

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION PLAN OF PROPOSED IMPROVEMENT

Table with columns: STATE PROJECT, FEDERAL PROJECT, PROJECT, CONTRACT. Rows include project numbers 1620-01-62 and 1620-01-63.

ORDER OF SHEETS

Table with columns: Section No., Title. Lists sections 1 through 9 including Title, Typical Sections and Details, Estimate of Quantities, etc.

TOTAL SHEETS = 384

MARSHFIELD - ABBOTSFORD REGIONWIDE CONCRETE OVERLAYS

STH 98 TO SOUTH JUNCTION CTH N

MARATHON CO B-37-0184; B-37-0185

STH 13 MARATHON

STH 13 MARATHON

STATE PROJECT NUMBER 1620-01-62

STATE PROJECT NUMBER 1620-01-63



20



STRUCTURE B-37-0185 STA 970+29.15

STRUCTURE B-37-0184 STA 801+52.11

END PROJECT 1620-01-62 STA 1017+84.79

END PROJECT 1620-01-63 STA 971+35.57

BEGIN CONSTRUCTION 1620-01-63 STA 969+22.72

END CONSTRUCTION 1620-01-63 STA 802+50.28

BEGIN PROJECT 1620-01-63 STA 800+53.94 Y=159756.153 X=103391.500

BEGIN PROJECT 1620-01-62 STA 482+61.96 Y=129019.753 X=108200.185



LAYOUT SCALE 0 2.0 MI

TOTAL NET LENGTH OF CENTERLINE PROJECT 1620-01-62 = 10.137 MI TOTAL NET LENGTH OF CENTERLINE PROJECT 1620-01-63 = 0.000 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MARATHON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

DESIGN DESIGNATION

Table with columns: Designation, Value. Includes A.A.D.T. (2022) = 7000, D.H.V. = 877, etc.

CONVENTIONAL SYMBOLS

Table with columns: PLAN, PROFILE. Lists symbols for CORPORATE LIMITS, PROPERTY LINE, LOT LINE, etc.

Table with columns: PROFILE. Lists symbols for GRADE LINE, ORIGINAL GROUND, MARSH OR ROCK PROFILE, etc.

Professional Engineer seal for Andrew W. Block, Wisconsin, E-41224-6, Appleton, WI. Includes signature and date 7/26/2023.

Table with columns: STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION, PREPARED BY. Lists roles like Surveyor, Designer, Project Manager, etc.

APPROVED FOR THE DEPARTMENT DATE: 7/27/2023 (Signature)

E

### 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 = 164 ACRES  
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.96 ACRES

WISCONSIN DNR LIAISON

JIM DOPERALSKI JR.  
 2984 SHAWANO AVENUE  
 GREEN BAY, WI 54313  
 PHONE: 920-412-0165  
 E-MAIL: JAMES.DOPERALSKI@WISCONSIN.GOV

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS, THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

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

CONCRETE CURB & GUTTER SHOWN TO BE REPLACED WITH NO ELEVATIONS PROVIDED SHALL BE CONSTRUCTED TO SIMILAR LINES AND GRADES AS THE EXISTING CONDITION.

UNLESS DEPICTED OTHERWISE, INTERSECTION GEOMETRY SHALL BE REPLACED IN-KIND.

TURF RESTORATION IS REQUIRED AT ALL SIDEWALK/CURB & GUTTER REPLACEMENT LOCATIONS UNLESS NOTED OTHERWISE.

MATCH EXISTING GUTTER SLOPE IN LOCATIONS WHERE NEW CURB & GUTTER TIES INTO EXISTING.

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.

SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

IF VOIDS ARE DISCOVERED BELOW PAVEMENT PROPOSED TO REMAIN IN PLACE ADJACENT TO STORM OR SANITARY SEWER ADJUSTMENTS/RECONSTRUCTIONS, FILL THE VOIDS WITH BACKFILL CONTROLLED LOW-STRENGTH OR OTHER METHOD APPROVED BY THE ENGINEER.

UTILITY CONTACTS

CITY OF COLBY - SEWER  
 HARLAND HIGLEY  
 P.O. BOX 236  
 COLBY, WI 54421  
 PHONE: 715-223-2586  
 MOBILE: 715-225-6675  
 EMAIL: COLBYDPW@CITYOFCOLBY.ORG

SPECTRUM - COMMUNICATION LINE  
 JESSE GRUNY  
 503 EAST IVES ST, SUITE 316  
 MARSHFIELD, WI 54449  
 PHONE: 715-651-5605  
 EMAIL: JESSE.GRUNY@CHARTER.COM

CITY OF COLBY - WATER  
 HARLAND HIGLEY  
 P.O. BOX 236  
 COLBY, WI 54421  
 PHONE: 715-223-2586  
 MOBILE: 715-225-6675  
 EMAIL: COLBYDPW@CITYOFCOLBY.ORG

VILLAGE OF SPENCER - SEWER  
 CHRIS HELGESTAD  
 105 PARK STREET  
 P.O. BOX 360  
 SPENCER, WI 54479  
 PHONE: 715-659-5404  
 MOBILE: 715-507-0537  
 EMAIL: CHRIS.HELGESTAD@VIL.SPENCER.WI.US

CLARK ELECTRIC COOPERATIVE - ELECTRICITY  
 KENT WEIGEL  
 1209 WEST DALL BERG ROAD  
 GREENWOOD, WI 54437-0190  
 PHONE: 715-456-3364  
 EMAIL: KWEIGEL@CECOOP.COM

VILLAGE OF SPENCER - WATER  
 JOHN DUNBAR  
 105 PARK ST  
 P.O. BOX 360  
 SPENCER, WI 54479  
 PHONE: 715-659-4644  
 MOBIL: 715-507-0852  
 EMAIL: WATER@VIL.SPENCER.WI.US

DAIRYLAND POWER COOPERATIVE - ELECTRICITY  
 MIKE LYDON  
 3200 EAST AVE. S  
 P.O. BOX 817  
 LA CROSSE, WI 54602-0817  
 PHONE: 608-787-1381  
 EMAIL: MICHAEL.LYDON@DAIRYLANDPOWER.COM

WE ENERGIES - GAS/PETROLEUM  
 TRAVIS KAHL  
 1921 8TH STREET SOUTH  
 WISCONSIN RAPIDS, WI 54494  
 PHONE: 715-421-7256  
 MOBILE: 715-498-6180  
 EMAIL: TRAVIS.KAHL@WE-ENERGIES.COM

FRONTIER COMMUNICATIONS OF WI LLC -  
 COMMUNICATION LINE  
 JEREMY ZEHM  
 1851 N. 14TH AVENUE  
 WAUSAU, WI 54401  
 PHONE: 715-243-9243  
 EMAIL: JEREMY.ZEHM@FTR.COM

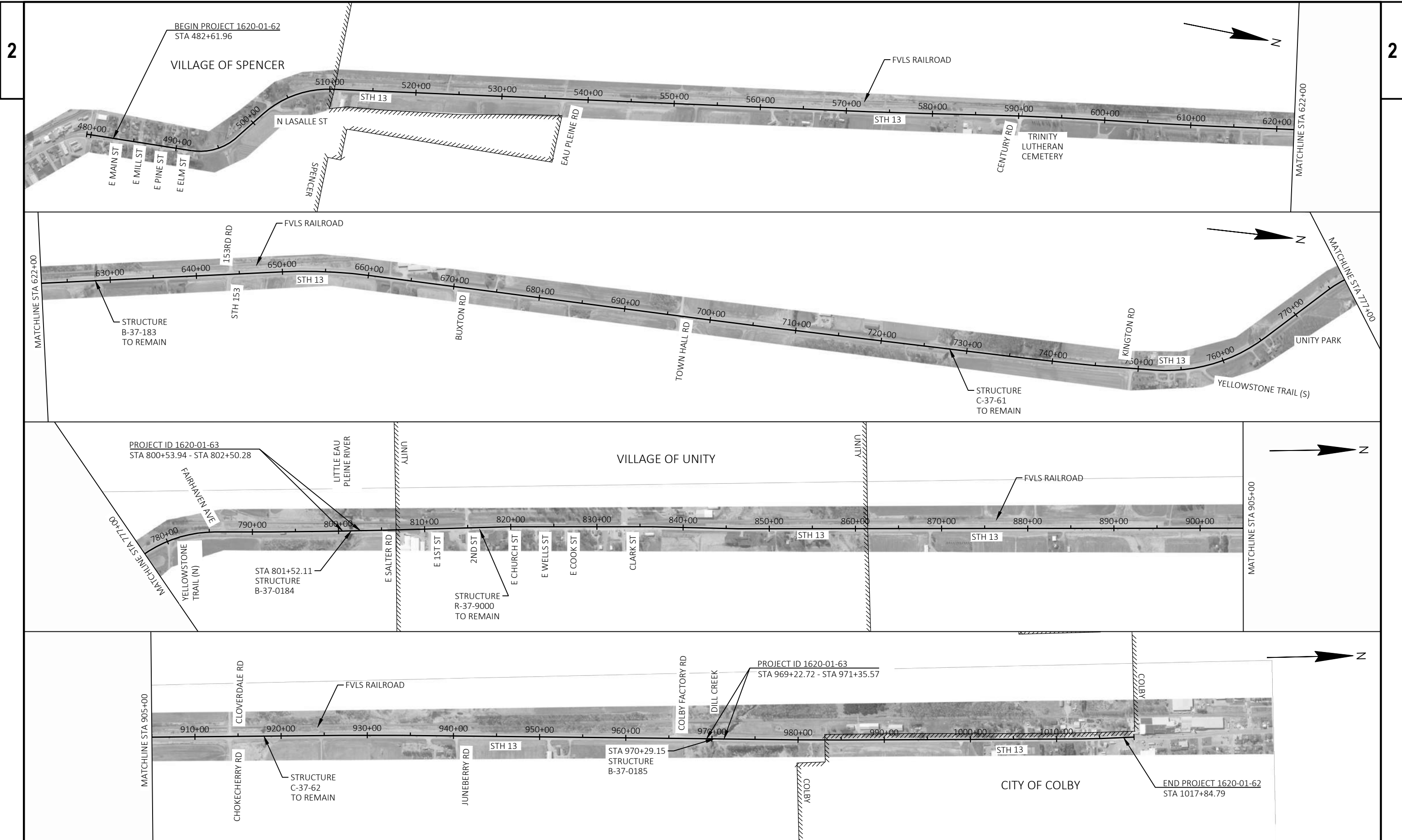
XCEL ENERGY - ELECTRICITY TRANSMISSION  
 MITCHELL DIENGER  
 414 NICOLLET MALL  
 MINNEAPOLIS, MN 55401  
 PHONE: 612-321-3109  
 EMAIL: MITCHELL.A.DIENGER@XCELENERGY.COM

MAGELLAN PIPELINE - GAS/PETROLEUM  
 BRUCE KRECH  
 2728 PATTON ROAD  
 ST PAUL, MN 55113  
 PHONE: 612-257-4726  
 EMAIL: BRUCE.KRECH@MAGELLANLP.COM

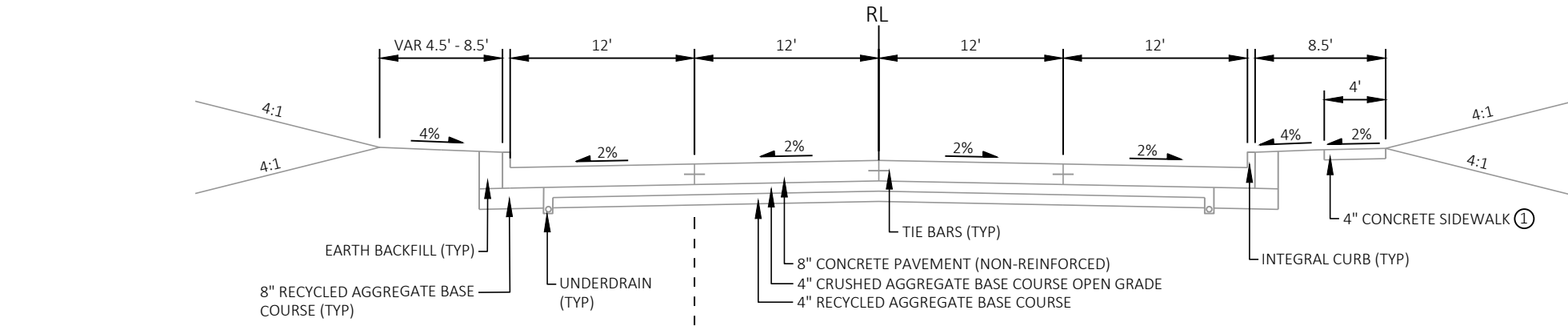
XCEL ENERGY - ELECTRICITY  
 JOHN KELSER  
 1414 WEST HAMILTON AVENUE, P.O. BOX 8  
 EAU CLAIRE, WI 54702  
 MOBILE: 715-491-7518  
 EMAIL: JOHN.KELSER@XCELENERGY.COM





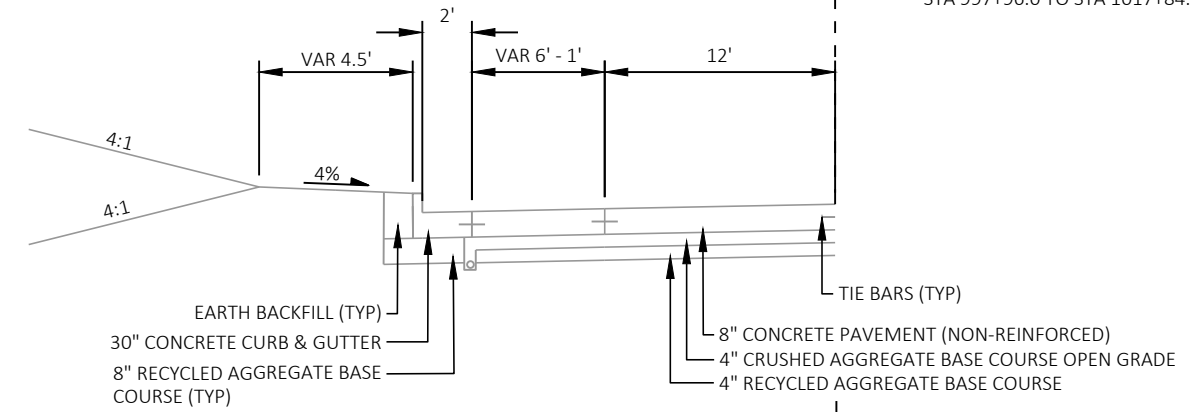


PROJECT NO: 1620-01-62 & 1620-01-63      HWY: STH 13      COUNTY: MARATHON      PROJECT OVERVIEW      SHEET      E



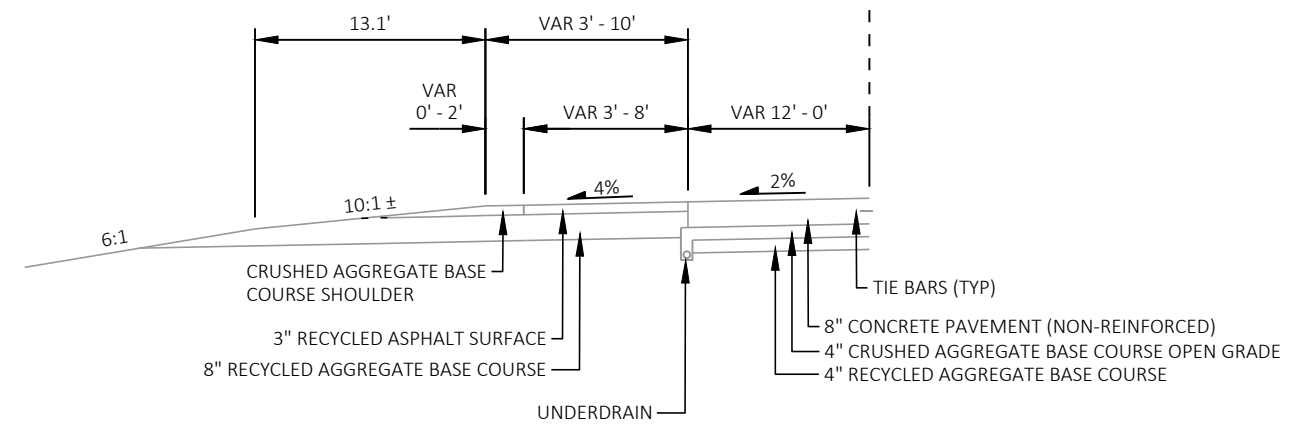
**EXISTING TYPICAL SECTION**

STH 13  
 STA 482+61.96 TO STA 507+32.0  
 STA 809+55.0 TO STA 845+28.1  
 STA 997+96.0 TO STA 1017+84.79



**EXISTING TYPICAL SECTION**

STH 13  
 STA 503+70.0 TO STA 504+63.1

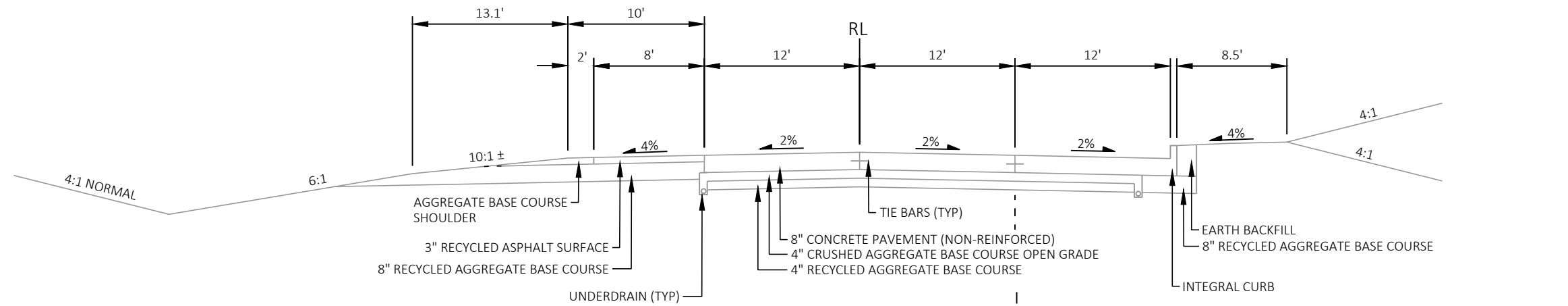


**EXISTING TYPICAL SECTION**

STH 13  
 STA 504+63.1 TO STA 507+32.0  
 STA 842+94.6 TO STA 845+28.1

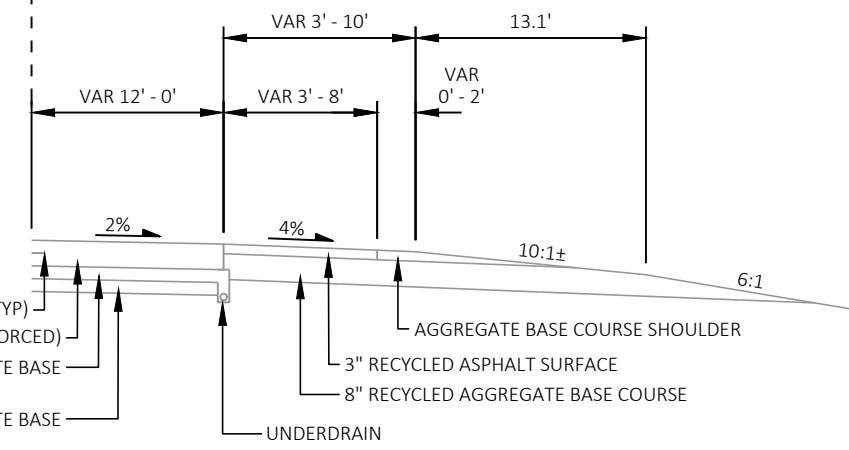
**NOTES:**  
 ALL STATION VALUES LISTED IN THE TYPICALS WERE MEASURED FROM AERIALS AND AS-BUILTS, AND MAY NEED TO BE ADJUSTED TO FIT FIELD CONDITIONS.

① SIDEWALK IS LOCATED AT THE FOLLOWING LOCATIONS:  
 STA 482+63.8 TO STA 490+93.0 RT  
 STA 818+05.0 TO STA 832+82.0 RT



**EXISTING TYPICAL SECTION**

STH 13  
STA 507+32.0 TO STA 517+74.5  
STA 587+15.0 TO STA 597+41.3  
STA 845+28.1 TO STA 859+78.7



**EXISTING TYPICAL SECTION**

STH 13  
STA 515+53.3 TO STA 517+74.5  
STA 587+15.0 TO STA 588+44.0  
STA 595+05.4 TO STA 597+41.3  
STA 857+42.6 TO STA 859+78.7

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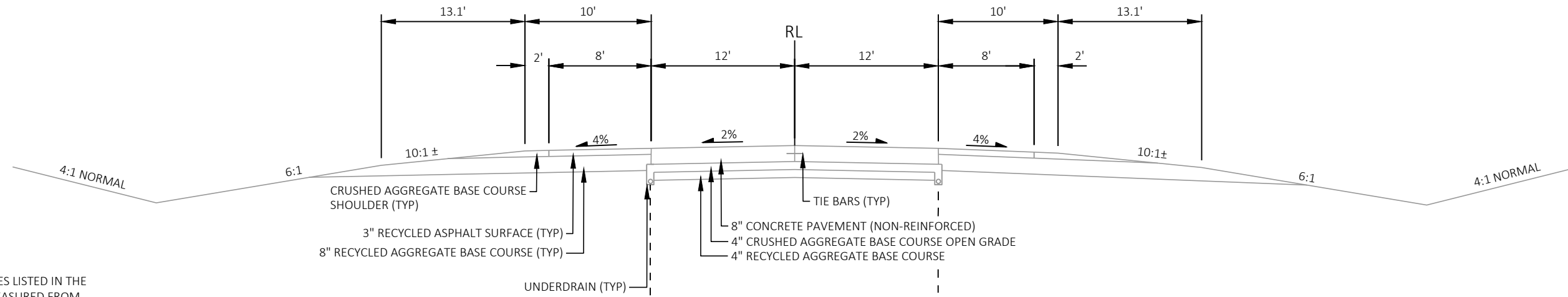


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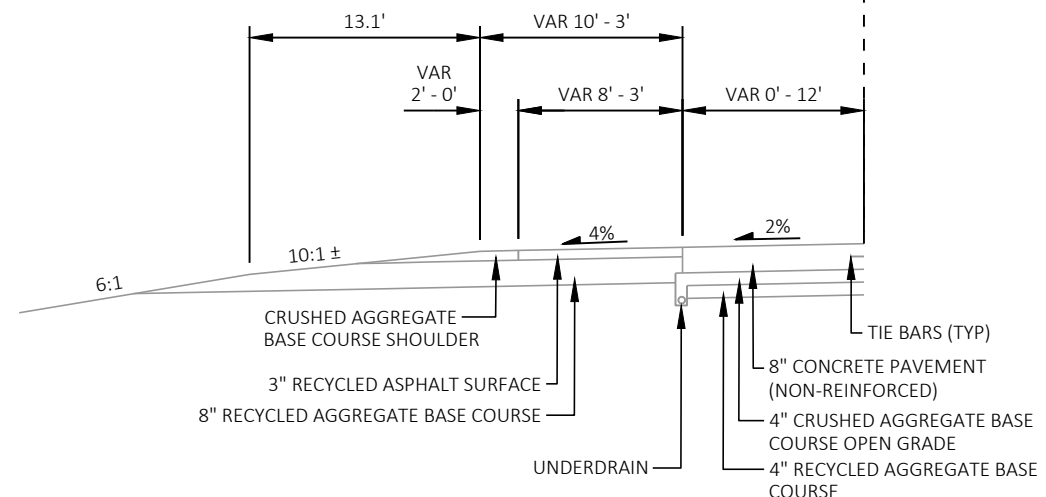
① 8' SHOULDER WIDENS TO 12' TURN LANE FROM:  
STA 640+48.0 TO STA 641+39.0 RT.

12' TURN LANE NARROWS TO 8' SHOULDER FROM:  
STA 644+52.4 TO STA 645+42.0.



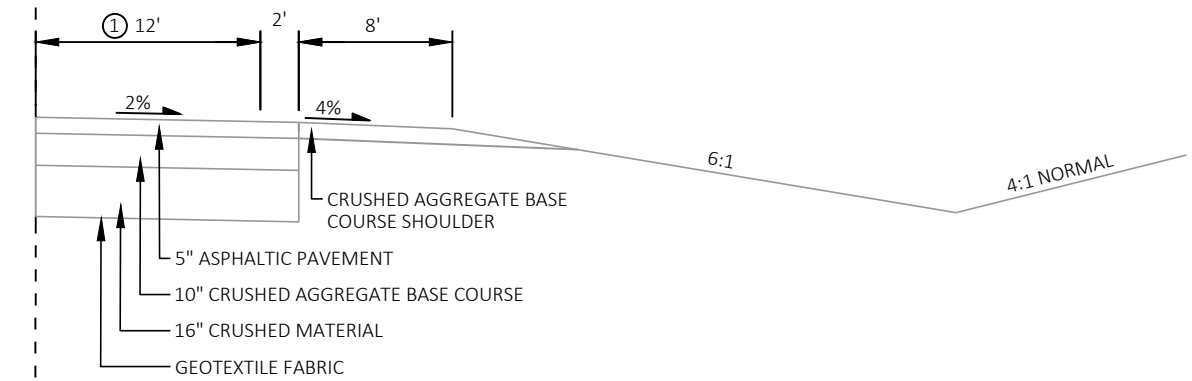
**EXISTING TYPICAL SECTION**

STH 13  
STA 517+74.5 TO STA 587+15.0  
STA 597+41.3 TO STA 800+50.2  
STA 802+55.5 TO STA 805+75.6  
STA 859+78.7 TO STA 969+21.8  
STA 971+37.5 TO STA 990+15.2



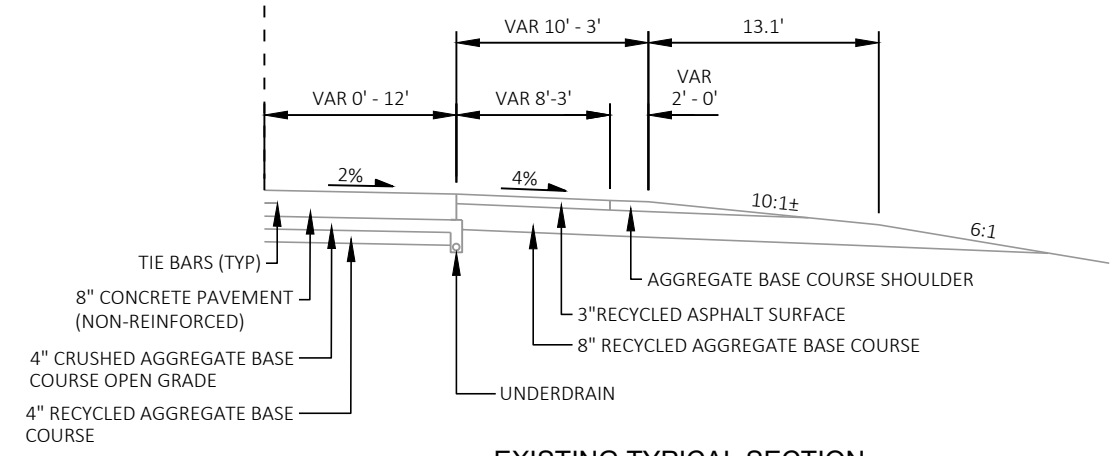
**EXISTING TYPICAL SECTION**

STH 13  
STA 803+26.6 TO STA 805+75.6



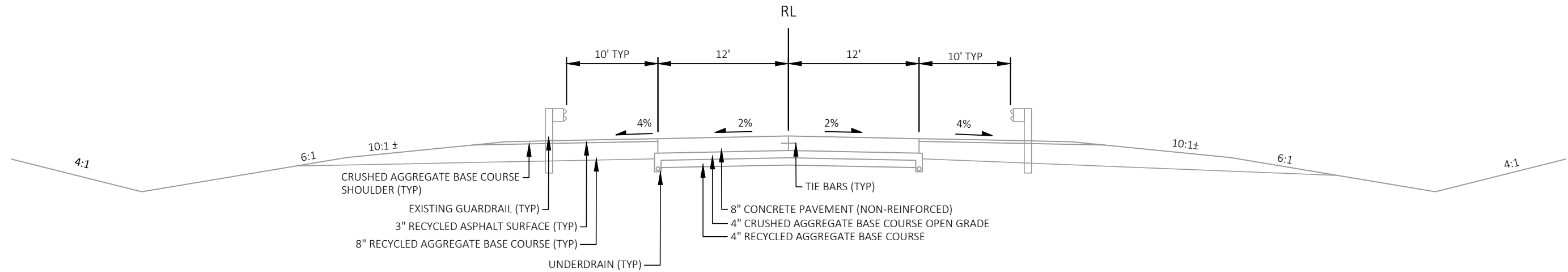
**EXISTING TYPICAL SECTION**

STH 13  
STA 640+48.0 TO STA 645+42.0



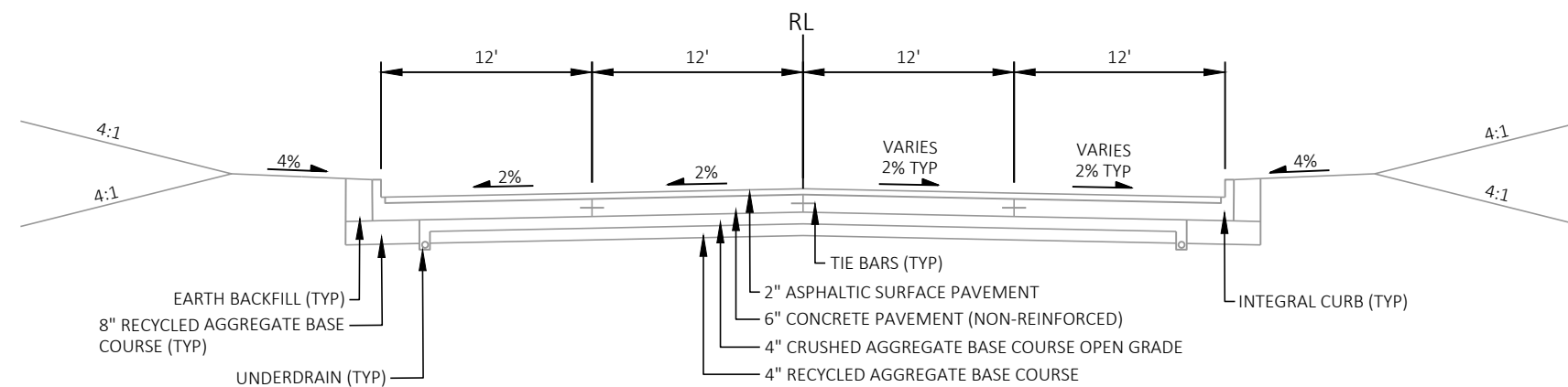
**EXISTING TYPICAL SECTION**

STH 13  
STA 803+22.3 TO STA 805+75.6



**EXISTING TYPICAL SECTION**

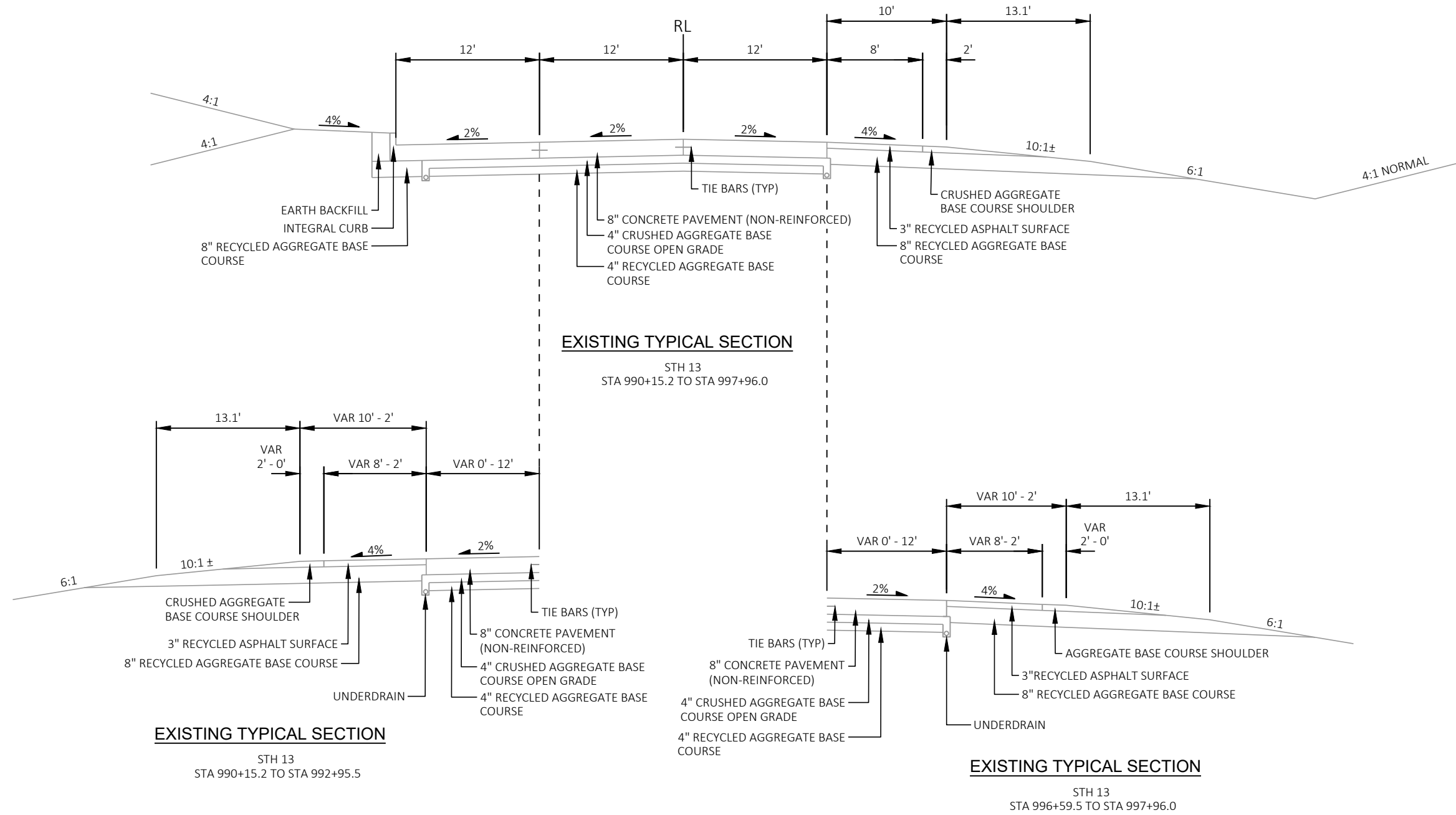
STH 13  
 PROJECT ID 1620-01-62  
 STA 800+50.2 TO STA 801+19.1  
 STA 801+85.7 TO STA 802+55.5  
 STA 969+21.8 TO STA 969+87.5  
 STA 970+71.41 TO STA 971+37.5



**EXISTING TYPICAL SECTION**

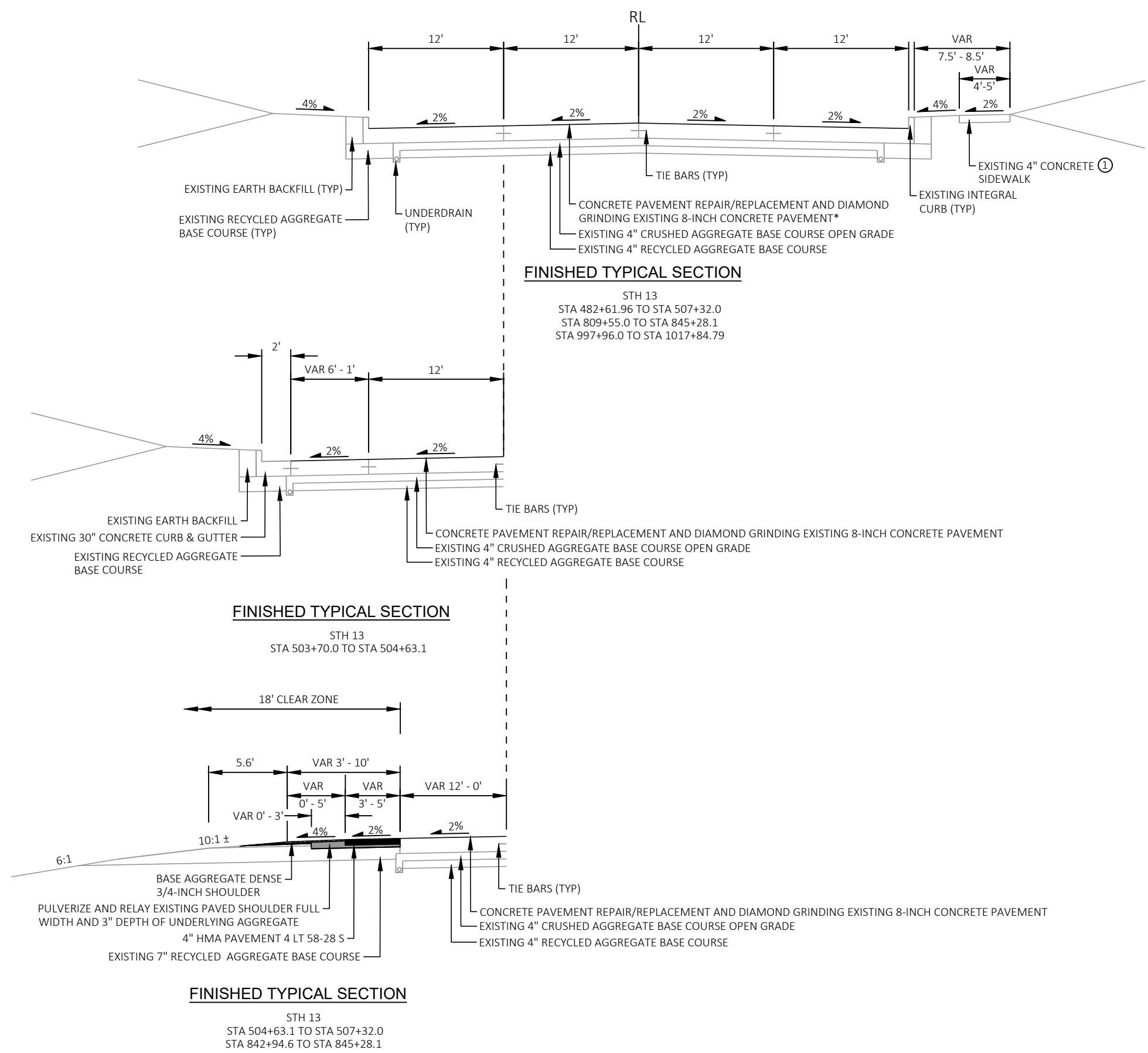
STH 13  
 STA 805+75.6 TO STA 809+55.0

**NOTES:**  
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**NOTES:**

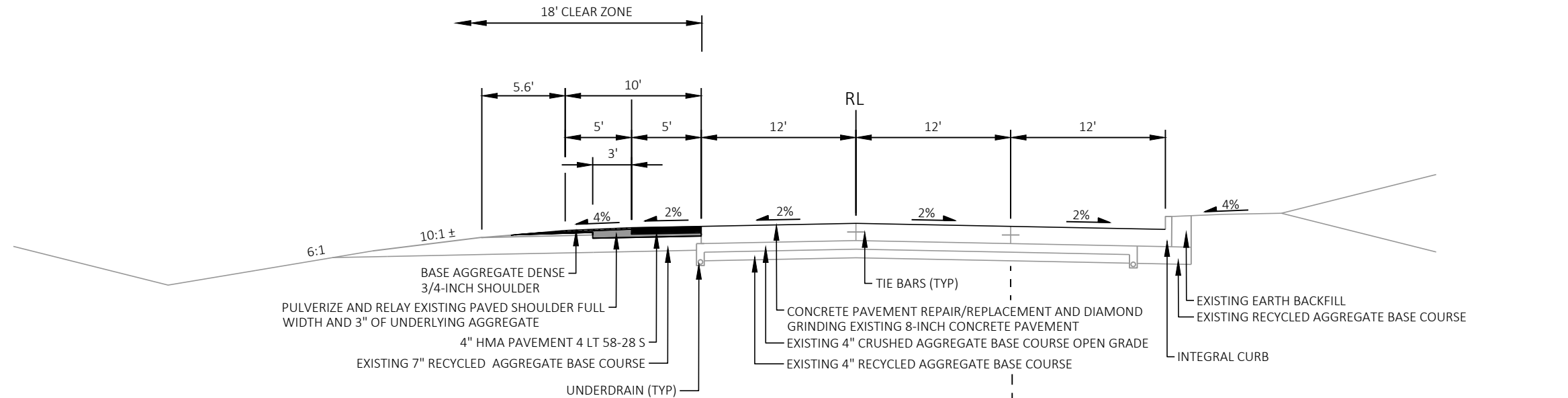
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PULVERIZE AND RELAY EXISTING ASPHALT SHOULDERS, SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR INTERIM REQUIREMENTS. REMOVING ASPHALTIC SURFACE AND 4" HMA PAVEMENT 4 LT 58-28 S REQUIRED FOR TURN LANES AND SIDEROADS.

SEE PAVEMENT MARKING PLANS FOR LIMITS OF TWLTL MARKINGS.

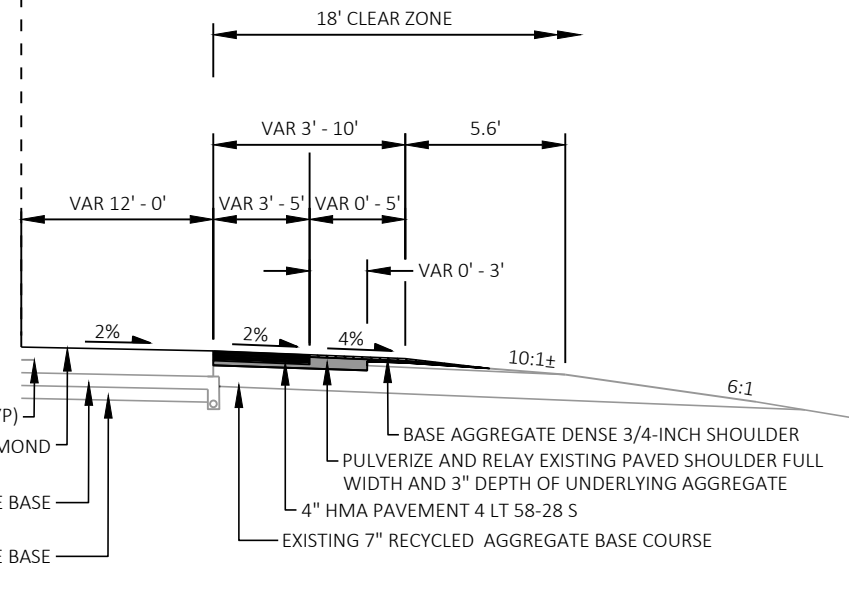
① SIDEWALK IS LOCATED AT THE FOLLOWING LOCATIONS:  
 STA 482+63.8 TO STA 490+93.0 RT  
 STA 818+05.0 TO STA 832+82.0 RT

\*CONCRETE PAVEMENT 8 1/2-INCH REQD STA 501+91.5 TO STA 505+46.6 ON THE SB INSIDE LANE DUE TO THE LENGTH OF THE REPLACEMENT



**FINISHED TYPICAL SECTION**

STH 13  
 STA 507+32.0 TO STA 517+74.5  
 STA 587+15.0 TO STA 597+41.3  
 STA 845+28.1 TO STA 859+78.7

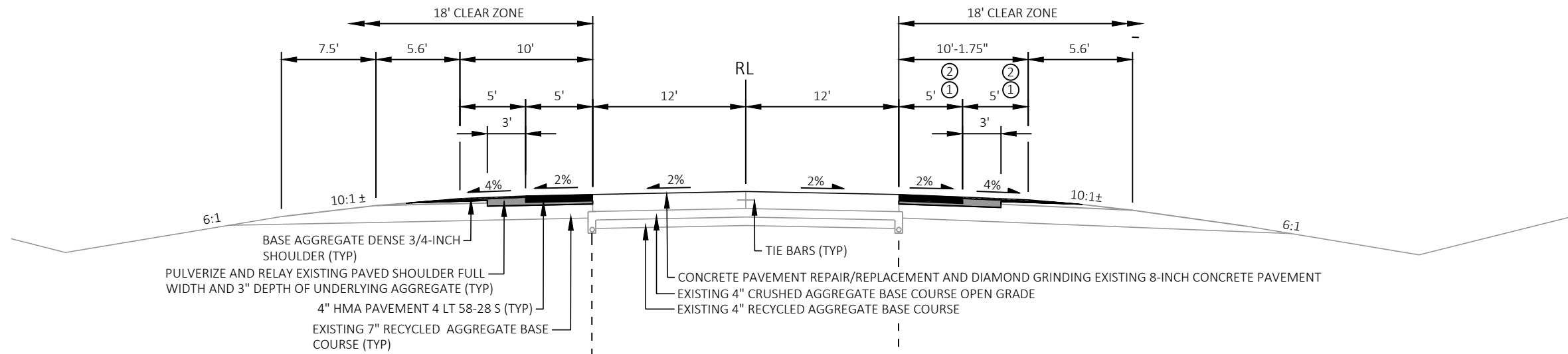


**FINISHED TYPICAL SECTION**

STH 13  
 STA 515+53.3 TO STA 517+74.5  
 STA 587+15.0 TO STA 588+44.0  
 STA 595+05.4 TO STA 597+41.3  
 STA 857+42.6 TO STA 859+78.7

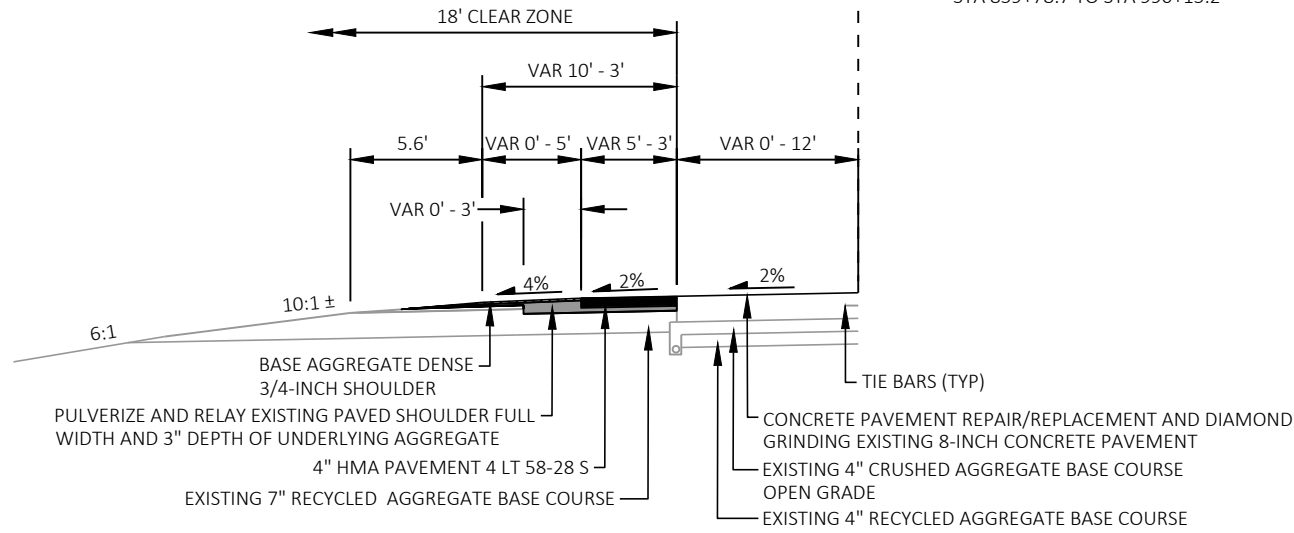
**NOTES:**  
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PULVERIZE AND RELAY EXISTING ASPHALT SHOULDERS. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR INTERIM REQUIREMENTS. REMOVING ASPHALTIC SURFACE AND 4" HMA PAVEMENT 4 LT 58-28 S REQUIRED FOR TURN LANES AND SIDEROADS.



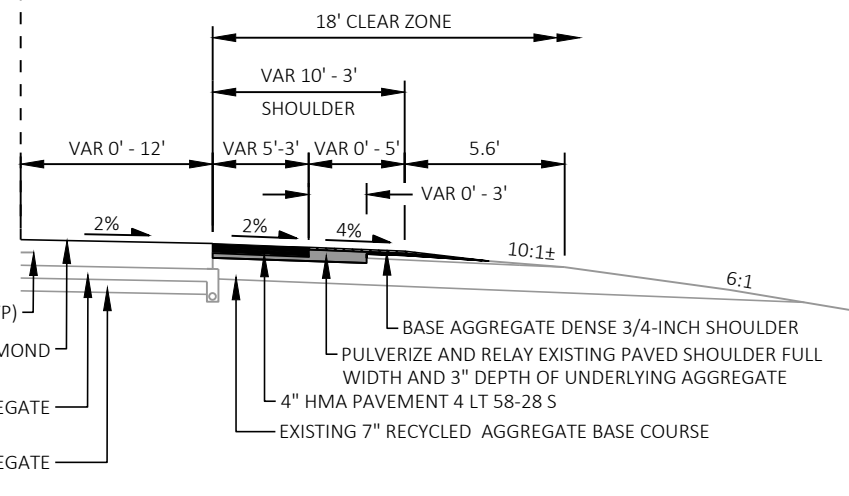
**FINISHED TYPICAL SECTION**

STH 13  
STA 517+74.5 TO STA 587+15.0  
STA 597+41.3 TO STA 805+75.6  
STA 859+78.7 TO STA 990+15.2



**FINISHED TYPICAL SECTION**

STH 13  
STA 803+26.6 TO STA 805+75.6



**FINISHED TYPICAL SECTION**

STH 13  
STA 803+22.3 TO STA 805+75.6

**NOTES:**

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PULVERIZE AND RELAY EXISTING ASPHALT SHOULDERS. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR INTERIM REQUIREMENTS. REMOVING ASPHALTIC SURFACE AND 4" HMA PAVEMENT 4 LT 58-28 S REQUIRED FOR TURN LANES AND SIDEROADS.

① 5' SHOULDER WIDENS TO 8' FROM: STA 640+41.0 TO STA 640+71.0, RT.

8' SHOULDER NARROWS TO 5' FROM: STA 644+80.0 TO 645+10.0, RT.

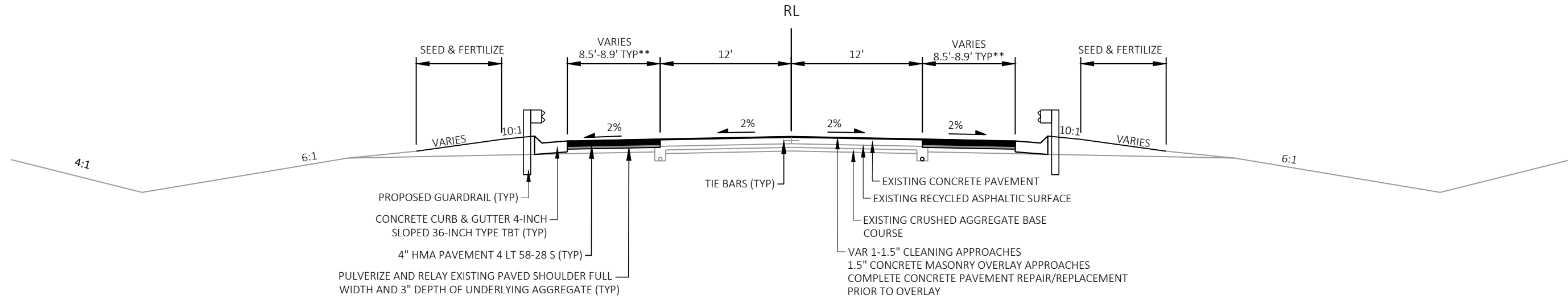
NO SHOULDER REMOVAL/REPLACEMENT REQUIRED FROM STA 640+71.0 TO STA 644+80.0, RT AND STA 633+70 TO STA 645+00, LT.

② PAVE SHOULDER FULL WIDTH STA 550+02.3 TO STA 551+02.3, RT (TAPER BEGINS STA 549+39.8)

PAVE SHOULDER FULL WIDTH STA 581+42.5 TO STA 582+73.9, RT

SEE PLANS AND PLAN DETAILS FOR SHOULDER WIDTHS ADJACENT TO GUARDRAIL INSTALLATIONS AT THE APPROACHES TO STRUCTURES B-37-0184 AND B-37-0185





**FINISHED TYPICAL SECTION**

\*\*SEE PLAN DETAILS FOR SPECIFIC OFFSET TO FACE OF RAIL

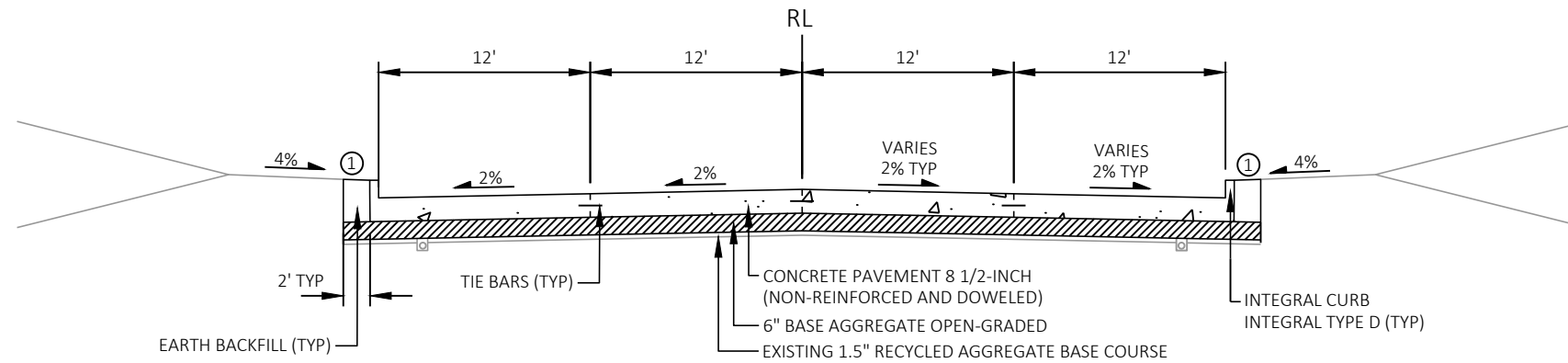
STH 13  
 PROJECT ID 1620-01-62  
 STA 800+50.2 TO STA 801+19.1  
 STA 801+85.7 TO STA 802+55.5  
 STA 969+21.8 TO STA 969+87.5  
 STA 970+71.41 TO STA 971+37.5

**NOTES:**

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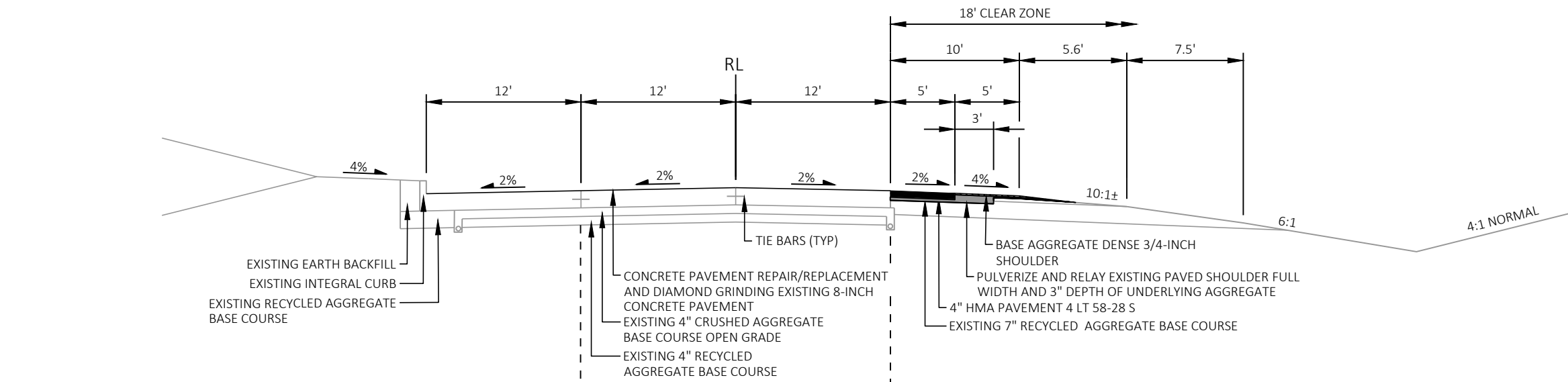
PULVERIZE AND RELAY EXISTING ASPHALT SHOULDERS. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR INTERIM REQUIREMENTS. REMOVING ASPHALTIC SURFACE AND 4" HMA PAVEMENT 4 LT 58-28 S REQUIRED FOR TURN LANES AND SIDEROADS.

① TOPSOIL, SEED, FERTILIZER & EROSION MAT URBAN CLASS 1 TYPE B.



**FINISHED TYPICAL SECTION**

STH 13  
 STA 805+75.6 TO STA 809+55.0



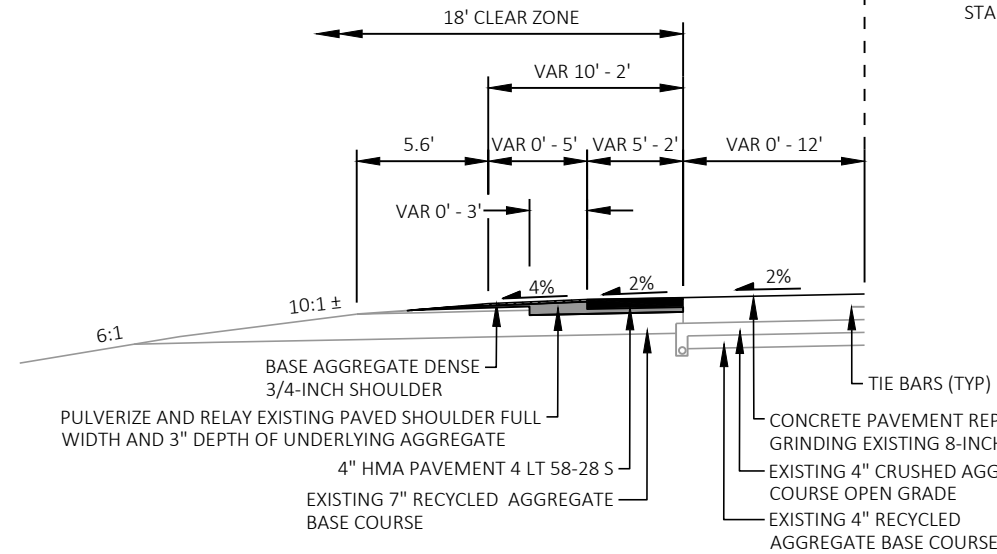
**FINISHED TYPICAL SECTION**

STH 13  
STA 990+15.2 TO STA 997+96.0

**NOTES:**

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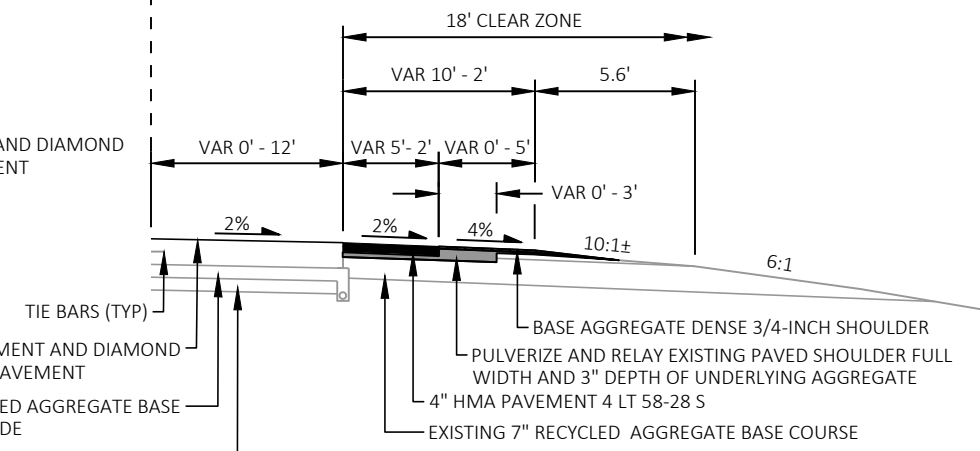
PULVERIZE AND RELAY EXISTING ASPHALT SHOULDERS. SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR INTERIM REQUIREMENTS. REMOVING ASPHALTIC SURFACE AND 4" HMA PAVEMENT 4 LT 58-28 S REQUIRED FOR TURN LANES AND SIDEROADS.



**FINISHED TYPICAL SECTION**

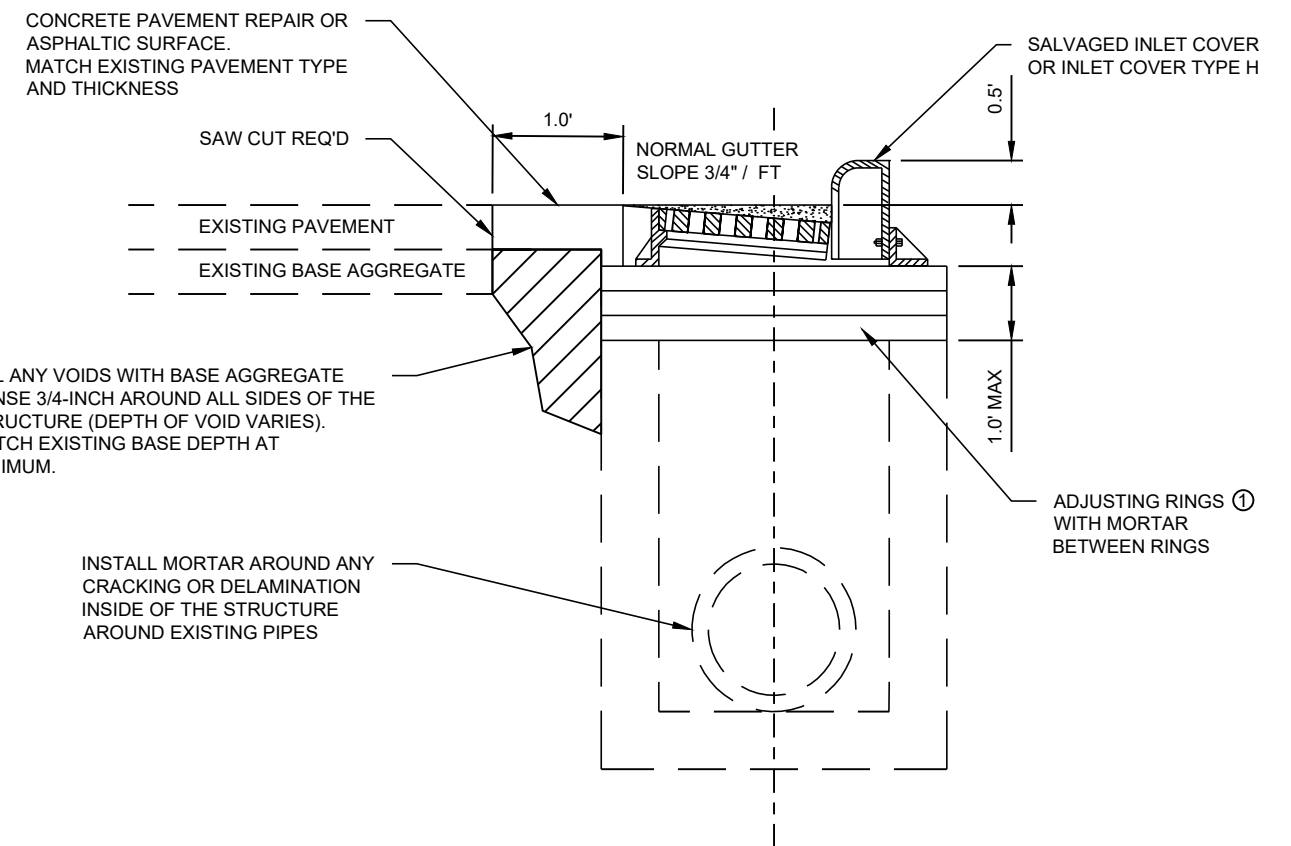
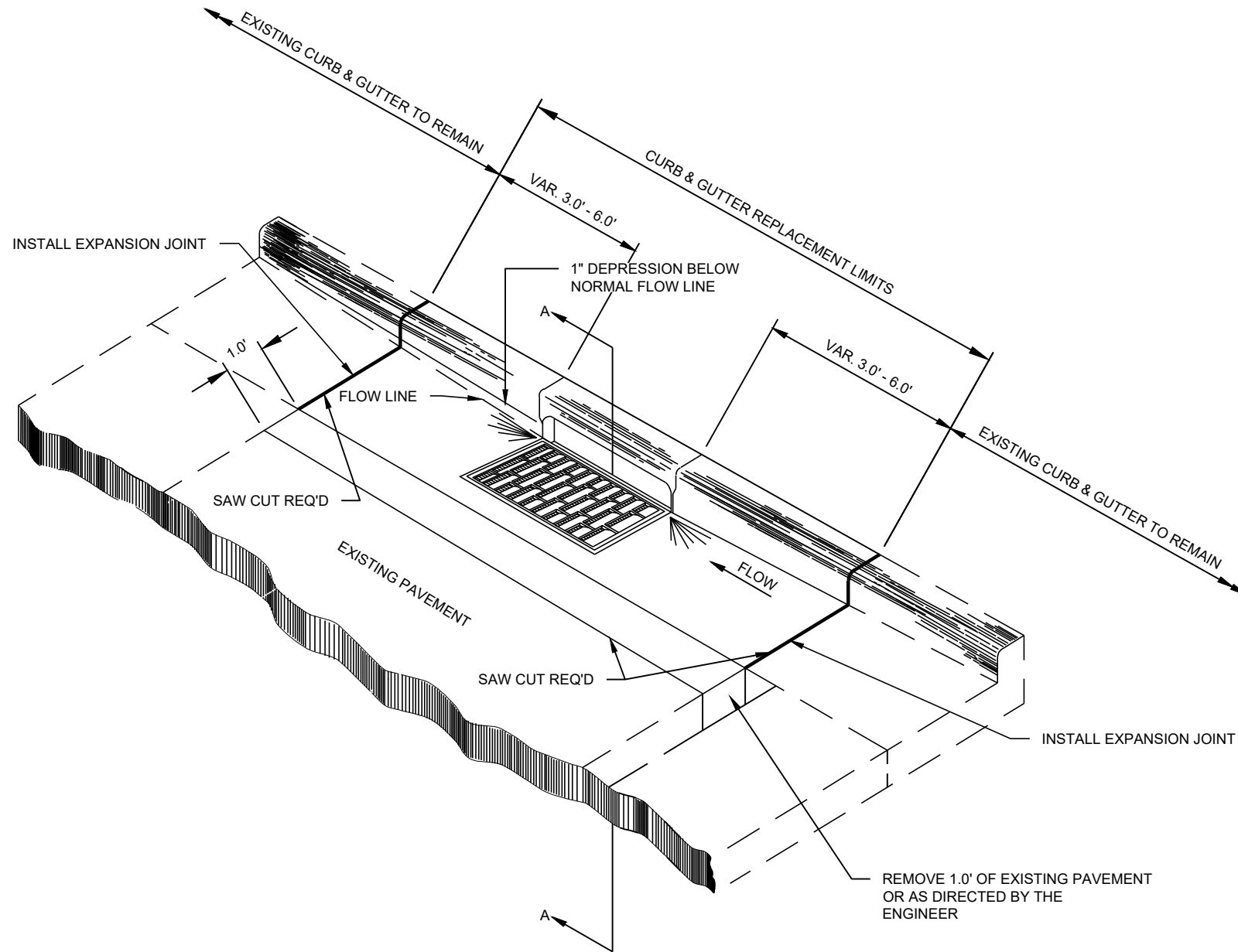
STH 13  
STA 990+15.2 TO STA 992+95.5

CONCRETE PAVEMENT REPAIR/REPLACEMENT AND DIAMOND GRINDING EXISTING 8-INCH CONCRETE PAVEMENT  
EXISTING 4" CRUSHED AGGREGATE BASE COURSE OPEN GRADE  
EXISTING 4" RECYCLED AGGREGATE BASE COURSE



**FINISHED TYPICAL SECTION**

STH 13  
STA 996+59.5 TO STA 997+96.0



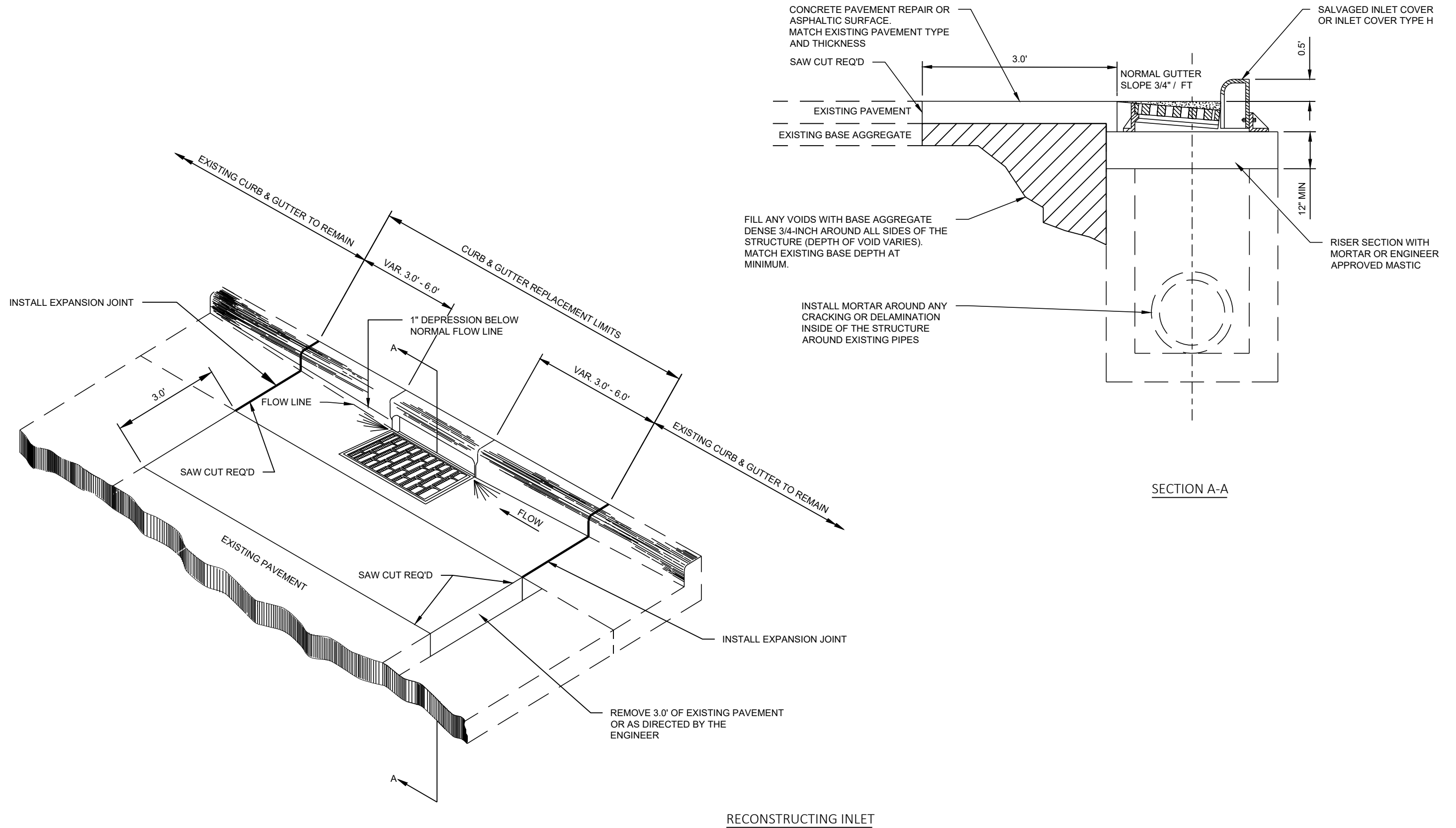
ADJUSTING INLET

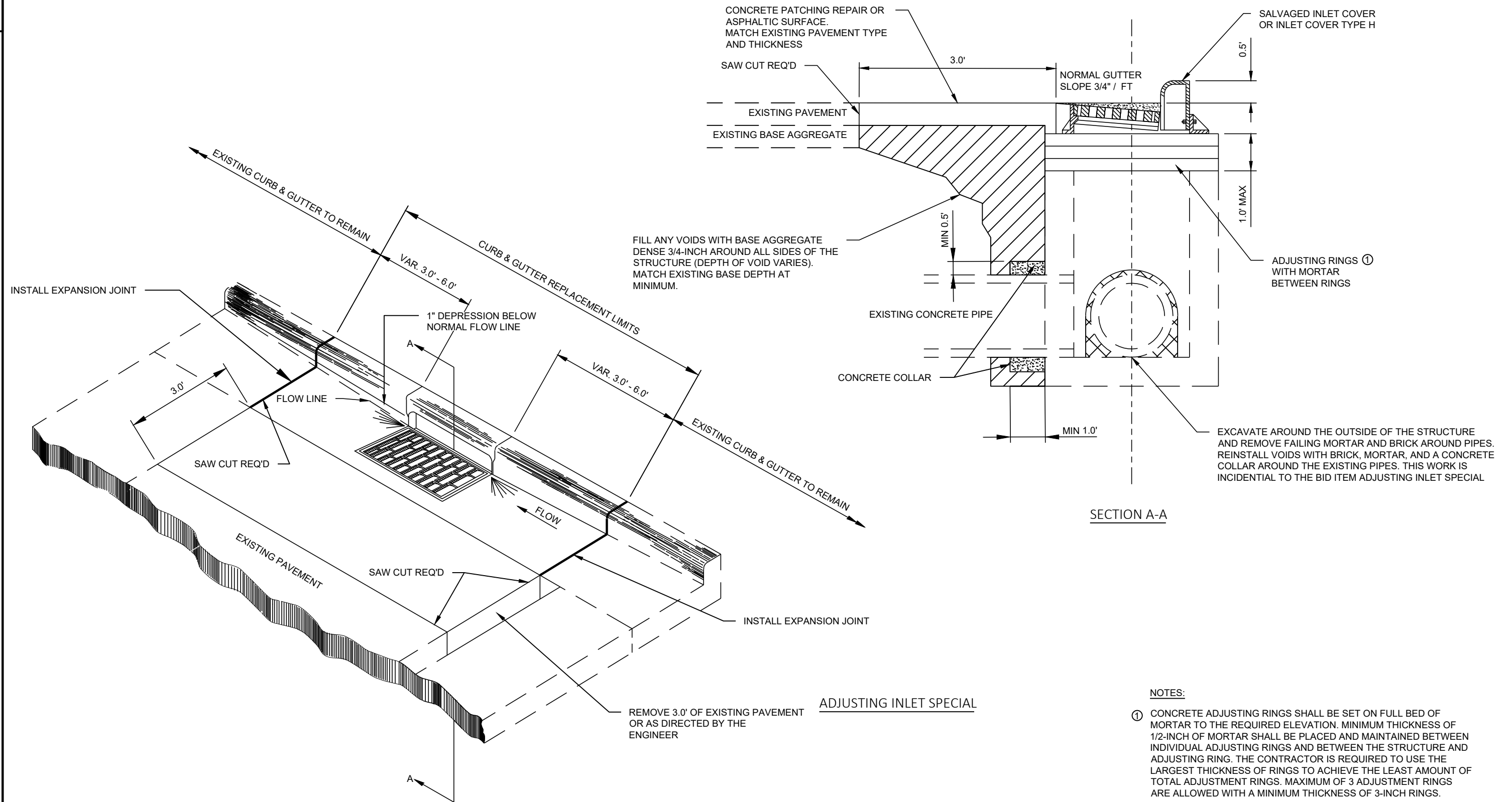
SECTION A-A

NOTES:

- ① CONCRETE ADJUSTING RINGS SHALL BE SET ON FULL BED OF MORTAR TO THE REQUIRED ELEVATION. MINIMUM THICKNESS OF 1/2-INCH OF MORTAR SHALL BE PLACED AND MAINTAINED BETWEEN INDIVIDUAL ADJUSTING RINGS AND BETWEEN THE STRUCTURE AND ADJUSTING RING. THE CONTRACTOR IS REQUIRED TO USE THE LARGEST THICKNESS OF RINGS TO ACHIEVE THE LEAST AMOUNT OF TOTAL ADJUSTMENT RINGS. MAXIMUM OF 3 ADJUSTMENT RINGS ARE ALLOWED WITH A MINIMUM THICKNESS OF 3-INCH RINGS.

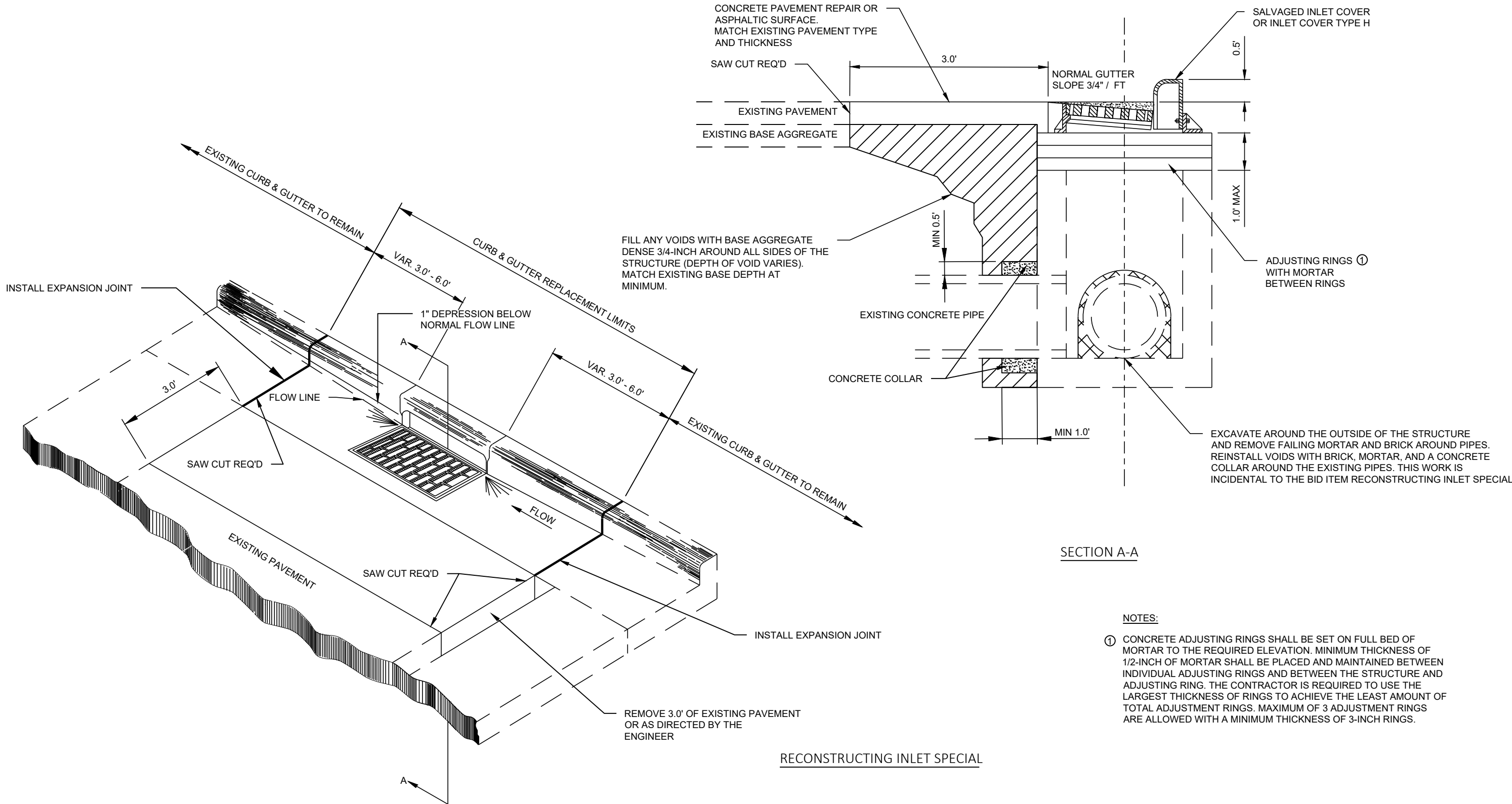






NOTES:

- ① CONCRETE ADJUSTING RINGS SHALL BE SET ON FULL BED OF MORTAR TO THE REQUIRED ELEVATION. MINIMUM THICKNESS OF 1/2-INCH OF MORTAR SHALL BE PLACED AND MAINTAINED BETWEEN INDIVIDUAL ADJUSTING RINGS AND BETWEEN THE STRUCTURE AND ADJUSTING RING. THE CONTRACTOR IS REQUIRED TO USE THE LARGEST THICKNESS OF RINGS TO ACHIEVE THE LEAST AMOUNT OF TOTAL ADJUSTMENT RINGS. MAXIMUM OF 3 ADJUSTMENT RINGS ARE ALLOWED WITH A MINIMUM THICKNESS OF 3-INCH RINGS.



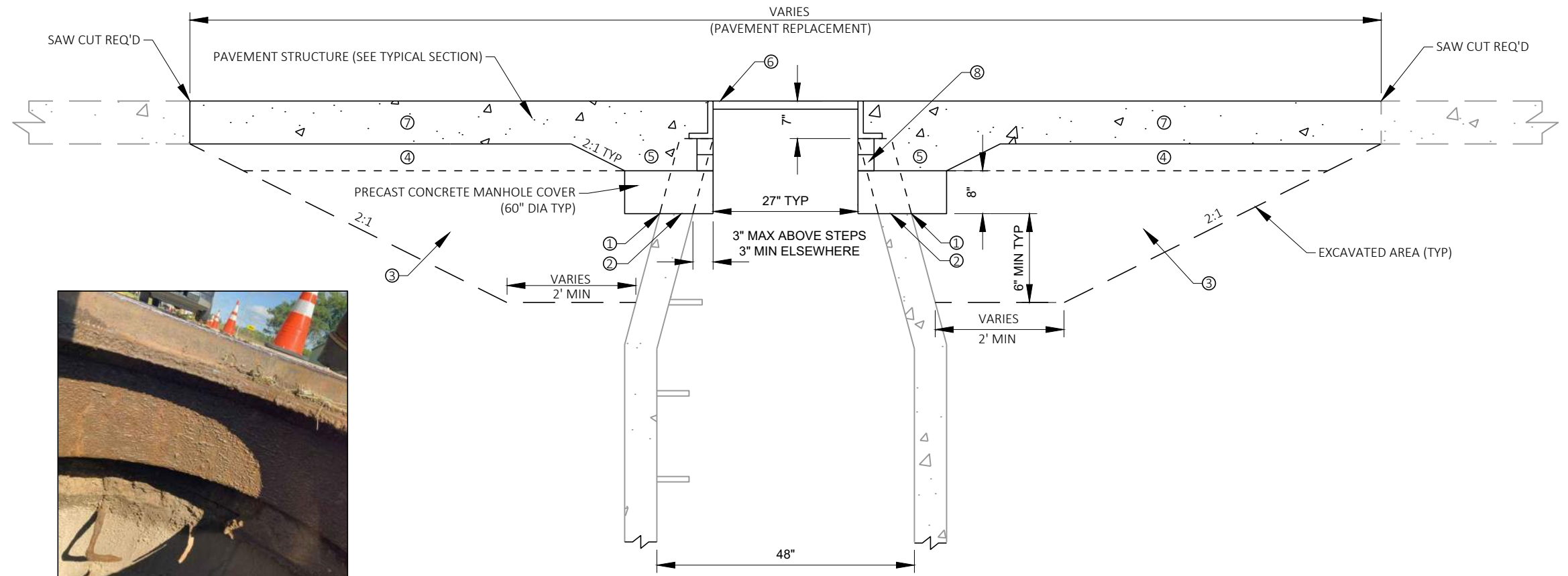
FILL ANY VOIDS WITH BASE AGGREGATE DENSE 3/4-INCH AROUND ALL SIDES OF THE STRUCTURE (DEPTH OF VOID VARIES). MATCH EXISTING BASE DEPTH AT MINIMUM.

EXCAVATE AROUND THE OUTSIDE OF THE STRUCTURE AND REMOVE FAILING MORTAR AND BRICK AROUND PIPES. REINSTALL VOIDS WITH BRICK, MORTAR, AND A CONCRETE COLLAR AROUND THE EXISTING PIPES. THIS WORK IS INCIDENTAL TO THE BID ITEM RECONSTRUCTING INLET SPECIAL

SECTION A-A

- NOTES:
- ① CONCRETE ADJUSTING RINGS SHALL BE SET ON FULL BED OF MORTAR TO THE REQUIRED ELEVATION. MINIMUM THICKNESS OF 1/2-INCH OF MORTAR SHALL BE PLACED AND MAINTAINED BETWEEN INDIVIDUAL ADJUSTING RINGS AND BETWEEN THE STRUCTURE AND ADJUSTING RING. THE CONTRACTOR IS REQUIRED TO USE THE LARGEST THICKNESS OF RINGS TO ACHIEVE THE LEAST AMOUNT OF TOTAL ADJUSTMENT RINGS. MAXIMUM OF 3 ADJUSTMENT RINGS ARE ALLOWED WITH A MINIMUM THICKNESS OF 3-INCH RINGS.

RECONSTRUCTING INLET SPECIAL



**RECONSTRUCTING SANITARY SEWER MANHOLES**

**NOTES**

- ① REMOVE DETERIORATED CONCRETE CONE TO ELEVATION OF SOUND CONCRETE. DEPTH OF REMOVAL MAY VARY BASED ON EXISTING CONCRETE CONDITION. PROVIDE LEVEL SURFACE FOR PLACEMENT OF CONCRETE COVER.
- ② JOINT TO BE SEALED WITH A DOUBLE ROW OF BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990.
- ③ BACKFILL EXCAVATION WITH BACKFILL CONTROLLED LOW STRENGTH TO LEVEL WITH TOP OF PRECAST CONCRETE MANHOLE COVER.
- ④ 6" MINIMUM BASE AGGREGATE DENSE 3/4-INCH BETWEEN CONCRETE PAVEMENT AND BACKFILL CONTROLLED LOW STRENGTH.
- ⑤ PLACE GRADE C CONCRETE AROUND ADJUSTING RINGS IF APPLICABLE. PLACE CONCRETE MONOLITHIC WITH CONCRETE PAVEMENT.
- ⑥ SALVAGE AND REINSTALL EXISTING MANHOLE COVER.
- ⑦ CONCRETE PAVEMENT, STEEL REINFORCEMENT, TIE BARS, DOWEL BARS PER CONCRETE PAVEMENT REPLACEMENT BID ITEM.
- ⑧ NON-CONCRETE ADJUSTMENT RINGS (IF NEEDED) FROM APPROVED PRODUCTS LIST.



MAIN ST



MILL ST



PINE ST



ELM ST

**TYPICAL SCOPE OF RECONSTRUCTING SANITARY SEWER MANHOLES**

PROJECT NO: 1620-01-62

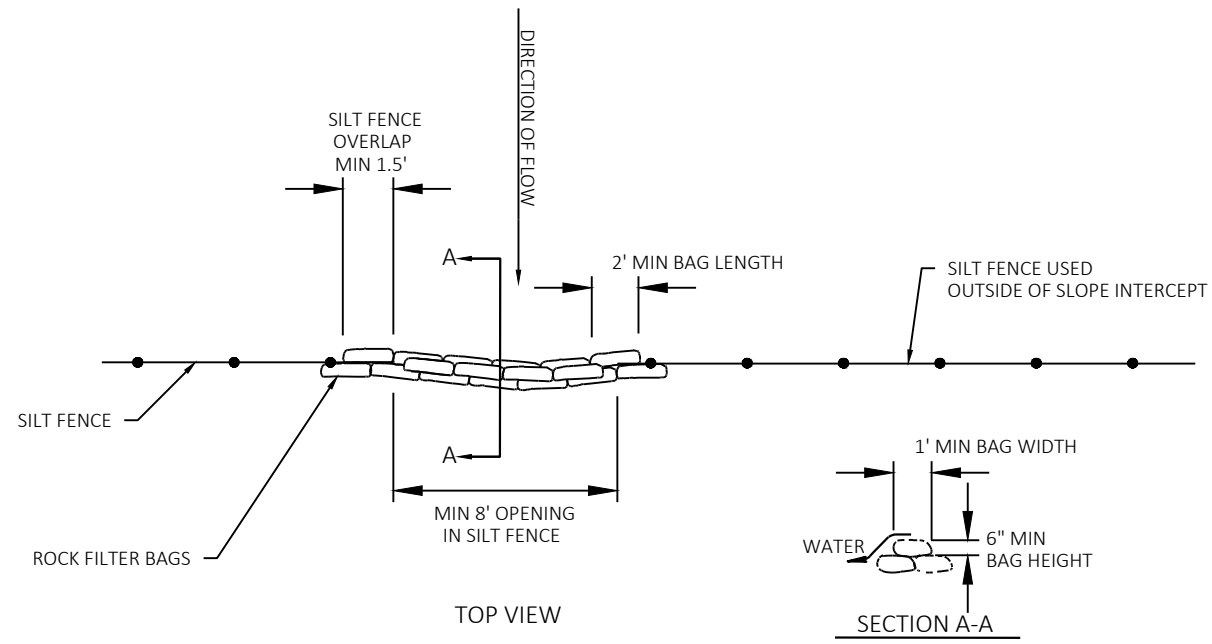
HWY: STH 13

COUNTY: MARATHON

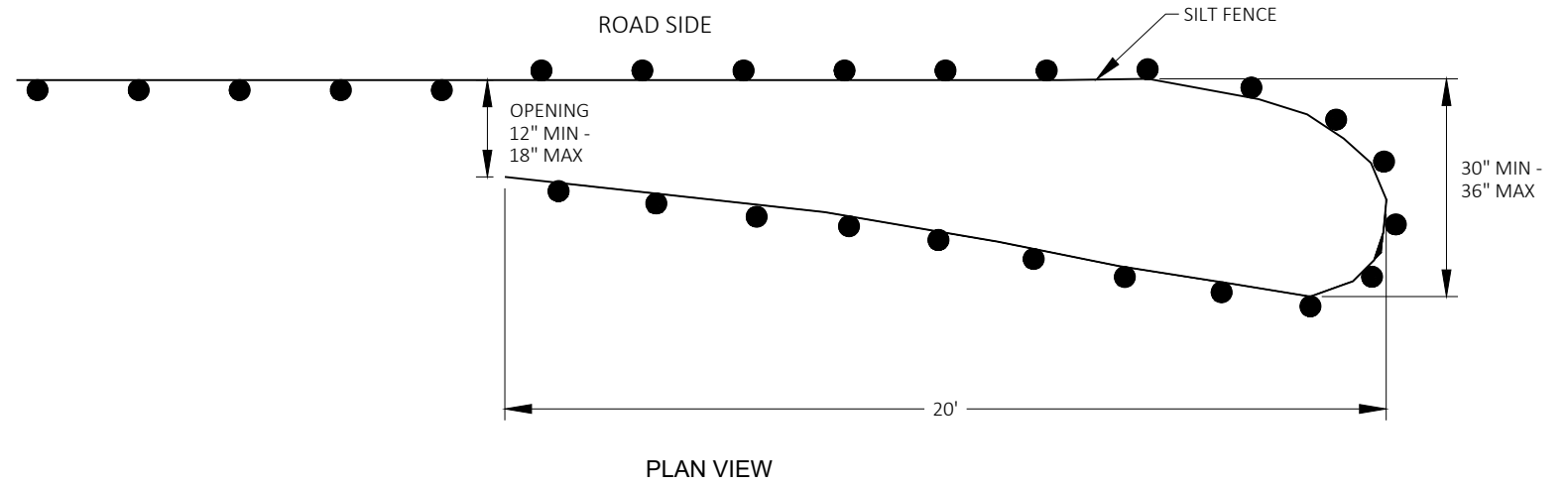
CONSTRUCTION DETAILS

SHEET

E

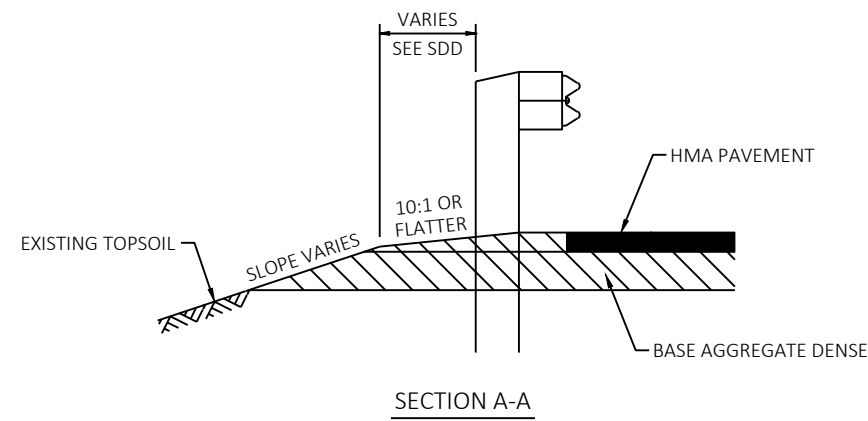


ROCK BAGS USED FOR SILT FENCE RELIEF

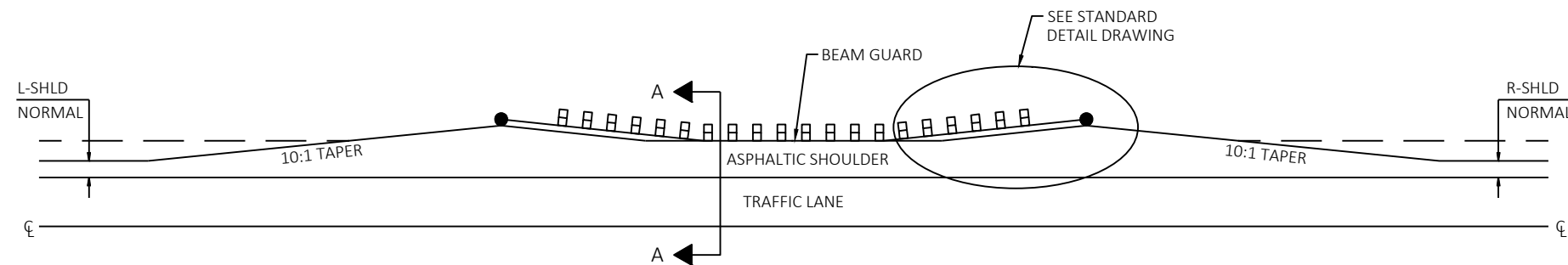


GENERAL NOTES:  
SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

TEMPORARY SMALL ANIMAL TURN-AROUND

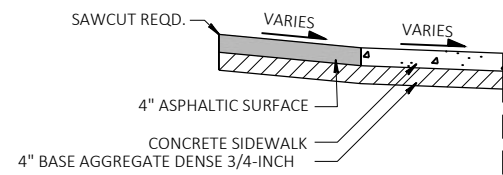


SECTION A-A

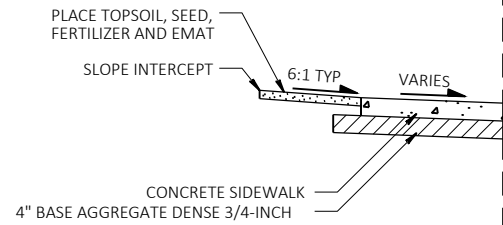


SHOULDER PAVING AT GUARDRAIL INSTALLATION

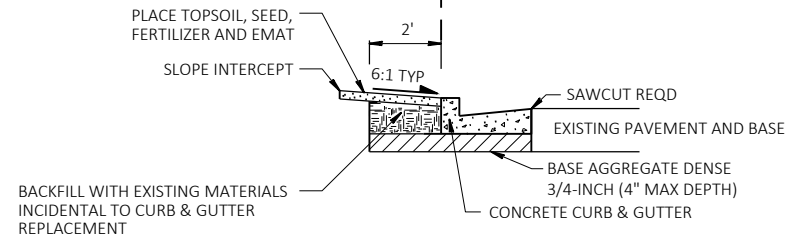
SIDEWALK AND ASPHALT  
BEHIND CURB & GUTTER



SIDEWALK AND TURF RESTORATION  
BEHIND CURB & GUTTER



TURF RESTORATION  
BEHIND CURB & GUTTER



NOTES:

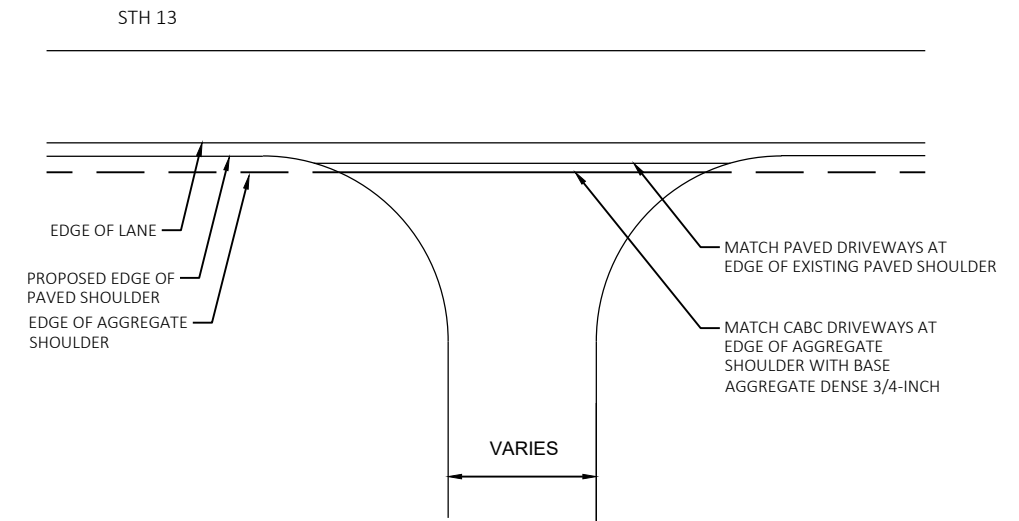
BASE COURSE BELOW PROPOSED CURB OR CURB & GUTTER SHALL BE CONSTRUCTED TO PROVIDE A SUITABLE BASE AS DETERMINED BY THE ENGINEER IN THE FIELD

LOCATE SAWCUT AT THE PROPOSED CURB & GUTTER FLAG LINE

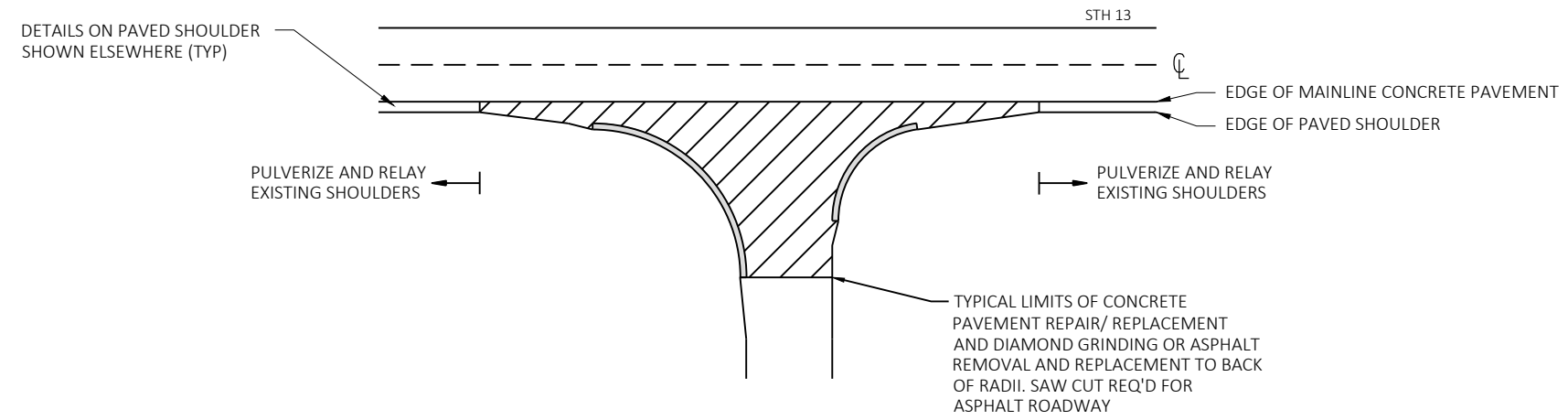
IN AREAS OF CURB & GUTTER REPLACEMENT ONLY, LIMIT DISTURBANCE TO 2' BEHIND THE BACK OF CURB & GUTTER

ADDITIONAL DETAILS FOR CONSTRUCTION ARE SHOWN ELSEWHERE IN THE PLANS

**CURB & GUTTER AND SIDEWALK REPLACEMENT DETAIL**



**DETAIL FOR TYPICAL RURAL DRIVEWAY CONSTRUCTION LIMITS**

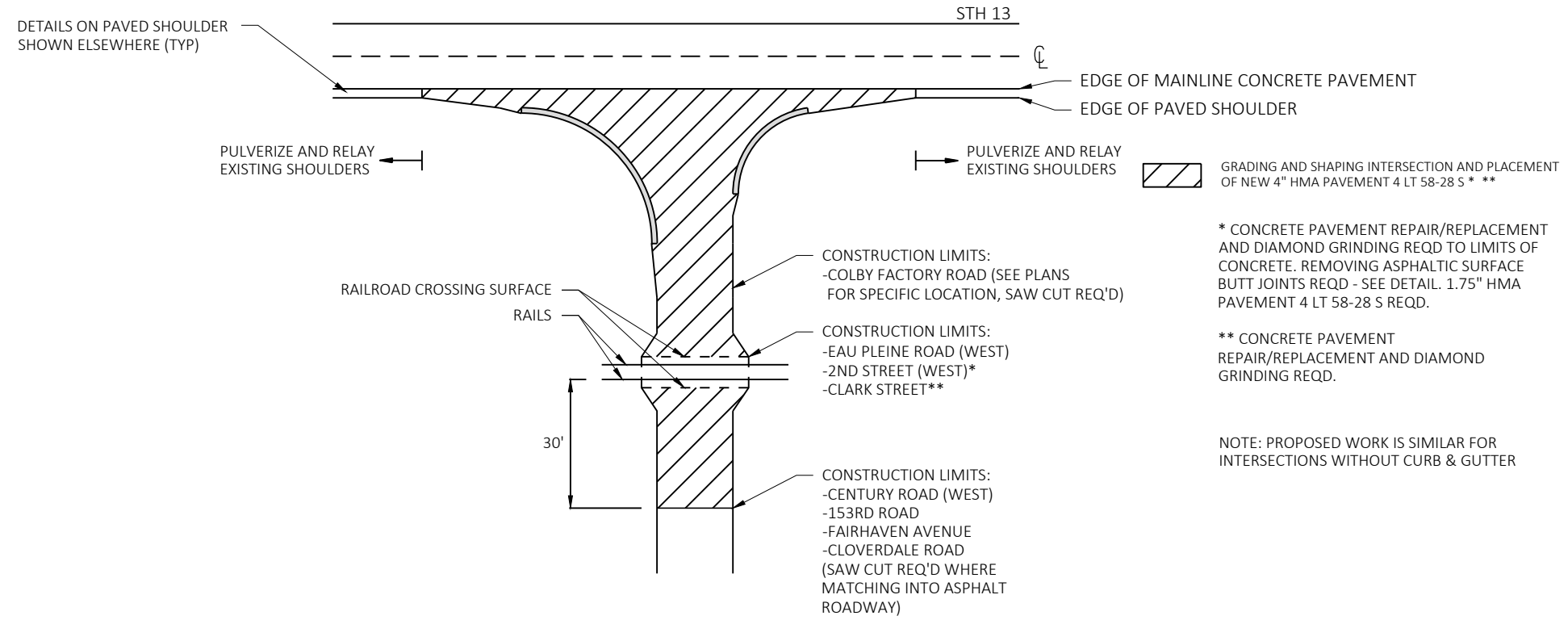


NOTE: PROPOSED WORK IS SIMILAR FOR INTERSECTIONS WITHOUT CURB & GUTTER

**SIDE ROAD CONSTRUCTION LIMITS WITHOUT ADJACENT RAILROAD CROSSING**

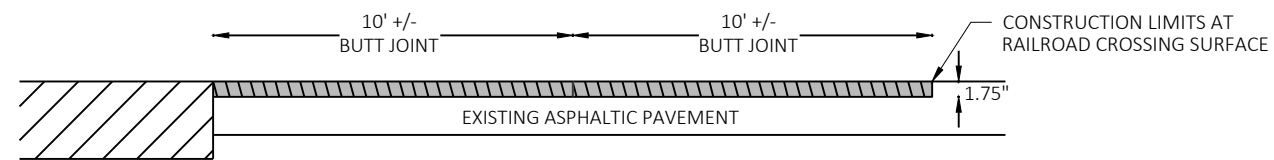
MAIN STREET	BUXTON STREET	2ND STREET (EAST)
MILL STREET	TOWN HALL ROAD	CHURCH STREET
PINE STREET	KINGTON ROAD	WELLS STREET
ELM STREET	YELLOWSTONE TRAIL (N & S)	COOK STREET
LASALLE STREET	SALTER ROAD	CLARK STREET (EAST)
EAU PLEINE ROAD (EAST)	1ST STREET	CHOKECHERRY ROAD
CENTURY ROAD (EAST)		JUNEBERRY ROAD





**SIDE ROAD CONSTRUCTION LIMITS WITH ADJACENT RAILROAD CROSSING**

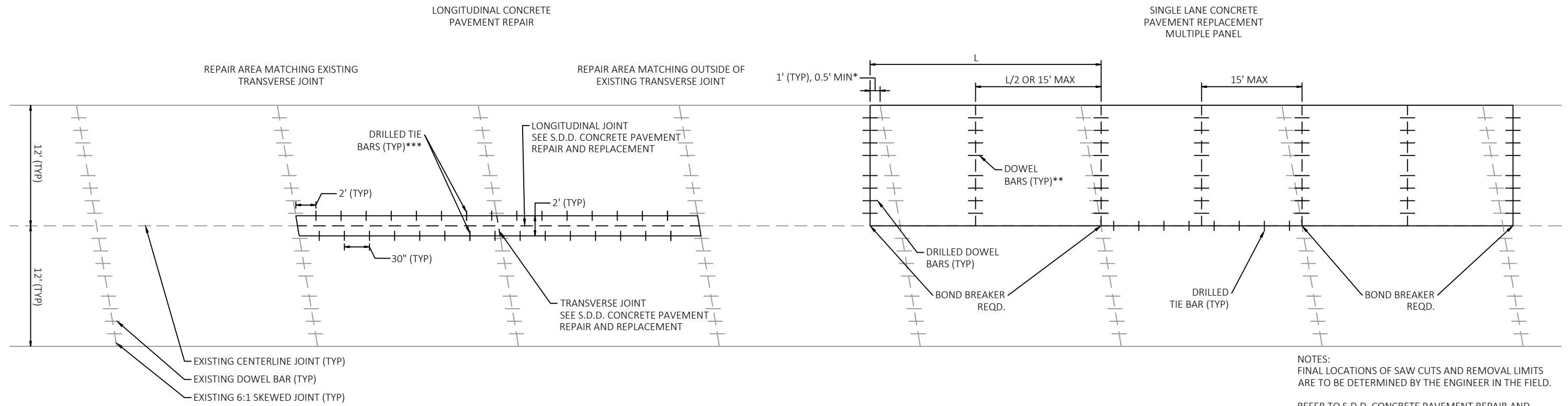
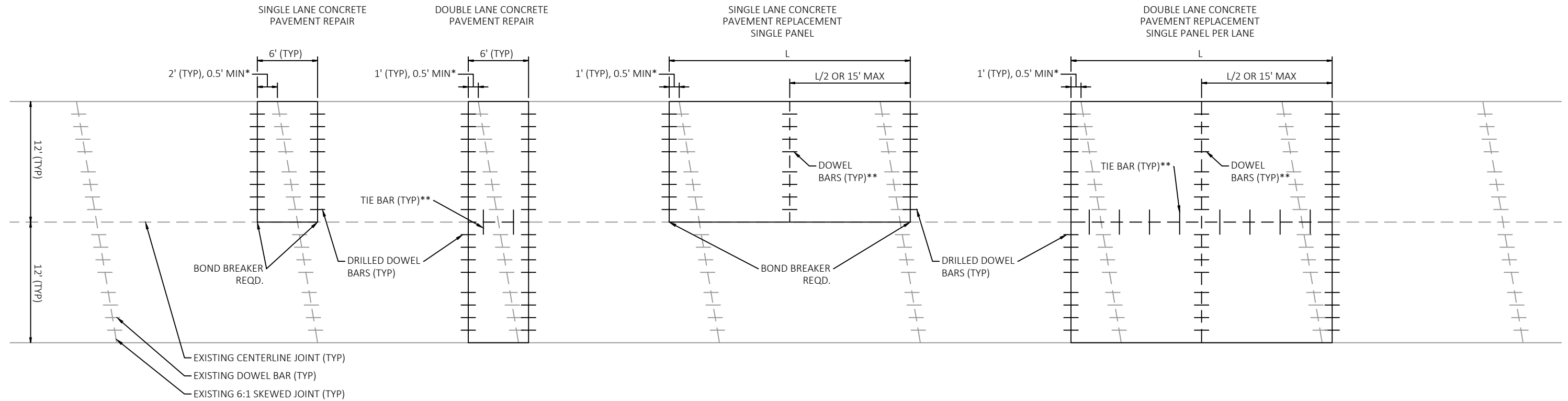
- EAU PLEINE ROAD (WEST)
- CENTURY ROAD (WEST)
- 153RD ROAD
- FAIRHAVEN AVENUE
- 2ND STREET (WEST)
- CLARK STREET (WEST)
- CLOVERDALE ROAD
- COLBY FACTORY ROAD



- HMA PAVEMENT
- EXISTING CONCRETE PAVEMENT
- REMOVING ASPHALTIC SURFACE BUTT JOINTS

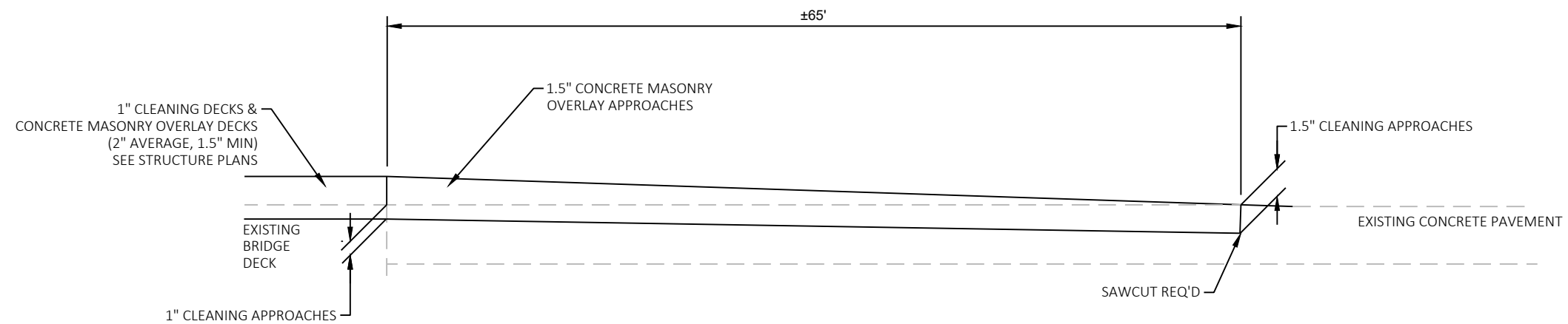
**BUTT JOINT**

2ND STREET (WEST)



NOTES:  
 FINAL LOCATIONS OF SAW CUTS AND REMOVAL LIMITS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.  
 REFER TO S.D.D. CONCRETE PAVEMENT REPAIR AND REPLACEMENT FOR ADDITIONAL DETAILS.  
 \* ENSURE FULL REMOVAL OF EXISTING DOWEL BAR AT CONCRETE REPAIR/REPLACEMENT LOCATIONS.  
 \*\*INCIDENTAL WHEN NOT ABUTTING EXISTING PAVEMENT.  
 \*\*\*TIE BAR MAY BE DRILLED AT AN ANGLE, THEN BENT PERPENDICULAR TO JOINT AFTER INSTALLATION.

**CONCRETE PAVEMENT REPAIR/REPLACEMENT DETAILS FOR SKEWED JOINTS**



NOTE: BEGIN APPROACH OVERLAY AT STRUCTURE AND END AT NEAREST JOINT APPROXIMATELY 65' AWAY.

CLEANING APPROACHES DEPTH VARIES FROM 1" AT THE STRUCTURE TO 1.5" AT THE OVERLAY MATCH POINT.

MASK OFF EXISTING STRUCTURE JOINT AS DIRECTED BY THE ENGINEER.

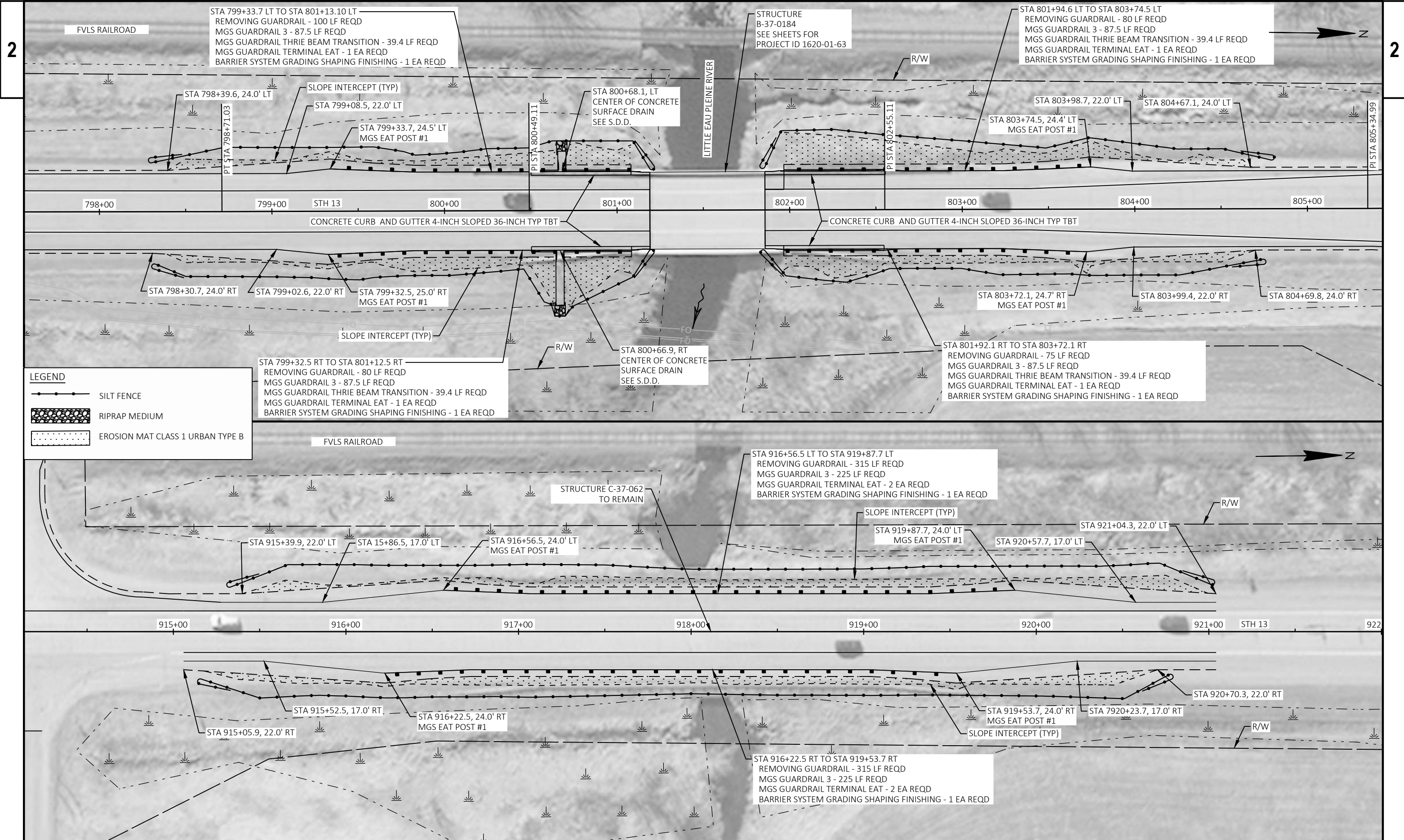
PROJECT 1620-01-63 INCLUDES WORK ON CONCRETE THRU LANES ONLY.

SEE PROJECT 1620-01-62 FOR ADDITIONAL SHOULDER WORK AND DETAILS.

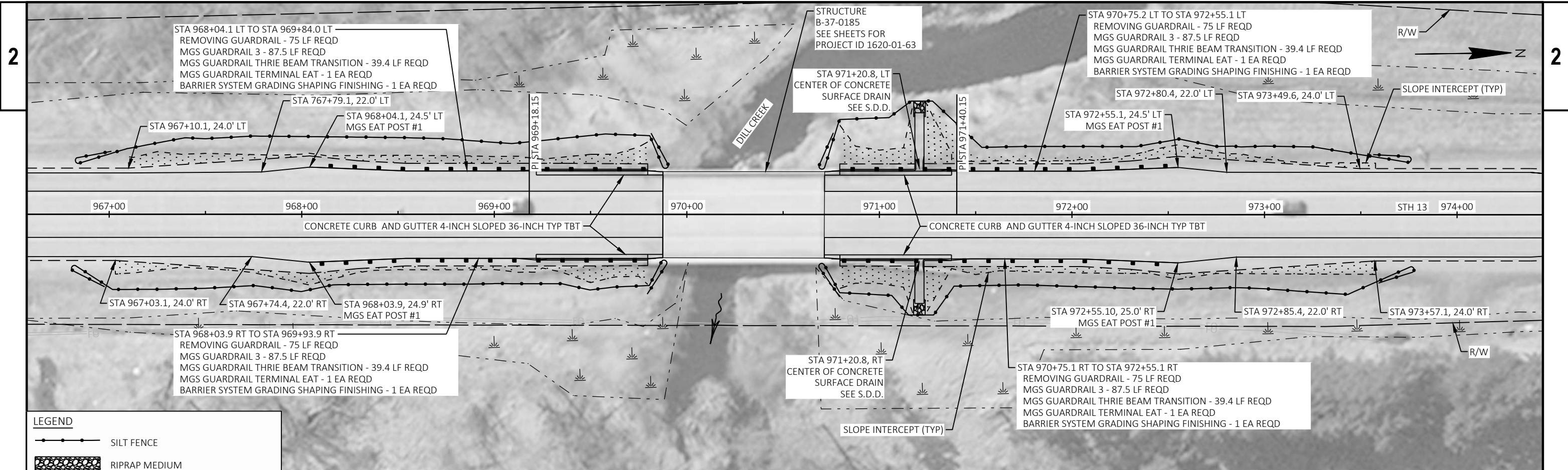
**BRIDGE APPROACH CONCRETE OVERLAY BUTT JOINT**

STA 800+53.94 - STA 801+18.69 (MIRROR)  
 STA 801+85.53 - STA 802+50.28  
 STA 969+22.72 - STA 969+87.82 (MIRROR)  
 STA 970+70.48 - STA 971+35.57





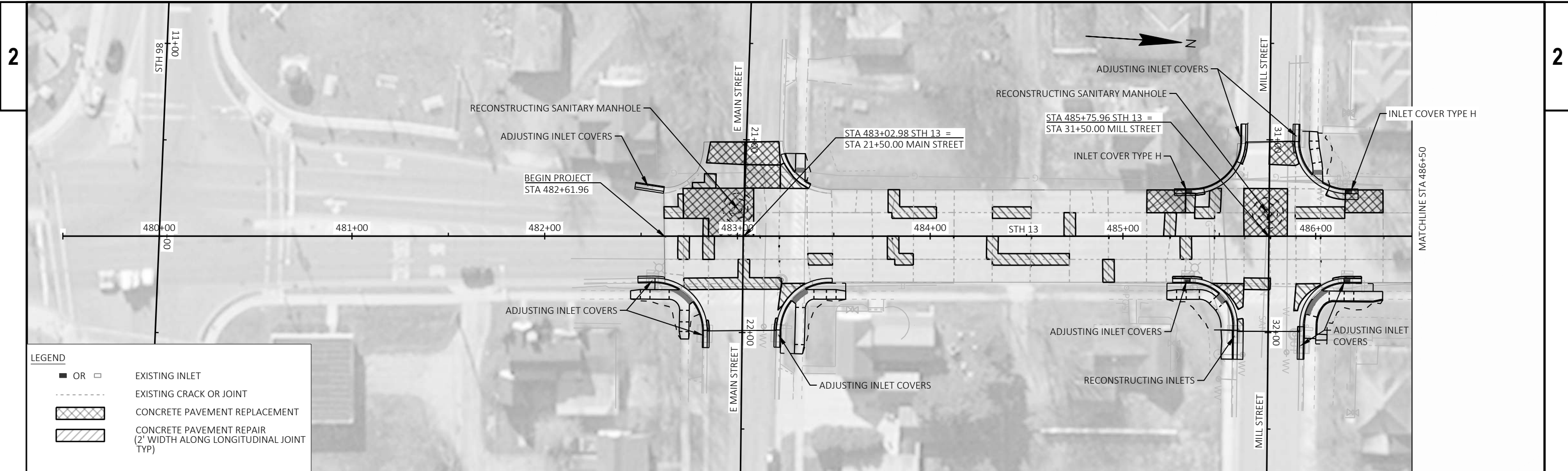




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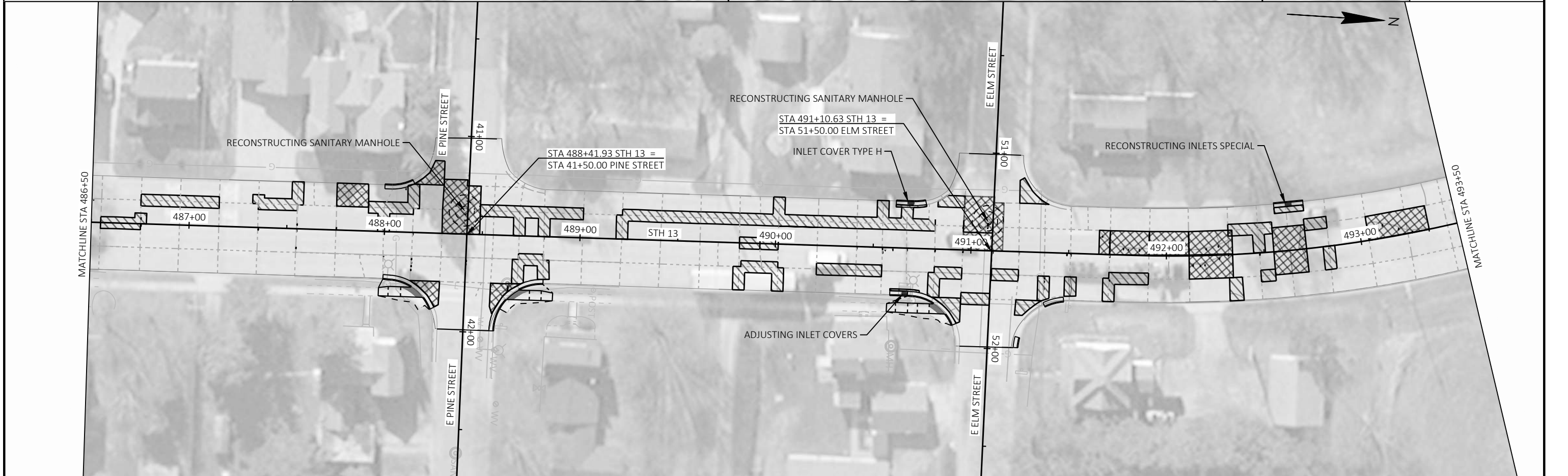
	SILT FENCE
	RIPRAP MEDIUM
	EROSION MAT CLASS 1 URBAN TYPE B

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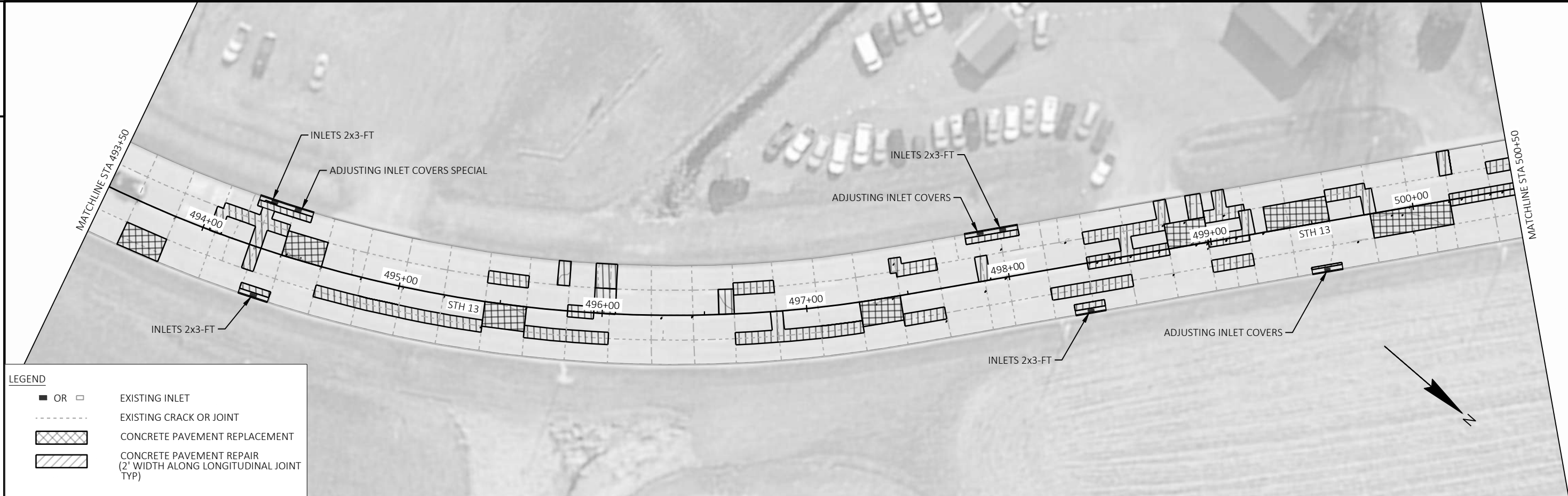
**LEGEND**

- OR □ EXISTING INLET
- - - - - EXISTING CRACK OR JOINT
- ▨ CONCRETE PAVEMENT REPLACEMENT
- ▧ CONCRETE PAVEMENT REPAIR (2' WIDTH ALONG LONGITUDINAL JOINT TYP)



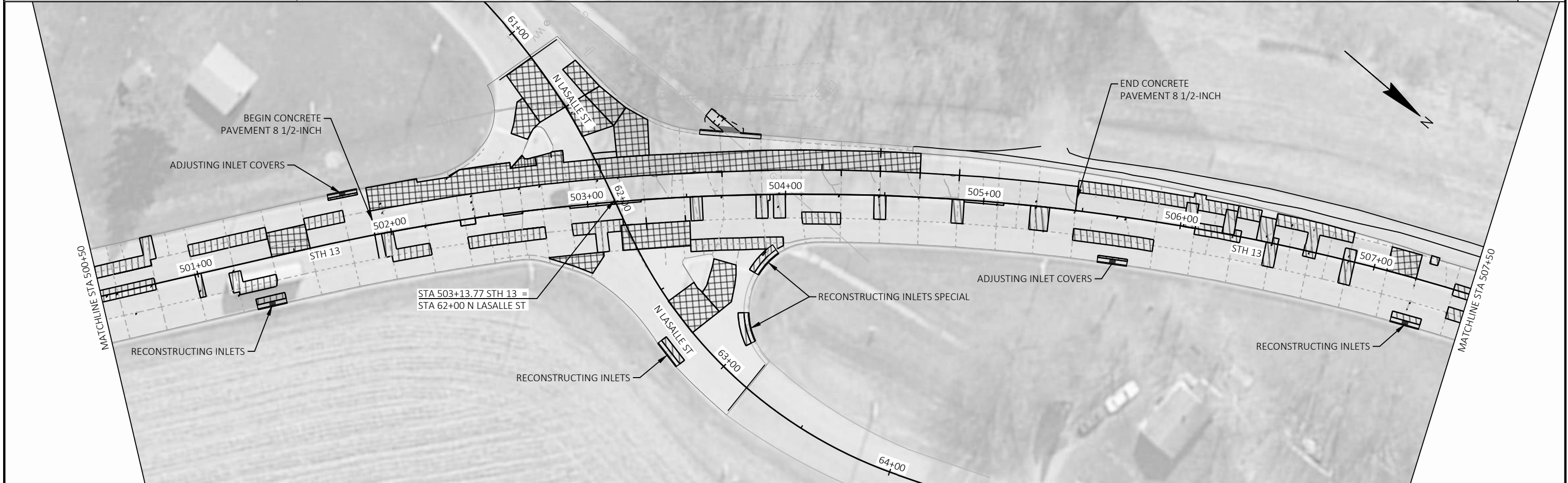
PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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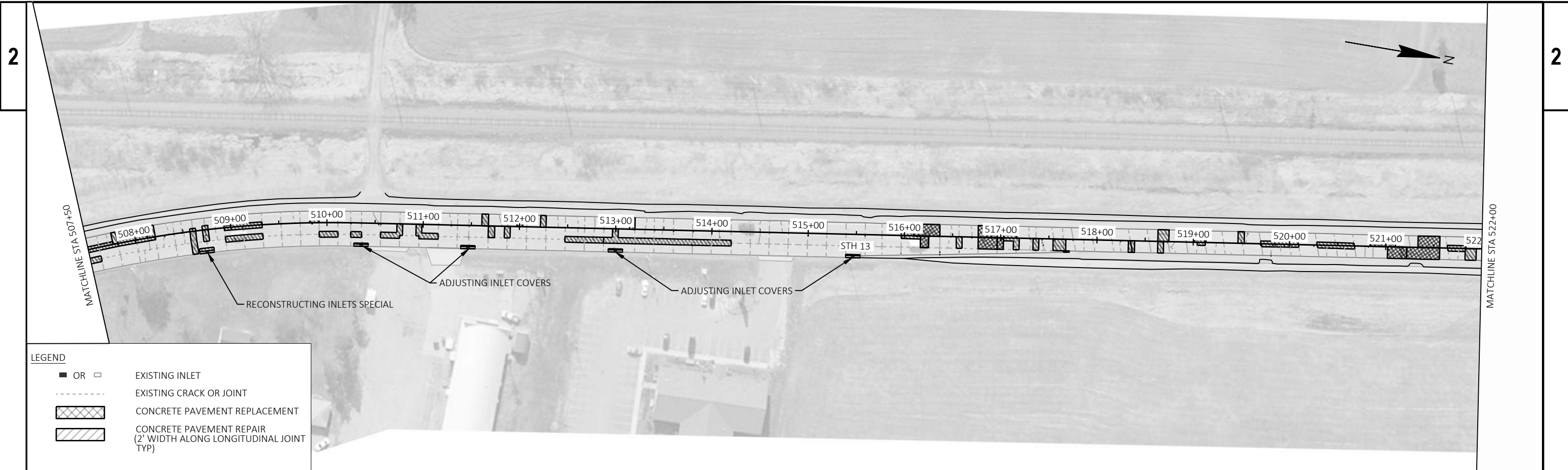
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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NOTE: ATR STATION TO BE ABANDON IN PLACE AND REPLACED BY OTHERS. SEE SPECIAL PROVISIONS.

- ATR CABINET
- ATR PULL BOX
- ATR LOOP DETECTORS

**LEGEND**

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MATCHLINE STA 537+00

MATCHLINE STA 552+00

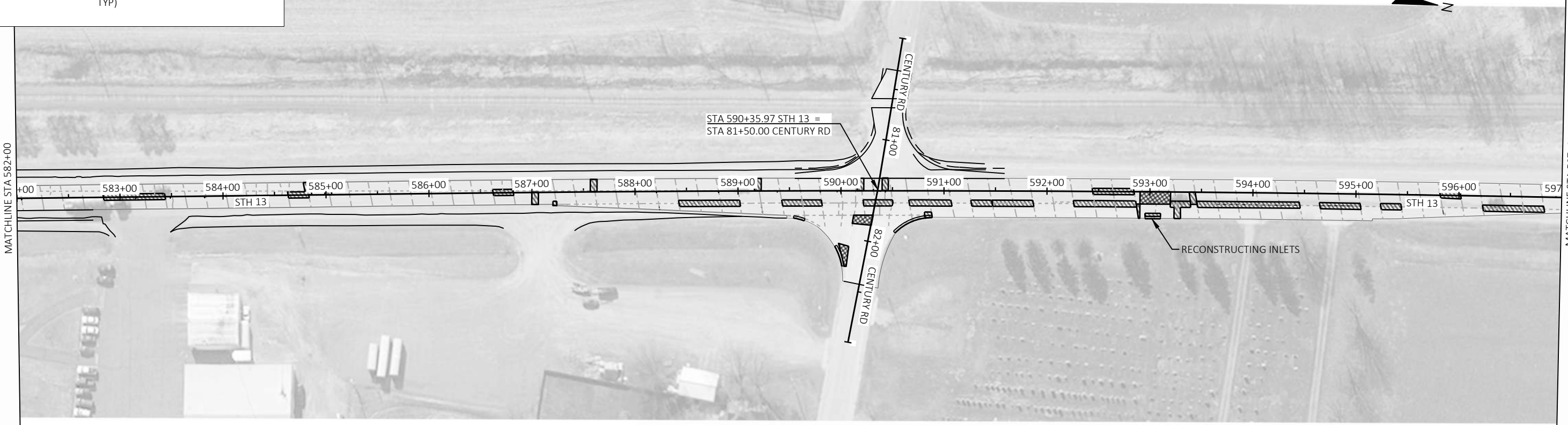
MATCHLINE STA 552+00

MATCHLINE STA 567+00



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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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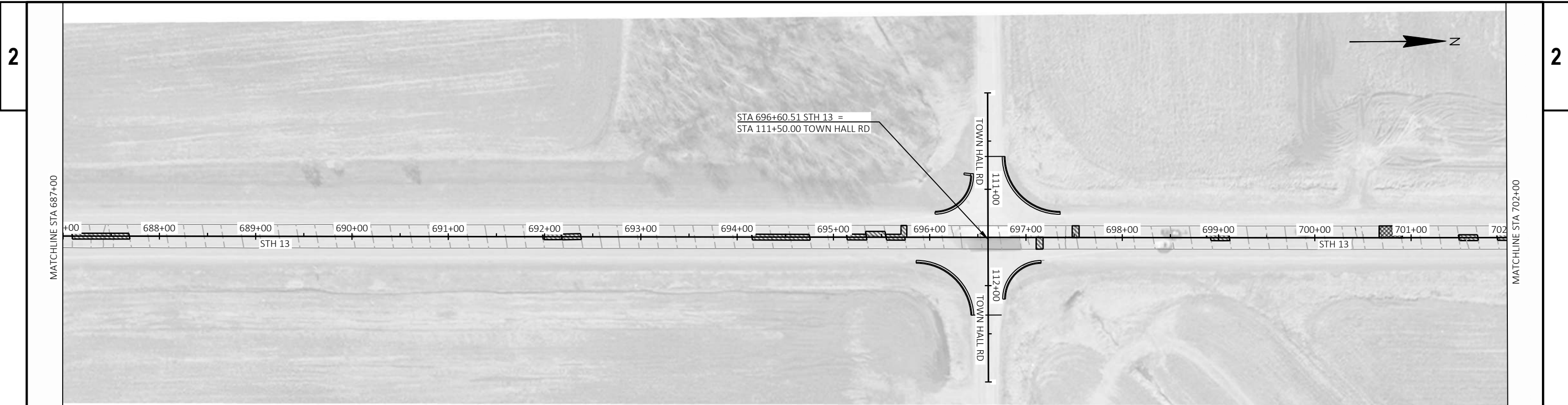
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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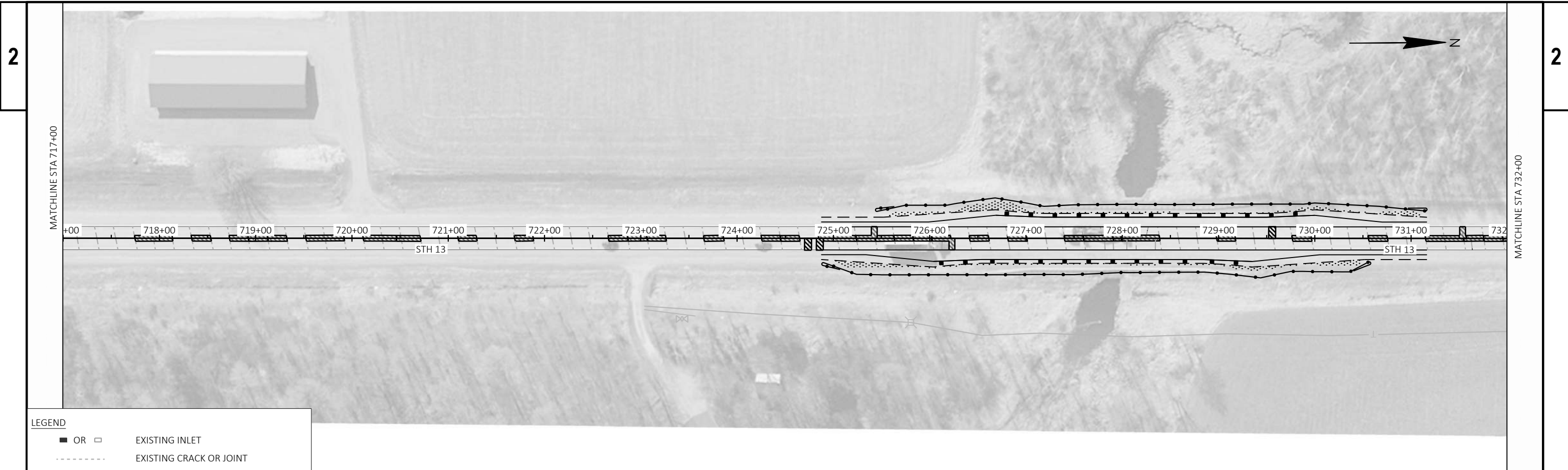


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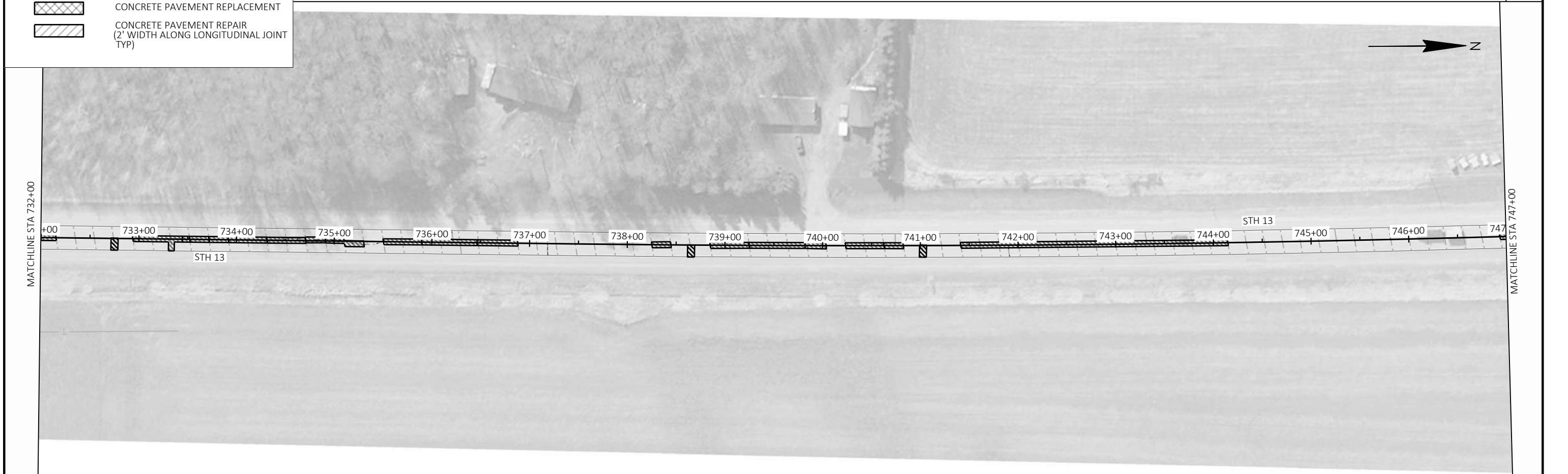


PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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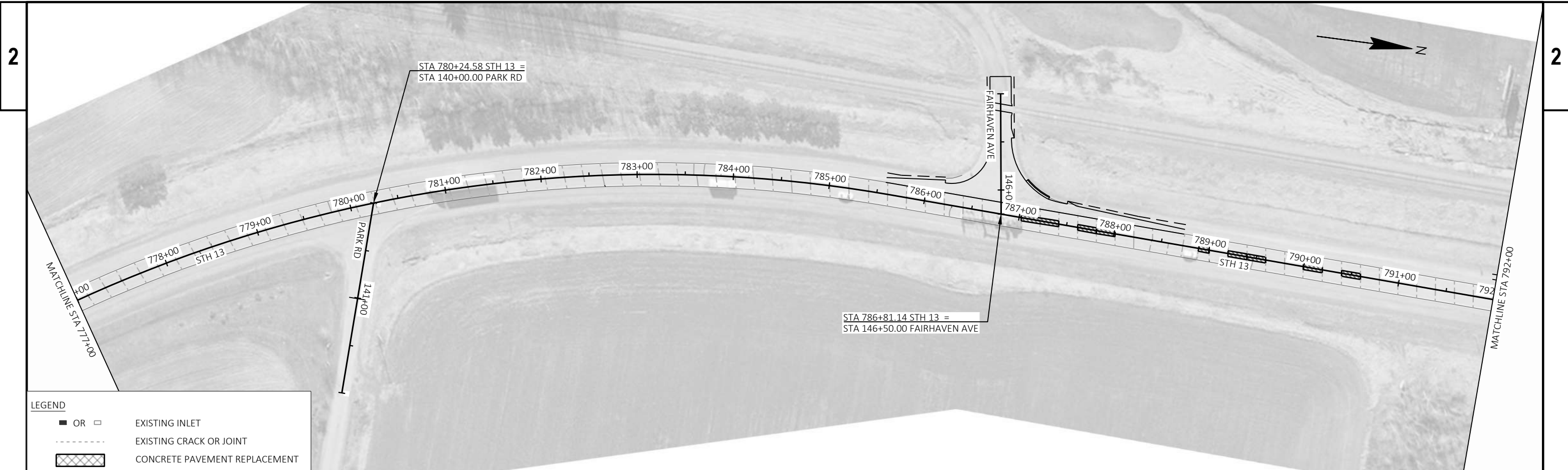


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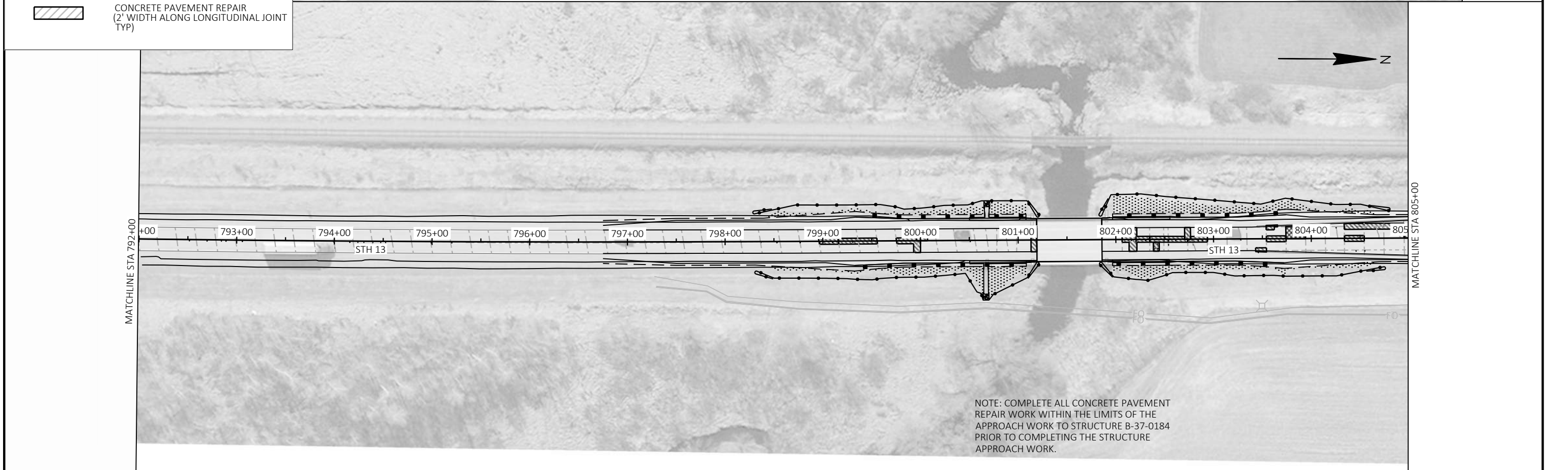


PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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**LEGEND**

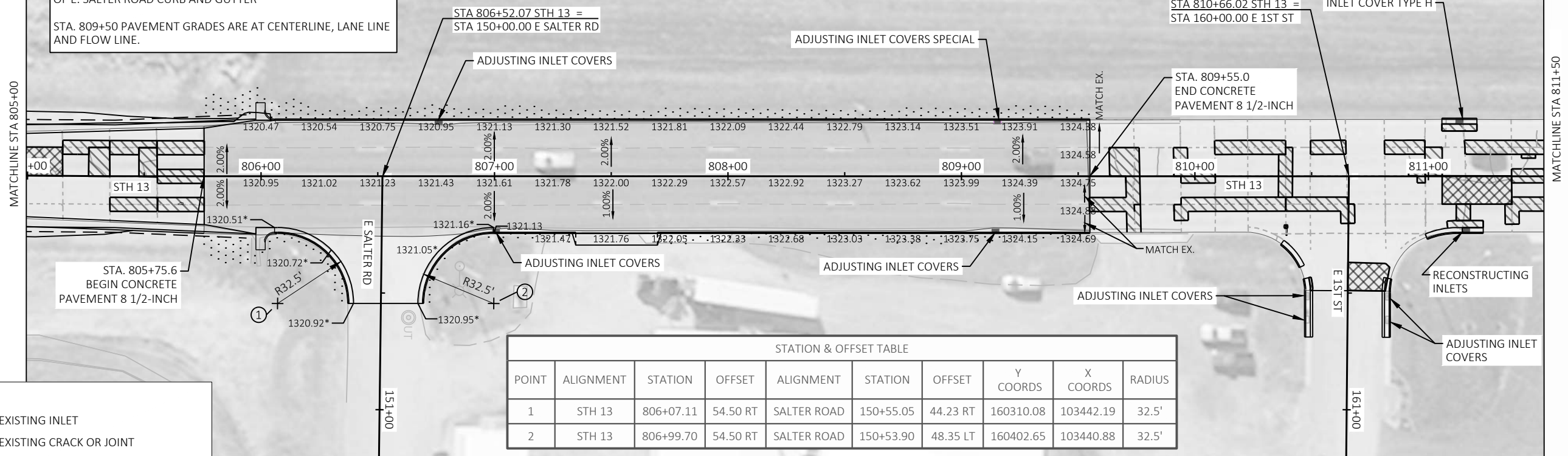
■ OR □	EXISTING INLET
---	EXISTING CRACK OR JOINT
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▧	CONCRETE PAVEMENT REPAIR (2' WIDTH ALONG LONGITUDINAL JOINT TYP)



NOTE: COMPLETE ALL CONCRETE PAVEMENT REPAIR WORK WITHIN THE LIMITS OF THE APPROACH WORK TO STRUCTURE B-37-0184 PRIOR TO COMPLETING THE STRUCTURE APPROACH WORK.



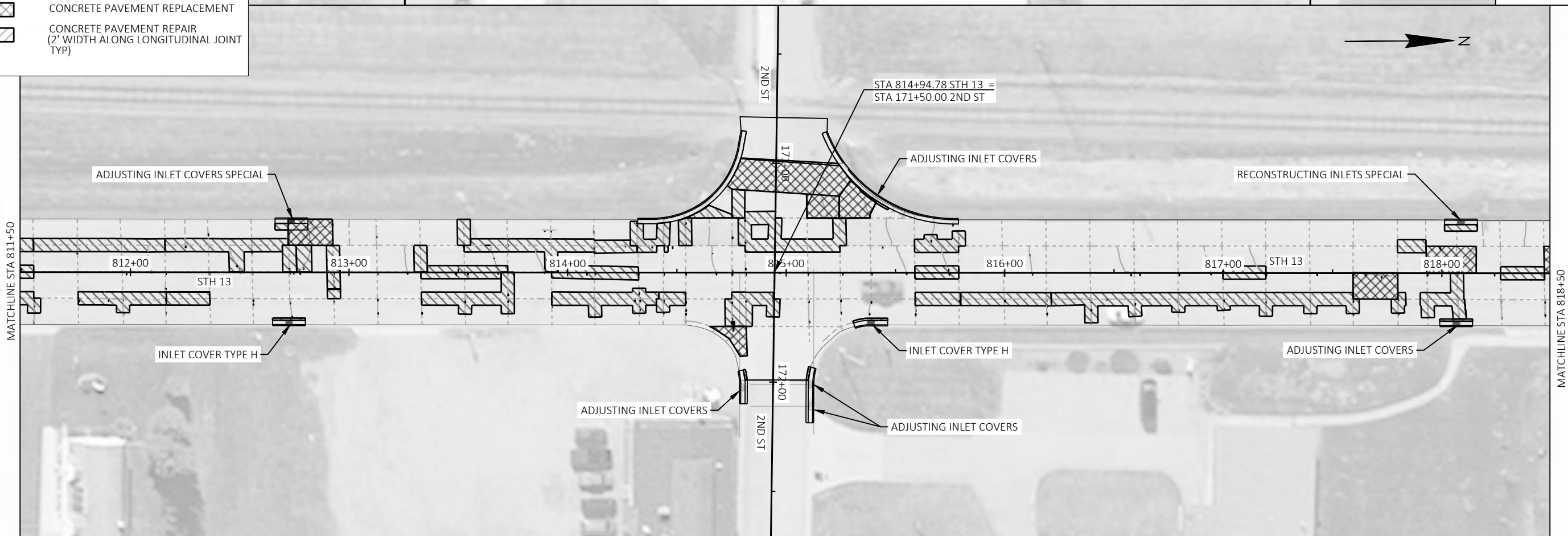
**NOTE:**  
 ELEVATIONS ARE AT CENTERLINE OF ROADWAY AND FLOW LINE OF INTEGRAL CURB AND GUTTER UNLESS NOTED WITH A \*.  
 ELEVATIONS NOTED WITH A \* (I.E. XXX+XX\*) ARE AT FLAG LINE OF E. SALTER ROAD CURB AND GUTTER  
 STA. 809+50 PAVEMENT GRADES ARE AT CENTERLINE, LANE LINE AND FLOW LINE.

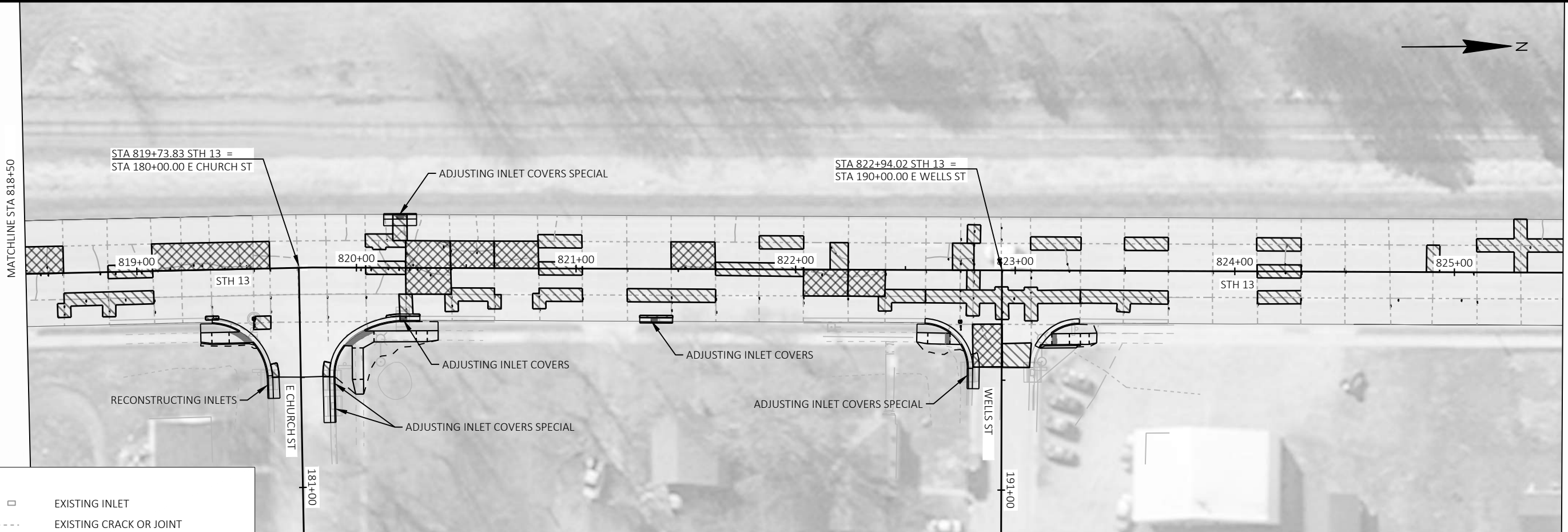


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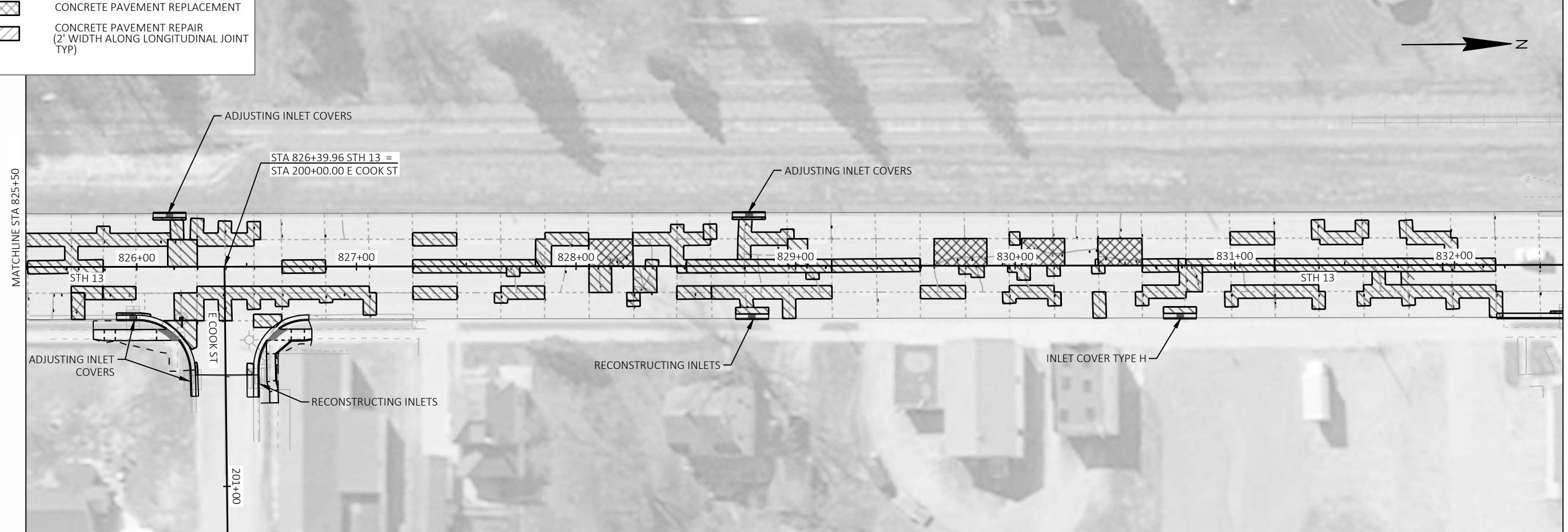
STATION & OFFSET TABLE									
POINT	ALIGNMENT	STATION	OFFSET	ALIGNMENT	STATION	OFFSET	Y COORDS	X COORDS	RADIUS
1	STH 13	806+07.11	54.50 RT	SALTER ROAD	150+55.05	44.23 RT	160310.08	103442.19	32.5'
2	STH 13	806+99.70	54.50 RT	SALTER ROAD	150+53.90	48.35 LT	160402.65	103440.88	32.5'



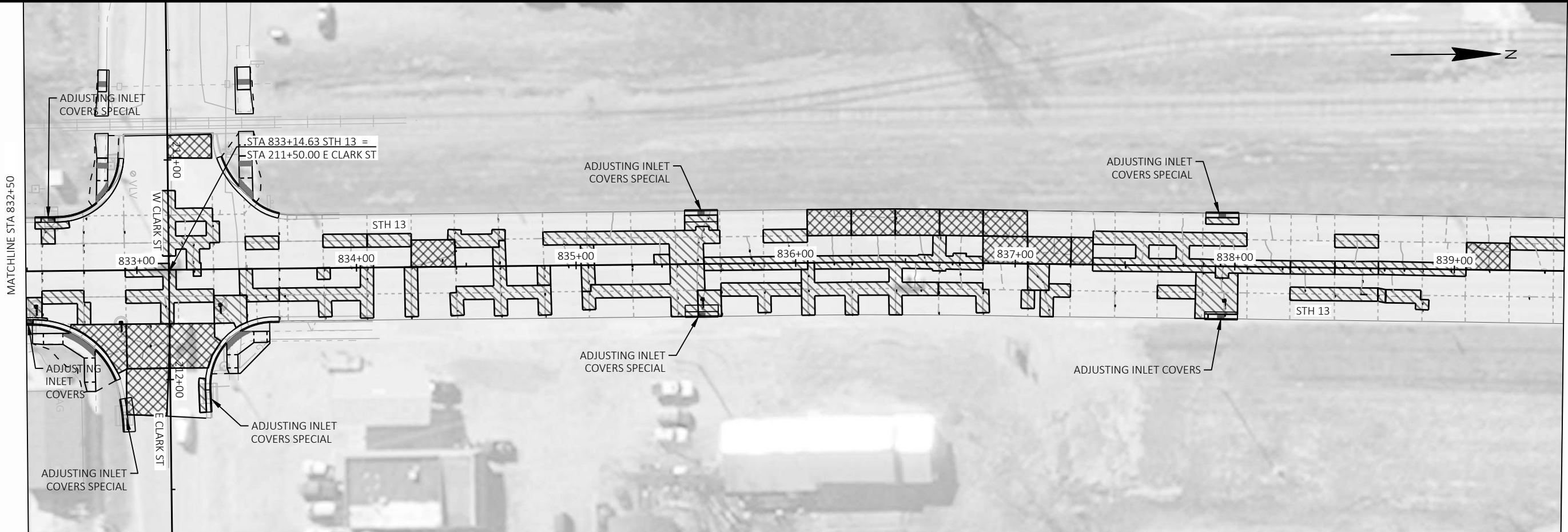


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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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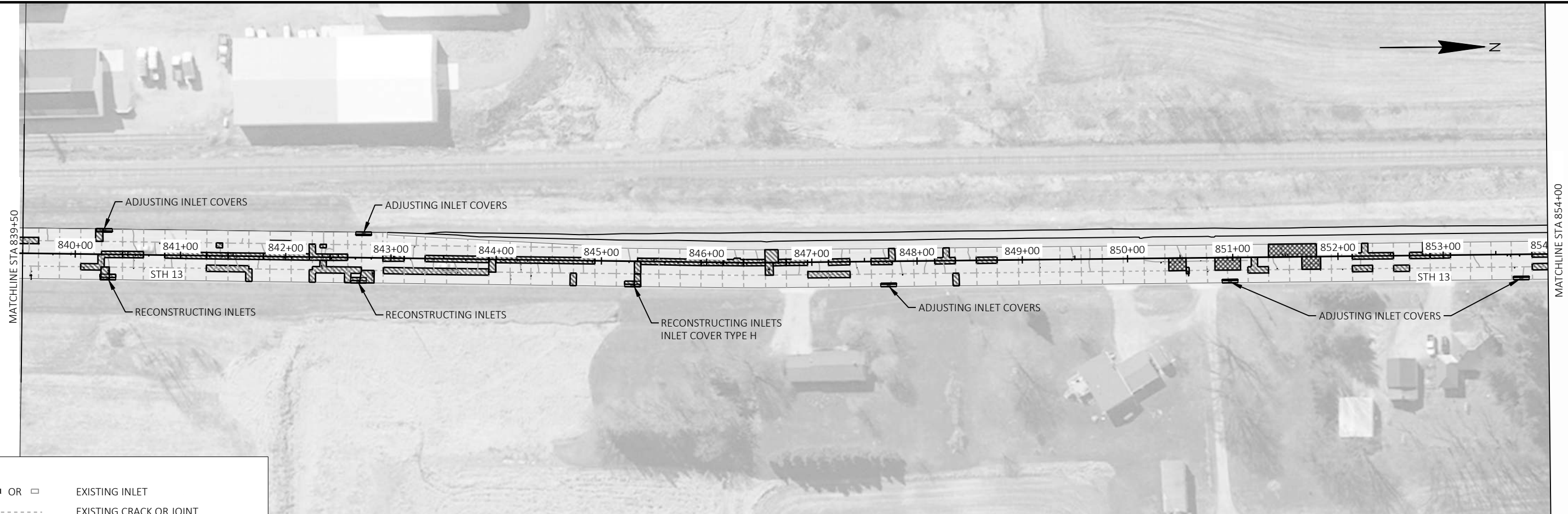


**LEGEND**

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▩	CONCRETE PAVEMENT REPAIR (2' WIDTH ALONG LONGITUDINAL JOINT TYP)

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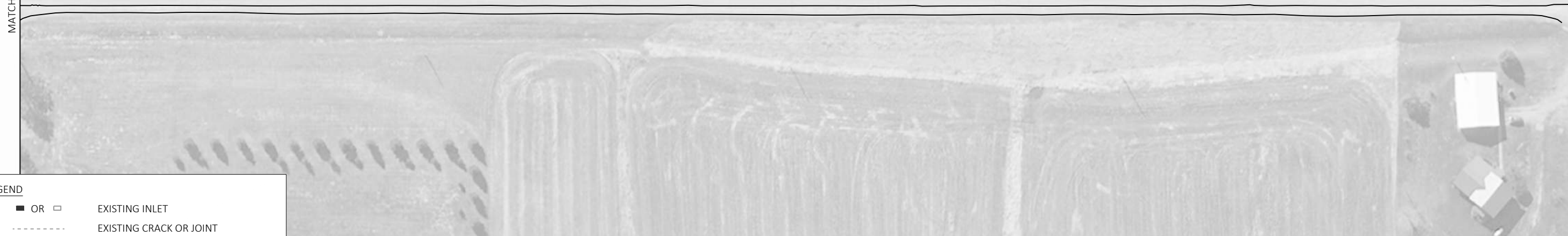
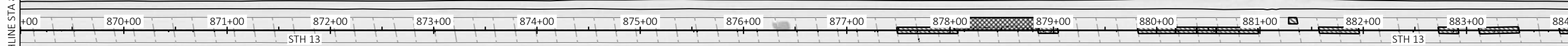
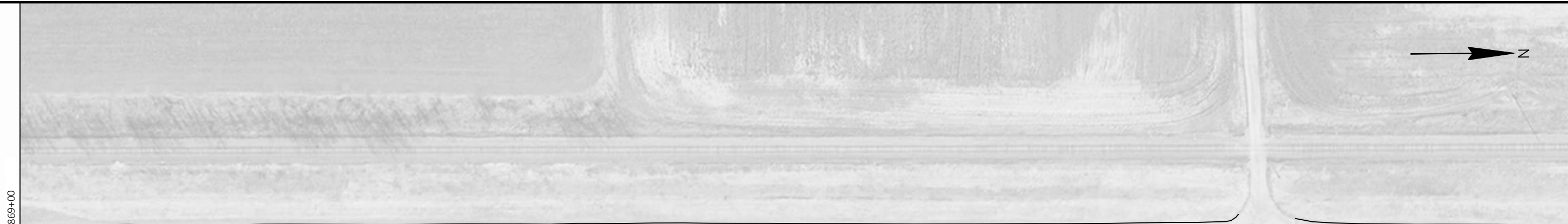
**LEGEND**

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- ▨ CONCRETE PAVEMENT REPLACEMENT
- ▧ CONCRETE PAVEMENT REPAIR (2' WIDTH ALONG LONGITUDINAL JOINT TYP)



2

2



**LEGEND**

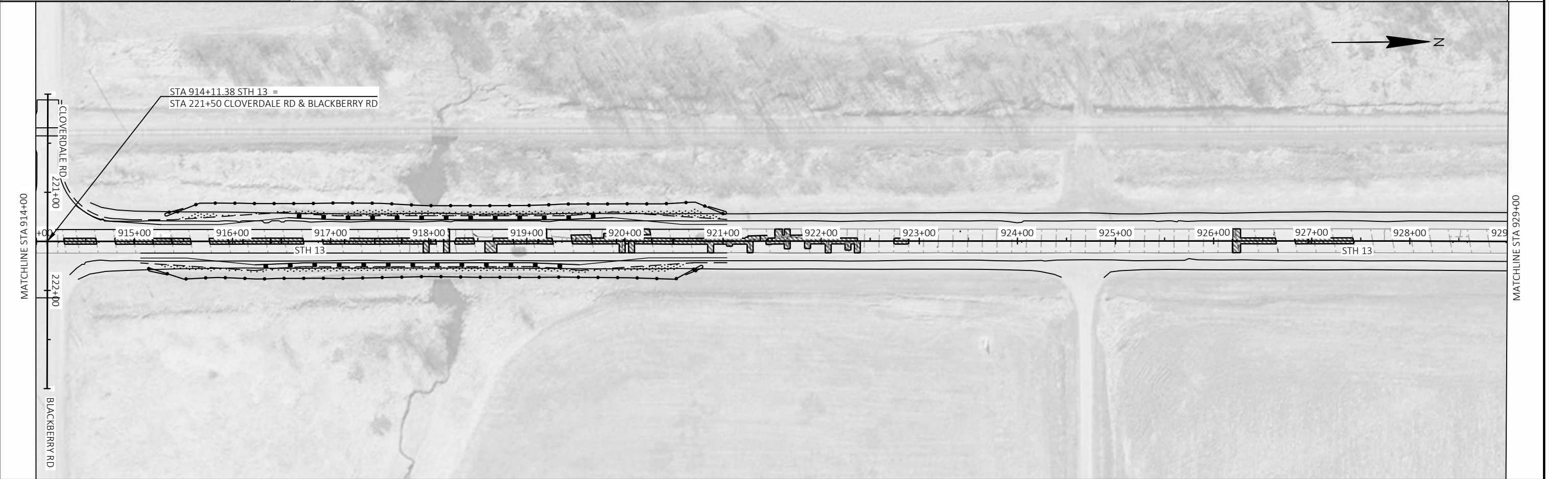
- OR □ EXISTING INLET
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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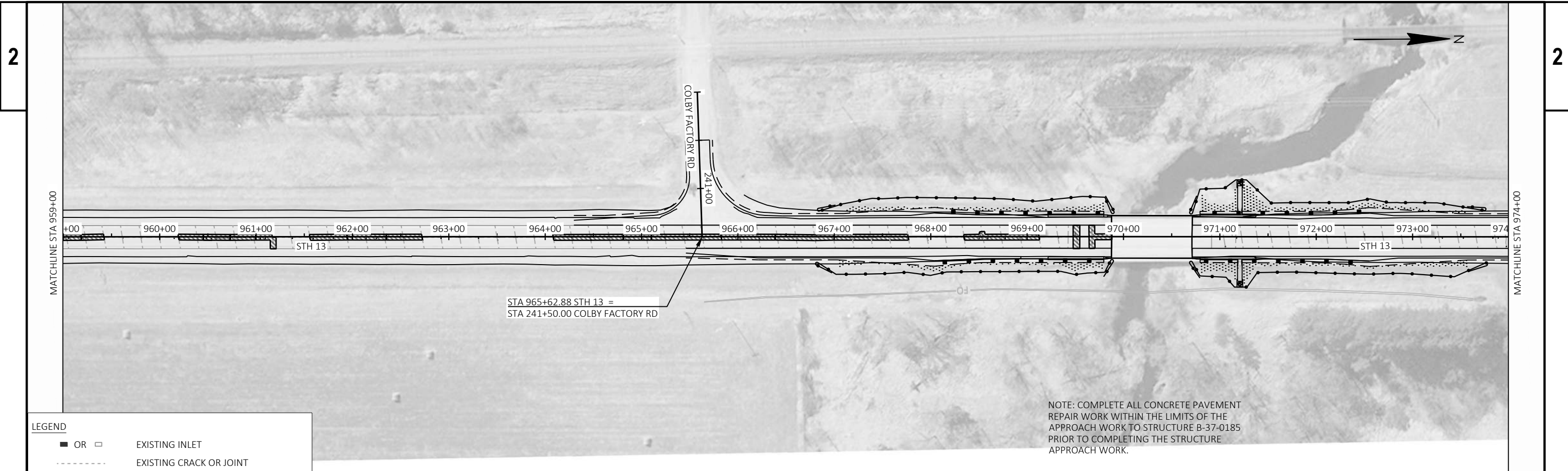




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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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**LEGEND**

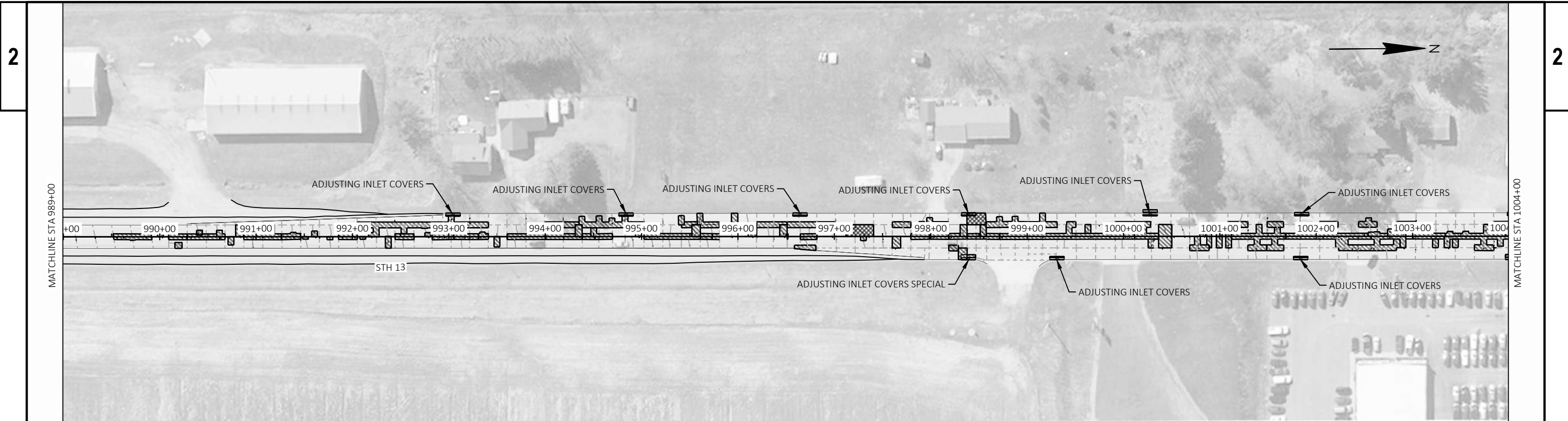
- OR □ EXISTING INLET
- EXISTING CRACK OR JOINT
- ▨ CONCRETE PAVEMENT REPLACEMENT
- ▧ CONCRETE PAVEMENT REPAIR (2' WIDTH ALONG LONGITUDINAL JOINT TYP)

NOTE: COMPLETE ALL CONCRETE PAVEMENT REPAIR WORK WITHIN THE LIMITS OF THE APPROACH WORK TO STRUCTURE B-37-0185 PRIOR TO COMPLETING THE STRUCTURE APPROACH WORK.



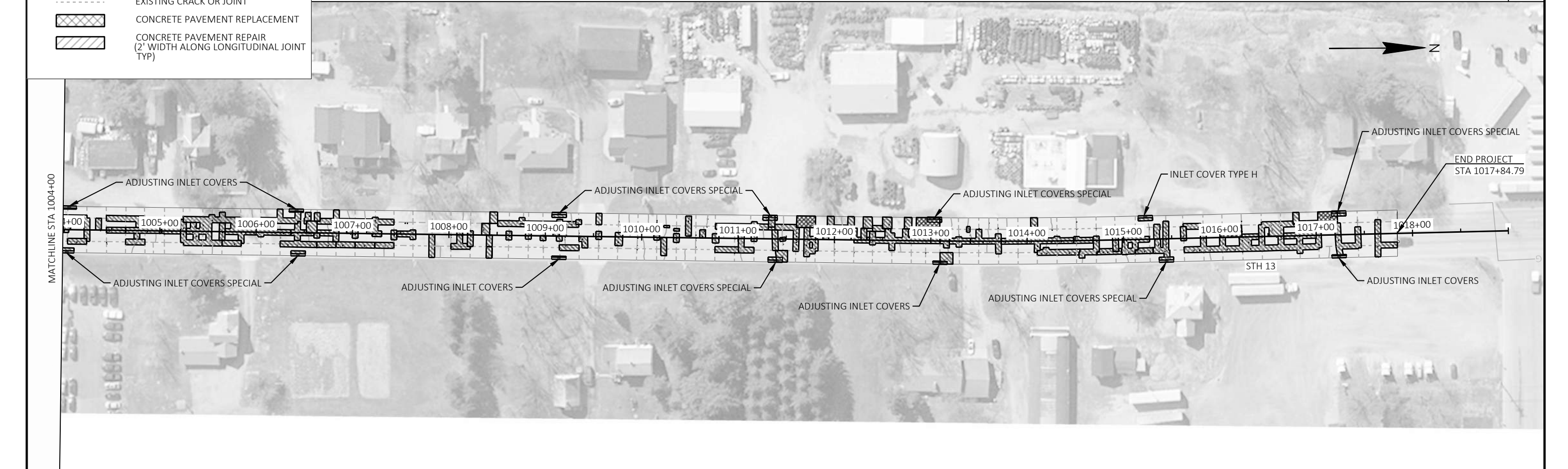
PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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**LEGEND**

■ OR □	EXISTING INLET
---	EXISTING CRACK OR JOINT
▨	CONCRETE PAVEMENT REPLACEMENT
▧	CONCRETE PAVEMENT REPAIR (2' WIDTH ALONG LONGITUDINAL JOINT TYP)



PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN DETAILS - PAVEMENT	SHEET	<b>E</b>
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STH 13 & Main St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
01	482+44.56	28.27' R	1311.06	129003.69	108229.24
02	482+49.66	27.68' R	1310.97	129008.75	108228.40
03	482+54.66	27.71' R	1310.89	129013.75	108228.20
04	482+64.59	27.78' R	1310.20	129023.67	108227.81
05	482+69.75	27.81' R	1310.12	129028.82	108227.60
06	482+76.79	34.14' R	1310.11	129036.16	108233.60
07	482+75.07	35.45' R	1310.14	129034.49	108234.99
08	482+75.00	38.50' R	1310.19	129034.57	108238.04
09	482+74.86	44.50' R	1310.61	129034.71	108244.04
10	482+74.75	49.50' R	1310.68	129034.83	108249.04
11	482+74.69	53.35' R	1310.87	129034.94	108252.88
12	482+70.53	53.31' R	1310.94	129030.79	108253.03
13	482+69.75	49.39' R	1310.76	129029.83	108249.15
14	482+69.87	44.39' R	1310.68	129029.71	108244.16
15	482+70.00	38.39' R	1310.26	129029.57	108238.16
16	482+64.54	32.77' R	1310.27	129023.86	108232.80
17	482+54.61	32.67' R	1310.97	129013.93	108233.16
18	482+49.61	32.63' R	1311.05	129008.93	108233.35
19	482+44.55	32.58' R	1311.26	129003.87	108233.54
20	482+57.23	24.23' R	1310.66	129016.16	108224.61

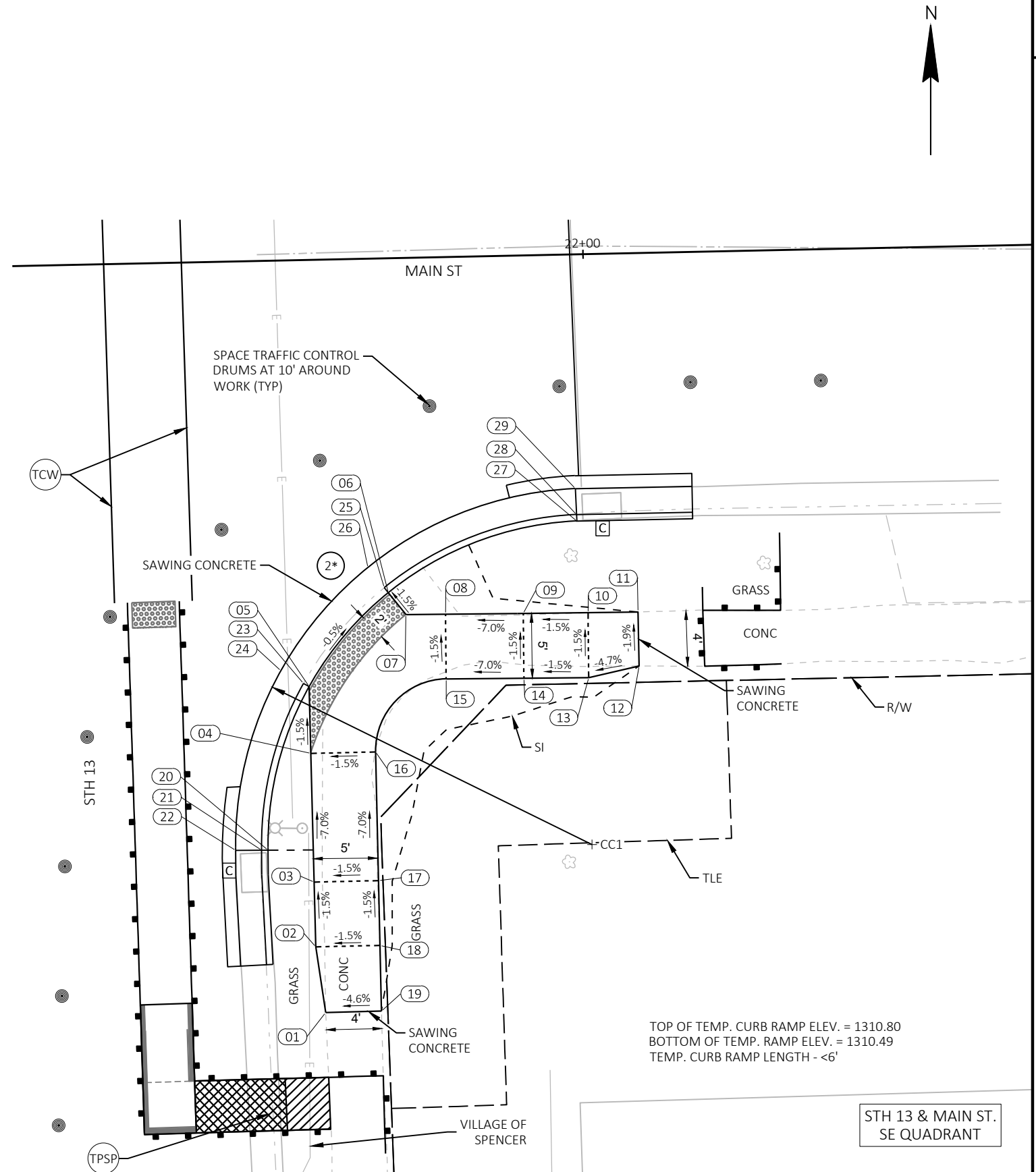
STH 13 & Main St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
21	482+57.24	23.73' R	1310.14	129016.15	108224.11
22	482+57.29	21.73' R	1310.26	129016.10	108222.11
23	482+70.01	27.38' R	1310.12	129029.06	108227.16
24	482+71.04	25.67' R	1310.20	129030.01	108225.40
25	482+77.19	33.84' R	1310.08	129036.54	108233.28
26	482+78.79	32.63' R	1310.16	129038.08	108232.00
27	482+81.86	48.86' R	1310.39	129041.90	108248.07
28	482+82.36	48.85' R	1309.92	129042.40	108248.04
29	482+84.36	48.82' R	1310.08	129044.40	108247.91

LEGEND

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  
 MATTING PLATE
- (TCW) TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	482+56.86 - STH 13 21+99.75 - MAIN ST.	49.2' RT 45.6' RT	27.5'	Y = 129016.95 X = 108249.60

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/MAIN ST. SE QUAD	25.0	12.0	22.6	9.7



TOP OF TEMP. CURB RAMP ELEV. = 1310.80  
 BOTTOM OF TEMP. RAMP ELEV. = 1310.49  
 TEMP. CURB RAMP LENGTH - <6'

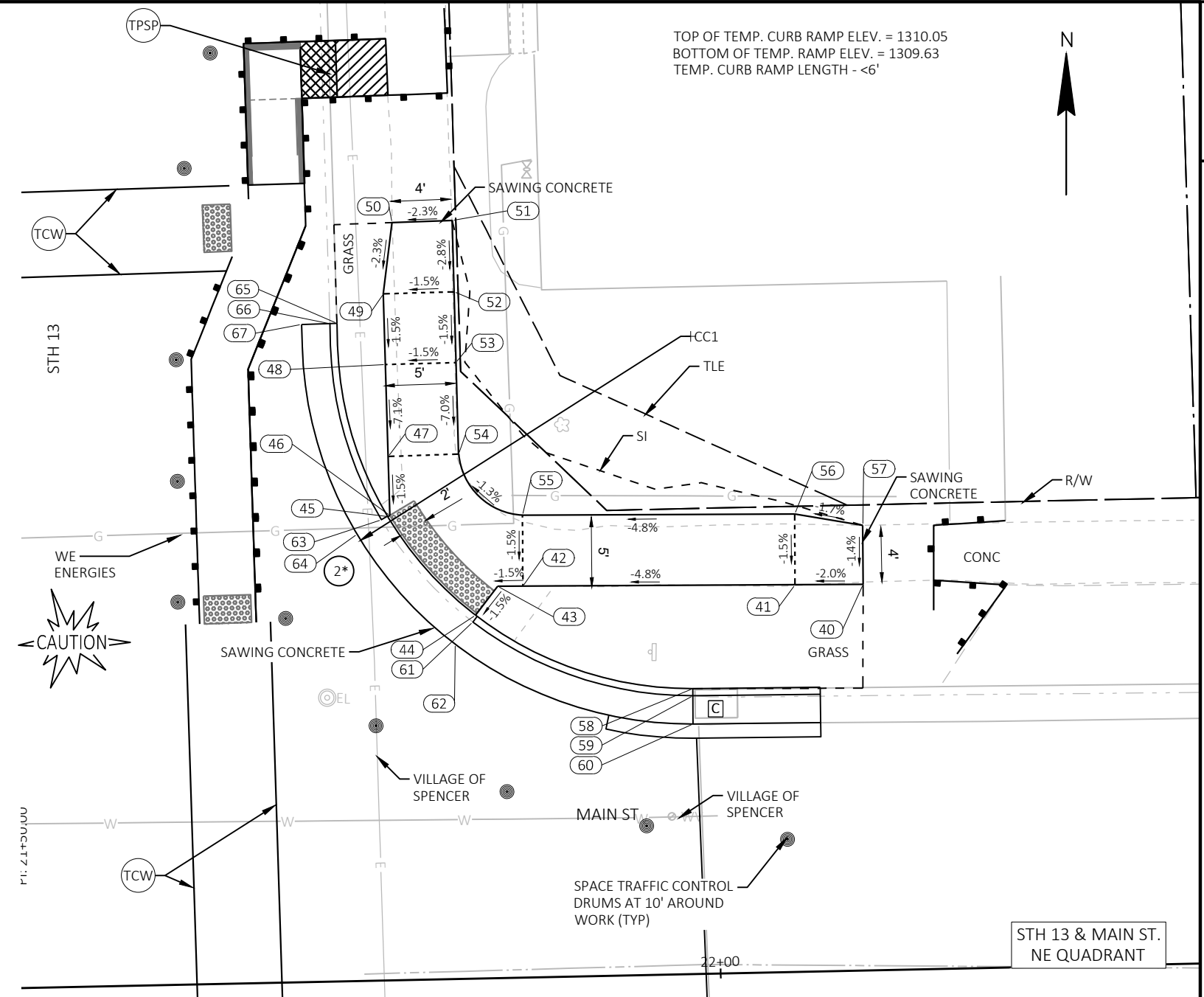
STH 13 & MAIN ST.  
SE QUADRANT

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	483+47.58 - STH 13 21+98.87 - MAIN ST.	49.4' RT 45.2' LT	27.5'	Y = 129107.58 X = 108245.52

LEGEND

- # INLET PROTECTION TYPE #
- XXX CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE  
 MATTING PLATE
- TCW TEMPORARY MARKING CROSSWALK  
 REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE  
 WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



STH 13 & Main St - NE Quad

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
40	483+29.57	60.93' R	1310.94	129090.12	108257.91
41	483+29.70	56.12' R	1310.84	129090.02	108253.10
42	483+30.21	36.91' R	1309.92	129089.65	108233.88
43	483+30.26	35.13' R	1309.88	129089.61	108232.11
44	483+28.27	33.50' R	1309.83	129087.55	108230.57
45	483+35.42	27.53' R	1309.76	129094.42	108224.27
46	483+35.51	27.68' R	1309.76	129094.51	108224.42
47	483+39.67	27.69' R	1309.83	129098.66	108224.24
48	483+46.17	27.70' R	1310.28	129105.16	108223.95
49	483+51.16	27.72' R	1310.35	129110.15	108223.73
50	483+56.17	28.49' R	1310.47	129115.18	108224.27
51	483+56.19	32.74' R	1310.57	129115.40	108228.51
52	483+51.14	32.72' R	1310.43	129110.36	108228.72
53	483+46.15	32.69' R	1310.35	129105.37	108228.93

STH 13 & Main St - NE Quad

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
54	483+39.69	32.67' R	1309.90	129098.92	108229.20
55	483+35.22	37.04' R	1309.99	129094.66	108233.78
56	483+34.69	56.26' R	1310.92	129095.02	108253.00
57	483+33.74	61.04' R	1311.00	129094.29	108257.82
58	483+22.59	48.67' R	1310.34	129082.58	108245.99
59	483+22.09	48.66' R	1309.86	129082.08	108246.00
60	483+20.10	48.60' R	1309.98	129080.08	108246.03
61	483+27.79	33.29' R	1309.83	129087.06	108230.38
62	483+26.27	32.00' R	1309.91	129085.48	108229.16
63	483+35.22	27.07' R	1309.76	129094.20	108223.82
64	483+34.26	25.32' R	1309.84	129093.15	108222.12
65	483+49.18	24.37' R	1310.11	129108.01	108220.48
66	483+49.18	23.87' R	1309.66	129107.99	108219.98
67	483+49.18	21.87' R	1309.75	129107.90	108217.98

RADIAL WARNING FIELD PANEL LAYOUT TABLE

QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/MAIN ST. NE QUAD	25.0	7.1	17.9	9.3

PROJECT NO: 1620-01-62

HWY: STH 13

COUNTY: MARATHON

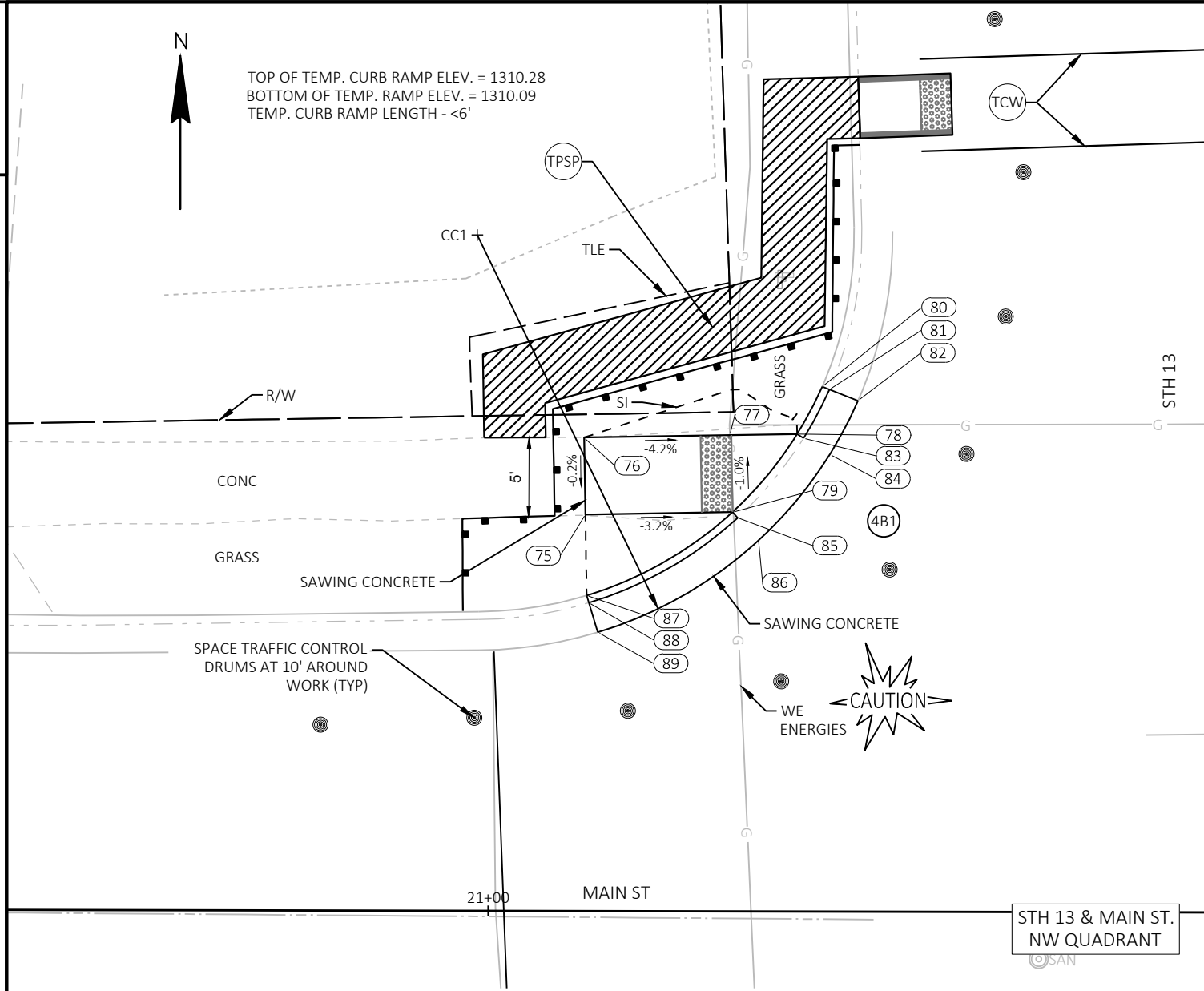
CURB RAMP DETAILS

SHEET

E



TOP OF TEMP. CURB RAMP ELEV. = 1310.28  
BOTTOM OF TEMP. RAMP ELEV. = 1310.09  
TEMP. CURB RAMP LENGTH - <6'



RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	483+48.64 - STH 13 20+99.93 - MAIN ST.	49.3' LT 44.8' LT	27.0'	Y = 129104.05 X = 108146.93

LEGEND

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  
[Hatched Box] MATTING [Cross-hatched Box] PLATE
- (TCW) TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- [Shaded Box] TEMPORARY CURB RAMP
- [Dotted Box] TEMPORARY DETECTABLE WARNING FIELD
- [Black Bar] TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

STH 13 & Main St - NW Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
75	483+30.25	42.84' L	1310.24	129085.98	108154.22
76	483+35.25	42.76' L	1310.25	129090.98	108154.06
77	483+35.09	33.28' L	1309.84	129091.26	108163.54
78	483+35.02	28.91' L	1309.78	129091.39	108167.91
79	483+30.09	33.28' L	1309.91	129086.27	108163.78
80	483+38.06	27.18' L	1310.23	129094.51	108169.50
81	483+37.86	26.72' L	1309.73	129094.33	108169.96
82	483+37.07	24.89' L	1309.81	129093.63	108171.83
83	483+34.74	28.50' L	1309.78	129091.13	108168.33
84	483+33.63	26.84' L	1309.86	129090.10	108170.05
85	483+29.71	32.95' L	1309.89	129085.90	108164.12
86	483+28.20	31.64' L	1309.97	129084.45	108165.50
87	483+24.98	42.93' L	1310.42	129080.71	108154.37
88	483+24.50	42.80' L	1310.00	129080.24	108154.53
89	483+22.57	42.28' L	1310.11	129078.33	108155.13

RADIUS POINT TABLE

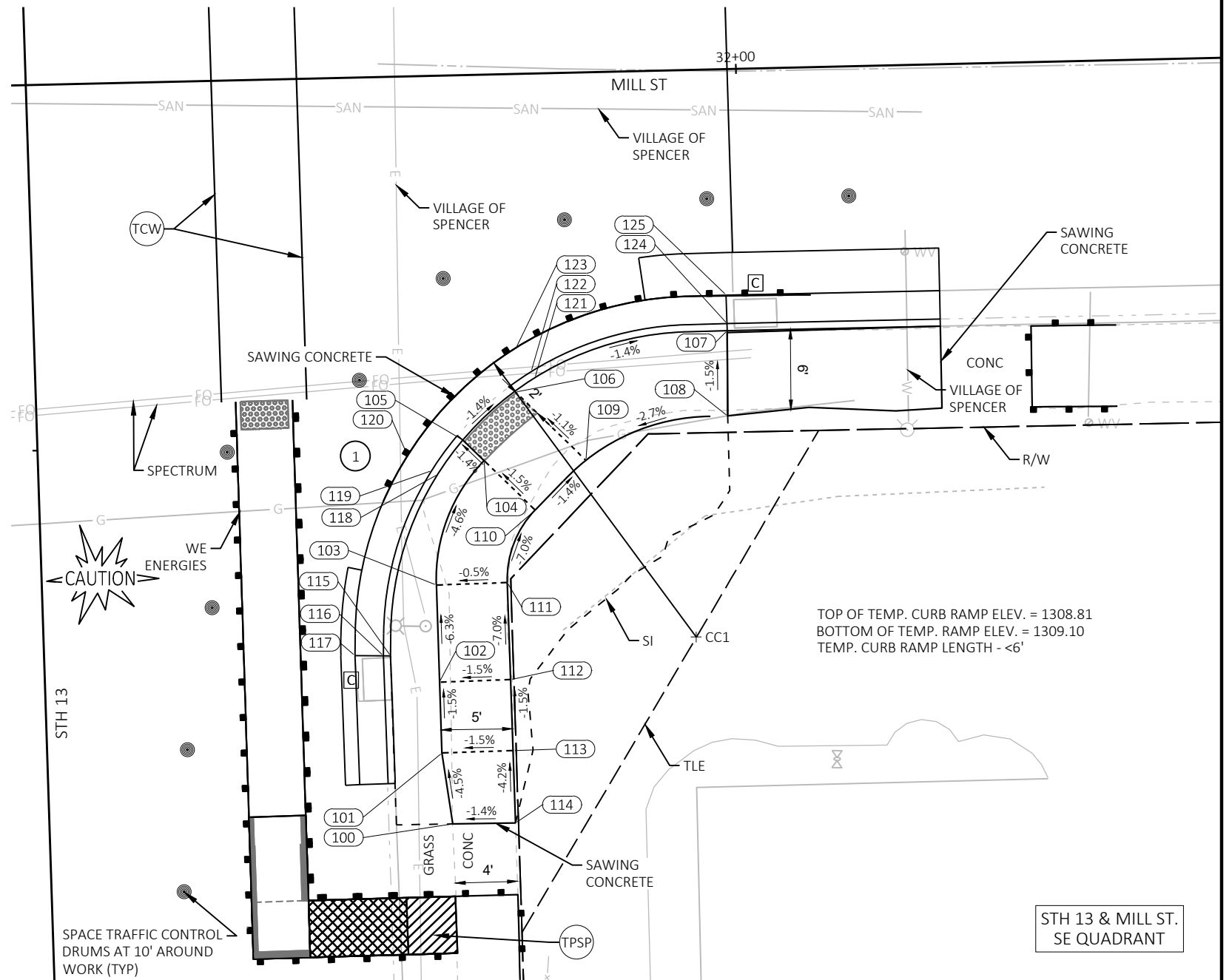
STH 13 & Mill St - SE Quad

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	485+35.39 - STH 13 31+96.29 - MILL ST.	45.9' RT 40.2' RT	24.0'	Y = 129295.02 X = 108233.35

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
100	485+22.79	28.38' R	1309.53	129281.62	108216.41
101	485+27.81	27.77' R	1309.30	129286.61	108215.58
102	485+32.80	27.75' R	1309.23	129291.59	108215.32
103	485+39.64	27.76' R	1308.80	129298.43	108215.01
104	485+48.28	31.40' R	1308.36	129307.22	108218.25
105	485+49.77	29.96' R	1308.33	129308.64	108216.74
106	485+53.04	33.76' R	1308.28	129312.09	108220.38
107	485+56.89	48.79' R	1308.54	129316.63	108235.22
108	485+50.88	48.63' R	1308.65	129310.62	108235.34
109	485+48.08	38.56' R	1308.36	129307.36	108225.41
110	485+44.69	34.88' R	1308.43	129303.80	108221.89
111	485+39.65	32.76' R	1308.82	129298.67	108220.00
112	485+32.82	32.75' R	1309.30	129291.84	108220.32
113	485+27.82	32.77' R	1309.38	129286.85	108220.57
114	485+22.72	32.78' R	1309.59	129281.76	108220.81
115	485+34.75	24.37' R	1308.93	129293.38	108211.85
116	485+34.79	23.87' R	1308.43	129293.39	108211.35
117	485+34.86	21.87' R	1308.56	129293.38	108209.35
118	485+47.42	28.10' R	1308.64	129306.21	108214.99
119	485+47.70	27.68' R	1308.37	129306.47	108214.56
120	485+48.82	26.03' R	1308.49	129307.51	108212.86
121	485+54.00	35.15' R	1308.47	129313.11	108221.73
122	485+54.43	34.90' R	1308.23	129313.53	108221.46
123	485+56.16	33.90' R	1308.36	129315.21	108220.38
124	485+57.39	48.79' R	1308.04	129317.13	108235.19
125	485+59.39	48.79' R	1308.17	129319.13	108235.10

LEGEND

- # INLET PROTECTION TYPE #
- XXX CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN SURFACE: MATTING (diagonal lines), PLATE (cross-hatch)
- TCW TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP (solid rectangle)
- TEMPORARY DETECTABLE WARNING FIELD (dotted pattern)
- TEMPORARY PEDESTRIAN BARRICADE (dashed line)
- TRAFFIC CONTROL DRUMS



RADIUS POINT TABLE

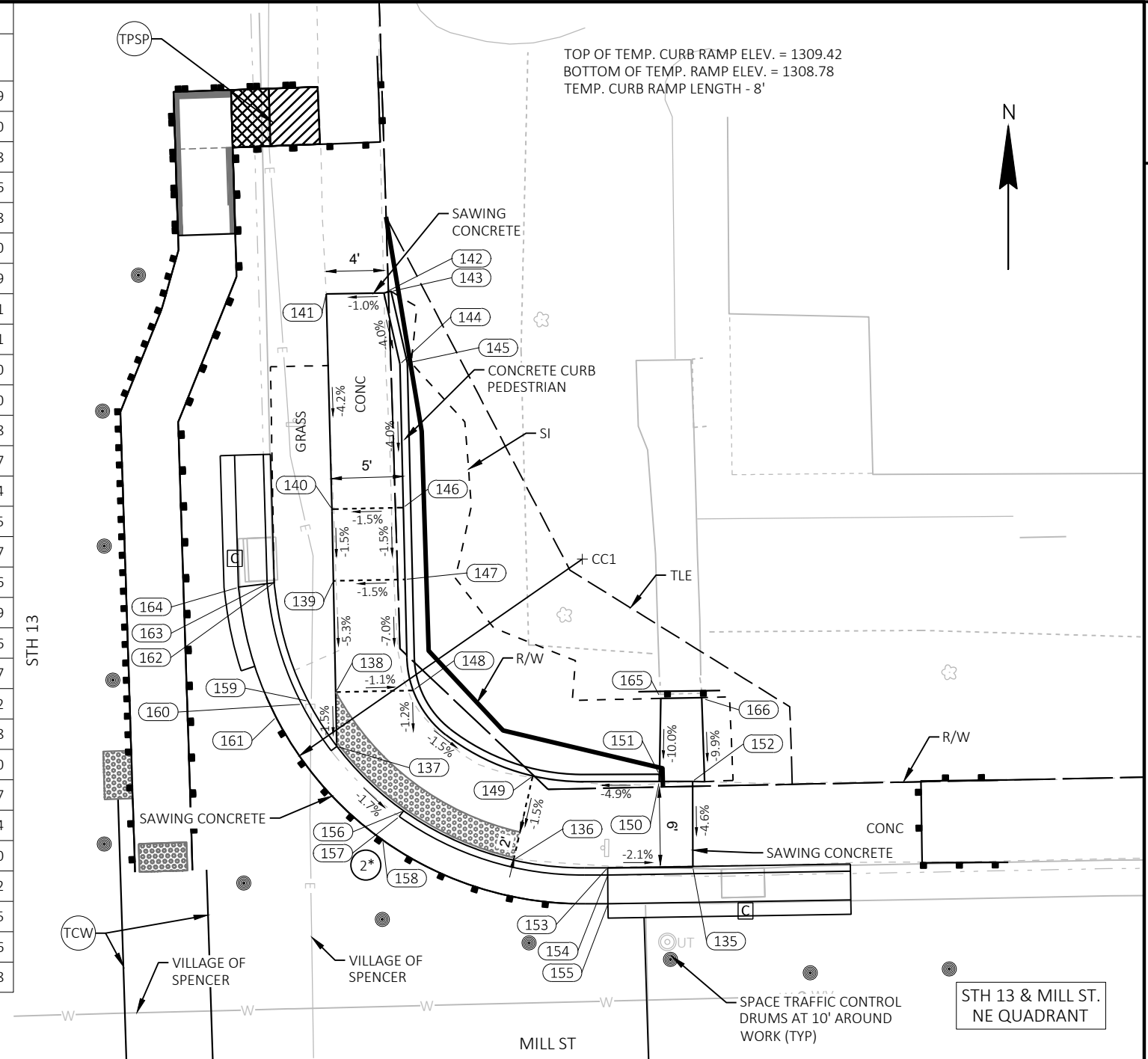
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	486+15.74 - STH 13 31+95.53 - MILL ST.	45.9' RT 40.2' LT	24.0'	Y = 129375.28 X = 108229.59

STH 13 & Mill St - NE Quad

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
135	485+94.06	52.89' R	1308.37	129353.95	108237.59
136	485+94.95	40.43' R	1308.10	129354.27	108225.10
137	486+03.25	28.39' R	1308.35	129362.00	108212.68
138	486+07.04	28.44' R	1308.41	129365.78	108212.56
139	486+14.78	28.52' R	1308.82	129373.52	108212.28
140	486+19.78	28.58' R	1308.89	129378.51	108212.10
141	486+34.76	28.66' R	1309.53	129393.48	108211.49
142	486+34.70	32.68' R	1309.57	129393.61	108215.51
143	486+34.80	33.18' R	1309.57	129393.73	108216.01
144	486+29.72	33.64' R	1309.36	129388.68	108216.70
145	486+29.77	34.15' R	1309.81	129388.75	108217.20
146	486+19.72	33.55' R	1308.97	129378.69	108217.08
147	486+14.72	33.51' R	1308.89	129373.69	108217.27
148	486+06.98	33.83' R	1308.35	129365.97	108217.94
149	486+00.74	41.95' R	1308.19	129360.12	108226.35
150	486+00.09	50.75' R	1308.62	129359.88	108235.17
151	486+00.60	50.77' R	1308.62	129360.39	108235.16
152	486+00.02	53.07' R	1308.64	129359.92	108237.49
153	485+94.20	46.97' R	1308.49	129353.82	108231.66
154	485+93.70	46.96' R	1307.99	129353.32	108231.67
155	485+91.71	46.91' R	1308.12	129351.32	108231.72
156	485+98.62	32.88' R	1308.24	129357.58	108217.38
157	485+98.23	32.58' R	1308.24	129357.17	108217.10
158	485+96.63	31.37' R	1308.37	129355.52	108215.97
159	486+06.47	26.49' R	1308.92	129365.13	108210.64
160	486+06.26	26.04' R	1308.42	129364.89	108210.20
161	486+05.42	24.23' R	1308.54	129363.97	108208.42
162	486+14.78	24.39' R	1309.06	129373.33	108208.15
163	486+14.73	23.89' R	1308.56	129373.26	108207.66
164	486+14.55	21.90' R	1308.68	129372.98	108205.68

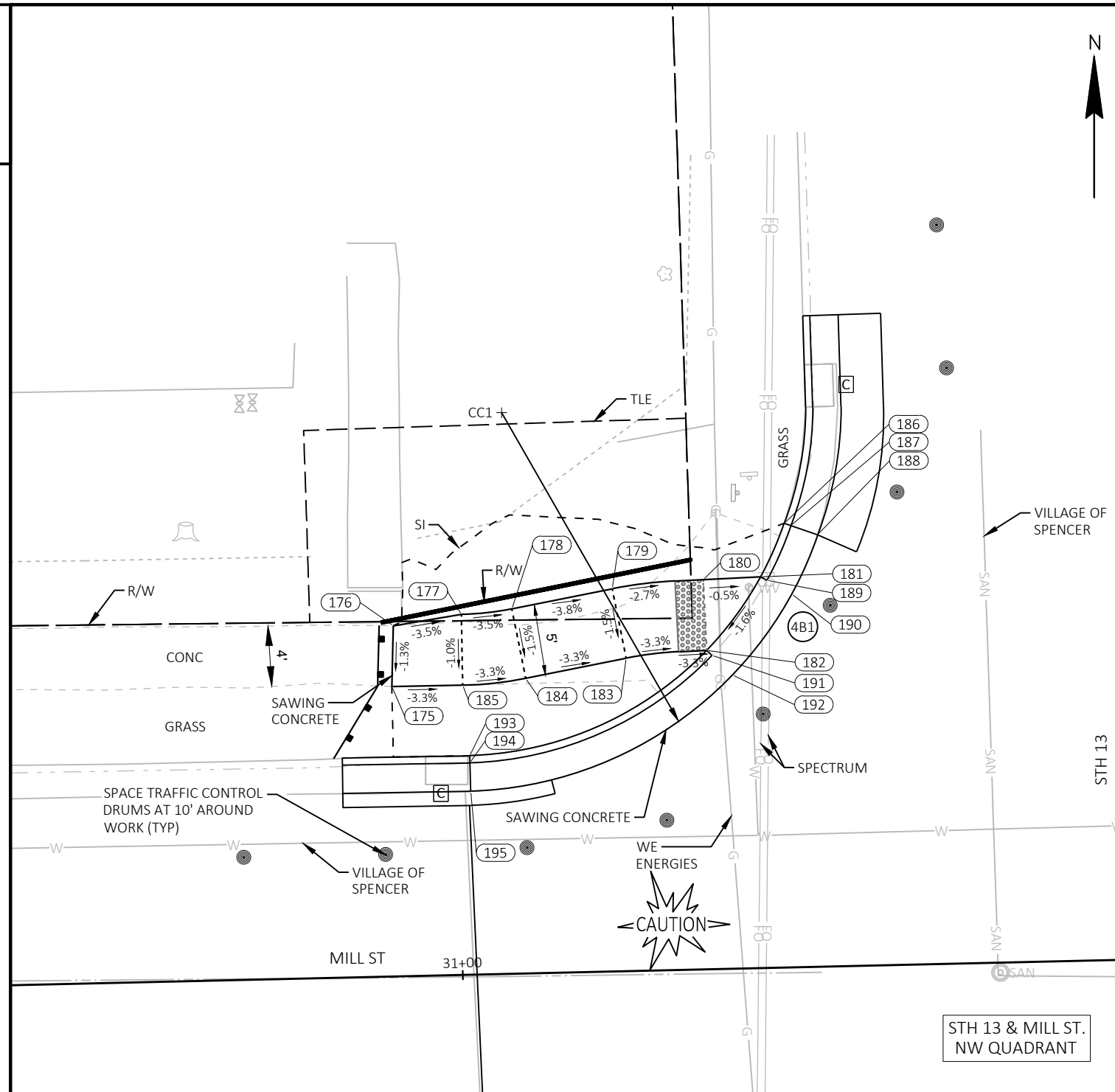
LEGEND

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE
- MATting MATTING
- PLATE PLATE
- (TCW) TEMPORARY MARKING CROSSWALK
- REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/MILL ST. NE QUAD	21.5	11.8	28.9	14.6





STH 13 & MILL ST.  
NW QUADRANT

STH 13 & Mill St - NW Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
175	485+96.73	54.36' L	1309.03	129351.64	108130.33
176	486+01.02	54.12' L	1309.08	129355.93	108130.37
177	486+01.66	49.28' L	1308.91	129356.80	108135.17
178	486+01.94	45.71' L	1308.79	129357.24	108138.72
179	486+03.13	38.58' L	1308.55	129358.76	108145.80
180	486+03.57	32.12' L	1308.36	129359.50	108152.22
181	486+03.64	28.08' L	1308.39	129359.76	108156.26
182	485+98.57	32.04' L	1308.29	129354.51	108152.54
183	485+98.20	37.75' L	1308.48	129353.87	108146.85
184	485+97.00	44.89' L	1308.72	129352.35	108139.78
185	485+96.67	49.35' L	1308.86	129351.80	108135.33
186	486+07.36	26.30' L	1308.93	129363.56	108157.87
187	486+07.18	25.83' L	1308.43	129363.40	108158.34
188	486+06.48	23.96' L	1308.56	129362.79	108160.24
189	486+03.38	27.64' L	1308.39	129359.52	108156.70
190	486+02.37	25.92' L	1308.52	129358.59	108158.47
191	485+98.21	31.69' L	1308.29	129354.17	108152.90
192	485+96.78	30.29' L	1308.41	129352.81	108154.36
193	485+91.67	49.02' L	1308.58	129346.83	108135.90
194	485+91.17	49.02' L	1308.08	129346.33	108135.92
195	485+89.17	49.02' L	1308.20	129344.33	108136.01

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	486+15.92 - STH 13 31+00.65 - MILL ST.	49.0' LT 39.5' LT	26.75'	Y = 129371.05 X = 108134.80

LEGEND

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  
[diagonal lines] MATTING [cross-hatch] PLATE
- (TCW) TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- [rectangle with border] TEMPORARY CURB RAMP
- [dotted pattern] TEMPORARY DETECTABLE WARNING FIELD
- [barricade symbol] TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	488+02.40 - STH 13 41+98.57 - PINE ST.	48.3' RT 39.1' RT	26.0'	Y = 129561.85 X = 108223.24

STH 13 & Pine St - SE Quad

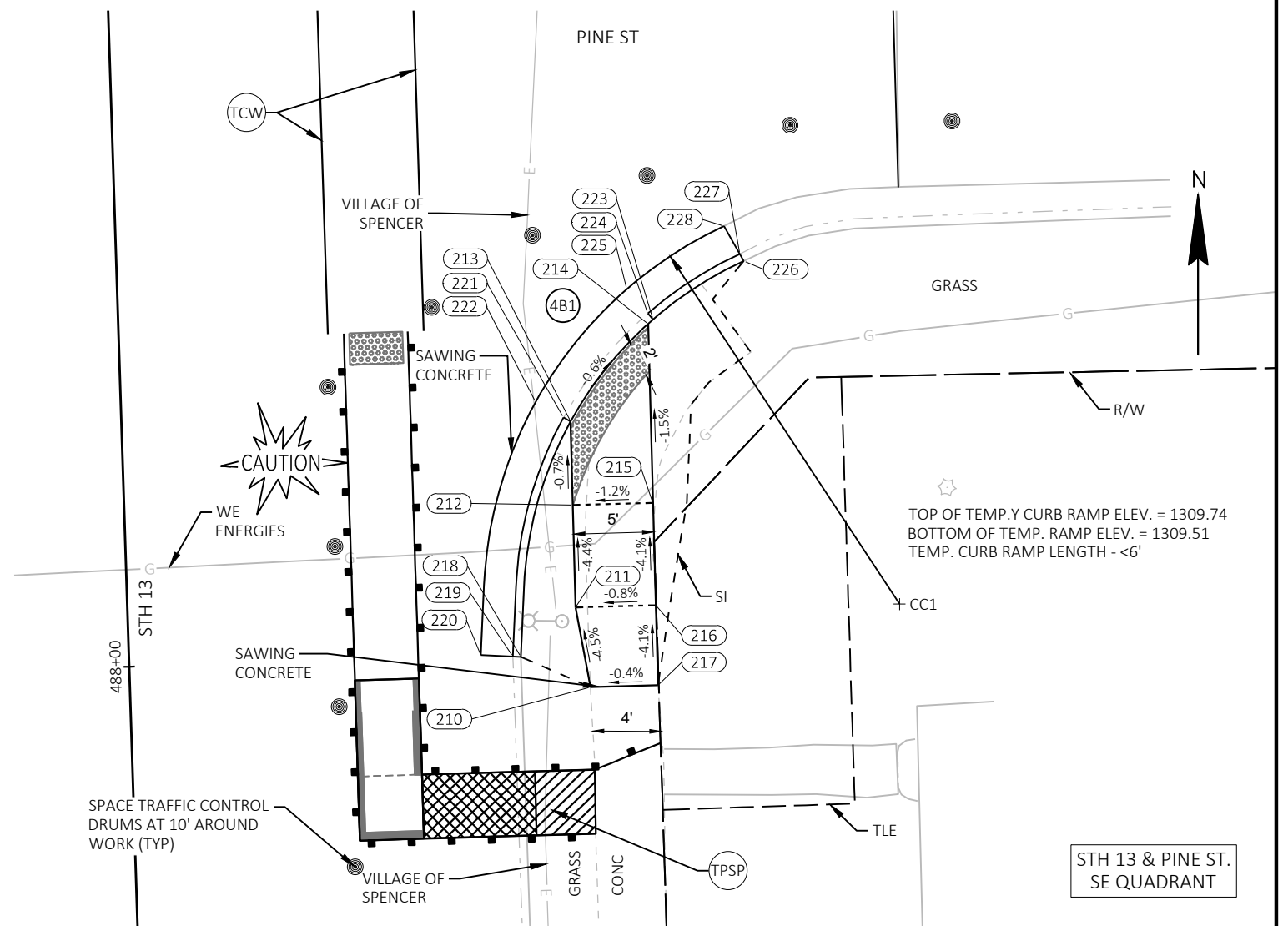
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
210	487+97.80	28.74' R	1309.69	129556.35	108203.99
211	488+02.80	27.97' R	1309.46	129561.31	108203.00
212	488+09.20	28.00' R	1309.18	129567.70	108202.73
213	488+14.42	28.03' R	1309.11	129572.92	108202.51
214	488+20.35	33.06' R	1309.07	129579.08	108207.26
215	488+09.17	33.00' R	1309.24	129567.91	108207.72
216	488+02.78	32.97' R	1309.50	129561.52	108207.99
217	487+97.78	32.95' R	1309.71	129556.52	108208.20
218	487+99.83	24.46' R	1309.70	129558.18	108199.62
219	487+99.87	23.96' R	1309.20	129558.19	108199.12
220	488+00.02	21.96' R	1309.32	129558.25	108197.12
221	488+14.67	27.60' R	1309.11	129573.15	108202.07
222	488+15.69	25.88' R	1309.23	129574.09	108200.31
223	488+20.62	33.38' R	1309.14	129579.36	108207.57
224	488+21.00	33.06' R	1309.07	129579.73	108207.23
225	488+22.55	31.80' R	1309.20	129581.22	108205.90
226	488+24.08	39.15' R	1309.49	129583.08	108213.17
227	488+24.52	38.92' R	1309.04	129583.52	108212.92
228	488+26.30	37.99' R	1309.17	129585.25	108211.91

RADIAL WARNING FIELD PANEL LAYOUT TABLE

QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/PINE ST. SE QUAD	23.5	11.2	17.3	7.9

LEGEND

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  
 MATTING PLATE
- (TCW) TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



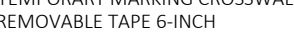





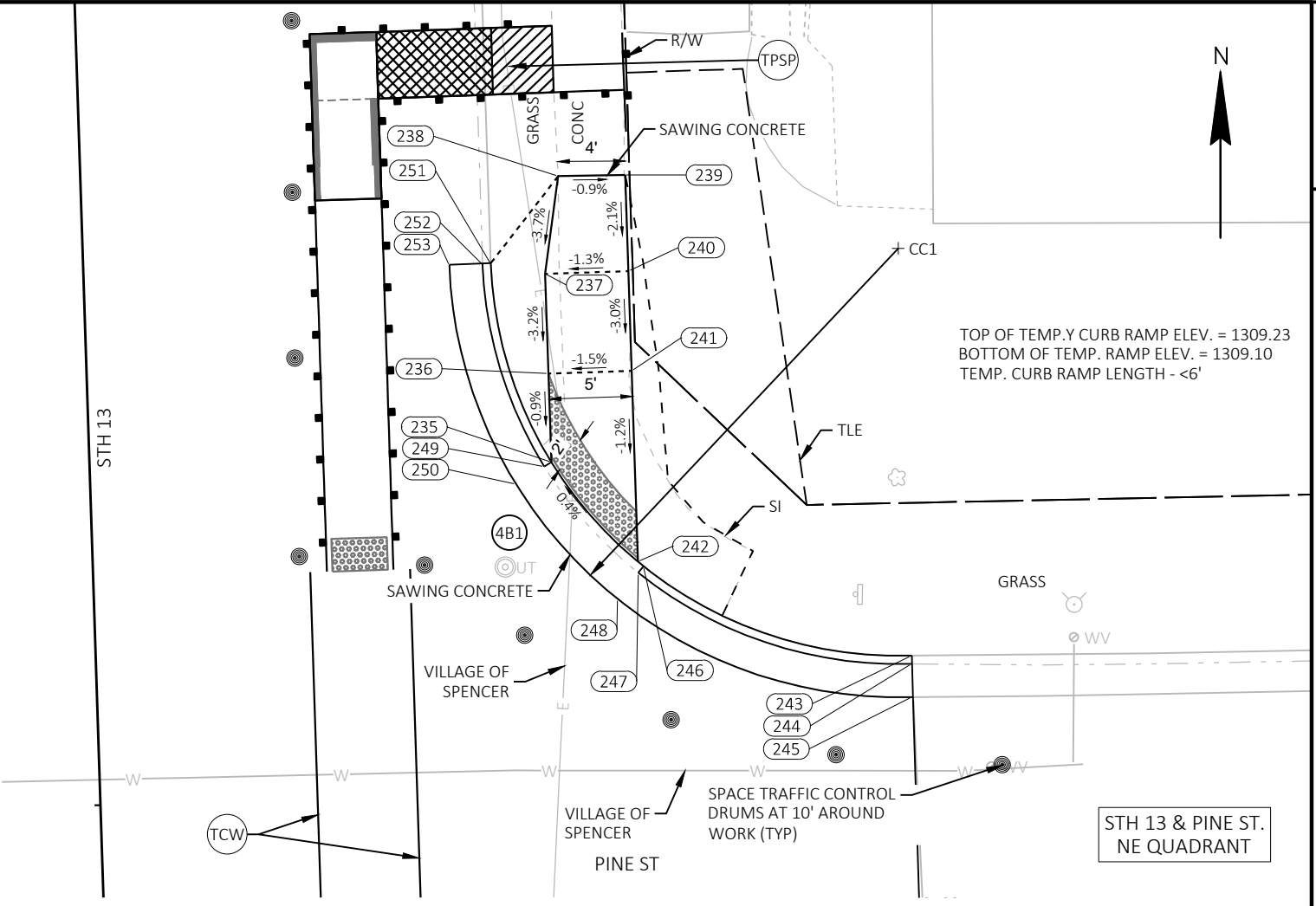
TOP OF TEMP. CURB RAMP ELEV. = 1309.74  
 BOTTOM OF TEMP. RAMP ELEV. = 1309.51  
 TEMP. CURB RAMP LENGTH - <6'

STH 13 & PINE ST.  
SE QUADRANT

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	488+81.93 - STH 13 41+98.64 - PINE ST.	49.0' RT 40.4' LT	27.0'	Y = 129641.33 X = 108220.32

STH 13 & Pine St - NE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
235	488+69.74	27.74' R	1308.96	129628.16	108199.66
236	488+75.07	27.74' R	1309.04	129633.49	108199.41
237	488+81.07	27.74' R	1309.23	129639.48	108199.12
238	488+86.91	28.71' R	1309.45	129645.37	108199.82
239	488+86.86	32.67' R	1309.42	129645.49	108203.78
240	488+81.07	32.74' R	1309.30	129639.71	108204.12
241	488+75.07	32.74' R	1309.11	129633.72	108204.40
242	488+63.59	32.75' R	1308.97	129622.26	108204.94
243	488+57.42	48.99' R	1309.47	129616.85	108221.45
244	488+56.92	48.99' R	1309.02	129616.35	108221.47
245	488+54.93	48.94' R	1309.04	129614.35	108221.52
246	488+63.31	33.07' R	1309.04	129621.99	108205.28
247	488+62.93	32.75' R	1308.97	129621.59	108204.97
248	488+61.41	31.45' R	1309.05	129620.02	108203.75
249	488+69.49	27.31' R	1308.96	129627.89	108199.23
250	488+68.49	25.58' R	1309.04	129626.82	108197.55
251	488+81.75	24.49' R	1309.39	129640.01	108195.85
252	488+81.74	24.00' R	1308.94	129639.98	108195.35
253	488+81.73	22.00' R	1308.97	129639.87	108193.36

- LEGEND**
- # INLET PROTECTION TYPE #
  - (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
  - SI SLOPE INTERCEPT
  - (TPSP) TEMPORARY PEDESTRIAN SURFACE  
 MATTING  PLATE
  - (TCW) TEMPORARY MARKING CROSSWALK  
 REMOVABLE TAPE 6-INCH
  -  TEMPORARY CURB RAMP
  -  TEMPORARY DETECTABLE WARNING FIELD
  -  TEMPORARY PEDESTRIAN BARRICADE
  - TRAFFIC CONTROL DRUMS



TOP OF TEMP. CURB RAMP ELEV. = 1309.23  
 BOTTOM OF TEMP. RAMP ELEV. = 1309.10  
 TEMP. CURB RAMP LENGTH - <6'

STH 13 & PINE ST.  
 NE QUADRANT

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/PINE ST. NE QUAD	24.5	11.1	17.6	8.0

STH 13 & Elm St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
265	490+57.79	28.64' R	1307.76	129816.06	108191.81
266	490+62.34	27.93' R	1307.59	129820.57	108190.90
267	490+68.58	28.05' R	1307.27	129826.80	108190.72
268	490+73.58	28.05' R	1307.20	129831.80	108190.49
269	490+79.58	28.05' R	1306.78	129837.79	108190.21
270	490+81.58	28.05' R	1306.78	129839.79	108190.12
271	490+87.49	33.05' R	1306.73	129845.93	108194.84
272	490+79.58	33.05' R	1306.85	129838.02	108195.21
273	490+73.58	33.05' R	1307.27	129832.03	108195.49
274	490+68.58	33.05' R	1307.35	129827.03	108195.72
275	490+62.36	32.93' R	1307.66	129820.82	108195.89
276	490+57.70	32.81' R	1307.74	129816.16	108195.98
277	490+68.19	24.52' R	1307.40	129826.25	108187.22
278	490+68.22	24.02' R	1306.90	129826.26	108186.72
279	490+68.35	22.03' R	1306.98	129826.29	108184.72
280	490+81.83	27.62' R	1306.78	129840.02	108189.68

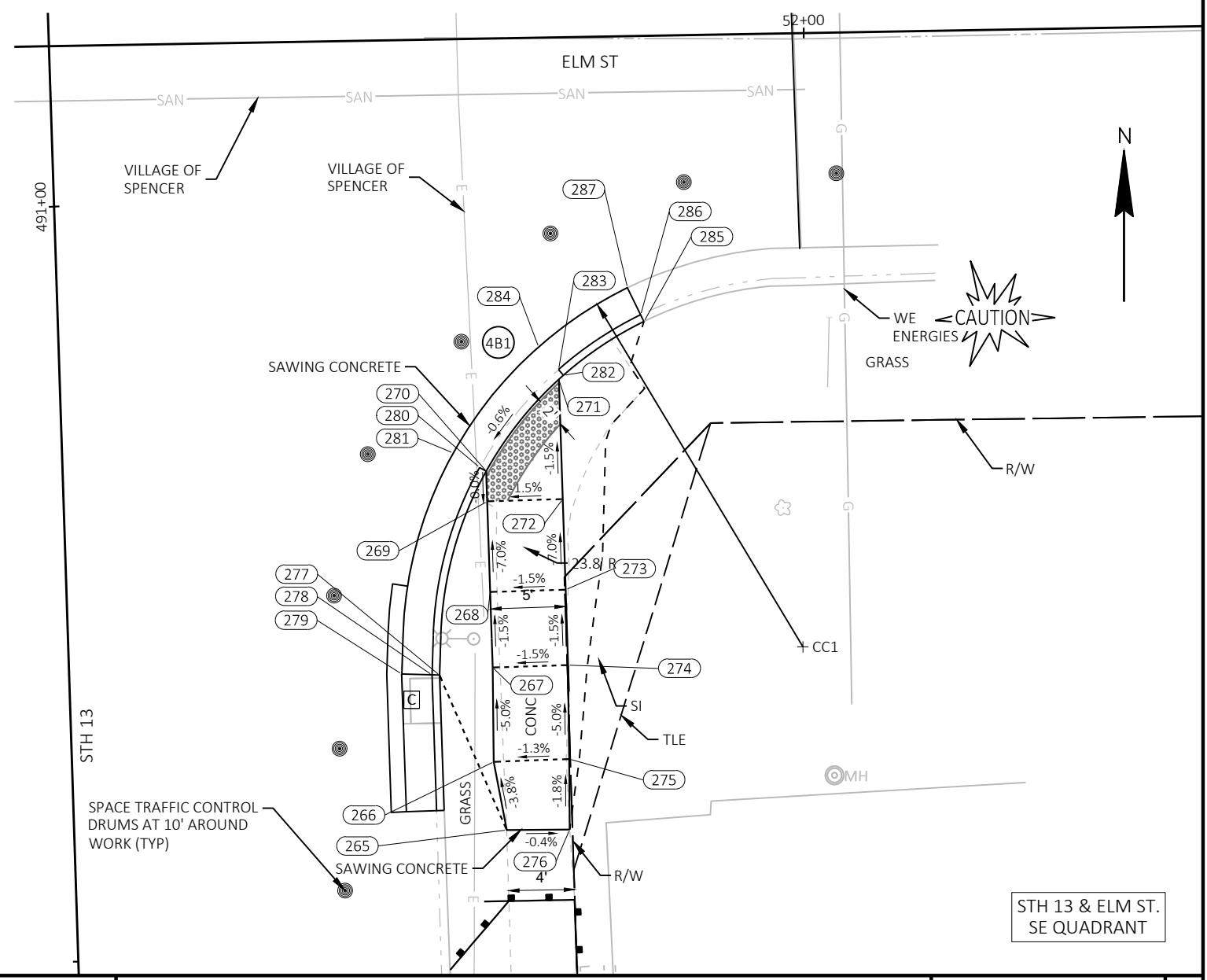
STH 13 & Elm St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
281	490+82.85	25.90' R	1306.86	129840.96	108187.91
282	490+87.76	33.37' R	1306.80	129846.21	108195.14
283	490+88.14	33.05' R	1306.73	129846.58	108194.81
284	490+89.68	31.78' R	1306.81	129848.06	108193.47
285	490+91.14	38.81' R	1307.17	129849.84	108200.42
286	490+91.60	38.60' R	1306.73	129850.29	108200.19
287	490+93.42	37.78' R	1306.80	129852.07	108199.29

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	490+69.25 - STH 13 51+99.25 - ELM ST.	48.6' RT 40.7' RT	26.5'	Y = 129828.43 X = 108211.26

QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/ELM ST. SE QUAD	24.0	7.9	15.2	7.8

LEGEND

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  
 MATTING PLATE
- (TCW) TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



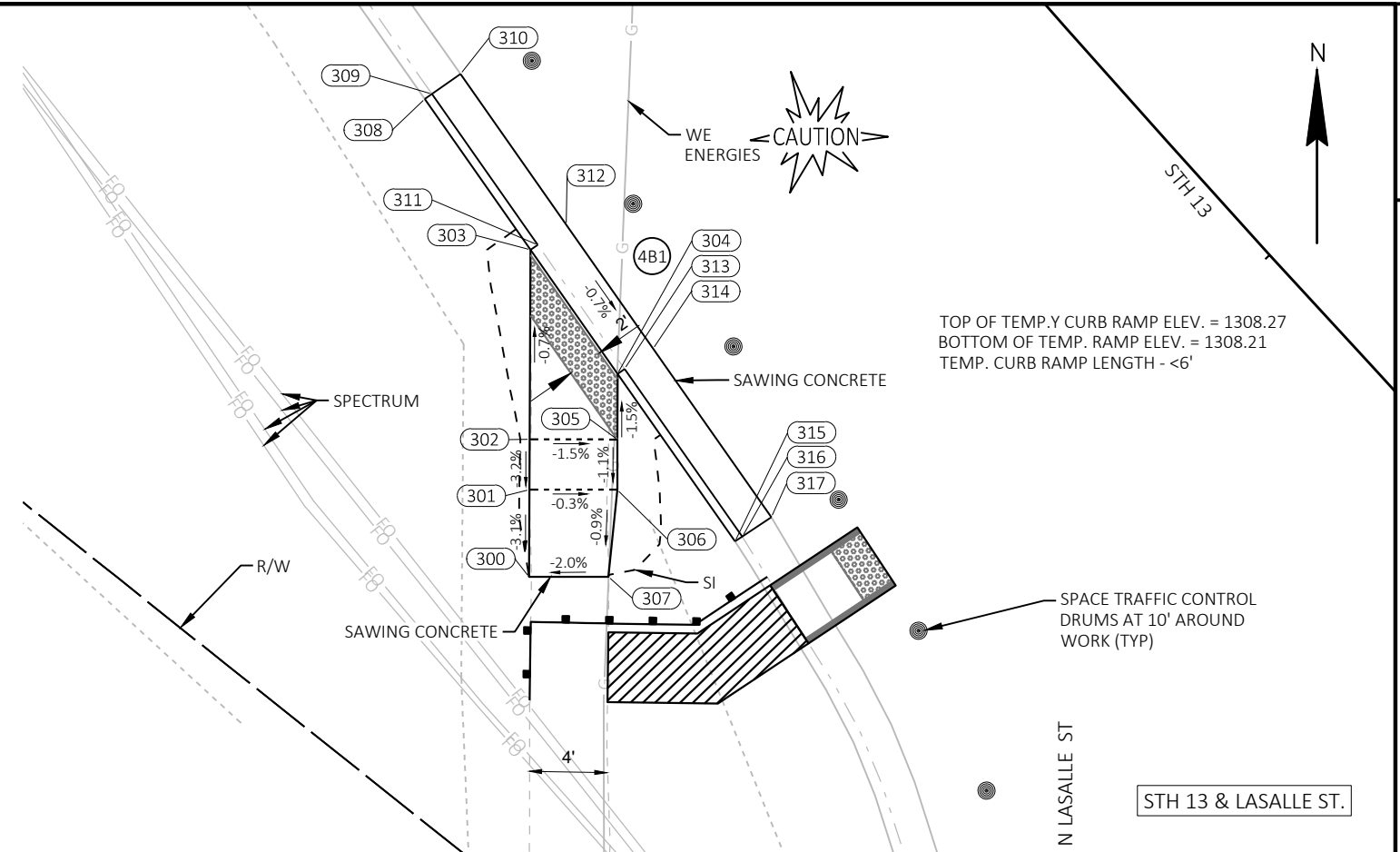
**LEGEND**

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE
- (TCW) TEMPORARY MARKING CROSSWALK
- REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

**RADIAL WARNING FIELD PANEL LAYOUT TABLE**

QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/LASALLE ST.	---	7.1	17.4	8.7

STH 13 & LaSalle St - SW Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
300	503+64.43	43.91' L	1308.35	130776.93	107386.99
301	503+68.02	40.58' L	1308.51	130781.93	107386.94
302	503+70.10	38.67' L	1308.60	130784.80	107386.91
303	503+78.00	31.48' L	1308.52	130795.66	107386.80
304	503+69.61	32.40' L	1308.46	130788.63	107391.89
305	503+66.87	34.90' L	1308.52	130784.86	107391.94
306	503+64.79	36.82' L	1308.49	130781.99	107391.97
307	503+61.51	40.52' L	1308.43	130776.98	107391.54
308	503+88.24	30.44' L	1309.10	130804.22	107380.61
309	503+88.19	29.95' L	1308.60	130804.51	107381.02
310	503+88.01	27.96' L	1308.73	130805.68	107382.64
311	503+77.95	30.99' L	1308.52	130795.95	107387.21
312	503+77.75	29.00' L	1308.65	130797.12	107388.83
313	503+69.55	31.91' L	1308.46	130788.92	107392.30
314	503+69.34	29.92' L	1308.59	130790.09	107393.92
315	503+58.28	33.76' L	1308.81	130779.12	107398.77
316	503+58.21	33.26' L	1308.31	130779.40	107399.18
317	503+57.93	31.28' L	1308.43	130780.54	107400.83



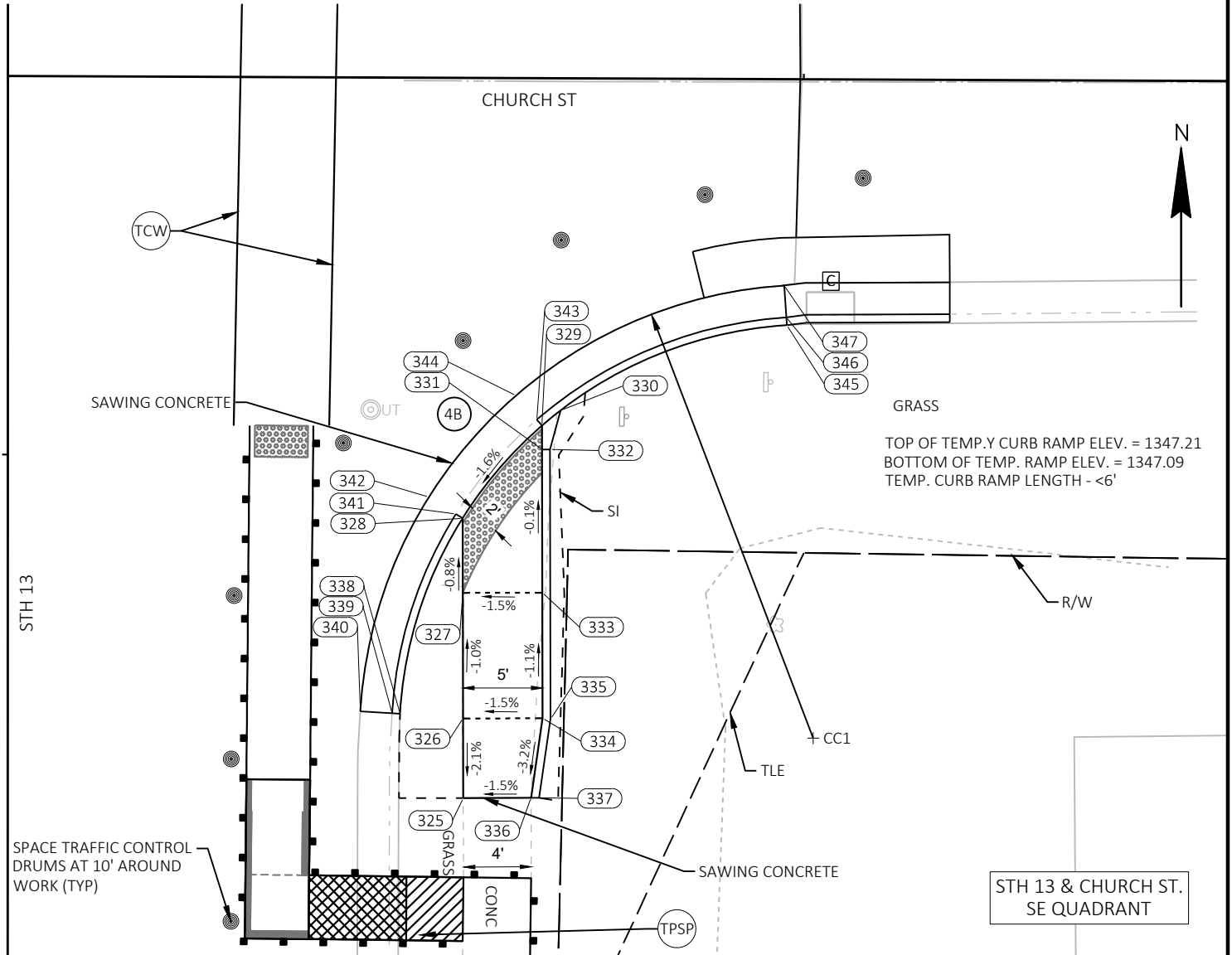
RADIUS POINT TABLE					
POINT	STATION	OFFSET	RADIUS	COORDINATES	
CC1	819+32.20 - STH 13 180+50.75 - CHURCH ST.	50.6' RT 41.4' RT	28.5'	Y = 161634.98 X = 103419.62	

STH 13 & Church St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
325	819+28.44	28.61' R	1347.45	161630.91	103397.69
326	819+33.44	28.60' R	1347.55	161635.91	103397.61
327	819+41.33	28.58' R	1347.47	161643.80	103397.48
328	819+46.01	28.57' R	1347.40	161648.48	103397.40
329	819+51.84	33.56' R	1347.53	161654.37	103402.30
330	819+52.79	34.72' R	1347.78	161655.34	103403.45
331	819+50.34	33.56' R	1347.53	161652.88	103402.33
332	819+50.34	34.06' R	1347.82	161652.88	103402.83
333	819+41.34	33.58' R	1347.54	161643.88	103402.47
334	819+33.45	33.60' R	1347.62	161635.99	103402.61
335	819+33.42	34.10' R	1347.80	161635.97	103403.11
336	819+28.45	32.87' R	1347.51	161630.98	103401.95
337	819+28.45	33.38' R	1347.51	161630.99	103402.45
338	819+33.74	24.64' R	1347.50	161636.16	103393.65
339	819+33.77	24.15' R	1347.00	161636.18	103393.15
340	819+33.89	22.15' R	1347.12	161636.27	103391.15
341	819+46.28	28.15' R	1347.40	161648.74	103396.97
342	819+47.34	26.45' R	1347.52	161649.78	103395.26
343	819+52.21	33.23' R	1347.53	161654.75	103401.97
344	819+53.72	31.92' R	1347.66	161656.24	103400.64
345	819+58.15	48.93' R	1348.58	161660.90	103417.58
346	819+58.65	48.90' R	1348.08	161661.40	103417.54
347	819+60.64	48.77' R	1348.20	161663.39	103417.39

- LEGEND**
- # INLET PROTECTION TYPE #
  - (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
  - SI SLOPE INTERCEPT
  - (TPSP) TEMPORARY PEDESTRIAN SURFACE
    - ▨ MATTING
    - ▩ PLATE
  - (TCW) TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH
  - ▭ TEMPORARY CURB RAMP
  - ▩ TEMPORARY DETECTABLE WARNING FIELD
  - ▬ TEMPORARY PEDESTRIAN BARRICADE
  - TRAFFIC CONTROL DRUMS

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/CHURCH ST. (SE QUAD)	26.0	10.4	16.7	7.7

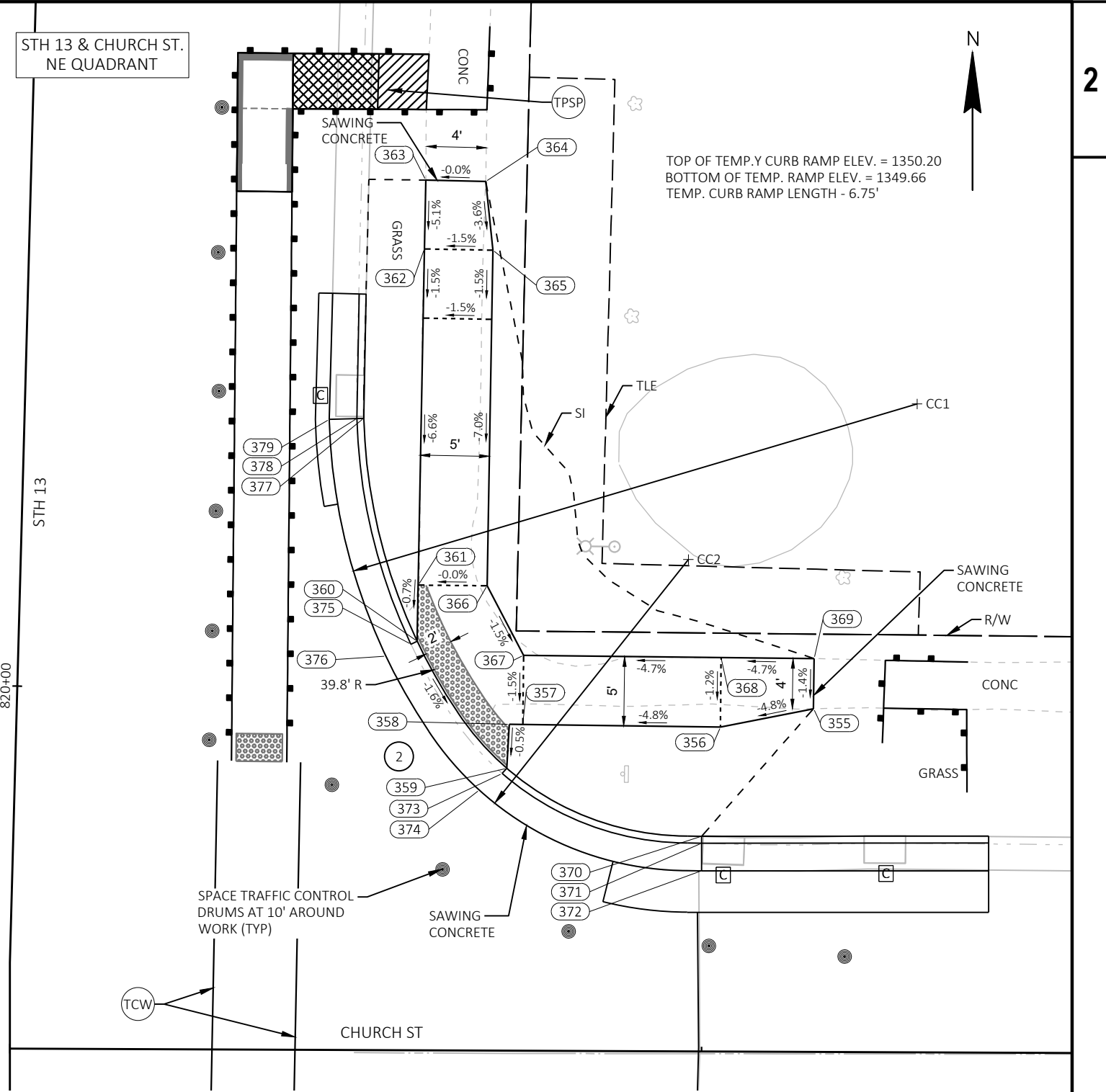


STH 13 & Church St - NE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
355	819+99.91	57.57' R	1349.49	161701.25	103426.16
356	819+98.41	50.88' R	1349.16	161699.84	103419.45
357	819+98.19	36.60' R	1348.48	161699.80	103405.17
358	819+98.20	35.62' R	1348.47	161699.82	103404.20
359	819+95.01	35.52' R	1348.42	161696.63	103404.05
360	820+04.02	28.80' R	1348.61	161705.72	103397.45
361	820+08.07	28.77' R	1348.64	161709.78	103397.47
362	820+32.38	28.56' R	1349.99	161734.08	103397.56
363	820+37.36	28.53' R	1350.24	161739.06	103397.59
364	820+37.37	32.86' R	1350.25	161739.02	103401.92
365	820+32.43	33.52' R	1350.07	161734.07	103402.52
366	820+08.16	33.75' R	1348.64	161709.80	103402.46
367	820+03.21	36.52' R	1348.56	161704.82	103405.16
368	820+03.43	50.79' R	1349.22	161704.86	103419.43
369	820+03.54	57.52' R	1349.54	161704.89	103426.16
370	819+90.48	49.73' R	1348.51	161691.92	103418.21
371	819+89.98	49.75' R	1348.03	161691.42	103418.22
372	819+87.98	49.79' R	1348.21	161689.42	103418.24
373	819+94.63	35.20' R	1348.42	161696.25	103403.73
374	819+93.38	33.58' R	1348.51	161695.02	103402.10
375	820+03.79	28.36' R	1348.61	161705.50	103397.00
376	820+02.88	26.57' R	1348.69	161704.61	103395.21
377	820+20.02	24.52' R	1349.51	161721.78	103393.37
378	820+20.00	24.02' R	1348.98	161721.76	103392.87
379	820+19.88	22.02' R	1349.10	161721.67	103390.87

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	820+22.14 - STH 13 180+65.38 - CHURCH ST.	64.5 RT 46.9' LT	42.5'	Y = 161723.40 X = 103433.33
CC2	820+10.45 - STH 13 180+48.89 - CHURCH ST.	48.2 RT 35.6' LT	22.5'	Y = 161711.91 X = 103416.96

**LEGEND**

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  
 MATTING   
 PLATE
- (TCW) TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/CHURCH ST. NE QUAD	40.0	12.9	24.6	11.4



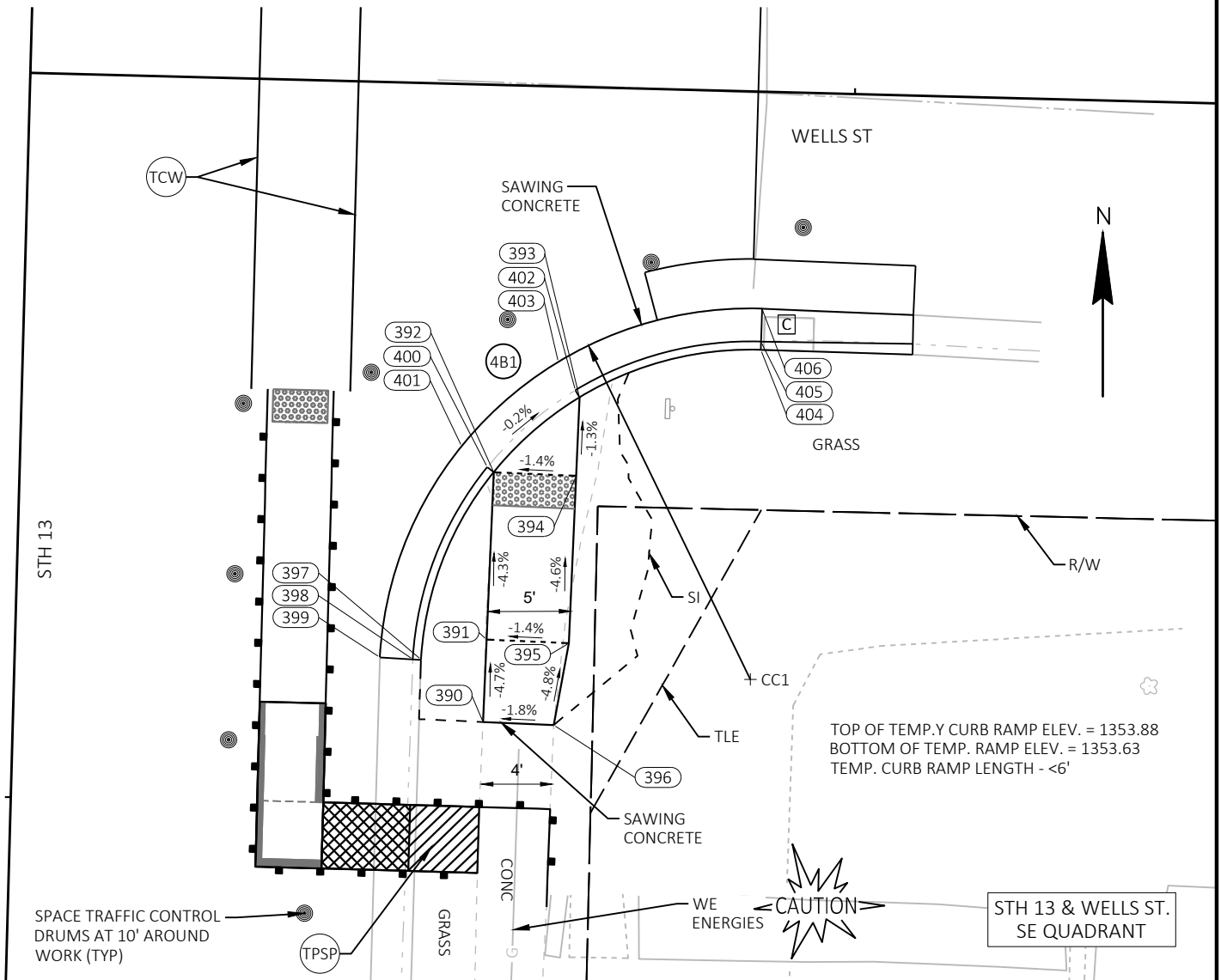
STH 13 & Wells St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
390	822+55.33	28.49' R	1354.23	161957.01	103400.28
391	822+60.33	28.57' R	1354.00	161962.01	103400.42
392	822+70.48	28.73' R	1353.54	161972.16	103400.71
393	822+75.16	33.81' R	1353.55	161976.78	103405.85
394	822+70.40	33.73' R	1353.61	161972.02	103405.71
395	822+60.25	33.57' R	1354.07	161961.87	103405.42
396	822+55.26	32.78' R	1354.31	161956.89	103404.57
397	822+59.00	24.63' R	1354.02	161960.73	103396.47
398	822+59.02	24.13' R	1353.52	161960.76	103395.97
399	822+59.08	22.14' R	1353.60	161960.85	103393.97
400	822+70.78	28.34' R	1353.54	161972.47	103400.32
401	822+72.00	26.75' R	1353.62	161973.70	103398.74
402	822+75.58	33.54' R	1353.55	161977.20	103405.58
403	822+77.26	32.46' R	1353.63	161978.90	103404.52
404	822+78.33	44.71' R	1354.08	161979.82	103416.78
405	822+78.83	44.71' R	1353.58	161980.31	103416.79
406	822+80.83	44.72' R	1353.66	161982.31	103416.83

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	822+58.33 - STH 13 190+44.58 - WELLS ST.	44.6' RT 35.7' RT	22.5'	Y = 161959.82 X = 103416.45

**LEGEND**

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  

	MATTING		PLATE
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- (TCW) TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- [ ] TEMPORARY CURB RAMP
- [ ] TEMPORARY DETECTABLE WARNING FIELD
- [ ] TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



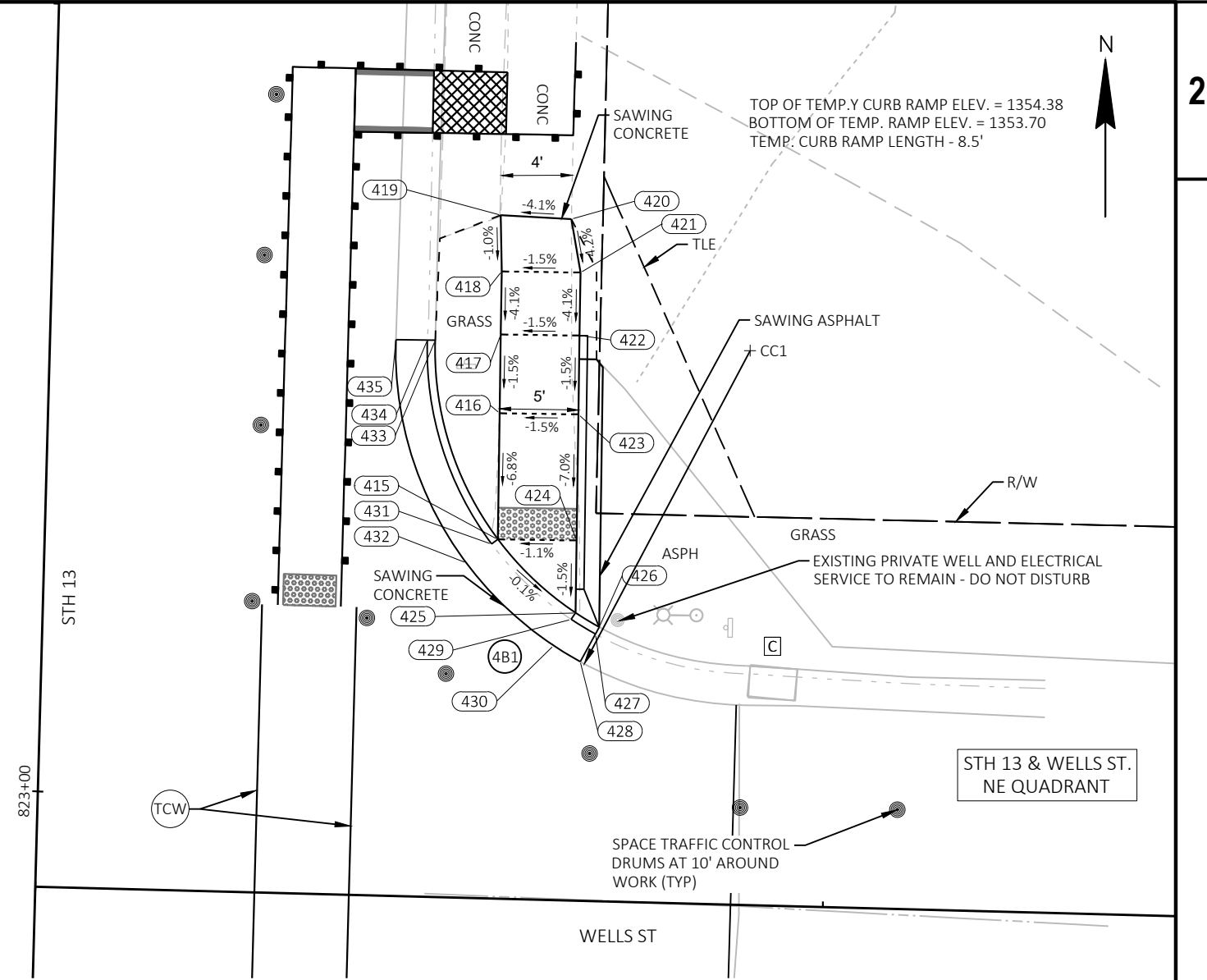
STH 13 & Wells St - NE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
415	823+16.77	28.75' R	1353.60	162018.45	103401.31
416	823+24.77	28.65' R	1354.16	162026.45	103401.31
417	823+29.77	28.59' R	1354.23	162031.45	103401.31
418	823+33.77	28.54' R	1354.40	162035.45	103401.31
419	823+37.35	28.39' R	1354.43	162039.03	103401.20
420	823+37.21	32.87' R	1354.62	162038.84	103405.68
421	823+33.84	33.54' R	1354.47	162035.45	103406.31
422	823+29.84	33.59' R	1354.31	162031.45	103406.31
423	823+24.84	33.65' R	1354.23	162026.45	103406.31
424	823+16.84	33.75' R	1353.67	162018.45	103406.31
425	823+12.24	33.81' R	1353.60	162013.85	103406.31
426	823+11.38	35.33' R	1353.77	162012.97	103407.82

STH 13 & Wells St - NE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
427	823+10.93	35.10' R	1353.60	162012.53	103407.58
428	823+09.20	34.18' R	1353.68	162010.81	103406.64
429	823+11.82	33.54' R	1353.60	162013.43	103406.04
430	823+10.12	32.48' R	1353.68	162011.75	103404.95
431	823+16.46	28.36' R	1353.60	162018.15	103400.91
432	823+15.22	26.79' R	1353.68	162016.93	103399.33
433	823+29.30	24.44' R	1354.09	162031.03	103397.15
434	823+29.29	23.94' R	1353.68	162031.03	103396.65
435	823+29.27	21.94' R	1353.67	162031.03	103394.65

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	823+29.18 - STH 13 190+44.48 - WELLS ST.	44.4' RT 35.2' LT	22.5'	Y = 162030.66 X = 103417.15

**LEGEND**

- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- (TPSP) TEMPORARY PEDESTRIAN SURFACE  
 [Hatched Box] MATTING [Cross-hatched Box] PLATE
- (TCW) TEMPORARY MARKING CROSSWALK  
 REMOVABLE TAPE 6-INCH
- [Rectangular Box] TEMPORARY CURB RAMP
- [Dotted Box] TEMPORARY DETECTABLE WARNING FIELD
- [Vertical Bars] TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



LEGEND

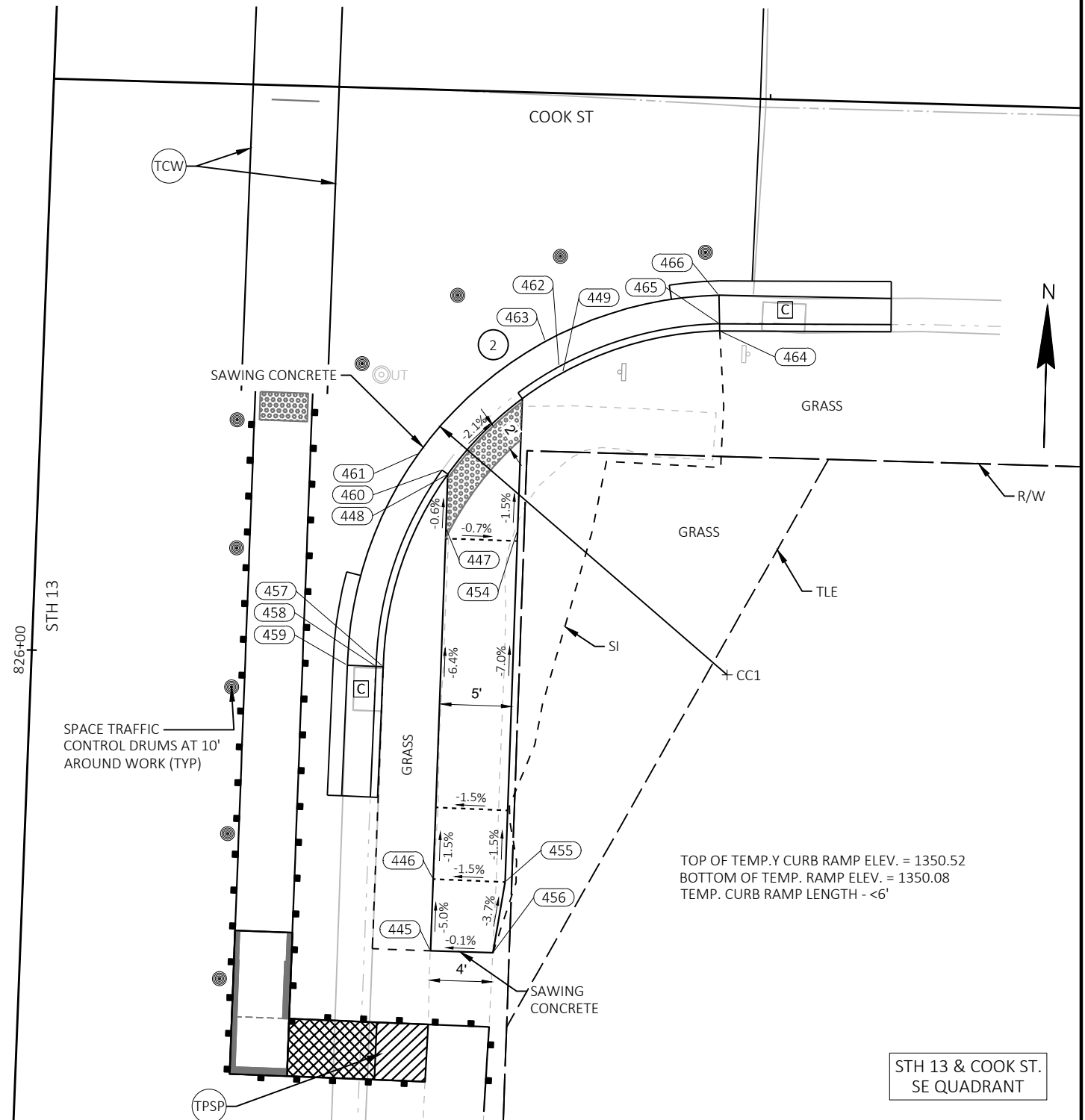
- # INLET PROTECTION TYPE #
- (XXX) CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE
- (TCW) TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

STH 13 & Cook St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
445	825+80.11	28.60' R	1350.66	162281.77	103404.45
446	825+85.13	28.59' R	1350.41	162286.79	103404.50
447	826+09.61	28.53' R	1349.08	162311.27	103404.75
448	826+13.38	28.52' R	1349.06	162315.04	103404.78
449	826+20.75	36.24' R	1348.83	162322.31	103412.59
454	826+09.63	33.52' R	1349.04	162311.22	103409.73
455	825+85.11	33.61' R	1350.48	162286.71	103409.52
456	825+80.16	32.95' R	1350.66	162281.77	103408.79
457	825+99.79	24.54' R	1350.10	162301.50	103400.63
458	825+99.79	24.04' R	1349.50	162301.51	103400.13
459	825+99.79	22.04' R	1349.65	162301.53	103398.13
460	826+13.66	28.11' R	1349.06	162315.32	103404.37

STH 13 & Cook St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
461	826+14.76	26.44' R	1349.19	162316.45	103402.72
462	826+21.18	35.98' R	1348.83	162322.75	103412.34
463	826+22.90	34.96' R	1348.96	162324.48	103411.34
464	826+24.10	47.09' R	1349.09	162325.52	103423.48
465	826+24.60	47.06' R	1348.59	162326.02	103423.46
466	826+26.58	46.94' R	1348.72	162328.01	103423.36

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/COOK ST. SE QUAD	24.0	5.5	16.1	7.5

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	826+00.14 - STH 13 200+48.13 - COOK ST.	48.5' RT 40.2' RT	26.5'	Y = 162301.55 X = 103424.63



STH 13 & Cook St - NE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
475	826+60.41	57.02' R	1349.53	162361.71	103433.87
476	826+59.17	52.40' R	1349.23	162360.53	103429.23
477	826+59.00	39.67' R	1348.47	162360.51	103416.50
478	826+58.93	34.56' R	1348.44	162360.51	103411.39
479	826+59.65	33.50' R	1348.35	162361.24	103410.34
480	826+64.72	28.48' R	1348.19	162366.37	103405.38
481	826+70.24	28.46' R	1348.28	162371.90	103405.43
482	826+76.24	28.44' R	1348.38	162377.90	103405.49
483	826+79.65	28.43' R	1348.47	162381.30	103405.52
484	826+79.66	32.90' R	1348.47	162381.26	103409.99
485	826+79.66	33.41' R	1348.47	162381.26	103410.50
486	826+76.26	33.44' R	1348.46	162377.85	103410.49
487	826+76.30	33.94' R	1348.70	162377.88	103410.99
488	826+70.26	33.46' R	1348.35	162371.85	103410.43
489	826+70.44	33.96' R	1348.80	162372.03	103410.93
490	826+63.00	39.61' R	1348.49	162364.51	103416.49
491	826+63.50	39.84' R	1349.30	162365.01	103416.73
492	826+63.04	41.75' R	1349.34	162364.52	103418.63

STH 13 & Cook St - NE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
493	826+63.53	41.74' R	1349.34	162365.01	103418.63
494	826+64.28	41.73' R	1348.47	162365.77	103418.63
495	826+64.27	44.73' R	1337.45	162365.72	103421.63
496	826+63.57	44.74' R	1349.34	162365.02	103421.63
497	826+63.08	44.75' R	1349.34	162364.53	103421.63
498	826+63.16	51.84' R	1349.29	162364.53	103428.73
499	826+63.69	53.80' R	1349.42	162365.03	103430.69
500	826+64.28	55.98' R	1349.57	162365.59	103432.87
501	826+55.61	49.29' R	1336.24	162357.01	103426.08
502	826+55.11	49.30' R	1335.74	162356.51	103426.08
503	826+53.11	49.31' R	1335.82	162354.51	103426.07
504	826+59.24	33.20' R	1348.35	162360.84	103410.04
505	826+57.62	32.04' R	1348.43	162359.23	103408.85
506	826+64.43	28.07' R	1348.19	162366.09	103404.97
507	826+63.28	26.44' R	1348.27	162364.96	103403.32
508	826+78.24	24.59' R	1348.40	162379.94	103401.66
509	826+78.26	24.09' R	1348.40	162379.97	103401.17
510	826+78.37	22.10' R	1333.51	162380.10	103399.17

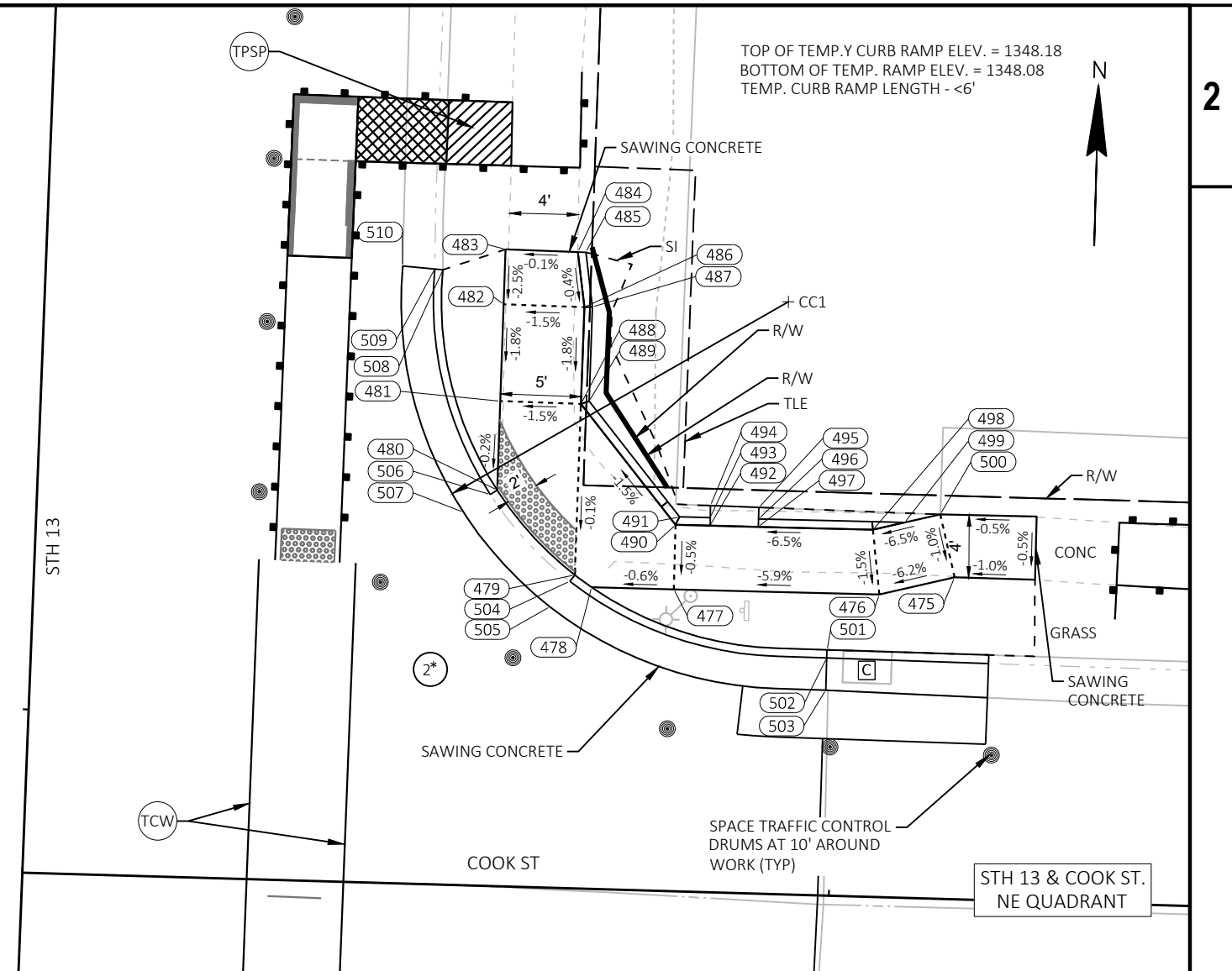
RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	826+77.09 - STH 13 200+46.44 - COOK ST.	46.1' RT 36.7' LT	24.0'	Y = 162378.53 X = 103423.12

LEGEND

- # INLET PROTECTION TYPE #
- XXX CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE  
 MATTING    PLATE
- TCW TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE  
WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/COOK ST. NE QUAD	21.5	9.2	15.5	7.2



LEGEND

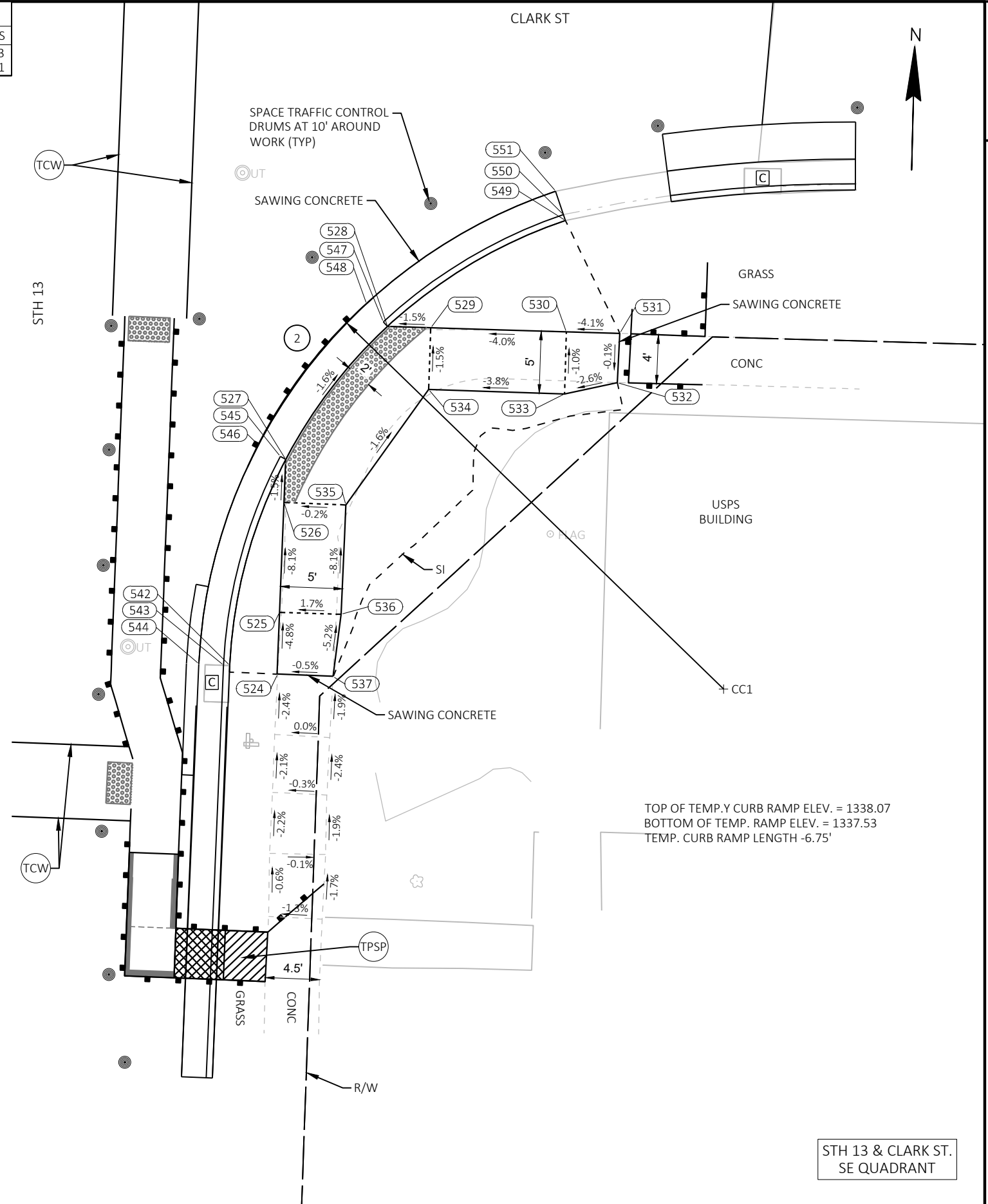
- # INLET PROTECTION TYPE #
- XXX CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE  
 MATTING PLATE
- TCW TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	832+52.27 - STH 13 212+14.48 - CLARK ST.	64.6' RT 62.4' RT	42.5'	Y = 162953.43 X = 103448.81

STH 13 & Clark St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
524	832+52.09	28.47' R	1337.87	162953.69	103412.71
525	832+57.08	28.44' R	1337.63	162958.69	103412.74
526	832+65.98	28.45' R	1336.91	162967.58	103412.86
527	832+69.47	28.45' R	1336.86	162971.08	103412.91
528	832+80.53	36.26' R	1336.62	162982.04	103420.85
529	832+80.56	39.76' R	1336.66	162982.02	103424.35
530	832+80.65	50.74' R	1337.10	162981.98	103435.33
531	832+80.70	55.07' R	1337.28	162981.97	103439.66
532	832+76.71	55.02' R	1337.27	162977.99	103439.56
533	832+75.63	50.79' R	1337.15	162976.96	103435.32
534	832+75.56	39.79' R	1336.73	162977.02	103424.32
535	832+65.97	33.45' R	1336.92	162967.52	103417.86
536	832+57.11	33.42' R	1337.63	162958.66	103417.72
537	832+52.08	32.95' R	1337.89	162953.63	103417.19
542	832+52.64	24.57' R	1337.64	162954.29	103408.82
543	832+52.64	24.07' R	1337.11	162954.30	103408.32
544	832+52.66	22.07' R	1337.26	162954.35	103406.32
545	832+69.69	28.00' R	1336.86	162971.30	103412.46

STH 13 & Clark St - SE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
546	832+70.55	26.20' R	1336.94	162972.18	103410.67
547	832+80.89	35.91' R	1336.62	162982.40	103420.50
548	832+82.30	34.49' R	1336.70	162983.83	103419.11
549	832+89.65	50.32' R	1336.56	162990.98	103435.02
550	832+90.12	50.14' R	1336.12	162991.45	103434.85
551	832+91.98	49.43' R	1336.26	162993.33	103434.16

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/CLARK ST. SE QUAD	40.0	14.6	33.3	14.0

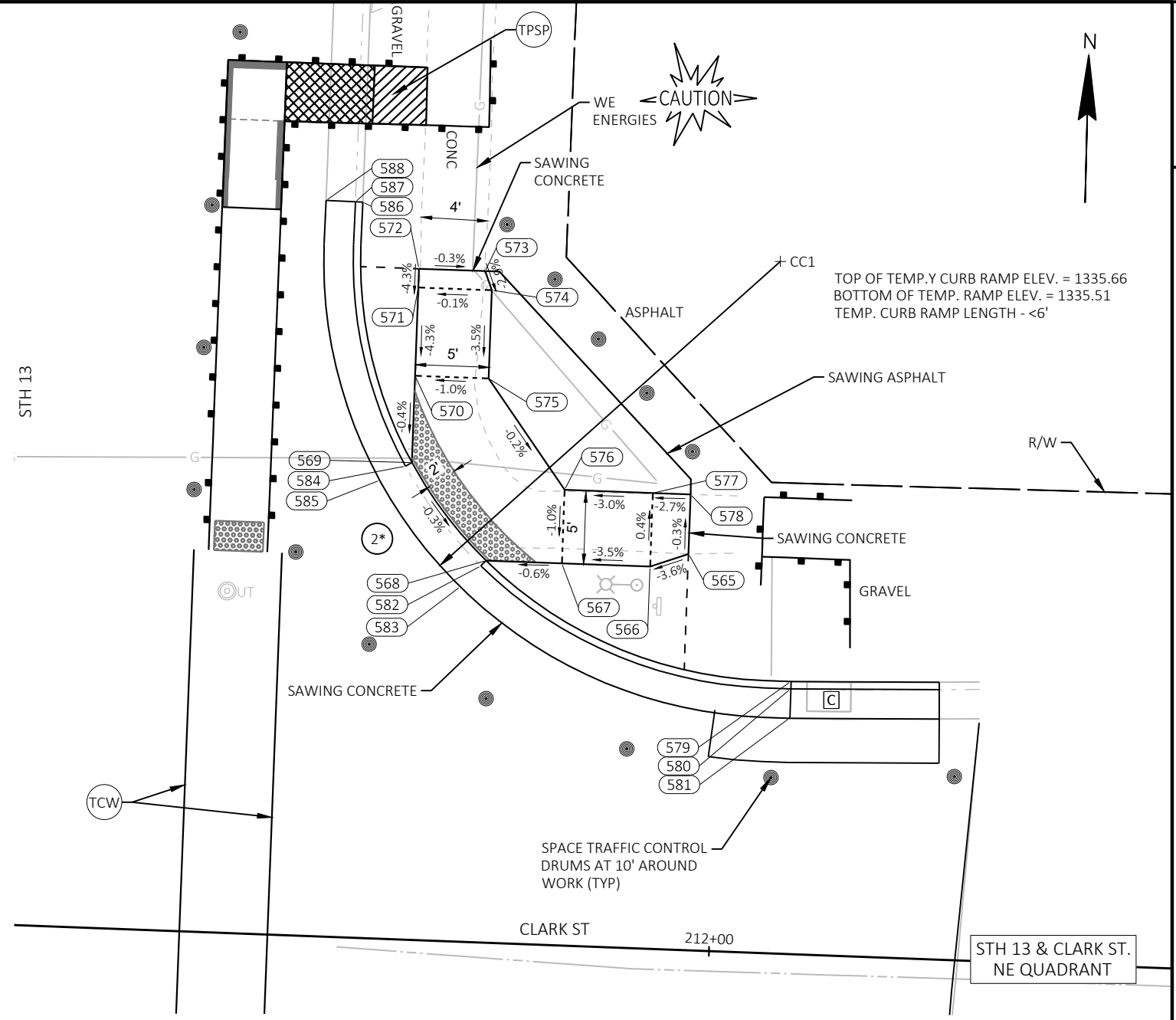


TOP OF TEMP.Y CURB RAMP ELEV. = 1338.07  
 BOTTOM OF TEMP. RAMP ELEV. = 1337.53  
 TEMP. CURB RAMP LENGTH -6.75'

STH 13 & CLARK ST.  
SE QUADRANT

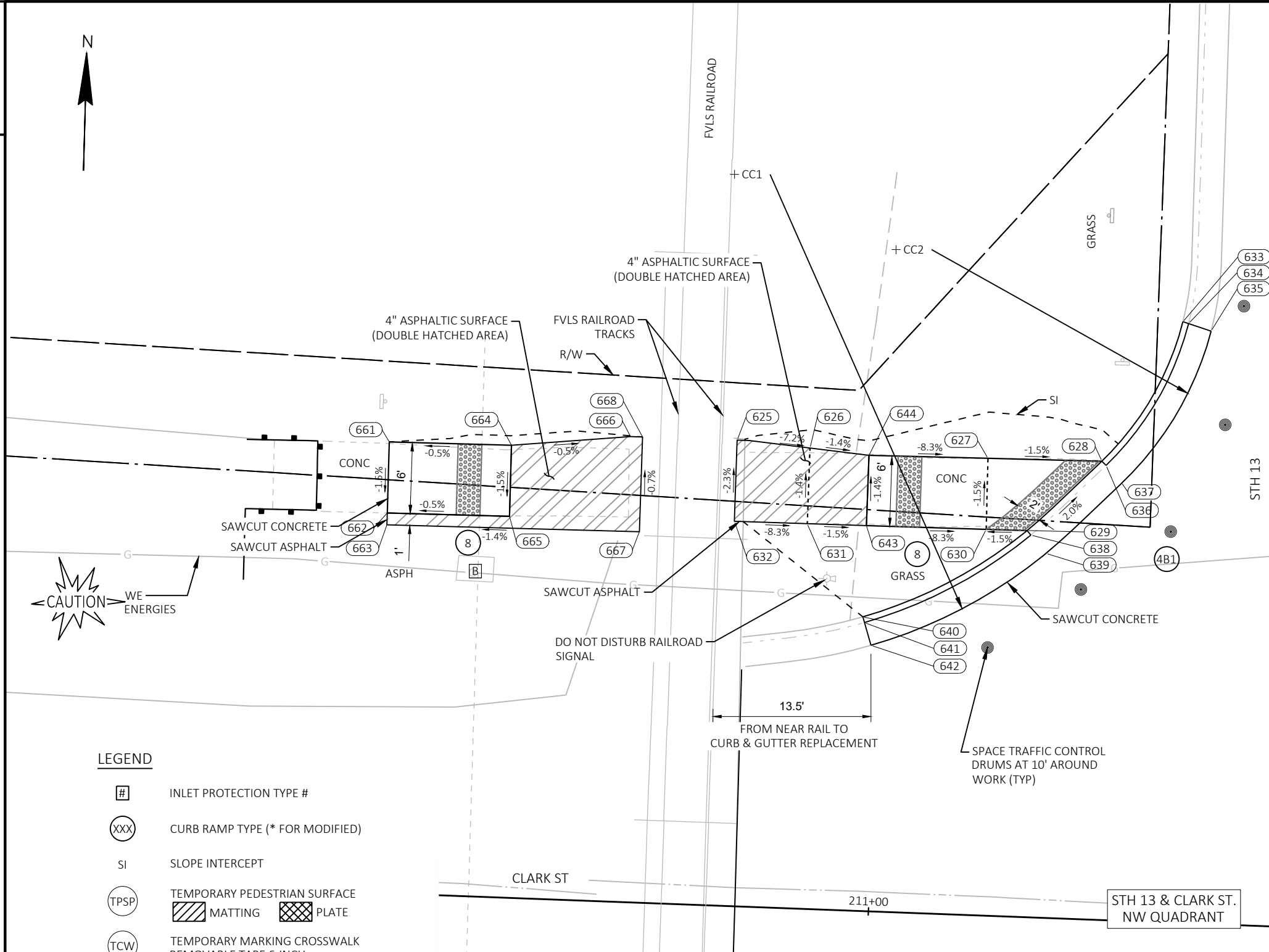
RADIUS POINT TABLE					
POINT	STATION	OFFSET	RADIUS	COORDINATES	
CC1	833+61.65 - STH 13 212+03.06 - CLARK ST.	53.0' RT 47.0' LT	31.0'	Y = 163062.94 X = 103438.61	
STH 13 & Clark St - NE Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
565	833+41.54	47.56' R	1335.96	163042.90	103432.92
566	833+40.58	44.99' R	1335.86	163041.98	103430.34
567	833+40.57	38.99' R	1335.65	163042.04	103424.34
568	833+40.55	33.83' R	1335.60	163042.09	103419.18
569	833+47.02	28.54' R	1335.61	163048.62	103413.97
570	833+52.92	28.53' R	1335.67	163054.52	103414.03
571	833+58.92	28.51' R	1335.93	163060.52	103414.09
572	833+60.20	28.51' R	1335.98	163061.80	103414.10
573	833+60.21	33.01' R	1335.97	163061.76	103418.60
574	833+58.93	33.51' R	1335.93	163060.47	103419.09
575	833+52.93	33.53' R	1335.72	163054.47	103419.03
576	833+45.57	38.98' R	1335.70	163047.04	103424.39
577	833+45.58	44.98' R	1335.88	163046.98	103430.39
578	833+45.59	47.55' R	1335.95	163046.95	103432.96
579	833+33.14	54.82' R	1336.03	163034.42	103440.07
580	833+32.65	54.85' R	1335.59	163033.92	103440.09
581	833+30.68	54.88' R	1335.68	163031.95	103440.10
582	833+40.19	33.50' R	1335.60	163041.73	103418.84
583	833+38.71	32.15' R	1335.68	163040.26	103417.47
584	833+46.76	28.11' R	1335.61	163048.37	103413.54
585	833+45.73	26.40' R	1335.69	163047.36	103411.81
586	833+64.58	24.52' R	1335.80	163066.23	103410.16
587	833+64.58	24.02' R	1335.46	163066.23	103409.66
588	833+64.59	22.02' R	1335.38	163066.27	103407.66

- LEGEND**
- # INLET PROTECTION TYPE #
  - XXX CURB RAMP TYPE (\* FOR MODIFIED)
  - SI SLOPE INTERCEPT
  - TPSP TEMPORARY PEDESTRIAN SURFACE  
 MATTING PLATE
  - TCW TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
  - TEMPORARY CURB RAMP
  - TEMPORARY DETECTABLE WARNING FIELD
  - TEMPORARY PEDESTRIAN BARRICADE
  - TRAFFIC CONTROL DRUMS



RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/CLARK ST. NE QUAD	28.5	11.4	23.0	8.8





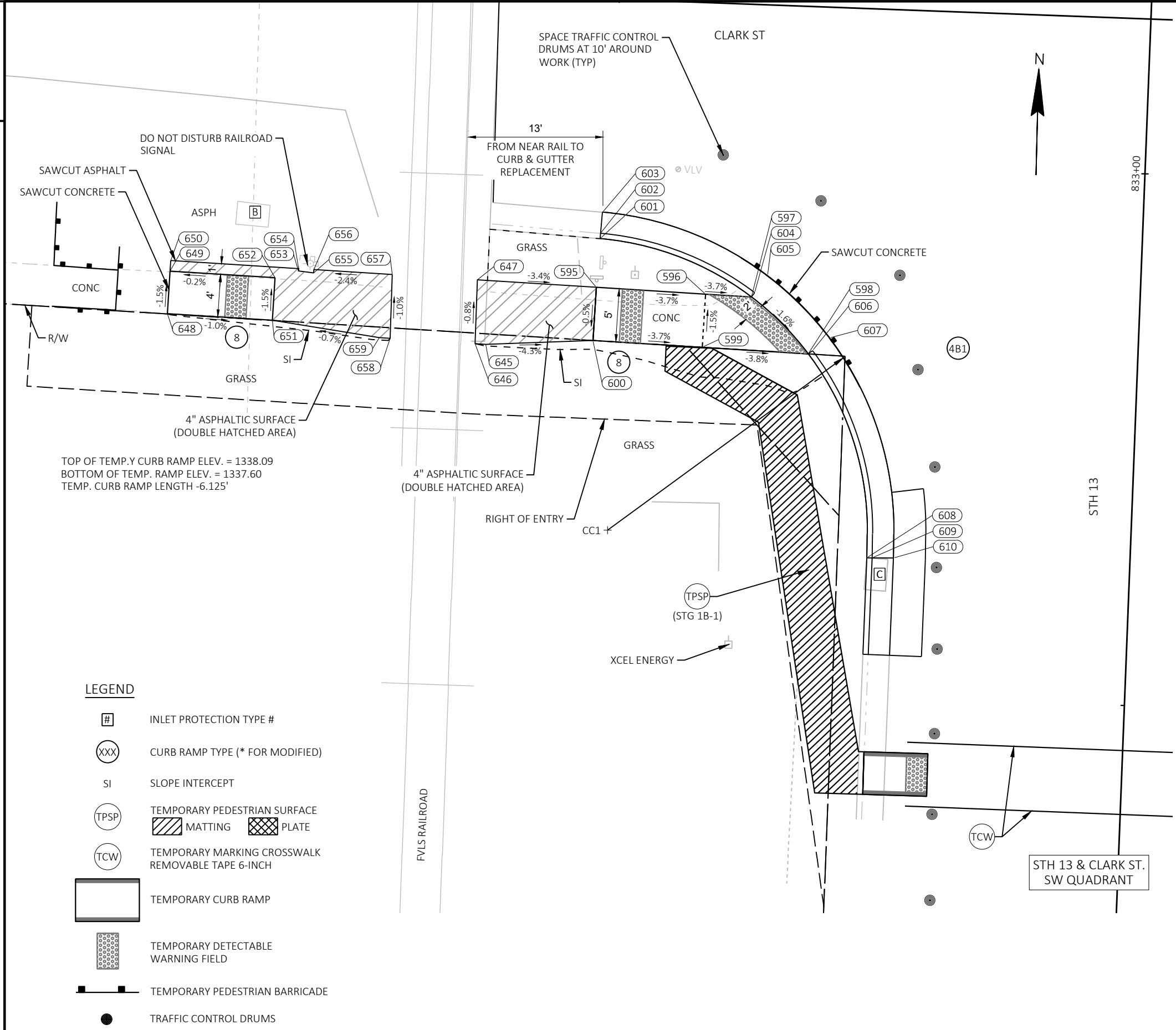
STH 13 & Clark St - NW Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
625	833+53.80	62.61' L	1337.68	163056.54	103322.91
626	833+53.37	56.44' L	1337.24	163056.03	103329.07
627	833+53.08	41.40' L	1336.34	163055.56	103344.11
628	833+53.21	31.78' L	1336.19	163055.57	103353.73
629	833+47.13	37.85' L	1336.48	163049.56	103347.58
630	833+47.08	41.31' L	1336.43	163049.56	103344.12
631	833+46.99	56.42' L	1337.33	163049.65	103329.01
632	833+46.95	62.58' L	1337.85	163049.69	103322.85
633	833+65.23	25.40' L	1335.91	163067.51	103360.26
634	833+65.11	24.91' L	1335.74	163067.37	103360.74
635	833+64.55	22.99' L	1335.86	163066.79	103362.66
636	833+52.87	31.41' L	1336.14	163055.22	103354.09
637	833+51.48	30.06' L	1336.26	163053.82	103355.42
638	833+46.76	37.52' L	1336.48	163049.18	103347.91
639	833+45.26	36.19' L	1336.60	163047.67	103349.22
640	833+39.31	51.43' L	1337.61	163041.91	103333.90
641	833+38.83	51.28' L	1337.17	163041.43	103334.05
642	833+36.93	50.65' L	1337.45	163039.52	103334.66
643	833+47.02	51.42' L	1337.26	163049.62	103334.01
644	833+52.94	51.44' L	1337.17	163055.54	103334.06
661	833+52.51	91.95' L	1337.92	163055.62	103293.55
662	833+46.51	91.89' L	1337.83	163049.62	103293.54
663	833+45.51	91.87' L	1337.70	163048.62	103293.54
664	833+52.63	81.64' L	1337.97	163055.61	103303.86
665	833+46.63	81.57' L	1337.88	163049.61	103303.86
666	833+53.74	71.62' L	1337.92	163056.59	103313.90
667	833+45.75	70.57' L	1337.99	163048.59	103314.85
668	833+53.75	70.60' L	1337.93	163056.59	103314.91

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	833+76.32 - STH 13 210+86.37 - CLARK ST.	63.7' LT 61.9' LT	41.5'	Y = 163079.07 X = 103322.09
CC2	833+70.50 - STH 13 211+00.24 - CLARK ST.	49.8' LT 56.0' LT	27.5'	Y = 163073.08 X = 103335.89

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/CLARK ST. (NW QUAD)	39.0	9.4	17.5	8.6

**LEGEND**

- # INLET PROTECTION TYPE #
- XXX CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE  
 MATTING   
  PLATE
- TCW TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS



STH 13 & Clark St - SW Quad					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
595	832+87.35	51.11' L	1338.15	162989.95	103333.58
596	832+87.10	40.83' L	1337.77	162989.57	103343.86
597	832+86.99	36.51' L	1337.61	162989.41	103348.17
598	832+81.86	30.98' L	1337.49	162984.21	103353.64
599	832+82.10	40.95' L	1337.86	162984.57	103343.67
600	832+82.35	51.23' L	1338.12	162984.95	103333.40
601	832+91.92	50.94' L	1338.39	162994.52	103333.81
602	832+92.42	50.91' L	1338.08	162995.02	103333.84
603	832+94.41	50.82' L	1338.05	162997.01	103333.96
604	832+87.40	36.23' L	1337.61	162989.82	103348.46
605	832+89.04	35.08' L	1337.57	162991.44	103349.63
606	832+82.18	30.59' L	1337.49	162984.52	103354.03
607	832+83.44	29.04' L	1337.45	162985.77	103355.59
608	832+62.93	24.72' L	1225.07	162965.21	103359.66
609	832+62.95	24.22' L	1249.87	162965.21	103360.16
610	832+63.00	22.22' L	1337.49	162965.24	103362.16
645	832+81.59	61.29' L	1338.56	162984.32	103323.33
646	832+81.61	62.29' L	1338.58	162984.36	103322.33
647	832+87.62	62.31' L	1338.53	162990.36	103322.38
648	832+83.31	91.29' L	1338.71	162986.42	103293.35
649	832+87.31	91.20' L	1338.65	162990.41	103293.49
650	832+88.31	91.17' L	1338.50	162991.41	103293.53
651	832+83.08	81.41' L	1338.61	162986.06	103303.23
652	832+87.08	81.31' L	1338.55	162990.05	103303.37
653	832+87.80	79.14' L	1338.51	162990.75	103305.55
654	832+88.02	79.13' L	1338.49	162990.97	103305.57
655	832+87.68	77.70' L	1338.51	162990.61	103306.99
656	832+87.99	77.69' L	1338.50	162990.92	103307.00
657	832+87.81	70.31' L	1338.68	162990.65	103314.38
658	832+81.81	70.29' L	1338.74	162984.65	103314.33
659	832+81.83	71.30' L	1338.68	162984.69	103313.32

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	832+64.46 - STH 13 210+97.66 - CLARK ST.	52.3' LT 50.0' RT	30.0'	Y = 162967.07 X = 103332.13

RADIAL WARNING FIELD PANEL LAYOUT TABLE				
QUADRANT	BACK OF CURB RADIUS (LF)	LANDING LENGTH 'XR' (LF)	RADIAL WARNING FIELD AREA (SF)	RADIAL LONG CHORD (LF)
STH 13/CLARK ST. (SW QUAD)	27.5	9.4	14.9	7.7

LEGEND

- # INLET PROTECTION TYPE #
- XXX CURB RAMP TYPE (\* FOR MODIFIED)
- SI SLOPE INTERCEPT
- TPSP TEMPORARY PEDESTRIAN SURFACE  
MATTING PLATE
- TCW TEMPORARY MARKING CROSSWALK  
REMOVABLE TAPE 6-INCH
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL DRUMS

**PERMANENT SIGNING GENERAL NOTES:**

THE EXACT LOCATION OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

**2 REMOVE =** REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST)

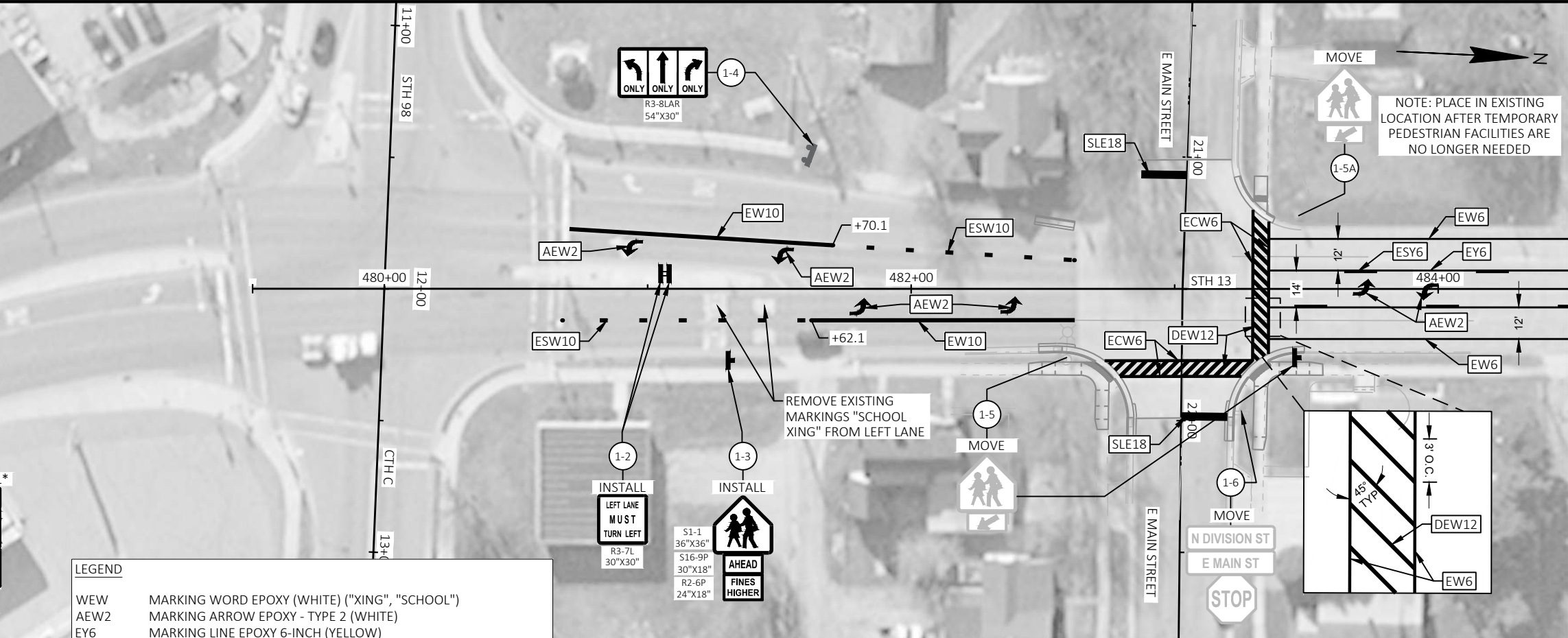
**REPLACE =** REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST), SIGNS TYPE II REFLECTIVE H/F AND POSTS WOOD (IF NOT BANDED TO EXISTING POLE).

**MOVE =** MOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS (WHEN ON EXISTING POST).

**INSTALL =** SIGNS TYPE II REFLECTIVE H/F AND POSTS WOOD (IF NOT BANDED TO EXISTING POLE).

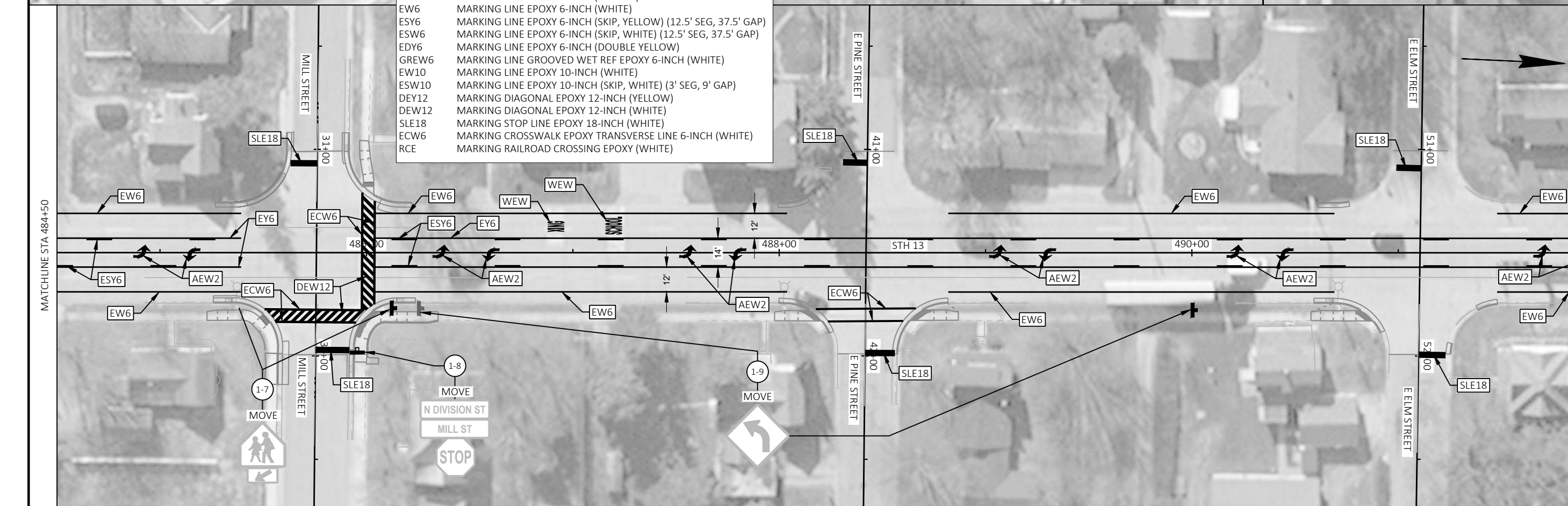
**SIGN LEGEND:**

- SIGNS TYPE II REFLECTIVE H/F ON EXISTING POST
- SIGNS TYPE II REFLECTIVE H/F ON NEW POSTS WOOD 4X6 INCUT
- SIGNS TYPE II REFLECTIVE H/F ON NEW POSTS TUBULAR STEEL 2X2-INCH
- BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
- SIGN GROUP NUMBERS







**LEGEND**

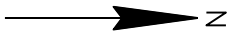
WEW	MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
AEW2	MARKING ARROW EPOXY - TYPE 2 (WHITE)
EY6	MARKING LINE EPOXY 6-INCH (YELLOW)
EW6	MARKING LINE EPOXY 6-INCH (WHITE)
ESY6	MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
ESW6	MARKING LINE EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
EDY6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
GREW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
EW10	MARKING LINE EPOXY 10-INCH (WHITE)
ESW10	MARKING LINE EPOXY 10-INCH (SKIP, WHITE) (3' SEG, 9' GAP)
DEY12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
DEW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
SLE18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
ECW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
RCE	MARKING RAILROAD CROSSING EPOXY (WHITE)





**SIGN LEGEND:**

-  SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
-  SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
-  BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
-  SIGN GROUP NUMBERS



2

2

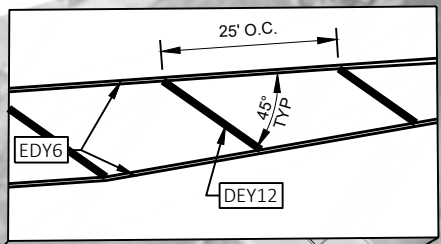
LEGEND	
WEW	MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
AEW2	MARKING ARROW EPOXY - TYPE 2 (WHITE)
EY6	MARKING LINE EPOXY 6-INCH (YELLOW)
EW6	MARKING LINE EPOXY 6-INCH (WHITE)
ESY6	MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
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SLE18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
ECW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
RCE	MARKING RAILROAD CROSSING EPOXY (WHITE)





**SIGN LEGEND:**

	SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
	SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
*	BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
(X-X)	SIGN GROUP NUMBERS

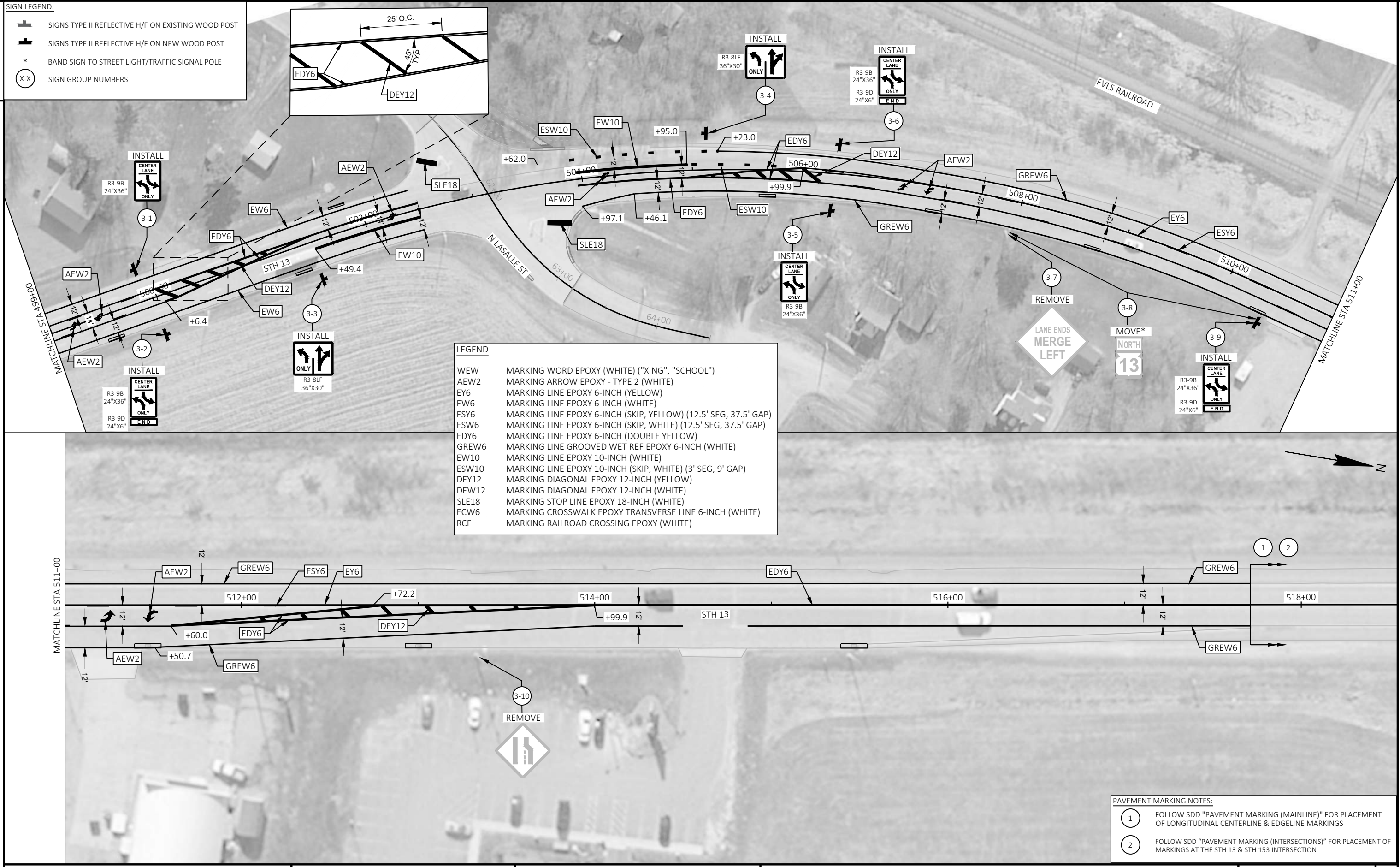


**LEGEND**

WEW	MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
AEW2	MARKING ARROW EPOXY - TYPE 2 (WHITE)
EY6	MARKING LINE EPOXY 6-INCH (YELLOW)
EW6	MARKING LINE EPOXY 6-INCH (WHITE)
ESY6	MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
ESW6	MARKING LINE EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
EDY6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
GREW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
EW10	MARKING LINE EPOXY 10-INCH (WHITE)
ESW10	MARKING LINE EPOXY 10-INCH (SKIP, WHITE) (3' SEG, 9' GAP)
DEY12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
DEW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
SLE18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
ECW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
RCE	MARKING RAILROAD CROSSING EPOXY (WHITE)

**PAVEMENT MARKING NOTES:**

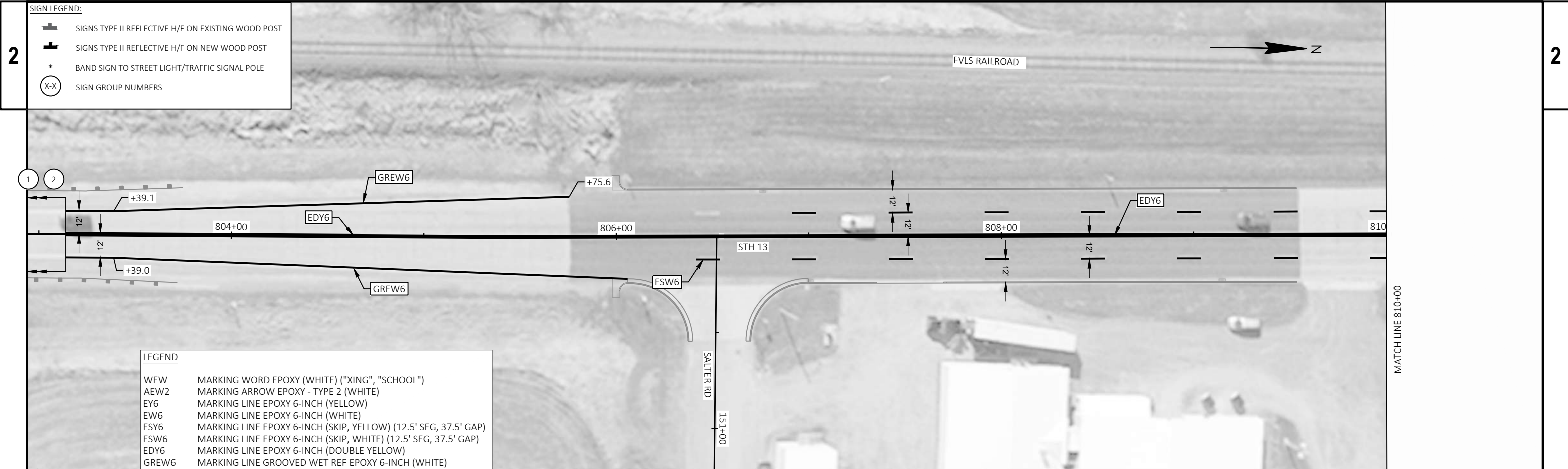
1	FOLLOW SDD "PAVEMENT MARKING (MAINLINE)" FOR PLACEMENT OF LONGITUDINAL CENTERLINE & EDGELINE MARKINGS
2	FOLLOW SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR PLACEMENT OF MARKINGS AT THE STH 13 & STH 153 INTERSECTION





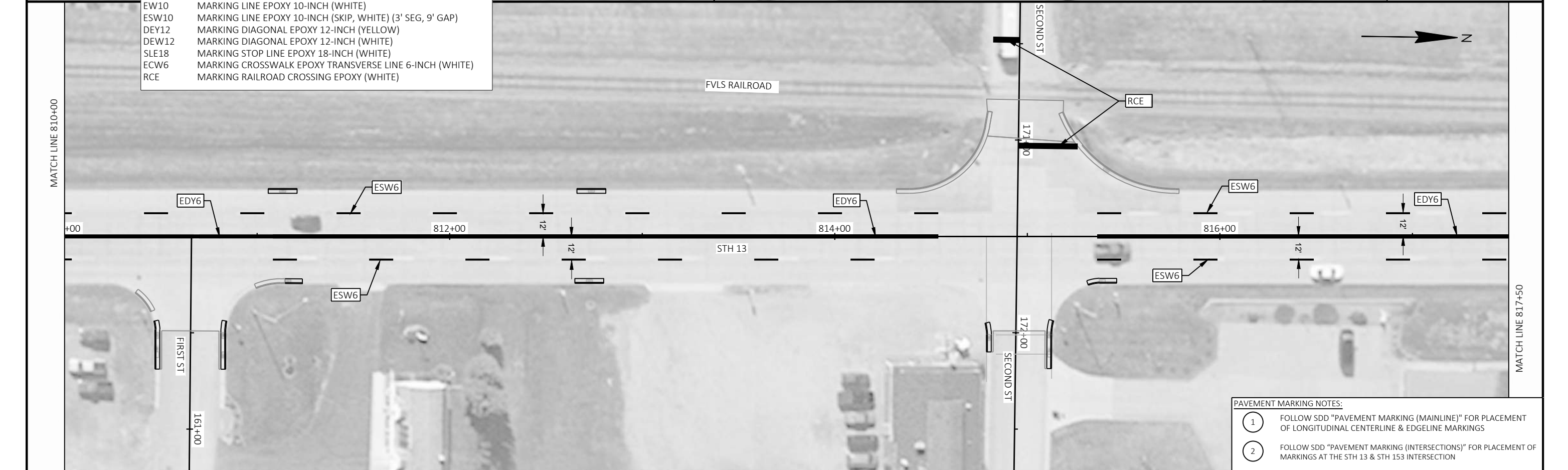
**SIGN LEGEND:**

- SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
- SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
- BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
- SIGN GROUP NUMBERS



**LEGEND**





- WEW MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
- AEW2 MARKING ARROW EPOXY - TYPE 2 (WHITE)
- EY6 MARKING LINE EPOXY 6-INCH (YELLOW)
- EW6 MARKING LINE EPOXY 6-INCH (WHITE)
- ESY6 MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
- ESW6 MARKING LINE EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
- EDY6 MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
- GREW6 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- EW10 MARKING LINE EPOXY 10-INCH (WHITE)
- ESW10 MARKING LINE EPOXY 10-INCH (SKIP, WHITE) (3' SEG, 9' GAP)
- DEY12 MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- DEW12 MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- SLE18 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ECW6 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- RCE MARKING RAILROAD CROSSING EPOXY (WHITE)

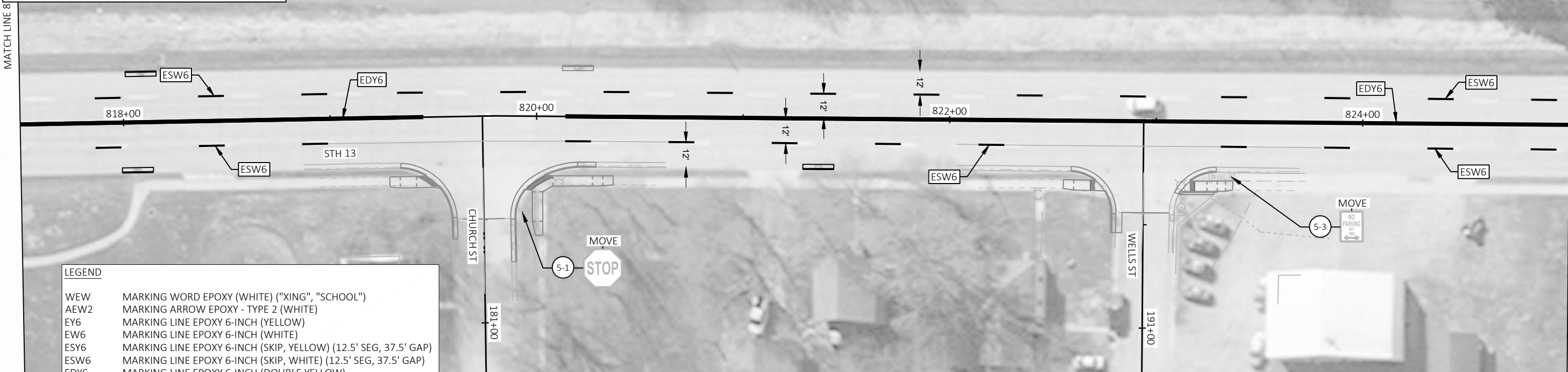


**PAVEMENT MARKING NOTES:**

- 1 FOLLOW SDD "PAVEMENT MARKING (MAINLINE)" FOR PLACEMENT OF LONGITUDINAL CENTERLINE & EDGELINE MARKINGS
- 2 FOLLOW SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR PLACEMENT OF MARKINGS AT THE STH 13 & STH 153 INTERSECTION

**SIGN LEGEND:**

-  SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
-  SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
-  BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
-  SIGN GROUP NUMBERS

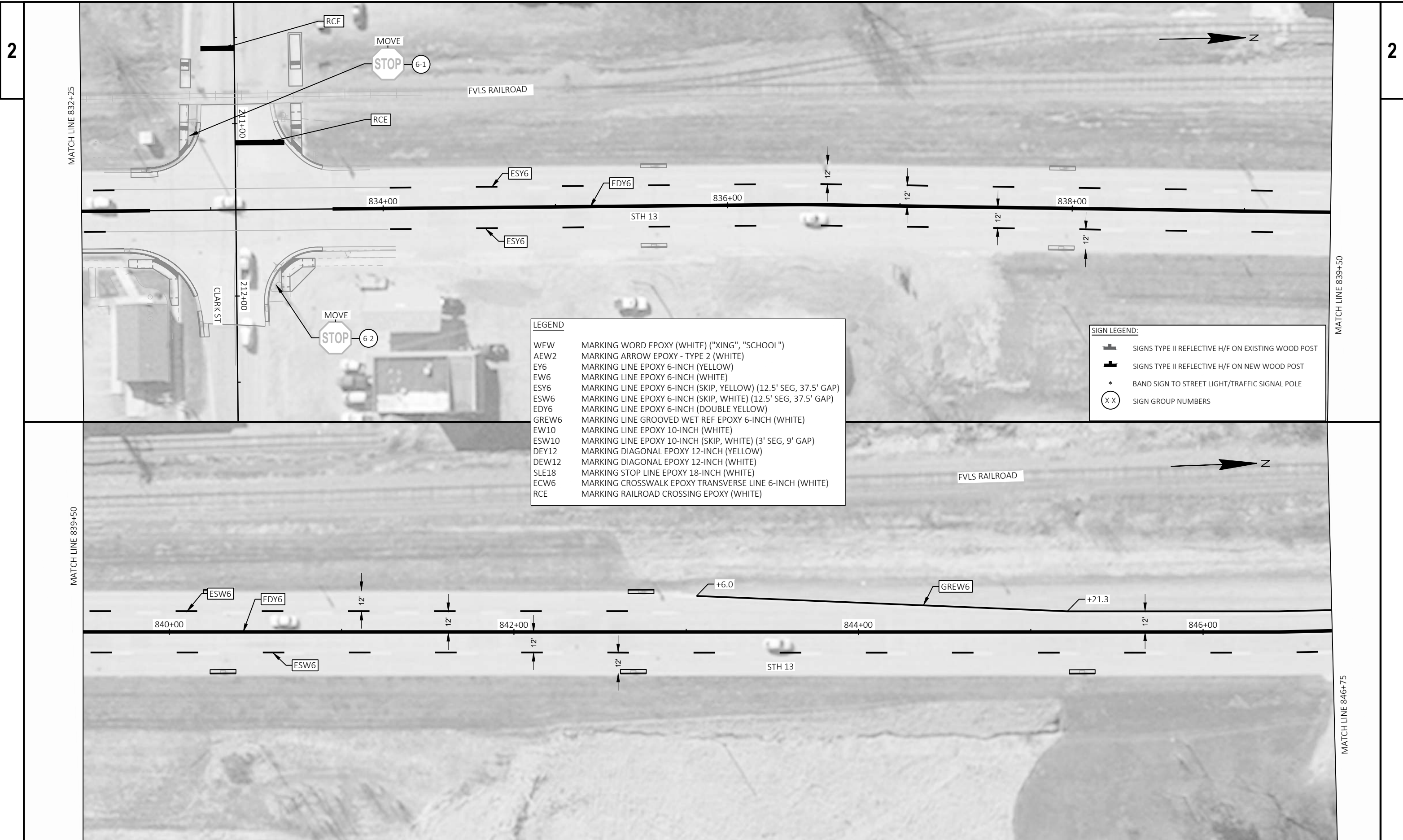


**LEGEND**

- WEW MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
- AEW2 MARKING ARROW EPOXY - TYPE 2 (WHITE)
- EY6 MARKING LINE EPOXY 6-INCH (YELLOW)
- EW6 MARKING LINE EPOXY 6-INCH (WHITE)
- ESY6 MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
- ESW6 MARKING LINE EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
- EDY6 MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
- GREW6 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- EW10 MARKING LINE EPOXY 10-INCH (WHITE)
- ESW10 MARKING LINE EPOXY 10-INCH (SKIP, WHITE) (3' SEG, 9' GAP)
- DEY12 MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- DEW12 MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- SLE18 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ECW6 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- RCE MARKING RAILROAD CROSSING EPOXY (WHITE)







2

2

MATCH LINE 832+25

MATCH LINE 839+50

MATCH LINE 839+50

MATCH LINE 846+75





**LEGEND**

WEW	MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
AEW2	MARKING ARROW EPOXY - TYPE 2 (WHITE)
EY6	MARKING LINE EPOXY 6-INCH (YELLOW)
EW6	MARKING LINE EPOXY 6-INCH (WHITE)
ESY6	MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
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ECW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
RCE	MARKING RAILROAD CROSSING EPOXY (WHITE)

**SIGN LEGEND:**

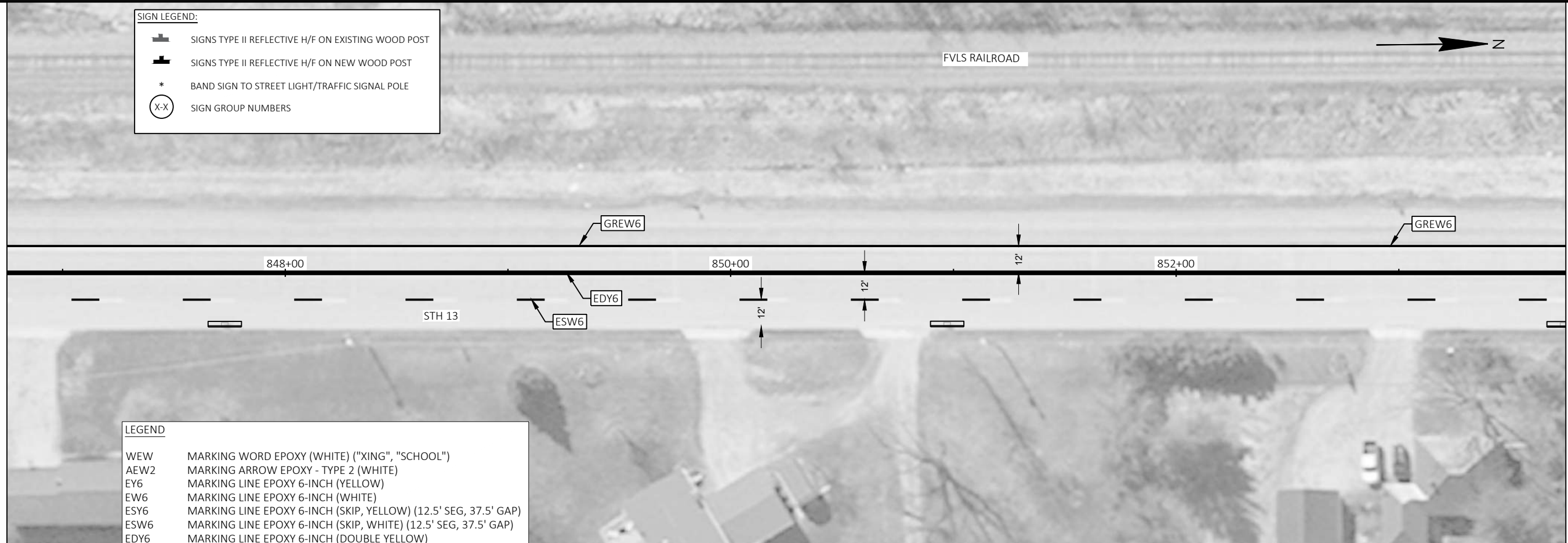
- SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
- SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
- BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
- SIGN GROUP NUMBERS

**SIGN LEGEND:**

-  SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
-  SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
-  BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
-  SIGN GROUP NUMBERS

MATCH LINE 846+75

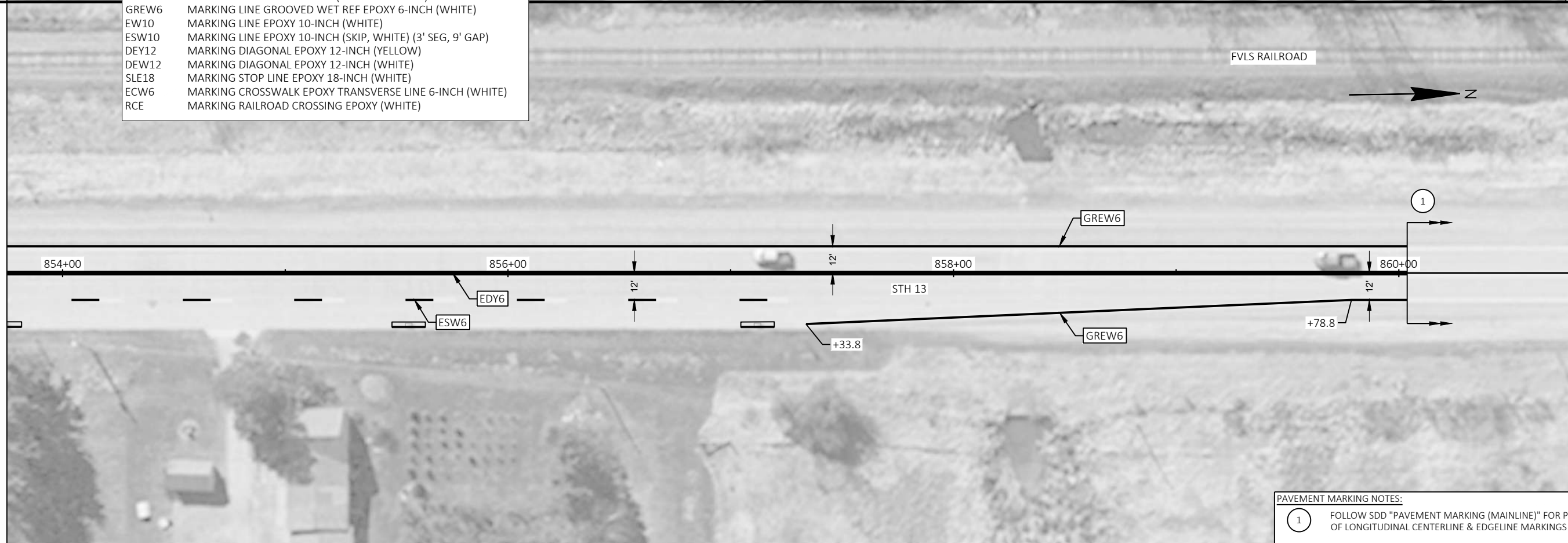
MATCH LINE 853+75



**LEGEND**

- WEW MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
- AEW2 MARKING ARROW EPOXY - TYPE 2 (WHITE)
- EY6 MARKING LINE EPOXY 6-INCH (YELLOW)
- EW6 MARKING LINE EPOXY 6-INCH (WHITE)
- ESY6 MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
- ESW6 MARKING LINE EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
- EDY6 MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
- GREW6 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
- EW10 MARKING LINE EPOXY 10-INCH (WHITE)
- ESW10 MARKING LINE EPOXY 10-INCH (SKIP, WHITE) (3' SEG, 9' GAP)
- DEY12 MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- DEW12 MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- SLE18 MARKING STOP LINE EPOXY 18-INCH (WHITE)
- ECW6 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- RCE MARKING RAILROAD CROSSING EPOXY (WHITE)

MATCH LINE 853+75



**PAVEMENT MARKING NOTES:**

1 FOLLOW SDD "PAVEMENT MARKING (MAINLINE)" FOR PLACEMENT OF LONGITUDINAL CENTERLINE & EDGELINE MARKINGS

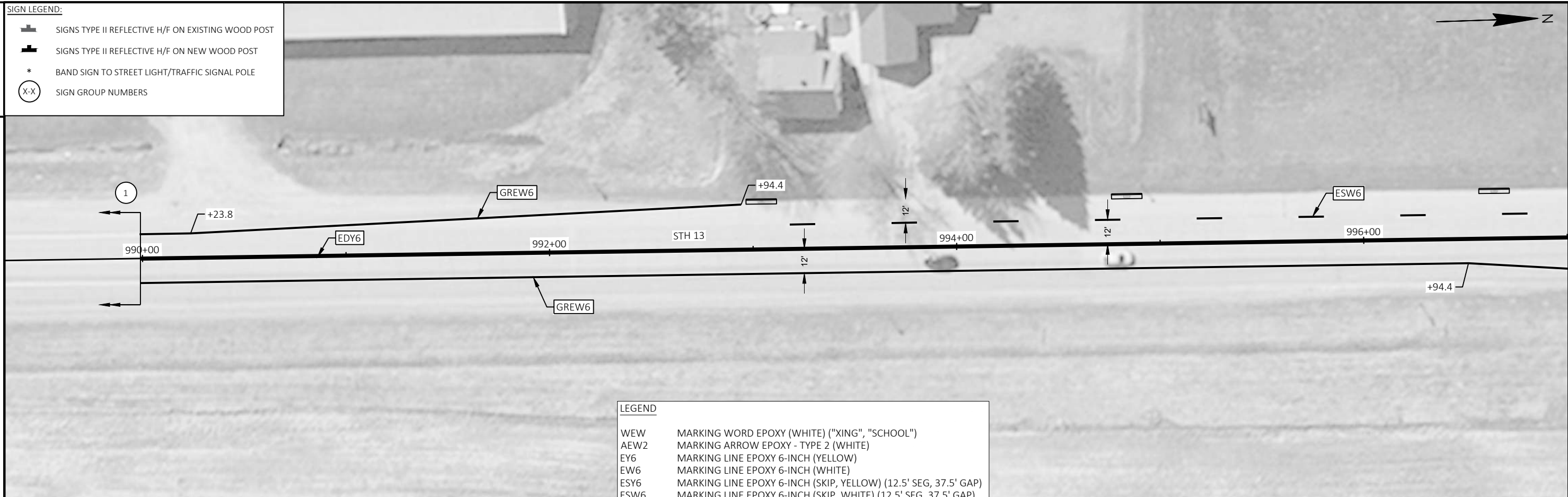


**SIGN LEGEND:**

- SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
- SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
- BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
- SIGN GROUP NUMBERS

2

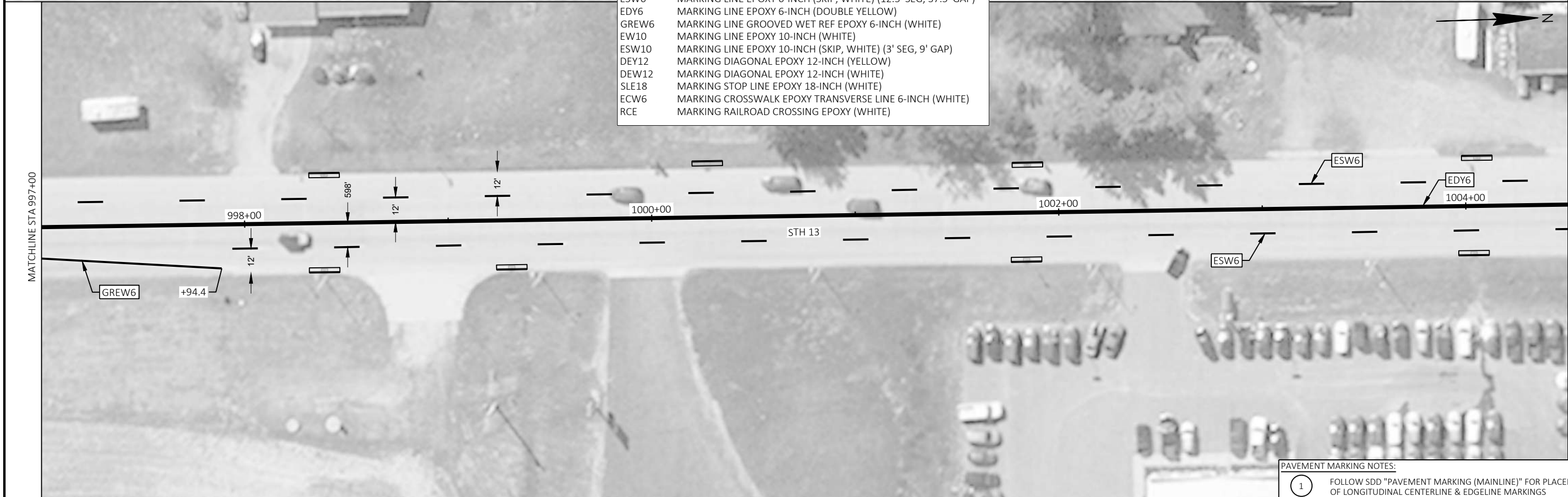
2



MATCHLINE STA 997+00

**LEGEND**

WEW	MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
AEW2	MARKING ARROW EPOXY - TYPE 2 (WHITE)
EY6	MARKING LINE EPOXY 6-INCH (YELLOW)
EW6	MARKING LINE EPOXY 6-INCH (WHITE)
ESY6	MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
ESW6	MARKING LINE EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
EDY6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
GREW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
EW10	MARKING LINE EPOXY 10-INCH (WHITE)
ESW10	MARKING LINE EPOXY 10-INCH (SKIP, WHITE) (3' SEG, 9' GAP)
DEY12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
DEW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
SLE18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
ECW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
RCE	MARKING RAILROAD CROSSING EPOXY (WHITE)



MATCHLINE STA 997+00

MATCHLINE STA 1004+50

**PAVEMENT MARKING NOTES:**

① FOLLOW SDD "PAVEMENT MARKING (MAINLINE)" FOR PLACEMENT OF LONGITUDINAL CENTERLINE & EDGELINE MARKINGS

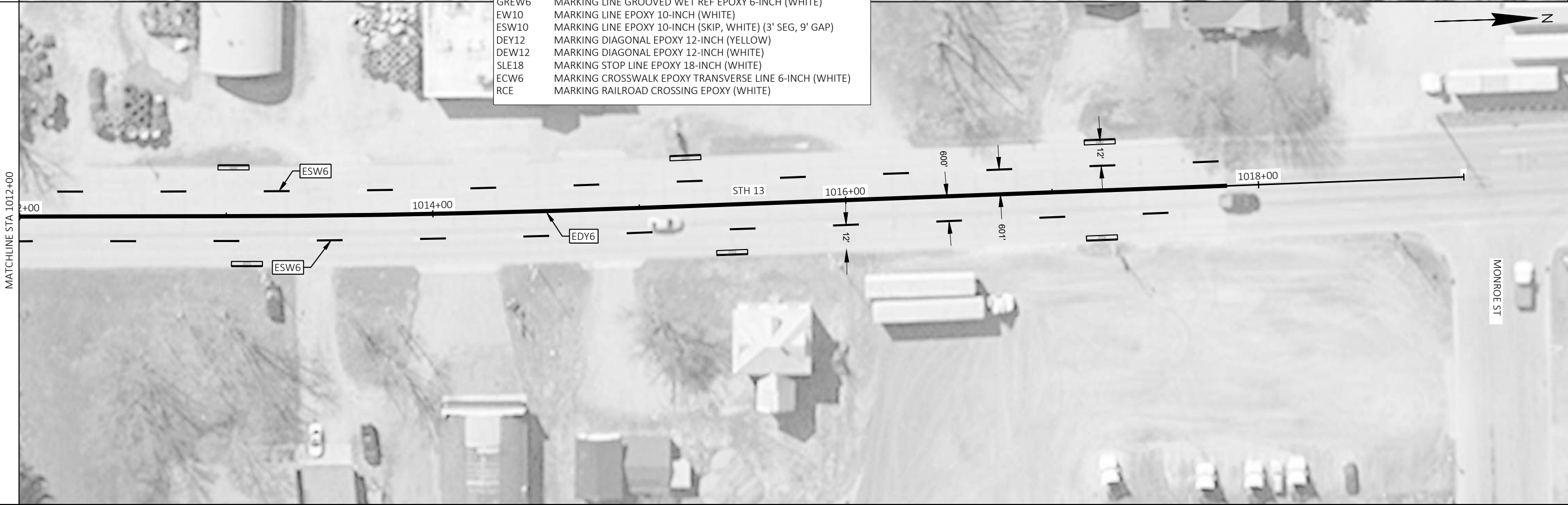
PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PERMANENT SIGNING & PAVEMENT MARKING	SHEET	<b>E</b>
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**SIGN LEGEND:**

- SIGNS TYPE II REFLECTIVE H/F ON EXISTING WOOD POST
- SIGNS TYPE II REFLECTIVE H/F ON NEW WOOD POST
- BAND SIGN TO STREET LIGHT/TRAFFIC SIGNAL POLE
- SIGN GROUP NUMBERS

2

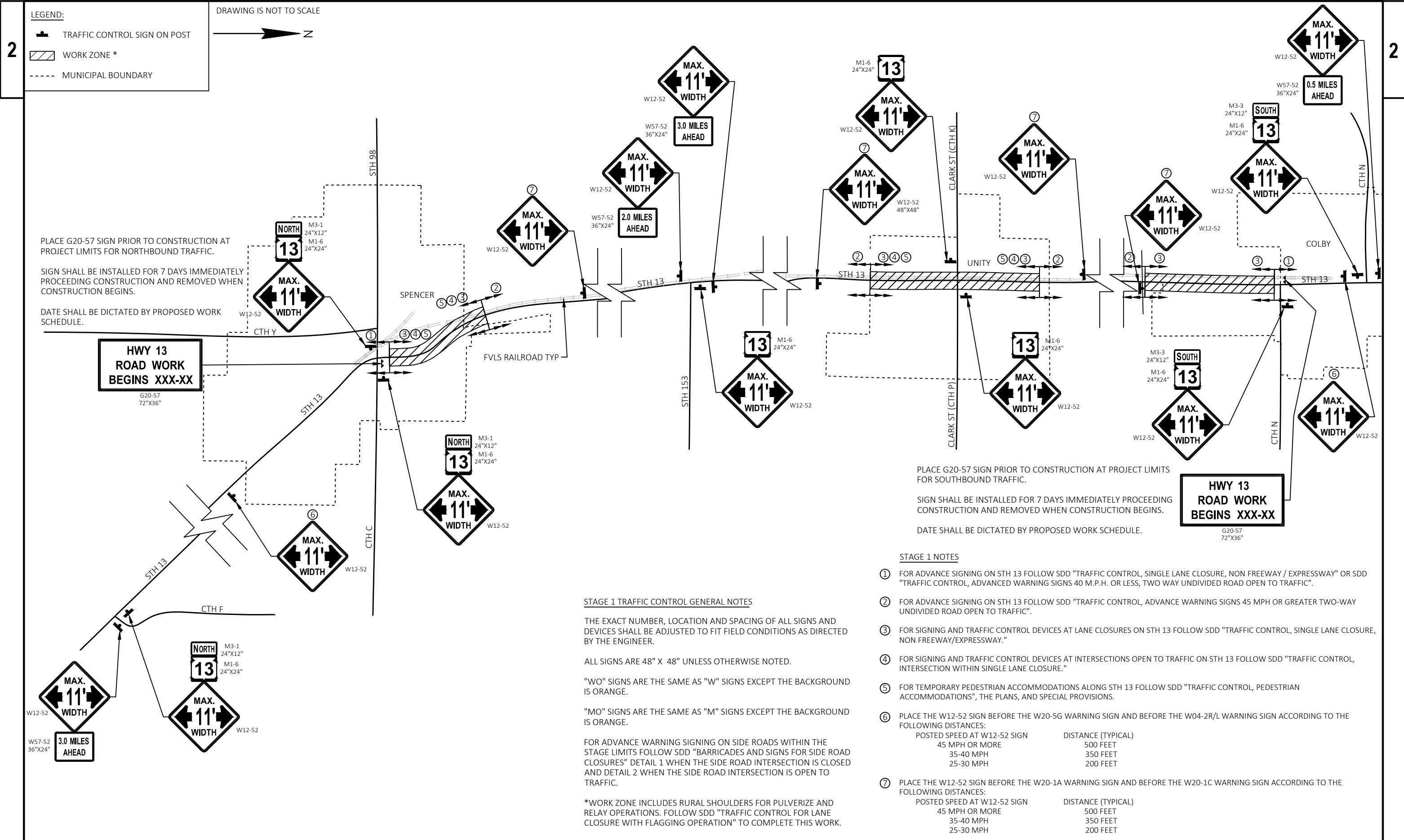
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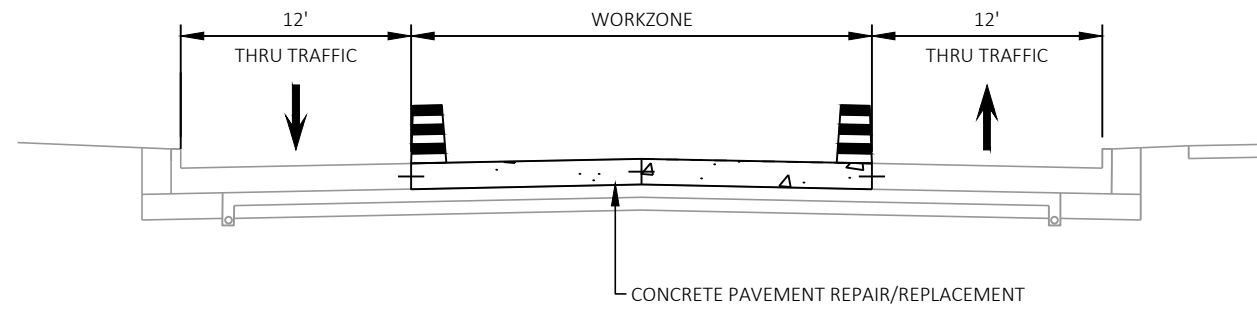
**LEGEND**

WEW	MARKING WORD EPOXY (WHITE) ("XING", "SCHOOL")
AEW2	MARKING ARROW EPOXY - TYPE 2 (WHITE)
EY6	MARKING LINE EPOXY 6-INCH (YELLOW)
EW6	MARKING LINE EPOXY 6-INCH (WHITE)
ESY6	MARKING LINE EPOXY 6-INCH (SKIP, YELLOW) (12.5' SEG, 37.5' GAP)
ESW6	MARKING LINE EPOXY 6-INCH (SKIP, WHITE) (12.5' SEG, 37.5' GAP)
EDY6	MARKING LINE EPOXY 6-INCH (DOUBLE YELLOW)
GREW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
EW10	MARKING LINE EPOXY 10-INCH (WHITE)
ESW10	MARKING LINE EPOXY 10-INCH (SKIP, WHITE) (3' SEG, 9' GAP)
DEY12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
DEW12	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
SLE18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
ECW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
RCE	MARKING RAILROAD CROSSING EPOXY (WHITE)



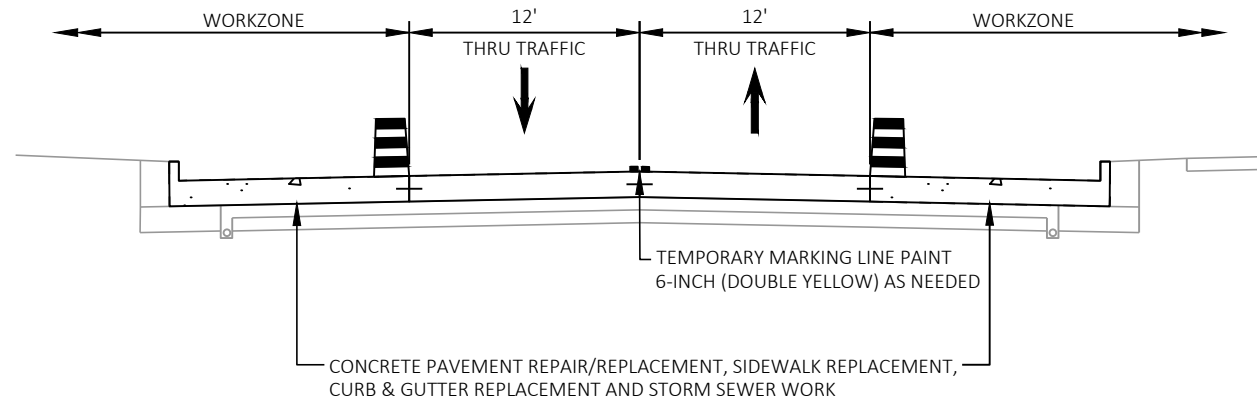


LEGEND



TYPICAL SECTION 4-LANE URBAN - STAGE 1A

STA 482+62.0 TO STA 504+63.1  
STA 809+55.0 TO STA 842+94.6  
STA 997+96.0 TO STA 1017+84.8

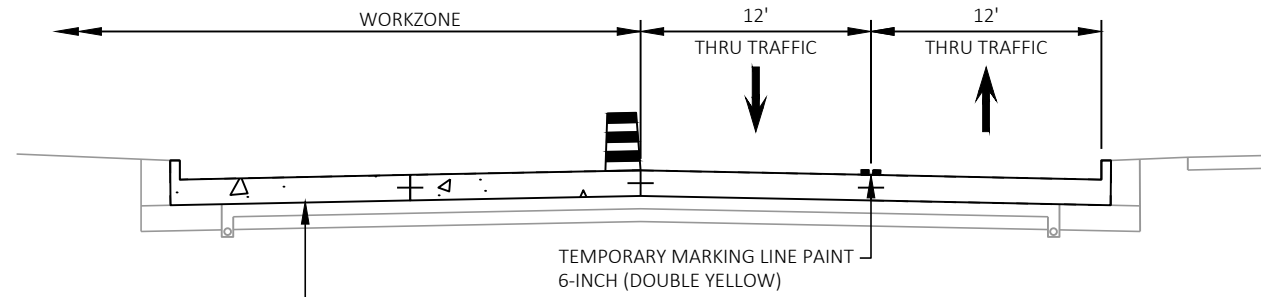


TYPICAL SECTION 4-LANE URBAN - STAGE 1B

STA 482+62.0 TO STA 504+63.1  
STA 809+55.0 TO STA 842+94.6  
STA 997+96.0 TO STA 1017+84.8



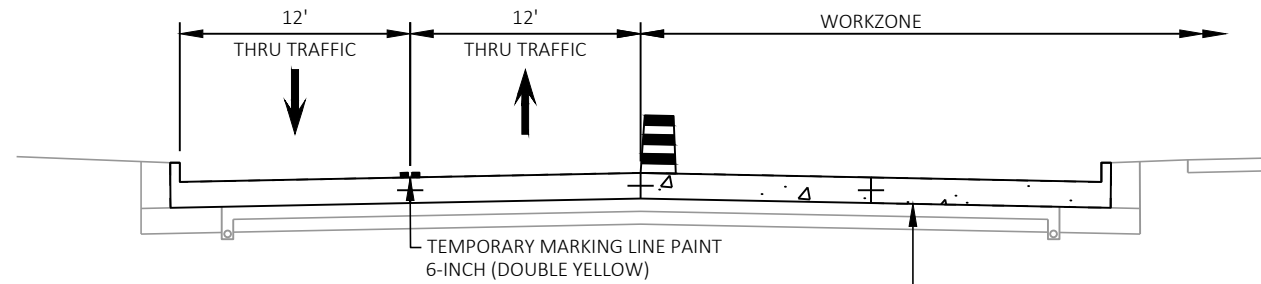
LEGEND



CONCRETE PAVEMENT REPAIR/REPLACEMENT, SIDEWALK REPLACEMENT, CURB & GUTTER REPLACEMENT AND STORM SEWER WORK NOT COMPLETED PREVIOUSLY

**TYPICAL SECTION 4-LANE URBAN - STAGE 1C**

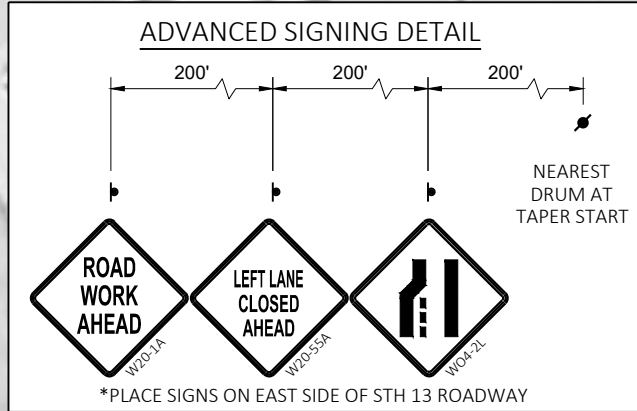
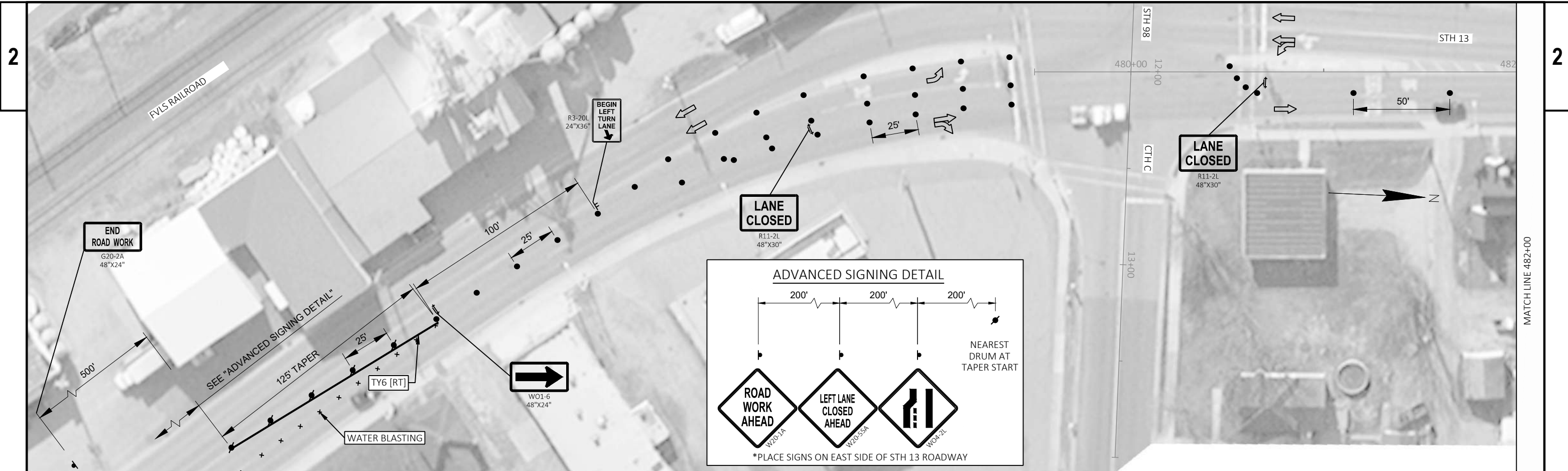
STA 482+62.0 TO STA 504+63.1  
STA 809+55.0 TO STA 842+94.6  
STA 997+96.0 TO STA 1017+84.8



CONCRETE PAVEMENT REPAIR/REPLACEMENT, SIDEWALK REPLACEMENT, CURB & GUTTER REPLACEMENT AND STORM SEWER WORK NOT COMPLETED PREVIOUSLY

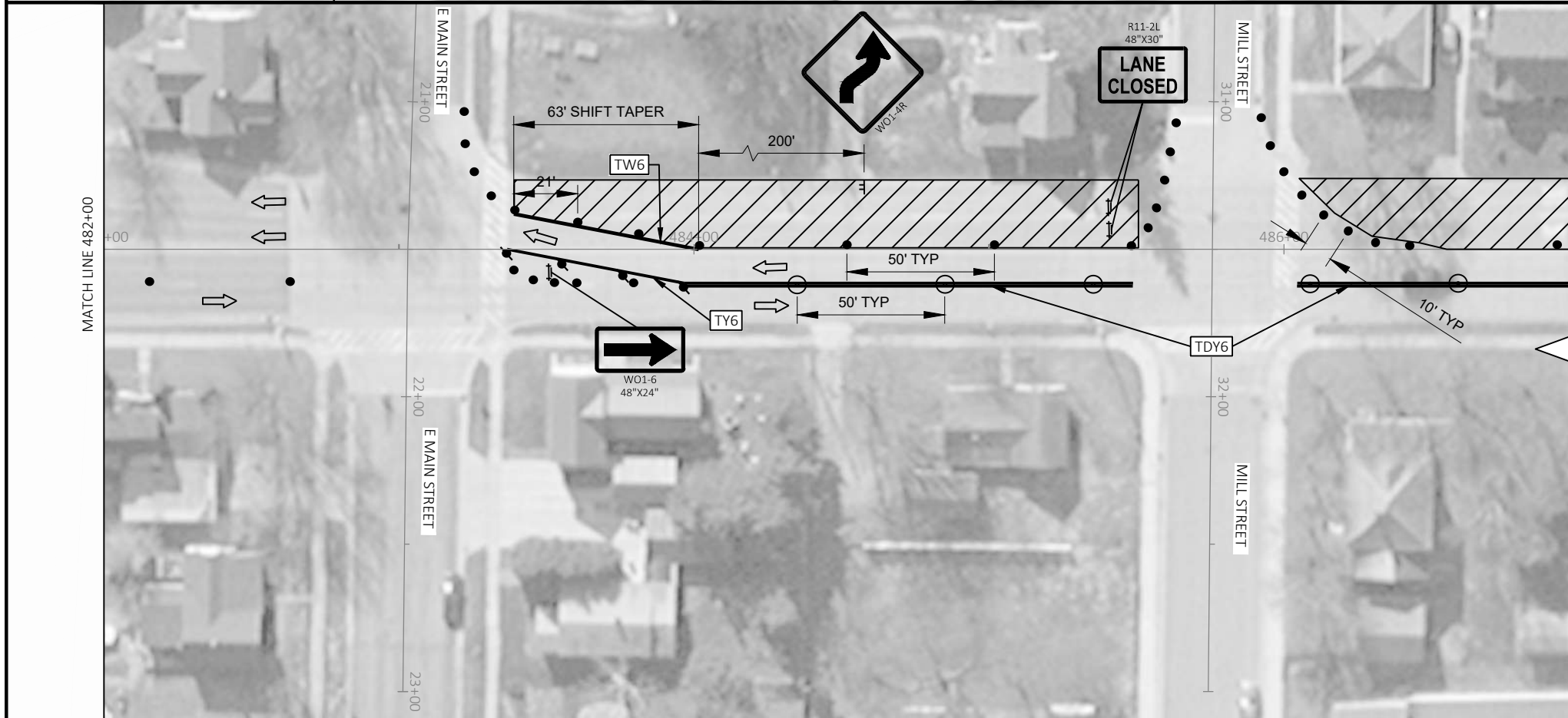
**TYPICAL SECTION 4-LANE URBAN - STAGE 1D**

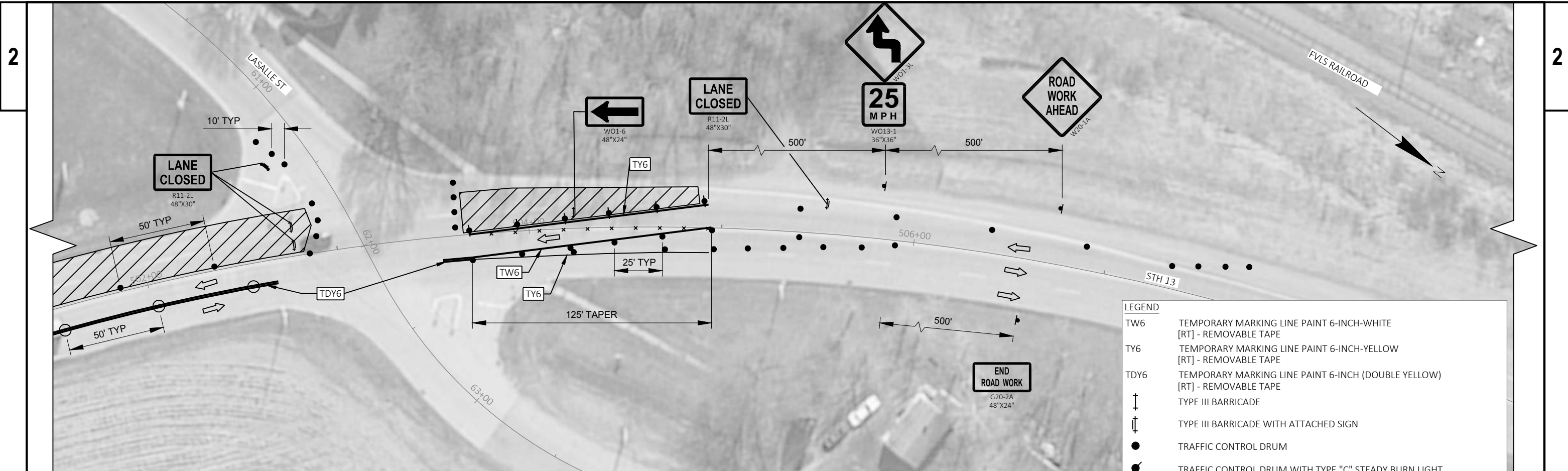
STA 482+62.0 TO STA 504+63.1  
STA 809+55.0 TO STA 842+94.6  
STA 997+96.0 TO STA 1017+84.8



**LEGEND**

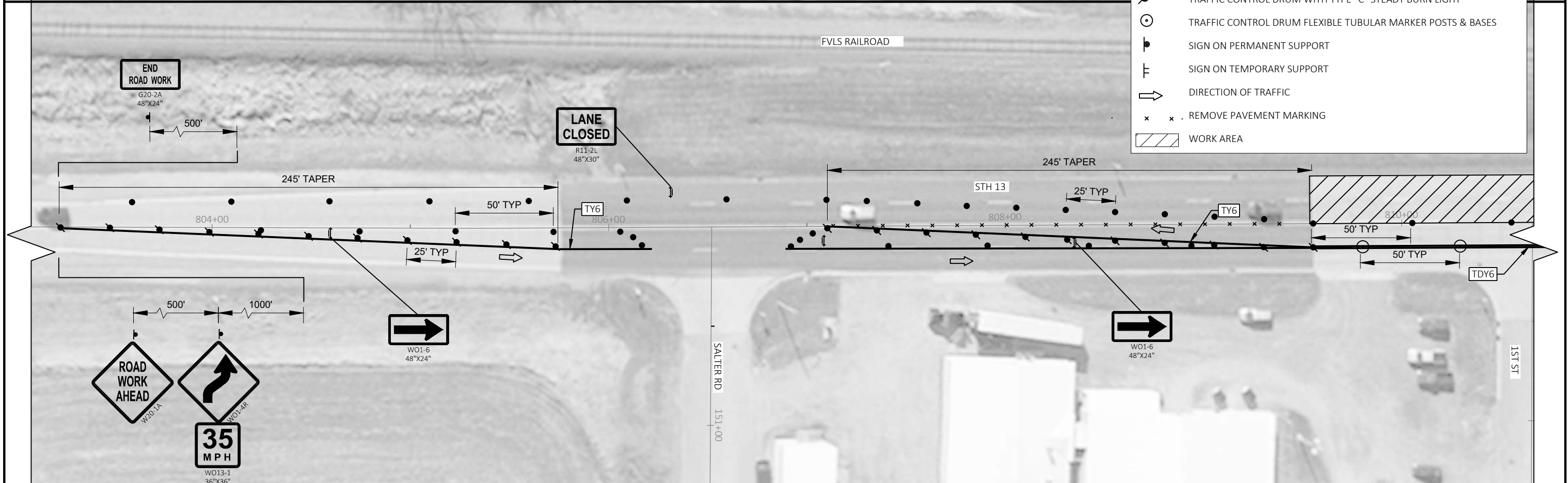
TW6	TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
TY6	TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
TDY6	TEMPORARY MARKING LINE PAINT 6-INCH-DOUBLE YELLOW [RT] - REMOVABLE TAPE
[Symbol]	TYPE III BARRICADE
[Symbol]	TYPE III BARRICADE WITH ATTACHED SIGN
[Symbol]	TRAFFIC CONTROL DRUM
[Symbol]	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
[Symbol]	TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
[Symbol]	SIGN ON PERMANENT SUPPORT
[Symbol]	SIGN ON TEMPORARY SUPPORT
[Symbol]	DIRECTION OF TRAFFIC
[Symbol]	REMOVE PAVEMENT MARKING
[Symbol]	WORK AREA

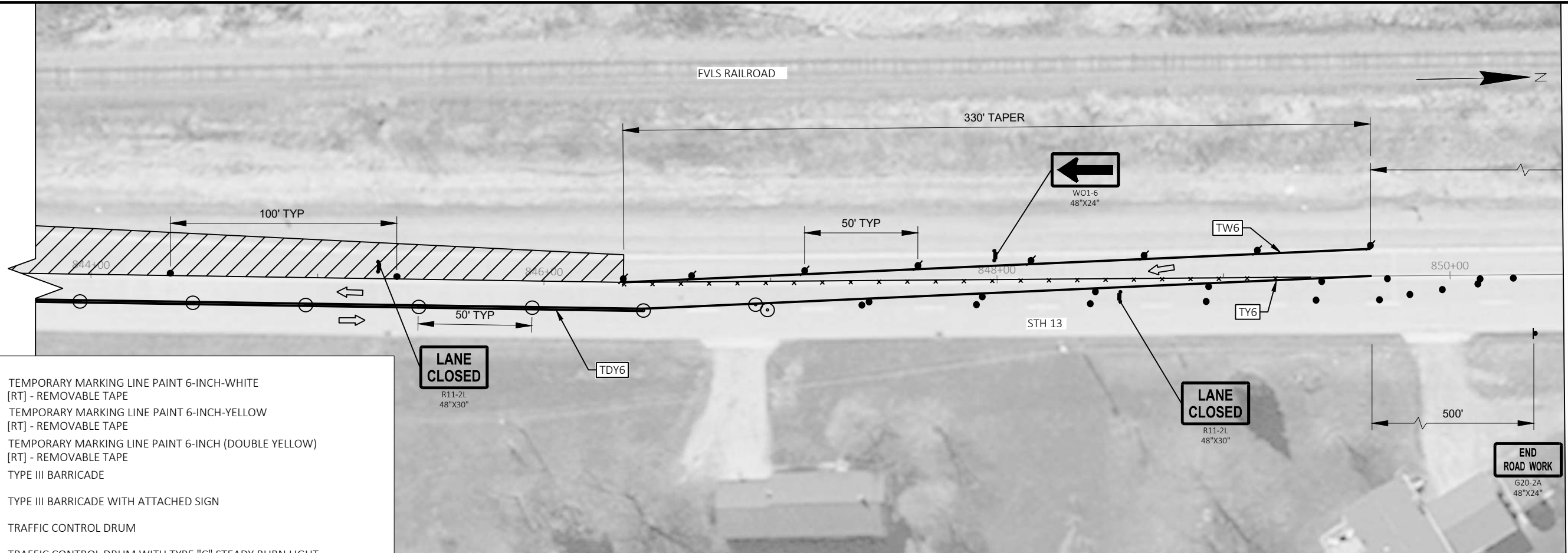




**LEGEND**

- TW6 TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
- TY6 TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
- TDY6 TEMPORARY MARKING LINE PAINT 6-INCH (DOUBLE YELLOW) [RT] - REMOVABLE TAPE
- ↓ TYPE III BARRICADE
- ↓↓ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ⊙ TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
- ⊥ SIGN ON PERMANENT SUPPORT
- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC
- x x REMOVE PAVEMENT MARKING
- ▨ WORK AREA



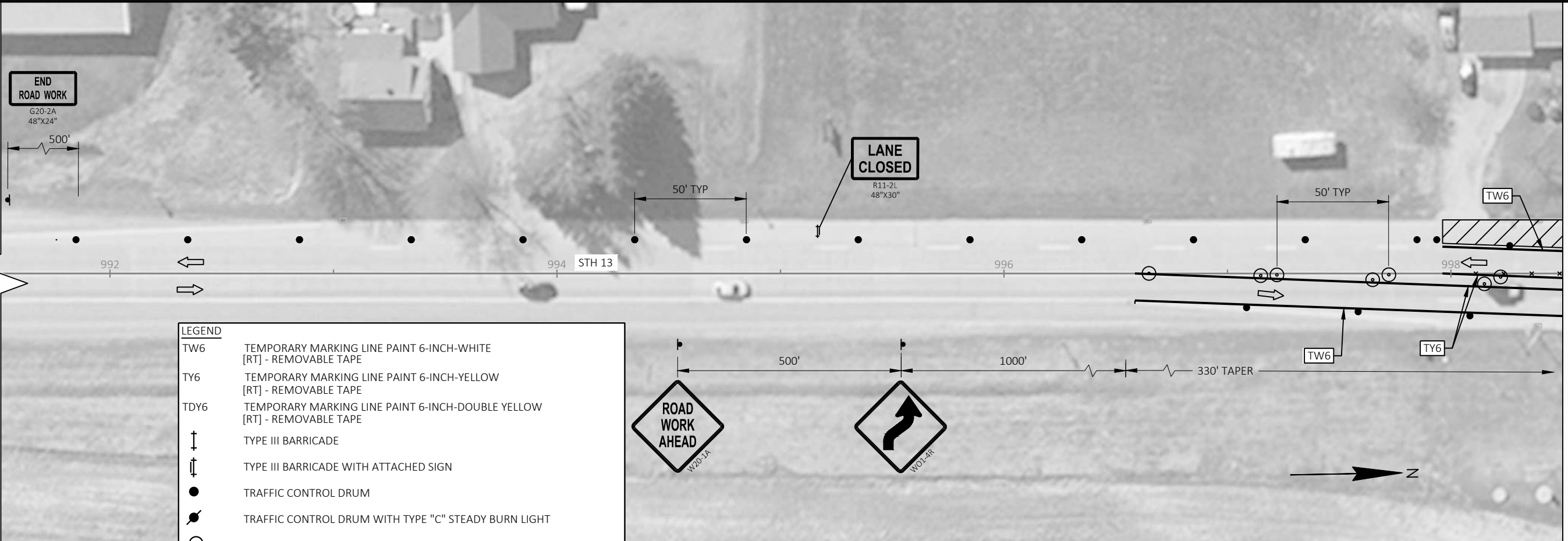


**LEGEND**

TW6	TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
TY6	TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
TDY6	TEMPORARY MARKING LINE PAINT 6-INCH (DOUBLE YELLOW) [RT] - REMOVABLE TAPE
†	TYPE III BARRICADE
†	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
⊙	TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
♣	SIGN ON PERMANENT SUPPORT
♣	SIGN ON TEMPORARY SUPPORT
⇒	DIRECTION OF TRAFFIC
x x	REMOVE PAVEMENT MARKING
▨	WORK AREA

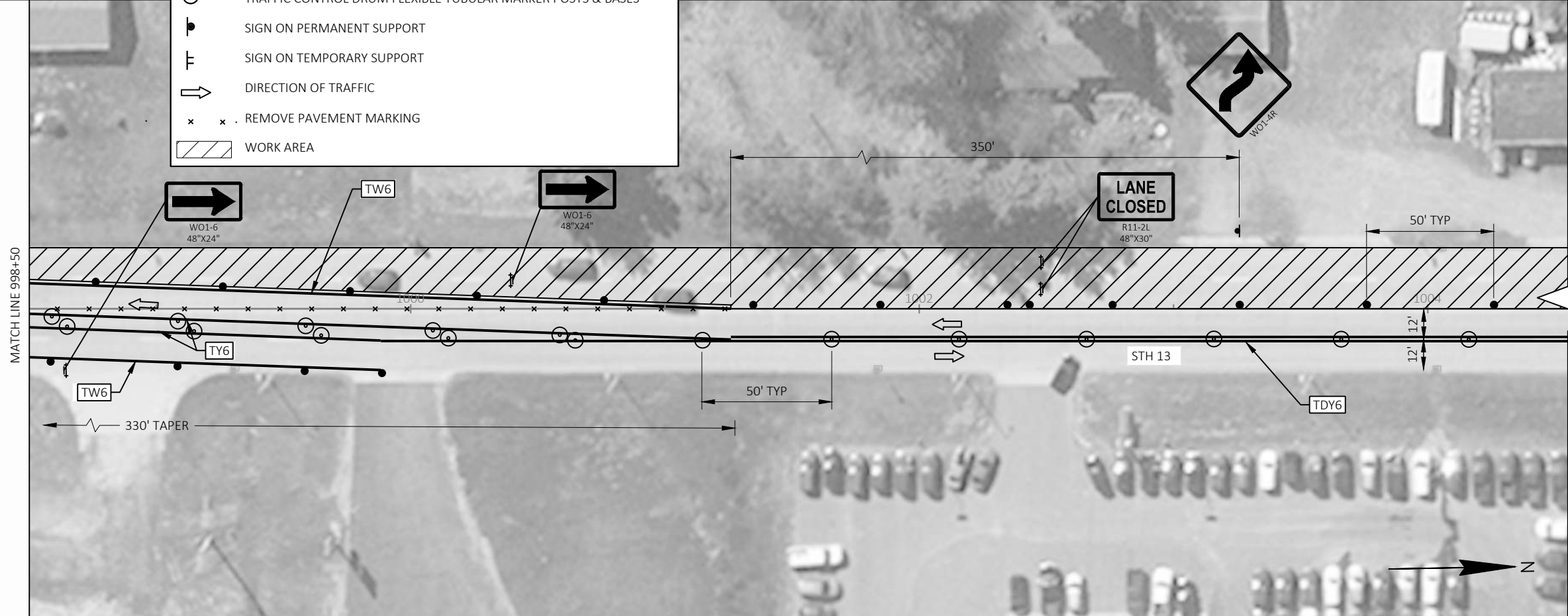


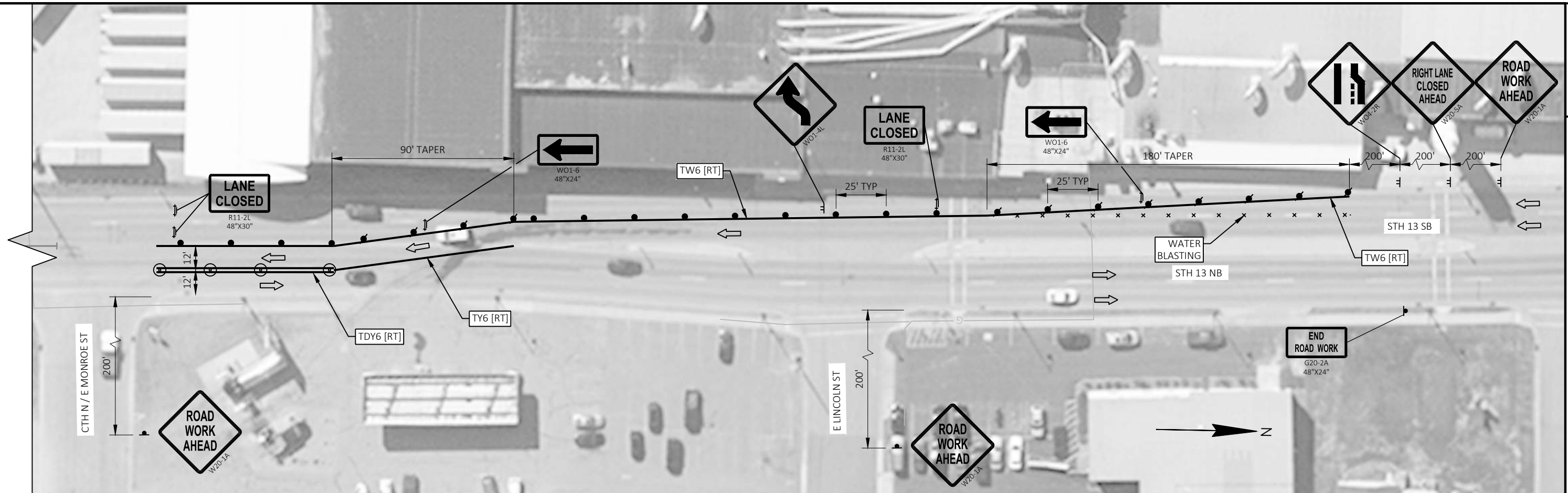




**LEGEND**

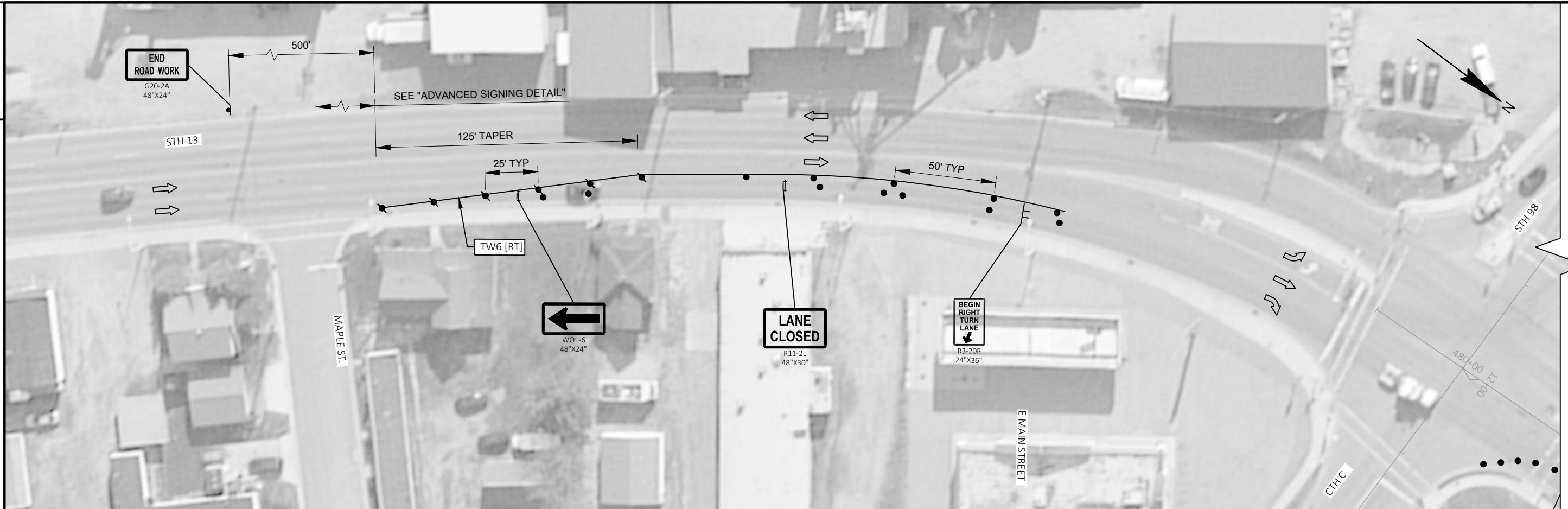
TW6	TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
TY6	TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
TDY6	TEMPORARY MARKING LINE PAINT 6-INCH-DOUBLE YELLOW [RT] - REMOVABLE TAPE
↑	TYPE III BARRICADE
↑↑	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
⊙	TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
♣	SIGN ON PERMANENT SUPPORT
⊥	SIGN ON TEMPORARY SUPPORT
→	DIRECTION OF TRAFFIC
x x	REMOVE PAVEMENT MARKING
▨	WORK AREA





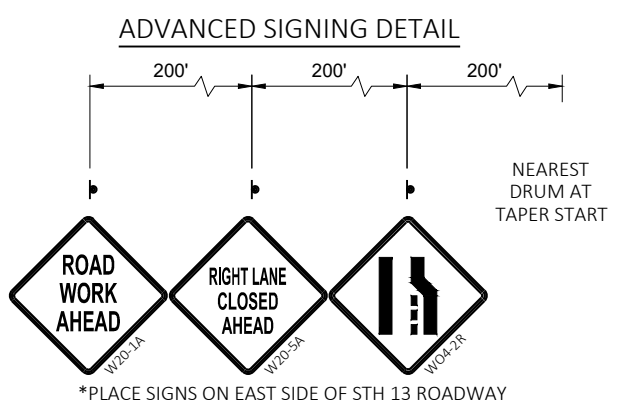
**LEGEND**

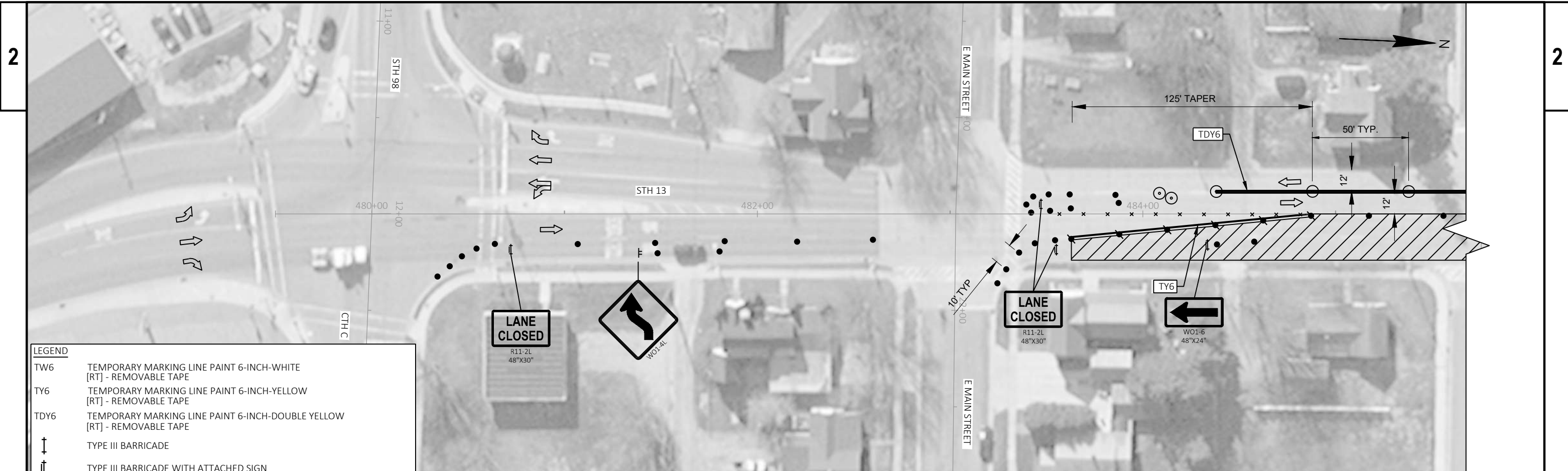
TW6	TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
TY6	TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
TDY6	TEMPORARY MARKING LINE PAINT 6-INCH-DOUBLE YELLOW [RT] - REMOVABLE TAPE
⊥	TYPE III BARRICADE
⊥	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
⊙	TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
⊥	SIGN ON PERMANENT SUPPORT
⊥	SIGN ON TEMPORARY SUPPORT
➡	DIRECTION OF TRAFFIC
x x	REMOVE PAVEMENT MARKING
▨	WORK AREA



**LEGEND**

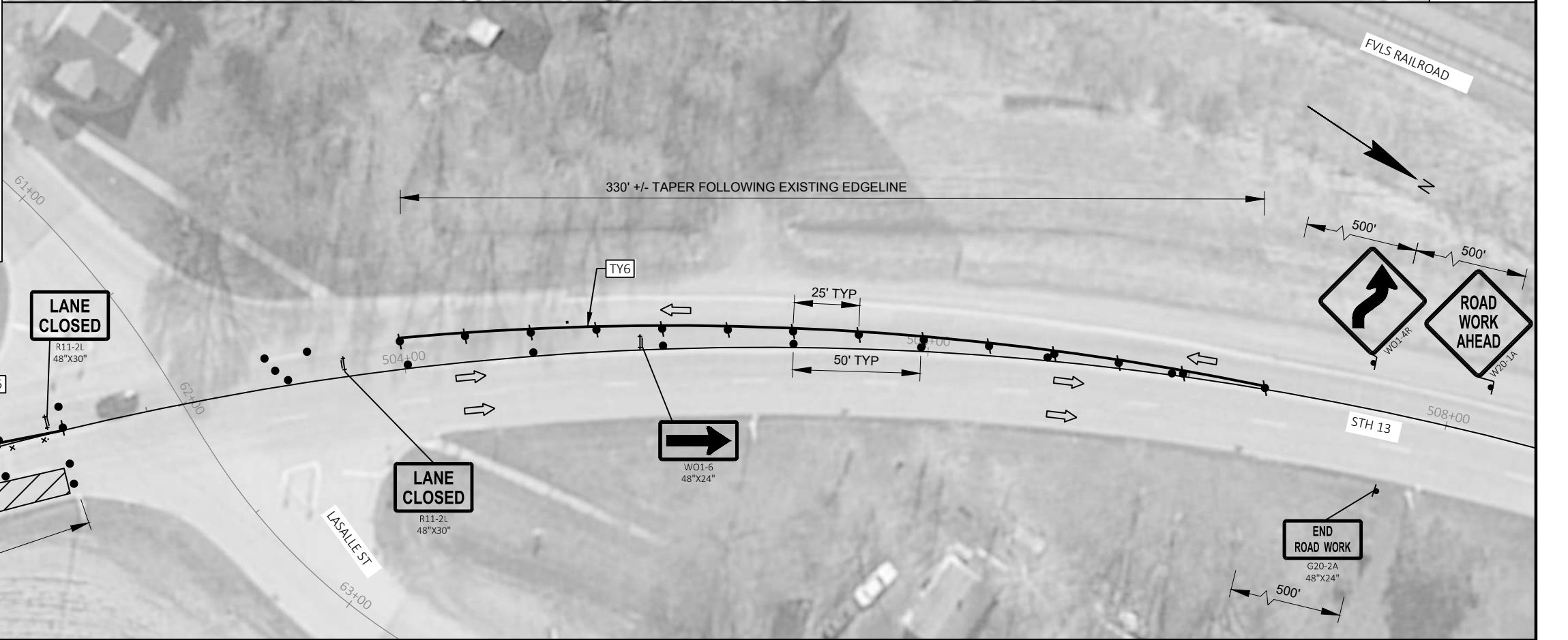
TW6	TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
TY6	TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
TDY6	TEMPORARY MARKING LINE PAINT 6-INCH-DOUBLE YELLOW [RT] - REMOVABLE TAPE
↑	TYPE III BARRICADE
↑	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
⊙	TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
⊥	SIGN ON PERMANENT SUPPORT
⊥	SIGN ON TEMPORARY SUPPORT
→	DIRECTION OF TRAFFIC
x	REMOVE PAVEMENT MARKING
▨	WORK AREA





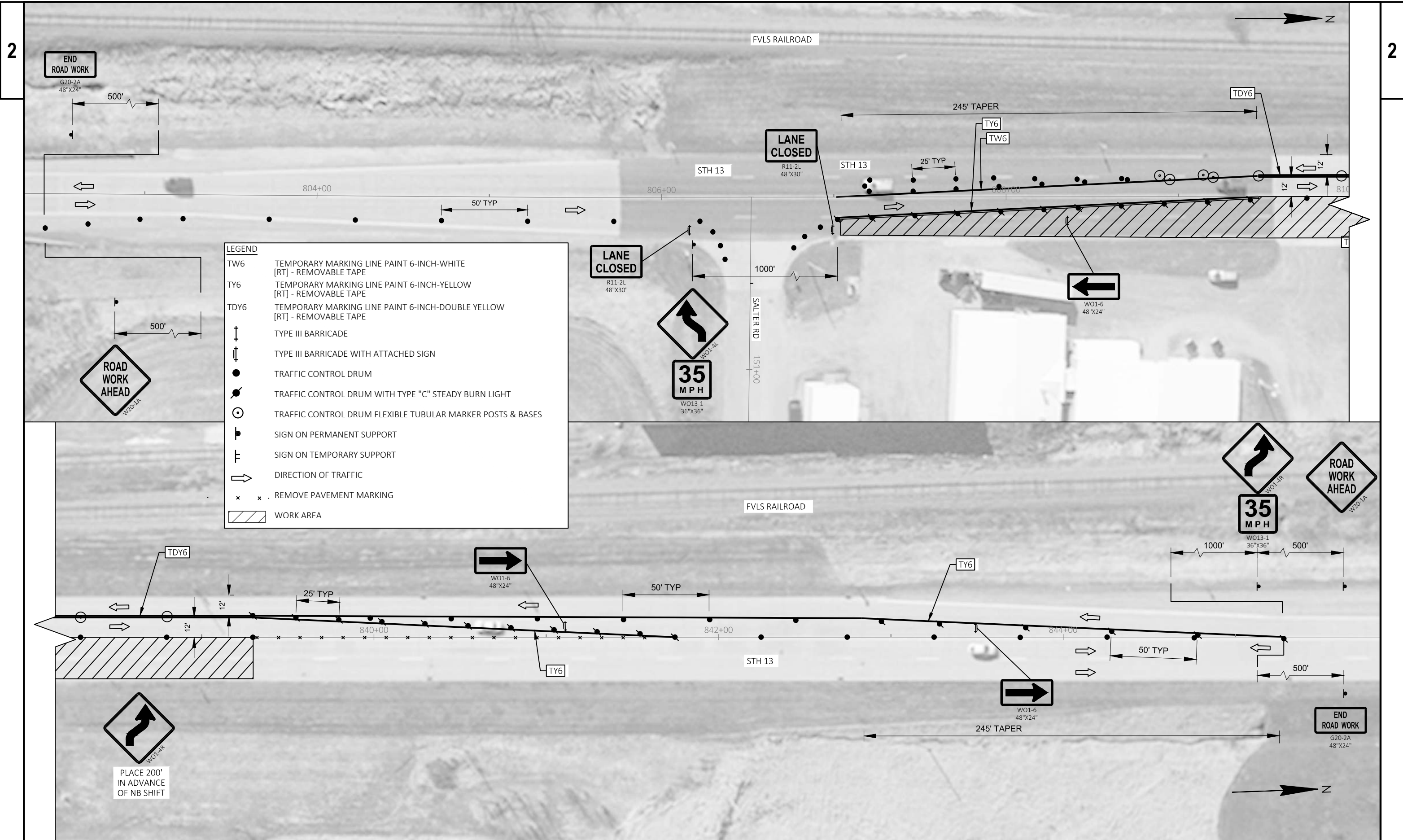
**LEGEND**

TW6	TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
TY6	TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
TDY6	TEMPORARY MARKING LINE PAINT 6-INCH-DOUBLE YELLOW [RT] - REMOVABLE TAPE
†	TYPE III BARRICADE
††	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●●	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
⊙	TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
⊣	SIGN ON PERMANENT SUPPORT
⊣	SIGN ON TEMPORARY SUPPORT
→	DIRECTION OF TRAFFIC
x x	REMOVE PAVEMENT MARKING
▨	WORK AREA



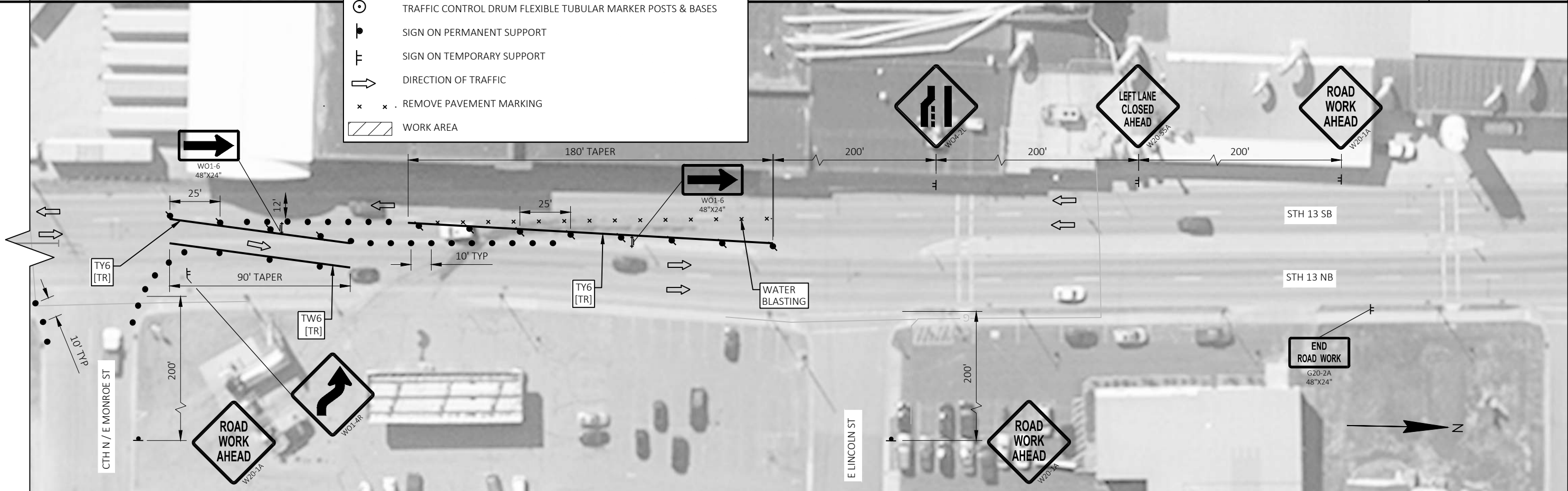
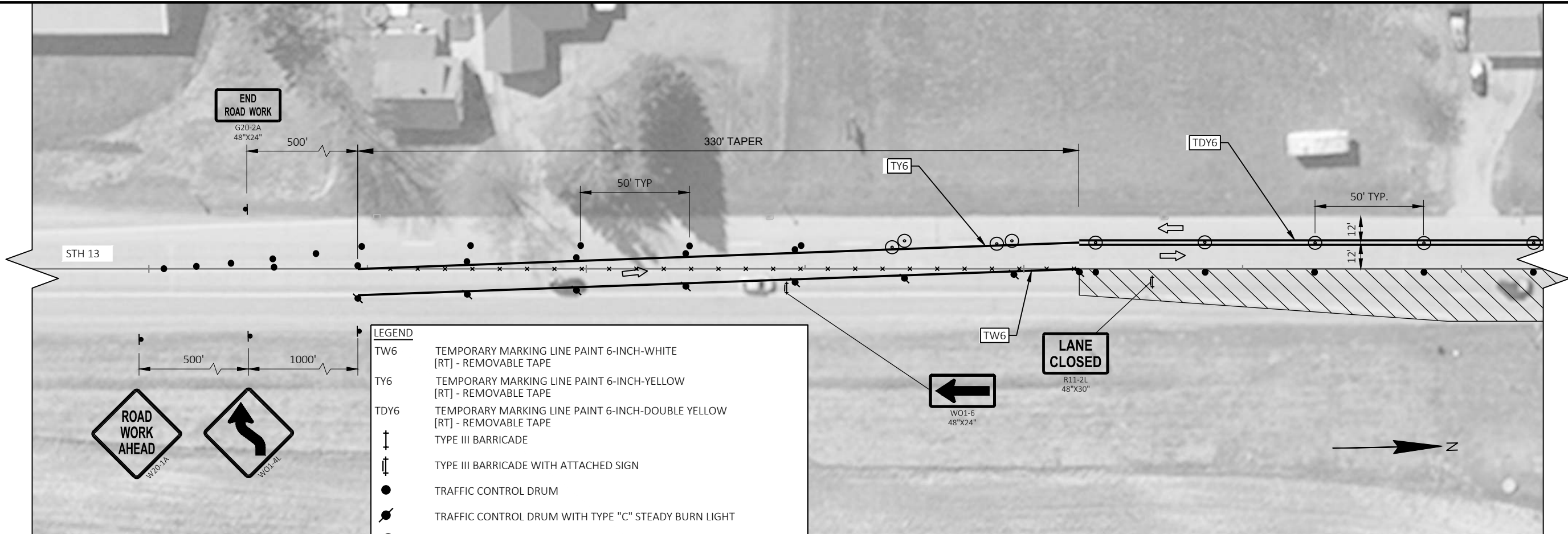
PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      TRAFFIC CONTROL - STAGE 1D      SHEET      E











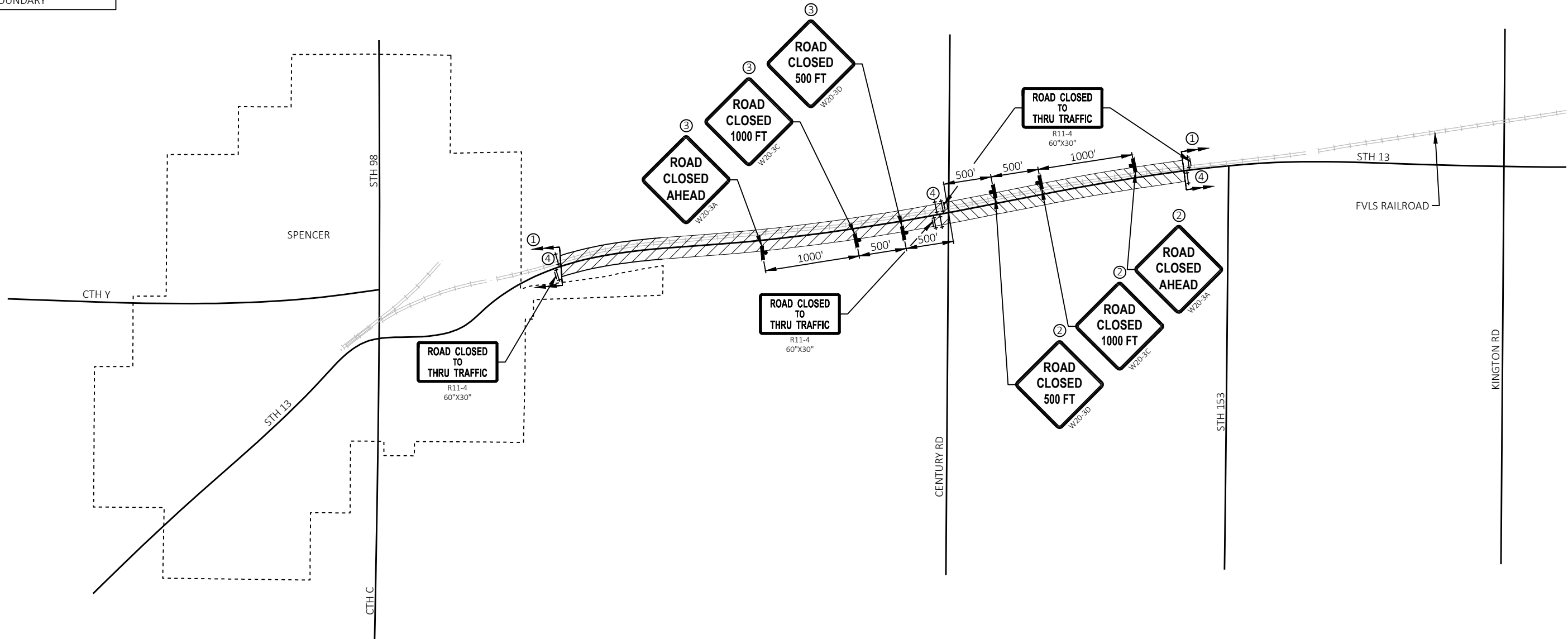
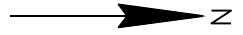
**LEGEND**

TW6	TEMPORARY MARKING LINE PAINT 6-INCH-WHITE [RT] - REMOVABLE TAPE
TY6	TEMPORARY MARKING LINE PAINT 6-INCH-YELLOW [RT] - REMOVABLE TAPE
TDY6	TEMPORARY MARKING LINE PAINT 6-INCH-DOUBLE YELLOW [RT] - REMOVABLE TAPE
↑	TYPE III BARRICADE
↑↑	TYPE III BARRICADE WITH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
○	TRAFFIC CONTROL DRUM FLEXIBLE TUBULAR MARKER POSTS & BASES
↑	SIGN ON PERMANENT SUPPORT
↑	SIGN ON TEMPORARY SUPPORT
→	DIRECTION OF TRAFFIC
x x	REMOVE PAVEMENT MARKING
▨	WORK AREA

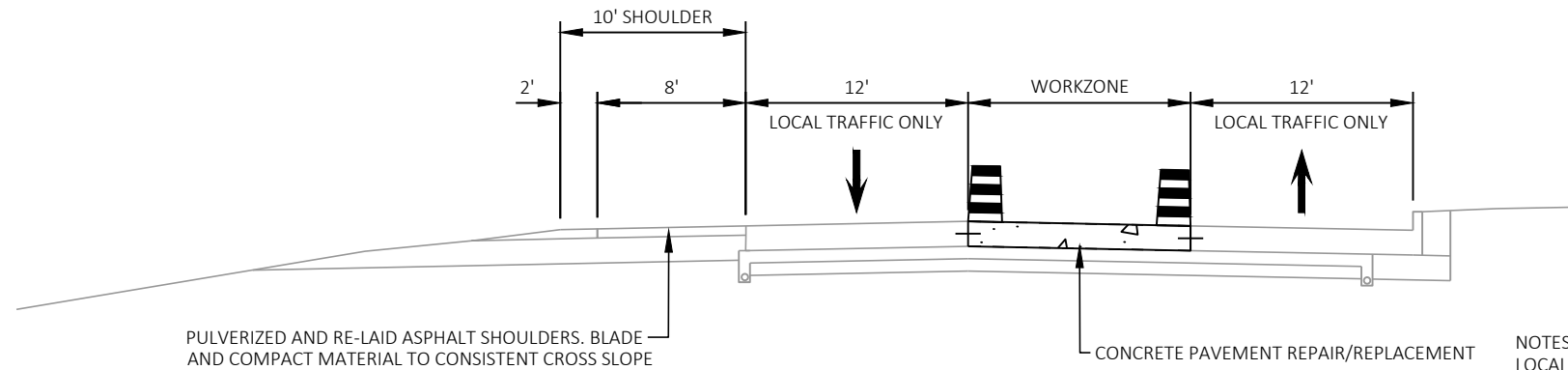


- LEGEND:**
-  TRAFFIC CONTROL SIGN ON POST
  -  TYPE III BARRICADE WITH ATTACHED SIGN
  -  TYPE III BARRICADE
  -  WORK ZONE - STAGE 2A
  -  WORK ZONE - STAGE 2B
  -  MUNICIPAL BOUNDARY

DRAWING IS NOT TO SCALE



- STAGE 2 NOTES**
- ① FOR ADVANCED SIGNING ON STH 13 SEE THE STAGE 2 DETOUR ROUTE SIGNING.
  - ② TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 2A
  - ③ TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 2B
  - ④ WHEN CONSTRUCTION OPERATIONS ARE OCCURRING WITHIN A SUBSTAGE SEGMENT PLACE 2 BARRICADES IMMEDIATELY NEXT TO EACH OTHER TO CLOSE THE TRAVEL LANES TO ALL TRAFFIC. ALLOW LOCAL TRAFFIC TO UTILIZE THE SHOULDERS. WHEN CONSTRUCTION OPERATIONS ARE NOT OCCURRING WITHIN A SUBSTAGE SEGMENT(S), PLACE 2 BARRICADES PER DETAIL E SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES".



PULVERIZED AND RE-LAID ASPHALT SHOULDERS. BLADE AND COMPACT MATERIAL TO CONSISTENT CROSS SLOPE AND FLUSH WITH ADJACENT CONCRETE PAVEMENT. MAINTAIN SHOULDERS TO PROVIDE A SAFE ACCOMMODATION FOR LOCAL TRAFFIC. COST FOR MAINTAINING THE SHOULDERS IS INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM.

NOTES:  
LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

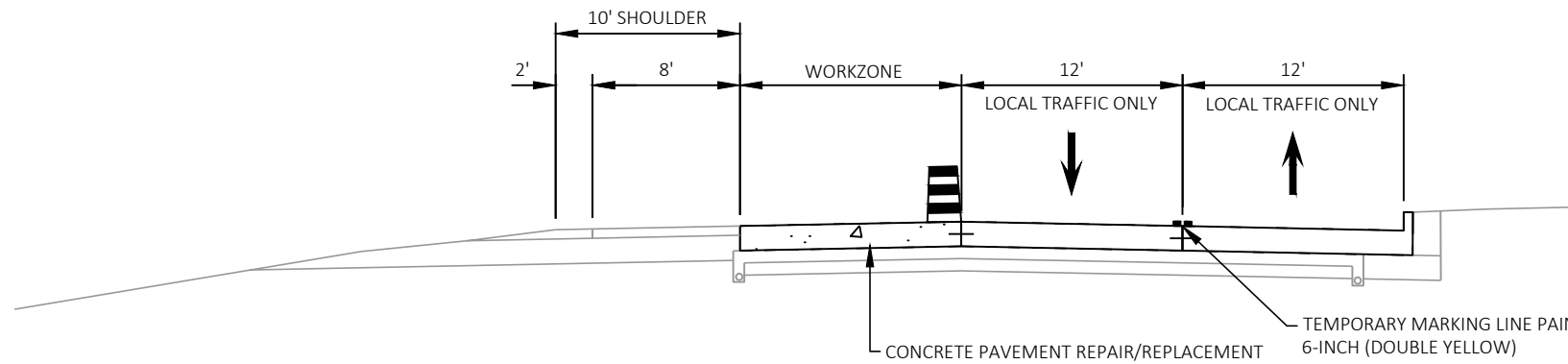
SHIFT SOUTHBOUND TRAFFIC ON TO THE ADJACENT PAVED SHOULDER WHEN PERFORMING WORK ALONG THE THE JOINT BETWEEN THE CENTER AND NORTHBOUND LANES.

LEGEND



TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 2 - CENTER LANE WORK

STA 504+63.1 TO STA 515+53.3



NOTES:  
LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

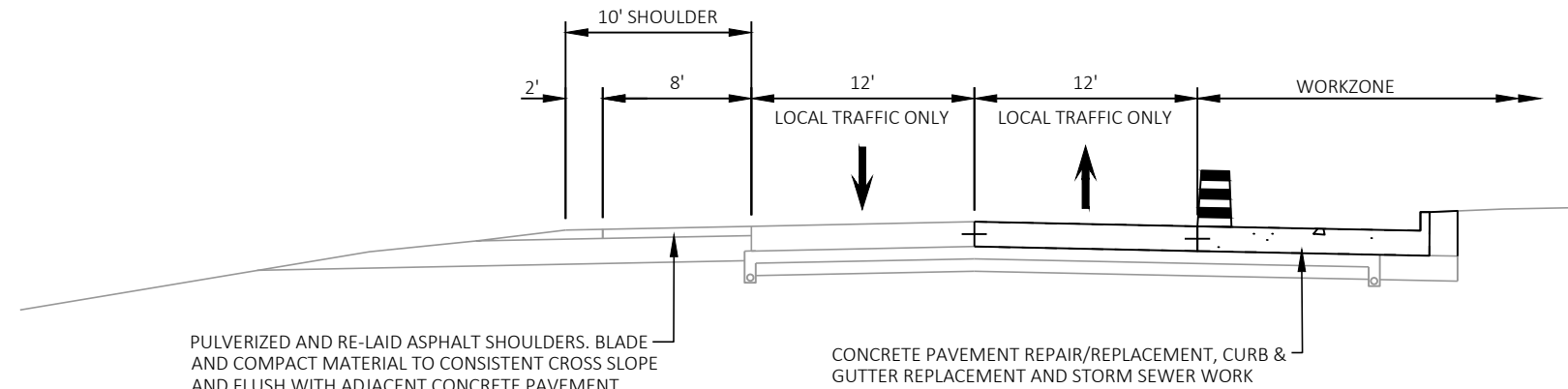
LEGEND



TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 2 - LEFT LANE WORK

STA 504+63.1 TO STA 515+53.3





PULVERIZED AND RE-LAID ASPHALT SHOULDERS. BLADE AND COMPACT MATERIAL TO CONSISTENT CROSS SLOPE AND FLUSH WITH ADJACENT CONCRETE PAVEMENT. MAINTAIN SHOULDERS TO PROVIDE A SAFE ACCOMMODATION FOR LOCAL TRAFFIC. COST FOR MAINTAINING THE SHOULDERS IS INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM.

CONCRETE PAVEMENT REPAIR/REPLACEMENT, CURB & GUTTER REPLACEMENT AND STORM SEWER WORK

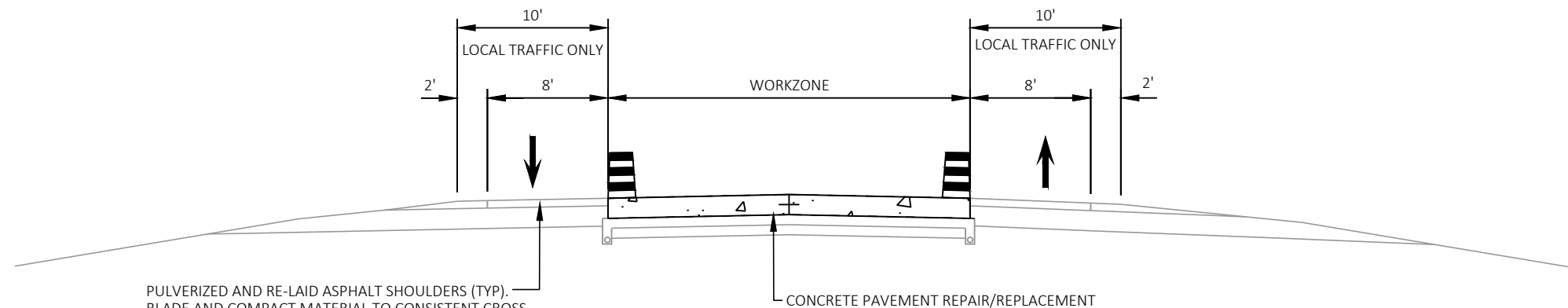
**LEGEND**  
 TRAFFIC CONTROL DRUM

NOTES:  
 LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

SHIFT SOUTHBOUND TRAFFIC ON TO THE ADJACENT PAVED SHOULDER AND NORTHBOUND TRAFFIC OVER THE TEMPORARY LANE LINE WHEN PERFORMING WORK ALONG THE JOINT BETWEEN THE CENTER AND NORTHBOUND LANES.

**TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 2 - RIGHT LANE WORK**

STA 504+63.1 TO STA 515+53.3













PULVERIZED AND RE-LAID ASPHALT SHOULDERS (TYP). BLADE AND COMPACT MATERIAL TO CONSISTENT CROSS SLOPE AND FLUSH WITH ADJACENT CONCRETE PAVEMENT. MAINTAIN SHOULDERS TO PROVIDE A SAFE ACCOMMODATION FOR LOCAL TRAFFIC. COST FOR MAINTAINING THE SHOULDERS IS INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM.

CONCRETE PAVEMENT REPAIR/REPLACEMENT

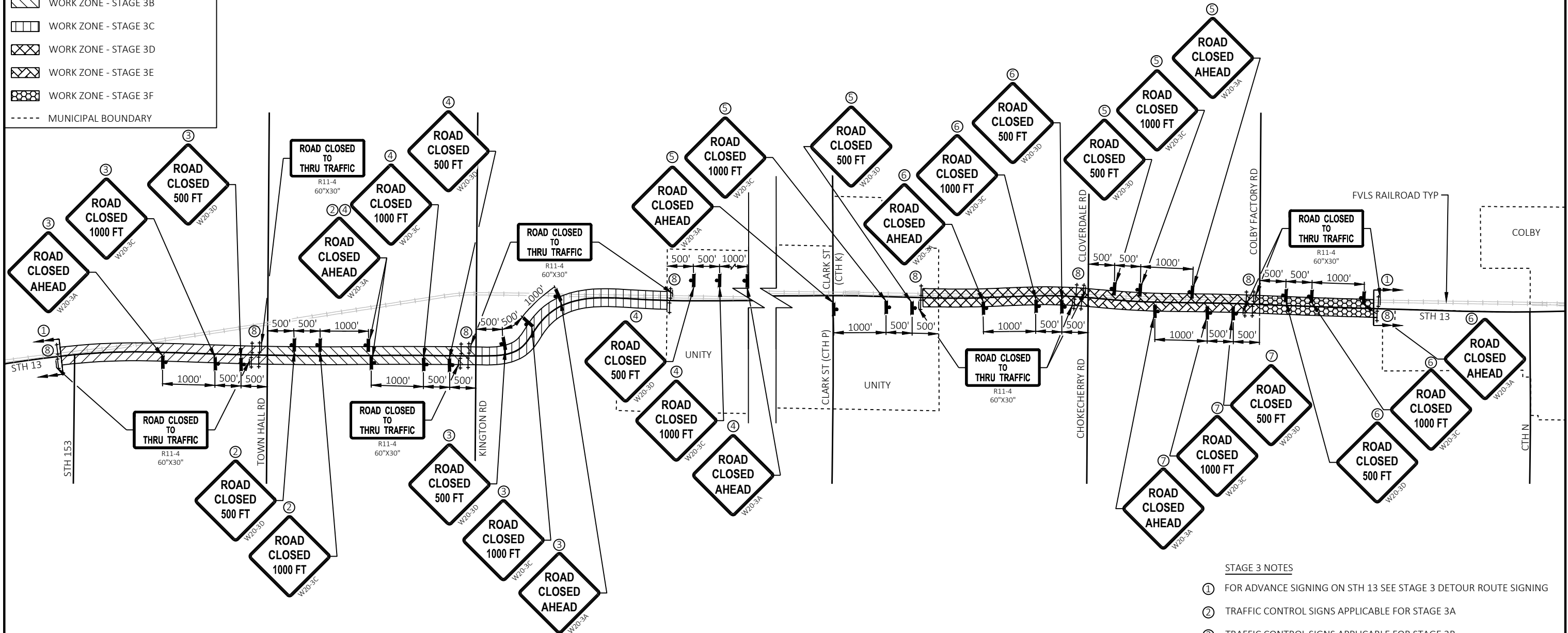
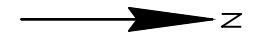
NOTE: LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

**TYPICAL SECTION 2-LANE RURAL - STAGE 2**

STA 515+53.3 TO STA 643+20.0

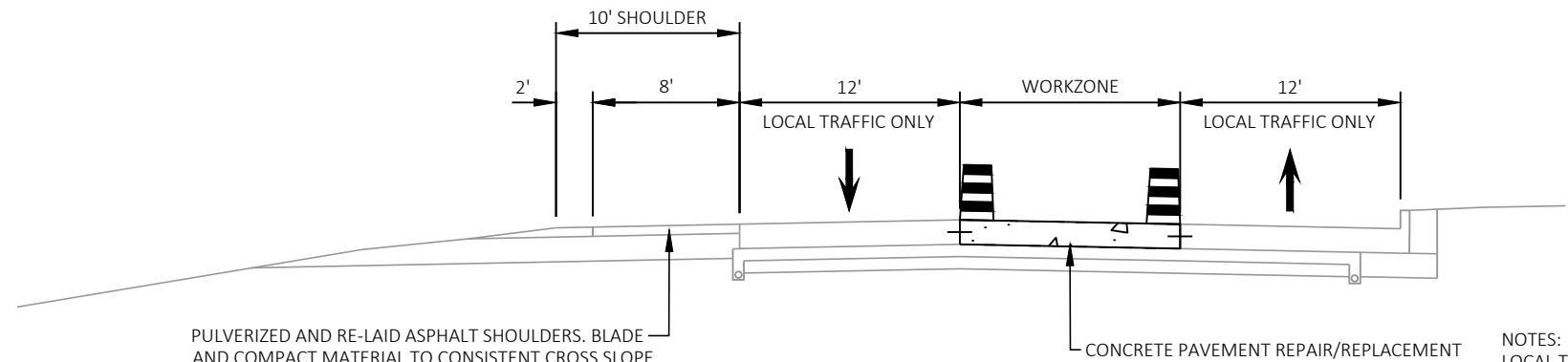
- LEGEND:**
-  TRAFFIC CONTROL SIGN ON POST
  -  TYPE III BARRICADE WITH ATTACHED SIGN
  -  TYPE III BARRICADE
  -  WORK ZONE - STAGE 3A
  -  WORK ZONE - STAGE 3B
  -  WORK ZONE - STAGE 3C
  -  WORK ZONE - STAGE 3D
  -  WORK ZONE - STAGE 3E
  -  WORK ZONE - STAGE 3F
  -  MUNICIPAL BOUNDARY

DRAWING IS NOT TO SCALE



NOTE: SEE PROJECT ID 1620-01-63 DETAILS FOR TRAFFIC CONTROL/  
STAGING INFORMATION AT B-37-0184 AND B-37-0185.

- STAGE 3 NOTES**
- ① FOR ADVANCE SIGNING ON STH 13 SEE STAGE 3 DETOUR ROUTE SIGNING
  - ② TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 3A
  - ③ TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 3B
  - ④ TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 3C
  - ⑤ TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 3D
  - ⑥ TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 3E
  - ⑦ TRAFFIC CONTROL SIGNS APPLICABLE FOR STAGE 3F
  - ⑧ WHEN CONSTRUCTION OPERATIONS ARE OCCURRING WITHIN A SUBSTAGE SEGMENT PLACE 2 BARRICADES IMMEDIATELY NEXT TO EACH OTHER TO CLOSE THE TRAVEL LANES TO ALL TRAFFIC. ALLOW LOCAL TRAFFIC TO UTILIZE THE SHOULDERS. WHEN CONSTRUCTION OPERATIONS ARE NOT OCCURRING WITHIN A SUBSTAGE SEGMENT(S), PLACE 2 BARRICADES PER DETAIL E OF SDD "BARRICADES AND SIGNS FOR VARIOUS CLOSURES".



**LEGEND**  
 TRAFFIC CONTROL DRUM

PULVERIZED AND RE-LAID ASPHALT SHOULDERS. BLADE AND COMPACT MATERIAL TO CONSISTENT CROSS SLOPE AND FLUSH WITH ADJACENT CONCRETE PAVEMENT. MAINTAIN SHOULDERS TO PROVIDE A SAFE ACCOMMODATION FOR LOCAL TRAFFIC. COST FOR MAINTAINING THE SHOULDERS IS INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM.

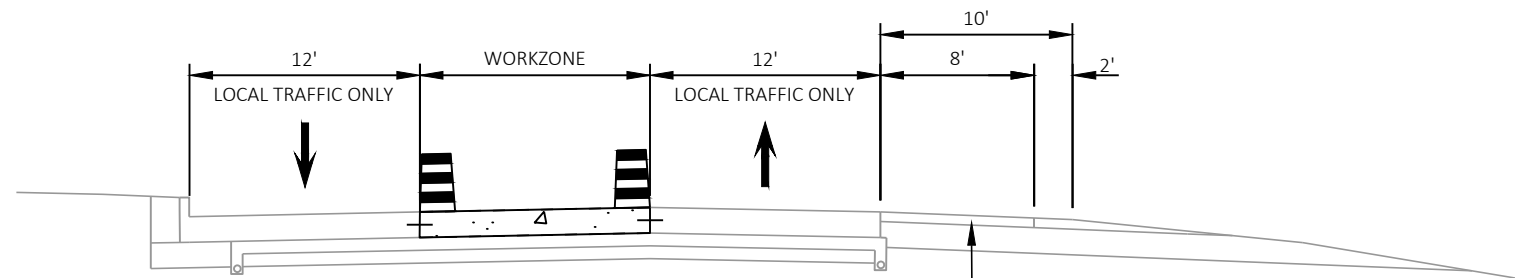
CONCRETE PAVEMENT REPAIR/REPLACEMENT

NOTES:  
 LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

SHIFT SOUTHBOUND TRAFFIC ON TO THE ADJACENT PAVED SHOULDER WHEN WHEN PERFORMING WORK ALONG THE THE JOINT BETWEEN THE CENTER AND NORTHBOUND LANES.

**TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 3 - CENTER LANE WORK**

STA 842+94.6 TO STA 857+42.6



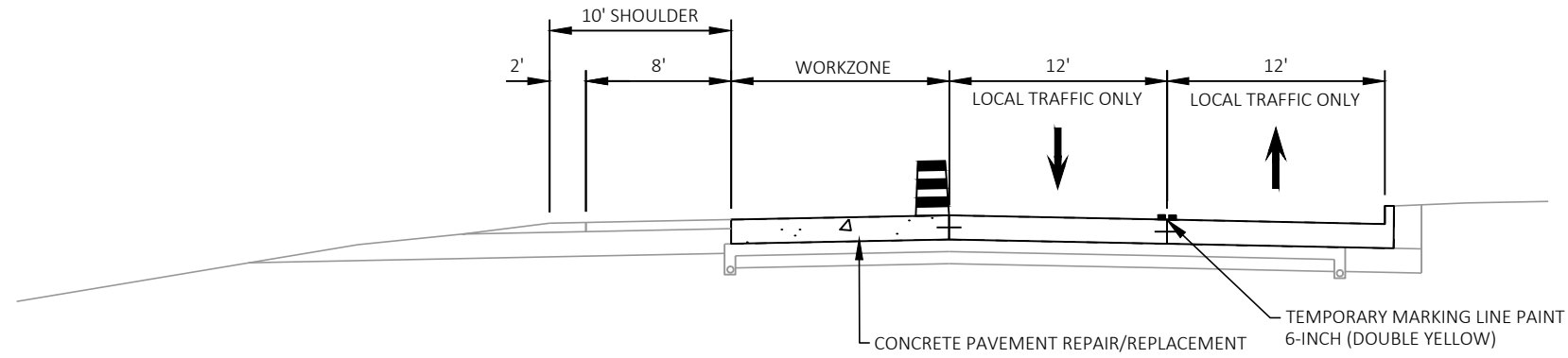
PULVERIZED AND RE-LAID ASPHALT SHOULDERS. BLADE AND COMPACT MATERIAL TO CONSISTENT CROSS SLOPE AND FLUSH WITH ADJACENT CONCRETE PAVEMENT. MAINTAIN SHOULDERS TO PROVIDE A SAFE ACCOMMODATION FOR LOCAL TRAFFIC. COST FOR MAINTAINING THE SHOULDERS IS INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM.

NOTES:  
 LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

SHIFT NORTHBOUND TRAFFIC ON TO THE ADJACENT PAVED SHOULDER WHEN WHEN PERFORMING WORK ALONG THE JOINT BETWEEN THE CENTER AND NORTHBOUND LANES.

**TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 3 - CENTER LANE WORK**

STA 992+95.5 TO STA 997+96.0



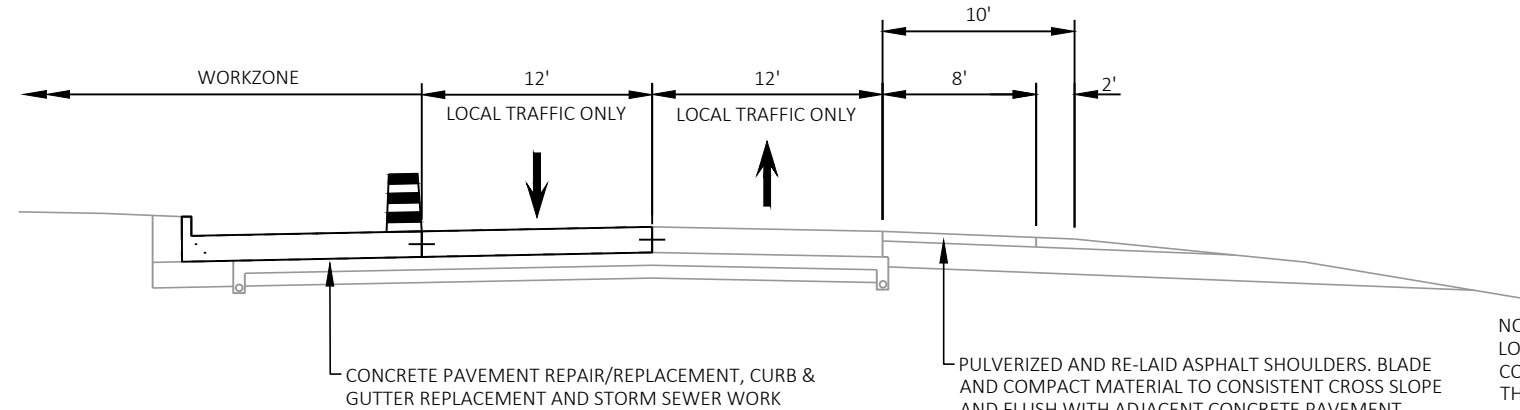
**LEGEND**



NOTES:  
 LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

**TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 3 - LEFT LANE WORK**

STA 842+94.6 TO STA 857+42.6



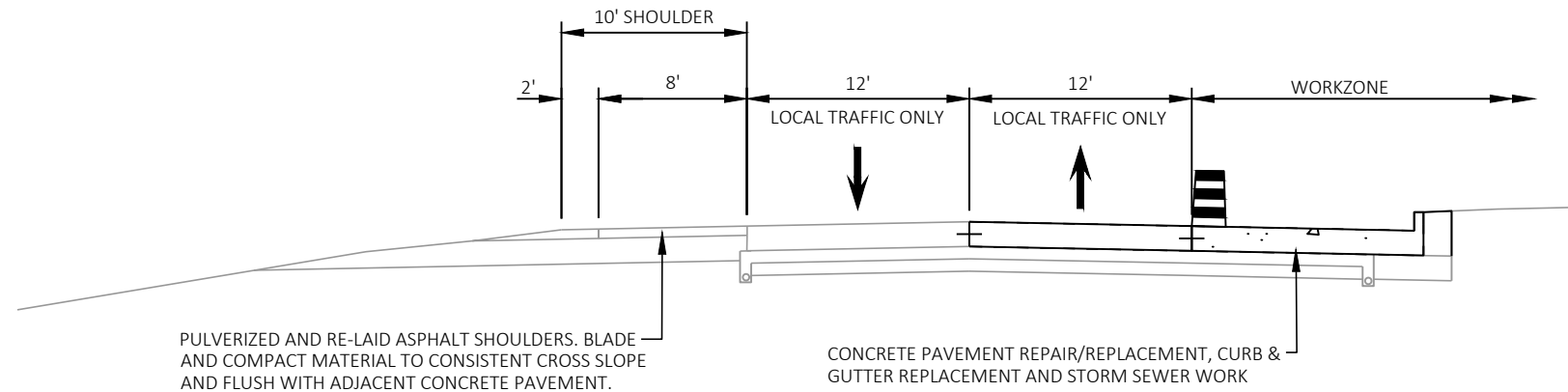
NOTES:  
 LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

SHIFT NORTHBOUND TRAFFIC ON TO THE ADJACENT PAVED SHOULDER AND SOUTHBOUND TRAFFIC OVER THE TEMPORARY LANE LINE WHEN PERFORMING WORK ALONG THE JOINT BETWEEN THE CENTER AND SOUTHBOUND LANES.

**TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 3 - LEFT LANE WORK**

STA 992+95.5 TO STA 997+96.0





PULVERIZED AND RE-LAID ASPHALT SHOULDERS. BLADE AND COMPACT MATERIAL TO CONSISTENT CROSS SLOPE AND FLUSH WITH ADJACENT CONCRETE PAVEMENT. MAINTAIN SHOULDERS TO PROVIDE A SAFE ACCOMMODATION FOR LOCAL TRAFFIC. COST FOR MAINTAINING THE SHOULDERS IS INCIDENTAL TO THE PULVERIZE AND RELAY BID ITEM.

CONCRETE PAVEMENT REPAIR/REPLACEMENT, CURB & GUTTER REPLACEMENT AND STORM SEWER WORK

**LEGEND**

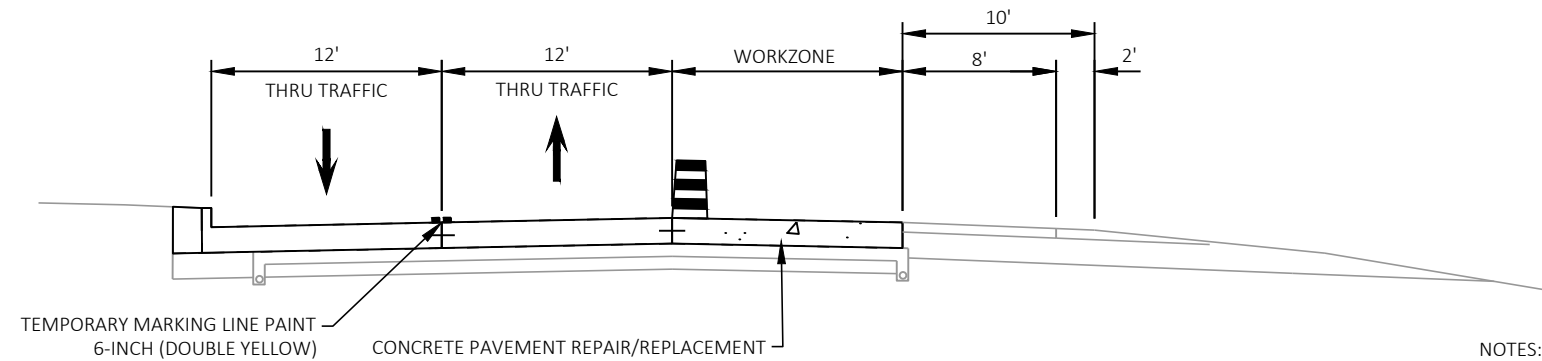
TRAFFIC CONTROL DRUM

NOTES:  
LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

SHIFT SOUTHBOUND TRAFFIC ON TO THE ADJACENT PAVED SHOULDER AND NORTHBOUND TRAFFIC OVER THE TEMPORARY LANE LINE WHEN PERFORMING WORK ALONG THE JOINT BETWEEN THE CENTER AND NORTHBOUND LANES.

**TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 3 - RIGHT LANE WORK**

STA 842+94.6 TO STA 857+42.6

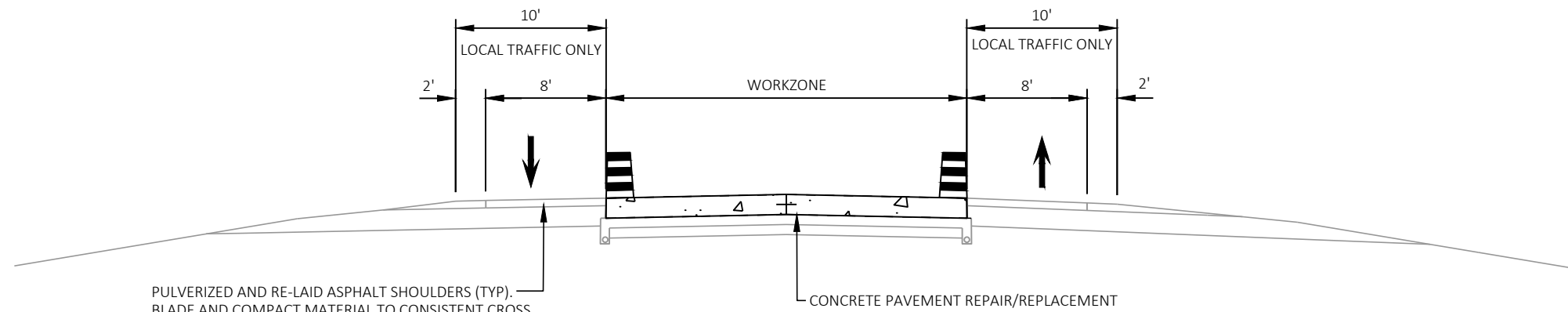


NOTES:  
LOCAL TRAFFIC SHALL UTILIZE THE EXISTING CONCRETE PAVEMENT LANES OUTSIDE OF THE ACTIVE WORK ZONE.

**TYPICAL SECTION 3-LANE URBAN / RURAL - STAGE 3 - RIGHT LANE WORK**

STA 992+95.5 TO STA 997+96.0

LEGEND

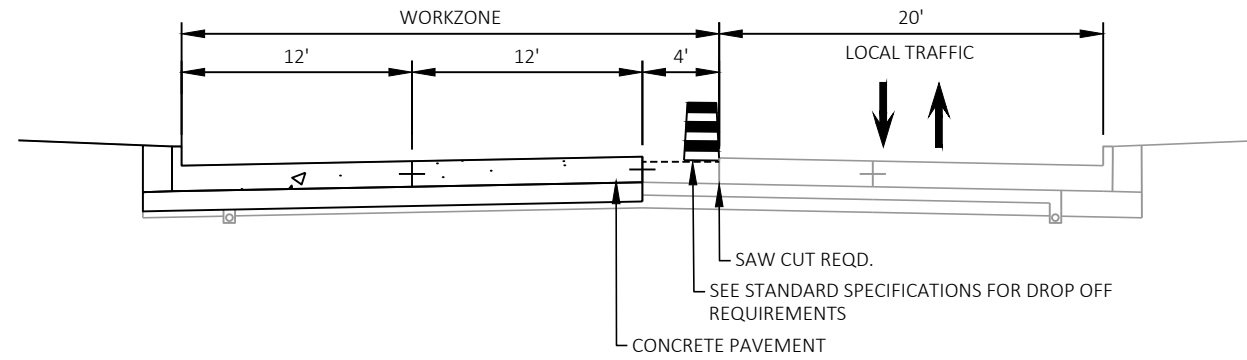


PULVERIZED AND RE-LAID ASPHALT SHOULDERS (TYP).  
 BLADE AND COMPACT MATERIAL TO CONSISTENT CROSS  
 SLOPE AND FLUSH WITH ADJACENT CONCRETE  
 PAVEMENT. MAINTAIN SHOULDERS TO PROVIDE A SAFE  
 ACCOMMODATION FOR LOCAL TRAFFIC. COST FOR  
 MAINTAINING THE SHOULDERS IS INCIDENTAL TO THE  
 PULVERIZE AND RELAY BID ITEM.

NOTES:  
 LOCAL TRAFFIC SHALL UTILIZE THE EXISTING  
 CONCRETE PAVEMENT LANES OUTSIDE OF  
 THE ACTIVE WORK ZONE.

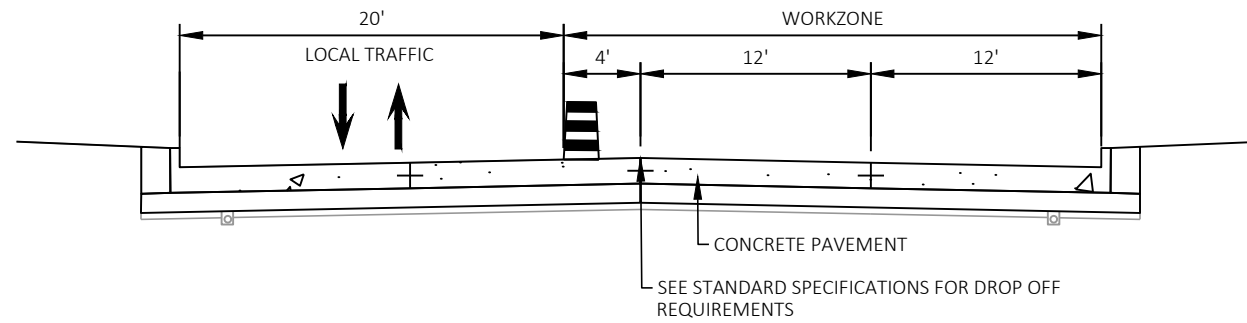
TYPICAL SECTION 2-LANE RURAL - STAGE 3

STA 643+20.0 TO STA 806+05.5  
 STA 857+42.6 TO STA 992+95.5



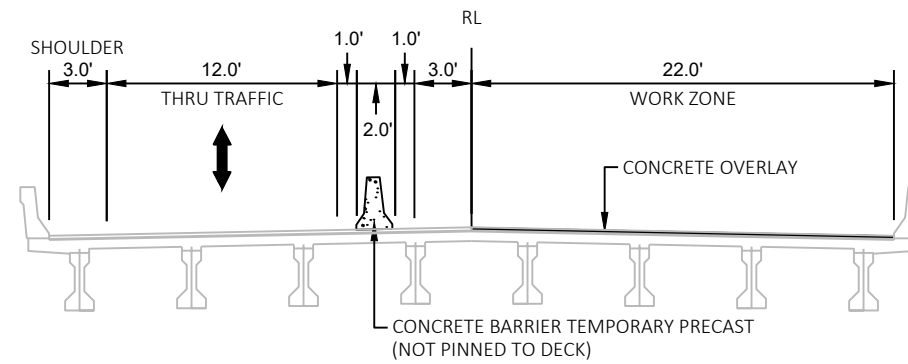
**TYPICAL SECTION 4-LANE - STAGE 3-3A**

STA 805+75.6 TO STA 809+55.0



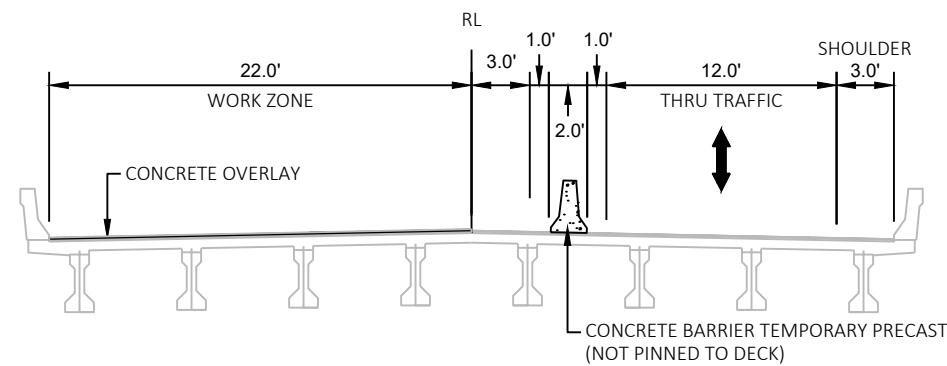
**TYPICAL SECTION 4-LANE - STAGE 3-3B**

STA 805+75.6 TO STA 809+55.0



**TYPICAL SECTION - STAGE 3-1B**

STH 13  
B-37-184, B-37-185



**TYPICAL SECTION - STAGE 3-2**

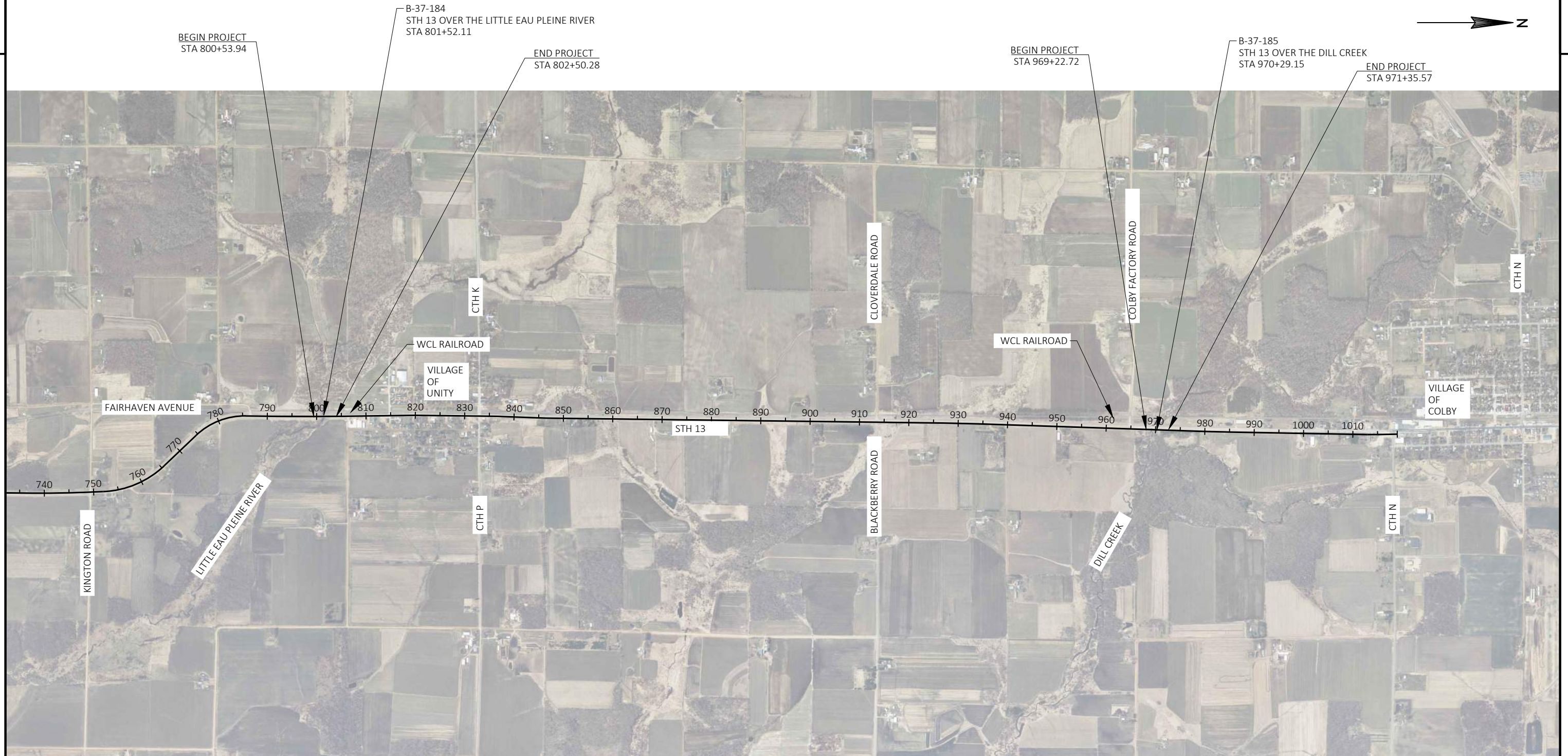
STH 13  
B-37-184, B-37-185

NOTES:  
STAGE 3-1A SB SHOULDER WIDENING COMPLETED USING FLAGGING OPERATIONS. NO CONCRETE BARRIER WILL BE REQUIRED FOR THIS STAGE.

SEE 1620-01-62 PROJECT PLANS FOR ADDITIONAL TRAFFIC CONTROL INFORMATION.



PROJECT TRAFFIC CONTROL OVERVIEW - STH 13 BRIDGES - STAGE 3



NOTES:  
 UTILIZE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION", "TRAFFIC CONTROL ONE LANE ROAD WITH TEMPORARY SIGNALS", "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY", AND "BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION" AT BOTH STH 13 CONCRETE OVERLAY LOCATIONS.

SEE 1620-01-62 PROJECT PLANS FOR ADDITIONAL TRAFFIC CONTROL INFORMATION.

PROJECT NO: 1620-01-63

HWY: STH 13

COUNTY: MARATHON

PROJECT TRAFFIC CONTROL OVERVIEW

SHEET

E

NOTES:  
 DETAIL OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD DETAILS, STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

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 100 FEET, (200 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

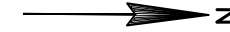
B-37-184 IS A 65.0' SINGLE-SPAN 36" PRE-STRESSED GIRDER BRIDGE WITH A 44' CLEAR ROADWAY WIDTH.

STAGE 3-1A: ASPHALT SHOULDER WIDENING APPLIED TO SB STH 13 SHOULDER UNDER FLAGGING WITH TEMPORARY PORTABLE RUMBLE STRIPS.

STAGE 3-1B: CONCRETE OVERLAY APPLIED TO NB STH 13 ON B-37-184. TWO PHASE SIGNALS WITH TEMPORARY VEHICLE DETECTION REQUIRED TO CONTROL STH 13 TRAFFIC (SHOWN).

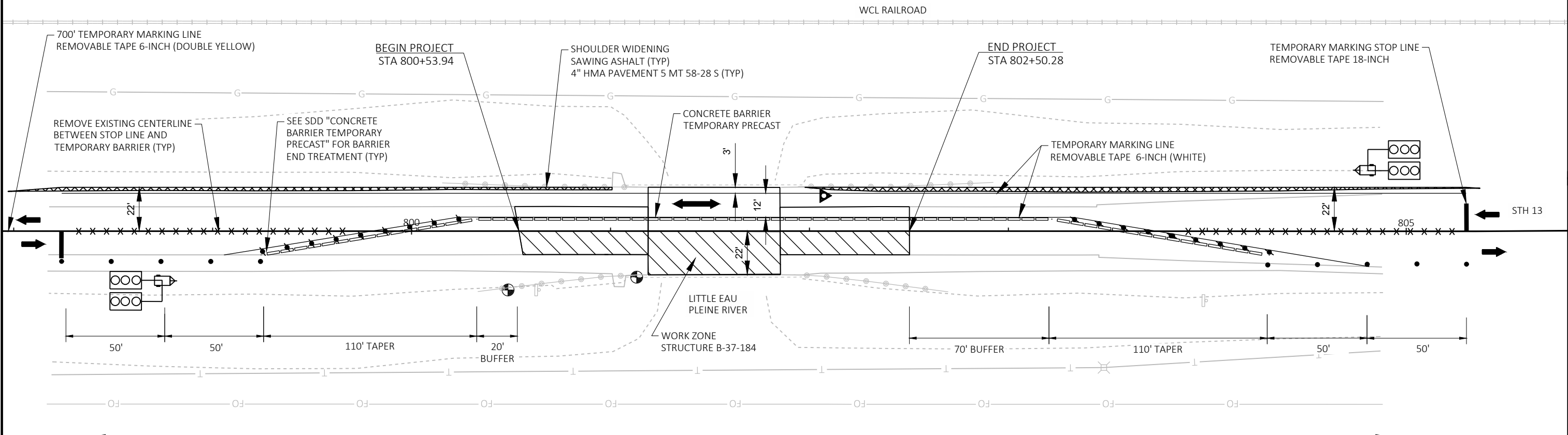
STAGE 3-2: CONCRETE OVERLAY APPLIED TO SB STH 13 ON B-37-184. TWO PHASE SIGNALS WITH TEMPORARY VEHICLE DETECTION REQUIRED TO CONTROL STH 13 TRAFFIC (MIRROR TRAFFIC CONTROL).

SEE 1620-01-62 PROJECT PLANS FOR ADDITIONAL WORK, TRAFFIC CONTROL ITEMS, AND INFORMATION.



LEGEND

- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES (TRAILER MOUNTED)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA



USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION", "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS", "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY", AND "BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND DEVICES







SIGNAL TIMING INFORMATION

STRUCTURE #	STAGE #	YELLOW		ALL RED		GREEN		TOTAL SPLIT	
		Φ1	Φ2	Φ1	Φ2	Φ1	Φ2	Φ1	Φ2
B-37-184*	ALL	2.8	2.8	19.8	19.8	27.4	27.4	50.0	50.0

\*ALL SIGNALS SHALL REST IN RED UNTIL A CALL IS RECEIVED BY THE STOP LINE DETECTION



LEGEND

-  TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES (TRAILER MOUNTED)
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA

NOTES:  
 DETAIL OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD DETAILS, STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

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 100 FEET, (200 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

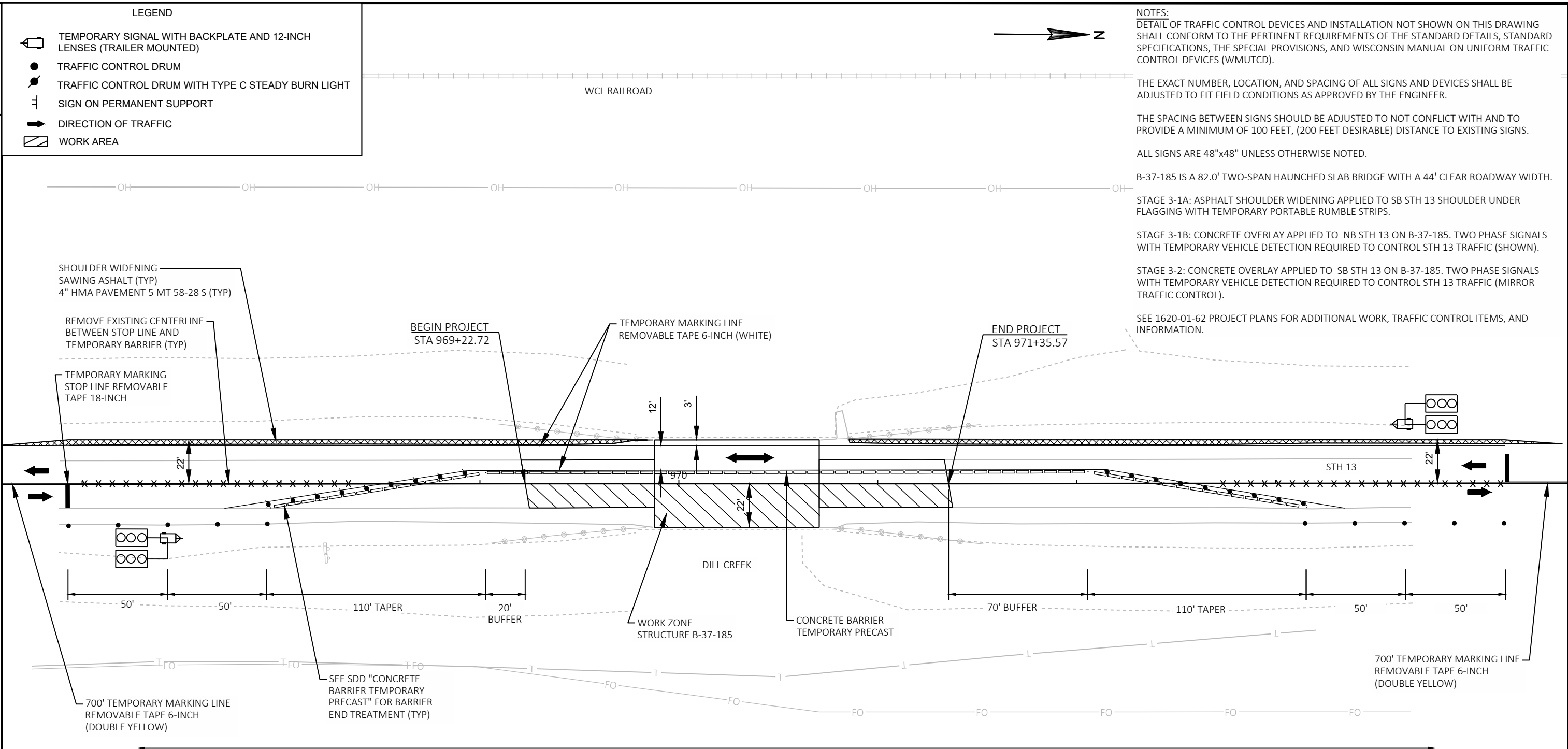
B-37-185 IS A 82.0' TWO-SPAN HAUNCHED SLAB BRIDGE WITH A 44' CLEAR ROADWAY WIDTH.

STAGE 3-1A: ASPHALT SHOULDER WIDENING APPLIED TO SB STH 13 SHOULDER UNDER FLAGGING WITH TEMPORARY PORTABLE RUMBLE STRIPS.

STAGE 3-1B: CONCRETE OVERLAY APPLIED TO NB STH 13 ON B-37-185. TWO PHASE SIGNALS WITH TEMPORARY VEHICLE DETECTION REQUIRED TO CONTROL STH 13 TRAFFIC (SHOWN).

STAGE 3-2: CONCRETE OVERLAY APPLIED TO SB STH 13 ON B-37-185. TWO PHASE SIGNALS WITH TEMPORARY VEHICLE DETECTION REQUIRED TO CONTROL STH 13 TRAFFIC (MIRROR TRAFFIC CONTROL).

SEE 1620-01-62 PROJECT PLANS FOR ADDITIONAL WORK, TRAFFIC CONTROL ITEMS, AND INFORMATION.



USE SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION", "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS", "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY", AND "BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION" FOR ADDITIONAL TRAFFIC CONTROL SIGNS AND DEVICES

SIGNAL TIMING INFORMATION

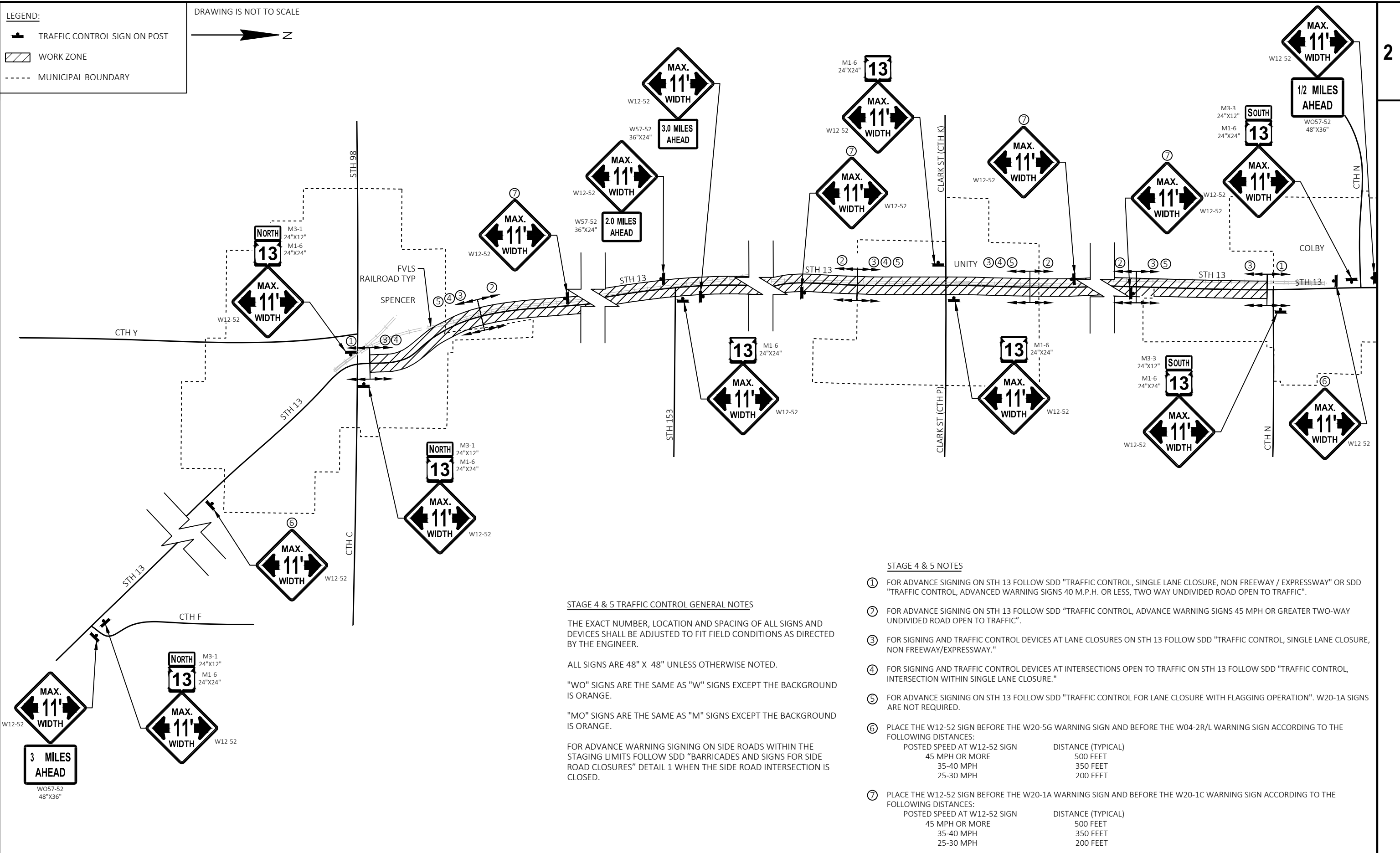
STRUCTURE #	STAGE #	YELLOW		ALL RED		GREEN		TOTAL SPLIT	
		Φ1	Φ2	Φ1	Φ2	Φ1	Φ2	Φ1	Φ2
		EB	WB	EB	WB	EB	WB	EB	WB
B-37-185*	ALL	2.8	2.8	20.2	20.2	27.0	27.0	50.0	50.0

\*ALL SIGNALS SHALL REST IN RED UNTIL A CALL IS RECEIVED BY THE STOP LINE DETECTION

LEGEND:

- TRAFFIC CONTROL SIGN ON POST
- WORK ZONE
- MUNICIPAL BOUNDARY

DRAWING IS NOT TO SCALE



**STAGE 4 & 5 TRAFFIC CONTROL GENERAL NOTES**

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

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

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

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

FOR ADVANCE WARNING SIGNING ON SIDE ROADS WITHIN THE STAGING LIMITS FOLLOW SDD "BARRICADES AND SIGNS FOR SIDE ROAD CLOSURES" DETAIL 1 WHEN THE SIDE ROAD INTERSECTION IS CLOSED.

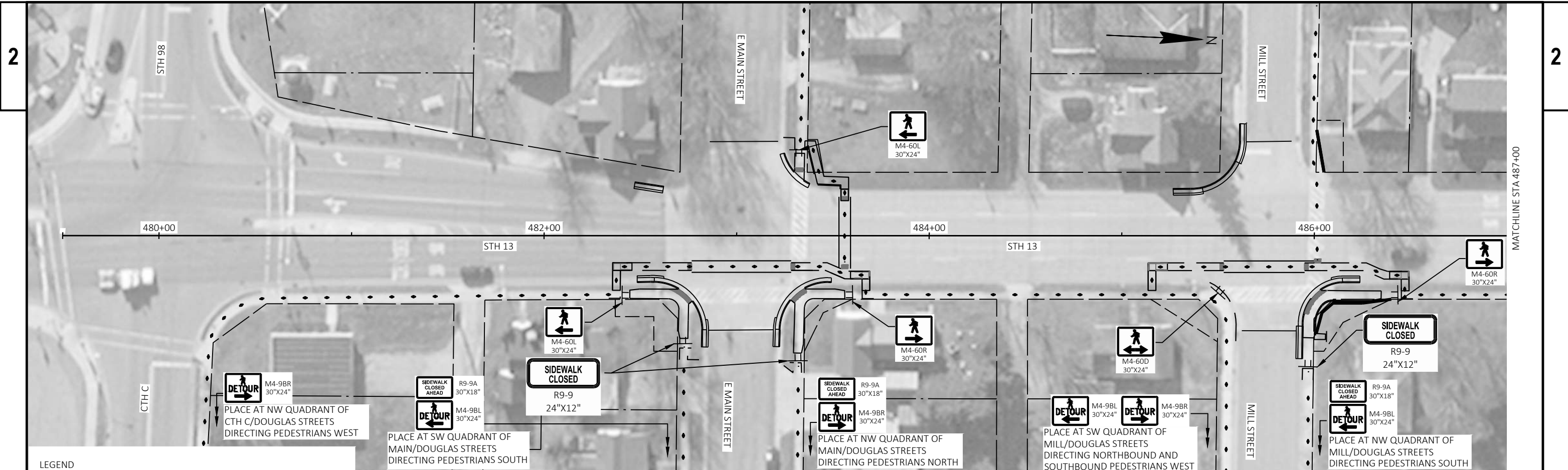
**STAGE 4 & 5 NOTES**

- ① FOR ADVANCE SIGNING ON STH 13 FOLLOW SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY / EXPRESSWAY" OR SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
- ② FOR ADVANCE SIGNING ON STH 13 FOLLOW SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
- ③ FOR SIGNING AND TRAFFIC CONTROL DEVICES AT LANE CLOSURES ON STH 13 FOLLOW SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY."
- ④ FOR SIGNING AND TRAFFIC CONTROL DEVICES AT INTERSECTIONS OPEN TO TRAFFIC ON STH 13 FOLLOW SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE."
- ⑤ FOR ADVANCE SIGNING ON STH 13 FOLLOW SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION". W20-1A SIGNS ARE NOT REQUIRED.
- ⑥ PLACE THE W12-52 SIGN BEFORE THE W20-5G WARNING SIGN AND BEFORE THE W04-2R/L WARNING SIGN ACCORDING TO THE FOLLOWING DISTANCES:
 

POSTED SPEED AT W12-52 SIGN	DISTANCE (TYPICAL)
45 MPH OR MORE	500 FEET
35-40 MPH	350 FEET
25-30 MPH	200 FEET
- ⑦ PLACE THE W12-52 SIGN BEFORE THE W20-1A WARNING SIGN AND BEFORE THE W20-1C WARNING SIGN ACCORDING TO THE FOLLOWING DISTANCES:
 

POSTED SPEED AT W12-52 SIGN	DISTANCE (TYPICAL)
45 MPH OR MORE	500 FEET
35-40 MPH	350 FEET
25-30 MPH	200 FEET

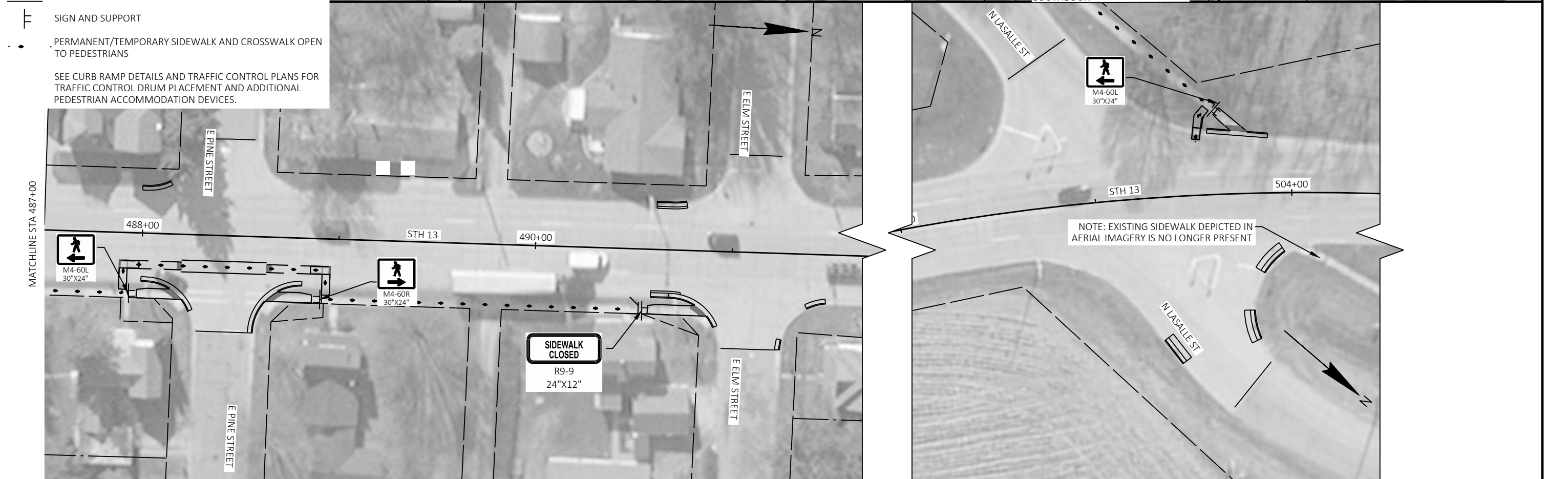






**LEGEND**

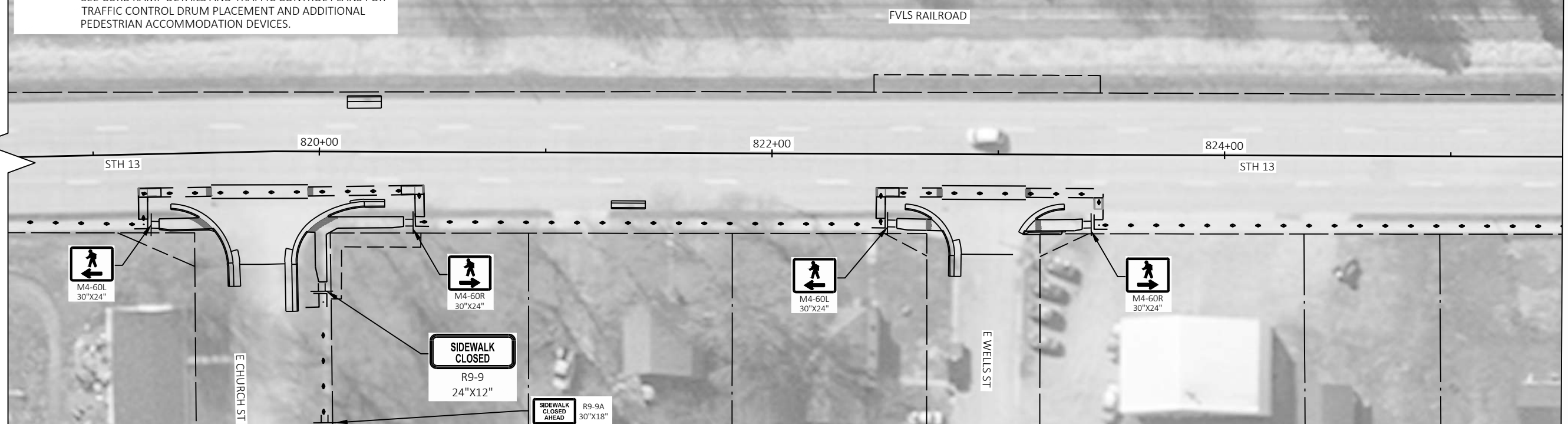
- SIGN AND SUPPORT
- PERMANENT/TEMPORARY SIDEWALK AND CROSSWALK OPEN TO PEDESTRIANS

SEE CURB RAMP DETAILS AND TRAFFIC CONTROL PLANS FOR TRAFFIC CONTROL DRUM PLACEMENT AND ADDITIONAL PEDESTRIAN ACCOMMODATION DEVICES.

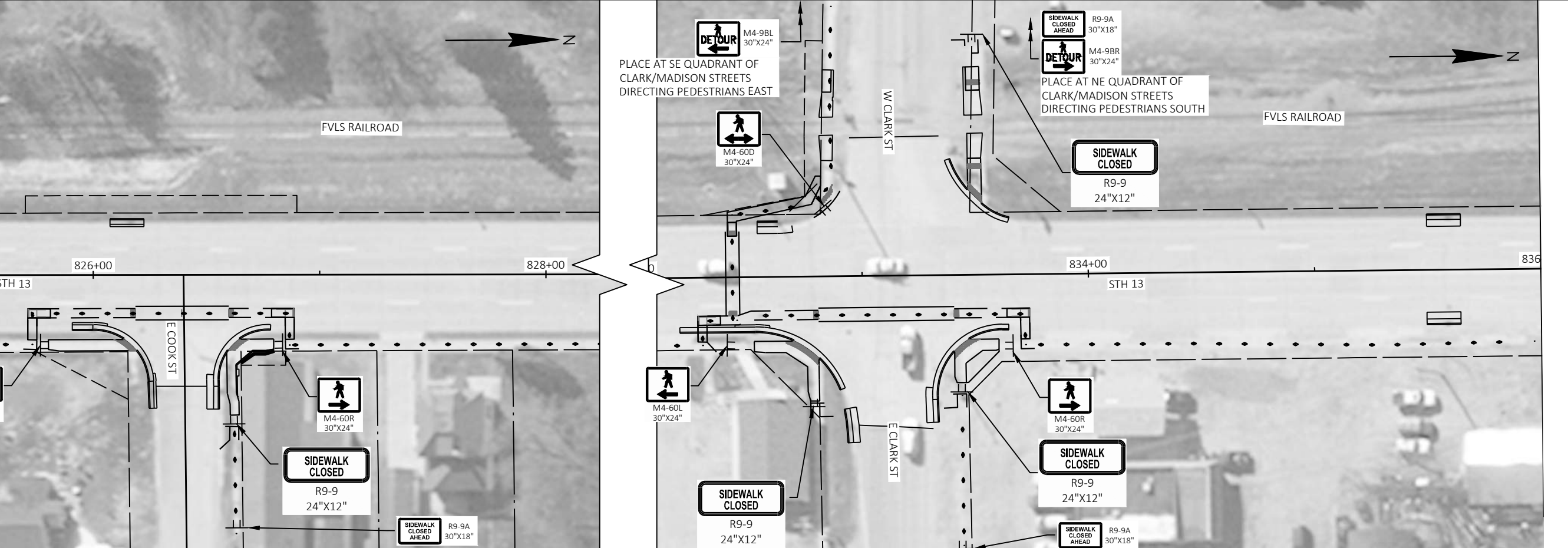
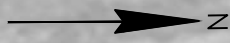


LEGEND

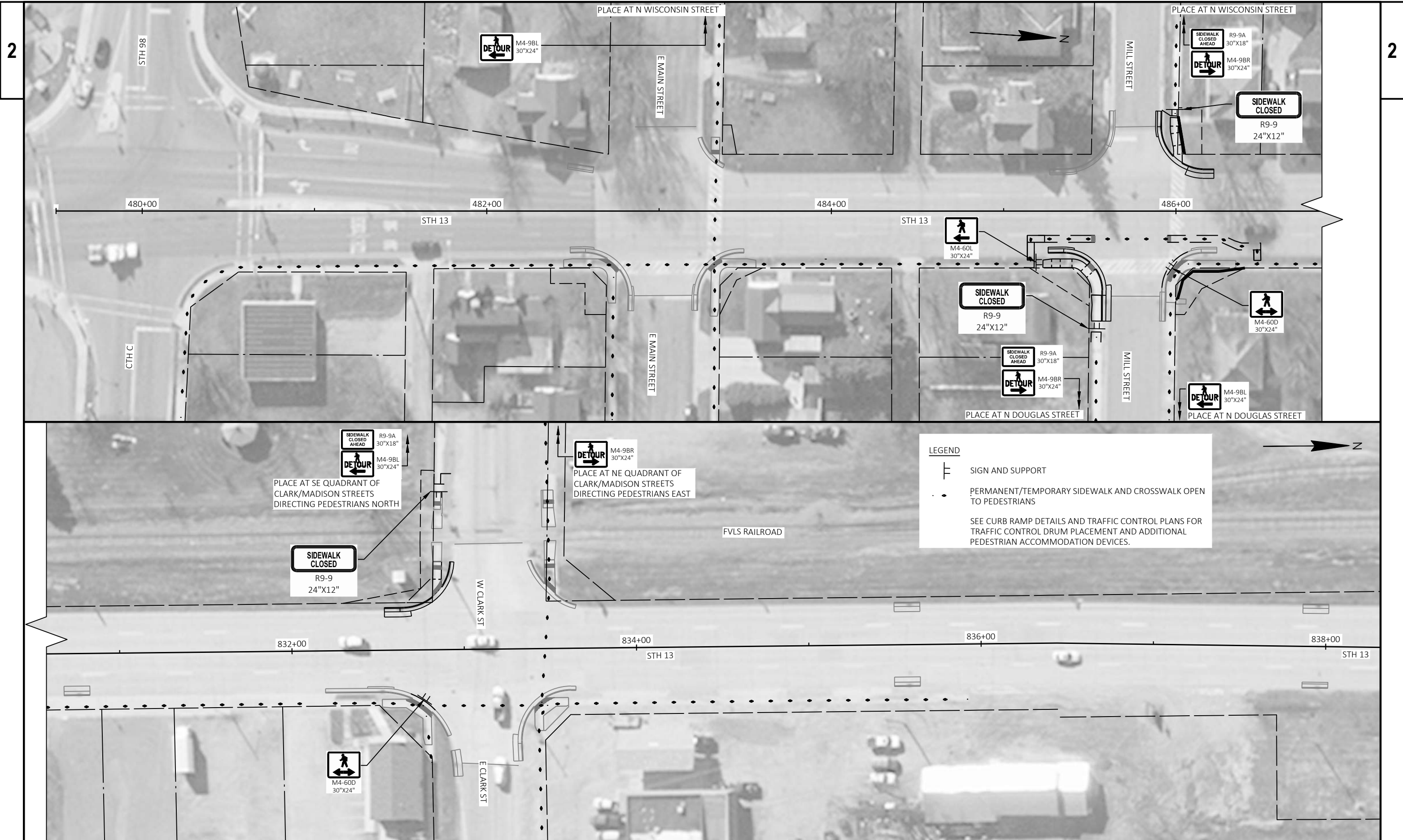
-  SIGN AND SUPPORT
  -  PERMANENT/TEMPORARY SIDEWALK AND CROSSWALK OPEN TO PEDESTRIANS
- SEE CURB RAMP DETAILS AND TRAFFIC CONTROL PLANS FOR TRAFFIC CONTROL DRUM PLACEMENT AND ADDITIONAL PEDESTRIAN ACCOMMODATION DEVICES.



MATCHLINE STA 825+50



MATCHLINE STA 825+50



PROJECT NO: 1620-01-62

HWY: STH 13

COUNTY: MARATHON

TRAFFIC CONTROL - STAGE 1B - PEDESTRIAN ACCOMMODATION STAGE 2

SHEET

E



SIGN SIZES FOR USE ON ALL OTHER HIGHWAYS & RAMPS

①	②	③	④	⑤	⑥
M4-8 24" X 12" M3-3 24"X12" M1-6 24"X24"	M4-8 24"X12" M3-1 24"X12" M1-6 24"X24"	M3-3 24"X12" M1-6 24"X24"	M3-1 24"X12" M1-6 24"X24"	M4-8A 24" X 18" M3-3 24"X12" M1-6 24"X24"	M4-8A 24" X 18" M3-1 24"X12" M1-6 24"X24"
(A) MO5-1R 21" X 21"	(A) MO5-1R 21" X 21"				
(B) MO5-1L 21" X 21"	(B) MO5-1L 21" X 21"				
(C) MO6-1 21" X 21"	(C) MO6-1 21" X 21"				
(D) MO6-1 21" X 21"	(D) MO6-1 21" X 21"				
(E) MO6-1 21" X 21"	(E) MO6-1 21" X 21"				

LEGEND:

- WORK ZONE
- DETOUR ROUTE
- COVER EXISTING SIGN
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE III BARRICADE
- EXISTING SIGN ON WOOD OR STEEL POST
- TRAFFIC CONTROL DETOUR SIGN ON WOOD OR STEEL POST

STAGE 2 TRAFFIC CONTROL GENERAL NOTES

DRAWING IS NOT TO SCALE.

ALL TRAFFIC CONTROL SIGNS AND DEVICES AND THEIR LOCATIONS SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), THE PLANS, STANDARD SPECIFICATIONS AND APPLICABLE STANDARD DETAIL DRAWINGS.

ALL SIDEROADS WITHIN STAGING LIMITS SHALL BE BARRICADED AND SIGNING IN ACCORDANCE WITH DETAIL 4 OF THE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".

ALL SIGNS INAPPROPRIATE TO THE WORK ZONE, INCLUDING PRE-EXISTING SIGNS, SHALL BE COVERED, REMOVED, OR ALTERED AS SPECIFIED IN THE PLANS AND/OR SPECIALS PROVISIONS OR AS DIRECTED BY THE ENGINEER.

COVER DIRECTIONAL ARROWS ON DESTINATION SIGNS IN PLANS PER SIGN PLATE A4-12.

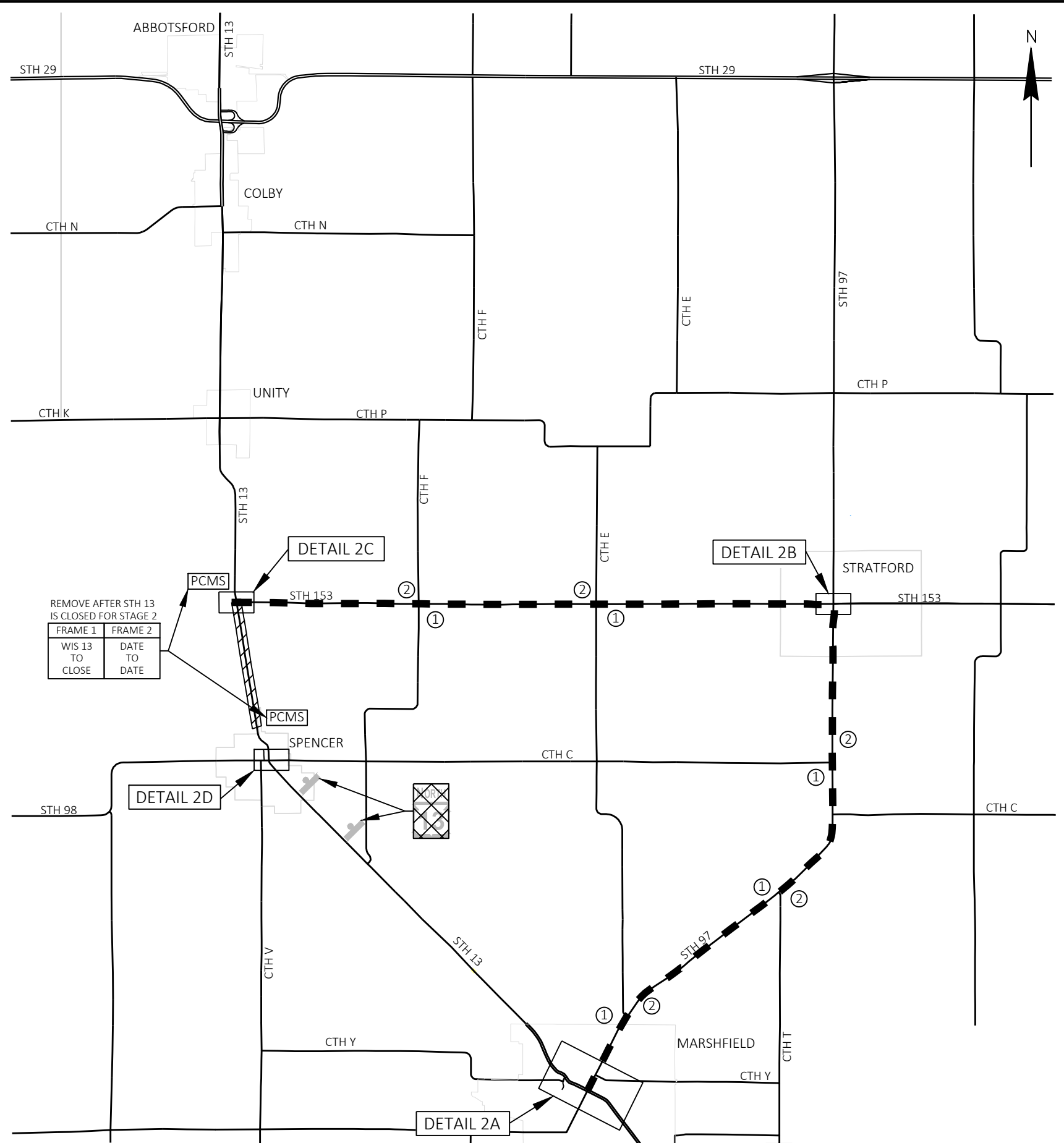
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL W20 SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

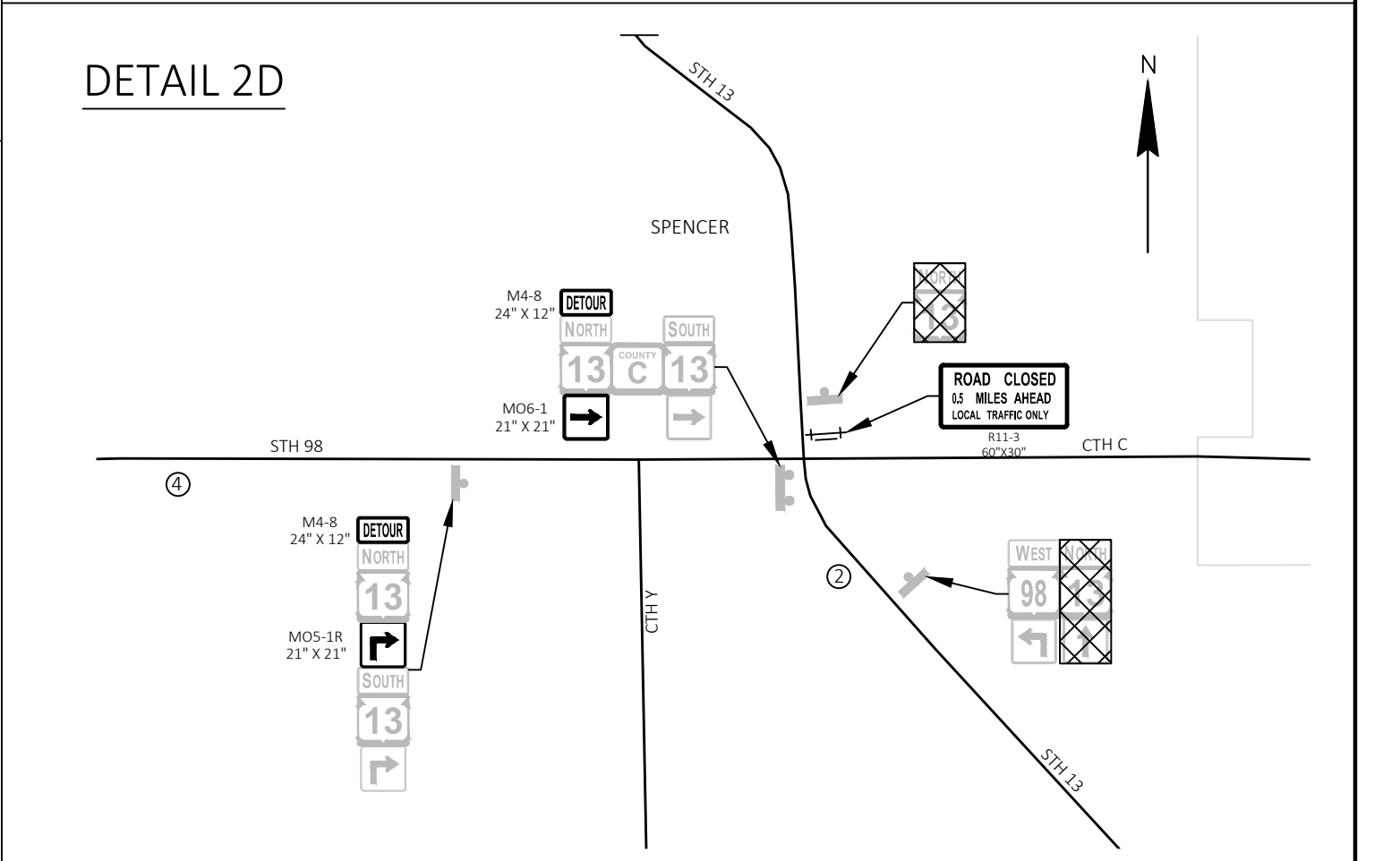
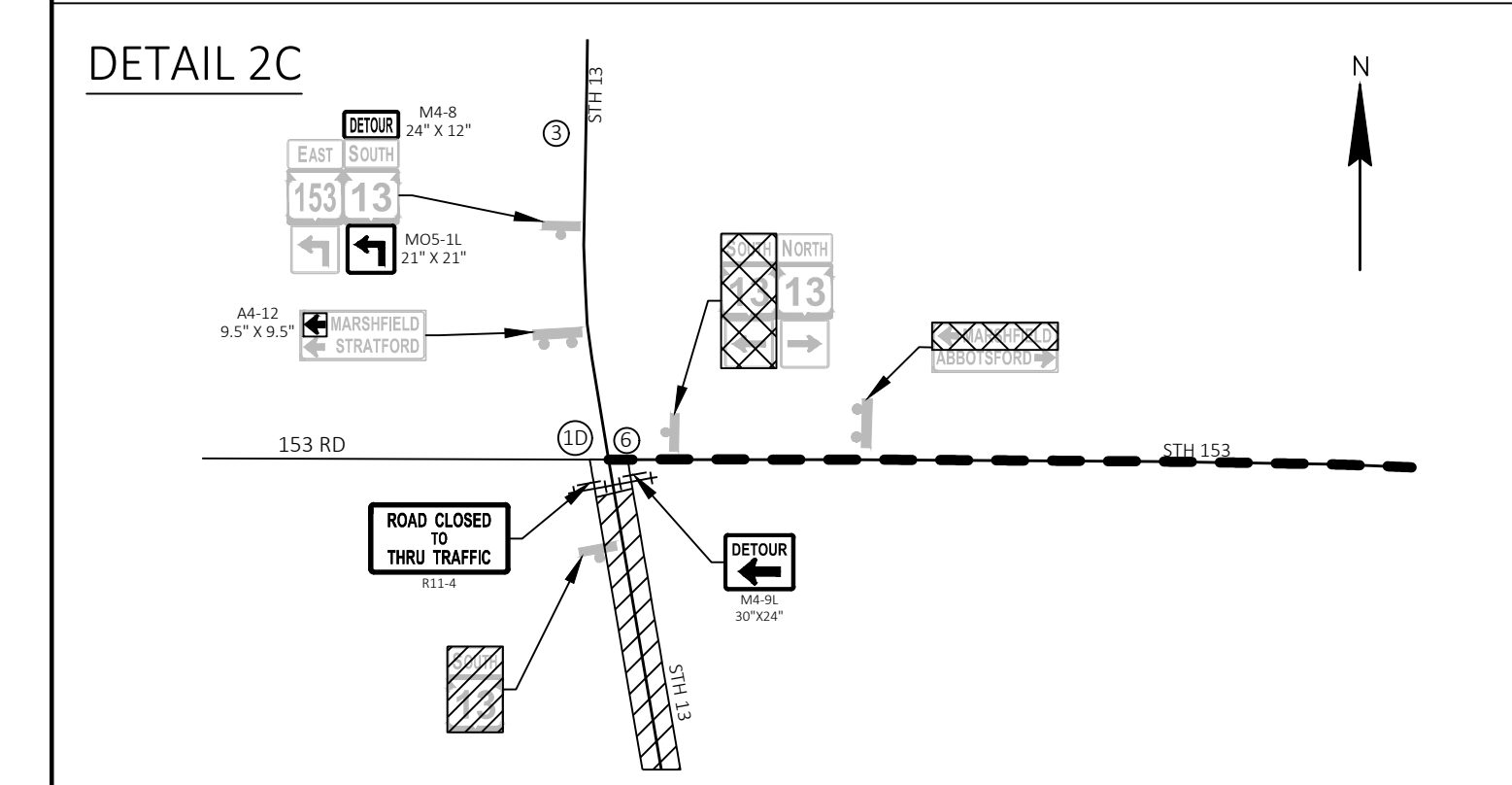
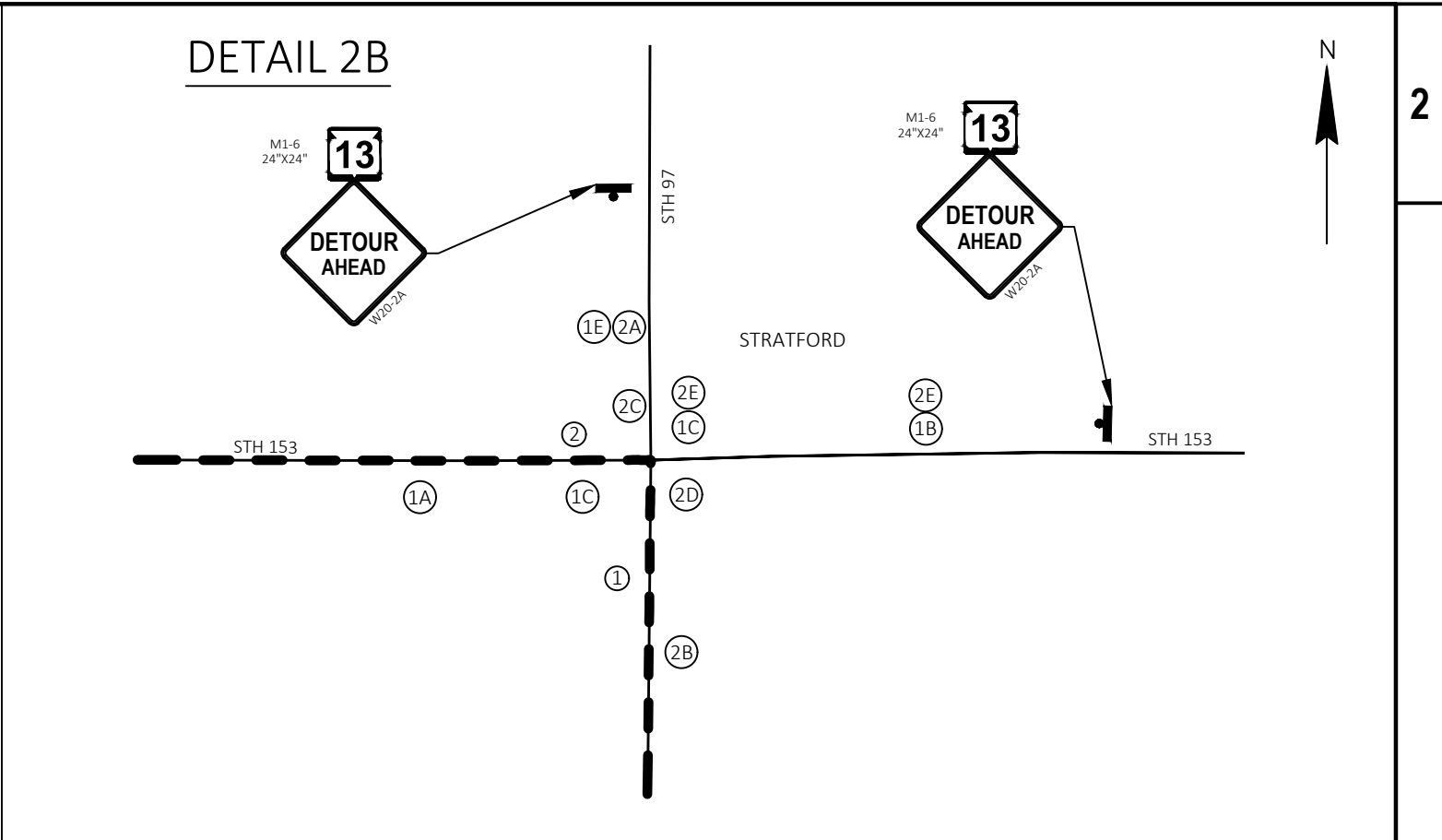
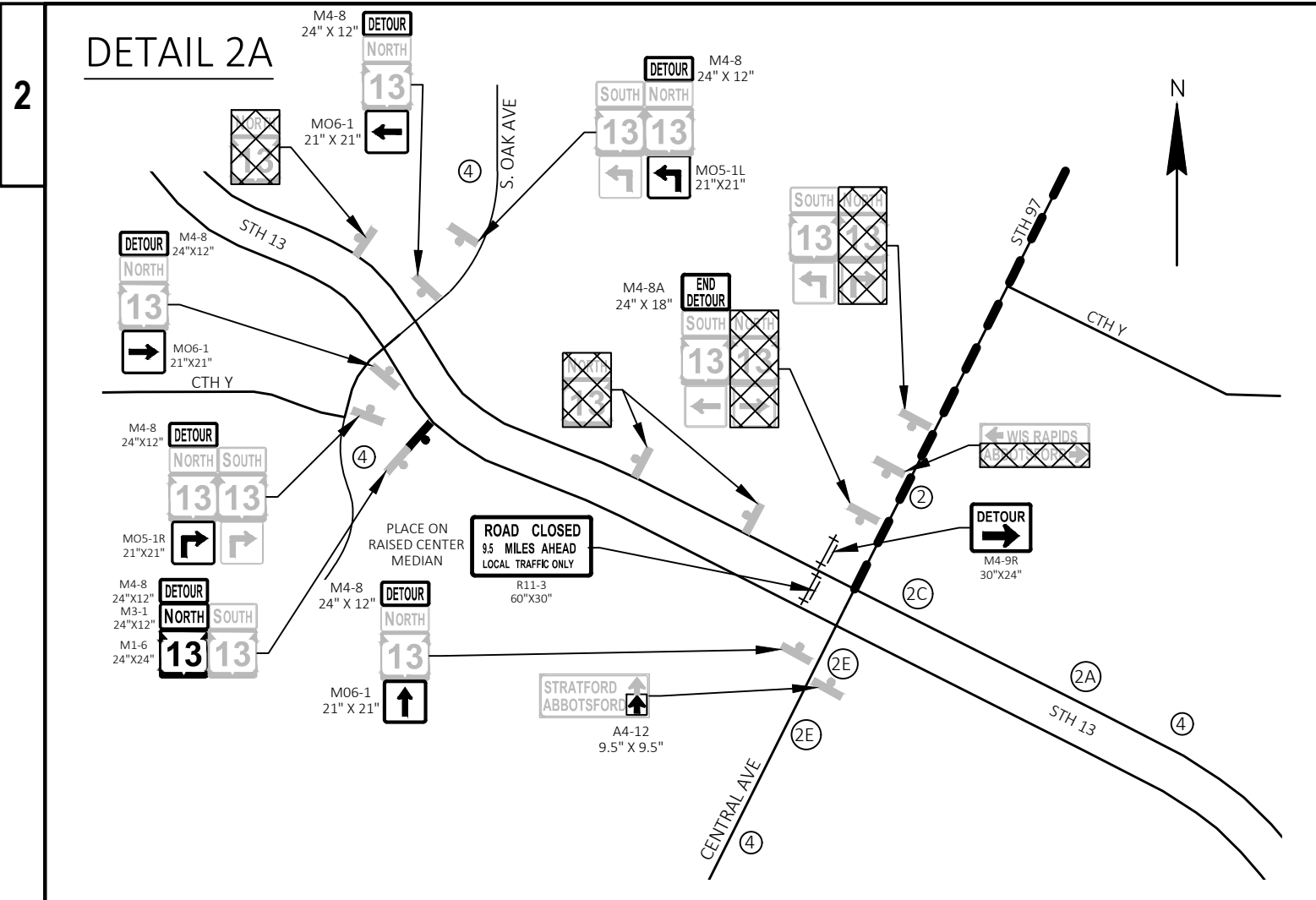
INSTALL PCMS'S WHERE NOTED ON PLANS ONE WEEK PRIOR TO HIGHWAY CLOSURE FOR STAGE 2.



REMOVE AFTER STH 13 IS CLOSED FOR STAGE 2

FRAME 1	FRAME 2
WIS 13 TO CLOSE	DATE TO DATE





PROJECT NO: 1620-01-62

HWY: STH 13

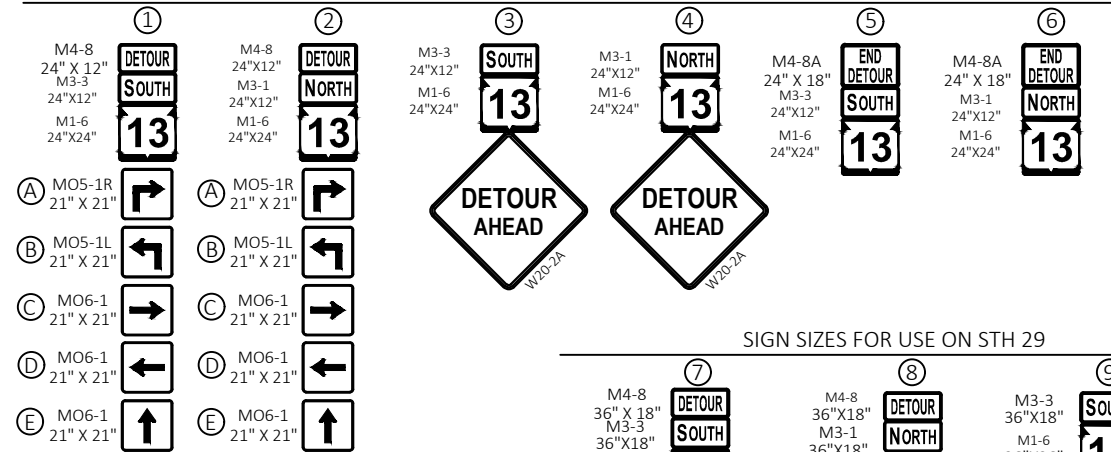
COUNTY: MARATHON

TRAFFIC CONTROL STAGE 2 DETOUR ROUTE SIGNING

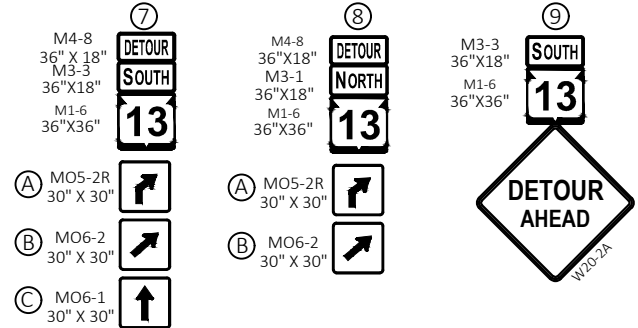
SHEET

E

SIGN SIZES FOR USE ON ALL OTHER HIGHWAYS & RAMP



SIGN SIZES FOR USE ON STH 29



- LEGEND:**
- WORK ZONE
  - DETOUR ROUTE
  - COVER EXISTING SIGN
  - PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
  - TYPE III BARRICADE WITH ATTACHED SIGN
  - TYPE III BARRICADE
  - EXISTING SIGN ON WOOD OR STEEL POST
  - TRAFFIC CONTROL DETOUR SIGN ON WOOD OR STEEL POST

STAGE 3 TRAFFIC CONTROL GENERAL NOTES

DRAWING IS NOT TO SCALE.

ALL TRAFFIC CONTROL SIGNS AND DEVICES AND THEIR LOCATIONS SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), THE PLANS, STANDARD SPECIFICATIONS AND APPLICABLE STANDARD DETAIL DRAWINGS.

ALL SIDEROADS WITHIN STAGING LIMITS SHALL BE BARRICADED AND SIGNING IN ACCORDANCE WITH DETAIL 4 OF THE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES".

ALL SIGNS INAPPROPRIATE TO THE WORK ZONE, INCLUDING PRE-EXISTING SIGNS, SHALL BE COVERED, REMOVED, OR ALTERED AS SPECIFIED IN THE PLANS AND/OR SPECIALS PROVISIONS OR AS DIRECTED BY THE ENGINEER.

COVER DIRECTIONAL ARROWS ON DESTINATION SIGNS IN PLANS PER SIGN PLATE A4-12.

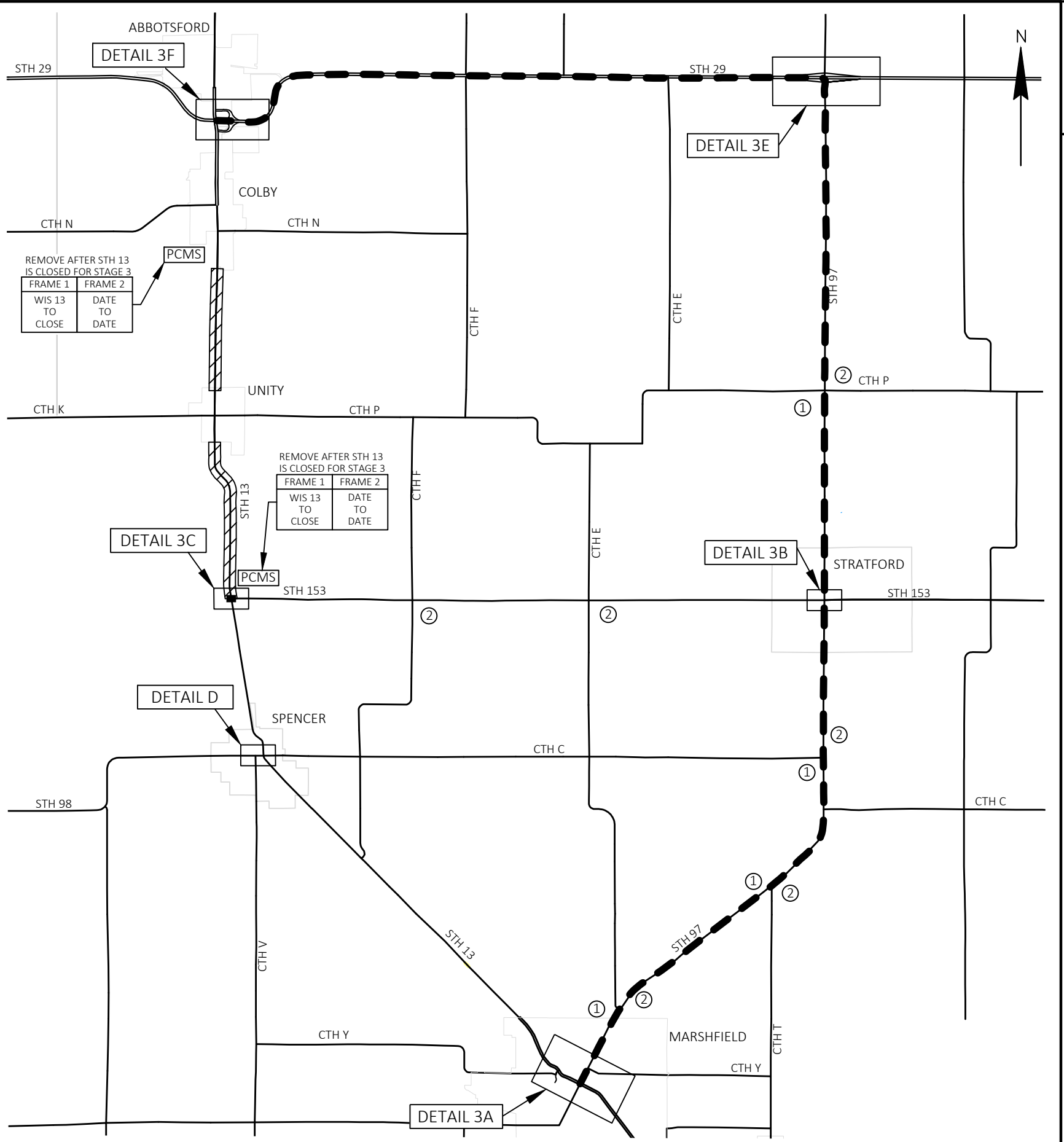
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

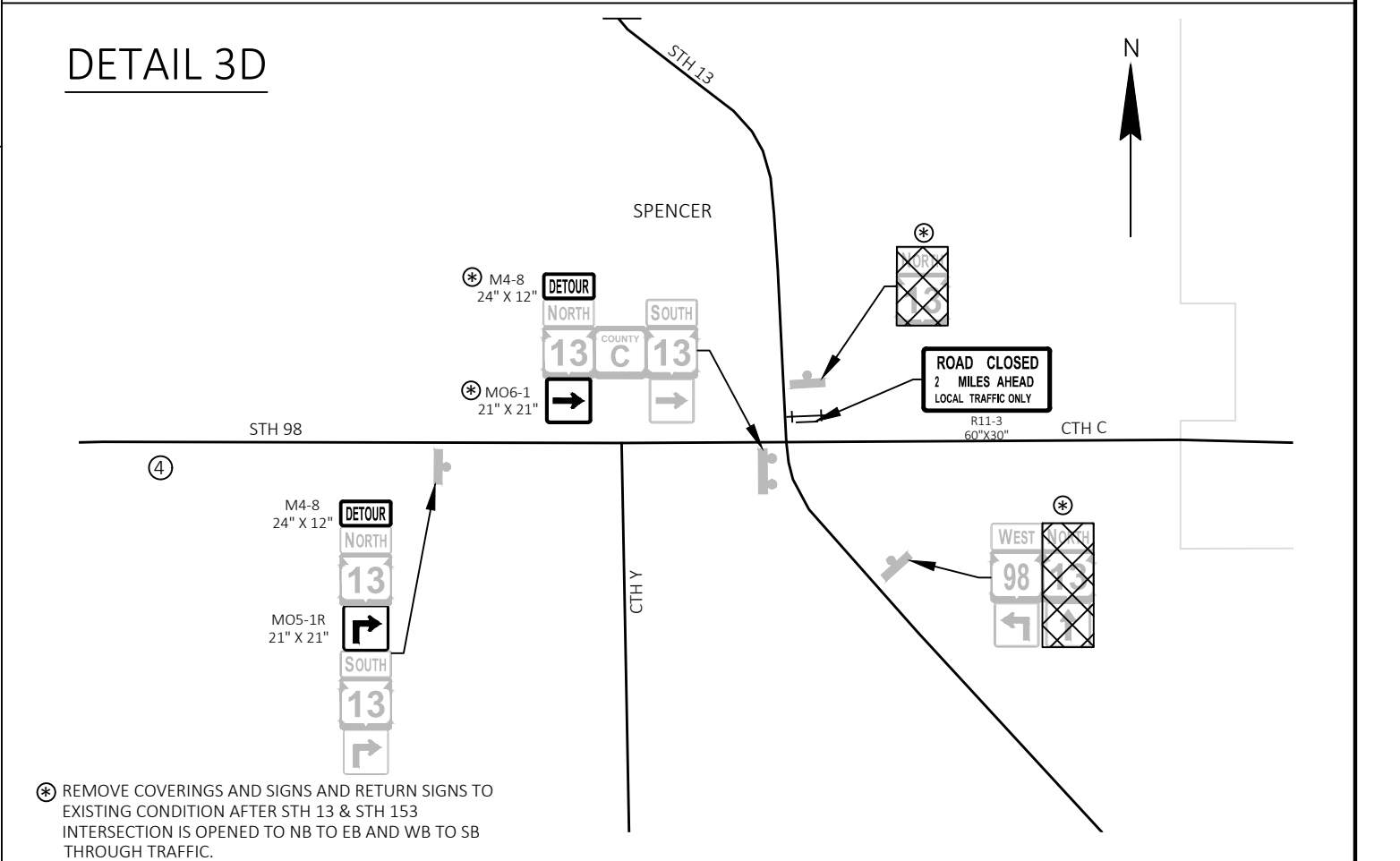
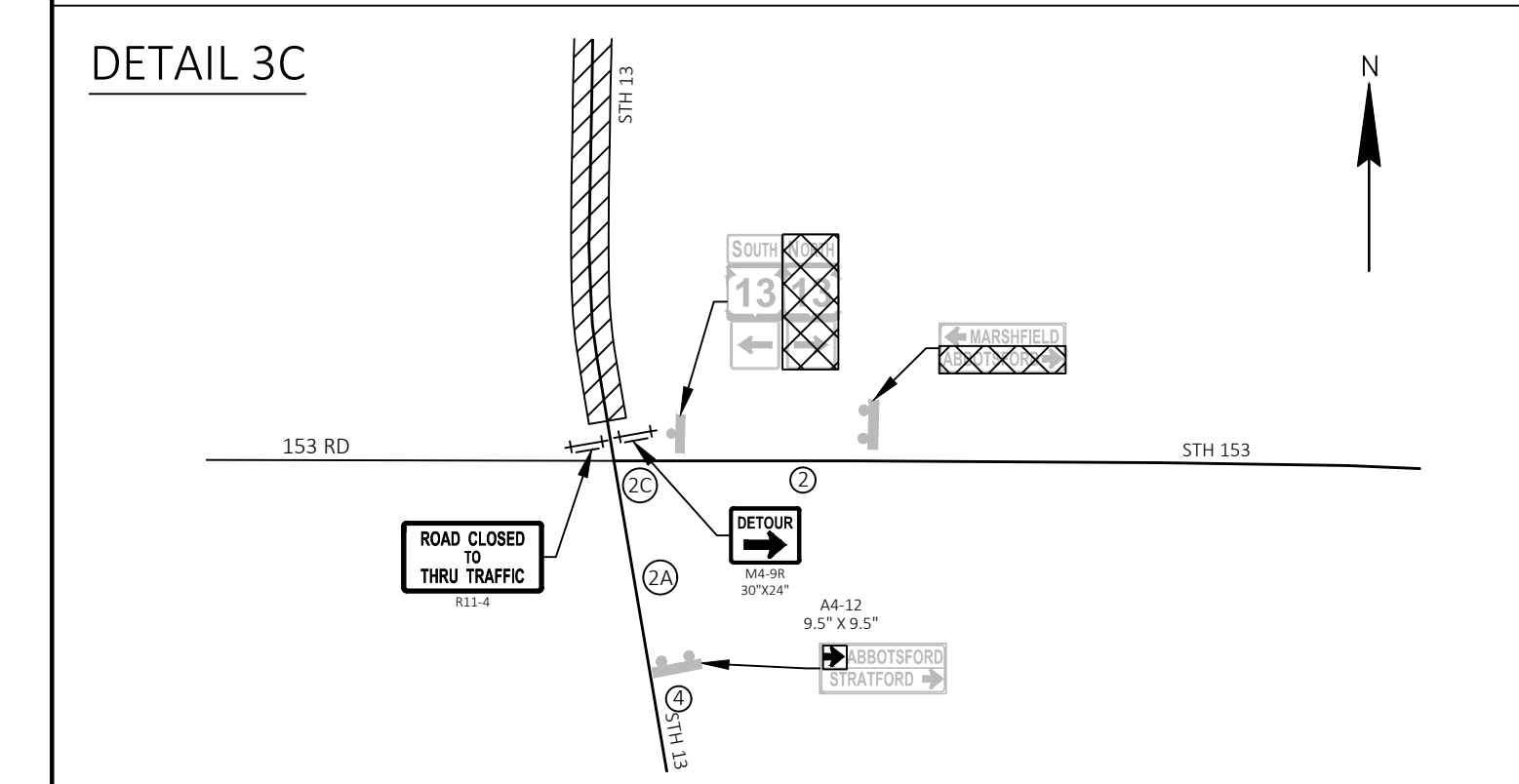
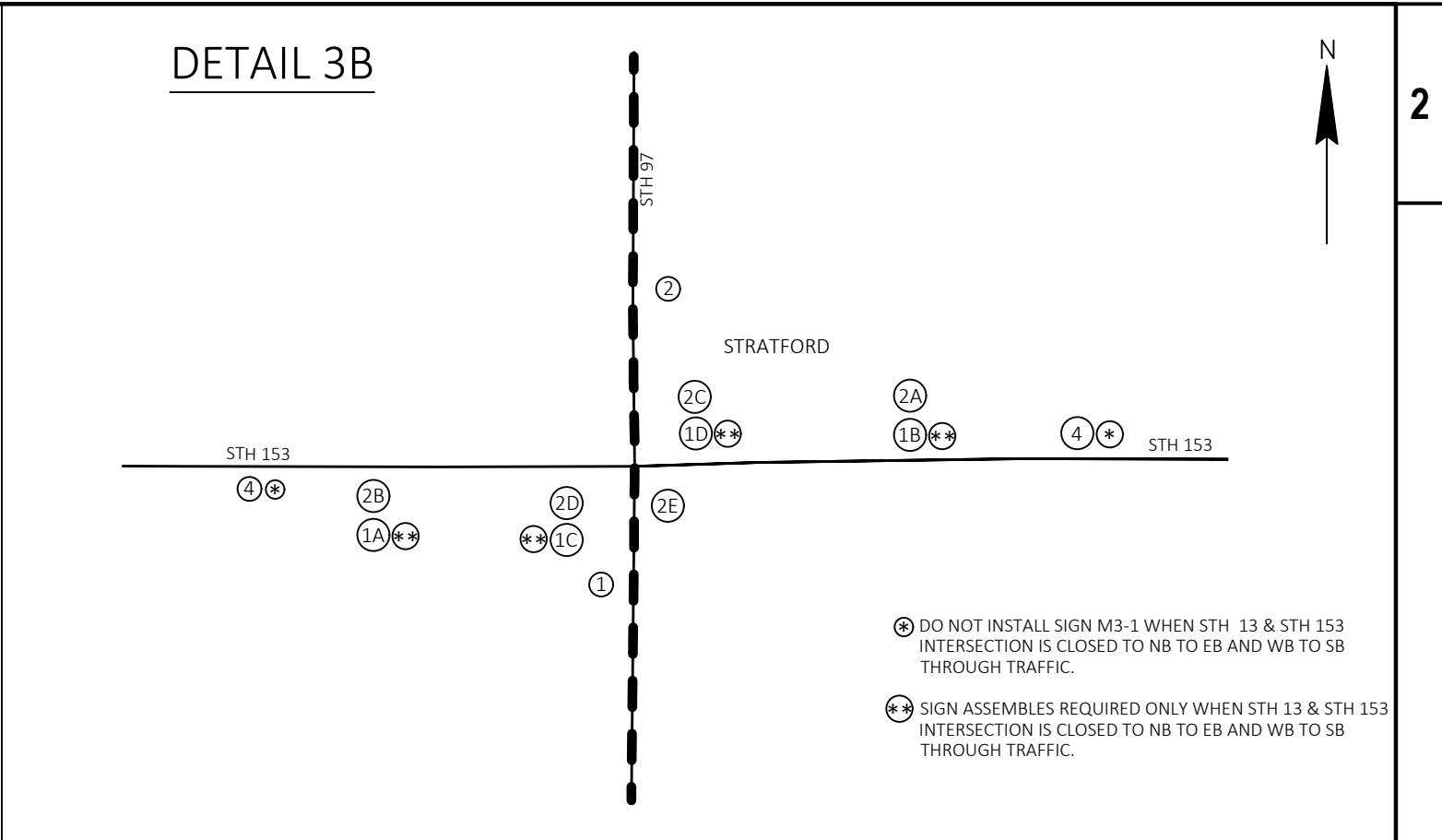
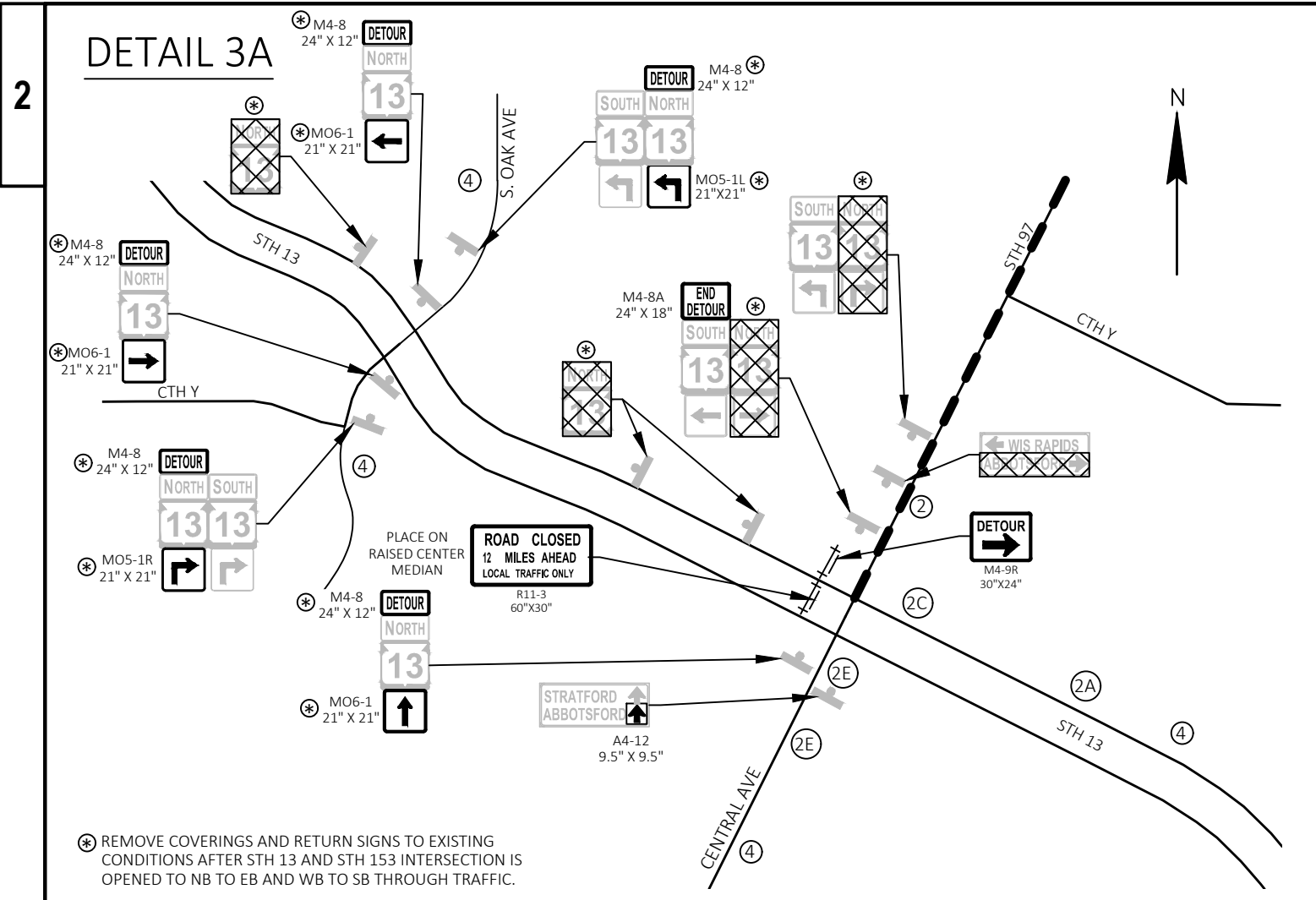
ALL W20 SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

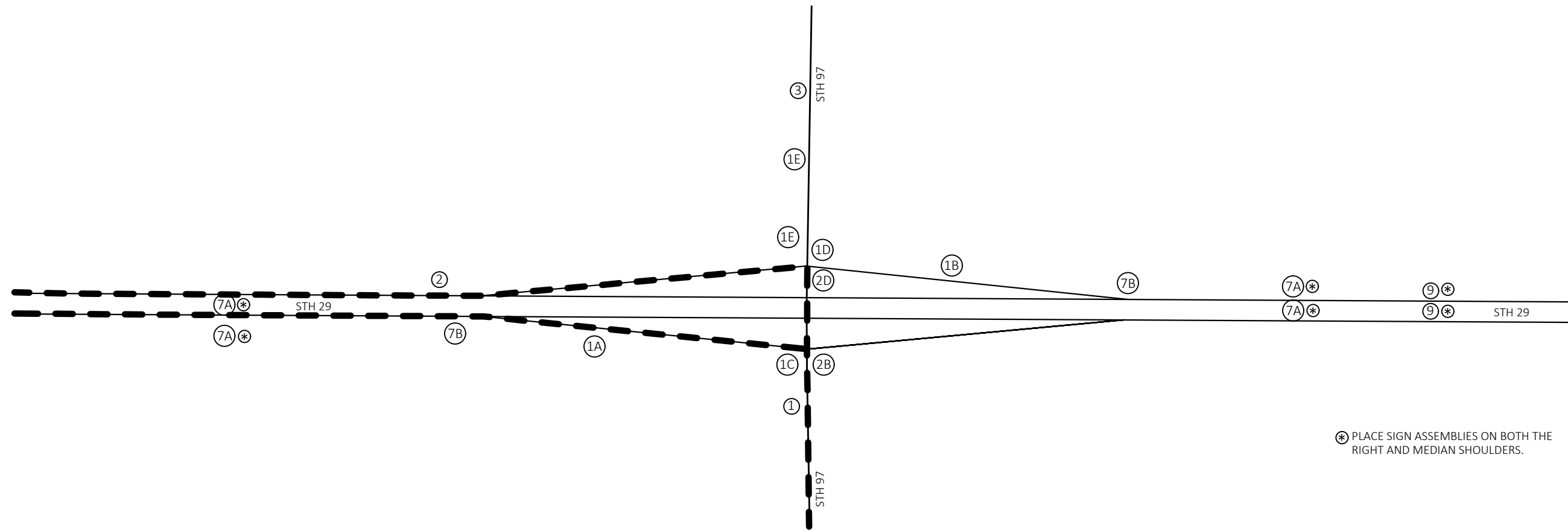
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACK GROUND IS ORANGE.

INSTALL PCMS'S WHERE NOTED ON PLANS ONE WEEK PRIOR TO HIGHWAY CLOSURE FOR STAGE 3.



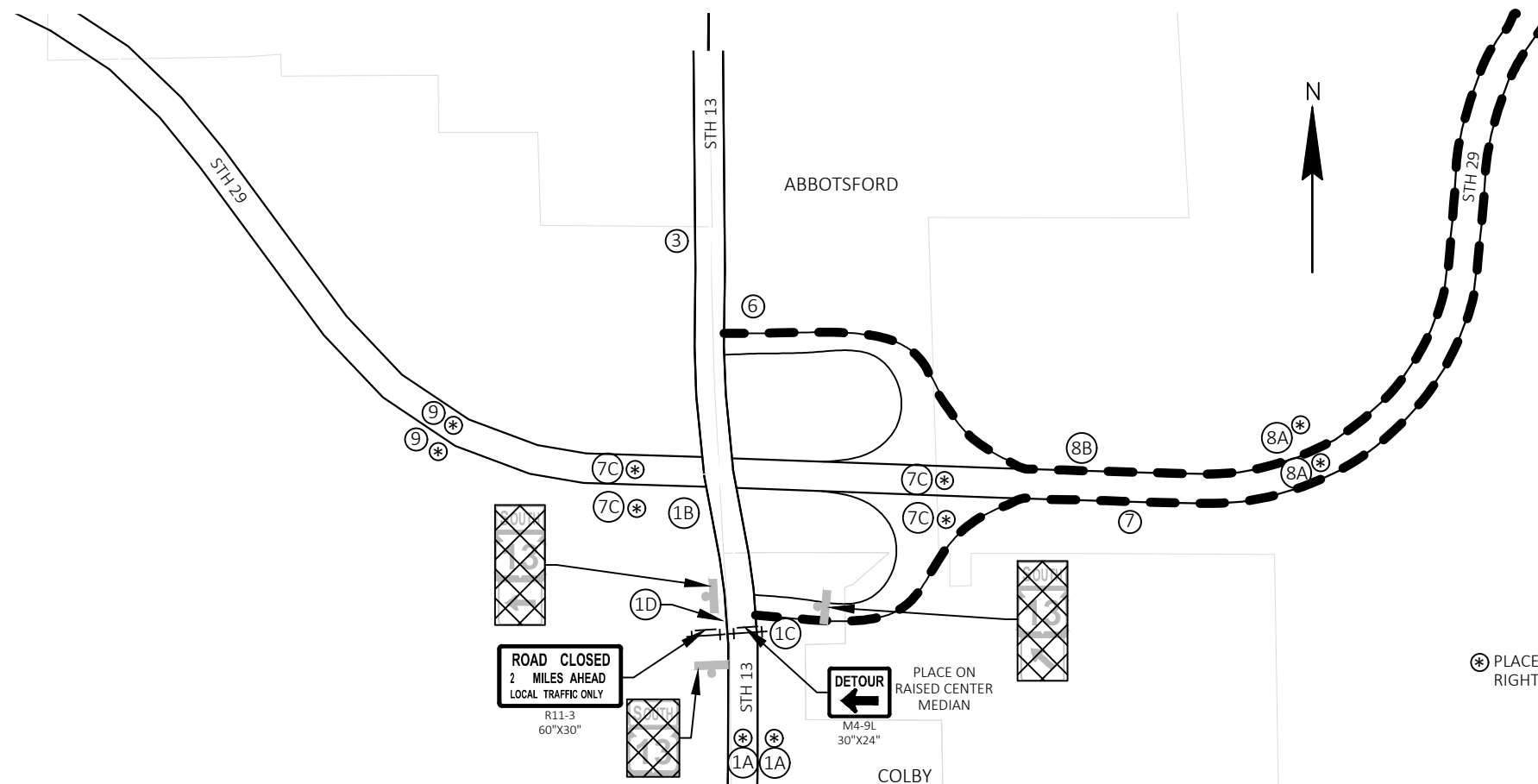


DETAIL E



⊗ PLACE SIGN ASSEMBLIES ON BOTH THE RIGHT AND MEDIAN SHOULDERS.

DETAIL F



⊗ PLACE SIGN ASSEMBLIES ON BOTH THE RIGHT AND MEDIAN SHOULDERS.



Estimate Of Quantities

1620-01-62 1620-01-63

Line	Item	Item Description	Unit	Total	Qty	Qty
0002	204.0100	Removing Concrete Pavement	SY	2,715.000	2,715.000	
0004	204.0110	Removing Asphaltic Surface	SY	5,440.000	5,440.000	
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	89.000	89.000	
0008	204.0150	Removing Curb & Gutter	LF	2,966.000	2,966.000	
0010	204.0155	Removing Concrete Sidewalk	SY	390.000	390.000	
0012	204.0165	Removing Guardrail	LF	2,445.000	2,445.000	
0014	205.0100	Excavation Common	CY	1,030.000	1,030.000	
0016	205.9011.S	Grading and Shaping Intersection (location) 01. Eau Pleine Road	EACH	1.000	1.000	
0018	205.9011.S	Grading and Shaping Intersection (location) 02. Century Road	EACH	1.000	1.000	
0020	205.9011.S	Grading and Shaping Intersection (location) 03. 153rd Road	EACH	1.000	1.000	
0022	205.9011.S	Grading and Shaping Intersection (location) 04. Buxton Street	EACH	1.000	1.000	
0024	205.9011.S	Grading and Shaping Intersection (location) 05. Town Hall Road	EACH	1.000	1.000	
0026	205.9011.S	Grading and Shaping Intersection (location) 06. Kington Road	EACH	1.000	1.000	
0028	205.9011.S	Grading and Shaping Intersection (location) 07. Yellowstone Trail (S)	EACH	1.000	1.000	
0030	205.9011.S	Grading and Shaping Intersection (location) 08. Yellowstone Trail (N)	EACH	1.000	1.000	
0032	205.9011.S	Grading and Shaping Intersection (location) 09. Fairhaven Avenue	EACH	1.000	1.000	
0034	205.9011.S	Grading and Shaping Intersection (location) 10. Cloverdale/Chokecherry Road	EACH	1.000	1.000	
0036	205.9011.S	Grading and Shaping Intersection (location) 11. Juneberry Road	EACH	1.000	1.000	
0038	205.9011.S	Grading and Shaping Intersection (location) 12. Colby Factory Road	EACH	1.000	1.000	
0040	209.0200.S	Backfill Controlled Low Strength	CY	40.000	40.000	
0042	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1620-01-62	EACH	1.000	1.000	
0044	211.0201	Prepare Foundation for Concrete Pavement (project) 01. 1620-01-62	EACH	1.000	1.000	
0046	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	517.000	502.000	15.000
0048	213.0100	Finishing Roadway (project) 01. 1620-01-62	EACH	1.000	1.000	
0050	213.0100	Finishing Roadway (project) 02. 1620-01-63	EACH	1.000		1.000
0052	305.0110	Base Aggregate Dense 3/4-Inch	TON	9,130.000	9,130.000	
0054	310.0110	Base Aggregate Open-Graded	TON	630.000	630.000	
0056	325.0100	Pulverize and Relay	SY	76,950.000	76,950.000	
0058	415.0085	Concrete Pavement 8 1/2-Inch	SY	2,650.000	2,650.000	
0060	415.6000.S	Rout and Seal	LF	87,530.000	87,530.000	
0062	416.0610	Drilled Tie Bars	EACH	25,088.000	25,088.000	
0064	416.0620	Drilled Dowel Bars	EACH	17,265.000	17,265.000	
0066	416.1710	Concrete Pavement Repair	SY	22,230.000	22,230.000	
0068	416.1720	Concrete Pavement Replacement	SY	4,960.000	4,960.000	
0070	420.1000	Continuous Diamond Grinding Concrete Pavement	SY	169,871.000	169,871.000	
0072	455.0605	Tack Coat	GAL	10.000	10.000	
0074	460.2000	Incentive Density HMA Pavement	DOL	7,800.000	7,760.000	40.000
0076	460.5224	HMA Pavement 4 LT 58-28 S	TON	12,115.000	12,115.000	
0078	460.6225	HMA Pavement 5 MT 58-28 S	TON	62.000		62.000
0080	465.0105	Asphaltic Surface	TON	37.000	37.000	
0082	465.0315	Asphaltic Flumes	SY	10.000	10.000	
0084	465.0520	Asphaltic Rumble Strips, Shoulder	LF	87,529.000	87,529.000	
0086	495.1000.S	Cold Patch	TON	20.000	20.000	
0088	502.3200	Protective Surface Treatment	SY	732.000		732.000
0090	502.3205	Pigmented Surface Sealer Reseal	SY	153.000		153.000
0092	509.0200	Preparation Approaches	SY	20.000		20.000
0094	509.0301	Preparation Decks Type 1	SY	70.000		70.000
0096	509.0302	Preparation Decks Type 2	SY	30.000		30.000
0098	509.0500	Cleaning Decks	SY	732.000		732.000
0100	509.0600	Cleaning Approaches	SY	700.000		700.000

Estimate Of Quantities

		1620-01-62	1620-01-63			
Line	Item	Item Description	Unit	Total	Qty	Qty
0102	509.1500	Concrete Surface Repair	SF	10.000		10.000
0104	509.2000	Full-Depth Deck Repair	SY	2.000		2.000
0106	509.2500	Concrete Masonry Overlay Decks	CY	48.000		48.000
0108	509.2600	Concrete Masonry Overlay Approaches	CY	40.000		40.000
0110	601.0150	Concrete Curb Integral Type D	LF	610.000	610.000	
0112	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	2,500.000	2,500.000	
0114	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	173.000	173.000	
0116	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	404.000	404.000	
0118	601.0588	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	LF	540.000	540.000	
0120	601.0600	Concrete Curb Pedestrian	LF	122.000	122.000	
0122	602.0405	Concrete Sidewalk 4-Inch	SF	3,423.000	3,423.000	
0124	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	82.000	82.000	
0126	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	309.000	309.000	
0128	602.0810	Concrete Driveway 6-Inch	SY	21.000	21.000	
0130	602.3010	Concrete Surface Drains	CY	15.000	15.000	
0132	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,035.000		1,035.000
0134	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,070.000		2,070.000
0136	606.0200	Riprap Medium	CY	12.000	12.000	
0138	611.0430	Reconstructing Inlets	EACH	12.000	12.000	
0140	611.0624	Inlet Covers Type H	EACH	9.000	9.000	
0142	611.3230	Inlets 2x3-FT	EACH	4.000	4.000	
0144	611.8115	Adjusting Inlet Covers	EACH	53.000	53.000	
0146	614.0010	Barrier System Grading Shaping Finishing	EACH	14.000	14.000	
0148	614.2300	MGS Guardrail 3	LF	2,050.000	2,050.000	
0150	614.2500	MGS Thrie Beam Transition	LF	315.200	315.200	
0152	614.2610	MGS Guardrail Terminal EAT	EACH	20.000	20.000	
0154	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1620-01-62	EACH	1.000	1.000	
0156	618.0100	Maintenance and Repair of Haul Roads (project) 02. 1620-01-63	EACH	1.000		1.000
0158	619.1000	Mobilization	EACH	1.000	0.950	0.050
0160	624.0100	Water	MGAL	350.000	350.000	
0162	625.0100	Topsoil	SY	1,400.000	1,400.000	
0164	628.1504	Silt Fence	LF	8,080.000	8,080.000	
0166	628.1520	Silt Fence Maintenance	LF	16,160.000	16,160.000	
0168	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000	
0170	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000	
0172	628.2008	Erosion Mat Urban Class I Type B	SY	1,400.000	1,400.000	
0174	628.7010	Inlet Protection Type B	EACH	2.000	2.000	
0176	628.7015	Inlet Protection Type C	EACH	105.000	105.000	
0178	628.7570	Rock Bags	EACH	330.000	330.000	
0180	629.0210	Fertilizer Type B	CWT	0.100	0.100	
0182	630.0120	Seeding Mixture No. 20	LB	6.000	6.000	
0184	630.0140	Seeding Mixture No. 40	LB	60.000	60.000	
0186	630.0500	Seed Water	MGAL	33.000	33.000	
0188	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	7.000	7.000	
0190	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000	
0192	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	1.000	1.000	
0194	637.2210	Signs Type II Reflective H	SF	95.250	95.250	
0196	638.2102	Moving Signs Type II	EACH	12.000	12.000	
0198	638.2602	Removing Signs Type II	EACH	2.000	2.000	
0200	638.4000	Moving Small Sign Supports	EACH	12.000	12.000	

Estimate Of Quantities

		1620-01-62	1620-01-63			
Line	Item	Item Description	Unit	Total	Qty	Qty
0202	642.5001	Field Office Type B	EACH	1.000	0.950	0.050
0204	643.0300	Traffic Control Drums	DAY	159,978.000	158,830.000	1,148.000
0206	643.0420	Traffic Control Barricades Type III	DAY	5,881.000	5,840.000	41.000
0208	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	355.000	355.000	
0210	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	355.000	355.000	
0212	643.0705	Traffic Control Warning Lights Type A	DAY	3,115.000	3,115.000	
0214	643.0715	Traffic Control Warning Lights Type C	DAY	38,108.000	37,370.000	738.000
0216	643.0900	Traffic Control Signs	DAY	48,231.000	46,755.000	1,476.000
0218	643.0920	Traffic Control Covering Signs Type II	EACH	29.000	29.000	
0220	643.1000	Traffic Control Signs Fixed Message	SF	36.000	36.000	
0222	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000	
0224	643.3165	Temporary Marking Line Paint 6-Inch	LF	38,650.000	38,650.000	
0226	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	10,229.000	1,635.000	8,594.000
0228	643.3350	Temporary Marking Crosswalk Removable Tape 6-inch	LF	885.000	885.000	
0230	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	56.000		56.000
0232	643.5000	Traffic Control	EACH	1.000	0.950	0.050
0234	644.1430	Temporary Pedestrian Surface Plate	SF	315.000	315.000	
0236	644.1440	Temporary Pedestrian Surface Matting	SF	600.000	600.000	
0238	644.1601	Temporary Pedestrian Curb Ramp	DAY	266.000	266.000	
0240	644.1605	Temporary Pedestrian Detectable Warning Field	SF	160.000	160.000	
0242	644.1810	Temporary Pedestrian Barricade	LF	1,900.000	1,900.000	
0244	645.0120	Geotextile Type HR	SY	20.000	20.000	
0246	646.2020	Marking Line Epoxy 6-Inch	LF	74,770.000	74,770.000	
0248	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	88,346.000	88,346.000	
0250	646.4020	Marking Line Epoxy 10-Inch	LF	810.000	810.000	
0252	646.5020	Marking Arrow Epoxy	EACH	28.000	28.000	
0254	646.5120	Marking Word Epoxy	EACH	2.000	2.000	
0256	646.5320	Marking Railroad Crossing Epoxy	EACH	14.000	14.000	
0258	646.6120	Marking Stop Line Epoxy 18-Inch	LF	175.000	175.000	
0260	646.7120	Marking Diagonal Epoxy 12-Inch	LF	790.000	790.000	
0262	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	490.000	490.000	
0264	646.9000	Marking Removal Line 4-Inch	LF	7,086.000	4,015.000	3,071.000
0266	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	400.000	400.000	
0268	646.9012	Marking Removal Line Water Blasting 6-Inch	LF	160.000	160.000	
0270	646.9310	Marking Removal Special Marking Water Blasting	EACH	2.000	2.000	
0272	648.0100	Locating No-Passing Zones	MI	7.860	7.860	
0274	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,276.000	1,276.000	
0276	650.7000	Construction Staking Concrete Pavement	LF	379.000	379.000	
0278	650.8000	Construction Staking Resurfacing Reference	LF	50,237.000	50,237.000	
0280	650.9000	Construction Staking Curb Ramps	EACH	26.000	26.000	
0282	650.9500	Construction Staking Sidewalk (project) 01. 1620-01-62	EACH	1.000	1.000	
0284	650.9911	Construction Staking Supplemental Control (project) 01. 1620-01-62	EACH	1.000	1.000	
0286	650.9920	Construction Staking Slope Stakes	LF	379.000	379.000	
0288	661.0101	Temporary Traffic Signals for Bridges (structure) 01. B-37-184	EACH	1.000		1.000
0290	661.0101	Temporary Traffic Signals for Bridges (structure) 02. B-37-185	EACH	1.000		1.000
0292	690.0150	Sawing Asphalt	LF	2,434.000	1,102.000	1,332.000
0294	690.0250	Sawing Concrete	LF	103,014.000	103,014.000	
0296	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	795.000	795.000	
0298	740.0440	Incentive IRI Ride	DOL	45,613.000	45,613.000	
0300	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,500.000	2,500.000	

Estimate Of Quantities

		1620-01-62		1620-01-63	
Line	Item	Item Description	Unit	Total	Qty
0302	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	2,880.000	2,880.000
0304	SPV.0030	Special 01. Fertilizer for Lawn Type Turf	CWT	3.000	3.000
0306	SPV.0060	Special 01. Reconstructing Inlets Special	EACH	6.000	6.000
0308	SPV.0060	Special 02. Adjusting Inlets Special	EACH	21.000	21.000
0310	SPV.0060	Special 03. Reconstructing Sanitary Sewer Manholes	EACH	4.000	4.000
0312	SPV.0060	Special 04. Research and Locate Existing Land Parcel Monuments	EACH	34.000	34.000
0314	SPV.0060	Special 05. Verify and Replace Existing Land Parcel Monuments	EACH	34.000	34.000
0316	SPV.0060	Special 06. Temporary Vehicle Detection B-37-184	EACH	1.000	1.000
0318	SPV.0060	Special 07. Temporary Vehicle Detection B-37-185	EACH	1.000	1.000
0320	SPV.0180	Special 01. Preparing Topsoil for Lawn Type Turf	SY	1,280.000	1,280.000



REMOVING CONCRETE ITEMS

STATION	TO	STATION	QUADRANT	*		
				204.0100	204.0150	204.0155
				REMOVING CONCRETE PAVEMENT SY	REMOVING CONCRETE CURB & GUTTER LF	REMOVING CONCRETE SIDEWALK SY
483+25	-	483+38	MAIN NW	--	22	8
483+22	-	483+49	MAIN NE	--	41	28
482+57	-	482+82	MAIN SE	--	39	26
485+91	-	486+07	MILL NW	--	30	17
486+94	-	486+15	MILL NE	--	35	38
485+35	-	485+57	MILL SE	--	38	35
485+42	-	485+59	MILL SW	--	23	--
488+57	-	488+87	PINE NF	--	39	14
488+00	-	488+25	PINE SE	--	31	15
487+99	-	488+14	PINE SW	--	15	--
491+25	-	491+48	ELM NE	--	15	--
490+68	-	490+92	ELM SE	--	29	18
503+58	-	503+88	LASALLE NW	--	31	8
586+54	-	590+01	CENTURY NE	--	31	--
590+51	-	590+88	CENTURY SE	--	40	--
643+46	-	643+94	153RD SW	--	75	--
696+78	-	967+16	TOWN HALL NW	--	91	--
695+56	-	696+44	TOWN HALL NE	--	60	--
696+06	-	696+43	TOWN HALL SE	--	88	--
696+77	-	697+36	TOWN HALL SW	--	60	--
787+07	-	787+77	FAIRHAVEN NF	--	30	--
806+69	-	807+00	SALTER NE	--	48	--
806+06	-	806+38	SALTER SE	--	49	--
811+00	-	811+15	1ST NE	--	15	--
810+37	-	810+45	1ST SE	--	13	--
814+37	-	814+80	2ND NF	--	78	--
815+18	-	815+79	2ND SE	--	70	--
819+90	-	820+20	CHURCH NE	--	44	28
819+34	-	819+59	CHURCH SE	--	38	12
823+09	-	823+29	WELLS NE	--	23	13
827+59	-	527+79	WELLS SF	--	37	17
826+55	-	826+78	COOK NE	--	39	23
826+00	-	826+25	COOK SE	--	37	24
833+33	-	833+65	CLARK NE	--	50	15
832+19	-	832+90	CLARK SE	--	45	25
832+63	-	832+92	CLARK SW	--	44	13
833+39	-	833+65	CLARK NW	--	39	18
501+91	-	505+47	STH 13 LT	490	--	--
805+76	-	809+55	STH 13 LT & RT	2,225	--	--
				2,715	1,527	390

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

PREPARE FOUNDATION ITEMS

STATION	TO	STATION	211.0101.01	211.0201	211.0400
			PREPARE FOUNDATION FOR ASPHALTIC PAVING (1620-01-62) EACH	PREPARE FOUNDATION FOR CONCRETE PAVEMENT (1620-01-02) EACH	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
482+61.96	-	1017+84.79	1	1	502
ITEM TOTALS			1	1	502

REMOVING ASPHALT ITEMS

STATION	TO	STATION	LOCATION	*	
				204.0110	204.0115
				REMOVING ASPHALTIC SURFACE SY	REMOVING ASPHALTIC SURFACE BUTT JOINTS SY
504+63	-	530+00	STH 13	--	--
530+00	-	556+50	STH 13	545	--
556+50	-	583+00	STH 13	--	--
583+00	-	609+50	STH 13	215	--
609+50	-	636+00	STH 13	--	--
636+00	-	662+50	STH 13	1230	--
662+50	-	689+00	STH 13	230	--
689+00	-	715+50	STH 13	628	--
715+50	-	742+00	STH 13	--	--
742+00	-	768+50	STH 13	944	--
768+50	-	795+00	STH 13	555	--
795+00	-	821+50	STH 13	--	--
821+50	-	848+00	STH 13	--	--
848+00	-	874+50	STH 13	--	--
874+50	-	901+00	STH 13	--	--
901+00	-	927+50	STH 13	510	--
927+50	-	954+00	STH 13	231	--
954+00	-	980+50	STH 13	278	--
980+50	-	1007+00	STH 13	--	--
1007+00	-	1017+85	STH 13	--	--
823+09	-	823+29	WELLS NE	19	--
833+33	-	833+65	CLARK NE/NW/SW	21	--
814+31	-	815+78	2ND ST	--	89
ITEM TOTAL				5,406	89

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

REMOVING GUARDRAIL

STATION	TO	STATION	LOCATION	204.0165
				REMOVING GUARDRAIL LF
627+01.3	-	630+32.6	LT	295
626+16.4	-	629+47.6	RT	290
726+68.7	-	730+00.0	LT	295
726+03.9	-	729+35.1	RT	295
799+34.0	-	801+13.7	LT	100
801+94.5	-	803+74.5	LT	80
799+32.0	-	801+12.5	RT	80
801+92.1	-	803+72.0	RT	75
916+56.5	-	919+87.7	LT	315
916+22.5	-	919+53.7	RT	315
968+04.1	-	969+84.0	LT	75
970+74.9	-	972+55.0	LT	75
968+04.1	-	969+83.9	RT	75
970+75.1	-	972+55.1	RT	80
ITEM TOTAL				2,445

PULVERIZE AND RELAY

STATION	TO	STATION	LOCATION	325.0100	624.0100
				PULVERIZE AND RELAY SY	WATER MGAL
504+63	-	530+00	STH 13	3543	8
530+00	-	556+50	STH 13	4713	9
556+50	-	583+00	STH 13	4713	9
583+00	-	609+50	STH 13	4006	8
609+50	-	636+00	STH 13	4713	9
636+00	-	662+50	STH 13	4713	9
662+50	-	689+00	STH 13	4713	9
689+00	-	715+50	STH 13	4713	9
715+50	-	742+00	STH 13	4713	9
742+00	-	768+50	STH 13	4713	9
768+50	-	795+00	STH 13	4713	9
795+00	-	821+50	STH 13	1848	4
821+50	-	848+00	STH 13	256	2
848+00	-	874+50	STH 13	3876	7
874+50	-	901+00	STH 13	4713	9
901+00	-	927+50	STH 13	4713	9
927+50	-	954+00	STH 13	4713	9
954+00	-	980+50	STH 13	4564	9
980+50	-	1007+00	STH 13	2301	6
1007+00	-	1017+85	STH 13	-	-
823+09	-	823+29	WELLS NE	-	-
833+33	-	833+65	CLARK NE/NW/SW	-	-
814+31	-	815+78	2ND ST	-	-
ITEM TOTAL				76,950	152

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

GRADING AND SHAPING INTERSECTION

LOCATION	ITEM NUMBER	QUANTITY EACH	EXCAVATION COMMON* CY
EAU CLAIRE ROAD	205.9011.S.01	1	75
CENTURY ROAD	205.9011.S.02	1	30
153RD ROAD	205.9011.S.03	1	95
BUXTON STREET	205.9011.S.04	1	30
TOWN HALL ROAD	205.9011.S.05	1	100
KING ION ROAD	205.9011.S.06	1	95
YELLOWSTONE TRAIL (S)	205.9011.S.07	1	40
YELLOWSTONE TRAIL (N)	205.9011.S.08	1	40
FAIRHAVEN AVENUE	205.9011.S.09	1	50
CLOVERDALE/CHOCOLATE HERRY ROAD	205.9011.S.10	1	70
JUNE BERRY ROAD	205.9011.S.11	1	35
COLBY FACTORY ROAD	205.9011.S.12	1	35

\*QUANTITIES SHOWN ABOVE ARE FOR INFORMATION ONLY AND ARE INCIDENTAL TO THE 205.9011 ITEMS

ALL ITEMS ARE CAT 0010 UNLESS NOTED OTHERWISE

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DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	MASS ORDINATE +/- (5)	WASTE	COMMENT
			CUT (2)	EBS EXCAVATION						
DIVISION 1 - CONCRETE PAVEMENT										
	805+76 - 809+55	STH 13	1,030	0	110	920	0	1,030	1,030	
GRAND TOTAL			1,030	0	110	920	0	1,030	1,030	
TOTAL COMMON EXC			1,030							

NOTES:

- (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
- (2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
- (3) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (5) 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.

ASPHALT ITEMS

STATION	TO	STATION	LOCATION	415.6000.S ROUTE AND SEAL LF	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	* 465.0105 ASPHALTIC SURFACE TON	495.1000.S COLD PATCH TON
504+63	-	530+00	STH 13	3,984	--	484	--	--
530+00	-	556+50	STH 13	5,300	--	808	--	--
556+50	-	583+00	STH 13	5,300	--	660	--	--
583+00	-	609+50	STH 13	4,639	--	630	--	--
609+50	-	636+00	STH 13	5,300	--	660	--	--
636+00	-	662+50	STH 13	5,300	--	685	--	--
662+50	-	689+00	STH 13	5,300	--	722	--	--
689+00	-	715+50	STH 13	5,300	--	858	--	--
715+50	-	742+00	STH 13	5,300	--	660	--	--
742+00	-	768+50	STH 13	5,300	--	936	--	--
768+50	-	795+00	STH 13	5,300	--	832	--	--
795+00	-	821+50	STH 13	2,152	10	281	--	--
821+50	-	848+00	STH 13	505	--	58	--	--
848+00	-	874+50	STH 13	4,357	--	537	--	--
874+50	-	901+00	STH 13	5,300	--	660	--	--
901+00	-	927+50	STH 13	5,300	--	804	--	--
927+50	-	954+00	STH 13	5,300	--	729	--	--
954+00	-	980+50	STH 13	5,300	--	754	--	--
980+50	-	1007+00	STH 13	2,993	--	357	--	--
1007+00	-	1017+85	STH 13	--	--	--	--	--
823+09	-	823+29	WELLS NE	--	--	--	5	--
833+33	-	833+65	CLARK NE/NW/SW	--	--	--	10	--
SHOULDERS TO MAINTAIN LOCAL TRAFFIC STAGE 2 & 3				--	--	--	--	20
ITEM TOTAL				87,530	10	12,115	15	20

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

AGGREGATE ITEMS

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	310.0110 BASE AGGREGATE OPEN GRADED TON	* 624.0100 WATER MGAL
504+63	-	530+00	STH 13	403	--	8.3
530+00	-	556+50	STH 13	536	--	11.0
556+50	-	583+00	STH 13	536	--	10.8
583+00	-	609+50	STH 13	469	--	9.4
609+50	-	636+00	STH 13	536	--	10.8
636+00	-	662+50	STH 13	504	--	10.1
662+50	-	689+00	STH 13	536	--	10.8
689+00	-	715+50	STH 13	536	--	10.8
715+50	-	742+00	STH 13	536	--	10.8
742+00	-	768+50	STH 13	536	--	10.8
768+50	-	795+00	STH 13	536	--	10.8
795+00	-	821+50	STH 13	218	630	17.2
821+50	-	848+00	STH 13	51	--	1.1
848+00	-	874+50	STH 13	440	--	8.8
874+50	-	901+00	STH 13	536	--	10.8
901+00	-	927+50	STH 13	536	--	10.9
927+50	-	954+00	STH 13	536	--	10.8
954+00	-	980+50	STH 13	509	--	10.4
980+50	-	1007+00	STH 13	238	--	4.9
1007+00	-	1017+85	STH 13	--	--	0.0
CURB & GUTTER/INLET REPAIRS				382	--	8.7
ITEM TOTALS				9,110	630	198

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE CAT 0010  
UNLESS NOTED OTHERWISE

3

3

CONCRETE ITEMS

				* 416.0610	601.0150	* CONCRETE CURB & GUTTER			601.0600	602.0405	602.0505	602.0605	* 690.0150	* 690.0250				
ASPHALTIC RUMBLE STRIPS, SHOULDER				DRILLED TIE BARS EACH	CONCRETE CURB INTEGRAL TYPE D LF	30-INCH TYPE A LF		6-INCH SLOPED 36-INCH TYPE D LF	CONCRETE CURB PEDESTRIAN LF	CONCRETE SIDEWALK 4-INCH SF	CURB RAMP DETECTABLE WARNING FIELD YELLOW SF		RADIAL YELLOW SF	SAWING ASPHALT LF	SAWING CONCRETE LF			
STATION	TO	STATION	LOCATION	465.0520 LF	STATION	TO	STATION	QUADRANT	EACH	LF	LF	LF	LF	SF	SF	SF	LF	LF
483+25	-	483+38	MAIN NW	3,984	483+25	-	483+38	MAIN NW	9	--	22	--	--	60	10	--	--	5
483+22	-	483+49	MAIN NE	5,300	483+22	-	483+49	MAIN NE	17	--	41	--	--	266	--	18	--	8
482+57	-	482+82	MAIN SE	5,300	482+57	-	482+82	MAIN SE	16	--	39	--	--	249	--	23	--	8
485+91	-	486+07	MILL NW	4,639	485+91	-	486+07	MILL NW	12	--	30	--	--	121	10	--	--	4
486+94	-	486+15	MILL NE	5,300	486+94	-	486+15	MILL NE	14	--	35	--	47	376	--	29	--	14
485+35	-	485+57	MILL SE	5,300	485+35	-	485+57	MILL SE	16	--	38	--	--	225	--	10	--	10
485+42	-	485+59	MILL SW	5,300	485+42	-	485+59	MILL SW	10	--	23	--	--	--	--	--	--	--
488+57	-	488+82	PINE NE	5,300	488+57	-	488+82	PINE NE	16	--	39	--	--	99	--	18	--	4
488+00	-	488+25	PINE SE	5,300	488+00	-	488+25	PINE SE	13	--	31	--	--	97	--	17	--	4
487+99	-	488+14	PINE SW	5,300	487+99	-	488+14	PINE SW	6	--	15	--	--	--	--	--	--	--
491+25	-	491+48	ELM NE	5,300	491+25	-	491+48	ELM NE	6	--	15	--	--	--	--	--	--	--
490+68	-	490+92	ELM SE	5,300	490+68	-	490+92	ELM SE	12	--	29	--	--	134	--	15	--	4
503+58	-	503+88	LASALLE NW	5,300	503+58	-	503+88	LASALLE NW	13	--	31	--	--	75	--	17	--	4
586+54	-	590+01	CENTURY NE	5,300	586+54	-	590+01	CENTURY NE	13	--	31	--	--	--	--	--	--	--
590+51	-	590+88	CENTURY SE	2,252	590+51	-	590+88	CENTURY SE	16	--	40	--	--	--	--	--	--	--
643+46	-	643+94	153RD SW	505	643+46	-	643+94	153RD SW	--	--	--	75	--	--	--	--	--	--
696+78	-	967+16	TOWN HALL NW	4,357	696+78	-	967+16	TOWN HALL NW	--	--	--	91	--	--	--	--	--	--
695+56	-	696+44	TOWN HALL NE	5,300	695+56	-	696+44	TOWN HALL NE	--	--	--	60	--	--	--	--	--	--
696+06	-	696+43	TOWN HALL SE	5,300	696+06	-	696+43	TOWN HALL SE	--	--	--	88	--	--	--	--	--	--
696+77	-	697+36	TOWN HALL SW	5,300	696+77	-	697+36	TOWN HALL SW	--	--	--	60	--	--	--	--	--	--
787+02	-	787+27	FAIRHAVEN NE	5,300	787+02	-	787+27	FAIRHAVEN NE	--	--	--	30	--	--	--	--	--	--
806+69	-	807+00	SALTER NE	5,300	806+69	-	807+00	SALTER NE	20	--	48	--	--	--	--	--	--	--
806+06	-	806+38	SALTER SE	2,992	806+06	-	806+38	SALTER SE	23	--	57	--	--	--	--	--	--	--
806+06	-	809+53	STH 13 LT		806+06	-	809+53	STH 13 LT	--	356	--	--	--	--	--	--	--	--
807+00	-	809+53	STH 13 RT		807+00	-	809+53	STH 13 RT	--	254	98	--	--	--	--	--	--	--
811+00	-	811+15	1ST NE		811+00	-	811+15	1ST NE	6	--	15	--	--	--	--	--	--	--
810+37	-	810+45	1ST SE		810+37	-	810+45	1ST SE	6	--	13	--	--	--	--	--	--	--
814+32	-	814+80	2ND NE		814+32	-	814+80	2ND NE	32	--	78	--	--	--	--	--	--	--
815+18	-	815+79	2ND SE		815+18	-	815+79	2ND SE	28	--	70	--	--	--	--	--	--	--
819+90	-	820+20	CHURCH NE		819+90	-	820+20	CHURCH NE	18	--	44	--	--	311	--	25	--	8
819+34	-	819+59	CHURCH SE		819+34	-	819+59	CHURCH SE	16	--	38	--	24	102	--	17	--	4
823+09	-	823+29	WELLS NE		823+09	-	823+29	WELLS NE	10	--	23	--	18	114	10	--	--	4
822+59	-	522+79	WELLS SE		822+59	-	522+79	WELLS SE	13	--	32	--	--	87	10	--	--	4
826+55	-	826+78	COOK NE		826+55	-	826+78	COOK NE	16	--	39	--	33	224	--	15	--	8
826+00	-	826+25	COOK SE		826+00	-	826+25	COOK SE	15	--	37	--	--	180	--	16	--	4
833+33	-	833+65	CLARK NE		833+33	-	833+65	CLARK NE	20	--	50	--	--	172	--	23	--	8
832+19	-	832+90	CLARK SE		832+19	-	832+90	CLARK SE	18	--	45	--	--	240	--	33	--	9
832+63	-	832+92	CLARK SW		832+63	-	832+92	CLARK SW	18	--	44	--	--	129	18	15	36	4
833+39	-	833+65	CLARK NW		833+39	-	833+65	CLARK NW	16	--	39	--	--	162	24	18	40	6
ITEM TOTAL				87,529	464	610	1,229	404	122	3,423	82	309	76	124				

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE CAT 0010  
UNLESS NOTED OTHERWISE

INLET ITEMS (SHEET 1 OF 2)

INLET NO.	STATION	LOCATION	204.0110		204.0150		416.0610		465.0105		601.0409		601.0411		611.0430		611.0624		611.3230		611.8115		628.7015		690.0150		SPV.0060.01		SPV.0060.02	
			REMOVING ASPHALTIC SURFACE		REMOVING CURB & GUTTER		DRILLED TIE BARS		ASPHALTIC SURFACE		CONCRETE CURB & GUTTER 30-INCH		RECONSTRUCTING INLET COVERS		ADJUSTING INLET COVERS		INLET PROTECTION		SAWING ASPHALT		RECONSTRUCTING INLETS SPECIAL		ADJUSTING INLET COVERS SPECIAL							
			SY	LF	LF	LF	TON	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
10	482+55.8	RT	2	9	--	1	--	9	--	9	--	--	--	--	1	1	17	--	--											
11	482+83.9	RT	1	9	3	1	--	9	--	9	--	--	--	1	1	10	--	--												
12	483+20.1	RT	1	9	3	1	--	9	--	9	--	--	--	1	1	10	--	--												
13	482+54.6	LT	2	15	--	1	--	15	--	15	--	--	--	1	1	17	--	--												
14	485+33.2	RT	--	9	3	--	9	--	9	--	--	--	--	1	1	--	--	--												
15	485+59.0	RT	3	9	3	--	--	9	1	--	--	--	--	--	1	12	--	--												
16	485+93.8	RT	3	17	--	1	3	14	--	14	--	--	--	1	1	17	--	--												
17	486+16.4	RT	--	9	3	--	9	--	9	--	--	--	--	1	1	--	--	--												
18	485+91.7	LT	1	9	--	1	--	9	--	9	--	--	--	1	1	10	--	--												
19	486+17.0	LT	--	15	5	--	15	--	15	--	1	--	--	1	--	--	--	--												
20	485+67.5	LT	1	15	2	1	11	9	--	9	--	--	--	1	1	10	--	--												
21	485+34.1	LT	--	15	5	--	15	--	15	--	1	--	--	1	--	--	--	--												
22	490+66.7	RT	--	9	3	--	9	--	9	--	--	--	--	1	1	--	--	--												
23	490+68.5	LT	--	15	5	--	15	--	15	--	1	--	--	1	--	--	--	--												
24	492+64.7	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1							1				
25	494+29.3	LT	--	15	3	--	15	--	15	--	--	--	1	--	1	--	--	--	1											
26	494+41.9	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1										1	
27	494+33.7	RT	--	15	5	--	15	--	15	--	--	--	1	--	1	--	--	--	1											
28	497+89.6	LT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
29	498+00.8	LT	--	15	5	--	15	--	15	--	--	--	1	--	1	--	--	--	1											
30	498+36.4	RT	--	15	5	--	15	--	15	--	--	--	1	--	1	--	--	--	1											
31	499+53.6	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
32	501+33.2	RT	--	15	5	--	15	--	15	--	1	--	--	--	1	--	--	--	1											
33	501+79.5	LT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
34	503+34.9	RT	--	15	5	--	15	--	15	--	1	--	--	--	1	--	--	--	1											
35	503+80.8	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1							1				
36	503+90.4	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1											
37	505+68.4	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
38	507+23.3	RT	--	15	5	--	15	--	15	--	1	--	--	--	1	--	--	--	1											
39	508+72.6	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1								1			
40	510+35.9	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
41	511+46.9	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
42	513+00.2	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
43	515+46.7	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
44	593+02.9	RT	--	15	5	--	15	--	15	--	1	--	--	--	1	--	--	--	1											
45	806+76.1	LT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
46	807+00.7	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
47	809+14.7	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
48	809+15.5	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1										1	
49	810+46.9	RT	1	15	2	1	6	9	--	9	--	--	--	1	1	10	--	--	--	1										
50	810+83.7	RT	1	15	--	1	6	9	--	9	--	--	--	1	1	10	--	--	--	1										
51	811+16.0	RT	--	9	5	--	9	--	9	--	1	--	--	--	1	--	--	--	1											
52	811+13.3	LT	--	15	5	--	15	--	15	--	--	1	--	--	1	--	--	--	1											
53	812+72.5	RT	--	15	5	--	15	--	15	--	--	1	--	--	1	--	--	--	1											
54	812+73.5	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1										1	
55	815+41.2	RT	--	--	5	--	--	--	--	--	--	--	--	1	1	--	--	--	1											
56	814+78.6	LT	1	15	2	1	6	9	--	9	--	--	--	1	1	10	--	--	--	1										
57	815+12.6	RT	1	15	2	1	6	9	--	9	--	--	--	1	1	10	--	--	--	1										
58	815+39.9	RT	--	15	5	--	15	--	15	--	--	1	--	--	1	--	--	--	1											
59	818+06.7	RT	--	15	5	--	15	--	15	--	--	--	--	1	1	--	--	--	1											
60	818+08.7	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1								1			
61	820+19.8	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	--	--	--	1										1	
62	819+58.8	RT	3	9	3	2	--	9	1	--	--	--	--	--	1	12	--	--	--	1										
INLET ITEMS (SHEET 1) TOTALS			21	722	212	13	599	128	7	6	4	27	53	155	5	4														

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE  
CAT 0010  
UNLESS  
NOTED  
OTHERWISE

INLET ITEMS (SHEET 2 OF 2)

INLET NO.	STATION	LOCATION	* 204.0110 REMOVING ASPHALTIC SURFACE		* 204.0150 REMOVING CURB & GUTTER		* 416.0610 DRILLED TIE BARS EACH		* 465.0105 ASPHALTIC SURFACE TON		* 601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF		* 601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF		* 611.0430 RECONSTRUCTING INLETS EACH		* 611.0624 INLET COVERS TYPE H EACH		* 611.3230 INLETS 2X3-FT EACH		* 611.8115 ADJUSTING INLET COVERS EACH		* 628.7015 INLET PROTECTION TYPE C EACH		* 690.0150 SAWING ASPHALT LF		* SPV.0060.01 RECONSTRUCTING INLETS SPECIAL EACH		* SPV.0060.02 ADJUSTING INLET COVERS SPECIAL EACH	
			SY	LF	LF	EACH	TON	LF	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
63	819+90.5	RT	3	9	3	2	--	9	--	--	--	--	--	--	--	--	--	1	1	12	--	--	1	--	--	1	--	--		
64	820+21.6	RT	--	9	5	--	9	--	9	--	--	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--		
65	821+36.6	RT	--	15	5	--	15	--	15	--	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--		
66	822+78.3	RT	3	9	--	2	--	9	--	9	--	--	--	--	--	--	--	1	1	12	--	--	1	--	--	1	--	--		
68	825+98.3	RT	--	9	5	--	9	--	9	--	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--		
69	826+24.2	RT	1	9	2	1	--	9	--	9	--	--	--	--	--	1	1	--	--	10	--	--	1	--	--	--	--	--		
70	826+55.6	RT	3	9	3	2	--	9	1	--	--	--	--	--	--	--	1	1	12	--	--	1	--	--	--	--	--	--		
71	826+14.9	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
72	828+80.2	RT	--	15	5	--	15	--	15	--	1	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--		
73	828+78.7	LT	--	15	5	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--		
74	830+75.0	RT	--	15	5	--	15	--	15	--	1	1	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--		
75	832+51.1	RT	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
76	832+92.5	RT	3	15	--	2	6	9	--	--	--	--	--	--	--	--	1	1	12	--	--	1	--	--	--	1	--	1		
77	833+33.2	RT	--	9	5	--	9	--	9	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
78	832+61.6	LT	--	9	5	--	9	--	9	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
79	835+57.0	RT	--	15	--	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
80	835+57.5	LT	--	15	5	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
81	837+94.0	LT	--	15	5	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
82	837+94.0	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	1	--	1		
83	840+31.4	RT	--	15	3	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	1	--	--	--	--	--		
84	840+27.3	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
85	842+69.4	RT	--	15	3	--	15	--	15	1	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--		
86	842+73.8	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
87	845+29.9	RT	--	15	3	--	15	--	15	--	1	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--		
88	848+72.8	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
89	850+97.2	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
90	853+79.0	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
91	855+55.4	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
92	857+12.0	RT	--	15	5	--	15	--	15	1	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--		
93	993+04.4	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
94	994+83.8	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
95	996+64.4	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
96	998+39.9	LT	--	15	3	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
97	998+39.0	RT	--	15	3	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
98	999+30.9	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
99	1000+27.7	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
100	1001+84.9	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
101	1001+83.9	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
102	1004+05.7	LT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
103	1004+03.7	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	1	--		
104	1006+43.8	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	1	--		
105	1006+41.4	LT	--	15	3	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
106	1009+14.4	RT	--	15	5	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
107	1008+14.1	LT	--	15	5	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
108	1011+33.0	LT	--	15	3	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
109	1011+38.7	RT	--	15	3	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
110	1013+09.9	RT	--	15	3	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
111	1013+33.6	LT	--	15	3	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	1	--		
112	1015+23.2	LT	--	15	5	--	15	--	15	--	1	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	--	--		
113	1015+44.1	RT	--	15	3	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	1	--	1		
114	1017+24.3	RT	--	15	3	--	15	--	15	--	--	--	--	--	1	1	--	--	--	--	1	--	--	--	--	--	--	--		
115	1017+23.9	LT	--	15	3	--	15	--	15	--	--	--	--	--	--	--	1	1	--	--	1	--	--	--	--	--	1	--		
INLET ITEMS (SHEET 2) TOTALS			13	717	207	9	672	45	5	3	0	26	52	58	1	17														
INLET ITEMS TOTALS			34	1,439	419	22	1,271	173	12	9	4	53	105	213	6	21														

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE  
CAT 0010  
UNLESS  
NOTED  
OTHERWISE

PROJECT NO: 1620-01-62

HWY: STH 13

COUNTY: MARATHON

MISCELLANEOUS QUANTITIES

SHEET

E



3

3

CONCRETE PAVEMENT REPAIR ITEMS (SHEET 1 OF 2)

Table with columns: STATION TO STATION, 415.0085 CONCRETE PAVEMENT 8 1/2-INCH SY, 602.0810 CONCRETE DRIVEWAY 6-INCH SY, 416.0610 DRILLED IIE BARS EACH, 416.0620 DRILLED DOWEL BARS EACH, 416.1710 CONCRETE PAVEMENT REPAIR SY, 416.1720 CONCRETE PAVEMENT REPLACEMENT SY, 420.1000 CONTINUOUS DIAMOND GRINDING CONC. PAVEMENT SY, 690.0250 SAWING CONCRETE LF. Includes Stage 1 and Stage 2 subtotals.

CONCRETE PAVEMENT REPAIR ITEMS (SHEET 1 OF 2) SUBTOTALS

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE CAT 0010 UNLESS NOTED OTHERWISE

PROJECT NO: 1620-01-62 HWY: STH 13 COUNTY: MARATHON MISCELLANEOUS QUANTITIES SHEET E

CONCRETE PAVEMENT REPAIR ITEMS (SHEET 2 OF 2)

Table with columns: STATION TO STATION, 415.0085 CONCRETE PAVEMENT 8 1/2-INCH SY, 602.0810 CONCRETE DRIVEWAY 6-INCH SY, 416.0610 DRILLED IIE BARS EACH, 416.0620 DRILLED DOWEL BARS EACH, 416.1710 CONCRETE PAVEMENT REPAIR SY, 416.1720 CONCRETE PAVEMENT REPLACEMENT SY, 420.1000 CONTINUOUS DIAMOND GRINDING CONC PAVMENT SY, 690.0250 SAWING CONCRETE LF. Includes Stage 3 subtotals.

CONCRETE PAVEMENT REPAIR ITEMS TOTALS

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

**TURF ESTABLISHMENT ITEMS**

STATION TO STATION	QUADRANT	625.0100 TOPSOIL SY	628.2008 EROSION MA: URBAN CLASS I TYPE SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0500 SEED WATER MGAL	SPV.0030.01 FERTILIZER FOR LAWN TYPE TURF CWT	SPV.0180.01 PREPARING TOPSOIL FOR LAWN TYPE TURF SY
483+25 - 483+38	MAIN NW	6	6	--	--	0.3	0.2	0.1	6
483+22 - 483+49	MAIN NE	36	36	--	--	1.7	0.9	0.1	36
482+57 - 482+82	MAIN SE	17	17	--	--	0.8	0.4	0.1	17
485+91 - 486+07	MILL NW	24	24	--	--	1.1	0.6	0.1	24
486+94 - 486+15	MILL NE	33	33	--	--	1.5	0.8	0.1	33
485+35 - 485+57	MILL SE	27	27	--	--	1.3	0.6	0.1	27
488+57 - 488+82	PINE NE	11	11	--	--	0.5	0.3	0.1	11
488+00 - 488+25	PINE SE	10	10	--	--	0.5	0.3	0.1	10
490+68 - 490+97	FLMSF	13	13	--	--	0.6	0.3	0.1	13
503+58 - 503+88	LASALLE NW	6	6	--	--	0.3	0.2	0.1	6
805+75 - 809+55	STH 13 LT/RT	400	400	--	--	17.4	8.7	0.3	400
814+31 - 815+78	2ND ST	33	33	--	--	1.5	0.8	0.1	33
819+90 - 820+20	CHURCH NE	45	45	--	--	2.1	1.1	0.1	45
819+34 - 819+59	CHURCH SE	9	9	--	--	0.4	0.2	0.1	9
823+09 - 823+29	WELLS NE	9	9	--	--	0.4	0.2	0.1	9
822+59 - 522+79	WELLS SE	13	13	--	--	0.6	0.3	0.1	13
826+55 - 826+78	COOK NE	19	19	--	--	0.9	0.5	0.1	19
826+00 - 826+25	COOK SE	34	34	--	--	1.6	0.8	0.1	34
833+33 - 833+65	CLARK NE	11	11	--	--	0.5	0.3	0.1	11
832+19 - 832+90	CLARK SE	31	31	--	--	1.4	0.7	0.1	31
832+63 - 832+92	CLARK SW	17	17	--	--	0.8	0.4	0.1	17
833+39 - 833+65	CLARK NW	19	19	--	--	0.9	0.5	0.1	19
RESTORATION FOR RURAL C&G REPAIRS		120	120	0.1	6.0	--	2.7	--	--
RESTORATION FOR INLET REPAIRS		350	350	--	--	15.8	8.6	0.4	350
UNDISTRIBUTED		107	107	--	--	7.1	2.6	0.2	107
<b>ITEM TOTAL</b>		<b>1,400</b>	<b>1,400</b>	<b>0.1</b>	<b>6.0</b>	<b>60.0</b>	<b>33.0</b>	<b>3.0</b>	<b>1,280</b>

**EROSION CONTROL ITEMS**

STATION TO STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7570 ROCK BAGS EACH
626+16 - 630+33	STH 13 LT/RT	1,250	2,500	--	--	40
726+04 - 730+00	STH 13 LT/RT	1,250	2,500	--	--	40
799+32 - 803+75	STH 13 LT/RT	1,470	2,940	--	--	80
805+75 - 809+55	STH 13 LT/RT	650	1,300	--	--	20
832+63 - 832+92	CLARK SW	--	--	--	1	--
833+39 - 833+65	CLARK NW	--	--	--	1	--
916+23 - 919+88	STH 13 LT/RT	1,250	2,500	--	--	40
968+04 - 972+55	STH 13 LT/RT	1,475	2,950	--	--	80
UNDISTRIBUTED		735	1,470	5	3	30
<b>TOTALS</b>		<b>8,080</b>	<b>16,160</b>	<b>5</b>	<b>3</b>	<b>330</b>

**TEMPORARY PAVEMENT MARKING ITEMS**

STATION TO STATION	643.3165 LINE PAINT 6-INCH LF	643.3180 LINE REMOVABLE TAPE 6-INCH LF	643.3350 CROSSWALK REMOVABLE TAPE 6-INCH LF	646.9000 MARKING REMOVAL LINE 4- INCH LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9012 MARKING REMOVAL LINE WATER BLASTING 6-INCH LF	646.9310 MARKING REMOVAL SPECIAL MARKING WATER BLASTING EACH
482+61 - 504+63	7,630	260	360	250	--	135	2
504+63 - 530+00	645	--	--	500	--	--	--
530+00 - 556+50	--	--	--	--	--	--	--
556+50 - 583+00	--	--	--	--	--	--	--
583+00 - 609+50	--	--	--	--	--	--	--
609+50 - 636+00	--	--	--	--	--	--	--
636+00 - 662+50	--	--	--	--	--	--	--
662+50 - 689+00	--	--	--	--	--	--	--
689+00 - 715+50	--	--	--	--	--	--	--
715+50 - 742+00	--	--	--	--	--	--	--
742+00 - 768+50	--	--	--	--	--	--	--
768+50 - 795+00	--	--	--	--	--	--	--
795+00 - 821+50	6,090	--	85	980	--	--	--
821+50 - 848+00	10,545	--	355	--	--	--	--
848+00 - 874+50	--	--	--	620	--	--	--
874+50 - 901+00	--	--	--	--	--	--	--
901+00 - 927+50	--	--	--	--	--	--	--
927+50 - 954+00	--	--	--	--	--	--	--
954+00 - 980+50	--	--	--	--	--	--	--
980+50 - 1007+00	5,430	--	--	1,300	--	--	--
1007+00 - 1017+85	4,800	1,225	--	--	360	--	--
UNDISTRIBUTED	3,510	150	85	365	40	25	--
<b>ITEM TOTAL</b>	<b>38,650</b>	<b>1,635</b>	<b>885</b>	<b>4,015</b>	<b>400</b>	<b>160</b>	<b>2</b>

ALL ITEMS ARE CAT 0010  
UNLESS NOTED OTHERWISE

**SURFACE DRAIN ITEMS**

STATION	TO	STATION	LOCATION	602.3010	465.0315	601.0588	606.0200	645.0120
				CONCRETE SURFACE DRAINS CY	ASPHALTIC FLUMES SY	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBT LF	RIPRAP MEDIUM CY	GEOTEXTILE TYPE HR SY
800+50	-	801+19	LT	2	--	69	3	5
800+50	-	801+19	RT	3	--	69	3	5
801+86	-	802+55	LT	--	--	70	--	--
801+86	-	802+55	RT	--	--	70	--	--
805+94	-	806+05	LT	2	5	--	--	--
805+94	-	806+05	RT	2	5	--	--	--
969+22	-	969+87	LT	--	--	65	--	--
969+22	-	969+87	RT	--	--	65	--	--
970+71	-	971+37	LT	3	--	66	3	5
970+71	-	971+37	RT	3	--	66	3	5
<b>ITEM TOTAL</b>				<b>15</b>	<b>10</b>	<b>540</b>	<b>12</b>	<b>20</b>

**GUARDRAIL ITEMS**

STATION	TO	STATION	LOCATION	614.0010	614.2300	614.2500	614.2610	EXCAVATION COMMON* CY	BORROW* CY	TOPSOIL* SY	EROSION MAT	FERTILIZER TYPBE B* CWT	SEEDING MIXTURE NO. LB	SEED WATER* MGAL
				BARRIER SYSTEM GRADING SHAPING FINISHING EACH	MGS GUARDRAIL 3 LF	MGS THRIE BEAM TRANSITION LF	MGS GUARDRAIL TERMINAL EAT EACH				URBAN CLASS I TYPE B* SY			
627+01.3	-	630+32.6	LT	1	225	--	2	1	44	144	144	0.1	3.9	3.3
626+16.4	-	629+47.6	RT	1	225	--	2	1	52	170	170	0.1	4.6	3.8
726+68.7	-	730+00.0	LT	1	225	--	2	--	43	169	169	0.1	4.6	3.8
726+03.9	-	729+35.1	RT	1	225	--	2	--	38	149	149	0.1	4.0	3.4
799+34.0	-	801+13.7	LT	1	88	39.4	1	5	54	146	146	0.1	4.0	3.4
801+94.5	-	803+74.5	LT	1	88	39.4	1	10	100	269	269	0.2	7.4	6.0
799+32.0	-	801+12.5	RT	1	88	39.4	1	7	74	201	201	0.1	5.4	4.4
801+92.1	-	803+72.0	RT	1	88	39.4	1	5	55	148	148	0.1	4.0	3.4
916+56.5	-	919+87.7	LT	1	225	--	2	5	23	237	237	0.2	6.4	5.3
916+22.5	-	919+53.7	RT	1	225	--	2	4	22	233	233	0.1	6.5	5.3
968+04.1	-	969+84.0	LT	1	88	39.4	1	1	67	117	117	0.1	3.1	2.7
970+74.9	-	972+55.0	LT	1	88	39.4	1	--	93	162	162	0.1	4.5	3.7
968+04.1	-	969+83.9	RT	1	88	39.4	1	1	58	101	101	0.1	2.7	2.3
970+75.1	-	972+55.1	RT	1	88	39.4	1	1	84	144	144	0.1	3.9	3.2
<b>ITEM TOTAL</b>				<b>14</b>	<b>2,050</b>	<b>315.2</b>	<b>20</b>	<b>41</b>	<b>807</b>	<b>2390</b>	<b>2390</b>	<b>1.6</b>	<b>65.0</b>	<b>54.0</b>

\*QUANTITIES SHOWN ABOVE ARE FOR INFORMATION ONLY AND ARE INCIDENTAL TO ITEM 614.0010

ALL ITEMS ARE CAT 0010  
UNLESS NOTED OTHERWISE

SAWING ASPHALT

* 690.0150 SAWING ASPHALT		
STATION	LOCATION	LF
537+22.3	EAU PLEINE	62
552+66.0	STH 13, RT	52
563+62.0	STH 13, RT	45
581+16.0	STH 13, RT	50
583+24.0	STH 13, RT	80
590+35.6	CENTURY	26
643+96.8	153RD	70
664+22.0	STH 13, RT	100
670+34.3	BUXTON	24
696+60.6	TOWN HALL	48
746+25.7	KING CON	48
757+46.6	YELLOWSTONE (S)	24
780+74.7	YELLOWSTONE (N)	74
786+81.0	FAIRHAVEN	24
815+00.0	2ND ST	40
914+11.3	CLOVERDALE	24
914+11.3	CHOKECHERRY	24
940+78.8	JUNEBERRY	74
965+62.9	COLBY FACTORY	24

ITEM TOTAL 813  
 \*ADDITIONAL QUANTITIES LISTED ELSEWHERE

LAND PARCEL MONUMENTS

LOCATION	SPV.0060.04	SPV.0060.05
	RESEARCH AND LOCATE EXISTING LANE PARCEL MONUMENTS	VERIFY AND REPLACE LAND PARCEL MONUMENTS
LOCATION	EACH	EACH
STH 13/MAIN STREET	5	5
STH 13/MILL STREET	10	10
STH 13/PINE STREET	6	6
STH 13/ELM STREET	2	2
STH 13/CHURCH STREET	2	2
STH 13/WELLS STREET	2	2
STH 13/COOK STREET	5	5
STH 13/CLARK STREET	2	2

ITEM TOTAL 34 34

SIGNING ITEMS

SIGN GROUP NUMBER	SIGN MESSAGE	TYPE	SIZE	634.0614	634.0616	634.0812	637.2210	638.2102	638.2602	638.4000
				POSTS WOOD 4X6-INCH X 14-FT EACH	POSTS WOOD 4X6-INCH X 16-FT EACH	POSTS TUBULAR STEEL 2X2-INCH X 12-FT EACH	SIGNS TYPE II REFLECTIVE H SF	MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	MOVING SMALL SIGN SUPPORTS EACH
1-1	NORTH, STH 13, USE RT LANE	J4-1	24"X60"	--	--	--	10.00	--	--	--
1-2	LT LANE MUST TURN LT	R3-7L	30"X30"	--	--	1	12.50	--	--	--
1-3	PEDESTRIAN CROSSING SYMBOL AHEAD	S1-1	36"X36"	--	1	--	13.50	--	--	--
1-4	LANE CONTROL SIGN - LT ONLY, UP ONLY, RT ONLY	R3-8LAR	54"X30"	--	--	--	11.25	--	--	--
1-5	PEDESTRIAN CROSSING SYMBOL LT DIAGONAL DOWNWARD POINTING ARROW	--	--	--	--	--	--	1	--	1
1-5A	PEDESTRIAN CROSSING SYMBOL LT DIAGONAL DOWNWARD POINTING ARROW	--	--	--	--	--	--	1	--	1
1-6	N DIVISION ST, E MAIN ST, STOP	--	--	--	--	--	--	1	--	1
1-7	PEDESTRIAN CROSSING SYMBOL LT DIAGONAL DOWNWARD POINTING ARROW	--	--	--	--	--	--	1	--	1
1-8	N DIVISION ST, MILL ST, STOP	--	--	--	--	--	--	1	--	1
1-9	LT CURVE	--	--	--	--	--	--	1	--	1
3-1	CENTER LANE LT TURN ONLY SYMBOL	R3-9B	24"X36"	1	--	--	6.00	--	--	--
3-2	CENTER LANE LT TURN ONLY SYMBOL END	R3-9B R3-9D	24"X36" 24"X6"	1	--	--	7.00	--	--	--
3-3	LANE CONTROL SIGN - LT ONLY, RT AND AHEAD	R3-8LF	36"X30"	1	--	--	7.50	--	--	--
3-4	LANE CONTROL SIGN - LT ONLY, RT AND AHEAD	R3-8LF	36"X30"	1	--	--	7.50	--	--	--
3-5	CENTER LANE LT TURN ONLY SYMBOL	R3-9B	24"X36"	1	--	--	6.00	--	--	--
3-6	CENTER LANE LT TURN ONLY SYMBOL END	R3-9B R3-9D	24"X36" 24"X6"	1	--	--	7.00	--	--	--
3-7	LANE ENDS MERGE LT	--	--	--	--	--	--	--	1	--
3-8	NORTH, STH 13	--	--	--	--	--	--	1	--	1
3-9	CENTER LANE LT TURN ONLY SYMBOL END	R3-9B R3-9D	24"X36" 24"X6"	1	--	--	7.00	--	--	--
3-10	LANE REDUCTION TRANSITION SYMBOL - RT	--	--	--	--	--	--	--	1	--
5-1	STOP	--	--	--	--	--	--	1	--	1
5-3	NO PARKING ANY TIME - DOUBLE ARROWS	--	--	--	--	--	--	1	--	1
5-4	STOP	--	--	--	--	--	--	1	--	1
6-1	STOP	--	--	--	--	--	--	1	--	1
6-2	STOP	--	--	--	--	--	--	1	--	1

ITEM TOTAL 7 1 1 95.25 12 2 12

RECONSTRUCTING SANITARY SEWER MAHNOLES

* 209.0200.S 305.0110 SPV.0060.03 BACKFILL CONROLASE AGGREGATE LOW STRENGTH DENSE 3/4-INCH				
STATION	LOCATION	CY	TON	EACH
483+00.4	LT	7	5	1
485+75.2	LT	11	5	1
488+40.7	LT	7	5	1
491+08.2	LT	15	5	1

ITEM TOTALS (CAT 0020) 40 20 4

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

LOCATING NO-PASSING ZONES

STATION	TO	STATION	648.0100 MI
518+00	-	803+00	5.40
860+00	-	990+00	2.46

ITEM TOTALS 7.86

ALL ITEMS ARE CAT 0010 UNLESS NOTED OTHERWISE

PAVEMENT MARKING ITEMS

STATION	TO	STATION	MARKING LINE											REMARKS
			646.2020		646.2040	646.4020	646.5020	646.5120	646.5320	646.6120	646.7120		646.7420	
			EPOXY 6-INCH		GROOVED WET REF EPOXY 6-INCH	EPOXY 10-INCH	MARKING ARROW EPOXY	MARKING WORD EPOXY	MARKING RAILROAD CROSSING EPOXY	MARKING STOP LINE EPOXY 18-INCH	MARKING DIAGONAL EPOXY 12-INCH		MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	
WHITE LF	YELLOW LF	WHITE LF	WHITE LF	WHITE EACH	WHITE EACH	EACH	WHITE LF	YELLOW LF	WHITE LF	WHITE LF				
482+61	-	504+63	3380	4790	--	370	24	2	--	160	430	70	490	
504+63	-	530+00	--	6170	5040	190	4	--	--	--	230	60	--	
530+00	-	556+50	--	3310	5300	--	--	--	--	--	--	--	--	
556+50	-	583+00	--	1530	5300	--	--	--	--	--	--	--	--	
583+00	-	609+50	--	4200	5410	--	--	--	2	--	--	--	--	CENTURY RD: 2-FT WIDE STOP BARS ONLY REQUIRED FOR RR CROSSING MARKING
609+50	-	636+00	--	1330	5300	--	--	--	--	--	--	--	--	
636+00	-	662+50	--	2200	5200	250	--	--	2	15	--	--	--	153 RD RD: 2-FT WIDE STOP BARS ONLY REQUIRED FOR RR CROSSING MARKING
662+50	-	689+00	--	2160	5300	--	--	--	--	--	--	--	--	
689+00	-	715+50	--	1530	5300	--	--	--	--	--	--	--	--	
715+50	-	742+00	--	1530	5300	--	--	--	--	--	--	--	--	
742+00	-	768+50	--	3790	5300	--	--	--	--	--	--	--	--	
768+50	-	795+00	--	3790	5300	--	--	--	2	--	--	--	--	FAIRHAVEN AVE: 2-FT WIDE STOP BARS ONLY REQUIRED FOR RR CROSSING MARKING
795+00	-	821+50	690	4390	2190	--	--	--	2	--	--	--	--	2ND ST: 2-FT WIDE STOP BARS ONLY REQUIRED FOR RR CROSSING MARKING
821+50	-	848+00	1100	4920	500	--	--	--	2	--	--	--	--	CLARK ST: 2-FT WIDE STOP BARS ONLY REQUIRED FOR RR CROSSING MARKING
848+00	-	874+50	240	5300	4366	--	--	--	--	--	--	--	--	
874+50	-	901+00	--	1880	5300	--	--	--	--	--	--	--	--	
901+00	-	927+50	--	1530	5300	--	--	--	2	--	--	--	--	CLOVERDALE: 2-FT WIDE STOP BARS ONLY REQUIRED FOR RR CROSSING MARKING
927+50	-	954+00	--	2760	5300	--	--	--	--	--	--	--	--	
954+00	-	980+50	--	1020	5300	--	--	--	2	--	--	--	--	COLBY FACTORY: 2-FT WIDE STOP BARS ONLY REQUIRED FOR RR CROSSING MARKING
980+50	-	1007+00	590	4520	2040	--	--	--	--	--	--	--	--	
1007+00	-	1017+85	540	5580	--	--	--	--	--	--	--	--	--	
<b>ITEM TOTAL</b>			6,540	68,230	88,346	810	28	2	14	175	660	130	490	
				74,770								790		

ALL ITEMS ARE CAT 0010  
UNLESS NOTED OTHERWISE



3

PEDESTRIAN ACCOMMODATION ITEMS

STATION	TO	STATION	QUADRANT	APPROX DAY	* 643.0300		* 643.0900		644.1440	644.1430	644.16		644.1605	644.1810						
					TRAFFIC CONTROL						TEMPORARY PEDESTRIAN									
					DRUMS		SIGNS				SURFACE MATTING				SURFACE PLATE		CURB RAMP		DETECTABLE	BARRICADE
					SERVICE NO.	NO. IN	SERVICE NO.	NO. IN			SF	SF			SF	SF	SF	SF	LF	
STAGE 1B-1																				
483+25	-	483+38	MAIN NW	14	10	140	1	14	160	--	1	14	8	50						
483+22	-	483+49	MAIN NE	14	10	140	3	42	15	10	1	14	16	120						
482+57	-	482+82	MAIN SE	14	10	140	5	70	15	30	1	14	8	135						
486+94	-	486+15	MILL NE	14	10	140	4	56	15	10	1	14	16	185						
485+35	-	485+57	MILL SE	14	10	140	3	42	15	30	1	14	8	155						
488+57	-	488+82	PINE NE	14	10	140	1	14	15	30	1	14	8	95						
488+00	-	488+25	PINE SE	14	10	140	1	14	15	30	1	14	8	90						
490+68	-	490+92	ELM SE	14	10	140	1	14	--	--	--	--	--	20						
503+58	-	503+88	LASALLE NW	14	10	140	1	14	45	--	1	14	8	20						
819+90	-	820+20	CHURCH NE	14	10	140	3	42	15	25	1	14	8	155						
819+34	-	819+59	CHURCH SE	14	10	140	1	14	15	25	1	14	8	95						
823+09	-	823+29	WELLS NE	14	10	140	1	14	--	20	1	14	8	100						
822+59	-	822+79	WELLS SE	14	10	140	1	14	15	20	1	14	8	85						
826+55	-	826+78	COOK NE	14	10	140	3	42	15	20	1	14	8	110						
826+00	-	826+25	COOK SE	14	10	140	1	14	15	25	1	14	8	125						
833+33	-	833+65	CLARK NE	14	10	140	3	42	15	25	1	14	8	120						
832+19	-	832+90	CLARK SE	14	10	140	2	28	15	15	1	14	16	150						
832+63	-	832+92	CLARK SW	14	10	140	5	70	200	--	1	14	8	40						
STAGE 1 SUBTOTAL						2,520		560	600	315		238	160	1,850						
STAGE 1B-2																				
485+91	-	486+07	MILL NW	14	10	140	4	56	--	--	--	--	--	--						
483+22	-	483+49	MAIN NE	14	10	140	2	28	--	--	1	14	--	10						
482+57	-	482+82	MAIN SE	14	10	140	4	56	--	--	1	14	--	--						
833+39	-	833+65	CLARK SE	14	10	140	1	14	--	--	--	--	--	15						
833+33	-	833+65	CLARK SW	14	10	140	4	56	--	--	--	--	--	25						
STAGE 2 SUBTOTAL						700		210	0	0		28	0	50						
ITEM TOTAL						3,220		770	600	315		266	160	1,900						

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONSTRUCTION STAKING ITEMS

STATION	TO	STATION	LOCATION	650.5500	650.7000	650.8000	650.9000	650.9500	650.9911	650.9920
				CURB & GUTTER LF	CONCRETE PAVEMENT LF	RESURFACING REFERENCE LF	CURB RAMPS EACH	SIDEWALK 01.1620-01-62 EACH	SUPPLEMENTAL CONTROL 01.1620-01-62 EACH	SLOPE STAKES LF
483+25	-	483+38	MAIN NW	22	--	--	1	--	--	--
483+22	-	483+49	MAIN NE	41	--	--	1	--	--	--
482+57	-	482+82	MAIN SE	39	--	--	1	--	--	--
485+91	-	486+07	MILL NW	30	--	--	1	--	--	--
486+94	-	486+15	MILL NE	35	--	--	1	--	--	--
485+35	-	485+57	MILL SE	38	--	--	1	--	--	--
485+42	-	485+59	MILL SW	--	--	--	1	--	--	--
488+57	-	488+82	PINE NE	39	--	--	1	--	--	--
488+00	-	488+25	PINE SE	31	--	--	1	--	--	--
490+68	-	490+92	ELM SE	29	--	--	1	--	--	--
503+58	-	503+88	LASALLE NW	31	--	--	1	--	--	--
626+16	-	630+33	STH 13 LT/RT	--	--	--	--	--	--	--
726+04	-	730+00	STH 13 LT/RT	--	--	--	--	--	--	--
799+32	-	803+75	STH 13 LT/RT	278	--	--	--	--	--	--
805+76	-	809+55	STH 13 LT/RT	--	379	--	1	--	--	379
819+90	-	820+20	CHURCH NE	44	--	--	1	--	--	--
819+34	-	819+59	CHURCH SE	38	--	--	1	--	--	--
823+09	-	823+29	WELLS NE	33	--	--	1	--	--	--
822+59	-	522+79	WELLS SE	32	--	--	1	--	--	--
826+55	-	826+78	COOK NE	39	--	--	1	--	--	--
826+00	-	826+25	COOK SE	37	--	--	1	--	--	--
833+33	-	833+65	CLARK NE	50	--	--	1	--	--	--
832+19	-	832+90	CLARK SE	45	--	--	1	--	--	--
832+63	-	832+92	CLARK SW	44	--	--	3	--	--	--
833+39	-	833+65	CLARK NW	39	--	--	3	--	--	--
916+73	-	919+88	STH 13 LT/RT	--	--	--	--	--	--	--
968+04	-	972+55	STH 13 LT/RT	262	--	--	--	--	--	--
504+63	-	1007+00	STH 13 LT/RT	--	--	50,237	--	--	--	--
ITEM TOTAL				1,276	379	50,237	26	1	1	379

ALL ITEMS ARE CAT 0010 UNLESS NOTED OTHERWISE

PROJECT NO: 1620-01-62

HWY: STH 13

COUNTY: MARATHON

MISCELLANEOUS QUANTITIES

SHEET

E

TRAFFIC CONTROL ITEMS

STATION	TO	STATION	LOCATION	APPROX SERVICE DAYS	* 643.0300 DRUMS		643.0420 BARRICADES TYPE III			643.0500 FLEXIBLE TUBULAR MARKER POSTS	643.0600 FLEXIBLE TUBULAR MARKER BASES	* 643.0900 SIGNS		643.0705 WARNING LIGHTS TYPE A		643.0715 WARNING LIGHTS TYPE C		643.0920 COVERING SIGNS TYPE II NUMBER OF		643.1000 FIXED MESSAGE	643.1050 SIGNS PCMS	REMARKS
					NO. IN SERVIC E	DAY	NO. IN SERVIC E	DAY	EACH	EACH	NO. IN SERVIC E	DAY	NO. IN SERVICE	DAY	NO. IN SERVICE	DAY	EACH	SIGNS	CYCLES	SF	DAY	
STAGE 1																						
482+62	-	504+63	STH 13		90	3,240	11	396	80	80	32	1,872	6	216	23	828	--	--	--	18.0	--	7-DAY ADVANCE NOTICE
806+06	-	842+95	STH 13	36	100	3,600	7	252	140	140	22	1,440	4	144	25	900	--	--	--	--	--	
997+96	-	1017+85	STH 13		75	2,700	7	252	95	95	22	792	4	144	19	684	--	--	--	18.0	--	7-DAY ADVANCE NOTICE
UNDISTRIBUTED						950		90	40	40		411		51		243	--	--	--	--	--	
STAGE 1 TOTALS						10,490		990	355	355		4,515		555		2,655	0			36.0	0	
STAGE 2																						
504+63	-	643+20	STH 13		275	5,500	25	500	--	--	163	3,260	13	260	--	--	11	11	1	--	14	7-DAY ADVANCE NOTICE
842+95	-	857+43	STH 13	20	30	600	2	40	--	--	6	120	1	20	--	--	--	--	--	--	--	
992+96	-	997+96	STH 13		10	200	2	40	--	--	6	120	1	20	3	60	--	--	--	--	--	
UNDISTRIBUTED						630		60	--	--		350		30		5	3	3	1	--	--	
STAGE 2 TOTALS						6,930		640	0	0		3,850		330		65	14			0	14	
STAGE 3 TOTALS																						
643+20	-	809+53	STH 13	75	335	25,125	35	2,625	--	--	331	24,825	18	1,350	84	6,300	12	12	1	--	14	7-DAY ADVANCE NOTICE
857+43	-	992+96	STH 13		270	20,250	5	375	--	--	19	1,425	3	225	68	5,100	--	--	--	--	--	
UNDISTRIBUTED						4,540		300	--	--		2,625		160		1,140	3	3	1	--	--	
STAGE 3 TOTALS						49,915		3,300	0	0		28,875		1,735		12,540	15			0	14	
STAGE 4 & 5 TOTALS																						
482+62	-	1017+85	STH 13	75	1070	80,250	11	825	--	--	106	7,950	6	450	268	20,100	--	--	--	--	--	
UNDISTRIBUTED						8,025		85	--	--		795		45		2,010	--	--	--	--	--	
STAGE 4 & 5 TOTALS						88,275		910	0	0		8,745		495		22,110	0			0	0	
TRAFFIC CONTROL ITEM TOTAL						155,610		5,840	355	355		45,985		3,115		37,370	29			36.0	28	

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ALL ITEMS ARE CAT 0010  
UNLESS NOTED OTHERWISE

**PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS**

STATION	LOCATION	211.0400 STA
STH 13 B-37-184		
STAGE 3-1A		
797+97 - 801+01	LT	3
801+98 - 805+37	LT	4
B-37-184 SUBTOTAL		7
STH 13 B-37-185		
STAGE 3-1A		
966+54 - 969+84	LT	4
970+86 - 974+44	LT	4
B-37-185 SUBTOTAL		8
ITEM TOTALS		15

**CONCRETE ROADWAY APPROACH ITEMS**

STATION	LOCATION	509.0200	509.0600	509.2600
		PREPARATION APPROACHES	CLEANING APPROACHES	CONCRETE MASONRY OVERLAY APPROACHES
SY	SY	CY		
STH 13 B-37-184				
STAGE 3-1B				
800+54 - 801+19	RT	2.5	84	5
801+86 - 802+50	RT	2.5	87	5
STAGE 3-2				
800+54 - 801+19	LT	2.5	91	5
801+86 - 802+50	LT	2.5	88	5
B-37-184 SUBTOTAL		10	350	20
STH 13 B-37-185				
STAGE 3-1B				
969+23 - 969+88	RT	2.5	87	5
970+70 - 971+36	RT	2.5	88	5
STAGE 3-2				
969+23 - 969+88	LT	2.5	88	5
970+70 - 971+36	LT	2.5	87	5
B-37-185 SUBTOTAL		10	350	20
ITEM TOTALS		20	700	40

NOTE: ITEMS TO BE USED FOR WORK ON APPROACH CONCRETE ROADWAY

**TRAFFIC CONTROL**

LOCATION	LOCATION	643.0300	643.0420	643.0715	643.0900	643.5000
		DRUMS	BARRICADES TYPE III	WARNING LIGHTS TYPE C	SIGNS	PROJECT CALENDAR EACH
DAYS	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS
PROJECT						0.05
STH 13 B-37-184						
STAGE 3-1A						
LT & RT		-	-	-	-	2
LT & RT		308	11	198	396	11
STAGE 3-2						
LT & RT		280	10	180	360	10
B-37-184 SUBTOTAL		588	21	378	756	23
STH 13 B-37-185						
STAGE 3-1A						
LT & RT		-	-	-	-	2
LT & RT		280	10	180	360	10
STAGE 3-2						
LT & RT		280	10	180	360	10
B-37-185 SUBTOTAL		560	20	360	720	22
ITEM TOTALS		1148	41	738	1476	45

**HMA PAVEMENT 5 MT 58-28 S**

STATION	LOCATION	460.6225 TON	REMARKS
STH 13 B-37-184			
STAGE 3-1A			
797+97 - 801+01	LT	11	SHOULDER WIDENING
801+98 - 805+37	LT	15	SHOULDER WIDENING
B-37-184 SUBTOTALS		26	
STH 13 B-37-185			
STAGE 3-1A			
966+54 - 969+84	LT	18	SHOULDER WIDENING
970+86 - 974+44	LT	18	SHOULDER WIDENING
B-37-185 SUBTOTALS		36	
ITEM TOTALS		62	

**CONCRETE BARRIER TEMPORARY PRECAST**

STATION	LOCATION	603.8000	603.8125
		DELIVERED LF	INSTALLED LF
STH 13 B-37-184			
STAGE 3-1B			
799+24 - 804+31	LT & RT	510	510
STAGE 3-2			
799+24 - 804+31	LT & RT	-	510
B-37-184 SUBTOTALS		510	1020
STH 13 B-37-185			
STAGE 3-1B			
967+93 - 973+16	LT & RT	525	525
STAGE 3-2			
967+93 - 973+16	LT & RT	-	525
B-37-185 SUBTOTALS		525	1050
ITEM TOTALS		1035	2070

**MARKING REMOVAL LINE 4-INCH**

STATION	LOCATION	646.9000 LF	REMARKS
STH 13 B-37-184			
STAGE 3-1B			
798+24 - 799+96	CL	215	SOLIDS & SKIPS
798+24 - 805+30	LT	706	EDGE LINE
803+60 - 805+30	CL	340	DOUBLE YELLOW
STAGE 3-2			
798+24 - 800+49	RT	225	EDGE LINE
802+55 - 805+30	RT	275	EDGE LINE
B-37-184 SUBTOTAL		1761	
STH 13 B-37-185			
STAGE 3-1B			
966+93 - 968+68	CL	44	SKIPS
966+93 - 974+15	LT	722	EDGE LINE
972+42 - 974+15	CL	44	SKIPS
STAGE 3-2			
966+93 - 969+18	RT	225	EDGE LINE
971+40 - 974+15	RT	275	EDGE LINE
B-37-185 SUBTOTAL		1310	
ITEM TOTAL		3071	

ALL ITEMS CATEGORY 0010 UNLESS NOTED.  
SEE 1620-01-62 PROJECT PLANS FOR ADDITIONAL ITEMS.

PROJECT NO: 1620-01-63

HWY: STH 13

COUNTY: MARATHON

MISCELLANEOUS QUANTITIES

SHEET

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**TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH**

STATION	LOCATION	643.3180 (YELLOW) (WHITE)		REMARKS
		LF	LF	
STH 13 B-37-184				
STAGE 3-1B				
791+24 - 798+24	CL	700	-	NO PASSING ZONE NB
798+24 - 805+30	LT	-	706	
799+06 - 804+81	LT & RT	-	579	
STAGE 3-2				
798+24 - 805+30	RT	-	706	
799+06 - 804+81	LT & RT	-	579	
B-37-184 SUBTOTALS		700	2570	
STH 13 B-37-185				
STAGE 3-1B				
959+93 - 966+93	CL	1400	-	NO PASSING ZONE
966+93 - 974+15	LT	-	722	
967+93 - 973+15	LT & RT	-	540	
974+15 - 981+15	CL	1400	-	NO PASSING ZONE
STAGE 3-2				
966+93 - 974+15	RT	-	722	
967+93 - 973+15	LT & RT	-	540	
B-37-185 SUBTOTALS		2800	2524	
ITEM TOTAL		8594		

**TEMPORARY SIGNALS**

STATION	661.0101 TEMPORARY TRAFFIC SIGNALS FOR BRIDGES		SPV.0060.06 SPV.0060.07 TEMPORARY VEHICLE DETECTION	
	01. B-37-184	02. B-37-185	B-37-184	B-37-185
	EACH	EACH	EACH	EACH
STH 13 B-37-184	1	-	1	-
STH 13 B-37-185	-	1	-	1
ITEM TOTALS	1	1	1	1

3

**TEMPORARY MARKING STOP LINE  
REMOVABLE TAPE 18-INCH**

STATION	LOCATION	643.3850 (WHITE)	
		LF	LF
STH 13 B-37-184			
STAGE 2			
798+24	RT	14	
805+30	LT	14	
B-37-184 SUBTOTAL		28	
STH 13 B-37-185			
STAGE 2			
966+93	RT	14	
974+15	LT	14	
B-37-185 SUBTOTAL		28	
ITEM TOTAL		56	

**SAWING ASPHALT**

STATION	LOCATION	690.0150		REMARKS
		LF	LF	
STH 13 B-37-184				
STAGE 3-1A				
797+97 - 801+01	LT	304		ALONG EXISTING EDGE FOR WIDENING
801+98 - 805+37	LT	339		ALONG EXISTING EDGE FOR WIDENING
B-37-184 SUBTOTALS		643		
STH 13 B-37-185				
STAGE 3-1A				
966+54 - 969+84	LT	330		ALONG EXISTING EDGE FOR WIDENING
970+86 - 974+44	LT	359		ALONG EXISTING EDGE FOR WIDENING
B-37-185 SUBTOTALS		689		
ITEM TOTALS		1332		

ALL ITEMS CATEGORY 0010 UNLESS NOTED.  
SEE 1620-01-62 PROJECT PLANS FOR ADDITIONAL ITEMS.

PROJECT NO: 1620-01-63

HWY: STH 13

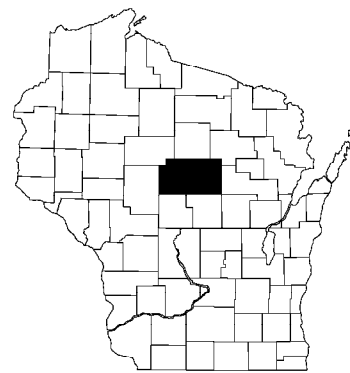
COUNTY: MARATHON

MISCELLANEOUS QUANTITIES

SHEET

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# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET 1620-01-22 MARSHFIELD - ABBOTSFORD STH 98 TO SOUTH JUNCTION CTH N STH 13 MARATHON COUNTY



### CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE		SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	
SIXTEENTH LINE		SECTION CORNER MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	
NEW REFERENCE LINE		GEODETIC SURVEY MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE		SIXTEENTH CORNER MONUMENT		COMPENSABLE	
EXISTING R/W OR HE LINE		SIGN		NON-COMPENSABLE	
PROPERTY LINE		ELECTRIC POLE		ACCESS RESTRICTED BY ACQUISITION	
LOT, TIE & OTHER MINOR LINES		TELEPHONE POLE		NO ACCESS (BY STATUTORY AUTHORITY)	
SLOPE INTERCEPT		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
CORPORATE LIMITS		NO ACCESS (NEW HIGHWAY)		PARCEL NUMBER	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)		PARALLEL OFFSETS		UTILITY NUMBER	
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		TEMPORARY LIMITED EASEMENT AREA			
TEMPORARY LIMITED EASEMENT AREA		EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)			
TRANSMISSION STRUCTURES		BRIDGE			
BUILDING		CULVERT			
TO BE REMOVED					

### CONVENTIONAL ABBREVIATIONS

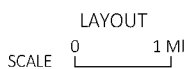
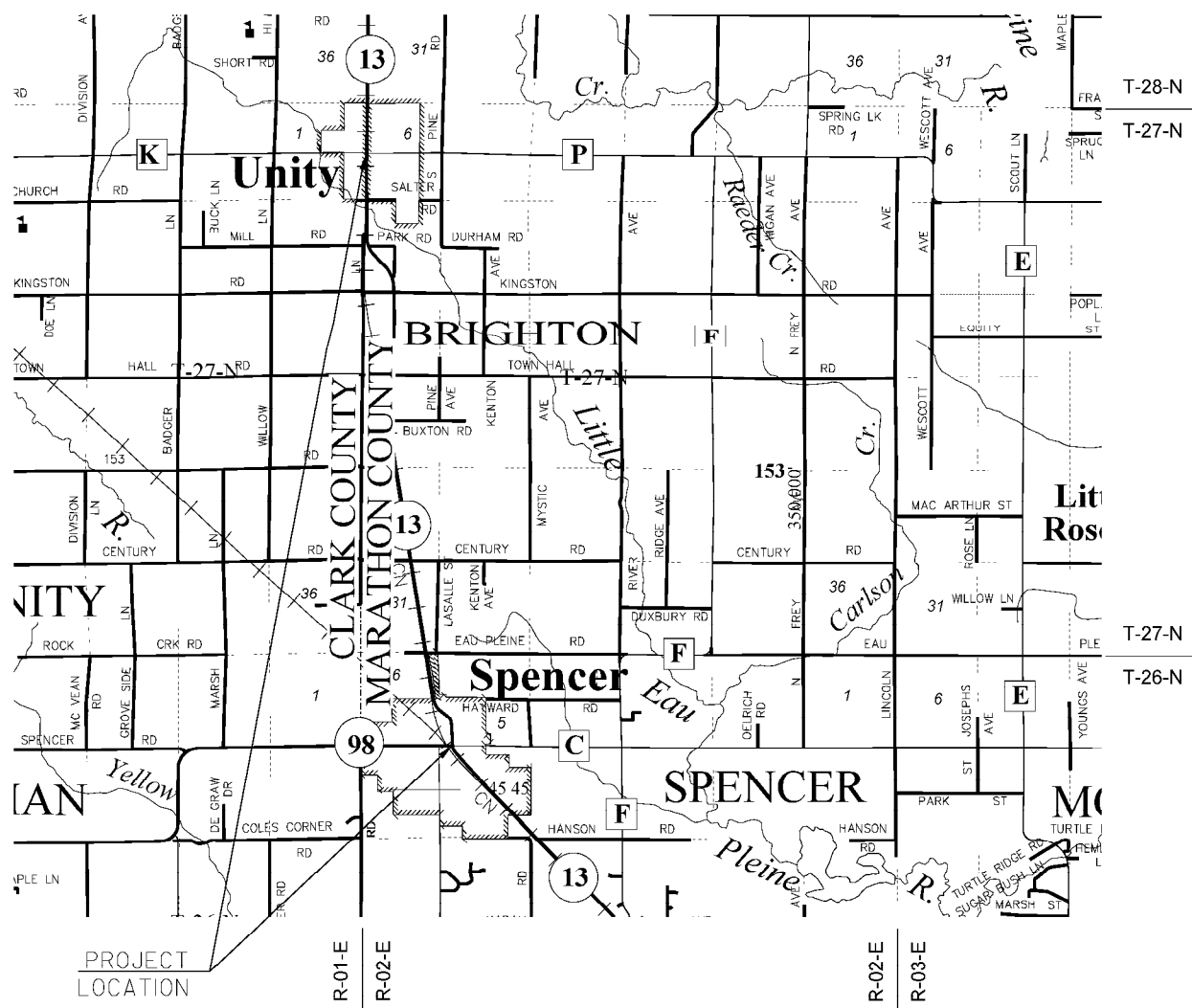
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS (100')	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L		
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV		
GRID NORTH	GN	TRANSPORTATION PROJECT PLAT	TPP
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
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		
POINT OF COMPOUND CURVE	PCC		

### CURVE DATA

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

### CONVENTIONAL UTILITY SYMBOLS

	WATER
	GAS
	TELEPHONE
	OVERHEAD
	TRANSMISSION LINES
	ELECTRIC
	CABLE TELEVISION
	FIBER OPTIC
	SANITARY SEWER
	STORM SEWER



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1620-01-22

### NOTES:

- POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
- ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
- ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.
- RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.
- DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.
- A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLES) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.
- A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.
- A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.
- PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.
- FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.
- PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.
- INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 1620-01-22 - 4.05  
SHEET 2 OF 2  
AMENDMENT NO:



# TRANSPORTATION PROJECT PLAT NO: 1620-01-22 - 4.01

THAT PART OF LOT 8 IN BLOCK 14, LOTS 5 AND 6 IN BLOCK 15, LOTS 5 AND 6 IN BLOCK 18, LOT 8 IN BLOCK 19, AND LOT 5 IN BLOCK 31 OF PLAT OF IRENE(NKA PLAT OF OF SPENCER) RECORDED IN VOLUME 1 OF PLATS ON PAGE 19, LOCATED IN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 5, TOWNSHIP 26 NORTH, RANGE 2 EAST, VILLAGE OF SPENCER, MARATHON COUNTY, WISCONSIN.

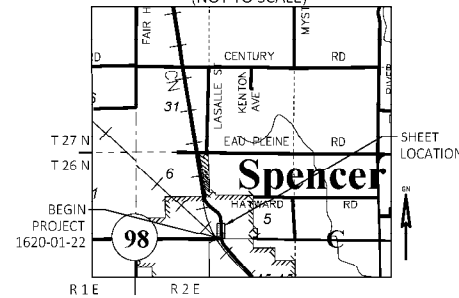
RELOCATION ORDER STH 13 MARSHFIELD - ABBOTSFORD (STH 98 TO SOUTH JUNCTION CTH N) MARATHON AND CLARK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

### PROJECT LOCATION (NOT TO SCALE)



### SCHEDULE OF LANDS & INTERESTS REQUIRED

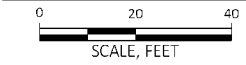
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
1	PAUL WELLNITZ	TLE	-	-	-	462
2	STEPHANIE A. SCHAUER	TLE	-	-	-	165
3	GRAND KIDS PROPERTIES LLC	TLE	-	-	-	115
4	NATHAN J. KNETTER	TLE	-	-	-	334
5	---	---	-	-	-	---
6	DANIEL & MARYLEE E. JACOBITZ	FEE & TLE	80	-	80	356
7	GORDON G. WIX JR. & MARY K. WIX	FEE & TLE	45	-	45	329
8	DANIEL J. & MARY K. WILLIAMS	TLE	-	-	-	270

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

### UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
202	WE ENERGIES (GAS)	RELEASE OF RIGHTS

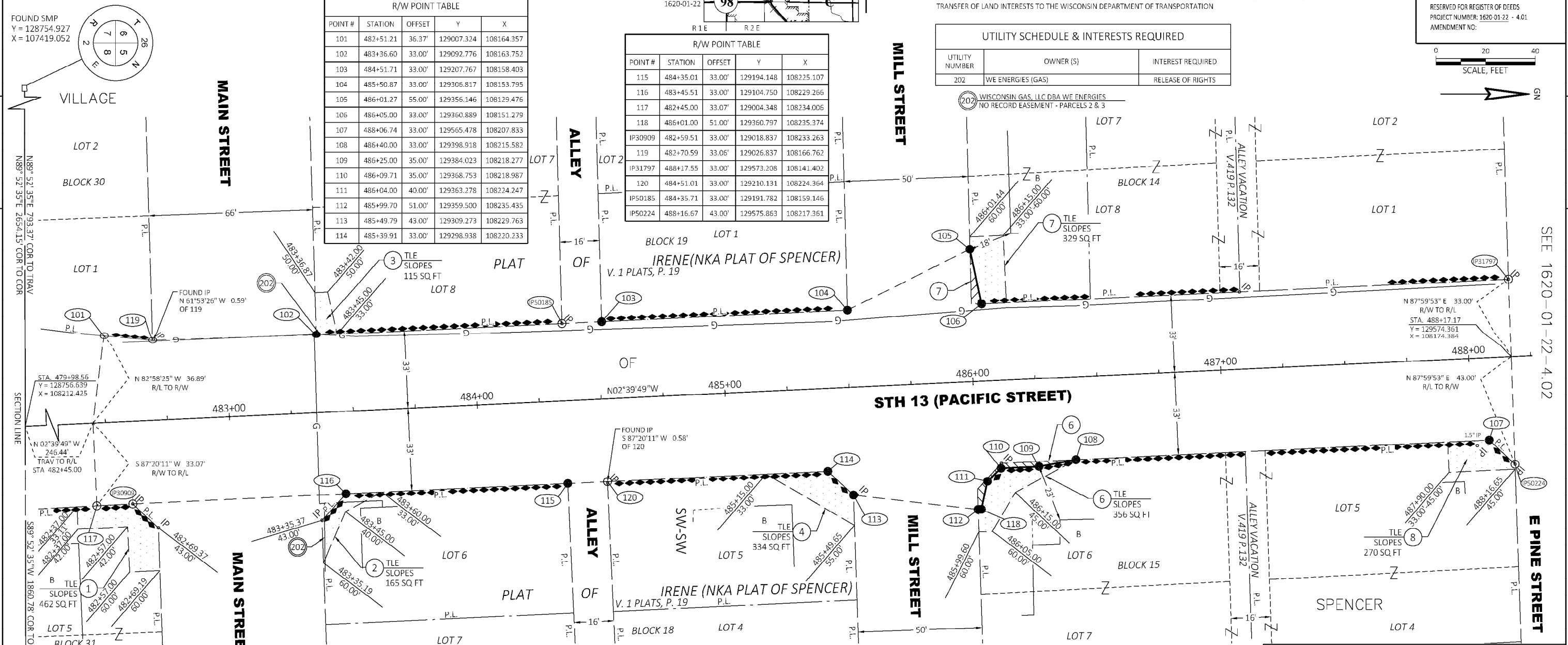
RESERVED FOR REGISTER OF DEEDS  
 PROJECT NUMBER: 1620-01-22 - 4.01  
 AMENDMENT NO:



FOUND SMP  
 Y = 128754.927  
 X = 107419.052

R/W POINT TABLE				
POINT #	STATION	OFFSET	Y	X
101	482+51.21	36.37'	129007.324	108164.357
102	483+36.60	33.00'	129092.776	108163.752
103	484+51.71	33.00'	129207.767	108158.403
104	485+50.87	33.00'	129306.817	108153.795
105	486+01.27	55.00'	129356.146	108129.476
106	486+05.00	33.00'	129360.889	108151.279
107	488+06.74	33.00'	129565.478	108207.833
108	486+40.00	33.00'	129398.918	108215.582
109	486+25.00	35.00'	129384.023	108218.277
110	486+09.71	35.00'	129368.753	108218.987
111	486+04.00	40.00'	129363.278	108224.247
112	485+99.70	51.00'	129359.500	108235.435
113	485+49.79	43.00'	129309.273	108229.763
114	485+39.91	33.00'	129298.938	108220.233

R/W POINT TABLE				
POINT #	STATION	OFFSET	Y	X
115	484+35.01	33.00'	129194.148	108225.107
116	483+45.51	33.00'	129104.750	108229.266
117	482+45.00	33.07'	129004.348	108234.006
118	486+01.00	51.00'	129360.797	108235.374
IP30909	482+59.51	33.00'	129018.837	108233.263
119	482+70.59	33.06'	129026.837	108166.762
IP31797	488+17.55	33.00'	129573.208	108141.402
120	484+51.01	33.00'	129210.131	108224.364
IP50185	484+35.71	33.00'	129191.782	108159.146
IP50224	488+16.67	43.00'	129575.863	108217.361



COURSE TABLE		
POINT #	BEARING	DISTANCE
101-119	N 07°01'35" E	19.66'
119-102	N 02°36'50" W	66.01'
102-IP50185	N 02°39'49" W	99.11'
IP50185-103	N 02°39'49" W	16.00'
103-104	N 02°39'49" W	99.16'
104-105	N 26°14'35" W	55.00'
105-106	N 77°43'33" E	22.31'

COURSE TABLE		
POINT #	BEARING	DISTANCE
106-IP31797	N 02°39'49" W	212.55'
IP31797-IP50224	N 87°59'53" E	76.00'
IP50224-107	S 42°32'04" W	14.09'
107-108	S 02°39'49" E	166.74'
108-109	S 10°15'20" E	15.14'
109-110	S 02°39'49" E	15.29'
110-111	S 43°50'58" E	7.59'
111-118	S 77°25'55" E	11.40'
118-112	S 02°39'49" E	1.30'
112-113	S 06°26'35" W	50.55'

COURSE TABLE		
POINT #	BEARING	DISTANCE
113-114	S 42°40'50" W	14.06'
114-120	S 02°39'49" E	88.90'
120-115	S 02°39'49" E	16.00'
115-116	S 02°39'49" E	89.50'
116-IP30909	S 02°39'49" E	86.01'
IP30909-117	S 02°56'14" E	14.51'

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

- EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 13(PACIFIC STREET) ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23 AND PLAT OF IRENE(NKA PLAT OF SPENCER).
- EXISTING HIGHWAY RIGHT-OF-WAY FOR MAIN STREET ESTABLISHED FROM PLAT OF IRENE(NKA PLAT OF SPENCER).
- EXISTING HIGHWAY RIGHT-OF-WAY FOR MILL STREET ESTABLISHED FROM PLAT OF IRENE(NKA PLAT OF SPENCER).
- EXISTING HIGHWAY RIGHT-OF-WAY FOR EAST PINE STREET ESTABLISHED FROM PLAT OF IRENE(NKA PLAT OF SPENCER).
- EXISTING ACCESS CONTROL FOR STH 13(PACIFIC STREET) ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOUND IRON PINS ARE 1.25" PLASTIC CAPPED IRON PIPES, UNLESS OTHERWISE NOTED.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, OF DOCUMENT NO. 1842331.

**J. ENGINEERING, INC.**  
 1077 CENTENNIAL CENTRE BLVD.  
 HOBART, WI 54155  
 920-468-4771

I, JAMES R CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *James R. Cappeart* DATE: 08/27/21  
 PRINT NAME: JAMES R CAPPEART  
 REGISTRATION NUMBER: S-3044

SIGNATURE: *Brent L. Stella* DATE: 8-30-21  
 PRINT NAME: BRENT L. STELLA

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION - NC REGION.

# TRANSPORTATION PROJECT PLAT NO: 1620-01-22 - 4.02

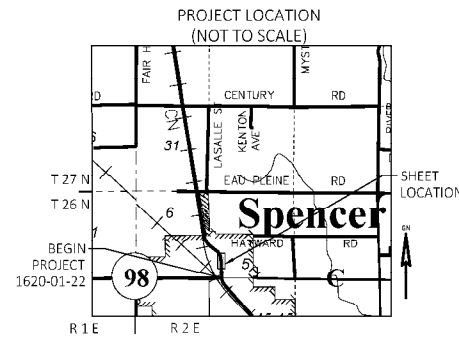
THAT PART OF LOTS 5 AND 6 IN BLOCK 2 OF PLAT OF IRENE(NKA PLAT OF SPENCER), LOCATED IN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 5, TOWNSHIP 26 NORTH, RANGE 2 EAST, VILLAGE OF SPENCER, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 13 MARSHFIELD - ABBOTSFORD (STH 98 TO SOUTH JUNCTION CTH N) MARATHON AND CLARK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

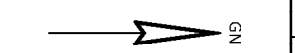
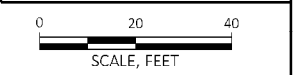


PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W S.F., REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
9	D & G LEASING LLC	TLE	-	-	-	174
10	---	-	-	-	-	-
11	PATTI L. CHRISTOPHERSEN	TLE	-	-	-	98

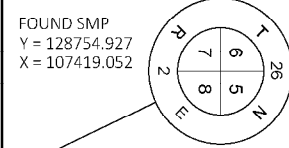
NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

CURVE NO.	COURSE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	204-IP50328	S 08°55'37" E	6.42'	490.74'	6.42'

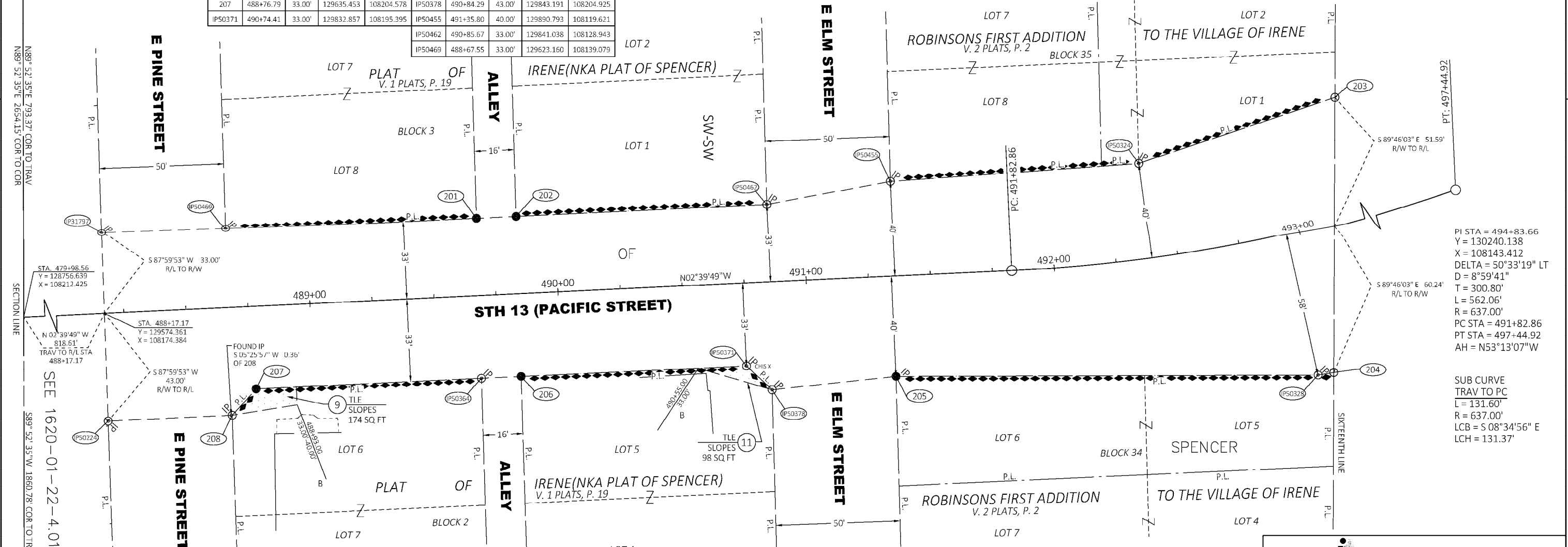
RESERVED FOR REGISTER OF DEEDS  
 PROJECT NUMBER: 1620-01-22 - 4.02  
 AMENDMENT NO:



R/W POINT TABLE									
POINT #	STATION	OFFSET	Y	X	POINT #	STATION	OFFSET	Y	X
201	489+68.61	33.00'	129724.106	108134.382	IP31797	488+17.55	33.00'	129573.208	108141.402
202	489+84.61	33.00'	129740.091	108133.639	IP50224	488+16.67	43.00'	129575.863	108217.361
203	493+28.70	49.75'	130069.767	108086.194	IP50324	492+39.65	40.01'	129990.787	108112.590
204	493+00.43	58.43'	130069.313	108198.026	IP50328	492+94.56	57.97'	130062.969	108199.022
205	491+34.35	40.00'	129893.060	108199.602	208	488+66.67	43.00'	129625.812	108215.037
206	489+83.57	33.00'	129742.120	108199.616	IP50364	489+67.57	33.00'	129726.135	108200.359
207	488+76.79	33.00'	129635.453	108204.578	IP50378	490+84.29	43.00'	129843.191	108204.925
IP50371	490+74.41	33.00'	129832.857	108195.395	IP50455	491+35.80	40.00'	129890.793	108119.621
					IP50462	490+85.67	33.00'	129841.038	108128.943
					IP50469	488+67.55	33.00'	129623.160	108139.079



VILLAGE



PI STA = 494+83.66  
 Y = 130240.138  
 X = 108143.412  
 DELTA = 50°33'19" LT  
 D = 8°59'41"  
 T = 300.80'  
 L = 562.06'  
 R = 637.00'  
 PC STA = 491+82.86  
 PT STA = 497+44.92  
 AH = N53°13'07"W

SUB CURVE  
 TRAV TO PC  
 L = 131.60'  
 R = 637.00'  
 LCB = S 08°34'56" E  
 LCH = 131.37'

COURSE TABLE					
POINT #	BEARING	DISTANCE	POINT #	BEARING	DISTANCE
IP31797-IP50469	N 02°39'49" W	50.01'	IP50328-205	S 00°11'44" E	169.91'
IP50469-201	N 02°39'49" W	101.06'	205-IP50378	S 06°05'34" E	50.15'
201-202	N 02°39'49" W	16.00'	IP50378-IP50371	S 42°40'57" W (N 42°40'34" E)	14.06' (14.02')
202-IP50462	N 02°39'49" W	101.06'	IP50371-206	S 02°39'49" E	90.84'
IP50462-IP50455	N 10°36'43" W	50.62'	206-IP50364	S 02°39'49" E	16.00'
IP50455-IP50324	N 04°01'18" W (N 04°09'31" W)	100.24' (100.24')	IP50364-207	S 02°39'49" E	90.78'
IP50324-203	N 18°28'49" W	83.27'	207-208	S 47°19'56" E	14.22'
203-204	S 89°46'03" E	111.83'	208-IP50224	S 02°39'49" E	50.00'
204-IP50328	SEE CURVE TABLE C1				

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

- EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
- EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 13(PACIFIC STREET) ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23 AND PLAT OF IRENE(NKA PLAT OF SPENCER).
- EXISTING HIGHWAY RIGHT-OF-WAY FOR EAST PINE STREET ESTABLISHED FROM PLAT OF IRENE(NKA PLAT OF SPENCER).
- EXISTING HIGHWAY RIGHT-OF-WAY FOR EAST ELM STREET ESTABLISHED FROM PLAT OF IRENE(NKA PLAT OF SPENCER) AND ROBINSONS FIRST ADDITION TO THE VILLAGE OF IRENE.
- EXISTING ACCESS CONTROL FOR STH 13(PACIFIC STREET) ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23.
- FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.
- ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.
- FOUND IRON PINS ARE 1.25" PLASTIC CAPPED IRON PIPES, UNLESS OTHERWISE NOTED.
- FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, OF DOCUMENT NO. 1842331.

**J. ENGINEERING, INC.** 1077 CENTENNIAL CENTRE BLVD.  
 HOBART, WI 54155  
 920-468-4771

I, JAMES R CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *James R. Cappeart* DATE: 08/27/21  
 PRINT NAME: JAMES R CAPPEART  
 REGISTRATION NUMBER: S-3044

**James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR**

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION - NC REGION.

SIGNATURE: *Brent L. Stella* DATE: 8-30-21  
 PRINT NAME: BRENT L. STELLA

# TRANSPORTATION PROJECT PLAT NO: 1620-01-22 - 4.03

THAT PART OF LOT 7 IN BLOCK 3 OF EDMUND CREEDS PLAT OF UNITY, LOCATED IN THE FRACTION SOUTH 1/2 OF THE SOUTHWEST 1/4, AND THAT PART OF LOT 5 AND LOT 8 IN BLOCK 1, AND LOT 6 IN BLOCK 2 OF HENRY DARLINGS ADDITION, LOCATED IN AND INCLUDING PART OF THE FRACTIONAL NORTH 1/2 OF THE SOUTHWEST 1/4, ALL IN SECTION 6, TOWNSHIP 27 NORTH, RANGE 2 EAST, VILLAGE OF UNITY, MARATHON COUNTY, WISCONSIN

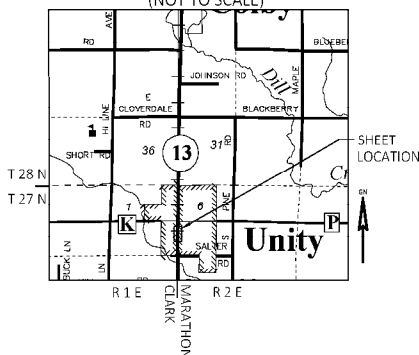
RELOCATION ORDER STH 13 MARSHFIELD - ABBOTSFORD (STH 98 TO SOUTH JUNCTION CTH N) MARATHON AND CLARK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

## PROJECT LOCATION (NOT TO SCALE)



## SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
12	LOIS JOHNSON	TLE	-	-	-	252
13	SHANE SWACKER	TLE	-	-	-	355
14	STEVEN D & TIFFANY M SEEFELD	TLE	-	-	-	92
15	---	-	-	-	-	-
16	ROGER D WEILER	TLE	-	-	-	108
19	WISCONSIN CENTRAL LTD	TLE	-	-	-	773

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

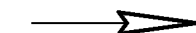
### COURSE TABLE

COURSE	BEARING	DISTANCE
301-302	N 00°24'15" E	272.43'
302-303	N 00°42'08" E	278.29'
303-304	S 89°17'03" E	61.81'
304-305	S 00°31'55" W	131.40'
305-306	S 00°31'55" W	50.00'
306-307	S 00°31'55" W	263.65'
307-308	S 00°31'55" W	60.01'
308-309	S 00°31'55" W	44.01'
309-301	S 89°11'34" W	62.05'

### R/W POINT TABLE

POINT #	STATION	OFFSET	Y	X
301	819+00.00	27.89'	161601.678	103341.589
302	821+71.71	27.24'	161874.101	103343.510
303	824+50.00	27.30'	162152.367	103346.921
304	824+50.00	34.51'	162151.595	103408.731
305	823+18.60	34.93'	162020.197	103407.511
306	822+68.60	35.09'	161970.199	103407.047
307	820+04.95	35.94'	161706.560	103404.599
308	819+44.00	35.19'	161646.557	103404.042
309	819+00.00	34.16'	161602.552	103403.634

RESERVED FOR REGISTER OF DEEDS  
 PROJECT NUMBER: 1620-01-22 - 4.03  
 AMENDMENT NO:



FOUND 3/4" REBAR  
 Y=163001.241  
 X=103340.895

VILLAGE

COMPUTED FROM TIES  
 Y=160352.405  
 X=103292.869

WISCONSIN CENTRAL LTD

CLARK COUNTY  
 MARATHON COUNTY

STH 13 (FRONT ST)

WELLS ST

UNITY

LOT 7

LOT 8

BLOCK 2  
 HENRY DARLINGS ADDITION

EDMUND CREEDS  
 PLAT OF UNITY  
 BLOCK 3

FRACTIONAL  
 S 1/2 - SW 1/4

HENRY DARLINGS ADDITION  
 BLOCK 1

FRACTIONAL  
 N 1/2 - SW 1/4

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 13 (FRONT ST) ESTABLISHED FROM PREVIOUS PROJECTS 1623-08-23.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CHURCH ST ESTABLISHED FROM HENRY DARLINGS ADDITION AND EDMUND CREEDS PLAT OF UNITY.

EXISTING HIGHWAY RIGHT-OF-WAY FOR WELLS ST ESTABLISHED FROM HENRY DARLINGS ADDITION.

EXISTING ACCESS CONTROL FOR STH 13 (FRONT ST) ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, OF DOCUMENT NO. 1842331.

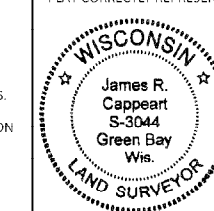
**J ENGINEERING, INC** 1077 CENTENNIAL CENTRE BLVD.  
 HOBART, WI 54155  
 920-468-4771

I, JAMES R CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *James R Cappeart* DATE: 08/24/21  
 PRINT NAME: JAMES R CAPPEART  
 REGISTRATION NUMBER: S-3044

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION - NC REGION.

SIGNATURE: *Brent L Stella* DATE: 8-25-21  
 PRINT NAME: BRENT L STELLA



# TRANSPORTATION PROJECT PLAT NO: 1620-01-22 - 4.04

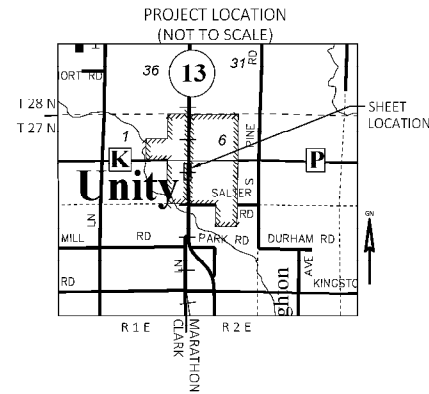
THAT PART OF LOT 10 IN BLOCK 2, LOT 11 IN BLOCK 3 OF HENRY DARLINGS ADDITION, LOCATED IN AND INCLUDING A PART OF THE FRACTIONAL NORTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 27 NORTH, RANGE 2 EAST, VILLAGE OF UNITY, MARATHON COUNTY, WISCONSIN

RELOCATION ORDER STH 13 MARSHFIELD - ABBOTSFORD (STH 98 TO SOUTH JUNCTION CTH N) MARATHON AND CLARK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



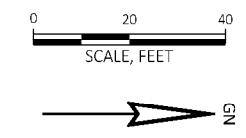
## SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
17	MARVIN J RASHKA	TLE	-	-	-	421
18	NICHOLLE R FIEGEL	FEE & TLE	27	-	27	88
19	WISCONSIN CENTRAL LTD	TLE	-	-	-	918

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

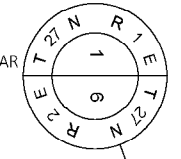
### COURSE TABLE

COURSE	BEARING	DISTANCE
303-401	N 00°42'08" E	500.00'
401-402	S 89°17'03" E	60.33'
402-403	S 00°31'55" W	270.00'
403-404	S 16°20'28" E	4.18'
404-405	S 00°42'57" W	5.00'
405-406	S 34°15'52" E	6.98'
406-407	S 06°26'32" W	50.31'
407-304	S 00°31'55" W	165.23'
304-303	N 89°17'03" W	61.81'



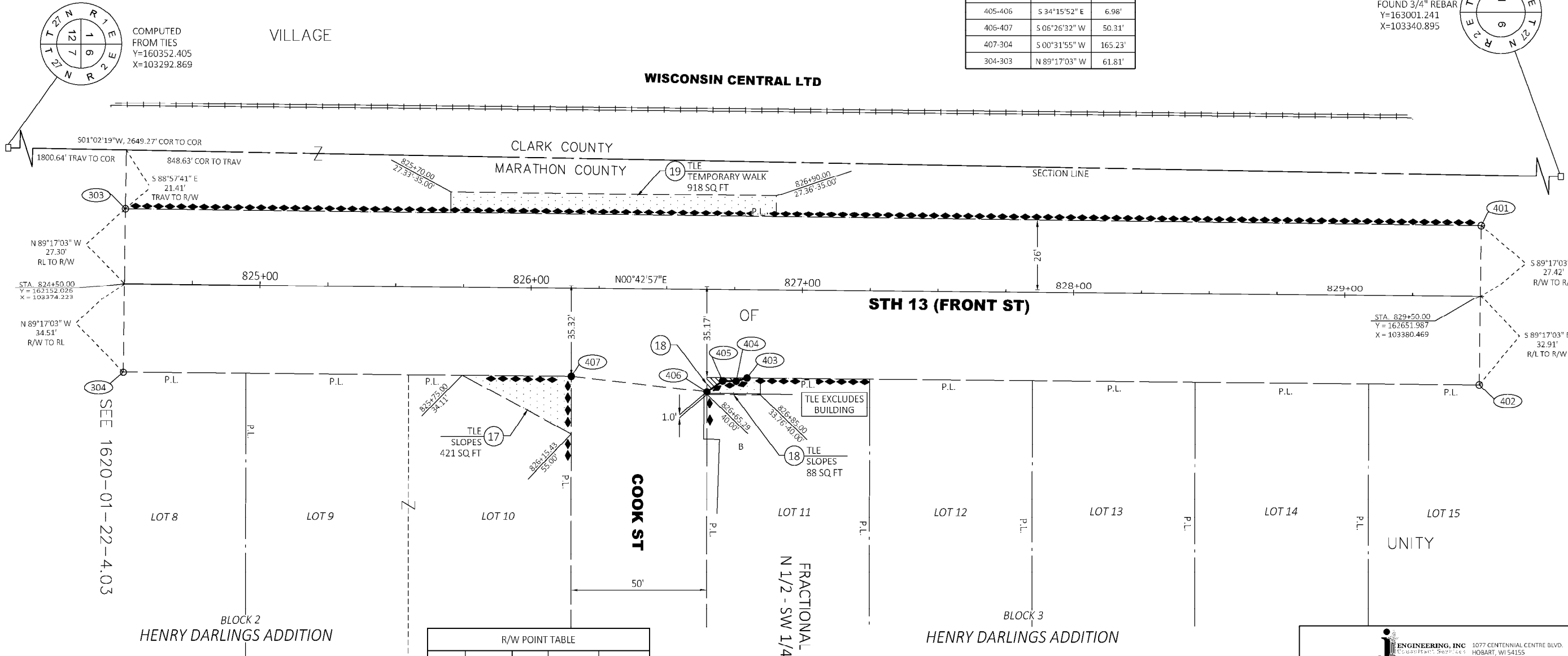
RESERVED FOR REGISTER OF DEEDS  
 PROJECT NUMBER: 1620-01-22 - 4.04  
 AMENDMENT NO:

FOUND 3/4" REBAR  
 Y=163001.241  
 X=103340.895

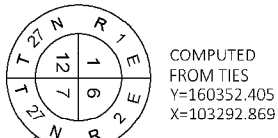


4

4



SEE 1620-01-22-4.05



COMPUTED FROM TIES  
 Y=160352.405  
 X=103292.869

### R/W POINT TABLE

POINT #	STATION	OFFSET	Y	X
303	824+50.00	27.30'	162152.367	103346.921
304	824+50.00	34.51'	162151.595	103408.731
401	829+50.00	27.42'	162652.330	103353.048
402	829+50.00	32.91'	162651.576	103413.372
403	826+80.00	33.77'	162381.586	103410.866
404	826+76.00	35.00'	162377.571	103412.043
405	826+71.00	35.00'	162372.572	103411.981
406	826+65.28	39.00'	162366.805	103415.909
407	826+15.32	43.00'	162316.798	103419.284

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 13 (FRONT ST) ESTABLISHED FROM PREVIOUS PROJECTS 1623-08-23.

EXISTING HIGHWAY RIGHT-OF-WAY FOR COOK ST ESTABLISHED FROM HENRY DARLINGS ADDITION.

EXISTING ACCESS CONTROL FOR STH 13 (FRONT STREET) ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBAR), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, OF DOCUMENT NO. 1842331.

**J ENGINEERING, INC** 1077 CENTENNIAL CENTRE BLVD.  
 HOBART, WI 54155  
 920-468-4771

I, JAMES R CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *James R Cappeart* DATE: 08/24/21  
 PRINT NAME: JAMES R CAPPEART  
 REGISTRATION NUMBER: S-3044

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION - NC REGION.

SIGNATURE: *Brent L Stella* DATE: 8-25-21  
 PRINT NAME: BRENT L. STELLA

**TRANSPORTATION PROJECT PLAT NO: 1620-01-22 - 4.05**

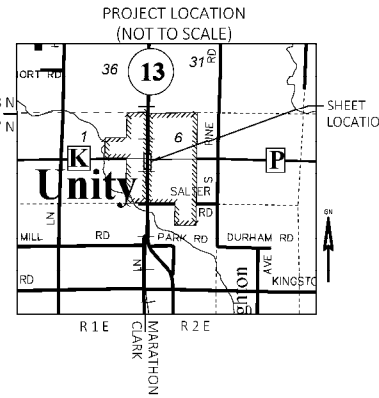
THAT PART OF THE FRACTIONAL NORTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 27 NORTH, RANGE 2 EAST, VILLAGE OF UNITY, MARATHON COUNTY;  
THAT PART OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 1, TOWNSHIP 27 NORTH, RANGE 1 EAST, VILLAGE OF UNITY, CLARK COUNTY, ALL IN WISCONSIN.

RELOCATION ORDER STH 13 MARSHFIELD - ABBOTSFORD (STH 98 TO SOUTH JUNCTION CTH N) MARATHON AND CLARK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

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- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



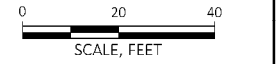
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
19	WISCONSIN CENTRAL LTD (MARATHON COUNTY)	TLE	-	-	-	184
19	WISCONSIN CENTRAL LTD (CLARK COUNTY)	TLE	-	-	-	133

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

DOC# 644814  
Recorded August 05, 2021 9:58 AM  
MARY A. DENK, Clark Co Reg of Deeds  
Fee Amount: \$25.00  
Pages: 2 By: MAD

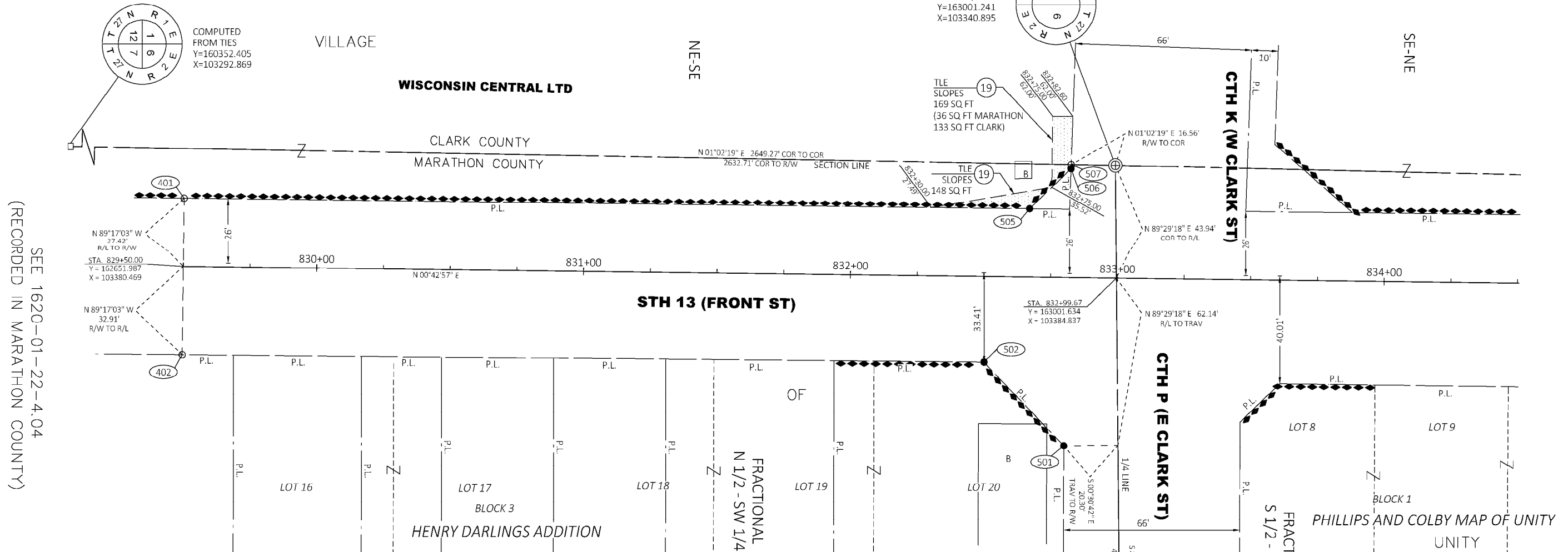
\*\*\*The above recording information verifies this document has been electronically recorded and returned to the submitter\*\*\*

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER: 1620-01-22 - 4.05  
SHEET 1 OF 2



4

4



SEE 1620-01-22-4.04 (RECORDED IN MARATHON COUNTY)

COURSE	BEARING	DISTANCE
COR-TRAV	N 89°29'18" E	106.08'
501-502	S 46°02'40" W	43.05'
502-402	S 00°31'55" W	300.44'
402-401	N 89°17'03" W	60.33'
401-505	N 00°42'08" E	316.79'
505-506	N 43°37'06" W	21.46'
506-507	N 87°56'20" W	1.53'

POINT #	STATION	OFFSET	Y	X
401	829+50.00	27.42'	162652.330	103353.048
402	829+50.00	32.91'	162651.576	103413.372
501	832+80.71	62.56'	162981.887	103447.152
502	832+50.44	31.94'	162952.006	103416.161
505	832+66.79	27.50'	162969.092	103356.930
506	832+82.14	42.50'	162984.631	103342.124
507	832+82.16	44.03'	162984.675	103340.595

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 13 (FRONT ST) ESTABLISHED FROM HENRY DARLINGS ADDITION AND PREVIOUS PROJECTS 1623-08-23.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH P (E CLARK ST) ESTABLISHED FROM HENRY DARLINGS ADDITION AND PHILLIPS AND COLBY MAP OF UNITY.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH K (W CLARK ST) ESTABLISHED FROM HENRY DARLINGS ADDITION AND PHILLIPS AND COLBY MAP OF UNITY.

EXISTING ACCESS CONTROL FOR STH 13 ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, OF THIS DOCUMENT.

1. JAMES R CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *James R Cappeart* DATE: 08/03/21  
PRINT NAME: JAMES R CAPPEART  
REGISTRATION NUMBER: S-3044

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION - NC REGION.

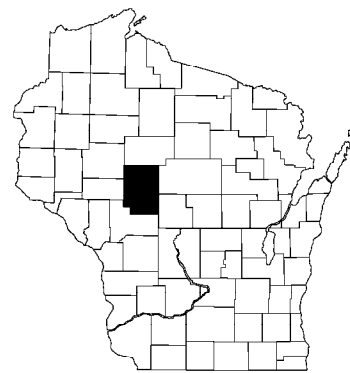
SIGNATURE: *Brent L Stella* DATE: 8-03-21  
PRINT NAME: BRENT L. STELLA



# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET 1620-01-22 MARSHFIELD - ABBOTSFORD

STH 98 TO SOUTH JUNCTION CTH N

## STH 13 CLARK COUNTY



### CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	
QUARTER LINE		NON-MONUMENTED R/W POINT		NON-MONUMENTED R/W POINT	
SIXTEENTH LINE		SECTION CORNER MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	
NEW REFERENCE LINE		GEODETIC SURVEY MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE		SIXTEENTH CORNER MONUMENT		COMPENSABLE	
EXISTING R/W OR HE LINE		SIGN		NON-COMPENSABLE	
PROPERTY LINE		ELECTRIC POLE		TELEPHONE POLE	
LOT, TIE & OTHER MINOR LINES		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		ACCESS RESTRICTED BY ACQUISITION	
SLOPE INTERCEPT		NO ACCESS (BY STATUTORY AUTHORITY)		NO ACCESS (BY PREVIOUS PROJECT OR CONTROL)	
CORPORATE LIMITS		NO ACCESS (NEW HIGHWAY)		PARCEL NUMBER (25)	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)		UTILITY NUMBER (40)	
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)		NO ACCESS (NEW HIGHWAY)		PARALLEL OFFSETS	
TEMPORARY LIMITED EASEMENT AREA		PARCEL NUMBER (25)		UTILITY NUMBER (40)	
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)		TO BE REMOVED		BRIDGE	
TRANSMISSION STRUCTURES		CULVERT			

### CONVENTIONAL ABBREVIATIONS

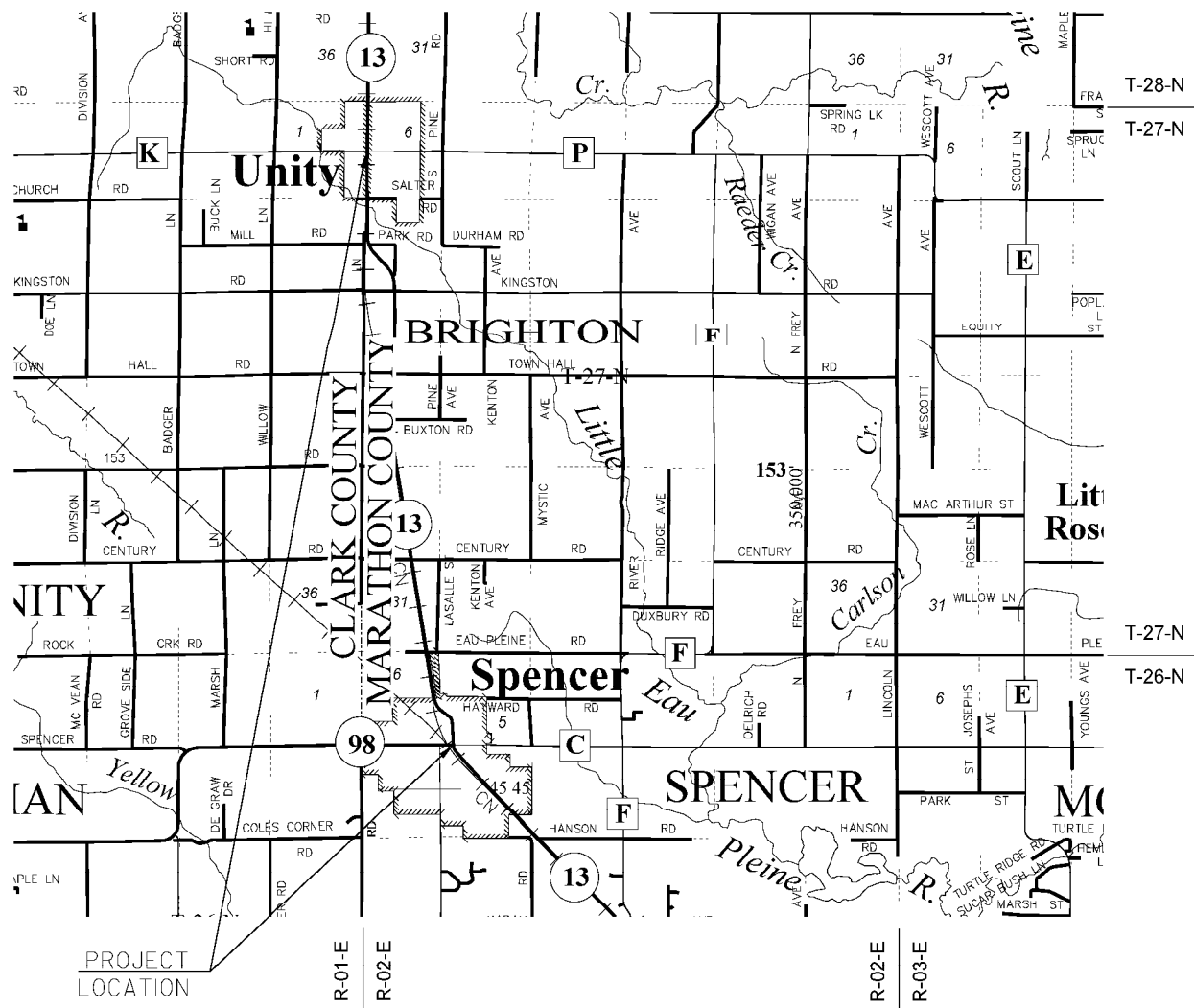
ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS (100')	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L		
CERTIFIED SURVEY MAP	CSM	RIGHT	RT
CONCRETE	CONC	RIGHT OF WAY	R/W
COUNTY	CO	SECTION	SEC
COUNTY TRUNK HIGHWAY	CTH	SEPTIC VENT	SEPV
DISTANCE	DIST	SQUARE FEET	SF
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV		
GRID NORTH	GN	TRANSPORTATION PROJECT PLAT	TPP
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
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		
POINT OF COMPOUND CURVE	PCC		

### CURVE DATA

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

### CONVENTIONAL UTILITY SYMBOLS

	WATER
	GAS
	TELEPHONE
	OVERHEAD
	TRANSMISSION LINES
	ELECTRIC
	CABLE TELEVISION
	FIBER OPTIC
	SANITARY SEWER
	STORM SEWER



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1620-01-22

### NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLES) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

RESERVED FOR REGISTER OF DEEDS  
PROJECT NUMBER 1620-01-22 - 4.05  
SHEET 2 OF 2  
AMENDMENT NO:

\*This document has been electronically recorded and returned to: WisDOT - NC Region - Rhinelander / WI Rapids P

# TRANSPORTATION PROJECT PLAT NO: 1620-01-22 - 4.05

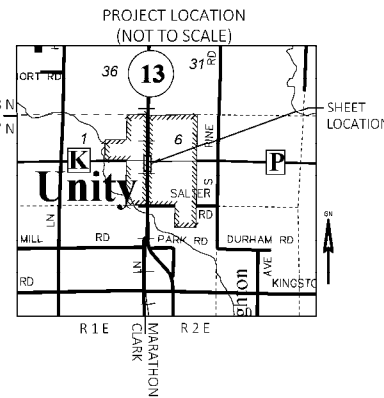
THAT PART OF THE FRACTIONAL NORTH 1/2 OF THE SOUTHWEST 1/4 OF SECTION 6, TOWNSHIP 27 NORTH, RANGE 2 EAST, VILLAGE OF UNITY, MARATHON COUNTY;  
 THAT PART OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 1, TOWNSHIP 27 NORTH, RANGE 1 EAST, VILLAGE OF UNITY, CLARK COUNTY, ALL IN WISCONSIN.

RELOCATION ORDER STH 13 MARSHFIELD - ABBOTSFORD (STH 98 TO SOUTH JUNCTION CTH N) MARATHON AND CLARK COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

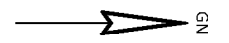
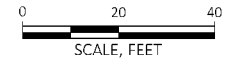
- THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
- THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W S.F. REQUIRED			TLE S.F.
			NEW	EXISTING	TOTAL	
19	WISCONSIN CENTRAL LTD (MARATHON COUNTY)	TLE	-	-	-	184
19	WISCONSIN CENTRAL LTD (CLARK COUNTY)	TLE	-	-	-	133

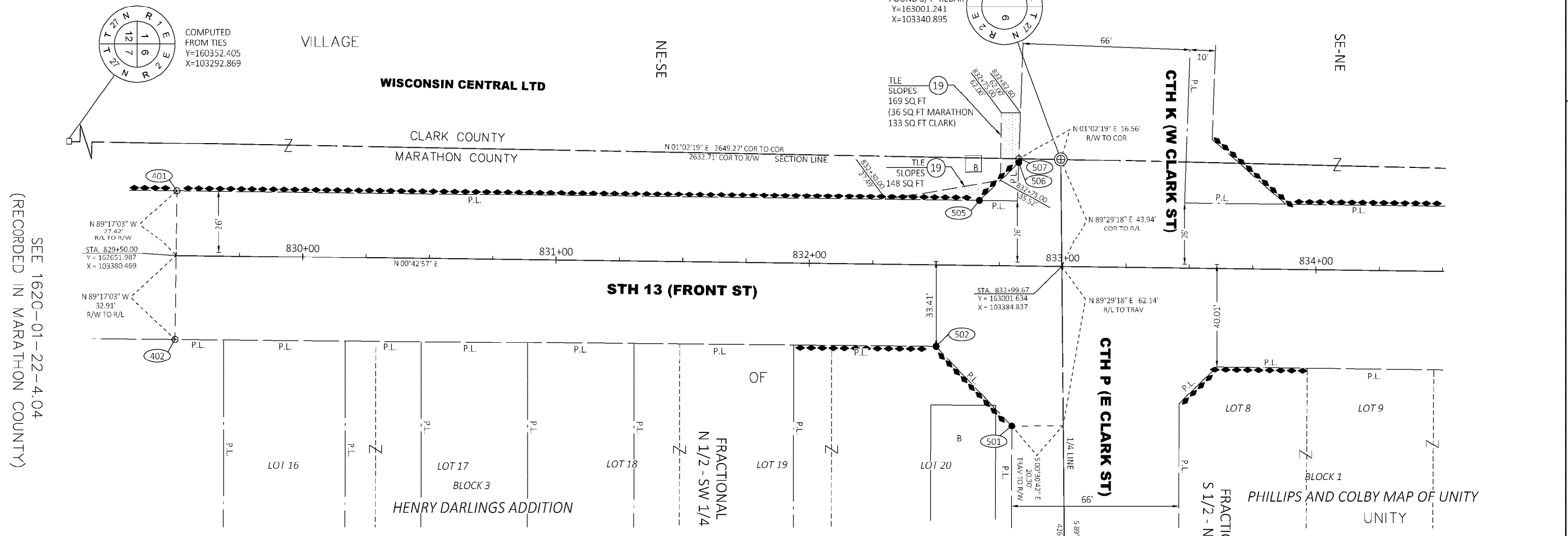
NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

RESERVED FOR REGISTER OF DEEDS  
 PROJECT NUMBER: 1620-01-22 - 4.05  
 SHEET 1 OF 2



4

4



SEE 1620-01-22-4.04  
 (RECORDED IN MARATHON COUNTY)

COURSE	BEARING	DISTANCE
COR-TRAV	N 89°29'18" E	106.08'
501-502	S 46°02'40" W	43.05'
502-402	S 00°31'55" W	300.44'
402-401	N 89°17'03" W	60.33'
401-505	N 00°42'08" E	316.79'
505-506	N 43°37'06" W	21.46'
506-507	N 87°56'20" W	1.53'

POINT #	STATION	OFFSET	Y	X
401	829+50.00	27.42'	162652.330	103353.048
402	829+50.00	32.91'	162651.576	103413.372
501	832+80.71	62.56'	162981.887	103447.152
502	832+50.44	31.94'	162952.006	103416.161
505	832+66.79	27.50'	162969.092	103356.930
506	832+82.14	42.50'	162984.631	103342.124
507	832+82.16	44.03'	162984.675	103340.595

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 13 (FRONT ST) ESTABLISHED FROM HENRY DARLINGS ADDITION AND PREVIOUS PROJECTS 1623-08-23.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH P (E CLARK ST) ESTABLISHED FROM HENRY DARLINGS ADDITION AND PHILLIPS AND COLBY MAP OF UNITY.

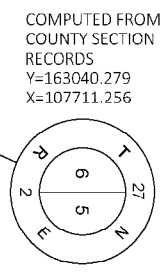
EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH K (W CLARK ST) ESTABLISHED FROM HENRY DARLINGS ADDITION AND PHILLIPS AND COLBY MAP OF UNITY.

EXISTING ACCESS CONTROL FOR STH 13 ESTABLISHED FROM PREVIOUS PROJECT 1623-08-23.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, OF THIS DOCUMENT.



**J ENGINEERING, INC** 1077 CENTENNIAL CENTRE BLVD.  
 HOBART, WI 54155  
 920-468-4771

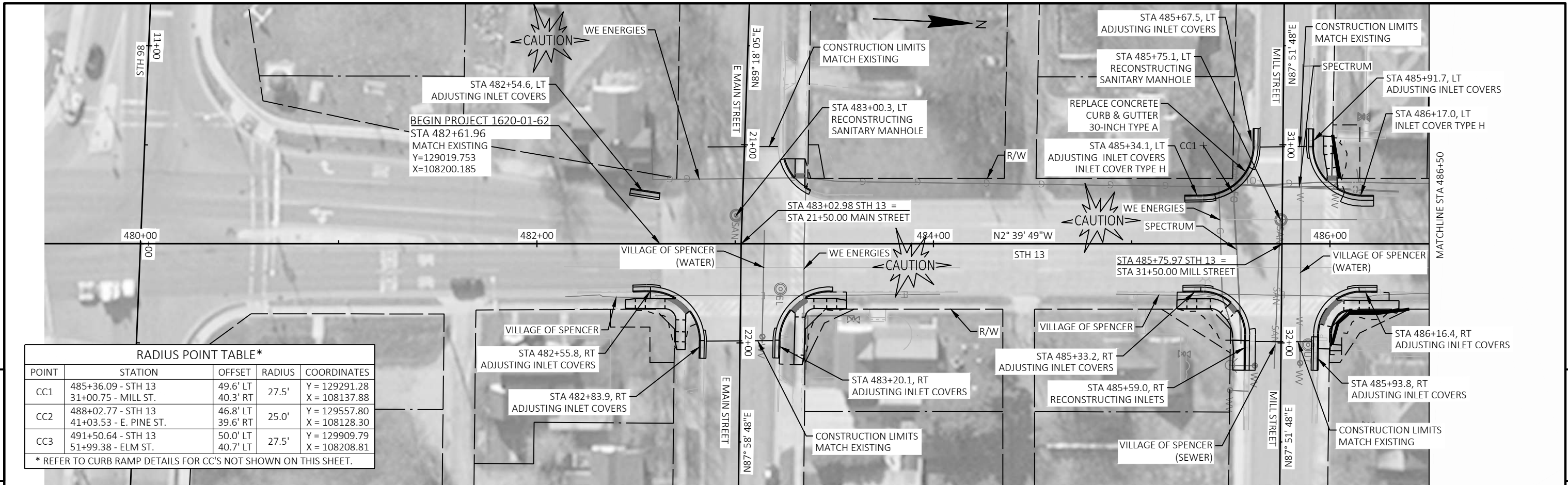
I, JAMES R CAPPEART PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *James R Cappeart* DATE: 08/03/21  
 PRINT NAME: JAMES R CAPPEART  
 REGISTRATION NUMBER: S-3044

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION - NC REGION.

SIGNATURE: *Brent L Stella* DATE: 8-03-21  
 PRINT NAME: BRENT L. STELLA

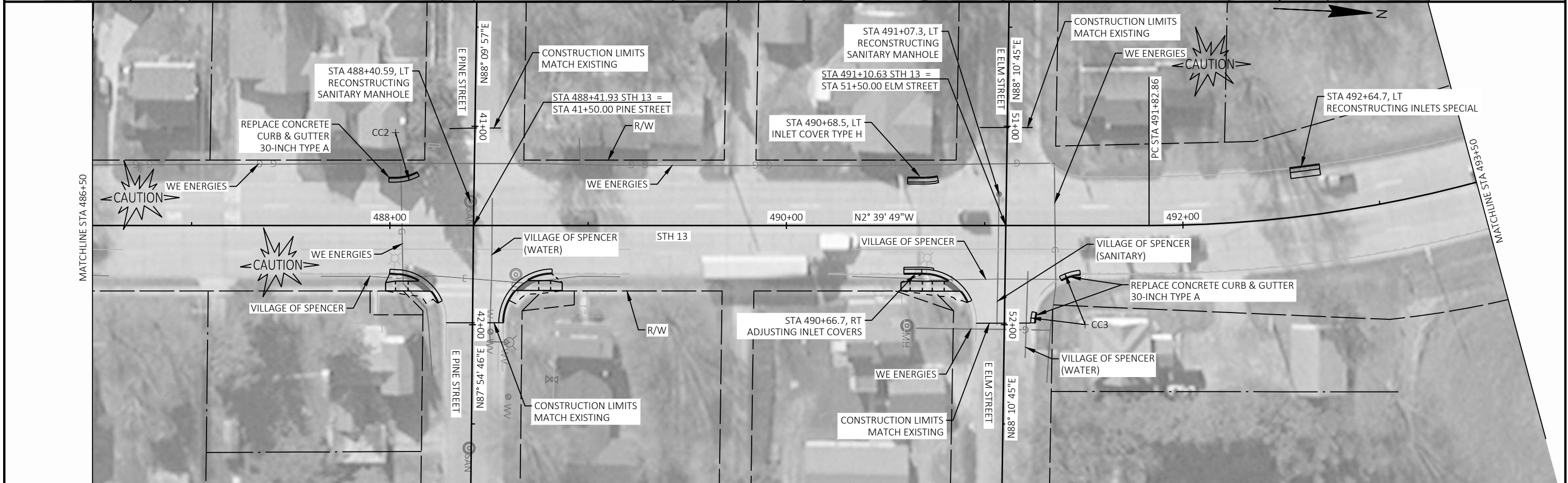
**James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR**

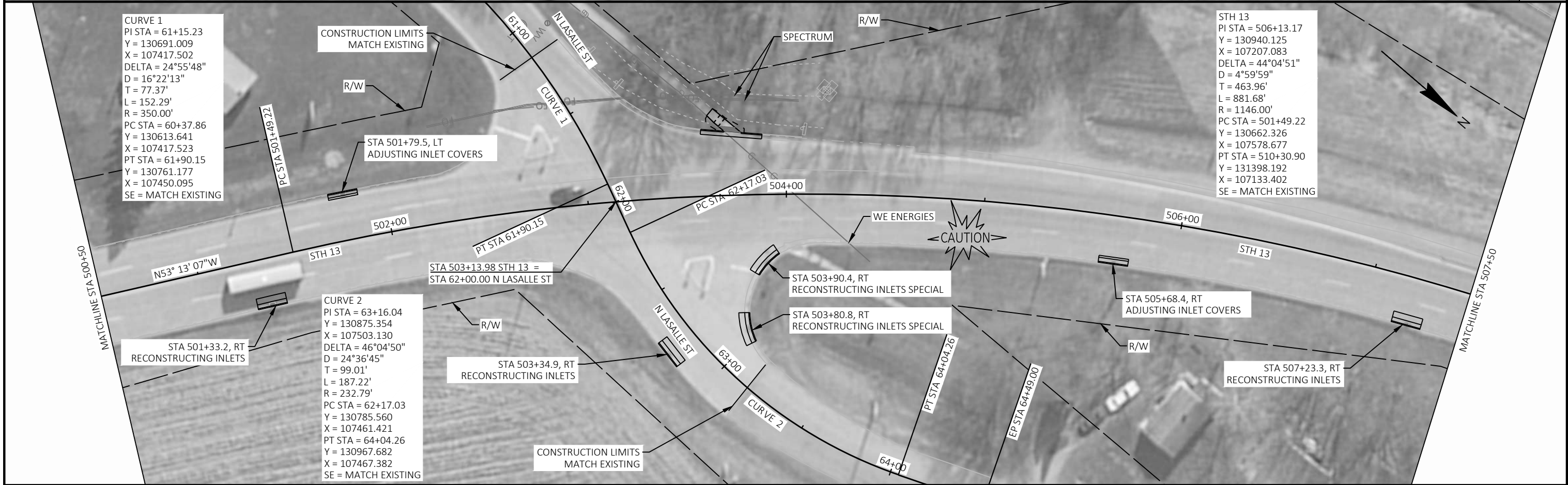
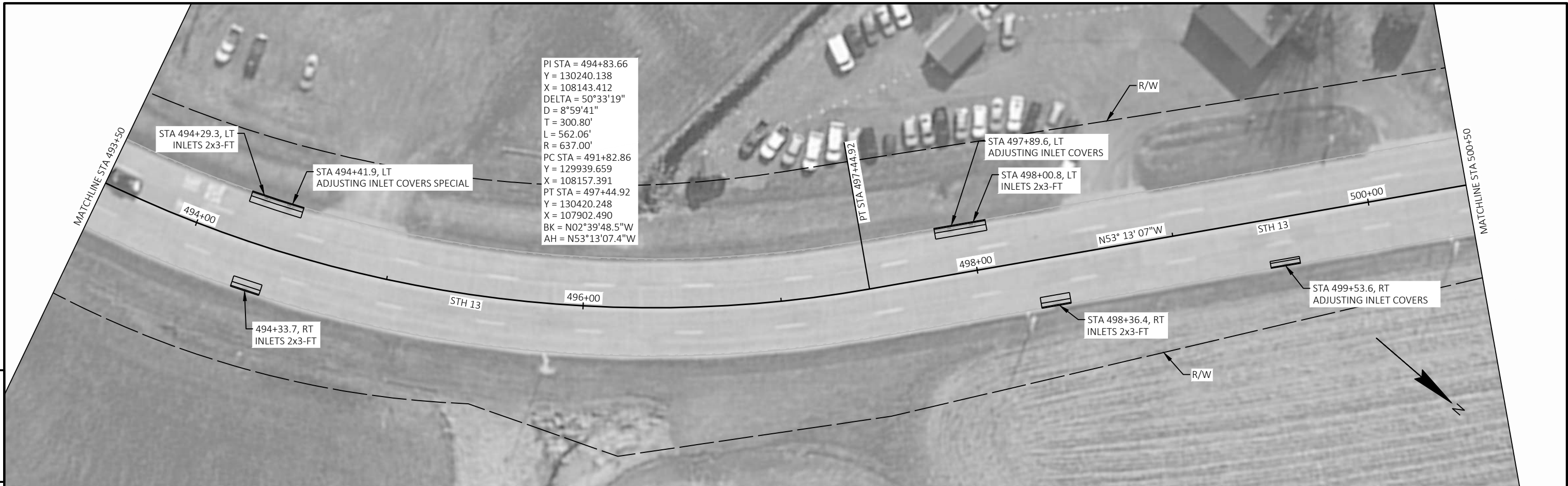


**RADIUS POINT TABLE\***

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	485+36.09 - STH 13 31+00.75 - MILL ST.	49.6' LT 40.3' RT	27.5'	Y = 129291.28 X = 108137.88
CC2	488+02.77 - STH 13 41+03.53 - E. PINE ST.	46.8' LT 39.6' RT	25.0'	Y = 129557.80 X = 108128.30
CC3	491+50.64 - STH 13 51+99.38 - ELM ST.	50.0' LT 40.7' LT	27.5'	Y = 129909.79 X = 108208.81

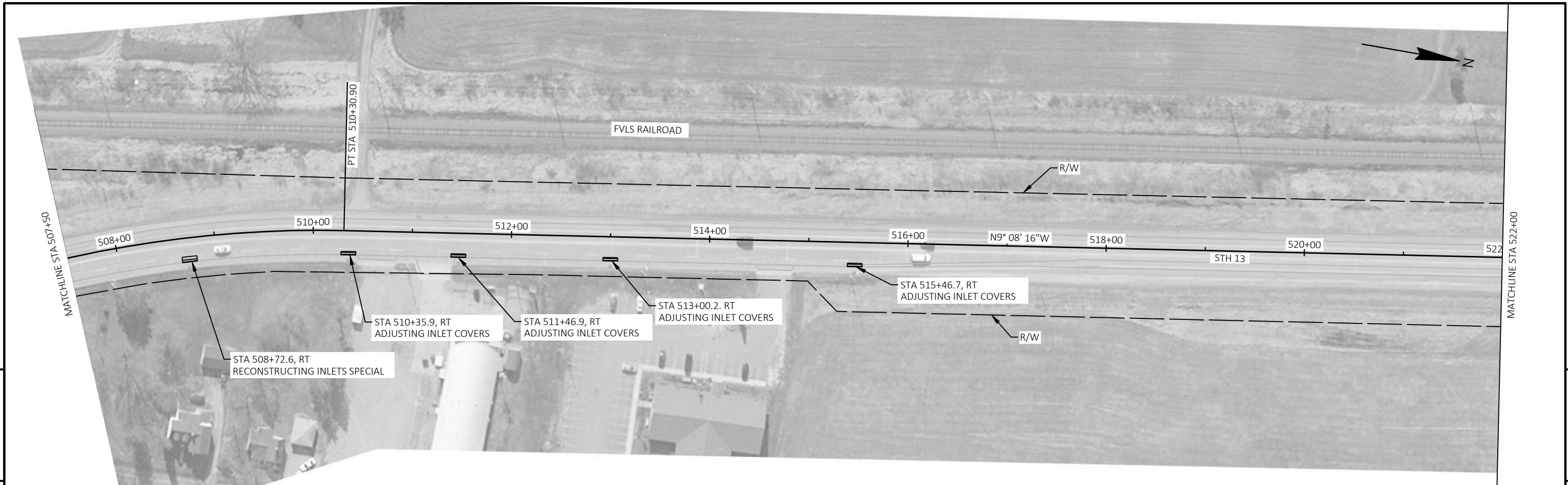
\* REFER TO CURB RAMP DETAILS FOR CC'S NOT SHOWN ON THIS SHEET.





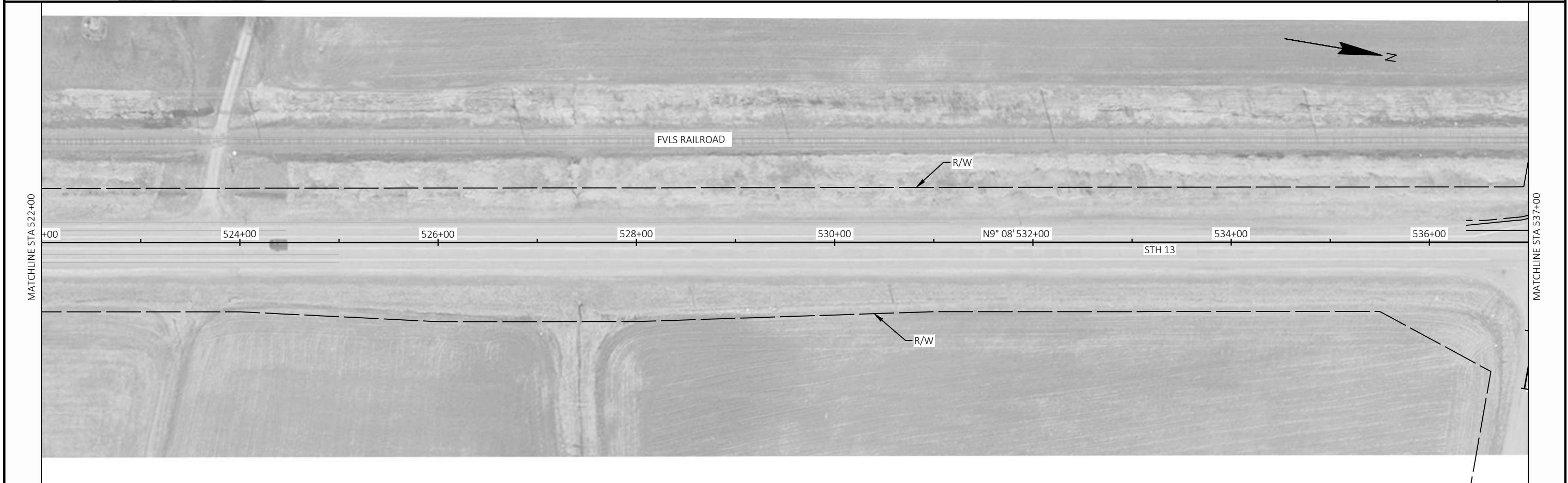
PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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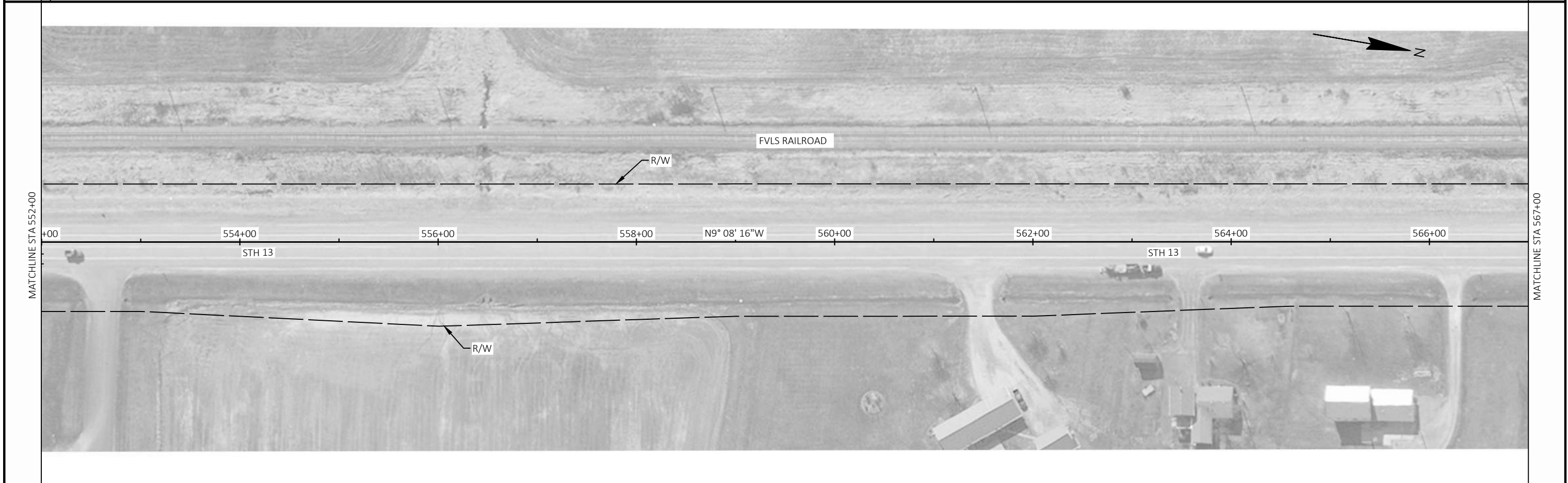
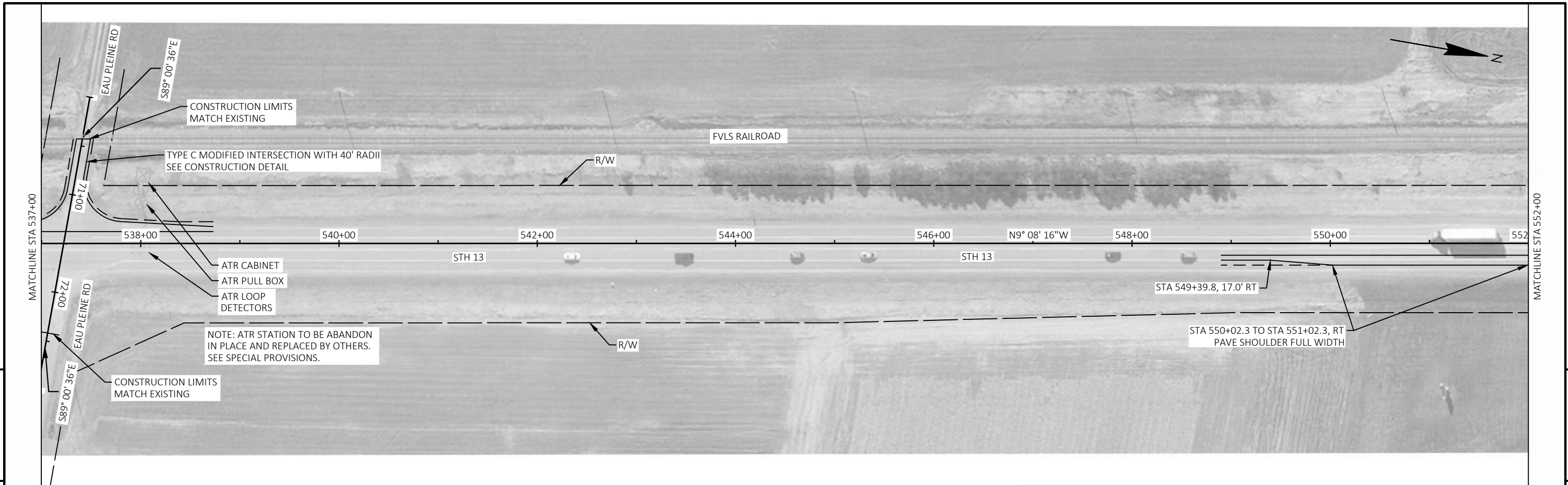
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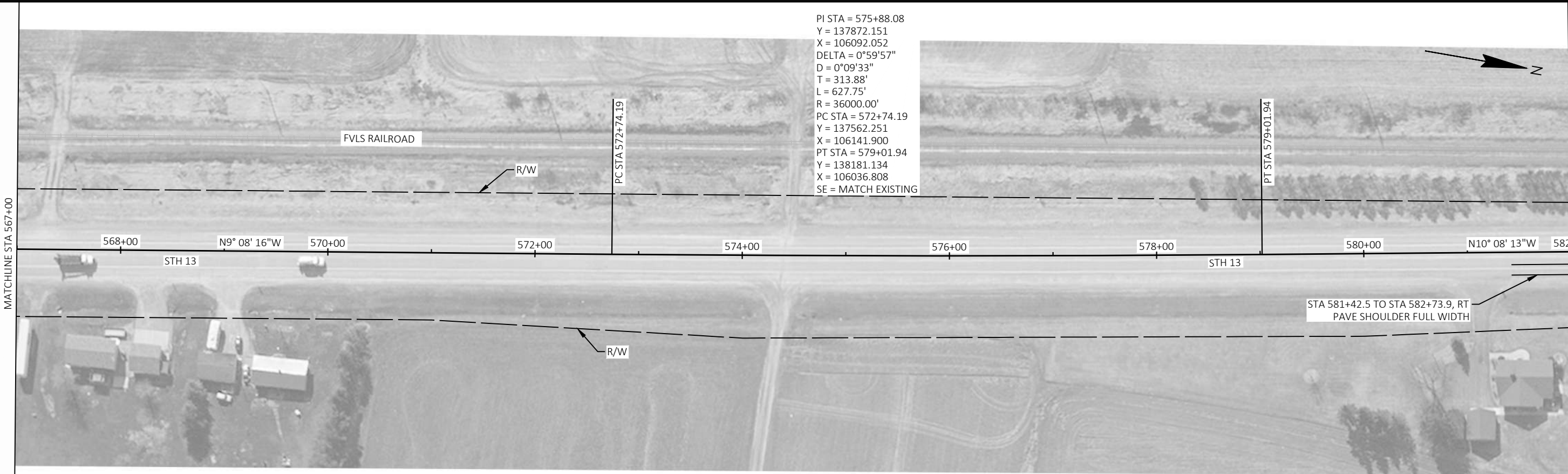
PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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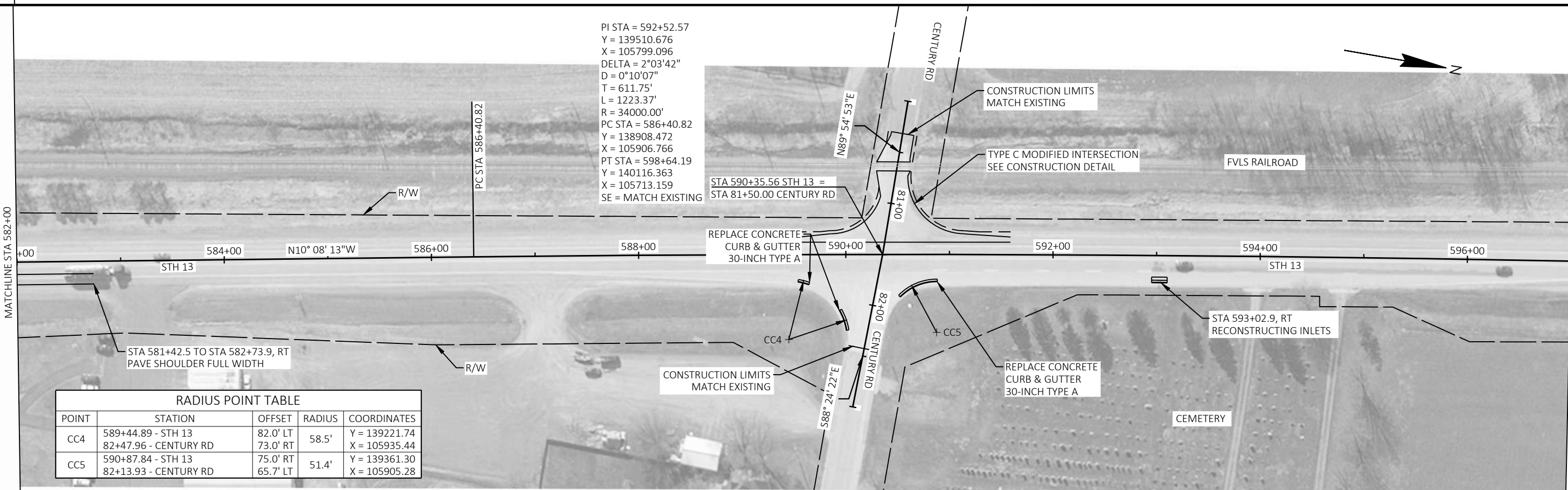
PI STA = 575+88.08  
 Y = 137872.151  
 X = 106092.052  
 DELTA = 0°59'57"  
 D = 0°09'33"  
 T = 313.88'  
 L = 627.75'  
 R = 36000.00'  
 PC STA = 572+74.19  
 Y = 137562.251  
 X = 106141.900  
 PT STA = 579+01.94  
 Y = 138181.134  
 X = 106036.808  
 SE = MATCH EXISTING



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PI STA = 592+52.57  
 Y = 139510.676  
 X = 105799.096  
 DELTA = 2°03'42"  
 D = 0°10'07"  
 T = 611.75'  
 L = 1223.37'  
 R = 34000.00'  
 PC STA = 586+40.82  
 Y = 138908.472  
 X = 105906.766  
 PT STA = 598+64.19  
 Y = 140116.363  
 X = 105713.159  
 SE = MATCH EXISTING



RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC4	589+44.89 - STH 13	82.0' LT	58.5'	Y = 139221.74 X = 105935.44
	82+47.96 - CENTURY RD	73.0' RT		
CC5	590+87.84 - STH 13	75.0' RT	51.4'	Y = 139361.30 X = 105905.28
	82+13.93 - CENTURY RD	65.7' LT		

PROJECT NO: 1620-01-62

HWY: STH 13

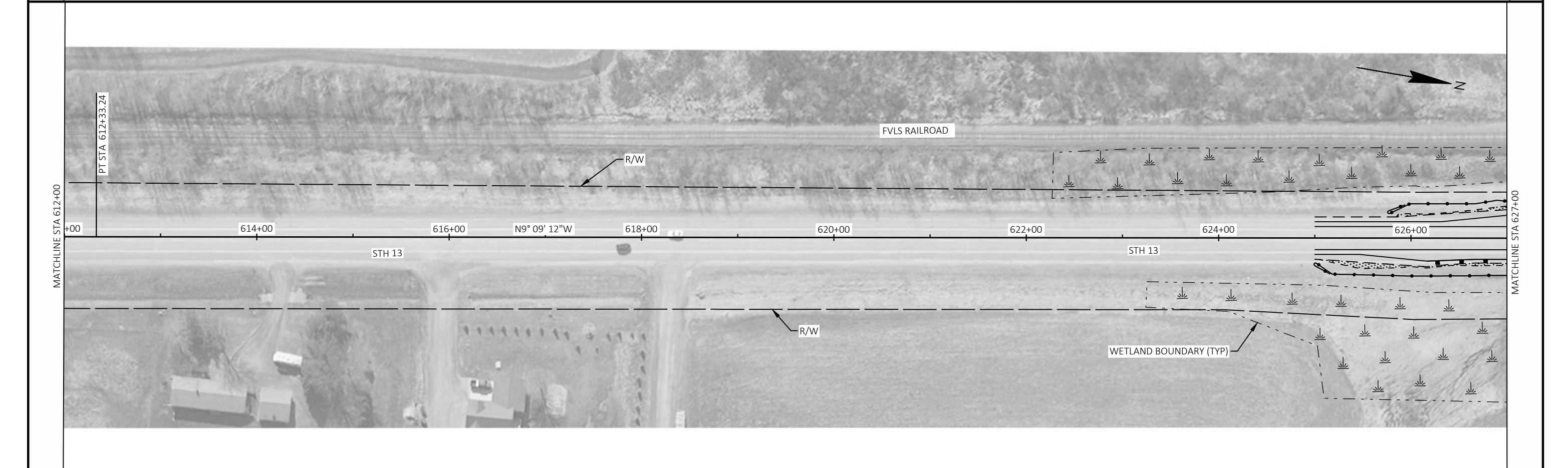
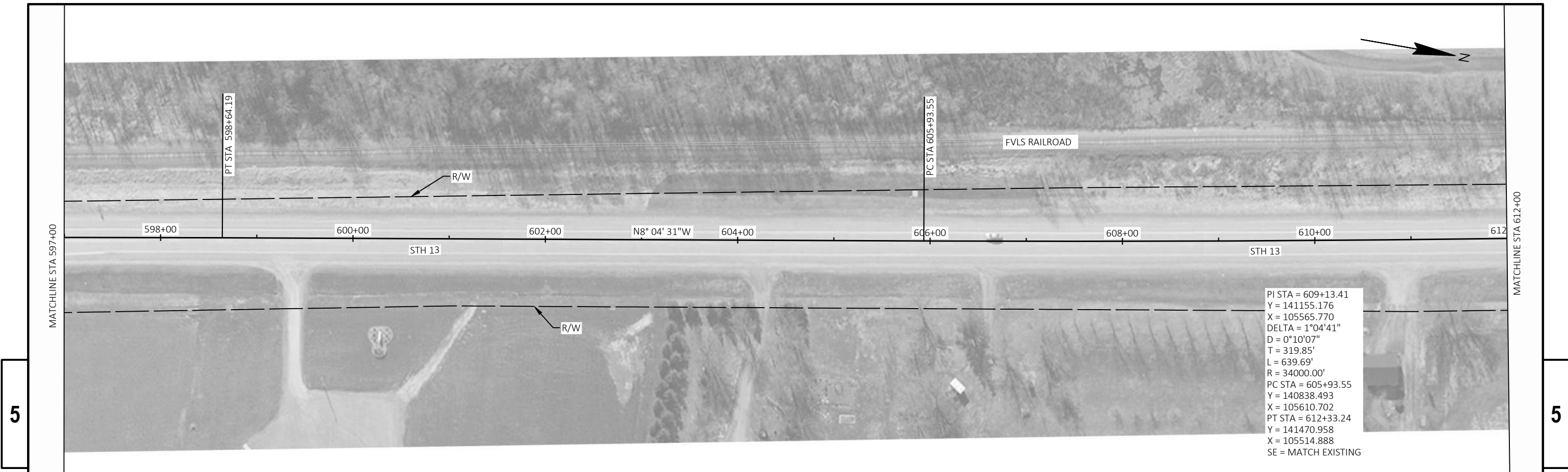
COUNTY: MARATHON

PLAN

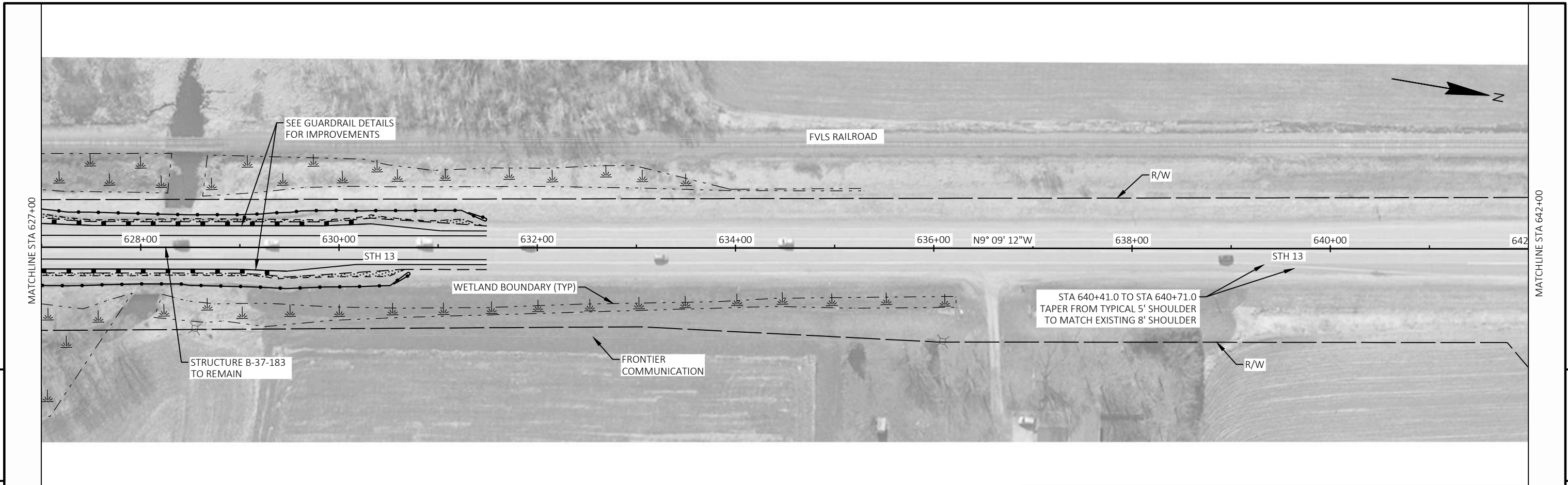
SHEET

E



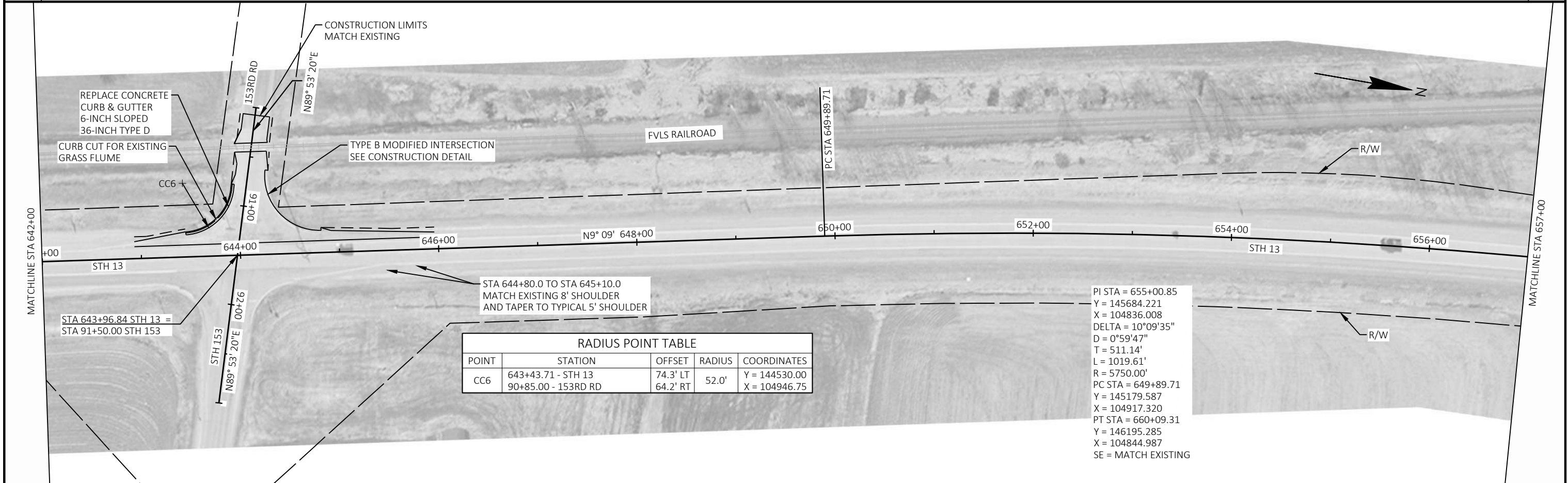


PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      PLAN      SHEET      E



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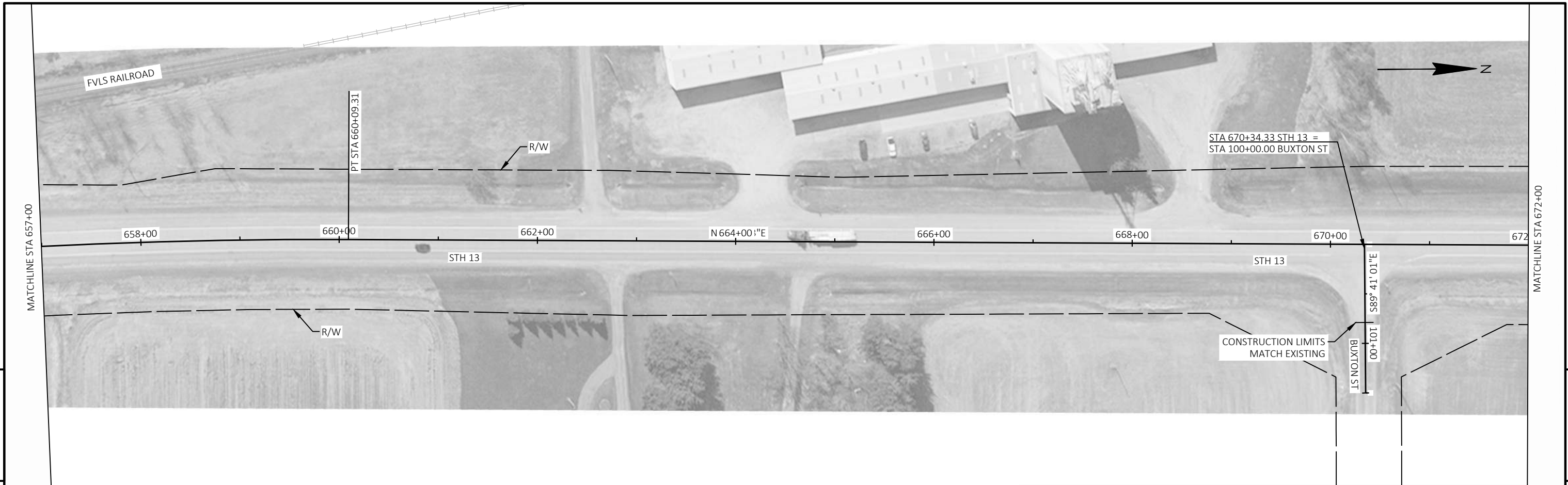
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RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC6	643+43.71 - STH 13	74.3' LT	52.0'	Y = 144530.00
	90+85.00 - 153RD RD	64.2' RT		X = 104946.75

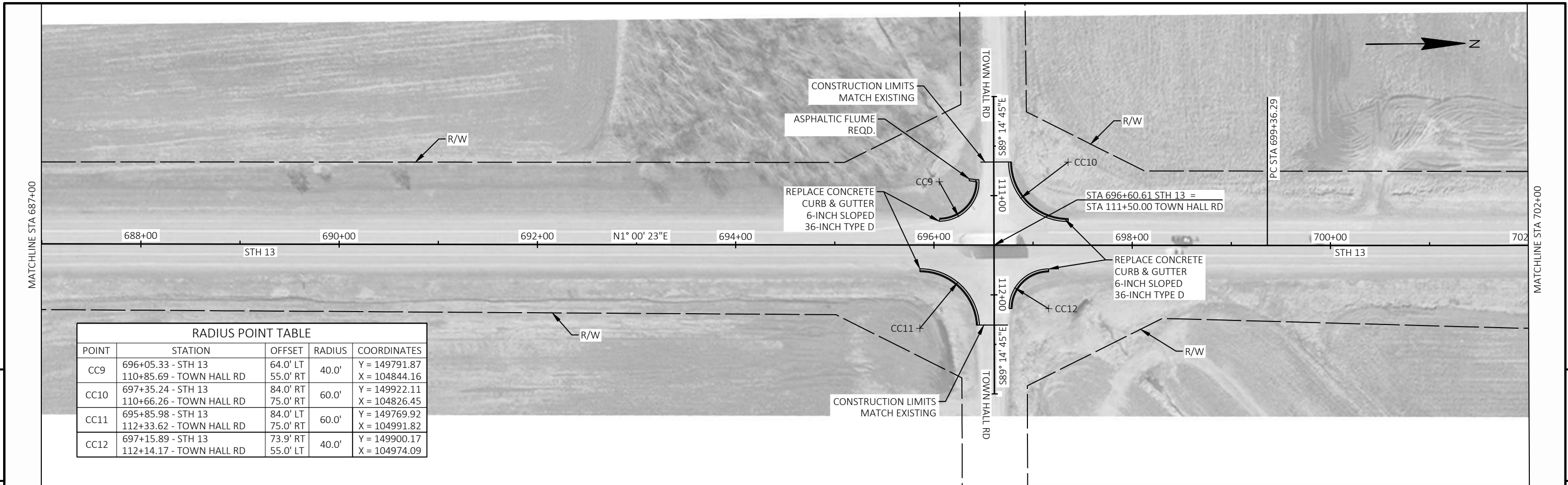
PI STA = 655+00.85  
 Y = 145684.221  
 X = 104836.008  
 DELTA = 10°09'35"  
 D = 0°59'47"  
 T = 511.14'  
 L = 1019.61'  
 R = 5750.00'  
 PC STA = 649+89.71  
 Y = 145179.587  
 X = 104917.320  
 PT STA = 660+09.31  
 Y = 146195.285  
 X = 104844.987  
 SE = MATCH EXISTING





PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	<b>E</b>
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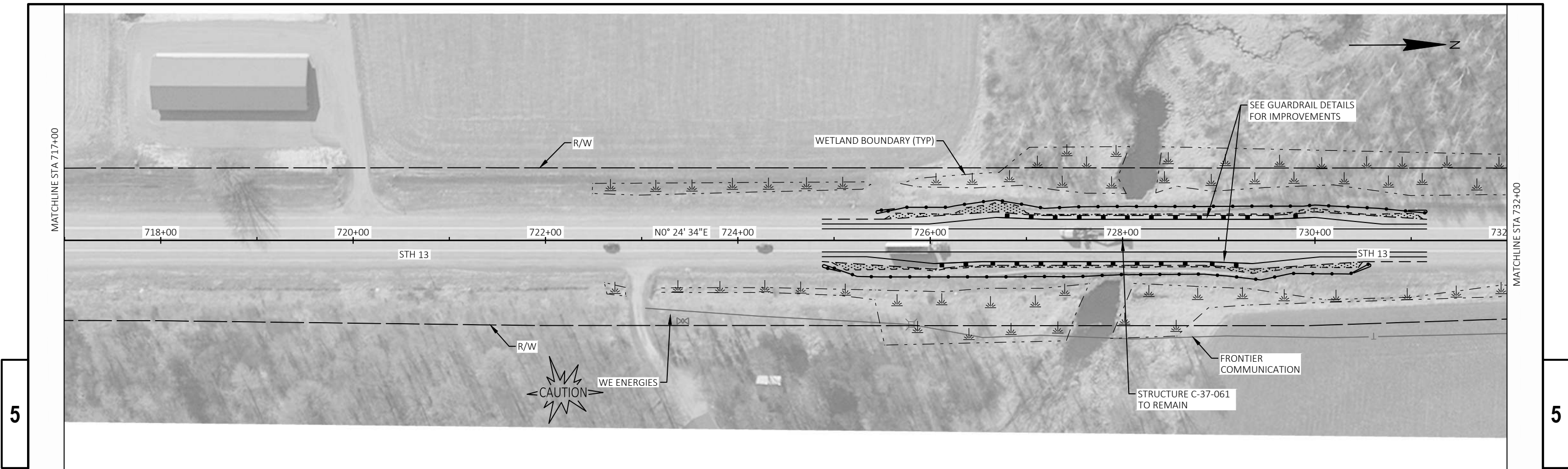




RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC9	696+05.33 - STH 13 110+85.69 - TOWN HALL RD	64.0' LT 55.0' RT	40.0'	Y = 149791.87 X = 104844.16
CC10	697+35.24 - STH 13 110+66.26 - TOWN HALL RD	84.0' RT 75.0' RT	60.0'	Y = 149922.11 X = 104826.45
CC11	695+85.98 - STH 13 112+33.62 - TOWN HALL RD	84.0' LT 75.0' RT	60.0'	Y = 149769.92 X = 104991.82
CC12	697+15.89 - STH 13 112+14.17 - TOWN HALL RD	73.9' RT 55.0' LT	40.0'	Y = 149900.17 X = 104974.09

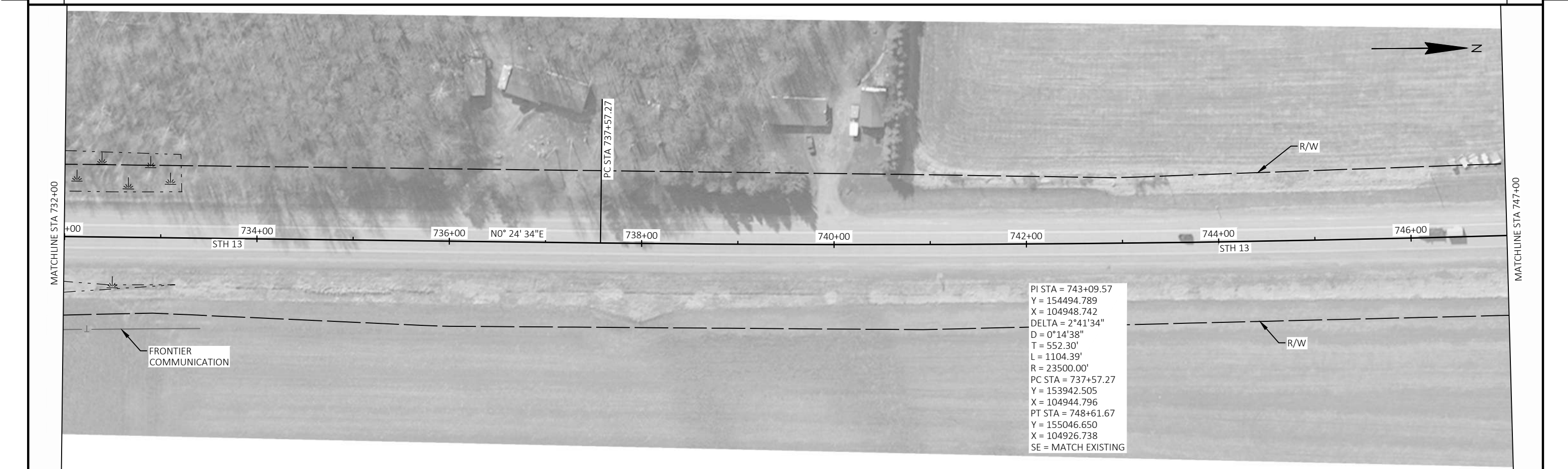
PI STA = 702+75.01  
 Y = 150460.328  
 X = 104919.917  
 DELTA = 0°35'50"  
 D = 0°05'17"  
 T = 338.72'  
 L = 677.44'  
 R = 65000.00'  
 PC STA = 699+36.29  
 Y = 150121.659  
 X = 104913.967  
 PT STA = 706+13.73  
 Y = 150799.040  
 X = 104922.337  
 SE = MATCH EXISTING



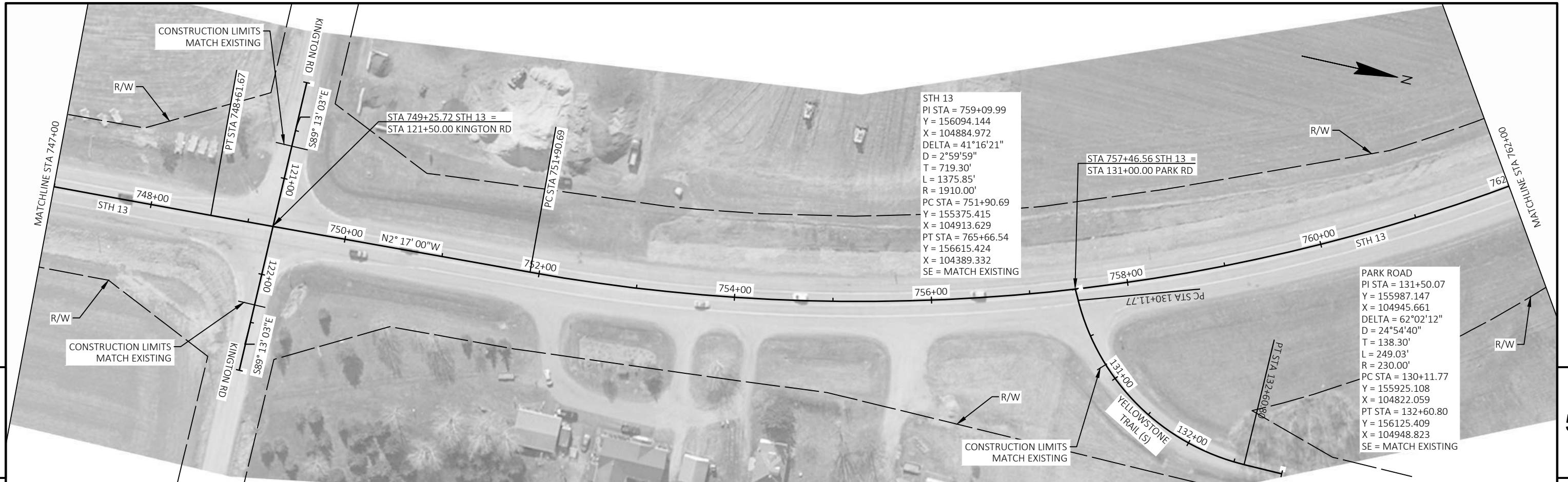


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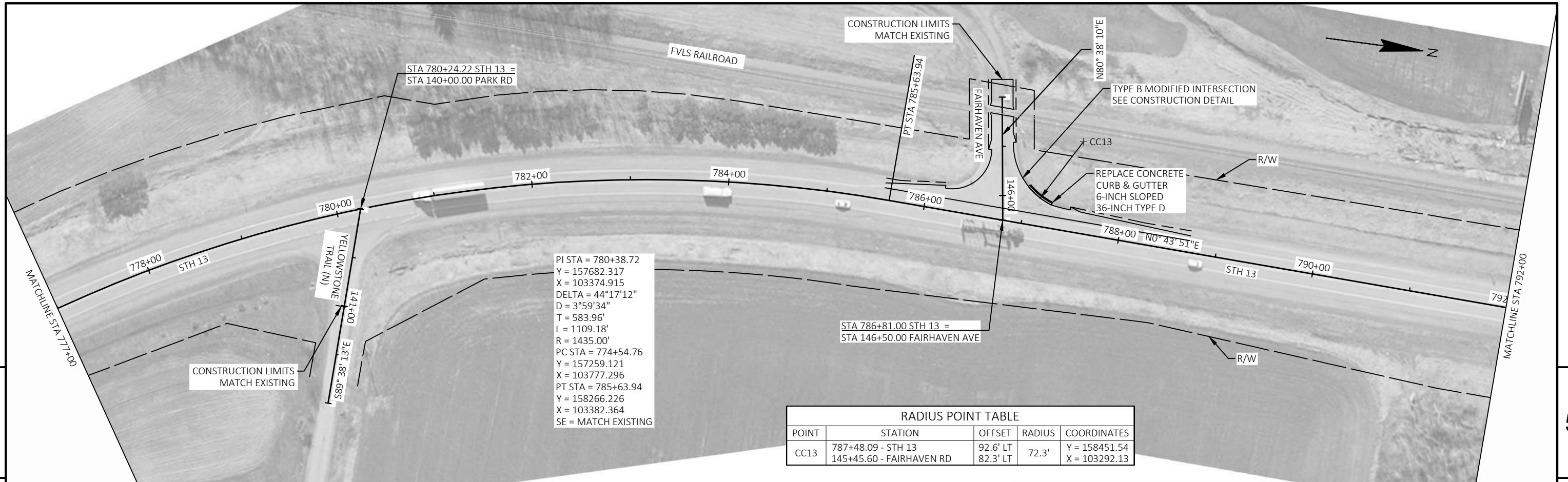
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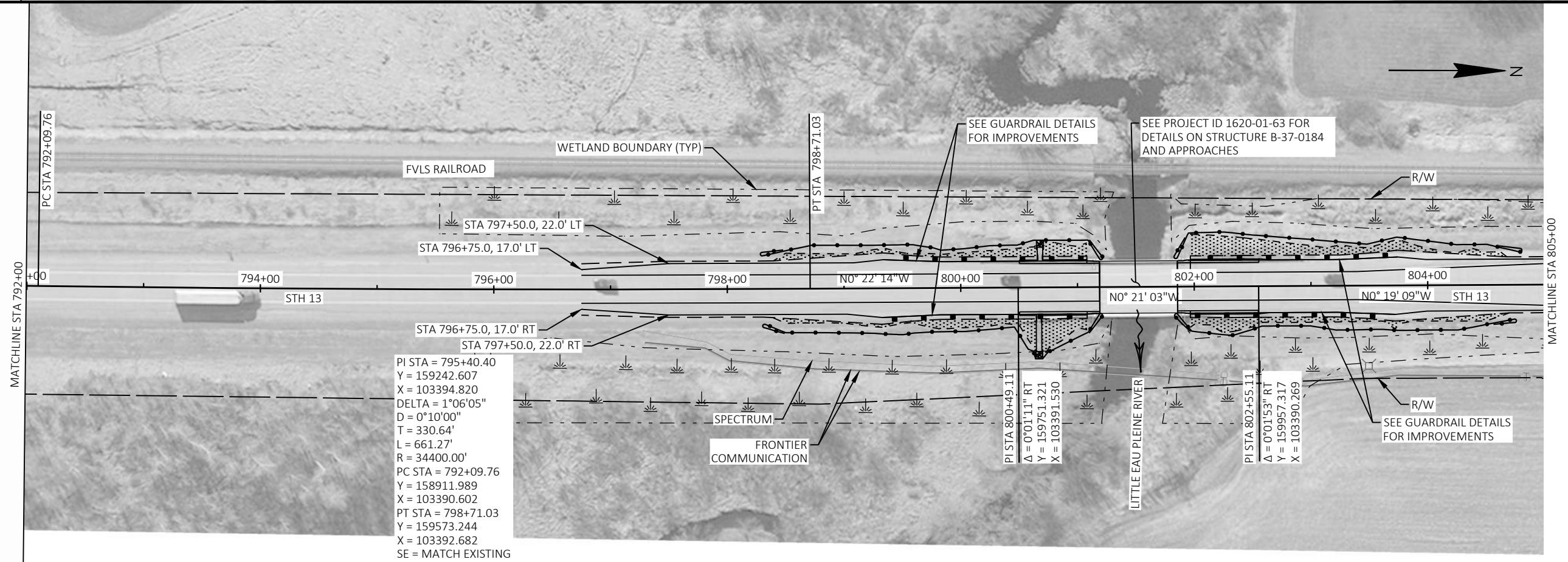


PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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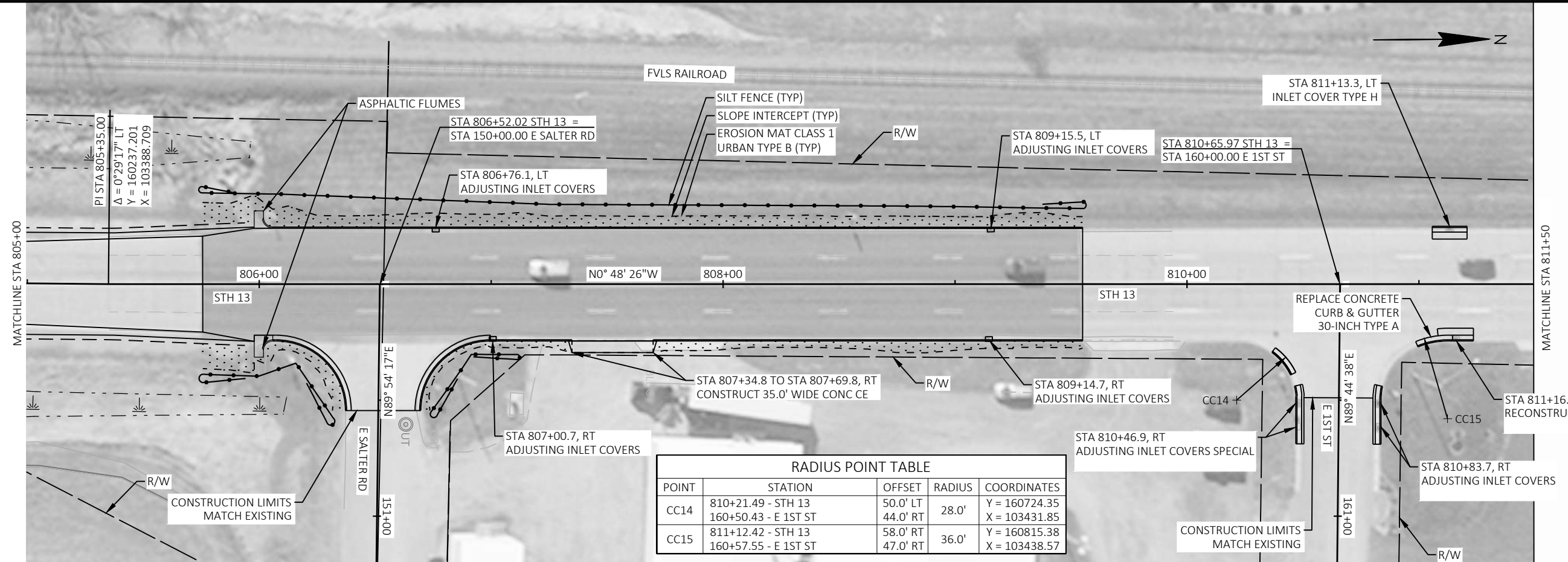
PI STA = 780+38.72  
 Y = 157682.317  
 X = 103374.915  
 DELTA = 44°17'12"  
 D = 3°59'34"  
 T = 583.96'  
 L = 1109.18'  
 R = 1435.00'  
 PC STA = 774+54.76  
 Y = 157259.121  
 X = 103777.296  
 PT STA = 785+63.94  
 Y = 158266.226  
 X = 103382.364  
 SE = MATCH EXISTING

RADIUS POINT TABLE					
POINT	STATION	OFFSET	RADIUS	COORDINATES	
CC13	787+48.09 - STH 13	92.6' LT	72.3'	Y = 158451.54	X = 103292.13
	145+45.60 - FAIRHAVEN RD	82.3' LT			

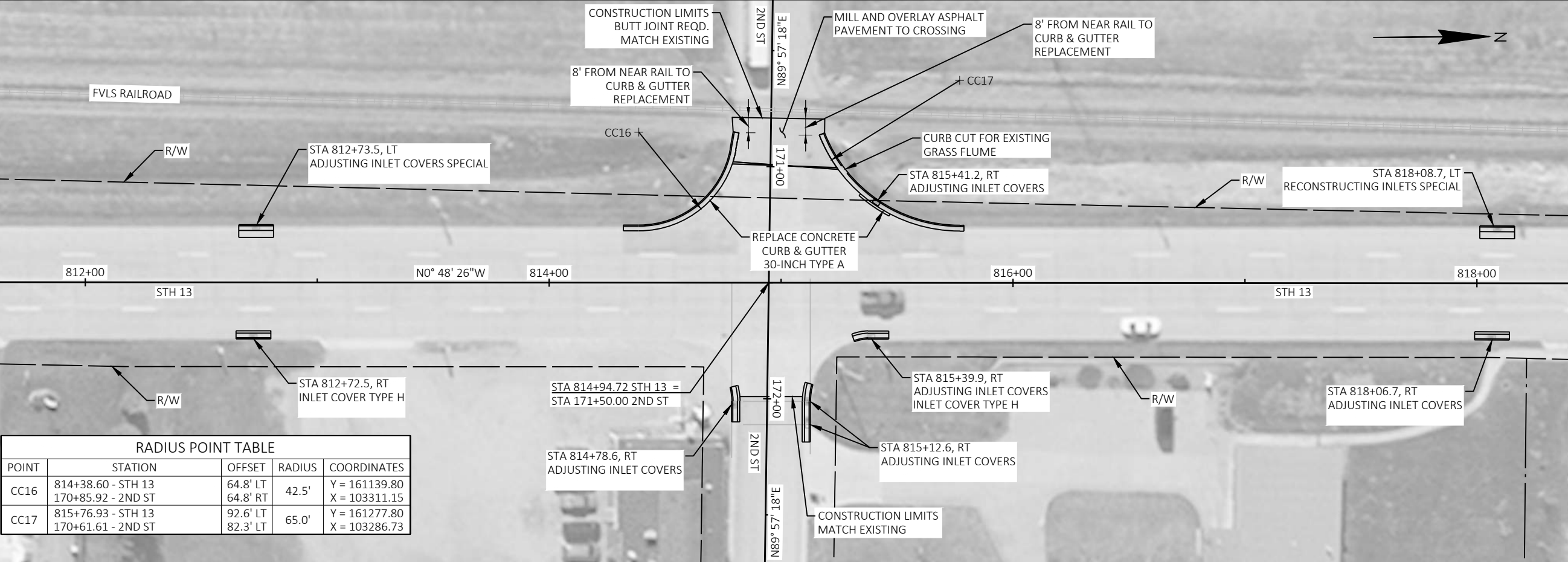


PI STA = 795+40.40  
 Y = 159242.607  
 X = 103394.820  
 DELTA = 1°06'05"  
 D = 0°10'00"  
 T = 330.64'  
 L = 661.27'  
 R = 34400.00'  
 PC STA = 792+09.76  
 Y = 158911.989  
 X = 103390.602  
 PT STA = 798+71.03  
 Y = 159573.244  
 X = 103392.682  
 SE = MATCH EXISTING



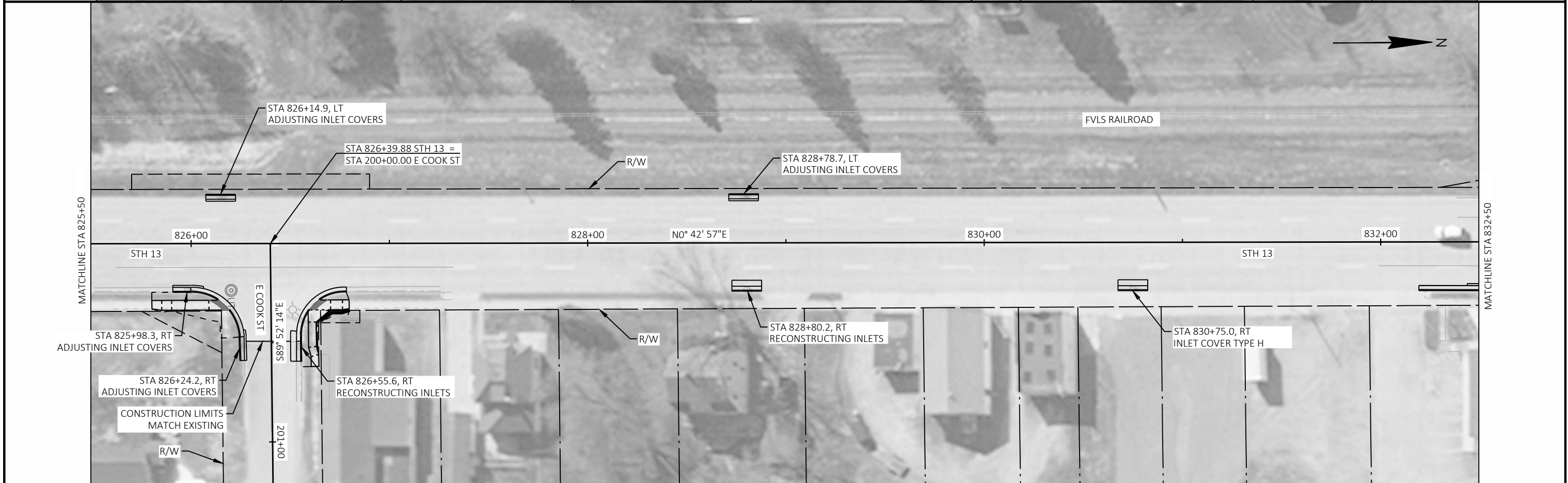
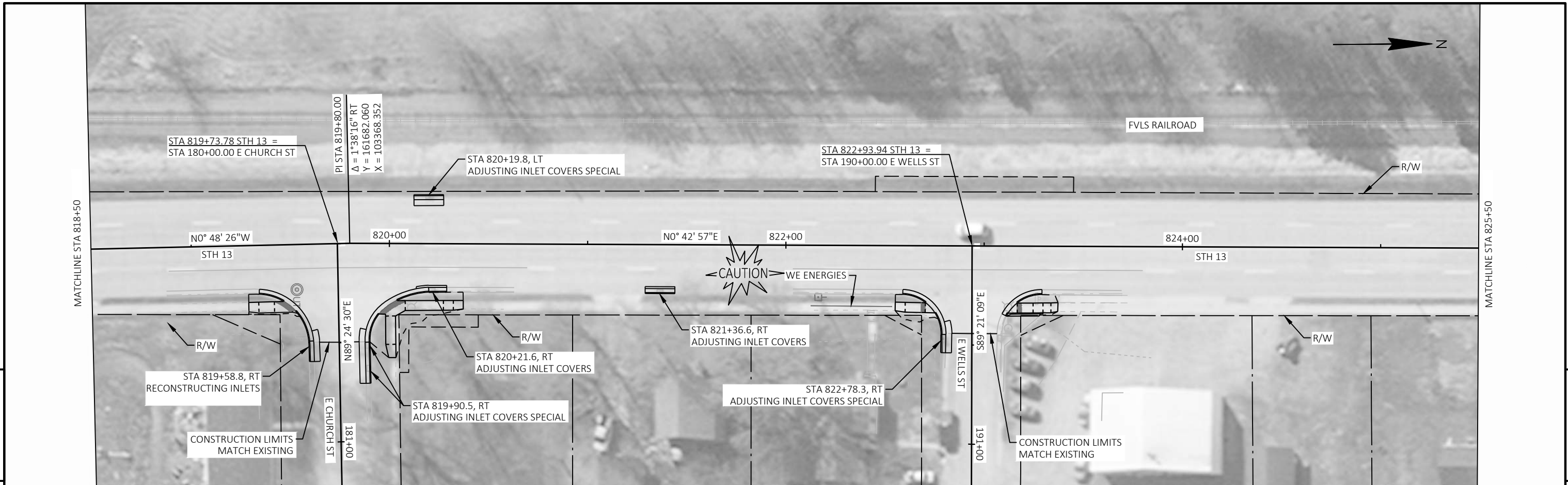


RADIUS POINT TABLE					
POINT	STATION	OFFSET	RADIUS	COORDINATES	
CC14	810+21.49 - STH 13	50.0' LT	28.0'	Y = 160724.35	X = 103431.85
	160+50.43 - E 1ST ST	44.0' RT			
CC15	811+12.42 - STH 13	58.0' RT	36.0'	Y = 160815.38	X = 103438.57
	160+57.55 - E 1ST ST	47.0' RT			

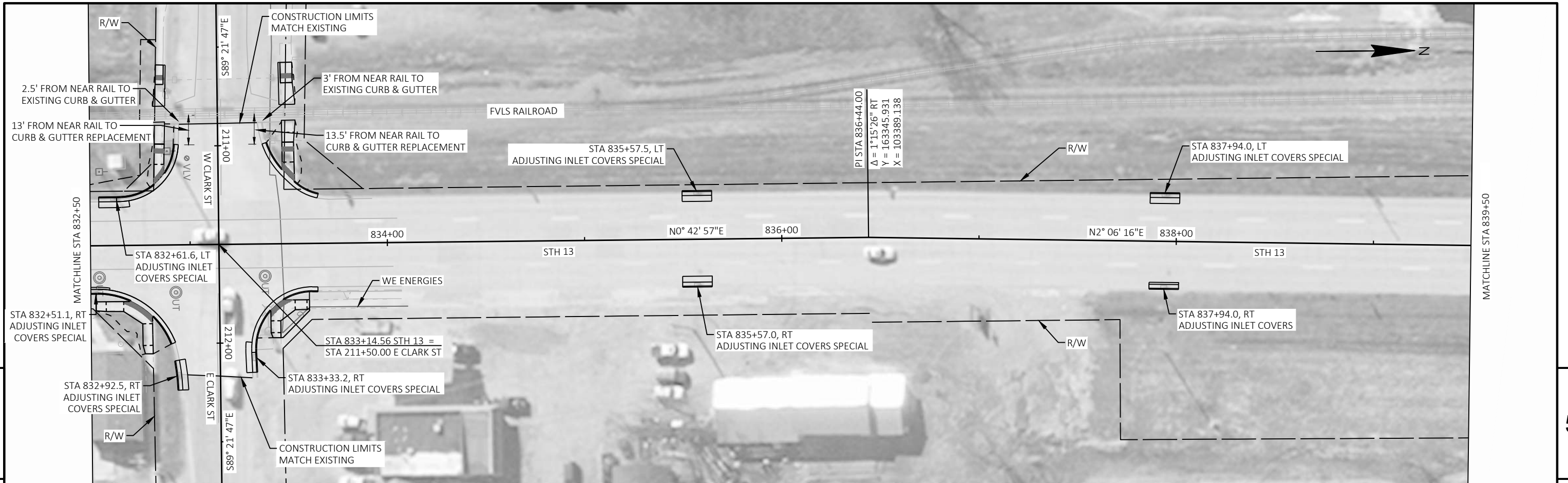


RADIUS POINT TABLE					
POINT	STATION	OFFSET	RADIUS	COORDINATES	
CC16	814+38.60 - STH 13	64.8' LT	42.5'	Y = 161139.80	X = 103311.15
	170+85.92 - 2ND ST	64.8' RT			
CC17	815+76.93 - STH 13	92.6' LT	65.0'	Y = 161277.80	X = 103286.73
	170+61.61 - 2ND ST	82.3' LT			





PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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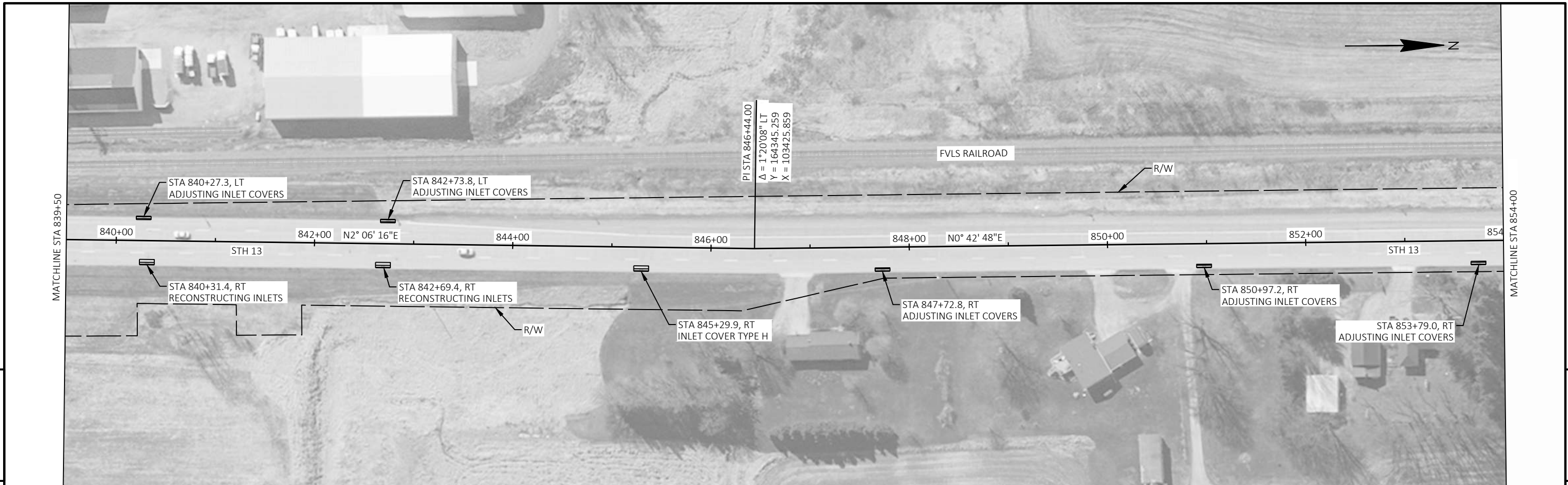


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FILE NAME : X:\PROJECTS\MARATHON\1620-01-02_STH 13_STH 98 TO CTH N\DESIGN\C3D\SHEETSPLAN\050201-PN.DWG		PLOT DATE : 7/25/2023 12:50 PM		PLOT BY : ANDY BLOCK	
LAYOUT NAME - STH 13 - (15)		PLOT NAME :		PLOT SCALE : 1 IN:50 FT	
WISDOT/CADD SHEET 44					



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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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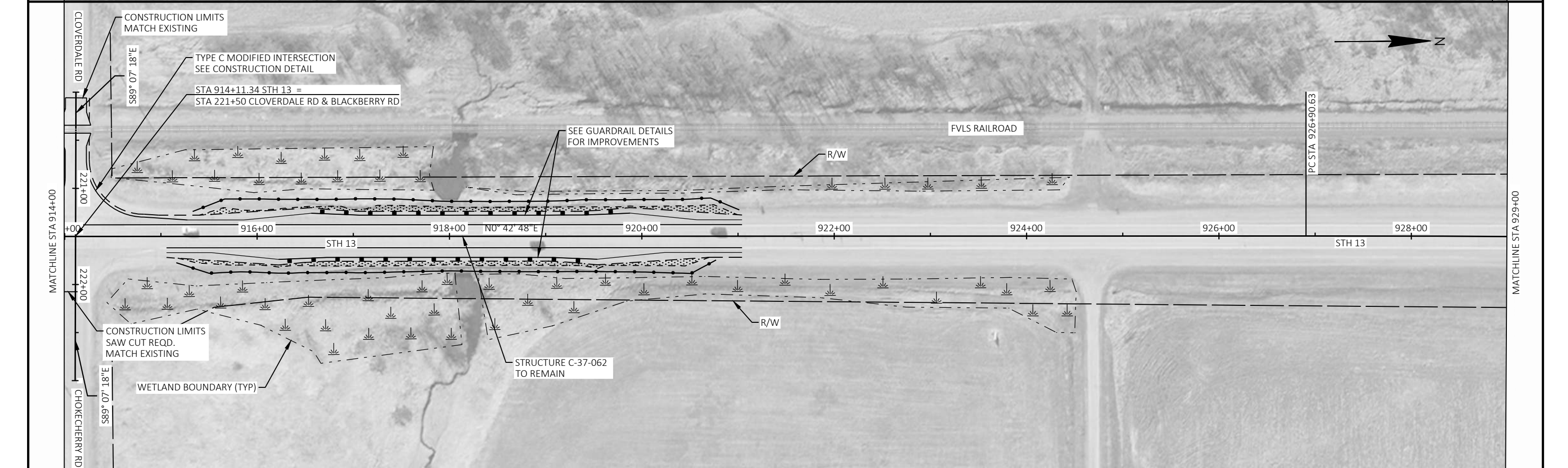




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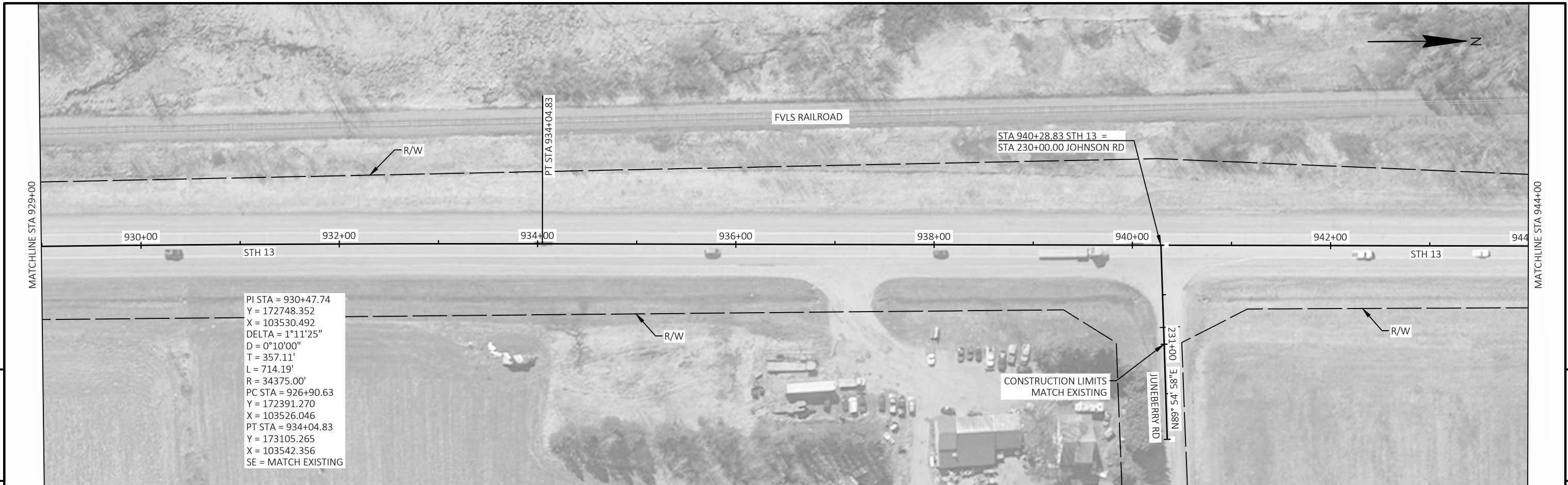
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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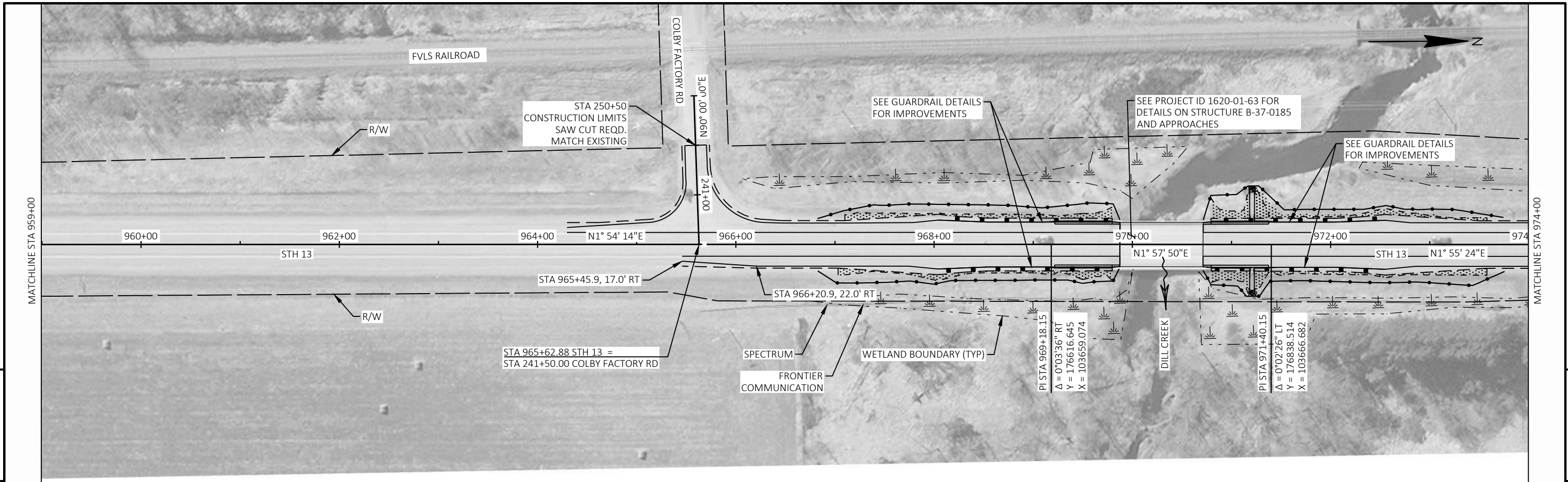


PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	<b>E</b>
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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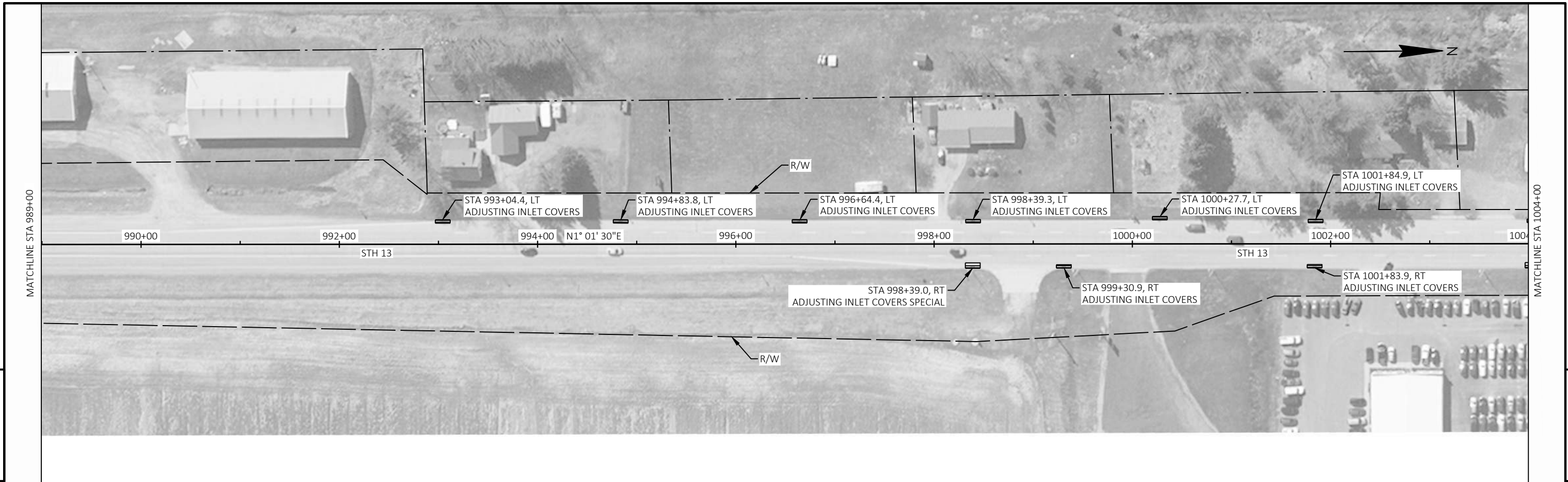


MATCHLINE STA 974+00

MATCHLINE STA 989+00

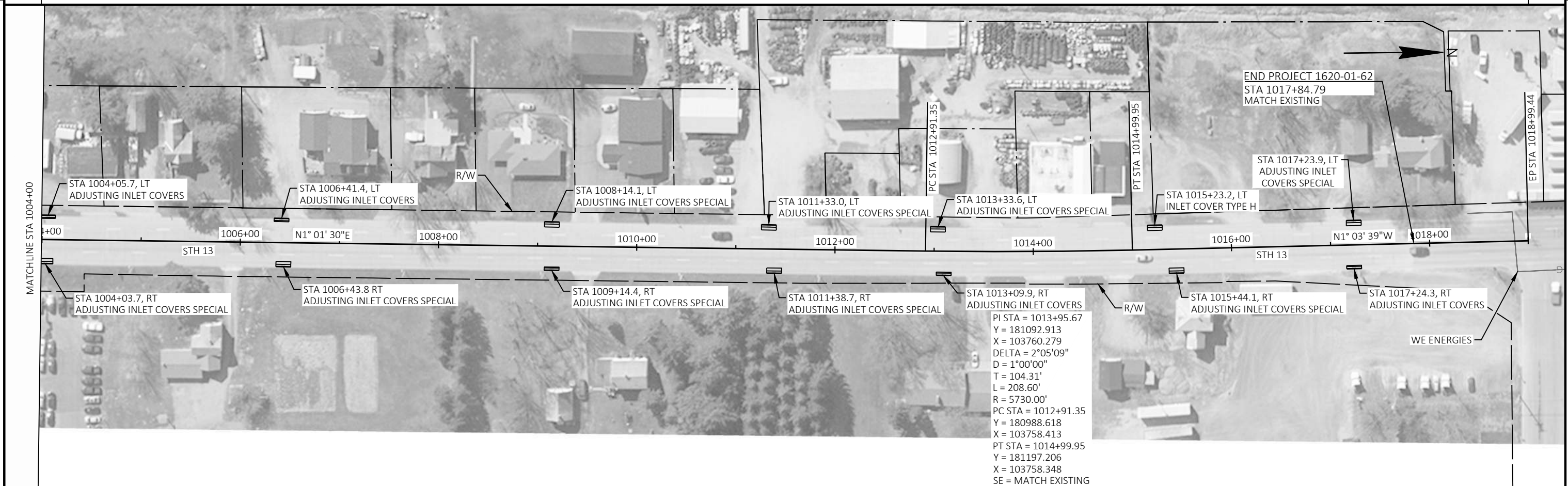
PROJECT NO: 1620-01-62 & 1620-01-63	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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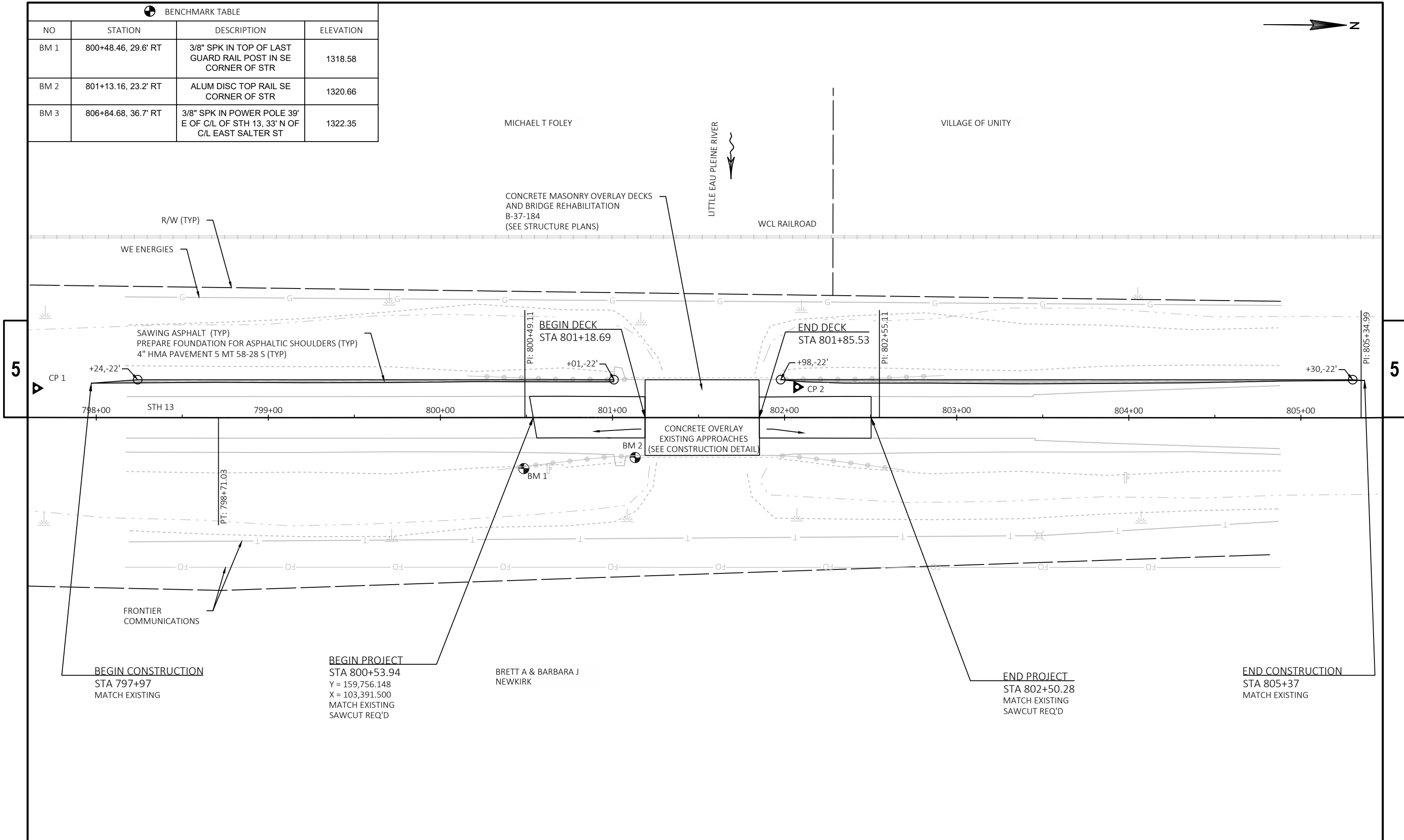
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	PLAN	SHEET	E
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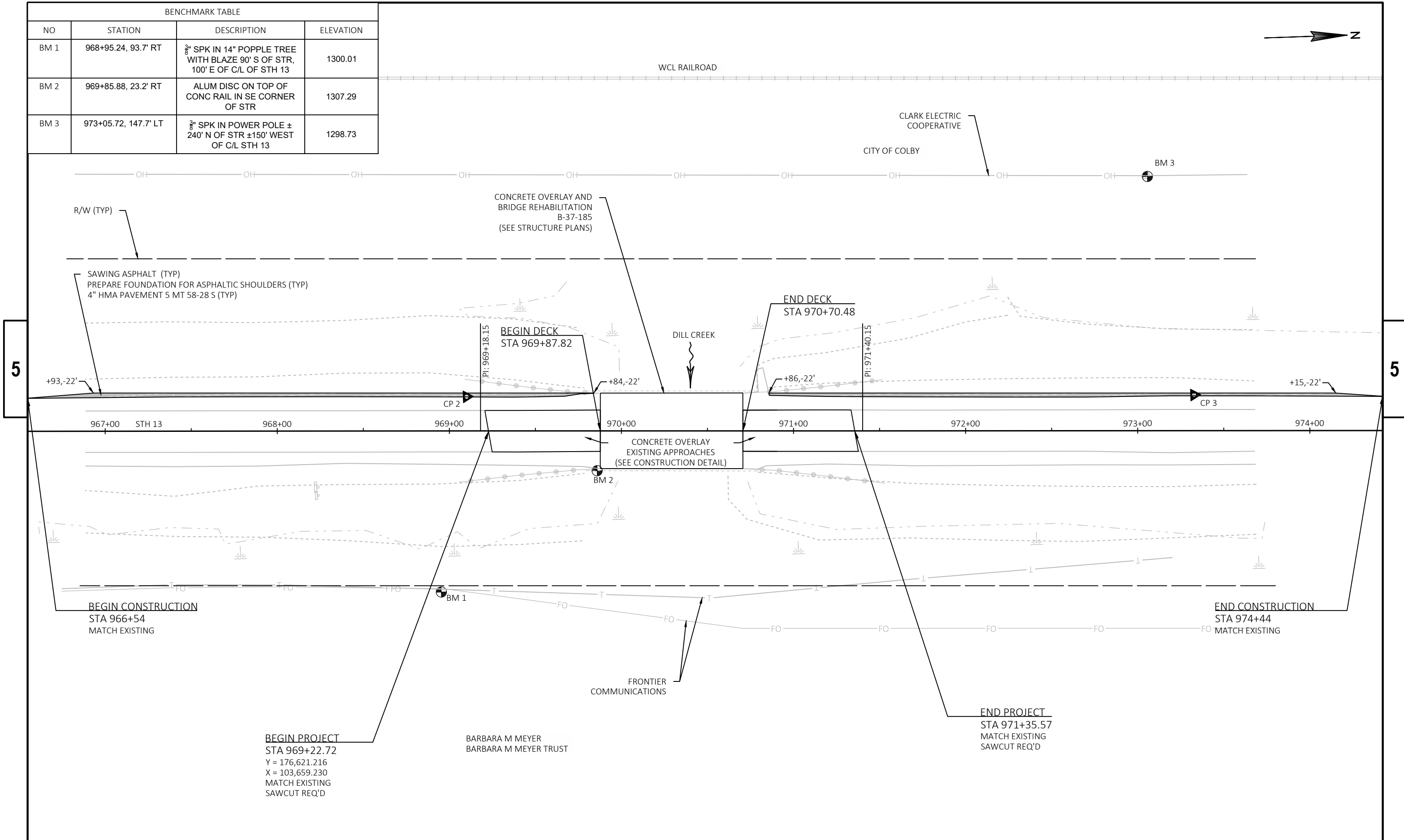
BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
BM 1	800+48.46, 29.6' RT	3/8" SPK IN TOP OF LAST GUARD RAIL POST IN SE CORNER OF STR	1318.58
BM 2	801+13.16, 23.2' RT	ALUM DISC TOP RAIL SE CORNER OF STR	1320.66
BM 3	806+84.68, 36.7' RT	3/8" SPK IN POWER POLE 39' E OF C/L OF STH 13, 33' N OF C/L EAST SALTER ST	1322.35



PROJECT NO: 1620-01-63	HWY: STH 13	COUNTY: MARATHON	PLAN: B-37-184	SHEET	E
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BENCHMARK TABLE			
NO	STATION	DESCRIPTION	ELEVATION
BM 1	968+95.24, 93.7' RT	$\frac{3}{8}$ " SPK IN 14" POPPLE TREE WITH BLAZE 90' S OF STR, 100' E OF C/L OF STH 13	1300.01
BM 2	969+85.88, 23.2' RT	ALUM DISC ON TOP OF CONC RAIL IN SE CORNER OF STR	1307.29
BM 3	973+05.72, 147.7' LT	$\frac{3}{8}$ " SPK IN POWER POLE $\pm$ 240' N OF STR $\pm$ 150' WEST OF C/L STH 13	1298.73



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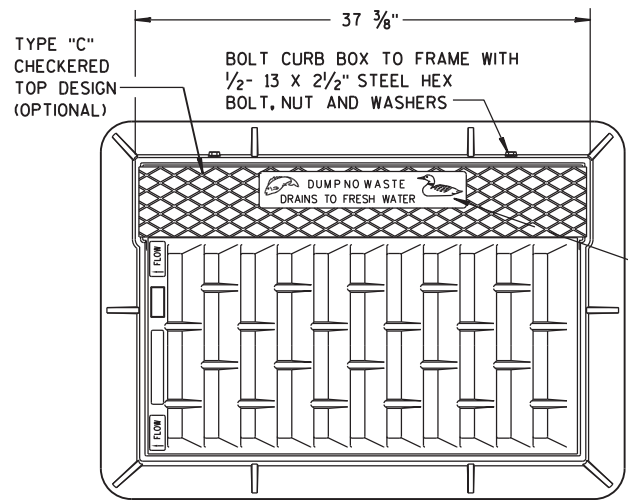
PROJECT NO: 1620-01-63	HWY: STH 13	COUNTY: MARATHON	PLAN: B-37-185	SHEET	E
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## Standard Detail Drawing List

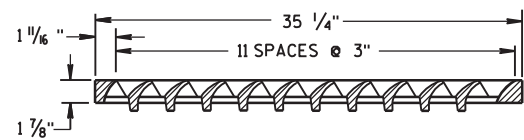
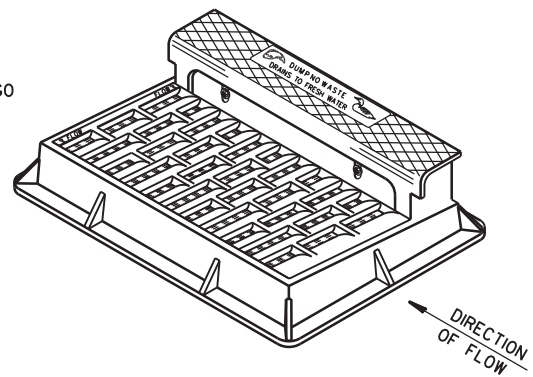
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13B01-11A	PAVEMENT DETAILS FOR RAILROAD APPROACH
13B01-11B	TYPICAL SECTIONS FOR RAILWAY APPROACH
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-17A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-14A	RURAL DOWELED CONCRETE PAVEMENT
13C11-14B	RURAL DOWELED CONCRETE PAVEMENT
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

## Standard Detail Drawing List

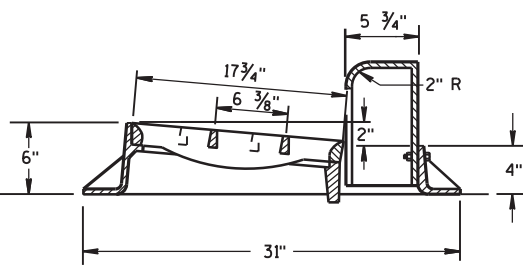
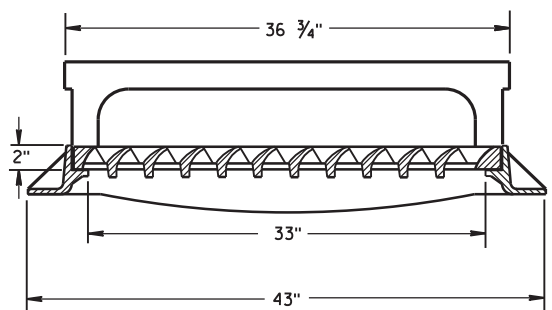
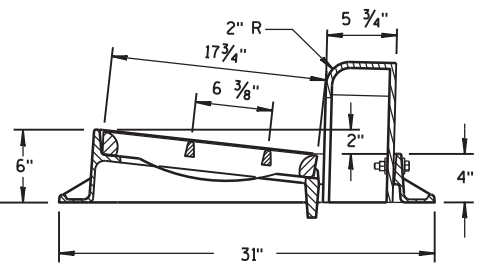
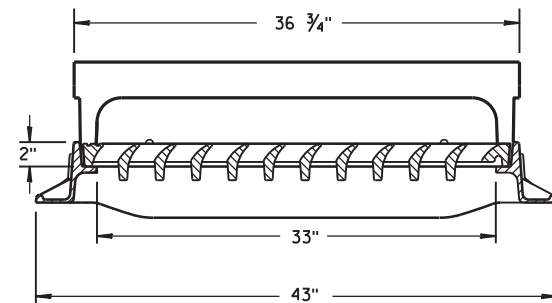
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-08B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D06-06	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D20-07A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D20-07C	TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D33-09	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D43-02	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D50-03A	TRAFFIC CONTROL, ADDED LANE CLOSURE WITHOUT LANE SHIFT
15D50-03B	TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



**NOTE:  
GRATE IS REVERSIBLE.**

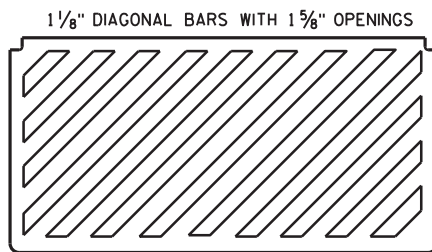


**NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"**

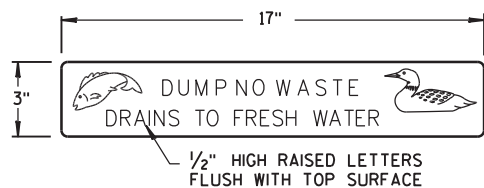


**TYPE "H"**

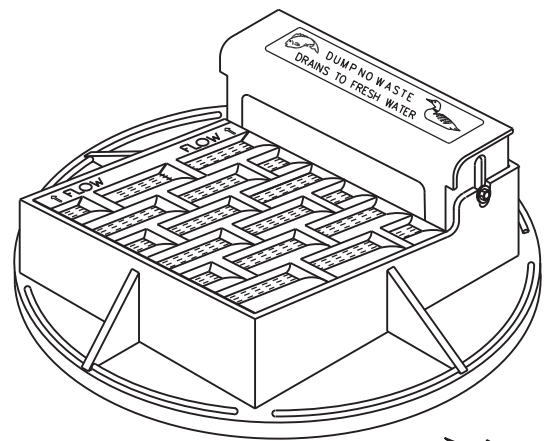
**NOTE: EITHER CASTING IS ACCEPTABLE**



**SPECIAL GRATE FOR  
TYPE "H" COVER**  
(MEASURES 35 1/4" X 17 3/4" X 2")  
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

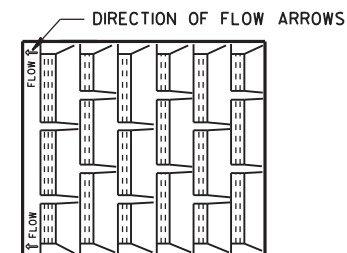


**LOGO DETAIL**

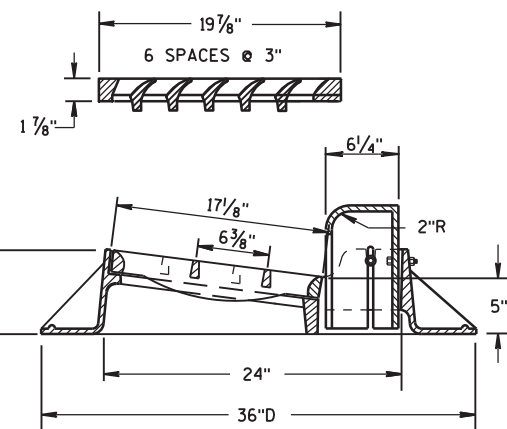
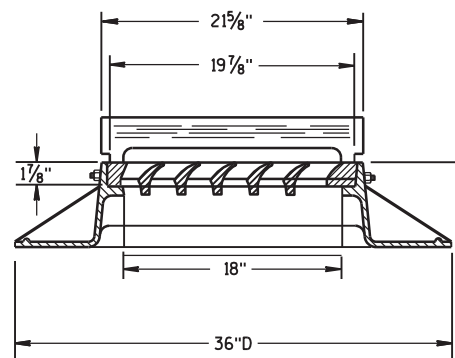


**NOTE: CURB BOX ADJUSTABLE 4" TO 9"**

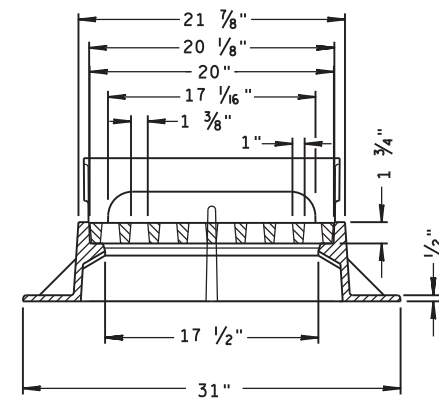
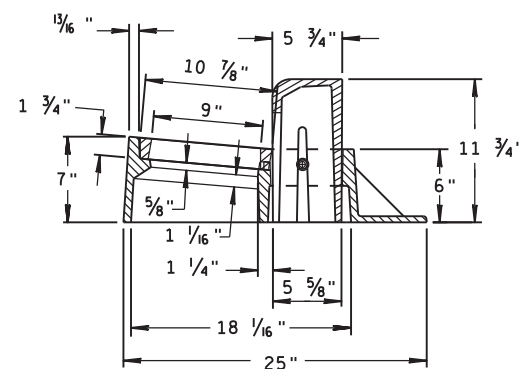
**NOTE:  
GRATE IS REVERSIBLE.**



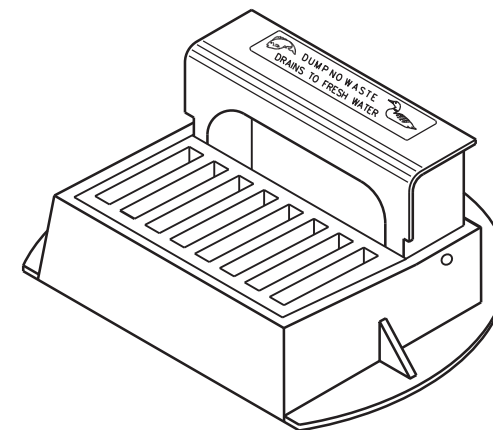
**SPECIAL GRATE FOR  
TYPE "A" COVER**  
(MEASURES 19 3/4" X 17" X 1 1/8")  
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



**TYPE "A"**



**TYPE "Z"**

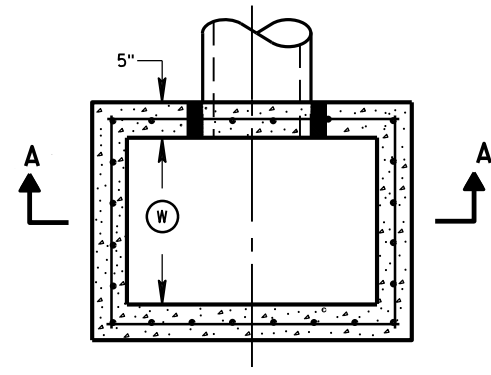


**INLET COVERS  
TYPE A, H, A-S, H-S & Z**

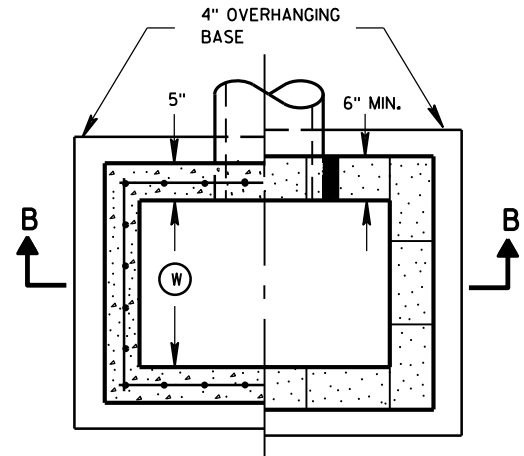
**STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION**

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

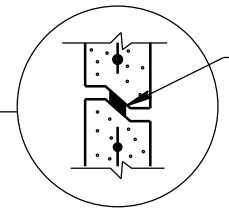




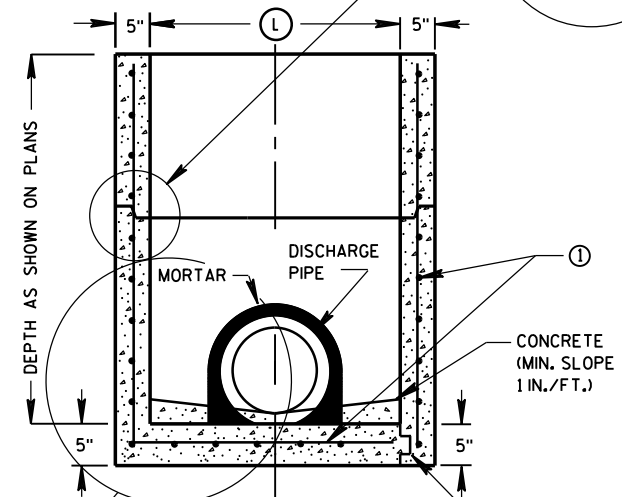
PLAN VIEW



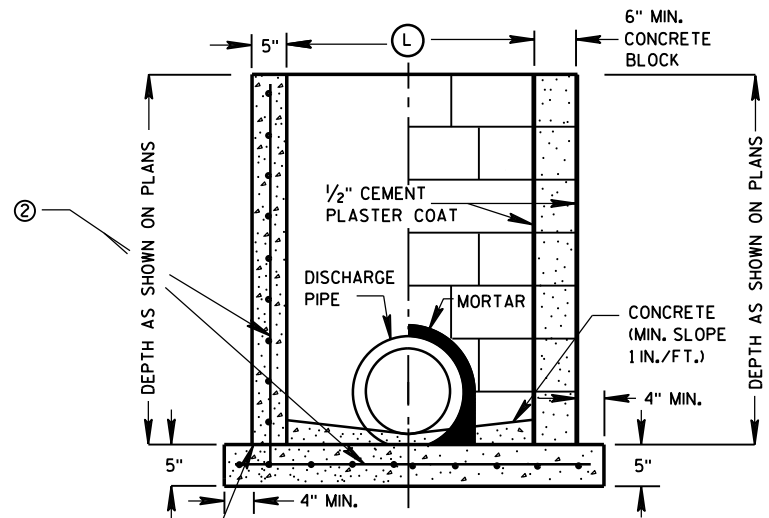
PLAN VIEW



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



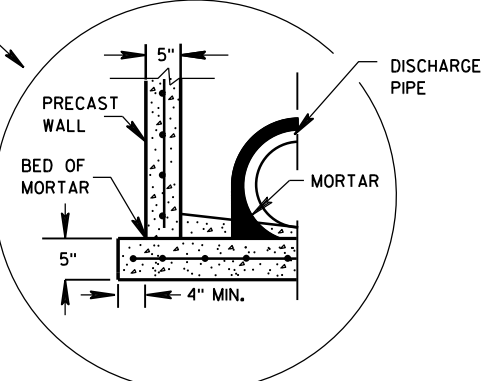
SECTION A-A



SECTION B-B

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE  
 PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE  
 KEYWAY

CONSTRUCTION JOINT  
 CAST-IN-PLACE REINFORCED CONCRETE  
 CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ①



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

**GENERAL NOTES**

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

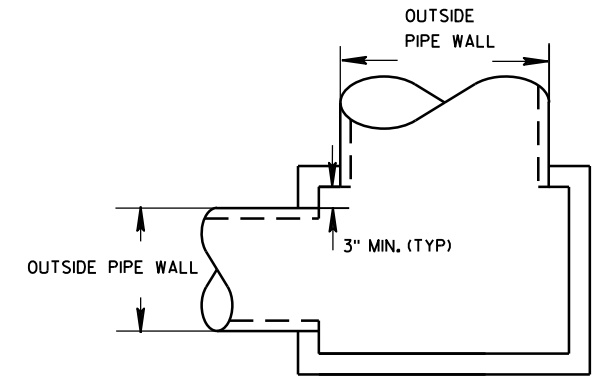
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

**INLET COVER MATRIX**

INLET SIZE	INLET COVER TYPE		ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

**PIPE MATRIX**

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



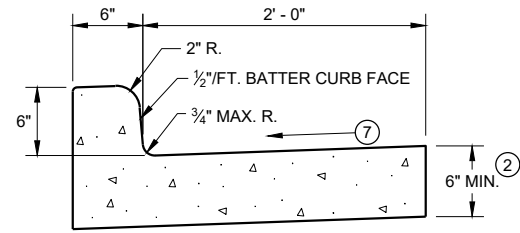
DETAIL "A"

**INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT**

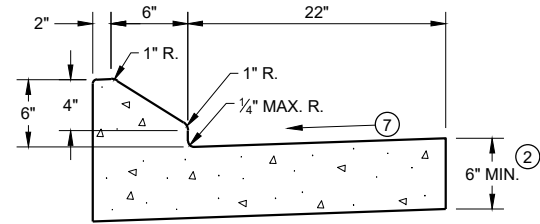
**INLETS 2X2-FT, 2X2.5-FT,  
2X3-FT AND 2.5X3-FT**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

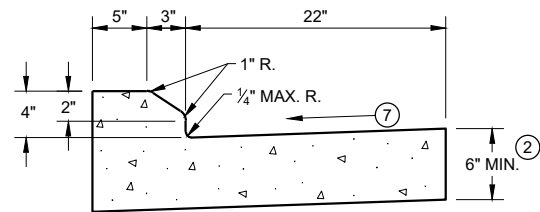
APPROVED  
 Sept., 2016 /S/ Rodney Taylor  
 DATE ROADWAY STANDARDS DEVELOPMENT  
 FHWA UNIT SUPERVISOR



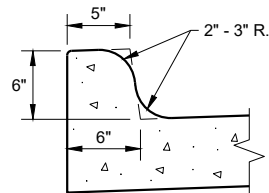
**TYPES A<sup>1</sup> & D**



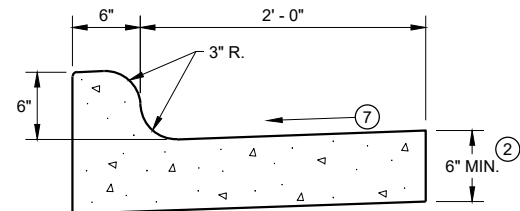
**6" SLOPED CURB TYPES G<sup>1</sup> & J**



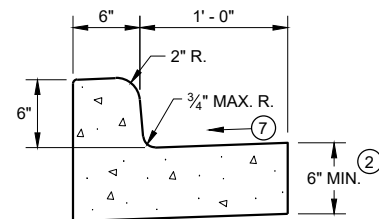
**4" SLOPED CURB TYPES G<sup>1</sup> & J**



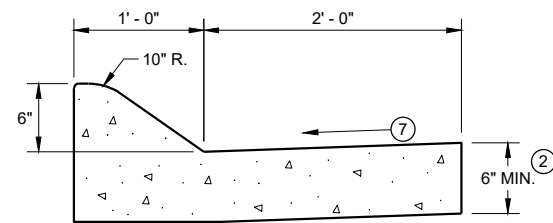
**TYPES K<sup>1</sup> & L**  
(OPTIONAL CURB SHAPE)



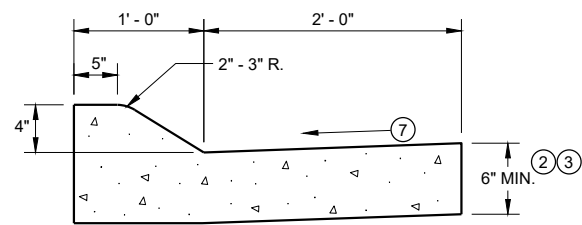
**TYPES K<sup>1</sup> & L**  
**CONCRETE CURB AND GUTTER 30"**



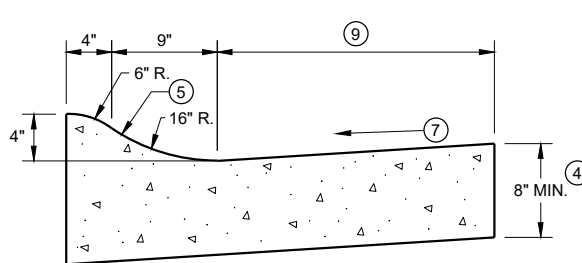
**TYPES A<sup>1</sup> & D**  
**CONCRETE CURB AND GUTTER 18"**



**6" SLOPED CURB TYPES A<sup>1</sup> & D**

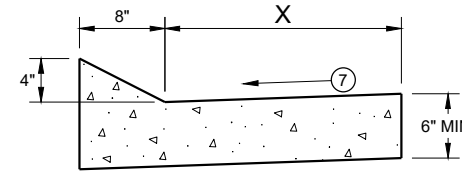


**4" SLOPED CURB TYPES A<sup>1</sup> & D**  
**CONCRETE CURB AND GUTTER 36"**



**4" SLOPED CURB TYPES R<sup>1</sup> & T**

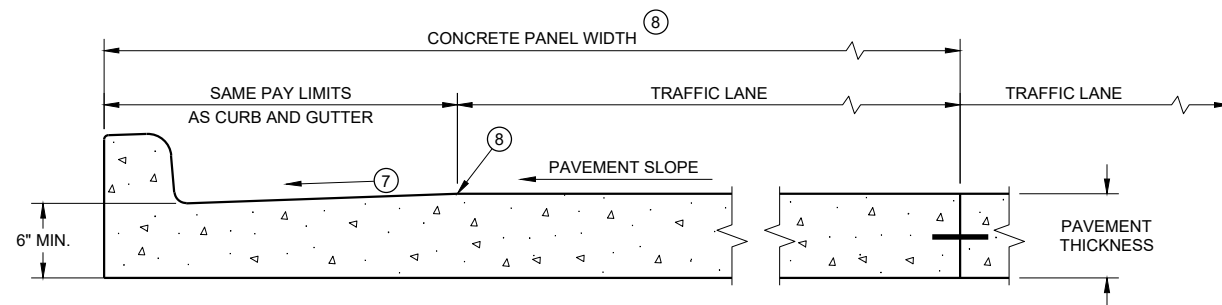
TBT & TBTT	X
30"	22"
36"	28"



**TYPES TBT & TBTT<sup>1</sup>**  
**CONCRETE CURB AND GUTTER**

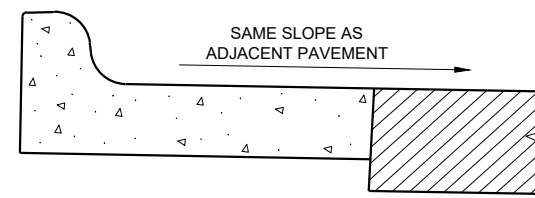
**PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE**

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



**PARTIAL SECTION OF PAVEMENT\* WITH INTEGRAL CURB AND GUTTER**

\* BIKE LANE IS NOT SHOWN



**REVERSE SLOPE GUTTER<sup>6</sup>**  
(TYPICAL FOR ALL CURB & GUTTER TYPES)

**GENERAL NOTES**

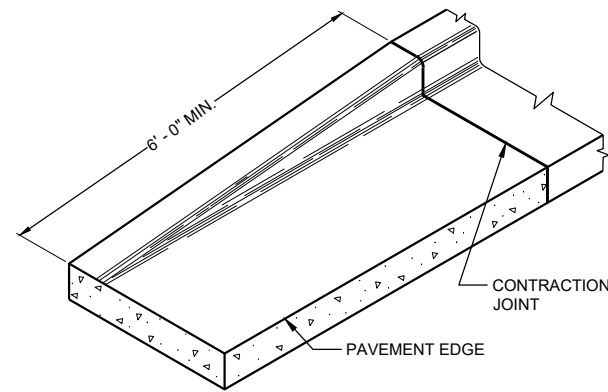
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

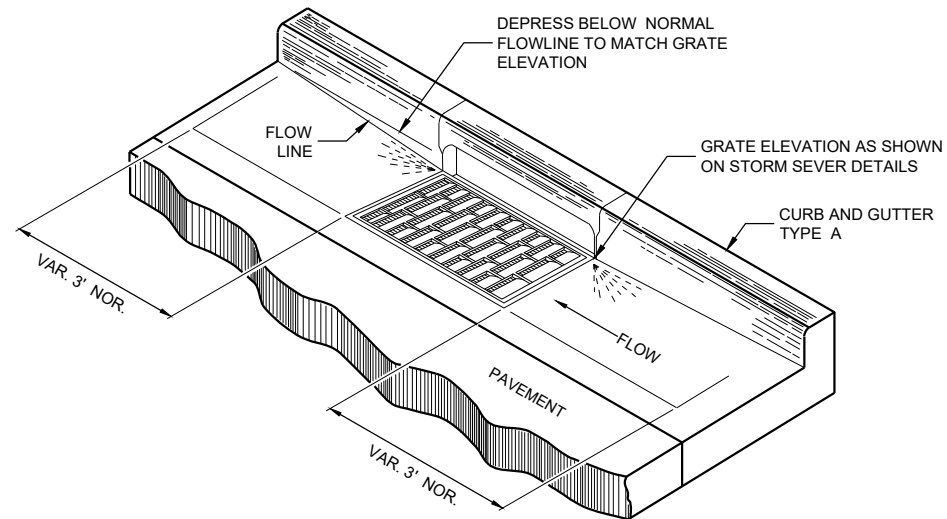
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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 GUTTERS 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 UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES 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.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES  
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



**END SECTION CURB AND GUTTER**



**DETAIL OF CURB AND GUTTER AT INLETS**

(TYPICAL H INLET COVER SHOWN)

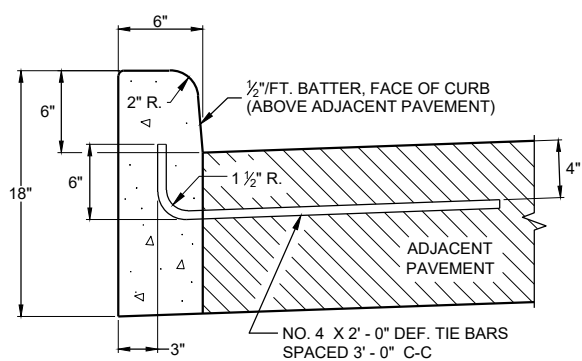
**GENERAL NOTES**

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

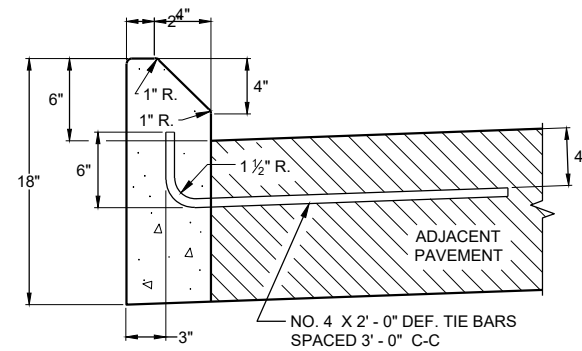
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

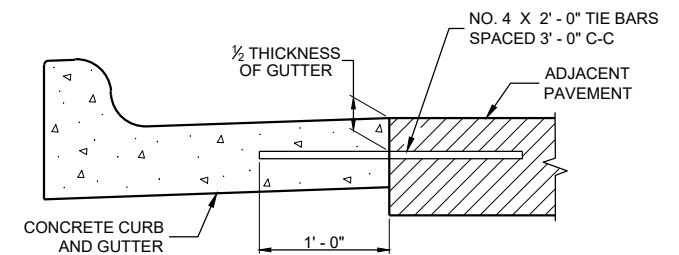
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



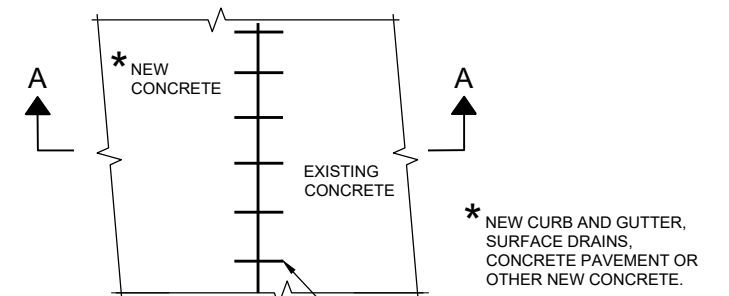
**TYPES A<sup>①</sup> & D**



**TYPES G<sup>①</sup> & J  
CONCRETE CURB**

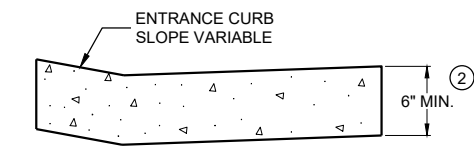


**TYPICAL TIE BAR LOCATION<sup>①</sup>**

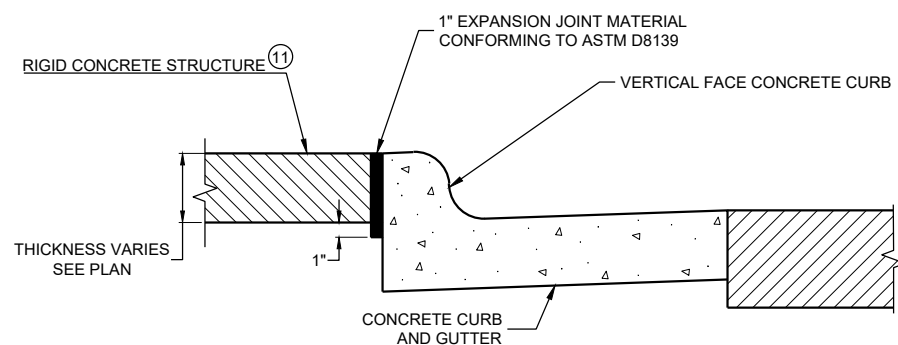


**PLAN VIEW**

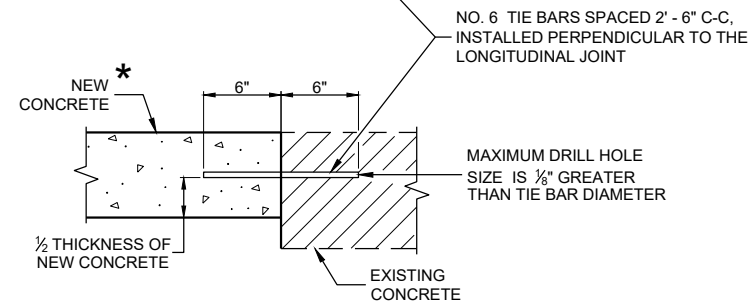
\* NEW CURB AND GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.



**DRIVEWAY ENTRANCE CURB<sup>⑩</sup>  
(WHEN DIRECTED BY THE ENGINEER)**



**EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE<sup>⑪</sup>**



**SECTION A - A  
TIE BARS DRILLED INTO EXISTING PAVEMENT**

**CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE May 2023 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

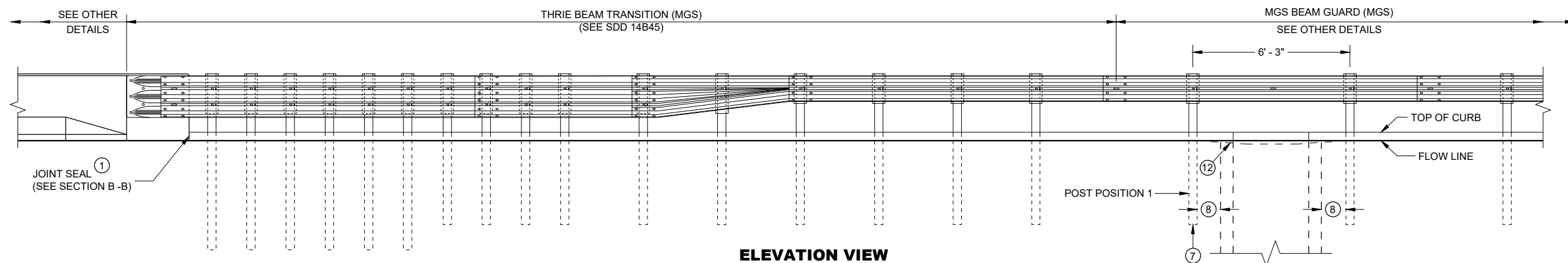
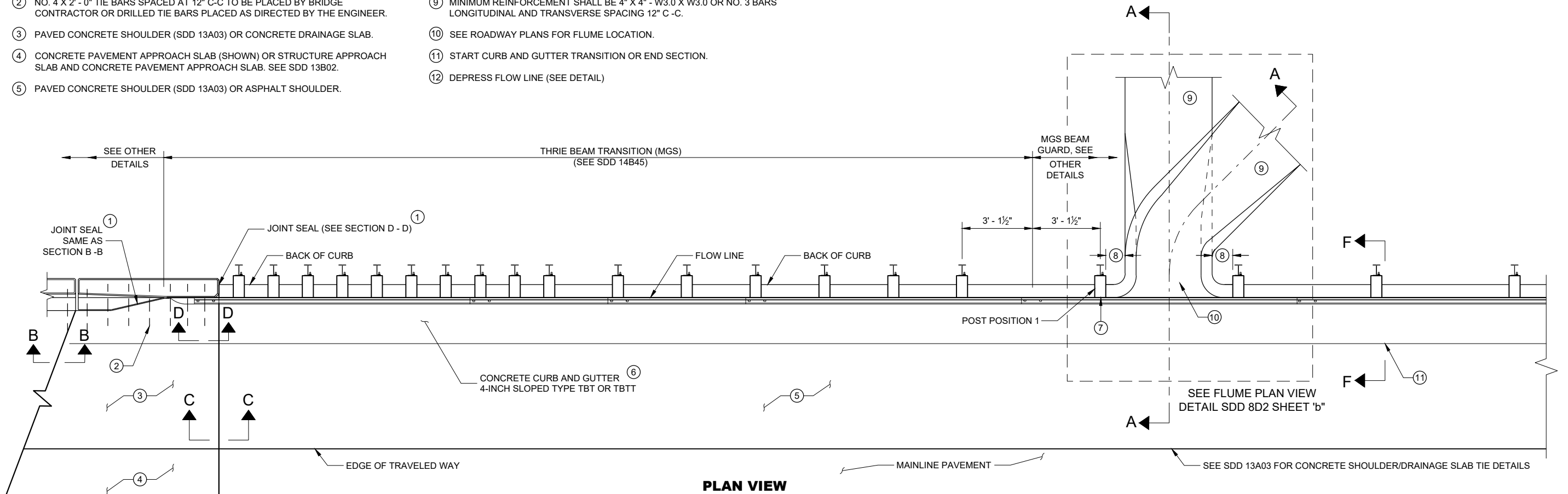
**GENERAL NOTES**

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

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

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)



**CONCRETE SURFACE  
DRAINS FLUME TYPE  
AT STRUCTURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

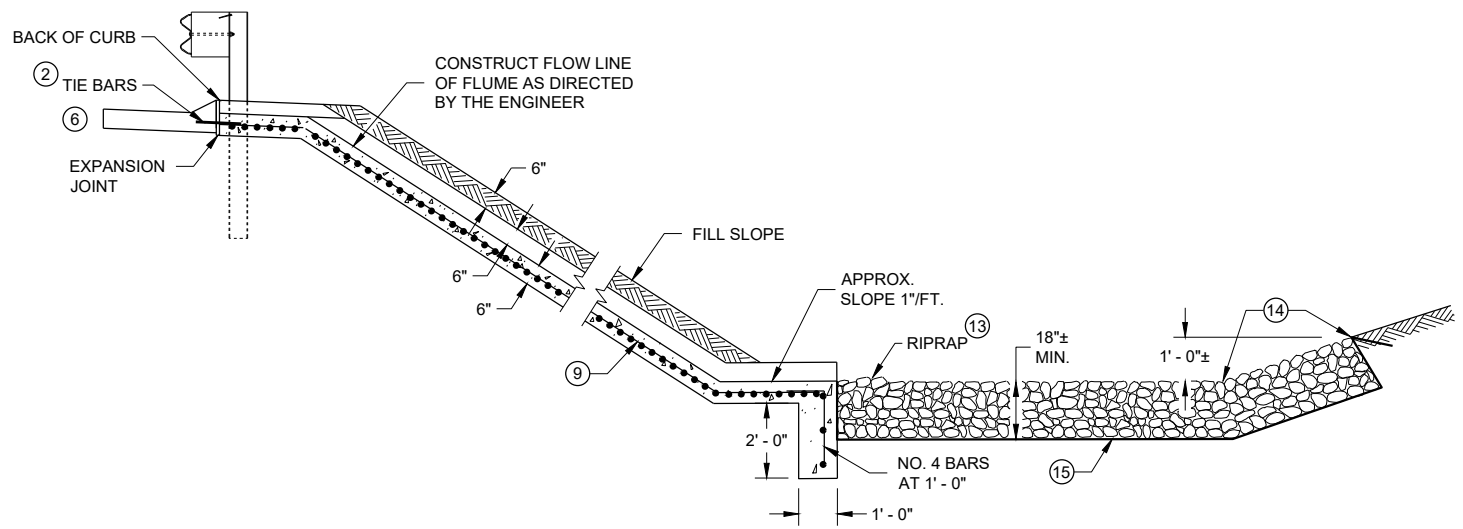
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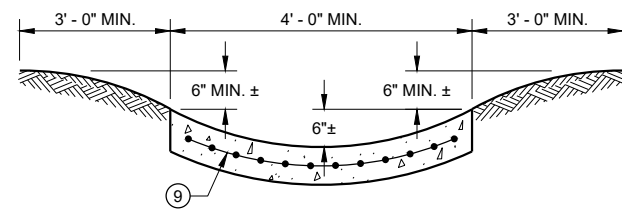
SDD 08D02 - 08a

SDD 08D02 - 08a

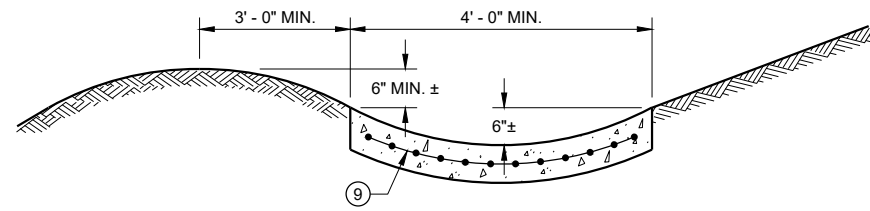




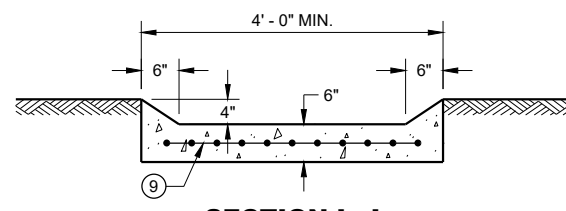
**SECTION A - A**



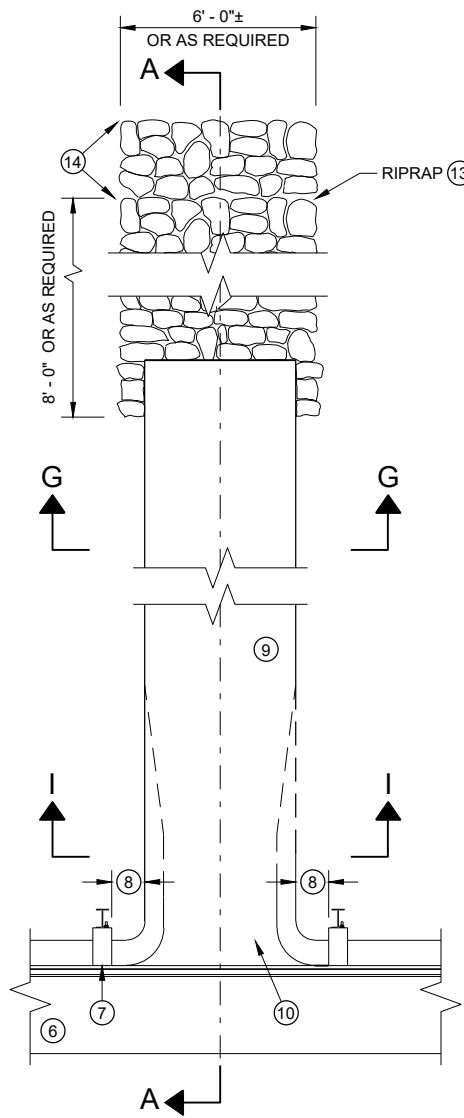
**SECTION G - G**



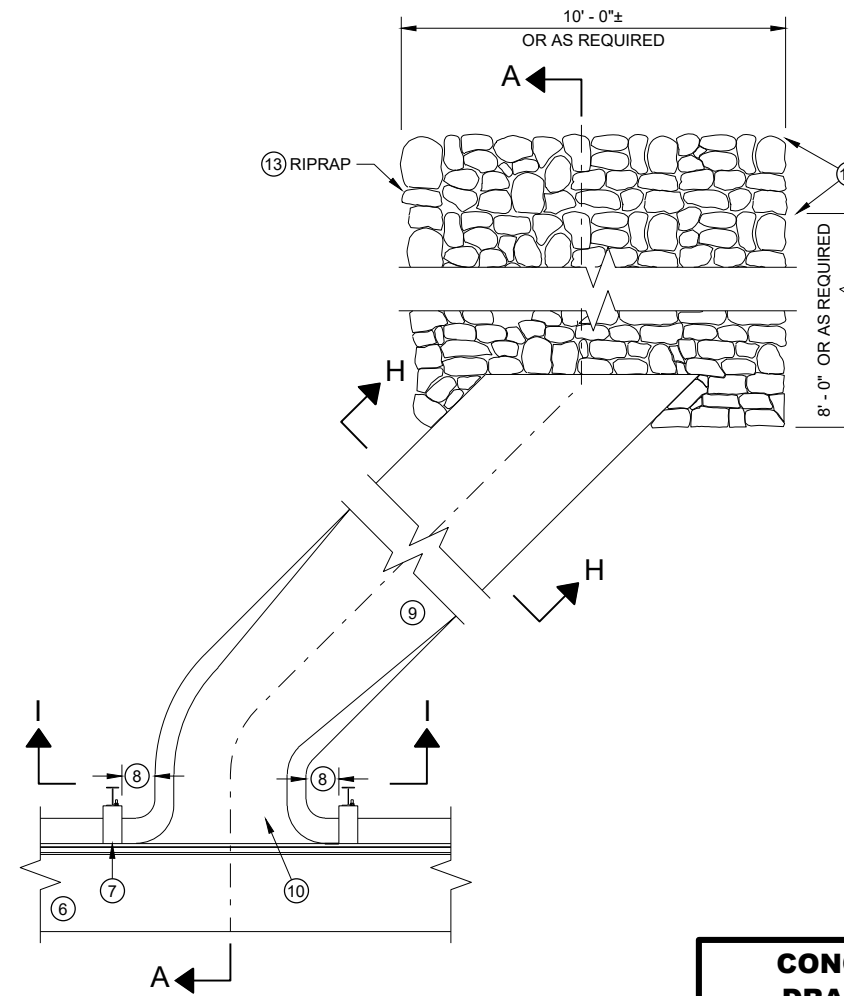
**SECTION H - H**



**SECTION I - I**



**PLAN VIEW  
PERPENDICULAR FLUME**



**PLAN VIEW  
SKEWED FLUME**

**GENERAL NOTES**

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

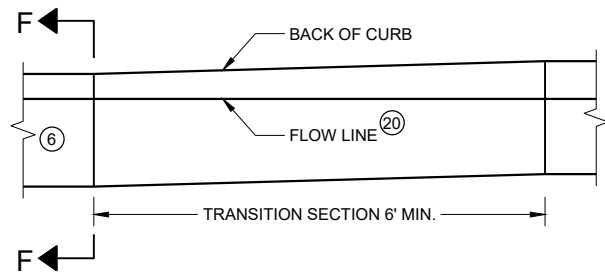
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

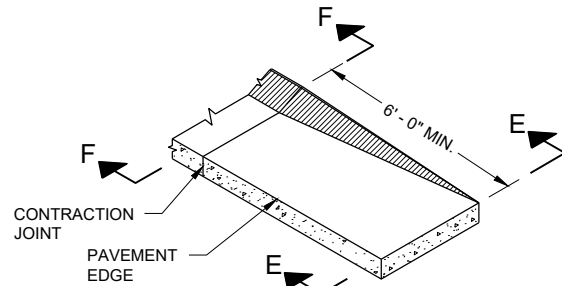
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C -C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
- ⑮ GEOTEXTILE TYPE HR.

**CONCRETE SURFACE  
DRAINS FLUME TYPE  
AT STRUCTURES**

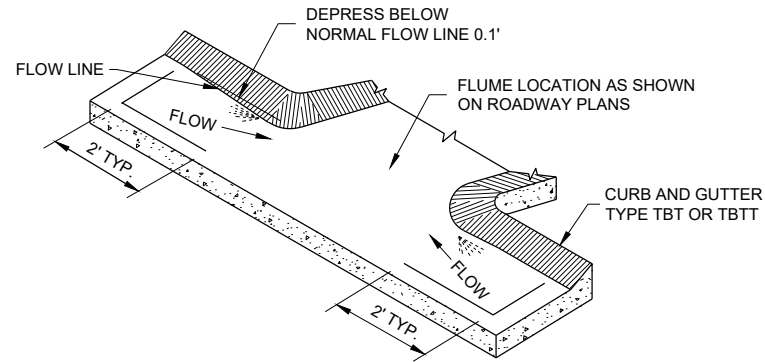
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**CURB AND GUTTER TRANSITION SECTION  
CONCRETE CURB AND GUTTER 4-INCH SLOPED  
36 INCH TYPE TBT OR TBTT**



**CURB AND GUTTER END SECTION  
CONCRETE CURB AND GUTTER 4-INCH SLOPED  
36 INCH TYPE TBT OR TBTT**



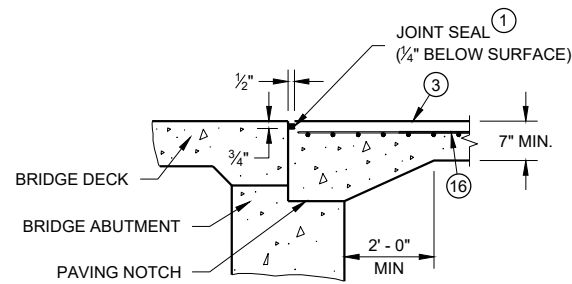
**CURB AND GUTTER FLOW LINE DEPRESSION  
AT FLUMES CONCRETE CURB AND GUTTER  
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**

**GENERAL NOTES**

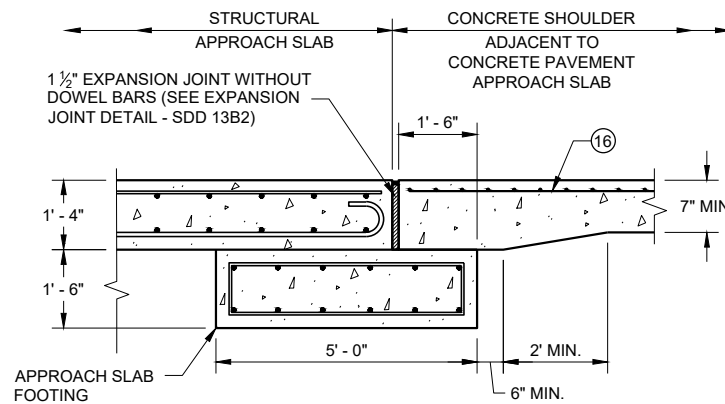
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

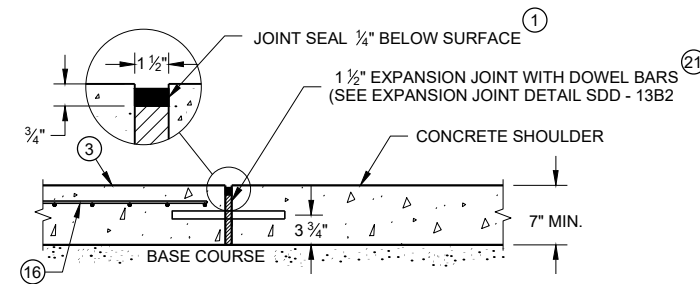
- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑮ GEOTEXTILE TYPE HR.
- ⑯ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- ⑰ MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- ⑱ MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- ⑲ ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- ⑳ MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- ㉑ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



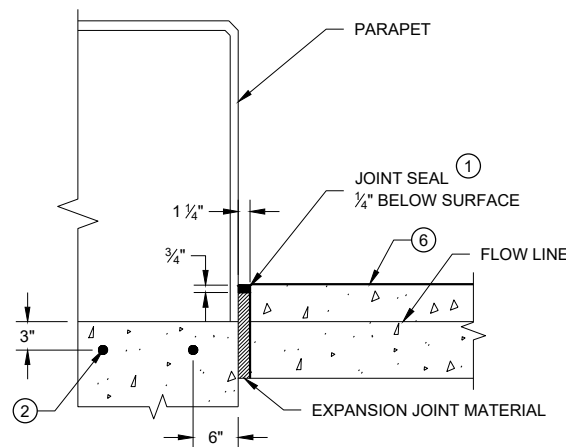
**SECTION B-B**



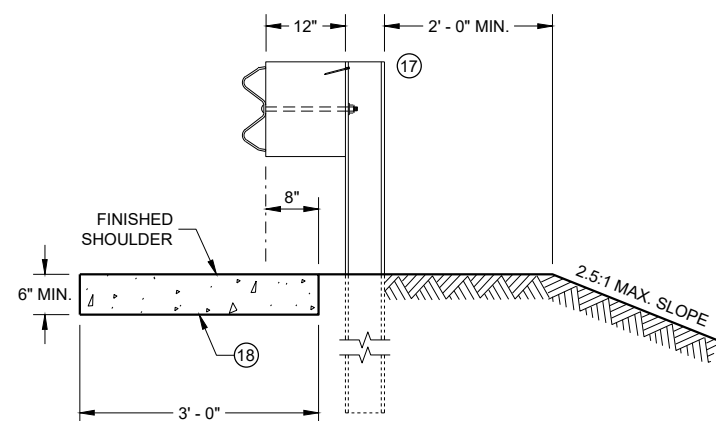
**SECTION C - C  
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL  
APPROACH SLAB AND CONCRETE APPROACH SLAB**



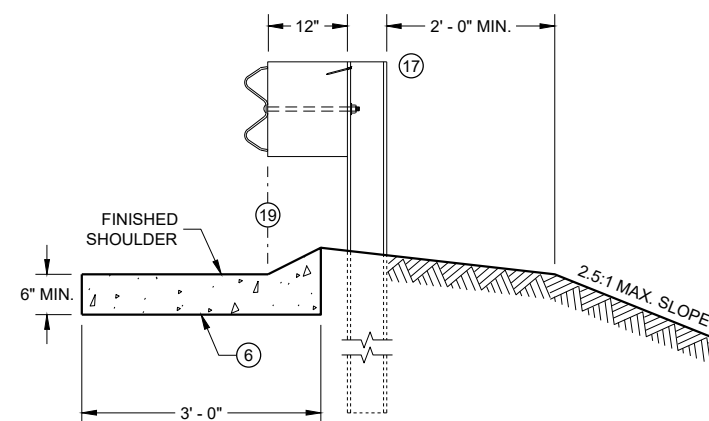
**SECTION C - C  
JOINT DETAIL FOR BRIDGE APPROACH  
WITH CONCRETE SHOULDERS**



**SECTION D - D**



**SECTION E - E**



**SECTION F - F**

6

6

SDD08D02 - 08C

SDD08D02 - 08C

**CONCRETE SURFACE  
DRAINS FLUME TYPE  
AT STRUCTURES**

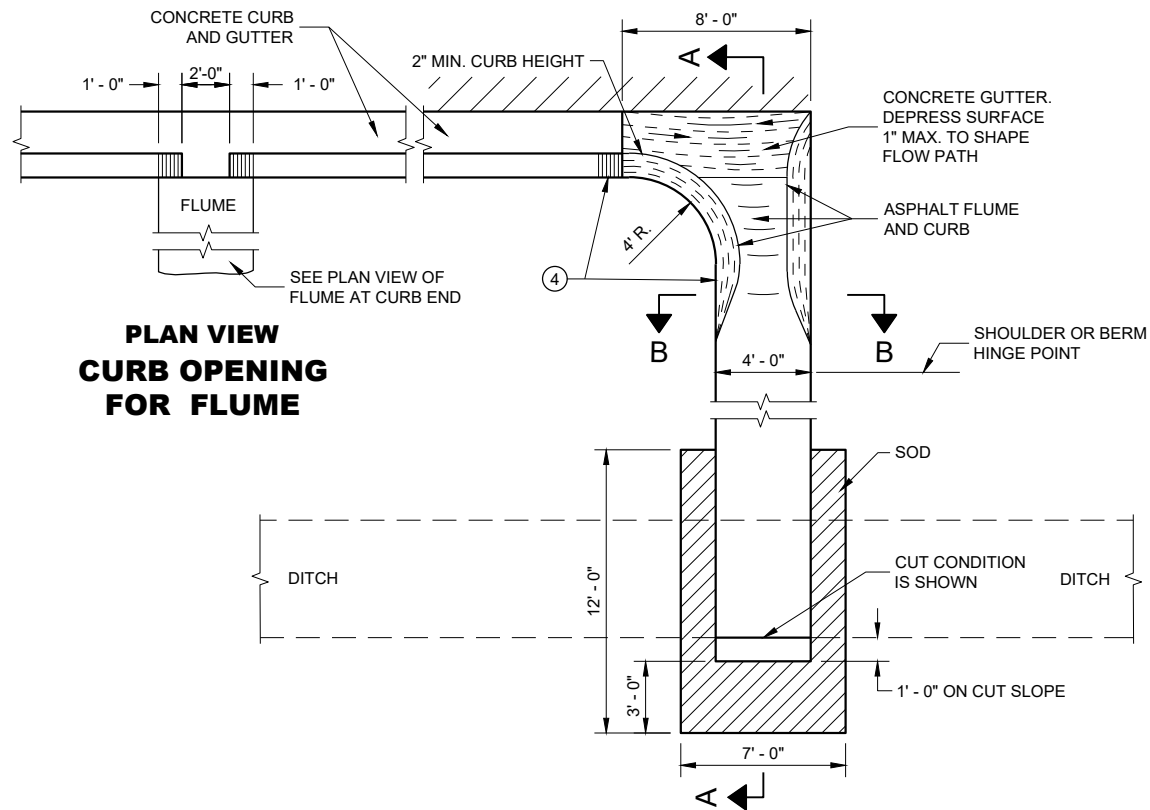
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

### ASPHALTIC FLUME



**PLAN VIEW  
CURB OPENING  
FOR FLUME**

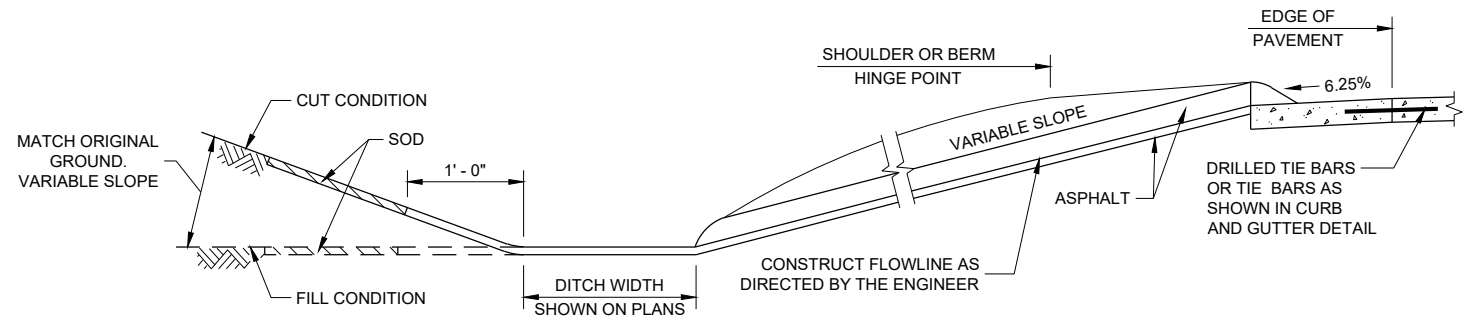
**PLAN VIEW  
FLUME AT CURB END**

### GENERAL NOTES

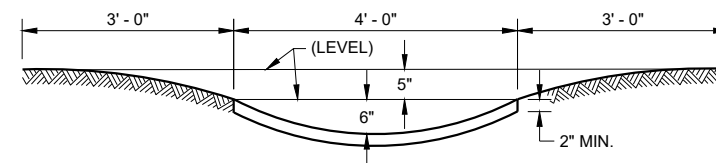
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

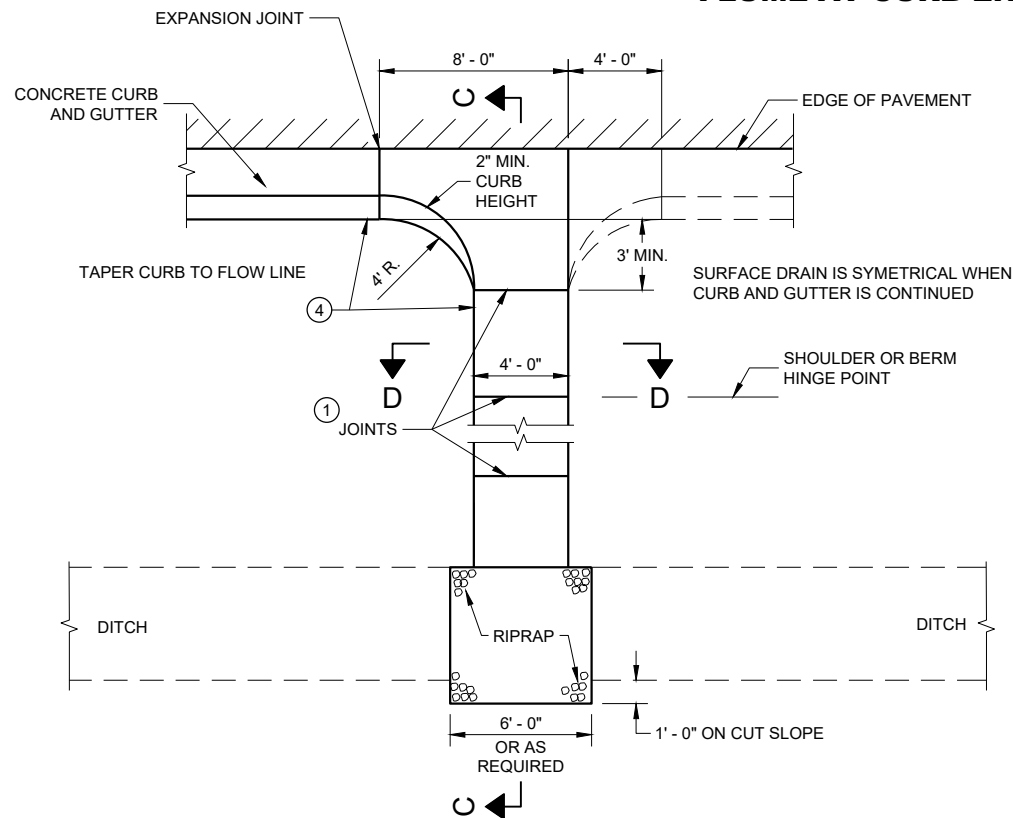
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ④ ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



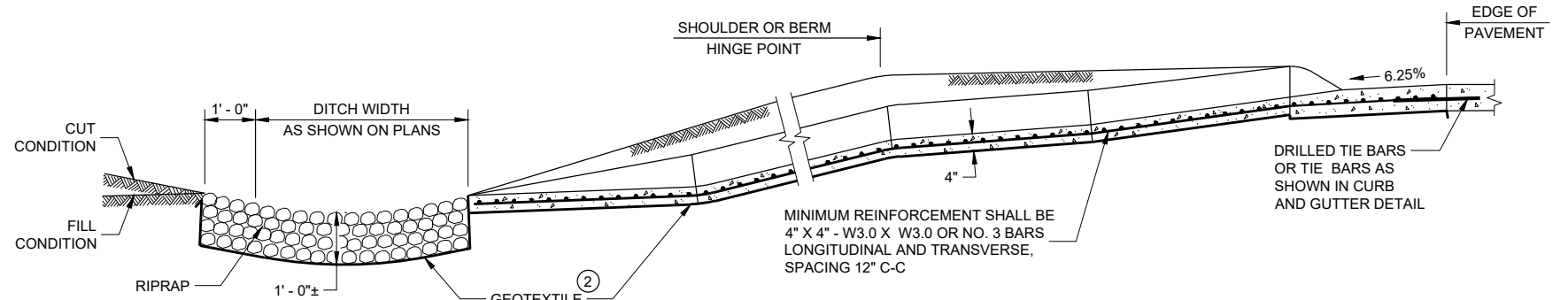
**SECTION A - A**



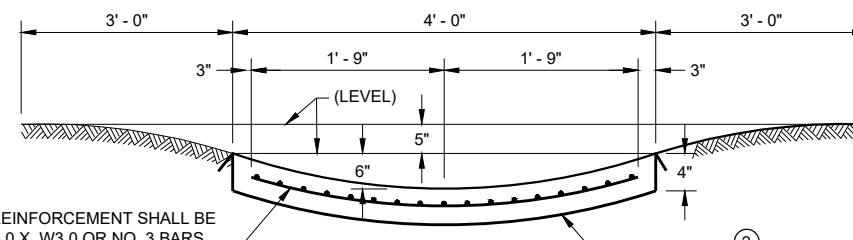
**SECTION B - B**



**PLAN VIEW  
CONCRETE SURFACE DRAIN**



**SECTION C - C**



**SECTION D - D**

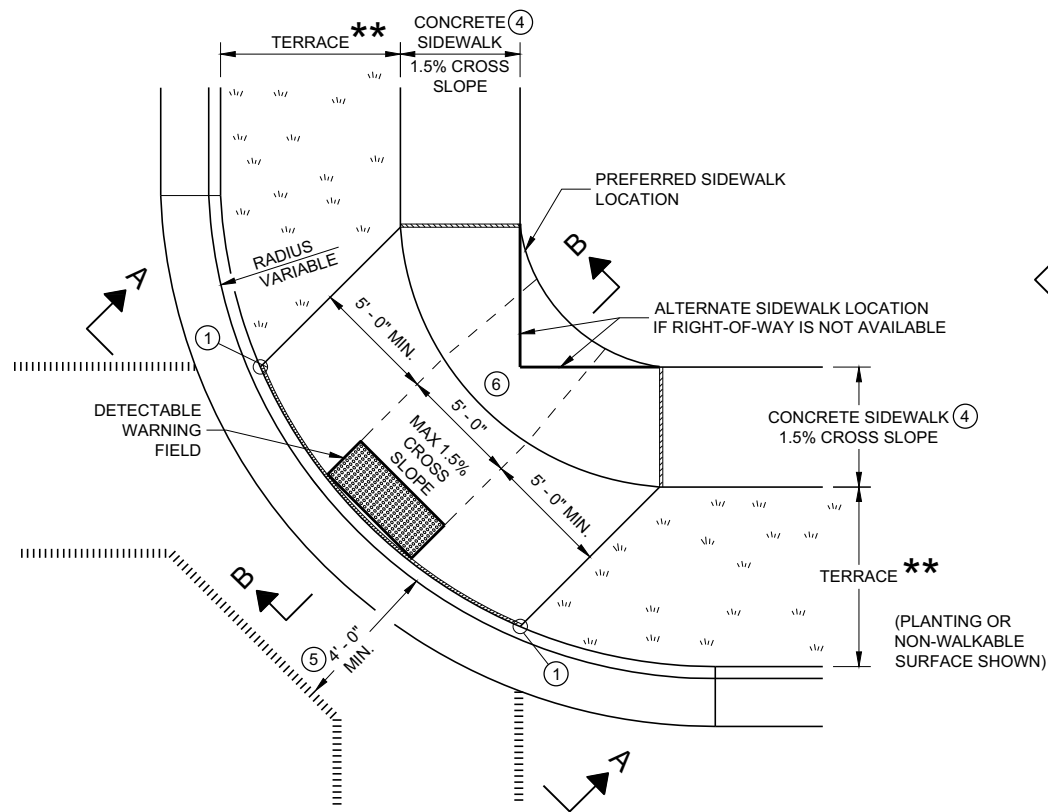
MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE, SPACING 12" C-C

### CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

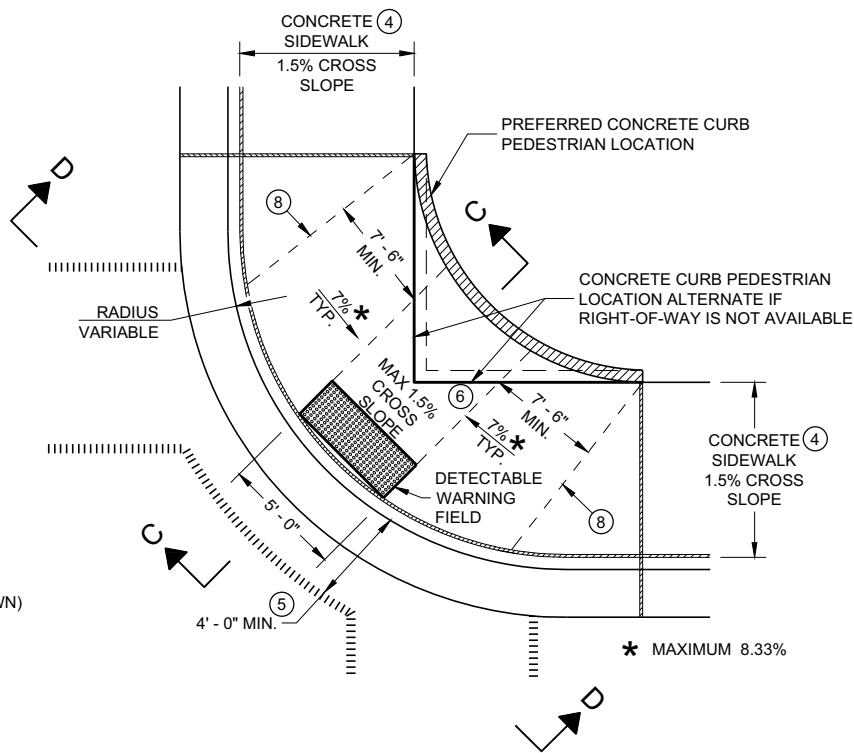
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE May 2023 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

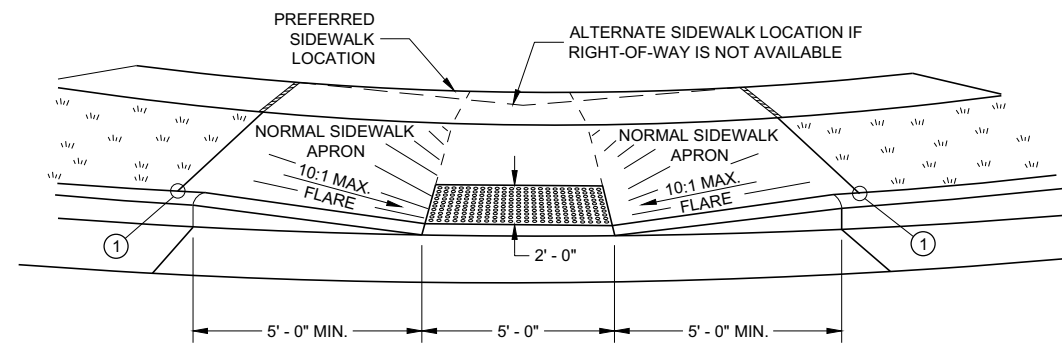
FHWA



**PLAN VIEW**  
**CURB RAMP TYPE 1**  
**(CENTER OF CORNER RADIUS)**

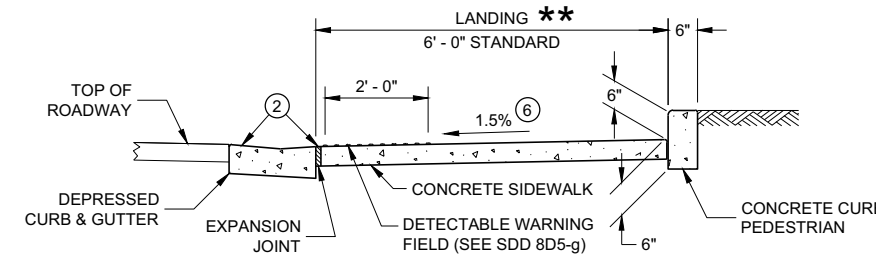


**PLAN VIEW**  
**CURB RAMP TYPE 1 - A**  
**(NO TERRACE)**



**VIEW A - A FOR TYPE 1**

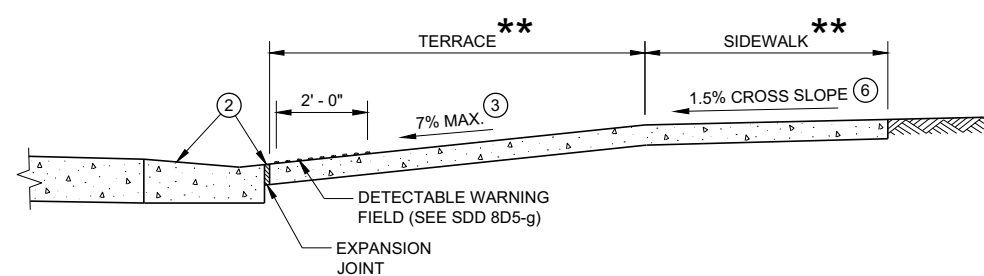
\*\* WIDTH SHOWN ELSEWHERE IN THE PLANS



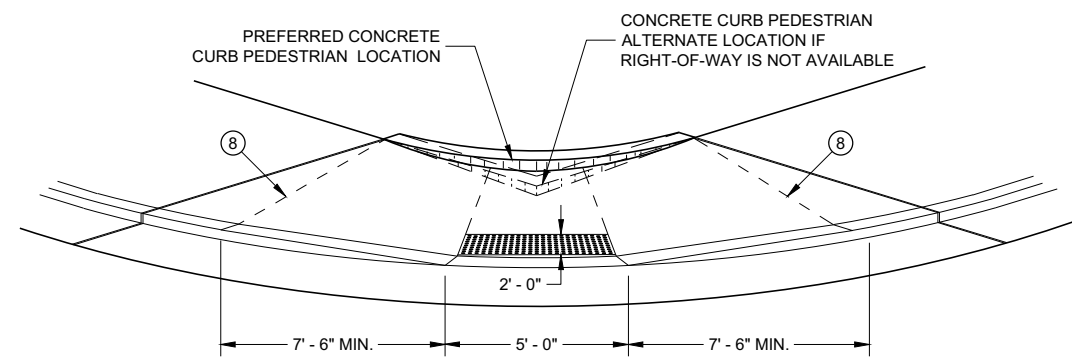
**SECTION C - C FOR TYPE 1 - A**

**LEGEND**

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



**SECTION B - B FOR TYPE 1**



**VIEW D - D FOR TYPE 1 - A**

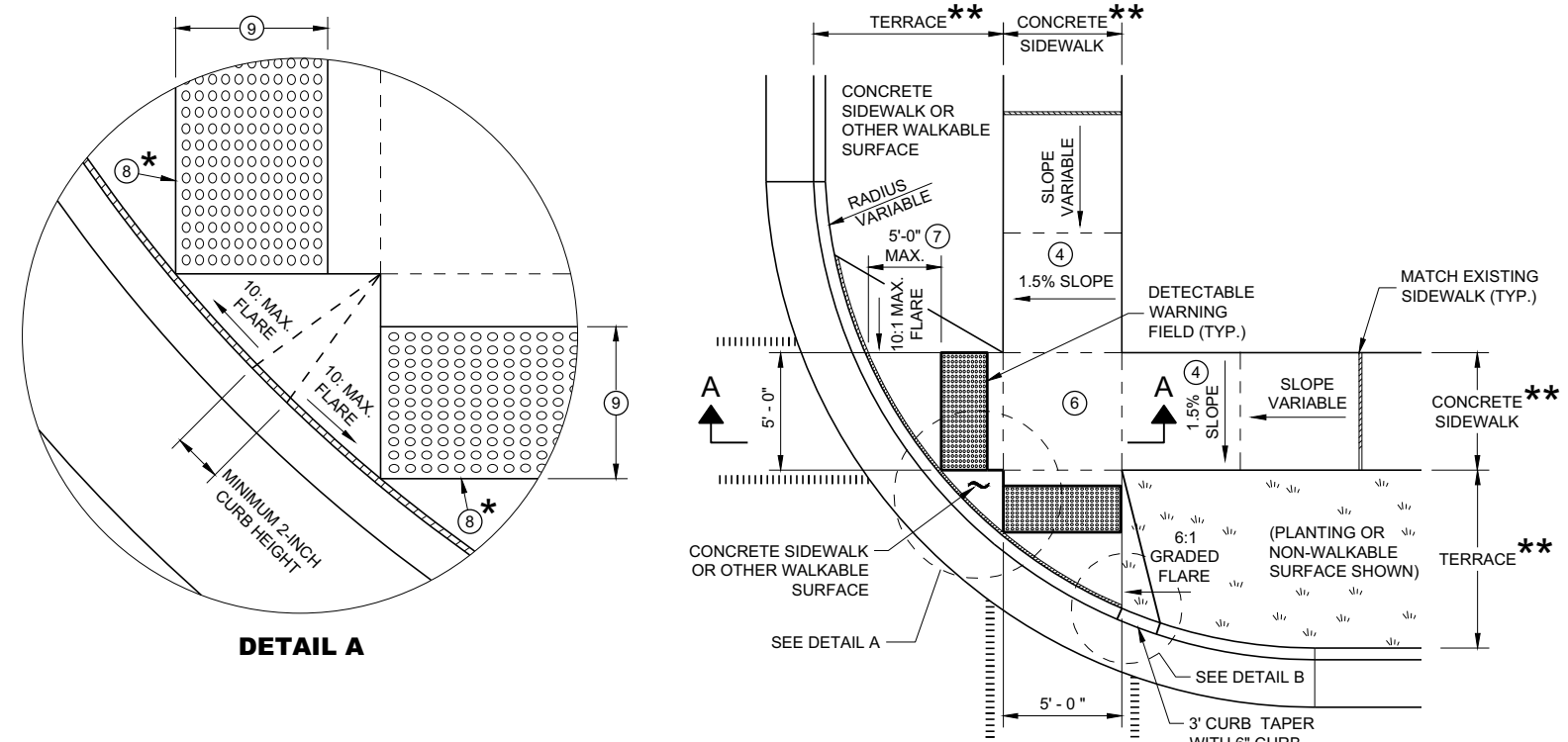
**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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 CURB 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 LINEAR 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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
  - ③ MAXIMUM 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
  - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

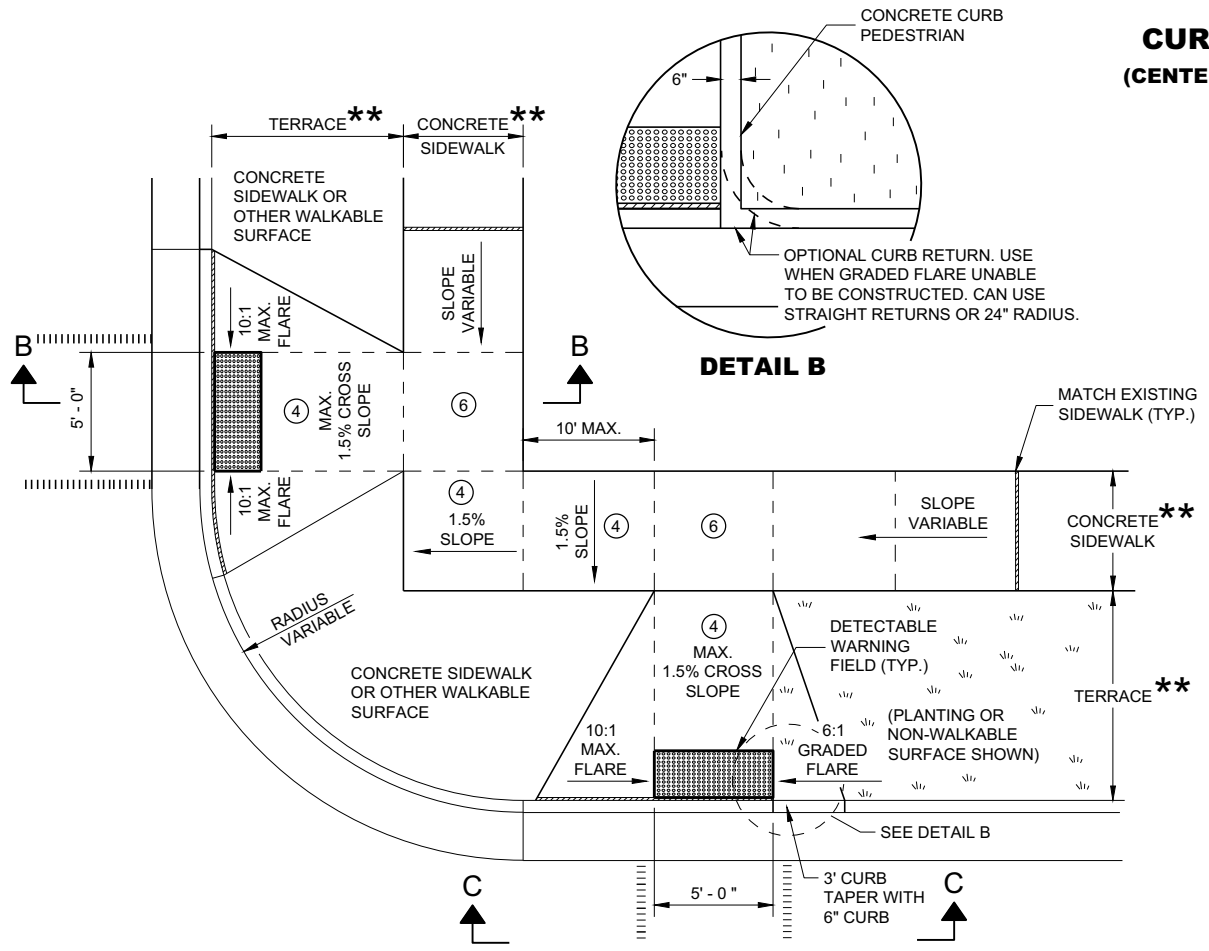
**CURB RAMPS**  
**TYPE 1 AND 1-A**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





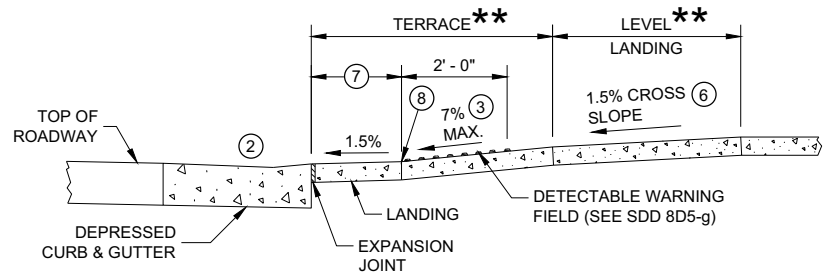
**PLAN VIEW CURB RAMP TYPE 2 (CENTER OF CORNER RADIUS)**



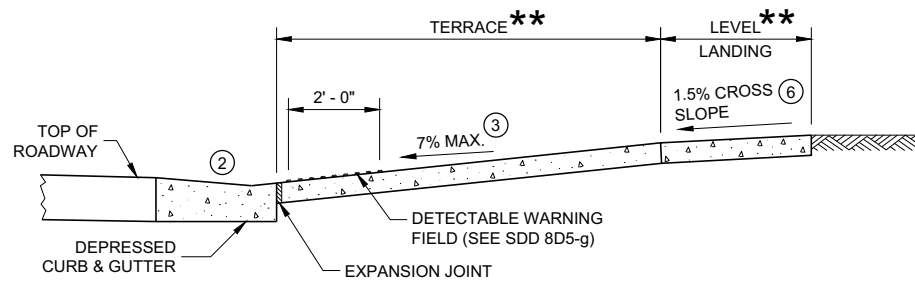
**PLAN VIEW CURB RAMP TYPE 3 (OUTSIDE OF CROSSWALK AREA)**

**GENERAL NOTES**

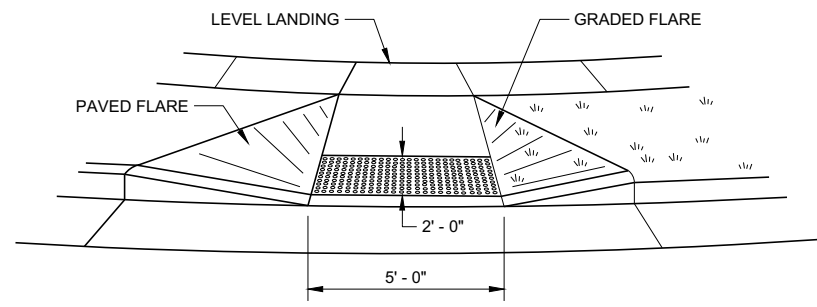
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) 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 LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN 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.



**SECTION A - A FOR TYPE 2**



**SECTION B - B FOR TYPE 3**



**VIEW C - C FOR TYPE 3**

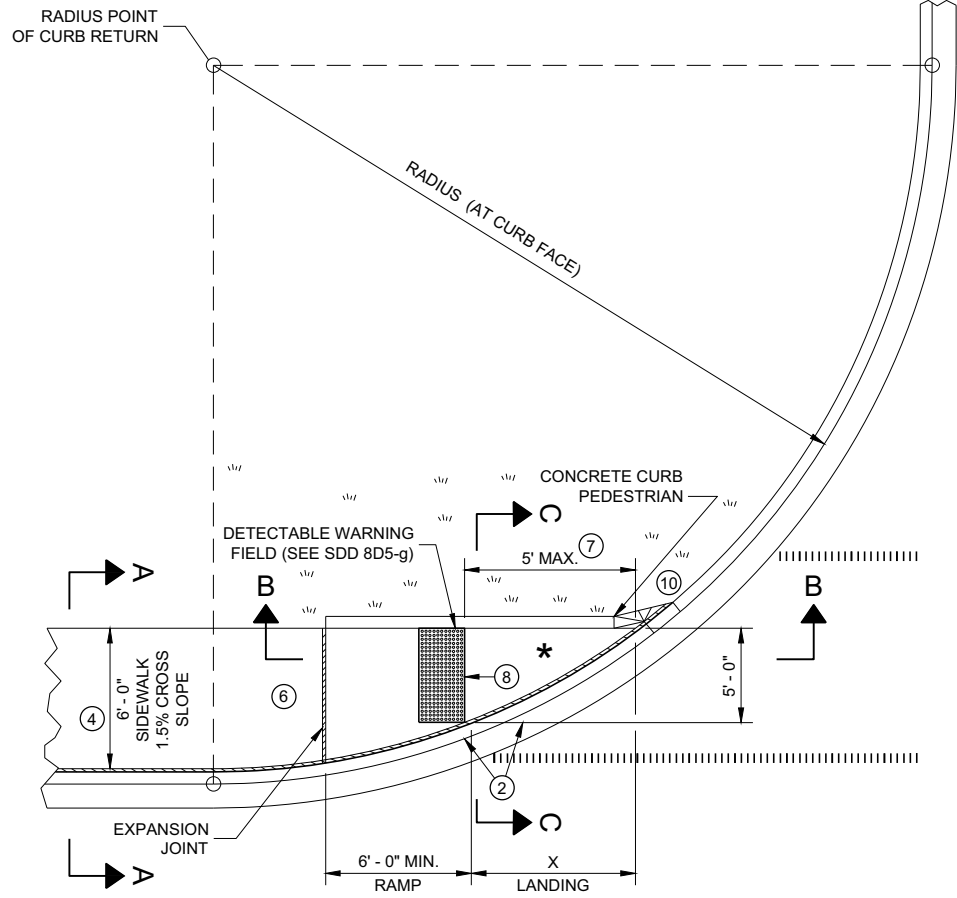
- \* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- \*\* WIDTH SHOWN ELSEWHERE IN THE PLANS

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS  
TYPE 2 AND 3**

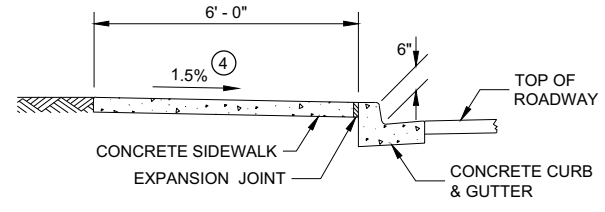
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW  
CURB RAMP TYPE 4A**

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



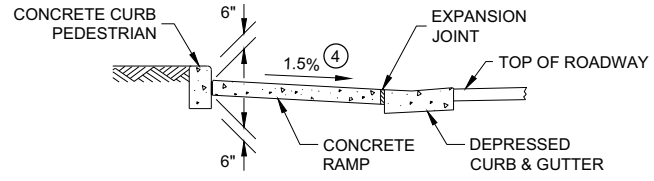
**SECTION A - A FOR TYPE 4A**

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- 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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

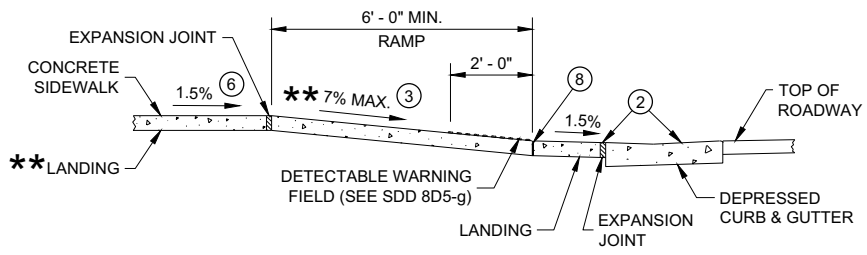
**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)



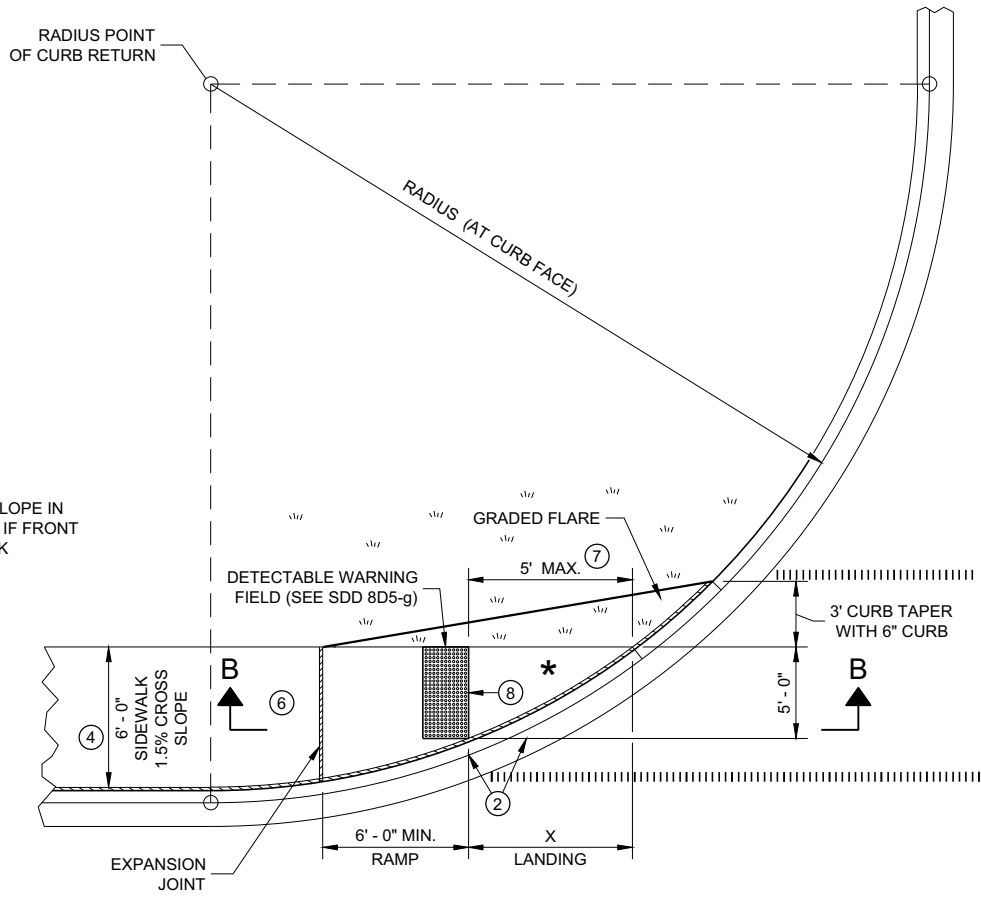
**SECTION C - C FOR TYPE 4A**

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

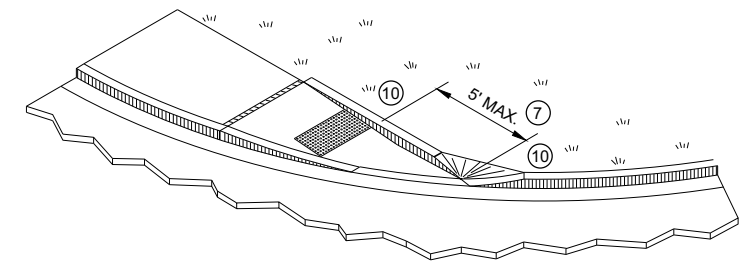


**SECTION B - B FOR  
TYPE 4A AND TYPE 4A1**

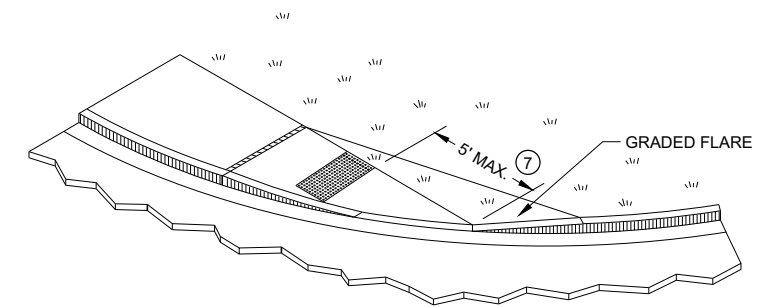
\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW  
CURB RAMP TYPE 4A1**



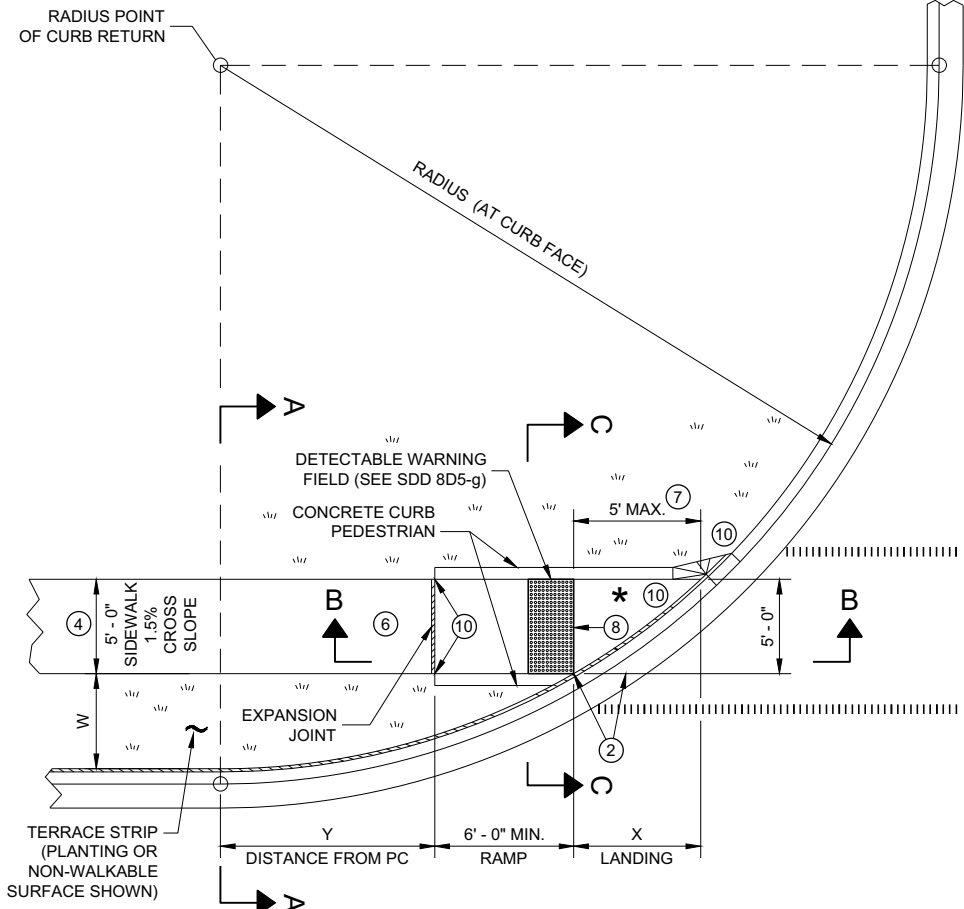
**ISOMETRIC VIEW FOR TYPE 4A**



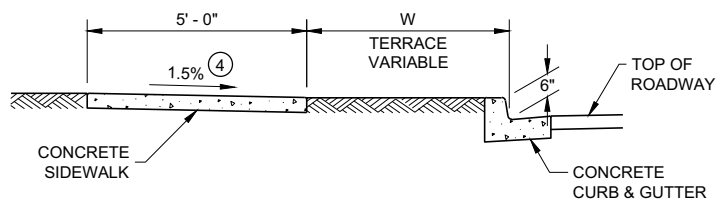
**ISOMETRIC VIEW FOR TYPE 4A1**

**CURB RAMPS  
TYPE 4A AND 4A1**

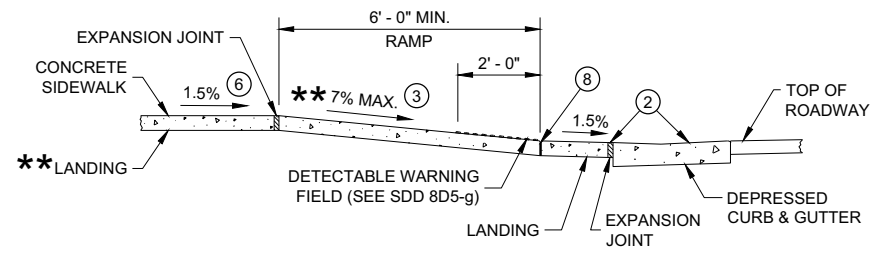
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**PLAN VIEW  
CURB RAMP TYPE 4B**



**SECTION A - A FOR TYPE 4B**



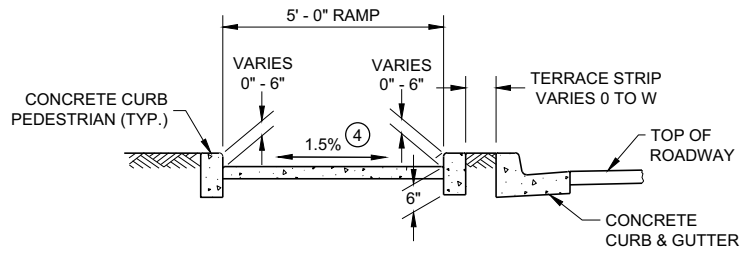
**SECTION B - B FOR  
TYPE 4B AND TYPE 4B1**

\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

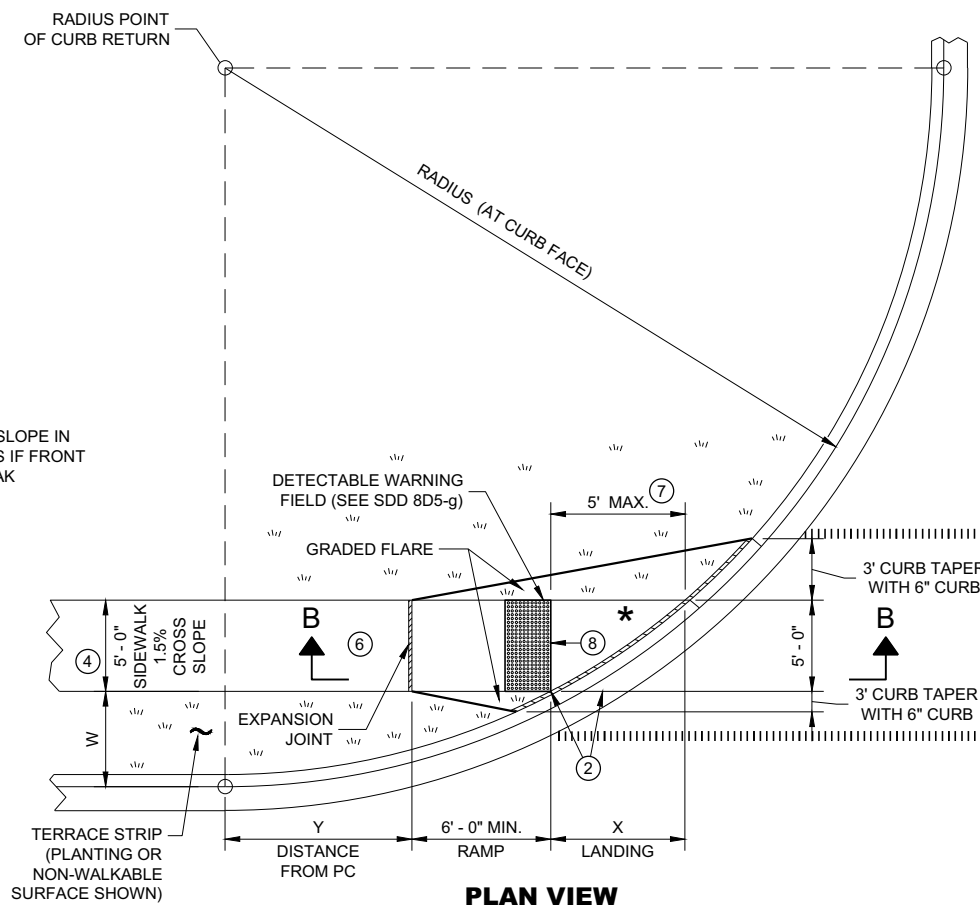
\* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET	5' - 9 3/4"	3' - 6 1/2"	4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET			6' - 9 1/4"	7' - 11 1/4"	6' - 0 1/4"	9' - 8"	5' - 5"	11' - 1 3/4"	4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET									6' - 1 3/4"	15' - 8 1/2"	5' - 8"	17' - 2"	5' - 3"	18' - 5 3/4"	4' - 10 3/4"	19' - 8 1/4"
50 FEET															5' - 10 1/4"	23' - 2"

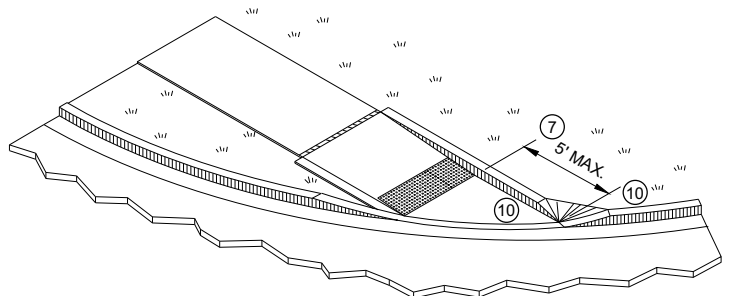
INTERMEDIATE RADII CAN BE INTERPOLATED  
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH  
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



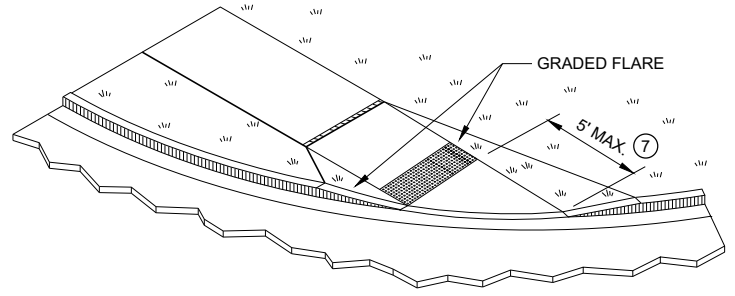
**SECTION C - C FOR TYPE 4B**



**PLAN VIEW  
CURB RAMP TYPE 4B1**



**ISOMETRIC VIEW FOR TYPE 4B**



**ISOMETRIC VIEW FOR TYPE 4B1**

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

**GENERAL NOTES**

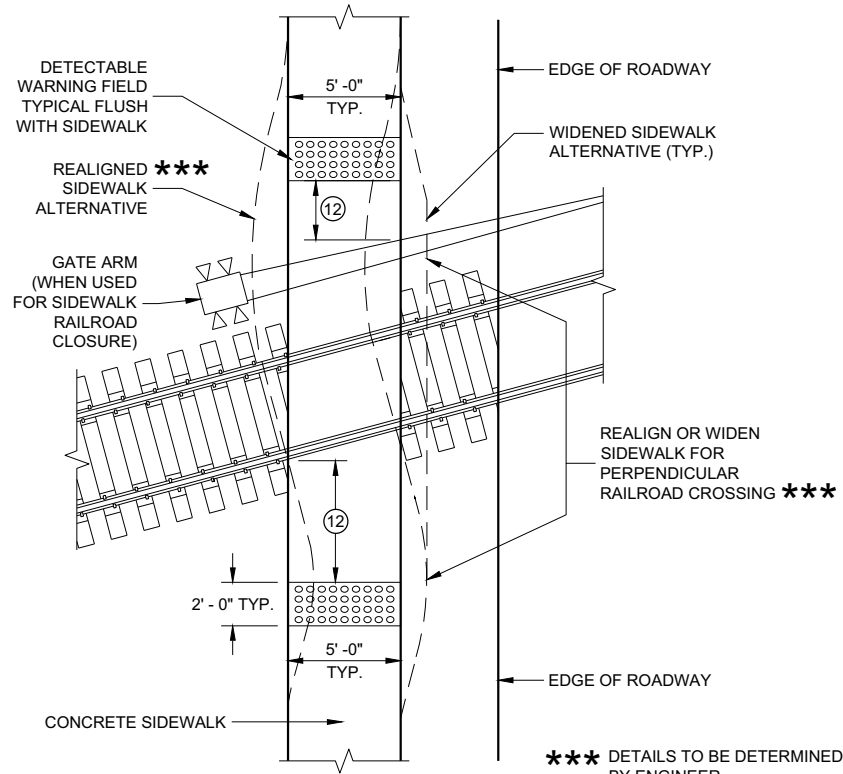
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- 7 WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 10 INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

SDD08D05 - 20d

SDD08D05 - 20d

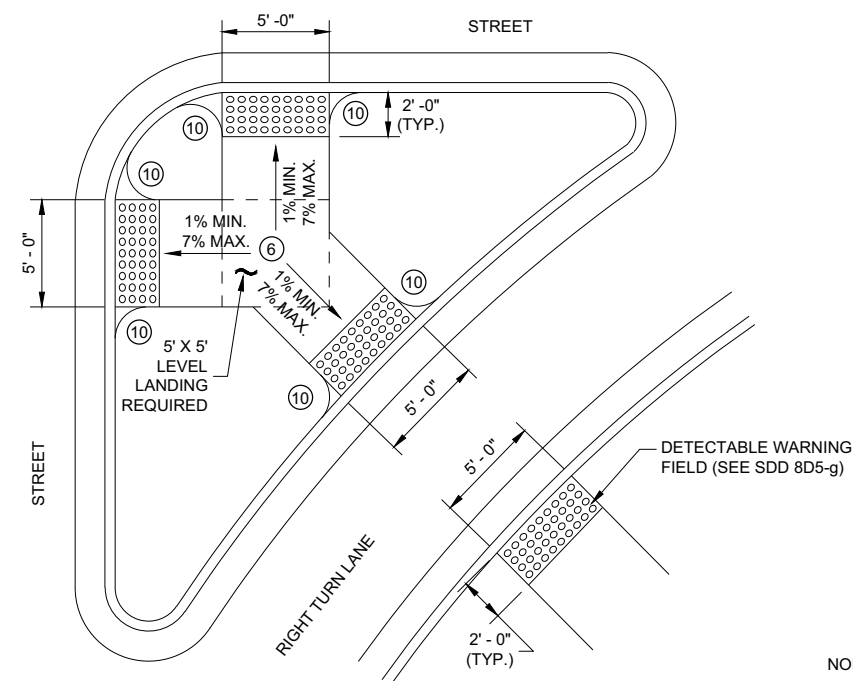
**CURB RAMPS  
TYPE 4B AND 4B1**

STATE OF WISCONSIN  
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**CURB RAMP TYPE 8**

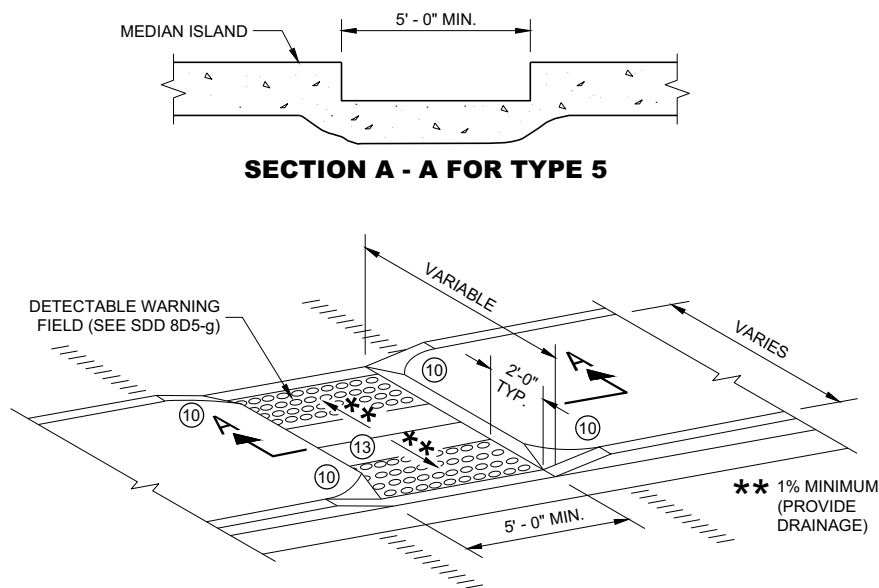
**DETECTABLE WARNINGS AT RAILROAD CROSSING**



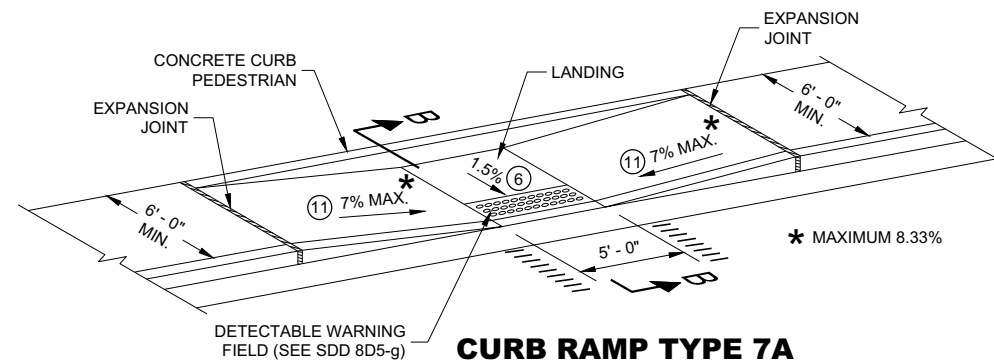
**CURB RAMP TYPE 6**

**DETECTABLE WARNING AT ISLANDS**

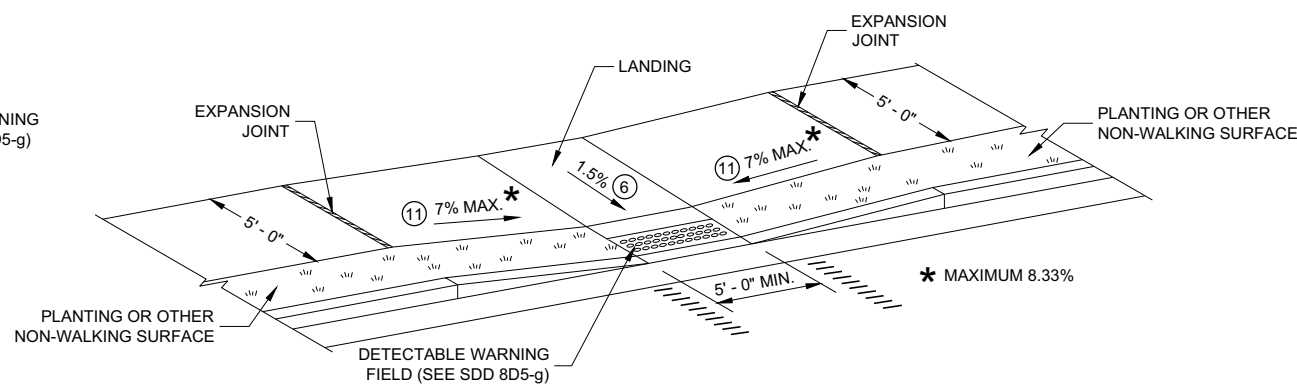
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



**CURB RAMP TYPE 5**  
**MEDIAN ISLAND**  
**NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A**  
**MID BLOCK CROSSING**



**CURB RAMP TYPE 7B**  
**MID BLOCK CROSSING**

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

**GENERAL NOTES**

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

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.

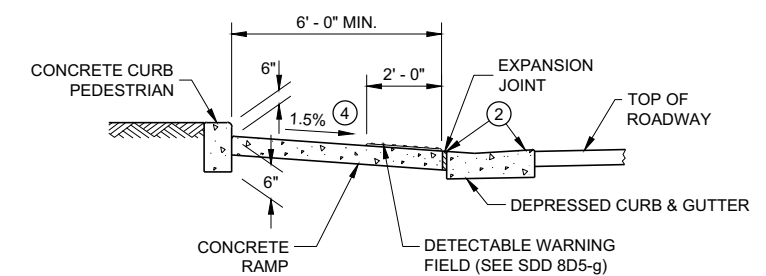
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) AN 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 LEVEL LANDING SIZE IS 5 FEET BY 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 AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

**LEGEND**

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

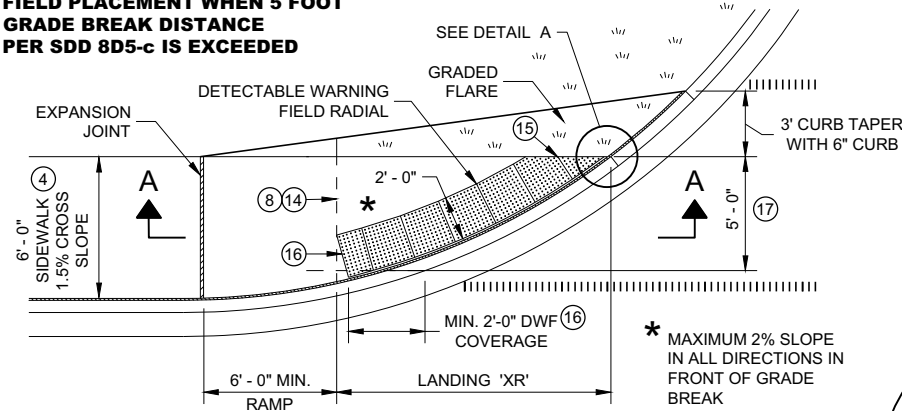


**SECTION B - B FOR TYPE 7A**

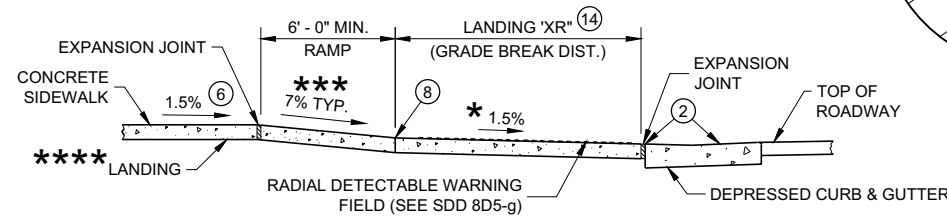
**CURB RAMPS**  
**TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED**



**PLAN VIEW CURB RAMP TYPE 4A1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



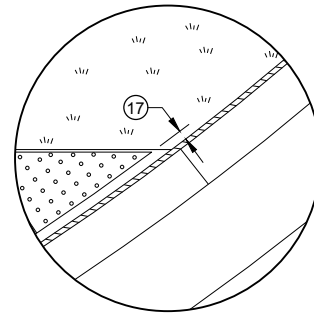
**SECTION A - A FOR TYPE 4A1**

\*\*\*\* IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

\*\*\* MAXIMUM 8.33%

**LEGEND**

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

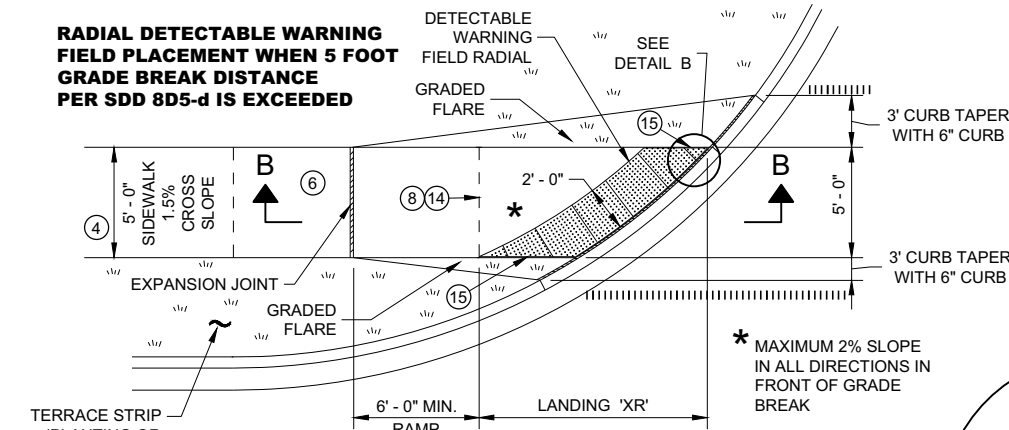


**DETAIL A**

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 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 BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

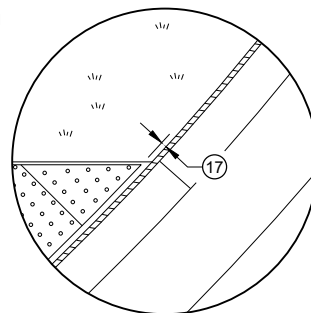
**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED**



**PLAN VIEW CURB RAMP TYPE 4B1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

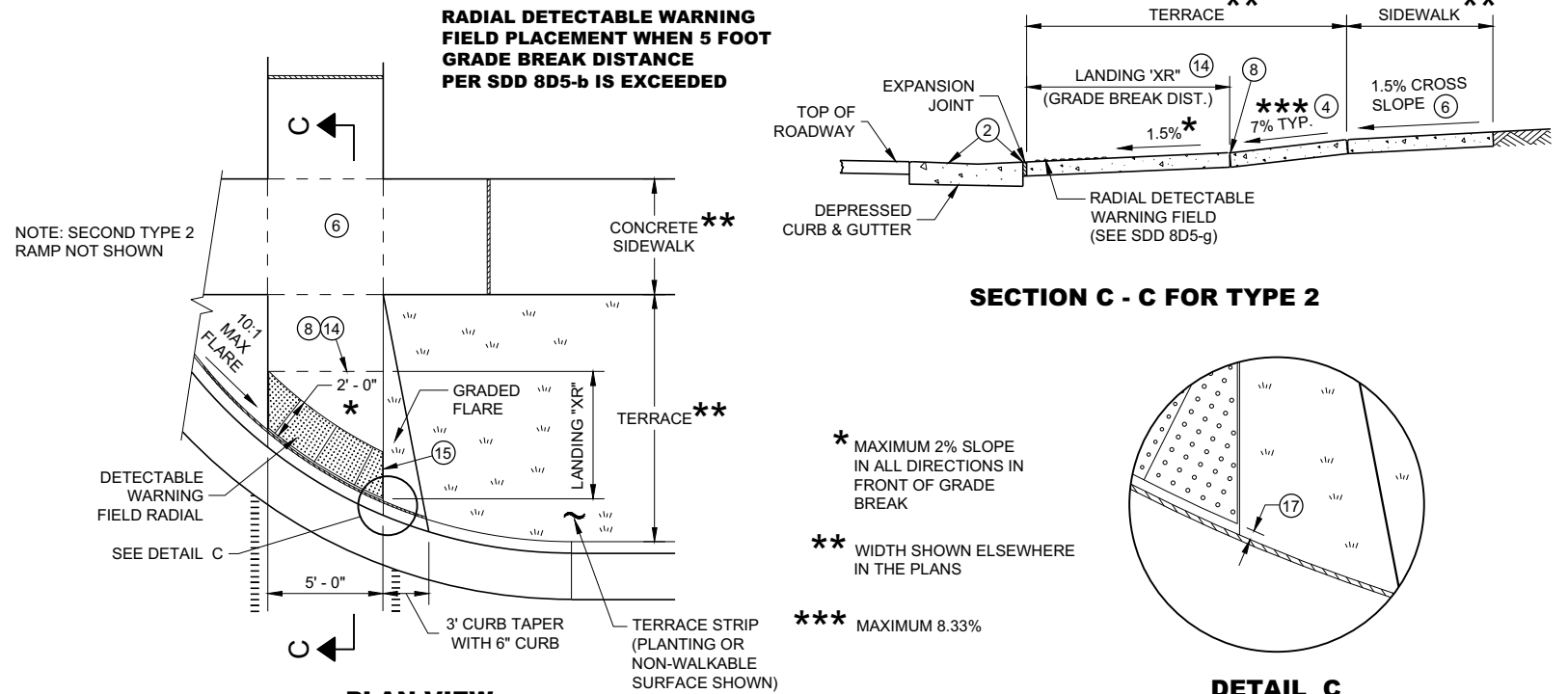
TERRACE STRIP (PLANTING OR NON-WALKABLE SURFACE SHOWN)

\* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



**DETAIL B**

**RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED**

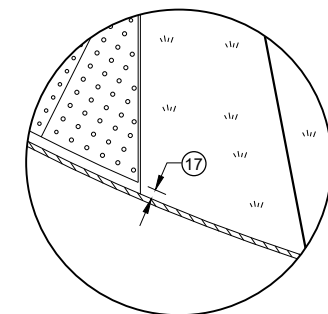


**PLAN VIEW CURB RAMP TYPE 2 (GRADE BREAK DISTANCE GREATER THAN 5 FEET) (ON LINE WITH SIDEWALK)**

\* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

\*\* WIDTH SHOWN ELSEWHERE IN THE PLANS

\*\*\* MAXIMUM 8.33%



**DETAIL C**

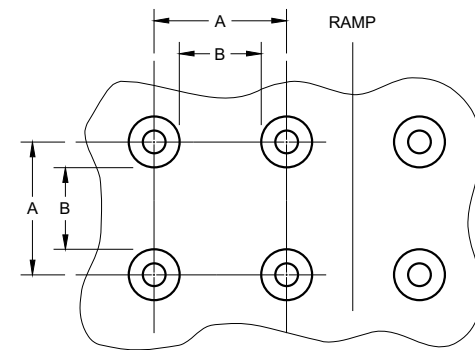
**CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS**

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

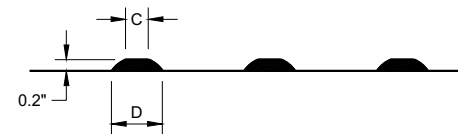


	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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

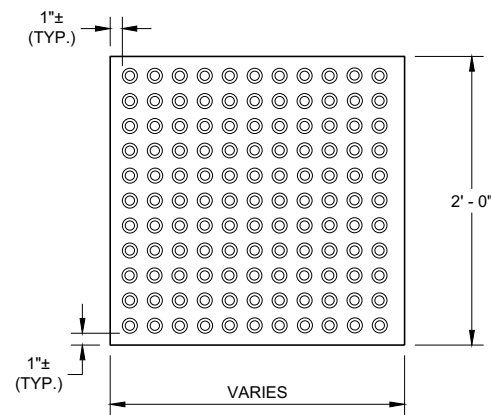


**PLAN VIEW**

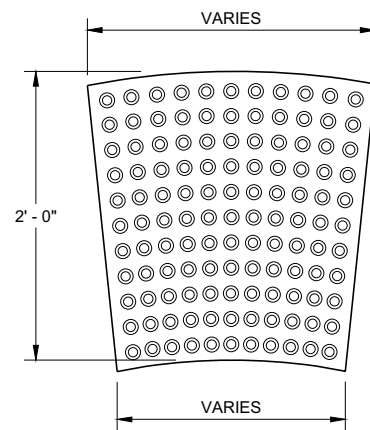


**ELEVATION VIEW**

**TRUNCATED DOMES  
DETECTABLE WARNING PATTERN DETAIL**

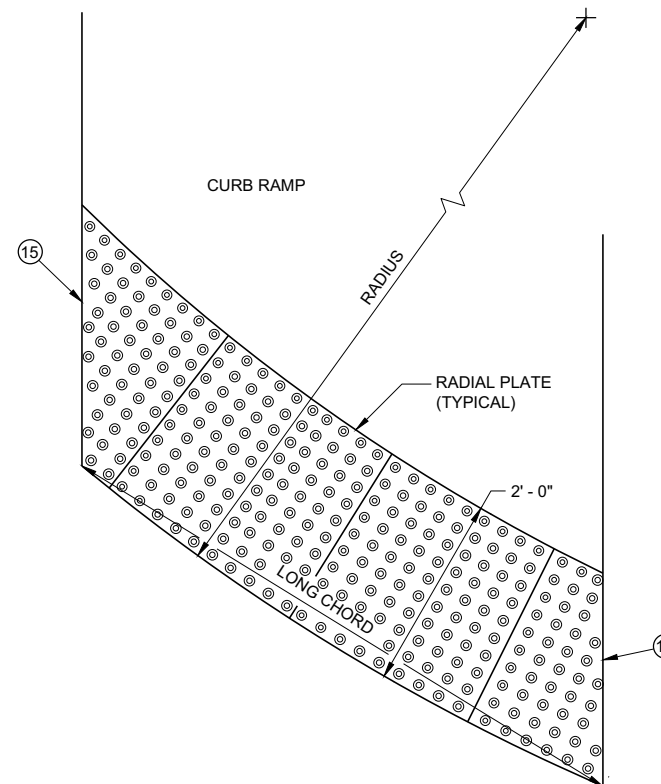


**RECTANGULAR  
PLATES**

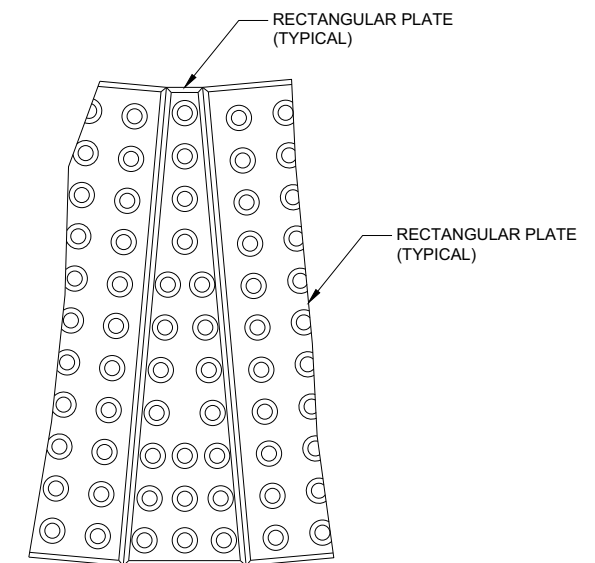


**RADIAL  
PLATES**

**PLAN VIEW  
DETECTABLE WARNING FIELDS (TYPICAL)**



**PLAN VIEW  
RADIAL DETECTABLE  
WARNING FIELD ATTRIBUTES**



**PLAN VIEW  
RADIAL WEDGE PLATE  
CONNECTION DETAIL**

**GENERAL NOTES**

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

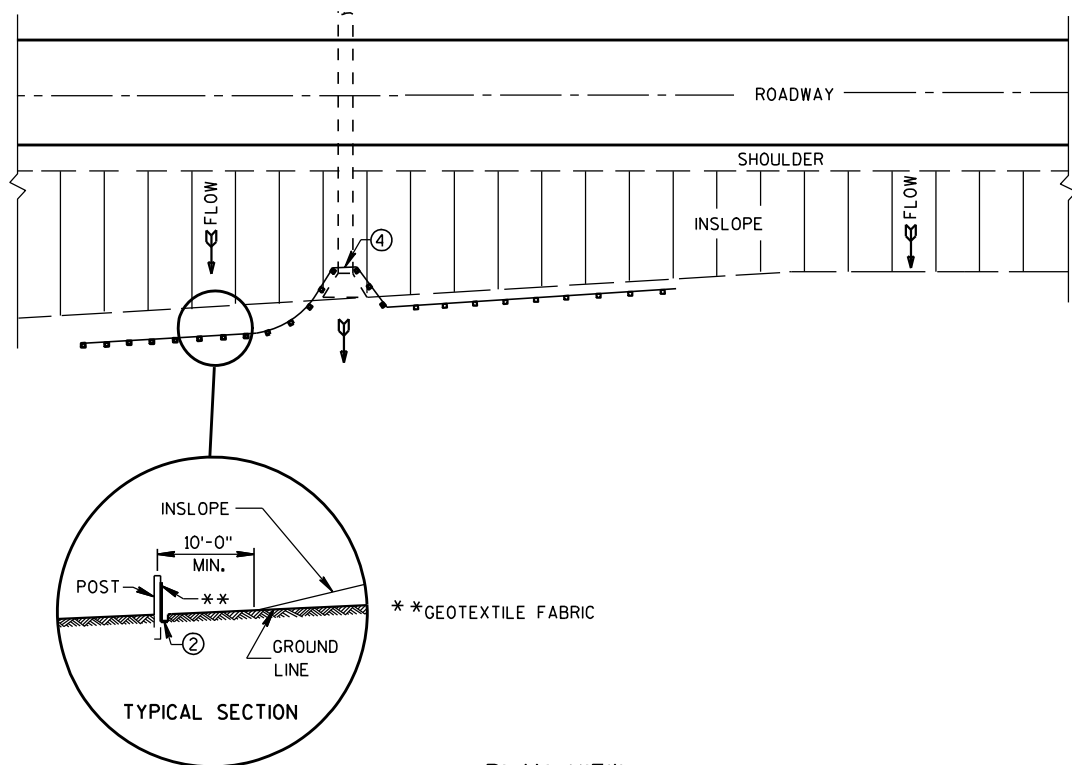
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

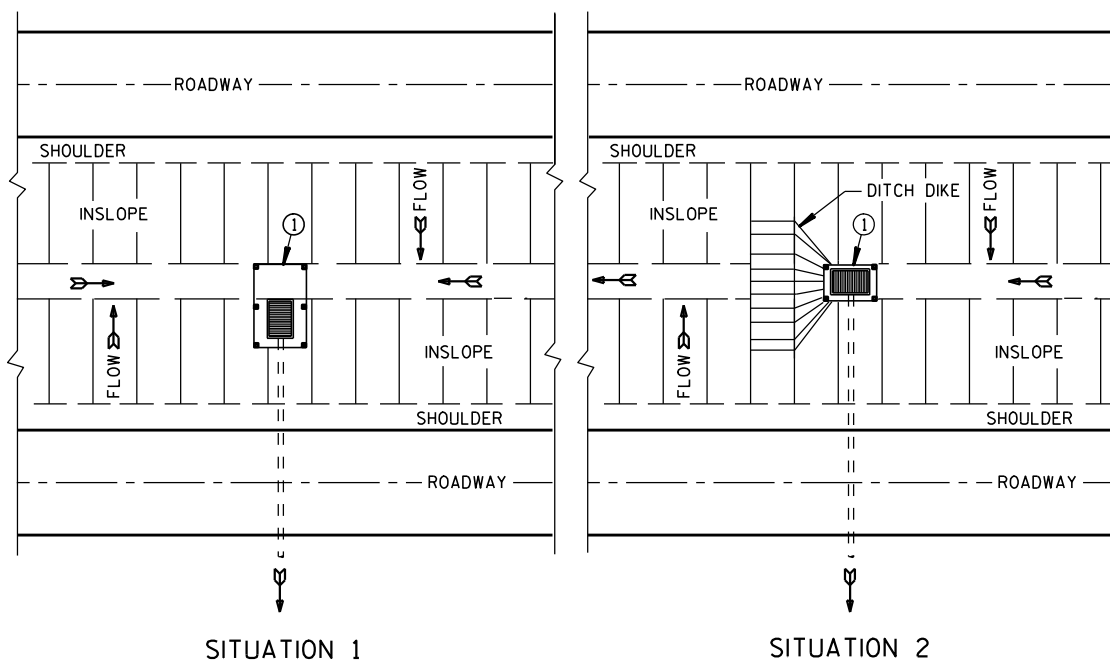
DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

<b>CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	



PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE

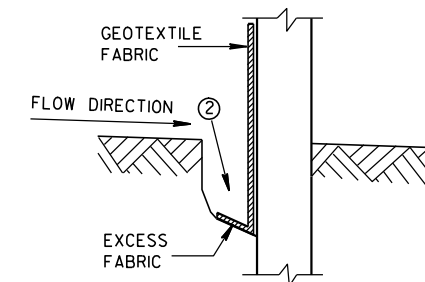


SITUATION 1 SITUATION 2  
PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

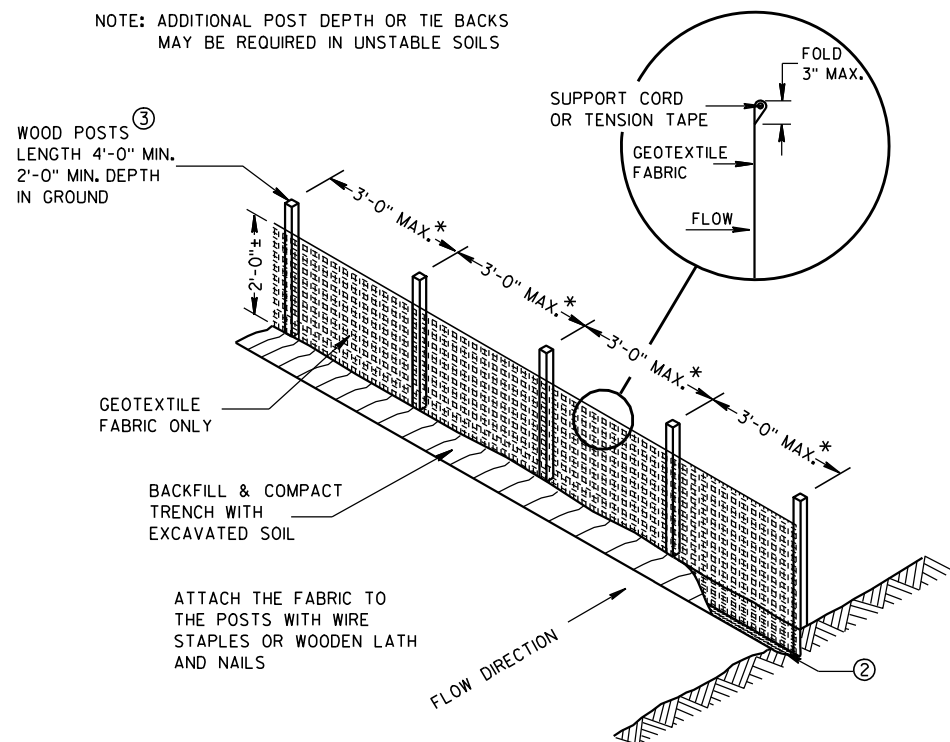
**GENERAL NOTES**

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

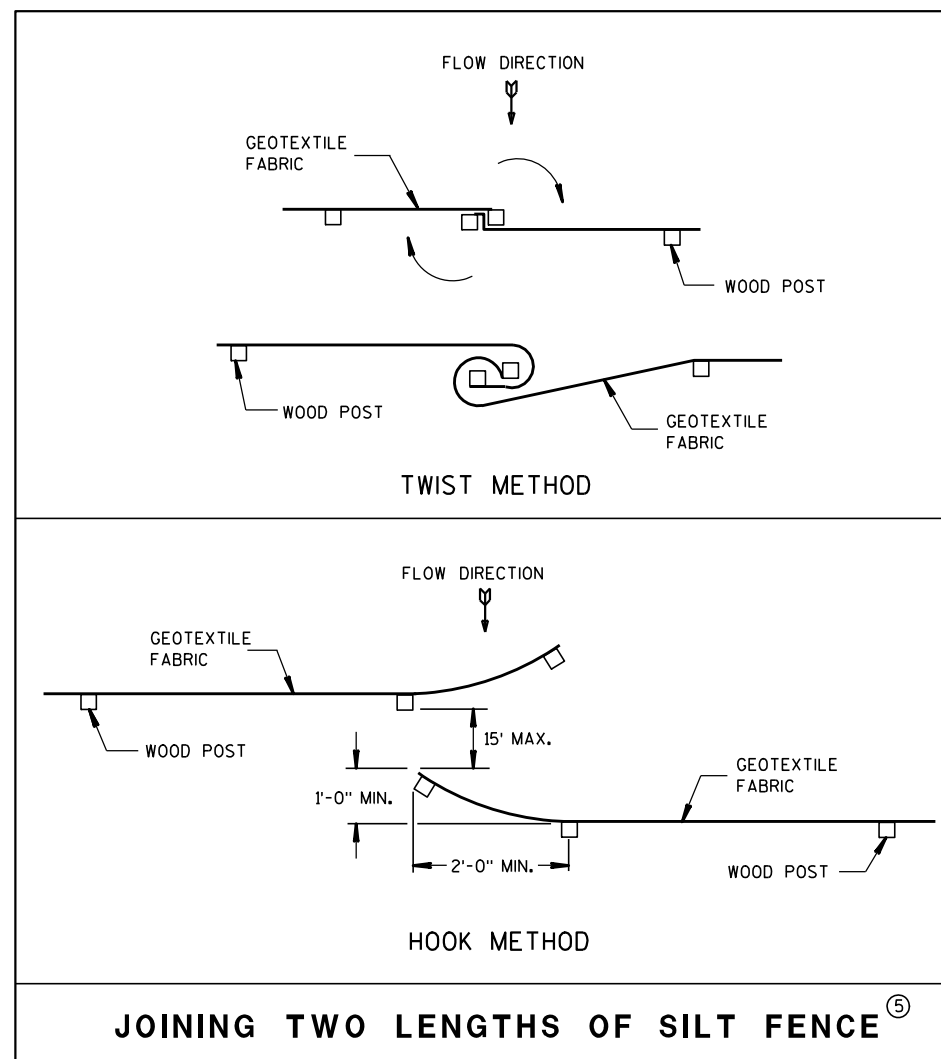
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" 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.



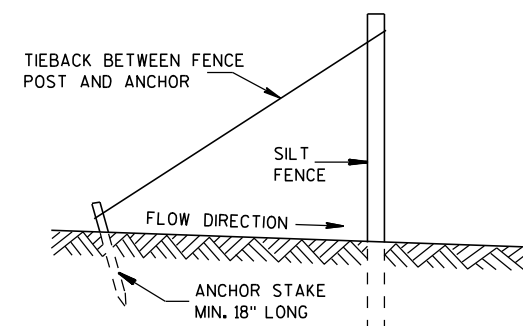
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤

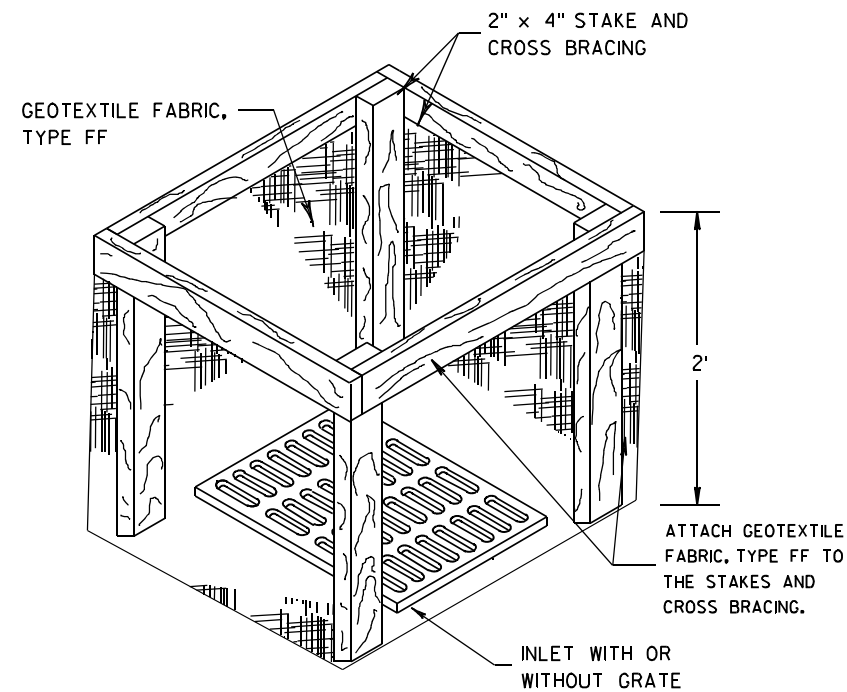
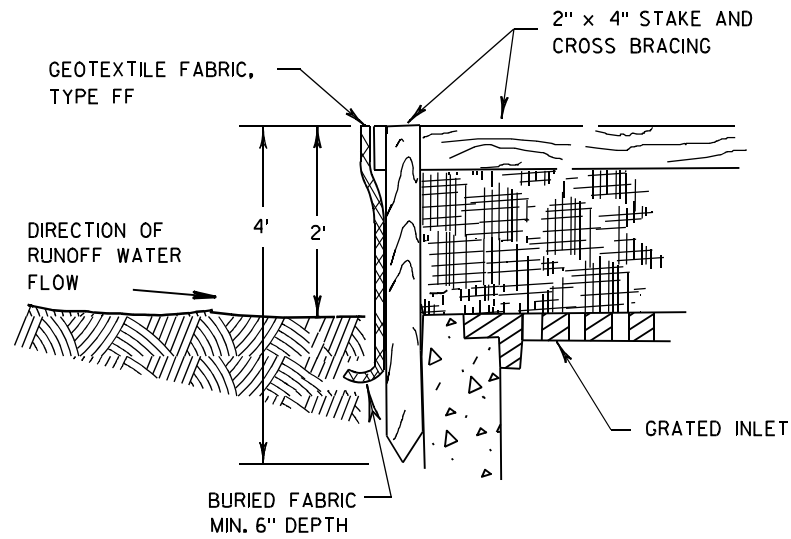


SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**INLET PROTECTION, TYPE A**

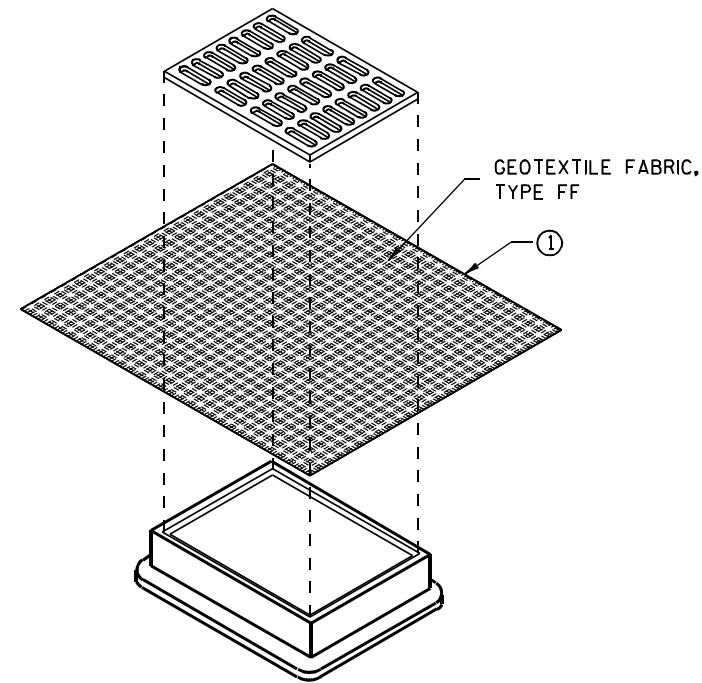
**GENERAL NOTES**

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.

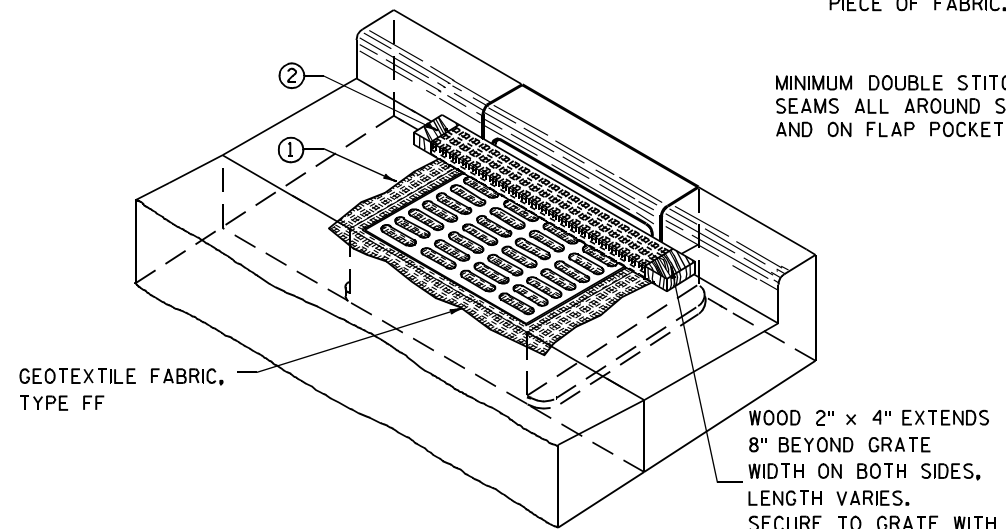
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B  
(WITHOUT CURB BOX)**

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



**INLET PROTECTION, TYPE C (WITH CURB BOX)**

**INSTALLATION NOTES**

**TYPE B & C**

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

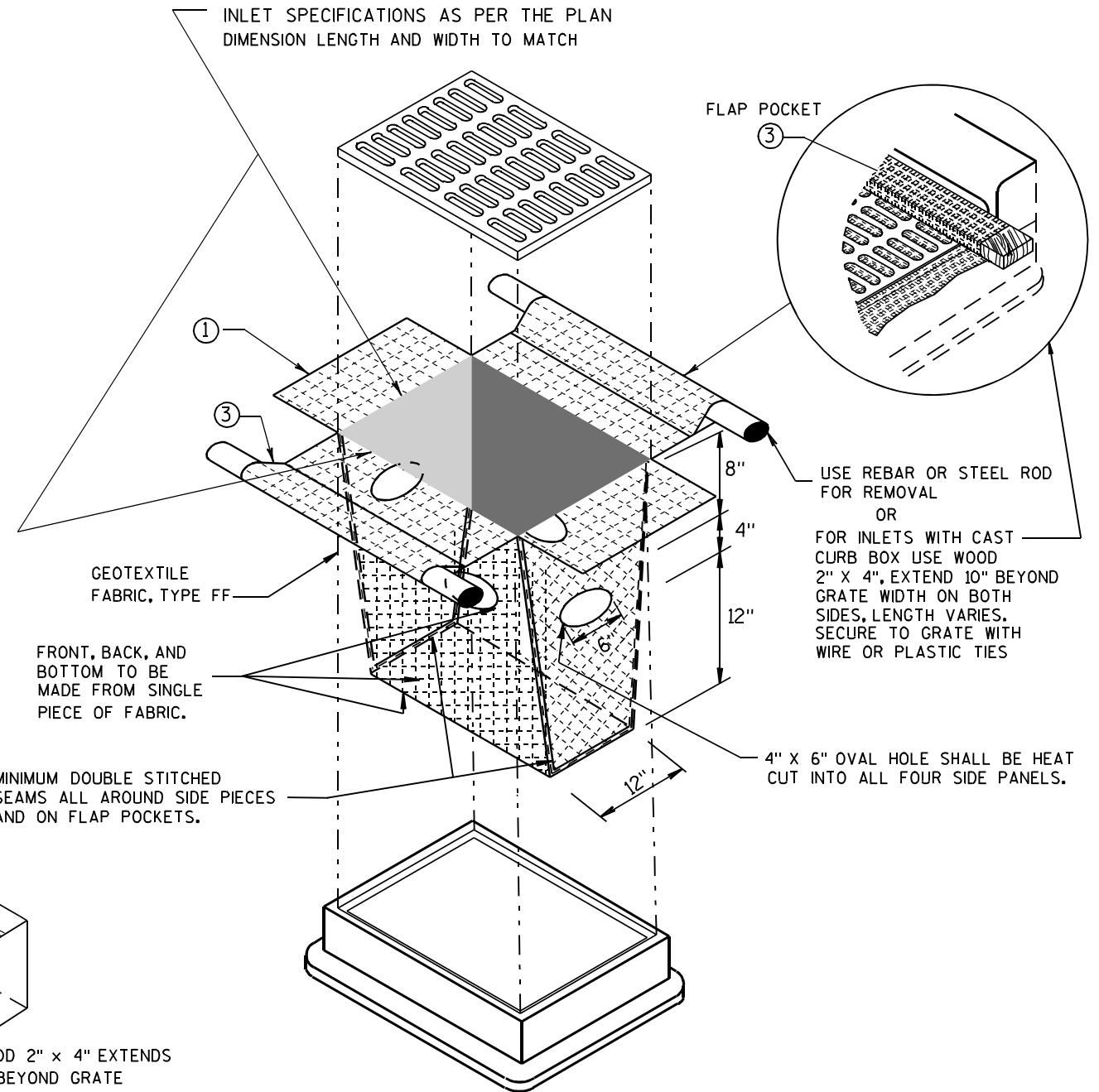
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**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.



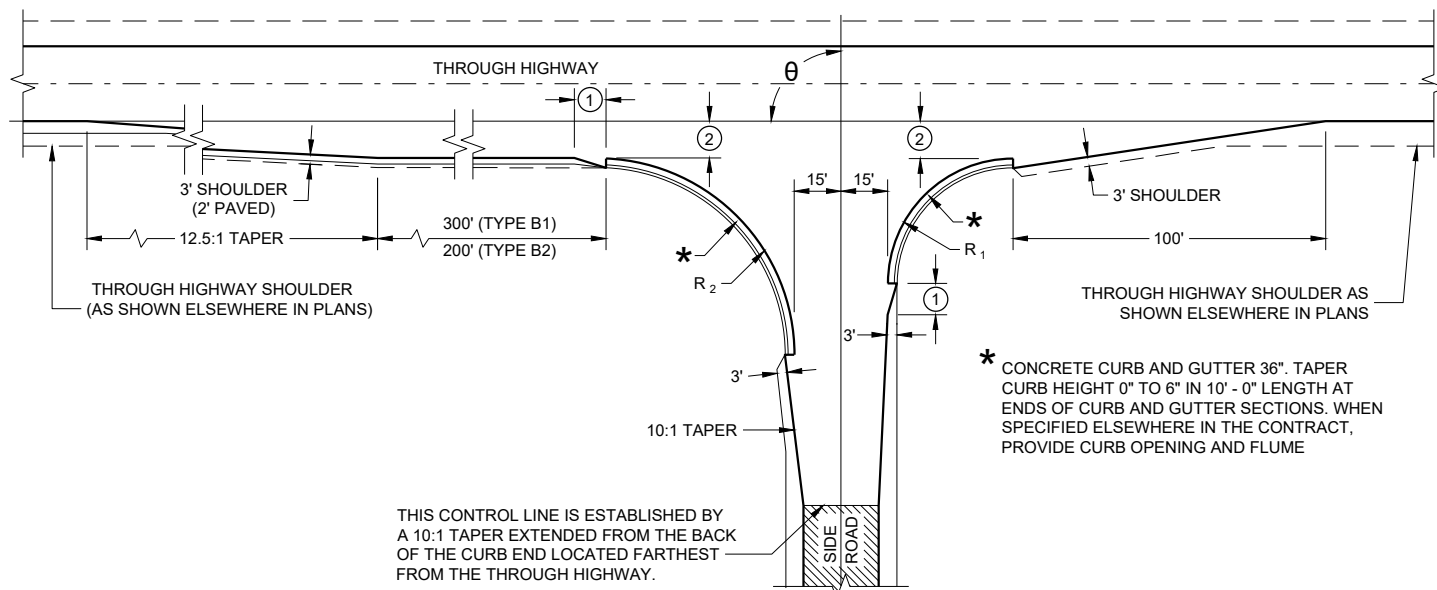
**INLET PROTECTION, TYPE D**

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

**INLET PROTECTION  
TYPE A, B, C, AND D**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**TYPE "B1" AND "B2"**

**RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS**

$\theta$	$R_1$	$R_2$
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

**GENERAL NOTES**

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

**SIDE ROAD SURFACING NOTE**

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

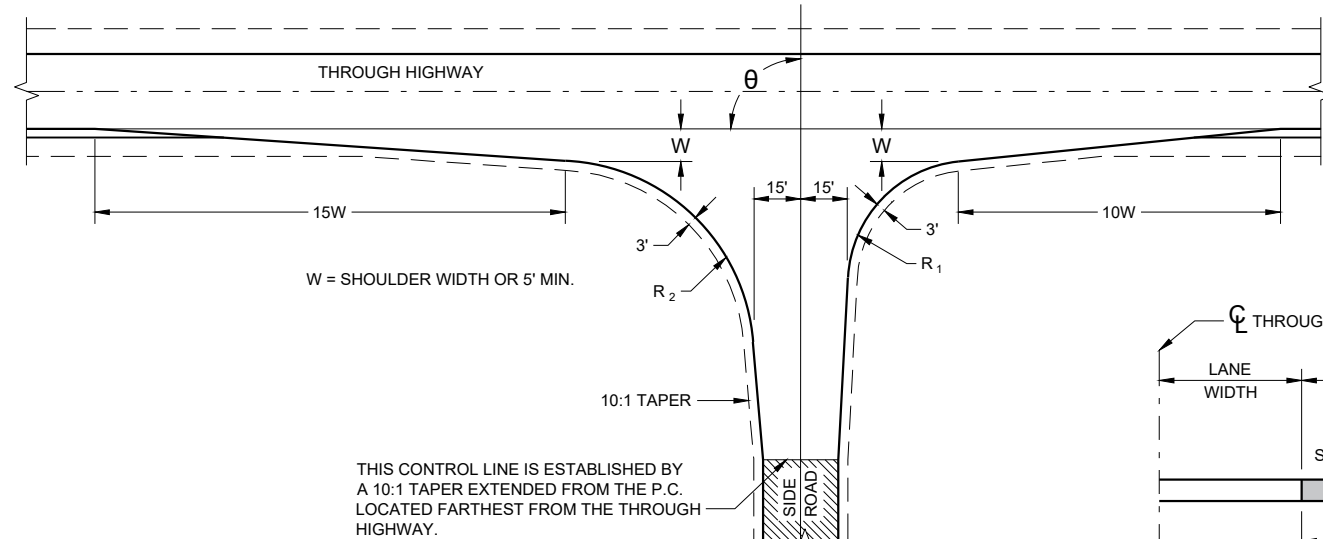
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

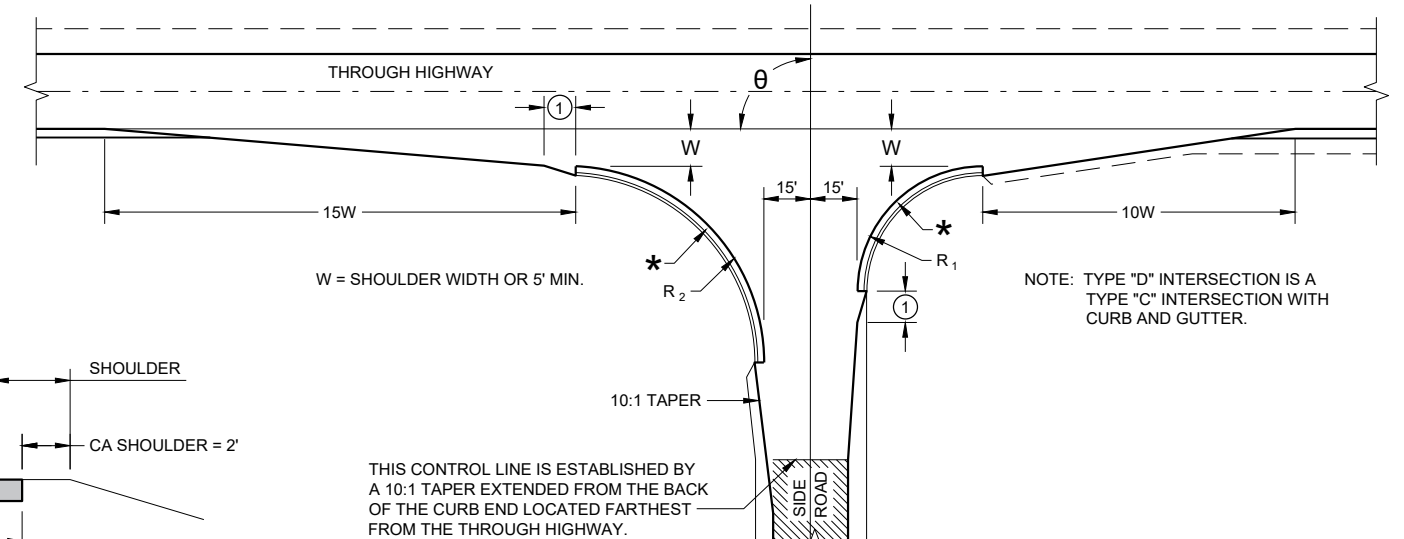
- ① 10-FT TYPICAL.
- ② 12-FT\*\* PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.  
\*\*10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE  
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH  
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.

\* CONCRETE CURB AND GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10' - 0" LENGTH AT ENDS OF CURB AND GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME

THIS CONTROL LINE IS ESTABLISHED BY A 10:1 TAPER EXTENDED FROM THE BACK OF THE CURB END LOCATED FARTHEST FROM THE THROUGH HIGHWAY.

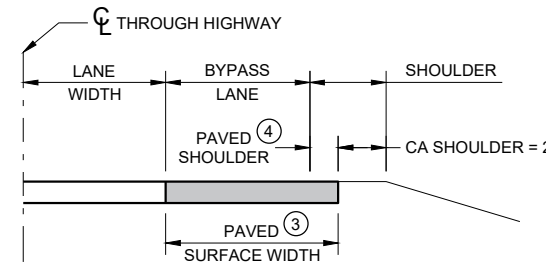


**TYPE "C"**

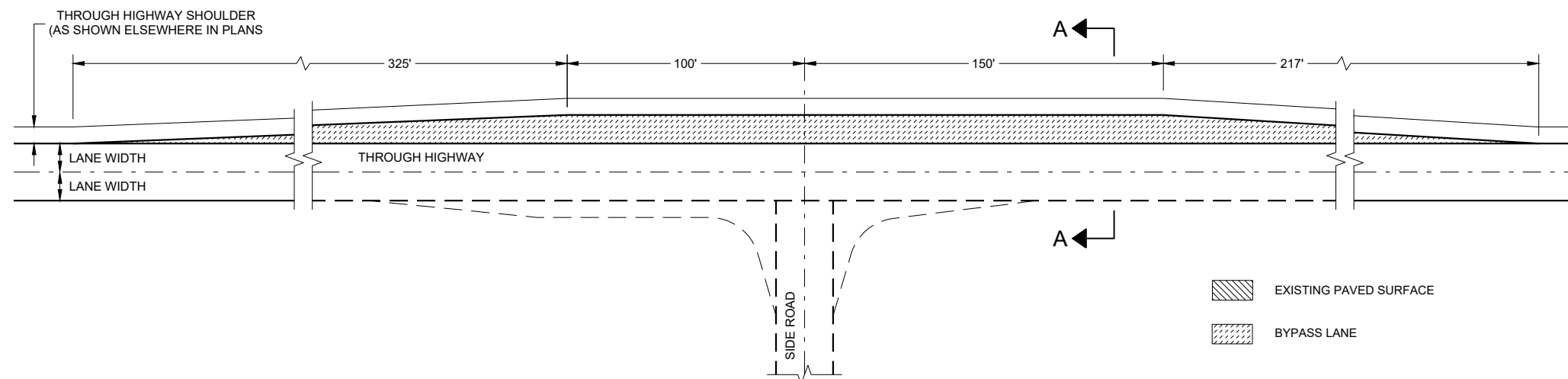


**TYPE "D"**

NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB AND GUTTER.



**SECTION A - A**  
(SHOWING BYPASS LANE AND SHOULDER)

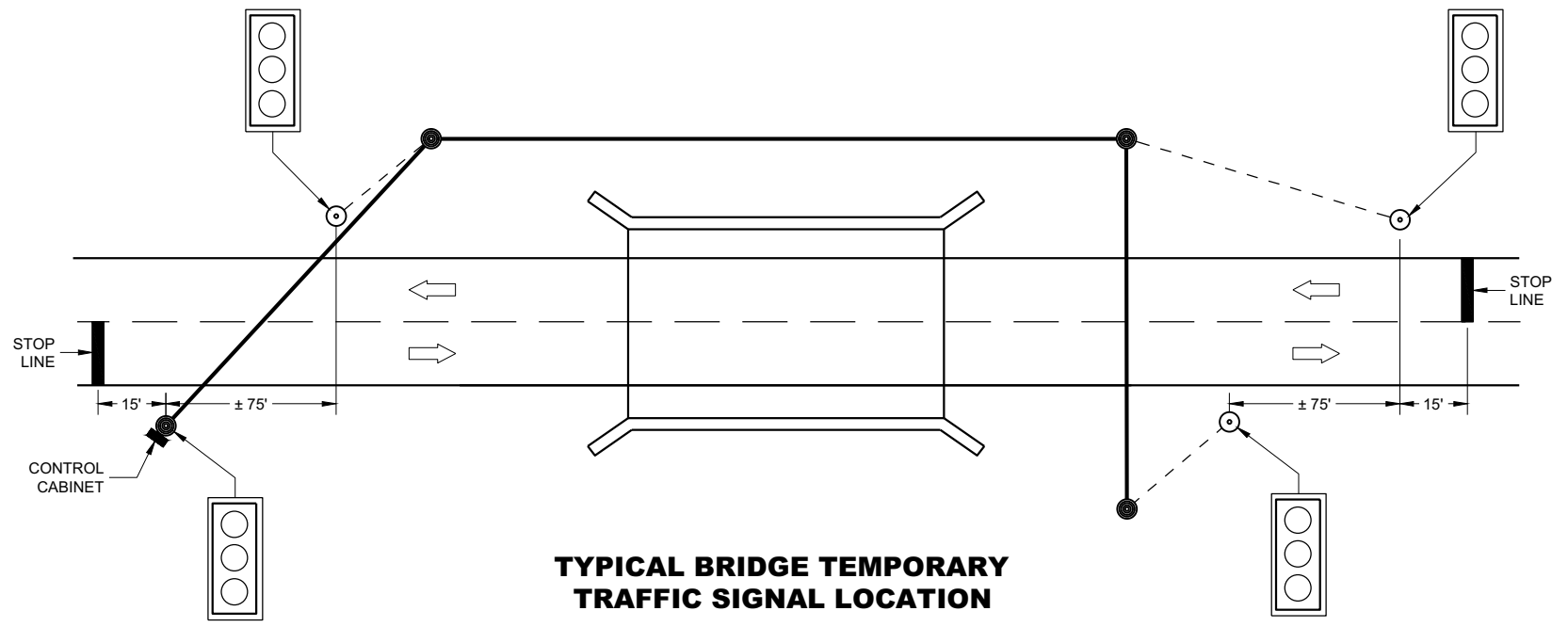


**TEE INTERSECTION BYPASS LANE DETAIL**

EXISTING PAVED SURFACE  
BYPASS LANE

**AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION**

**LEGEND**

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREAKAWAY)
- - - SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- DIRECTION OF TRAFFIC
- LED TRAFFIC SIGNAL WITH BACKPLATE

**GENERAL NOTES**

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAY BE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NON-BREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

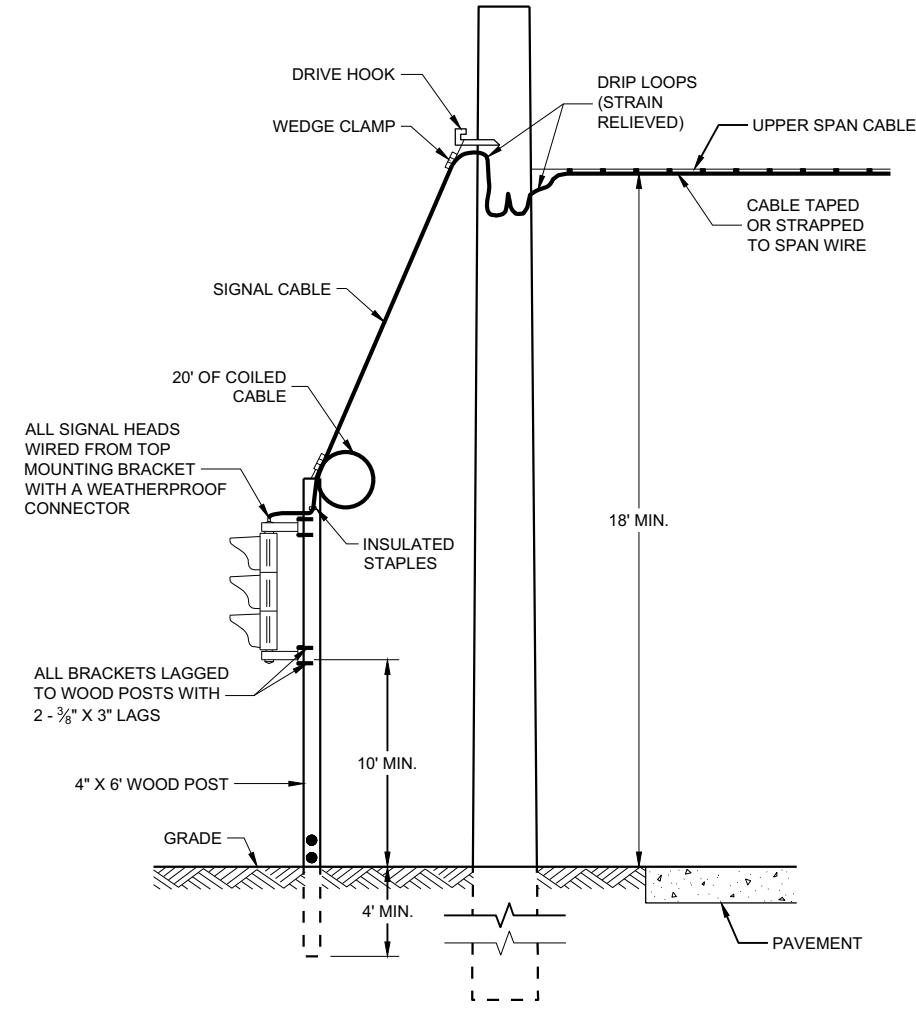
WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

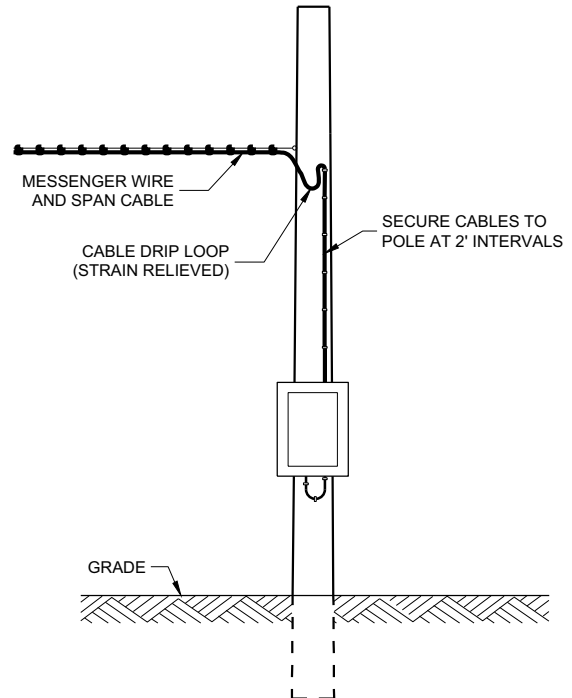
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL SHALL HAVE A BACKPLATE.

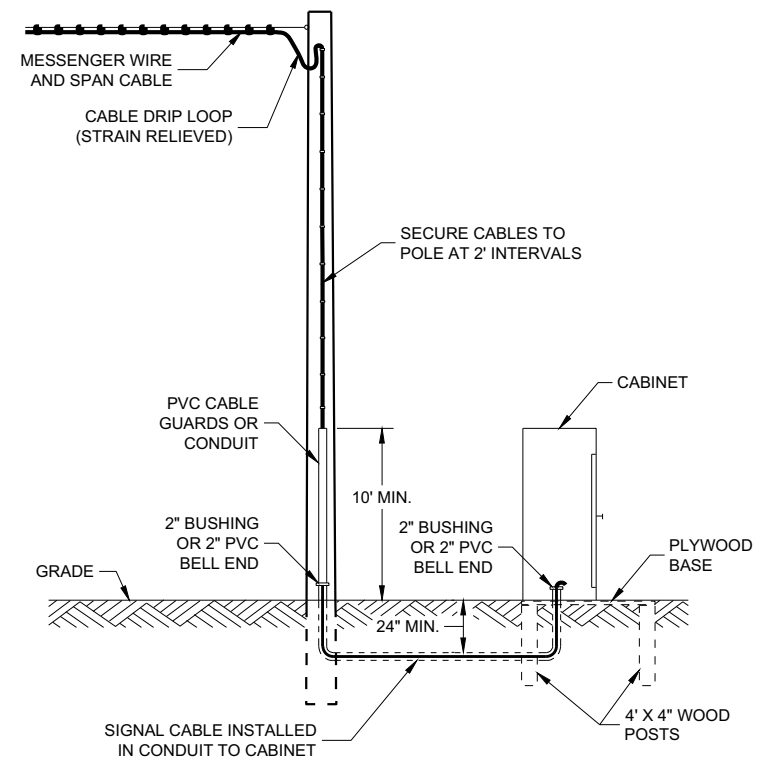
SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



**TYPICAL DROP TO TRAFFIC SIGNAL FACE**



**POLE MOUNT CABINET INSTALLATION**



**GROUND MOUNT CABINET INSTALLATION**

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE*
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/CURBS	2 FT

\* NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.

**BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Ahmet Demirelek  
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

6

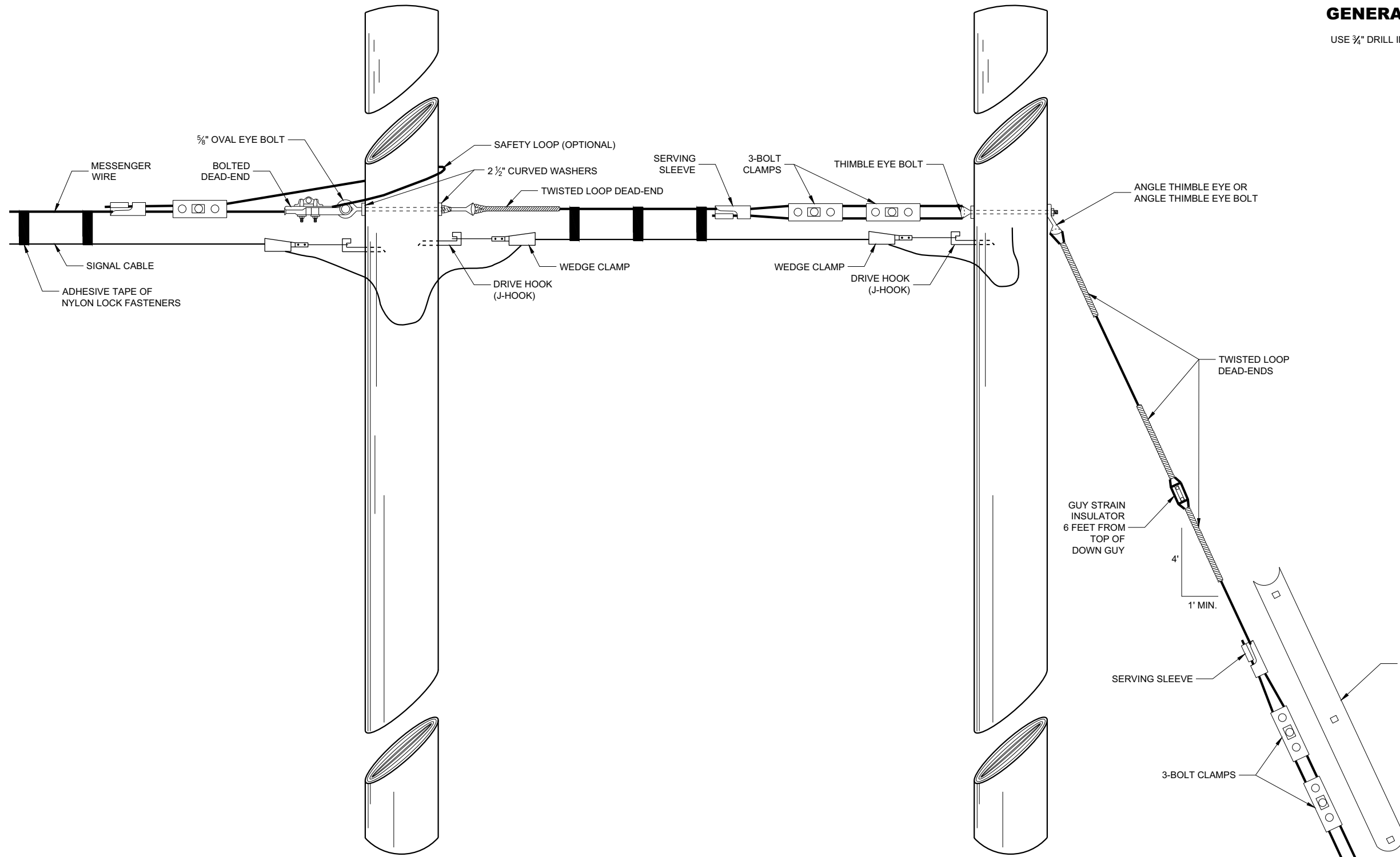
SDD09G02 - 05a

SDD09G02 - 05a



**GENERAL NOTES**

USE 3/4" DRILL IN WOOD POLE TO PROVIDE FOR 5/8" BOLTS.



**SPAN WIRE POLE**

**GUY POLE**

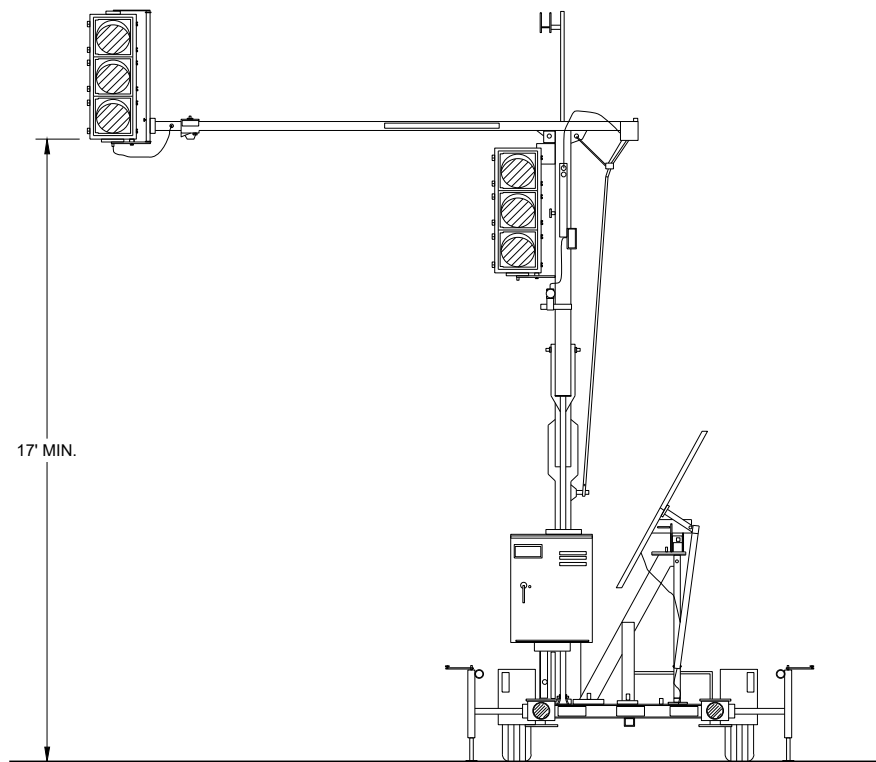
**TYPICAL DEAD-ENDINGS OR GUYING**

**BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2015 /S/ Ahmet Demerbilek  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

FHWA

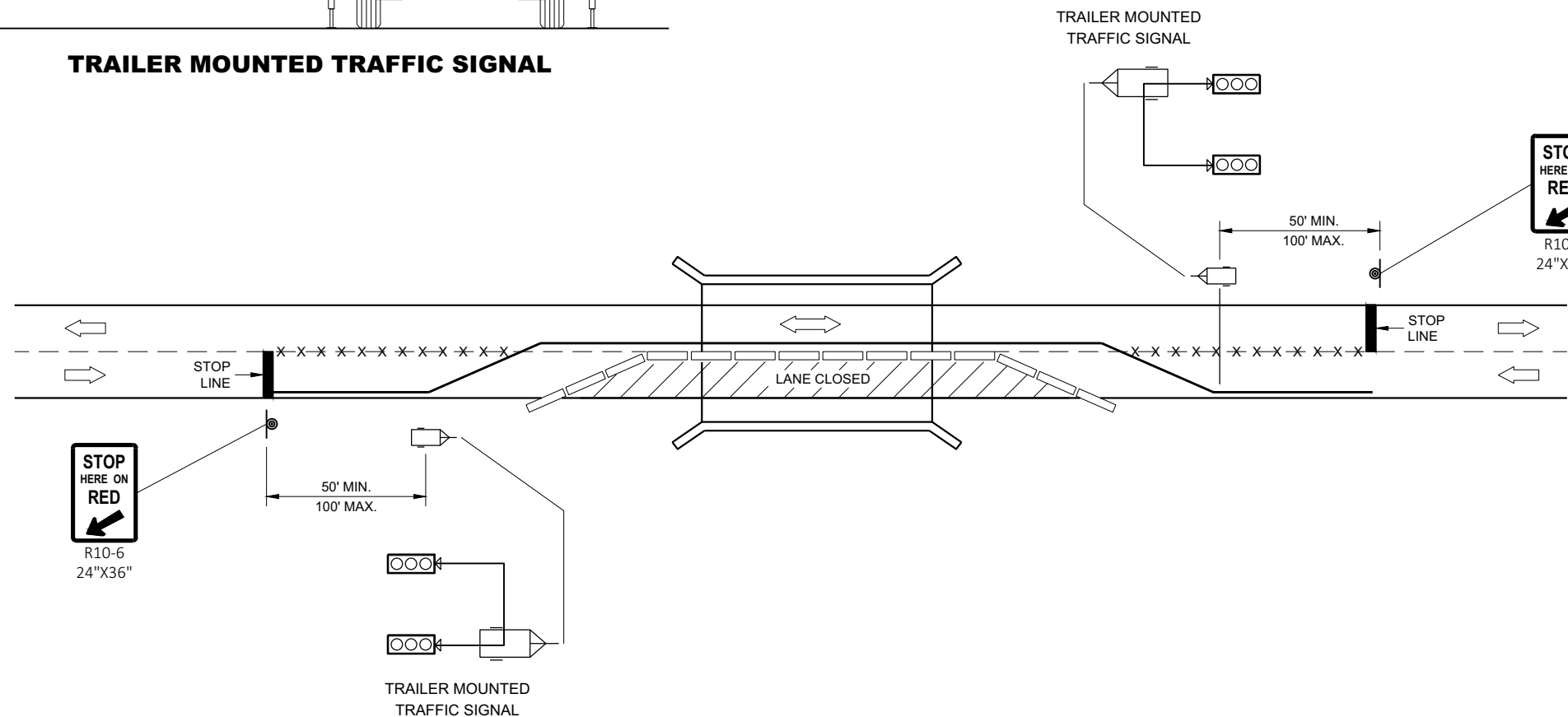


**TRAILER MOUNTED TRAFFIC SIGNAL**

**GENERAL NOTES**






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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



**TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION**

**LEGEND**

-  POST MOUNTED SIGN
-  TEMPORARY PRECAST CONCRETE BARRIER
-  TRAILER MOUNTED TRAFFIC SIGNAL
-  REMOVE PAVEMENT MARKINGS
-  DIRECTION OF TRAFFIC

**BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

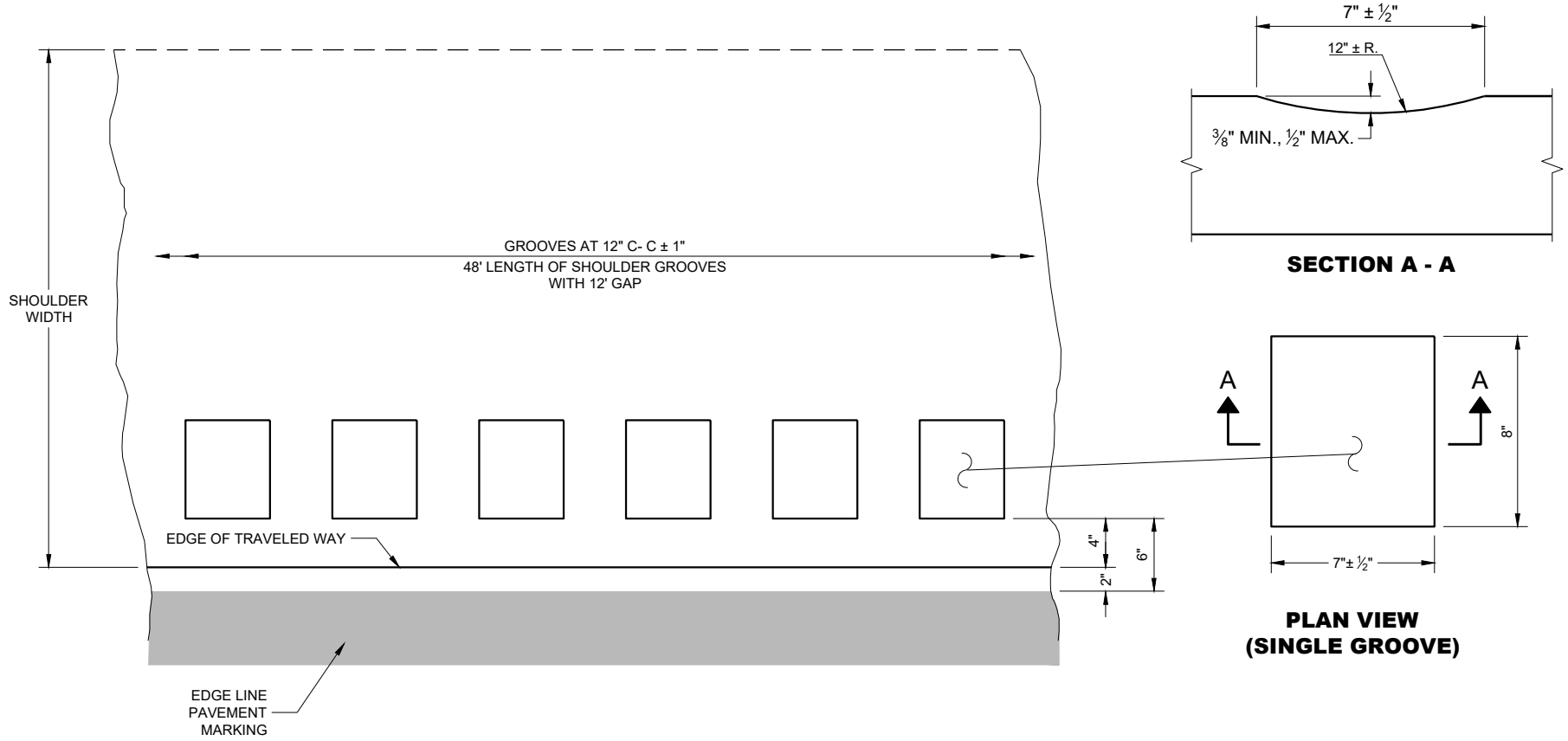
APPROVED  
June 2015 /S/ Ahmet Demerbilek  
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

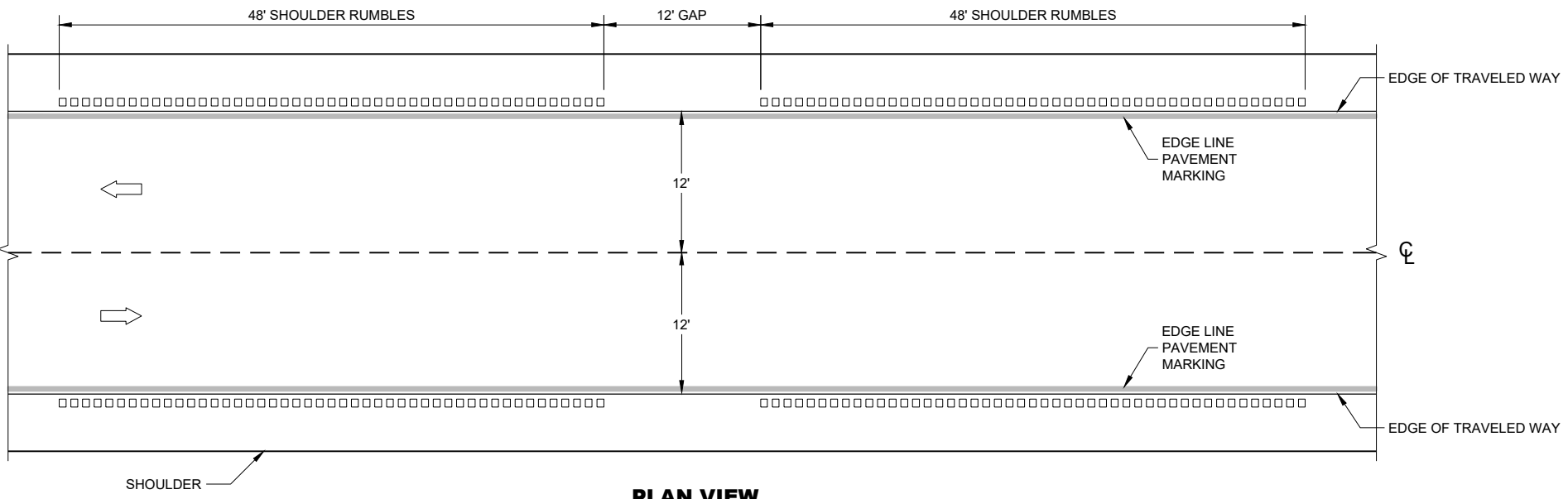
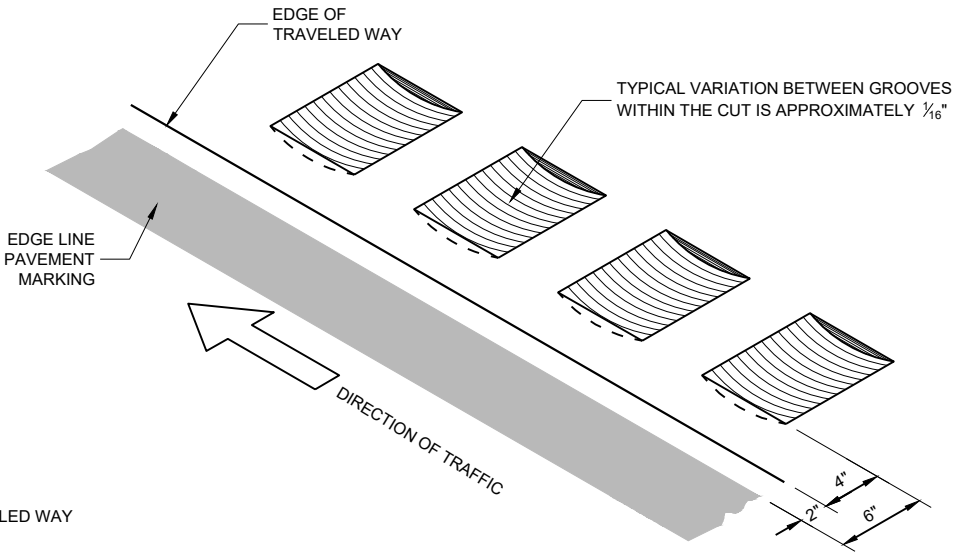
**GENERAL NOTES**

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.

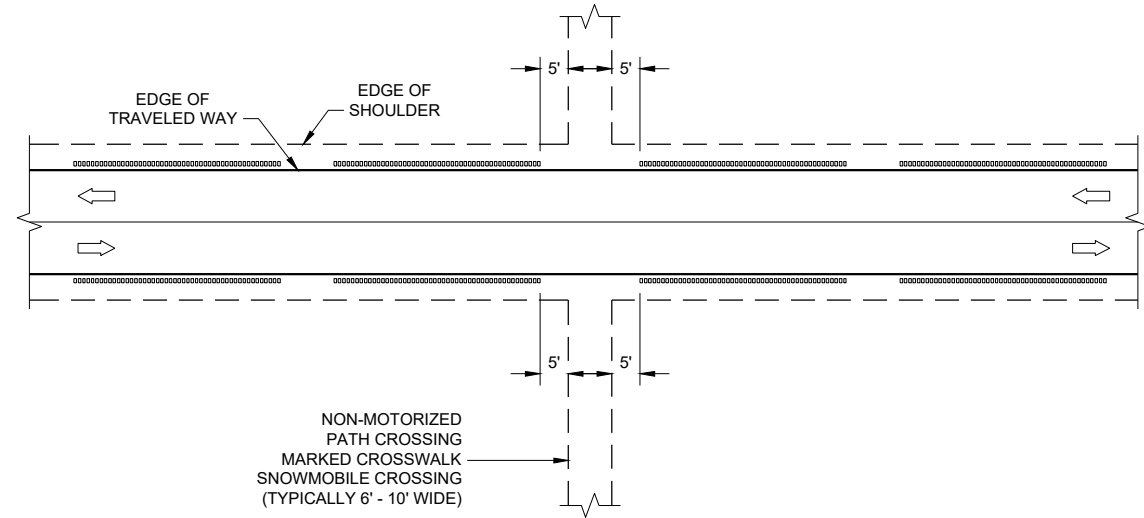


**PLAN DETAIL VIEW  
SHOULDER WITH GROOVES**

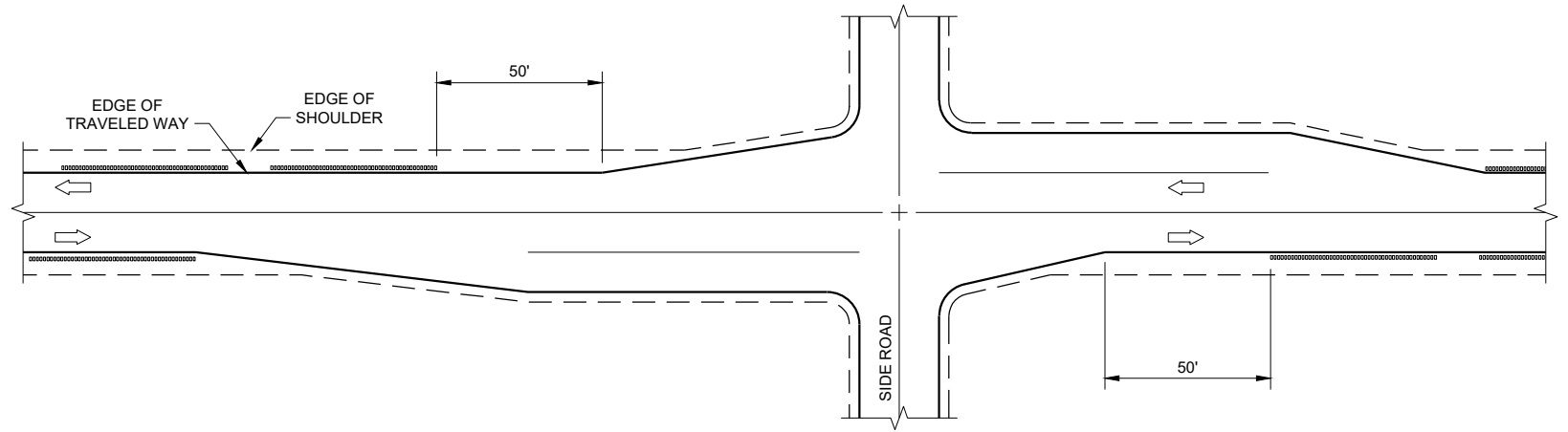


**SHOULDER RUMBLE STRIPS - ASPHALT**

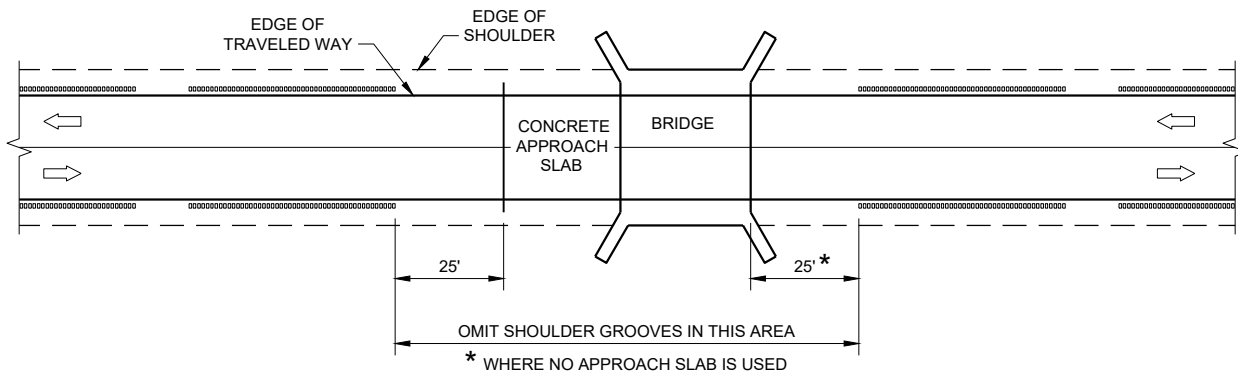
<b>SHOULDER RUMBLE STRIPS ASPHALT</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



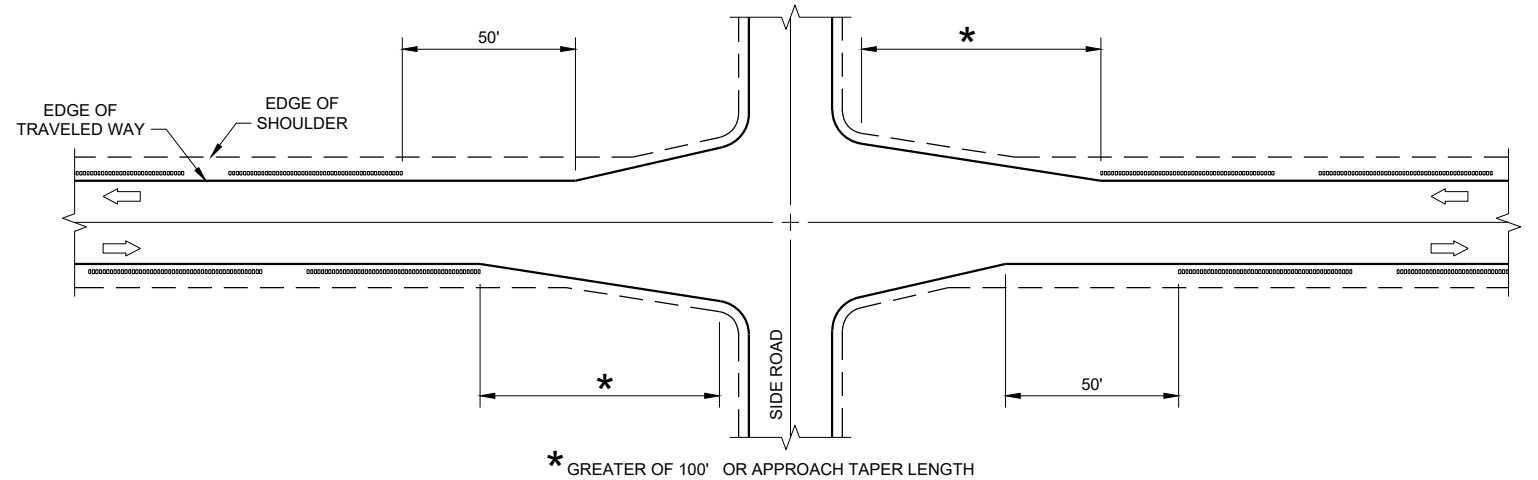
**GROOVES AT MISCELLANEOUS CROSSINGS**



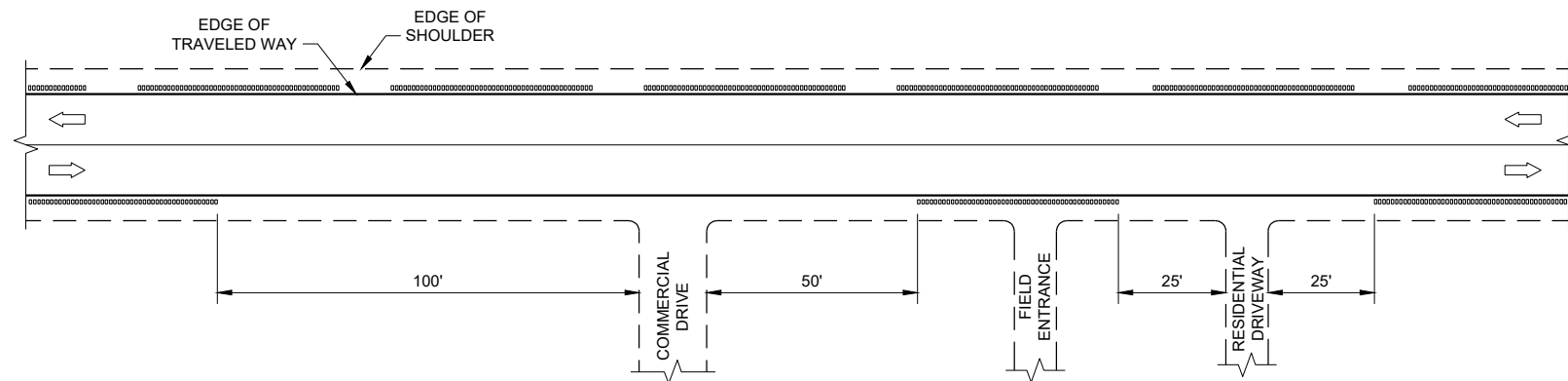
**GROOVES AT RIGHT TURN LANE**



**GROOVES AT BRIDGES**



**GROOVES AT INTERSECTIONS WITH APPROACH TAPER**



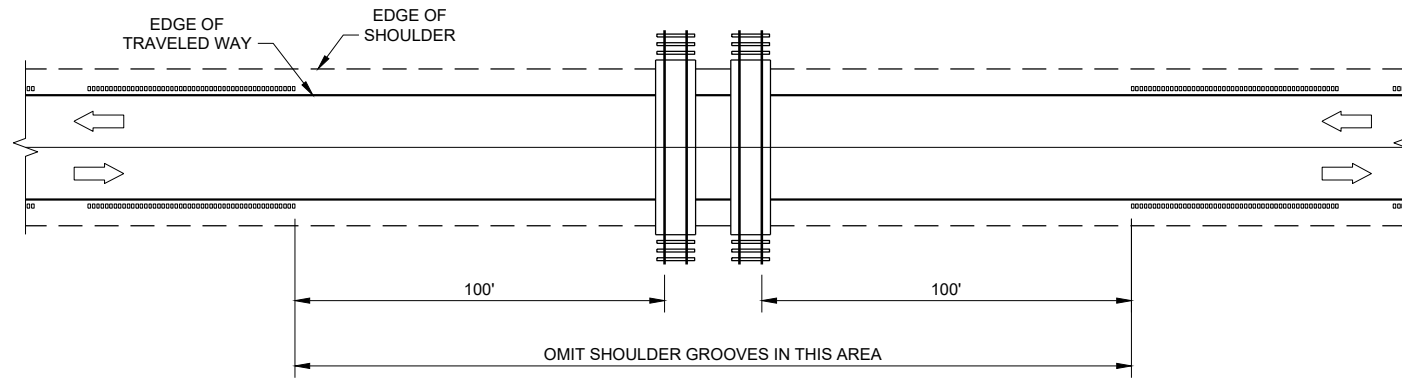
**GROOVES AT DRIVEWAYS**

**GENERAL NOTES**

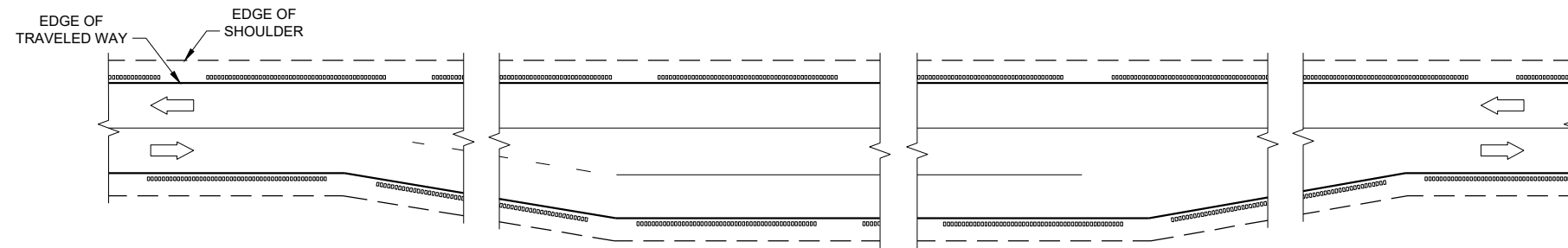
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE  
RUMBLE STRIPS  
CROSSINGS, INTERSECTIONS,  
BRIDGES, DRIVEWAYS**

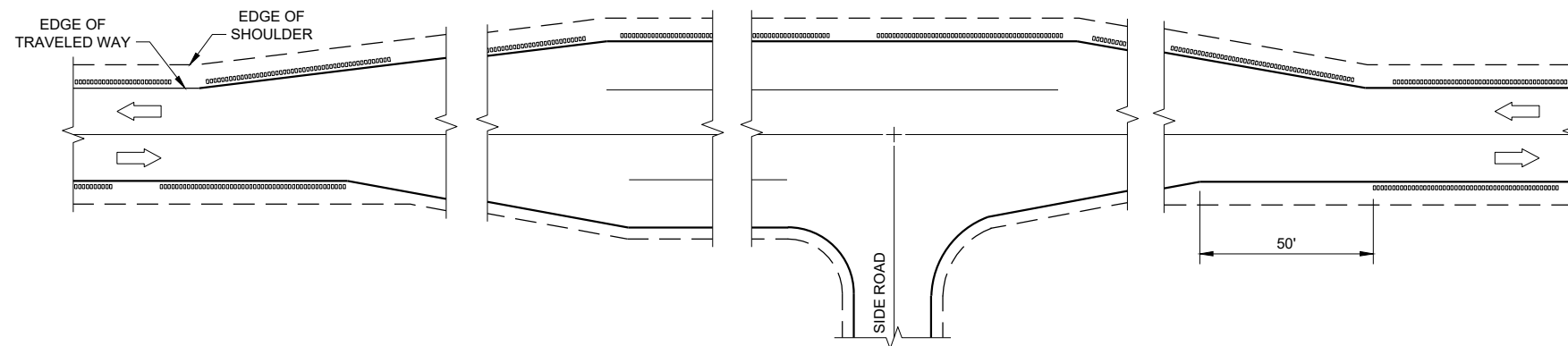
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**GROOVES AT RAILROADS**



**GROOVES AT PASSING AND CLIMBING LANES**

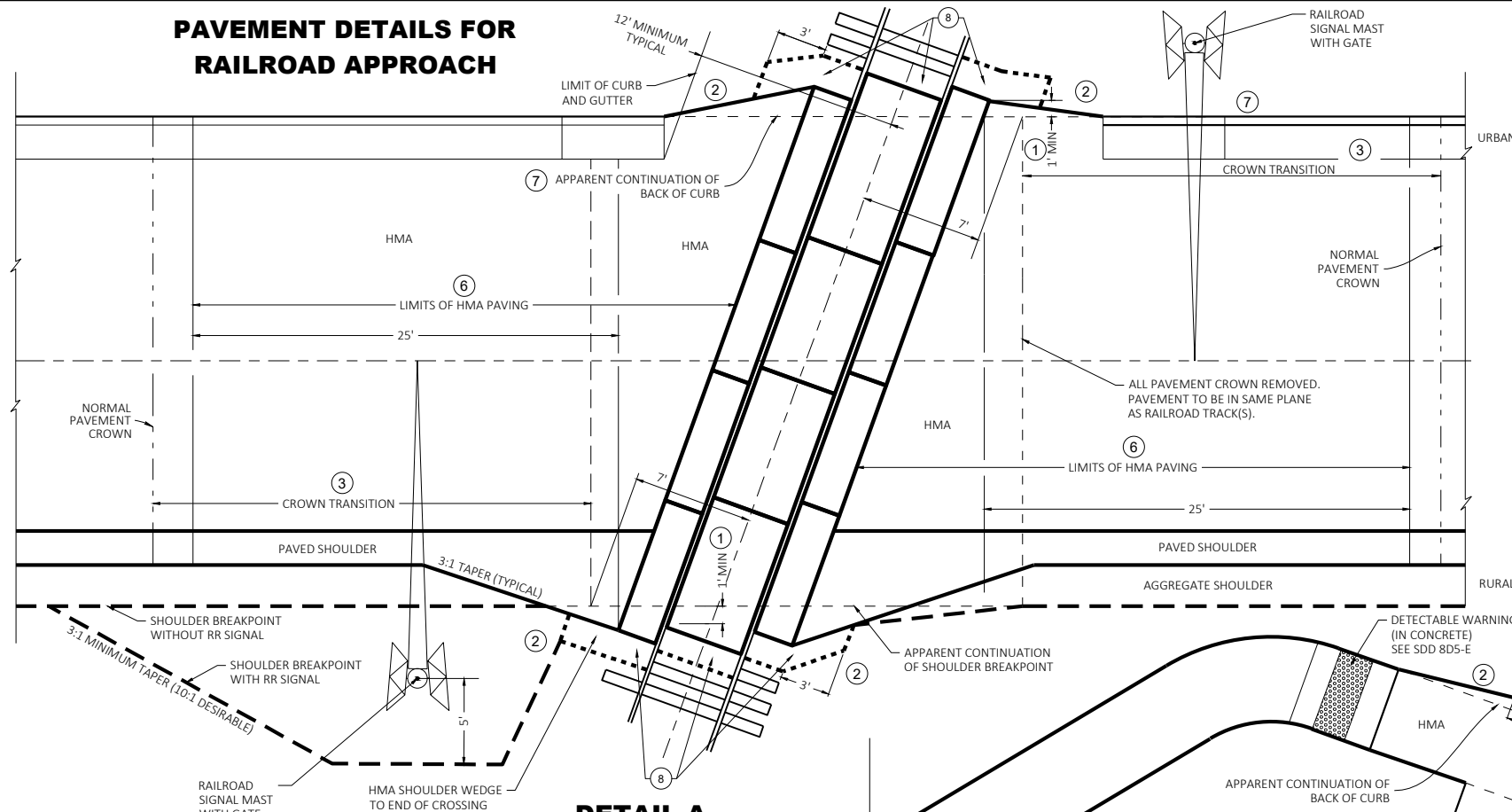


**GROOVES AT BYPASS LANES**

<b>SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**PAVEMENT DETAILS FOR RAILROAD APPROACH**



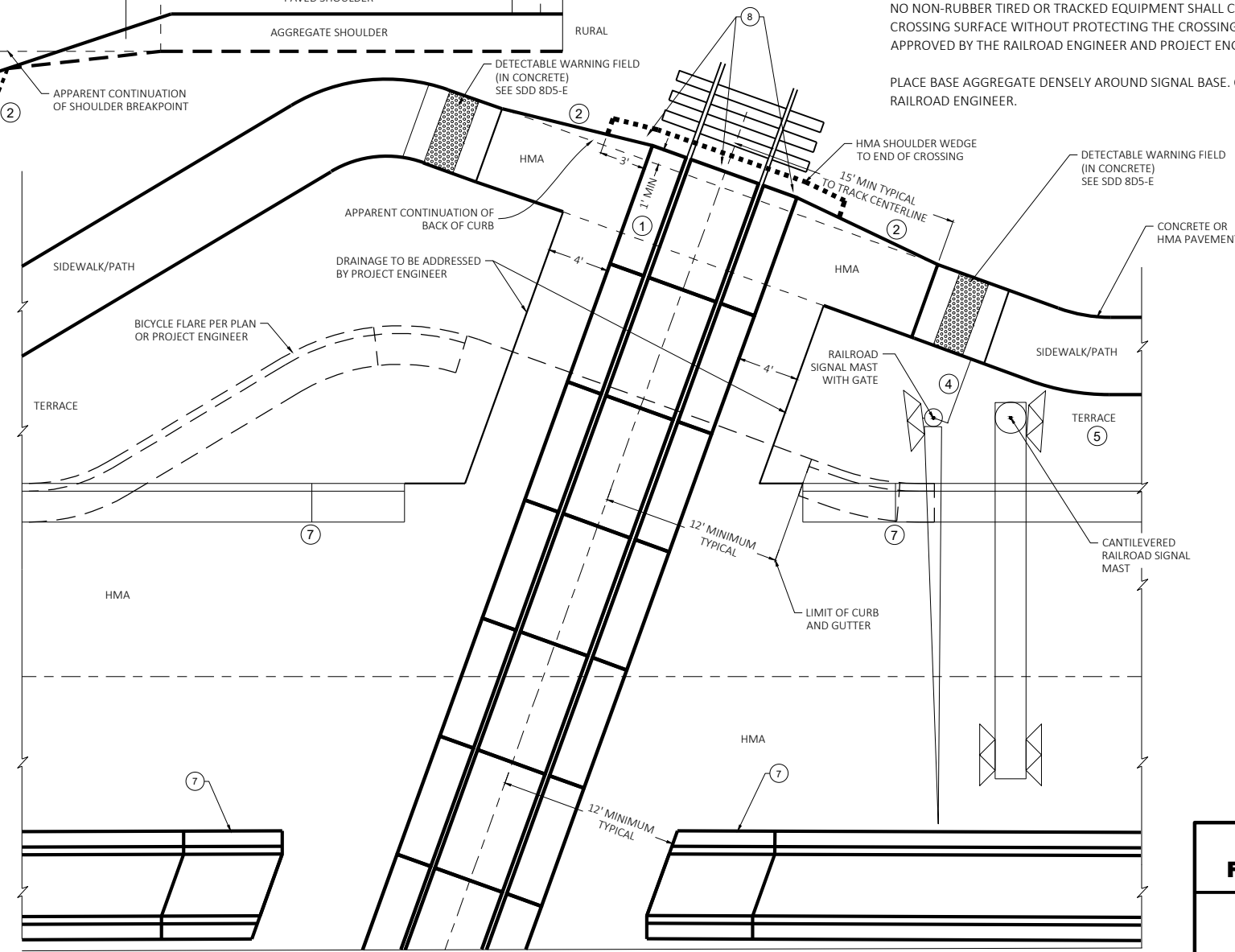
**DETAIL A  
RAILROAD APPROACH**

**GENERAL NOTES**

- PLANS AND SECTIONS ARE TYPICAL. DIMENSIONS VARY PER PROJECT.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, PROJECT PLANS, AND THE APPLICABLE SPECIAL PROVISIONS.
- CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS DIRECTED OTHERWISE. IF THE FINAL GRADES DON'T MATCH TO THE PLAN GRADES THEN GRADE ADJUSTMENTS WILL BE NECESSARY. CONFIRM NEW GRADES WITH PROJECT ENGINEER.
- HMA PAVEMENT APPROACHES, HMA PAVEMENT CROSSING SURFACES, AND HMA FLANGEWAY/FIELD FILLERS TO BE REPLACED BY ROADWAY CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE PLANS, SPECIAL PROVISIONS, RAILROAD ENGINEER, OR PROJECT ENGINEER.
- HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.
- WHEN THERE IS A SIDEWALK OR SHARED-USE PATH, ADD DETECTABLE WARNING FIELDS PER CURRENT STANDARD DETAIL DRAWING 8D5-E.
- THE CROSSING SHALL NOT BE OPENED TO ANY TYPE OF TRAFFIC UNTIL IT IS FULLY PAVED AND COOLED SUFFICIENTLY UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.
- NO NON-RUBBER TIED OR TRACKED EQUIPMENT SHALL CROSS OR SIT ON THE CROSSING SURFACE WITHOUT PROTECTING THE CROSSING SURFACE WITH A METHOD APPROVED BY THE RAILROAD ENGINEER AND PROJECT ENGINEER.
- PLACE BASE AGGREGATE DENSELY AROUND SIGNAL BASE. COORDINATE WITH THE RAILROAD ENGINEER.

**GENERAL NOTES CONTINUED**

- ① 1' MINIMUM CROSSING SURFACE COVERAGE PAST THE APPARENT CONTINUATION OF SHOULDER BREAKPOINT, BACK OF CURB, OR OUTSIDE EDGE OF SIDEWALK/PATH. INDIVIDUAL RAILROADS MAY HAVE DIFFERENT MINIMUM STANDARDS.
- ② HMA FLARE FROM OUTSIDE EDGE OF SIDEWALK/PATH, BACK OF CURB, OR AGGREGATE SHOULDER BREAKPOINT TO THE END OF CROSSING SURFACE MATERIAL.
- ③ CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.
- ④ NEAR EDGE OF PATH TO THE CENTER OF SIGNAL OR GATE MAST SHOULD BE A MINIMUM OF 5'-0". FOR SIDEWALK, THE NEAR EDGE SHOULD BE A MINIMUM OF 3'-0" TO THE CENTER OF SIGNAL OR GATE. NEAR EDGE OF SIDEWALK TO A NON-GATED MAST OR CANTILEVER SHOULD BE A MINIMUM OF 2'-6". SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATION IF THEY ARE NOT ALREADY INSTALLED.
- ⑤ TERRACE WIDTH VARIES. SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATIONS. PER PLAN OR PROJECT ENGINEER THE TERRACE AND SIDEWALK/PATH GRADES SHALL BE TRANSITIONED TO MATCH THE GRADE OF THE TRACK. FIELD FIT TO AVOID PONDING.
- ⑥ 25' MINIMUM HMA PAVING MEASURED PARALLEL TO THE ROAD OR 10' MINIMUM MEASURED PERPENDICULAR TO THE TRACK FROM THE EDGE OF THE CROSSING SURFACE, WHICHEVER IS GREATER.
- ⑦ REFERENCE SDD 8-D-01 END SECTION CURB AND GUTTER. MEDIAN END NEAR THE TRACK SHOULD BE PARALLEL TO THE TRACK. 6'-0" TAPER FOR A MEDIAN SHOULD BE REDUCED TO GET FULL HEIGHT CURB WHERE THE GATE COMES DOWN. DESIGN OPTION TO POUR MEDIAN TAPER IN ONE PIECE. BUILD PER PLAN UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.
- ⑧ IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL G.



**DETAIL B  
MEDIAN AND SIDEWALK/SHARED-USE PATH APPROACH**

**PAVEMENT DETAILS FOR RAILROAD APPROACH**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Kristen Sommers  
DATE STATE RAILROAD ENGINEERING AND SAFETY SUPERVISOR  
FHWA

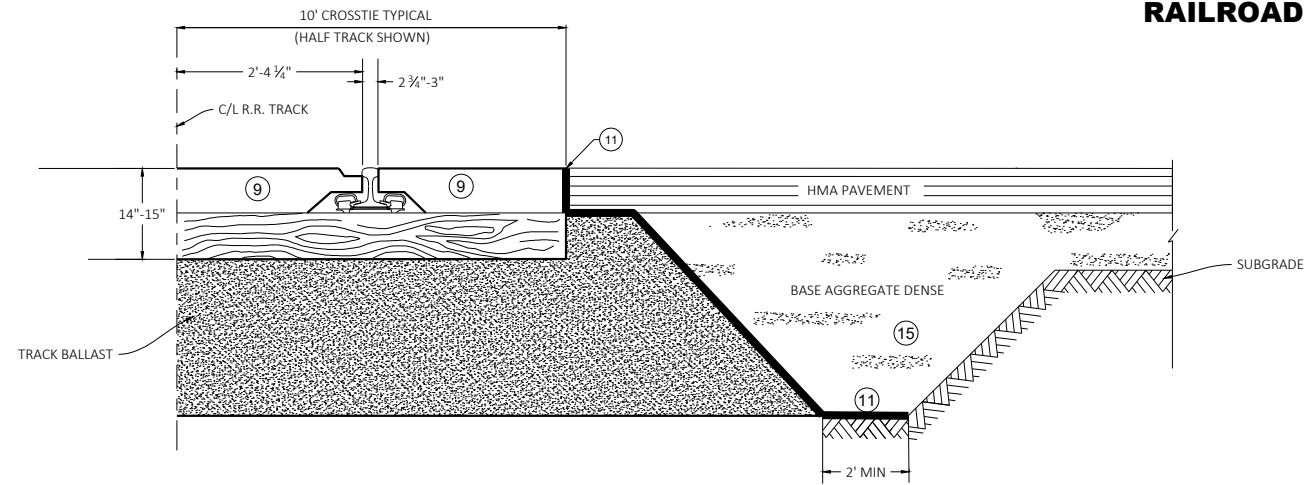
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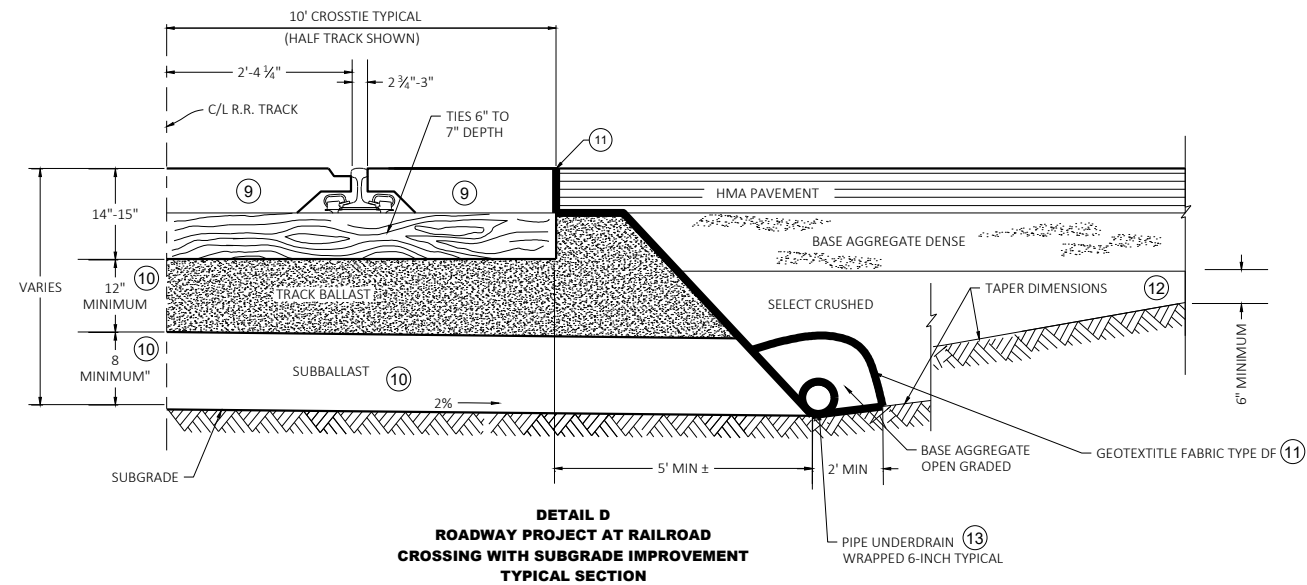
SDD 13B01-11a

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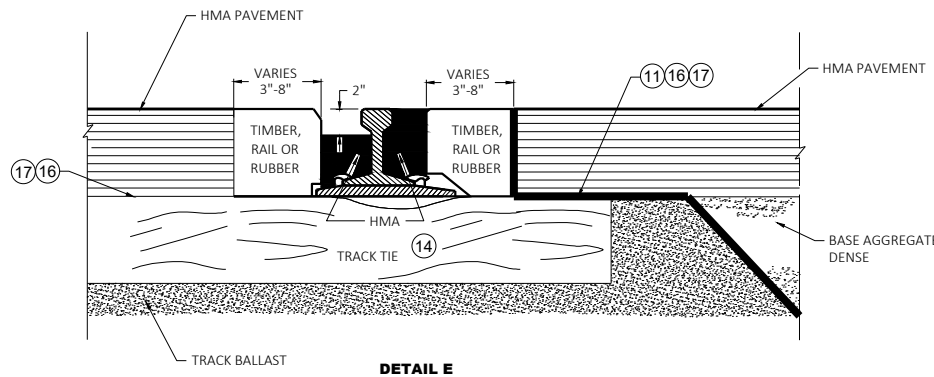
## TYPICAL SECTIONS FOR RAILROAD APPROACH



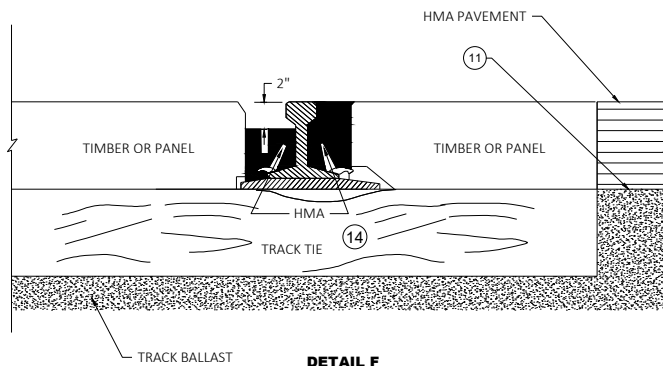
**DETAIL C**  
ROADWAY PROJECT AT RAILROAD  
CROSSING WITHOUT SUBGRADE IMPROVEMENT  
TYPICAL SECTION



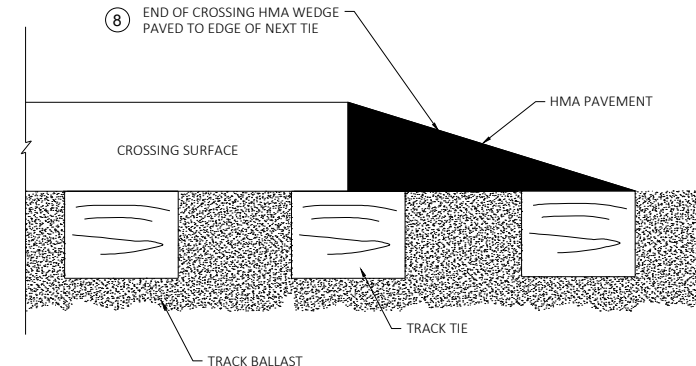
**DETAIL D**  
ROADWAY PROJECT AT RAILROAD  
CROSSING WITH SUBGRADE IMPROVEMENT  
TYPICAL SECTION



**DETAIL E**  
TIMBER, RAIL OR  
RUBBER SECTION  
HMA FLANGEWAY  
AND FIELD FILLERS



**DETAIL F**  
PANEL SECTION  
HMA FLANGEWAY  
AND FIELD FILLERS



**DETAIL G**  
END OF CROSSING HMA WEDGE

### GENERAL NOTES

- 8 IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL A AND B.
- 9 MATCH THE CROSSING TYPE THAT IS INSTALLED UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER.
- 10 TRACK BALLAST AND SUBBALLAST REQUIRED 12" AND 8" MINIMUM DEPTHS RESPECTIVELY. DIMENSION FROM BOTTOM OF TRACK TIE TO HIGH SIDE OF 2% SLOPE. THE 2% SLOPE IS REQUIRED ON RAILROAD SUBBALLAST. SEE PLAN FOR CROWN, MATERIAL THICKNESS, AND SLOPE DIRECTION. SUBBALLAST CAN BE HMA, 1 1/2" BASE AGGREGATE DENSE, SELECT CRUSHED, OR A COMBINATION OF THEM.
- 11 GEOTEXTILE FABRIC TYPE SAS PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION ON TOP OF THE TRACK BALLAST WHERE IT IS UNDER HMA PAVEMENT, BASE AGGREGATE DENSE OR SELECT CRUSHED MATERIAL AND THE FIELD SIDE BALLAST CRIBS. GEOTEXTILE FABRIC TYPE DF PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION UNDER AND AROUND THE PIPE UNDERDRAIN. PLACING GEOTEXTILE FABRIC OR GEOGRID UNDER THE SUBBALLAST IS OPTIONAL.
- 12 TAPER DIMENSIONS PROVIDED BY PLAN OR BY PROJECT ENGINEER.
- 13 IF SHOWN ON THE PLAN, TYPICAL 6-INCH PERFORATED PVC SCHEDULE 80 PIPE UNDERDRAIN TO BE PLACED ALONG THE TOE OF SLOPE, GRADED TO DRAIN AND DAYLIGHT OR INTO STORM SEWER. BASE AGGREGATE OPEN GRADED OVER PIPE UNDERDRAIN AND THEN WRAPPED IN GEOTEXTILE FABRIC TYPE DF SCHEDULE A IN ORDER TO STABILIZE AND SEPARATE FROM SELECT CRUSHED.
- 14 HMA FLANGEWAY AND FIELD FILLERS ARE TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR, WHEN NOT PROVIDED BY OTHERS AS PART OF THE CROSSING SURFACE MATERIAL. IF THE CROSSING SURFACE IS NOT BEING REPLACED, THEN REMOVE AND REPLACE THE HMA FLANGEWAY AND FIELD FILLERS AS DIRECTED BY THE RAILROAD OR PROJECT ENGINEER.
- 15 GRADE TO MATCH EXISTING OR PROPOSED TYPICAL SECTION OF ROADWAY. SEE PLAN OR PROJECT ENGINEER FOR MORE DETAIL. IF NOT NOTED OTHERWISE IN THE PLAN, BACKFILL ANY REMOVED BASE AND SUBGRADE WITH BASE AGGREGATE DENSE.
- 16 IF THE CROSSING IS NOT BEING REPLACED, REMOVE AND REPLACE HMA AS DIRECTED BY RAILROAD AND PROJECT ENGINEER. CARE MUST BE TAKEN TO NOT DAMAGE CROSSING PANELS, TIES, RAIL, PLATES AND SPIKES.
- 17 PLACE HMA FULL DEPTH. AGGREGATE IS NOT TO BE PLACED BETWEEN THE RAILROAD TIES AND THE HMA PAVEMENT.

### TYPICAL SECTIONS FOR RAILWAY APPROACH

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

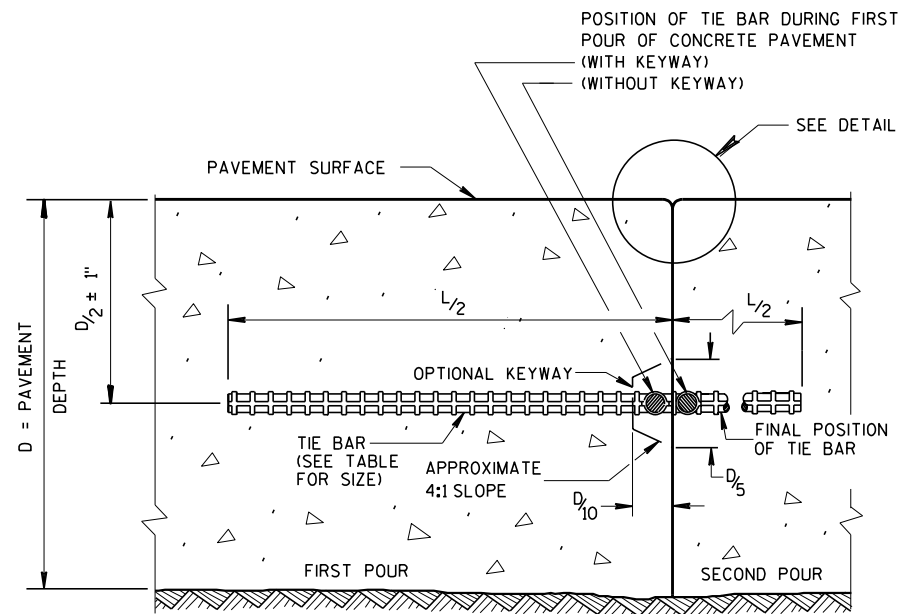
APPROVED

May 2023

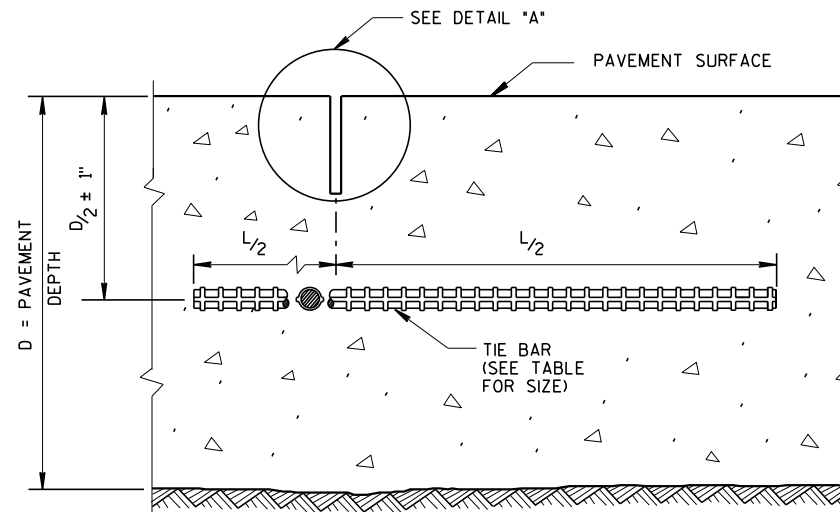
DATE

FHWA

/s/ Kristen Sommers  
STATE RAILROAD ENGINEERING  
AND SAFETY SUPERVISOR



**CONSTRUCTION JOINT**



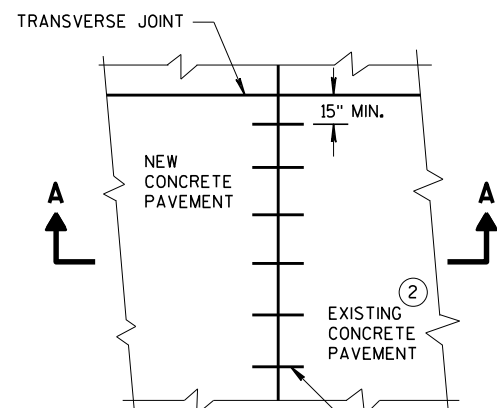
**SAWED JOINT**

**GENERAL NOTES**

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

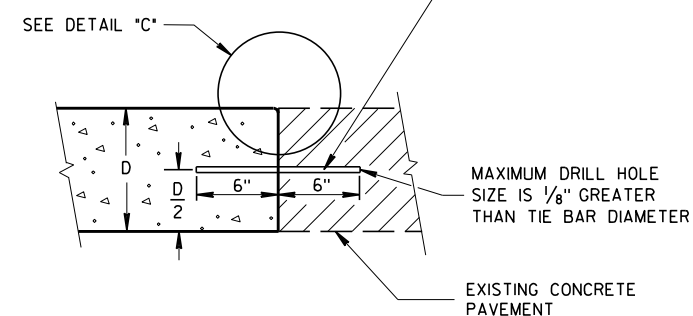
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

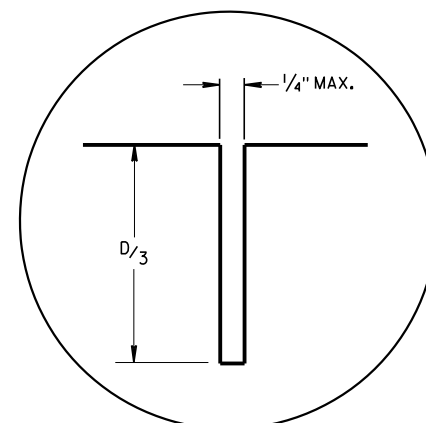


**PLAN VIEW**

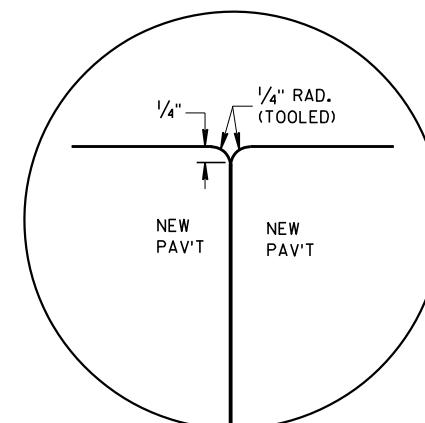
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



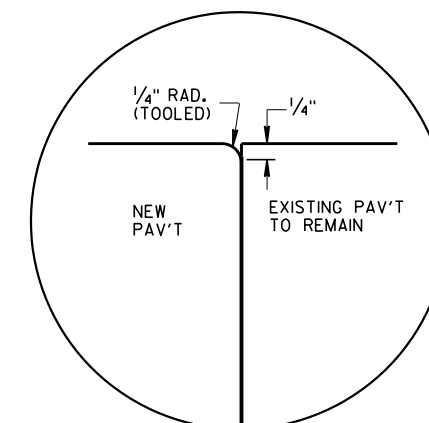
**SECTION A-A  
LONGITUDINAL CONSTRUCTION JOINT  
TIE BARS ANCHORED  
INTO EXISTING PAVEMENT**



**DETAIL "A"**



**DETAIL "B"**



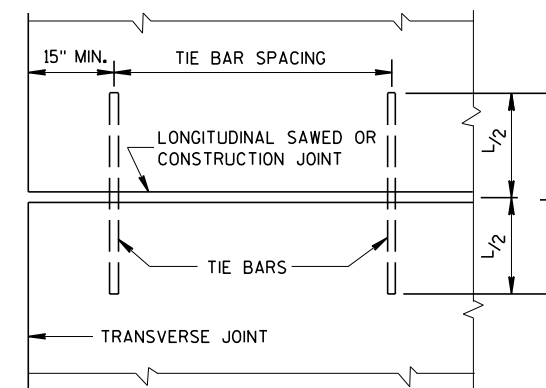
**DETAIL "C"**

**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" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

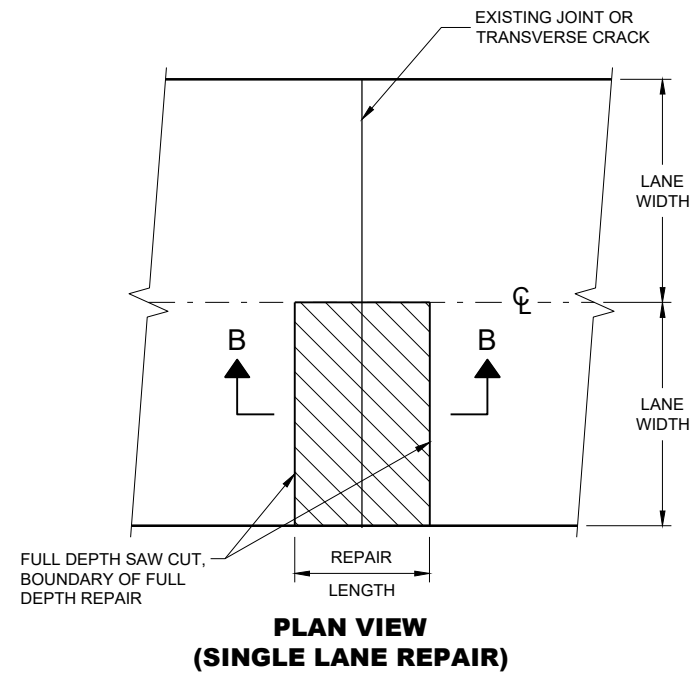
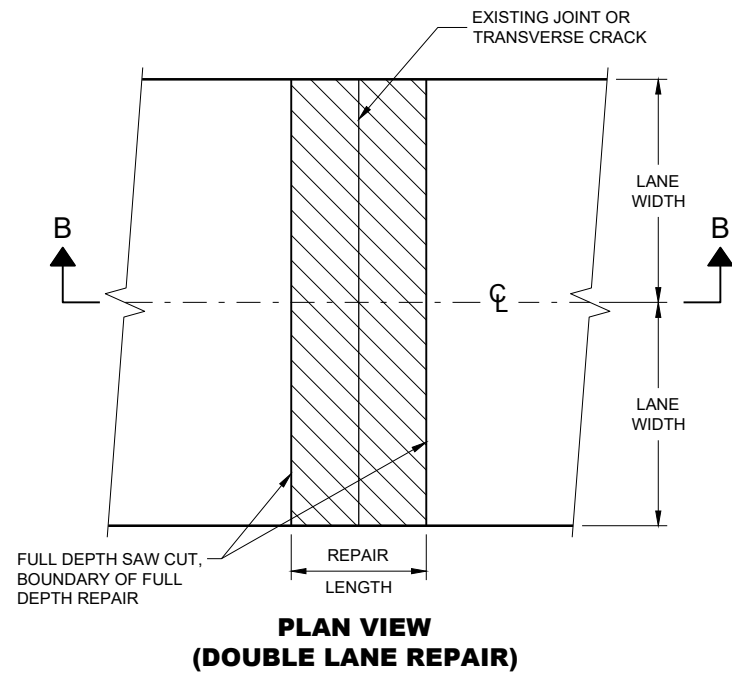


**PLAN VIEW  
SHOWING LOCATION OF TIE BARS**

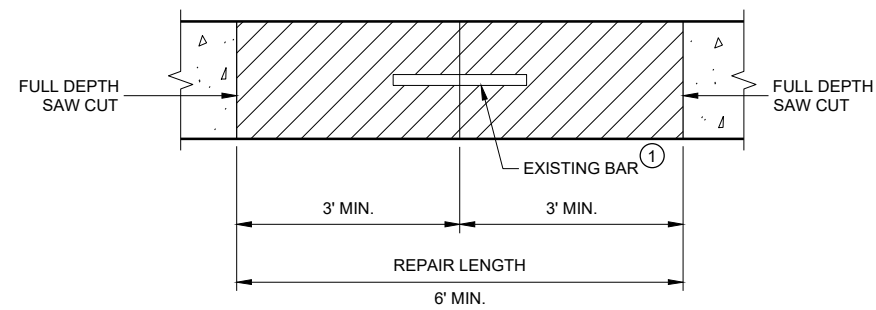
**CONCRETE PAVEMENT  
LONGITUDINAL JOINTS AND TIES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Peter Kemp, P.E.  
DATE PAVEMENT SUPERVISOR  
FHWA



**FULL DEPTH CONCRETE PAVEMENT REMOVAL**



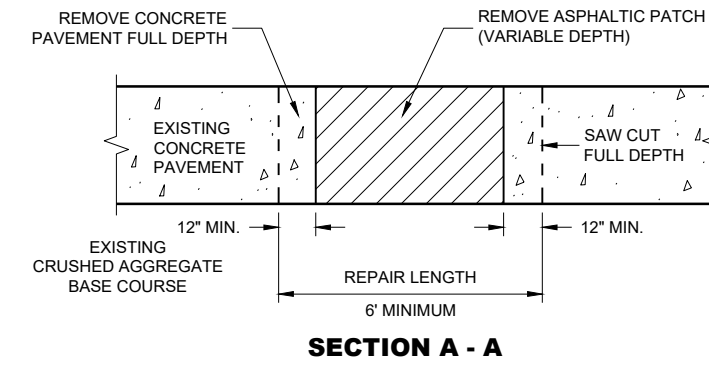
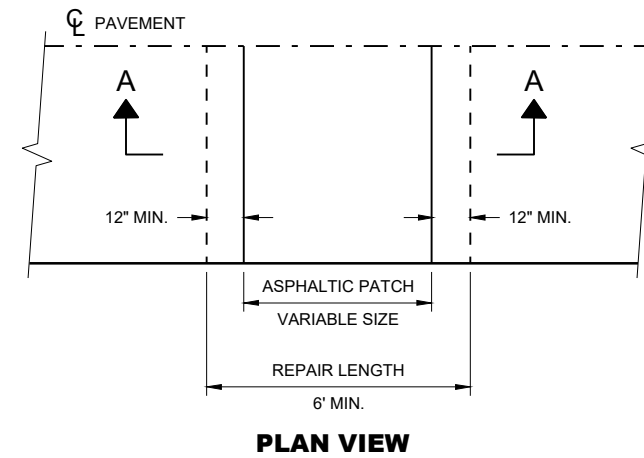
**GENERAL NOTES**

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

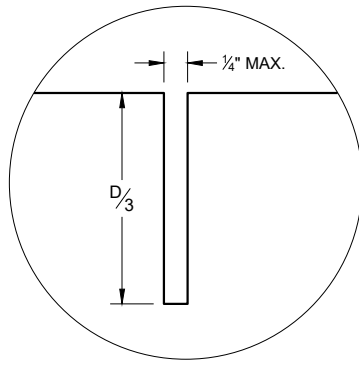
PROVIDE A 6 FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

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

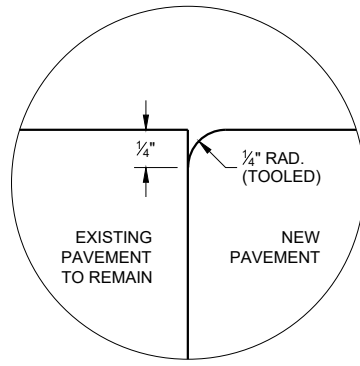
① DOWEL BARS MAY NOT BE PRESENT.



<b>CONCRETE PAVEMENT REPAIR AND REPLACEMENT</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

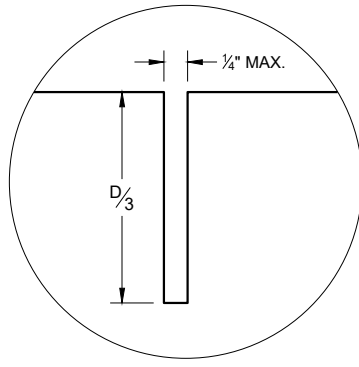


C1

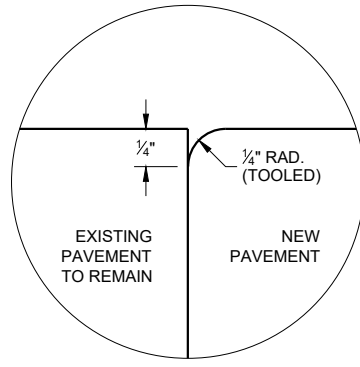


C2

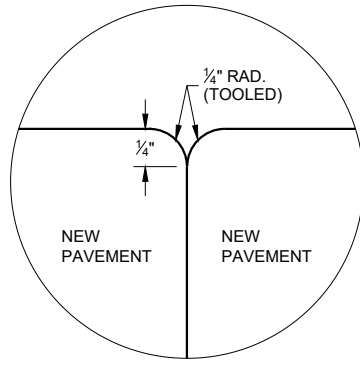
**TRANSVERSE JOINTS**



L1

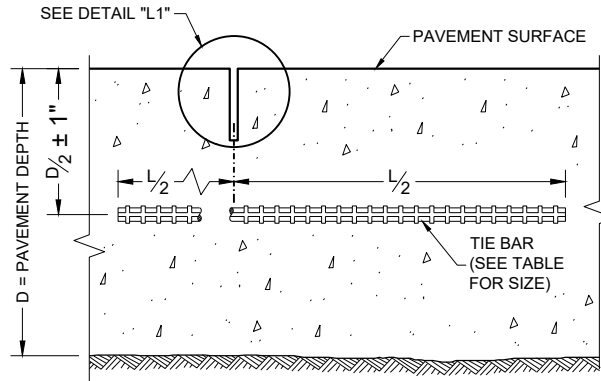


L2

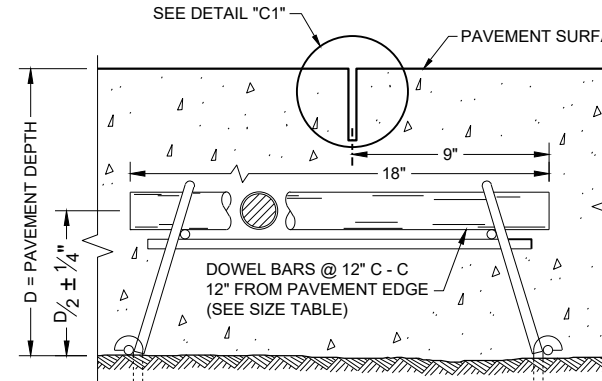


L3

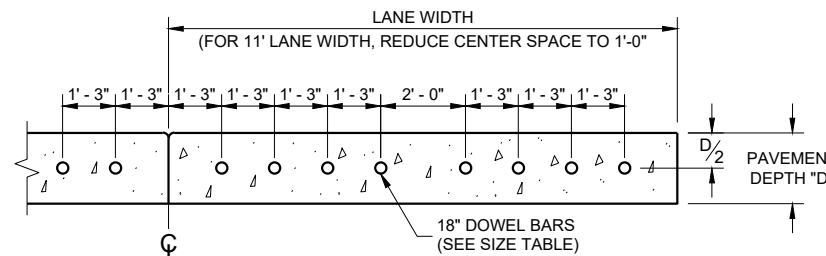
**LONGITUDINAL JOINTS**



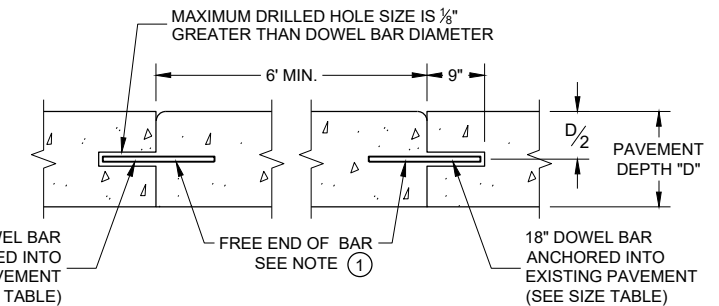
**SECTION C - C  
SAWED LONGITUDINAL JOINT**



**SECTION F - F  
DOWELED CONTRACTION JOINT**



**SECTION E - E  
DRILLED DOWEL BAR CONSTRUCTION JOINT**



**SECTION D - D**

**GENERAL NOTES**

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

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

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

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

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

**TIE BAR TABLE**

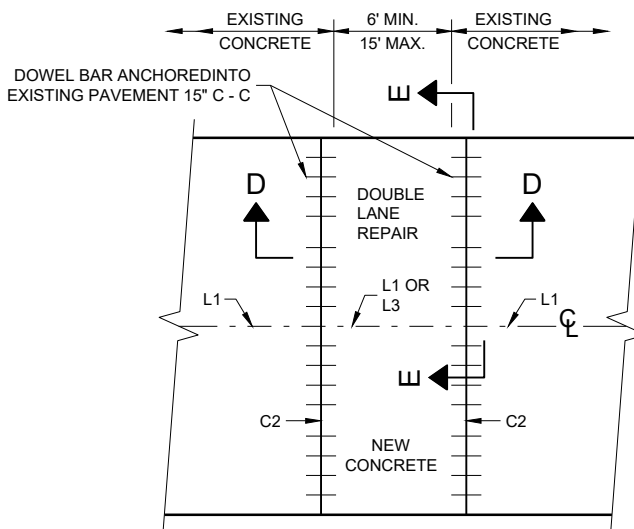
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

\* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

\*\* CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

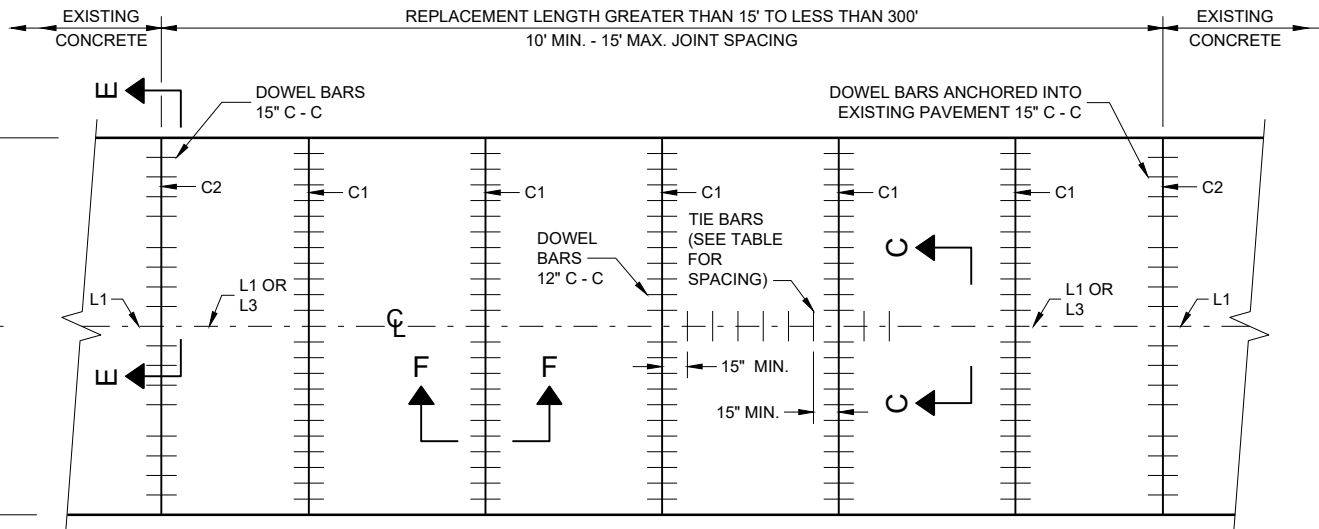
**PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE**

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



**PLAN VIEW**

**MULTILANE CONCRETE PAVEMENT REPAIR**



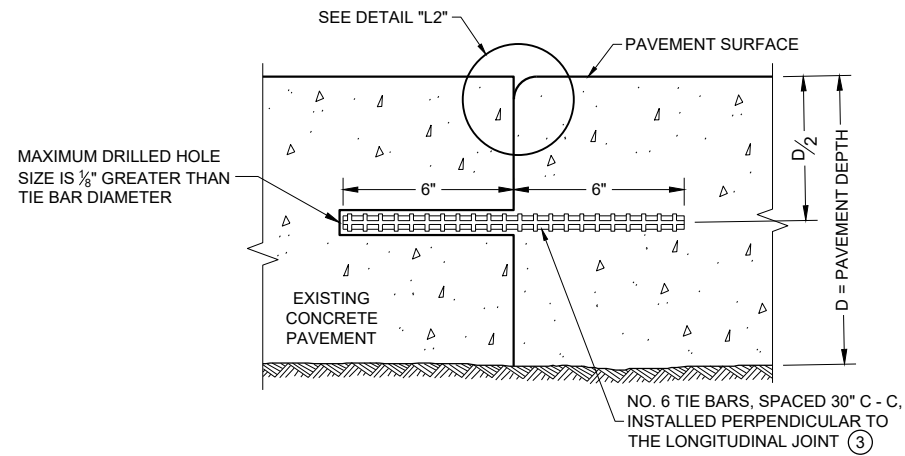
**PLAN VIEW**

**MULTILANE CONCRETE PAVEMENT REPLACEMENT**

**CONCRETE PAVEMENT REPAIR AND REPLACEMENT**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

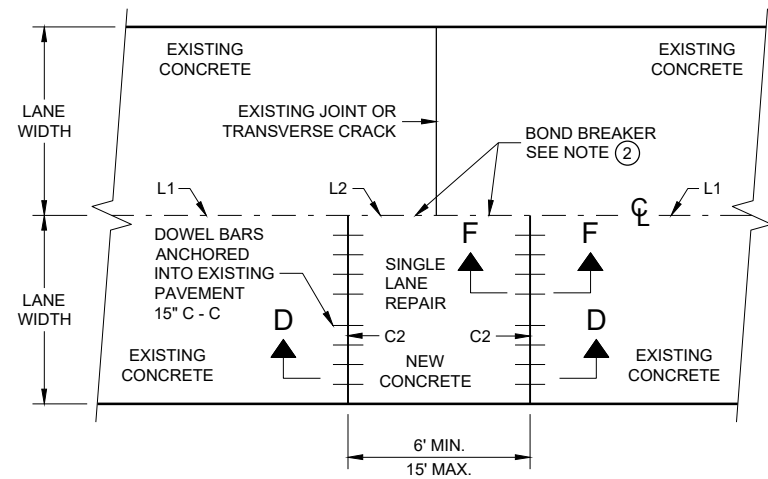




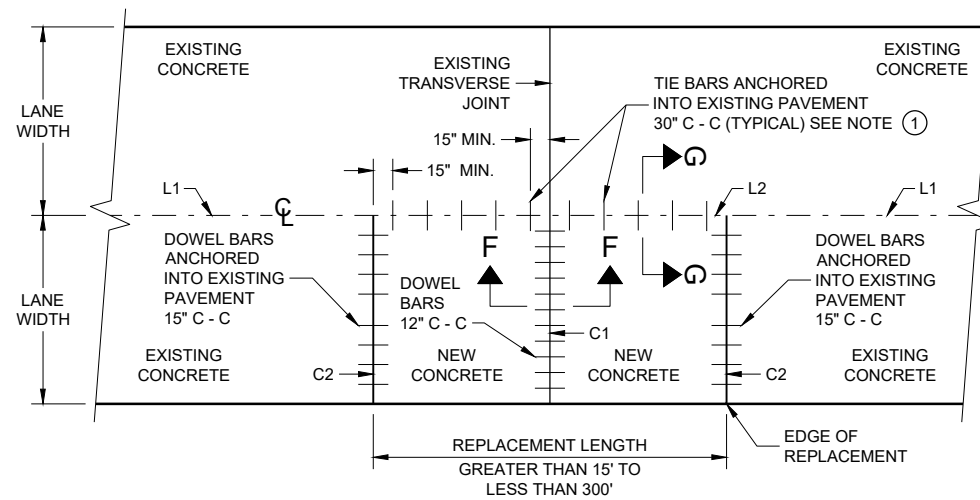
**SECTION G - G**  
**TIE BARS ANCHORED INTO EXISTING PAVEMENT**

**GENERAL NOTES**

- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- ③ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



**PLAN VIEW**  
**SINGLE LANE CONCRETE PAVEMENT REPAIR**



**PLAN VIEW**  
**SINGLE LANE CONCRETE PAVEMENT REPLACEMENT**

**CONCRETE REPAIR AND REPLACEMENT**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2022 /S/ Peter Kemp P.E.  
DATE PAVEMENT SUPERVISOR  
FHWA

**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.

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 FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

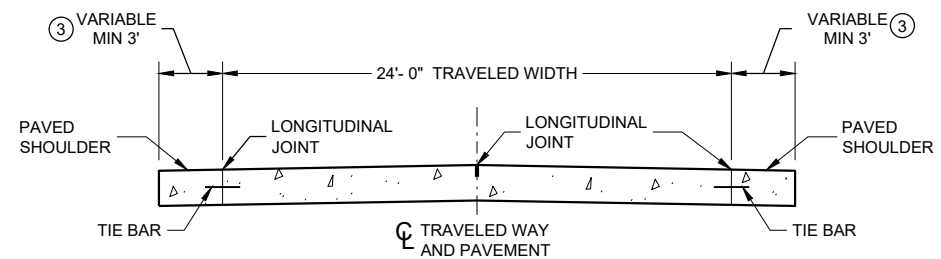
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

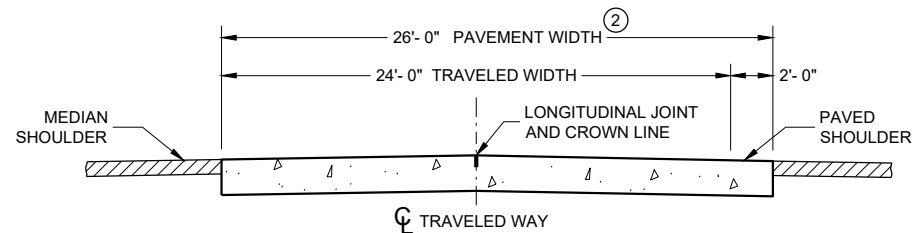
- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED "PAVED SHOULDER" AS CONCRETE PAVEMENT.
- ③ SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

**PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE**

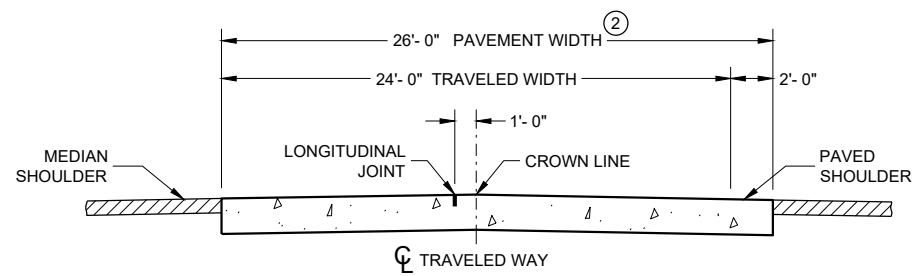
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8" & ABOVE	1 1/4"	15'



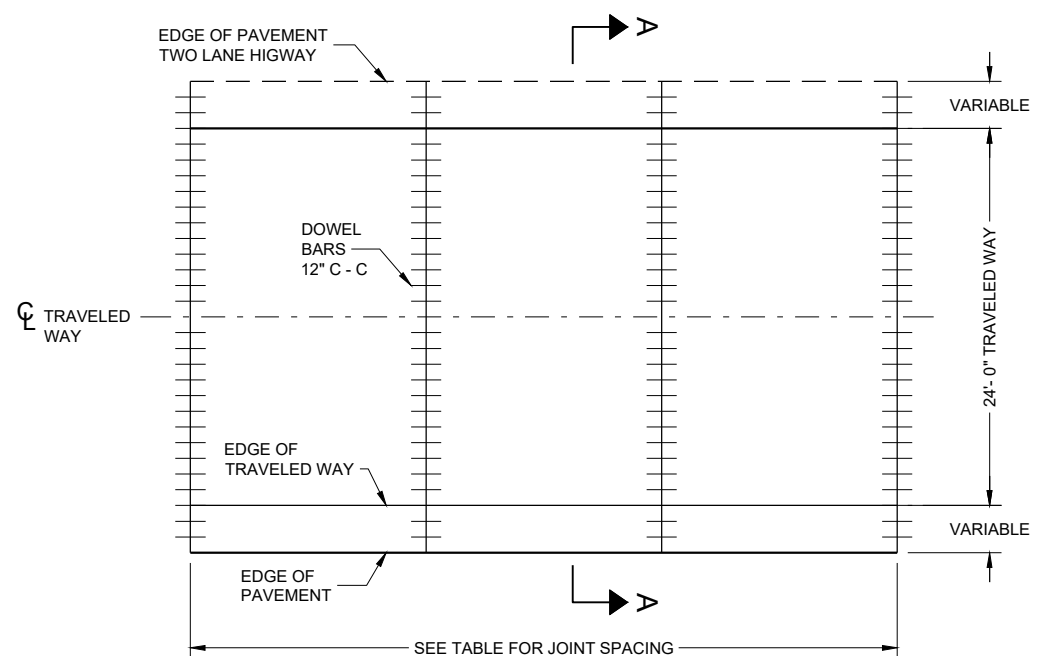
**SECTION A - A  
TWO-LANE TWO-WAY HIGHWAY** ①



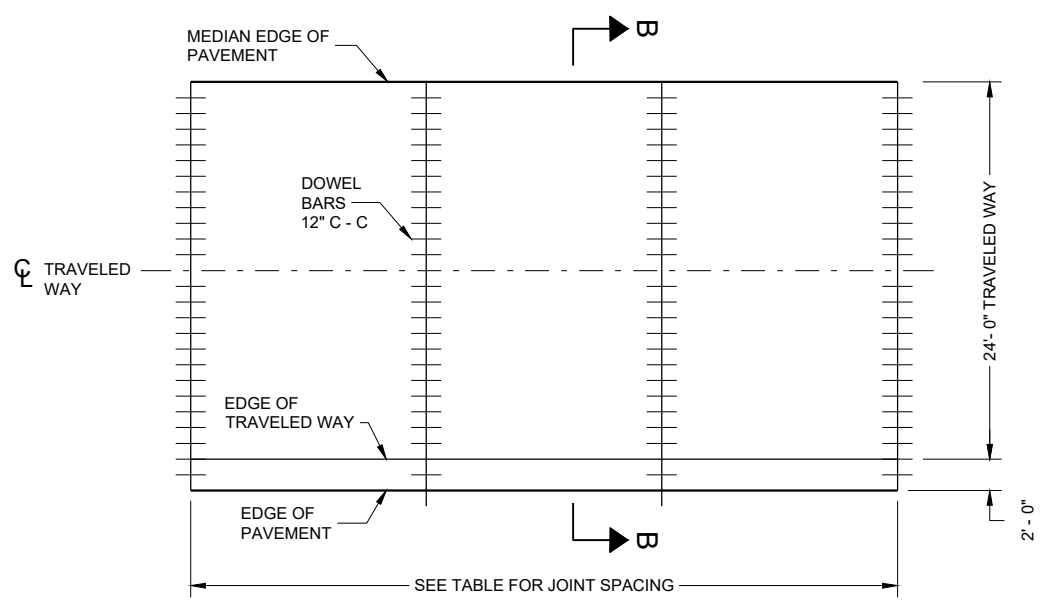
**SECTION B - B**



**ALTERNATIVE SECTION B - B  
DIVIDED HIGHWAY** ①



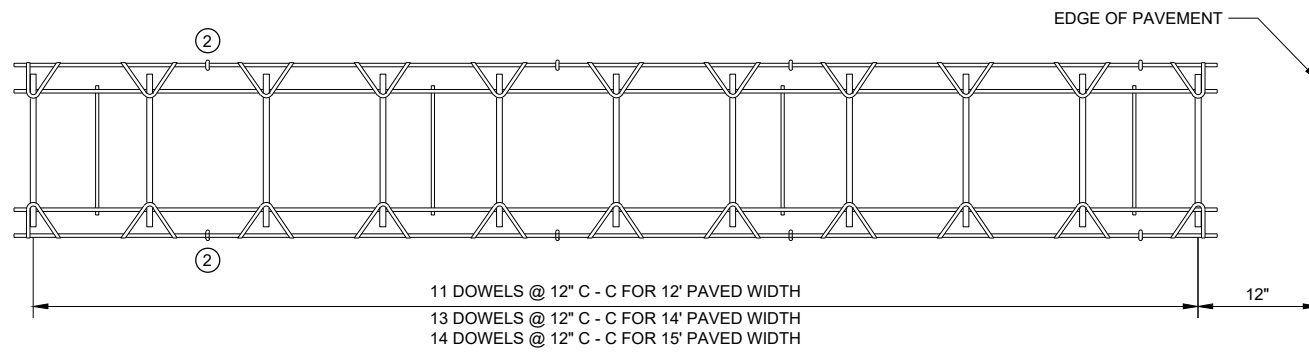
**CONTRACTION JOINT LAYOUT FOR  
TWO-LANE TWO-WAY HIGHWAY**



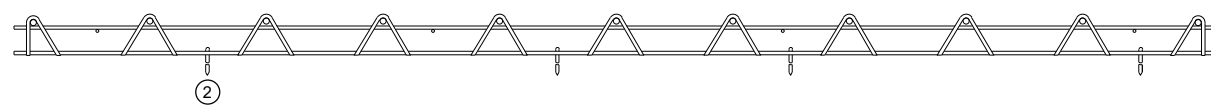
**CONTRACTION JOINT LAYOUT FOR  
DIVIDED HIGHWAY**

**RURAL DOWELED  
CONCRETE PAVEMENT**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**PLAN VIEW**

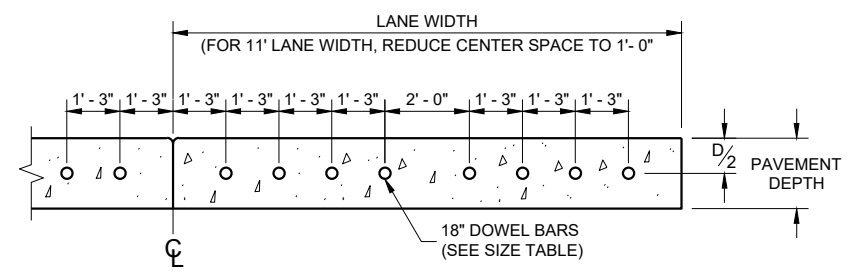


**SIDE VIEW**

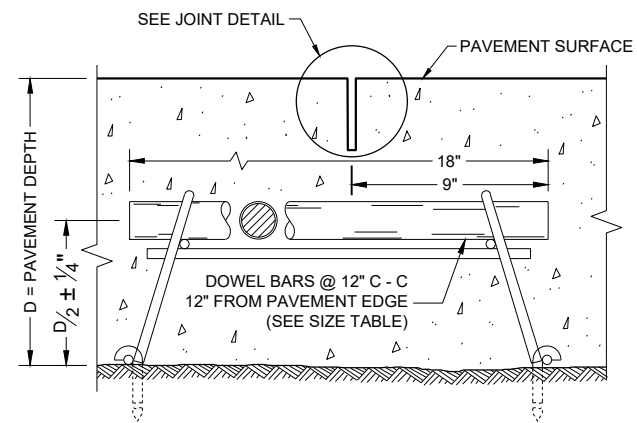
**CONTRACTION JOINT DOWEL ASSEMBLY** ①

**GENERAL NOTES**

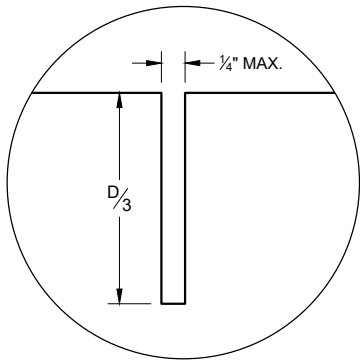
- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4" 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 THE "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 AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



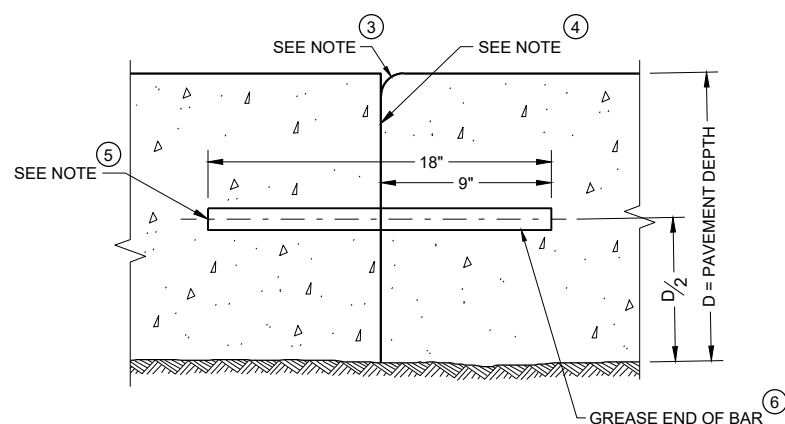
**DRILLED DOWEL BAR CONSTRUCTION JOINT** ⑦



**DOWELED CONTRACTION JOINT**



**JOINT DETAIL**



**TRANSVERSE CONSTRUCTION JOINT**

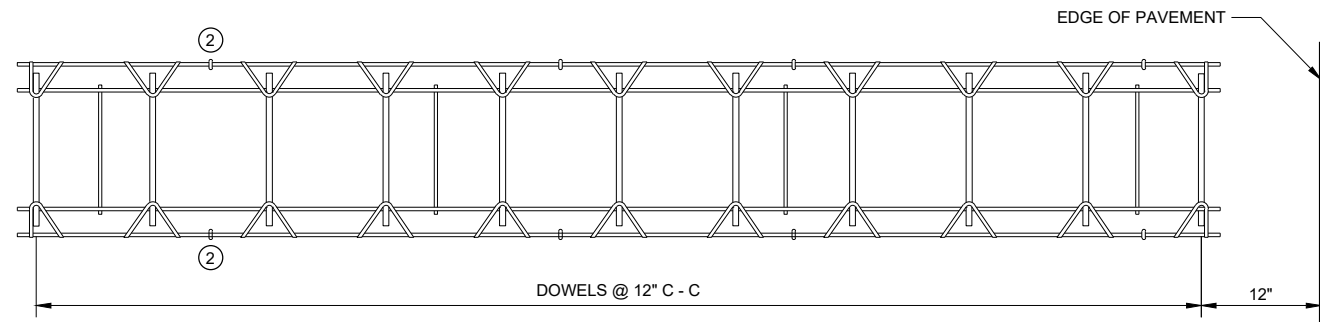
6

6

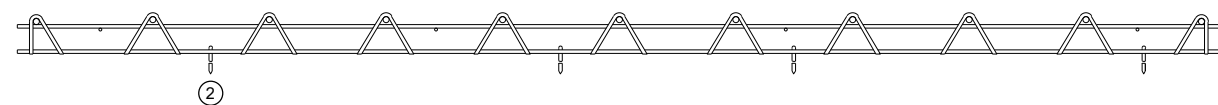
SDD 13C11 - 14b

SDD 13C11 - 14b

<b>RURAL DOWELED CONCRETE PAVEMENT</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Peter Kemp P.E. PAVEMENT SUPERVISOR
FHWA	

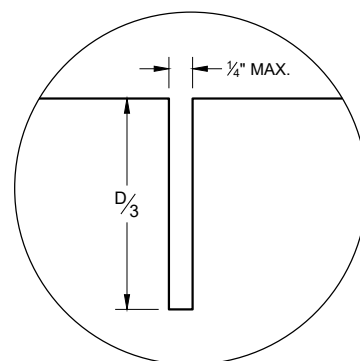


**PLAN VIEW**



**SIDE VIEW**

**CONTRACTION JOINT DOWEL ASSEMBLY** ①



**JOINT DETAIL**

**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.

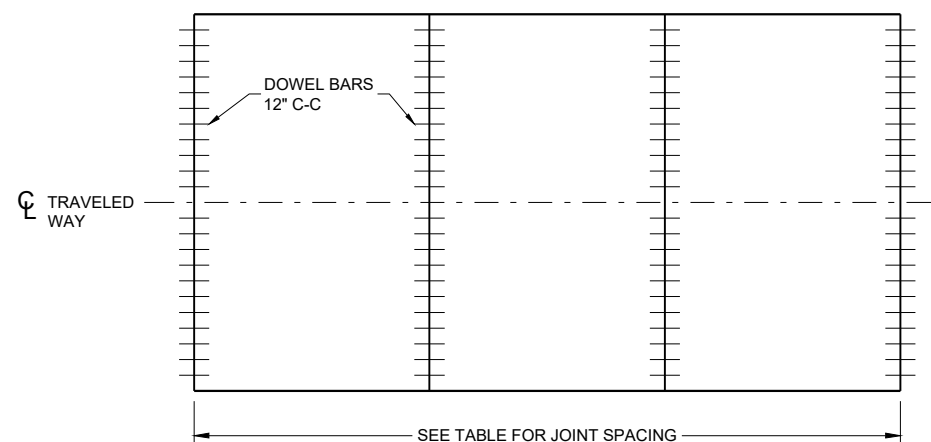
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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 FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

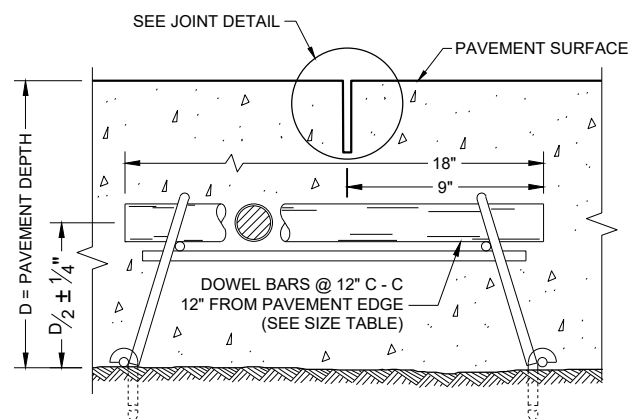
**CONSTRUCTION JOINTS**

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE 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 CONSTRUCTION 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 1/4" 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 THE "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 AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



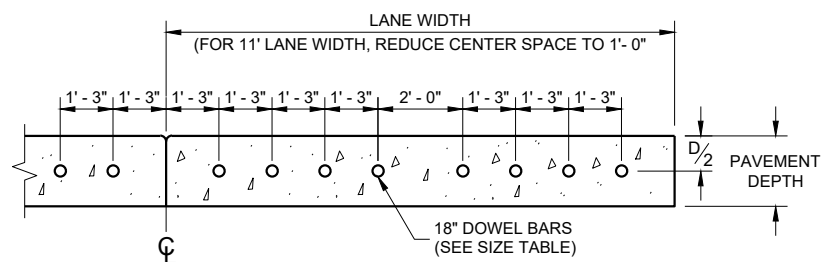
**CONTRACTION JOINT LOCATIONS**



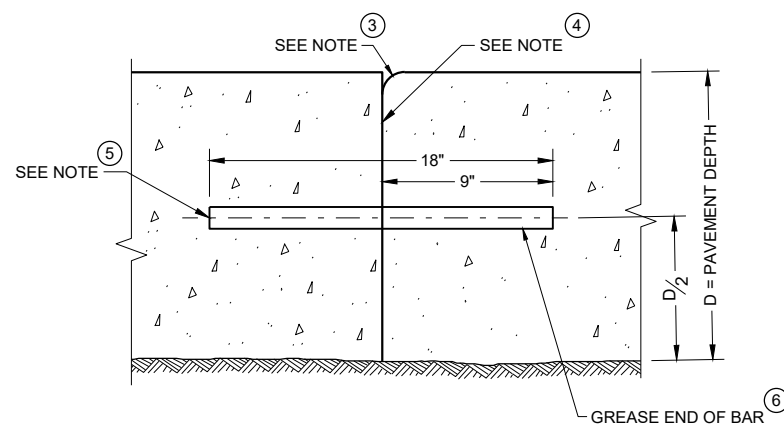
**DOWELED CONTRACTION JOINT**

**PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE**

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



**DRILLED DOWEL BAR CONSTRUCTION JOINT** ⑦



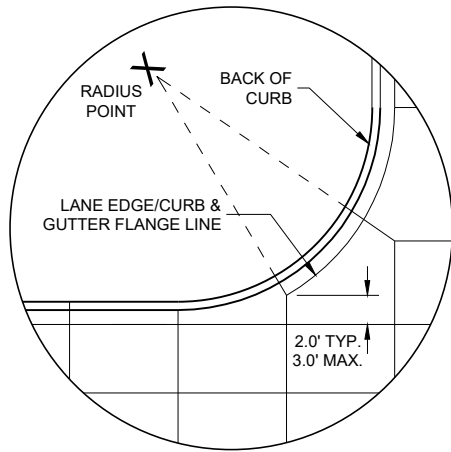
**TRANSVERSE CONSTRUCTION JOINT**

**URBAN DOWELED CONCRETE PAVEMENT**

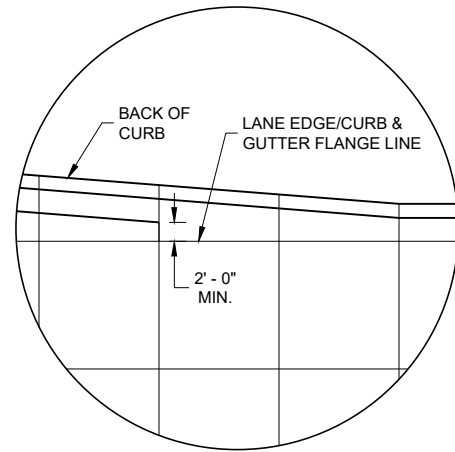
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2022 DATE /S/ Peter Kemp P.E.  
DATE PAVEMENT SUPERVISOR

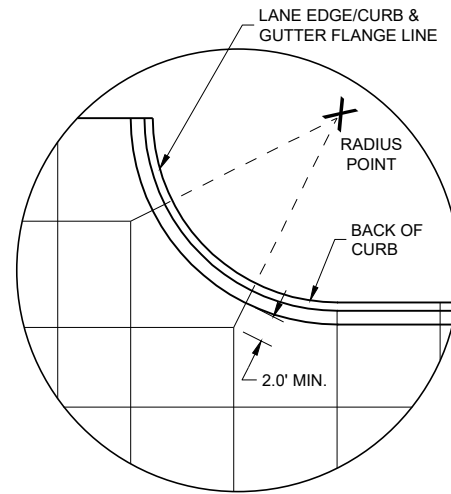
FHWA



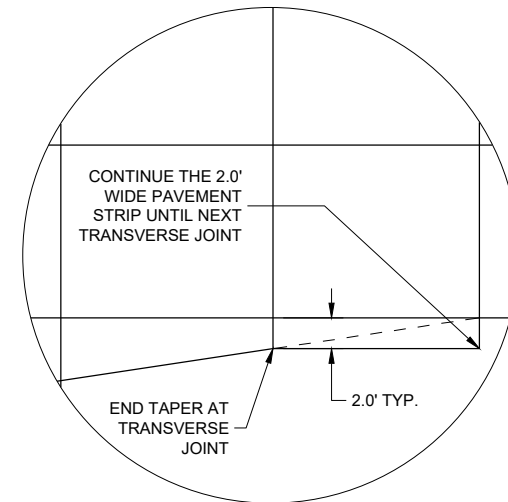
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

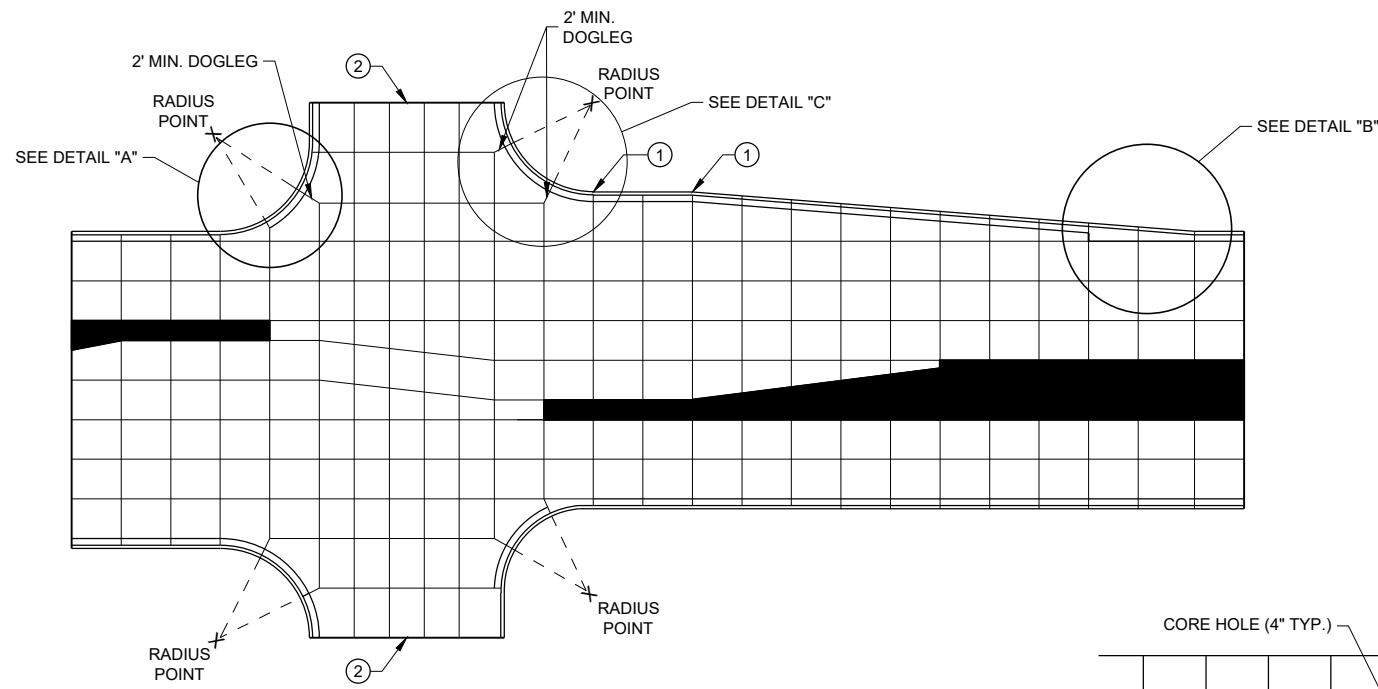
**GENERAL NOTES**

- 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.

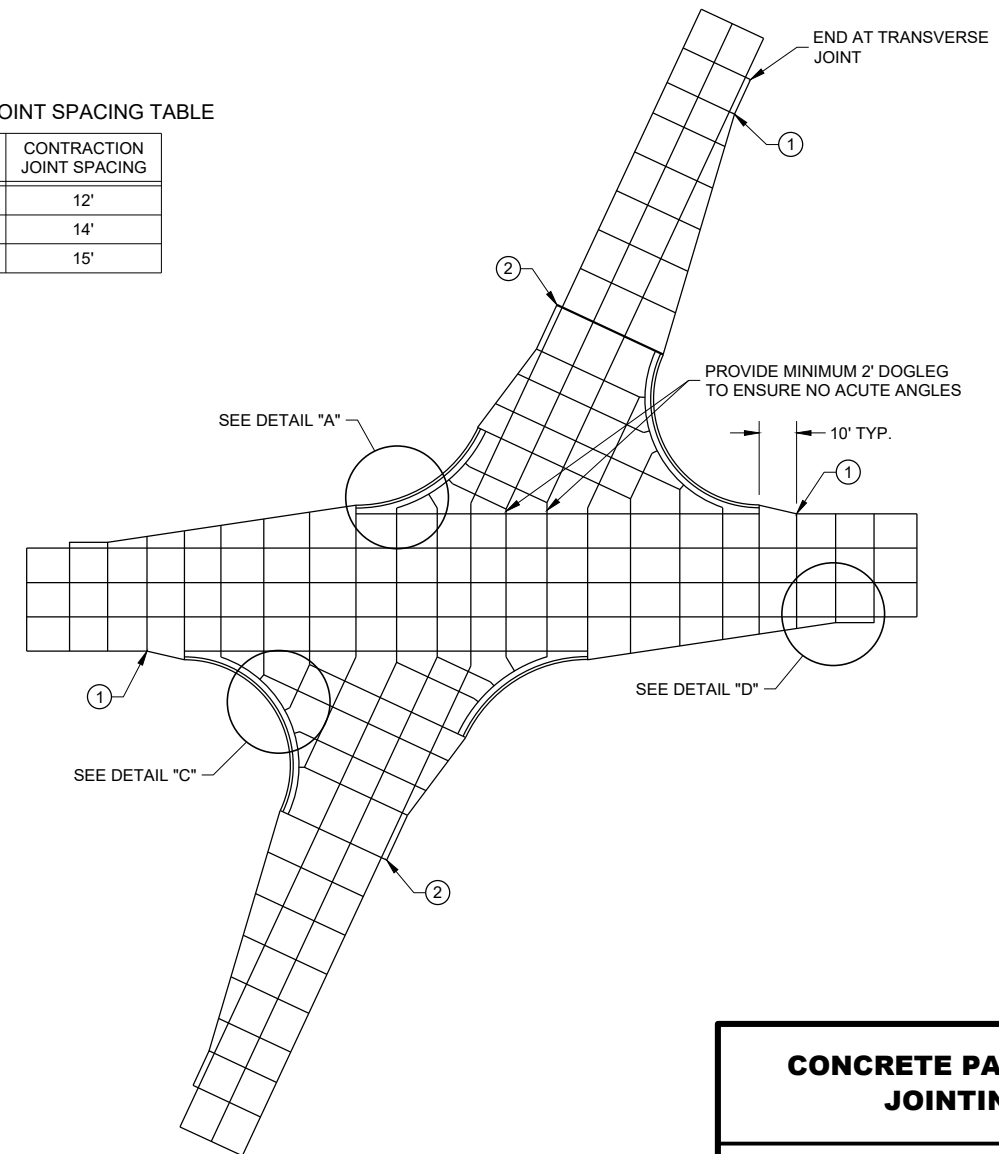
- ① PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
- ② CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
- ③ THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

PAVEMENT DEPTH AND JOINT SPACING TABLE

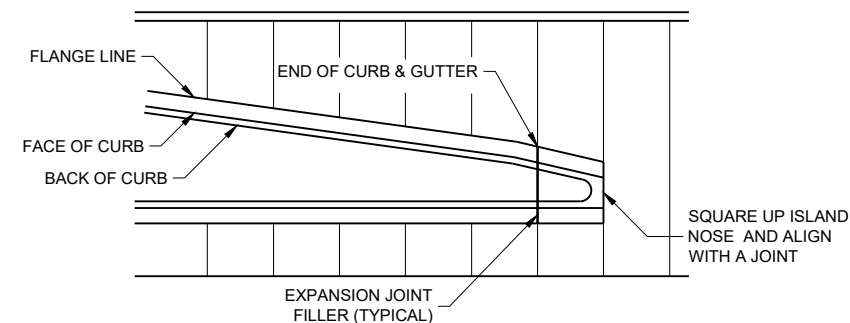
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



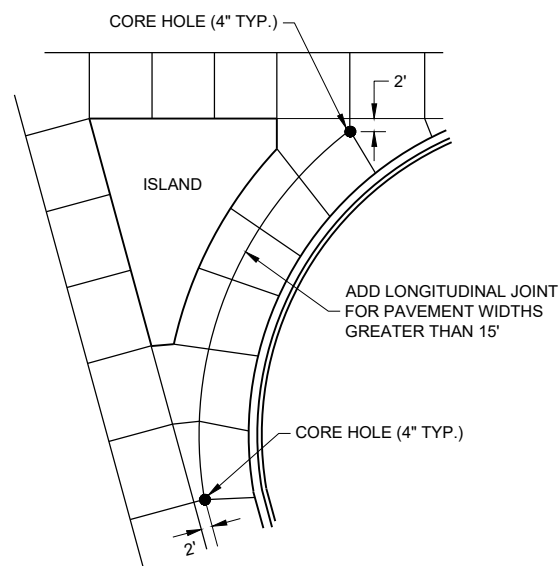
STANDARD INTERSECTION



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN



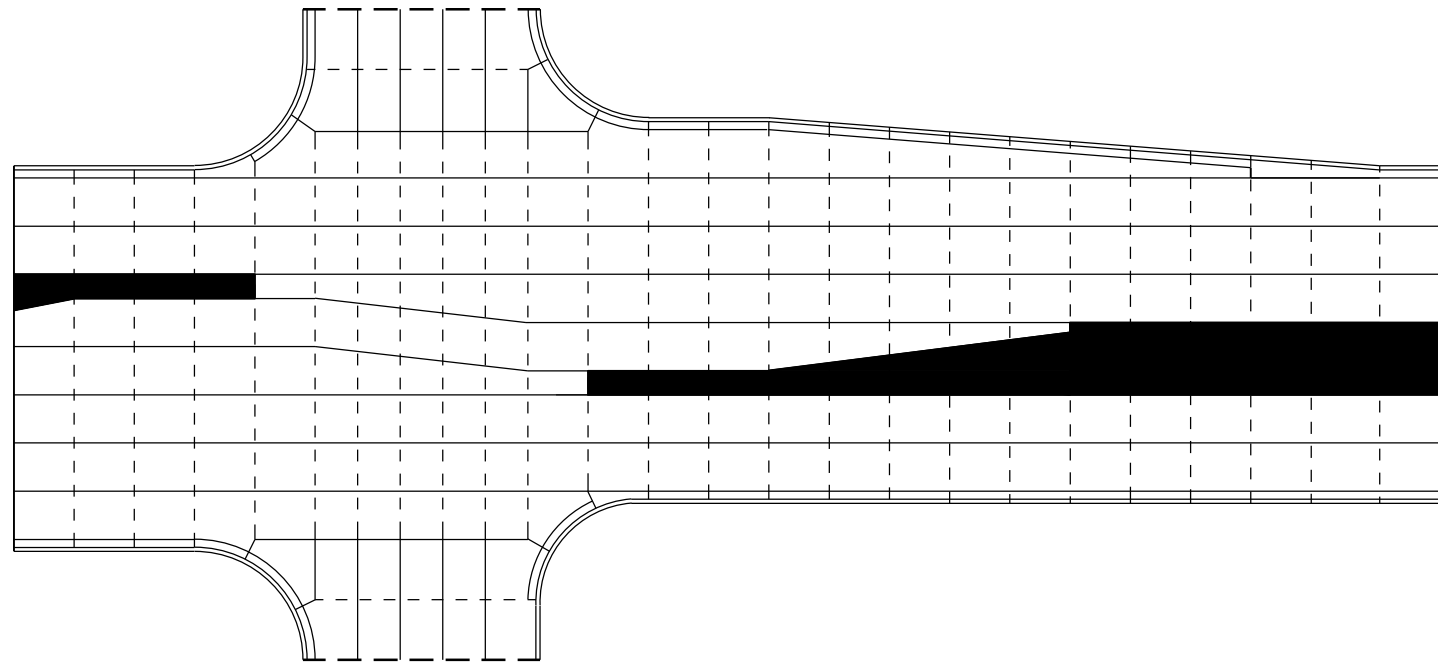
**LEGEND**

- - - - - POTENTIAL DOWELED EXPANSION JOINT
- - - - - DOWELED JOINT
- TIED JOINT

**GENERAL NOTES**

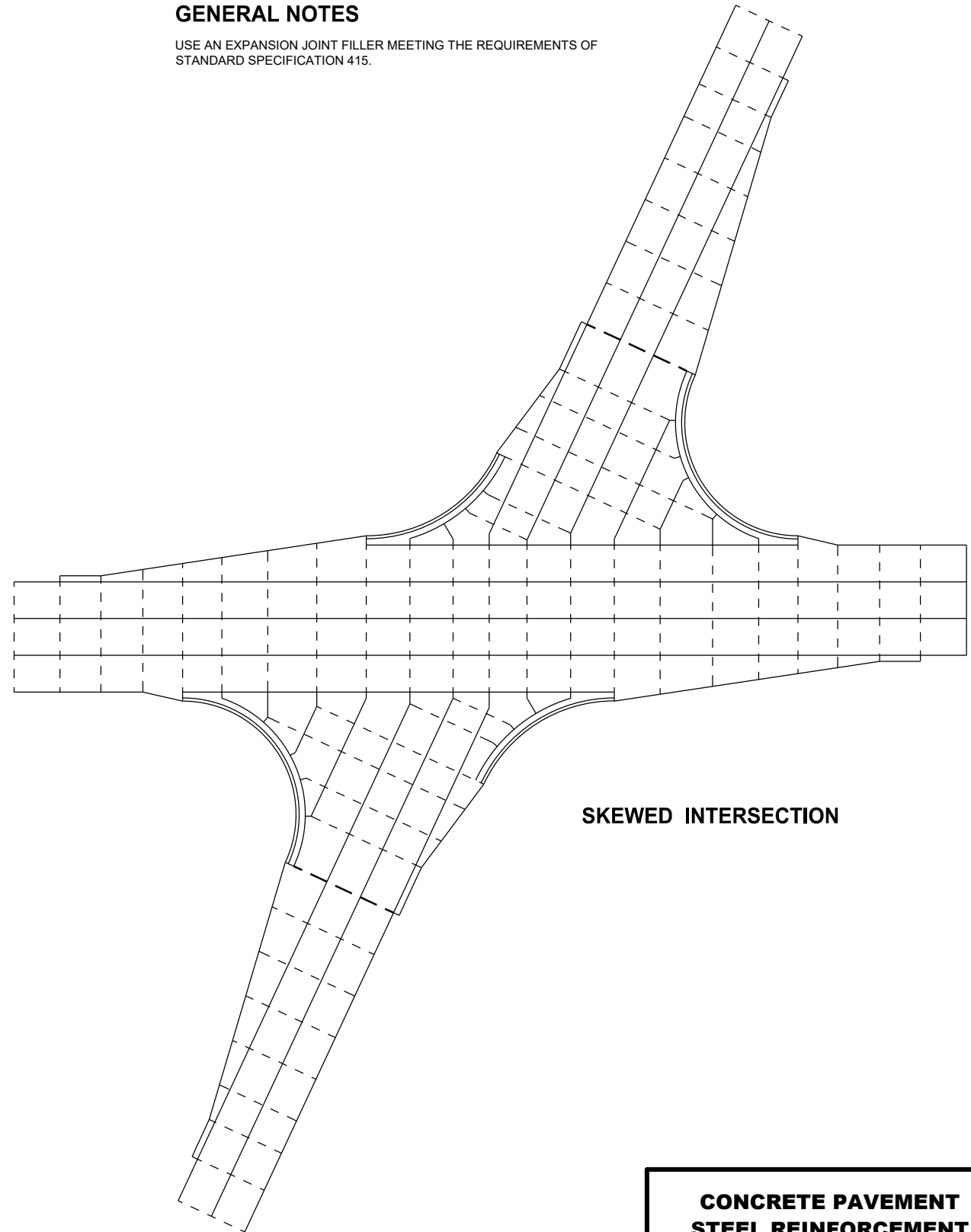
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

6



**STANDARD INTERSECTION**

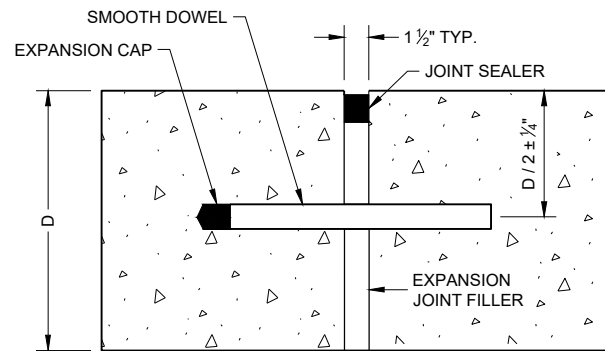
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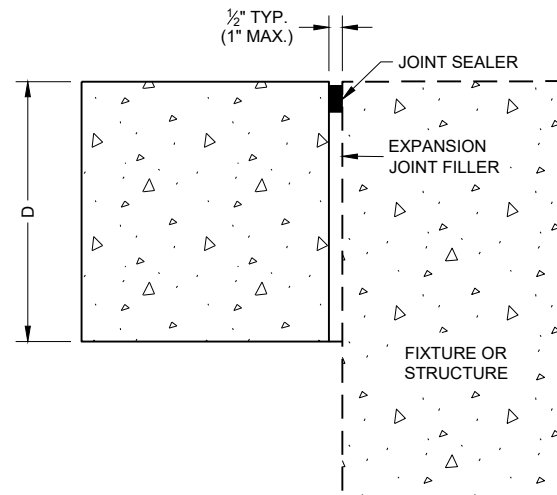
**SKEWED INTERSECTION**

**CONCRETE PAVEMENT  
STEEL REINFORCEMENT**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**DOWELED TRANSVERSE** ①



**UNTIED - LONGITUDINAL**

**EXPANSION JOINTS**

**TIE BAR TABLE**

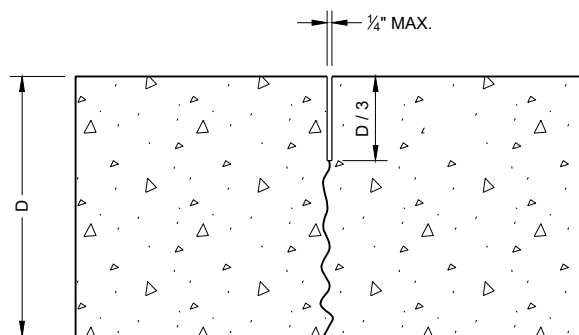
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24" **

\* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

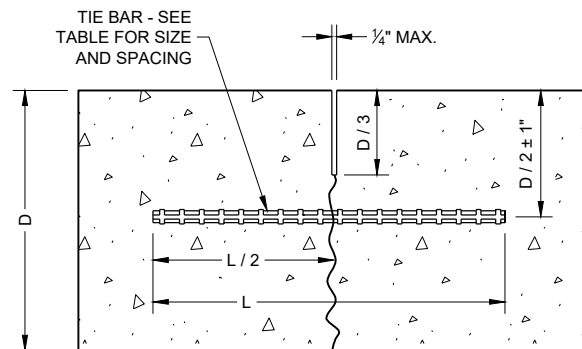
\*\* CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

**GENERAL NOTES**

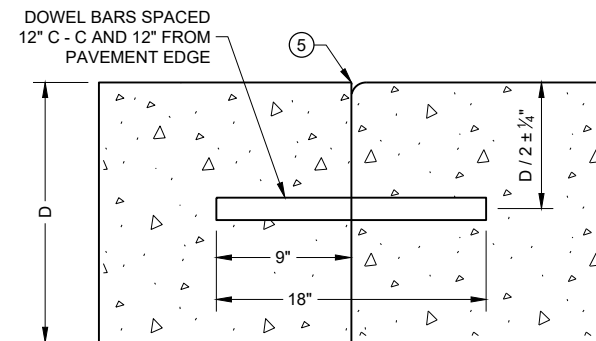
- ① USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- ② SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
- ③ LOCATE CONSTRUCTION JOINTS A MINIMUM 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" RADIUS.
- ⑥ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



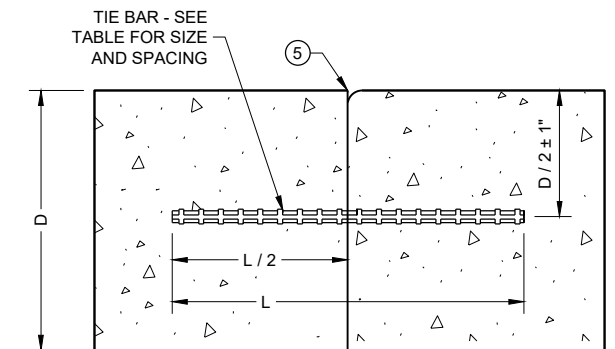
**UNDOWELED TRANSVERSE**



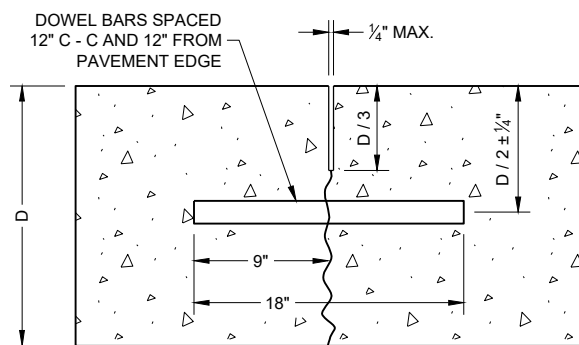
**TIED LONGITUDINAL**



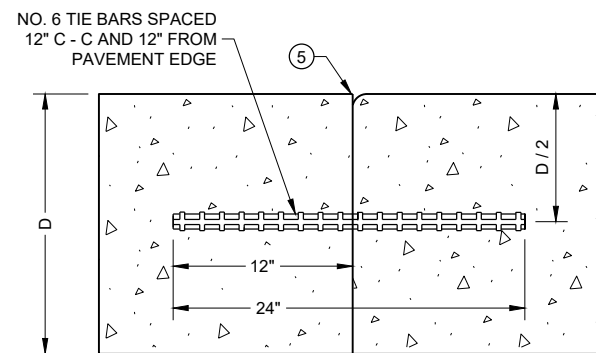
**DOWELED TRANSVERSE** ③



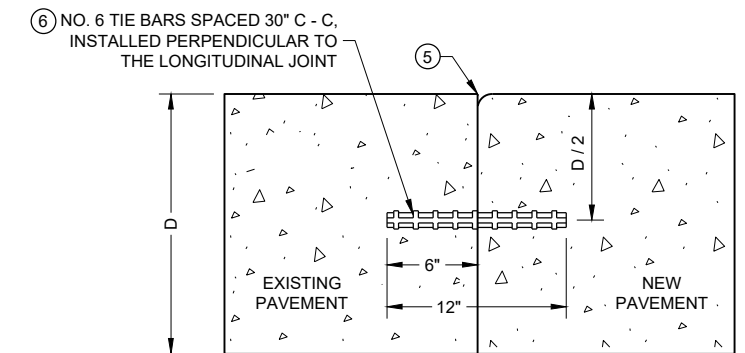
**TIED LONGITUDINAL**



**DOWELED TRANSVERSE**



**TIED TRANSVERSE** ③  
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



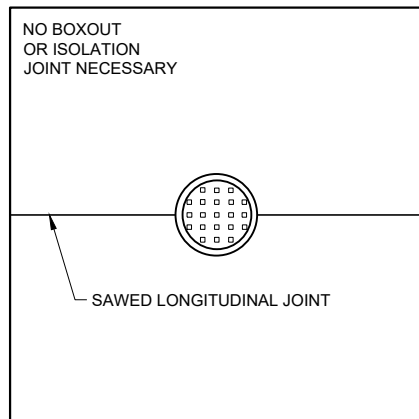
**TIED LONGITUDINAL TO EXISTING**

**CONTRACTION JOINTS** ②

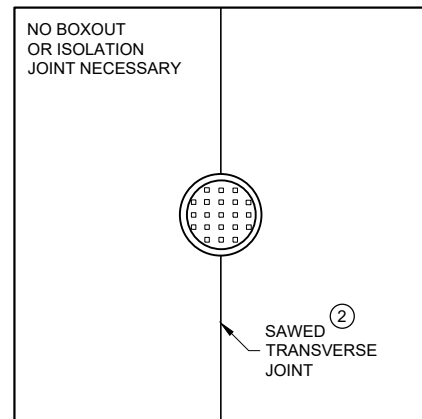
**CONSTRUCTION JOINTS** ④

**CONCRETE PAVEMENT  
JOINT TYPES**

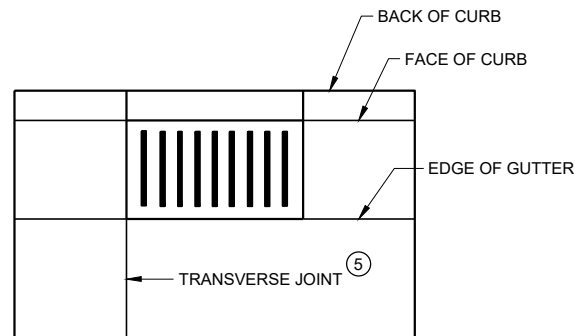
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



MANHOLE WITH LONGITUDINAL JOINT



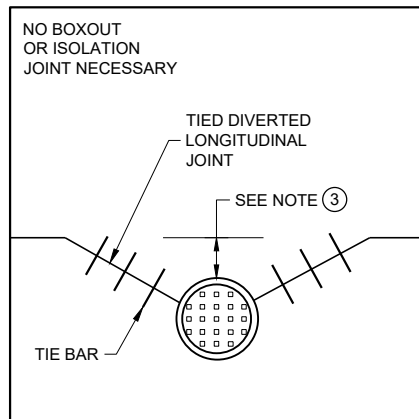
MANHOLE WITH TRANSVERSE JOINT



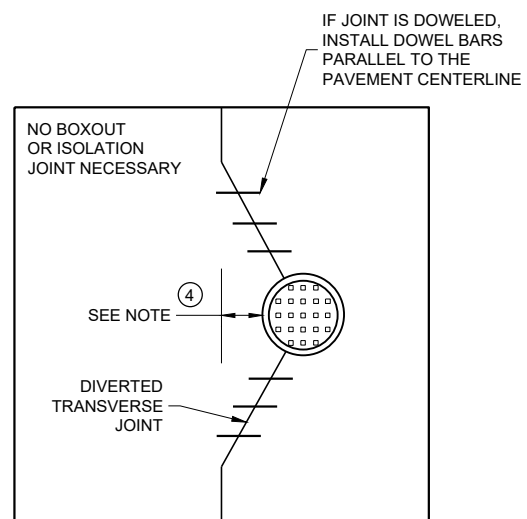
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

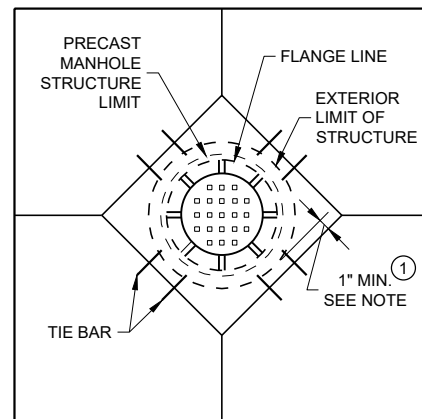
- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL 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 REINFORCEMENT REBAR AROUND THE MANHOLE.
- ④ IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 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 REINFORCEMENT REBAR AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

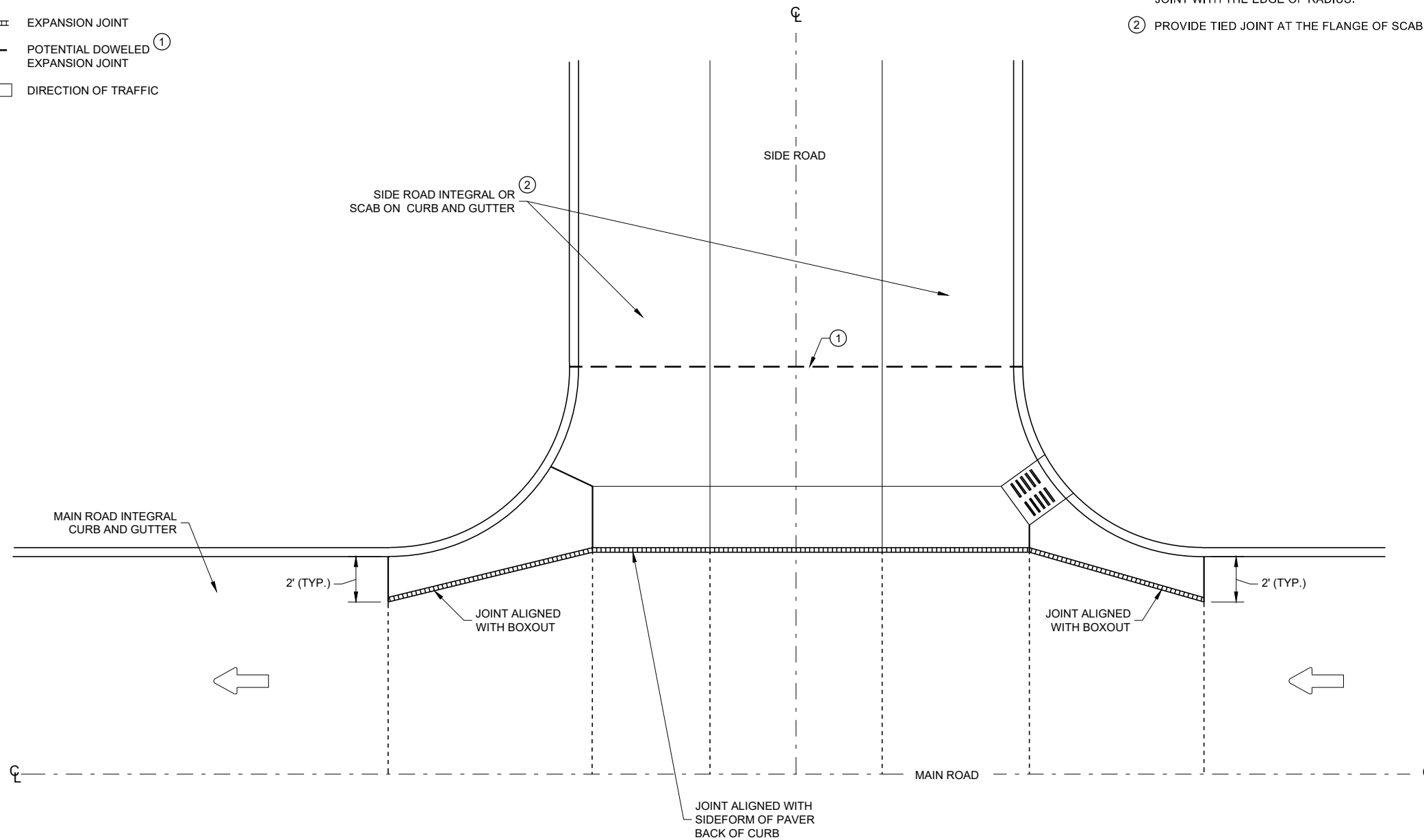
APPROVED  
 May 2023 /S/ Peter Kemp P.E.  
 DATE PAVEMENT SUPERVISOR

**LEGEND**

- DOWELED JOINT
- TIED JOINT
- ▨▨▨▨ EXPANSION JOINT
- — — — POTENTIAL DOWELED <sup>①</sup> EXPANSION JOINT
- ← DIRECTION OF TRAFFIC

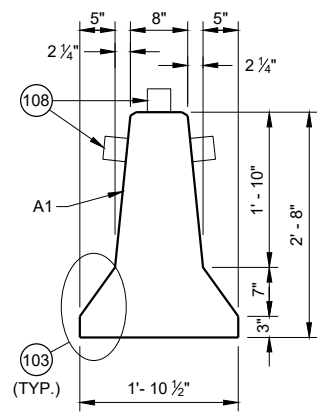
**GENERAL NOTES**

- ① 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 THE EDGE OF RADIUS.
- ② PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

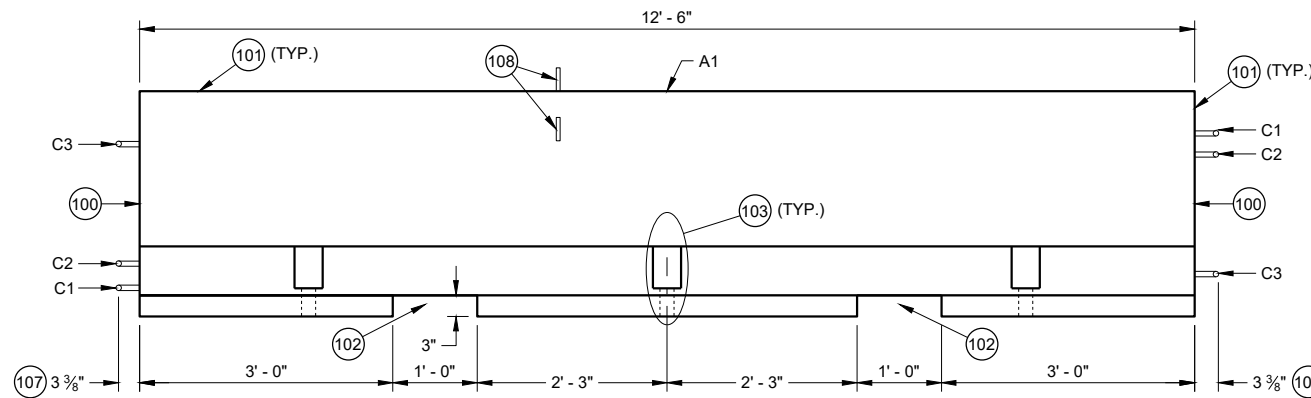


**INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER**

<b>CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Peter Kemp P.E. PAVEMENT SUPERVISOR
FHWA	



**CROSS SECTION**



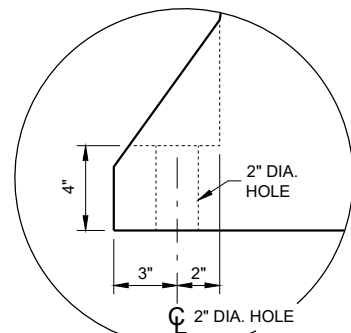
**PROFILE VIEW**

**GENERAL NOTES**

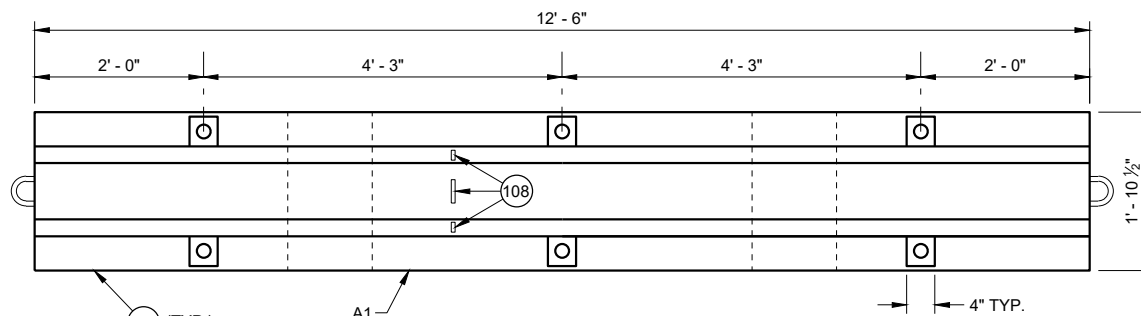
PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

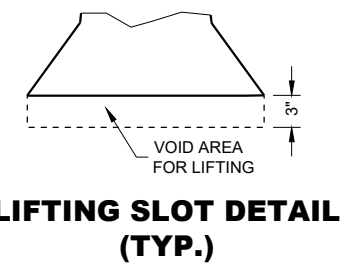
- (100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:  
A. TYPE OF BARRIER: WI-CBTP  
B. MANUFACTURER  
C. DATE OF MANUFACTURE (MONTH AND YEAR)
- (101) 1" OPTIONAL CHAMFER
- (102) SEE LIFTING SLOT DETAIL
- (103) SEE ANCHOR BLOCK DETAIL
- (104) 1 3/4" MIN. CLEAR COVER
- (105) 2" MIN. CLEAR COVER
- (106) 1" MIN. CLEAR COVER
- (107) ± 1/8" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)
- (108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.



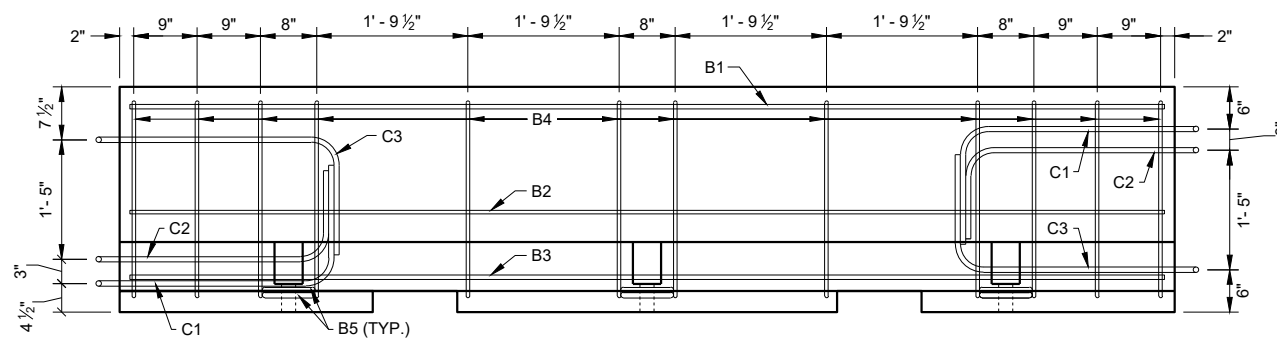
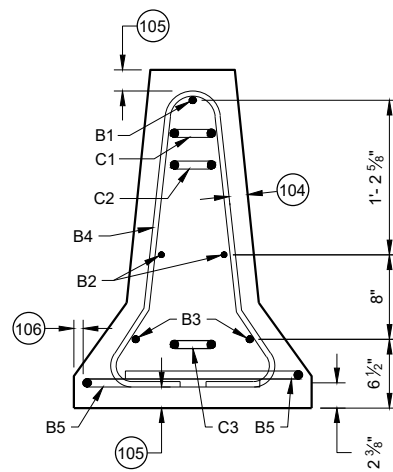
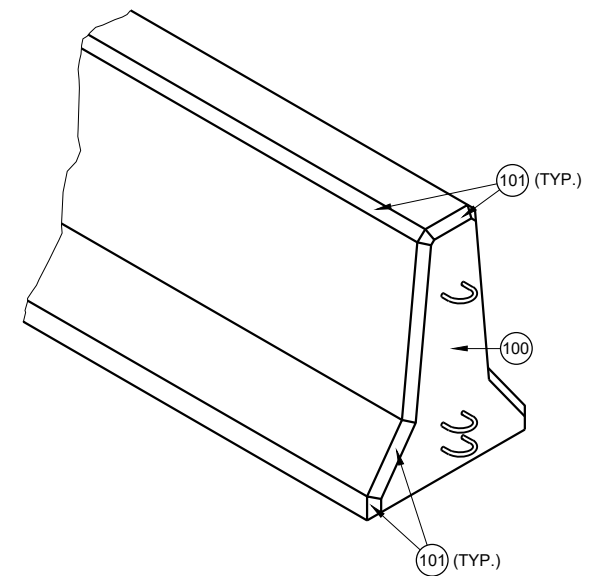
**ANCHOR BLOCK DETAIL**



**PLAN VIEW  
TEMPORARY BARRIER**



**LIFTING SLOT DETAIL  
(TYP.)**

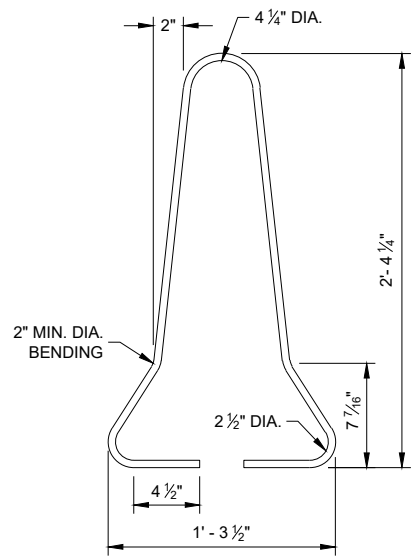


**PROFILE VIEW  
TEMPORARY BARRIER REINFORCEMENT**

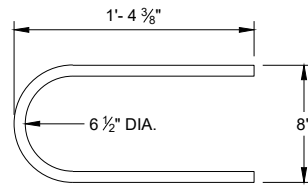
**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

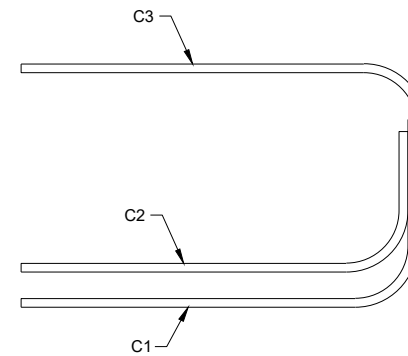




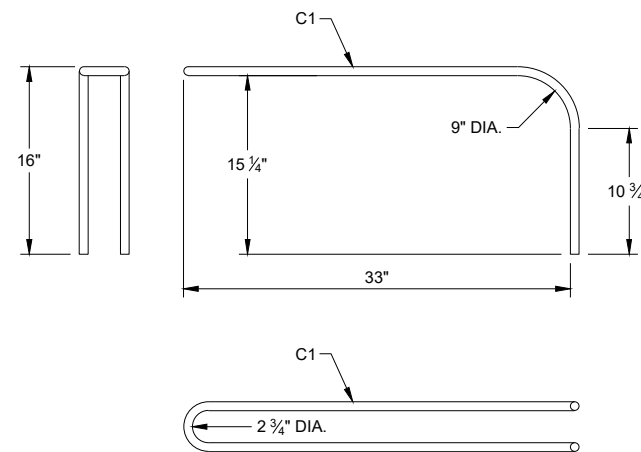
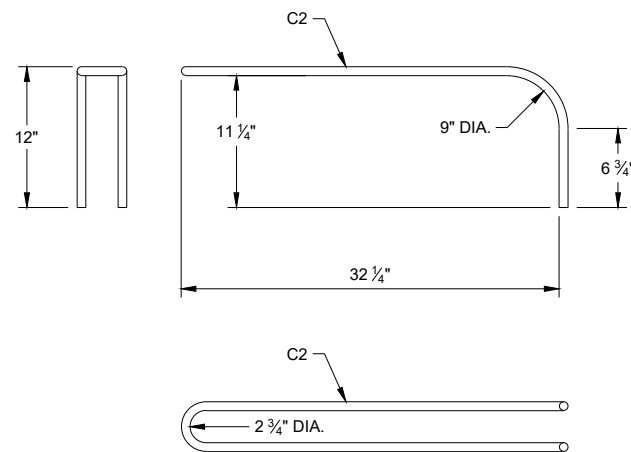
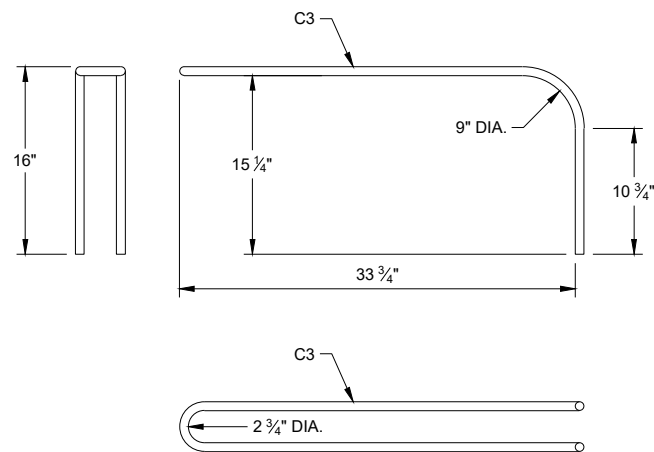
**B4 BAR DETAIL**



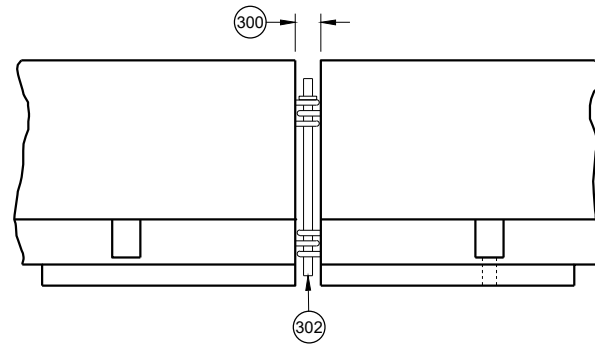
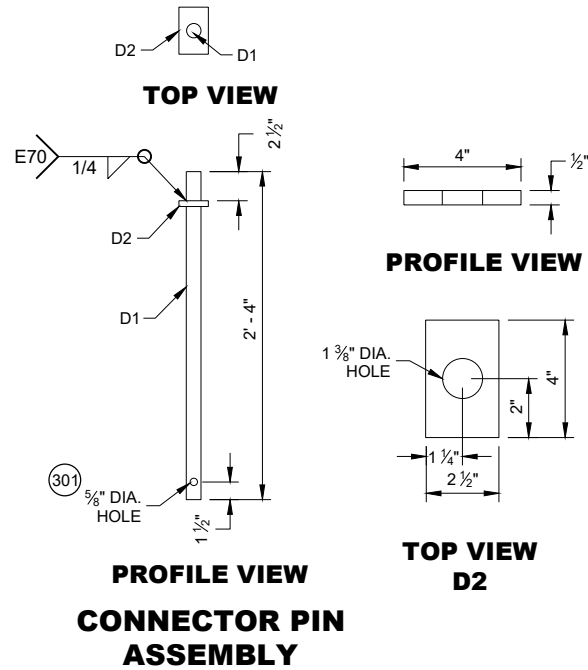
**B5 BAR DETAIL**



**PROFILE VIEW  
LOOP BAR ASSEMBLY**

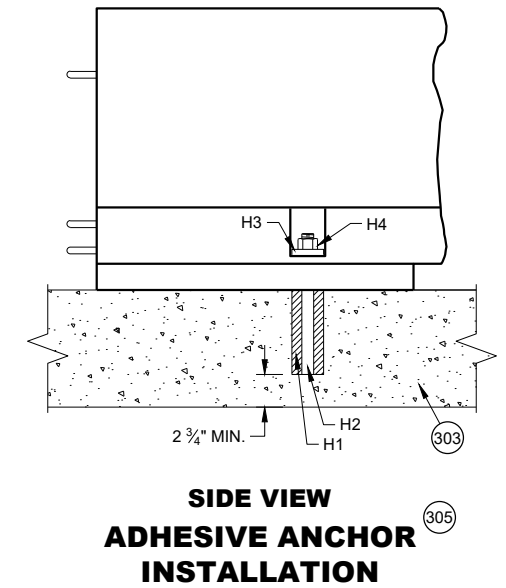
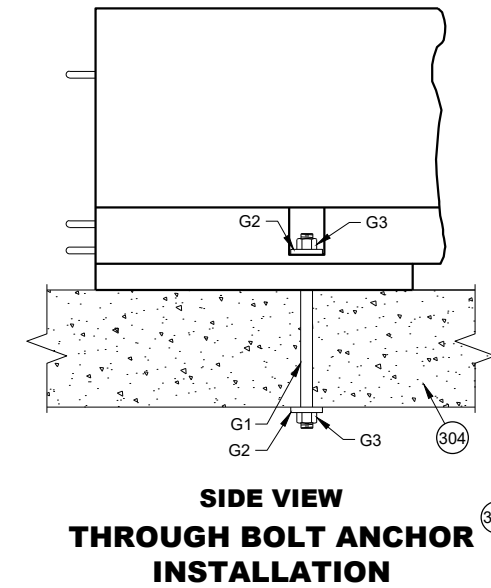
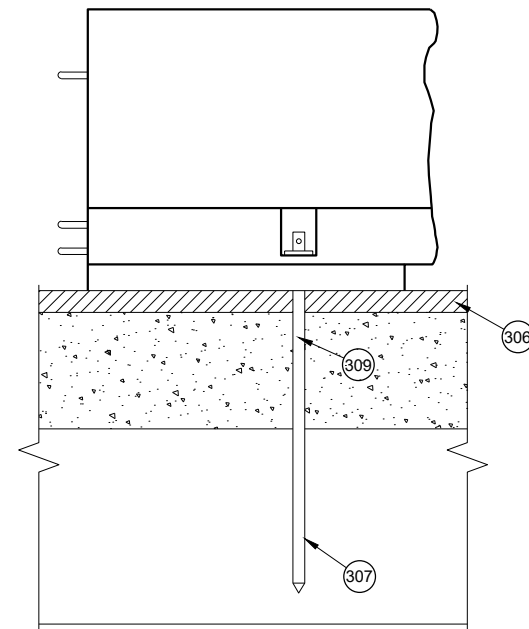
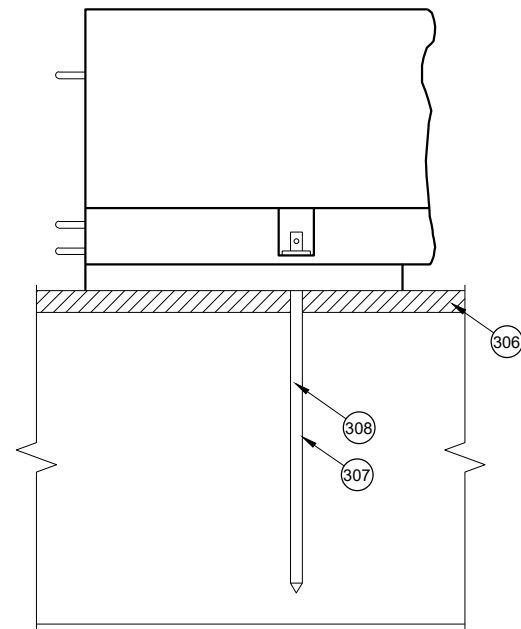
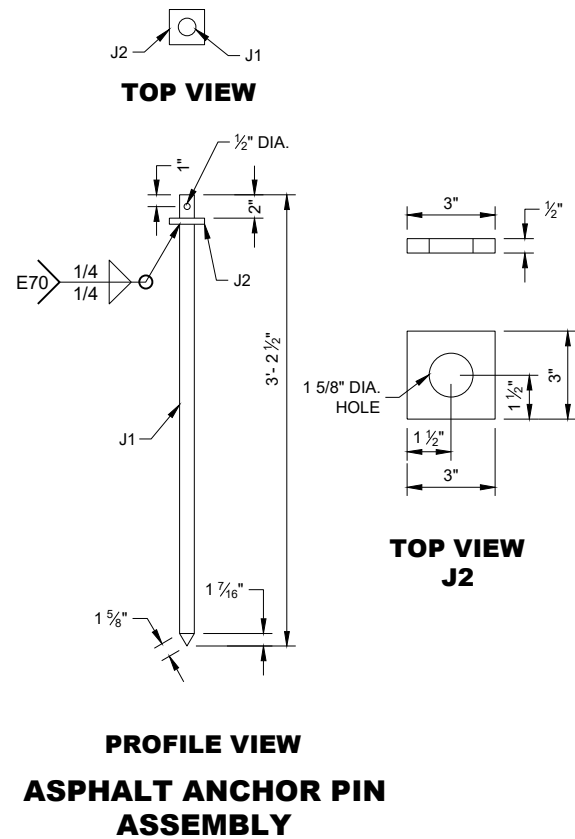


**C BAR DETAILS**



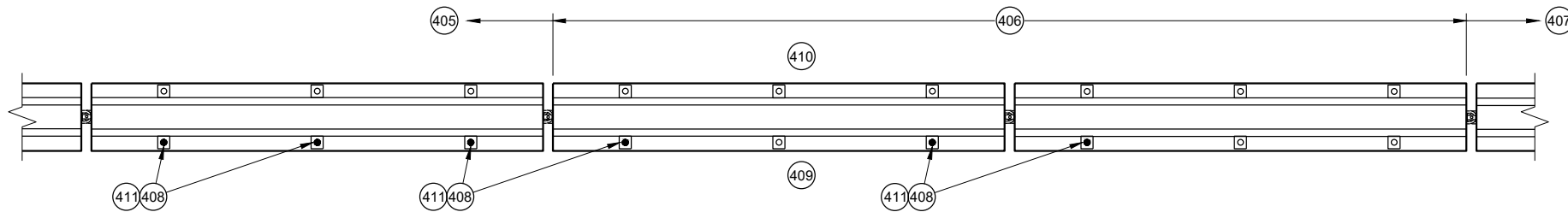
**GENERAL NOTES**

- (300) SET WITH 3 5/8" WOOD BLOCK.
- (301) HOLE IS OPTIONAL.
- (302) CONNECTOR PIN ASSEMBLY.
- (303) CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.
- (304) CONCRETE DECK.
- (305) DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.
- (306) MINIMUM OF 2" OF ASPHALT.
- (307) ASPHALT ANCHOR PIN ASSEMBLY
- (308) IF DRILLING A PILOT HOLE, THE MAX. DIA. OF THE HOLE IS 3/4"
- (309) WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.

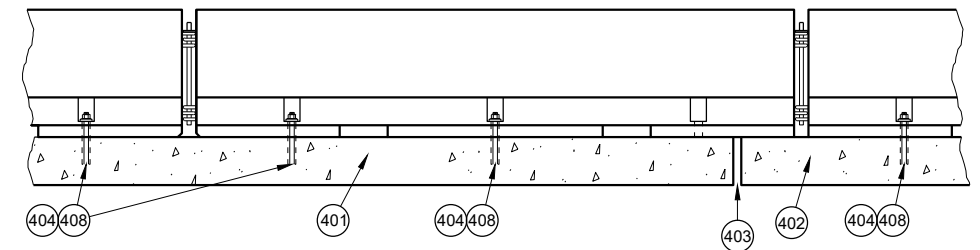


**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

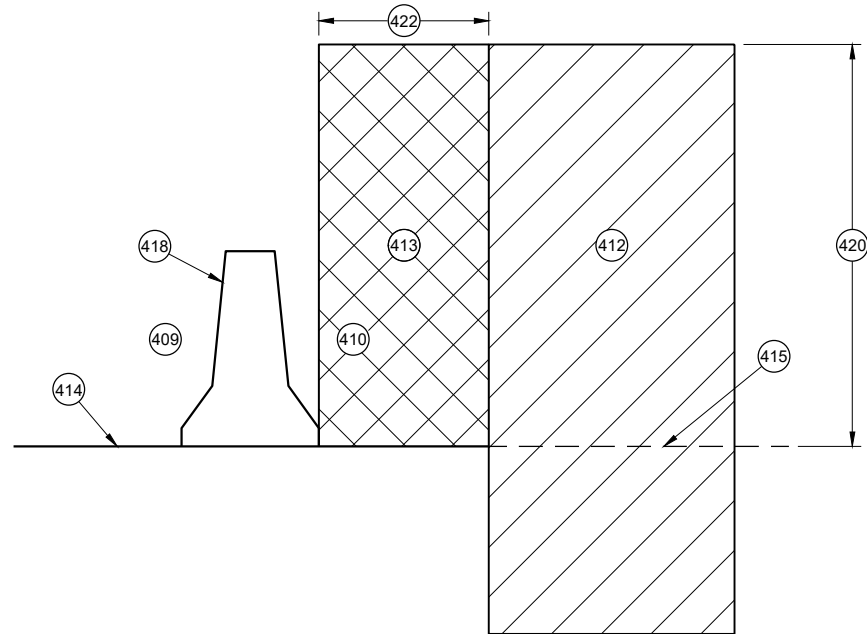
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



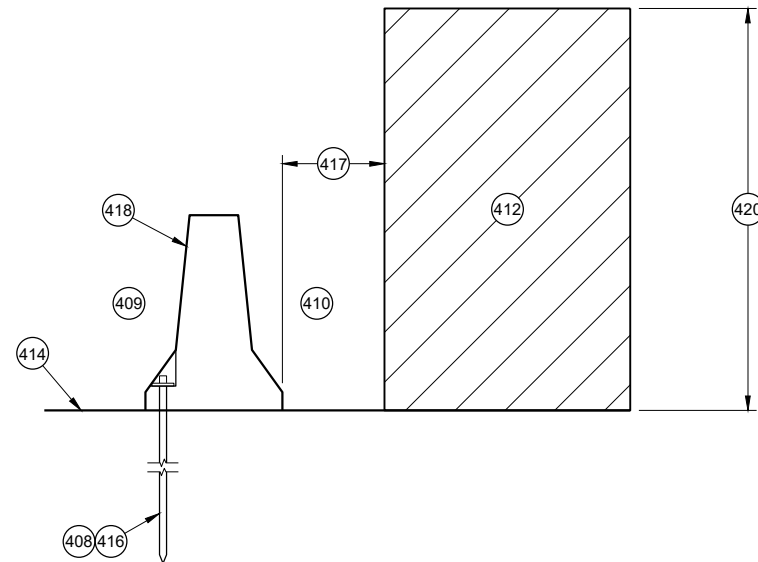
**PLAN VIEW**  
**TRANSITION FROM FREE STANDING TO ANCHORED BARRIER**



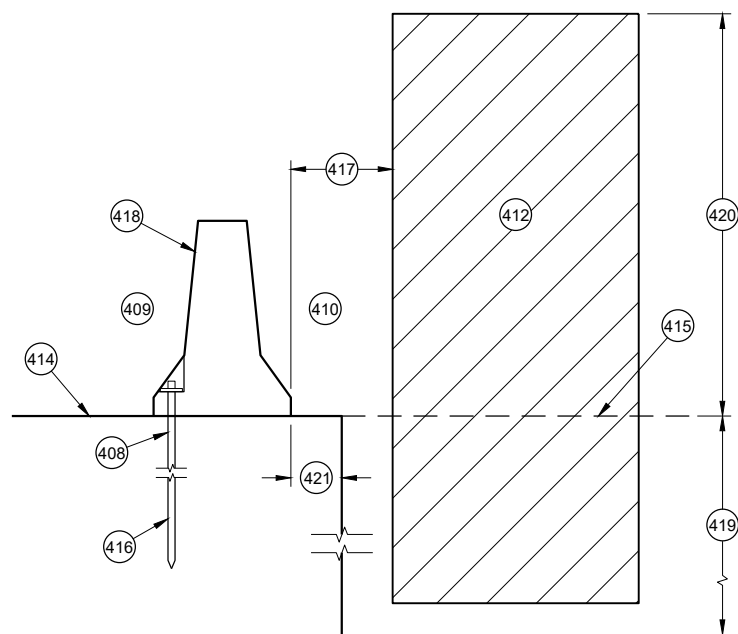
**PROFILE VIEW**  
**ANCHORED BARRIER NEAR EXPANSION JOINT**



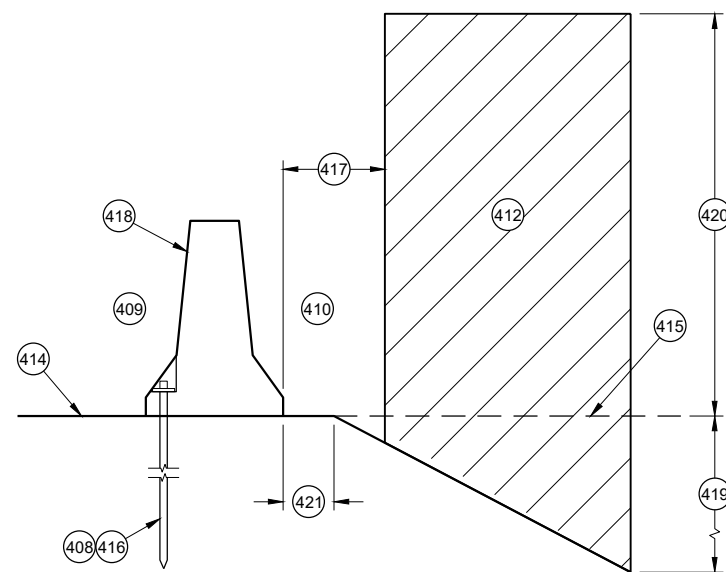
**CROSS SECTION**  
**FREE STANDING BARRIER**



**CROSS SECTION**  
**ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER**



**CROSS SECTION**  
**ANCHORED BARRIER NEAR VERTICAL DROP OFF**



**CROSS SECTION**  
**ANCHORED BARRIER NEAR A SLOPE**

**GENERAL NOTES**

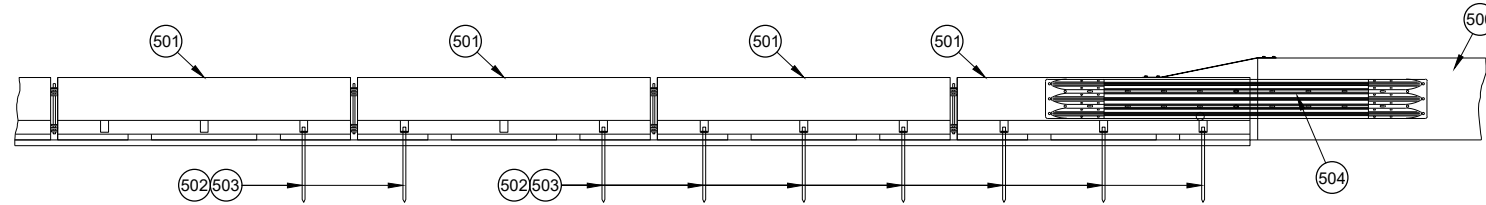
- 400 NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.
- 401 CONCRETE DECK
- 402 CONCRETE DECK OR APPROACH SLAB.
- 403 EXPANSION JOINT
- 404 ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.
- 405 ANCHORED TEMPORARY BARRIER
- 406 TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING
- 407 FREE STANDING BARRIER
- 408 REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.
- 409 TRAFFIC SIDE
- 410 NON-TRAFFIC SIDE
- 411 ANCHOR LOCATION. SEE ANCHORING DETAILS.
- 412 WORK AREA
- 413 AREA FREE OF OBJECTS AND WORKERS
- 414 GRADE LINE
- 415 EXTENDED GRADE LINE
- 416 ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.
- 417 WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.
- 418 OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.
- 419 DEPTHS OF 3 FEET OR MORE.
- 420 Y = 6.5'
- 421 OFFSET FROM BACK OF BARRIER EDGE:  
 CONCRETE PAVEMENT 0.5'  
 ASPHALT 0.5'
- 422 POSTED SPEED (MPH):  
 45 OR GREATER 4.0'  
 40 OR LOWER 2.0'

**CONCRETE BARRIER**  
**TEMPORARY PRECAST,**  
**12' - 6"**

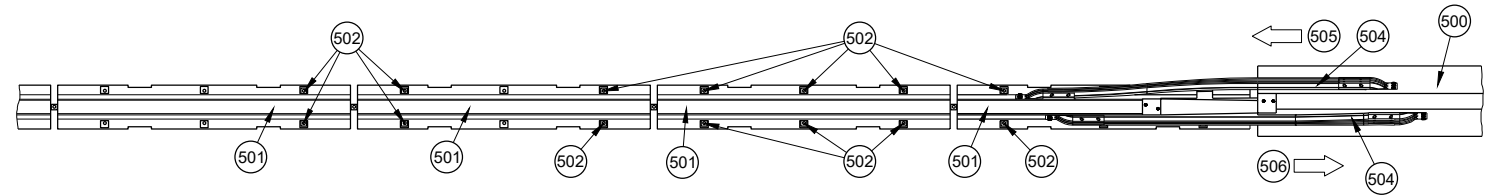
STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

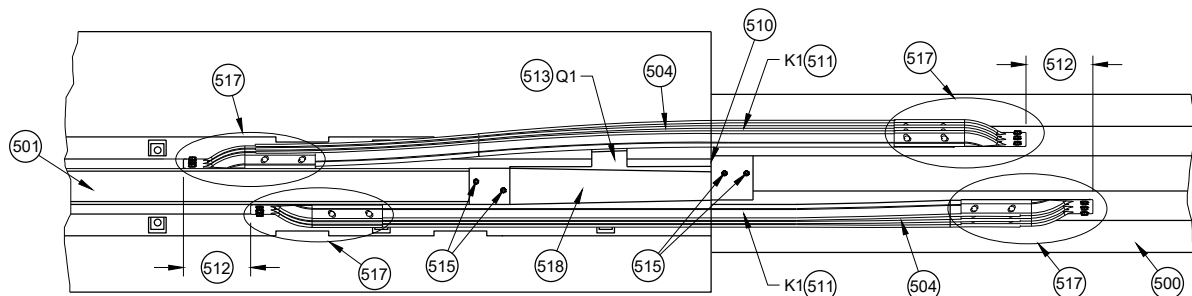
- (500) EXISTING RIGID BARRIERS (VARIES)
- (501) TEMPORARY BARRIER
- (502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).
- (503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.
- (504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.
- (505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.
- (506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.
- (507) VERTICAL BARRIER
- (508) SAFETY SHAPE BARRIER
- (509) SINGLE SLOPE BARRIER
- (510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.
- (511) BENT THRIE BEAM TO FIT.
- (512) THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
- (513) TWO (2) P1, P2 AND P3 ARE REQUIRED
- (514) FIVE (5) N1, N2 AND N3 ARE REQUIRED
- (515) TWO (2) R1, R2 AND R3 ARE REQUIRED
- (516) CUT WOOD BLOCK TO FIT.
- (517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.
- (518) CAP ASSEMBLY
- (519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.
- (520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



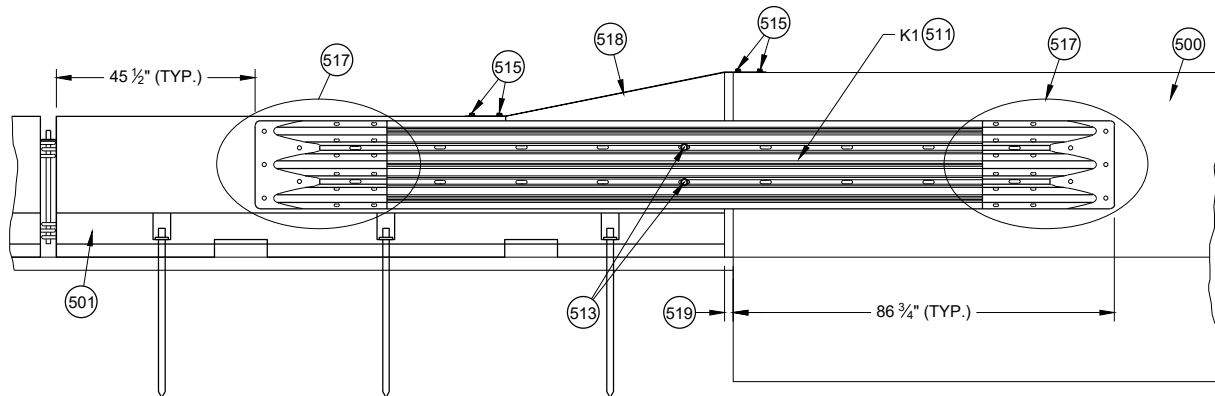
**PROFILE VIEW**



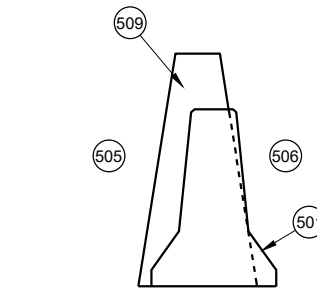
**PLAN VIEW  
TRANSITION TO RIGID BARRIER**



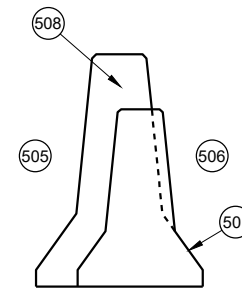
**PLAN DETAIL VIEW  
TRANSITION TO RIGID BARRIER**



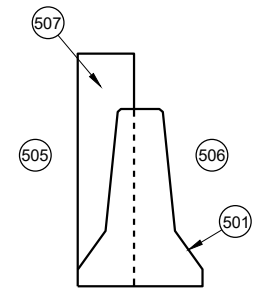
**FRONT DETAIL VIEW  
TRANSITION TO RIGID BARRIER**



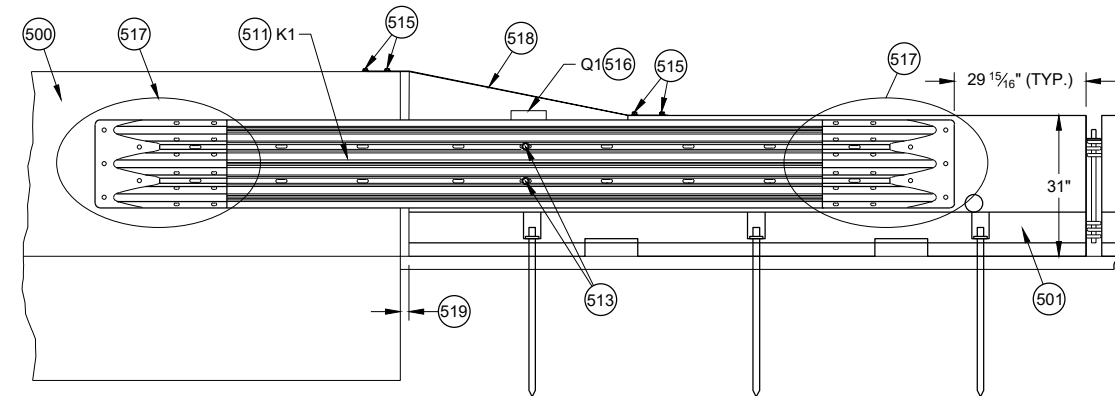
**CROSS SECTION  
TEMPORARY BARRIER  
PLACEMENT SINGLE SLOPE**



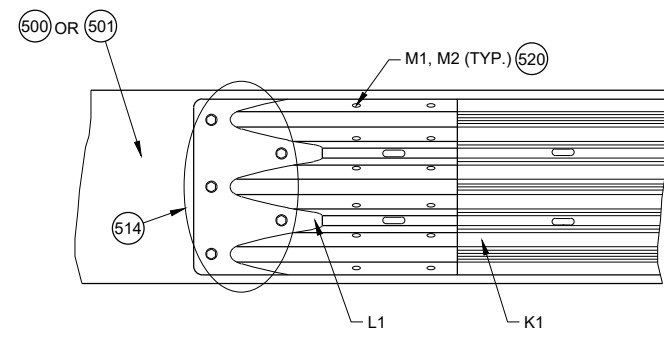
**CROSS SECTION  
TEMPORARY BARRIER  
PLACEMENT SAFETY SHAPE**



**CROSS SECTION  
TEMPORARY BARRIER  
PLACEMENT VERTICAL**



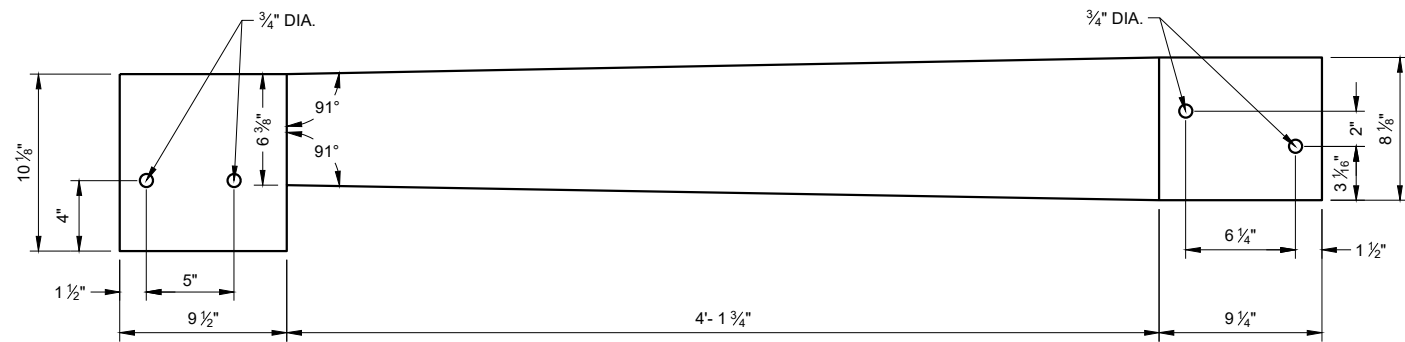
**BACK DETAIL VIEW  
TRANSITION TO RIGID BARRIER**



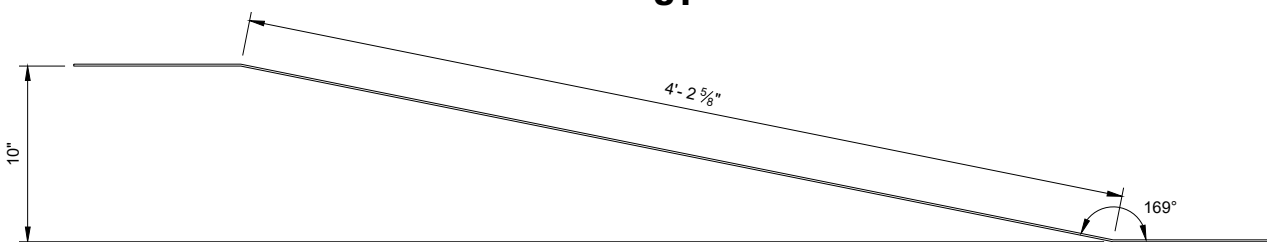
**(517) DETAIL PLAN VIEW  
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY**

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

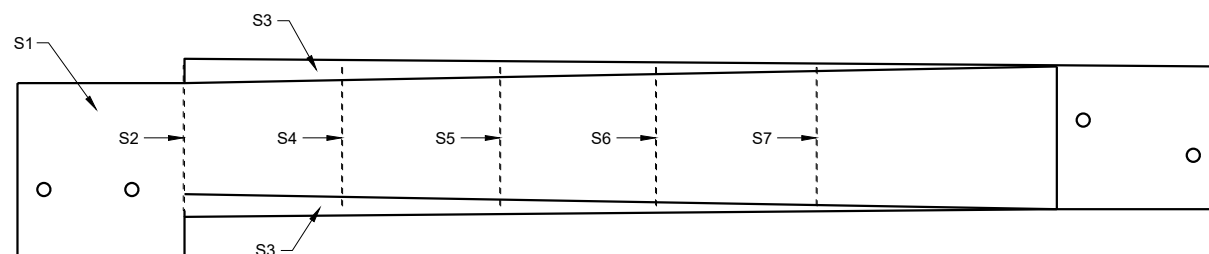
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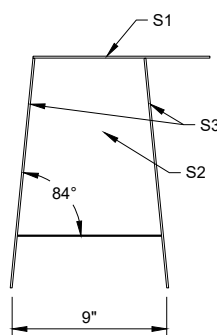
**TOP VIEW  
S1**



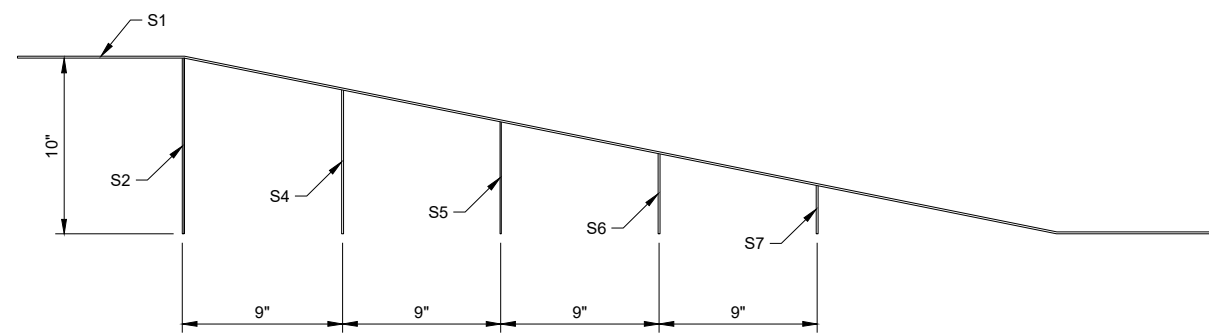
**ELEVATION VIEW  
S1**



**PLAN VIEW**

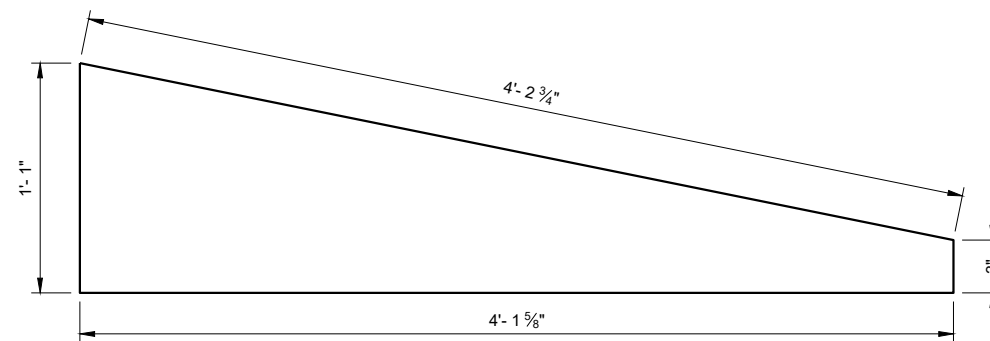


**BACK VIEW**

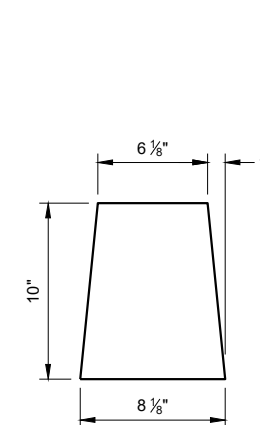


**SIDE VIEW (600)**

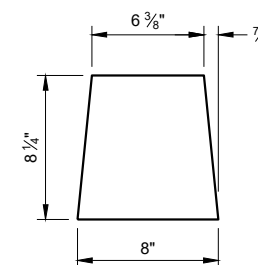
**42" TOP CAP ASSEMBLY**



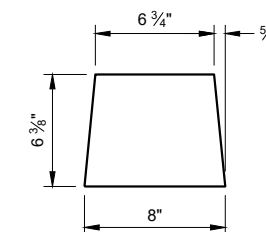
**SIDE VIEW  
S3**



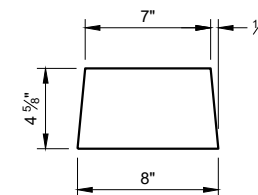
**S2**



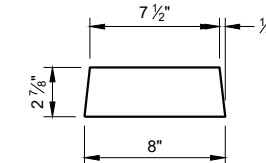
**S4**



**S5**



**S6**



**S7**

**GENERAL NOTES**

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

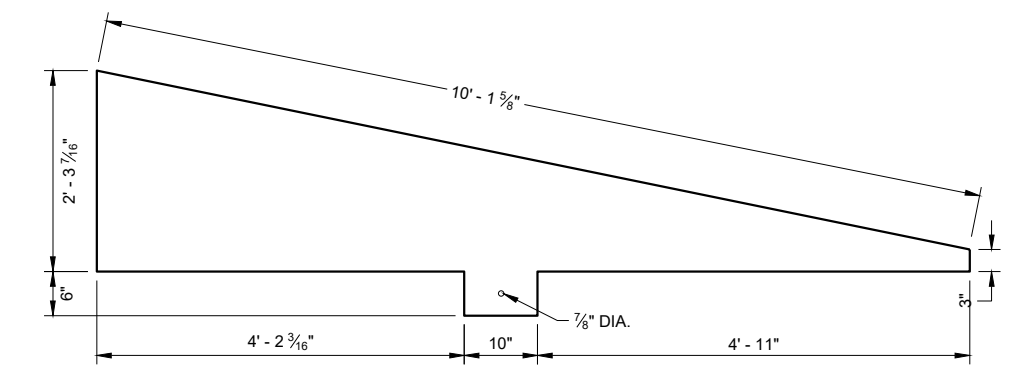
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

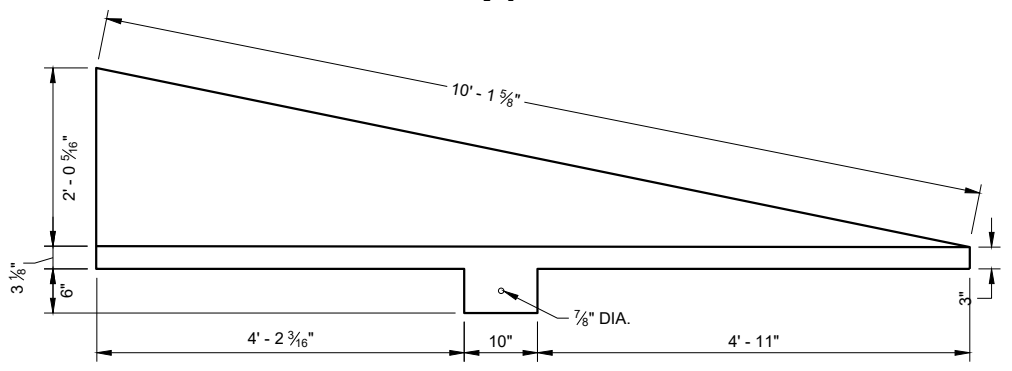
**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



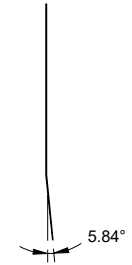


**SIDE VIEW T4**



**SIDE VIEW T3**

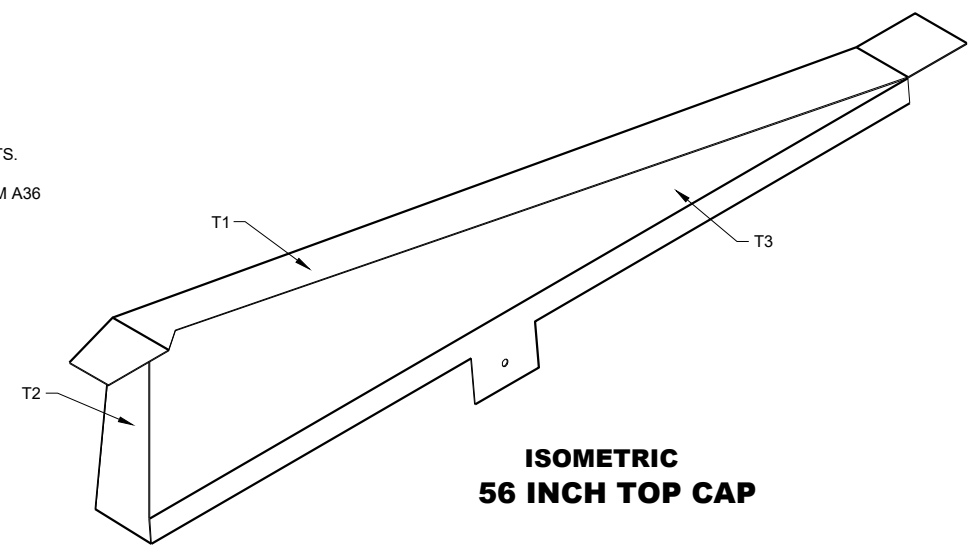
**END VIEW**



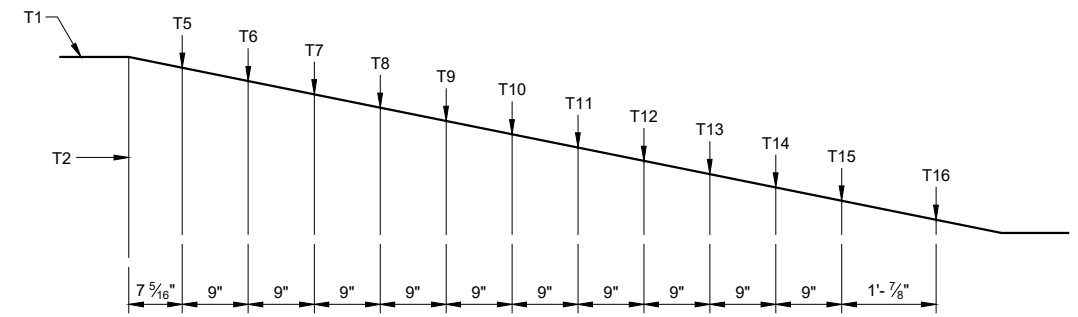
**END VIEW**

**GENERAL NOTES**

- STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES
- STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.
- SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.
- (700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.

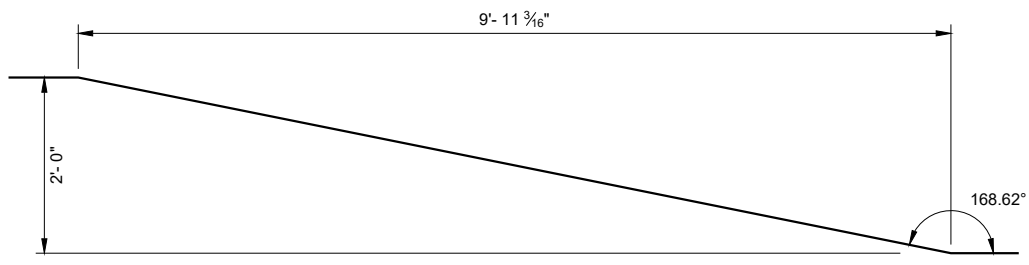
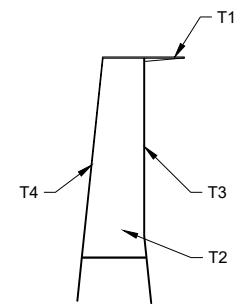


**ISOMETRIC 56 INCH TOP CAP**

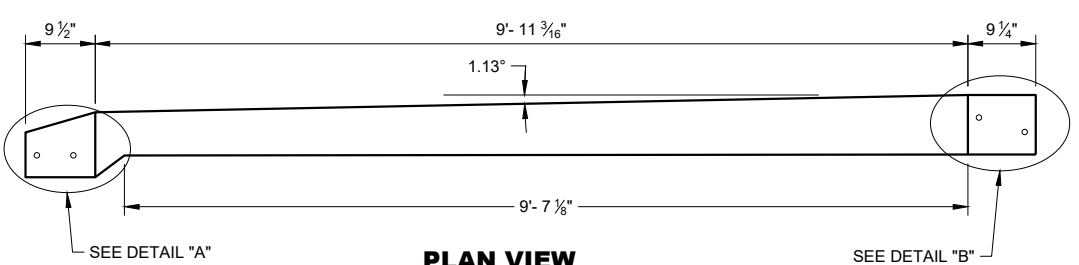


**SIDE VIEW 56 INCH TOP CAP (700)**

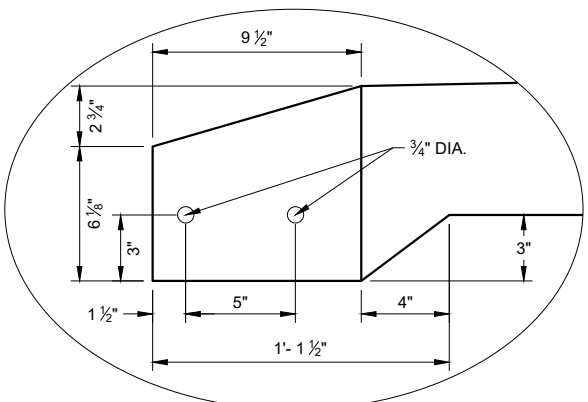
**END VIEW 56 INCH TOP CAP**



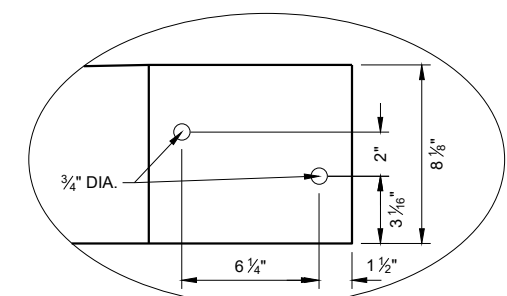
**SIDE VIEW TOP PLATE T1**



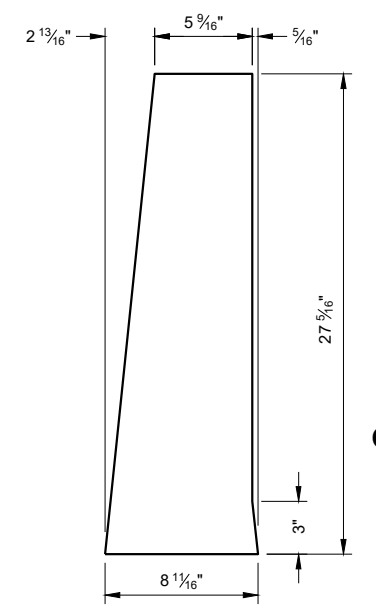
**PLAN VIEW TOP PLATE T1**



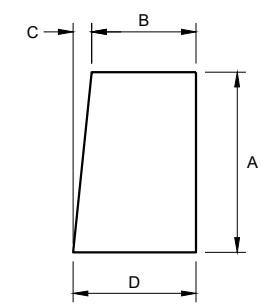
**DETAIL "A"**



**DETAIL "B"**



**END PLATE T2**

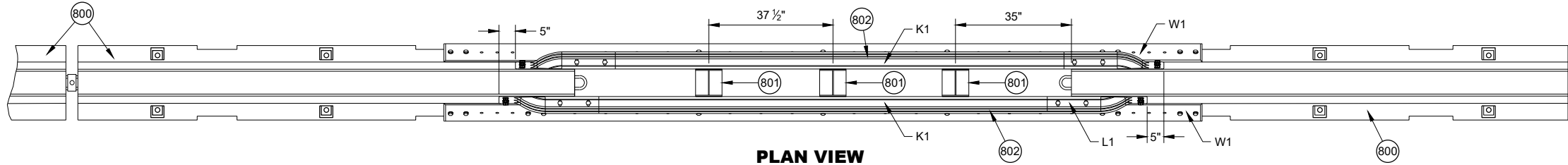
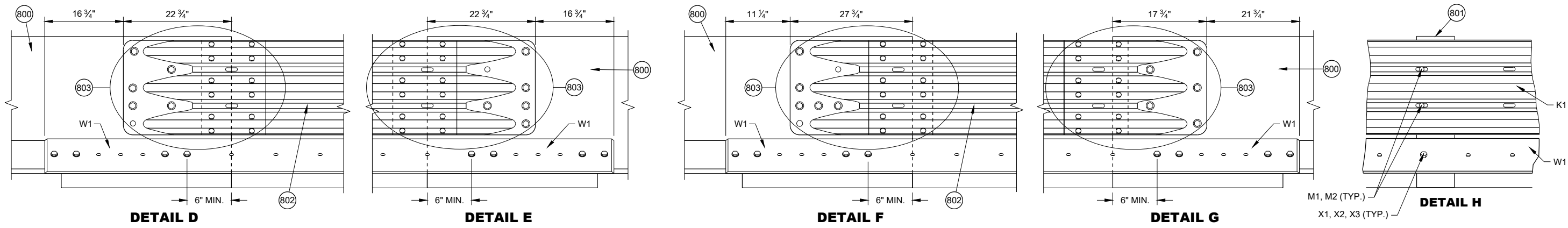


**GUSSET PLATES T5 - T16**

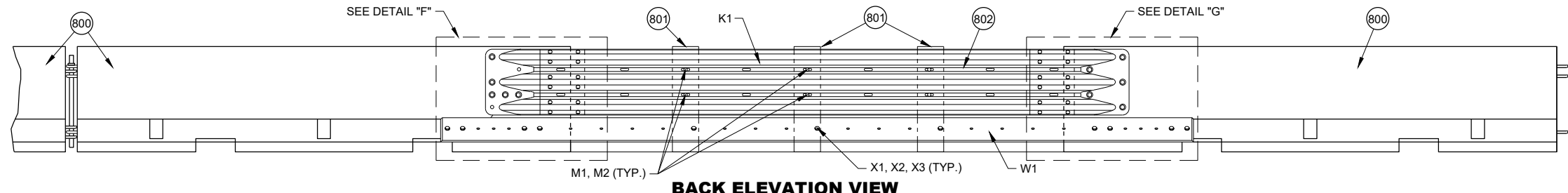
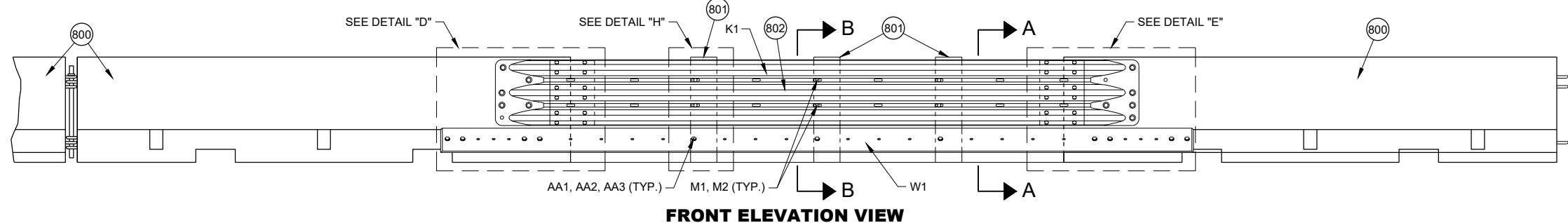
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/8"	1 13/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 9/16"	6 7/16"	1 1/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 1/16"	7 1/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



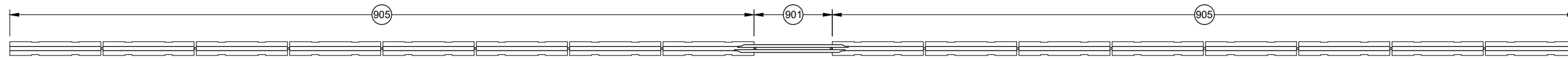
- GENERAL NOTES**
- 800 FREE STANDING TEMPORARY BARRIER
  - 801 GAP STIFFENER ASSEMBLY
  - 802 THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.
  - 803 SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



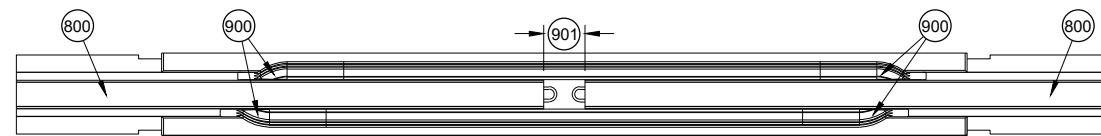
**PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER**

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

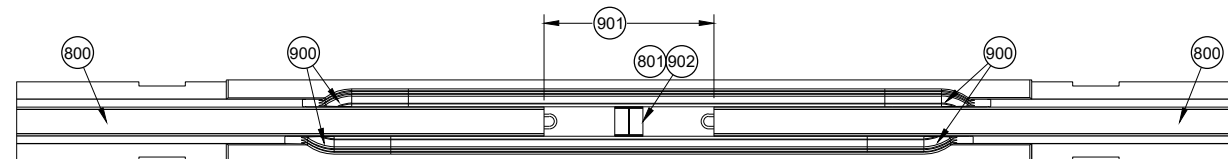
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



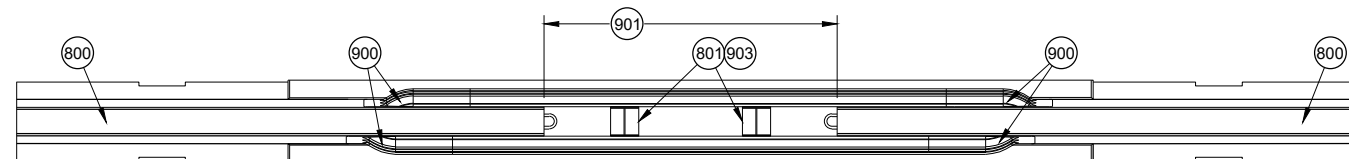
**PLAN VIEW  
GAP WITHIN SPACING**



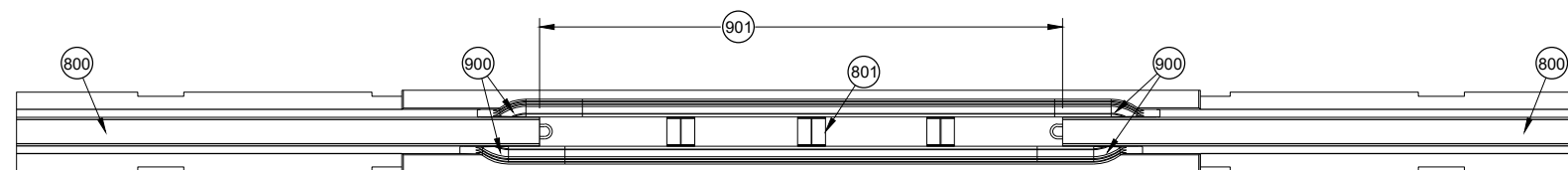
**PLAN VIEW  
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. 904**



**PLAN VIEW  
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. 904**



**PLAN VIEW  
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. 904**



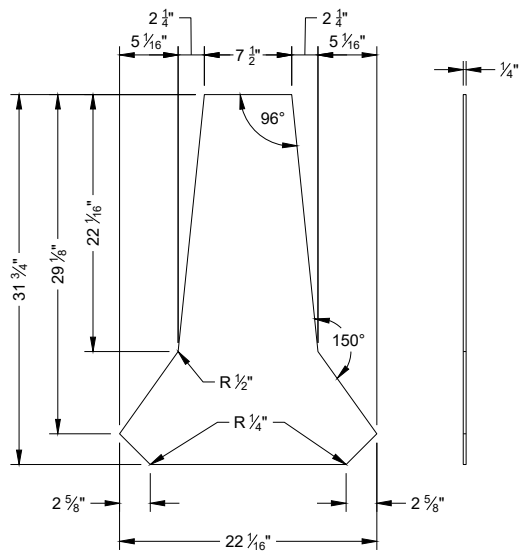
**PLAN VIEW  
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. 904**

**GENERAL NOTES**

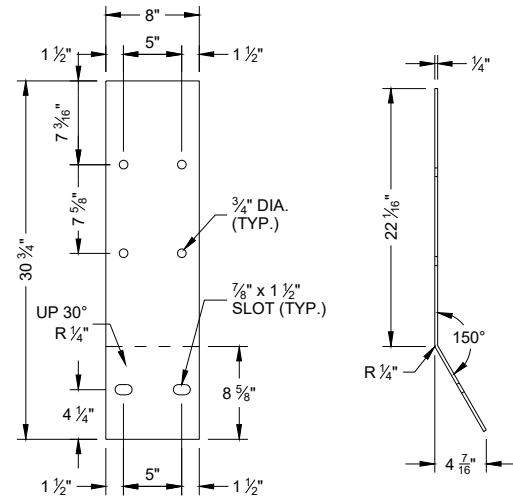
- 900 SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
- 901 TEMPORARY BARRIER GAP
- 902 GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
- 903 GAP STIFFENER ASSEMBLY IS OFFSET 18 3/4" FROM CENTER
- 904 MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
- 905 MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

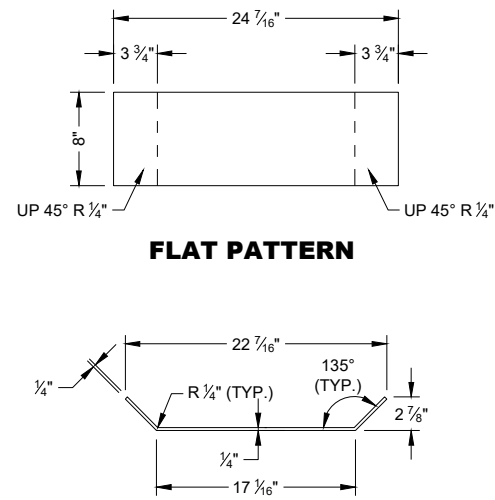
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



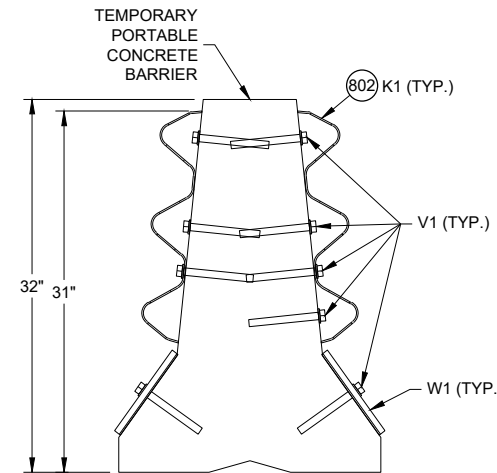
**PROFILE VIEW** **SIDE VIEW**  
**STIFFENER ASSEMBLY**  
**CENTER PANEL U1**



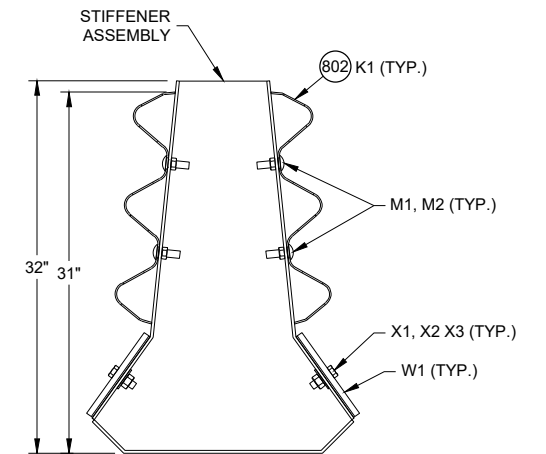
**FLAT PATTERN** **SIDE VIEW**  
**STIFFENER ASSEMBLY**  
**SIDE PANEL U2**



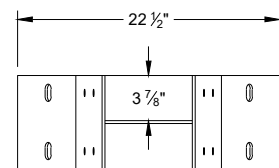
**PROFILE VIEW**  
**FLAT PATTERN**  
**STIFFENER ASSEMBLY**  
**BOTTOM PANEL U3**



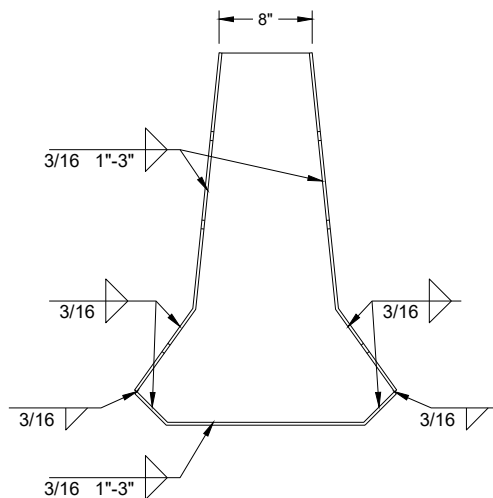
**SECTION A - A**



**SECTION B - B**

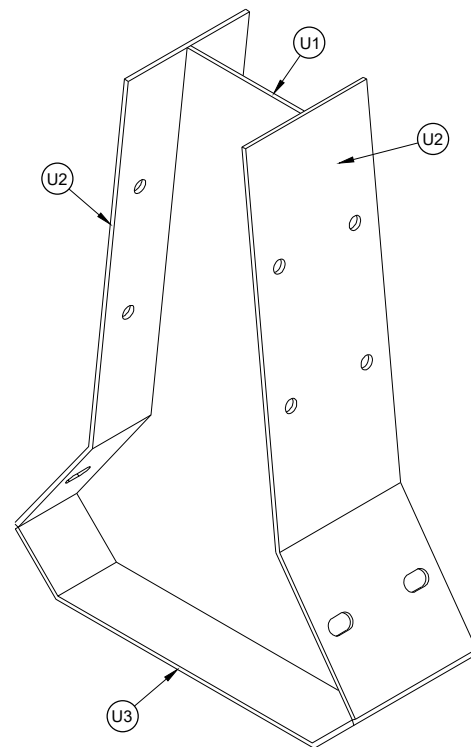


**PLAN VIEW**

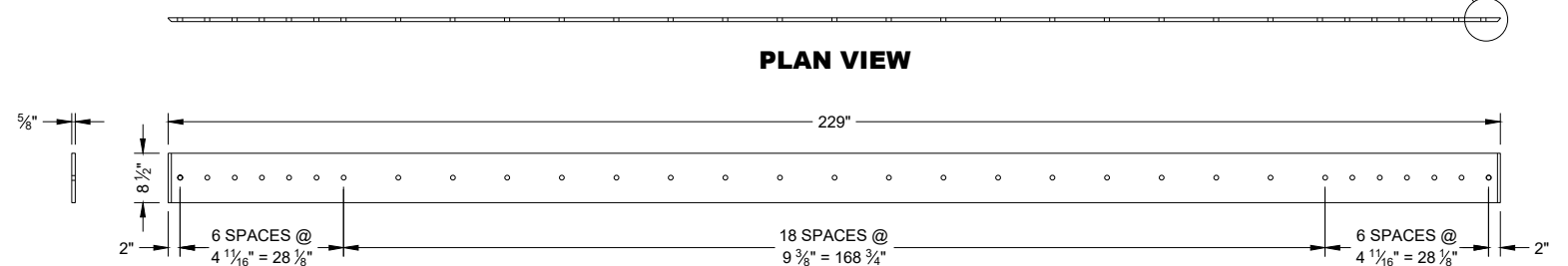
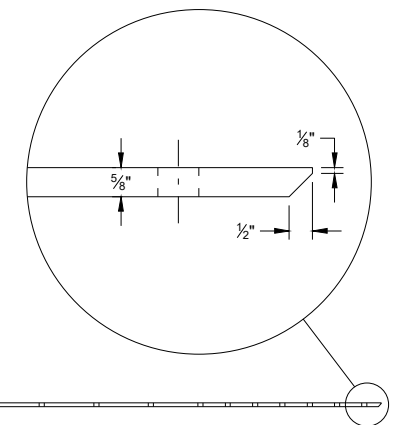


**PROFILE VIEW** **SIDE VIEW**

**GAP STIFFENER ASSEMBLY**



**ISOMETRIC**

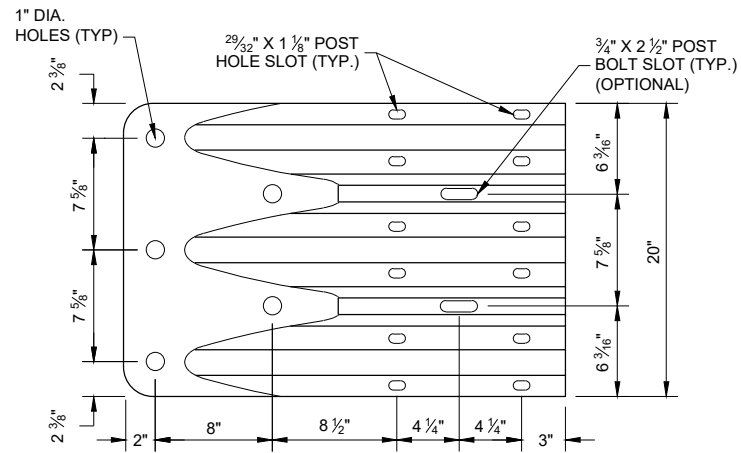


**SIDE VIEW**

**PLAN VIEW**  
**ELEVATION VIEW**  
**W1 TOE PLATE**

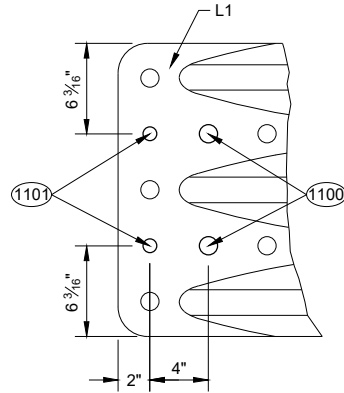
**CONCRETE BARRIER**  
**TEMPORARY PRECAST,**  
**12' - 6"**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION



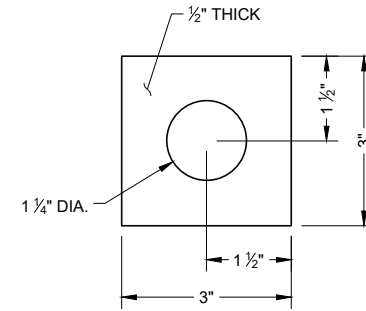
**ELEVATION VIEW**

**THRIE BEAM  
TERMINAL CONNECTOR**



**ELEVATION VIEW**

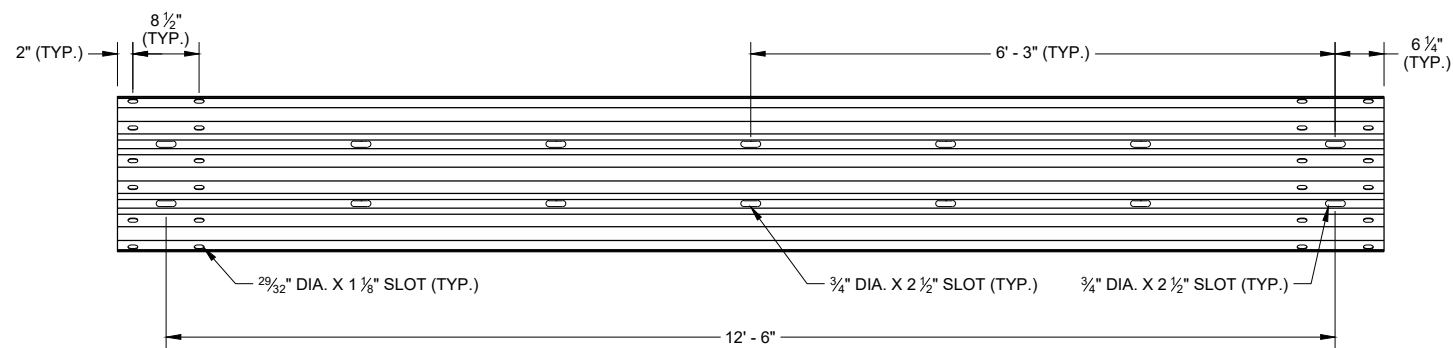
**ADDITIONAL THRIE BEAM  
TERMINAL CONNECTOR HOLE DETAIL**



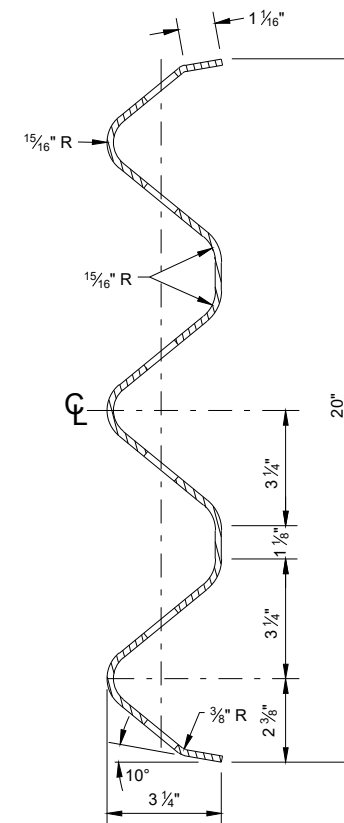
**PLATE WASHER DETAIL  
G2, H3**

**GENERAL NOTES**

- (1100) 1" DIA. HOLE
- (1101) 3/4" DIA. HOLE
- (1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



**SLOTTED THRIE BEAM RAIL K1**

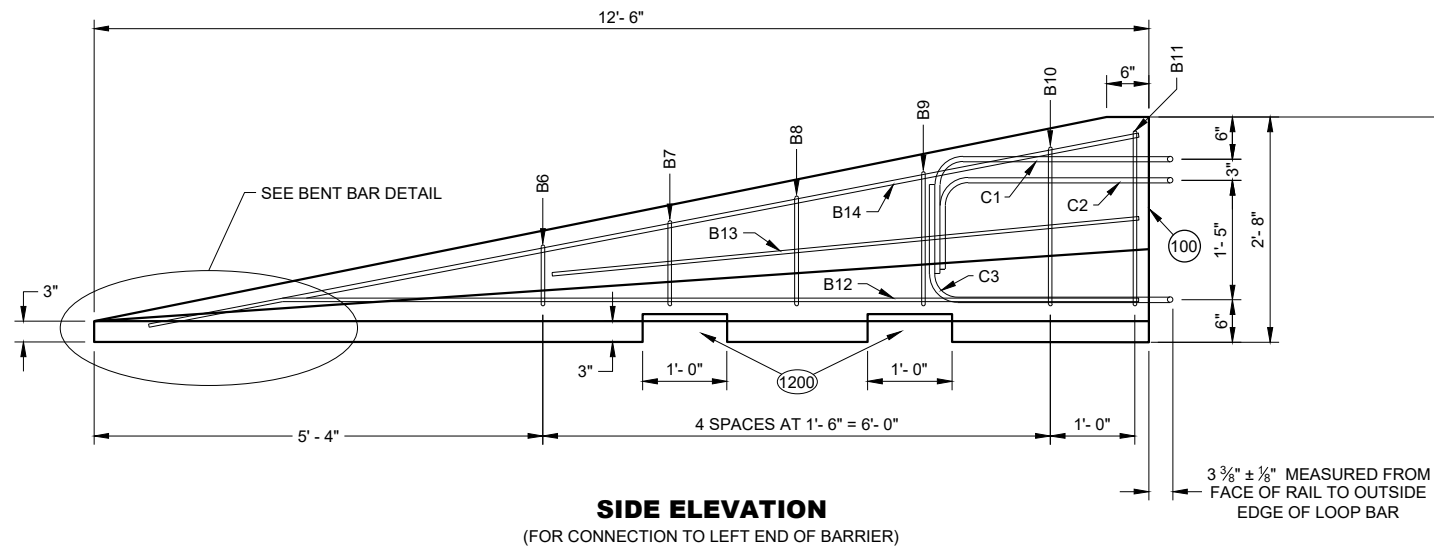


**SECTION THROUGH  
BEAM K1**

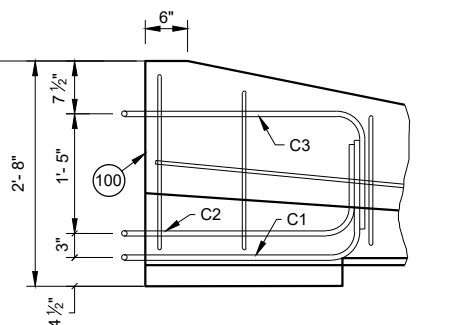
**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





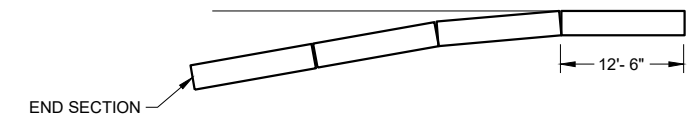
**SIDE ELEVATION**  
(FOR CONNECTION TO LEFT END OF BARRIER)



**SIDE ELEVATION**  
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END  
(FOR CONNECTION TO RIGHT END OF BARRIER)

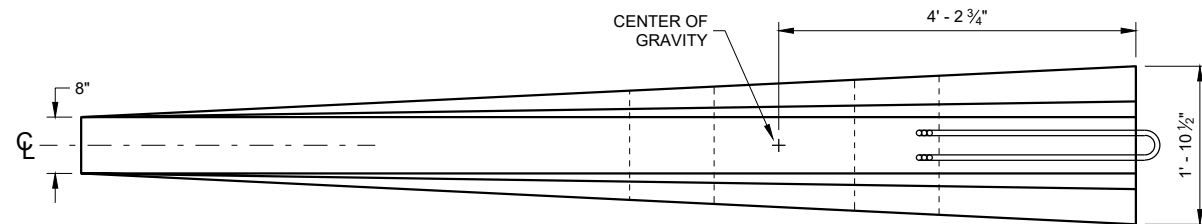
**GENERAL NOTES**

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

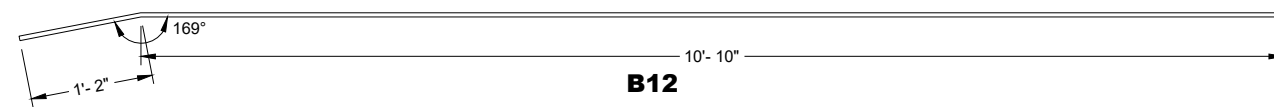


**FLARE AT BARRIER END**

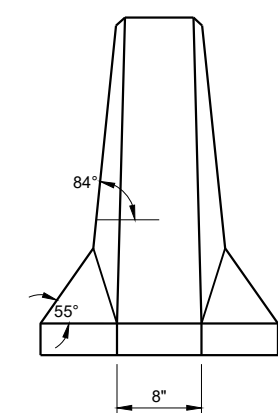
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



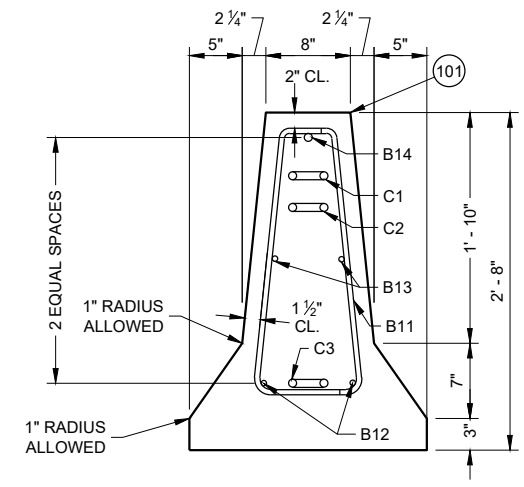
**PLAN VIEW**



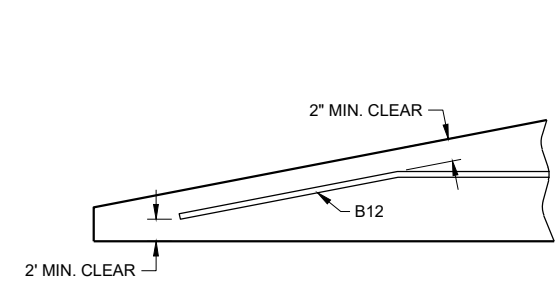
**B12**



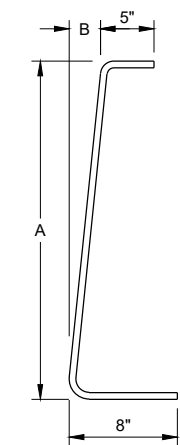
**FRONT ELEVATION**



**END SECTION**



**BENT BAR DETAIL**



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 1/4"
B8	1'- 5"	1 5/8"
B9	1'- 8"	1 7/8"
B10	2'- 0 1/2"	2 3/8"
B11	2'- 3"	2 3/4"

**B BARS**

2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

**DETAILS OF BARRIER TAPER SECTION**

**CONCRETE BARRIER  
TEMPORARY PRECAST,  
12' - 6"**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

### BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f <sub>c</sub> 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ½" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ½" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	½" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	½" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

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SDD 14B07-16m

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SDD 14B07-16m

<p><b>CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"</b></p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>

**BILL OF MATERIALS - CONCRETE BARRIER PRECAST**

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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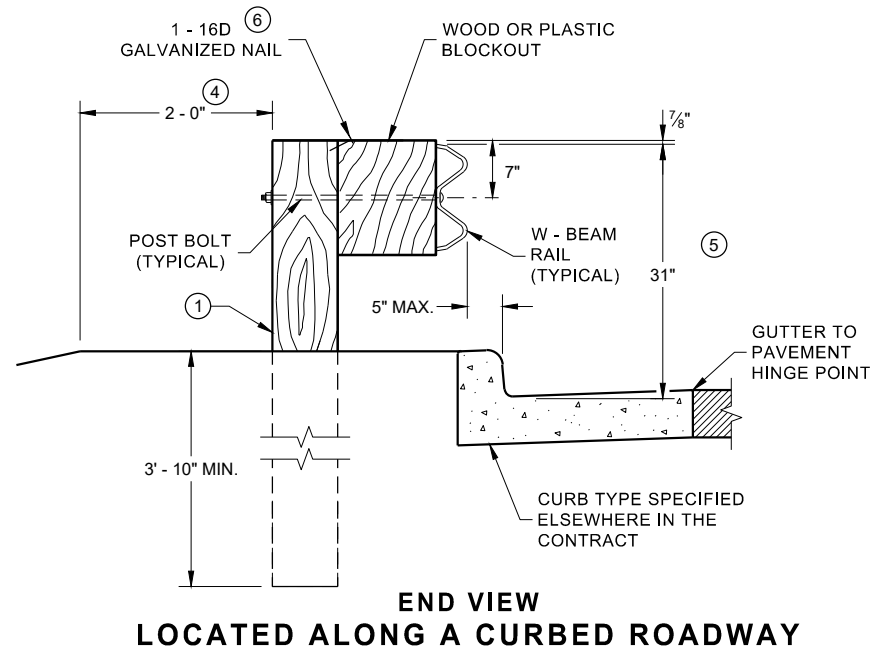
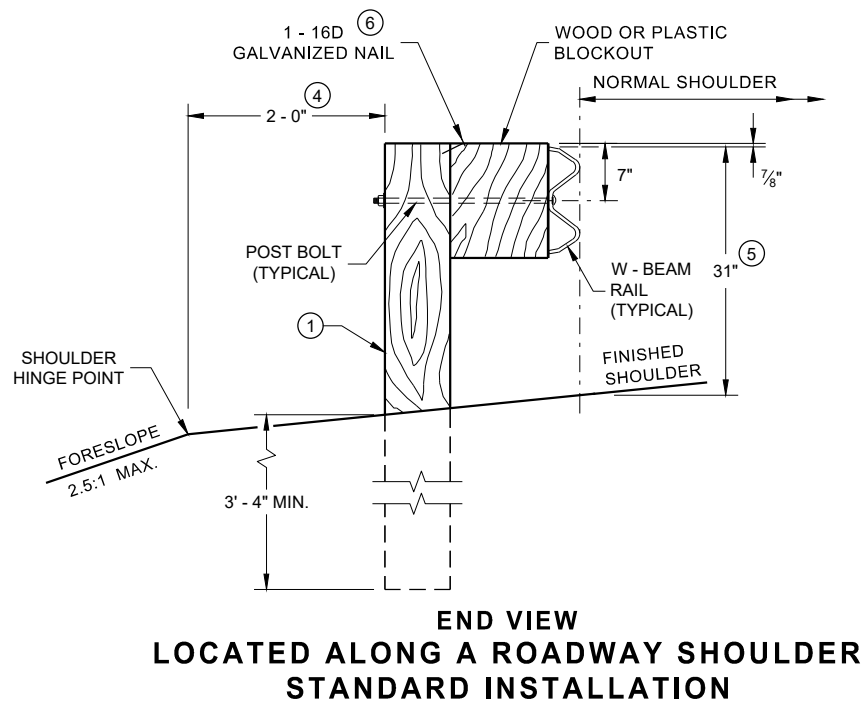
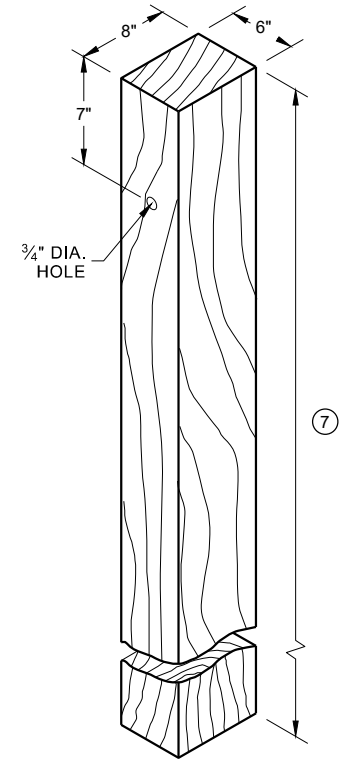
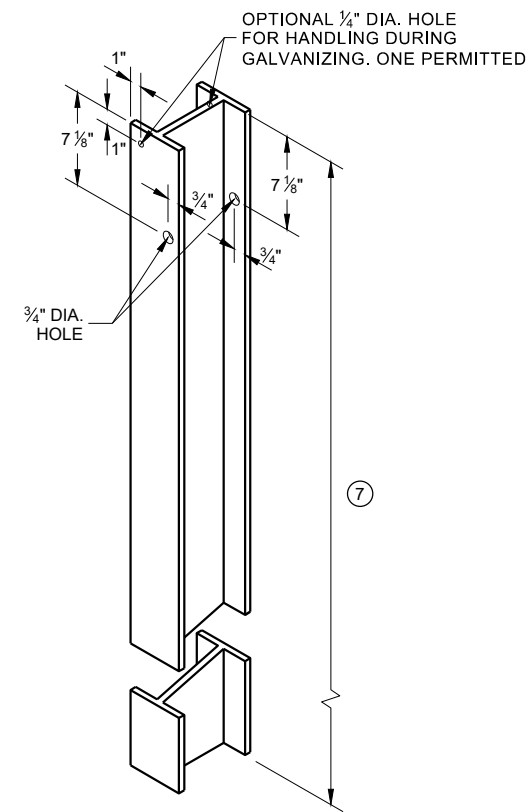
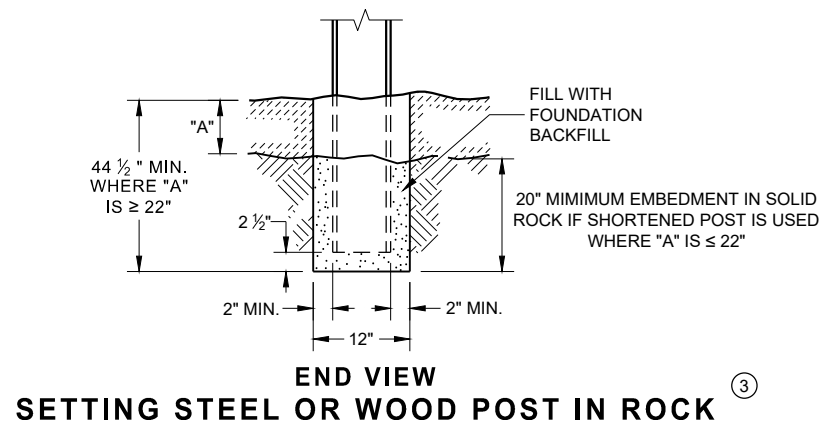
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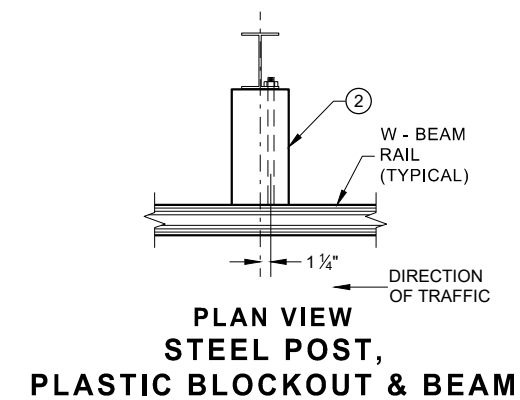
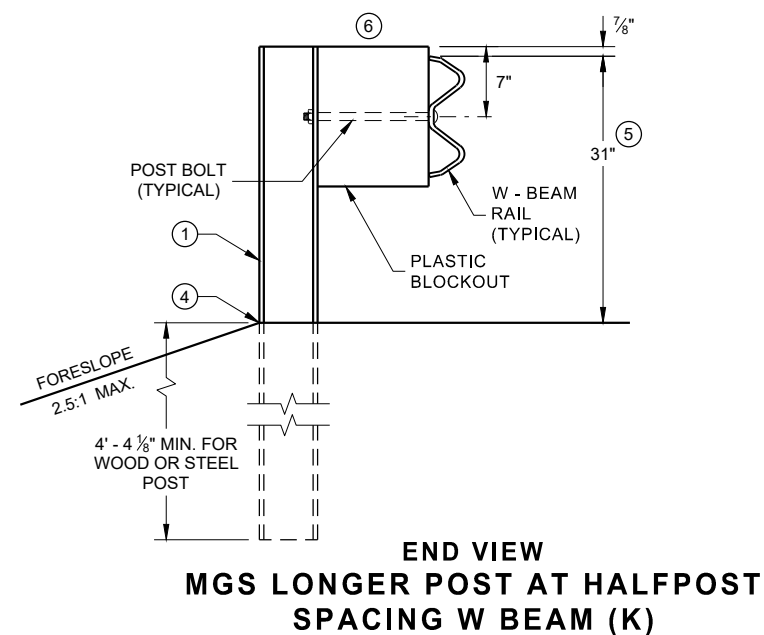
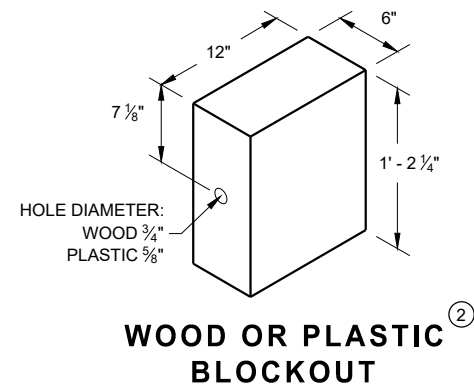
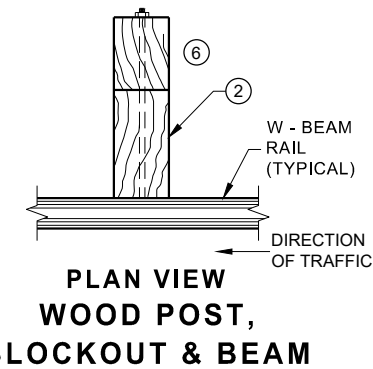
<b>CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- 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 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND 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  $\pm 1"$ . FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" 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.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0". TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



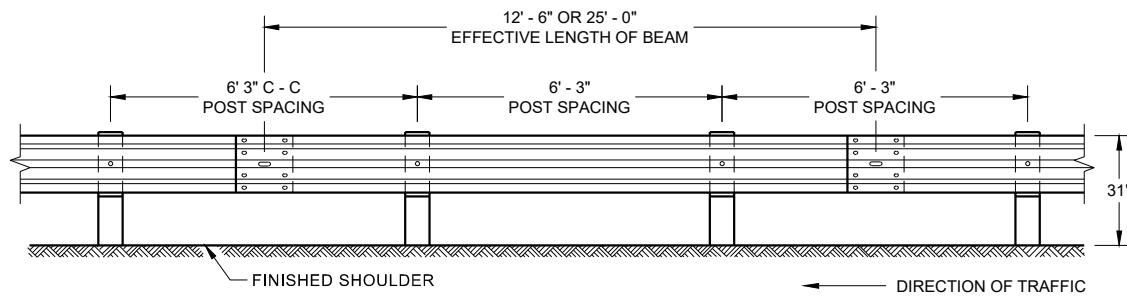
**STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)**

**WOOD POST (6" X 8") NOMINAL**

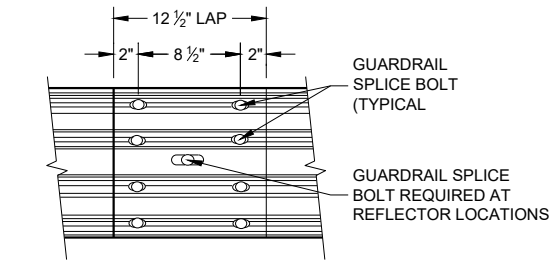


**MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



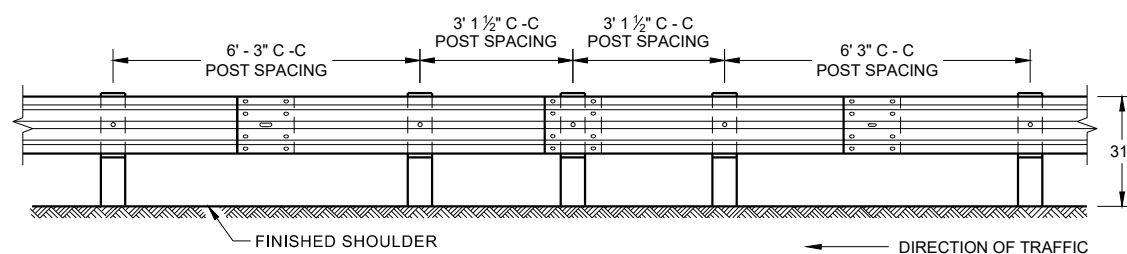
**FRONT VIEW  
POST SPACING STANDARD INSTALLATION**



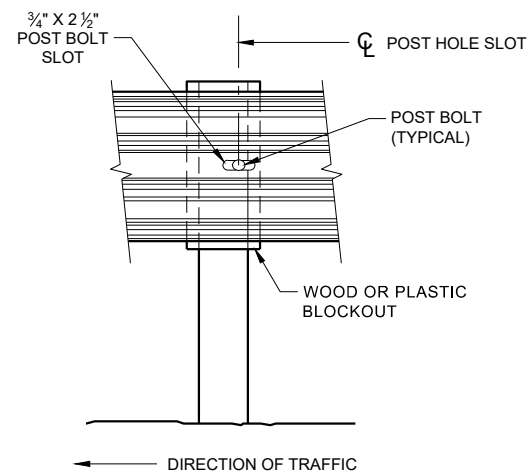
**FRONT VIEW  
MID-SPAN BEAM SPLICE**

**GENERAL NOTES**

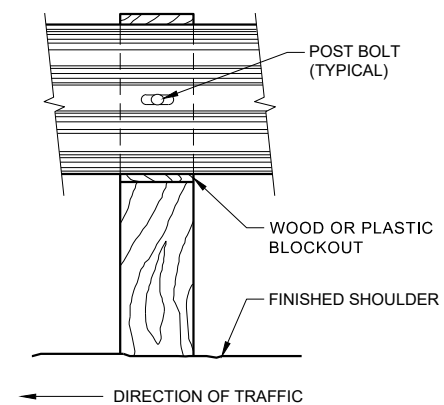
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
  - ⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER 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 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



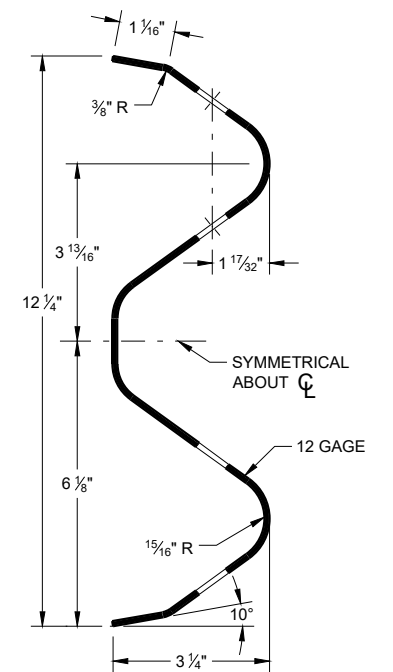
**FRONT VIEW  
HALF POST SPACING (HS) AND  
HALF POST SPACING WITH LONGER POSTS (K)**



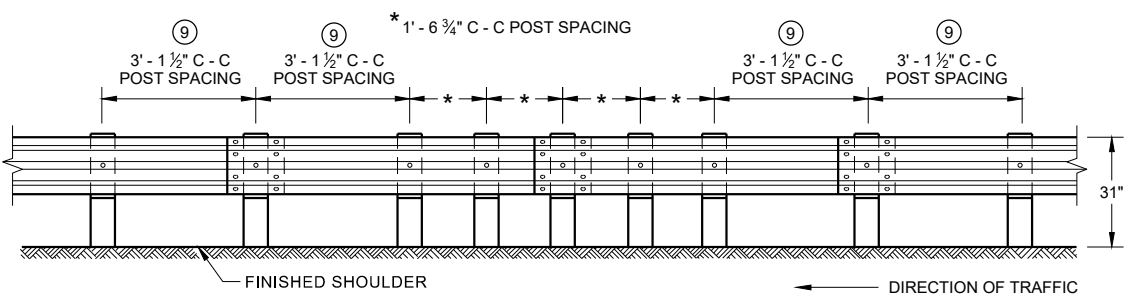
**FRONT VIEW AT STEEL POST**



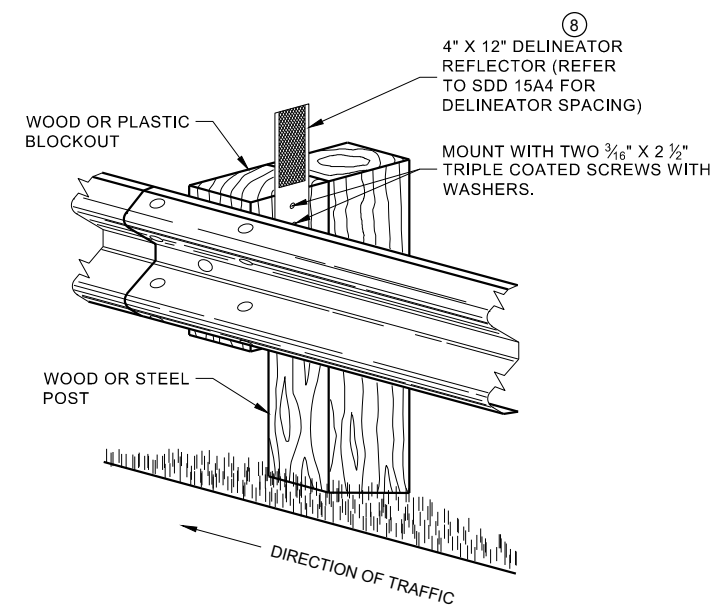
**FRONT VIEW AT WOOD POST**



**SECTION THRU W-BEAM RAIL**



**FRONT VIEW  
QUARTER POST SPACING (QS)**



**ONE SIDED REFLECTOR DETAIL  
AND TYPICAL INSTALLATION**

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

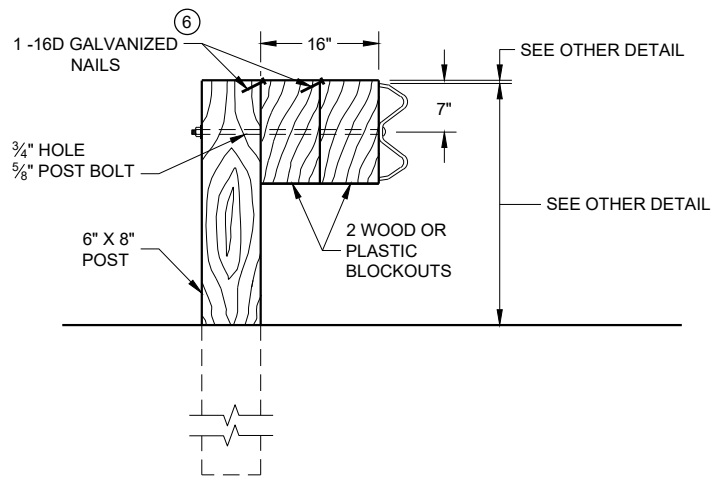
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SDD 14B42 - 07b

SDD 14B42 - 07b



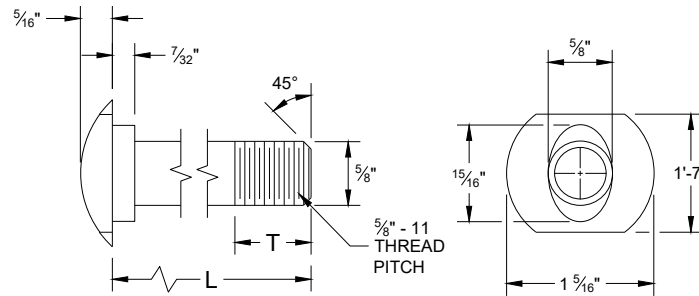


**DETAIL FOR 16" BLOCKOUT DEPTH**

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.

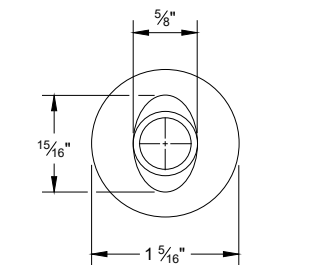
**NOTE:**

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

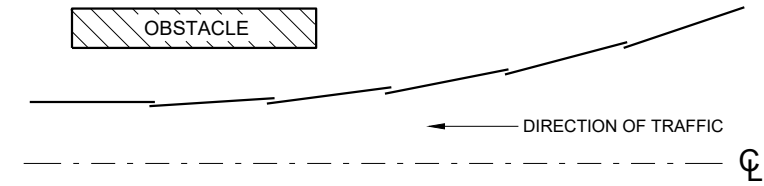


**POST BOLT TABLE**

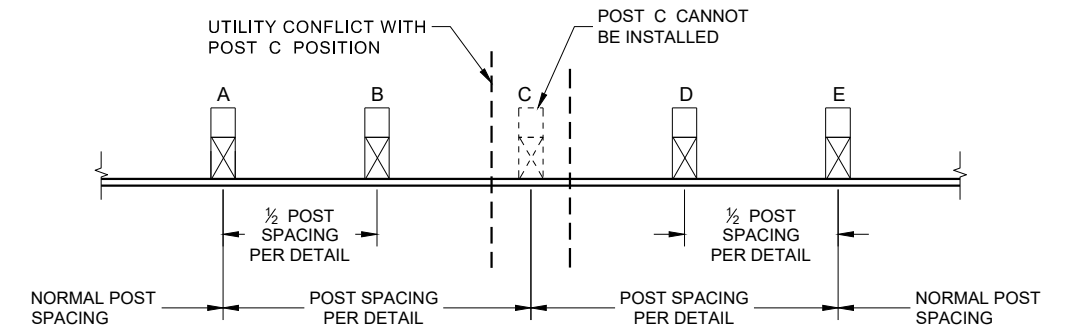
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



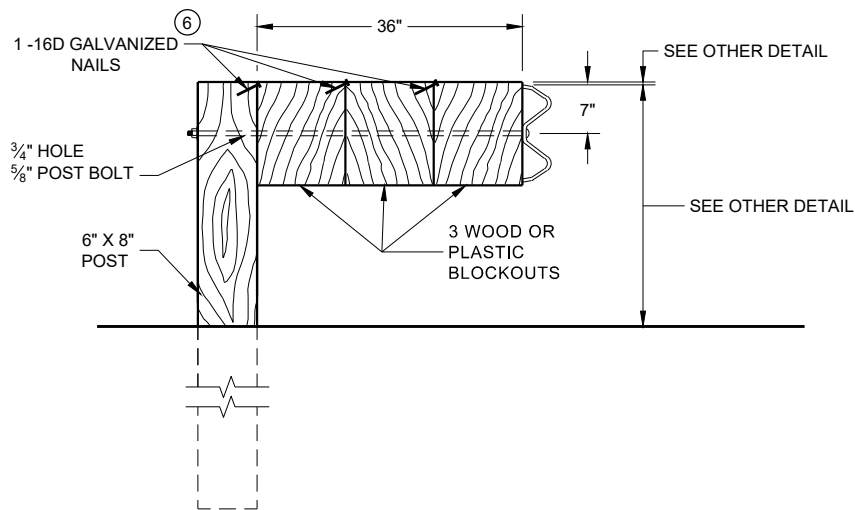
**ALTERNATE BOLT HEAD**



**PLAN VIEW  
BEAM LAPPING DETAIL**

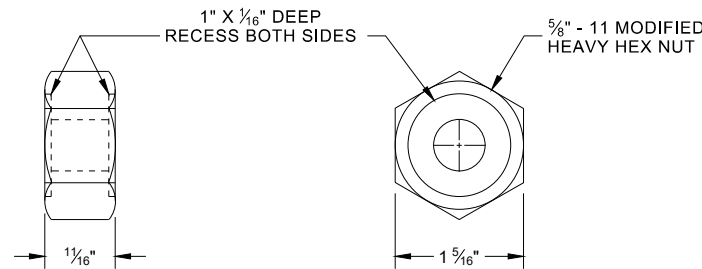


**POST DRIVING FOR CONTINUOUS  
UNDERGROUND OBSTRUCTION**

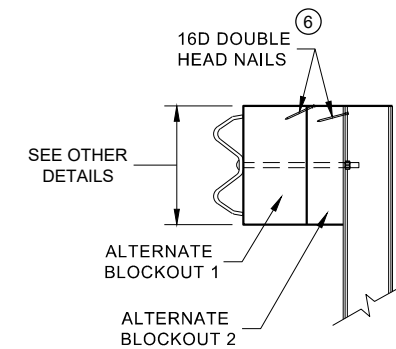


**DETAIL FOR 36" BLOCKOUT DEPTH**

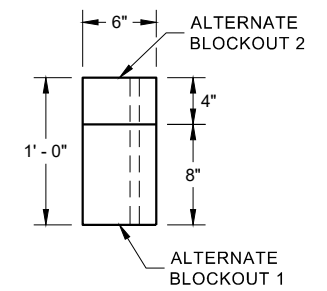
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.  
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



**POST BOLT, SPLICE BOLT  
AND RECESS NUT**



**SIDE VIEW**



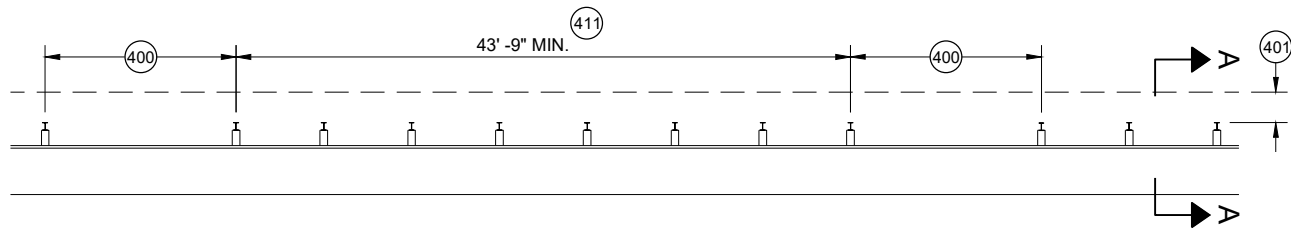
**PLAN VIEW**

**ALTERNATE WOOD  
BLOCKOUT DETAIL**

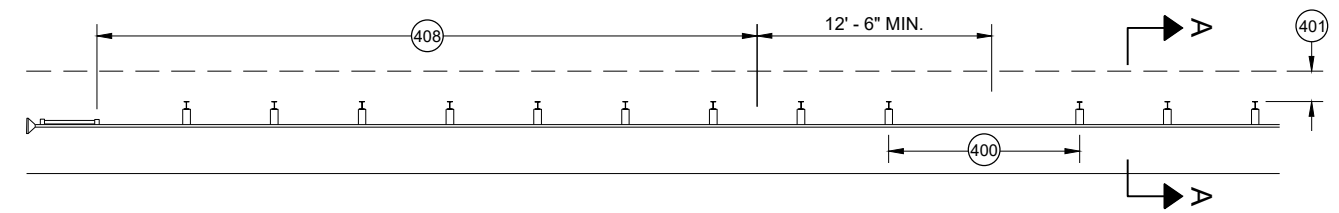
6 WHEN USING STEEL POST AND WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

**MIDWEST GUARDRAIL SYSTEM  
(MGS) GUARDRAIL**

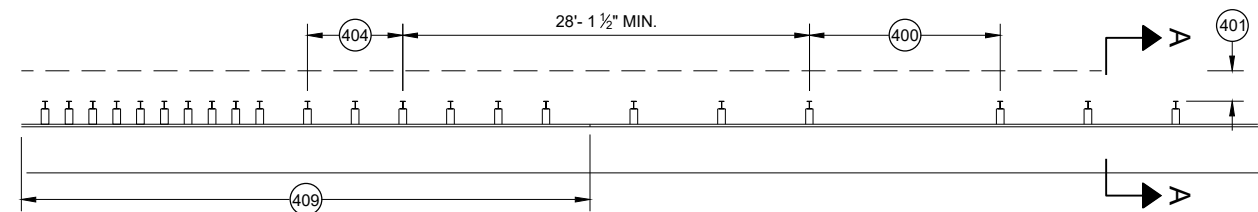
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



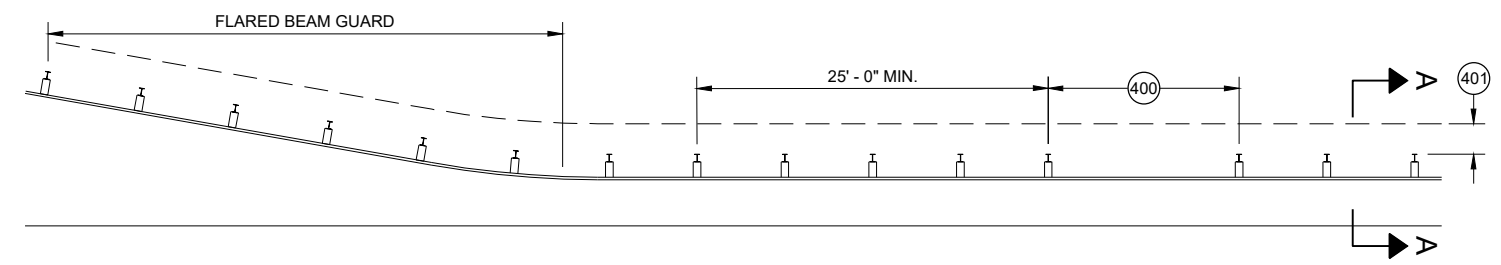
**MISSING POST IN MGS GUARDRAIL**



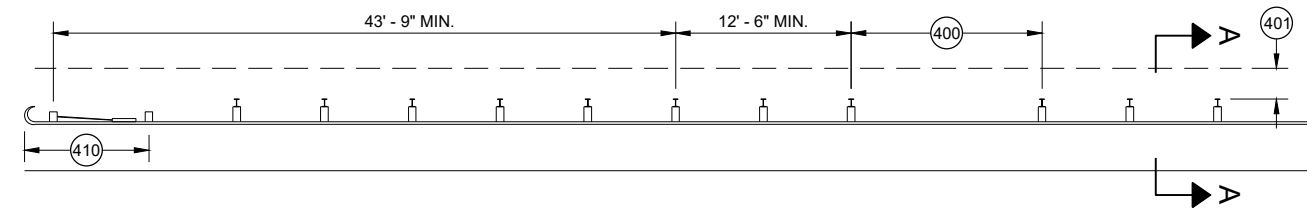
**MISSING POST IN MGS GUARDRAIL NEAR EAT**



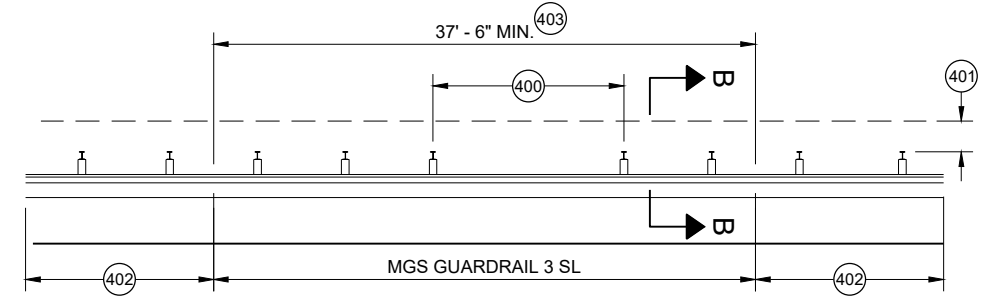
**MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION**



**MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD**

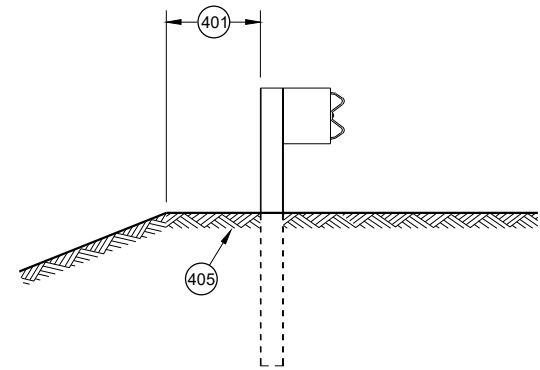


**MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL**

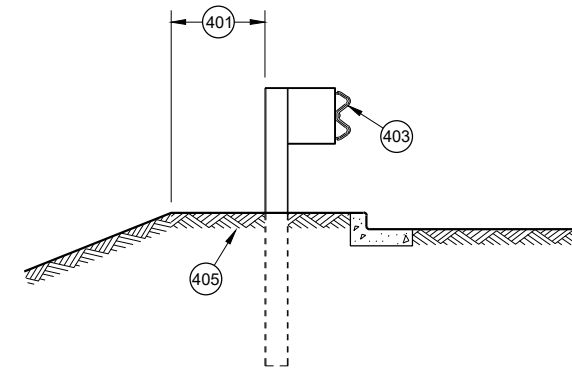


**MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)**

- 400 MAX SPAN 12' - 6"
- 401 2' MIN.
- 402 MGS GUARDRAIL 3
- 403 NESTING BEAM GUARD
- 404 ASYMMETRIC TRANSITION
- 405 SOIL WELL DRAINED AND COMPACTED
- 406 SEE OTHER DRAWINGS IN THIS SDD
- 407 SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- 408 SEE SDD 14B44
- 409 SEE SDD 14B45
- 410 SEE SDD 14B47
- 411 MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



**SECTION A - A**



**SECTION B - B**

<b>MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

**GENERAL NOTES**

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE 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 MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
  - (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
  - (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.
- DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

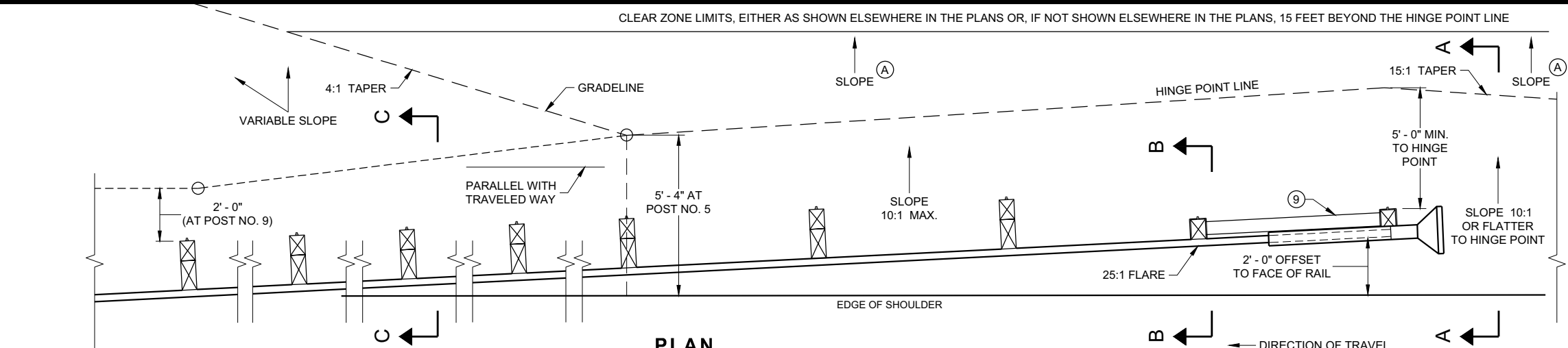
SEE SDD 14B42 FOR MORE INFORMATION.

\* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

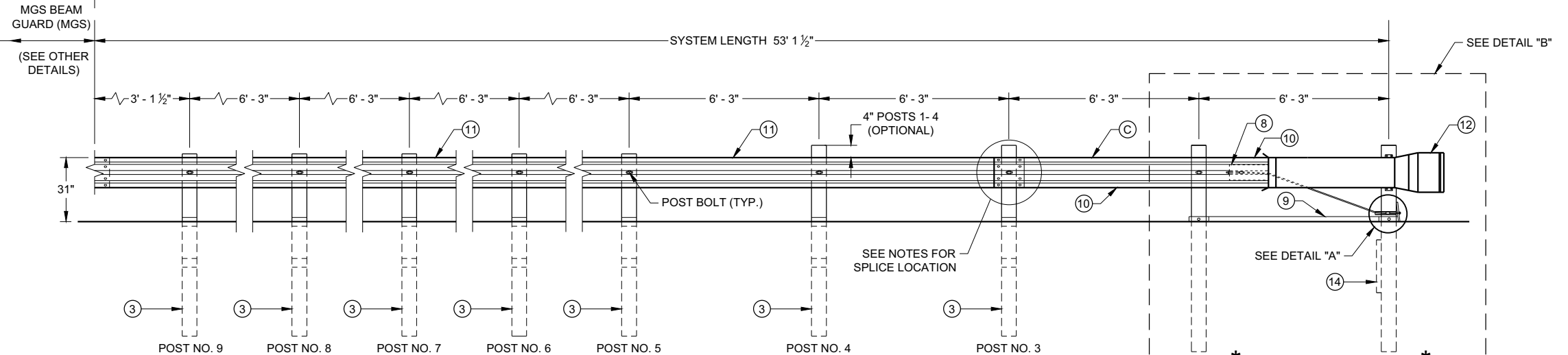
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

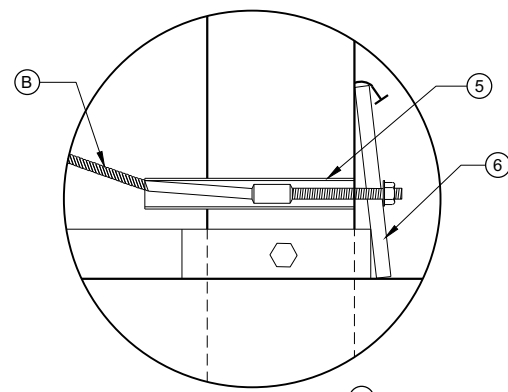
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



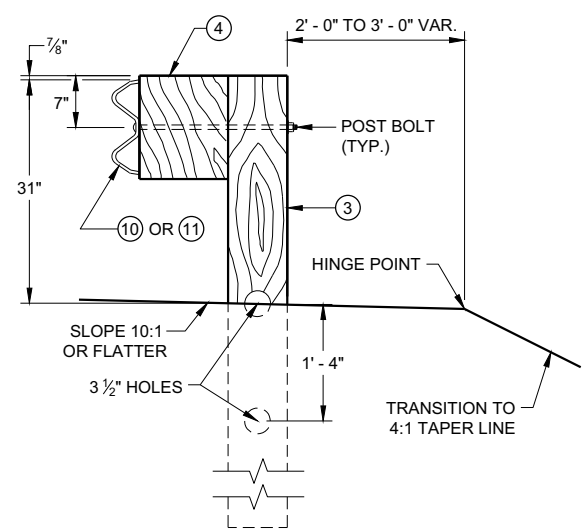
**PLAN**



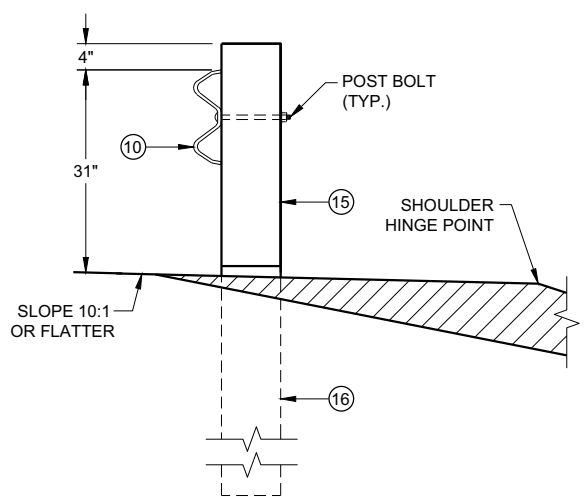
**ELEVATION**



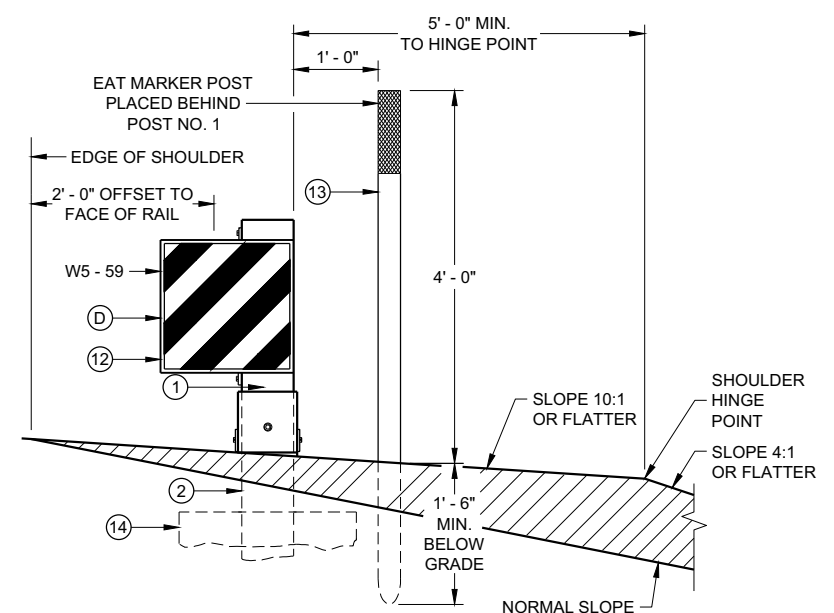
**DETAIL "A"**



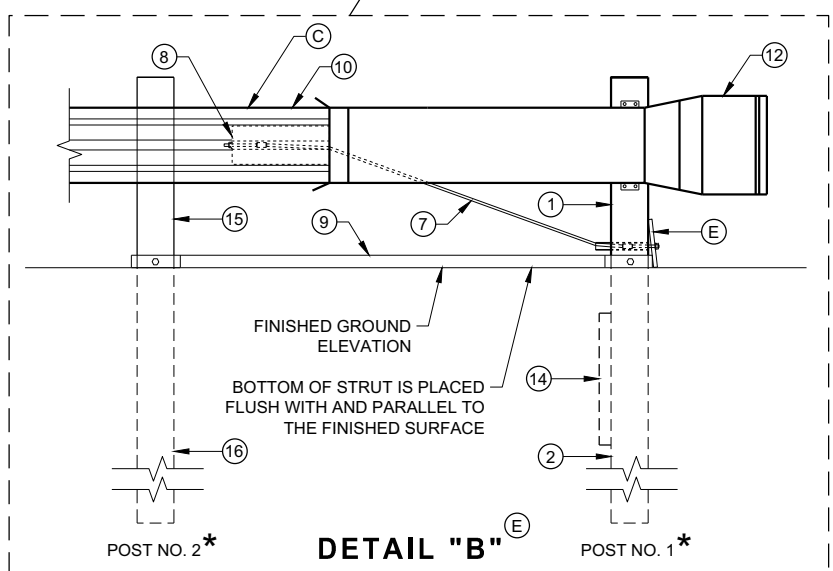
**SECTION C - C  
TYPICAL AT POST NOS. 3 - 9**



**SECTION B - B  
TYPICAL AT POST NO. 2\***



**SECTION A - A  
TYPICAL AT POST NO. 1\***



**DETAIL "B"**

**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

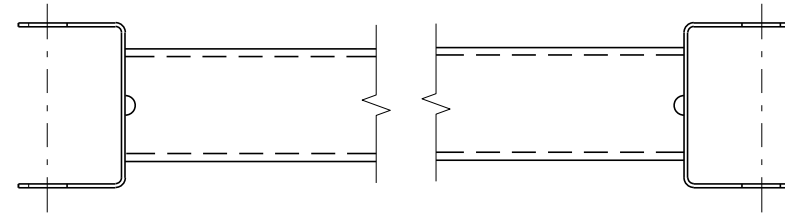
6

SDD 14B44 - 04a

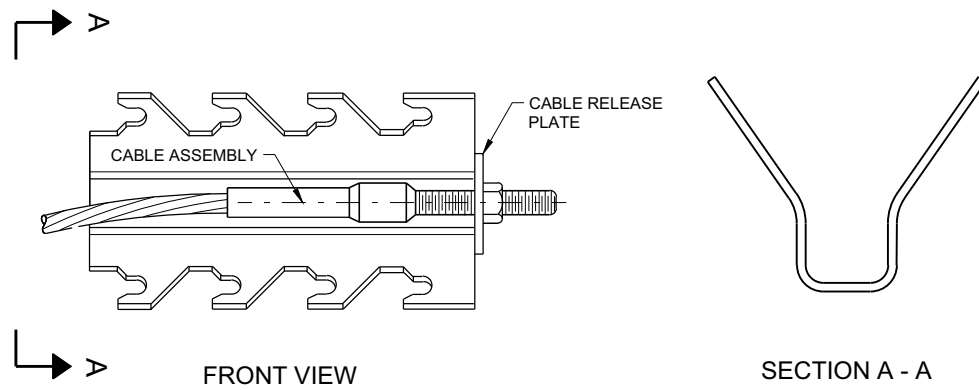
SDD 14B44 - 04a

**BILL OF MATERIALS**

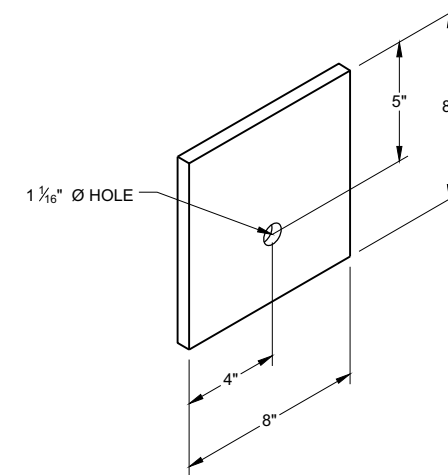
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



**GENERIC GROUND STRUT** ⑨ ⑤



**GENERIC ANCHOR CABLE BOX** ⑨ ⑤



**BEARING PLATE** ⑥ ⑤

6

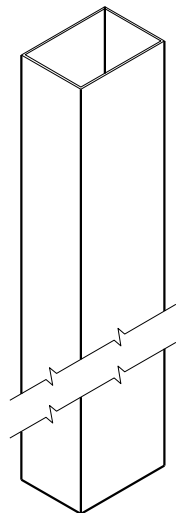
6

SDD 14B44 - 04b

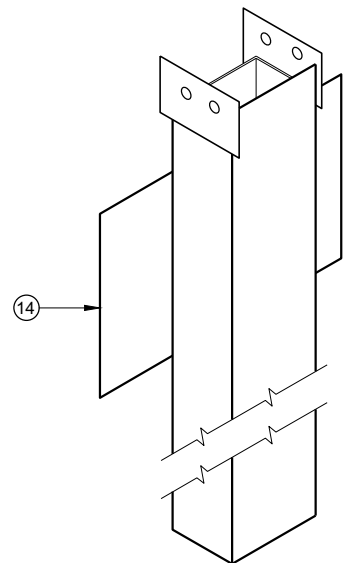
SDD 14B44 - 04b

**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

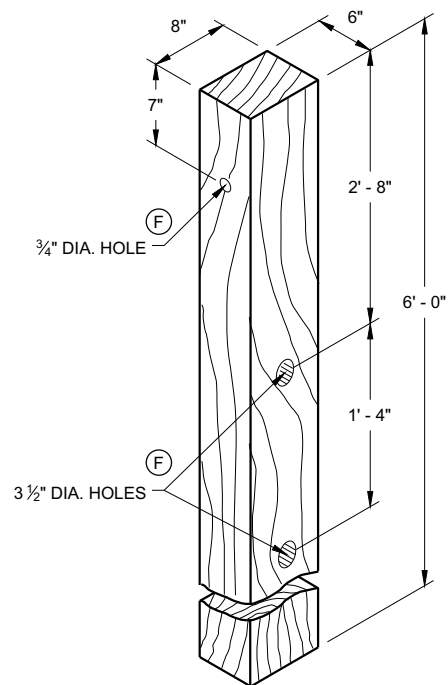
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



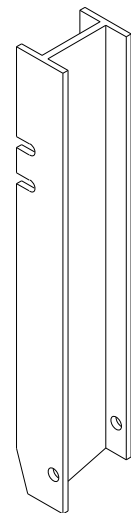
UPPER POST NO. 1 <sup>(1)</sup> (E)



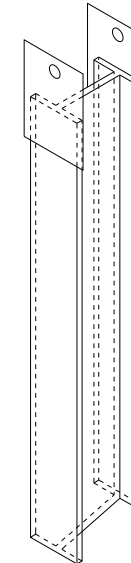
LOWER POST NO. 1 <sup>(2)</sup> (E)



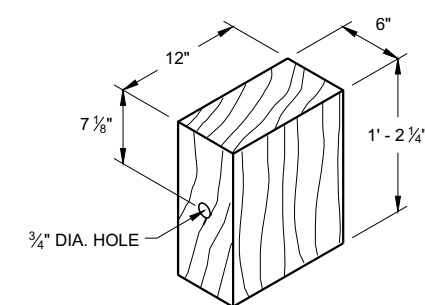
WOOD CRT POST <sup>(3)</sup> (E)  
POSTS NUMBER 3-9



UPPER POST NO. 2 <sup>(15)</sup> (E)

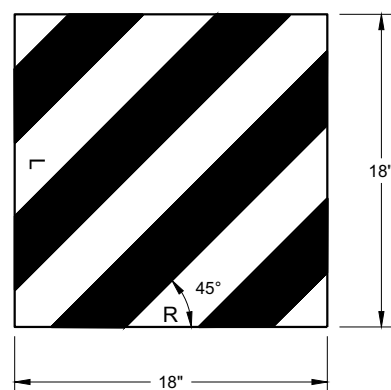


LOWER POST NO. 2 <sup>(16)</sup> (E)



WOOD BLOCKOUT <sup>(4)</sup>  
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

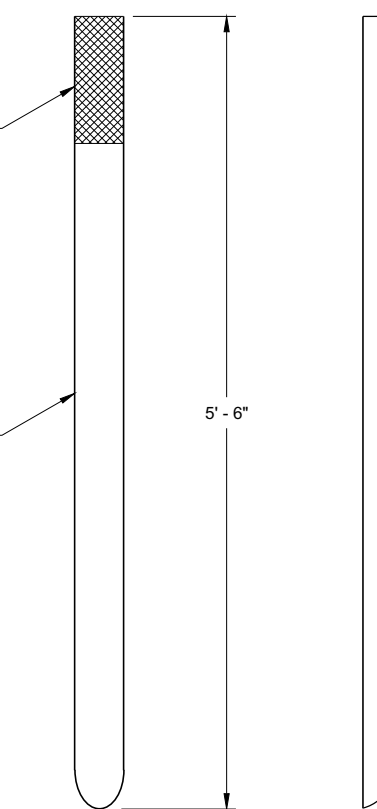
6



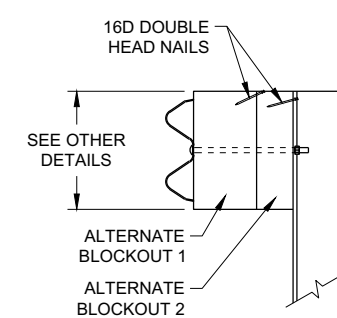
W5 - 59  
REFLECTIVE SHEETING DETAIL <sup>(E)</sup>

TYPE H  
YELLOW REFLECTIVE  
SHEETING 3" X 9".  
SEE STANDARD  
SPECIFICATION 637.

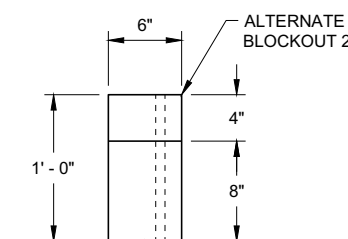
E.A.T. MARKER  
POST (YELLOW)



FRONT VIEW SIDE VIEW  
E.A.T. MARKER POST <sup>(13)</sup>



SIDE VIEW



TOP VIEW

ALTERNATE WOOD  
BLOCKOUT DETAIL

6

SDD 14B44 - 04c

SDD 14B44 - 04c

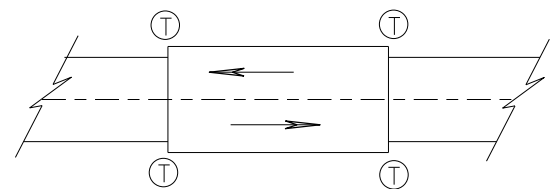
**MIDWEST GUARDRAIL SYSTEM  
ENERGY ABSORBING TERMINAL  
(MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

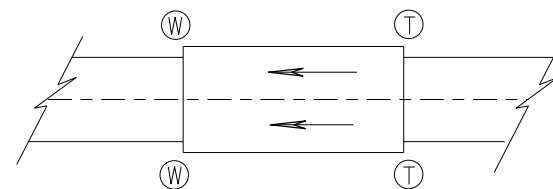
APPROVED  
7/2018 DATE /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR

FHWA





**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

**TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE**

**GENERAL NOTES**

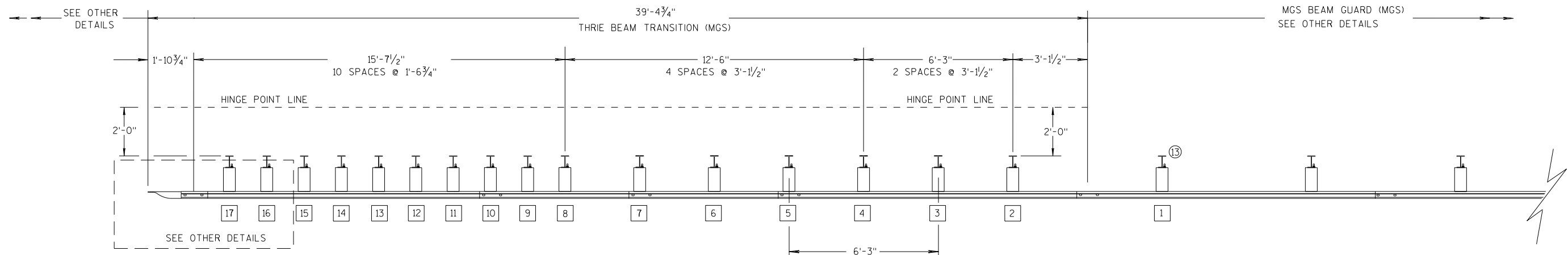
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

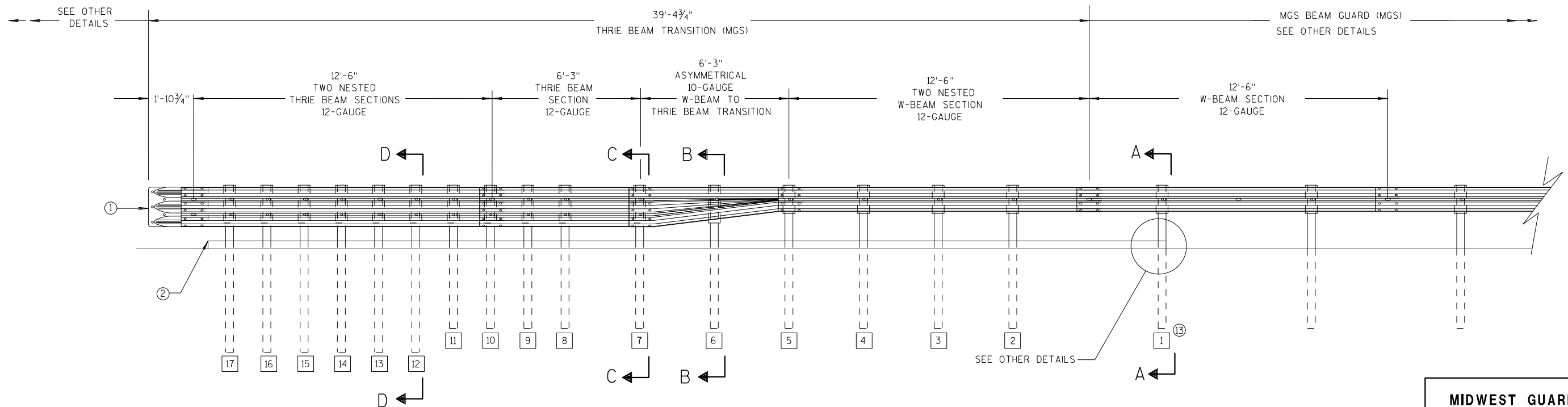
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



**PLAN VIEW**



**ELEVATION VIEW**

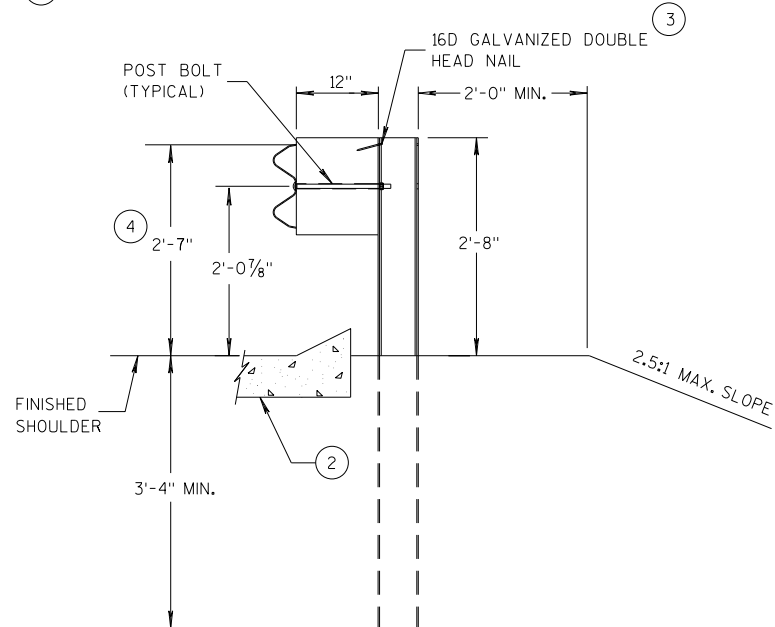
**MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION**

**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

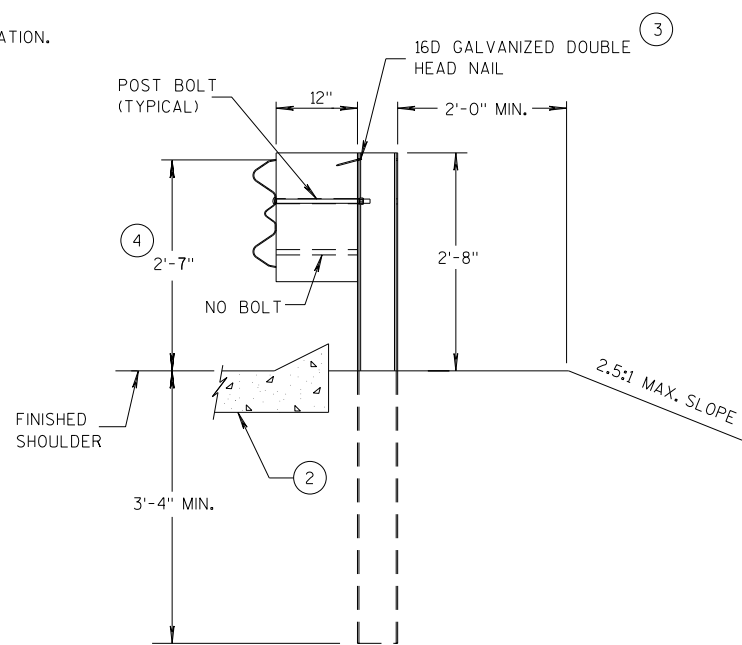
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

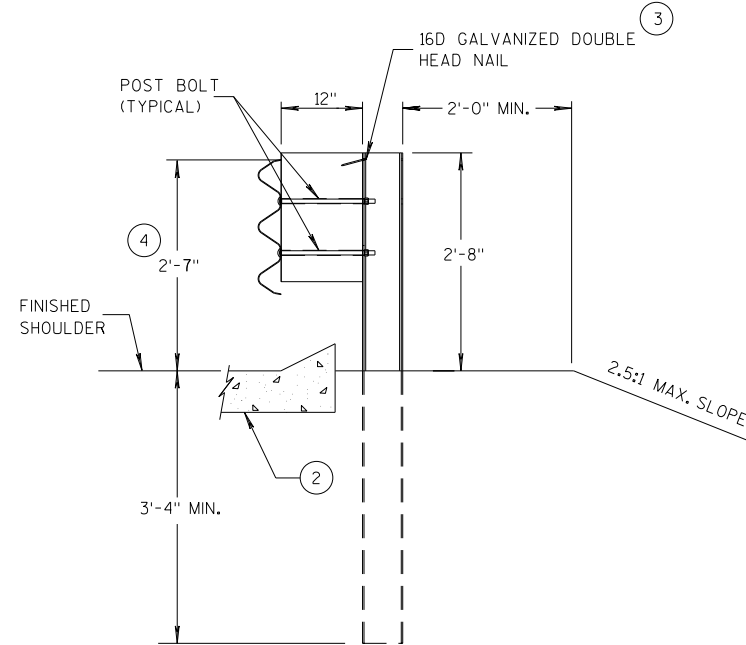
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ④ TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



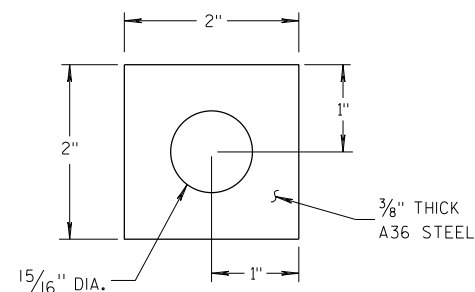
**SECTION A-A  
POSTS 1-5**



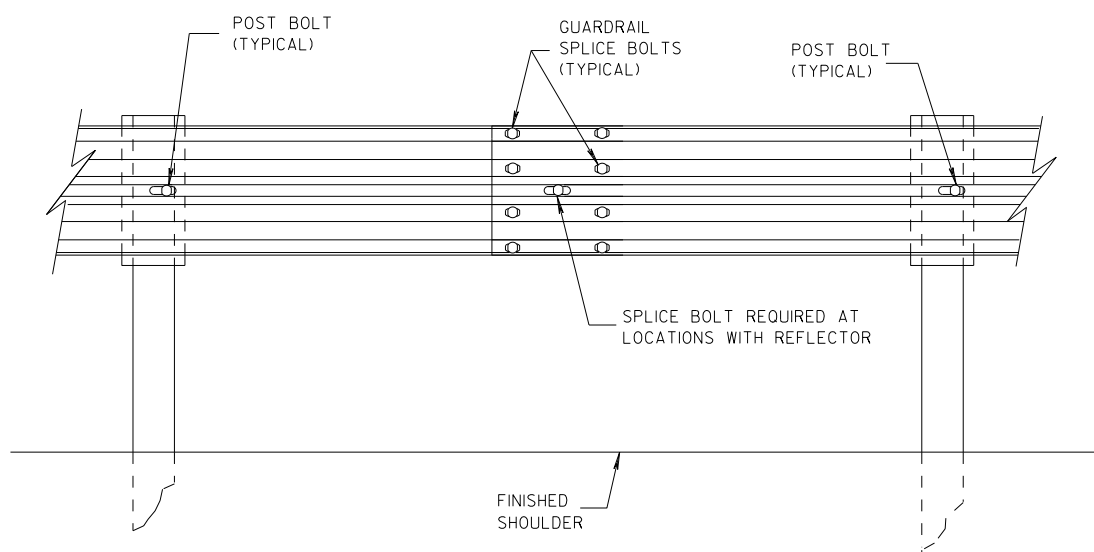
**SECTION B-B  
POST 6**



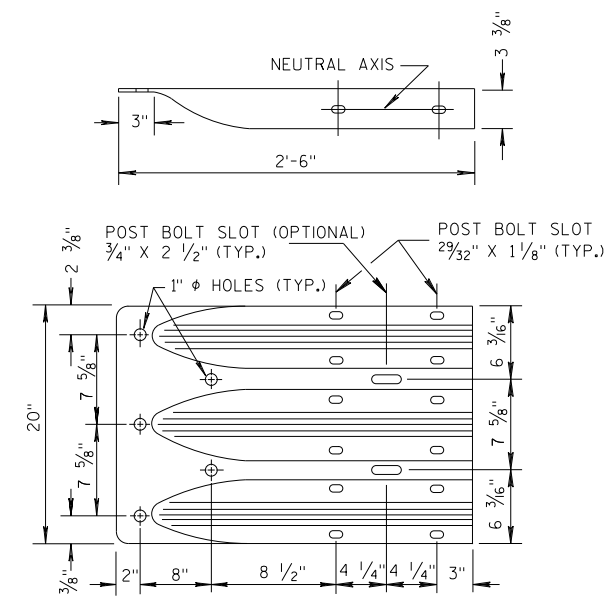
**SECTION C-C  
POSTS 7-11**



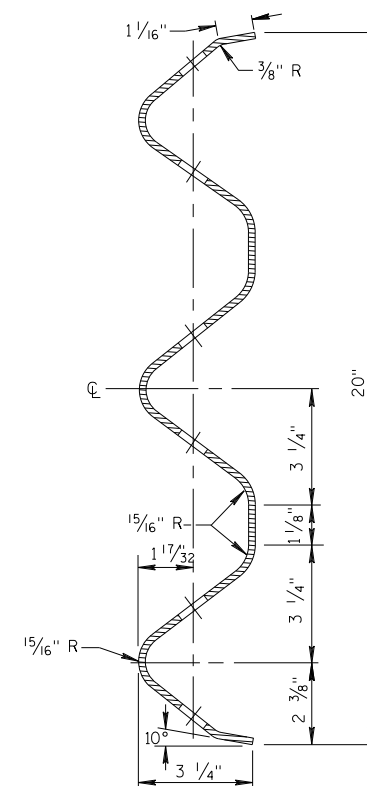
**PLATE WASHER DETAIL**



**SPLICE DETAIL**



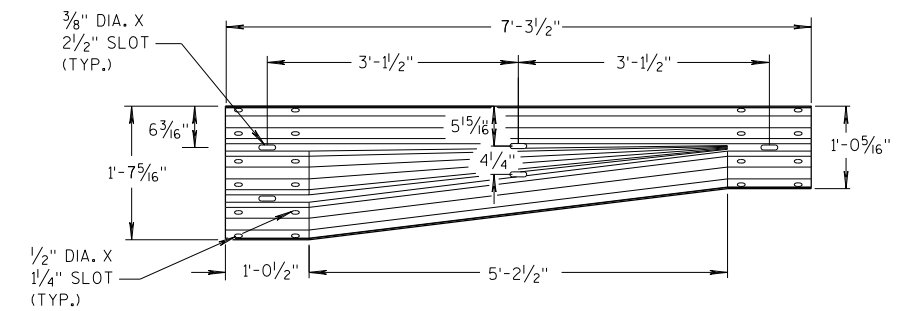
**THRIE BEAM  
TERMINAL CONNECTOR**



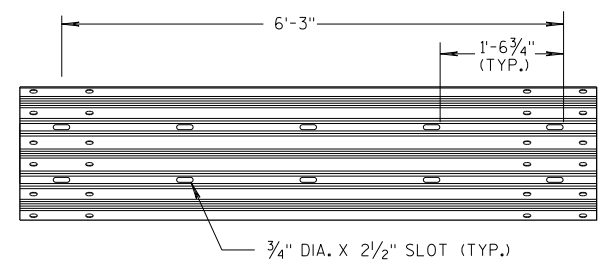
**SECTION THRU THRIE  
BEAM RAIL ELEMENT**

**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

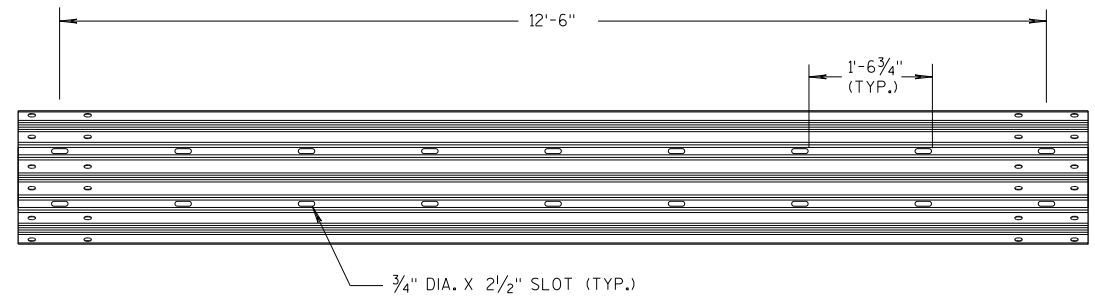
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



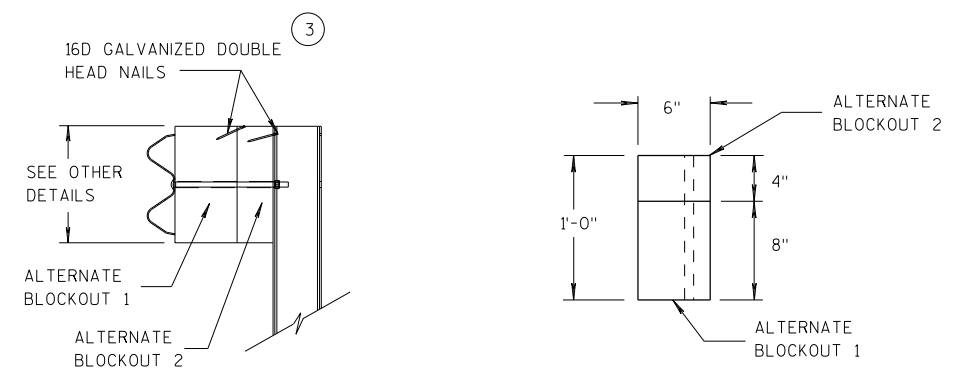
**W-BEAM TO THRIE BEAM TRANSITION SECTION**



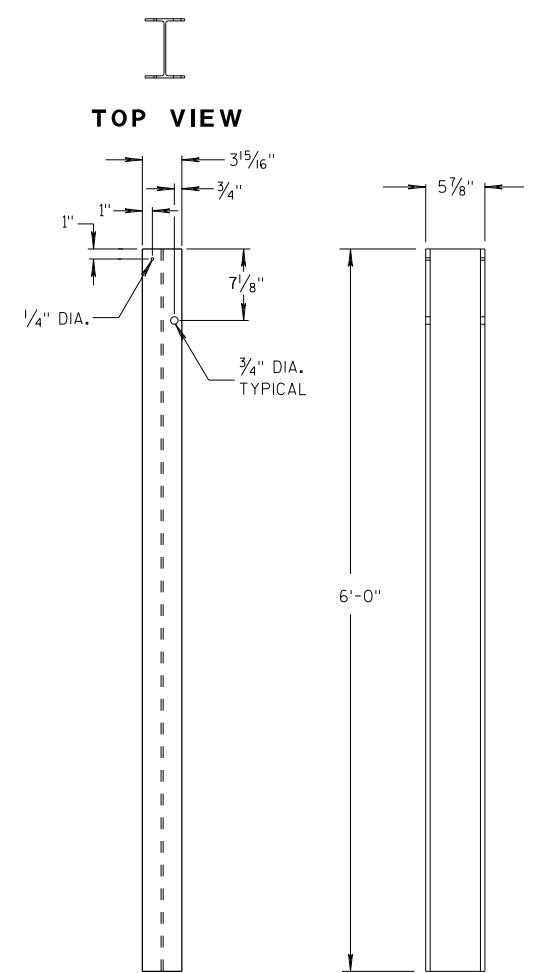
**6'-3\"/>**



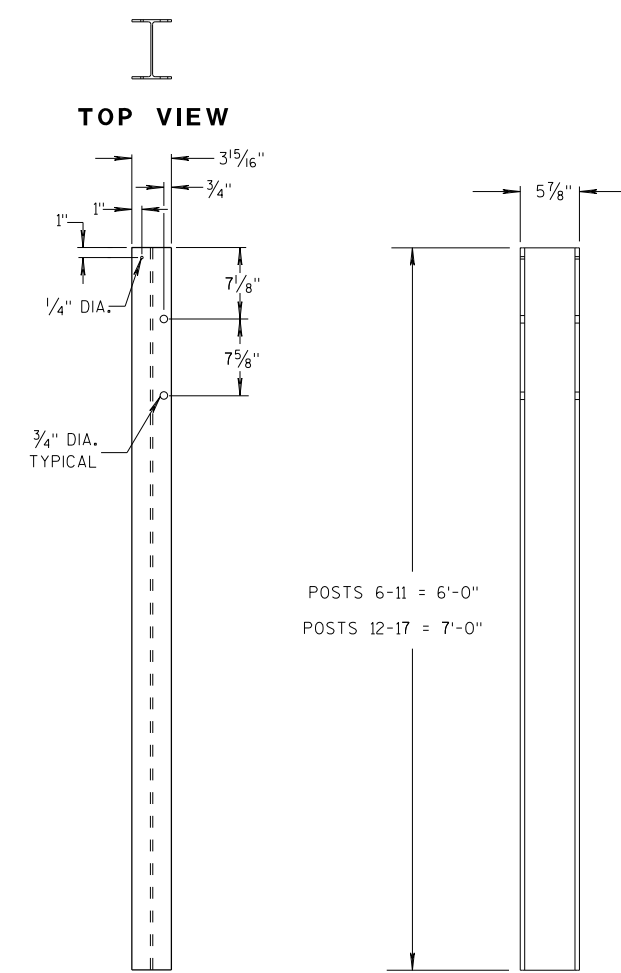
**12'-6\"/>**



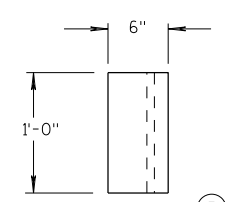
**ALTERNATE WOOD BLOCKOUT DETAIL**



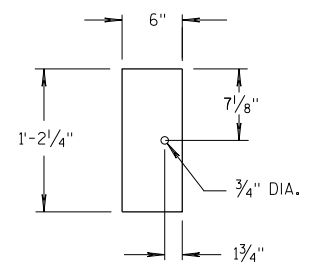
**STEEL POSTS 1-5**



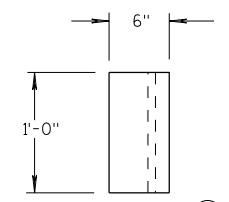
**STEEL POSTS 6-17**



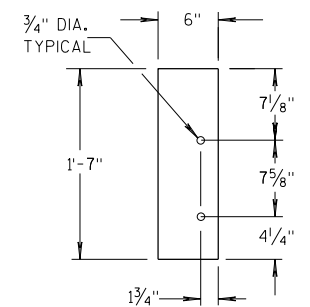
**BLOCKOUT POSTS 1-5 TOP VIEW**



**BLOCKOUT POSTS 1-5 FRONT VIEW**



**BLOCKOUT POSTS 6-17 TOP VIEW**



**BLOCKOUT POSTS 6-17 FRONT VIEW**

**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.
- (13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

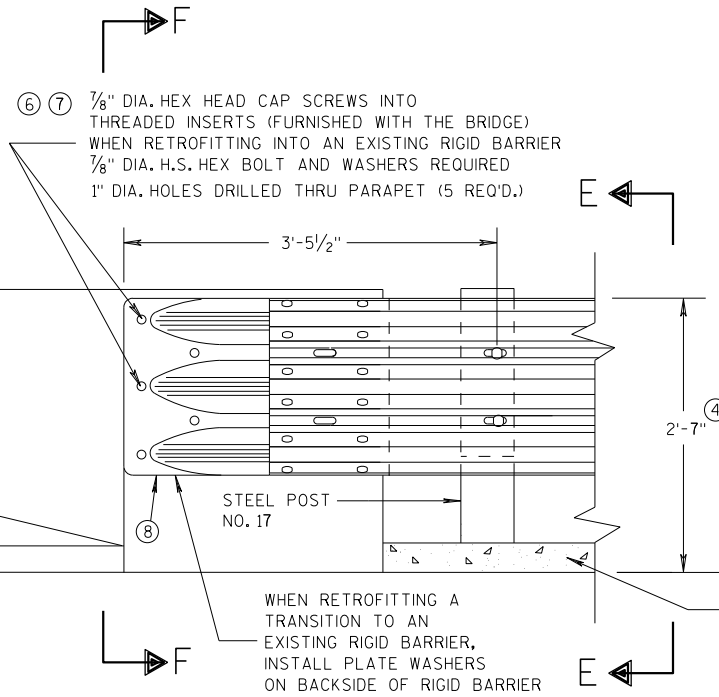
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

6

6

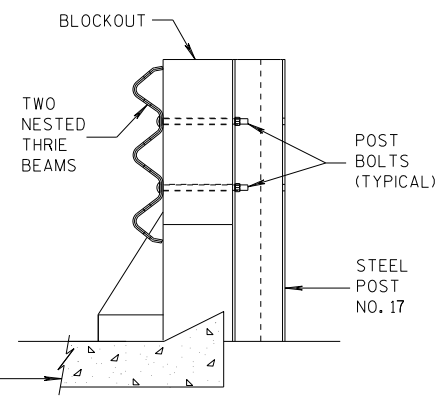
S.D.D. 14 B 45-5c

S.D.D. 14 B 45-5c



FRONT VIEW

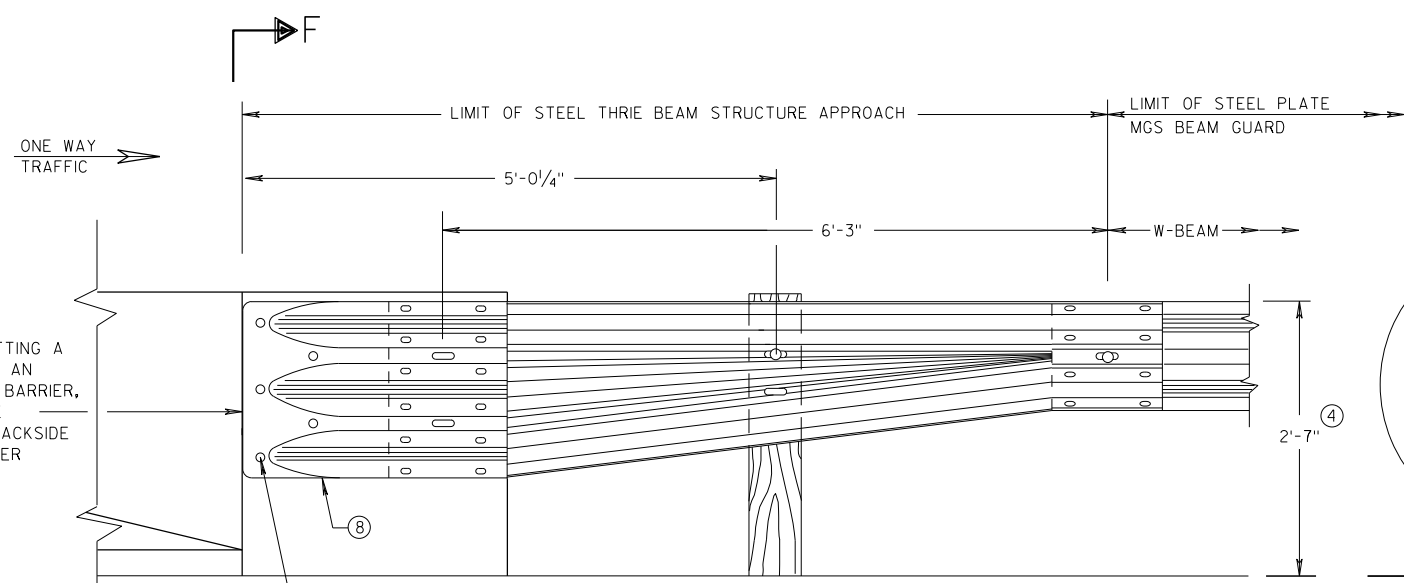
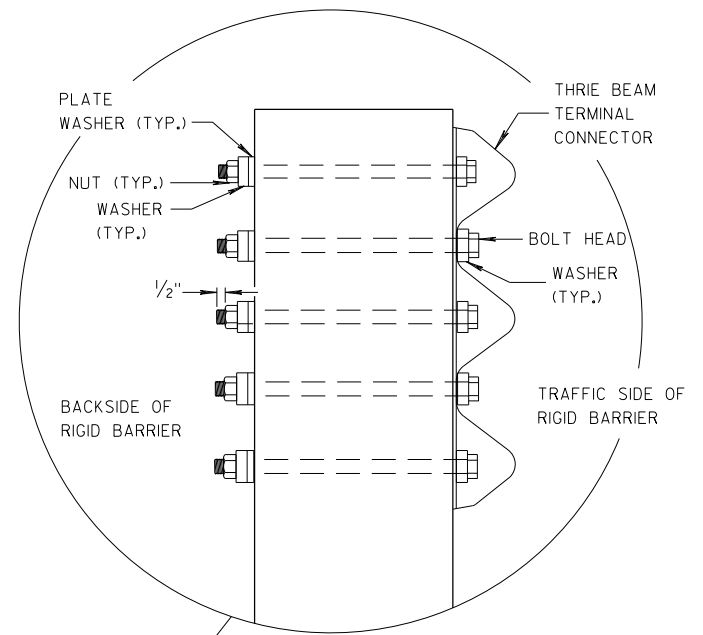
**THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS**



SECTION E-E

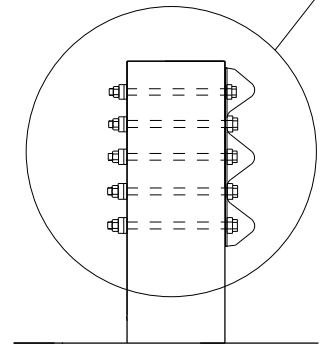
**GENERAL NOTES**

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSITION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- (2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- (4) TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- (6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- (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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- (8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

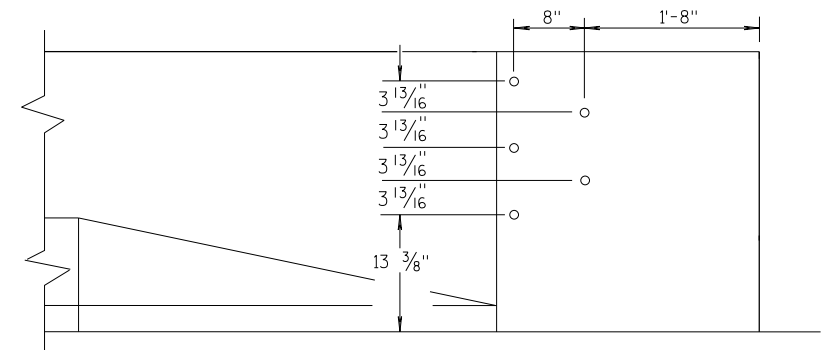


FRONT VIEW

**W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS  
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)**



SECTION F-F



DRILL HOLE LOCATION

6

6

S.D.D. 14 B 45-5d

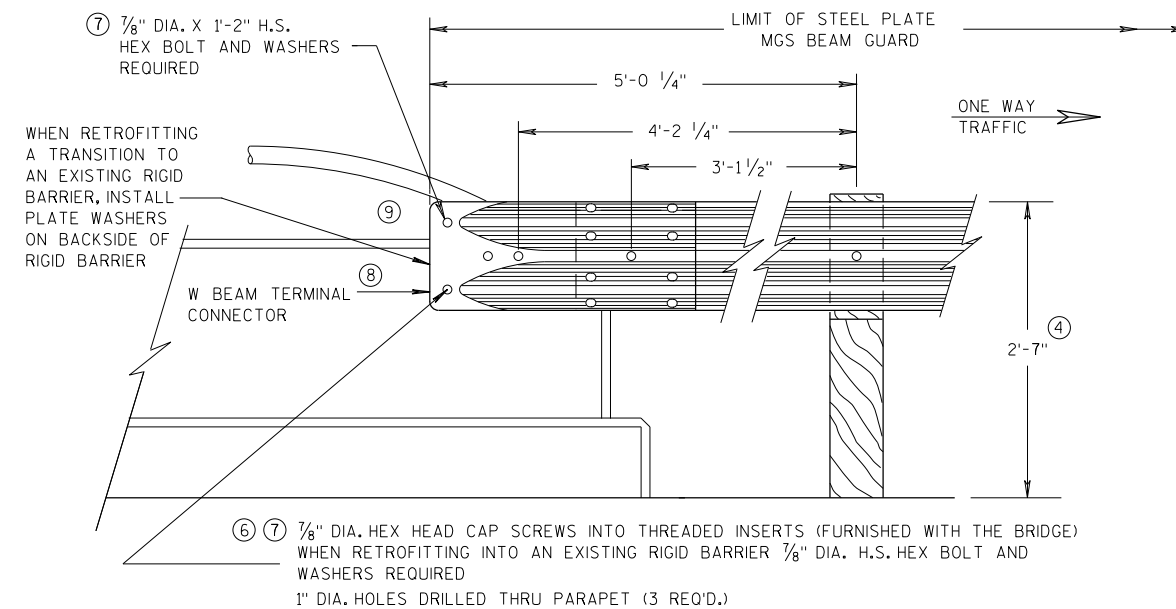
S.D.D. 14 B 45-5d

<b>MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 07/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

## GENERAL NOTES

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

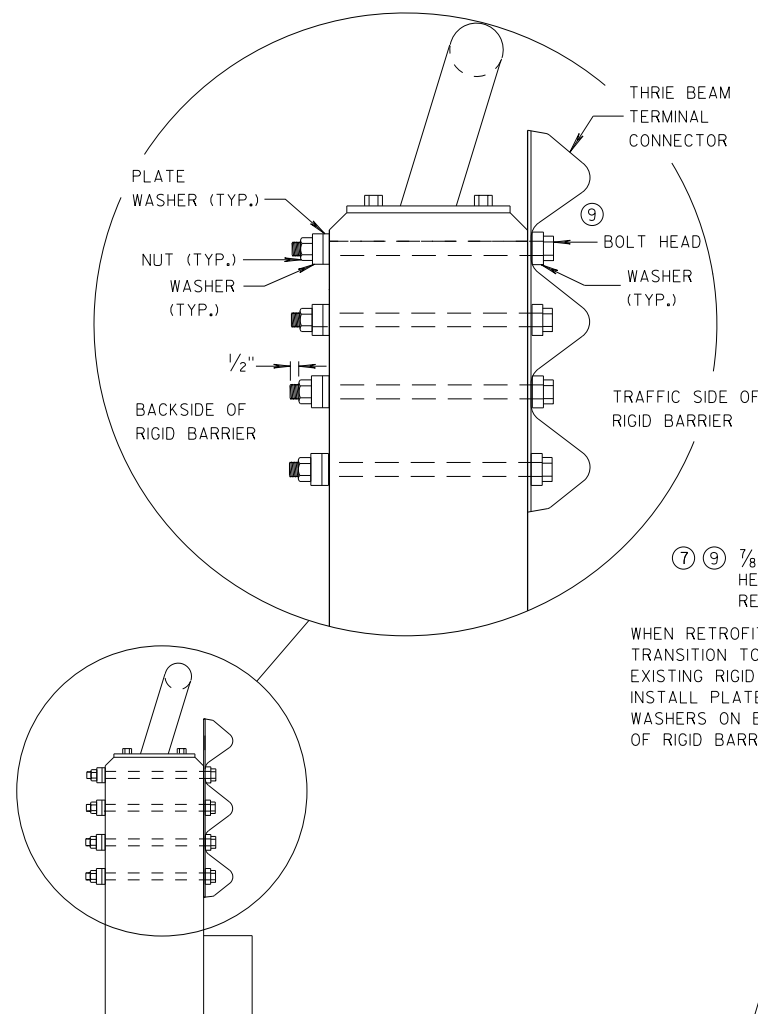
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH 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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".
- ⑨ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.



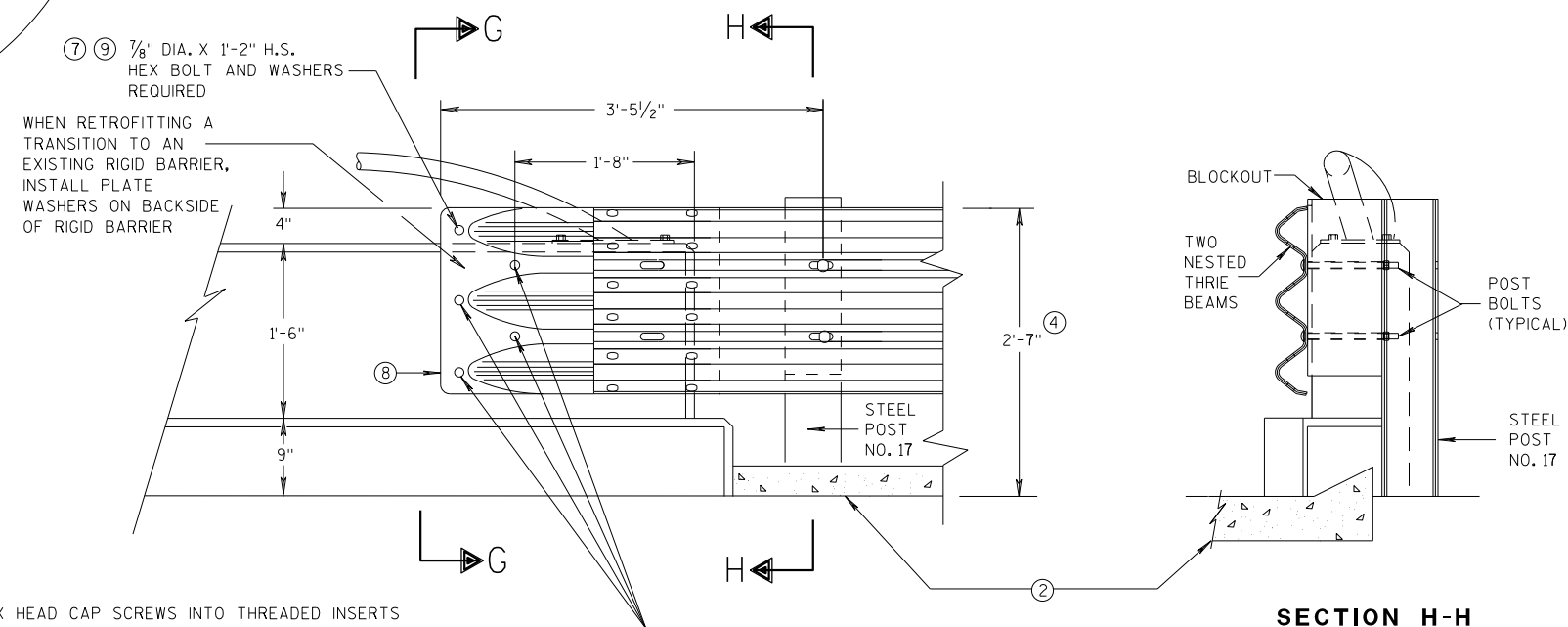
FRONT VIEW

### W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



SECTION G-G



FRONT VIEW

### THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

- ⑥ ⑦ 7/8" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER 7/8" DIA. H.S. HEX BOLT AND WASHERS REQUIRED 1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

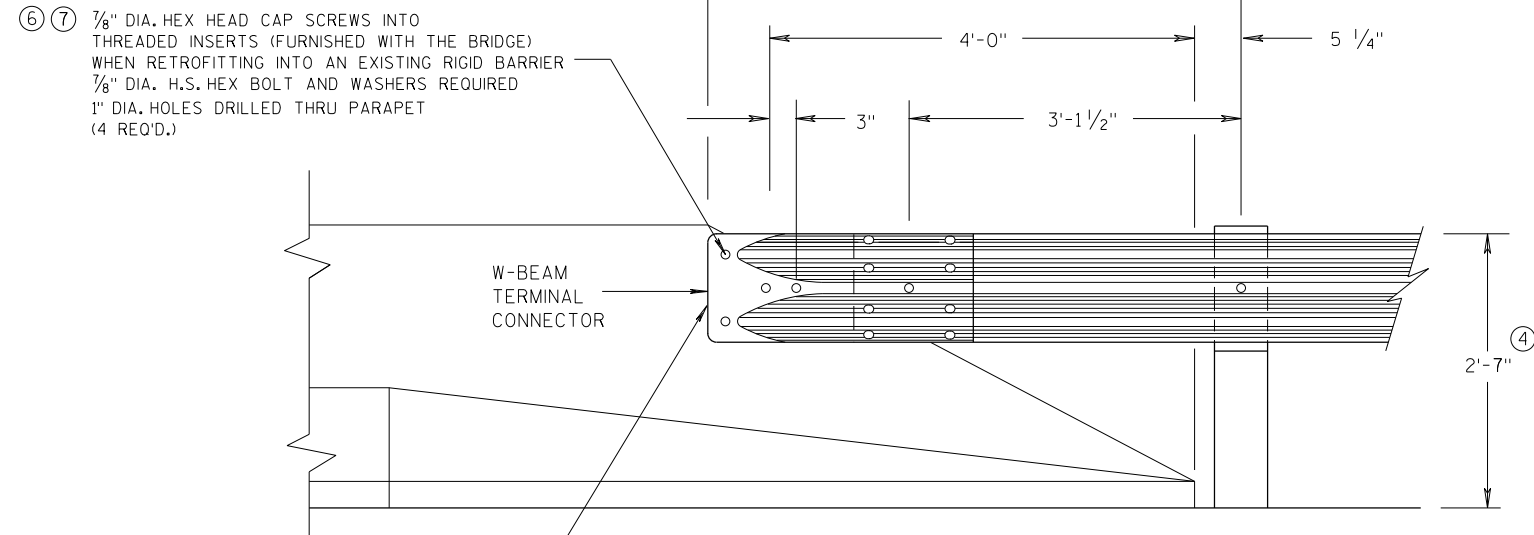
MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
07/2018 /S/ Rodney Taylor  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA UNIT SUPERVISOR



ONE WAY  
TRAFFIC



FRONT VIEW

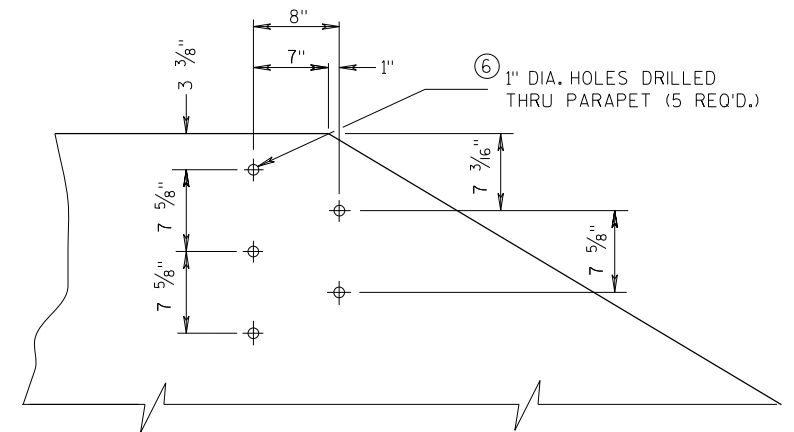
**W BEAM CONNECTION TO  
PARAPETS WITH SLOPED ENDS**

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

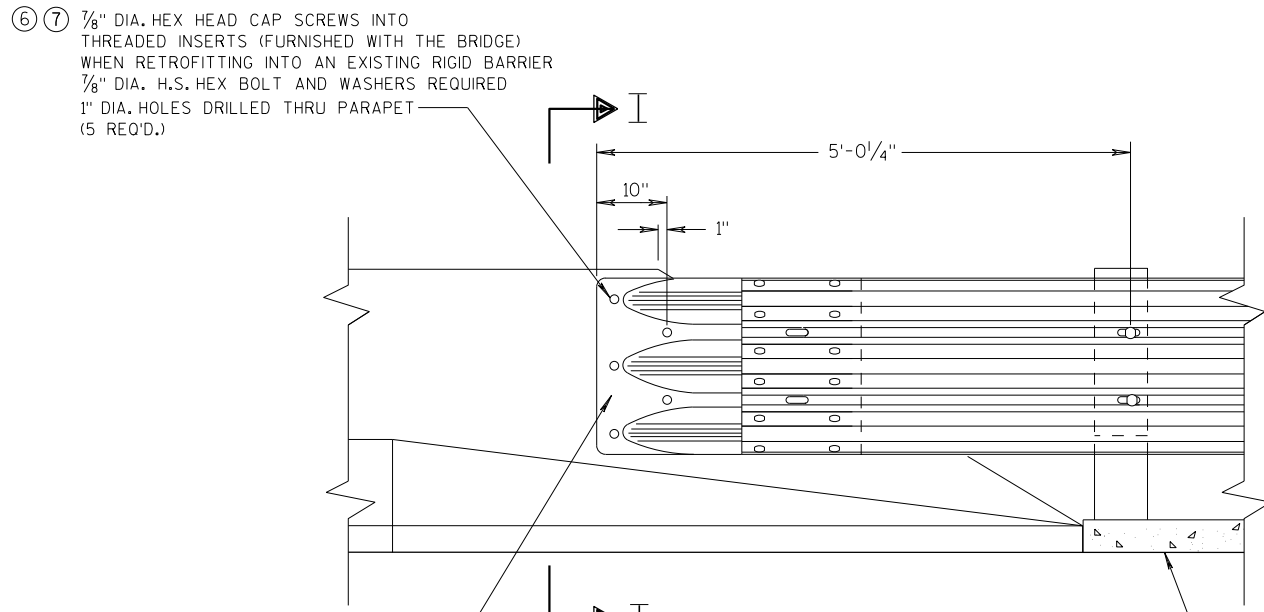
WHEN RETROFITTING A TRANSITION  
TO AN EXISTING RIGID BARRIER,  
INSTALL PLATE WASHERS ON  
BACKSIDE OF RIGID BARRIER.

**GENERAL NOTES**

- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- 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 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



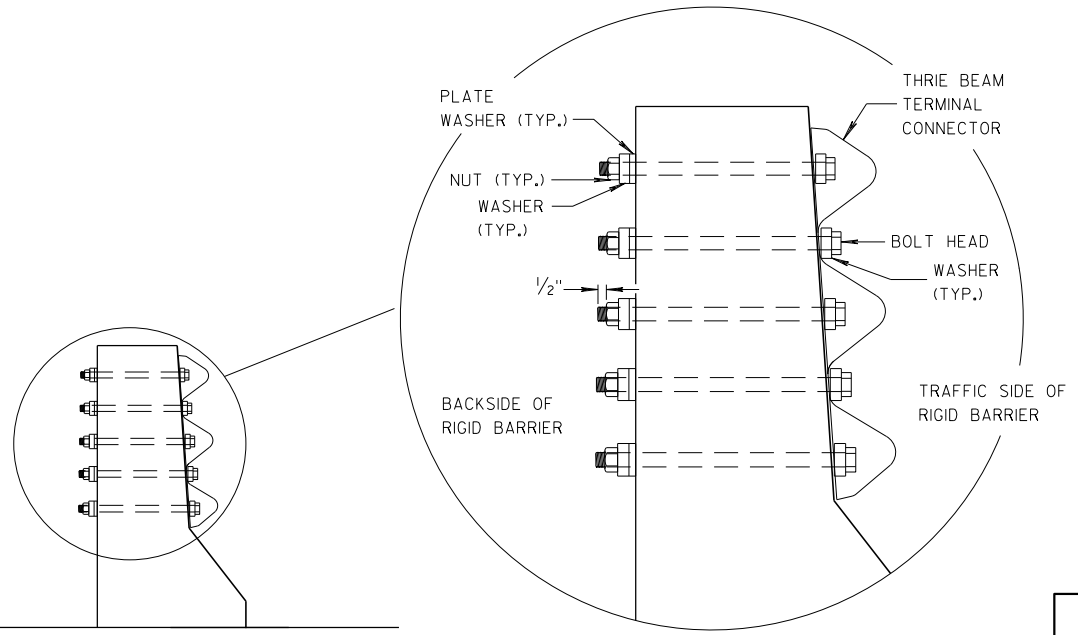
**DRILL HOLE LOCATION AND PATTERN  
FOR THRIE BEAM CONNECTION**



FRONT VIEW

**THRIE BEAM CONNECTION TO BRIDGE  
PARAPETS WITH SLOPED ENDS**

WHEN RETROFITTING A TRANSITION  
TO AN EXISTING RIGID BARRIER,  
INSTALL PLATE WASHERS ON  
BACKSIDE OF RIGID BARRIER.

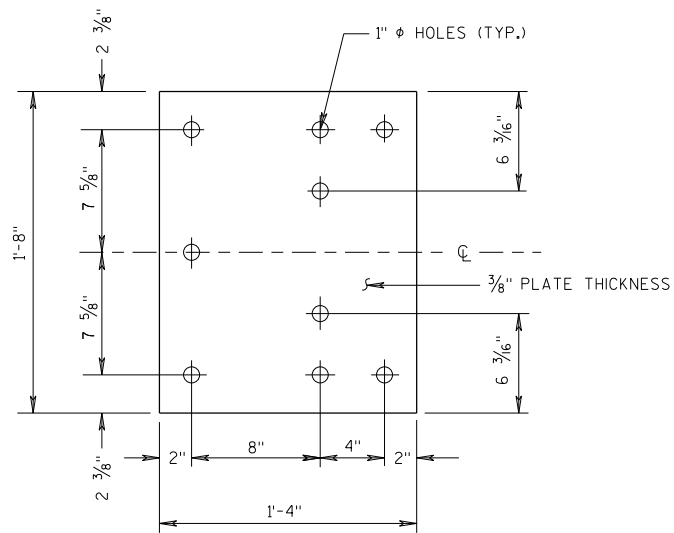


SECTION I-I

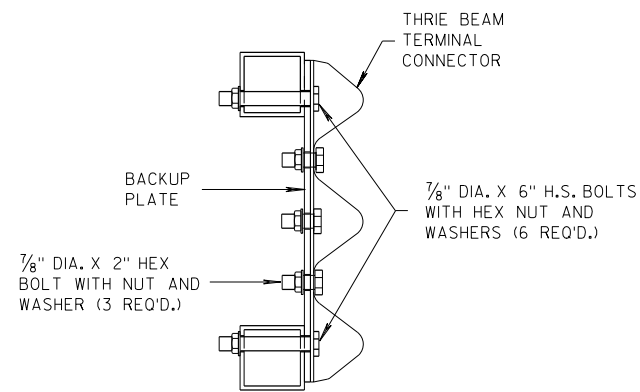
**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

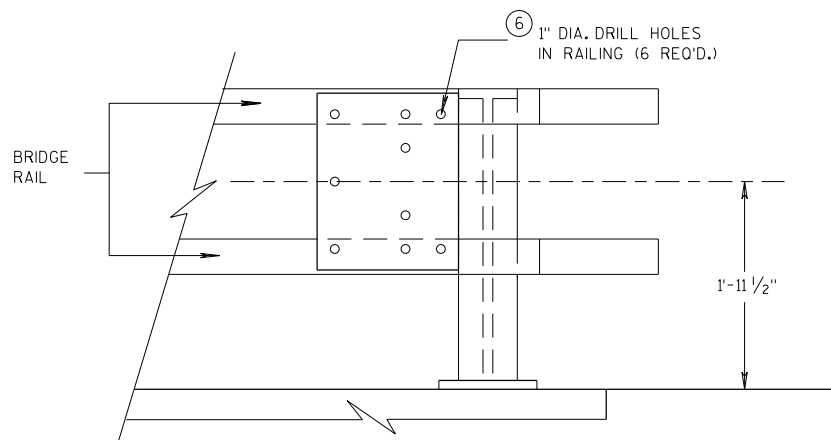
APPROVED  
DATE 07/2018 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA



**BACK-UP PLATE DETAIL**



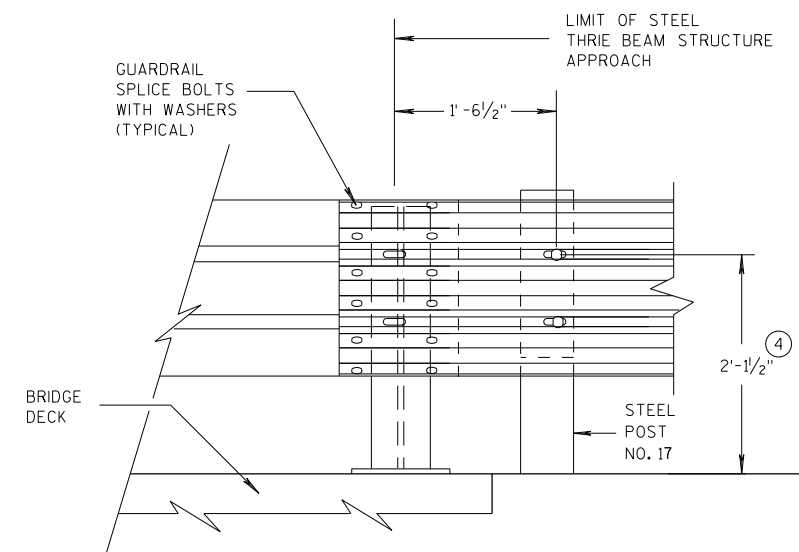
**SECTION J-J**



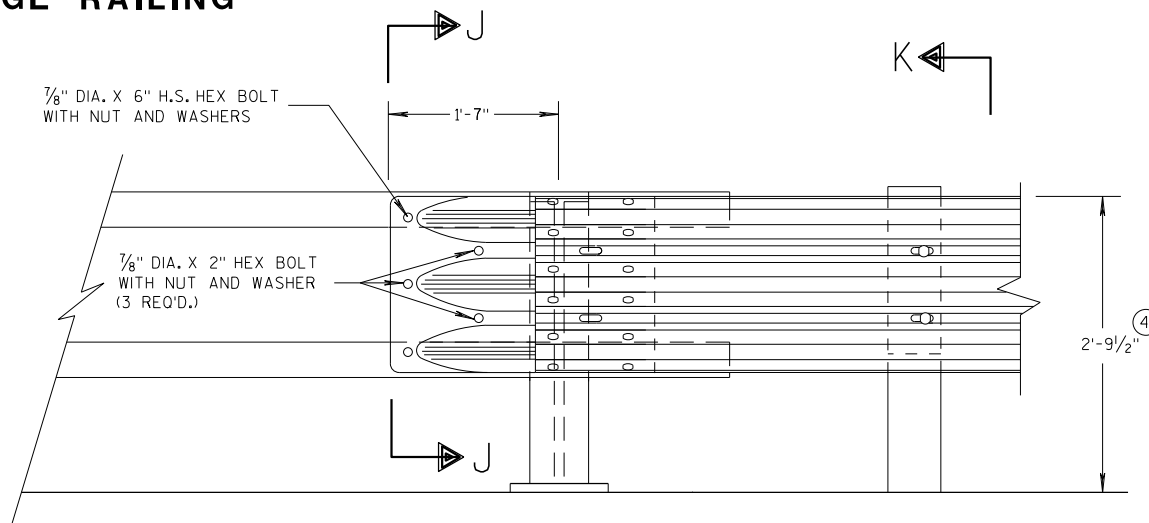
**BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING**

**GENERAL NOTES**

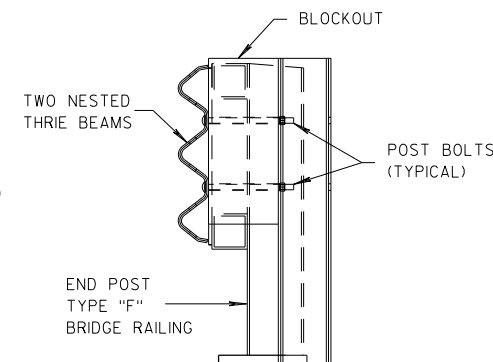
- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1'$ .
- ⑥ DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.



**FRONT VIEW THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"**



**FRONT VIEW THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"**



**SECTION K-K**

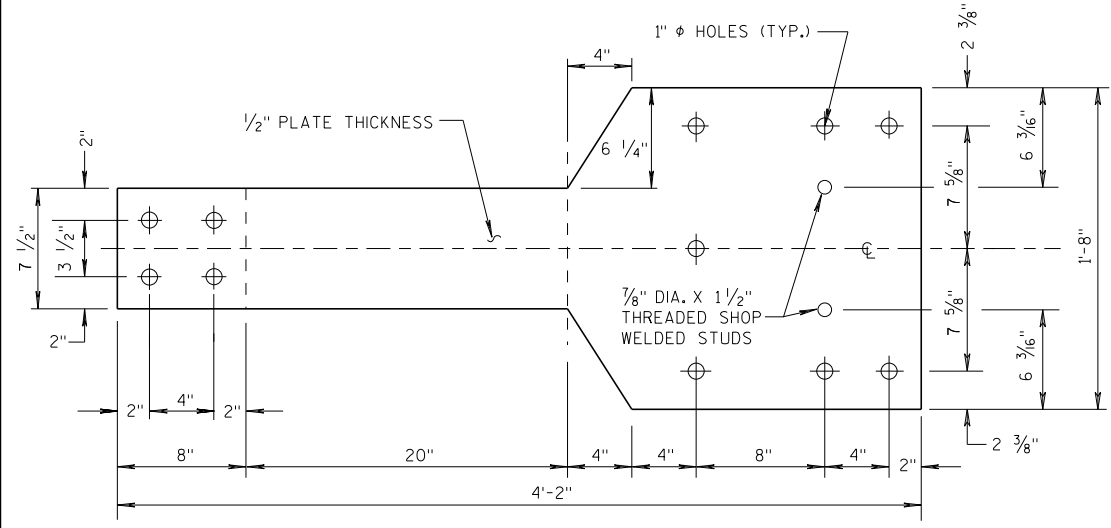
<b>MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 07/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

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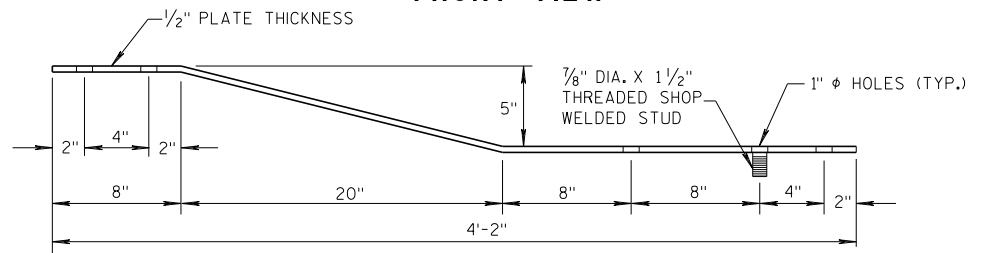
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**GENERAL NOTES**

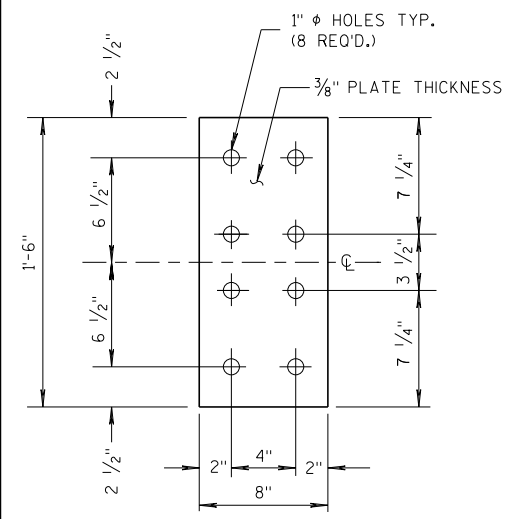
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



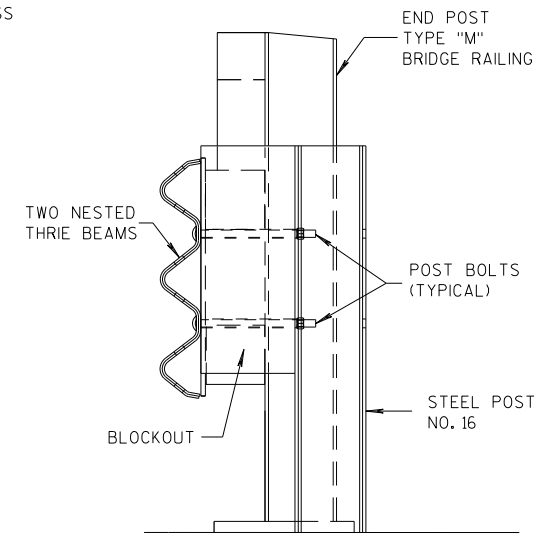
**FRONT VIEW**



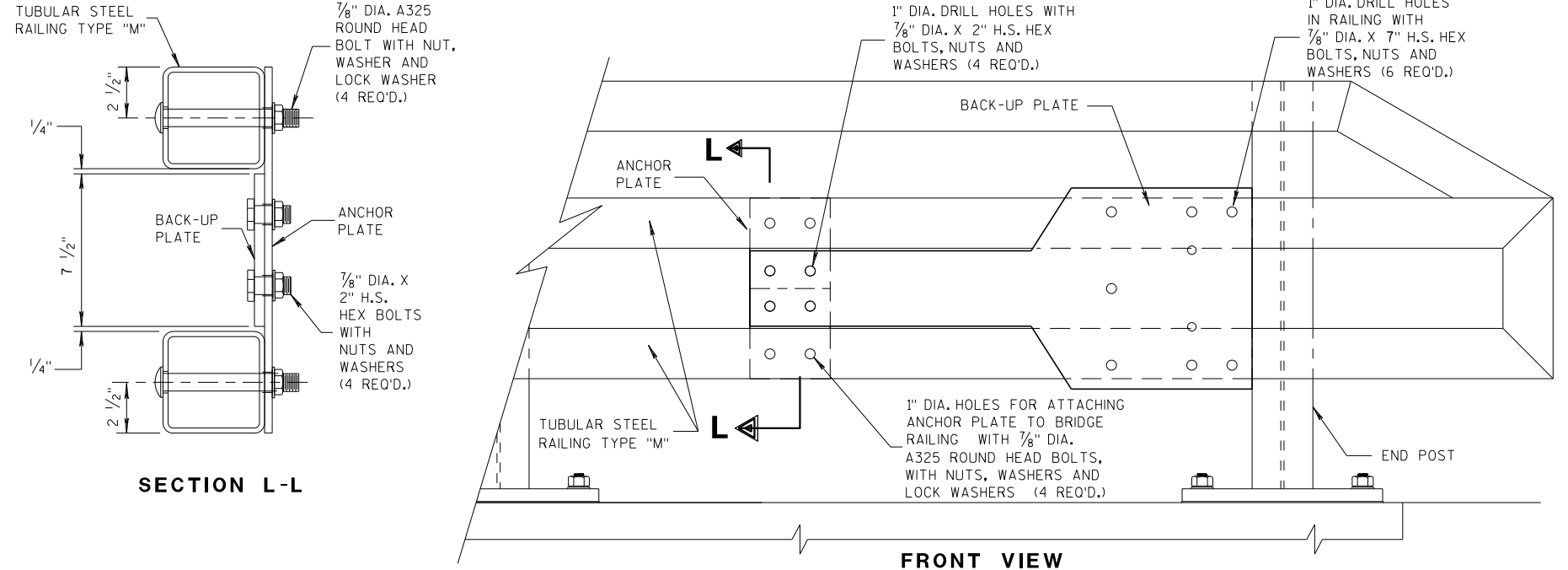
**PLAN VIEW  
BACK-UP PLATE DETAIL, TYPE "M"**



**FRONT VIEW  
ANCHOR PLATE DETAIL, TYPE "M"**



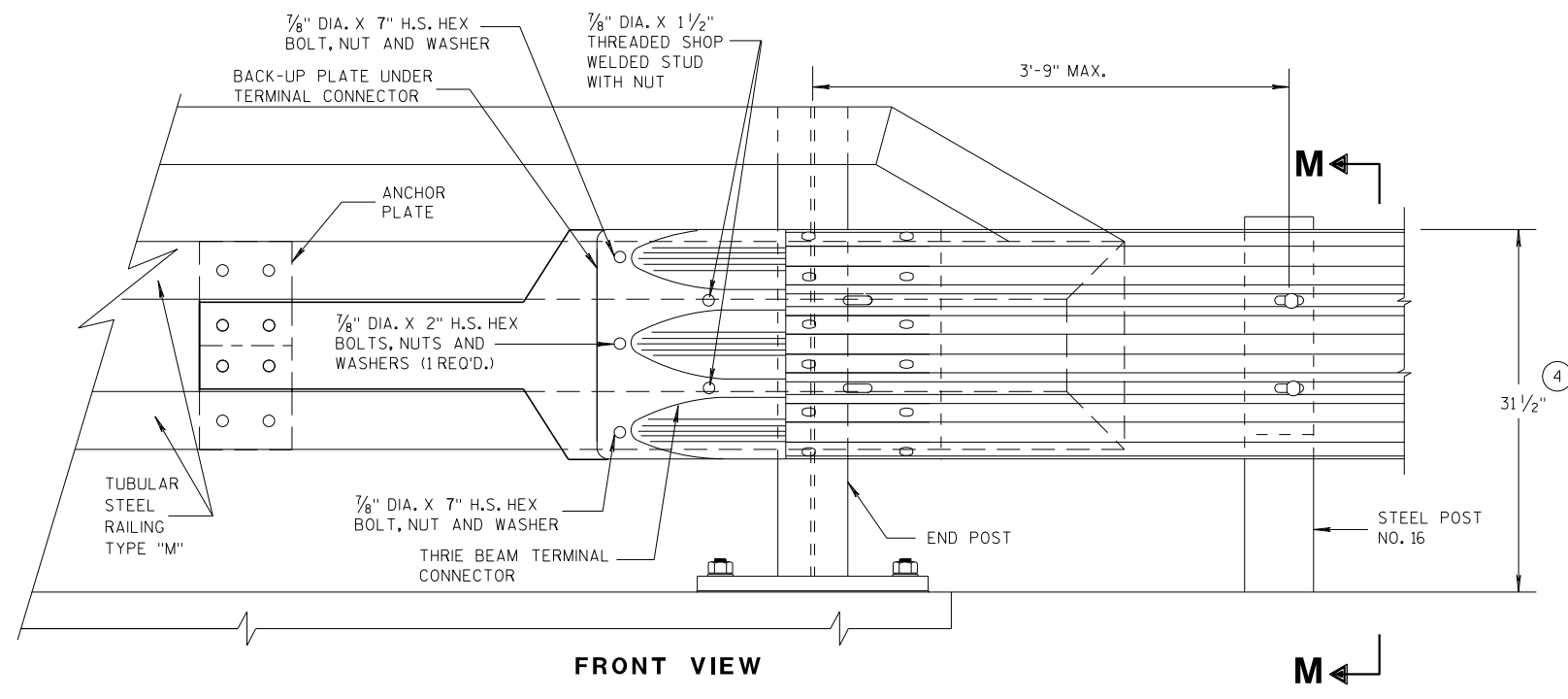
**SECTION M-M**



**SECTION L-L**

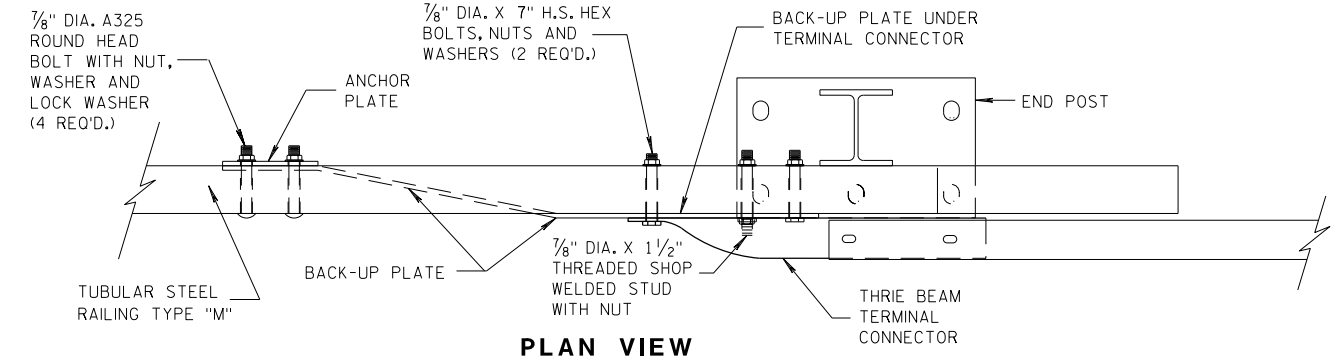
**FRONT VIEW**

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



**FRONT VIEW**

**M**



**PLAN VIEW**

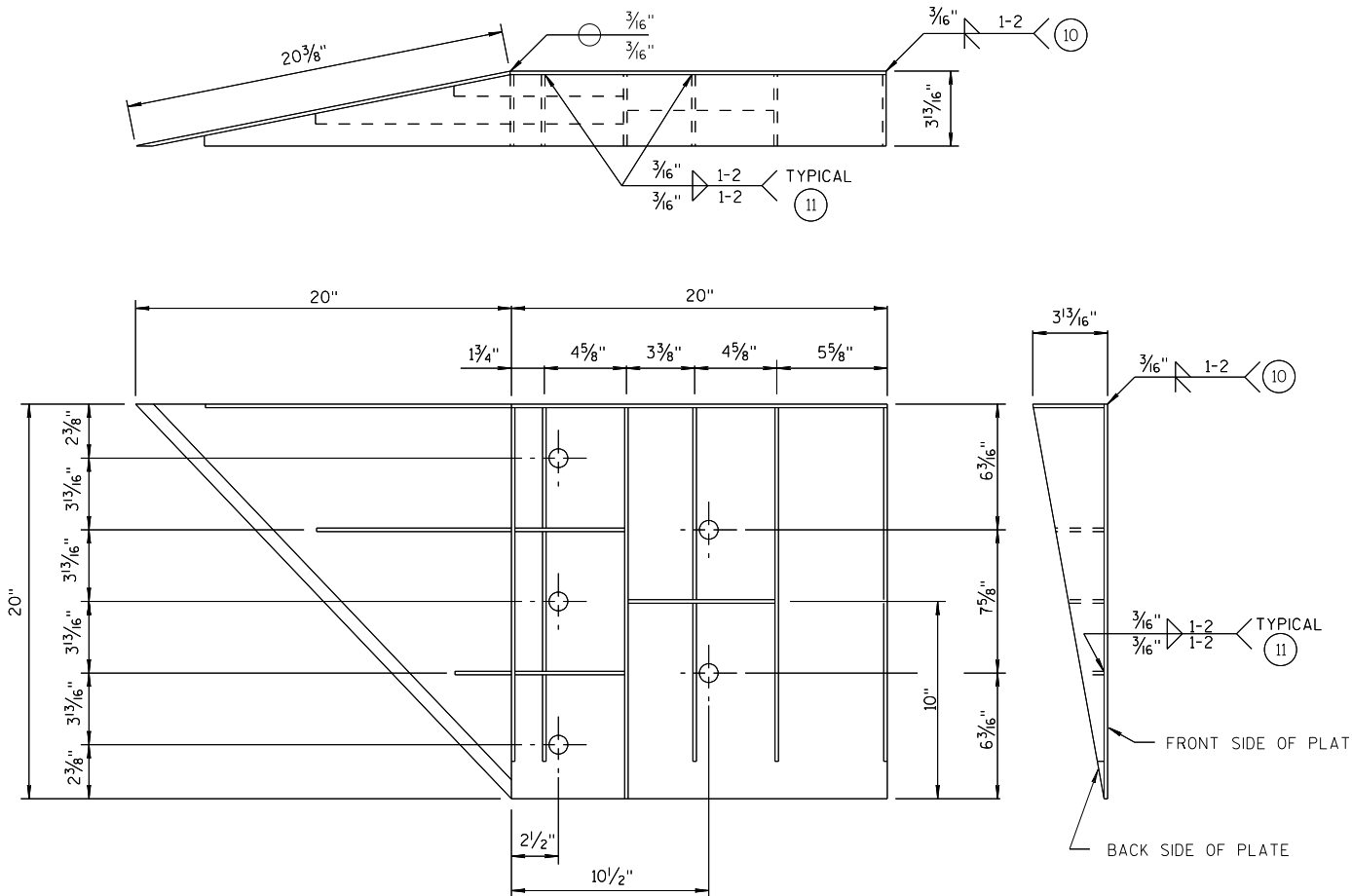
**THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"**

<b>MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 07/2018 FHWA	/s/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

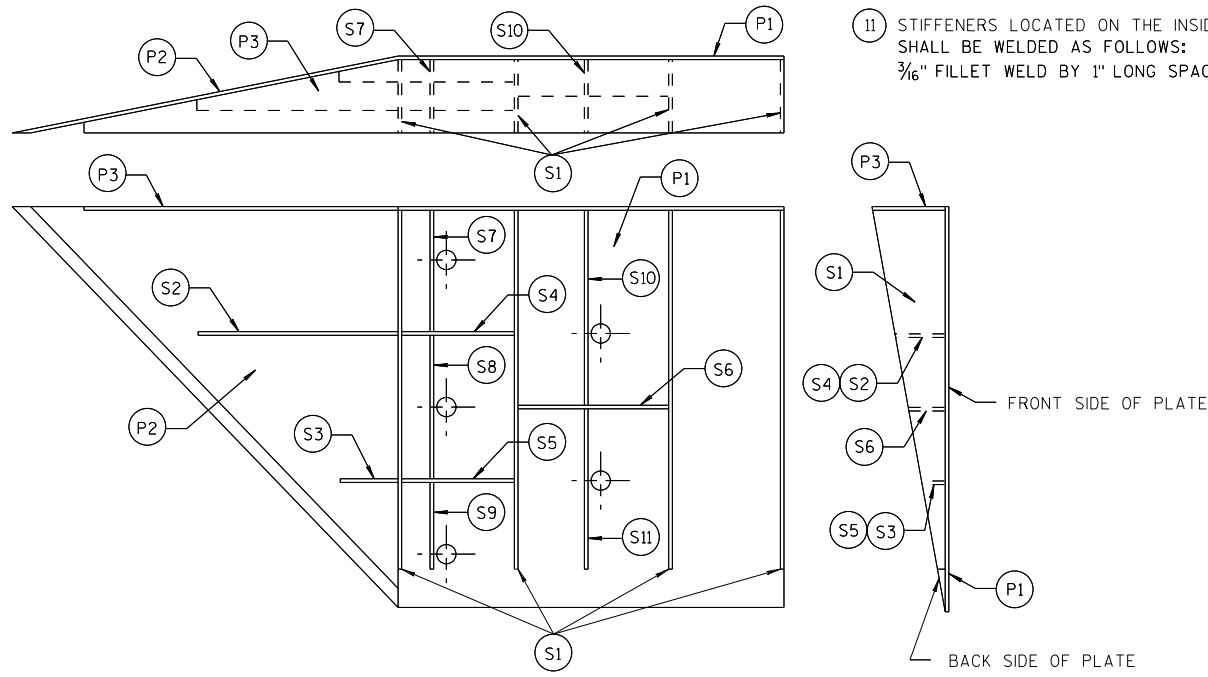
**GENERAL NOTES**

- 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".



**WELDING INSTRUCTION**  
(VIEWED FROM BACK SIDE OF PLATE)



**PLATE AND STIFFENER IDENTIFICATION**  
(VIEWED FROM BACK SIDE OF PLATE)

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

**SINGLE SLOPE CONNECTION PLATE**

**MIDWEST GUARDRAIL SYSTEM  
THREE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
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APPROVED  
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DATE

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ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR

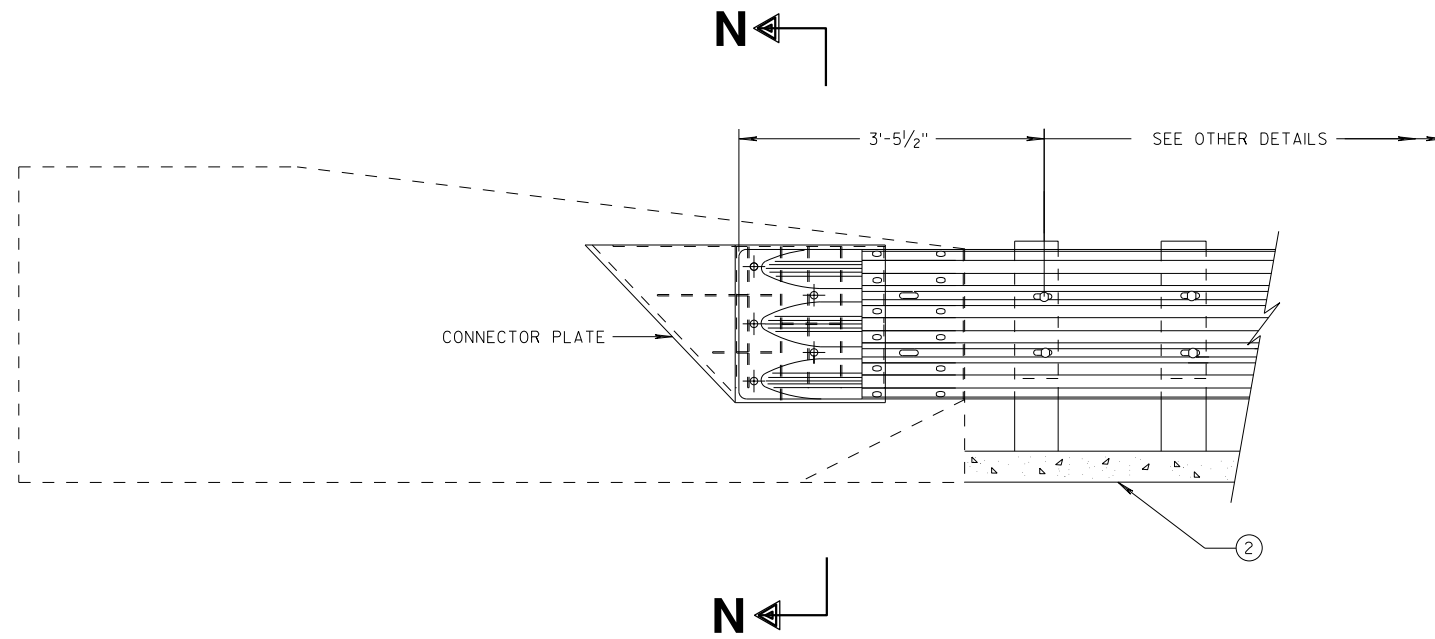
FHWA

**GENERAL NOTES**

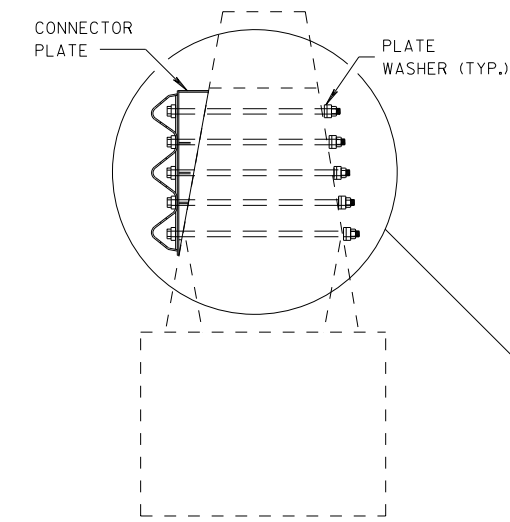
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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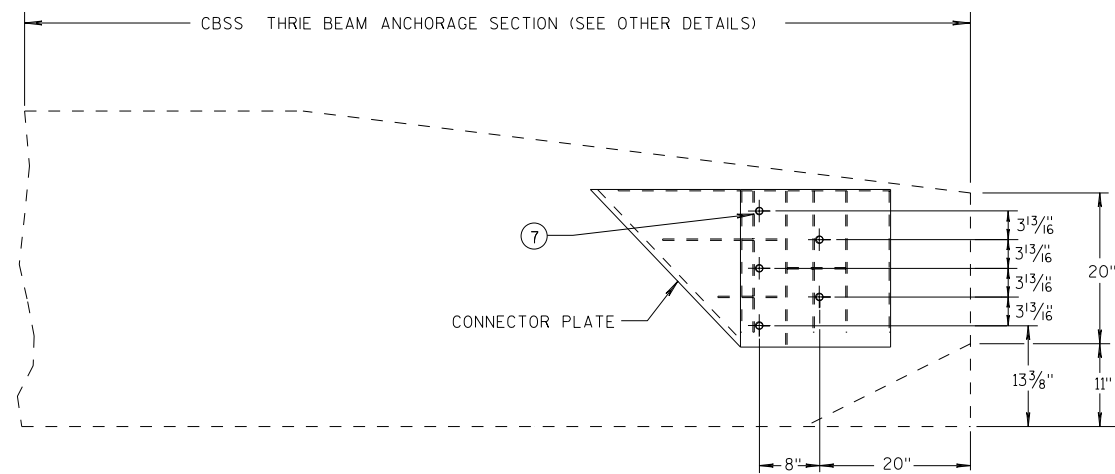
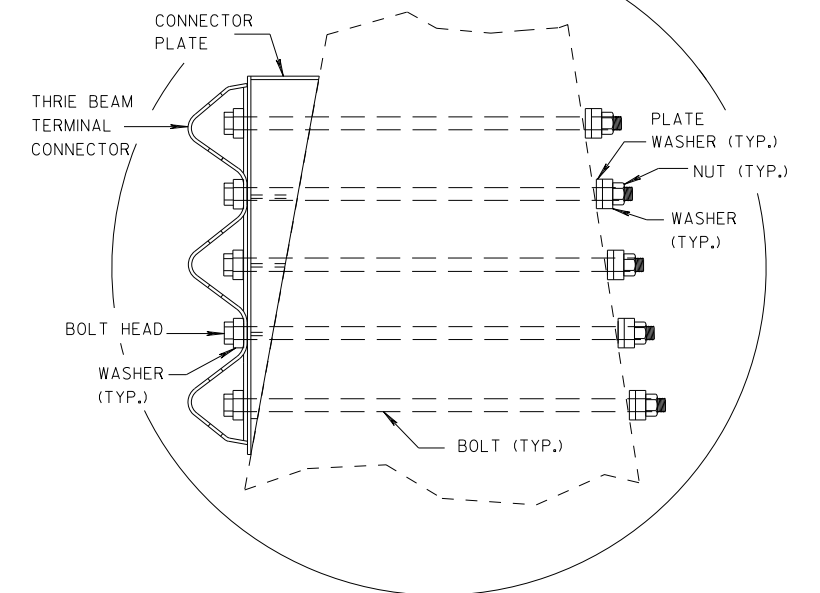
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**THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER**



**SECTION N-N**



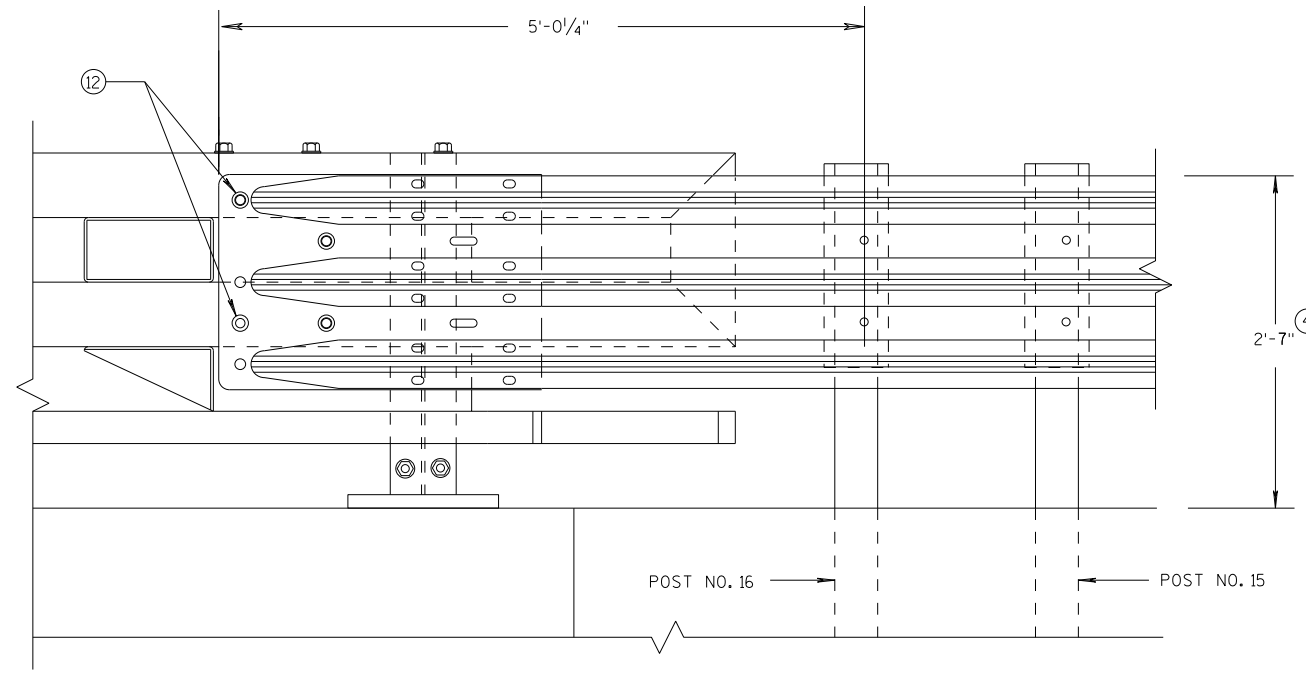
**SINGLE SLOPE CONNECTION PLATE PLACEMENT**

**MIDWEST GUARDRAIL SYSTEM  
THRIE BEAM TRANSITION (MGS)**

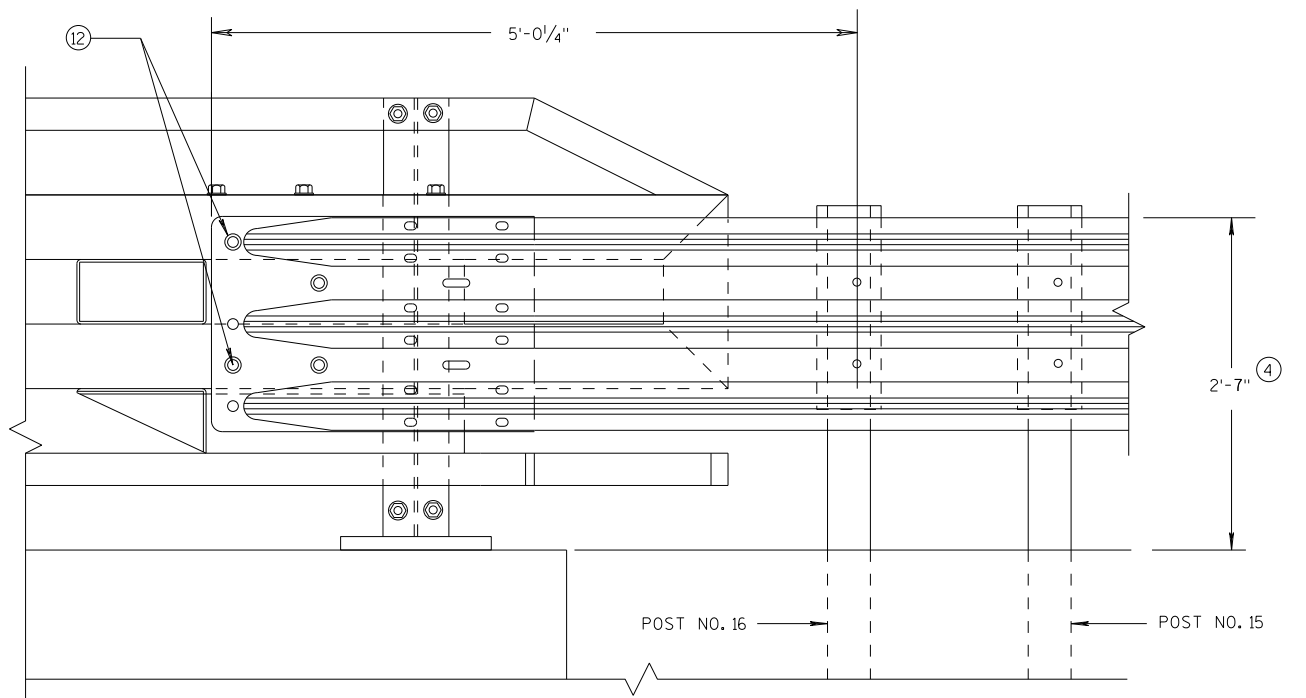
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE 7/2018 /S/ Rodney Taylor  
ROADWAY STANDARDS DEVELOPMENT  
UNIT SUPERVISOR  
FHWA





**ELEVATION OF DETAIL AT NY3 END POST  
THRIE BEAM RAIL ATTACHMENT**



**ELEVATION OF DETAIL AT NY4 END POST  
THRIE BEAM RAIL ATTACHMENT**

**GENERAL NOTES**

- ④ TOLERANCE FOR TOP OF BEAM IS ± 1".
- ⑫ 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

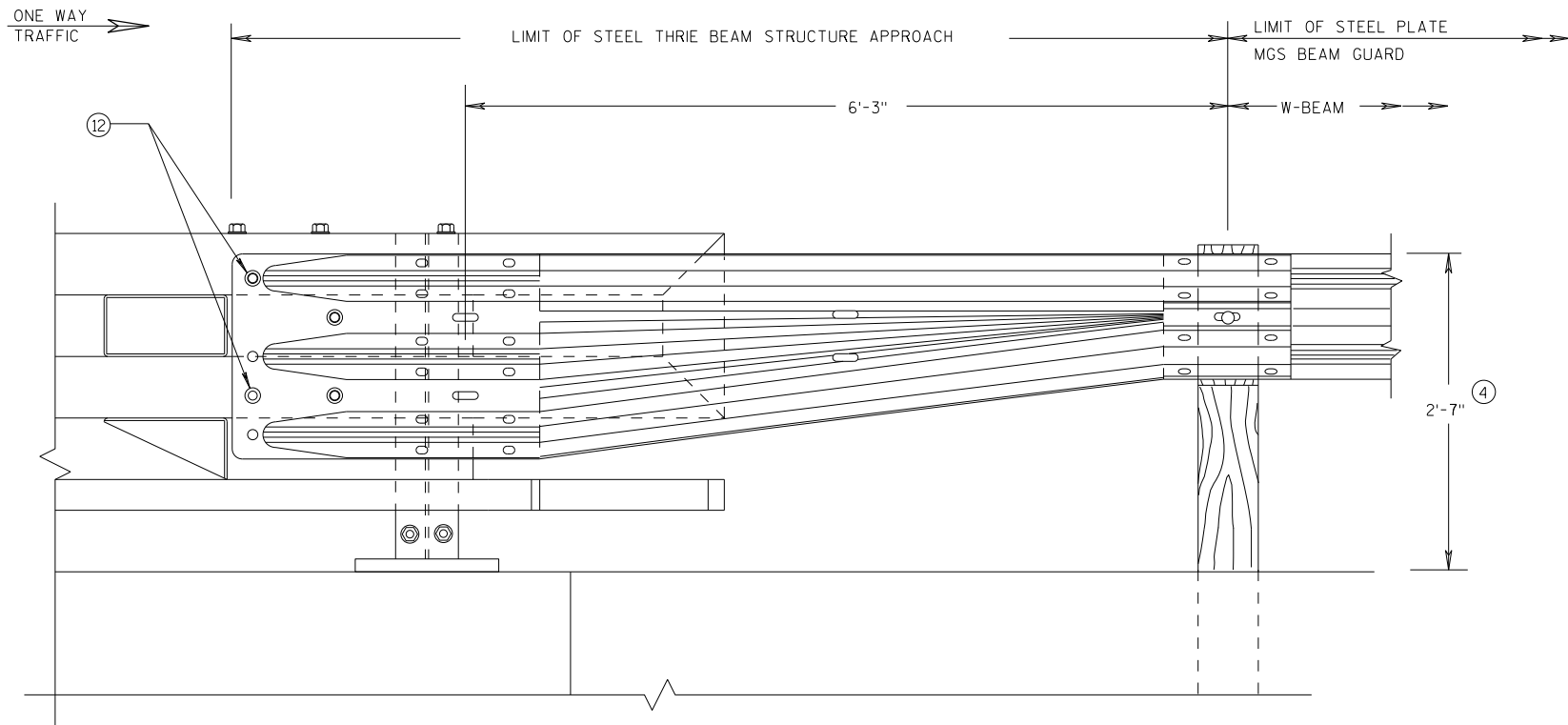
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6

S.D.D. 14 B 45-5k

S.D.D. 14 B 45-5k

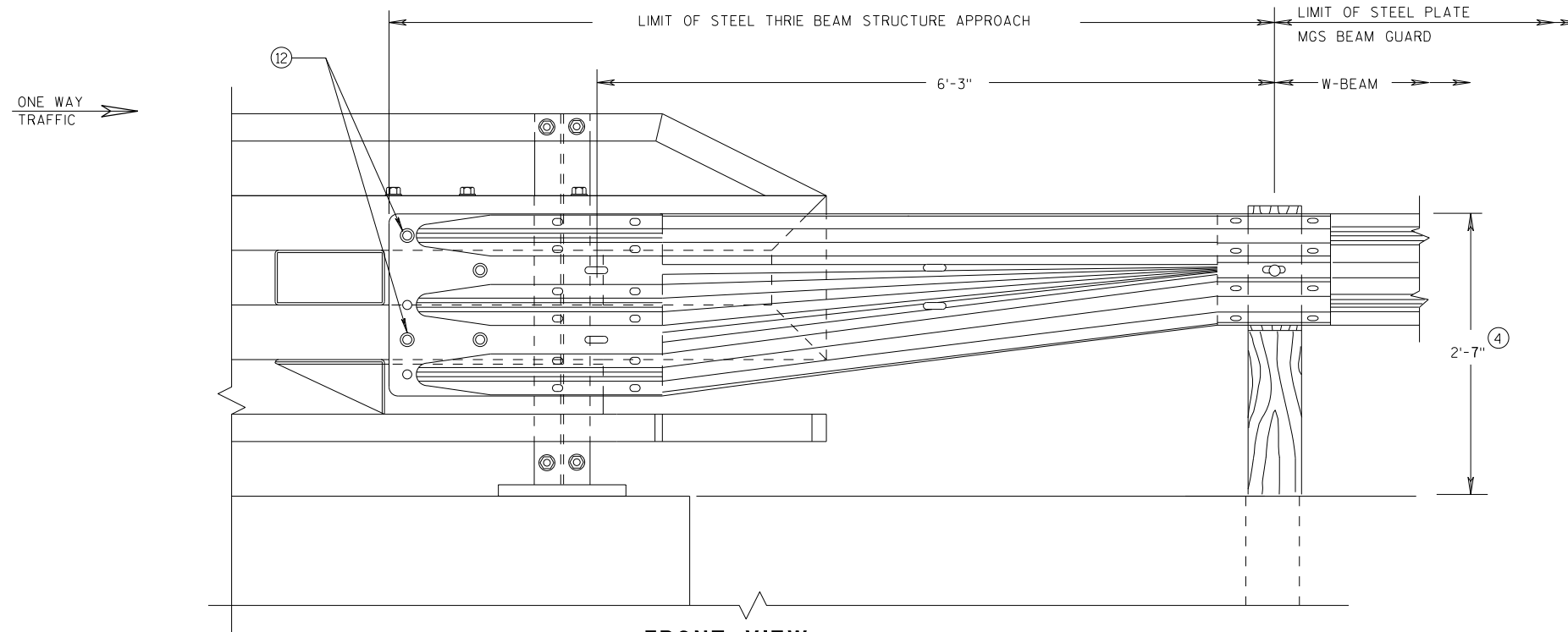
<b>MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



**FRONT VIEW**  
**W BEAM TRANSITION AND**  
**CONNECTION TO BRIDGE RAILING TYPE "NY3"**  
 (USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

**GENERAL NOTES**

- ④ TOLERANCE FOR TOP OF BEAM IS  $\pm 1"$ .
- ⑫ 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND  $\frac{1}{2}$ -INCH BEYOND NUT.

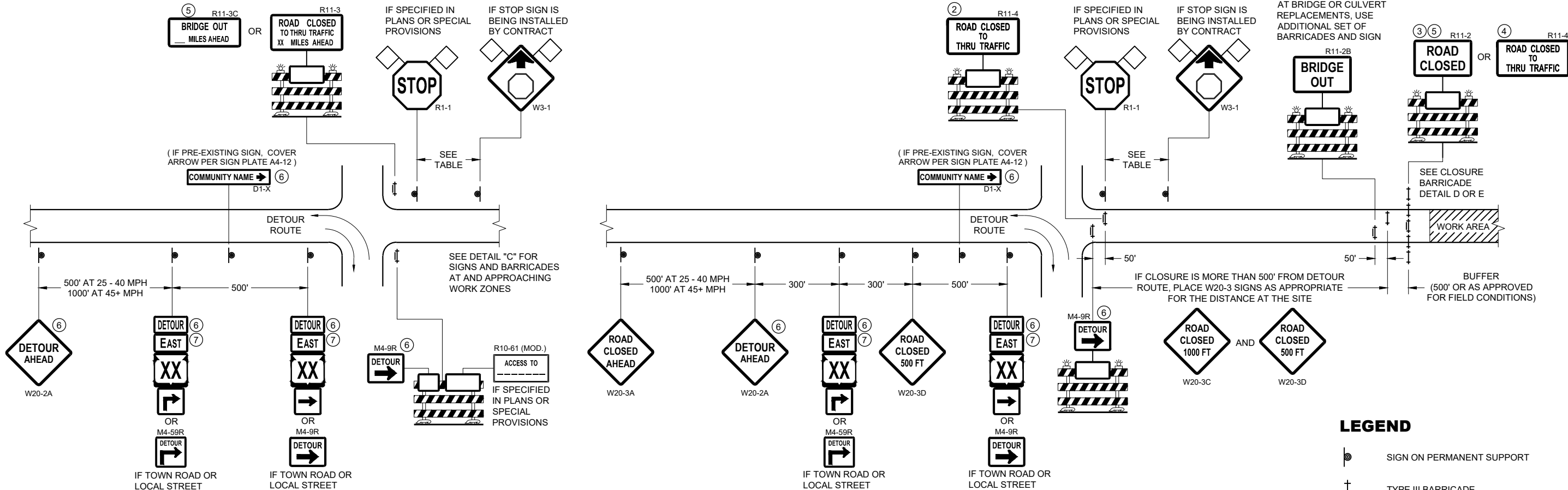


**FRONT VIEW**  
**W BEAM TRANSITION AND**  
**CONNECTION TO BRIDGE RAILING TYPE "NY4"**  
 (USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

**MIDWEST GUARDRAIL SYSTEM**  
**THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

APPROVED  
 DATE 7/2018 /S/ Rodney Taylor  
 ROADWAY STANDARDS DEVELOPMENT  
 UNIT SUPERVISOR  
 FHWA



**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**

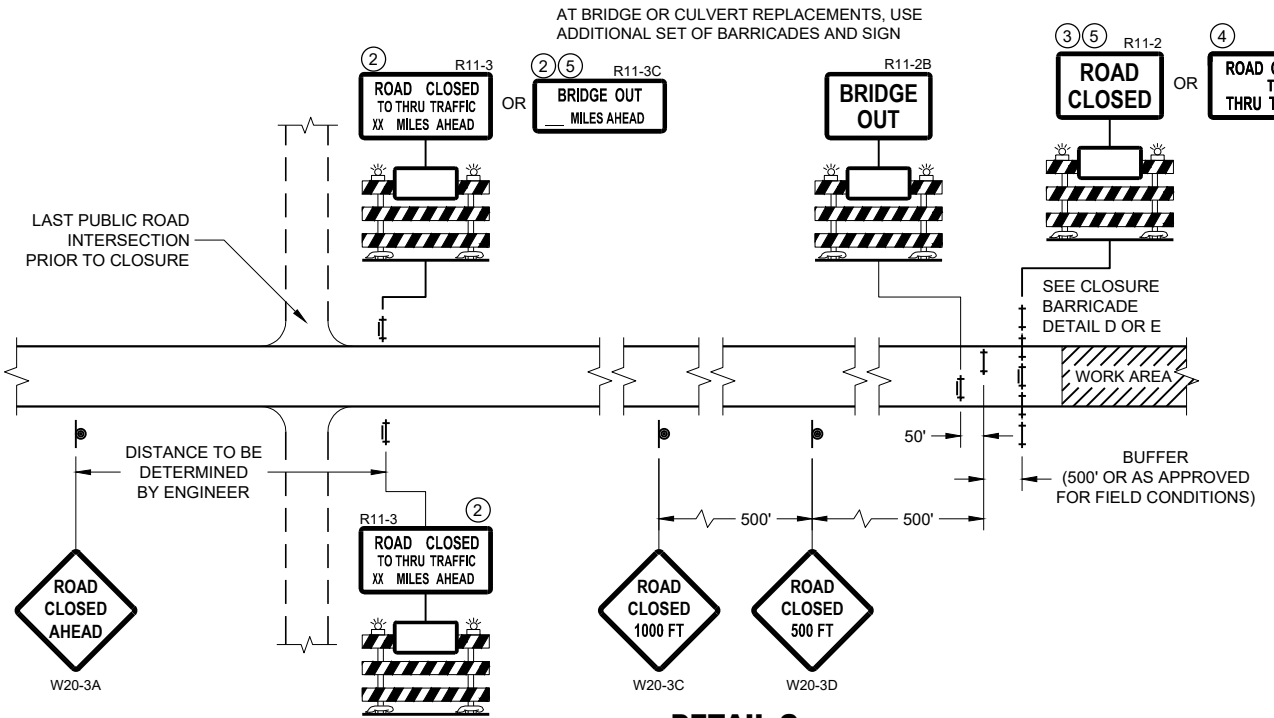
WORK ZONE LESS THAN 1/2 MILE FROM  
DETOUR ROUTE ( 1000 FEET IF URBAN )

**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 OR M1 - 6 OR M1 - 5A
- M05 - 1 OR M06 - 1



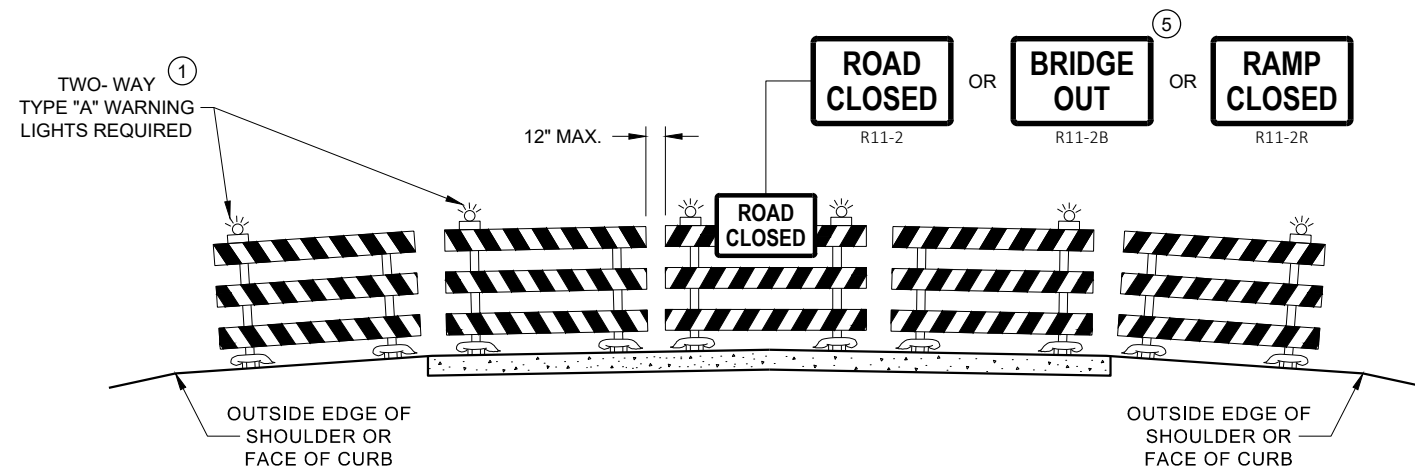
**DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR**

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

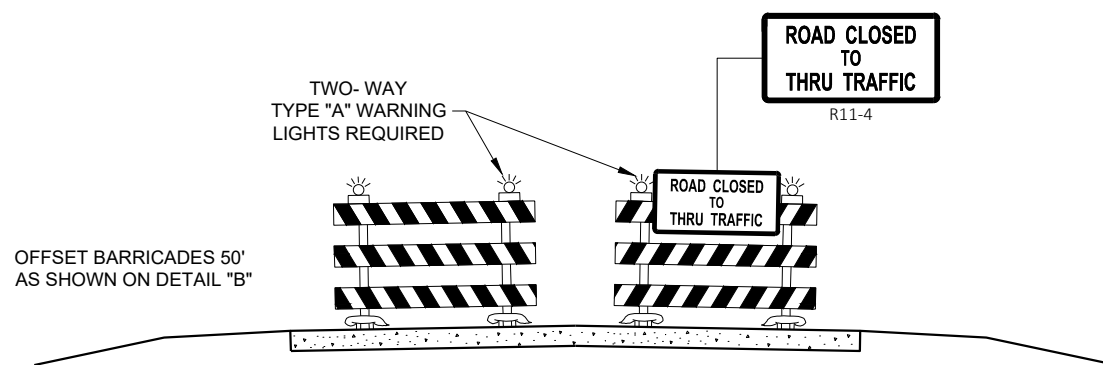
**BARRICADES AND SIGNS  
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Andrew Heidtke  
DATE DATE WORK ZONE ENGINEER  
FHWA



**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:

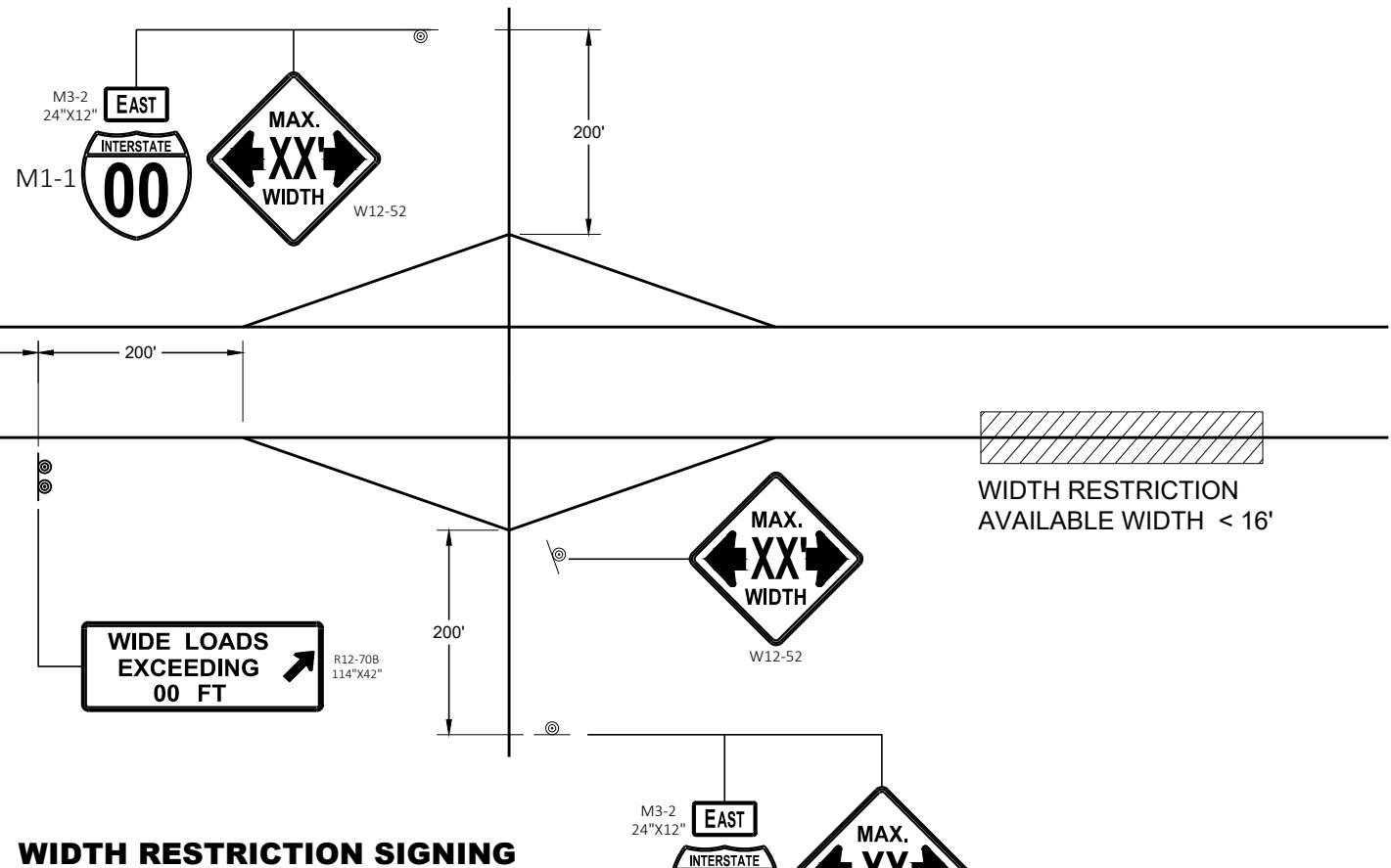
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24"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

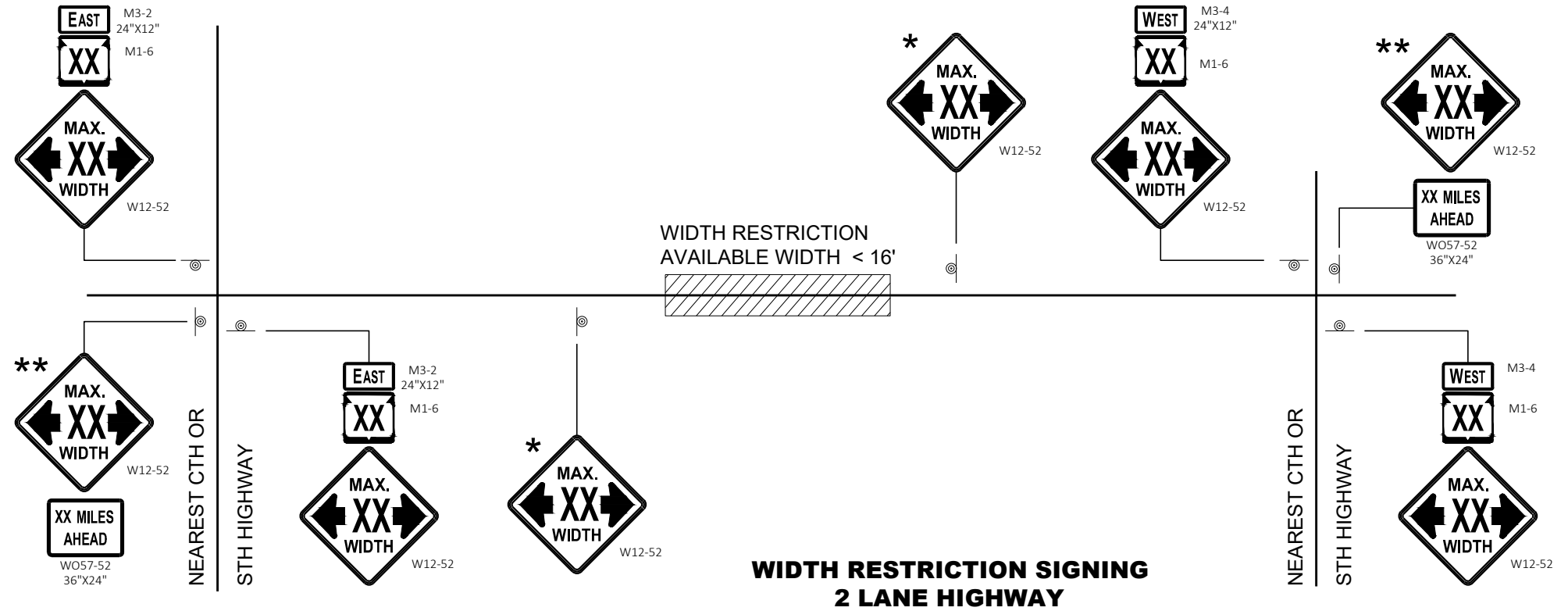
**BARRICADES AND SIGNS  
FOR  
VARIOUS CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER



**WIDTH RESTRICTION SIGNING**



**WIDTH RESTRICTION SIGNING  
2 LANE HIGHWAY**

**LEGEND**

⊙ SIGN ON PERMANENT SUPPORT

**GENERAL NOTES**

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

\* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

\*\* SIGN SHALL BE VISIBLE FROM ROADWAY.

\*\*\* ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

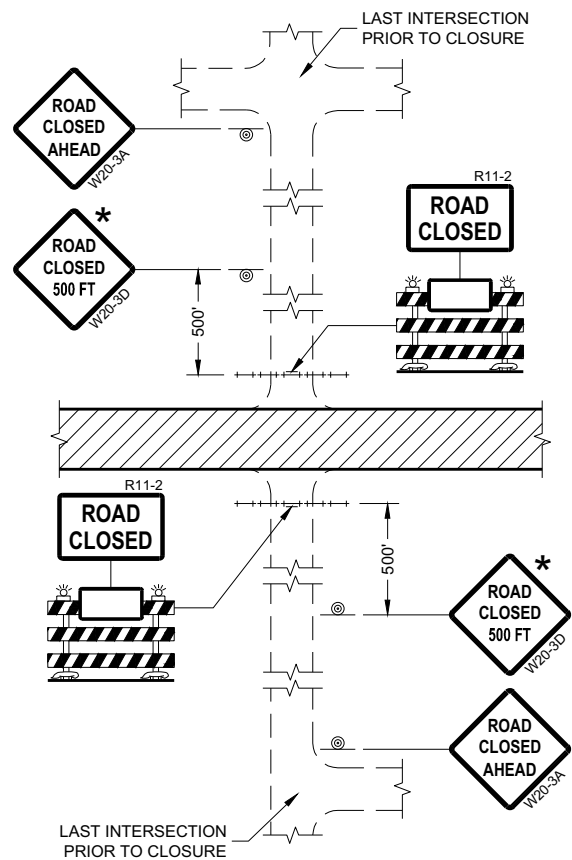


WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

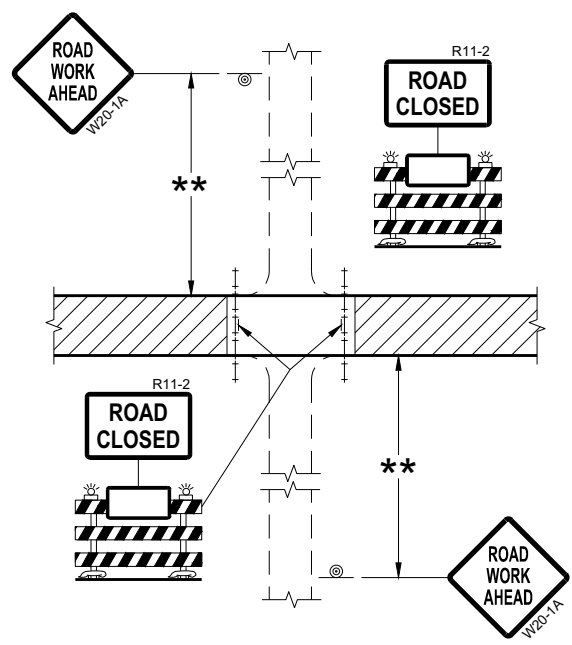
**ADVANCED WIDTH RESTRICTION SIGNING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

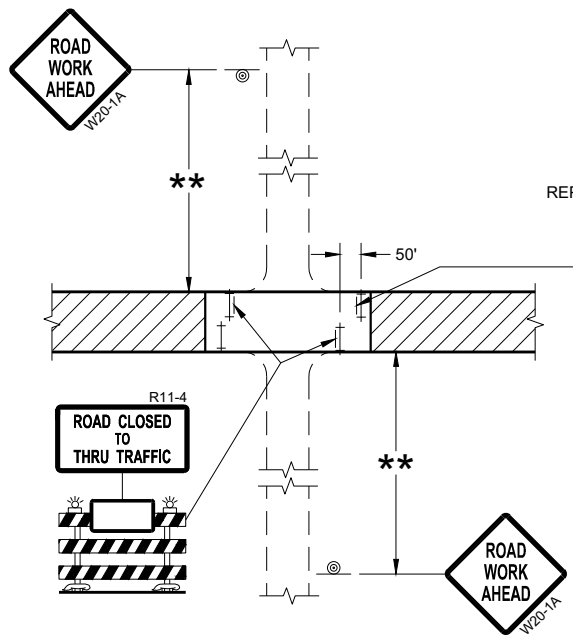
APPROVED	/S/ Andrew Heidtke
DATE	
FHWA	WORK ZONE ENGINEER



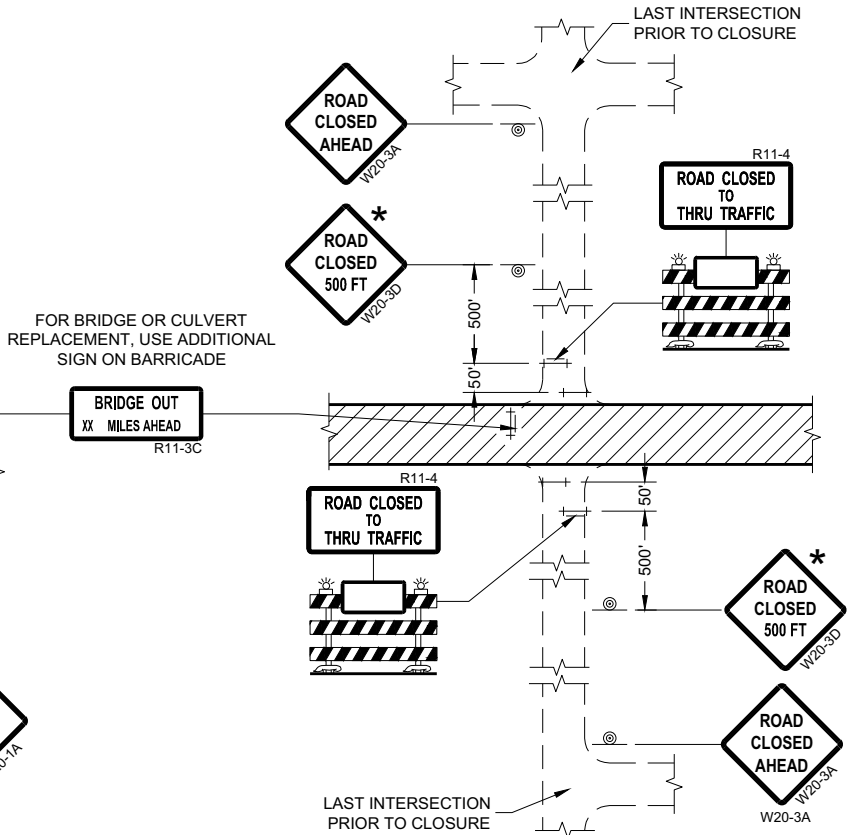
**DETAIL 1**  
(NO ACCESS TO PROJECT)



**DETAIL 2**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
NO ACCESS TO PROJECT)



**DETAIL 3**  
(PUBLIC CROSS-TRAFFIC MAINTAINED.  
CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)



**DETAIL 4**  
(CONTRACTOR, LOCAL BUSINESS AND  
RESIDENT ACCESS TO PROJECT)

**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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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, AND R11-4 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.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:  
R11-2 SHALL BE 48" X 30".  
R11-4 AND R11-3 SHALL BE 60" X 30".

- \* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- \*\* 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

**LEGEND**

- ⊙ SIGN ON PERMANENT SUPPORT
- ⊢ TYPE III BARRICADE
- ⊢ TYPE III BARRICADE WITH ATTACHED SIGN
- ⚡ TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

**BARRICADES AND SIGNS  
FOR  
SIDEROAD CLOSURES**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



**GENERAL NOTES**

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

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




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

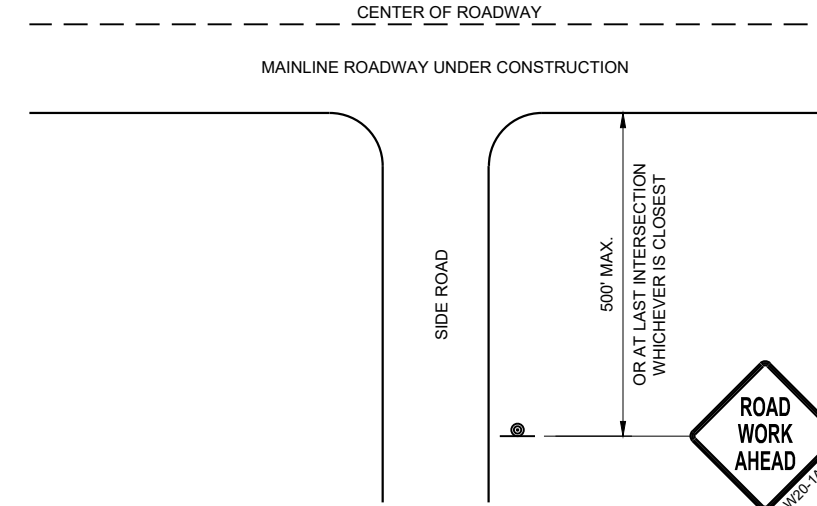
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

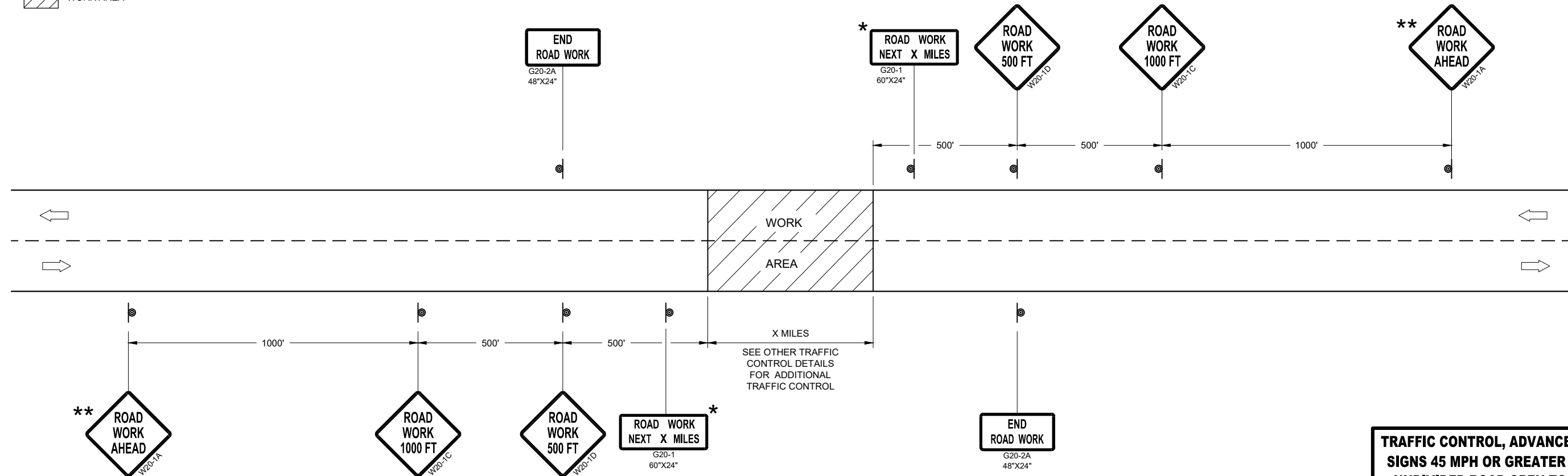
- \* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- \*\* PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

**LEGEND**

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



**TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL**



**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER**

**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**GENERAL NOTES**

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

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




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

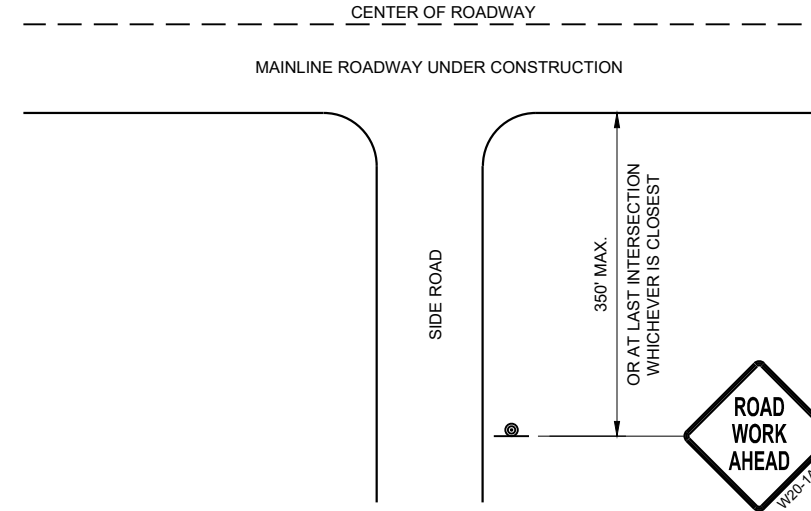
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

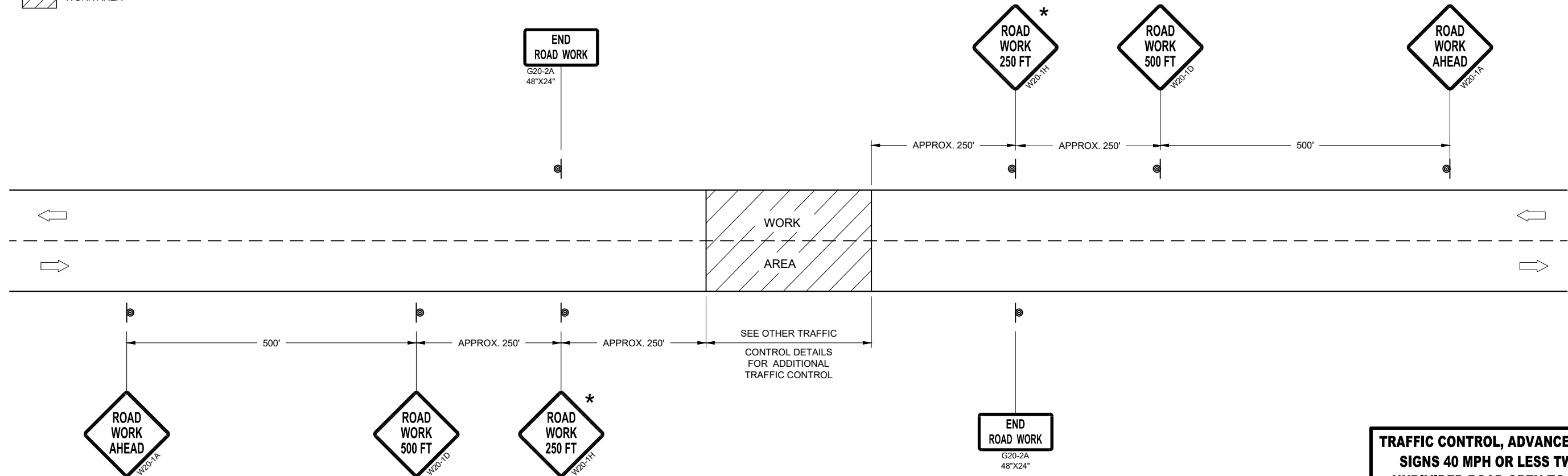
\* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

**LEGEND**

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



**TYPICAL SIDE ROAD APPROACH  
WARNING SIGN DETAIL**



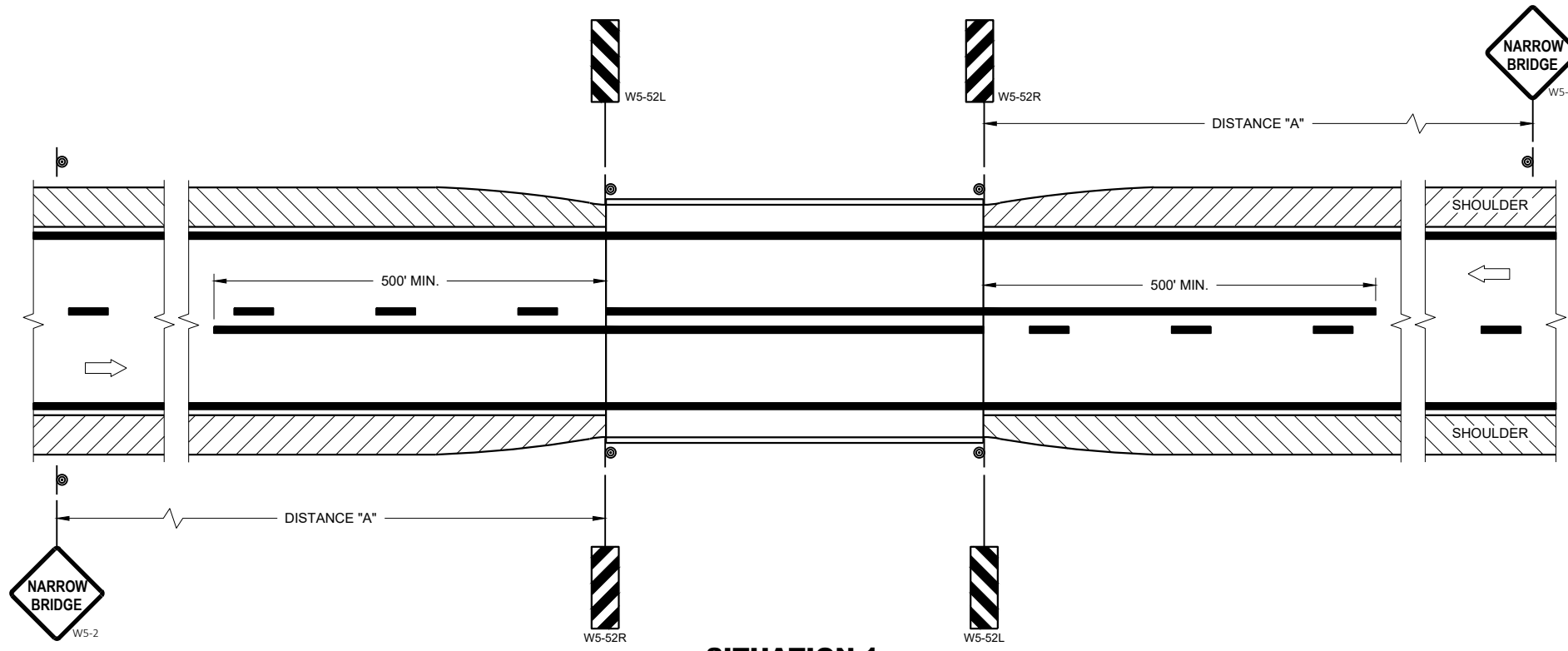
**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS**

**TRAFFIC CONTROL, ADVANCE WARNING  
SIGNS 40 MPH OR LESS TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFIC**

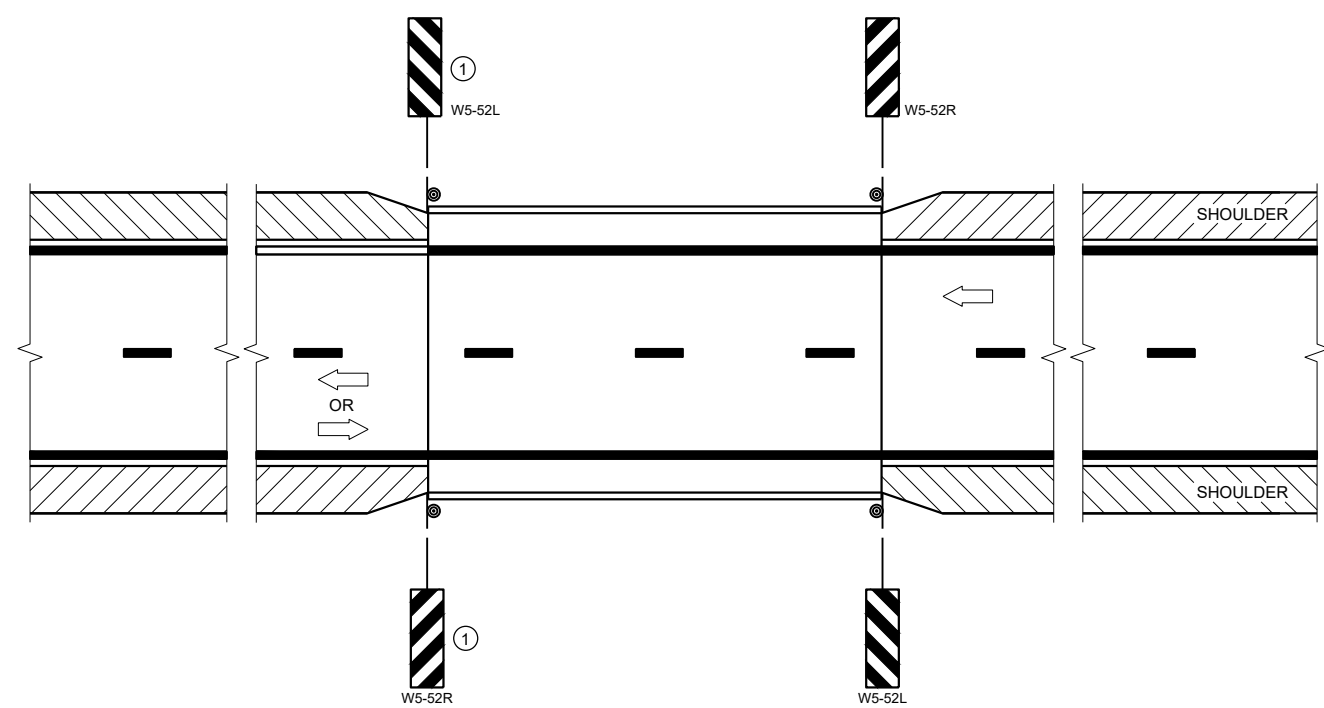
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

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**SITUATION 1**  
 WARRANTING CRITERIA:  
 BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



**SITUATION 2**  
 WARRANTING CRITERIA:  
 1. BRIDGE WIDTH IS AT LEAST 24 FEET AND  
 2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

**GENERAL NOTES**

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

**LEGEND**

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC

**DISTANCE TABLE**

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

6

6

SDD 15C06-12

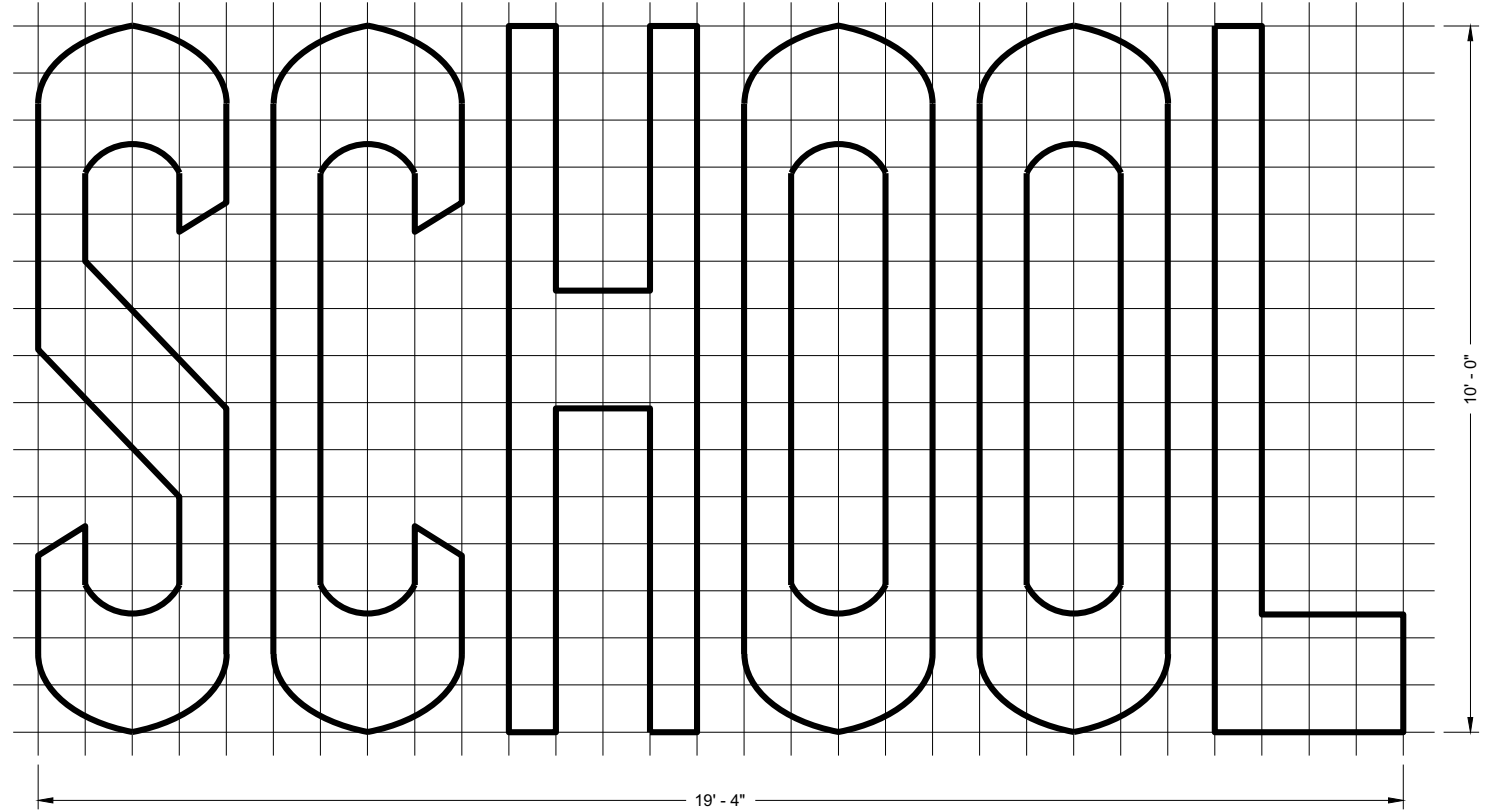
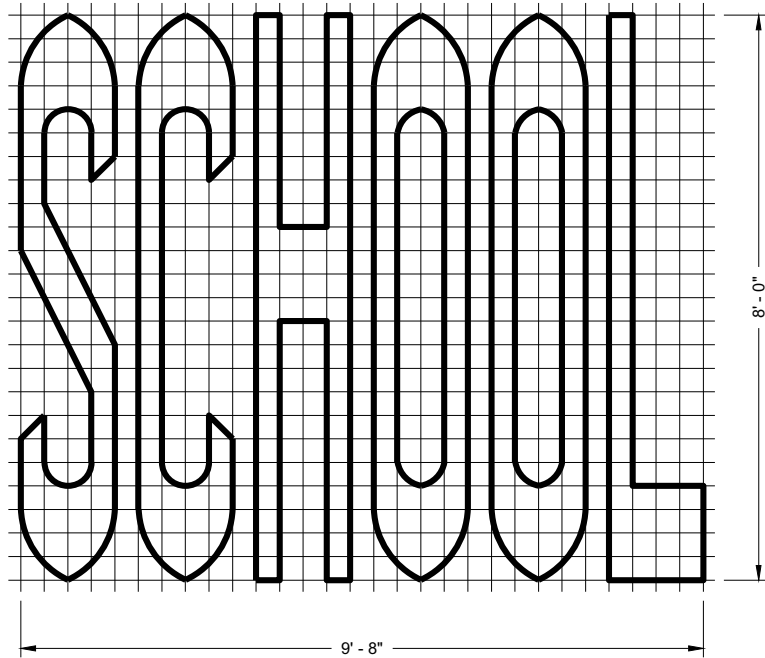
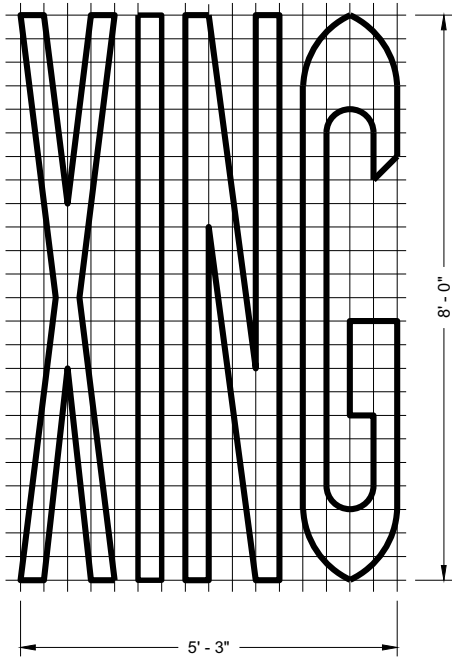
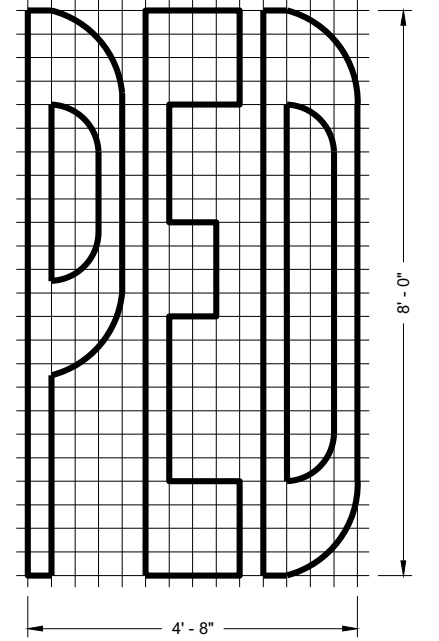
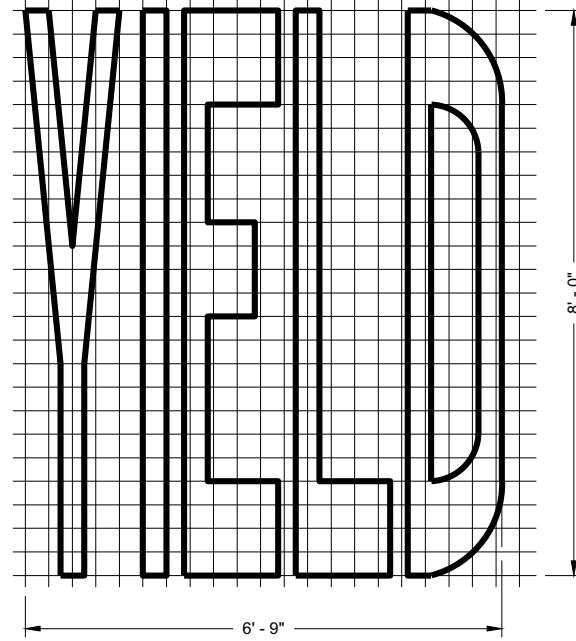
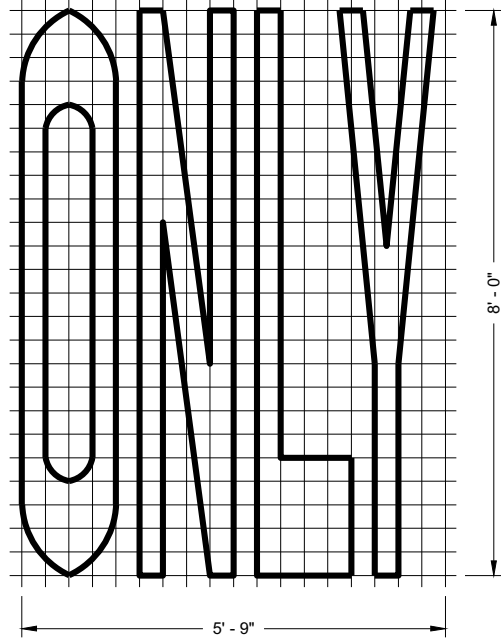
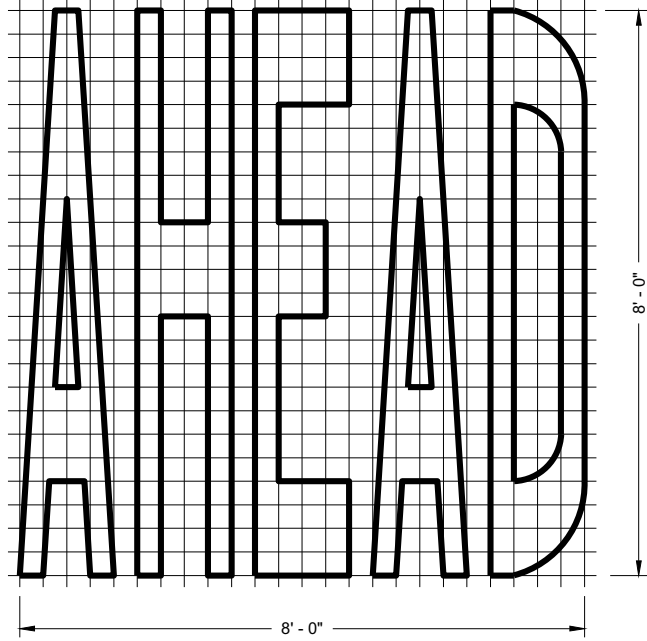
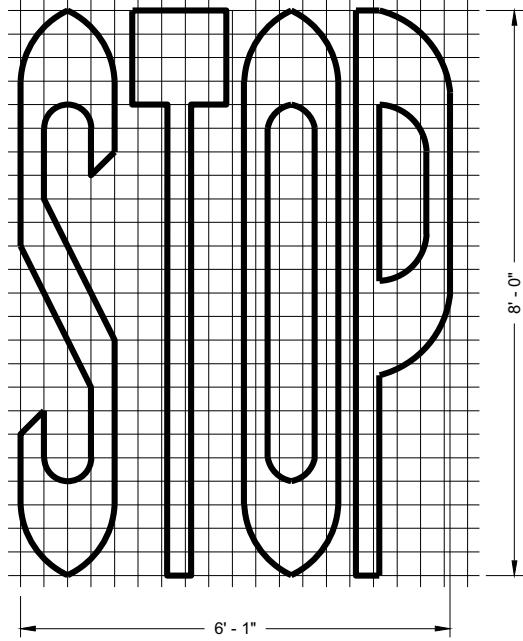
SDD 15C06-12

**SIGNING AND MARKING FOR TWO LANE BRIDGES**

STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

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 DATE STATE SIGNING AND MARKING ENGINEER

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SINGLE LANE

TWO - LANE

**GENERAL NOTES**

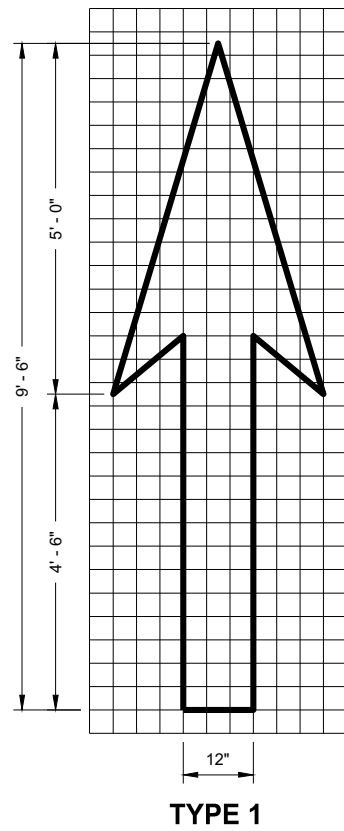
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

**PAVEMENT MARKING WORDS**

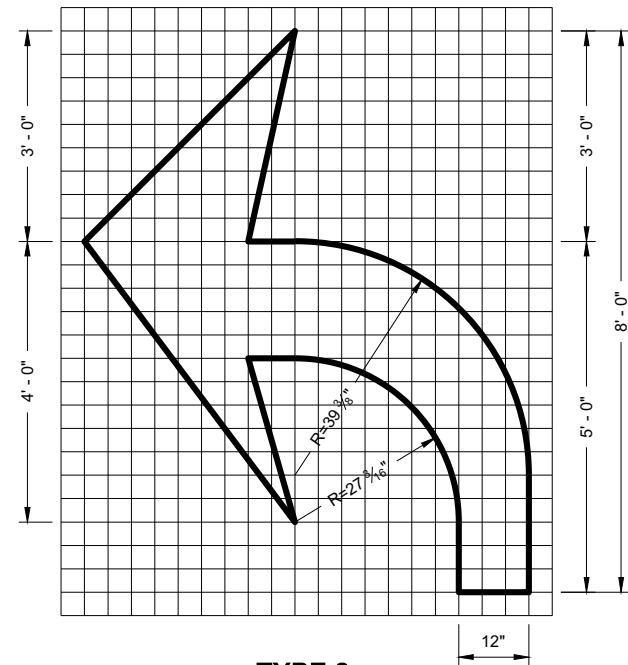
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING  
ENGINEER

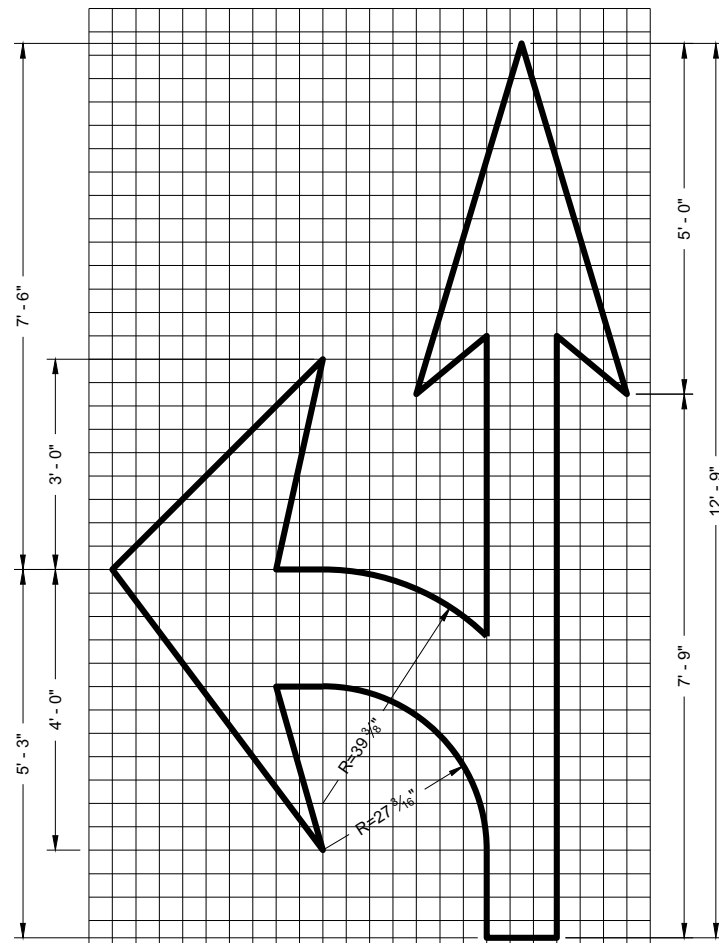
FHWA



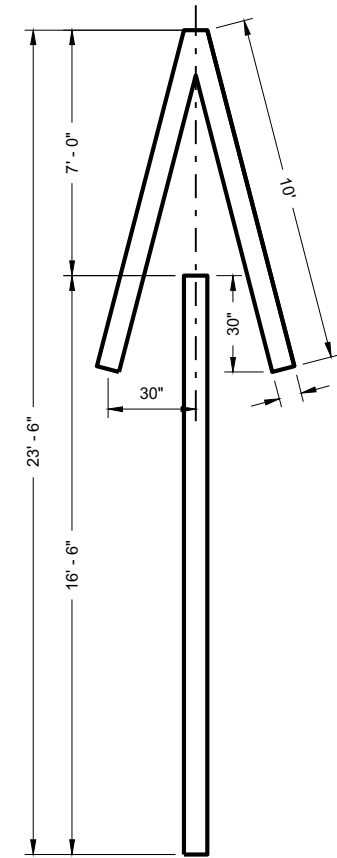
TYPE 1



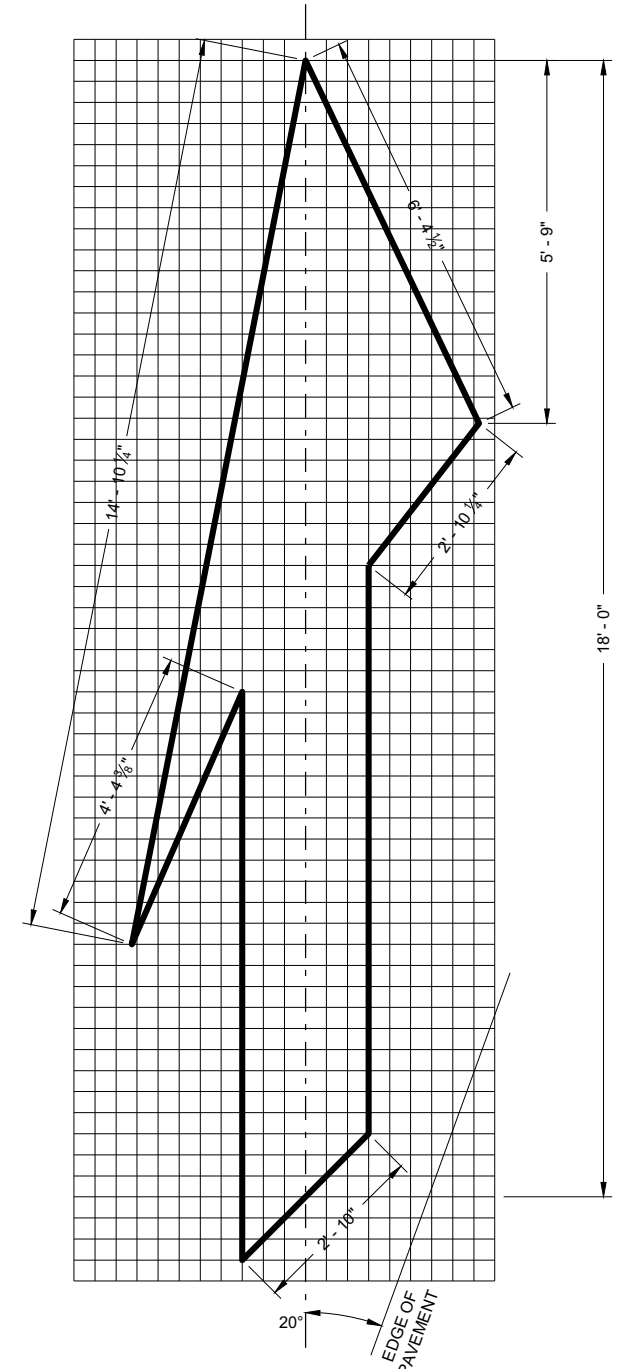
TYPE 2



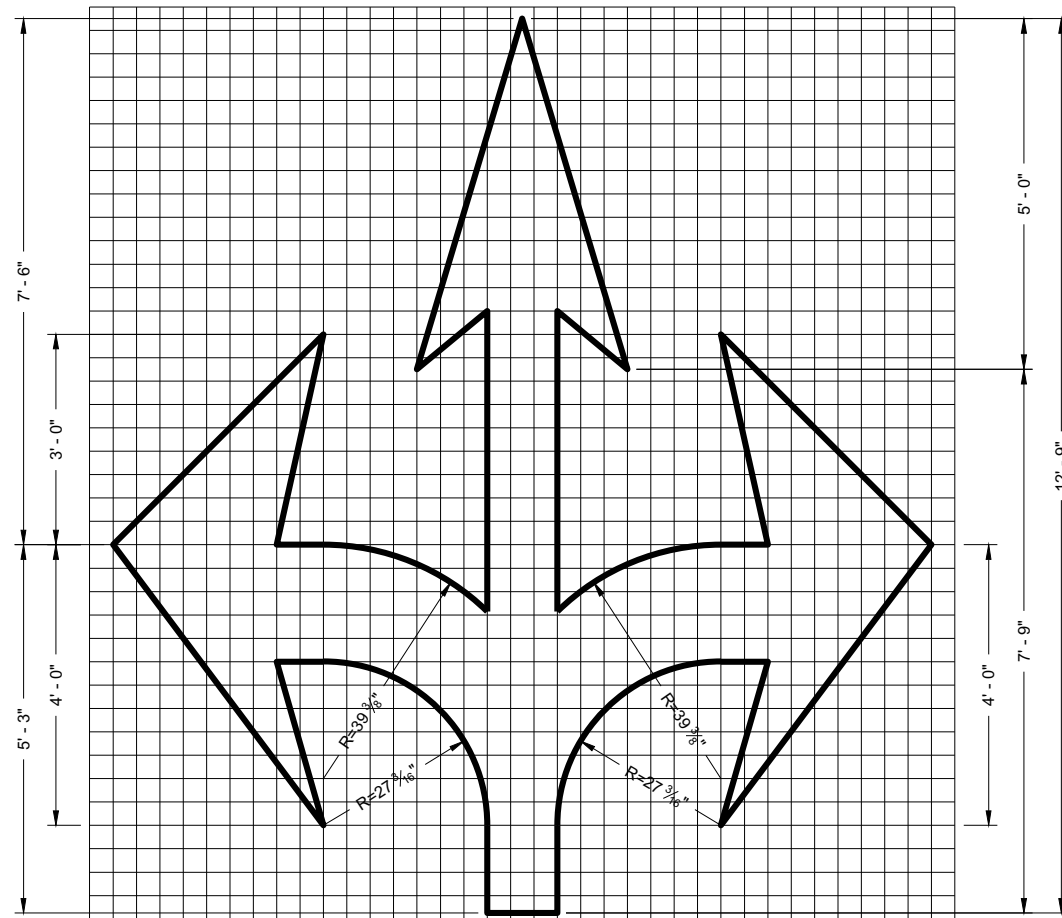
TYPE 3



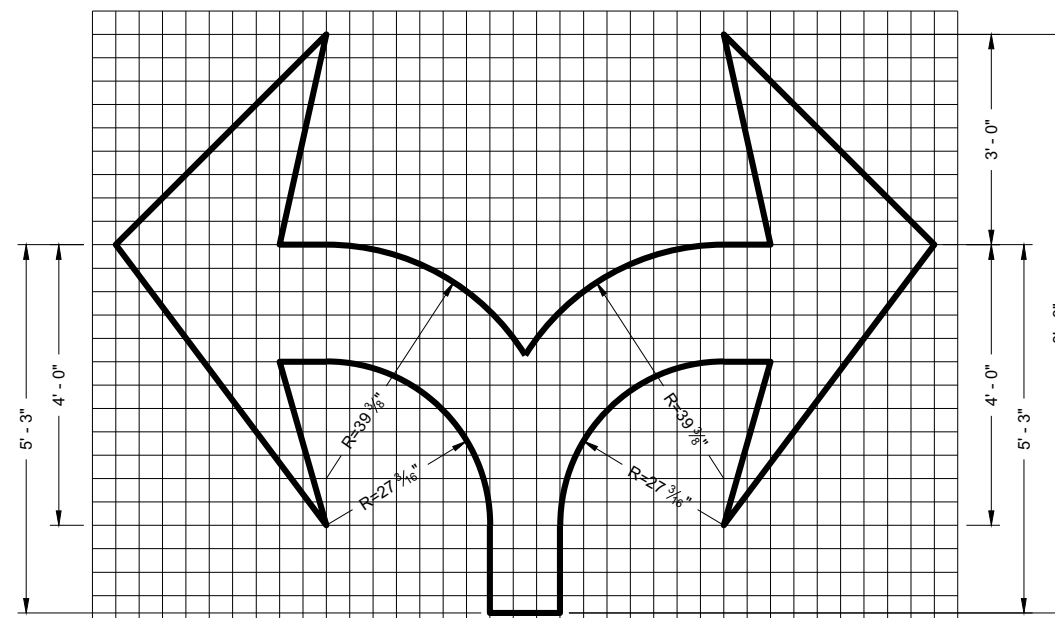
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

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 ARROWS

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DATE /S/ Matthew Rauch  
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
FHWA

**GENERAL NOTES**

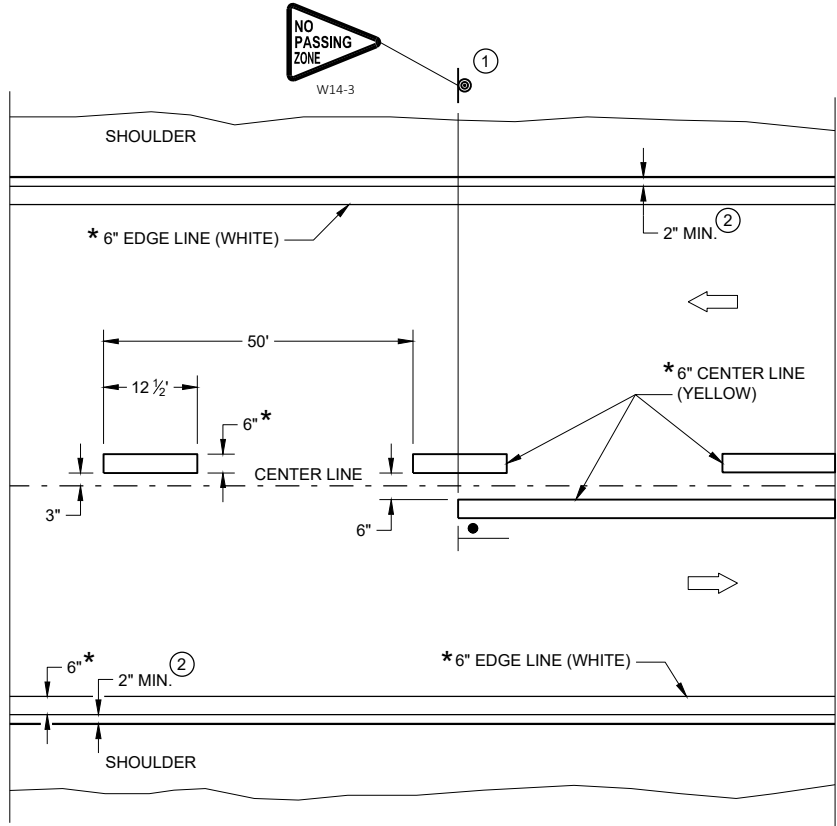
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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.

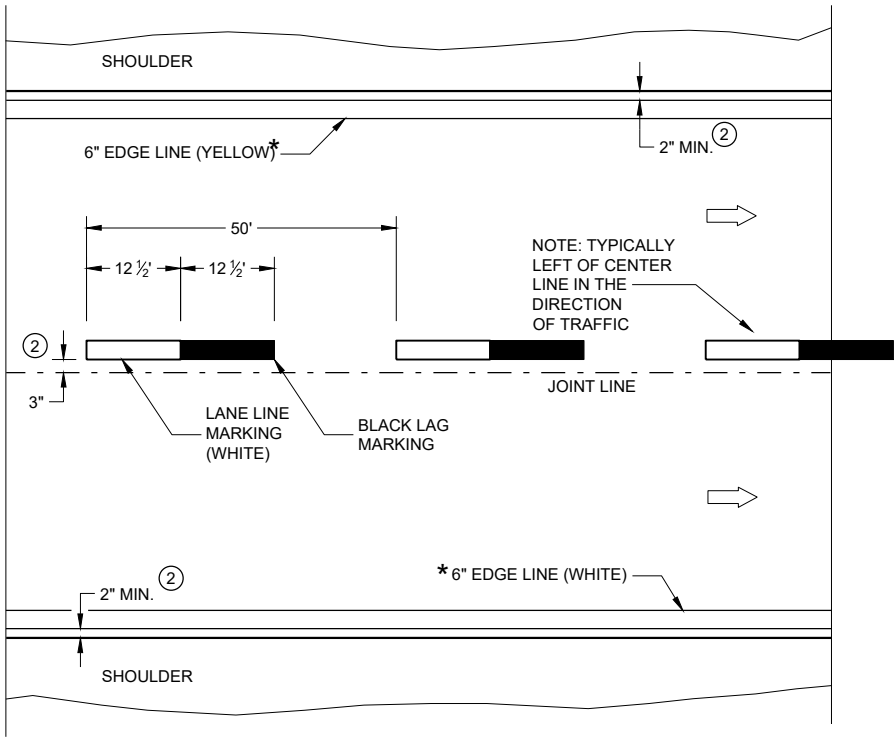
**LEGEND**

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**

**PERMANENT PAVEMENT MARKING**

6

6

SDD 15C08-23a

SDD 15C08-23a

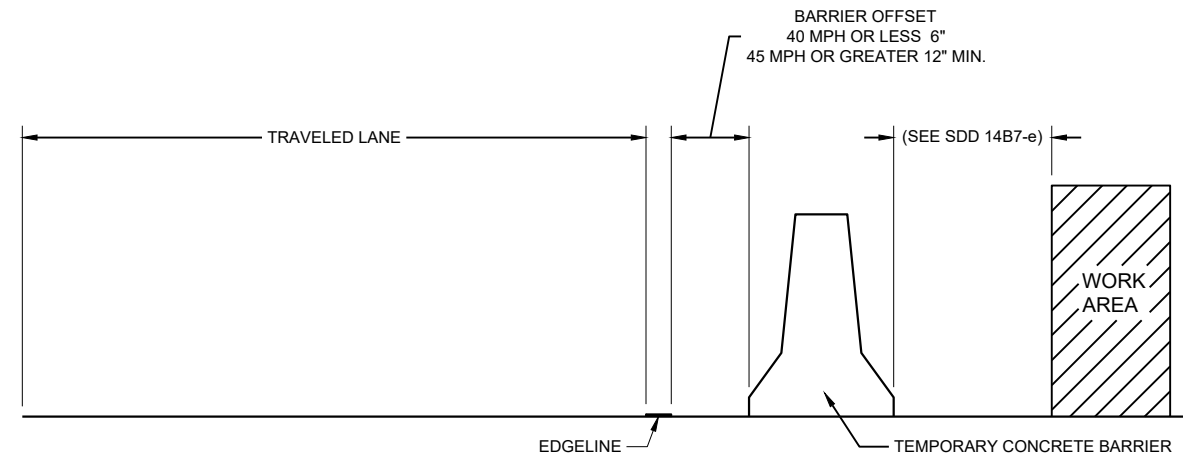
**PERMANENT LONGITUDINAL PAVEMENT MARKINGS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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May 2023 /S/ Jeannie Silver  
DATE STATEWIDE SIGNING AND MARKING ENGINEER

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**TEMPORARY BARRIER OFFSET FROM EDGELINE**

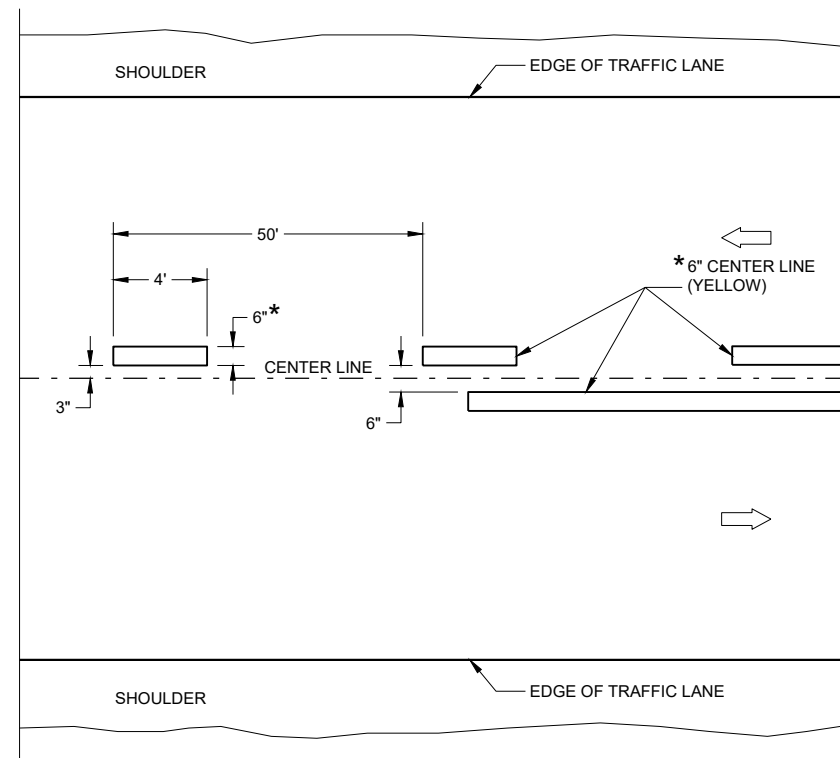
**GENERAL NOTES**

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

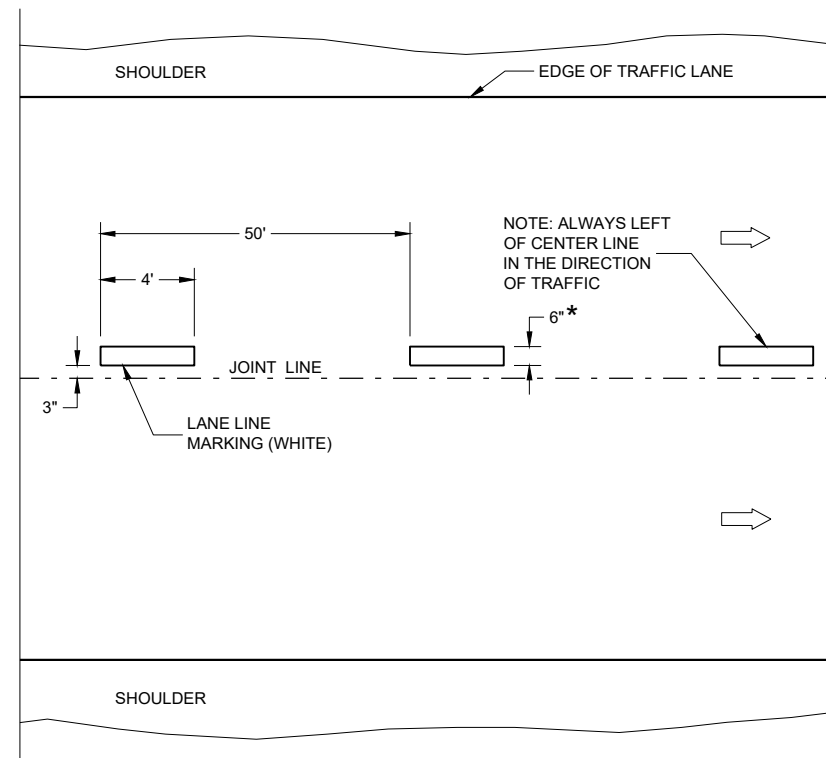
**LEGEND**

➡ DIRECTION OF TRAFFIC

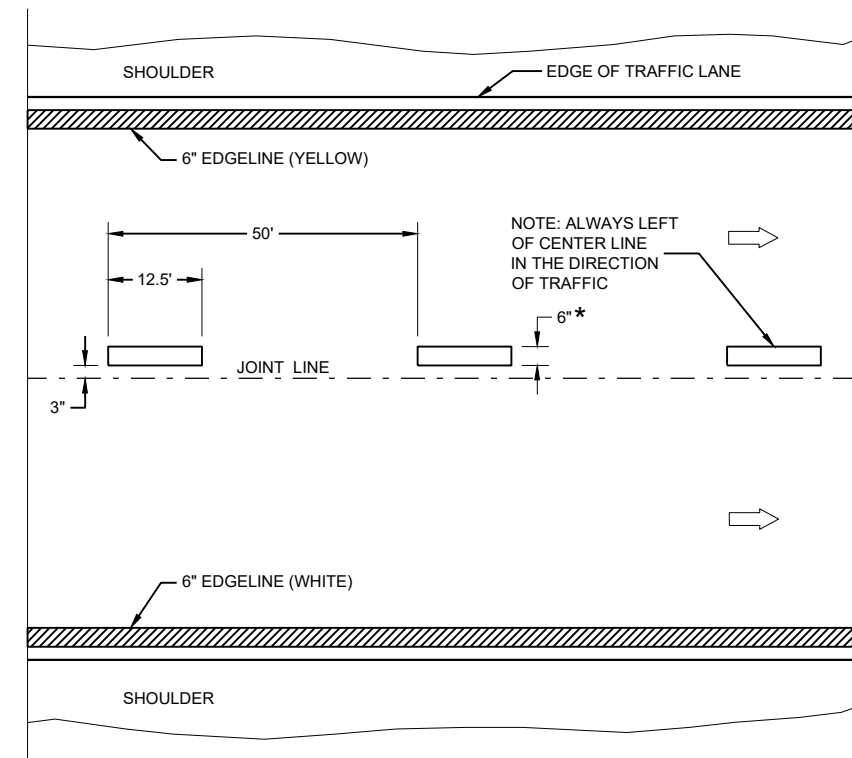
\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



**TWO WAY TRAFFIC**



**ONE WAY TRAFFIC**



**FREEWAYS AND EXPRESSWAYS**

**TEMPORARY PAVEMENT MARKING**

**TEMPORARY LONGITUDINAL PAVEMENT MARKING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Jeannie Silver  
DATE STATEWIDE SIGNING AND MARKING ENGINEER

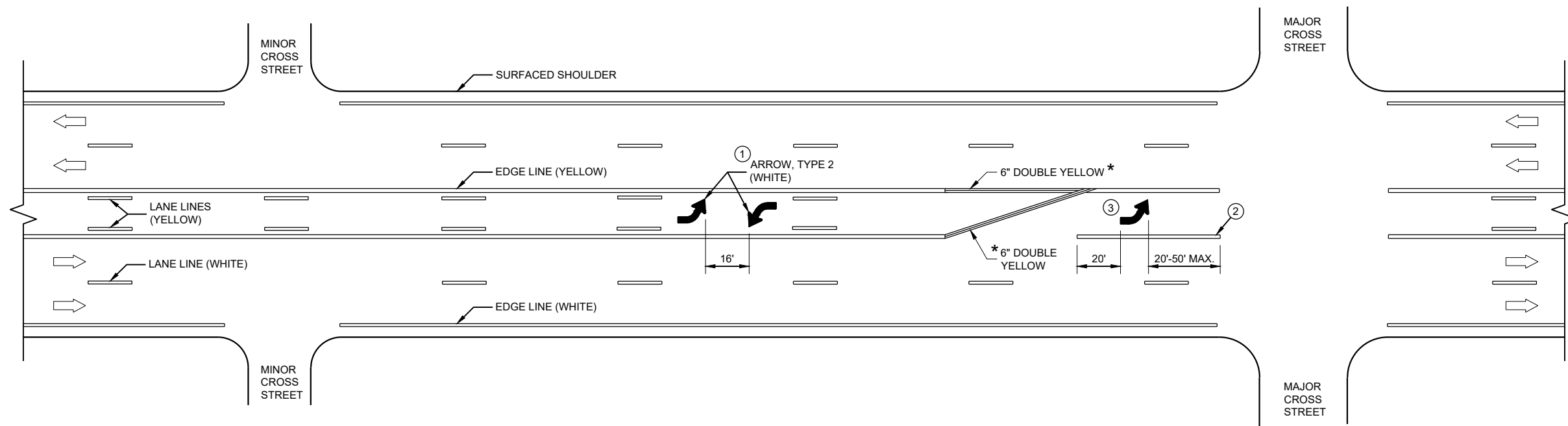
FHWA

**GENERAL NOTES**

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

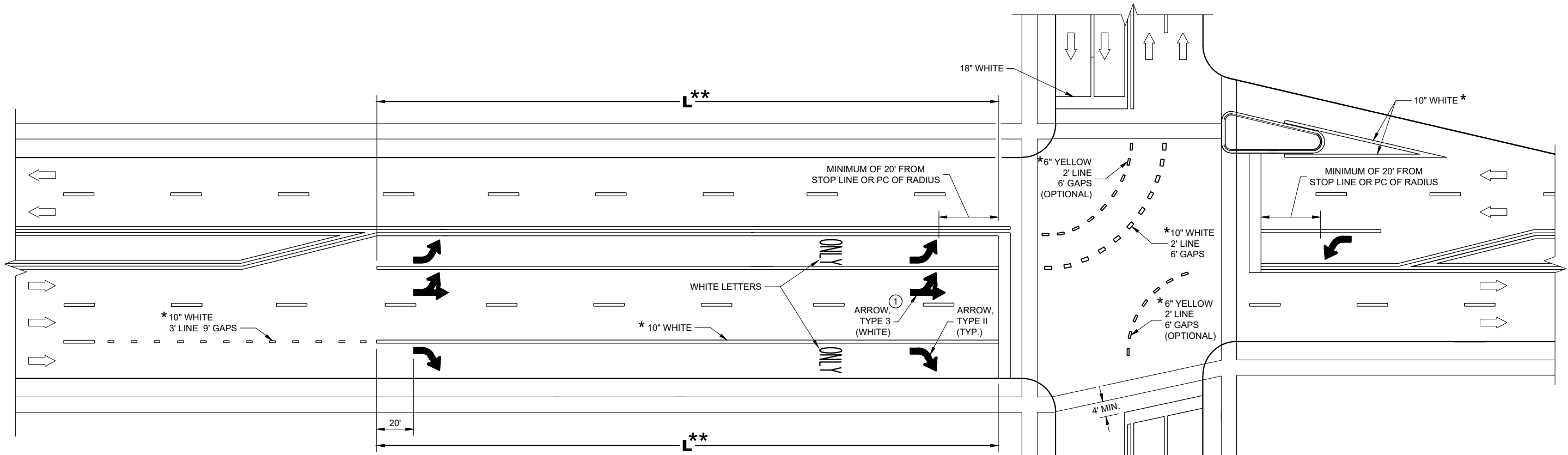
➡ DIRECTION OF TRAFFIC

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



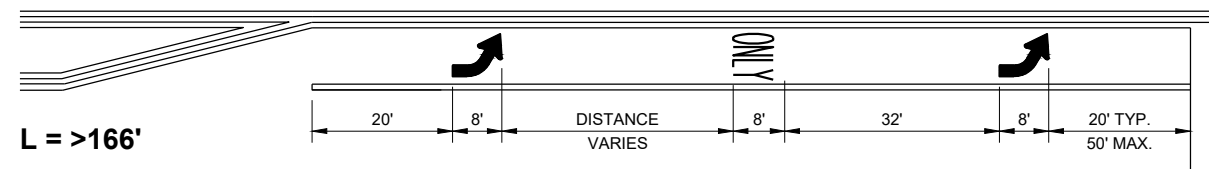
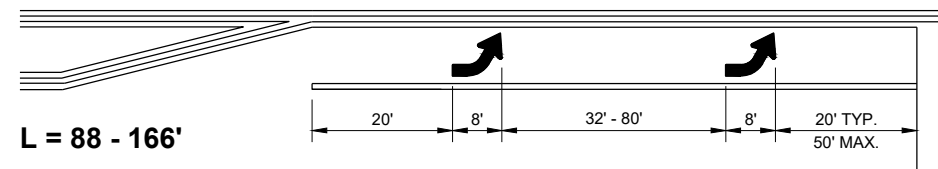
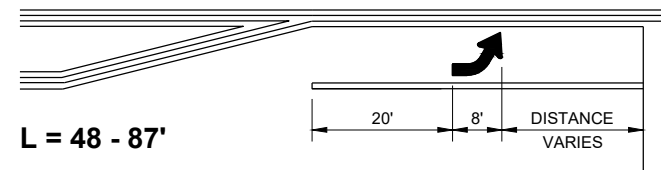
**TWO WAY LEFT TURN LANE**

<b>PAVEMENT MARKING (TURN LANES)</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



**TURN LANE OPTIONS**

LENGTH OF TURN BAY ( **L** ) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



\*\* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

**GENERAL NOTES**

① QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

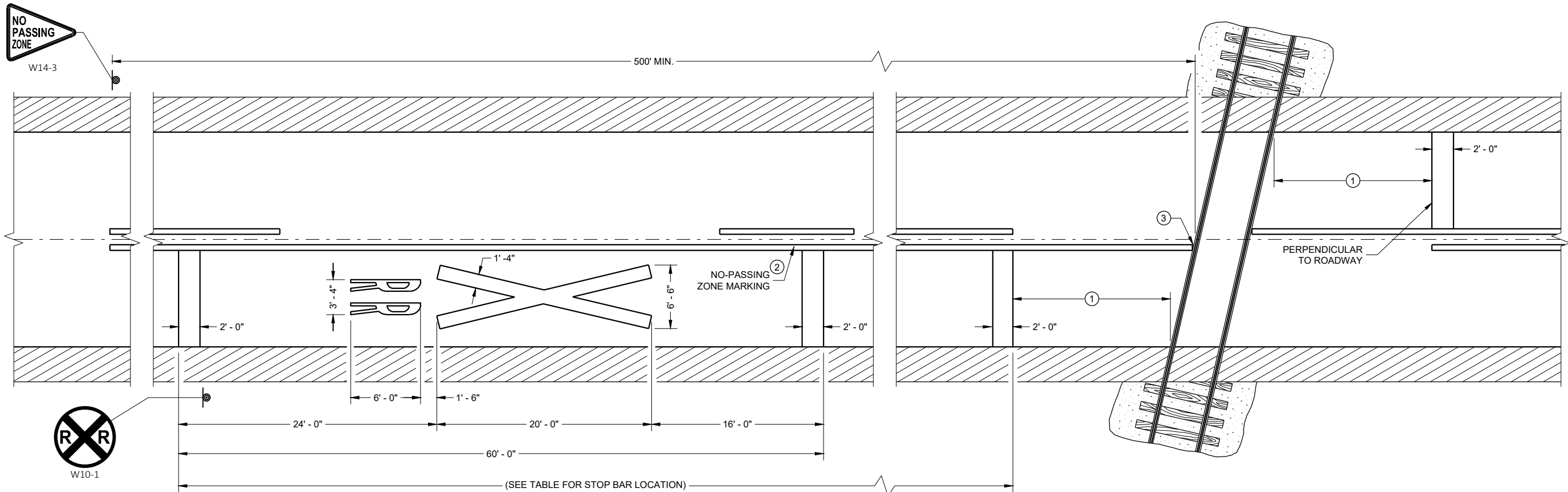
➡ DIRECTION OF TRAFFIC

**L** = LENGTH OF TURN BAY

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**PAVEMENT MARKING (TURN LANES)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**PAVEMENT MARKING**

**LEGEND**

⊙ SIGN ON PERMANENT SUPPORT

**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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

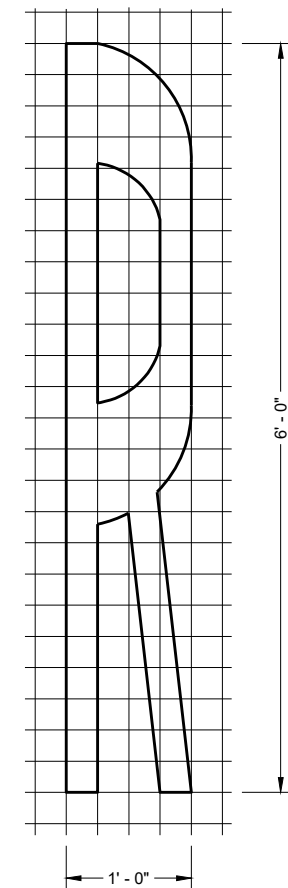
- ① PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

**DISTANCE TABLE**

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

\* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



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SDD 15C09-13a

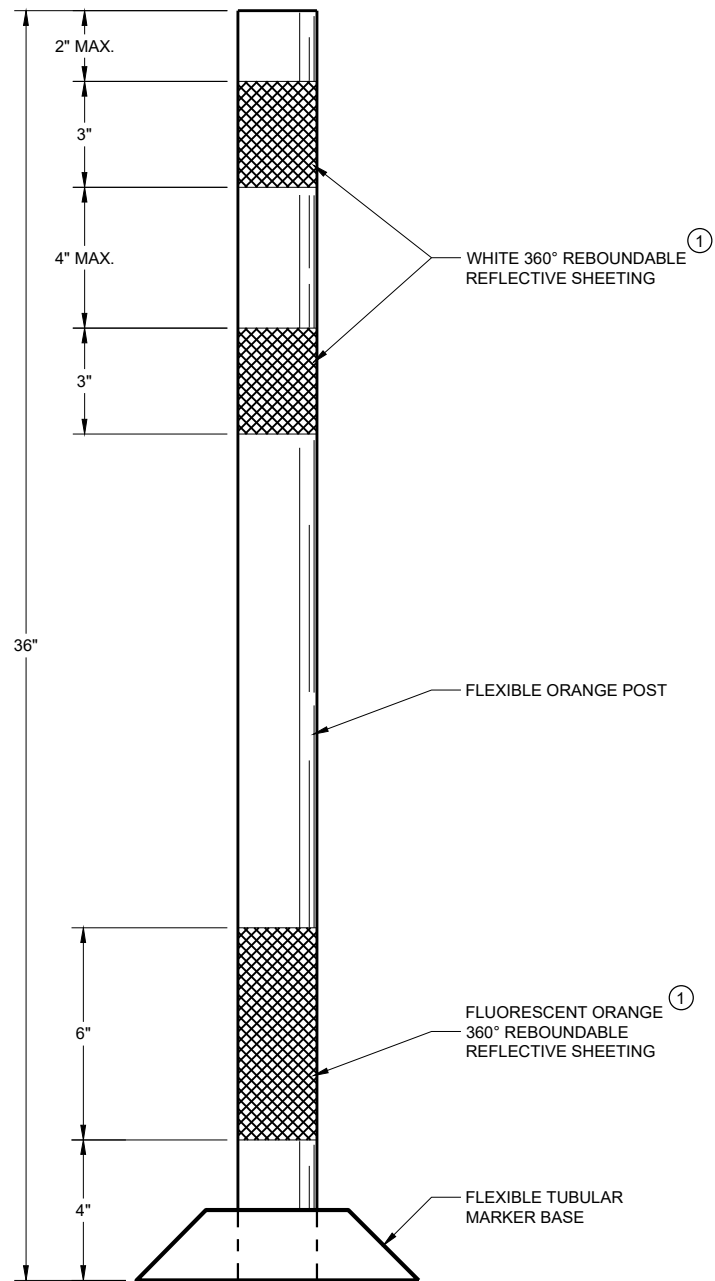
SDD 15C09-13a

**SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 DATE /S/ Matthew R. Rauch  
STATE SIGNING AND MARKING ENGINEER

FHWA



FLEXIBLE TUBULAR MARKER POST WORK ZONE

**GENERAL NOTES**

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

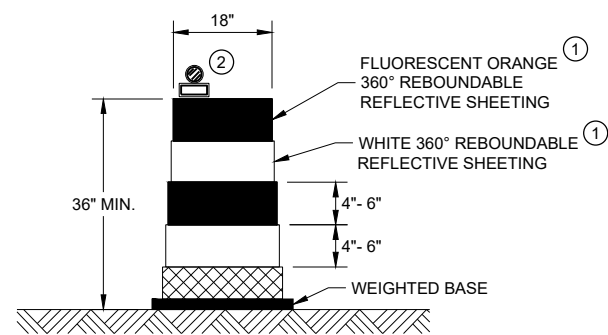
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

**CHANNELIZING DEVICES  
FLEXIBLE TUBULAR  
MARKER POST**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

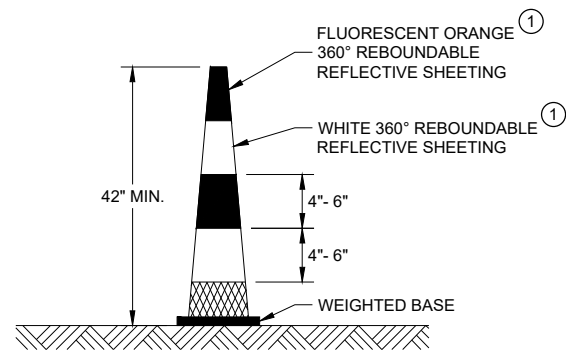
APPROVED  
November 2022 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA



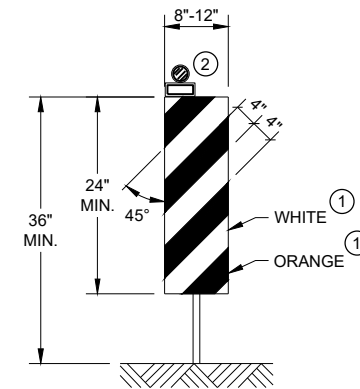
**DRUM**

BALLAST WIDTHS  
RANGE FROM 24"-36"



**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS  
BALLAST WIDTHS  
RANGE FROM 14"-20"

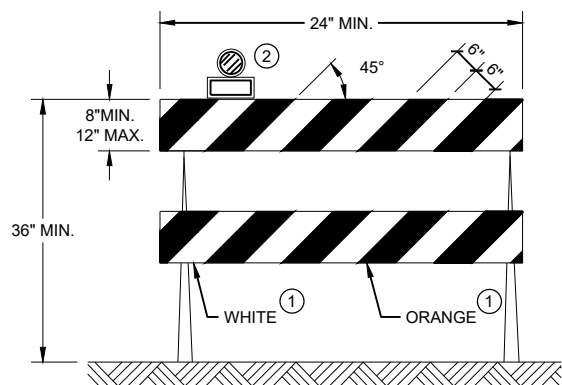


**VERTICAL PANEL**

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

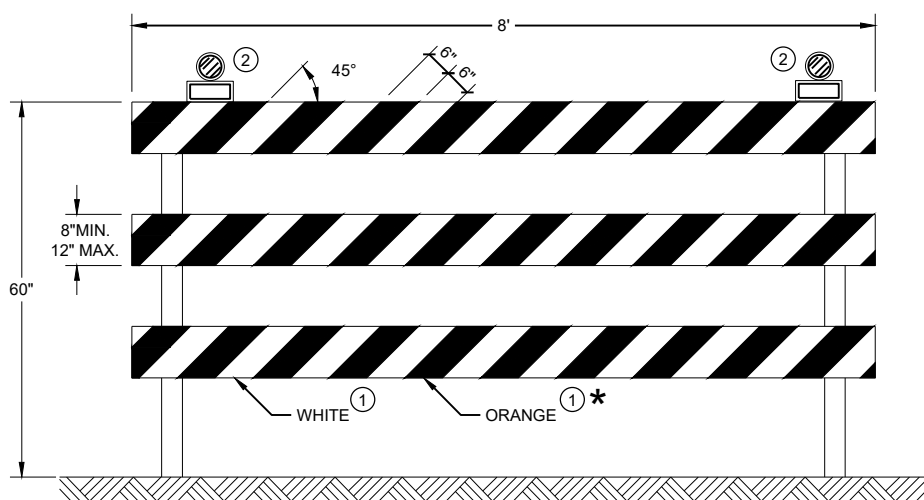
**GENERAL NOTES**

- 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 November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



**LEGEND**

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

**GENERAL NOTES**

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR 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.

**FLAGGING**

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

**TEMPORARY PORTABLE RUMBLE STRIPS**

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

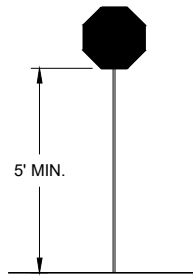
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



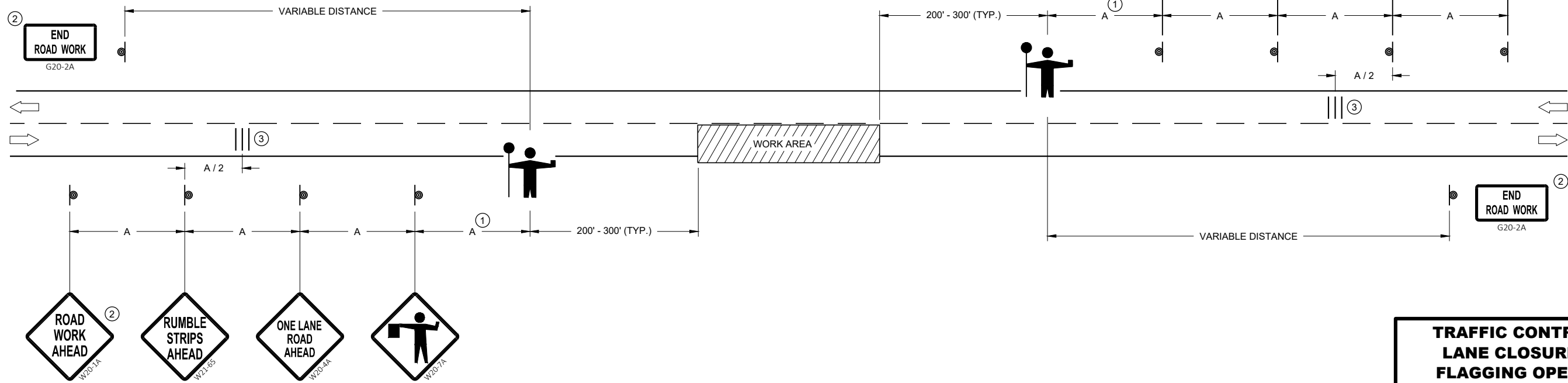
**STOP/SLOW PADDLE ON SUPPORT STAFF**

**SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE**

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".









**TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
DATE May 2022 /S/ Andrew Heidtke  
WORK ZONE ENGINEER

**GENERAL NOTES**

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL CONE 42-INCH
-  TRAFFIC CONTROL DRUM
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  **AFAD** AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

**GENERAL NOTES**

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR 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.

**FLAGGING**

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

**TEMPORARY PORTABLE RUMBLE STRIPS**

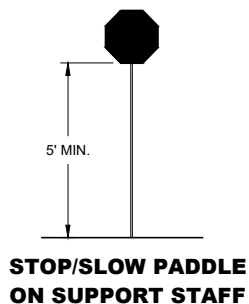
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

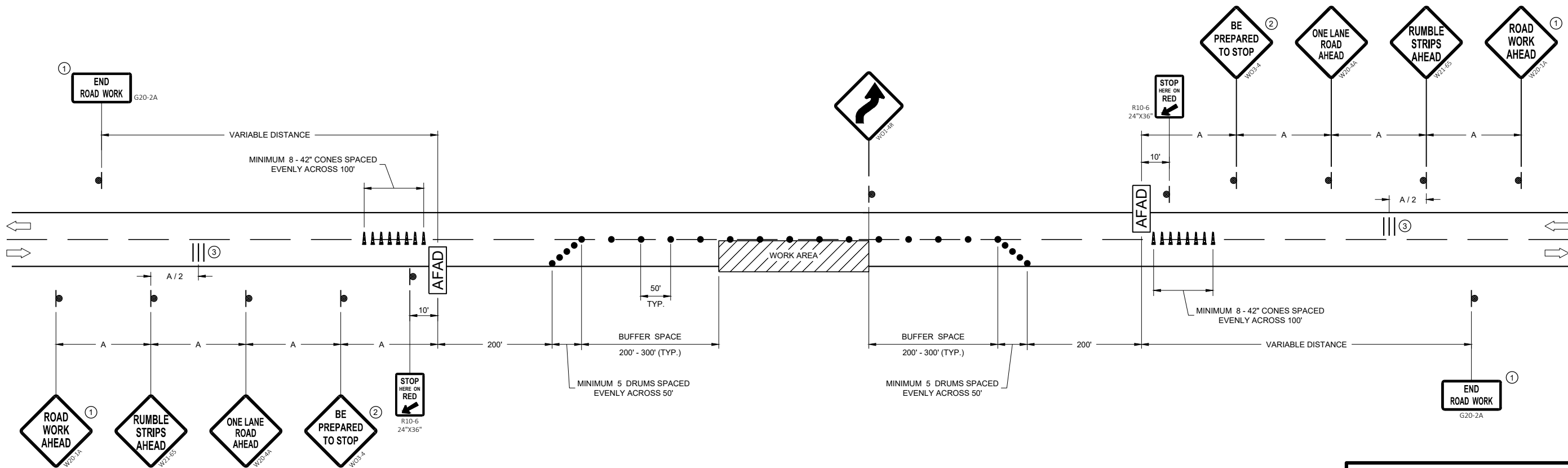
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



**SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE**

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'







**TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2022 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

**LEGEND**

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (CAUTION)

**GENERAL NOTES**

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

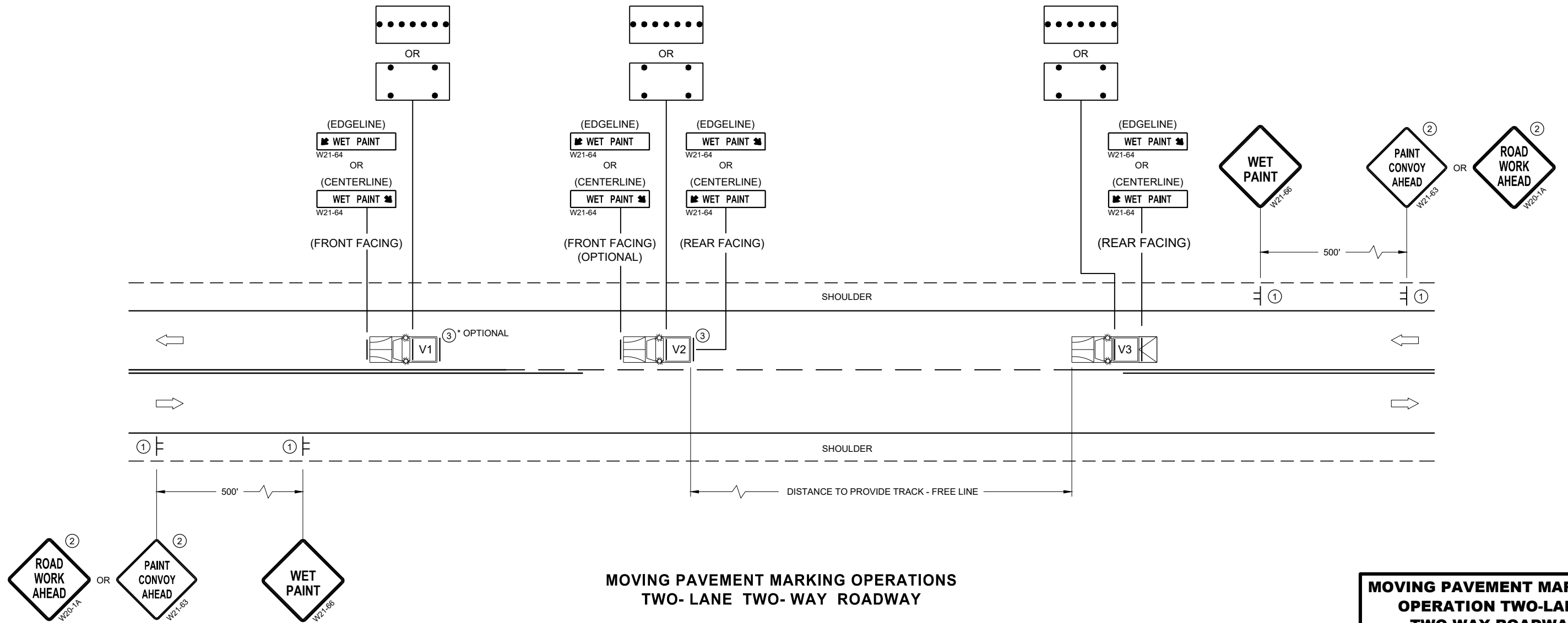
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

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



**MOVING PAVEMENT MARKING OPERATIONS  
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-08a

SDD 15C19-08a

<b>MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**LEGEND**

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (MERGE)
-  FLASHING ARROW PANEL (CAUTION)

**GENERAL NOTES**

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

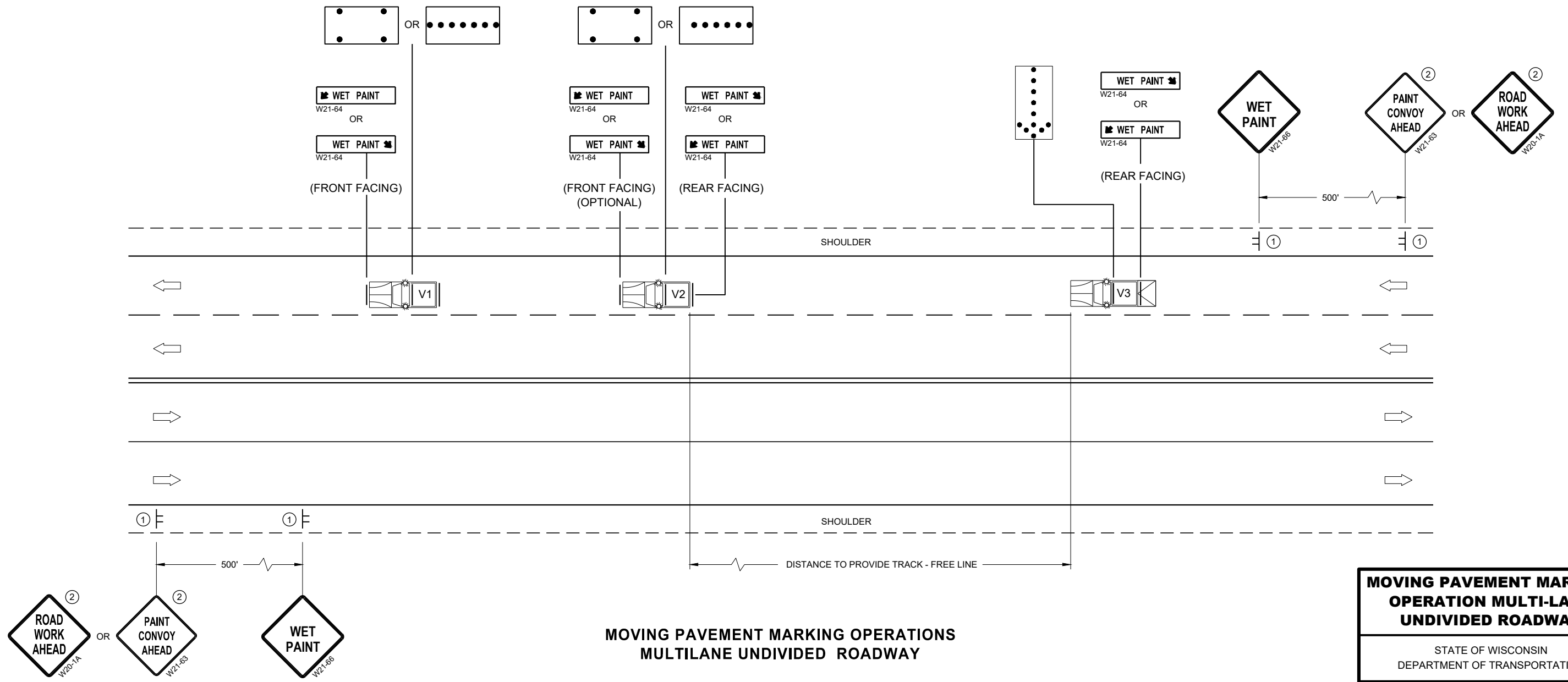
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

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SDD 15C19-08b

SDD 15C19-08b

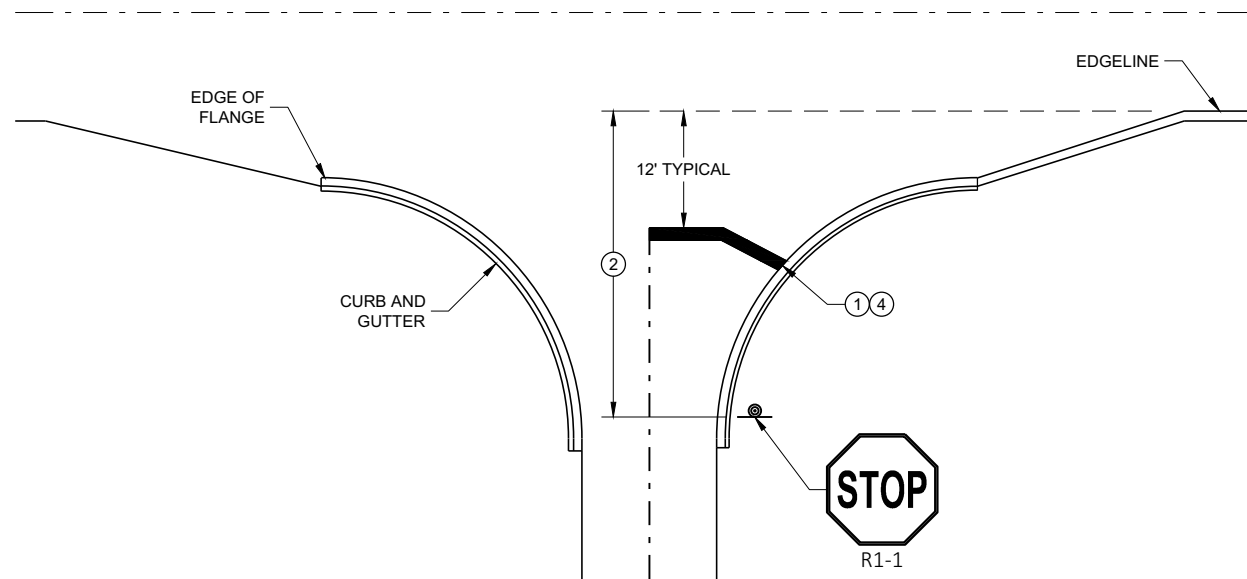
**MOVING PAVEMENT MARKING OPERATIONS  
MULTILANE UNDIVIDED ROADWAY**

<b>MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

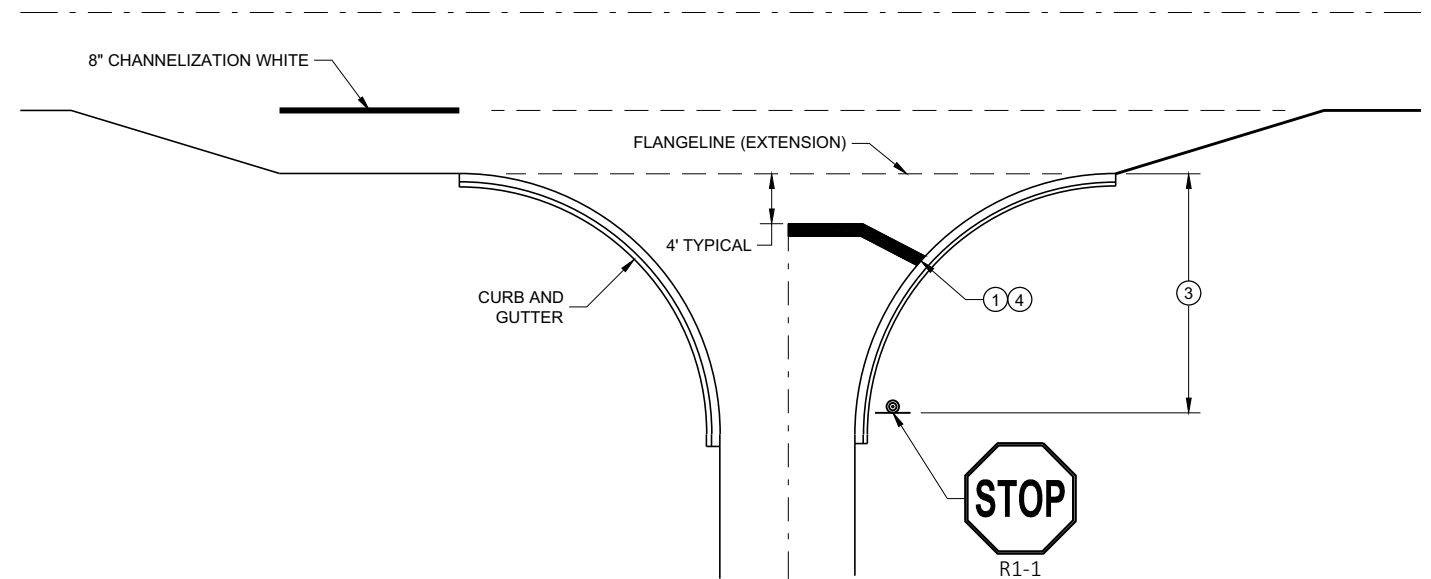
**GENERAL NOTES**

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

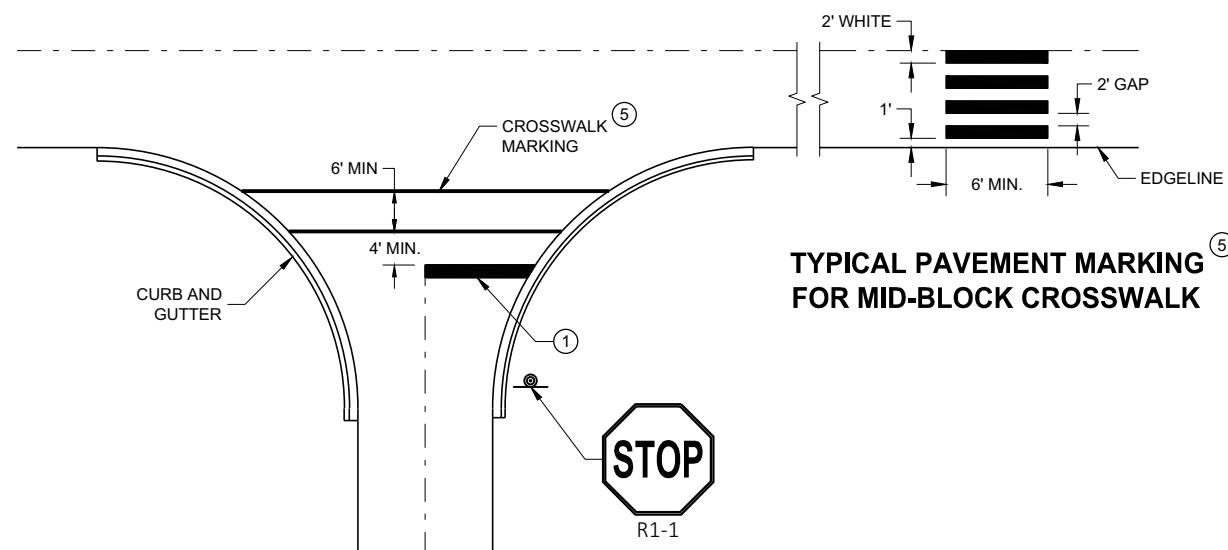
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



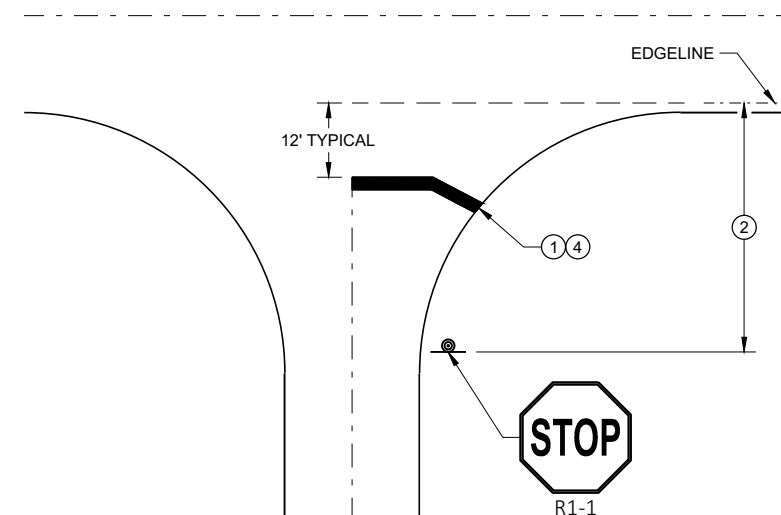
**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**



**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**



**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**

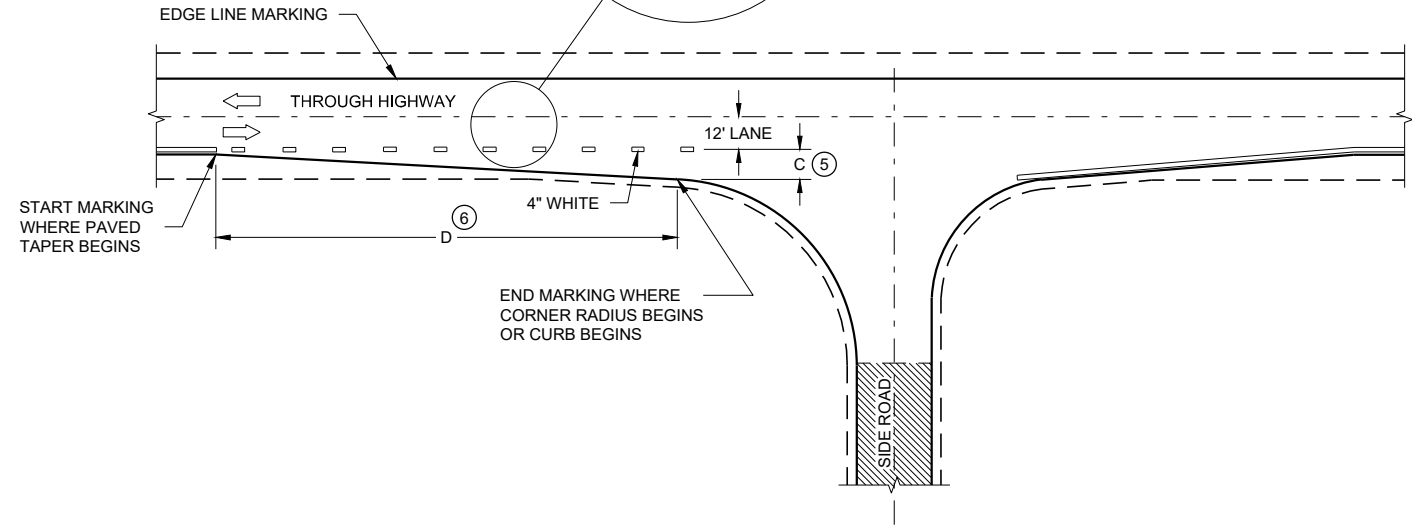
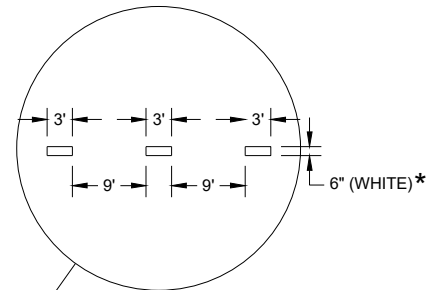


**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

**STOP LINE AND CROSSWALK PAVEMENT MARKING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2019 /S/ Matthew Rauch  
DATE STATE SIGNING AND MARKING ENGINEER  
FHWA



**MINOR INTERSECTION**

\* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

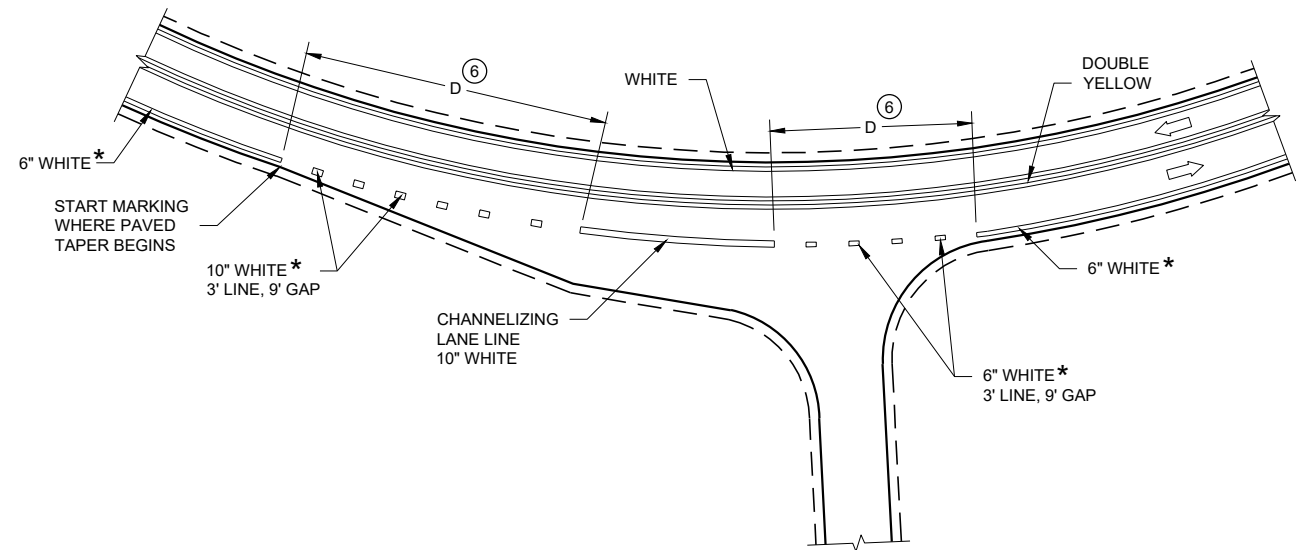
**GENERAL NOTES**

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

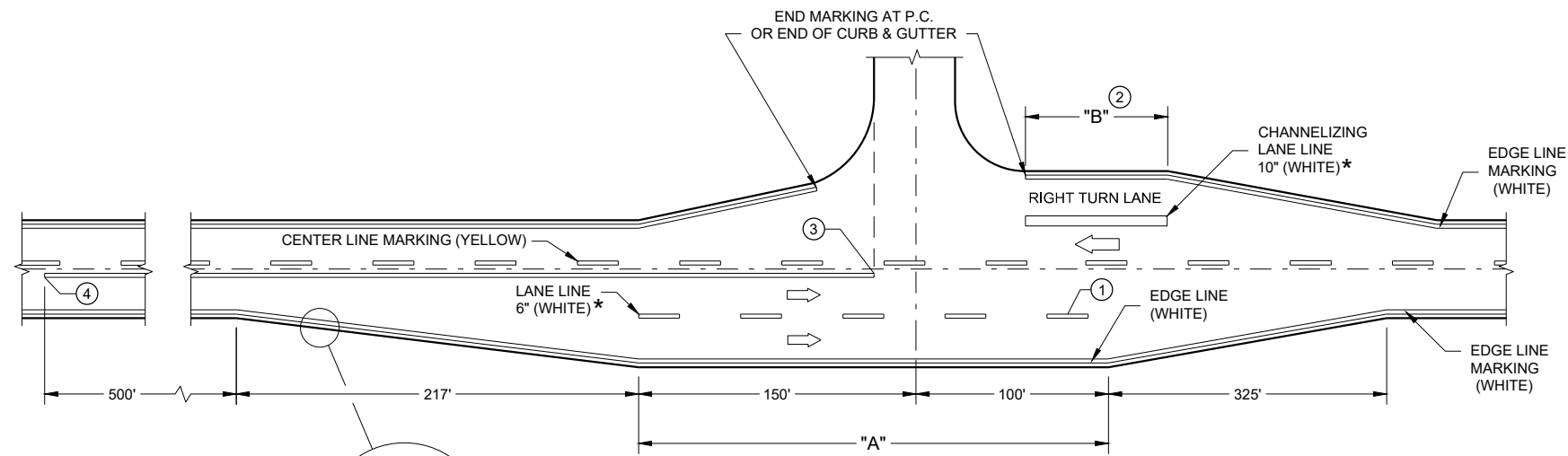
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

**LEGEND**

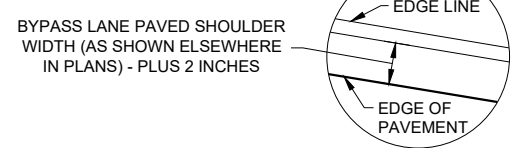
➡ DIRECTION OF TRAVEL



**INTERSECTION ON OUTSIDE OF CURVE**



**MAJOR INTERSECTIONS  
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**






**PAVEMENT MARKING  
(INTERSECTIONS)**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  DELINEATOR, FLEXIBLE/TUBULAR MARKER
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

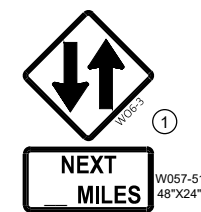
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

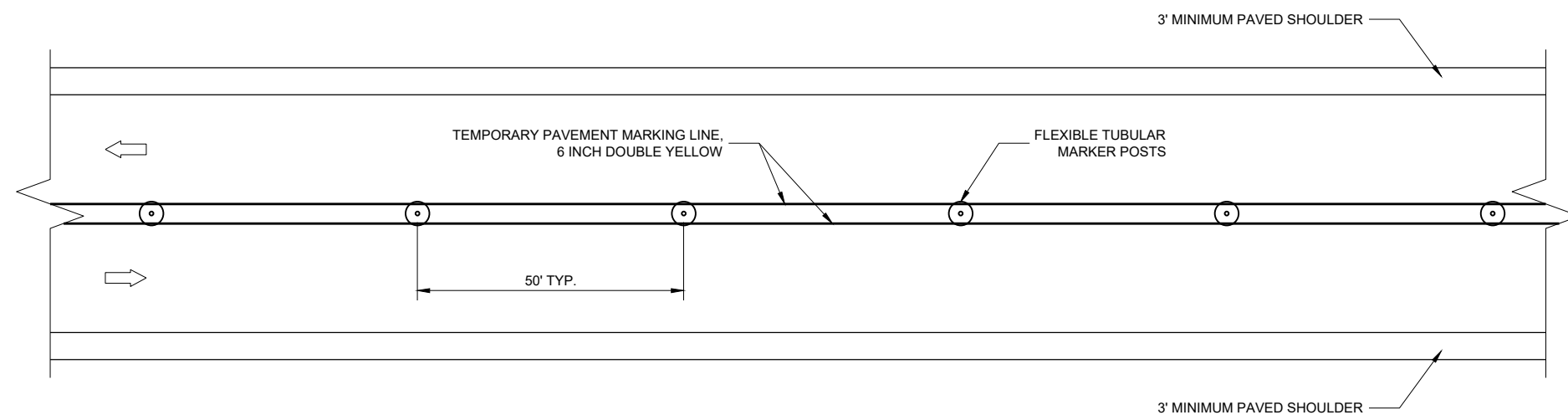
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50 FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW.



- ① THE W06-3 AND W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND / OR 500 FEET BEYOND ANY SIDE ROAD. THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN THE SIGNS.
- ② CONVENTIONAL: 24" X 30"  
 FREEWAY AND EXPRESSWAY: 36" X 48"



**TWO LANE, TWO WAY OPERATION**

6










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SDD 15D06-06

SDD 15D06-06

<b>TRAFFIC CONTROL TWO LANE TWO WAY OPERATION</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**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)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
-  WORK AREA

**GENERAL NOTES**

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

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

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 TEMPORARY SUPPORTS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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.

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

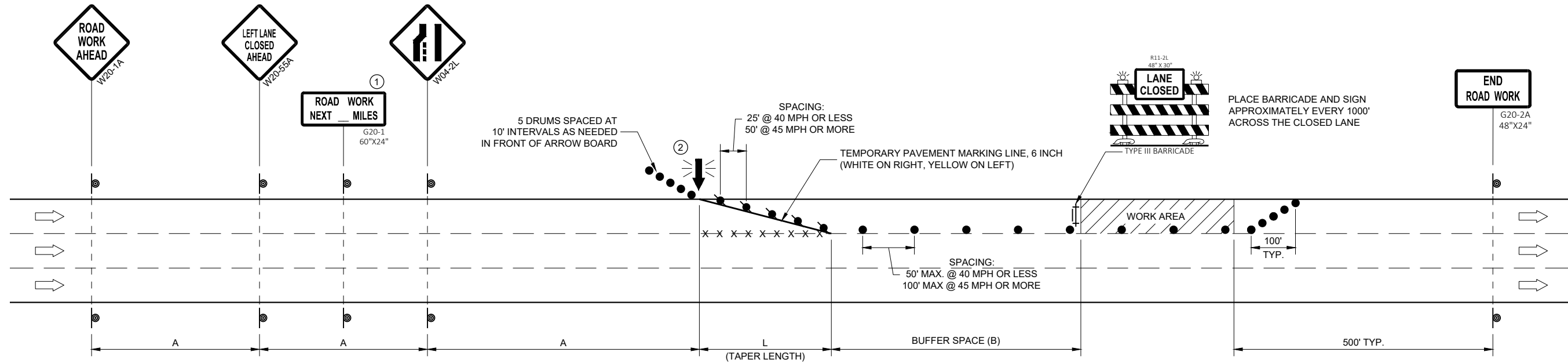
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

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

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

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

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'










**TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2023 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

**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)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
-  WORK AREA

**GENERAL NOTES**

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

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 REGIONAL TRAFFIC UNIT.

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

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

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 TEMPORARY SUPPORTS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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.

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

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

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

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

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

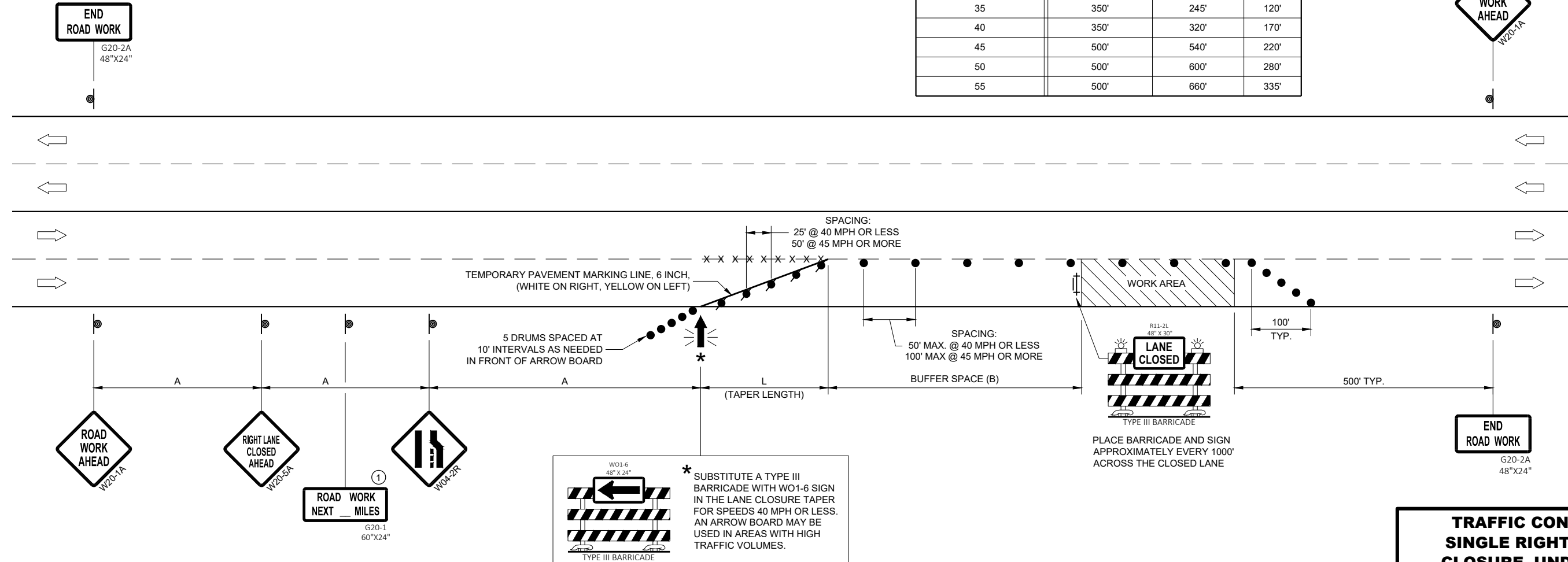
① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



6

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SDD 15D20-07b

SDD 15D20-07b

**TRAFFIC CONTROL,  
SINGLE RIGHT LANE  
CLOSURE, UNDIVIDED  
NON-FREEWAY/EXPRESSWAY**

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STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION










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APPROVED \_\_\_\_\_  
DATE May 2023 /S/ Andrew Heidtke  
WORK ZONE ENGINEER

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FHWA

**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)
-  FLASHING ARROW BOARD
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
-  WORK AREA

**GENERAL NOTES**

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

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 REGIONAL TRAFFIC UNIT.

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

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

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 TEMPORARY SUPPORTS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

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

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

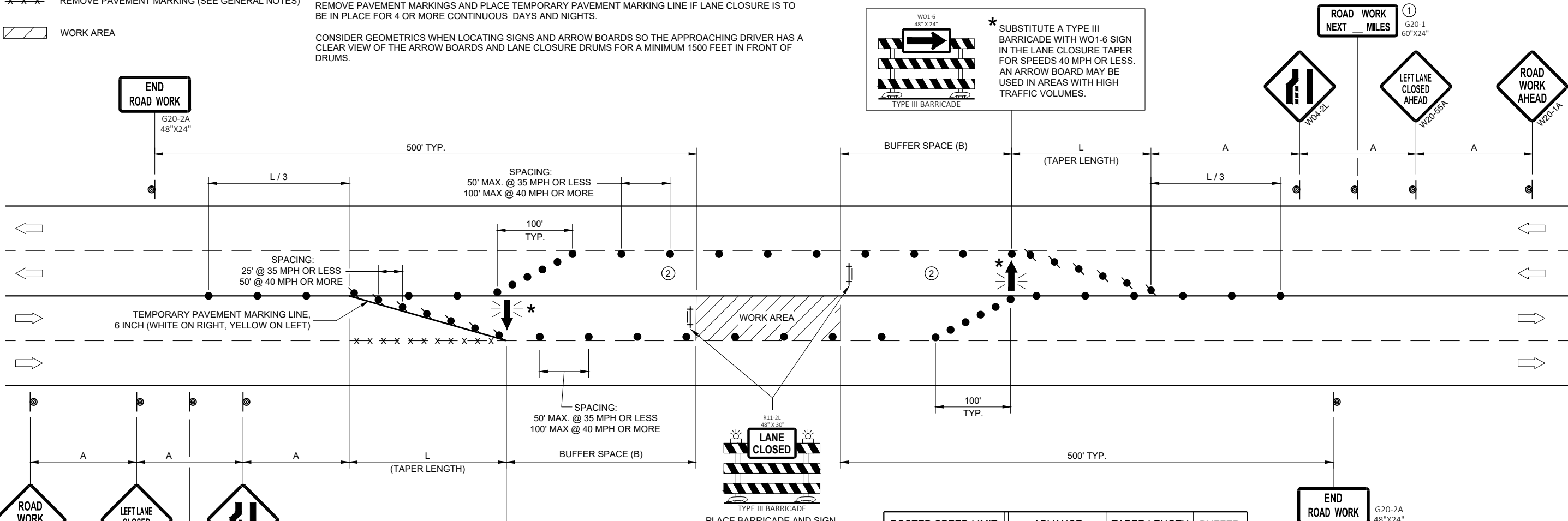
DUE TO LACK OF SHOULDER/MEDIAN, ARROW BOARD IS PLACED AT THE THE END OF THE TAPER.

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

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

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

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② LANE MAY BE OPENED WHEN WORKERS ARE NOT PRESENT IN THE WORK AREA.



**\* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.**

**\* SUBSTITUTE A TYPE III BARRICADE WITH WO1-6 SIGN IN THE LANE CLOSURE TAPER FOR SPEEDS 40 MPH OR LESS. AN ARROW BOARD MAY BE USED IN AREAS WITH HIGH TRAFFIC VOLUMES.**

PLACE BARRICADE AND SIGN APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'

**TRAFFIC CONTROL, SINGLE LEFT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

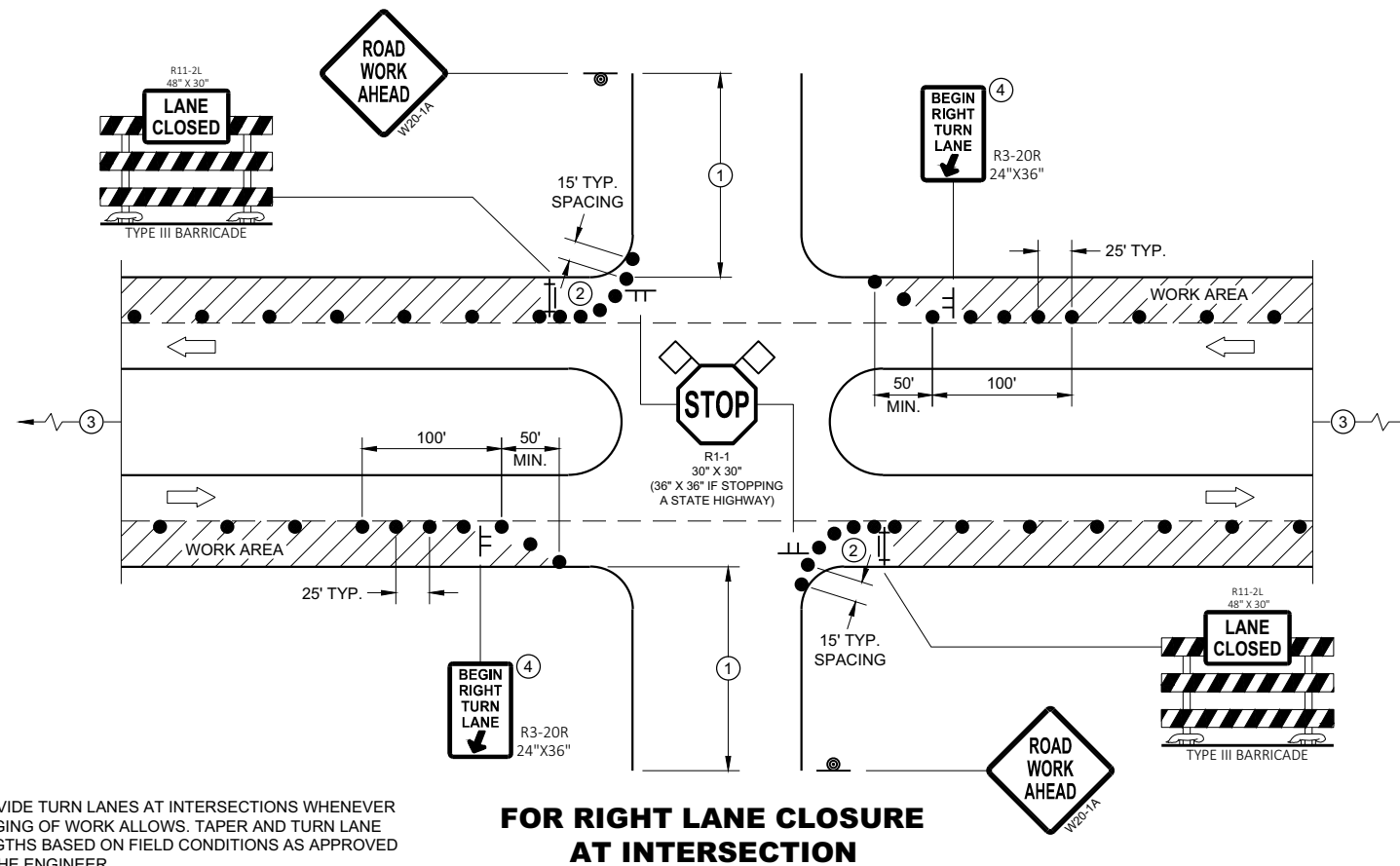
APPROVED  
DATE: May 2023 /S/ Andrew Heidtke  
WORK ZONE ENGINEER

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SDD 15D20-07C

SDD 15D20-07C



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

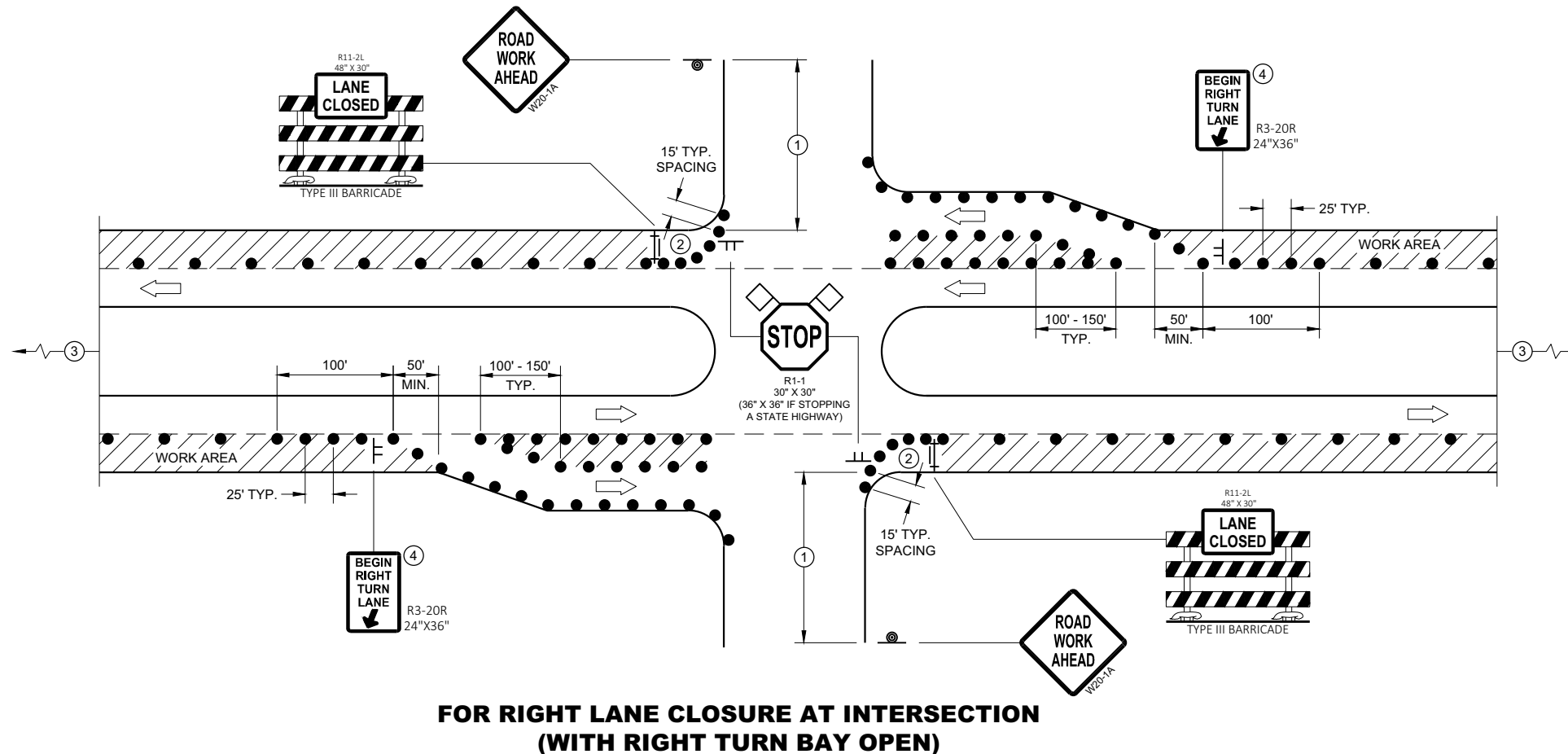
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.  
350' IF 35 - 40 MPH.  
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

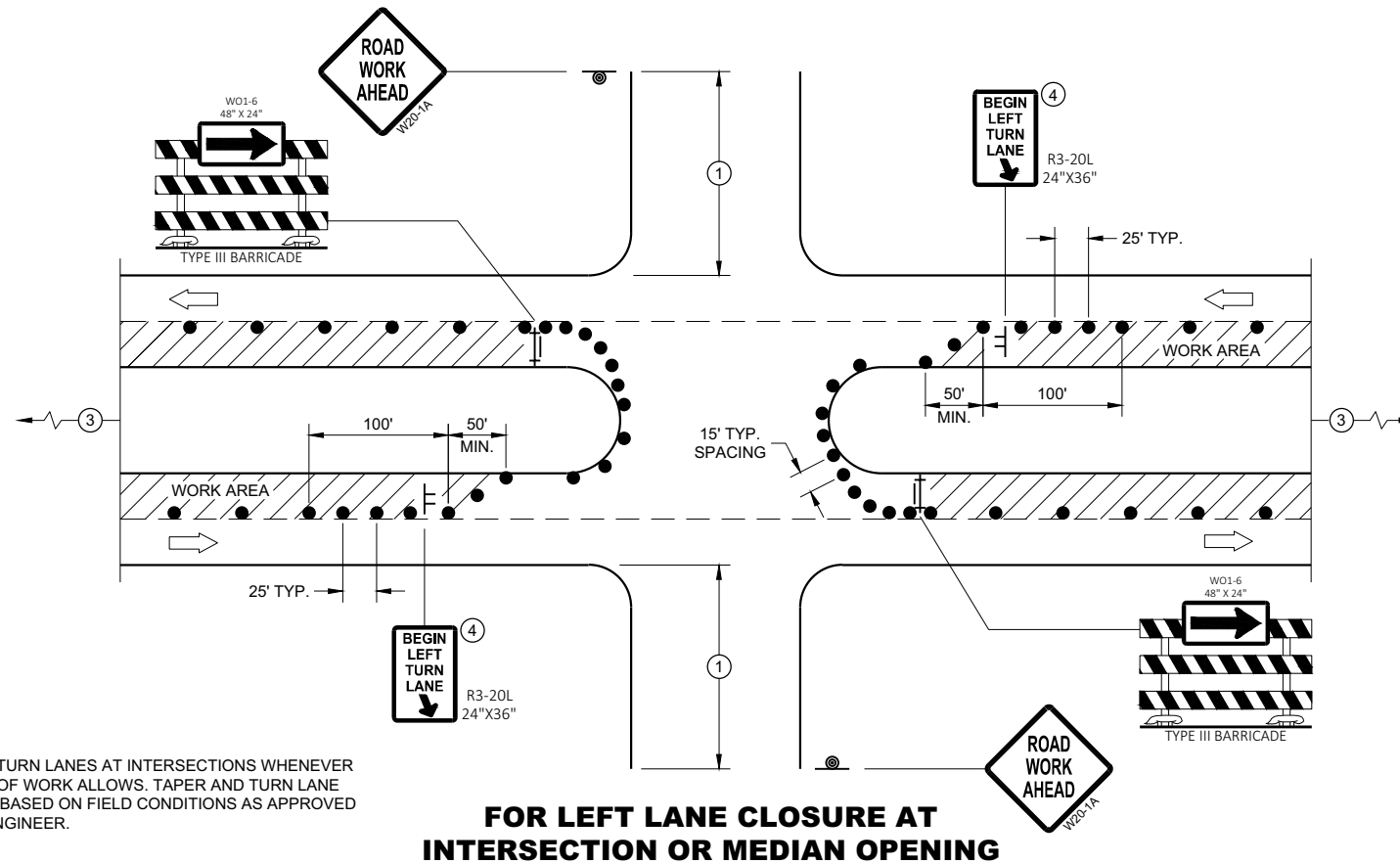


**LEGEND**

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**TRAFFIC CONTROL,  
INTERSECTION WITHIN SINGLE  
RIGHT LANE CLOSURE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

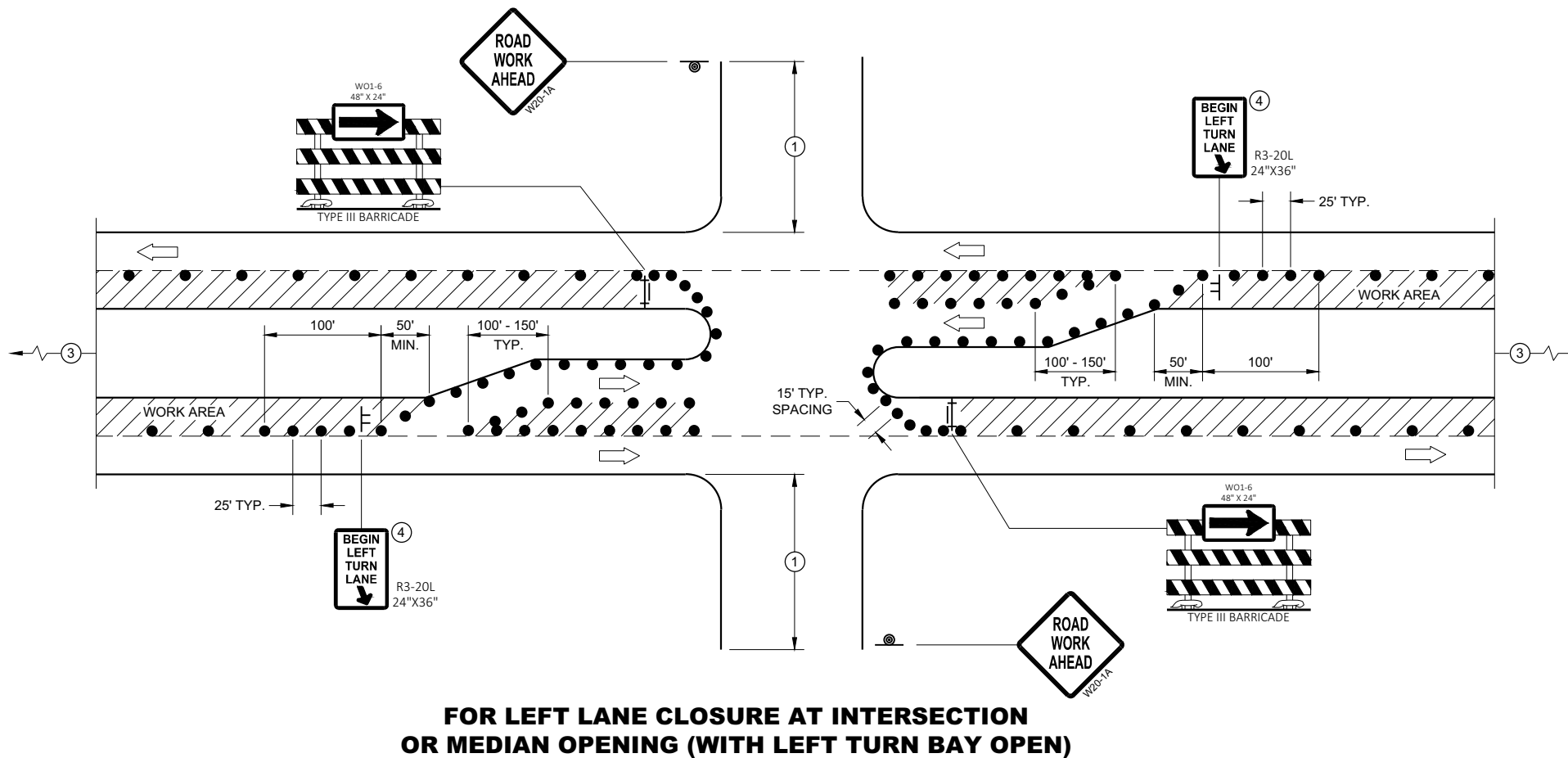
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.  
350' IF 35 - 40 MPH.  
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



**LEGEND**

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**TRAFFIC CONTROL,  
INTERSECTION WITHIN SINGLE  
LEFT LANE CLOSURE**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
August 2020 /S/ Andrew Heidtke  
DATE 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.

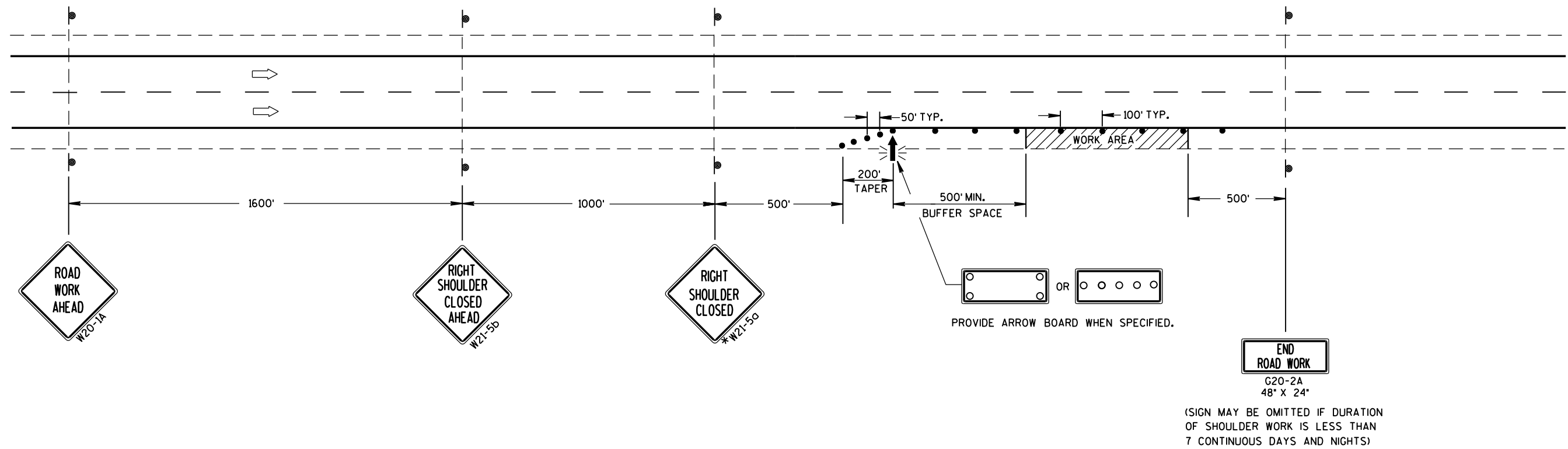
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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**

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

**GENERAL NOTES**

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 THE REGIONAL TRAFFIC UNIT.

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

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

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

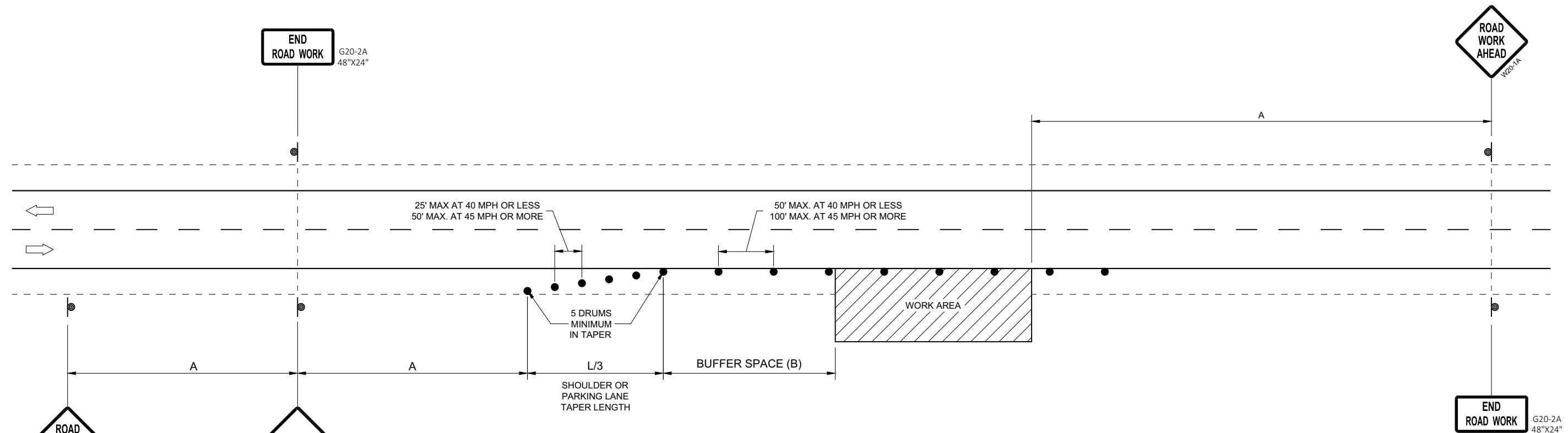
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



OR  
IF TRAFFIC CONTROL DEVICES  
ENCROACH ONTO TRAVELED WAY, USE

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

**TRAFFIC CONTROL, WORK ON  
SHOULDER OR PARKING LANE,  
UNDIVIDED ROADWAY**

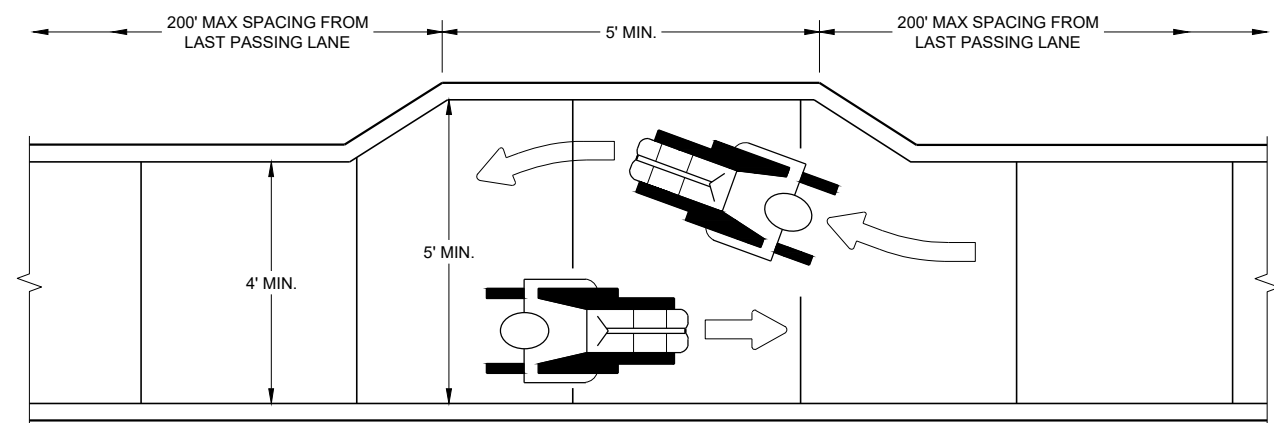
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
May 2020 /S/ Andrew Heidtke  
DATE STATEWIDE WORK ZONE TRAFFIC  
SAFETY ENGINEER

FHWA

SDD 15D28 - 04

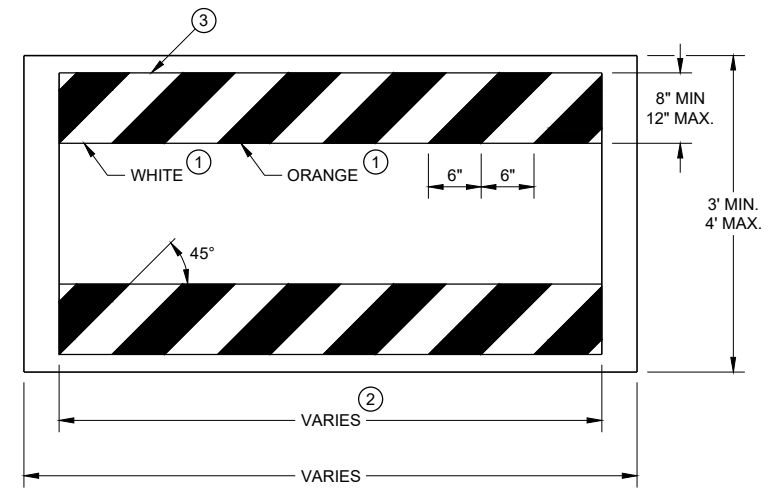
SDD 15D28 - 04



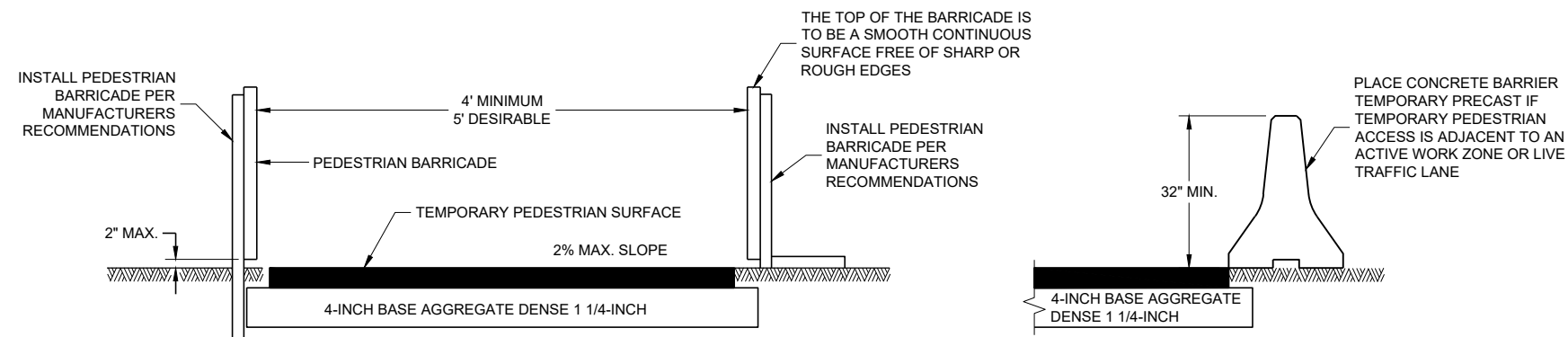
**NARROW SIDEWALK PASSING DETAIL**

**GENERAL NOTES**

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- \* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



**TEMPORARY PEDESTRIAN BARRICADE\***

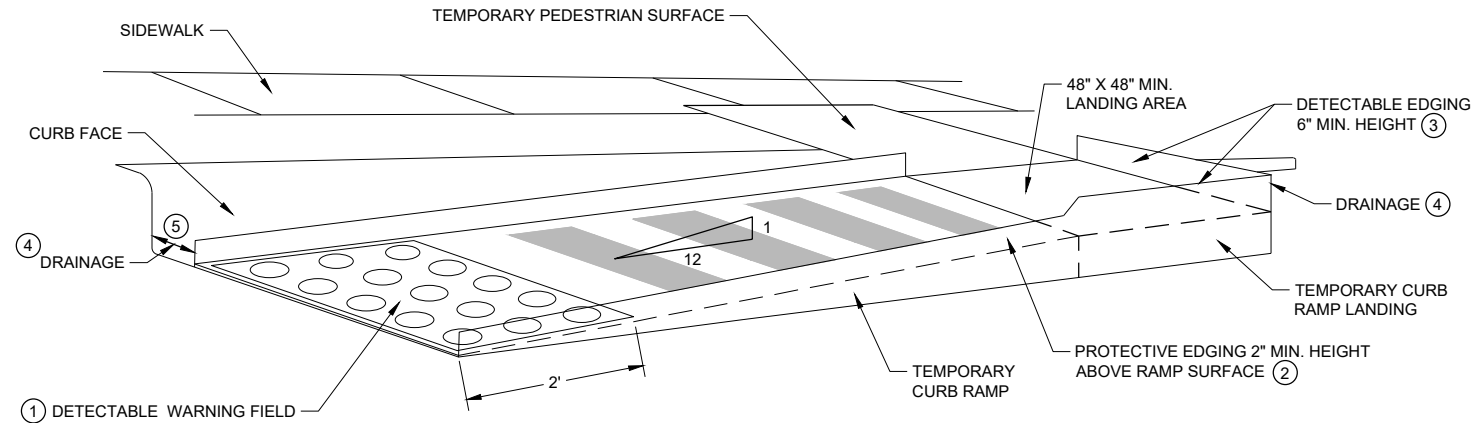


**TEMPORARY PEDESTRIAN ACCESS**

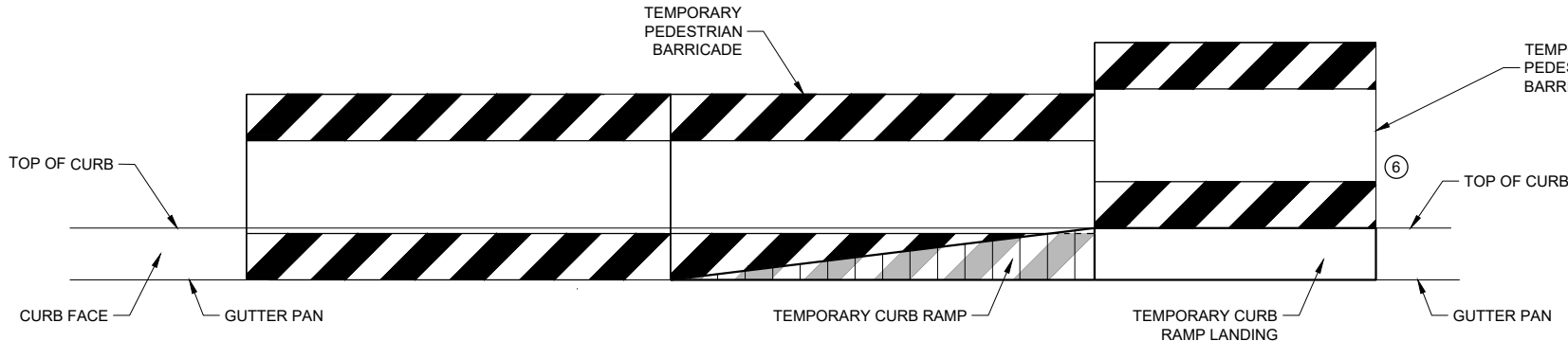
**GENERAL NOTES**

CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.  
 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.  
 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.  
 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.  
 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

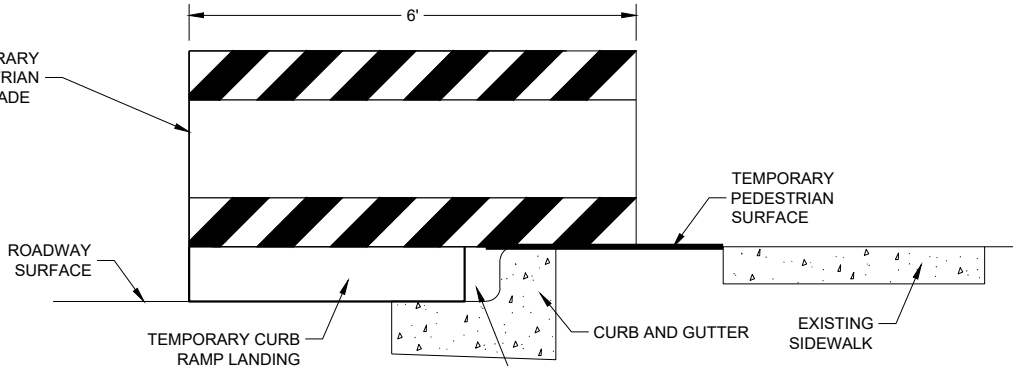
- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



**PERSPECTIVE VIEW**



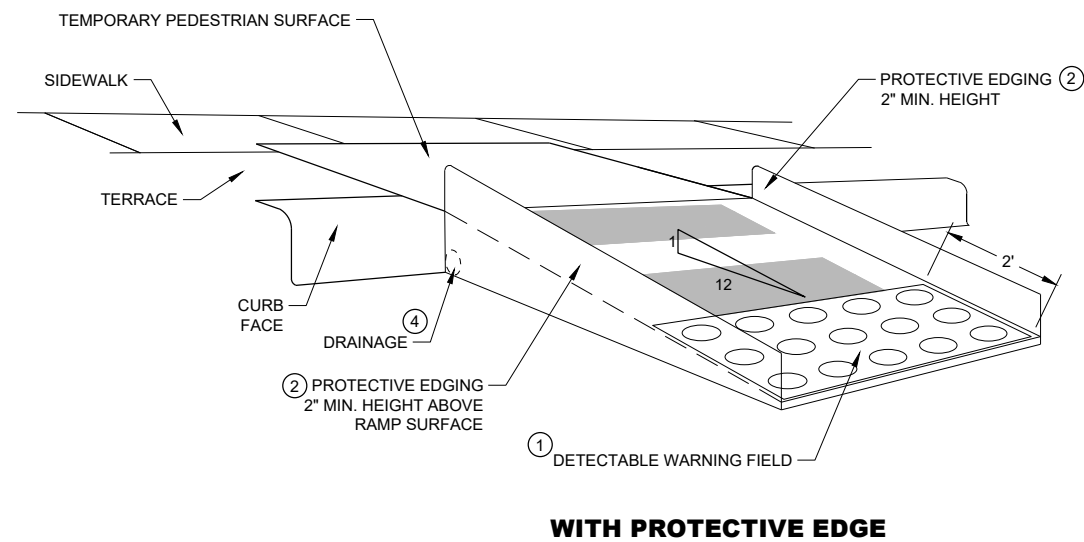
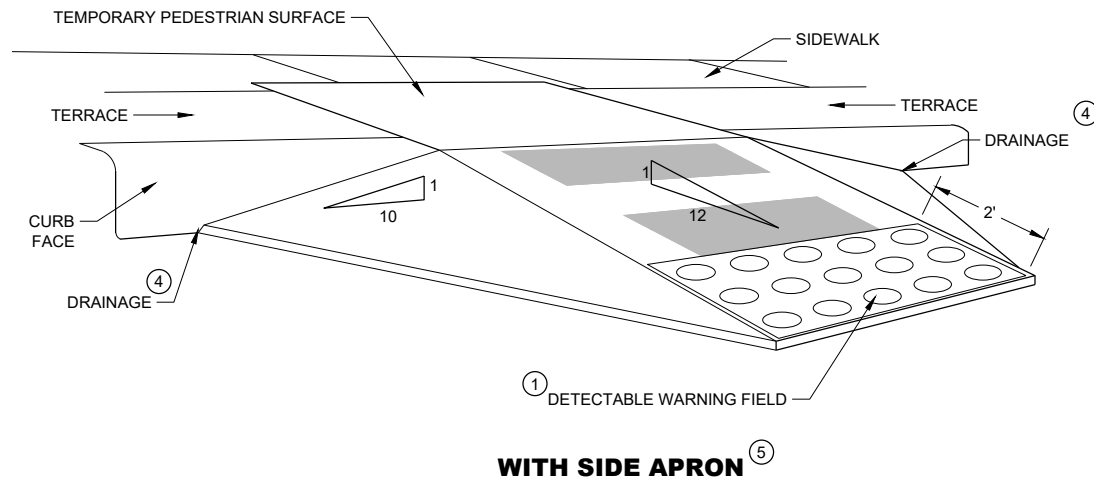
**FRONT VIEW**



**SIDE VIEW**

**TEMPORARY CURB RAMP PARALLEL TO CURB**

<p><b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b></p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



**TEMPORARY CURB RAMP PERPENDICULAR TO CURB**

**GENERAL NOTES**

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

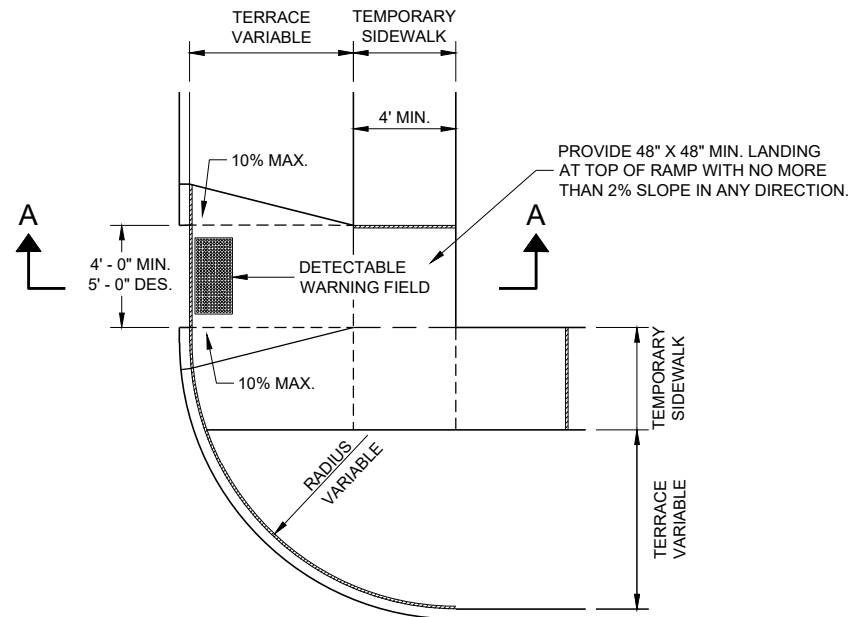
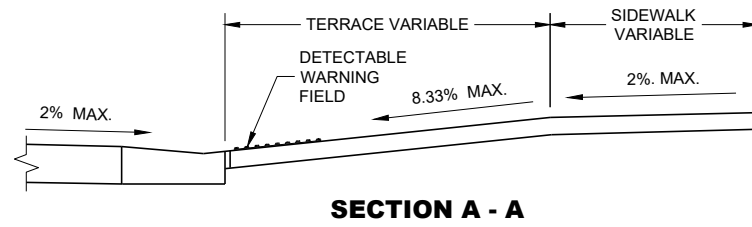
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

**GENERAL NOTES**

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.



**PLAN VIEW**  
**TEMPORARY TYPE 3 RAMP**  
 (OUTSIDE OF CROSSWALK AREA)

6

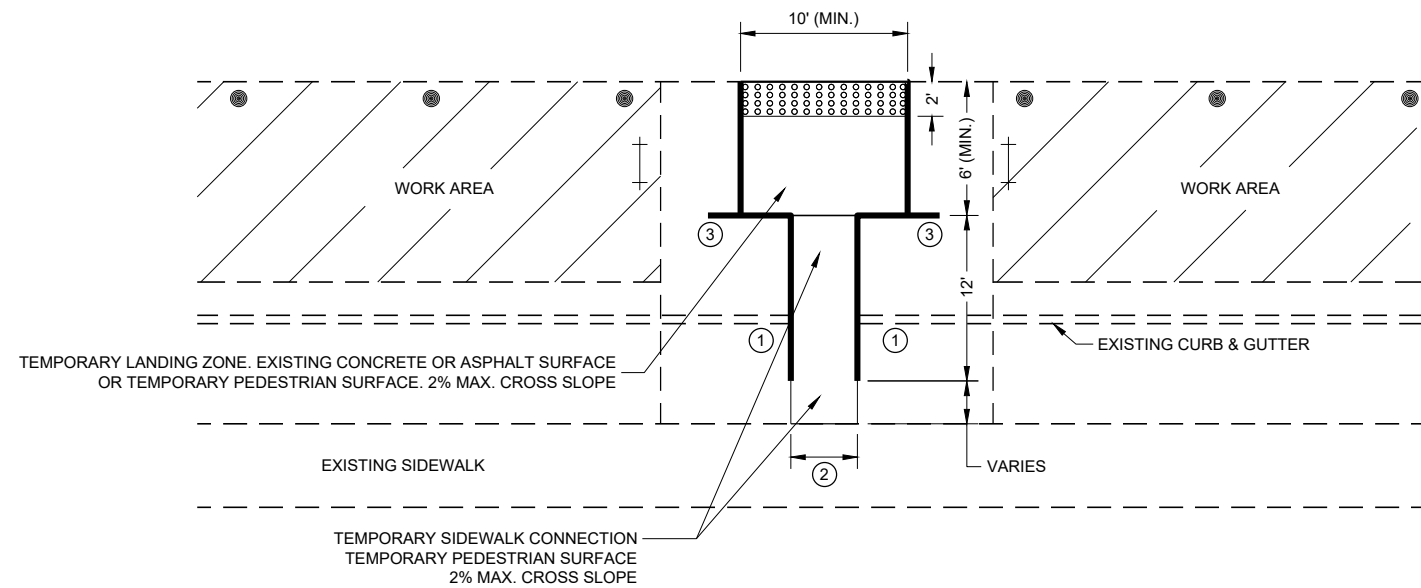
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SDD 15D30-09d

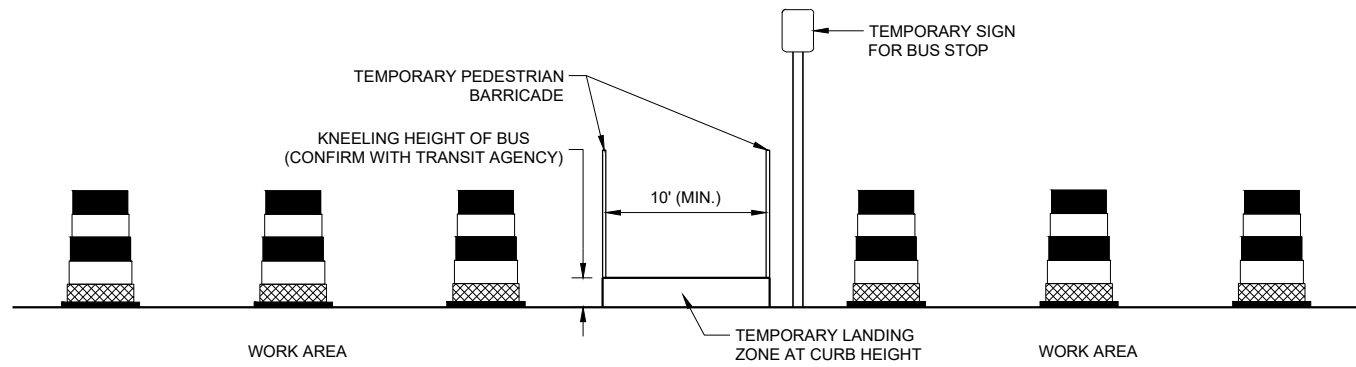
SDD 15D30-09d

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	





PLAN VIEW



PROFILE VIEW  
TEMPORARY BUS STOP PAD

**GENERAL NOTES**

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMP OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

**LEGEND**







- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

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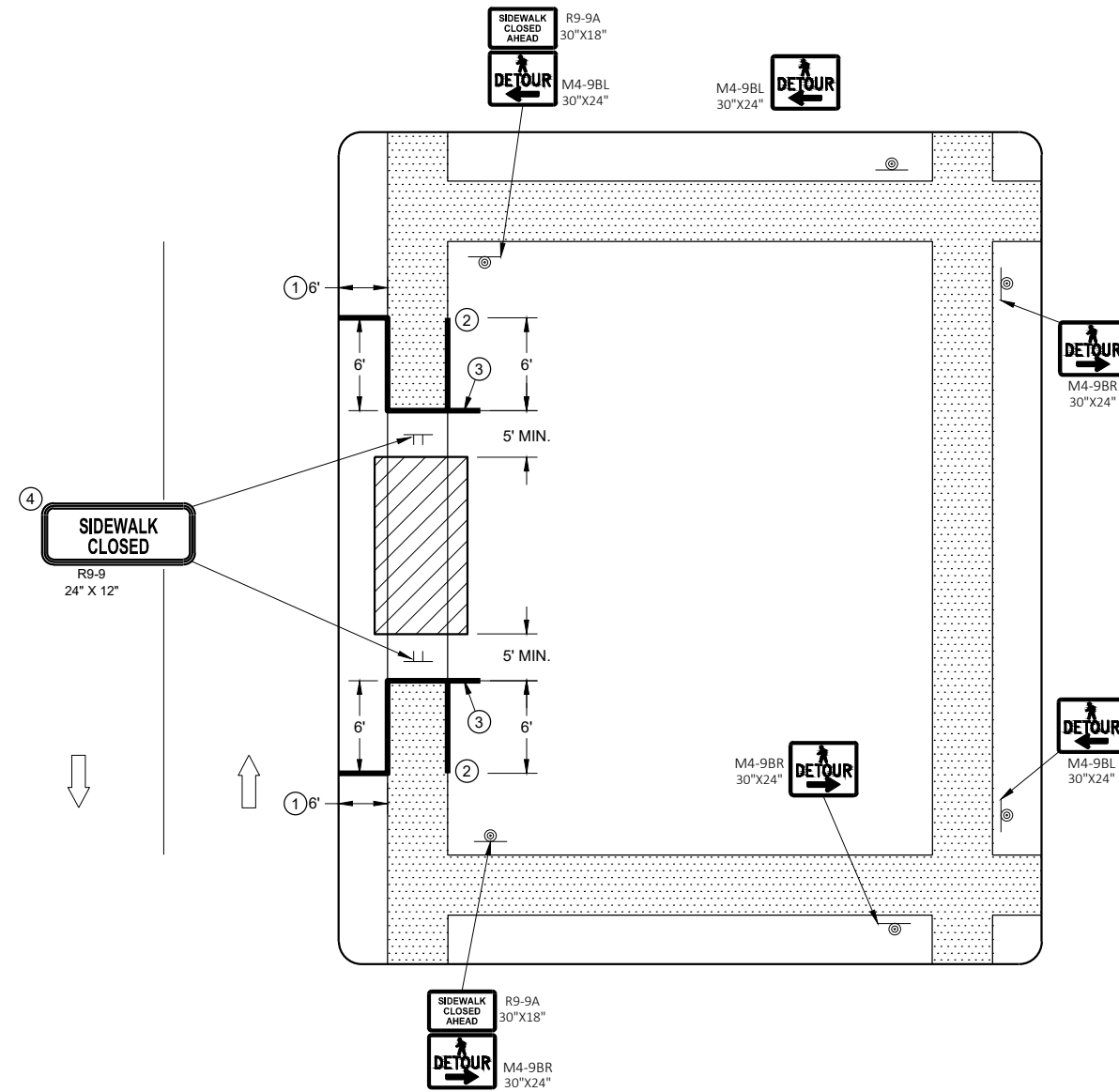
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**








- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
  - ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
  - ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
  - ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



**SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE**

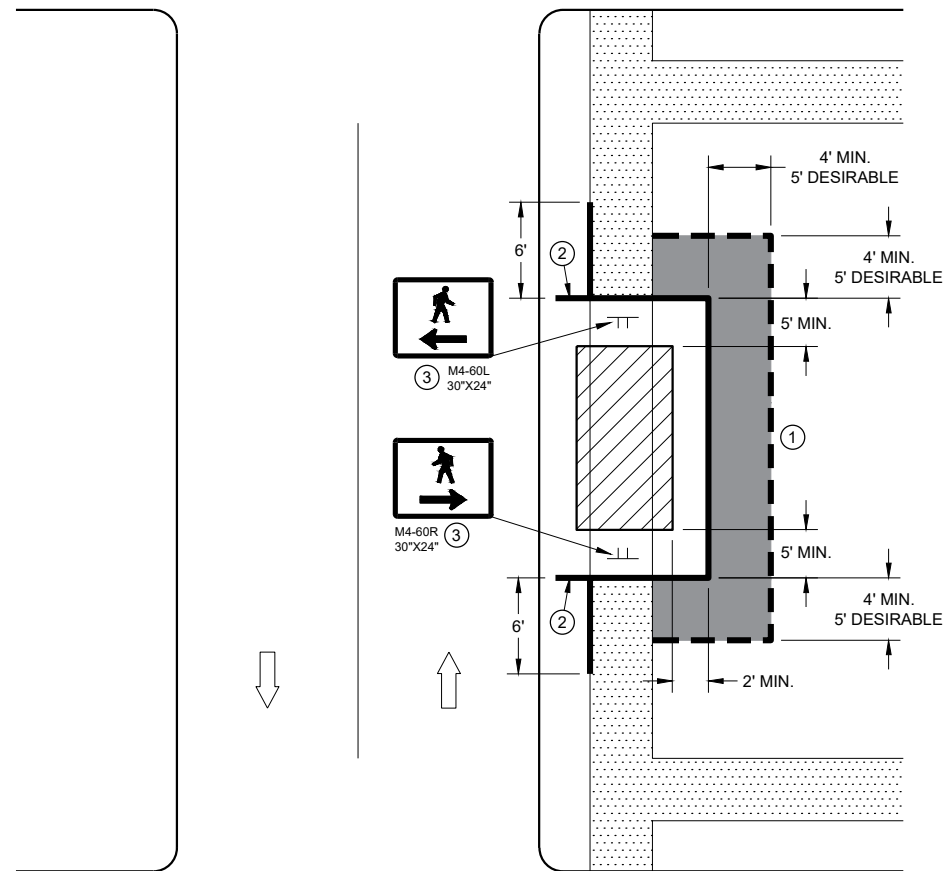
<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

**LEGEND**

-  SIGN ON TEMPORARY SUPPORT
-  WORK AREA
-  UNDER PEDESTRIAN TRAFFIC
-  TEMPORARY PEDESTRIAN SURFACE
-  TEMPORARY PEDESTRIAN BARRICADE
-  OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC










**GENERAL NOTES**

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ① USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ② IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



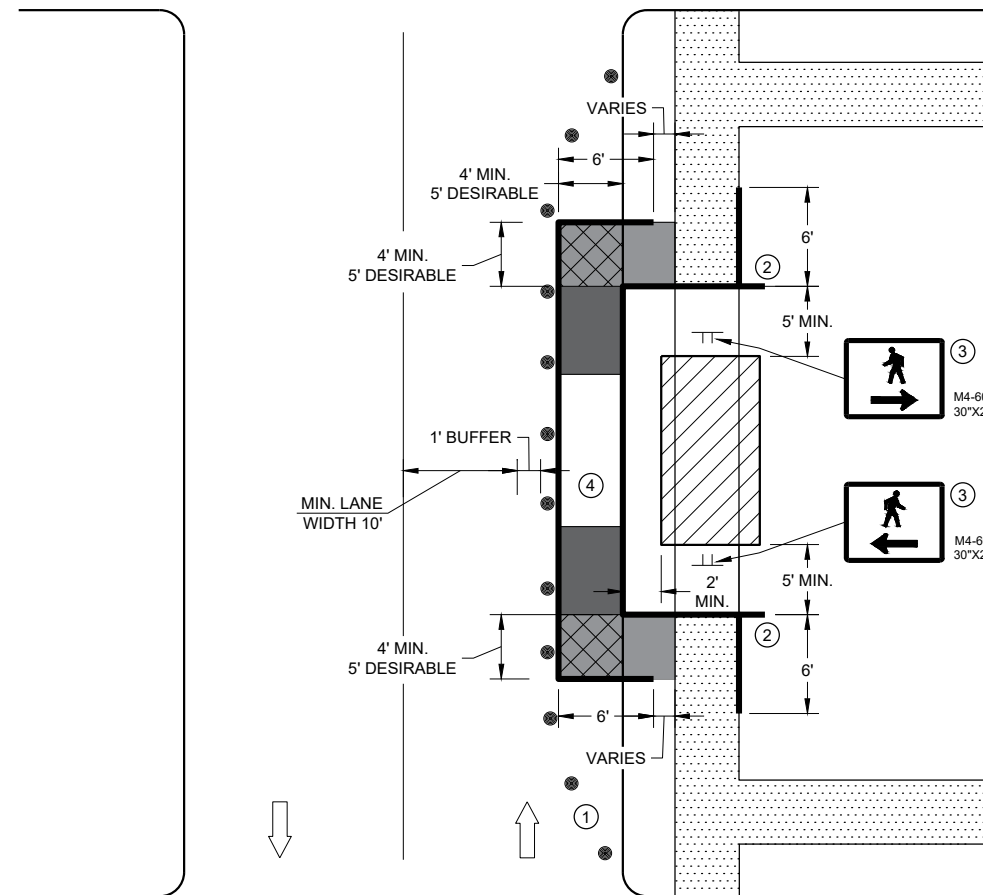
**SIDEWALK DIVERSION  
SINGLE SIDE**

**LEGEND**

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  UNDER PEDESTRIAN TRAFFIC
-  TEMPORARY CURB RAMP
-  TEMPORARY PEDESTRIAN SURFACE "A"
-  TEMPORARY PEDESTRIAN SURFACE "B"
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
  - ② PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
  - ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
  - ④ USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE.



**SIDEWALK DIVERSION, SINGLE SIDE**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

6

SDD 15D30 - 09h

SDD 15D30 - 09h

### GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.











SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

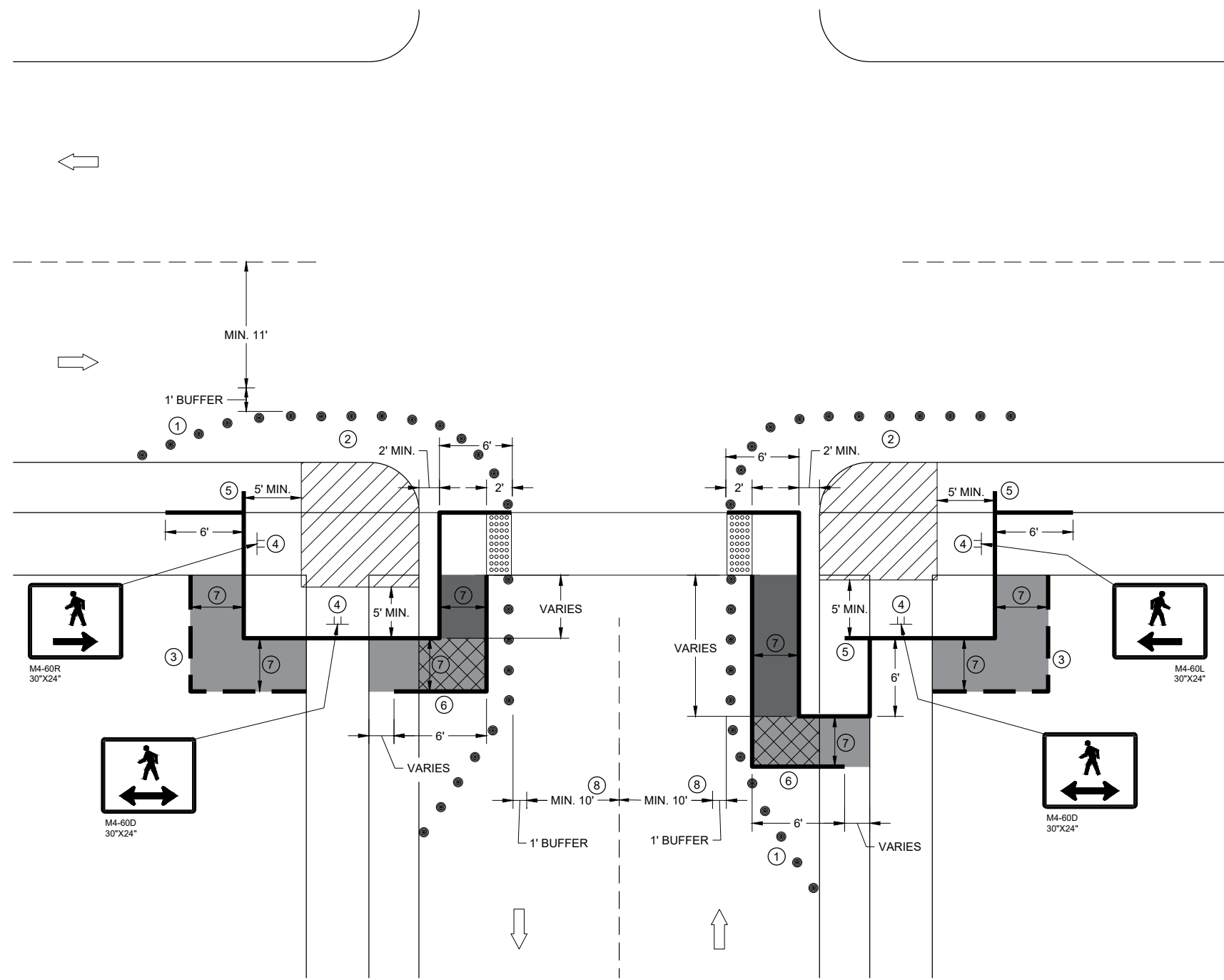
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑦ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑧ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

### LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  TEMPORARY CURB RAMP
-  TEMPORARY PEDESTRIAN SURFACE "A"
-  TEMPORARY PEDESTRIAN SURFACE "B"
-  TEMPORARY DETECTABLE WARNING FIELD
-  TEMPORARY PEDESTRIAN BARRICADE
-  OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC



**CURB RAMP PEDESTRIAN TRAFFIC CONTROL  
SIDEWALK ON SINGLE SIDE**

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.











SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

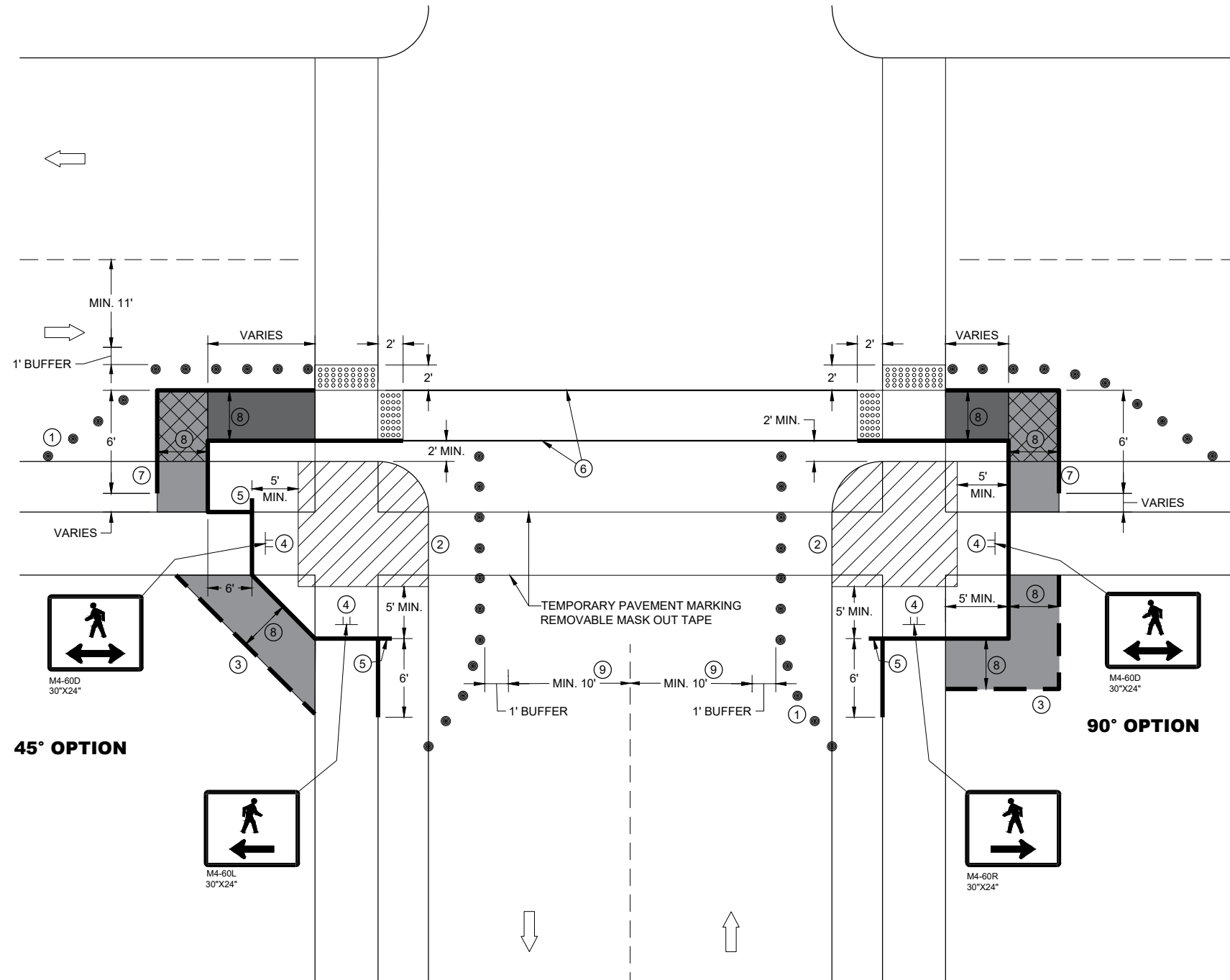
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- ③ USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ④ MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- ⑤ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- ⑥ WHITE 6" TEMPORARY PAVEMENT MARKING
- ⑦ IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- ⑧ 4 FEET MINIMUM, 5 FEET DESIRABLE
- ⑨ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

**LEGEND**

-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  TEMPORARY CURB RAMP
-  TEMPORARY PEDESTRIAN SURFACE "A"
-  TEMPORARY PEDESTRIAN SURFACE "B"
-  TEMPORARY DETECTABLE WARNING FIELD
-  TEMPORARY PEDESTRIAN BARRICADE
-  OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC









**CURB RAMP PEDESTRIAN TRAFFIC CONTROL**

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

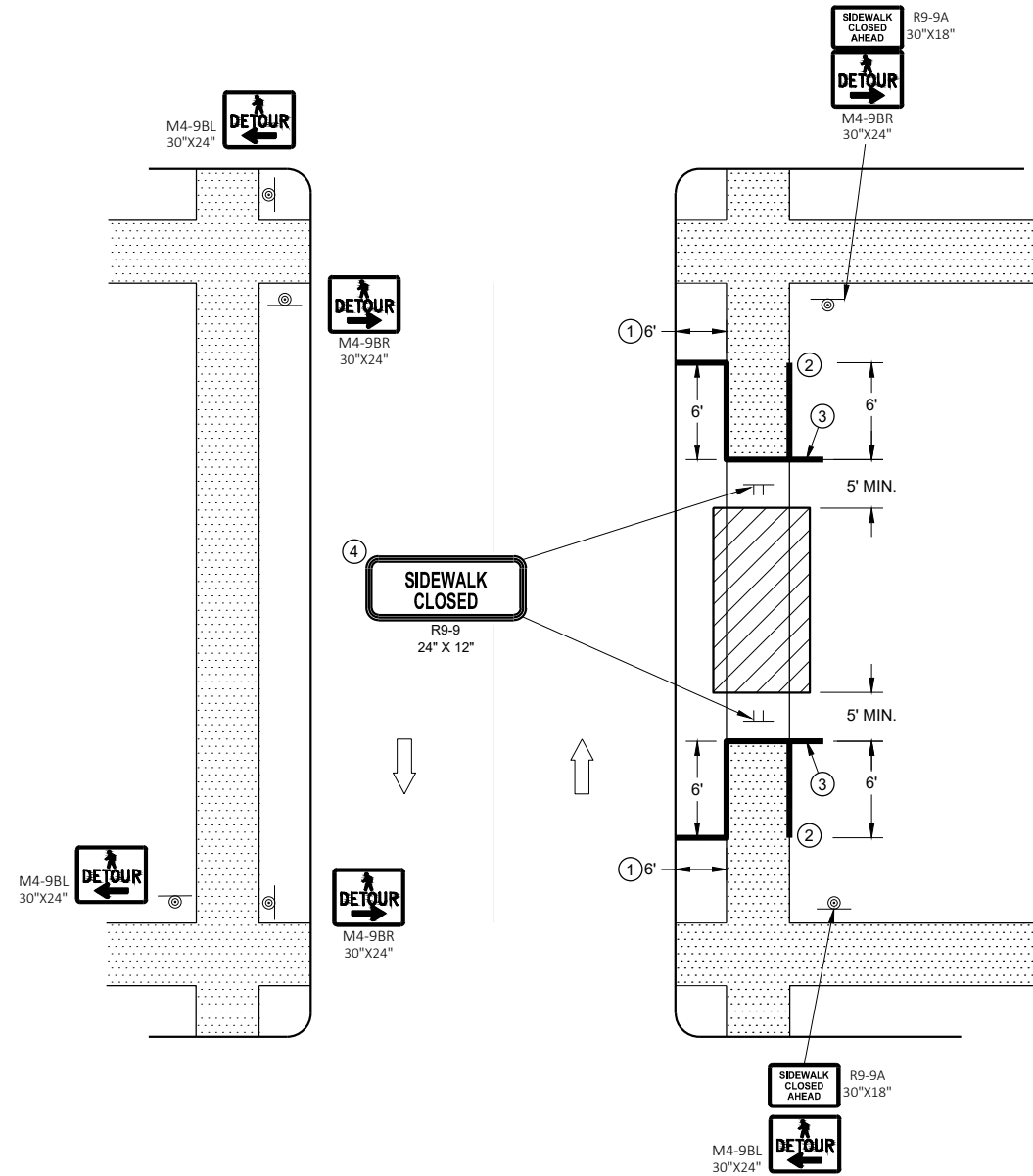


**LEGEND**

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC

**GENERAL NOTES**

- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.
- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
  - ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
  - ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
  - ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



**SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES**




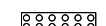



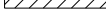

<b>TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION</b>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

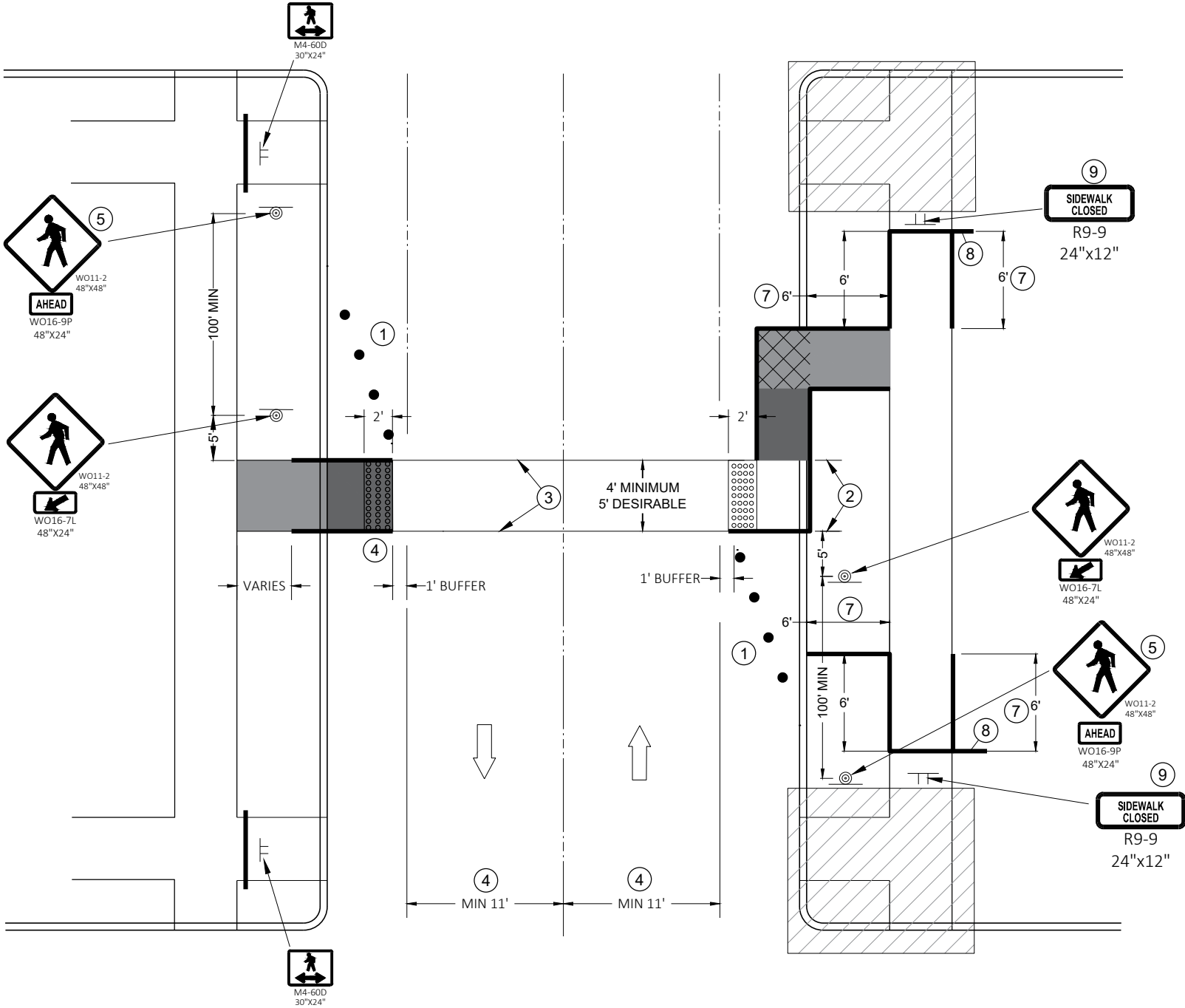
# GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.  
 SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.  
 SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

- ① SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② 4 FEET MINIMUM, 5 FEET DESIRABLE.
- ③ WHITE 6" TEMPORARY PAVEMENT MARKING.
- ④ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMP MAY NEED TO BE UTILIZED.
- ⑤ IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
- ⑥ IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ⑦ PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ⑧ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ⑨ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

## LEGEND

-  TRAFFIC CONTROL DRUM
-  SIGN ON TEMPORARY SUPPORT
-  TEMPORARY CURB RAMP
-  TEMPORARY DETECTABLE WARNING FIELD
-  TEMPORARY PEDESTRIAN SURFACE "A"
-  TEMPORARY PEDESTRIAN SURFACE "B"
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC





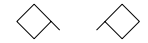







**TEMPORARY PEDESTRIAN CROSSING**

**TRAFFIC CONTROL,  
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

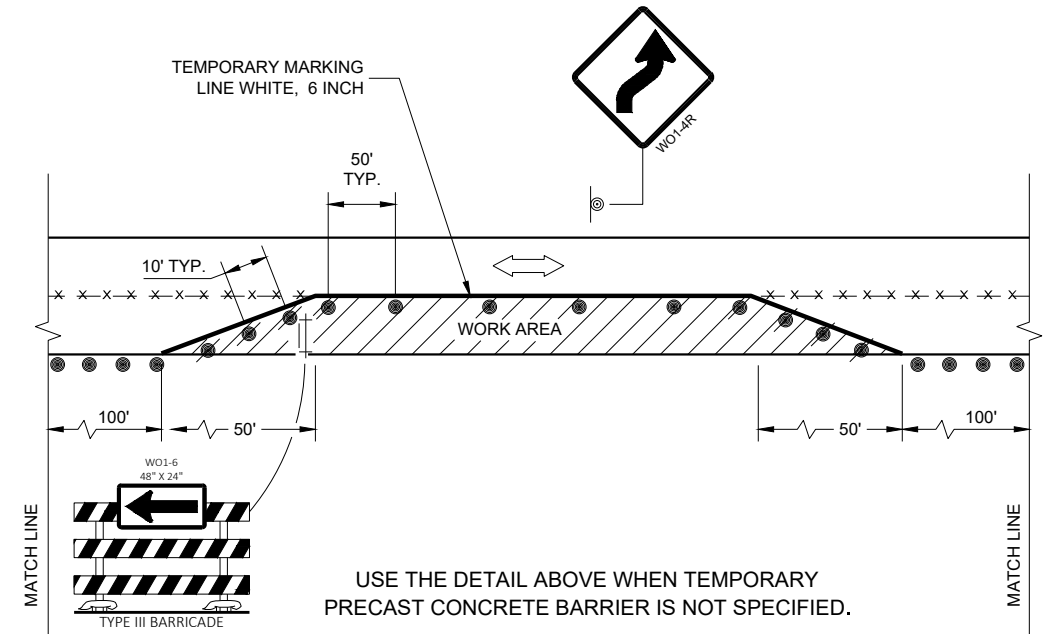
### LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TRAFFIC CONTROL DRUM
-  FLAGS, 16" X 16" MIN. (ORANGE)
-  REMOVING PAVEMENT MARKING
-  DIRECTION OF TRAFFIC
-  ASPHALTIC PAVEMENT WIDENING
-  CONCRETE BARRIER TEMPORARY PRECAST
-  TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT

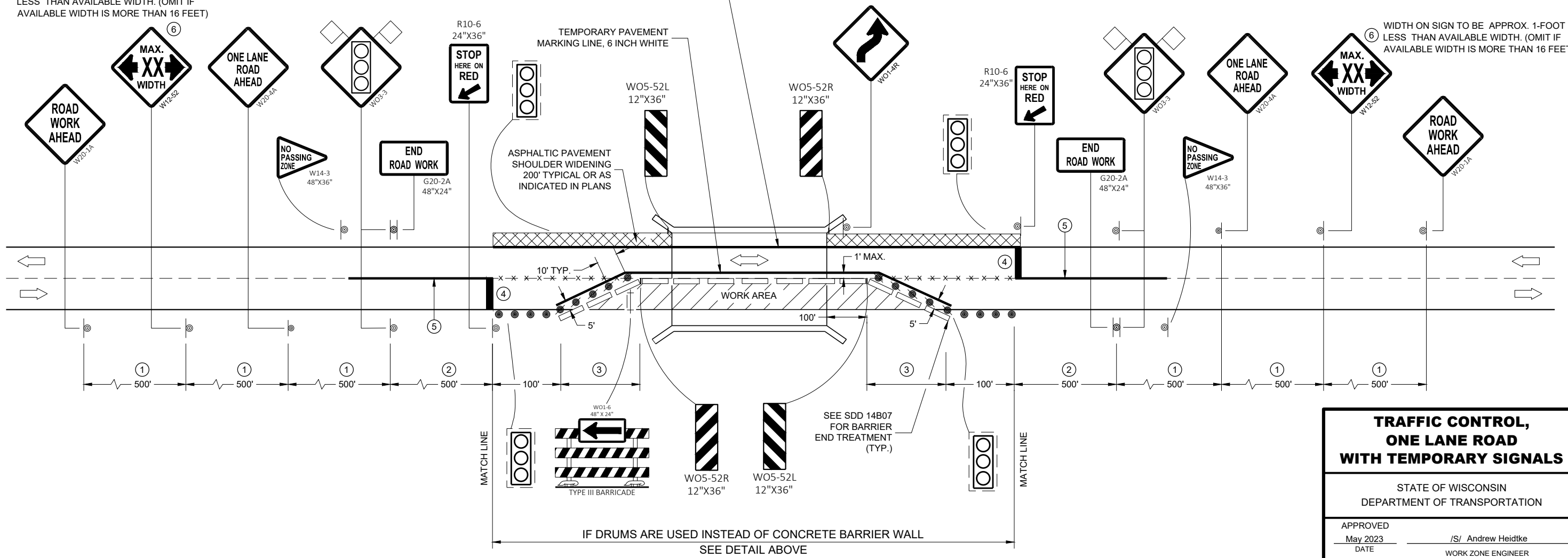
WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)

### 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 TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE..
- 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.
- REMOVE PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT MARKING LINES IF THE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.
- INSTALL OVERHEAD TEMPORARY SIGNAL HEADS ABOVE THE MIDDLE OF THE TRAVEL LANE THEY ARE CONTROLLING.
- ① 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
  - ② USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
  - ③ DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
  - ④ TEMPORARY PAVEMENT MARKING LINE, 18 INCH WHITE STOP LINE.
  - ⑤ 700 FOOT TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
  - ⑥ SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TEMPORARY PAVEMENT MARKING LINE, 6 INCH WHITE (STOPLINE TO STOPLINE). REMOVE EXISTING EDGELINE AND OFFSET THE TEMPORARY EDGELINE IF THE DISTANCE FROM THE EDGELINE TO CONCRETE BARRIER WALL IS LESS THAN 9 FEET.

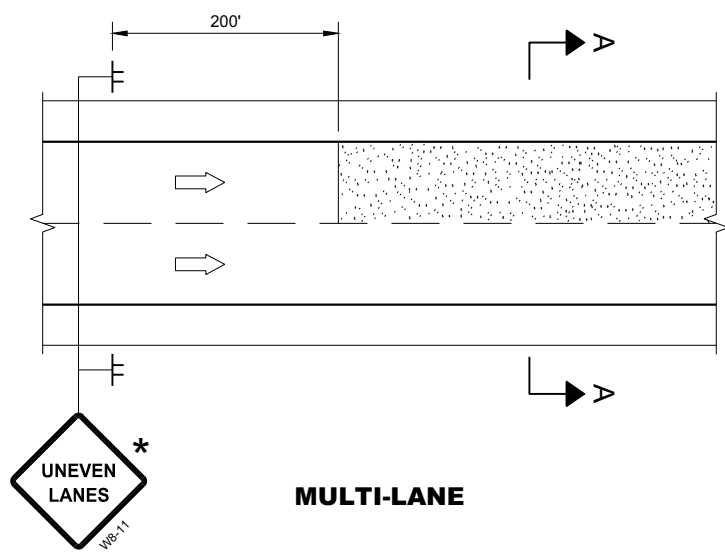


**TRAFFIC CONTROL,  
ONE LANE ROAD  
WITH TEMPORARY SIGNALS**

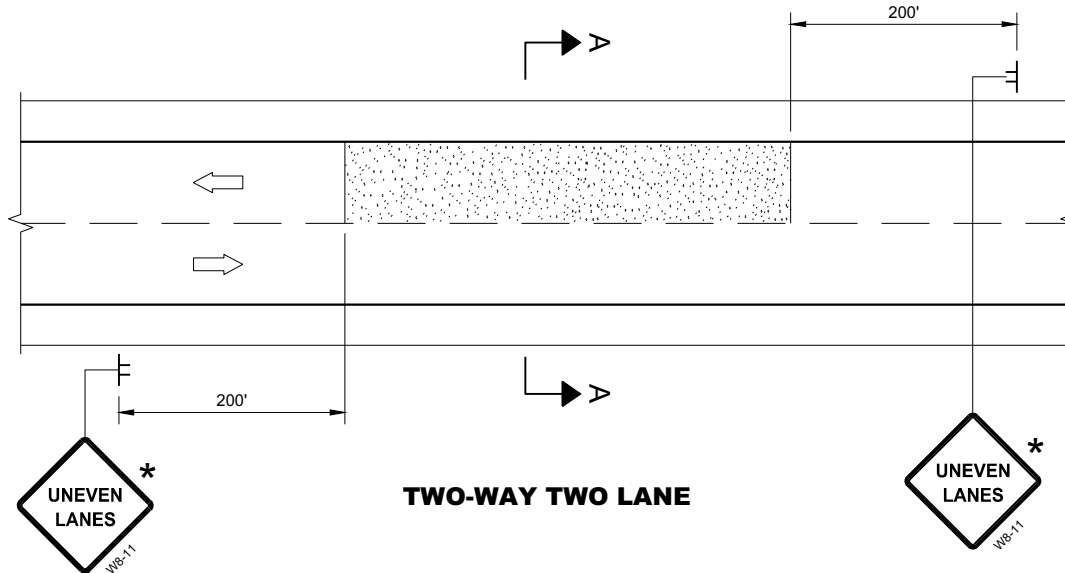
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED \_\_\_\_\_ /S/ Andrew Heidtke  
DATE May 2023 WORK ZONE ENGINEER

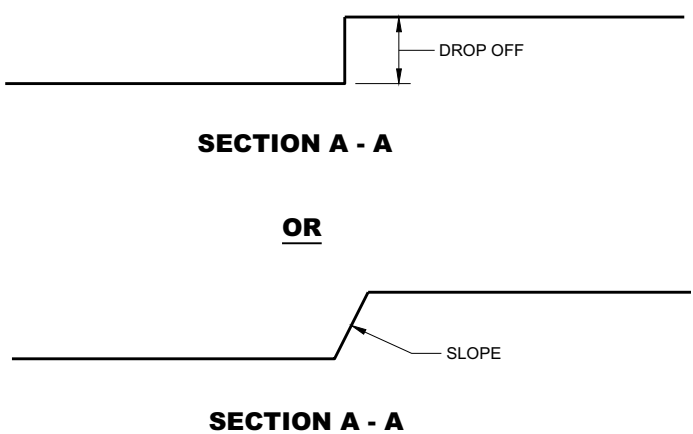
FHWA



**MULTI-LANE**



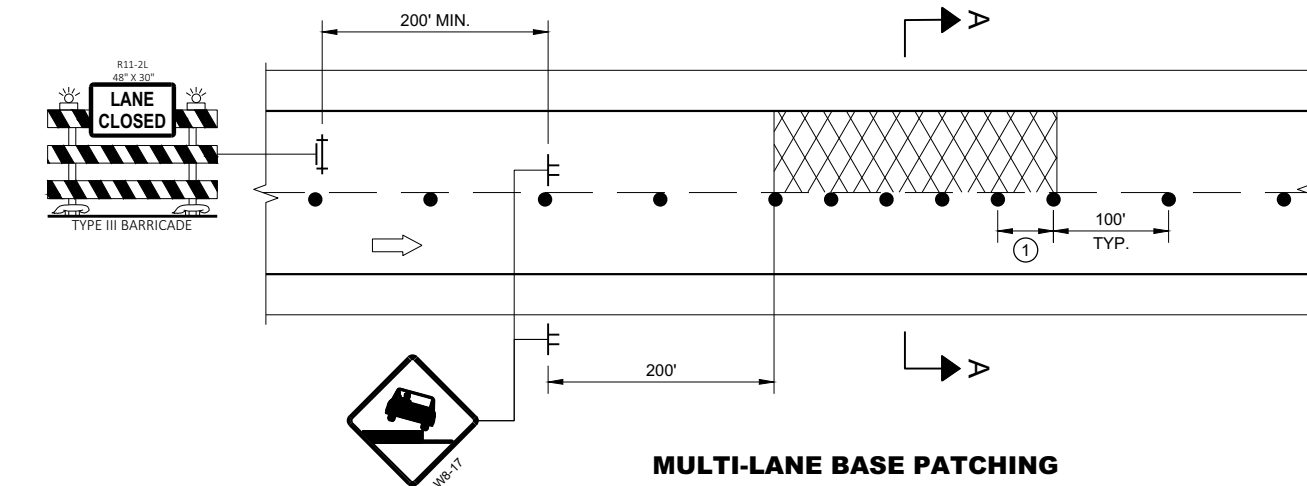
**TWO-WAY TWO LANE**



**SECTION A - A**

**OR**

**SECTION A - A**



**MULTI-LANE BASE PATCHING**

**ADJACENT LANE DROP-OFFS**

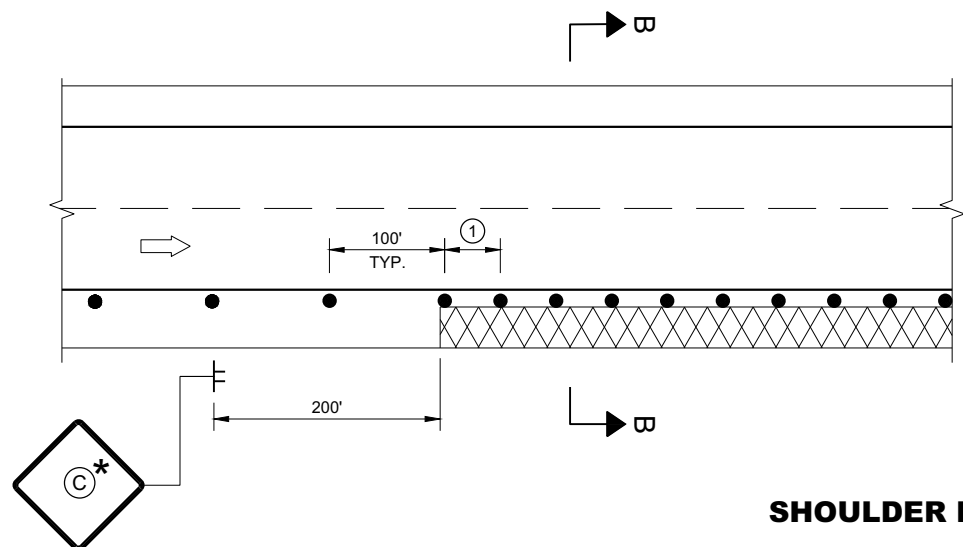
**GENERAL NOTES**

- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- \* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

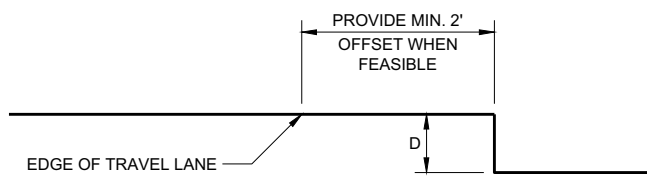
**LEGEND**

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT



**SHOULDER DROP-OFFS**



**SECTION B - B**

**TRAFFIC CONTROL,  
DROP-OFF SIGNING**

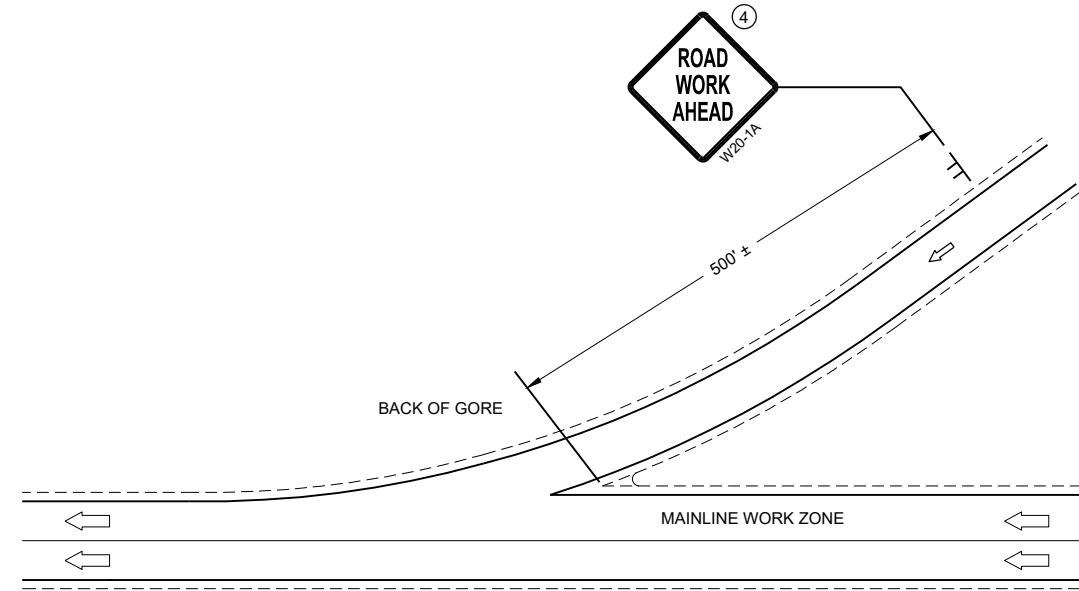
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

FHWA

**LEGEND**

- V1 SHADOW VEHICLE 1
- V2 SHADOW VEHICLE 2
- V3 ADVANCE WARNING TRUCK
- TRAFFIC CONTROL DRUM
- ☐ TRUCK MOUNTED ATTENUATOR (TMA)
- ⊥ SIGN ON TEMPORARY SUPPORT
- ⇒ DIRECTION OF TRAFFIC
- ⬢ FLASHING ARROW PANEL (MERGE)
- ⬢ FLASHING ARROW PANEL (CAUTION)
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ▨ WORK AREA



**GENERAL NOTES**

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

WHEN WORK ACTIVITY BLOCKS THE RIGHT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

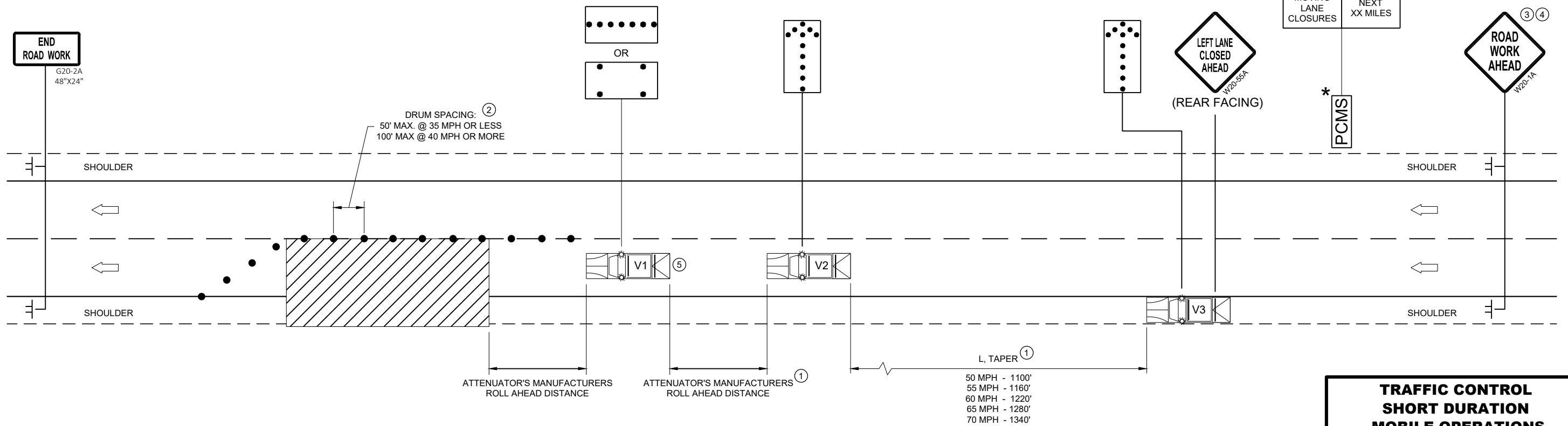
- ① DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② DRUMS ARE TO BE USED FOR BRIDGE DECK SEALING AND OTHER PROJECTS THAT REQUIRE DELINEATION.
- ③ WITHIN 5 MILES, RELOCATE SIGNS AS WORK PROGRESSES AND NECESSARY OR AS DIRECTED BY THE ENGINEER.
- ④ SIGN NOT REQUIRED IF MOVING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ⑤ SHADOW VEHICLE 1 (V1) IS OPTIONAL

\* PCMS OPTIONAL

PCMS MESSAGING

FRAME 1	FRAME 2
MOVING LANE CLOSURES	NEXT XX MILES

6



6

SDD 15D43 - 02

SDD 15D43 - 02

**TRAFFIC CONTROL  
SHORT DURATION  
MOBILE OPERATIONS**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
August 2021 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA

**GENERAL NOTES**

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

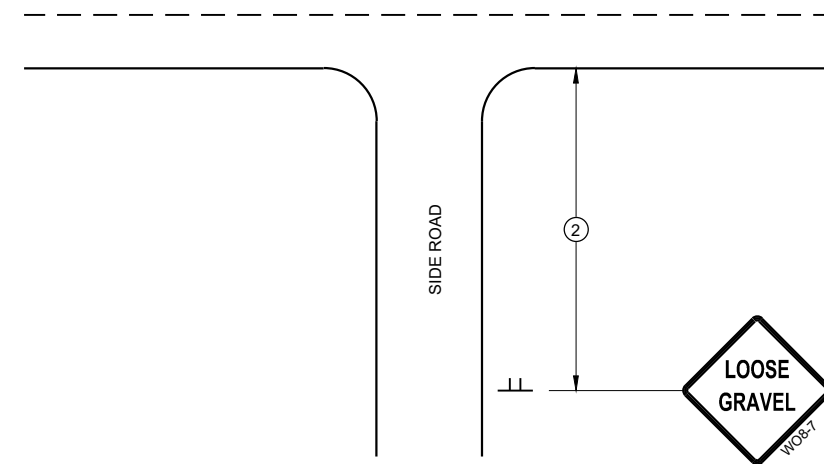
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

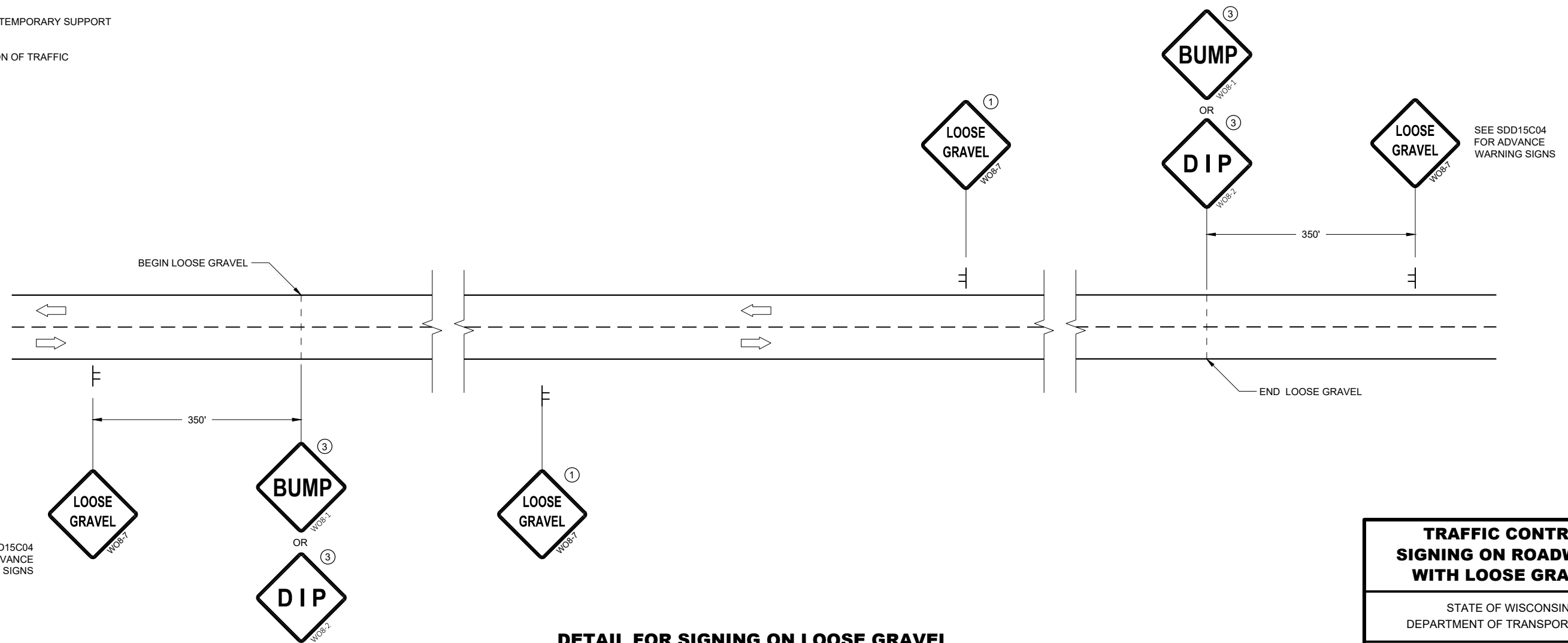
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

**LEGEND**

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



**TYPICAL SIDE ROAD APPROACH SIGN DETAIL**



**DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES**

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS








**TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
February 2021 /S/ Andrew Heidtke  
DATE 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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER $L/2$					
		W, LATERAL OFFSET (FT)					
		3	4	5	6	7	8
25	200	10	14	17	21	24	28
30	200	15	20	25	30	35	40
35	350	20	27	34	40	47	54
40	350	26	35	44	53	62	70
45	500	45	59	74	89	104	119
50	500	50	66	83	99	116	132
55	500	54	73	91	109	127	145

**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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

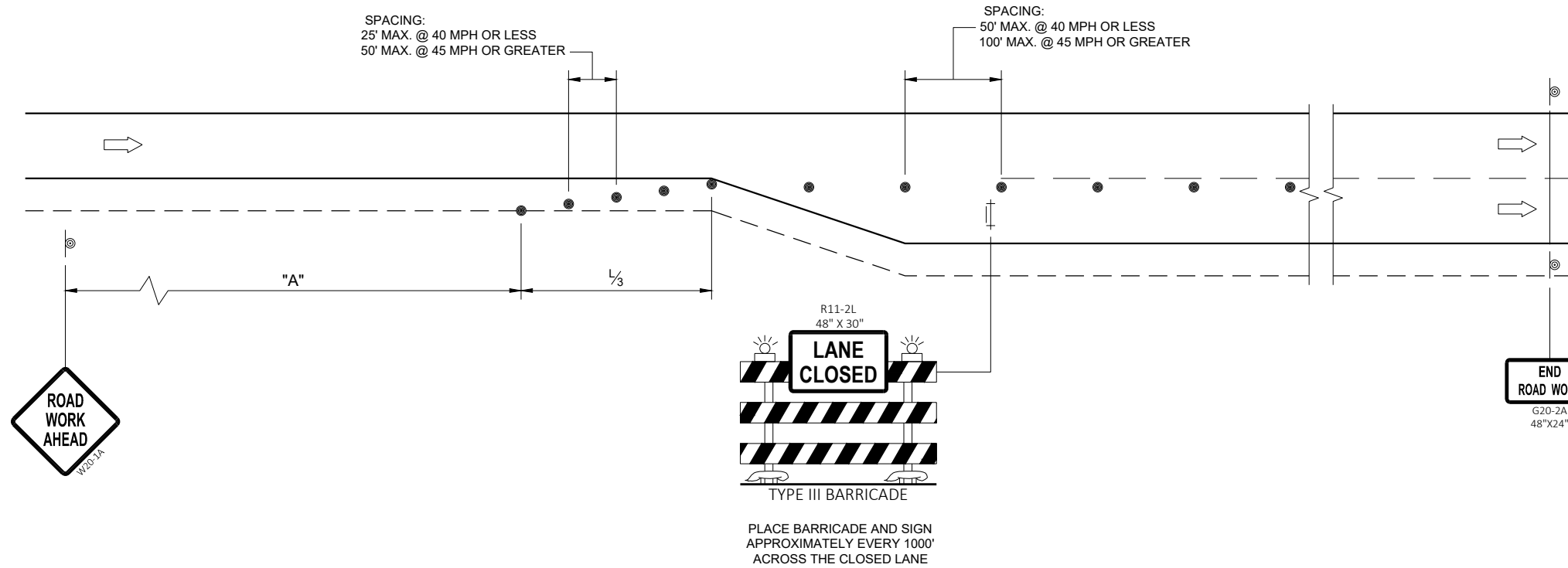
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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.

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.



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





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SDD 15D50-03a

SDD 15D50-03a

<b>TRAFFIC CONTROL ADDED LANE CLOSURE WITHOUT LANE SHIFT</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE May 2023	/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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER (L/2) FEET
25	200	60
30	200	90
35	350	120
40	350	160
45	500	270
50	500	300
55	500	330

**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.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"x36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

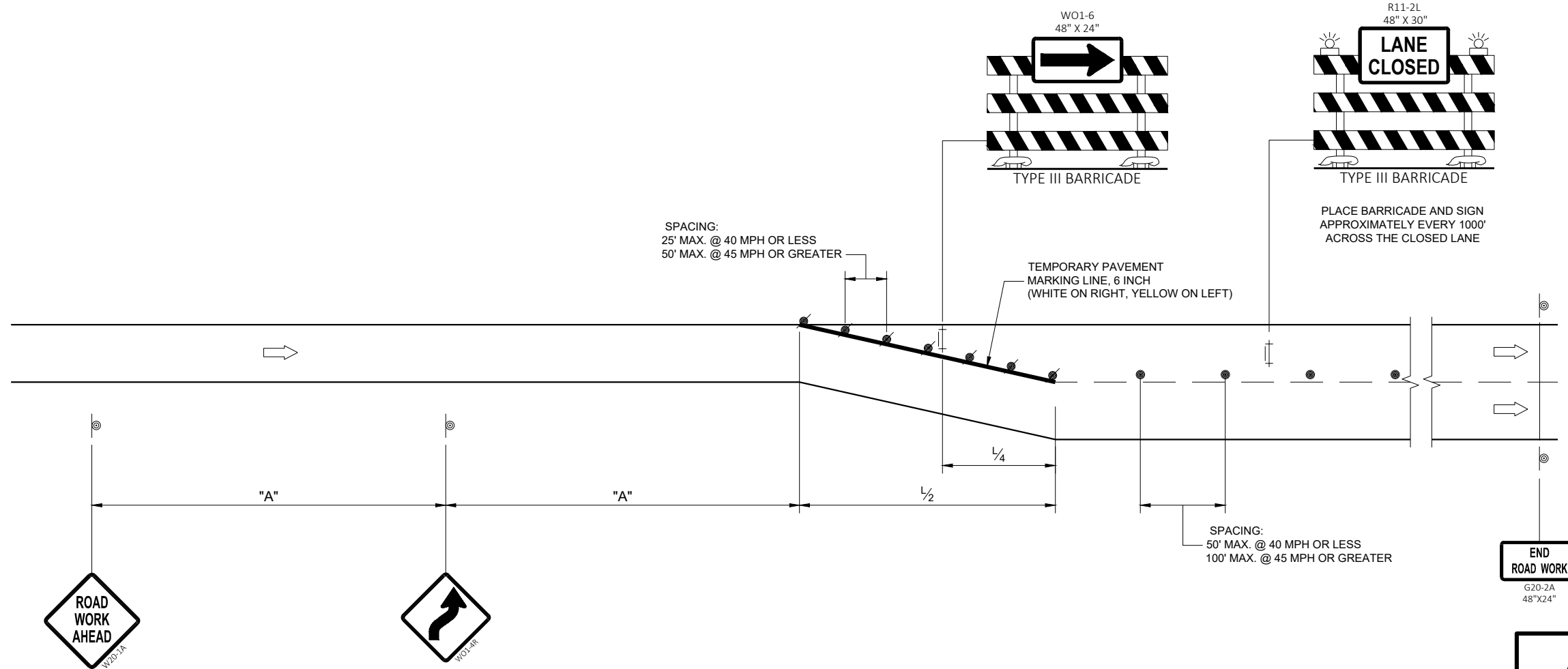
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION WORK IS LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS.

PLACE TEMPORARY PAVEMENT MARKING AND PLACE TEMPORARY PAVEMENT LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



6





6

SDD 15D50-03b

SDD 15D50-03b

<b>TRAFFIC CONTROL, ADDED LANE CLOSURE WITH LANE SHIFT</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE May 2023	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

**LEGEND**

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

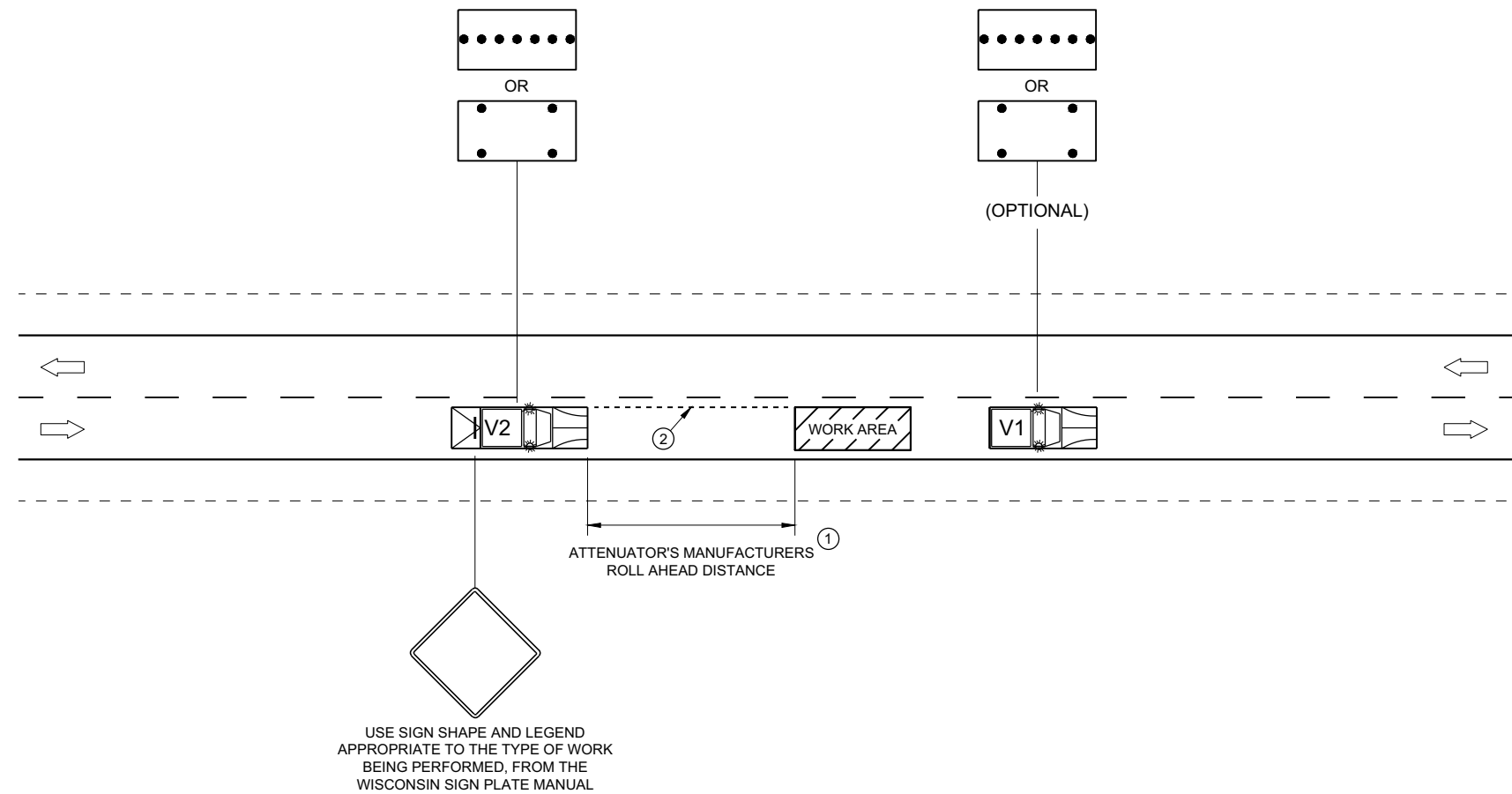
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



6

6

SDD 15D51 - 01

SDD 15D51 - 01

**TRAFFIC CONTROL,  
MOBILE OPERATIONS ON  
AN UNDIVIDED ROADWAY**

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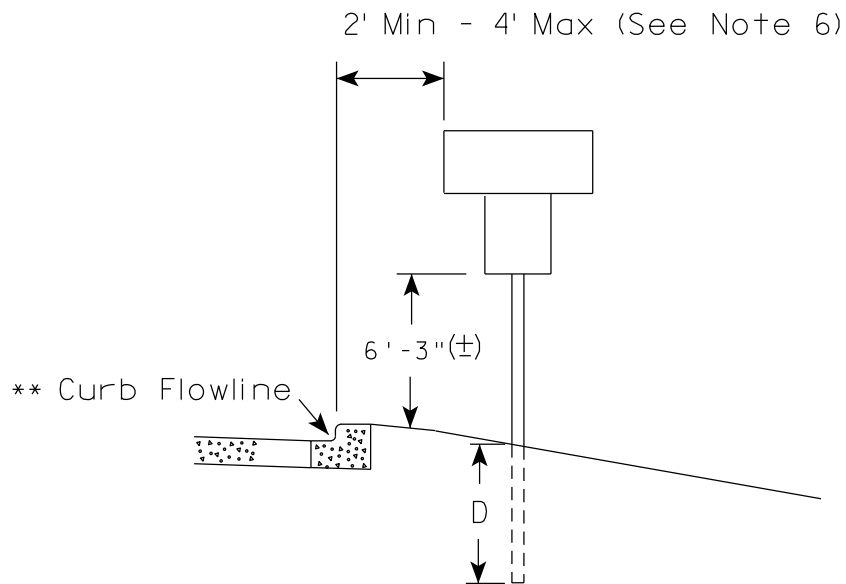
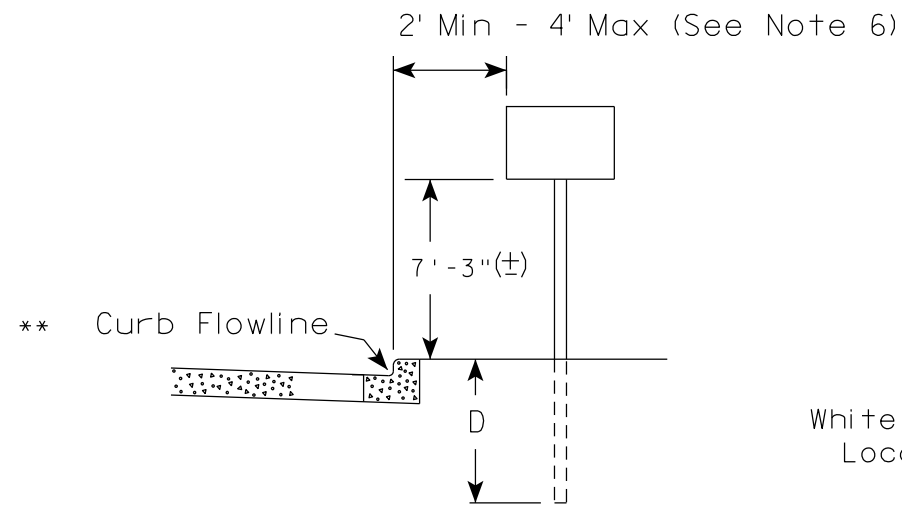
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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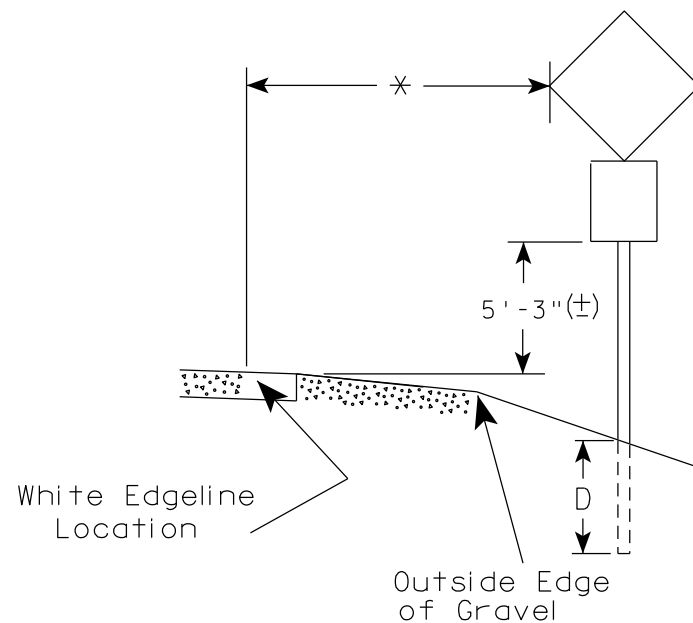
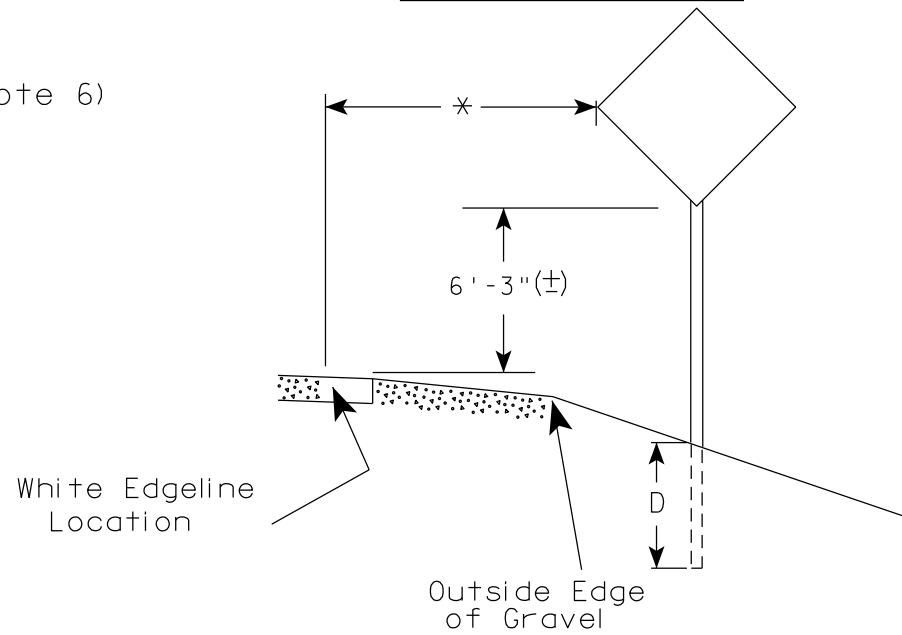
APPROVED  
February 2021 DATE /S/ Andrew Heidtke  
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

URBAN AREA



RURAL AREA (See Note 2)



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 or behind barrier wall, see A4-10 sign plate.  
The Double Arrow sign (W12-1D) 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" (±).
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 signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

POST EMBEDMENT DEPTH

Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

\* \* 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.

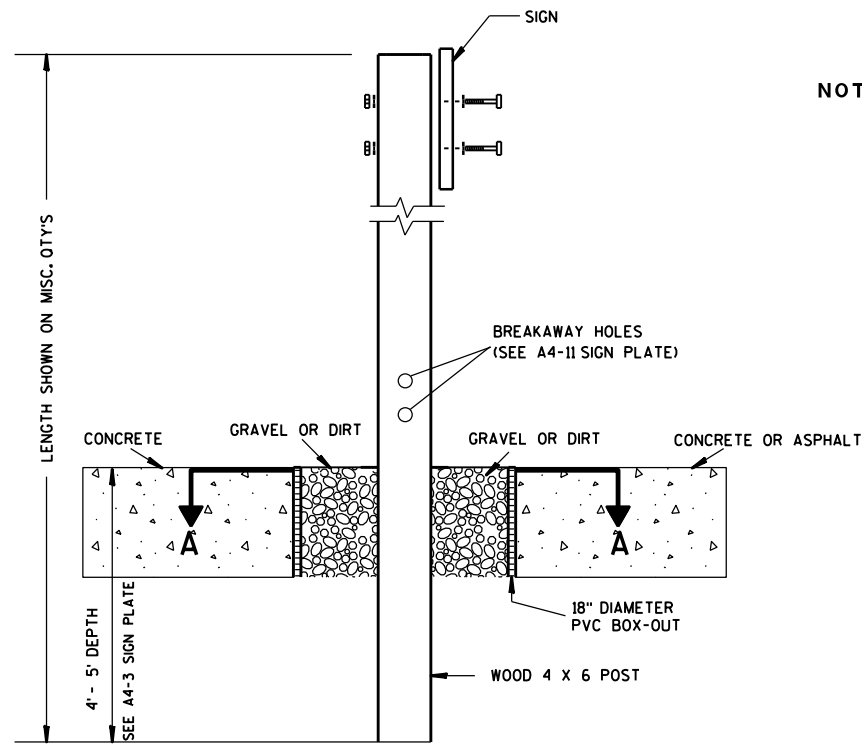
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

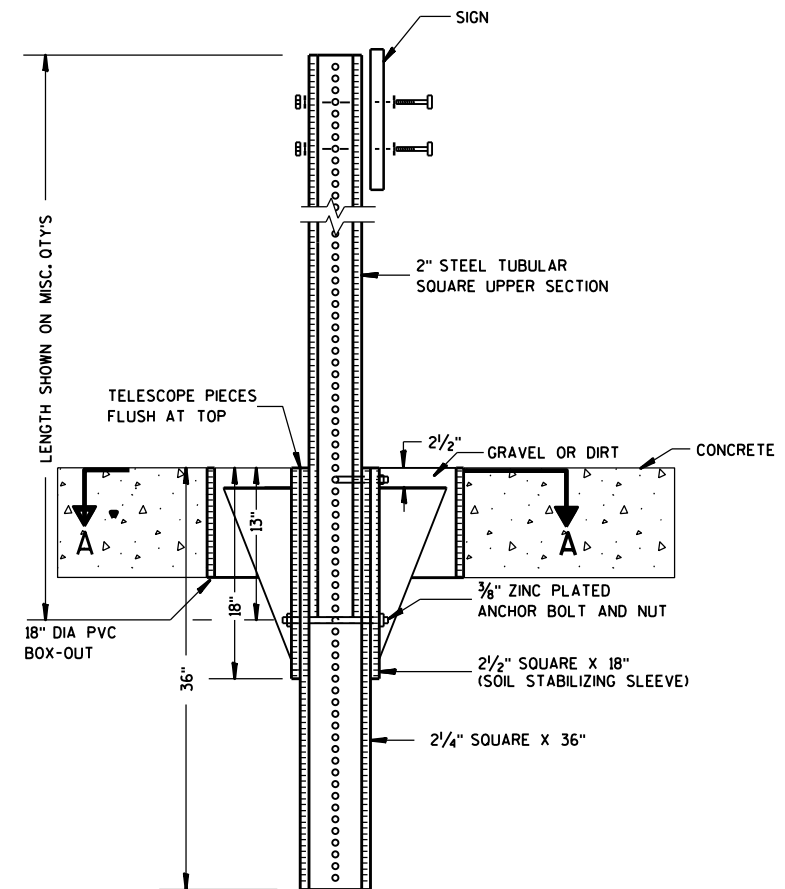
DATE 5/13/2020 PLATE NO. A4-3.22



**ELEVATION VIEW**

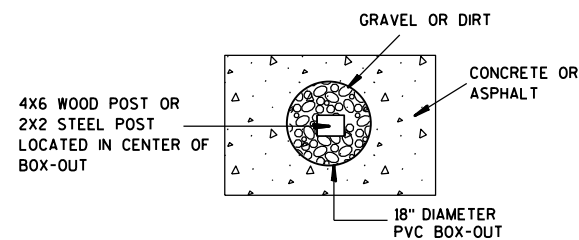
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
  2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
  3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



**ELEVATION VIEW**

**DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT**



**PLAN VIEW**

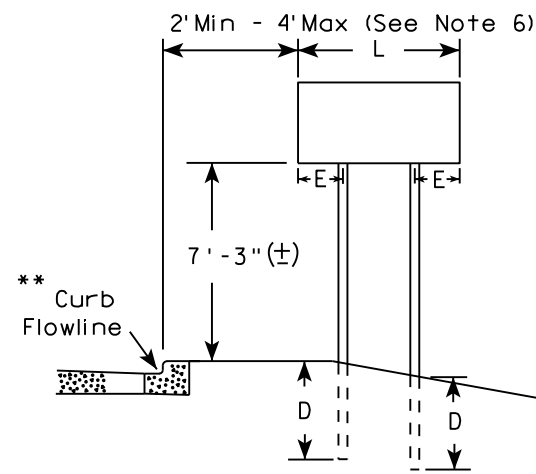
**FOR NEW CONCRETE/ ASPHALT INSTALLATIONS**

<b>SIGN POST BOX-OUTS A4-3B</b>	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

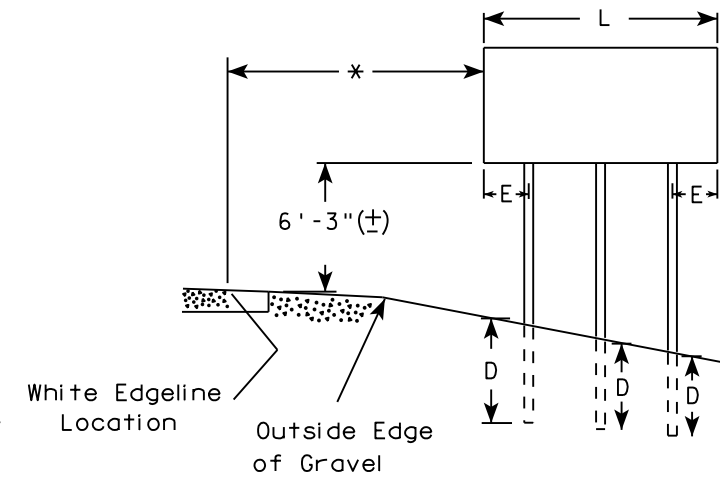
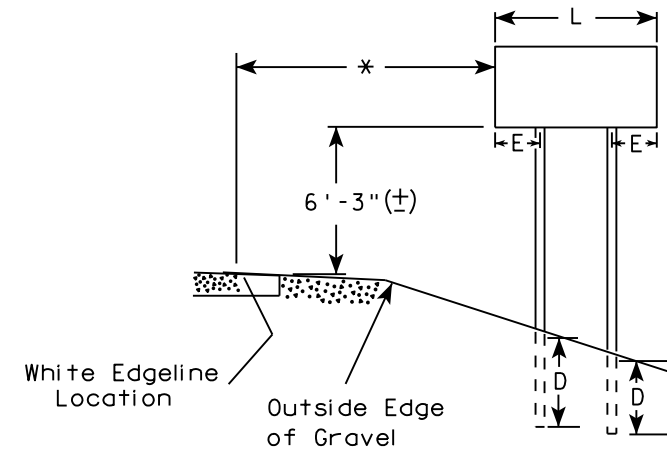
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

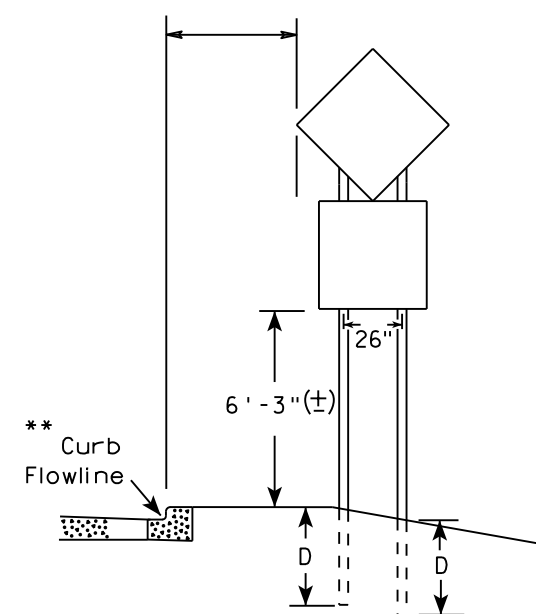
URBAN AREA



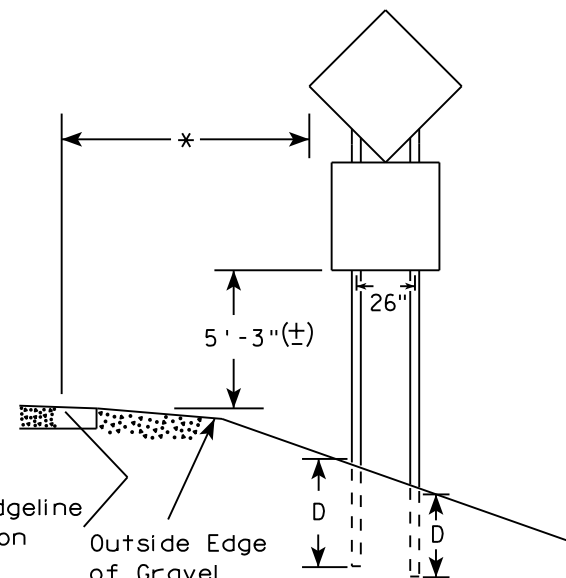
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

\*\* The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

\*\*\* See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

\*\*\*

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

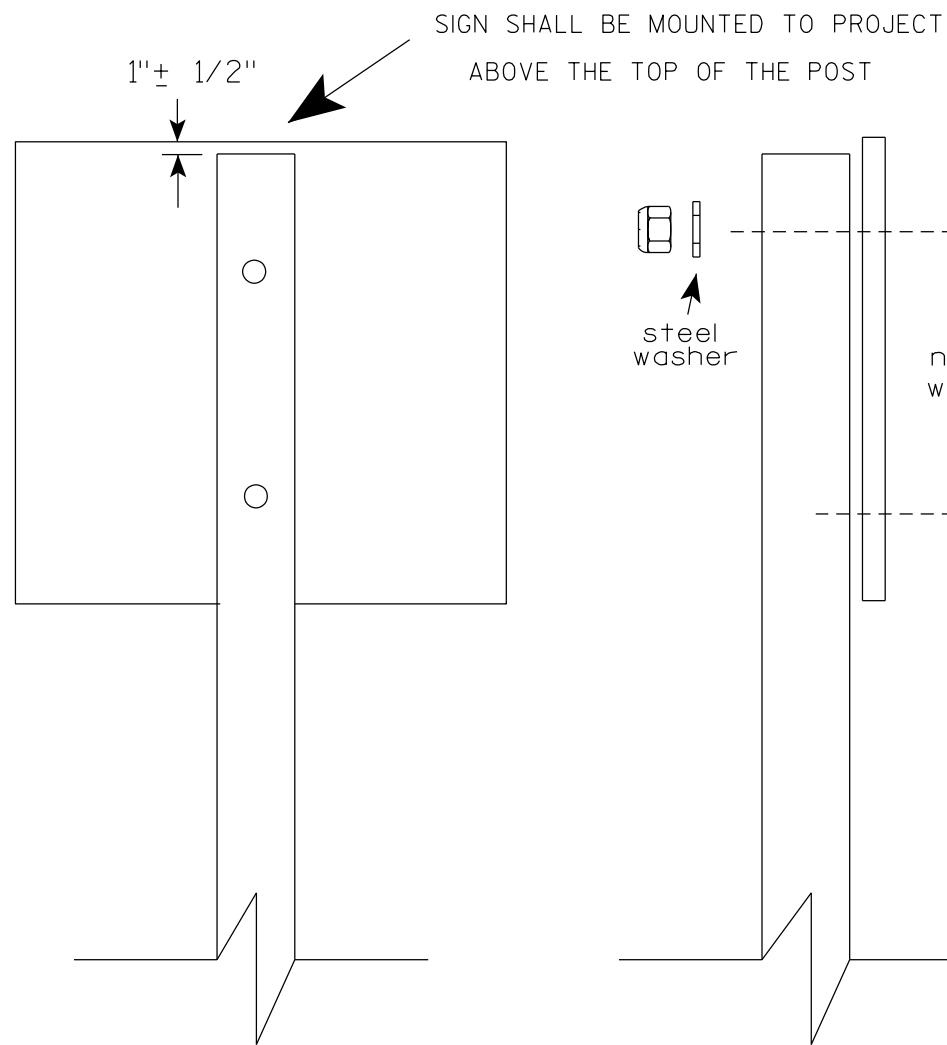
POST EMBEDMENT DEPTH

Area of Sign Installation ( Sq. Ft. )	D ( Min )
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION  
 APPROVED *Matthew R. Rauch*  
 For State Traffic Engineer  
 DATE 8/21/17 PLATE NO. A4-4.15





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- 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.

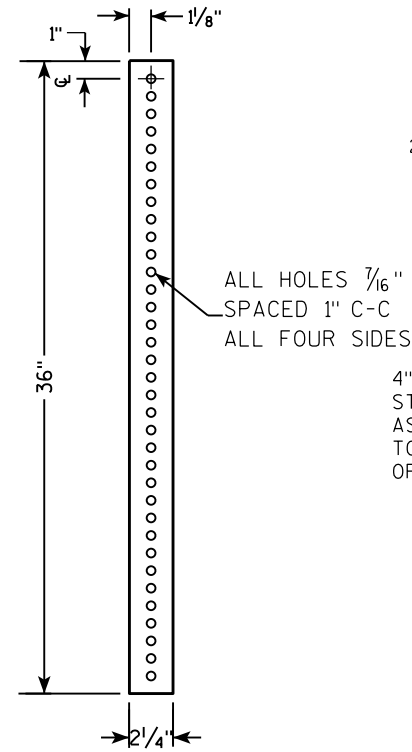
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS -  $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS -  $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS -  $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)  
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS -  $\frac{9}{32}$ " (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  $\frac{3}{8}$ " I.D. X  $\frac{1}{16}$ " STEEL
- 1-1/4" O.D. X  $\frac{3}{8}$ " 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.

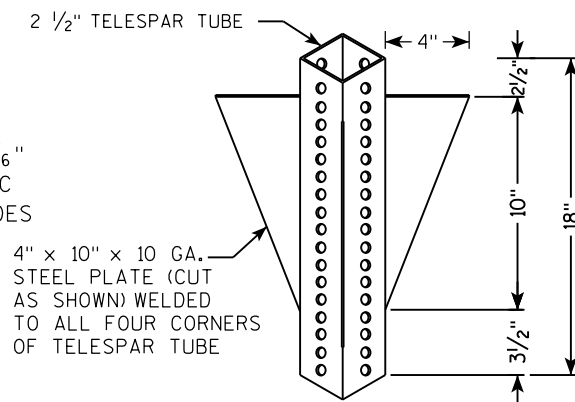
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM**

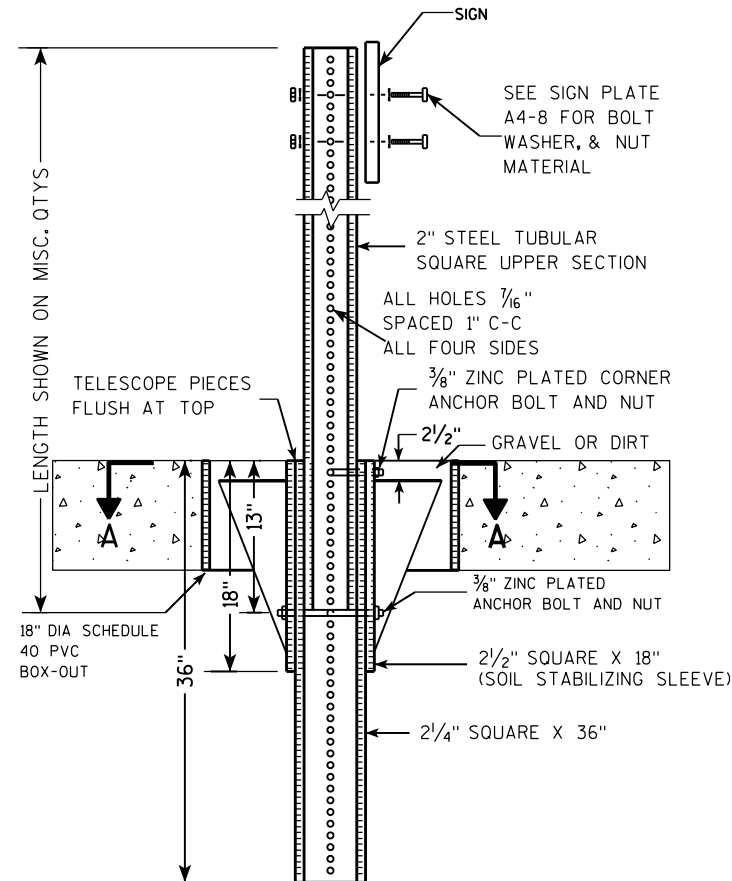
2 1/4" SQUARE  
12 GAUGE  
PERFORATED  
GALVANIZED FINISH



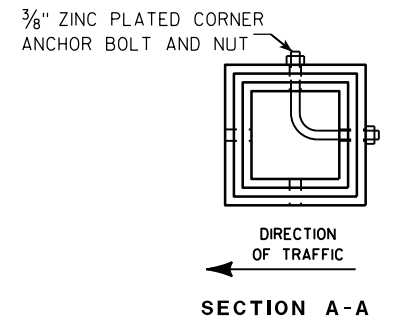
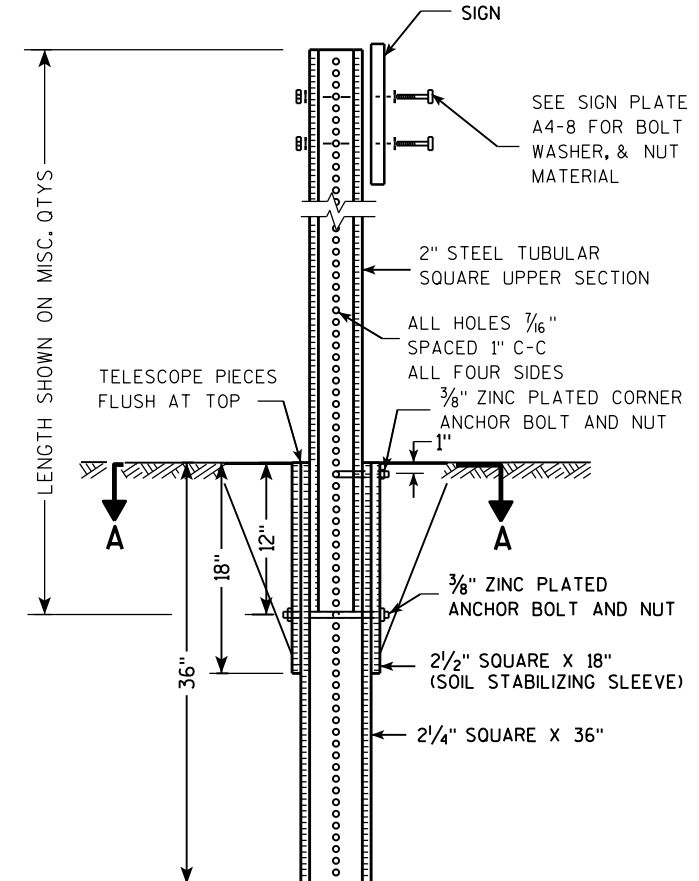
2 1/2" SQUARE  
12 GAUGE  
OMNI-DIRECTIONAL  
PERFORATED  
SOIL STABILIZING SLEEVE  
GALVANIZED FINISH



**DETAIL OF TUBULAR STEEL SIGN POST  
(IN POURED CONCRETE OR ASPHALT)**



**DETAIL OF TUBULAR STEEL SIGN POST  
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**

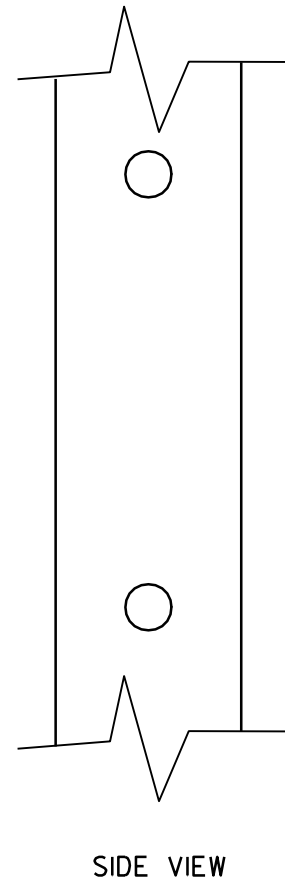
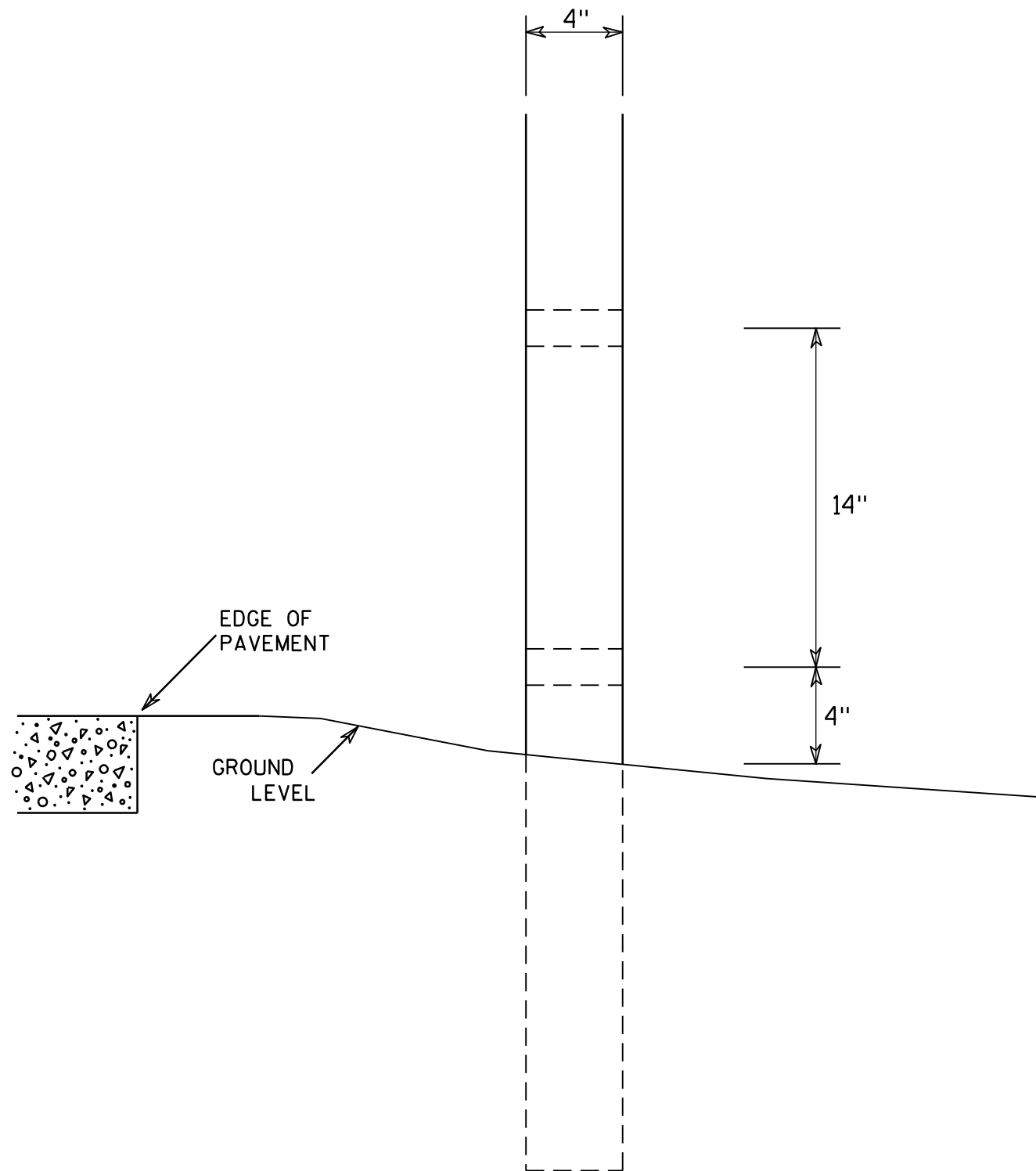


Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**TUBULAR STEEL  
SIGN POST  
A4-9**

WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 2/05/15 PLATE NO. A4-9.9



GENERAL NOTES

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

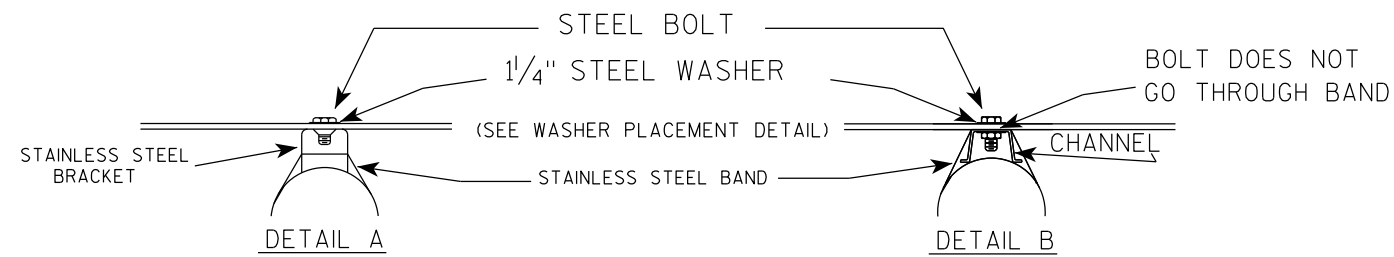
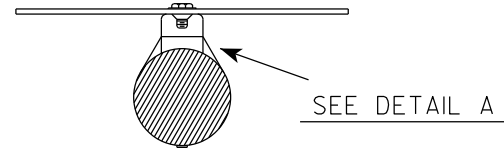
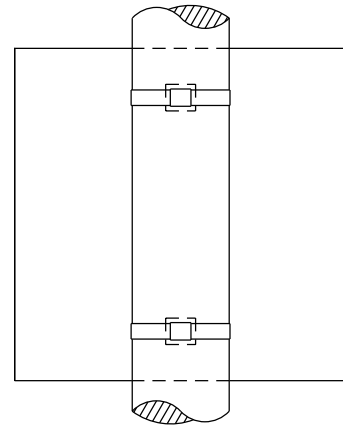
7

7

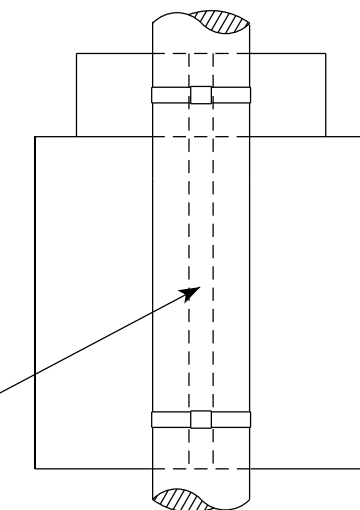
<b>4 X 6 WOOD POST MODIFICATIONS</b>	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

# BANDING

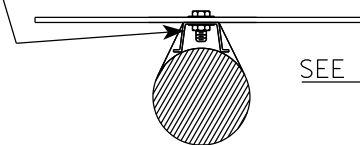
SINGLE SIGN



"J" ASSEMBLY

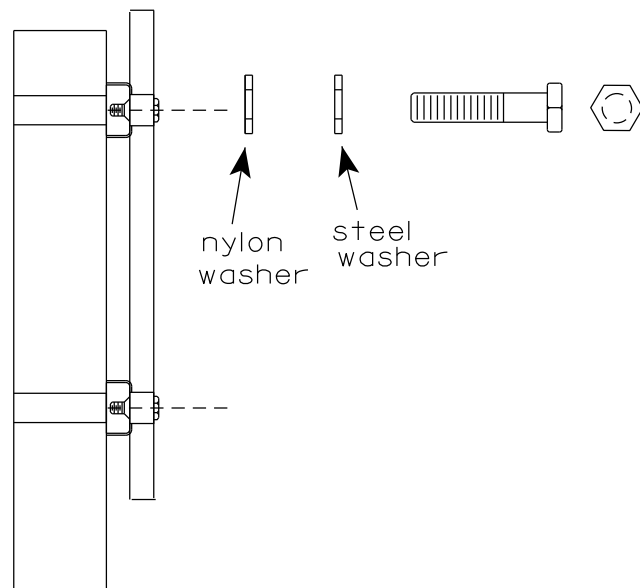


CHANNEL  
SEE TYPICAL PANEL  
INSTALLATION SHEET



- GENERAL NOTES**
1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
  2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
  3. Banding and assembly bracket shall be stainless steel. All bands shall be  $\frac{3}{4}$ " in width and 0.025" thickness.
  4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
    - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
    - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

WASHER PLACEMENT



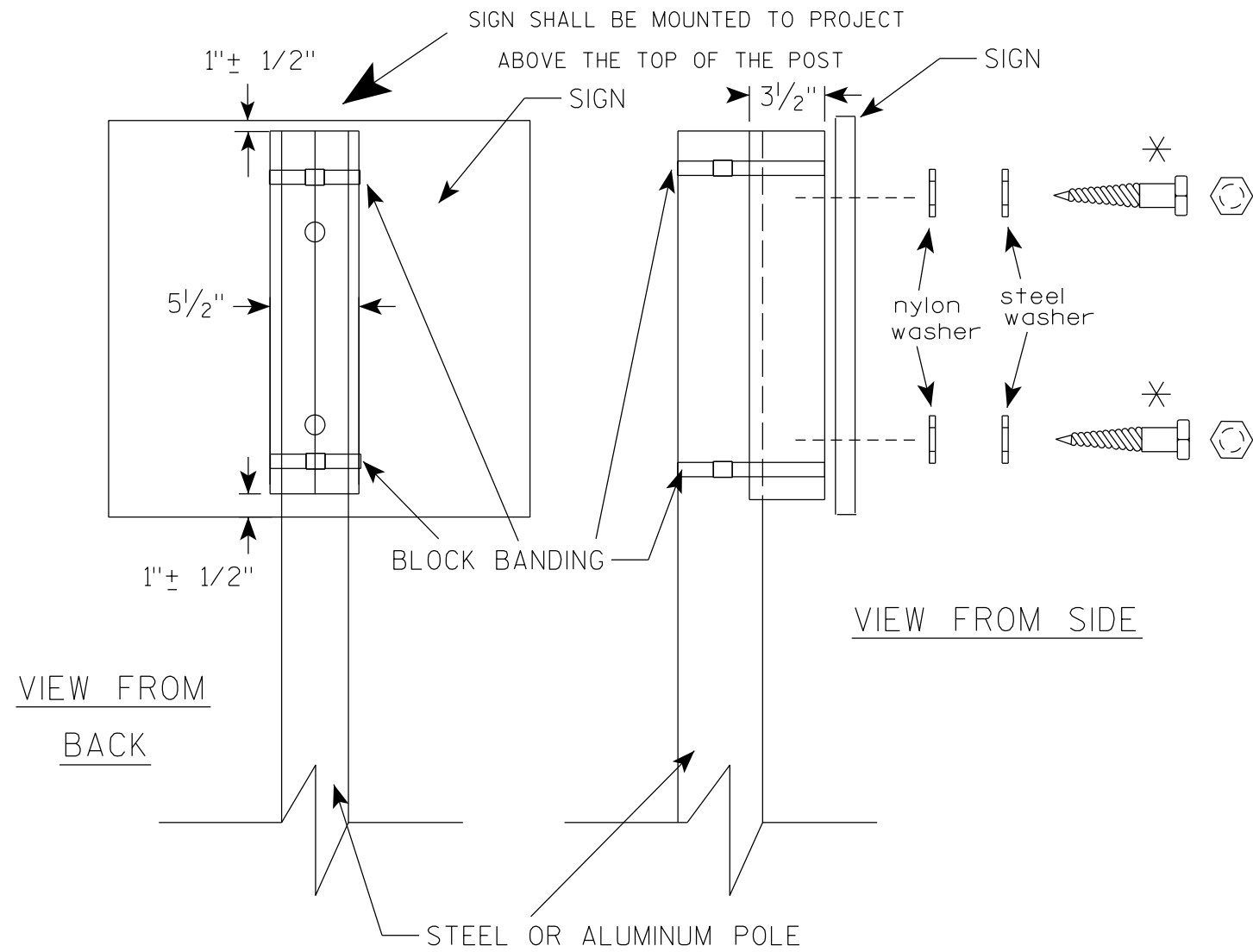
WASHERS (ALL POSTS) -  
 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
 1-1/4" O.D. X 3/8" I.D. X .080 NYLON  
 FOR ALL TYPE H SIGNS

STANDARD SIGN  
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

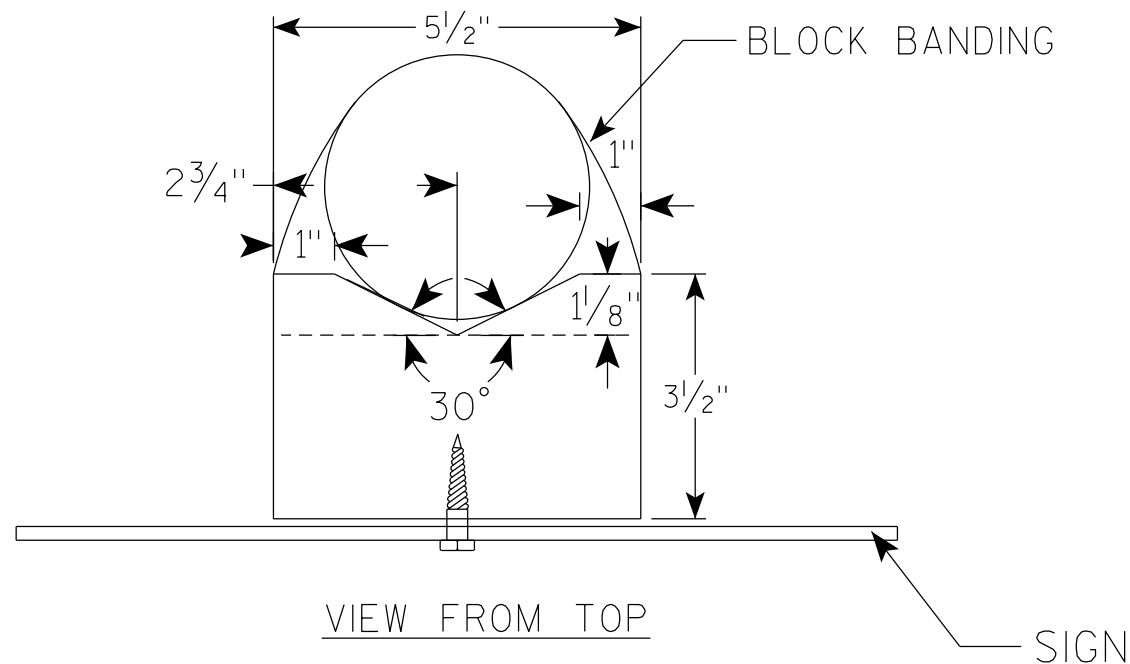
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
  - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
  - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

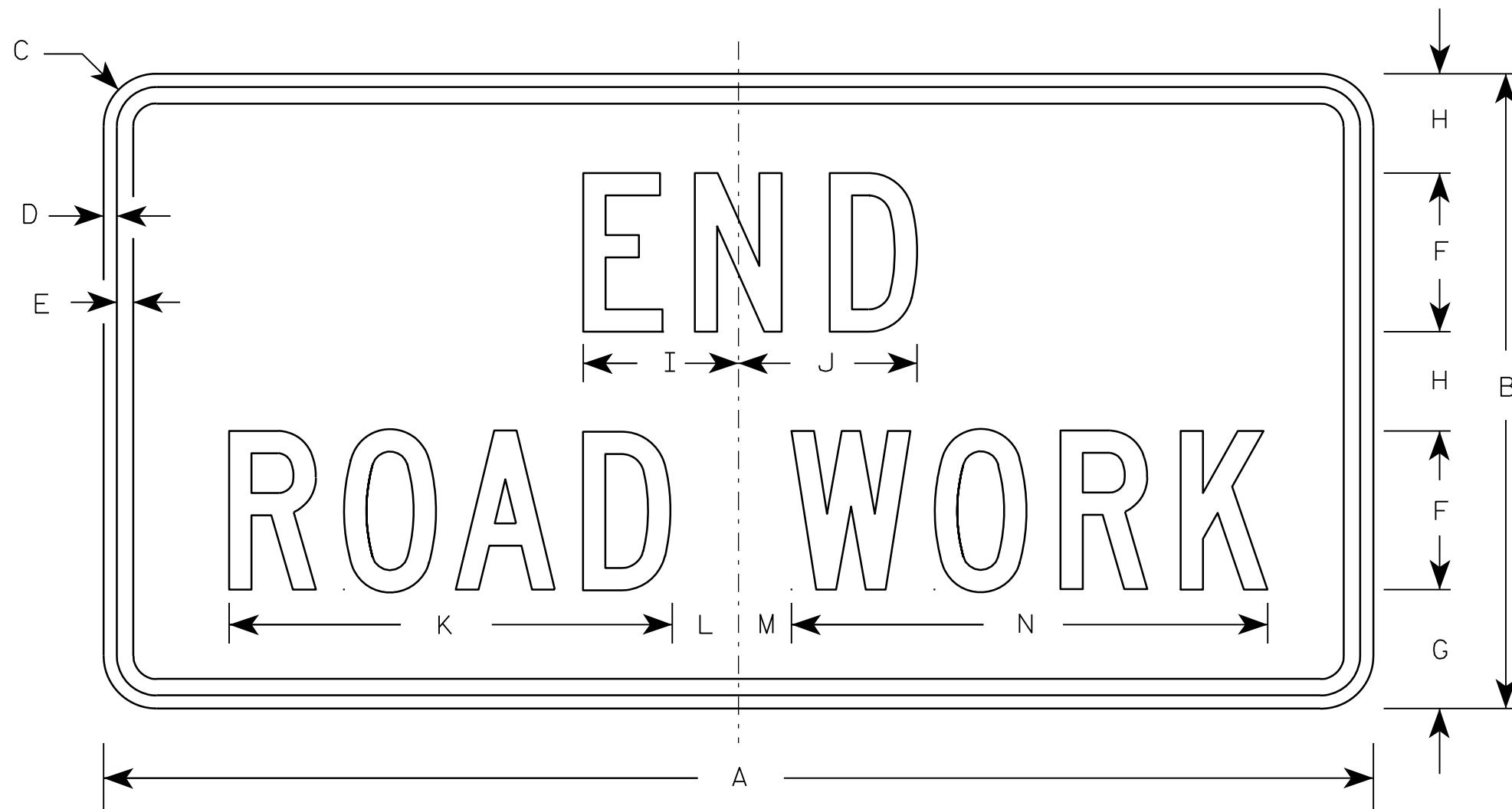
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL ( V-BLOCK OPTION )	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

7

7

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

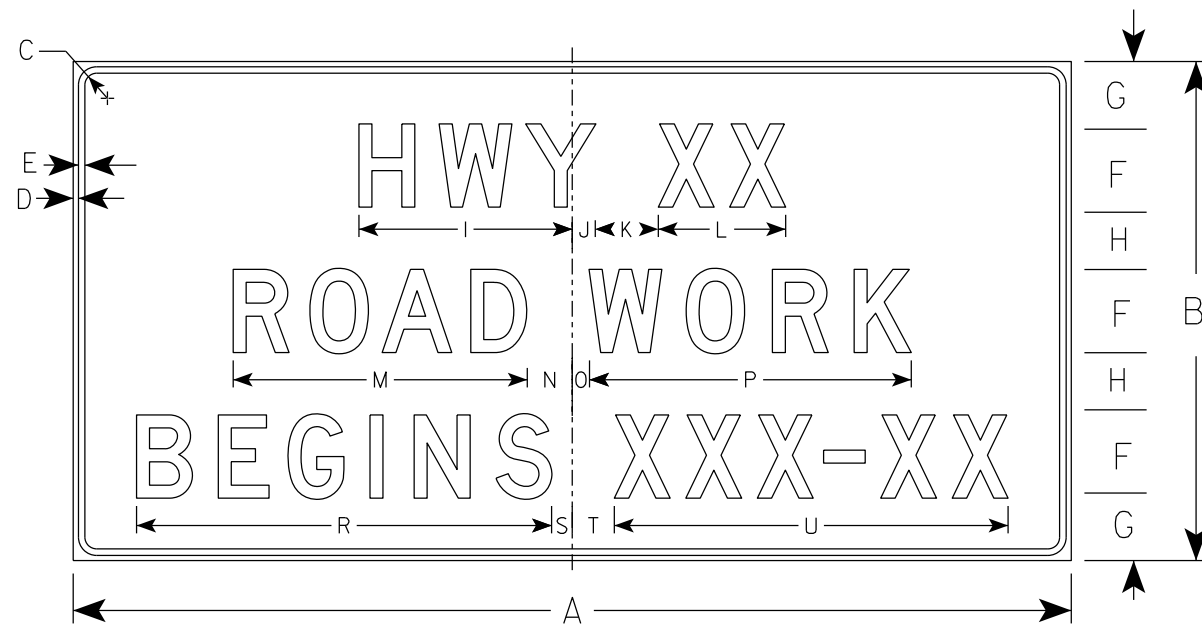
STANDARD SIGN G20-2A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	<b>E</b>
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NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/4	3 1/2	1 1/2	23 1/4		29 7/8	1 3/4	3 1/4	28 1/2						18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	4 3/8	1 5/8	31		39 1/4	2	4	37 7/8						32.0
5																											

STANDARD SIGN  
G20-57

WISCONSIN DEPT OF TRANSPORTATION

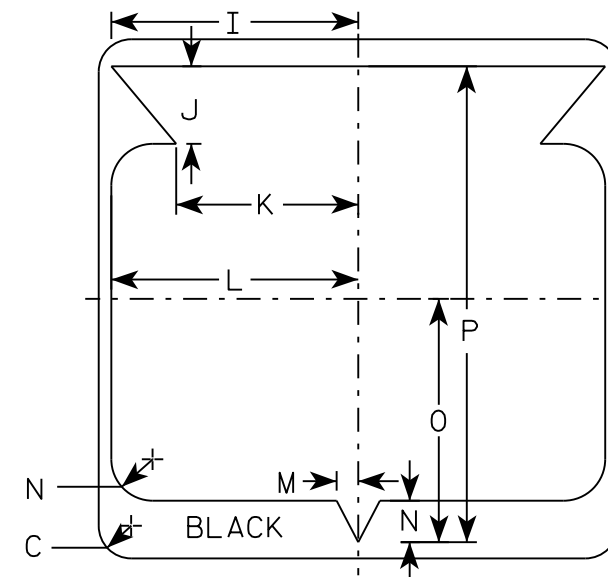
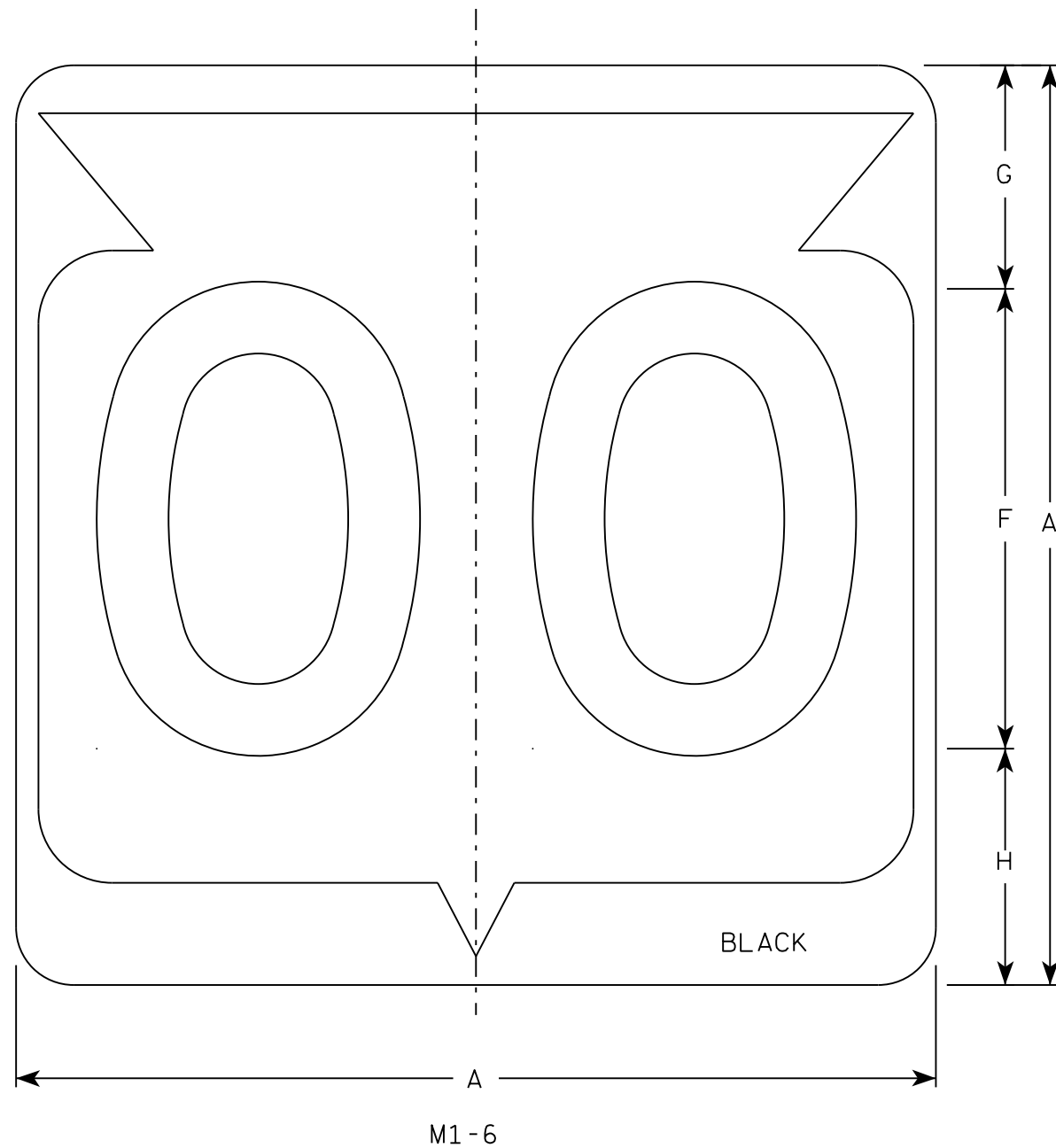
APPROVED *Matthew R Rauch*  
For State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D except 3 number signs 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																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER  
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

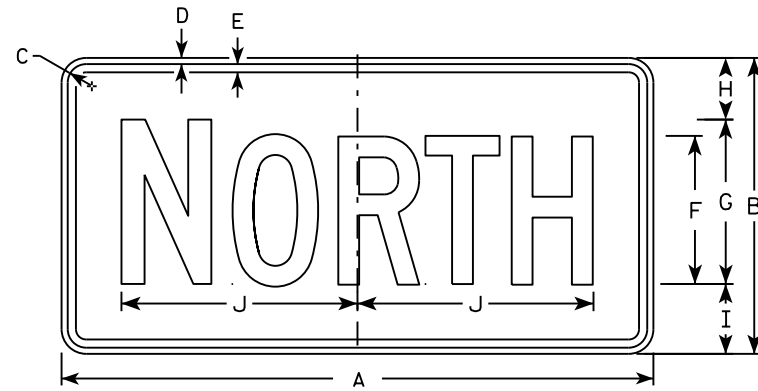
DATE 3/16/18 PLATE NO. M1-6.10

7

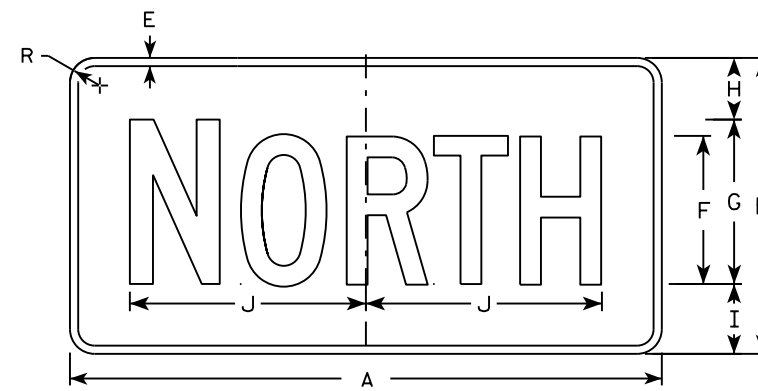
7

NOTES

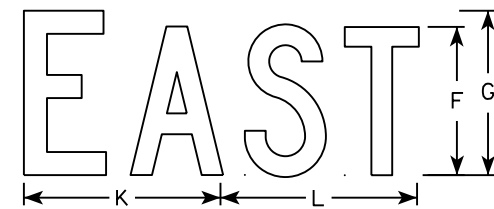
- All Signs Type II - Type H
- Color:
  - Background - See note 5
  - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 Background - White  
 Message - Black  
 MB3-1 thru MB3-4 Background - Blue  
 Message - White  
 MK3-1 thru MK3-4 Background - Green  
 Message - White  
 MM3-1 thru MM3-4 Background - White  
 Message - Green  
 MN3-1 thru MN3-4 Background - Brown  
 Message - White  
 MP3-1 thru MP3-4 Background - White  
 Message - Blue
- Note the first letter of each direction is larger than the remainder of the message.



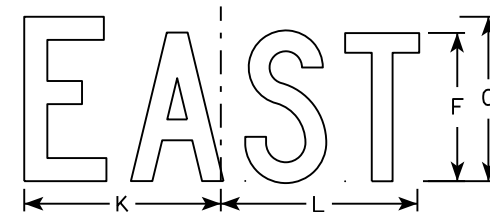
M3-1  
MM3-1  
MP3-1



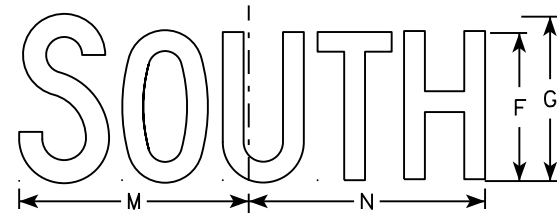
MB3-1  
MK3-1  
MN3-1



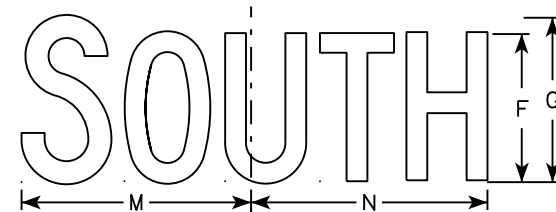
M3-2  
MM3-2  
MP3-2



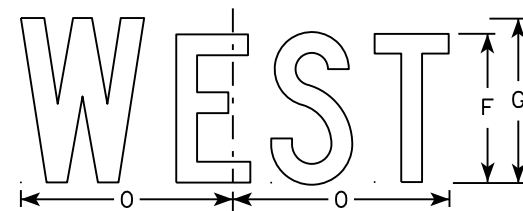
MB3-2  
MK3-2  
MN3-2



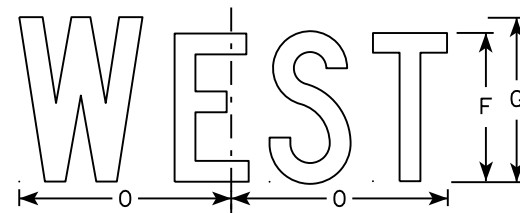
M3-3  
MM3-3  
MP3-3



MB3-3  
MK3-3  
MN3-3



M3-4  
MM3-4  
MP3-4



MB3-4  
MK3-4  
MN3-4

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS  
M3-1 thru M3-4  
SERIES

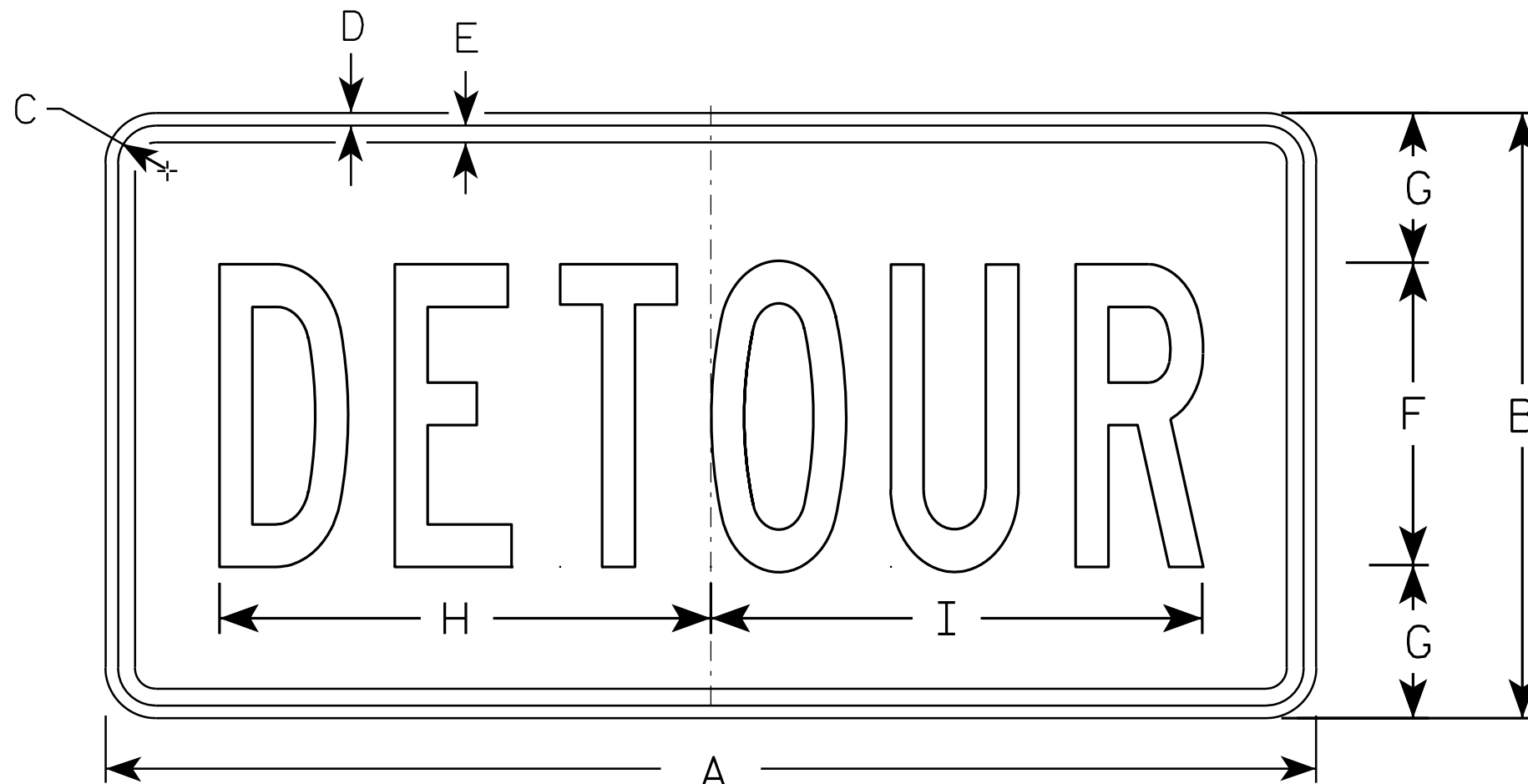
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4-8

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

**STANDARD SIGN**  
**M4-8**

WISCONSIN DEPT OF TRANSPORTATION

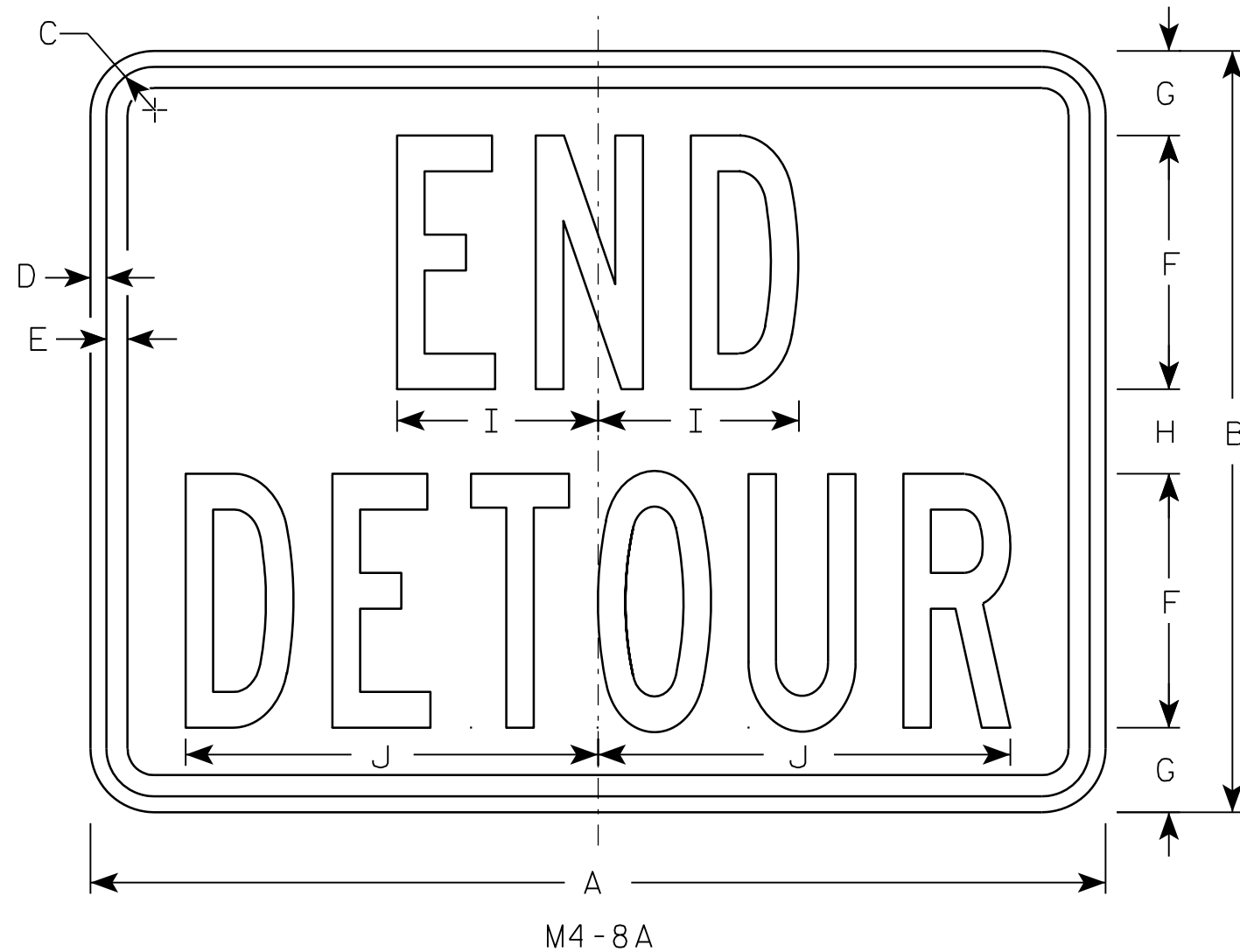
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

STANDARD SIGN  
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

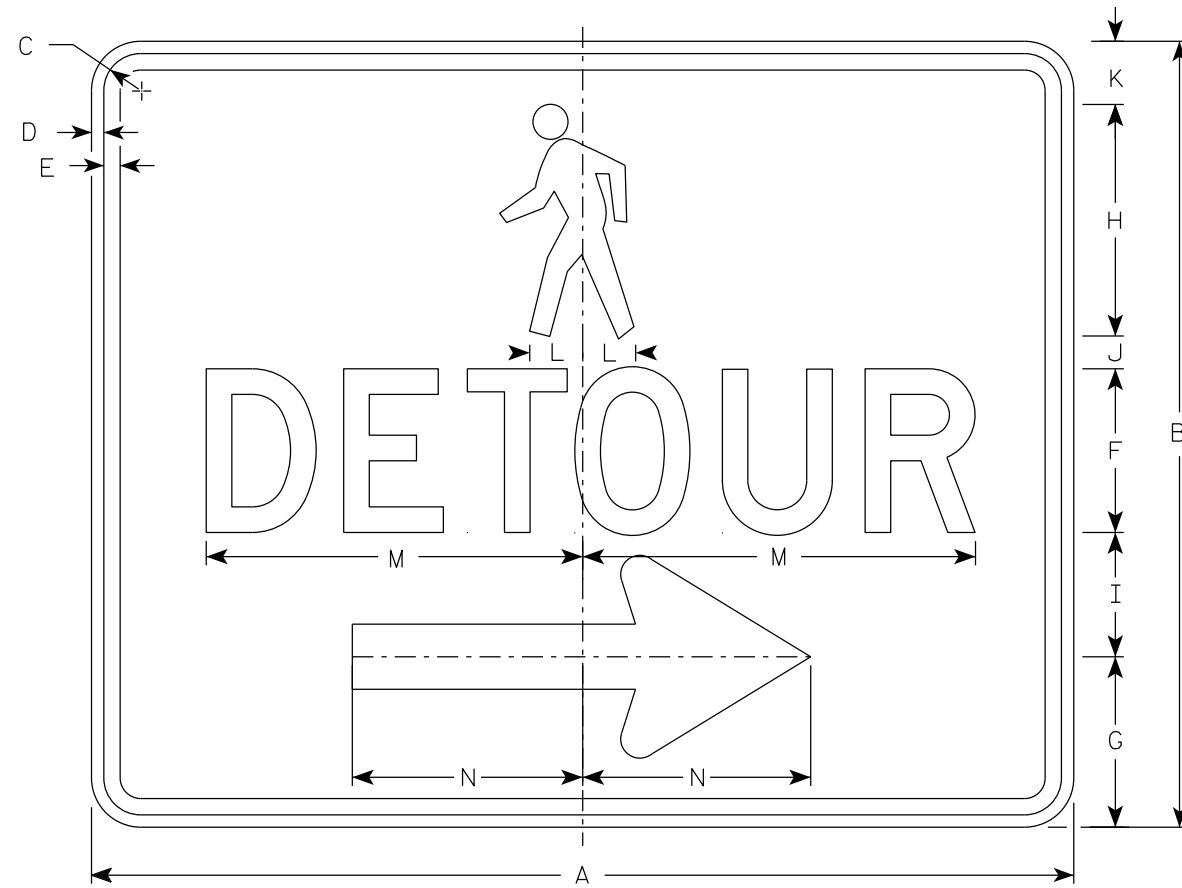
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

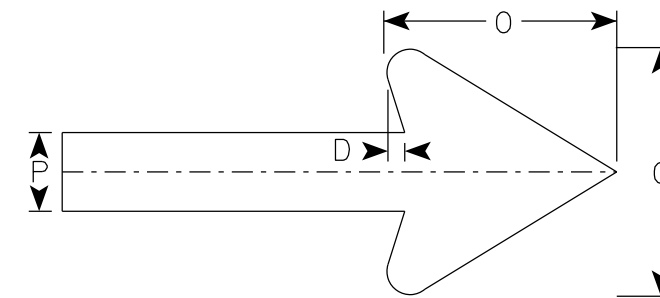
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II-Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



M4 - 9BR



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																											
2	30	24	1 1/8	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.00
3																											
4																											
5																											

STANDARD SIGN  
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

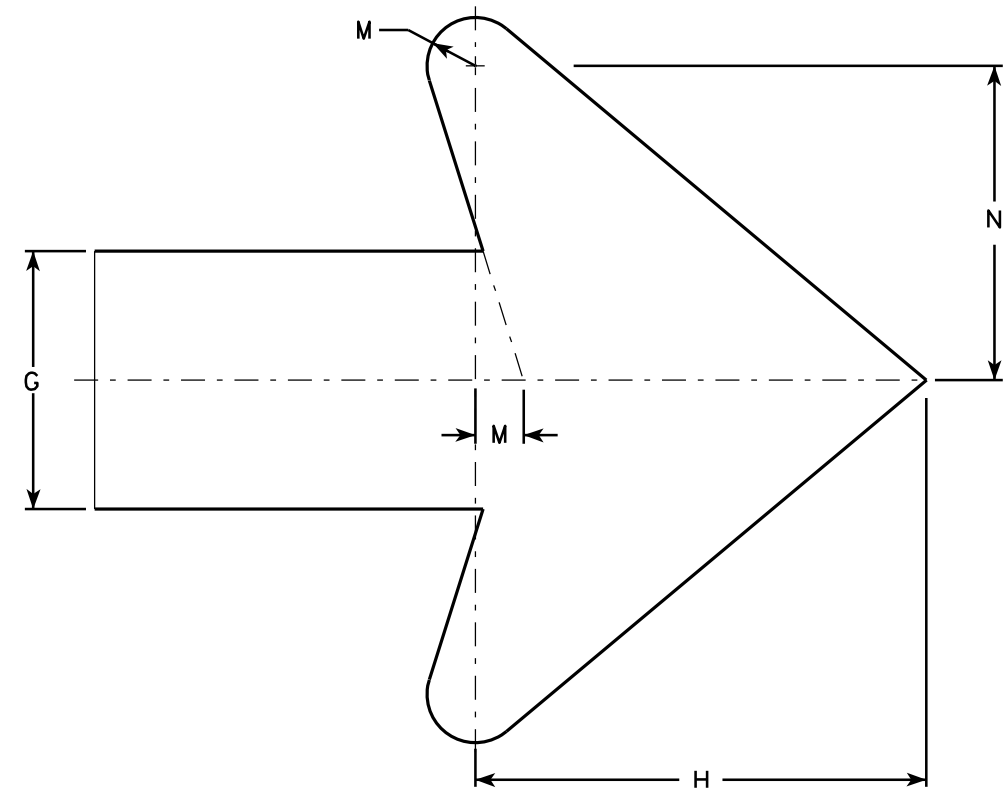
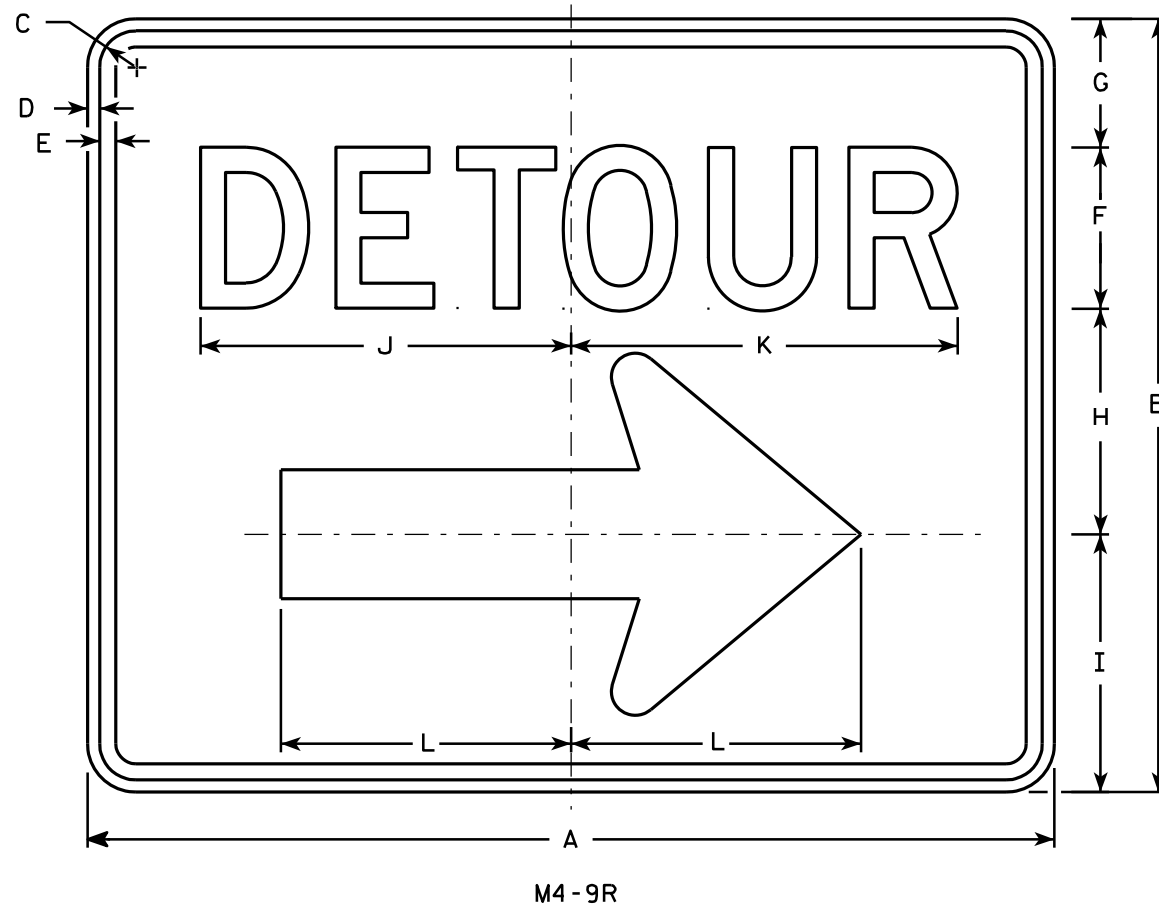
DATE 7/1/19 PLATE NO. M4-9B.2

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

**STANDARD SIGN**  
**M4-9 R & L**

*WISCONSIN DEPT OF TRANSPORTATION*

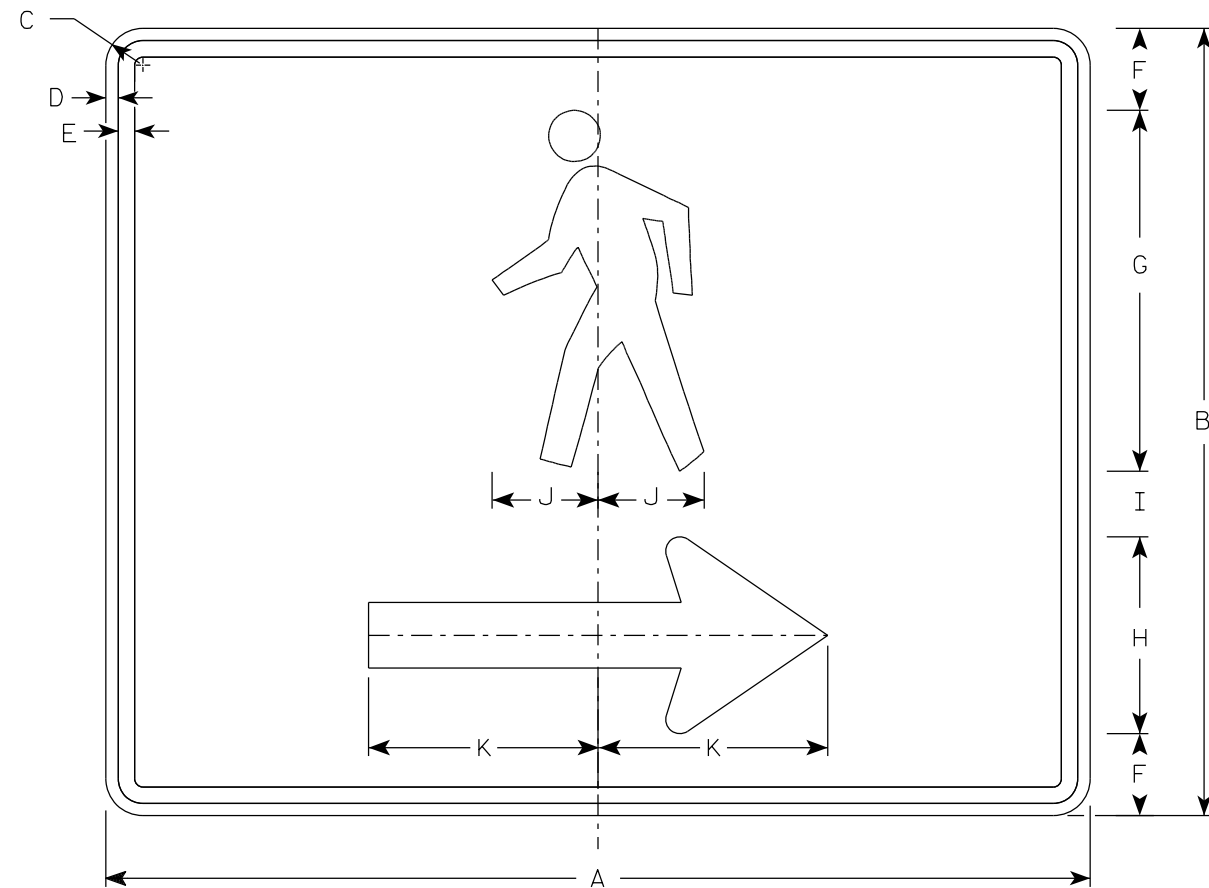
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

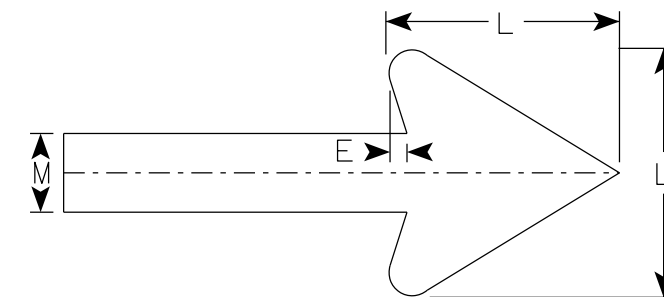
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II- Type F Reflective
2. Color:  
Background - Orange  
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. M4-60L is the same as M4-60R except the arrow is reversed.



M4-60R



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																											
2	30	24	1 1/8	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
3																											
4																											
5																											

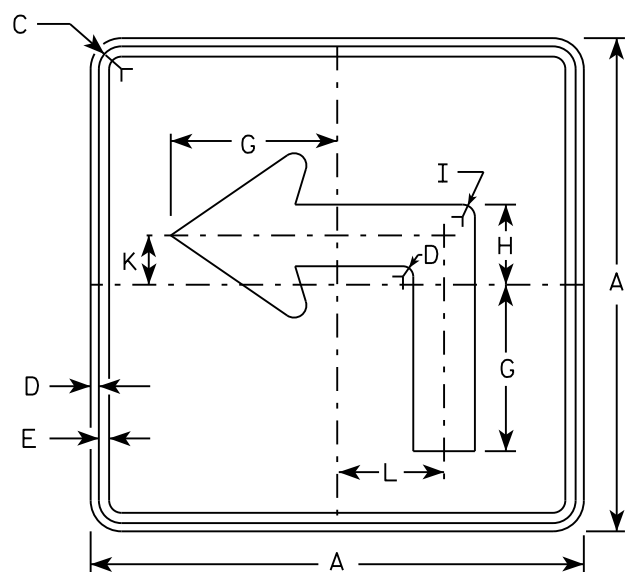
STANDARD SIGN  
M4-60 L&R

WISCONSIN DEPT OF TRANSPORTATION

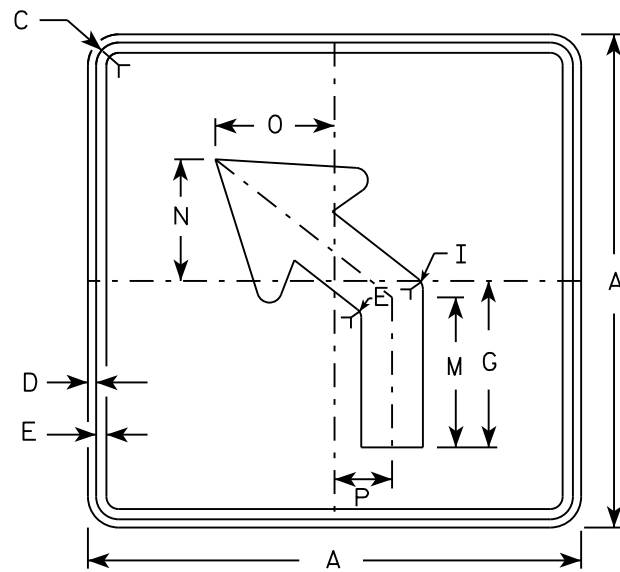
APPROVED *Matthew R Rauch*  
For State Traffic Engineer

DATE 9/16/2021 PLATE NO. M4-60.1

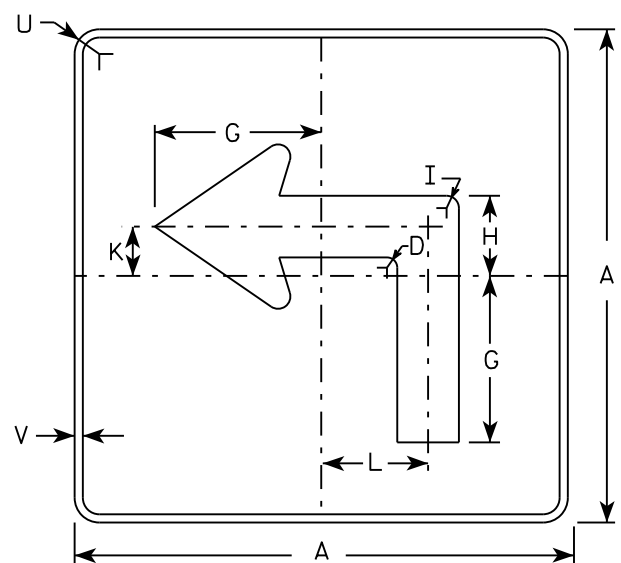
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



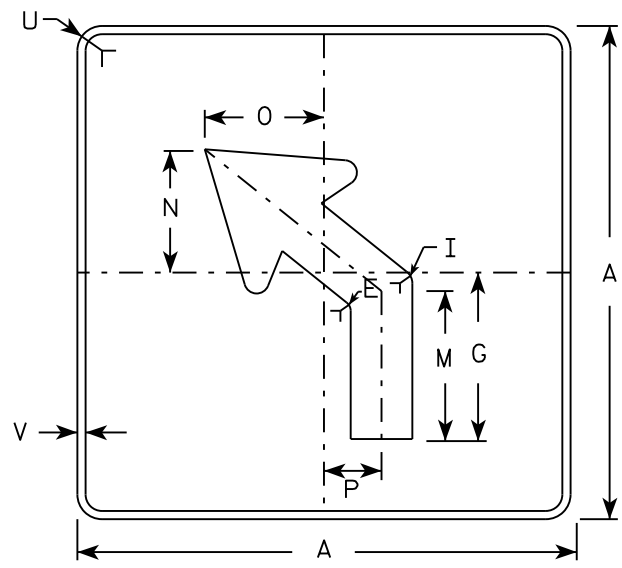
M5-1L  
MM5-1L  
M05-1L  
MP5-1L



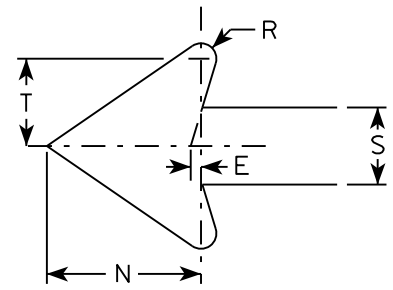
M5-2L  
MM5-2L  
M05-2L  
MP5-2L



MB5-1L  
MK5-1L  
MN5-1L  
MR5-1L



MB5-2L  
MK5-2L  
MN5-2L  
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
  - Background - See note 4
  - Message - See note 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.
- M5-1 and M5-2 Background - White  
Message - Black
  - MB5-1 and MB5-2 Background - Blue  
Message - White
  - MK5-1 and MK5-2 Background - Green  
Message - White
  - MM5-1 and MM5-2 Background - White  
Message - Green
  - MN5-1 and MN5-2 Background - Brown  
Message - White
  - M05-1 and M05-2 Background - Orange - Type F Reflective  
Message - Black
  - MP5-1 and MP5-2 Background - White - Type H Reflective  
Message - Blue
  - MR5-1 and MR5-2 Background - Brown  
Message - Yellow
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

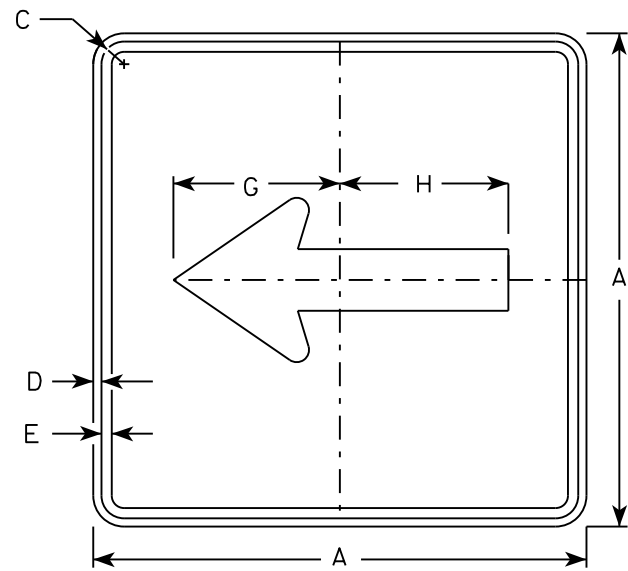
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN  
M5-1 & M5-2

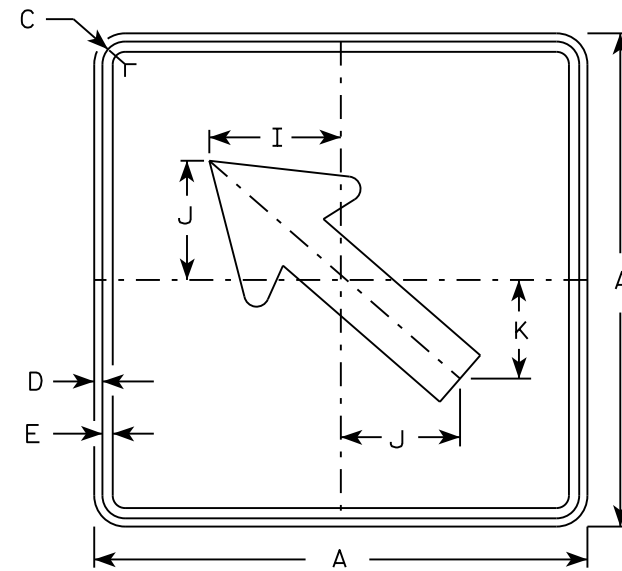
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

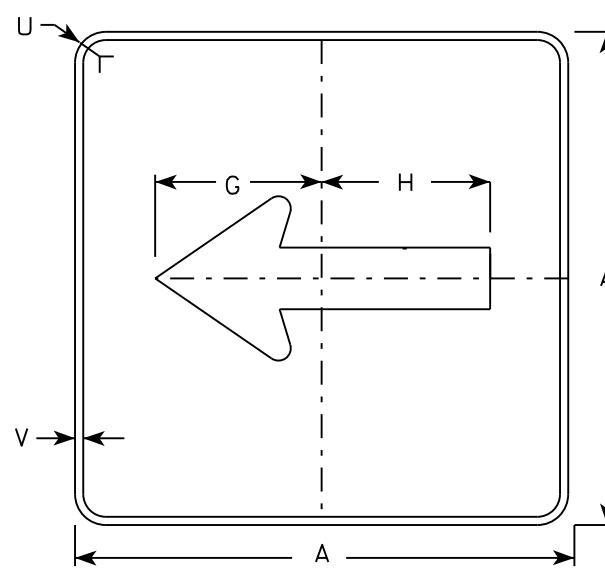
DATE 10/15/15 PLATE NO. M5-1.13



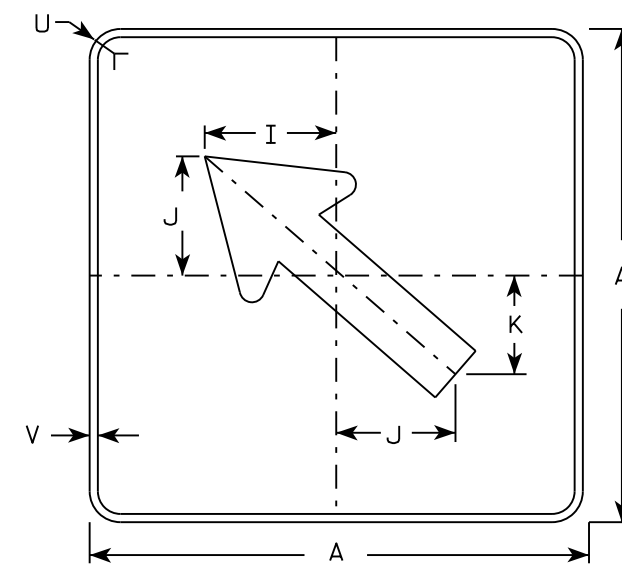
M6-1  
MM6-1  
M06-1  
MP6-1



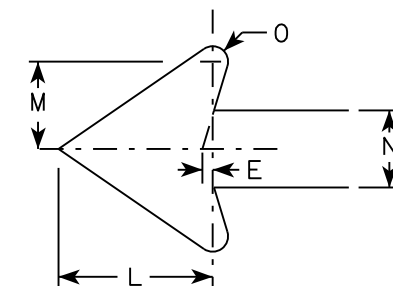
M6-2  
MM6-2  
M06-2  
MP6-2



MB6-1  
MK6-1  
MN6-1  
MR6-1



MB6-2  
MK6-2  
MN6-2  
MR6-2



NOTES

- Signs are Type II - Type H except as Shown
- Color:  
Background - See note 4  
Message - See note 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.
- M6-1 and M6-2 Background - White  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White  
MK6-1 and MK6-2 Background - Green  
Message - White  
MM6-1 and MM6-2 Background - White  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White  
M06-1 and M06-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN  
M6-1 & M6-2  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

**NOTES**

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R2-6P

7

7

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	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

**STANDARD SIGN**  
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

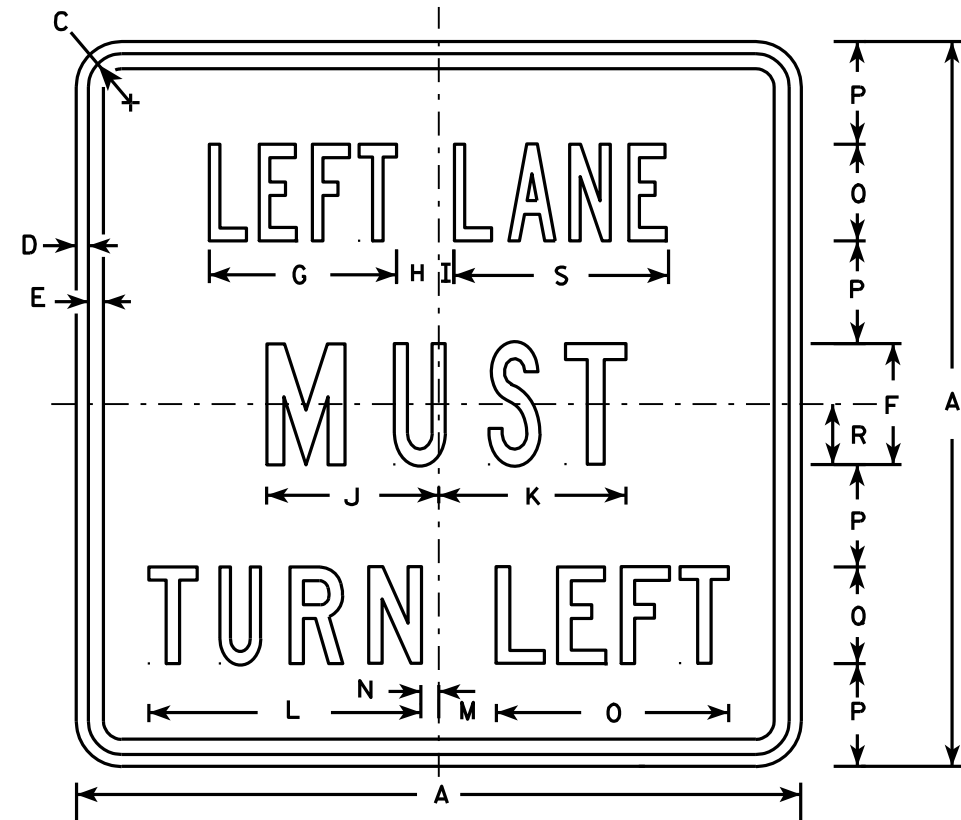
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

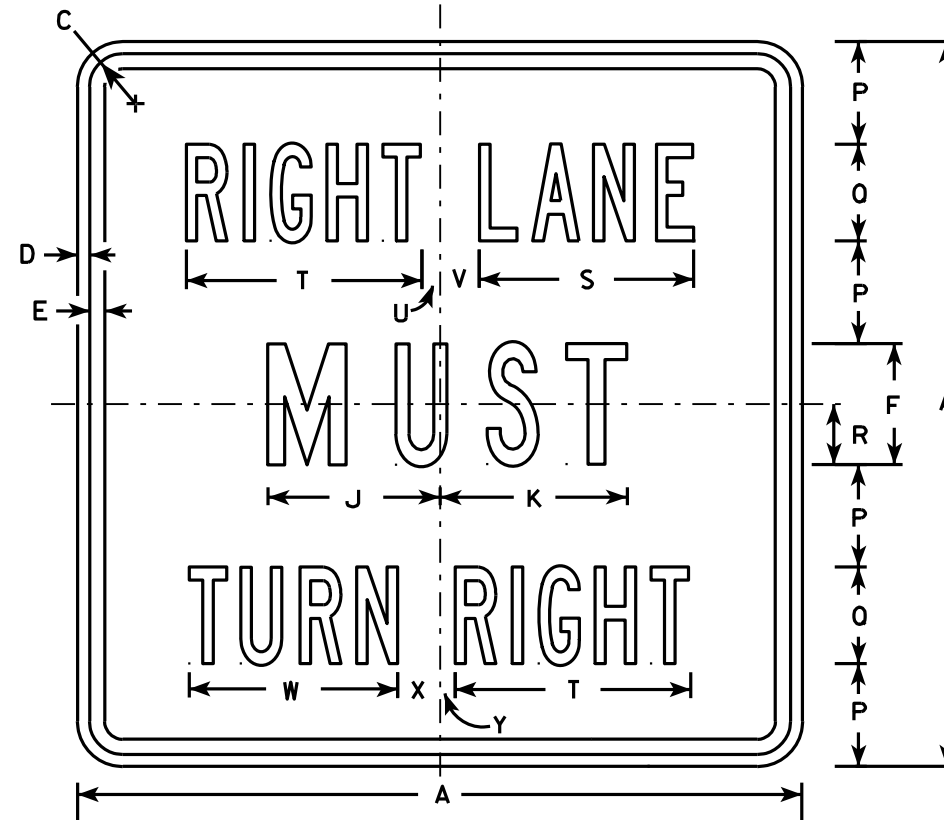
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

**NOTES**

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - Line 1 is Series B.  
Line 2 is Series C.  
Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
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.



R3-7L



R3-7R

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

**STANDARD SIGN**  
**R3-7L & R3-7R**

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code  
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

- |             |                            |
|-------------|----------------------------|
| 1 Letter =  | 3.75 sq ft for Size 2      |
|             | 6.0 sq ft for Size 3       |
|             | 10.0 sq ft for Size 4 or 5 |
| 2 Letters = | 7.5 sq ft for Size 2       |
|             | 12.0 sq ft for Size 3      |
|             | 20.0 sq ft for Size 4 or 5 |
| 3 Letters = | 11.25 sq ft for Size 2     |
|             | 18.0 sq ft for Size 3      |
|             | 30.0 sq ft for Size 4 or 5 |
| 4 Letters = | 15.0 sq ft for Size 2      |
|             | 24.0 sq ft for Size 3      |
|             | 40.0 sq ft for Size 4 or 5 |
| 5 Letters = | 18.75 sq ft for Size 2     |
|             | 30.0 sq ft for Size 3      |
|             | 50.0 sq ft for Size 4 or 5 |
| 6 Letters = | 22.5 sq ft for Size 2      |
|             | 36.0 sq ft for Size 3      |
|             | 60.0 sq ft for Size 4 or 5 |

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq.Ft. changes.

Add the amounts when these letters are used:

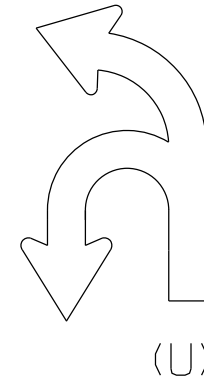
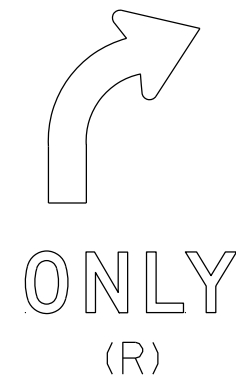
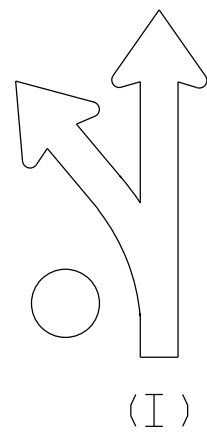
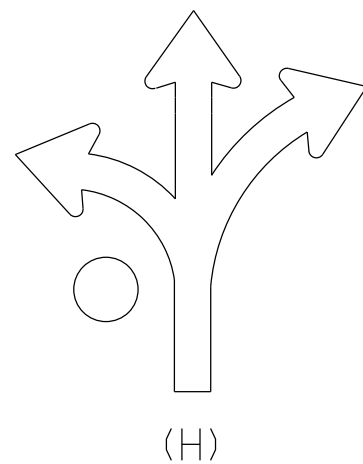
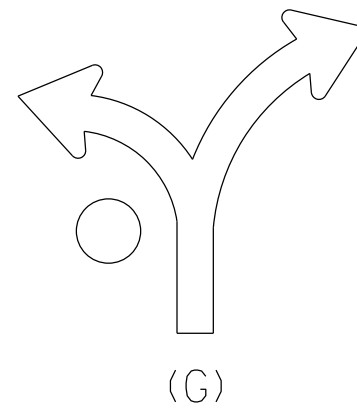
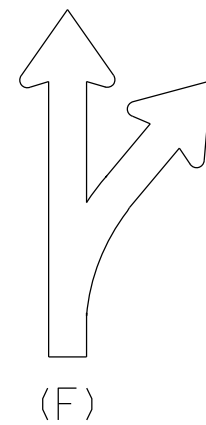
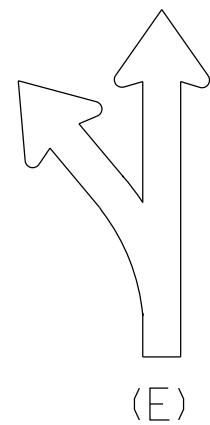
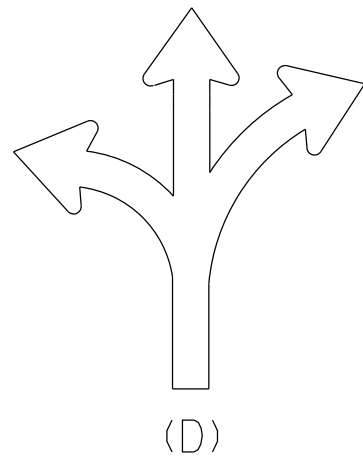
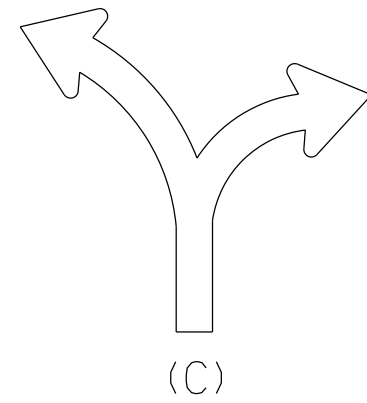
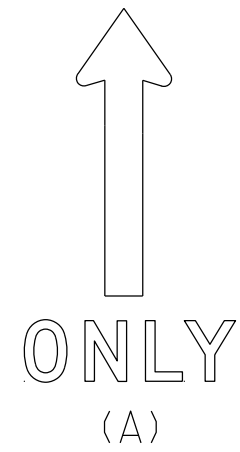
- 1.25 sq ft for Size 2
- 1.5 sq ft for Size 3
- 2.0 sq ft for Size 4 or 5

STANDARD SIGN  
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1



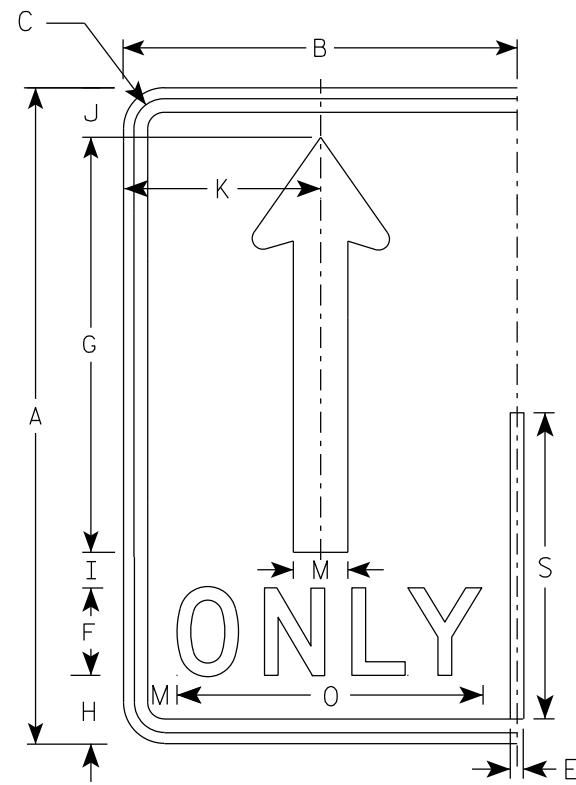
7

7

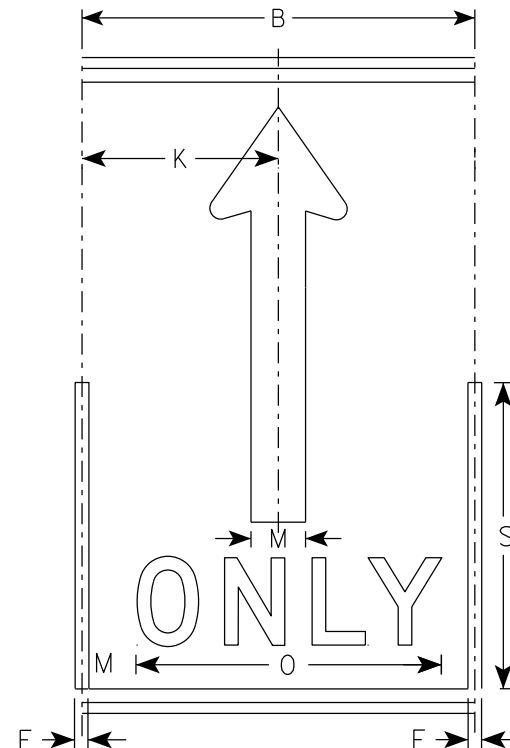


NOTES

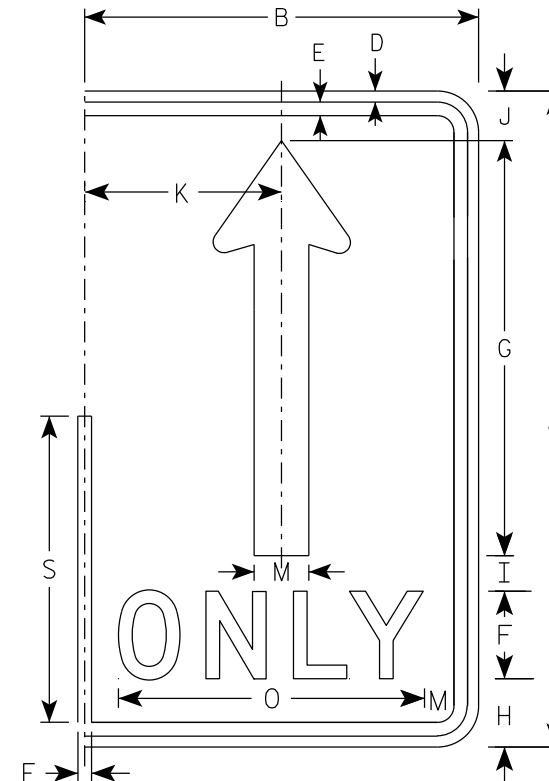
1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D



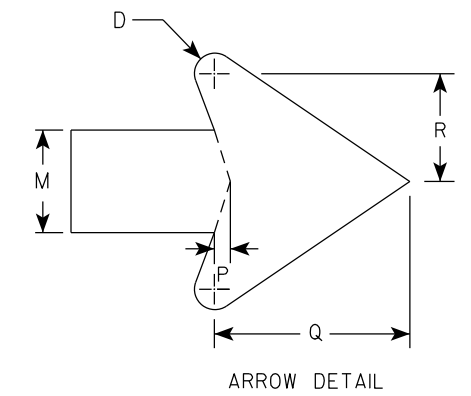
(A)



(A)



(A)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN  
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

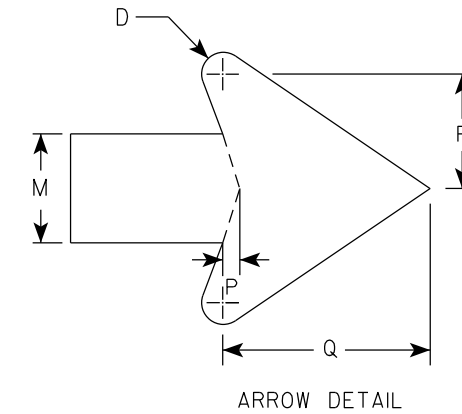
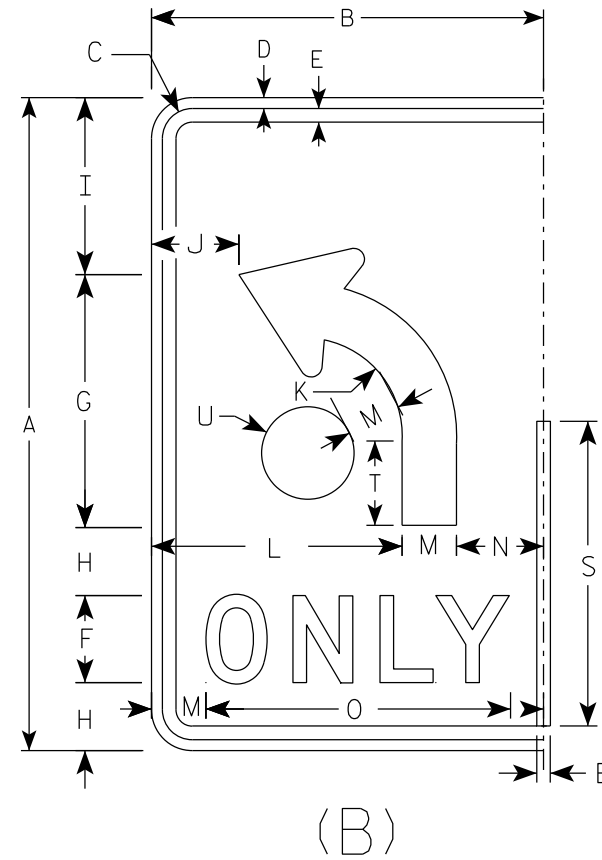
APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
  - Background - White
  - Message - Black
  - Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN  
R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

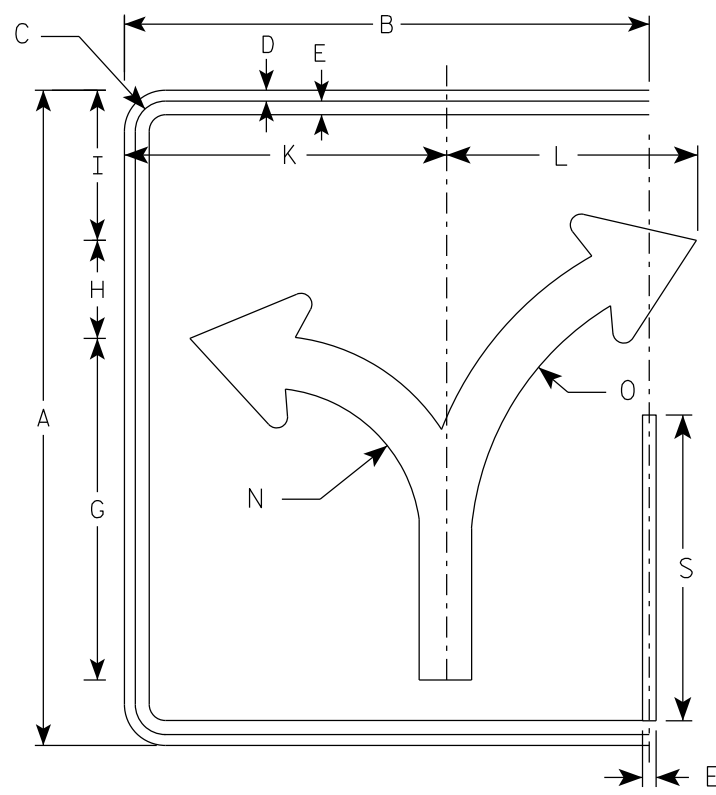
PROJECT NO:

SHEET NO:

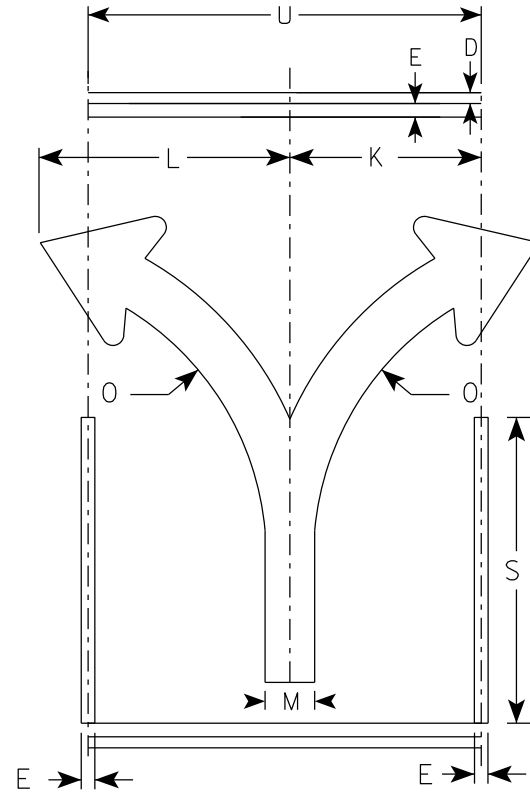
E

NOTES

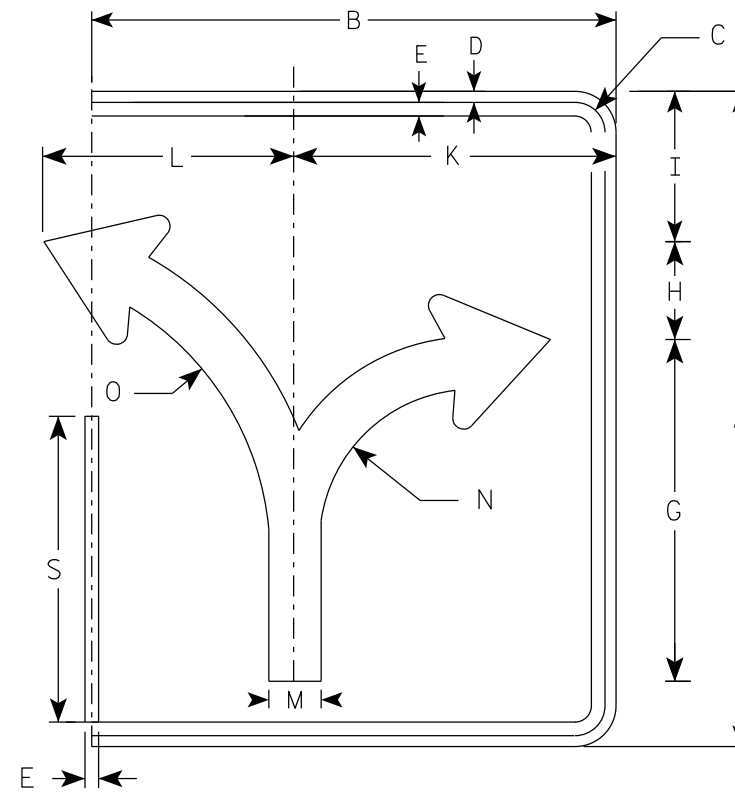
1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - None



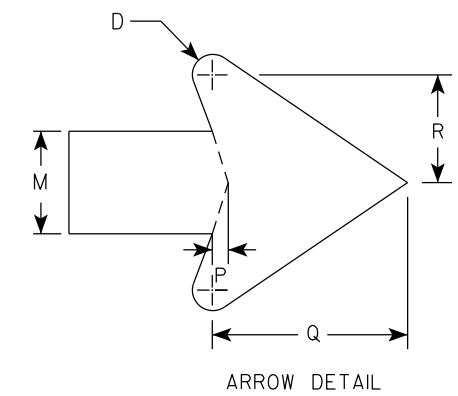
(C)



(C)



(C)



ARROW DETAIL

7

7

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	ENDS	MIDDLE
																											Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN  
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

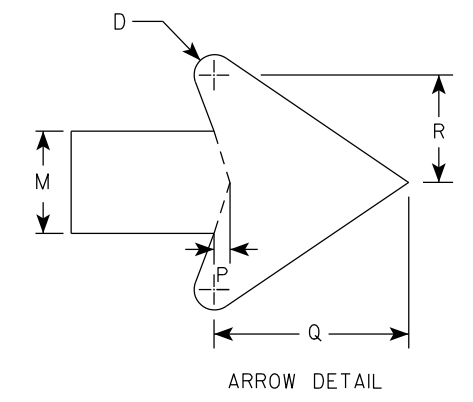
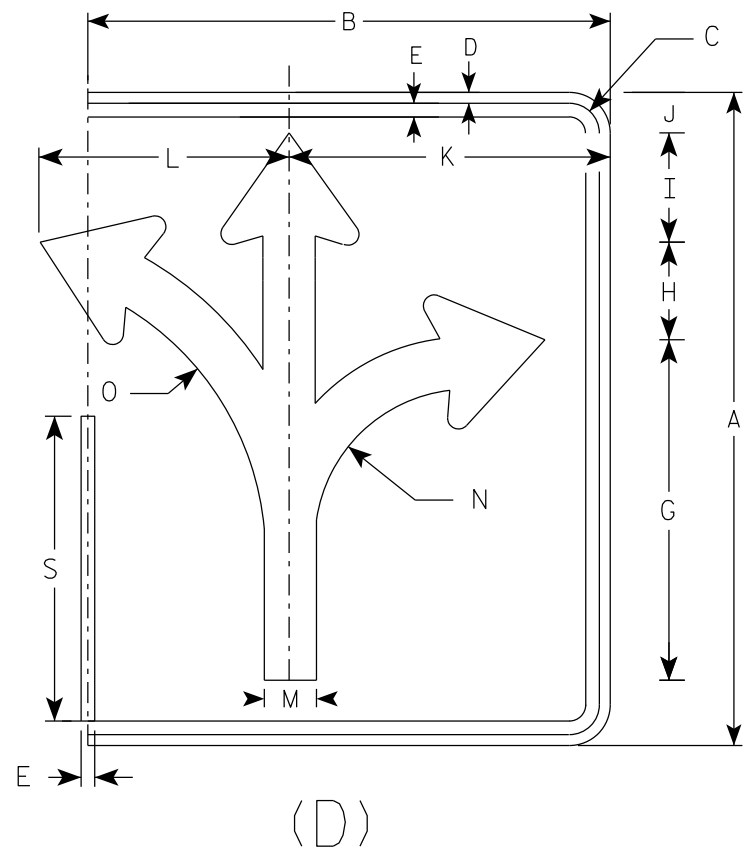
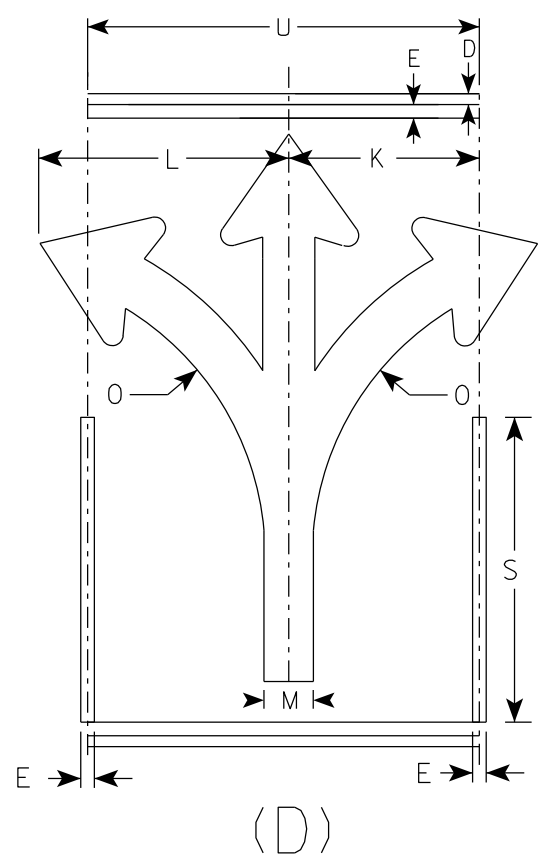
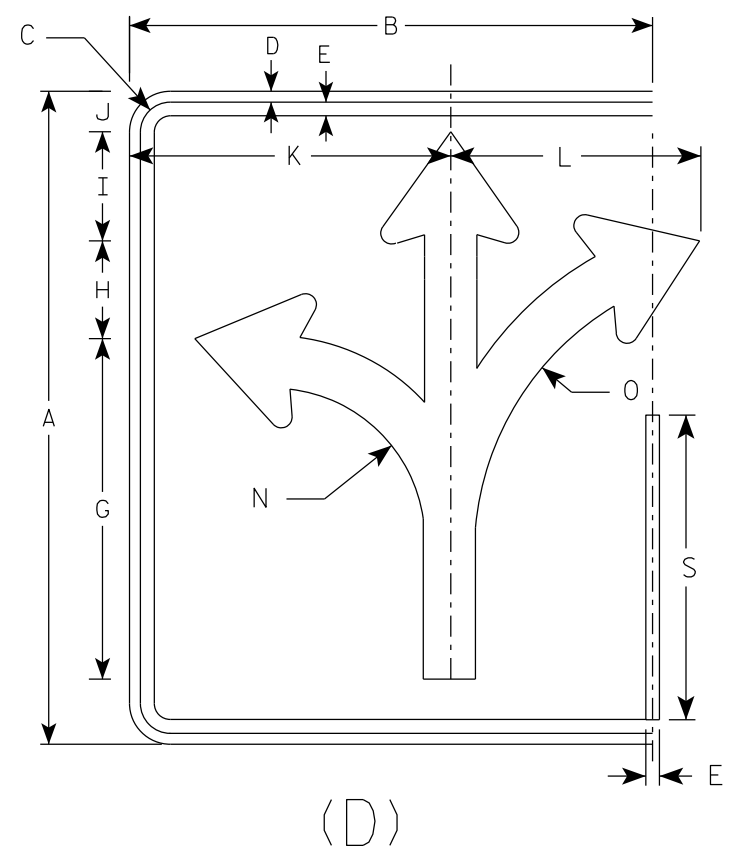
APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - None



7

7

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	ENDS	MIDDLE
																											Area sq. ft.	Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18					5.0	3.75	
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24					7.5	6.0	
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30					12.0	10.0	
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30					12.0	10.0	

STANDARD SIGN  
R3-8 (D) Arrow

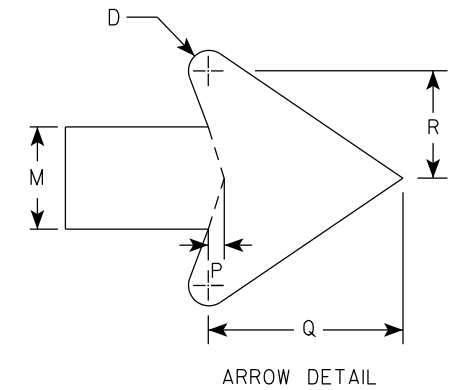
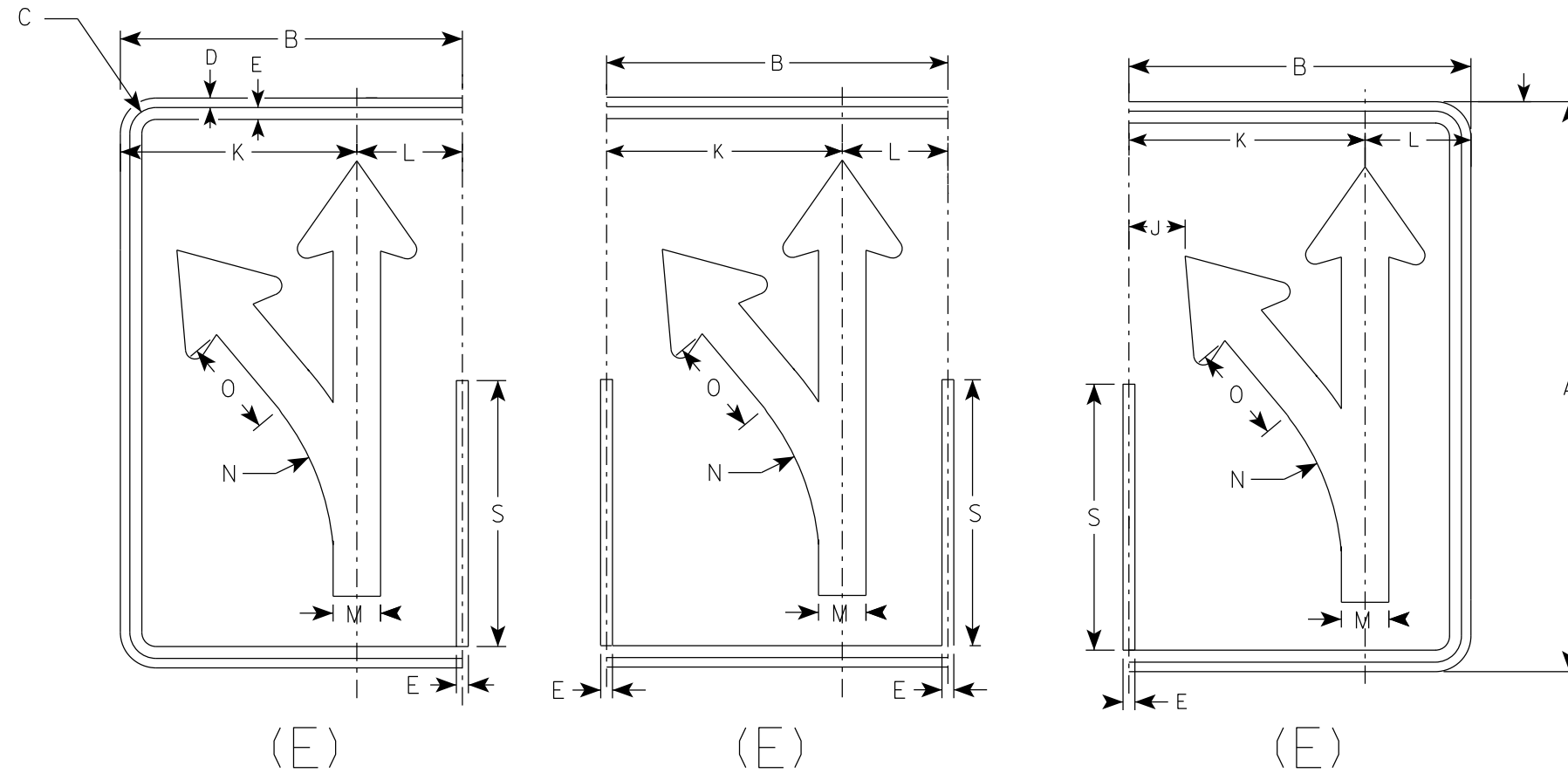
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
  - Background - White
  - Message - Black
3. Message Series - None



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN  
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

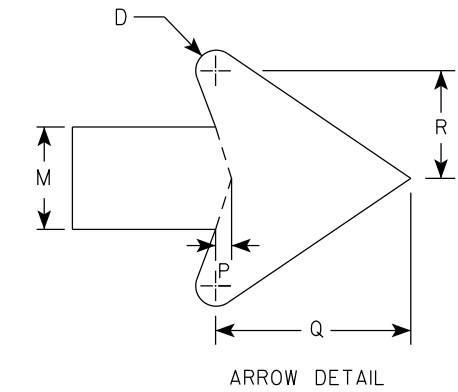
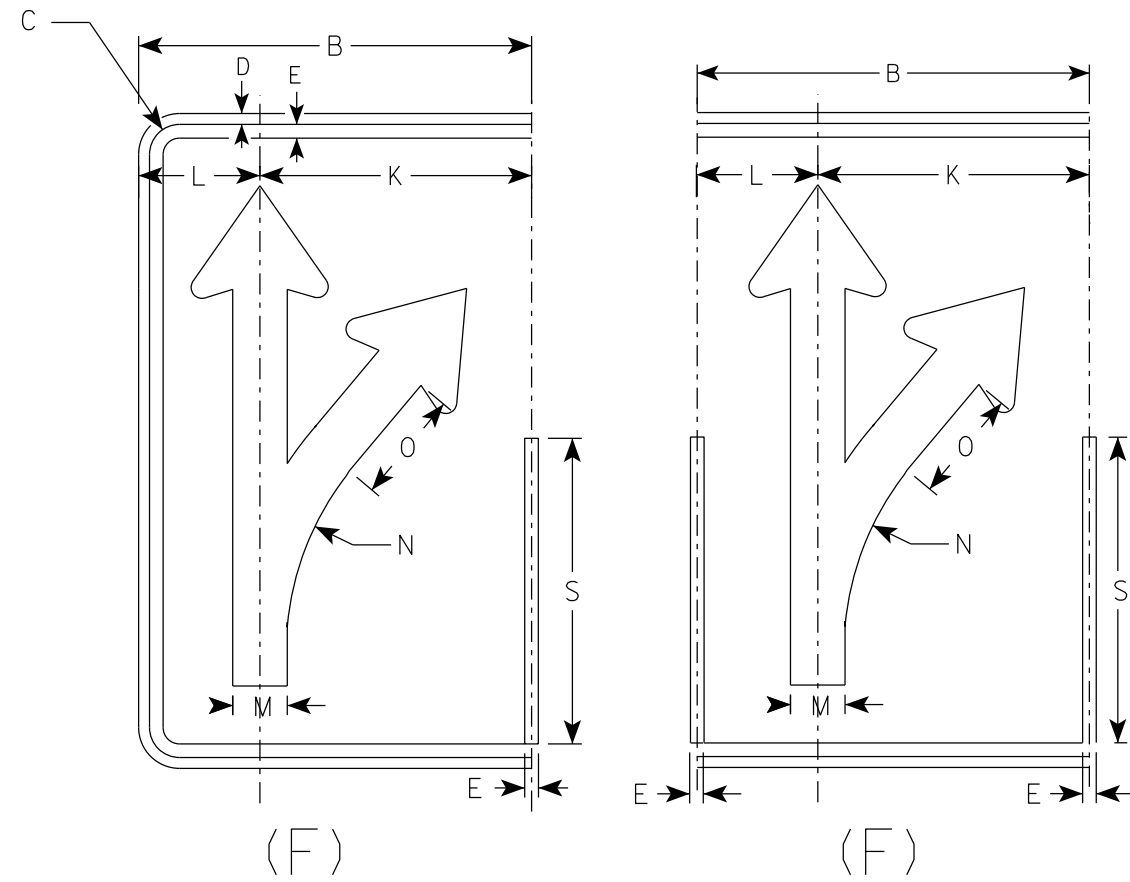
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - None



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN  
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

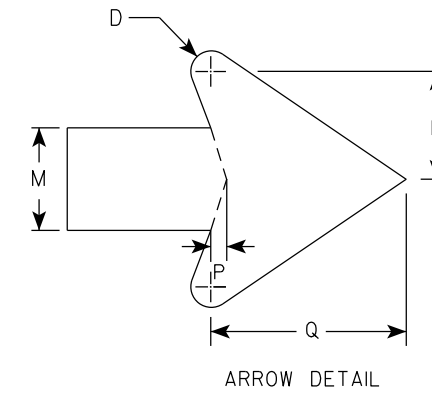
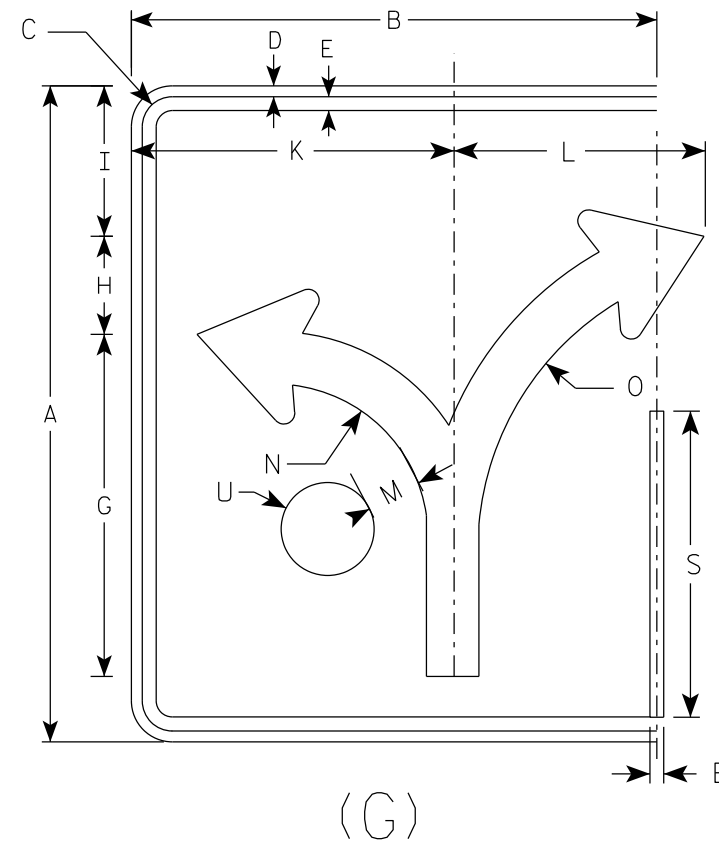
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN  
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

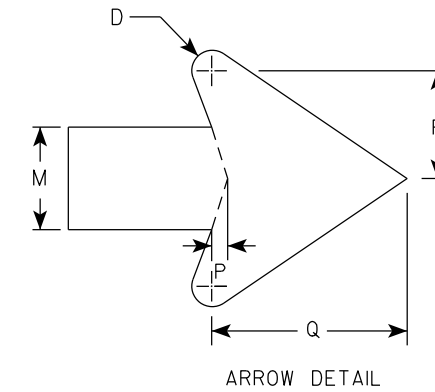
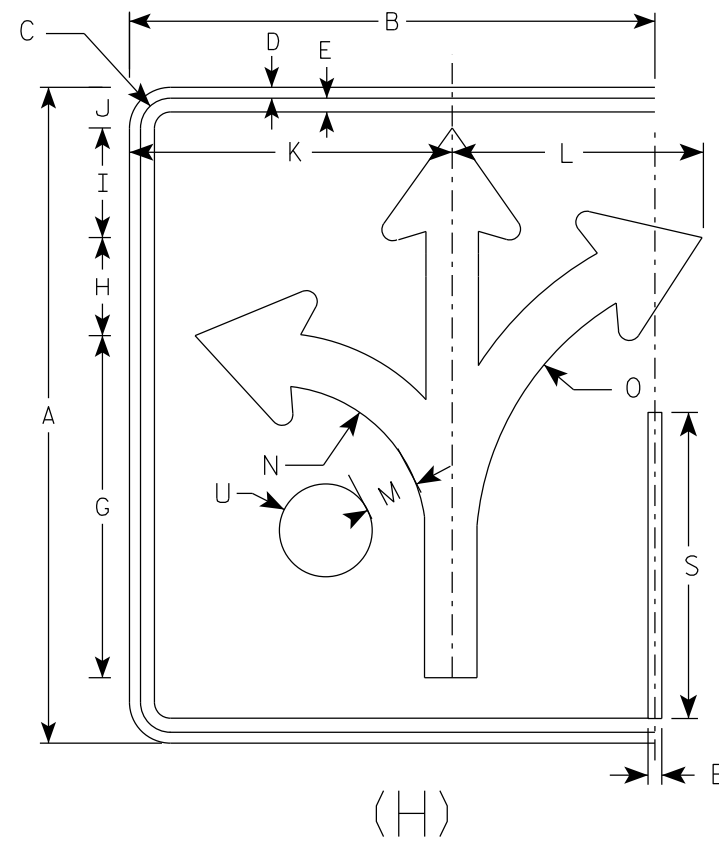
7

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN  
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

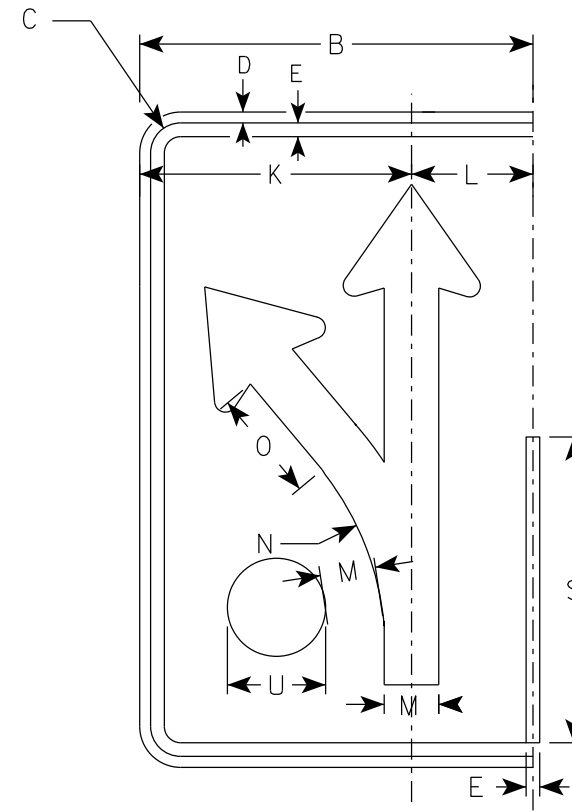
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

7

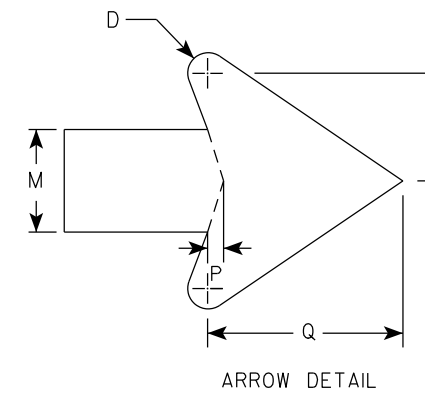
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - None



( I )



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN  
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

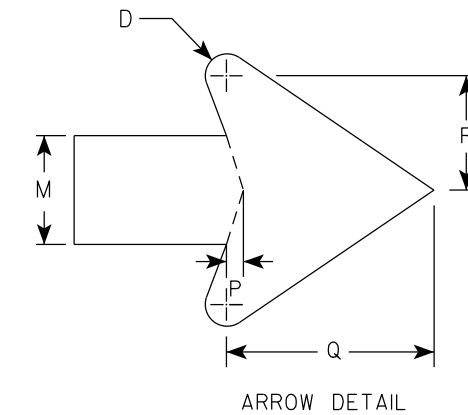
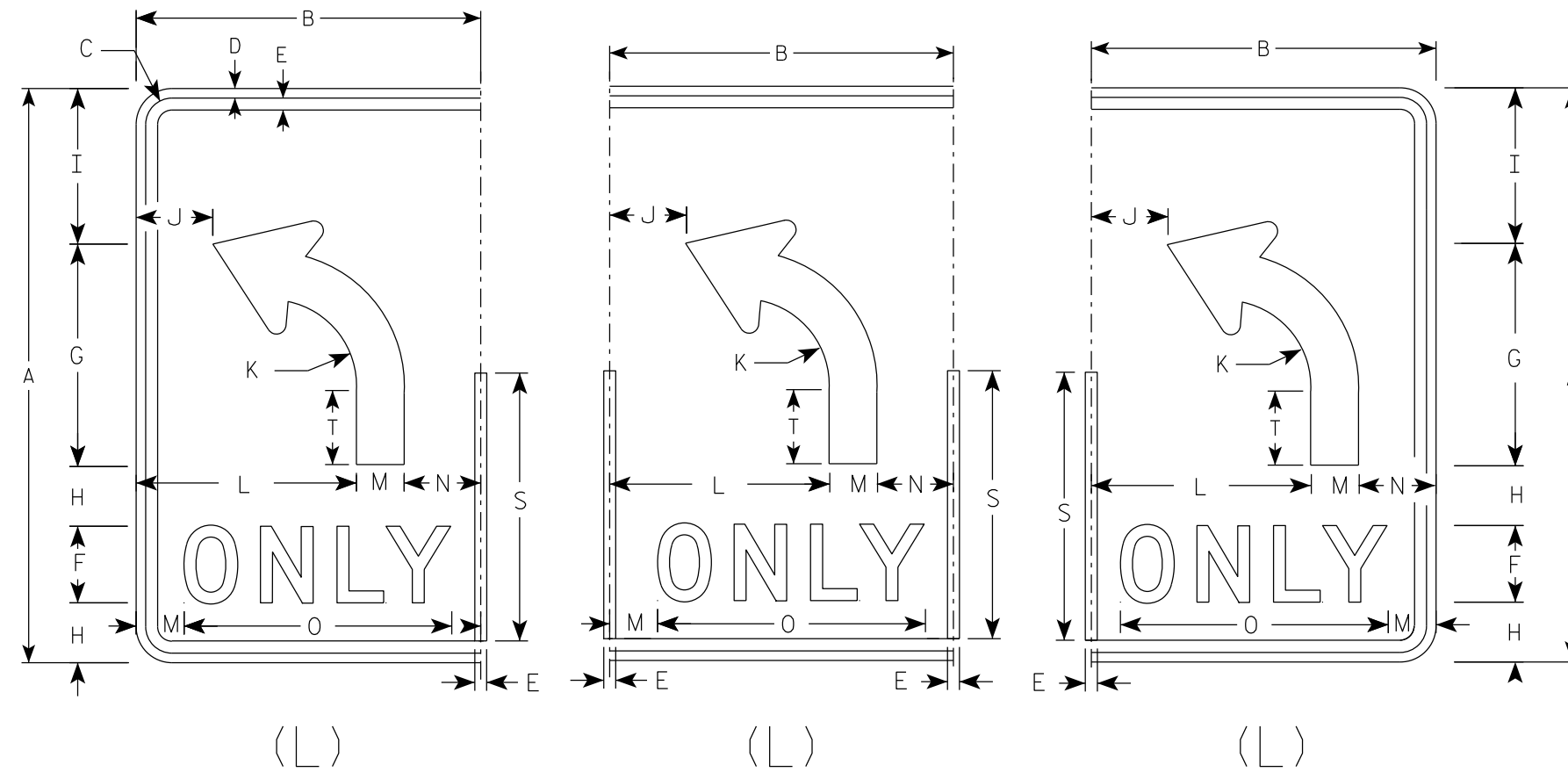
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN  
R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

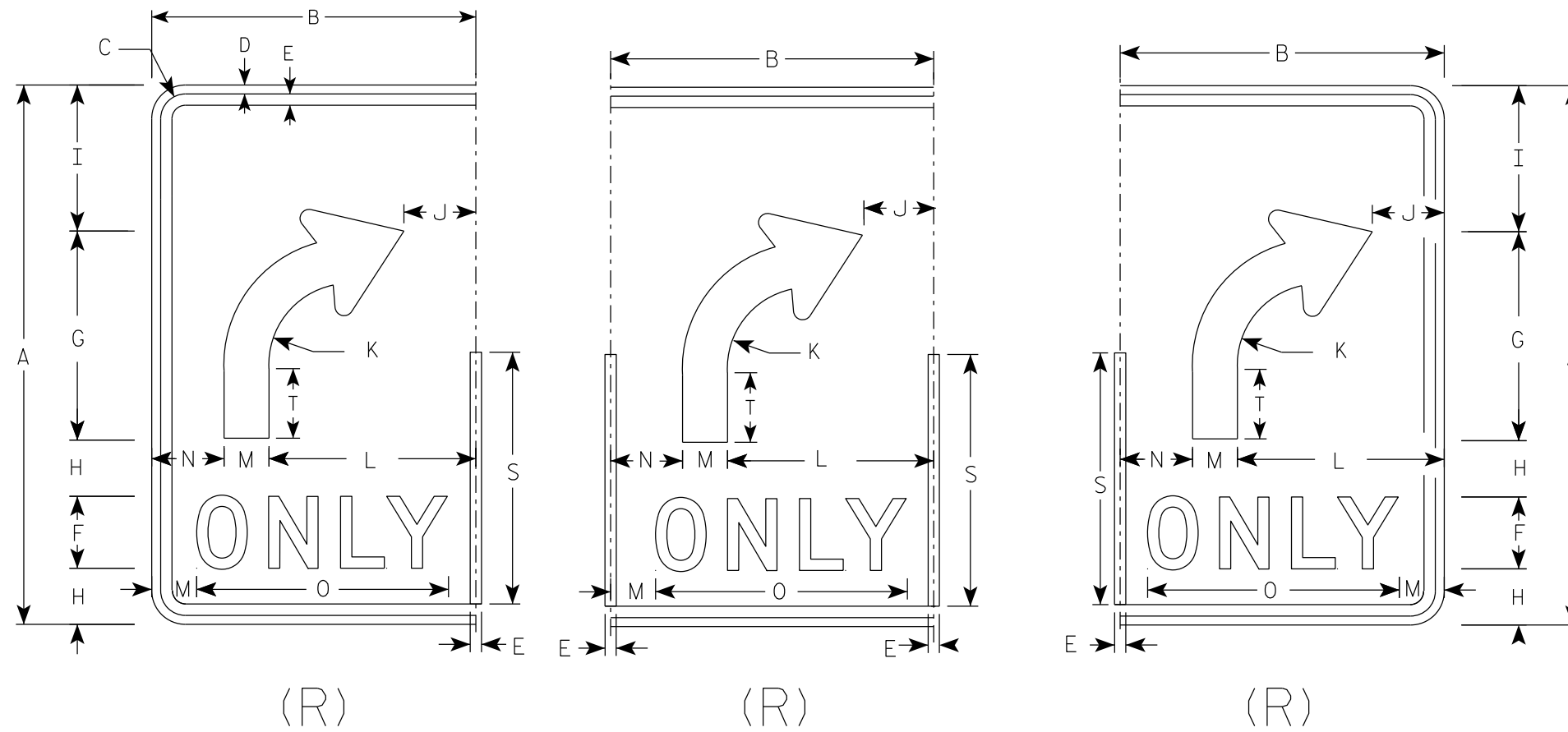
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: SHEET NO: E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D



7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN  
R3-8 (R) Arrow

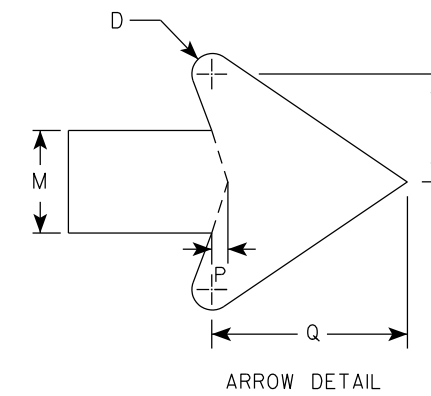
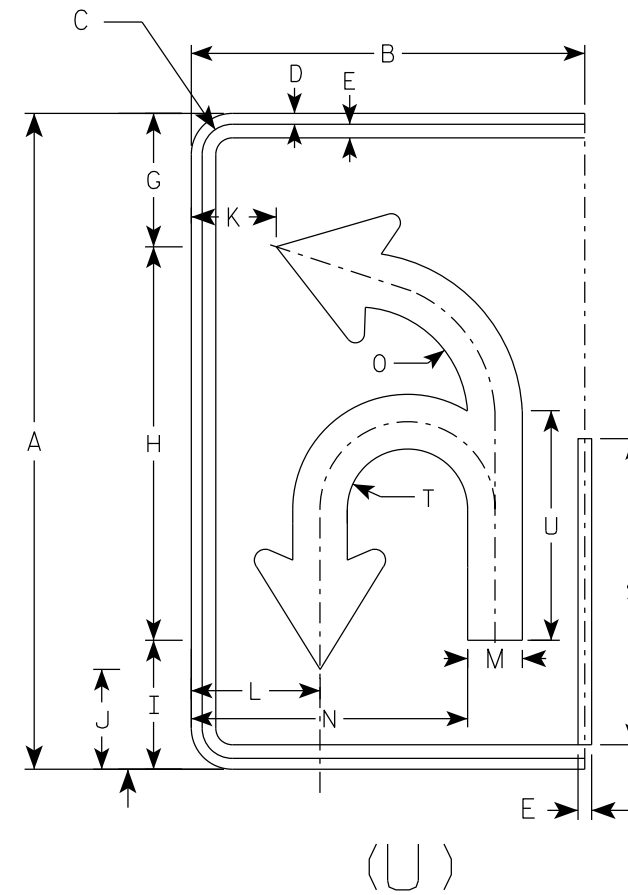
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - None



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

STANDARD SIGN  
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

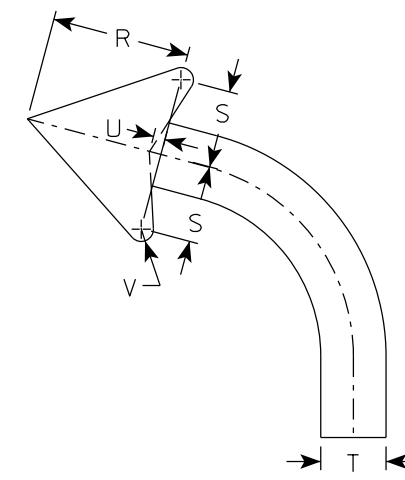
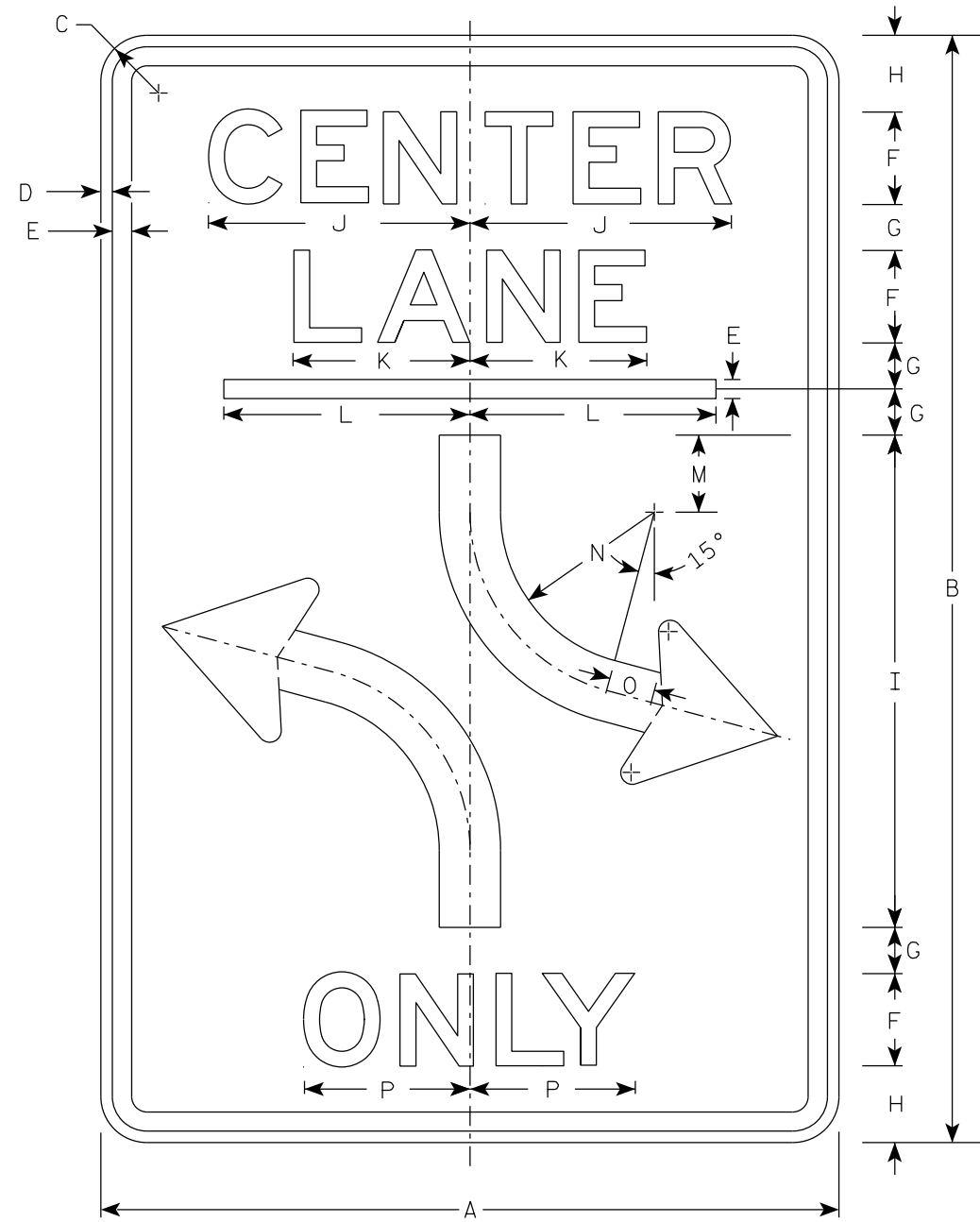
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - E



ARROW DETAIL

R3-9B

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	36	1 1/2	3/8	1/2	3	1 1/2	2 1/2	16	8 1/2	5 3/4	8	2 1/2	5	1 1/2	5 1/8		4 3/8	2 3/8	2	3/8	3/8				6.0	
2M	24	36	1 1/2	3/8	1/2	3	1 1/2	2 1/2	16	8 1/2	5 3/4	8	2 1/2	5	1 1/2	5 1/8		4 3/8	2 3/8	2	3/8	3/8				6.0	
3	36	48	2 1/4	5/8	7/8	5	1 1/2	3 1/2	20	14 1/8	9 1/2	12	3	7 3/8	2	9 7/8		6 1/8	3 1/2	3	1/2	5/8				12.0	
4																											
5																											

STANDARD SIGN  
R3-9B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/24/2022 PLATE NO. R3-9B.6

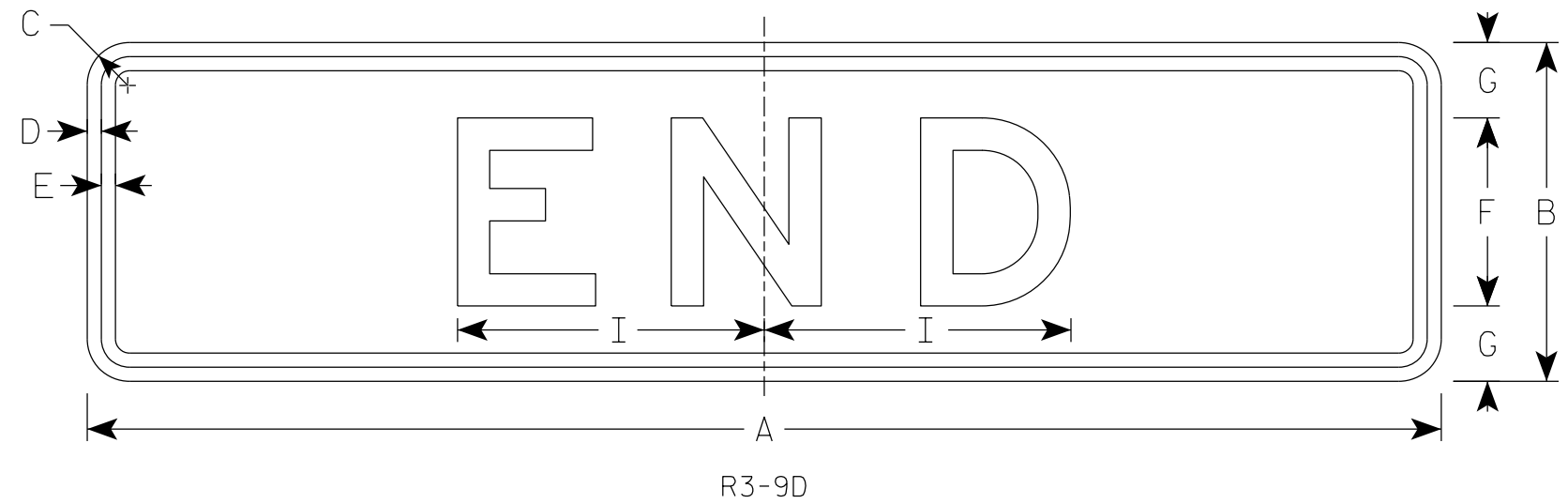
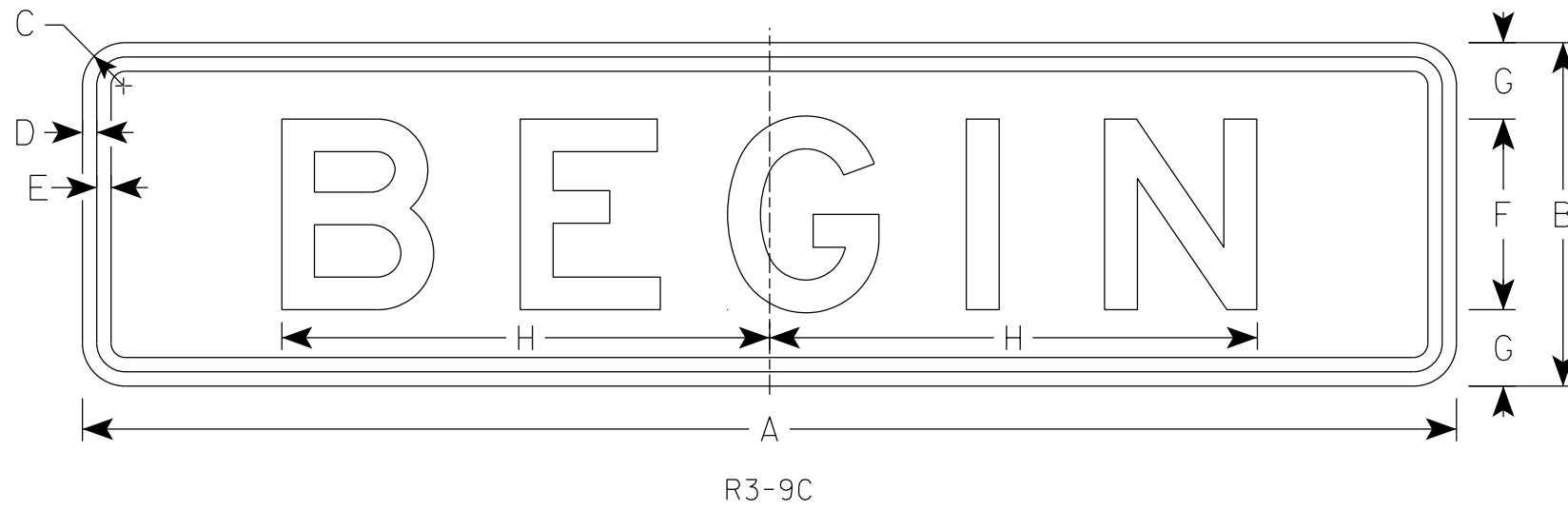
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - E



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
2M	24	6	1 1/8	3/8	3/8	3	1 1/2	7 3/4	4 7/8																		1.0
3	36	9	1 1/8	3/8	3/8	5	2	12 3/4	8 1/8																		2.25
4																											
5																											

STANDARD SIGN  
R3-9C & R3-9D

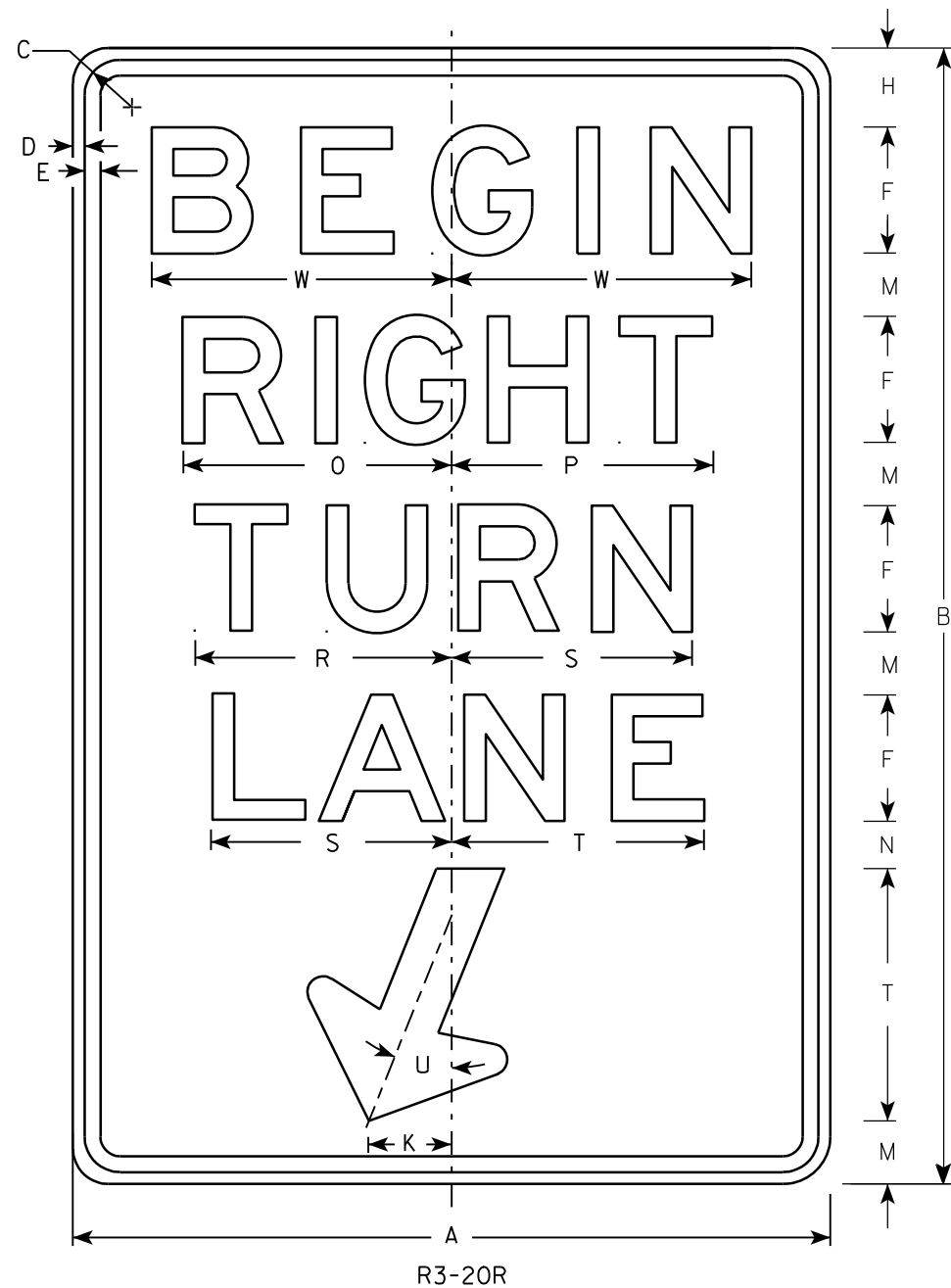
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R3-9C.3

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

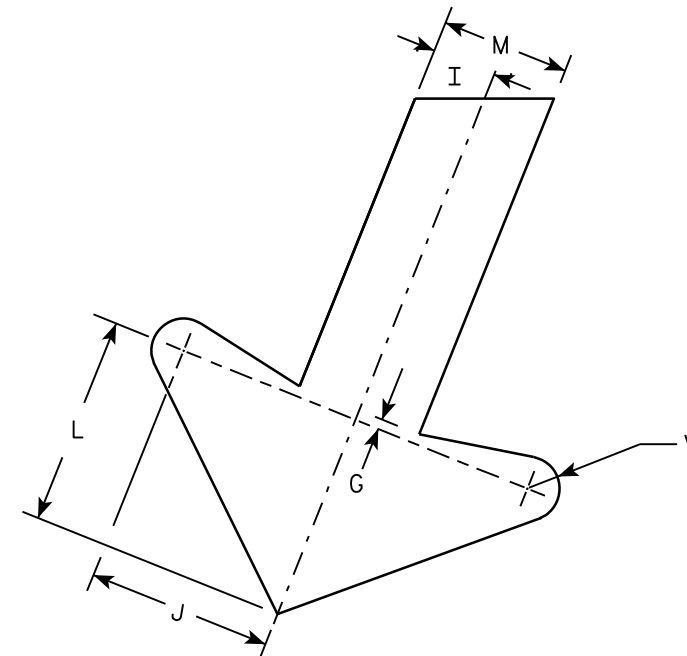




R3-20R

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.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	
1																												
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0	
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0	
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5	
4																												
5																												

STANDARD SIGN  
R3-20R

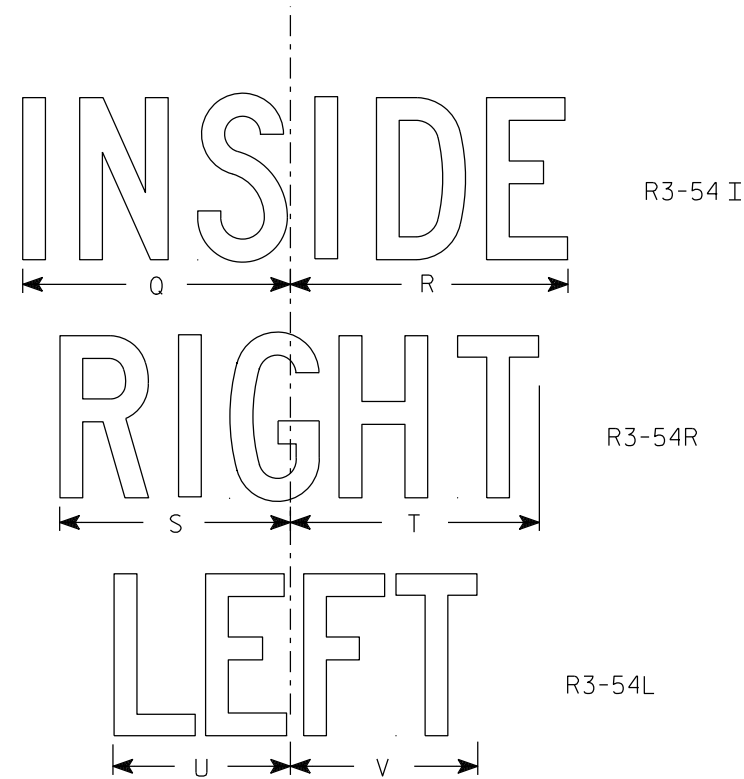
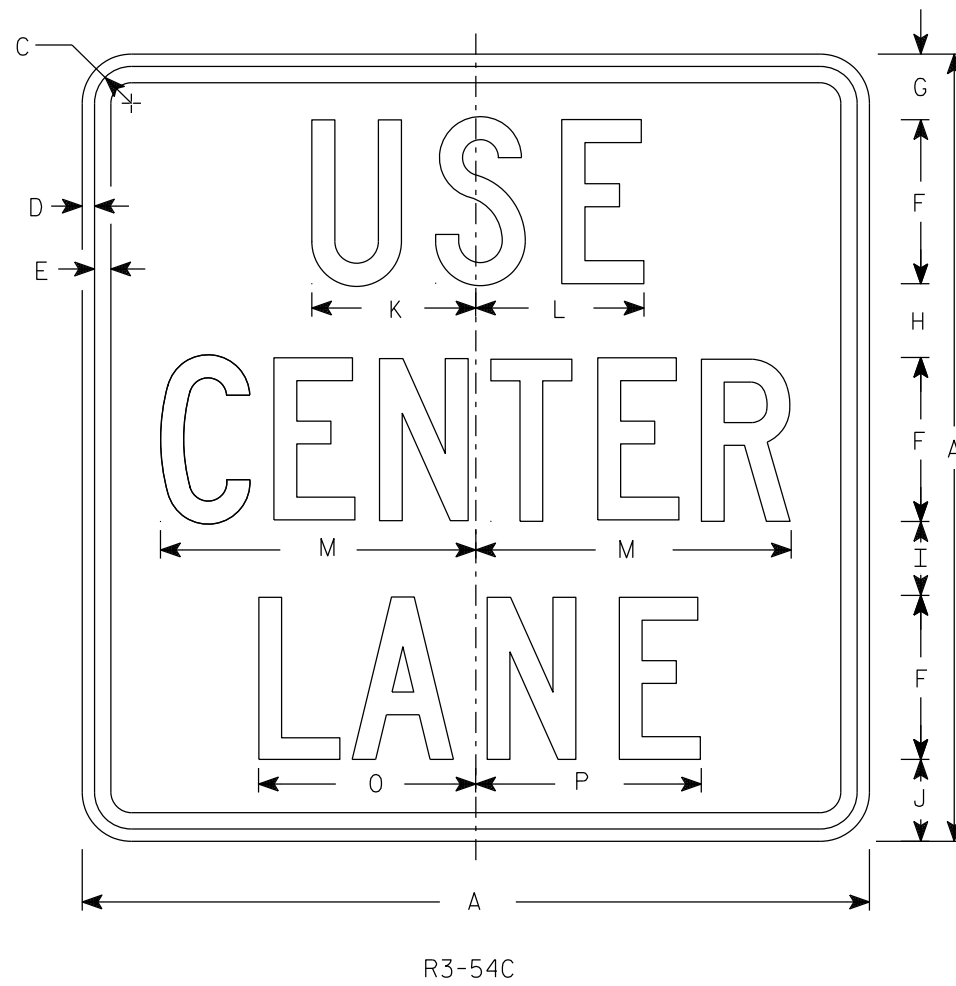
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
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		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	9 5/8		6 5/8	6 7/8	8 1/8	8 1/2	7	7 5/8	5 3/8	5 3/4					4.0
2M	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	9 5/8		6 5/8	6 7/8	8 1/8	8 1/2	7	7 5/8	5 3/8	5 3/4					4.0
3	36		1 5/8	5/8	3/4	7	4	3 1/2	3 1/2	4 1/2	7 1/2	7 3/4	14 3/8		9 7/8	10 1/4	12 1/8	12 3/4	10 3/8	11 3/8	8	8 5/8					9.0
4																											
5																											

STANDARD SIGN  
R3-54C, I, L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 4/19/21 PLATE NO. R3-54.9

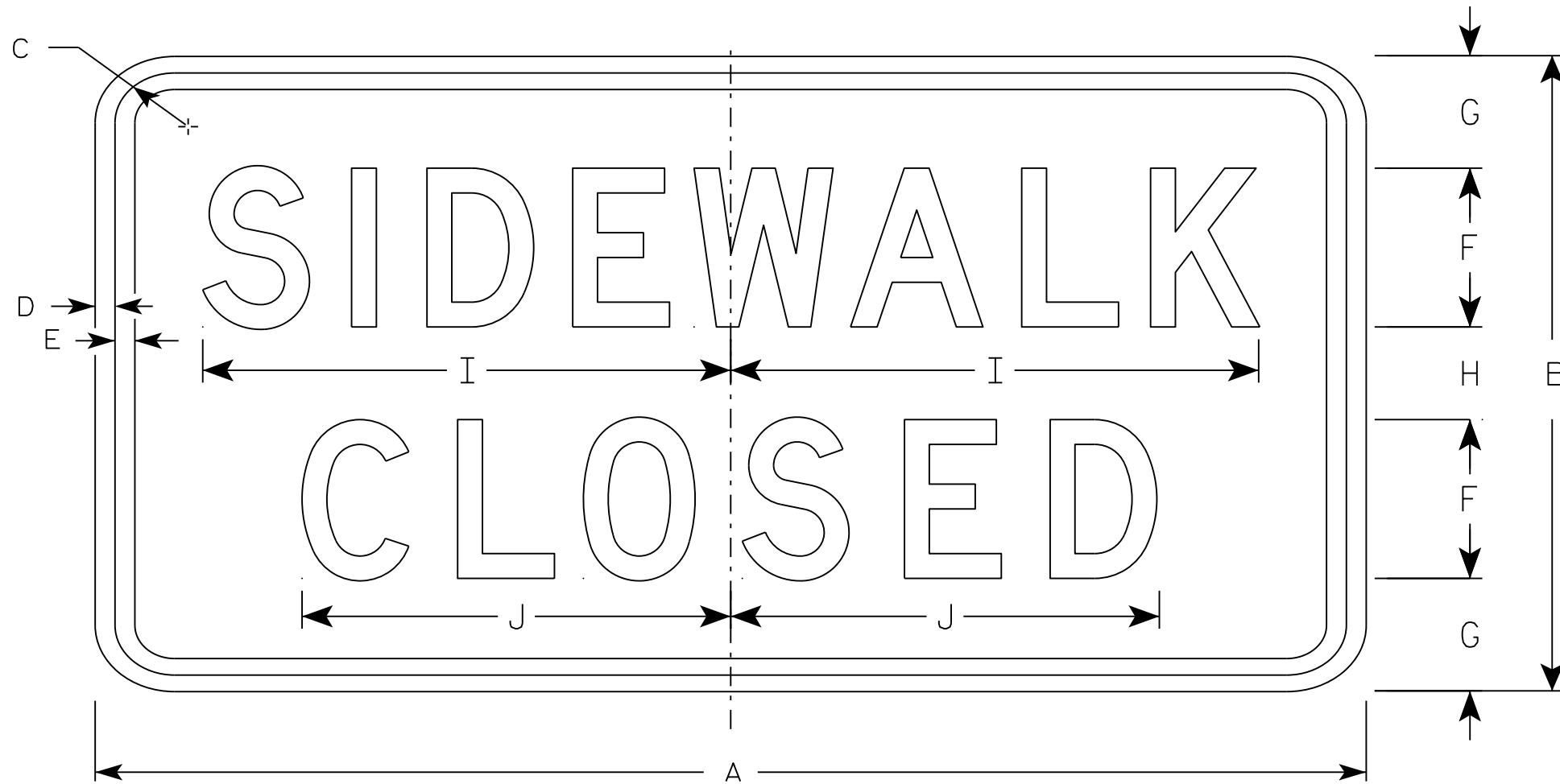
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

7

7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-9

7

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 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN  
R9-9

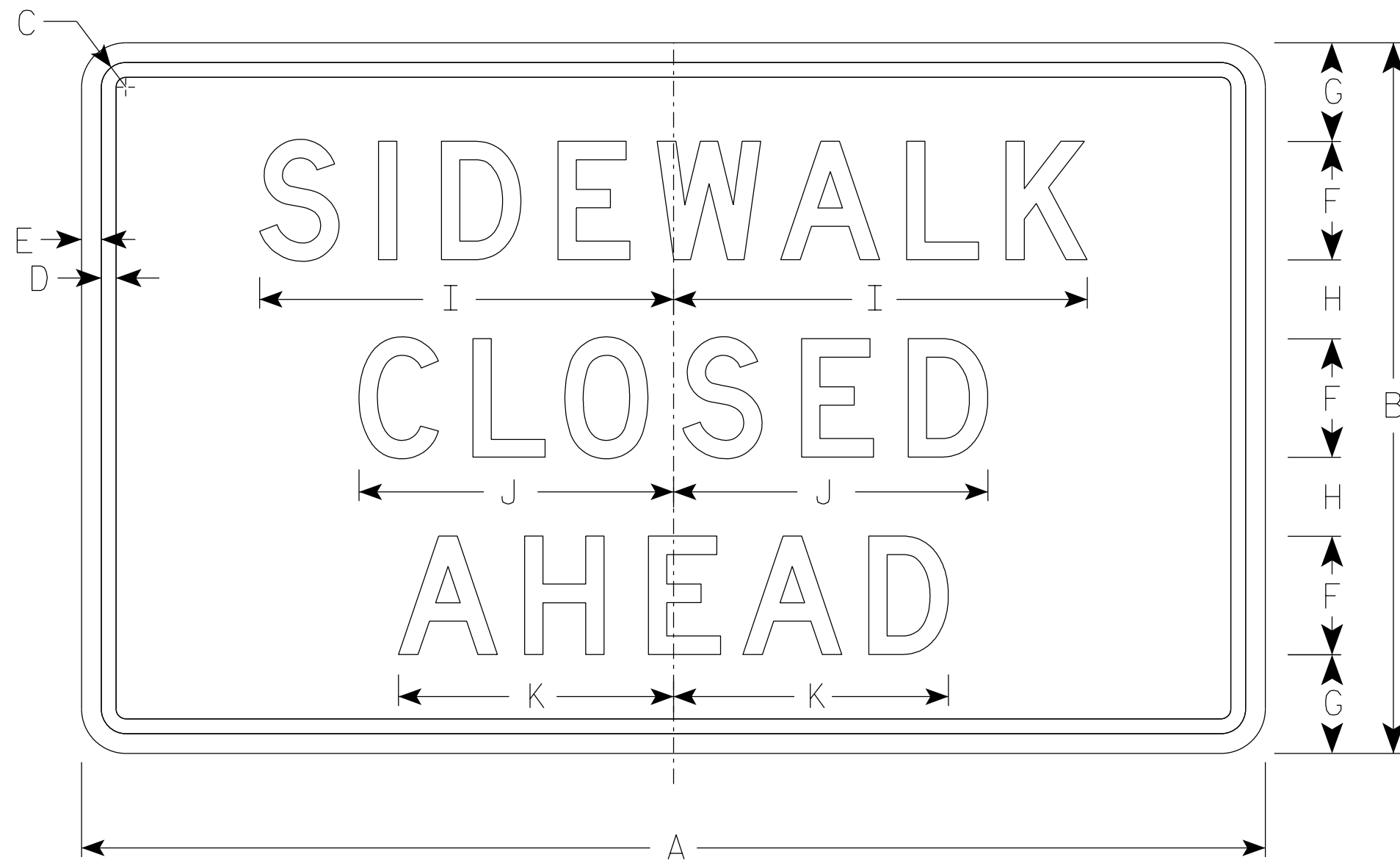
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 8/11/16 PLATE NO. R9-9.6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R9-9A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/8	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

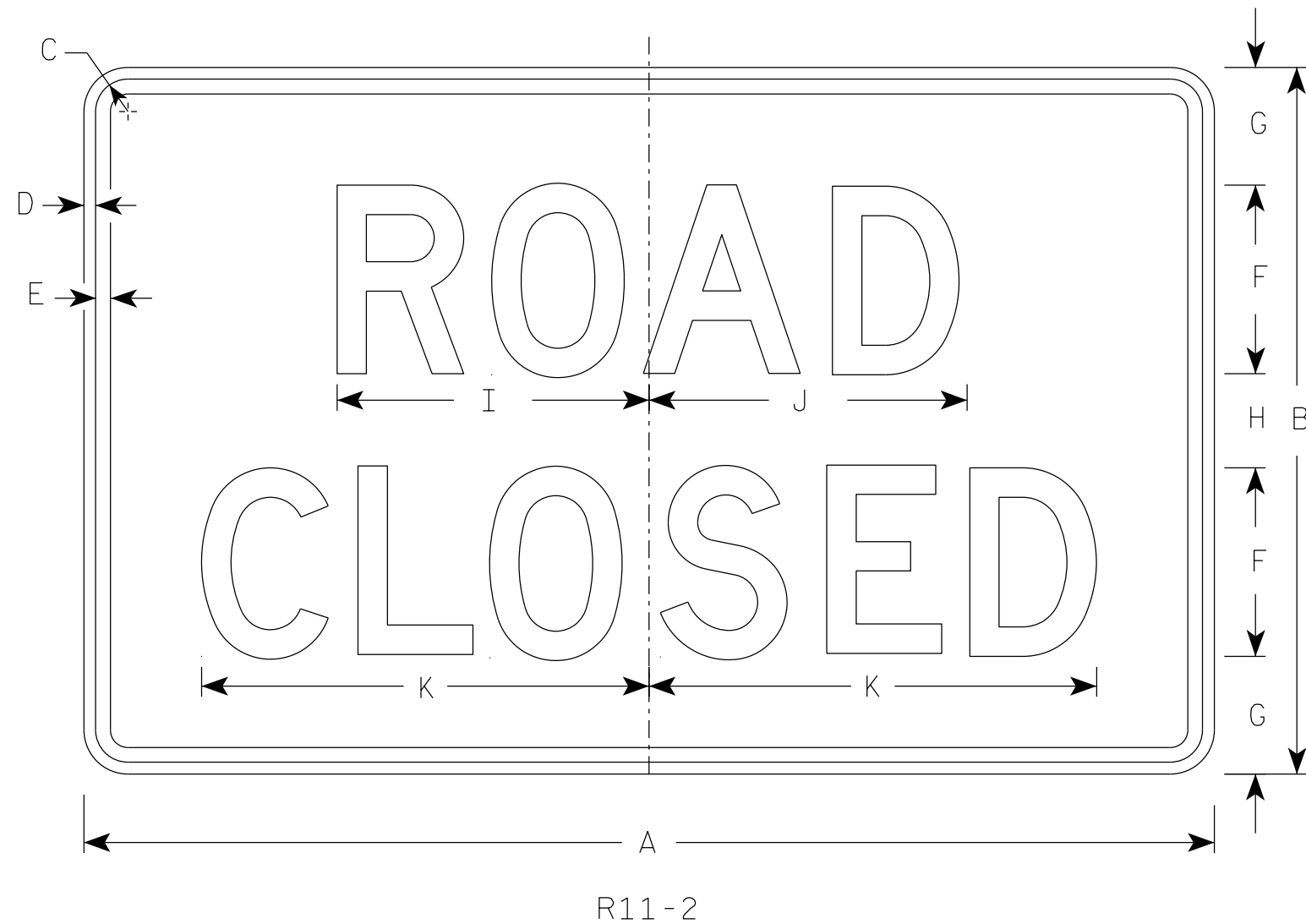
STANDARD SIGN  
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

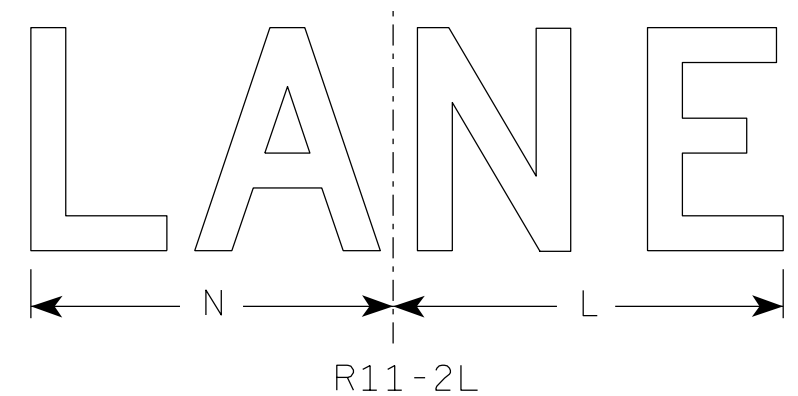
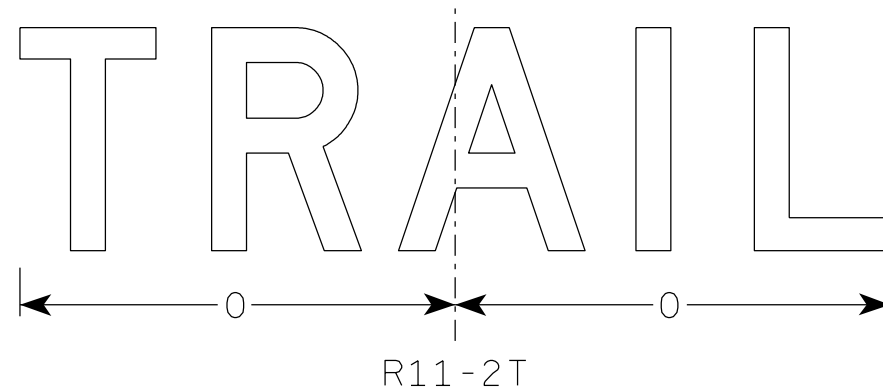
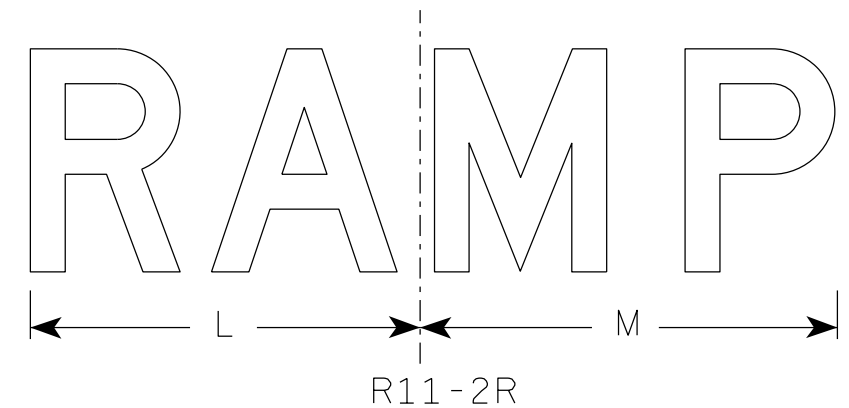
DATE 8/31/2020 PLATE NO. R9-9A.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



R11-2

- NOTES
1. Sign is Type II - Type H Reflective
  2. Color:  
Background - White  
Message - Black
  3. Message Series - D
  4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
  5. Modify the message as required.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN  
R11-2

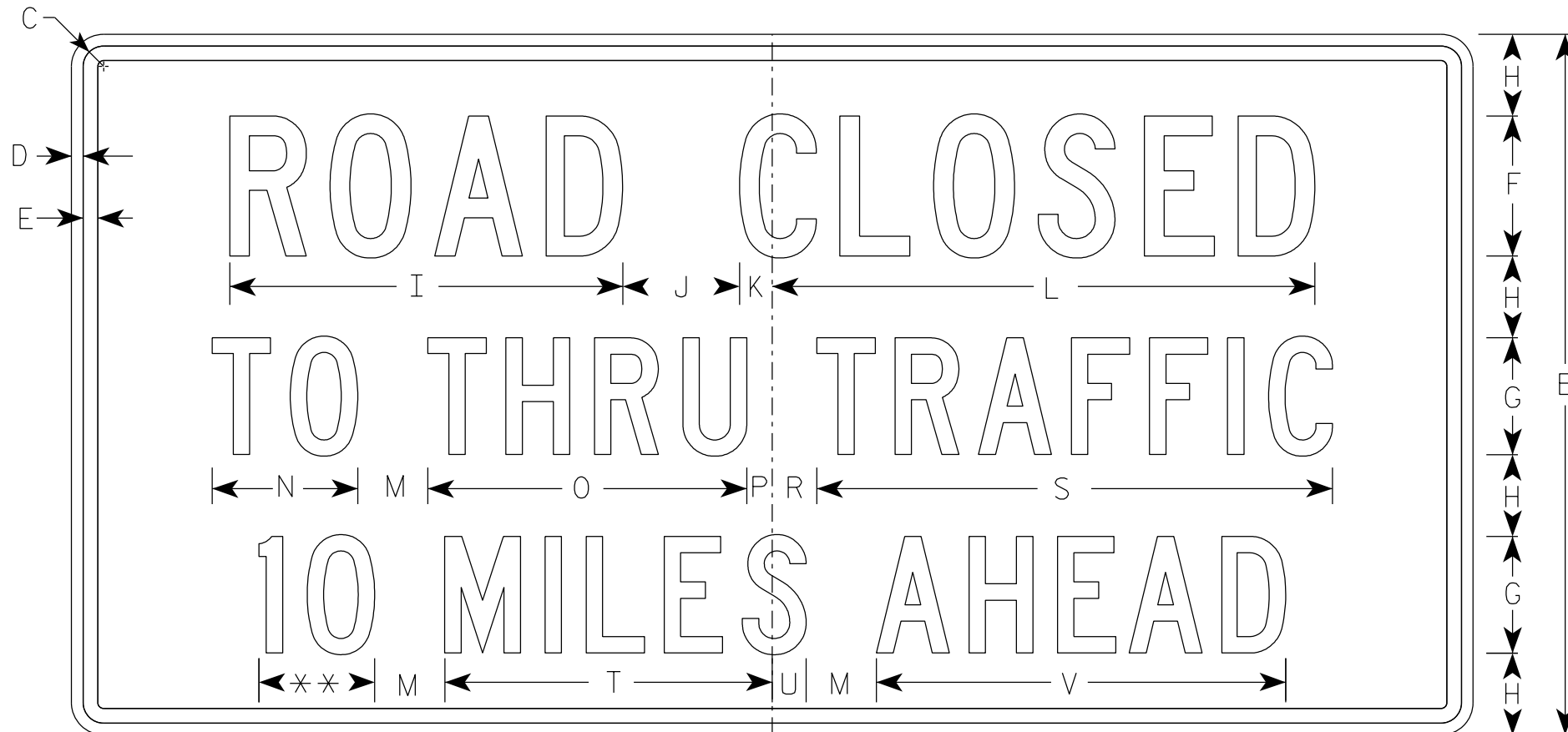
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

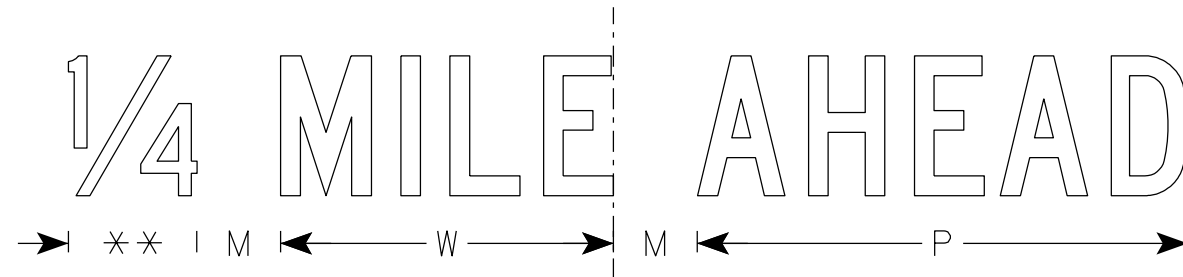
NOTES

1. Sign is Type II - Type H Reflective
2. Color:  
Background - White  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

\*\* See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	v	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8			4.5	
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
3																											
4																											
5																											

STANDARD SIGN  
R11-3

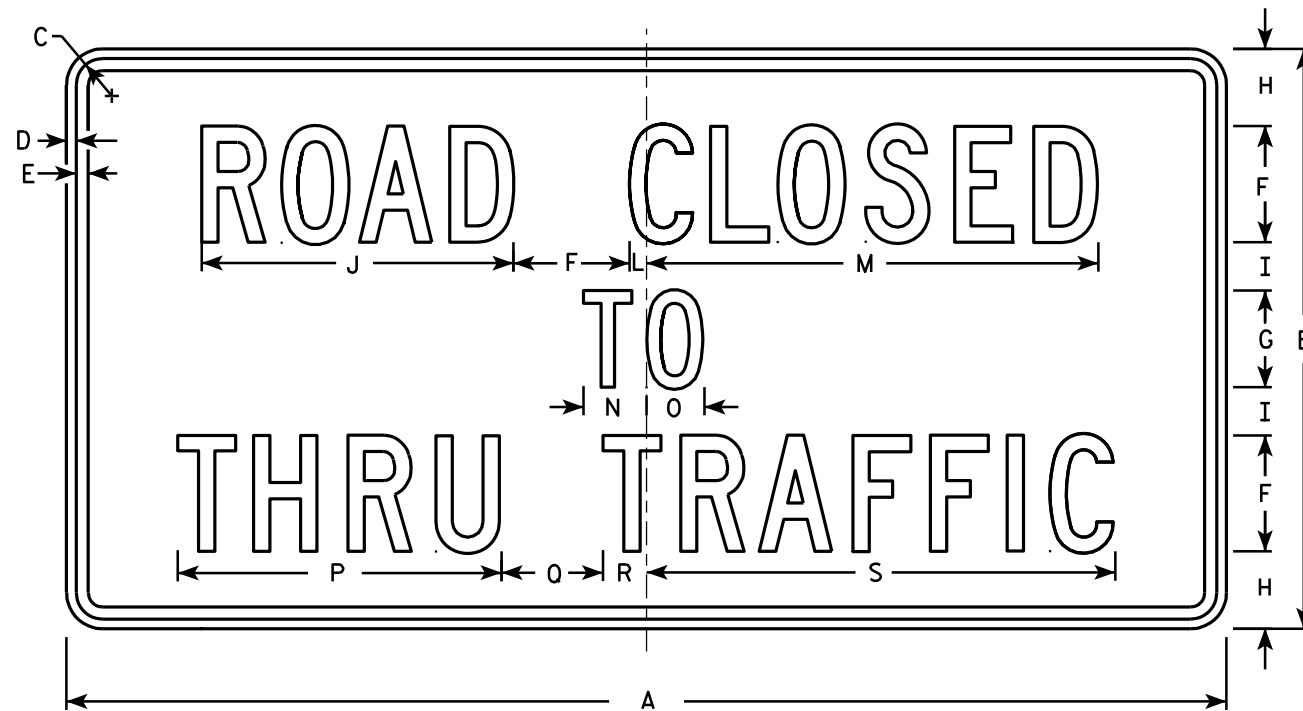
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/14/2021 PLATE NO. R11-3.9

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 - 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.



R11-4

7

7

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	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

**STANDARD SIGN**  
R11 - 4

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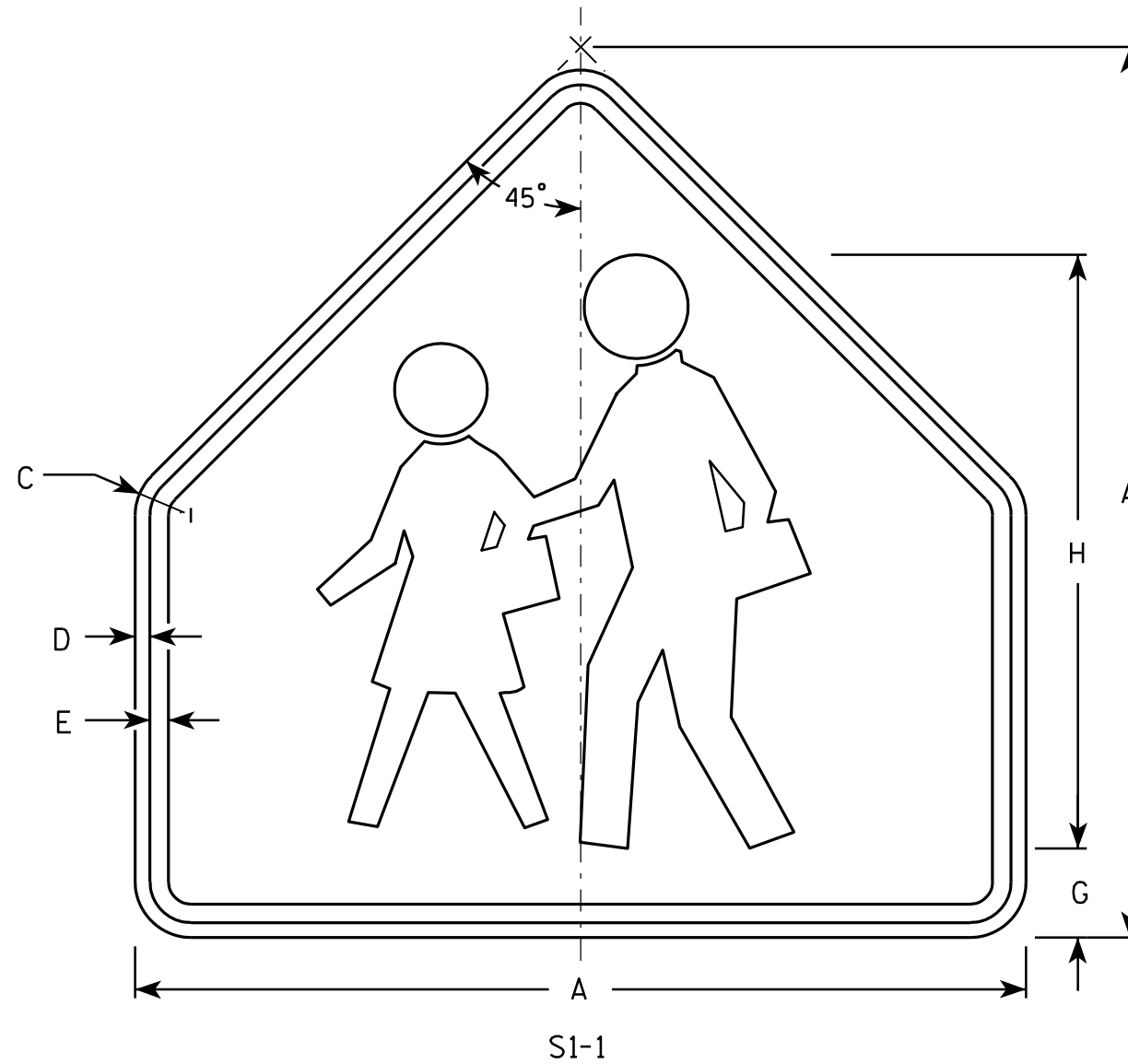
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED *Matthew R. Raush*  
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E





**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow-Green  
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.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

**STANDARD SIGN**  
S1-1

WISCONSIN DEPT OF TRANSPORTATION

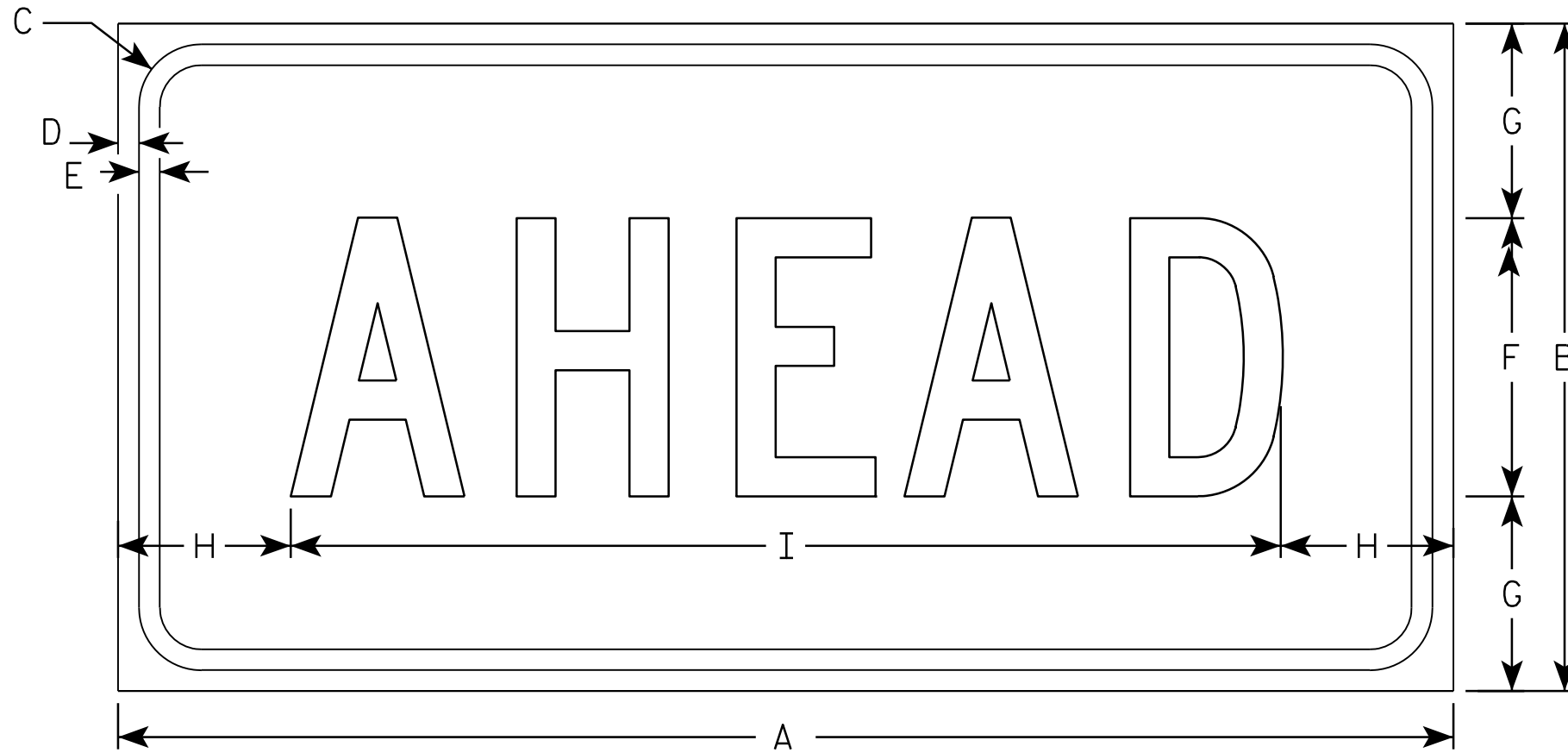
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow-Green  
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.



S16-9P

7

7

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	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
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

S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

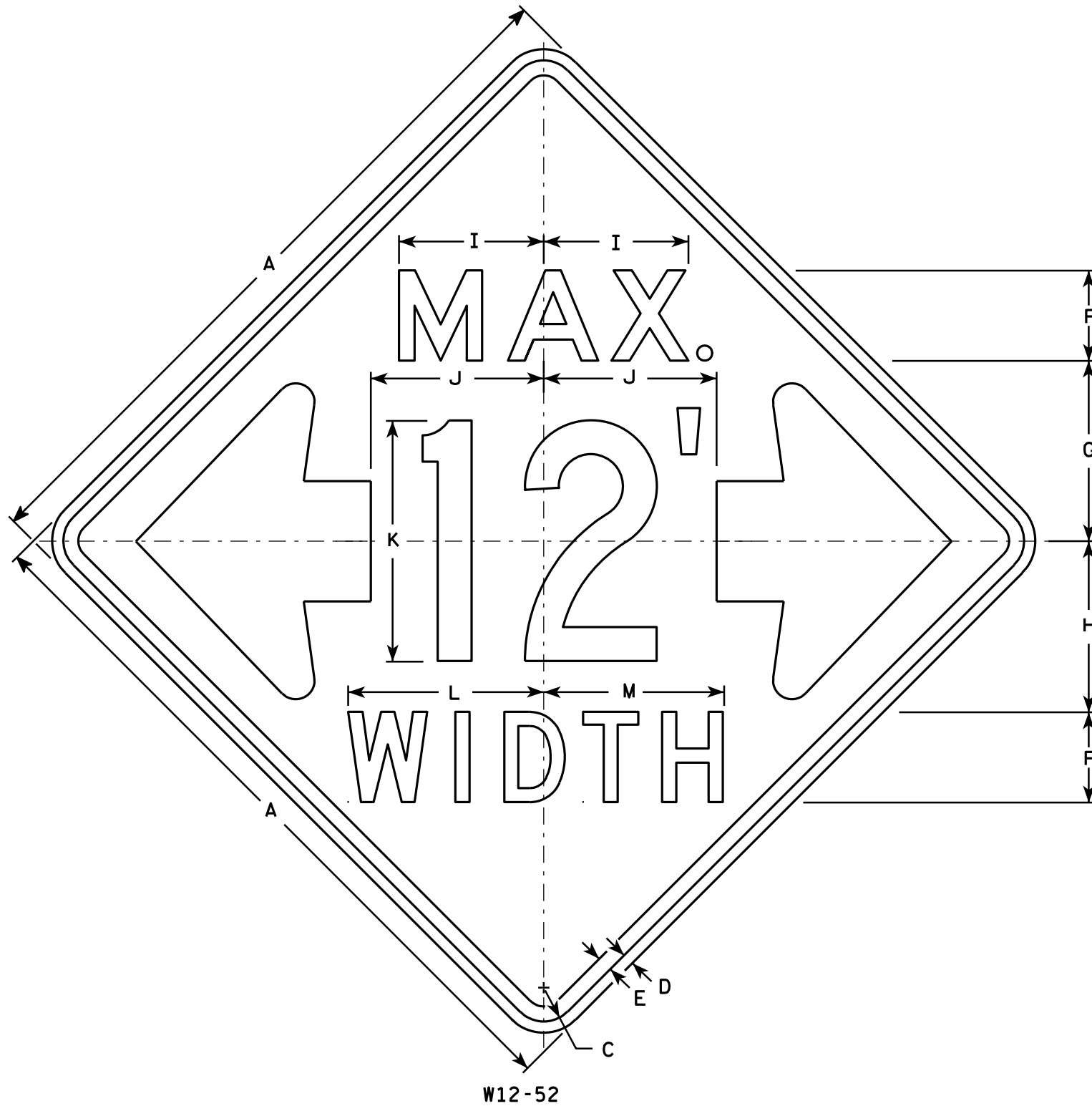
PROJECT NO:

HWY:

COUNTY:

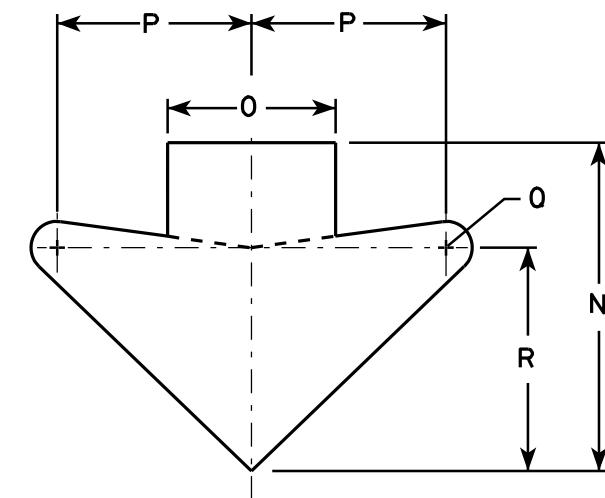
SHEET NO:

E



**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



**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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

**STANDARD SIGN**  
W12-52

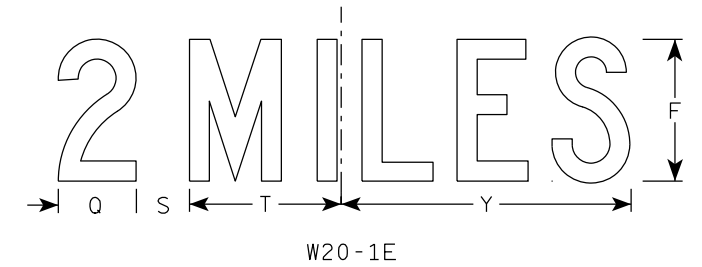
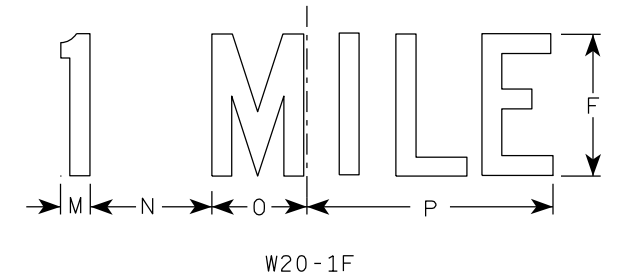
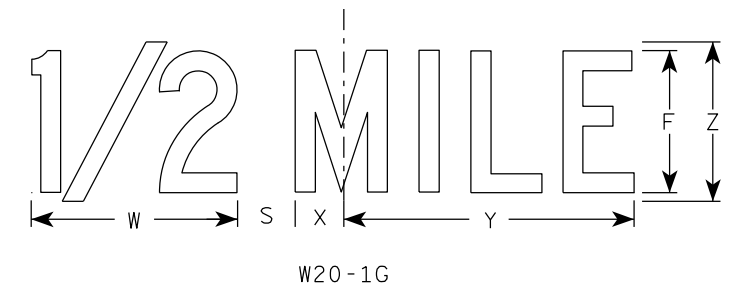
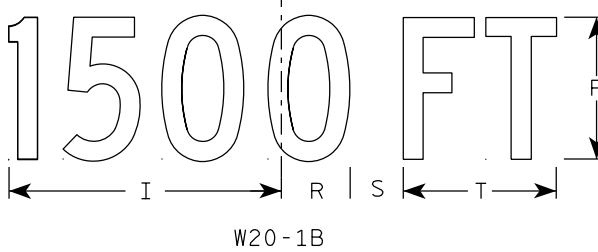
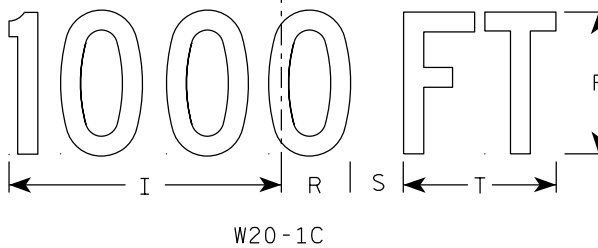
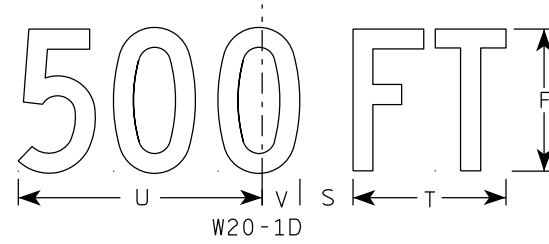
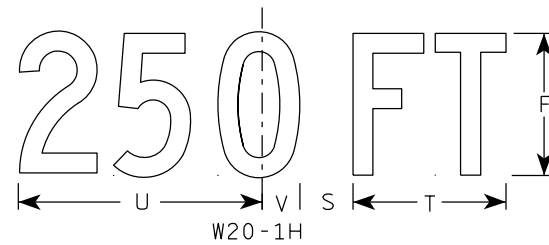
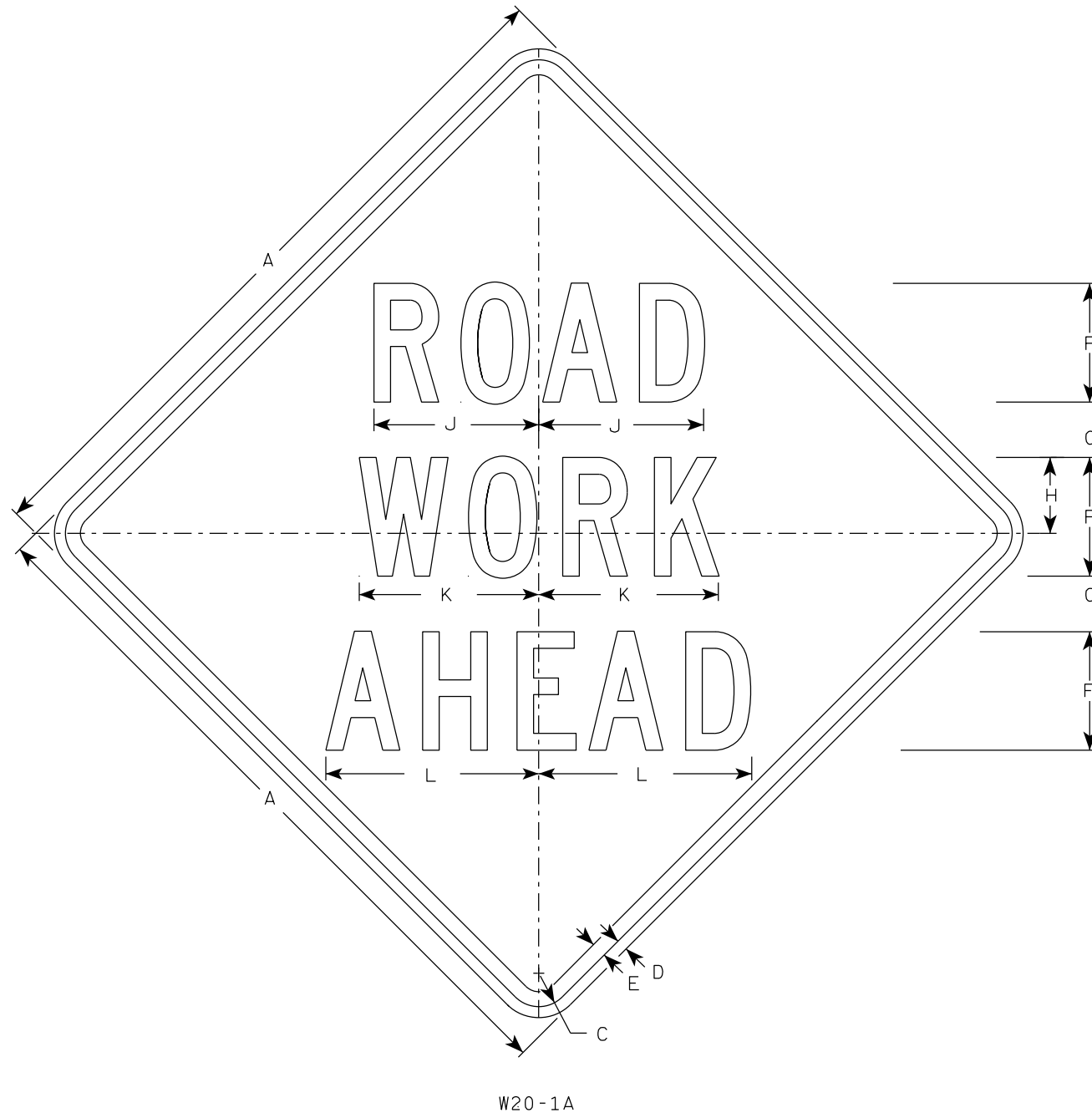
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

NOTES

- Sign is Type II - Type F Reflective
- Color:  
Background - Orange  
Message - Black
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



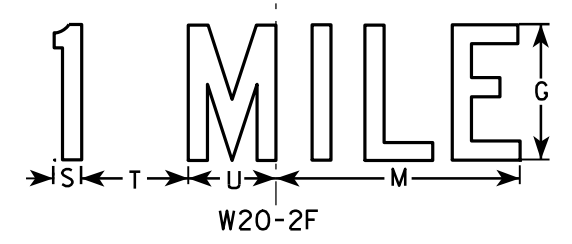
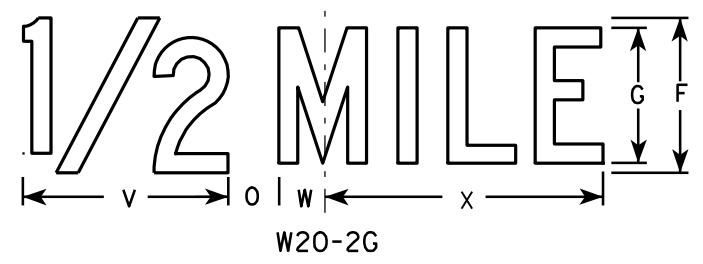
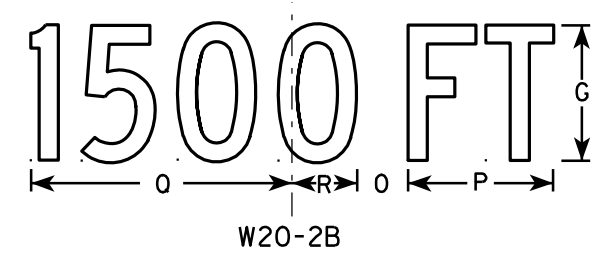
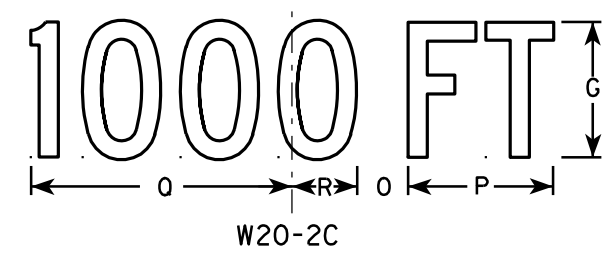
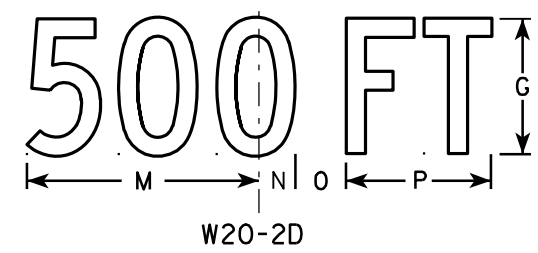
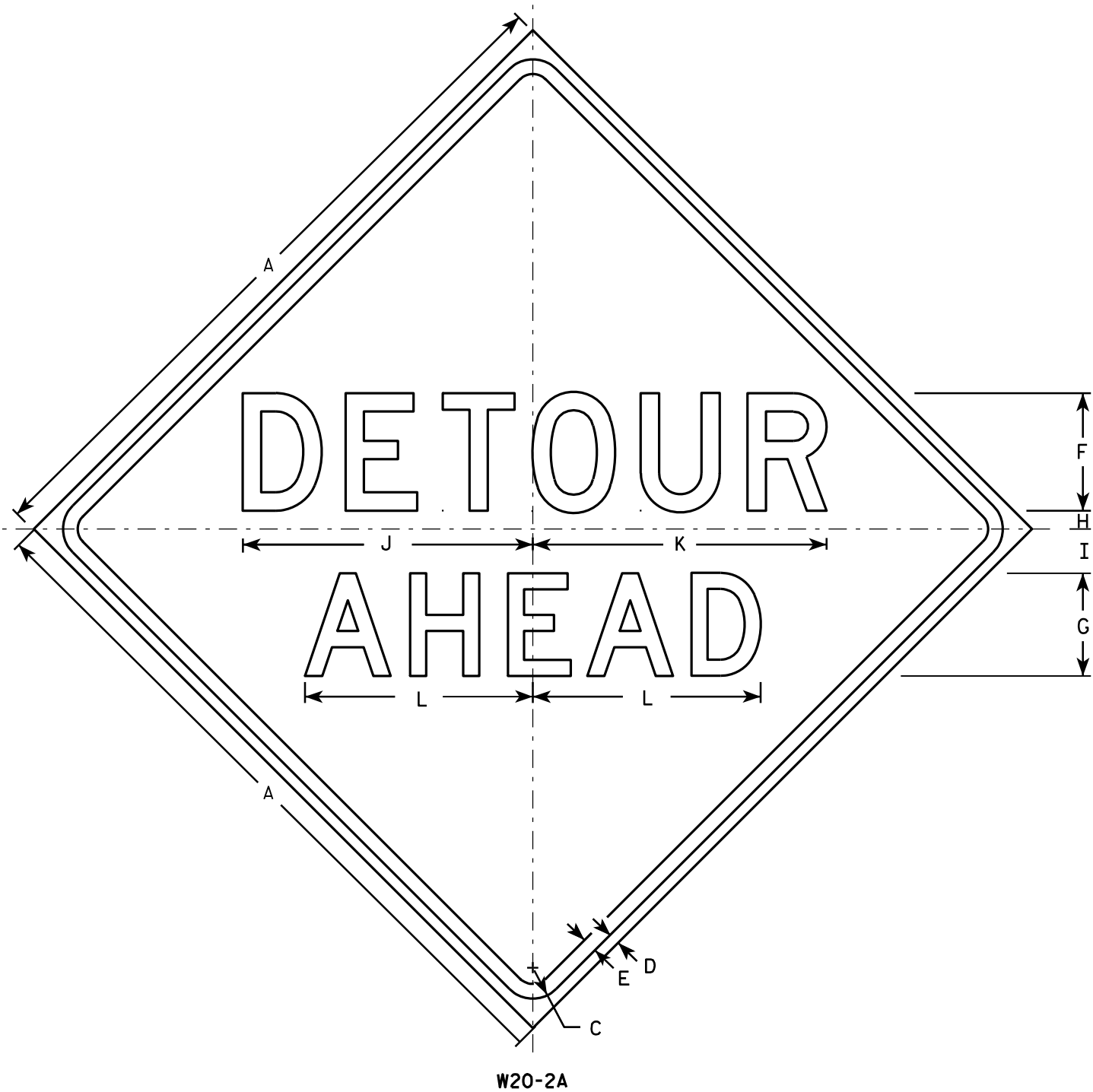
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN  
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11



**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.  
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

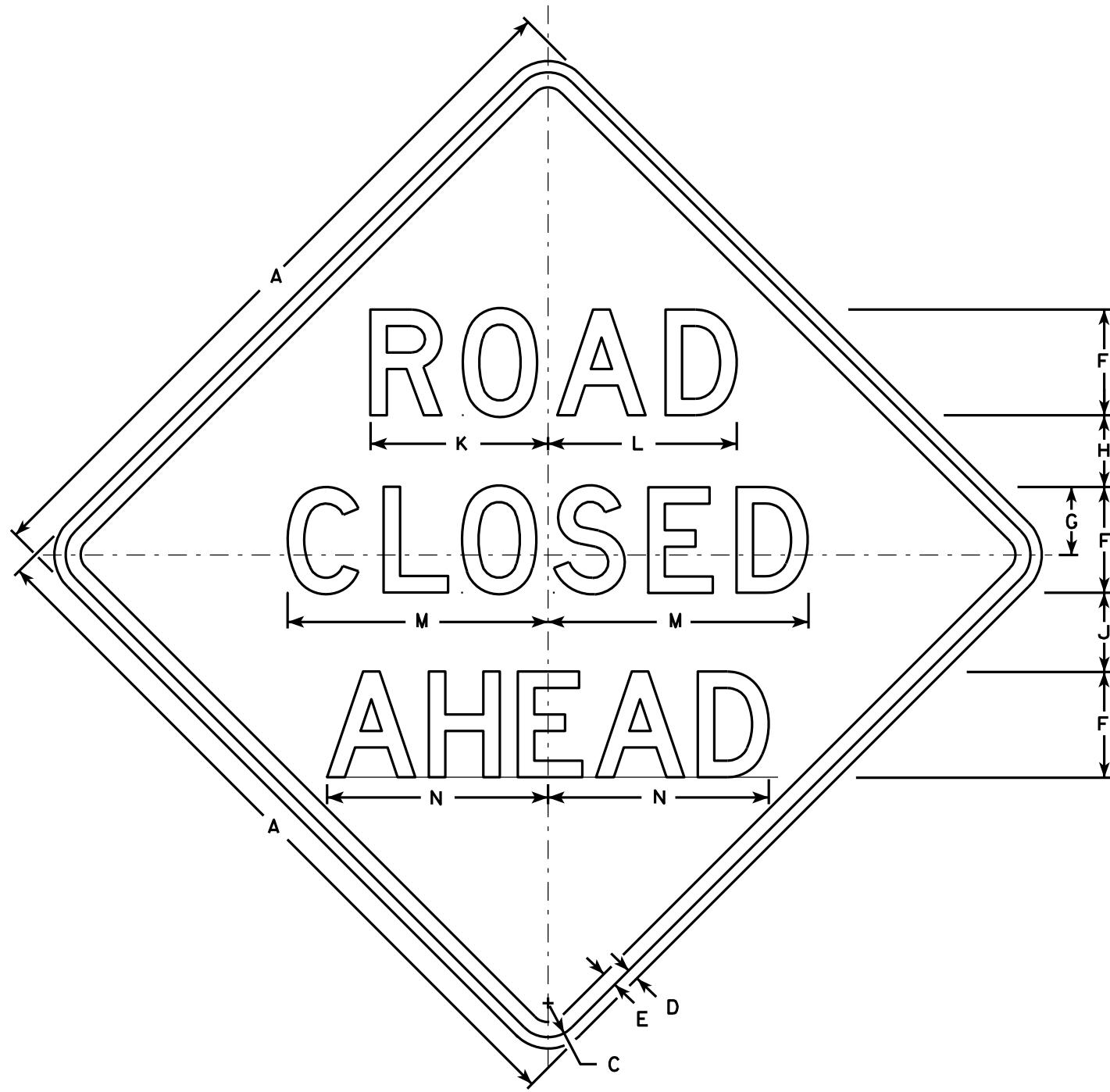
**STANDARD SIGN**  
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

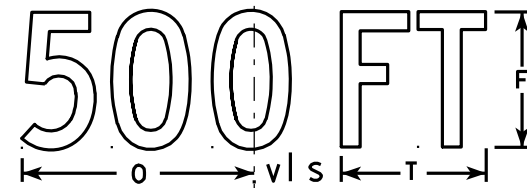
APPROVED *Matthew R. Raub*  
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

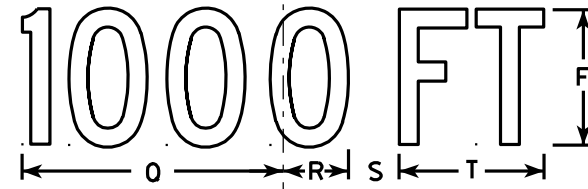
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E



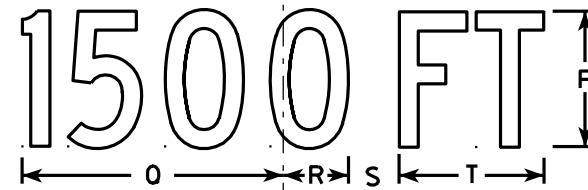
W20-3A



W20-3D



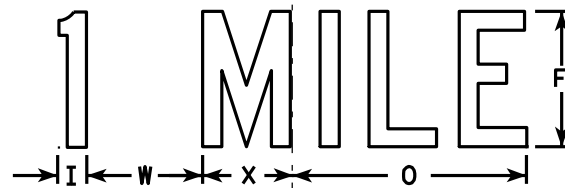
W20-3C



W20-3B



W20-3G



W20-3F

**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.  
Line 3 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

**STANDARD SIGN**  
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

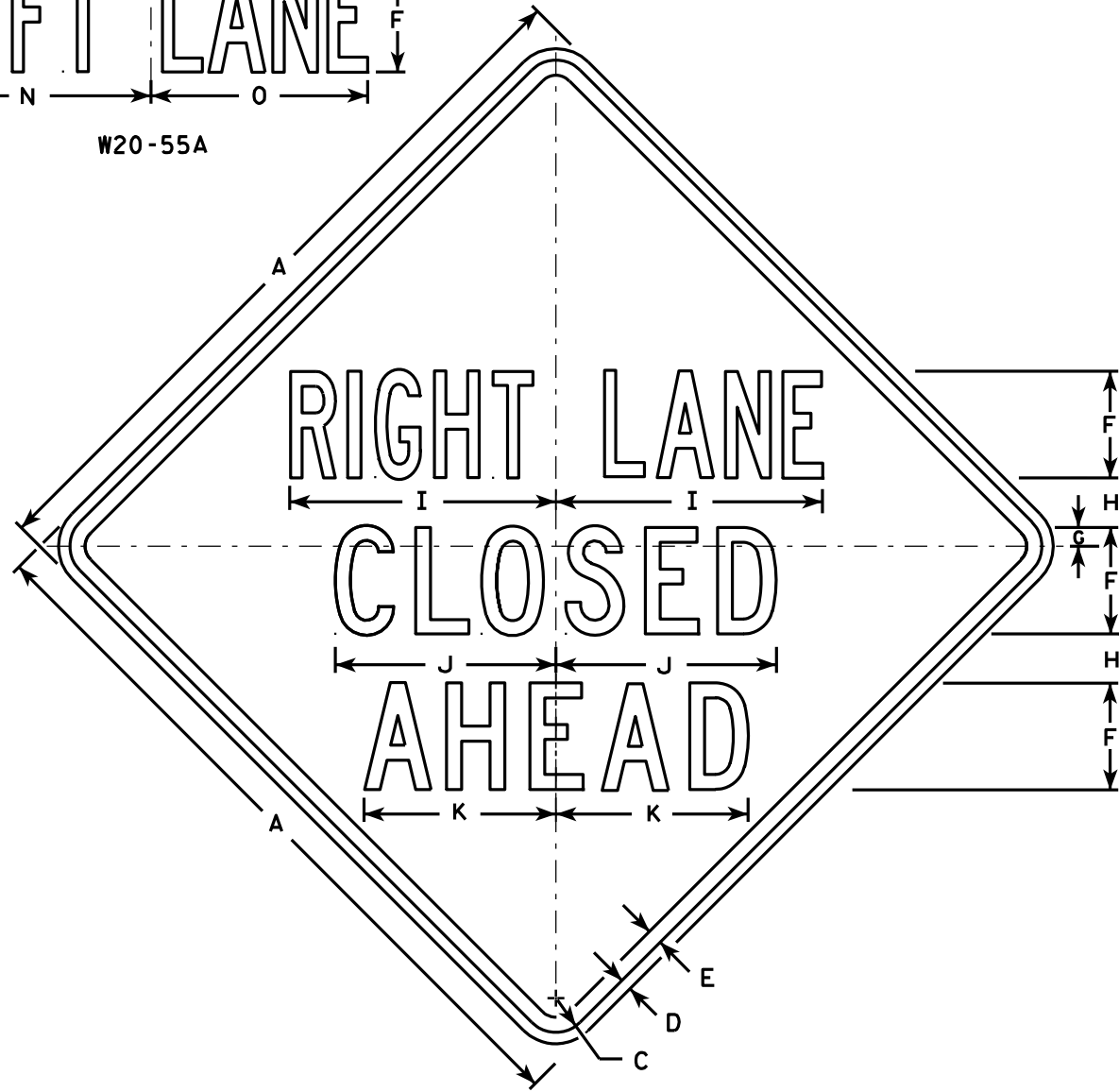
PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. ".....LANE" is Series B.  
All other copy is Series C.

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN  
W20-5A, B, C, D, F & G

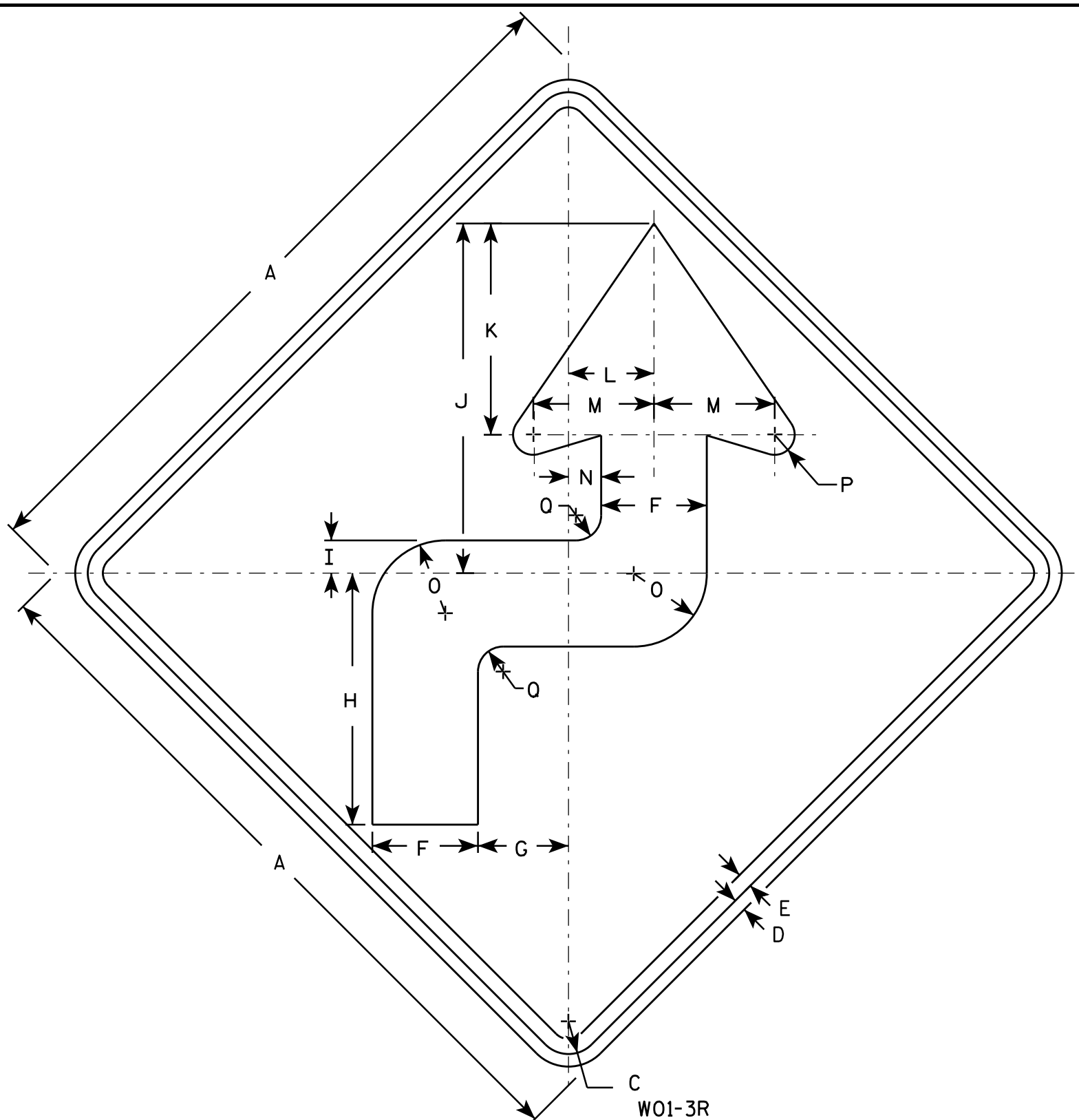
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**





NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. 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. W01-3L is the same as W01-3R except the arrow is reversed along the vertical centerline.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4 1/2	12 1/2	1 5/8	17 3/8	10 1/2	4 1/4	6	1 5/8	3 5/8	1	1 1/4										9.0
2S	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
2M	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
3	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
4	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0
5	48		2 1/4	3/4	1	7	6	16 5/8	2 1/4	23 1/4	14	5 5/8	8	2 1/8	4 7/8	1 1/4	1 5/8										16.0

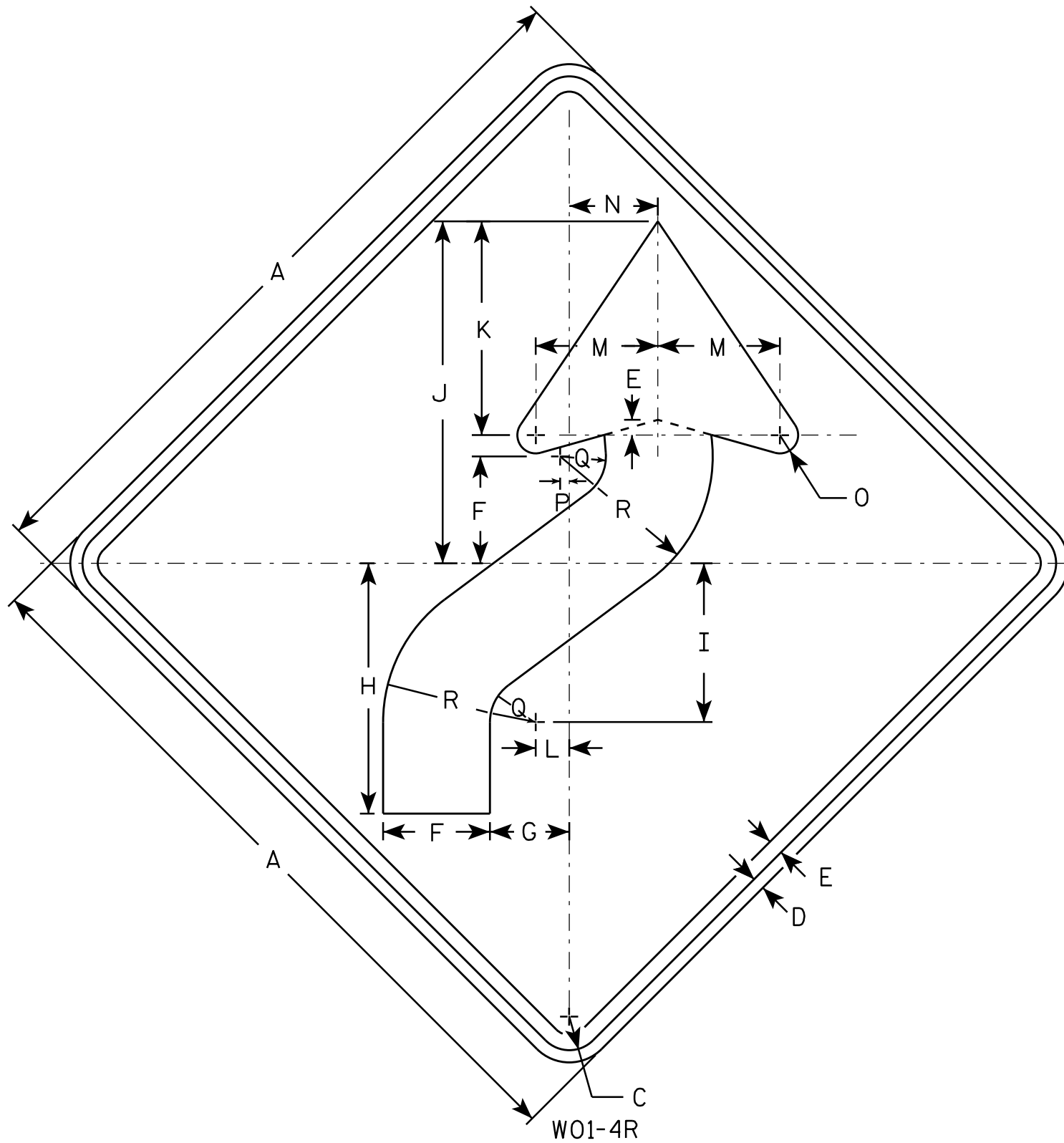
**STANDARD SIGN**  
**W01-3**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-3.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. 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. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

7

7

W01-4R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN  
W01-4

WISCONSIN DEPT OF TRANSPORTATION

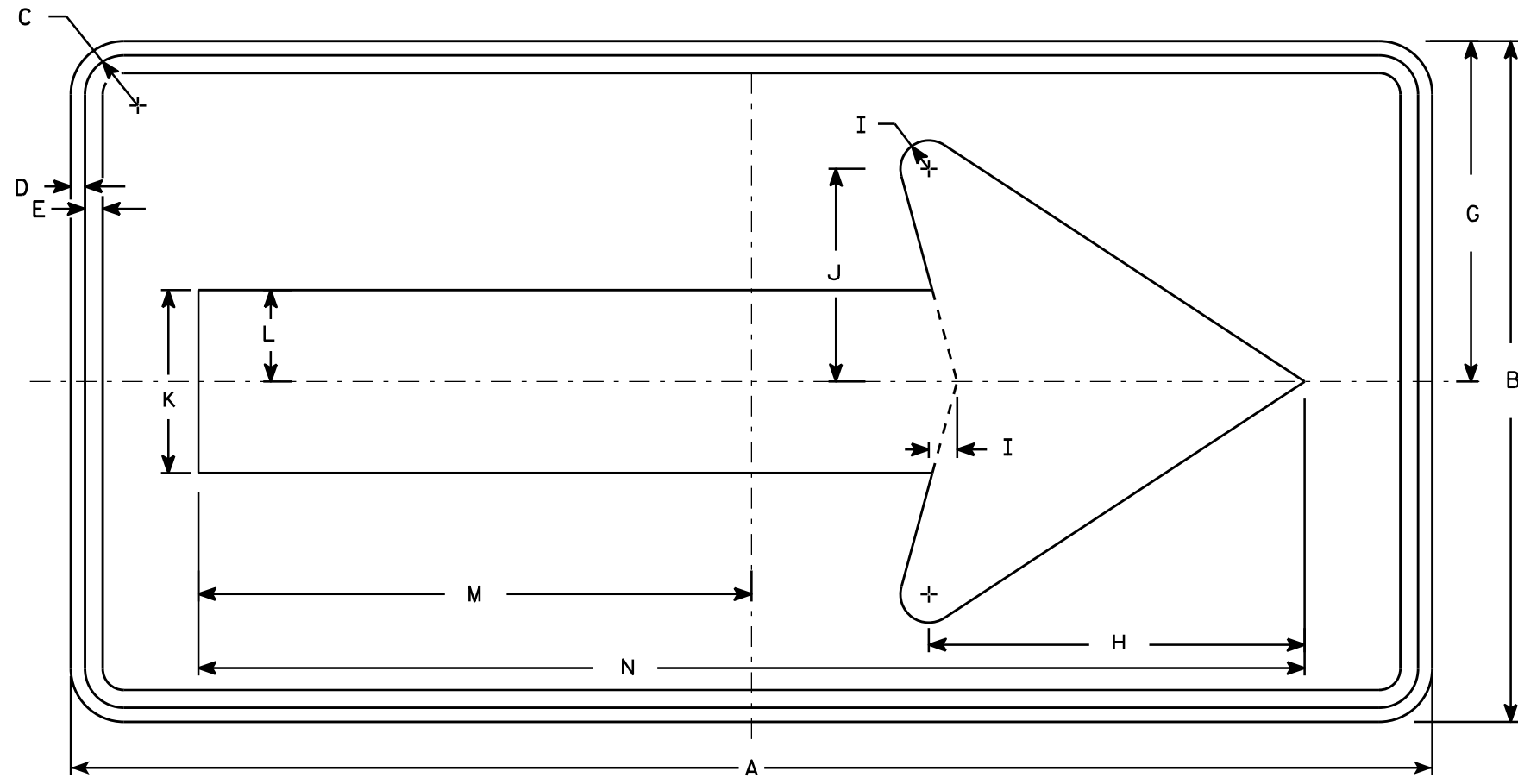
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**

NOTES

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



W01-6

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN  
W01-6

WISCONSIN DEPT OF TRANSPORTATION

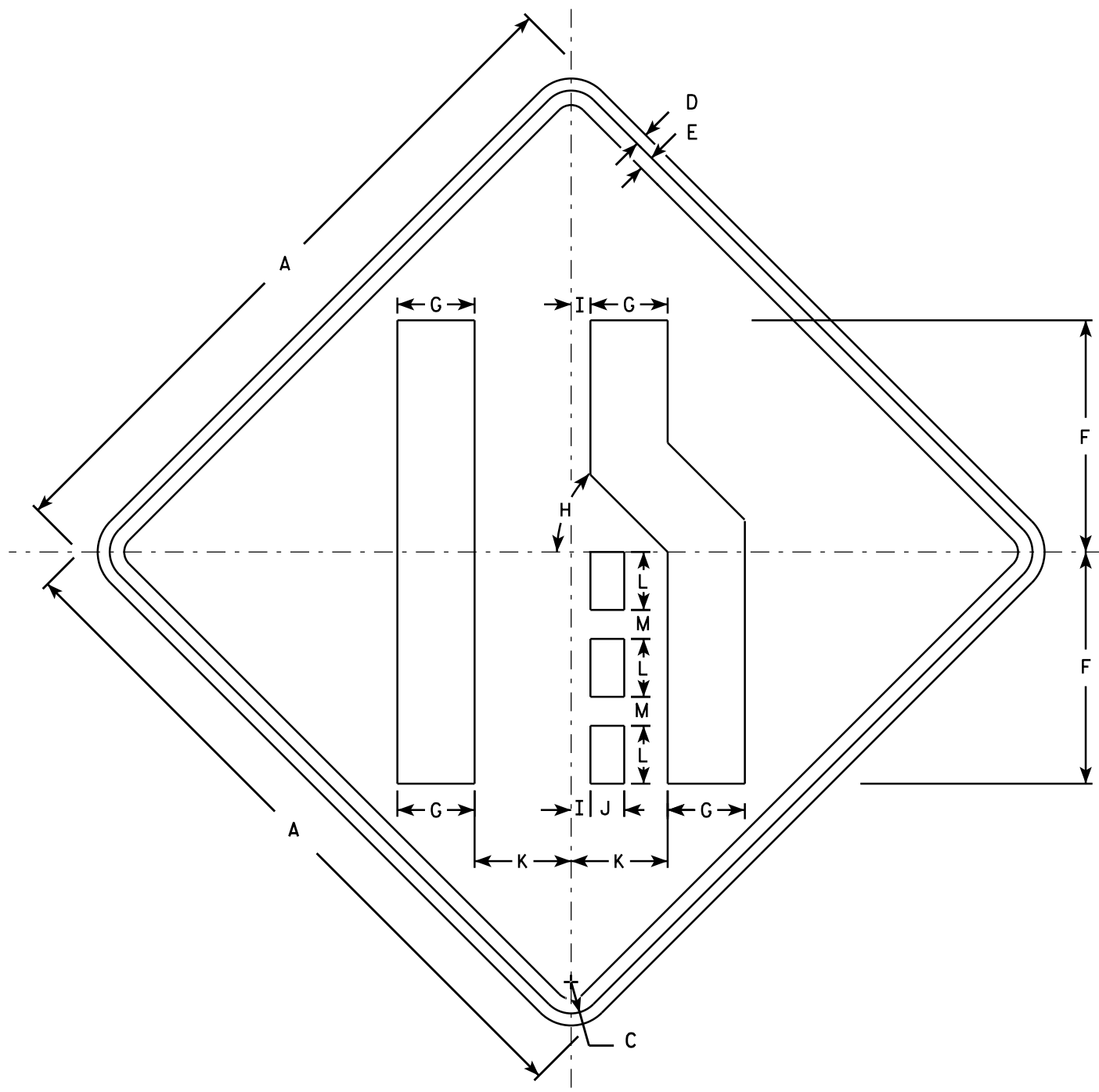
APPROVED

*Matthew R. Rauch*  
for State Traffic Engineer

DATE 11/18/13

PLATE NO. W01-6.1

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. 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. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

7

7

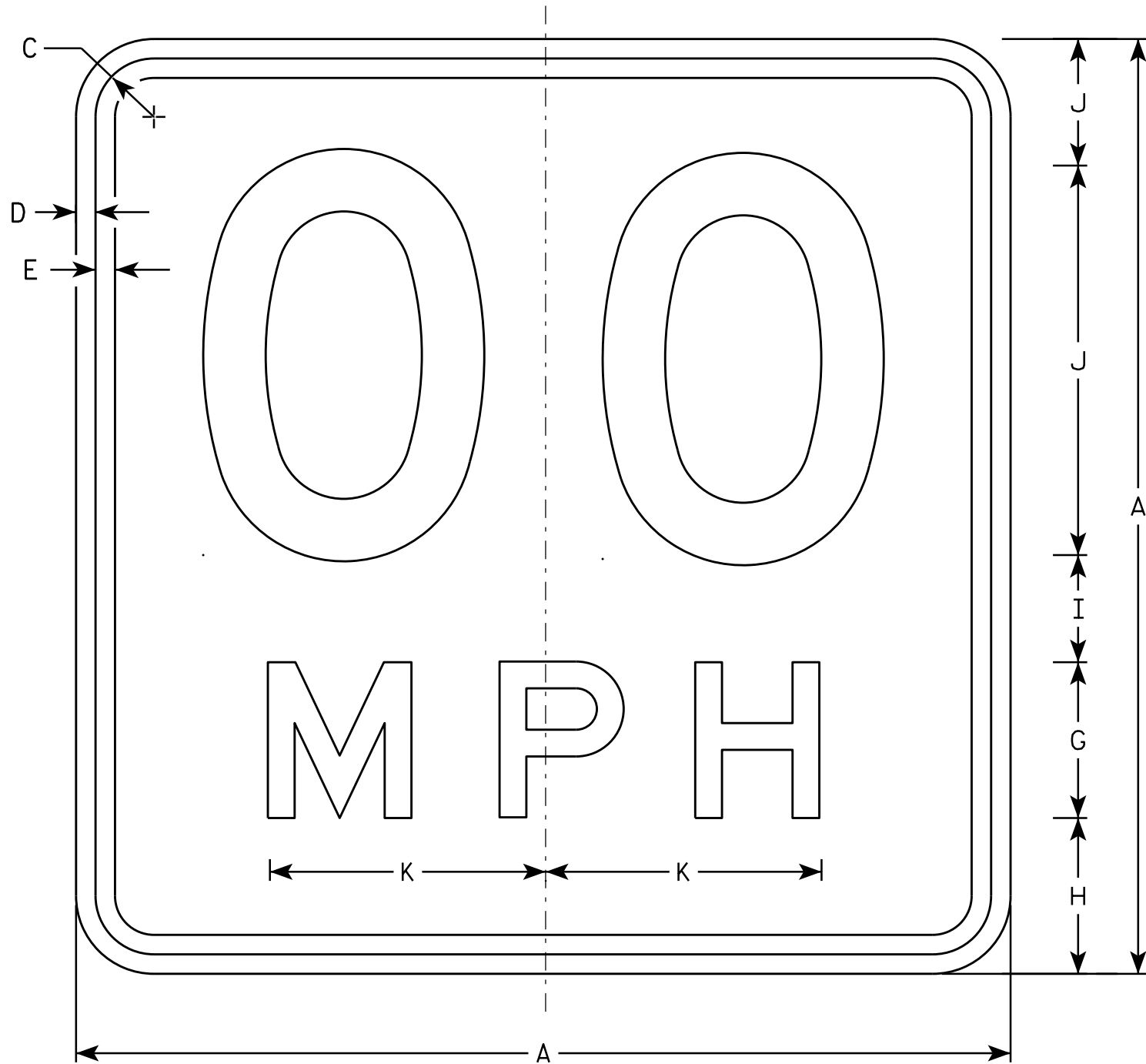
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

**STANDARD SIGN**  
**W04-2**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-2.1



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Orange  
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D  
Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8															4.00	
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8															9.00	

STANDARD SIGN  
W013-1

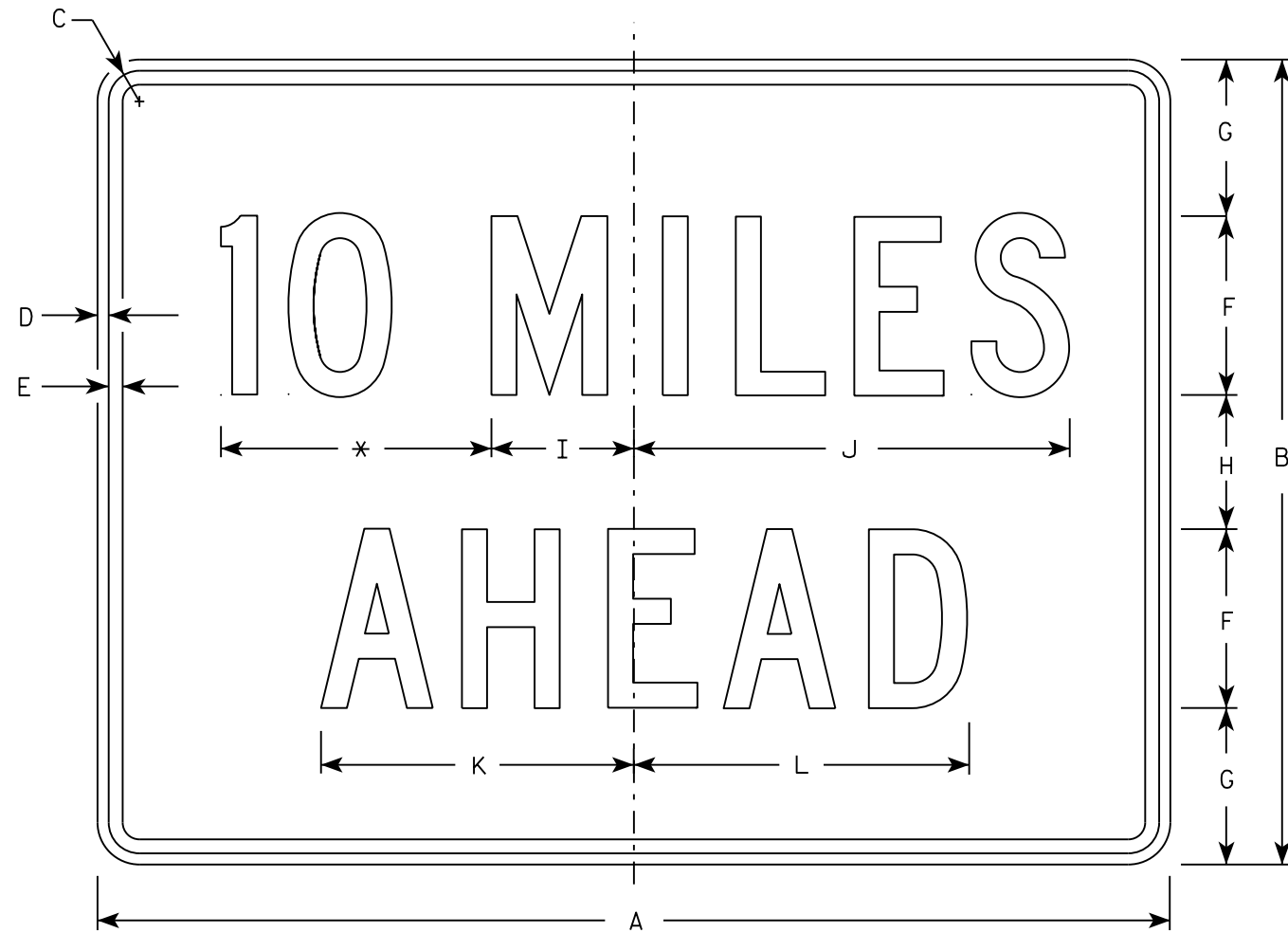
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*  
For State Traffic Engineer

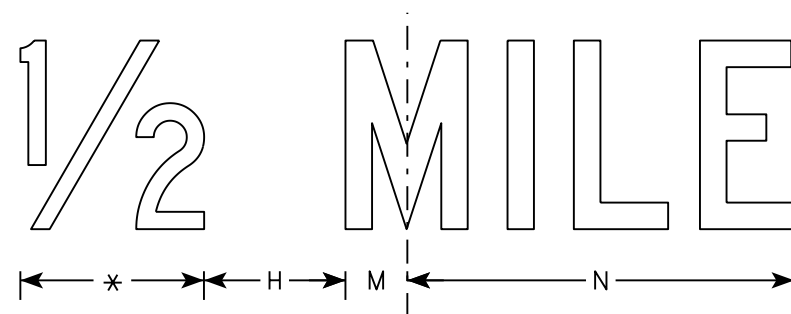
DATE 11/21/13 PLATE NO. W013-1.1

NOTES

1. Sign is Type II - Type F Reflective
2. Color:  
Background - Orange  
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.



W057-52



\* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN  
W057-52

WISCONSIN DEPT OF TRANSPORTATION

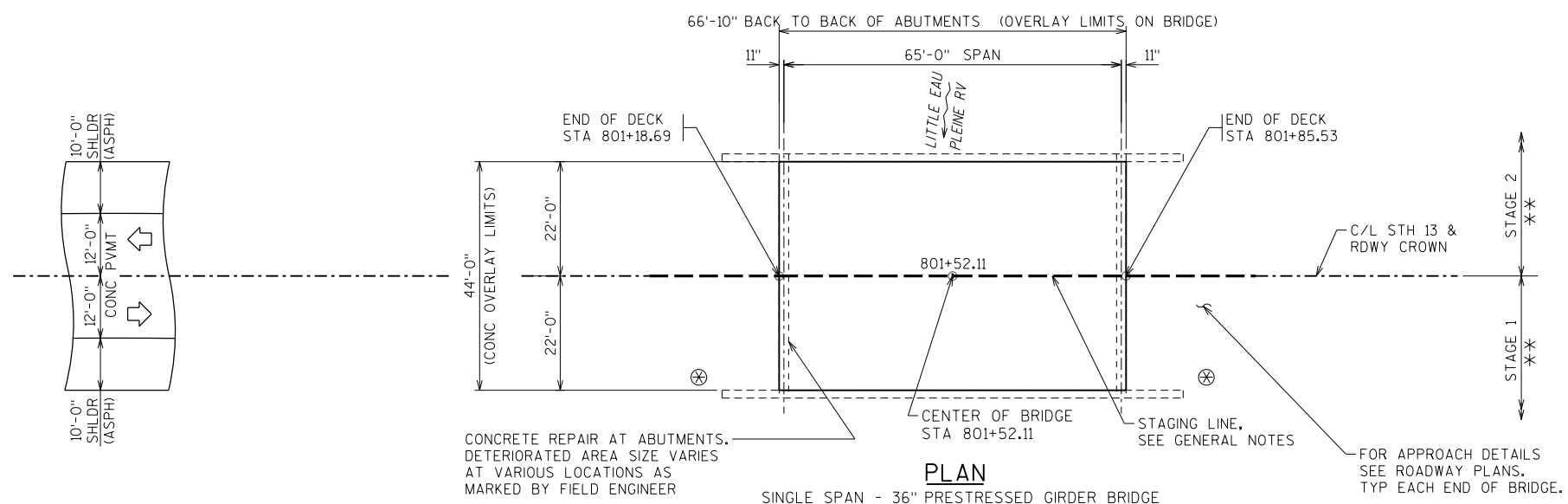
APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: **E**



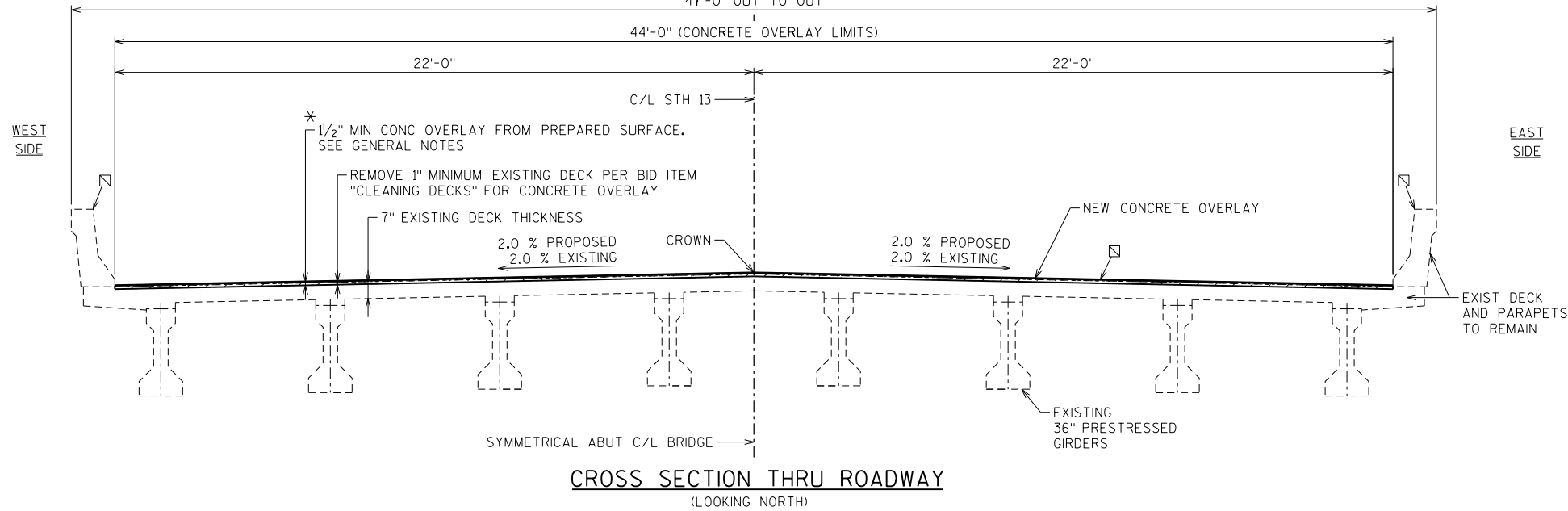
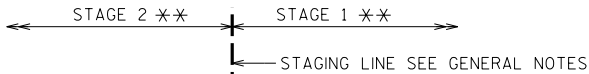
- ⊕ ADD THREE BEAM GUARD CONNECTION TO PARAPET EAST SIDE ONLY. (BOLT THROUGH SYSTEM) FOR DETAILS, BID ITEM AND QUANTITY SEE "PROJECT ID 1620-01-62" ROADWAY PLANS
- \*\* SEE ROADWAY PLANS FOR TRAFFIC CONTROL STAGING. (TEMPORARY TRAFFIC SIGNAL REQUIRED)
- ▨ INDICATES REMOVAL
- ☒ COAT EXISTING PARAPET WITH "PIGMENTED SURFACE SEALER RESEAL" PER THE STANDARD SPECIFICATIONS, SEE NOTES ON SHEETS 2. COAT CONCRETE OVERLAY WITH "PROTECTIVE SURFACE TREATMENT" PER THE STANDARD SPECIFICATIONS. SEE NOTES ON SHEET 2.



PLAN

SINGLE SPAN - 36" PRESTRESSED GIRDER BRIDGE

\* 2" AVERAGE OVERLAY THICKNESS



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

DESIGN DATA

LIVE LOAD: HS20  
 DESIGN LOADING:  
 INVENTORY RATING = HS23  
 OPERATING RATING = HS30  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

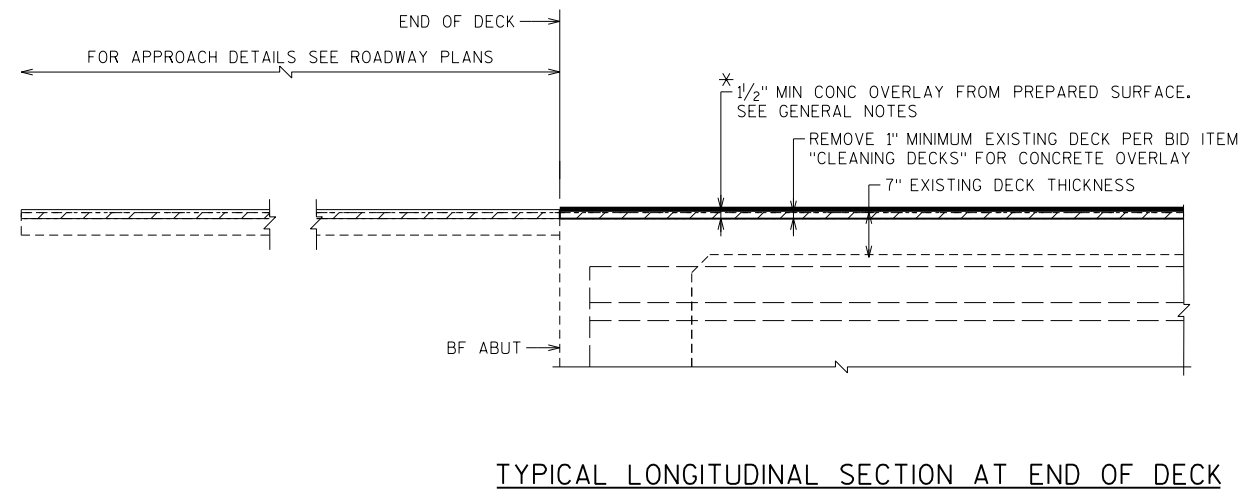
MATERIAL PROPERTIES:  
 CONCRETE MASONRY - SUPERSTRUCTURE f'c = 4,000 psi  
 - OVERLAY f'c = 4,000 psi  
 - ALL OTHER f'c = 3,500 psi

TRAFFIC DATA

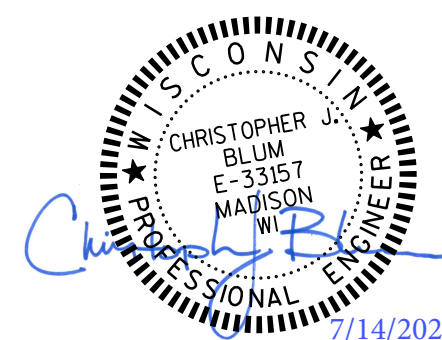
ADT (2022) = 6300  
 ADT (2042) = 7500  
 DHV = 752  
 DD = 60/40  
 T = 19.1%  
 DESIGN SPEED = 60 MPH

LIST OF DRAWINGS

- 1 DECK OVERLAYS
- 2 NOTES AND QUANTITIES



TYPICAL LONGITUDINAL SECTION AT END OF DECK



SEH CONTACT: CHRIS BLUM, PE, 608.620.6192  
 WISDOT BRIDGE OFFICE CONTACT: AARON BONK, PE, 608.261.0261

NO.	DATE	REVISION	BY
 SHORT ELLIOTT HENDRICKSON INC. STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED  SDR <b>08/25/23</b> CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-37-184			
S.T.H. 13 OVER LITTLE EAU PLEINE RIVER			
COUNTY MARATHON		TOWN/CITY/VILLAGE BRIGHTON	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY NB	DESIGN CK'D. TN	DRAWN BY DLF	PLANS CK'D. CJB
DECK OVERLAYS			SHEET 1 OF 2

FILE NAME : S:\UZ\W\11trnc\45678\5-final-dsgn\51-drawings\20-Struct\B-37-184\br'edge\B37184gldgn  
 PLOT DATE: 7/14/2023  
 PLOT TIME: 7:58:30 AM



**GENERAL NOTES**

DRAWINGS SHALL NOT BE SCALED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND INSPECTION REPORTS. EXISTING BRIDGE PLANS AVAILABLE AT WISDOT.

STATIONING MAY VARY BASED ON EXACT LOCATION OF BRIDGE TO PROPOSED ALIGNMENT.

CONTRACTOR TO VERIFY EXISTING UTILITY LOCATIONS.

ANY EXCAVATION REQUIRED TO COMPLETE THE DECK OVERLAY AT THE ABUTMENTS, TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

STAGING LINE LOCATION TO BE DETERMINED BY THESE PLANS AND BY THE FIELD ENGINEER. COORDINATE WITH STAGING PLANS.

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS". CONTRACTOR TO VERIFY COMPLETENESS OF REMOVALS WITH THE FIELD ENGINEER.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, CONCRETE SURFACE REPAIR AND FULL-DEPTH DECK REPAIR AS DETERMINED, LOCATED, MARKED AND MEASURED BY THE FIELD ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

BOTTOM OF THE EXISTING DECK WILL BE INSPECTED FOR AREAS OF FULL-DEPTH DECK REPAIR PRIOR TO DECK PREPARATION OPERATIONS.

BOTTOM OF THE EXISTING DECK IS TO BE INSPECTED FOR AREAS OF DISTRESS AFTER COMPLETION OF THE DECK PREPARATION AND PRIOR TO OVERLAYING THE BRIDGE.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

THESE STRUCTURE PLANS ARE ONLY THE STRUCTURE REPAIR WORK. ANY ADDITIONAL REMOVAL REQUIRED, OUTSIDE OF THE LIMITS SHOWN IN THESE PLANS MUST BE COORDINATED WITH THE FIELD ENGINEER. FIELD ENGINEER SHOULD BE CONTACTED FOR APPROVAL OF ADDITIONAL REMOVAL.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM CONCRETE OVERLAY THICKNESS OF 1/2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2" OR AS GIVEN ON THE PLANS. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

CLEAN ALL LOOSE MATERIAL ON THE DECK AFTER CLEANING OPERATIONS USING HIGH PRESSURE WATER OR AIR, ENSURING ALL FREE-STANDING WATER IS REMOVED PRIOR TO PLACEMENT OF THE CONC OVERLAY.

AT THE ABUTMENTS, THE DECK JOINT IS COMPRISED OF A FILLER AND SEALANT, THERE IS NO STRIP SEAL OR COVER PLATED EXPANSION JOINT.

APPLY "PIGMENTED SURFACE SEALER RESEAL" TO THE EXISTING CONCRETE PARAPETS PER THE STANDARD SPECIFICATIONS AND AS SHOWN IN THIS PLAN SET.

SEE ROADWAY PLAN FOR LANE STAGING AND TRAFFIC SHIFT. COORDINATE WITH THESE STRUCTURE PLANS THE BRIDGE STAGING.

APPLY "PROTECTIVE SURFACE TREATMENT" TO THE CONCRETE OVERLAY PER THE STANDARD SPECIFICATIONS AND AS SHOWN IN THIS PLAN SET.

**TOTAL ESTIMATED QUANTITIES - B-37-184**

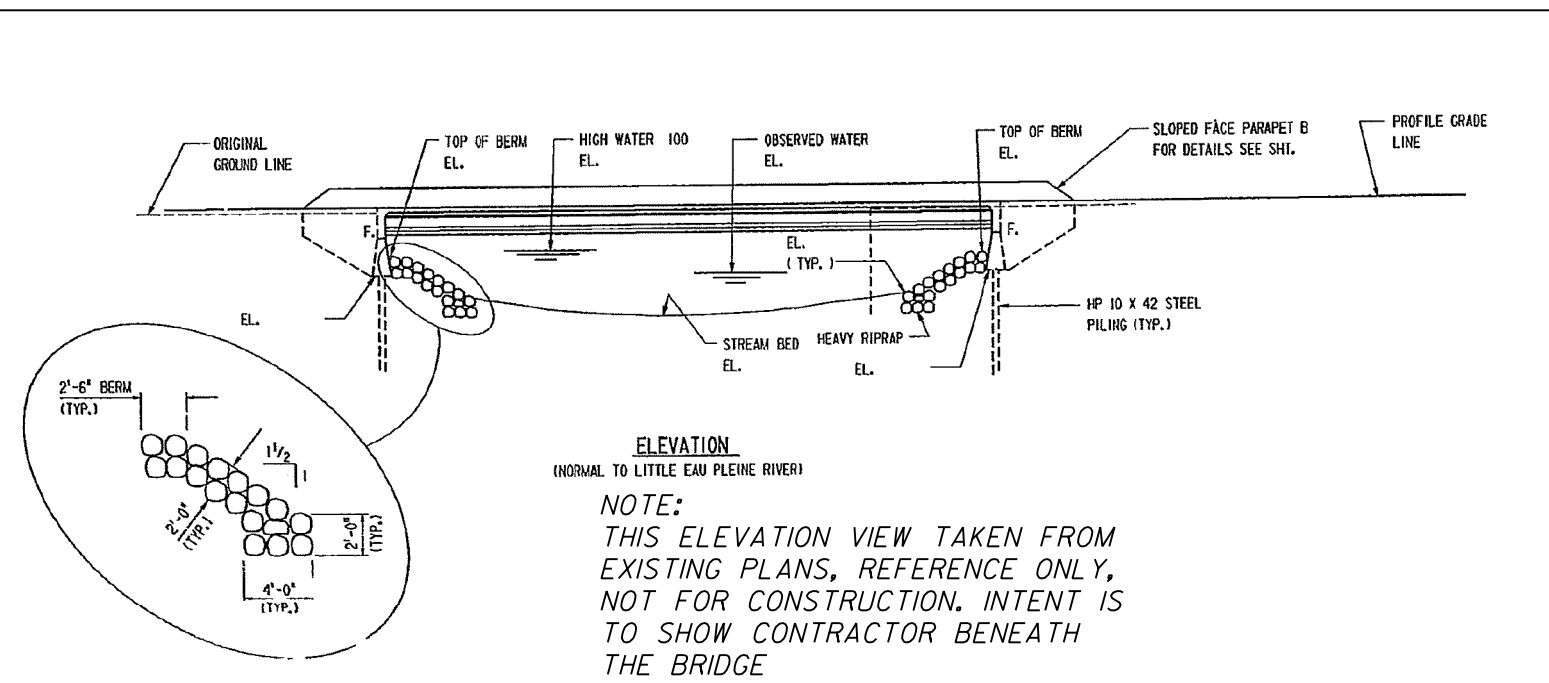
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
④	502.3200 PROTECTIVE SURFACE TREATMENT	SY	327
③⑦	502.3205 PIGMENTED SURFACE SEALER RESEAL	SY	72
⑤	509.0301 PREPARATION DECKS TYPE 1	SY	30
⑤	509.0302 PREPARATION DECKS TYPE 2	SY	12
①	509.0500 CLEANING DECKS	SY	327
⑤	509.1500 CONCRETE SURFACE REPAIR	SF	5
⑤⑥	509.2000 FULL-DEPTH DECK REPAIR	SY	1
②	509.2500 CONCRETE MASONRY OVERLAY DECKS	CY	21
	NON-BID ITEMS		

**QUANTITIES NOTES**

- ① BASED ON 1" DEEP BY LIMITS OF OVERLAY.
- ② CONCRETE FOR:  
\* PREPARATION DECKS TYPE 1 & 2, \* FULL-DEPTH DECK REPAIR AND OVERLAY.
- ③ FURNISH AND APPLY PIGMENTED SEALER TO FRONT FACE, TOP, AND ENDS OF EXISTING PARAPETS. CLEAN THE INSIDE FACE, TOP AND ENDS OF PARAPET.
- ④ FURNISH AND APPLY A PROTECTIVE SURFACE TREATMENT TO THE ENTIRE TOP SURFACE OF THE NEW OVERLAY.
- ⑤ AS LOCATED BY FIELD ENGINEER.
- ⑥ UNDISTRIBUTED AMOUNT.
- ⑦ INCLUDES PARAPETS ON WINGWALLS AND DECK.

\* THESE QUANTITIES TOTALS ARE AN ESTIMATE AND ARE INCLUDED IN BID ITEM "CONCRETE MASONRY OVERLAY, DECKS".

- PREPARATION DECKS TYPE 1 = 1.7 CY
- PREPARATION DECKS TYPE 2 = 0.5 CY
- FULL-DEPTH DECK REPAIR = 0.2 CY

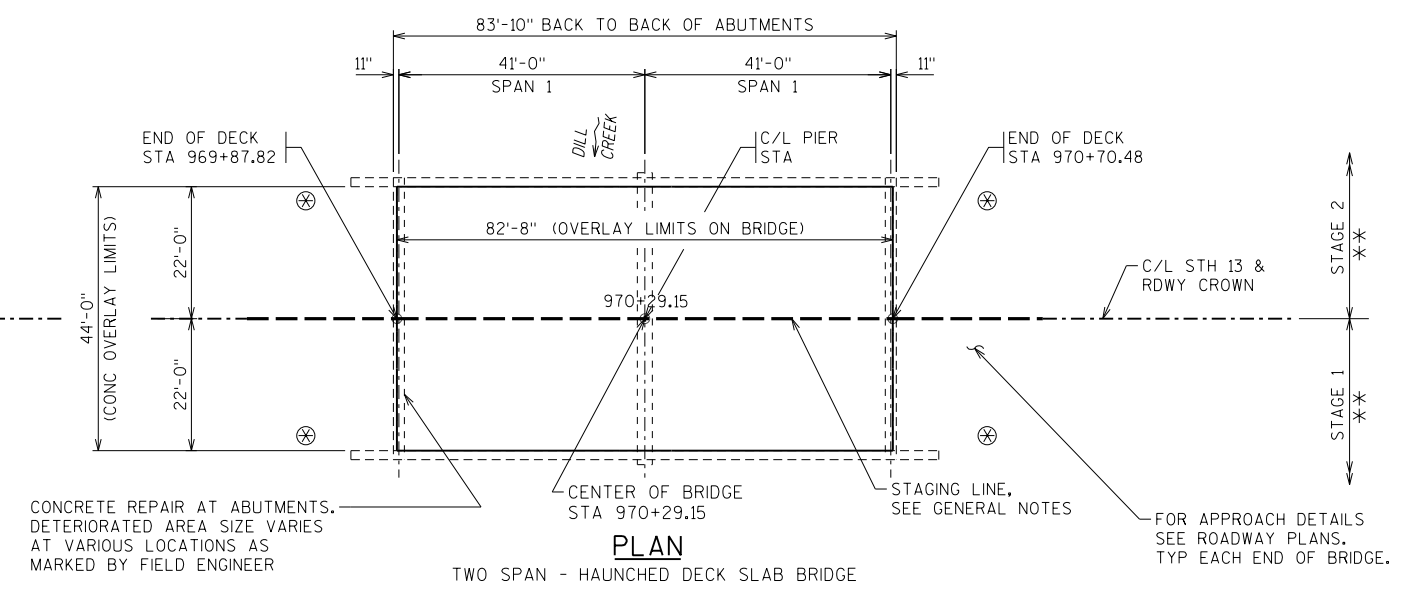


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-37-184			
	DRAWN BY	DLF	PLANS CK'D. CJB
<b>NOTES AND QUANTITIES</b>			SHEET 2 OF 2

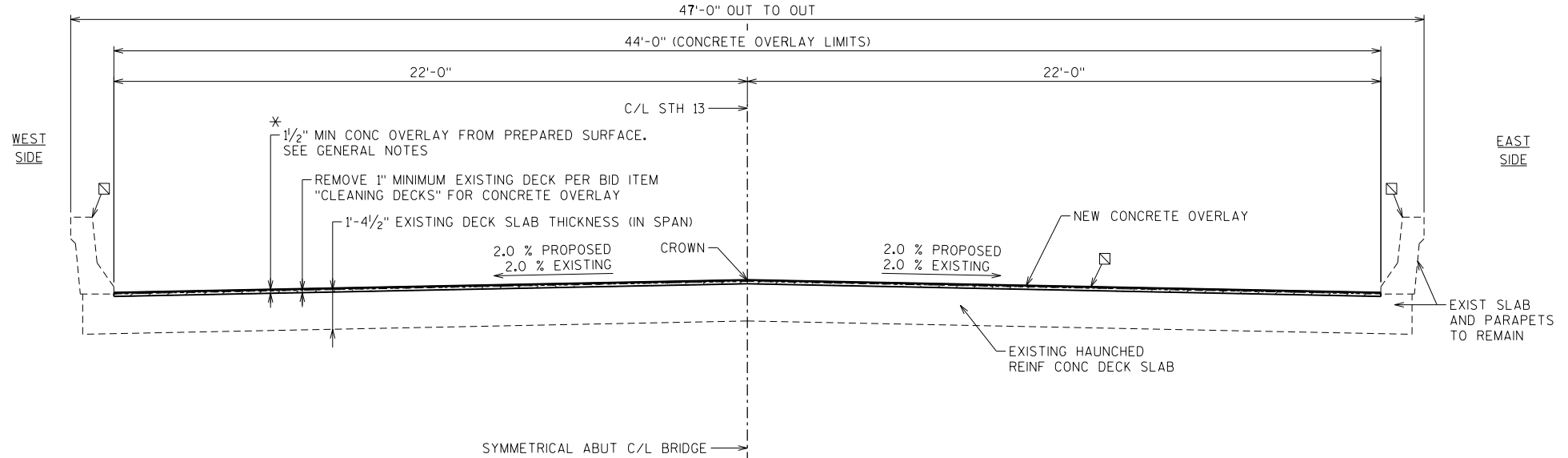
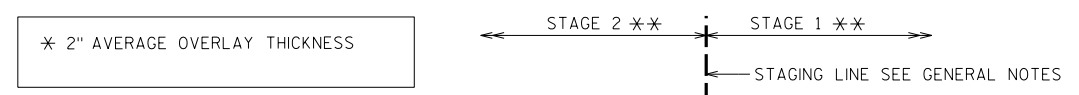
FILE NAME : S:\U2\W\IT\nc\45678\5-final-dsgn\5-final-drawings\20-Structure\B-37-184\bridge\37184g2.dgn  
 PLOT DATE: 7/14/2023  
 PLOT TIME: 7:58:35 AM



- ⊗ ADD THREE BEAM GUARD CONNECTION TO PARAPET. (BOLT THROUGH SYSTEM) FOR DETAILS, BID ITEM AND QUANTITY SEE "PROJECT ID 1620-01-62" ROADWAY PLANS
- \*\* SEE ROADWAY PLANS FOR TRAFFIC CONTROL STAGING. (TEMPORARY TRAFFIC SIGNAL REQUIRED)
- ▨ INDICATES REMOVAL
- ☒ COAT EXISTING PARAPET WITH "PIGMENTED SURFACE SEALER RESEAL" PER THE STANDARD SPECIFICATIONS, SEE NOTES ON SHEETS 2. COAT CONCRETE OVERLAY WITH "PROTECTIVE SURFACE TREATMENT" PER THE STANDARD SPECIFICATIONS. SEE NOTES ON SHEET 2.



PLAN  
TWO SPAN - HAUNCHED DECK SLAB BRIDGE



CROSS SECTION THRU ROADWAY  
(LOOKING NORTH)

DESIGN DATA

LIVE LOAD: HS20  
 DESIGN LOADING:  
 INVENTORY RATING = HS20  
 OPERATING RATING = HS32  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

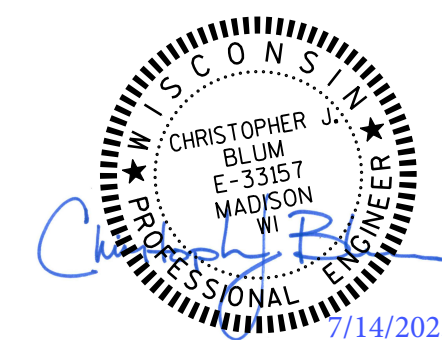
MATERIAL PROPERTIES:  
 CONCRETE MASONRY - SUPERSTRUCTURE f'c = 4,000 psi  
 - OVERLAY f'c = 4,000 psi  
 - ALL OTHER f'c = 3,500 psi

TRAFFIC DATA

ADT (2022) = 9000  
 ADT (2042) = 10,500  
 DHV = 1176  
 DD = 60/40  
 T = 19.1 %  
 DESIGN SPEED = 60 MPH

LIST OF DRAWINGS

- 1 DECK OVERLAYS
- 2 NOTES AND QUANTITIES

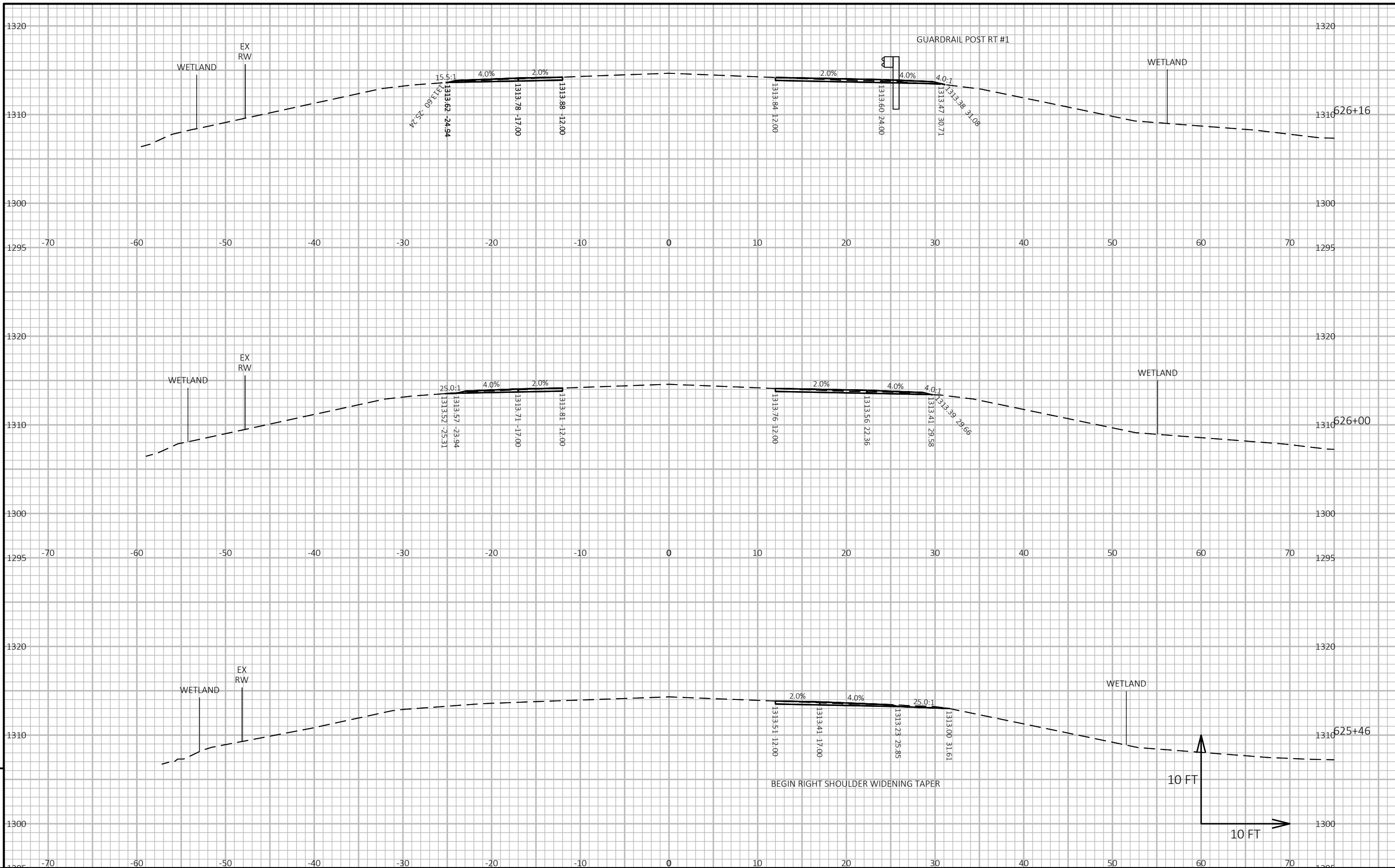


SEH CONTACT: CHRISTOPHER BLUM, PE, 608.620.6192  
 WISDOT BRIDGE OFFICE CONTACT: AARON BONK, PE, 608.261.0261

NO.	DATE	REVISION	BY
 SHORT ELLIOTT HENDRICKSON INC. STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		SDR	DATE
		08/25/23	
STRUCTURE B-37-185			
S.T.H 13 OVER DILL CREEK			
COUNTY	MARATHON	TOWN/CITY/VILLAGE	HULL
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	NB	DESIGN CK'D.	TN
DRAWN BY	DLF	PLANS CK'D.	CJB
DECK OVERLAYS			SHEET 1 OF 2

FILE NAME : S:\UZ\W\WIT\nc\45678\5-final-dsgn\51-drawings\20-Struct\B-37-185\br'dge\B37185gldgn  
 PLOT DATE: 7/14/2023  
 PLOT TIME: 8:09:49 AM





PROJECT NO: 1620-01-62

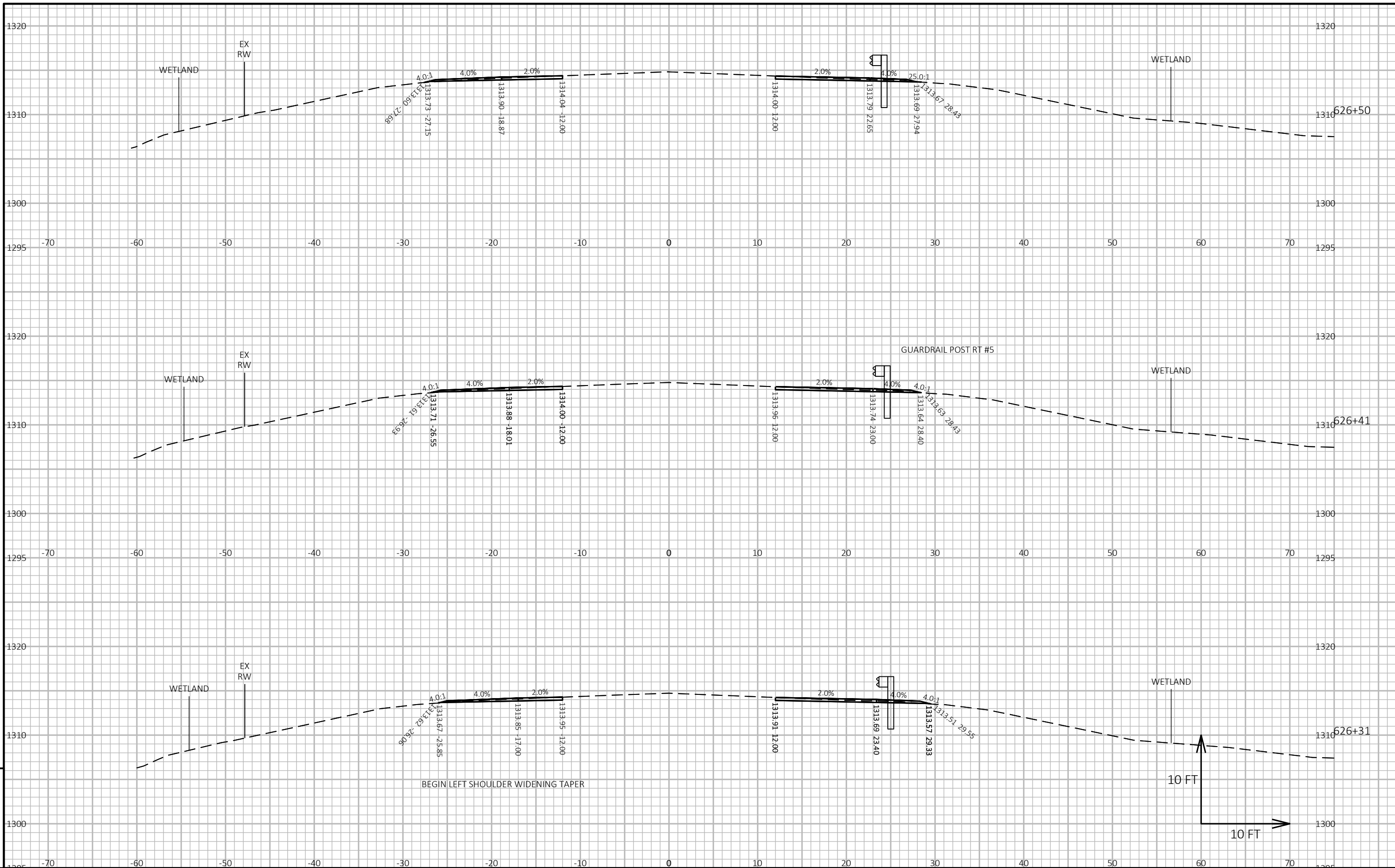
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 625+46 TO STA 631+03

SHEET

E



PROJECT NO: 1620-01-62

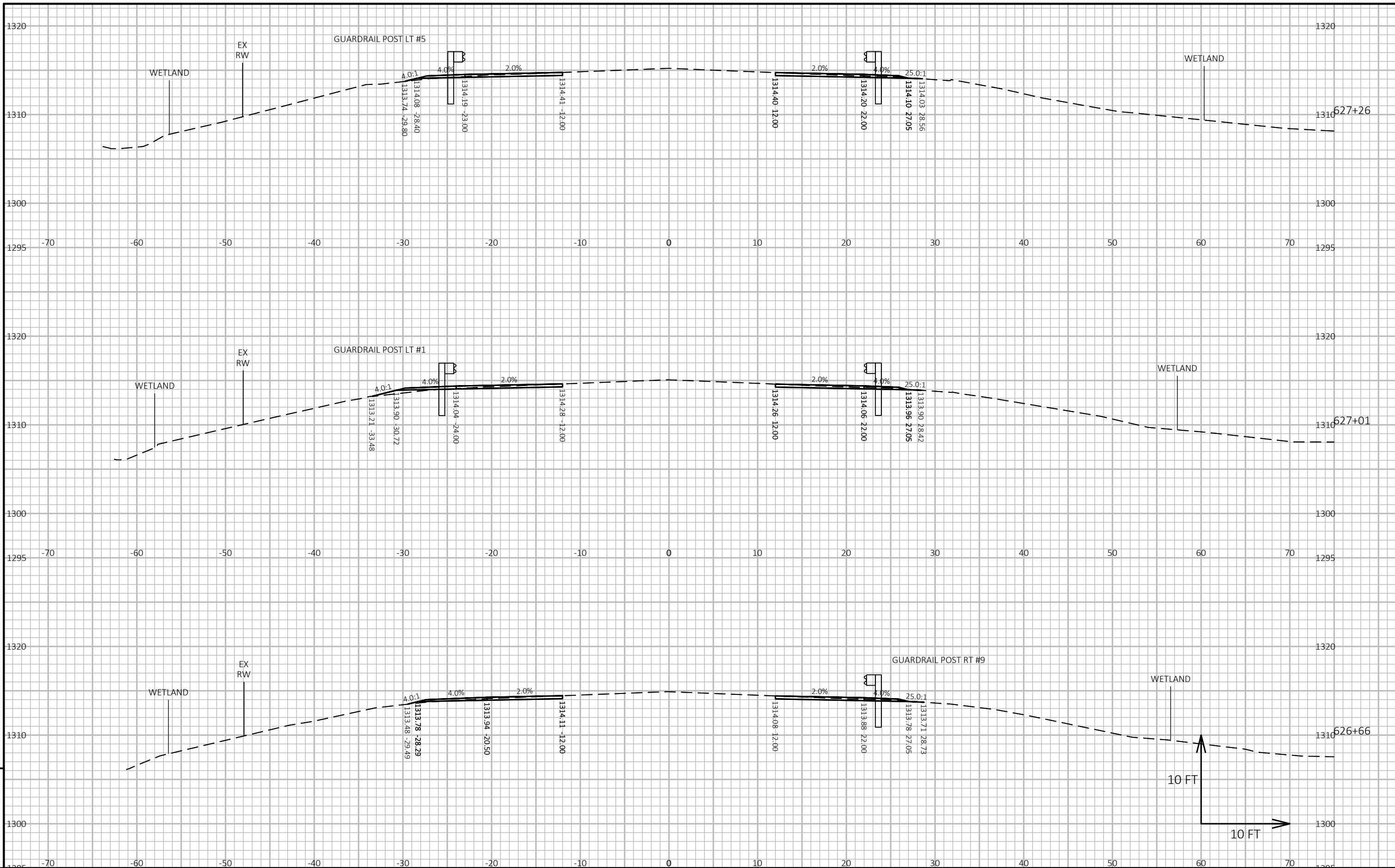
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COUNTY: MARATHON

CROSS SECTIONS: STA 625+46 TO STA 631+03

SHEET

E



PROJECT NO: 1620-01-62

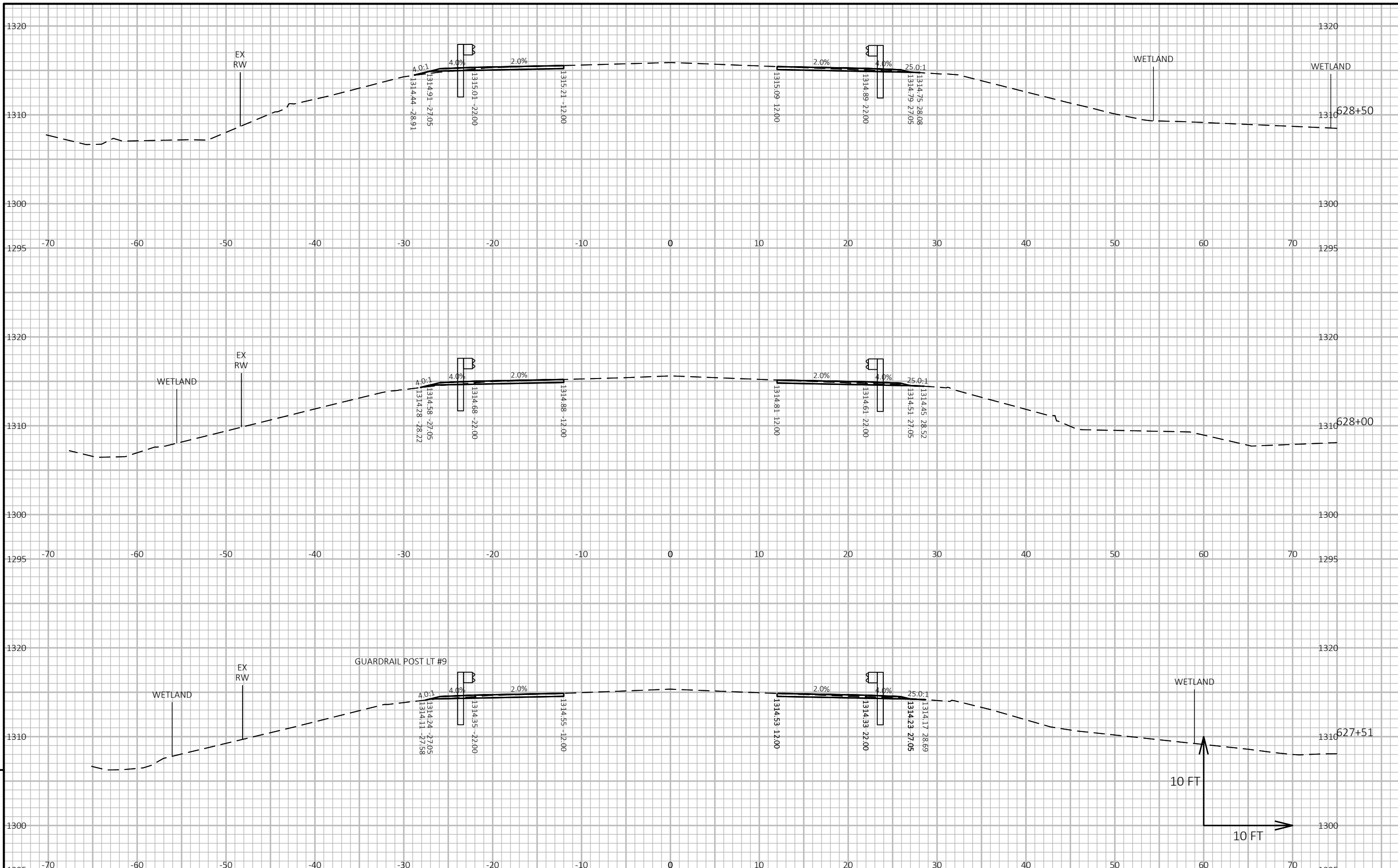
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 625+46 TO STA 631+03

SHEET

E



9

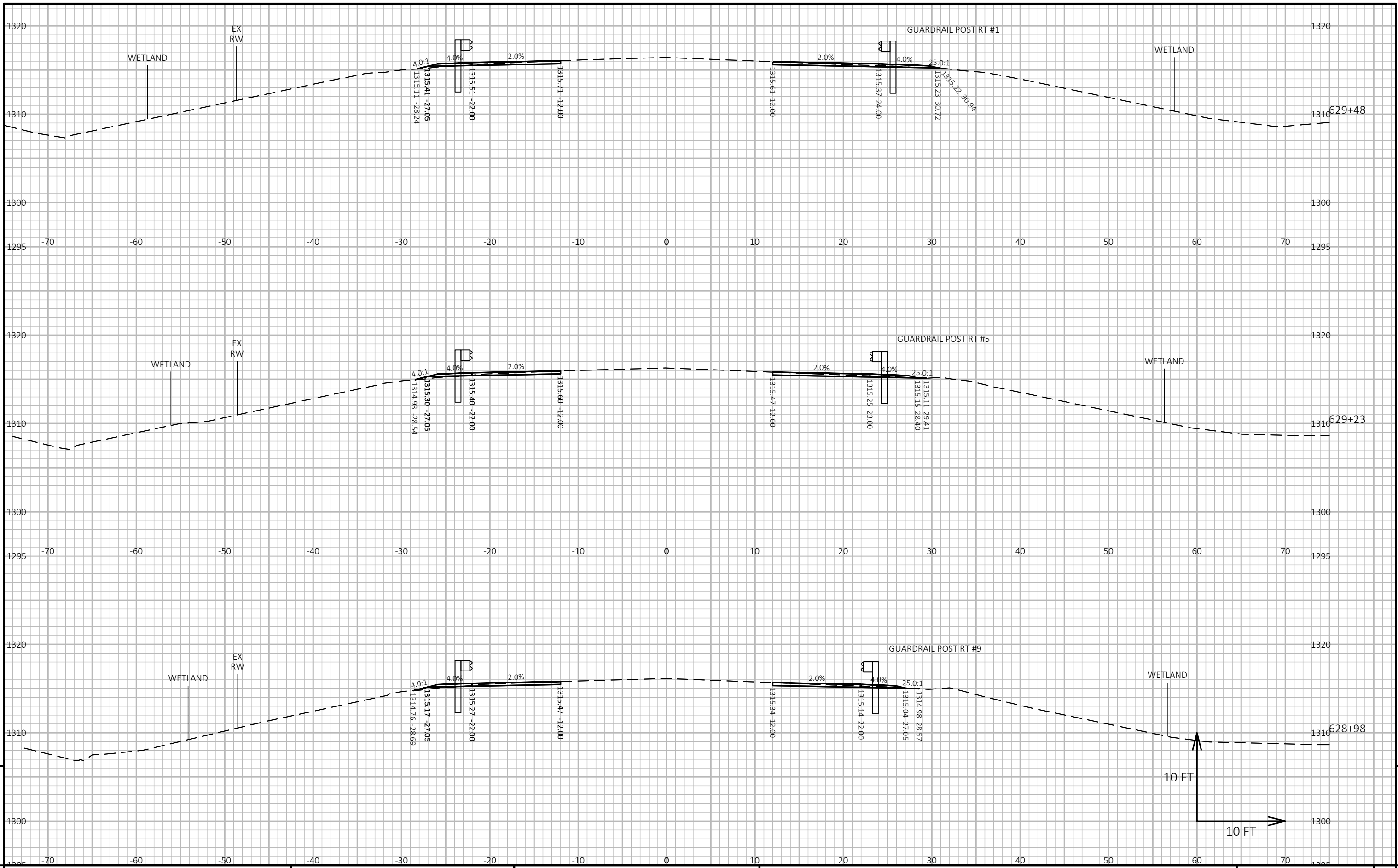
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PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 625+46 TO STA 631+03      SHEET      E

FILE NAME : X:\PROJECTS\MARATHON\1620-01-02\_STH 13\_STH 98 TO CTH N\DESIGN\C3D\SHEETSPLAN\090201-XS-62850-FINALPRINT.DWG      PLOT DATE : 7/25/2023 3:12 PM      PLOT BY : ADAM SARAUER      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 04





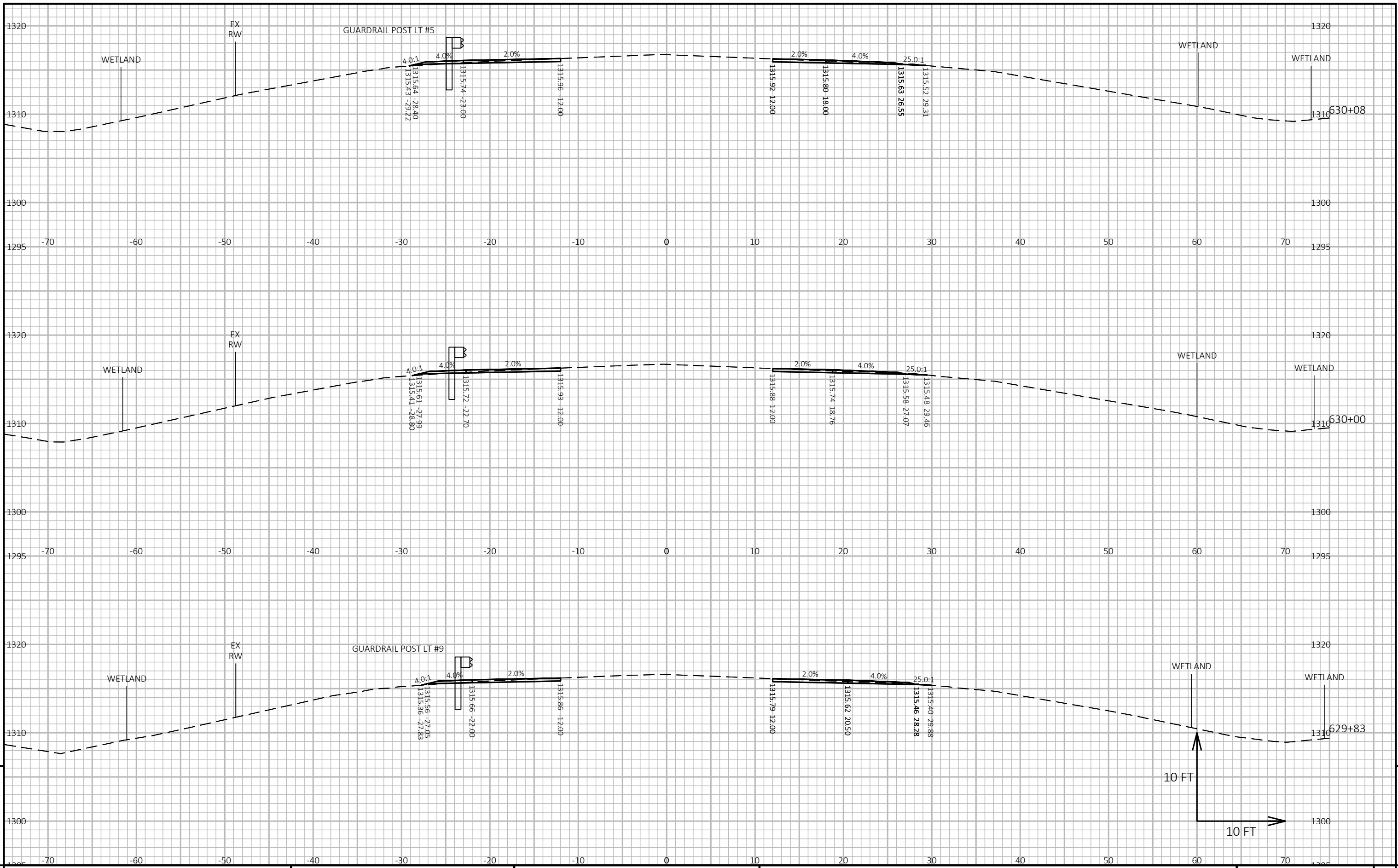
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PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 625+46 TO STA 631+03      SHEET      E

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LAYOUT NAME - 05



PROJECT NO: 1620-01-62

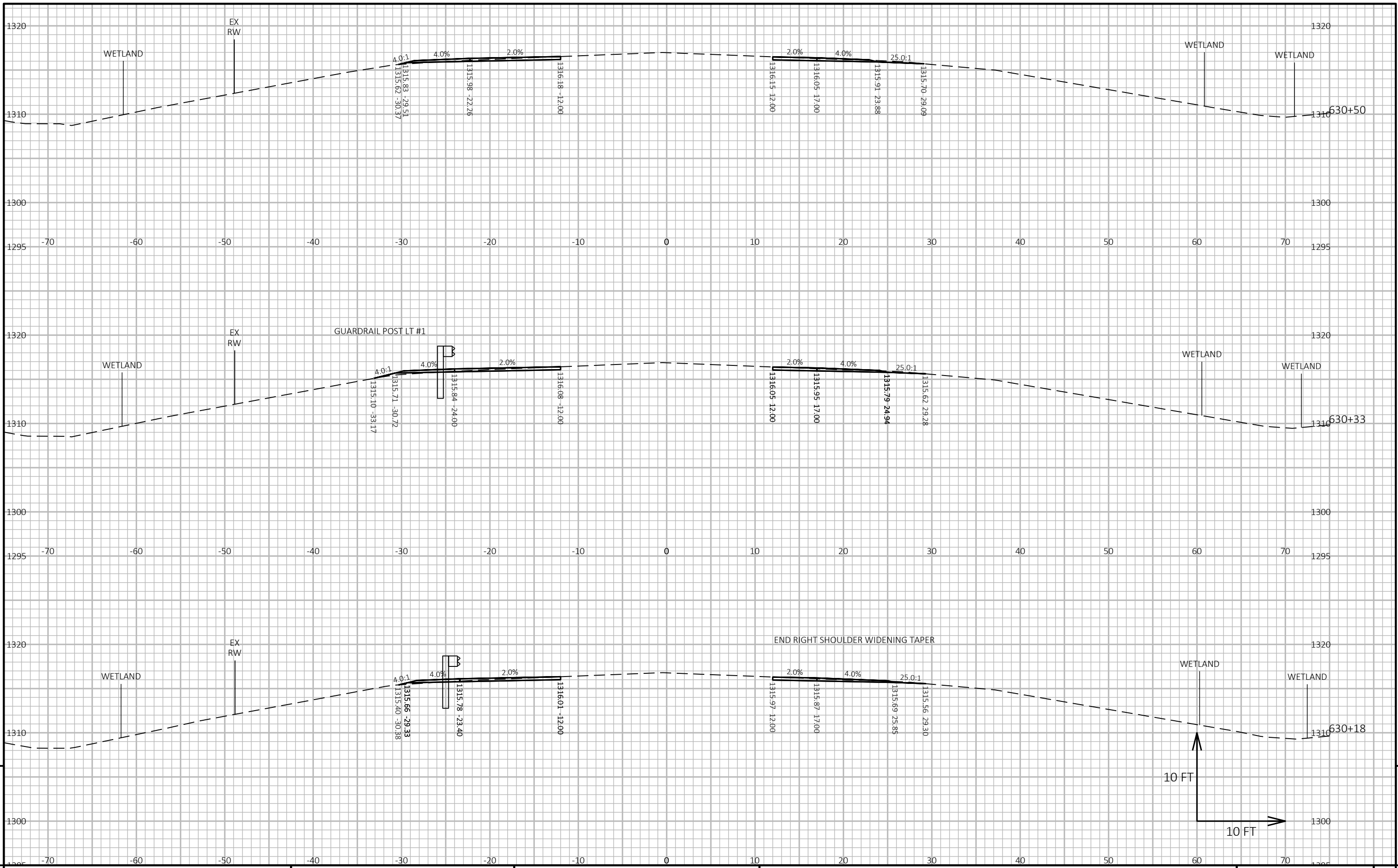
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COUNTY: MARATHON

CROSS SECTIONS: STA 625+46 TO STA 631+03

SHEET

E



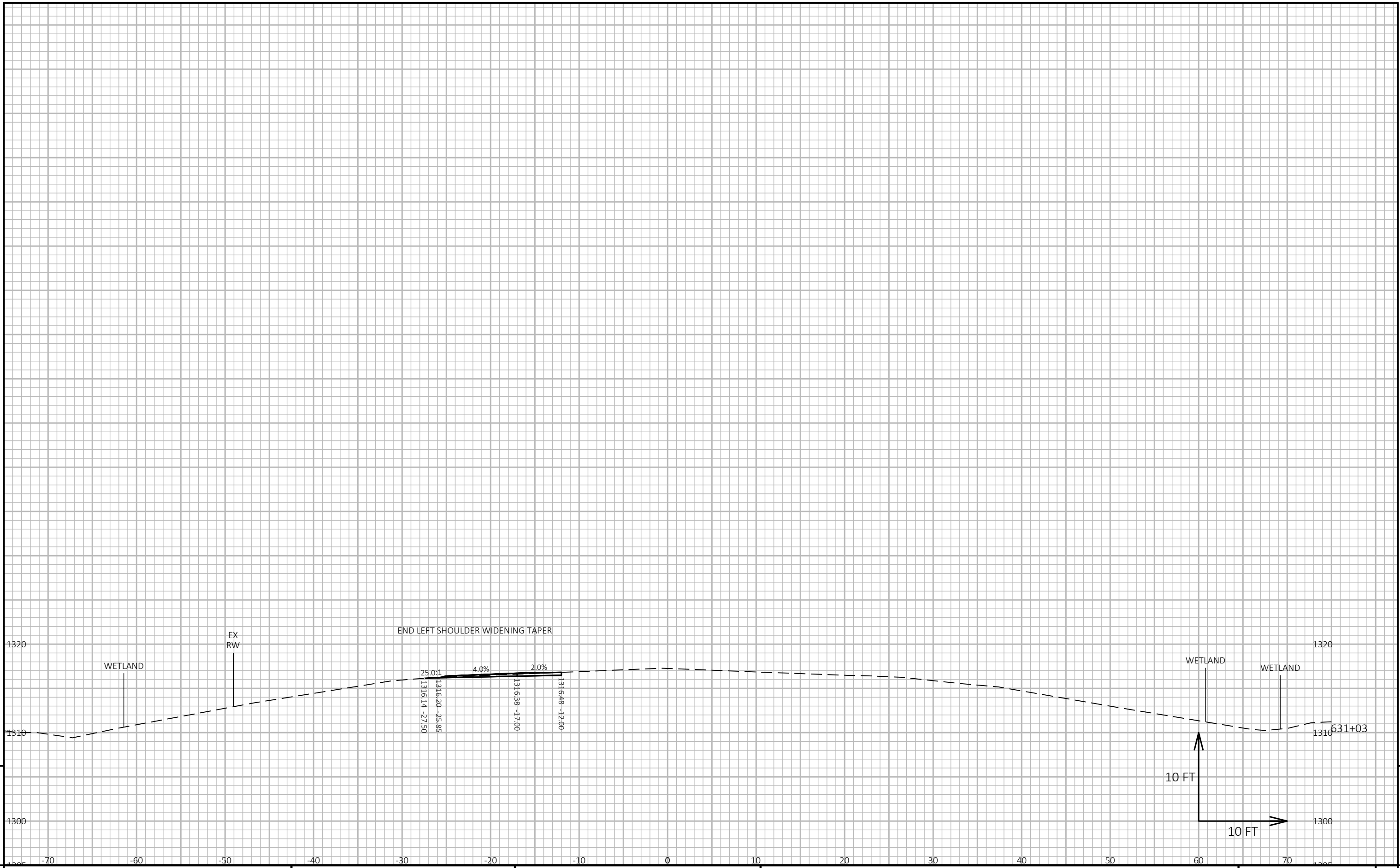
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PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 625+46 TO STA 631+03      SHEET      E

FILE NAME : X:\PROJECTS\MARATHON\1620-01-02\_STH 13\_STH 98 TO CTH N\DESIGN\C3D\SHEETSPLAN\090201-XS-62850-FINALPRINT.DWG      PLOT DATE : 7/25/2023 3:12 PM      PLOT BY : ADAM SARAUER      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 07



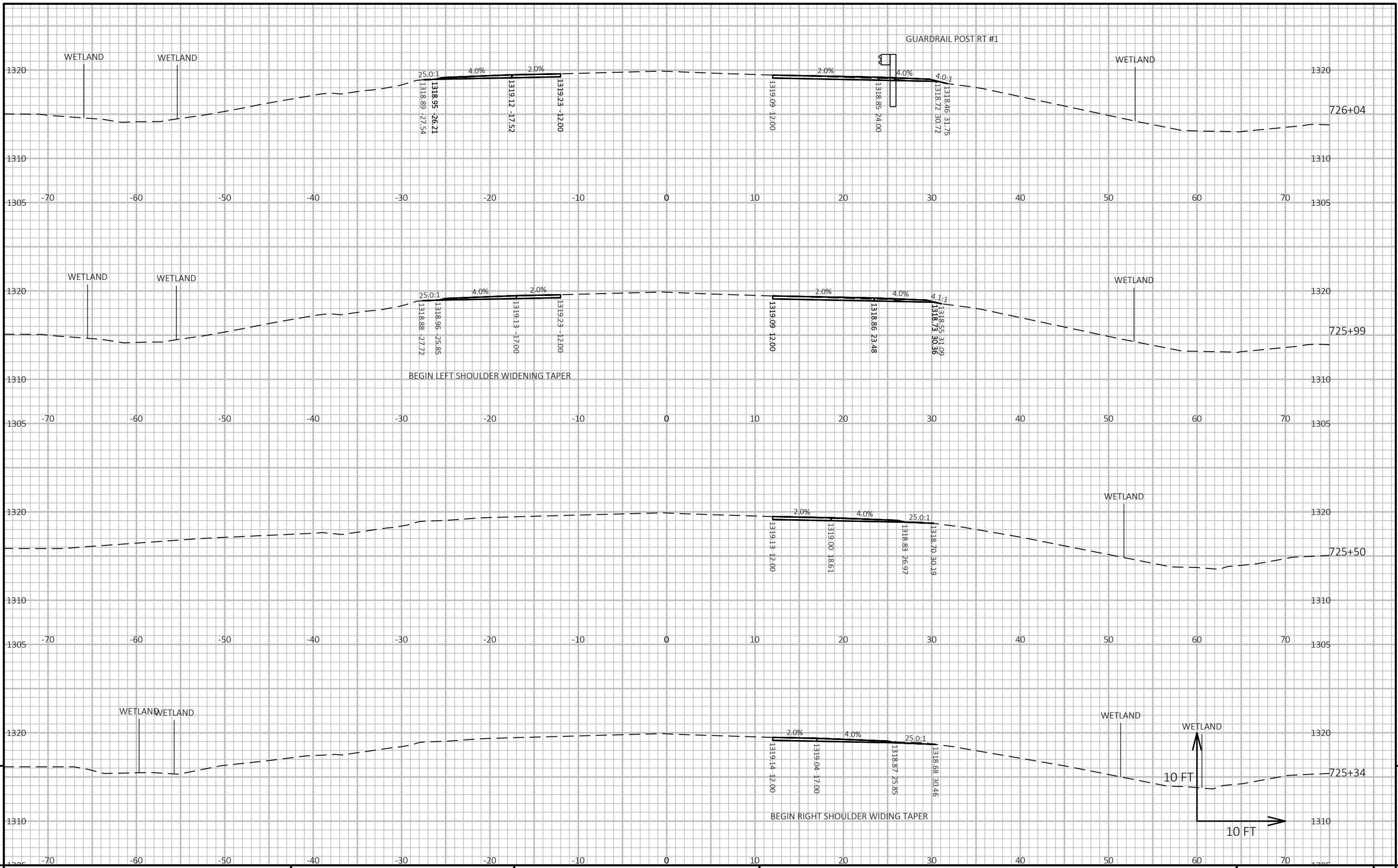
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PROJECT NO: 1620-01-62	HWY: STH 13	COUNTY: MARATHON	CROSS SECTIONS: STA 625+46 TO STA 631+03	SHEET	E
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FILE NAME : X:\PROJECTS\MARATHON\1620-01-02\_STH 13\_STH 98 TO CTH N\DESIGN\C3D\SHEETSPLAN\090201-X5-62850-FINALPRINT.DWG PLOT DATE : 7/25/2023 3:12 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - 08



PROJECT NO: 1620-01-62

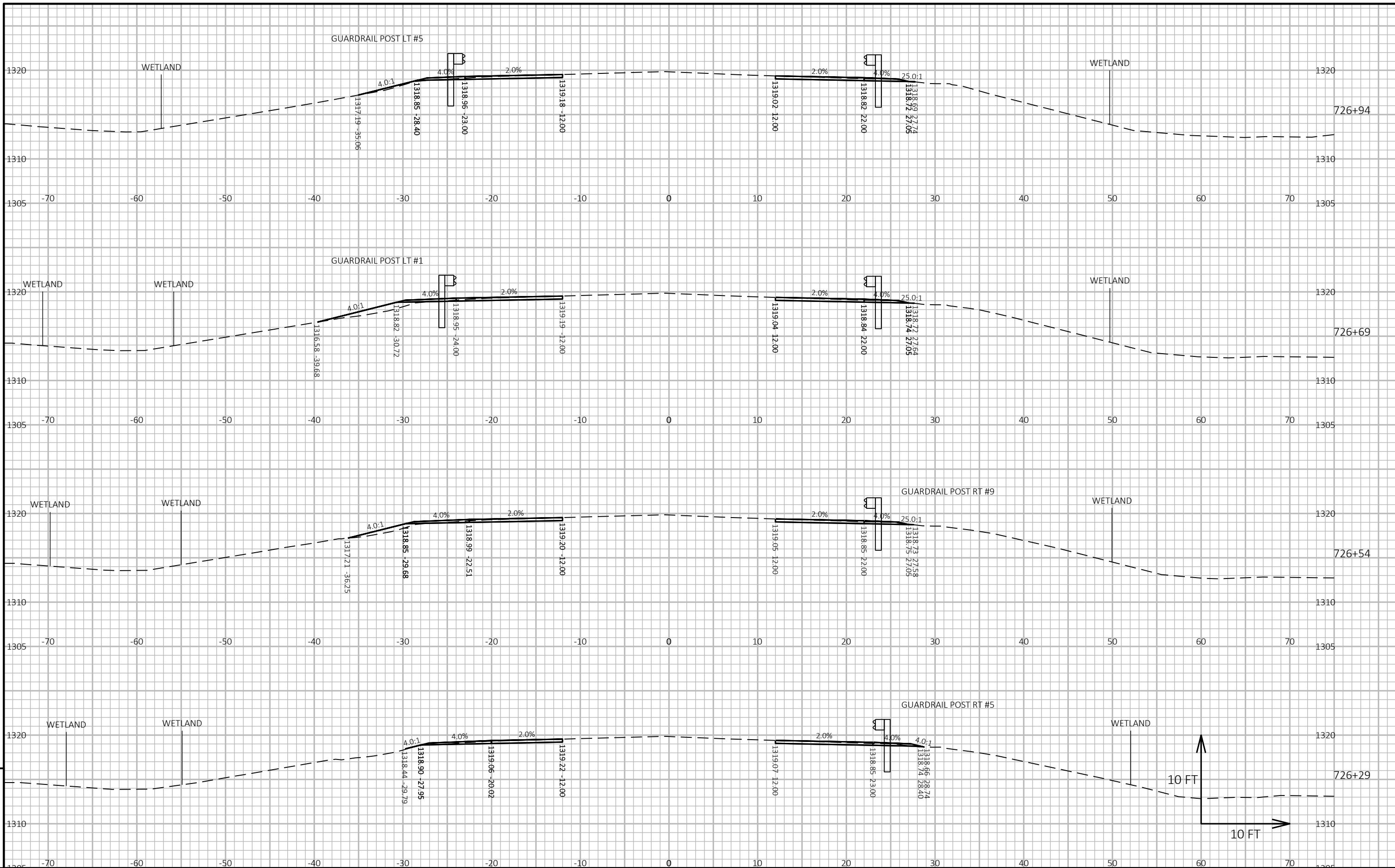
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 725+34 TO STA 730+70

SHEET

E



PROJECT NO: 1620-01-62

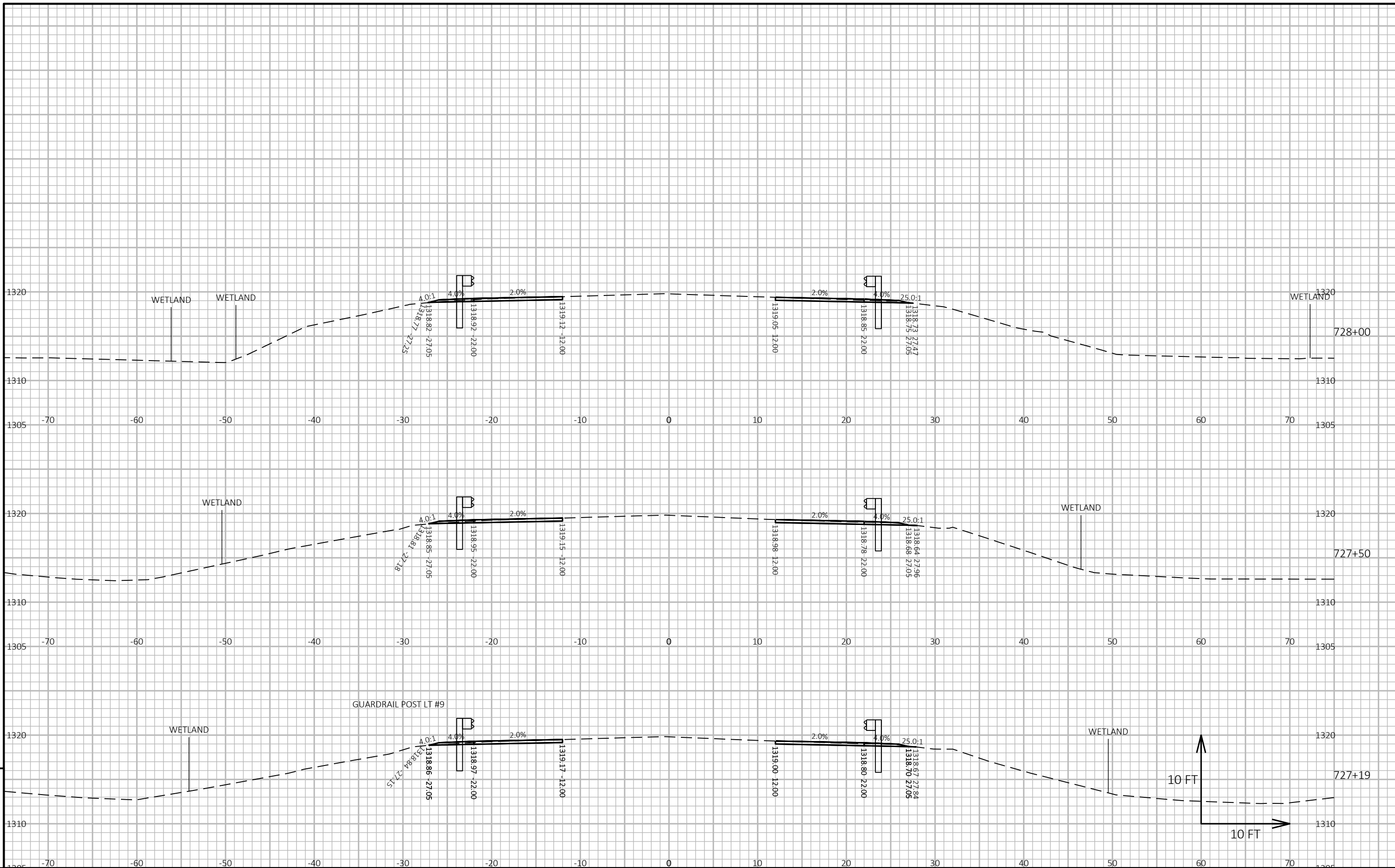
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 725+34 TO STA 730+70

SHEET

E



PROJECT NO: 1620-01-62

HWY: STH 13

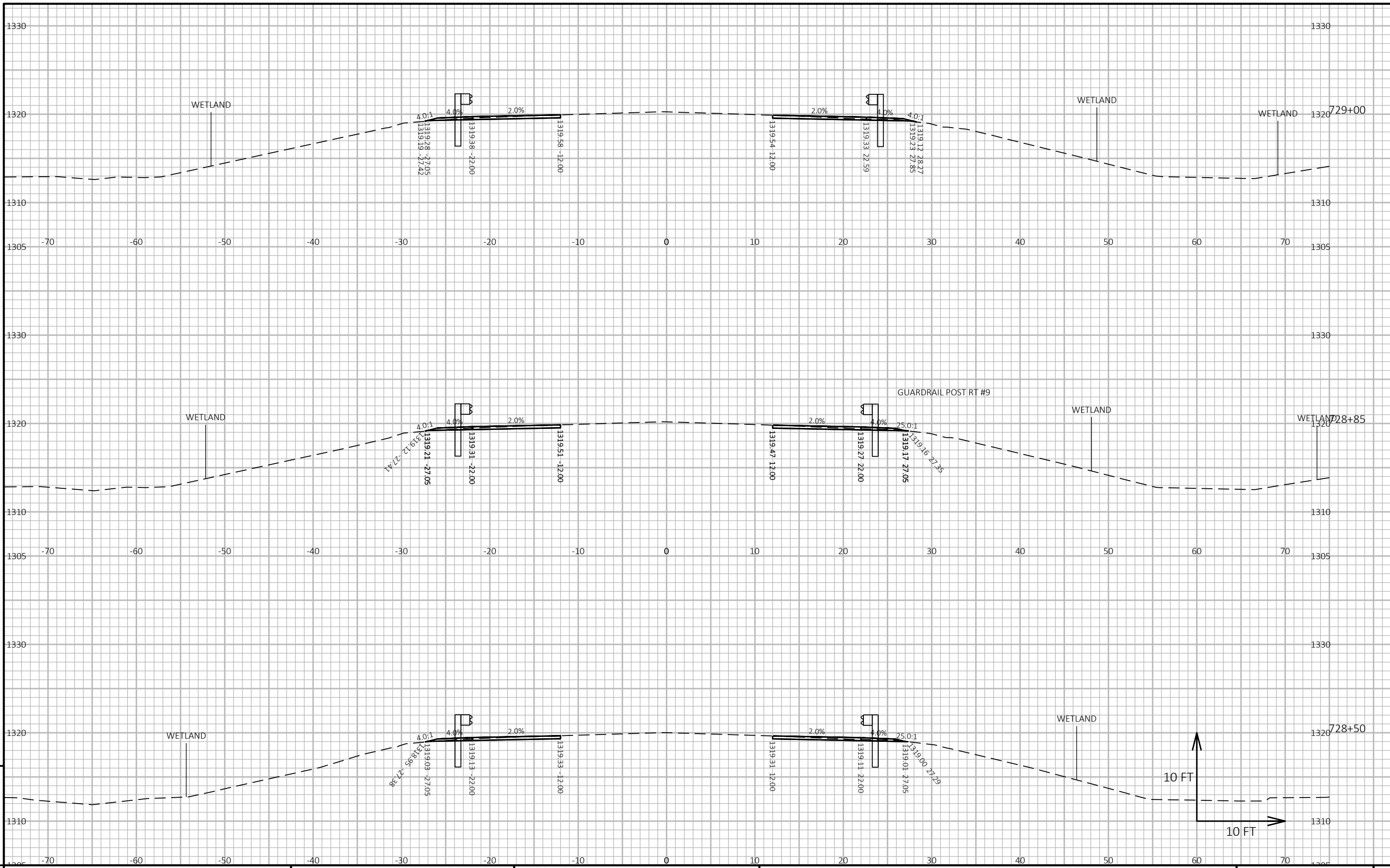
COUNTY: MARATHON

CROSS SECTIONS: STA 725+34 TO STA 730+70

SHEET

E





PROJECT NO: 1620-01-62

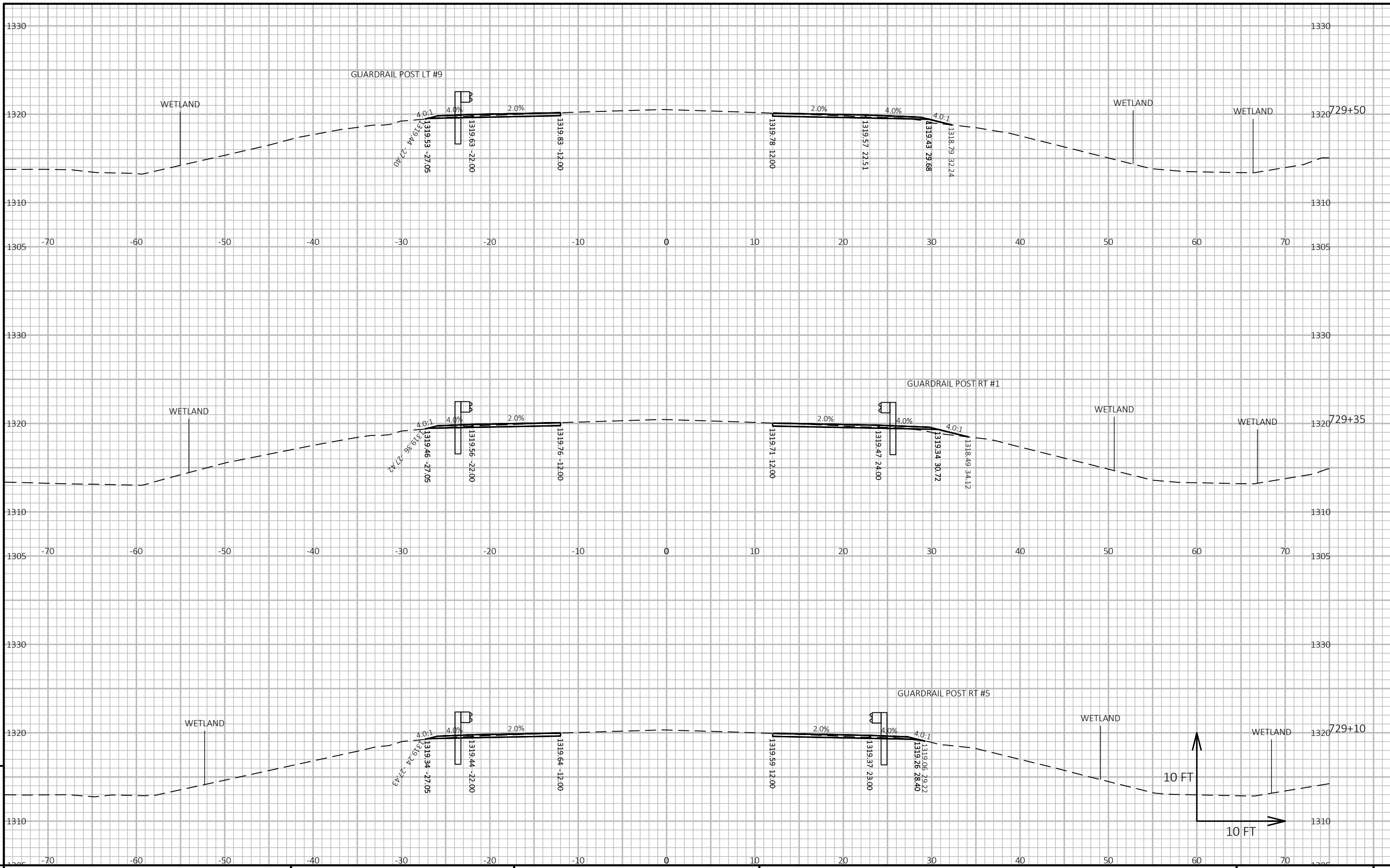
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COUNTY: MARATHON

CROSS SECTIONS: STA 725+34 TO STA 730+70

SHEET

E



PROJECT NO: 1620-01-62

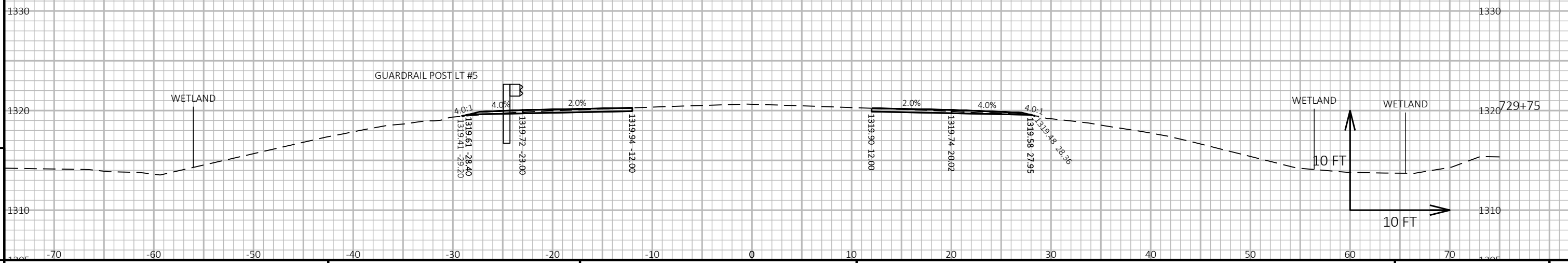
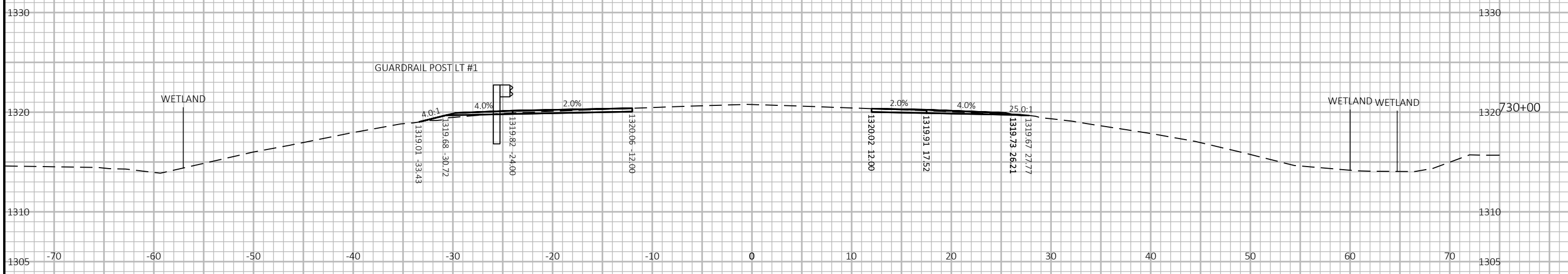
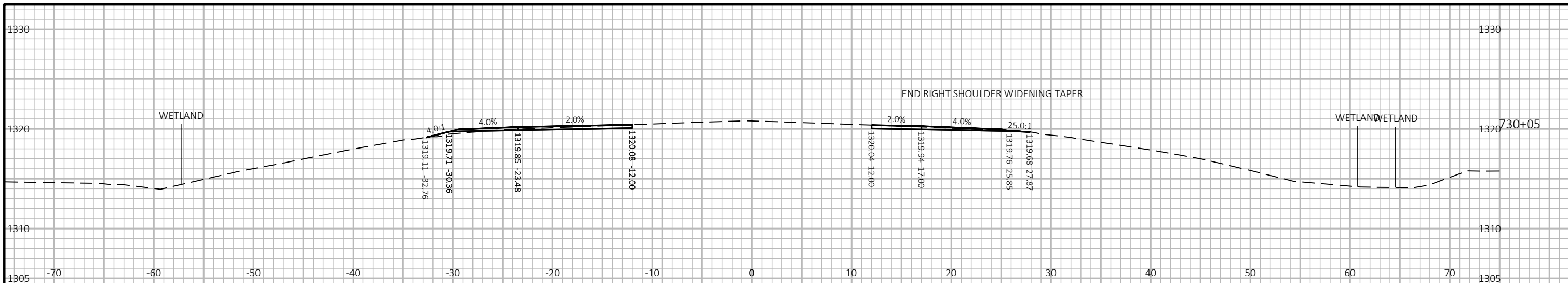
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COUNTY: MARATHON

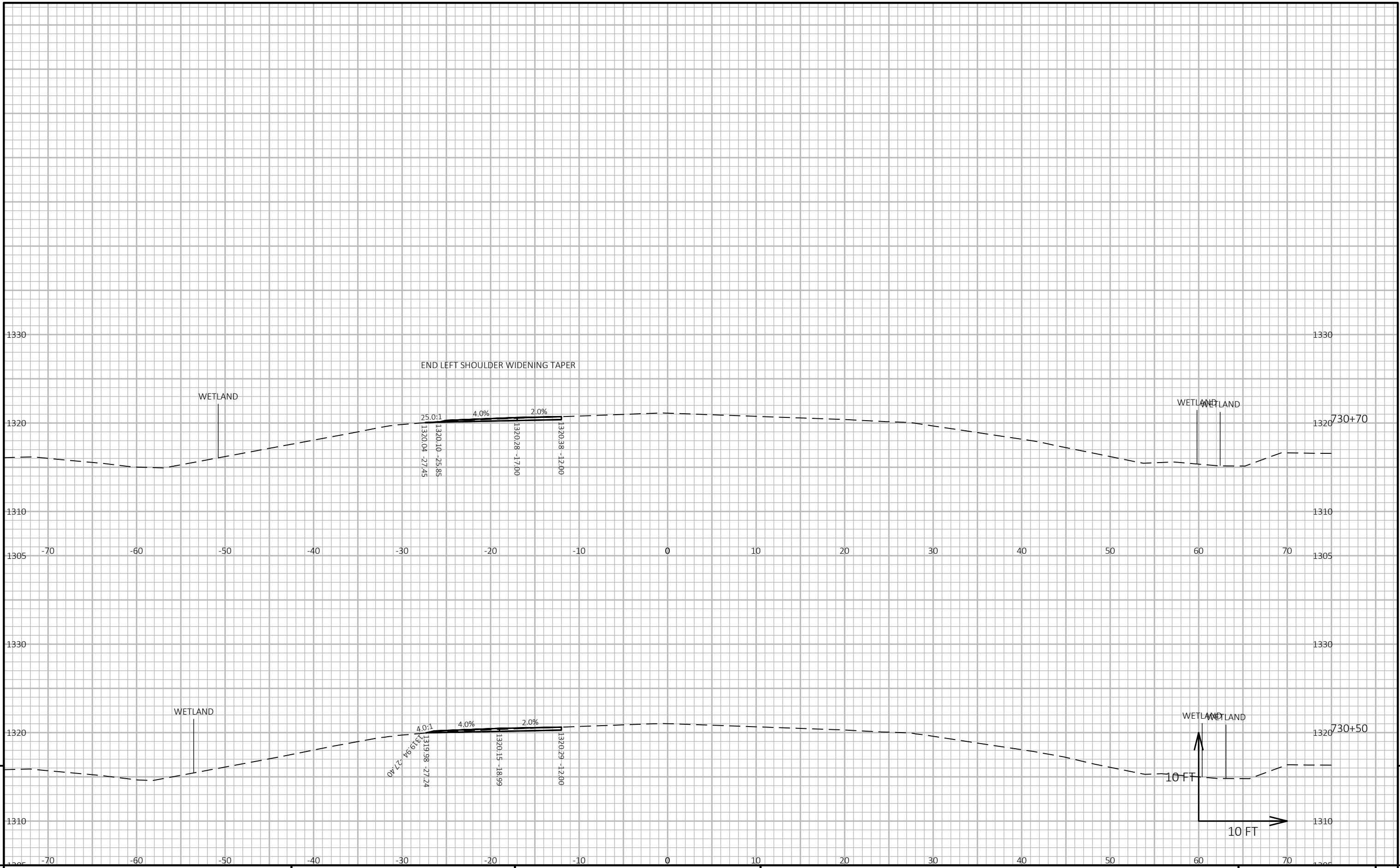
CROSS SECTIONS: STA 725+34 TO STA 730+70

SHEET

E



PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 725+34 TO STA 730+70      SHEET      9



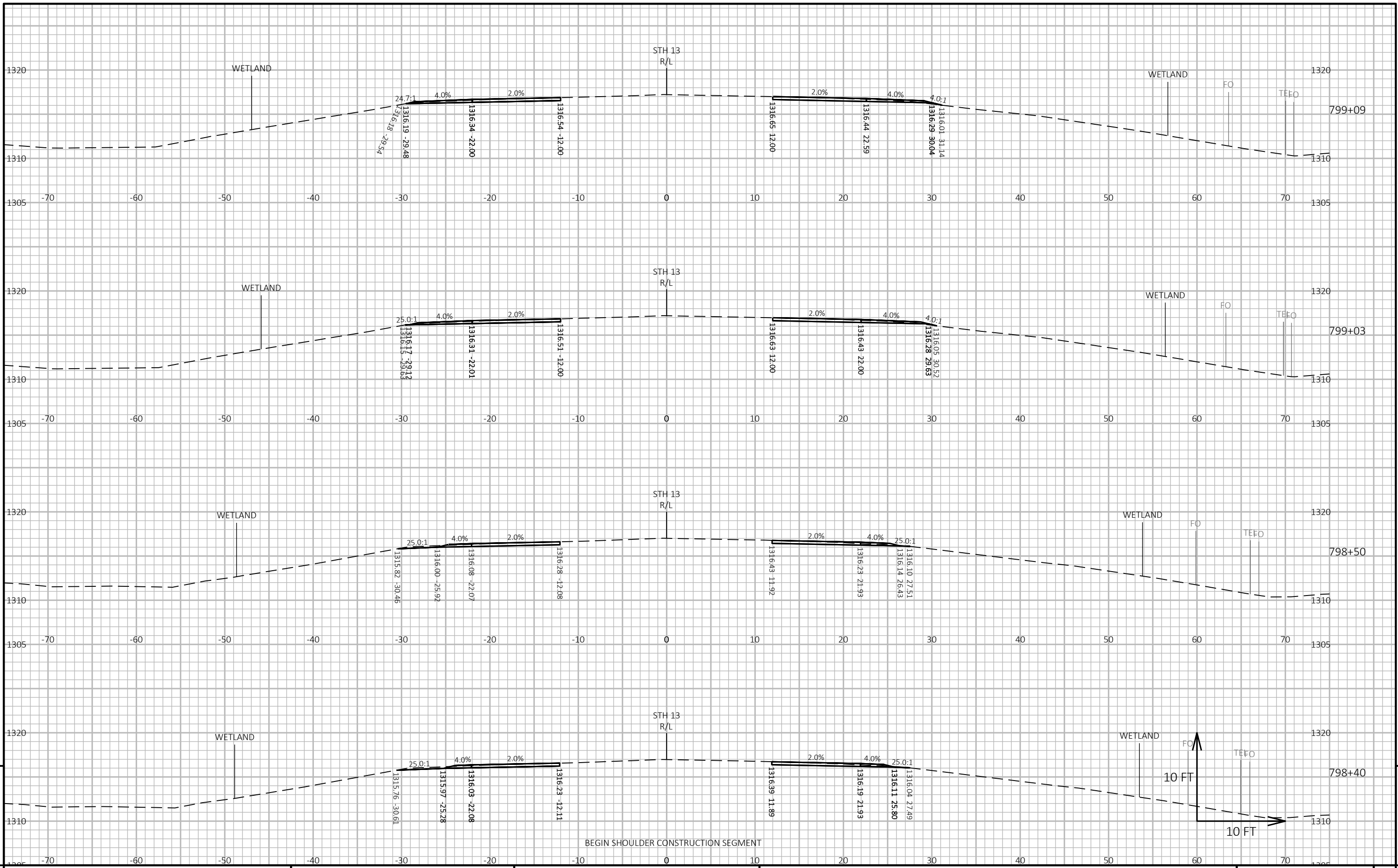
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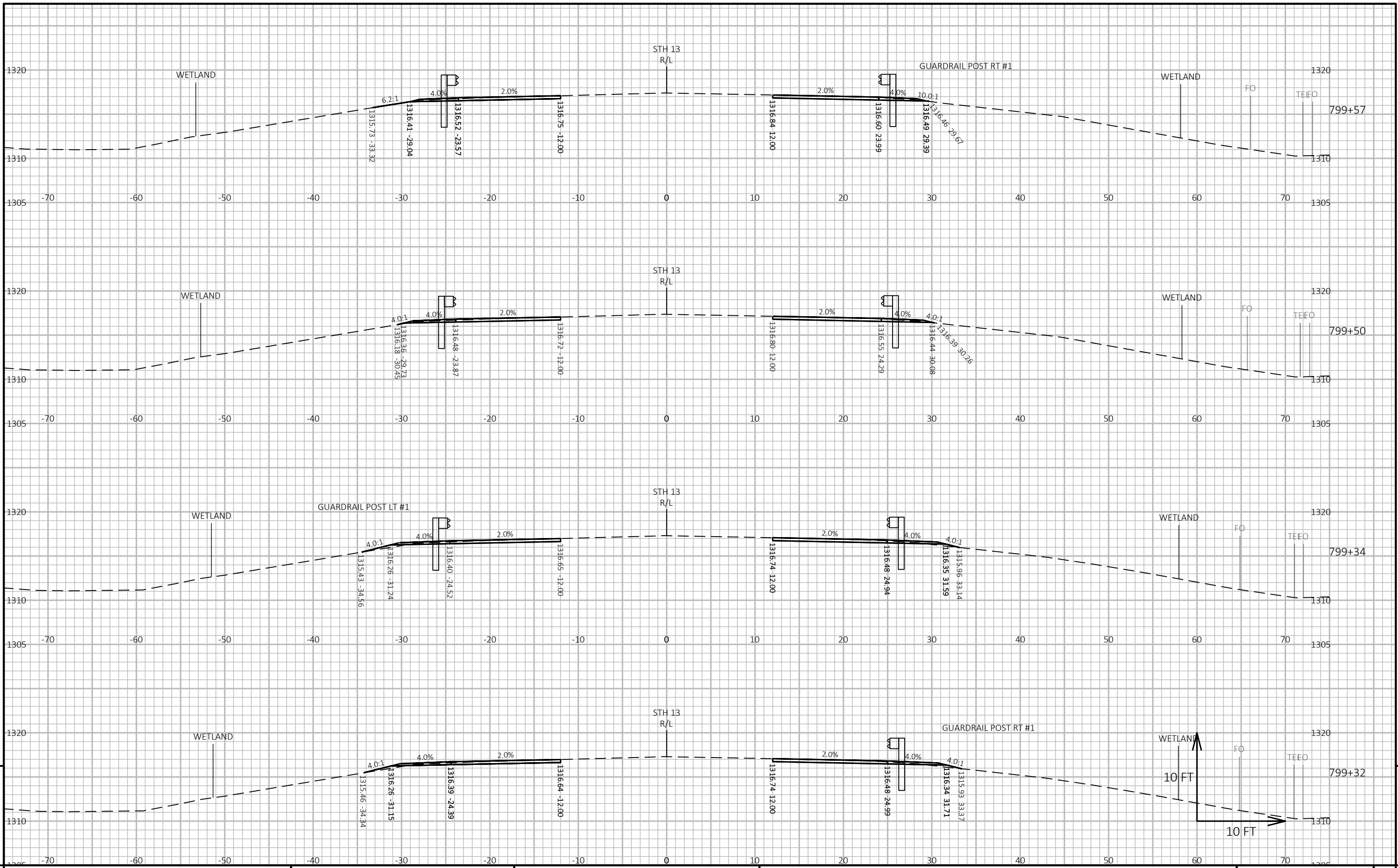
PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 725+34 TO STA 730+70      SHEET      E

FILE NAME : X:\PROJECTS\MARATHON\1620-01-02\_STH 13\_STH 98 TO CTH N\DESIGN\C3D\SHEETSPLAN\090201-X5-72800-FINALPRINT.DWG      PLOT DATE : 7/25/2023 3:13 PM      PLOT BY : ADAM SARAUER      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 07



PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 798+40 TO STA 804+68      SHEET      E



PROJECT NO: 1620-01-62

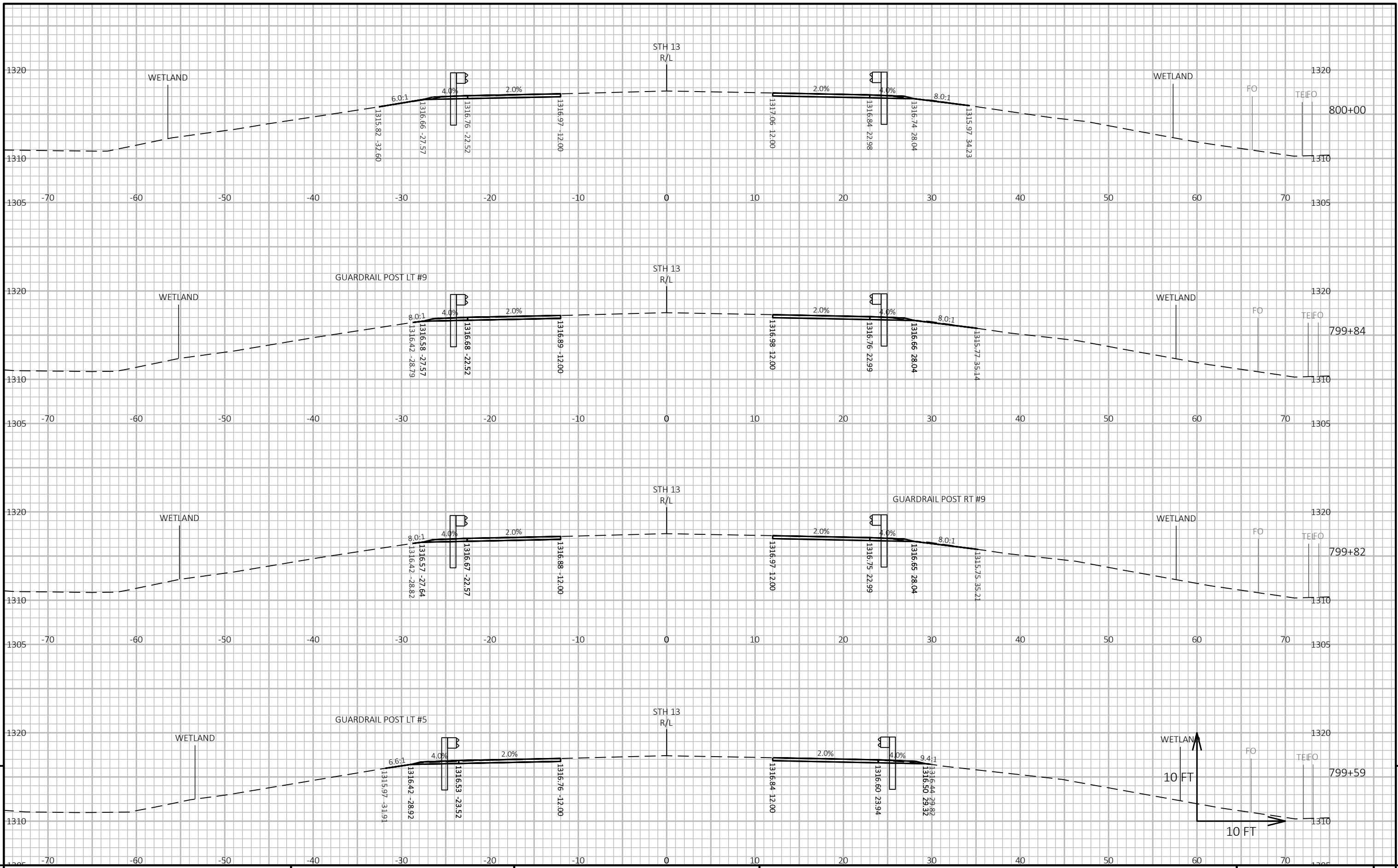
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 798+40 TO STA 804+68

SHEET

E



PROJECT NO: 1620-01-62

HWY: STH 13

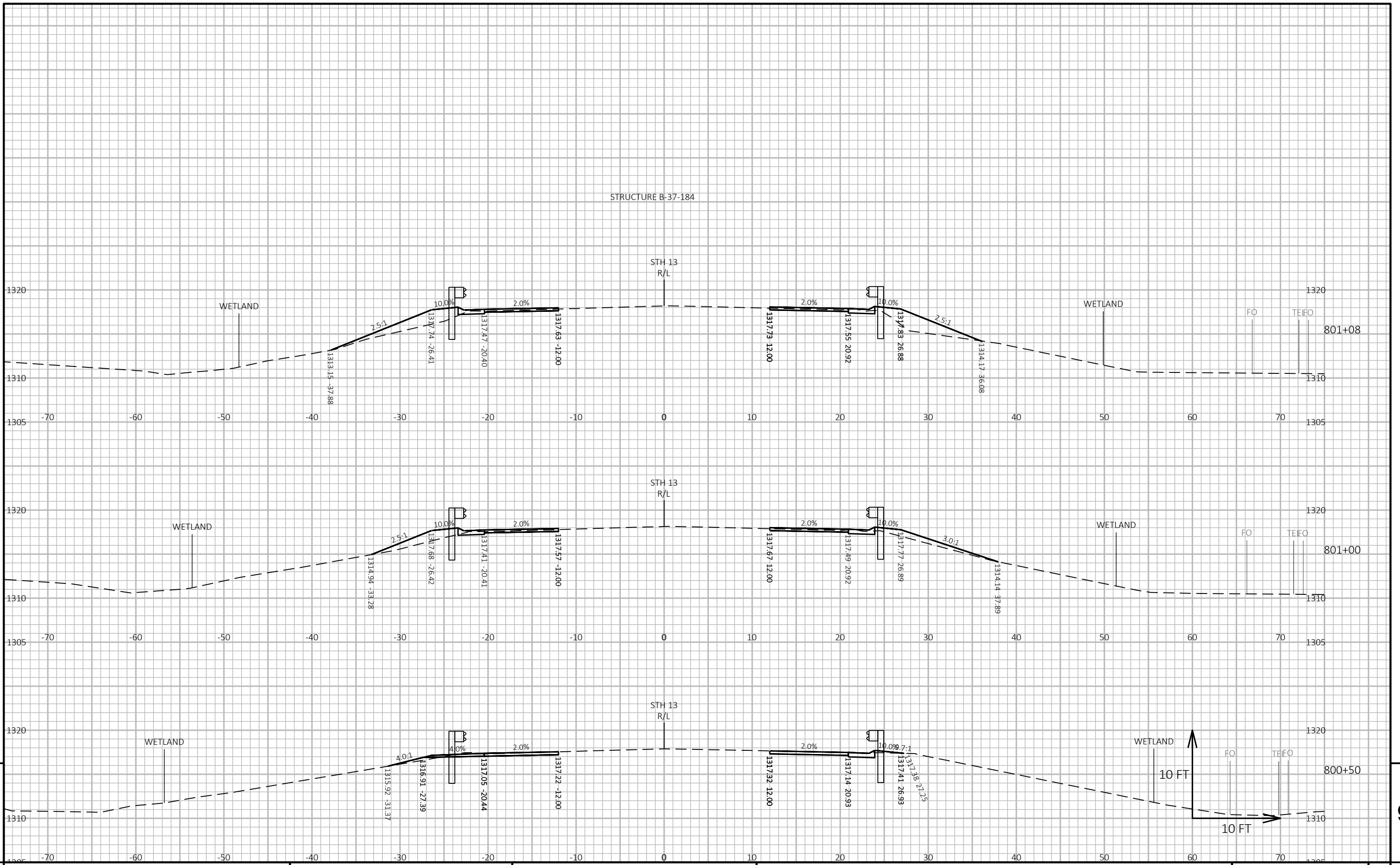
COUNTY: MARATHON

CROSS SECTIONS: STA 798+40 TO STA 804+68

SHEET

E





PROJECT NO: 1620-01-62

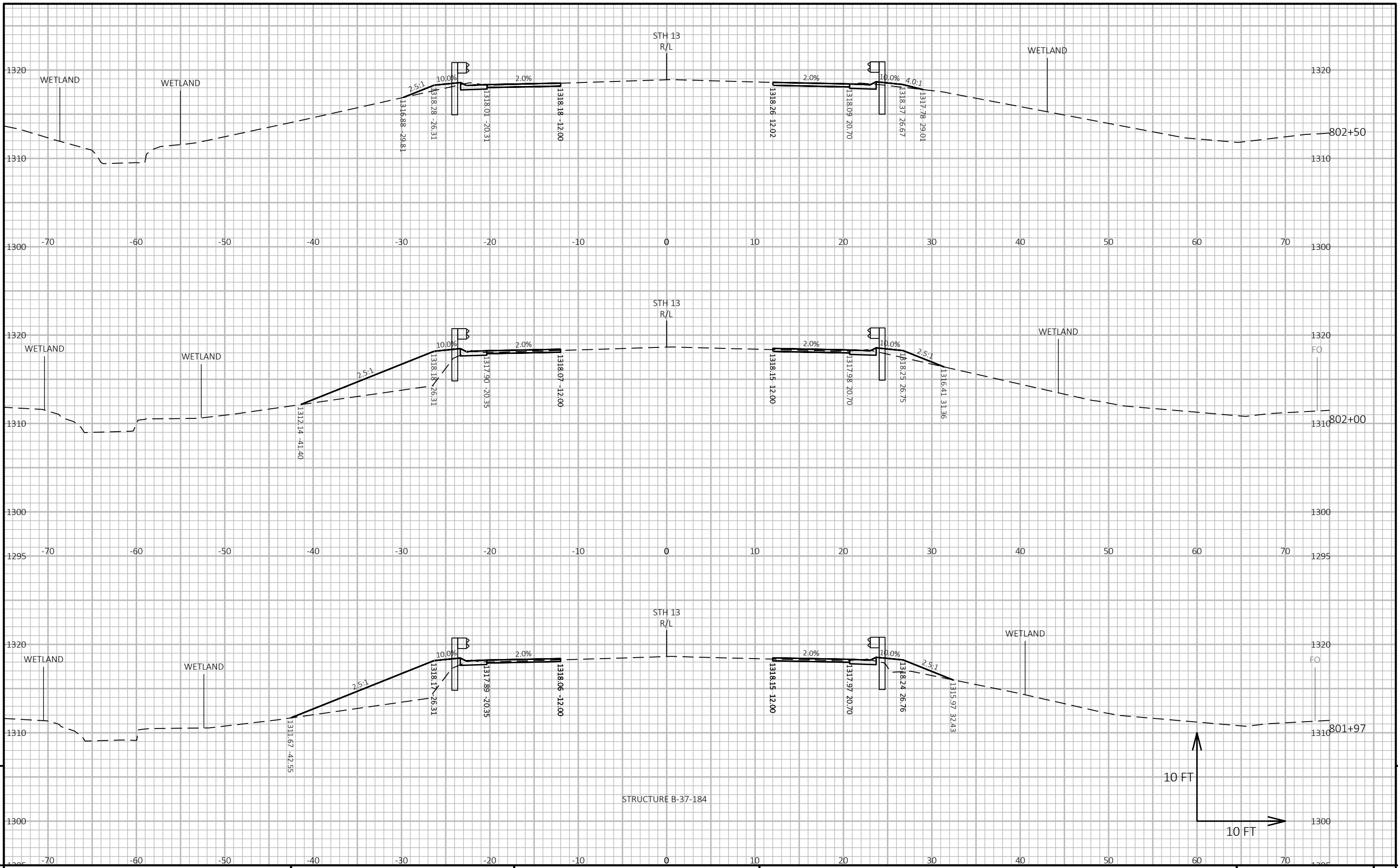
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 798+40 TO STA 804+68

SHEET

E



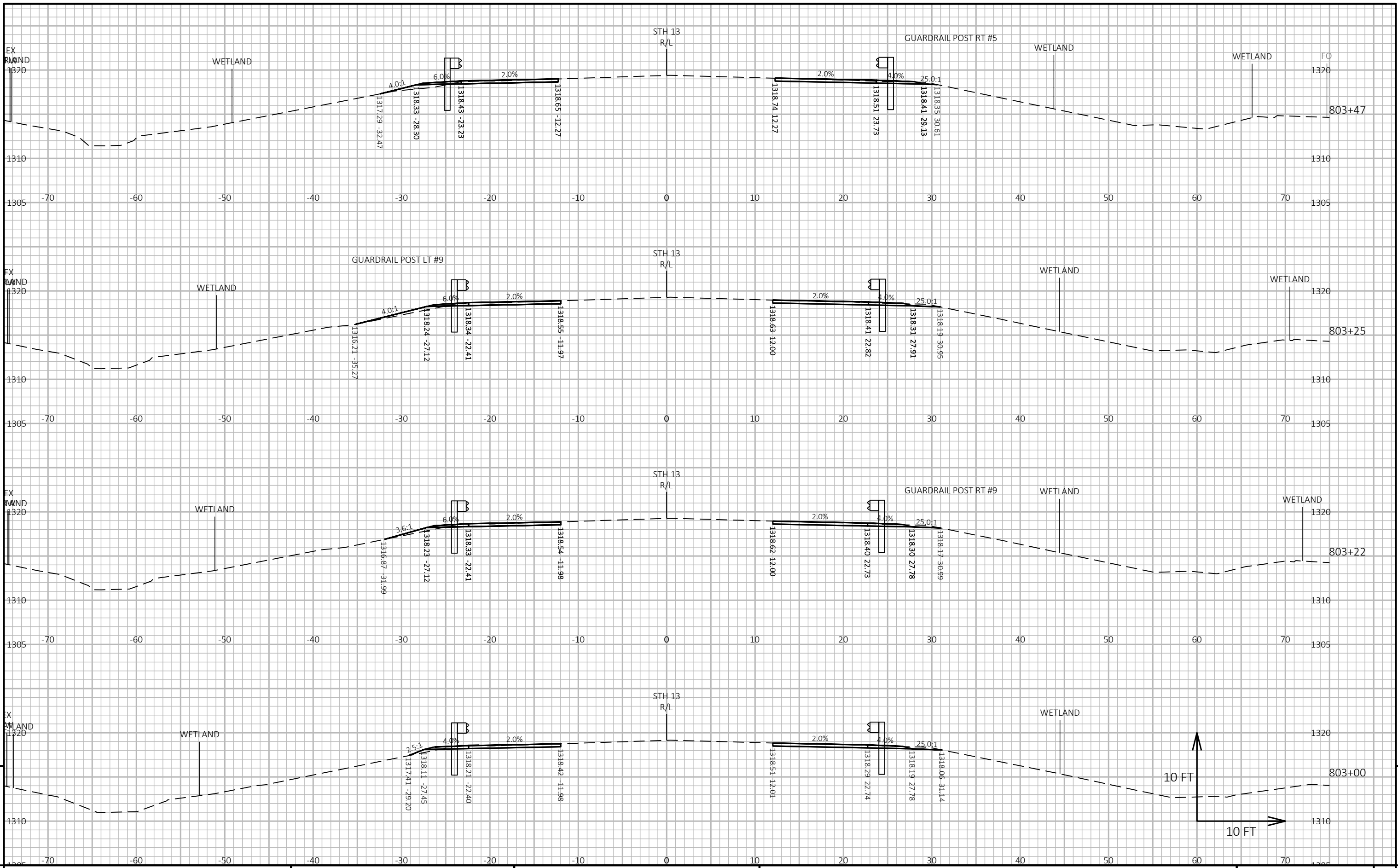
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PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 798+40 TO STA 804+68      SHEET      E

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LAYOUT NAME - 05



PROJECT NO: 1620-01-62

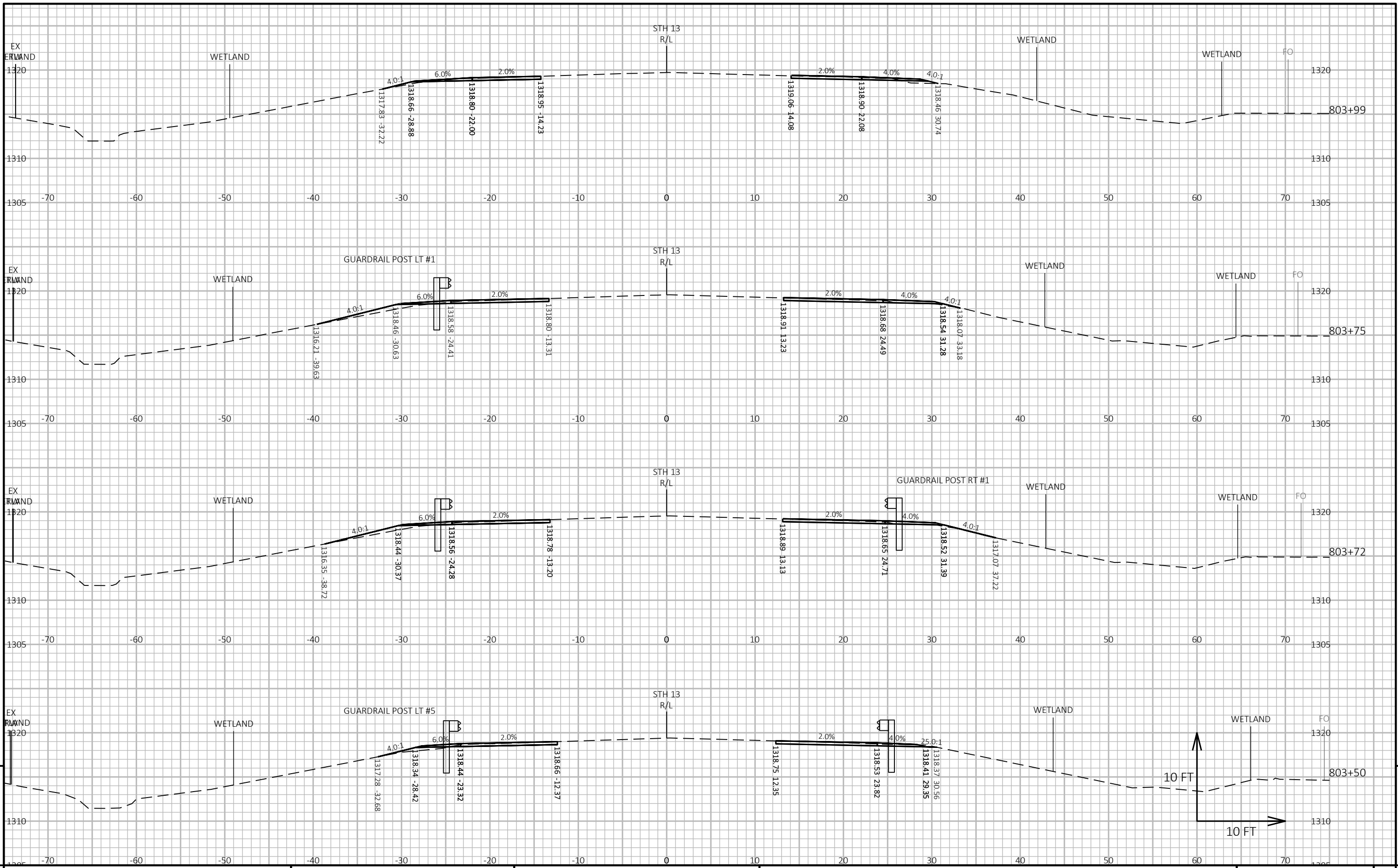
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 798+40 TO STA 804+68

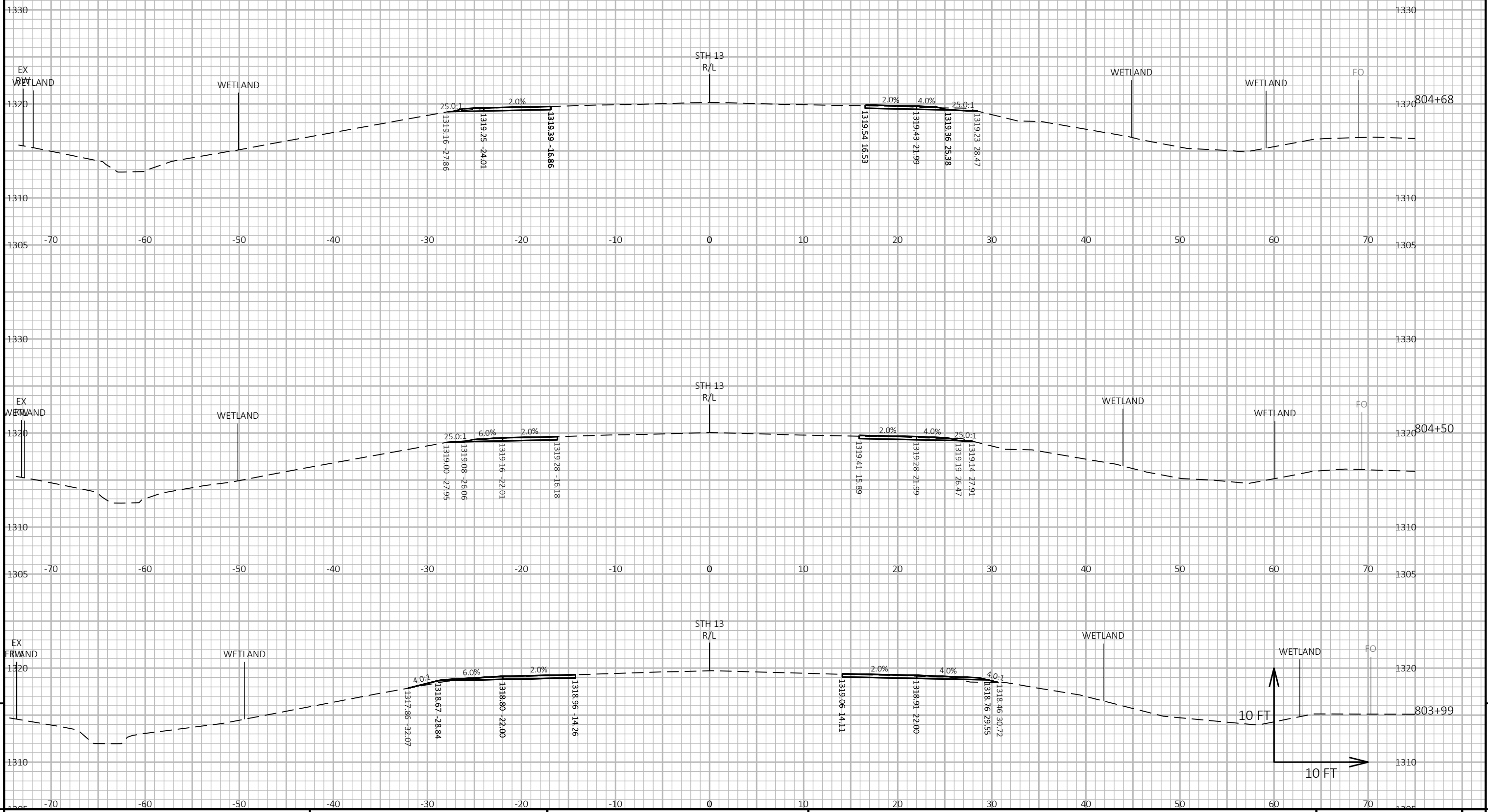
SHEET

E



PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 798+40 TO STA 804+68      SHEET      E

END SHOULDER CONSTRUCTION SEGMENT



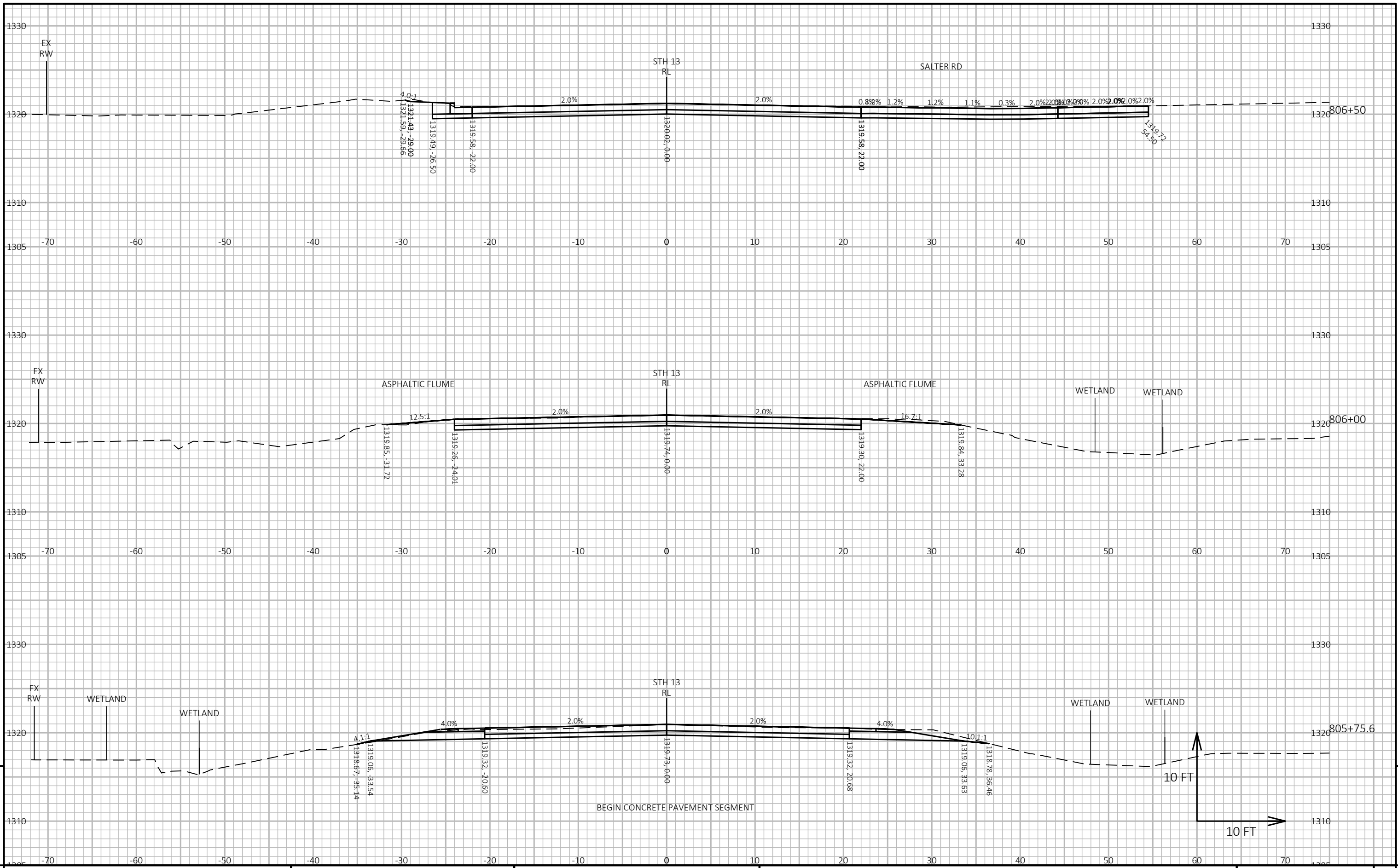
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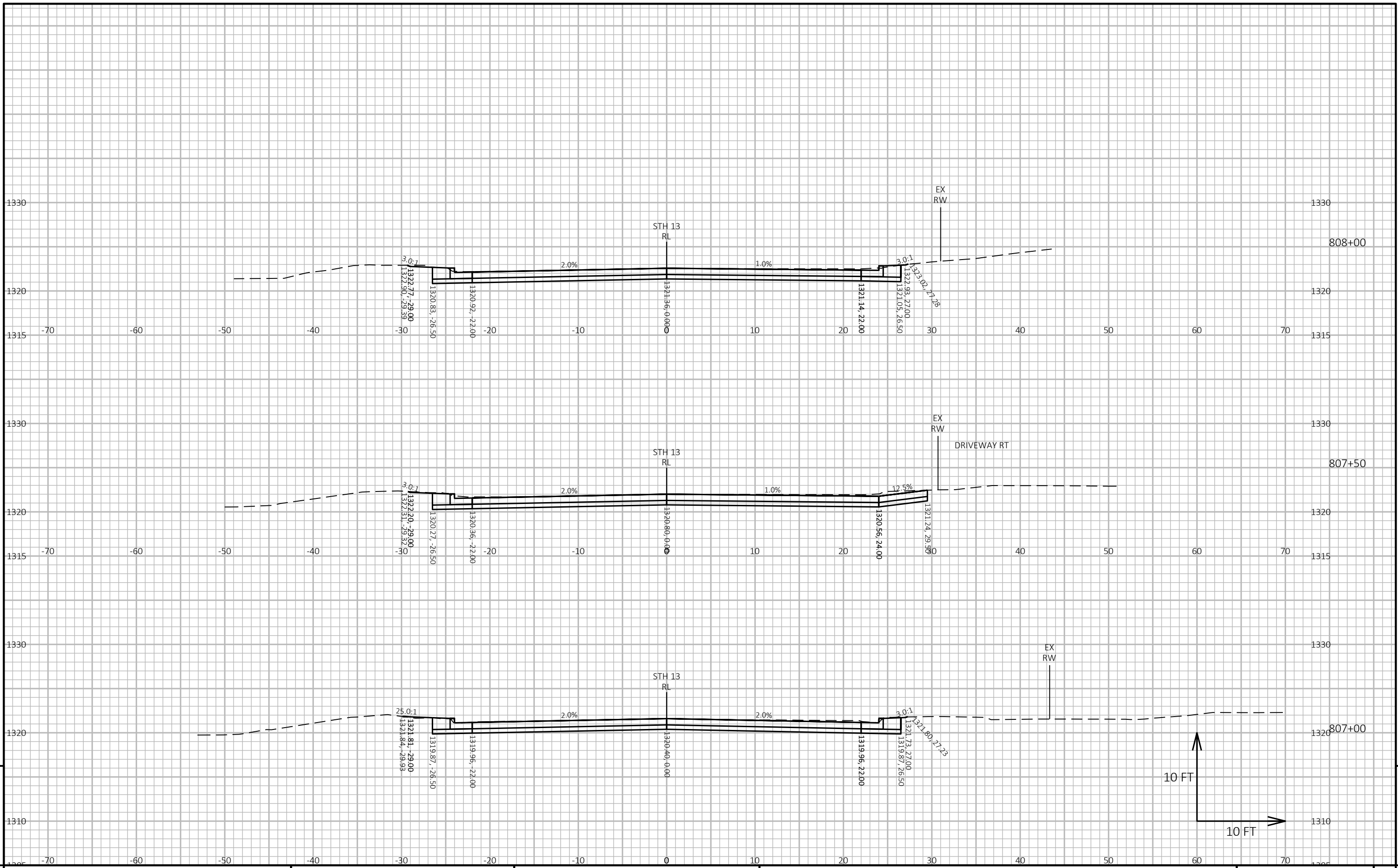
PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 798+40 TO STA 804+68      SHEET      E

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LAYOUT NAME - 08



PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 805+75.6 TO STA 809+55      SHEET      E



9

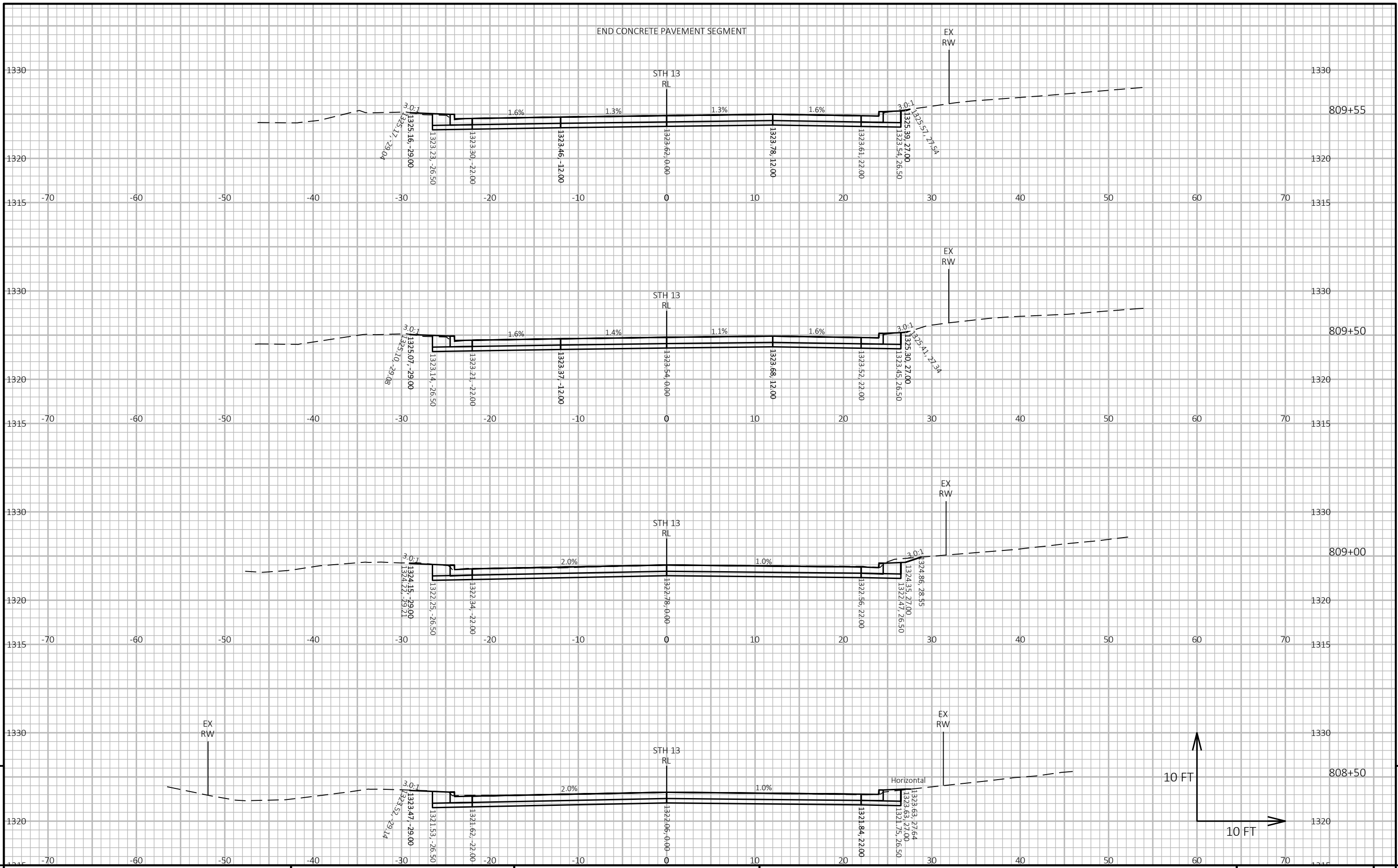
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PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 805+75.6 TO STA 809+55      SHEET      E

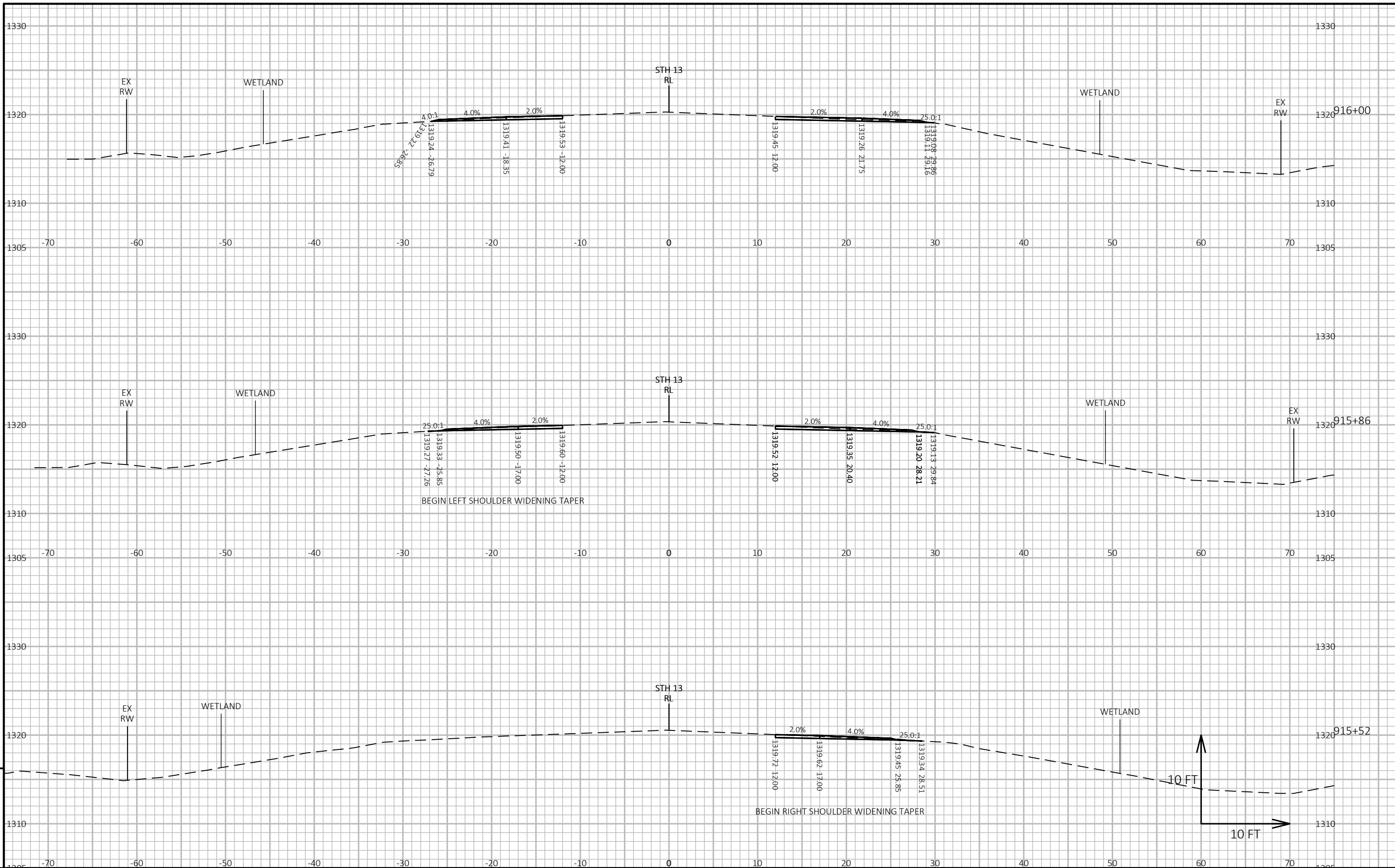
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LAYOUT NAME - 02





PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 805+75.6 TO STA 809+55      SHEET      E



PROJECT NO: 1620-01-62

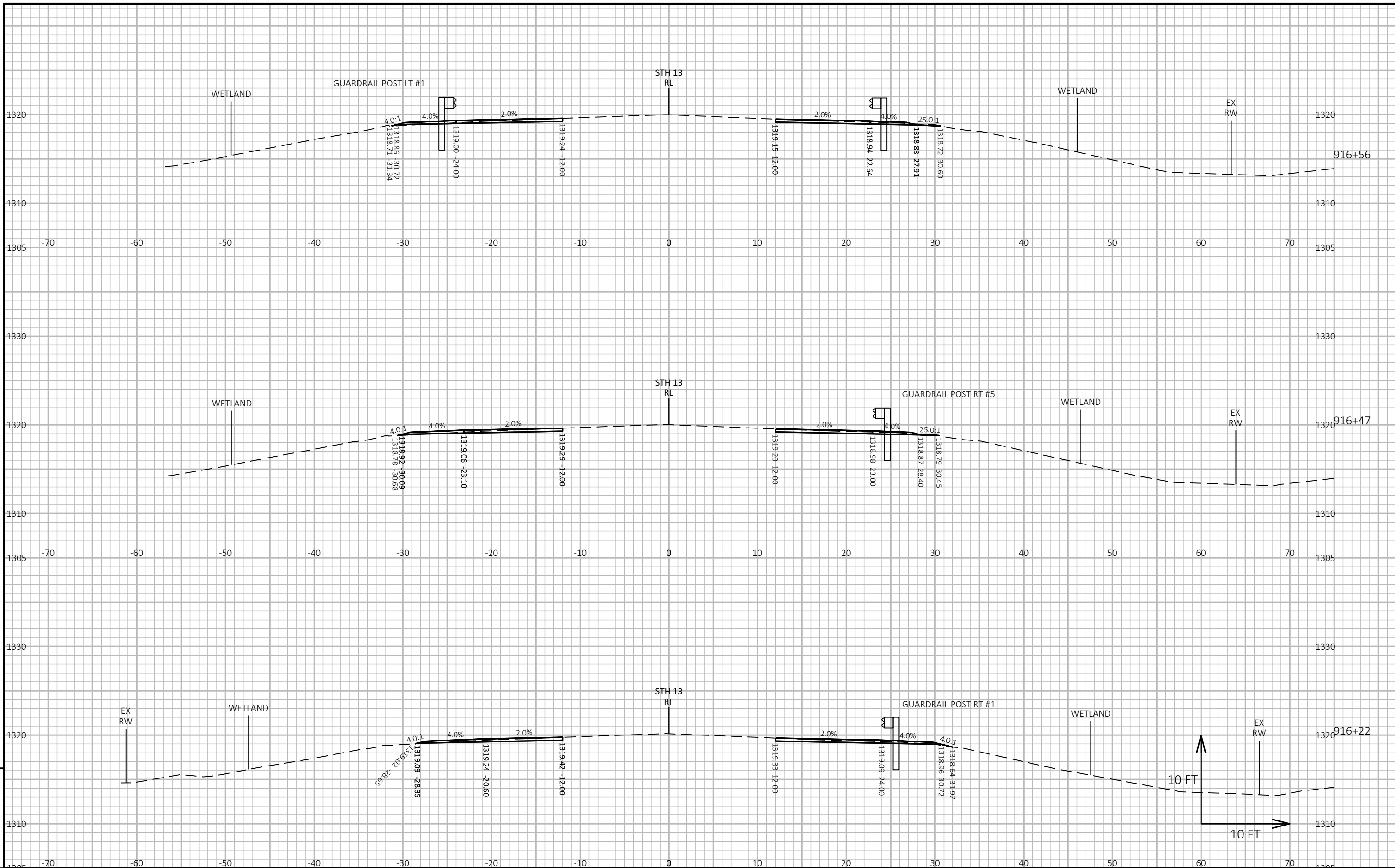
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 915+52 TO STA 920+58

SHEET

E



PROJECT NO: 1620-01-62

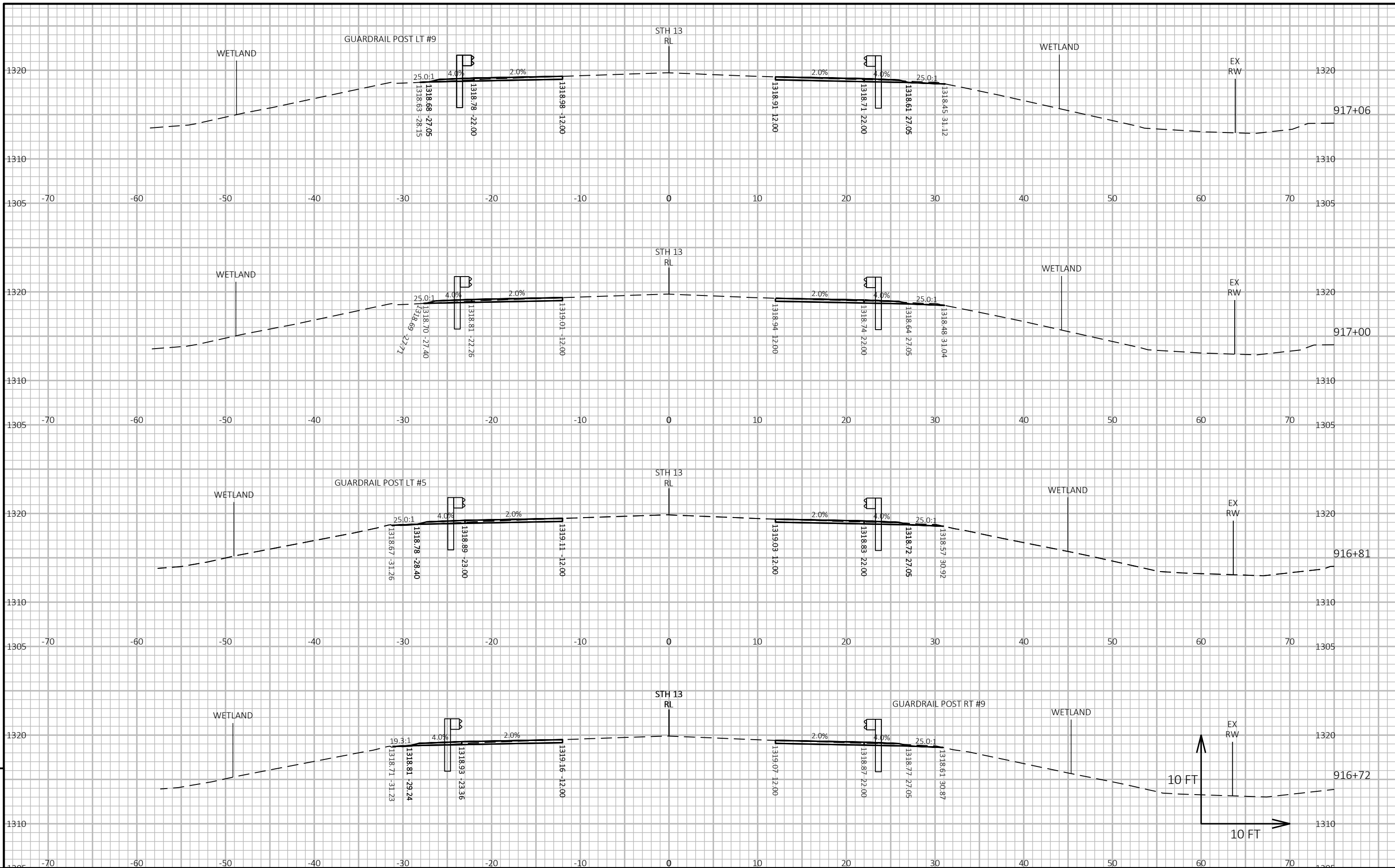
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 915+52 TO STA 920+58

SHEET

E



PROJECT NO: 1620-01-62

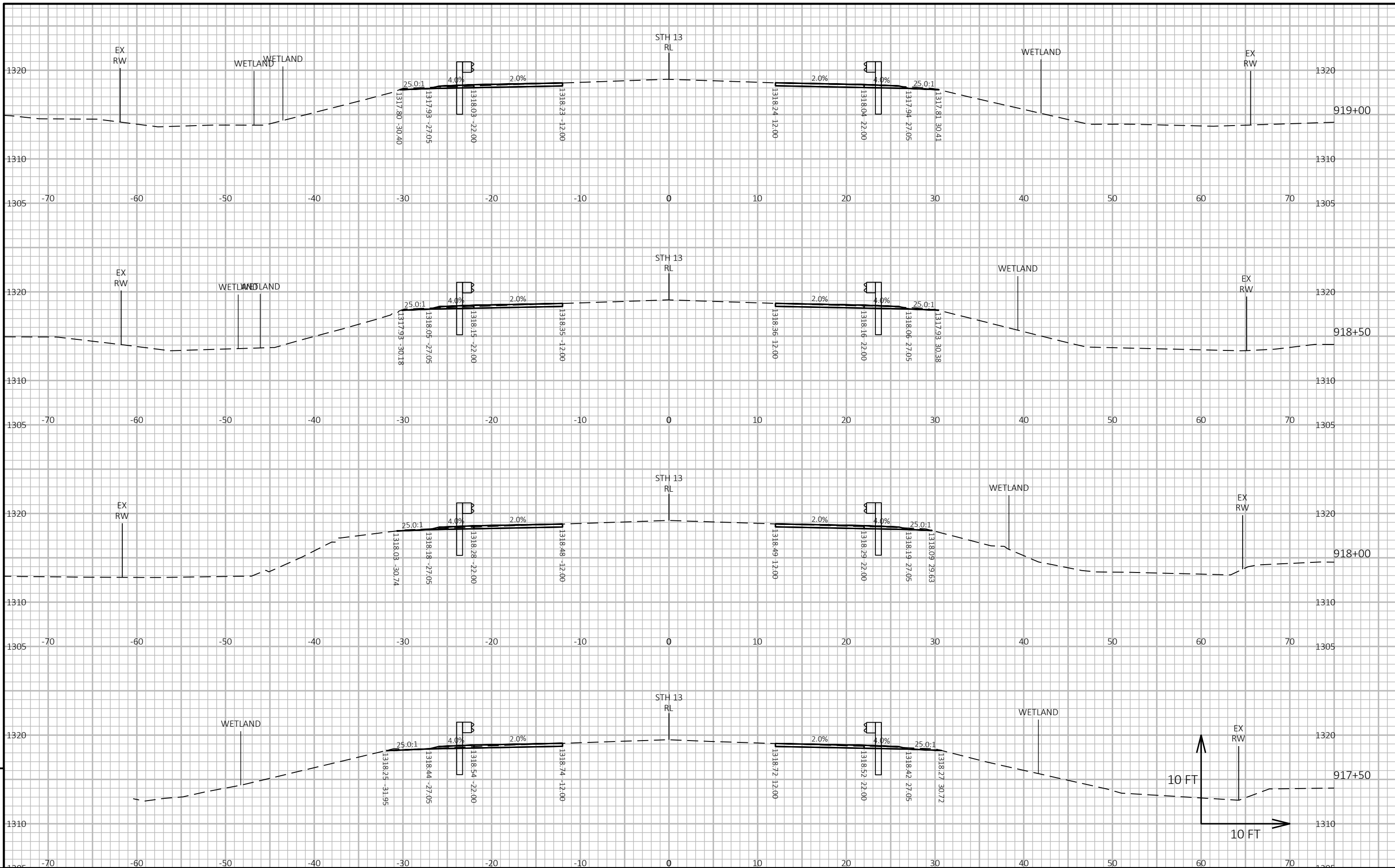
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COUNTY: MARATHON

CROSS SECTIONS: STA 915+52 TO STA 920+58

SHEET

9



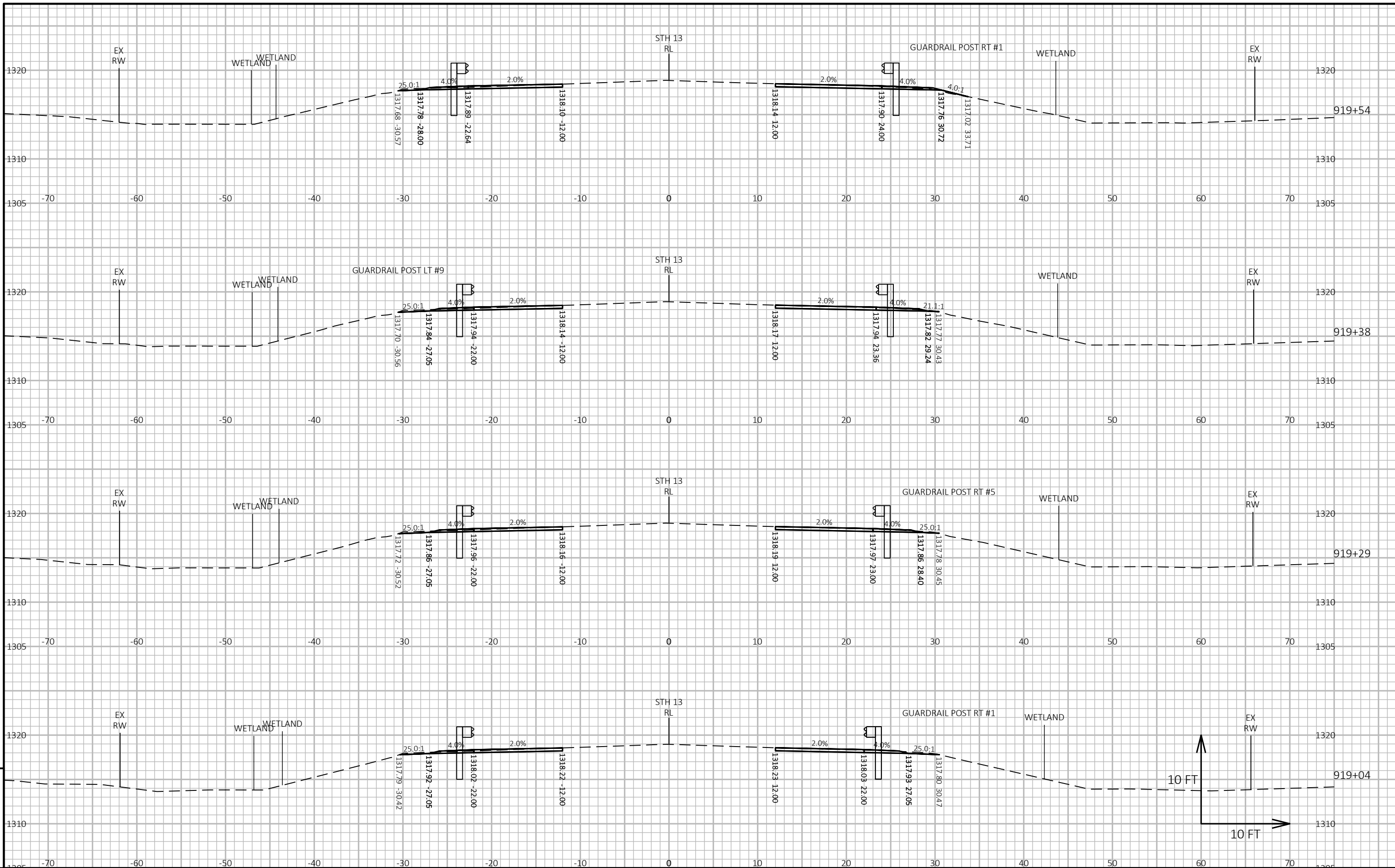
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PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 915+52 TO STA 920+58      SHEET      E

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LAYOUT NAME - 04



PROJECT NO: 1620-01-62

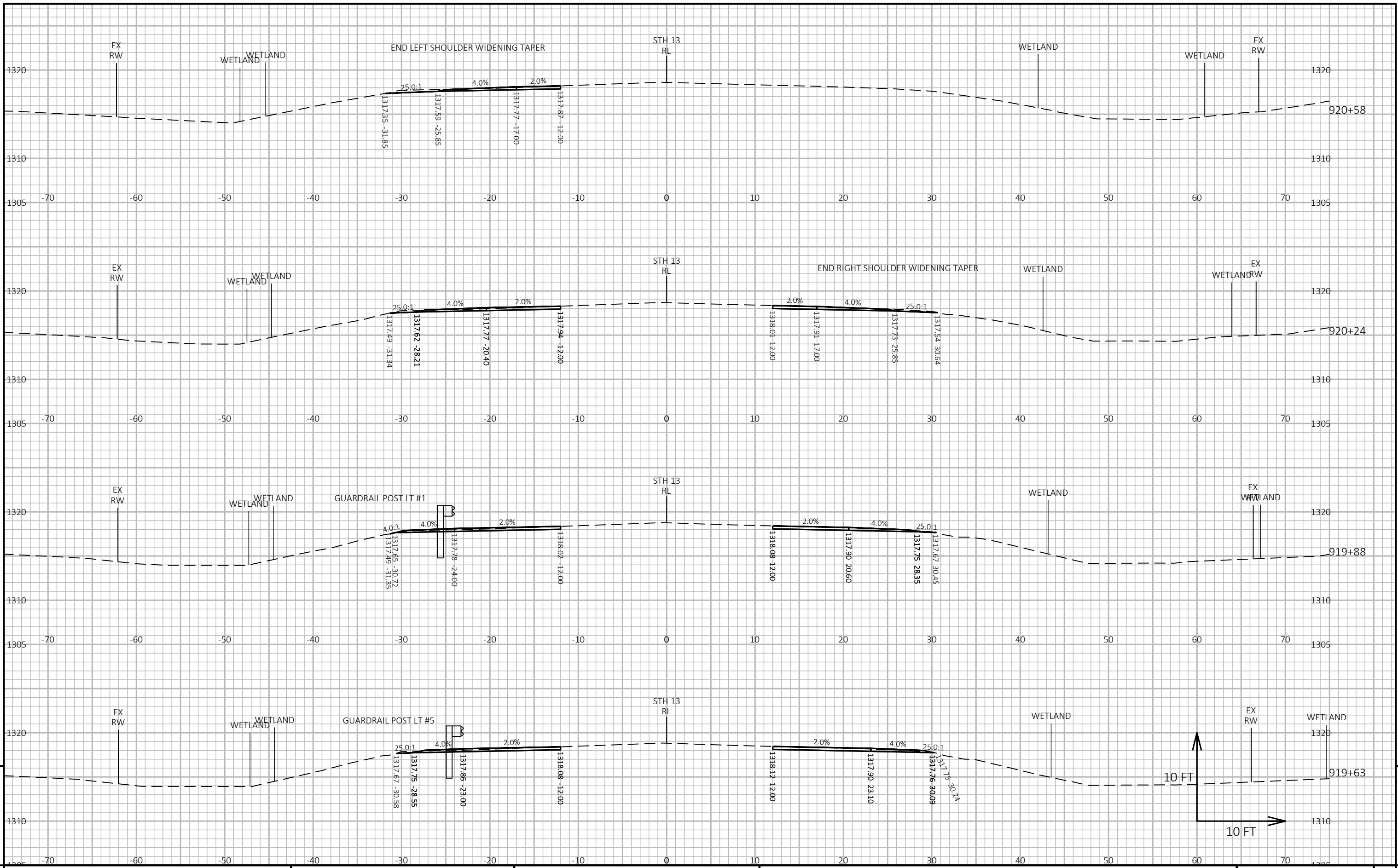
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 915+52 TO STA 920+58

SHEET

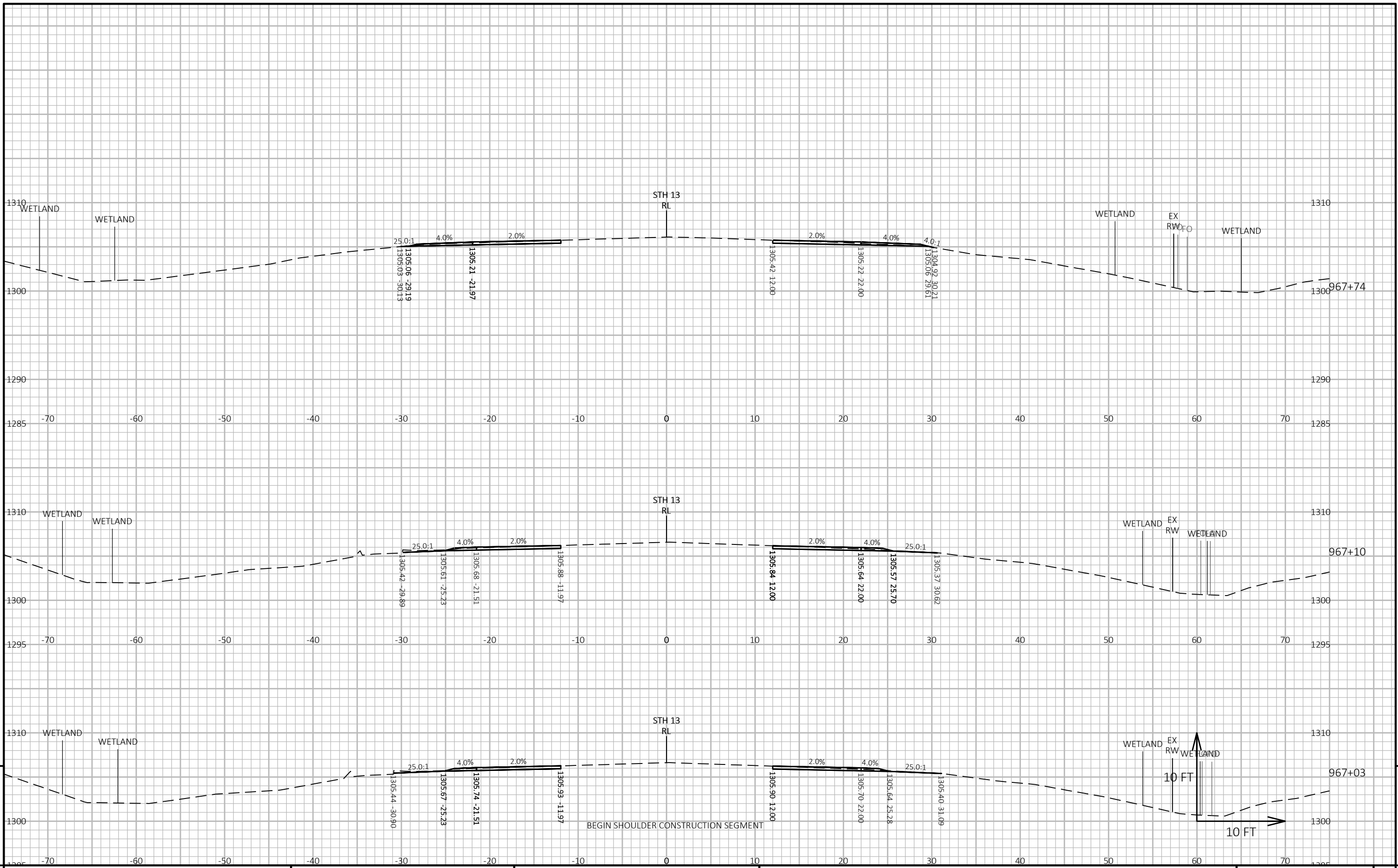
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PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 915+52 TO STA 920+58      SHEET      E

FILE NAME : X:\PROJECTS\MARATHON\1620-01-02\_STH 13\_STH 98 TO CTH N\DESIGN\C3D\SHEETSPLAN\090201-XS-91600-FINALPRINT.DWG      PLOT DATE : 7/25/2023 3:15 PM      PLOT BY : ADAM SARAUER      PLOT NAME :      PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.      WISDOT/CADD SHEET 49

LAYOUT NAME - 06



PROJECT NO: 1620-01-62

HWY: STH 13

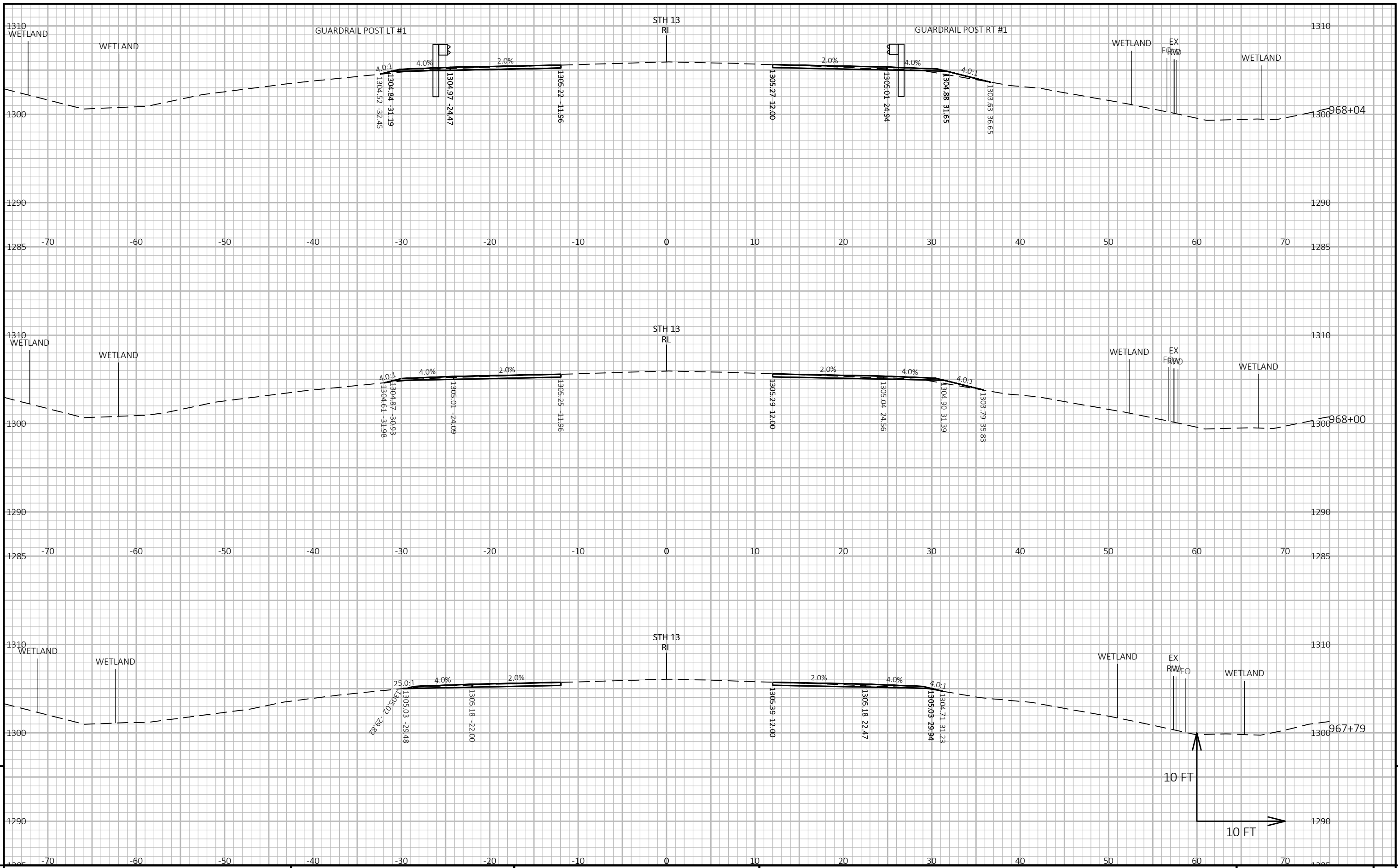
COUNTY: MARATHON

CROSS SECTIONS: STA 967+03 TO STA 973+57

SHEET

E





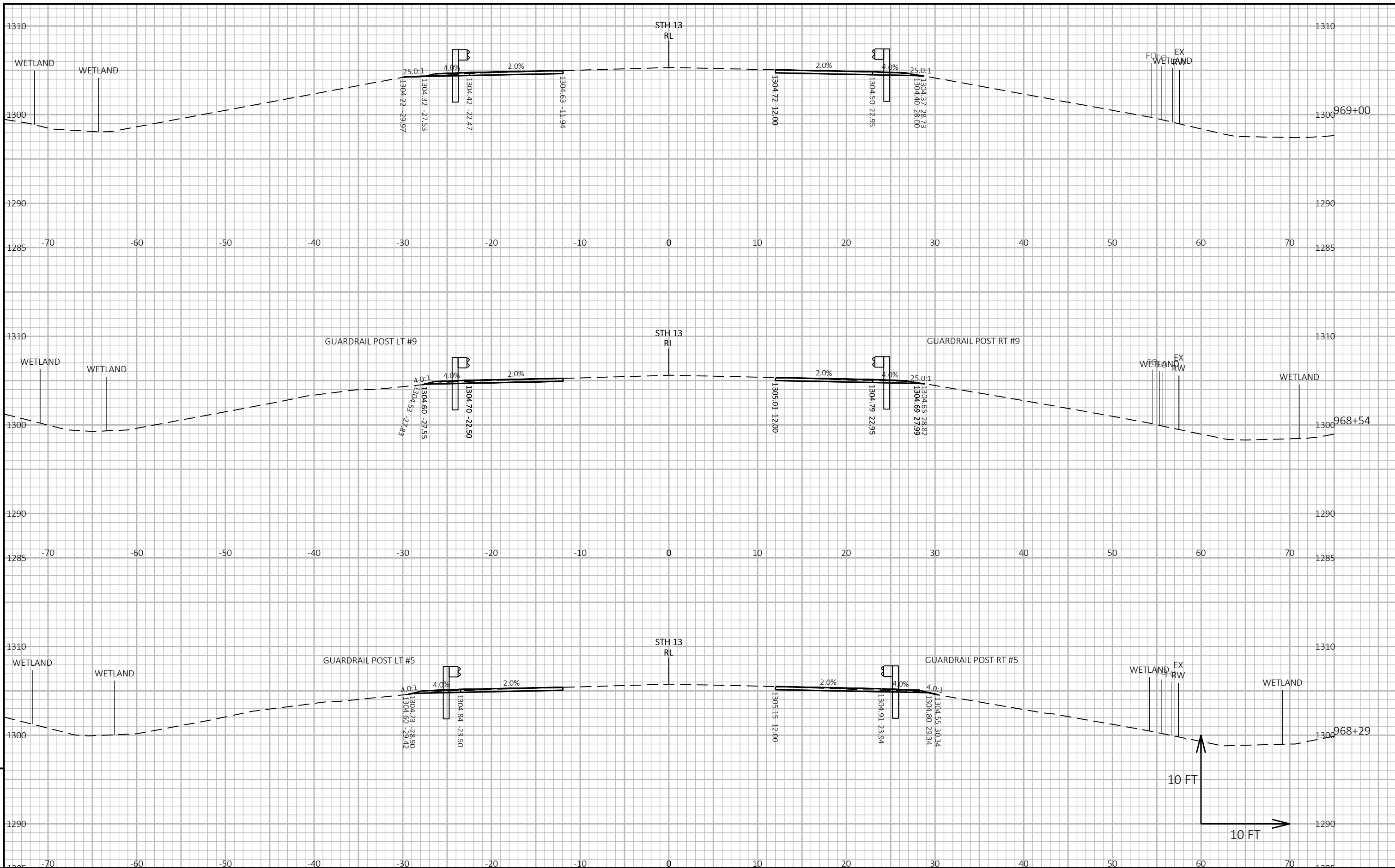
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9

PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 967+03 TO STA 973+57      SHEET      E

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LAYOUT NAME: -02



PROJECT NO: 1620-01-62

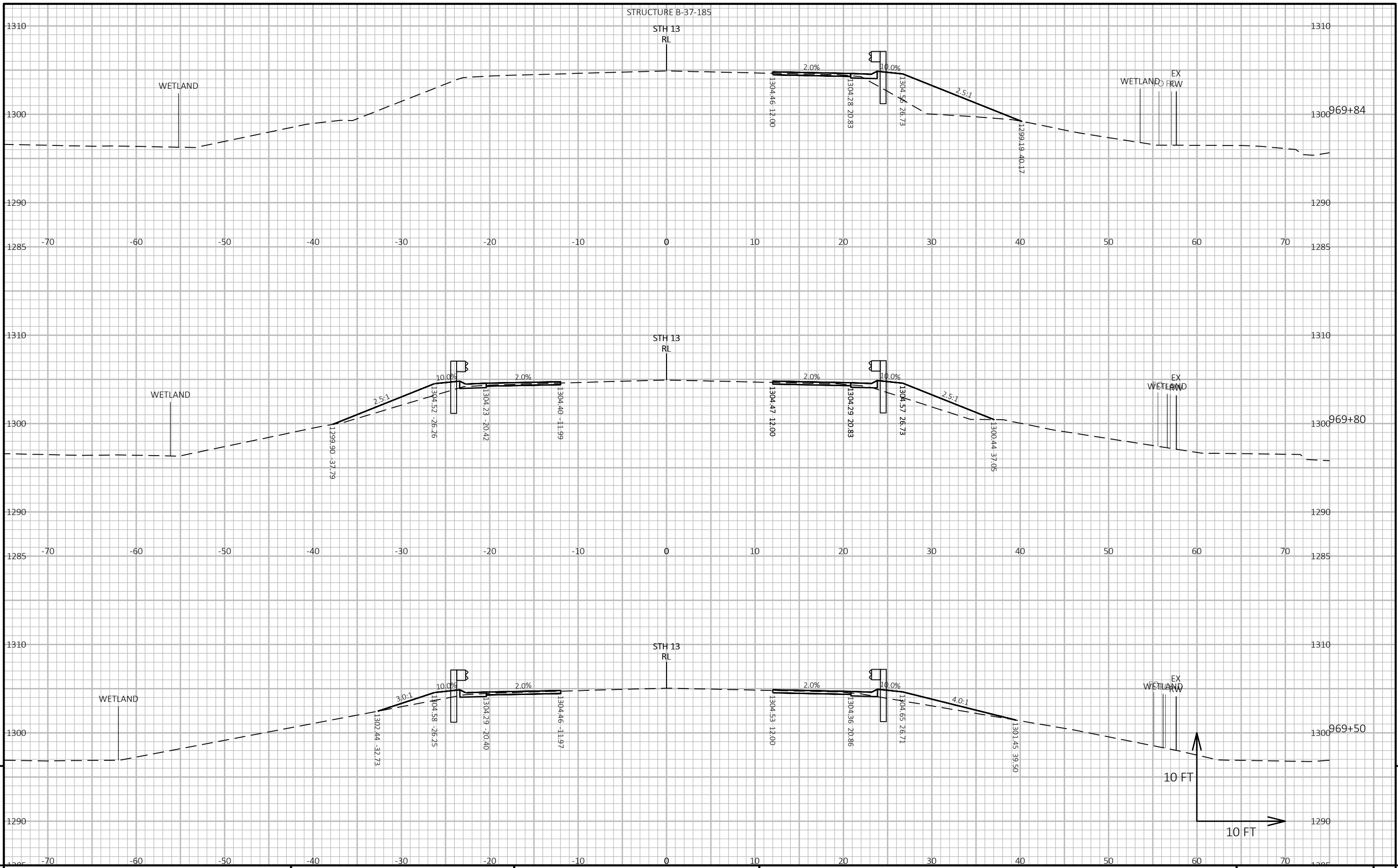
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 967+03 TO STA 973+57

SHEET

E



PROJECT NO: 1620-01-62

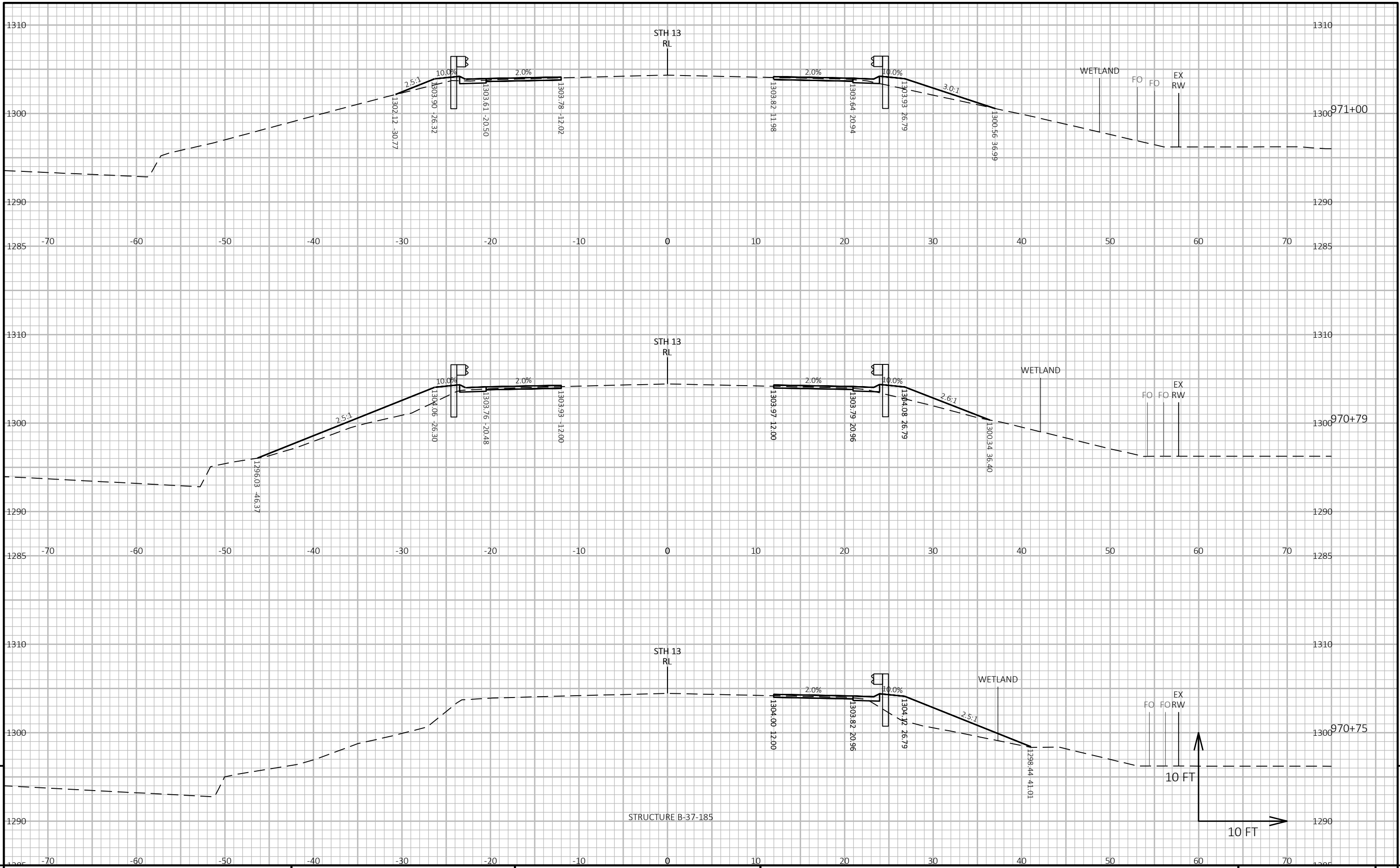
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 967+03 TO STA 973+57

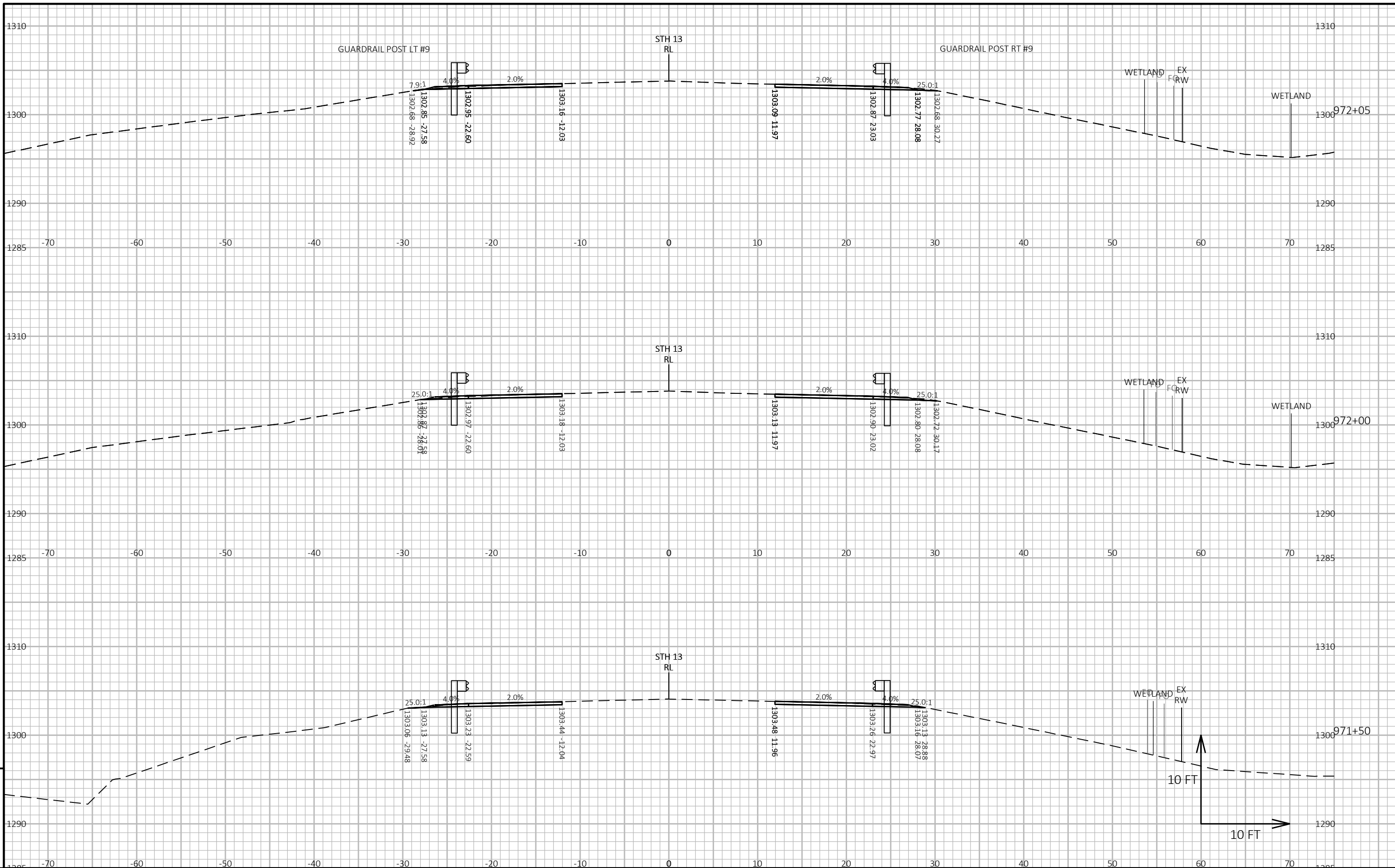
SHEET

E



PROJECT NO: 1620-01-62 HWY: STH 13 COUNTY: MARATHON CROSS SECTIONS: STA 967+03 TO STA 973+57 SHEET 9

FILE NAME: X:\PROJECTS\MARATHON\1620-01-02\_STH 13\_STH 98 TO CTH N\DESIGN\C3D\SHEETSPLAN\090201-XS-97000-FINALPRINT.DWG PLOT DATE: 7/25/2023 6:21 PM PLOT BY: ADAM SARAUER PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



PROJECT NO: 1620-01-62

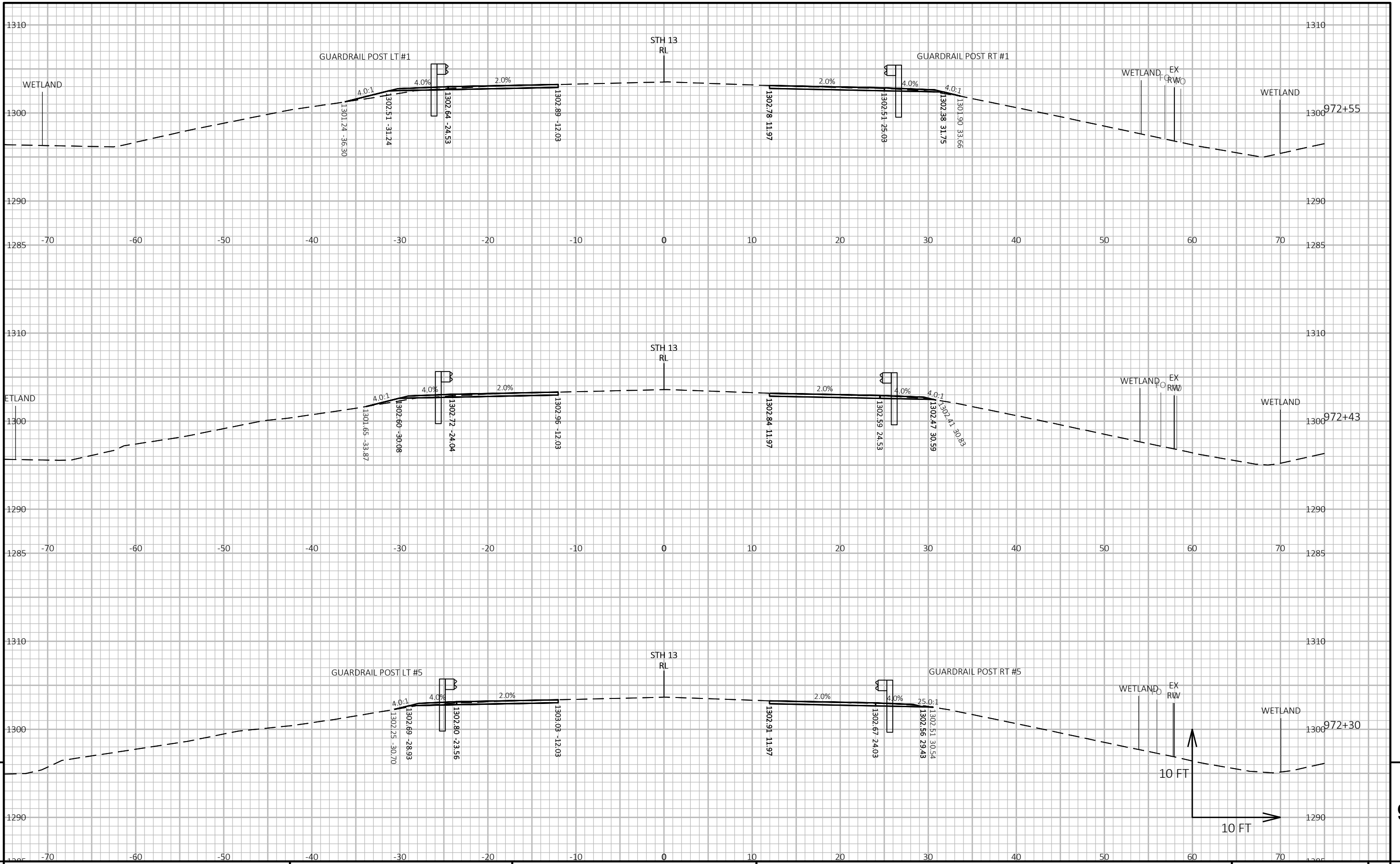
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 967+03 TO STA 973+57

SHEET

E



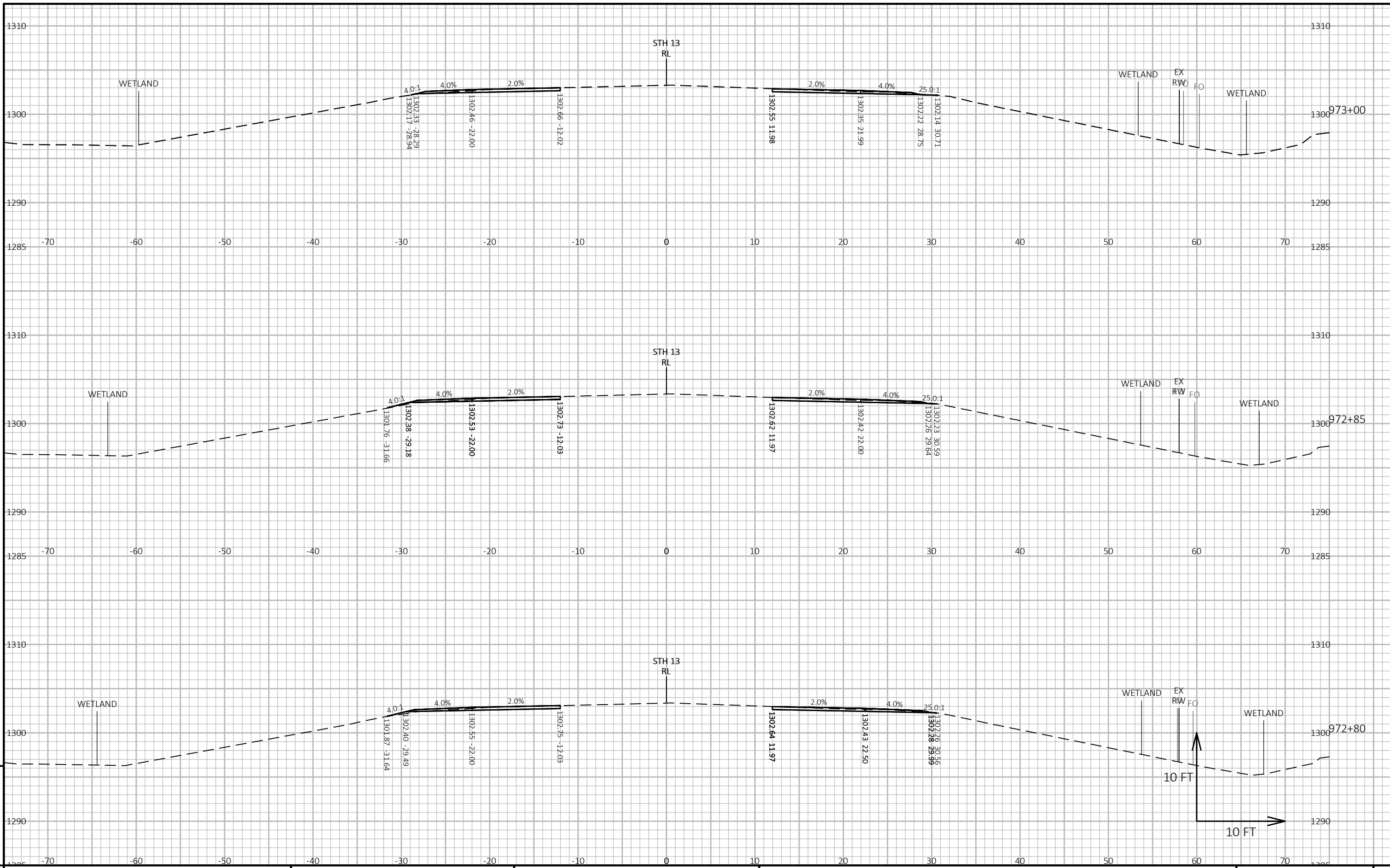
9

9

PROJECT NO: 1620-01-62      HWY: STH 13      COUNTY: MARATHON      CROSS SECTIONS: STA 967+03 TO STA 973+57      SHEET      E

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LAYOUT NAME - 07



PROJECT NO: 1620-01-62

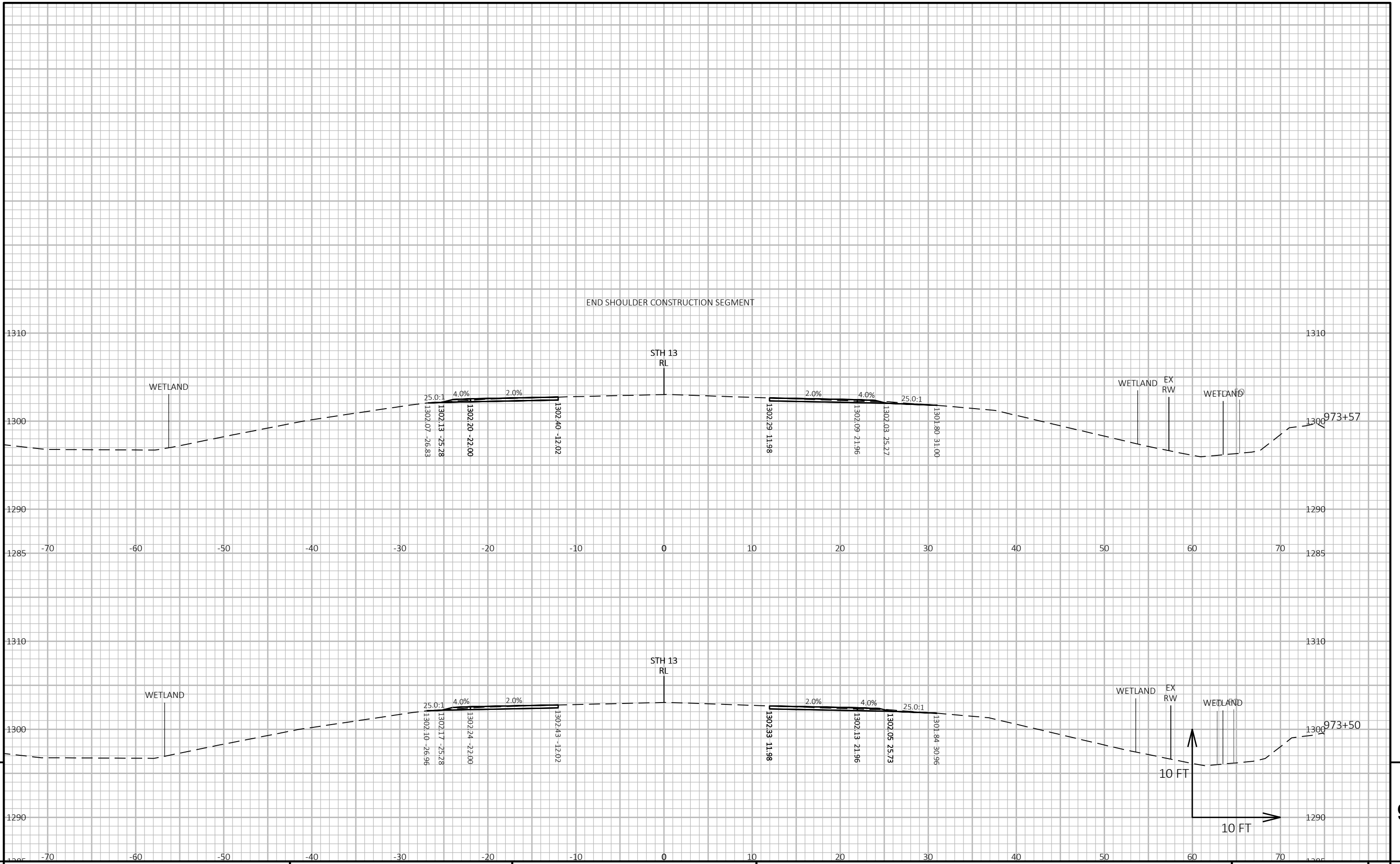
HWY: STH 13

COUNTY: MARATHON

CROSS SECTIONS: STA 967+03 TO STA 973+57

SHEET

E



PROJECT NO: 1620-01-62

HWY: STH 13

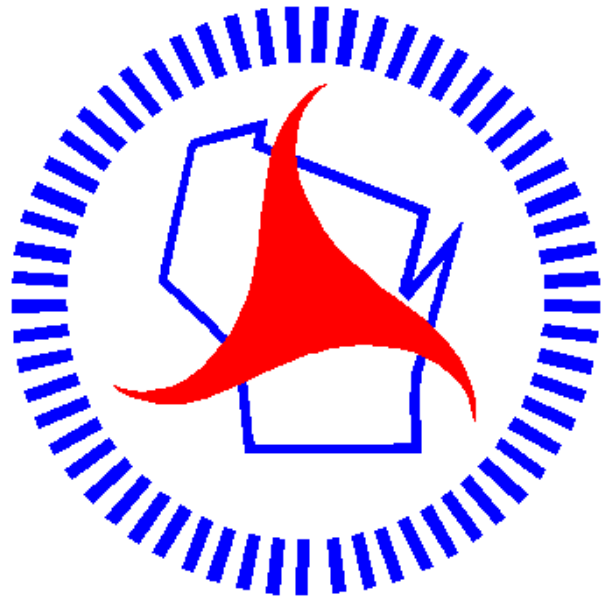
COUNTY: MARATHON

CROSS SECTIONS: STA 967+03 TO STA 973+57

SHEET

E





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