	36.93 RT	115.51	FRONT OF WALK
7	32+16.6	39.46 RT	115.64	BACK OF WALK
8	32+02.3	52.46 RT	116.28	FRONT OF WALK
9	32+08.5	55.09 RT	116.37	BACK OF WALK
10	32+09.8	29.94 RT	115.91	BEGIN RAMP
11	32+03.4	37.37 RT	115.80	BEGIN RAMP
12	32+04.4	35.56 RT	115.42	BEGIN RAMP

CURB RAMP DETAIL
NORTH RAYMOND STREET SE QUADRANT

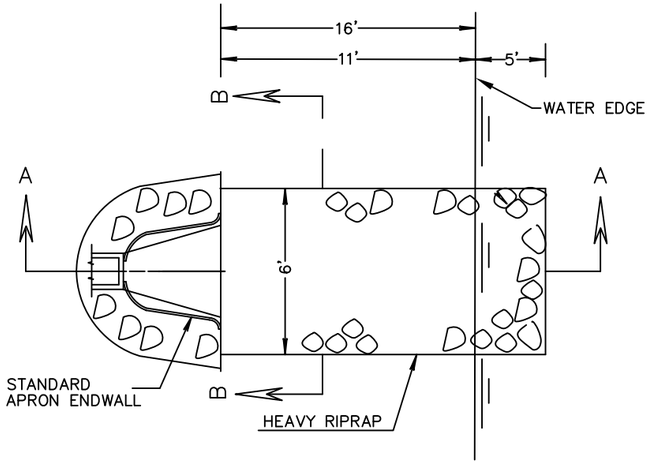
2

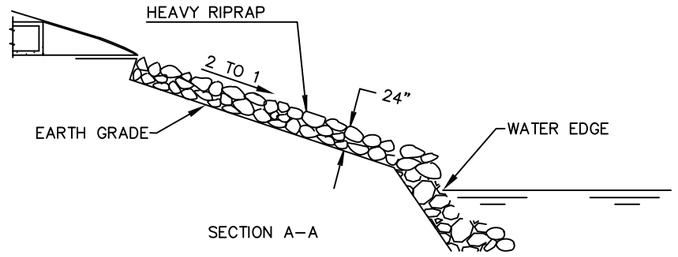


POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	3+71	17.50 LT	125.57	BACK OF WALK
2	3+71	24.50 LT	125.46	FRONT OF WALK
3	3+81	17.50 LT	125.13	BACK OF WALK
4	3+81	24.50 LT	125.02	FRONT OF WALK
5	4+22	17.50 LT	124.96	BACK OF WALK
6	4+22	24.50 LT	124.85	FRONT OF WALK
7	4+63	17.50 LT	124.80	BACK OF WALK
8	4+63	24.50 LT	124.69	FRONT OF WALK
9	4+73	17.50 LT	125.16	BACK OF WALK
10	4+73	24.50 LT	125.05	FRONT OF WALK
11	4+09.1	37.71 LT	124.82	CURB FLANGE
12	4+30.4	36.71 LT	124.65	DRIVEWAY
13	4+51.6	36.75 LT	124.33	CURB FLANGE
14	3+96.7	24.50 LT	125.07	CURB FLANGE
15	4+54.3	24.50 LT	124.83	CURB FLANGE

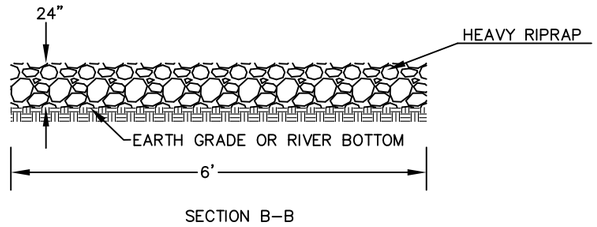
DRIVEWAY DETAIL
STATION 4+25 LEFT

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\CONSTRUCTION DETAILS\CONSTRUCTION DETAILS 3.DWG LAYOUT NAME - ####
PLOT DATE : 7/6/2017 3:03 PM PLOT BY : MATT RASTALL PLOT NAME : PLOT SCALE : #######
WISDOT/CADDS SHEET 42

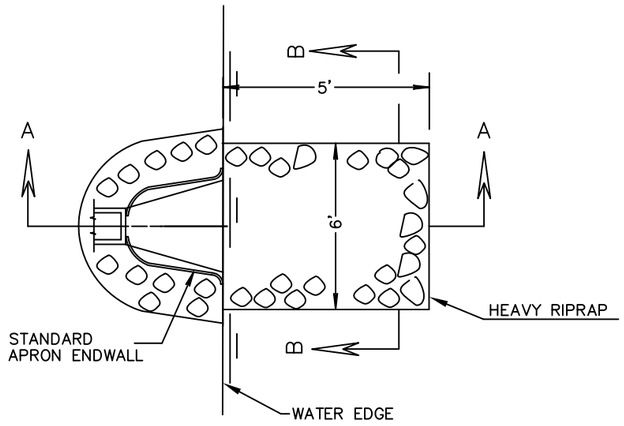


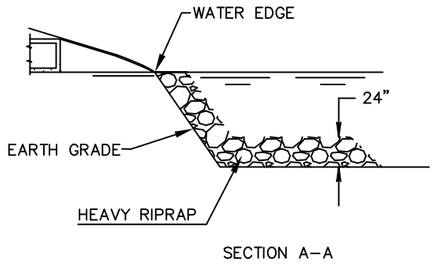


* RIPRAP TO BE PLACED ON RIVER BANK AND RIVER BOTTOM BELOW NORMAL WATER ELEVATION. NO EXCAVATION REQUIRED.

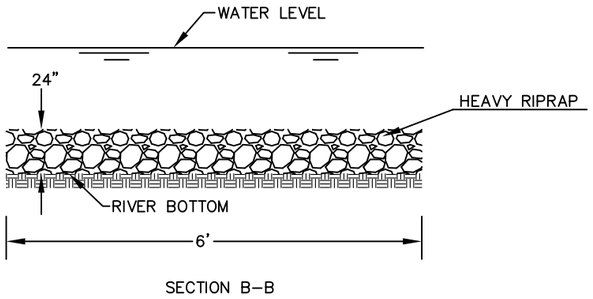


HEAVY RIPRAP AT APRON ENDWALL
STATION 8+30

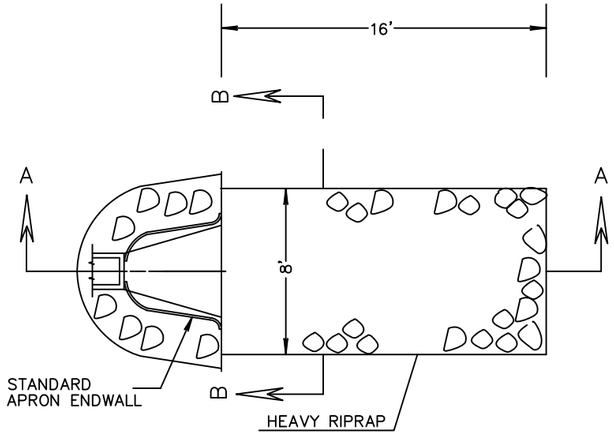




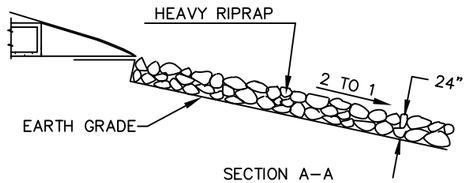
* RIPRAP TO BE PLACED ON RIVER BANK AND RIVER BOTTOM BELOW NORMAL WATER ELEVATION. NO EXCAVATION REQUIRED.

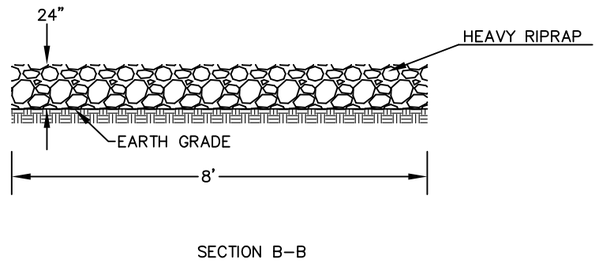


HEAVY RIPRAP AT APRON ENDWALL
STATION 16+27, 20+04, 23+83, 25+87, & 28+70



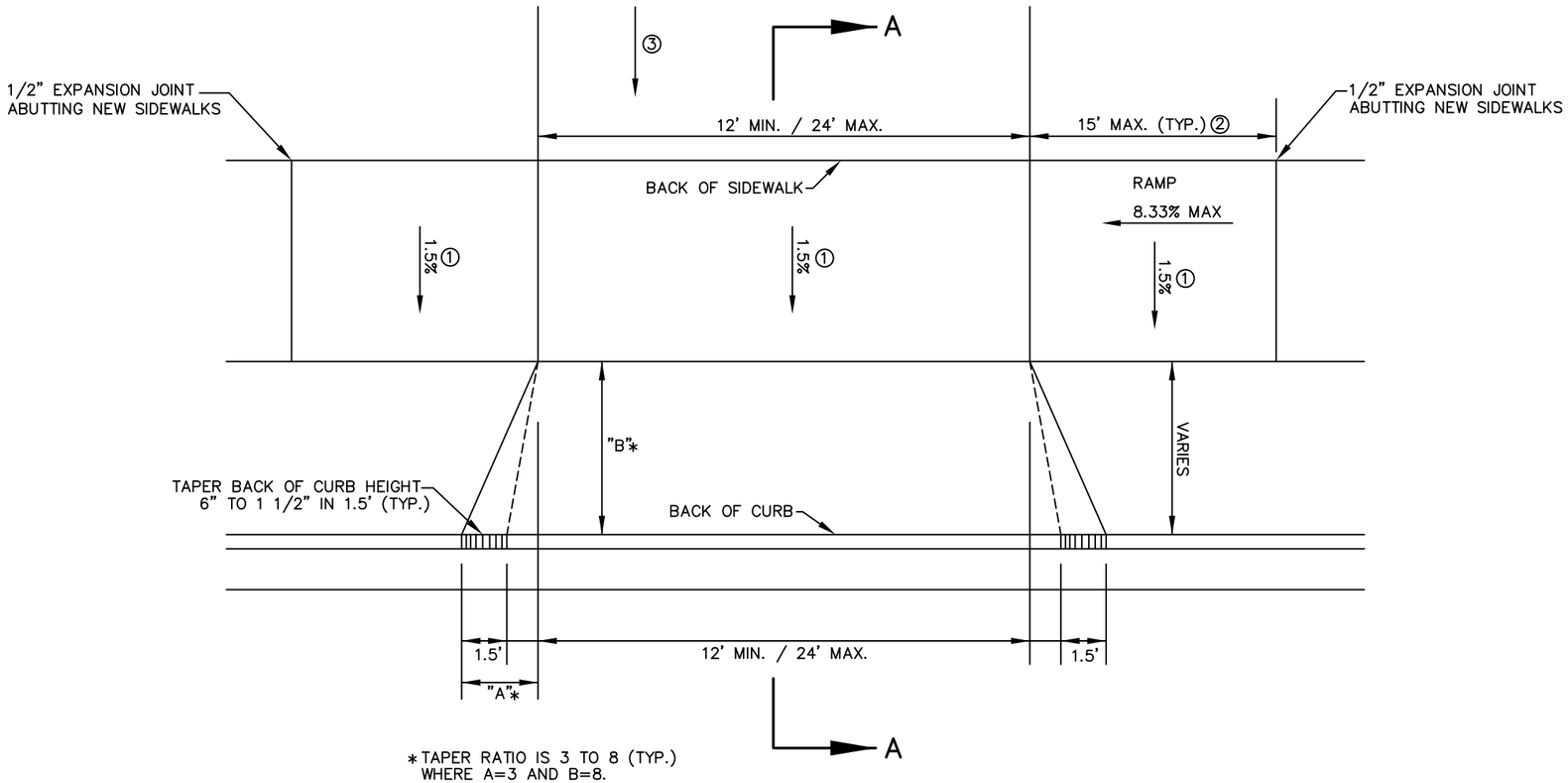
* PLACE RIPRAP ON DISTURBED SLOPE AREAS.





HEAVY RIPRAP AT APRON ENDWALL
STATION 38+50

2



GENERAL NOTES

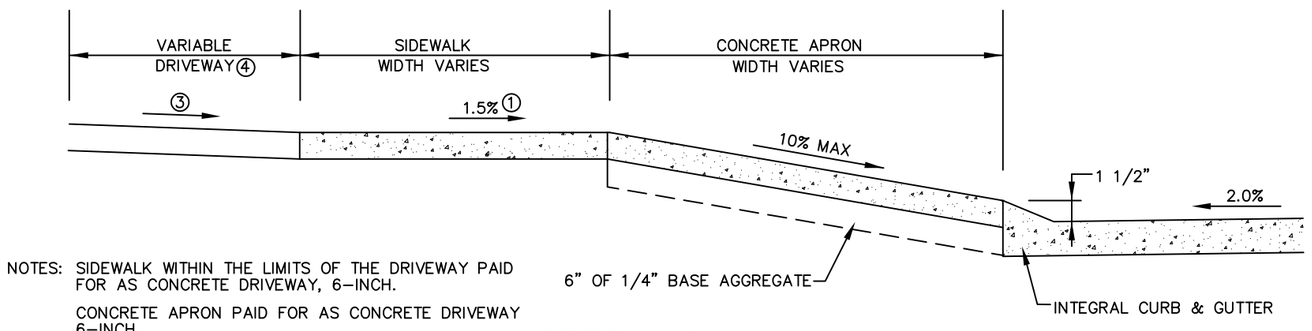
① CONSTRUCTION TOLERANCE OF 0.5% +/– FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

② THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT TO EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

③ DRIVEWAY SLOPES: DESIRABLE MAXIMUM
10.5% UP AWAY FROM SIDEWALK (SAG)
8.5% DOWN AWAY FROM SIDEWALK (CREST)
ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

④ DRIVEWAY TYPES
– 6–INCH CONCRETE DRIVEWAY PAVEMENT OVER 6–INCH BASE AGGREGATE
– 2–INCH TO 3–INCH ASPHALTIC SURFACE OVER 6–INCH BASE AGGREGATE
– 6–INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES

⑤ PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER THE 20 FEET IN WIDTH



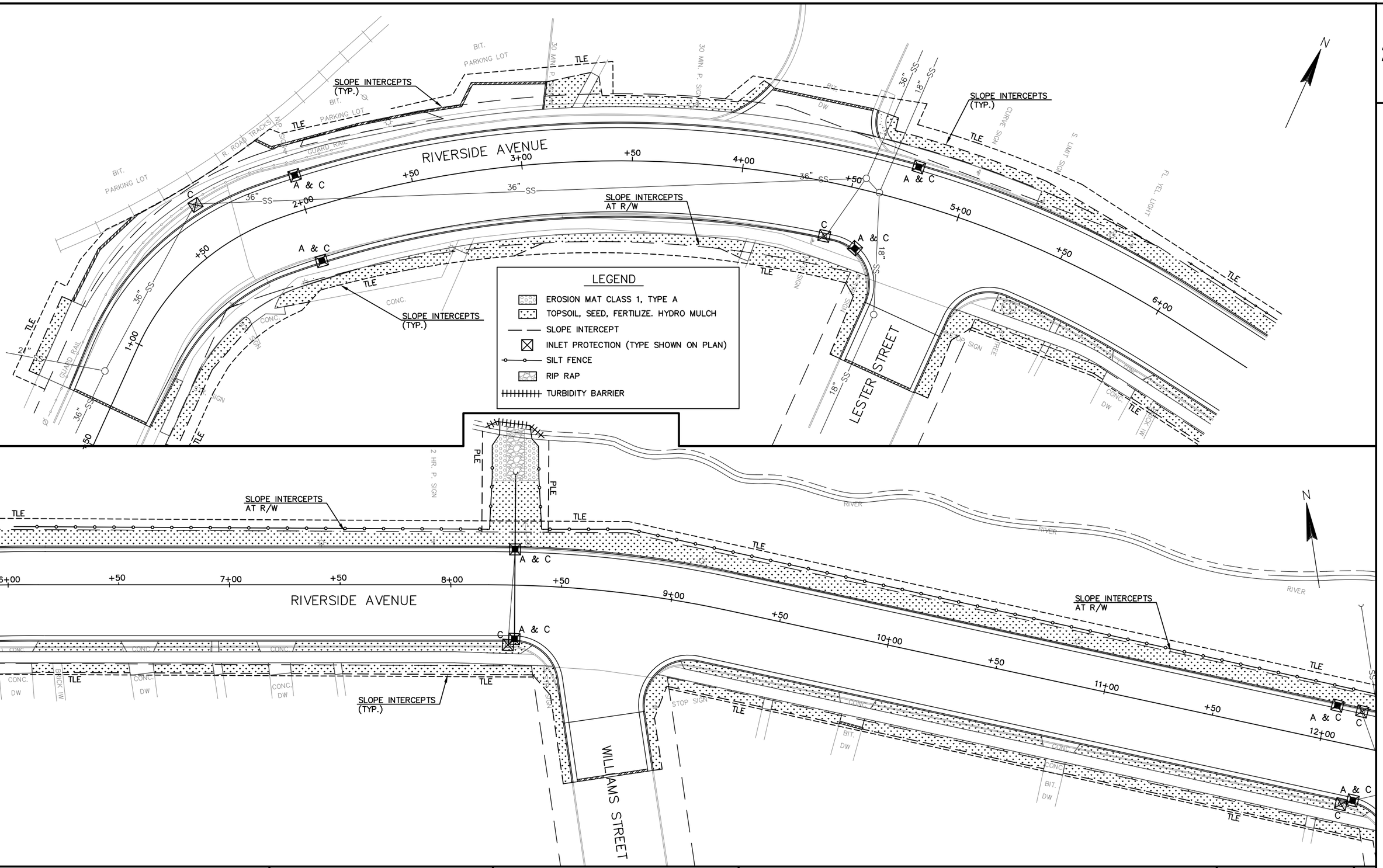
NOTES: SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY, 6–INCH.

CONCRETE APRON PAID FOR AS CONCRETE DRIVEWAY 6–INCH.

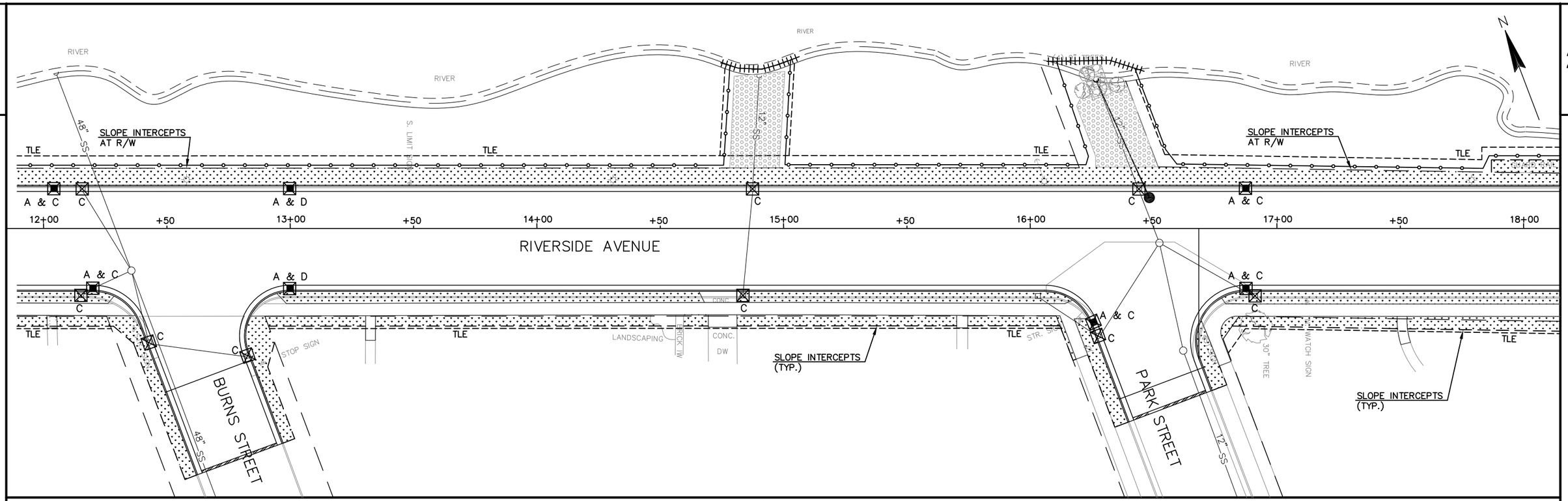
SECTION A–A

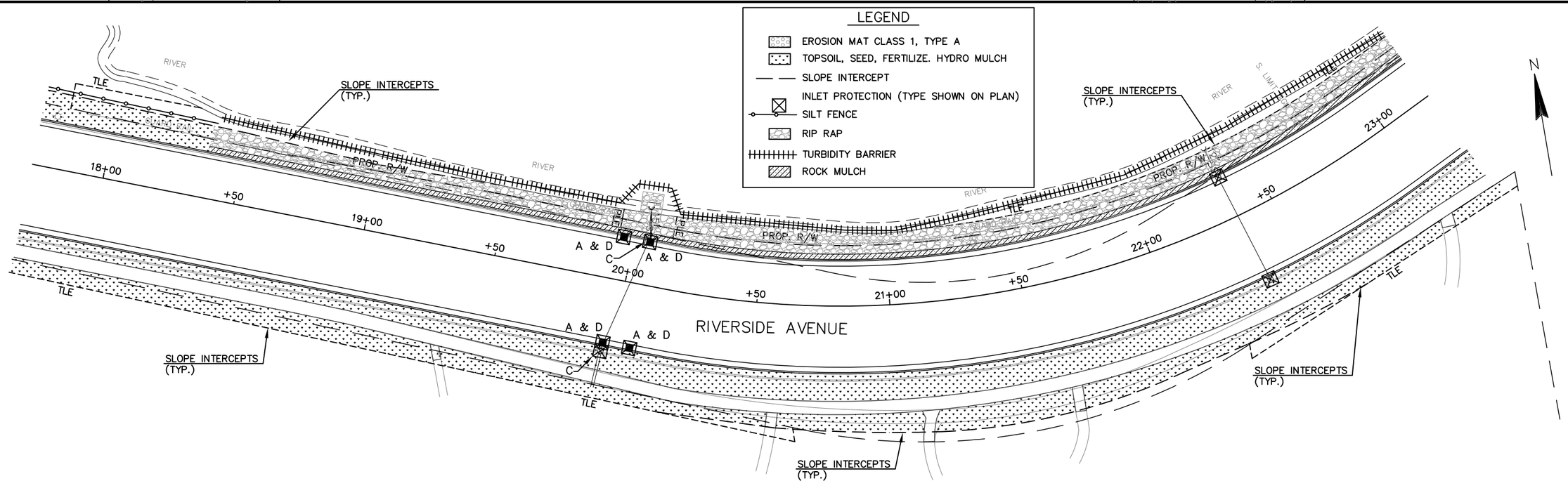
CONCRETE DRIVEWAY DETAIL

2



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	EROSION CONTROL: RIVERSIDE AVENUE	SHEET 35	E





PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	EROSION CONTROL: RIVERSIDE AVENUE	SHEET 36	E

2

SLOPE INTERCEPTS (TYP.)

SLOPE INTERCEPTS (TYP.)

TLE

TLE

12" SS

A & D

23+00 +50 24+00 +50 25+00 +50 26+00 +50 27+00 +50 28+00 +50 29+00

24" SS

RIVERSIDE AVENUE

12" SS

A & D

A & D

C

A & C

A & D

A & C

A & C

C

C

C

C

C

TLE

TLE

TLE

TLE

SLOPE INTERCEPTS (TYP.)

SLOPE INTERCEPTS (TYP.)

HARRISON STREET

24" SS

HOUSTON STREET

N

LEGEND

- EROSION MAT CLASS 1, TYPE A
- TOPSOIL, SEED, FERTILIZE. HYDRO MULCH
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE SHOWN ON PLAN)
- SILT FENCE
- RIP RAP
- TURBIDITY BARRIER
- ROCK MULCH

SLOPE INTERCEPTS AT R/W

TLE

TLE

8" SS

SLOPE INTERCEPTS (TYP.)

29+00 +50 30+00 +50 31+00 +50 32+00 +50 33+00 +50 34+00 +50

RIVERSIDE AVENUE

C

C

C

A & C

A & D

A & D

C

C

TLE

TLE

TLE

TLE

SLOPE INTERCEPTS (TYP.)

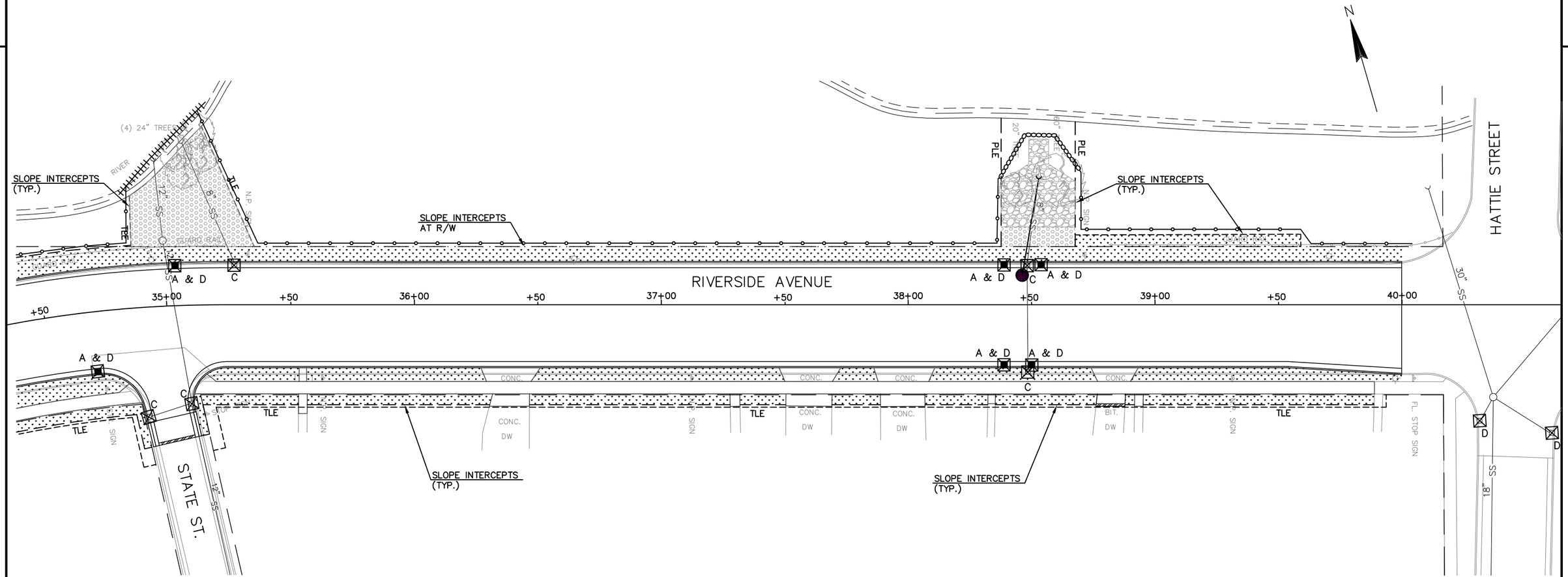
SLOPE INTERCEPTS (TYP.)

N. RAYMOND STREET

N

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	EROSION CONTROL: RIVERSIDE AVENUE	SHEET 37	E

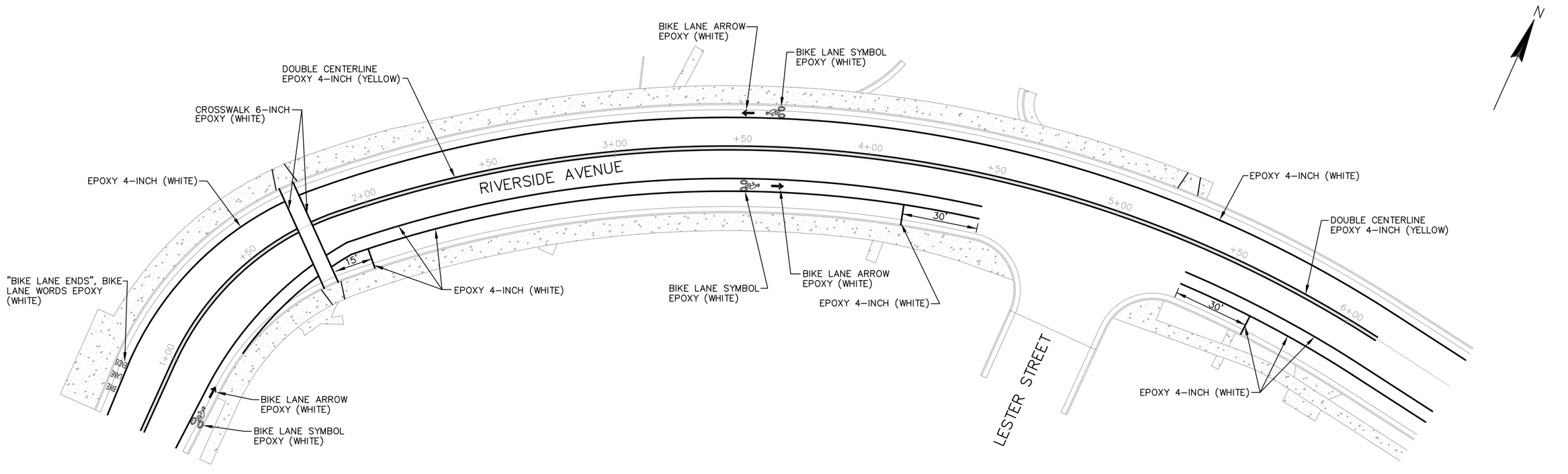
2

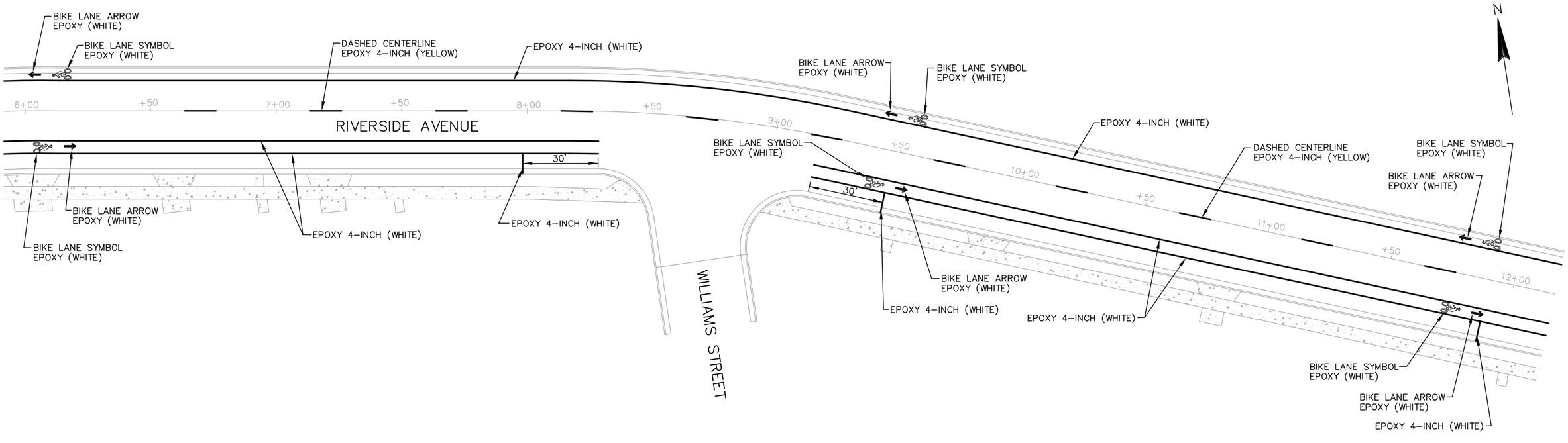


LEGEND

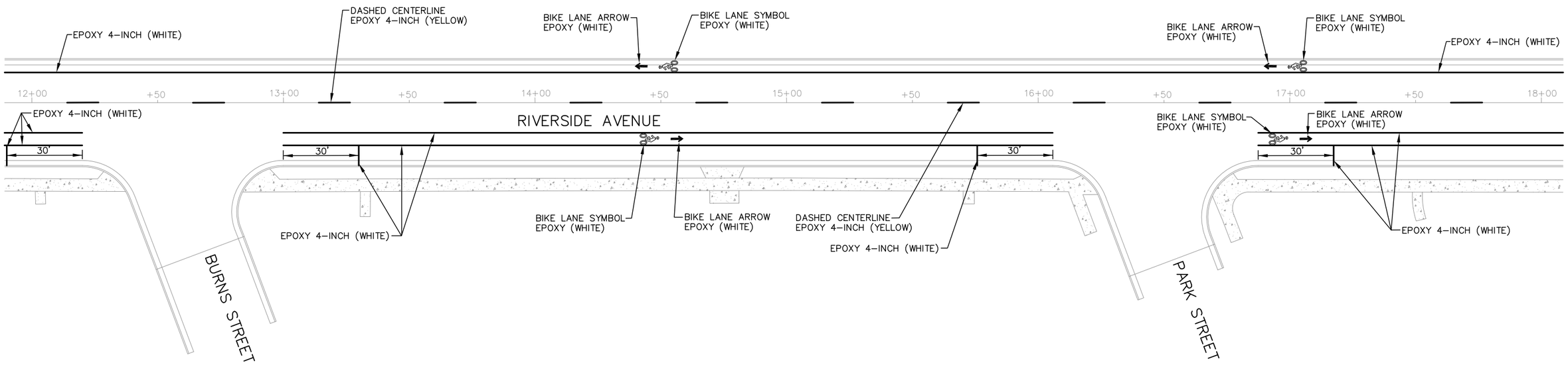
- EROSION MAT CLASS 1, TYPE A
- TOPSOIL, SEED, FERTILIZE. HYDRO MULCH
- SLOPE INTERCEPT
- INLET PROTECTION (TYPE SHOWN ON PLAN)
- SILT FENCE
- RIP RAP
- TURBIDITY BARRIER
- ROCK BAGS

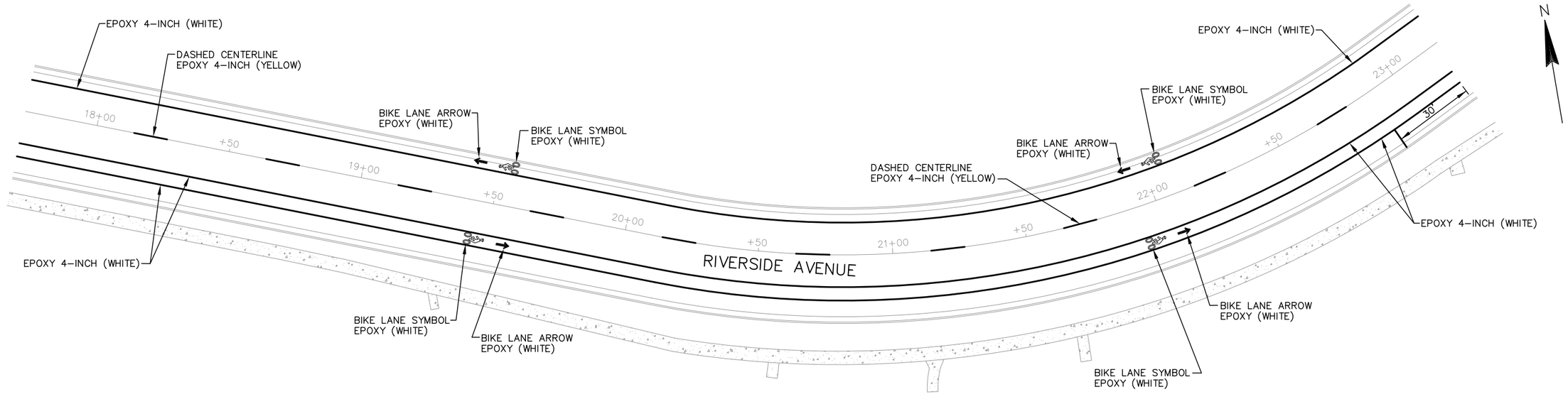
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	EROSION CONTROL: RIVERSIDE AVENUE	SHEET 38	E



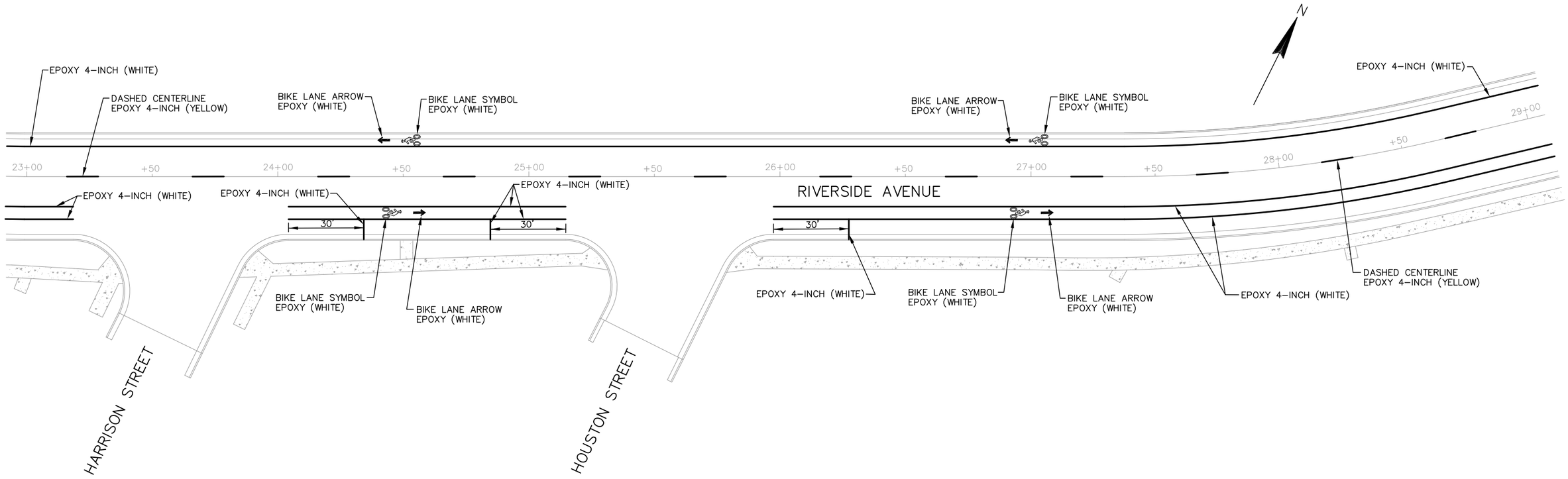


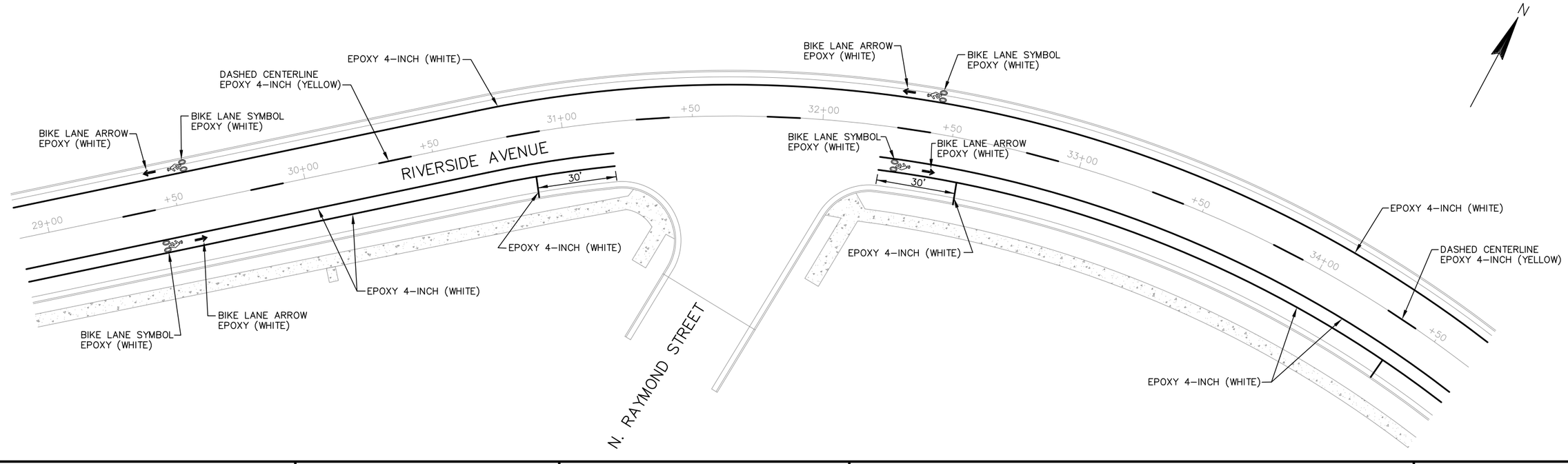
PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PAVEMENT MARKING: RIVERSIDE AVENUE	SHEET 39	E





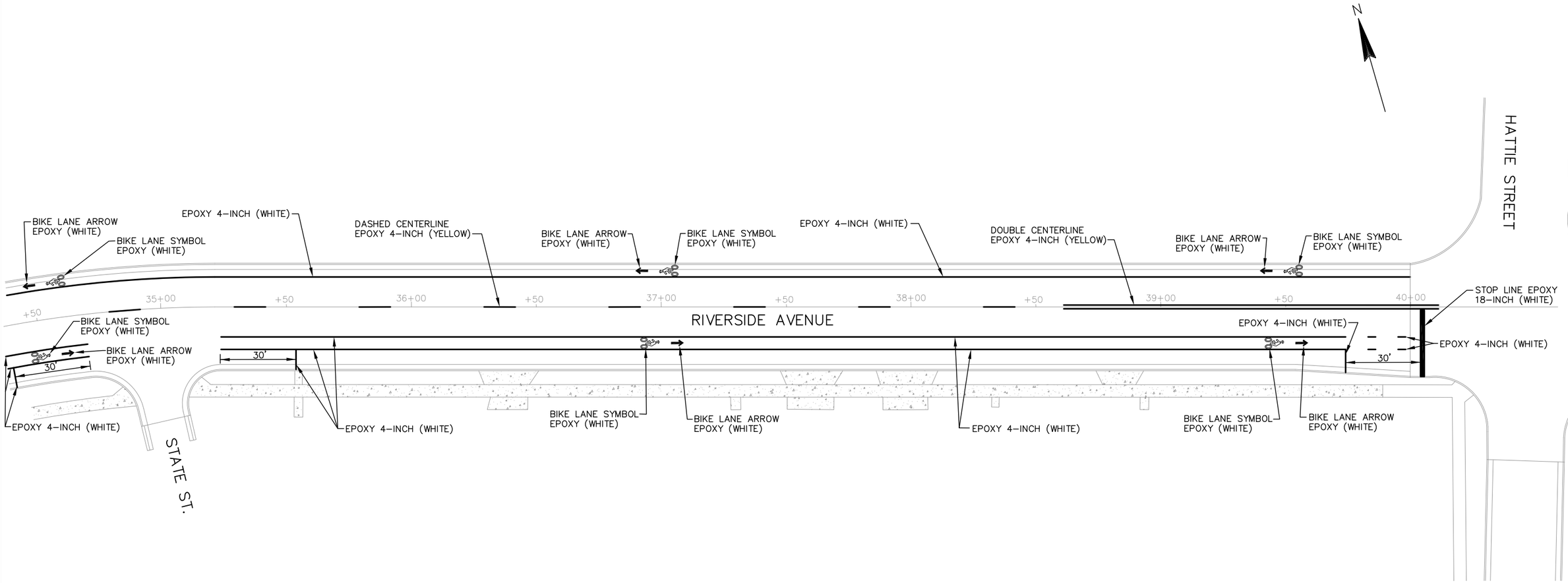
PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PAVEMENT MARKING: RIVERSIDE AVENUE	SHEET 40	E





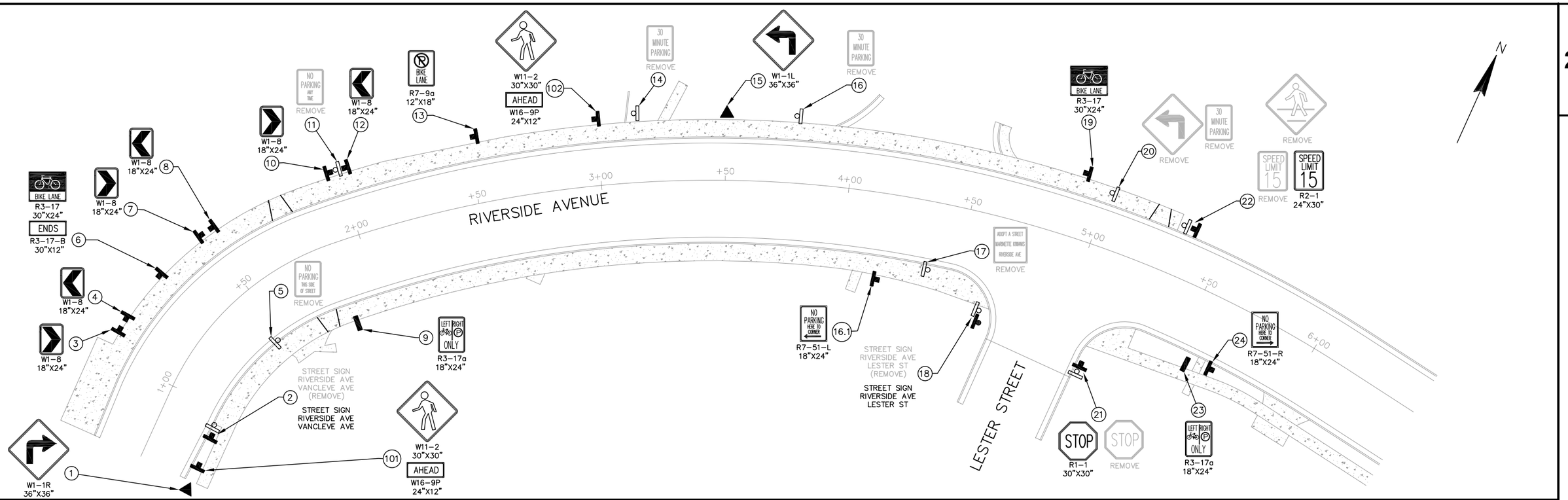
PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PAVEMENT MARKING: RIVERSIDE AVENUE	SHEET 41	E

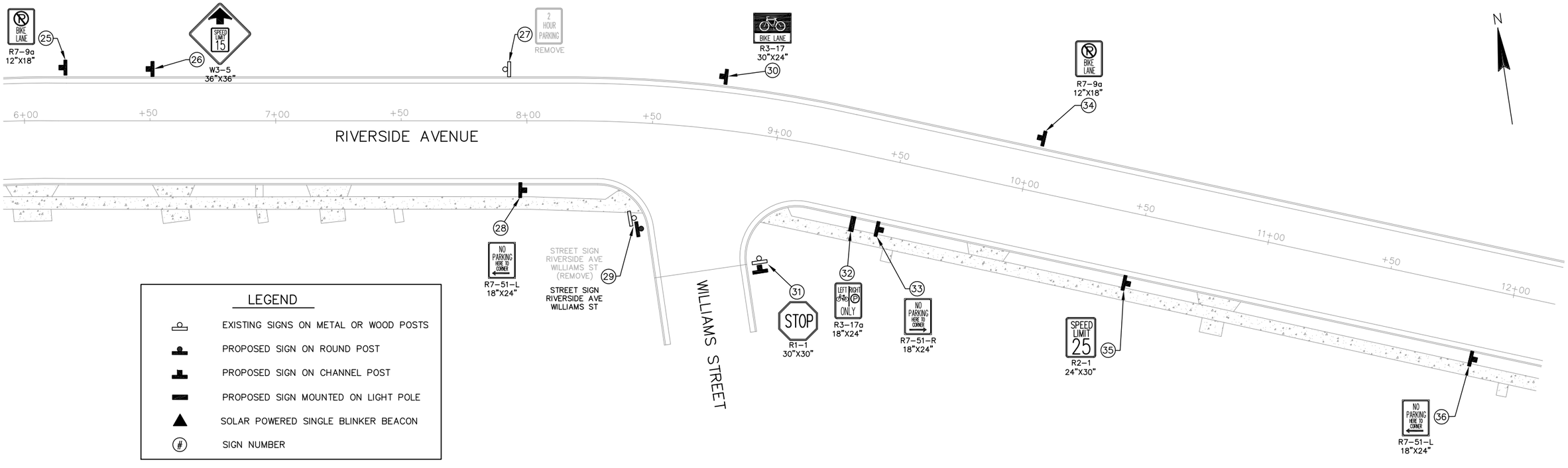
2



PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PAVEMENT MARKING: RIVERSIDE AVENUE	SHEET 42	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\PAVEMENT MARKING\PAVEMENT MARKING 4.DWG
LAYOUT NAME – ####
PLOT DATE : 7/6/2017 3:24 PM
PLOT BY : MATT RASTALL
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

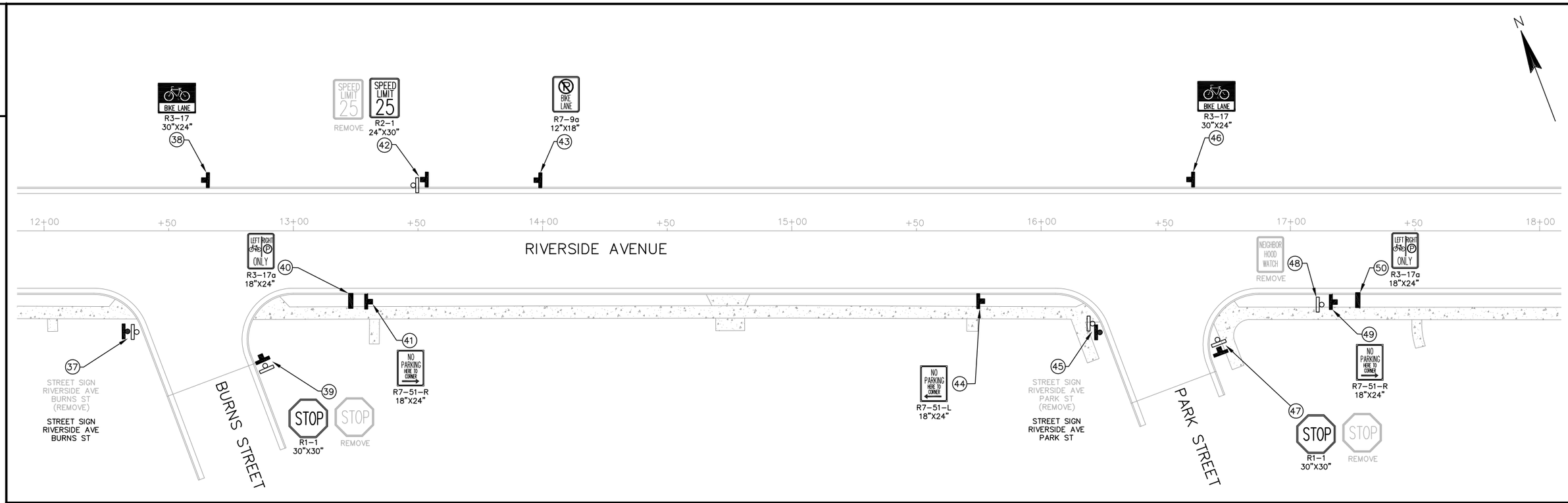


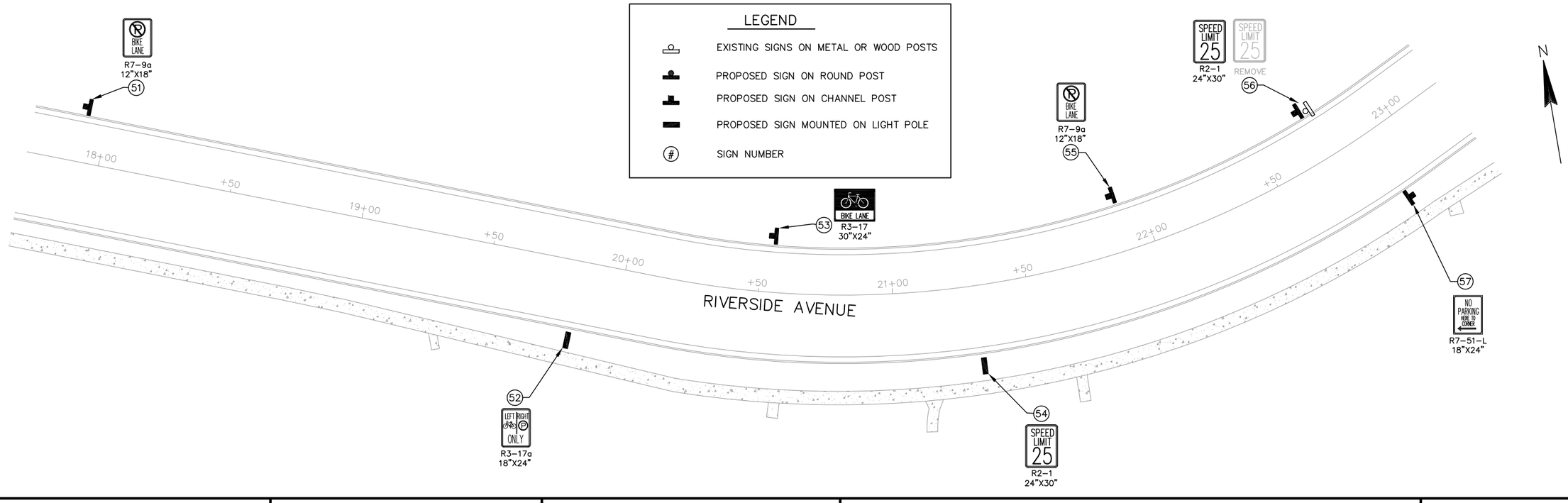


LEGEND

- EXISTING SIGNS ON METAL OR WOOD POSTS
- PROPOSED SIGN ON ROUND POST
- PROPOSED SIGN ON CHANNEL POST
- PROPOSED SIGN MOUNTED ON LIGHT POLE
- SOLAR POWERED SINGLE BLINKER BEACON
- (#) SIGN NUMBER

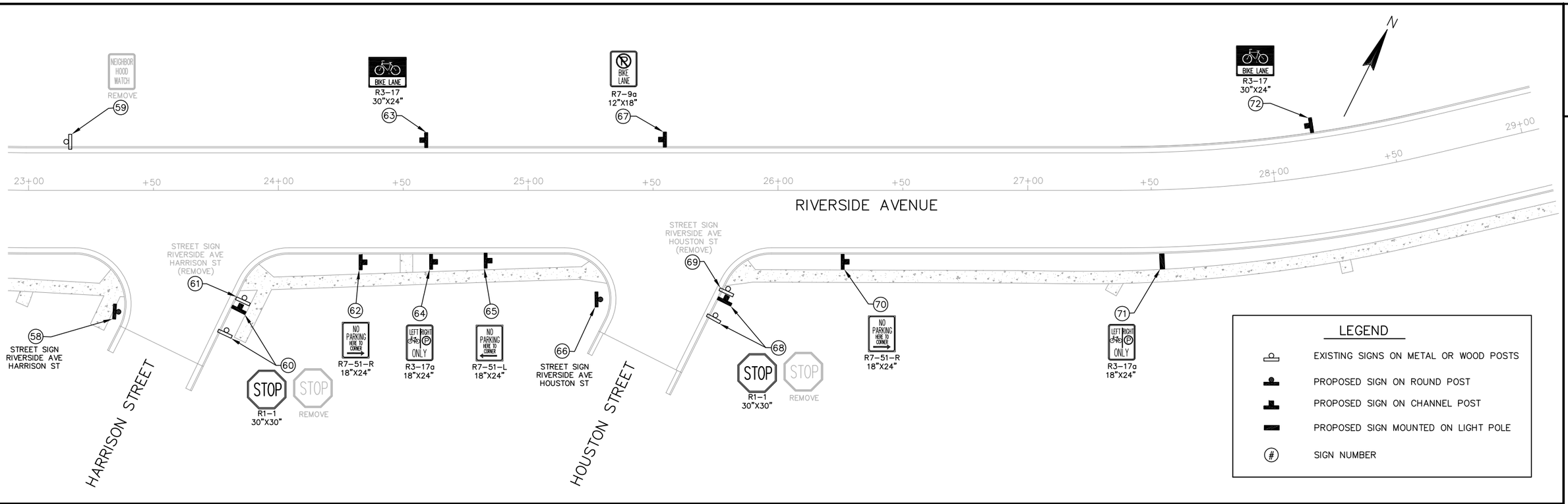
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PERMANENT SIGNING: RIVERSIDE AVENUE	SHEET 43	E

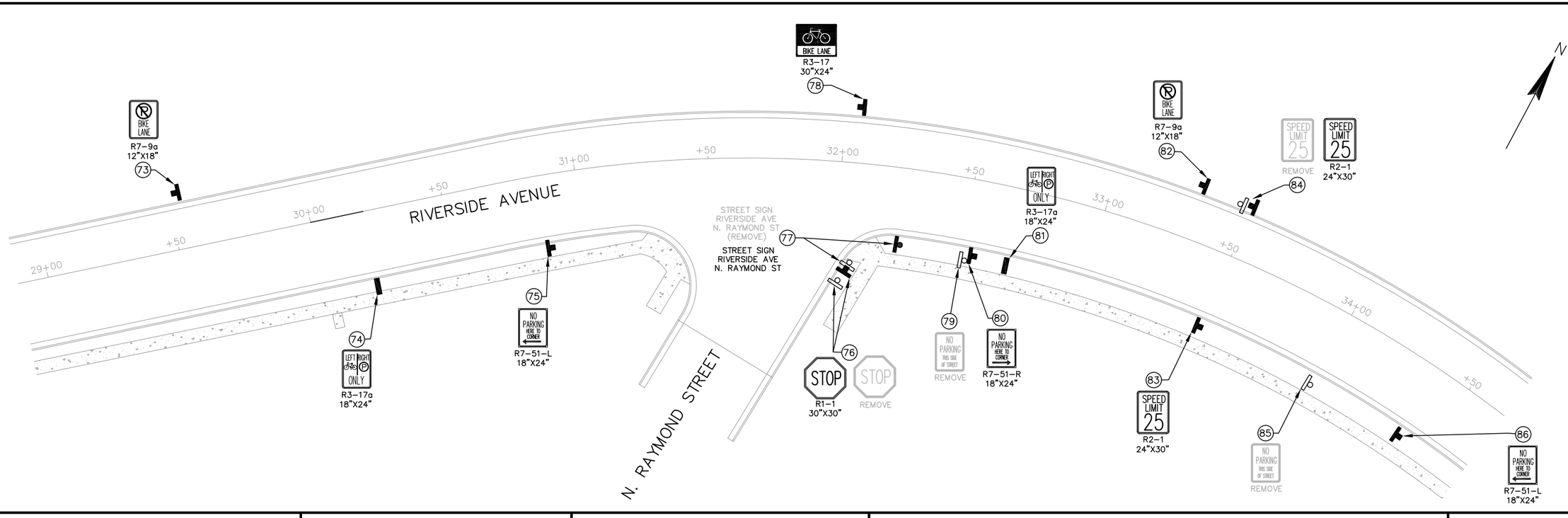




PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PERMANENT SIGNING: RIVERSIDE AVENUE	SHEET 44	E

2





PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PERMANENT SIGNING: RIVERSIDE AVENUE	SHEET 45	E

2

N

HATTIE STREET

RIVERSIDE AVENUE

35+00 +50 36+00 +50 37+00 +50 38+00 +50 39+00 +50 40+00

(90) NO RV PARKING NO CAMPING OR COOKING NO TOILET FACILITIES
REMOVE
36"X48"
MOVE ONTO NEW POSTS

(93) BIKE LANE
R3-17
30"X24"

(95) BIKE LANE
R7-9a
12"X18"

(96) BIKE LANE
R3-17
30"X24"

(97) NO RV PARKING NO CAMPING OR COOKING NO TOILET FACILITIES
REMOVE
36"X48"
MOVE ONTO NEW POSTS

(89) LEFT RIGHT ONLY
R3-17a
18"X24"

(87) STREET SIGN
RIVERSIDE AVE
STATE ST
(REMOVE)
STREET SIGN
RIVERSIDE AVE
STATE ST

STATE ST.

(88) STOP
R1-1
30"X30"

STOP
REMOVE

(91) NO PARKING HERE TO CORNER
R7-51-R
18"X24"

(92) NO PARKING THIS SIDE OF STREET
REMOVE

(94) NO PARKING THIS SIDE OF STREET
REMOVE

(98) LEFT RIGHT ONLY
R3-17a
18"X24"

(99) NO PARKING THIS SIDE OF STREET
REMOVE

(100) NO PARKING HERE TO CORNER
R7-51-L
18"X24"

LEGEND

- EXISTING SIGNS ON METAL OR WOOD POSTS
- PROPOSED SIGN ON ROUND POST
- PROPOSED SIGN ON CHANNEL POST
- PROPOSED SIGN MOUNTED ON LIGHT POLE
- (#) SIGN NUMBER
- MOVE EXISTING SIGN ONTO NEW WOOD POSTS

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PERMANENT SIGNING: RIVERSIDE AVENUE	SHEET 46	E

2

LEGEND

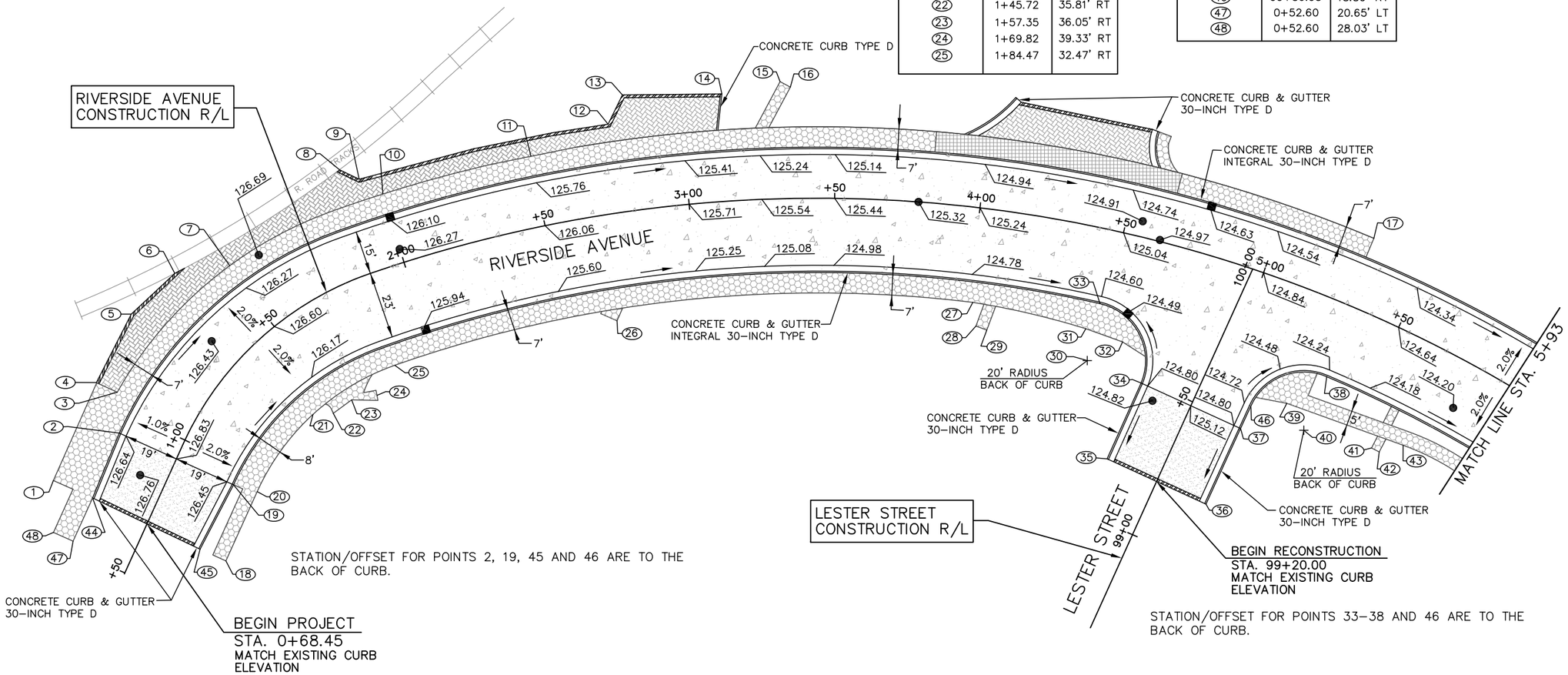
- 4" ASPHALTIC SURFACE
- CONCRETE PAVEMENT 8–INCH
- CONCRETE SIDEWALK 4–INCH
- CONCRETE DRIVEWAY 6–INCH
- ASPHALTIC SURFACE DRIVEWAYS
- FLOW ARROW
- SAW CUT REQUIRED

DATA TABLE

POINT NO.	STATION	OFFSET
1	0+68.45	35.42' LT
2	0+92.91	21.50' LT
3	1+03.93	28.11' LT
4	1+03.93	35.85' LT
5	1+23.36	38.39' LT
6	1+38.56	36.39' LT
7	1+50.00	25.87' LT
8	1+89.37	37.00' LT
9	1+94.33	31.82' LT
10	2+00.00	24.50' LT
11	2+50.00	24.50' LT
12	2+76.43	30.58' LT
13	2+82.25	39.86' LT
14	3+13.69	36.83' LT
15	3+32.30	40.14' LT
16	3+35.52	38.18' LT
17	5+30.37	24.50' LT
18	0+68.45	45.50' RT
19	0+92.91	21.50' RT
20	0+94.13	29.86' RT
21	1+38.08	31.34' RT
22	1+45.72	35.81' RT
23	1+57.35	36.05' RT
24	1+69.82	39.33' RT
25	1+84.47	32.47' RT

DATA TABLE

POINT NO.	STATION	OFFSET
26	2+69.21	36.53' RT
27	4+01.51	32.50' RT
28	4+03.72	40.41' RT
29	4+08.00	41.30' RT
30	4+47.53	45.50' RT
31	4+44.32	34.96' RT
32	4+58.71	36.51' RT
33	4+47.53	25.50' RT
34	99+48.51	18.77' LT
35	99+20.00	18.66' LT
36	99+20.00	18.66' RT
37	99+48.51	18.77' RT
38	5+34.08	25.50' RT
39	5+24.14	39.19' RT
40	5+34.08	45.50' RT
41	5+59.98	41.29' RT
42	5+63.27	41.35' RT
43	5+70.05	35.55' RT
44	0+68.45	20.66' LT
45	0+68.45	20.19' RT
46	99+56.93	18.80' RT
47	0+52.60	20.65' LT
48	0+52.60	28.03' LT



PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN DETAILS: RIVERSIDE AVENUE	SHEET 47	E

2

LEGEND

- 4" ASPHALTIC SURFACE
- CONCRETE PAVEMENT 8–INCH
- CONCRETE SIDEWALK 4–INCH
- CONCRETE DRIVEWAY 6–INCH
- ASPHALTIC SURFACE DRIVEWAYS
- FLOW ARROW
- SAW CUT REQUIRED

DATA TABLE

POINT NO.	STATION	OFFSET
①	5+94.90	40.10' RT
②	6+11.28	39.89' RT
③	6+55.06	40.89' RT
④	6+65.96	39.53' RT
⑤	6+93.15	40.82' RT
⑥	6+97.10	40.23' RT
⑦	7+18.16	40.82' RT
⑧	7+27.89	39.76' RT
⑨	7+47.66	40.62' RT
⑩	7+51.13	40.13' RT
⑪	8+29.26	45.50' RT
⑫	8+29.26	25.50' RT
⑬	199+61.52	18.40' LT
⑭	199+41.40	18.47' LT
⑮	199+14.32	18.57' LT
⑯	199+14.32	18.57' RT
⑰	199+41.40	18.57' RT
⑱	9+16.71	45.50' RT
⑲	9+17.09	25.50' RT
⑳	9+50.54	39.84' RT
㉑	9+54.54	39.87' RT
㉒	9+86.04	39.22' RT
㉓	9+96.50	39.80' RT
㉔	10+80.67	40.68' RT
㉕	10+89.65	40.65' RT

DATA TABLE

POINT NO.	STATION	OFFSET
㉖	5+94.36	30.10' RT
㉗	6+11.19	30.25' RT
㉘	6+53.60	30.26' RT
㉙	6+65.66	39.26' RT
㉚	7+14.02	30.25' RT
㉛	7+28.48	30.22' RT
㉜	9+84.53	29.83' RT
㉝	9+98.35	29.81' RT
㉞	10+78.26	29.92' RT
㉟	10+92.35	29.94' RT
㊱	8+01.54	35.23' RT
㊲	8+51.73	35.89' RT
㊳	8+98.68	34.29' RT
㊴	12+00.00	35.24' RT

N

MATCH LINE STA. 5+93

RIVERSIDE AVENUE CONSTRUCTION R/L

RIVERSIDE AVENUE

CP#2

CONCRETE CURB & GUTTER INTEGRAL 30–INCH TYPE D

124.14 123.94 123.74 123.54 123.34 123.24 123.14 122.94 122.74 122.54 122.34 122.14 121.94 121.74

6+00 +50 7+00 +50 8+00 +50 200+00 9+00 +50 10+00 +50 11+00 +50 12+00

2.0% 15' 2.0%

124.44 124.24 124.04 123.84 123.64 123.44 123.24 123.04 122.84 122.64 122.44 122.24 122.04

2.0% 23' 2.0%

123.98 123.78 123.58 123.38 123.18 123.08 123.10 122.96 122.72 122.58 122.38 122.18 121.98 121.98 121.78 121.58

4.5' TO 5' 4.5' TO 5'

5'

123.19 123.30 123.20 123.14 123.52

20' RADIUS BACK OF CURB

20' RADIUS BACK OF CURB

CONCRETE CURB & GUTTER 30–INCH TYPE D

CONCRETE CURB & GUTTER 30–INCH TYPE D

CONCRETE CURB & GUTTER INTEGRAL 30–INCH TYPE D

WILLIAMS STREET CONSTRUCTION R/L

WILLIAMS STREET

199+00

BEGIN RECONSTRUCTION
STA. 199+14.32
MATCH EXISTING CURB ELEVATION

MATCH LINE STA. 12+00

STATION/OFFSET FOR POINTS 12–17 AND 19 ARE TO THE BACK OF CURB.

PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN DETAILS: RIVERSIDE AVENUE	SHEET 48	E

LEGEND

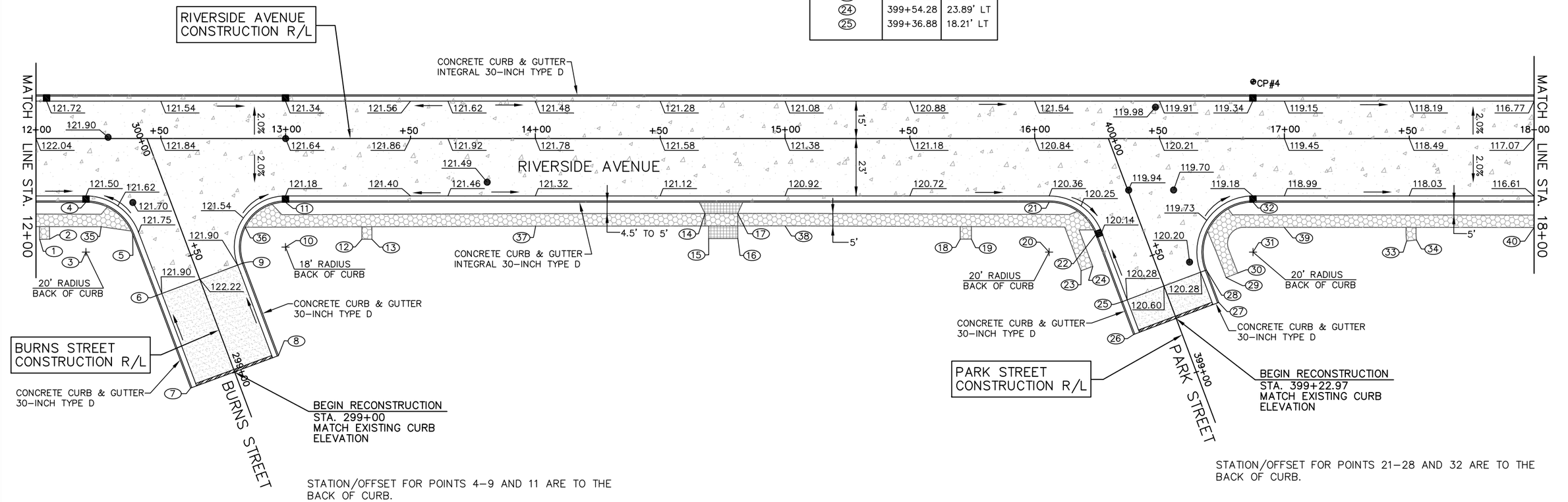
- 4" ASPHALTIC SURFACE
- CONCRETE PAVEMENT 8–INCH
- CONCRETE SIDEWALK 4–INCH
- CONCRETE DRIVEWAY 6–INCH
- ASPHALTIC SURFACE DRIVEWAYS
- FLOW ARROW
- SAW CUT REQUIRED

DATA TABLE

POINT NO.	STATION	OFFSET
1	12+01.50	40.38' RT
2	12+05.50	40.29' RT
3	12+20.04	45.50' RT
4	12+20.04	25.50' RT
5	299+66.03	18.86' LT
6	299+39.76	18.74' LT
7	299+00.00	18.74' LT
8	299+00.00	18.74' RT
9	299+39.76	18.66' RT
10	12+99.95	43.50' RT
11	12+99.95	25.50' RT
12	13+30.51	40.34' RT
13	13+34.51	40.34' RT
14	14+67.94	30.03' RT
15	14+69.45	40.05' RT
16	14+81.10	40.02' RT
17	14+81.10	30.02' RT
18	15+70.17	40.28' RT
19	15+74.63	40.28' RT
20	16+05.80	45.50' RT
21	16+05.80	25.50' RT
22	399+65.80	18.23' LT
23	399+54.28	28.89' LT
24	399+54.28	23.89' LT
25	399+36.88	18.21' LT

DATA TABLE

POINT NO.	STATION	OFFSET
26	399+22.97	18.21' LT
27	399+22.97	18.21' RT
28	399+36.88	18.21' RT
29	399+31.28	24.51' RT
30	399+31.28	29.51' RT
31	16+87.47	45.50' RT
32	16+87.47	25.50' RT
33	17+48.93	41.11' RT
34	17+52.90	40.63' RT
35	12+26.12	35.33' RT
36	12+83.79	35.54' RT
37	14+00.00	35.11' RT
38	15+00.00	34.99' RT
39	17+00.00	35.58' RT
40	18+00.00	35.64' RT



PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN DETAILS: RIVERSIDE AVENUE	SHEET 49 E

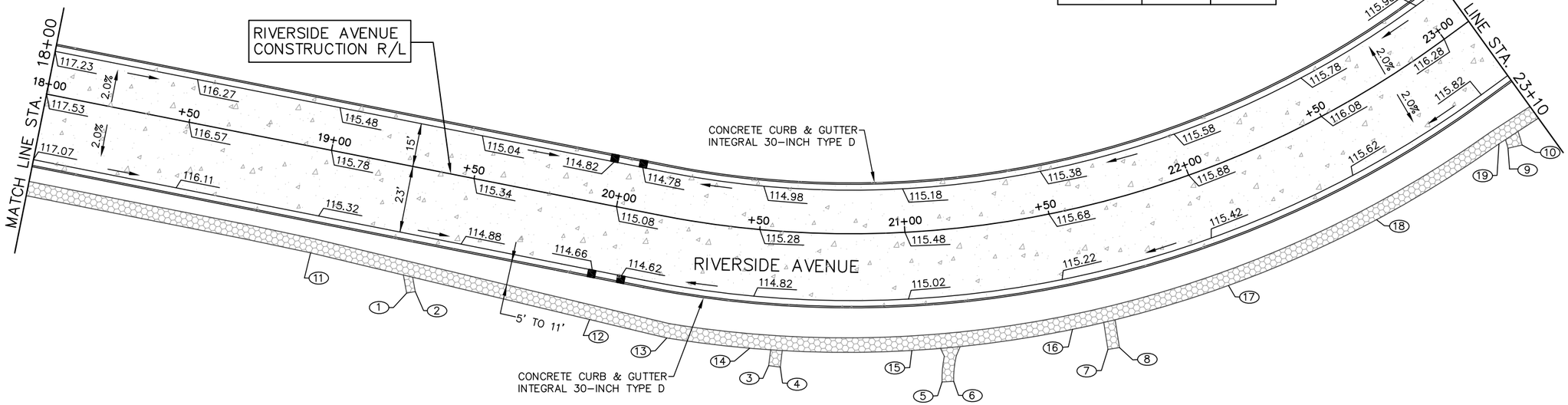
2

LEGEND

- 4" ASPHALTIC SURFACE
- CONCRETE PAVEMENT 8–INCH
- CONCRETE SIDEWALK 4–INCH
- CONCRETE DRIVEWAY 6–INCH
- ASPHALTIC SURFACE DRIVEWAYS
- FLOW ARROW
- SAW CUT REQUIRED

DATA TABLE

POINT NO.	STATION	OFFSET
1	19+34.88	43.17' RT
2	19+37.67	42.07' RT
3	20+56.44	46.39' RT
4	20+59.98	46.67' RT
5	21+08.70	52.23' RT
6	21+12.17	52.38' RT
7	21+59.38	49.82' RT
8	21+62.86	50.12' RT
9	22+95.95	43.26' RT
10	23+00.15	45.24' RT
11	19+00.00	35.99' RT
12	20+00.00	39.92' RT
13	20+24.52	41.14' RT
14	20+50.00	40.98' RT
15	21+00.00	40.72' RT
16	21+50.00	40.51' RT
17	22+00.00	40.36' RT
18	22+50.00	40.28' RT
19	22+94.48	40.25' RT



PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN DETAILS: RIVERSIDE AVENUE	SHEET 50 E

2

LEGEND

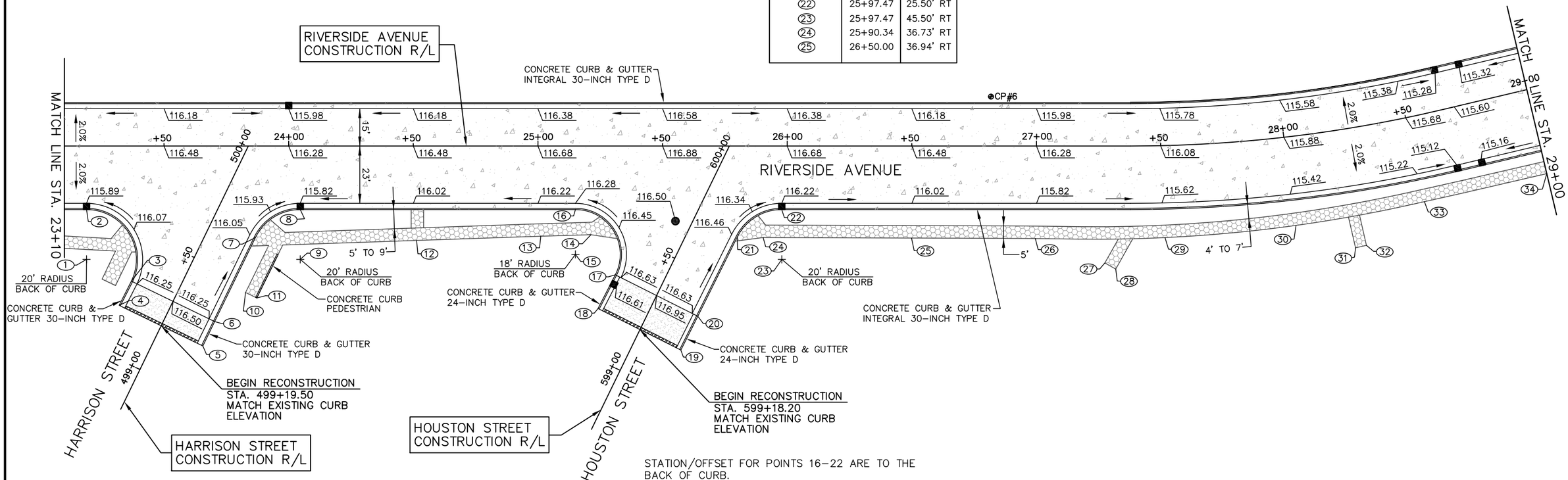
- 4" ASPHALTIC SURFACE
- CONCRETE PAVEMENT 8–INCH
- CONCRETE SIDEWALK 4–INCH
- CONCRETE DRIVEWAY 6–INCH
- ASPHALTIC SURFACE DRIVEWAYS
- FLOW ARROW
- SAW CUT REQUIRED

DATA TABLE

POINT NO.	STATION	OFFSET
①	23+18.55	45.50' RT
②	23+18.55	25.50' RT
③	499+30.46	18.57' LT
④	499+19.50	18.76 LT
⑤	499+19.50	18.57' RT
⑥	499+30.46	18.57' RT
⑦	499+67.86	18.67' RT
⑧	24+04.28	25.50' RT
⑨	24+04.28	45.50' RT
⑩	499+46.31	24.73' RT
⑪	499+46.31	29.73' RT
⑫	24+50.00	37.94' RT
⑬	25+00.00	36.25' RT
⑭	25+21.26	35.60' RT
⑮	25+14.67	43.50' RT
⑯	25+14.67	25.50' RT
⑰	599+33.38	18.57' LT
⑱	599+18.20	18.58' LT
⑲	599+18.20	18.58' RT
⑳	599+33.38	18.51' RT
㉑	599+68.61	18.83' RT
㉒	25+97.47	25.50' RT
㉓	25+97.47	45.50' RT
㉔	25+90.34	36.73' RT
㉕	26+50.00	36.94' RT

DATA TABLE

POINT NO.	STATION	OFFSET
㉖	27+00.00	37.15' RT
㉗	27+27.43	46.94' RT
㉘	27+31.79	49.39' RT
㉙	27+50.00	36.94' RT
㉚	28+00.00	29.51' RT
㉛	28+21.66	47.81' RT
㉜	28+25.79	47.51' RT
㉝	28+50.00	34.50' RT
㉞	29+00.00	34.68' RT



PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN DETAILS: RIVERSIDE AVENUE	SHEET 51 E

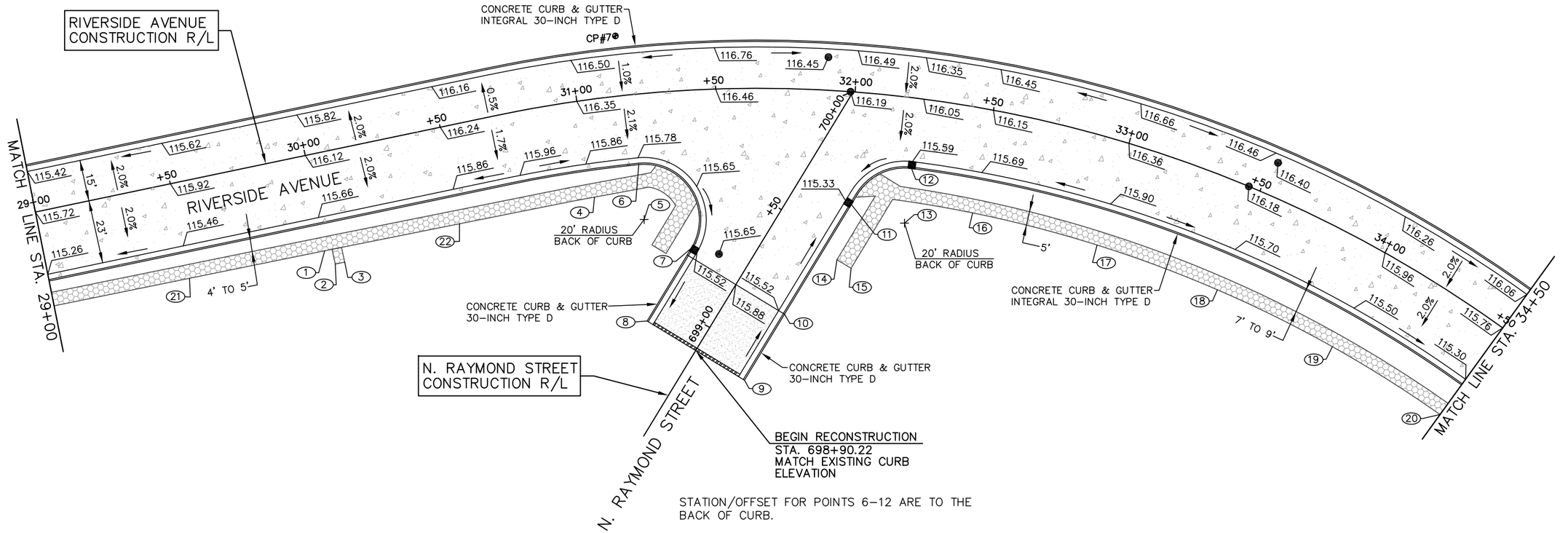
2

LEGEND

- 4" ASPHALTIC SURFACE
- CONCRETE PAVEMENT 8-INCH
- CONCRETE SIDEWALK 4-INCH
- CONCRETE DRIVEWAY 6-INCH
- ASPHALTIC SURFACE DRIVEWAYS
- FLOW ARROW
- SAW CUT REQUIRED

DATA TABLE

POINT NO.	STATION	OFFSET
1	30+00.00	35.26' RT
2	30+02.57	40.79' RT
3	30+06.07	40.75' RT
4	31+00.00	35.33' RT
5	31+18.92	45.50' RT
6	31+18.92	25.50' RT
7	699+21.11	20.66' LT
8	698+90.22	20.63' LT
9	698+90.22	20.67' RT
10	699+18.22	20.66' RT
11	699+64.80	20.66' RT
12	32+23.83	25.50' RT
13	32+23.83	45.50' RT
14	699+45.00	26.64' RT
15	699+45.00	32.64' RT
16	32+50.00	37.98' RT
17	33+00.00	38.62' RT
18	33+50.00	38.96' RT
19	34+00.00	39.01' RT
20	34+50.00	38.78' RT
21	29+50.00	34.97' RT
22	30+50.00	35.69' RT



STATION/OFFSET FOR POINTS 6-12 ARE TO THE BACK OF CURB.

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN DETAILS: RIVERSIDE AVENUE	SHEET 52	E

2

LEGEND

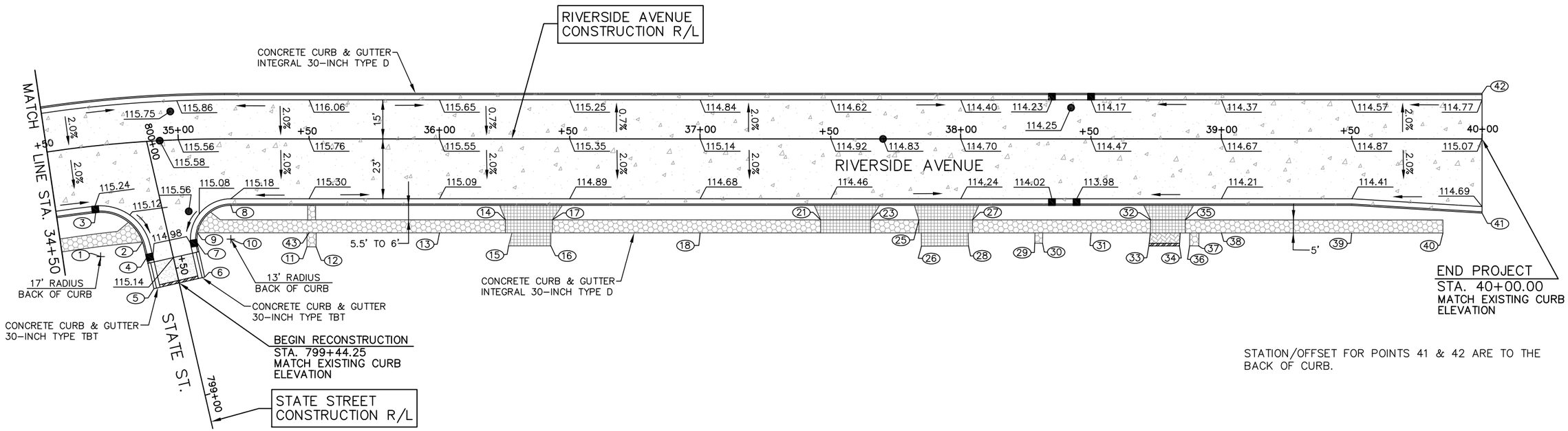
- 4" ASPHALTIC SURFACE
- CONCRETE PAVEMENT 8–INCH
- CONCRETE SIDEWALK 4–INCH
- CONCRETE DRIVEWAY 6–INCH
- ASPHALTIC SURFACE DRIVEWAYS
- FLOW ARROW
- SAW CUT REQUIRED

DATA TABLE

POINT NO.	STATION	OFFSET
1	34+69.00	42.50' RT
2	34+83.39	38.45' RT
3	34+69.00	25.50' RT
4	799+56.43	10.07' LT
5	799+44.25	9.97' LT
6	799+44.25	10.03' RT
7	799+57.75	10.12' RT
8	35+23.86	25.50' RT
9	35+06.51	35.92' RT
10	35+23.86	38.50' RT
11	35+49.18	41.43' RT
12	35+52.68	41.43' RT
13	36+00.00	36.06' RT
14	36+25.29	31.06' RT
15	36+26.48	41.06' RT
16	36+42.70	41.06' RT
17	36+43.31	31.06' RT
18	37+00.00	36.07' RT
21	37+46.24	31.08' RT

DATA TABLE

POINT NO.	STATION	OFFSET
23	37+65.07	41.08' RT
25	37+83.93	31.08' RT
26	37+84.89	41.19' RT
27	38+02.97	41.08' RT
28	38+04.43	31.08' RT
29	38+28.36	40.02' RT
30	38+31.36	40.09' RT
31	38+50.00	36.09' RT
32	38+72.19	41.09' RT
33	38+72.88	31.09' RT
34	38+84.18	36.09' RT
35	38+86.11	31.09' RT
36	38+87.78	41.04' RT
37	38+91.28	41.09' RT
38	39+00.00	36.10' RT
39	39+50.00	36.10' RT
40	39+85.00	36.11' RT
41	40+00.00	28.50' RT
42	40+00.00	17.50' LT
43	35+50.00	36.05' RT



STATION/OFFSET FOR POINTS 3–8 ARE TO THE BACK OF CURB.

STATION/OFFSET FOR POINTS 41 & 42 ARE TO THE BACK OF CURB.

PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN DETAILS: RIVERSIDE AVENUE	SHEET 53 E

2

STA. 1+40, 31.3'LT
A-1-39

STA. 2+45, 31.1'LT
A-1-40

STA. 3+70, 29.1'LT
A-1-41

STA. 1+80, 37.4'RT
A-1-2

STA. 2+95, 40.0'RT
A-1-3

STA. 4+60, 46.0'RT
A-1-4

STA. 5+55, 28.2'RT
A-1-5

STA. 6+20, 28.6'RT
A-1-6

STA. 0+75, 34.1'RT
A-1-1

PC: 0+98.45

PCC: 1+87.83

PT: 6+13.52

0+01.70

RIVERSIDE AVENUE

LESTER STREET

MATCH LINE 6+50

LEGEND

LOCAL LIGHTING LUMINARIE

LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

A-1-1 = FIXTURE DESIGNATION
- FIXTURE NUMBER
- FIXTURE CIRCUIT
- FIXTURE SERVICE

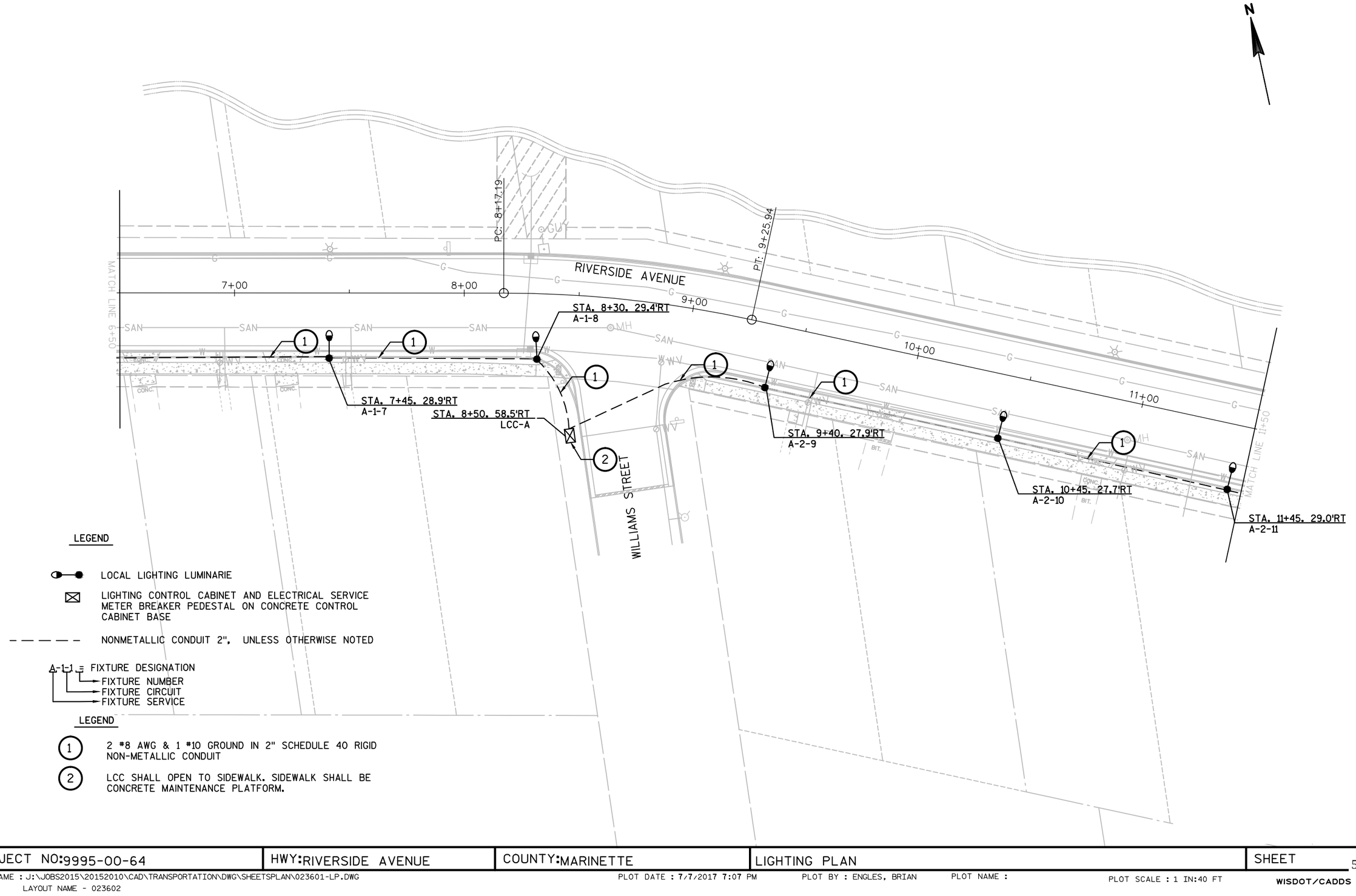
LEGEND

1. 2 #8 AWG & 1 #10 GROUND IN 2" SCHEDULE 40 RIGID NON-METALLIC CONDUIT
2. LCC SHALL OPEN TO SIDEWALK. SIDEWALK SHALL BE CONCRETE MAINTENANCE PLATFORM.

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	LIGHTING PLAN	SHEET 54 E

FILE NAME : J:\JOBS2015\20152010\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - 023601
PLOT DATE : 7/7/2017 7:06 PM
PLOT BY : ENGLES, BRIAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

LOCAL LIGHTING LUMINARIE

LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

A-1-1 = FIXTURE DESIGNATION
- FIXTURE NUMBER
- FIXTURE CIRCUIT
- FIXTURE SERVICE

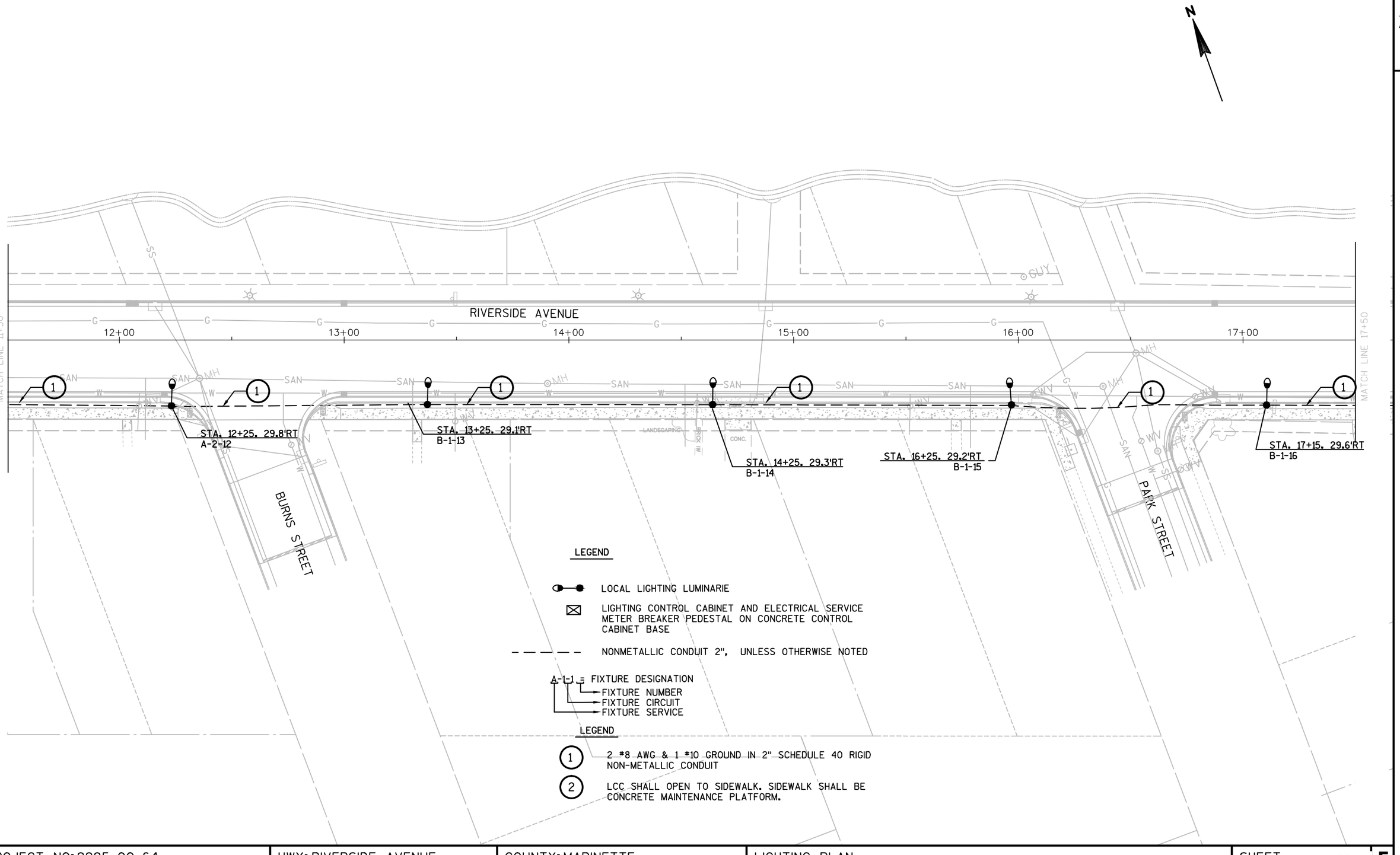
LEGEND

(1) 2 #8 AWG & 1 #10 GROUND IN 2" SCHEDULE 40 RIGID NON-METALLIC CONDUIT

(2) LCC SHALL OPEN TO SIDEWALK. SIDEWALK SHALL BE CONCRETE MAINTENANCE PLATFORM.

PROJECT NO:9995-00-64	HWY:RIVERSIDE AVENUE	COUNTY:MARINETTE	LIGHTING PLAN	SHEET 55	E

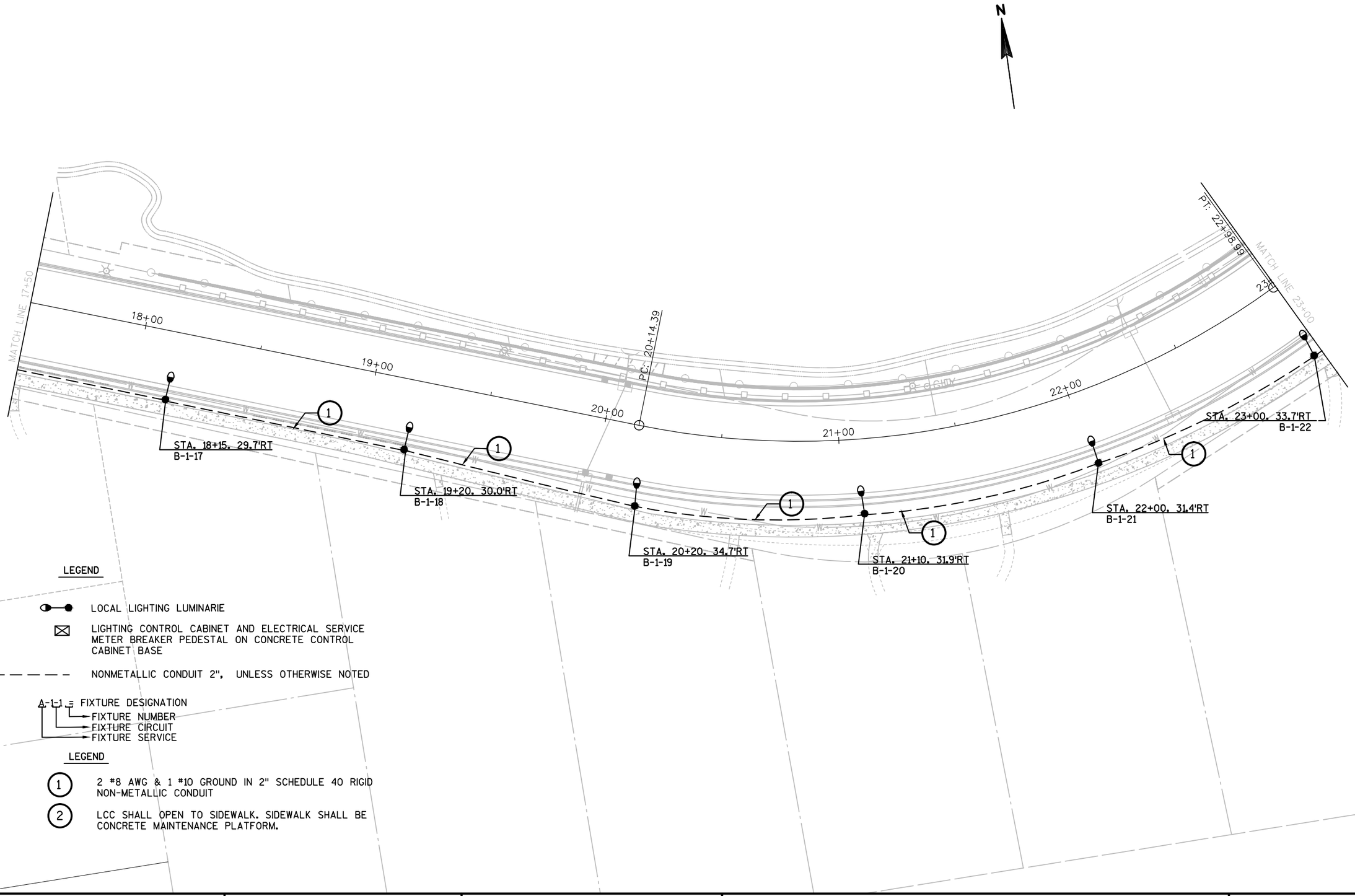
2



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	LIGHTING PLAN	SHEET 56 E

FILE NAME : J:\JOBS2015\20152010\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - 023603
PLOT DATE : 7/7/2017 7:08 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

LOCAL LIGHTING LUMINARIE

LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

A-1-1 = FIXTURE DESIGNATION
- FIXTURE NUMBER
- FIXTURE CIRCUIT
- FIXTURE SERVICE

LEGEND

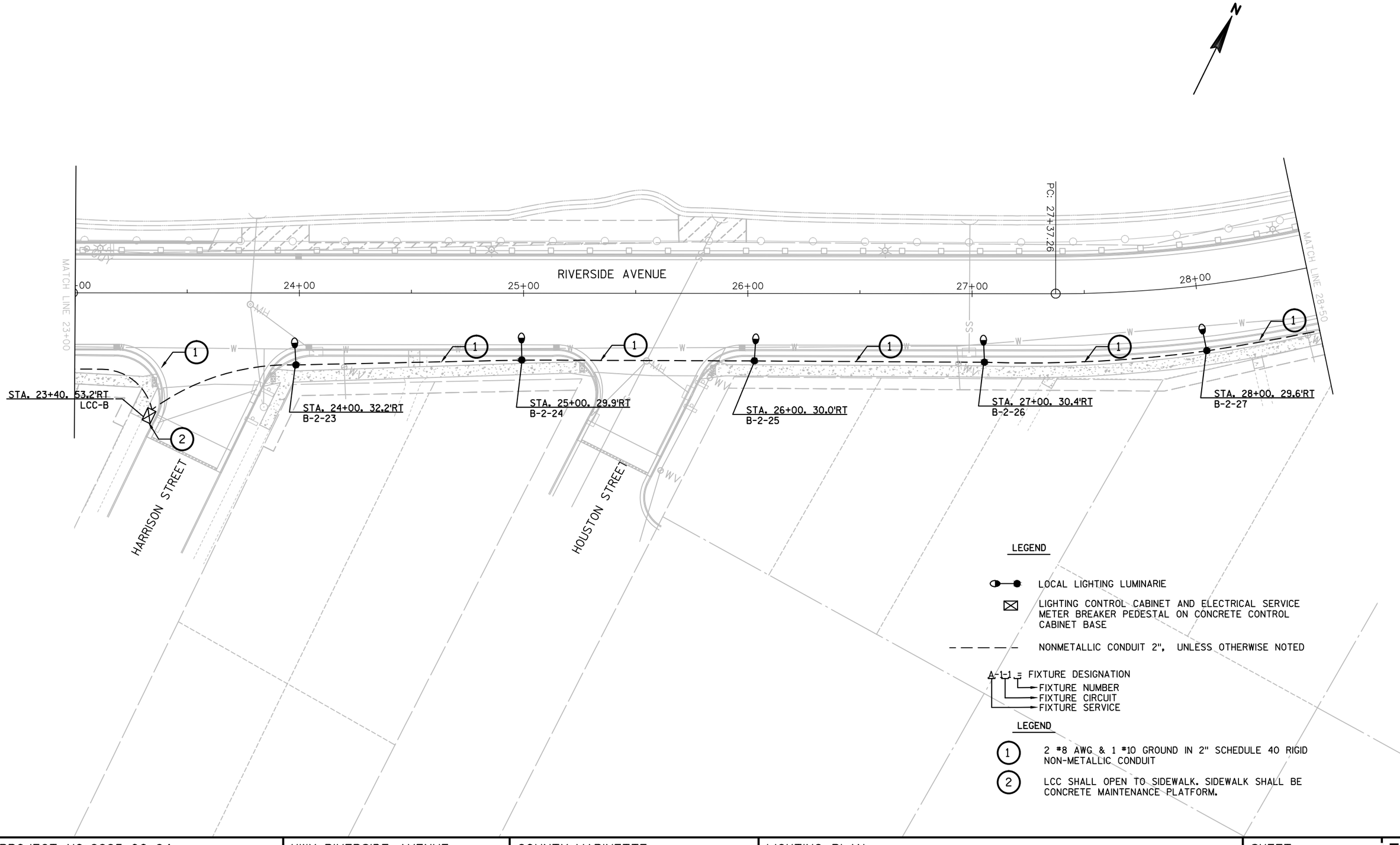
(1) 2 #8 AWG & 1 #10 GROUND IN 2" SCHEDULE 40 RIGID NON-METALLIC CONDUIT

(2) LCC SHALL OPEN TO SIDEWALK. SIDEWALK SHALL BE CONCRETE MAINTENANCE PLATFORM.

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	LIGHTING PLAN	SHEET 57 E

FILE NAME : J:\JOBS2015\20152010\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - 023604
PLOT DATE : 7/7/2017 7:08 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

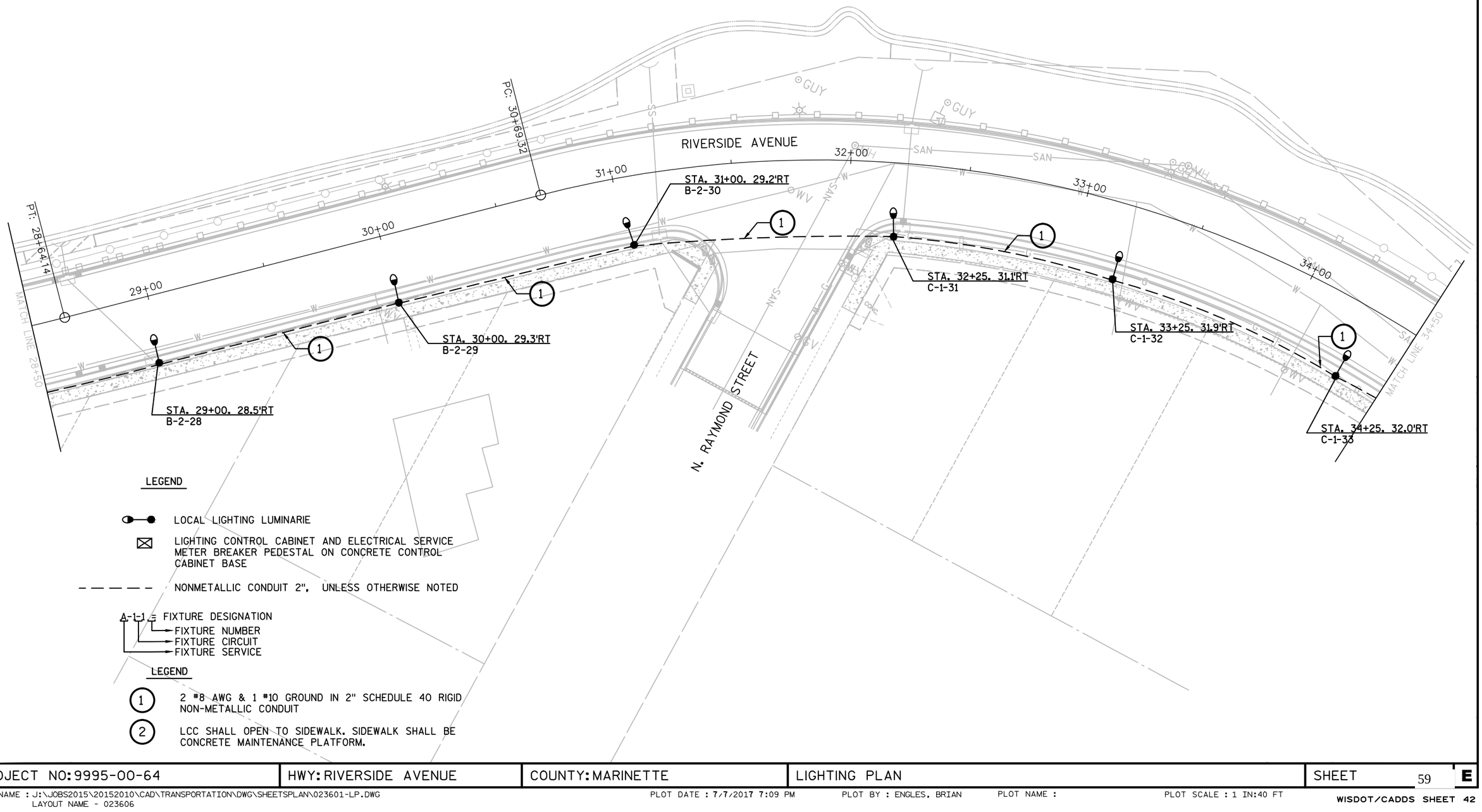
2



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	LIGHTING PLAN	SHEET 58 E

FILE NAME : J:\JOBS2015\20152010\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - 023605
PLOT DATE : 7/7/2017 7:09 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

- LOCAL LIGHTING LUMINARIE
- LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

A-1-1 = FIXTURE DESIGNATION
- FIXTURE NUMBER
- FIXTURE CIRCUIT
- FIXTURE SERVICE

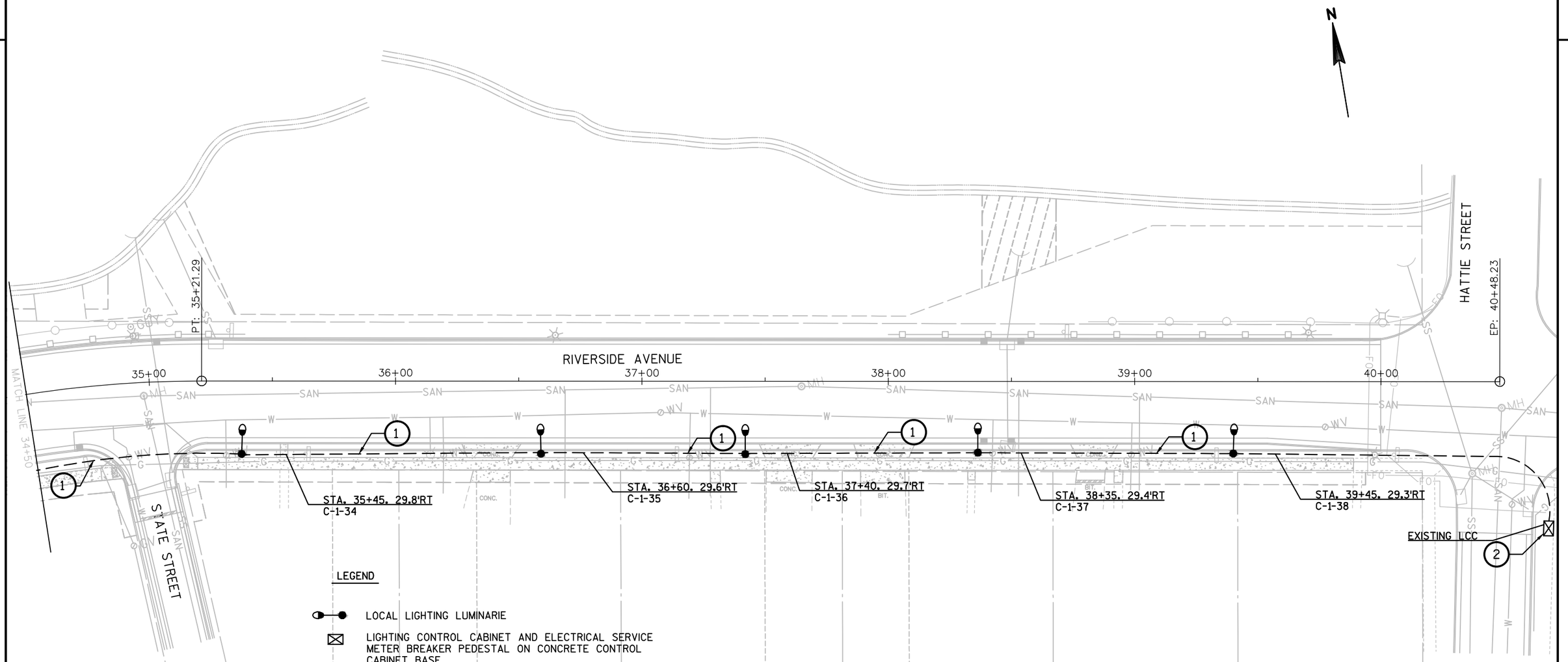
LEGEND

1. 2 #8 AWG & 1 #10 GROUND IN 2" SCHEDULE 40 RIGID NON-METALLIC CONDUIT
2. LCC SHALL OPEN TO SIDEWALK. SIDEWALK SHALL BE CONCRETE MAINTENANCE PLATFORM.

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	LIGHTING PLAN	SHEET 59 E

FILE NAME : J:\JOBS2015\20152010\CAD\TRANSPORTATION\DWG\SHEETSPLAN\023601-LP.DWG
LAYOUT NAME - 023606
PLOT DATE : 7/7/2017 7:09 PM PLOT BY : ENGLES, BRIAN PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



LEGEND

LOCAL LIGHTING LUMINARIE

LIGHTING CONTROL CABINET AND ELECTRICAL SERVICE METER BREAKER PEDESTAL ON CONCRETE CONTROL CABINET BASE

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

A-1-1 = FIXTURE DESIGNATION
- FIXTURE NUMBER
- FIXTURE CIRCUIT
- FIXTURE SERVICE

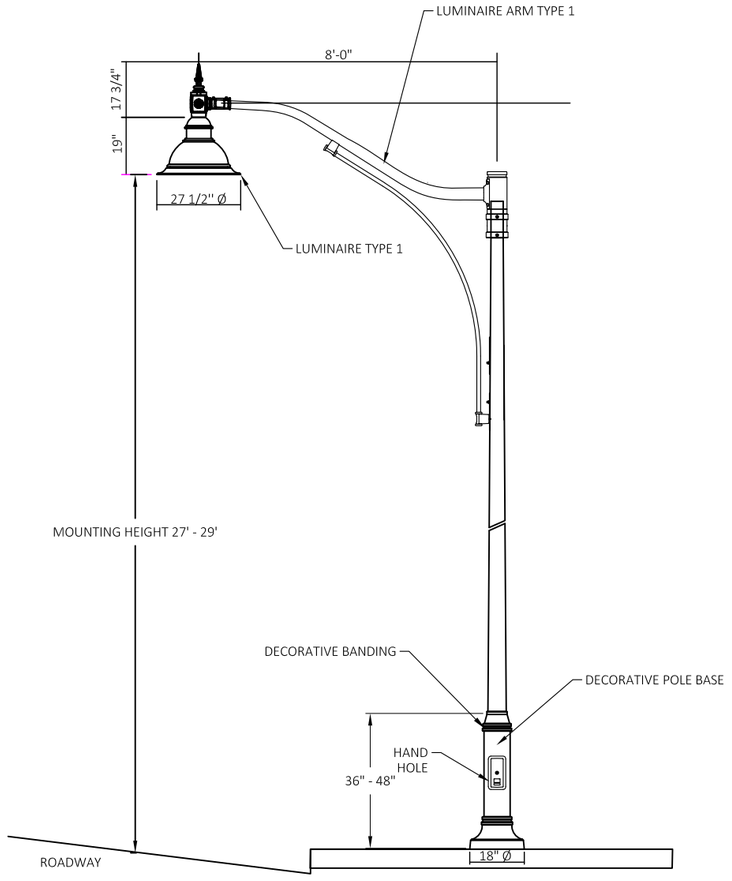
LEGEND

(1) 2 #8 AWG & 1 #10 GROUND IN 2" SCHEDULE 40 RIGID NON-METALLIC CONDUIT

(2) LCC SHALL OPEN TO SIDEWALK. SIDEWALK SHALL BE CONCRETE MAINTENANCE PLATFORM.

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	LIGHTING PLAN	SHEET 60 E

2



DECORATIVE LIGHTING UNIT

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY:MARINETTE	CONSTRUCTION DETAIL	SHEET	E

FILE NAME : C:\USERS\MRASTALL\APPDATA\LOCAL\MICROSOFT\WINDOWS\TEMPORARY INTERNET FILES\CONTENT.OUTLOOK\K9SAIJ00\021002_CD.DWG PLOT DATE : 7/27/2017 4:37 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : PLOT SCALE : 1 IN:50 FT
LAYOUT NAME - 02 CONSTRUCTION DETAIL

9995-00-64

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	145.000	145.000
0004	201.0220	Grubbing	ID	145.000	145.000
0006	204.0100	Removing Pavement	SY	19,770.000	19,770.000
0008	204.0110	Removing Asphaltic Surface	SY	181.000	181.000
0010	204.0150	Removing Curb & Gutter	LF	514.000	514.000
0012	204.0155	Removing Concrete Sidewalk	SY	2,332.000	2,332.000
0014	204.0165	Removing Guardrail	LF	1,667.000	1,667.000
0016	204.0210	Removing Manholes	EACH	10.000	10.000
0018	204.0215	Removing Catch Basins	EACH	34.000	34.000
0020	204.0245	Removing Storm Sewer (size) 01. 48-Inch	LF	52.000	52.000
0022	204.0245	Removing Storm Sewer (size) 02. 36-Inch	LF	50.000	50.000
0024	204.0245	Removing Storm Sewer (size) 03. 24-inch	LF	79.000	79.000
0026	204.0245	Removing Storm Sewer (size) 04. 21-Inch	LF	15.000	15.000
0028	204.0245	Removing Storm Sewer (size) 05. 18-Inch	LF	64.000	64.000
0030	204.0245	Removing Storm Sewer (size) 06. 15-Inch	LF	77.000	77.000
0032	204.0245	Removing Storm Sewer (size) 07. 12-Inch	LF	1,126.000	1,126.000
0034	204.0245	Removing Storm Sewer (size) 08. 8-Inch	LF	242.000	242.000
0036	204.0291.S	Abandoning Sewer	CY	22.000	22.000
0038	204.9090.S	Removing (item description) 01. Concrete Barrier Temporary Precast Left In Place	LF	63.000	63.000
0040	204.9090.S	Removing (item description) 02. Modular Block Retaining Wall	LF	12.000	12.000
0042	204.9105.S	Removing (item description) 01. Traffic Signal, Flashing Light at Sta 5+75	LS	1.000	1.000
0044	205.0100	Excavation Common	CY	16,207.000	16,207.000
0046	209.1100	Backfill Granular Grade 1	CY	5,526.000	5,526.000
0048	213.0100	Finishing Roadway (project) 01. 9995-00-64	EACH	1.000	1.000
0050	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	8,144.000	8,144.000
0052	415.0080	Concrete Pavement 8-Inch	SY	17,634.000	17,634.000
0054	415.4100	Concrete Pavement Joint Filling	SY	19,828.000	19,828.000
0056	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000
0058	416.0160	Concrete Driveway 6-Inch	SY	305.000	305.000
0060	465.0105	Asphaltic Surface	TON	165.000	165.000
0062	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	51.000	51.000
0064	520.8000	Concrete Collars for Pipe	EACH	13.000	13.000
0066	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0068	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	3.000	3.000
0070	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0072	522.1027	Apron Endwalls for Culvert Pipe Reinforced Concrete 27-Inch	EACH	1.000	1.000
0074	601.0110	Concrete Curb Type D	LF	13.000	13.000
0076	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	378.000	378.000
0078	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	7,895.000	7,895.000
0080	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	20.000	20.000
0082	601.0600	Concrete Curb Pedestrian	LF	20.000	20.000
0084	602.0405	Concrete Sidewalk 4-Inch	SF	22,721.000	22,721.000
0086	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	210.000	210.000
0088	606.0300	Riprap Heavy	CY	747.000	747.000
0090	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	142.000	142.000
0092	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	182.000	182.000
0094	608.0321	Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	LF	183.000	183.000
0096	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	240.000	240.000
0098	608.0327	Storm Sewer Pipe Reinforced Concrete Class III 27-Inch	LF	386.000	386.000
0100	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	122.000	122.000
0102	608.0348	Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	LF	52.000	52.000
0104	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	989.000	989.000
0106	611.0530	Manhole Covers Type J	EACH	18.000	18.000
0108	611.0535	Manhole Covers Type J-Special	EACH	9.000	9.000
0110	611.0603	Inlet Covers Type A-S	EACH	36.000	36.000
0112	611.1003	Catch Basins 3-FT Diameter	EACH	30.000	30.000
0114	611.1004	Catch Basins 4-FT Diameter	EACH	4.000	4.000
0116	611.2004	Manholes 4-FT Diameter	EACH	8.000	8.000
0118	611.2005	Manholes 5-FT Diameter	EACH	6.000	6.000
0120	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000
0122	611.2007	Manholes 7-FT Diameter	EACH	2.000	2.000
0124	611.8110	Adjusting Manhole Covers	EACH	2.000	2.000
0126	614.2300	MGS Guardrail 3	LF	631.000	631.000
0128	614.2330	MGS Guardrail 3 K	LF	1,260.000	1,260.000
0130	614.2500	MGS Thrie Beam Transition	LF	39.000	39.000
0132	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
0134	619.1000	Mobilization	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0136	624.0100	Water	MGAL	85.000	85.000
0138	625.0100	Topsoil	SY	7,306.000	7,306.000
0140	628.1504	Silt Fence	LF	2,707.000	2,707.000
0142	628.1520	Silt Fence Maintenance	LF	2,707.000	2,707.000
0144	628.1905	Mobilizations Erosion Control	EACH	11.000	11.000
0146	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0148	628.2002	Erosion Mat Class I Type A	SY	491.000	491.000
0150	628.6005	Turbidity Barriers	SY	641.000	641.000
0152	628.7005	Inlet Protection Type A	EACH	38.000	38.000
0154	628.7015	Inlet Protection Type C	EACH	57.000	57.000
0156	628.7020	Inlet Protection Type D	EACH	27.000	27.000
0158	628.7570	Rock Bags	EACH	85.000	85.000
0160	629.0210	Fertilizer Type B	CWT	0.300	0.300
0162	630.0140	Seeding Mixture No. 40	LB	9.000	9.000
0164	630.0200	Seeding Temporary	LB	198.000	198.000
0166	637.2210	Signs Type II Reflective H	SF	324.000	324.000
0168	638.2102	Moving Signs Type II	EACH	2.000	2.000
0170	638.2602	Removing Signs Type II	EACH	38.000	38.000
0172	638.3000	Removing Small Sign Supports	EACH	41.000	41.000
0174	642.5201	Field Office Type C	EACH	1.000	1.000
0176	643.0300	Traffic Control Drums	DAY	1,875.000	1,875.000
0178	643.0410	Traffic Control Barricades Type II	DAY	1,905.000	1,905.000
0180	643.0420	Traffic Control Barricades Type III	DAY	5,700.000	5,700.000
0182	643.0705	Traffic Control Warning Lights Type A	DAY	13,230.000	13,230.000
0184	643.0900	Traffic Control Signs	DAY	14,110.000	14,110.000
0186	643.5000	Traffic Control	EACH	1.000	1.000
0188	645.0130	Geotextile Type R	SY	285.000	285.000
0190	645.0135	Geotextile Type SR	SY	7,312.000	7,312.000
0192	646.1020	Marking Line Epoxy 4-Inch	LF	12,694.000	12,694.000
0194	646.5020	Marking Arrow Epoxy	EACH	31.000	31.000
0196	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0198	646.5220	Marking Symbol Epoxy	EACH	31.000	31.000
0200	646.6120	Marking Stop Line Epoxy 18-Inch	LF	26.000	26.000
0202	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	86.000	86.000
0204	650.4000	Construction Staking Storm Sewer	EACH	58.000	58.000
0206	650.4500	Construction Staking Subgrade	LF	3,932.000	3,932.000
0208	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	441.000	441.000
0210	650.7000	Construction Staking Concrete Pavement	LF	3,932.000	3,932.000
0212	650.8500	Construction Staking Electrical Installations (project) 01. 9995-00-64	LS	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0214	650.9000	Construction Staking Curb Ramps	EACH	20.000	20.000
0216	650.9910	Construction Staking Supplemental Control (project) 01. 9995-00-64	LS	1.000	1.000
0218	650.9920	Construction Staking Slope Stakes	LF	3,932.000	3,932.000
0220	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	4,685.000	4,685.000
0222	654.0101	Concrete Bases Type 1	EACH	41.000	41.000
0224	654.0215	Concrete Control Cabinet Bases Type 9	EACH	2.000	2.000
0226	655.0610	Electrical Wire Lighting 12 AWG	LF	3,690.000	3,690.000
0228	655.0615	Electrical Wire Lighting 10 AWG	LF	4,685.000	4,685.000
0230	655.0620	Electrical Wire Lighting 8 AWG	LF	9,370.000	9,370.000
0232	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. LCC-A	LS	1.000	1.000
0234	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. LCC-B	LS	1.000	1.000
0236	690.0150	Sawing Asphalt	LF	521.000	521.000
0238	690.0250	Sawing Concrete	LF	367.000	367.000
0240	715.0415	Incentive Strength Concrete Pavement	DOL	5,290.000	5,290.000
0242	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0244	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,320.000	1,320.000
0246	SPV.0035	Special 01. Trench Excavation	CY	6,800.000	6,800.000
0248	SPV.0035	Special 02. Trench Backfill	CY	6,100.000	6,100.000
0250	SPV.0035	Special 03. Rock Mulch	CY	46.000	46.000
0252	SPV.0060	Special 01. 8" x 6" Sanitary Wye	EACH	11.000	11.000
0254	SPV.0060	Special 02. 15" x 6" Sanitary Wye	EACH	5.000	5.000
0256	SPV.0060	Special 04. 6" Gate Valve & Box	EACH	8.000	8.000
0258	SPV.0060	Special 05. 8" Gate Valve & Box	EACH	5.000	5.000
0260	SPV.0060	Special 06. 10" Gate Valve & Box	EACH	10.000	10.000
0262	SPV.0060	Special 07. 6" Hydrant 7'-0" Bury	EACH	7.000	7.000
0264	SPV.0060	Special 08. 6" Hydrant 7' - 6" Bury	EACH	1.000	1.000
0266	SPV.0060	Special 09. 1" Service Tap	EACH	22.000	22.000
0268	SPV.0060	Special 10. 2" Service Tap	EACH	1.000	1.000
0270	SPV.0060	Special 11. 1" Curb Stop & Box	EACH	22.000	22.000
0272	SPV.0060	Special 12. 2" Curb Stop & Box	EACH	1.000	1.000
0274	SPV.0060	Special 13. 6" Watermain Tie In, Sta 0+85	EACH	1.000	1.000
0276	SPV.0060	Special 14. 8" Watermain Tie In, Sta 2+84	EACH	1.000	1.000
0278	SPV.0060	Special 15. 6" Watermain Tie In, Lester Street	EACH	1.000	1.000
0280	SPV.0060	Special 16. 6" Watermain Tie In, Williams Street	EACH	1.000	1.000
0282	SPV.0060	Special 17. 2" Watermain Tie In, Burns Street	EACH	1.000	1.000
0284	SPV.0060	Special 18. 8" Watermain Tie In, Park Street	EACH	1.000	1.000
0286	SPV.0060	Special 19. 6" Watermain Tie In, North Raymond Street	EACH	1.000	1.000

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Line	Item	Item Description	Unit	Total	Qty
0288	SPV.0060	Special 20. 8" Watermain Tie In, State Street	EACH	1.000	1.000
0290	SPV.0060	Special 21. 10" Watermain Tie In, Sta 39+76	EACH	1.000	1.000
0292	SPV.0060	Special 22. Connect to 8" Sanitary Sewer	EACH	3.000	3.000
0294	SPV.0060	Special 23. Connect to 15" Sanitary Sewer	EACH	1.000	1.000
0296	SPV.0060	Special 24. Connect to 18" Sanitary Sewer	EACH	1.000	1.000
0298	SPV.0060	Special 25. Connect to 6" Sanitary Lateral	EACH	16.000	16.000
0300	SPV.0060	Special 26. Connect to 1" Water Lateral	EACH	22.000	22.000
0302	SPV.0060	Special 27. Connect to 2" Water Lateral	EACH	1.000	1.000
0304	SPV.0060	Special 28. Posts U-Channel 14-FT	EACH	65.000	65.000
0306	SPV.0060	Special 29. Posts Round 12-FT	EACH	9.000	9.000
0308	SPV.0060	Special 30. Concrete Bases Type 1 Modified	EACH	2.000	2.000
0310	SPV.0060	Special 31. Pedestal Bases Black	EACH	2.000	2.000
0312	SPV.0060	Special 32. Traffic Signal Standards Aluminum 10-FT Black	EACH	2.000	2.000
0314	SPV.0060	Special 33. Solar Powered Single Blinking Beacon	EACH	2.000	2.000
0316	SPV.0060	Special 34. Street Name Signs	EACH	9.000	9.000
0318	SPV.0060	Special 35. 4" Core and Seal	EACH	2.000	2.000
0320	SPV.0060	Special 36. Removing Sanitary Manholes	EACH	3.000	3.000
0322	SPV.0060	Special 37. Decorative Luminaire and Pole	EACH	41.000	41.000
0324	SPV.0060	Special 38. Lighting Control Cabinets 120/240 30-Inch Black	EACH	2.000	2.000
0326	SPV.0080	Special 01. Bulkhead Existing Pipes	ID	250.000	250.000
0328	SPV.0090	Special 01. 8" Sanitary Sewer SDR 35 PVC	LF	1,351.000	1,351.000
0330	SPV.0090	Special 02. 15" Sanitary Sewer SDR 35 PVC	LF	888.000	888.000
0332	SPV.0090	Special 03. 6" Sanitary Lateral SDR 40 PVC	LF	441.000	441.000
0334	SPV.0090	Special 04. FIll and Abandon 18" Sanitary Sewer	LF	512.000	512.000
0336	SPV.0090	Special 05. 6" Watermain Class 52 D.I.P. W/ Polywrap	LF	203.000	203.000
0338	SPV.0090	Special 06. 8" Watermain Class 52 D.I.P. W/ Polywrap	LF	355.000	355.000
0340	SPV.0090	Special 07. 10" Watermain Class 52 D.I.P. W/ Polywrap	LF	3,900.000	3,900.000
0342	SPV.0090	Special 08. 1" Water Lateral	LF	567.000	567.000
0344	SPV.0090	Special 09. 2" Water Lateral	LF	35.000	35.000
0346	SPV.0090	Special 10. Insulate Watermain and Water Services	LF	295.000	295.000
0348	SPV.0090	Special 11. 4" Intake Conduit SDR 40 PVC	LF	271.000	271.000
0350	SPV.0090	Special 12. 4" Sump Pump Line SDR 40 PVC	LF	15.000	15.000
0352	SPV.0090	Special 13. Concrete Curb & Gutter 24-Inch Type D	LF	30.000	30.000
0354	SPV.0120	Special 01. Water for Seeded Areas	MGAL	163.000	163.000
0356	SPV.0165	Special 01. Resetting Existing Brick Pavers	SF	25.000	25.000
0358	SPV.0180	Special 01. Hydroseeding	SY	6,828.000	6,828.000
0360	SPV.0195	Special 01. Watermain Fittings	TON	4.250	4.250
0362	SPV.0200	Special 01. 4' Diameter Sanitary Manhole	VF	79.000	79.000

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CLEARING AND GRUBBING

STATION	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID
5+38	RT	8	8
16+27	LT	36	36
25+87	LT	15	15
32+26	LT	6	6
38+44	LT	20	20
38+61	LT	60	60
PROJECT TOTALS		145	145

REMOVING PAVEMENT

STATION TO STATION		LOCATION	204.0100 SY
1+69 - 40+00		RIVERSIDE AVENUE	19,184
99+60 - 99+72		LESTER STREET	76
199+63 - 199+73		WILLIAMS STREET	61
299+62 - 299+70		BURNS STREET	49
499+55 - 499+68		HARRISON STREET	87
599+59 - 599+69		HOUSTON STREET	54
699+58 - 699+68		N. RAYMOND STREET	70
6+03	RT	DRIVEWAY	19
6+60	RT	DRIVEWAY	16
7+22	RT	DRIVEWAY	17
9+91	RT	DRIVEWAY	11
10+85	RT	DRIVEWAY	17
14+75	RT	DRIVEWAY	17
36+34	RT	DRIVEWAY	25
37+56	RT	DRIVEWAY	27
37+94	RT	DRIVEWAY	28
38+79	RT	DRIVEWAY	12
		PROJECT TOTAL	19,770

REMOVING CURB AND GUTTER

STATION TO STATION		LOCATION	204.0150 LF
3+12	LT	PARKING LOT	13
4+25	LT	DRIVEWAY	51
299+30 - 299+69	RT & LT	BURNS STREET	43
399+23 - 399+82	RT & LT	PARK STREET	112
499+20 - 499+62	RT & LT	HARRISON STREET	30
599+18 - 599+68	RT & LT	HOUSTON STREET	82
698+90 - 699+68	RT & LT	N. RAYMOND STREET	129
799+44 - 799+72	RT & LT	STATE STREET	54
		PROJECT TOTAL	514

REMOVING CONCRETE SIDEWALK

STATION		LOCATION	204.0155 SY
0+53 - 4+66	RT & LT	RIVERSIDE AVENUE	545
5+15 - 8+48	RT	RIVERSIDE AVENUE	166
8+99 - 12+35	RT	RIVERSIDE AVENUE	163
12+84 - 16+24	RT	RIVERSIDE AVENUE	186
16+70 - 23+37	RT	RIVERSIDE AVENUE	407
23+85 - 25+30	RT	RIVERSIDE AVENUE	84
25+81 - 31+39	RT	RIVERSIDE AVENUE	322
32+05 - 34+84	RT	RIVERSIDE AVENUE	149
35+07 - 39+85	RT	RIVERSIDE AVENUE	236
399+31 - 399+73	RT & LT	PARK STREET	23
499+26 - 499+68	RT & LT	HARRISON STREET	21
699+15 - 699+74	RT & LT	N.RAYMOND STREET	30
		PROJECT TOTAL	2,332

REMOVING ASPHALTIC SURFACE

STATION TO STATION		LOCATION	204.0110 SY
4+25	LT	DRIVEWAY	76
1+88 - 3+13	LT	PARKING LOT	94
9+90	RT	DRIVEWAY	5
38+83	RT	DRIVEWAY	6
		PROJECT TOTAL	181

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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REMOVING GUARDRAIL

STATION TO STATION	LOCATION	204.0165 LF
0+54 - 2+24	LT	192
17+89 - 30+98	LT	1,309
33+91 - 35+23	LT	132
38+81 - 39+15	LT	34
	PROJECT TOTAL	1,667

REMOVING CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE

STATION TO STATION	LOCATION	204.9090.S.01 LF
39+15 - 39+78	LT	63
	PROJECT TOTAL	63

REMOVING MODULAR BLOCK RETAINING WALL

STATION		LOCATION	204.9090.S.02 REMOVING MODULAR BLOCK RETAINING WALL LF
799+44 - 799+56	RT	STATE STREET	12
		TOTALS	12

RESETTING EXISTING BRICK PAVERS

STATION		LOCATION	SPV.0165.01 RESETTING EXISTING BRICK PAVERS SF
6+22	RT	INWALK	25
		TOTALS	25

REMOVING CATCH BASINS

STATION	LOCATION	204.0215 EACH
4+43	RT & LT	2
8+26	RT	1
8+29	LT	1
12+15	RT & LT	2
12+43	RT	1
12+83	RT	1
14+84	RT	1
14+87	LT	1
16+03	RT	1
16+28	RT	1
16+44	LT	1
16+91	RT	1
19+96	RT	1
20+05	LT	1
22+36	RT & LT	2
23+36	RT	1
23+83	RT	1
24+08	RT	1
25+30	RT	1
25+75	RT	1
26+99	RT	1
28+71	LT	1
28+97	RT	1
31+16	RT	1
31+34	RT	1
32+00	RT	1
32+24	RT & LT	2
35+27	LT	1
38+48	RT & LT	2
PROJECT TOTALS		34

REMOVING MANHOLES

STATION	LOCATION	204.0210 EACH
0+83	LT	1
1+59	LT	1
4+55	LT	1
4+75	RT	1
4+77	LT	1
12+36	RT	1
16+52	RT	1
23+78	RT	1
25+55	RT	1
35+00	LT	1
PROJECT TOTALS		10

REMOVING TRAFFIC SIGNAL, FLASHING LIGHT AT STATION 5+75

STATION	LOCATION	204.9105.S.01 LS
5+75	LT	1
	PROJECT TOTAL	1

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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REMOVING STORM SEWER

		204.0245								209.1100 (A)	204.0291.S
		.01	.02	.03	.04	.05	.06	.07	.08	BACKFILL GRANULAR	ABANDONING
		48-INCH	36-INCH	24-INCH	21-INCH	18-INCH	15-INCH	12-INCH	8-INCH	GRADE 1	STORM SEWER
STATION - STATION	LOCATION	LF	LF	LF	LF	LF	LF	LF	LF	CY	CY
0+83	LT	-	10	-	15	-	-	-	-	-	-
1+23 - 2+10	LT	-	20	-	-	-	-	-	-	-	22
4+43 - 4+63	RT & LT	-	20	-	-	20	-	60	-	44	-
4+75	RT	-	-	-	-	20	-	-	-	-	-
8+28	RT & LT	-	-	-	-	-	-	78	-	-	-
12+15 - 12+83	RT & LT	52	-	-	-	-	-	132	-	-	-
14+85	RT & LT	-	-	-	-	-	-	89	-	80	-
16+03 - 16+91	RT & LT	-	-	-	-	-	-	236	-	65	-
20+00	RT & LT	-	-	-	-	-	13	44	-	32	-
22+35	RT & LT	-	-	-	-	-	-	55	-	51	-
23+36 - 24+08	RT & LT	-	-	-	-	-	-	162	-	131	-
25+30 - 25+97	RT & LT	-	-	79	-	-	-	60	-	46	-
26+98	RT & LT	-	-	-	-	-	-	50	-	50	-
28+71 - 28+97	RT & LT	-	-	-	-	-	64	-	-	33	-
31+15 - 32+25	RT & LT	-	-	-	-	24	-	68	109	120	-
34+98 - 35+27	RT & LT	-	-	-	-	-	-	92	54	64	-
38+50	RT & LT	-	-	-	-	-	-	-	79	-	-
	PROJECT TOTALS	52	50	79	15	64	77	1,126	242	716	22

A) REFER TO EXCAVATION TABLE FOR ADDITIONAL QUANTITY.

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

EARTHWORK

Division	From/To Station CURVE TABLE	Location	Common Excavation (1) (item # 205.0100) Cut (2) (item # 205.0100)	EBS Excavation (3)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Expanded EBS Backfill (11) Factor 1.30	Unexpanded Fill	Expanded Fill (13) Factor 1.25	Mass Ordinate +/- (14)	Waste	Borrow (item #208.0100)	Comment:
1	0+68.45 - 20+50	RIVERSIDE AVENUE	7375	1050	2286	5089	1365	57	71	5018	5018	0	
2	20+50 - 40+00	RIVERSIDE AVENUE	5132	2650	2389	2743	3445	130	163	2581	2580	0	
Grand Total			12507	3700	4675	7832	4810	187	234	7598	7598	0	
		Total Common Exc	16207										

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
4) Salvaged/Unsuable Pavement Material
5) Available Material = Cut - Salvaged/Unsuable Pavement Material
11) Expanded EBS Backfill - This is to be filled with Backfill Granular Grade 1 material. EBS Backfill Factor = 1.3. Item number 209.1100 (Refer to Storm Sewer Removal Table for additional quantity)
13) Expanded Fill. Factor = 1.25
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

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BASE AGGREGATE DENSE AND WATER

STATION TO STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL
0+68.45 - 40+00	RIVERSIDE AVENUE	6,872	68.7
99+20 - 99+72	LESTER STREET	115	1.2
199+14 - 199+72	WILLIAMS STREET	120	1.2
299+00 - 299+71	BURNS STREET	154	1.5
399+23 - 399+71	PARK STREET	92	0.9
499+20 - 499+69	HARRISON STREET	95	1.0
599+18 - 599+70	HOUSTON STREET	100	1.0
698+90 - 699+69	N. RAYMOND STREET	174	1.7
799+44 - 799+72	STATE STREET	34	0.3
	UNDISTRIBUTED	387.8	7.8
	PROJECT TOTALS	8,144	85

CONCRETE PAVEMENT

STATION TO STATION	LOCATION	415.0080 8-INCH SY	415.4100 CONCRETE PAVEMENT JOINT FILLING SY	415.5110.S CONCRETE PAVEMENT JOINT LAYOUT LS
0+93 - 40+00	RIVERSIDE AVENUE	16,496	18,489	1
99+49 - 99+74	LESTER STREET	112	133	-
199+42 - 199+72	WILLIAMS STREET	133	158	-
299+40 - 299+73	BURNS STREET	135	159	-
399+37 - 399+73	PARK STREET	145	171	-
499+31 - 499+70	HARRISON STREET	170	198	-
599+32 - 599+70	HOUSTON STREET	155	182	-
699+17 - 699+69	N. RAYMOND STREET	250	283	-
799+54 - 799+73	STATE STREET	38	55	-
	PROJECT TOTALS	17,634	19,828	1

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

ASPHALT SUMMARY

STATION TO STATION		LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
0+68.45 - 0+93		RIVERSIDE AVENUE	23	---
1+04 - 3+11	LT	PARKING LOT	-	37
4+25	LT	DRIVEWAY	-	12
9+90	RT	DRIVEWAY	-	1
38+78	RT	DRIVEWAY	-	1
99+20 - 99+49		LESTER STREET	23	---
199+14 - 199+41		WILLIAMS STREET	23	---
299+00 - 299+40		BURNS STREET	34	---
399+23 - 399+37		PARK STREET	11	---
499+20 - 499+30		HARRISON STREET	9	---
599+18 - 599+33		HOUSTON STREET	12	---
698+90 - 699+18		N. RAYMOND STREET	26	---
799+44 - 799+54		STATE STREET	4	---
		PROJECT TOTALS	165	51

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CONCRETE CURB AND CURB & GUTTER

STATION TO STATION		LOCATION	601.0110 CONCRETE CURB TYPE D LF	601.0411 30-INCH TYPE D LF	601.0452 INTEGRAL 30-INCH TYPE D LF	601.0584 4-INCH SLOPED 30-INCH TYPE TBT LF	601.0600 CONCRETE CURB PEDESTRIAN LF	SPV.0090.13 24-INCH TYPE D LF
0+93 - 40+00	RT & LT	RIVERSIDE AVENUE	-	-	7,174	-	-	-
0+68.45 - 0+93	RT & LT	RIVERSIDE AVENUE	-	50	-	-	-	-
3+12	LT	PARKING LOT	13	-	-	-	-	-
4+25	LT	DRIVEWAY	-	32	-	-	-	-
99+20 - 99+75	RT & LT	LESTER STREET	-	56	74	-	-	-
199+14 - 199+74	RT & LT	WILLIAMS STREET	-	54	90	-	-	-
299+00 - 299+73	RT & LT	BURNS STREET	-	80	87	-	-	-
399+23 - 399+75	RT & LT	PARK STREET	-	28	94	-	-	-
499+20 - 499+74	RT & LT	HARRISON STREET	-	22	101	-	-	-
499+46 - 499+66	RT & LT	HARRISON STREET		-	-	-	20	
599+19 - 599+75	RT & LT	HOUSTON STREET	-	-	96	-	-	30
698+90 - 699+74	RT & LT	N. RAYMOND STREET	-	56	119	-	-	-
799+44 - 799+77	RT & LT	STATE STREET	-	-	60	20	-	-
		PROJECT TOTALS	13	378	7,895	20	20	30

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONCRETE SIDEWALK AND DRIVEWAY

STATION TO STATION		LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF
0+53 - 4+66	LT	RIVERSIDE AVENUE	66	3,371	20
0+68 - 5+30	RT	RIVERSIDE AVENUE	-	2,718	20
5+15 - 8+48	RT	RIVERSIDE AVENUE	69	1,574	30
8+99 - 12+35	RT	RIVERSIDE AVENUE	37	1,597	20
12+84 - 16+24	RT	RIVERSIDE AVENUE	21	1,712	20
16+70 - 23+37	RT	RIVERSIDE AVENUE	-	3,725	20
23+85 - 25+30	RT	RIVERSIDE AVENUE	-	801	20
25+81 - 31+39	RT	RIVERSIDE AVENUE	-	3,022	30
32+05 - 34+84	RT	RIVERSIDE AVENUE	-	1,353	20
35+07 - 39+85	RT	RIVERSIDE AVENUE	112	2,117	10
399+31 - 399+73	RT & LT	PARK STREET	-	202	-
499+26 - 499+68	RT & LT	HARRISON STREET	-	195	-
699+15 - 699+74	RT & LT	N. RAYMOND STREET	-	334	-
		PROJECT TOTALS	305	22,721	210

ADJUSTING STRUCTURES

STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVER EACH	611.0603 INLET COVERS TYPE A-S EACH	EXISTING COVER ELEVATION	NEW COVER ELEVATION
16+38	20.7' RT	1	---	120.27	119.94
16+62	49.5' RT	1	---	120.30	120.30
34+87	44.4' RT	---	1	115.06	114.98
35+05	39.9' RT	---	1	115.02	114.98
	PROJECT TOTALS	2	2		

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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STORM SEWER SUMMARY

FROM STRUCTURE NO.	TO STRUCTURE NO.	INLET ELEV	OUTLET ELEV	SLOPE %	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 608.0315 15-INCH (LF)	608.0318 18-INCH (LF)	608.0321 21-INCH (LF)	608.0324 24-INCH (LF)	608.0327 27-INCH (LF)	608.0336 36-INCH (LF)	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 608.0348 48-INCH (LF)	608.0412 12-INCH (LF)
MH 10.0	EX. PIPE N.	115.83	115.78	0.50%	---	---	15	---	---	---	---	---
MH 10.0	EX. PIPE W.	120.25	120.32	0.50%	---	---	---	---	---	10	---	---
MH 11.0	MH 10.0A	114.85	115.30	0.60%	---	---	---	---	---	72	---	---
MH 11.0	EX. PIPE W.	115.30	114.80	0.50%	---	---	---	---	---	10	---	---
MH 10.0A	EX. PIPE S.	115.30	115.35	0.50%	---	---	---	---	---	10	---	---
MH 11.0	CB 11.1	121.53	121.65	1.00%	---	---	---	---	---	---	---	12
MH 11.0	CB 11.2	121.21	121.50	1.00%	---	---	---	---	---	---	---	29
MH 12.0	EX. PIPE N.	113.52	113.48	0.40%	---	---	---	---	---	10	---	---
MH 12.0	EX. PIPE W.	113.52	113.56	0.40%	---	---	---	---	---	10	---	---
MH 13.0	MH 12.0	117.50	117.60	1.00%	---	---	---	---	---	---	---	10
MH 12.0	CB 12.1	120.00	120.32	1.00%	---	---	---	---	---	---	---	32
MH 13.0	EX. PIPE N.	115.72	115.67	0.50%	---	10	---	---	---	---	---	---
MH 13.0	EX. PIPE S.	115.72	115.77	0.50%	---	10	---	---	---	---	---	---
MH 13.0	CB 13.1	120.00	120.21	1.00%	---	---	---	---	---	---	---	21
MH 13.0A	EX. PIPE N.	116.04	115.99	0.50%	---	10	---	---	---	---	---	---
MH 13.0A	EX. PIPE S.	116.04	116.09	0.50%	---	10	---	---	---	---	---	---
AE 14.0	CB 14.1	118.00	118.19	0.50%	---	---	---	---	---	---	---	38
CB 14.1	CB 14.2	118.19	118.6	0.50%	---	---	---	---	---	---	---	41
MH 15.0	EX. PIPE N.	111.65	111.62	0.20%	---	---	---	---	---	---	12	---
MH 15.0	MH 16.0	111.65	111.65	0.00%	---	---	---	---	---	---	28	---
MH 15.0	CB 15.1	117.30	117.60	1.00%	---	---	---	---	---	---	---	30
MH 15.0	MH 17.0	116.14	116.50	0.50%	---	---	---	---	---	---	---	71
MH 17.0	CB 17.1	116.91	117.07	1.00%	---	---	---	---	---	---	---	16
MH 17.0	CB 17.2	116.91	117.15	1.00%	---	---	---	---	---	---	---	25
MH 16.0	EX. PIPE S.	111.65	111.68	0.20%	---	---	---	---	---	---	12	---
MH 16.0	CB 16.1	117.20	117.40	1.00%	---	---	---	---	---	---	---	19
AE 18.1	MH 18.0	113.00	114.00	1.92%	52	---	---	---	---	---	---	---
MH 18.0	MH 19.0	115.00	115.37	1.09%	34	---	---	---	---	---	---	---
MH 19.0	MH 19.3	115.37	115.70	1.09%	30	---	---	---	---	---	---	---
MH 18.0	CB 18.2	115.00	115.39	1.00%	---	---	---	---	---	---	---	39
MH 19.0	CB 19.1	115.50	115.85	1.00%	---	---	---	---	---	---	---	35
MH 19.0	CB 19.2	115.50	115.82	1.00%	---	---	---	---	---	---	---	32
AE 20.0	CB 20.1	111.50	111.54	0.40%	12	---	---	---	---	---	---	---
CB 20.1	CB 21.0	111.54	111.71	0.40%	---	---	---	---	---	---	---	41
CB 20.1	CB 20.2	111.55	111.59	0.40%	---	---	---	---	---	---	---	10
CB 21.0	CB 21.1	111.71	111.75	0.40%	---	---	---	---	---	---	---	10
CB 21.1	EX. PIPES S.	112.50	112.55	1.00%	---	---	---	---	---	---	---	---
			SUBTOTAL		128	40	15			122	52	511

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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STORM SEWER SUMMARY

FROM STRUCTURE NO.	TO STRUCTURE NO.	INLET ELEV	OUTLET ELEV	SLOPE %	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 608.0315 15-INCH (LF)	608.0318 18-INCH (LF)	608.0321 21-INCH (LF)	608.0324 24-INCH (LF)	608.0327 27-INCH (LF)	608.0336 36-INCH (LF)	608.0348 48-INCH (LF)	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 608.0412 12-INCH (LF)
AE 22.0	CB 22.1	111.70	111.80	0.40%	---	---	---	---	---	---	---	12
CB 22.1	CB 22.2	111.80	111.96	0.40%	---	---	---	---	---	---	---	41
CB 22.2	CB 22.3	111.96	112.30	0.40%	---	---	---	---	---	---	---	86
AE 23.0	MH 23.1	111.26	111.40	0.20%	---	---	---	23	---	---	---	---
MH 23.1	EX. PIPE S.	111.40	111.42	0.20%	---	---	---	70	---	---	---	---
MH 23.1	CB 23.2	112.28	112.50	0.50%	---	---	---	---	---	---	---	43
MH 23.1	CB 23.3	112.28	112.48	0.50%	---	---	---	---	---	---	---	40
AE 24.0	CB 24.1	111.50	111.56	0.40%	14	---	---	---	---	---	---	---
CB 24.1	CB 25.0	111.56	111.72	0.40%	---	---	---	---	---	---	---	41
CB 24.1	CB 24.2	111.56	111.60	0.40%	---	---	---	---	---	---	---	10
CB 25.0	CB 25.1	111.72	111.76	0.40%	---	---	---	---	---	---	---	10
BH 26.2	MH 26.0	107.73	107.65	0.40%	---	20	---	---	---	---	---	---
MH 26.0	MH 27.0	107.65	107.32	0.40%	---	82	---	---	---	---	---	---
MH 27.0	MH 28.0	107.32	106.65	0.40%	---	---	168	---	---	---	---	---
MH 26.0	CB 26.1	111.15	111.25	1.00%	---	---	---	---	---	---	---	10
MH 27.0	CB 27.1	110.50	111.00	1.00%	---	---	---	---	---	---	---	50
CB 27.1	CB 27.2	111.00	111.23	1.00%	---	---	---	---	---	---	---	23
MH 28.0	MH 29.0	106.65	106.05	0.40%	---	---	---	147	---	---	---	---
MH 29.0	MH 30.0	106.05	106.21	0.40%	---	40	---	---	---	---	---	---
MH 29.0	MH 31.0	106.05	104.66	0.40%	---	---	---	---	346	---	---	---
MH 31.0	AE 31.1	104.66	104.50	0.40%	---	---	---	---	40	---	---	---
MH 30.0	EX. PIPE S.	111.80	111.84	0.40%	---	---	---	---	---	---	---	10
MH 30.0	CB 30.1	110.64	111.00	1.00%	---	---	---	---	---	---	---	36
MH 31.0	CB 31.2	109.89	110.00	1.00%	---	---	---	---	---	---	---	11
MH 31.0	CB 31.3	109.93	110.00	1.00%	---	---	---	---	---	---	---	7
MH 31.0	CB 31.5	109.44	109.80	1.00%	---	---	---	---	---	---	---	36
CB 31.5	CB 31.4	109.80	109.92	1.00%	---	---	---	---	---	---	---	12
	SUBTOTAL				14	142	168	240	386			478
	PROJECT TOTALS				142	182	183	240	386	122	52	989

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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STORM SEWER STRUCTURE SCHEDULE

STRUCT. NO.	STATION	OFFSET	FINISHED CASTING ELEV	FINISHED TOP STRUCTURE ELEV	FINISHED INVERT STRUCTURE ELEV	DEPTH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 522.1012 12-INCH (EACH)	522.1015 15-INCH (EACH)	522.1024 24-INCH (EACH)	522.1027 27-INCH (EACH)	INLET AND MANHOLE COVERS 611.0530 TYPE J (EACH)	611.0603 TYPE A-S (EACH)	CATCH BASINS 611.1003 3-FT DIAMETER (EACH)	611.1004 4-FT DIAMETER (EACH)	MANHOLES 611.2004 4-FT DIAMETER (EACH)	611.2005 5-FT DIAMETER (EACH)	611.2006 6-FT DIAMETER (EACH)	611.2007 7-FT DIAMETER (EACH)
MH 10.0	0+83	9' LT	126.65	125.40	115.83	9.57	---	---	---	---	1	---	---	---	---	1	---	---
MH 10.0A	1+32	11' LT	126.43	125.18	115.30	9.88	---	---	---	---	1	---	---	---	---	1	---	---
MH 11.0	2+00	5' LT	126.27	125.02	114.85	10.17	---	---	---	---	1	---	---	---	---	1	---	---
CB 11.1	2+00	16.5' LT	126.10	125.02	119.65	5.37	---	---	---	---	---	1	1	---	---	---	---	---
CB 11.2	2+00	16.5' RT	125.94	124.86	119.50	5.36	---	---	---	---	---	1	1	---	---	---	---	---
MH 12.0	4+55	5.3' LT	124.97	123.72	113.52	10.20	---	---	---	---	1	---	---	---	---	---	1	---
CB 12.1	4+58	26.7' RT	124.49	123.41	118.32	5.09	---	---	---	---	---	1	1	---	---	---	---	---
MH 13.0	4+63	0.5' LT	124.95	123.70	115.72	7.98	---	---	---	---	1	---	---	---	1	---	---	---
CB 13.1	4+77	16.5' LT	124.63	123.55	118.21	5.34	---	---	---	---	---	1	1	---	---	---	---	---
MH 13.0A	4+75	53.4' RT	124.82	123.57	116.04	7.53	---	---	---	---	1	---	---	---	1	---	---	---
AE 14.0	18+28	54' LT			118.00		1	---	---	---	---	---	---	---	---	---	---	---
CB 14.1	8+29	16.5' LT	123.24	122.16	116.19	5.97	---	---	---	---	---	1	1	---	---	---	---	---
CB 14.2	8+29	24.5' RT	123.08	122.00	116.60	5.40	---	---	---	---	---	1	1	---	---	---	---	---
MH 15.0	12+29	0.5' LT	121.90	120.65	109.60	11.05	---	---	---	---	1	---	---	---	---	---	---	1
CB 15.1	12+04	16.5' LT	121.72	120.64	115.60	5.04	---	---	---	---	---	1	1	---	---	---	---	---
MH 16.0	12+39	25.5' RT	121.70	120.45	109.60	10.85	---	---	---	---	1	---	---	---	---	---	---	1
CB 16.1	12+20	24.5' RT	121.50	120.42	115.40	5.02	---	---	---	---	---	1	1	---	---	---	---	---
MH 17.0	13+00	ON C/L	121.64	120.39	116.50	3.89	---	---	---	---	1	---	---	---	1	---	---	---
CB 17.1	13+00	16.5' LT	121.34	120.26	114.91	5.35	---	---	---	---	---	1	1	---	---	---	---	---
CB 17.2	13+00	24.5' RT	121.18	120.10	115.15	4.95	---	---	---	---	---	1	1	---	---	---	---	---
MH 18.0	16+48	13' LT	119.70	118.45	114.00	4.45	---	---	---	---	1	---	---	---	1	---	---	---
AE 18.1	16+27	59.5' LT			113.00		---	1	---	---	---	---	---	---	---	---	---	---
CB 18.2	16+87	16.5' LT	119.34	118.26	113.39	4.87	---	---	---	---	---	1	1	---	---	---	---	---
MH 19.0	16+56	20.5' RT	119.70	118.45	115.37	3.08	---	---	---	---	1	---	---	---	1	---	---	---
CB 19.1	16+27	41.5' RT	120.14	119.06	113.85	5.21	---	---	---	---	---	1	1	---	---	---	---	---
CB 19.2	16+87	24.5' RT	119.18	118.10	113.82	4.28	---	---	---	---	---	1	1	---	---	---	---	---
AE 20.0	20+06	28' LT			111.50		---	1	---	---	---	---	---	---	---	---	---	---
CB 20.1	20+06	16.5' LT	114.78	113.70	109.54	4.16	---	---	---	---	---	1	---	1	---	---	---	---
CB 20.2	19+96	16.5' LT	114.82	113.74	109.59	4.15	---	---	---	---	---	1	1	---	---	---	---	---
CB 21.0	20+06	24.5' RT	114.62	113.54	109.71	3.83	---	---	---	---	---	1	---	1	---	---	---	---
CB 21.1	19+96	24.5' RT	114.66	113.58	109.75	3.83	---	---	---	---	---	1	1	---	---	---	---	---
					SUBTOTAL		1	2			11	17	15	2	5	3	1	2

NOTES

1. TOP OF CASTING ELEVATION FOR CATCH BASINS IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. DEPTHS OF MANHOLES ARE MEASURED FROM LOWEST PIPE INVERT TO TOP OF MASONRY.
4. DEPTHS OF CATCH BASINS ARE MEASURED FROM BOTTOM OF SUMP TO TOP OF MASONRY.
5. MANHOLE DEPTHS INCLUDE A 9" CASTING ALLOWANCE AND A 6" ADJUSTMENT ALLOWANCE.
6. CATCH BASIN DEPTHS INCLUDE A 7" CASTING ALLOWANCE AND A 6" ADJUSTMENT ALLOWANCE.

MH = MANHOLE
CB = CATCH BASIN
AE = APRON ENDWALL

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

STORM SEWER STRUCTURE SCHEDULE

STRUCT. NO.	STATION	OFFSET	FINISHED CASTING ELEV	FINISHED TOP STRUCTURE ELEV	FINISHED INVERT STRUCTURE ELEV	DEPTH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 522.1012 12-INCH (EACH)	522.1015 15-INCH (EACH)	522.1024 24-INCH (EACH)	522.1027 27-INCH (EACH)	INLET AND MANHOLE COVERS 611.0530 TYPE J (EACH)	611.0603 TYPE A-S (EACH)	CATCH BASINS 611.1003 3-FT DIAMETER (EACH)	611.1004 4-FT DIAMETER (EACH)	MANHOLES 611.2004 4-FT DIAMETER (EACH)	611.2005 5-FT DIAMETER (EACH)	611.2006 6-FT DIAMETER (EACH)	611.2007 7-FT DIAMETER (EACH)
AE 22.0	23+83	31.5' LT			111.70		1	---	---	---	---	---	---	---	---	---	---	---
CB 22.1	24+00	16.5' LT	115.98	114.90	109.80	5.10	---	---	---	---	---	1	1	---	---	---	---	---
CB 22.2	24+05	24.5' RT	115.82	114.74	109.96	4.78	---	---	---	---	---	1	1	---	---	---	---	---
CB 22.3	23+19	24.5' RT	115.89	114.81	110.30	4.51	---	---	---	---	---	1	1	---	---	---	---	---
AE 23.0	25+87	32' LT			111.26		---	---	1	---	---	---	---	---	---	---	---	---
MH 23.1	25+55	30' RT	116.50	115.25	111.40	3.85	---	---	---	---	1	---	---	---	---	---	1	---
CB 23.2	25+98	24.5' RT	116.22	115.14	110.50	4.64	---	---	---	---	---	1	1	---	---	---	---	---
CB 23.3	25+55	24.5' RT	116.27	115.19	110.48	4.71	---	---	---	---	---	1	1	---	---	---	---	---
AE 24.0	28+70	29' LT			111.50		---	1	---	---	---	---	---	---	---	---	---	---
CB 24.1	28+65	16.5' LT	115.28	114.20	109.56	4.64	---	---	---	---	---	1	---	1	---	---	---	---
CB 24.2	28+75	16.5' LT	115.32	114.24	109.60	4.64	---	---	---	---	---	1	1	---	---	---	---	---
CB 25.0	28+65	24.5' RT	115.12	114.04	109.72	4.32	---	---	---	---	---	1	---	1	---	---	---	---
CB 25.1	28+75	24.5' RT	115.16	114.08	109.76	4.32	---	---	---	---	---	1	1	---	---	---	---	---
MH 26.0	31+49	60' RT	115.65	114.40	107.65	6.75	---	---	---	---	1	---	---	---	1	---	---	---
CB 26.1	31+38	58' RT	115.46	114.38	109.25	5.13	---	---	---	---	---	1	1	---	---	---	---	---
MH 27.0	31+90	12' LT	116.45	115.20	107.32	7.88	---	---	---	---	1	---	---	---	1	---	---	---
CB 27.1	32+00	40.2' RT	115.33	114.25	109.00	5.25	---	---	---	---	---	1	1	---	---	---	---	---
CB 27.2	32+23	24.5' RT	115.59	114.51	109.23	5.28	---	---	---	---	---	1	1	---	---	---	---	---
MH 28.0	33+54	12.5' LT	116.40	115.15	106.65	8.50	---	---	---	---	1	---	---	---	1	---	---	---
MH 29.0	35+01	11' LT	115.75	114.50	106.05	8.45	---	---	---	---	1	---	---	---	---	1	---	---
MH 30.0	35+07	27.5 RT	115.14	113.89	106.21	7.68	---	---	---	---	1	---	---	---	---	1	---	---
CB 30.1	34+69	24.5' RT	115.24	114.16	109.00	5.16	---	---	---	---	---	1	1	---	---	---	---	---
AE 31.1	38+49	51' LT			104.50		---	---	---	1	---	---	---	---	---	---	---	---
MH 31.0	38+46	12' LT	114.25	113.00	104.66	8.34	---	---	---	---	1	---	---	---	---	1	---	---
CB 31.2	38+38	16.5' LT	114.23	113.15	108.00	5.15	---	---	---	---	---	1	1	---	---	---	---	---
CB 31.3	38+54	16.5' LT	114.17	113.09	108.00	5.09	---	---	---	---	---	1	1	---	---	---	---	---
CB 31.4	38+35	24.5 RT	114.02	112.94	107.92	5.02	---	---	---	---	---	1	1	---	---	---	---	---
CB 31.5	38+50	24.5' RT	113.98	112.90	107.80	5.10	---	---	---	---	---	1	1	---	---	---	---	---
						SUBTOTAL	1	1	1	1	7	17	15	2	3	3	1	0
						PROJECT TOTALS	**2**	**3**	**1**	**1**	**18**	**34**	**30**	**4**	**8**	**6**	**2**	**2**

NOTES

1. TOP OF CASTING ELEVATION FOR CATCH BASINS IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. DEPTHS OF MANHOLES ARE MEASURED FROM LOWEST PIPE INVERT TO TOP OF MASONRY.
4. DEPTHS OF CATCH BASINS ARE MEASURED FROM BOTTOM OF SUMP TO TOP OF MASONRY.
5. MANHOLE DEPTHS INCLUDE A 9" CASTING ALLOWANCE AND A 6" ADJUSTMENT ALLOWANCE.
6. CATCH BASIN DEPTHS INCLUDE A 7" CASTING ALLOWANCE AND A 6" ADJUSTMENT ALLOWANCE.

MH = MANHOLE
CB = CATCH BASIN
AE = APRON ENDWALL

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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GUARDRAIL

STATION TO STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3K LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
17+89	LT	-	-	-	1
17+89 - 18+40	LT	51	-	-	-
18+40 - 31+00	LT	-	1,260	-	-
31+00 - 35+39	LT	439	-	-	-
35+39	LT	-	-	-	1
38+00	LT	-	-	-	1
38+00 - 39+41	LT	141	-	-	-
39+41 - 39+80	LT	-	-	39	-
PROJECT TOTALS		631	1,260	39	3

SILT FENCE

STATION TO STATION	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF
6+00 - 18+39	LT	1406	1406
31+28 - 40+00	LT	1055	1055
SUBTOTALS		2461	2461
UNDISTRIBUTED AMOUNT		246	246
PROJECT TOTALS		2,707	2,707

3

MOBILIZATIONS EROSION CONTROL

STATION	LOCATION	628.1905 EACH	628.1910 EMERGENCY EACH
0+68.45 - 40+00	RIVERSIDE AVENUE	11	5
PROJECT TOTALS		11	5

TURBIDITY BARRIERS AND ROCK BAGS

STATION TO STATION	LOCATION	TURBIDITY BARRIERS 628.6005 SY	ROCK BAGS 628.7570 EACH
8+30	LT	13	---
14+75 - 15+06	LT	17	---
16+07 - 16+46	LT	19	---
18+39 - 31+32	LT	569	---
34+86 - 35+17	LT	23	---
38+35 - 38+70	LT	---	35
UNDISTRIBUTED	---	---	50
PROJECT TOTAL		641	85

INLET PROTECTION

STATION	628.7005 TYPE A EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH
0+68.45 - 40+00	34	52	24
SUBTOTAL	34	52	24
UNDISTRIBUTED	4	5	3
PROJECT TOTALS	38	57	27

GEOTEXTILE FABRIC

STATION TO STATION	LOCATION	645.0135 TYPE SR SY
3+50 - 6+50	RIVERSIDE AVENUE	1567
19+50 - 22+50	RIVERSIDE AVENUE	1567
27+00 - 30+00	RIVERSIDE AVENUE	1567
34+00 - 39+00	RIVERSIDE AVENUE	2611
PROJECT TOTAL		7,312

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

EROSION MAT CLASS 1 TYPE A

STATION TO STATION		LOCATION	628.2002 SY
8+17 - 8+40	LT	NEW STORM OUTFALL	28
14+78 - 14+98	LT	EXISTING STORM OUTFALL	86
16+19 - 16+52	LT	NEW STORM OUTFALL	76
31+13 - 31+28	LT	EXISTING STORM OUTFALL	33
32+18 - 32+33	LT	EXISTING STORM OUTFALL	30
34+88 - 35+35	LT	EXISTING STORM OUTFALL	167
38+38 - 38+68	LT	NEW STORM OUTFALL	26
		SUBTOTALS	446
		UNDISTRIBUTED AMOUNT	45
		PROJECT TOTAL	491

RIP RAP & ROCK MULCH

STATION		LOCATION	606.0300 RIP RAP HEAVY CY	645.0130 GEOTEXTILE TYPE R SY	SPV.0035.03 ROCK MULCH CY
18+37 - 31+00	LT	SLOPE	644	285	46
8+30	LT	STORM OUTFALL	14	---	---
16+27	LT	STORM OUTFALL	8	---	---
23+83	LT	STORM OUTFALL	9	---	---
25+87	LT	STORM OUTFALL	8	---	---
28+70	LT	STORM OUTFALL	8	---	---
38+50	LT	STORM OUTFALL	56	---	---
PROJECT TOTALS			747	285	46

LANDSCAPING SUMMARY

STATION TO STATION		LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	SPV.0180.01 HYDRO SEEDING SY	SPV.0120.01 WATER FOR SEEDED AREAS MGAL
0+68 - 5+30	LT	BEHIND SIDEWALK	135	---	---	4	135	3.0
0+68 - 4+70	RT	BEHIND SIDEWALK AND TERRACE AREA	238	---	---	6	238	5.3
5+30 - 18+37	LT	BEHIND CURB	1,159	---	---	31	1,159	25.9
8+17 - 8+40	LT	NEW STORM SEWER OUTFALL	59	---	---	2	59	1.3
14+78 - 14+98	LT	EXISTING STORM SEWER OUTFALL	86	0.05	1.6	2	---	1.9
16+19 - 16+52	LT	NEW STORM SEWER OUTFALL	76	0.05	1.4	2	---	1.7
5+12 - 8+63	RT	BEHIND SIDEWALK AND TERRACE AREA	339	---	---	9	339	7.6
8+96 - 12+62	RT	BEHIND SIDEWALK AND TERRACE AREA	372	---	---	10	372	8.3
12+97 - 16+40	RT	BEHIND SIDEWALK AND TERRACE AREA	360	---	---	9.7	360	8.0
16+68 - 23+39	RT	BEHIND SIDEWALK AND TERRACE AREA	1,092	---	---	29	1,092	24.4
23+65 - 25+32	RT	BEHIND SIDEWALK AND TERRACE AREA	221	---	---	6.0	221	4.9
25+57 - 31+41	RT	BEHIND SIDEWALK AND TERRACE AREA	627	---	---	17	627	13.9
31+00 - 41+00	LT	BEHIND CURB	768	---	---	21	768	17.1
31+13 - 31+28	LT	EXISTING STORM SEWER OUTFALL	33	0.02	0.6	1	---	0.7
32+18 - 32+33	LT	EXISTING STORM SEWER OUTFALL	30	0.02	0.6	1	---	0.7
34+88 - 35+35	LT	EXISTING STORM SEWER OUTFALL	167	0.10	3.1	5	---	3.7
38+38 - 38+68	LT	NEW STORM SEWER OUTFALL	43	0.03	0.8	1	---	1.0
31+57 - 34+90	RT	BEHIND SIDEWALK AND TERRACE AREA	411	---	---	11	411	9.1
35+10 - 40+00	RT	BEHIND SIDEWALK AND TERRACE AREA	426	---	---	11	426	9.5
		SUBTOTALS	6642	0.27	8	180	6207	148.0
		UNDISTRIBUTED AMOUNT	664	0.03	1	18	621	15
		PROJECT TOTAL	7,306	0.30	9	198	6828	163

NOTES:
TYPE B FERTILIZER @ 7LBS/1000SF
SEED NO 40 @ 2LBS/1000SF
TEMP SEED @ 3LBS/1000SF

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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MARKING

STATION TO STATION	LOCATION	646.1020 EPOXY 4" SOLID WHITE LF	646.1020 EPOXY 4" SOLID YELLOW LF	646.1020 EPOXY 4" DASHED YELLOW LF	646.6120 STOP LINE EPOXY 18" LF	646.5020 ARROWS BIKE LANE EPOXY EACH	646.5520 SYMBOLS BIKE LANE EPOXY EACH	646.5120 WORDS BIKE LANE EPOXY EACH	646.7420 CROSSWALK EPOXY 6-INCH LF
0+69 - 6+14	CENTERLINE	---	1090	---	---	---	---	---	---
6+63 - 38+42	CENTERLINE	---	---	800	---	---	---	---	---
38+61 - 40+11	CENTERLINE	---	300	---	---	---	---	---	---
40+05	RT	---	---	---	26	---	---	---	---
0+69 - 40+00	LT	3931	---	---	---	---	---	---	---
0+69 - 4+47	RT	697	---	---	---	---	---	---	---
5+34 - 8+29	RT	606	---	---	---	---	---	---	---
9+17 - 12+20	RT	622	---	---	---	---	---	---	---
13+00 - 16+06	RT	628	---	---	---	---	---	---	---
16+87 - 23+20	RT	1282	---	---	---	---	---	---	---
24+04 - 25+15	RT	238	---	---	---	---	---	---	---
25+97 - 31+19	RT	1060	---	---	---	---	---	---	---
32+23 - 34+69	RT	508	---	---	---	---	---	---	---
35+24 - 39+74	RT	920	---	---	---	---	---	---	---
39+74 - 40+00	RT	12	---	---	---	---	---	---	---
1+74	RT & LT	---	---	---	---	---	---	---	86
0+84	RT & LT	---	---	---	---	---	1	3	---
0+96	RT	---	---	---	---	1	---	---	---
3+53	RT & LT	---	---	---	---	1	1	---	---
3+65	RT & LT	---	---	---	---	1	1	---	---
6+05	RT & LT	---	---	---	---	1	1	---	---
6+17	RT & LT	---	---	---	---	1	1	---	---
9+43	RT & LT	---	---	---	---	1	1	---	---
9+55	RT & LT	---	---	---	---	1	1	---	---
11+80	RT & LT	---	---	---	---	1	1	---	---
11+92	RT & LT	---	---	---	---	1	1	---	---
14+43	RT & LT	---	---	---	---	1	1	---	---
14+55	RT & LT	---	---	---	---	1	1	---	---
16+93	RT & LT	---	---	---	---	1	1	---	---
17+05	RT & LT	---	---	---	---	1	1	---	---
19+43	RT & LT	---	---	---	---	1	1	---	---
19+55	RT & LT	---	---	---	---	1	1	---	---
21+93	RT & LT	---	---	---	---	1	1	---	---
22+05	RT & LT	---	---	---	---	1	1	---	---
24+43	RT & LT	---	---	---	---	1	1	---	---
24+55	RT & LT	---	---	---	---	1	1	---	---
26+93	RT & LT	---	---	---	---	1	1	---	---
27+05	RT & LT	---	---	---	---	1	1	---	---
29+43	RT & LT	---	---	---	---	1	1	---	---
29+55	RT & LT	---	---	---	---	1	1	---	---
32+32	RT & LT	---	---	---	---	1	1	---	---
32+44	RT & LT	---	---	---	---	1	1	---	---
34+49	RT & LT	---	---	---	---	1	1	---	---
34+61	RT & LT	---	---	---	---	1	1	---	---
36+93	RT & LT	---	---	---	---	1	1	---	---
37+05	RT & LT	---	---	---	---	1	1	---	---
39+43	RT & LT	---	---	---	---	1	1	---	---
39+56	RT & LT	---	---	---	---	1	1	---	---
	PROJECT TOTALS	10,504	1,390	800	26	31	31	3	86

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

ERECTION AND REMOVAL OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	DIRECTION OF TRAVEL	SIGN CODE	637.2210 SIGNS TYPE II REFLECTIVE H W X H	S.F.	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SPV.0060.28 POSTS U-CHANNEL 14' EACH	SPV.0060.29 POSTS ROUND 12' EACH	SPV.0060.30 SOLAR POWERED SINGLE BLINKER BEACON EACH	SPV.0060.31 STREET NAME SIGN EACH	REMARKS
1	RIVERSIDE AVENUE	EB	W1-1R	3X3	9.00	---	---	---	---	---	1	---	SIGN MOUNTED ON SOLAR POWERED BLINKER BEACON
2	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / VAN CLEVE AVE
3	RIVERSIDE AVENUE	EB	W1-8	2X3	6.00	---	---	---	1	---	---	---	---
4	RIVERSIDE AVENUE	WB	W1-8	2X3	6.00	---	---	---	1	---	---	---	---
5	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	NO PARKING THIS SIDE OF STREET
6	RIVERSIDE AVENUE	WB	R3-17, R3-17-B	2.5X2, 2.5X1	7.50	---	---	---	1	---	---	---	---
7	RIVERSIDE AVENUE	EB	W1-8	2X3	6.00	---	---	---	1	---	---	---	---
8	RIVERSIDE AVENUE	WB	W1-8	2X3	6.00	---	---	---	1	---	---	---	---
9	RIVERSIDE AVENUE	EB	R3-17a	1.5x2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
10	RIVERSIDE AVENUE	EB	W1-8	2X3	6.00	---	---	---	1	---	---	---	---
11	RIVERSIDE AVENUE	WB	EX SIGN	---	---	---	1	1	---	---	---	---	NO PARKING ANYTIME
12	RIVERSIDE AVENUE	WB	W1-8	2X3	6.00	---	---	---	1	---	---	---	---
13	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
14	RIVERSIDE AVENUE	WB	EX SIGN	---	---	---	1	1	---	---	---	---	30 MINUTE PARKING
15	RIVERSIDE AVENUE	WB	W1-1R	3X3	9.00	---	---	---	---	---	1	---	SIGN MOUNTED ON SOLAR POWERED BLINKER BEACON
16	RIVERSIDE AVENUE	WB	EX SIGN	---	---	---	1	1	---	---	---	---	30 MINUTE PARKING
16.1	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
17	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	ADOPT A STREET MARINETTE KIWANIS RIVERSIDE AVE.
18	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / LESTER ST
19	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
20	RIVERSIDE AVENUE	WB	EX SIGN	---	---	---	2	1	---	---	---	---	W1-1L AND 30 MINUTE PARKING
21	LESTER STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
22	RIVERSIDE AVENUE	WB	R2-1	2X2.5	5.00	---	1	1	1	---	---	---	---
23	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
24	RIVERSIDE AVENUE	WB	R7-51-R	1.5X2	3.00	---	---	---	1	---	---	---	---
25	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
26	RIVERSIDE AVENUE	WB	W3-5	3X3	9	---	---	---	1	---	---	---	---
27	RIVERSIDE AVENUE	WB	EX SIGN	---	---	---	1	1	---	---	---	---	2 HOUR PARKING
28	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
29	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / WILLIAMS ST
30	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
31	WILLIAMS STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
32	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
33	RIVERSIDE AVENUE	EB	R7-51-R	1.5X2	3.00	---	---	---	1	---	---	---	---
34	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
35	RIVERSIDE AVENUE	EB	R2-1	2X2.5	5.00	---	---	---	1	---	---	---	---
36	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	---	---	---	---	---
37	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / BURNS ST
38	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
39	BURNS STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
40	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
41	RIVERSIDE AVENUE	EB	R7-51-R	1.5X2	3.00	---	---	---	1	---	---	---	---
42	RIVERSIDE AVENUE	WB	R2-1	2X2.5	5.00	---	1	1	1	---	---	---	---
43	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
44	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
45	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / PARK ST
46	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
47	PARK STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
48	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	NEIGHBORHOOD WATCH
49	RIVERSIDE AVENUE	EB	R7-51-R	1.5x2	3.00	---	---	---	1	---	---	---	---
50	RIVERSIDE AVENUE	EB	R3-17a	1.5x2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
			SUBTOTALS		175.50	0	20	19	30	5	2	5	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

ERECTION AND REMOVAL OF TYPE II SIGNS AND SUPPORTS CONT.

SIGN NO.	LOCATION	DIRECTION OF TRAVEL	SIGN CODE	637.2210 SIGNS TYPE II REFLECTIVE H W X H	S.F.	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SPV.0060.28 POSTS U-CHANNEL 14' EACH	SPV.0060.29 POSTS ROUND 12' EACH	SPV.0060.33 SOLAR POWERED SINGLE BLINKER BEACON EACH	(CATEGORY 0020) SPV.0060.34 STREET NAME SIGN EACH	REMARKS
51	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
52	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
53	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
54	RIVERSIDE AVENUE	EB	R2-1	2X2.5	5.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
55	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
56	RIVERSIDE AVENUE	WB	R2-1	2X2.5	5.00	---	1	1	1	---	---	---	---
57	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
58	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / HARRISON ST
59	RIVERSIDE AVENUE	WB	EX SIGN	---	---	---	1	1	---	---	---	---	NEIGHBORHOOD WATCH
60	HARRISON STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
61	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	RIVERSIDE AVE / HARRISON ST
62	RIVERSIDE AVENUE	EB	R7-51-R	1.5X2	3.00	---	---	---	1	---	---	---	---
63	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
64	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	1	---	---	---	---
65	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
66	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / HOUSTON ST
67	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
68	HOUSTON STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
69	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	RIVERSIDE AVE / HOUSTON ST
70	RIVERSIDE AVENUE	EB	R7-51-R	1.5X2	3.00	---	---	---	1	---	---	---	---
71	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
72	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
73	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
74	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
75	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
76	N. RAYMOND STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
77	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / N. RAYMOND ST
78	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
79	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	NO PARKING THIS SIDE OF STREET
80	RIVERSIDE AVENUE	EB	R7-51-R	1.5X2	3.00	---	---	---	1	---	---	---	---
81	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
82	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
83	RIVERSIDE AVENUE	EB	R2-1	2X2.5	5.00	---	---	---	1	---	---	---	---
84	RIVERSIDE AVENUE	WB	R2-1	2X2.5	5.00	---	1	1	1	---	---	---	---
85	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	NO PARKING THIS SIDE OF STREET
86	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
87	RIVERSIDE AVENUE	EB	STREET SIGN	---	---	---	1	1	---	1	---	1	RIVERSIDE AVE / STATE ST
88	STATE STREET	NB	R1-1	2.5X2.5	6.25	---	1	1	1	---	---	---	---
89	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
90	RIVERSIDE AVENUE	WB	EX SIGN	---	---	1	---	2	2	---	---	---	NO RV PARKING, NO CAMPING OR COOKING, ETC.
91	RIVERSIDE AVENUE	EB	R7-51-R	1.5X2	3.00	---	---	---	1	---	---	---	---
92	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	NO PARKING THIS SIDE OF STREET
93	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
94	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	NO PARKING THIS SIDE OF STREET
95	RIVERSIDE AVENUE	WB	R7-9a	1X1.5	1.50	---	---	---	1	---	---	---	---
96	RIVERSIDE AVENUE	WB	R3-17	2.5X2	5.00	---	---	---	1	---	---	---	---
97	RIVERSIDE AVENUE	WB	EX SIGN	---	---	1	---	2	2	---	---	---	NO RV PARKING, NO CAMPING OR COOKING, ETC.
98	RIVERSIDE AVENUE	EB	R3-17a	1.5X2	3.00	---	---	---	---	---	---	---	MOUNTED ON LIGHT POLE
99	RIVERSIDE AVENUE	EB	EX SIGN	---	---	---	1	1	---	---	---	---	NO PARKING THIS SIDE OF STREET
100	RIVERSIDE AVENUE	EB	R7-51-L	1.5X2	3.00	---	---	---	1	---	---	---	---
101	RIVERSIDE AVENUE	EB	W11-2, W16-9P	2.5X2.5,2X1	8.25	---	---	---	1	---	---	---	FLOURESCENT YELLOW-GREEN BACKGROUND
102	RIVERSIDE AVENUE	WB	W11-2, W16-9P	2.5X2.5,2X1	8.25	---	---	---	1	---	---	---	FLOURESCENT YELLOW-GREEN BACKGROUND
			SUBTOTALS		148.50	2	18	22	35	4	0	4	
			PROJECT TOTALS		324.00	2	38	41	65	9	2	9	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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SAWING

STATION TO STATION		LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
CATEGORY 0010				
0+68	RT & LT	RIVERSIDE AVENUE	36	5
0+53 - 0+68	LT	SIDEWALK	---	22
0+68	RT	SIDEWALK	---	5
1+05 - 1+40	LT	PARKING LOT	48	---
1+43 - 1+88	RT	INWALK	---	17
1+89 - 3+13	LT	PARKING LOT	140	---
2+66	RT	INWALK	---	6
3+34	LT	INWALK	---	4
4+06	RT	INWALK	---	4
4+07 - 4+59	LT	DRIVEWAY	---	10
5+62	RT	INWALK	---	4
5+94 - 6+11	RT	DRIVEWAY	---	15
99+20	RT & LT	LESTER STREET	37	---
6+55 - 6+67	RT	DRIVEWAY	---	11
6+95	RT	INWALK	---	4
7+18 - 7+28	RT	DRIVEWAY	---	10
7+49	RT	INWALK	---	4
199+14	RT & LT	WILLIAMS STREET	37	---
9+53	RT	INWALK	---	4
9+86 - 9+97	RT	DRIVEWAY	11	---
10+81 - 10+90	RT	DRIVEWAY	9	---
12+04	RT	INWALK	---	4
299+00	RT & LT	BURNS STREET	37	---
13+33	RT	INWALK	---	4
14+69 - 14+81	RT	DRIVEWAY	---	12
15+72	RT	INWALK	---	4
399+23	RT & LT	PARK STREET	32	5
399+31	RT	SIDEWALK	---	5
399+48	LT	SIDEWALK	---	5
17+52	RT	INWALK	---	4
		SUBTOTALS	387	168

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SAWING

STATION TO STATION		LOCATION	690.0150 ASPHALT LF	690.0250 CONCRETE LF
19+36	RT	INWALK	---	3
20+58	RT	INWALK	---	4
21+10	RT	INWALK	---	4
21+61	RT	INWALK	---	4
23+00	RT	INWALK	---	5
499+20	RT & LT	HARRISON STREET	37	---
499+26	LT	SIDEWALK	---	6
499+46	RT	SIDEWALK	---	5
24+51	RT	INWALK	---	10
599+18	RT & LT	HOUSTON STREET	33	4
27+33	RT	INWALK	---	5
28+23	RT	INWALK	---	5
30+03	RT	INWALK	---	4
698+90	RT & LT	N. RAYMOND STREET	37	4
699+17	LT	SIDEWALK	---	6
699+45	RT	SIDEWALK	---	6
799+44	RT & LT	STATE STREET	15	5
35+55	RT	RT	---	4
36+30 - 36+47	RT	RT	---	16
37+30	RT	RT	---	4
37+50 - 37+69	RT	DRIVEWAY	---	19
37+89 - 38+07	RT	DRIVEWAY	---	18
38+34	RT	INWALK	---	3
38+76 - 38+88	RT	DRIVEWAY	12	---
38+93	RT	INWALK	---	4
39+89	RT	SIDEWALK	---	5
40+00	RT & LT	RIVERSIDE AVENUE	---	46
		SUBTOTALS	134	199
		PROJECT TOTALS	521	367

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

			650.5500			
			CONCRETE CURB TYPE D	30-INCH TYPE D	4-INCH SLOPED 30-INCH TYPE TBT	24-INCH TYPE D
STATION TO STATION		LOCATION	LF	LF	LF	LF
0+93 - 40+00	RT & LT	RIVERSIDE AVENUE	-	-	-	-
0+68.45 - 0+93	RT & LT	RIVERSIDE AVENUE	-	50	-	-
3+12	LT	PARKING LOT	13	-	-	-
4+25	LT	DRIVEWAY	-	32	-	-
99+20 - 99+75	RT & LT	LESTER STREET	-	56	-	-
199+14 - 199+74	RT & LT	WILLIAMS STREET	-	54	-	-
299+00 - 299+73	RT & LT	BURNS STREET	-	80	-	-
399+23 - 399+75	RT & LT	PARK STREET	-	28	-	-
499+20 - 499+74	RT & LT	HARRISON STREET	-	22	-	-
599+19 - 599+75	RT & LT	HOUSTON STREET	-	-	-	30
698+90 - 699+74	RT & LT	N. RAYMOND STREET	-	56	-	-
799+44 - 799+77	RT & LT	STATE STREET	-	-	20	-
		PROJECT TOTALS	13	378	20	30
		TOTAL (650.5500)	441			

CONSTRUCTION STAKING SUMMARY

		650.4000 STORM SEWER SYSTEM *	650.4500 SUBGRADE	650.7000 CONCRETE PAVEMENT	650.8500 ELECTRICAL INSTALLATIONS (9995-00-64)	650.9910 SUPPLEMENTAL CONTROL (9995-00-64)	650.9920 SLOPE STAKES	650.9000 CURB RAMPS
STATION TO STATION	LOCATION	EACH	LF	LF	LS	LS	LF	EACH
0+68 - 40+00	RIVERSIDE AVENUE	58	3,932	3,932	1	1	3,932	20
	PROJECT TOTALS	58	3,932	3,932	1	1	3,932	20

* SEE STORM SEWER QUANTITIES FOR STATION AND OFFSETS

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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BASES AND STANDARDS

STATION	LOCATION	SPV.0060.30 CONCRETE BASES TYPE 1 MODIFIED EACH	SPV 0060.31 PEDESTAL BASES BLACK EACH	SPV.0060.32 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT BLACK EACH
0+65	RT	1	1	1
3+50	LT	1	1	1
PROJECT TOTALS		2	2	2

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TRAFFIC CONTROL SUMMARY

LOCATION	SERVICE DAYS	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II NO.	643.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS
RIVERSIDE AVENUE, BEGIN PROJECT	170	0	0	2	340	3	510	8	1,360	3	510
LESTER STREET	170	0	0	0	0	3	510	6	1,020	1	170
WILLIAMS STREET	170	0	0	0	0	3	510	6	1,020	1	170
BURNS STREET	170	0	0	0	0	3	510	6	1,020	1	170
PARK STREET	170	0	0	2	340	3	510	8	1,360	3	510
HARRISON STREET	170	0	0	2	340	3	510	8	1,360	3	510
HOUSTON STREET	170	0	0	0	0	3	510	6	1,020	2	340
N. RAYMOND STREET	170	0	0	2	340	3	510	8	1,360	3	510
STATE STREET	170	0	0	0	0	3	510	6	1,020	1	170
RIVERSIDE AVENUE, END PROJECT	170	0	0	1	170	3	510	7	1,190	2	340
UNDISTRIBUTED		25	1,875	5	375	8	600	20	1,500	---	---
PROJECT TOTALS		25	1,875	14	1,905	38	5,700	89	13,230	20	3,400

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC CONTROL DETOUR SIGN SUMMARY						
SIGN NO.	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 155 (DAYS)	643.0900 SIGNS (DAYS)	REMARKS
RIVERSIDE AVENUE DETOUR						
1	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"x12"	1	170	170	
	M6-1	21"x21"	1	170	170	
2	M4-8A	24"X18"	1	170	170	
3	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"X12"	1	170	170	
	M6-1	21"x21"	1	170	170	
4	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"x12"	1	170	170	
	M5-1L	24"x24"	1	170	170	
5	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-9L	30"x24"	1	170	170	
6	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-9R	30"x24"	1	170	170	
7	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"x12"	1	170	170	
	M6-1	21"x21"	1	170	170	
8	M4-8A	24"X18"	1	170	170	
9	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"x12"	1	170	170	
	M6-1	21"x21"	1	170	170	LEFT
10	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-9L	30"x24"	1	170	170	
	SUBTOTALS		*23*		*3,910*	

TRAFFIC CONTROL DETOUR SIGN SUMMARY						
SIGN NO.	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 155 (DAYS)	643.0900 SIGNS (DAYS)	REMARKS
RIVERSIDE AVENUE DETOUR						
11	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"x12"	1	170	170	
	M5-1L	21"x21"	1	170	170	
12	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
			1	170	170	CLOSED TO THRU TRAFFIC
13	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M5-1R	21"x21"	1	170	170	
14	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-9L	30"X24"	1	170	170	
15	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"x12"	1	170	170	
	M6-1	21"x21"	1	170	170	
16	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M5-1R	21"x21"	1	170	170	
17	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
			1	170	170	CLOSED TO THRU TRAFFIC
18	M1-94	VARIES	1	170	170	RIVERSIDE AVENUE
	M4-8	24"x12"	1	170	170	
	M5-1L	21"x21"	1	170	170	
	M4-20	24"x24"	1	170	170	
	SUBTOTALS		*20*		*3,400*	
	PROJECT TOTALS		*43*		*7,310*	

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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PEDESTRIAN DETOUR SIGN SUMMARY

SIGN NO.	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 155 (DAYS)	643.0900 SIGNS (DAYS)	REMARKS
PEDESTRIAN DETOUR						
1			1	170	170	PEDESTRIAN DETOUR
	M5-1L	21"X21"	1	170	170	
2			1	170	170	PEDESTRIAN DETOUR
	M5-1R	21"X21"	1	170	170	
3			1	170	170	PEDESTRIAN DETOUR
	M6-1	21"X21"	1	170	170	
4			1	170	170	PEDESTRIAN DETOUR
	M6-1	21"X21"	1	170	170	
5			1	170	170	PEDESTRIAN DETOUR
	M5-1L	21"X21"	1	170	170	
6			1	170	170	PEDESTRIAN DETOUR
	M5-1R	21"X21"	1	170	170	
7			1	170	170	PEDESTRIAN DETOUR
	M5-1R	21"X21"	1	170	170	
8			1	170	170	PEDESTRIAN DETOUR
	M5-1L	21"X21"	1	170	170	
9			1	170	170	PEDESTRIAN DETOUR
	M5-1L	21"X21"	1	170	170	
10			1	170	170	PEDESTRIAN DETOUR
	M5-1R	21"X21"	1	170	170	
	TOTALS		*20*		*3,400*	

CONCRETE COLLARS FOR STORM SEWER PIPE

520.8000
CONCRETE COLLARS
FOR PIPE

STATION	LOCATION	EACH	REMARKS
0+93	8.4' LT	1	36" PIPE
1+52	18.6' LT	1	36" PIPE
1+67	17.9' LT	1	36" PIPE
4+46	2.7' LT	1	36" PIPE
4+57	15.0' LT	1	36" PIPE
4+64	10.4' LT	1	18" PIPE
4+65	9.3' LT	1	18" PIPE
4+73	43.7' RT	1	18" PIPE
4+74	63.3' RT	1	18" PIPE
12+25	11.1' LT	1	48" PIPE
12+43	36.0' RT	1	48" PIPE
25+51	38.5' RT	1	24" PIPE
35+08	34.6' RT	1	12" PIPE
	PROJECT TOTAL	13	

INTAKE CONDUITS AND SUMP PUMP LINES

STATION	LOCATION	(CATEGORY 0020) SPV.0090.11 4" INTAKE CONDUIT SDR 40 PVC LF	(CATEGORY 0020) SPV.0090.12 4" SUMP PUMP LINE SDR 40 PVC LF	(CATEGORY 0020) SPV.0060.35 4" CORE AND SEAL EACH
14+21	RT & LT	63	---	---
19+96	RT	---	15	2
25+22	RT & LT	70	---	---
28+60	RT & LT	66	---	---
35+11	RT & LT	72	---	---
	TOTALS	271	15	2

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

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REMOVING MANHOLES
(SANITARY)

STATION	LOCATION	SPV.0060.36 EACH
32+02	6' LT	1
34+97	23' LT	1
37+65	3' RT	1
	PROJECT TOTALS	3

OUTSIDE OF SEWER TRENCH

STATION TO STATION	LOCATION	SPV.0090.04 FILL AND ABANDON 18" SANITARY SEWER LF
32+02 - 34+38	LT	248
35+00 - 37+64	RT	264
	TOTAL	512

TRENCH EXCAVATION AND BACKFILL

STATION TO STATION	DESCRIPTION	SPV.0035.01 TRENCH EXCAVATION CY	SPV.0035.02 TRENCH BACKFILL CY
1+00 - 5+00	WATERMAIN TRENCH	259	259
3+00 - 5+00	SANITARY TRENCH	200	200
5+00 - 8+50	WATERMAIN TRENCH	227	227
5+00 - 8+50	SANITARY TRENCH	292	292
8+50 - 12+50	WATERMAIN TRENCH	52	52
8+50 - 12+50	SANITARY TRENCH	67	67
16+50 - 21+00	WATERMAIN TRENCH	233	233
21+00 - 25+50	WATERMAIN TRENCH	408	408
25+50 - 28+00	WATERMAIN TRENCH	227	227
28+00 - 32+00	WATERMAIN TRENCH	207	207
32+00 - 35+00	WATERMAIN TRENCH	156	156
32+00 - 35+00	SANITARY TRENCH	500	500
35+00 - 37+00	WATERMAIN TRENCH	156	207
35+00 - 37+00	SANITARY TRENCH	467	467
37+00 - 40+00	WATERMAIN TRENCH	156	156
37+00 - 40+00	SANITARY TRENCH	600	600
LATERALS	WATERMAIN TRENCH	500	500
LATERALS	SANITARY TRENCH	500	500
	SUBTOTALS	5207	5258
	SWELL	30%	15%
	TOTAL	**6800**	**6100**

3

SANITARY STRUCTURES

STRUCTURE NUMBER	STATION	LOCATION	SPV.0200.01 4' DIAMETER SANITARY MANHOLE VF	611.0535 MANHOLE COVERS TYPE J - SPECIAL EACH	RIM ELEVATION	INVERT ELEVATION
1	3+78	C/L	5.53	1	125.32	119.09
2	5+80	16.1' RT	5.50	1	124.20	118.00
3	8+64	14.0' RT	6.63	1	123.10	115.77
4	11+23	17.5' RT	6.28	1	121.98	115.00
5	13+81	17.5' RT	6.56	1	121.49	114.23
6	31+98	C/L	11.69	1	116.19	103.80
7	33+47	C/L	12.20	1	116.18	103.28
8	34+97	C/L	12.10	1	115.58	102.78
9	37+74	C/L	12.28	1	114.83	101.85
		TOTAL	79	9		

MANHOLE COVERS ARE PAID SEPERATELY AND ARE NOT INCLUDED IN THE VERTICAL HEIGHT OF THE NEW MANHOLES.
MANHOLES WILL BE MEASURED BY THE VERTICAL FOOT FROM THE BOTTOM PIPE INVERT TO THE BOTTOM OF THE CASTING.

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

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SANITARY SEWER SUMMARY

STATION TO STATION		LOCATION	SPV.0090.01 8" SANITARY SEWER SDR 35 PVC LF	SPV.0090.02 15" SANITARY SEWER SDR 35 PVC LF	SPV.0060.22 CONNECT TO 8" SANITARY SEWER EACH	SPV.0060.23 CONNECT TO 15" SANITARY SEWER EACH	SPV.0060.24 CONNECT TO 18" SANITARY SEWER EACH
3+08 - 3+78	LT	RIVERSIDE AVENUE	78	---	---	---	---
3+78 - 5+80	RT	RIVERSIDE AVENUE	199	---	---	---	---
5+80 - 8+64	RT	RIVERSIDE AVENUE	284	---	---	---	---
8+64 - 11+23	RT	RIVERSIDE AVENUE	259	---	---	---	---
11+23 - 13+81	RT	RIVERSIDE AVENUE	258	---	---	---	---
13+81 - 16+33	RT	RIVERSIDE AVENUE	253	---	---	---	---
699+05 - 700+00	C/L	N. RAYMOND STREET	---	95	---	---	---
31+98 - 33+47	RT	RIVERSIDE AVENUE	---	149	---	---	---
33+47 - 34+97	RT	RIVERSIDE AVENUE	---	150	---	---	---
799+79 - 799+99	RT	STATE STREET	20	---	---	---	---
34+97 - 37+74	C/L	RIVERSIDE AVENUE	---	278	---	---	---
37+74 - 39+89	RT	RIVERSIDE AVENUE	---	216	---	---	---
3+08	LT	RIVERSIDE AVENUE	---	---	1	---	---
16+33	RT	RIVERSIDE AVENUE	---	---	1	---	---
699+05	C/L	N. RAYMOND STREET	---	---	---	---	1
799+79	RT	STATE STREET	---	---	1	---	---
39+89	RT	RIVERSIDE AVENUE	---	---	---	1	---
		TOTAL	1351	888	3	1	1

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

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WATER VALVES

STATION	LOCATION	SPV.0060.04 6" GATE VALVE & BOX EACH	SPV.0060.05 8" GATE VALVE & BOX EACH	SPV.0060.06 10" GATE VALVE & BOX EACH
0+97	9' RT	---	---	1
2+87	15.5' LT	---	1	---
1+03	29.5' RT	1	---	---
4+71	9.5' RT	---	---	1
5+00	50.5' RT	---	1	---
5+12	47' RT	1	---	---
8+35	6' RT	---	---	1
8+80	34' RT	---	1	---
12+21	7.5' RT	---	---	1
12+74	55' RT	---	1	---
12+79	49' RT	1	---	---
16+07	7.5' RT	---	---	1
19+69	7.5' RT	---	---	1
19+74	29' RT	1	---	---
24+06	16.5' RT	---	---	1
27+75	13.5' RT	1	---	1
27+80	30' RT	1	---	---
31+83	51' RT	---	1	---
31+96	52' RT	1	---	---
32+26	16' RT	---	---	1
35+13	20.5' RT	---	---	1
36+00	23' RT	1	---	---
	TOTALS	8	5	10

SANITARY LATERAL SUMMARY

STATION	LOCATION	SPV.0090.03 6" SANITARY LATERAL SDR 40 PVC LF	SPV.0060.01 8" X 6" SANITARY WYE EACH	SPV.0060.02 15" X 6" SANITARY WYE EACH	SPV.0060.25 CONNECT TO 6" SANITARY LATERAL EACH
4+47	RT	25	1	---	1
5+51	RT	23	1	---	1
6+43	RT	21	1	---	1
6+91	RT	22	1	---	1
7+51	RT	22	1	---	1
9+58	RT	21	1	---	1
11+27	RT	21	1	---	1
12+12	RT	21	1	---	1
13+31	RT	21	1	---	1
14+52	RT	20	1	---	1
15+79	RT	19	1	---	1
33+35	RT	45	---	1	1
36+69	RT	42	---	1	1
37+28	RT	42	---	1	1
38+54	RT	39	---	1	1
39+04	RT	37	---	1	1
	TOTAL	441	11	5	16

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FIRE HYDRANTS

STATION	LOCATION	SPV.0060.07 6" HYDRANT 7'-0" BURY EACH	SPV.0060.08 6" HYDRANT 7'-6" BURY EACH
1+03	32.5' RT	1	---
5+15	47' RT	---	1
12+86	47' RT	1	---
19+74	32' RT	1	---
24+11	32.5' RT	1	---
27+80	38.5' RT	1	---
32+00	54' RT	1	---
36+00	29.5' RT	1	---
	TOTALS	7	1

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

WATERMAIN SUMMARY

STATION TO STATION		LOCATION	SPV.0090.05 6" WATERMAIN CLASS 52 D.I.P. W/POLYWRAP EACH	SPV.0090.06 8" WATERMAIN CLASS 52 D.I.P. W/POLYWRAP LF	SPV.0090.07 10" WATERMAIN CLASS 52 D.I.P. W/POLYWRAP LF
0+95 - 39+76	LT	RIVERSIDE AVENUE	---	---	3900
0+85 - 0+95	LT	RIVERSIDE AVENUE	15	---	---
1+03	RT	HYDRANT LEAD	24	---	---
2+85	RT & LT	RIVERSIDE AVENUE	---	55	---
99+29 - 99+39	RT	LESTER STREET	15	---	---
99+39 - 99+91	RT	LESTER STREET	---	55	---
5+15	RT	HYDRANT LEAD	14	---	---
199+24 - 199+34	RT	WILLIAMS STREET	15	---	---
199+34 - 199+92	RT	WILLIAMS STREET	---	60	---
299+26 - 299+87	RT	BURNS STREET	---	62	---
12+86	RT	HYDRANT LEAD	15	---	---
399+59 - 399+88	RT	PARK STREET	---	30	---
19+74	RT	HYDRANT LEAD	25	---	---
24+11	RT	HYDRANT LEAD	16	---	---
27+80	RT	HYDRANT LEAD	25	---	---
698+97 - 699+07	RT	N. RAYMOND STREET	15	---	---
699+07 - 699+89	RT	N. RAYMOND STREET	---	83	---
32+00	RT	HYDRANT LEAD	14	---	---
799+72 - 799+82	LT	STATE STREET	---	10	---
36+00	RT	HYDRANT LEAD	10	---	---
		TOTAL	203	355	3900

BULKHEAD EXISTING PIPES

STATION	LOCATION	SPV.0080.01 BULKHEAD EXISTING PIPES ID
---	UNDISTRIBUTED	250
	TOTALS	250

WATERMAIN TIE INS

STATION	LOCATION	SPV.0060.13 STATION 0+85	SPV.0060.14 STATION 2+84	SPV.0060.15 LESTER STREET	SPV.0060.16 WILLIAMS STREET	SPV.0060.17 BURNS STREET	SPV.0060.18 PARK STREET	SPV.0060.19 N. RAYMOND STREET	SPV.0060.20 STATE STREET	SPV.0060.21 STATION 39+76	REMARKS
0+85	13' RT	1	---	---	---	---	---	---	---	---	6" DUO SLEEVE
2+84	18.5' LT	---	1	---	---	---	---	---	---	---	8" DUO SLEEVE
5+03	72' RT	---	---	1	---	---	---	---	---	---	6" DUO SLEEVE
8+96	69' RT	---	---	---	1	---	---	---	---	---	6" DUO SLEEVE
12+85	70' RT	---	---	---	---	1	---	---	---	---	2" UNION
16+51	28.5' RT	---	---	---	---	---	1	---	---	---	8" SOLID SLEEVE
31+60	98' RT	---	---	---	---	---	---	1	---	---	6" DUO SLEEVE
34+90	29' RT	---	---	---	---	---	---	---	1	---	8" SOLID SLEEVE
39+76	18.5' RT	---	---	---	---	---	---	---	---	1	10" SOLID SLEEVE
	TOTALS	1	1	1	1	1	1	1	1	1	

SLEEVES ARE INCLUDED IN THE TIE IN PRICE.

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

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WATER LATERAL SUMMARY

STATION	LOCATION	SPV.0060.09 1" SERVICE TAP EACH	SPV.0060.10 2" SERVICE TAP EACH	SPV.0060.11 1" CURB STOP & BOX EACH	SPV.0060.12 2" CURB STOP & BOX EACH	SPV.0090.08 1" WATER LATERAL EACH	SPV.0090.09 2" WATER LATERAL EACH	SPV.0060.26 CONNECT TO 1" WATER LATERAL EACH	SPV.0060.27 CONNECT TO 2" WATER LATERAL EACH
1+13	RT	---	1	---	1	---	25	---	1
4+29	RT	1	---	1	---	24	---	1	---
5+50	RT	1	---	1	---	33	---	1	---
6+31	RT	1	---	1	---	31	---	1	---
6+93	RT	1	---	1	---	31	---	1	---
7+48	RT	1	---	1	---	31	---	1	---
9+56	RT	1	---	1	---	31	---	1	---
10+97	RT	1	---	1	---	31	---	1	---
12+08	RT	1	---	1	---	31	---	1	---
12+85	BURNS ST	---	---	---	---	---	10	---	---
13+49	RT	1	---	1	---	31	---	1	---
14+57	RT	1	---	1	---	29	---	1	---
15+51	RT	1	---	1	---	30	---	1	---
24+20	RT	1	---	1	---	25	---	1	---
25+81	RT	1	---	1	---	27	---	1	---
26+94	RT	1	---	1	---	23	---	1	---
28+46	RT	1	---	1	---	22	---	1	---
29+92	RT	1	---	1	---	21	---	1	---
33+22	RT	1	---	1	---	26	---	1	---
35+31	RT	1	---	1	---	18	---	1	---
36+19	RT	1	---	1	---	18	---	1	---
37+20	RT	1	---	1	---	18	---	1	---
38+43	RT	1	---	1	---	18	---	1	---
38+99	RT	1	---	1	---	18	---	1	---
	TOTAL	22	1	22	1	567	35	22	1

INSULATE WATERMAIN

STATION TO STATION		LOCATION	SPV.0090.10 INSULATE WATERMAIN LF
8+20 - 9+20	LT	RIVERSIDE AVENUE	100
12+00 - 13+00	LT	RIVERSIDE AVENUE	100
31+50 - 31+85	LT	RIVERSIDE AVENUE	35
199+60 - 199+90	RT	WILLIAMS STREET	30
299+60 - 299+88	RT	BURNS STREET	30
		TOTALS	295

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

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WATERMAIN FITTINGS

STATION TO STATION	LOCATION	10" X 8" TEE EACH	10" X 6" TEE EACH	8" X 6" TEE EACH	10" X 6" REDUCER EACH	8" X 6" REDUCER EACH	10" 45 DEG. BEND EACH	10" 22 DEG. BEND EACH	10" 11 DEG. BEND EACH	8" 45 DEG. BEND EACH	6" 45 DEG. BEND EACH	8" 22 DEG. BEND EACH	8" MECH. CAP EACH	10" MEGA LUG EACH	8" MEGA LUG EACH	6" MEGA LUG EACH
0+85 - 0+95	RT	---	---	---	1	---	---	---	---	---	2	---	---	3	---	7
1+03	RT	---	1	---	---	---	---	---	---	---	---	---	---	2	---	4
1+40	RT	---	---	---	---	---	1	---	---	---	---	---	---	2	---	---
2+12	RT	---	---	---	---	---	---	1	---	---	---	---	---	2	---	---
2+85	RT & LT	1	---	---	---	---	---	---	---	1	---	1	---	2	9	---
4+35 - 4+78	RT	---	---	---	---	---	4	1	---	---	---	---	---	12	---	---
5+03 - 5+15	RT	1	---	1	---	1	---	---	---	3	2	---	---	2	12	11
5+80	RT	---	---	---	---	---	---	---	1	---	---	---	---	2	---	---
8+35 - 8+96	RT	1	---	---	---	1	---	---	1	---	2	1	---	6	6	7
12+21 - 12+85	RT	1	---	1	---	---	---	---	---	---	---	1	1	4	8	4
16+07 - 16+51	RT	1	---	---	---	---	---	---	---	---	---	1	---	4	5	---
19+69 - 19+74	RT	---	1	---	---	---	---	---	---	---	---	---	---	4	---	4
20+85	RT	---	---	---	---	---	---	1	---	---	---	---	---	2	---	---
22+53	RT	---	---	---	---	---	---	1	---	---	---	---	---	2	---	---
24+06 - 24+11	RT	---	1	---	---	---	---	---	---	---	---	---	---	4	---	4
27+75 - 27+80	RT	---	1	---	---	---	---	---	---	---	---	---	---	4	---	4
31+66 - 32+26	RT	1	---	1	---	1	2	1	---	---	2	1	---	10	8	7
33+47	RT	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---
34+89 - 35+13	RT	1	---	---	---	---	---	---	1	---	---	---	---	6	3	---
36+00	RT	---	1	---	---	---	---	---	---	---	---	---	---	2	---	4
39+66 - 39+76	RT	---	---	---	---	---	2	---	---	---	---	---	---	6	---	---
TOTALS		7	5	3	1	3	9	6	3	4	8	5	1	81	51	56
WEIGHT PER EACH		111	93	80	47	40	81	78	75	59	38	51	25	32	21	17
TOTAL WEIGHT		777	465	240	47	120	729	468	225	236	304	255	25	2592	1071	952

SPV.0195.01
WATERMAIN FITTINGS
TOTAL TONS = 4.25

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INCIDENTAL REMOVALS (FOR BIDDING PURPOSES ONLY)

STATION TO STATION	LOCATION	8" SANITARY SEWER LF	18" SANITARY SEWER LF	SANITARY MANHOLES EACH	HYDRANTS EACH	WATER VALVE BOXES EACH
0+68 - 40+00	RIVERSIDE AVENUE	1351	531	4	5	23

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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STREET LIGHTING WIRING AND CONDUIT

DESCRIPTION FROM	DESCRIPTION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
A-1-1	A-1-2	95	190	95	90
A-1-2	A-1-3	100	200	100	90
A-1-3	A-1-4	170	340	170	90
A-1-4	A-1-39	75	150	75	90
A-1-39	A-1-40	130	260	130	90
A-1-40	A-1-41	140	280	140	90
A-1-41	A-1-5	180	360	180	90
A-1-5	A-1-6	120	240	120	90
A-1-6	A-1-7	100	200	100	90
A-1-7	A-1-8	105	210	105	90
A-1-8	LCC-A	40	80	40	90
LCC-A	A-2-9	90	180	90	---
A-2-9	A-2-10	105	210	105	90
A-2-10	A-2-11	105	210	105	90
A-2-11	A-2-12	80	160	80	90
A-2-12	B-1-13	115	230	115	90
B-1-13	B-1-14	130	260	130	90
B-1-14	B-1-15	135	270	135	90
B-1-15	B-1-16	120	240	120	90
B-1-16	B-1-17	110	220	110	90
B-1-17	B-1-18	110	220	110	90
B-1-18	B-1-19	105	210	105	90
B-1-19	B-1-20	100	200	100	90
B-1-20	B-1-21	115	230	115	90
B-1-21	B-1-22	105	210	105	90
B-1-22	LCC-B	65	130	65	90
LCC-B	B-2-23	75	150	75	---
B-2-23	B-2-24	105	210	105	90
B-2-24	B-2-25	105	210	105	90
B-2-25	B-2-26	105	210	105	90
SUBTOTALS		3,235	6,470	3,235	2,520

STREET LIGHTING WIRING AND CONDUIT

DESCRIPTION FROM	DESCRIPTION TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG L.F.	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.
B-2-26	B-2-27	110	220	110	90
B-2-27	B-2-28	105	210	105	90
B-2-28	B-2-29	110	220	110	90
B-2-29	B-2-30	105	210	105	90
B-2-30	C-1-31	110	220	110	90
C-1-31	C-1-32	105	210	105	90
C-1-32	C-1-33	120	240	120	90
C-1-33	C-1-34	120	240	120	90
C-1-34	C-1-35	125	250	125	90
C-1-35	C-1-36	90	180	90	90
C-1-36	C-1-37	100	200	100	90
C-1-37	C-1-38	105	210	105	90
C-1-38	LCC-C	145	290	145	90
	SUBTOTALS	1,450	2,900	1,450	1,170
	PROJECT TOTALS	**4,685**	**9,370**	**4,685**	**3,690**

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LIGHTING CONTROL CABINET

DESCRIPTION	STATION	DIRECTION	LOCATION	SPV.0060.38 LIGHTING CONTROL CABINETS 120/240 30-INCH BLACK EACH	654.0215 CONCRETE CONTROL CABINET BASES TYPE 9 EACH
LCC-A	8+50	RT	58.5'	1	1
LCC-B	23+40	RT	53.2'	1	1
		PROJECT TOTALS		**2**	**2**

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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LUMINAIRE AND POLE MOUNTINGS

DESCRIPTION	STATION	DIRECTION	LOCATION	SPV.0060.37 DECORATIVE LUMINAIRE AND POLE EACH	654.0101 CONCRETE BASES TYPE 1 EACH
A-1-1	0+75	RT	34.1'	1	1
A-1-2	1+80	RT	37.4'	1	1
A-1-3	2+95	RT	40.0'	1	1
A-1-4	4+60	RT	46.0'	1	1
A-1-39	1+40	LT	31.3'	1	1
A-1-40	2+45	LT	31.1'	1	1
A-1-41	3+70	LT	29.1'	1	1
A-1-5	5+55	RT	28.2'	1	1
A-1-6	6+20	RT	28.6'	1	1
A-1-7	7+45	RT	28.9'	1	1
A-1-8	8+30	RT	29.4'	1	1
A-2-9	9+40	RT	27.9'	1	1
A-2-10	10+45	RT	27.7'	1	1
A-2-11	11+45	RT	29.0'	1	1
A-2-12	12+25	RT	29.8'	1	1
B-1-13	13+25	RT	29.1'	1	1
B-1-14	14+25	RT	29.3'	1	1
B-1-15	16+25	RT	29.2'	1	1
B-1-16	17+15	RT	29.6'	1	1
B-1-17	18+15	RT	29.7'	1	1
B-1-18	19+20	RT	30.0'	1	1
B-1-19	20+20	RT	34.7'	1	1
B-1-20	21+10	RT	31.9'	1	1
B-1-21	22+00	RT	31.4'	1	1
B-1-22	23+00	RT	33.7'	1	1
B-2-23	24+00	RT	32.2'	1	1
B-2-24	25+00	RT	29.9'	1	1
B-2-25	26+00	RT	30.0'	1	1
B-2-26	27+00	RT	30.4'	1	1
B-2-27	28+00	RT	29.6'	1	1
SUBTOTALS				30	30

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LUMINAIRE AND POLE MOUNTINGS

DESCRIPTION	STATION	DIRECTION	LOCATION	SPV.0060.37 DECORATIVE LUMINAIRE AND POLE EACH	654.0101 CONCRETE BASES TYPE 1 EACH
B-2-28	29+00	RT	28.5'	1	1
B-2-29	30+00	RT	29.3'	1	1
B-2-30	31+00	RT	29.2'	1	1
C-1-31	32+25	RT	31.1'	1	1
C-1-32	33+25	RT	31.9'	1	1
C-1-33	34+25	RT	32.0'	1	1
C-1-34	35+45	RT	29.8'	1	1
C-1-35	36+60	RT	29.6'	1	1
C-1-36	37+40	RT	29.7'	1	1
C-1-37	38+35	RT	29.4'	1	1
C-1-38	39+45	RT	29.3'	1	1
SUBTOTALS				11	11
PROJECT TOTALS				**41**	**41**

R/W PROJECT NUMBER 9995-00-63	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	12

PLAT OF RIGHT OF WAY REQUIRED FOR
C MARINETTE, RIVERSIDE AVE.
HATTIE ST.-VAN CLEVE AVE.
RIVERSIDE AVE. MARINETTE CO.

CONSTRUCTION PROJECT NUMBER
9995-00-63

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT

SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
BRIDGE

R/W MONUMENT "TYPE 2"
R/W MONUMENT "NAIL"
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	⌀	⌀
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	✱	✱
LIGHT POLE	✱	✱

ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)

PARCEL NUMBER 25
UTILITY NUMBER 40

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

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

NOTES:

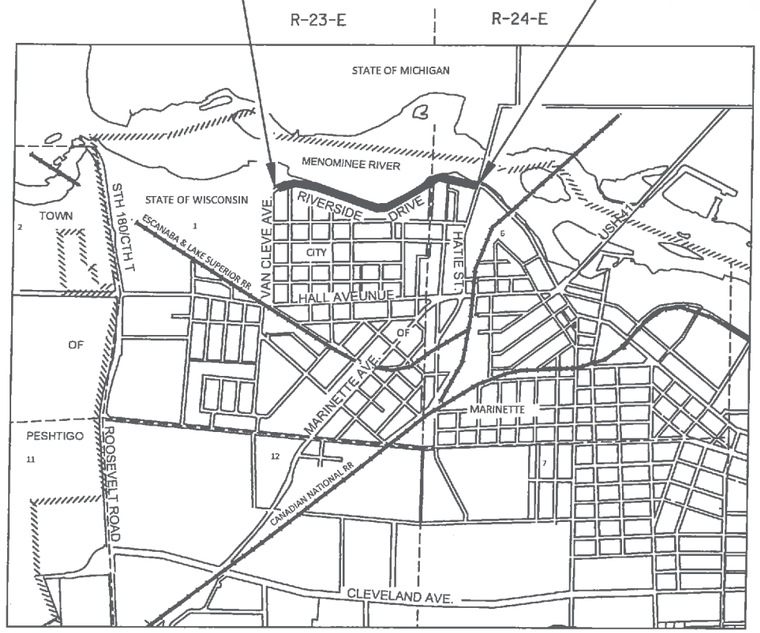
COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COORDINATE SYSTEM MARINETTE COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE EITHER A TYPE 2 MONUMENT (TYPICALLY 1"x24" IRON PIPE) OR A NAIL, THEY WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

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

BEGIN RELOCATION ORDER
STA. 0+01.70
Y= 150,402.13
X= 798,733.23
2,699.56' E. OF AND 1,640.74' N. OF THE W ¼ COR. OF SEC. 1, T.-30-N., R.-23-E. CITY OF MARINETTE, MARINETTE COUNTY, WISCONSIN

END RELOCATION ORDER
STA. 40+48.24
Y= 150,676.29
X= 802,343.14
898.81' E. OF AND 1,962.15' N. OF THE E ¼ COR. OF SEC. 1, T.-30-N., R.-23-E., CITY OF MARINETTE, MARINETTE COUNTY, WISCONSIN.



N

LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.766 MI.

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

WISCONSIN
MICHAEL C. JENSEN
S-1746
WAUPACA, WI
LAND SURVEYOR

2-14-17 (Date) (Signature)

REVISION DATE
7/31/17

APPROVED FOR CITY OF MARINETTE
DATE: 3/8/17 (Signature)

FILE NAME : J:\JOBS2015\20152010\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040101_RP.DWG
LAYOUT NAME - 040101-RP.DWG
PLOT DATE : 1/31/2017 9:19 AM PLOT BY : WORECK, CHRIS PLOT NAME :

WISDOT/CADDS SHEET 50

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

* DENOTES AREAS COMPUTED

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	NEW ACRES	EXISTING ACRES	TOTAL ACRES	TLE ACRES	PLE ACRES	PARCEL NUMBER
1	4.06	KIMBERLY-CLARK CORP.	FEE & TLE	0.051	0.251	0.302	0.109	0.000	1
2	4.06	ADAM & KATHY A. DEWITT	TLE	0.000	0.000	0.000	0.016	0.000	2
3	4.06	N.E.W. HYDRO LLC.	TLE & PLE	0.000	0.000	0.000	0.025	0.011	3
4	4.06	DONNA H. & WARREN A. THURSON	TLE	0.000	0.000	0.000	0.007	0.000	4
6	4.06	EARL A. & KATHALEEN L. DAU	TLE	0.000	0.000	0.000	0.014	0.000	6
7	4.06	WILLIAM R. TIPPLE	TLE	0.000	0.000	0.000	0.013	0.000	7
8	4.06-4.07	ALLEN R. & SHARON M. BREY	TLE & PLE	0.000	0.000	0.000	0.028	0.010	8
9	4.07	RAYMOND G. & BONNIE R. BJORKMAN TRUST	TLE & PLE	0.000	0.000	0.000	0.005	0.019	9
11	4.07	JAMES H. & MARLENE ENGLAND	TLE	0.000	0.000	0.000	0.029	0.000	11
12	4.07	RAYMOND G. & BONNIE R. BJORKMAN TRUST	TLE	0.000	0.000	0.000	0.029	0.000	12
13	4.07	LINDA S. O'BRIEN TRUST	TLE	0.000	0.000	0.000	0.015	0.000	13
14	4.07	CITY OF MARINETTE	TLE	0.000	0.000	0.000	0.007	0.000	14
16	4.07-4.08	ELISABETH JAEGER, PENELOPE BUTMAN, BARBARA KOPISH & JOHN HESSLER TRUST	TLE	0.000	0.000	0.000	0.022	0.000	16
17	4.08	WAYNE T. & BARBARA J. KOPISH	TLE	0.000	0.000	0.000	0.022	0.000	17
18	4.08	JOHN W. & PAULETTE S. ENDERS	TLE	0.000	0.000	0.000	0.051	0.000	18
19	4.08	RAYMOND G. & BONNIE R. BJORKMAN TRUST	TLE	0.000	0.000	0.000	0.004	0.000	19
21	4.08-4.09	MERRITT R. & JOYCE H. BAUMAN	FEE & TLE	0.001	0.000	0.001	0.059	0.000	21
22	4.09	WALTER A. JR. & MARY J. MUELLER	FEE & TLE	0.004	0.000	0.004	0.023	0.000	22
23	4.09	ROGER J. JR. & SUSAN K. WILLIAMS	FEE,TLE & PLE	0.007	0.000	0.007	0.017	0.003	23
24	4.09	SANFORD C. & EMELYN S. SEVERSON TRUST	FEE & TLE	0.025	0.000	0.025	0.012	0.000	24
26	4.09	ANDREW J. THANOS, KANDANCE KAROL HIGLEY, JEFFERY C. THANOS, JARED J. THANOS, JOEL K. THANOS, GEOFFREY S. FARR	FEE,TLE	0.025	0.000	0.025	0.015	0.000	26
27	4.09-4.10	BARKER & STEIN LLC.	FEE & TLE	0.010	0.000	0.010	0.034	0.000	27
28	4.10	WILLIAM F. & JUDITH K. ALWIN	TLE	0.000	0.000	0.000	0.018	0.000	28
29	4.10-4.12	N.E.W. HYDRO LLC.	TLE & PLE	0.000	0.000	0.000	0.145	0.047	29
31	4.10	DAVID POLZIN, DEBRA K. VAN & SCOTT POLZIN	TLE	0.000	0.000	0.000	0.022	0.000	31
32	4.10	ROBERT S. JR. & DEBORAH M. KROLL TRUST	TLE	0.000	0.000	0.000	0.021	0.000	32
33	4.10-4.11	MARK S. DAVENPORT & MARIA LANCIA	FEE & TLE	0.002	0.000	0.002	0.024	0.000	33
34	4.11	MARY L. STAUDENMAIER TRUST	TLE	0.000	0.000	0.000	0.034	0.000	34
36	4.11	RODNEY J. & LYNDA K. TAFELSKI	TLE	0.000	0.000	0.000	0.012	0.000	36
37	4.11-4.12	ROBIN ISLE	TLE	0.000	0.000	0.000	0.010	0.000	37
38	4.12	KEVIN R. & MELISSA J. HENRIKSEN	TLE	0.000	0.000	0.000	0.010	0.000	38
39	4.12	ERIC & SUSAN CRAVER	TLE	0.000	0.000	0.000	0.010	0.000	39
41	4.12	MARTHA ARNOLD TRUST	TLE	0.000	0.000	0.000	0.009	0.000	41
42	4.12	LINDA, HACKERT & MAXINE L. OLESZAK	TLE	0.000	0.000	0.000	0.006	0.000	42
70	4.06, 4.11	WISCONSIN PUBLIC SERVICE (GAS)	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	70
71	4.06	CITY OF MARINETTE PUBLIC WORKS (WATER)	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	71
72	4.06	CENTURYLINK	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	72
73	4.06-4.09	WISCONSIN PUBLIC SERVICE (ELECTRIC)	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	73
74	4.06	TIME WARNER CABLE	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	74
75	4.06	CITY OF MARINETTE PUBLIC WORKS (SANITARY)	RELEASE OF RIGHTS	0.000	0.000	0.000	0.000	0.000	75

4

GN

CITY

GOV'T LOT 3
SEC. 1

MENOMINEE RIVER

RIVERSIDE AVENUE

5EB

10EB

LESTER STREET

WILLIAMS STREET

BURNS STREET

VAN CLEVE AVENUE

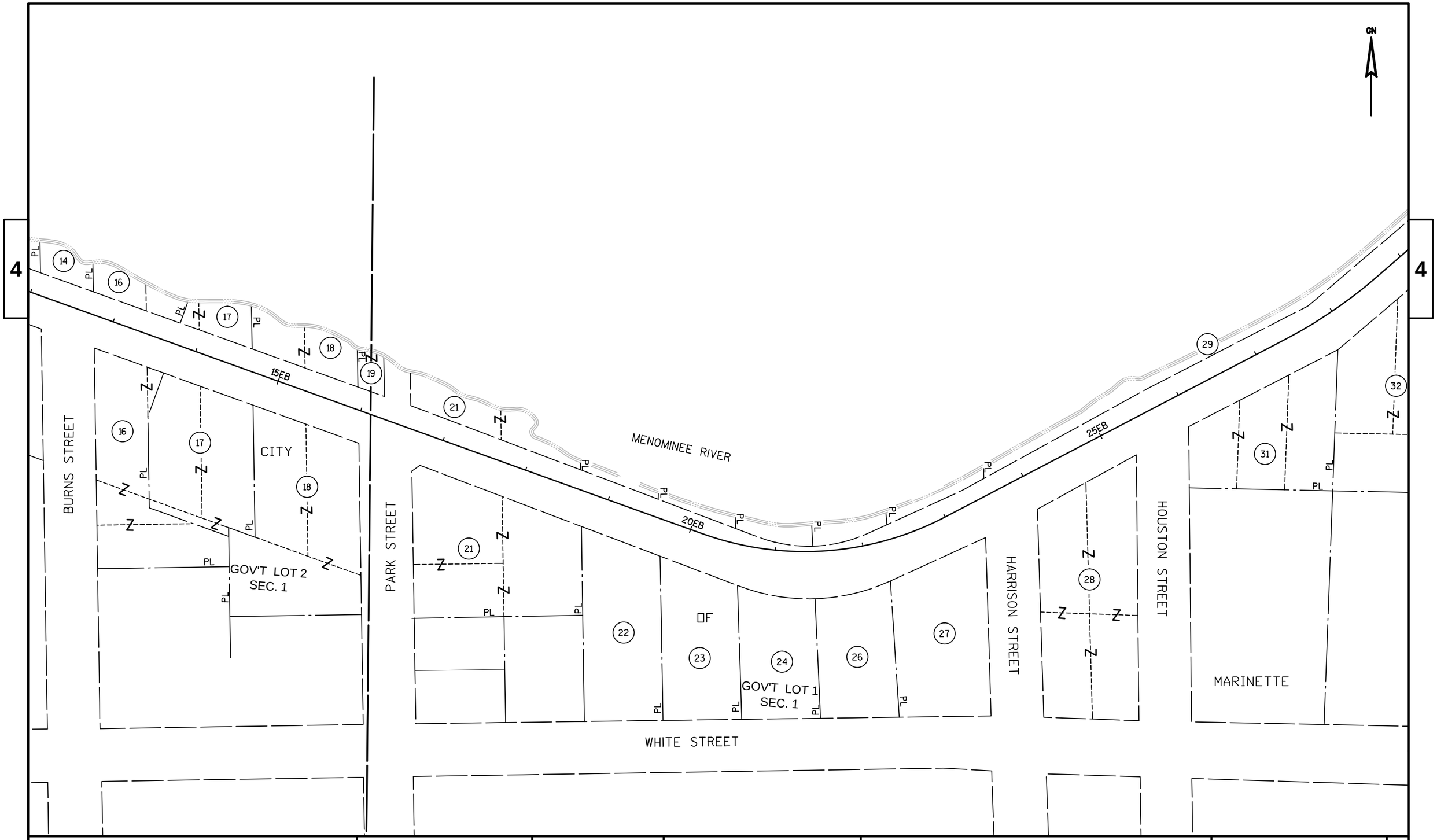
GOV'T LOT 2
SEC. 1

MARINETTE

BEGIN RELOCATION ORDER
STA. 0+01.70
Y: 150,402.13
X: 798,733.23

REVISION DATE 7/31/17: No Changes	DATE 2-07-2017 **GRID FACTOR: N/A**	**NOT TO SCALE**	**HWY: RIVERSIDE AVE.** **COUNTY: MARINETTE**	R/W PROJECT NUMBER 9995-00-63 CONSTRUCTION PROJECT NUMBER 9995-00-63	PLAT SHEET 4.03 PS&E SHEET 97 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040103-RP.DWG
LAYOUT NAME - 040103-RP.DWG
PLOT DATE : 7/31/2017 2:39 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 75

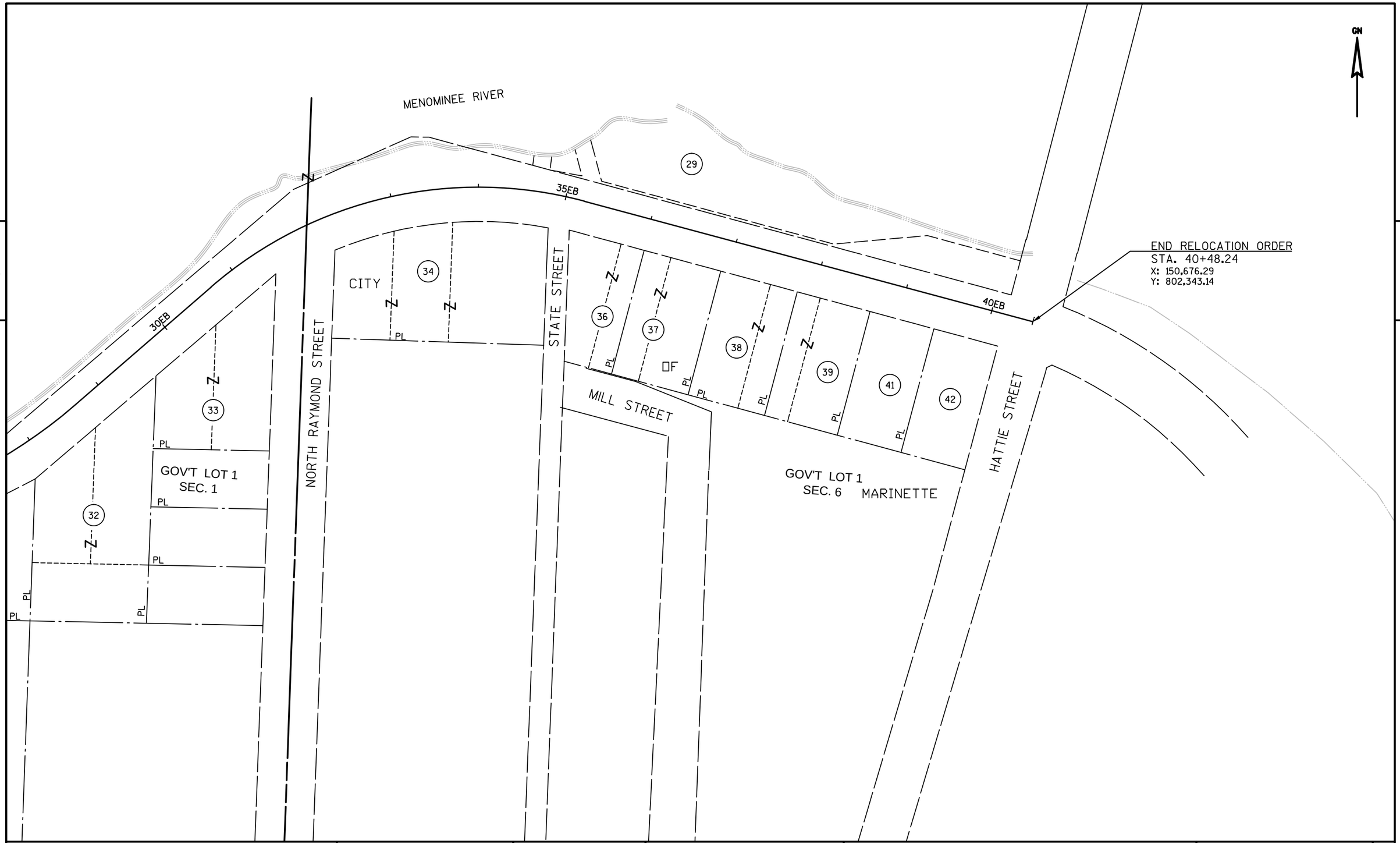


REVISION DATE 7/31/17: No Changes	DATE 2-07-2017	NOT TO SCALE	HWY: RIVERSIDE AVE.	R/W PROJECT NUMBER 9995-00-63	PLAT SHEET 4.04
	GRID FACTOR: N/A		COUNTY: MARINETTE	CONSTRUCTION PROJECT NUMBER 9995-00-63	PS&E SHEET 98 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040103-RP.DWG
LAYOUT NAME - 040104-RP.DWG

PLOT DATE : 7/31/2017 2:39 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 75



REVISION DATE 7/31/17: No Changes	DATE 2-07-2017 GRID FACTOR: N/A	NOT TO SCALE	HWY: RIVERSIDE AVE. COUNTY: MARINETTE	R/W PROJECT NUMBER 9995-00-63 CONSTRUCTION PROJECT NUMBER 9995-00-63	PLAT SHEET 4.05 PS&E SHEET 99 E

FILE NAME : J:\JOBS2014\20142009\CAD\TRANSPORTATION\DWG\SHEETSPLAN\040103-RP.DWG
LAYOUT NAME - 040105-RP.DWG

PLOT DATE : 7/31/2017 2:39 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 75

PARCEL 1 (FEE 1A)

COURSE	BEARING	DISTANCE
7818-8001	N 00°56'01" W	9.41'
8001-8002	N 00°56'01" W	10.00'
8002-8003	N 89°07'06" E	10.00'
8003-8000	S 00°56'01" E	10.00'
8000-8001	S 89°07'06" W	10.00'

PARCEL 1 (FEE 1B)

COURSE	BEARING	DISTANCE
7818-7765	N 00°56'01" W	30.13'
7765-7349	N 00°56'01" W	36.93'
7349-7763	C54	
7763-8008	C100	
8008-8010	S 44°12'20" E	10.00'
8010-8009	N 43°18'43" W	10.00'
8009-8011	N 44°12'20" W	10.00'
8011-7777	C102	
7777-7771	C63	
7771-8007	C103	
8007-8006	S 83°50'44" E	10.00'
8006-8005	S 06°09'16" W	10.00'
8005-8004	N 83°50'44" W	10.00'
8004-7765	C105	

PARCEL 1 (FEE 1C)

COURSE	BEARING	DISTANCE
7818-7349	N 00°56'01" W	67.06'
7349-7641	C127	
7641-8215	S 00°55'29" E	7.94'
8215-8214	S 60°54'09" W	15.39'
8214-8211	N 29°05'51" W	7.00'
8211-7641	C148	

PARCEL 1 (FEE 1D)

COURSE	BEARING	DISTANCE
7816-8022	N 00°56'01" W	67.18'
8022-8023	N 74°53'27" W	4.25'
8023-8194	N 15°06'33" E	14.78'
8194-8022	S 00°56'01" E	15.38'

PARCEL 1 (FEE 1E)

COURSE	BEARING	DISTANCE
7816-8194	N 00°56'01" W	82.55'
8194-8195	C147	
8195-8196	C136	
8196-7727	C133	
7727-8026	C114	
8026-8027	N 37°38'20" W	4.00'
8027-8028	N 52°21'40" E	10.00'
8028-8029	N 37°38'20" E	4.00'
8029-8030	C125	
8030-8031	N 22°23'26" W	4.00'
8031-8032	N 67°36'34" E	10.00'
8032-8033	S 22°23'36" E	4.00'
8033-7737	C126	
7737-7738	N 85°23'24" E	29.42'
7738-7778	C66	
7738-7487	S 00°54'55" E	3.24'
7487-8197	S 85°23'24" W	7.34'
8197-8191	C135	
8191-8196	C134	

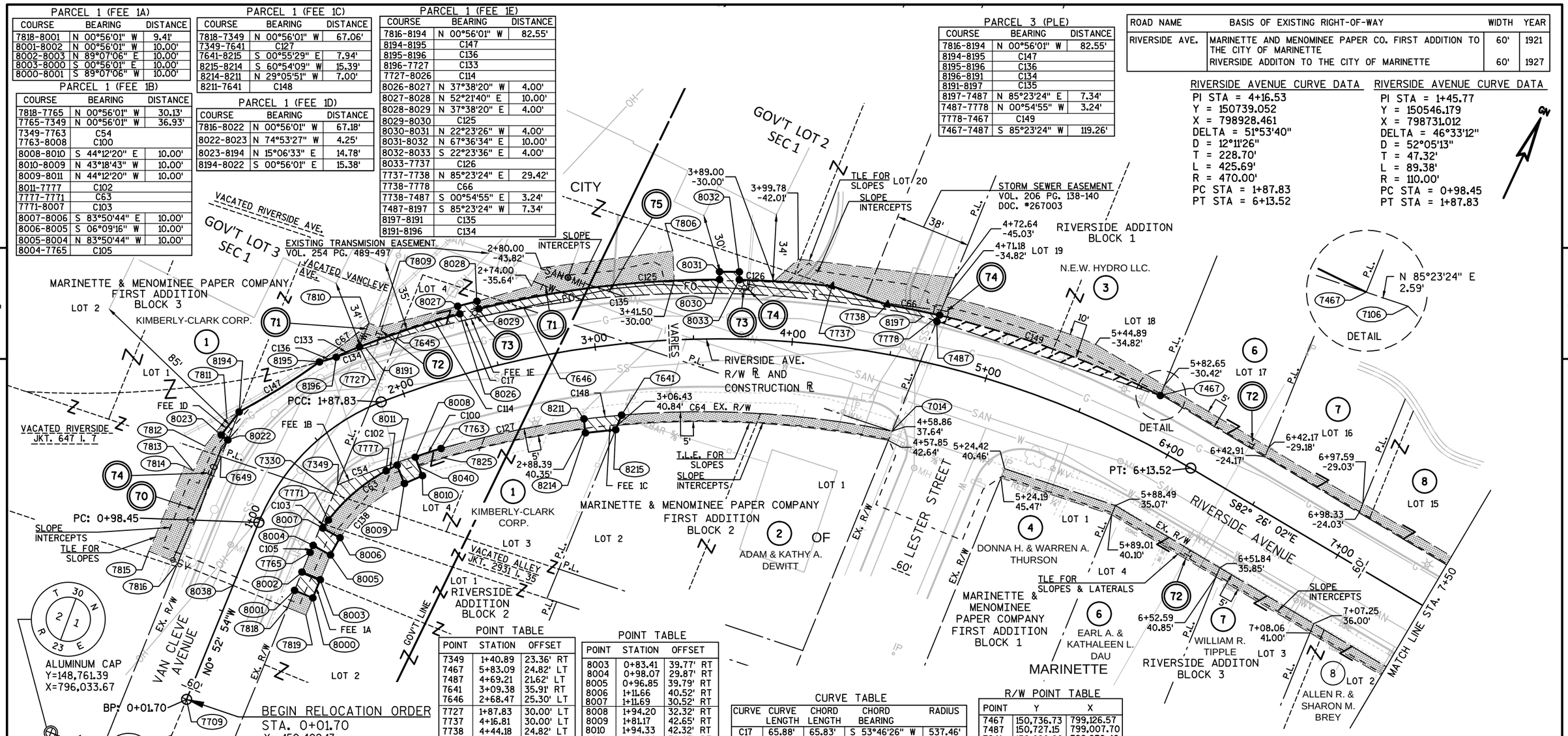
PARCEL 3 (PLE)

COURSE	BEARING	DISTANCE
7816-8194	N 00°56'01" W	82.55'
8194-8195	C147	
8195-8196	C136	
8196-8191	C134	
8191-8197	C135	
8197-7487	N 85°23'24" E	7.34'
7487-7778	N 00°54'55" W	3.24'
7778-7467	C149	
7467-7487	S 85°23'24" W	119.26'

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RIVERSIDE AVE.	MARINETTE AND MENOMINEE PAPER CO. FIRST ADDITION TO THE CITY OF MARINETTE	60'	1921
	RIVERSIDE ADDITON TO THE CITY OF MARINETTE	60'	1927

RIVERSIDE AVENUE CURVE DATA
PI STA = 4+16.53
Y = 150739.052
X = 798928.461
DELTA = 51°53'40"
D = 12°11'26"
T = 228.70'
L = 425.69'
R = 470.00'
PC STA = 1+87.83
PT STA = 6+13.52

RIVERSIDE AVENUE CURVE DATA
PI STA = 1+45.77
Y = 150546.179
X = 798731.012
DELTA = 46°33'12"
D = 52°05'13"
T = 47.32'
L = 89.38'
R = 110.00'
PC STA = 0+98.45
PT STA = 1+87.83



POINT TABLE

POINT	STATION	OFFSET
7349	1+40.89	23.36' RT
7467	5+83.09	24.82' LT
7487	4+69.21	21.62' LT
7641	3+09.38	35.91' RT
7646	2+68.47	25.30' LT
7727	1+87.83	30.00' LT
7737	4+16.81	30.00' LT
7738	4+44.18	24.82' LT
7763	2+09.07	32.50' RT
7765	0+94.13	29.76' RT
7771	1+18.59	30.89' RT
7777	1+73.03	32.70' RT
7778	4+69.70	24.82' LT
7806	3+41.50	45.00' LT
7809	2+00.00	26.00' LT
7810	1+96.00	39.50' LT
7811	1+30.00	41.00' LT
7812	1+17.00	42.00' LT
7813	1+07.00	41.00' LT
7814	1+07.00	46.00' LT
7815	0+64.00	46.00' LT
7816	0+64.00	30.21' LT
7818	0+64.00	29.79' RT
7819	0+64.00	39.79' RT
7825	2+08.82	37.49' RT
8000	0+73.41	39.78' RT
8001	0+73.41	29.78' RT
8002	0+83.41	29.77' RT

POINT TABLE

POINT	STATION	OFFSET
8003	0+83.41	39.77' RT
8004	0+98.07	29.87' RT
8005	0+96.85	39.79' RT
8006	1+11.66	40.52' RT
8007	1+11.69	30.52' RT
8008	1+94.20	32.32' RT
8009	1+81.17	42.65' RT
8010	1+94.33	42.32' RT
8011	1+82.06	32.67' RT
8022	1+23.66	30.04' LT
8023	1+23.82	38.28' LT
8026	2+38.00	30.00' LT
8027	2+38.04	34.00' LT
8028	2+47.36	34.00' LT
8029	2+47.40	30.00' LT
8030	3+63.08	30.00' LT
8031	3+63.12	34.00' LT
8032	3+72.45	34.00' LT
8033	3+72.48	30.00' LT
8038	0+64.00	0.00'
8040	1+94.27	37.32' RT
8191	1+90.31	28.39' RT
8194	1+34.79	38.30' LT
8195	1+70.90	31.88' LT
8196	1+77.66	30.00' LT
8197	4+62.23	22.37' LT
8211	2+88.67	35.35' RT
8214	2+88.28	42.34' RT
8215	3+05.20	42.87' RT

CURVE TABLE

CURVE	CURVE LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C17	65.88'	65.83'	S 53°46'26" W	537.46'
C54	55.68'	55.65'	N 47°32'43" E	477.46'
C63	38.65'	38.35'	S 26°24'36" W	89.70'
C64	137.69'	137.22'	N 70°18'46" E	477.46'
C66	26.86'	26.86'	N 78°28'42" E	494.82'
C67	31.97'	31.96'	S 28°54'33" W	372.00'
C100	13.85'	13.84'	S 48°06'15" W	142.57'
C102	6.34'	6.34'	S 40°01'41" W	142.57'
C103	4.99'	4.99'	S 12°05'29" W	72.36'
C105	3.95'	3.95'	S 00°37'45" W	72.36'
C114	53.38'	53.35'	N 48°43'48" E	500.00'
C125	123.07'	122.76'	N 59°59'07" E	500.00'
C126	47.16'	47.14'	N 70°53'04" E	500.00'
C127	148.72'	148.12'	N 53°07'39" E	477.46'
C133	12.94'	12.93'	N 43°01'28" E	140.00'
C134	15.59'	15.59'	S 49°24'29" W	477.46'
C135	286.05'	282.68'	S 63°43'11" W	537.46'
C136	8.86'	8.86'	N 50°52'30" E	477.46'
C138	43.09'	42.57'	N 26°49'43" E	79.71'
C147	47.88'	47.85'	N 35°03'30" E	372.00'
C148	19.14'	19.14'	N 60°54'09" E	477.46'
C149	119.38'	119.09'	N 86°56'42" E	494.82'

R/W POINT TABLE

POINT	Y	X
7467	150,736.73	799,126.57
7487	150,727.15	799,007.70
7641	150,620.80	798,879.46
7727	150,600.71	798,743.90
7737	150,722.66	798,952.00
7738	150,725.02	798,981.33
7763	150,569.49	798,802.02
7765	150,495.00	798,761.57
7771	150,513.76	798,763.73
7777	150,548.11	798,780.78
7778	150,730.38	799,007.64
8000	150,474.44	798,771.90
8001	150,474.29	798,761.90
8002	150,484.28	798,761.74
8003	150,484.44	798,771.74
8004	150,498.95	798,761.61
8005	150,497.87	798,771.55
8006	150,507.82	798,772.62
8007	150,508.89	798,762.68
8008	150,560.25	798,791.72
8009	150,545.80	798,791.84
8010	150,553.08	798,798.69
8011	150,552.97	798,784.86

R/W POINT TABLE

POINT	Y	X
8022	150,531.12	798,700.97
8023	150,532.23	798,696.87
8026	150,635.90	798,784.00
8027	150,639.06	798,781.56
8028	150,645.17	798,789.47
8029	150,642.00	798,791.92
8030	150,703.41	798,898.21
8031	150,707.11	798,896.69
8032	150,710.92	798,905.93
8033	150,707.22	798,907.46
8194	150,546.49	798,700.72
8195	150,585.66	798,728.20
8196	150,591.25	798,735.08
8211	150,611.49	798,862.73
8214	150,605.38	798,866.14
8215	150,612.86	798,879.59

COURSE TABLE

COURSE	BEARING	DISTANCE
7827-7709	N 00°52'54" W	1,667.41'
7709-8038	N 00°52'54" W	62.30'
8038-7818	N 89°07'06" E	29.79'
8038-7816	S 89°07'06" W	30.21'
7816-7649	N 00°56'01" W	58.15'
7649-8022	N 00°56'01" W	9.03'
7487-7014	S 00°54'55" E	60.12'
7014-7646	S 85°23'24" W	196.53'
7645-7349	S 00°56'01" E	80.41'
7349-7330	S 00°56'01" E	5.00'
7765-7330	N 00°56'01" W	31.93'
7330-7649	S 85°23'24" W	60.12'

REVISION DATE
7/31/17: Revised Parcels 1,2,3; Removed Parcel 76

DATE 2-07-2017
GRID FACTOR N/A

SCALE, FEET
0 25 50

HWY: RIVERSIDE AVENUE
COUNTY: MARINETTE

STATE R/W PROJECT NUMBER 9995-00-63
CONSTRUCTION PROJECT NUMBER 9995-00-63

PLAT SHEET 4.06
PS&E SHEET 100

E

FILE NAME : 040104_RP.DWG
LAYOUT NAME - 040106

PLOT DATE : 7/31/2017 2:47 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

RIVERSIDE AVENUE CURVE DATA
PI STA = 1+45.77
Y = 150546.179
X = 798731.012
DELTA = 46°33'12"
D = 52°05'13"
T = 47.32'
L = 89.38'
R = 110.00'
PC STA = 0+98.45
PT STA = 1+87.83

RIVERSIDE AVENUE CURVE DATA
PI STA = 4+16.53
Y = 150739.052
X = 798928.461
DELTA = 51°53'40"
D = 12°11'26"
T = 228.70'
L = 425.69'
R = 470.00'
PC STA = 1+87.83
PT STA = 6+13.52

RIVERSIDE AVENUE CURVE DATA
PI STA = 8+71.77
Y = 150674.937
X = 799411.169
DELTA = 12°12'18"
D = 11°13'24"
T = 54.58'
L = 108.75'
R = 510.50'
PC STA = 8+17.19
PT STA = 9+25.94

PARCEL 8 (PLE)

COURSE	BEARING	DISTANCE
7801-8041	N 07°43'06" E	44'+/-
8041-8043	SOUTHEASTERLY	6'+/-
8043-7458	S 00°51'32" E	45'+/-
7458-7801	N 82°16'54" W	13.23'

COURSE TABLE

COURSE	BEARING	DISTANCE
7827-7709	N 00°52'54" W	1,667.41'
7709-7710	N 00°52'54" W	96.75'
7708-8042	S 82°26'03" E	200.57'
8042-7801	N 07°43'06" E	23.73'

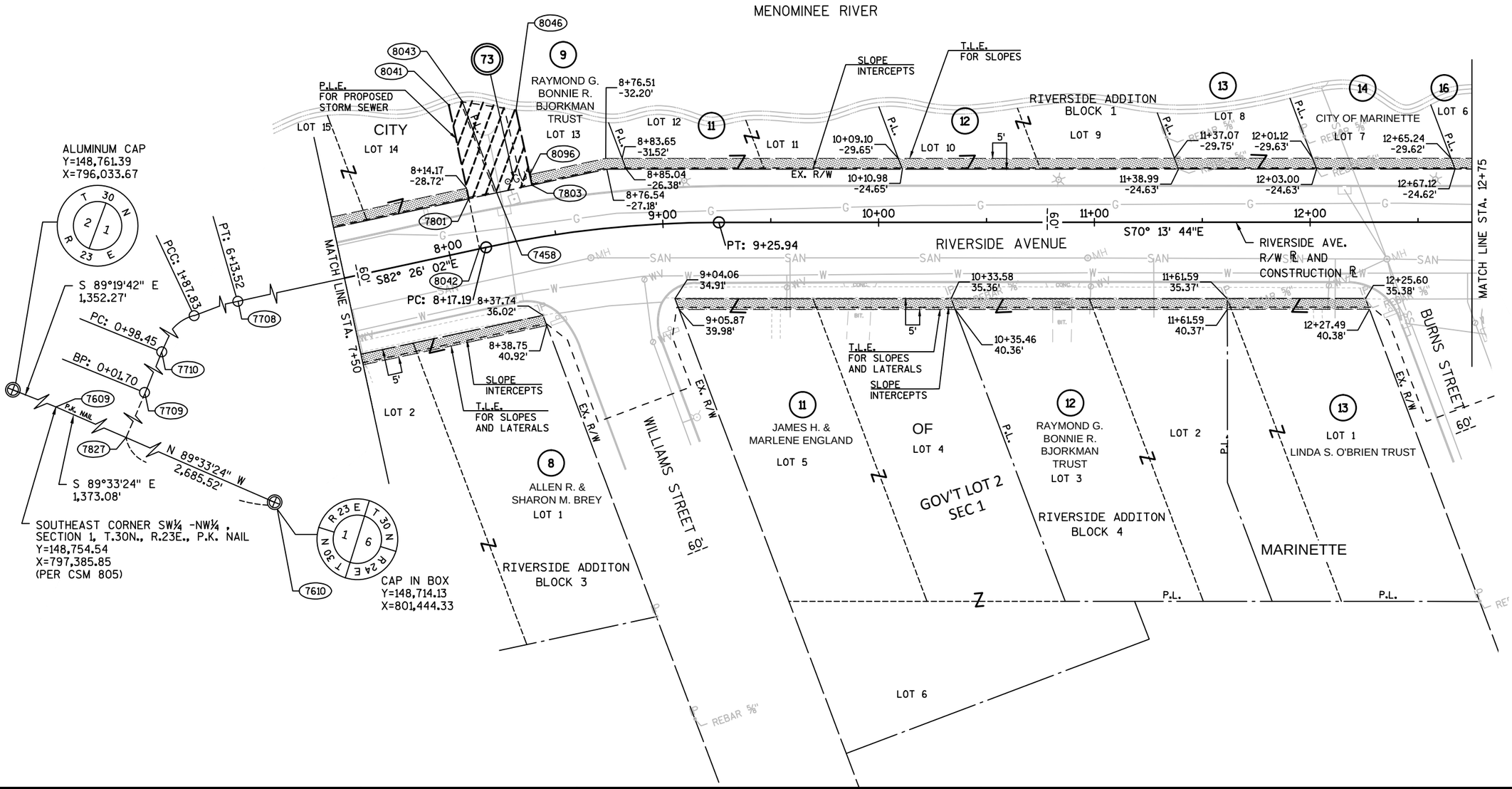
PARCEL 9 (PLE)

COURSE	BEARING	DISTANCE
7801-7458	S 82°16'54" E	13.23'
7458-8043	N 00°51'32" W	45'+/-
8043-8046	SOUTHEASTERLY	25'+/-
8046-7803	S 07°43'06" W	35'+/-
7803-7458	N 82°16'54" W	16.77'

POINT TABLE

POINT	STATION	OFFSET
7458	8+26.93	23.78' LT
7801	8+14.15	23.73' LT
7803	8+42.93	24.32' LT
8041	8+14+/-	68'+/- LT
8043	8+20+/-	68'+/- LT
8046	8+41+/-	59'+/- LT
8096	8+42.71	29.31' LT

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RIVERSIDE AVE.	RIVERSIDE ADDITON TO THE CITY OF MARINETTE	60'	1927



REVISION DATE	DATE 2-07-2017	SCALE. FEET	HWY: RIVERSIDE AVENUE	STATE R/W PROJECT NUMBER 9995-00-63	PLAT SHEET 4.07	
7/31/17: Removed Parcel 76	GRID FACTOR N/A	0 25 50	COUNTY: MARINETTE	CONSTRUCTION PROJECT NUMBER 9995-00-63	PS&E SHEET 101	E

FILE NAME : 040104_RP.DWG
LAYOUT NAME - 040107
PLOT DATE : 7/31/2017 2:47 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 75

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RIVERSIDE AVE.	RIVERSIDE ADDITON TO THE CITY OF MARINETTE	60'	1927
	WEBBER'S FIRST ADDITION TO CITY OF MARINETTE	60'	1945

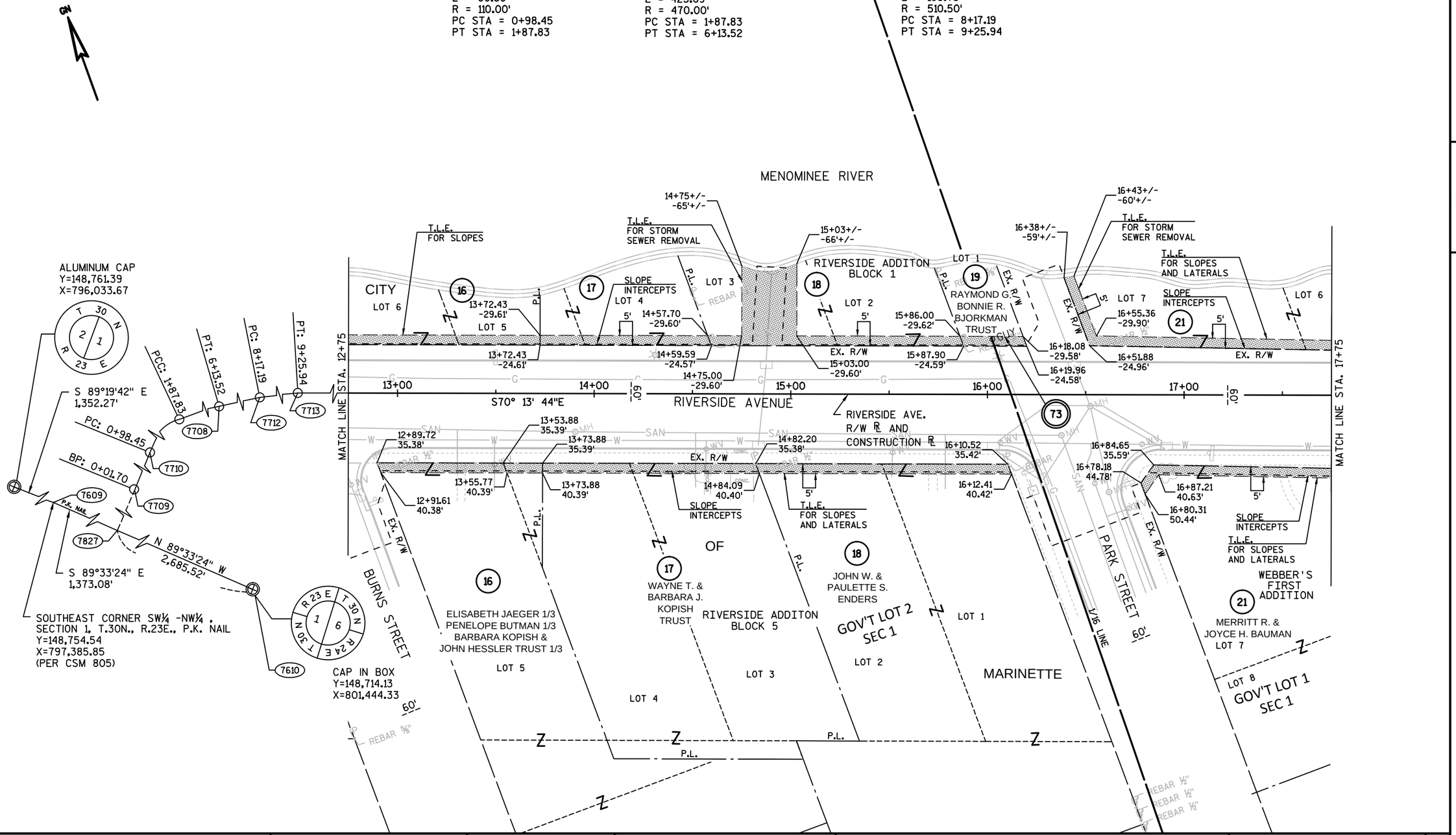
RIVERSIDE AVENUE CURVE DATA
PI STA = 1+45.77
Y = 150546.179
X = 798731.012
DELTA = 46°33'12"
D = 52°05'13"
T = 47.32'
L = 89.38'
R = 110.00'
PC STA = 0+98.45
PT STA = 1+87.83

RIVERSIDE AVENUE CURVE DATA
PI STA = 4+16.53
Y = 150739.052
X = 798928.461
DELTA = 51°53'40"
D = 12°11'26"
T = 228.70'
L = 425.69'
R = 470.00'
PC STA = 1+87.83
PT STA = 6+13.52

RIVERSIDE AVENUE CURVE DATA
PI STA = 8+71.77
Y = 150674.937
X = 799411.169
DELTA = 12°12'18"
D = 11°13'24"
T = 54.58'
L = 108.75'
R = 510.50'
PC STA = 8+17.19
PT STA = 9+25.94

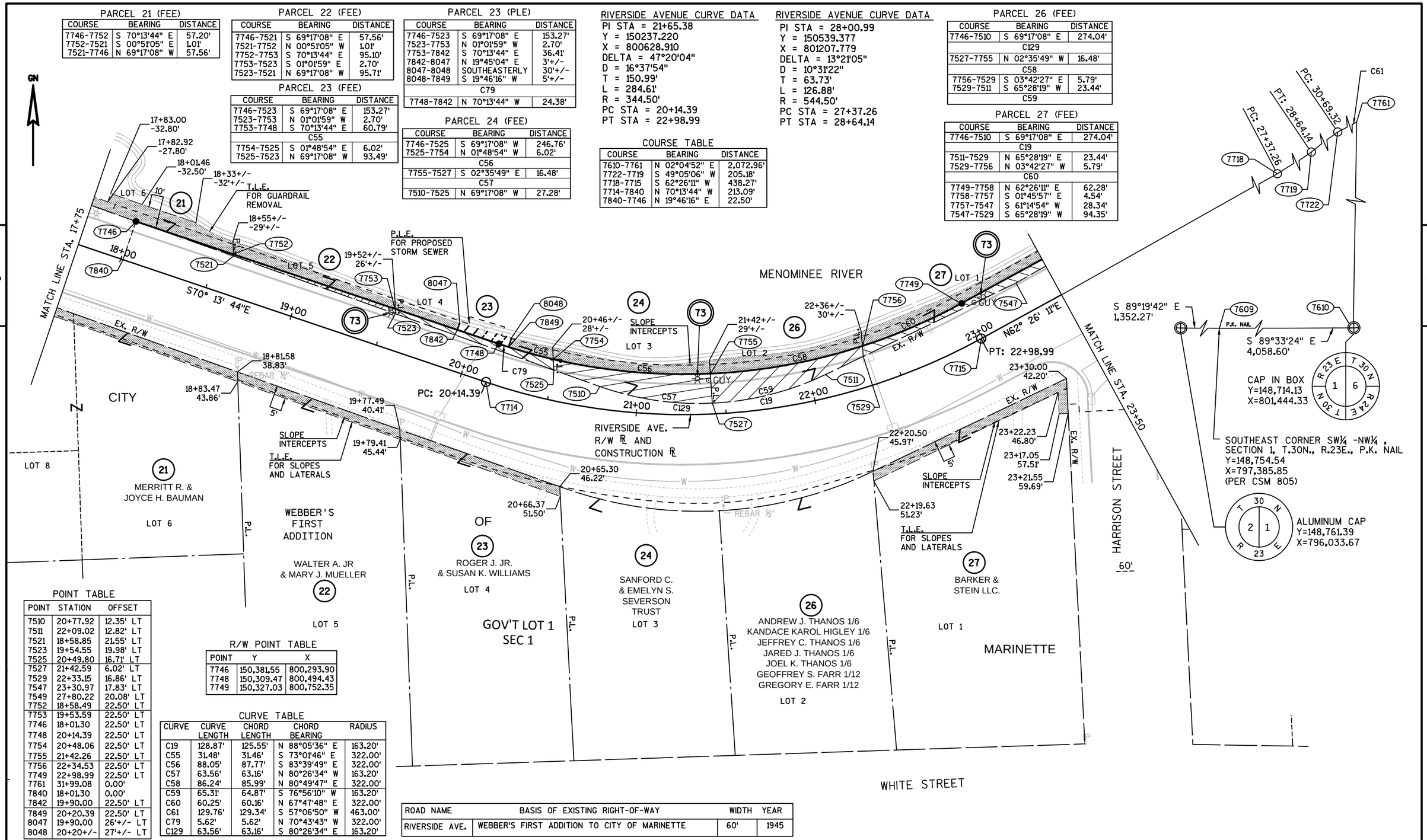
COURSE TABLE

COURSE	BEARING	DISTANCE
7827-7709	N 00°52'54" W	1,667.41'
7709-7710	N 00°52'54" W	96.75'
7708-7712	S 82°26'03" E	203.67'



REVISION DATE	DATE	SCALE. FEET	HWY: RIVERSIDE AVENUE	STATE R/W PROJECT NUMBER 9995-00-63	PLAT SHEET 4.08	
7/31/17: Removed Parcel 76	GRID FACTOR N/A	0 25 50	COUNTY: MARINETTE	CONSTRUCTION PROJECT NUMBER 9995-00-63	PS&E SHEET 102	E

FILE NAME : 040104_RP.DWG
LAYOUT NAME - 040108
PLOT DATE : 7/31/2017 2:47 PM
PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 75



4

4

PARCEL 21 (FEE)

COURSE	BEARING	DISTANCE
7746-7752	S 70°13'44" E	57.20'
7752-7521	S 00°51'05" E	1.01'
7521-7746	N 69°17'08" W	57.56'

PARCEL 22 (FEE)

COURSE	BEARING	DISTANCE
7746-7521	S 69°17'08" E	57.56'
7521-7752	N 00°51'05" W	1.01'
7752-7753	S 70°13'44" E	95.10'
7753-7523	S 01°01'59" E	2.70'
7523-7521	N 69°17'08" W	95.71'

PARCEL 23 (FEE)

COURSE	BEARING	DISTANCE
7746-7523	S 69°17'08" E	153.27'
7523-7753	N 01°01'59" W	2.70'
7753-7748	S 70°13'44" E	60.79'
C55		
7754-7525	S 01°48'54" E	6.02'
7525-7523	N 69°17'08" W	93.49'

PARCEL 23 (PLE)

COURSE	BEARING	DISTANCE
7746-7523	S 69°17'08" E	153.27'
7523-7753	N 01°01'59" W	2.70'
7753-7842	S 70°13'44" E	36.41'
7842-8047	N 19°45'04" E	3'+/-
8047-8048	SOUTHEASTERLY	30'+/-
8048-7849	S 19°46'16" W	5'+/-
C79		
7748-7842	N 70°13'44" W	24.38'

PARCEL 24 (FEE)

COURSE	BEARING	DISTANCE
7746-7525	S 69°17'08" W	246.76'
7525-7754	N 01°48'54" W	6.02'
C56		
7755-7527	S 02°35'49" E	16.48'
C57		
7510-7525	N 69°17'08" W	27.28'

RIVERSIDE AVENUE CURVE DATA
PI STA = 21+65.38
Y = 150237.220
X = 800628.910
DELTA = 47°20'04"
D = 16°37'54"
T = 150.99'
L = 284.61'
R = 344.50'
PC STA = 20+14.39
PT STA = 22+98.99

RIVERSIDE AVENUE CURVE DATA
PI STA = 28+00.99
Y = 150539.377
X = 801207.779
DELTA = 13°21'05"
D = 10°31'22"
T = 63.73'
L = 126.88'
R = 544.50'
PC STA = 27+37.26
PT STA = 28+64.14

COURSE TABLE

COURSE	BEARING	DISTANCE
7610-7761	N 02°04'52" E	2,072.96'
7722-7719	S 49°05'06" W	205.18'
7718-7715	S 62°26'11" W	438.27'
7714-7840	N 70°13'44" W	213.09'
7840-7746	N 19°46'16" E	22.50'

PARCEL 26 (FEE)

COURSE	BEARING	DISTANCE
7746-7510	S 69°17'08" E	274.04'
C129		
7527-7755	N 02°35'49" W	16.48'
C58		
7756-7529	S 03°42'27" E	5.79'
7529-7511	S 65°28'19" W	23.44'
C59		

PARCEL 27 (FEE)

COURSE	BEARING	DISTANCE
7746-7510	S 69°17'08" E	274.04'
C19		
7511-7529	N 65°28'19" E	23.44'
7529-7756	N 03°42'27" W	5.79'
C60		
7749-7758	N 62°26'11" E	62.28'
7758-7757	S 01°45'57" E	4.54'
7757-7547	S 61°14'54" W	28.34'
7547-7529	S 65°28'19" W	94.35'

POINT TABLE

POINT	STATION	OFFSET
7510	20+77.92	12.35' LT
7511	22+09.02	12.82' LT
7521	18+58.85	21.55' LT
7523	19+54.55	19.98' LT
7525	20+49.80	16.71' LT
7527	21+42.59	6.02' LT
7529	22+33.15	16.86' LT
7547	23+30.97	17.83' LT
7549	27+80.22	20.08' LT
7752	18+58.49	22.50' LT
7753	19+53.59	22.50' LT
7746	18+01.30	22.50' LT
7748	20+14.39	22.50' LT
7754	20+48.06	22.50' LT
7755	21+42.26	22.50' LT
7756	22+34.53	22.50' LT
7749	22+98.99	22.50' LT
7761	31+99.08	0.00'
7840	18+01.30	0.00'
7842	19+90.00	22.50' LT
7849	20+20.39	22.50' LT
8047	19+90.00	26'+/- LT
8048	20+20+/-	27'+/- LT

R/W POINT TABLE

POINT	Y	X
7746	150,381.55	800,293.90
7748	150,309.47	800,494.43
7749	150,327.03	800,752.35

CURVE TABLE

CURVE	CURVE LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C19	128.87'	125.55'	N 88°05'36" E	163.20'
C55	31.48'	31.46'	S 73°01'46" E	322.00'
C56	88.05'	87.77'	S 83°39'49" E	322.00'
C57	63.56'	63.16'	N 80°26'34" W	163.20'
C58	86.24'	85.99'	N 80°49'47" E	322.00'
C59	65.31'	64.87'	S 76°56'10" W	163.20'
C60	60.25'	60.16'	N 67°47'48" E	322.00'
C61	129.76'	129.34'	S 57°06'50" W	463.00'
C79	5.62'	5.62'	N 70°43'43" W	322.00'
C129	63.56'	63.16'	S 80°26'34" E	163.20'

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RIVERSIDE AVE.	WEBBER'S FIRST ADDITION TO CITY OF MARINETTE	60'	1945

REVISION DATE
7/31/17: Removed Parcel 76

DATE 2-07-2017

GRID FACTOR N/A

SCALE. FEET
0 25 50

HWY: RIVERSIDE AVENUE

COUNTY: MARINETTE

STATE R/W PROJECT NUMBER 9995-00-63

CONSTRUCTION PROJECT NUMBER 9995-00-63

PLAT SHEET 4.09

PS&E SHEET 103

E

PARCEL 27 (FEE)

COURSE	BEARING	DISTANCE
7746-7510	S 69°17'08" E	274.04'
C19		
7511-7529	N 65°28'19" E	23.44'
7529-7756	N 03°42'27" W	5.79'
C60		
7749-7758	N 62°26'11" E	62.28'
7758-7757	S 01°45'57" E	4.54'
7757-7547	S 61°14'54" W	28.34'
7547-7529	S 65°28'19" W	94.35'

PARCEL 29 (PLE 1A)

COURSE	BEARING	DISTANCE
7860-7549	S 49°34'24" W	100.71'
7549-7548	S 62°46'19" W	203.22'
7548-7747	S 61°14'54" W	19.18'
7747-7757	S 61°14'54" W	196.94'
7757-7758	N 01°45'57" W	4.54'
7758-7852	N 62°26'11" E	13.09'
7852-7787	N 27°33'49" W	6'+/-
7787-7788	NORTHEASTERLY	30'+/-
7788-7854	S 27°33'49" E	7'+/-
7854-7747	N 62°26'11" E	151.84'

PARCEL 29 (PLE 1B)

COURSE	BEARING	DISTANCE
7860-7549	S 49°34'24" W	100.71'
7549-7862	S 62°46'19" W	179.40'
7862-7548	S 62°46'19" W	23.82'
7548-7856	S 61°14'54" W	6.18'
7856-7789	N 28°45'06" W	12'+/-
7789-7790	NORTHEASTERLY	30'+/-
7790-7862	S 27°13'41" E	10'+/-

PARCEL 29 (PLE 1C)

COURSE	BEARING	DISTANCE
7860-7858	S 49°34'24" W	30.00'
7858-7859	N 40°25'36" W	5'+/-
7859-7861	NORTHEASTERLY	30'+/-
7861-7860	S 40°25'36" E	5'+/-

POINT TABLE

POINT	STATION	OFFSET
7548	25+75.38	22.90' LT
7549	27+80.22	20.08' LT
7747	25+56.20	22.50' LT
7757	23+59.30	18.42' LT
7758	23+61.27	22.50' LT
7761	31+99.08	0.00'
7787	23+74.36	29'+/- LT
7788	24+04.36	30'+/- LT
7789	25+68+/-	35'+/- LT
7790	25+99+/-	33'+/- LT
7852	23+74.36	22.50' LT
7854	24+04.36	22.50' LT
7856	25+69.20	22.77' LT
7858	28+53.86	25.60' LT
7859	28+53+/-	30'+/- LT
7861	28+84+/-	30'+/- LT
7860	28+84.34	25.43' LT
7862	25+99.20	22.76' LT
8049	28+84.13	0.00'

RIVERSIDE AVENUE CURVE DATA

PI STA = 28+00.99
Y = 150539.377
X = 801207.779
DELTA = 13°21'05"
D = 10°31'22"
T = 63.73'
L = 126.88'
R = 544.50'
PC STA = 27+37.26
PT STA = 28+64.14

R/W POINT TABLE

POINT	Y	X
7757	150,351.32	800,807.70
7758	150,355.85	800,807.57

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RIVERSIDE AVE.	I. STEPHENSON'S SECOND ADDITION TO CITY OF MARINETTE STEPHENSON SUBDIVISION OF BLOCK 6 OF HALL'S ADDITION	60' 60'	-- 1892

R/W POINT TABLE

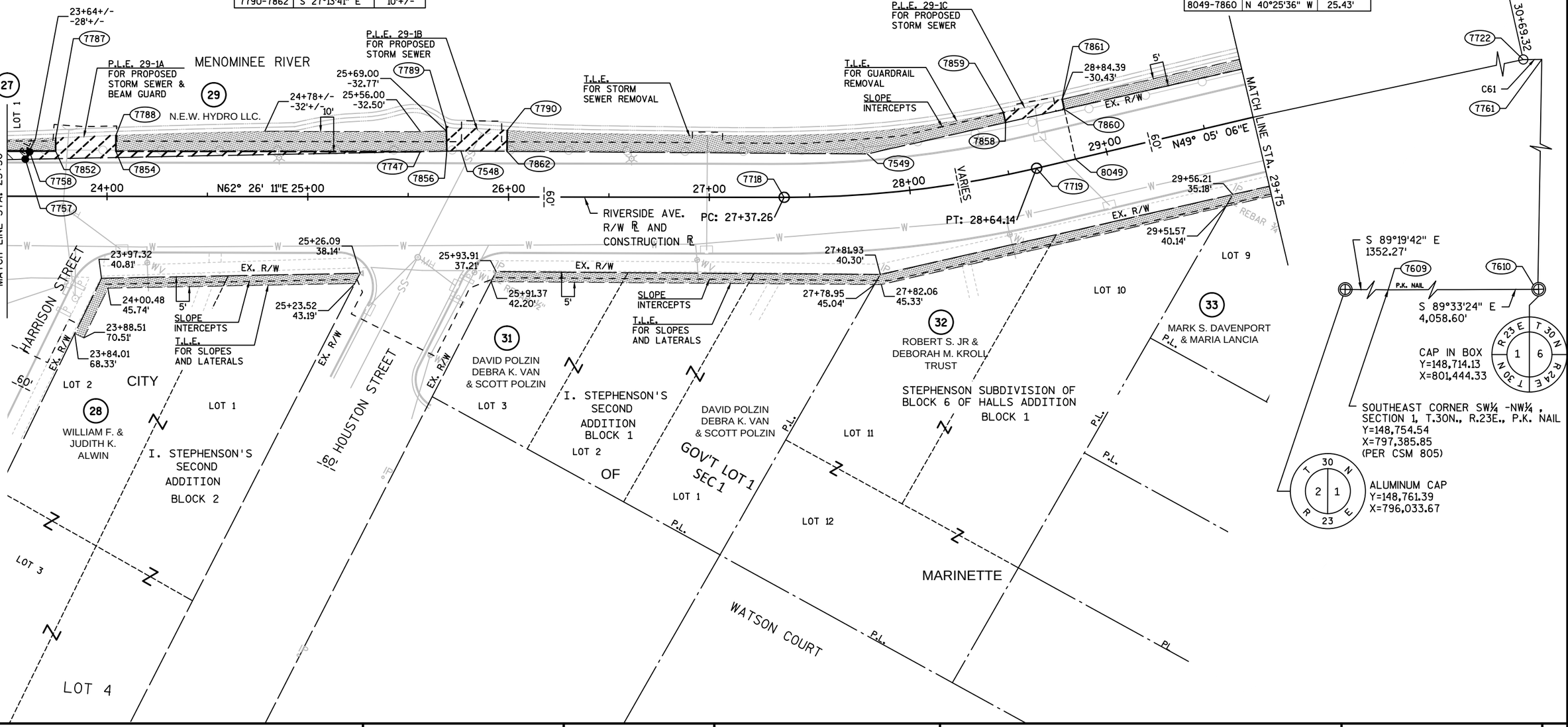
POINT	Y	X
7747	150,446.05	800,980.37

CURVE TABLE

CURVE	CURVE LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C60	60.25'	60.16'	N 67°47'48" E	322.00'
C61	129.76'	129.34'	S 57°06'50" W	463.00'

COURSE TABLE

COURSE	BEARING	DISTANCE
7610-7761	N 02°04'52" E	2,072.96'
7722-7719	S 49°05'06" W	205.18'
7722-8049	S 49°05'06" W	185.19'
8049-7860	N 40°25'36" W	25.43'



REVISION DATE	DATE	SCALE, FEET	HWY: RIVERSIDE AVENUE	STATE R/W PROJECT NUMBER 9995-00-63	PLAT SHEET 4.10	
7/31/17: Revised Parcel 29; Removed Parcel 76	2-07-2017	0 25 50	COUNTY: MARINETTE	CONSTRUCTION PROJECT NUMBER 9995-00-63	PS&E SHEET 104	E
	GRID FACTOR N/A					

FILE NAME : 040104_RP.DWG
LAYOUT NAME - 040110
PLOT DATE : 7/31/2017 2:47 PM
PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :
PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

RIVERSIDE AVENUE CURVE DATA
PI STA = 33+15.14
Y = 150876.496
X = 801596.753
DELTA = 55°55'49"
D = 12°22'30"
T = 245.82'
L = 451.97'
R = 463.00'
PC STA = 30+69.32
PT STA = 35+21.29

MENOMINEE RIVER

CITY

N.E.W. HYDRO LLC. 29

T.L.E. FOR STORM SEWER REMOVAL

T.L.E. FOR GUARDRAIL REMOVAL

EXISTING LIMITED HIGHWAY EASEMENT WISDOT PROJECT I.D. T 0102 (8)

RIVERSIDE AVE. R/W & CONSTRUCTION ℄

SLOPE INTERCEPTS

T.L.E. FOR SLOPES AND LATERALS

MATCH LINE STA. 29+75

MATCH LINE STA. 36+50

LOT 9

33 MARK S. DAVENPORT & MARIA LANCIA

STEPHENSON SUBDIVISION OF BLOCK 6 OF HALLS ADDITION BLOCK 1

LOT 8

34 MARY L. STAUDENMAIER TRUST

LOT 11

LOT 10

HALLS ADDITION BLOCK 5

LOT 9

BLOCK E

MARINETTE

GOV'T LOT 1 SEC 6

GOV'T LOT 1 SEC 1

NORTH RAYMOND STREET

STATE STREET

MILL STREET

SECTION LINE N 02°04'52" E

N49° 05' 06"E

S74° 59' 05"E

PC: 30+69.32

PT: 35+21.29

VARIES

C61

C121

99.7'

71.38'

66'

60'

20'

5'

EX. R/W

REBAR 3/4"

REBAR 1/2"

PK NAIL

36 RODNEY J. & LYNDA K. TAFELSKI

LOT 8

MARINETTE & MENOMINEE PAPER COMPANY SECOND ADDITION

LOT 6

37 ROBIN ISLE

LOT 7

70

ALUMINUM CAP
Y=148,761.39
X=796,033.67

T 30 N R 23 E 2 1

S 89°19'42" E
1352.27'

SOUTHEAST CORNER SW¼ -NW¼ , SECTION 1, T.30N., R.23E., P.K. NAIL
Y=148,754.54
X=797,385.85
(PER CSM 805)

S 89°33'24" E
24,058.60'

T 30 N R 24 E 1 6

CAP IN BOX
Y=148,714.13
X=801,444.33

PARCEL 33 (FEE)

COURSE	BEARING	DISTANCE
8050-7751	N 84°18'18" W	33.12'
7751-7750	N 84°18'18" W	13.29'
7750-7069	N 49°34'24" E	18.00'
7069-7751	S 02°06'59" W	13.00'

COURSE TABLE

COURSE	BEARING	DISTANCE
7610-8050	N 02°04'52" E	2,001.58'
7610-7761	N 02°04'52" E	2,072.96'

CURVE TABLE

CURVE	CURVE LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C61	129.76'	129.34'	S 57°06'50" W	463.00'
C121	322.20'	315.74'	N 85°04'45" E	463.00'

R/W POINT TABLE

POINT	Y	X
7750	150,719.00	801,470.83
7751	150,717.68	801,484.06

ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RIVERSIDE AVE.	HALLS ADDITION	60'	1872
	STEPHENSON SUBDIVISION OF BLOCK 6 OF HALL'S ADDITION	60'	1892
	MARINETTE AND MENOMINEE PAPER CO. SECOND ADDITION TO CITY OF MARINETTE WI.	60'	1925
	STATE R/W PROJ. T 0102 (8)	60'	1963

REVISION DATE 7/31/17: Removed Parcel 76	DATE 2-07-2017	SCALE, FEET 0 25 50	HWY: RIVERSIDE AVENUE	STATE R/W PROJECT NUMBER 9995-00-63	PLAT SHEET 4.11
	GRID FACTOR N/A		COUNTY: MARINETTE	CONSTRUCTION PROJECT NUMBER 9995-00-63	PS&E SHEET 105 E

FILE NAME : 040104_RP.DWG
LAYOUT NAME - 040111

PLOT DATE : 7/31/2017 2:47 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

COURSE TABLE

COURSE	BEARING	DISTANCE
7610-7761	N 02°04'52" E	2,072.96'
7722-8051	S 74°59'05" E	495.44'
8051-7606	N 14°52'30" E	23.00'

PARCEL 29 (PLE 1D)

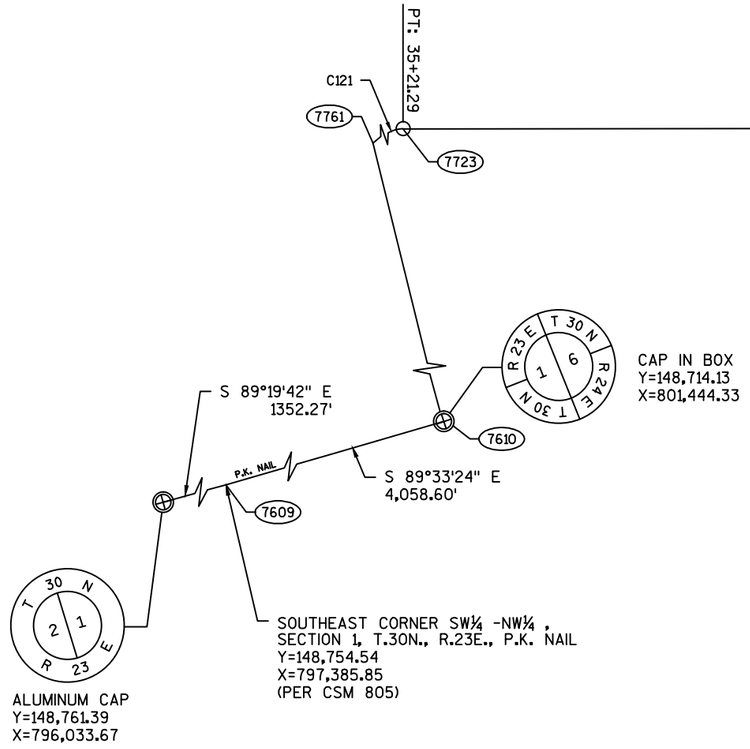
COURSE	BEARING	DISTANCE
7606-8056	N 74°51'37" W	178.71'
8056-8052	N 15°08'23" E	14.41'
8052-8053	N 15°08'23" E	37'+/-
8053-8054	SOUTHEASTERLY	30'+/-
8054-8055	S 15°08'23" E	25'+/-
8055-8052	S 84°50'07" W	31.99'

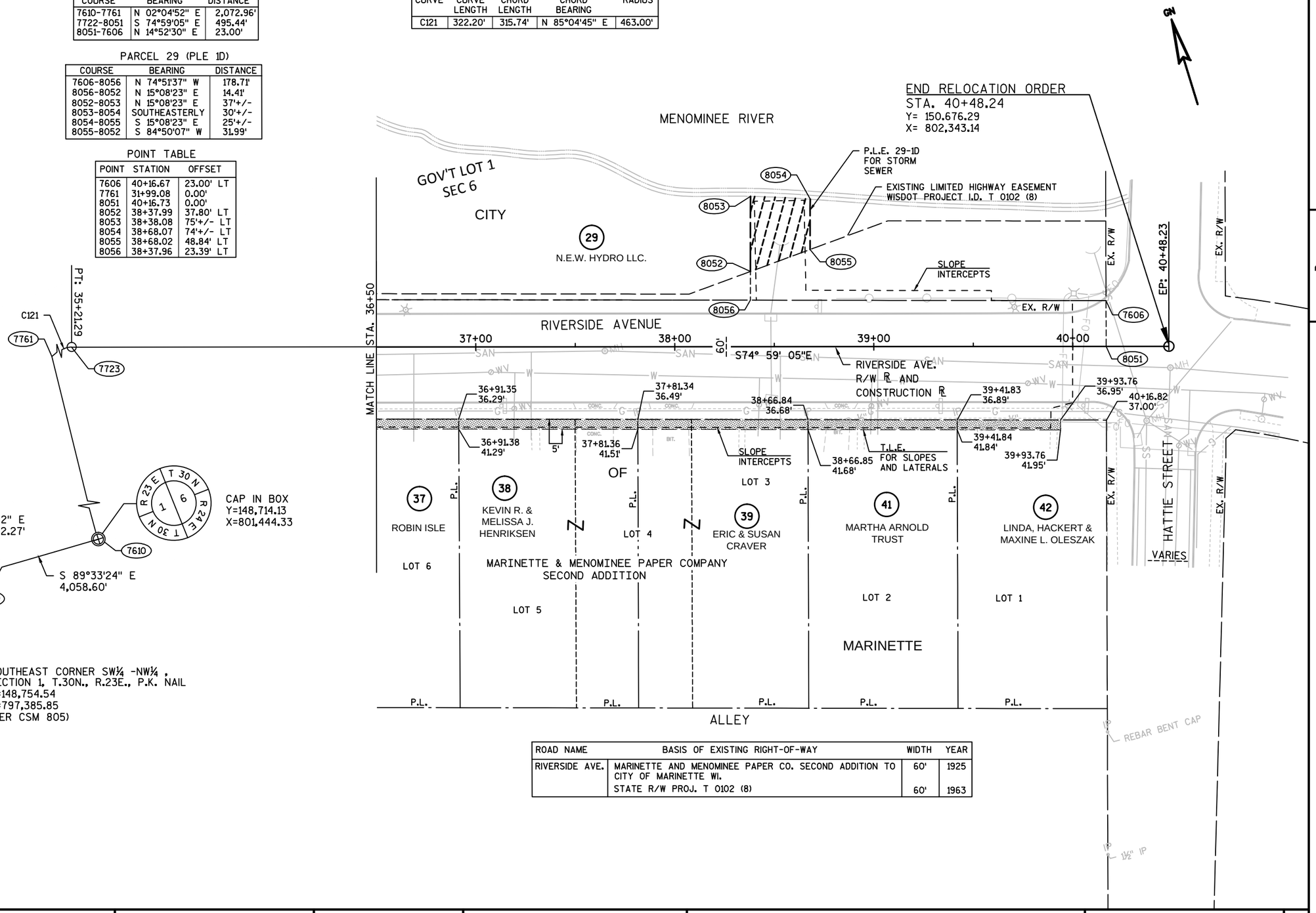
POINT TABLE

POINT	STATION	OFFSET
7606	40+16.67	23.00' LT
7761	31+99.08	0.00'
8051	40+16.73	0.00'
8052	38+37.99	37.80' LT
8053	38+38.08	75'+/- LT
8054	38+68.07	74'+/- LT
8055	38+68.02	48.84' LT
8056	38+37.96	23.39' LT

CURVE TABLE

CURVE	CURVE LENGTH	CHORD LENGTH	CHORD BEARING	RADIUS
C121	322.20'	315.74'	N 85°04'45" E	463.00'





ROAD NAME	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RIVERSIDE AVE.	MARINETTE AND MENOMINEE PAPER CO. SECOND ADDITION TO CITY OF MARINETTE WI.	60'	1925
	STATE R/W PROJ. T 0102 (8)	60'	1963

REVISION DATE
7/31/17: Removed Parcel 76

DATE 2-07-2017

GRID FACTOR N/A

SCALE, FEET
0 25 50

HWY: RIVERSIDE AVENUE

COUNTY: MARINETTE

STATE R/W PROJECT NUMBER 9995-00-63

CONSTRUCTION PROJECT NUMBER 9995-00-63

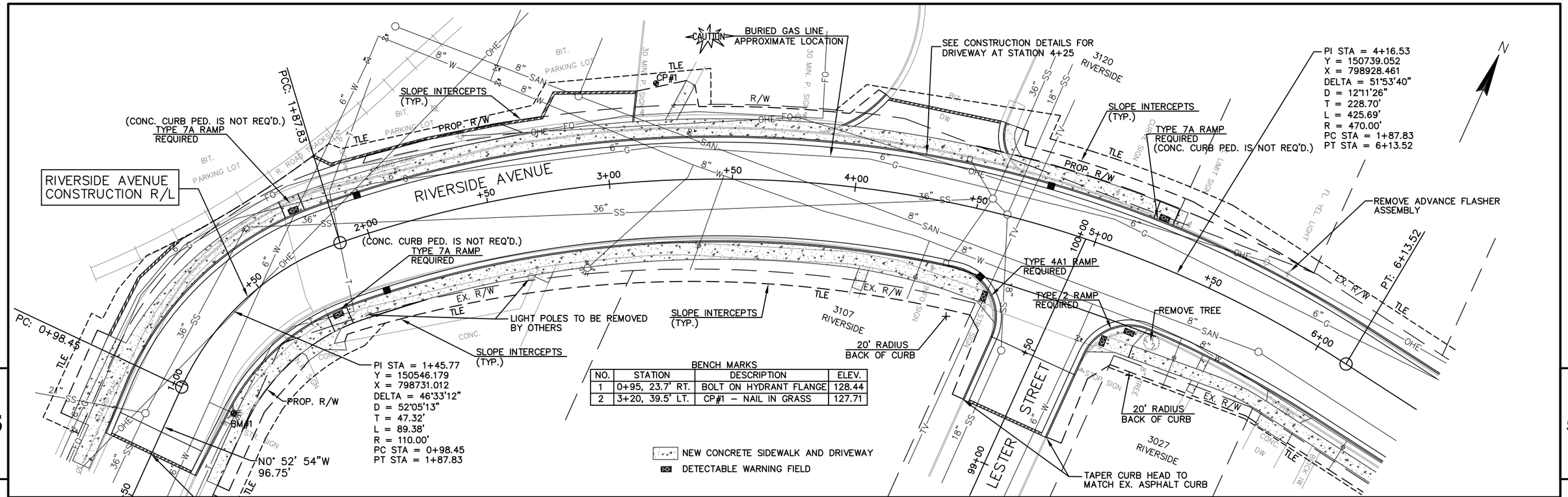
PLAT SHEET 4.12

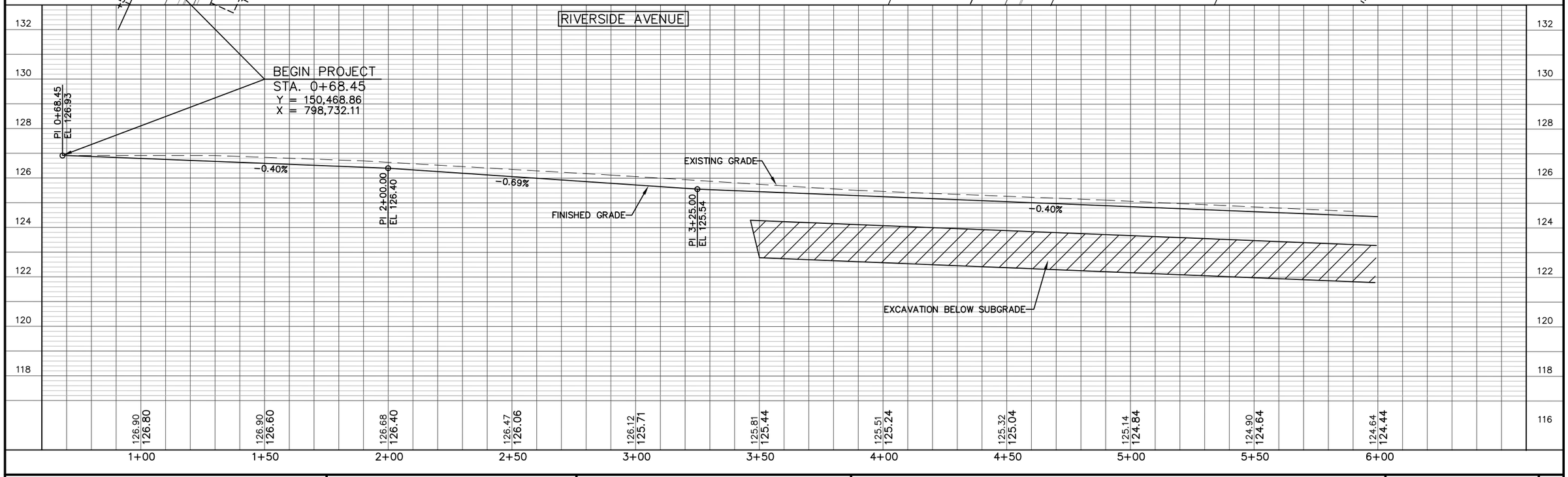
PS&E SHEET 106 E

FILE NAME : 040104_RP.DWG
LAYOUT NAME - 040112

PLOT DATE : 7/31/2017 2:47 PM PLOT BY : SCHULTZ, ANDREW K. PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75





PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN AND PROFILE: RIVERSIDE AVENUE	SHEET 107	E

RIVERSIDE AVENUE CONSTRUCTION R/L

PT: 6+13.52

PC: 8+17.19

PT: 9+25.94

SLOPE INTERCEPTS AT R/W

TLE

EX. R/W

CP#2

CAUTION BURIED GAS LINE APPROXIMATE LOCATION

S82° 26' 02"E 203.67'

RIVERSIDE AVENUE

S70° 13' 44"E 1088.45'

TYPE 4B1 RAMP* REQUIRED

SLOPE INTERCEPTS (TYP.)

20' RADIUS BACK OF CURB

REMOVE AND REPLACE BRICK PAVERS TO MATCH NEW SIDEWALK GRADE

3021 RIVERSIDE

3015 RIVERSIDE

3009 RIVERSIDE

2931 RIVERSIDE

2911 RIVERSIDE

2905 RIVERSIDE

PI STA = 8+71.77
Y = 150674.937
X = 799411.169
DELTA = 12°12'18"
D = 11°13'24"
T = 54.58'
L = 108.75'
R = 510.50'
PC STA = 8+17.19
PT STA = 9+25.94

TAPER CURB HEAD TO MATCH EX. ASPHALT CURB

WILLIAMS STREET

BM#4

*FOR OUTSIDE FLARE, GRADE FLARE AREA PER THE STANDARD DETAIL DRAWING FOR A TYPE 4B1 CURB RAMP, BUT DO NOT PLACE CONCRETE WITHIN THE FLARE AREA.

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
3	8+48, 19.3' RT.	CP#2 – NAIL IN GRASS	123.95
4	199+00, 21' RT.	BOLT ON HYDRANT FLANGE	125.93

NEW CONCRETE SIDEWALK AND DRIVEWAY

DETECTABLE WARNING FIELD

RIVERSIDE AVENUE

EXISTING GRADE

FINISHED GRADE

-0.40%

-0.40%

EXCAVATION BELOW SUBGRADE

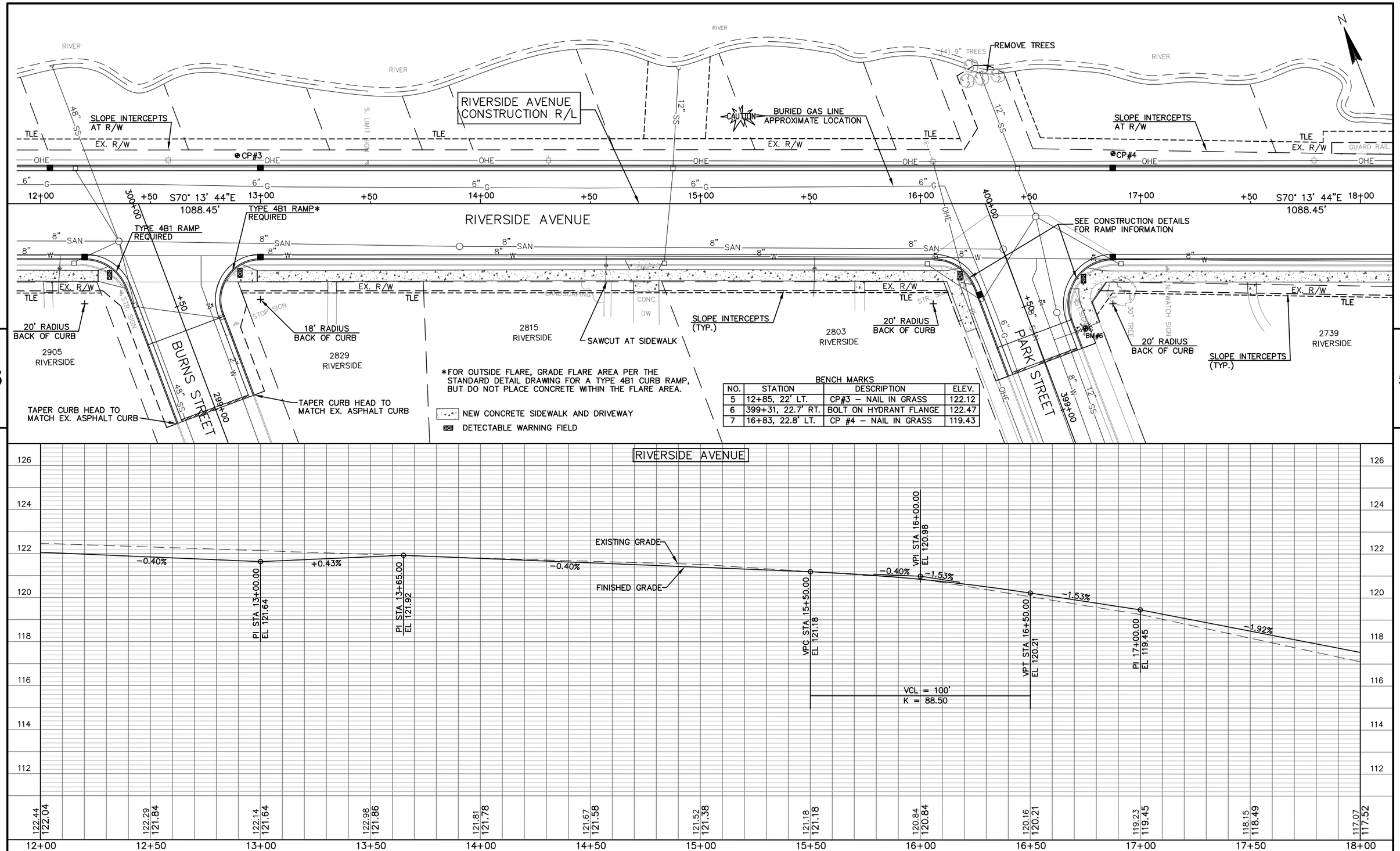
6+00	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	10+50	11+00	11+50	12+00
124.64 / 124.44	124.41 / 124.24	124.17 / 124.04	124.00 / 123.84	123.83 / 123.64	123.70 / 123.44	123.46 / 123.24	123.26 / 123.04	123.06 / 122.84	122.88 / 122.64	122.71 / 122.44	122.58 / 122.24	122.44 / 122.04

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN AND PROFILE: RIVERSIDE AVENUE	SHEET 108 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\PLAN AND PROFILE\PLAN & PROFILE 2.DWG
LAYOUT NAME – ####

PLOT DATE : 7/6/2017 3:44 PM PLOT BY : MATT RASTALL PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
5	12+85, 22' LT.	CP#3 – NAIL IN GRASS	122.12
6	399+31, 22.7' RT.	BOLT ON HYDRANT FLANGE	122.47
7	16+83, 22.8' LT.	CP #4 – NAIL IN GRASS	119.43

PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN AND PROFILE: RIVERSIDE AVENUE	SHEET 109 E

SEE CONSTRUCTION DETAIL "DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL"

SLOPE INTERCEPTS (TYP.)

PI STA = 21+65.38
Y = 150237.220
X = 800628.910
DELTA = 47°20'04"
D = 16°37'54"
T = 150.99'
L = 284.61'
R = 344.50'
PC STA = 20+14.39
PT STA = 22+98.99

RIVERSIDE AVENUE CONSTRUCTION R/L

18+00 +50 S70° 13' 44"E 1088.45' 19+00 +50 20+00 +50 21+00 +50 22+00 +50 23+00

PC: 20+14.39

PT: 22+98.99

RIVERSIDE AVENUE

2739 RIVERSIDE
2721 RIVERSIDE
2711 RIVERSIDE
2705 RIVERSIDE
2631 RIVERSIDE
2619 RIVERSIDE

STEEL PLATE BEAM GUARD
NEW CONCRETE SIDEWALK AND DRIVEWAY
DETECTABLE WARNING FIELD

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
8	22+84, 20.8' LT.	CP#5 – NAIL IN GRASS	115.94

RIVERSIDE AVENUE

VCL = 100'
K = 71

VPC STA 18+50.00
VPC EL 116.57

VPI STA 19+00.00
VPI EL 115.60

VPT STA 19+50.00
VPT EL 115.34

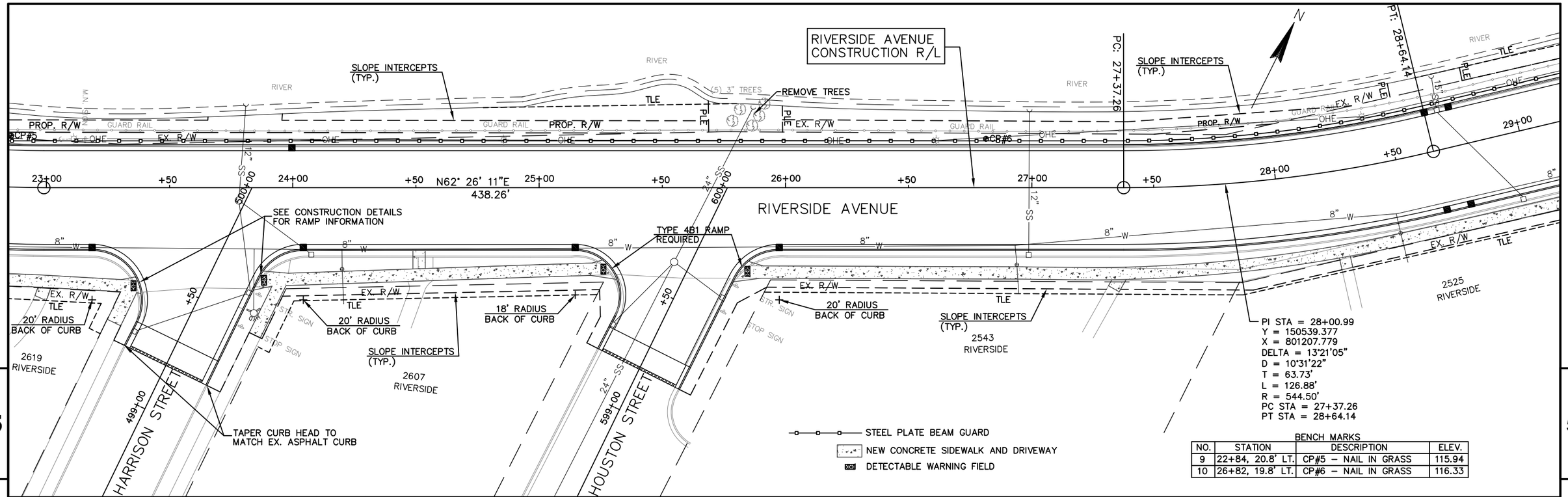
PI STA 20+00.00
EL 115.08

-1.92%
-1.92%
-0.52%
-0.52%
+0.40%

EXISTING GRADE
FINISHED GRADE
EXCAVATION BELOW SUBGRADE

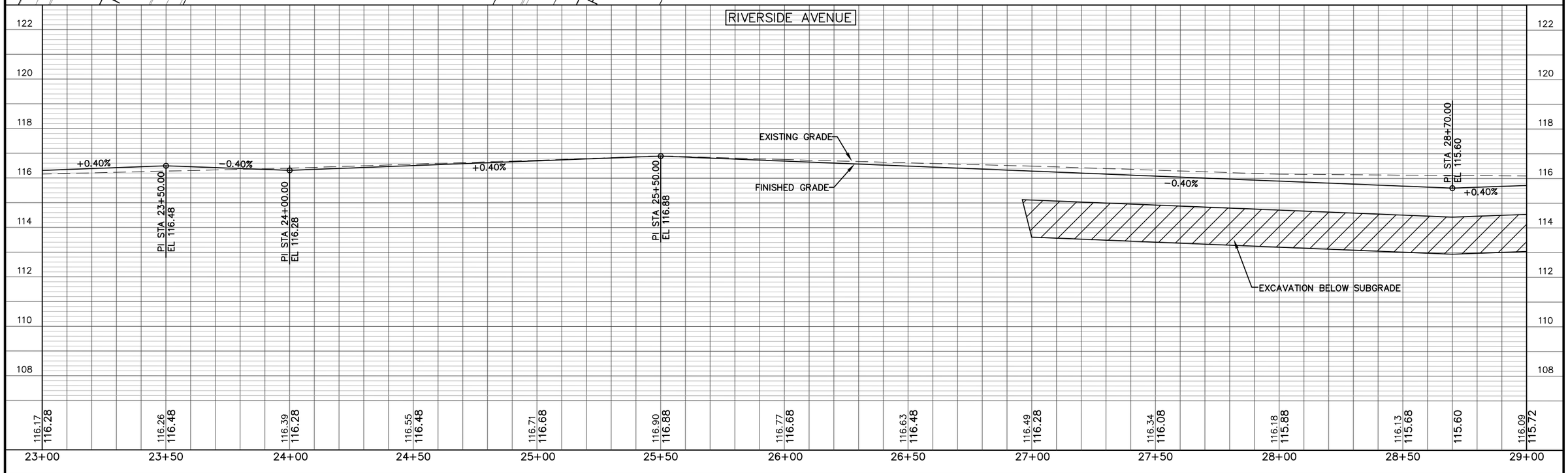
18+00	18+50	19+00	19+50	20+00	20+50	21+00	21+50	22+00	22+50	23+00
117.07 / 117.53	116.28 / 116.57	115.48 / 115.78	115.34 / 115.34	115.20 / 115.08	115.28 / 115.28	115.56 / 115.48	115.65 / 115.68	115.75 / 115.88	115.96 / 116.08	116.17 / 116.28

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN AND PROFILE: RIVERSIDE AVENUE	SHEET 110 E

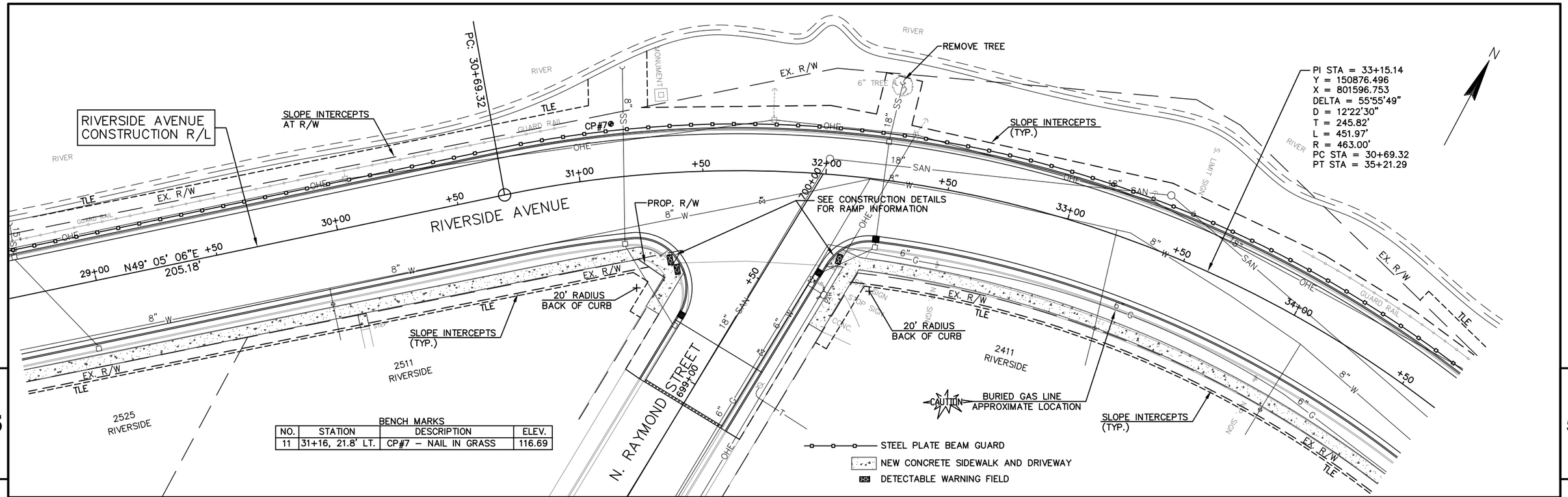


BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
9	22+84, 20.8' LT.	CP#5 – NAIL IN GRASS	115.94
10	26+82, 19.8' LT.	CP#6 – NAIL IN GRASS	116.33

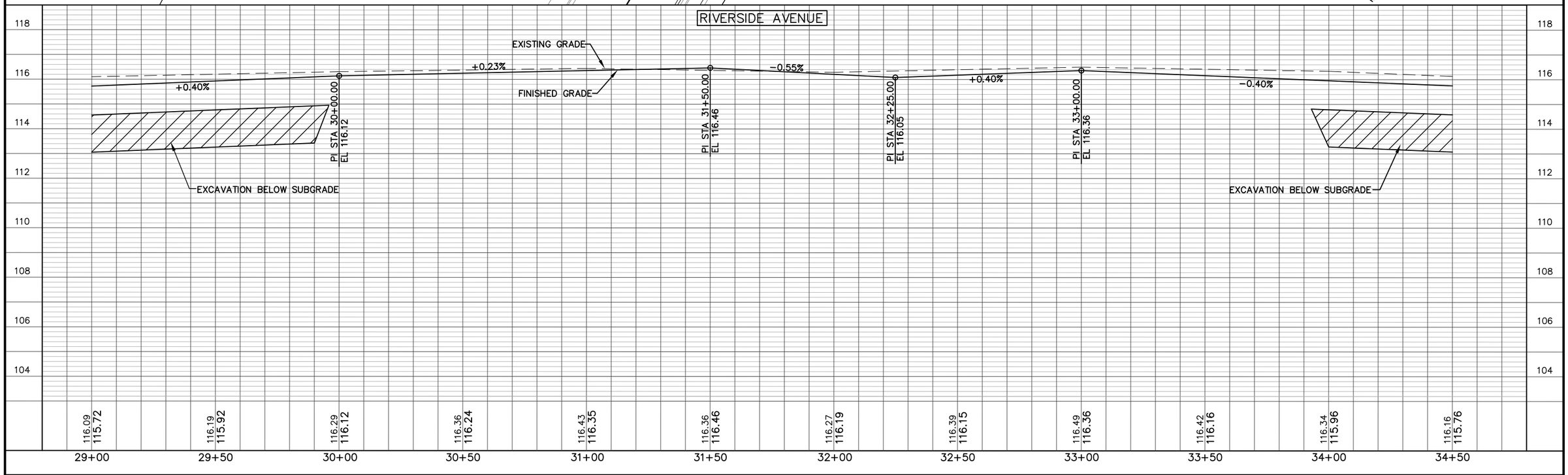


PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN AND PROFILE: RIVERSIDE AVENUE	SHEET 111 E

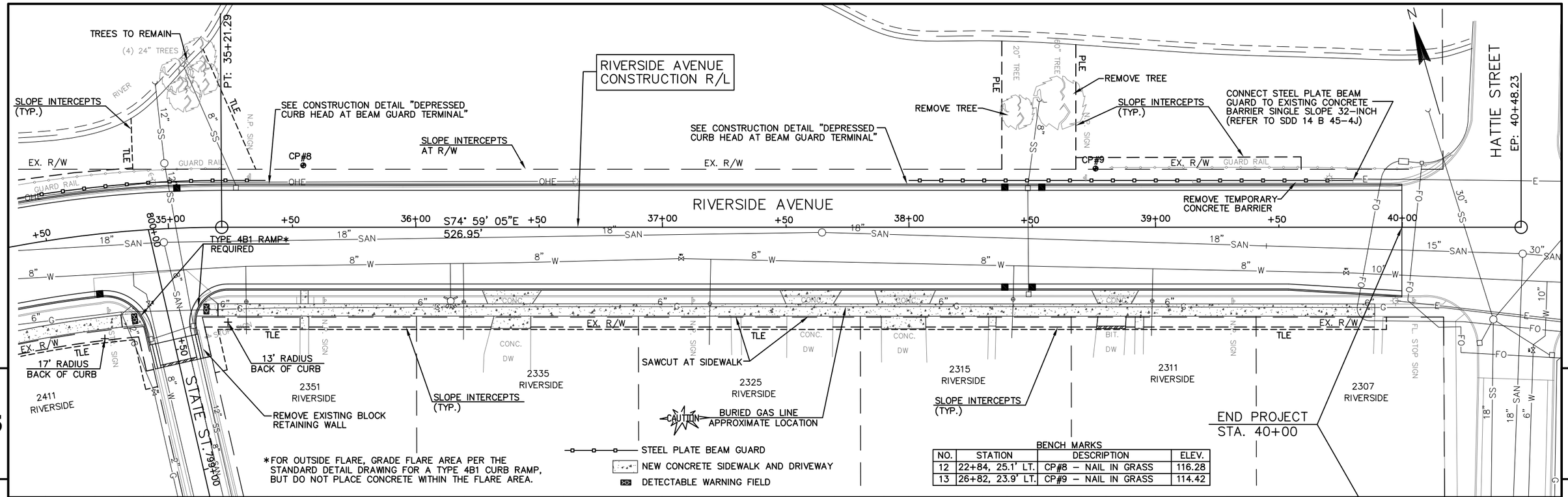


BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
11	31+16, 21.8' LT.	CP#7 – NAIL IN GRASS	116.69



PROJECT NO: 9995–00–64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN AND PROFILE: RIVERSIDE AVENUE	SHEET 112	E

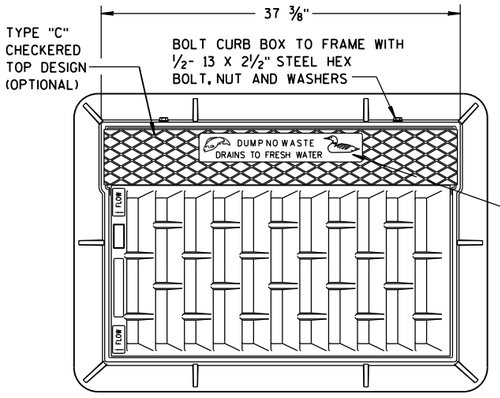


PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PLAN AND PROFILE: RIVERSIDE AVENUE	SHEET 113 E

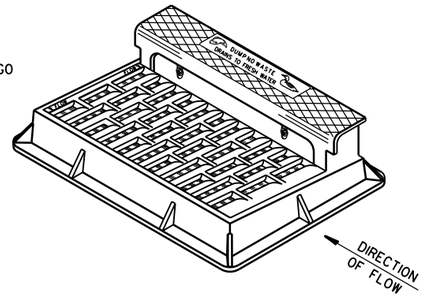
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-18A	CURB RAMPS TYPES 1 AND 1-A
08D05-18B	CURB RAMPS TYPES 2 AND 3
08D05-18C	CURB RAMPS TYPES 4A AND 4A1
08D05-18D	CURB RAMPS TYPE 4B AND 4B1
08D05-18E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-10	CONCRETE CONTROL CABINET BASES
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-05A	CONCRETE PAVEMENT JOINTING
13C18-05B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-05C	CONCRETE PAVEMENT JOINT TYPES
13C18-05D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C07-13E	PAVEMENT MARKING FOR BIKE LANES
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C29-05A	BICYCLE LANE MARKING
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

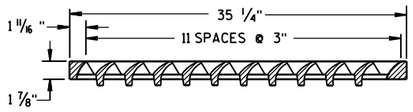
6

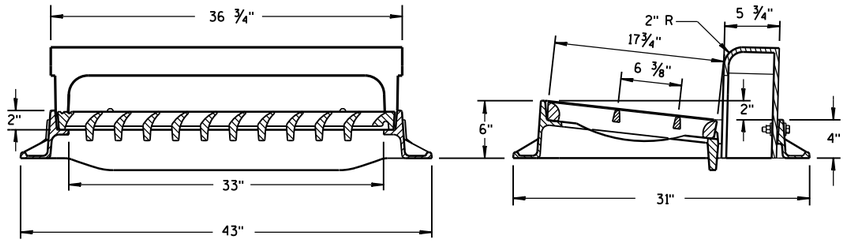


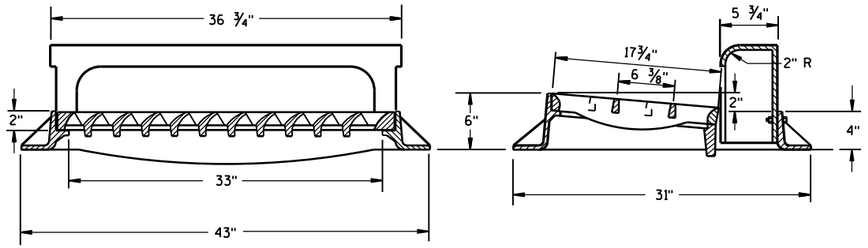
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

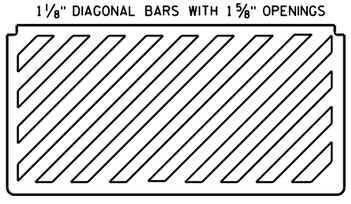






TYPE "H"

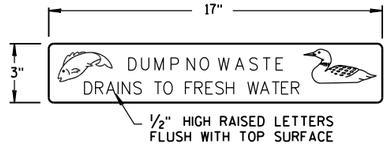
NOTE: EITHER CASTING IS ACCEPTABLE



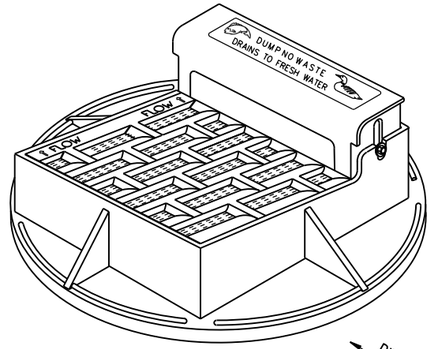
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

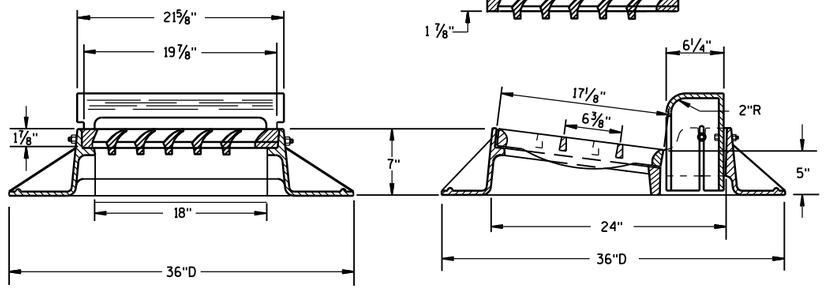


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



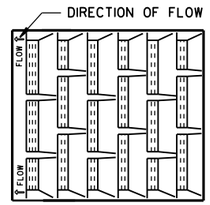
TYPE "A"

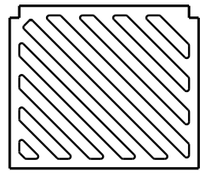
GENERAL NOTES

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.

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

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

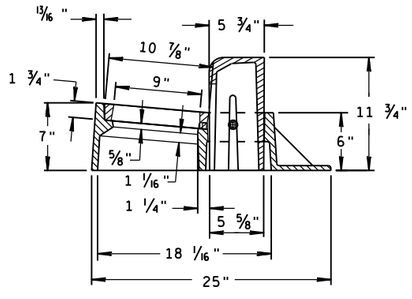


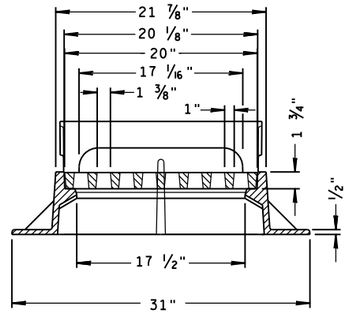


SPECIAL GRATE FOR TYPE "A" COVER

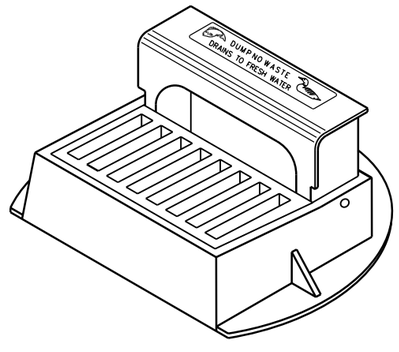
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



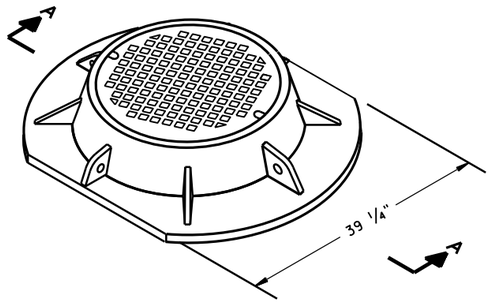
INLET COVERS TYPE A, H, A-S, H-S & Z

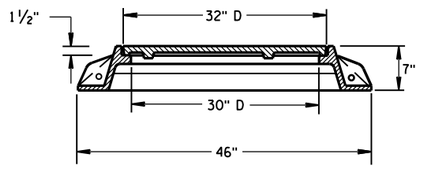
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

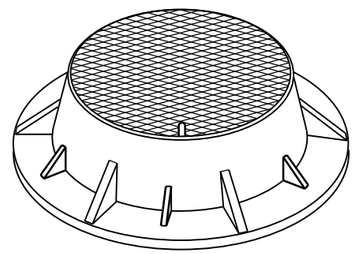
6

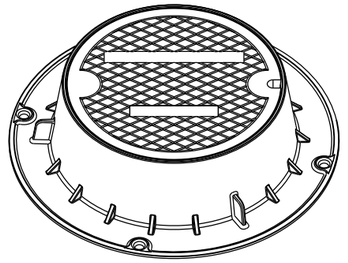
S.D.D. 8 A 5-19a

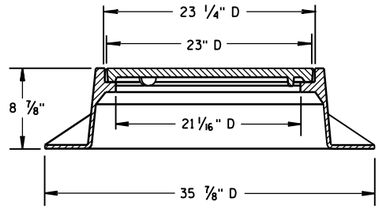


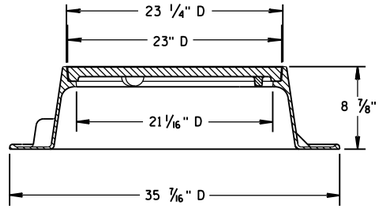


SECTION A-A
TYPE "K"









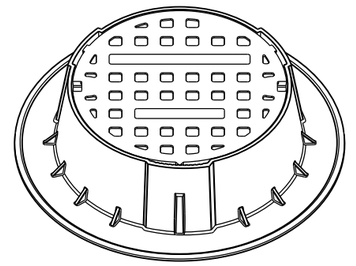
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

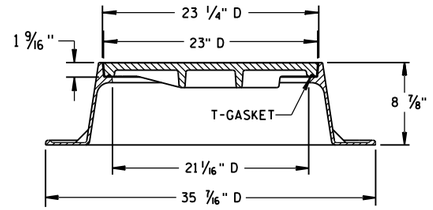
GENERAL NOTES

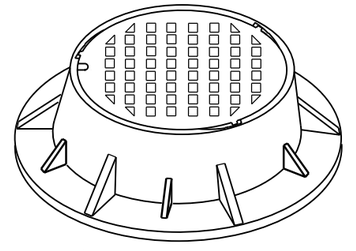
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

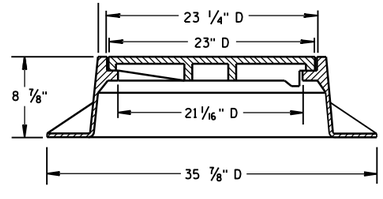
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

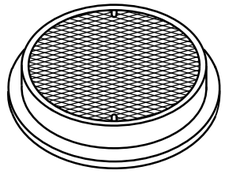


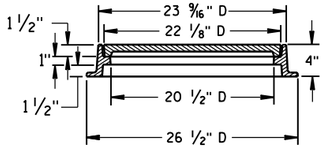




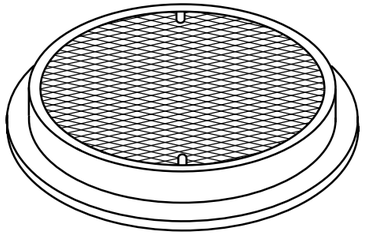


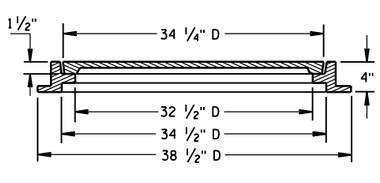
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



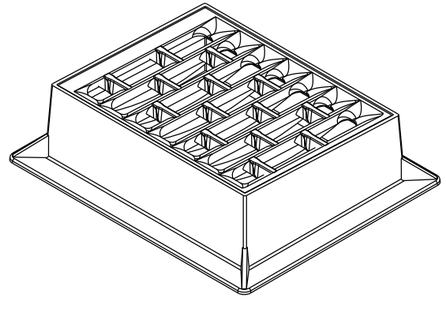


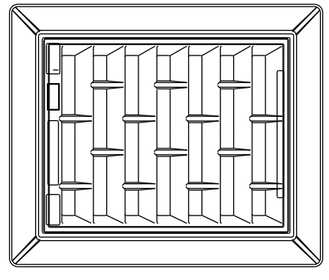
TYPE "L"

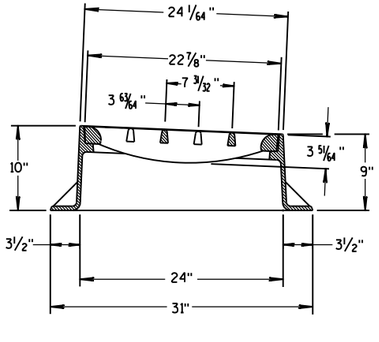


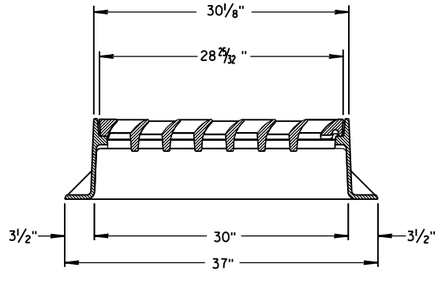


TYPE "M"









INLET COVER TYPE "BW"

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

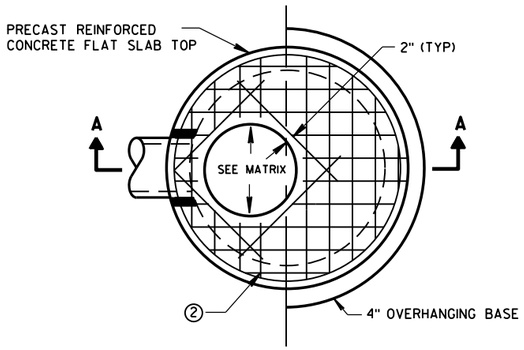
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

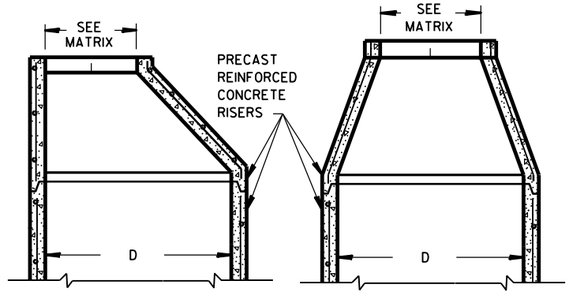
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

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

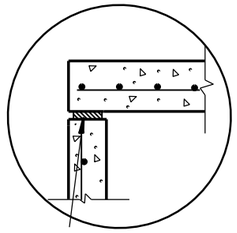


PLAN VIEW CIRCULAR OPENING

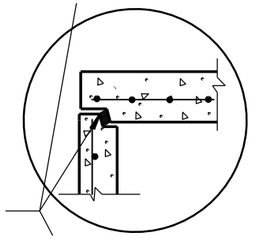


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

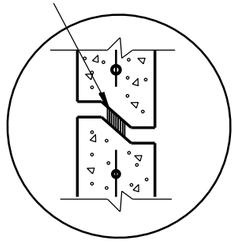
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

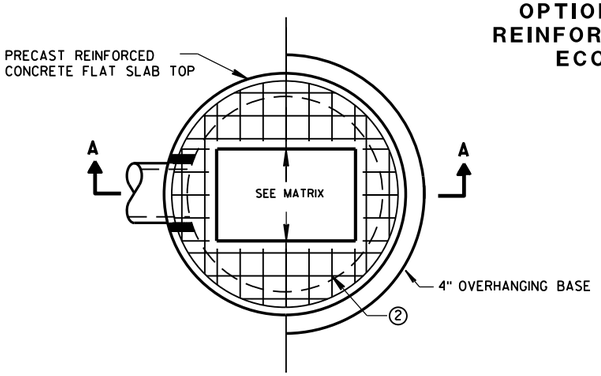


TOP WITH TONGUE AND GROOVE JOINT

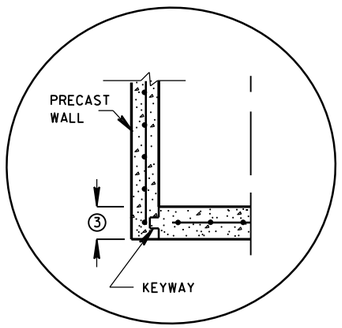


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

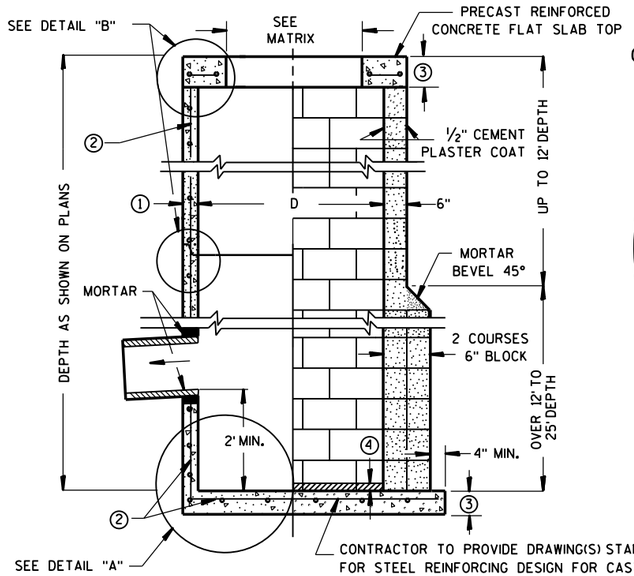


PLAN VIEW RECTANGULAR OPENING



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

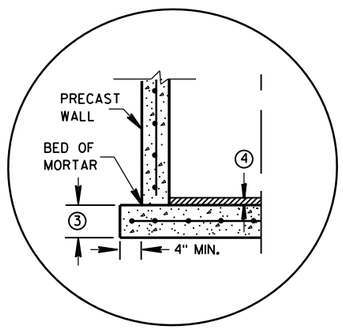
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SECTION A-A

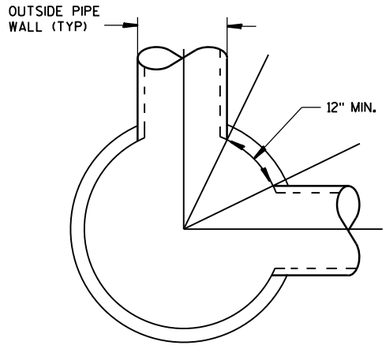
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

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

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

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

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

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

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

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

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

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

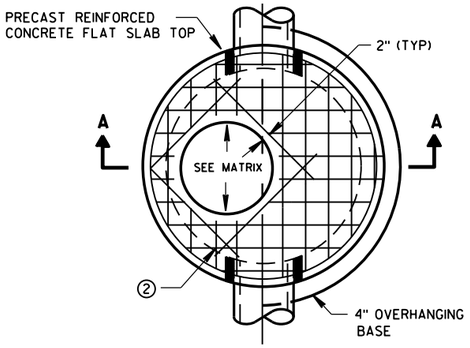
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

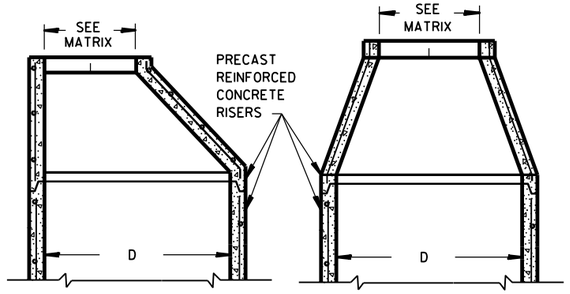
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

S.D.D. 8 A 8-2

S.D.D. 8 A 8-2

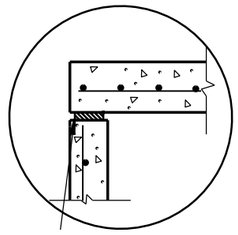


PLAN VIEW CIRCULAR OPENING

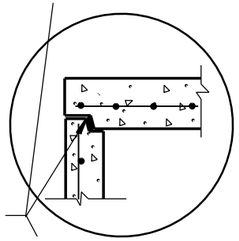


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

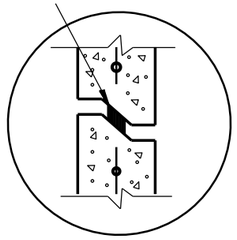


TOP WITH PLAIN END JOINT



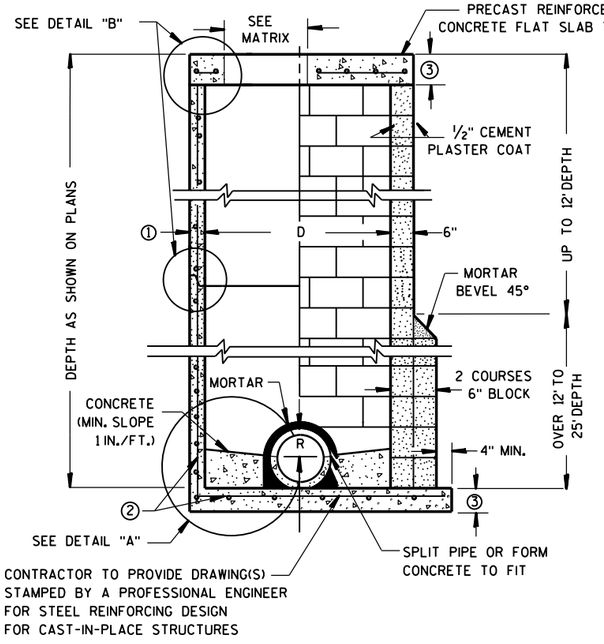
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



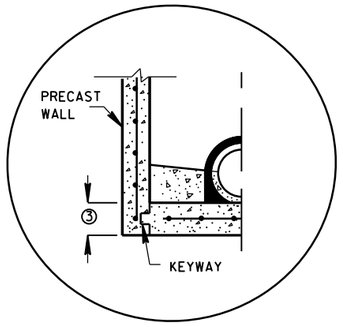
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

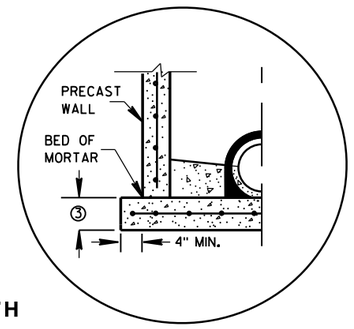


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

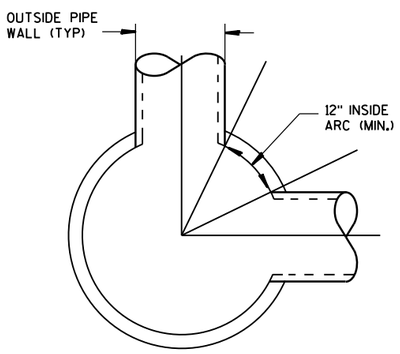


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

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

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

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

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

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

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

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

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

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

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

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

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

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

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

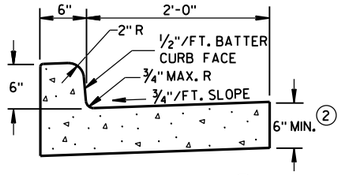
APPROVED

Sept., 2016
DATE

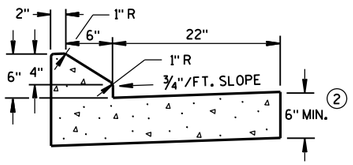
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV

FHWA

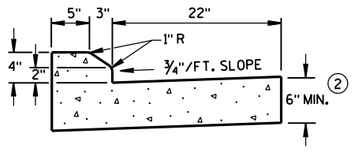
6
S.D.D. 8 B 9-2



TYPES A & D ①

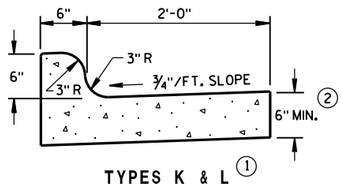


6" SLOPED CURB TYPES G & J ①

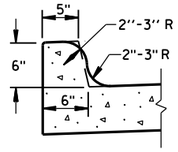


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

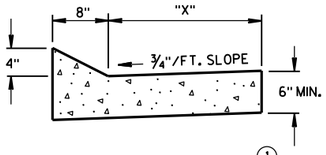


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

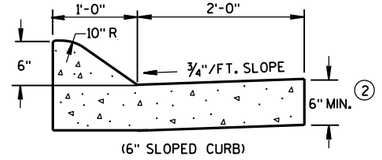
CONCRETE CURB & GUTTER 30"



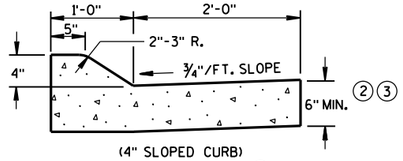
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

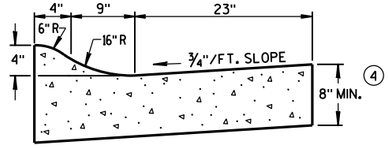


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

CONCRETE CURB & GUTTER 36"

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, R AND TBTT.

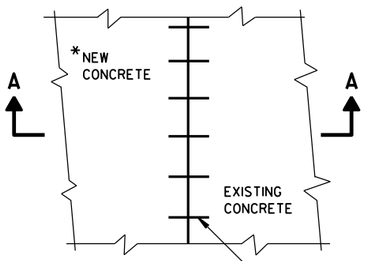
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

④ 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.

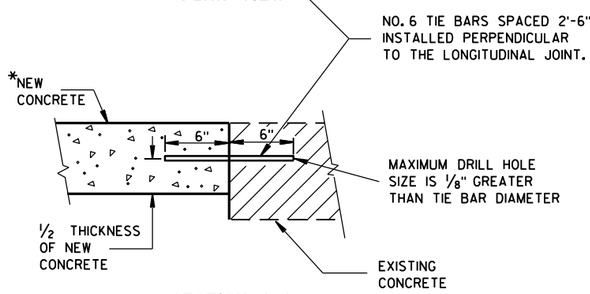
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



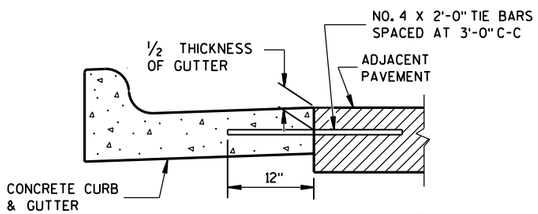
PLAN VIEW

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

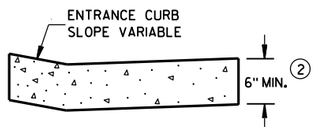


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

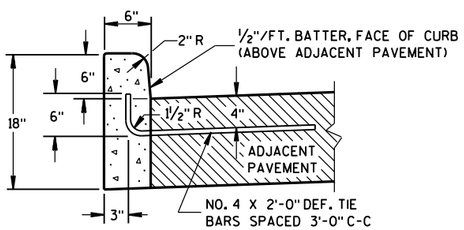


TYPICAL TIE BAR LOCATION ①

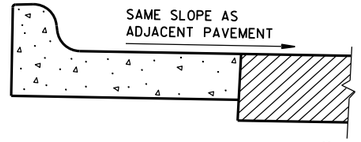


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

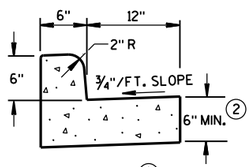


① TYPES A & D



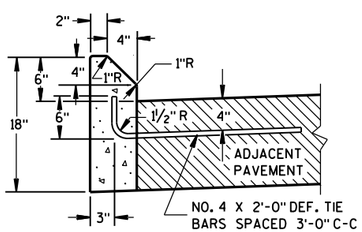
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



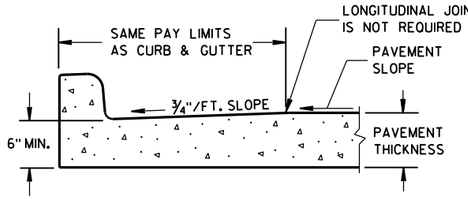
① TYPES A & D

CONCRETE CURB & GUTTER 18"

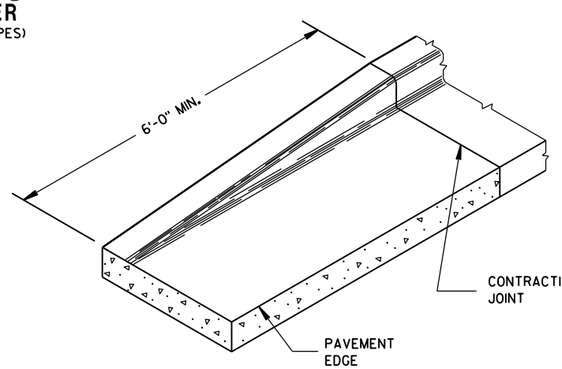


① TYPES G & J

CONCRETE CURB



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

June, 2016 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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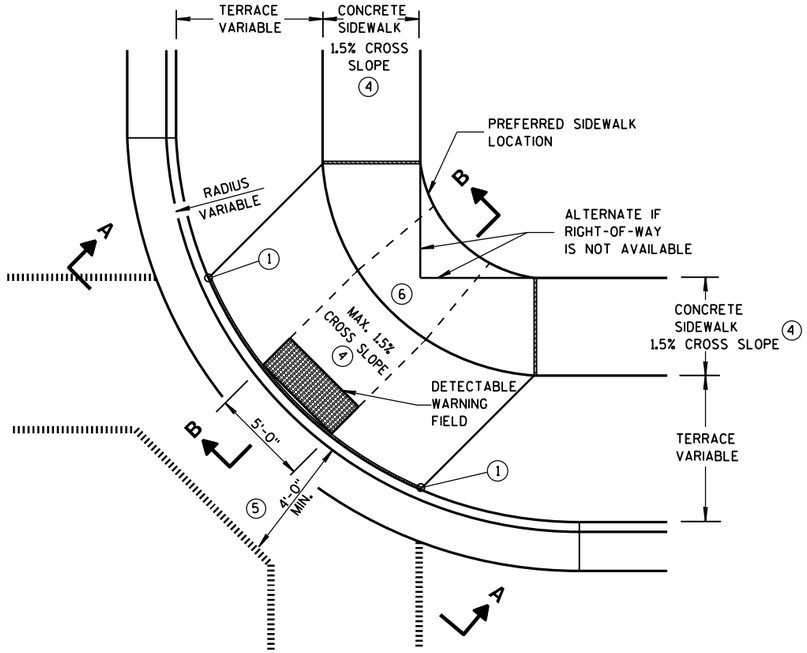
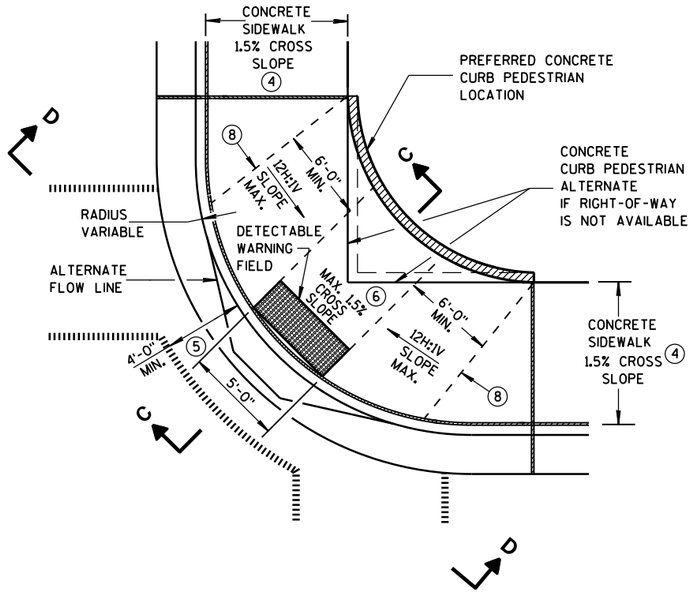
S.D.D. 8 D 1-19



PLAN VIEW

TYPE 1 RAMP

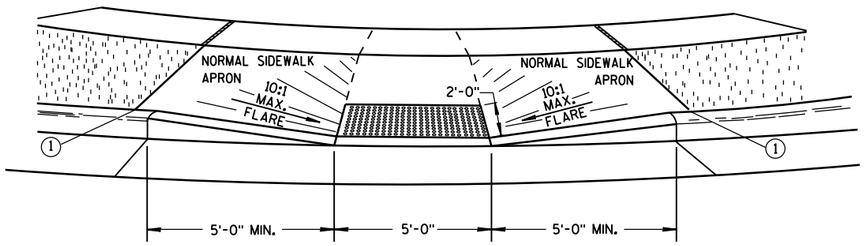
(CENTER OF CORNER RADIUS)



PLAN VIEW

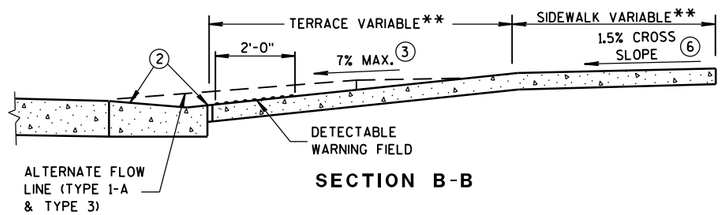
TYPE 1-A RAMP

(NO TERRACE)

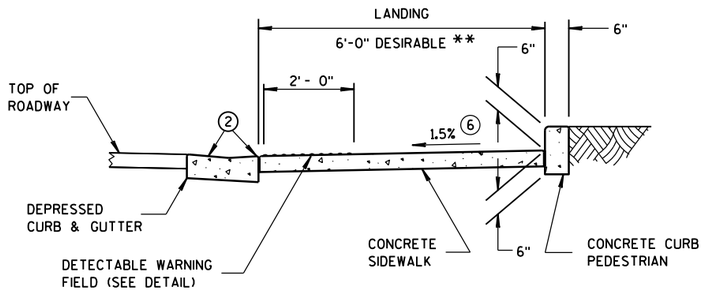


VIEW A-A

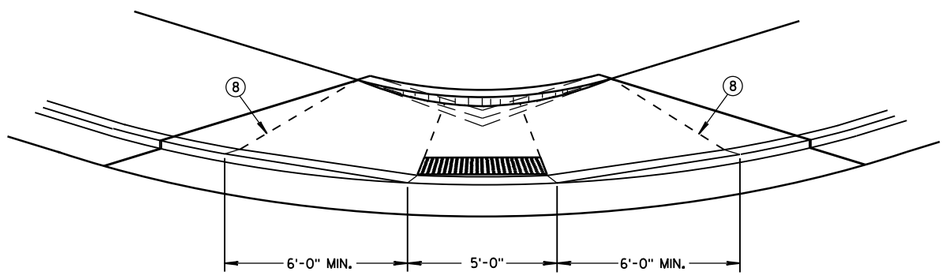
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

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.

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. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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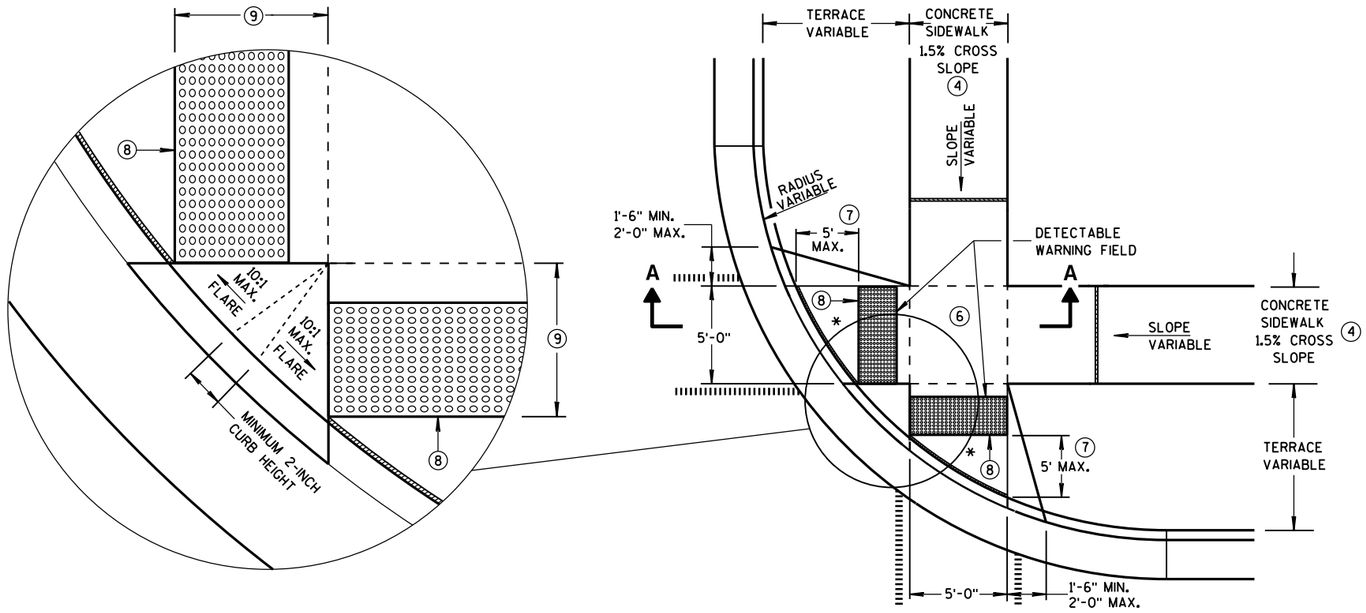
S.D.D. 8 D 5-18a

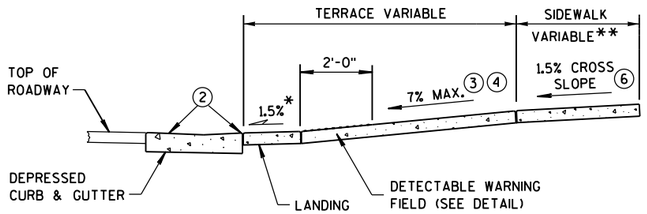


PLAN VIEW

TYPE 2 RAMP

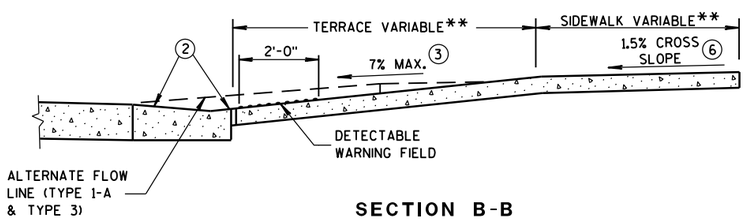
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

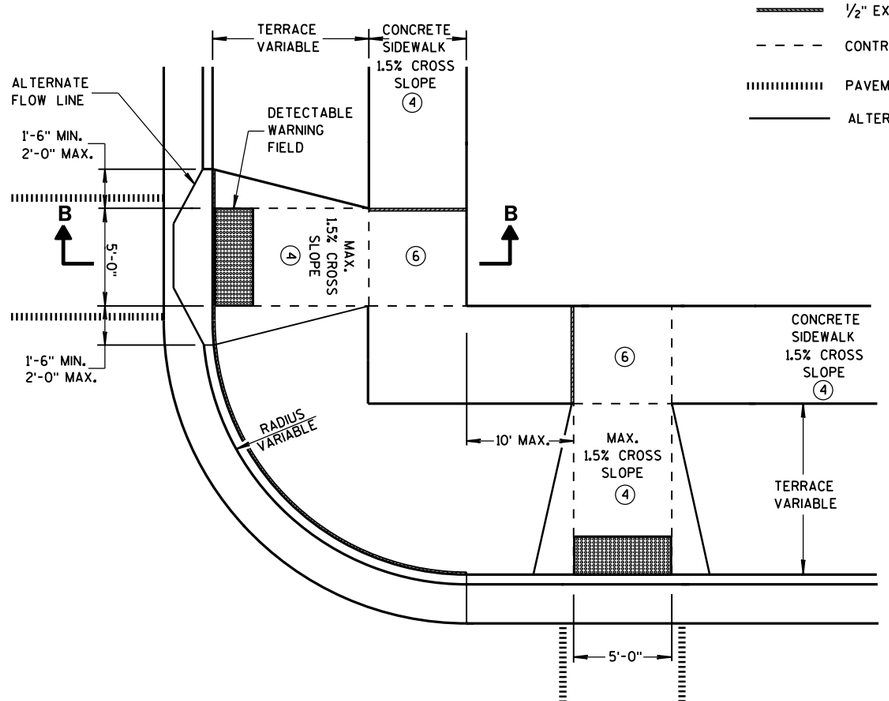
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

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 TRANSPO

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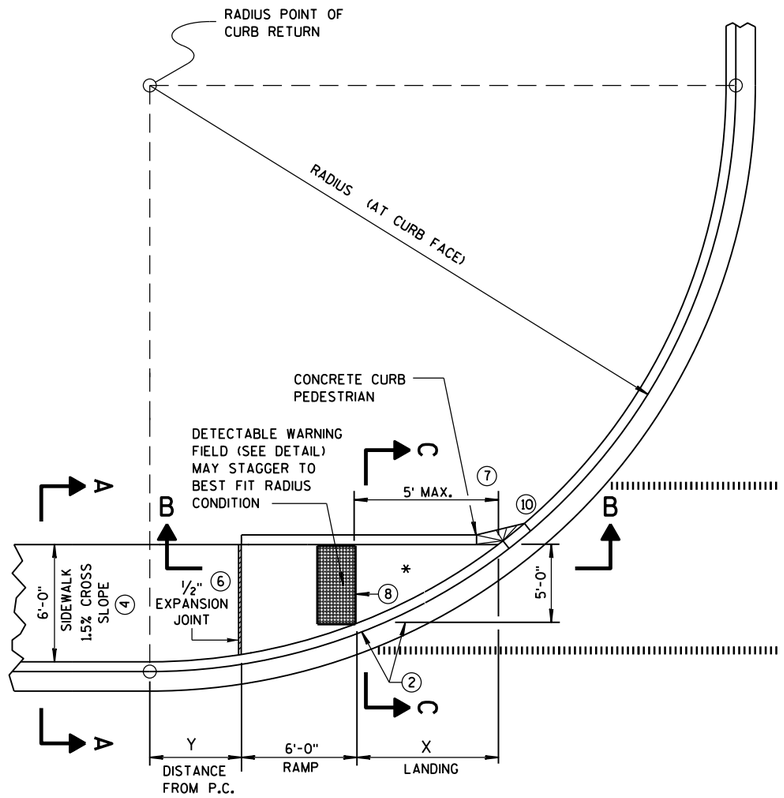
S.D.D. 8 D 5-18b

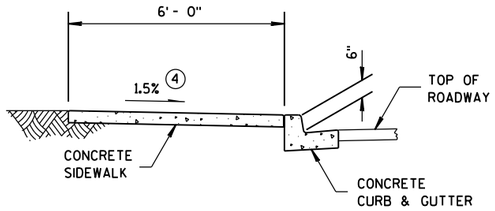


CURB RAMP TYPE 4A

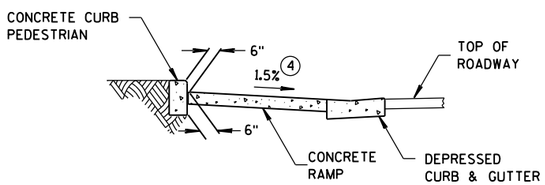
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

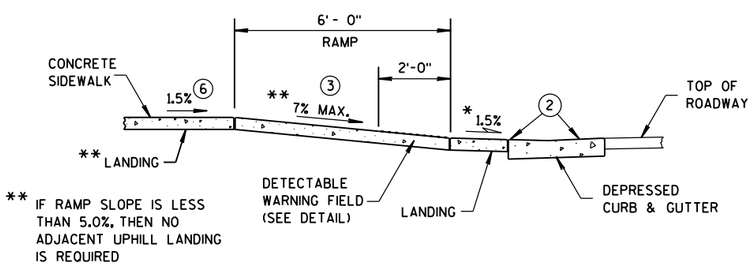
INTERMEDIATE RADII CAN BE INTERPOLATED



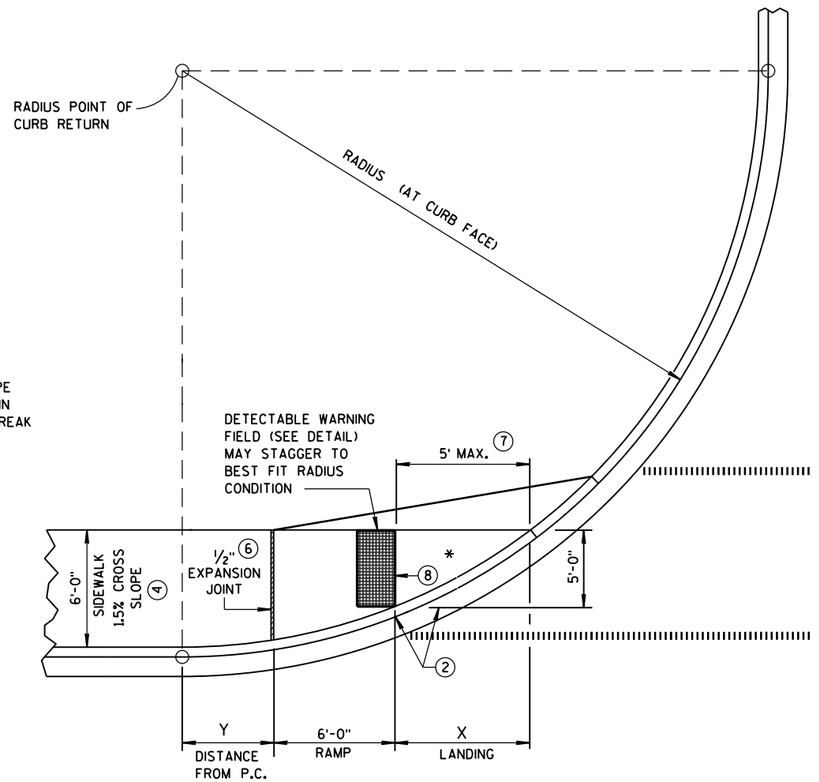
SECTION A-A FOR TYPE 4A



SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A



CURB RAMP TYPE 4A1

PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

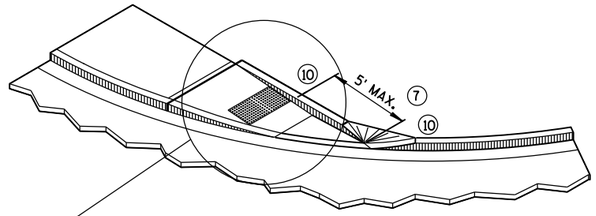
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

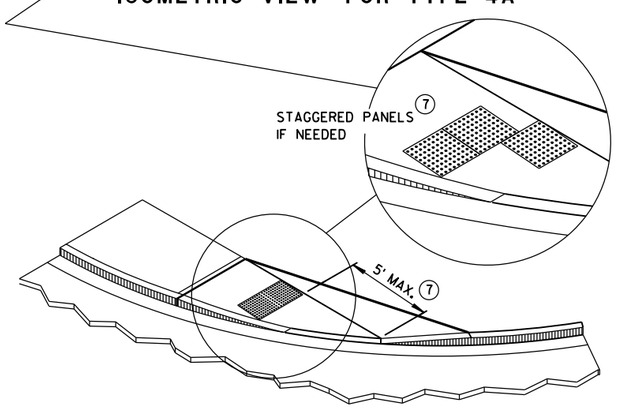
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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



ISOMETRIC VIEW FOR TYPE 4A



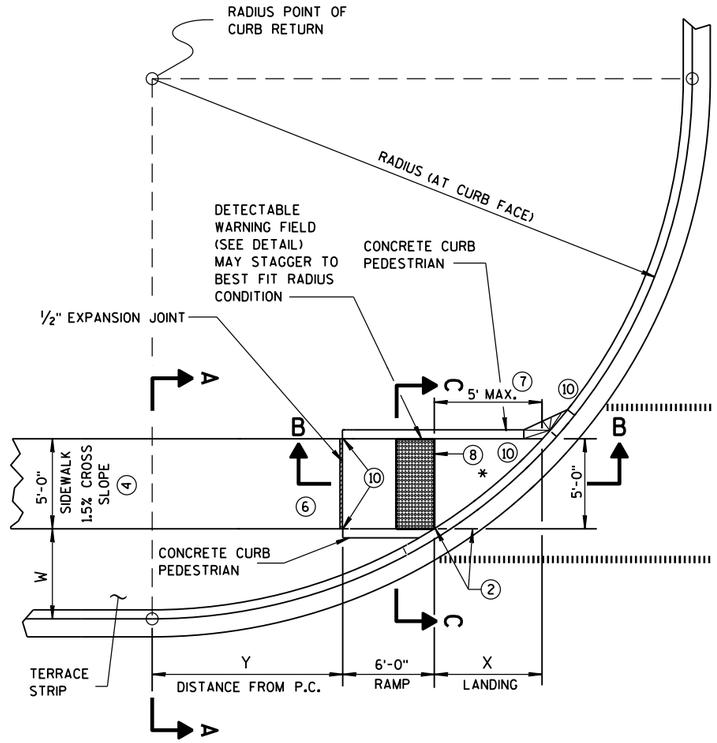
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

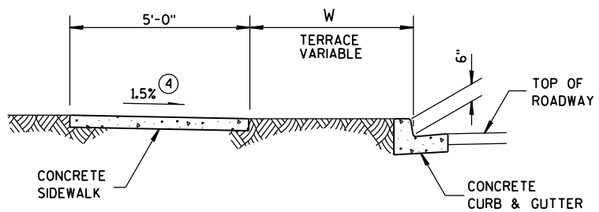
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

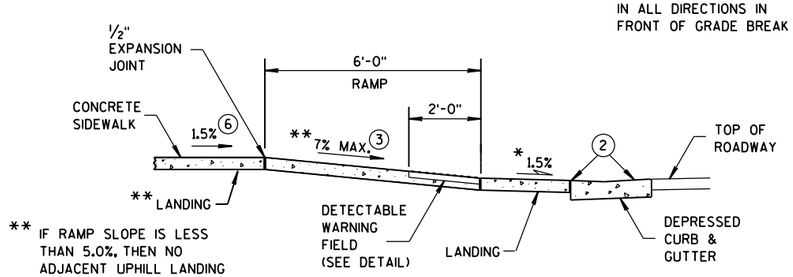
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



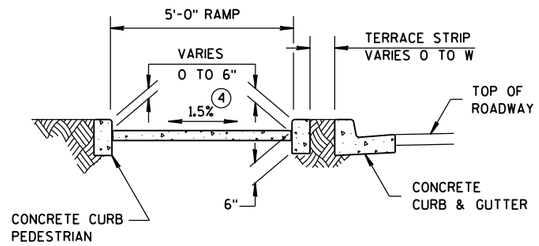
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

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'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

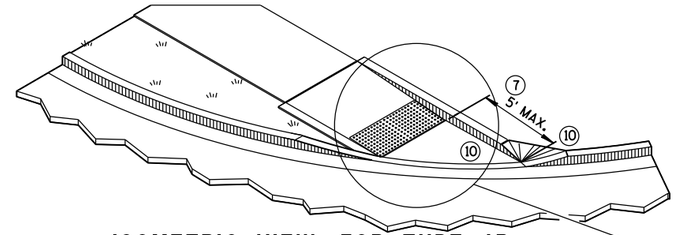
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

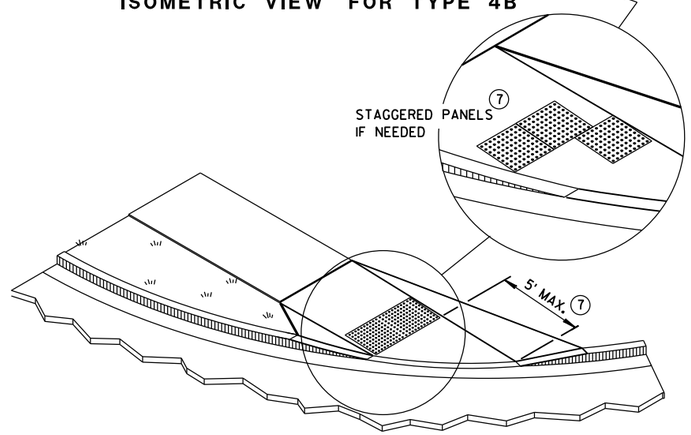
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. USE EQUAL-SIZE PANELS TO DEVELOP OVERLAPPING, STAGGERED ROWS. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

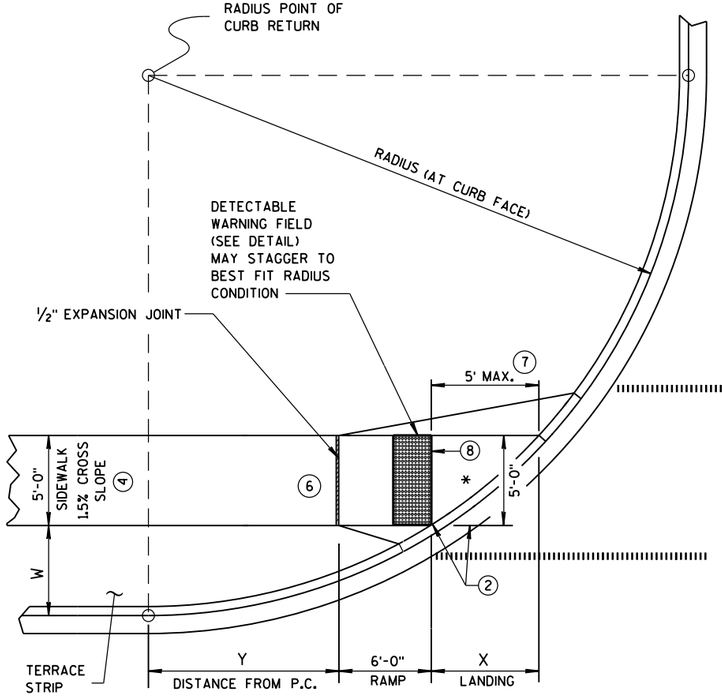
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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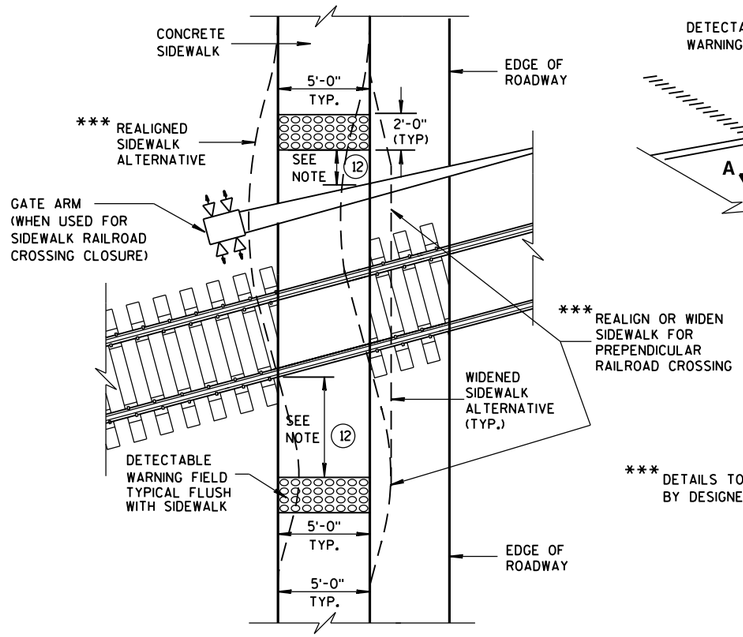
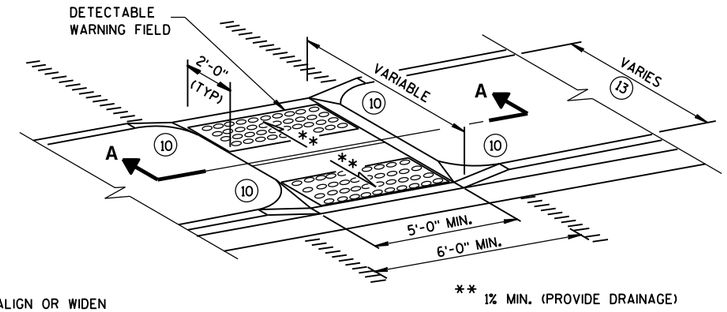
S.D.D. 8 D 5-18d



*** DETAILS TO BE DETERMINED BY DESIGNER

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.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

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

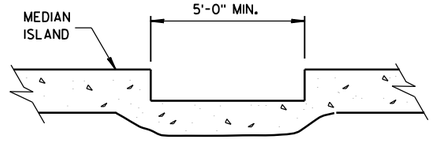
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.

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

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

(12) 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.

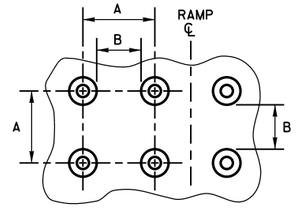
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



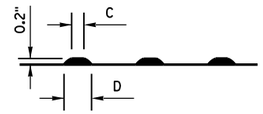
SECTION A-A

	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.

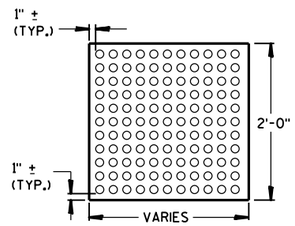


PLAN VIEW



ELEVATION VIEW

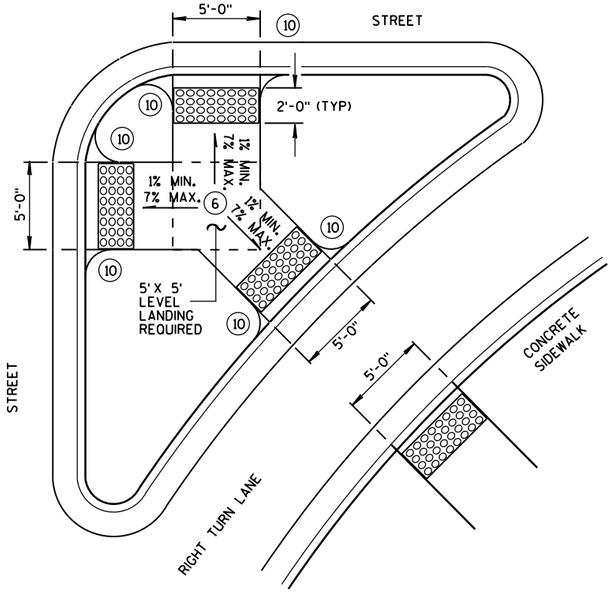
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



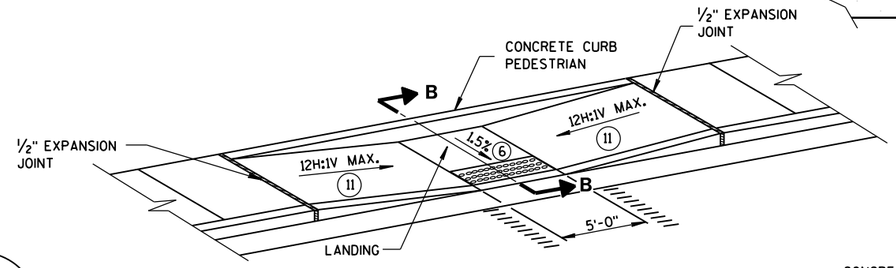
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

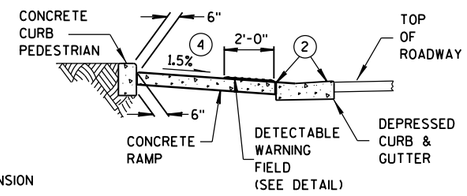
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



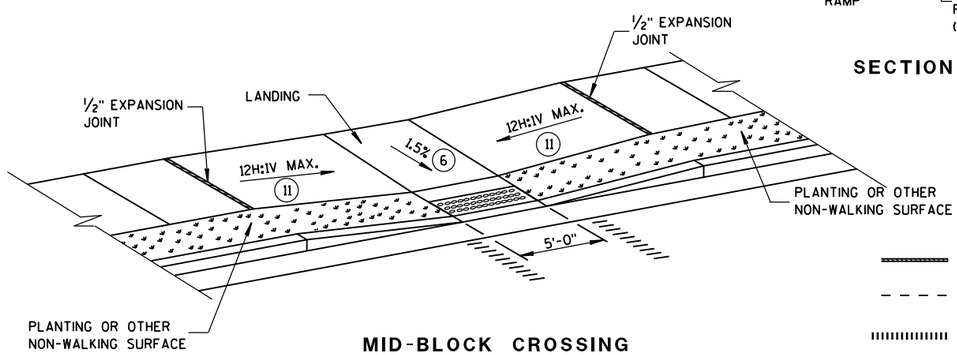
TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



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)

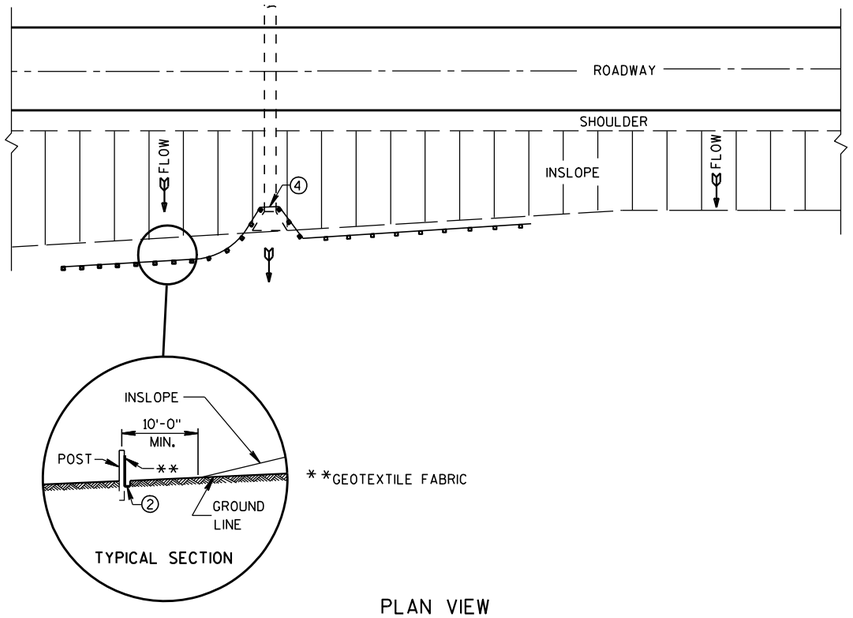
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

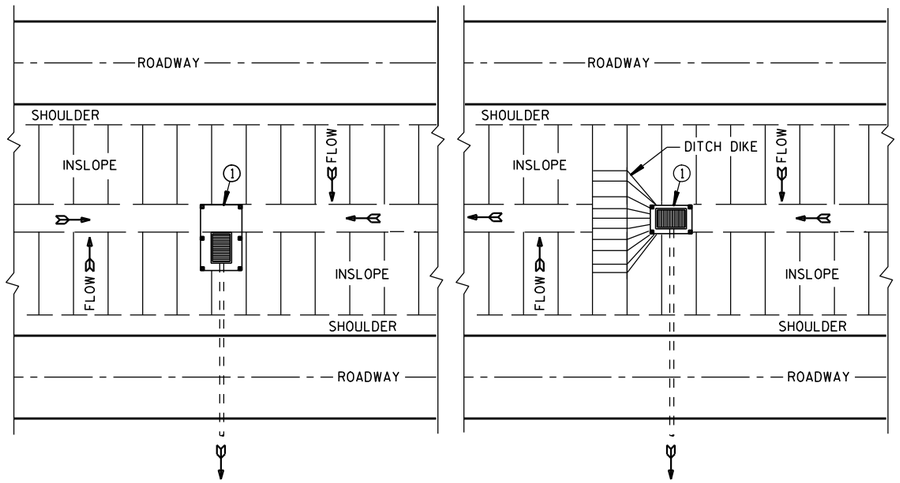
6

S.D.D. 8 D 5-18e



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



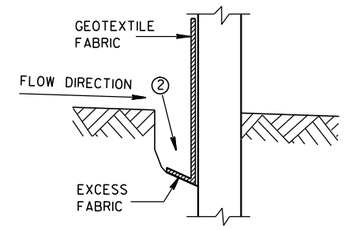
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

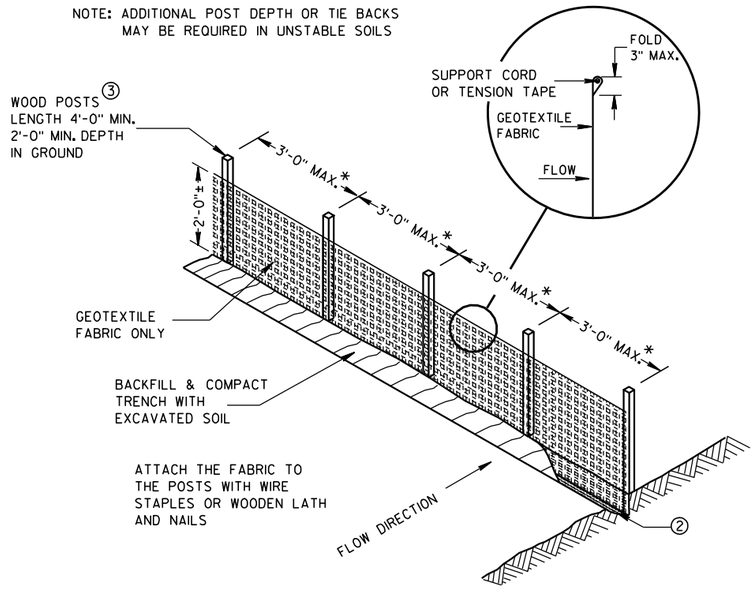
GENERAL NOTES

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.

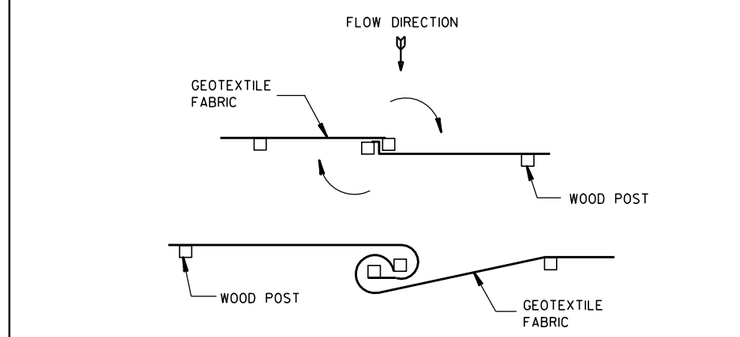


TRENCH DETAIL

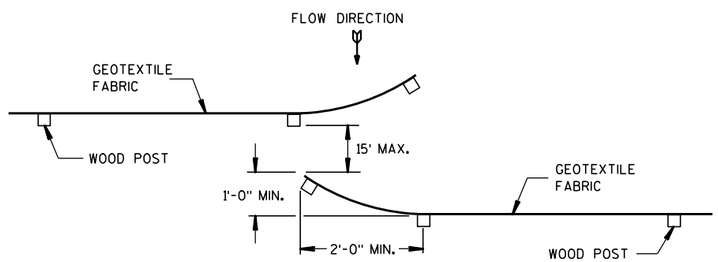


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

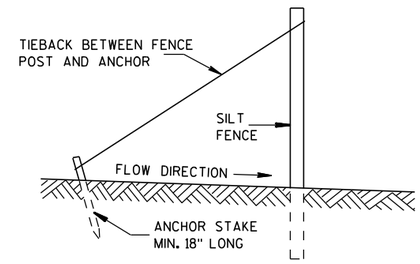


TWIST METHOD



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

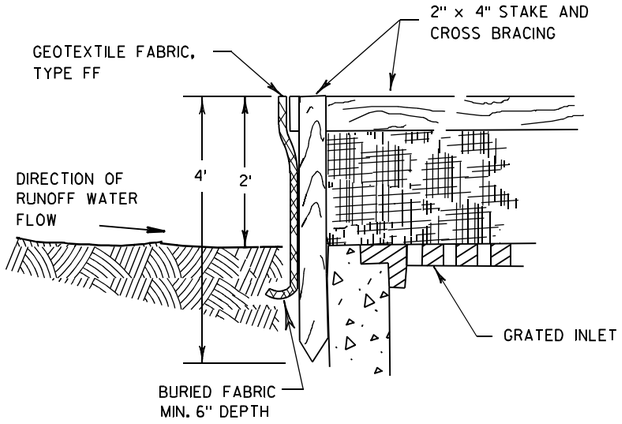
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

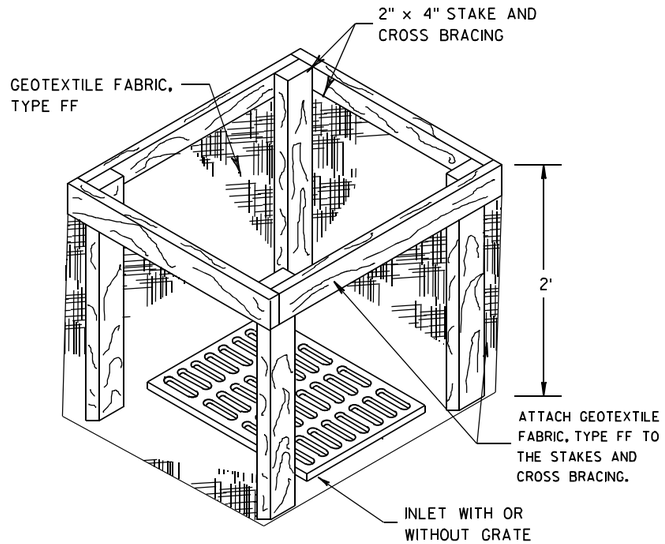
6

S.D.D. 8 E 9-6

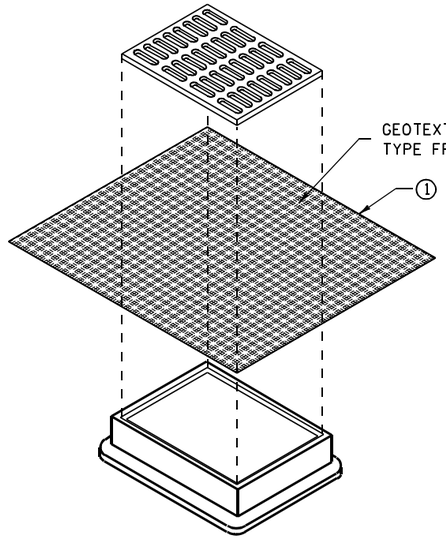
6

S.D.D. 8 E 9-6



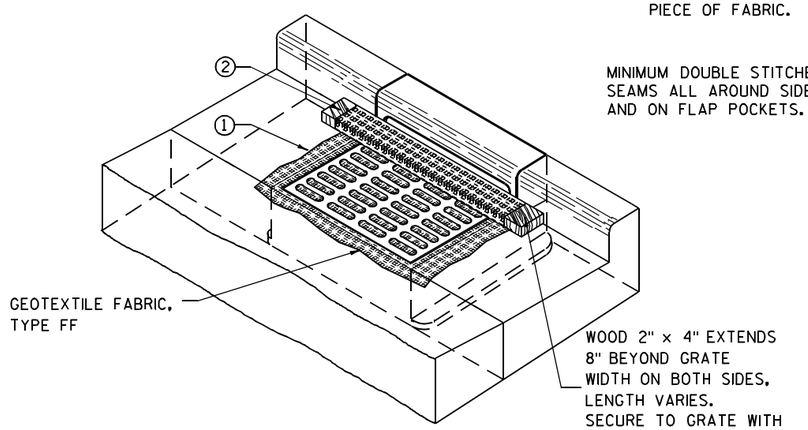


INLET PROTECTION, TYPE A

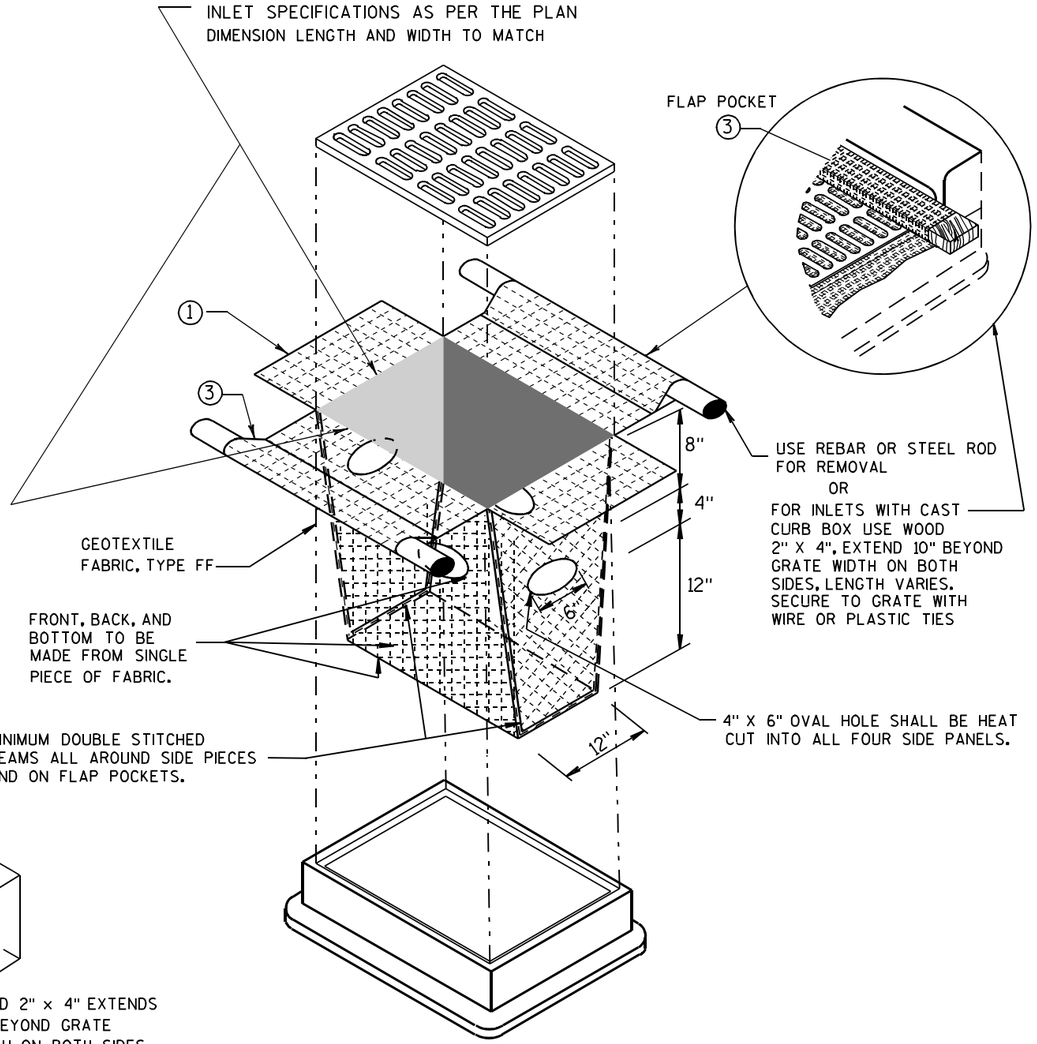


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

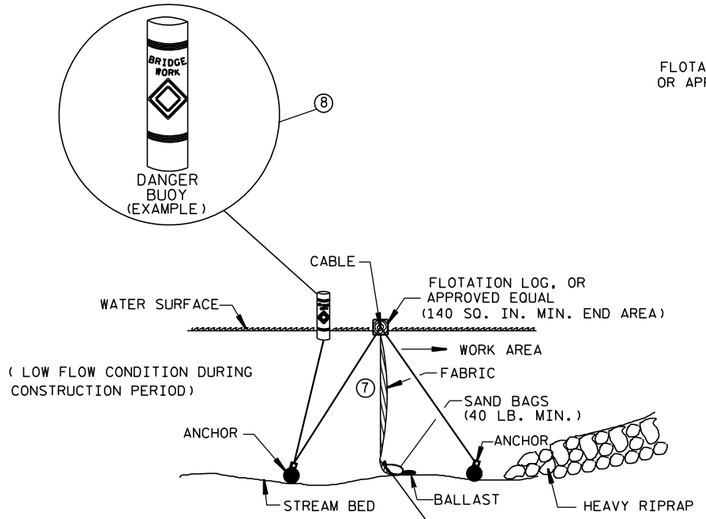
APPROVED

10/16/02
DATE

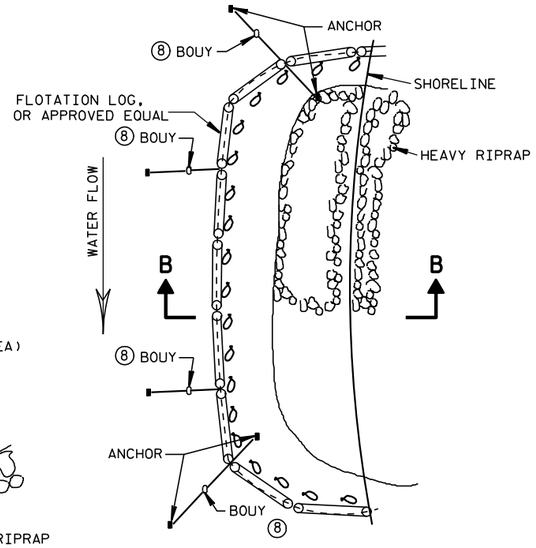
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

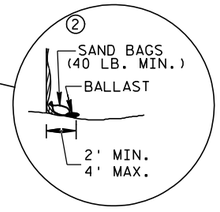
FHWA

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

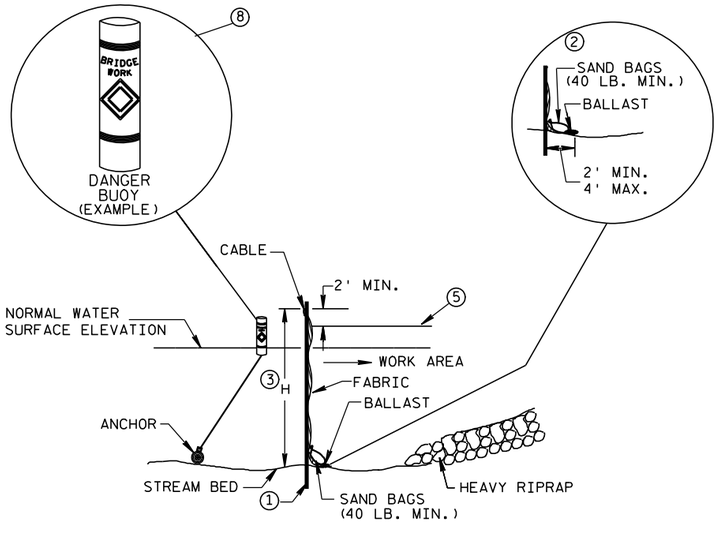


SECTION B-B

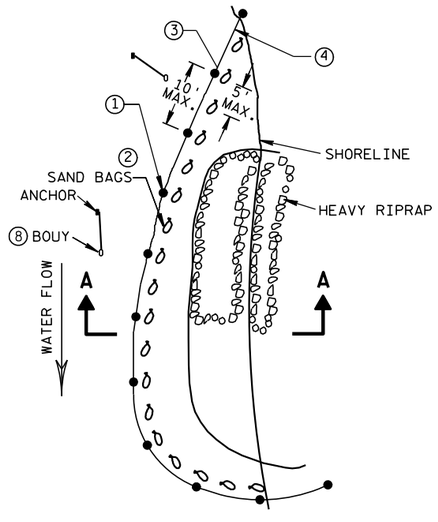




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

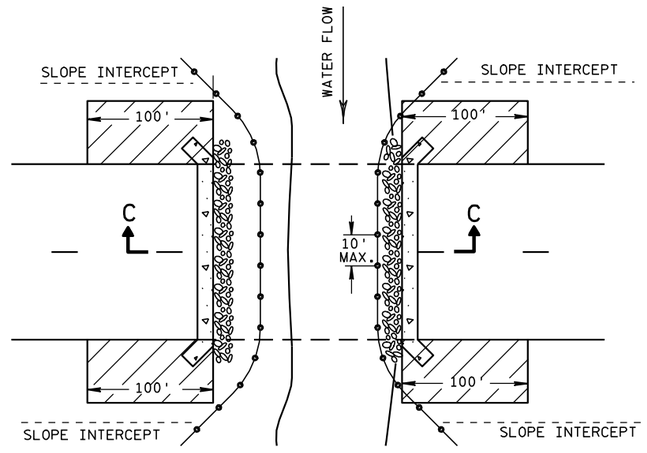
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

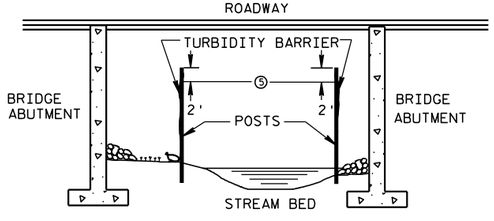
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 11-2

6

S.D.D. 8 E 11-2

METAL APRON ENDWALLS

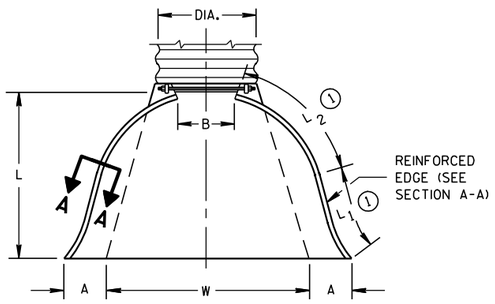
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

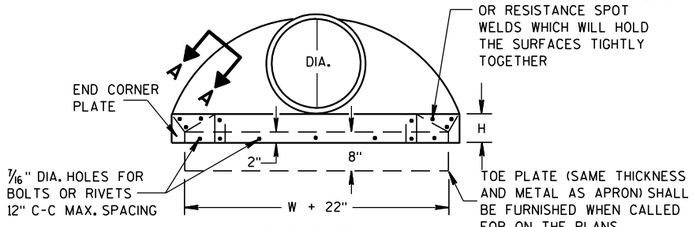
REINFORCED CONCRETE APRON ENDWALLS

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

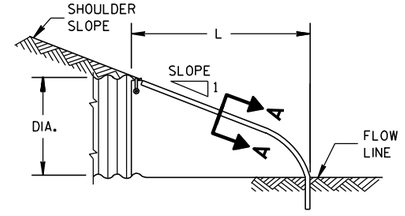
*MINIMUM
**MAXIMUM



PLAN VIEW

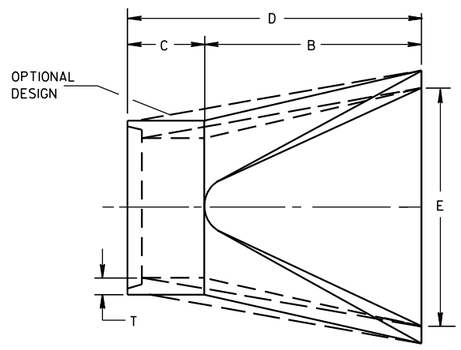


END VIEW

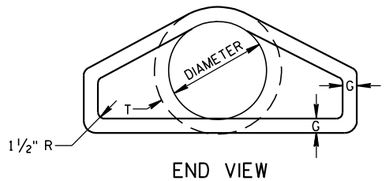


SIDE ELEVATION

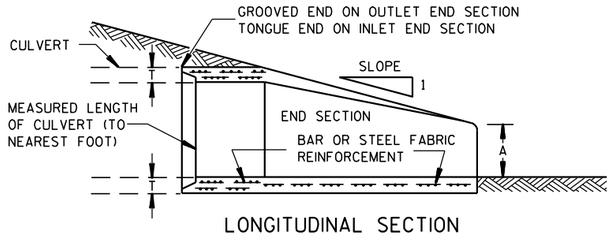
METAL ENDWALLS



PLAN

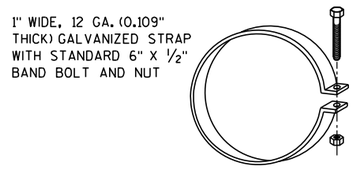


END VIEW



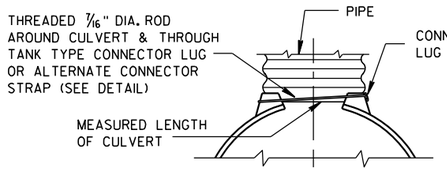
LONGITUDINAL SECTION

CONCRETE ENDWALLS

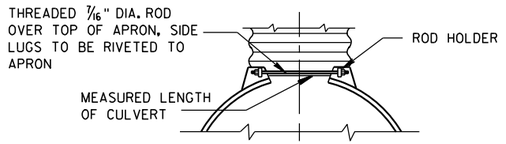


ALTERNATE FOR TYPE 1 CONNECTION

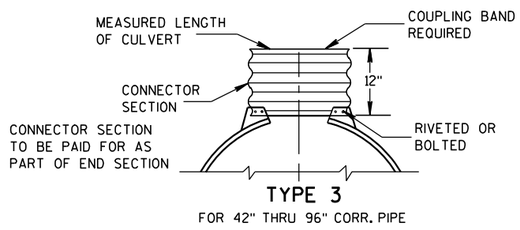
END SECTION CONNECTOR STRAP



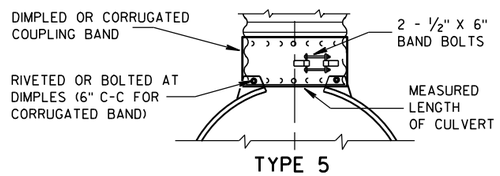
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

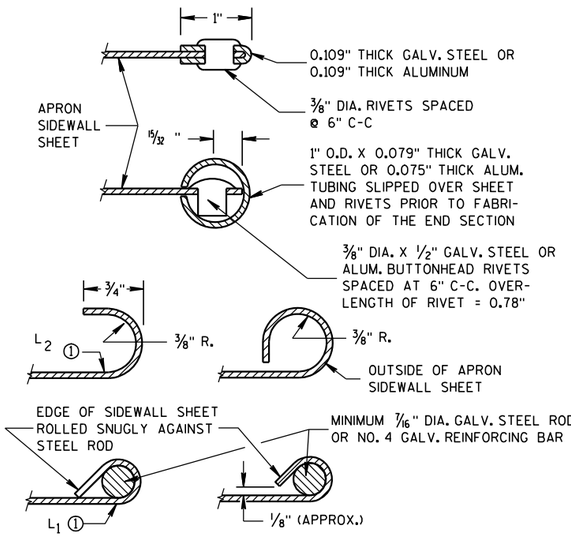
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

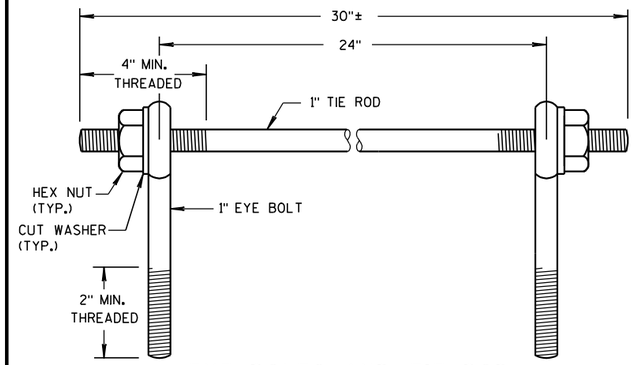
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

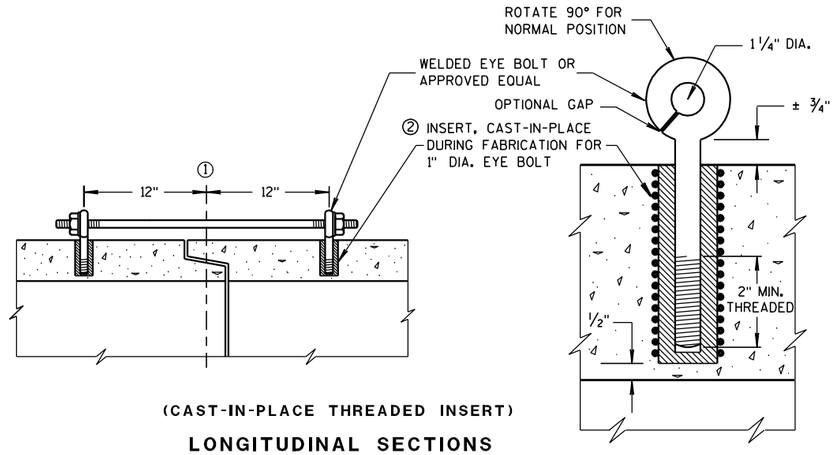
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

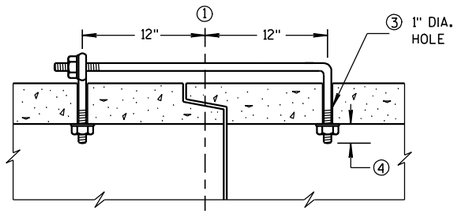
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

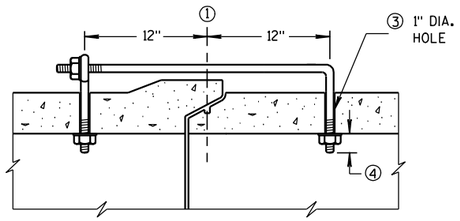
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

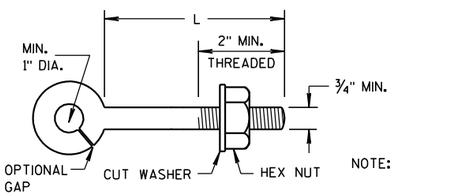


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

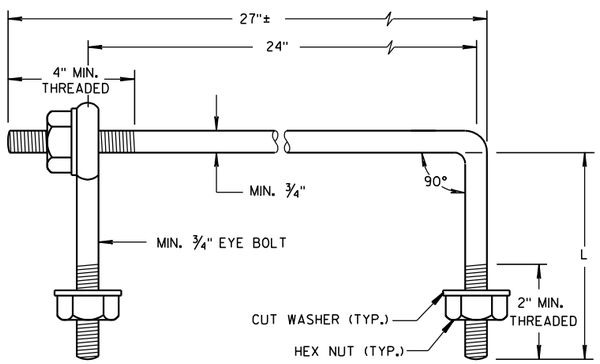
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

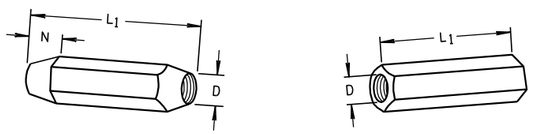
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

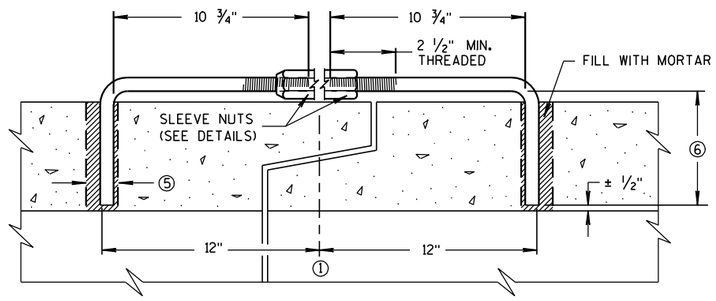
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

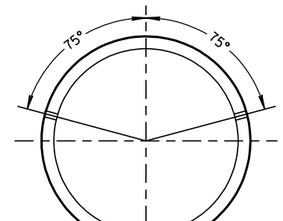
SLEEVE NUTS



LONGITUDINAL SECTION

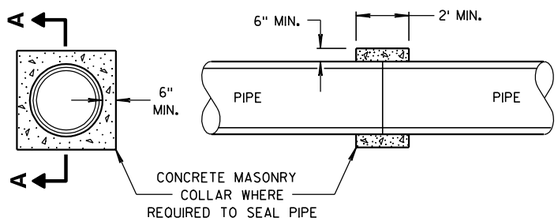
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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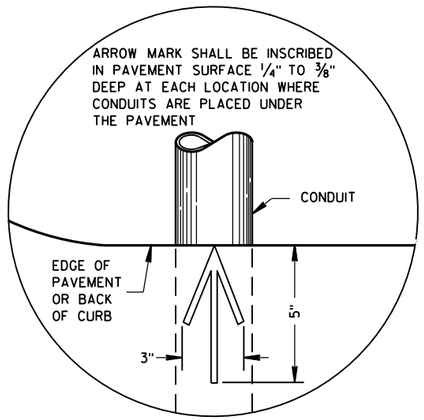
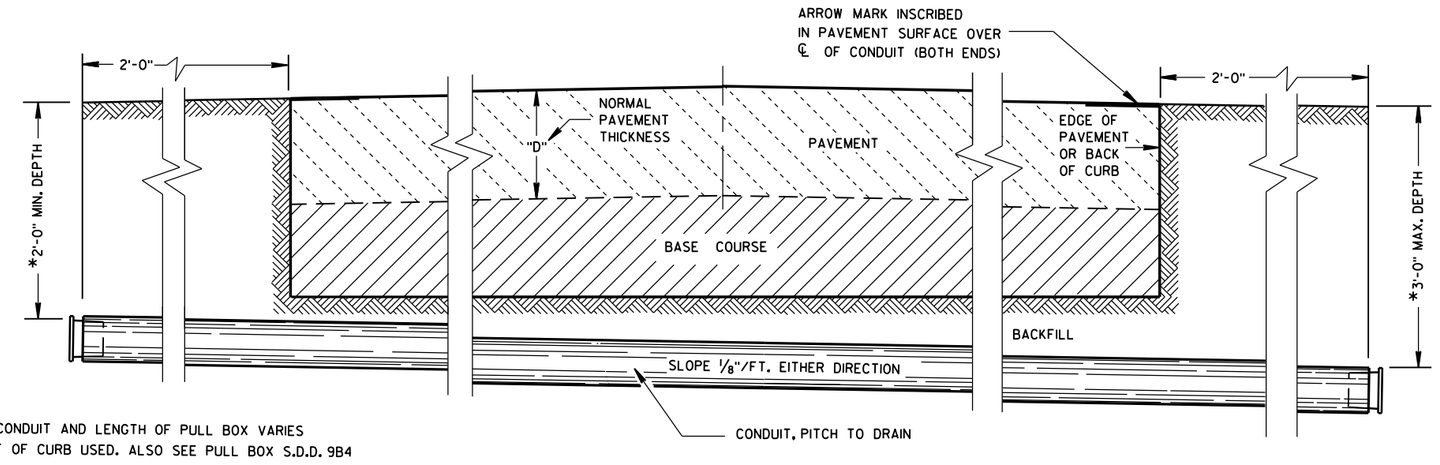
S.D.D. 8 F 4-7



PLAN VIEW

ARROW MARK



*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

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.).

TRACER 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.

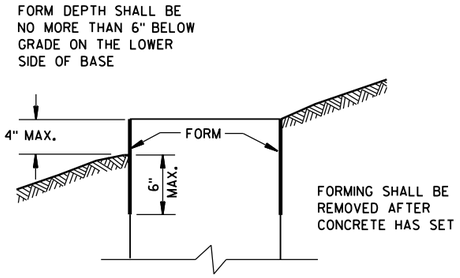
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

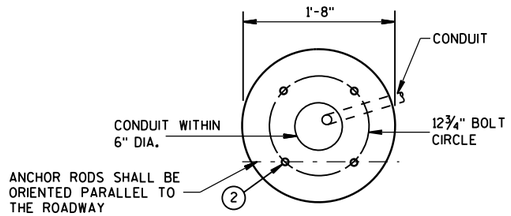
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

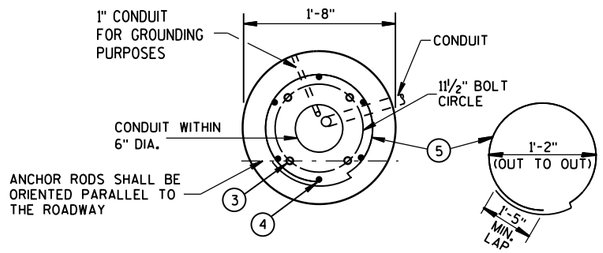
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

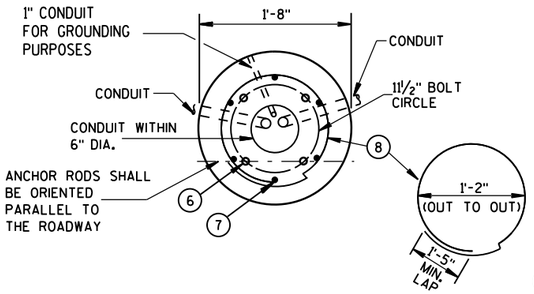
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

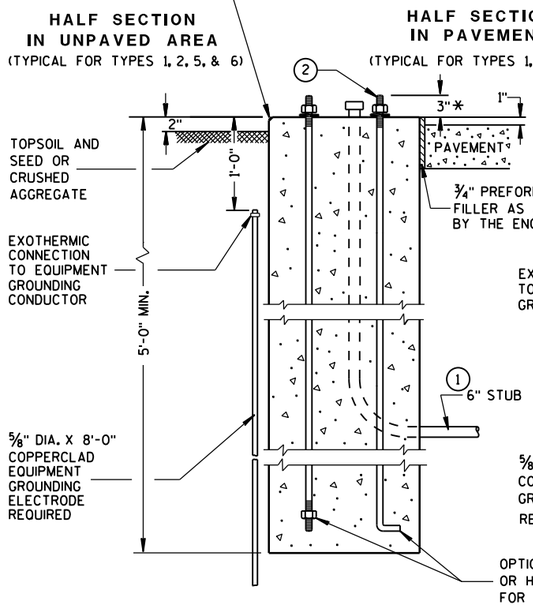
(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

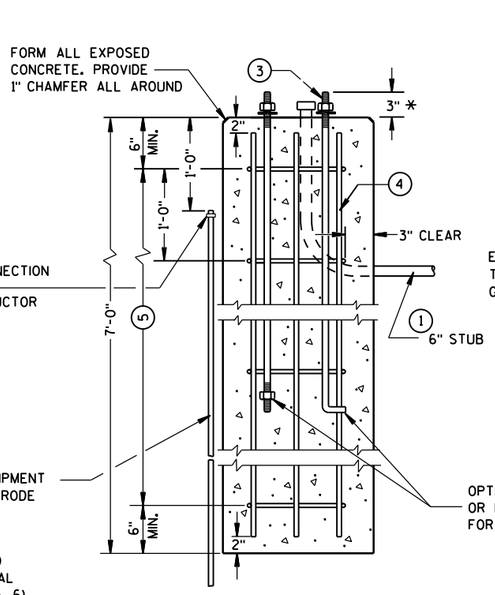
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



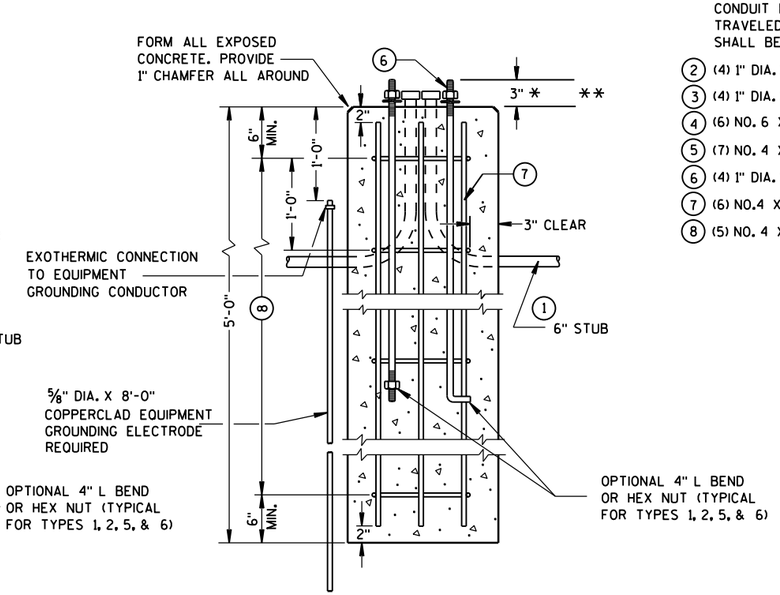








TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 2-7

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

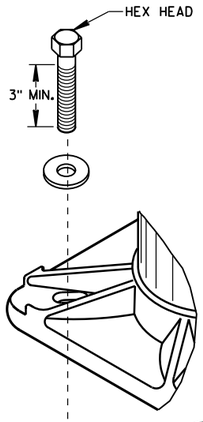
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

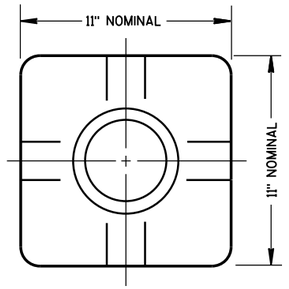
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

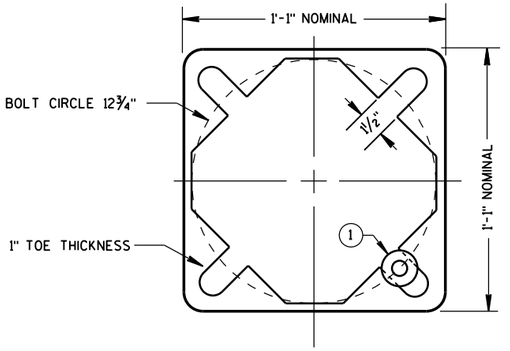
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

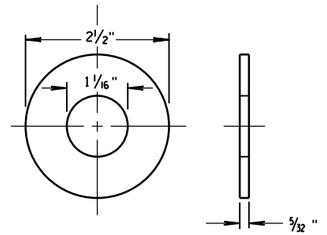




TOP VIEW
(PEDESTAL BASE)

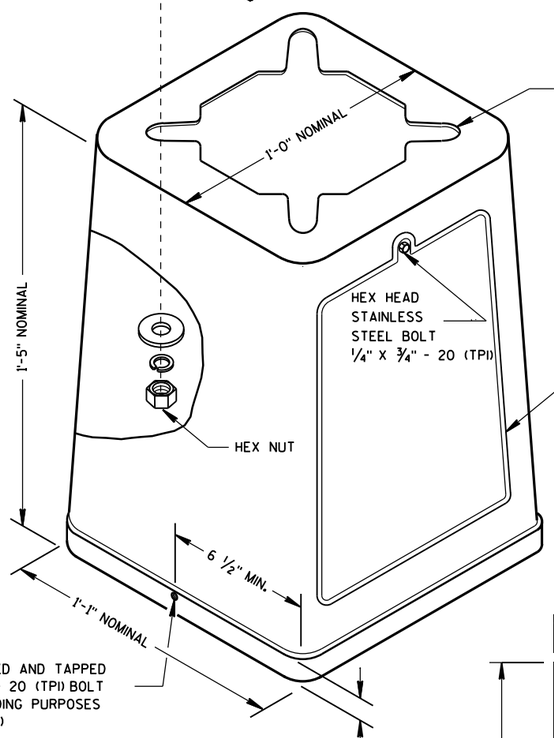


BOTTOM VIEW
(PEDESTAL BASE)

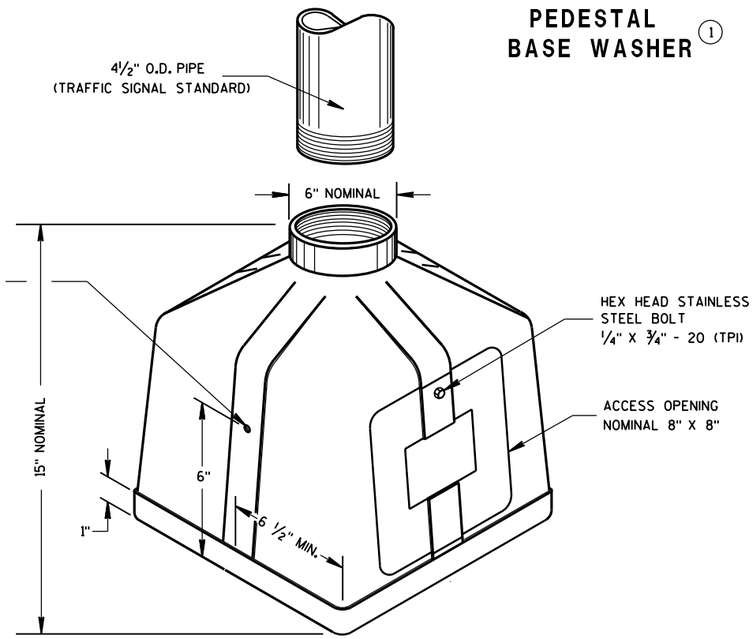


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

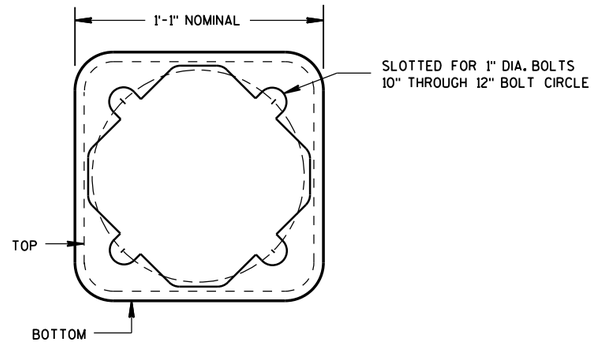
PEDESTAL BASE WASHER (1)



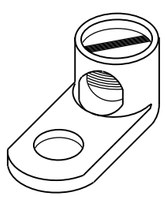
ISOMETRIC VIEW



ISOMETRIC VIEW
PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

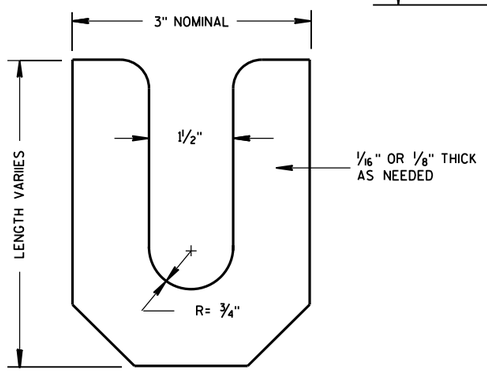


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 C 3-4

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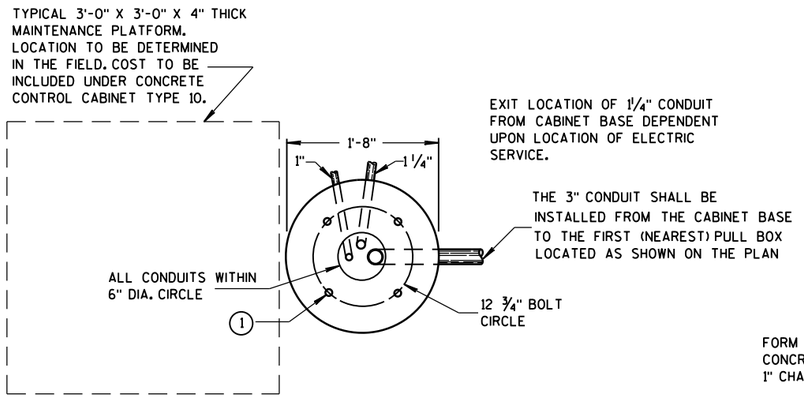
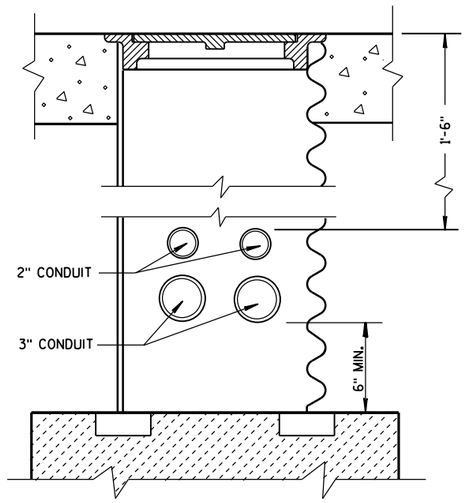
S.D.D. 9 C 3-4

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

* INCLUDES MAINTENANCE PLATFORM.





CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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.

CONTROL CABINET BASE TOP SURFACES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

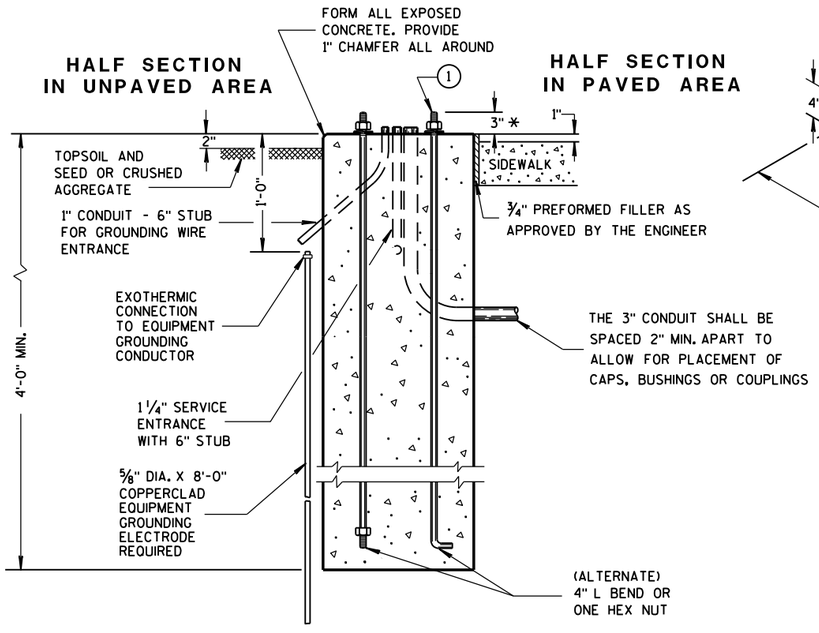
STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6". ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

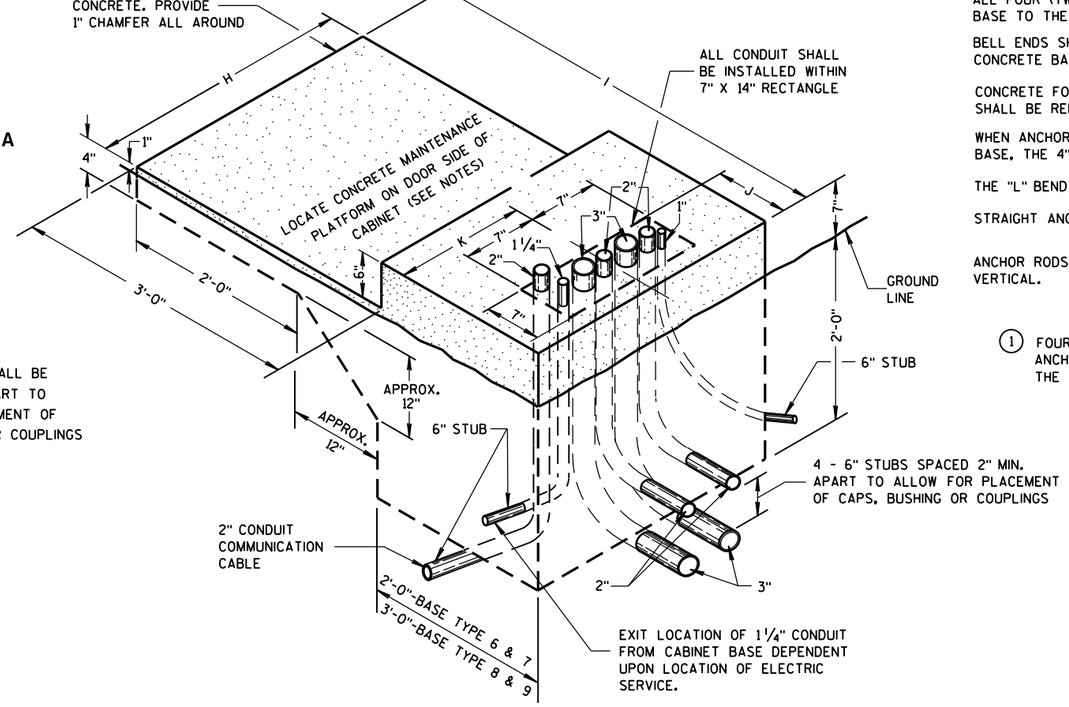
HALF SECTION IN UNPAVED AREA

HALF SECTION IN PAVED AREA



TYPE 10

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

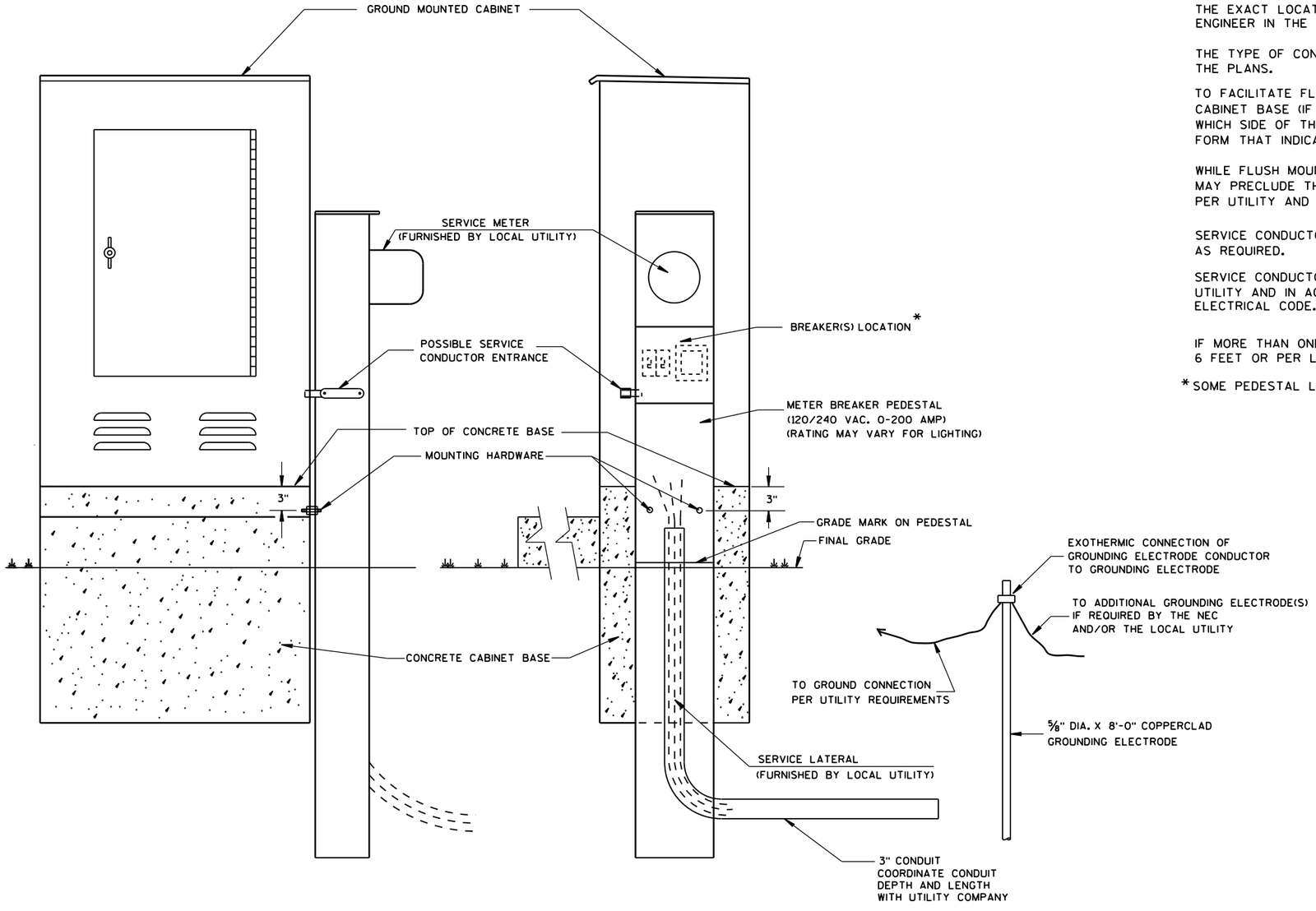


TYPE 6,7,8 AND 9 (ISOMETRIC VIEW)

CONCRETE CONTROL CABINET BASES

CONCRETE CONTROL CABINET BASES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept. 2016 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

S.D.D. 9 C 5-10



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.

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S.D.D. 9 D 1-5

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

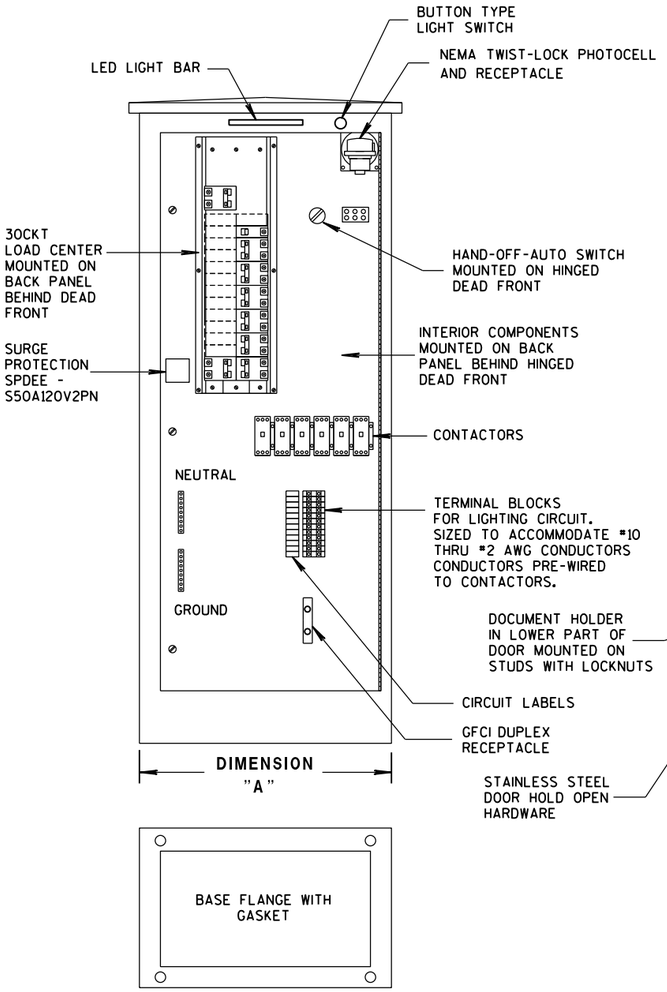
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

FRONT INTERIOR ELEVATION



SIDE VIEW

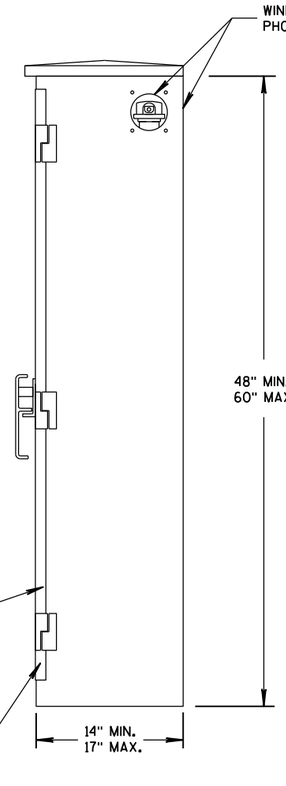
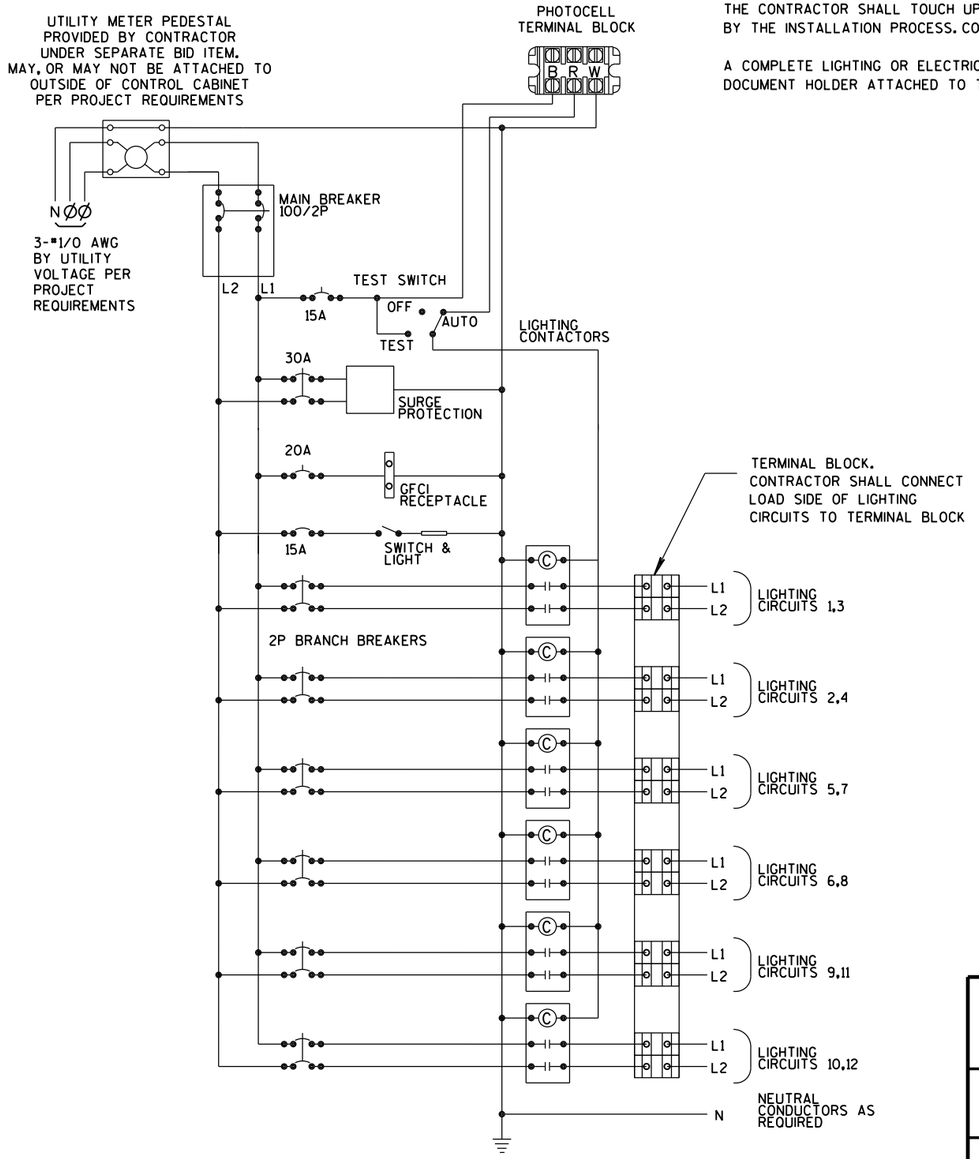


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

GENERAL NOTES

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

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET 120/240 VOLT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Thomas Gonring — STATE LIGHTING ENGINEER
FHWA

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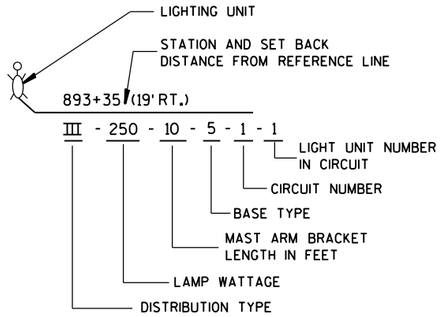
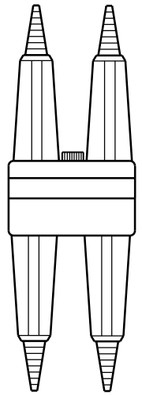
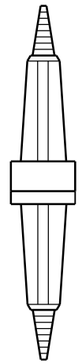


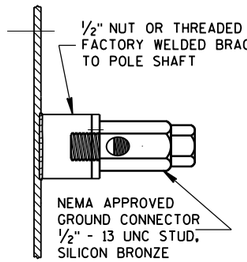
LIGHTING UNIT CODE
(TYPICAL)

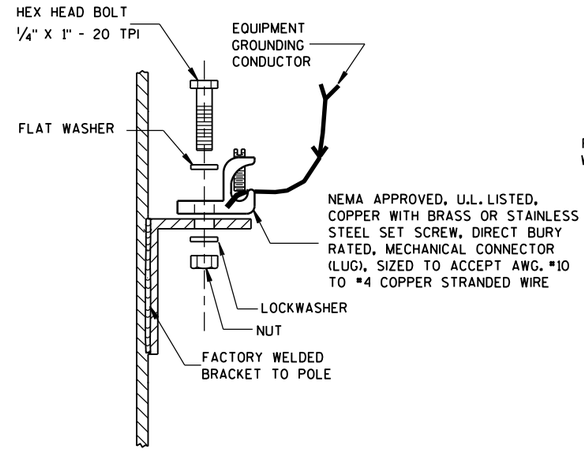


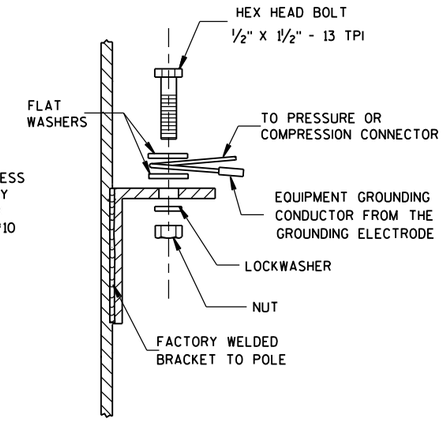
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



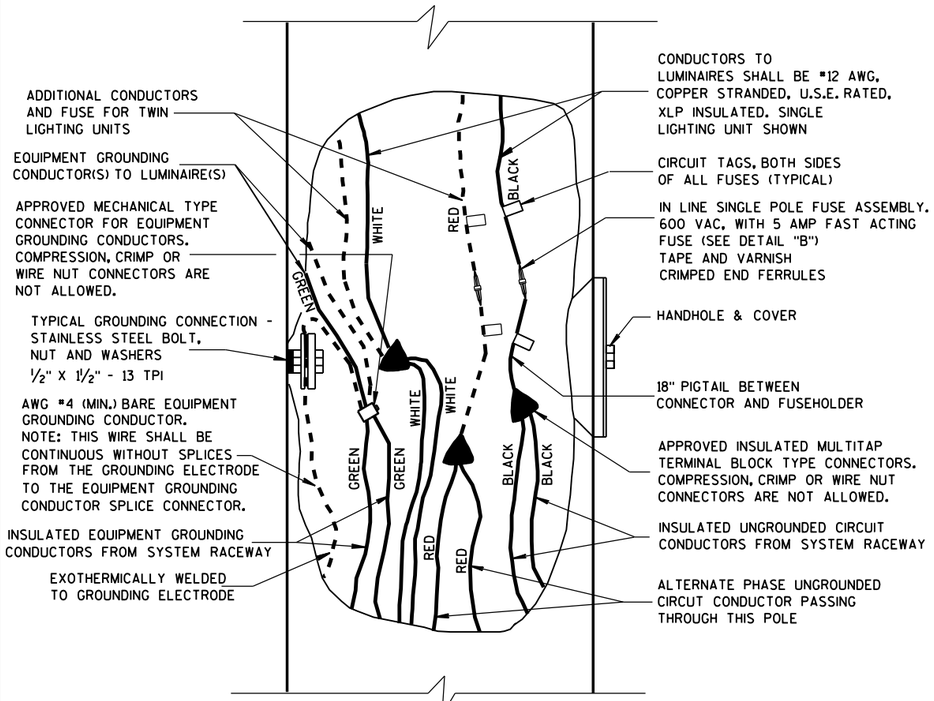
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



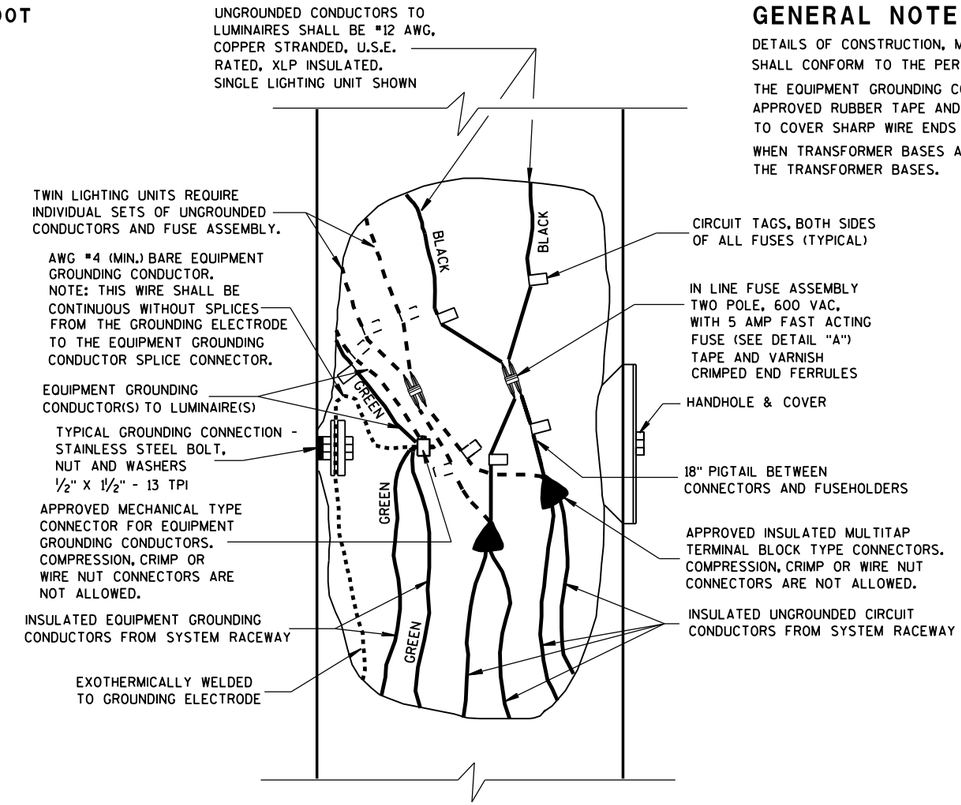




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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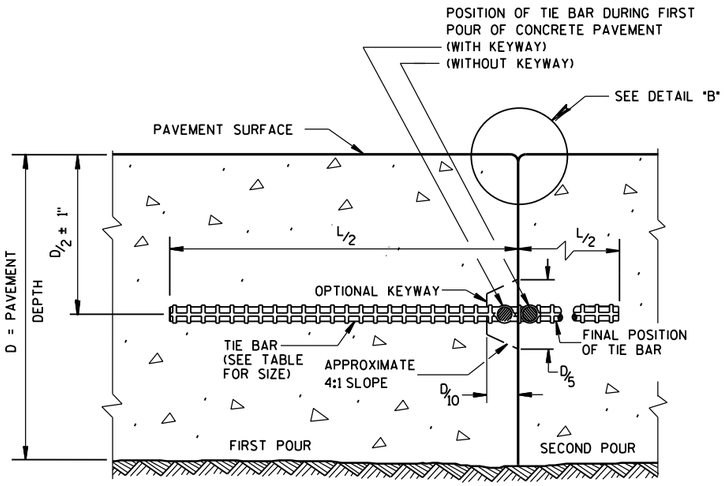
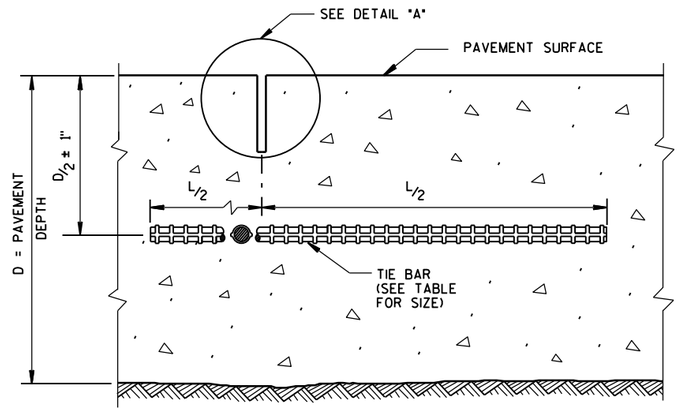


CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

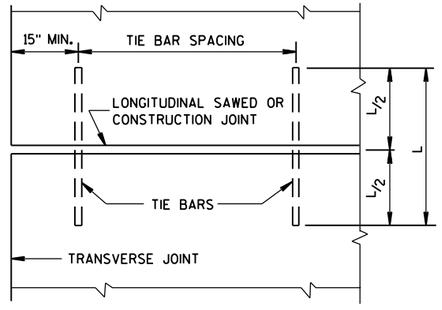
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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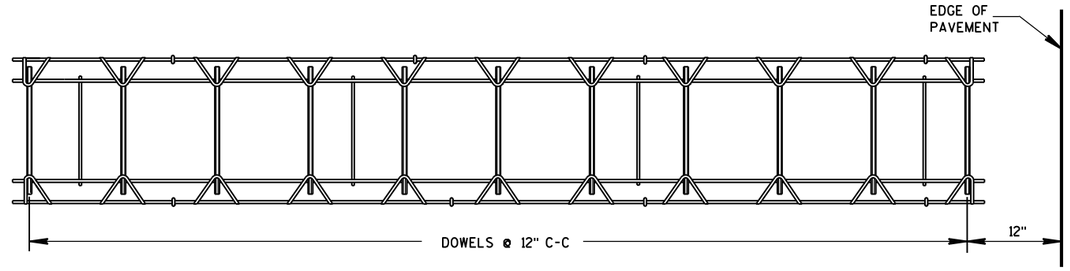
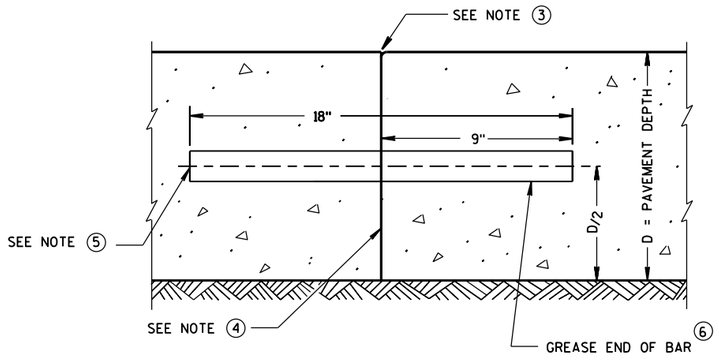


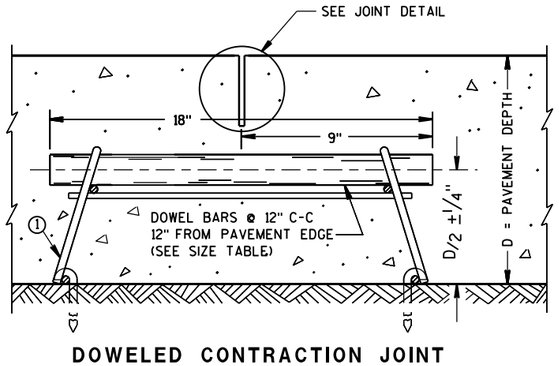
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



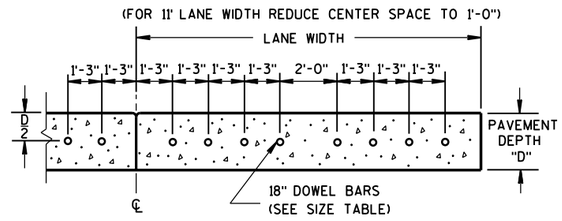
TRANSVERSE CONSTRUCTION JOINT



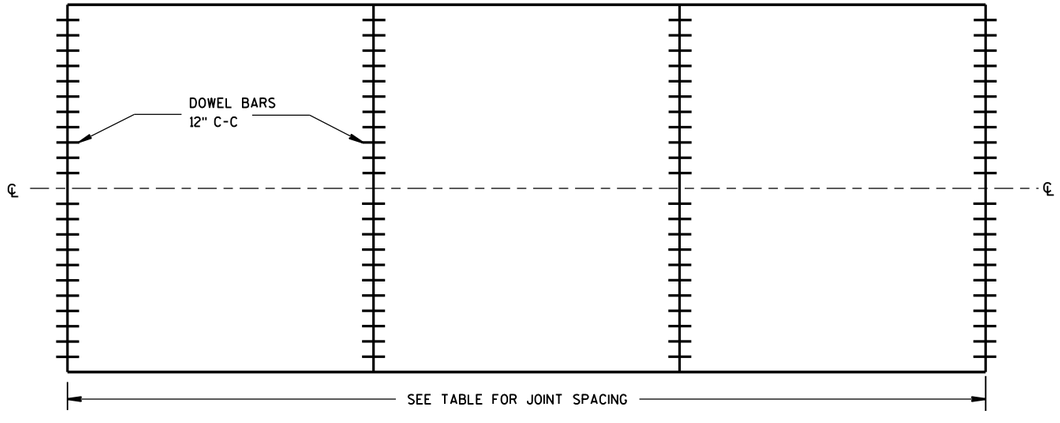
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

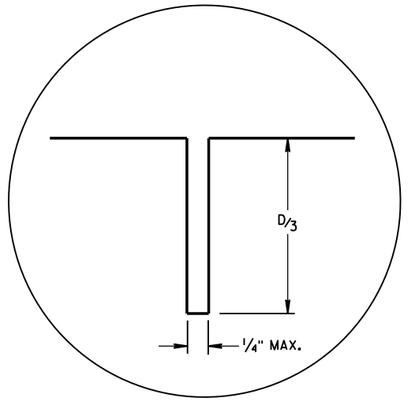
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

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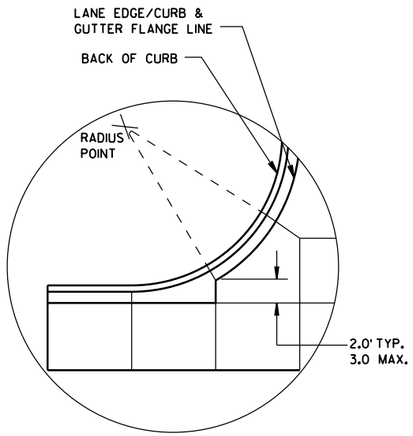
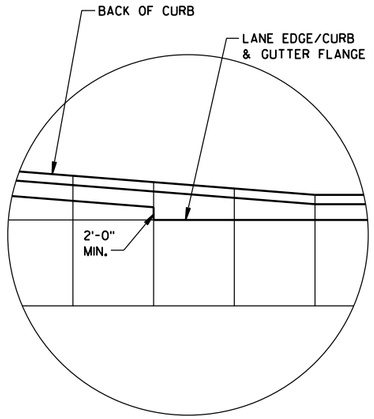
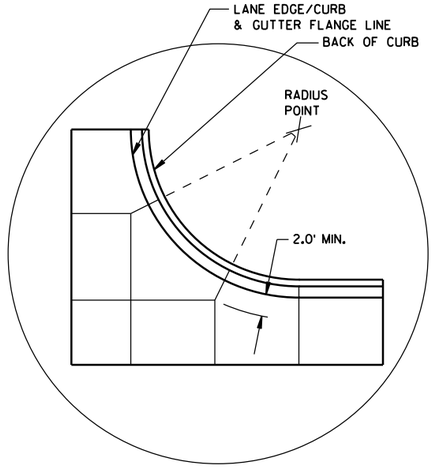


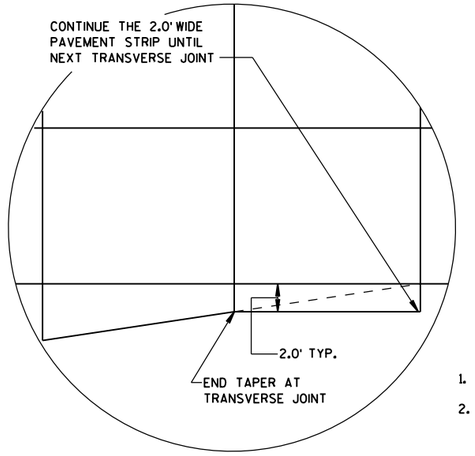
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

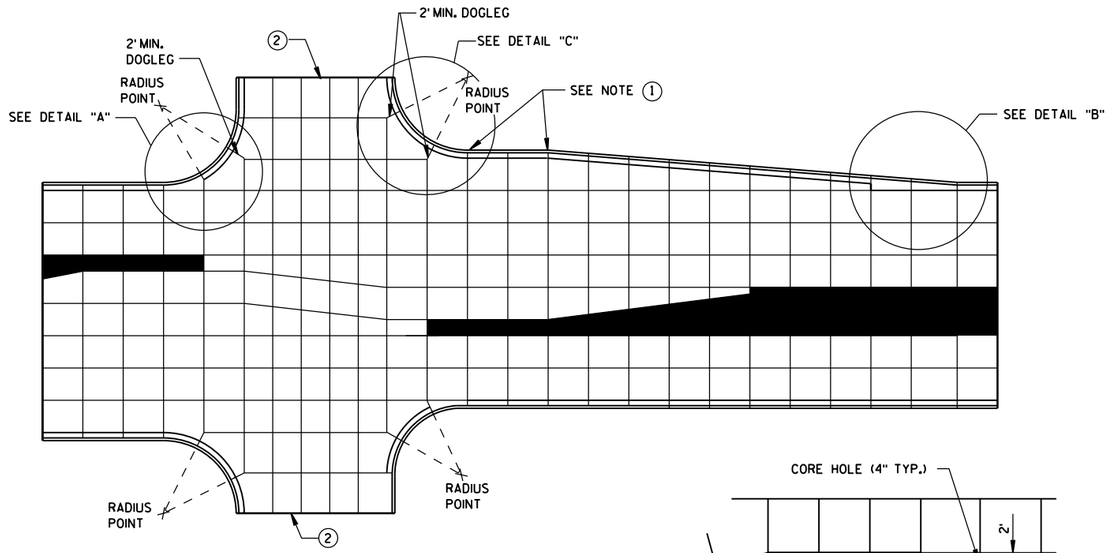
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

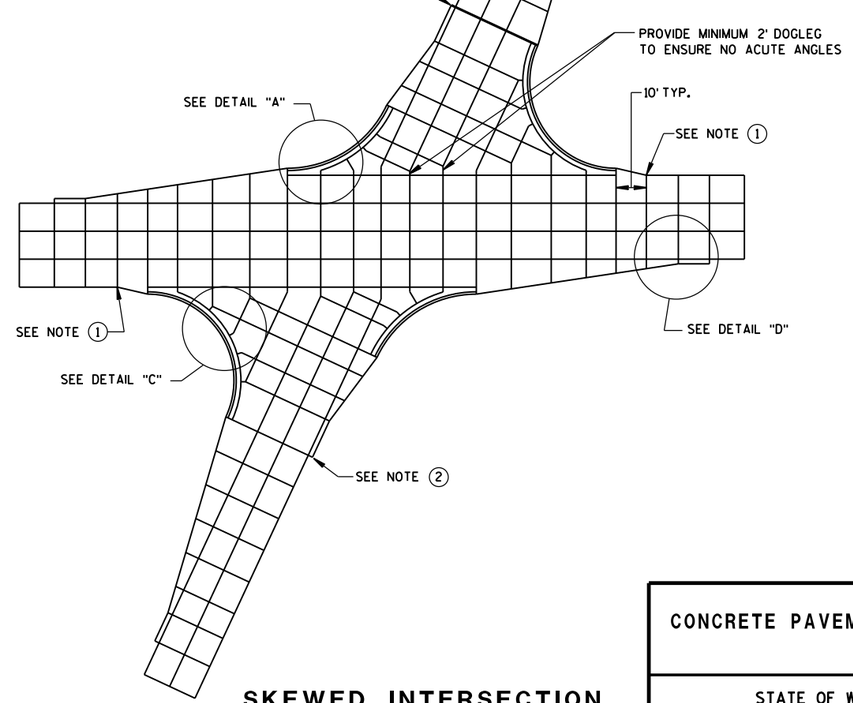
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



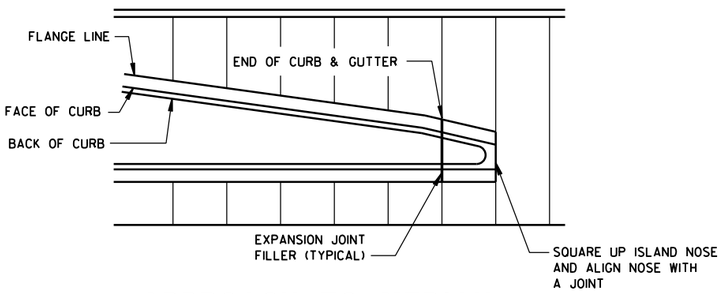
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

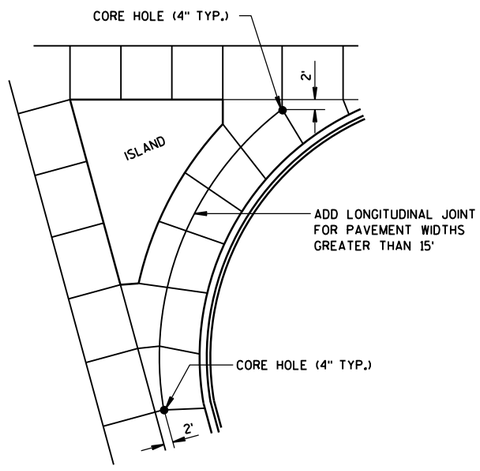
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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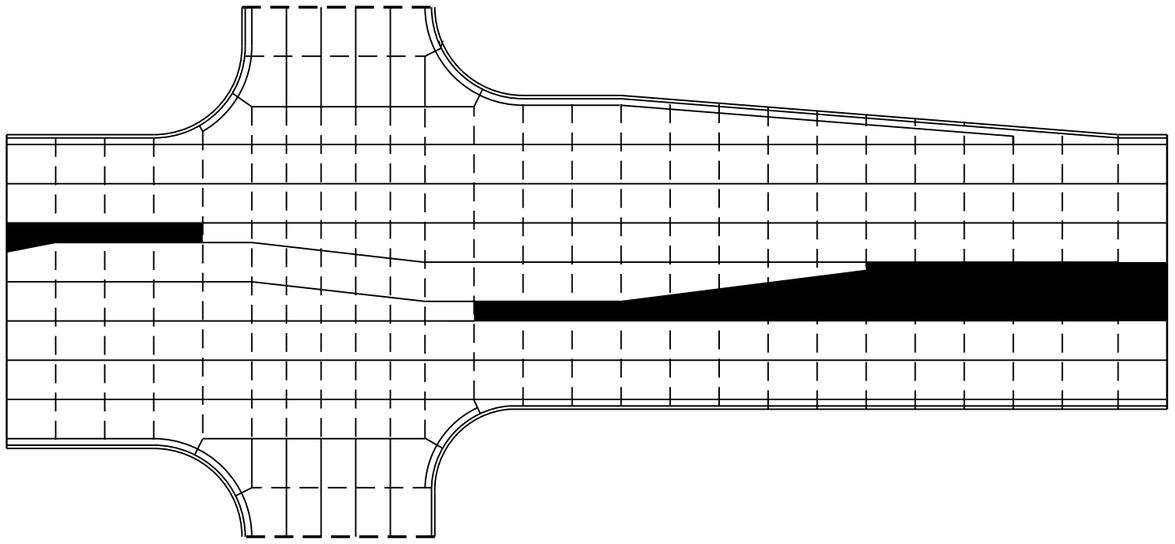
S.D.D. 13 C 18-5a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

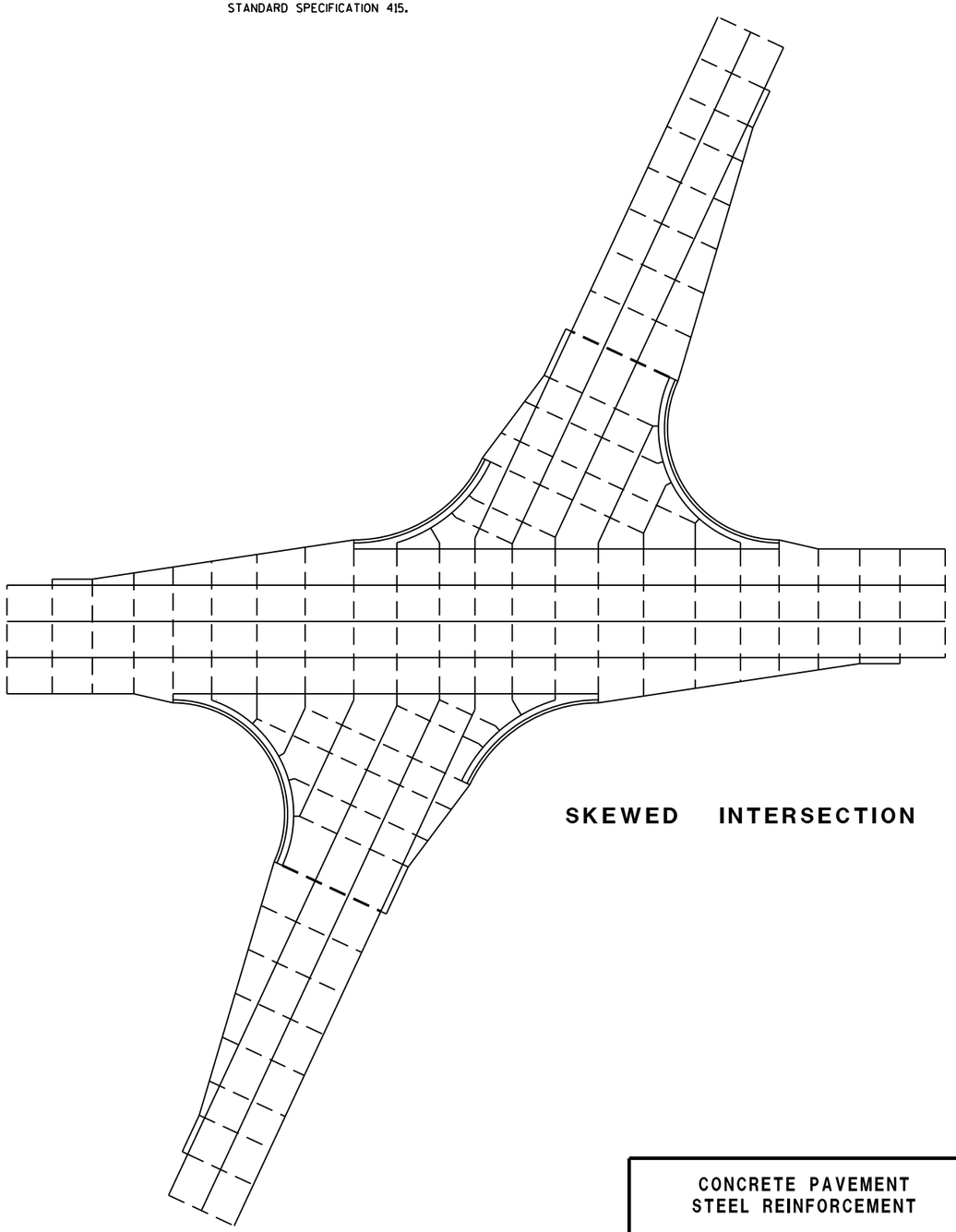
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

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S.D.D. 13 C 18-5b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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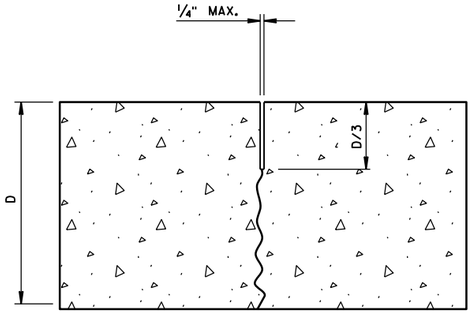
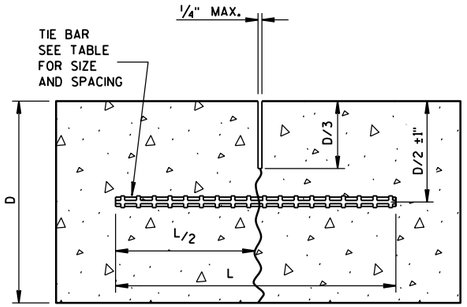
S.D.D. 13 C 18-5b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

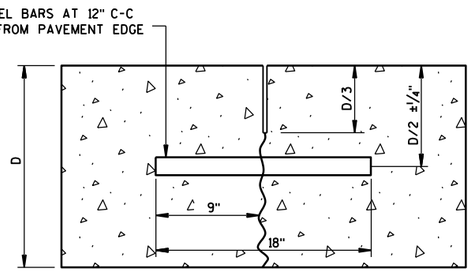
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

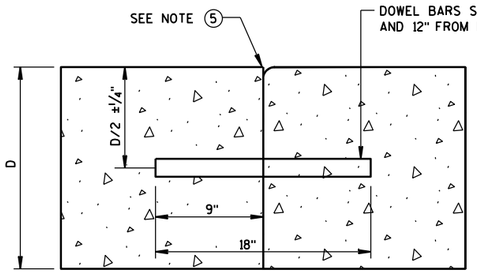
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



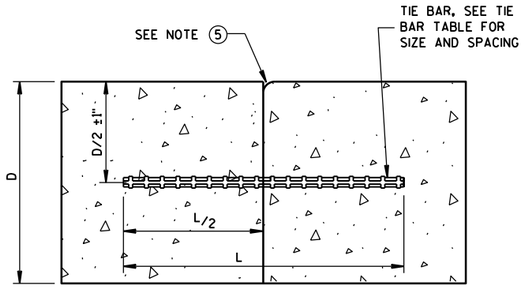
DOWELED-TRANSVERSE

CONTRACTION JOINTS

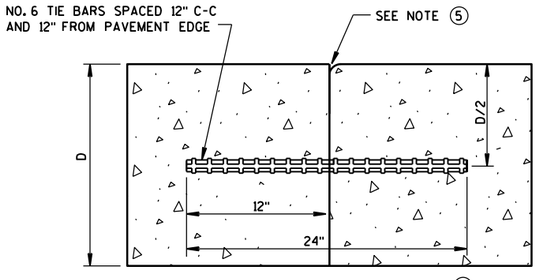
SEE NOTE (2)



DOWELED TRANSVERSE (3)

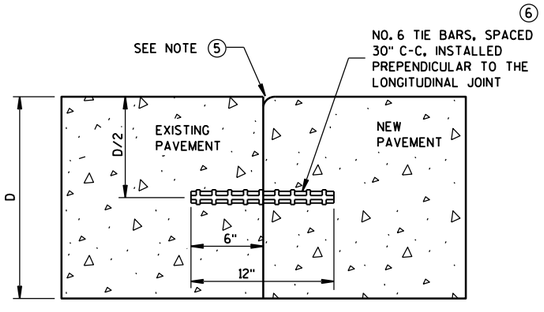


TIED LONGITUDINAL



TIED TRANSVERSE (3)

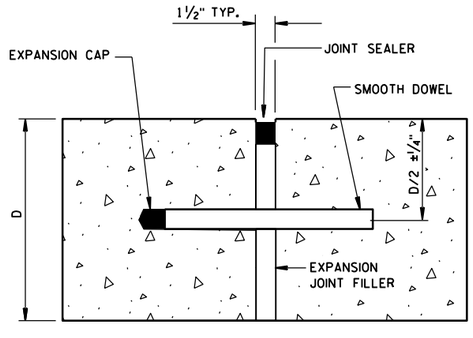
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

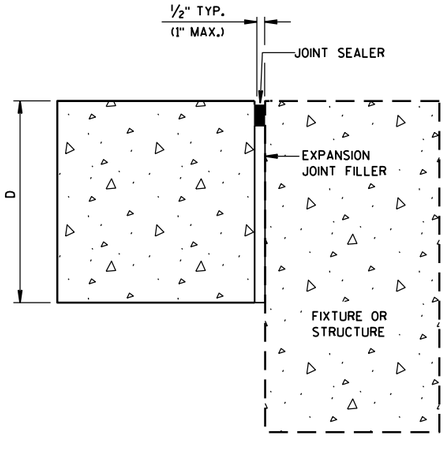
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

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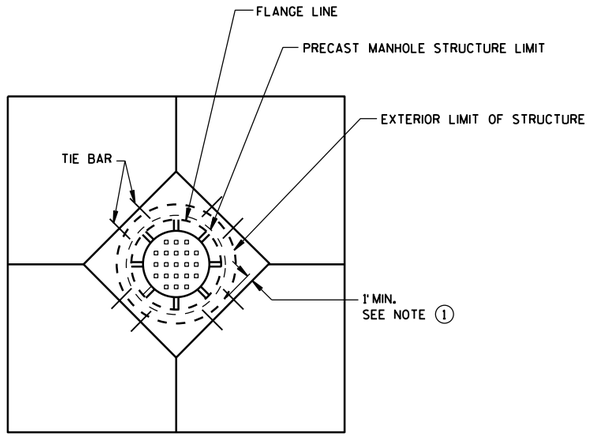
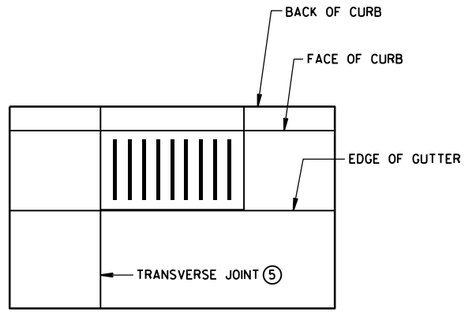
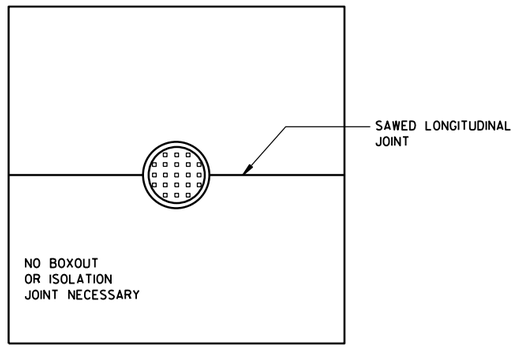
S.D.D. 13 C 18-5c



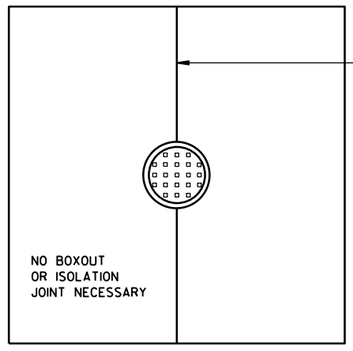
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



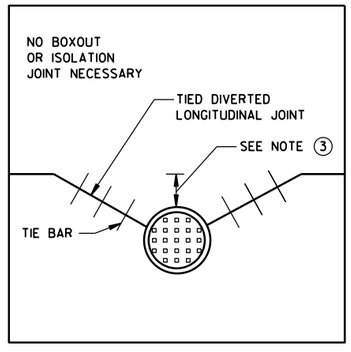
INLET WITH TRANSVERSE JOINT



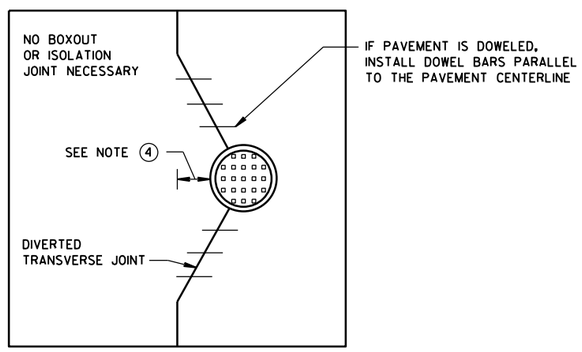
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December, 2016 — /S/ Peter Kemp, P.E.
DATE — PAVEMENT SUPEF
FHWA

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(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.

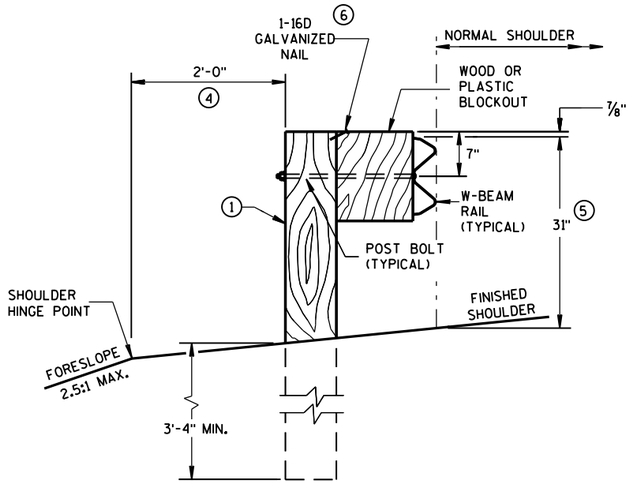
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES 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).

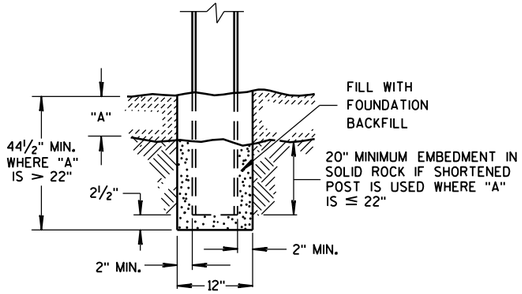
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



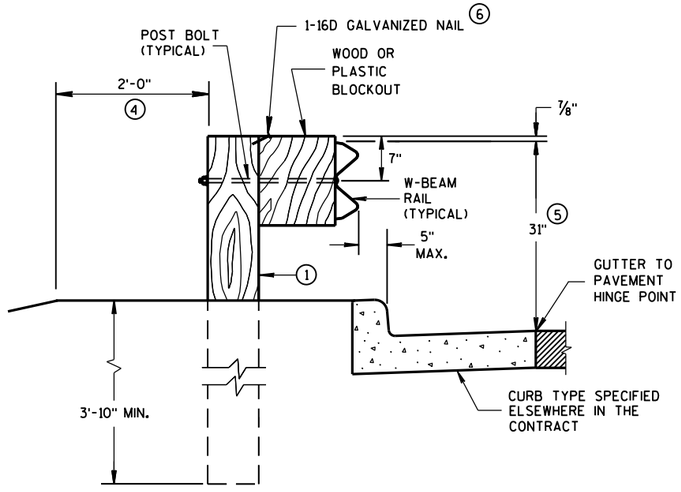
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



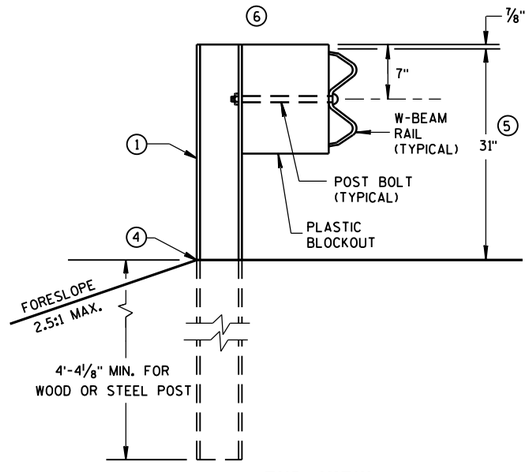
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



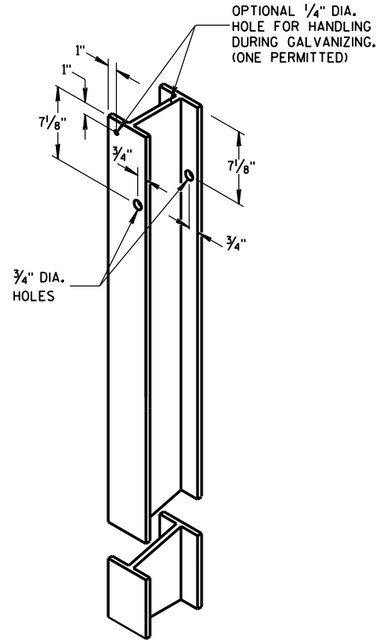
END VIEW

LOCATED ALONG A CURBED ROADWAY

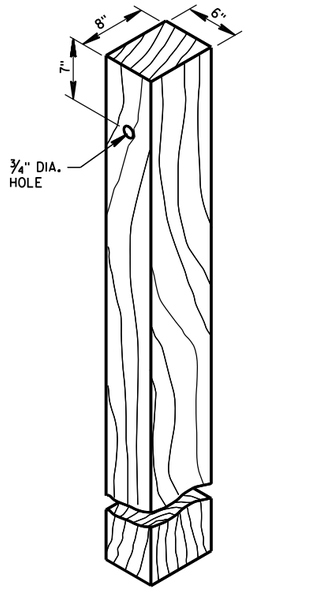


END VIEW

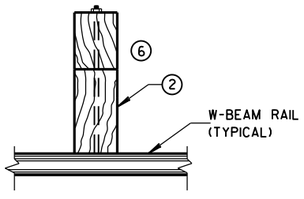
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



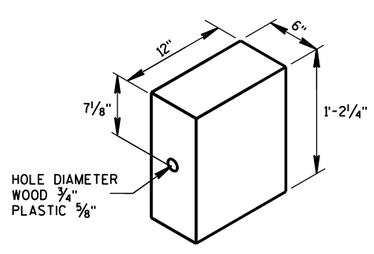
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



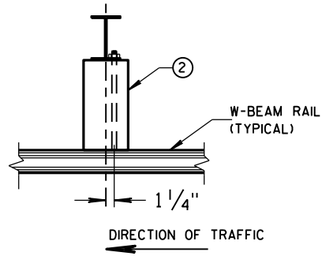
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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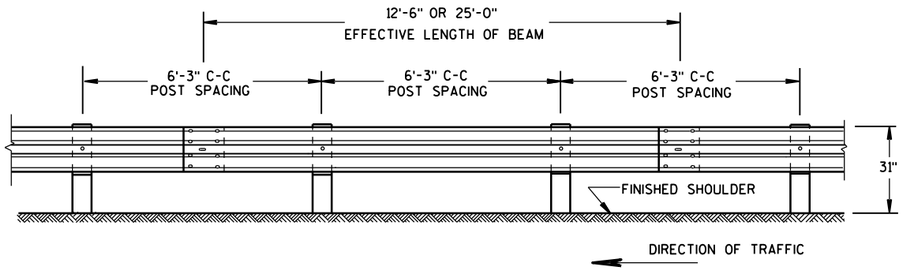
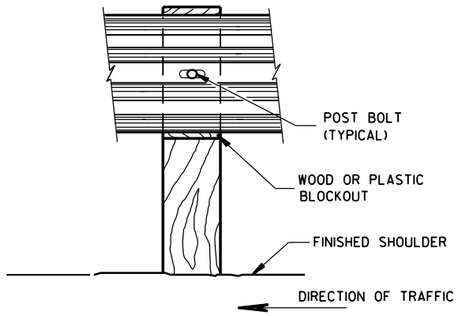


FRONT VIEW

POST SPACING STANDARD INSTALLATION



FRONT VIEW AT WOOD POST

7. PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

8. 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.

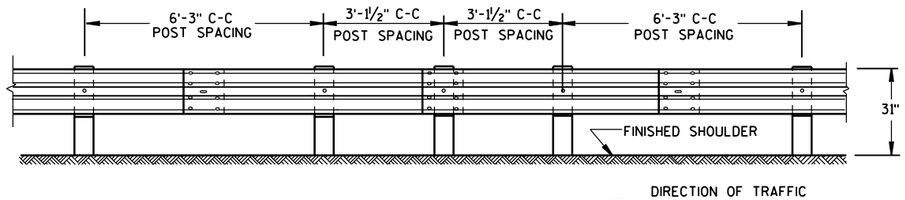
9. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

10. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

11. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

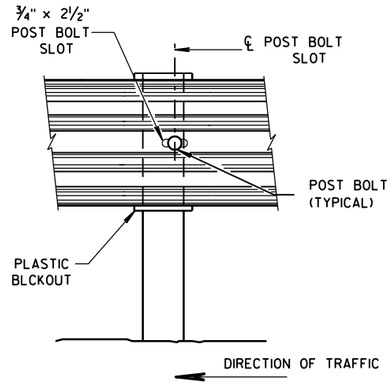
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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.

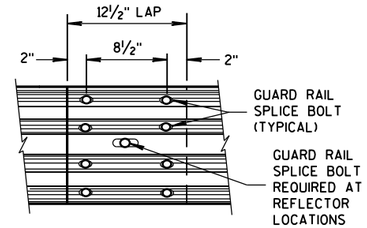


FRONT VIEW

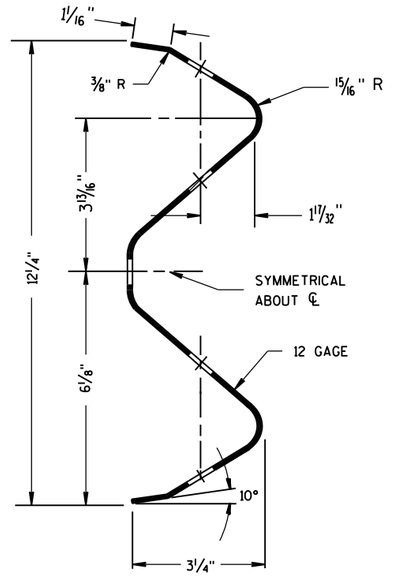
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



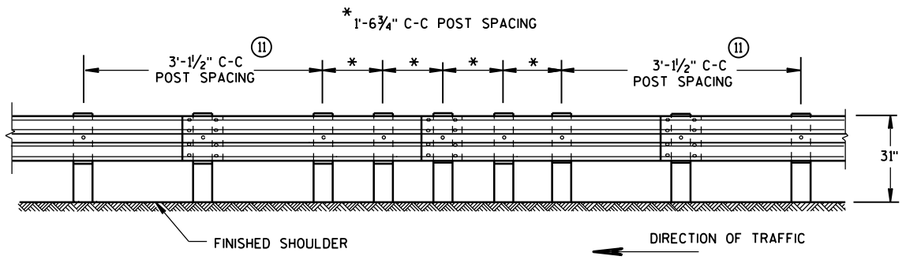
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE

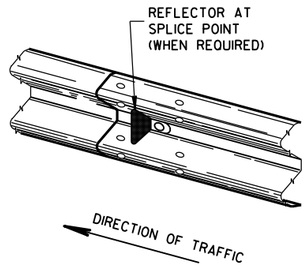


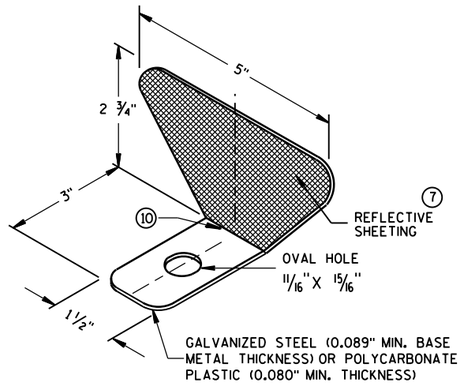
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (7)

REFLECTOR SPACING (8)

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 (9) 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 (10)	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
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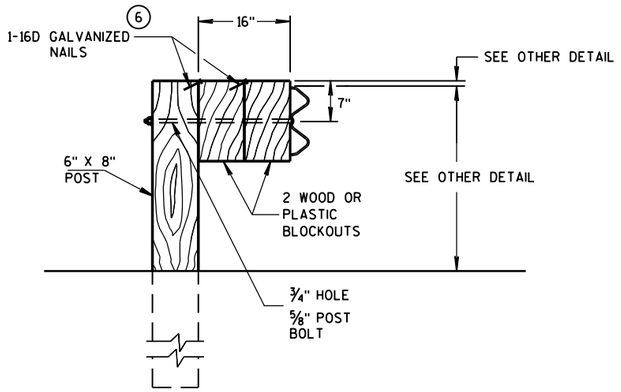
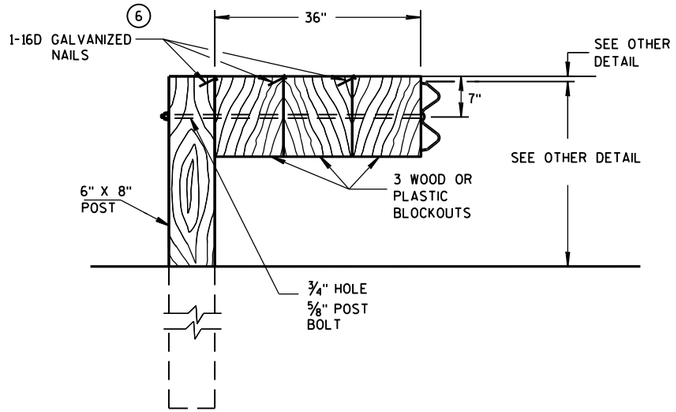


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

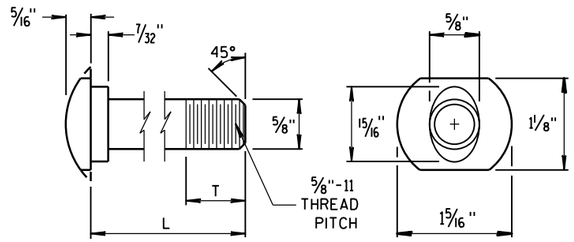


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

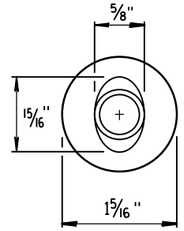
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

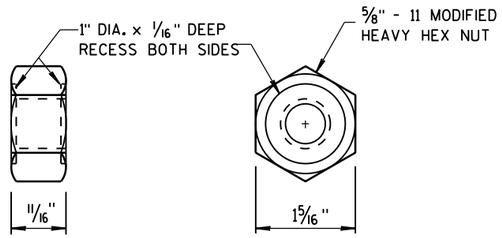


POST BOLT TABLE

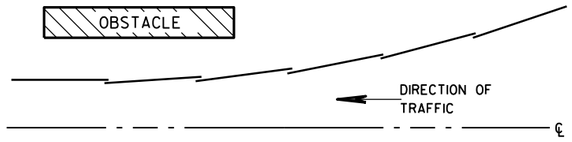
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

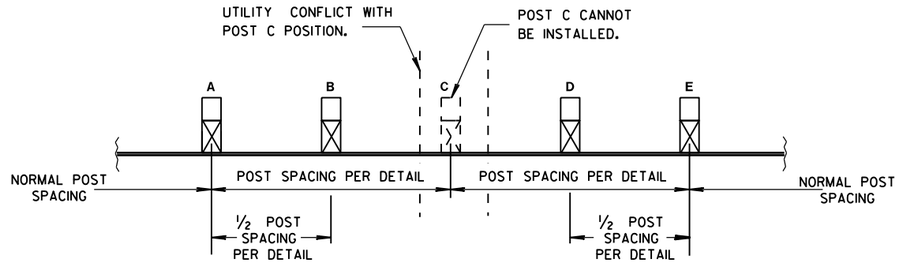


POST BOLT, SPLICE BOLT AND RECESS NUT

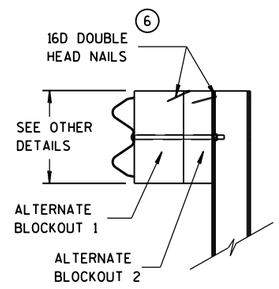


PLAN VIEW

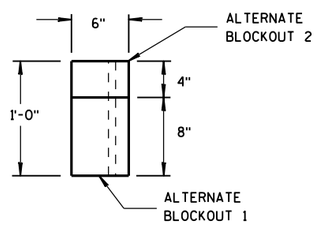
BEAM LAPPING DETAIL



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
June 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-4c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) 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) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(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.

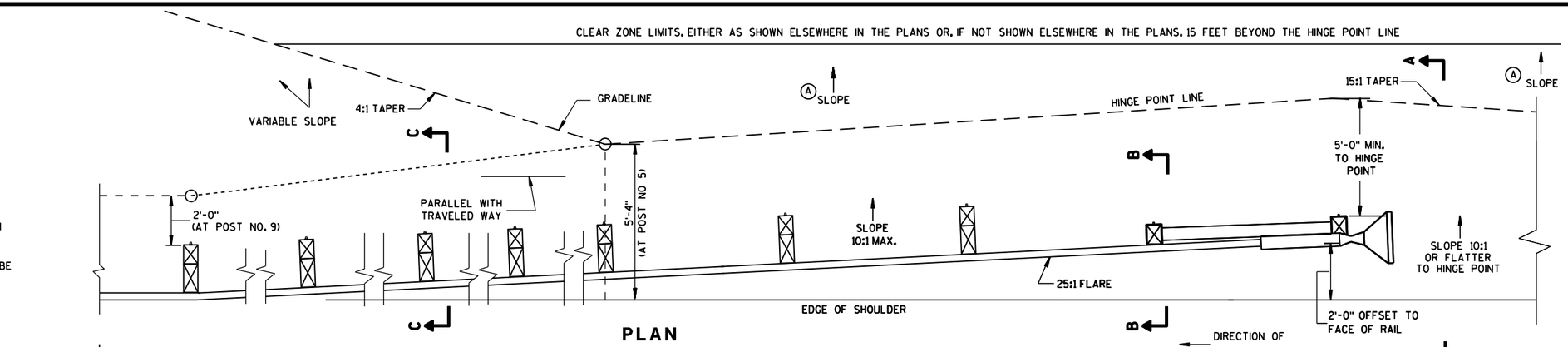
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

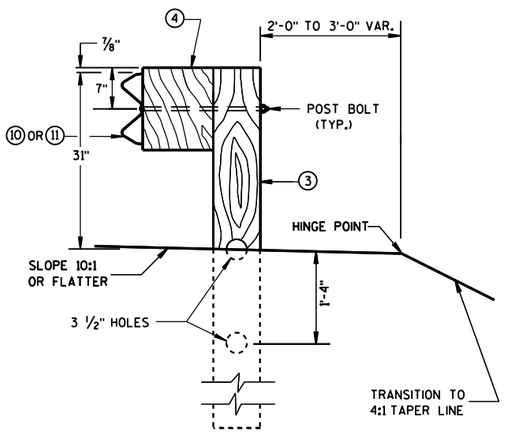
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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.

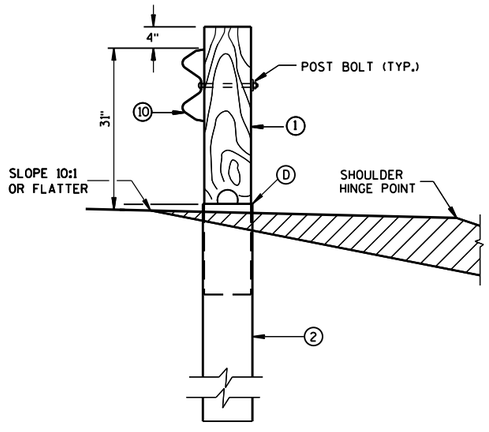
THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



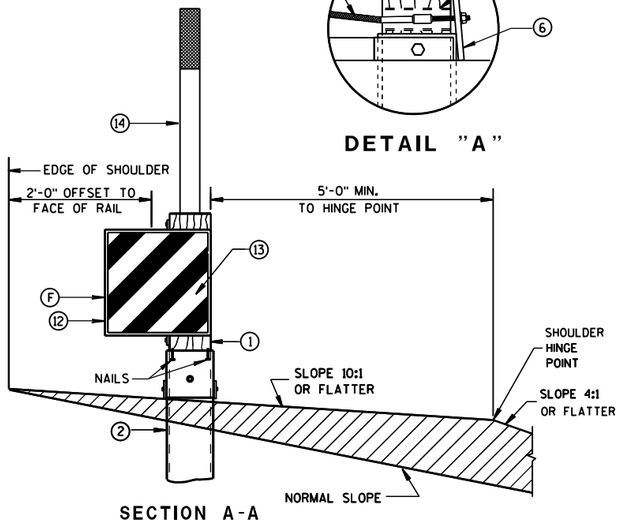
ELEVATION



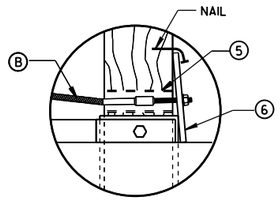
SECTION C-C
TYPICAL AT POST NOS. 3-9



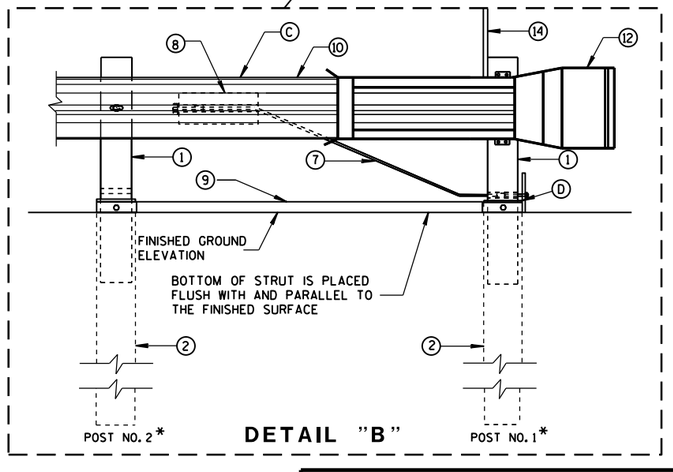
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

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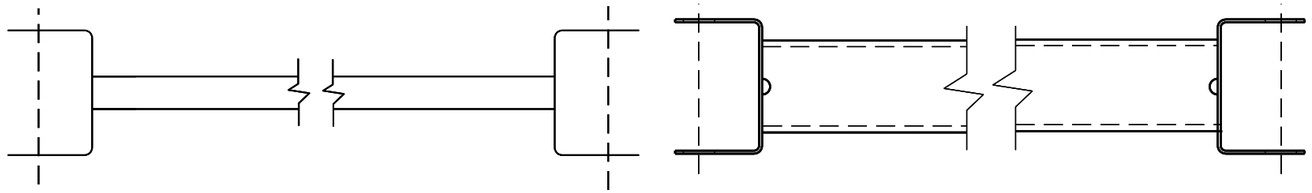
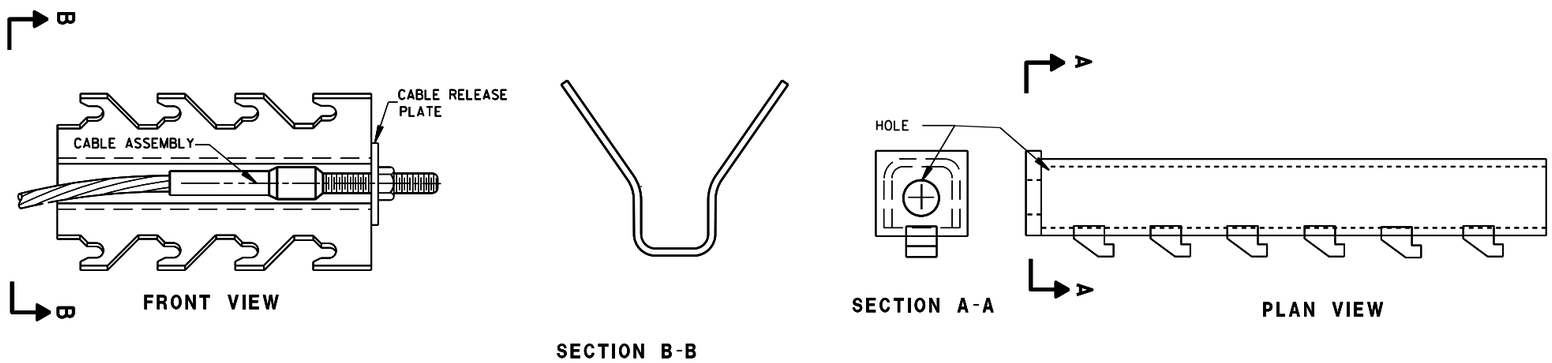


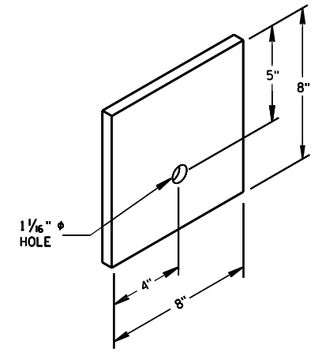
GENERIC GROUND STRUT (9) (H)

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 F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



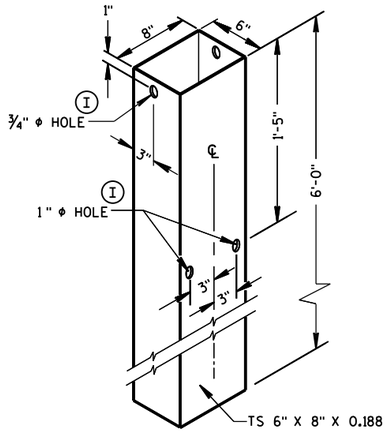
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

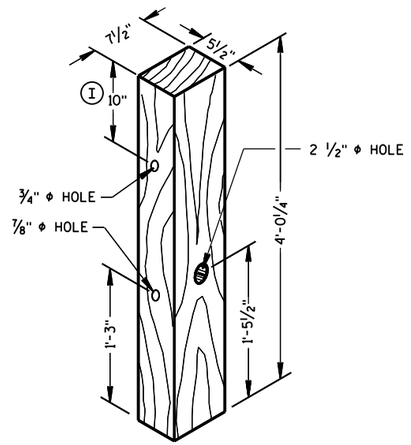
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 44-2b

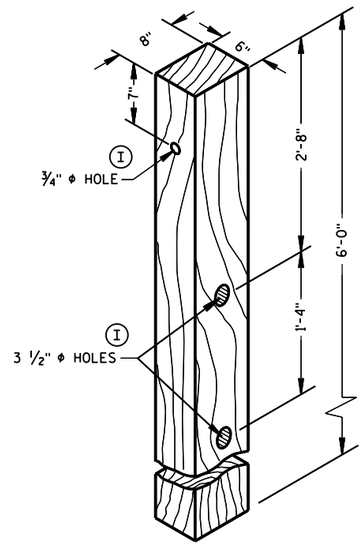


FOUNDATION TUBE (2)



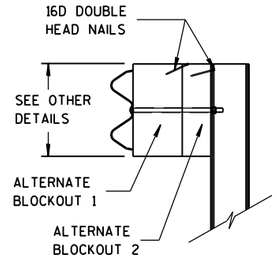
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

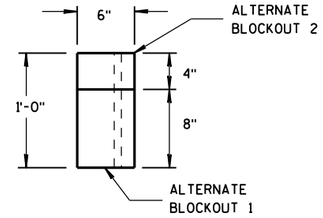


POSTS NUMBER 3-9

WOOD CRT POST (3)

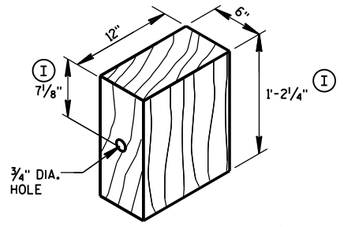


SIDE VIEW



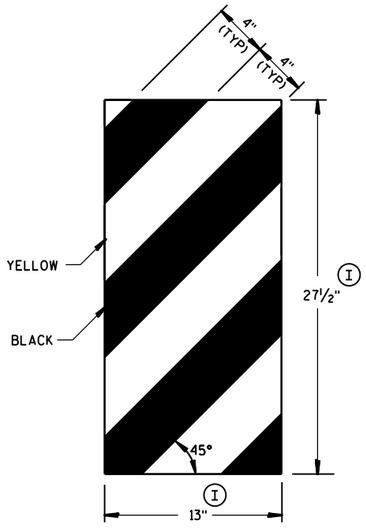
TOP VIEW

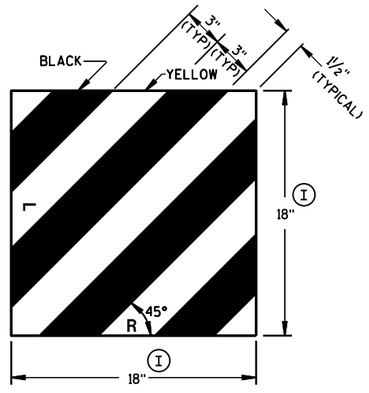
ALTERNATE WOOD BLOCKOUT DETAIL



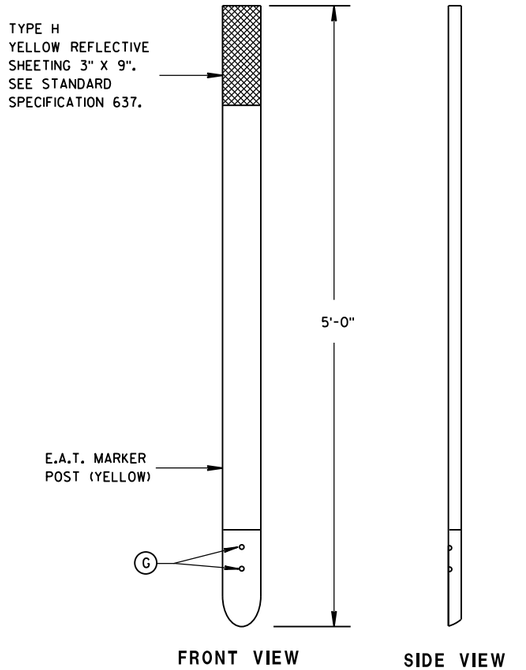
WOOD BLOCKOUT (4)

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





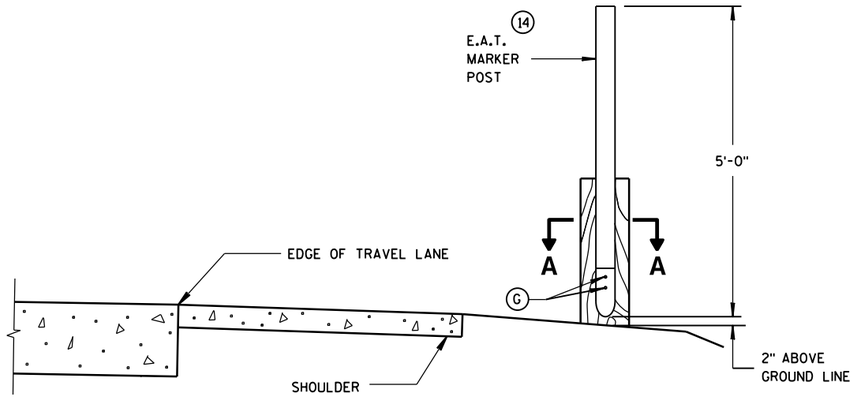
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

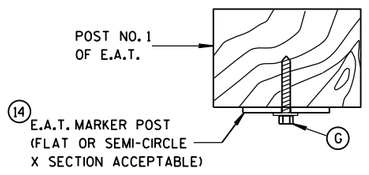
SIDE VIEW

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

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FHWA

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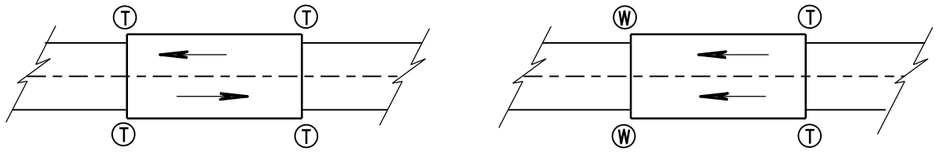
S.D.D. 14 B 44-2c



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

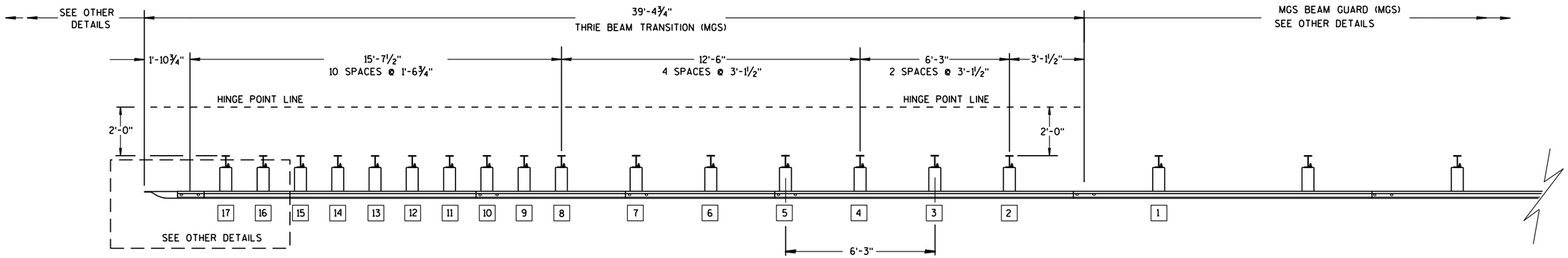
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

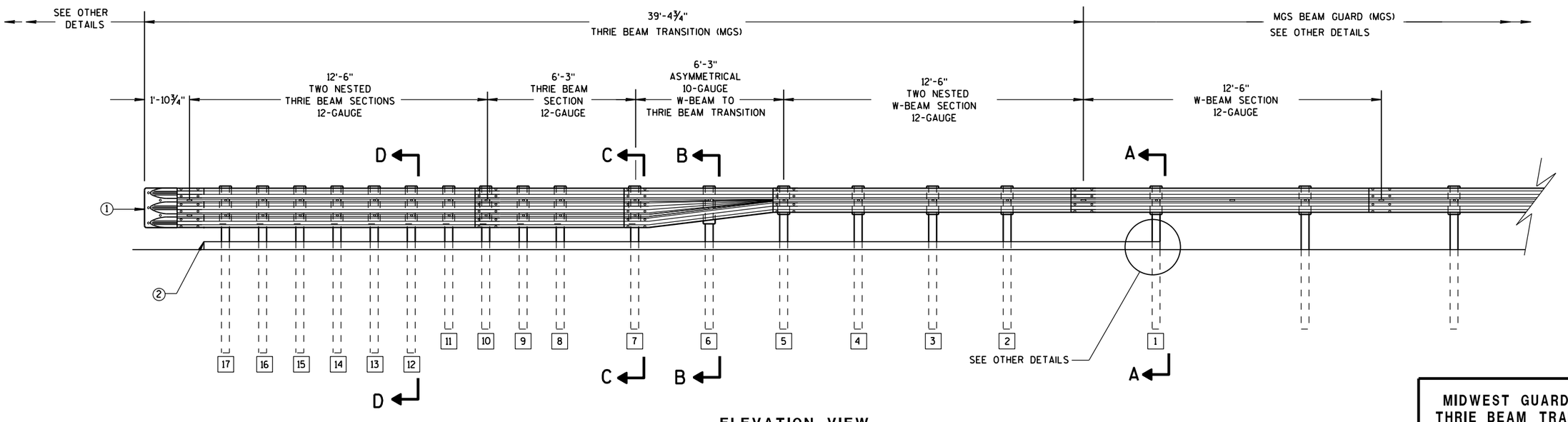
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-4a

6

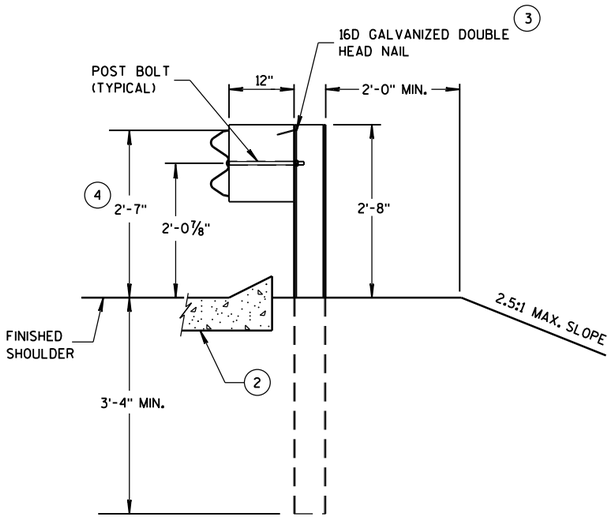
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

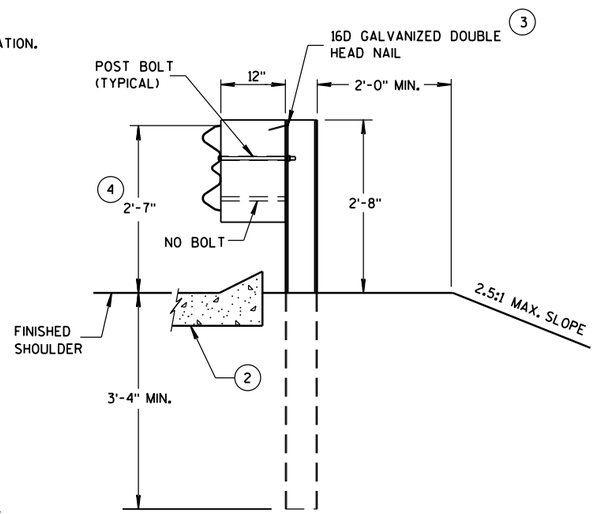
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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



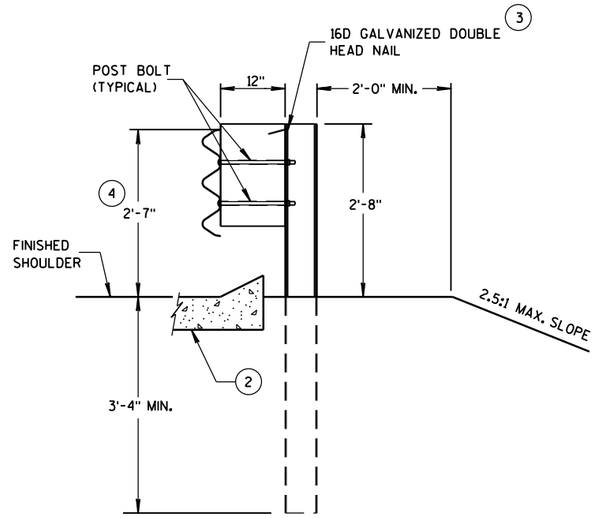
SECTION A-A

POSTS 1-5



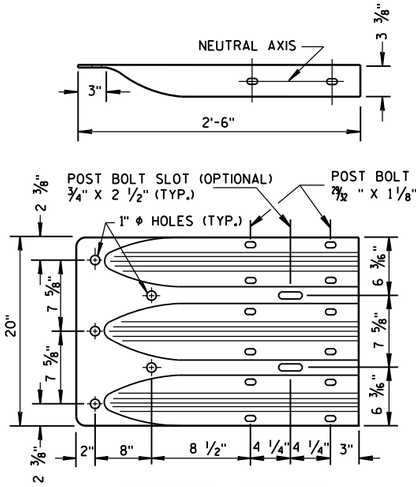
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

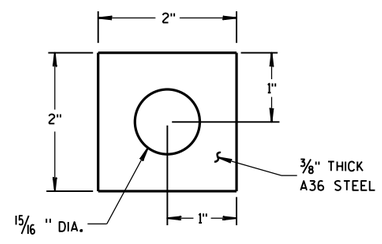
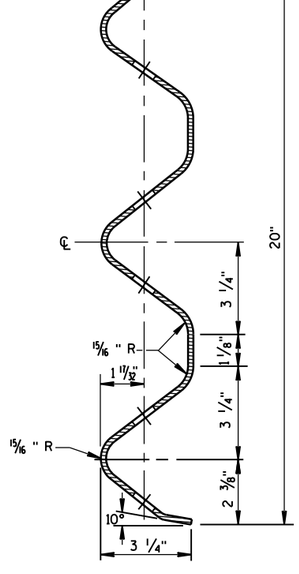
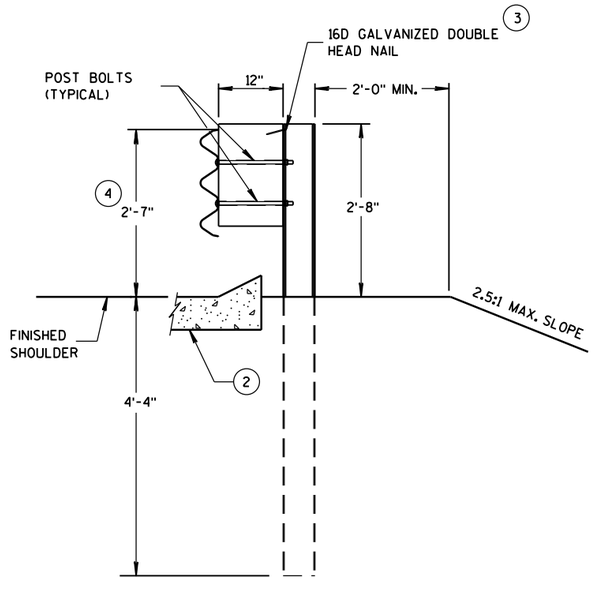


PLATE WASHER DETAIL

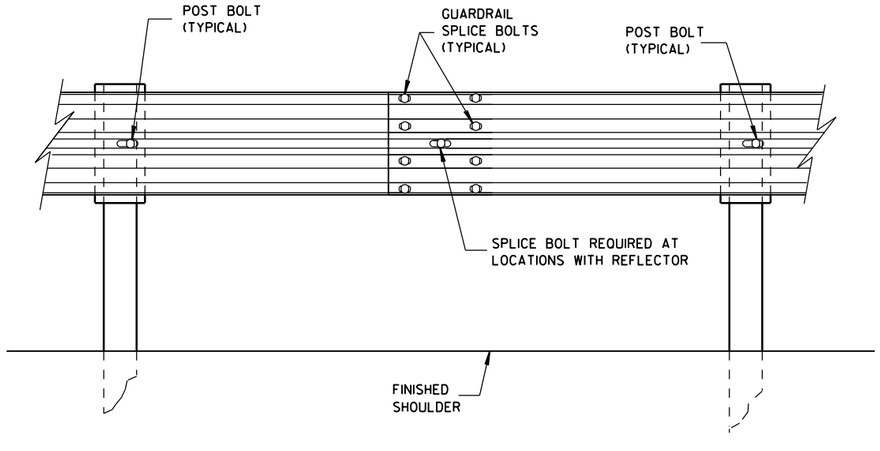


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



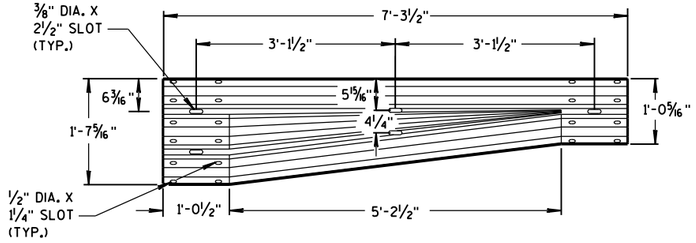
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

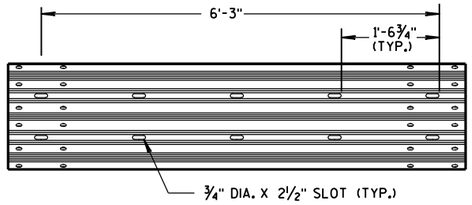
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

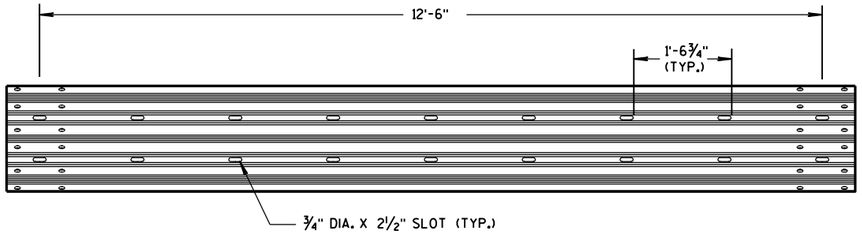
S.D.D. 14 B 45-4b



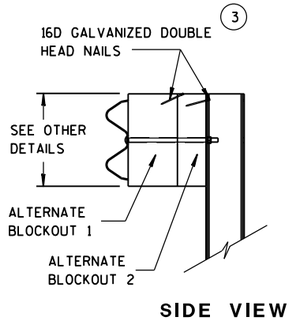
W-BEAM TO THRIE BEAM TRANSITION SECTION



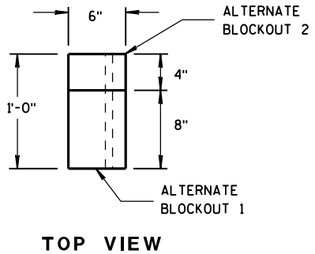
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

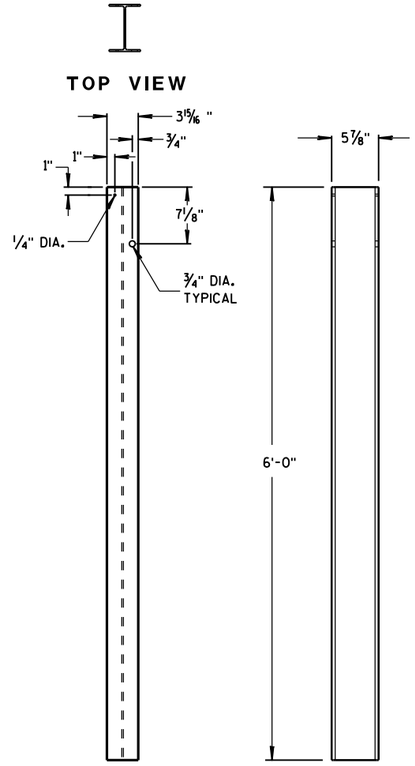


SIDE VIEW

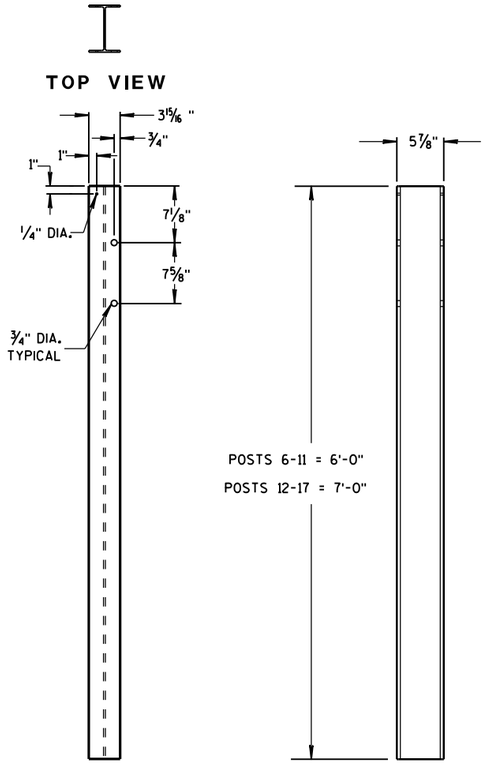


TOP VIEW

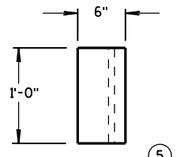
ALTERNATE WOOD BLOCKOUT DETAIL



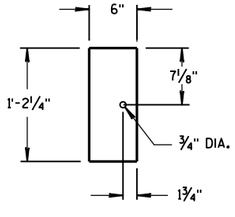
STEEL POSTS 1-5



STEEL POSTS 6-17

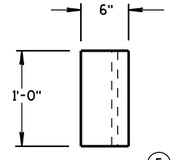


TOP VIEW (5)

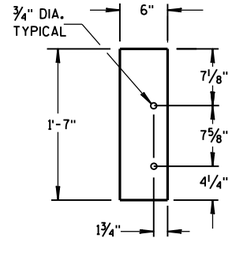


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

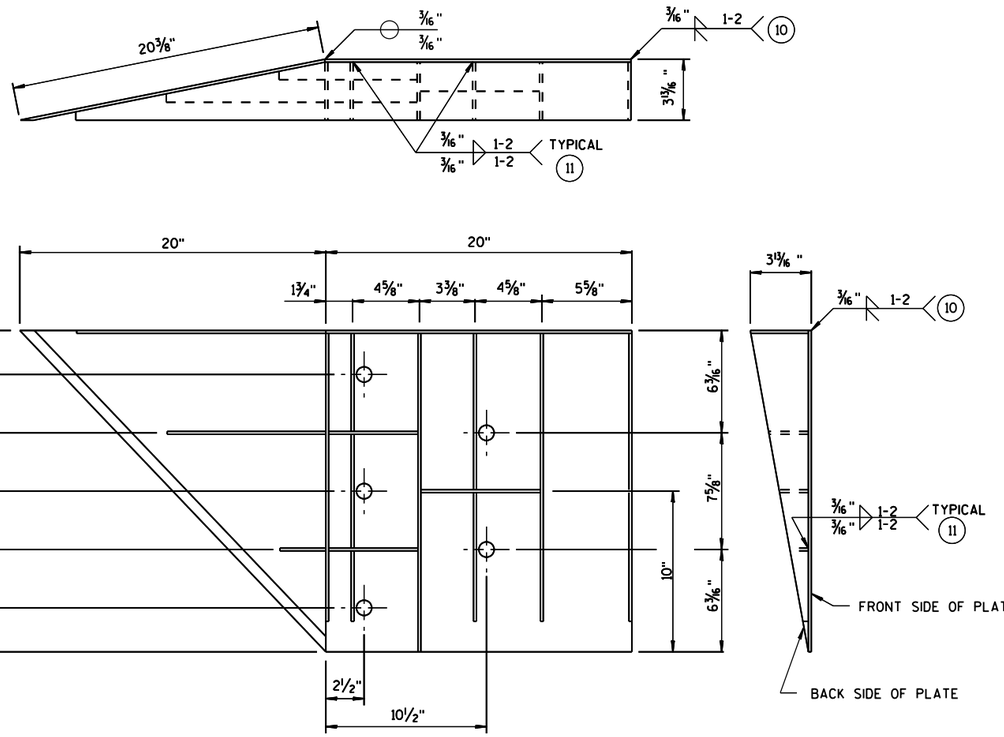
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 45-4c



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

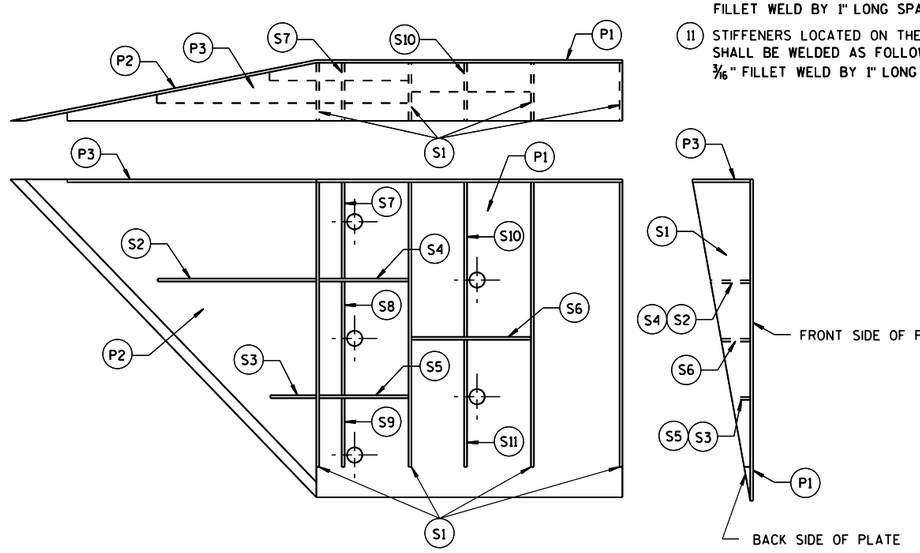


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

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.

(10) 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.

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

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 3/8" 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 1/32"	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
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 45-4i

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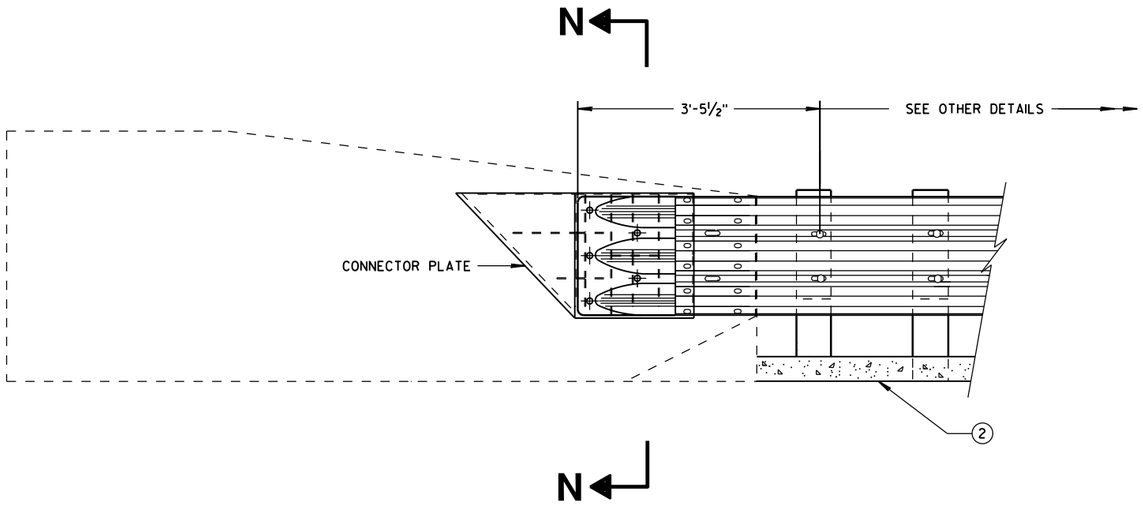
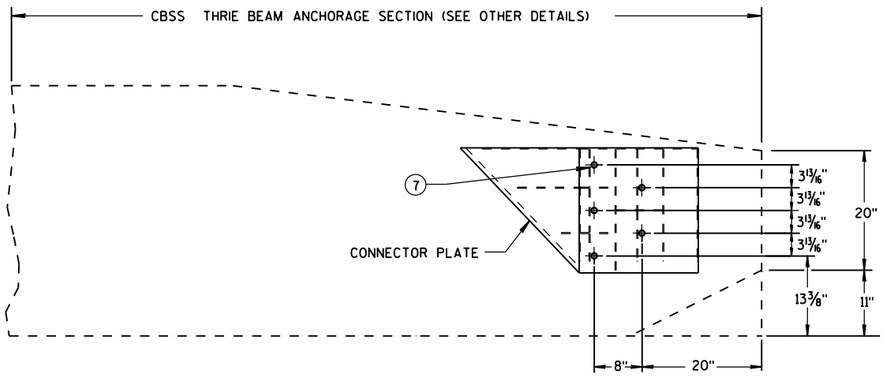
S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



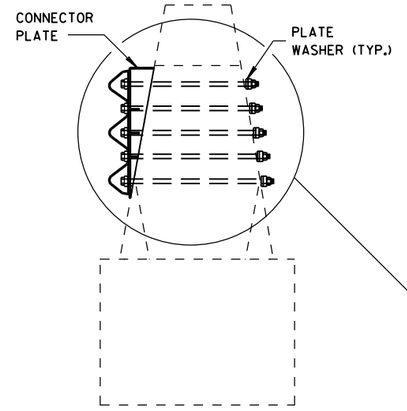
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

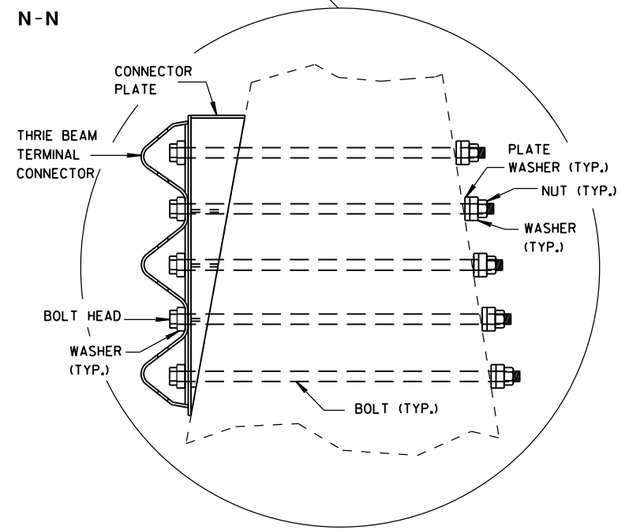
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

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



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4j

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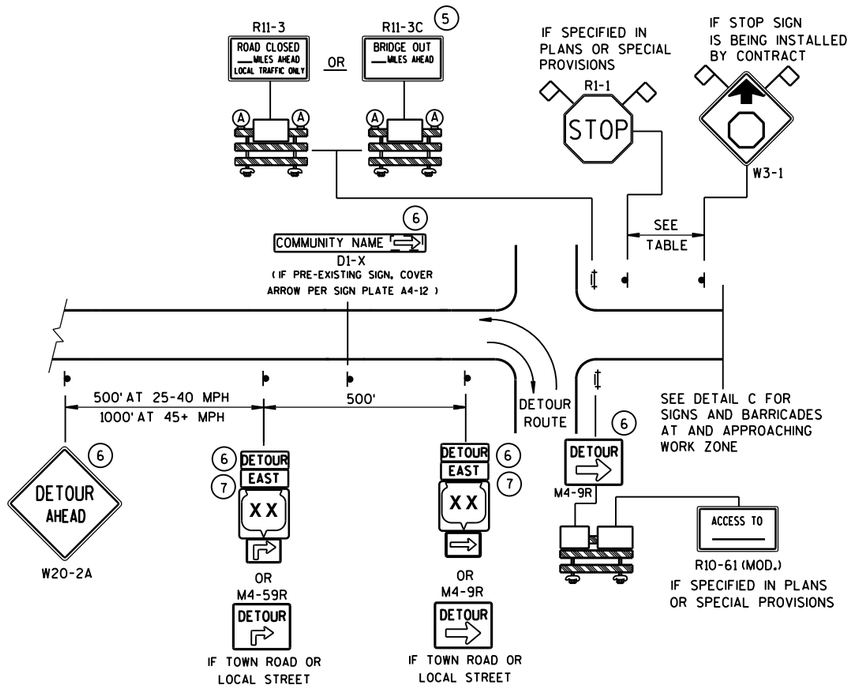
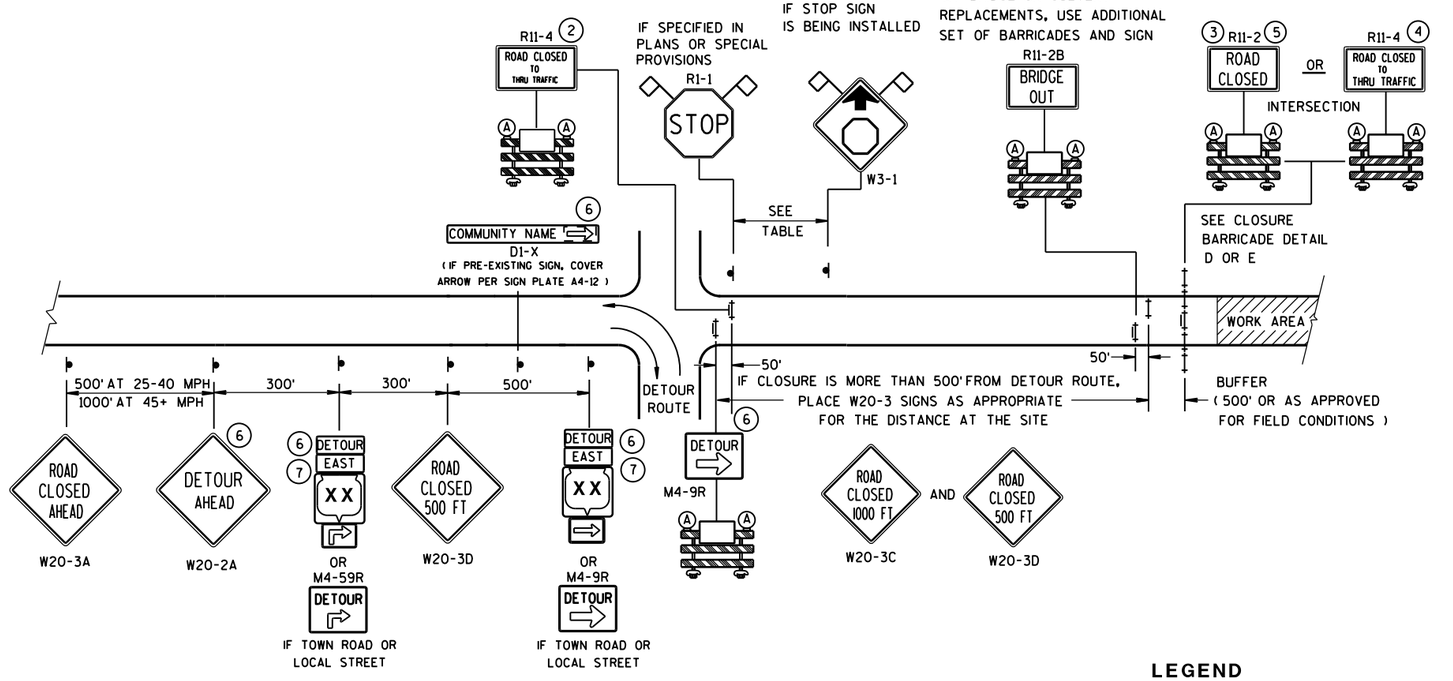
S.D.D. 14 B 45-4j



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

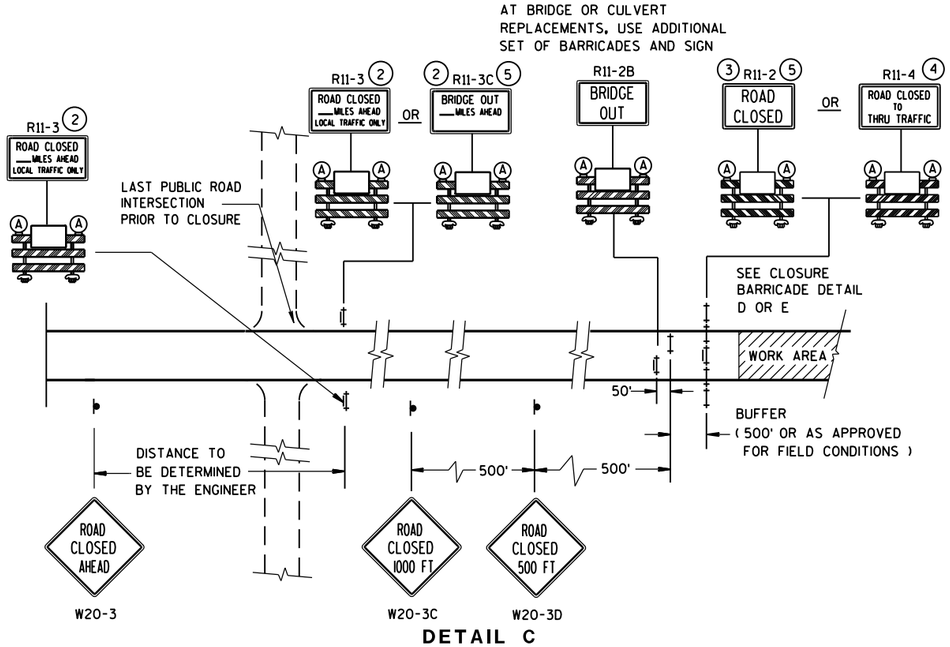
WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



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

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

6

S.D.D. 15 C 2-6a

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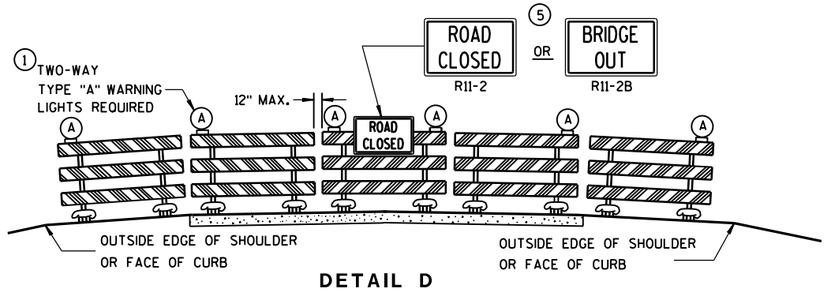
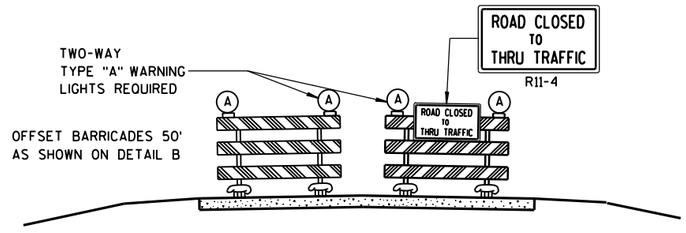
S.D.D. 15 C 2-6a



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

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FHWA

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S.D.D. 15 C 2-6b

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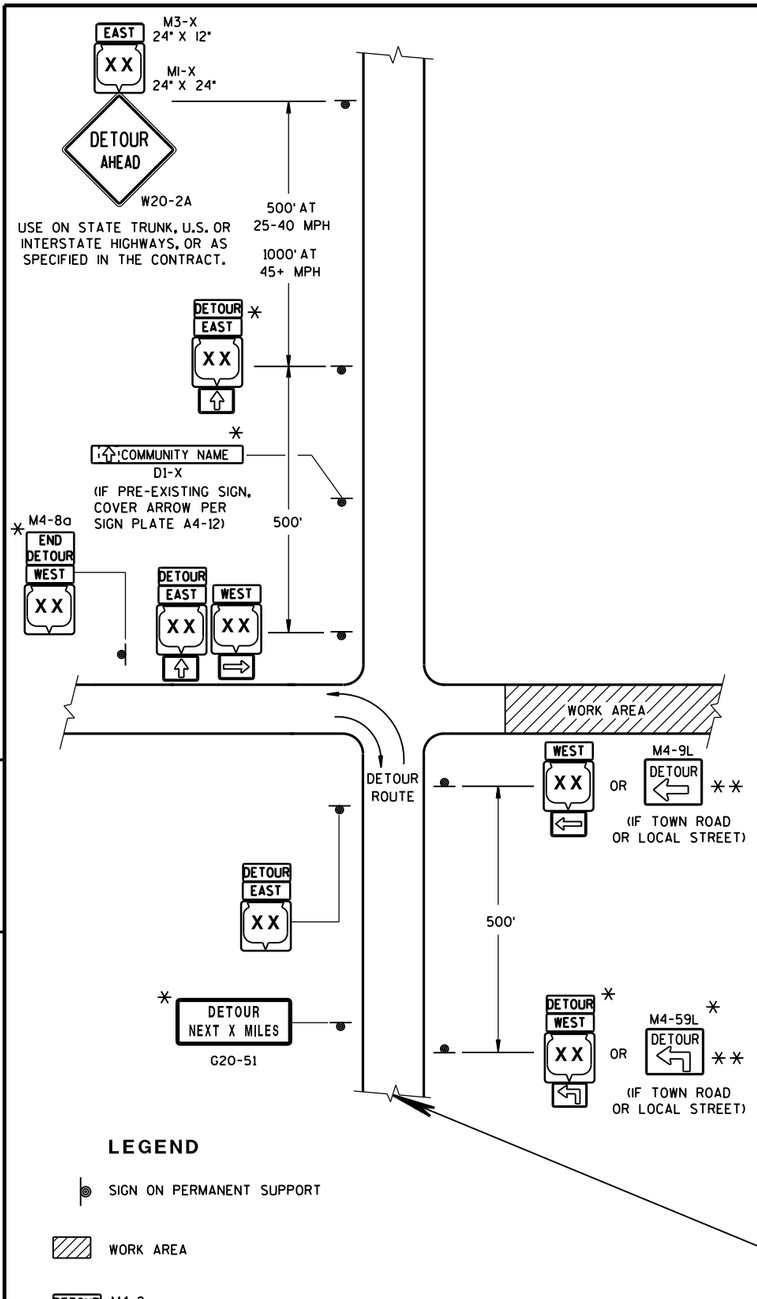
S.D.D. 15 C 2-6b



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

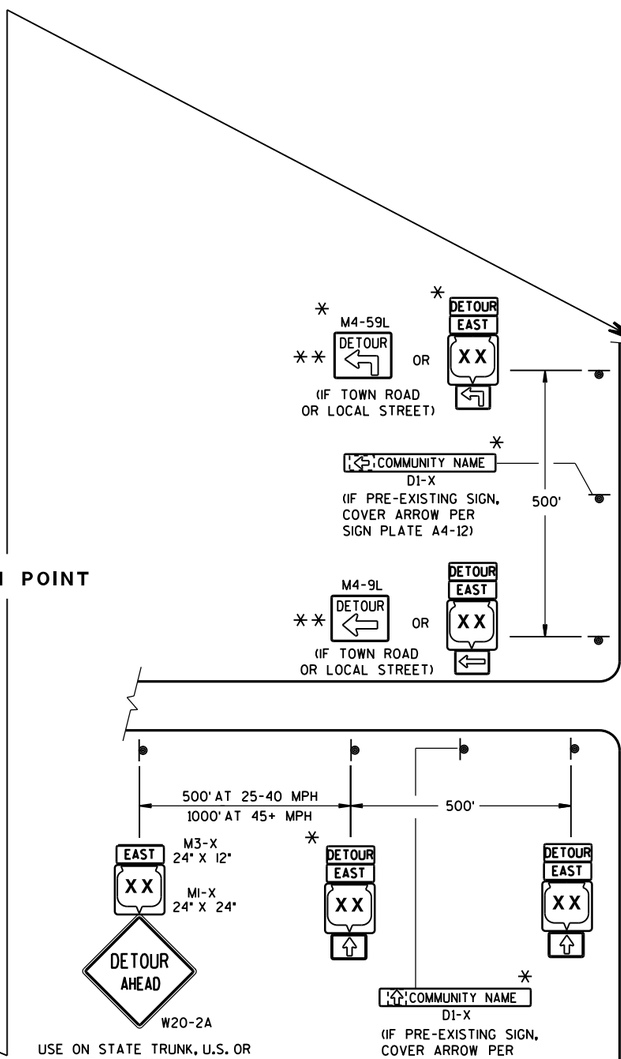
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

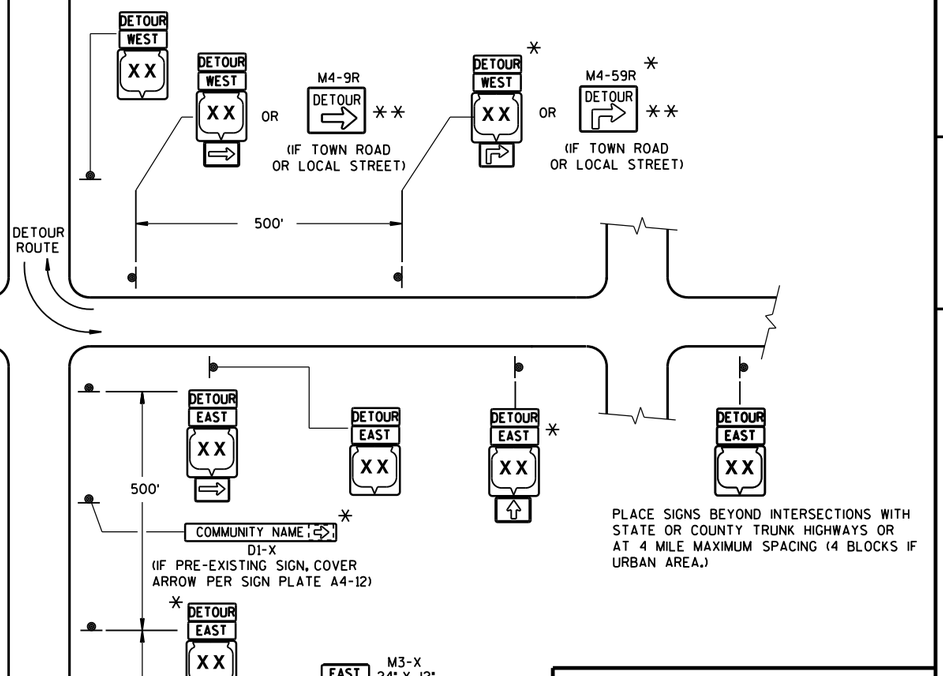
SIGN SIZES SHALL BE AS FOLLOWS:

- 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.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.





LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] FIC
SAFETY ENGI[illegible]

FHWA

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S.D.D. 15 C 2-6c

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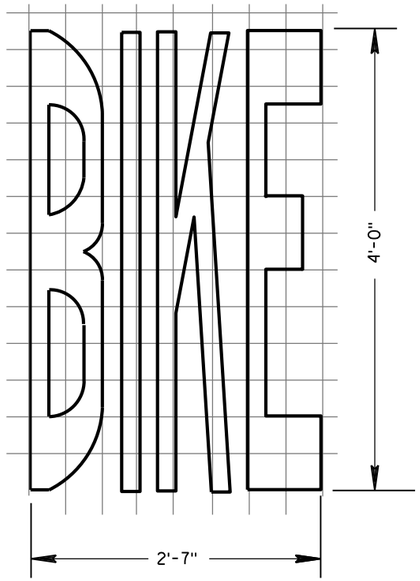
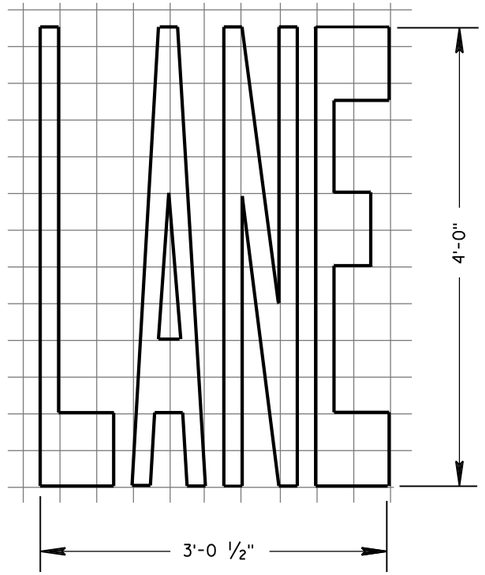
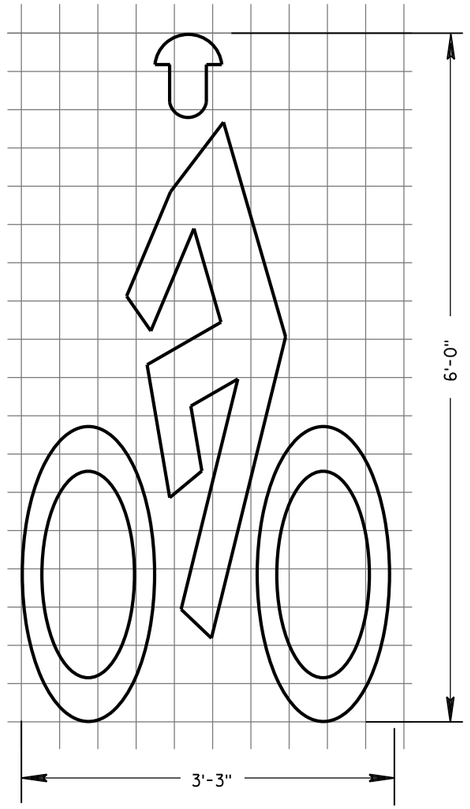
S.D.D. 15 C 2-6c

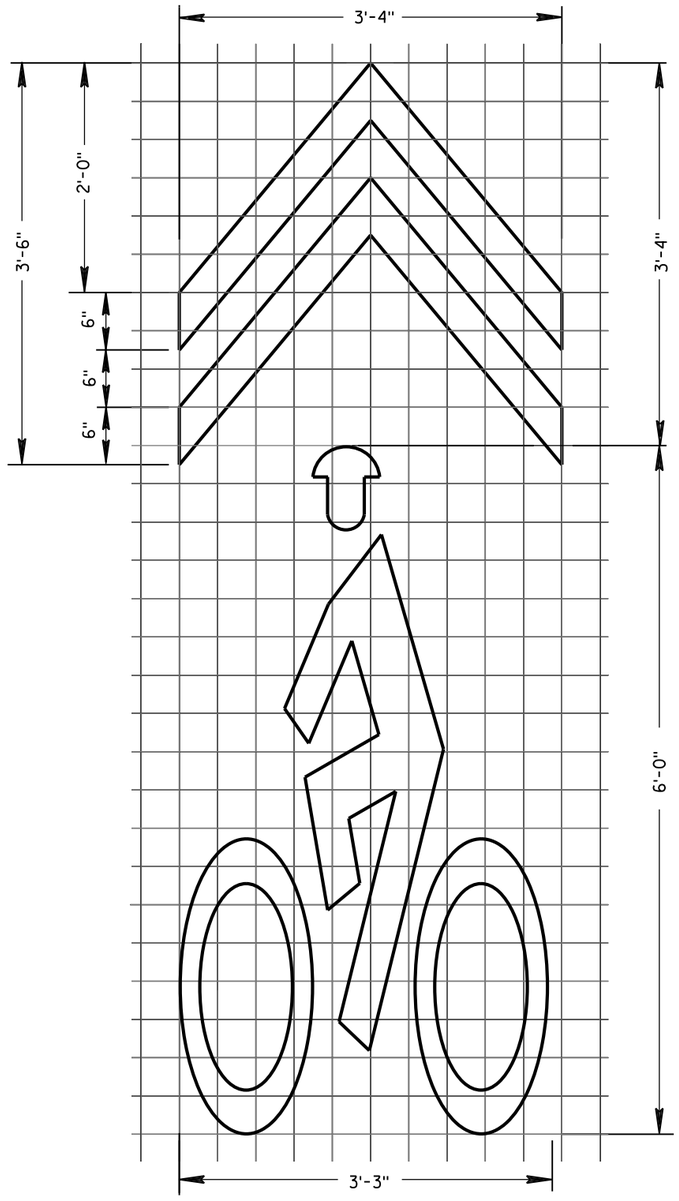




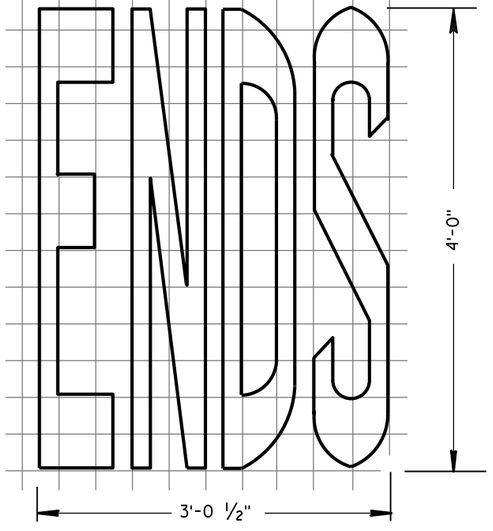
BIKE LANE WORDS



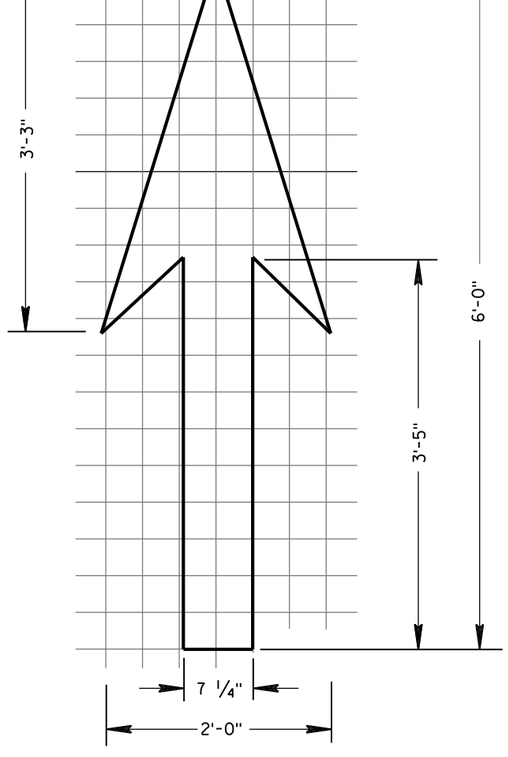
BIKE LANE SYMBOL



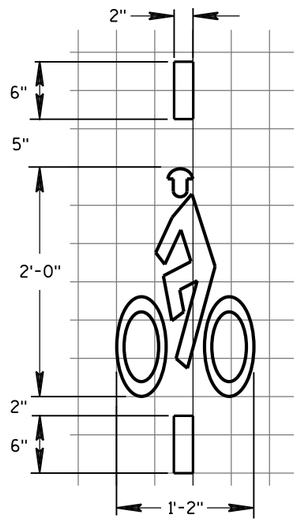
BIKE SYMBOL FOR SHARED LANE



BIKE LANE WORDS



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

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.

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016 DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARK ENGINEER

FHWA

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S.D.D. 15 C 7-13e

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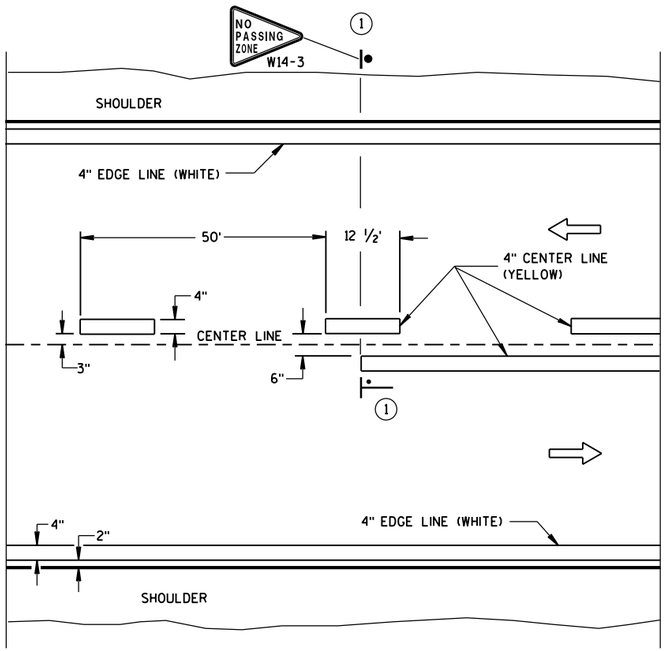
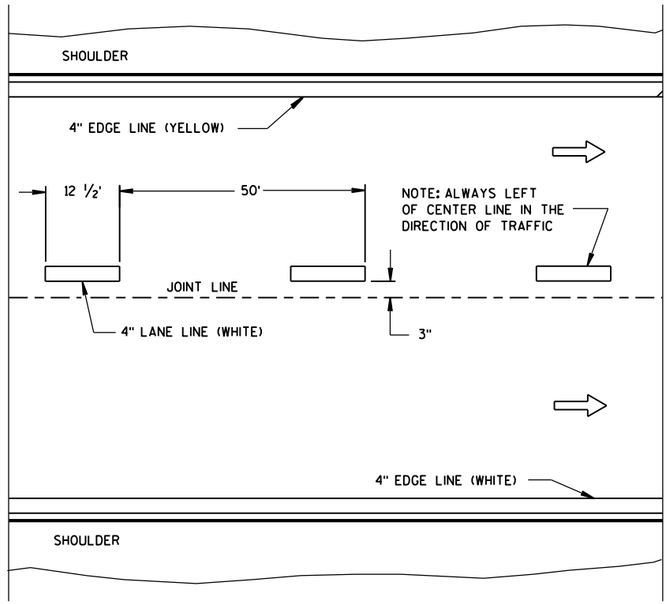
S.D.D. 15 C 7-13e



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

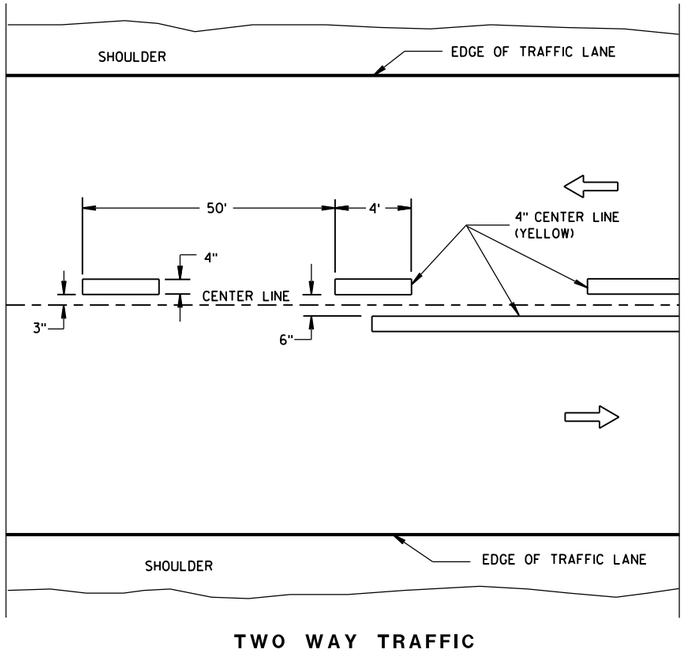
GENERAL NOTES

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

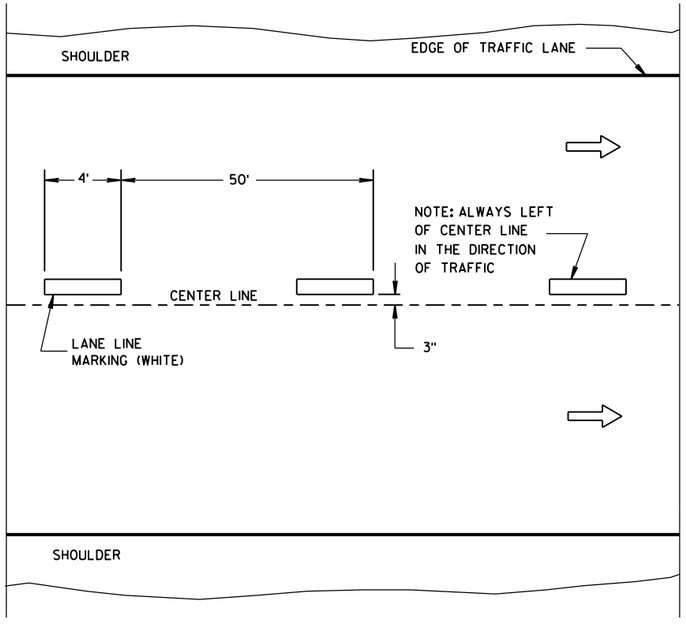
(1) NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LEGEND

"T" MARKING

POST MOUNTED SIGN

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[K]ING ENGINEER
FHWA

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S.D.D. 15 C 8-17a

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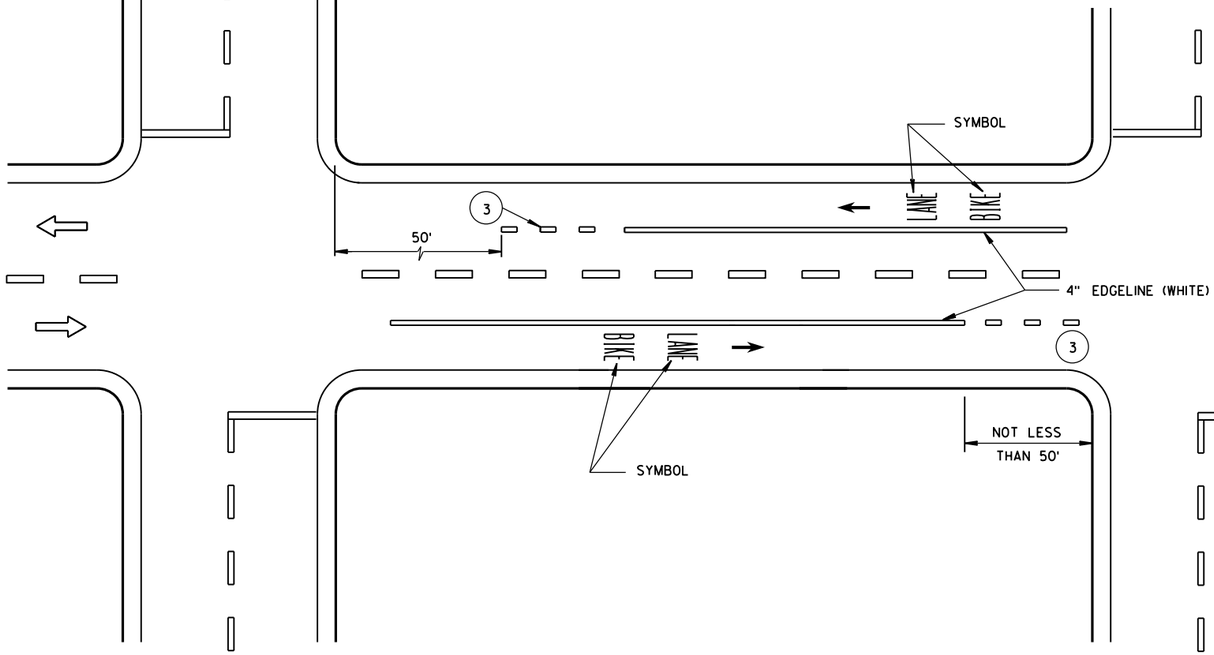
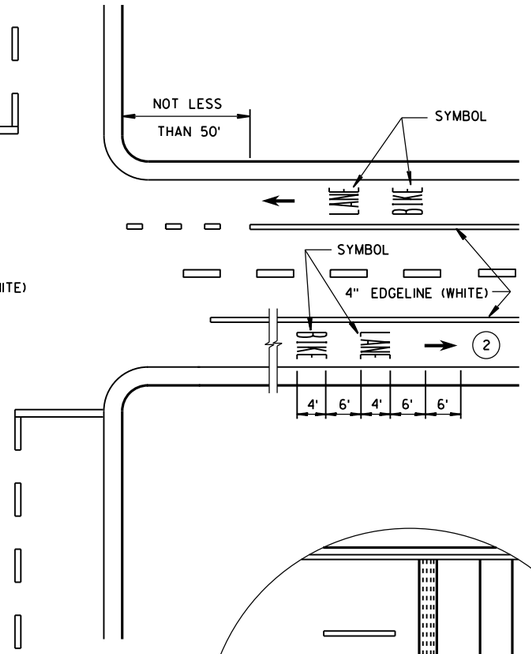
S.D.D. 15 C 8-17a



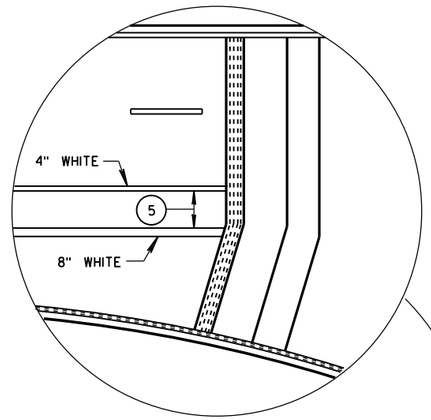


DESIGNATED BICYCLE LANE
NO PARKING

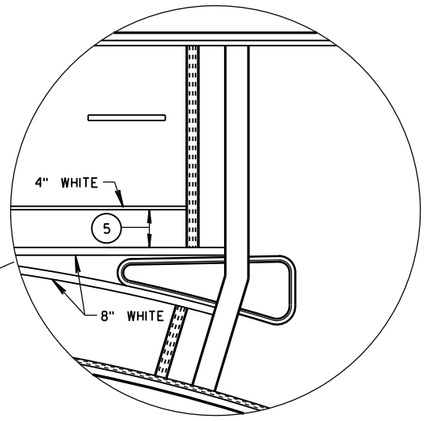
GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3'LINE, 9'GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMODATION FOR CONCRETE PAVEMENT IS 5 FEET WIDE. BIKE ACCOMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4 FEET. USE 5 FEET AT ≥45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

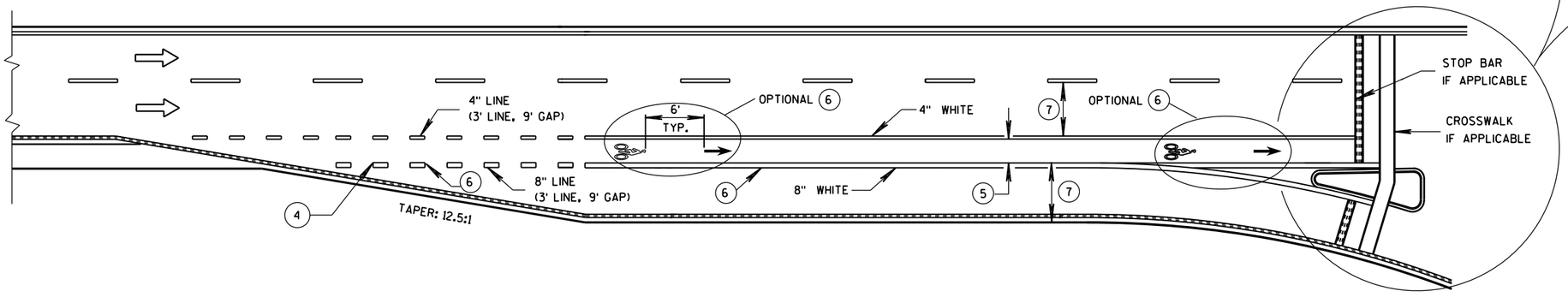
DIRECTION OF TRAVEL



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

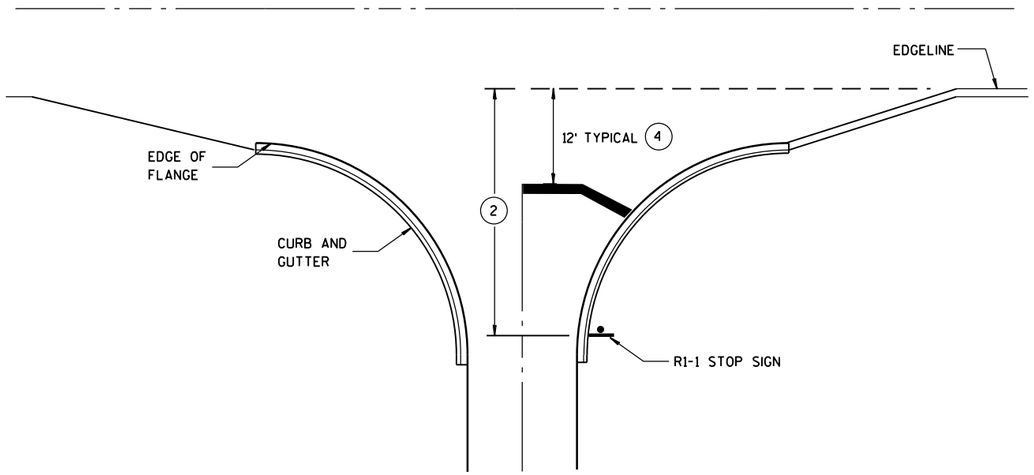
APPROVED
12-2016 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER
FHWA

6

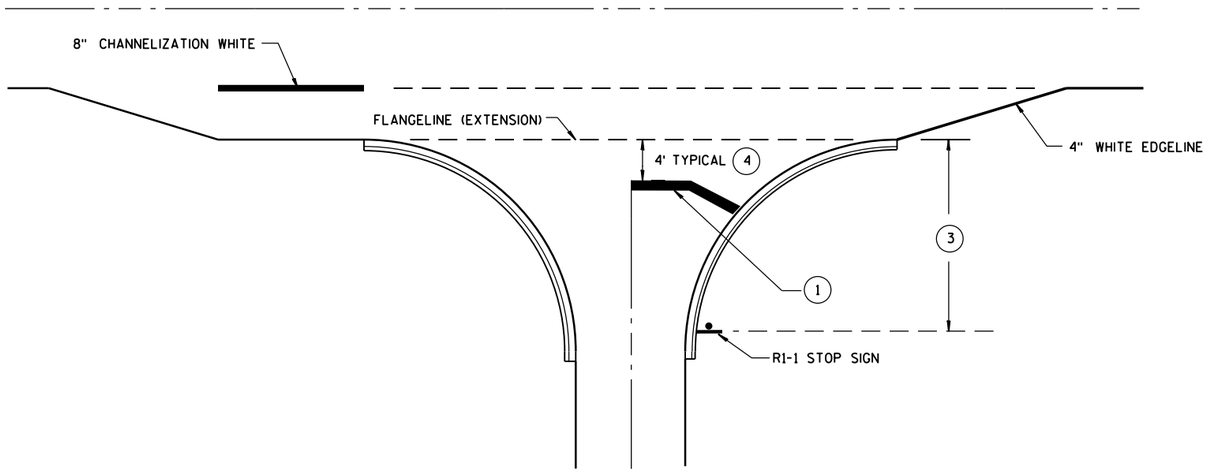
S.D.D. 15 C 29-5a

6

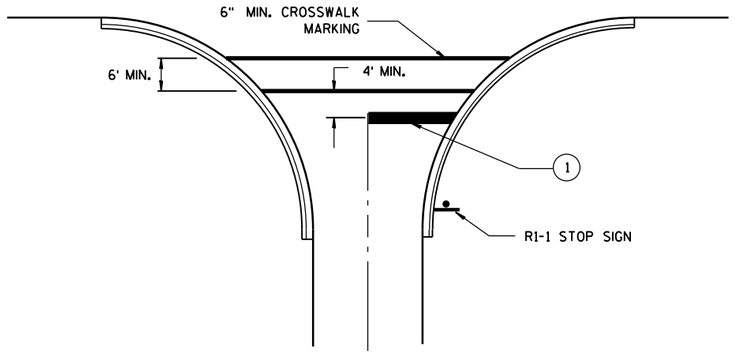
S.D.D. 15 C 29-5a



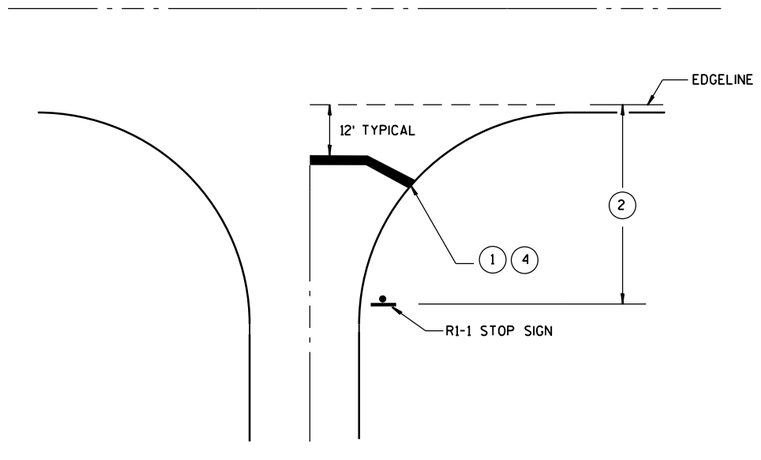
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

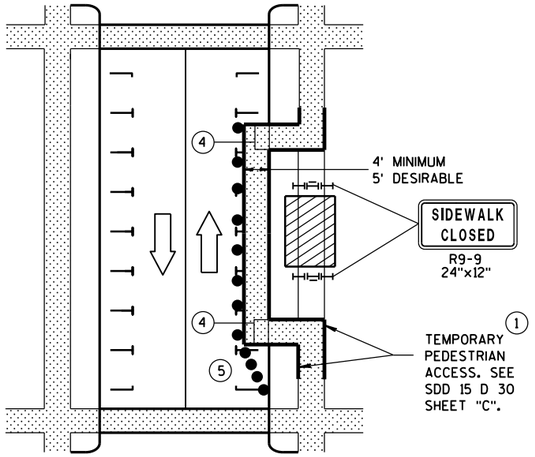
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible]NEER

FHWA

6

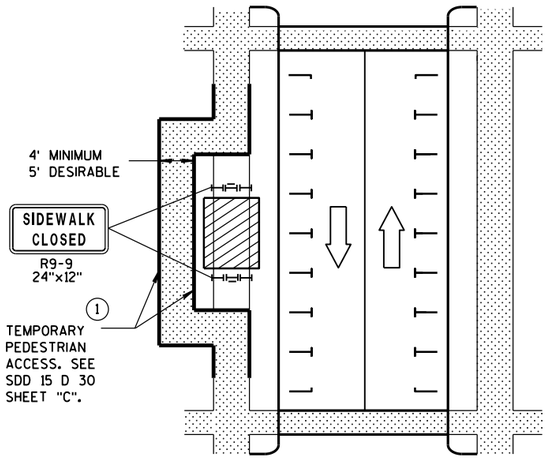
S.D.D. 15 C 33-2

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

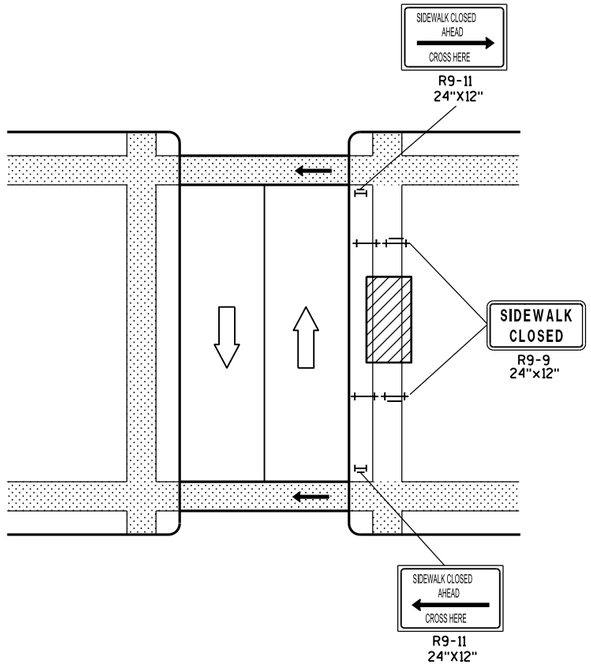


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

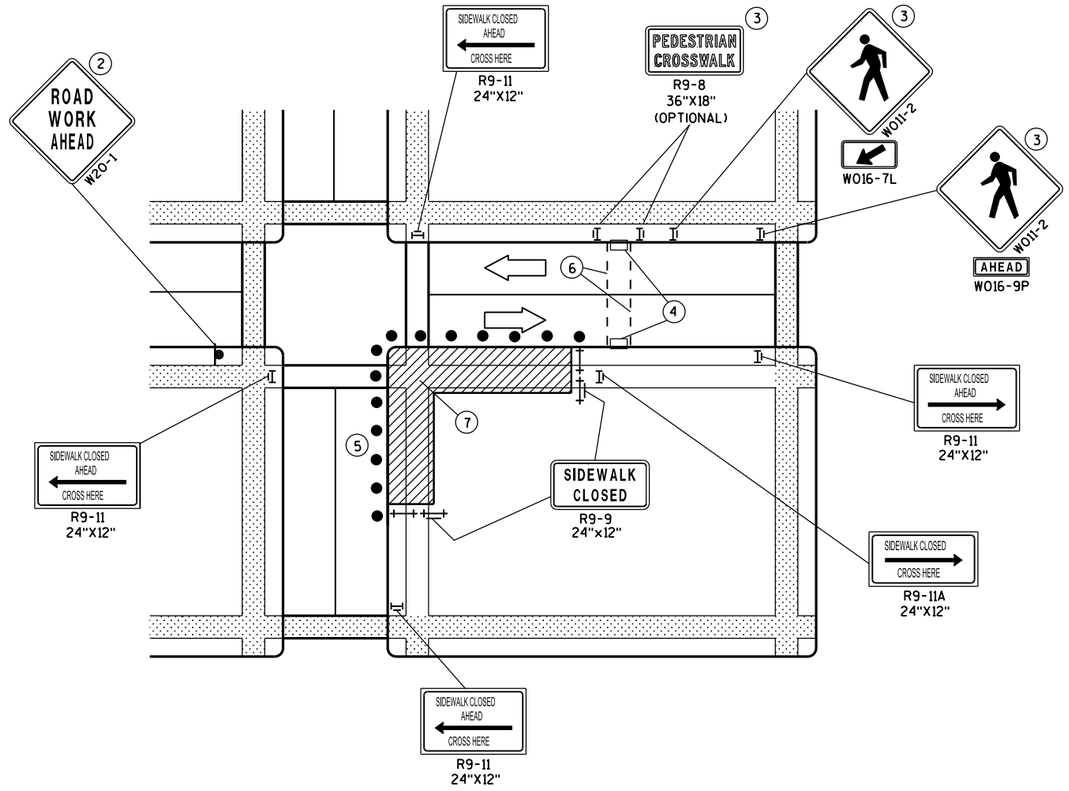
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "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.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

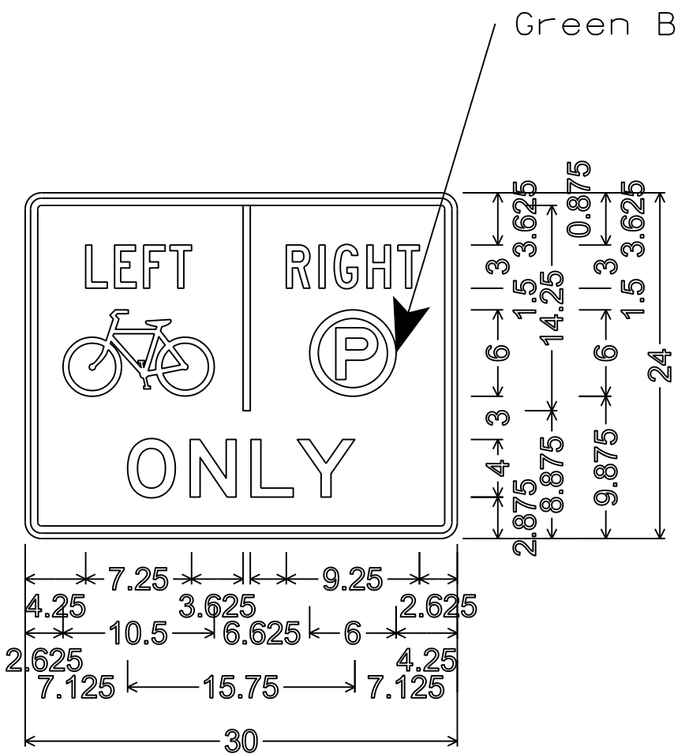
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

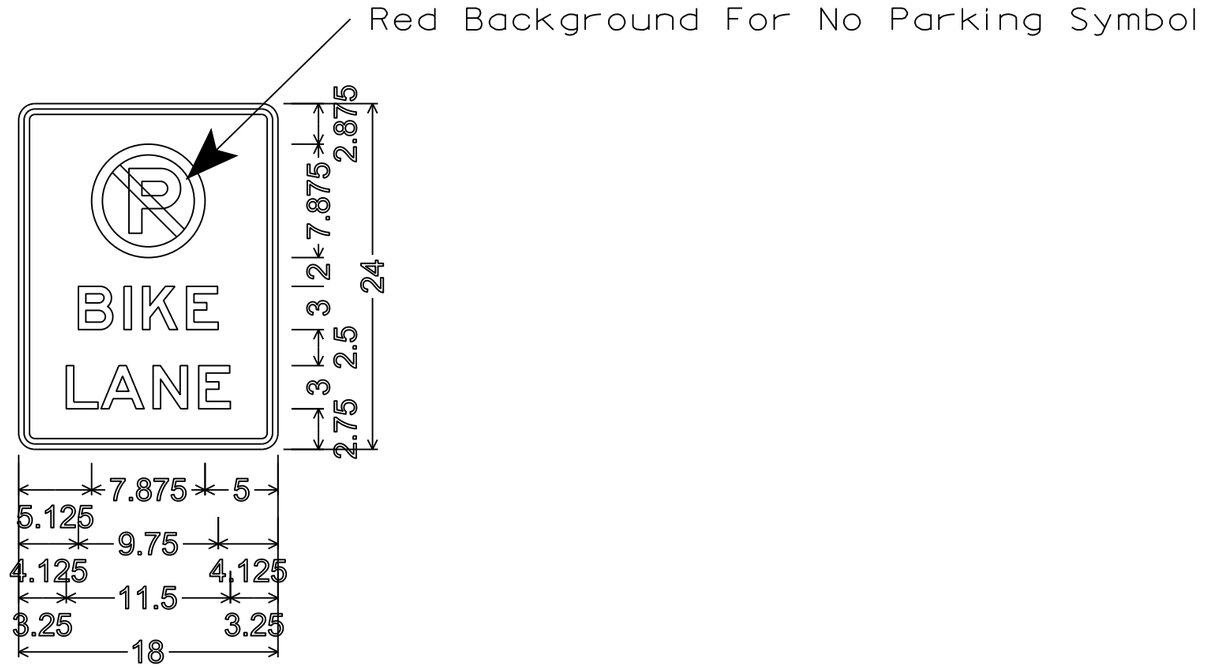
S.D.D. 15 D 30-3a

NOTES

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



1.125" Radius, 0.500" Border, 0.375" Indent,
"LEFT" C; "RIGHT" C; "ONLY" E



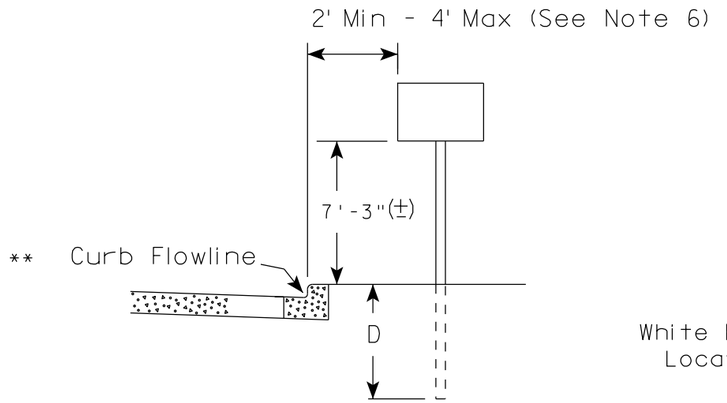
1.125" Radius, 0.375" Border, 0.375" Indent,
"BIKE" E; "LANE" E

7

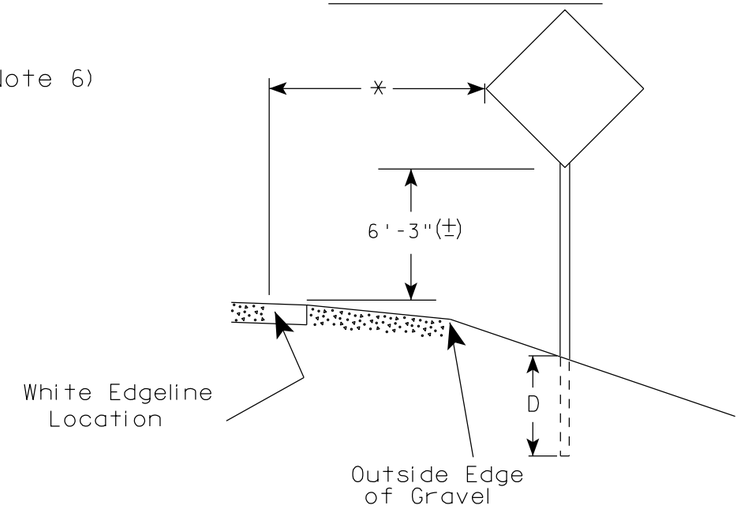
7

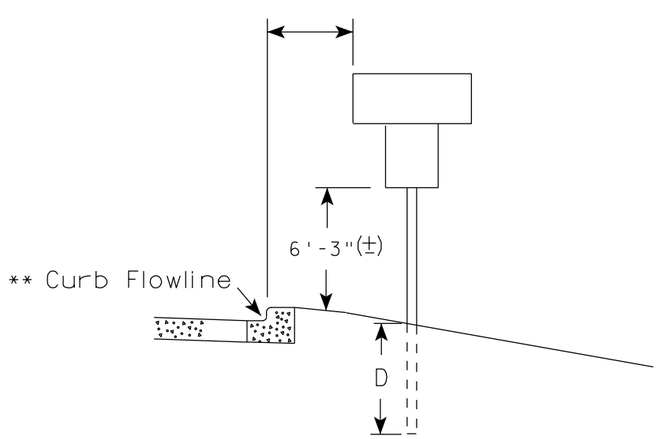
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	PERMANENT SIGNING	SHEET NO: 162	E

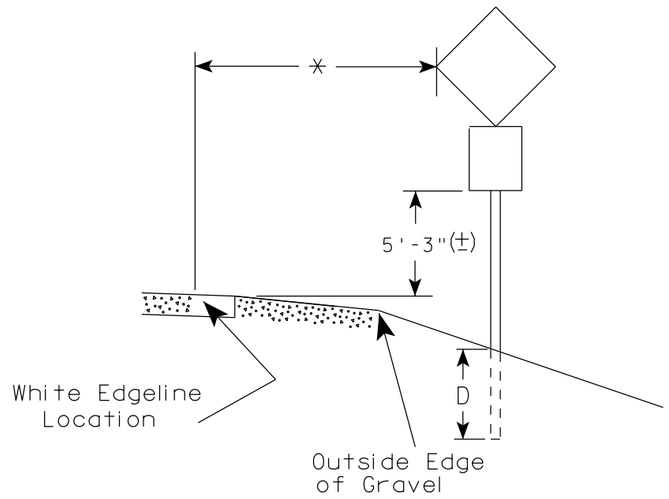
URBAN AREA



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.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

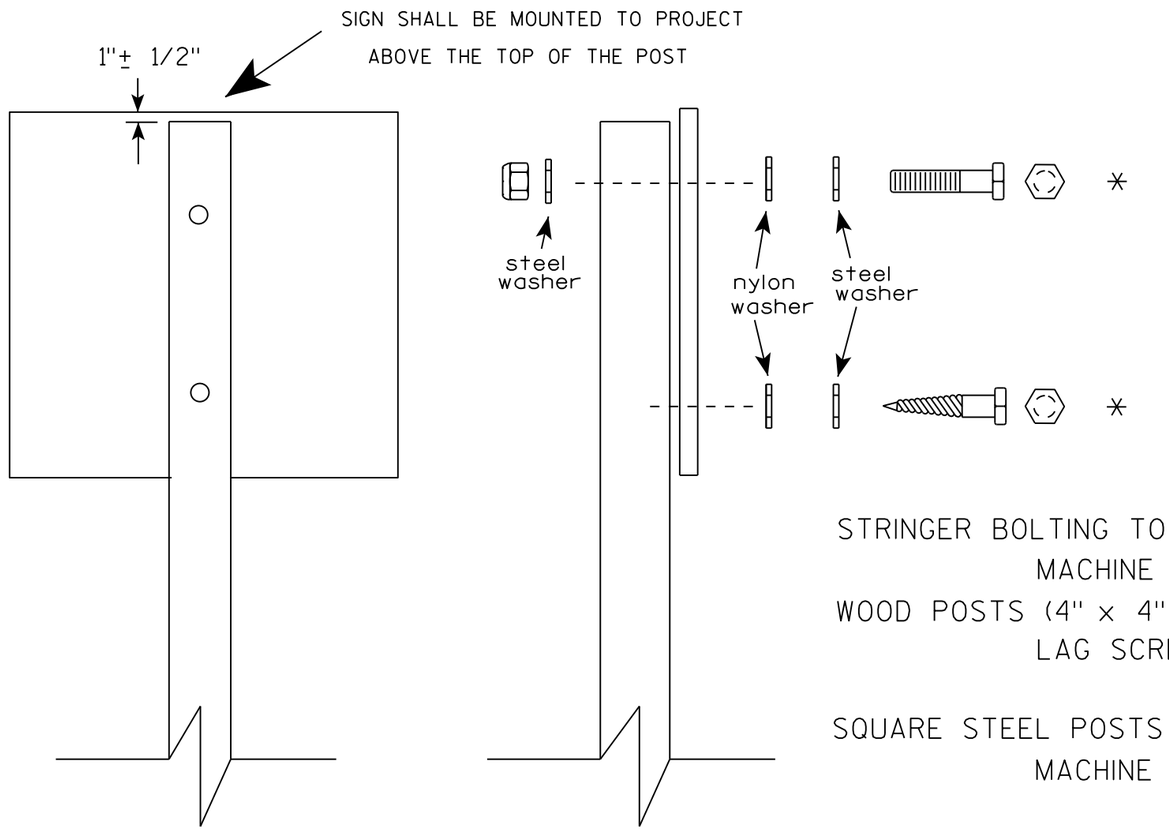
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 23-JUL-2015 15:21 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42



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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
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

* 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

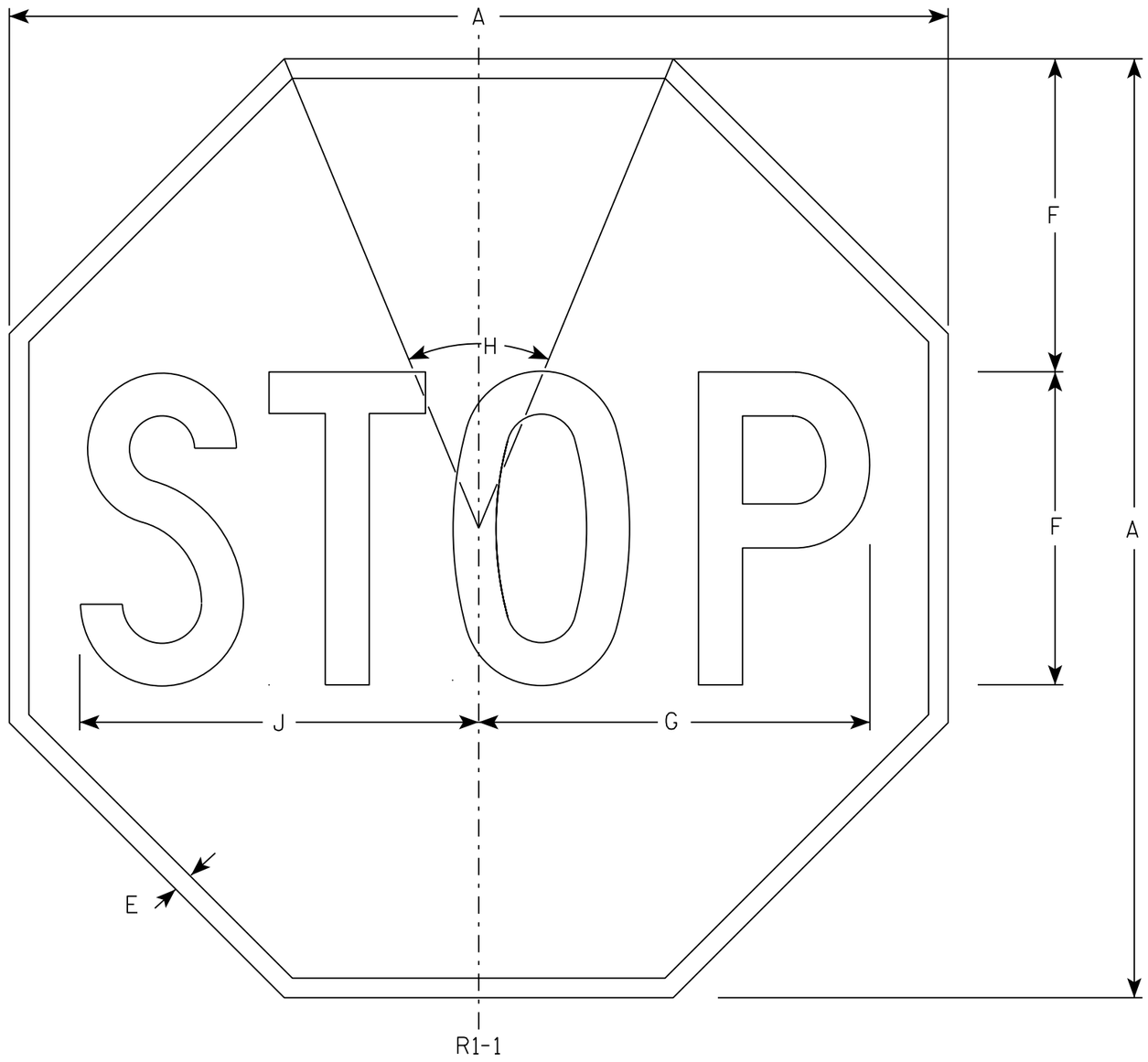
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



NOTES

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

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

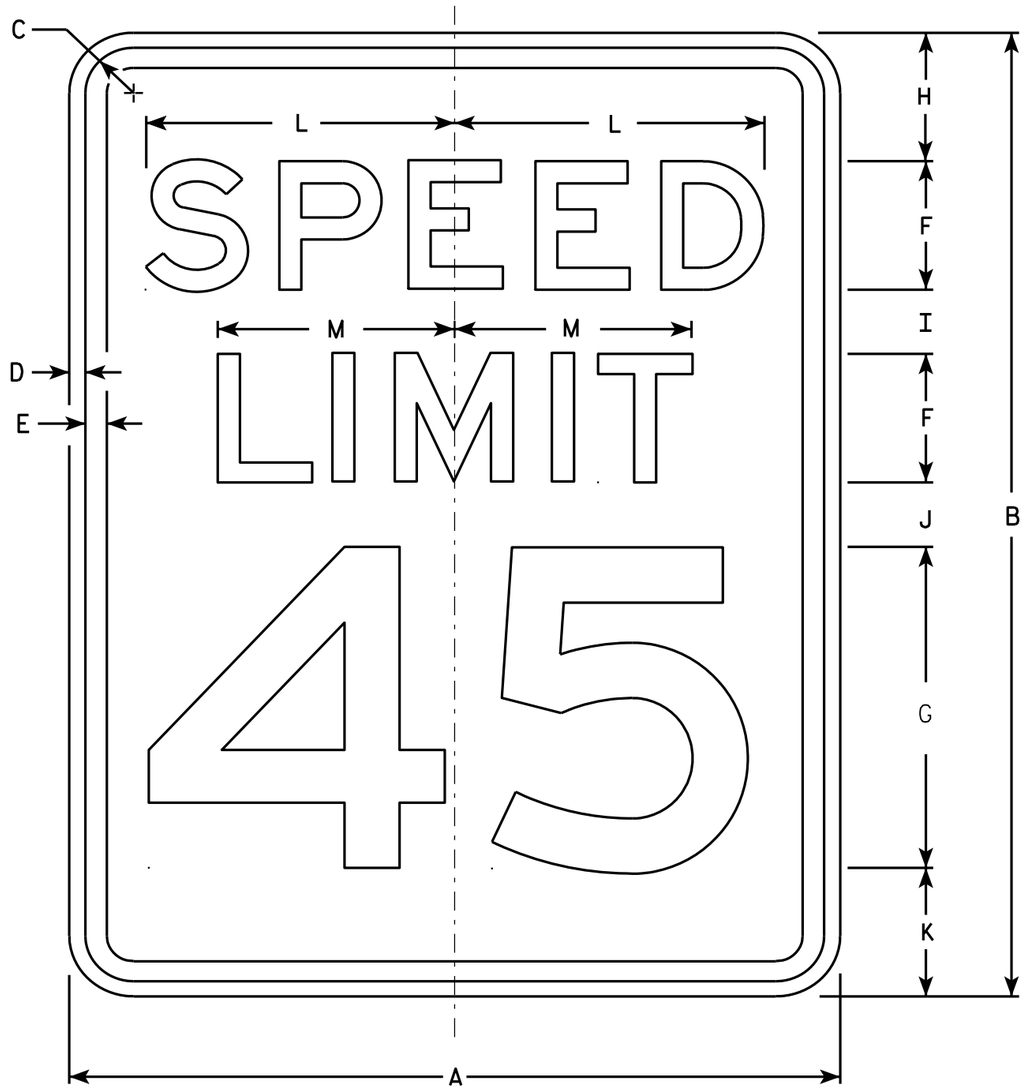
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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: 166 | E

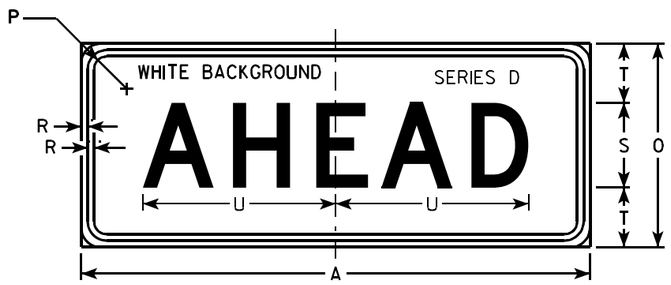
7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000
WISDOT/CADDS SHEET 42

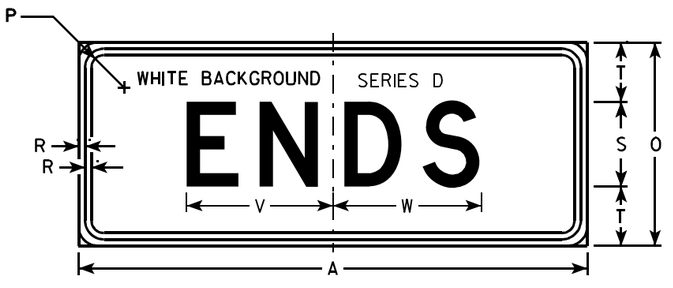
R3-17

NOTES

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



R3-17ap



R3-17bp

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

SHEET NO: 167 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R317.DGN PLOT DATE : 02-APR-2013 14:09 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

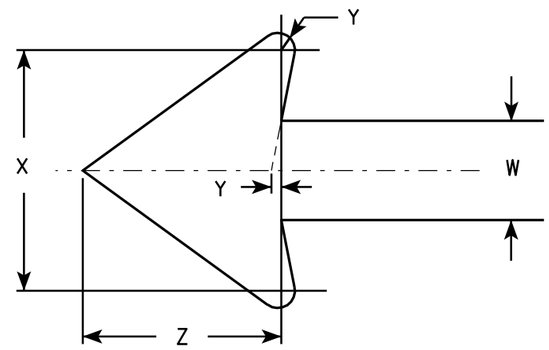
7

7

R7-51

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R7-51D (double arrow)
   R7-51R (right arrow)
   R7-51L (left arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.



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	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	4 7/8	5/8	1 3/4	2 1/2	4 3/8	3 7/8	3/4	1 3/4	1/8	1 1/2	1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 3/4	1 1/8	1 1/2	3 1/8	5 1/2	5 7/8	1 1/8	2 5/8	1/4	2 1/4	3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 1/8	1 1/4	2	3 3/4	6 1/2	7 3/4	1 1/2	3 1/2	1/4	3	5.0
4																											
5																											

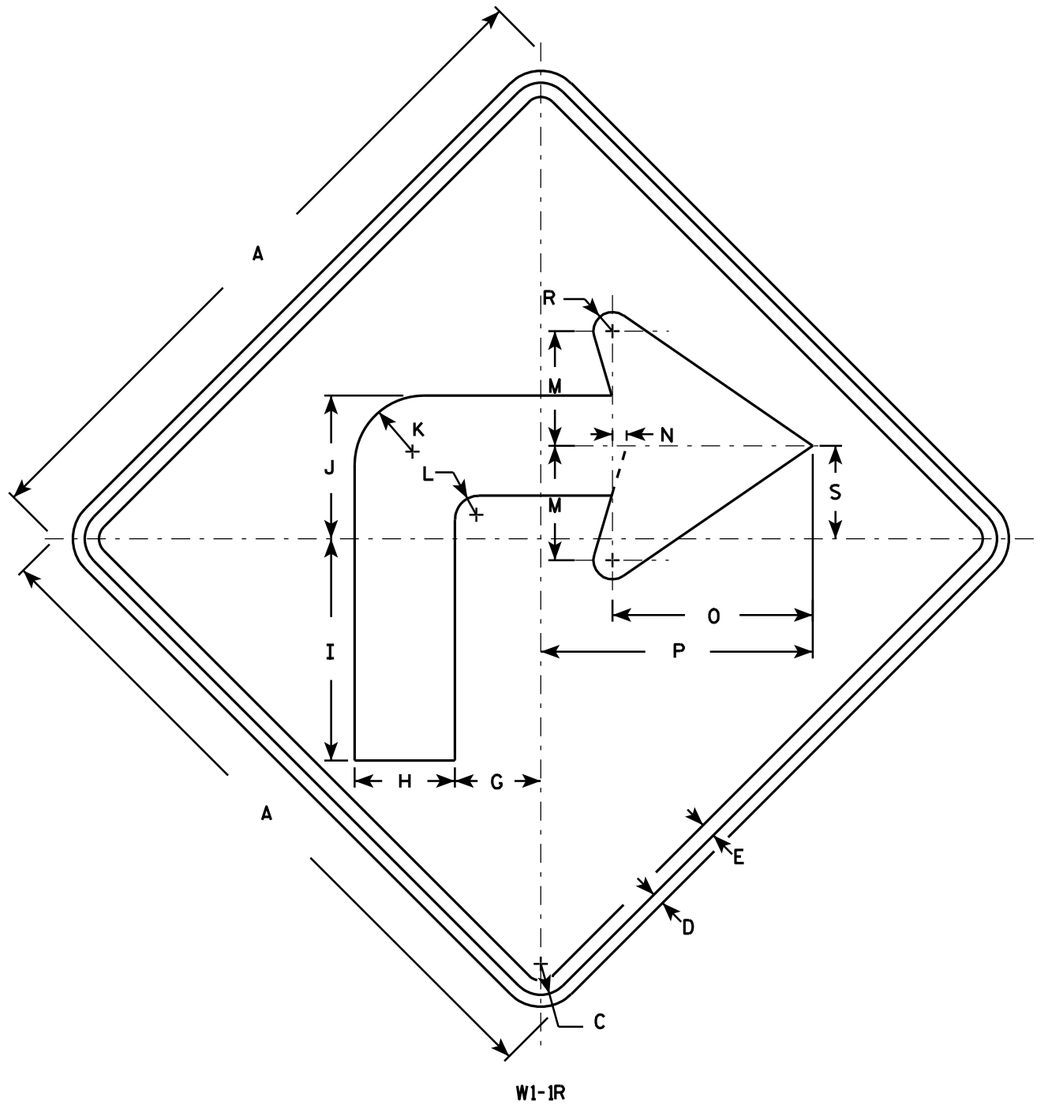
STANDARD SIGN
R7-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-51.6

PROJECT NO:	HWY:	COUNTY:			SHEET NO: 168	E



W1-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R 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	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

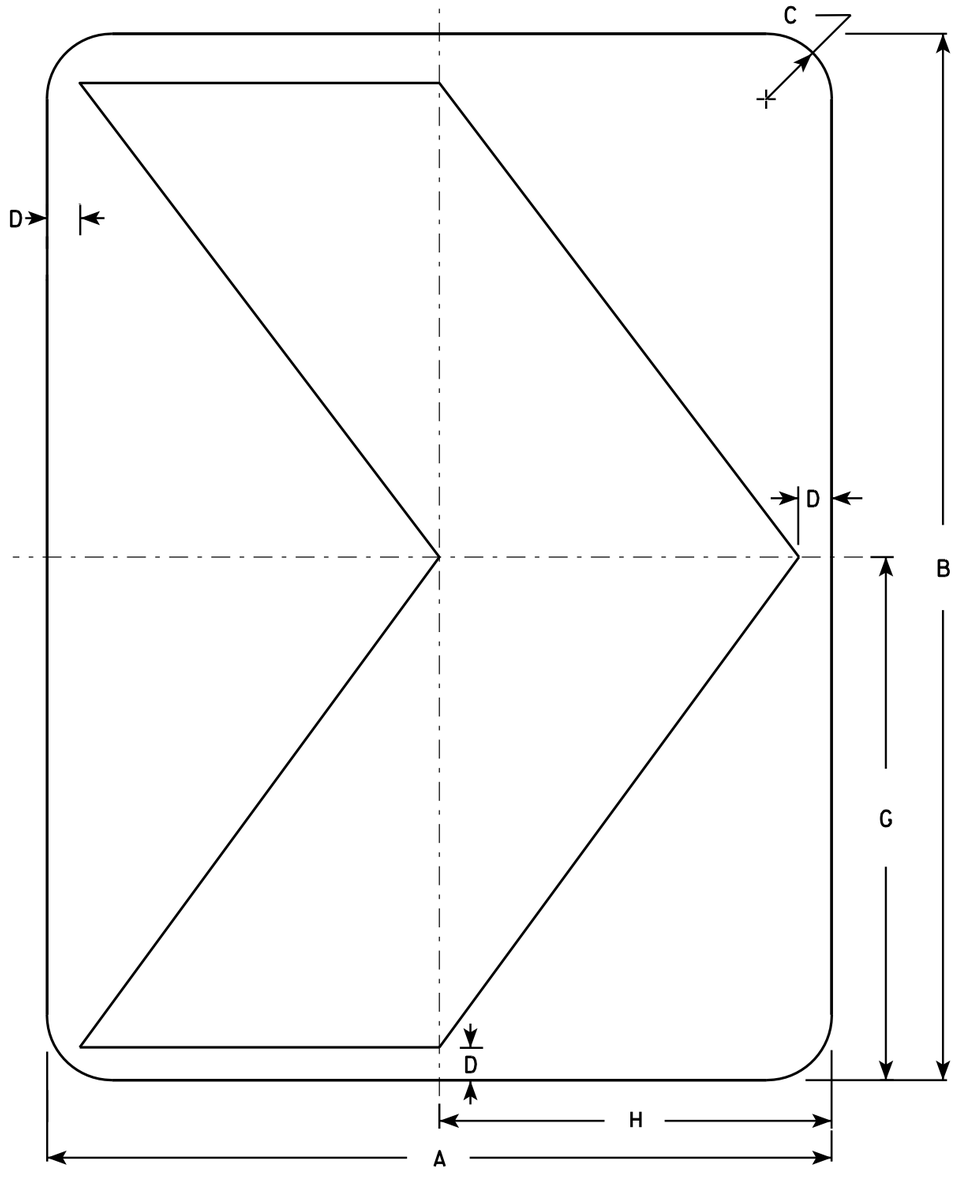
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 169 | E



W1-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

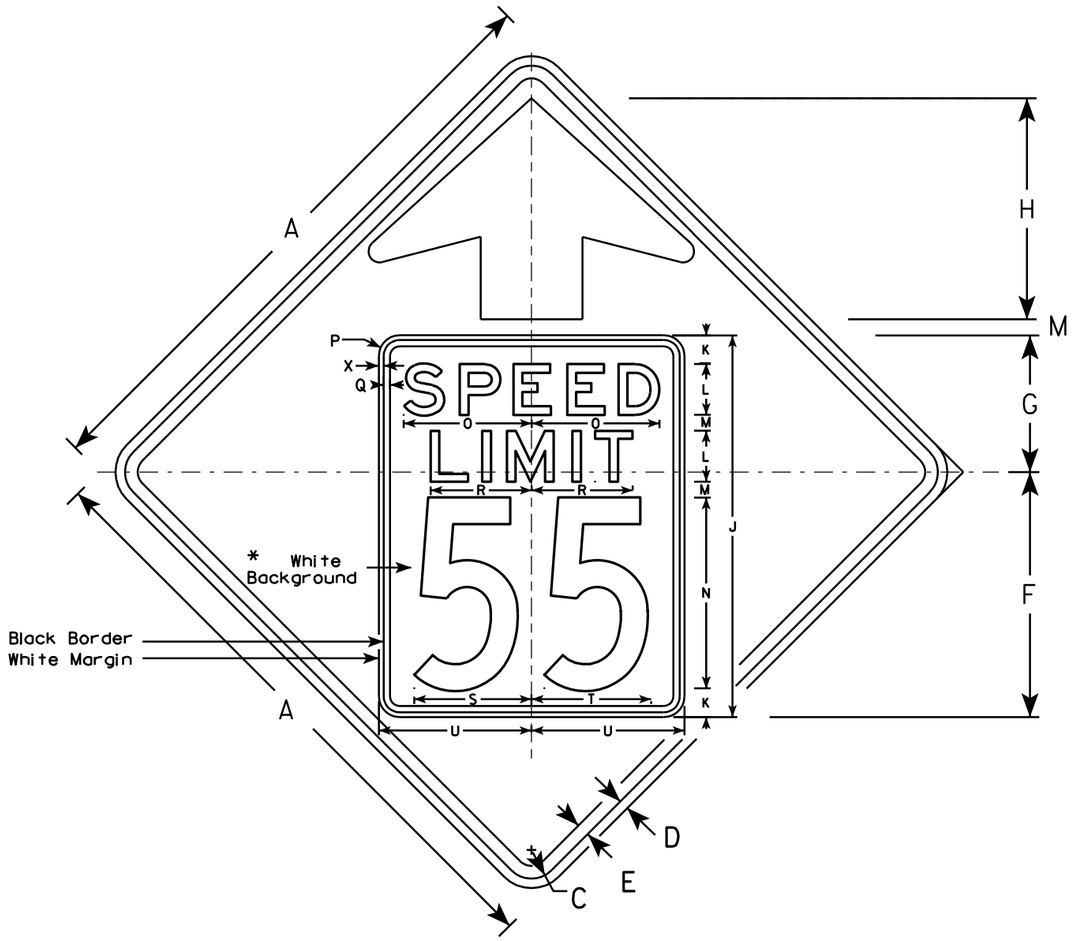
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 170 E

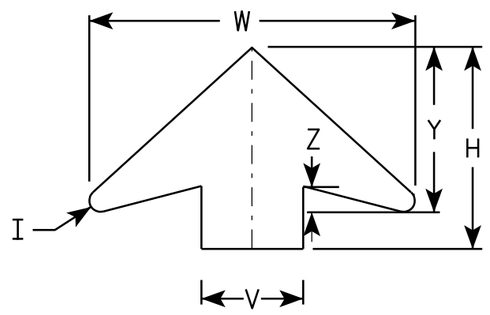


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

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

STANDARD SIGN
W3-5

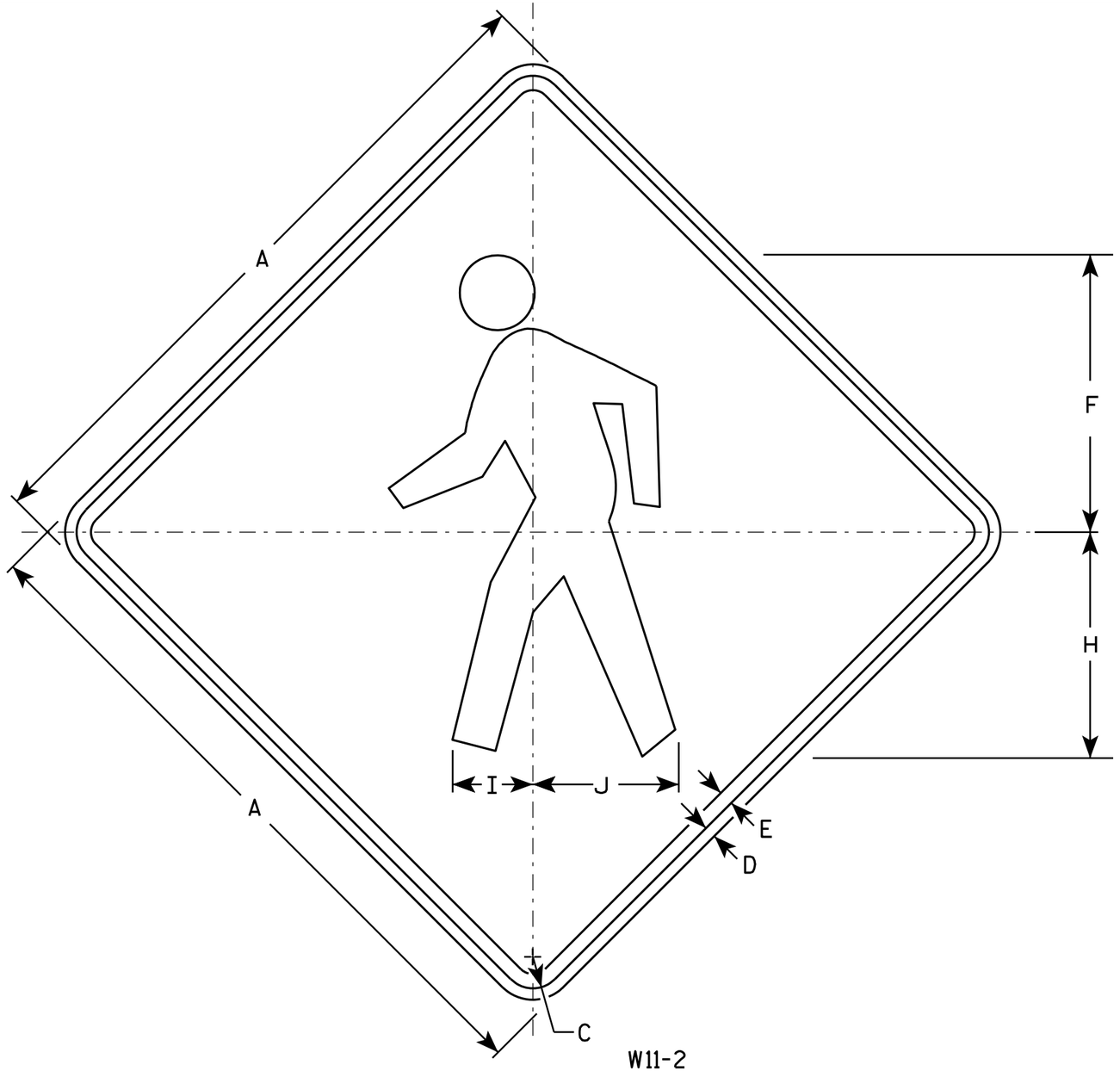
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 171 E



W11-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

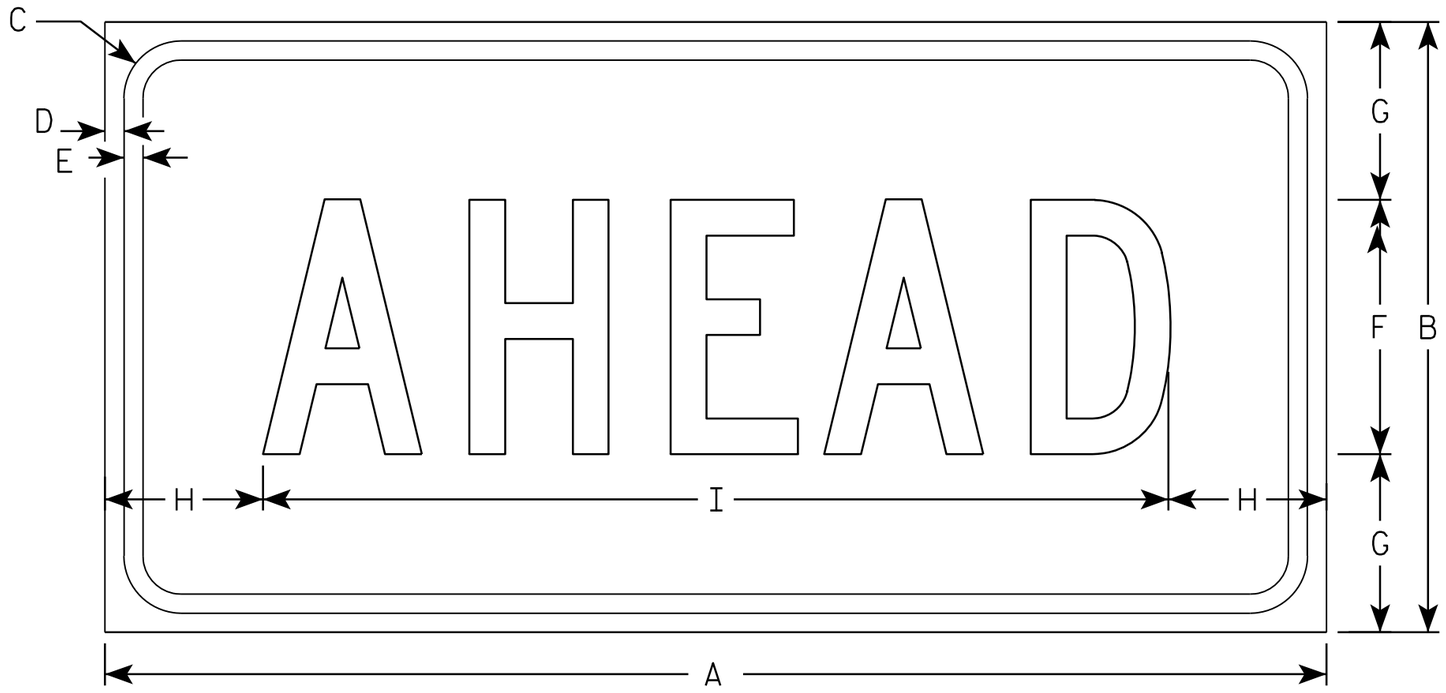
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 172	E



W16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 173 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
WISDOT/CADDS SHEET 42

RIVERSIDE AVENUE

STATION	LENGTH	END-AREA CUT	END-AREA FILL	VOLUME INCREMENTAL CUT	VOLUME INCREMENTAL FILL	VOLUME CUMULATIVE CUT	VOLUME CUMULATIVE FAC	VOLUME CUMULATIVE FILL	VOLUME CUMULATIVE FAC	MASS HAUL
		SQ FT		CU YD		CU YD		CU YD		CU YD
00+68.45		70.6	0.4							
	31.55			101.6	0.2	101.6	1.0	0.3	1.25	101.4
01+00.00		103.3	0.0							
	50.00			184	0.0	285.6	1.0	0.3	1.25	285.4
01+50.00		95.4	0.0							
	50.00			167.4	0.0	453.0	1.0	0.3	1.25	452.8
02+00.00		85.4	0.0							
	50.00			154.4	0.0	607.4	1.0	0.3	1.25	607.2
02+50.00		81.4	0.0							
	50.00			149.1	0.0	756.5	1.0	0.3	1.25	756.3
03+00.00		79.6	0.0							
	50.00			149	0.0	905.5	1.0	0.3	1.25	905.3
03+50.00		81.3	0.0							
	50.00			151.2	0.0	1056.7	1.0	0.3	1.25	1056.5
04+00.00		82.0	0.0							
	50.00			151.2	0.0	1207.9	1.0	0.3	1.25	1207.7
04+50.00		81.3	0.0							
	50.00			187.5	0.4	1395.4	1.0	0.8	1.25	1394.7
05+00.00		121.2	0.4							
	50.00			183.1	0.8	1578.5	1.0	1.8	1.25	1576.8
05+50.00		76.5	0.5							
	50.00			137.1	0.8	1715.6	1.0	2.8	1.25	1712.9
06+00.00		71.6	0.4							
	5.00			13	0.1	1728.6	1.0	2.9	1.25	1725.7
06+05.00		68.9	1.0							
	45.00			112.1	1.5	1840.7	1.0	4.8	1.25	1836.0
06+50.00		65.6	0.8							
	10.00			24.5	0.2	1865.2	1.0	5.0	1.25	1860.2
06+60.00		66.6	0.5							
	40.00			103	0.5	1968.2	1.0	5.6	1.25	1962.6
07+00.00		72.4	0.2							
	23.00			60	0.3	2028.2	1.0	6.0	1.25	2022.2
07+23.00		68.5	0.5							
	27.00			69.3	0.4	2097.5	1.0	6.5	1.25	2091.0
07+50.00		70.0	0.3							
	50.00			131.9	0.7	2229.4	1.0	7.4	1.25	2222.0
08+00.00		72.4	0.5							
	50.00			186.5	0.5	2415.9	1.0	8.0	1.25	2407.9
08+50.00		129.0	0.0							
	25.00			124.4	0.2	2540.3	1.0	8.3	1.25	2532.1
08+75.00		139.6	0.4							
	25.00			100	0.2	2640.3	1.0	8.5	1.25	2631.8
09+00.00		76.3	0.0							
	50.00			144	0.3	2784.3	1.0	8.9	1.25	2775.4
09+50.00		79.2	0.3							
	42.00			61.6	0.2	2845.9	1.0	9.1	1.25	2836.8
09+92.00		104.4	0.2							
	8.00			32.7	0.1	2878.6	1.0	9.3	1.25	2869.4
10+00.00		116.1	0.3							
	50.00			206.2	0.8	3084.8	1.0	10.3	1.25	3074.6
10+50.00		106.6	0.6							
	35.00			130.6	0.4	3215.4	1.0	10.8	1.25	3204.7
10+85.00		95.0	0.0							
	15.00			52.5	0.0	3267.9	1.0	10.8	1.25	3257.2
11+00.00		93.9	0.0							
	50.00			164.8	0.0	3432.7	1.0	10.8	1.25	3422.0
11+50.00		84.2	0.0							
	50.00			155	0.0	3587.7	1.0	10.8	1.25	3577.0
12+00.00		83.2	0.0							
	50.00			146.8	0.0	3734.5	1.0	10.8	1.25	3723.8
12+50.00		75.3	0.0							
	15.00			39.5	0.0	3774.0	1.0	10.8	1.25	3763.3
12+65.00		66.8	0.0							
	35.00			88	0.0	3862.0	1.0	10.8	1.25	3851.3
13+00.00		69.0	0.0							
	50.00			129.5	0.0	3991.5	1.0	10.8	1.25	3980.8
13+50.00		70.9	0.0							
	50.00			135.3	0.6	4126.8	1.0	11.5	1.25	4115.3
14+00.00		75.3	0.6							
	50.00			150.5	1.0	4277.3	1.0	12.8	1.25	4264.6
14+50.00		87.2	0.5							
	25.00			81.9	0.3	4359.2	1.0	13.1	1.25	4346.1
14+75.00		89.6	0.1							
	25.00			95.2	0.1	4454.4	1.0	13.3	1.25	4441.2
15+00.00		116.1	0.2							
	50.00			264.1	0.5	4718.5	1.0	13.9	1.25	4704.6
15+50.00		169.2	0.3							
	50.00			325.2	0.6	5043.7	1.0	14.6	1.25	5029.1
16+00.00		182.1	0.4							
	50.00			330.3	1.6	5374.0	1.0	16.6	1.25	5357.4
16+50.00		174.6	1.3							
	50.00			314	2.2	5688.0	1.0	19.4	1.25	5668.6
17+00.00		164.5	1.1							
	50.00			283	3.2	5971.0	1.0	23.4	1.25	5947.6
17+50.00		141.2	2.4							
	50.00			251.8	5.6	6222.8	1.0	30.4	1.25	6192.4
18+00.00		130.8	3.6							
	50.00			239.8	6.1	6462.6	1.0	38.0	1.25	6424.6
18+50.00		128.2	3.0							
	50.00			237.8	4.6	6700.4	1.0	43.8	1.25	6656.7
19+00.00		128.5	2.0							
	50.00			259.3	3.2	6959.7	1.0	47.8	1.25	6912.0
19+50.00		151.5	1.5							
	50.00			280.6	1.9	7240.3	1.0	50.1	1.25	7190.2
20+00.00		151.5	0.5							

9

9

PROJECT NO: 9995-00-64 | HWY: RIVERSIDE AVENUE | COUNTY: MARINETTE | EARTHWORK DATA | SHEET NO: 174 E

STATION	LENGTH	END-AREA CUT	END-AREA FILL	VOLUME INCREMENTAL CUT	VOLUME INCREMENTAL FILL	VOLUME CUMULATIVE CUT	CUT FAC	VOLUME CUMULATIVE FILL	FILL FAC	MASS HAUL
		SQ FT		CU YD		CU YD		CU YD		CU YD
20+50.00		73.9	2.9							
	50.00			134.8	5.7	7375.1	1.0	57.3	1.25	7317.9
21+00.00		71.7	3.3							
	50.00			128.1	6.6	7503.2	1.0	65.5	1.25	7437.7
21+50.00		66.7	3.8							
	50.00			119.1	4.1	7622.3	1.0	70.6	1.25	7551.7
22+00.00		61.9	0.6							
	50.00			113.7	3.4	7736.0	1.0	74.9	1.25	7661.1
22+50.00		60.9	3.1							
	50.00			114.2	3.1	7850.2	1.0	78.8	1.25	7771.5
23+00.00		62.4	0.3							
	50.00			165.1	3.7	8015.3	1.0	83.4	1.25	7931.9
23+50.00		115.9	3.7							
	50.00			173.9	3.6	8189.2	1.0	87.9	1.25	8101.3
24+00.00		71.9	0.2							
	50.00			128.1	3.2	8317.3	1.0	91.9	1.25	8225.4
24+50.00		66.5	3.3							
	50.00			123.4	4.1	8440.7	1.0	97.0	1.25	8343.7
25+00.00		66.8	1.1							
	50.00			170.5	4.0	8611.2	1.0	102.0	1.25	8509.2
25+50.00		117.3	3.2							
	50.00			173	3.1	8784.2	1.0	105.9	1.25	8678.3
26+00.00		69.5	0.2							
	50.00			130.9	1.7	8915.1	1.0	108.0	1.25	8807.1
26+50.00		71.9	1.6							
	50.00			134.3	4.9	9049.4	1.0	114.1	1.25	8935.3
27+00.00		73.1	3.7							
	50.00			138.3	5.8	9187.7	1.0	121.4	1.25	9066.3
27+50.00		76.3	2.6							
	50.00			142.1	2.4	9329.8	1.0	124.4	1.25	9205.4
28+00.00		77.2	0.0							
	50.00			146	1.0	9475.8	1.0	125.6	1.25	9350.2
28+50.00		80.5	1.1							
	50.00			149.4	1.1	9625.2	1.0	127.0	1.25	9498.2
29+00.00		80.9	0.1							
	50.00			144.9	1.9	9770.1	1.0	129.4	1.25	9640.7
29+50.00		75.6	1.9							
	50.00			138.8	2.1	9908.9	1.0	132.0	1.25	9776.9
30+00.00		74.3	0.4							
	50.00			132.8	3.1	10041.7	1.0	135.9	1.25	9905.8
30+50.00		69.1	3.0							
	50.00			123.5	4.7	10165.2	1.0	141.8	1.25	10023.5
31+00.00		64.3	2.1							
	50.00			174.6	3.7	10339.8	1.0	146.4	1.25	10193.4
31+50.00		124.3	1.9							
	50.00			115.1	1.8	10454.9	1.0	148.6	1.25	10306.3

STATION	LENGTH	END-AREA CUT	END-AREA FILL	VOLUME INCREMENTAL CUT	VOLUME INCREMENTAL FILL	VOLUME CUMULATIVE CUT	CUT FAC	VOLUME CUMULATIVE FILL	FILL FAC	MASS HAUL
		SQ FT		CU YD		CU YD		CU YD		CU YD
32+00.00		91.7	0.4							
	50.00			158.7	1.8	10613.6	1.0	150.9	1.25	10462.7
32+50.00		79.7	1.5							
	50.00			141.9	3.1	10755.5	1.0	154.8	1.25	10600.8
33+00.00		73.6	1.8							
	50.00			146.1	2.2	10901.6	1.0	157.5	1.25	10744.1
33+50.00		84.2	0.6							
	50.00			156.6	0.6	11058.2	1.0	158.3	1.25	10900.0
34+00.00		84.9	0.1							
	50.00			158.8	0.2	11217.0	1.0	158.5	1.25	11058.5
34+50.00		86.6	0.1							
	50.00			182.6	0.1	11399.6	1.0	158.6	1.25	11241.0
35+00.00		110.6	0.0							
	50.00			157.2	2.2	11556.8	1.0	161.4	1.25	11395.4
35+50.00		59.2	2.4							
	50.00			113.4	3.7	11670.2	1.0	166.0	1.25	11504.2
36+00.00		63.3	1.6							
	40.00			95.5	1.6	11765.7	1.0	168.0	1.25	11597.7
36+40.00		65.6	0.6							
	10.00			24	0.4	11789.7	1.0	168.5	1.25	11621.2
36+50.00		64.2	1.7							
	50.00			121.2	2.4	11910.9	1.0	171.5	1.25	11739.4
37+00.00		66.7	0.9							
	50.00			121.9	1.8	12032.8	1.0	173.8	1.25	11859.1
37+50.00		64.9	1.0							
	10.00			24.3	0.3	12057.1	1.0	174.1	1.25	11883.0
37+60.00		66.3	0.6							
	40.00			100.3	0.9	12157.4	1.0	175.3	1.25	11982.2
38+00.00		69.1	0.6							
	50.00			134	1.9	12291.4	1.0	177.6	1.25	12113.8
38+50.00		75.6	1.5							
	33.00			89.7	1.2	12381.1	1.0	179.1	1.25	12202.0
38+83.00		71.2	0.5							
	17.00			45.8	0.3	12426.9	1.0	179.5	1.25	12247.4
39+00.00		74.3	0.4							
	50.00			134	3.2	12560.9	1.0	183.5	1.25	12377.4
39+50.00		70.4	3.1							
	50.00			133.6	2.9	12694.5	1.0	187.1	1.25	12507.4
40+00.00		73.9	0.0							

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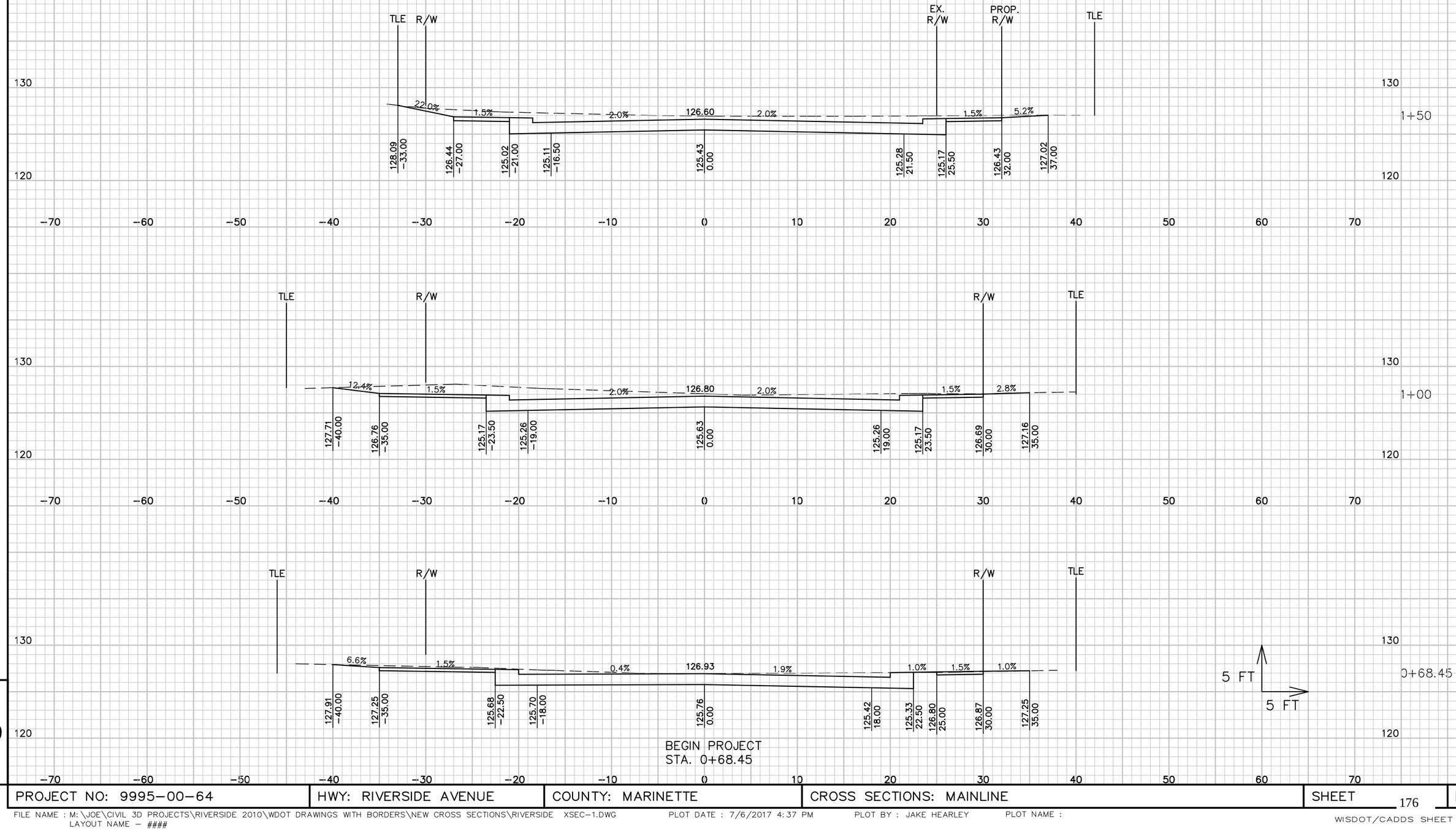
9

PROJECT NO: 9995-00-64 | HWY: RIVERSIDE AVENUE | COUNTY: MARINETTE | EARTHWORK DATA | SHEET NO: 175 E



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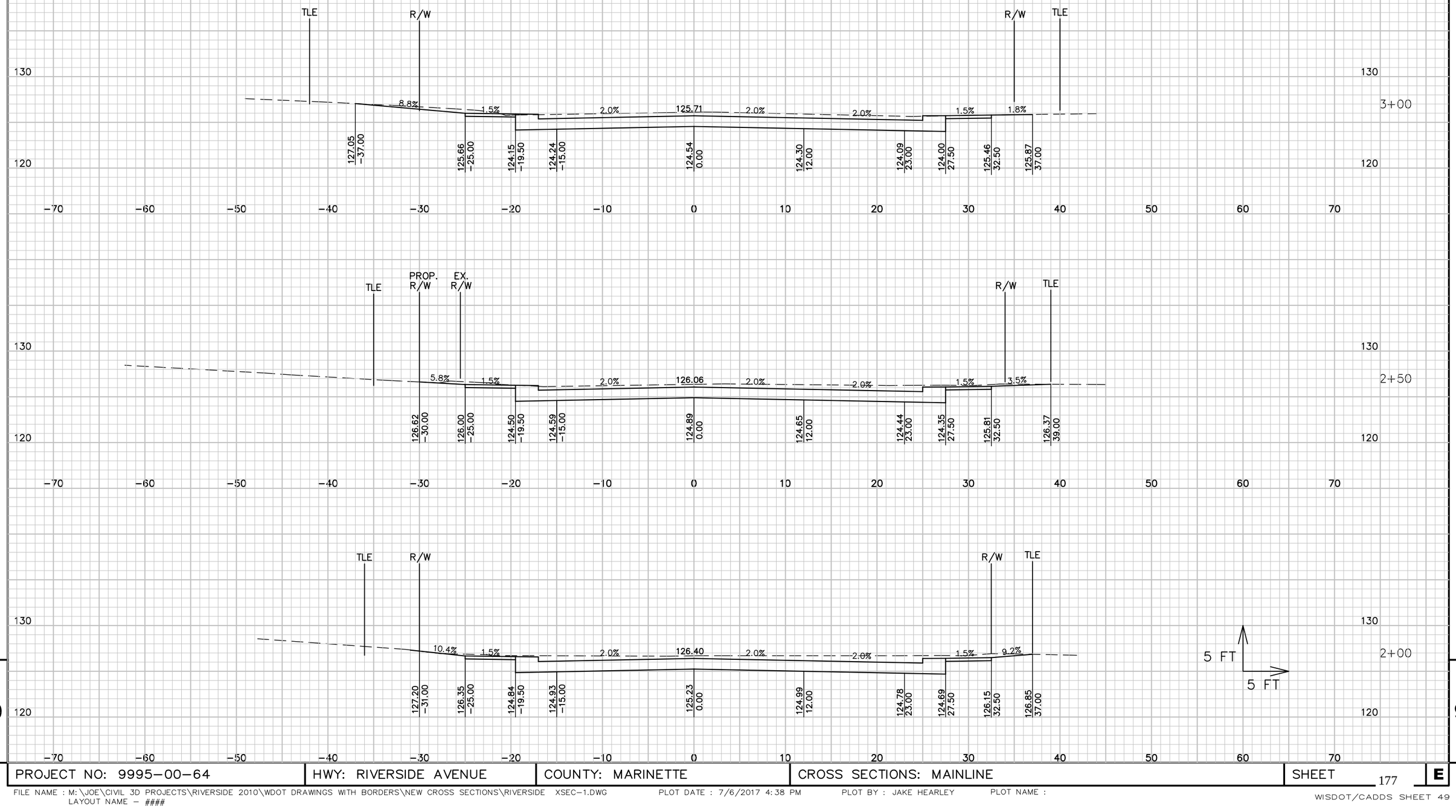
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 176	E

9

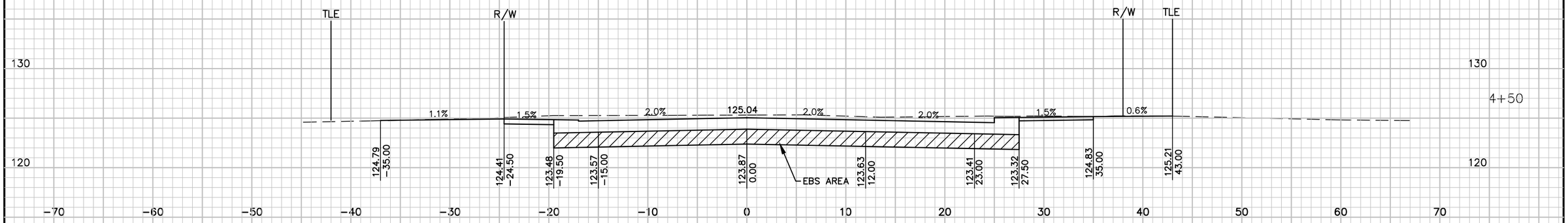
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:37 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :

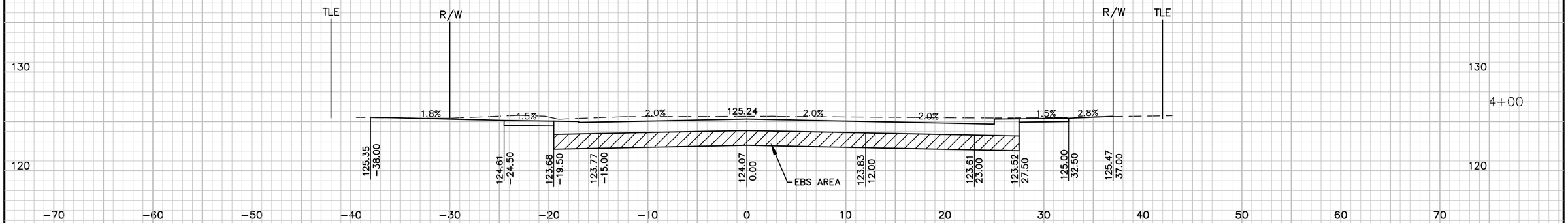


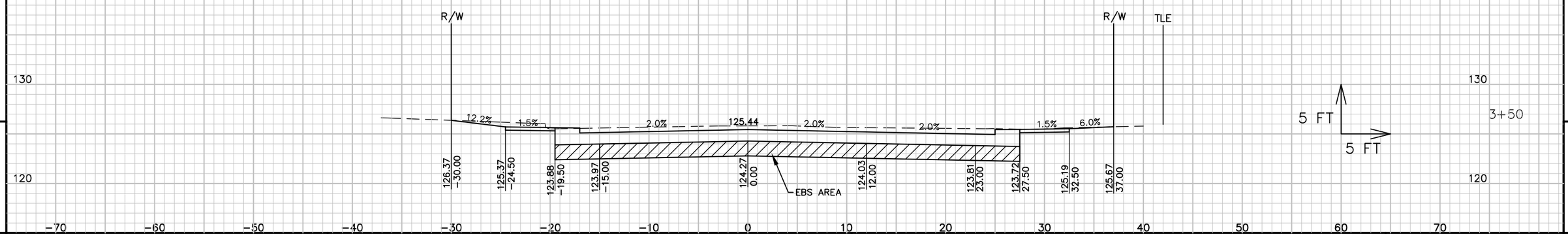
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 177	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:38 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.







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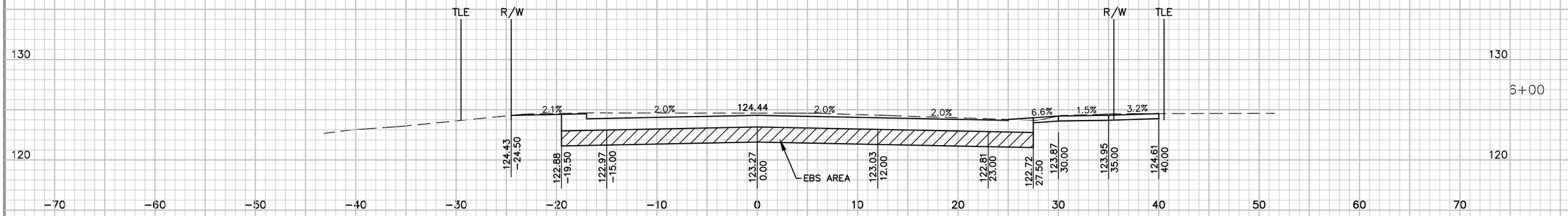
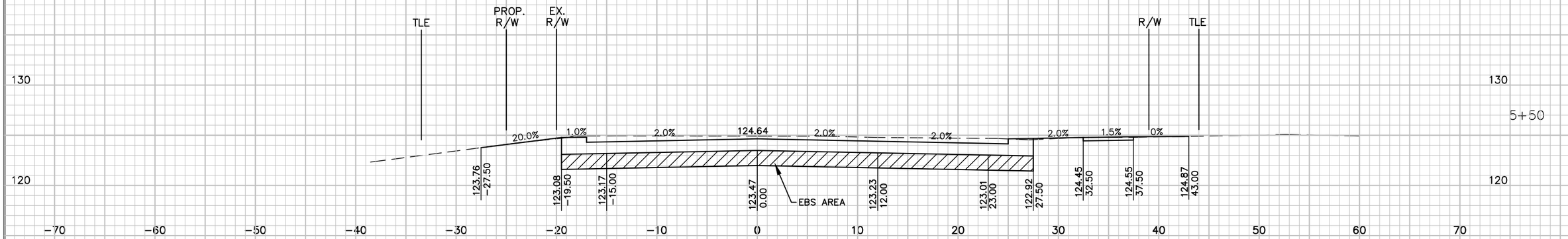
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 178	E

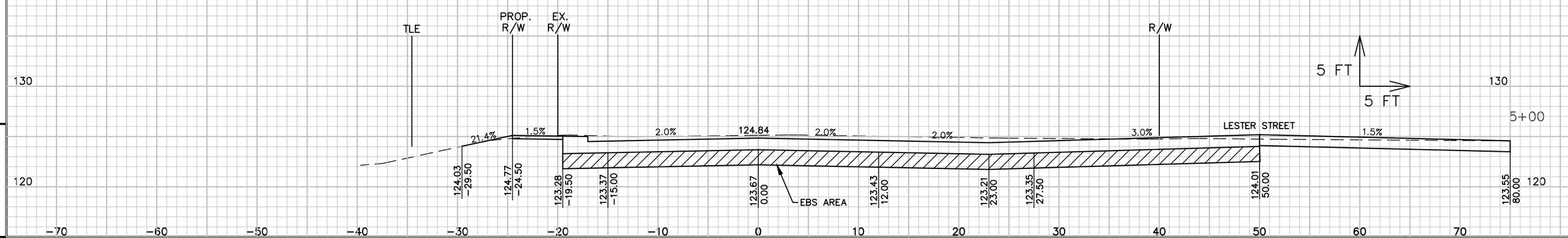
9

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:39 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.







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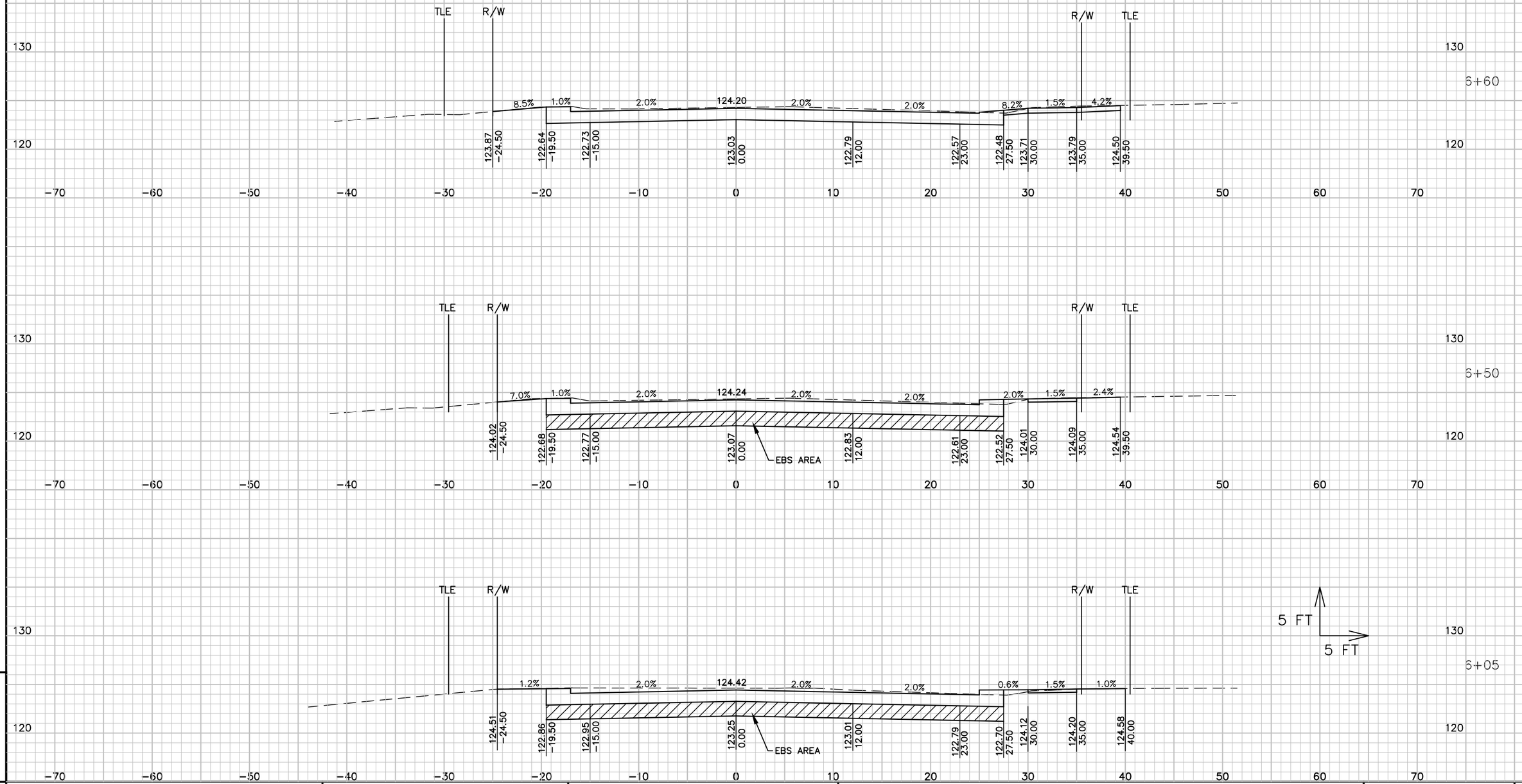
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 179	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:39 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



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PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 180	E

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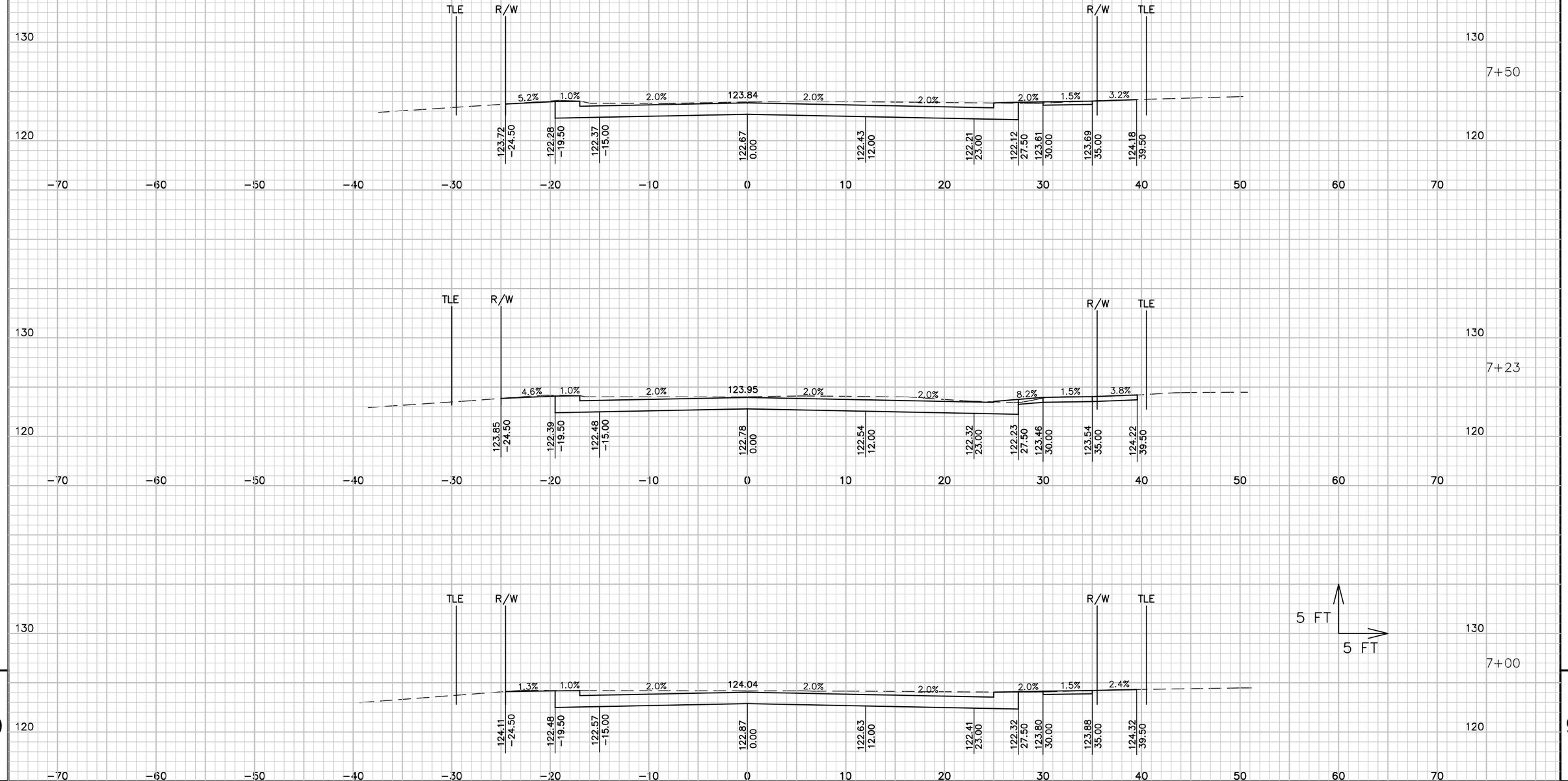
LAYOUT NAME - ####



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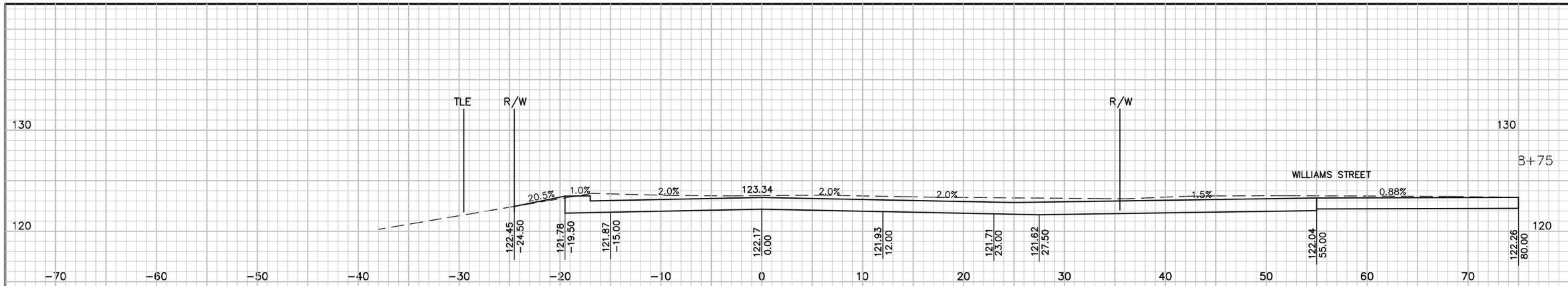
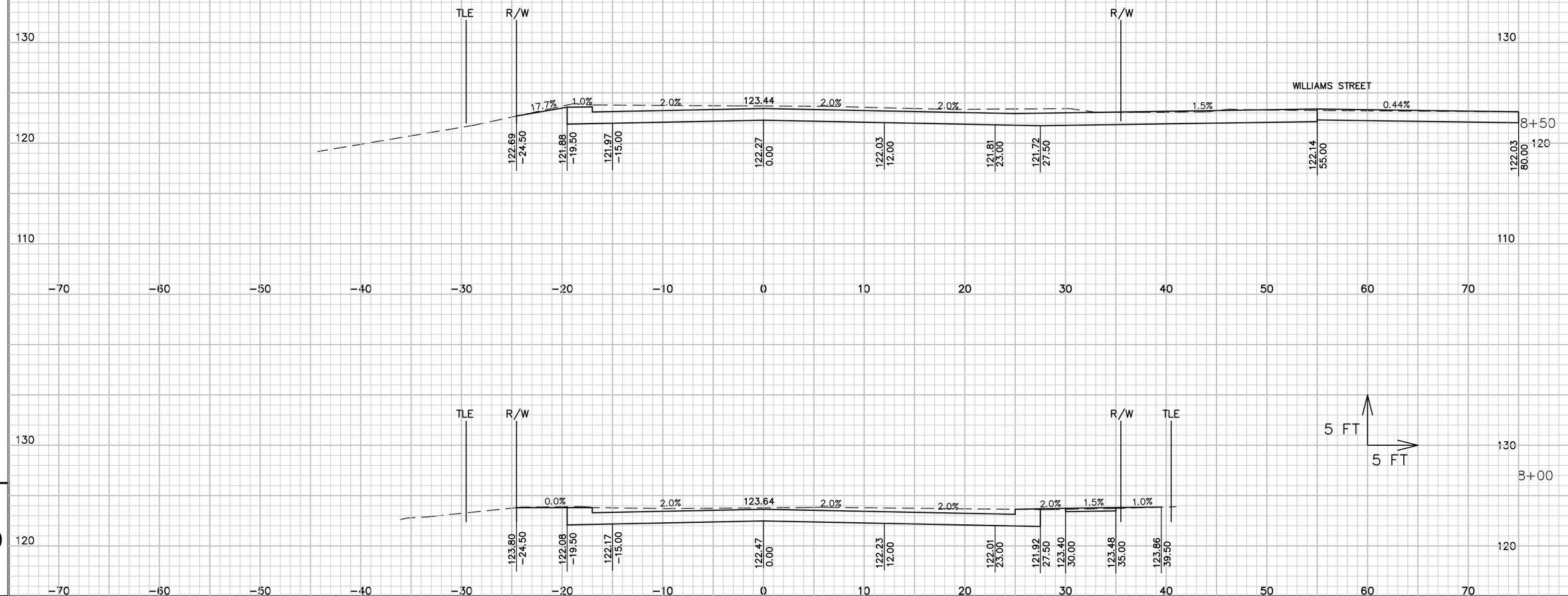
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 181	E

9

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:40 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####





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PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 182	E

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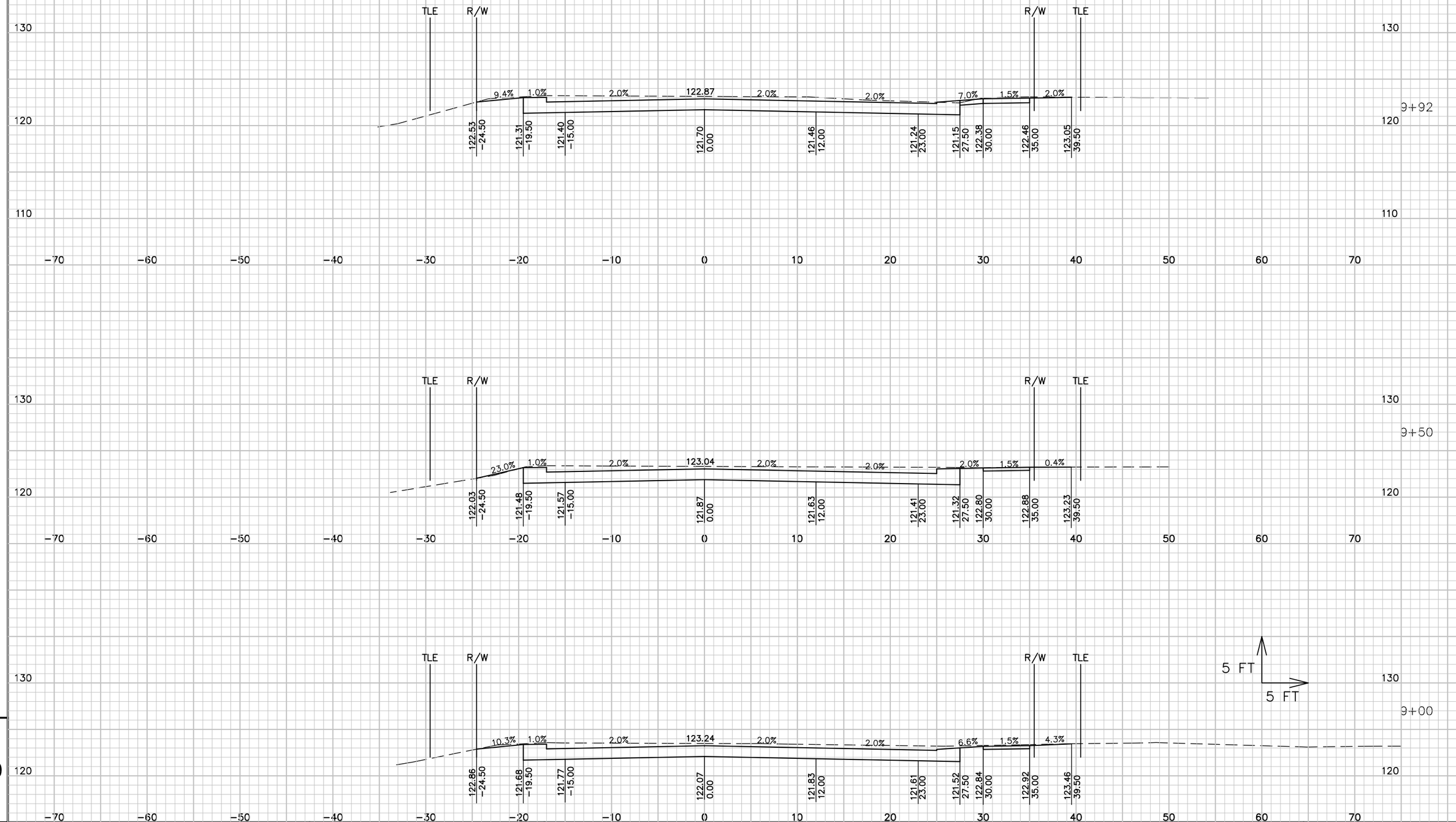
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:41 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :



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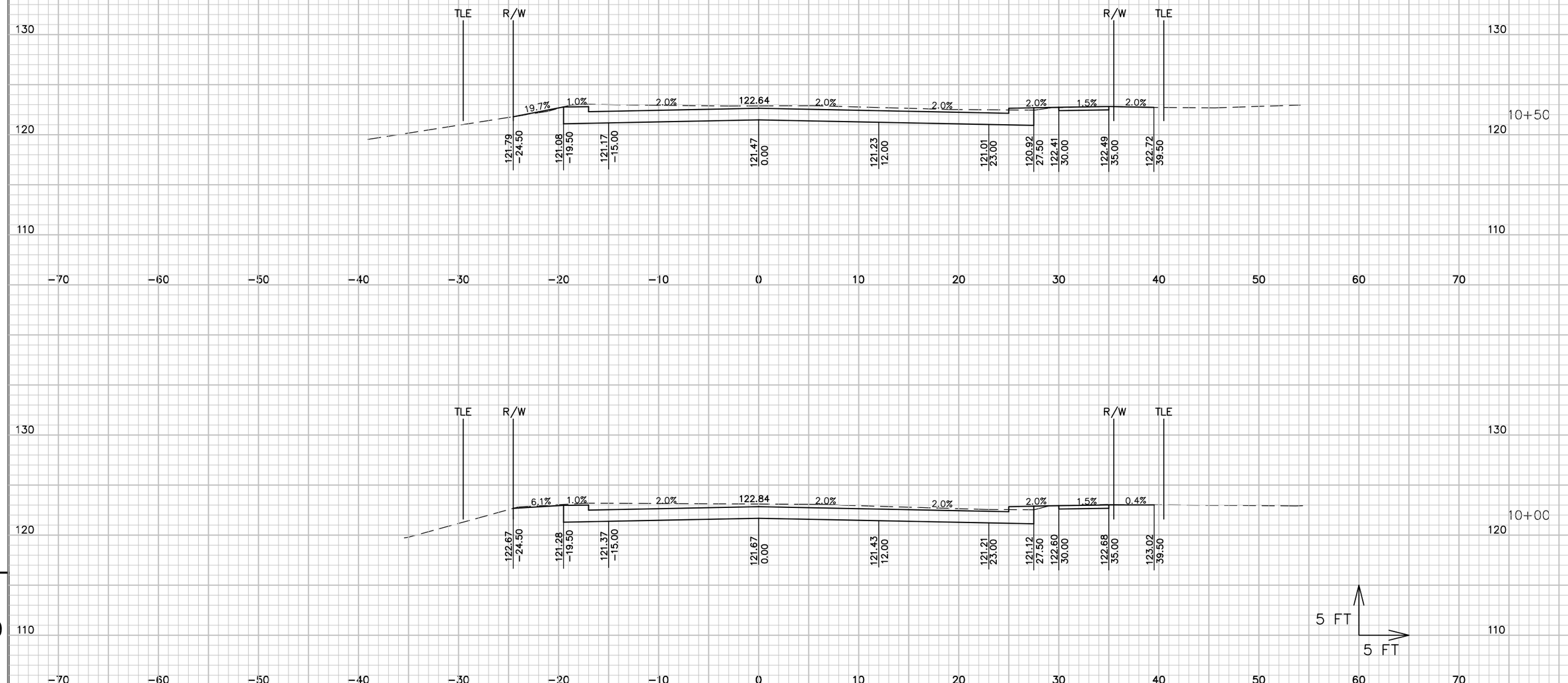
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 183 E

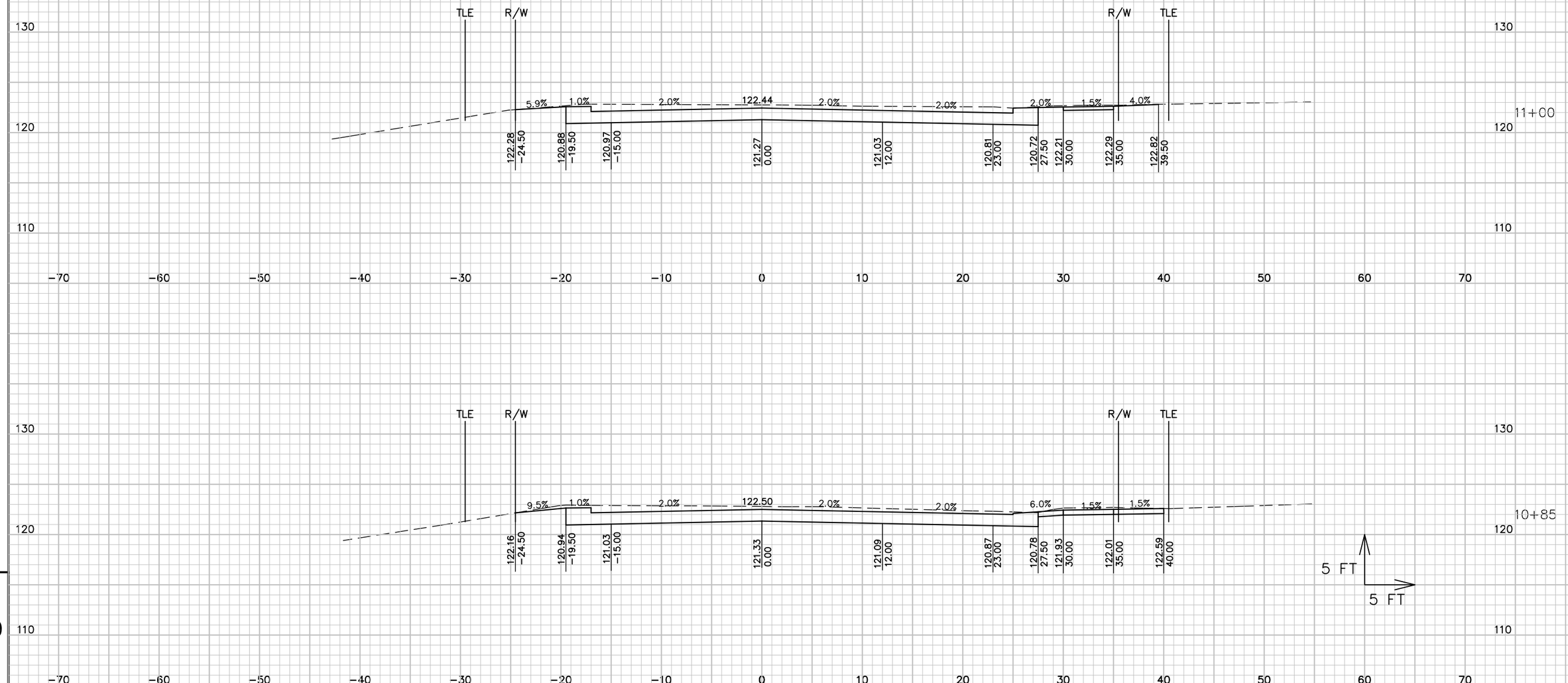
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:41 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 184	E

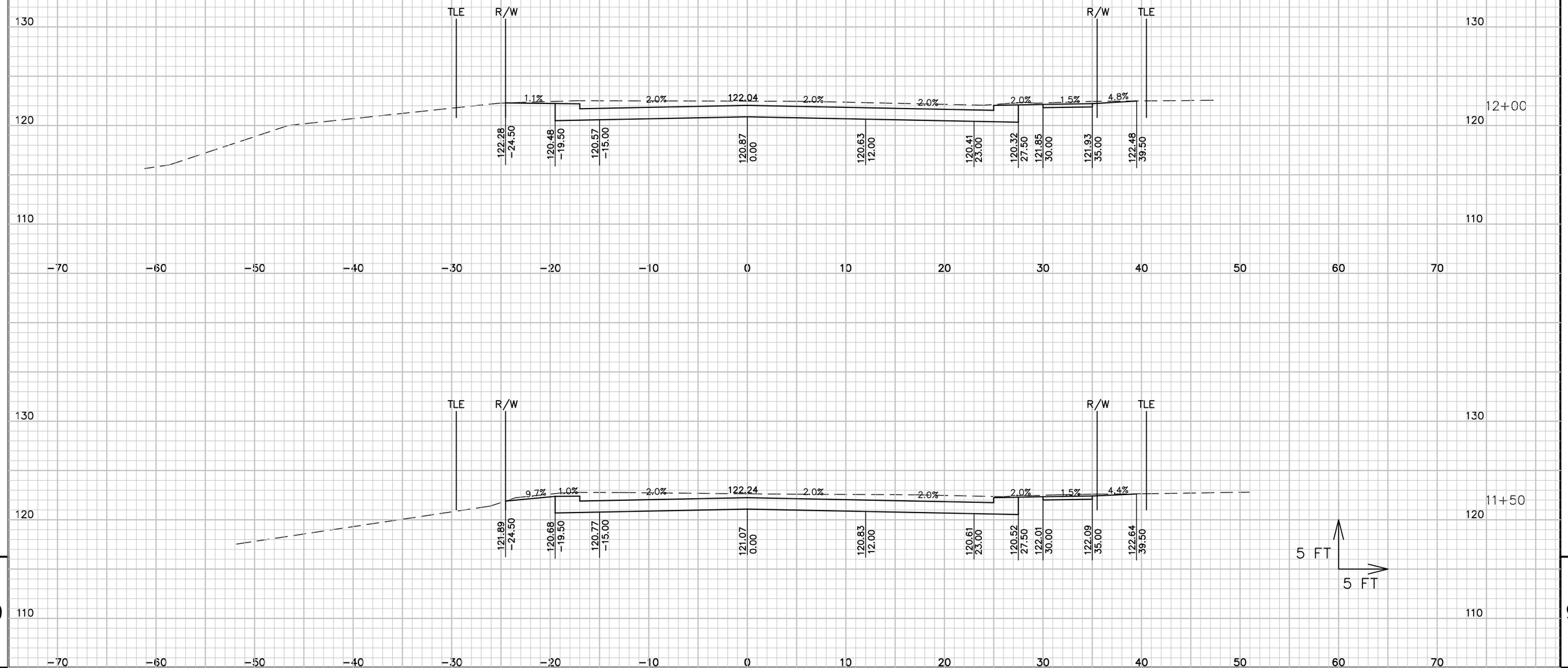
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:42 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

WISDOT/CADDS SHEET 49



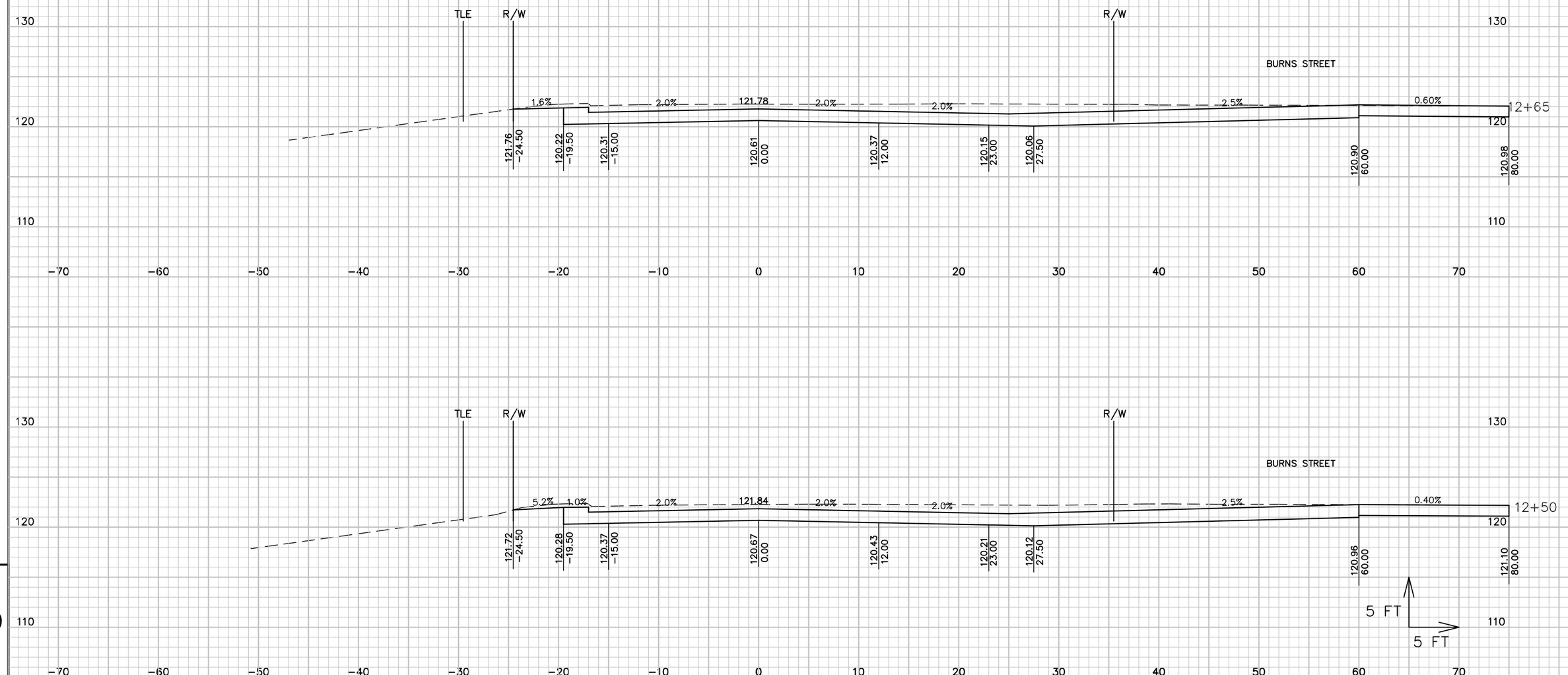
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 185	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:42 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####



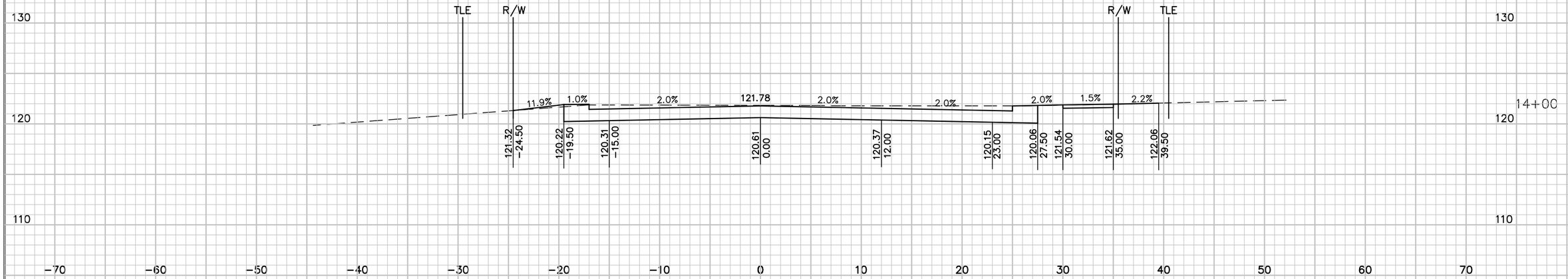
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 186 E

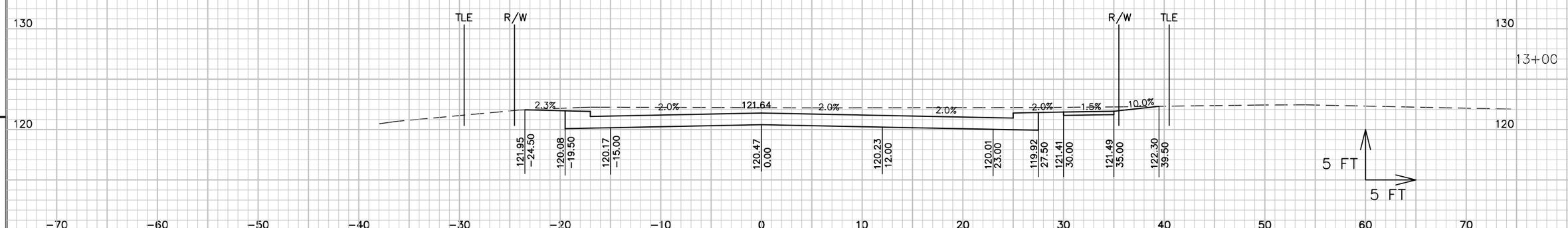
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:43 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 187 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:43 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :





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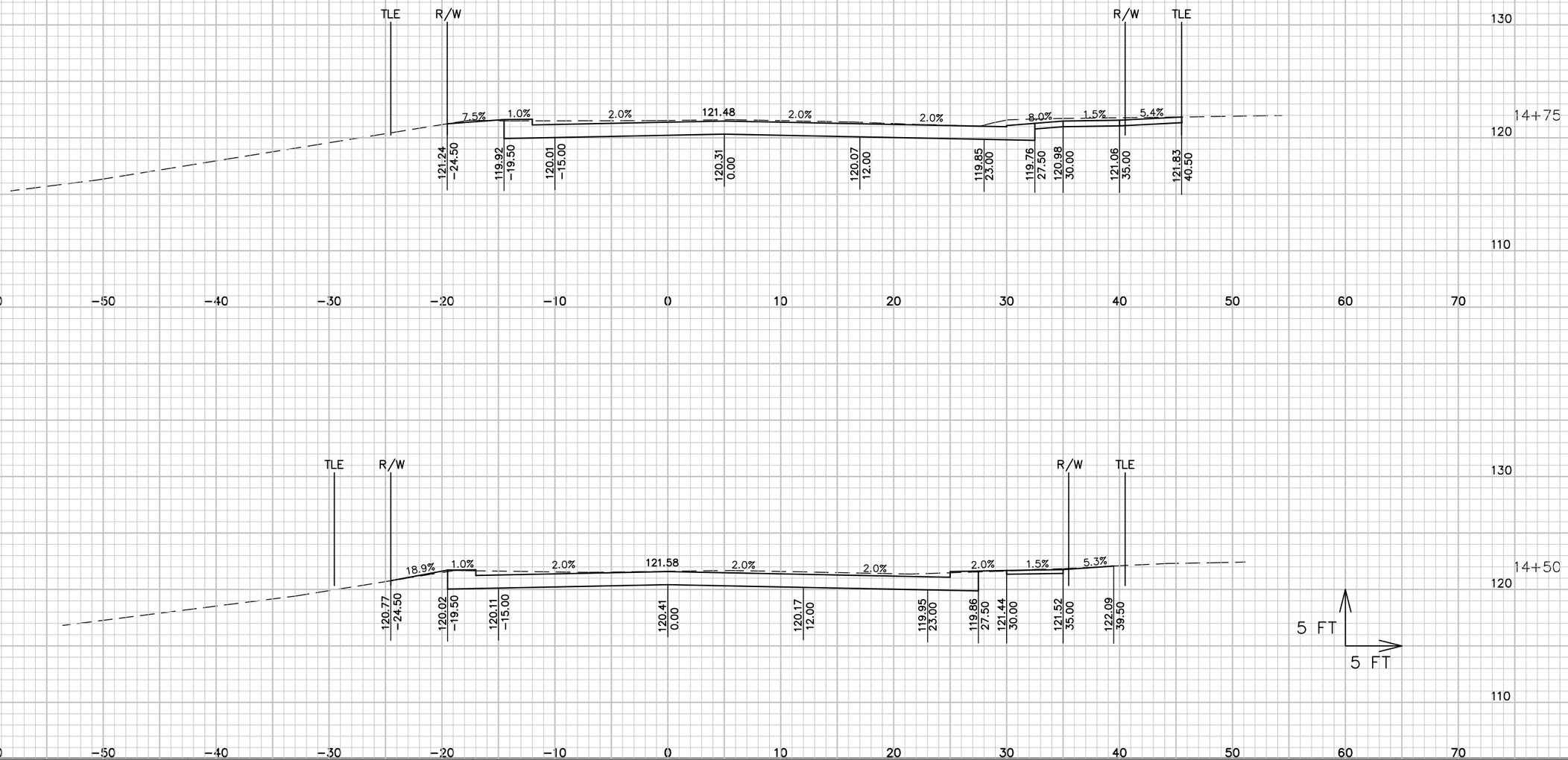
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 188	E

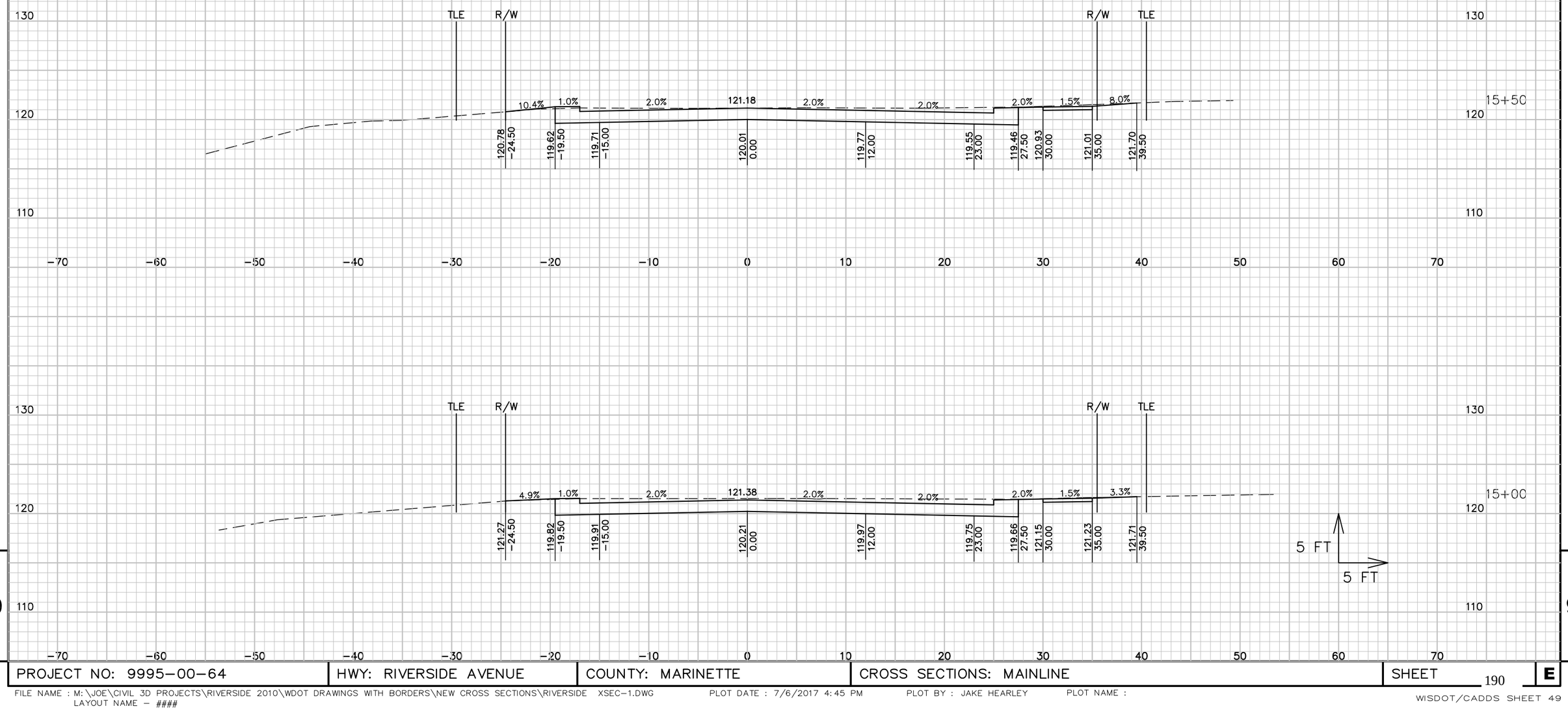
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:44 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 189 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:44 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

WISDOT/CADDS SHEET 49



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 190	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
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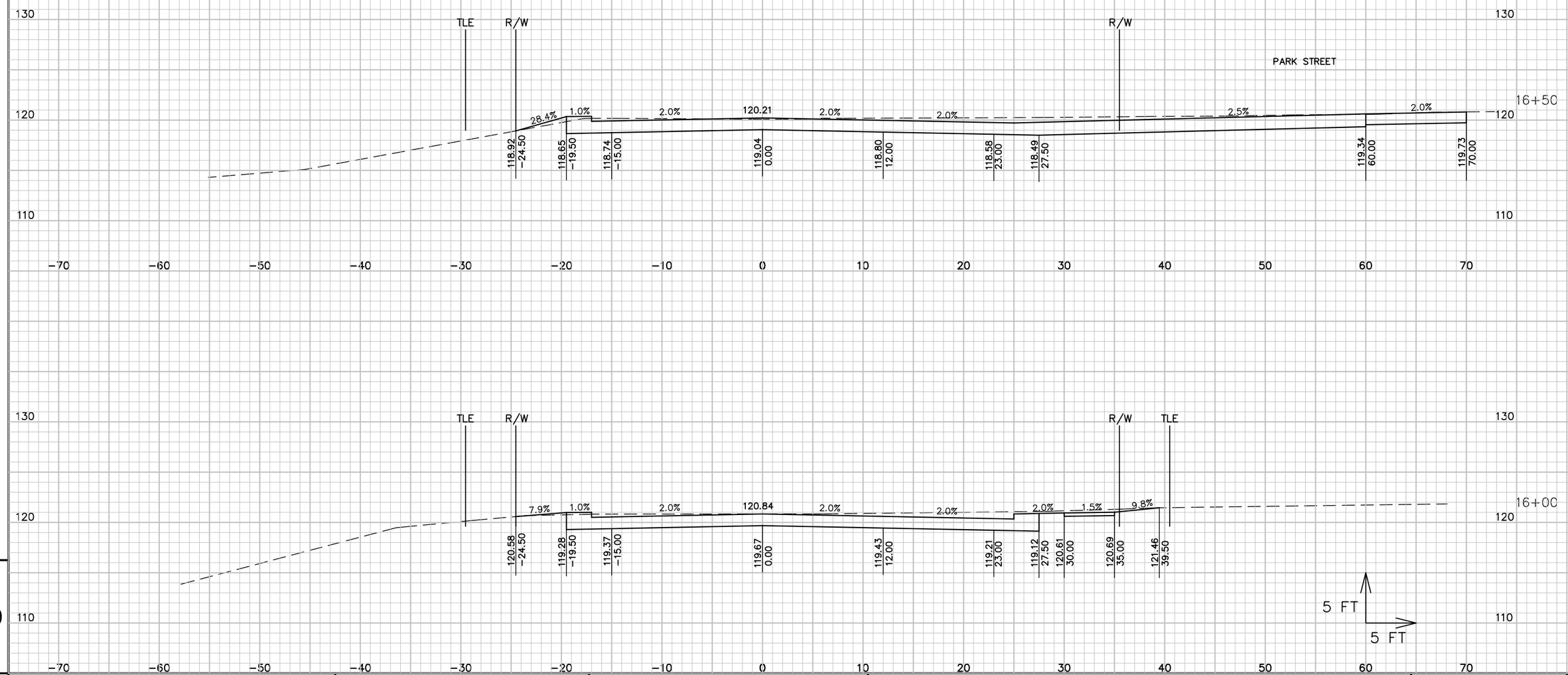
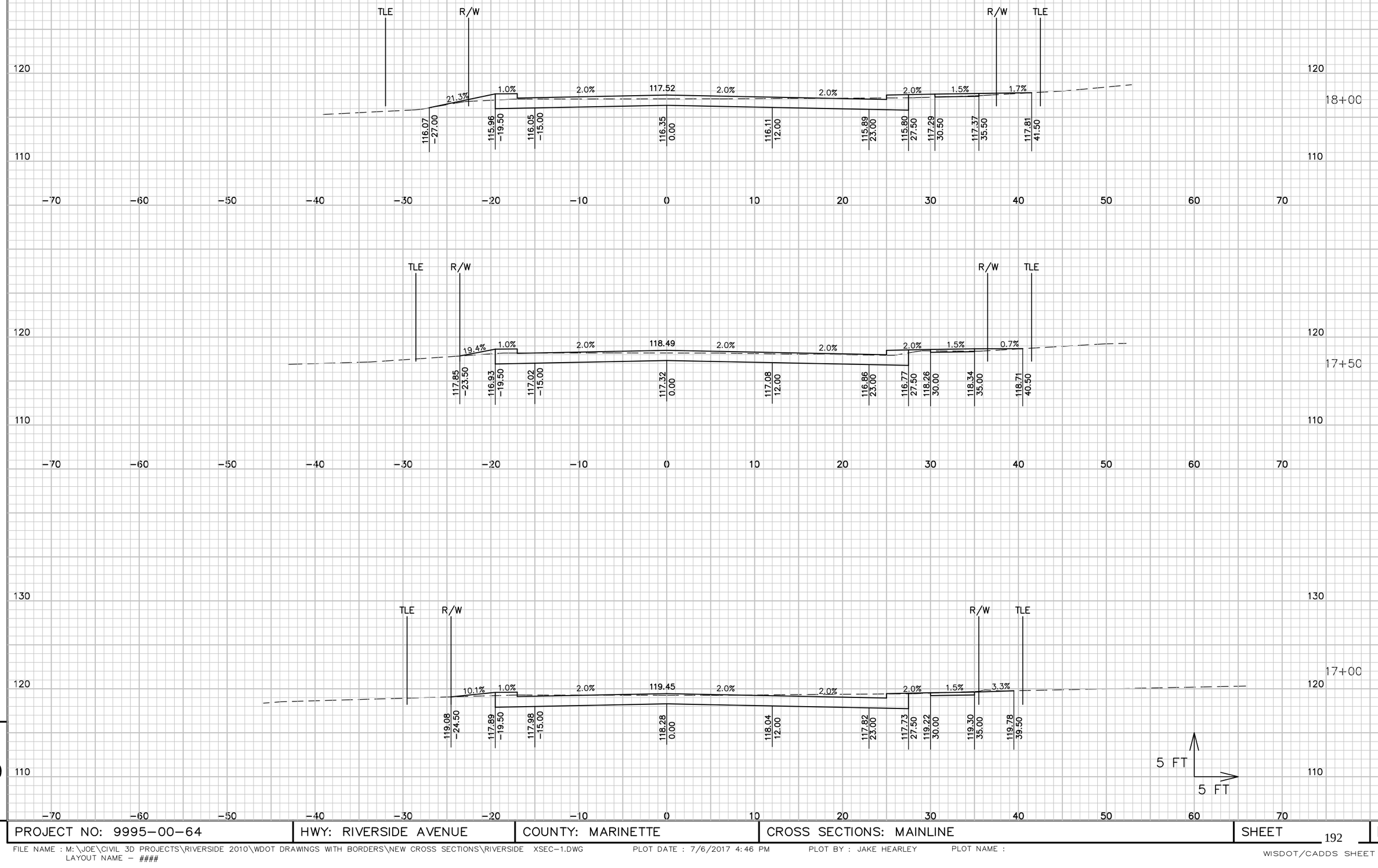
PLOT BY : JAKE HEARLEY
PLOT NAME :



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 191	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:45 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

WISDOT/CADDS SHEET 49



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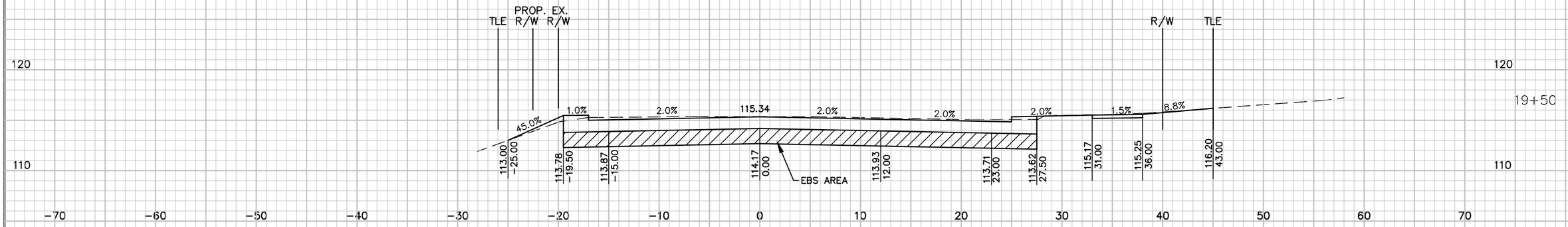
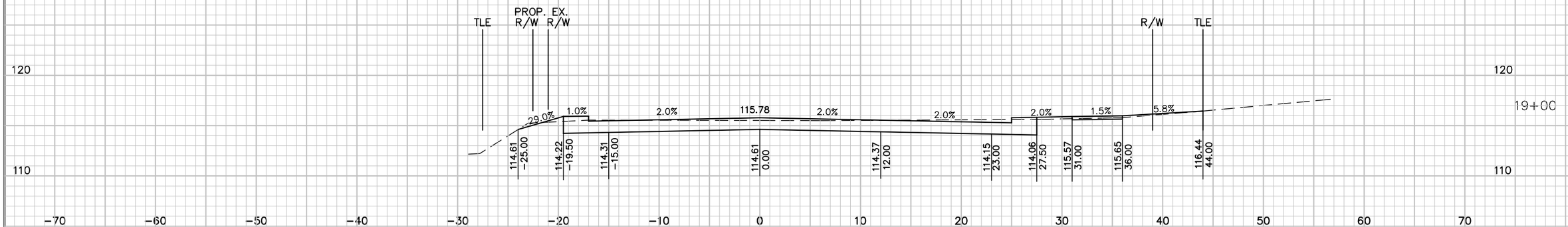
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 192	E

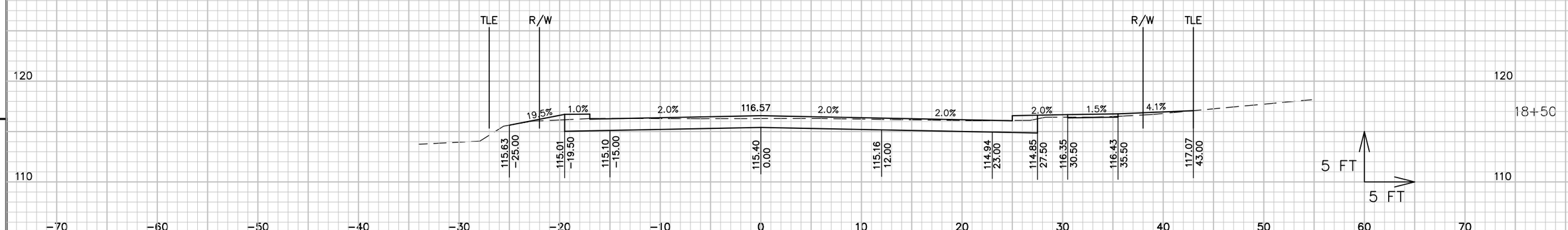
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####

PLOT DATE : 7/6/2017 4:46 PM PLOT BY : JAKE HEARLEY PLOT NAME :

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



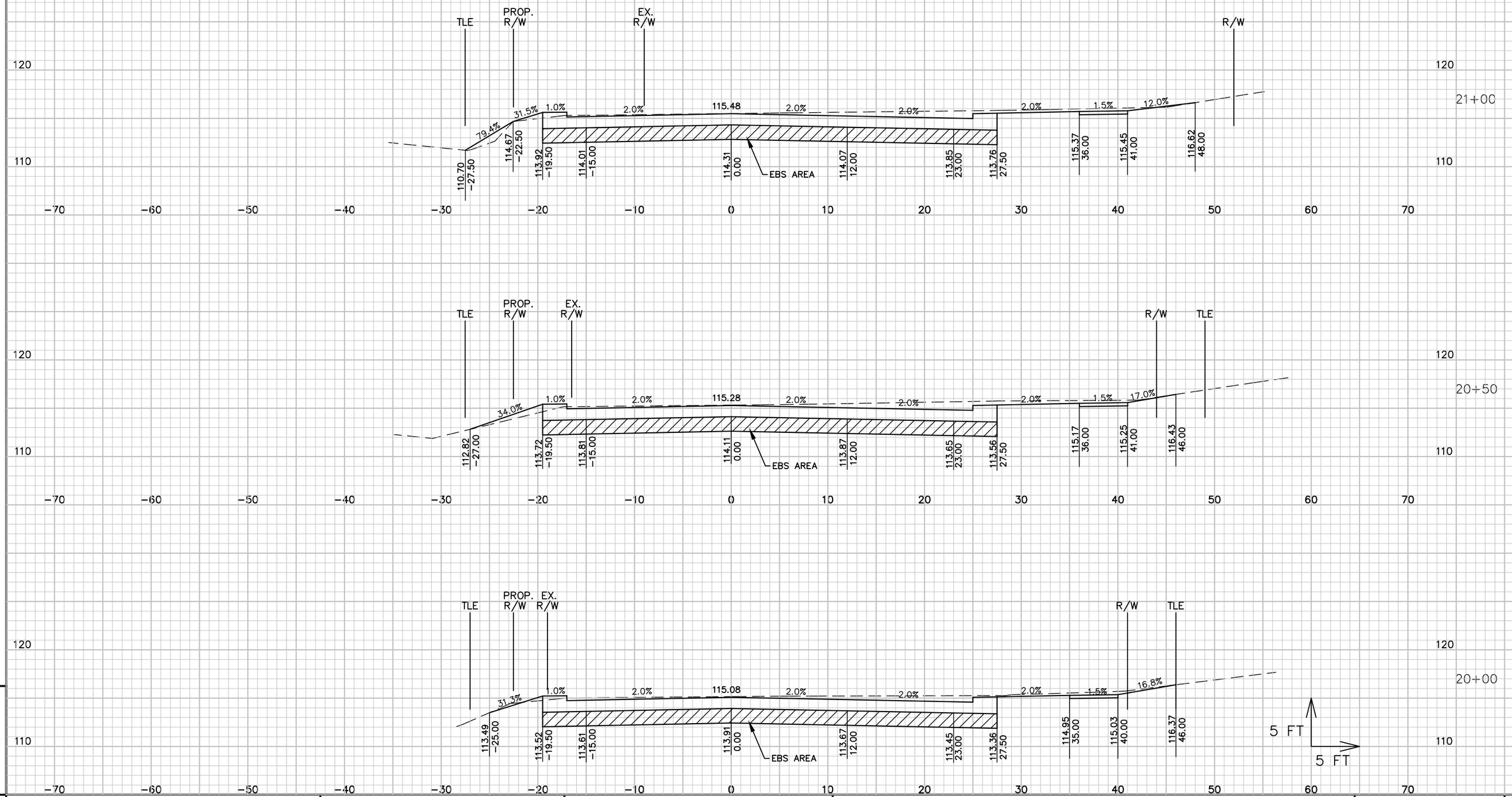




PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 193	E

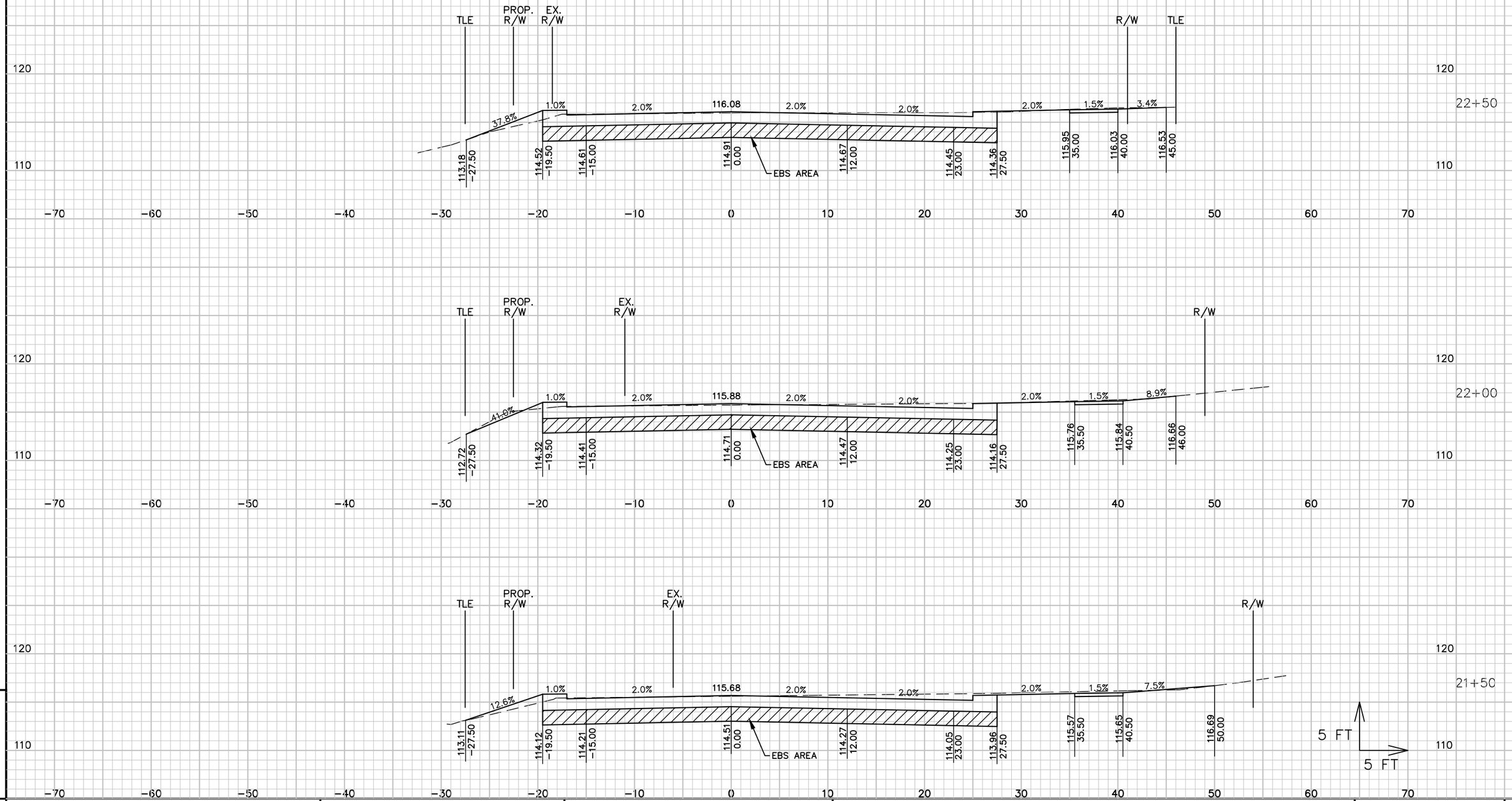
FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:46 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 194	E

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



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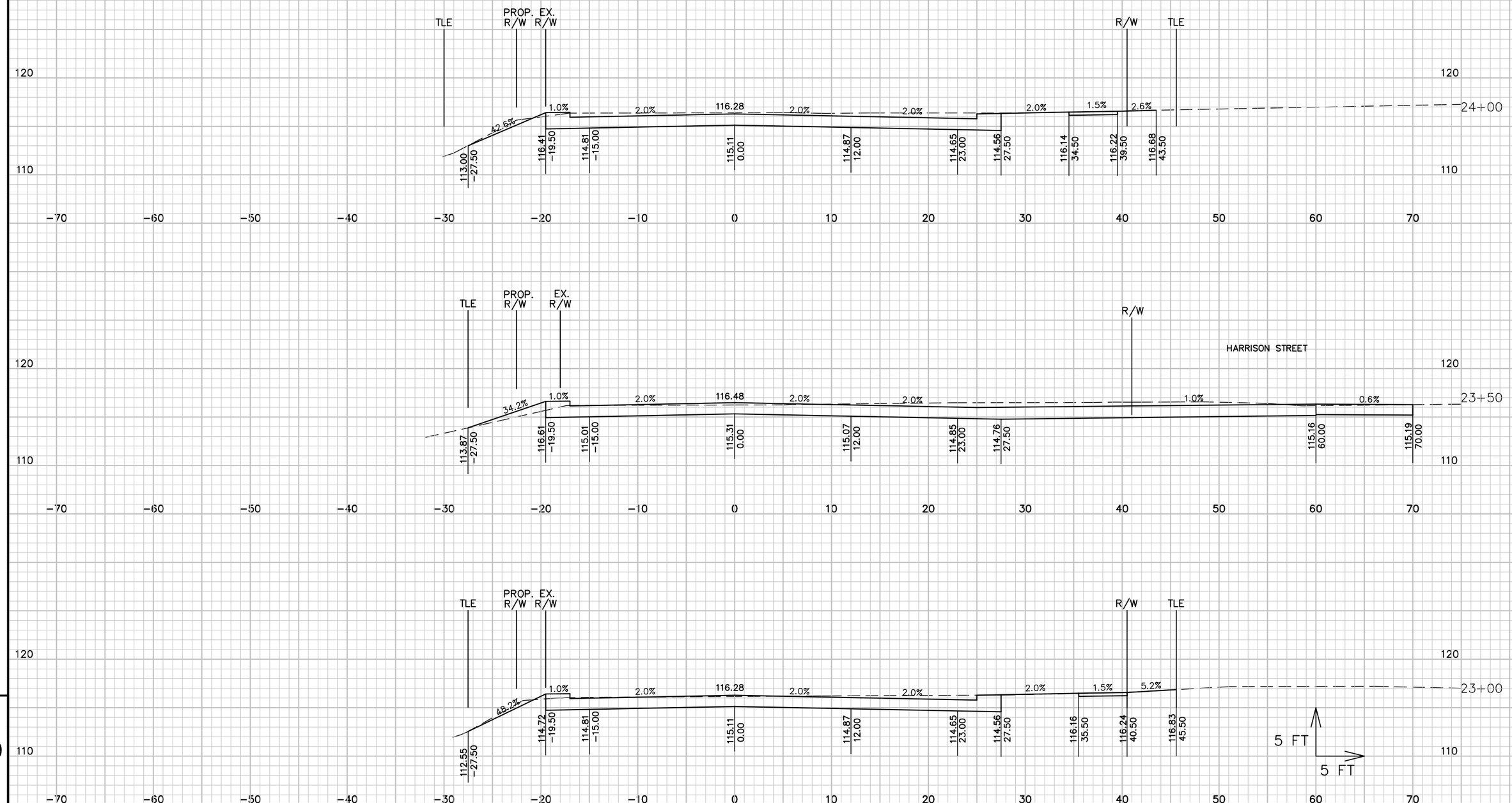

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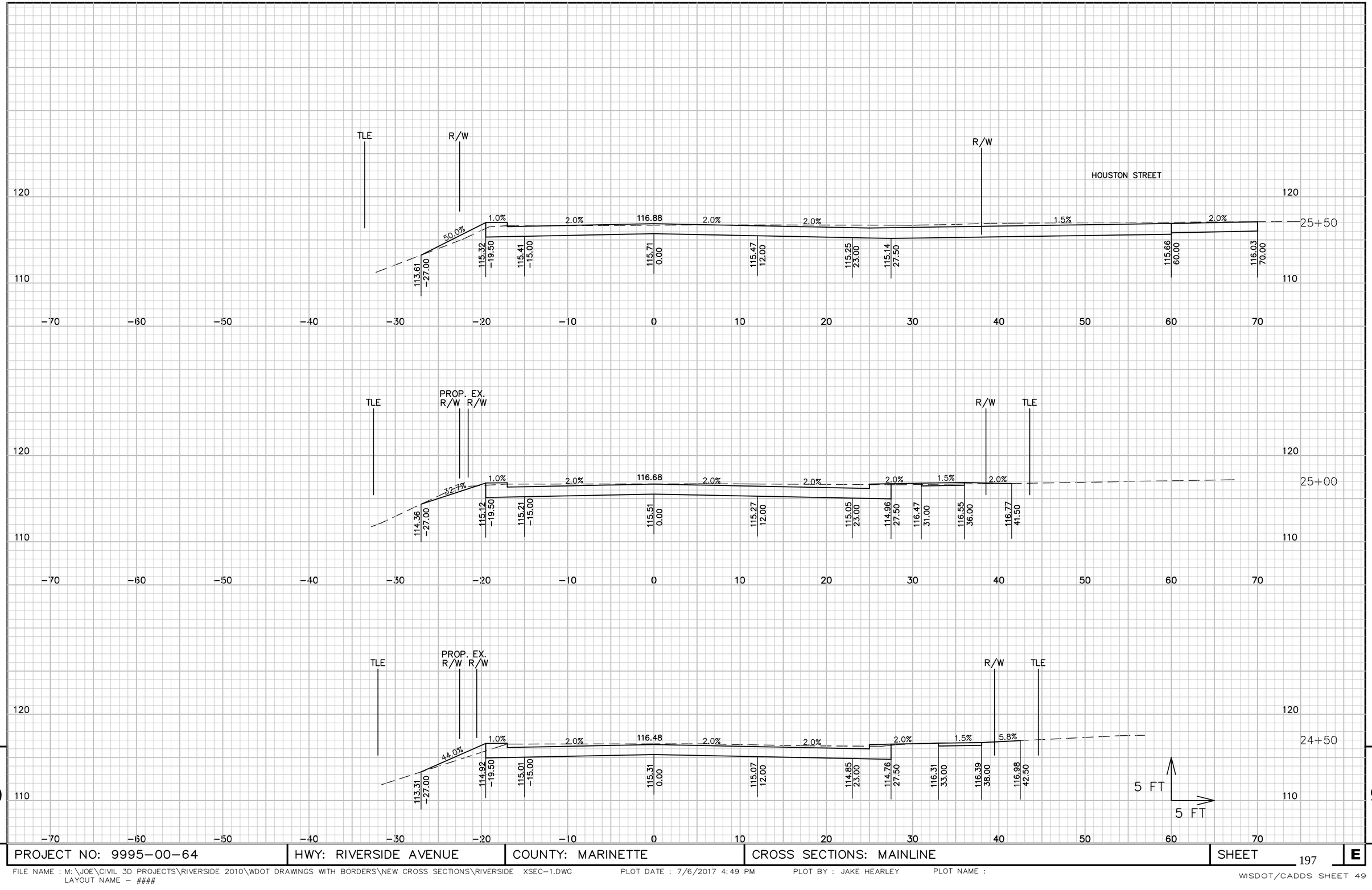
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 196	E

9

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:48 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :



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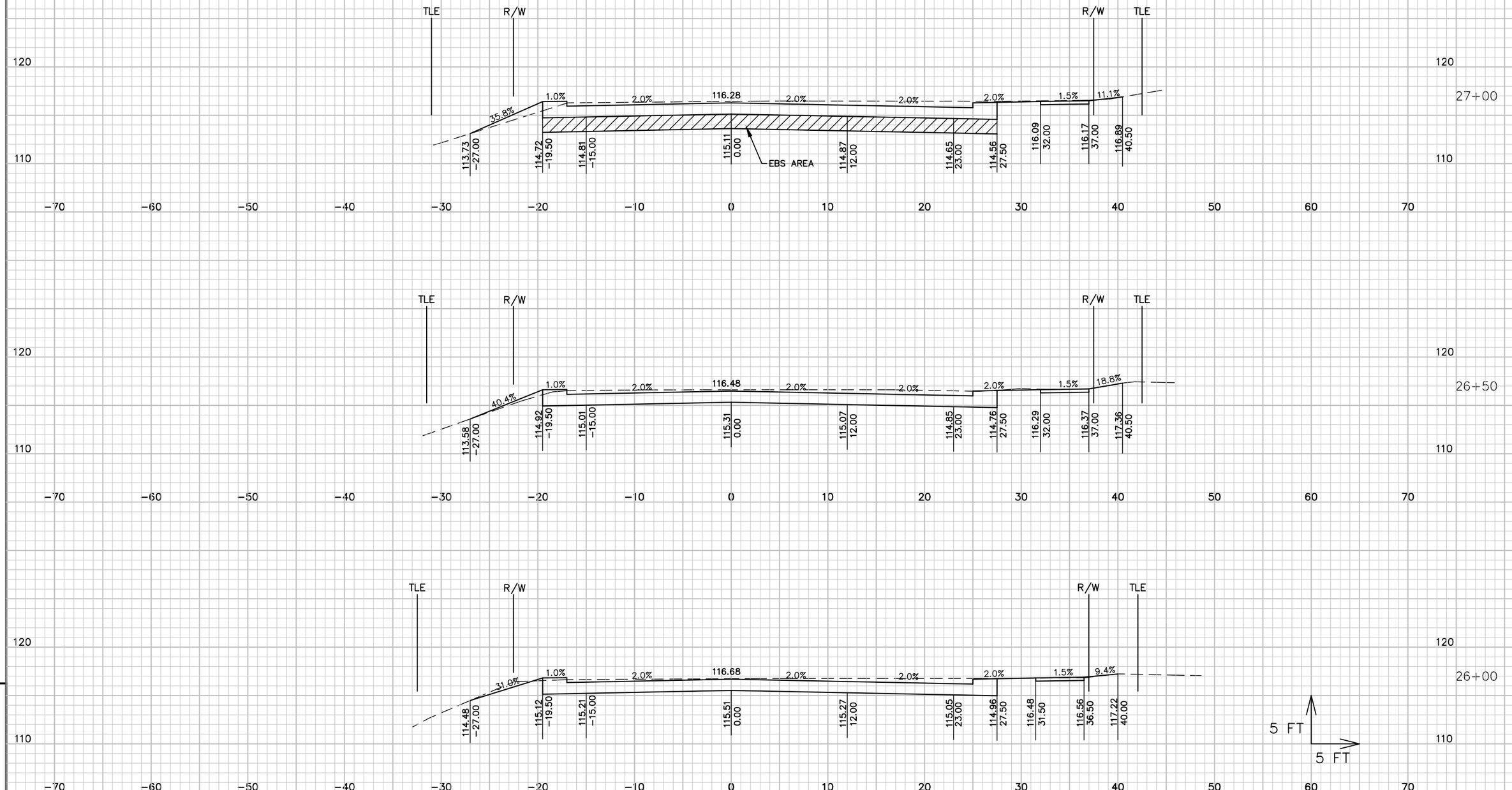
9

PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 197	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:49 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



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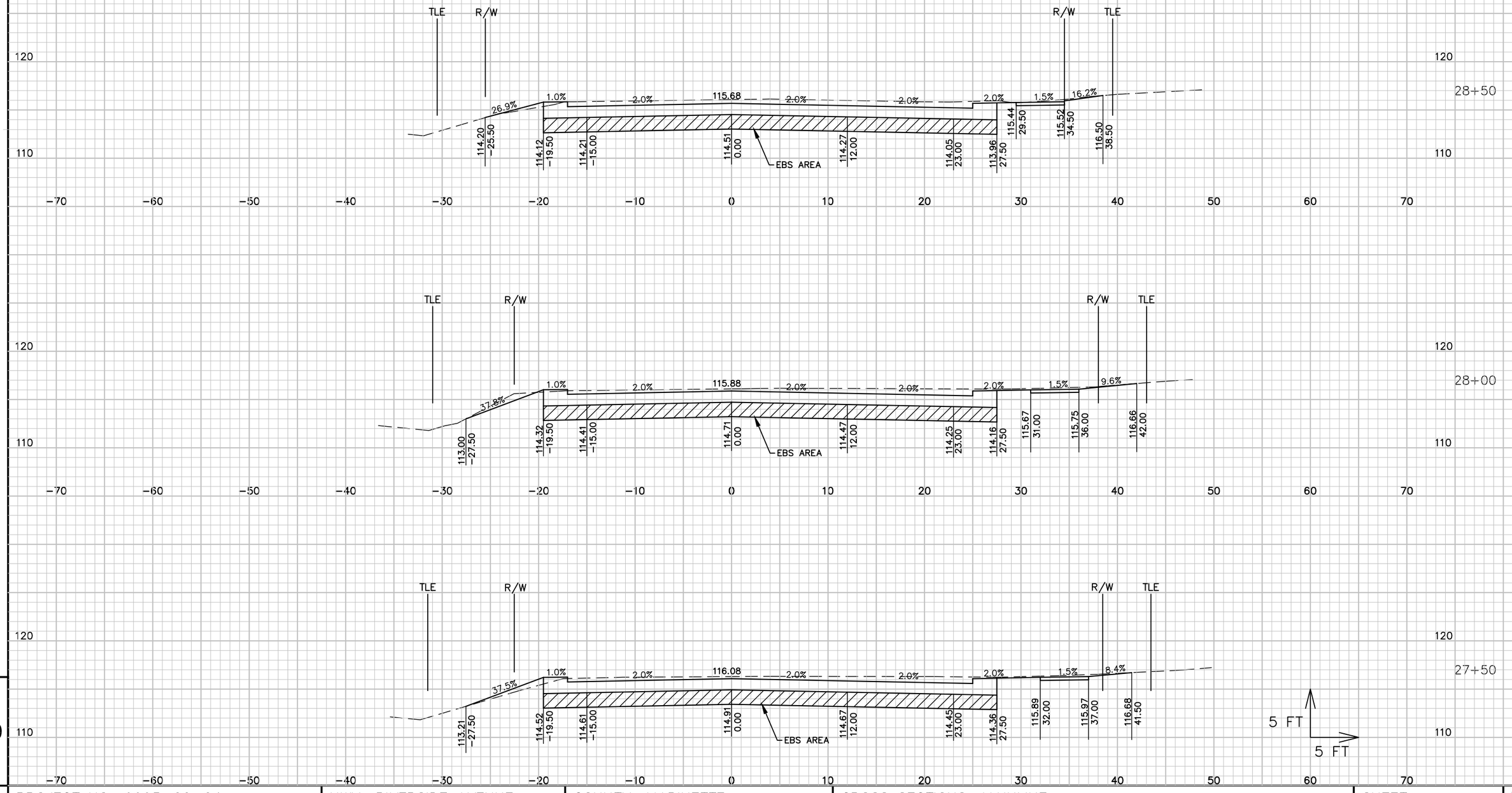
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 198	E

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



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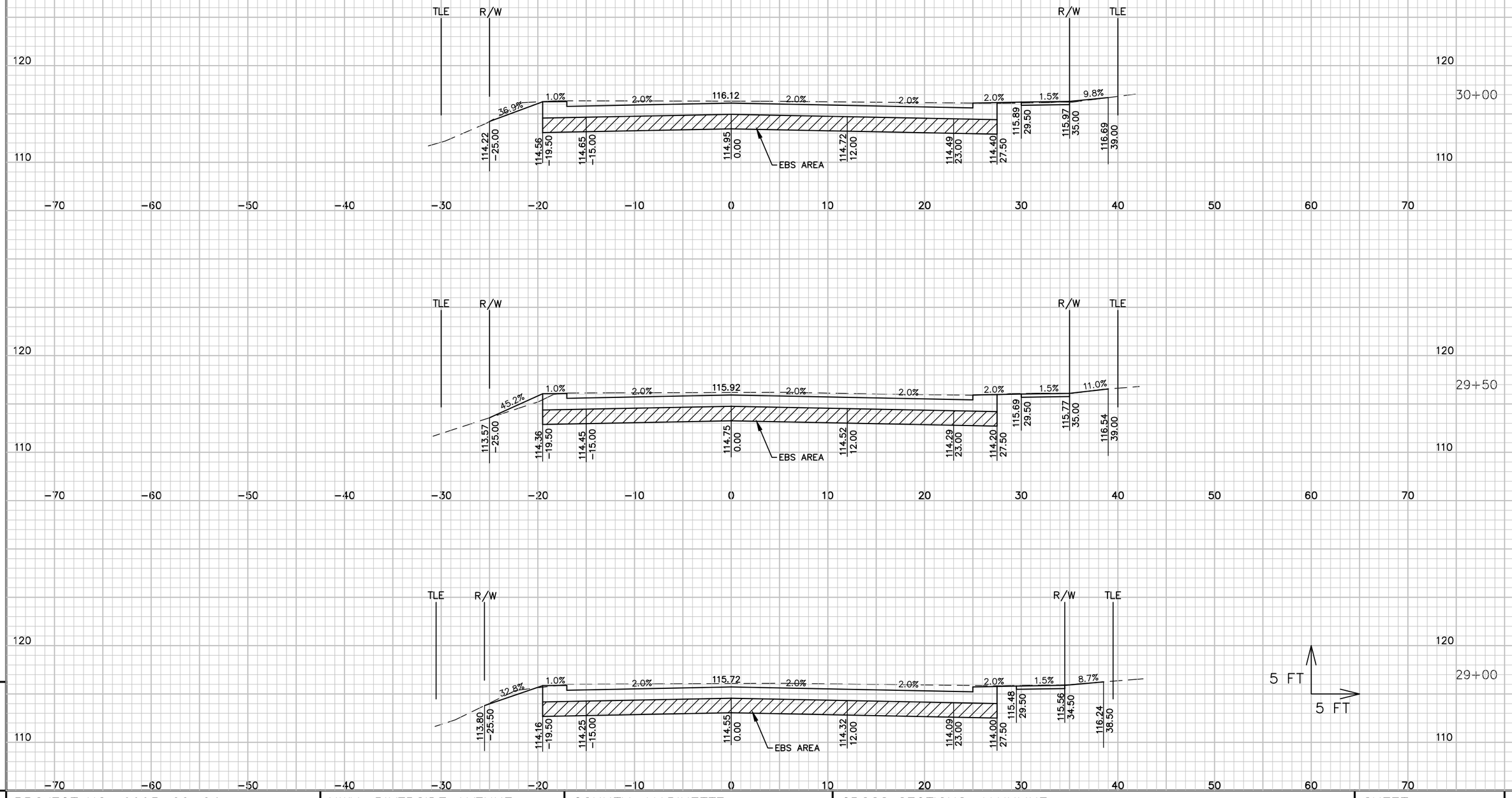
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 199	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:50 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



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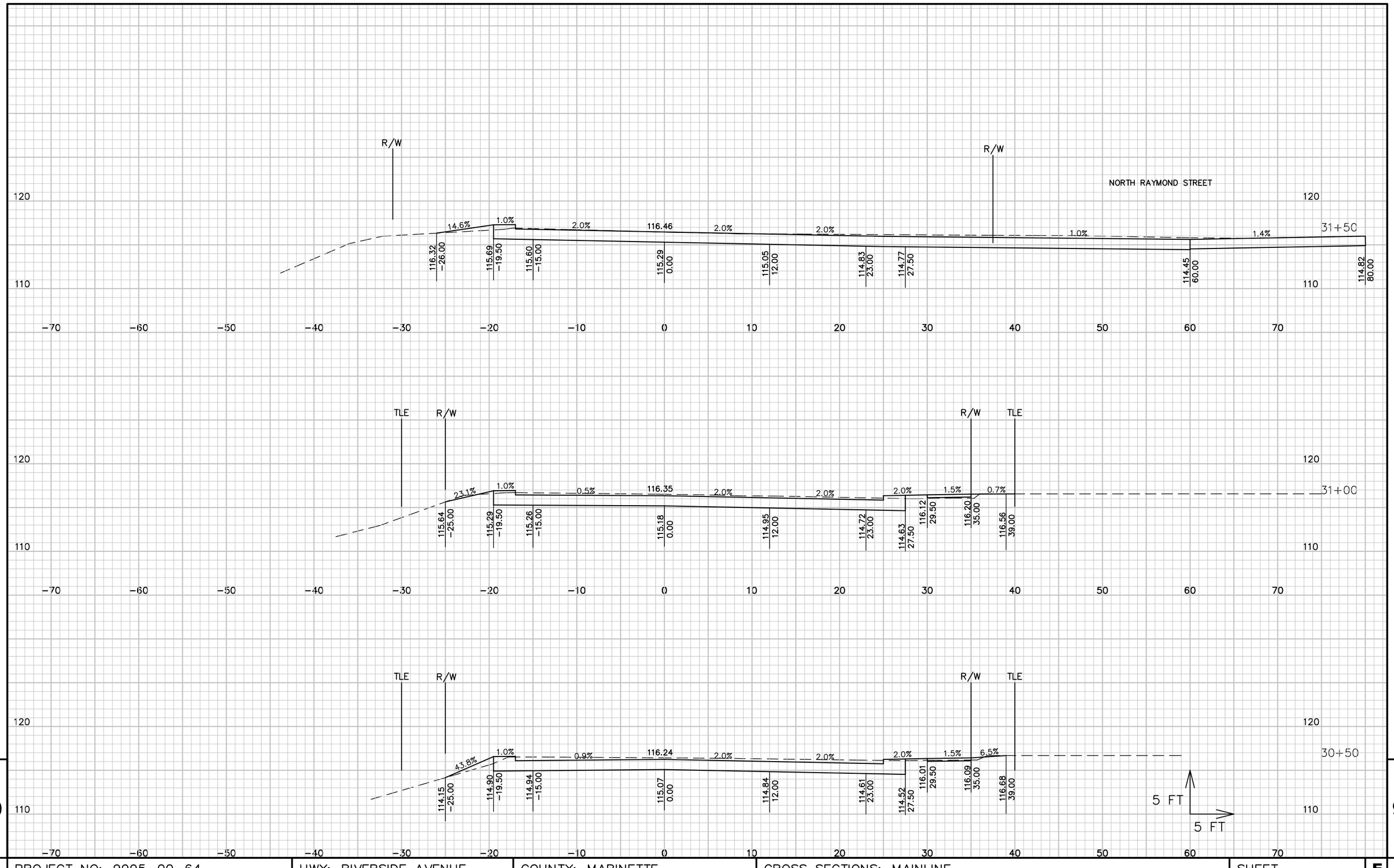
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 200	E



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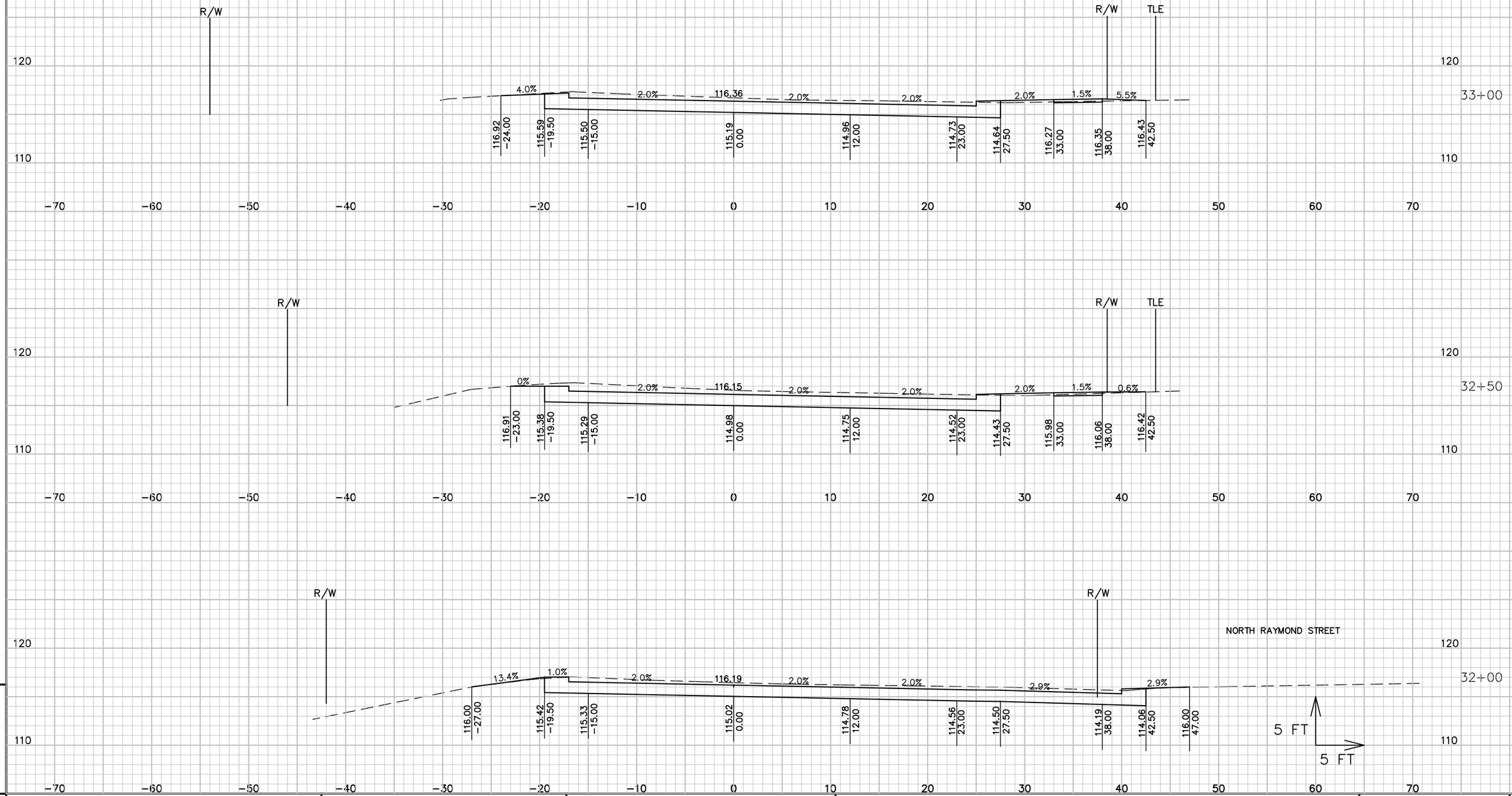
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 201	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####

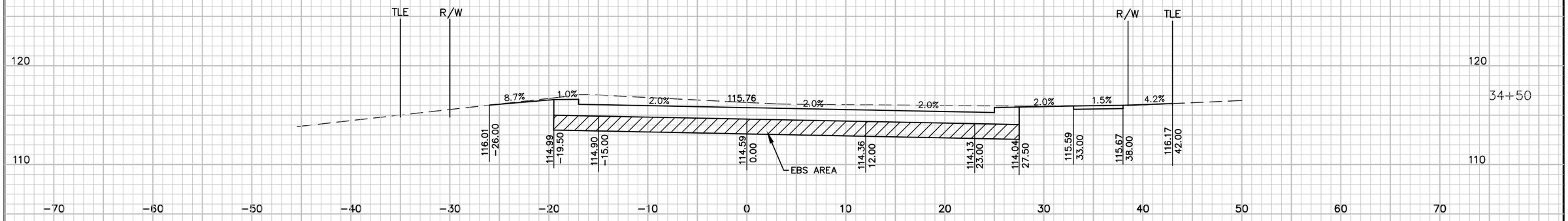
PLOT DATE : 7/6/2017 4:51 PM PLOT BY : JAKE HEARLEY PLOT NAME :

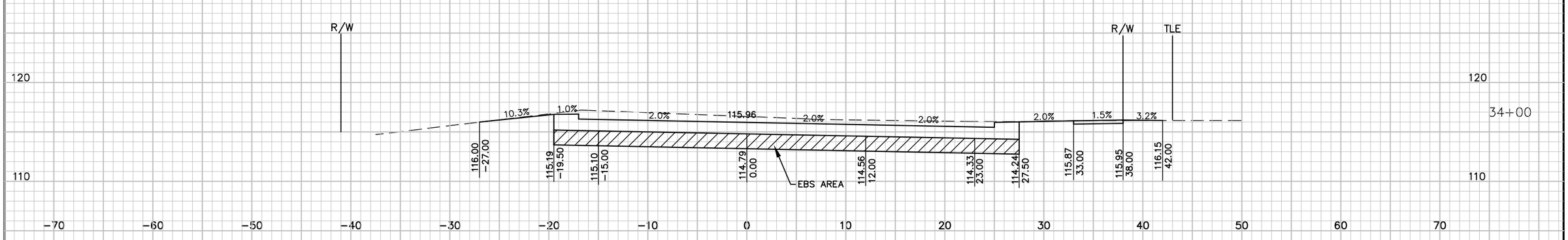


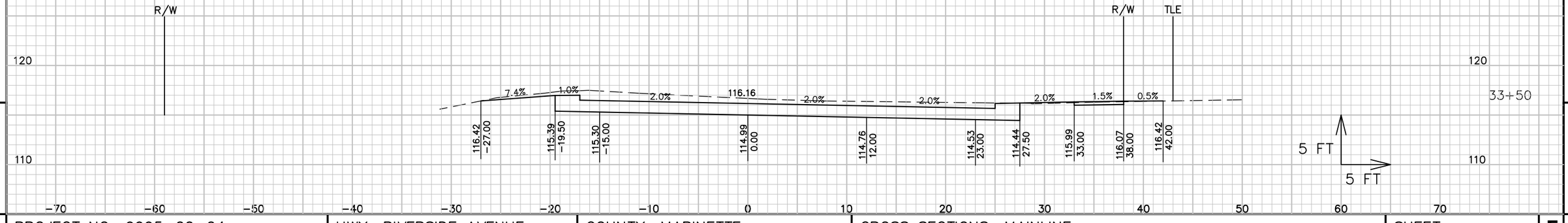
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 202	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:51 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.







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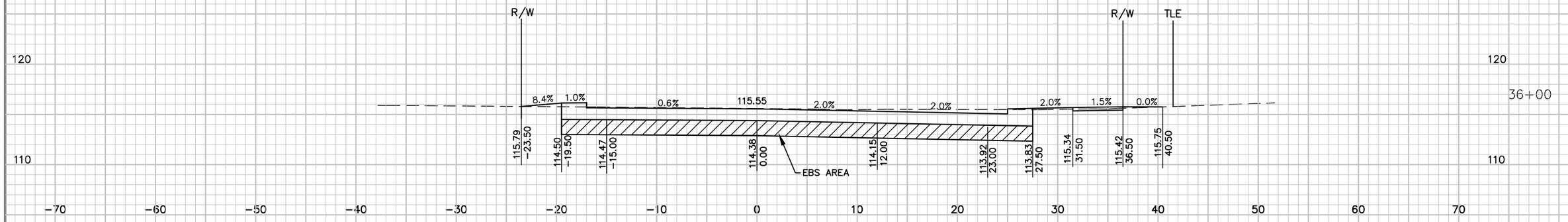
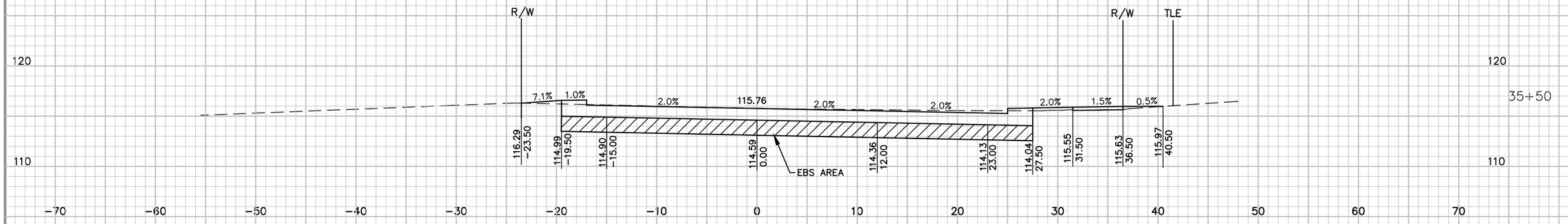
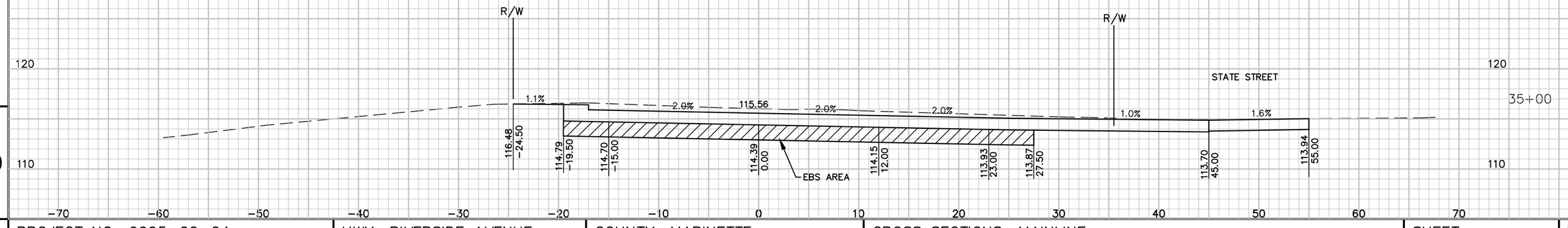
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 203	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:52 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.







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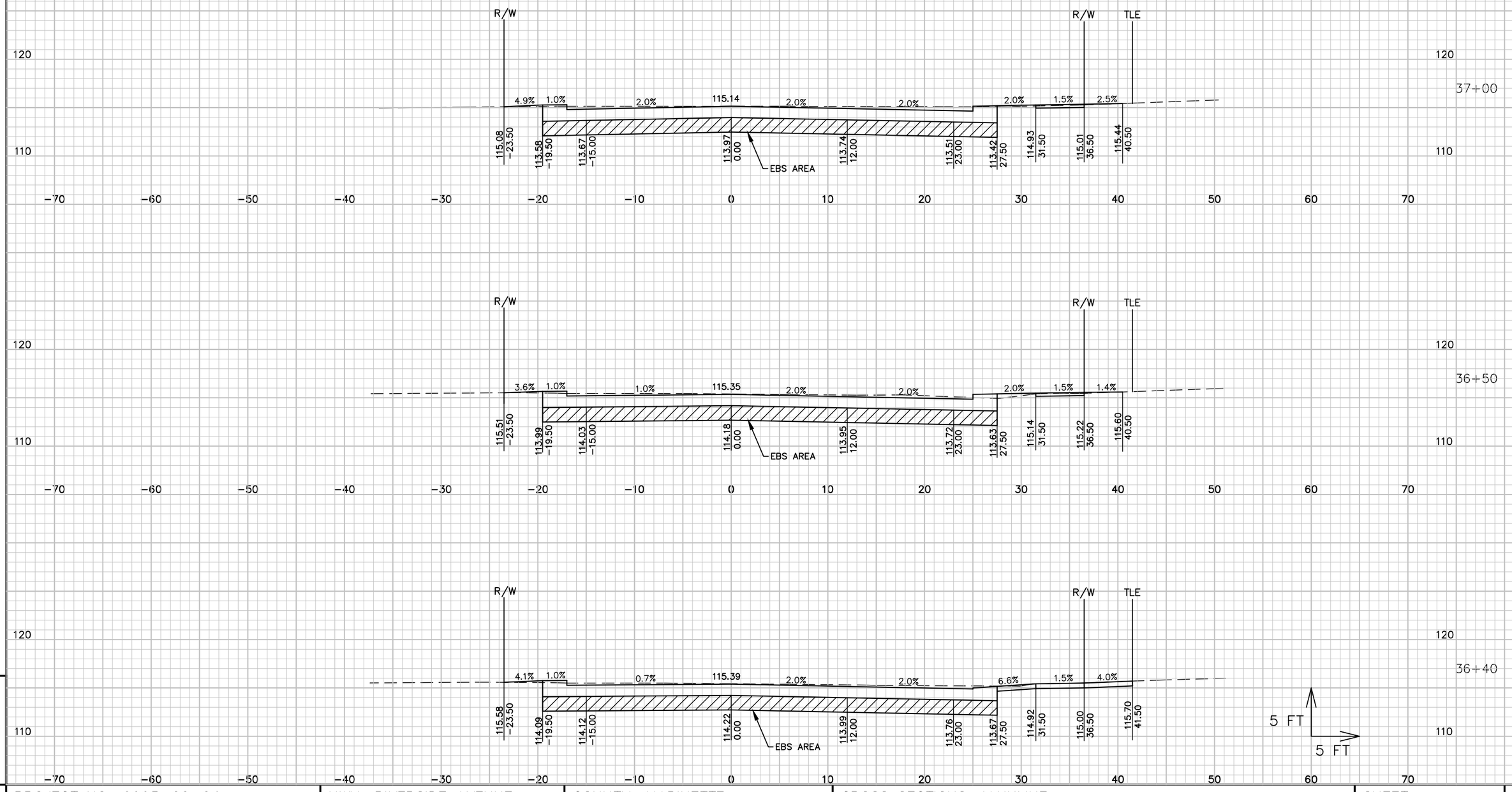
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 204	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:52 PM PLOT BY : JAKE HEARLEY PLOT NAME :

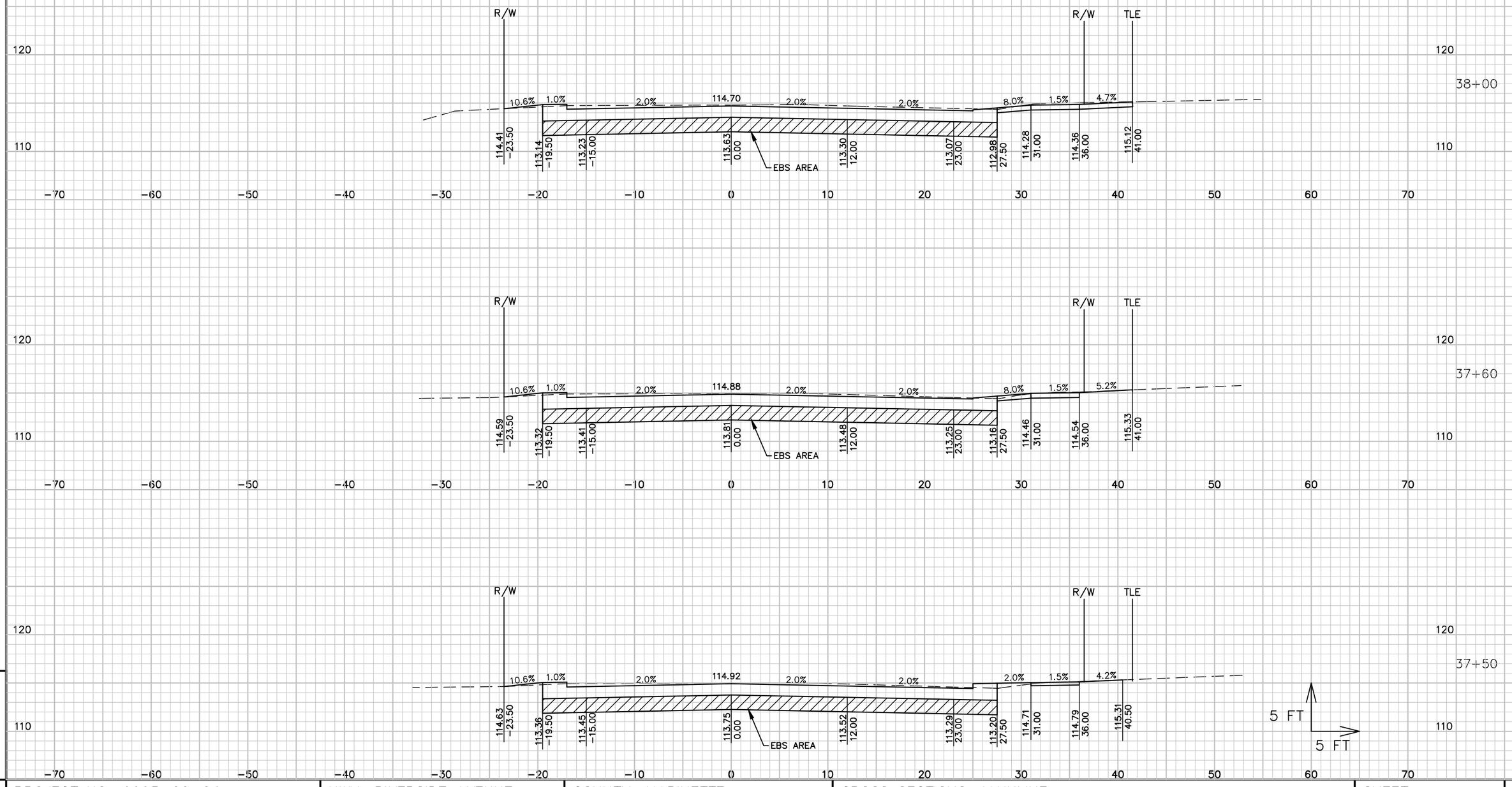
NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 205 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:53 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :

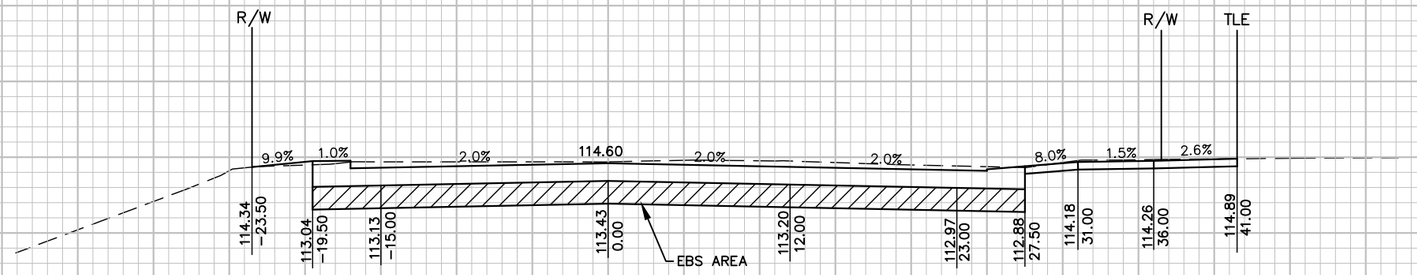
NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



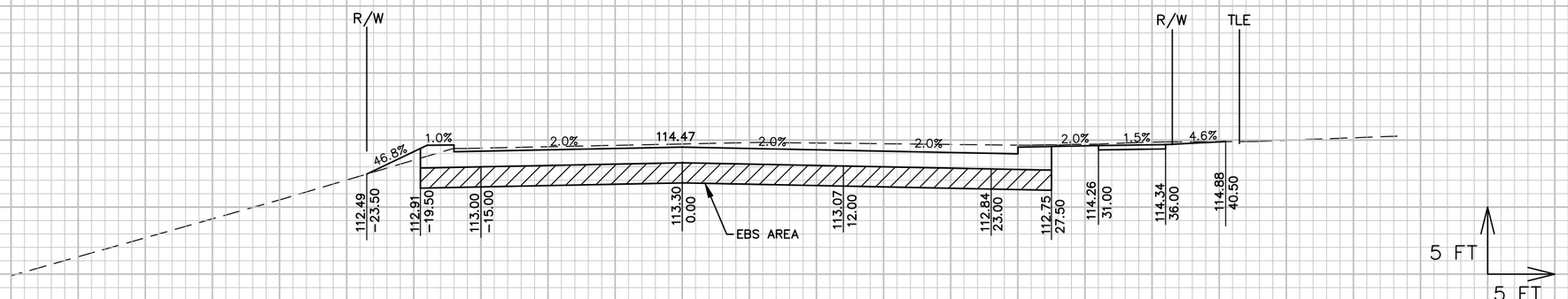
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 206 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:53 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.



38+83

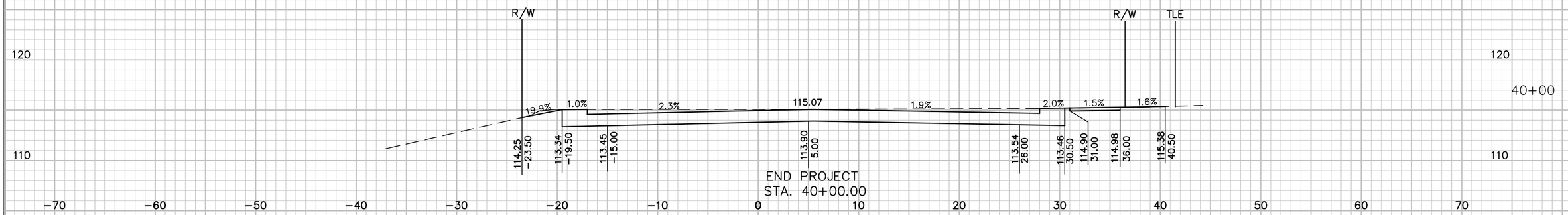


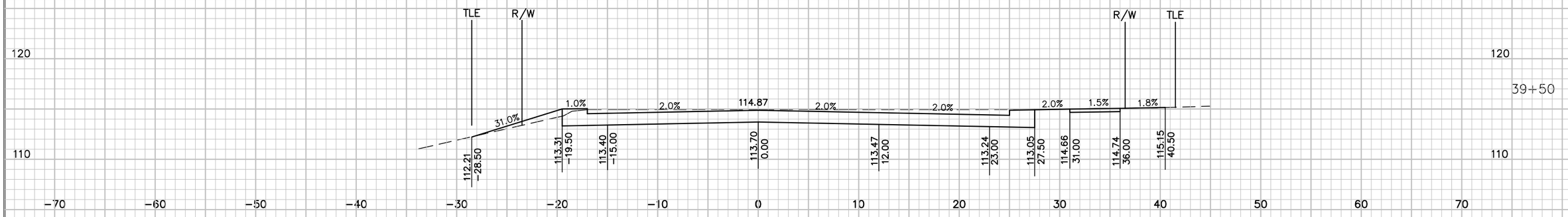
38+50

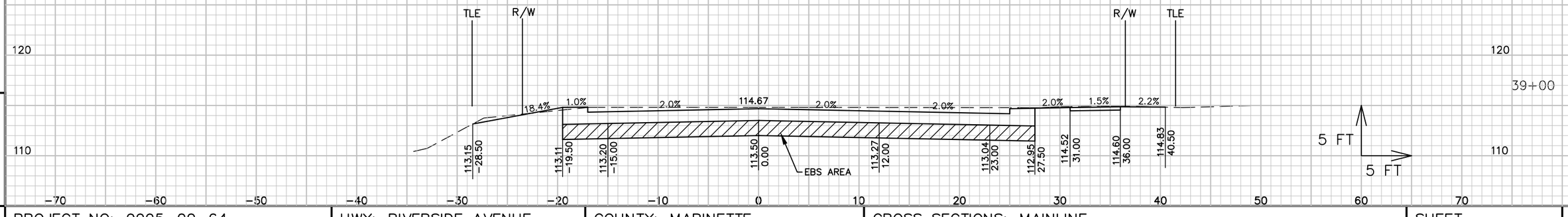
PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 207 E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG PLOT DATE : 7/6/2017 4:54 PM PLOT BY : JAKE HEARLEY PLOT NAME :
LAYOUT NAME - ####

NOTE: THE SUGRADE ELEVATIONS SHOWN ARE ACTUALLY SUBGRADE ELEVATIONS AND NOT EBS SUBGRADE.







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PROJECT NO: 9995-00-64	HWY: RIVERSIDE AVENUE	COUNTY: MARINETTE	CROSS SECTIONS: MAINLINE	SHEET 208	E

FILE NAME : M:\JOE\CIVIL 3D PROJECTS\RIVERSIDE 2010\WDOT DRAWINGS WITH BORDERS\NEW CROSS SECTIONS\RIVERSIDE XSEC-1.DWG
LAYOUT NAME - ####
PLOT DATE : 7/6/2017 4:54 PM
PLOT BY : JAKE HEARLEY
PLOT NAME :

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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