

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1009-11-80		
1067-01-62	WISC 2022376	1

ORDER OF SHEETS

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

TOTAL SHEETS = 38

LAKE MILLS - OCONOMOWOC LAKE MILLS - OCONOMOWOC

CTH E STRUCTURE B-28-0049

CTH E STRUCTURE B-28-0049

IH 94

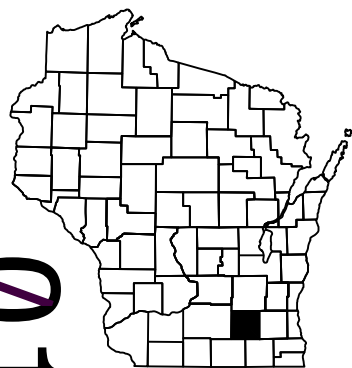
IH 94

JEFFERSON COUNTY

JEFFERSON COUNTY

STATE PROJECT NUMBER  
**1009-11-80**

STATE PROJECT NUMBER  
**1067-01-62**



01

DESIGN DESIGNATION	1067-01-32	IH 94
A.A.D.T.	2022 = 4,550	43,370
A.A.D.T.	2042 = 6,050	48,620
D.H.V.	=	6.8
D.D.	=	58/42
T.	=	10.6%
DESIGN SPEED	= 50 MPH	70 MPH
ESALS	=	40,000,000

END PROJECT 1009-11-80  
STA. 49+48.98 'E'  
Y = 587,831.39  
X = 907,154.51

BEGIN PROJECT 1009-11-80  
STA. 49+07.51 'E'  
Y = 587,792.88  
X = 907,169.88

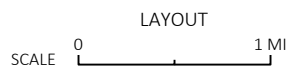
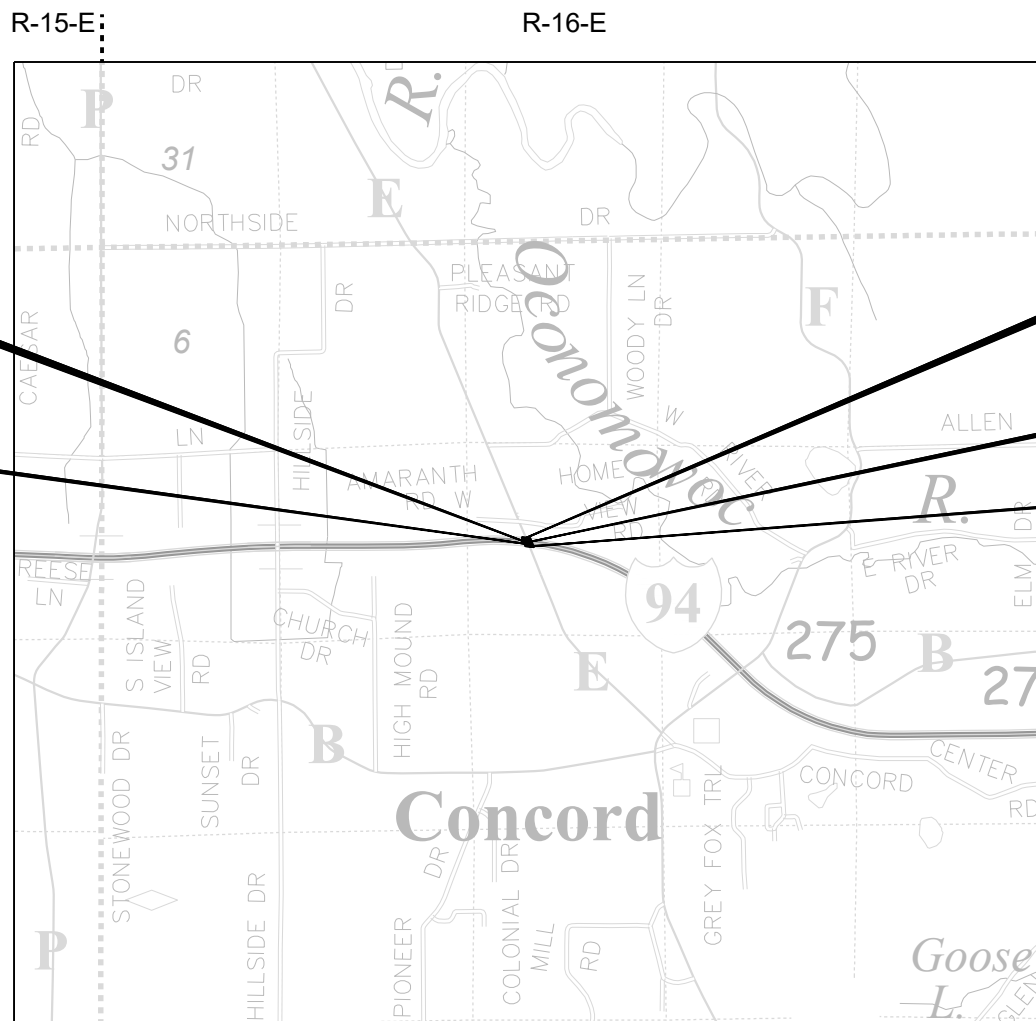
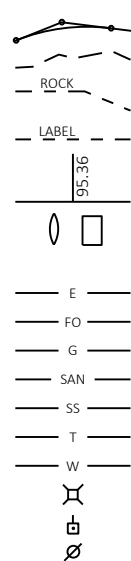
END PROJECT 1067-01-62  
STA. 50+83.75 'E'  
Y = 587,962.43  
X = 907,119.24

STRUCTURE  
B-28-0049

BEGIN PROJECT 1067-01-62  
STA. 48+34.03 'E'  
Y = 587,730.54  
X = 907,211.88

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



TOTAL NET LENGTH OF CENTERLINE = 0.002 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCORS) JEFFERSON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCE MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012) GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	Surveyor
Designer	TJLER DEYMARCOS
Project Manager	MATTHEW LAMB
Regional Examiner	SW REGION
Regional Supervisor	JAMES OETTINGER
APPROVED FOR THE DEPARTMENT	
DATE: 1/21/2022	

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GENERAL NOTES

ALL EXISTING SIGNS SHALL REMAIN IN PLACE UNLESS THE FIELD ENGINEER APPROVES THEIR REMOVAL.

DIMENSIONS GIVEN FOR EXISTING FEATURES SHALL BE CONSIDERED APPROXIMATE AND MEASURED IN THE FIELD FOR MATCHING PURPOSES.

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

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE ARE UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

PLACE ONE PCMS BOARD NORTH AND SOUTH OF STRUCTURE B-28-0049 ON CTH E ONE WEEK BEFORE CONSTRUCTION BEGINS TO WARN DRIVERS OF THE UPCOMING BRIDGE CLOSURE.

PLACE ONE PCMS BOARD EAST OF STRUCTURE B-28-0049 ON IH 94 WB AND ONE PCMS BOARD WEST OF STRUCTURE B-28-0049 ON IH 94 EB.

STANDARD ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAVEL
C/L, CL	CENTER LINE
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARD
D.D.	DESIGN HIGHEST HOURLY VOLUME
D.H.V.	DESIGN HOURLY VOLUME
EA	EACH
E	EAST
EB	EASTBOUND
EL, ELEV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
HMA	HOT MIXED ASPHALT
CWT	HUNDRED WEIGHT
IH	INTERSTATE HIGHWAY
LT	LEFT
LF	LINEAR FEET
LS	LUMP SUM
MAX	MAXIMUM
MGAL	1000 GALLONS
MIN	MINIMUM
N	NORTH
NO.	NUMBER
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
R/L, RL	REFERENCE LINE
RT	RIGHT
REQ.	REQUIRED
SHLD	SHOULDER
S	SOUTH
SF	SQUARE FEET
SDD	STANDARD DETAIL DRAWING
STH	STATE TRUNK HIGHWAY
STA.	STATION
T.	TRUCK PERCENTAGE
TYP.	TYPICAL
W	WEST
WB	WESTBOUND

WISDOT CONTACTS

PROJECT MANAGER  
MATTHEW LAMB  
2101 WRIGHT ST  
MADISON, WI 53704  
608-246-5638  
MATTHEW.LAMB@DOT.WI.GOV

PROJECT LEADER  
TIJLER DEYMARCO  
2101 WRIGHT ST  
MADISON, WI 53704  
608-246-3839  
TIJLER.DEYMARCO@DOT.WI.GOV

DNR CONTACTS

DNR LIASON  
SHELLEY NELSON  
3911 FISH HATCHERY RD  
FITCHBURG, WI 53711  
608-444-2835  
SHELLEY.NELSON@WISCONSIN.GOV

JEFFERSON COUNTY CONTACTS

HIGHWAY OPERATIONS MANAGER  
BRIAN UDOVICH  
1425 SOUTH WISCONSIN DR  
JEFFERSON, WI 53549  
920-723-7273  
BRIANU@JEFFERSONCOUNTYWI.GOV

TOWN OF CONCORD CONTACTS

TOWN CLERK  
BRIAN NEUMANN  
N6830 COUNTY ROAD E  
OCONOMOWOC, WI 53066  
414-534-4220  
CONCORDCLERK@GMAIL.COM

UTILITY CONTACTS

AT&T LEGACY - COMMUNICATION LINE  
KENNETH NINE  
110 N. MAIN ST  
CULVER, IN 46511  
574-842-8830  
KNINE@JMCEAINC.COM

WE ENERGIES - ELECTRICITY  
BRYAN STOEHR  
500 S. 116TH ST  
WEST ALLIS, WI 53214  
414-944-5516  
BRYAN.STOEHR@WE-ENERGIES.COM

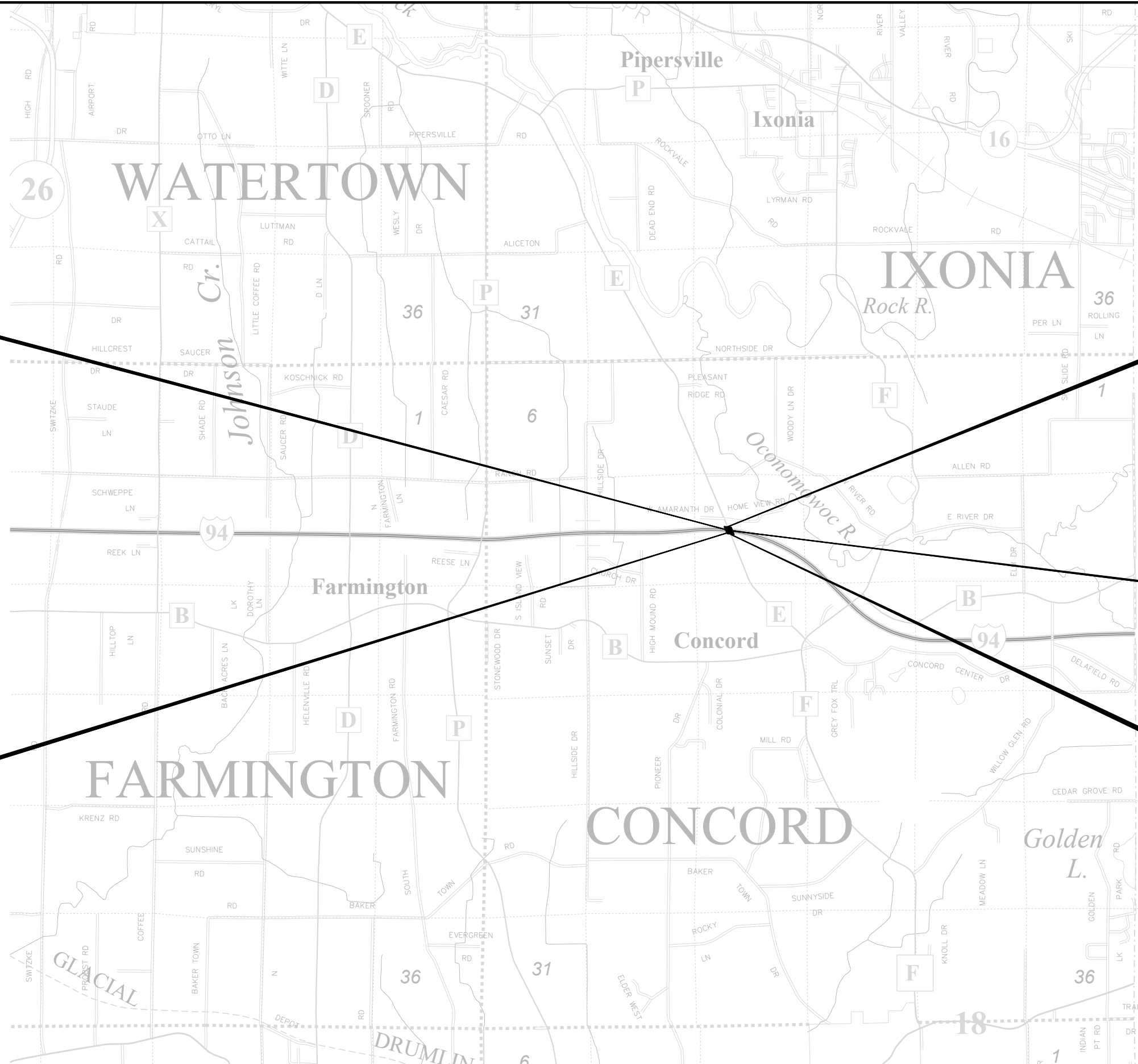
WE ENERGIES - GAS/PETROLEUM  
SCOTT HOLSTEIN  
700 S. KANE ST  
BURLINGTON, WI 53105  
262-763-1084  
SCOTT.HOLSTEIN@WE-ENERGIES.COM



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

SECTION 2 ORDER OF SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- PAVEMENT MARKING
- TRAFFIC CONTROL



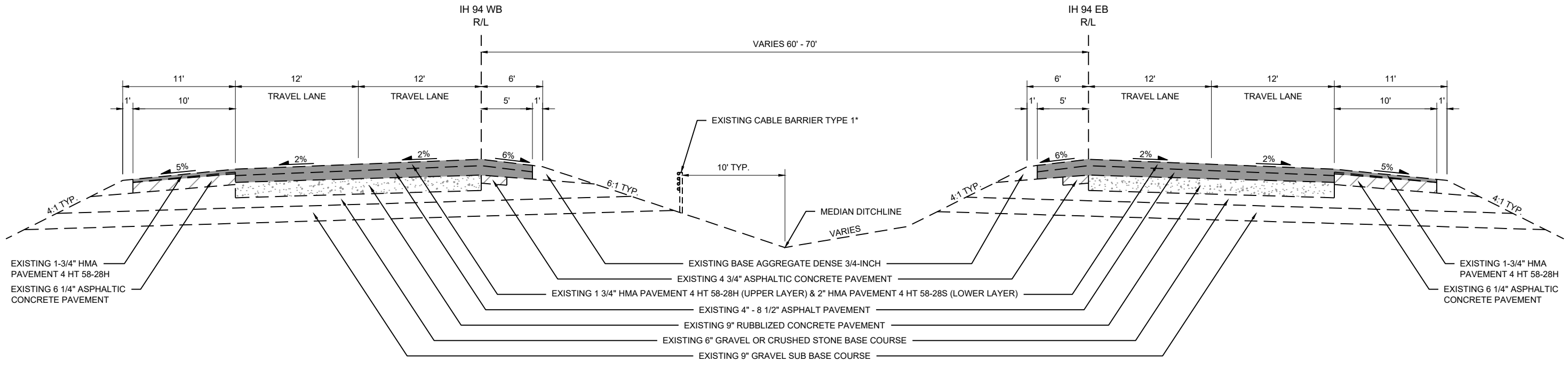
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STRUCTURE B-28-0049

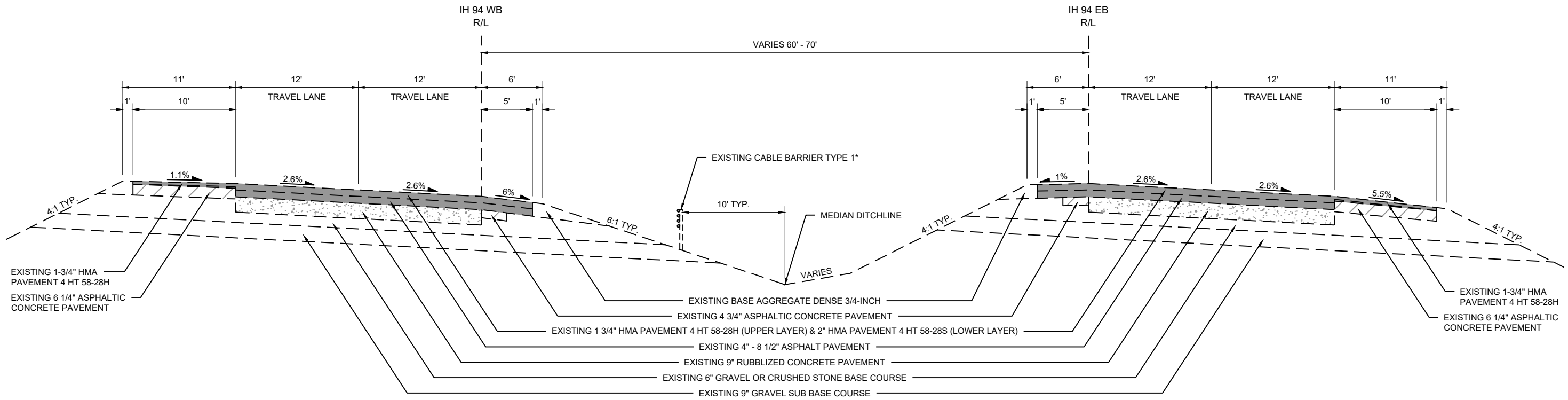
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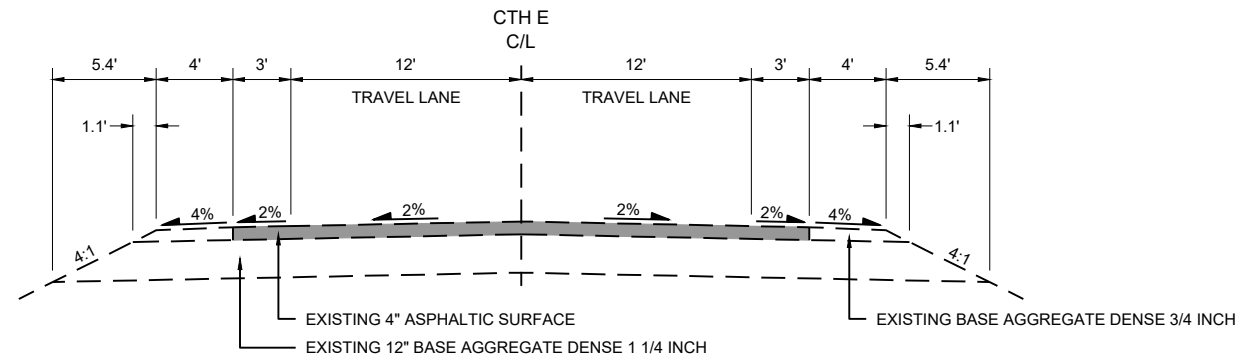
EXISTING TYPICAL SECTION  
 IH 94  
 STA. 330+00 EB/WB TO STA. 500+00 EB/WB

\*CABLE BARRIER TYPE 1 LOCATED APPROXIMATELY 100' EAST OF B-28-49

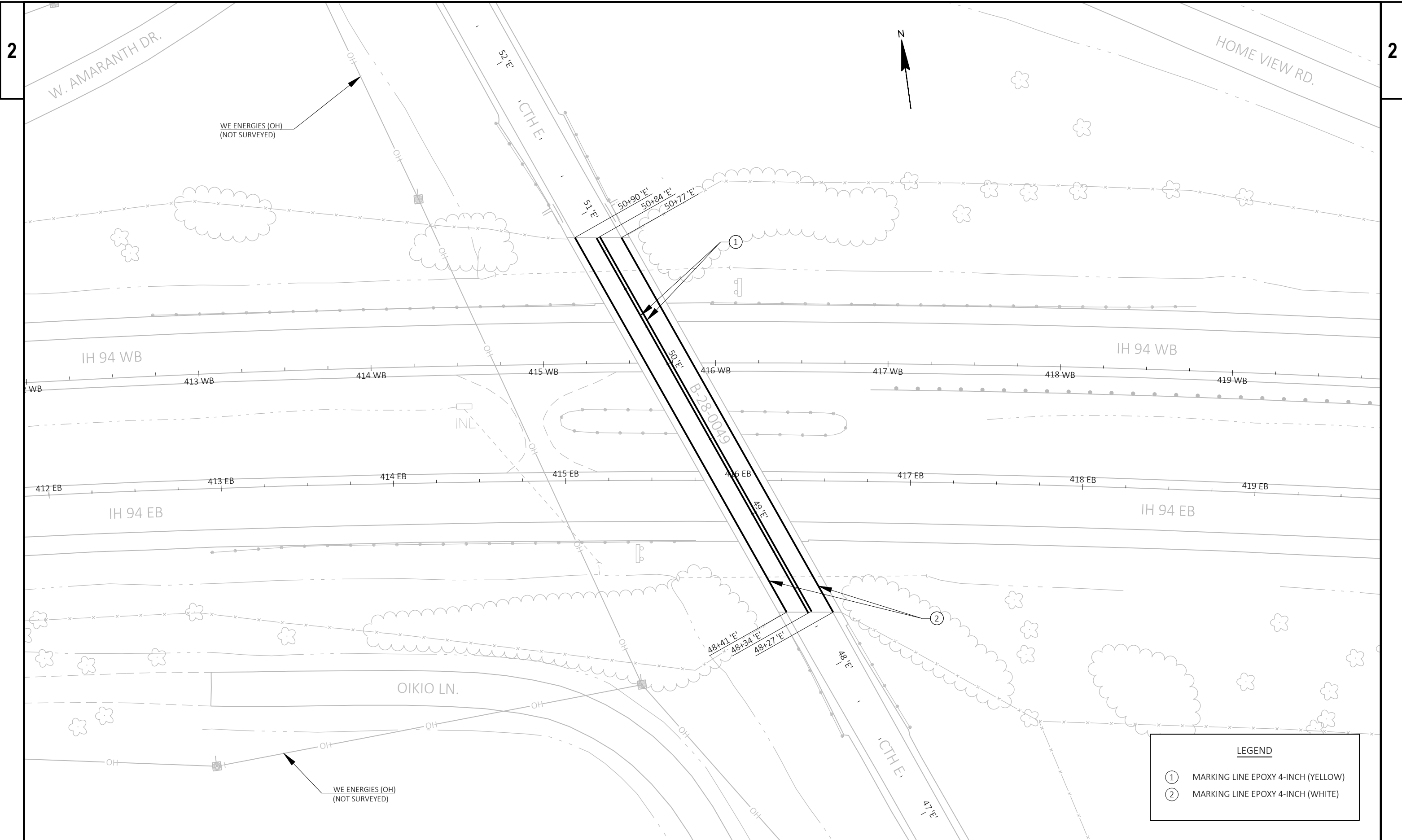


EXISTING TYPICAL SECTION  
 IH 94 SUPERELEVATED SECTION  
 STA. 400+80 WB TO STA. 466+40 WB STA. 400+25 EB TO STA. 466+35 EB

\*CABLE BARRIER TYPE 1 LOCATED APPROXIMATELY 100' EAST OF B-28-49



EXISTING TYPICAL SECTION  
 CTH E  
 NORTH AND SOUTH OF B-28-49



2









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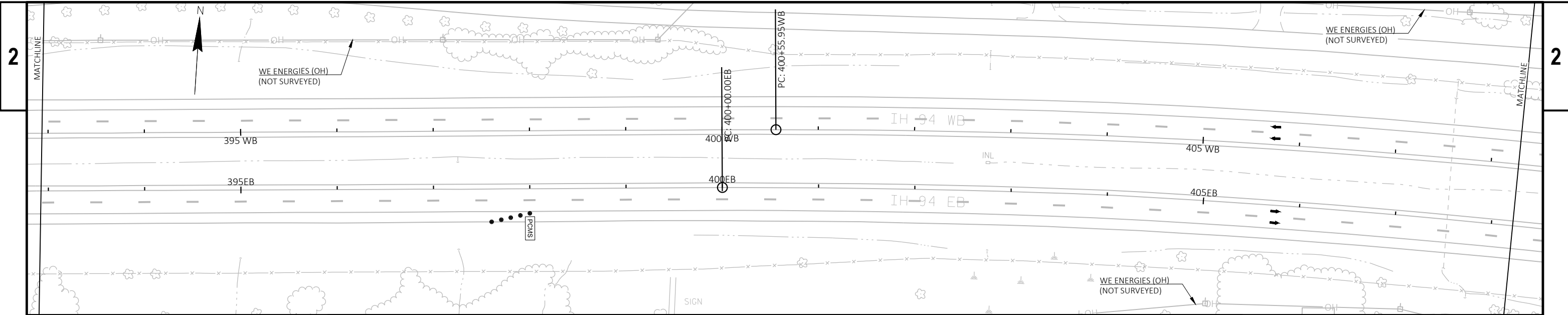
PROJECT NO: 1009-11-80/1067-01-62	HWY: IH 94	COUNTY: JEFFERSON	PAVEMENT MARKING	SHEET	<b>E</b>
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TRAFFIC CONTROL NOTES

1. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE FIELD ENGINEER.
2. DRAWINGS SHOW TRAFFIC CONTROL FOR EACH CONSTRUCTION STAGE. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED BY THE FIELD ENGINEER, DEPENDING ON THE CONTRACTOR'S METHODS OR SEQUENCES OF OPERATIONS.
3. ADJUST SPACING BETWEEN SIGNS TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM DISTANCE OF 200 FEET (500 FEET DESIRABLE) BETWEEN TRAFFIC CONTROL SIGNS AND EXISTING SIGNS.
4. COVER EXISTING SIGNS WHICH CONFLICT WITH "IN-USE" TRAFFIC CONTROL DEVICES AS NEEDED OR AS APPROVED BY THE FIELD ENGINEER.
5. REMOVE OR COVER ANY TEMPORARY SIGNS WHICH CONFLICT WITH "IN-USE" TRAFFIC CONTROL DEVICES AS NEEDED OR AS APPROVED BY THE FIELD ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.
6. CONSIDER GEOMETRICS WHEN LOCATING SIGNS, ARROW BOARDS, AND SIGN MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS, SIGN MESSAGE BOARDS, AND LANE CLOSURE DRUMS FOR A MINIMUM OF 1500 FEET IN FRONT OF THE DEVICE.
7. FOR ANY LANE CLOSURES THAT ARE IN PLACE FOR LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS. TRAFFIC CONTROL SIGNS MOUNTED ON PORTABLE SUPPORTS MUST BE MOUNTED AT A MINIMUM HEIGHT OF 5 FEET FROM THE TOP OF PAVEMENT TO THE BOTTOM OF SIGN.
8. THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.
9. PAVEMENT MARKING CONFLICTING WITH STAGED TRAFFIC PATTERNS SHALL BE REMOVED IF CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 DAYS AND NIGHTS.
10. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
11. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
12. DETAILS OF TRAFFIC CONTROL NOT SHOWN SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
13. FOR NIGHTTIME OPERATIONS, ALL DRUMS IN TAPERS SHALL HAVE A TRAFFIC CONTROL WARNING LIGHTS TYPE C.
14. ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND BE EQUIPPED WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A.
15. CONTRACTOR'S EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE MEDIAN OR CLEAR ZONE OF IH 94 UNLESS PROTECT BY CONCRETE BARRIER TEMPORARY PRECAST AT THE CONTRACTOR'S EXPENSE. NOR MAY EQUIPMENT OR STOCKPILES BE STORED IN THE BUFFER AREA IN FRONT OF THE WORK ZONE.
16. CTH E WILL BE CLOSED DURING CONSTRUCTION. SEE THE "LOCAL DETOUR ROUTE" SHEETS FOR THE PROPOSED DETOUR ROUTE.
17. SEE STANDARD DETAIL DRAWINGS 15D12 SHEET A, 15D27, AND 15D40 SHEET D FOR MORE INFORMATION.

LEGEND

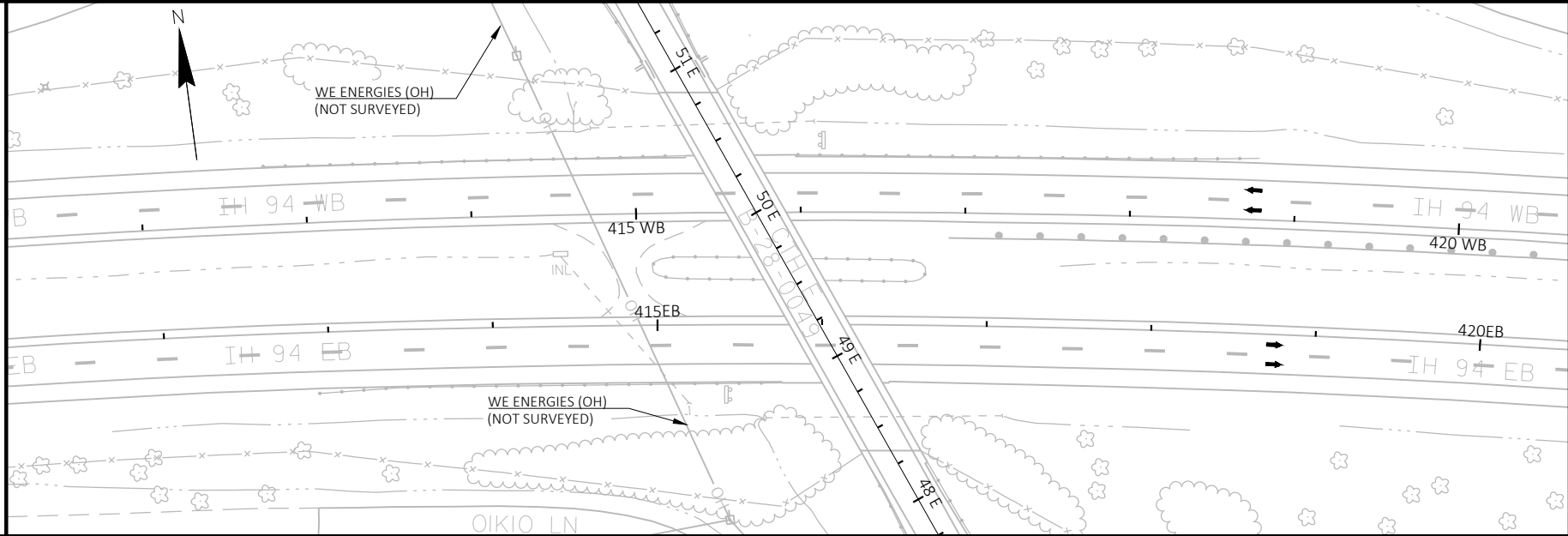
-  TRAFFIC CONTROL BARRICADE TYPE III
-  TRAFFIC CONTROL BARRICADE TYPE III, W/ TRAFFIC CONTROL SIGNS
-  TRAFFIC CONTROL DRUMS
-  TRAFFIC CONTROL DRUMS W/ TRAFFIC CONTROL WARNING LIGHTS TYPE C
-  TRAFFIC CONTROL ARROW BOARDS
-  TRAFFIC CONTROL SIGNS ON PERMANENT OR TEMPORARY SUPPORT(S)
-  WORK ZONE
-  DIRECTION OF TRAFFIC



**LEGEND**

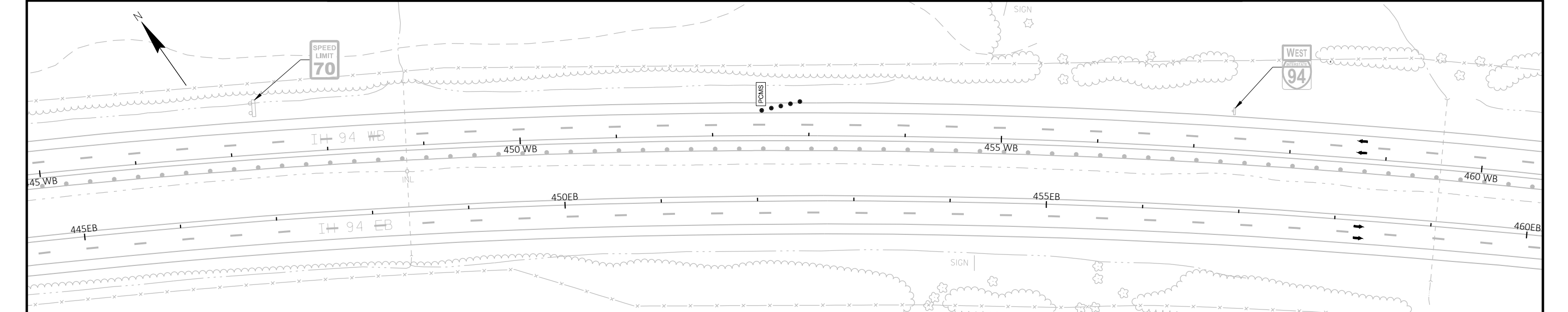
- TRAFFIC CONTROL DRUMS\*
- PCMS TRAFFIC CONTROL SIGNS PCMS
- ➔ DIRECTION OF TRAFFIC

\*AT 10' SPACING OR AS DIRECTED BY THE FIELD ENGINEER



**PCMS MESSAGE**

	FRAME ONE	FRAME TWO
7 DAYS PRIOR TO CONSTRUCTION:	ROAD WORK BEGINS	(DATE)







WE ENERGIES (OH)  
(NOT SURVEYED)

WE ENERGIES (OH)  
(NOT SURVEYED)

WE ENERGIES (OH)  
(NOT SURVEYED)

WE ENERGIES (OH)  
(NOT SURVEYED)

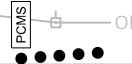
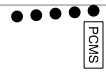
WE ENERGIES (OH)  
(NOT SURVEYED)





CTH E

B-28-0049

CTH E



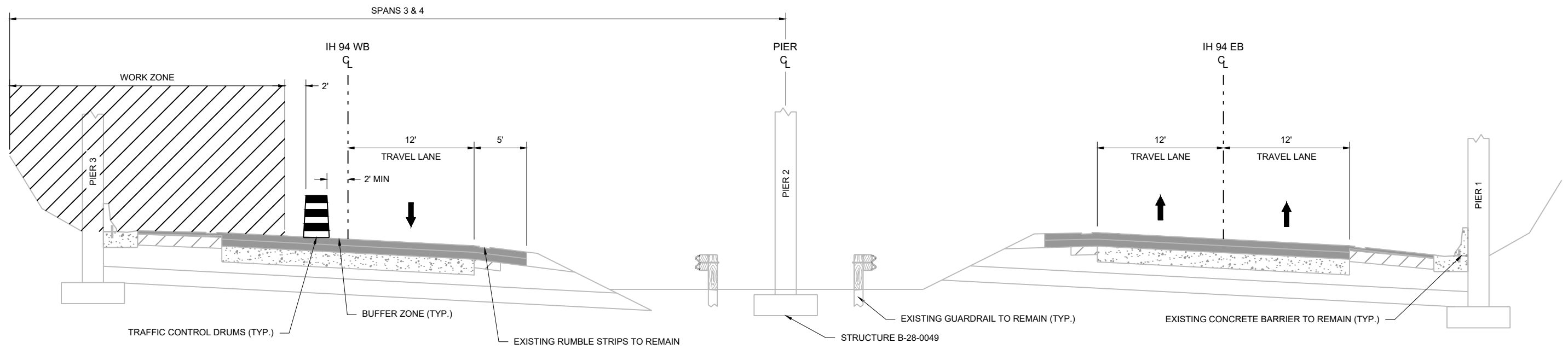
**LEGEND**

- TRAFFIC CONTROL DRUMS\*
-  TRAFFIC CONTROL SIGNS PCMS
-  DIRECTION OF TRAFFIC

\*AT 10' SPACING OR AS DIRECTED BY THE FIELD ENGINEER

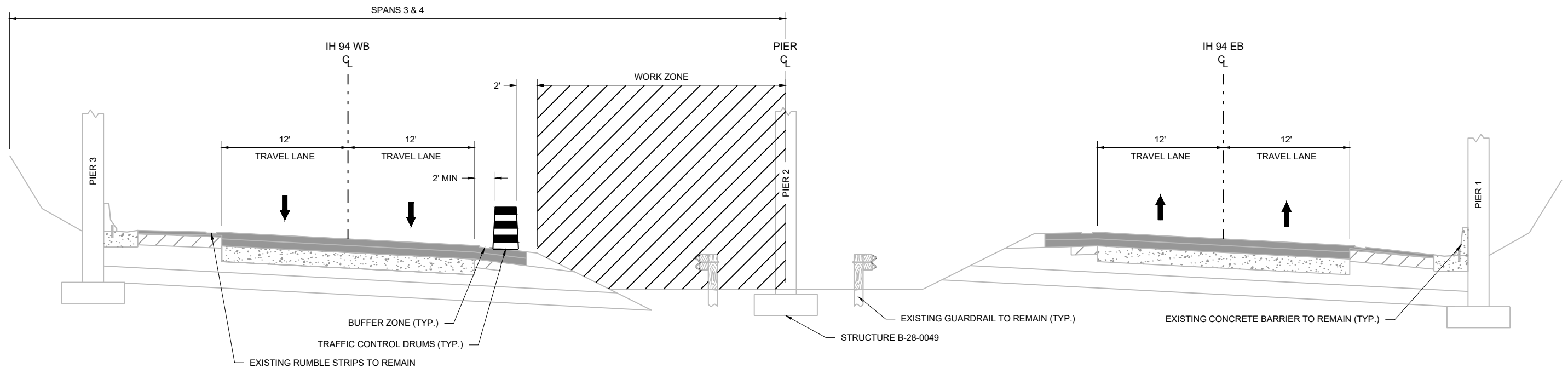
**PCMS MESSAGE**

	FRAME ONE	FRAME TWO
7 DAYS PRIOR TO CONSTRUCTION:	BRIDGE CLOSED BEGINS	(DATE)



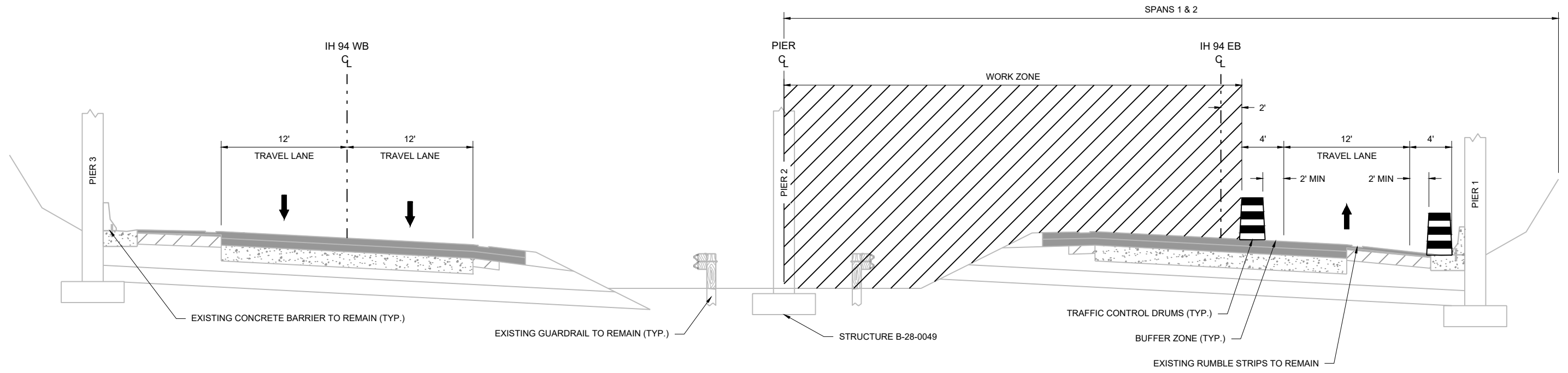
**STAGE 1 - IH 94 - LOOKING EAST**  
(OFF PEAK HOUR OPERATIONS)

**CONSTRUCTION AND TRAFFIC CONTROL**  
CLOSE THE WESTBOUND OUTSIDE TRAVEL LANE. MAINTAIN TWO TRAVEL LANES EASTBOUND.  
PERFORM WORK OPERATIONS LOCATED NORTH OF THE WESTBOUND CENTERLINE AS SHOWN IN THE STRUCTURE PLANS.  
REOPEN THE WESTBOUND OUTSIDE TRAVEL LANE DURING THE PEAK HOURS.



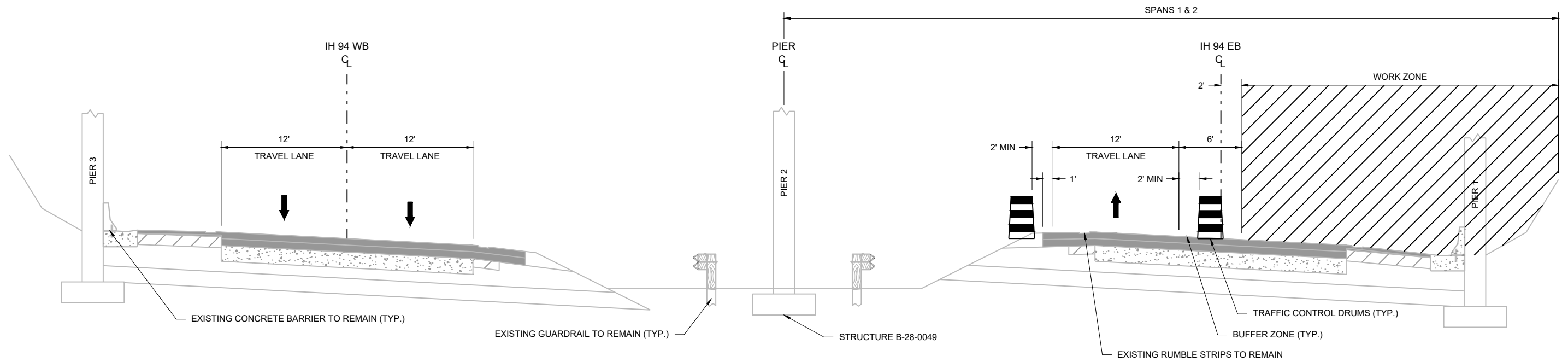
**STAGE 2 - IH 94 - LOOKING EAST**

**CONSTRUCTION AND TRAFFIC CONTROL**  
CLOSE THE WESTBOUND INSIDE SHOULDER. MAINTAIN TWO TRAVEL LANES EASTBOUND AND WESTBOUND.  
PERFORM WORK OPERATIONS LOCATED BETWEEN THE WESTBOUND INSIDE SHOULDER AND PIER 2 AS SHOWN IN THE STRUCTURE PLANS.



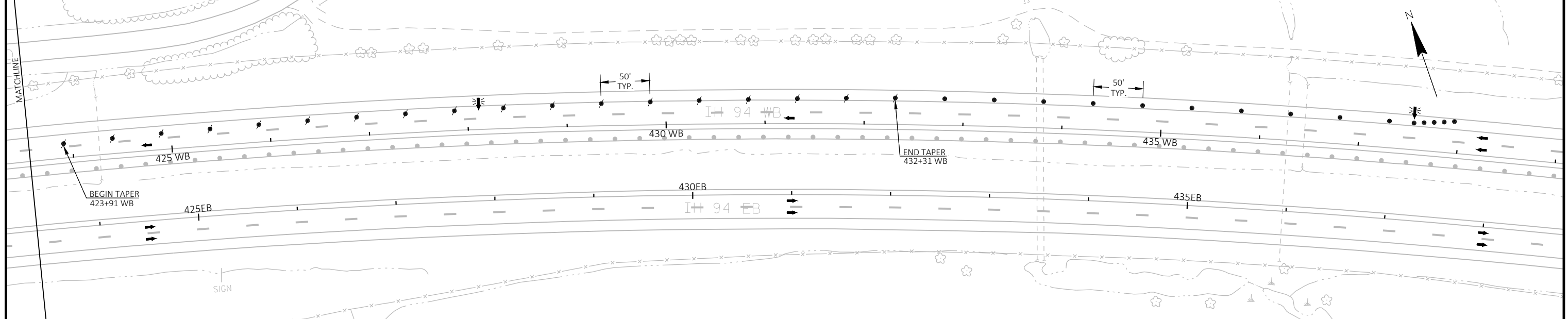
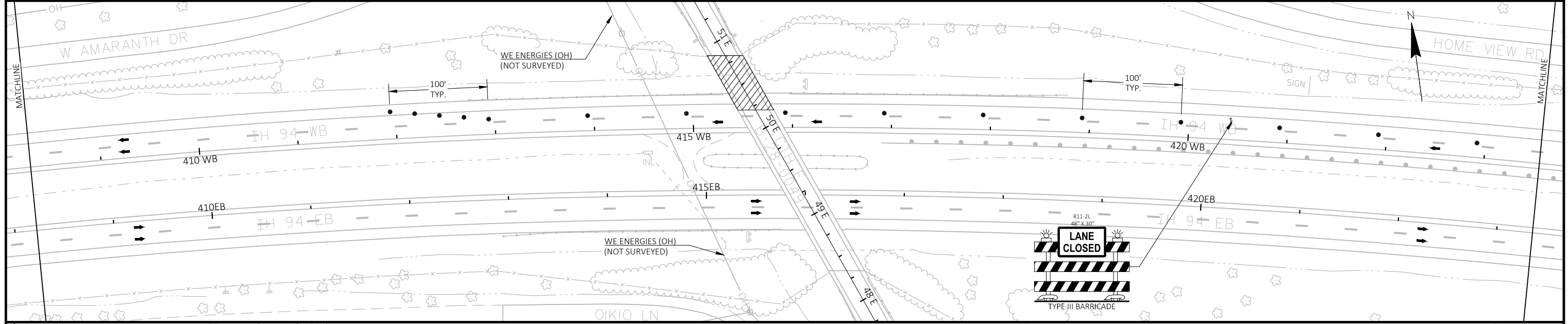
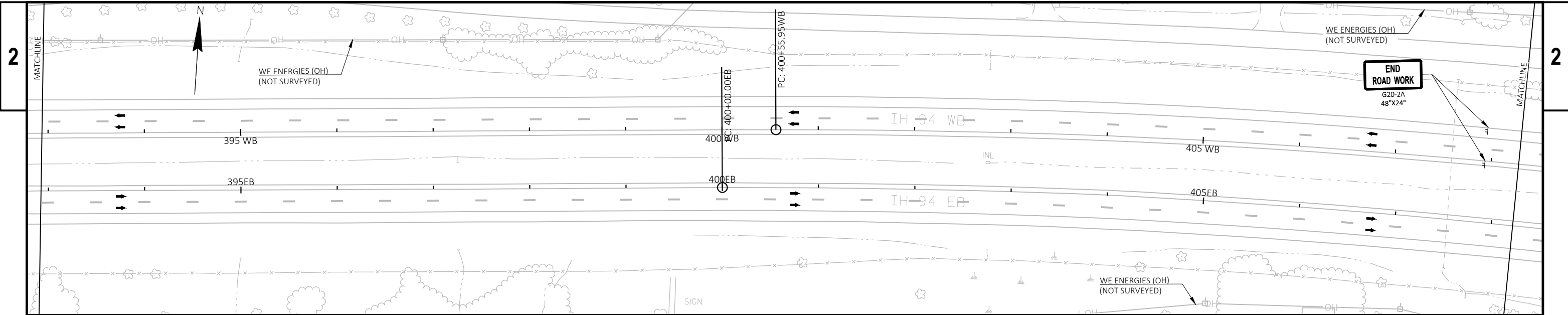
**STAGE 3 - IH 94 - LOOKING EAST**  
(OFF PEAK HOUR OPERATIONS)

**CONSTRUCTION AND TRAFFIC CONTROL**  
CLOSE THE EASTBOUND INSIDE TRAVEL LANE AND SHIFT TRAFFIC ONTO THE EASTBOUND OUTSIDE SHOULDER. MAINTAIN TWO TRAVEL LANES WESTBOUND. PERFORM WORK OPERATIONS LOCATED BETWEEN PIER 2 AND 2 FEET SOUTH OF THE EASTBOUND CENTERLINE AS SHOWN IN THE STRUCTURE PLANS. REOPEN THE EASTBOUND INSIDE TRAVEL LANE DURING THE PEAK HOURS.

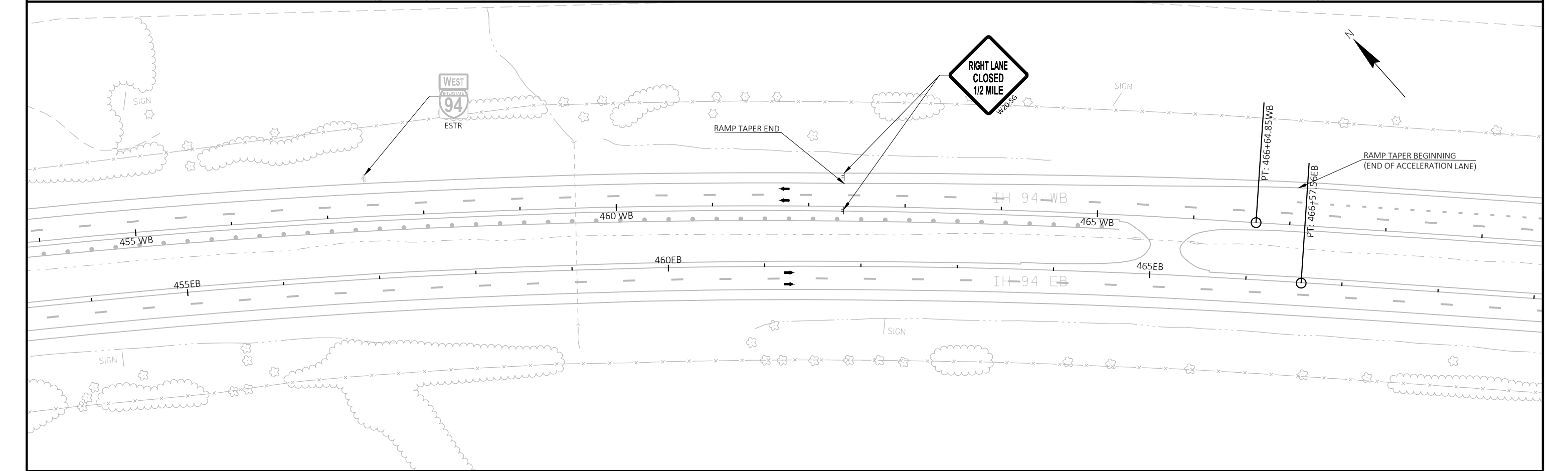
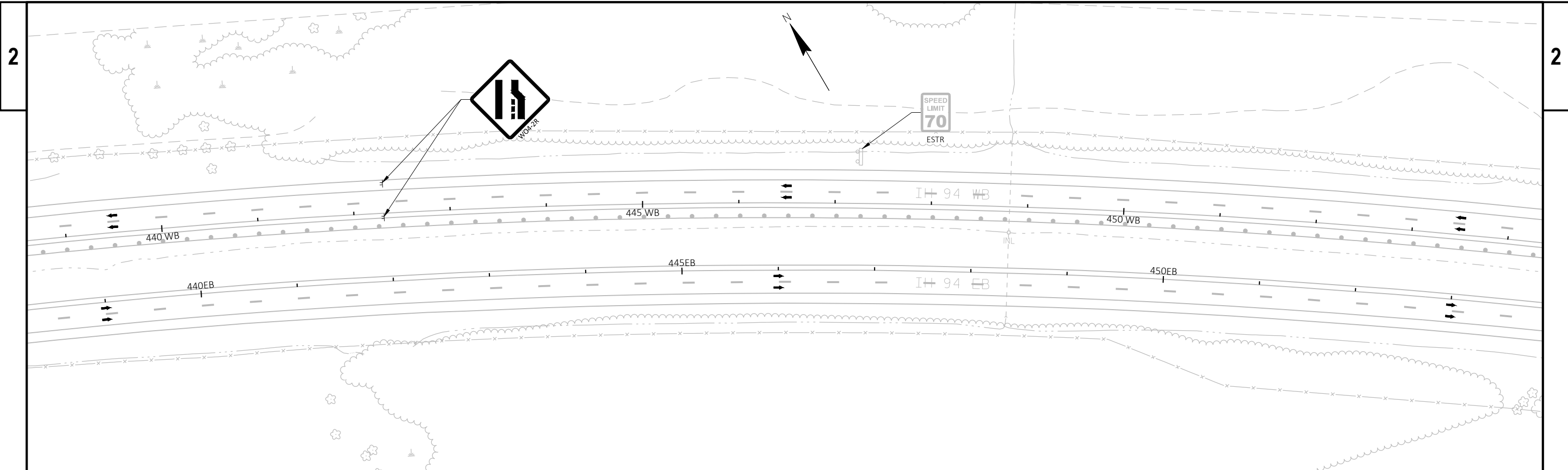


**STAGE 4 - IH 94 - LOOKING EAST**  
(OFF PEAK HOUR OPERATIONS)

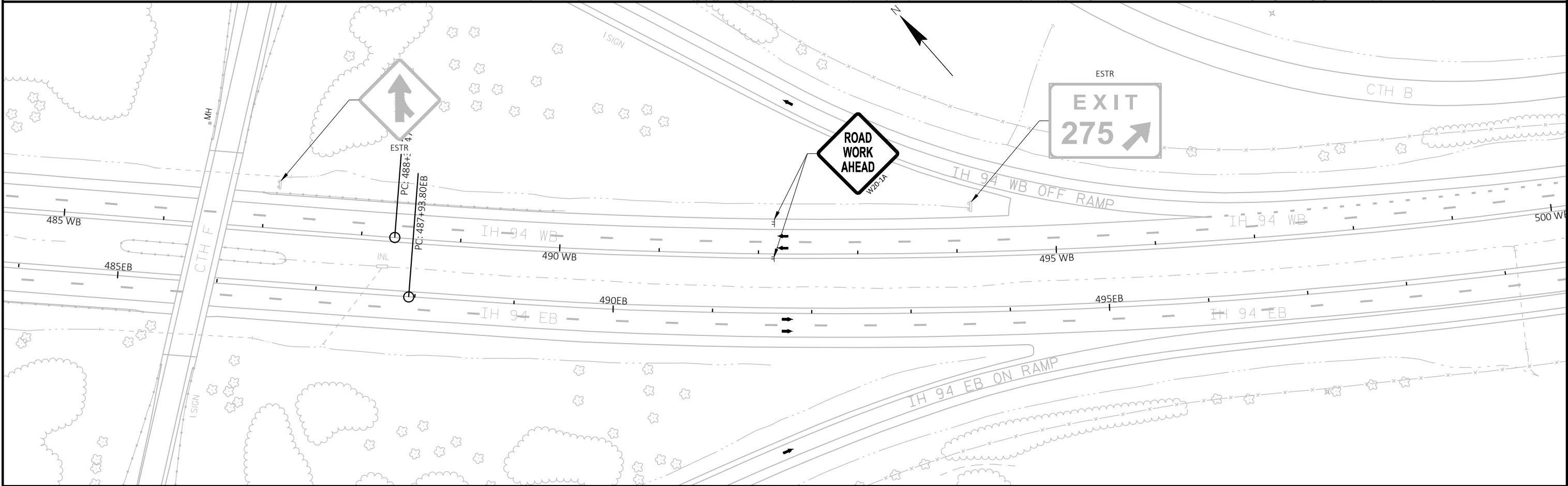
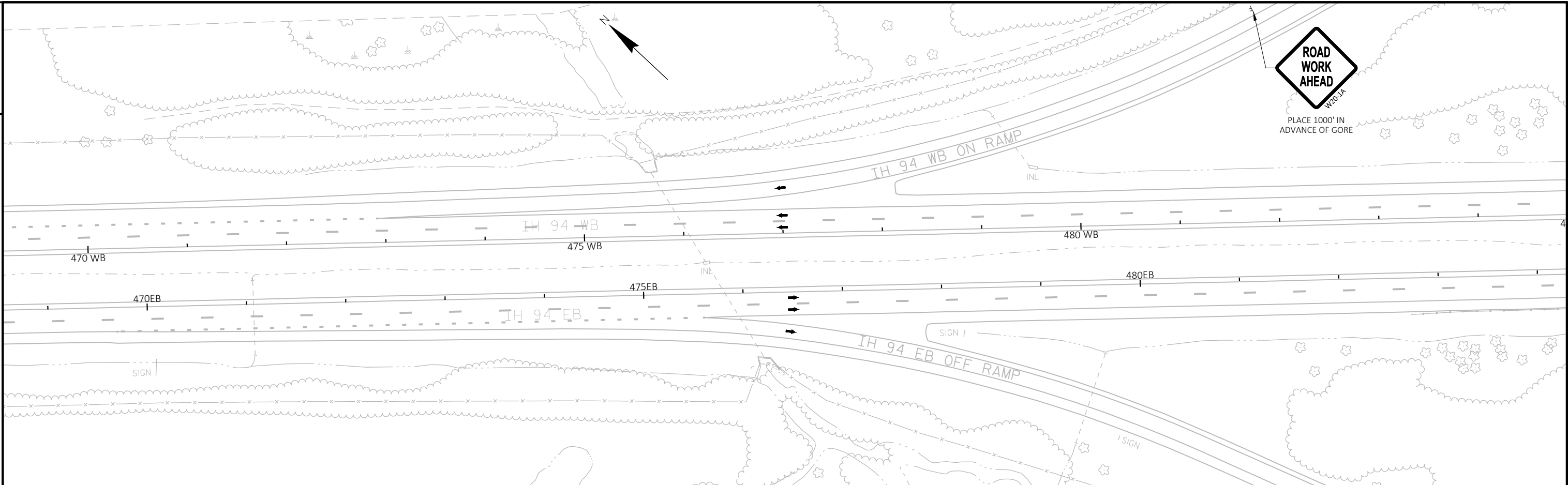
**CONSTRUCTION AND TRAFFIC CONTROL**  
CLOSE THE EASTBOUND OUTSIDE TRAVEL LANE AND SHIFT TRAFFIC ONTO THE EASTBOUND INSIDE SHOULDER. MAINTAIN TWO TRAVEL LANES WESTBOUND. PERFORM WORK OPERATIONS LOCATED SOUTH OF THE EASTBOUND CENTERLINE AS SHOWN IN THE STRUCTURE PLANS. REOPEN THE EASTBOUND OUTSIDE TRAVEL LANE DURING THE PEAK HOURS.



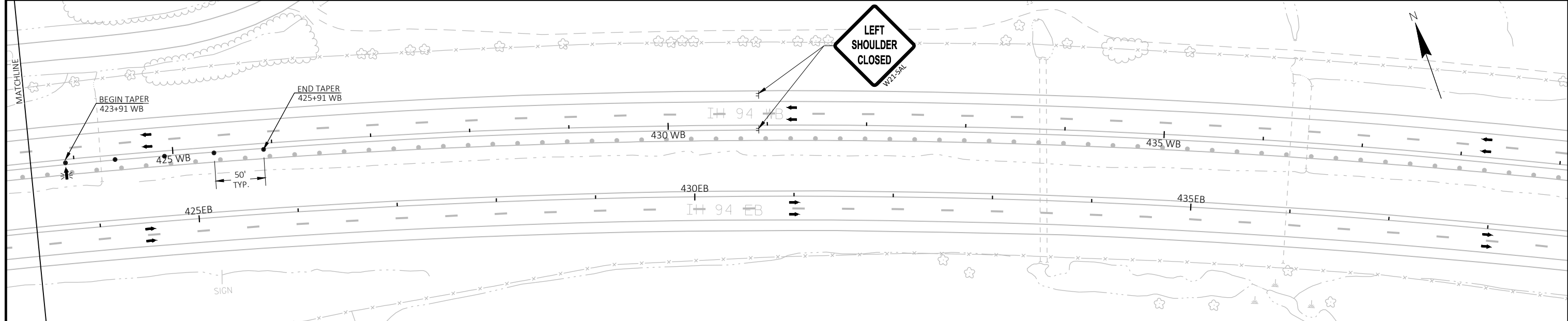
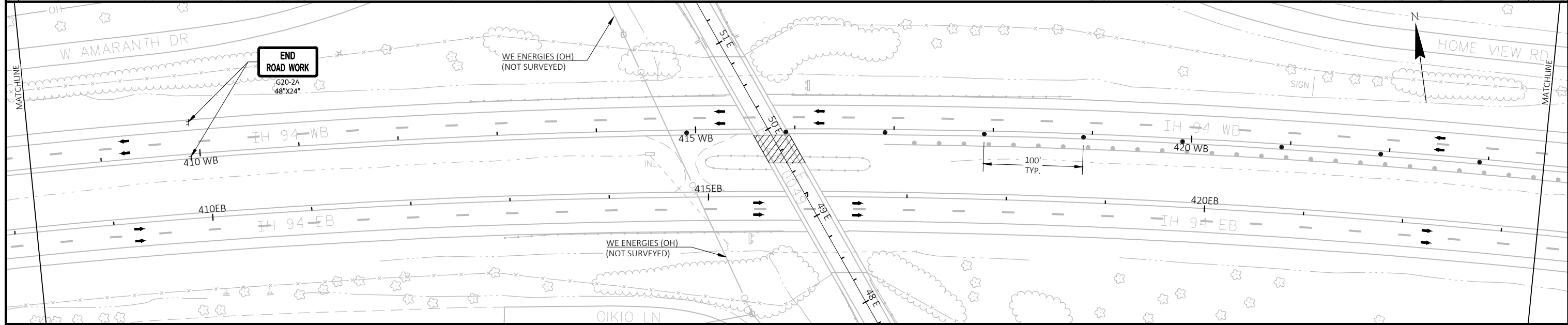
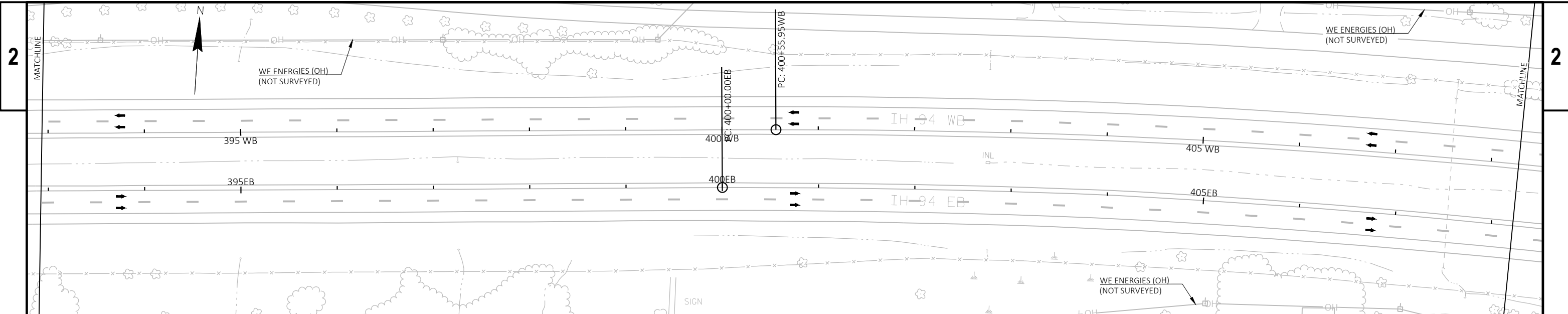
PROJECT NO: 1009-11-80/1067-01-62	HWY: IH 94	COUNTY: JEFFERSON	TRAFFIC CONTROL - STAGE 1 (IH 94)	SHEET	<b>E</b>
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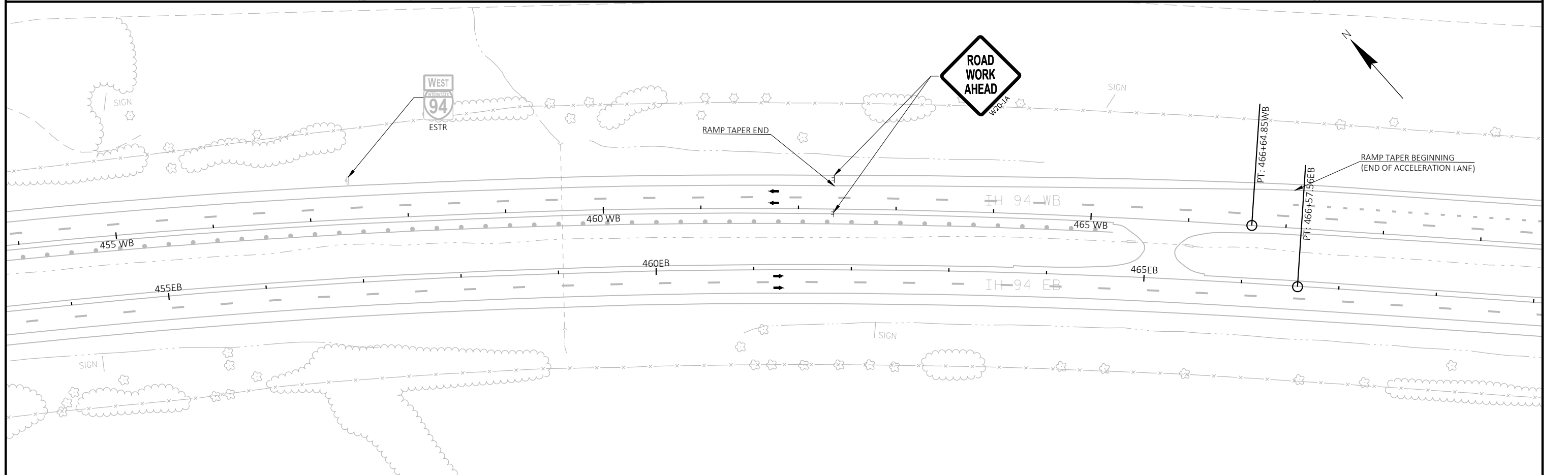
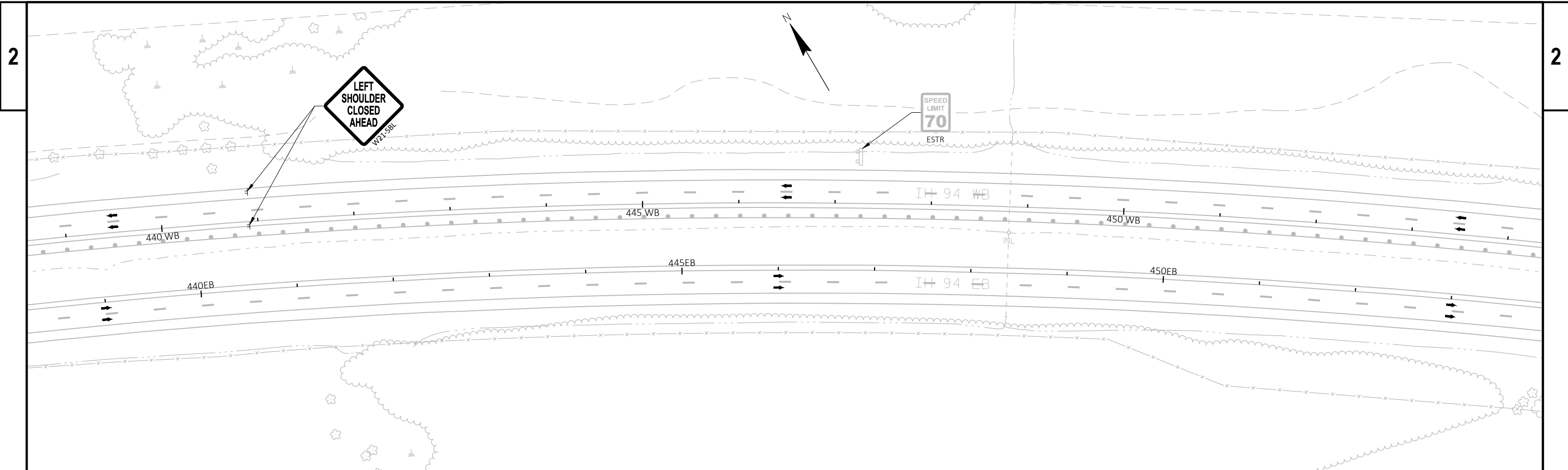
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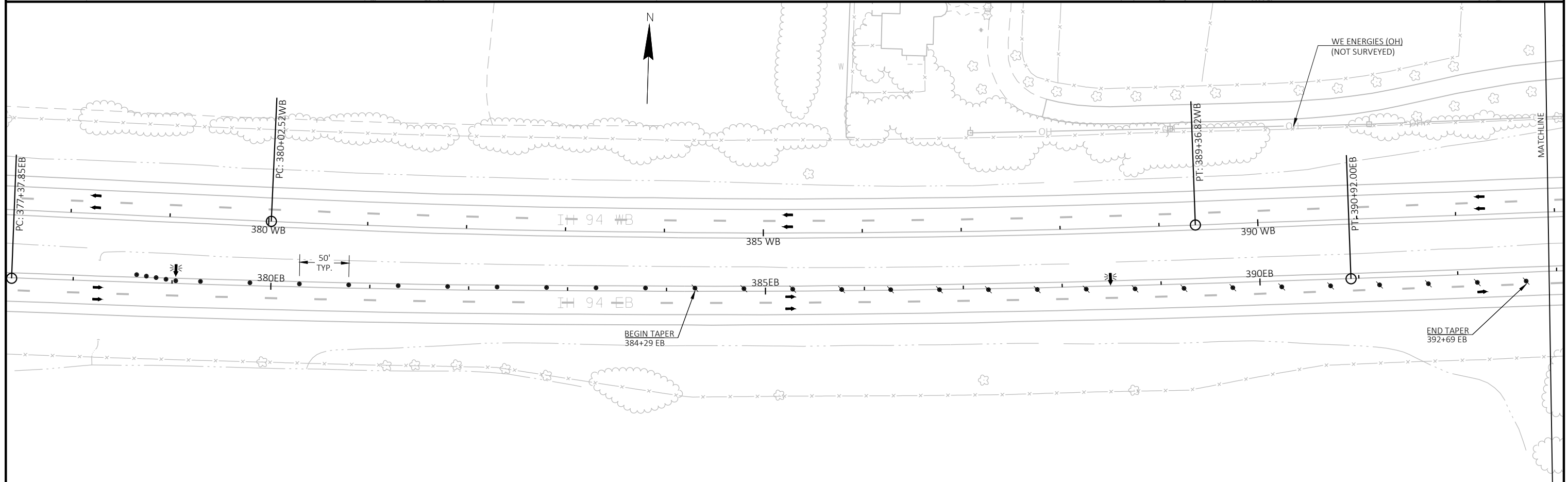
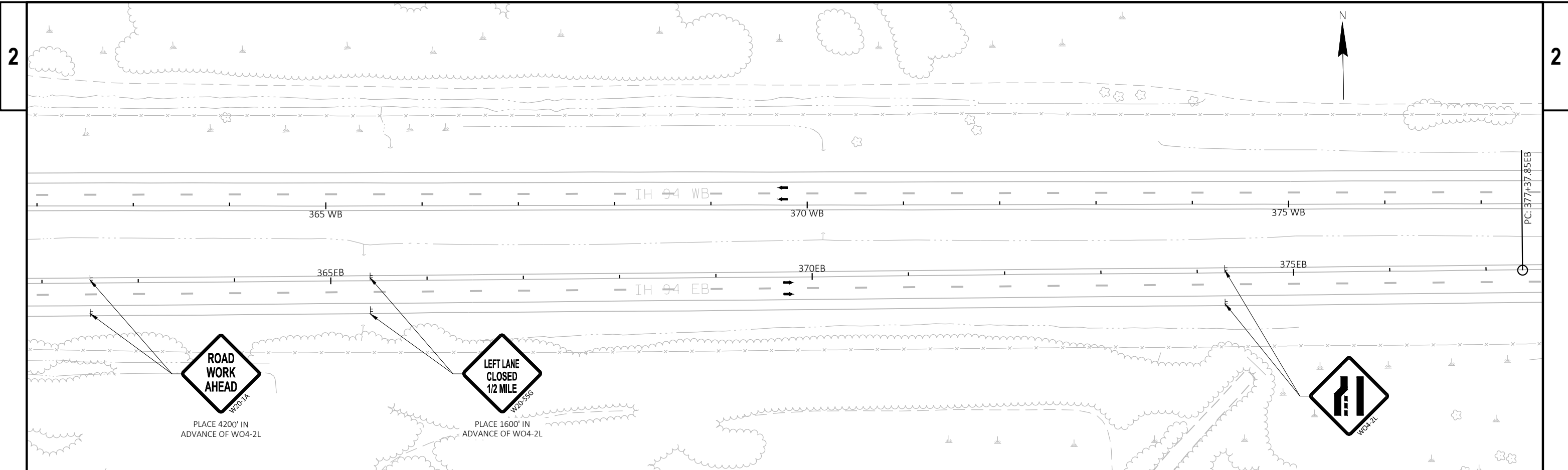


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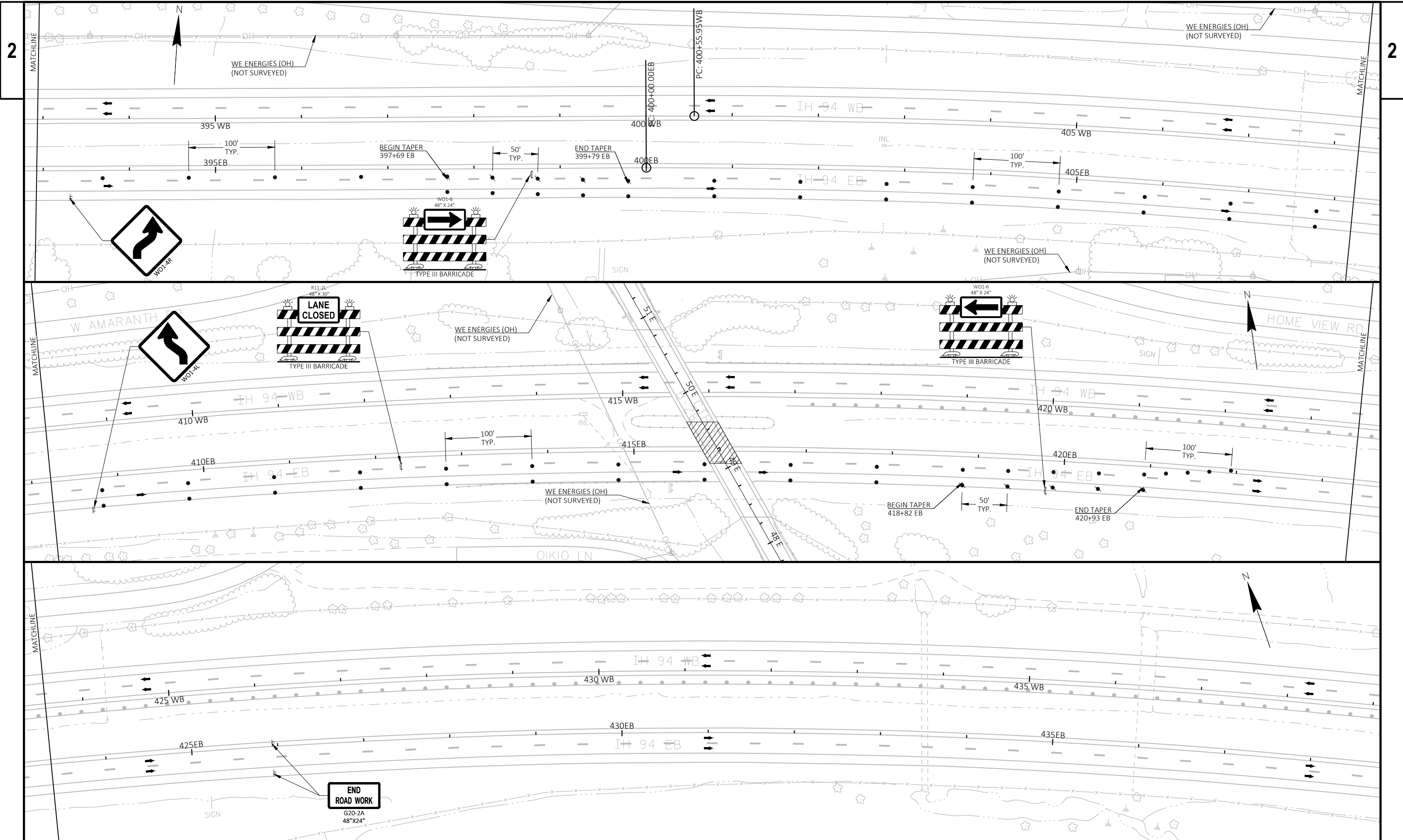


PROJECT NO: 1009-11-80/1067-01-62	HWY: IH 94	COUNTY: JEFFERSON	TRAFFIC CONTROL - STAGE 2 (IH 94)	SHEET	E
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PROJECT NO: 1009-11-80/1067-01-62	HWY: IH 94	COUNTY: JEFFERSON	TRAFFIC CONTROL - STAGE 3 (IH 94)	SHEET	<b>E</b>
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PROJECT NO: 1009-11-80/1067-01-62

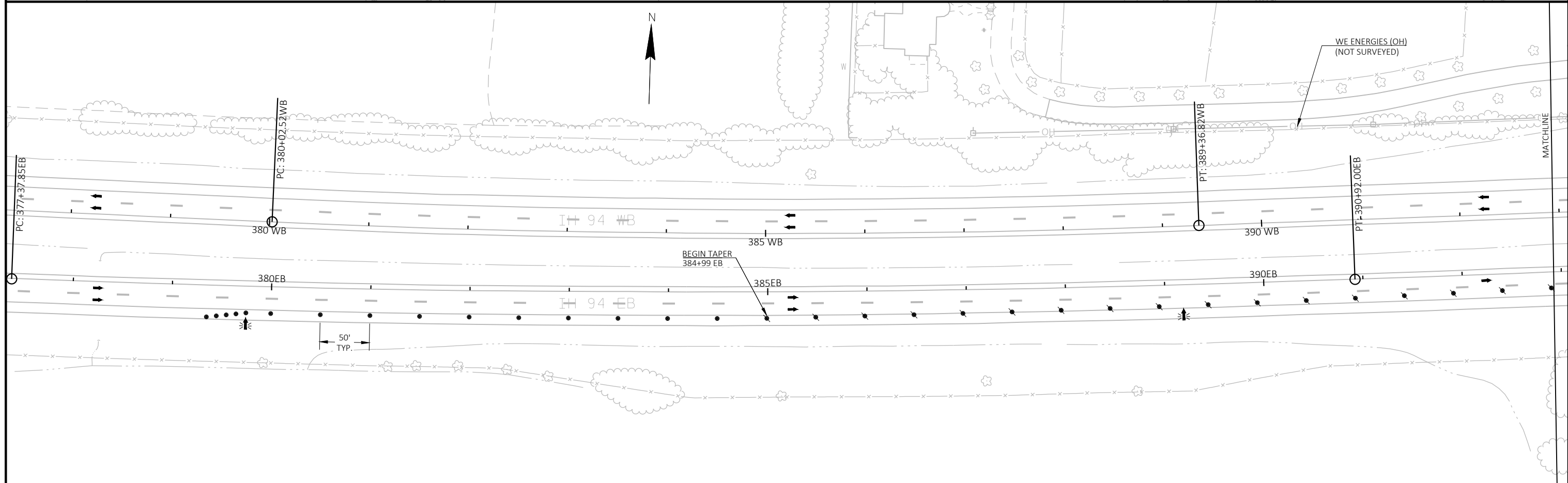
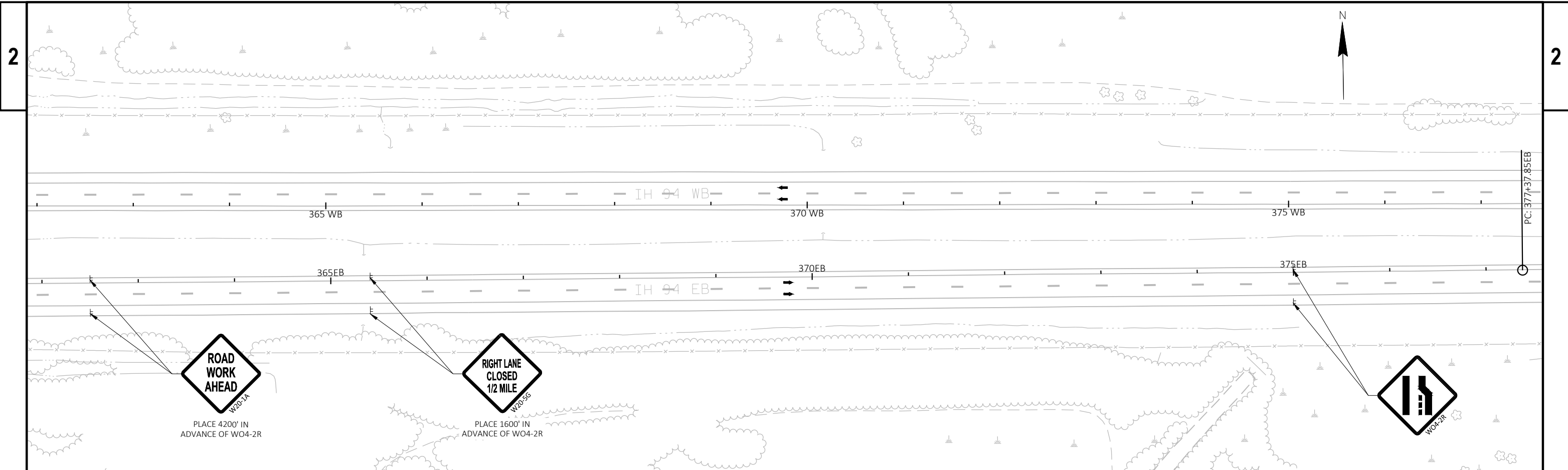
HWY: IH 94

COUNTY: JEFFERSON

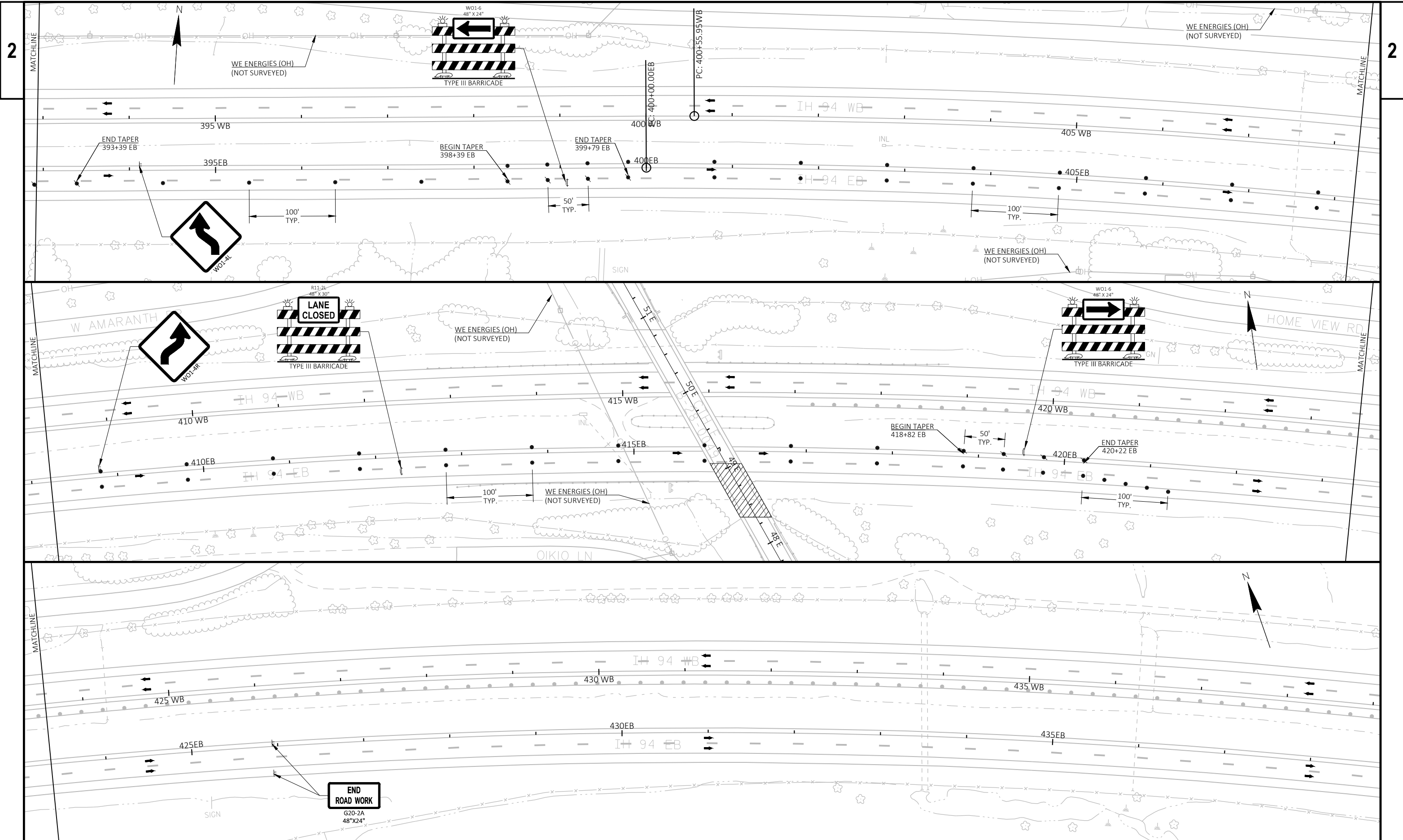
TRAFFIC CONTROL - STAGE 3 (IH 94)

SHEET

E



PROJECT NO: 1009-11-80/1067-01-62	HWY: IH 94	COUNTY: JEFFERSON	TRAFFIC CONTROL - STAGE 4 (IH 94)	SHEET	<b>E</b>
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PROJECT NO: 1009-11-80/1067-01-62

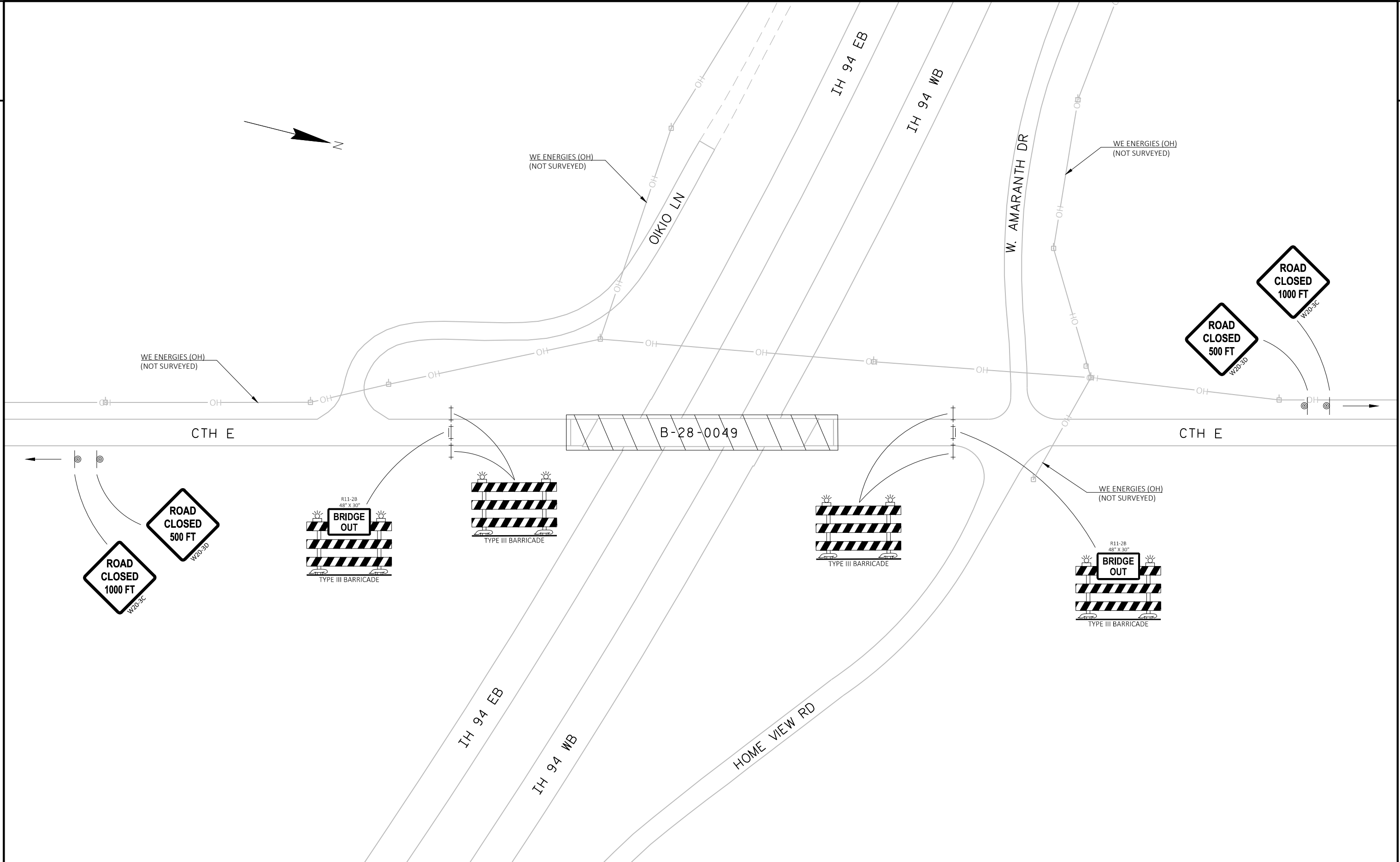
HWY: IH 94

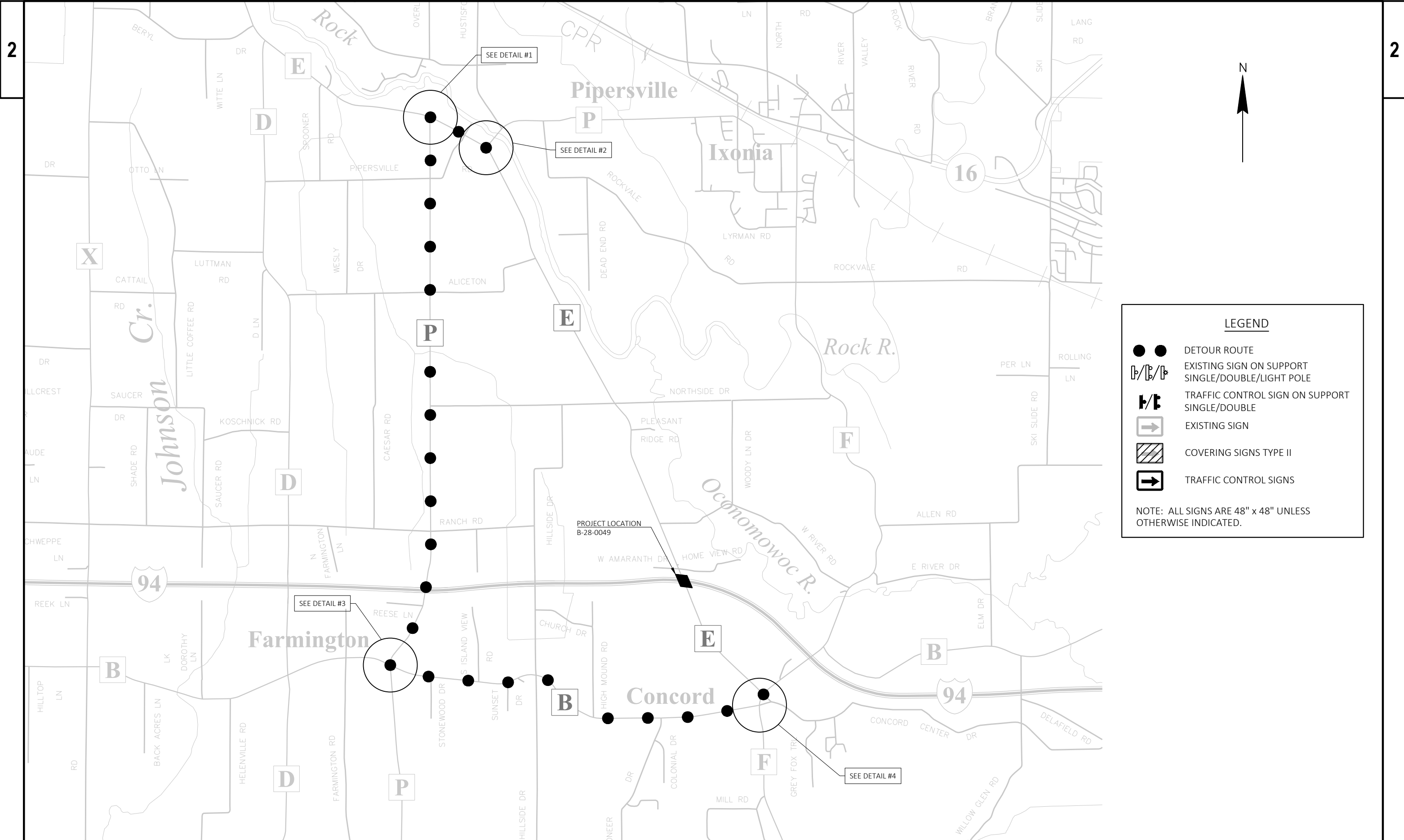
COUNTY: JEFFERSON

TRAFFIC CONTROL - STAGE 4 (IH 94)

SHEET

E

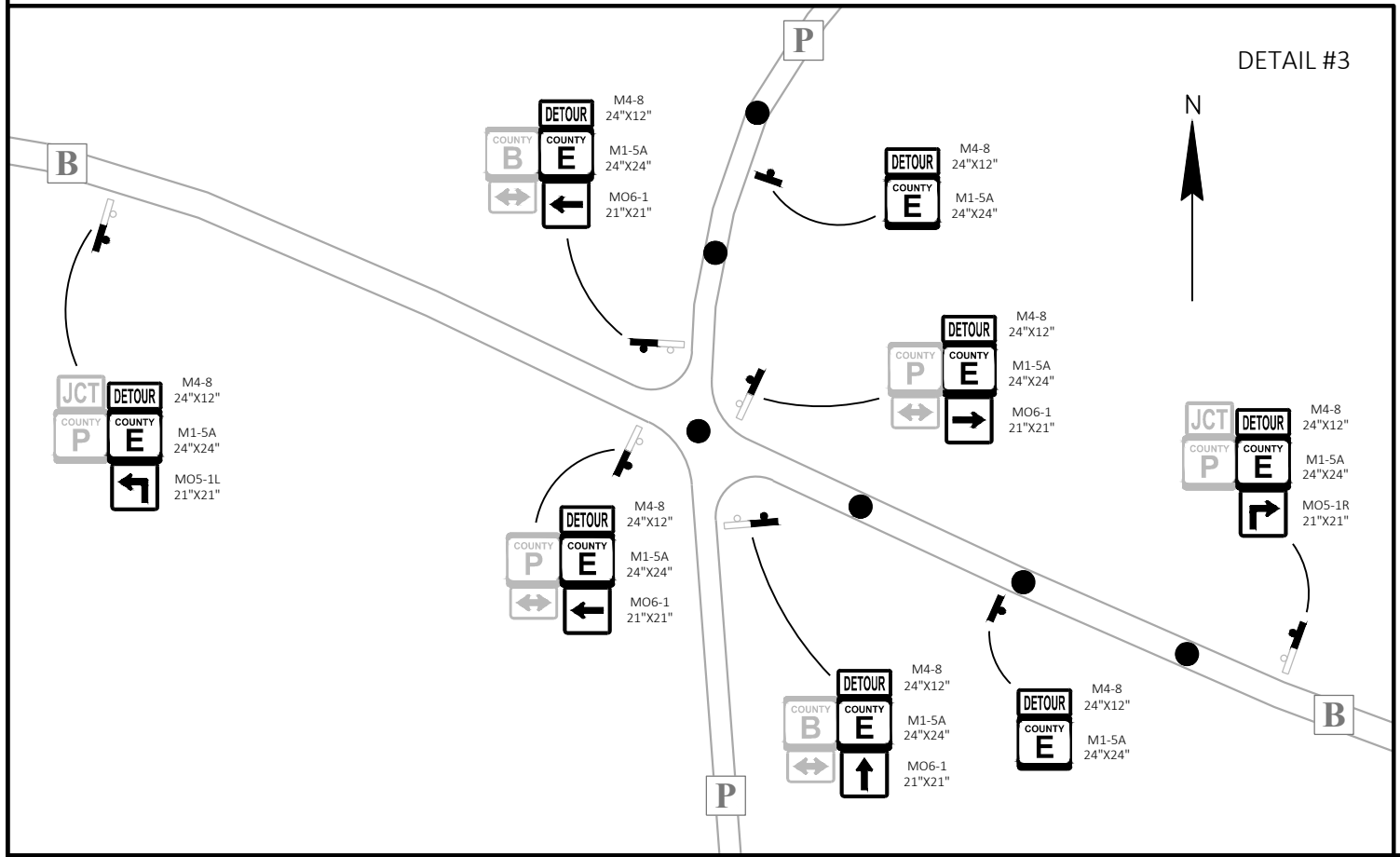
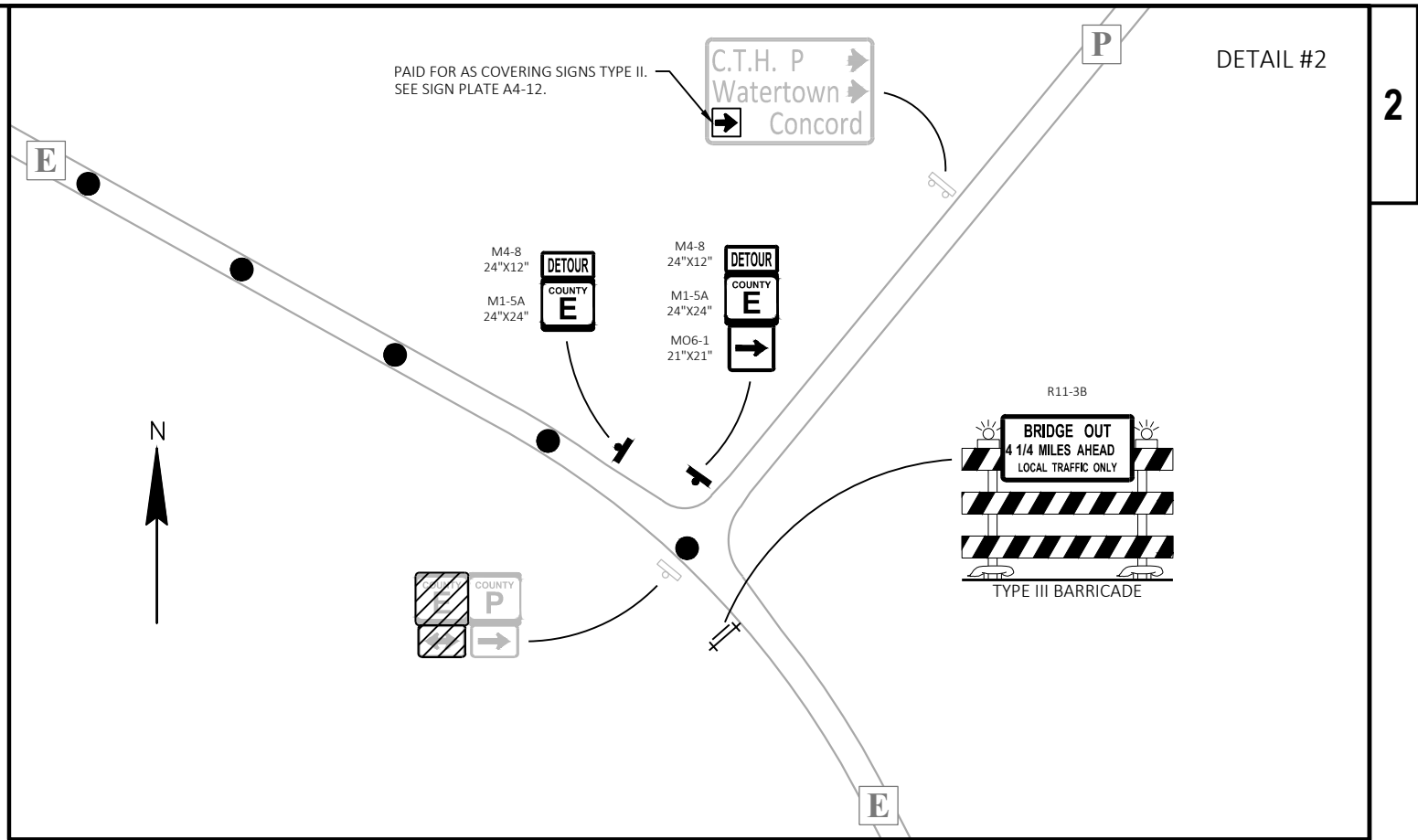
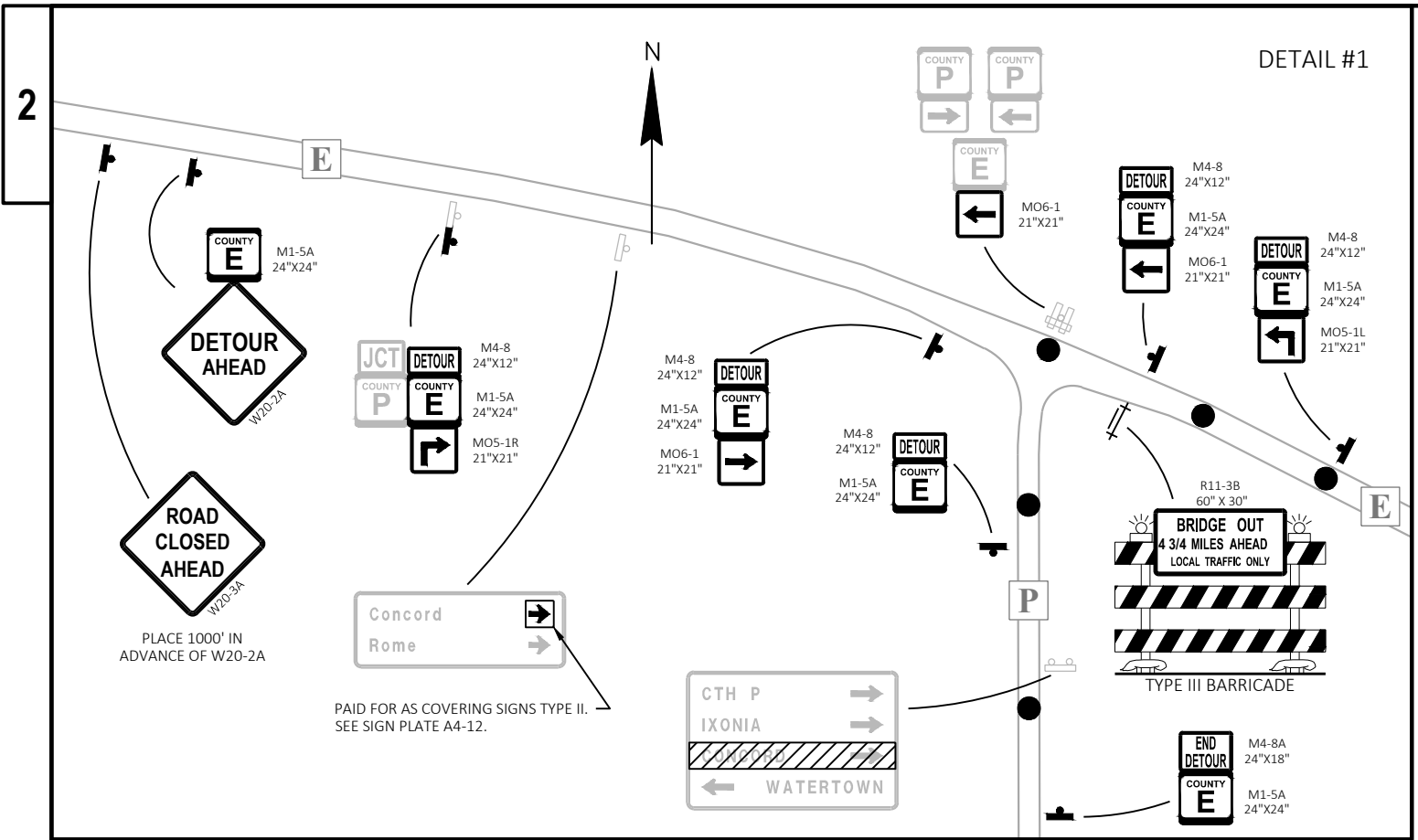




**LEGEND**

- ● DETOUR ROUTE
- Ⓟ/Ⓟ/Ⓟ EXISTING SIGN ON SUPPORT SINGLE/DOUBLE/LIGHT POLE
- Ⓟ/Ⓟ TRAFFIC CONTROL SIGN ON SUPPORT SINGLE/DOUBLE
- ➡ EXISTING SIGN
- ▨ COVERING SIGNS TYPE II
- ➡ TRAFFIC CONTROL SIGNS

NOTE: ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE INDICATED.



**LEGEND**

- ● DETOUR ROUTE
- B/B/B EXISTING SIGN ON SUPPORT SINGLE/DOUBLE/LIGHT POLE
- F/F TRAFFIC CONTROL SIGN ON SUPPORT SINGLE/DOUBLE
- EXISTING SIGN
- ▨ COVERING SIGNS TYPE II
- TRAFFIC CONTROL SIGNS

NOTE: ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE INDICATED.

PROJECT NO: 1009-11-80/1067-01-62    HWY: IH 94    COUNTY: JEFFERSON    LOCAL DETOUR - DETAILS #1, #2, & #3    SHEET    E

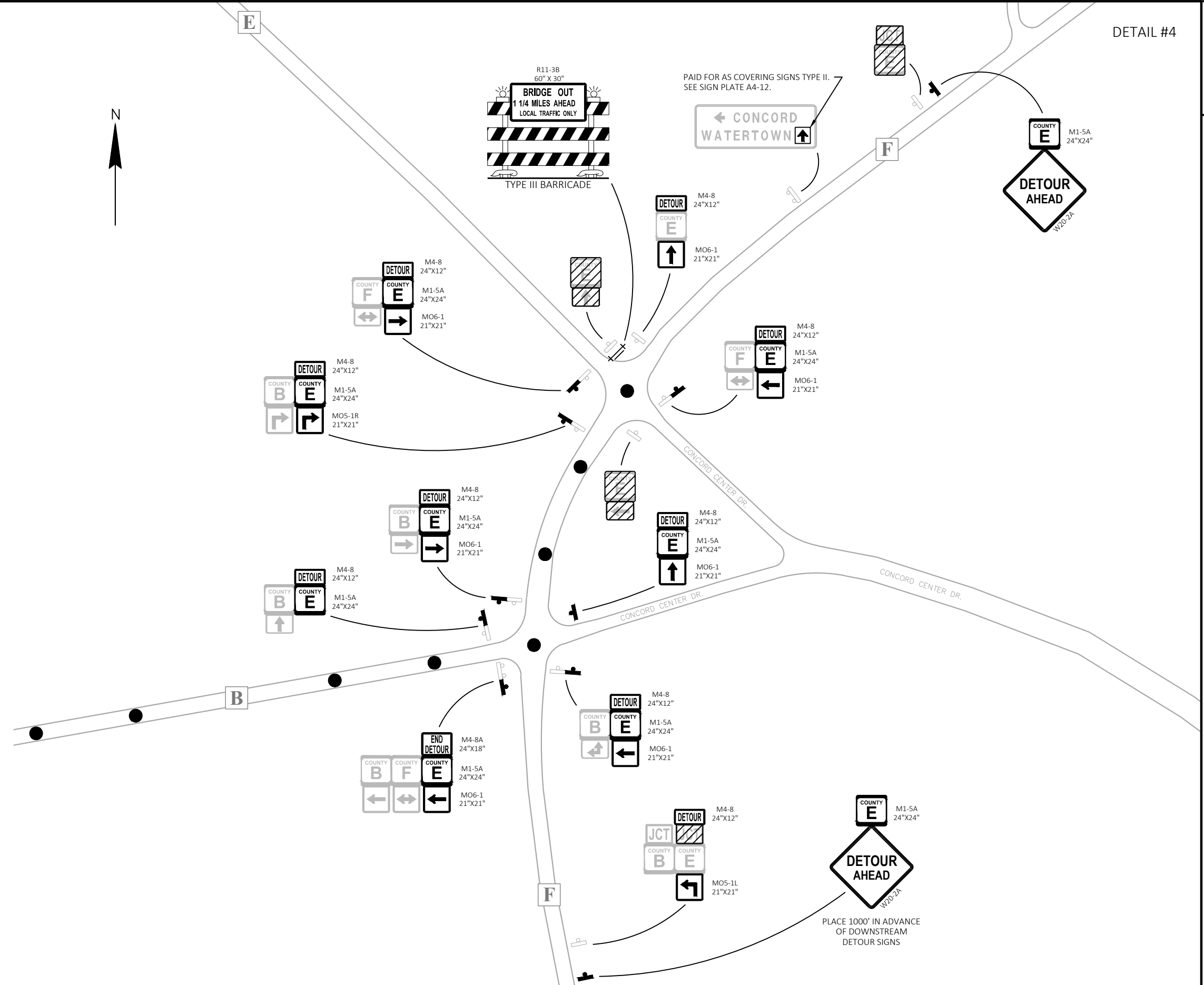
FILE NAME : N:\PDS\C3D\10670132\SHEETSPLAN\025001\_TC - TRAFFIC CONTROL\025002\_DT.DWG    PLOT DATE : 12/15/2021 11:21 AM    PLOT BY : DEYMARCOs, TIJLER JO    PLOT NAME :    PLOT SCALE : 1 IN:200 FT    WISDOT/CADDs SHEET 42



**LEGEND**

- ● DETOUR ROUTE
- ⌊/⌊/⌊ EXISTING SIGN ON SUPPORT SINGLE/DOUBLE/LIGHT POLE
- ⌊/⌊ TRAFFIC CONTROL SIGN ON SUPPORT SINGLE/DOUBLE
- EXISTING SIGN
- ▨ COVERING SIGNS TYPE II
- TRAFFIC CONTROL SIGNS

NOTE: ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE INDICATED.





Estimate Of Quantities

		1009-11-80	1067-01-62			
Line	Item	Item Description	Unit	Total	Qty	Qty
0002	213.0100	Finishing Roadway (project) 01. 1009-11-80	EACH	1.000	1.000	
0004	213.0100	Finishing Roadway (project) 02. 1067-01-62	EACH	1.000		1.000
0006	502.3210	Pigmented Surface Sealer	SY	219.000		219.000
0008	509.1500	Concrete Surface Repair	SF	50.000		50.000
0010	509.5100.S	Polymer Overlay	SY	832.000		832.000
0012	509.9050.S	Cleaning Parapets	LF	539.000		539.000
0014	517.3001.S	Structure Overcoating Cleaning and Priming (structure) 01. B-28-49	EACH	1.000	0.200	0.800
0016	517.4001.S	Containment and Collection of Waste Materials (structure) 01. B-28-49	EACH	1.000	0.200	0.800
0018	517.6001.S	Portable Decontamination Facility	EACH	1.000	0.200	0.800
0020	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1009-11-80	EACH	1.000	1.000	
0022	618.0100	Maintenance And Repair of Haul Roads (project) 02. 1067-01-62	EACH	1.000		1.000
0024	619.1000	Mobilization	EACH	1.000	0.200	0.800
0026	642.5001	Field Office Type B	EACH	1.000	0.080	0.920
0028	643.0300	Traffic Control Drums	DAY	1,430.000	384.000	1,046.000
0030	643.0420	Traffic Control Barricades Type III	DAY	101.000	12.000	89.000
0032	643.0705	Traffic Control Warning Lights Type A	DAY	202.000	24.000	178.000
0034	643.0715	Traffic Control Warning Lights Type C	DAY	376.000	110.000	266.000
0036	643.0800	Traffic Control Arrow Boards	DAY	36.000	8.000	28.000
0038	643.0900	Traffic Control Signs	DAY	682.000	52.000	630.000
0040	643.0920	Traffic Control Covering Signs Type II	EACH	9.000		9.000
0042	643.1050	Traffic Control Signs PCMS	DAY	28.000		28.000
0044	643.5000	Traffic Control	EACH	1.000	0.150	0.850
0046	646.1020	Marking Line Epoxy 4-Inch	LF	1,000.000		1,000.000
0048	646.9000	Marking Removal Line 4-Inch	LF	1,000.000		1,000.000
0050	SPV.0060	Special 01. Cleaning and Painting Bearings	EACH	8.000		8.000
0052	SPV.0090	Special 50. Modified Epoxy Injection Crack Repair	LF	100.000	100.000	

3

FINISHING ROADWAY

CATEGORY	PROJECT	213.0100.01 213.0100.02	
		EACH	EACH
0010	1009-11-80	1	-
0010	1067-01-62	-	1
TOTAL 0010		1	1

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100.01 618.0100.02	
		EACH	EACH
0010	1009-11-80	1	-
0010	1067-01-62	-	1
TOTAL 0010		1	1

MOBILIZATION

CATEGORY	PROJECT	619.1000
		EACH
0010	1009-11-80	0.20
0010	1067-01-62	0.80
TOTAL 0010		1

FIELD OFFICE TYPE B

CATEGORY	PROJECT	642.5001
		EACH
0010	1009-11-80	0.08
0010	1067-01-62	0.92
TOTAL 0010		1

3

TRAFFIC CONTROL AND DETOUR ITEMS

CATEGORY	LOCATION	STAGE	DAYS*	EACH*	DAY	643.0300 643.0420 643.0705 643.0715 643.0800 643.0900 643.0920 643.1050								REMARKS					
						EACH*	DAY	EACH*	DAY	EACH*	DAY	EACH*	DAY		EACH**	EACH*	DAY		
PROJECT 1009-11-80																			
0010	IH 94	STAGE 3	3	97	291	3	9	6	18	28	84	2	6	13	39	-	-	-	TRAFFIC CONTROL
0010	IH 94	STAGE 4	1	93	93	3	3	6	6	26	26	2	2	13	13	-	-	-	TRAFFIC CONTROL
1009-11-80 SUBTOTAL 0010				384		12		24		110		8		52		0		0	
PROJECT 1067-01-62																			
0010	IH 94	PCMS	7	10	70	-	-	-	-	-	-	-	-	-	-	-	2	14	TRAFFIC CONTROL
0010	IH 94	STAGE 1	6	48	288	1	6	2	12	18	108	2	12	10	60	-	-	-	TRAFFIC CONTROL
0010	IH 94	STAGE 2	4	14	56	-	-	-	-	-	-	1	4	8	32	-	-	-	TRAFFIC CONTROL
0010	IH 94	STAGE 3	1	97	97	3	3	6	6	28	28	2	2	13	13	-	-	-	TRAFFIC CONTROL
0010	IH 94	STAGE 4	5	93	465	3	15	6	30	26	130	2	10	13	65	-	-	-	TRAFFIC CONTROL
SUBTOTAL 0010				976		24		48		266		28		170		0		14	
0010	CTH E	PCMS	7	10	70	-	-	-	-	-	-	-	-	-	-	-	2	14	TRAFFIC CONTROL
0010	CTH E	CLOSURE	5	-	-	10	50	20	100	-	-	-	-	11	55	-	-	-	TRAFFIC CONTROL
SUBTOTAL 0010				70		50		100		0		0		55		0		14	
0010	CTH E	DETAIL #1	5	-	-	1	5	2	10	-	-	-	-	21	105	2	-	-	LOCAL DETOUR
0010	CTH E	DETAIL #2	5	-	-	1	5	2	10	-	-	-	-	6	30	2	-	-	LOCAL DETOUR
0010	CTH E	DETAIL #3	5	-	-	-	-	-	-	-	-	-	-	22	110	-	-	-	LOCAL DETOUR
0010	CTH E	DETAIL #4	5	-	-	1	5	2	10	-	-	-	-	32	160	5	-	-	LOCAL DETOUR
SUBTOTAL 0010				0		15		30		0		0		405		9		0	
1067-01-62 SUBTOTAL 0010				1,046		89		178		266		28		630		9		28	
TOTAL 0010				1,430		101		202		376		36		682		9		28	

\*FOR INFORMATIONAL PURPOSES ONLY  
\*\*ONE CYCLE BETWEEN STAGES 1 AND 2

TRAFFIC CONTROL

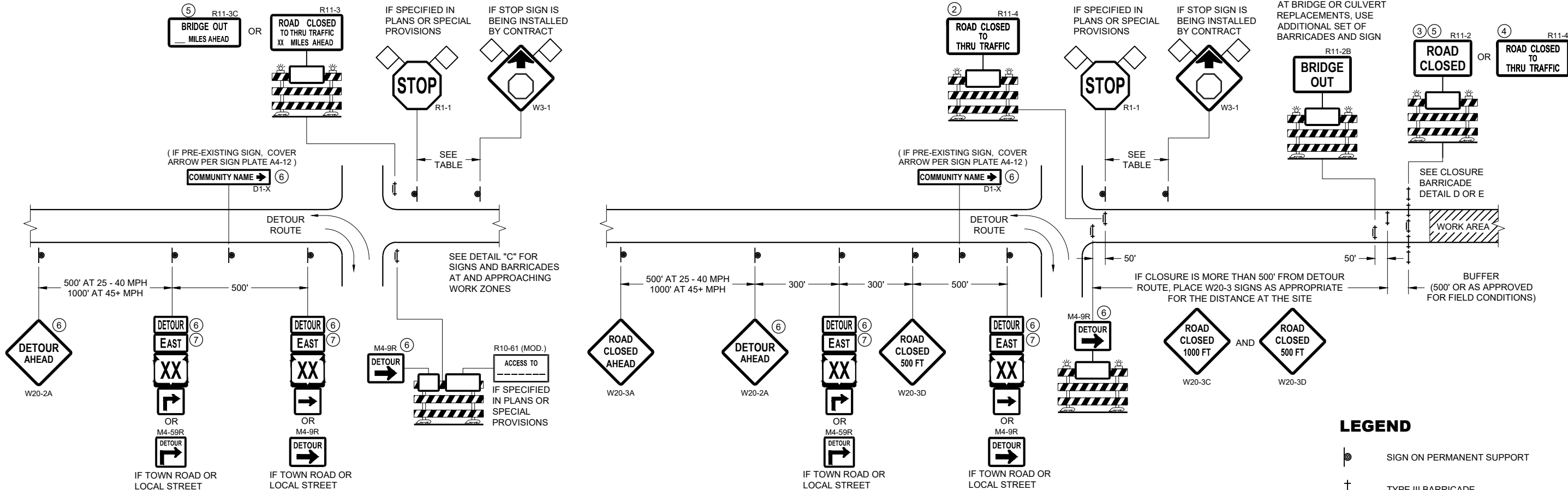
CATEGORY	PROJECT	643.5000
		EACH
0010	1009-11-80	0.15
0010	1067-01-62	0.85
TOTAL 0010		1

PAVEMENT MARKING ITEMS

CATEGORY	PROJECT	LOCATION	646.1020 646.9000		
			MARKING	MARKING	REMOVAL
			4-INCH	LINE	4-INCH
			YELLOW	WHITE	4-INCH
			LF	LF	LF
0010	1067-01-62	CTH E-LT	250	250	500
0010	1067-01-62	CTH E-RT	250	250	500
SUBTOTAL 0010			500	500	1,000
TOTAL 0010			1,000	1,000	1,000

## Standard Detail Drawing List

15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D12-09A	TRAFFIC CONTROL, LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D40-02D	TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER



**DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR**

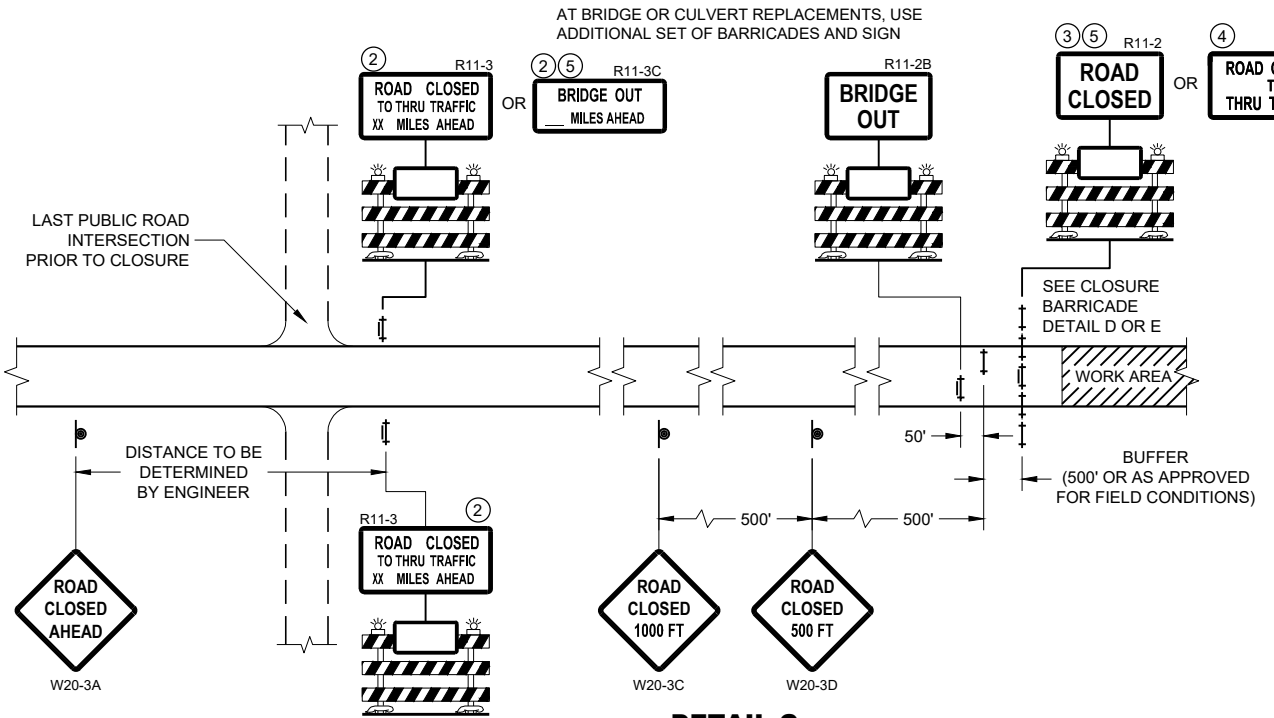
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



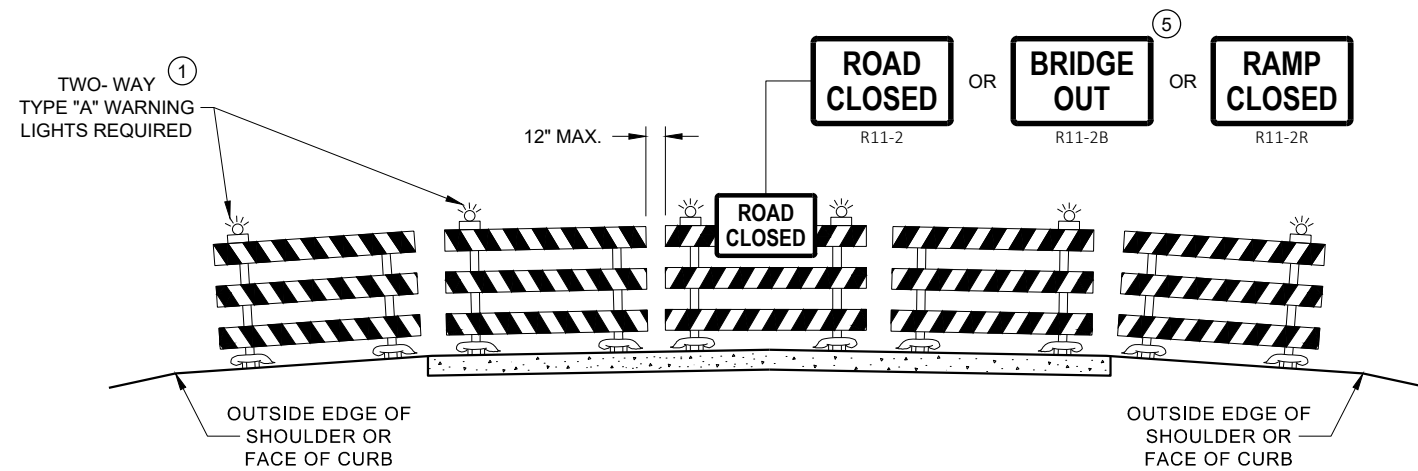
**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

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

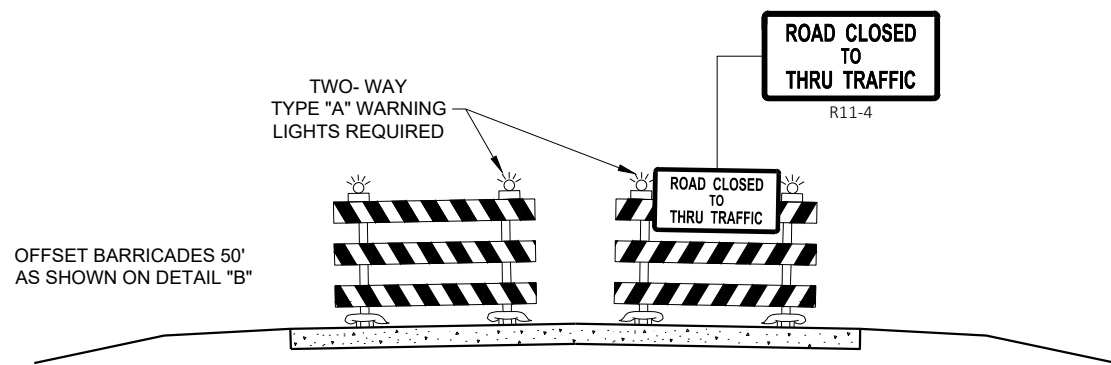
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER



**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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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:

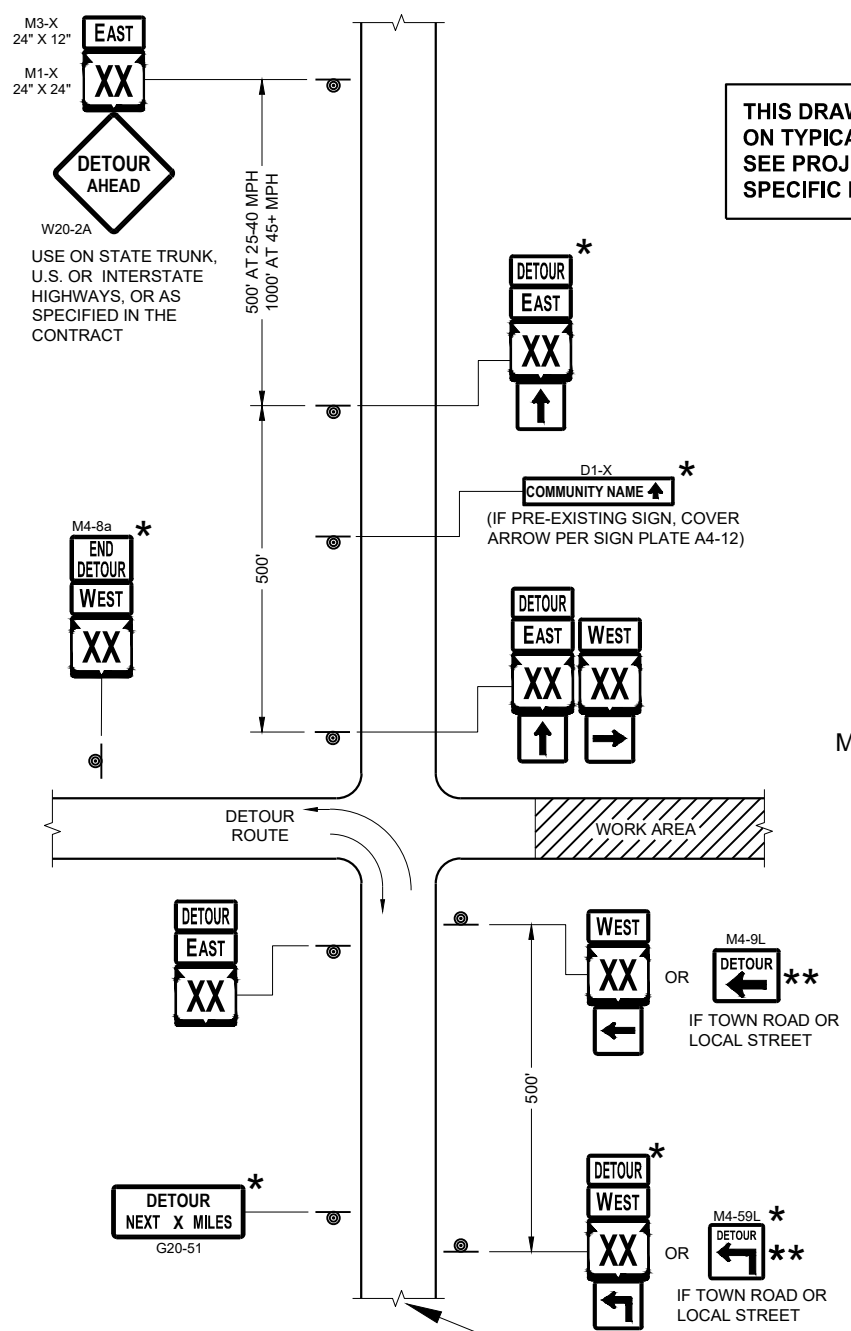
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" 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)
- 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 AN 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 ROAD 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  
VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER  
FHWA



**THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.**

**LEGEND**

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

**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.

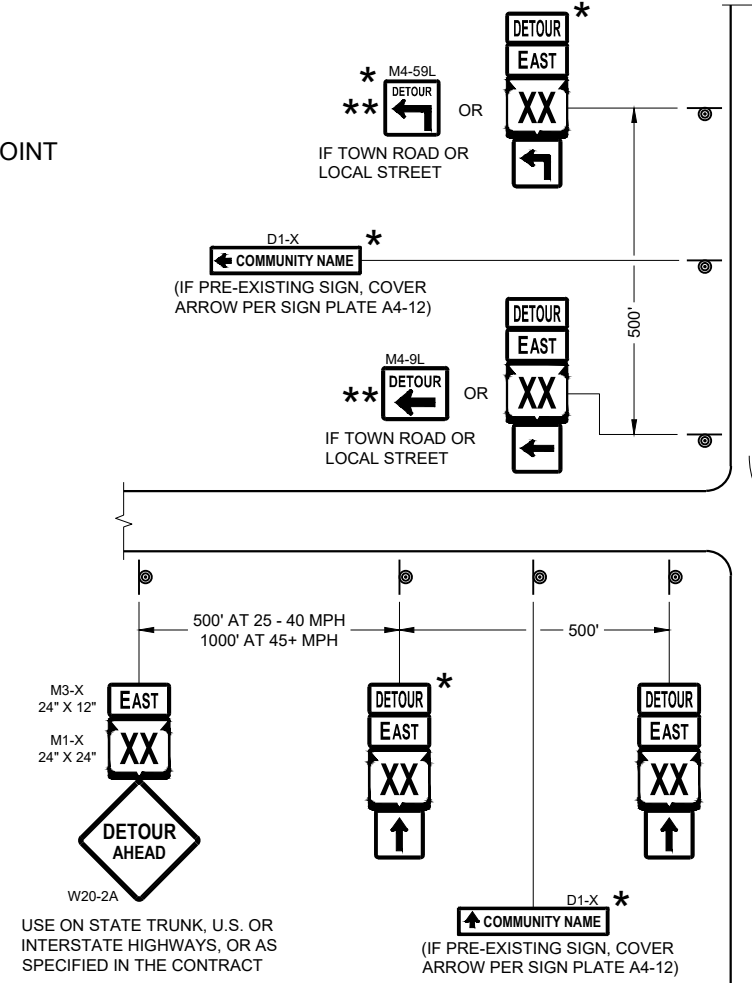
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

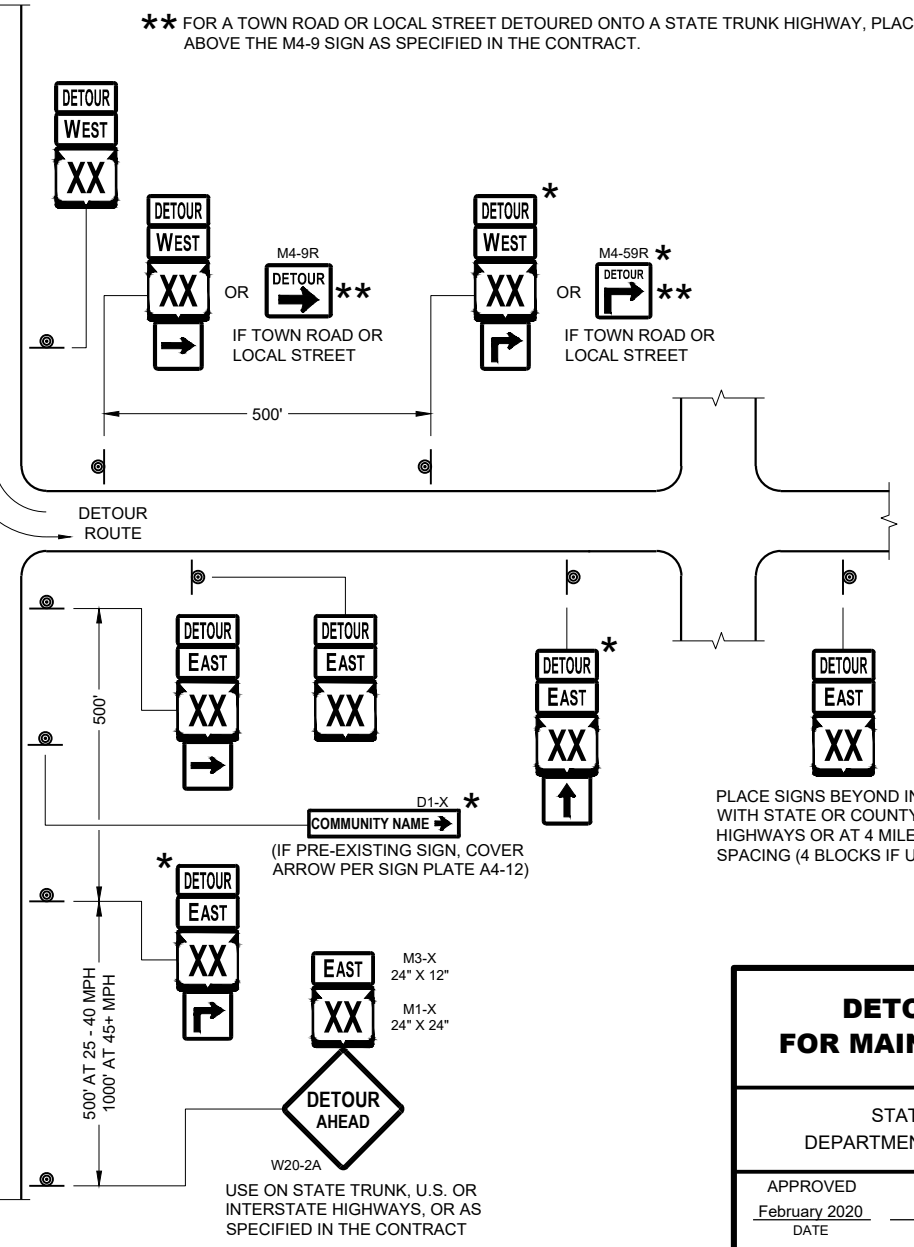
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A 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.

MATCH POINT



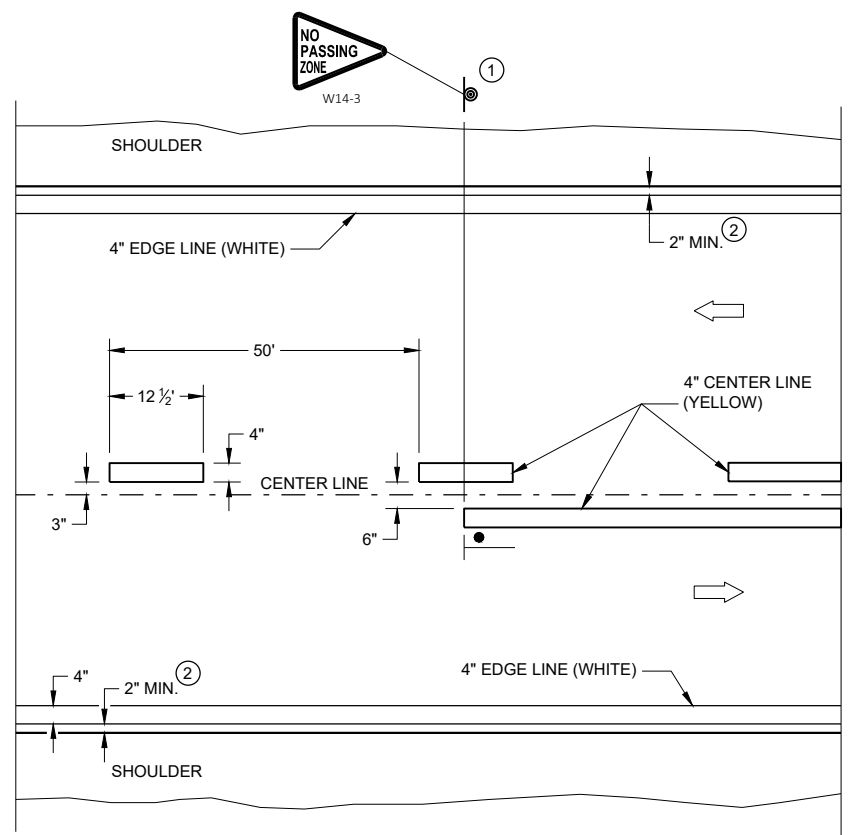
**DETAIL F  
DETOUR SIGNING**



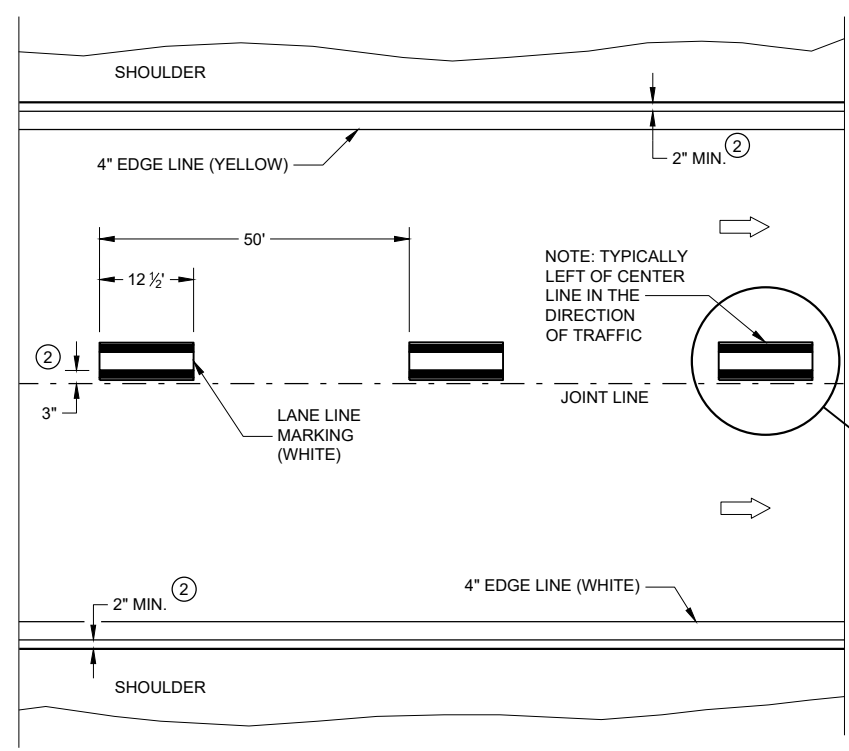
PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

<b>DETOUR SIGNING FOR MAINLINE CLOSURES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

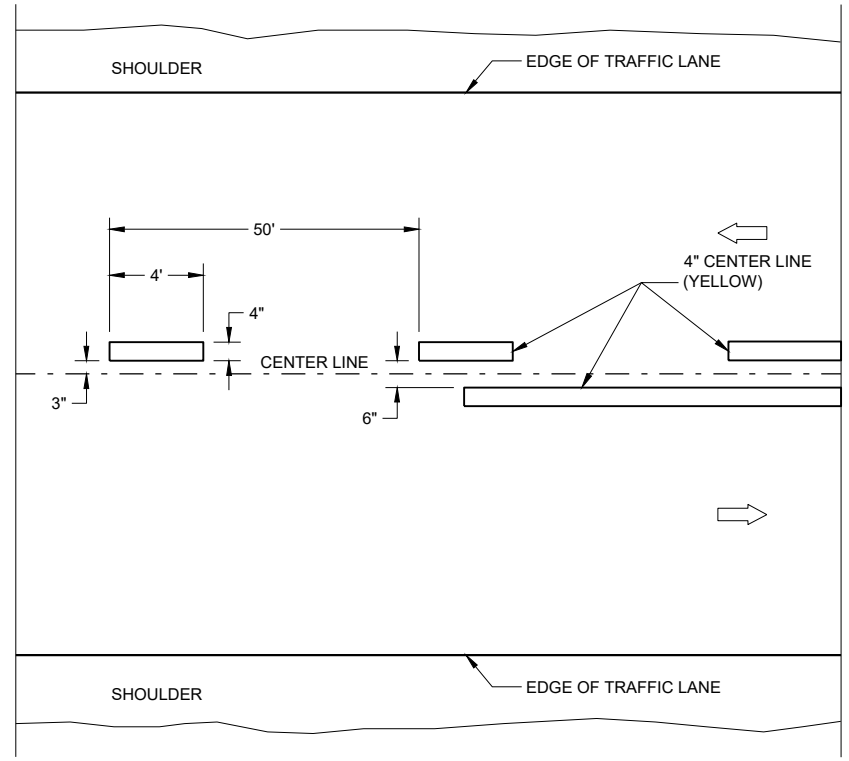


TWO WAY TRAFFIC

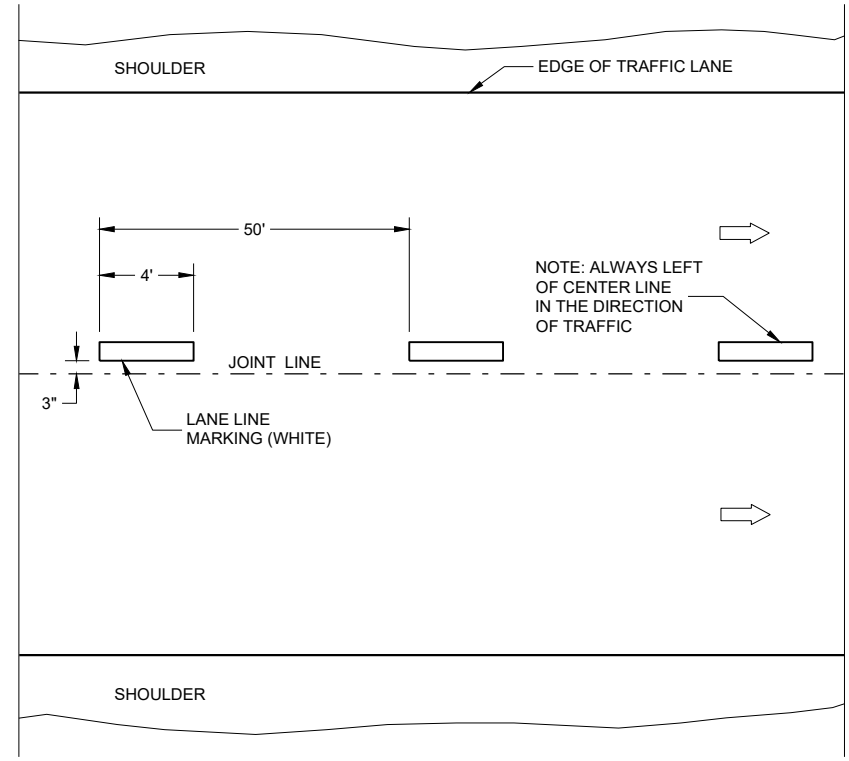


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

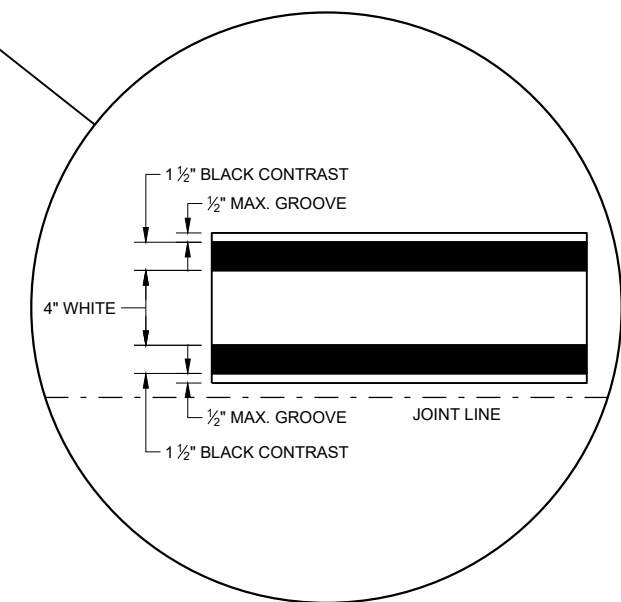
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- |• "T" MARKING
- |⊙ SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC

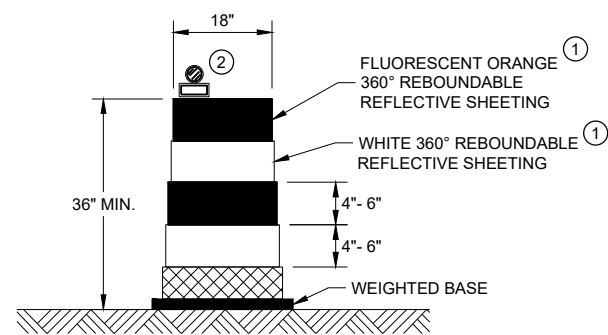


LONGITUDINAL MARKING (MAINLINE)

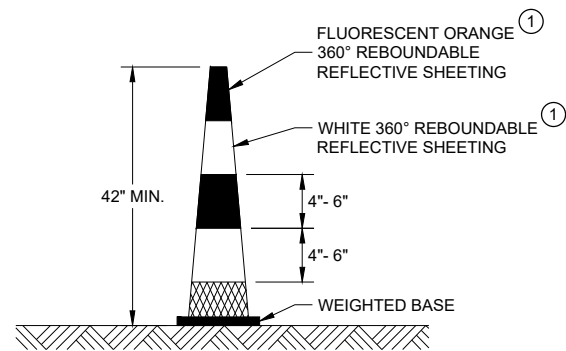
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2020 /S/ Matthew Rauch  
DATE STATEWIDE SIGNING AND MARKING  
ENGINEER

FHWA

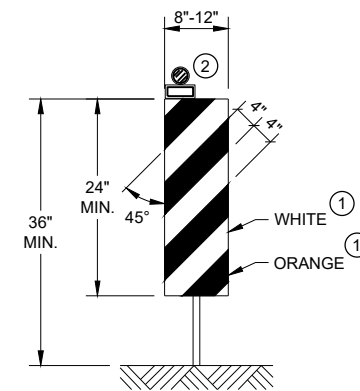


**DRUM**



**42" CONE**

DO NOT USE IN TAPERS  
 1/2 SPACING OF DRUMS

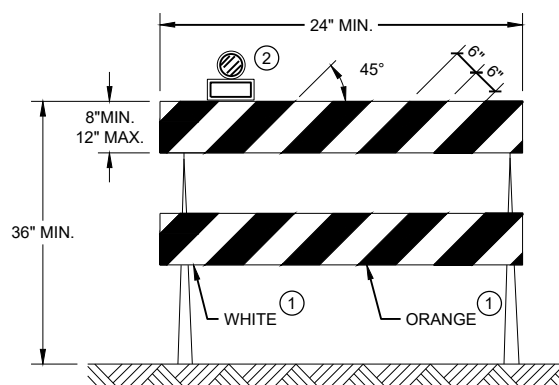


**VERTICAL PANEL**

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

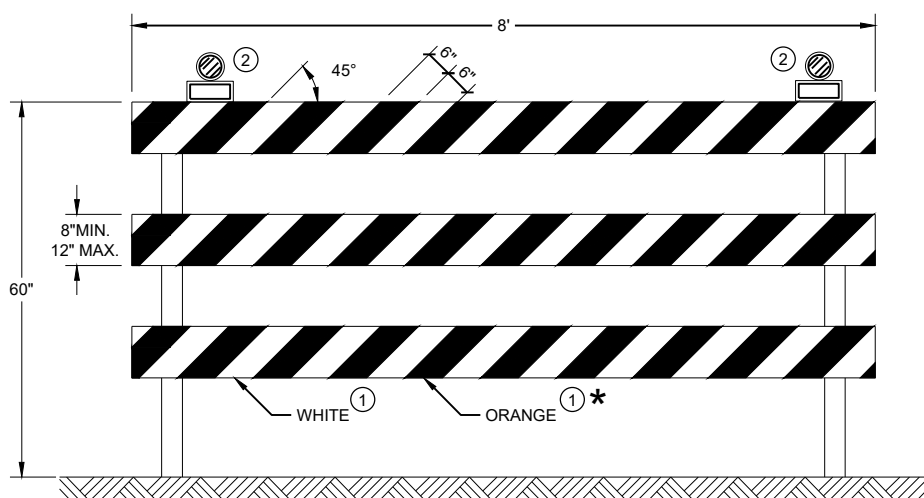
**GENERAL NOTES**

- 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 II BARRICADE**

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



**TYPE III 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.

<b>CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	



## 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.

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.

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










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

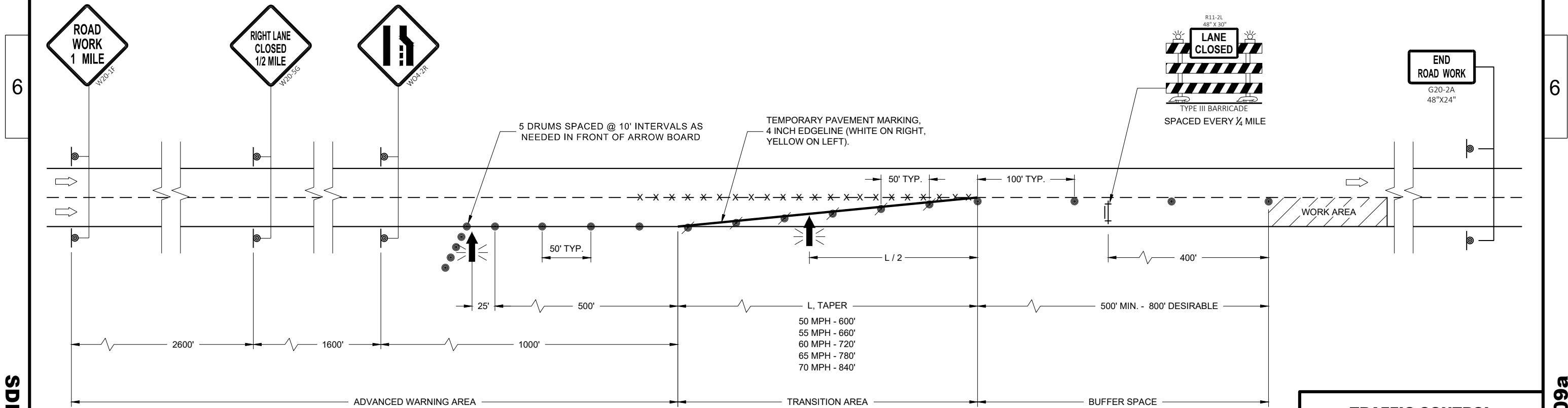
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

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.

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

## LEGEND

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



<b>TRAFFIC CONTROL LANE CLOSURE</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

### GENERAL NOTES

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

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

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

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

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

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

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

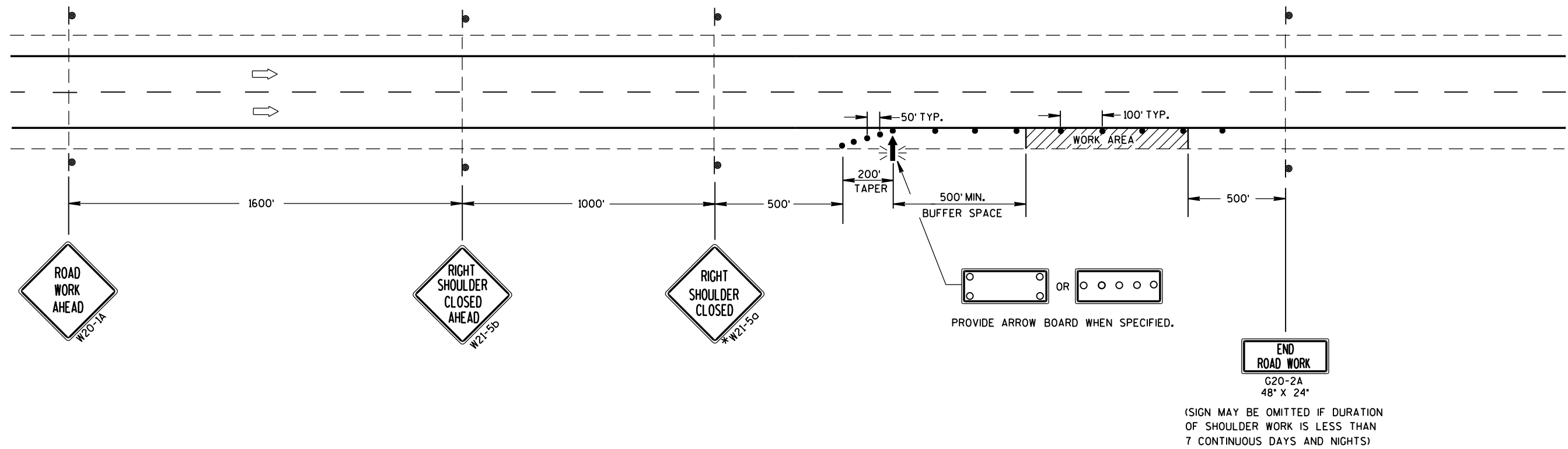
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

\*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-50 SIGN MAY BE OMITTED.





### LEGEND

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



<b>TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2016 DATE	/s/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY 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
-  REMOVE PAVEMENT MARKING

**GENERAL NOTES**

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

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

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

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 ANY "COVERED" OR "DOWNED" SIGNS.

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

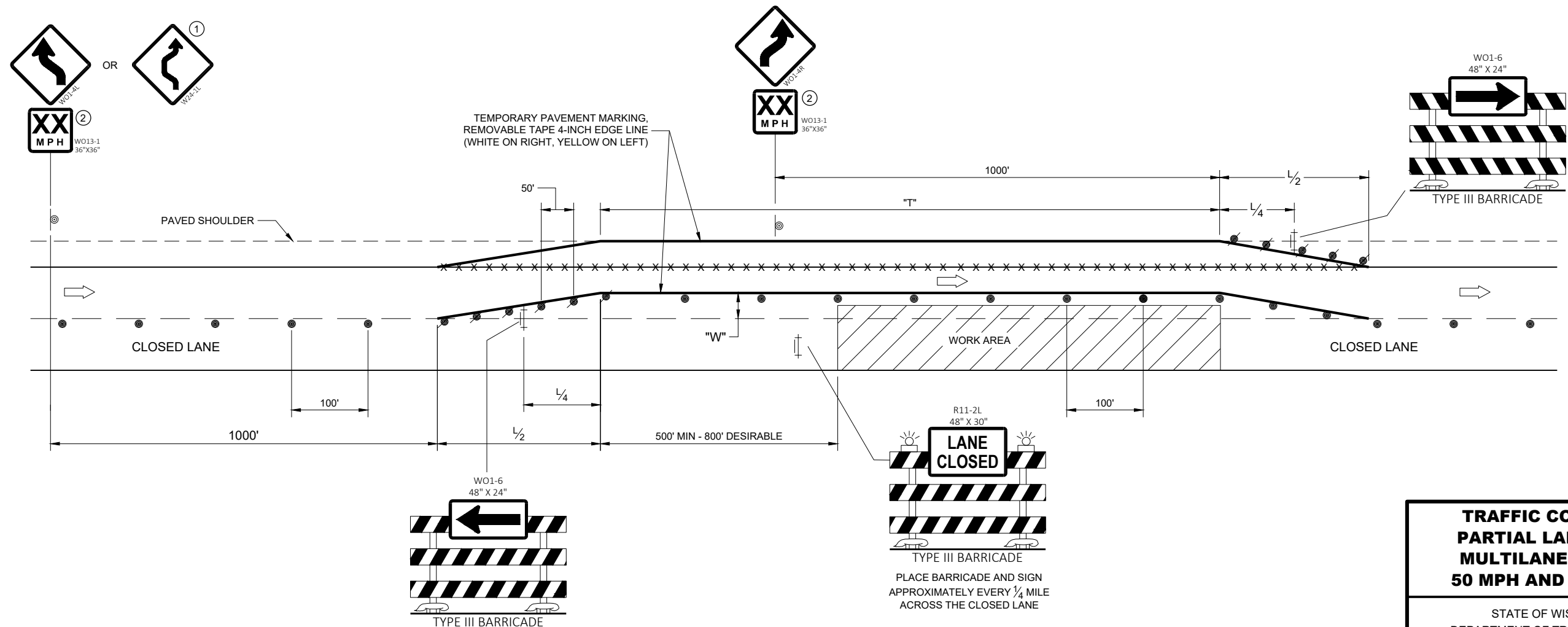
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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.

- ① USE ONLY WHEN T<600', OMIT WO1-4R.
- ② IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER 1/2								
	W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315



**TRAFFIC CONTROL,  
PARTIAL LANE SHIFT  
MULTILANE DIVIDED  
50 MPH AND GREATER**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

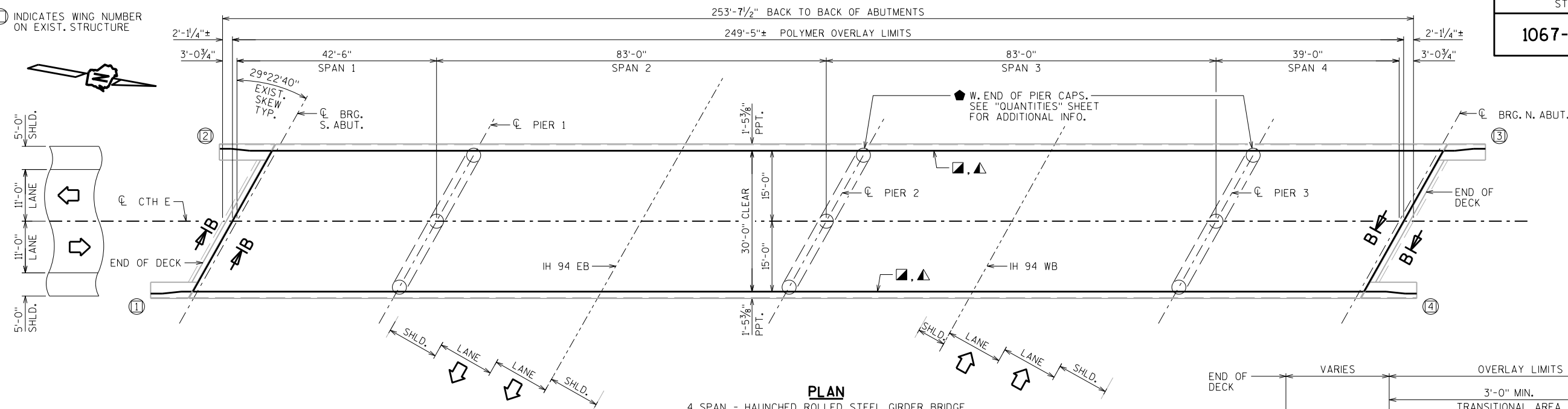
APPROVED  
February 2021 /S/ Andrew Heidtke  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

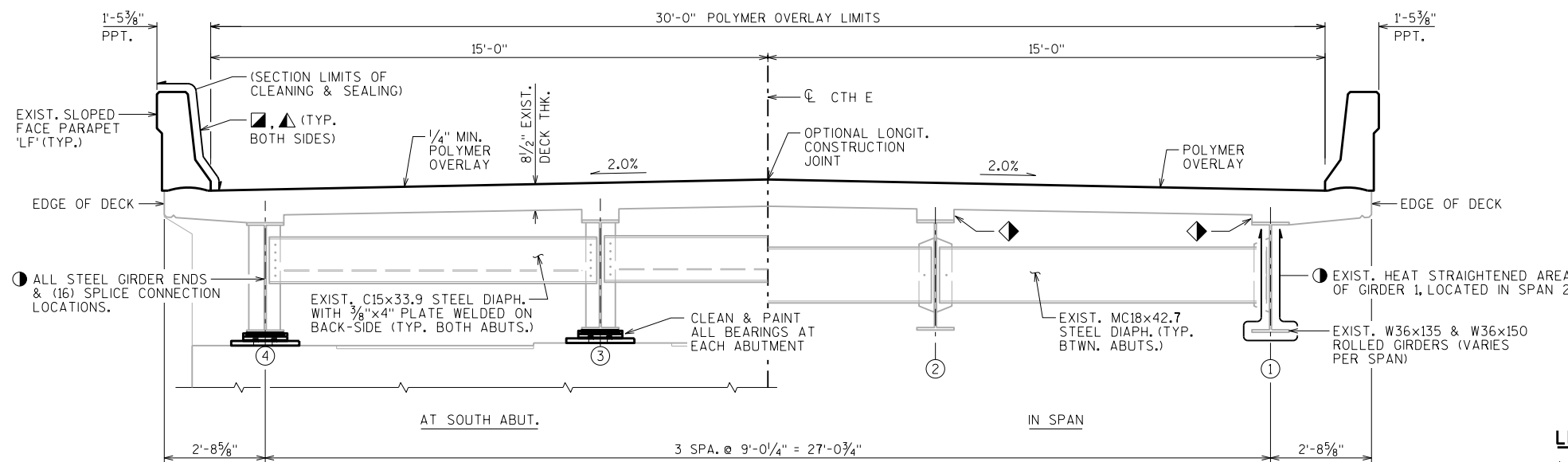
SDD 15D40 - 02d

SDD 15D40 - 02d

⊙ INDICATES WING NUMBER ON EXIST. STRUCTURE

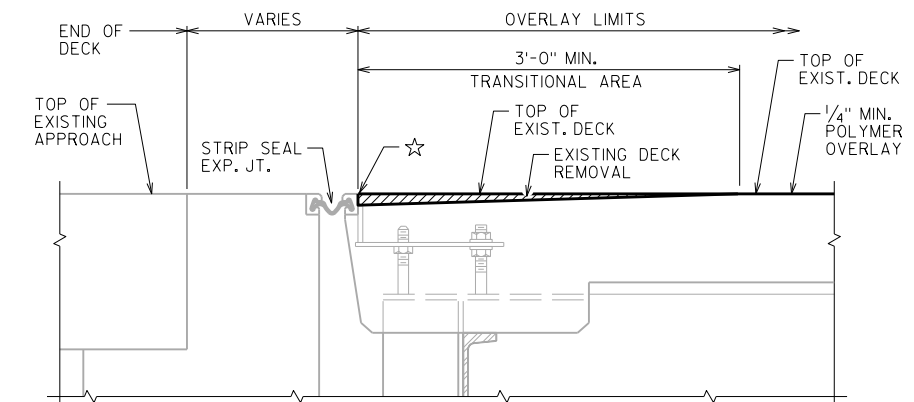


**PLAN**  
4 SPAN - HAUNCHED ROLLED STEEL GIRDER BRIDGE



**TYPICAL SECTION THRU BRIDGE**  
(LOOKING SOUTH)

⊕ INDICATES GIRDER NUMBER



**SECTION B-B**

POLYMER OVERLAY TRANSITIONAL OVERLAY ON DECK AT EXPANSION JOINT  
(REMOVAL AND OVERLAY THICKNESS NOT TO SCALE)

**LIST OF DRAWINGS**

1. GENERAL PLAN
2. QUANTITIES

**STRUCTURE DESIGN CONTACTS:**

ALEXANDER CRABTREE (608) 266-3686  
LAURA SHADEWALD (608) 267-9592

**DESIGN DATA**

**LIVE LOAD:**  
DESIGN RATING: HS-20  
INVENTORY RATING: HS-15  
OPERATING RATING: HS-26  
MAXIMUM STANDARD PERMIT VEHICLE = 200 KIPS

5 POUND PER SQUARE FOOT LOADING USED FOR POLYMER OVERLAY.

**MATERIAL PROPERTIES:**

CONCRETE MASONRY - ALL  $f'_c = 4,000$  P.S.I.  
STRUCTURAL CARBON STEEL (A.S.T.M. A709 GRADE A36)  $f_y = 36,000$  P.S.I.  
STRUCTURAL LOW-ALLOY STEEL (A.S.T.M. A441)  $f_y = 50,000$  P.S.I.

NOTE: A.S.T.M. A441 STEEL IS PRESENT IN W36x150 ROLLED GIRDERS, AND BOTH TOP & BOTTOM COVER PLATES, OVER PIER 2. LENGTH OF GIRDER FABRICATED FROM A441 STEEL IS 4'-6". ALL OTHER GIRDER LENGTHS, COVER PLATES, STIFFENERS, SPLICE PLATES & SHEAR LUGS ARE A36 STEEL.

**TRAFFIC VOLUME**

CTH E IH 94  
A.D.T. = 6,050 (2042) A.D.T. = 48,620 (2042)  
R.D.S. = 50 MPH R.D.S. = 75 MPH

**GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

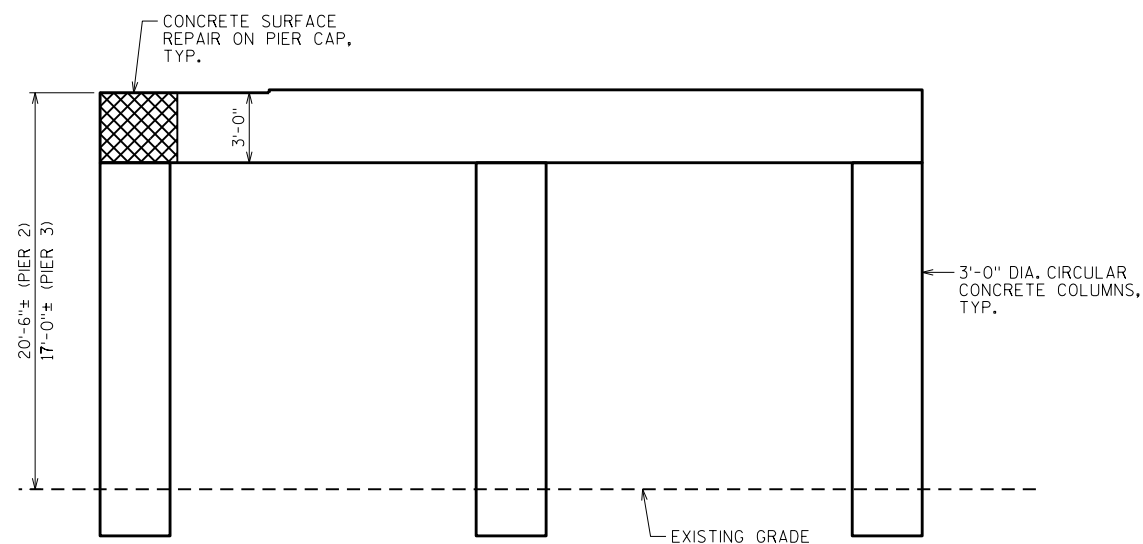
- CONCRETE SURFACE REPAIR REQUIRED.
- CLEAN & PAINT AS DIRECTED BY ENGINEER, UNDER BID ITEM "STRUCTURE OVERCOATING CLEANING AND PRIMING B-28-49". THE COLOR OF PAINT IS GRAY (AMS STD. COLOR NO. 26293) OR SIMILAR COLOR APPROVED BY ENGINEER.
- 1/4" MIN. REMOVAL OF EXISTING DECK AT END OF TRANSITION.
- BLAST CLEAN AND WASH PARAPET, PER "CLEANING PARAPETS" ITEM, PRIOR TO APPLYING PIGMENTED SURFACE SEALER.
- PIGMENTED SURFACE SEALER TO BE APPLIED TO THE TOP & INSIDE SURFACE OF PARAPET THE FULL LENGTH OF BRIDGE, INCLUDING PARAPETS ON ABUTMENT WINGS.
- APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF BOTH ABUTMENTS BELOW EXPANSION DEVICES.
- SEE ROADWAY PLANS FOR INTERSTATE TRAFFIC CONTROL REQUIREMENTS.
- LONGIT. CRACKING EXISTS ALONG TOP OF CONC. HAUNCHES AT GIRDERS 1&2, LOCATED IN SPAN 2 UNDER THE WEST SIDE OF DECK. THE ESTIMATED LENGTH OF CRACKING EQUALS 50 LF FOR EACH GIRDER. INJECT EPOXY SEALER TO REPAIR CRACKING. SEE "MODIFIED EPOXY INJECTION CRACK REPAIR" SPECIAL PROVISION FOR REQUIREMENTS.

NO.	DATE	REVISION	BY
 ACCEPTED <i>[Signature]</i> 2/18/22 CHIEF STRUCTURES DESIGN ENGINEER DATE			
<b>STRUCTURE B-28-49</b>			
CTH E OVER IH 94			
COUNTY	JEFFERSON	TOWN	CONCORD
DESIGN SPEC. AASHTO STD. SPEC. FOR HIGHWAY BRIDGES, 17TH EDITION			
DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
ARC	AWP	ARC	DLM
<b>GENERAL PLAN</b>			SHEET 1 OF 2

**TOTAL ESTIMATED QUANTITIES**

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	PIER 1	PIER 2	PIER 3	NORTH ABUT.	PROJECT TOTALS	
									1067-01-62	1009-11-80
502.3210	PIGMENTED SURFACE SEALER	SY	201	9	—	—	—	9	219	—
509.1500	CONCRETE SURFACE REPAIR	SF	—	—	—	30	20	—	50	—
509.5100.S	POLYMER OVERLAY	SY	832	—	—	—	—	—	832	—
509.9050.S	CLEANING PARAPETS	LF	499	20	—	—	—	20	539	—
* 517.3001.S	STRUCTURE OVERCOATING CLEANING AND PRIMING B-28-49	EACH	1	—	—	—	—	—	0.8	0.2
* 517.4001.S	CONTAINMENT AND COLLECTION OF WASTE MATERIAL B-28-49	EACH	1	—	—	—	—	—	0.8	0.2
* 517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1	—	—	—	—	—	0.8	0.2
SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	—	4	—	—	—	4	8	—
SPV.0090	MODIFIED EPOXY INJECTION CRACK REPAIR	LF	100	—	—	—	—	—	—	100
NON-BID ITEMS										
	BRIDGE SEAT PROTECTION	LS	—	—	—	—	—	—	1	—

\* THE ESTIMATED PAINTING AREA PAID FOR UNDER PROJECT 1067-01-62 EQUALS 1,300 SF. THIS AREA INCLUDES 6 FEET OF GIRDER LENGTH AT ALL GIRDER ENDS, AND ALL SPLICE CONNECTION LOCATIONS. THE ESTIMATED PAINTING AREA PAID FOR UNDER PROJECT 1009-11-80 EQUALS 320 SF. THIS AREA INCLUDES THE HEAT STRAIGHTENED PORTION OF GIRDER 1, LOCATED IN SPAN 2 UNDER THE WEST SIDE OF DECK. THE DECIMAL NOTED IN THE PROJECT TOTALS REPRESENTS THE RATIO OF QUANTITIES EXPECTED WITH EACH PROJECT ID.



**PIER SURFACE REPAIRS**  
(LOOKING NORTH)

**SURFACE REPAIR NOTES**

SURFACE REPAIR DETAIL DEPICTS THE GENERAL LOCATION OF REPAIR AND MAY NOT BE ALL INCLUSIVE. QUANTITIES SHOWN IN ABOVE TABLE ARE APPROXIMATE. ADDITIONAL REPAIRS MAY BE REQUIRED DURING CONSTRUCTION AND SHOULD BE PERFORMED AS DIRECTED BY FIELD ENGINEER.

ALL SURFACE REPAIR AREAS SHALL BE DEFINED BY 1/2" MINIMUM DEEP SAWCUT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
<b>STRUCTURE B-28-49</b>			
DRAWN BY		ARC	PLANS CK'D. <b>DLM</b>
<b>QUANTITIES</b>			SHEET 2



## ***Wisconsin Department of Transportation***

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>