

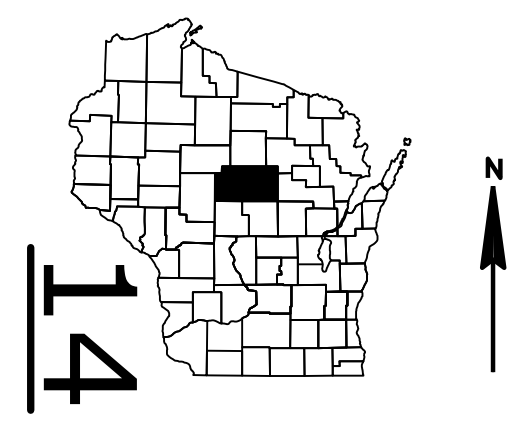
WIS
PROJECT ID:
WITH: NA
6999-10-84
COUNTY:
MARATHON

JULY 2019

ORDER OF SHEETS

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

TOTAL SHEETS = 32



DESIGN DESIGNATION

A.A.D.T.	2020	=	28,700
A.A.D.T.		=	NA
D.H.V.		=	NA
D.D.		=	NA
T.		=	13.7%
DESIGN SPEED		=	65 MPH
ESALS		=	NA

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WAUSAU - WITTENBERG

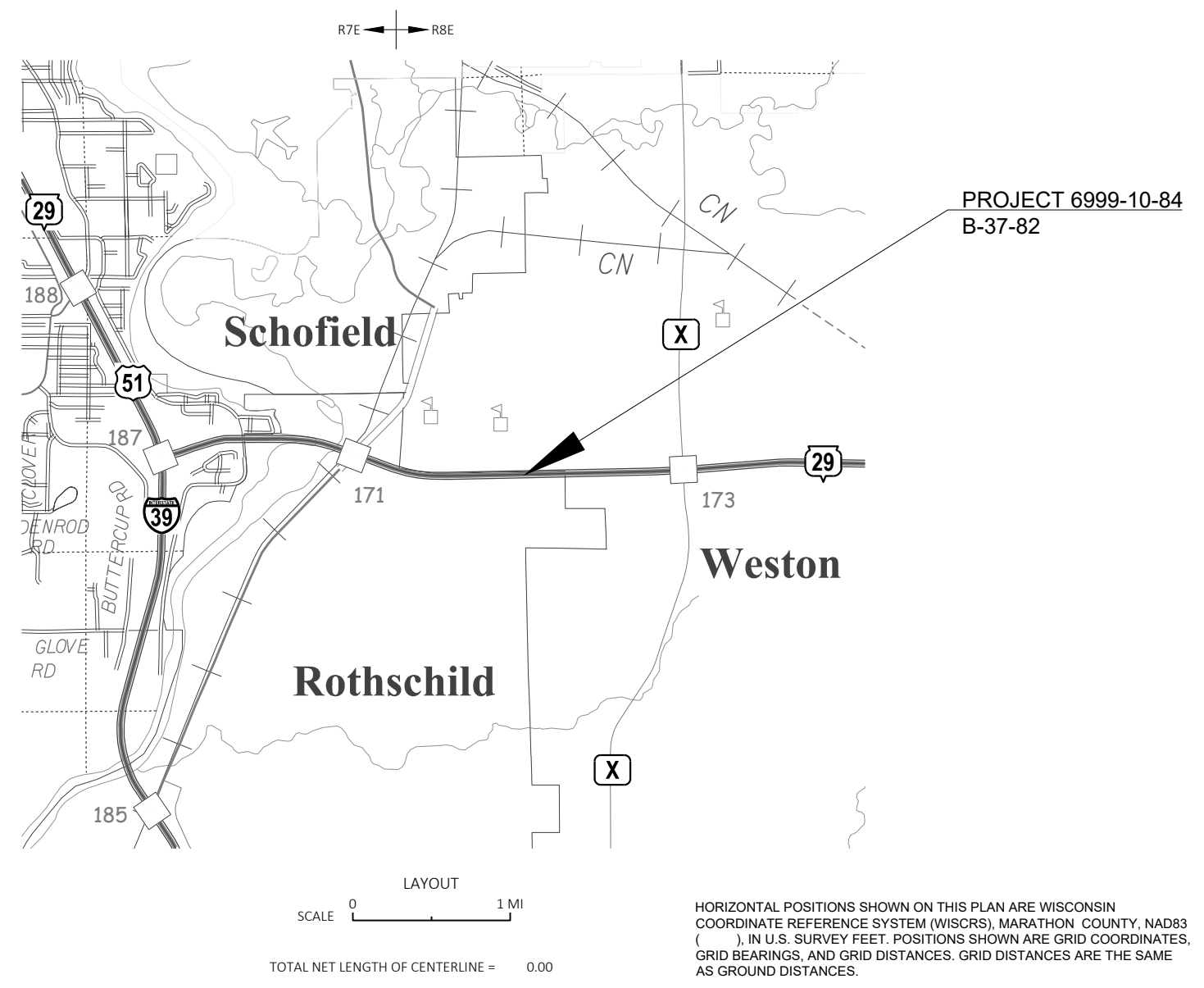
ALDERSON STREET BRIDGE B-37-82

STH 29

MARATHON COUNTY

STATE PROJECT NUMBER

6999-10-84



HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MARATHON COUNTY, NAD83 (), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6999-10-84		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor

Designer

Project Manager

Regional Examiner

Regional Supervisor

REGION

ZACHARY GRULING

MARK STEIDL

CHERYL SIMON

MICHAEL KRETSCHMER

APPROVED FOR THE DEPARTMENT

DATE: 5/12/19

(Signature)

E

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITITES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

SECTION 2 ORDER

- General Notes
- Project Overview
- Typical Section
- Traffic Control

AS-BUILT REFERENCE (YEAR)*

- 1054-07-71 (1988)
- 1054-07-77 (1989)
- 0077-04-21 (2004)
- 1053-02-65 (2015)

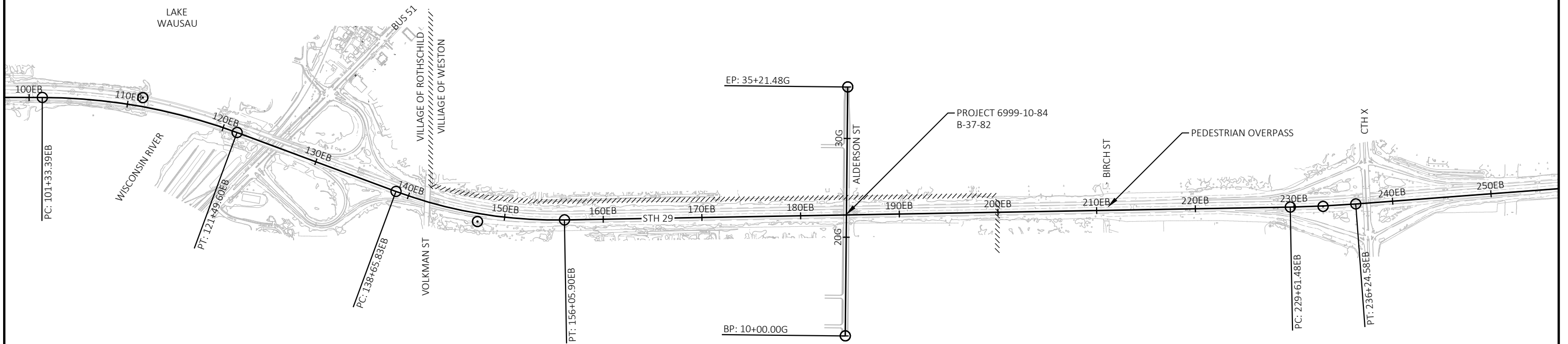
*Approval Year (Not Construction)

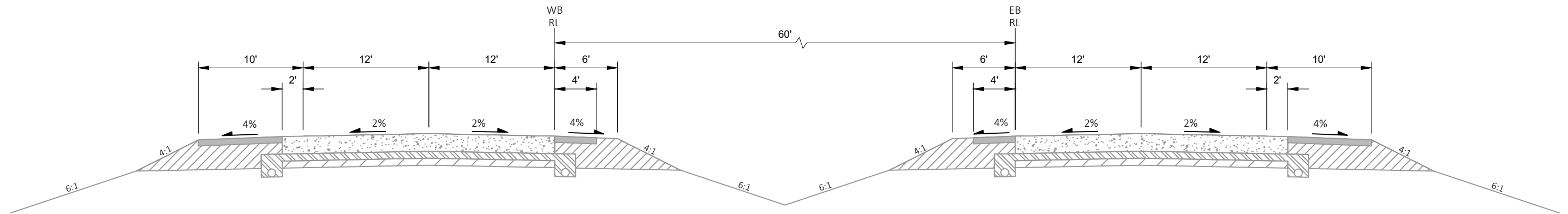
ENVIRONMENTAL CONTACTS

WI Department of Natural Resources
473 Griffith Ave
Wisconsin Rapids, WI 54494
Attn: Casey Jones
Phone: (715) 421-7867
casey.jones@wisconsin.gov

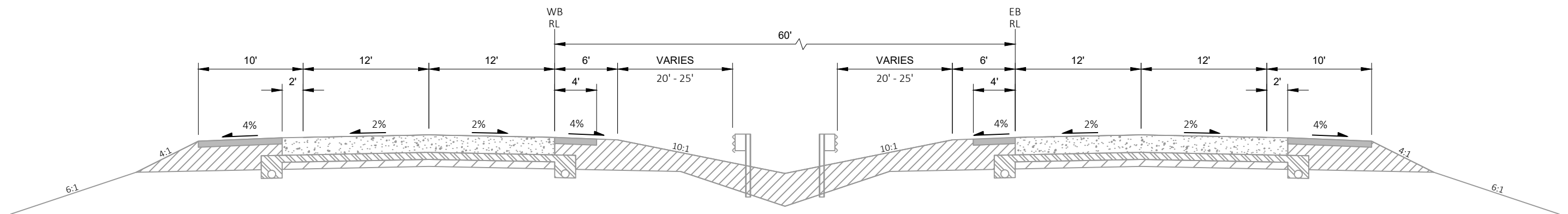


Dial 811 or (800)242-8511
www.DiggersHotline.com





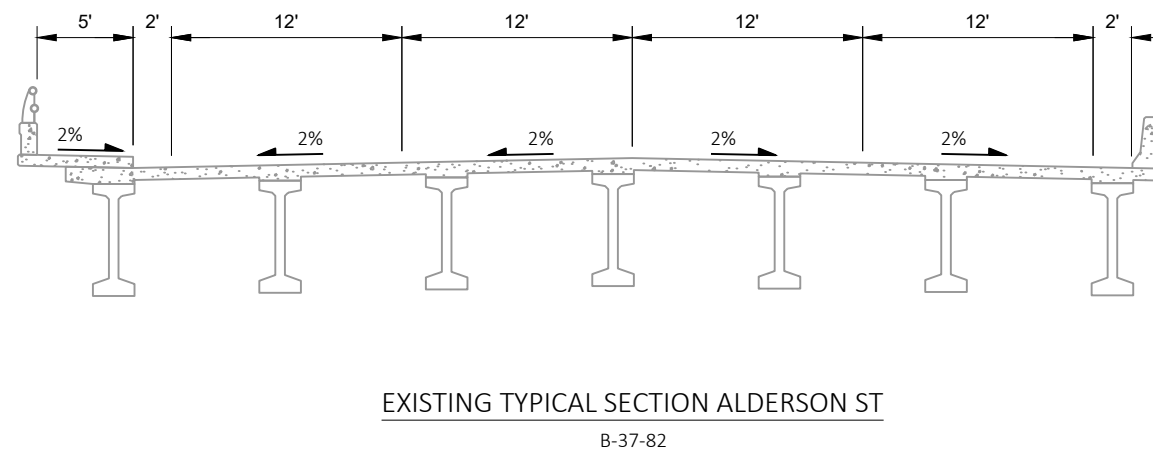
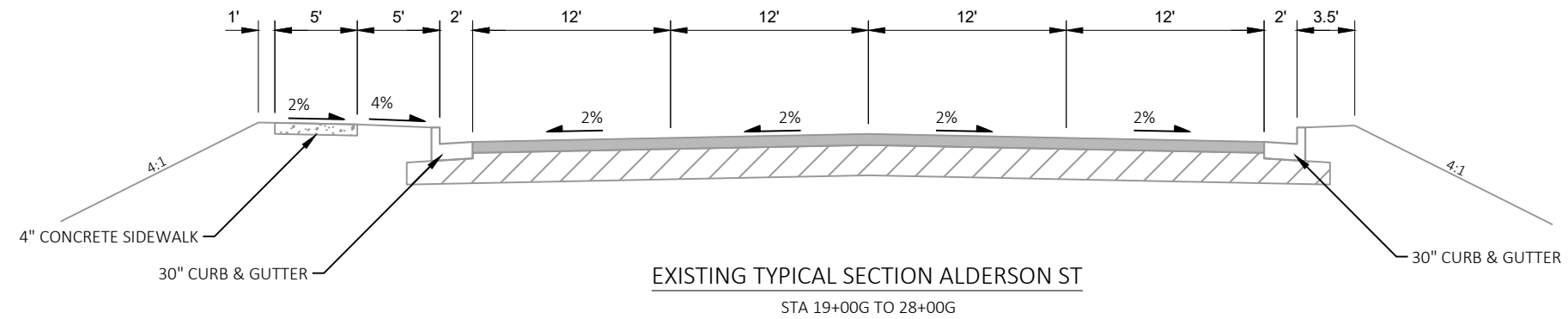
EXISTING TYPICAL SECTION STH 29
STA 180+00EB TO STA 183+25EB
STA 186+00EB TO STA 188+00EB



EXISTING TYPICAL SECTION STH 29
STA 183+25EB TO STA 186+00EB

LEGEND

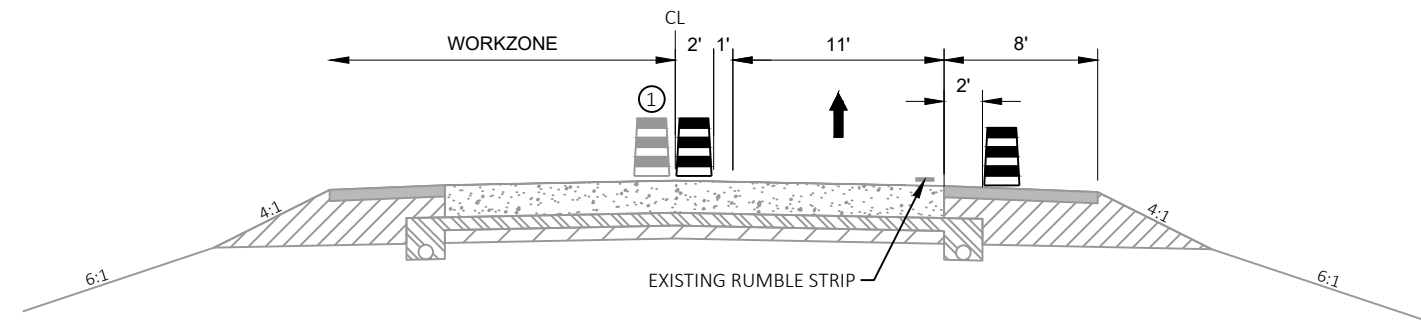
- EXISTING CONCRETE PAVEMENT
- EXISTING ASPHALT PAVEMENT
- EXISTING 3/4-INCH BASE COURSE
- EXISTING 1 1/4-INCH BASE COURSE
- EXISTING OPEN GRADED BASE COURSE



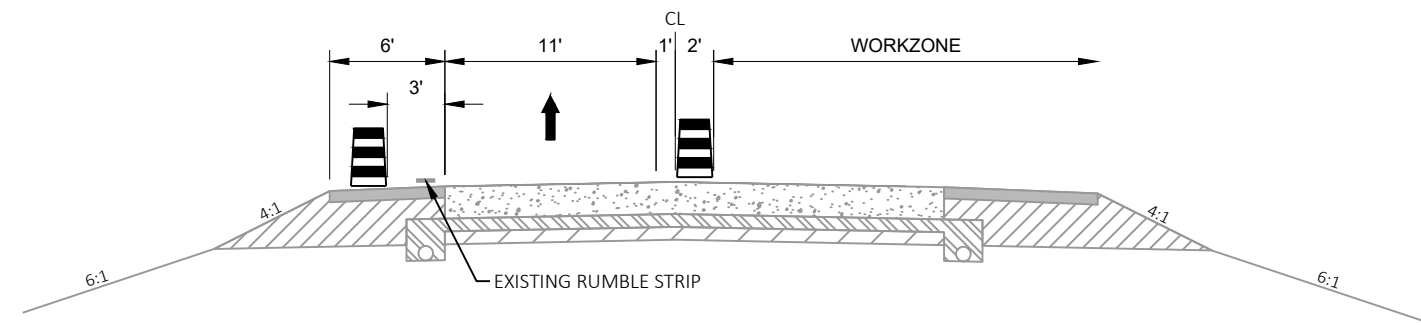
LEGEND

- EXISTING CONCRETE
- EXISTING ASPHALT PAVEMENT
- EXISTING 1 1/4-INCH BASE COURSE

- ① MOVE DRUM WHEN WORK IS NOT OCCURRING
② EXISTING DRUM IN PLACE
REMOVED BY OTHERS AT END OF PROJECT
③ SIDEWALK ON BRIDGE TO REMAIN OPEN TO PEDESTRIAN TRAFFIC



TRAFFIC CONTROL TYPICAL SECTION STH 29
PASSING LANE CLOSURE



TRAFFIC CONTROL TYPICAL SECTION STH 29
DRIVING LANE CLOSURE

LEGEND

- EXISTING CONCRETE PAVEMENT
EXISTING ASPHALT PAVEMENT
EXISTING 3/4-INCH BASE COURSE
EXISTING 1 1/4-INCH BASE COURSE
EXISTING OPEN GRADED BASE COURSE

PROJECT NO: 6999-10-84

HWY: STH 29

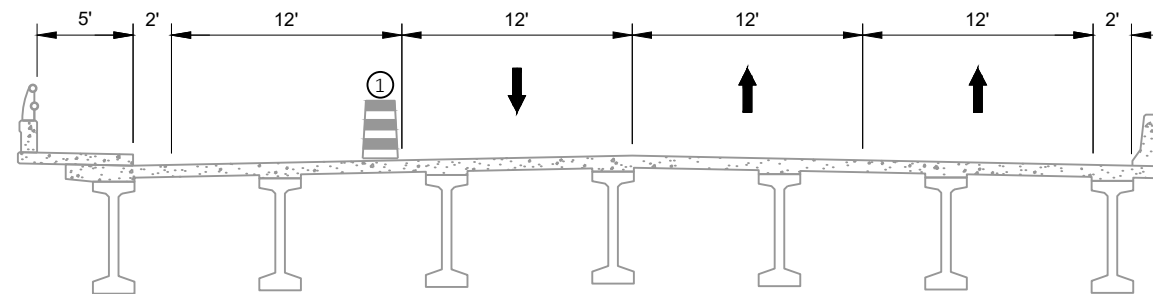
COUNTY: MARATHON

TRAFFIC CONTROL TYPICAL SECTION

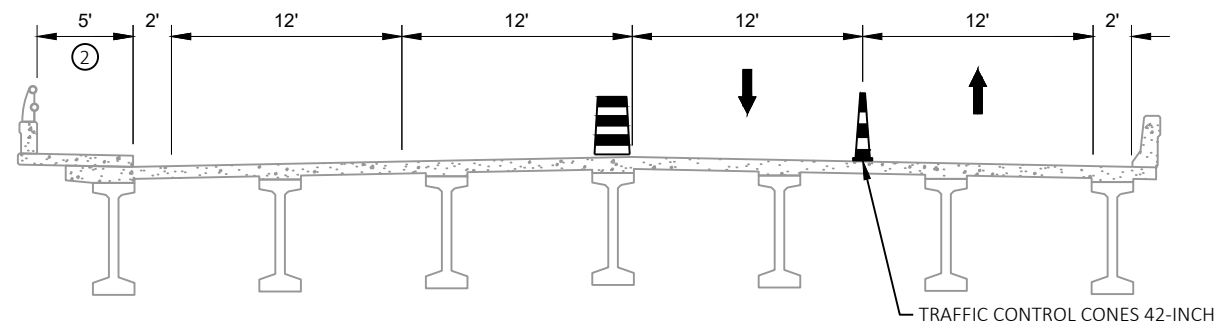
SHEET

E

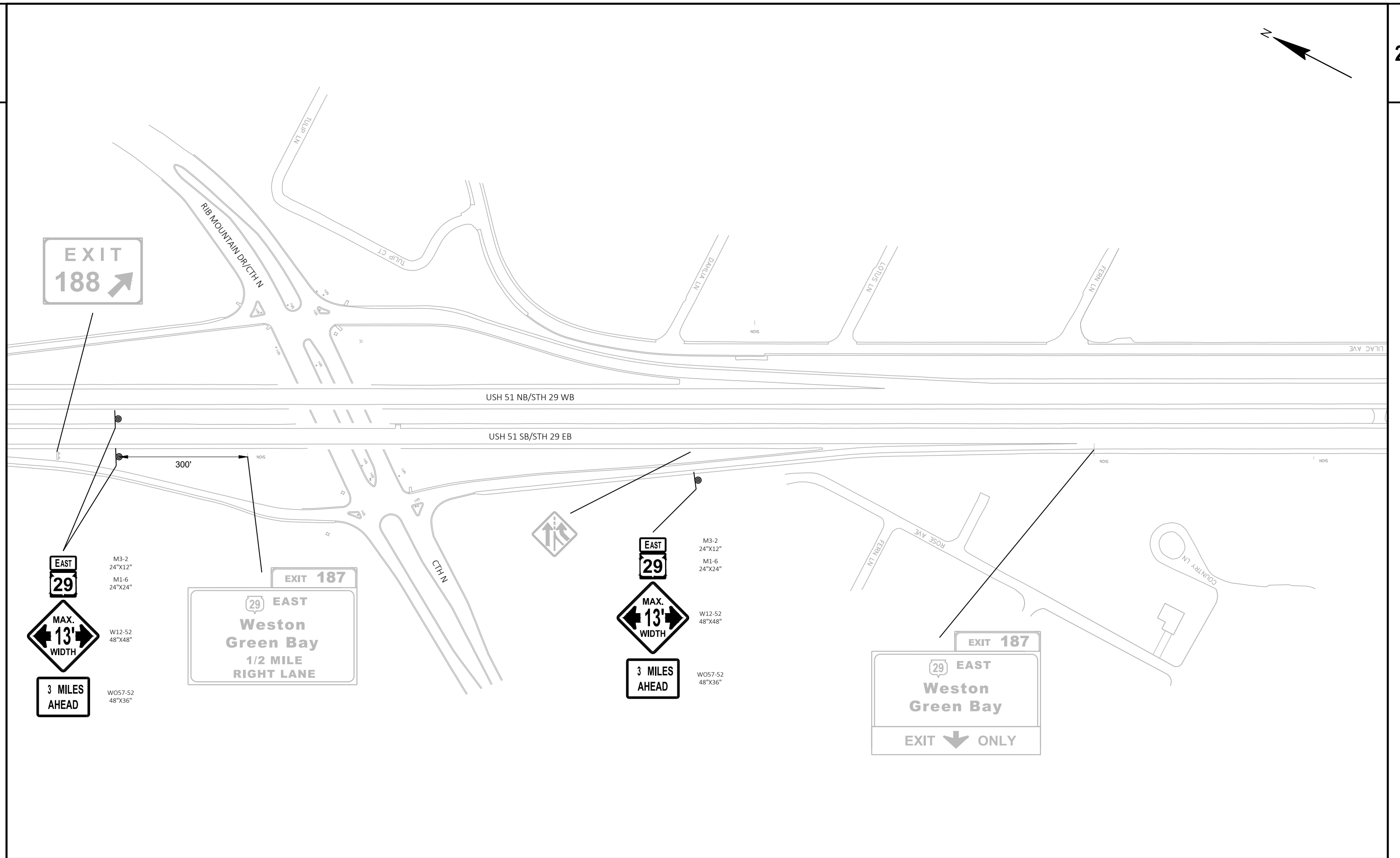
- ① EXISTING DRUM IN PLACE
REMOVED BY OTHERS BEFORE PROJECT
- ② SIDEWALK ON BRIDGE TO REMAIN OPEN TO PEDESTRIAN TRAFFIC

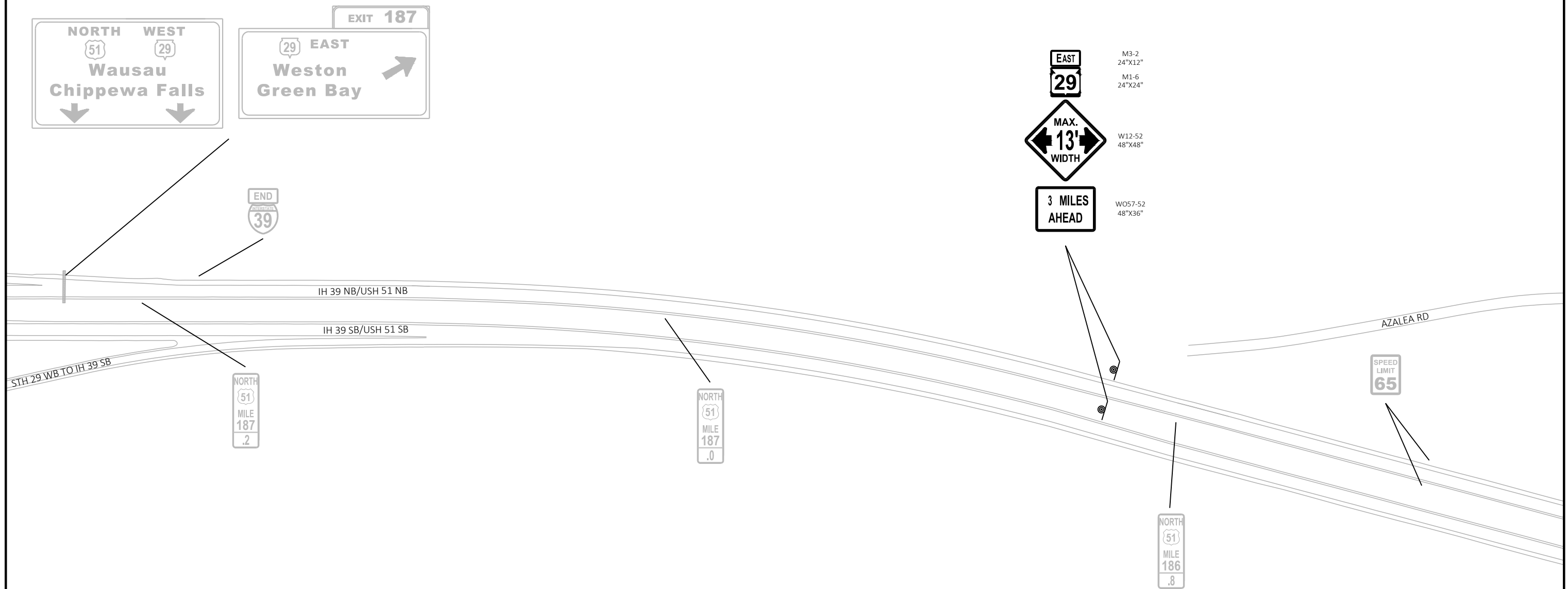


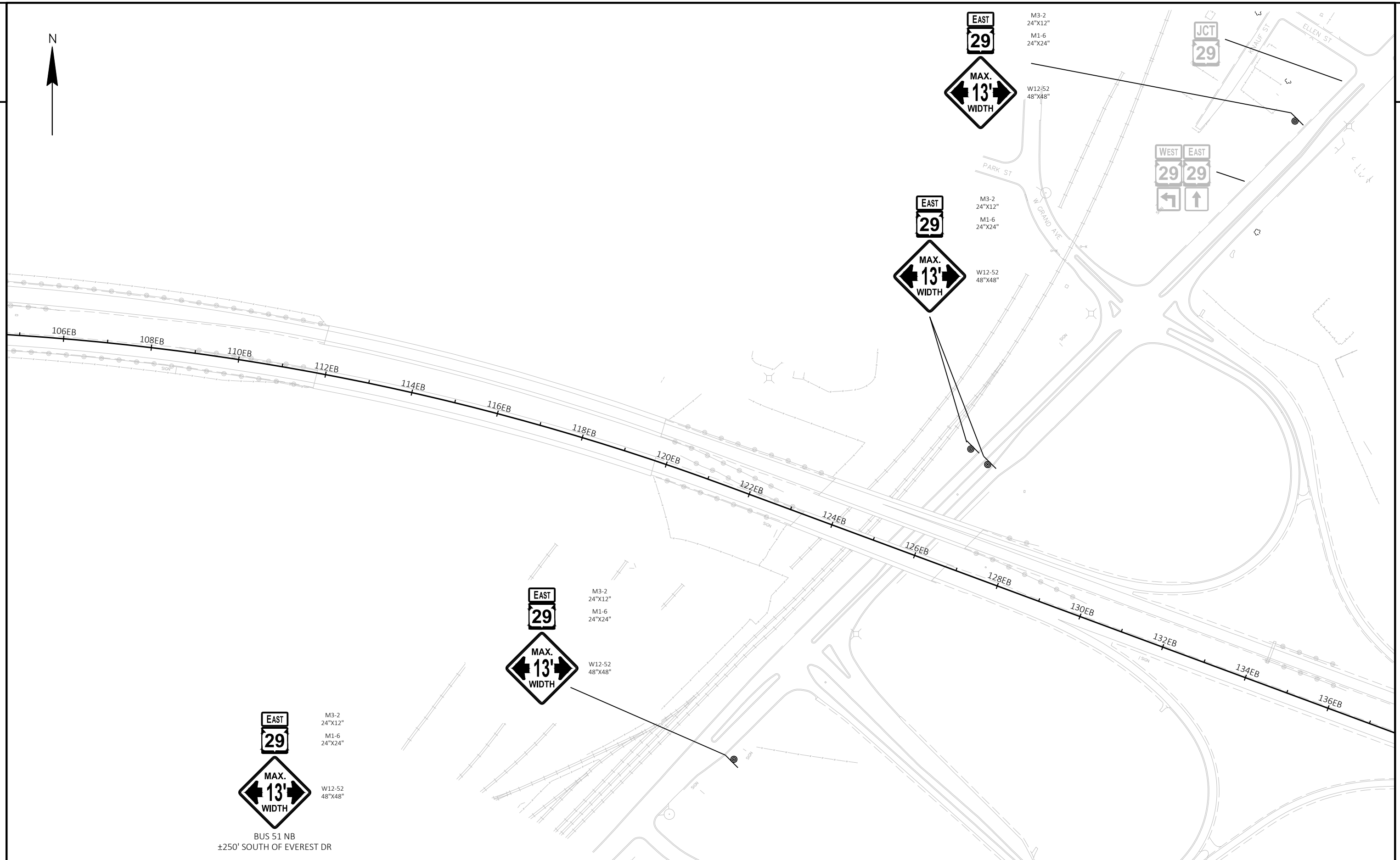
EXISTING TRAFFIC CONTROL TYPICAL SECTION ALDERSON ST
SB LANE CLOSURE OVER AFFECTED GIRDER



TRAFFIC CONTROL TYPICAL SECTION ALDERSON ST
DURING FIBER WRAP REINFORCING NON-STRUCTURAL





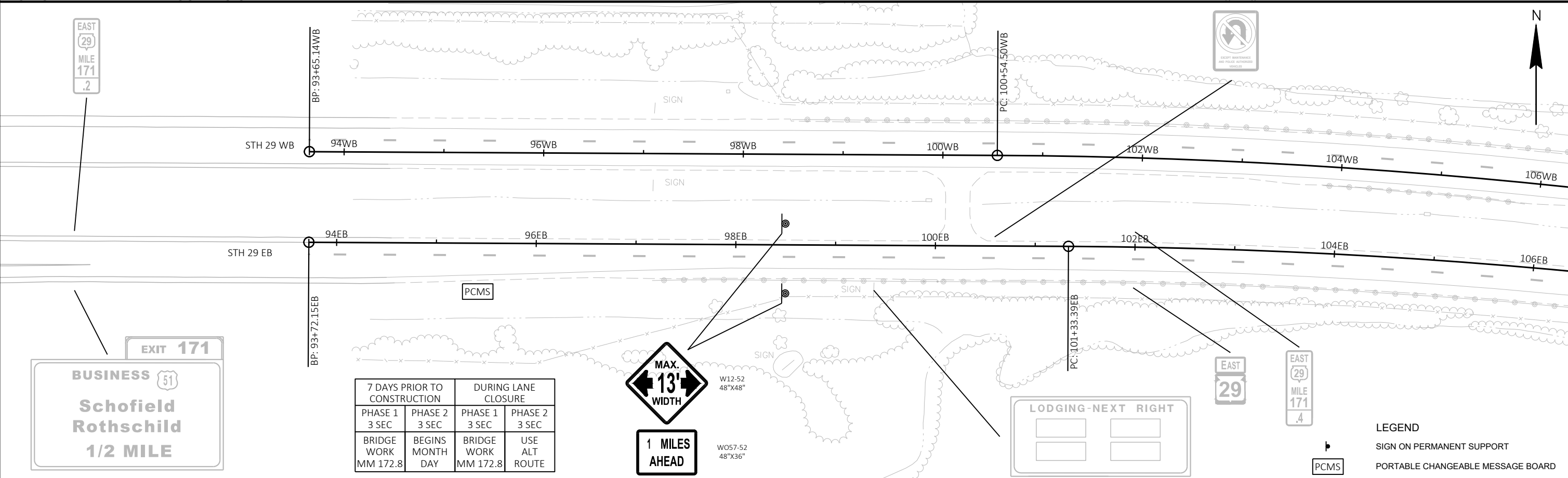
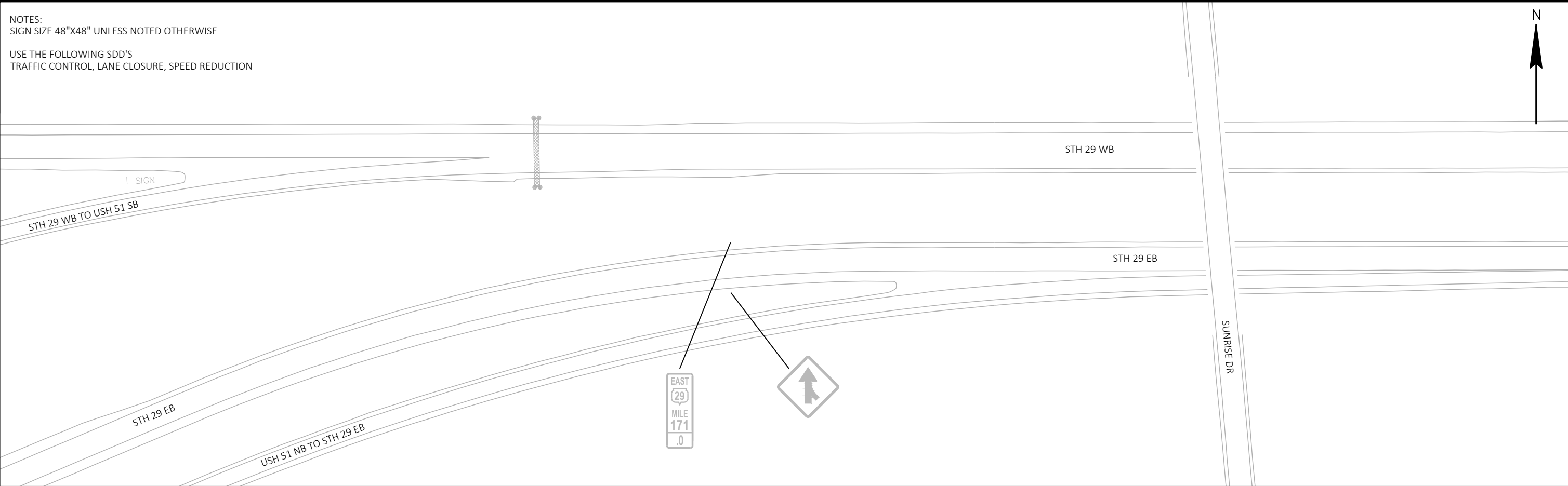


PROJECT NO: 6999-10-84	HWY: STH 29	COUNTY: MARATHON	WIDTH RESTRICTION SIGNING	SHEET	E
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2

NOTES:
SIGN SIZE 48"X48" UNLESS NOTED OTHERWISE
USE THE FOLLOWING SDD'S
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

2



PROJECT NO: 6999-10-84

HWY: STH 29

COUNTY: MARATHON

TRAFFIC CONTROL - LEFT LANE CLOSURE

SHEET

E

FILE NAME : N:\PDS\C3D\00770433\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 5/10/2019 6:50 AM

PLOT BY : GRULING, ZACHARY P

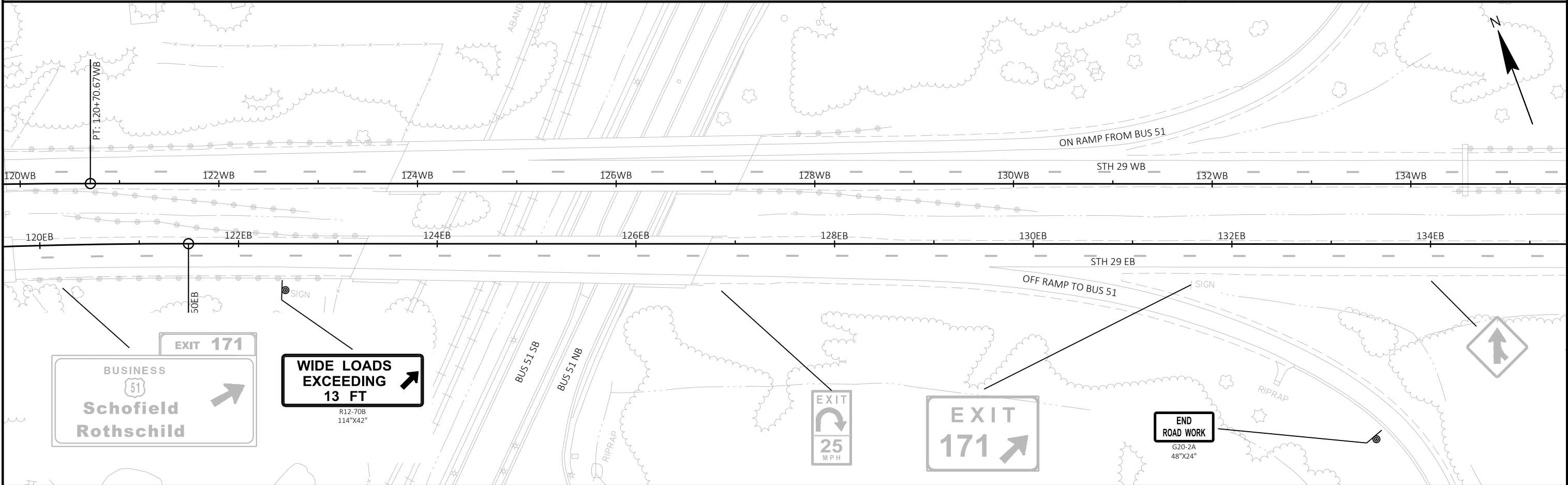
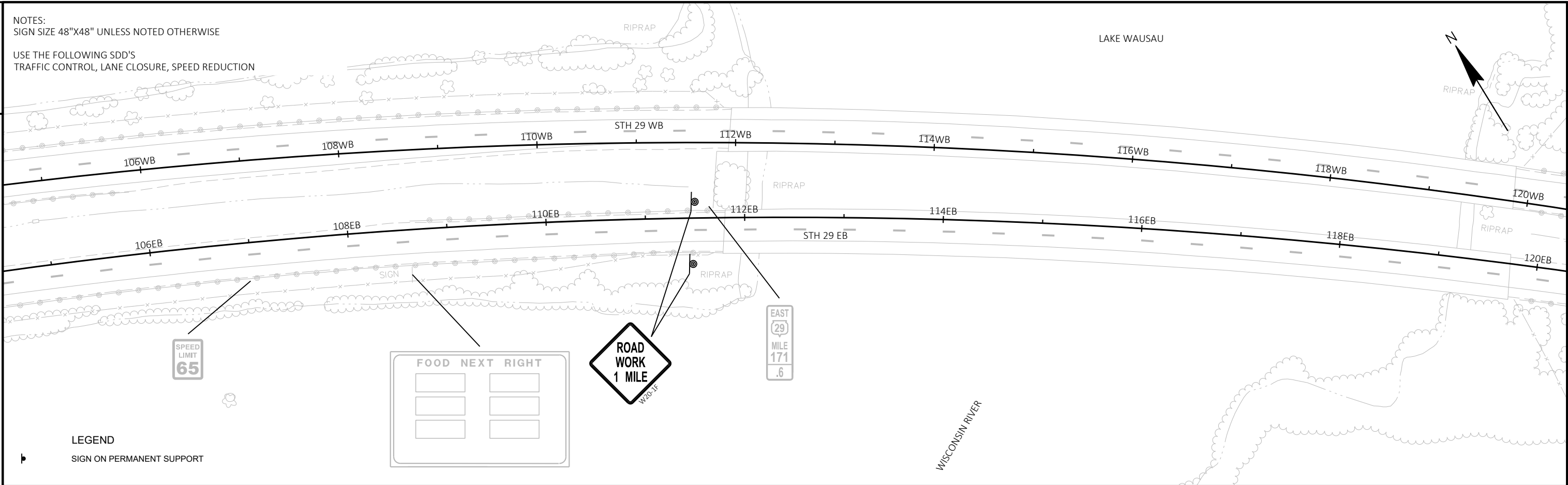
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 4

NOTES:
SIGN SIZE 48"X48" UNLESS NOTED OTHERWISE

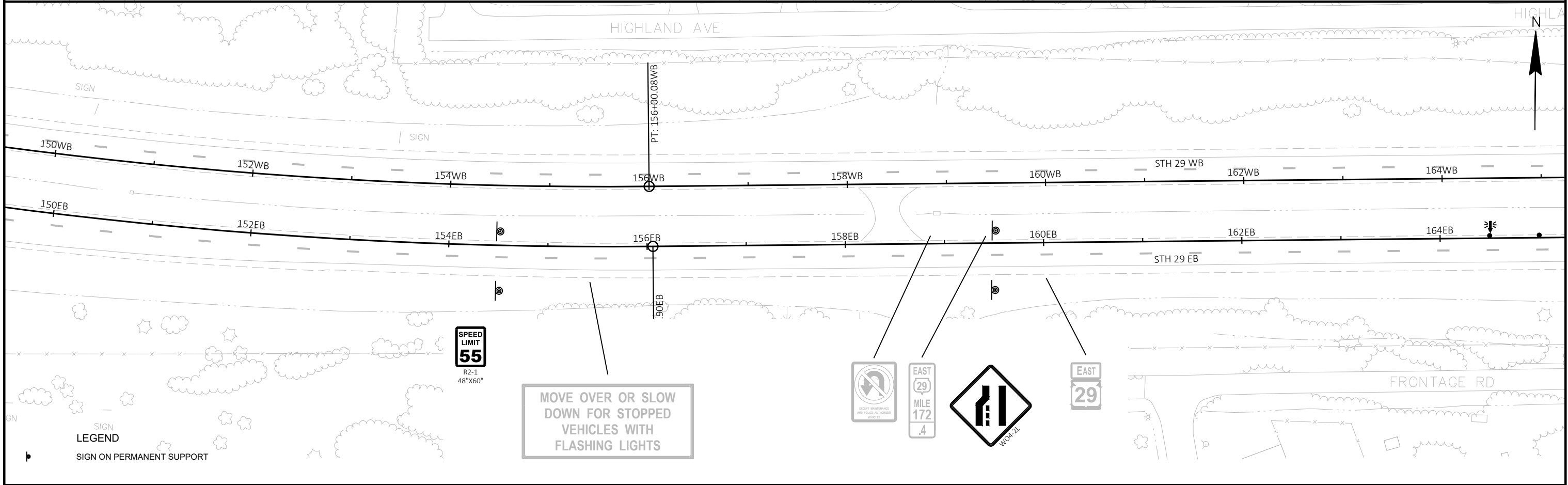
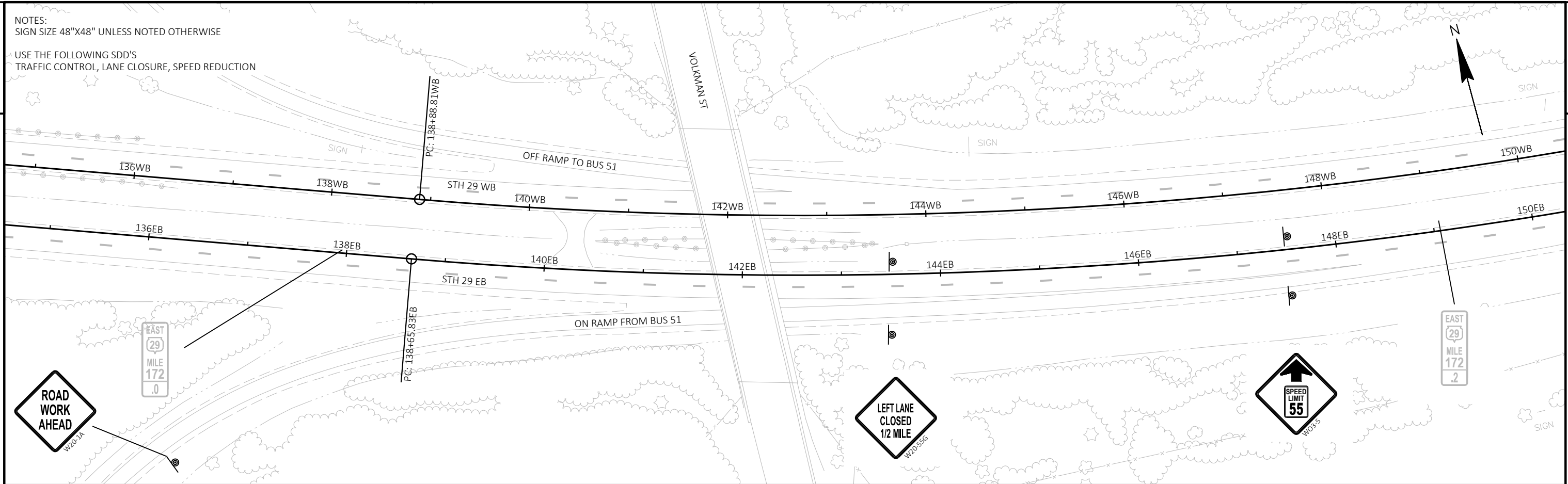
USE THE FOLLOWING SDD'S
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION



2

NOTES:
SIGN SIZE 48"X48" UNLESS NOTED OTHERWISE
USE THE FOLLOWING SDD'S
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

2



PROJECT NO: 6999-10-84

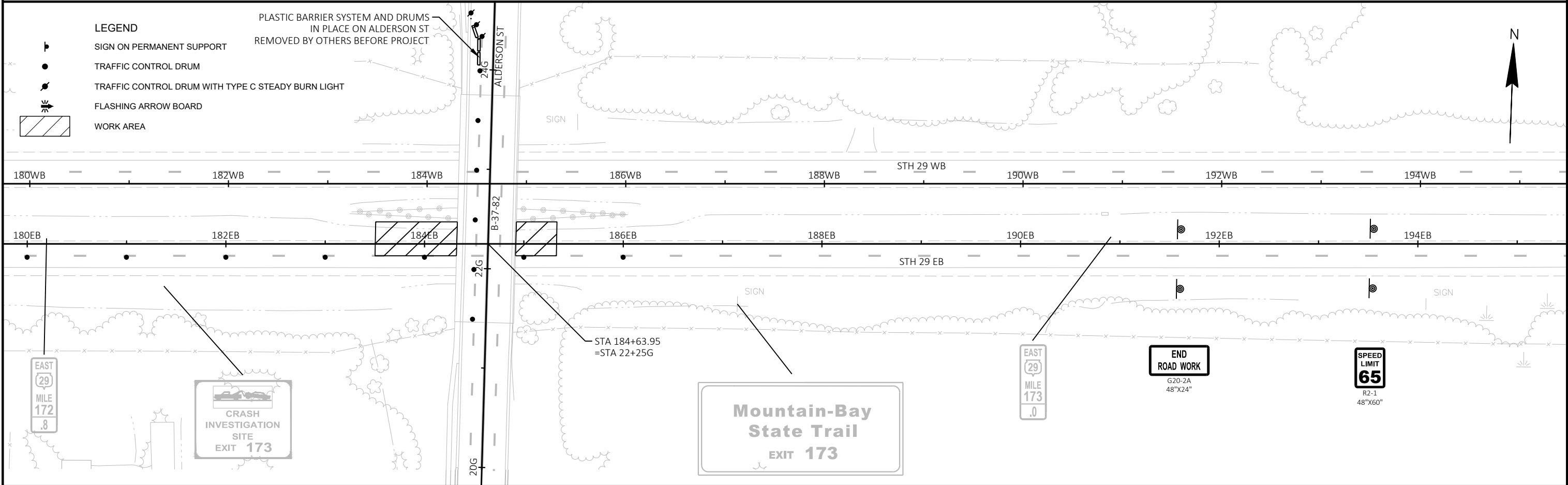
HWY: STH 29

COUNTY: MARATHON

TRAFFIC CONTROL - LEFT LANE CLOSURE

SHEET

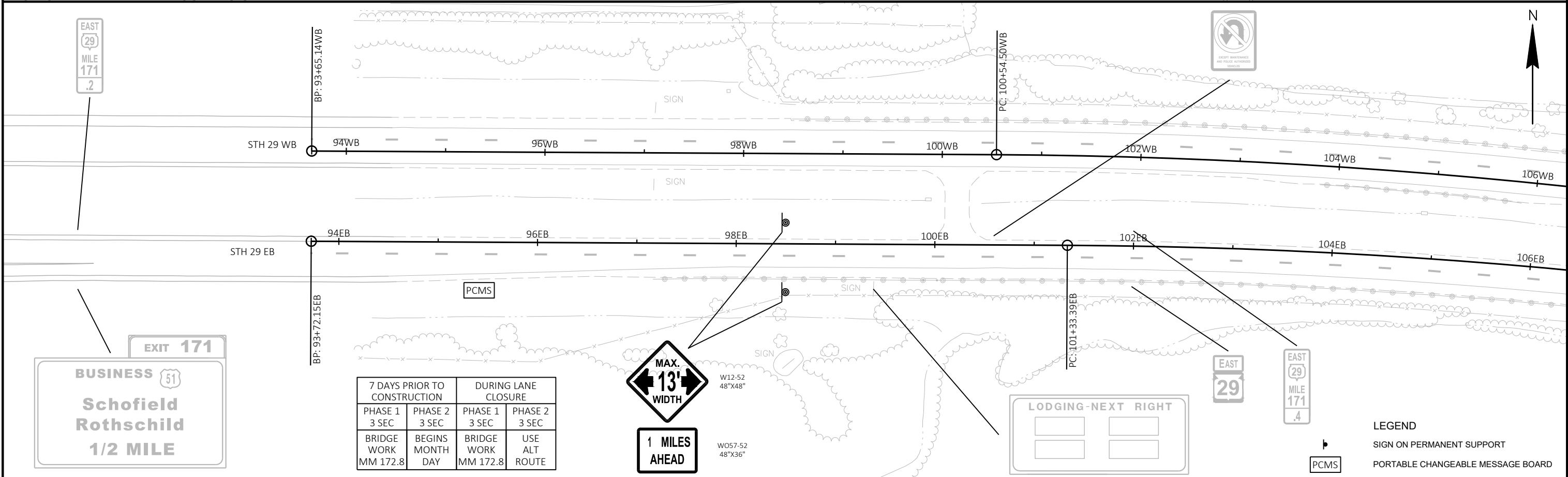
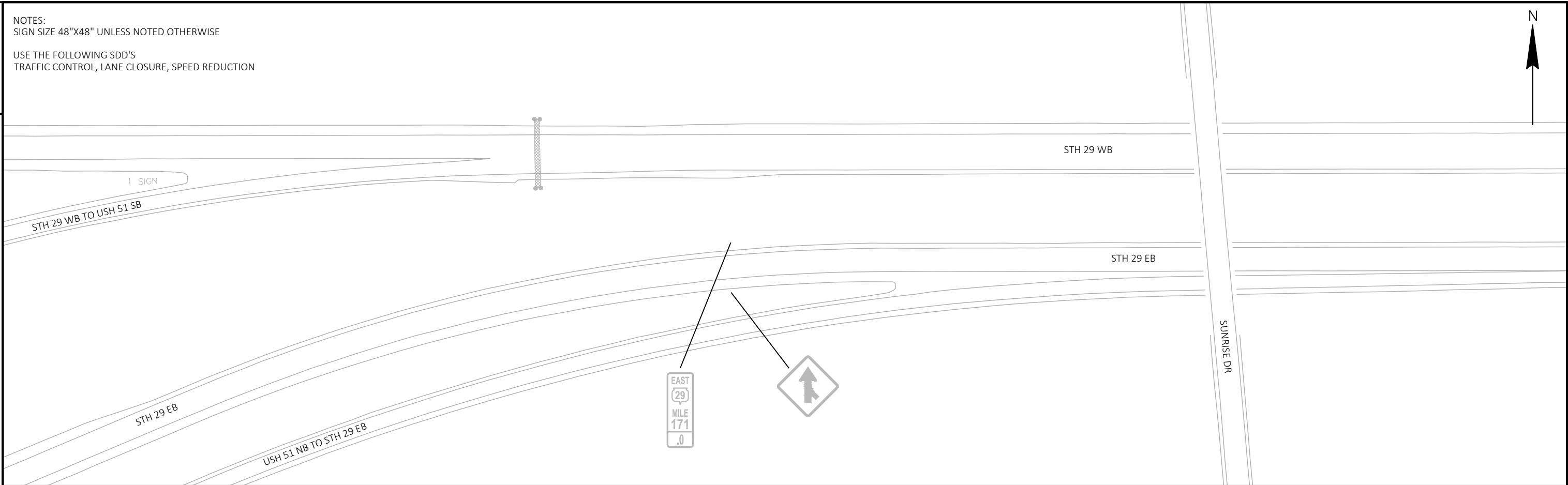
E



FILE NAME : N:\PDS\C3D\00770433\SHEETS\PLAN\025001-TC.DWG PLOT DATE : 5/10/2019 6:51 AM PLOT BY : GRULING, ZACHARY P PLOT NAME : PLOT SCALE : 1 IN:100 FT WISDOT/CADDs SHEET 44

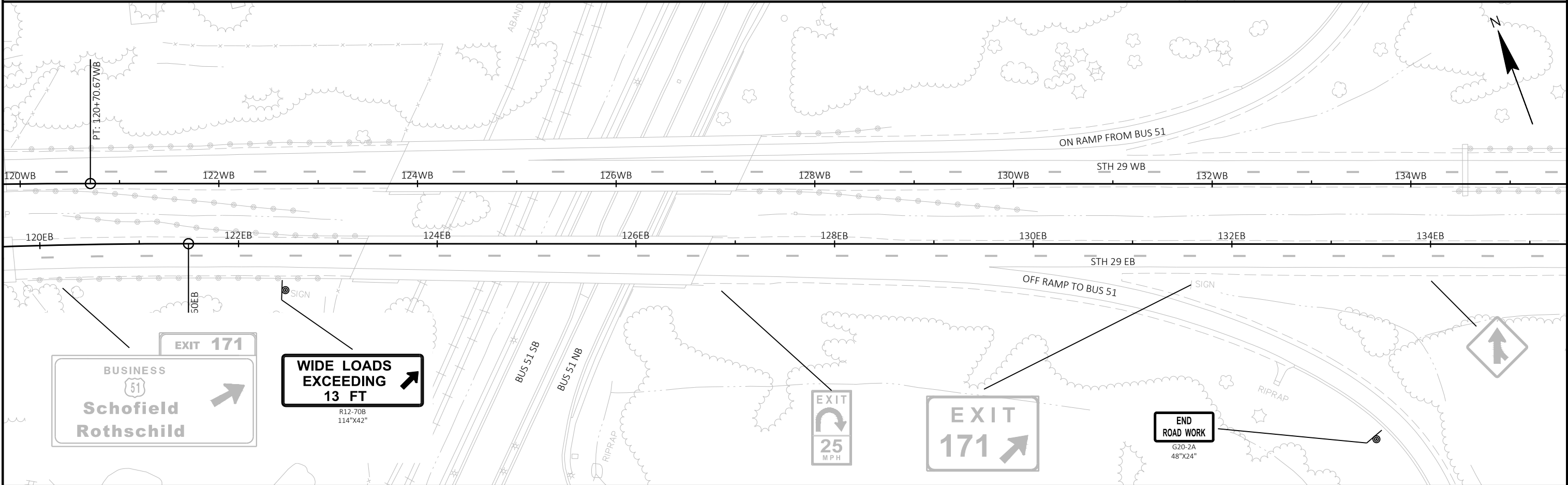
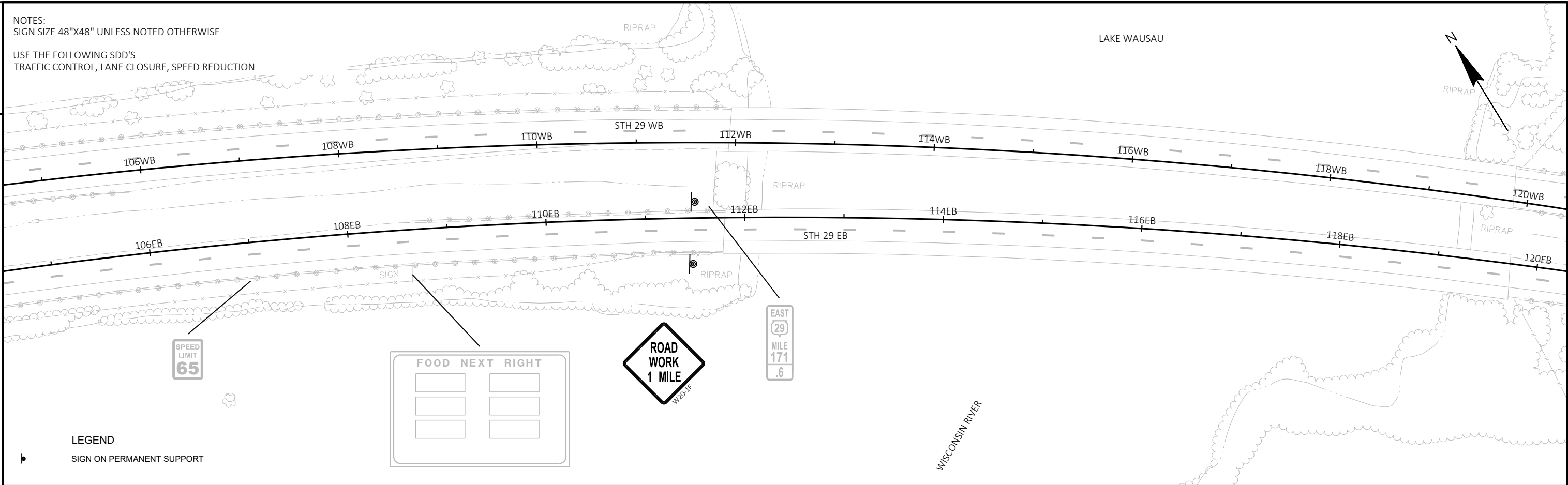
NOTES:
SIGN SIZE 48"X48" UNLESS NOTED OTHERWISE

USE THE FOLLOWING SDD'S
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION



NOTES:
SIGN SIZE 48"X48" UNLESS NOTED OTHERWISE

USE THE FOLLOWING SDD'S
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION



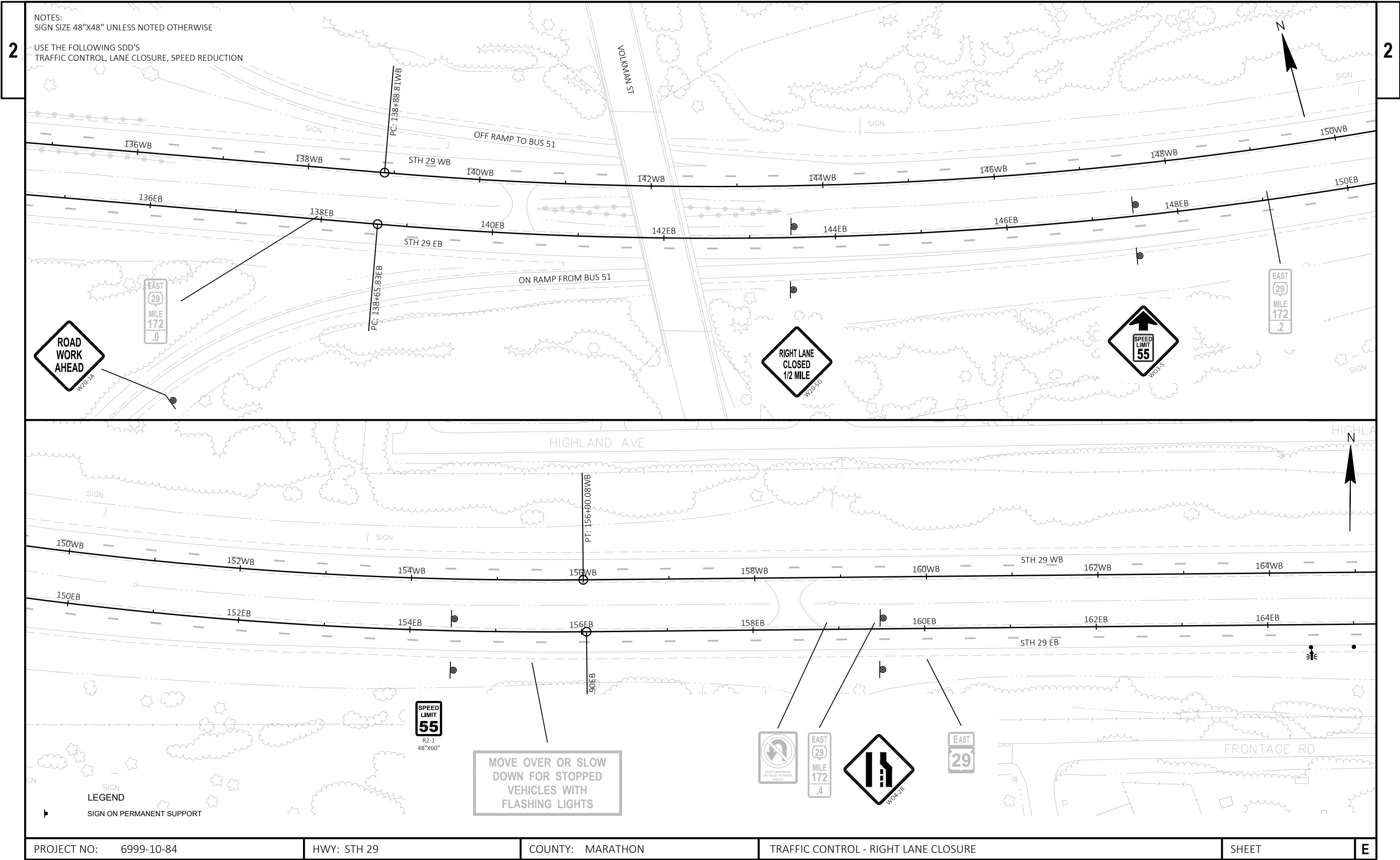


Diagram illustrating a road layout with various signs and lane markings. The road is divided into two main sections by a dashed line. The top section is labeled "HIGHLAND AVE" and shows lane markings for "166WB", "168WB", "170WB", "172WB", "174WB", "176WB", "178WB", and "180WB". The bottom section is labeled "TAGE RD" and shows lane markings for "166EB", "168EB", "170EB", "172EB", "174EB", "176EB", "178EB", and "180EB".

Signs and Markings:

- EXIT 173** (Top Left)
- Weston Camp Phillips Rd 1 MILE** (Top Left)
- EAST 29 MILE 172 .6** (Top Left)
- SPEED LIMIT 65** (Top Left)
- SPEED LIMIT 55 R2-1 48"X60"** (Top Left)
- LODGING-NEXT RIGHT** (Bottom Right)

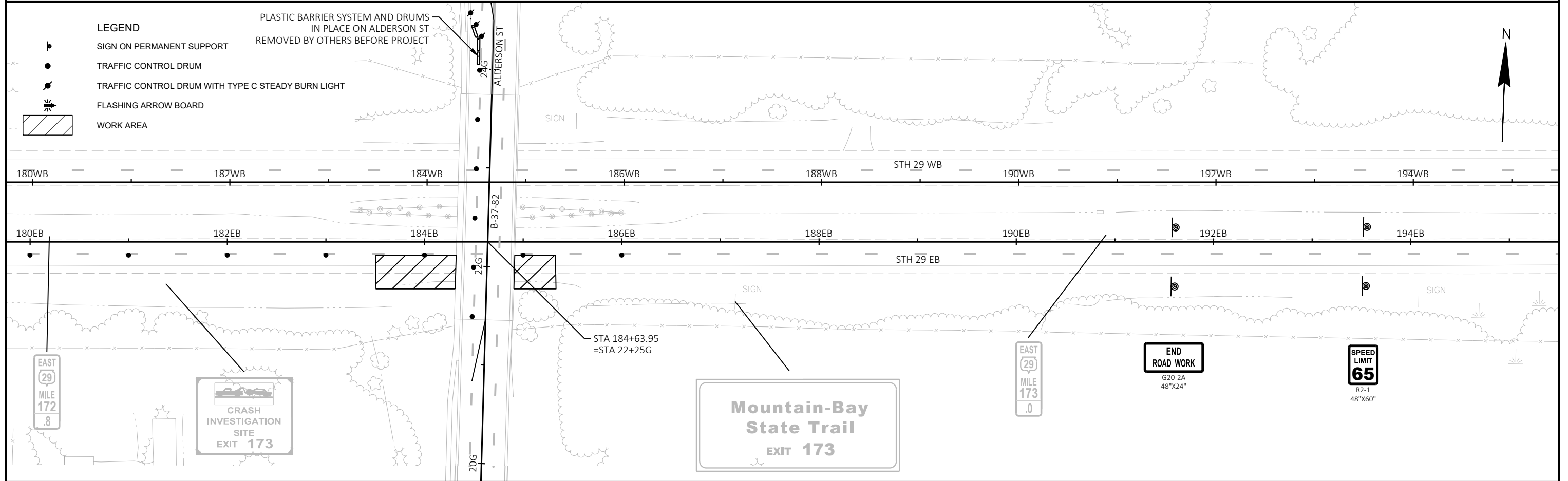
Other features include a north arrow pointing up, a "SIGN" label, and a "2" in a box on the right side.

Diagram illustrating a road layout with various signs and lane markings. The road is divided into two main sections by a dashed line. The top section is labeled "HIGHLAND AVE" and shows lane markings for "166WB", "168WB", "170WB", "172WB", "174WB", "176WB", "178WB", and "180WB". The bottom section is labeled "TAGE RD" and shows lane markings for "166EB", "168EB", "170EB", "172EB", "174EB", "176EB", "178EB", and "180EB".

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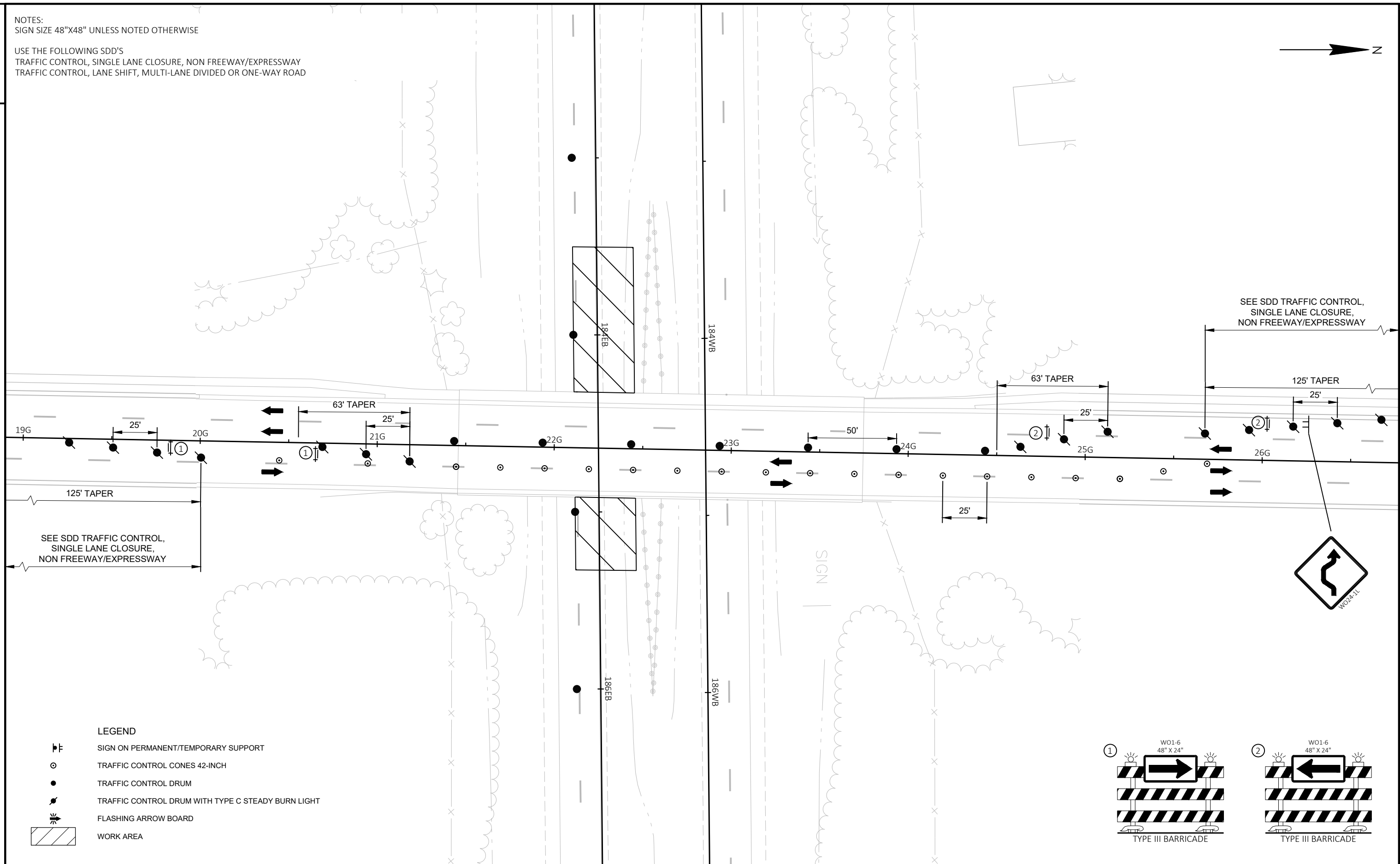
Other features include a north arrow pointing up, a "SIGN" label, and a "2" in a box on the right side.



FILE NAME :	N:\PDS\C3D\00770433\SHEETS\PLAN\025002-TC.DWG	PLOT DATE :	5/10/2019 6:37 AM	PLOT BY :	GRULING, ZACHARY P	PLOT NAME :		PLOT SCALE :	1 IN:100 FT	WISDOT/CADDs SHEET 44
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NOTES:
SIGN SIZE 48"X48" UNLESS NOTED OTHERWISE

USE THE FOLLOWING SDD'S
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY
TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD



PROJECT NO: 6999-10-84

HWY: STH 29

COUNTY: MARATHON

TRAFFIC CONTROL - ALDERSON ST

SHEET

E

Estimate Of Quantities

6999-10-84					
Line	Item	Item Description	Unit	Total	Qty
0002	213.0100	Finishing Roadway (project) 01. 6999-10-84	EACH	1.000	1.000
0004	509.1500	Concrete Surface Repair	SF	15.000	15.000
0006	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6999-10-84	EACH	1.000	1.000
0008	619.1000	Mobilization	EACH	1.000	1.000
0010	643.0300	Traffic Control Drums	DAY	475.000	475.000
0012	643.0420	Traffic Control Barricades Type III	DAY	40.000	40.000
0014	643.0705	Traffic Control Warning Lights Type A	DAY	80.000	80.000
0016	643.0715	Traffic Control Warning Lights Type C	DAY	220.000	220.000
0018	643.0800	Traffic Control Arrow Boards	DAY	20.000	20.000
0020	643.0900	Traffic Control Signs	DAY	655.000	655.000
0022	643.1050	Traffic Control Signs PCMS	DAY	17.000	17.000
0024	643.1070	Traffic Control Cones 42-Inch	DAY	100.000	100.000
0026	643.5000	Traffic Control	EACH	1.000	1.000
0028	SPV.0090	Special 01. Epoxy Injection Repair B-37-82	LF	45.000	45.000
0030	SPV.0165	Special 01. Fiber Wrap Reinforcing Non-Structural	SF	110.000	110.000

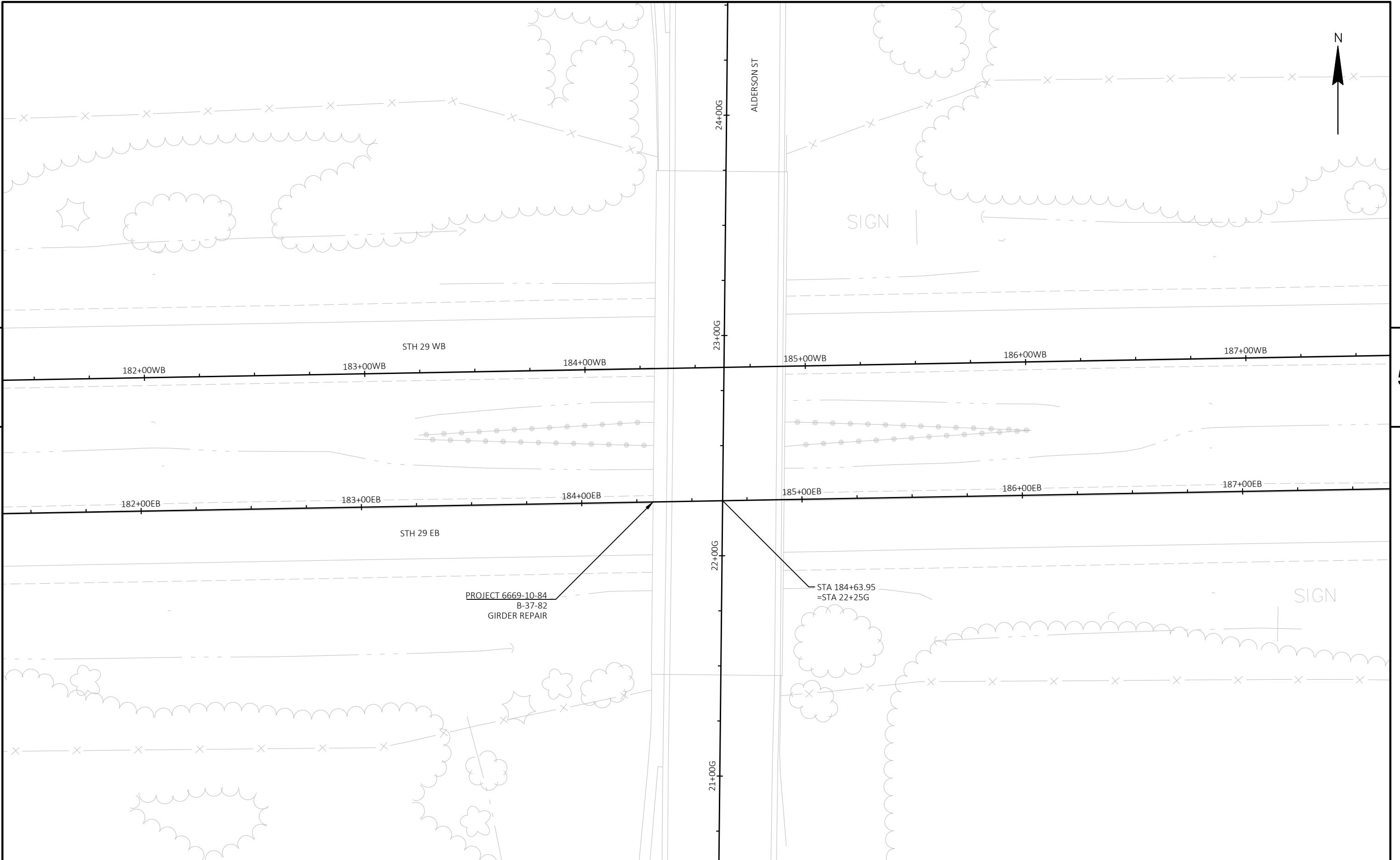
ALL ITEMS ARE CATERGORY 0010 UNLESS NOTED OTHERWISE

TRAFFIC CONTROL

LOCATION	STAGE DAYS	QTY	643.0300 DRUMS		643.0420 BARRICADES TYPE III		643.0705 WARNING LIGHTS TYPE A		643.0715 WARNING LIGHTS TYPE C		643.0800 ARROW BOARDS		643.0900 TRAFFIC CONTROL SIGNS		643.1070 TRAFFIC CONTROL CONES 42-INCH		REMARKS
			DAYS	QTY	DAYS	QTY	DAYS	QTY	DAYS	QTY	DAYS	QTY	DAYS	QTY	DAYS	QTY	
DRIVING LANE CLOSURE	8	36	288	2	16	4	32	14	112	2	16	24	192	0	0		
PASSING LANE CLOSURE	2	36	72	2	4	4	8	14	28	2	4	24	48	0	0		
ALDERSON STREET	5	23	115	4	20	8	40	16	80	0	0	13	65	20	100		
WIDTH RESTRICTION SIGNING	10	0	0	0	0	0	0	0	0	0	0	35	350	0	0		
TOTAL			475		40		80		220		20		655		100		

TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS

LOCATION	PRIOR TO CONSTRUCTION		DURING LANE CLOSURE		643.1051 DAYS	REMARKS
	DAYS	QTY	DAYS	QTY		
96+50EB RT	7		10		17	
TOTAL					17	



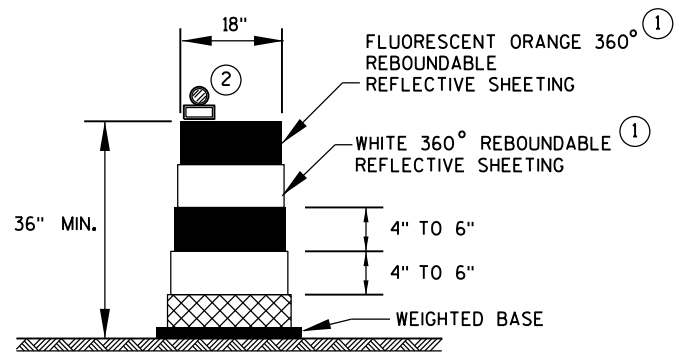
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5

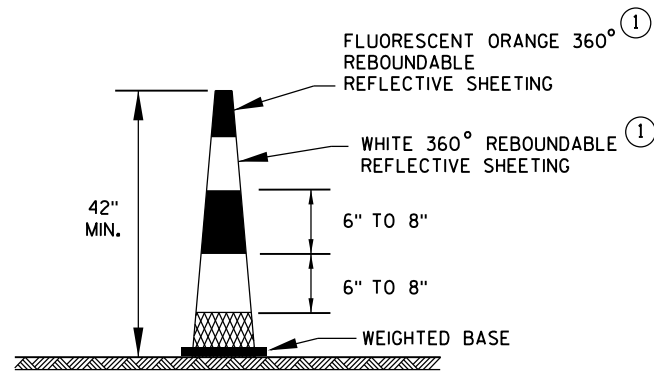
PROJECT NO: 6999-10-84	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET	E
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Standard Detail Drawing List

15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-07B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD



DRUM

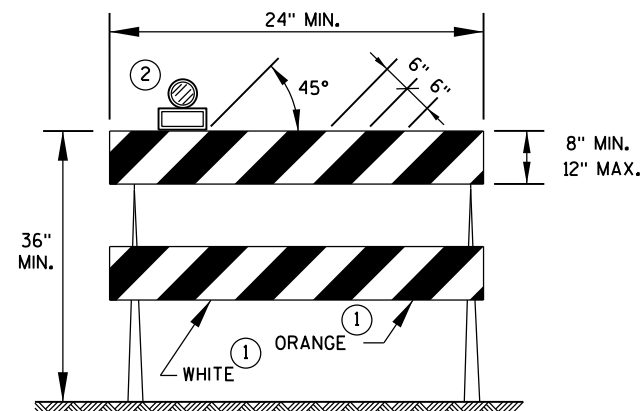


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

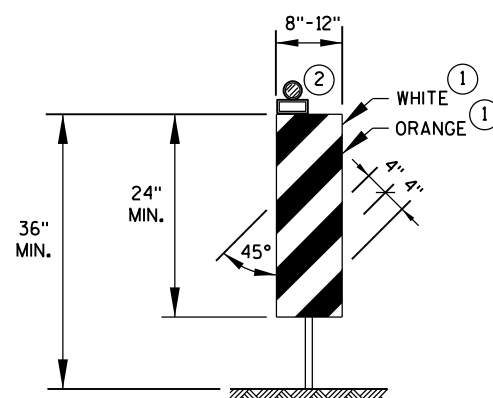
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



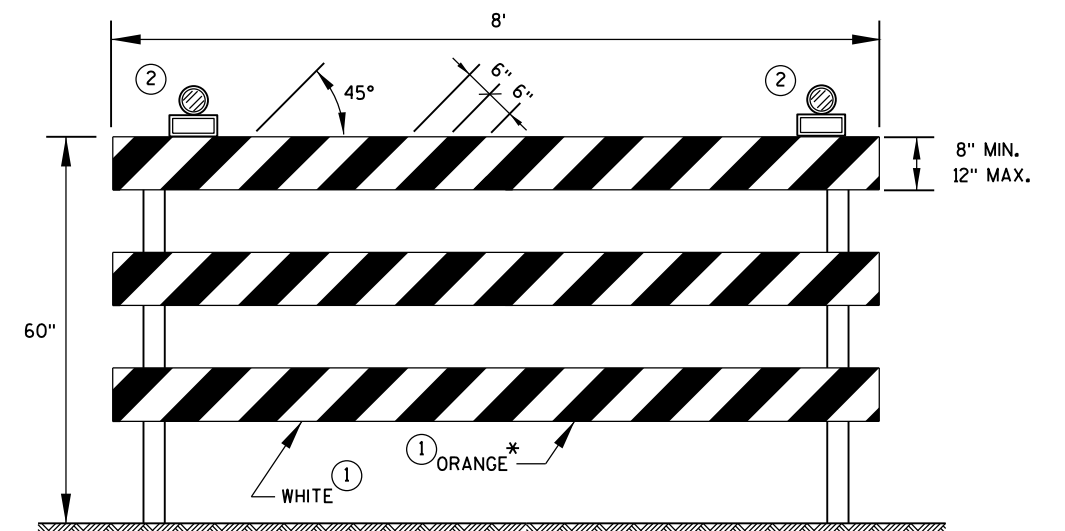
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

FHWA

/S/ Andrew Heidtke
WORK ZONE ENGINEER

GENERAL NOTES

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

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

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

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

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

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

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

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

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

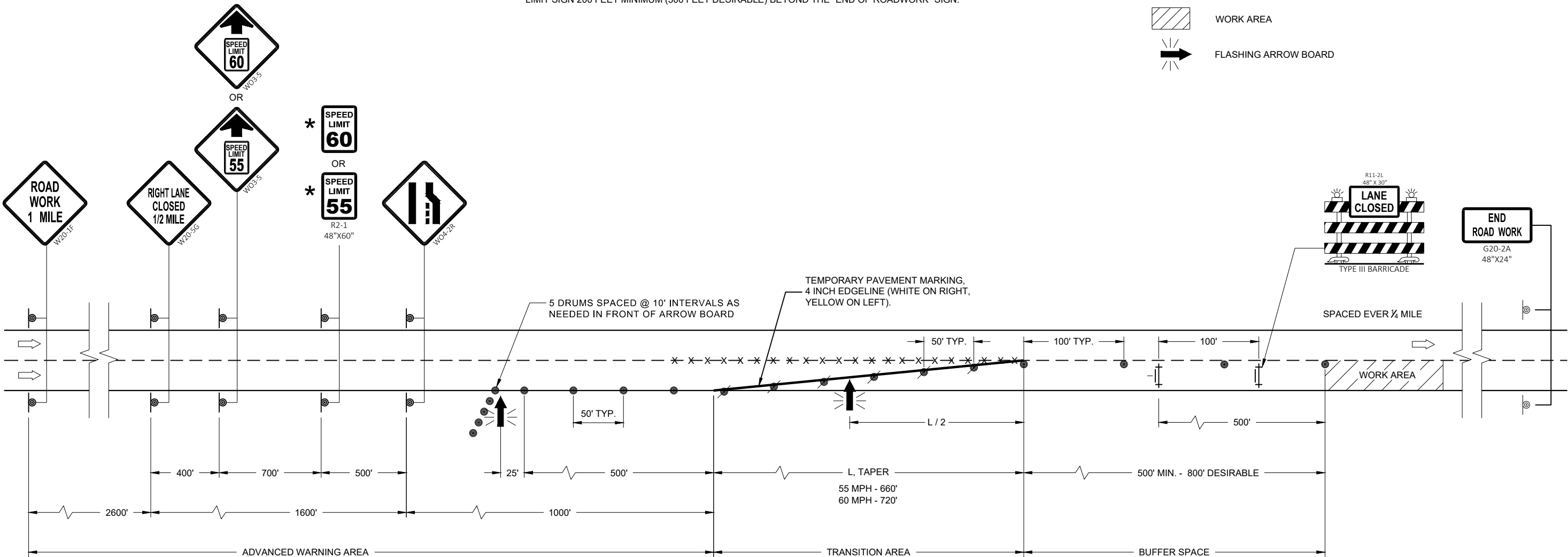
* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD

SDD 15D12 - 07b

6



SDD 15D12 - 07b

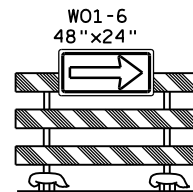
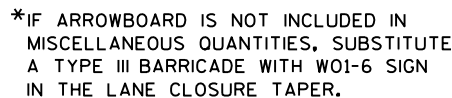
6

TRAFFIC CONTROL,
LANE CLOSURE,
SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

L = WS AT 45 MPH OR GREATER
 $L = \frac{WS^2}{60}$ AT 40 MPH OR LESS
 L = TAPER LENGTH IN FEET
 S = NON-CONSTRUCTION SPEED LIMIT (MPH)
 W = WIDTH OF LANE CLOSURE

	TYPE III BARRICADE WITH ATTACHED SIGN
	SIGN ON PERMANENT SUPPORT
	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
	TRAFFIC CONTROL DRUM
	FLASHING ARROW BOARD
	DIRECTION OF TRAFFIC
	REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
	WORK AREA

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

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

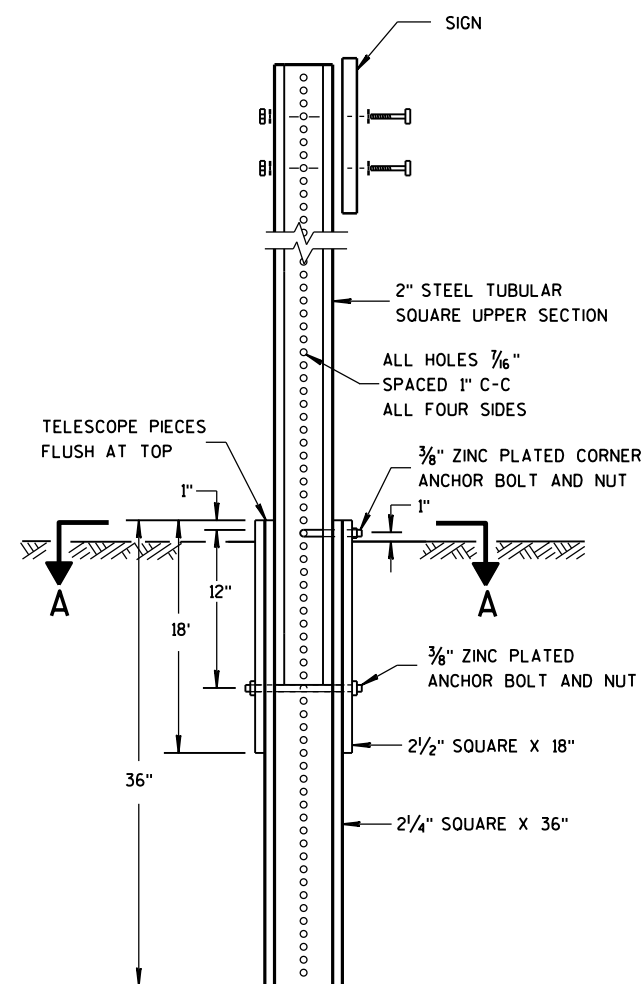
PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

APPROVED	
June 2016	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC
	SAFETY ENGINEER
FHWA	



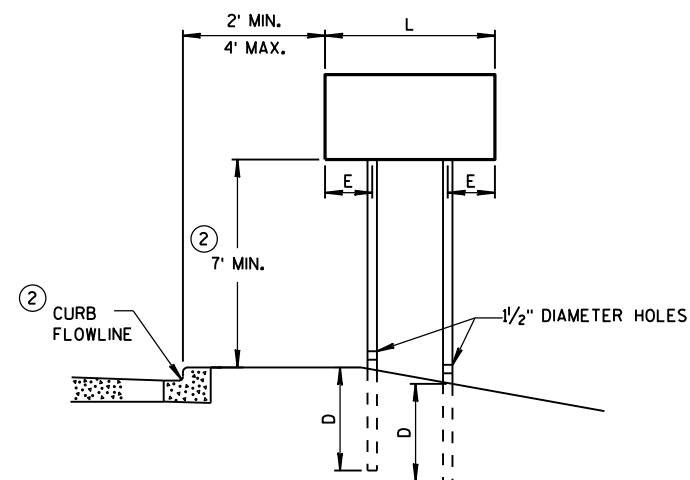
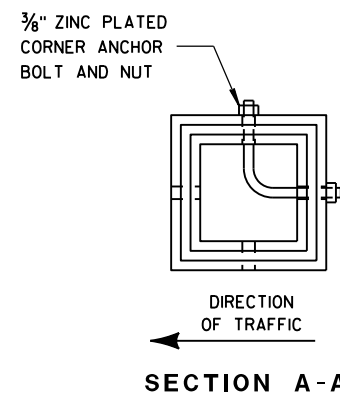
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

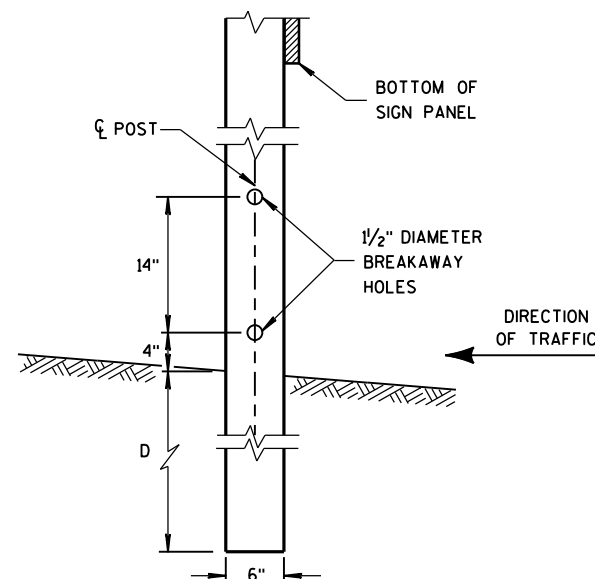


URBAN AREA

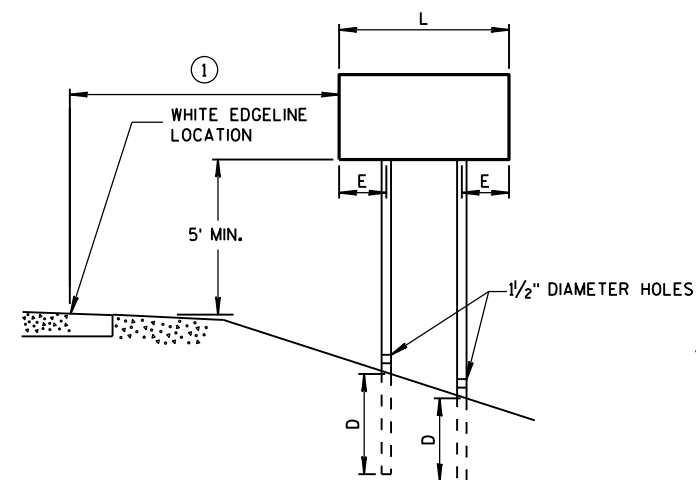
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

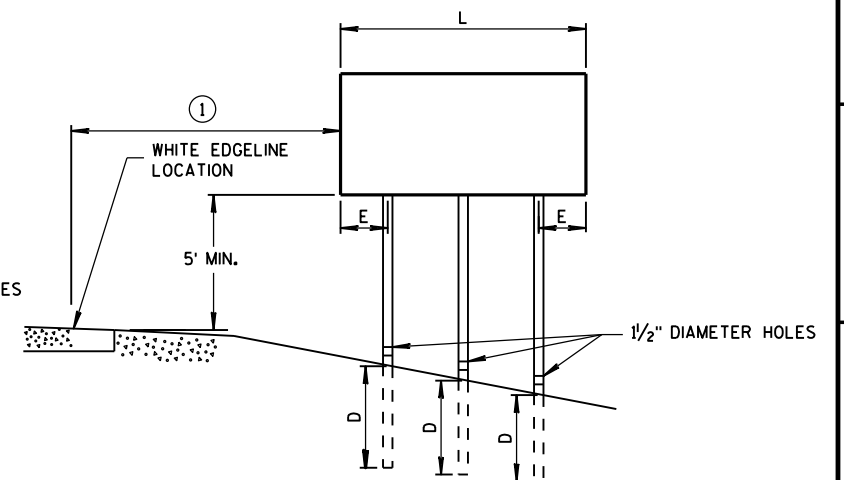
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4" x 6" WOOD POST MODIFICATION



RURAL AREA



GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

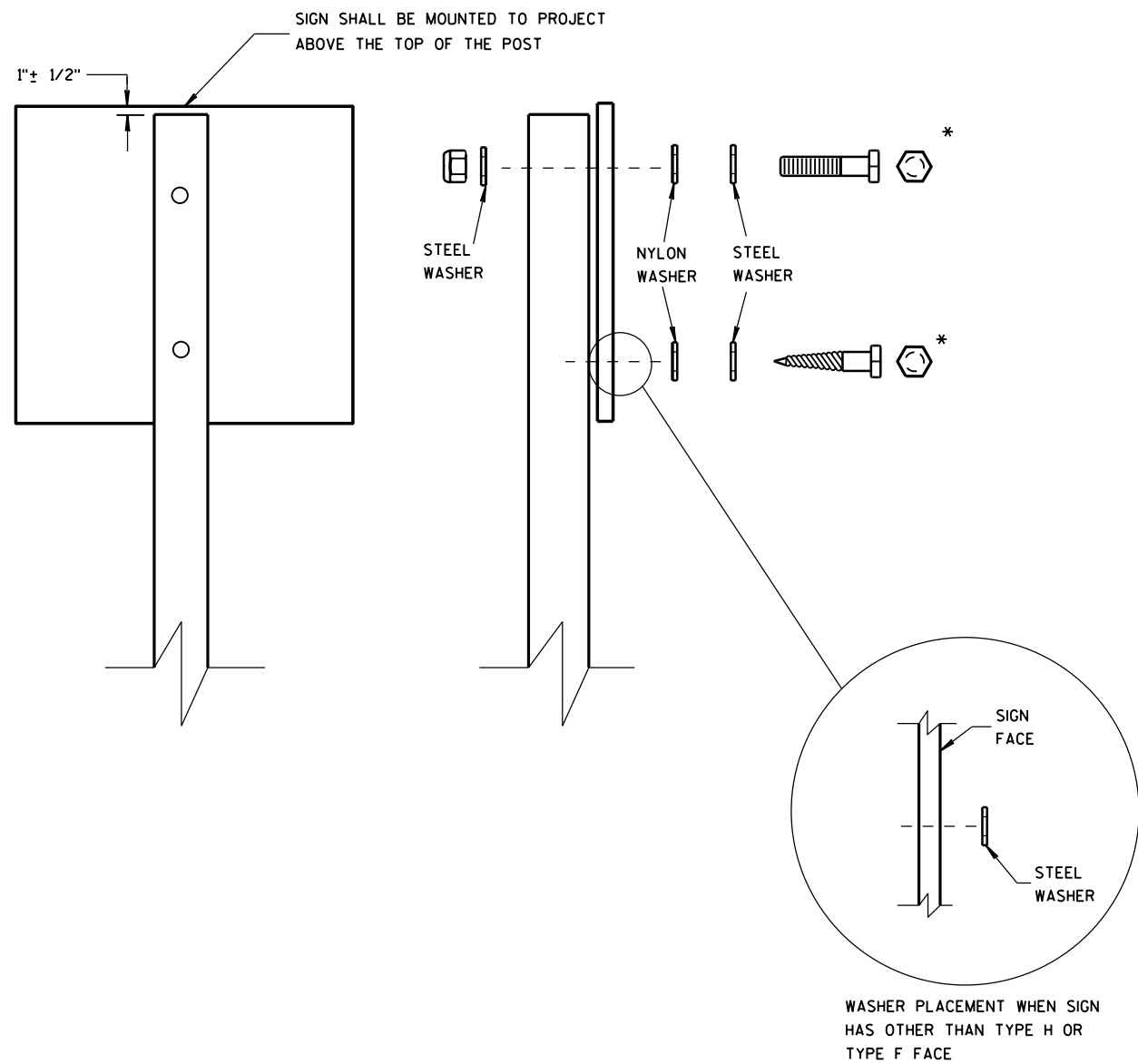
4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
 - MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

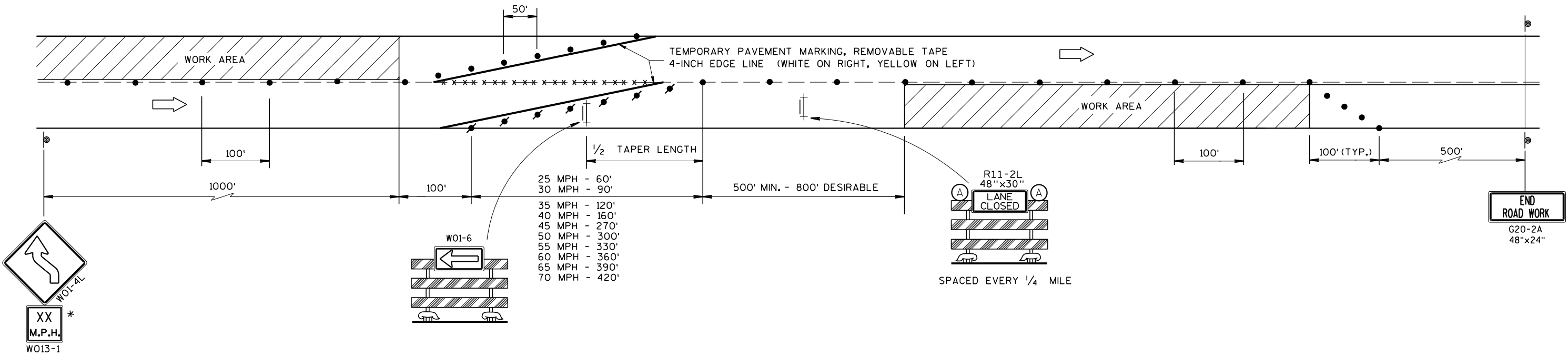
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-23
OPERATING RATING: HS-38
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 220 (KIPS)

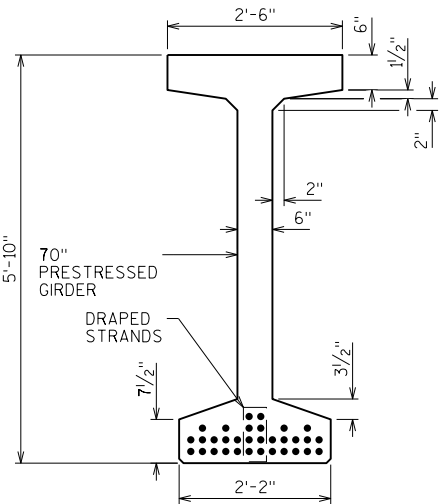
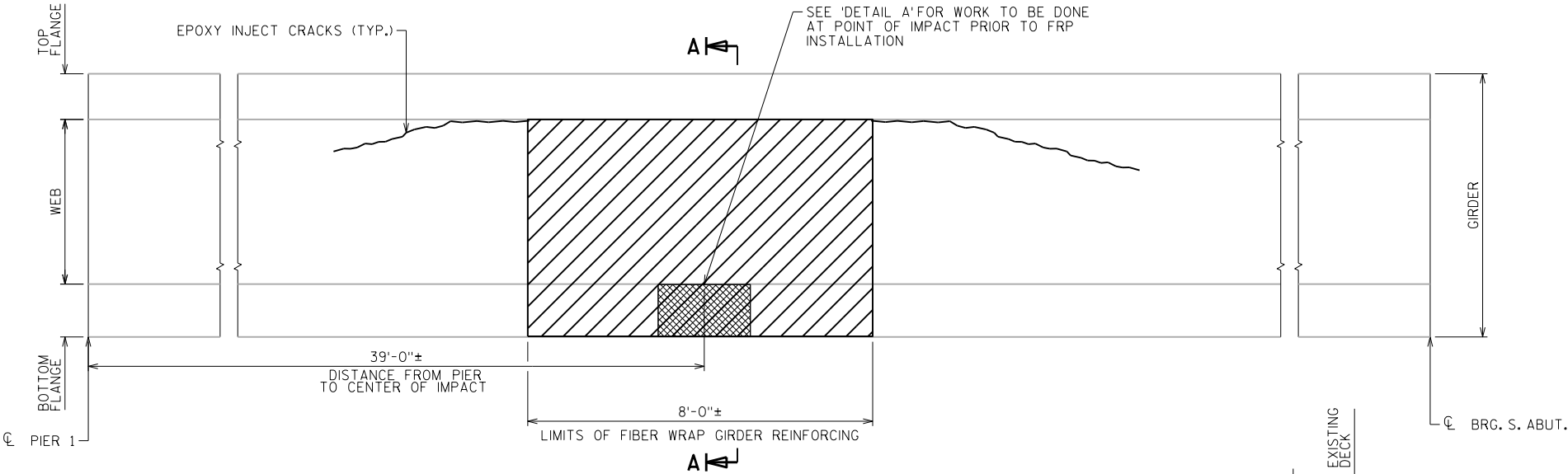
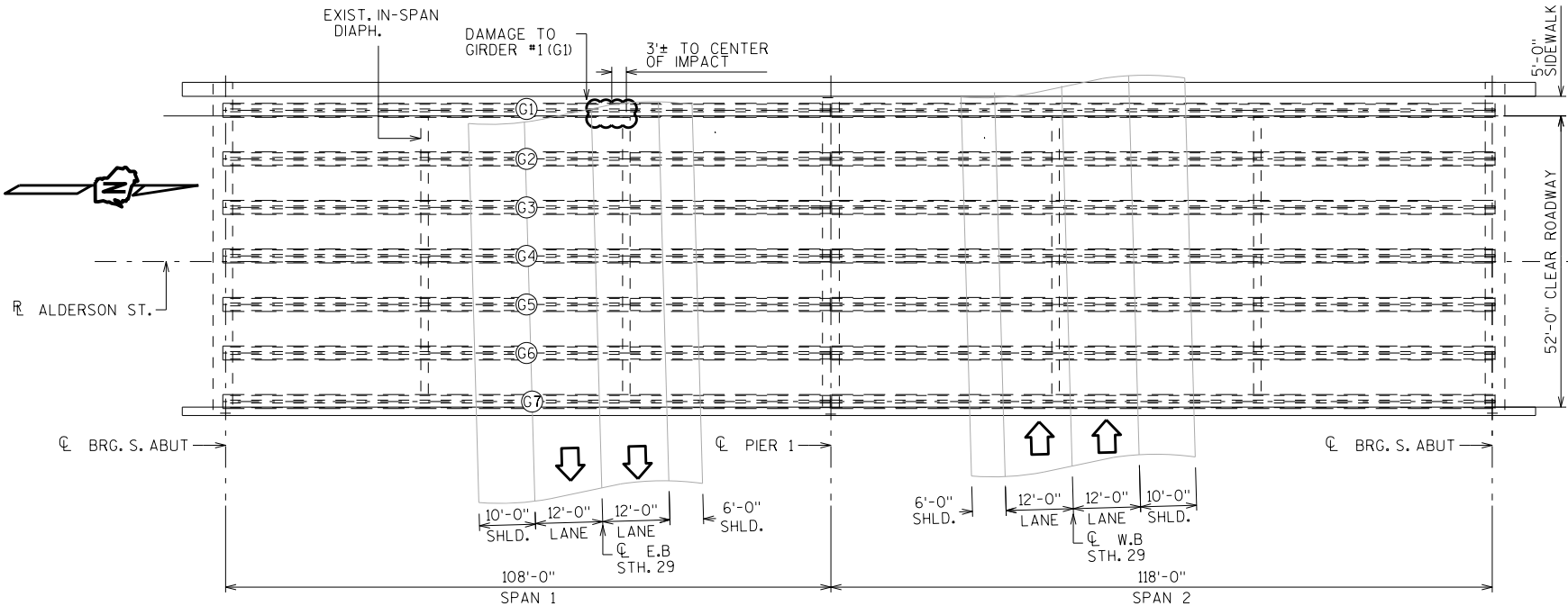
GENERAL NOTES

THE SCOPE OF THIS WORK INCLUDES REPAIRS TO IMPACT DAMAGE LOCATION OF G1, INCLUDING REMOVING SEVERED STRANDS, REMOVING LOOSE AND DELAMINATED CONCRETE, PATCHING, EPOXY INJECTING CRACKS, AND NON-STRUCTURAL FIBER WRAPPING OF PATCHED AREA.

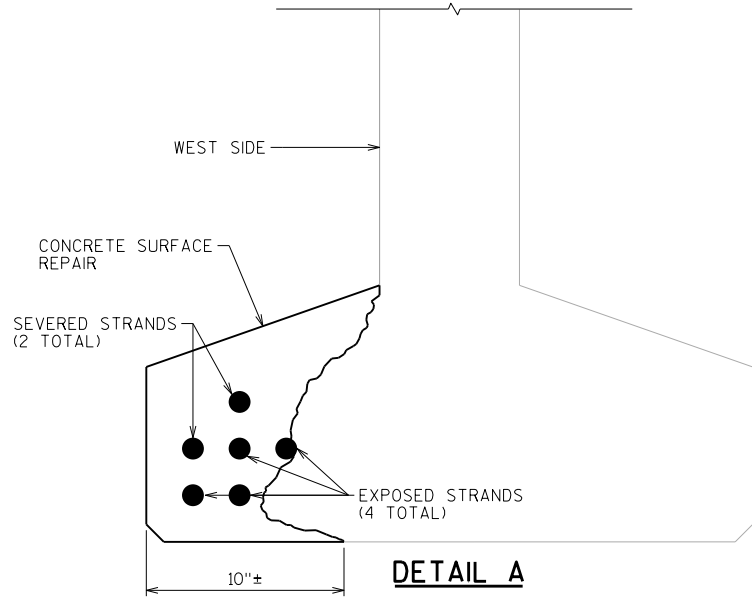
DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONCRETE SURFACE REPAIR AND EPOXY INJECTION OF CRACKS SHALL BE PERFORMED PRIOR TO INSTALLATION OF FIBER WRAP REINFORCING TO EXTENTS AS SHOWN ON THE PLANS AND TO THE SATISFACTION OF THE FIELD ENGINEER. SEE SPECIAL PROVISIONS FOR DETAILS.



STRUCTURE DESIGN CONTACTS:
KELLY YOUNG (608) 267-7943
LAURA SHADEWALD (608) 267-9592

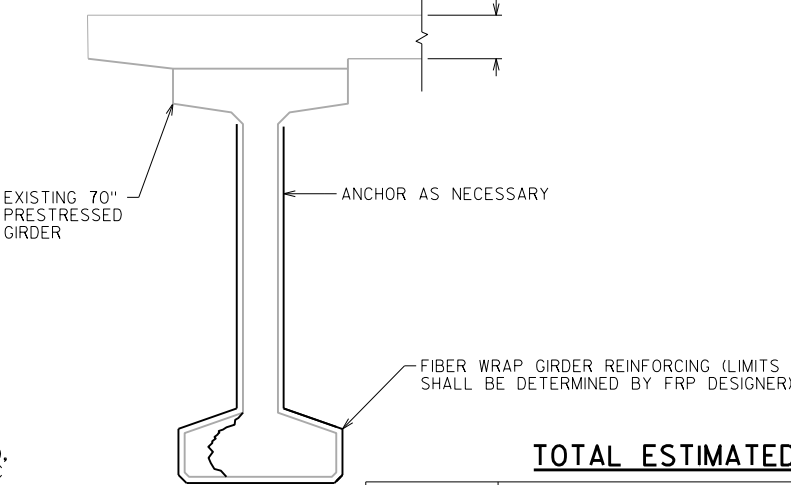


GIRDER PREPARATION NOTES

CUT AND REMOVE TWO SEVERED STRANDS.

WHERE PRESTRESSING STRANDS ARE EXPOSED, ABRASIVE BLAST CLEAN AND COAT WITH ZINC RICH PAINT.

PREPARE AND PATCH SURFACE, FOLLOWING PROVISIONS INDICATED IN FIBER WRAP REINFORCING NON-STRUCTURAL SPV.

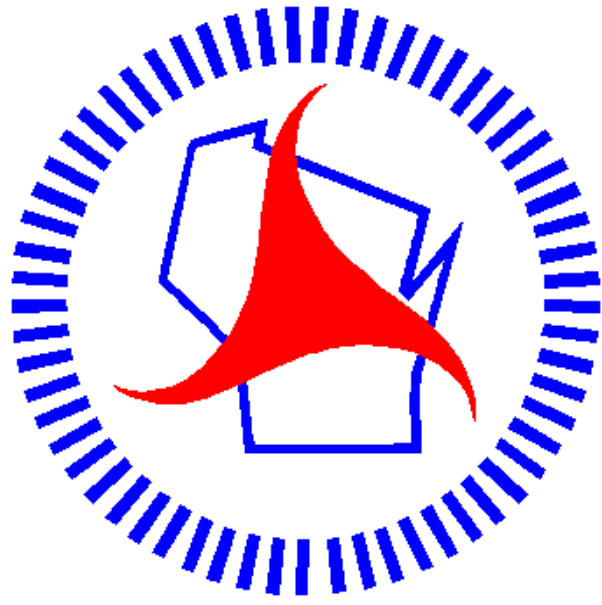


TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
509.1500	CONCRETE SURFACE REPAIR	SF	15
SPV.0090	EPOXY INJECTION REPAIR B-37-82	LF	45
SPV.0165	FIBER WRAP REINFORCING NON-STRUCTURAL	SF	110

NO.	DATE	REVISION	BY
 BUREAU OF STRUCTURES			
ACCEPTED <i>William C. Diehn</i> 5/13/19 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-37-82			
ALDERSON ST. OVER STH 29			
COUNTY	MARATHON	TOWN	WESTON
DESIGN SPEC. N/A - REHAB			
DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
KCY	DLM	KCY	DLM
REPAIR DETAILS			SHEET 1 OF 1

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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