

GRE
PROJECT ID:
WITH: N/A

4140-28-71

COUNTY:
DOOR

DECEMBER 2023

ORDER OF SHEETS

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

TOTAL SHEETS = 120



DESIGN DESIGNATION

A.A.D.T.	2024	=	6,680
A.A.D.T.	2044	=	8,090
D.H.V.		=	770
D.D.		=	50/50
T.		=	11.0% (AADT)
DESIGN SPEED		=	60 MPH
ESALS		=	1,550,000

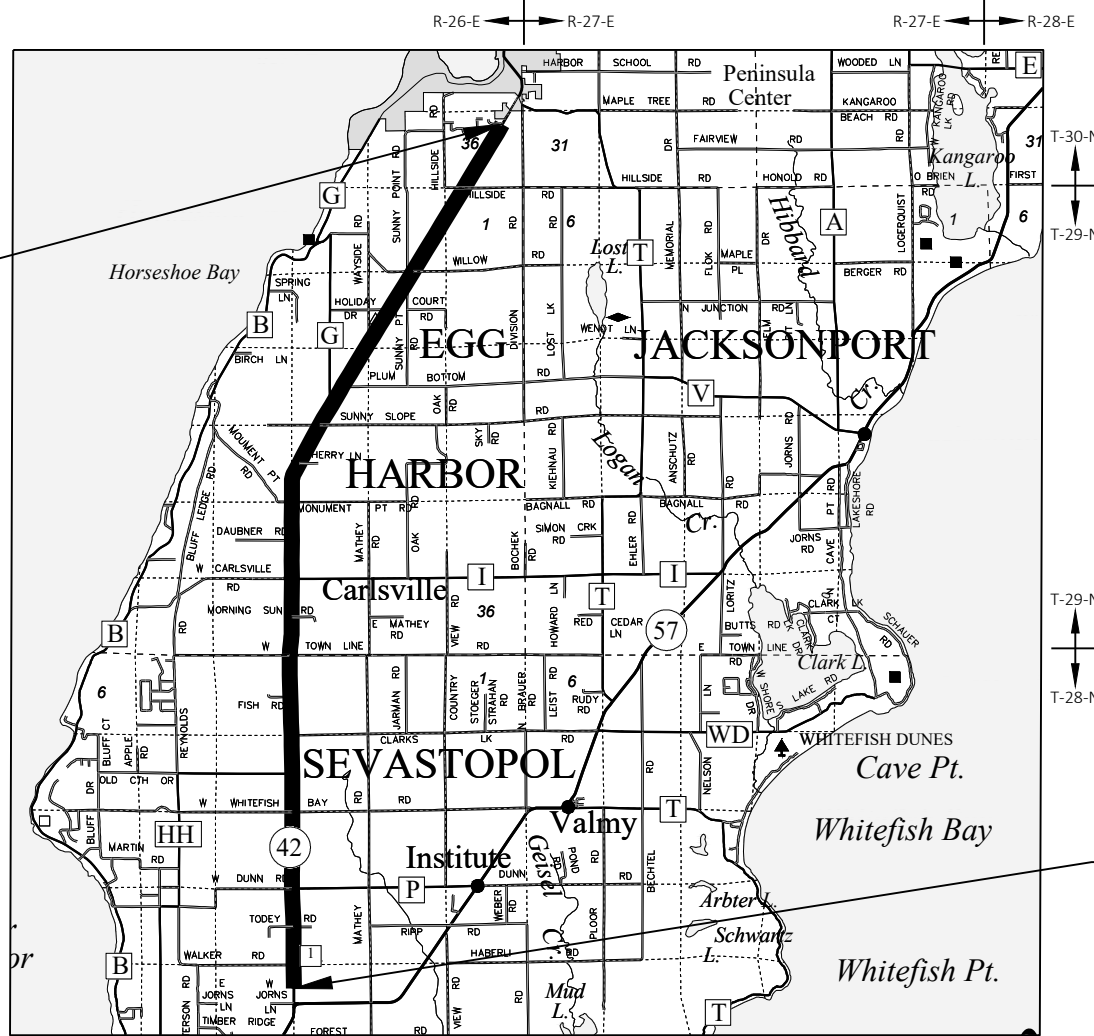
CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 PLAN OF PROPOSED IMPROVEMENT
 STURGEON BAY-EGG HARBOR
 MID JUNCTION-CTH T
 STH 42
 DOOR COUNTY

STATE PROJECT NUMBER
 4140-28-71



END PROJECT
 STA 644+24.00
 Y= 232,279.035
 X= 518,705.447

BEGIN PROJECT
 STA 6+37.89
 Y= 172,482.617
 X= 504,379.675

LAYOUT
 SCALE 0 2.5 MI
 TOTAL NET LENGTH OF CENTERLINE = 12.081 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DOOR 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.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4140-28-71	WISC 2024086	1

ORIGINAL PLANS PREPARED BY

 BLOOM COMPANIES, LLC
 Infrastructure Innovation and Expertise

DATE: 9/15/2023

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

PREPARED BY: NE REGION/TERRATEC ENGINEERING, LLC
 Designer: BLOOM COMPANIES, LLC
 Project Manager: PAUL BRAUER
 Regional Examiner: WISDOT NE REGION
 Regional Supervisor: DANIEL SEGERSTROM

APPROVED FOR THE DEPARTMENT
 DATE: 9/15/2023

E

GENERAL NOTES

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

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

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

PAVING LIMITS AT INTERSECTION ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

OTHER CONTACTS

DNR LIAISON
 MATT SCHAEVE
 2984 SHAWANO AVE.
 GREEN BAY, WI 54313
 (920) 366-1544
 matthew.schaeve@wisconsin.gov

DOOR COUNTY HIGHWAY COMMISSIONER
 JOHN KOLODZIEJ
 1001 S DULUTH AVE.
 STURGEON BAY, WI 54235-3812
 (920) 746-2500
 jkolodziej@co.door.wi.us

NE REGION SURVEY COORDINATOR
 MICHAEL ANDRASCHKO, PLS
 944 VANDERPERREN WAY
 GREEN BAY, WI 54304
 (920) 492-4166
 michael.andraschko@dot.wi.gov

NE REGION DESIGN PROJECT MANAGER
 PAUL BRAUER, PE
 944 VANDERPERREN WAY
 GREEN BAY, WI 54304
 (920) 492-5629
 paul.brauer@dot.wi.gov

DESIGN CONSULTANT PROJECT MANAGER
 (BLOOM COMPANIES, LLC)
 JACOB BONDHUS, PE
 10501 RESEARCH DR
 MILWAUKEE, WI 53226
 (773) 520-2078
 jbondhus@bloomcos.com

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
 PROJECT OVERVIEW
 TYPICAL SECTIONS
 CONSTRUCTION DETAILS
 INTERSECTION DETAILS
 EROSION CONTROL
 SIGNING
 TRAFFIC CONTROL & STAGING

ABBREVIATIONS

AECPSDS APRON ENDWALLS FOR CULVERT
 PIPE SLOPED SIDE DRAINS STEEL
 AECPRCHE APRON ENDWALLS FOR CULVERT
 PIPE REINFORCED CONCRETE
 HORIZONTAL ELLIPTICAL
 AEPASSDS APRON ENDWALLS FOR PIPE ARCH
 SLOPED SIDE DRAINS STEEL

UTILITY CONTACTS

AT&T WISCONSIN (COMMUNICATION LINE)
 VICTORIA KASSAB
 205 SOUTH JEFFERSON ST
 GREEN BAY, WI 54301
 (920) 401-7512 (WORK)
 (920) 277-8871 (CELL)
 vk352k@att.com

FRONTIER COM OF WI (COMMUNICATION LINE)
 RUSSELL RYAN
 118 DIVISION ST
 PLYMOUTH, WI 53073
 (715) 243-9243 (CELL)
 russell.w.ryan@ftr.com

NET LEC LLC (COMMUNICATION LINE)
 RICK VINCENT
 450 SECURITY B
 PO BOX 19079
 GREEN BAY, WI 54307-9079
 (920) 617-7316 (WORK)
 (920) 660-6644 (CELL)
 rick.vincent@nsight.com

SPECTRUM (COMMUNICATION LINE)
 VINCENT ALBIN
 3545 PLANK RD
 APPLETON, WI 54915
 (920) 831-9249 (WORK)
 (920) 378-0444 (CELL)
 vince.albin@charter.com

STURGEON BAY UTILITIES (COMM/ELECTRICITY/SEWER)
 JIM STAWICKI
 230 VINE ST
 PO BOX 27
 STURGEON BAY, WI 54235-0027
 (920) 746-2820 (WORK)
 jstawick@wppienergy.org

ATC MANAGEMENT INC (ELECTRICITY)
 CHRIS DAILEY
 PO BOX 47
 WAUKESHA, WI 53187
 (920) 506-6884 (WORK)
 cdailey@atcllc.com

WISCONSIN PUBLIC SERVICE CORP (ELECTRICITY)
 TOM GORAL
 2850 S ASHLAND AVE
 GREEN BAY, WI 554304
 (920) 617-5149
 thomas.goral@wisconsinpublicservice.com

WISCONSIN PUBLIC SERVICE CORP (GAS/PETROLEUM)
 JOEL SAWICKI
 800 COLUMBUS ST
 PO BOX 236
 TWO RIVERS, WI 54241
 (920) 657-1862
 joel.sawicki@wisconsinpublicservice.com

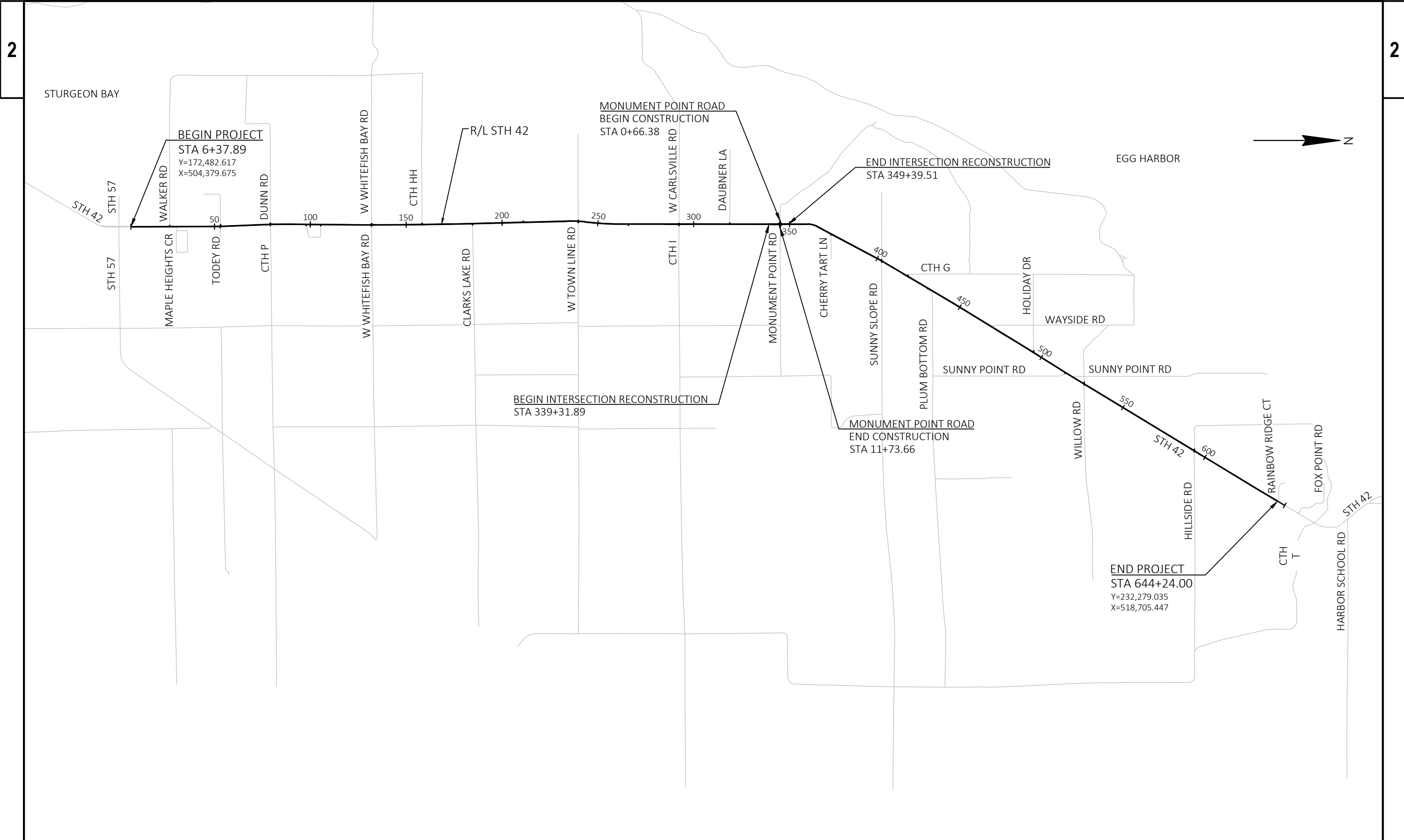
VILLAGE OF EGG HARBOR (WATER)
 MEGAN SAWYER
 7860 HWY 42
 PO BOX 175
 EGG HARBOR, WI 54235
 (920) 868-3334
 msawyer@villageofegg Harbor.org

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 = 60 ACRES
 TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 1.952 ACRES





PROJECT NO: 4140-28-71

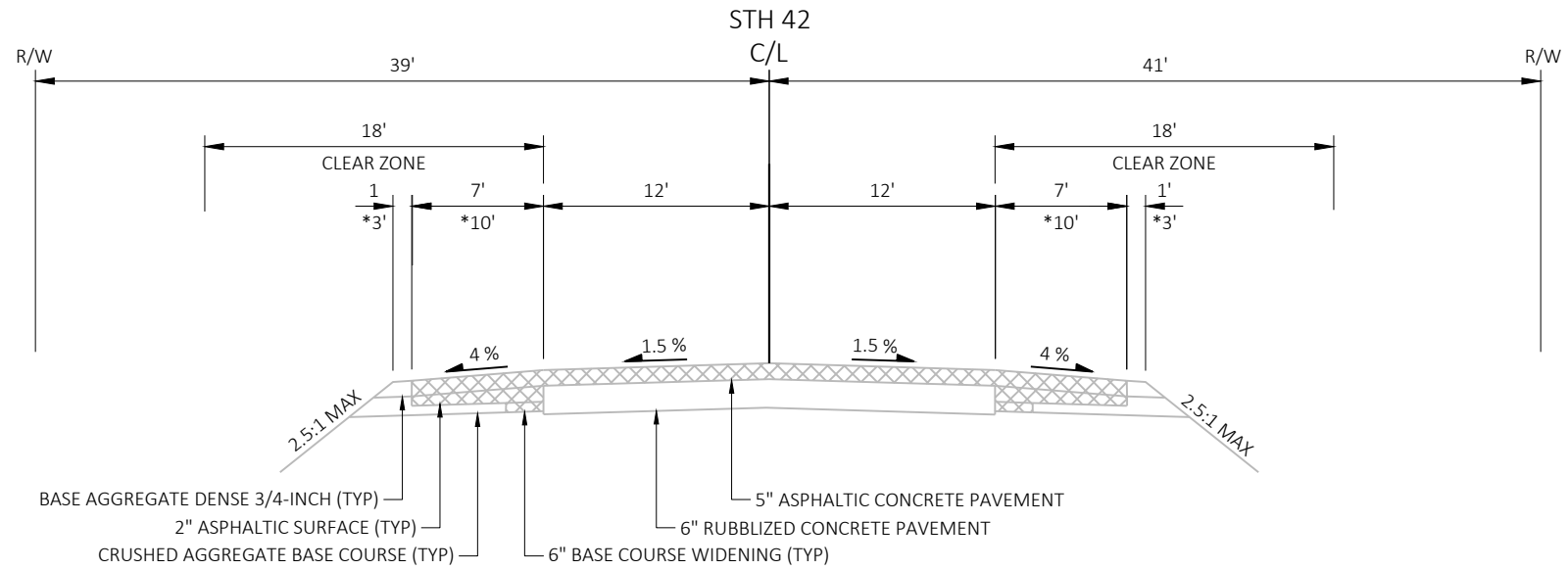
HWY: STH 42

COUNTY: DOOR

PROJECT OVERVIEW

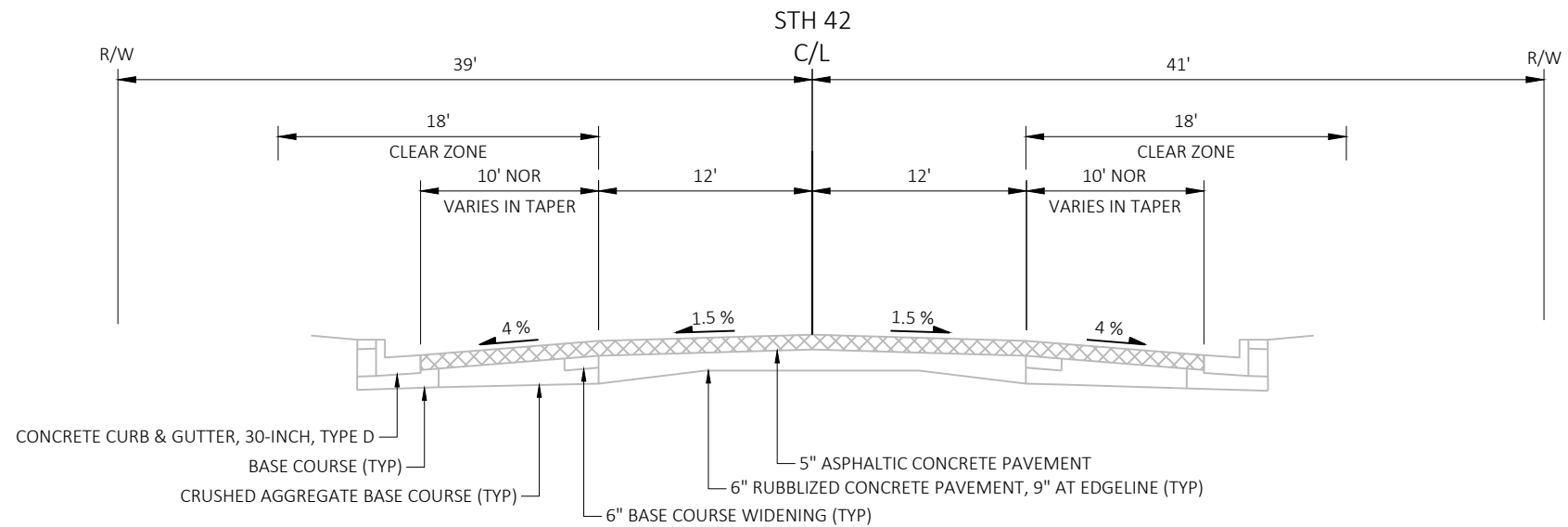
SHEET

E



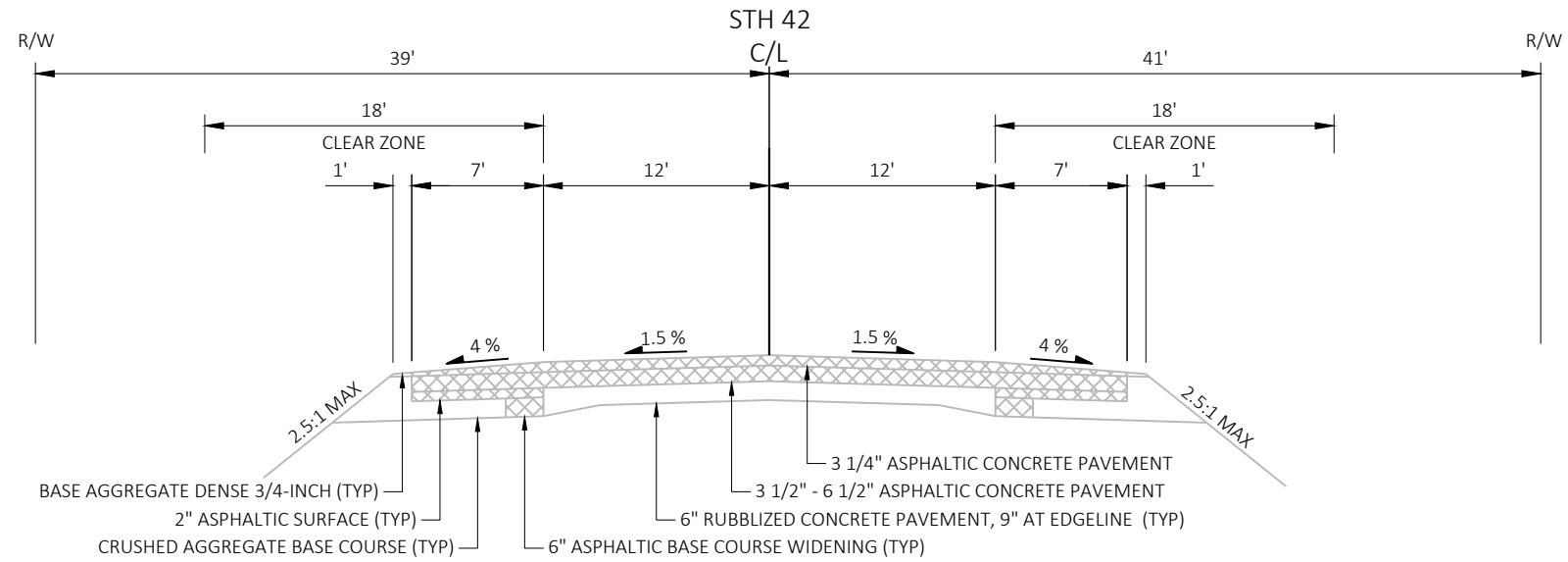
EXISTING TYPICAL SECTION (STH 42)

- STA 6+38 LT TO STA 184+65 LT
- STA 6+38 RT TO STA 288+75 RT
- STA 185+90 LT TO STA 287+10 LT
- STA 300+00 RT TO STA 303+50 RT
- STA 301+50 LT TO STA 303+50 LT
- STA 464+00 LT TO STA 591+94 LT
- STA 464+00 RT TO STA 591+94 RT
- STA 594+44 LT TO STA 644+24 LT
- STA 594+44 RT TO STA 644+24 RT
- * STA 287+10 LT TO STA 301+50 LT
- * STA 295+75 RT TO STA 300+00 RT
- * STA 591+94 LT TO STA 594+44 LT
- * STA 591+94 RT TO STA 594+44 RT

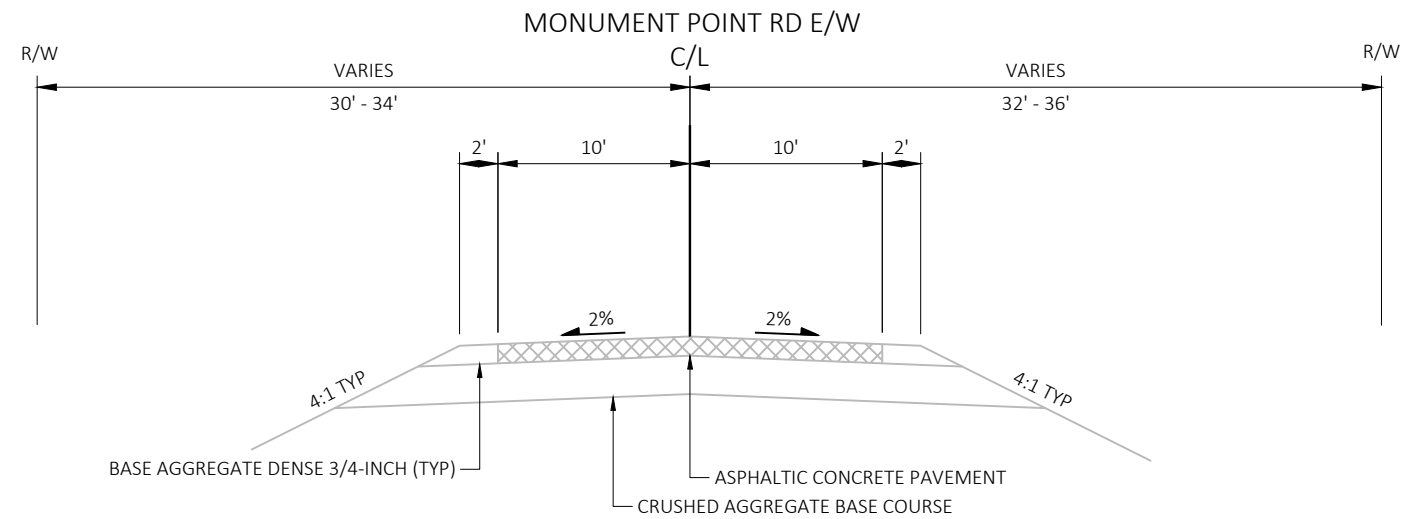


EXISTING TYPICAL SECTION (STH 42)

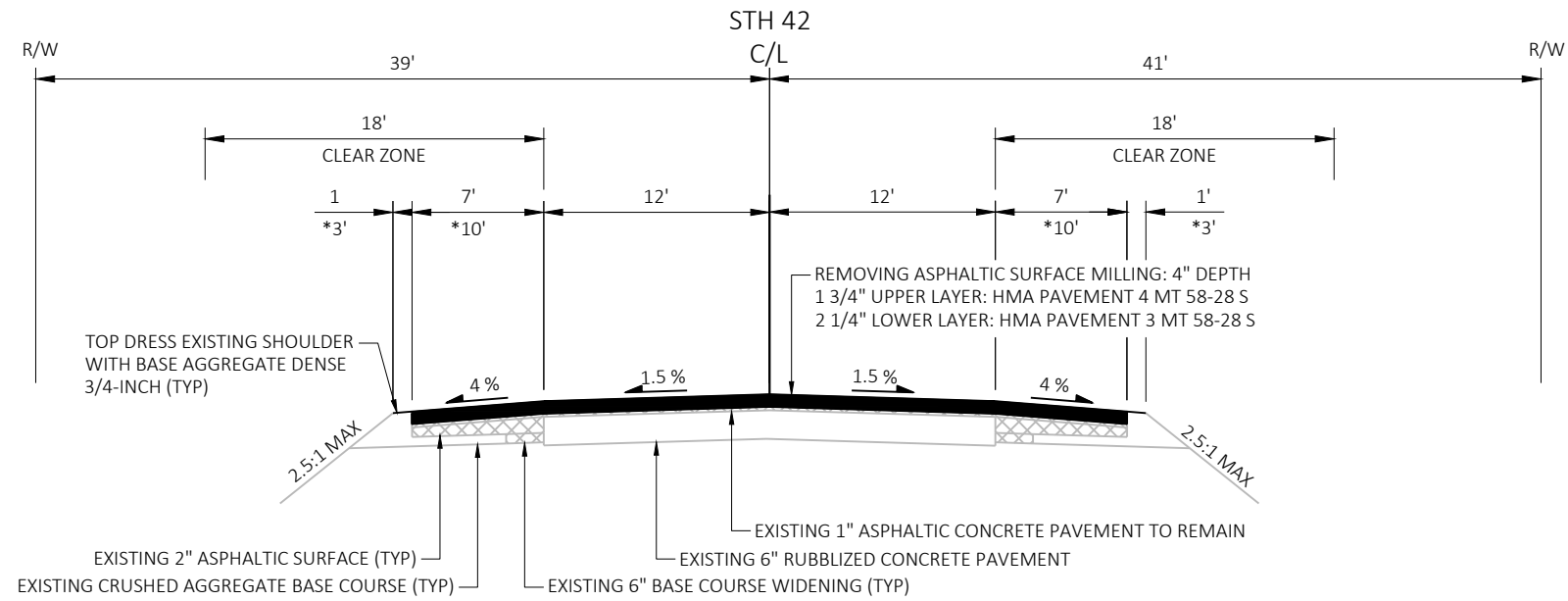
- STA 184+65 LT TO STA 185+90 LT
- STA 288+75 RT TO STA 295+75 RT



EXISTING TYPICAL SECTION (STH 42)
STA 303+50 TO STA 464+00

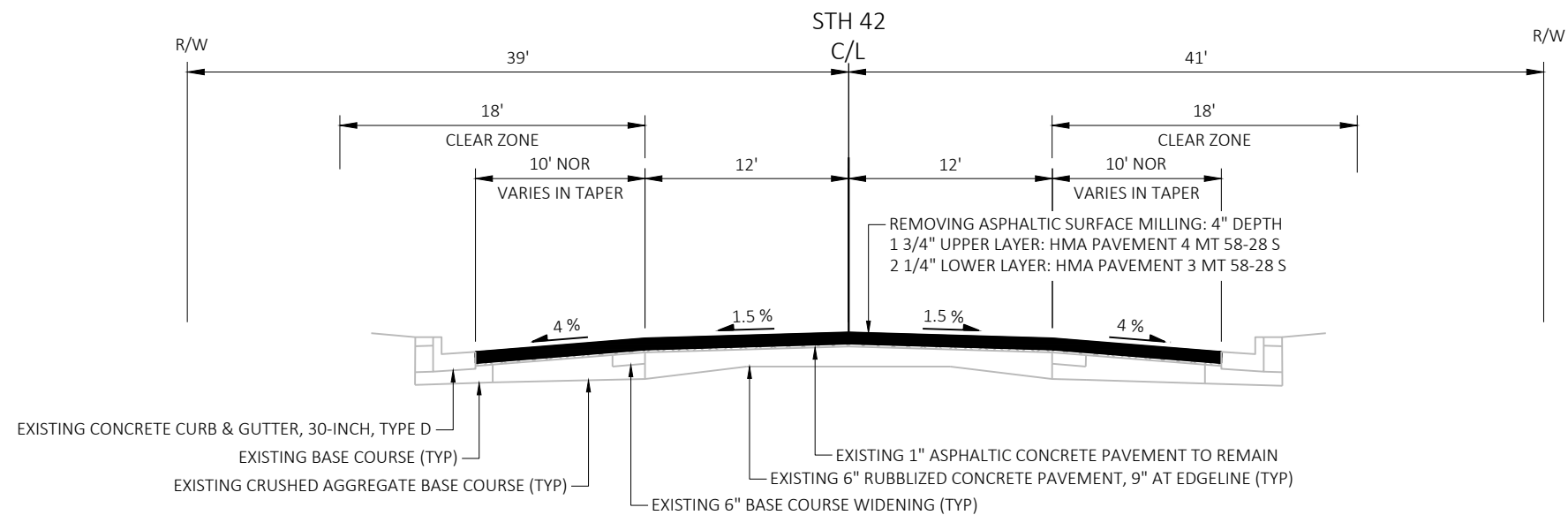


EXISTING TYPICAL SECTION (MONUMENT POINT RD E/W)
STA 0+66 TO STA 2+27 MONUMENT POINT RD W
STA 10+00 TO STA 11+74 MONUMENT POINT RD E



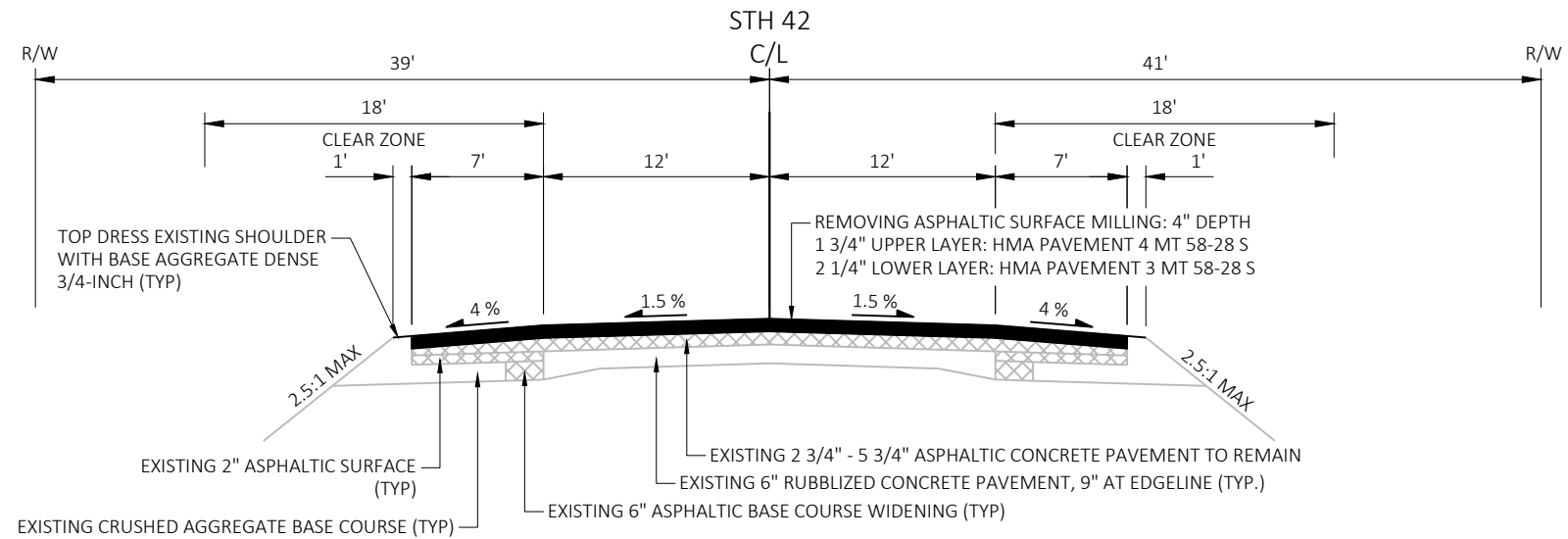
FINISHED TYPICAL SECTION (STH 42)

- STA 6+38 LT TO STA 184+65 LT
- STA 6+38 RT TO STA 288+75 RT
- STA 185+90 LT TO STA 287+10 LT
- STA 300+00 RT TO STA 303+50 RT
- STA 301+50 LT TO STA 303+50 LT
- STA 464+00 LT TO STA 591+94 LT
- STA 464+00 RT TO STA 591+94 RT
- STA 594+44 LT TO STA 644+24 LT
- STA 594+44 RT TO STA 644+24 RT
- * STA 287+10 LT TO STA 301+50 LT
- * STA 295+75 RT TO STA 300+00 RT
- * STA 591+94 LT TO STA 594+44 LT
- * STA 591+94 RT TO STA 594+44 RT



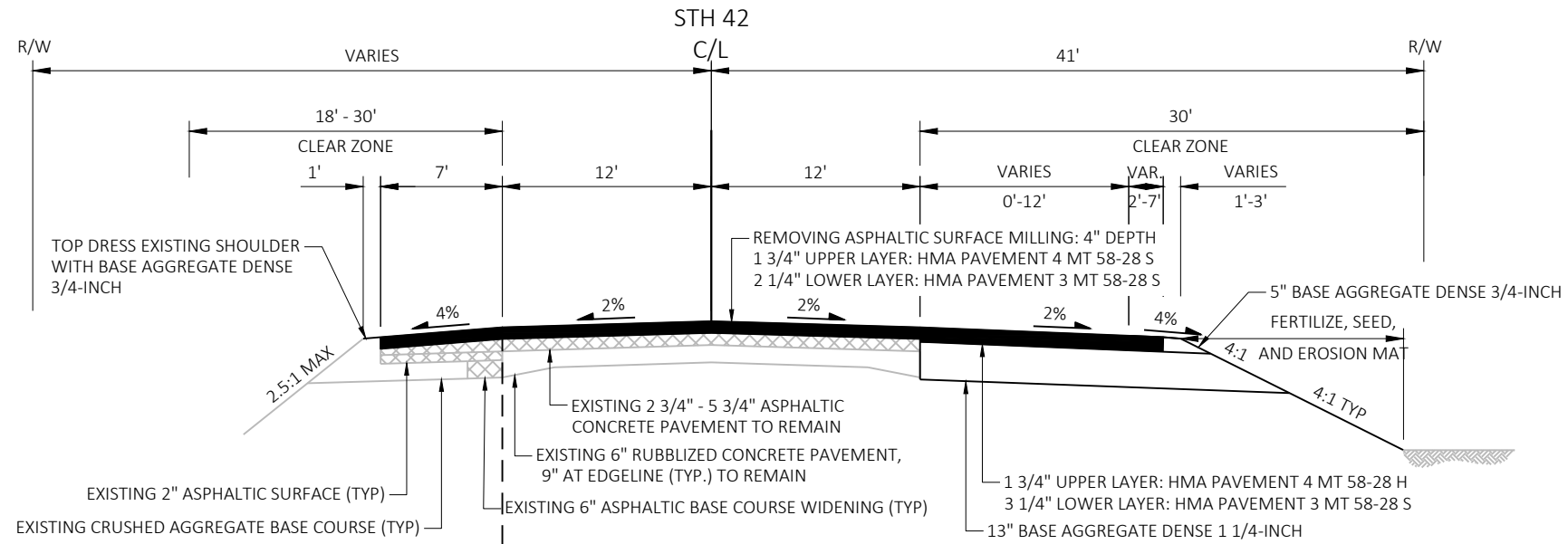
FINISHED TYPICAL SECTION (STH 42)

- STA 184+65 LT TO STA 185+90 LT
- STA 288+75 RT TO STA 295+75 RT



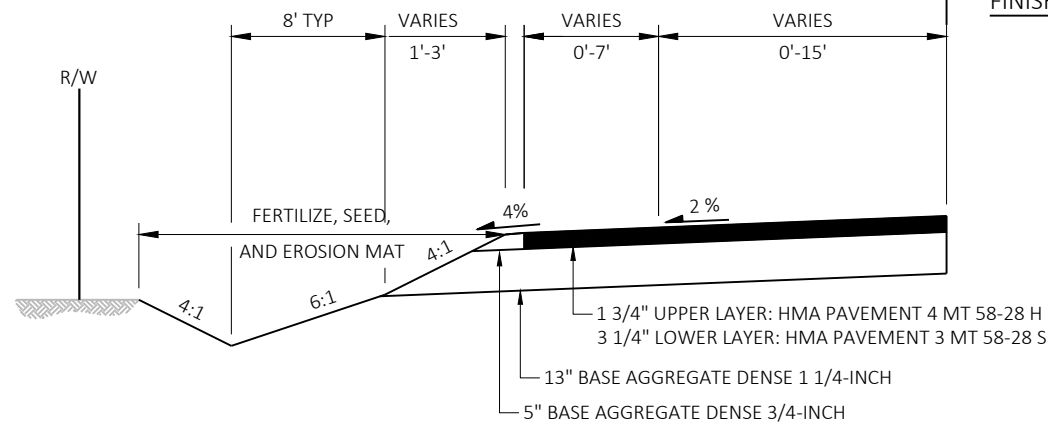
FINISHED TYPICAL SECTION (STH 42)

STA 303+50 TO STA 339+32
STA 349+40 TO STA 464+00

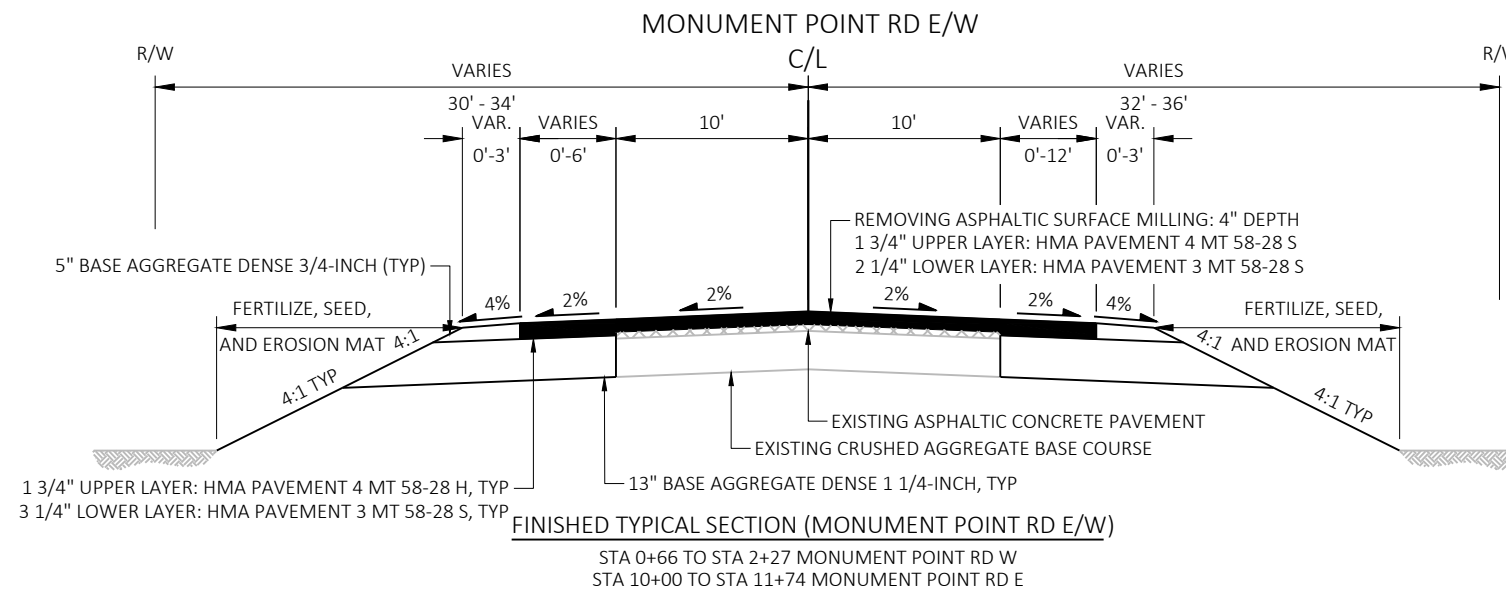
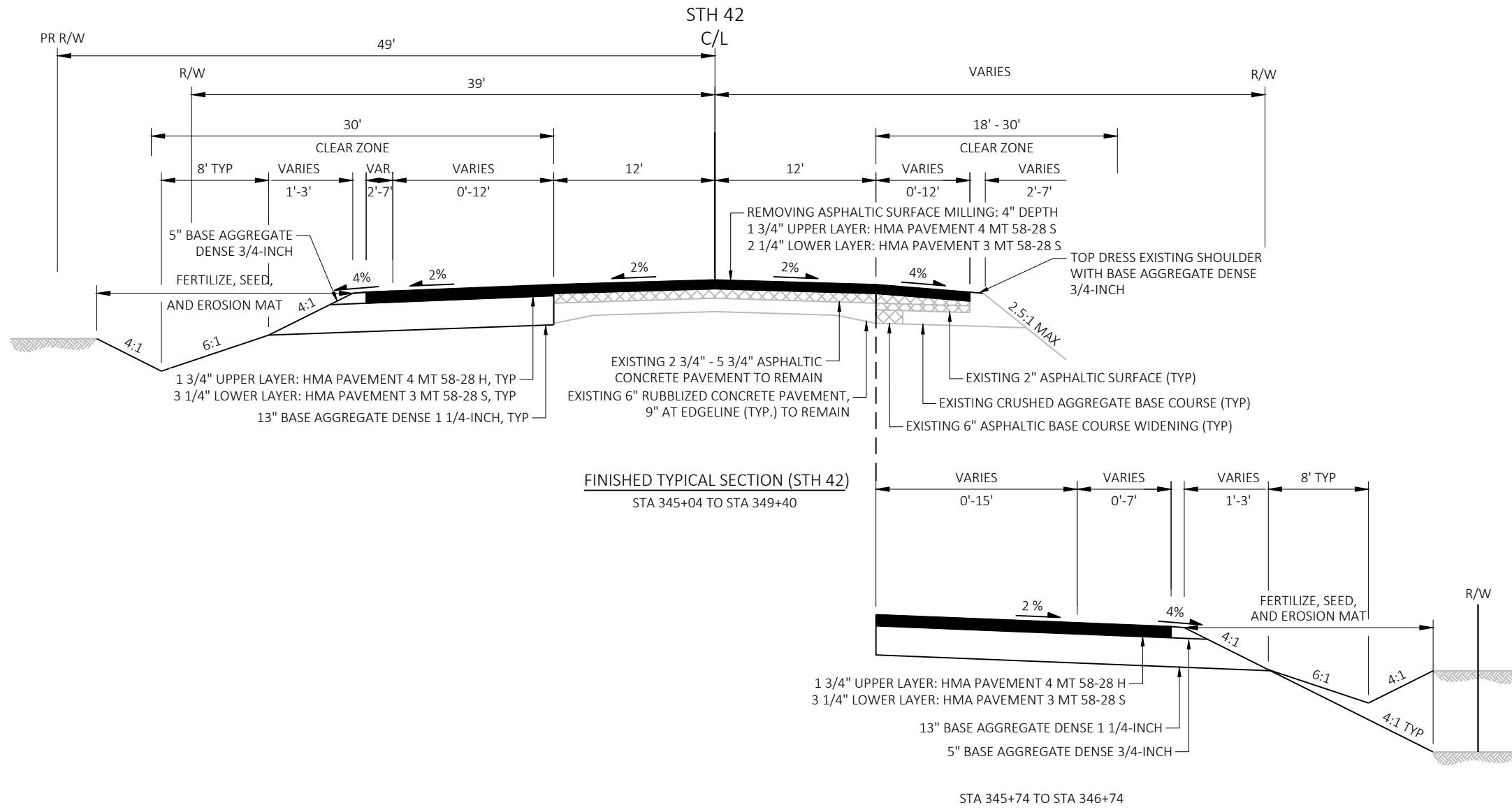


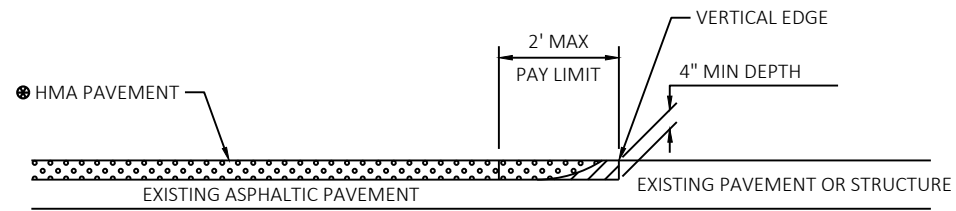
FINISHED TYPICAL SECTION (STH 42)

STA 339+32 TO STA 345+04



STA 343+53 TO STA 344+53

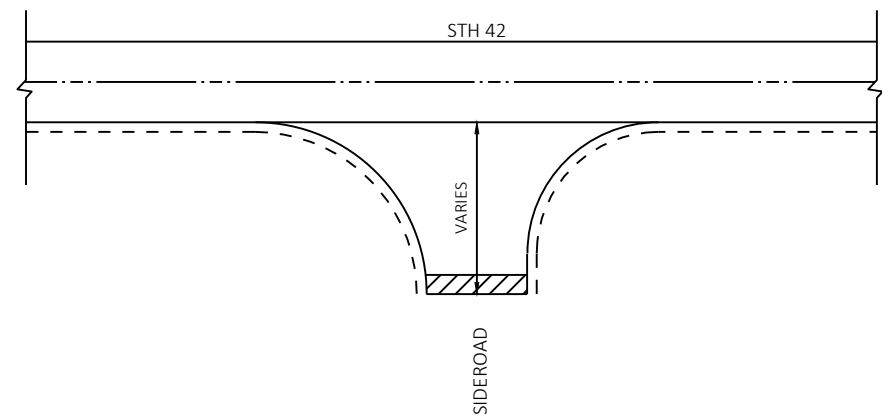




- ⊙ SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS
- ◻ REMOVING ASPHALTIC SURFACE MILLING
- ◻ REMOVING ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

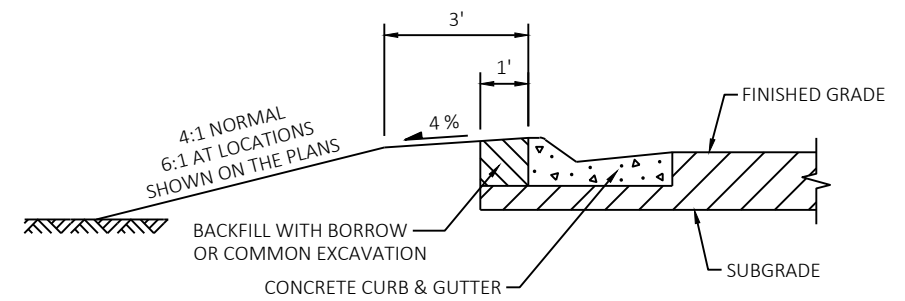
NOTE
 UTILIZE BUTT JOINT FOR ASPHALTIC DRIVEWAYS IN ADDITION TO THE ROADWAY.

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)



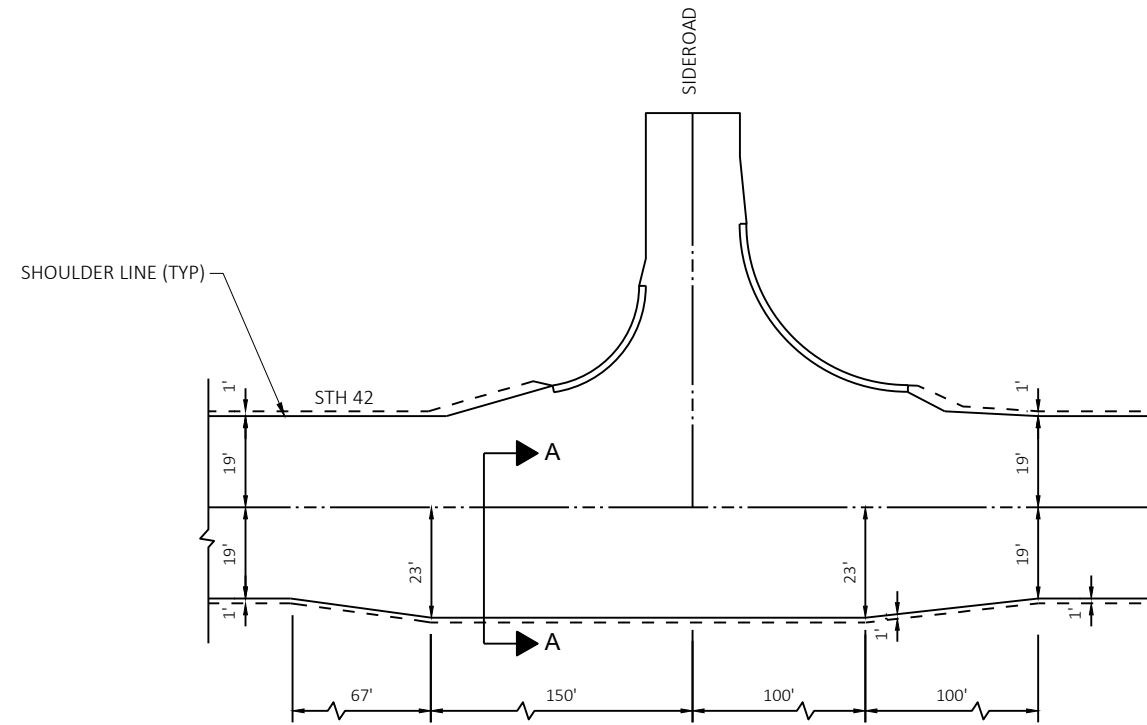
RURAL SIDEROAD PAVING LIMITS DETAIL

- ◻ REMOVING ASPHALTIC SURFACE BUTT JOINT



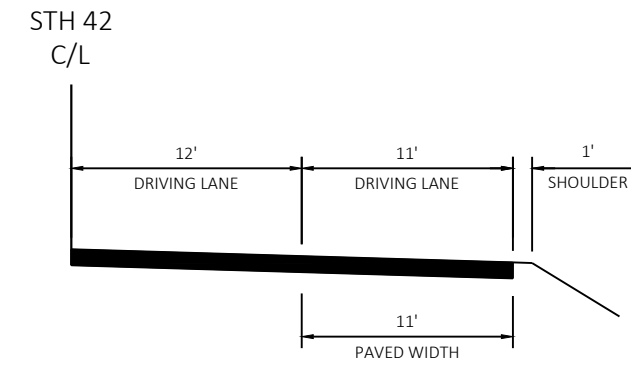
FORESLOPE TIE-IN BEHIND CURB & GUTTER DETAIL

STH 42 AND MONUMENT POINT RD INTERSECTION

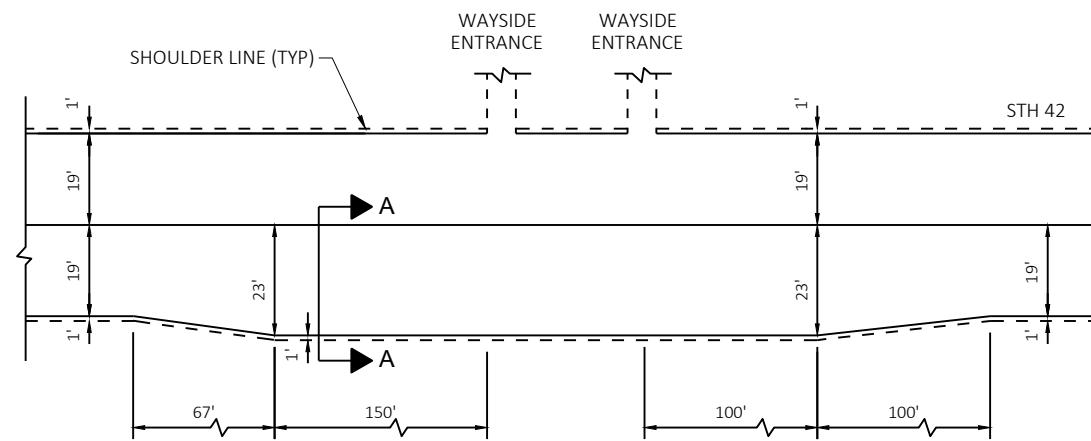


RESURFACING BYPASS LANE AT INTERSECTIONS DETAIL

CTH HH - STA 158+28
CTH G - STA 418+25

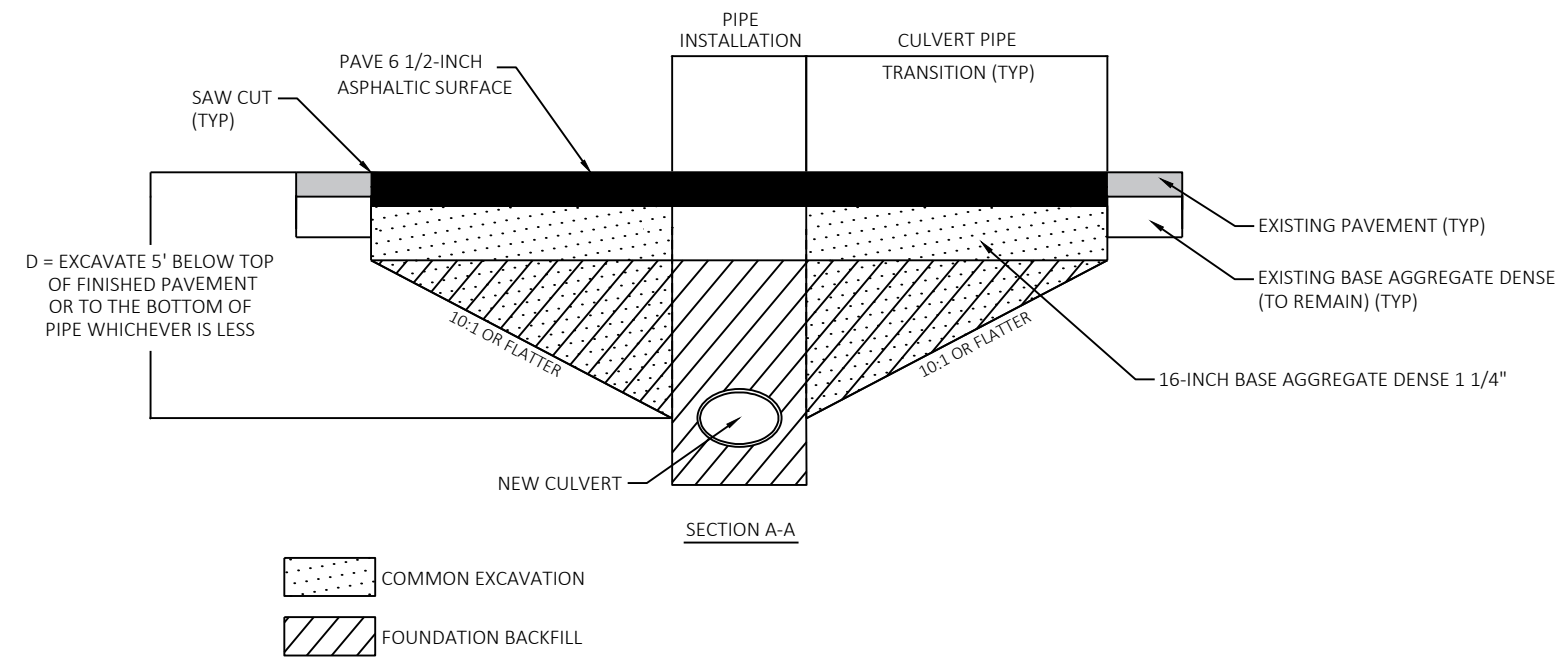
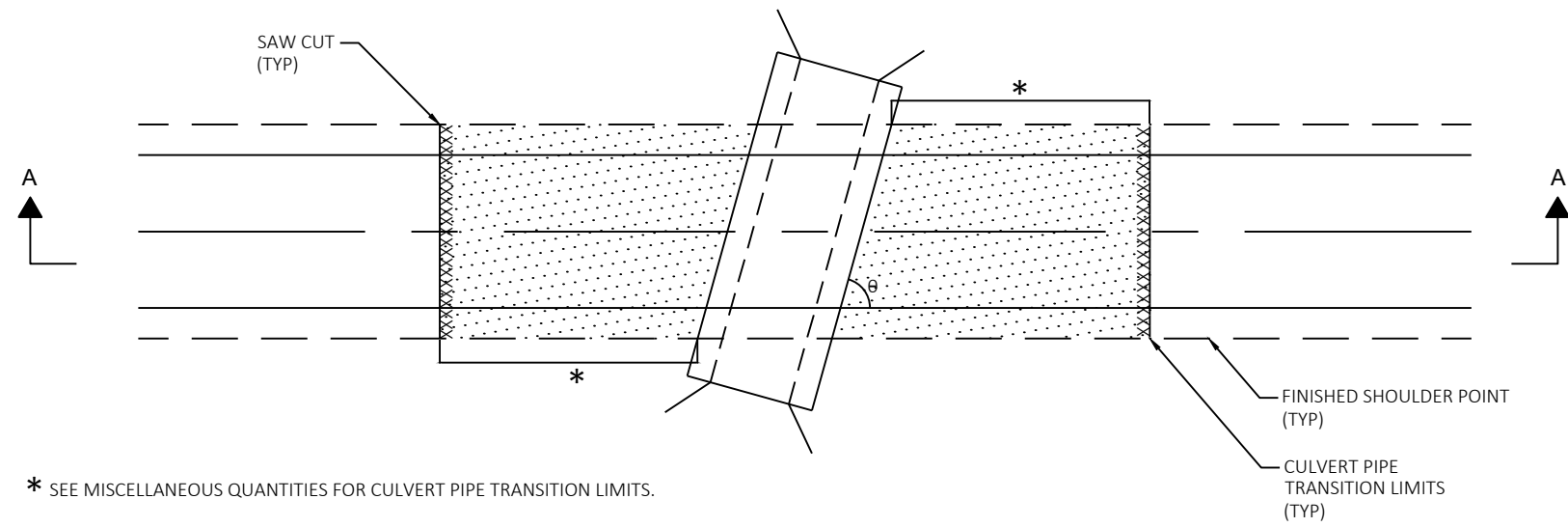


SECTION A-A
SHOWING BYPASS LANE SHOULDER



RESURFACING BYPASS LANE ALONG HIGHWAY DETAIL

FIRST WAYSIDE ENTRANCE - STA 473+38
SECOND WAYSIDE ENTRANCE - STA 476+65



NEW CULVERT PIPES WITH TRANSITION DETAIL

NOTES

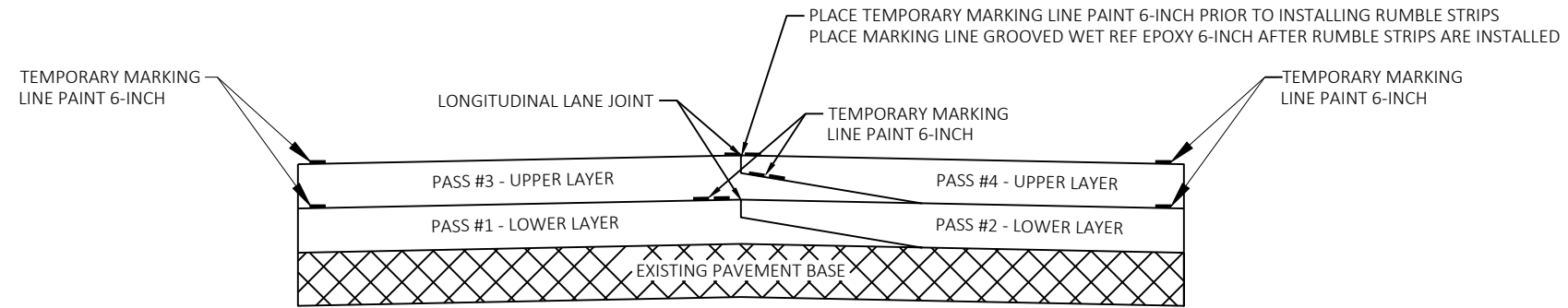
PIPE INSTALLATION AREA WILL FOLLOW SECTION 520 FOR INSTALLATION, WIDTHS AND PAYMENT.

CONSTRUCT TRANSITION PERPENDICULAR TO CULVERT PIPE.

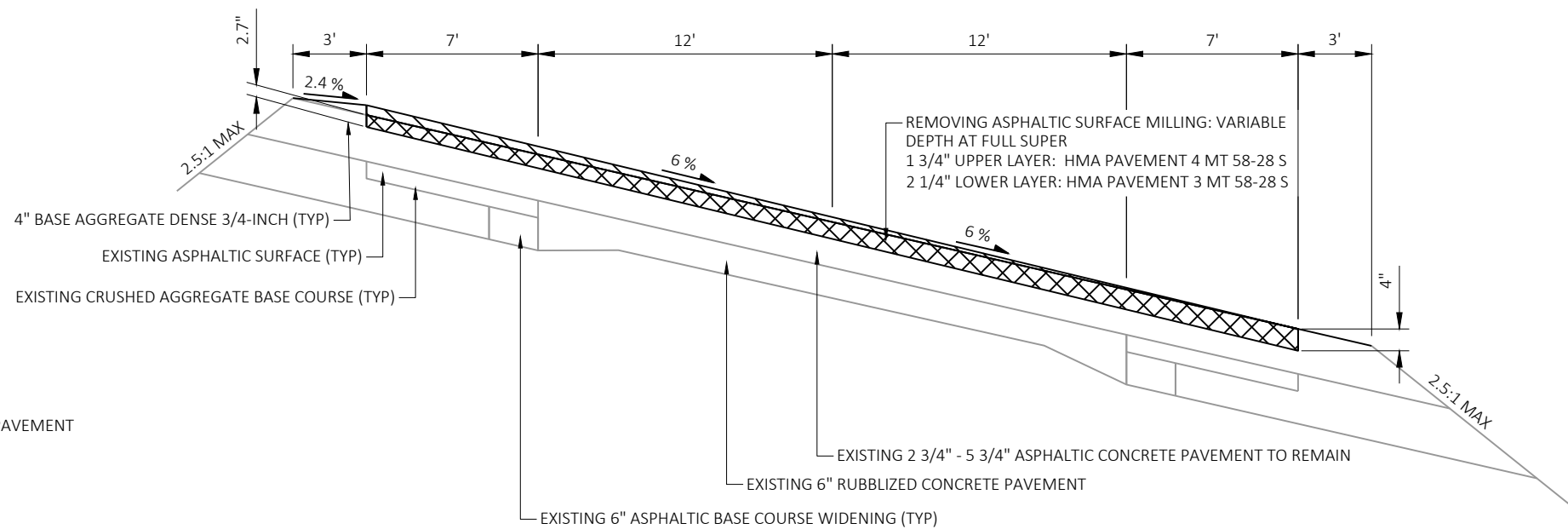
CULVERT PIPE TRANSITION AREAS WILL BE PAID BY COMMON EXCAVATION & SPV FOUNDATION BACKFILL.



PAVEMENT SAW CUT TO BE PERPENDICULAR TO ROADWAY ALIGNMENT.

2 1/2-INCH ASPHALTIC SURFACE TO REMAIN AFTER MILLING OPERATION.



PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN HMA PAVEMENTS



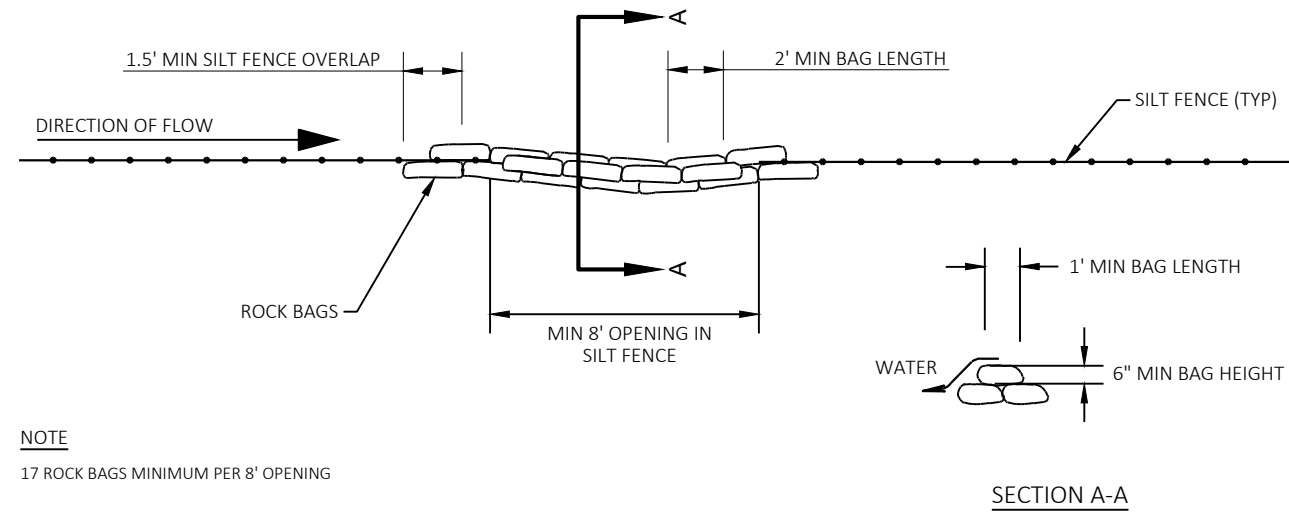
-  MILL VARIABLE DEPTH ASPHALTIC PAVEMENT
-  4" HMA PAVEMENT OVERLAY

SUPERELEVATION CORRECTION DETAIL

STA 357+85 - STA 366+24

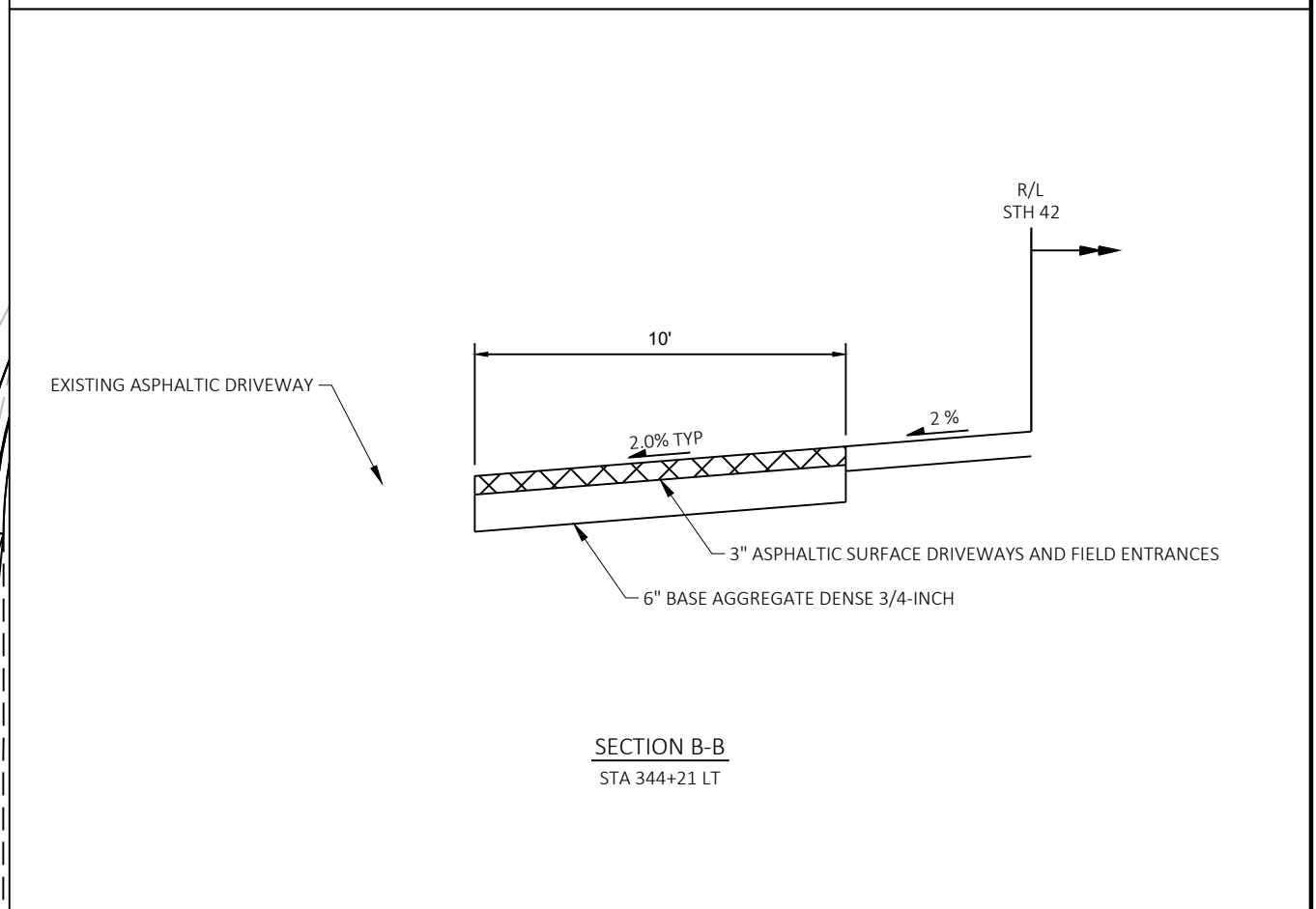
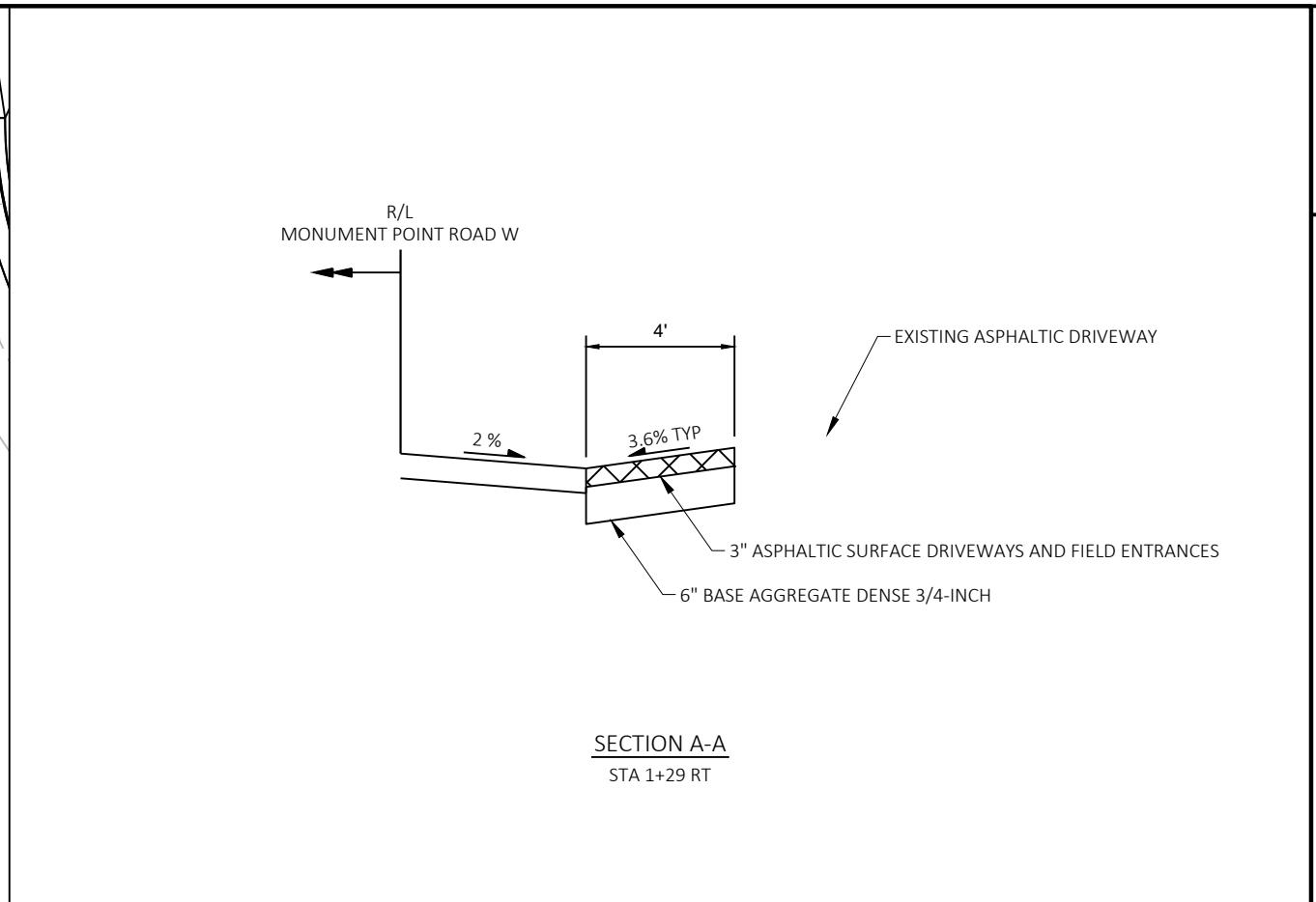
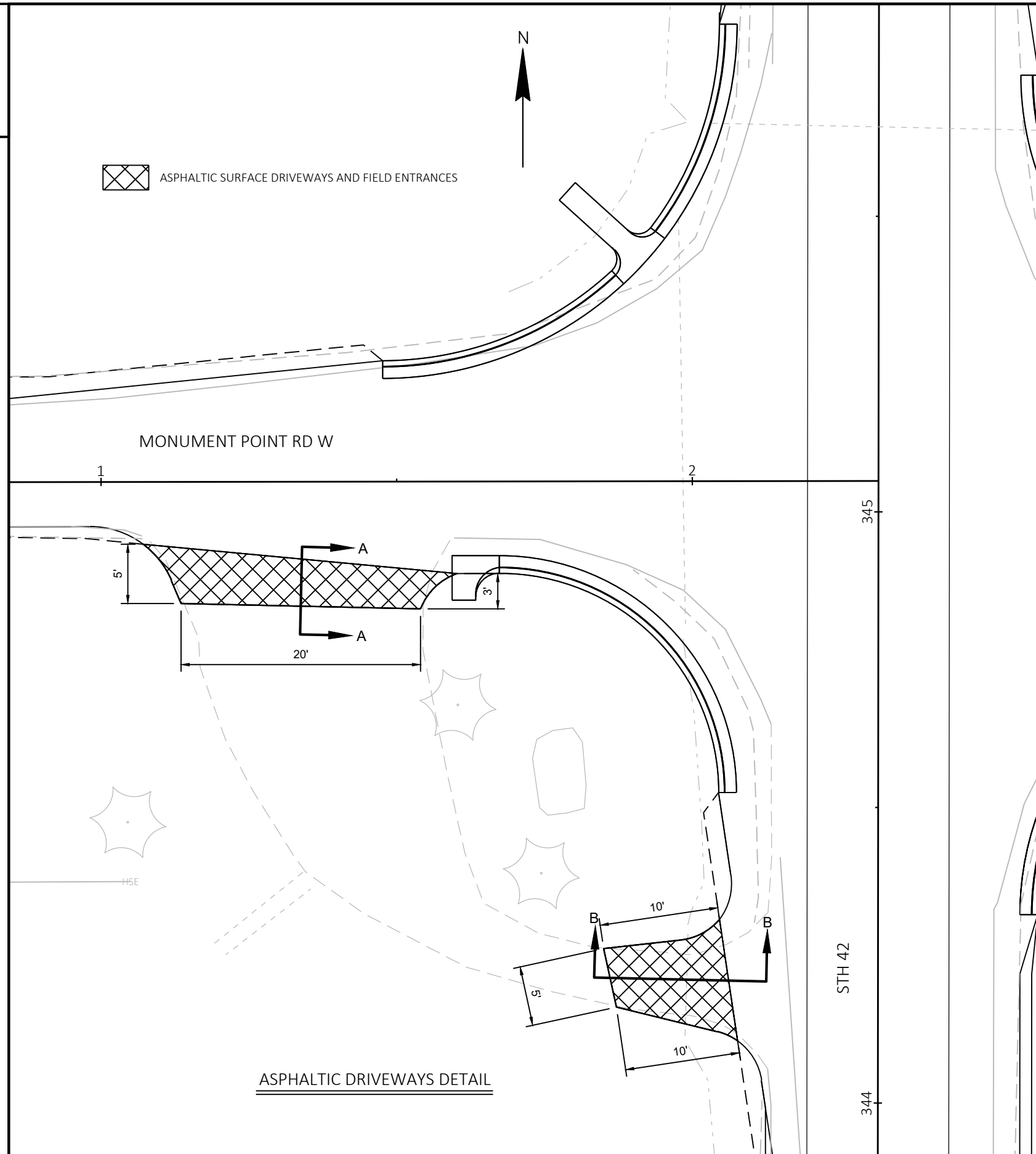
NOTE

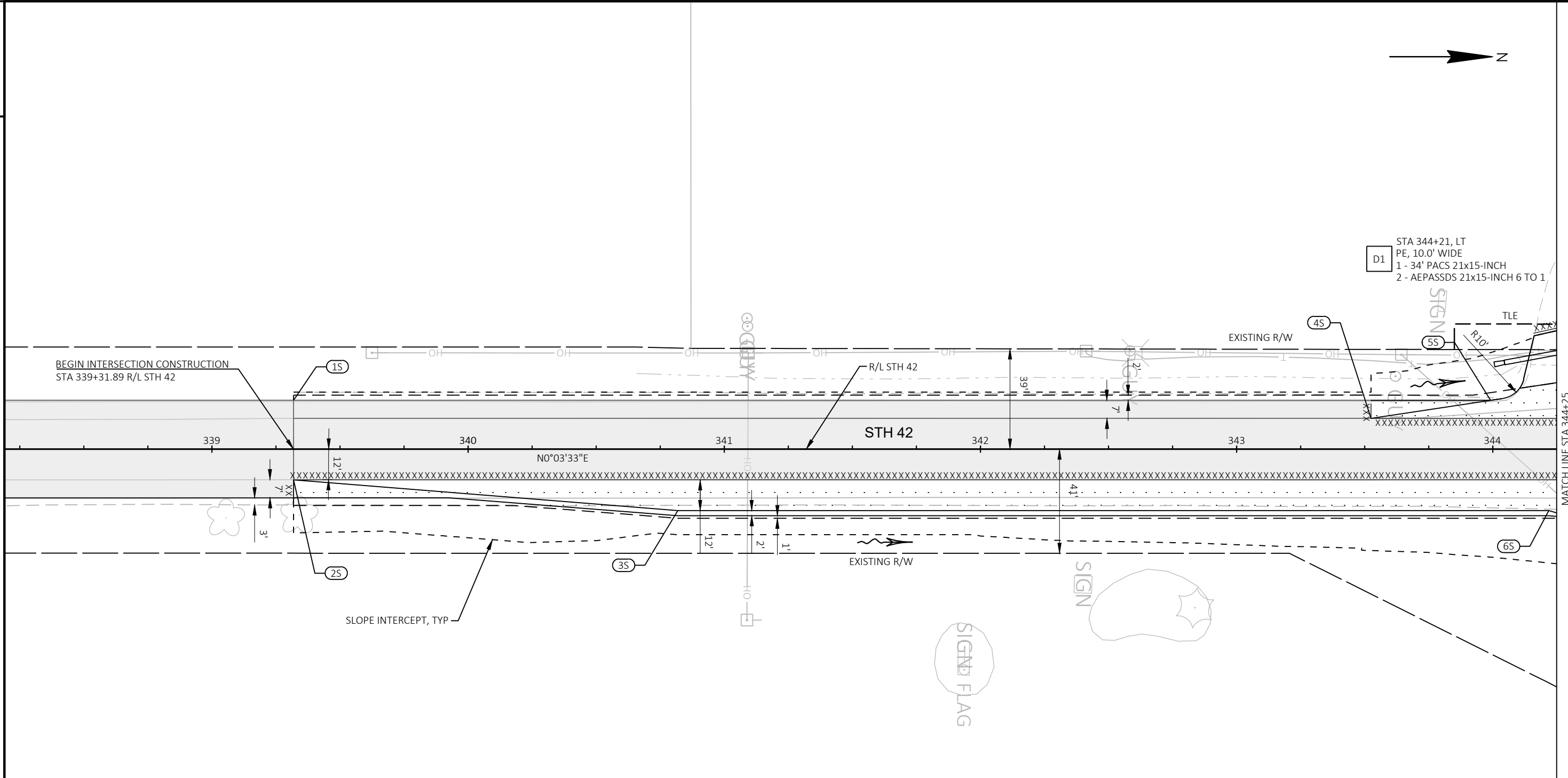
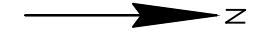
*EXISTING SUPERELEVATION AT CURVE IS 5.7%



NOTE
 17 ROCK BAGS MINIMUM PER 8' OPENING

SILT FENCE RELIEF DETAIL





D1 STA 344+21, LT
 PE, 10.0' WIDE
 1 - 34' PACS 21x15-INCH
 2 - AEPASSDS 21x15-INCH 6 TO 1

BEGIN INTERSECTION CONSTRUCTION
 STA 339+31.89 R/L STH 42

STH 42

N0°03'33"E

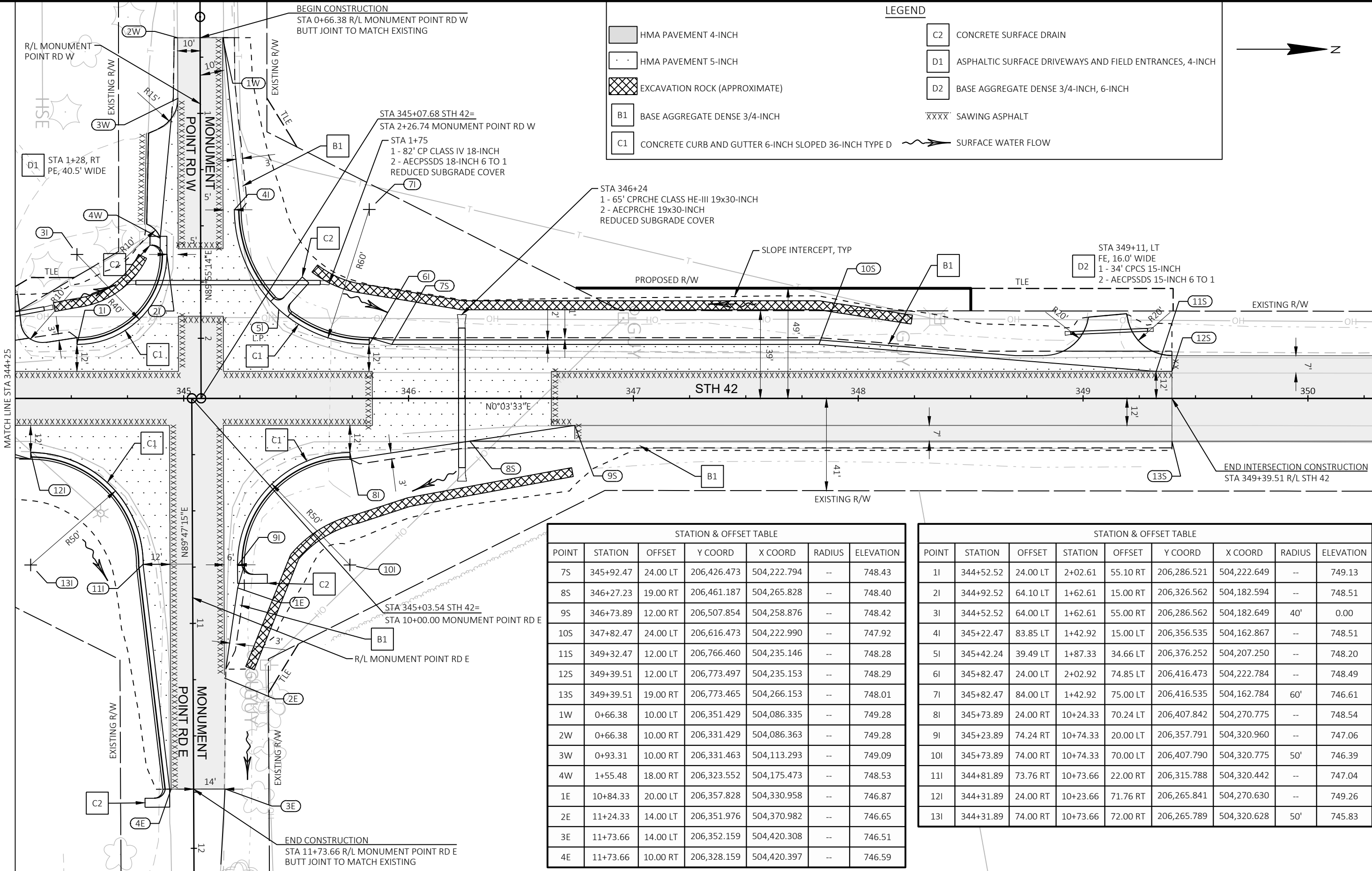
EXISTING R/W

MATCH LINE STA 344+25

LEGEND

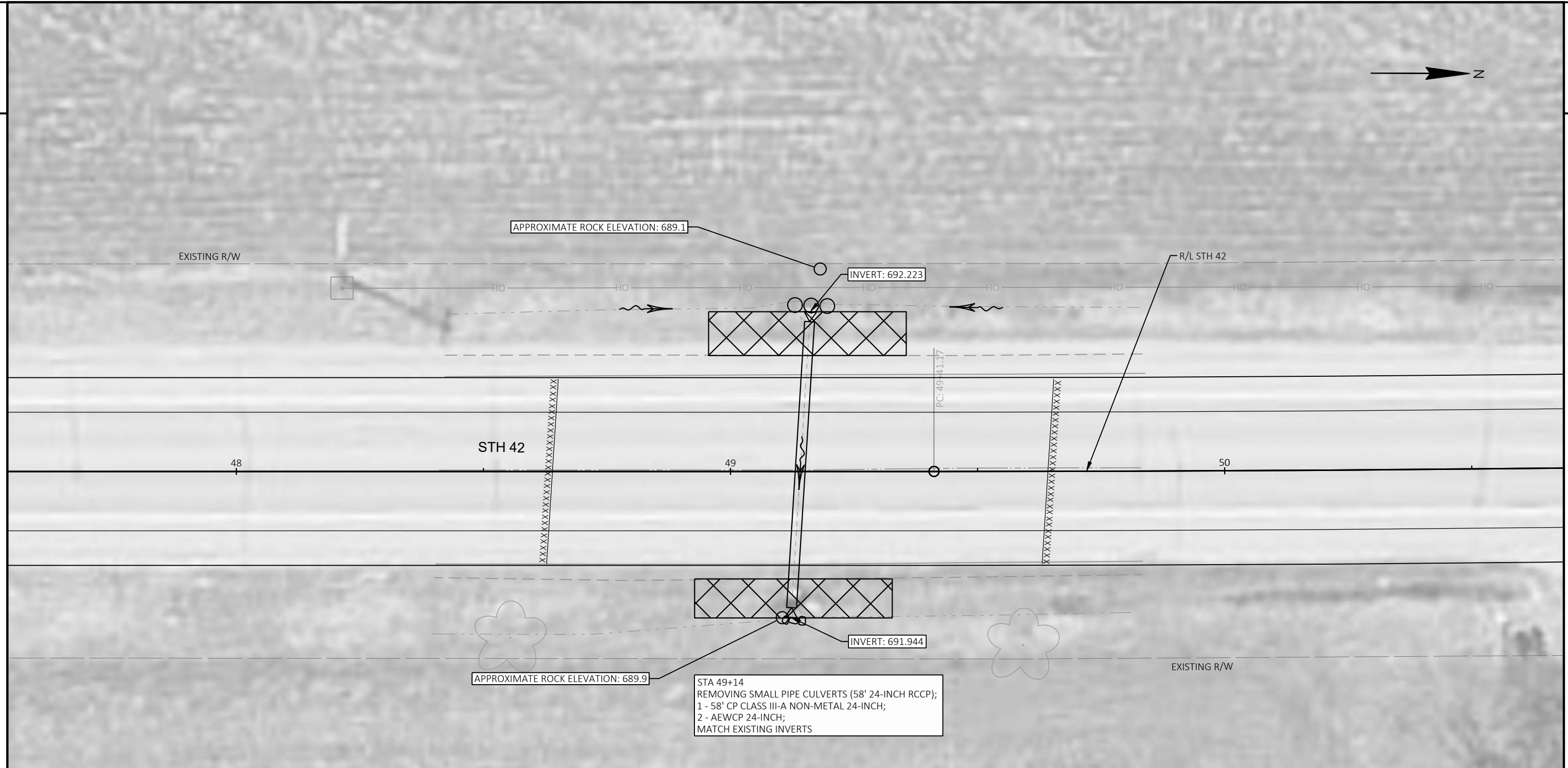
- HMA PAVEMENT 4-INCH
- HMA PAVEMENT 5-INCH
- EXCAVATION ROCK (APPROXIMATE)
- BASE AGGREGATE DENSE 3/4-INCH
- CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D
- CONCRETE SURFACE DRAIN
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 4-INCH
- BASE AGGREGATE DENSE 3/4-INCH, 6-INCH
- SAWING ASPHALT
- SURFACE WATER FLOW

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORD	X COORD	RADIUS	ELEVATION
1S	339+31.89	19.00 LT	205,765.885	504,227.109	--	751.79
2S	339+31.89	12.00 RT	205,765.853	504,258.111	--	752.07
3S	340+81.89	24.00 RT	205,915.841	504,270.266	--	751.25
4S	343+52.52	12.00 LT	206,186.509	504,234.546	--	750.04
5S	343+99.19	19.00 LT	206,233.182	504,227.594	--	749.61
6S	344+21.89	24.00 RT	206,255.841	504,270.618	--	749.33



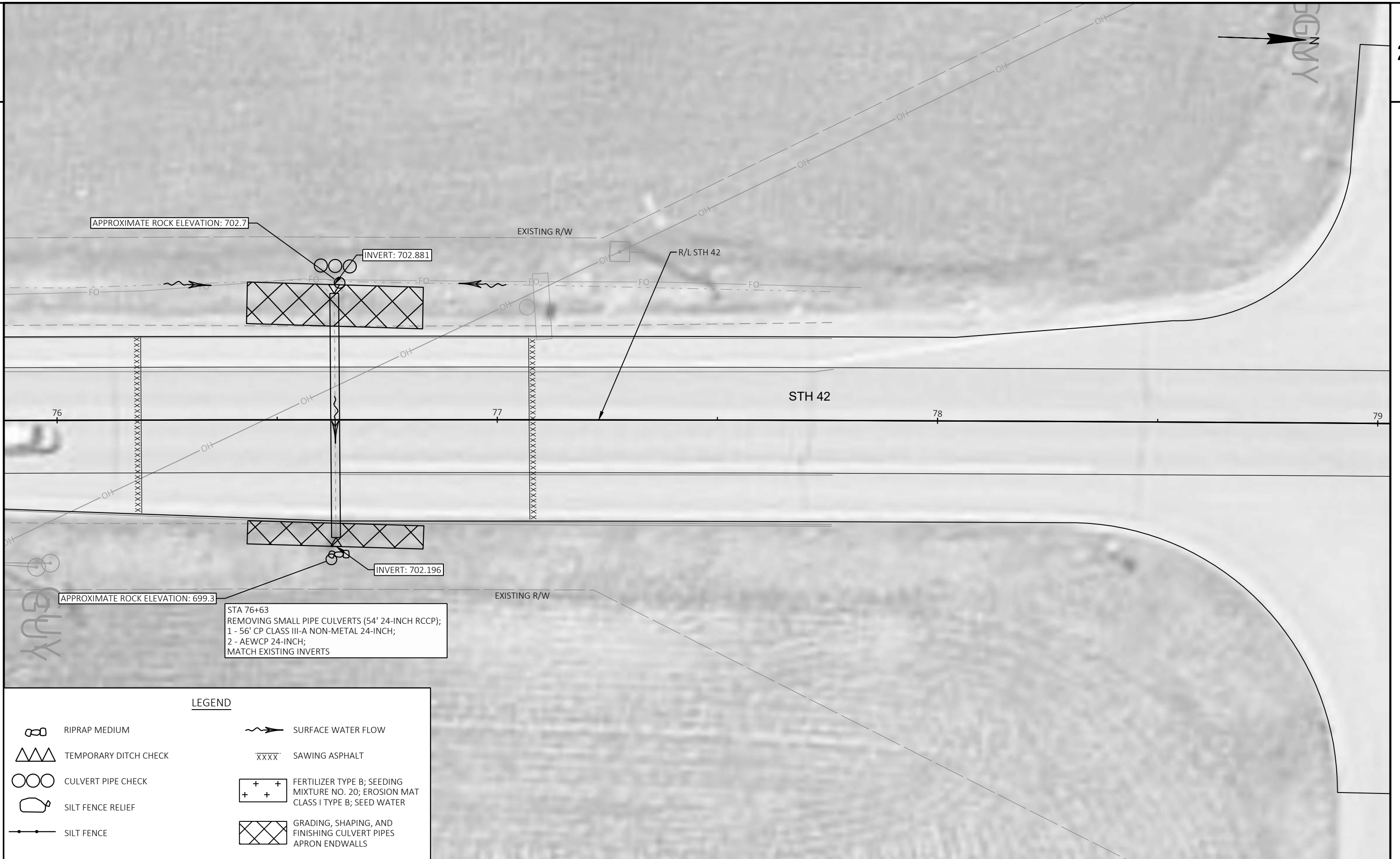
STATION & OFFSET TABLE						
POINT	STATION	OFFSET	Y COORD	X COORD	RADIUS	ELEVATION
7S	345+92.47	24.00 LT	206,426.473	504,222.794	--	748.43
8S	346+27.23	19.00 RT	206,461.187	504,265.828	--	748.40
9S	346+73.89	12.00 RT	206,507.854	504,258.876	--	748.42
10S	347+82.47	24.00 LT	206,616.473	504,222.990	--	747.92
11S	349+32.47	12.00 LT	206,766.460	504,235.146	--	748.28
12S	349+39.51	12.00 LT	206,773.497	504,235.153	--	748.29
13S	349+39.51	19.00 RT	206,773.465	504,266.153	--	748.01
1W	0+66.38	10.00 LT	206,351.429	504,086.335	--	749.28
2W	0+66.38	10.00 RT	206,331.429	504,086.363	--	749.28
3W	0+93.31	10.00 RT	206,331.463	504,113.293	--	749.09
4W	1+55.48	18.00 RT	206,323.552	504,175.473	--	748.53
1E	10+84.33	20.00 LT	206,357.828	504,330.958	--	746.87
2E	11+24.33	14.00 LT	206,351.976	504,370.982	--	746.65
3E	11+73.66	14.00 LT	206,352.159	504,420.308	--	746.51
4E	11+73.66	10.00 RT	206,328.159	504,420.397	--	746.59

STATION & OFFSET TABLE								
POINT	STATION	OFFSET	STATION	OFFSET	Y COORD	X COORD	RADIUS	ELEVATION
1I	344+52.52	24.00 LT	2+02.61	55.10 RT	206,286.521	504,222.649	--	749.13
2I	344+92.52	64.10 LT	1+62.61	15.00 RT	206,326.562	504,182.594	--	748.51
3I	344+52.52	64.00 LT	1+62.61	55.00 RT	206,286.562	504,182.649	40'	0.00
4I	345+22.47	83.85 LT	1+42.92	15.00 LT	206,356.535	504,162.867	--	748.51
5I	345+42.24	39.49 LT	1+87.33	34.66 LT	206,376.252	504,207.250	--	748.20
6I	345+82.47	24.00 LT	2+02.92	74.85 LT	206,416.473	504,222.784	--	748.49
7I	345+82.47	84.00 LT	1+42.92	75.00 LT	206,416.535	504,162.784	60'	746.61
8I	345+73.89	24.00 RT	10+24.33	70.24 LT	206,407.842	504,270.775	--	748.54
9I	345+23.89	74.24 RT	10+74.33	20.00 LT	206,357.791	504,320.960	--	747.06
10I	345+73.89	74.00 RT	10+74.33	70.00 LT	206,407.790	504,320.775	50'	746.39
11I	344+81.89	73.76 RT	10+73.66	22.00 RT	206,315.788	504,320.442	--	747.04
12I	344+31.89	24.00 RT	10+23.66	71.76 RT	206,265.841	504,270.630	--	749.26
13I	344+31.89	74.00 RT	10+73.66	72.00 RT	206,265.789	504,320.628	50'	745.83







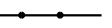




LEGEND	
	RIPRAP MEDIUM
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SILT FENCE RELIEF
	SILT FENCE
	SURFACE WATER FLOW
	SAWING ASPHALT
	FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; EROSION MAT CLASS I TYPE B; SEED WATER
	GRADING, SHAPING, AND FINISHING CULVERT PIPES APRON ENDWALLS

PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	EROSION CONTROL	SHEET	E
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STA 76+63
 REMOVING SMALL PIPE CULVERTS (54' 24-INCH RCCP);
 1 - 56' CP CLASS III-A NON-METAL 24-INCH;
 2 - AEWCP 24-INCH;
 MATCH EXISTING INVERTS

LEGEND

-  RIPRAP MEDIUM
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SILT FENCE RELIEF
-  SILT FENCE
-  SURFACE WATER FLOW
-  SAWING ASPHALT
-  FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; EROSION MAT CLASS I TYPE B; SEED WATER
-  GRADING, SHAPING, AND FINISHING CULVERT PIPES APRON ENDWALLS

PROJECT NO: 4140-28-71

HWY: STH 42

COUNTY: DOOR

EROSION CONTROL

SHEET

E



EXISTING R/W

STA 110+93
 REMOVING SMALL PIPE CULVERTS (8' 30-INCH RCCP);
 1 - 8' CP CLASS III-A NON-METAL 30-INCH;
 1 - AEWCP 30-INCH;
 1 - CONCRETE COLLARS FOR PIPE;
 MATCH EXISTING INVERTS

APPROXIMATE ROCK ELEVATION: 691.9

INVERT: 693.465

R/L STH 42

STH 42

110

111

112

STA 110+91
 REMOVING SMALL PIPE CULVERTS (8' 30-INCH RCCP);
 1 - 8' CP CLASS III-A NON-METAL 30-INCH;
 1 - AEWCP 30-INCH;
 1 - CONCRETE COLLARS FOR PIPE;
 MATCH EXISTING INVERTS





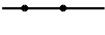


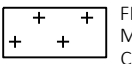
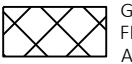
APPROXIMATE ROCK ELEVATION: 692.2

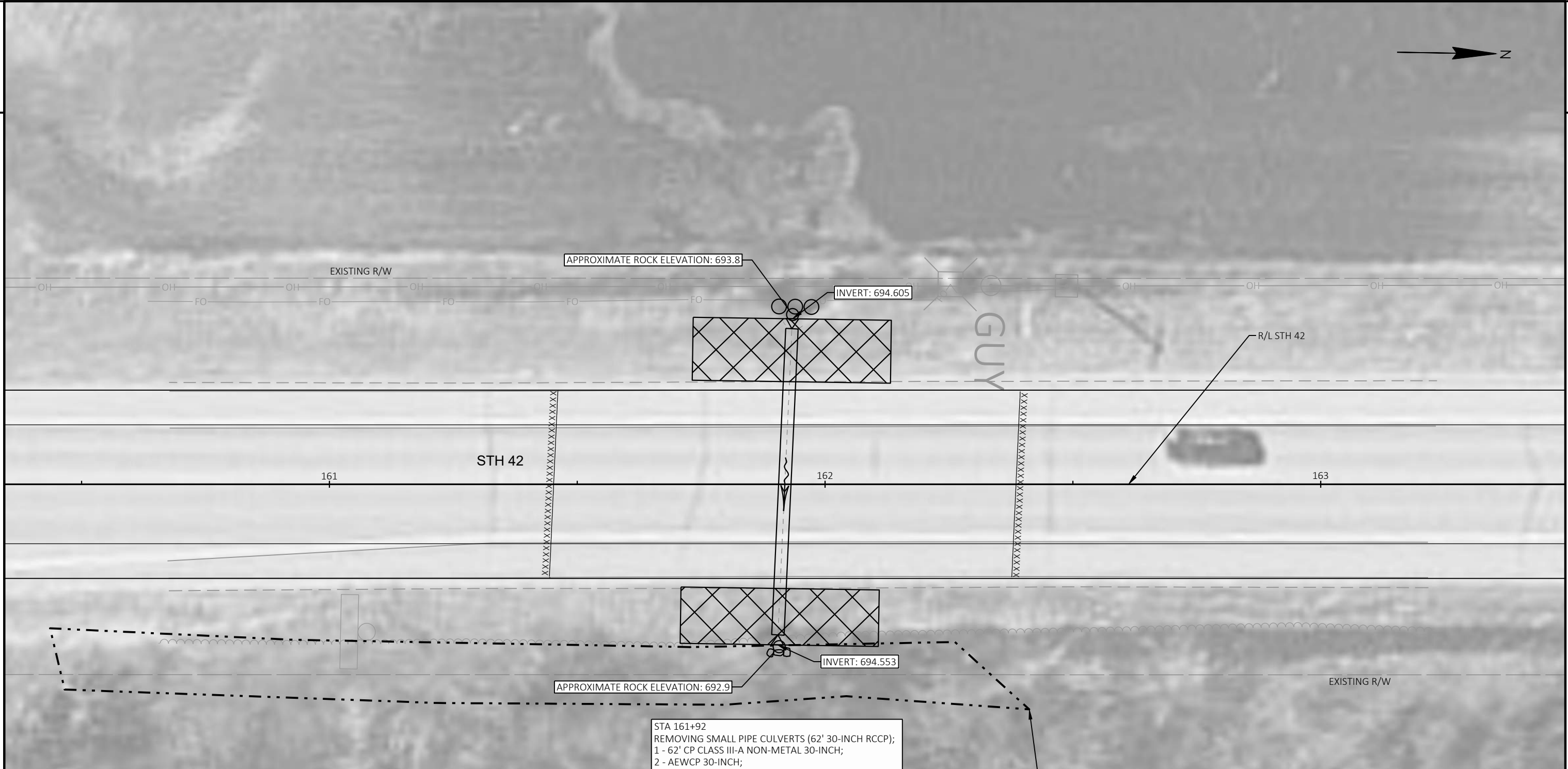
INVERT: 693.486

EXISTING R/W

POST

LEGEND

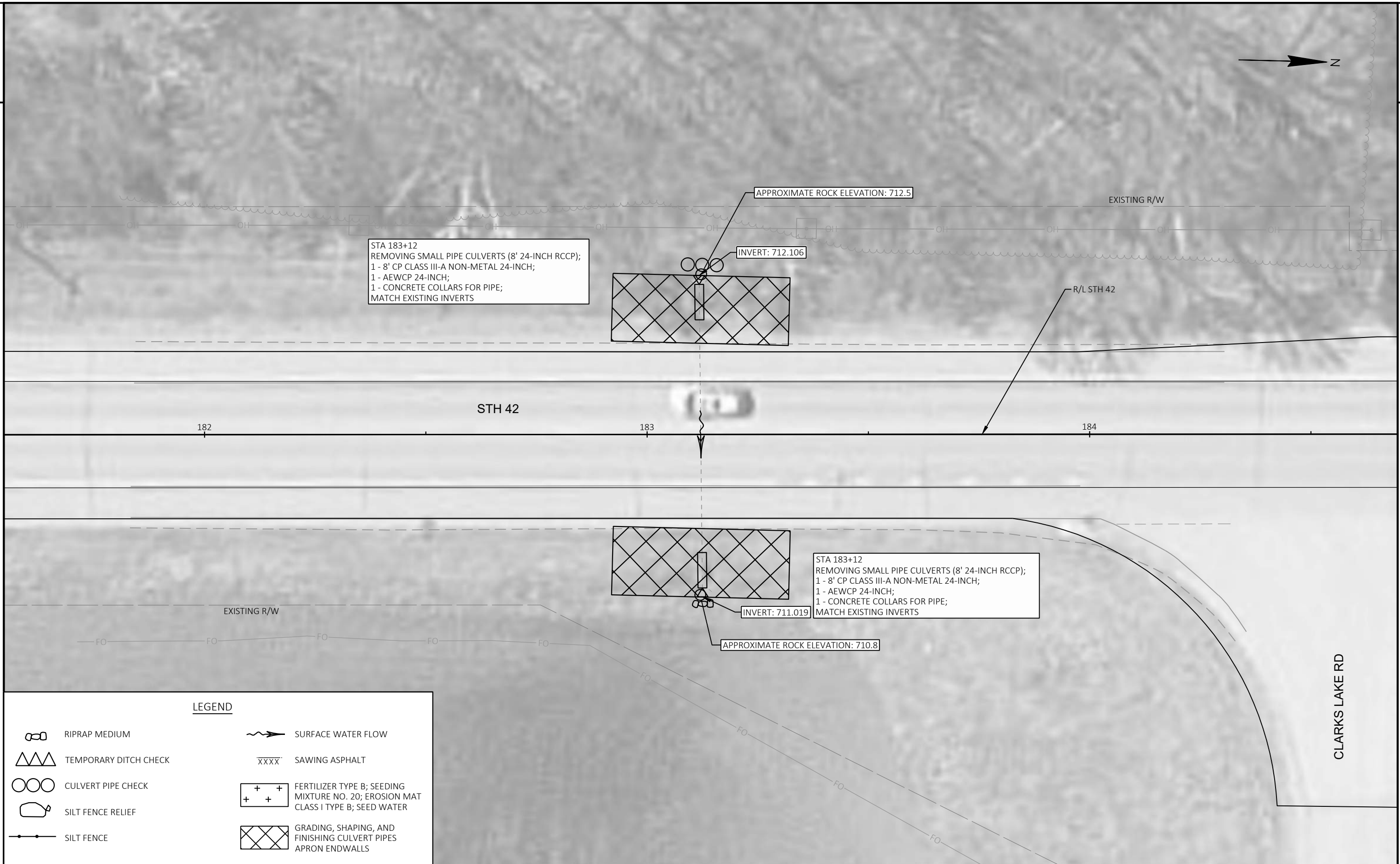
-  RIPRAP MEDIUM
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SILT FENCE RELIEF
-  SILT FENCE
-  SURFACE WATER FLOW
-  SAWING ASPHALT
-  FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; EROSION MAT CLASS I TYPE B; SEED WATER
-  GRADING, SHAPING, AND FINISHING CULVERT PIPES APRON ENDWALLS












STA 161+92
 REMOVING SMALL PIPE CULVERTS (62' 30-INCH RCCP);
 1 - 62' CP CLASS III-A NON-METAL 30-INCH;
 2 - AEWCP 30-INCH;
 MATCH EXISTING INVERTS

LEGEND

- | | | | |
|--|-----------------------|--|---|
| | RIPRAP MEDIUM | | SURFACE WATER FLOW |
| | TEMPORARY DITCH CHECK | | SAWING ASPHALT |
| | CULVERT PIPE CHECK | | FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; EROSION MAT CLASS I TYPE B; SEED WATER |
| | SILT FENCE RELIEF | | GRADING, SHAPING, AND FINISHING CULVERT PIPES APRON ENDWALLS |
| | SILT FENCE | | |



LEGEND

-  RIPRAP MEDIUM
-  TEMPORARY DITCH CHECK
-  CULVERT PIPE CHECK
-  SILT FENCE RELIEF
-  SILT FENCE
-  SURFACE WATER FLOW
-  SAWING ASPHALT
-  FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; EROSION MAT CLASS I TYPE B; SEED WATER
-  GRADING, SHAPING, AND FINISHING CULVERT PIPES APRON ENDWALLS

PROJECT NO: 4140-28-71

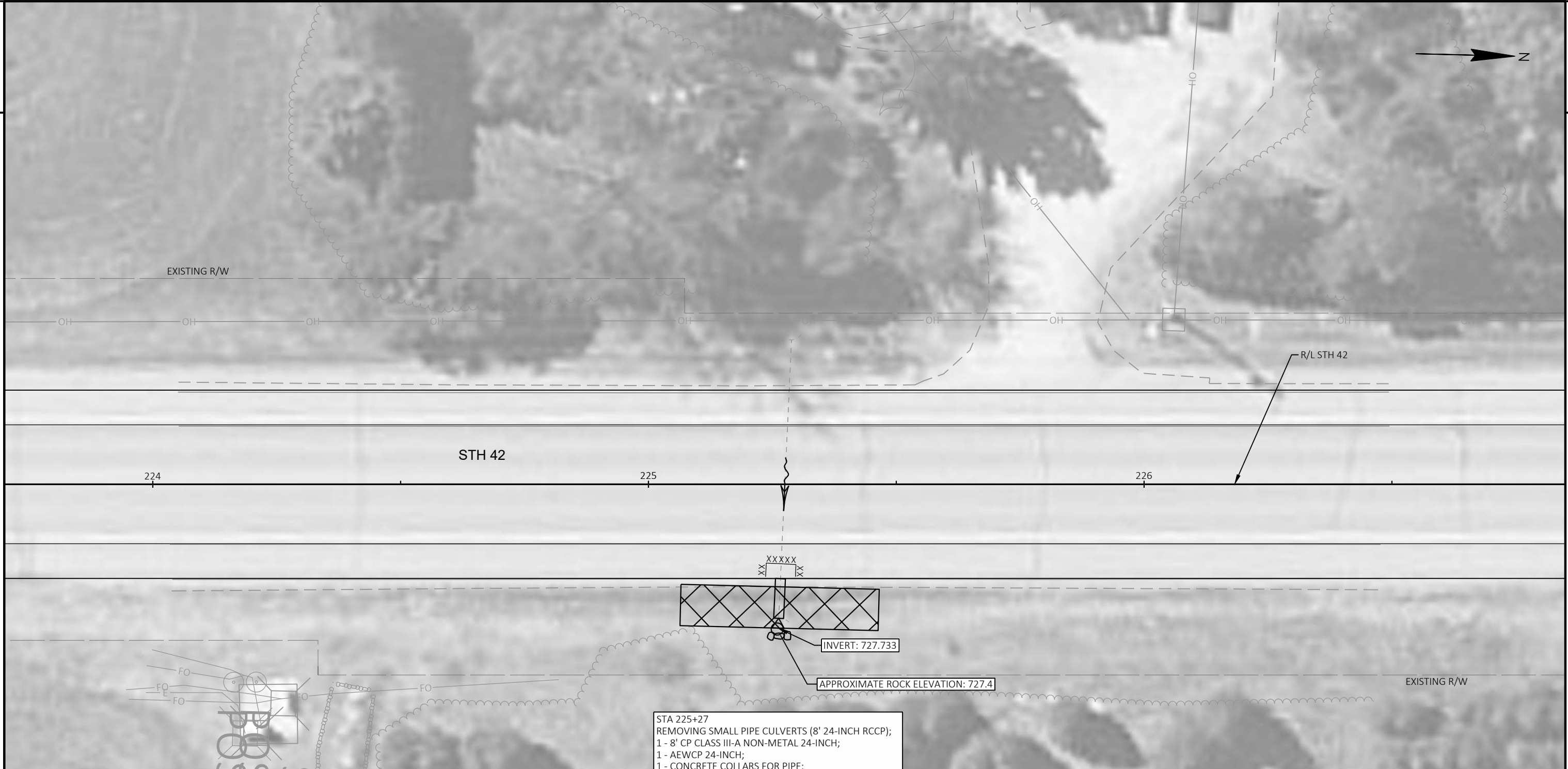
HWY: STH 42

COUNTY: DOOR

EROSION CONTROL

SHEET

E



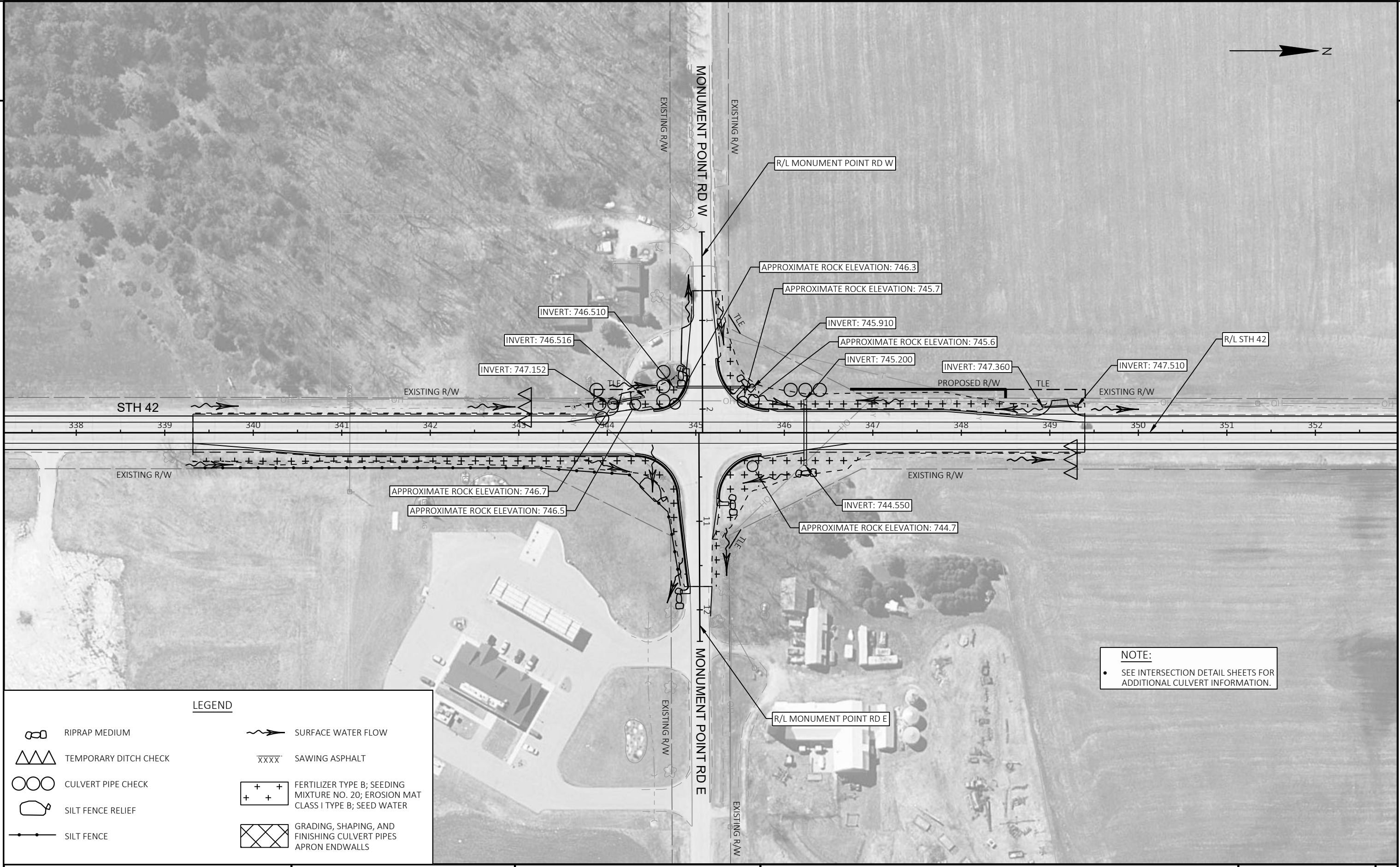
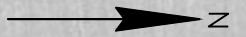
STA 225+27
 REMOVING SMALL PIPE CULVERTS (8' 24-INCH RCCP);
 1 - 8' CP CLASS III-A NON-METAL 24-INCH;
 1 - AEWCP 24-INCH;
 1 - CONCRETE COLLARS FOR PIPE;
 MATCH EXISTING INVERTS

INVERT: 727.733

APPROXIMATE ROCK ELEVATION: 727.4

LEGEND

	RIPRAP MEDIUM		SURFACE WATER FLOW
	TEMPORARY DITCH CHECK		SAWING ASPHALT
	CULVERT PIPE CHECK		FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; EROSION MAT CLASS I TYPE B; SEED WATER
	SILT FENCE RELIEF		GRADING, SHAPING, AND FINISHING CULVERT PIPES APRON ENDWALLS
	SILT FENCE		



NOTE:

- SEE INTERSECTION DETAIL SHEETS FOR ADDITIONAL CULVERT INFORMATION.

LEGEND	
	RIPRAP MEDIUM
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SILT FENCE RELIEF
	SILT FENCE
	SURFACE WATER FLOW
	SAWING ASPHALT
	FERTILIZER TYPE B; SEEDING MIXTURE NO. 20; EROSION MAT CLASS I TYPE B; SEED WATER
	GRADING, SHAPING, AND FINISHING CULVERT PIPES APRON ENDWALLS

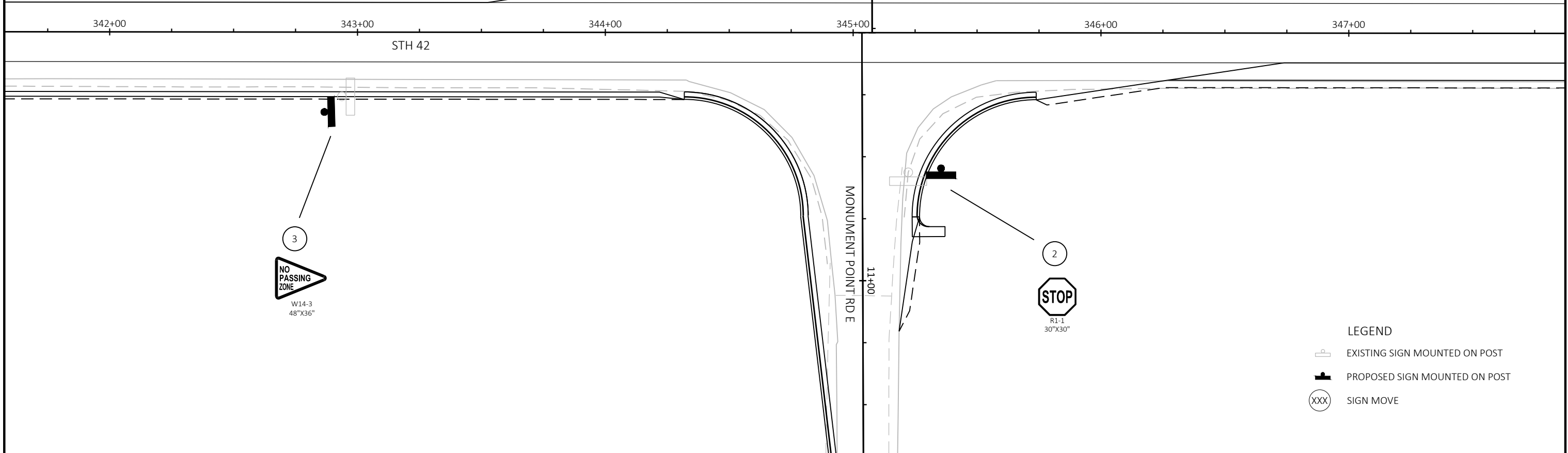
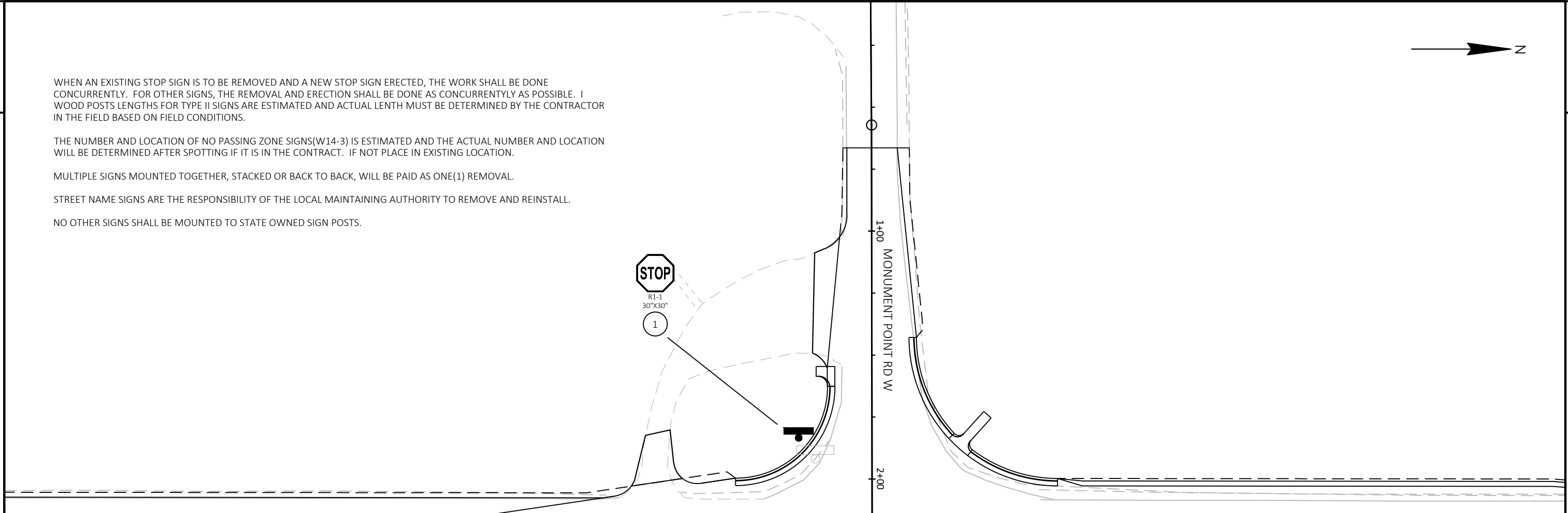
WHEN AN EXISTING STOP SIGN IS TO BE REMOVED AND A NEW STOP SIGN ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS, THE REMOVAL AND ERECTION SHALL BE DONE AS CONCURRENTLY AS POSSIBLE. 1 WOOD POSTS LENGTHS FOR TYPE II SIGNS ARE ESTIMATED AND ACTUAL LENGTH MUST BE DETERMINED BY THE CONTRACTOR IN THE FIELD BASED ON FIELD CONDITIONS.

THE NUMBER AND LOCATION OF NO PASSING ZONE SIGNS(W14-3) IS ESTIMATED AND THE ACTUAL NUMBER AND LOCATION WILL BE DETERMINED AFTER SPOTTING IF IT IS IN THE CONTRACT. IF NOT PLACE IN EXISTING LOCATION.

MULTIPLE SIGNS MOUNTED TOGETHER, STACKED OR BACK TO BACK, WILL BE PAID AS ONE(1) REMOVAL.

STREET NAME SIGNS ARE THE RESPONSIBILITY OF THE LOCAL MAINTAINING AUTHORITY TO REMOVE AND REINSTALL.

NO OTHER SIGNS SHALL BE MOUNTED TO STATE OWNED SIGN POSTS.



- LEGEND**
- EXISTING SIGN MOUNTED ON POST
 - PROPOSED SIGN MOUNTED ON POST
 - SIGN MOVE

PROJECT NO: 4141-28-71	HWY: STH 42	COUNTY: DOOR	SIGNING	SHEET	E
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TRAFFIC CONTROL NOTES (APPLIES TO ALL STAGES)

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
3. DURING STAGING, ALL EXISTING SIGNS SHALL REMAIN IN THE FIELD EXCEPT AS NOTED ON THE STAGING PLANS.
4. ALL TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD), THE PLANS, SPECIFICATIONS AND APPLICABLE STANDARD DETAIL DRAWINGS.
5. SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT BACKGROUND IS ORANGE.
6. SEE SPECIAL PROVISIONS FOR TRAFFIC/STAGING REQUIREMENTS.
7. ALL DRUM SPACING IS 50' , UNLESS OTHERWISE NOTED.
8. PERFORM MAINLINE MARKING OPERATIONS IN ACCORDANCE WITH SDD MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY.
9. PLACE MILLED SURFACES SIGNING ONCE THE ROADWAY MILLING IS COMPLETED.

STAGE 1A - CONSTRUCTION

1. CONSTRUCT STH 42 NORTHBOUND RIGHT TURN LANE ALONG WITH MONUMENT POINT ROAD EAST LEG INTERSECTION WIDENING. PAVE UP TO BINDER LAYER.
2. CONSTRUCT CULVERT REPLACEMENTS UNDER STH 42.
3. DROP OFF AT PAVEMENT EDGE OF STH 42 NORTHBOUND SHALL BE RESTORED TO LESS THAN 2" AT THE END OF EACH DAY.

STAGE 1A - TRAFFIC

1. TRAFFIC TO REMAIN ON EXISTING ALIGNMENT.
2. TRAFFIC CONTROL WITHIN AND ADJACENT TO WORK ZONE TO BE UNDER FLAGGER CONTROL.

STAGE 1B - CONSTRUCTION

1. CONSTRUCT STH 42 SOUTHBOUND RIGHT TURN LANE ALONG WITH MONUMENT POINT RD WEST LEG INTERSECTION WIDENING. PAVE UP TO BINDER LAYER.
2. DROP OFF AT PAVEMENT EDGE OR AT STH 42 SOUTHBOUND SHALL BE RESTORED TO LESS THAN 2" AT THE END OF EACH DAY.

STAGE 1B - TRAFFIC

1. TRAFFIC TO REMAIN ON EXISTING ALIGNMENT.
2. TRAFFIC CONTROL WITHIN AND ADJACENT TO WORK ZONE TO BE UNDER FLAGGER CONTROL.

STAGE 2A - CONSTRUCTION

1. MILL STH 42 NORTHBOUND PAVEMENT.
2. PAVE STH 42 NORTHBOUND LOWER LIFT.
3. DROP OFF AT PAVEMENT EDGE OR CENTERLINE OF STH 42 SHALL BE RESTORED TO LESS THAN 2" AT THE END OF EACH DAY.

STAGE 2A - TRAFFIC

1. TRAFFIC TO REMAIN ON EXISTING ALIGNMENT.
2. TRAFFIC CONTROL WITHIN AND ADJACENT TO WORK ZONE TO BE UNDER FLAGGER CONTROL.

STAGE 2B - CONSTRUCTION

1. MILL STH 42 SOUTHBOUND PAVEMENT.
2. PAVE STH 42 SOUTHBOUND LOWER LIFT.
3. DROP OFF AT PAVEMENT EDGE OR CENTERLINE OF STH 42 SHALL BE RESTORED TO LESS THAN 2" AT THE END OF EACH DAY.

STAGE 2B - TRAFFIC

1. TRAFFIC TO REMAIN ON EXISTING ALIGNMENT.
2. TRAFFIC CONTROL WITHIN AND ADJACENT TO WORK ZONE TO BE UNDER FLAGGER CONTROL.

STAGE 3A - CONSTRUCTION

1. PAVE STH 42 NORTHBOUND TOP LIFT.

STAGE 3A - TRAFFIC

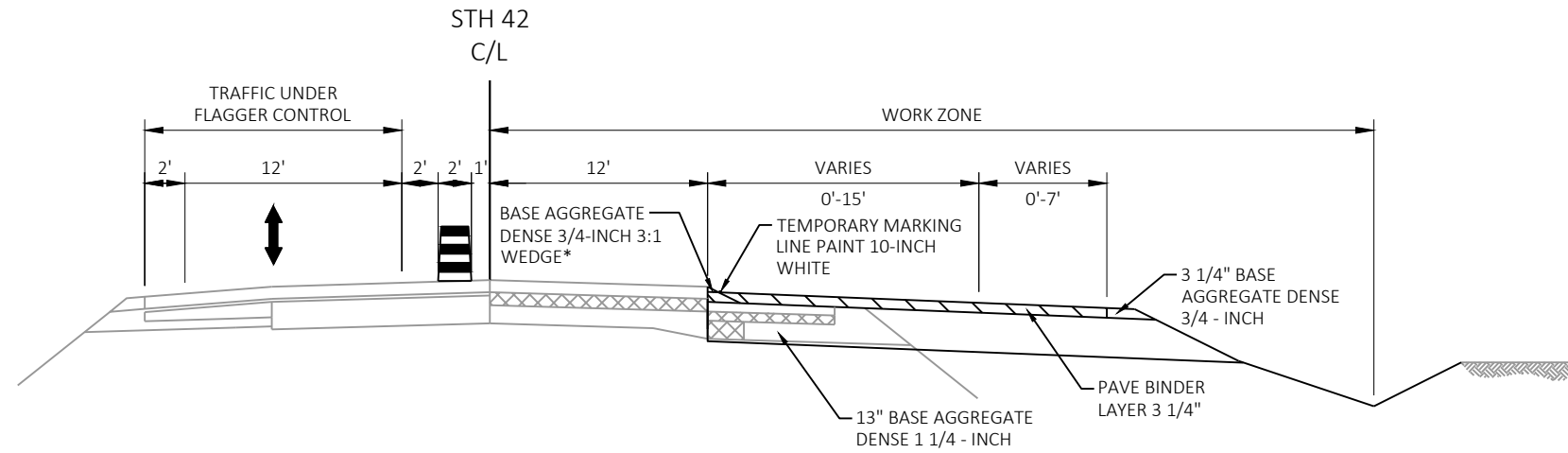
1. TRAFFIC TO REMAIN ON EXISTING ALIGNMENT.
2. TRAFFIC CONTROL WITHIN AND ADJACENT TO WORK ZONE TO BE UNDER FLAGGER CONTROL.

STAGE 3B - CONSTRUCTION

1. PAVE STH 42 SOUTHBOUND TOP LIFT.

STAGE 3B - TRAFFIC

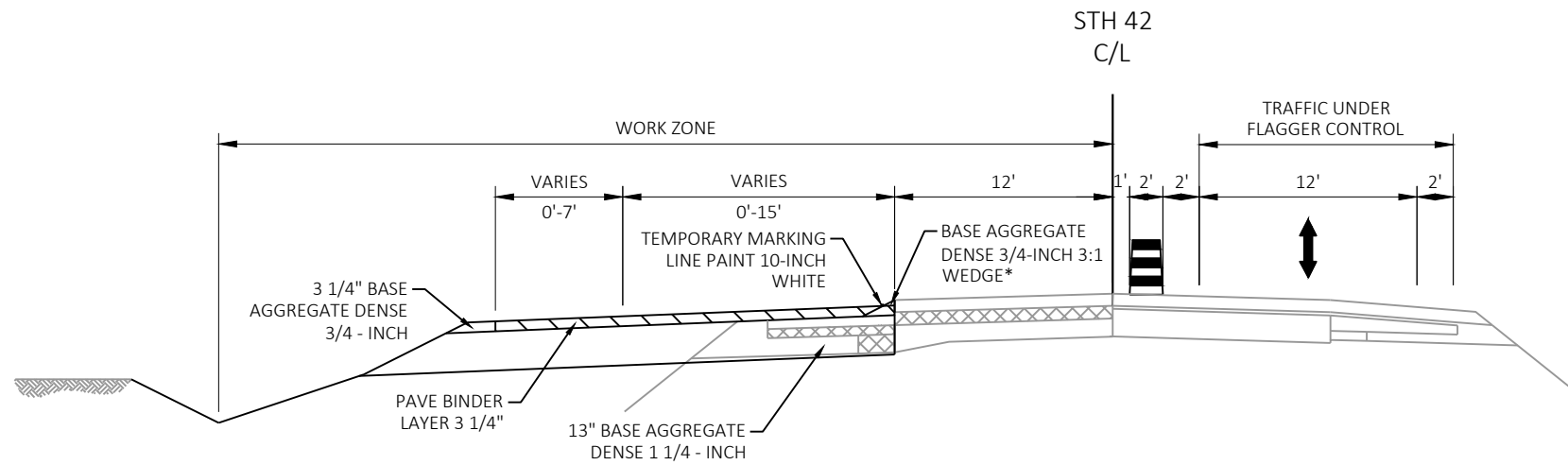
1. TRAFFIC TO REMAIN ON EXISTING ALIGNMENT.
2. TRAFFIC CONTROL WITHIN AND ADJACENT TO WORK ZONE TO BE UNDER FLAGGER CONTROL.



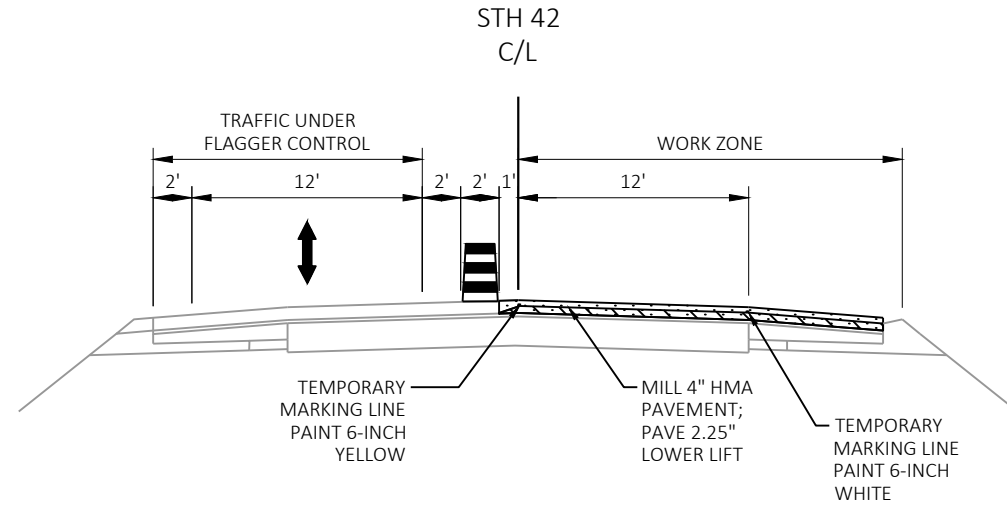
TYPICAL SECTION STAGE 1A (STH 42)
STA 339+32 RT TO 349+40 RT

NOTE

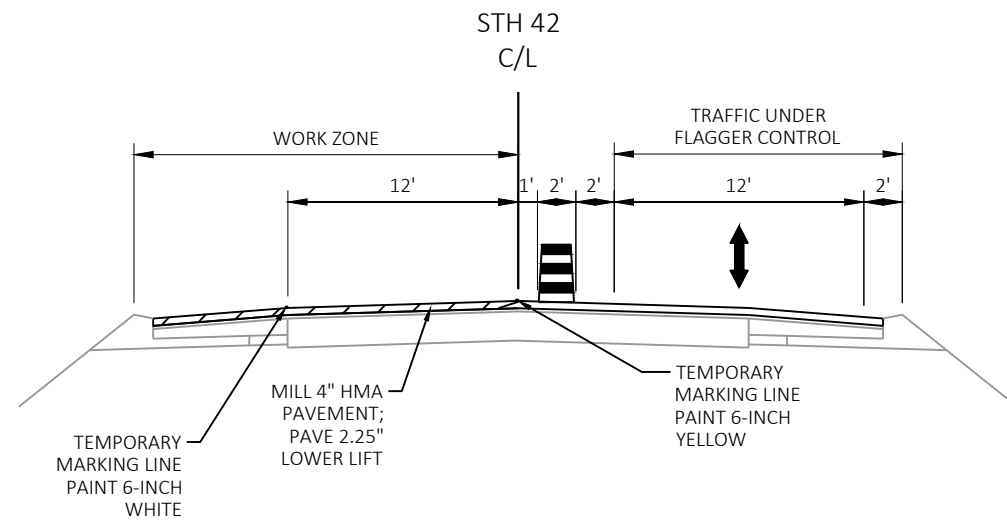
* BASE AGGREGATE DENSE WEDGE ONLY TO BE UTILIZED WHEN DROP-OFF FROM EXISTING TO PROPOSED IS GREATER THAN 2 INCHES.



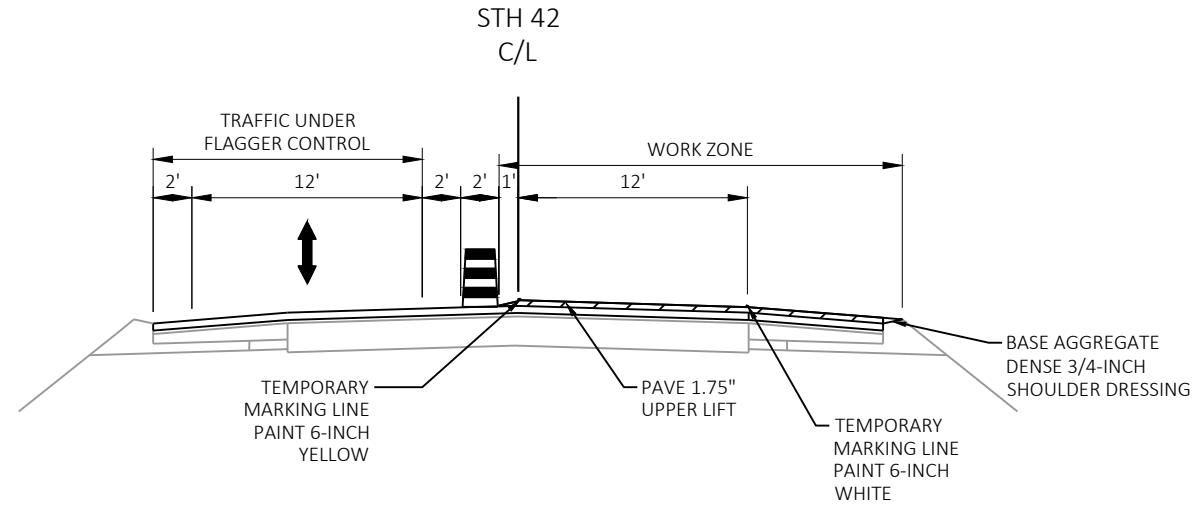
TYPICAL SECTION STAGE 1B (STH 42)
STA 339+32 LT TO STA 349+40 LT



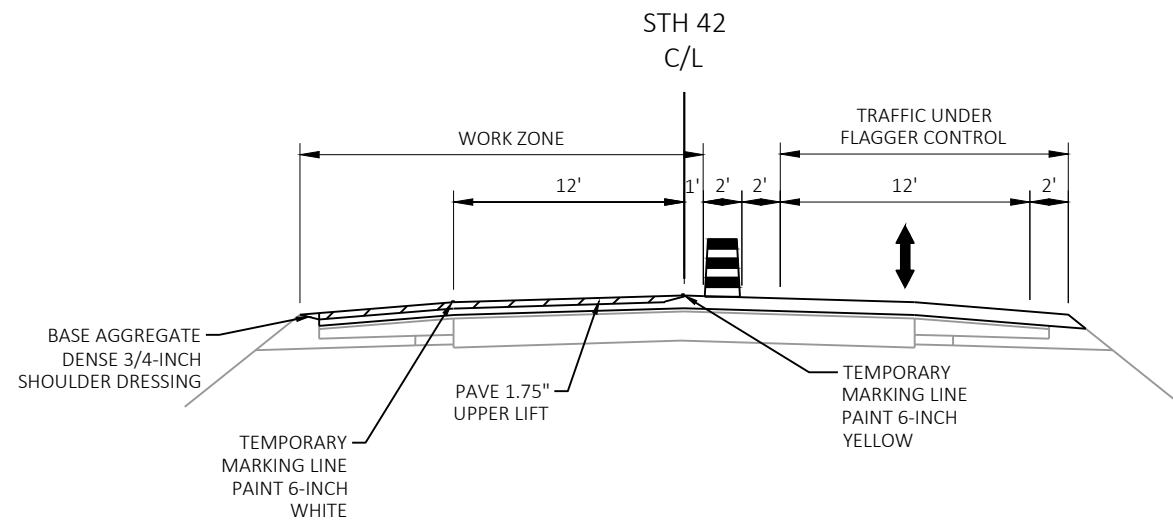
TYPICAL SECTION STAGE 2A (STH 42)
STA 6+38 RT TO STA 644+24 RT



TYPICAL SECTION STAGE 2B (STH 42)
STA 6+38 LT TO STA 644+24 LT



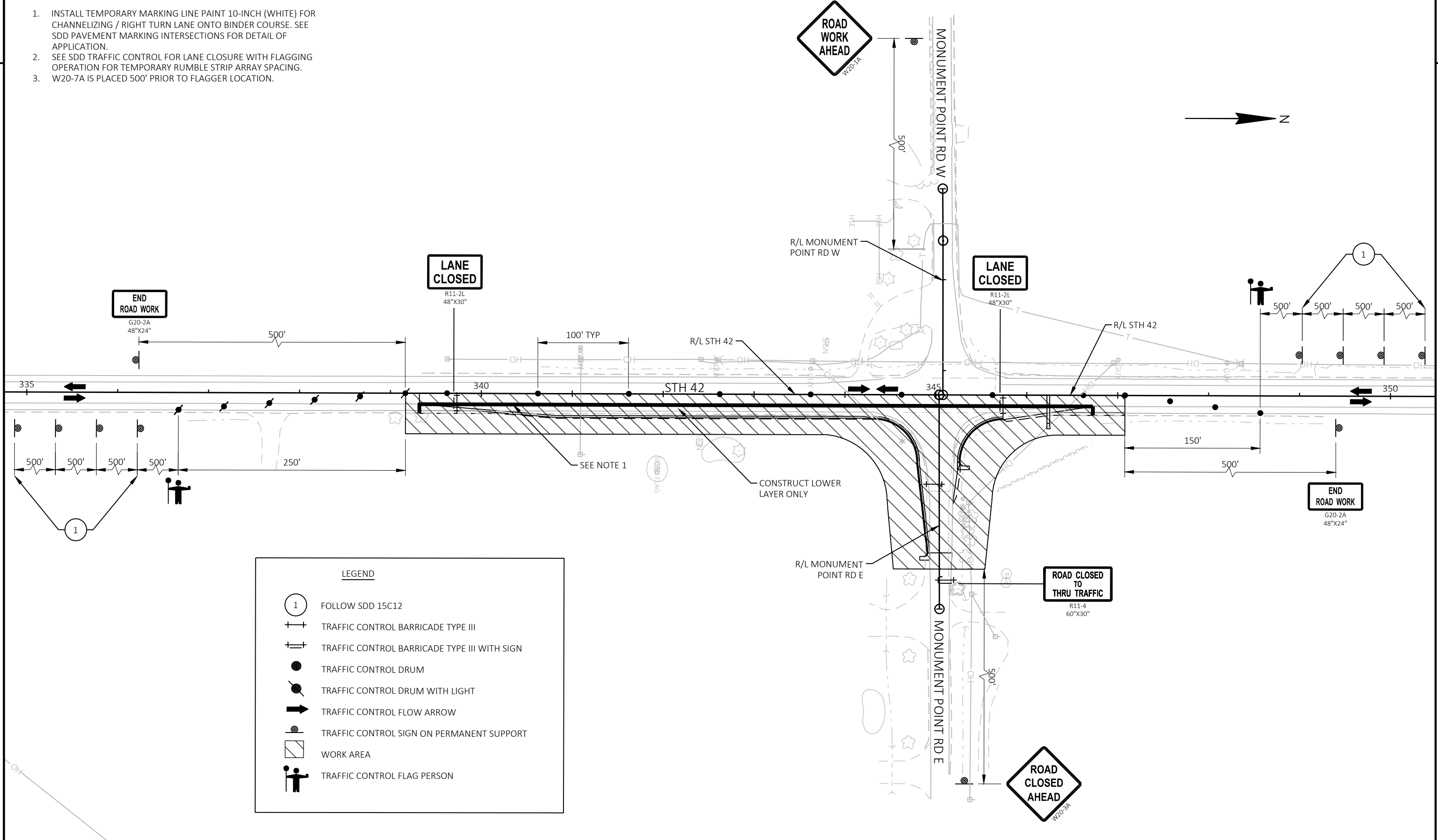
TYPICAL SECTION STAGE 3A (STH 42)
STA 6+38 RT TO STA 644+24 RT



TYPICAL SECTION STAGE 3B (STH 42)
STA 6+38 LT TO STA 644+24 LT

NOTES

- 1. INSTALL TEMPORARY MARKING LINE PAINT 10-INCH (WHITE) FOR CHANNELIZING / RIGHT TURN LANE ONTO BINDER COURSE. SEE SDD PAVEMENT MARKING INTERSECTIONS FOR DETAIL OF APPLICATION.
- 2. SEE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION FOR TEMPORARY RUMBLE STRIP ARRAY SPACING.
- 3. W20-7A IS PLACED 500' PRIOR TO FLAGGER LOCATION.

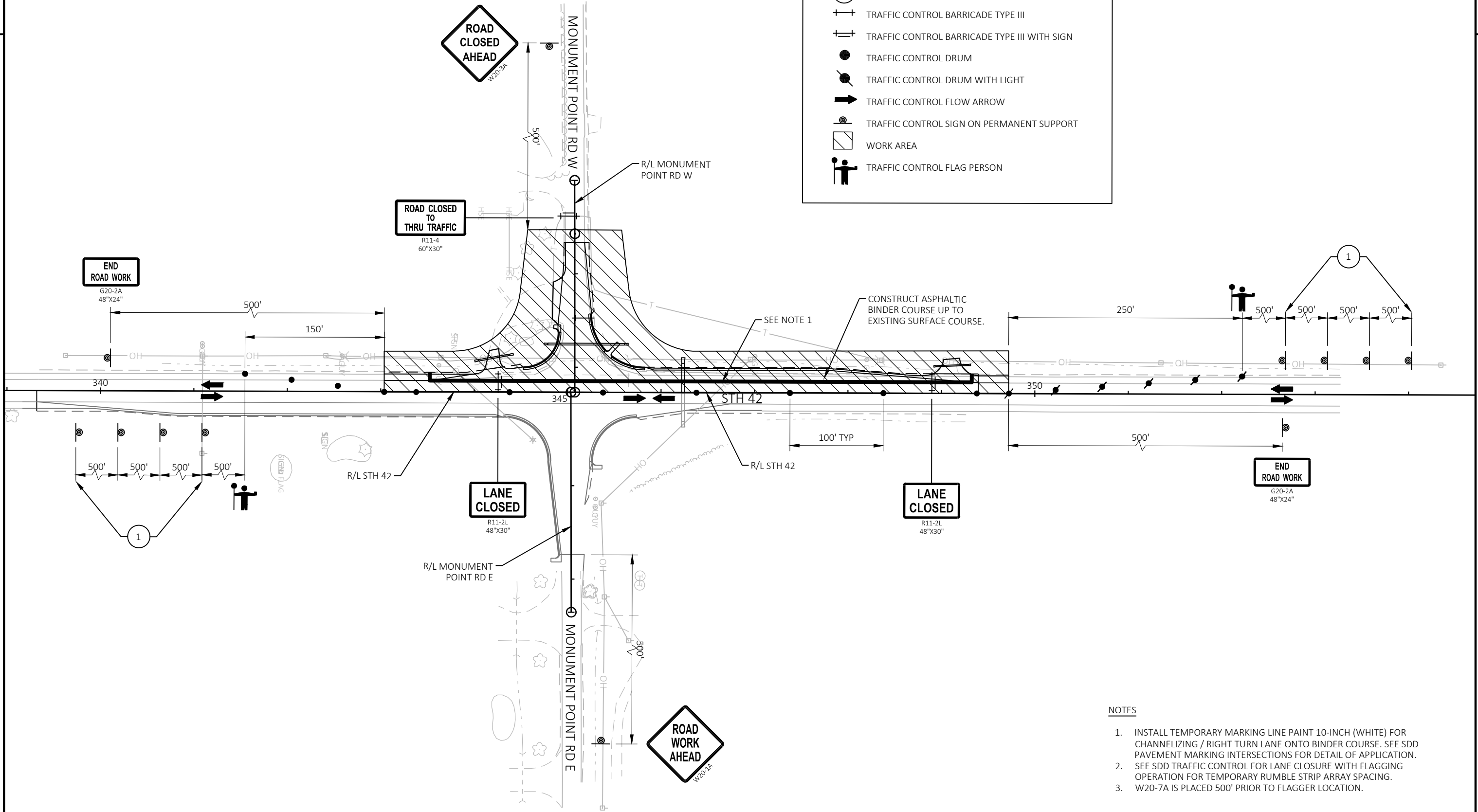


LEGEND

- 1 FOLLOW SDD 15C12
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT
- TRAFFIC CONTROL FLOW ARROW
- TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- WORK AREA
- TRAFFIC CONTROL FLAG PERSON

LEGEND

- ① FOLLOW SDD 15C12
- ⊕ TRAFFIC CONTROL BARRICADE TYPE III
- ⊕ TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT
- ➔ TRAFFIC CONTROL FLOW ARROW
- ⊙ TRAFFIC CONTROL SIGN ON PERMANENT SUPPORT
- ▨ WORK AREA
- 🚧 TRAFFIC CONTROL FLAG PERSON



- NOTES**
1. INSTALL TEMPORARY MARKING LINE PAINT 10-INCH (WHITE) FOR CHANNELIZING / RIGHT TURN LANE ONTO BINDER COURSE. SEE SDD PAVEMENT MARKING INTERSECTIONS FOR DETAIL OF APPLICATION.
 2. SEE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION FOR TEMPORARY RUMBLE STRIP ARRAY SPACING.
 3. W20-7A IS PLACED 500' PRIOR TO FLAGGER LOCATION.

Estimate Of Quantities

4140-28-71

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	12.000	12.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	765.000	765.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	280,530.000	280,530.000
0008	205.0100	Excavation Common	CY	2,480.000	2,480.000
0010	205.0200	Excavation Rock	CY	32.000	32.000
0012	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	4.000	4.000
0014	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 4140-28-71	EACH	1.000	1.000
0016	213.0100	Finishing Roadway (project) 01. 4140-28-71	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,410.000	2,410.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	3,500.000	3,500.000
0022	455.0605	Tack Coat	GAL	39,650.000	39,650.000
0024	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0026	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0028	460.2005	Incentive Density PWL HMA Pavement	DOL	39,900.000	39,900.000
0030	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	31,890.000	31,890.000
0032	460.2010	Incentive Air Voids HMA Pavement	DOL	65,830.000	65,830.000
0034	460.6223	HMA Pavement 3 MT 58-28 S	TON	38,100.000	38,100.000
0036	460.6224	HMA Pavement 4 MT 58-28 S	TON	27,500.000	27,500.000
0038	460.6424	HMA Pavement 4 MT 58-28 H	TON	225.000	225.000
0040	465.0105	Asphaltic Surface	TON	640.000	640.000
0042	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0044	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	8.000	8.000
0046	465.0520	Asphaltic Rumble Strips, Shoulder	LF	113,370.000	113,370.000
0048	465.0560	Asphaltic Rumble Strips, Centerline	LF	54,600.000	54,600.000
0050	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	7.000	7.000
0052	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	4.000	4.000
0054	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	138.000	138.000
0056	520.3430	Culvert Pipe Class III-A Non-metal 30-Inch	LF	78.000	78.000
0058	520.4118	Culvert Pipe Class IV 18-Inch	LF	82.000	82.000
0060	520.8000	Concrete Collars for Pipe	EACH	7.000	7.000
0062	520.8700	Cleaning Culvert Pipes	EACH	6.000	6.000
0064	521.1515	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 15-Inch 6 to 1	EACH	2.000	2.000
0066	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	2.000	2.000
0068	521.1721	Apron Endwalls for Pipe Arch Sloped Side Drains Steel 21x15-Inch 6 to 1	EACH	2.000	2.000
0070	521.3115	Culvert Pipe Corrugated Steel 15-Inch	LF	34.000	34.000
0072	521.3721	Pipe Arch Corrugated Steel 21x15-Inch	LF	34.000	34.000
0074	522.2319	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	LF	65.000	65.000
0076	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	2.000	2.000
0078	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	405.000	405.000
0080	602.3010	Concrete Surface Drains	CY	4.000	4.000
0082	606.0200	Riprap Medium	CY	47.000	47.000
0084	618.0100	Maintenance And Repair of Haul Roads (project) 01. 4140-28-71	EACH	1.000	1.000
0086	619.1000	Mobilization	EACH	1.000	1.000
0088	624.0100	Water	MGAL	82.000	82.000
0090	625.0500	Salvaged Topsoil	SY	3,030.000	3,030.000
0092	627.0200	Mulching	SY	500.000	500.000
0094	628.1504	Silt Fence	LF	790.000	790.000
0096	628.1520	Silt Fence Maintenance	LF	790.000	790.000
0098	628.2004	Erosion Mat Class I Type B	SY	3,030.000	3,030.000

Estimate Of Quantities

4140-28-71

Line	Item	Item Description	Unit	Total	Qty
0100	628.7504	Temporary Ditch Checks	LF	65.000	65.000
0102	628.7555	Culvert Pipe Checks	EACH	35.000	35.000
0104	628.7570	Rock Bags	EACH	25.000	25.000
0106	629.0210	Fertilizer Type B	CWT	2.000	2.000
0108	630.0120	Seeding Mixture No. 20	LB	85.000	85.000
0110	630.0200	Seeding Temporary	LB	60.000	60.000
0112	630.0500	Seed Water	MGAL	34.000	34.000
0114	633.5200	Markers Culvert End	EACH	16.000	16.000
0116	638.2102	Moving Signs Type II	EACH	3.000	3.000
0118	642.5201	Field Office Type C	EACH	1.000	1.000
0120	643.0300	Traffic Control Drums	DAY	2,430.000	2,430.000
0122	643.0420	Traffic Control Barricades Type III	DAY	130.000	130.000
0124	643.0715	Traffic Control Warning Lights Type C	DAY	510.000	510.000
0126	643.0900	Traffic Control Signs	DAY	2,350.000	2,350.000
0128	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0130	643.3165	Temporary Marking Line Paint 6-Inch	LF	630,110.000	630,110.000
0132	643.3265	Temporary Marking Line Paint 10-Inch	LF	3,350.000	3,350.000
0134	643.5000	Traffic Control	EACH	1.000	1.000
0136	645.0120	Geotextile Type HR	SY	105.000	105.000
0138	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	251,070.000	251,070.000
0140	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	1,675.000	1,675.000
0142	650.4500	Construction Staking Subgrade	LF	1,300.000	1,300.000
0144	650.5000	Construction Staking Base	LF	1,300.000	1,300.000
0146	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	405.000	405.000
0148	650.6000	Construction Staking Pipe Culverts	EACH	10.000	10.000
0150	650.8000	Construction Staking Resurfacing Reference	LF	64,121.000	64,121.000
0152	650.9911	Construction Staking Supplemental Control (project) 01. 4140-28-71	EACH	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes	LF	1,300.000	1,300.000
0156	690.0150	Sawing Asphalt	LF	2,230.000	2,230.000
0158	690.0250	Sawing Concrete	LF	50.000	50.000
0160	740.0440	Incentive IRI Ride	DOL	96,600.000	96,600.000
0162	ASP.1TOA	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
0164	ASP.1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	3,040.000	3,040.000
0166	SPV.0035	Special 01. Foundation Backfill	CY	1,060.000	1,060.000
0168	SPV.0060	Special 01. Grading, Shaping and Finishing Culvert Pipes and Apron Endwalls	EACH	11.000	11.000

REMOVING SMALL PIPE CULVERTS

CATEGORY	ROADWAY	STATION	LOCATION	DESCRIPTION	203.0100 EACH	REMARKS
0010	<u>STH 42</u>					
		49+14	LT/RT	24-INCH CPRC	1	
		76+63	LT/RT	24-INCH CPRC	1	
		110+92	LT/RT	30-INCH CPRC	2	1-8' PIPE SECTION LT & RT
		161+92	LT/RT	30-INCH CPRC	1	
		183+12	LT/RT	24-INCH CPRC	2	1-8' PIPE SECTION LT & RT
		225+28	LT/RT	24-INCH CPRC	1	1-8' PIPE SECTION RT
		344+21	LT	18-INCH CPRC	1	DRIVEWAY
		346+24	LT/RT	19x30-INCH CPRCHE	1	
		349+15	LT	12-INCH CMP	1	DRIVEWAY
0010	<u>MONUMENT POINT RD (W)</u>					
		1+75	LT/RT	18-INCH CPRC	1	
				TOTAL 0010	12	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	ROADWAY	STATION	LOCATION	204.0115 SY	REMARKS
0010	<u>STH 42</u>				
		6+38	LT/RT	9	BEGIN PROJECT
		26+62	LT	7	WALKER RD
		53+00	LT/RT	8	TODEY RD
		79+00	LT/RT	14	DUNN RD
		97+58	RT	6	MAPLE HEIGHTS CIR E
		105+36	RT	6	MAPLE HEIGHTS CIR E
		132+00	LT/RT	14	WHITEFISH BAY RD
		158+28	LT	7	CTH HH
		184+50	RT	7	CLARKS LAKE RD
		211+00	LT	6	FISH RD
		239+75	LT/RT	14	TOWN LINER RD
		265+92	RT	6	SUNRISE RD
		292+37	LT/RT	15	CARLSVILLE RD
		318+93	LT	7	DAUBNER LN
		345+00	LT/RT	10	MONUMENT POINT RD
		372+83	RT	6	CHERRY TART LN
		402+63	LT/RT	13	SUNNY SLOPE RD
		418+53	LT	8	CTH G
		430+44	RT	13	PLUM BOTTOM RD
		495+21	LT	5	HOLIDAY DR
		514+75	RT	10	SUNNY POINT RD
		526+29	LT/RT	12	WILLOW RD
		593+51	LT/RT	12	HILLSIDE RD
		644+24	LT/RT	9	END PROJECT
		VARIES	LT/RT	541	ASPHALTIC DRIVEWAYS
				TOTAL 0010	765

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	ROADWAY	STATION TO	STATION	LOCATION	204.0120 SY
0010	<u>STH 42</u>				
		6+38	- 26+62	LT/RT	8,670
		26+62	- 53+00	LT/RT	11,630
		53+00	- 79+00	LT/RT	11,870
		79+00	- 97+58	LT/RT	8,320
		97+58	- 105+36	LT/RT	3,620
		105+36	- 132+00	LT/RT	11,770
		132+00	- 158+28	LT/RT	11,770
		158+28	- 184+50	LT/RT	11,580
		184+50	- 211+00	LT/RT	11,590
		211+00	- 239+75	LT/RT	12,670
		239+75	- 265+92	LT/RT	11,620
		265+92	- 292+37	LT/RT	12,010
		292+37	- 318+93	LT/RT	12,120
		318+93	- 345+00	LT/RT	11,030
		345+00	- 372+83	LT/RT	11,770
		372+83	- 402+63	LT/RT	13,080
		402+63	- 418+53	LT/RT	7,340
		418+53	- 430+44	LT/RT	5,320
		430+44	- 495+21	LT/RT	28,090
		495+21	- 514+75	LT/RT	8,500
		514+75	- 526+29	LT/RT	5,470
		526+29	- 593+51	LT/RT	28,980
		593+51	- 644+24	LT/RT	21,710
				TOTAL 0010	280,530

Division	From/To Station	Location	Excavation Common (1) * (item #205.0100)		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)		Mass Ordinate +/- (7)	Waste	Comment:
			Cut (2)	EBS Excavation (3)				Factor 1.25				
1	339+32 to 349+40	STH 42	606	0	0	606	118	147	458	458		
	10+65 to 11+74	Monument Point Rd E	96	0	0	96	43	54	42	42		
Division 1 Subtotal			701	0	0	701	161	201	500	500		
2	339+32 to 349+40	STH 42	405	0	0	405	63	79	326	326		
	0+66 to 1+60	Monument Point Rd W	81	0	0	81	4	5	77	77		
Division 2 Subtotal			486	0	0	486	67	84	402	402		
Undistributed			0	0								
Grand Total			1,187	0	0	1,187	228	284	903	903		
Total Common Exc			1,187									

- 1) Excavation Common 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) Expanded Fill. Factor = 1.25
- 6) 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

* Additional Quantities Shown Elsewhere

EXCAVATION ROCK

CATEGORY	ROADWAY	STATION TO	STATION	LOCATION	205.0200 CY	REMARKS
0010	STH 42	344+31 -	344+78	LT	1	MONUMENT POINT RD SW QUAD FOR DITCH CUT
		345+22 -	346+46	RT	18	MONUMENT POINT RD NE QUAD FOR DITCH CUT
		345+58 -	348+25	LT	13	MONUMENT POINT RD NW QUAD FOR DITCH CUT
TOTAL 0010					32	

PREPARE FOUNDATION FOR ASPHALTIC PAVING (4140-28-71)

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	211.0101.01 EACH
0010	<u>STH 42</u>	BEGIN	-	END	PROJECT	<u>1</u>
TOTAL 0010						1

FINISHING ROADWAY (4140-28-71)

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	213.0100.01 EACH
0010	<u>STH 42</u>	BEGIN	-	END	LT/RT	<u>1</u>
TOTAL 0010						1

BASE AGGREGATE ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	*	
						305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
0010	<u>STH 42</u>	6+38	-	26+62	LT/RT	75	-
		26+62	-	53+00	LT/RT	95	380
		53+00	-	79+00	LT/RT	92	363
		79+00	-	97+58	LT/RT	65	-
		97+58	-	105+36	LT/RT	27	-
		105+36	-	132+00	LT/RT	95	-
		132+00	-	158+28	LT/RT	94	-
		158+28	-	184+50	LT/RT	95	347
		184+50	-	211+00	LT/RT	96	-
		211+00	-	239+75	LT/RT	103	-
		239+75	-	265+92	LT/RT	94	-
		265+92	-	292+37	LT/RT	95	-
		292+37	-	318+93	LT/RT	95	-
		318+93	-	345+00	LT/RT	119	1,274
		345+00	-	372+83	LT/RT	155	1,137
		372+83	-	402+63	LT/RT	108	-
		402+63	-	418+53	LT/RT	56	-
		418+53	-	430+44	LT/RT	43	-
		430+44	-	495+21	LT/RT	238	-
		495+21	-	514+75	LT/RT	71	-
		514+75	-	526+29	LT/RT	40	-
		526+29	-	593+51	LT/RT	248	-
		593+51	-	644+24	LT/RT	186	-
TOTAL 0010						2,385	3,500

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

HMA PERCENT WITHIN LIMITS (PWL) ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	460.0105.S	460.0110.S
						HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
0010	STH 42	BEGIN	-	END	LT/RT	1	1
TOTAL 0010						1	1

HMA ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	455.0605	460.6223	460.6224	460.6424	465.0105	465.0110	465.0120	465.0520	465.0560
						TACK COAT GAL	HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 H TON	ASPHALTIC SURFACE TON	ASPHALTIC SURFACE PATCHING TON	ASPHALTIC DRIVEWAYS AND FIELD ENTRANCES TON	ASPHALTIC RUMBLE STRIPS, SHOULDER LF	ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	STH 42	6+38	-	26+62	LT/RT	1,214	1,179	850	--	--	--	--	3,897	1,824
		26+62	-	53+00	LT/RT	1,627	1,581	1,139	--	155	--	--	4,777	2,239
		53+00	-	79+00	LT/RT	1,661	1,614	1,163	--	149	--	--	4,250	2,198
		79+00	-	97+58	LT/RT	1,164	1,131	815	--	--	--	--	2,904	1,461
		97+58	-	105+36	LT/RT	506	492	355	--	--	--	--	1,206	376
		105+36	-	132+00	LT/RT	1,647	1,600	1,153	--	--	--	--	4,468	2,265
		132+00	-	158+28	LT/RT	1,648	1,601	1,153	--	--	--	--	4,440	2,228
		158+28	-	184+50	LT/RT	1,621	1,575	1,135	--	142	--	--	3,906	2,222
		184+50	-	211+00	LT/RT	1,622	1,576	1,136	--	--	--	--	4,964	2,251
		211+00	-	239+75	LT/RT	1,773	1,723	1,241	--	--	--	--	5,203	2,475
		239+75	-	265+92	LT/RT	1,627	1,580	1,139	--	--	--	--	4,711	2,217
		265+92	-	292+37	LT/RT	1,681	1,633	1,177	--	--	--	--	4,440	2,245
		292+37	-	318+93	LT/RT	1,696	1,647	1,187	--	--	--	--	4,443	2,255
		318+93	-	345+00	LT/RT	1,670	1,453	1,047	122	51	--	8	4,809	2,205
		345+00	-	372+83	LT/RT	1,789	1,600	1,153	103	144	--	--	5,061	2,387
		372+83	-	402+63	LT/RT	1,830	1,778	1,281	--	--	--	--	5,500	2,579
		402+63	-	418+53	LT/RT	1,027	998	719	--	--	--	--	2,671	1,191
		418+53	-	430+44	LT/RT	744	723	521	--	--	--	--	2,103	790
		430+44	-	495+21	LT/RT	3,931	3,819	2,752	--	--	--	--	12,319	5,677
		495+21	-	514+75	LT/RT	1,189	1,155	832	--	--	--	--	3,596	1,552
		514+75	-	526+29	LT/RT	749	728	525	--	--	--	--	1,816	755
		526+29	-	593+51	LT/RT	4,057	3,964	2,840	--	--	--	--	12,631	6,331
		593+51	-	644+24	LT/RT	3,177	2,952	2,189	--	--	--	--	9,254	4,878
		BEGIN	-	END	LT/RT	--	--	--	--	--	100	--	--	--
TOTAL 0010						39,650	38,100	27,500	225	640	100	8	113,370	54,600

PWL MIXTURE USE TABLE

ROADWAY	LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
								MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
STH 42	12-FOOT NB LANE	6+37 - 644+24	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	8,350	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	PWL INCENTIVE DENSITY HMA PAVEMENT 460.2005
STH 42	12-FOOT NB LANE	6+37 - 644+24	LOWER LAYER	MILLED ASPHALTIC SURFACE	3 MT 58-28 S	11,600	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	PWL INCENTIVE DENSITY HMA PAVEMENT 460.2005
STH 42	12-FOOT SB LANE	6+37 - 644+24	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	8,350	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	PWL INCENTIVE DENSITY HMA PAVEMENT 460.2005
STH 42	12-FOOT SB LANE	6+37 - 644+24	LOWER LAYER	MILLED ASPHALTIC SURFACE	3 MT 58-28 S	11,600	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	PWL INCENTIVE DENSITY HMA PAVEMENT 460.2005
STH 42	7-FOOT TO 10-FOOT OUTSIDE SHOULDER	6+37 - 644+24	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	8,436	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 42	7-FOOT TO 10-FOOT OUTSIDE SHOULDER	6+37 - 644+24	LOWER LAYER	MILLED ASPHALTIC SURFACE	3 MT 58-28 S	12,163	2.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 42	TURN LANES AND BYPASS LANES (EXCLUDING MONUMENT POINT ROAD)	VARIES	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	1,859	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 42	TURN LANES AND BYPASS LANES (EXCLUDING MONUMENT POINT ROAD)	VARIES	LOWER LAYER	MILLED ASPHALTIC SURFACE	3 MT 58-28 S	2,841	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 42	MONUMENT POINT ROAD TURN LANES	VARIES	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 H	225	1.75"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 42	MONUMENT POINT ROAD TURN LANES	VARIES	LOWER LAYER	BASE AGGREGATE DENSE 1 1/4-INCH	3 MT 58-28 S	420	3.25"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE

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CULVERT ITEMS

* 205.0100 208.1500.S 520.1024 520.1030 520.3424 520.3430 520.4118 520.8000 521.1515 521.1518 521.1721 521.3115 521.3721 522.2319 522.2619 633.5200

CAT.	ROADWAY	STATION	OFFSET	EXCAVATION COMMON CY	TEMPORARY LANE SHIFT DURING WORK EACH	APRON ENDWALLS FOR CULVERT PIPE		CULVERT PIPE CLASS III-A NON-METAL		CULVERT PIPE CLASS IV 18-INCH LF	CONCRETE COLLARS FOR PIPE EACH	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL		APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL 21X15-INCH 6 TO 1 EACH	CULVERT PIPE CORRUGATED STEEL 15-INCH LF	PIPE ARCH CORRUGATED STEEL 21X15-INCH LF	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL CLASS HE-III 19X30-INCH LF	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	MARKERS CULVERT END EACH	INLET*** ELEVATION	OUTLET*** ELEVATION	
						24-INCH EACH	30-INCH EACH	24-INCH LF	30-INCH LF			15-INCH 6 TO 1 EACH	18-INCH 6 TO 1 EACH									
0010	STH 42	49+14	LT/RT	245	--	2	--	58	--	--	--	--	--	--	--	--	--	--	2	692.22-LT	691.94-RT	
		76+63	LT/RT	260	--	2	--	56	--	--	2	--	--	--	--	--	--	--	2	702.88-LT	702.20-RT	
		110+92	LT/RT	--	--	--	2	--	16	--	2	--	--	--	--	--	--	--	2	693.49-RT	693.47-LT	
		161+92	LT/RT	378	2	--	2	--	62	--	--	--	--	--	--	--	--	--	2	694.61-LT	694.55-RT	
		183+12	LT/RT	--	--	2	--	16	--	--	2	--	--	--	--	--	--	--	2	712.11-LT	711.02-RT	
		225+27	RT	--	--	1	--	8	--	--	1	--	--	--	--	--	--	--	2	--	727.73-RT	
		344+21	LT	--	--	--	--	--	--	--	--	--	2	--	34	--	--	--	--	--	747.15-LT	746.52-LT
		346+24	LT/RT	295	2	--	--	--	--	--	--	--	--	--	--	--	65	2	2	745.20-LT	744.55-RT	
		349+11	LT	--	--	--	--	--	--	--	--	2	--	34	--	--	--	--	--	--	747.51-LT	747.36-LT
0010	MOUNMENT POINT RD (W)	1+75	LT	115	--	--	--	--	82	--	--	--	2	--	--	--	--	--	2	746.51-LT	745.91-RT	
TOTAL 0010				1,293	4	7	4	138	78	82	7	2	2	2	34	34	65	2	16			

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE
 ** FOR INFORMATION PURPOSES ONLY
 *** PIPE INVERT AT END OF PIPE FOR INFORMATION ONLY; FIELD VERIFY

CULVERT ITEMS (CONT.)

SPV.0035.01 SPV.0060.01 GRADING, SHAPING AND FINISHING CULVERT PIPES AND ENDWALLS

CATEGORY	ROADWAY	STATION	OFFSET	FOUNDATION BACKFILL CY	SALVAGED TOPSOIL SY**	EROSION MAT CLASS I TYPE B SY**	FERTILIZER TYPE B CWT**	SEEDING MIXTURE NO. 20 LB**	SEED WATER MGAL	EACH	REMARKS	INLET*** ELEVATION	OUTLET*** ELEVATION
		76+63	LT/RT	185	65	65	0.04	2	0.9	2		702.88-LT	702.20-RT
		110+92	LT/RT	--	146	146	0.09	4	2.1	2		693.49-RT	693.47-LT
		161+92	LT/RT	390	107	107	0.07	3	1.5	2		694.61-LT	694.55-RT
		183+12	LT/RT	--	137	137	0.09	3	1.9	2		712.11-LT	711.02-RT
		225+27	RT	--	37	37	0.02	1	0.5	1		--	727.73-RT
		344+21	LT	--	--	--	--	--	--	--	DRIVEWAY	747.15-LT	746.52-LT
		346+24	LT/RT	260	--	--	--	--	--	--		745.20-LT	744.55-RT
		349+11	LT	--	--	--	--	--	--	--	DRIVEWAY	747.51-LT	747.36-LT
0010	MOUNMENT POINT RD (W)	1+75	LT	50	--	--	--	--	--	--		746.51-LT	745.91-RT
TOTAL 0010				1,060	567	567	0.36	15	8	11			

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE
 ** FOR INFORMATION PURPOSES ONLY
 *** PIPE INVERT AT END OF PIPE FOR INFORMATION ONLY; FIELD VERIFY

CLEANING CULVERT PIPES

CATEGORY	ROADWAY	STATION	LOCATION	DESCRIPTION	520.8700 EACH
0010	<u>STH42</u>				
		83+04	LT/RT	24-INCH CPRC	1
		94+37	LT/RT	24-INCH CPRC	1
		457+75	LT/RT	36-INCH CPRC	1
		468+97	LT/RT	24-INCH CPRC	1
		592+02	LT/RT	24-INCH CPRC	1
		602+02	LT/RT	30-INCH CPRC	1
				TOTAL 0010	6

MAINTENANCE AND REPAIR OF HAUL ROADS (4140-28-71)

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	618.0100.01 EACH
0010	<u>STH42</u>					
		BEGIN	-	END	LT/RT	1
					TOTAL 0010	1

CONCRETE ITEMS

CATEGORY	ROADWAY	STATION	STATION	LOCATION	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	602.3010 CONCRETE SURFACE DRAINS CY	* 606.0200 RIPRAP MEDIUM CY	* 645.0120 GEOTEXTILE TYPE HR SY	
0010	<u>STH42</u>								
		BEGIN	-	END	MONUMENT POINT RD	405	4	6	40
					TOTAL 0010	405	4	6	40

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MOBILIZATION

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	619.1000 EACH
0010	<u>STH42</u>					
		BEGIN	-	END	LT/RT	1
					TOTAL 0010	1

3

3

EROSION CONTROL ITEMS

CATEGORY	ROADWAY	STATION TO	STATION	LOCATION	* 606.0200 RIPRAP MEDIUM		628.1504 SILT FENCE		628.1520 SILT FENCE MAINTENANCE		628.2004 EROSION MAT CLASS I TYPE B		628.7504 TEMPORARY DITCH CHECKS		628.7555 CULVERT PIPE CHECKS		628.7570 ROCK BAGS		* 645.0120 GEOTEXTILE TYPE HR	
					CY	LF	LF	SY	LF	EACH	EACH	SY	SY							
0010	<u>STH42</u>		49+14	LT/RT	3	--	--	--	--	--	3	--	--	8	--	--	8	--	--	8
			76+63	LT/RT	3	--	--	--	--	--	3	--	--	8	--	--	8	--	--	8
			110+92	LT/RT	3	--	--	--	--	--	5	--	--	8	--	--	8	--	--	8
			161+92	LT/RT	3	--	--	--	--	--	5	--	--	8	--	--	8	--	--	8
			183+12	LT/RT	3	--	--	--	--	--	3	--	--	8	--	--	8	--	--	8
			225+27	LT/RT	3	--	--	--	--	--	--	--	--	8	--	--	8	--	--	8
		339+30	-	349+32	15	630	630	2,422	50	9	20	8								
0010	<u>UNDISTRIBUTED</u>				8	160	160	608	15	7	5	17								
TOTAL 0010					41	790	790	3,030	65	35	25	65								

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

WATER

CATEGORY	ROADWAY	STATION TO	STATION	LOCATION	624.0100 MGAL
0010	<u>STH42</u>	BEGIN	-	END	82
TOTAL 0010					82

RESTORATION ITEMS

CATEGORY	ROADWAY	STATION TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL		627.0200 MULCHING		629.0210 FERTILIZER TYPE B		630.0120 SEEDING MIXTURE NO. 20		630.0200 SEEDING TEMPORARY		630.0500 SEED WATER	
					SY	SY	CWT	LB	LB	MGAL						
0010	<u>STH42</u>		339+30	-	349+32	LT/RT	2,422	--	1.73	65	40	27.2				
0010	<u>UNDISTRIBUTED</u>				608	500	0.27	20	20	6.8						
TOTAL 0010					3,030	500	2.00	85	60	34.0						

MOVING SIGNS TYPE II

CATEGORY	STATION TO	STATION	LOCATION	SIGN CODE	638.2102 EACH	
0010	BEGIN	-	END	MONUMENT POINT RD	R1-1	1
				MONUMENT POINT RD	R1-1	1
				STH 42	W14-3	1
TOTAL 0010					3	

3

FIELD OFFICE TYPE C

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	642.5201 EACH
0010	<u>STH42</u>	BEGIN	-	END	LT/RT	<u>1</u>
TOTAL 0010						1

TRAFFIC CONTROL

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	643.5000 EACH
0010	<u>STH42</u>	BEGIN	-	END	LT/RT	<u>1</u>
TOTAL 0010						1

3

TRAFFIC CONTROL ITEMS

CATEGORY	ROADWAY	STAGE	STATION	TO	STATION	LOCATION	DAYS	* TRAFFIC CONTROL ITEMS										REMARKS	
								305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	643.0300 TRAFFIC CONTROL DRUMS EACH** DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH** DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH** DAY	643.0900 TRAFFIC CONTROL SIGNS EACH** DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH** DAY						
0010	<u>MONUMENT POINT RD</u>	1A (NB)	339+29	-	349+32	LT/RT	4	10	18	72	4	16	6	24	15	60	--	--	FLAGGING OPERATION
		1B (SB)	339+29	-	349+32	LT/RT	4	10	18	72	4	16	6	24	15	60	--	--	FLAGGING OPERATION
0010	<u>STH42</u>	PRIOR TO START	6+37.89			NB	--	--	--	--	--	--	--	--	--	--	1	7	
		2A (NB)	BEGIN	-	END		11	--	50	550	2	22	10	110	8	88	--	--	FLAGGING OPERATION
							22	--	--	--	--	--	--	--	16	352	--	--	SIDE ROADS
		PRIOR TO START	644+24			SB	--	--	--	--	--	--	--	--	--	--	1	7	
		2B (SB)	BEGIN	-	END		11	--	50	550	2	22	10	110	8	88	--	--	FLAGGING OPERATION
							23	--	--	--	--	--	--	--	19	437	--	--	SIDE ROADS
		3A (NB)	BEGIN	-	END		10	--	50	500	2	20	10	100	8	80	--	--	FLAGGING OPERATION
							22	--	--	--	--	--	--	--	16	352	--	--	SIDE ROADS
		3B (SB)	BEGIN	-	END		10	--	50	500	2	20	10	100	8	80	--	--	FLAGGING OPERATION
							23	--	--	--	--	--	--	--	19	437	--	--	SIDE ROADS
0010	<u>UNDISTRIBUTED</u>							5		186		14		42		316		--	
TOTAL 0010								25		2,430		130		510		2,350		14	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE
 **FOR INFORMATIONAL PURPOSES ONLY

3

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	643.3165		643.3265
					TEMPORARY MARKING		TEMPORARY MARKING
					LINE PAINT		LINE PAINT
		6-INCH		10-INCH			
					YELLOW	WHITE	WHITE
					LF	LF	LF
0010	STH 42						
	6+38	-	26+62	LT & RT	12,145	8,012	--
	26+62	-	53+00	LT & RT	15,828	9,981	--
	53+00	-	79+00	LT & RT	15,594	9,853	339
	79+00	-	97+58	LT & RT	11,163	6,922	233
	97+58	-	105+36	LT & RT	4,654	2,734	--
	105+36	-	132+00	LT & RT	15,989	10,247	332
	132+00	-	158+28	LT & RT	15,768	10,292	225
	158+28	-	184+50	LT & RT	15,729	10,015	--
	184+50	-	211+00	LT & RT	15,903	10,376	--
	211+00	-	239+75	LT & RT	17,251	10,863	--
	239+75	-	265+92	LT & RT	15,700	9,944	--
	265+92	-	292+37	LT & RT	15,870	10,228	370
	292+37	-	318+93	LT & RT	15,929	10,264	405
	318+93	-	345+00	LT & RT	15,629	10,008	705
	345+00	-	372+83	LT & RT	18,388	10,493	399
	372+83	-	402+63	LT & RT	17,874	11,476	--
	402+63	-	418+53	LT & RT	9,547	6,005	--
	418+53	-	430+44	LT & RT	7,141	4,399	--
	430+44	-	469+72	LT & RT	23,566	15,488	--
	469+72	-	495+21	LT & RT	15,298	10,205	--
	495+21	-	514+75	LT & RT	11,715	7,428	--
	514+75	-	526+29	LT & RT	6,932	4,155	--
	526+29	-	593+51	LT & RT	40,335	26,324	202
	593+51	-	644+24	LT & RT	30,342	20,110	141
TOTAL 0010					630,110	3,350	

3

PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	STATION	TO	STATION	LOCATION	646.2040		646.4040
						MARKING LINE		MARKING LINE
						GROOVED WET		GROOVED WET
		REF EPOXY		REF EPOXY				
		6-INCH		10-INCH				
						LF	LF	
0010	STH 42							
		6+38	-	26+62	LT & RT	8,054	--	
		26+62	-	53+00	LT & RT	10,267	--	
		53+00	-	79+00	LT & RT	10,124	170	
		79+00	-	97+58	LT & RT	7,182	117	
		97+58	-	105+36	LT & RT	2,918	--	
		105+36	-	132+00	LT & RT	10,453	166	
		132+00	-	158+28	LT & RT	10,402	112	
		158+28	-	184+50	LT & RT	10,250	--	
		184+50	-	211+00	LT & RT	10,489	--	
		211+00	-	239+75	LT & RT	11,182	--	
		239+75	-	265+92	LT & RT	10,205	--	
		265+92	-	292+37	LT & RT	10,404	185	
		292+37	-	318+93	LT & RT	10,442	204	
		318+93	-	345+00	LT & RT	10,213	350	
		345+00	-	372+83	LT & RT	11,376	200	
		372+83	-	402+63	LT & RT	11,696	--	
		402+63	-	418+53	LT & RT	6,185	--	
		418+53	-	430+44	LT & RT	4,580	--	
		430+44	-	469+72	LT & RT	15,599	--	
		469+72	-	495+21	LT & RT	10,202	--	
		495+21	-	514+75	LT & RT	7,619	--	
		514+75	-	526+29	LT & RT	4,388	--	
		526+29	-	593+51	LT & RT	26,610	101	
		593+51	-	644+24	LT & RT	20,230	70	
TOTAL 0010						251,070	1,675	

CONSTRUCTION STAKING ITEMS

CAT.	ROADWAY	STATION	TO	STATION	LOCATION	650.4500	650.5000	650.5500	650.6000	650.8000	650.9911.01	650.9920			
						CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION	CONSTRUCTION			
						STAKING	CONSTRUCTION	STAKING CURB	CONSTRUCTION	STAKING	SUPPLEMENTAL	CONSTRUCTION			
		SUBGRADE		STAKING BASE		GUTTER AND		STAKING PIPE		RESURFACING		CONTROL		STAKING SLOPE	
		LF		LF		LF		EACH		LF		EACH		LF	
0010	STH 42														
		6+38	-	339+32	LT/RT	--	--	--	8	33,294	1	--			
		339+32	-	349+40	LT/RT	989	989	405	1	1,008	--	989			
		349+40	-	644+24	LT/RT	--	--	--	--	29,484	--	--			
0010	MONUMENT POINT RD														
		0+66	-	2+27	LT/RT	149	149	--	1	161	--	149			
		10+00	-	11+74	LT/RT	162	162	--	--	174	--	162			
TOTAL 0010						1,300	1,300	405	10	64,121	1	1,300			

SAWING ITEMS

CAT.	ROADWAY	STATION	TO	STATION	LOCATION	690.0150	690.0250	REMARKS
						SAWING	SAWING	
		ASPHALT		CONCRETE				
		LF		LF				
0010	STH 42							
		49+14	-		LT/RT	76	--	CULVERT
		76+63	-		LT/RT	84	--	CULVERT
		161+92	-		LT/RT	76	--	CULVERT
		225+27	-		RT	12	--	CULVERT
		339+30	-	349+32	LT/RT	1,777	--	INTERSECTION CONSTRUCTION
0100	UNDISTRIBUTED							
TOTAL 0010						2,230	50	

CONVENTIONAL SYMBOLS

SECTION LINE	--- ---	PARCEL NUMBER	25	UTILITY NUMBER	40
QUARTER LINE	---	SECTION CORNER	18	R/W MONUMENT	●
SIXTEENTH LINE	---	NOTATION FOR COMBUSTIBLE FLUIDS	CAUTION	NON-MONUMENTED R/W POINT	○
NEW REFERENCE LINE	---	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	CAUTION	FOUND IRON PIN	IP
NEW R/W LINE	---	ACCESS CONTROLLED BY ACQUISITION		VALVE (GAS, WATER, ETC.)	○ (TYPED)
EXISTING R/W LINE	---	NO ACCESS (BY STATUTORY AUTHORITY)	SIGN	IP SIGN
PROPERTY LINE	---	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	-----	OFF-PREMISE SIGN	IP SIGN
LOT, TIE, AND OTHER MINOR LINES	---	NO ACCESS (NEW HIGHWAY)	-----		
SLOPE INTERCEPT	---/---	NATIONAL GEODETIC SURVEY MONUMENT	⊙		
CORPORATE LIMITS	---	SIXTEENTH CORNER MONUMENT	⊙		
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---	PARALLEL OFFSETS	---		
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	---/---/---				
TEMP. LIMITED EASEMENT AREA	---/---				
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	---/---				
TRANSMISSION STRUCTURES	---				
BUILDING	---				
BUILDING (TO BE REMOVED)	---				
BRIDGE	---				

CONVENTIONAL UTILITY SYMBOLS

WATER	---	LONG CHORD	LCH
GAS	---	LONG CHORD BEARING	LCB
TELEPHONE	---	RADIUS	R
OVERHEAD TRANSMISSION LINES	---	DEGREE OF CURVE	D
ELECTRIC	---	CENTRAL ANGLE	Δ / DELTA
CABLE TELEVISION	---	LENGTH OF CURVE	L
FIBER OPTIC	---	TANGENT	T
SANITARY SEWER	---	DIRECTION AHEAD	DA
STORM SEWER	---	DIRECTION BACK	DB
ELECTRIC TOWER	---		

CURVE DATA ABBREVIATIONS

NON-COMPENSABLE	○
COMPENSABLE	⊙

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS (100)	R/1
BACK	BK	REEL / IMAGE	R/L
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	P/LE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	RT
EASEMENT	EASE	RIGHT OF WAY	R/W
EXISTING	EX	SECTION	SEC
GAS VALVE	GV	SEPTIC VENT	SEPV
GRID NORTH	GN	SQUARE FEET	SF
HIGHWAY EASEMENT	HE	STATE TRUNK HIGHWAY	STH
IDENTIFICATION	ID	STATION	STA
LAND CONTRACT	LC	TELEPHONE PEDESTAL	TP
LEFT	LT	TEMPORARY LIMITED EASEMENT	TLE
MONUMENT	MON	TRANSPORTATION PROJECT PLAT	TPP
NATIONAL GEODETIC SURVEY	NGS	UNITED STATES HIGHWAY	USH
NUMBER	NO	VOLUME	V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS). DOOR 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.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 1" X 2" IRON PIPE) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S): CSMs, MISC. SURVEYS, TITLES AND OTHER DOCUMENTS.

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, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. 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.

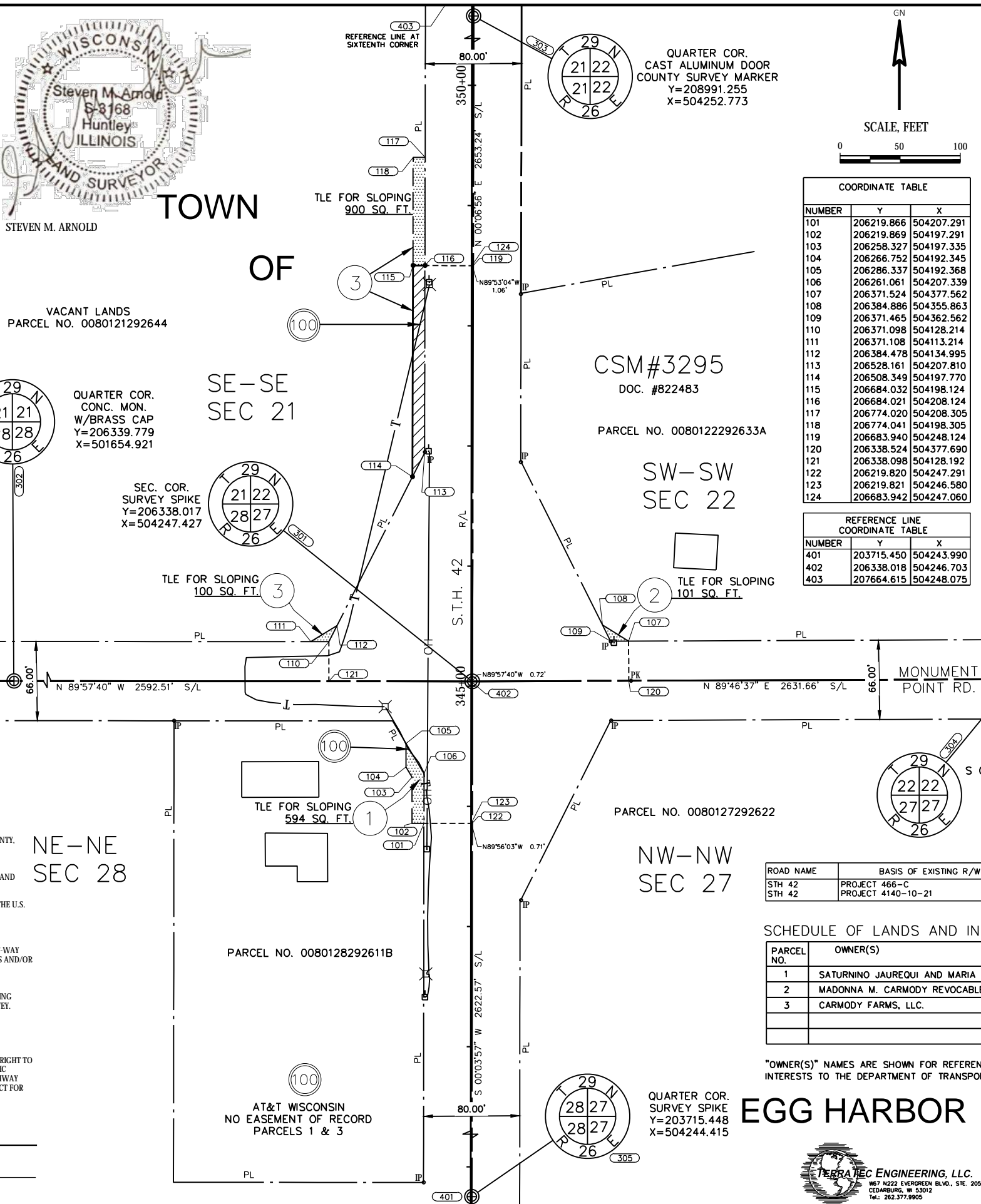
PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO 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 (TLE)S ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
100	AT&T WISCONSIN	RELEASE OF RIGHTS



R/W PROJECT NUMBER	4140-28-20	SHEET NUMBER	4.01	TOTAL SHEETS	1
FED PROJECT NUMBER	4140-28-71	PLAT OF RIGHT OF WAY REQUIRED FOR STURGEON BAY - EGG HARBOR MID JUNCTION - CTH T			
STH 42	DOOR COUNTY				

REFERENCE LINE COURSE TABLE

NUMBER	DIRECTION	DISTANCE
401-402	N 00°03'33" E	2622.57'
402-403	N 00°03'33" E	1326.60'

TLE - COURSE TABLE PARCEL 1

NUMBER	DIRECTION	DISTANCE
301-122	S 00°03'57" W	118.20'
122-101	N 89°56'03" W	40.00'
101-102	N 89°58'53" W	10.00'
102-103	N 00°03'57" E	38.46'
103-104	N 30°38'16" W	9.79'
104-105	N 00°03'57" E	19.58'
105-106	S 30°38'16" E	29.38'
106-101	S 00°03'57" W	41.19'

FEE - COURSE TABLE PARCEL 3

NUMBER	DIRECTION	DISTANCE
301-119	N 00°06'56" E	345.92'
119-116	N 89°53'04" W	40.00'
116-113	S 00°06'56" W	155.86'
113-114	S 26°52'30" W	22.21'
114-115	N 00°06'56" E	175.68'
115-116	S 89°56'00" E	10.00'

TLE - COURSE TABLE PARCEL 2

NUMBER	DIRECTION	DISTANCE
301-120	N 89°46'37" E	130.26'
120-107	N 00°13'23" W	33.00'
107-108	N 58°22'28" W	25.48'
108-109	S 26°31'34" E	15.00'
109-107	N 89°46'38" E	15.00'

TLE - COURSE TABLE PARCEL 3

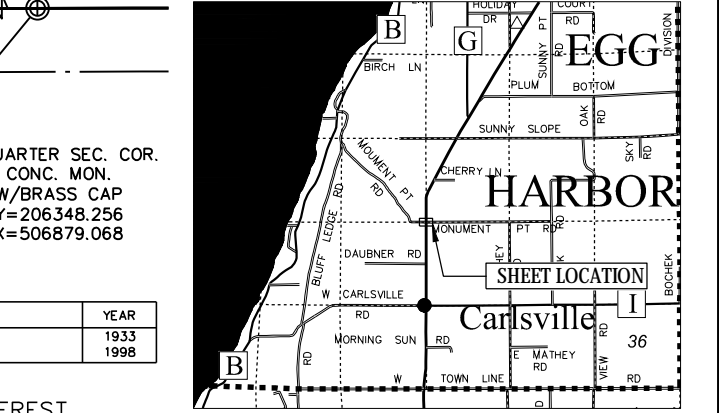
NUMBER	DIRECTION	DISTANCE
301-119	N 00°06'56" E	345.92'
119-116	N 89°53'04" W	40.00'
116-117	N 00°06'56" E	90.00'
117-118	N 89°53'04" W	10.00'
118-115	S 00°06'56" W	90.01'
115-116	S 89°56'00" E	10.00'

TLE - COURSE TABLE PARCEL 3

NUMBER	DIRECTION	DISTANCE
301-121	N 89°57'40" W	119.24'
121-110	N 00°02'20" E	33.00'
110-111	N 89°57'39" W	15.00'
111-112	N 58°27'25" E	25.56'
112-110	S 26°52'30" W	15.00'

REFERENCE LINE COORDINATE TABLE

NUMBER	Y	X
401	203715.450	504243.990
402	206338.018	504246.703
403	207664.615	504248.075



ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 42	PROJECT 466-C	1933
STH 42	PROJECT 4140-10-21	1998

SCHEDULE OF LANDS AND INTEREST

PARCEL NO.	OWNER(S)	INTEREST(S) REQUIRED	FEE R/W S.F. REQUIRED			TLE SQ. FT. REQUIRED
			NEW	EXISTING	TOTAL	
1	SATURNINO JAUREQUI AND MARIA JAUREQUI	TLE	---	---	---	594 SQ. FT.
2	MADONNA M. CARMODY REVOCABLE LIVING TRUST	TLE	---	---	---	101 SQ. FT.
3	CARMODY FARMS, LLC.	FEE & TLE	1658	---	1658	1000 SQ. FT.

"OWNER(S)" NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE DEPARTMENT OF TRANSPORTATION.

EGG HARBOR

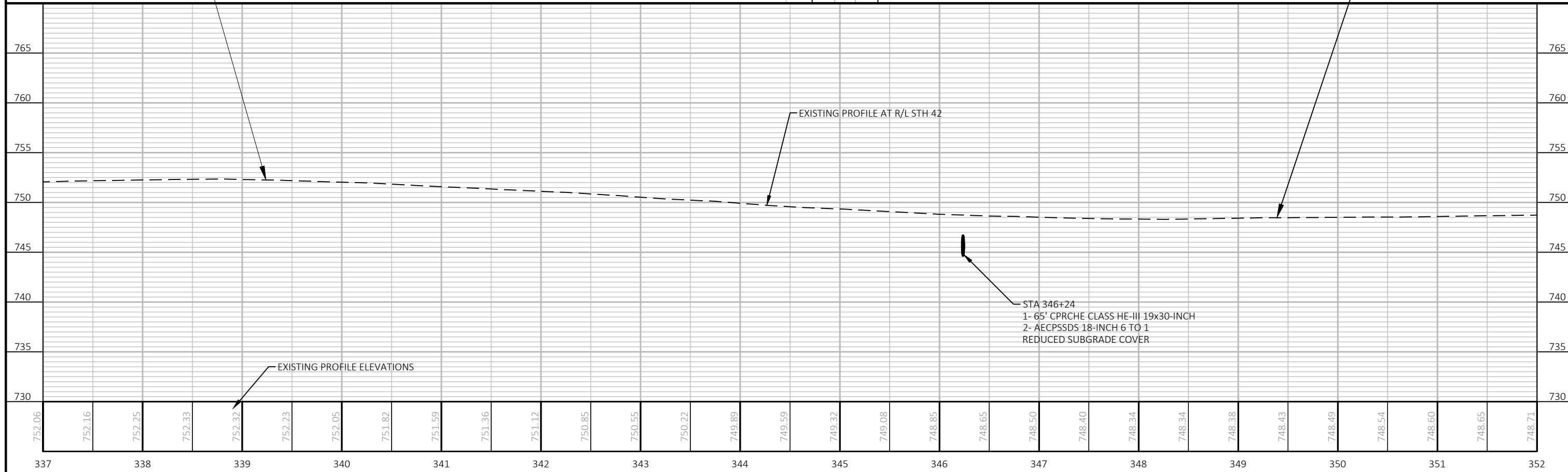
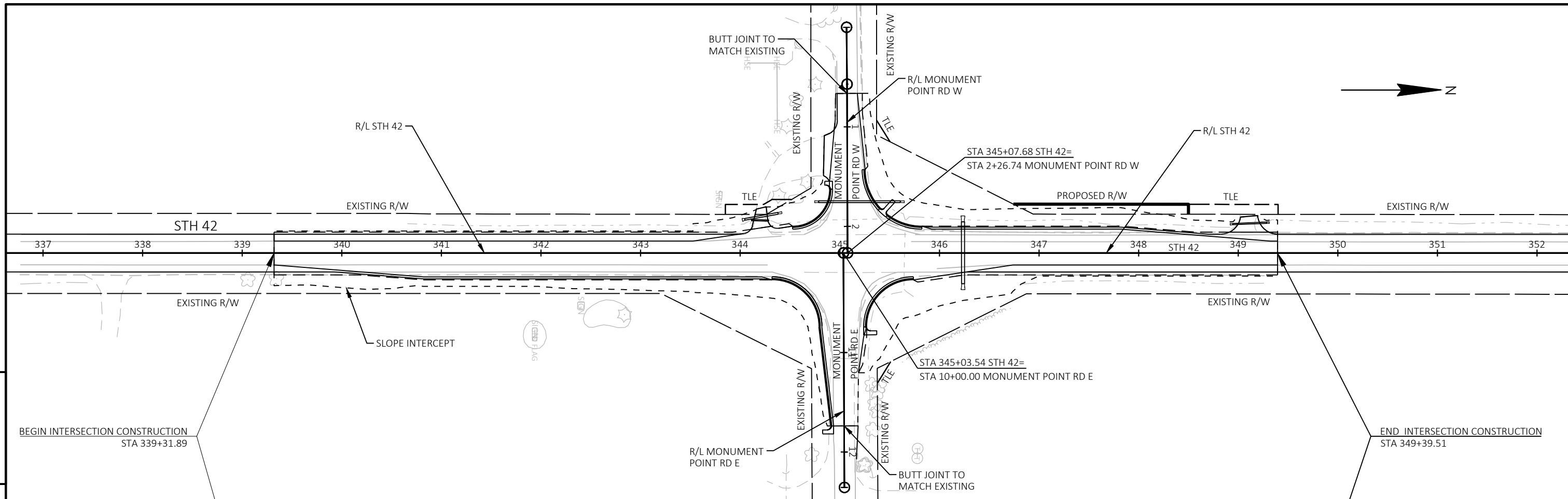
REVISION DATE: _____

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

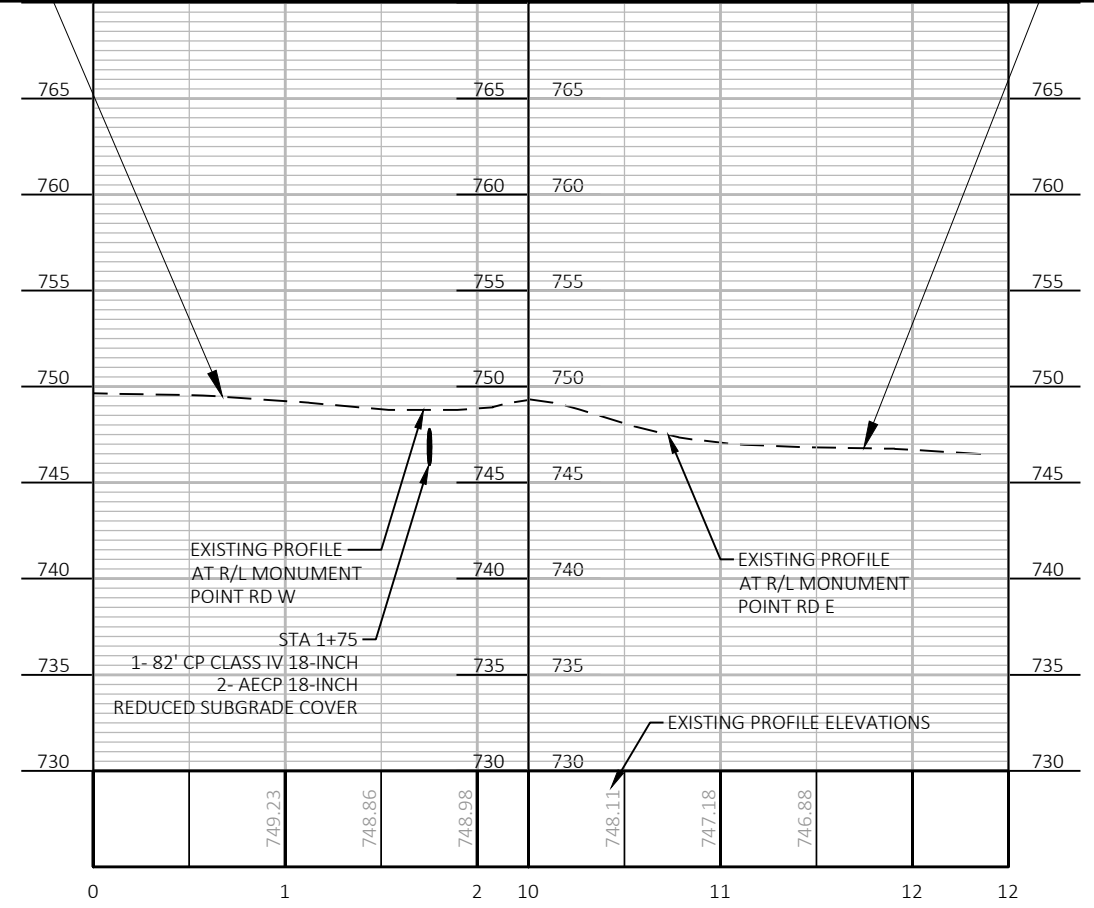
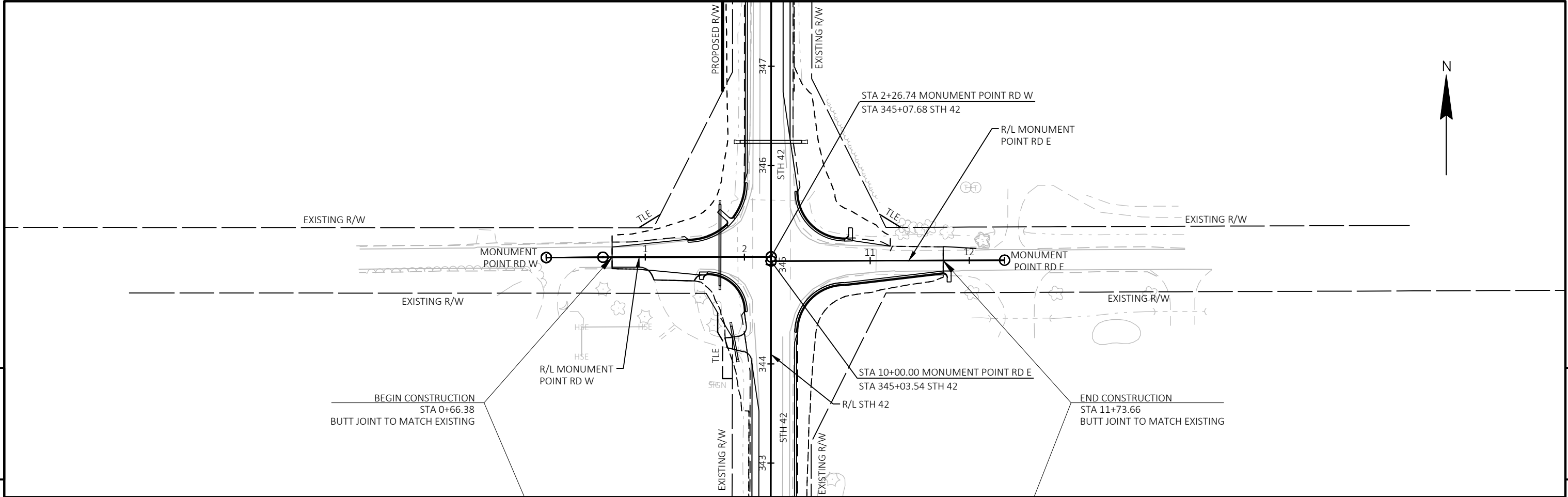
APPROVED FOR THE DEPARTMENT

DATE: _____ (Signature)

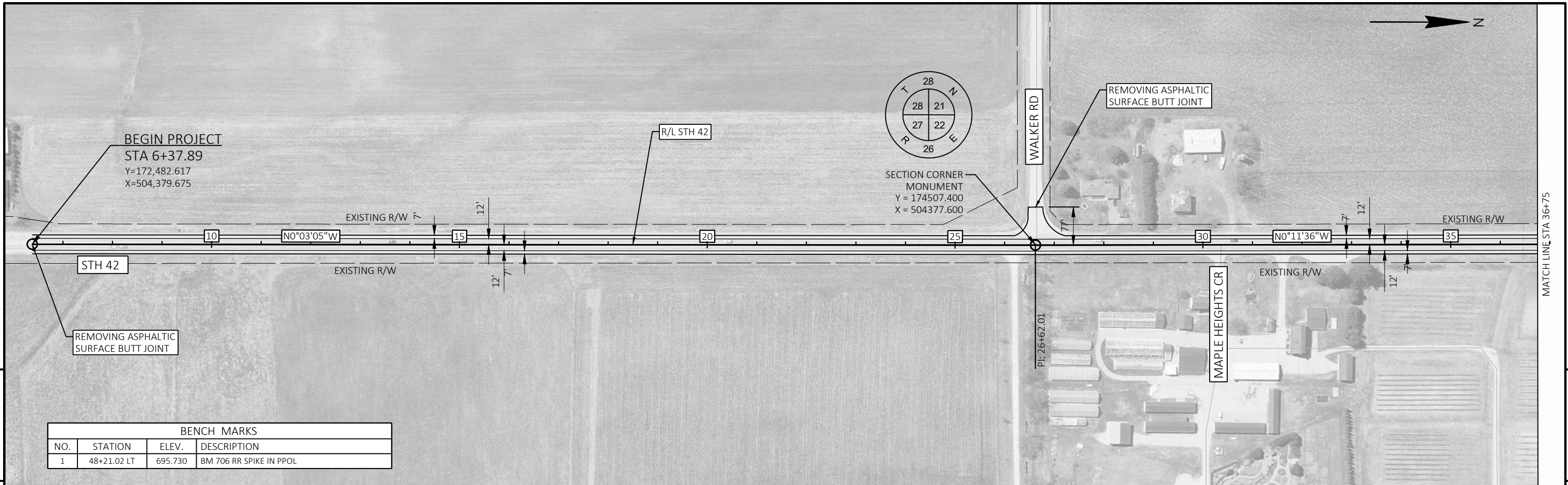
TERRA TEC ENGINEERING, LLC.
167 N222 EVERGREEN BLVD., STE. 205
CEDARBURG, WI 53012
Tel.: 262.377.9906



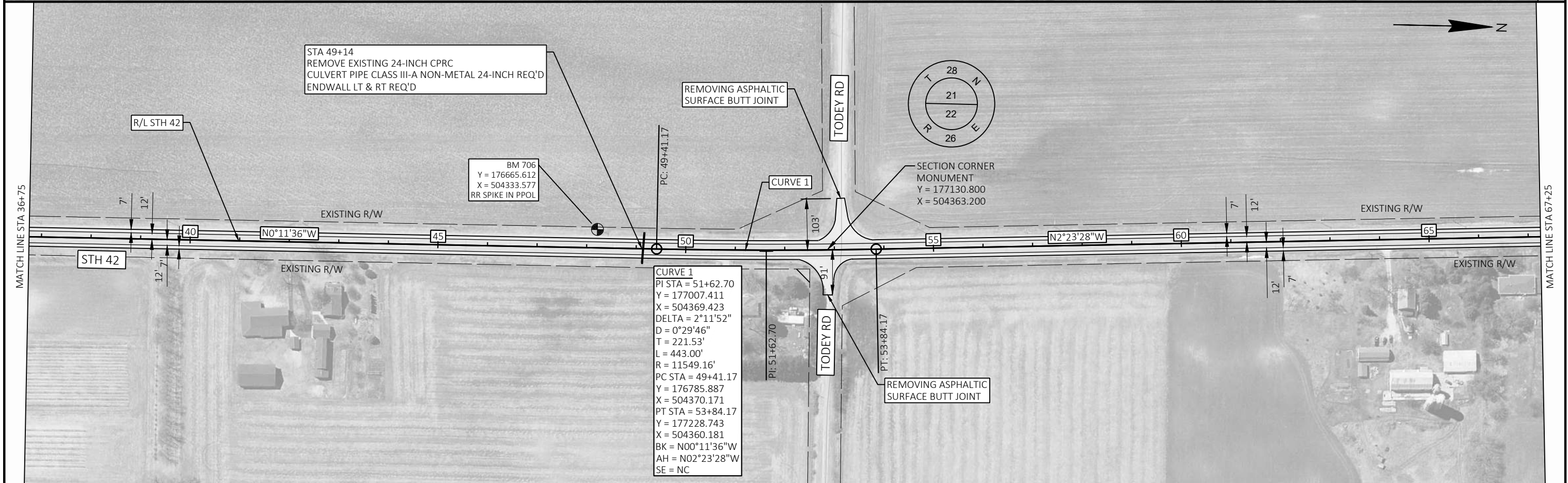
PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	PLAN AND PROFILE: STH 42	SHEET	E
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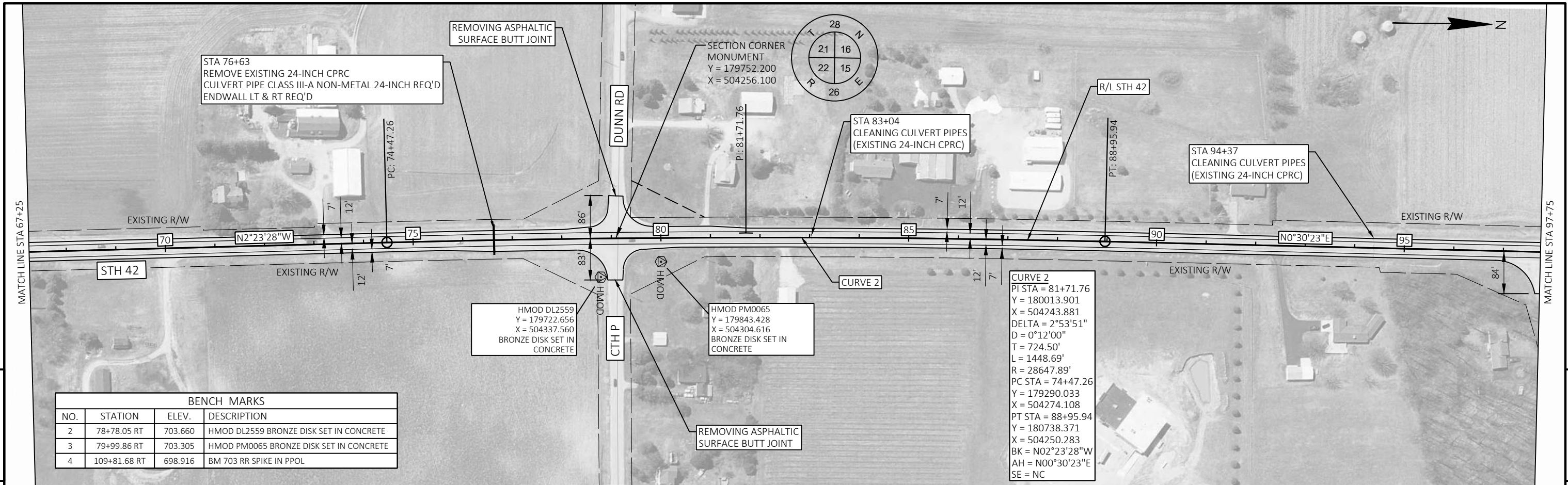
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR PLAN AND PROFILE: MONUMENT POINT RD SHEET: 5



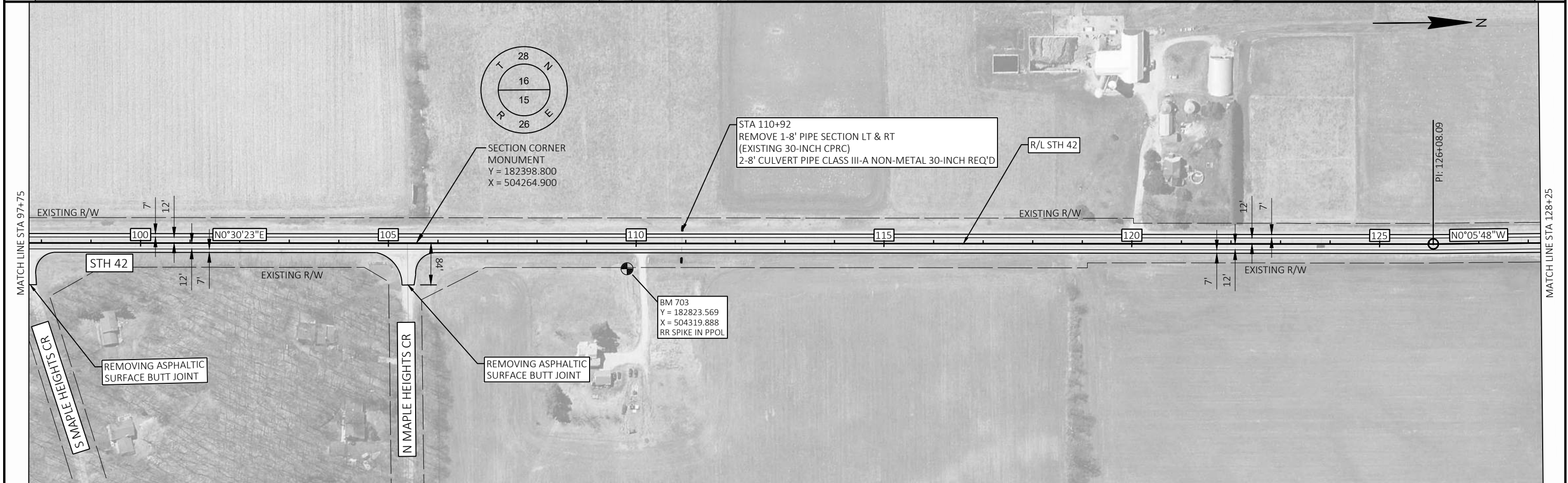
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
1	48+21.02 LT	695.730	BM 706 RR SPIKE IN PPOL



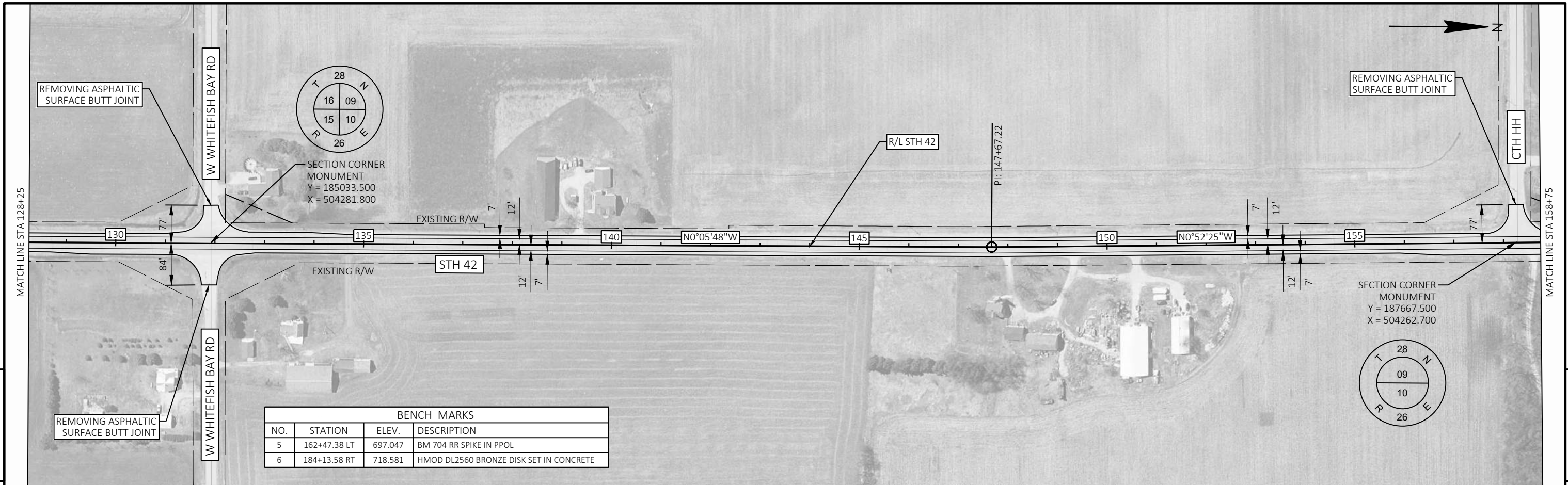
CURVE 1
 PI STA = 51+62.70
 Y = 177007.411
 X = 504369.423
 DELTA = 2°11'52"
 D = 0°29'46"
 T = 221.53'
 L = 443.00'
 R = 11549.16'
 PC STA = 49+41.17
 Y = 176785.887
 X = 504370.171
 PT STA = 53+84.17
 Y = 177228.743
 X = 504360.181
 BK = N00°11'36"W
 AH = N02°23'28"W
 SE = NC



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
2	78+78.05 RT	703.660	HMOD DL2559 BRONZE DISK SET IN CONCRETE
3	79+99.86 RT	703.305	HMOD PM0065 BRONZE DISK SET IN CONCRETE
4	109+81.68 RT	698.916	BM 703 RR SPIKE IN PPOL

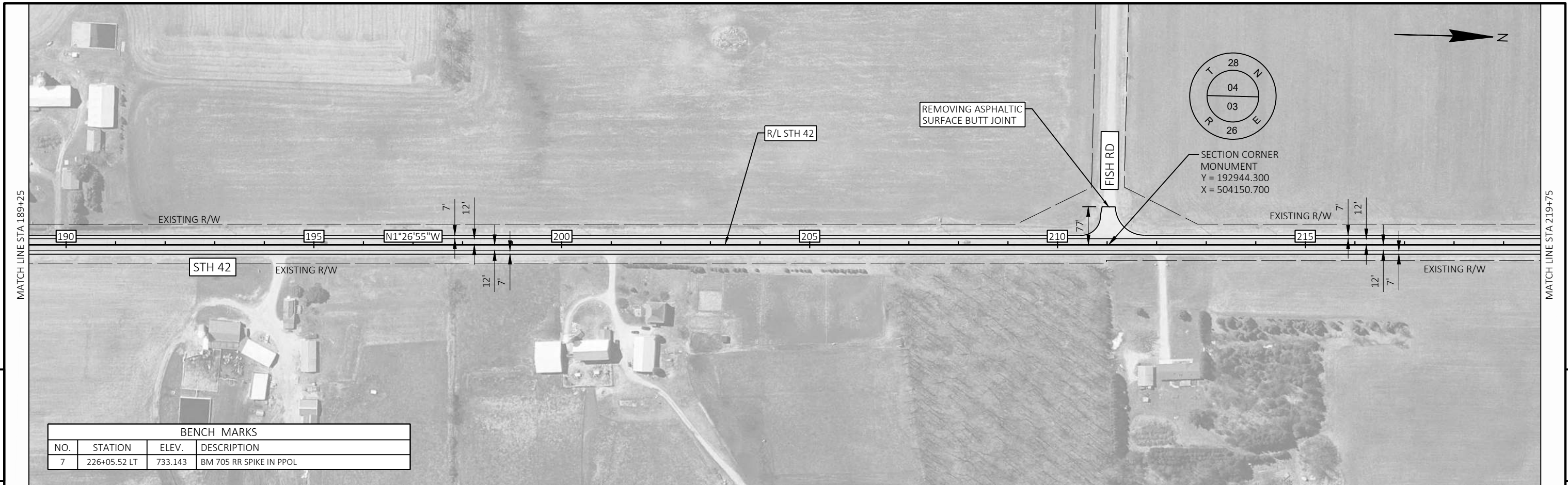


PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET	E
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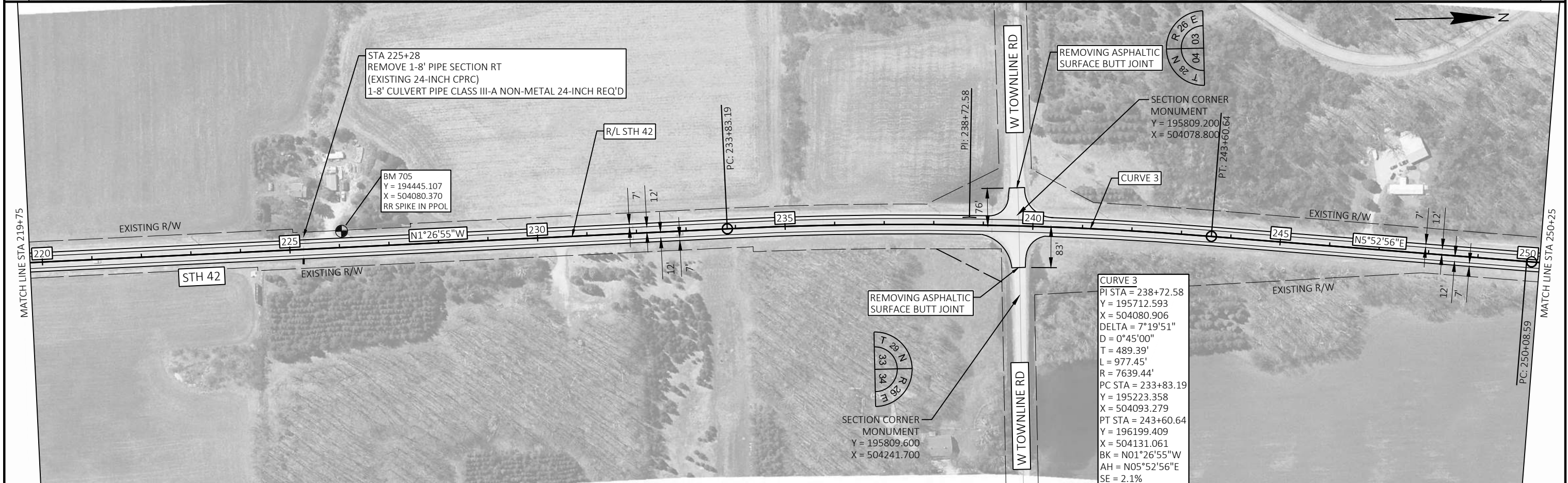


BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
5	162+47.38 LT	697.047	BM 704 RR SPIKE IN PPOL
6	184+13.58 RT	718.581	HMOD DL2560 BRONZE DISK SET IN CONCRETE

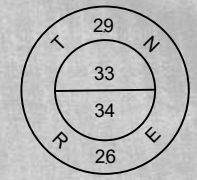




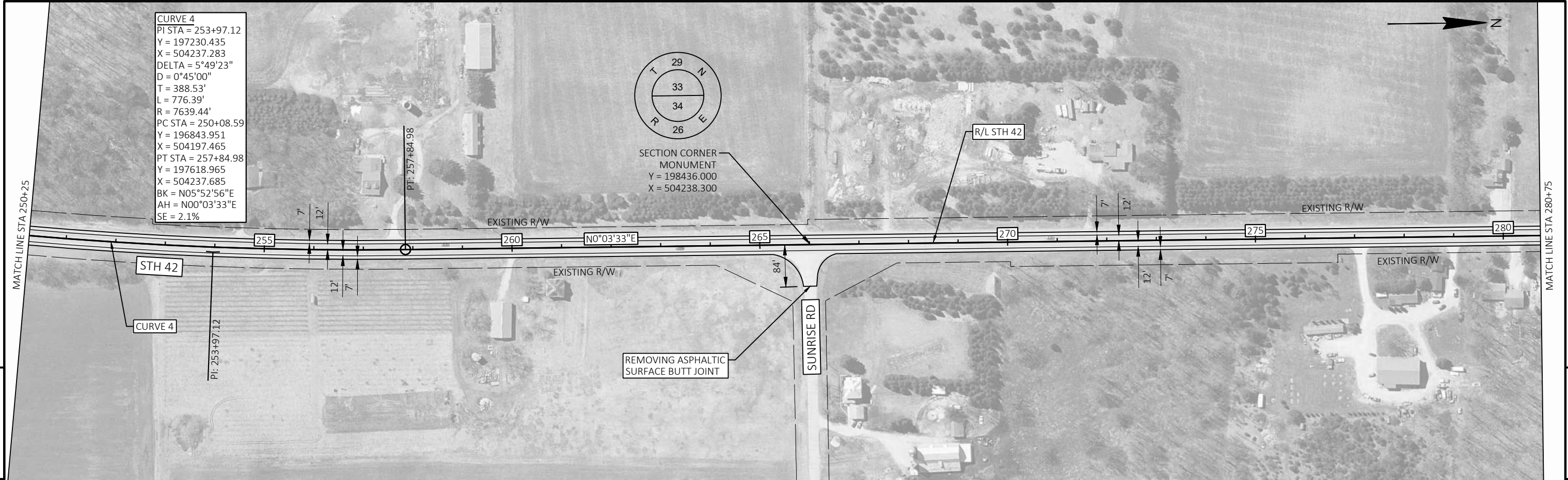
BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
7	226+05.52 LT	733.143	BM 705 RR SPIKE IN PPOL



CURVE 4
 PI STA = 253+97.12
 Y = 197230.435
 X = 504237.283
 DELTA = 5°49'23"
 D = 0°45'00"
 T = 388.53'
 L = 776.39'
 R = 7639.44'
 PC STA = 250+08.59
 Y = 196843.951
 X = 504197.465
 PT STA = 257+84.98
 Y = 197618.965
 X = 504237.685
 BK = N05°52'56"E
 AH = N00°03'33"E
 SE = 2.1%



SECTION CORNER
 MONUMENT
 Y = 198436.000
 X = 504238.300

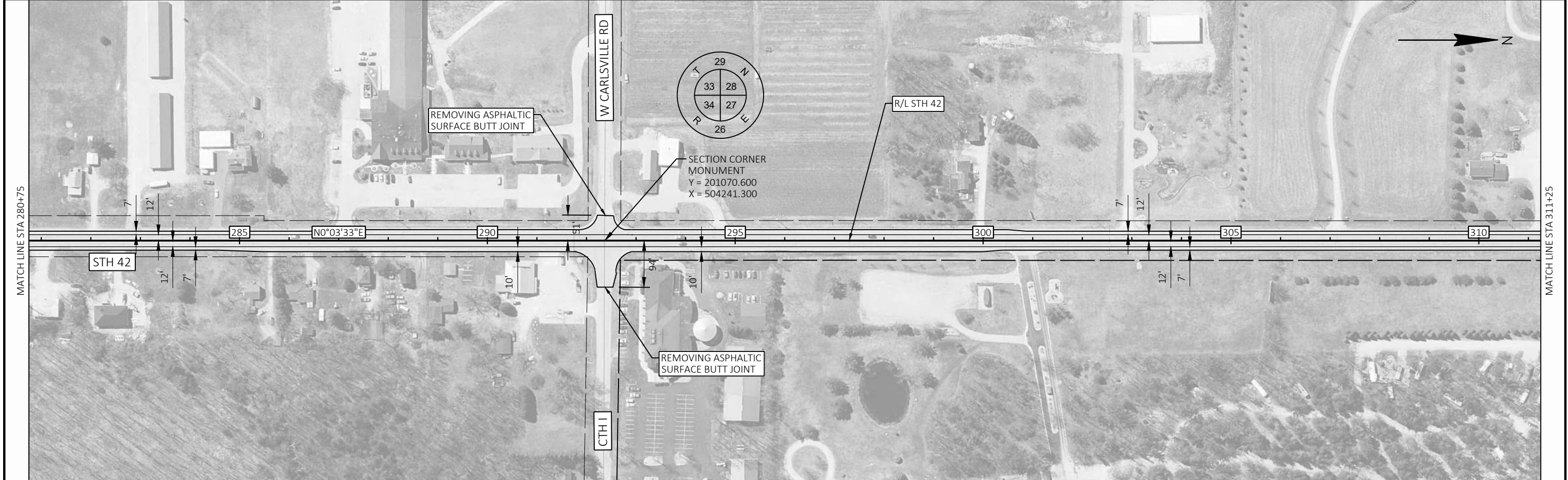


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5



SECTION CORNER
 MONUMENT
 Y = 201070.600
 X = 504241.300



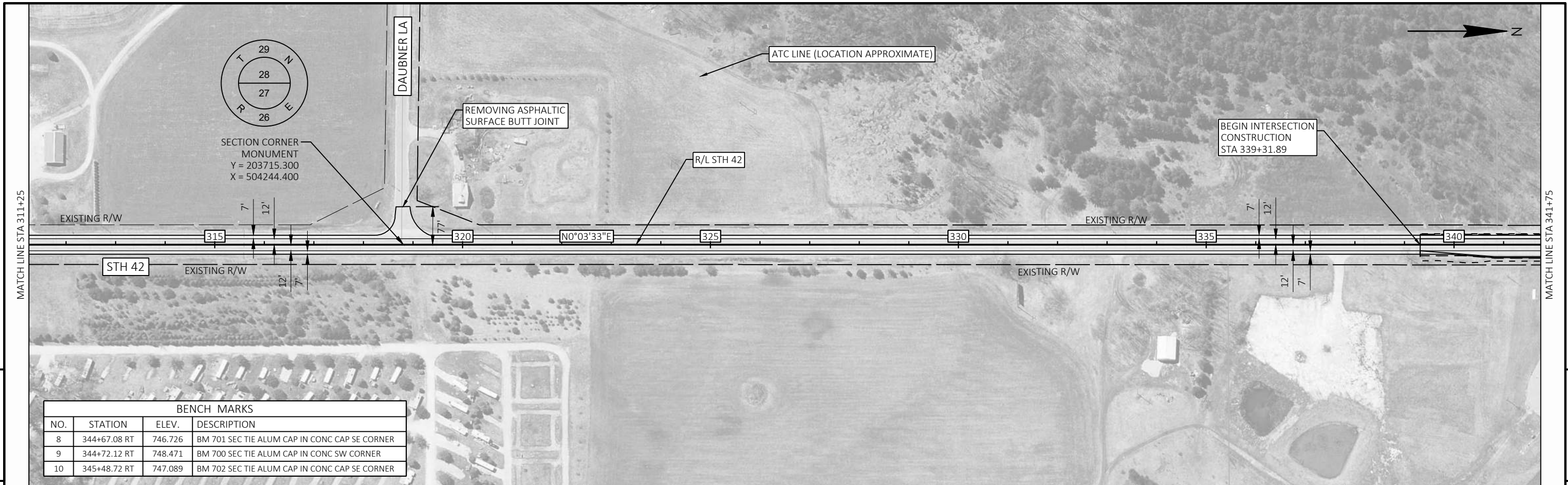
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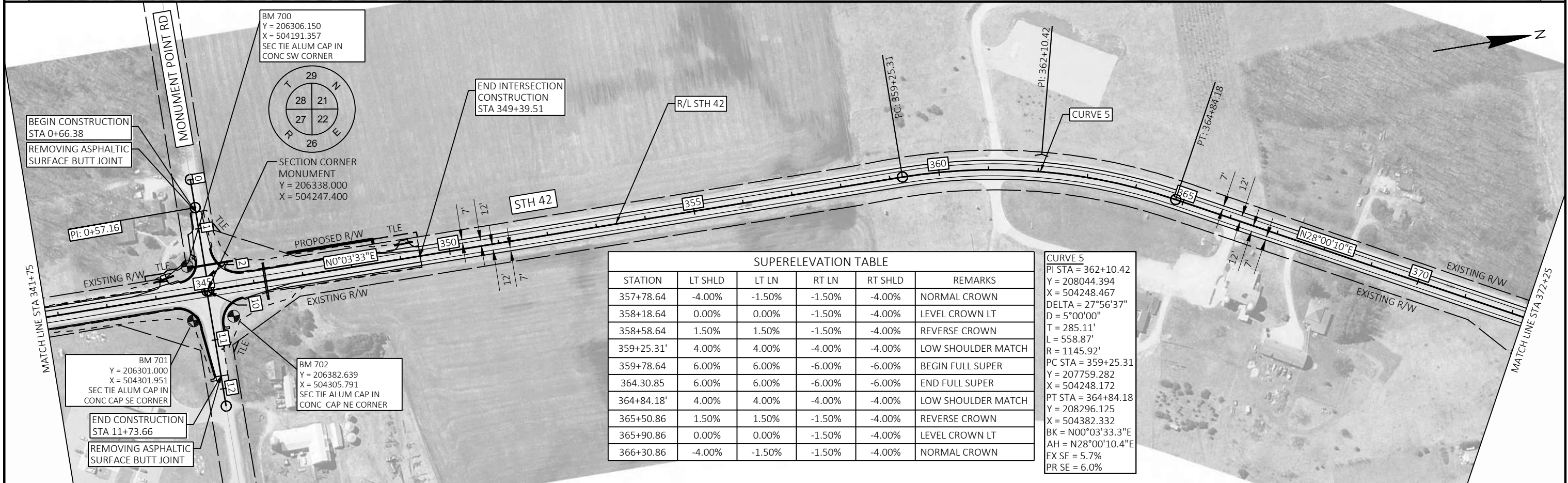
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR PLAN SHEETS SHEET E

FILE NAME : X:\BM1-3964 STH 42 DOOR COUNTY\5_DESIGN\03_ROADS\41402800\5\052021-PN.DWG PLOT DATE : 9/15/2023 8:51 AM PLOT BY : VALBON LATIFI PLOT NAME : PLOT SCALE : 1 IN:200 FT WISDOT/CADD SHEET 44

LAYOUT NAME - 050205-pn



BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
8	344+67.08 RT	746.726	BM 701 SEC TIE ALUM CAP IN CONC CAP SE CORNER
9	344+72.12 RT	748.471	BM 700 SEC TIE ALUM CAP IN CONC SW CORNER
10	345+48.72 RT	747.089	BM 702 SEC TIE ALUM CAP IN CONC CAP SE CORNER

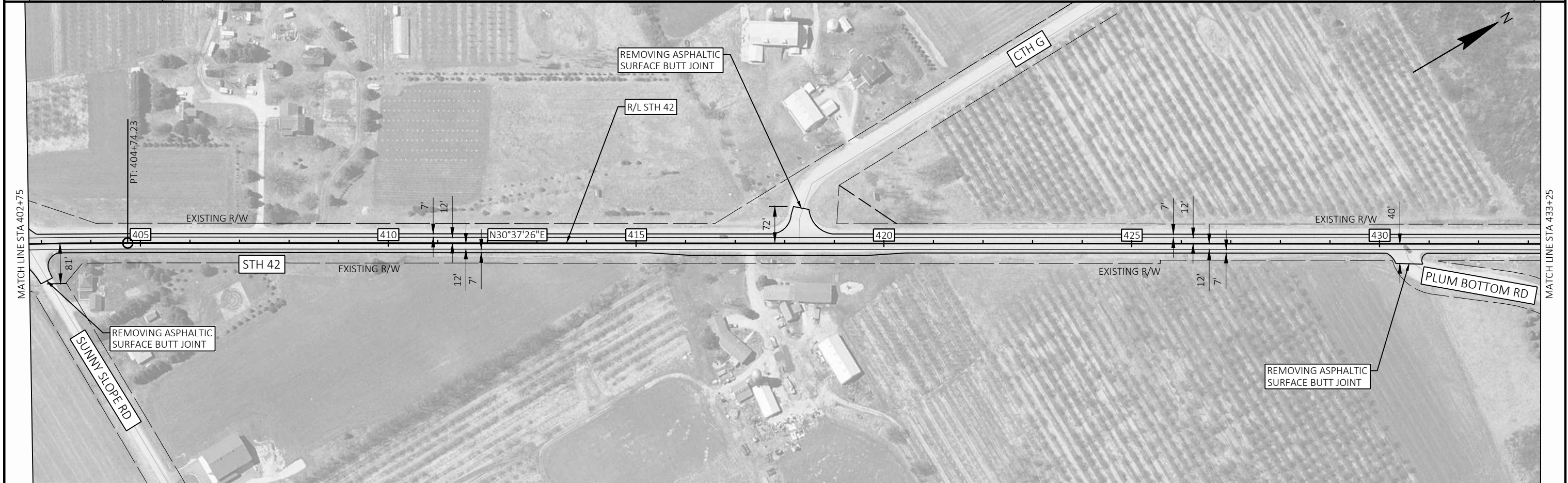


SUPERELEVATION TABLE					
STATION	LT SHLD	LT LN	RT LN	RT SHLD	REMARKS
357+78.64	-4.00%	-1.50%	-1.50%	-4.00%	NORMAL CROWN
358+18.64	0.00%	0.00%	-1.50%	-4.00%	LEVEL CROWN LT
358+58.64	1.50%	1.50%	-1.50%	-4.00%	REVERSE CROWN
359+25.31	4.00%	4.00%	-4.00%	-4.00%	LOW SHOULDER MATCH
359+78.64	6.00%	6.00%	-6.00%	-6.00%	BEGIN FULL SUPER
364+30.85	6.00%	6.00%	-6.00%	-6.00%	END FULL SUPER
364+84.18	4.00%	4.00%	-4.00%	-4.00%	LOW SHOULDER MATCH
365+50.86	1.50%	1.50%	-1.50%	-4.00%	REVERSE CROWN
365+90.86	0.00%	0.00%	-1.50%	-4.00%	LEVEL CROWN LT
366+30.86	-4.00%	-1.50%	-1.50%	-4.00%	NORMAL CROWN

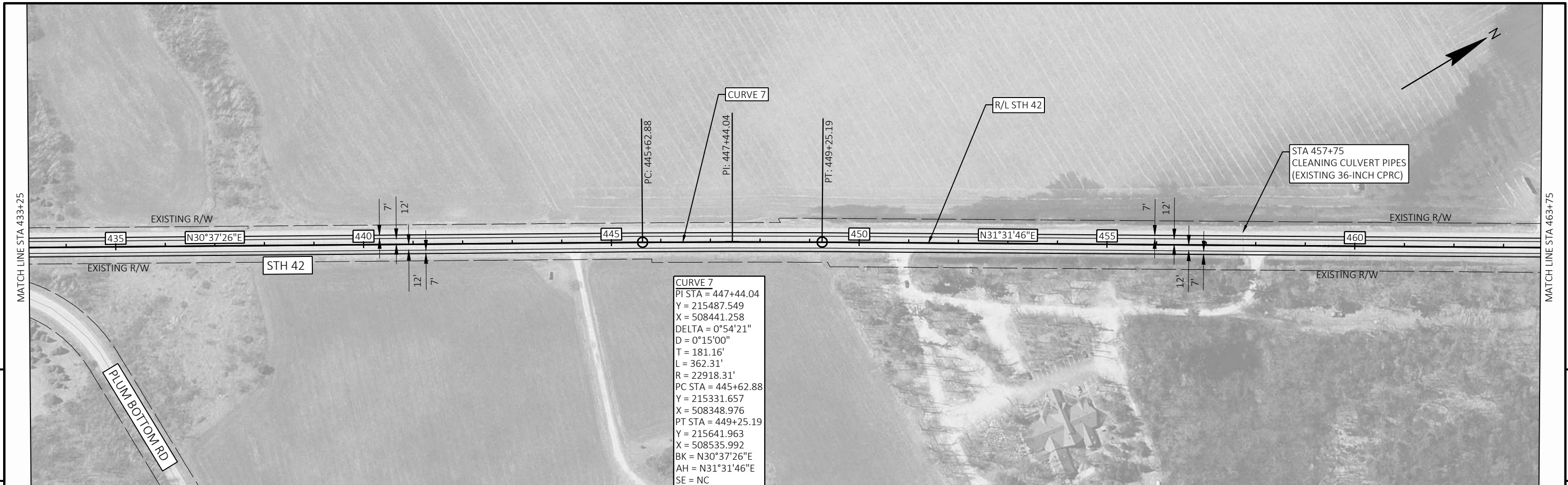
CURVE 5
 PI STA = 362+10.42
 Y = 208044.394
 X = 504248.467
 DELTA = 27°56'37"
 D = 5°00'00"
 T = 285.11'
 L = 558.87'
 R = 1145.92'
 PC STA = 359+25.31
 Y = 207759.282
 X = 504248.172
 PT STA = 364+84.18
 Y = 208296.125
 X = 504382.332
 BK = N00°03'33.3"E
 AH = N28°00'10.4"E
 EX SE = 5.7%
 PR SE = 6.0%



CURVE 6
PI STA = 402+12.19
Y = 211587.669
X = 506132.689
DELTA = 2°37'15"
D = 0°30'00"
T = 262.14'
L = 524.18'
R = 11459.16'
PC STA = 399+50.05
Y = 211356.222
X = 506009.611
PT STA = 404+74.23
Y = 211813.245
X = 506266.221
BK = N28°00'10"E
AH = N30°37'26"E
SE = NC



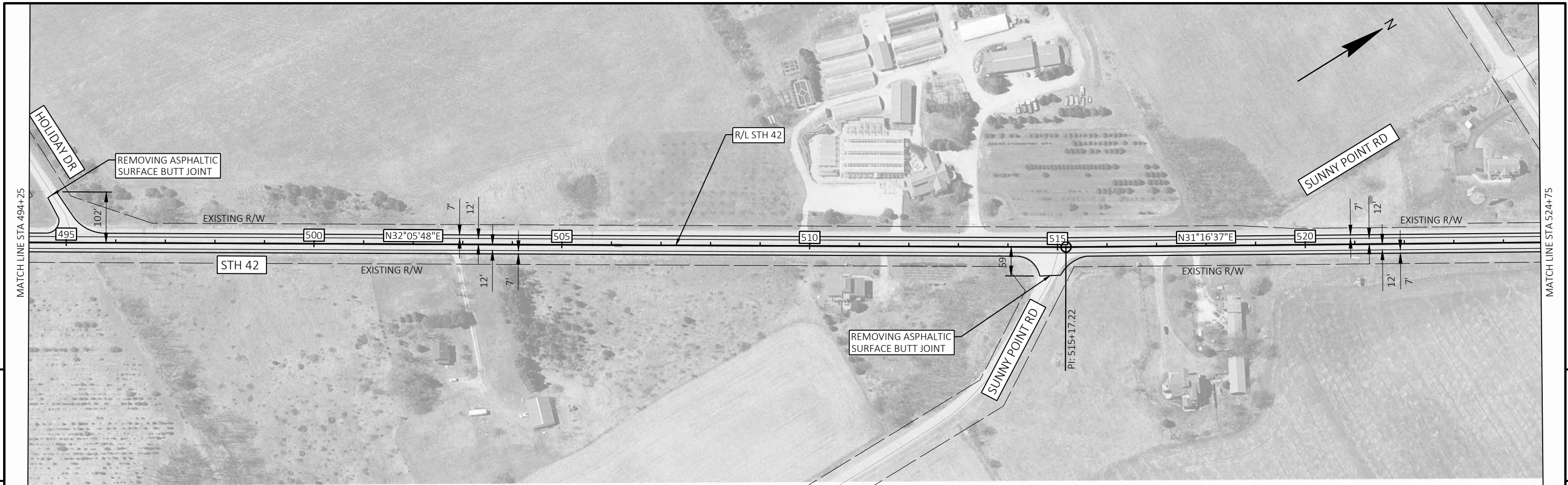
PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET	E
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CURVE 7
 PI STA = 447+44.04
 Y = 215487.549
 X = 508441.258
 DELTA = 0°54'21"
 D = 0°15'00"
 T = 181.16'
 L = 362.31'
 R = 22918.31'
 PC STA = 445+62.88
 Y = 215331.657
 X = 508348.976
 PT STA = 449+25.19
 Y = 215641.963
 X = 508535.992
 BK = N30°37'26"E
 AH = N31°31'46"E
 SE = NC

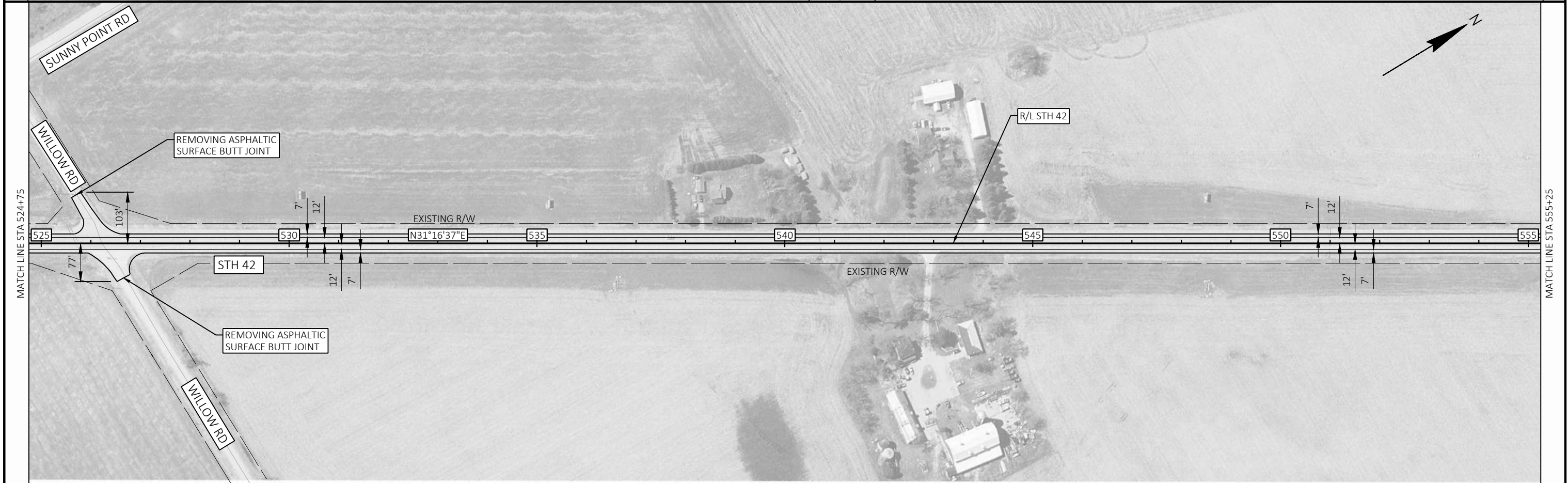


PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET	E
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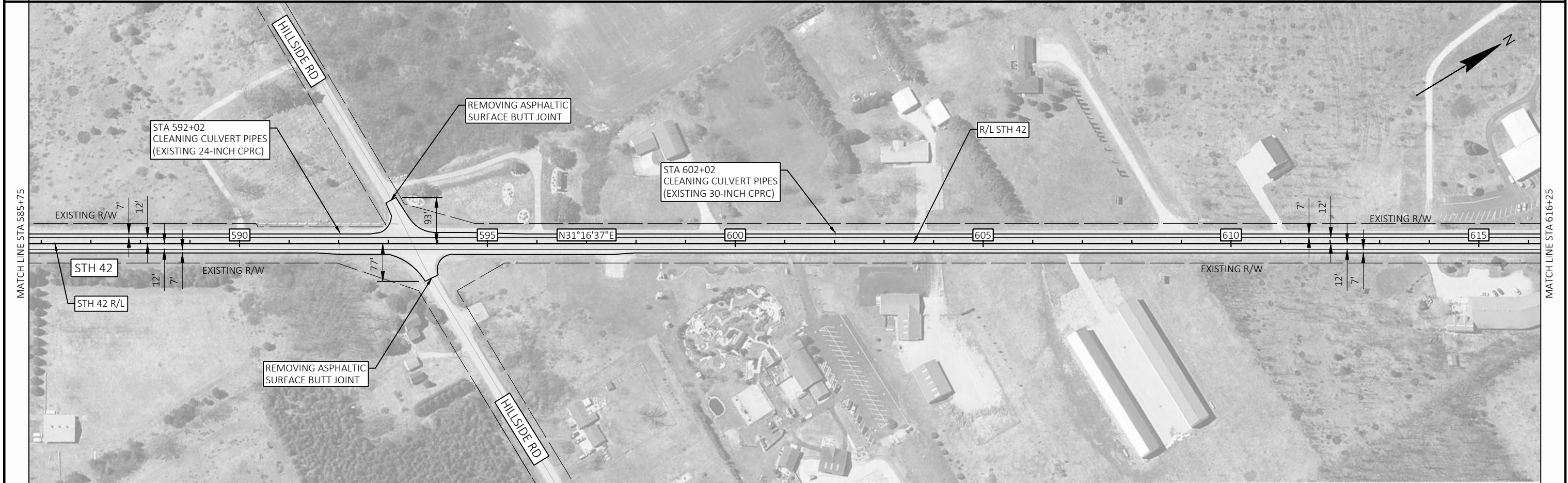
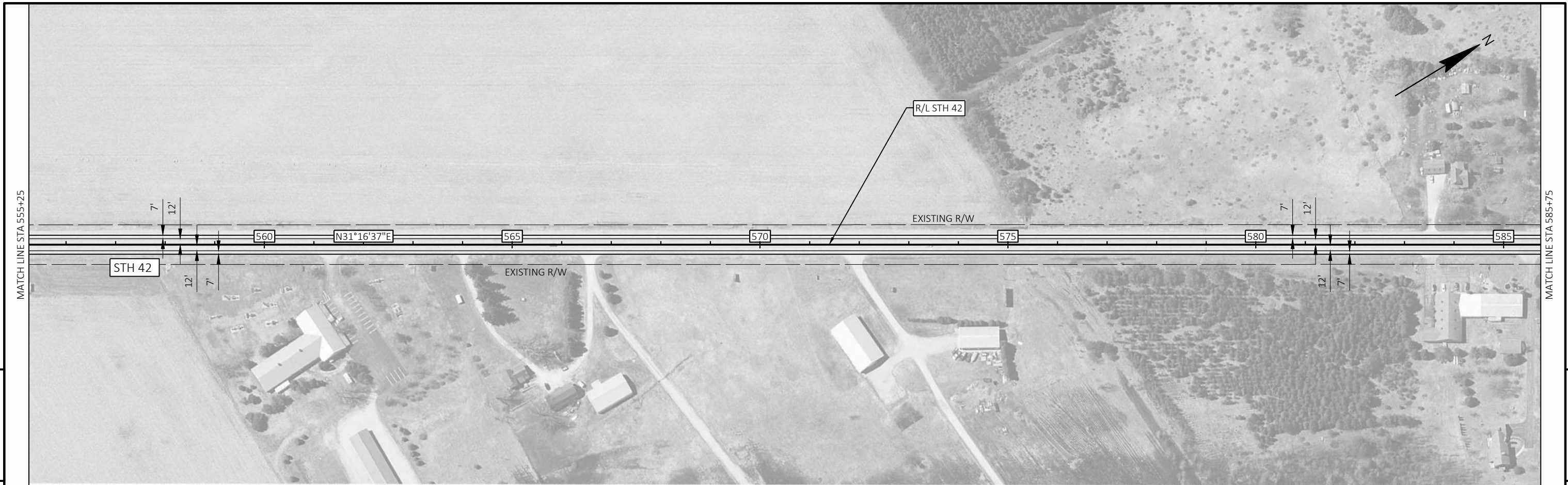


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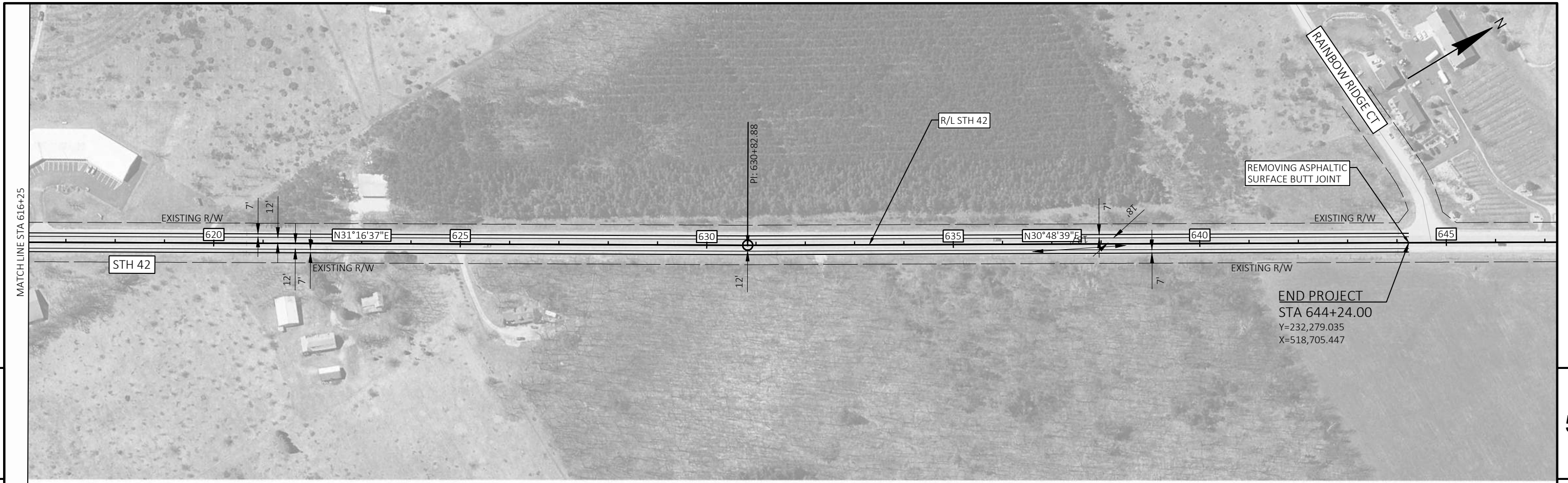
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PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET	E
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PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET	E
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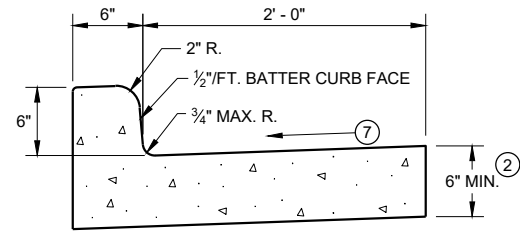
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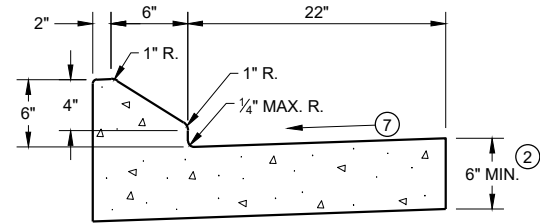
PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET	E
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Standard Detail Drawing List

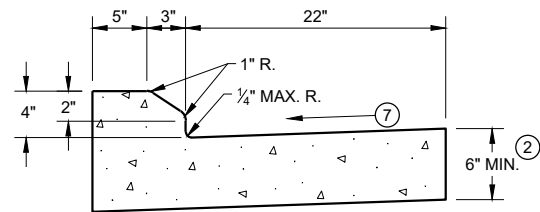
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-14B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
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
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY



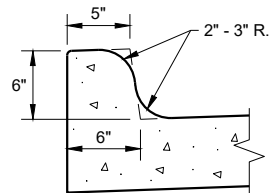
TYPES A¹ & D



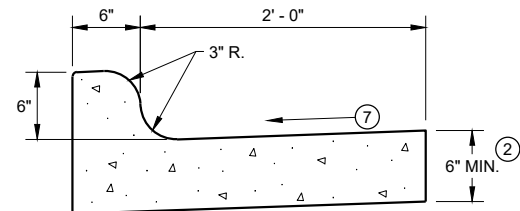
6" SLOPED CURB TYPES G¹ & J



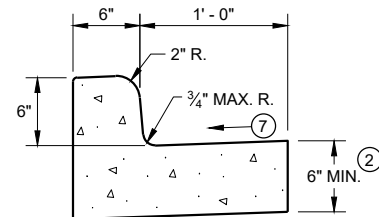
4" SLOPED CURB TYPES G¹ & J



TYPES K¹ & L
(OPTIONAL CURB SHAPE)

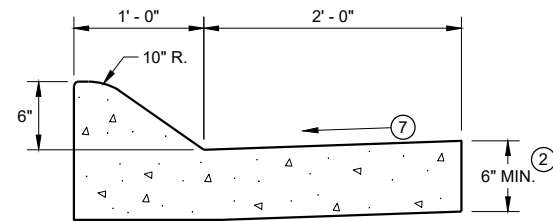


TYPES K¹ & L
CONCRETE CURB AND GUTTER 30"

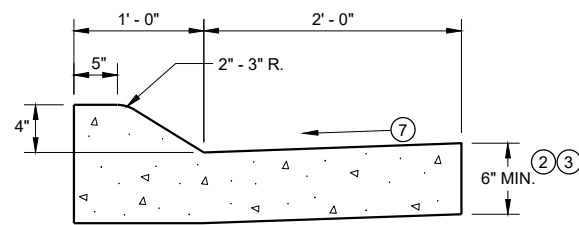


TYPES A¹ & D

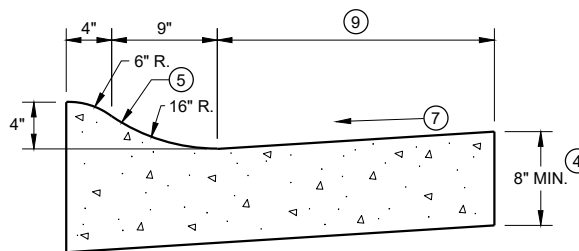
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A¹ & D

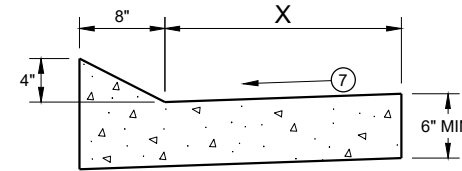


4" SLOPED CURB TYPES A¹ & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R¹ & T

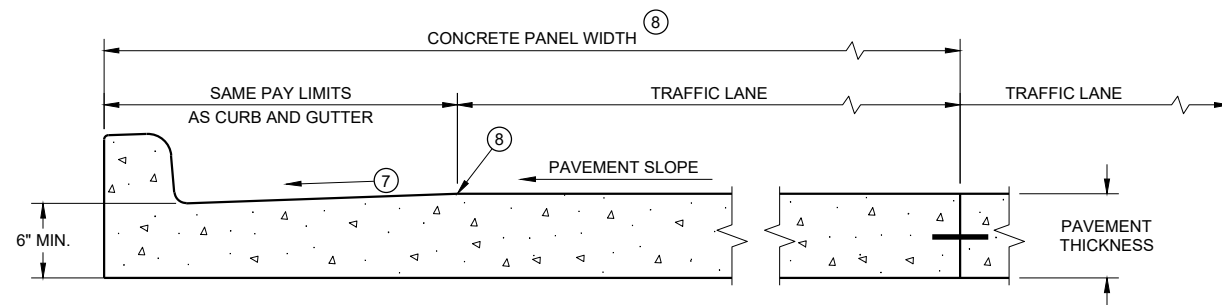
TBT & TBTT	X
30"	22"
36"	28"



TYPES TBT & TBTT¹
CONCRETE CURB AND GUTTER

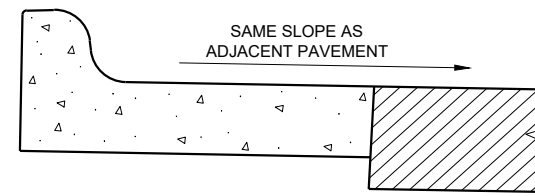
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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 GUTTER⁶
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

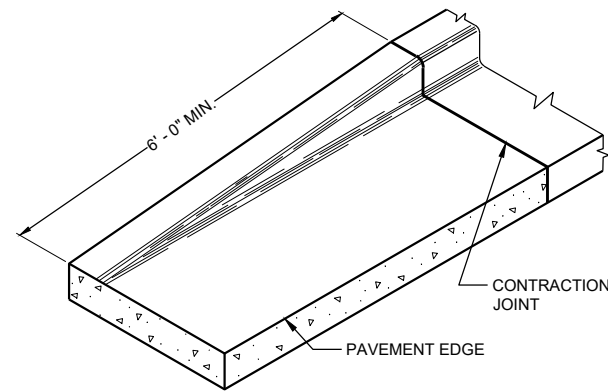
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

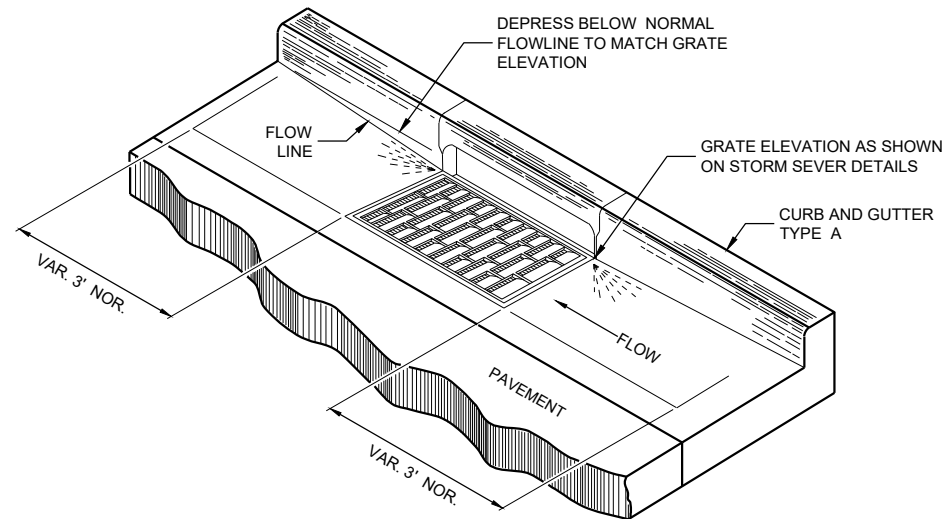
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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)

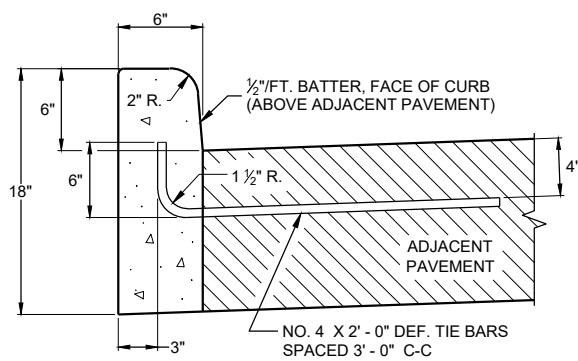
GENERAL NOTES

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

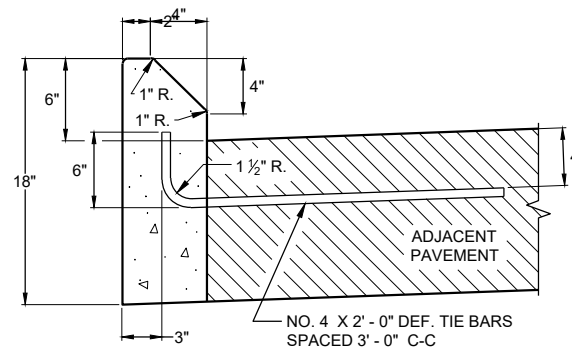
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

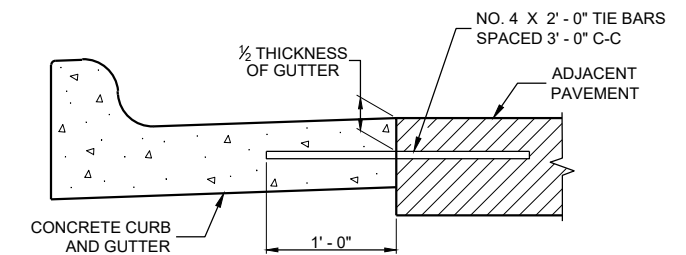
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL 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.



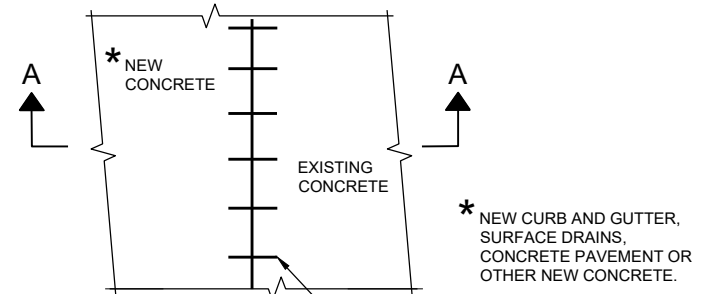
TYPES A^① & D



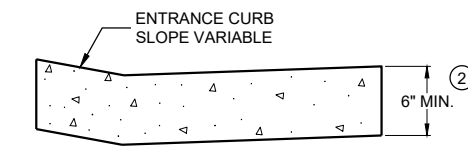
**TYPES G^① & J
CONCRETE CURB**



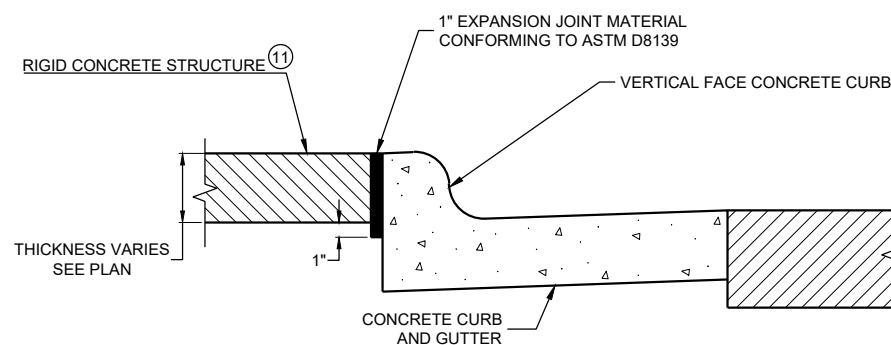
TYPICAL TIE BAR LOCATION^①



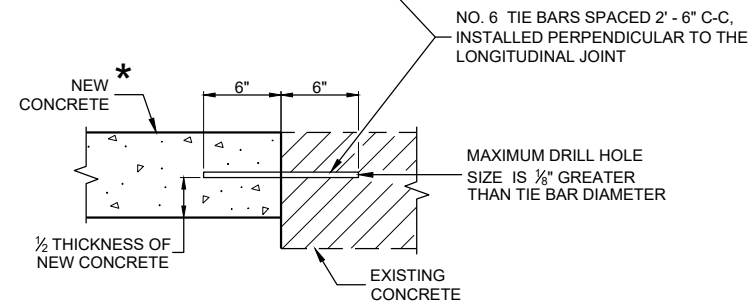
PLAN VIEW



**DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)**



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



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

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

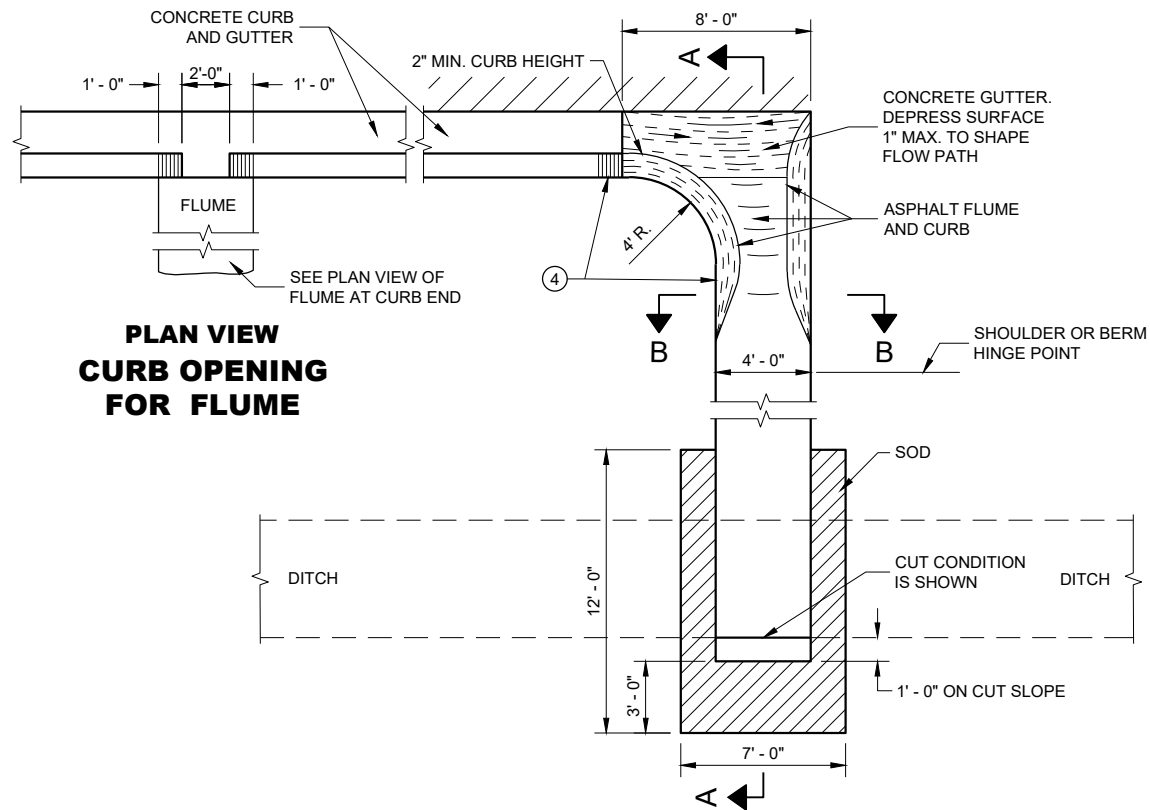
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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

ASPHALTIC FLUME



**PLAN VIEW
CURB OPENING
FOR FLUME**

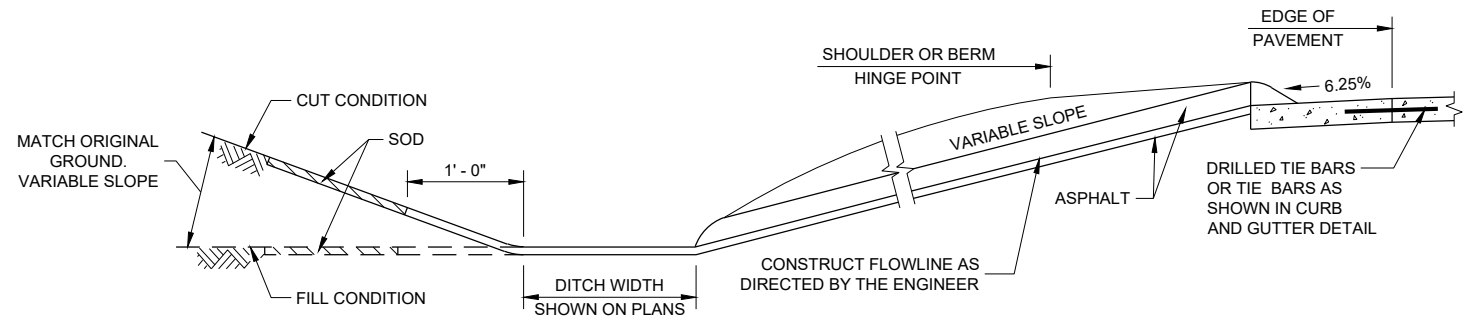
**PLAN VIEW
FLUME AT CURB END**

GENERAL NOTES

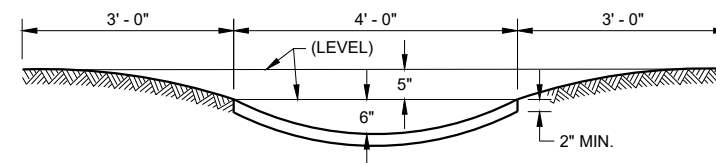
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

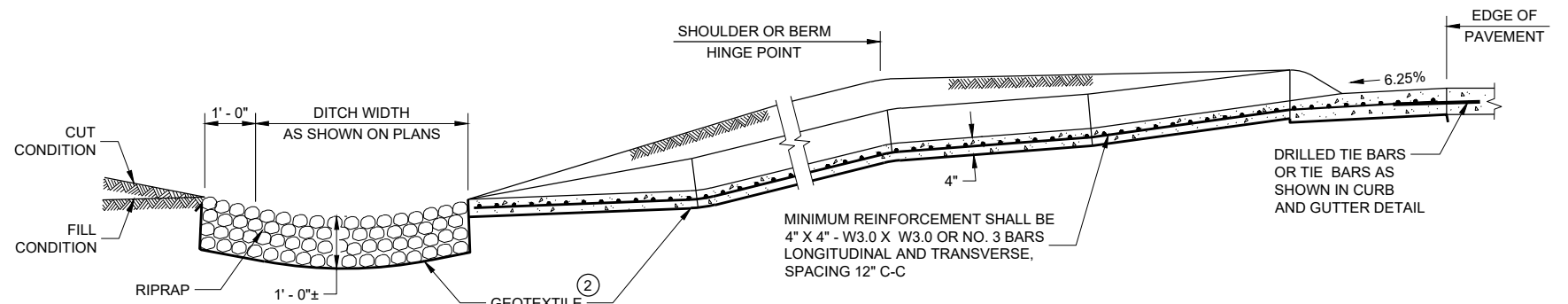
- ① JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- 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.



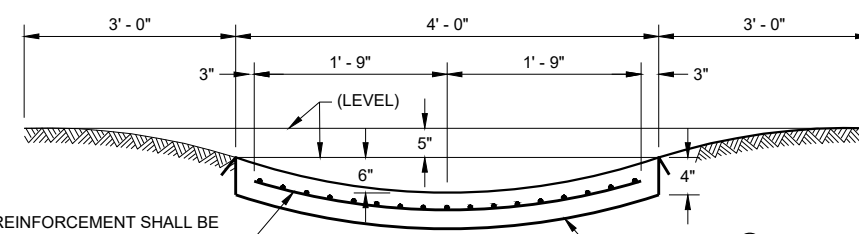
SECTION A - A



SECTION B - B

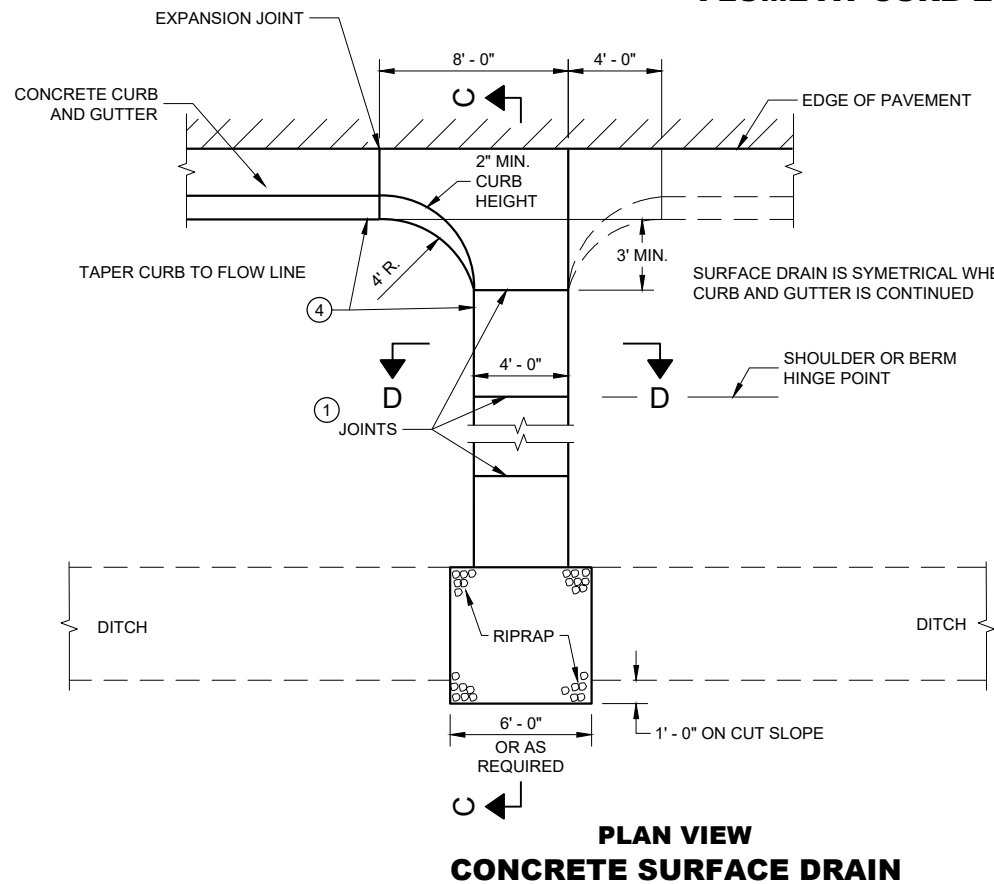


SECTION C - C



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



**PLAN VIEW
CONCRETE SURFACE DRAIN**

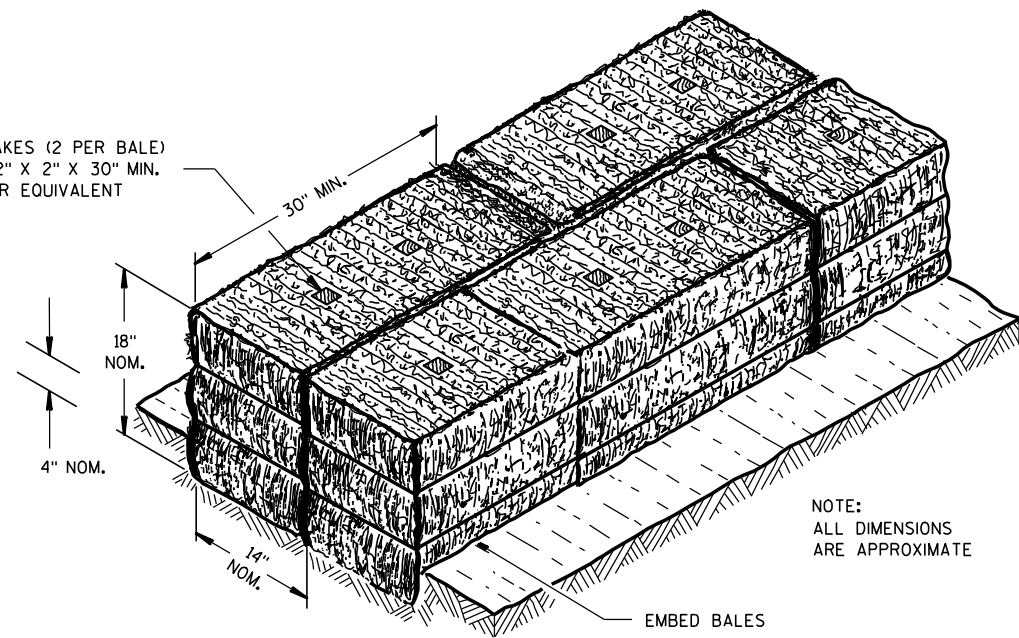
CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

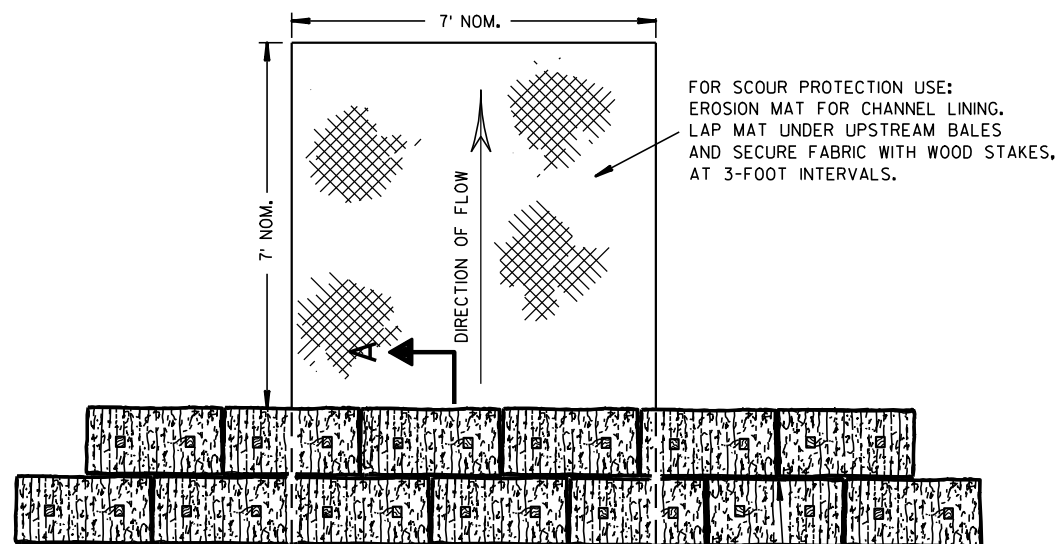
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A

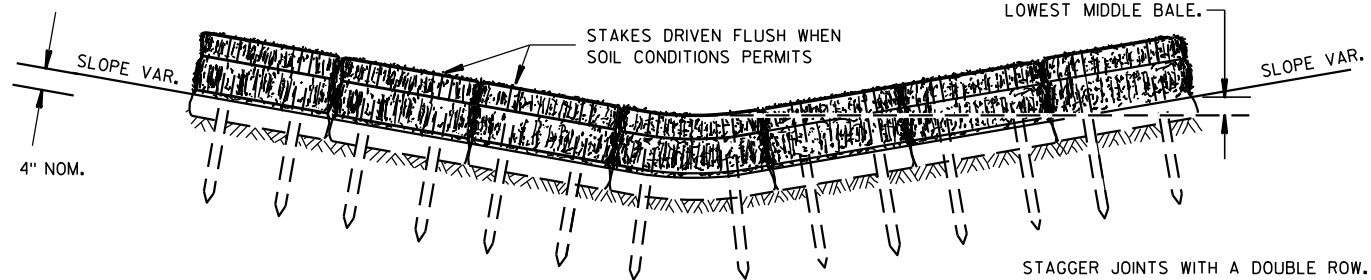


FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



FRONT ELEVATION

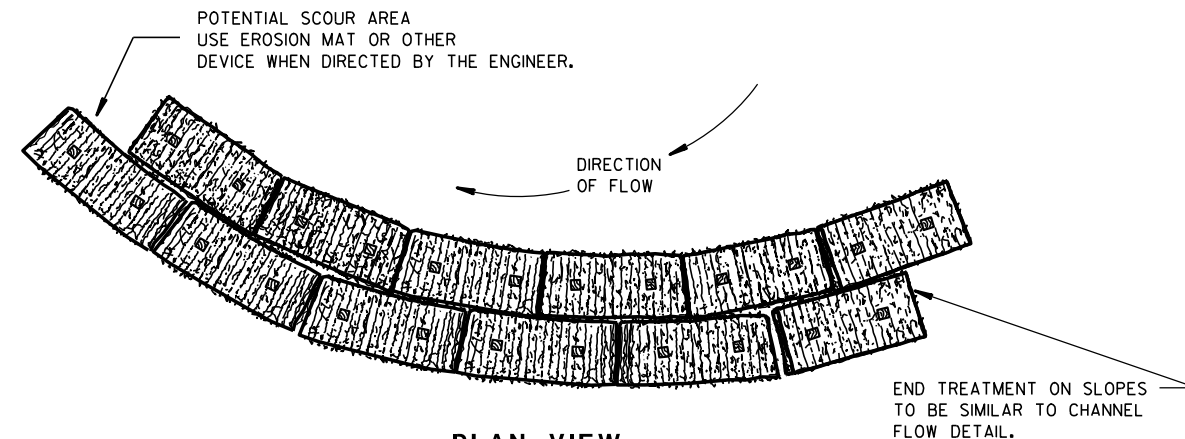
STAGGER JOINTS WITH A DOUBLE ROW.

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

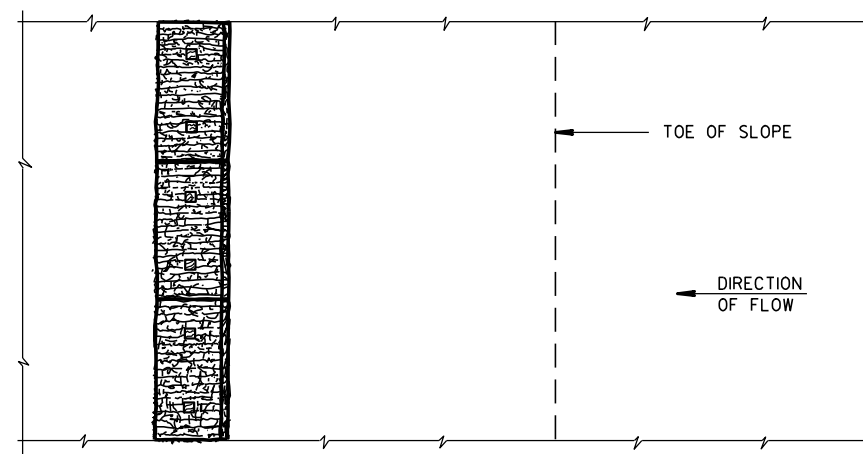
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

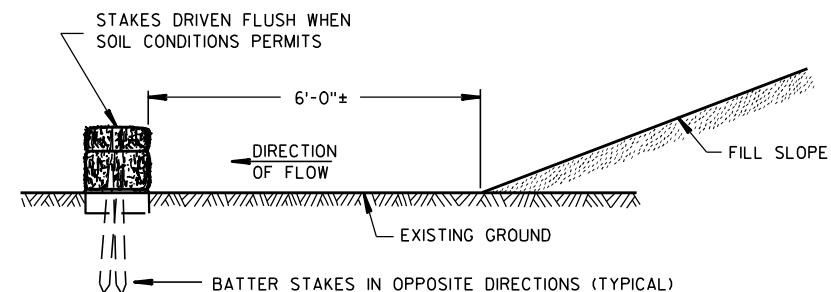


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

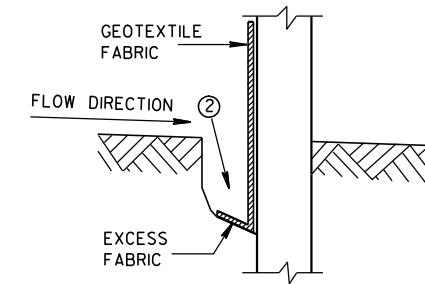


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

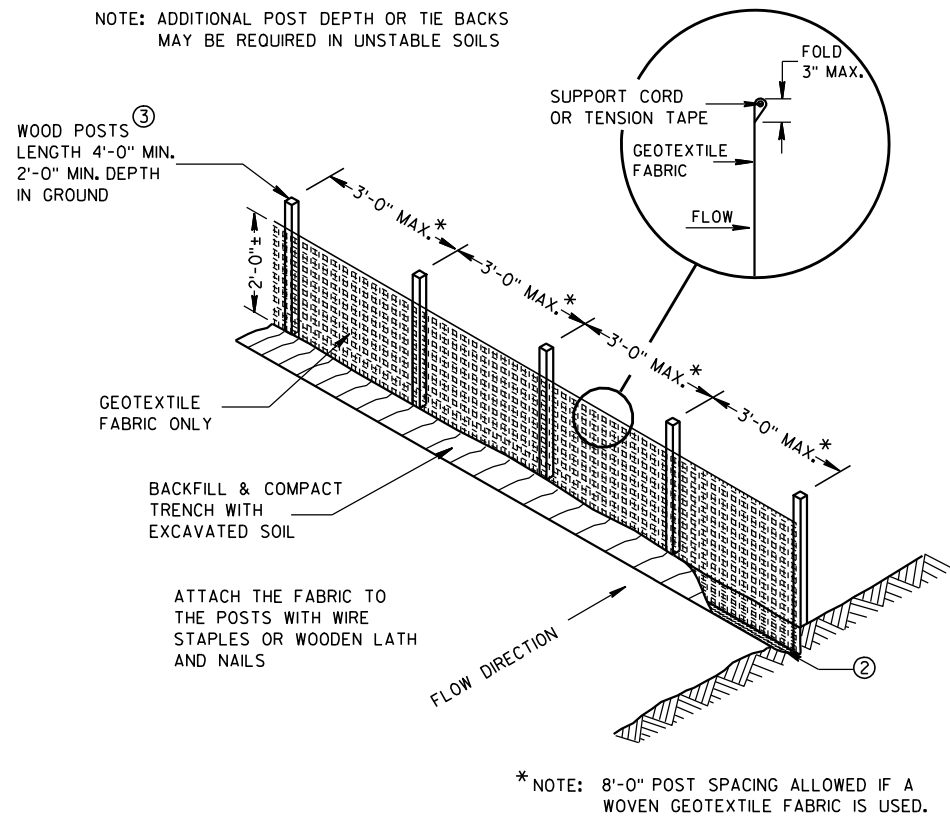
GENERAL NOTES

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

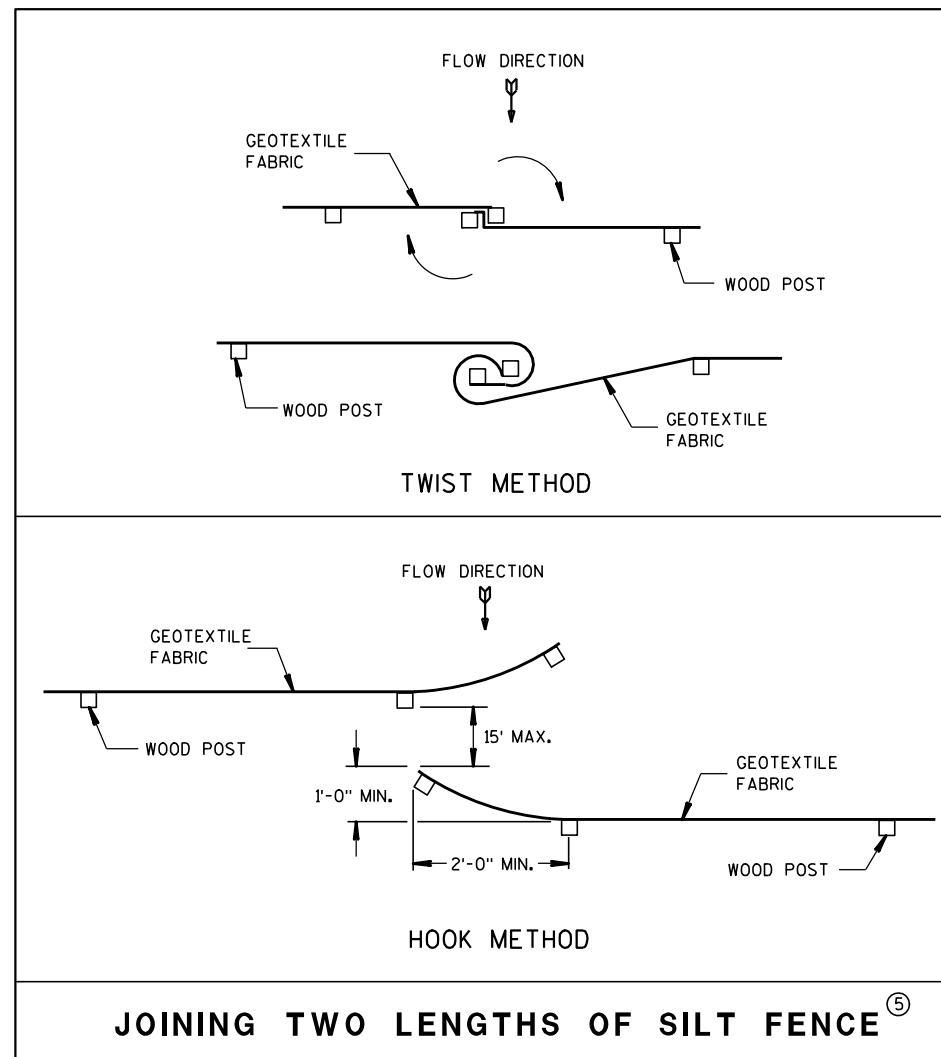
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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



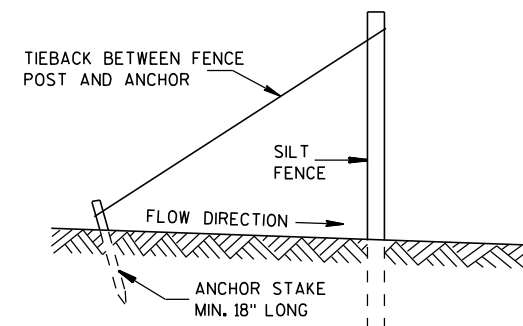
TRENCH DETAIL



SILT FENCE

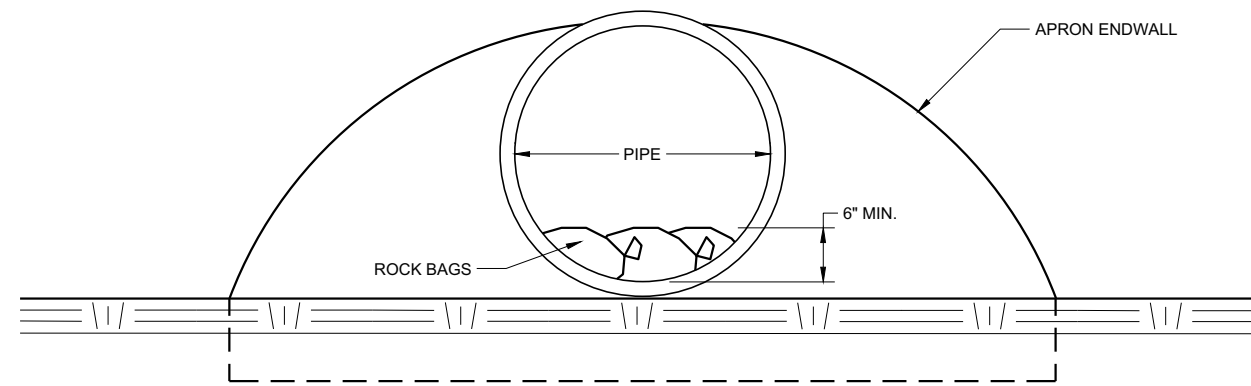


JOINING TWO LENGTHS OF SILT FENCE

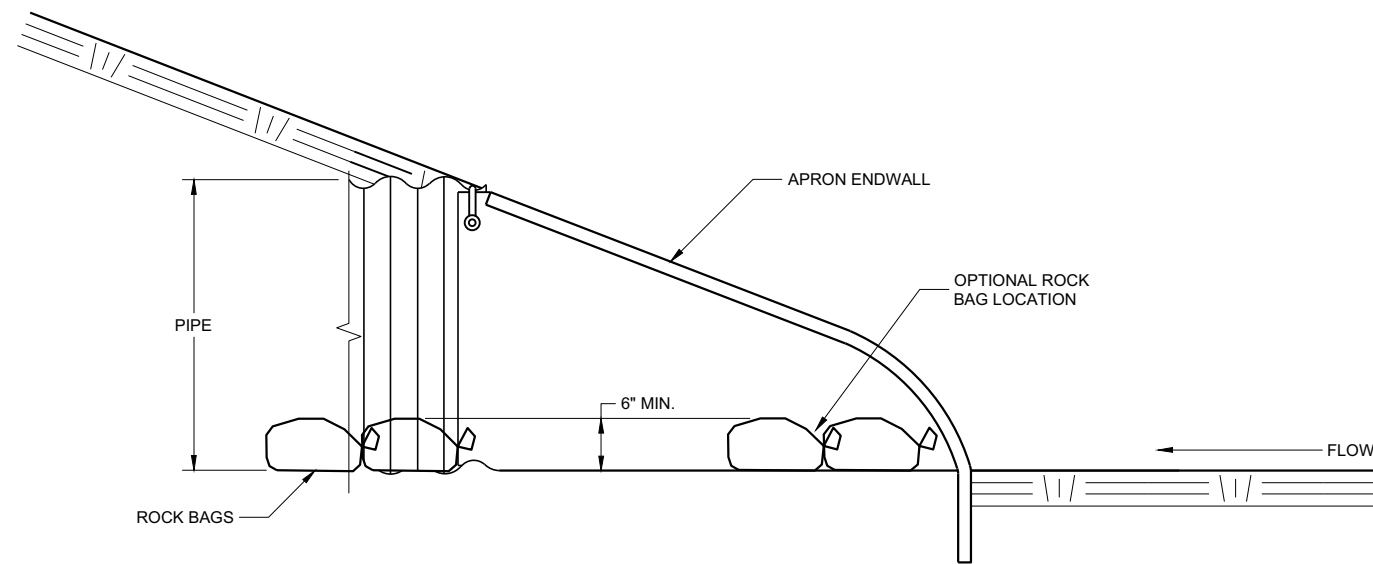


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

6

6

SDD 08E15 - 01

SDD 08E15 - 01

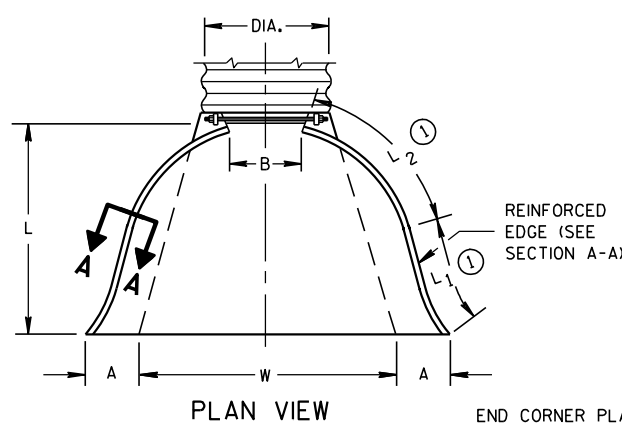
CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGINEER
<small>FHWA</small>	

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

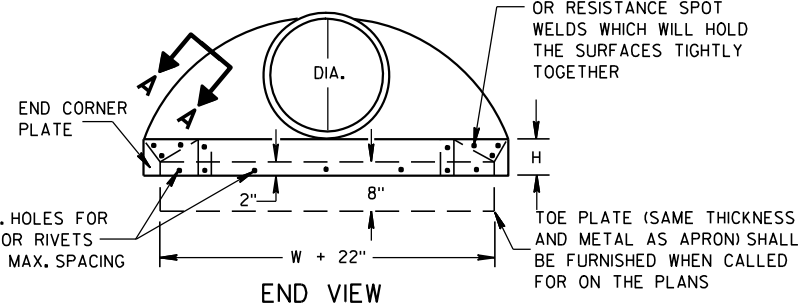
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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

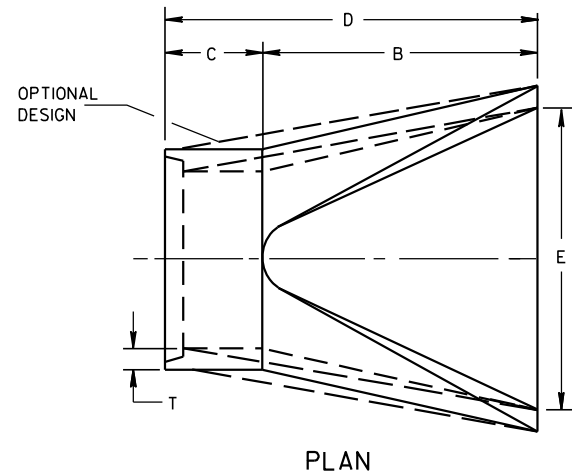
* MINIMUM
** MAXIMUM



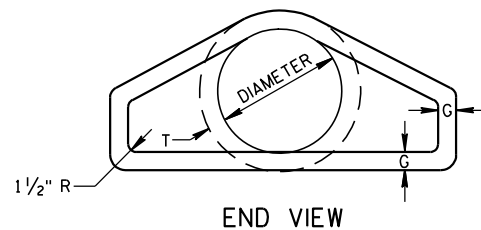
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



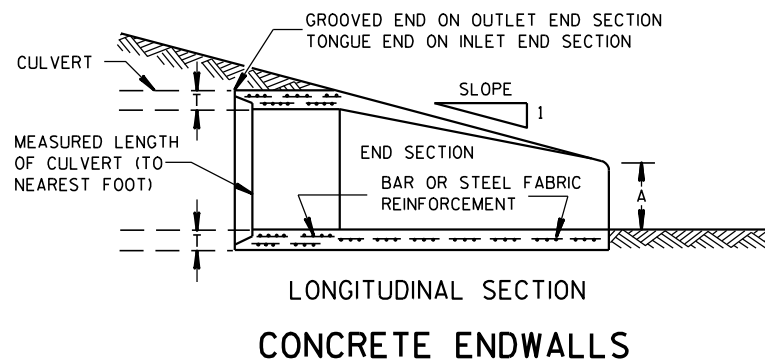
SIDE ELEVATION
METAL ENDWALLS



PLAN

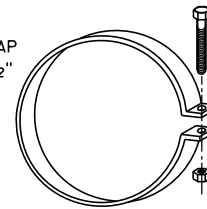


END VIEW

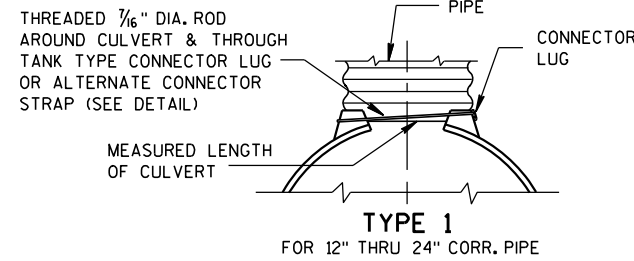


LONGITUDINAL SECTION
CONCRETE ENDWALLS

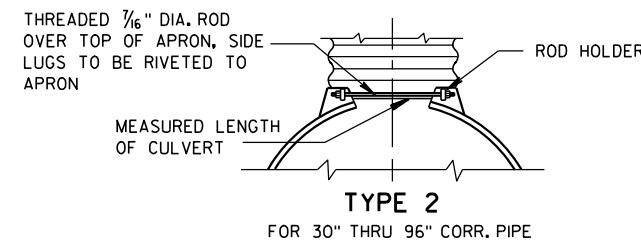
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



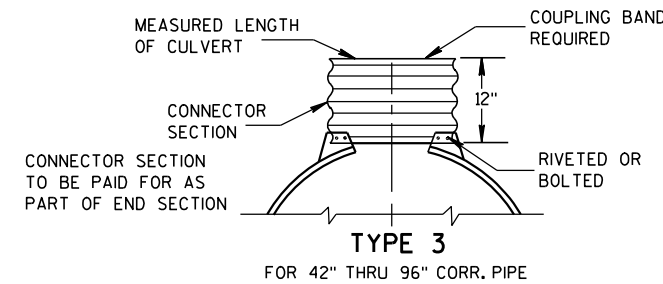
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



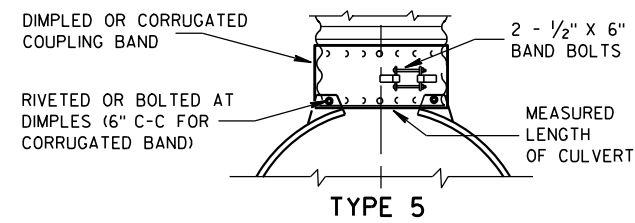
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

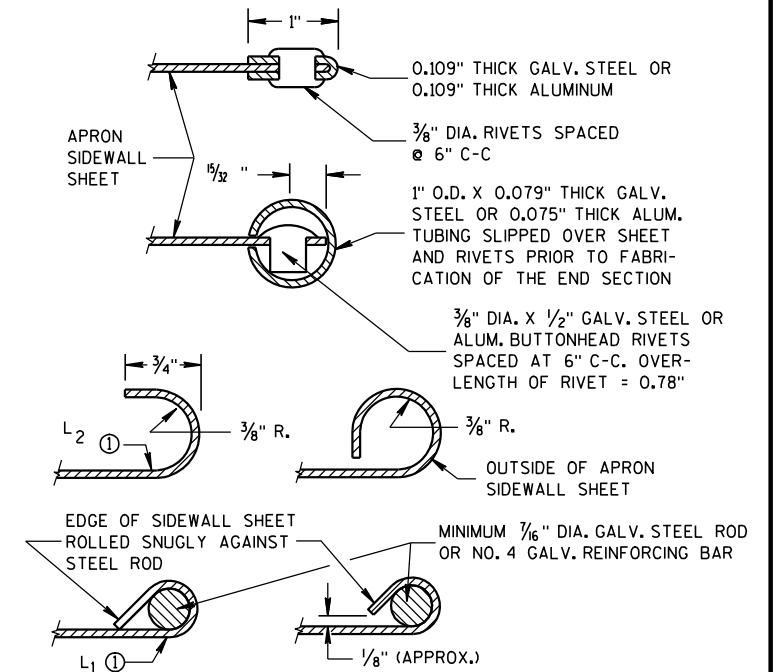
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

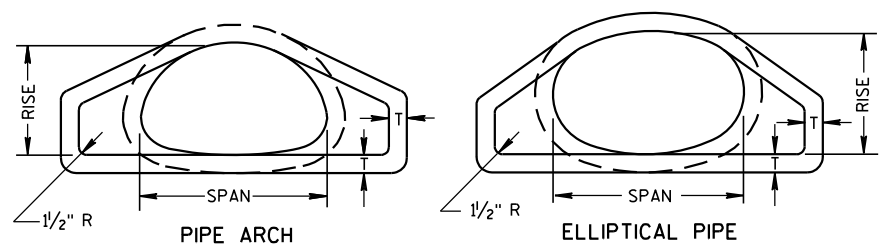
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

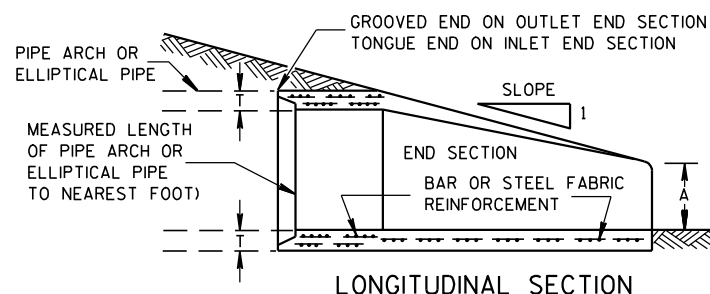
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

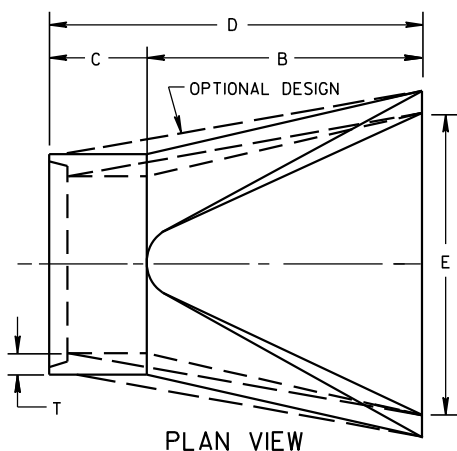


END VIEW



LONGITUDINAL SECTION

CONCRETE ENDWALLS



PLAN VIEW

2- 2/3" X 1/2" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (±1")	L2 (±1")	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (±1")	L2 (±1")	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. * EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH										
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)									APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E		
24	29	18	3	8 1/2	39	33	72	48	3 to 1	
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1	
36	44	27	4	11 1/8	60	36	96	72	3 to 1	
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1	
48	58	36	5	21	60	36	96	84	3 to 1	
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1	
60	73	45	6	31	60	36	96	96	3 to 1	
72	88	54	7	31	60	39	99	120	2 to 1	
84	102	62	8	28 1/2	83	19	102	144	2 to 1	

REINFORCED CONCRETE ELLIPTICAL PIPE										
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)									APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E		
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1	
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1	
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1	
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1	
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1	
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1	
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1	

**NOMINAL SIZE

GENERAL NOTES

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

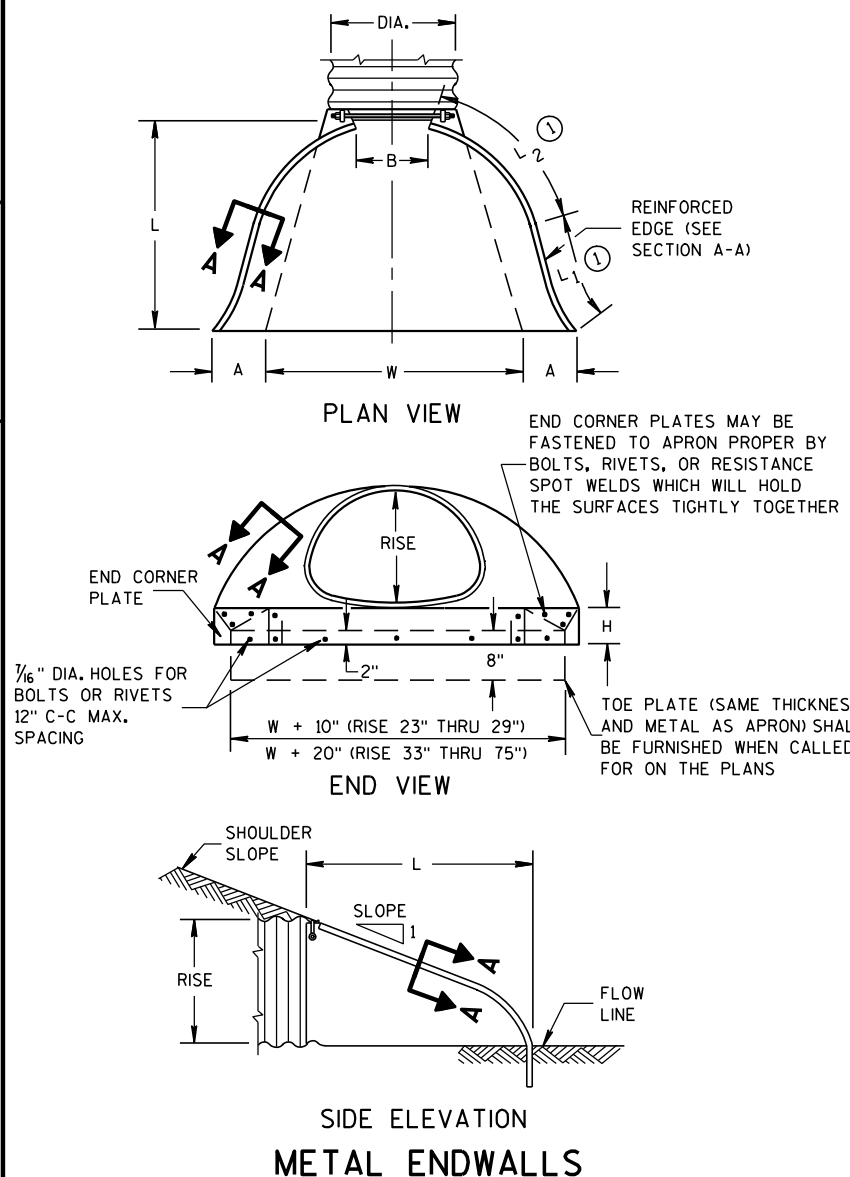
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

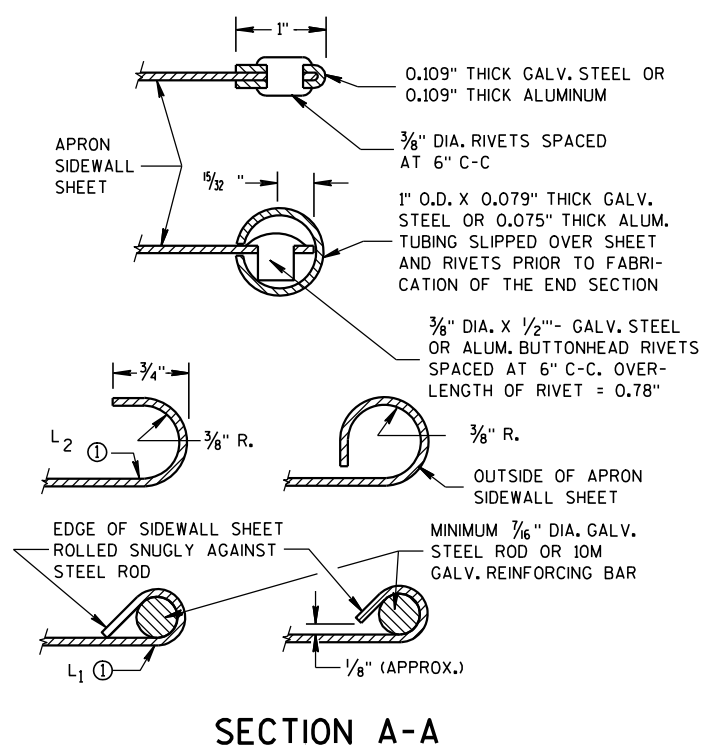
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

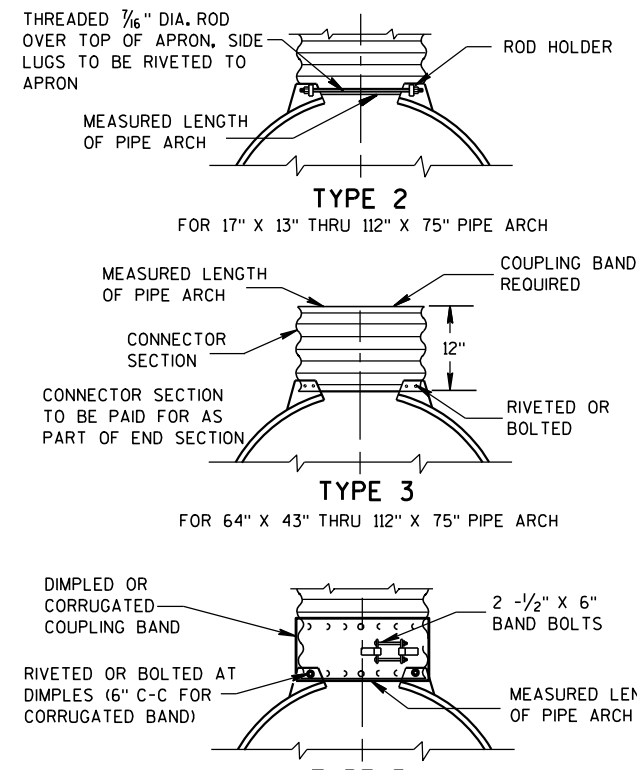
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



METAL ENDWALLS



SECTION A-A



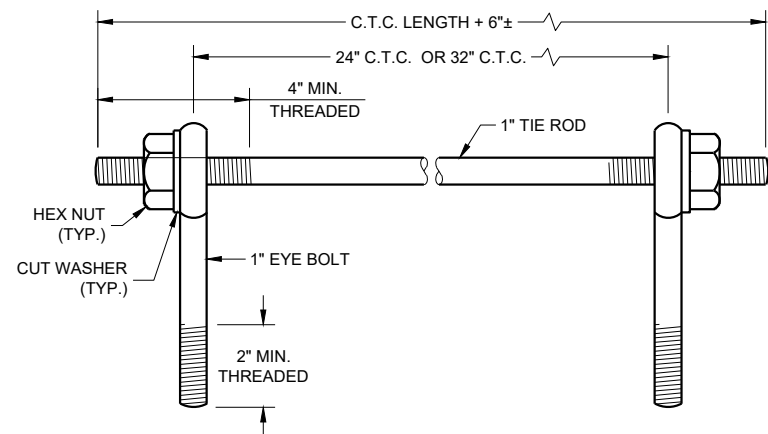
CONNECTION DETAILS

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

**APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPE**

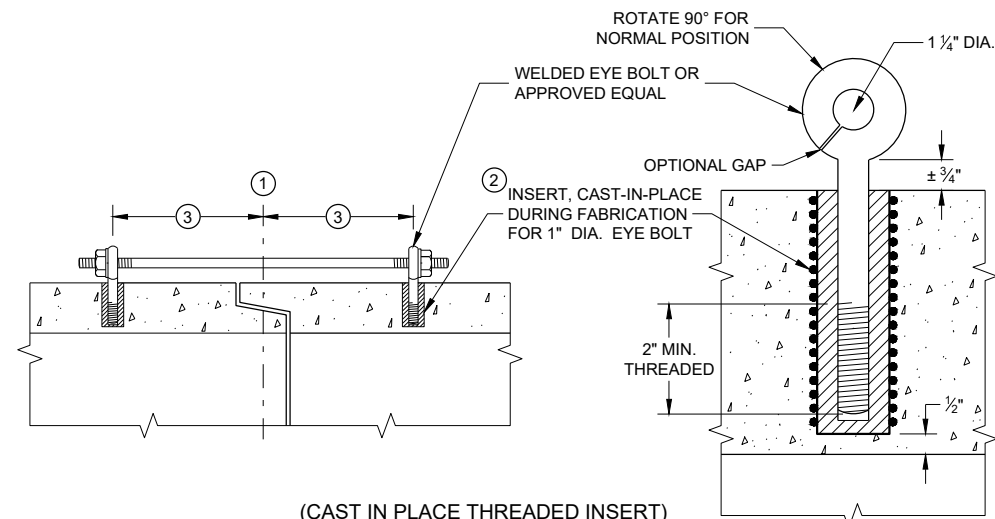
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

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



LONGITUDINAL SECTIONS

GENERAL NOTES

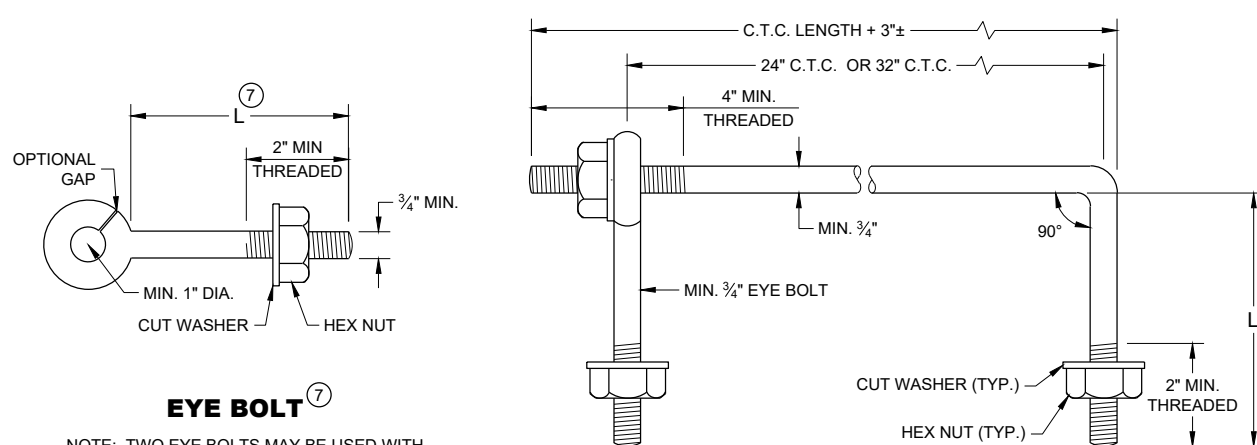
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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

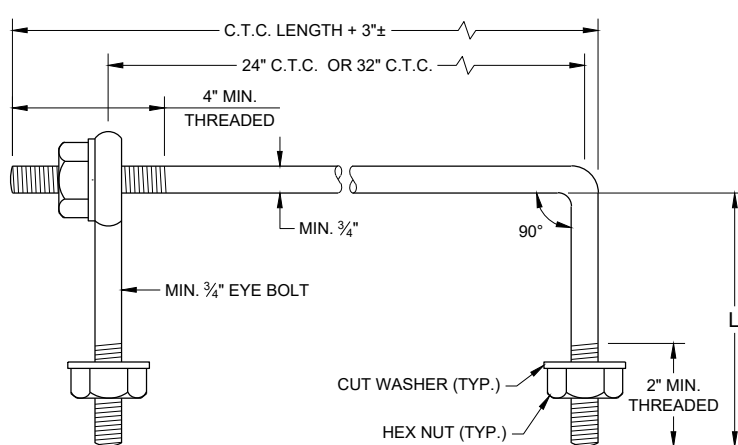
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

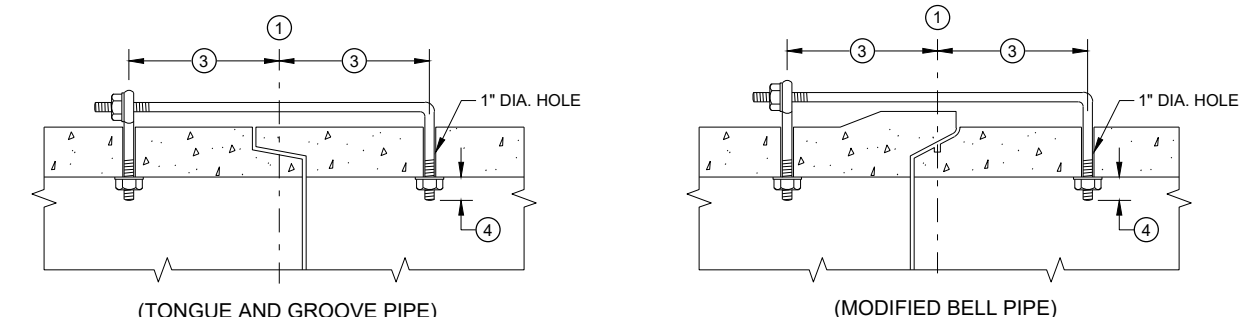


EYE BOLT ⑦

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30\"/>



EYE BOLT AND TIE ROD



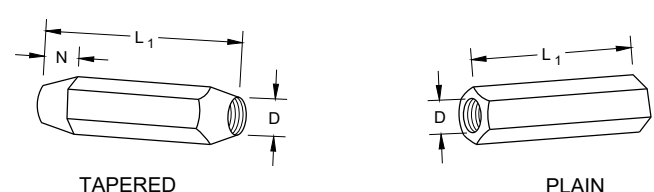
LONGITUDINAL SECTION
(JOINT TIES FOR 18\"/>

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

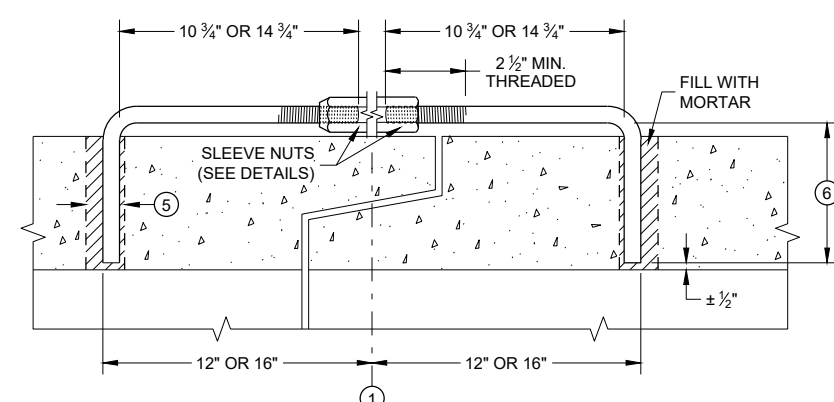
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES

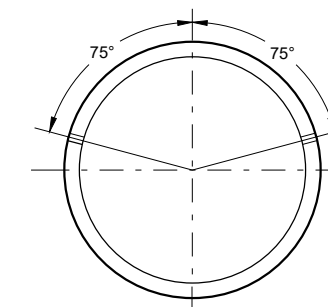


RIGHT AND LEFT THREADS SLEEVE NUTS



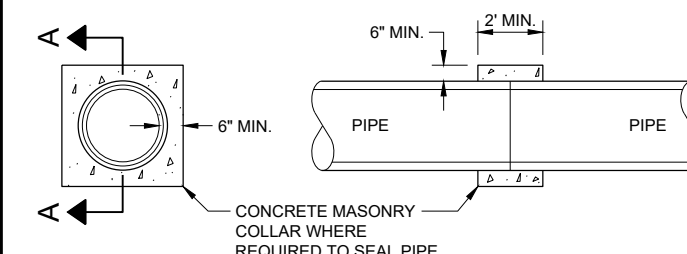
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



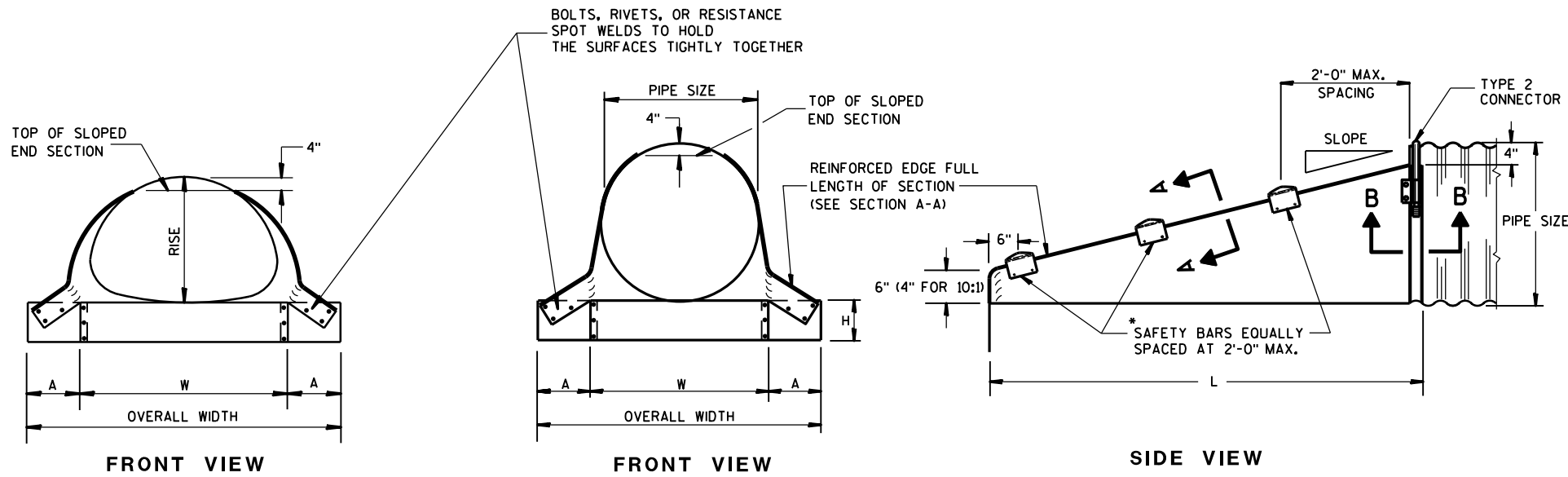
SECTION A - A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



GENERAL NOTES

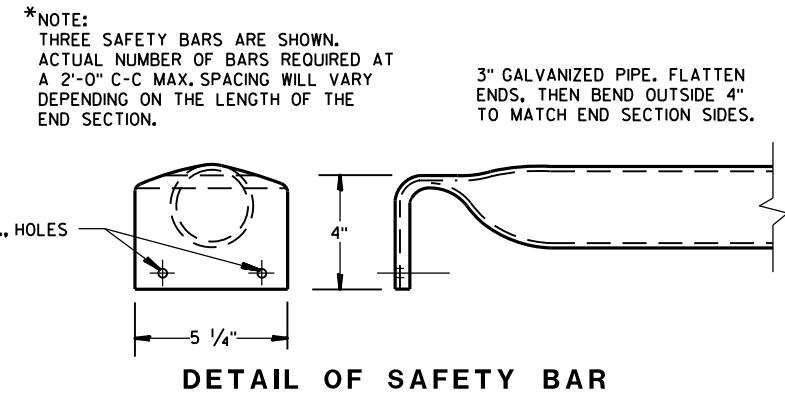
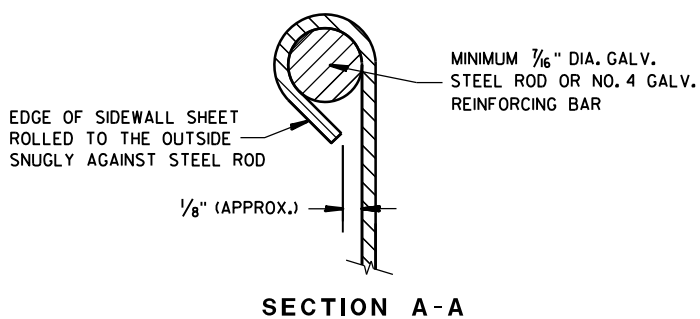
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS

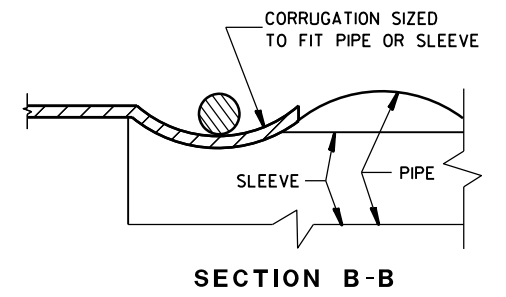
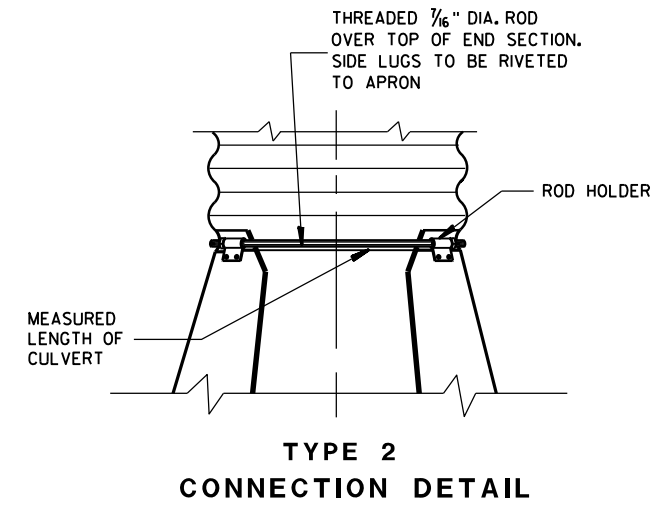
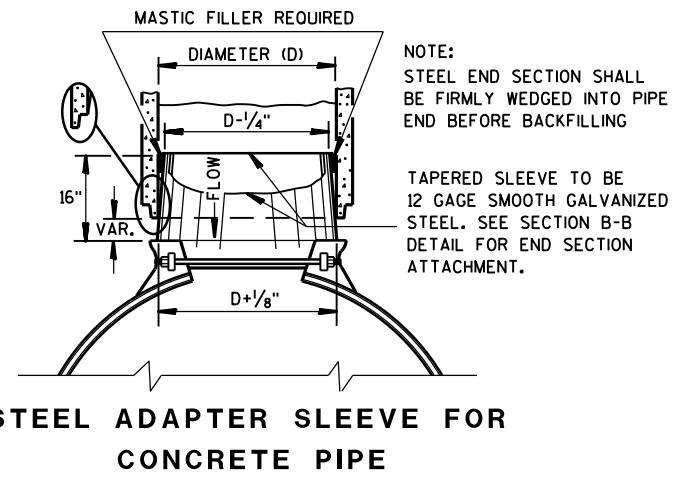
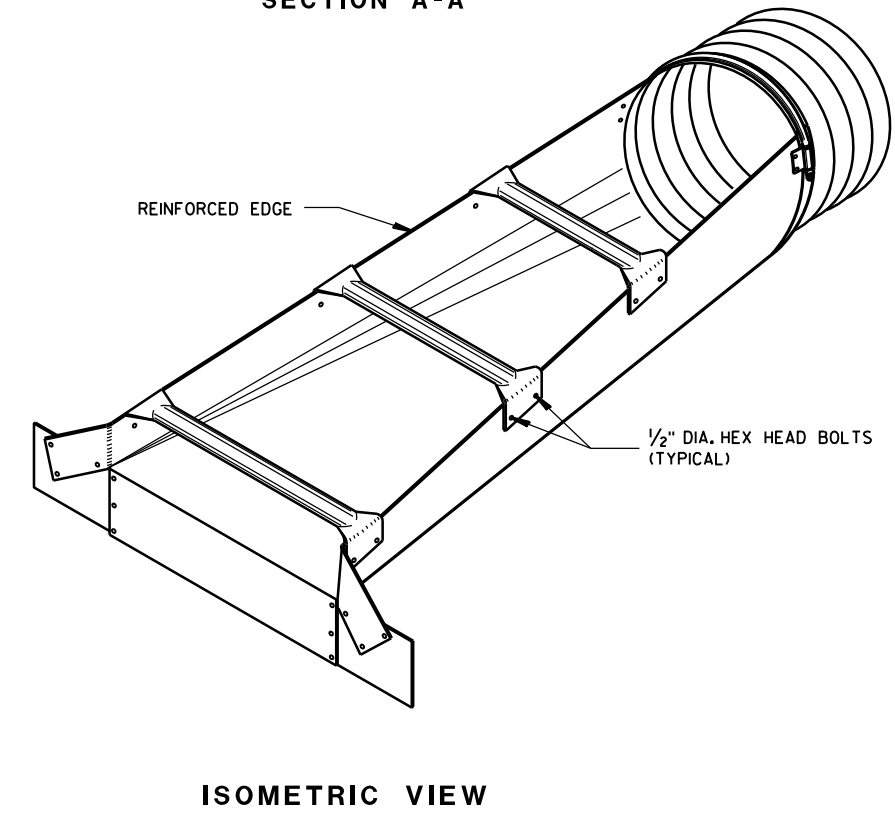
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	—	—
48	.109	16	12	54	86	4:1	152	6:1	228	—	—
54	.109	16	12	60	92	4:1	176	6:1	264	—	—
60	.109	16	12	66	98	4:1	200	6:1	300	—	—



STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches) ①	DIMENSIONS (Inches)				L DIMENSIONS					
	SPAN	RISE		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	—	—
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	—	—
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	—	—

① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
 ② ACTUAL SLOPE GREATER THAN 10:1.

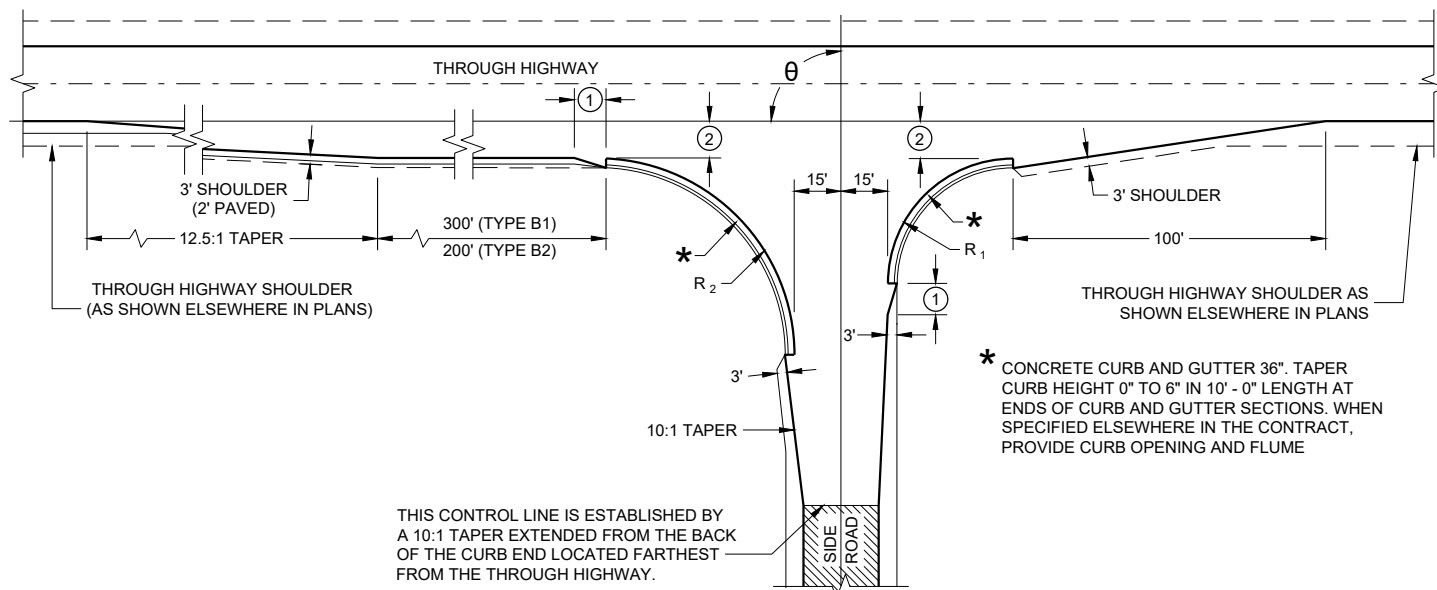


STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 9/14/2012 /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



TYPE "B1" AND "B2"

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

θ	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.

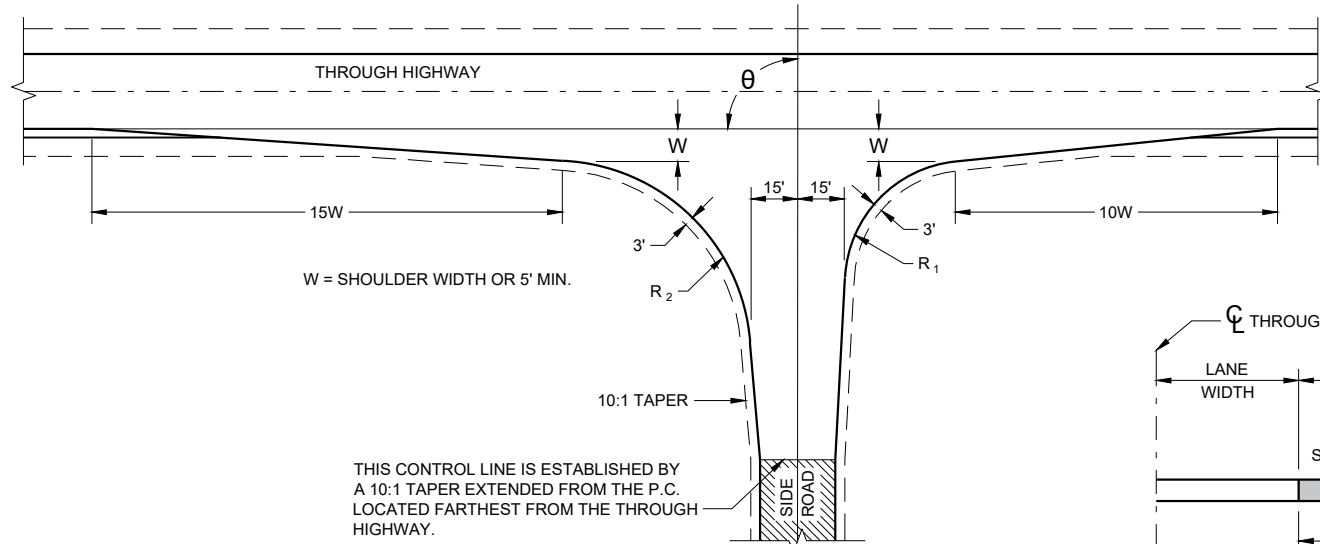
SIDE ROAD SURFACING NOTE

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.

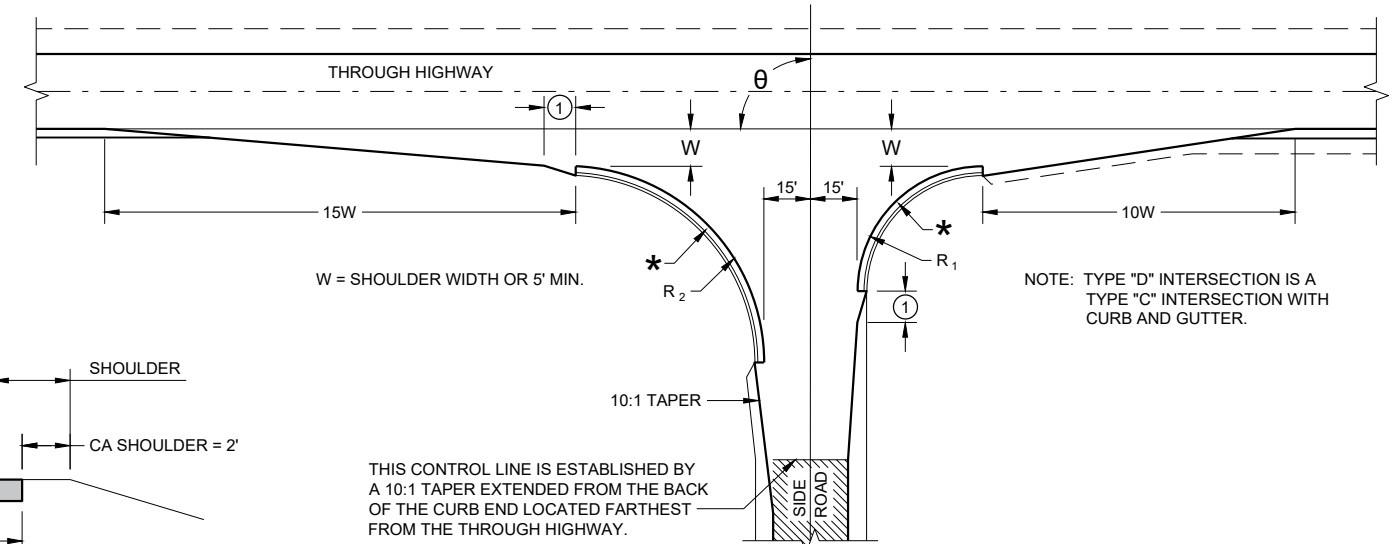
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

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

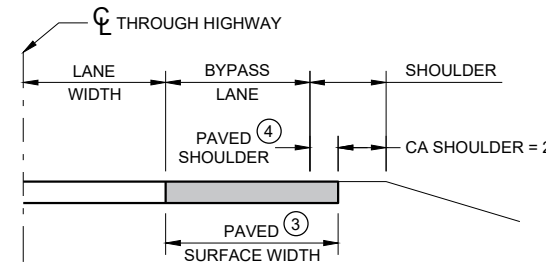
- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE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



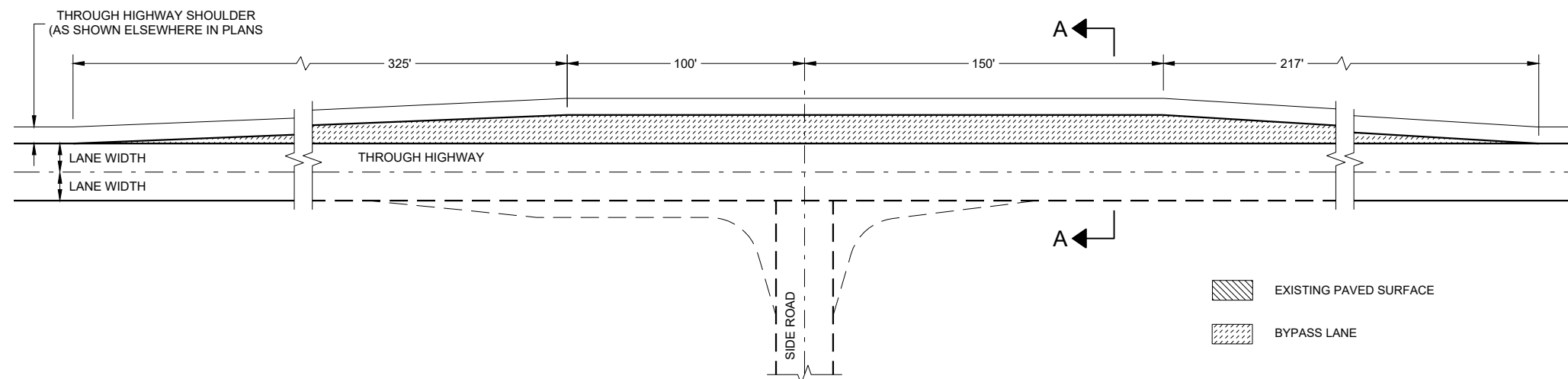
TYPE "C"



TYPE "D"



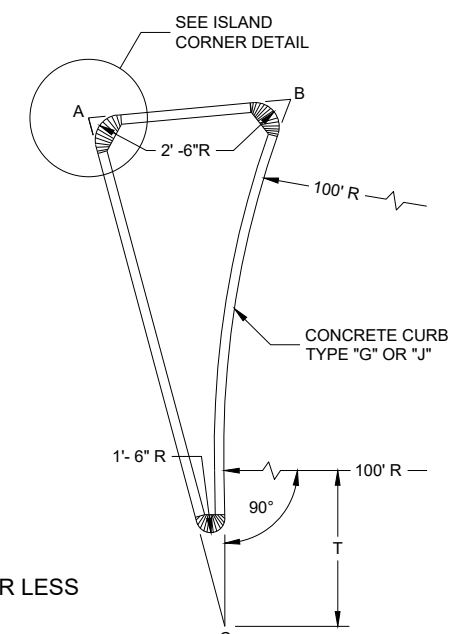
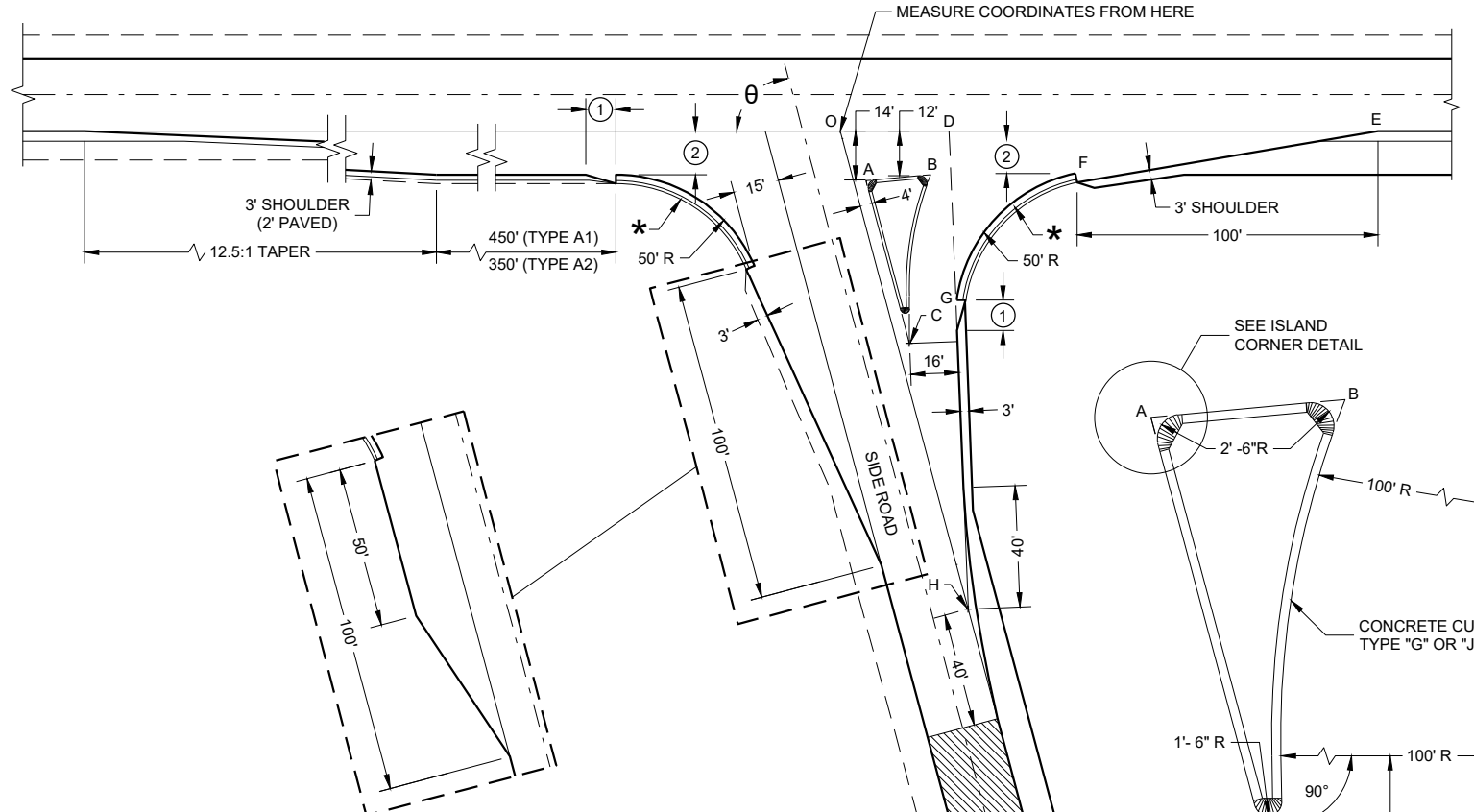
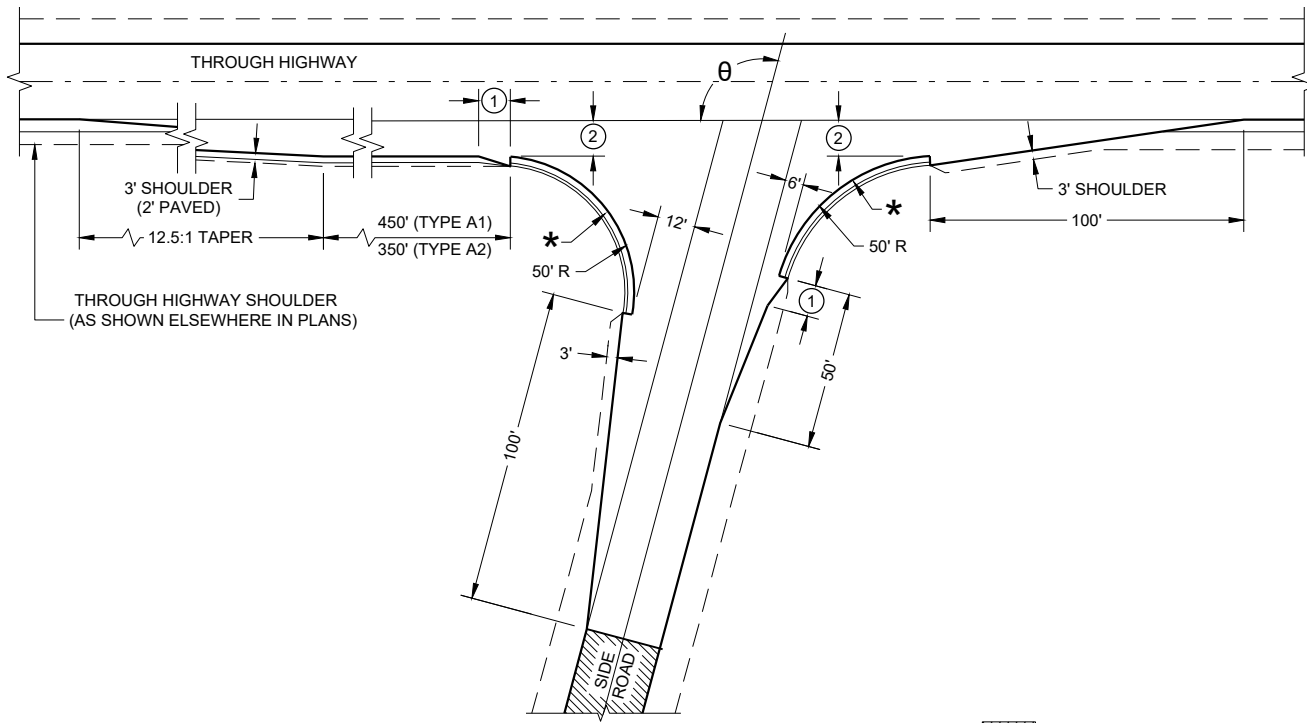
SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



$\theta = \text{MORE THAN } 80^\circ$

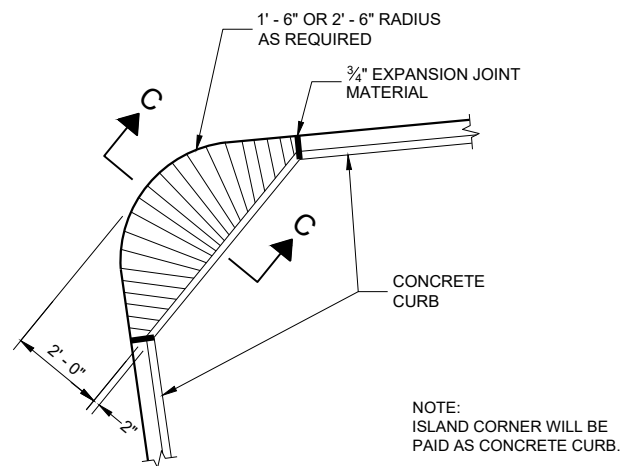
SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
 $\theta = \text{ACUTE ANGLES } 70^\circ \text{ OR LESS}$

$\theta = \text{ACUTE ANGLES } 80^\circ \text{ OR LESS}$

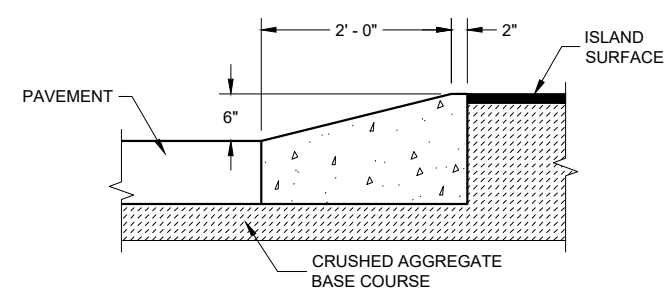
EXISTING PAVED SURFACE

6

6



PLAN VIEW



SECTION C - C

ISLAND CORNER DETAIL
 (TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT 'O')								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 -14.0	44.9 -12.0	46.4 -72.4	41.9 0.0	205.0 0.0	104.6 -12.0	64.0 -75.5	85.0 -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 -14.0	39.0 -12.0	37.8 -71.6	39.4 0.0	196.1 0.0	95.7 -12.0	54.1 -71.5	70.5 -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 -14.0	33.9 -12.0	29.8 -70.1	37.4 0.0	188.3 0.0	87.8 -12.0	45.6 -67.5	56.1 -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 -14.0	29.3 -12.0	22.3 -67.9	35.7 0.0	181.2 0.0	80.7 -12.0	38.2 -63.4	41.8 -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 -14.0	25.4 -12.0	15.6 -65.2	34.4 0.0	174.8 0.0	74.4 -12.0	31.8 -59.3	27.6 -156.5	18.9	52.0	15.6	66.9	158.9

TYPE 'A1" AND "A2" SIDE ROAD INTERSECTION DETAILS

SDD09A01 - 14b

SDD09A01 - 14b

AT GRADE SIDE ROAD INTERSECTIONS TYPES "A1" AND "A2"

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

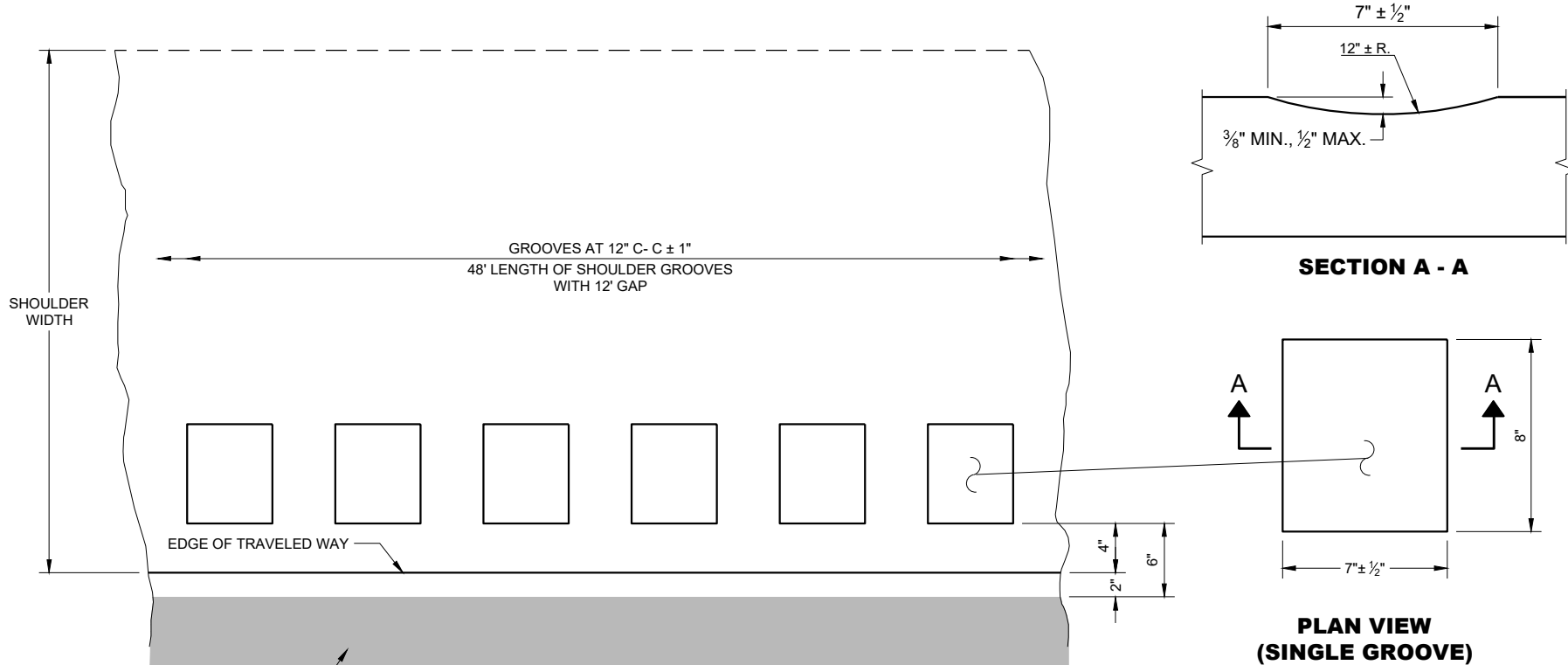
APPROVED
 November 2022 /S/ John Jenkins
 DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

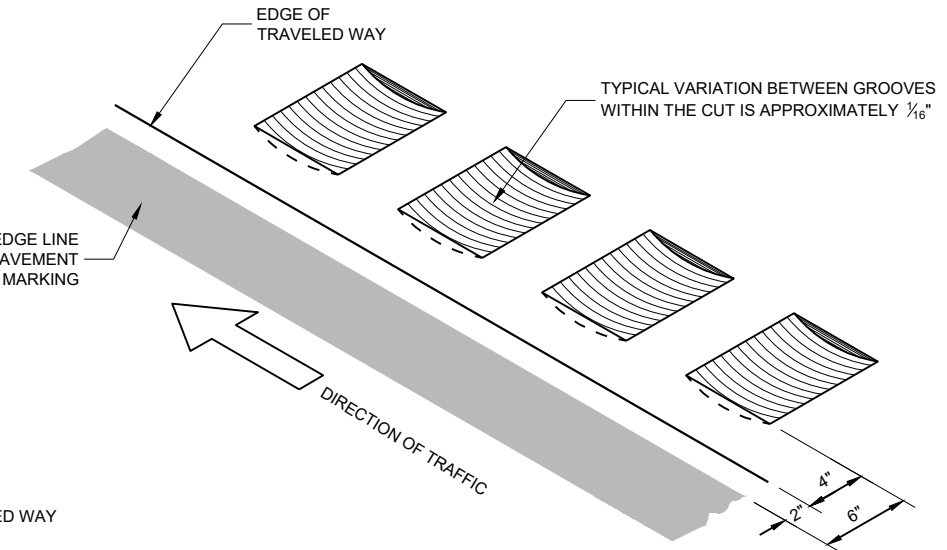
GENERAL NOTES

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

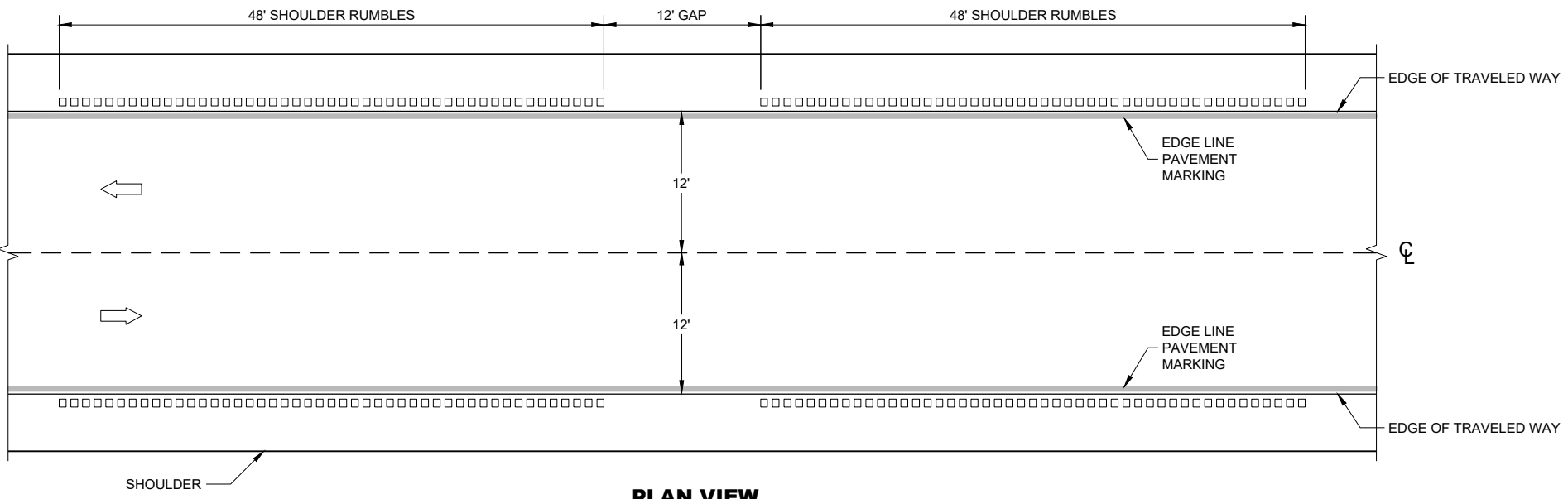
SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



**PLAN DETAIL VIEW
SHOULDER WITH GROOVES**



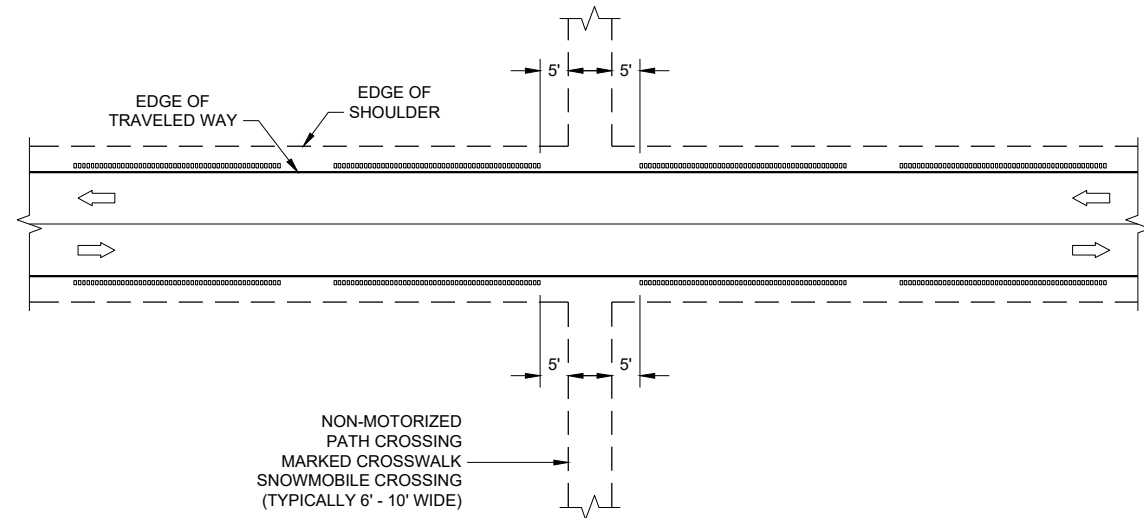
SHOULDER RUMBLE STRIPS ASPHALT



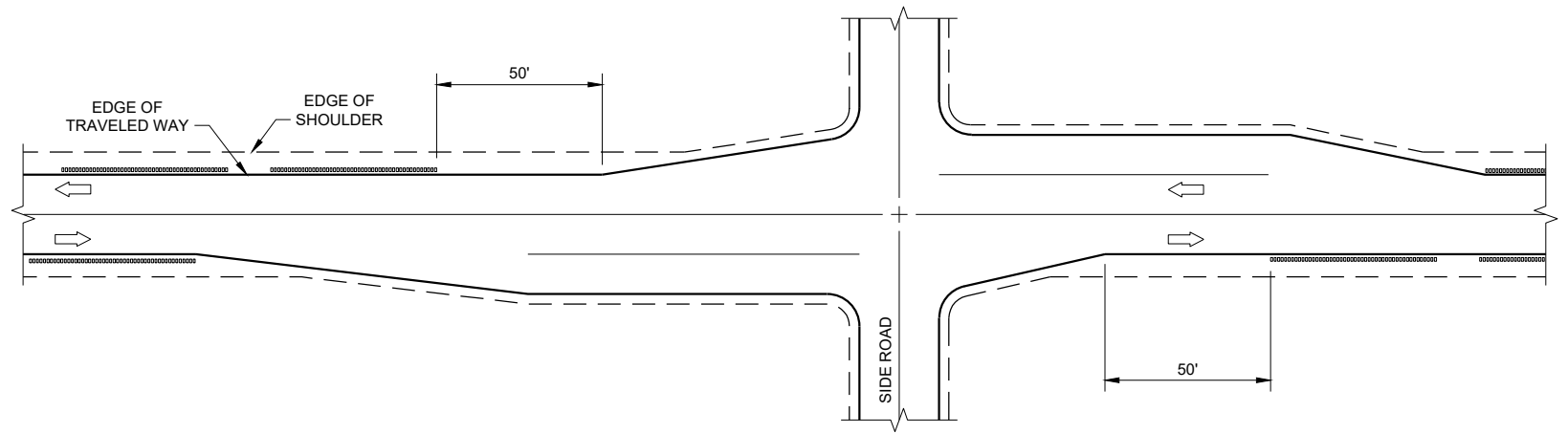
SHOULDER RUMBLE STRIPS - ASPHALT

SHOULDER RUMBLE STRIPS ASPHALT

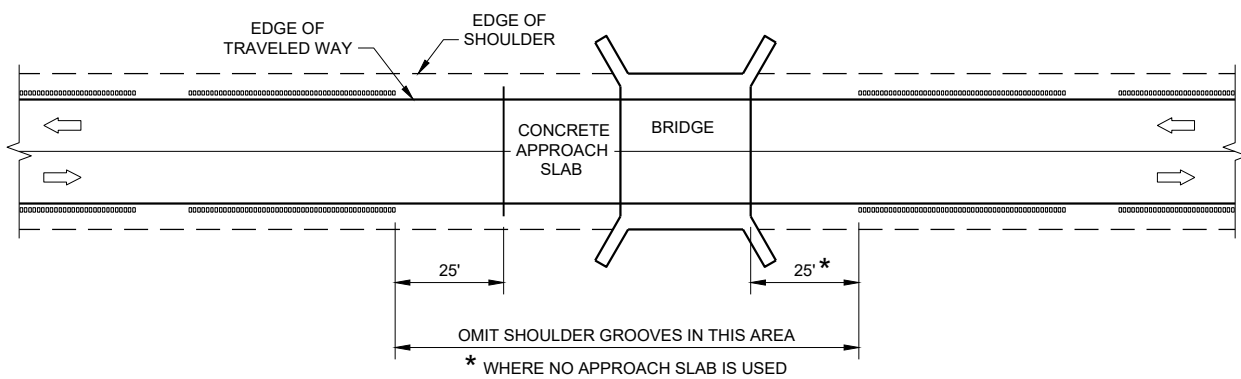
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



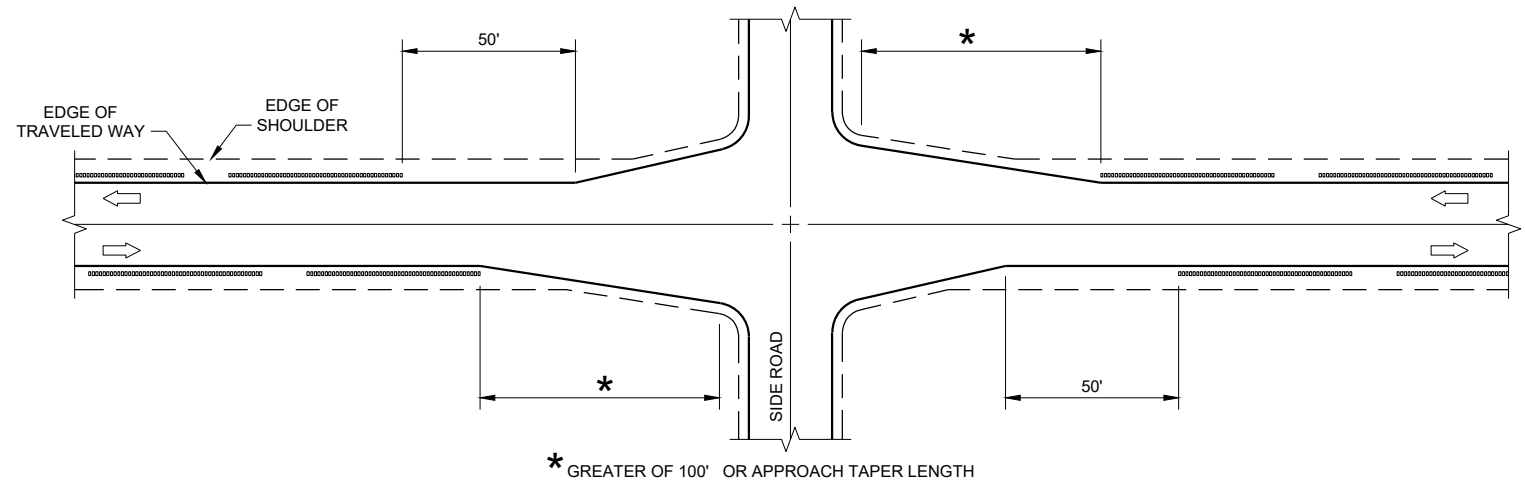
GROOVES AT MISCELLANEOUS CROSSINGS



GROOVES AT RIGHT TURN LANE

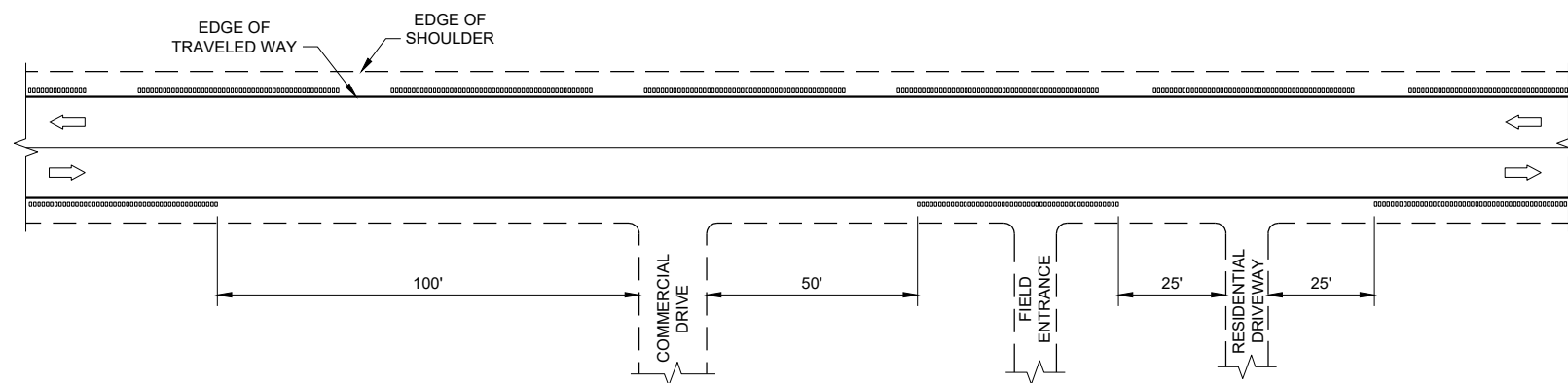


GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER

* GREATER OF 100' OR APPROACH TAPER LENGTH



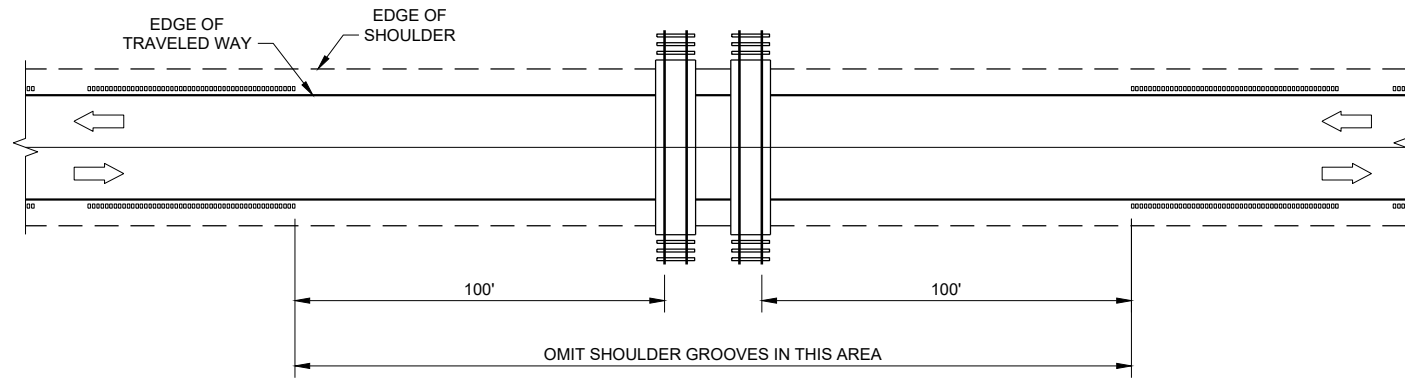
GROOVES AT DRIVEWAYS

GENERAL NOTES

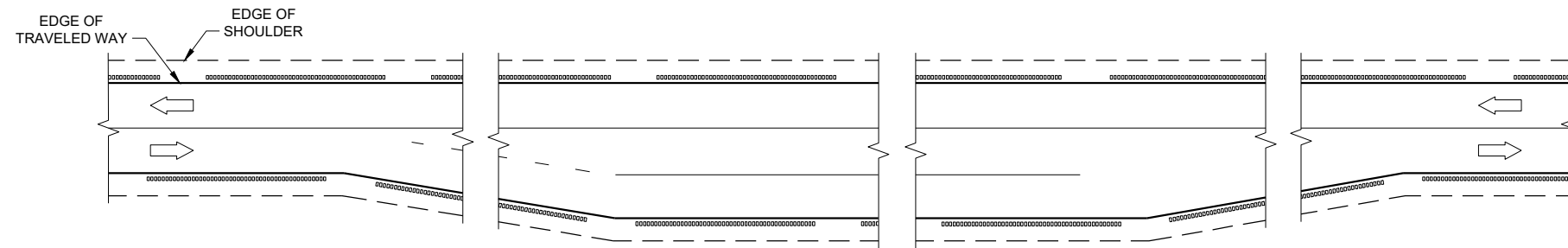
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE
RUMBLE STRIPS
CROSSINGS, INTERSECTIONS,
BRIDGES, DRIVEWAYS**

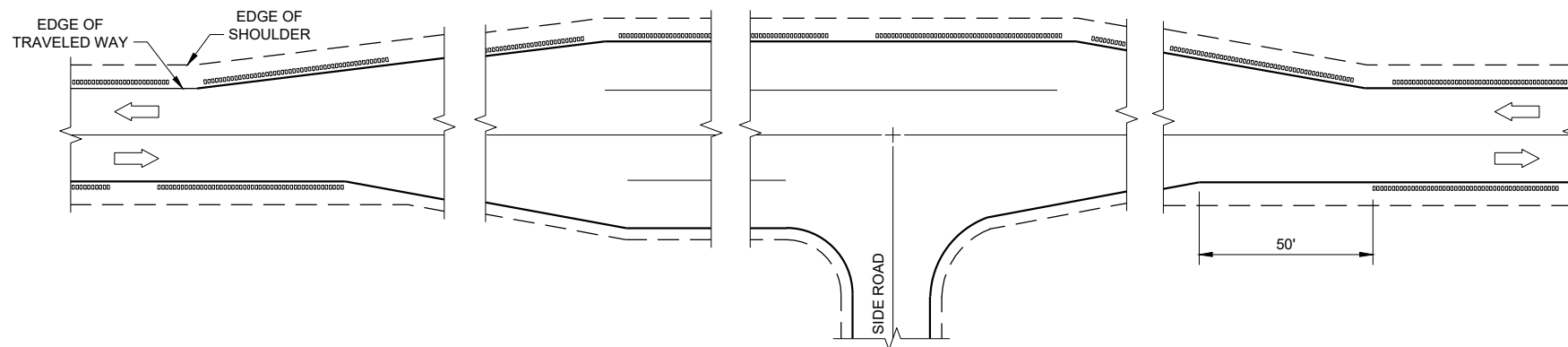
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



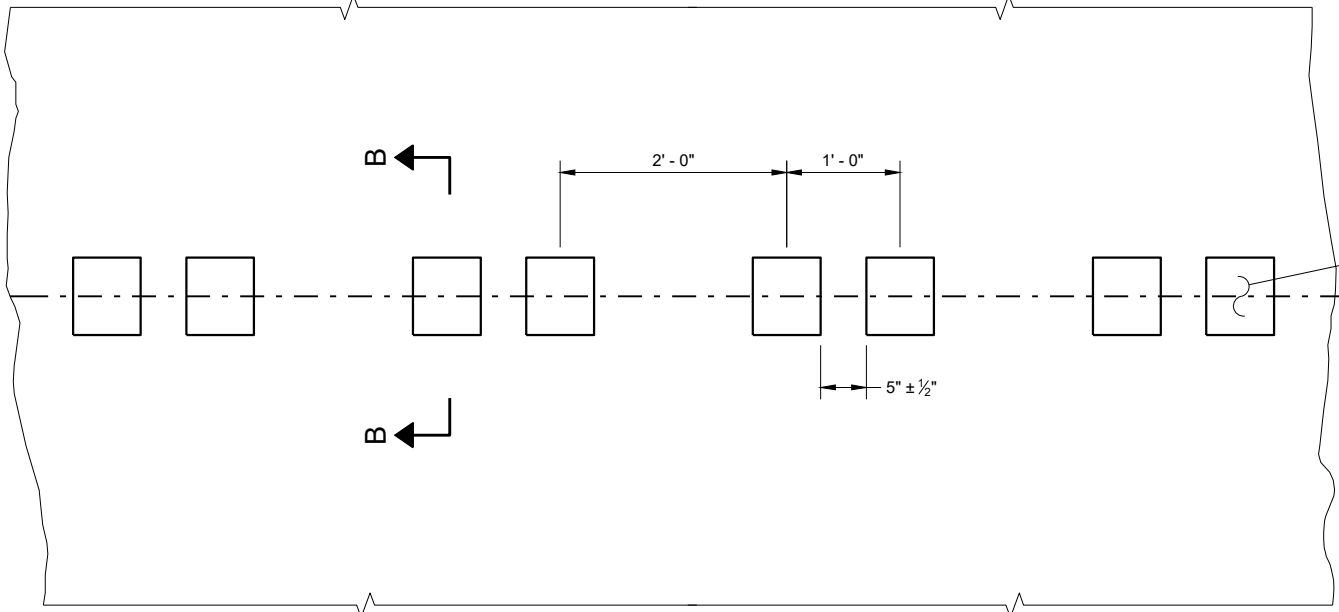
GROOVES AT BYPASS LANES

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

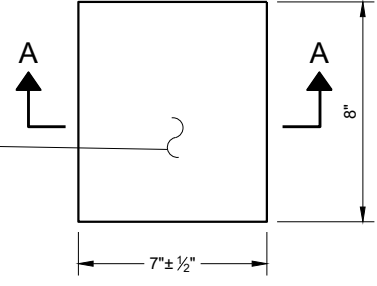
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

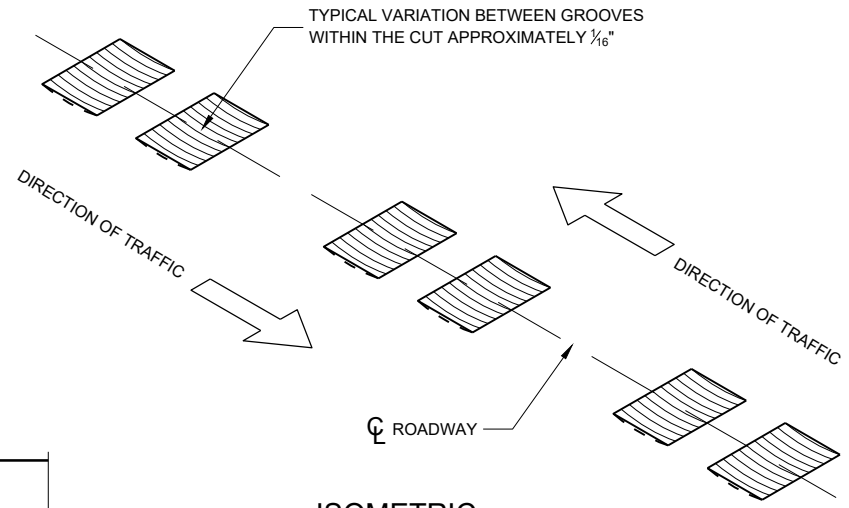
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



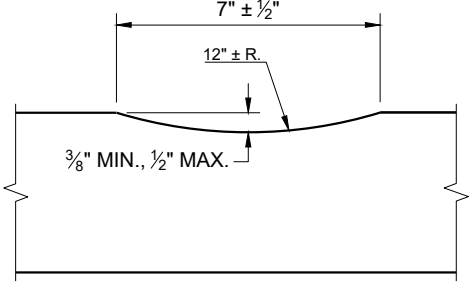
PLAN DETAIL VIEW



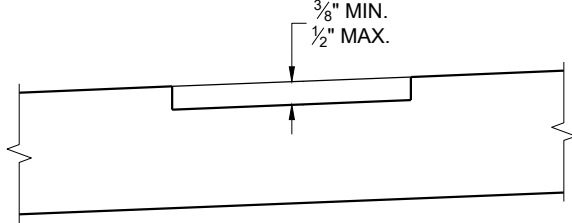
PLAN VIEW (SINGLE GROOVE)



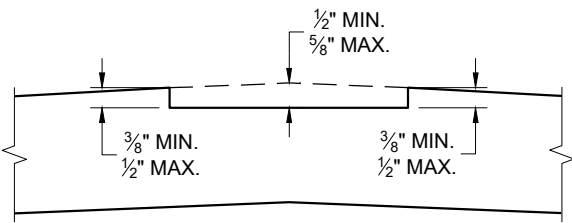
ISOMETRIC



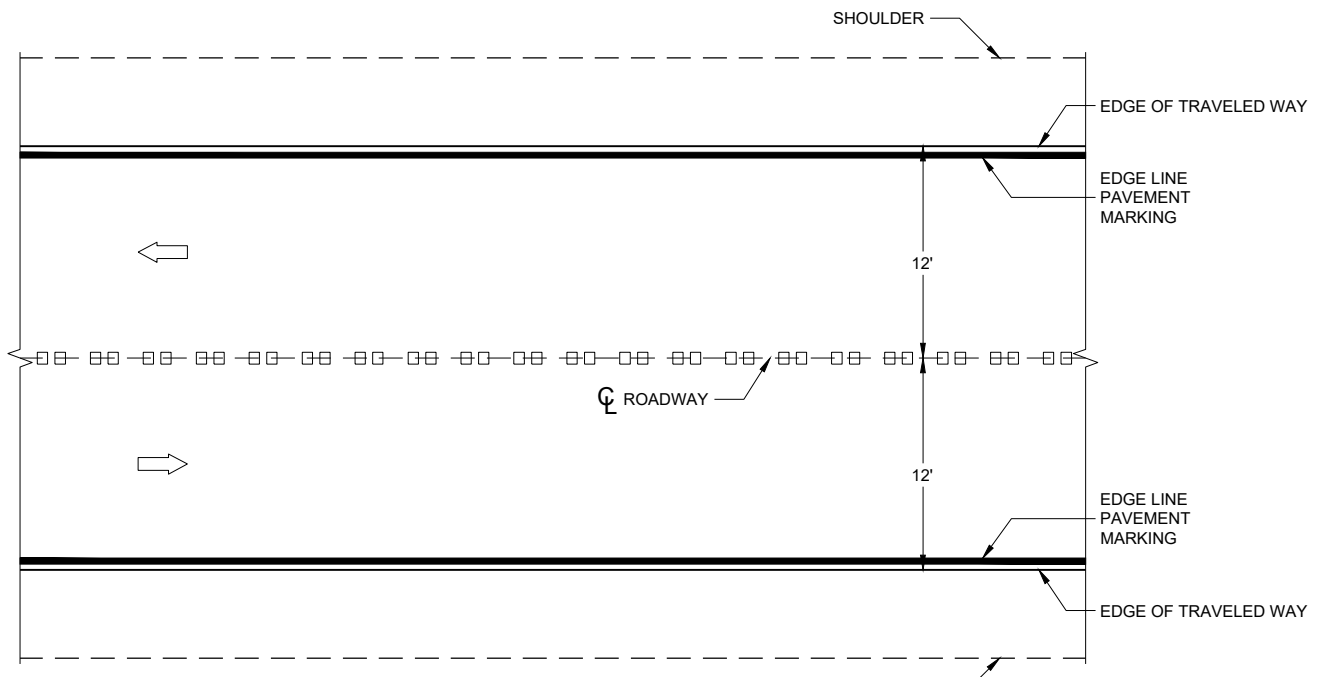
SECTION A - A



SECTION B - B SUPERELEVATED ROADWAY



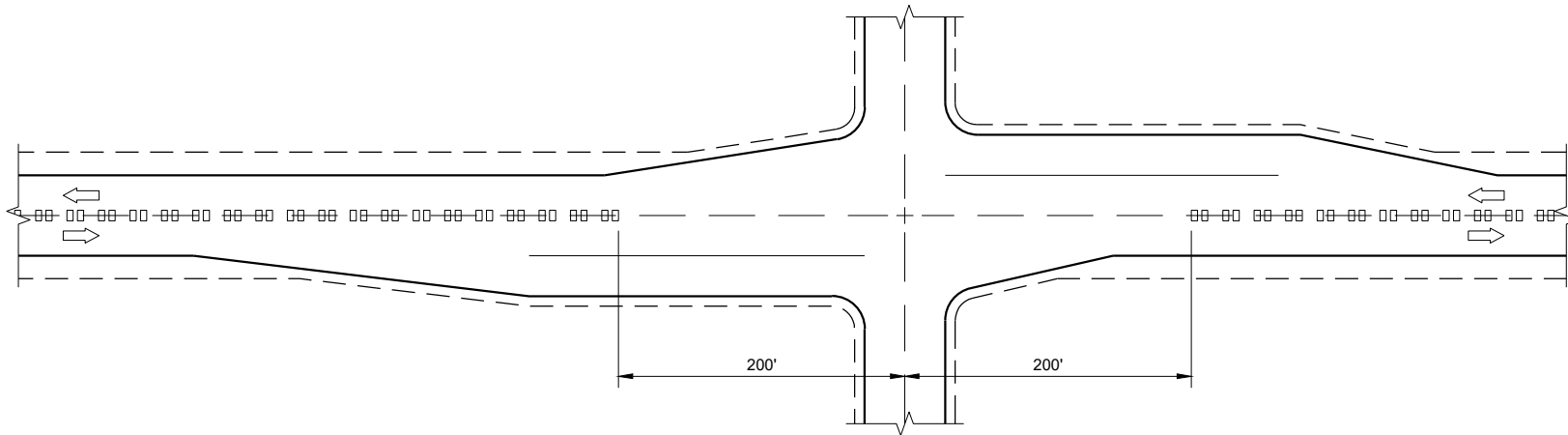
SECTION B - B CROWNED ROADWAY



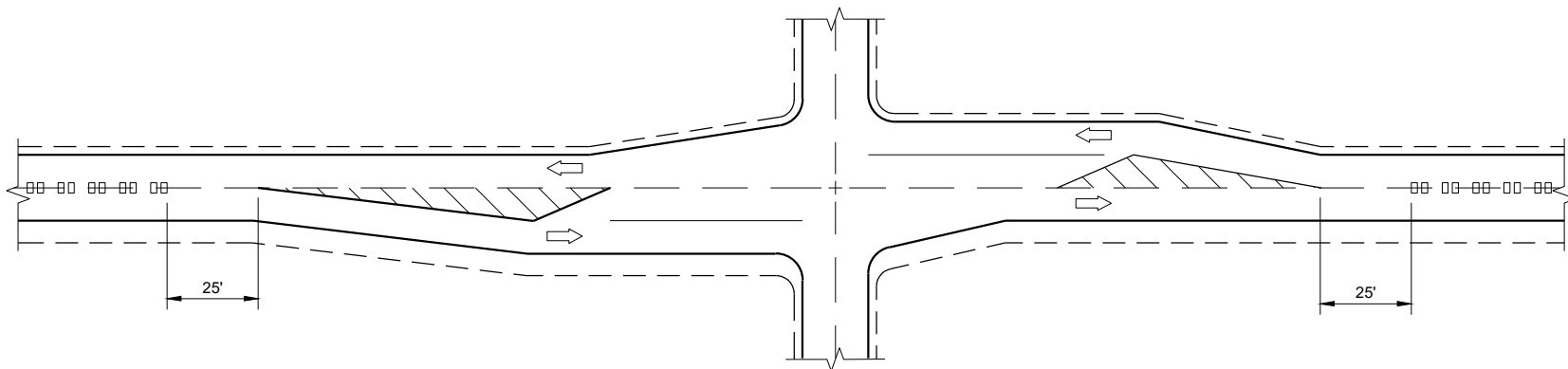
PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

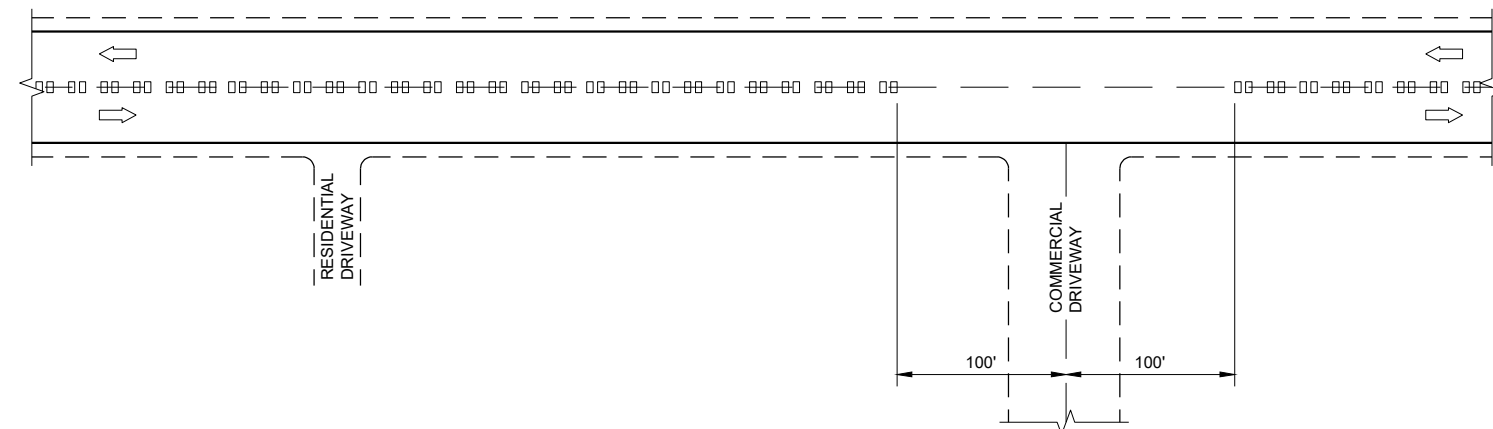
CENTERLINE RUMBLE STRIPS - ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



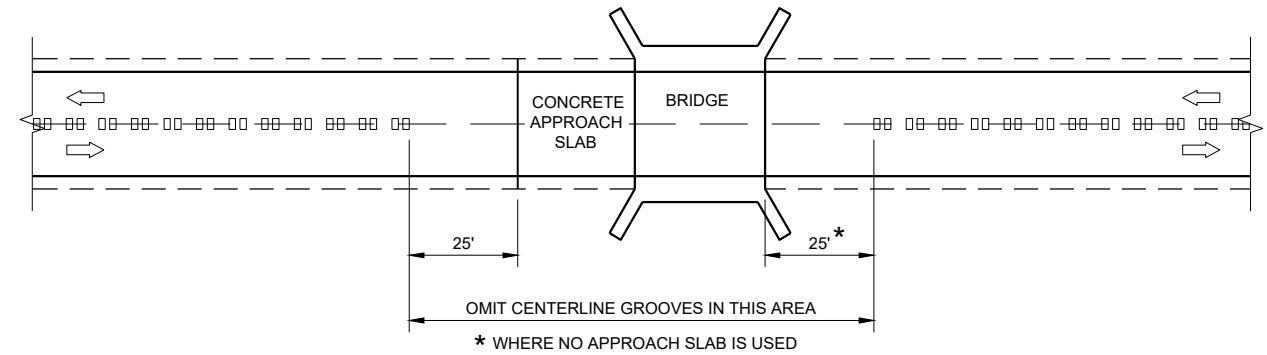
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



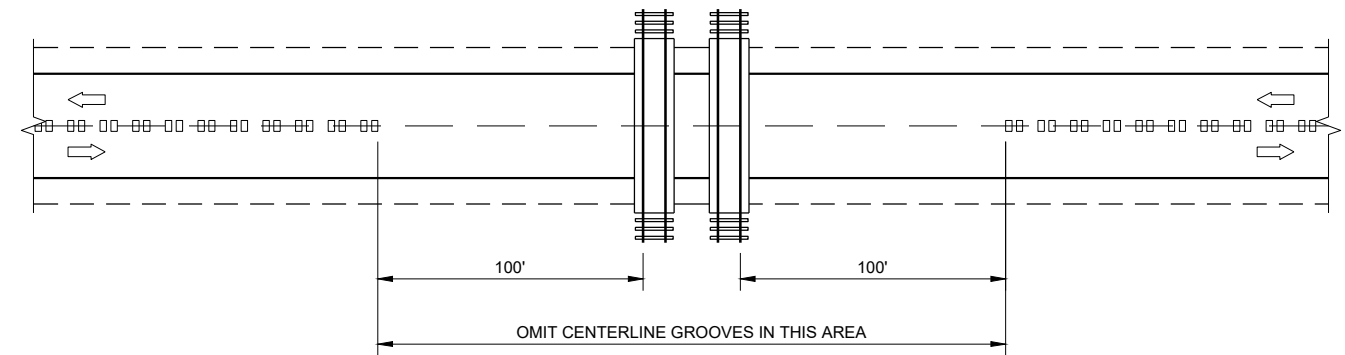
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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

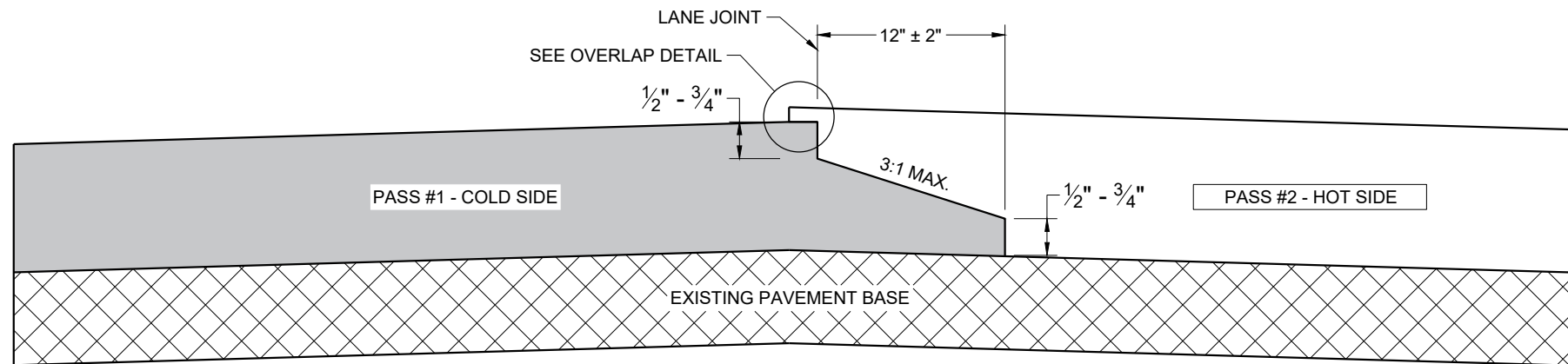


CENTERLINE GROOVES AT BRIDGES

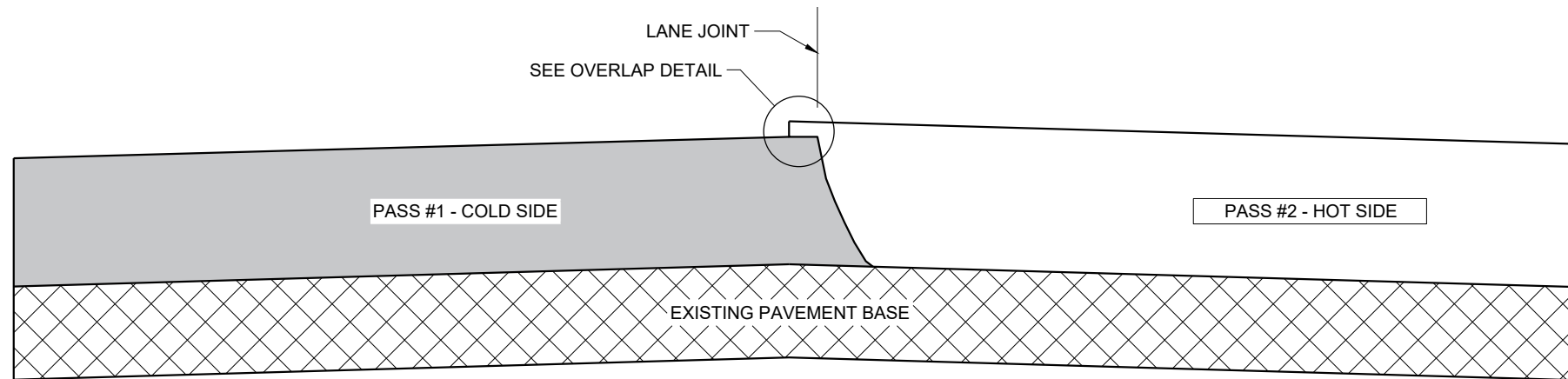


CENTERLINE GROOVES AT RAILROADS

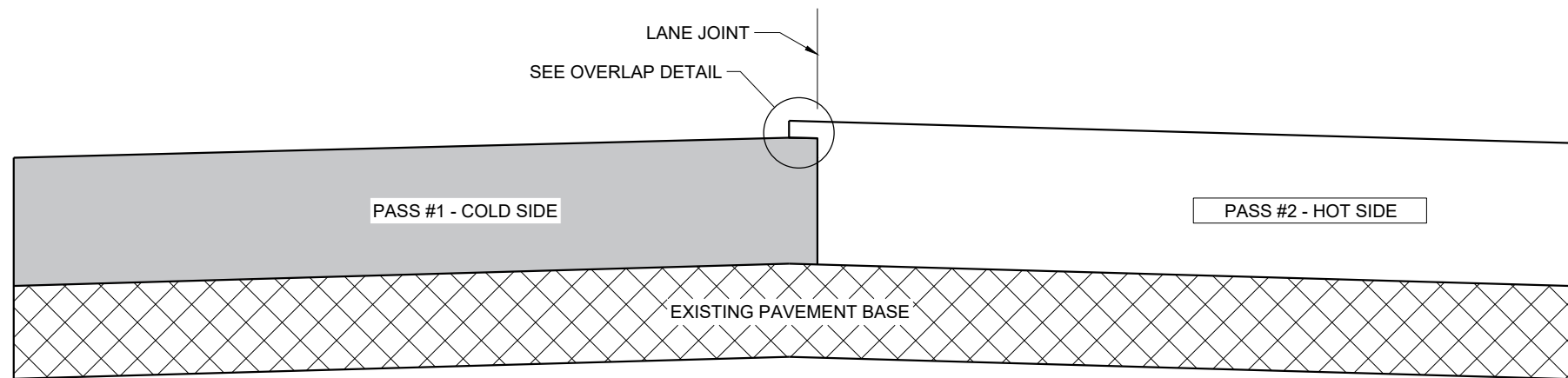
CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

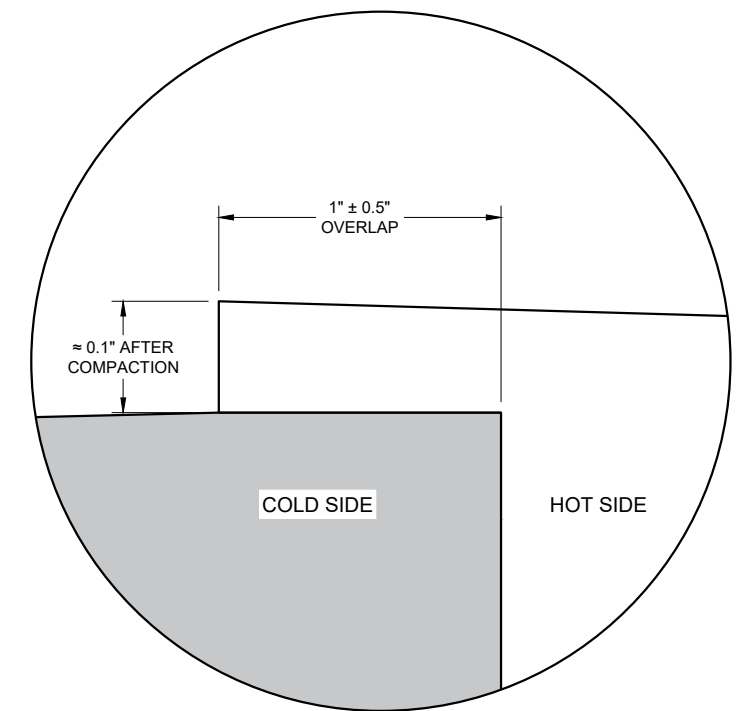
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

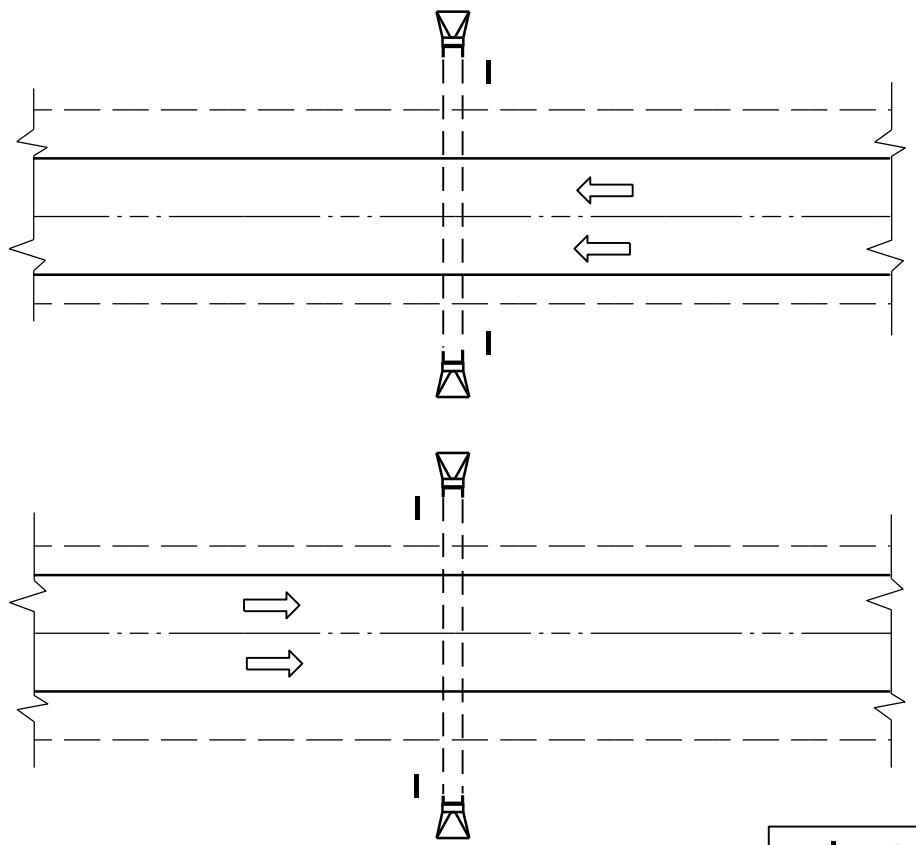
6

6

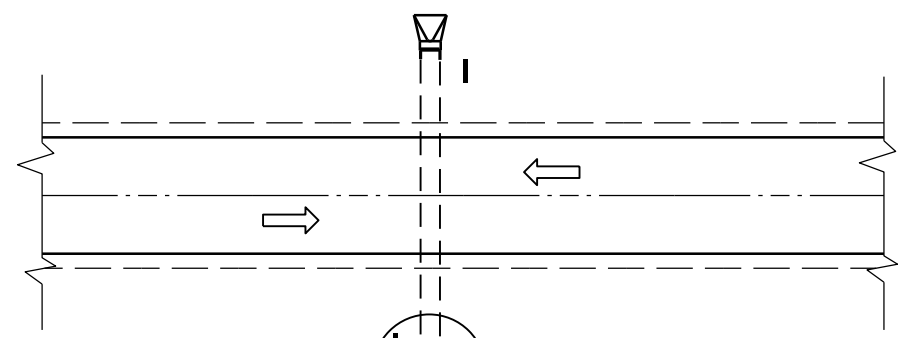
SDD 13C19 - 03

SDD 13C19 - 03

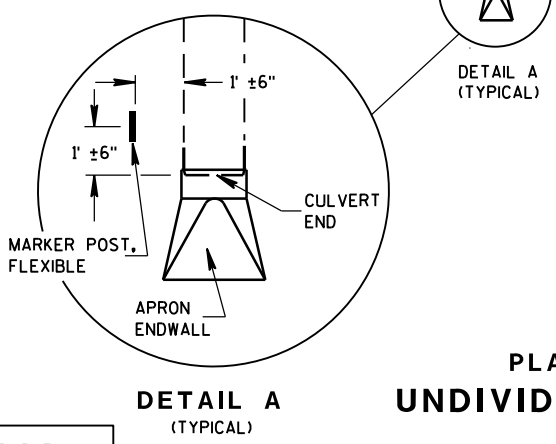
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



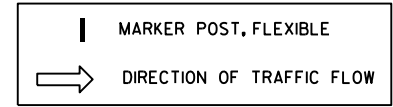
PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

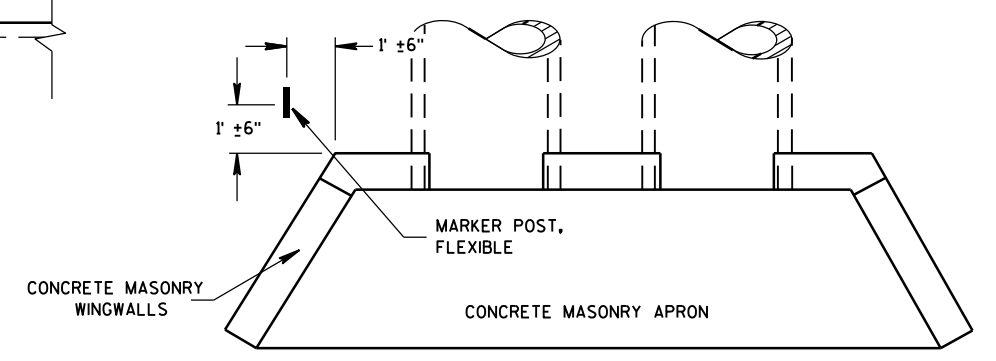


DETAIL A
(TYPICAL)



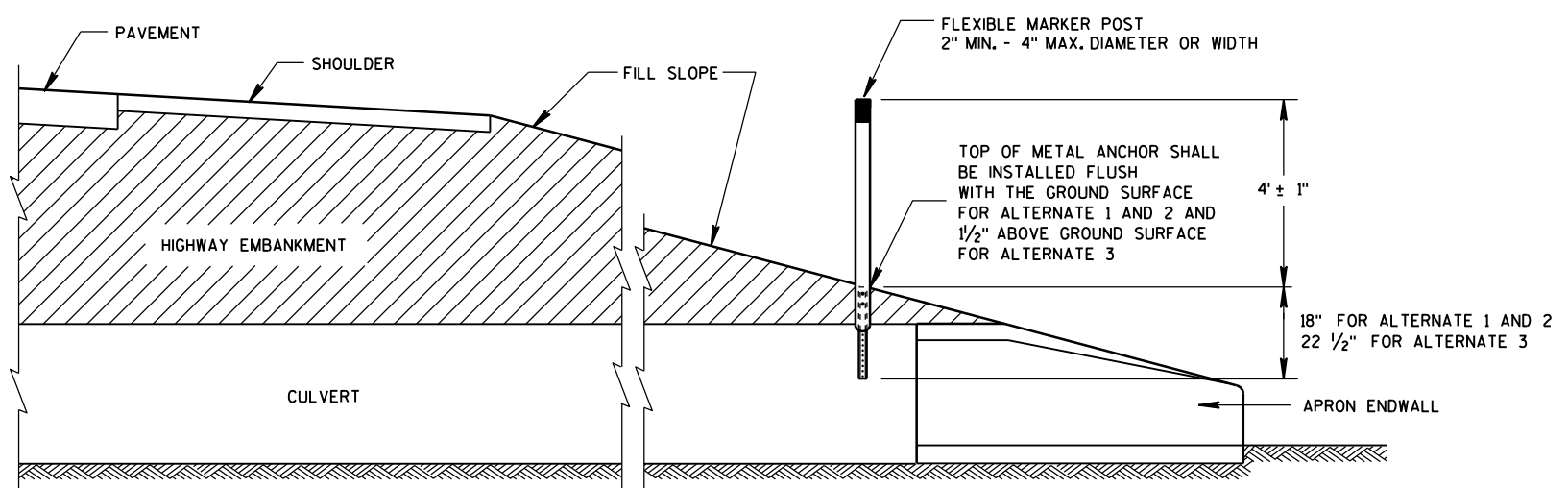
GENERAL NOTES

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



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST
FOR CULVERT END**

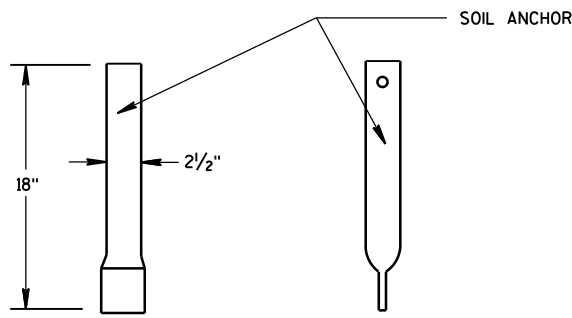
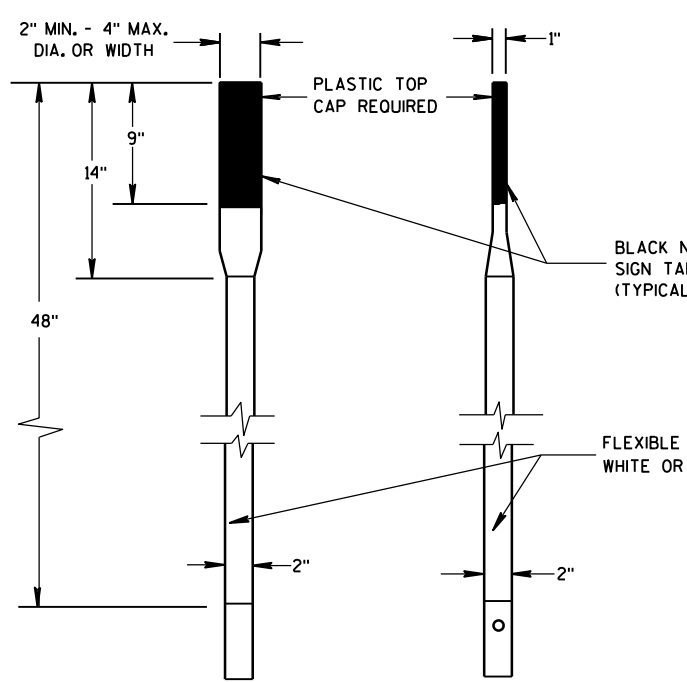
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

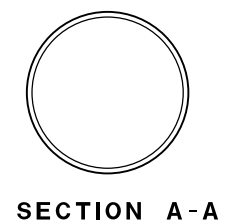
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S.D.D. 15 A 3-2a

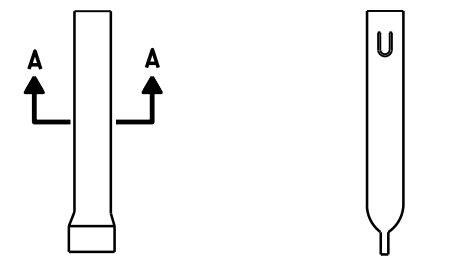
S.D.D. 15 A 3-2a



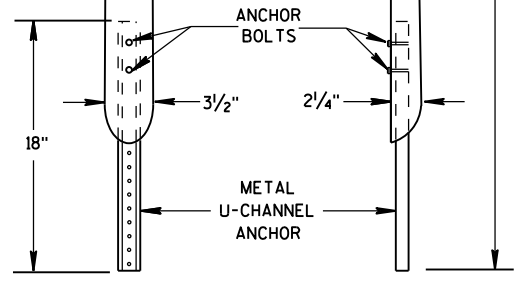
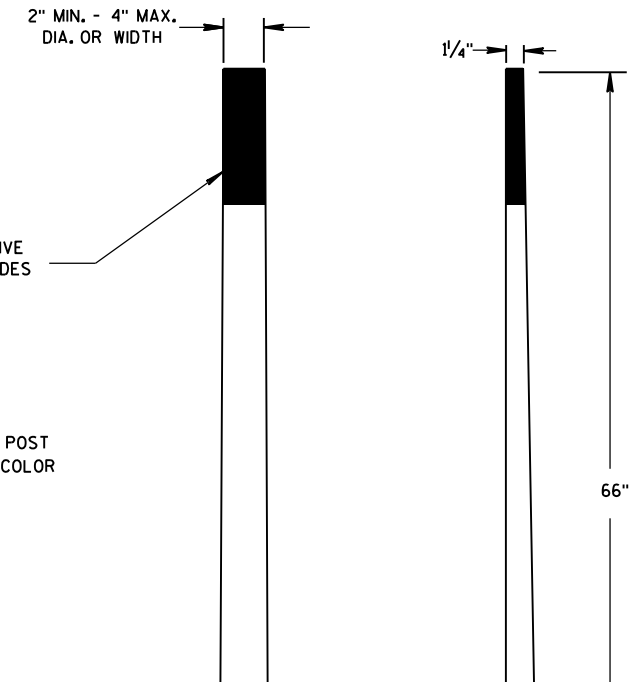
FRONT VIEW SIDE VIEW
ALTERNATE 1



SECTION A-A

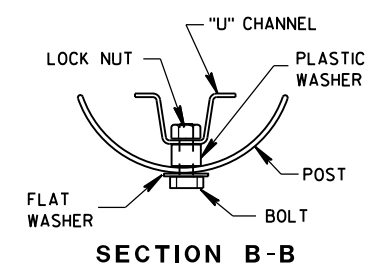


FRONT VIEW SIDE VIEW
ALTERNATE 1

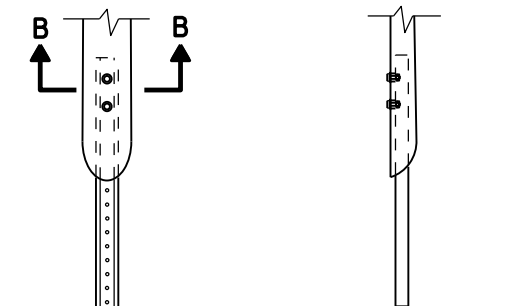


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

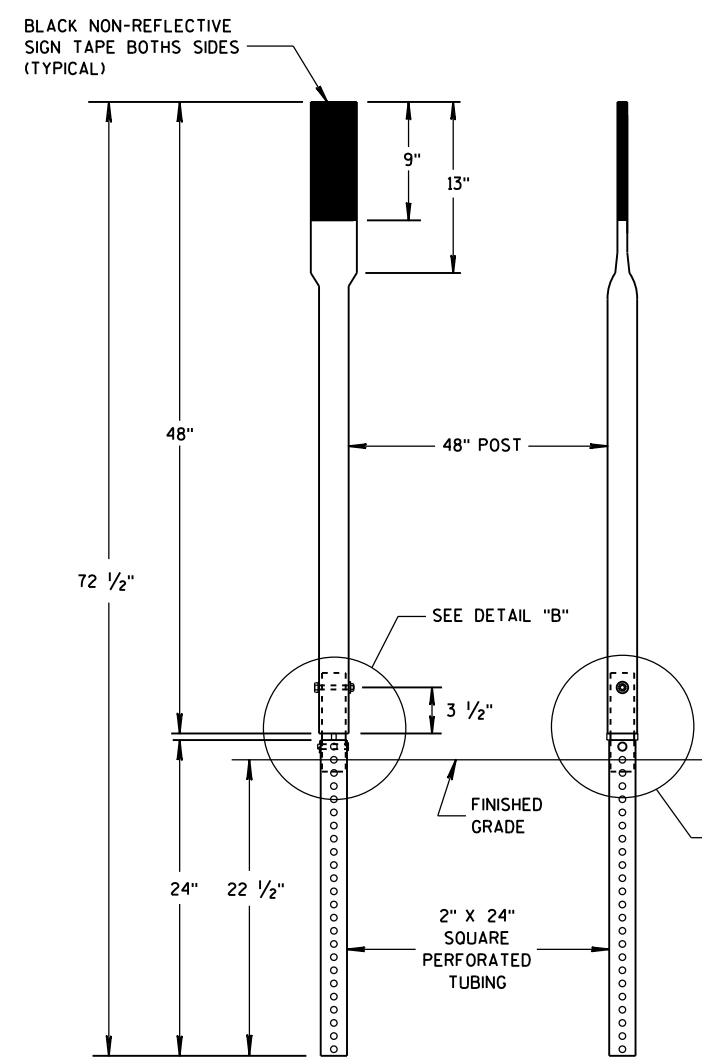


SECTION B-B

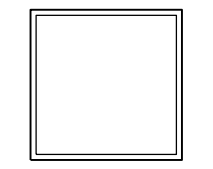


FRONT VIEW SIDE VIEW
ALTERNATE 2

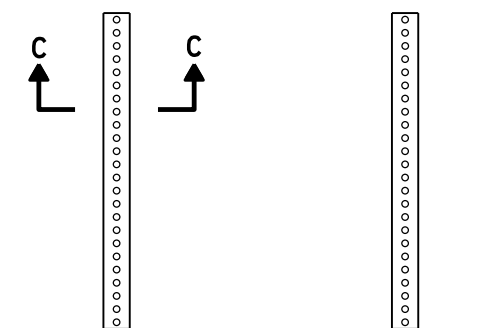
FLEXIBLE MARKER POST ANCHORS



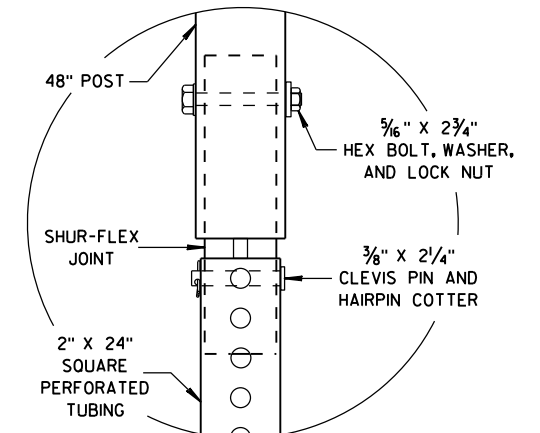
FRONT VIEW SIDE VIEW
ALTERNATE 3



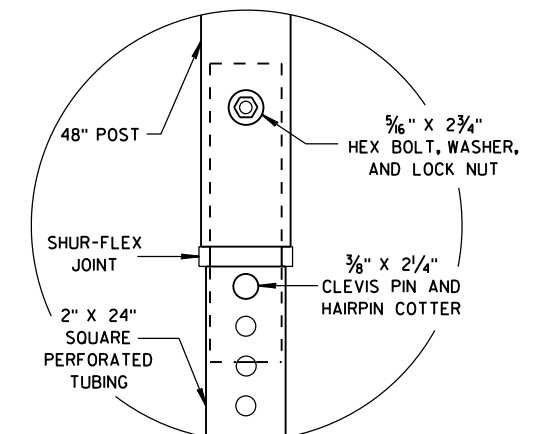
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B

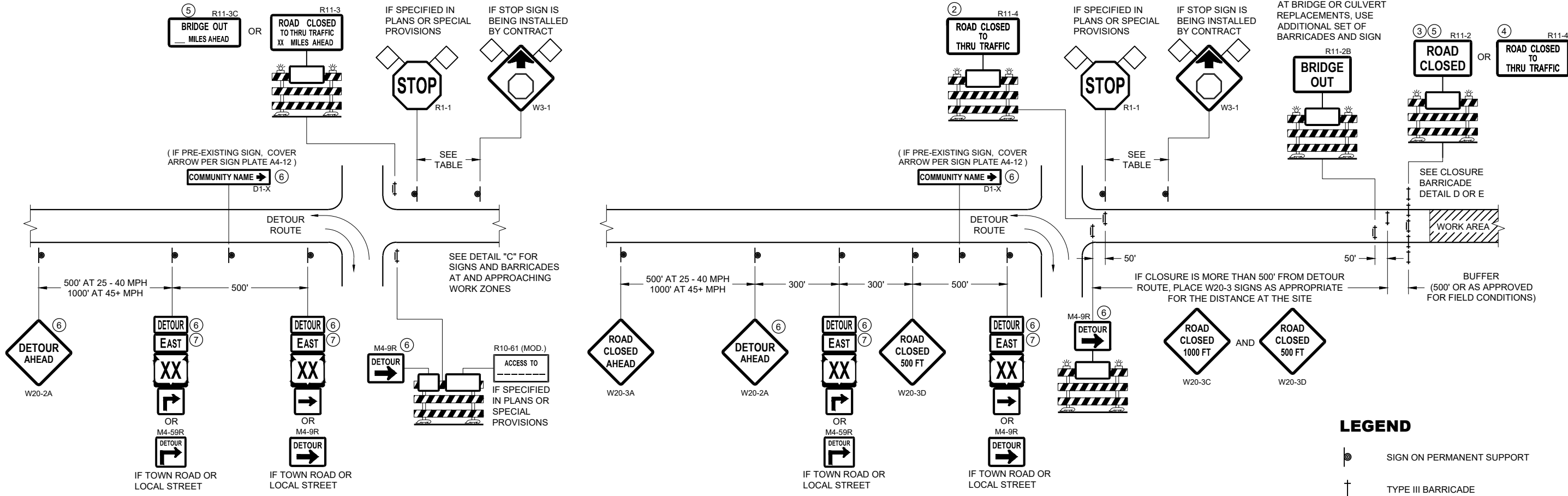


DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 DATE /S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN
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**

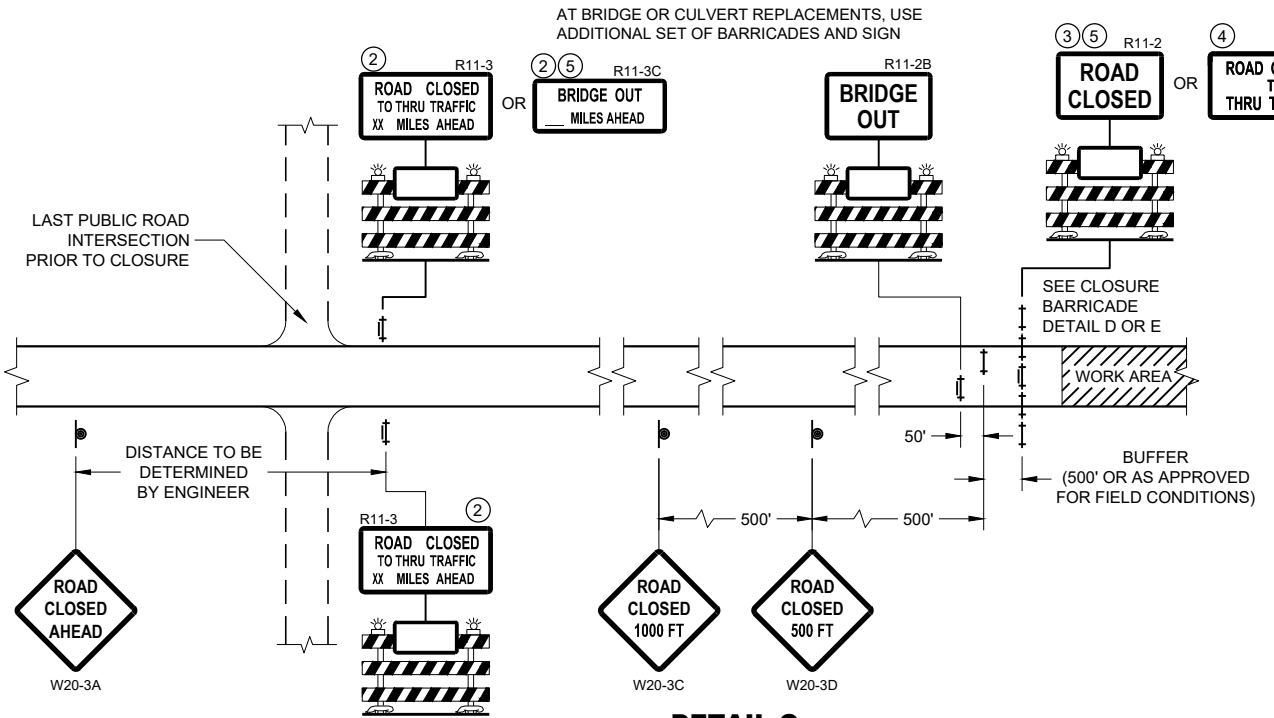
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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
- OR OR M1 - 4 M1 - 6 M1 - 5A
- OR M05 - 1 M06 - 1



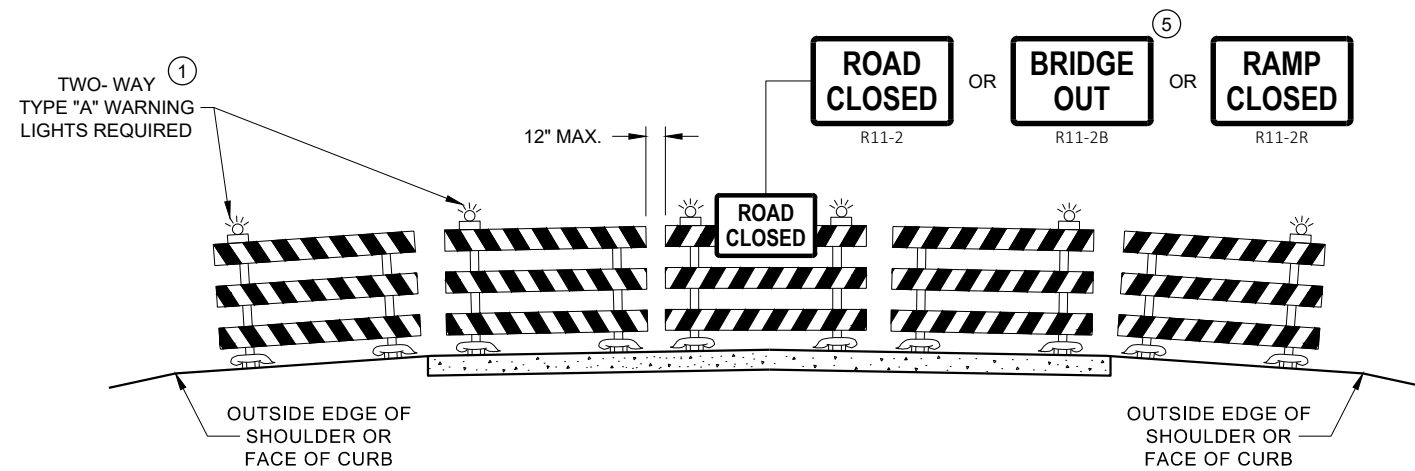
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

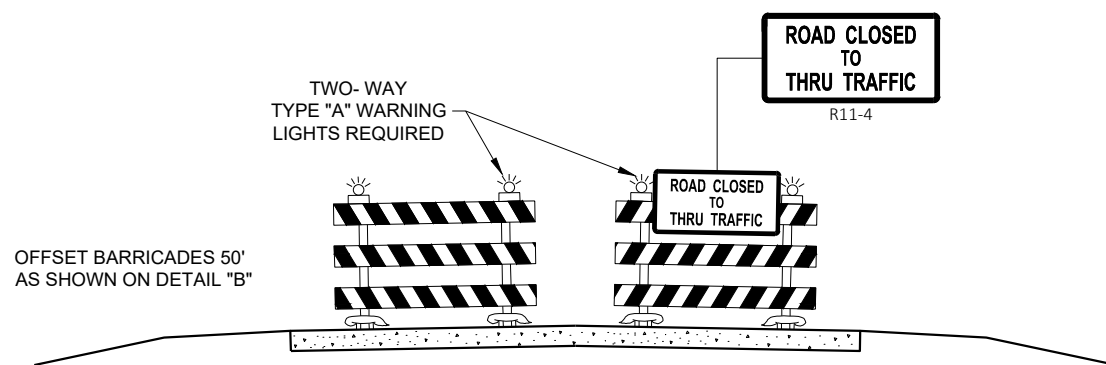
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

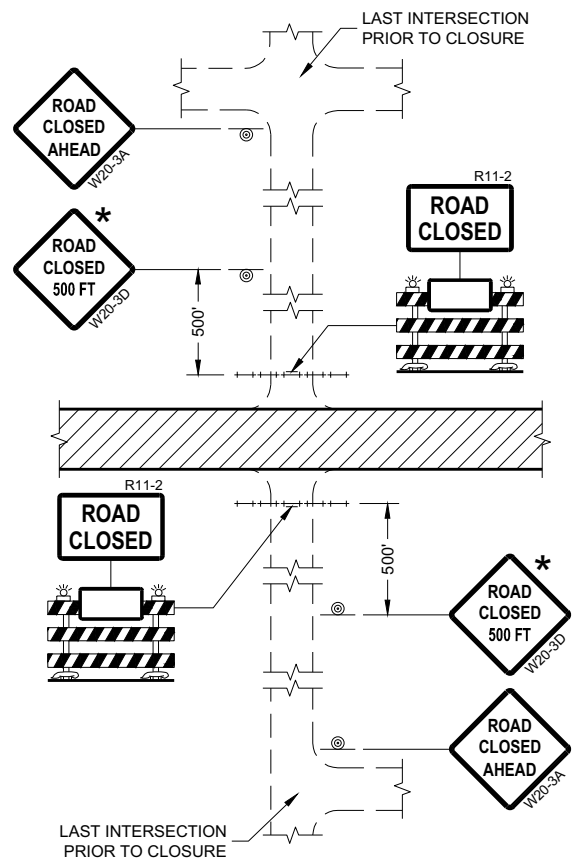
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

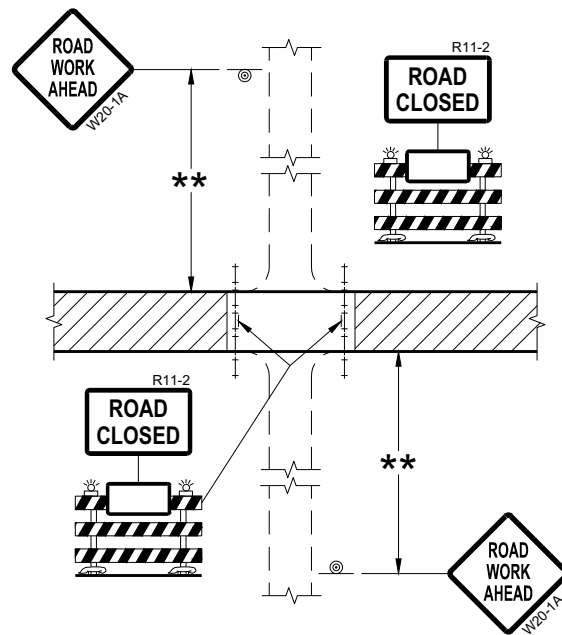
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

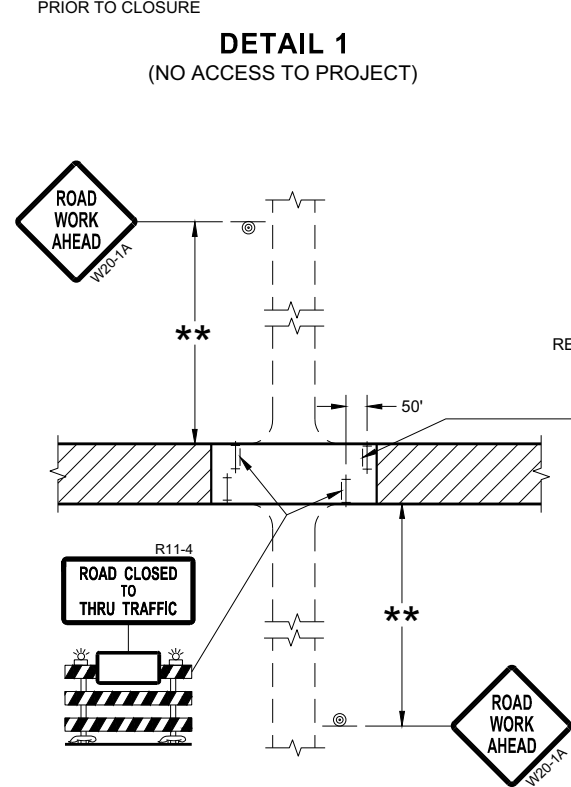
FHWA



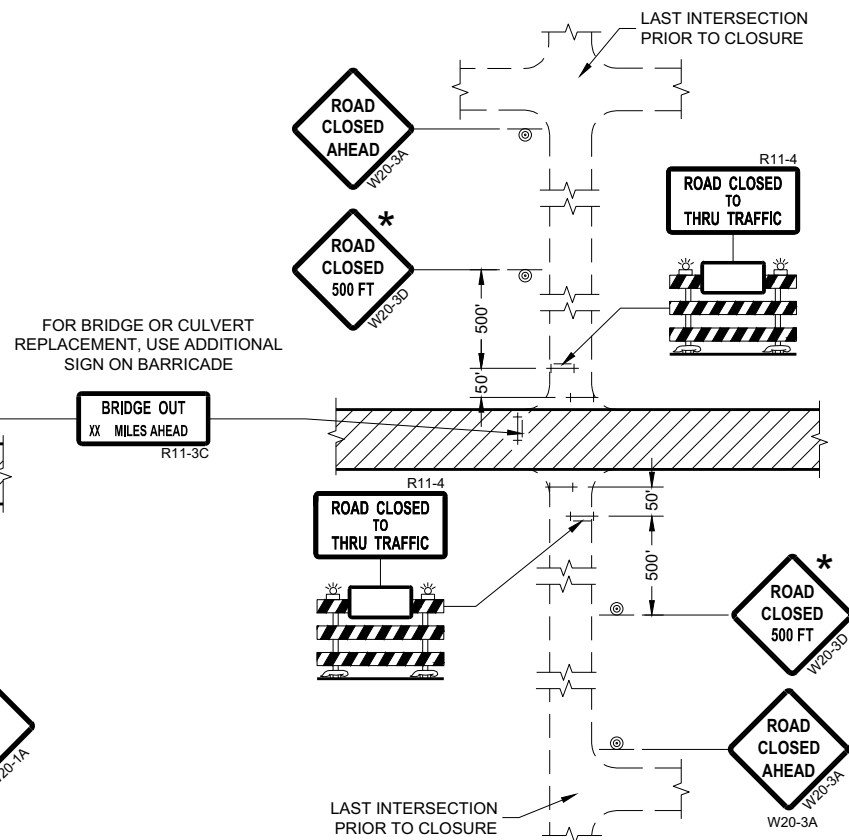
DETAIL 1
(NO ACCESS TO PROJECT)



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. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

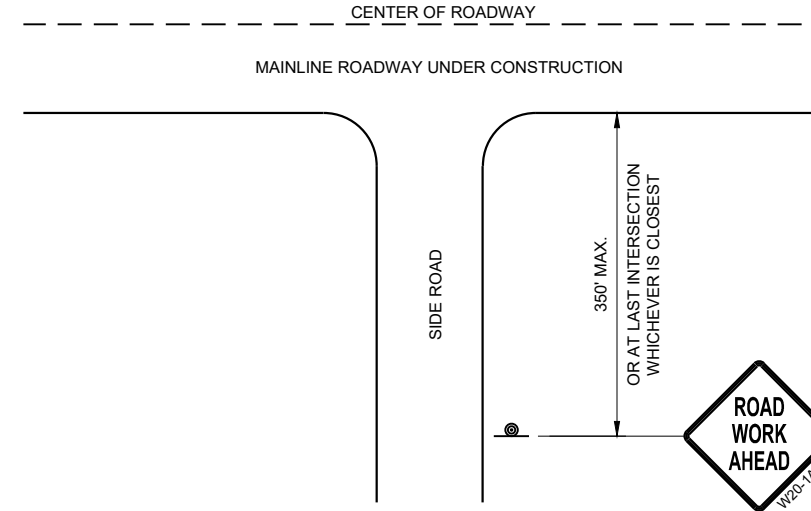
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

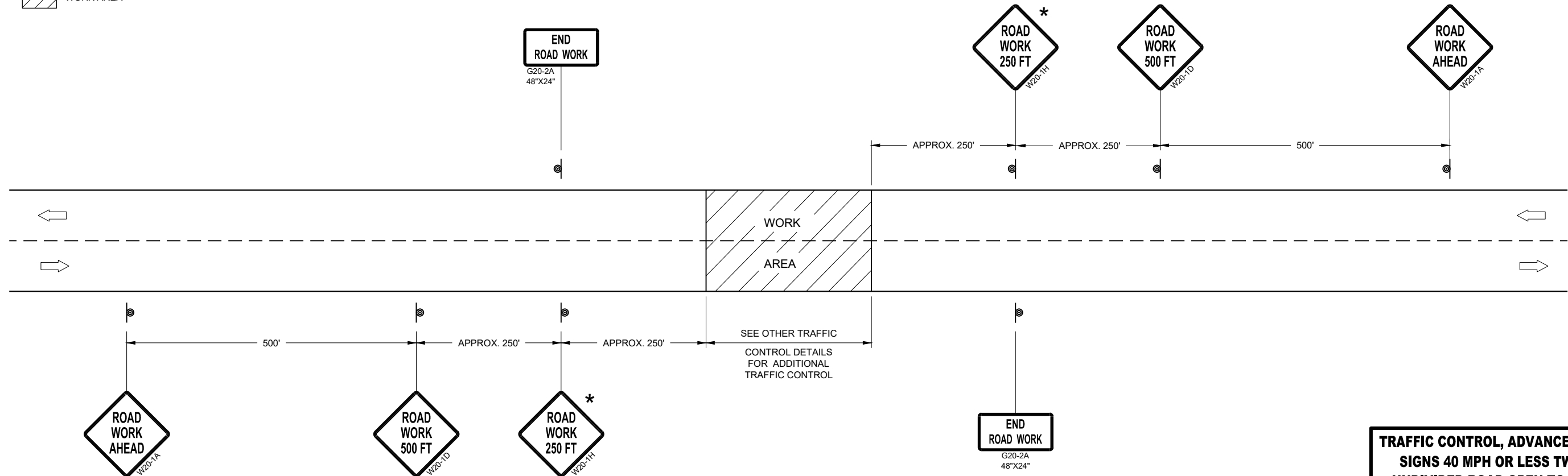
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

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
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER




FHWA

GENERAL NOTES

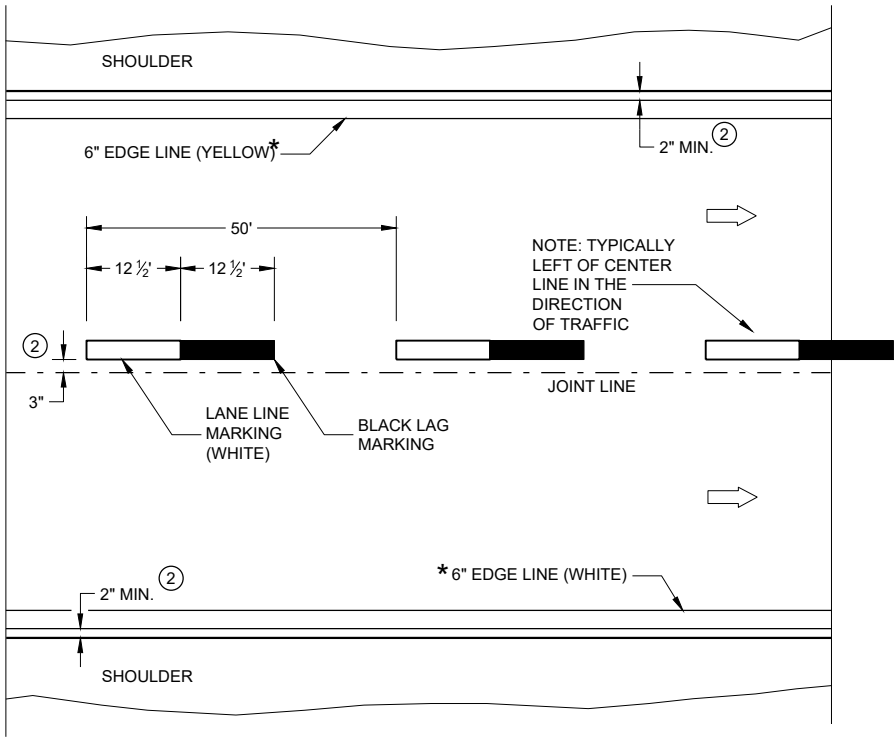
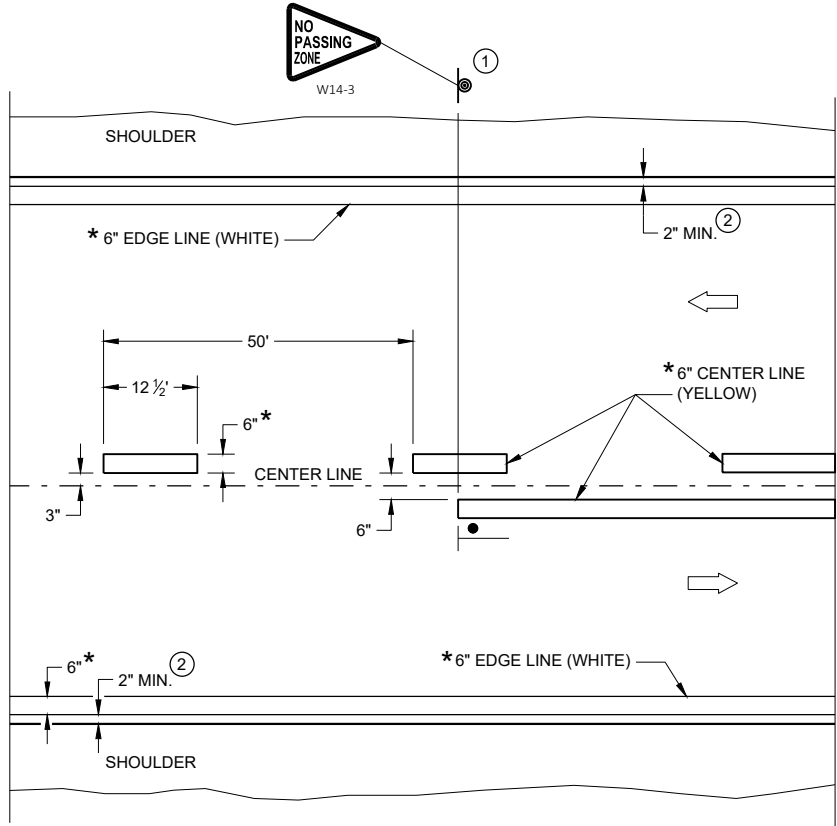
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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

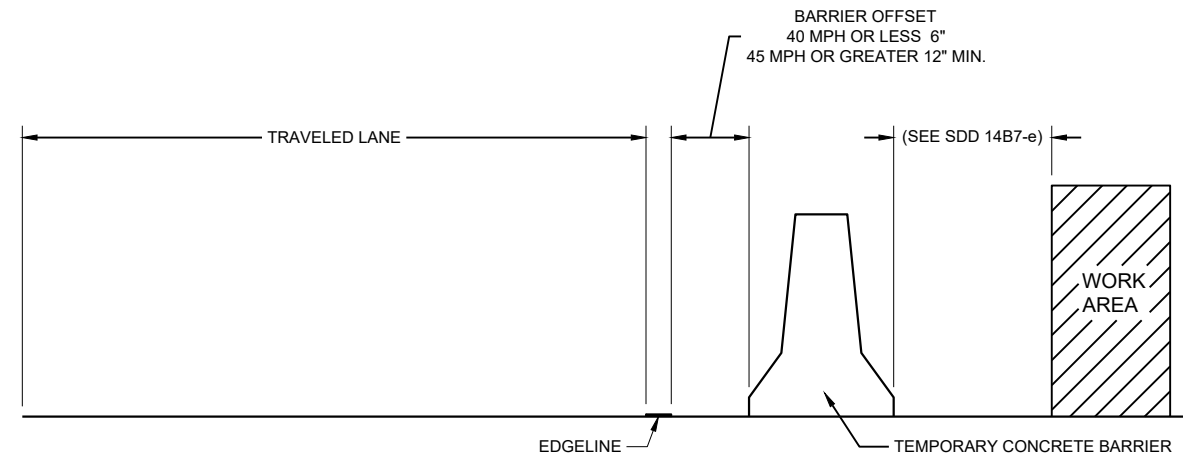
SDD 15C08-23a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA



TEMPORARY BARRIER OFFSET FROM EDGELINE

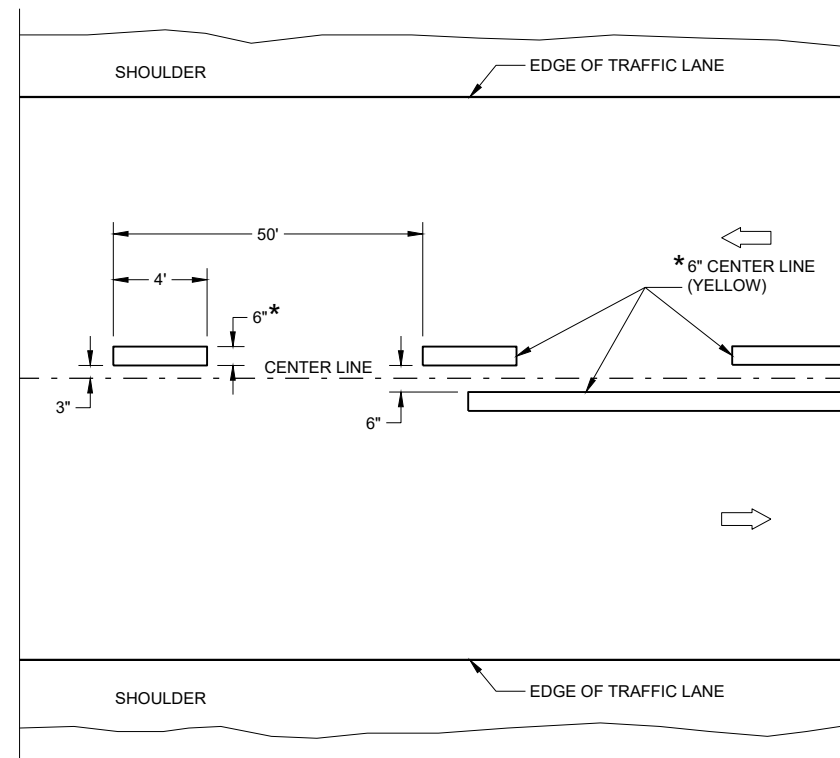
GENERAL NOTES

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

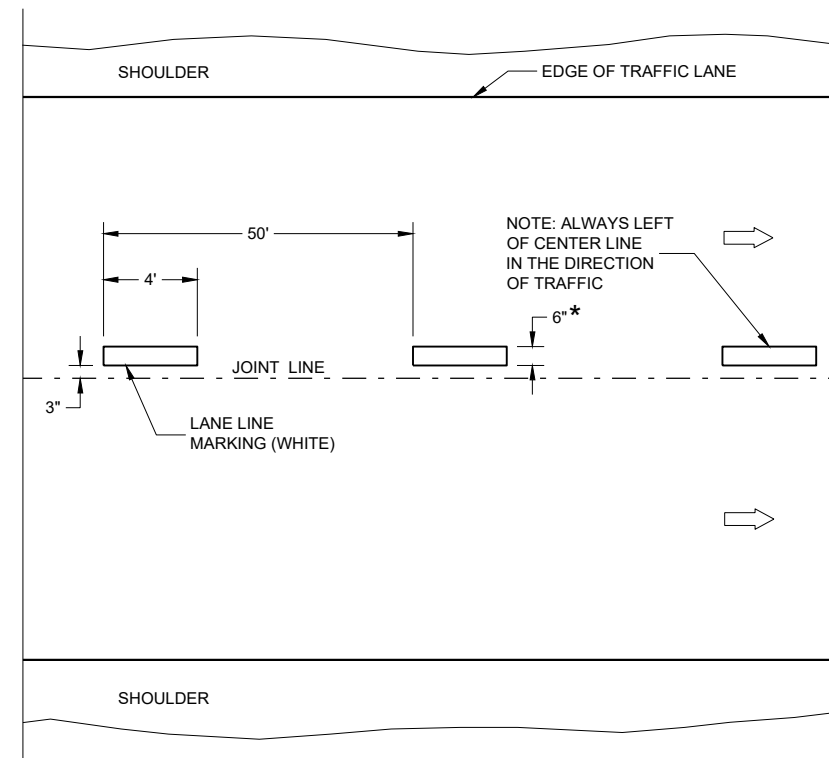
LEGEND

➡ DIRECTION OF TRAFFIC

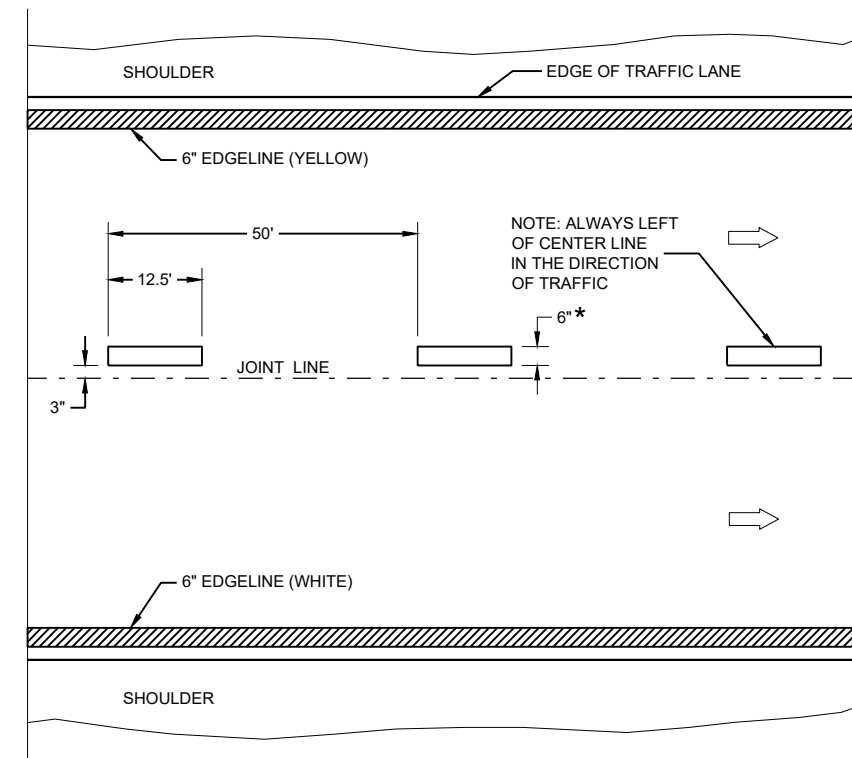
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

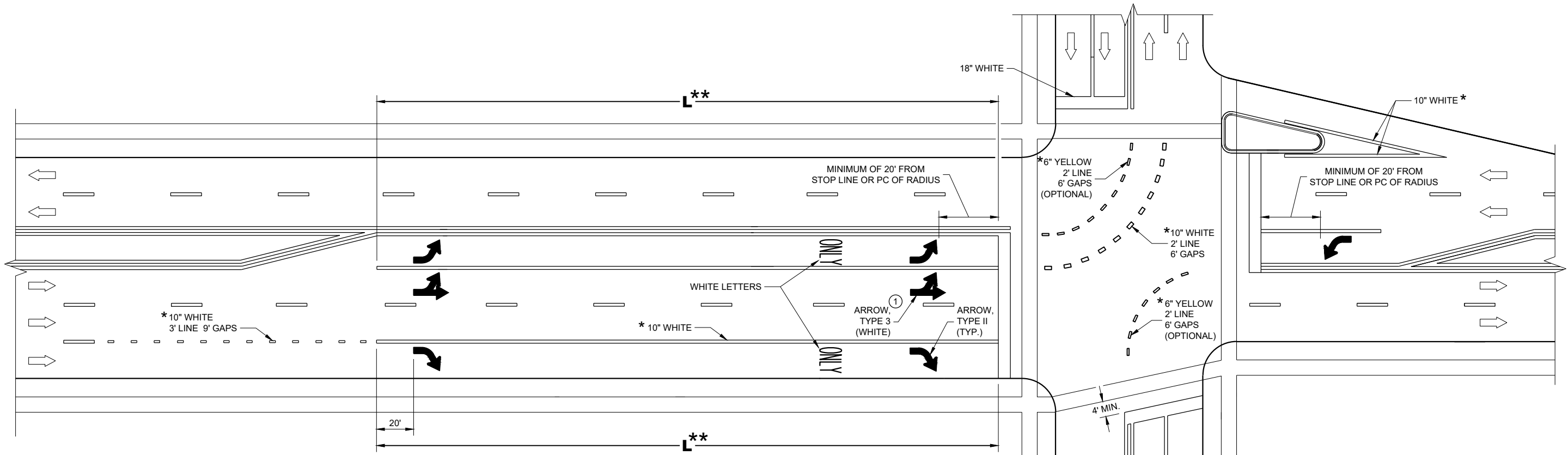
TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

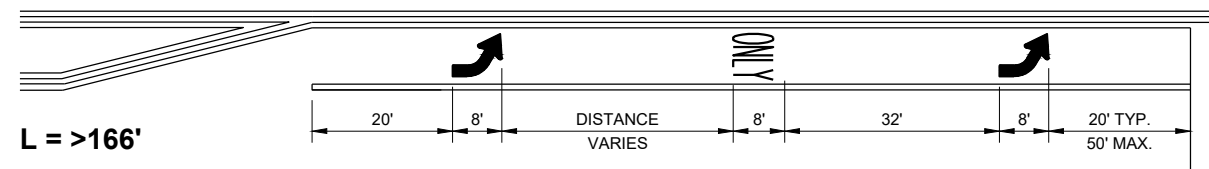
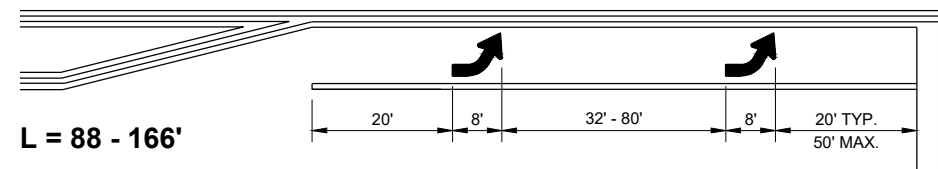
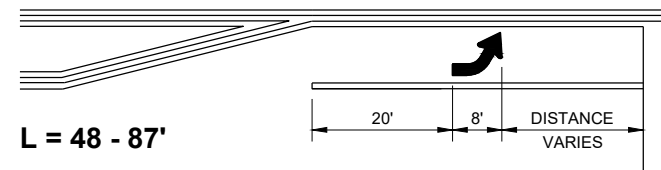
APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING ENGINEER

FHWA



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)

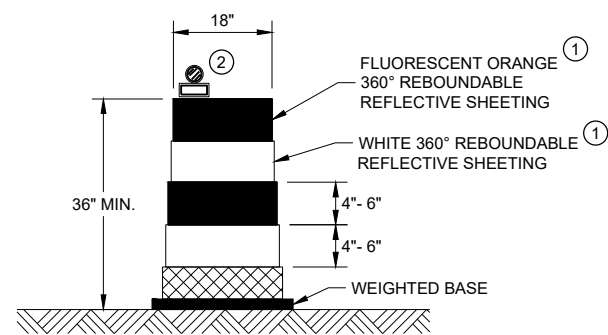
GENERAL NOTES

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

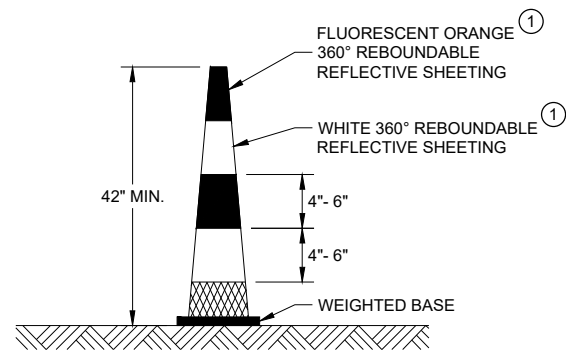
L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



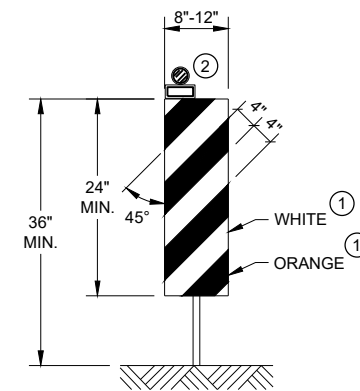
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

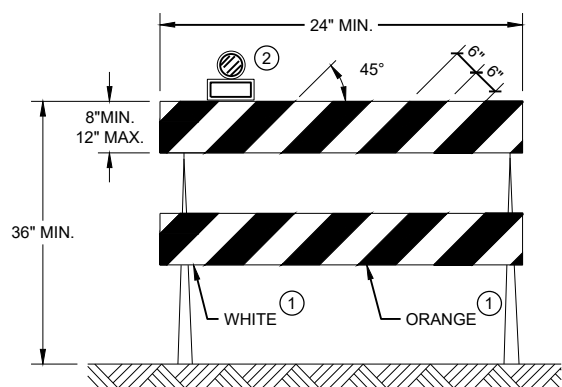


VERTICAL PANEL

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

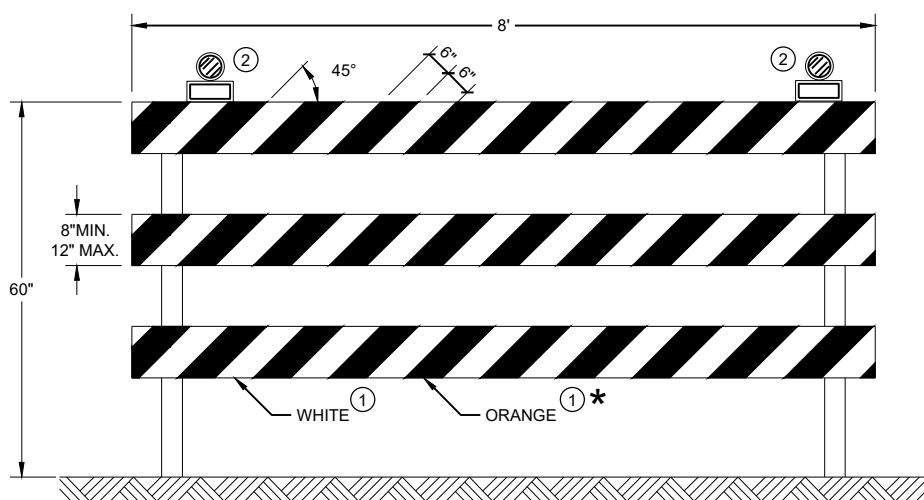
GENERAL NOTES

- 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.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2022 /S/ Andrew Heidtke
 DATE 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.

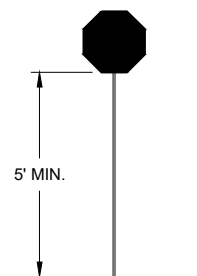
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

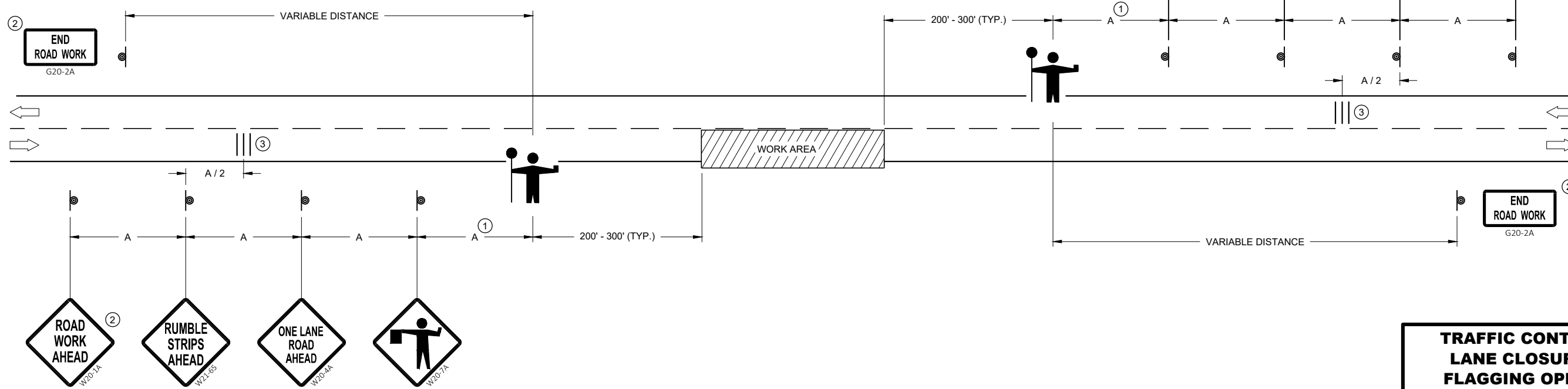
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W03-4

USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



6





6

SDD 15C12 - 09a

SDD 15C12 - 09a

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 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 (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.

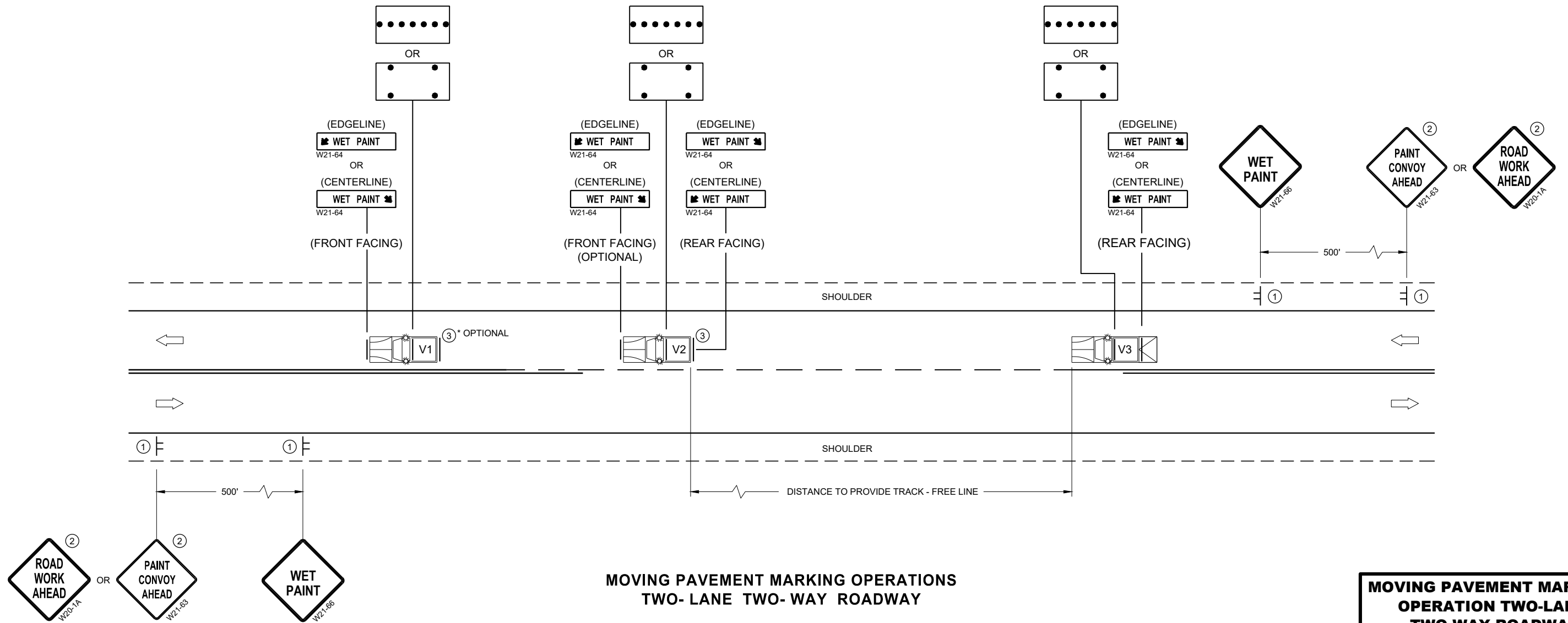
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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.

6

6

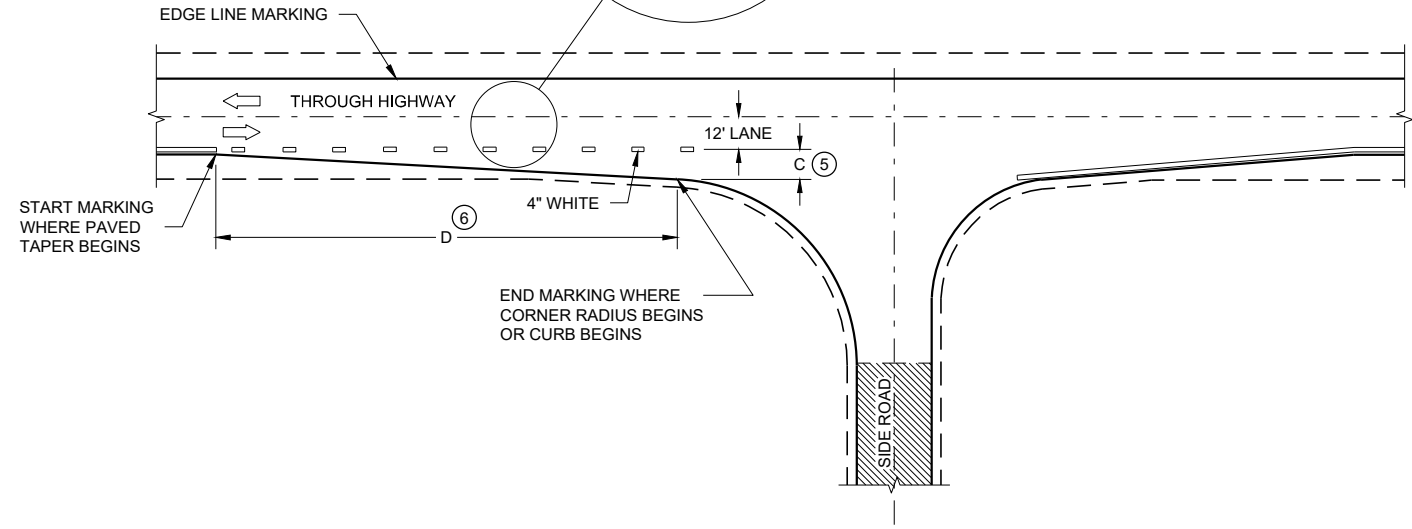
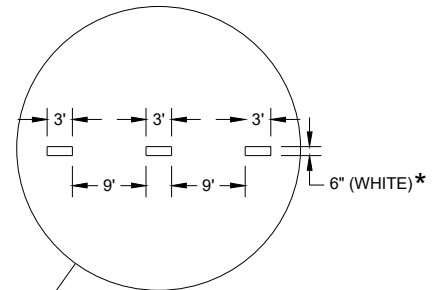


**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-08a

SDD 15C19-08a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

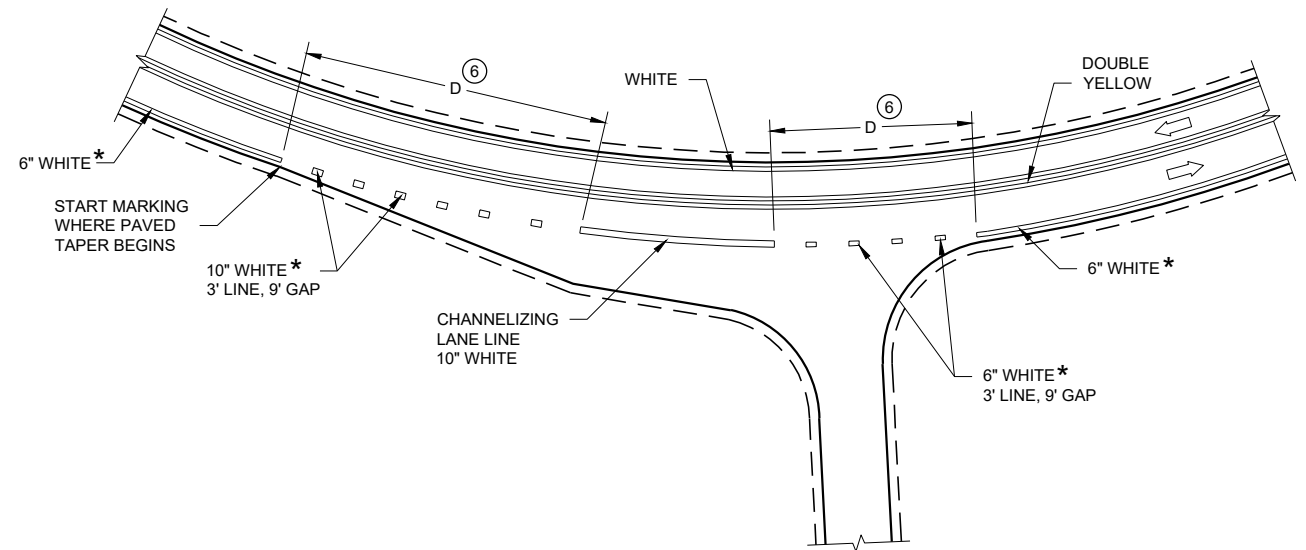
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

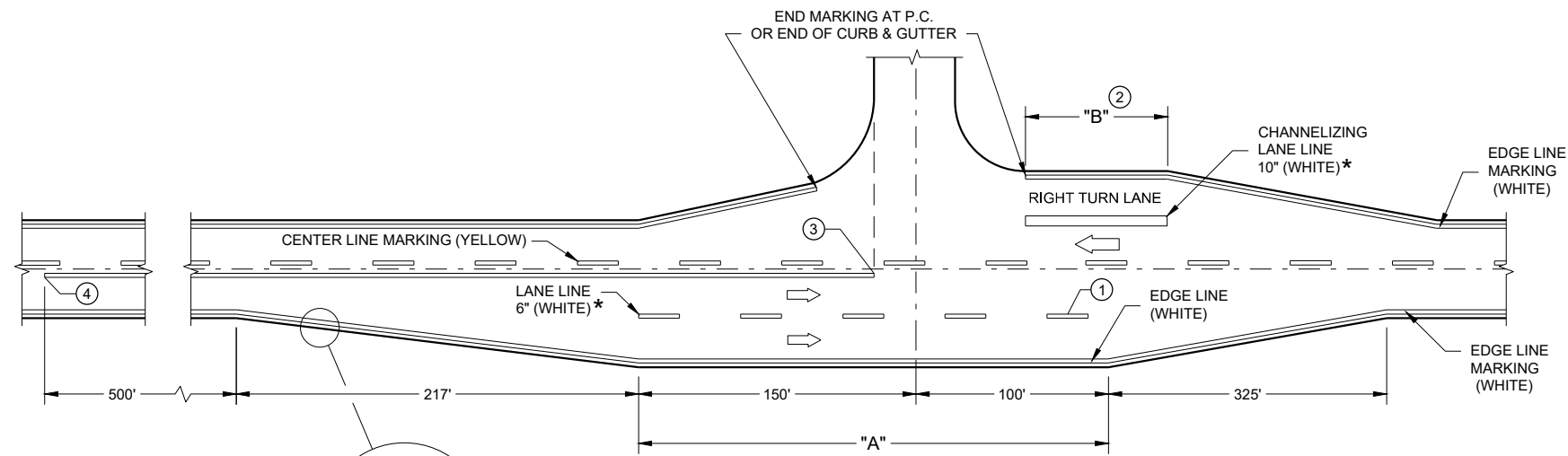
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

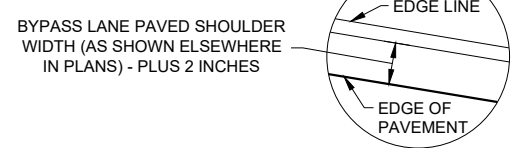
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



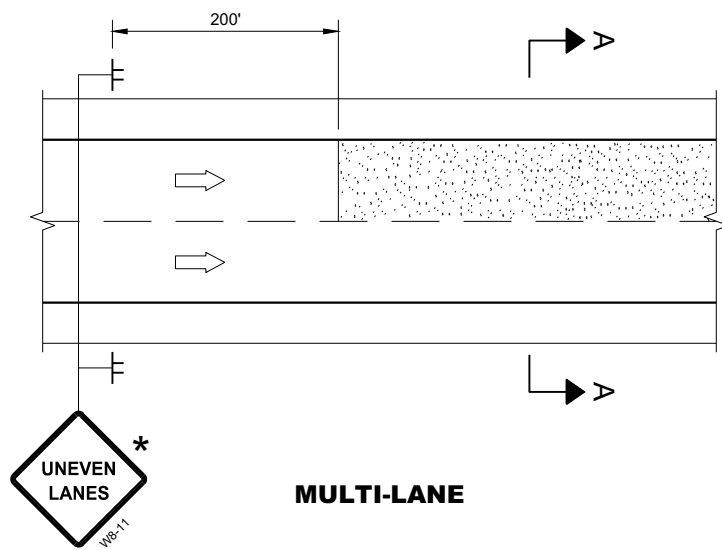
**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**



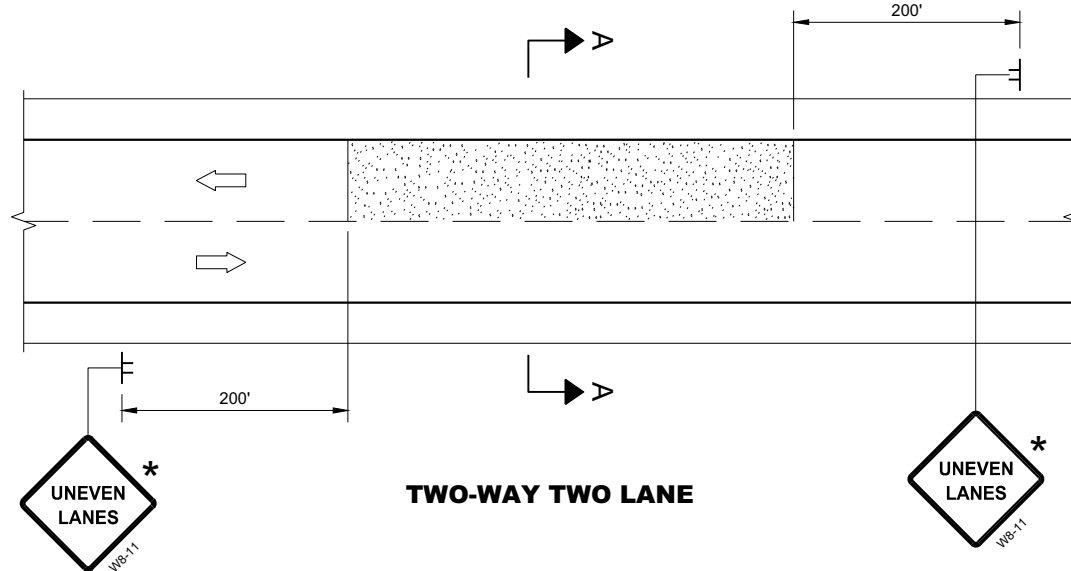
BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES

**PAVEMENT MARKING
(INTERSECTIONS)**

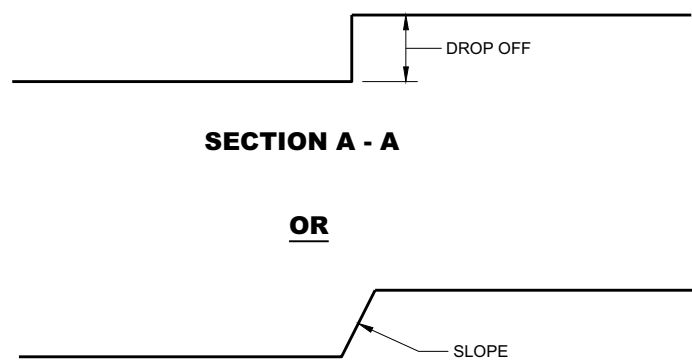
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MULTI-LANE



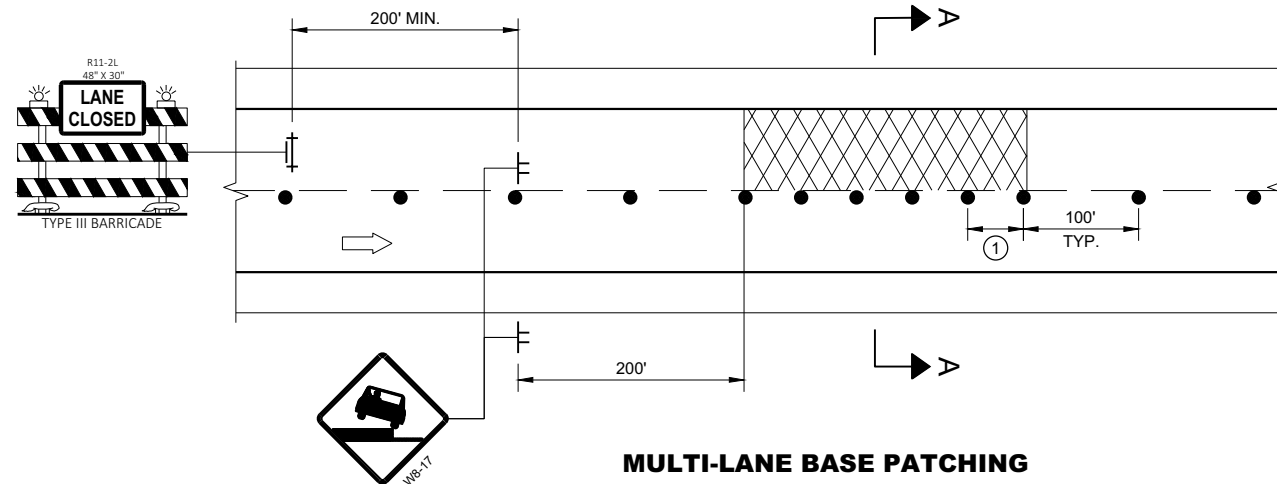
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

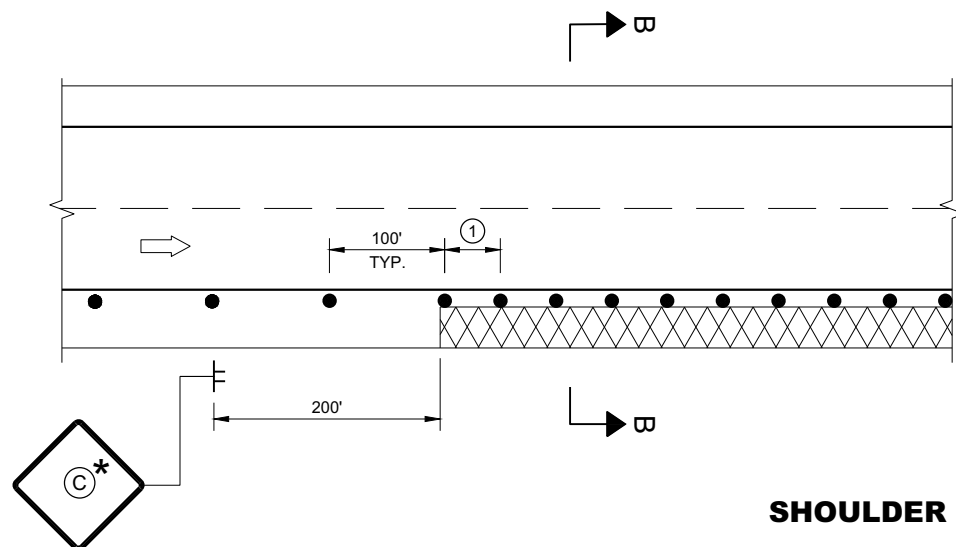
ADJACENT LANE DROP-OFFS

GENERAL NOTES

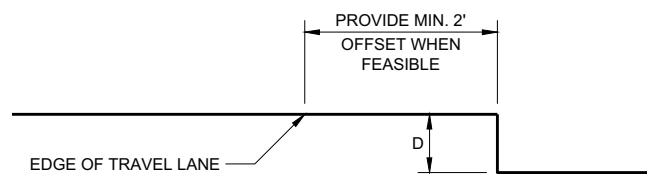
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF 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



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP-OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE 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.

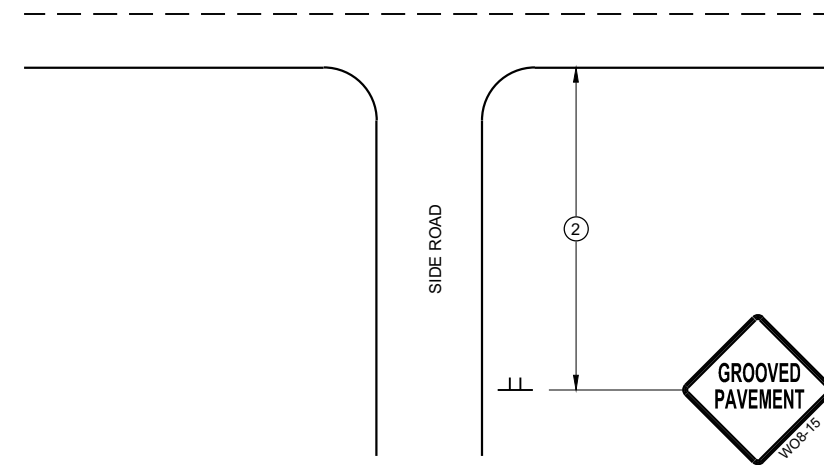
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- ① PLACE SIGNS 350' IN ADVANCE OF MILLED 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.

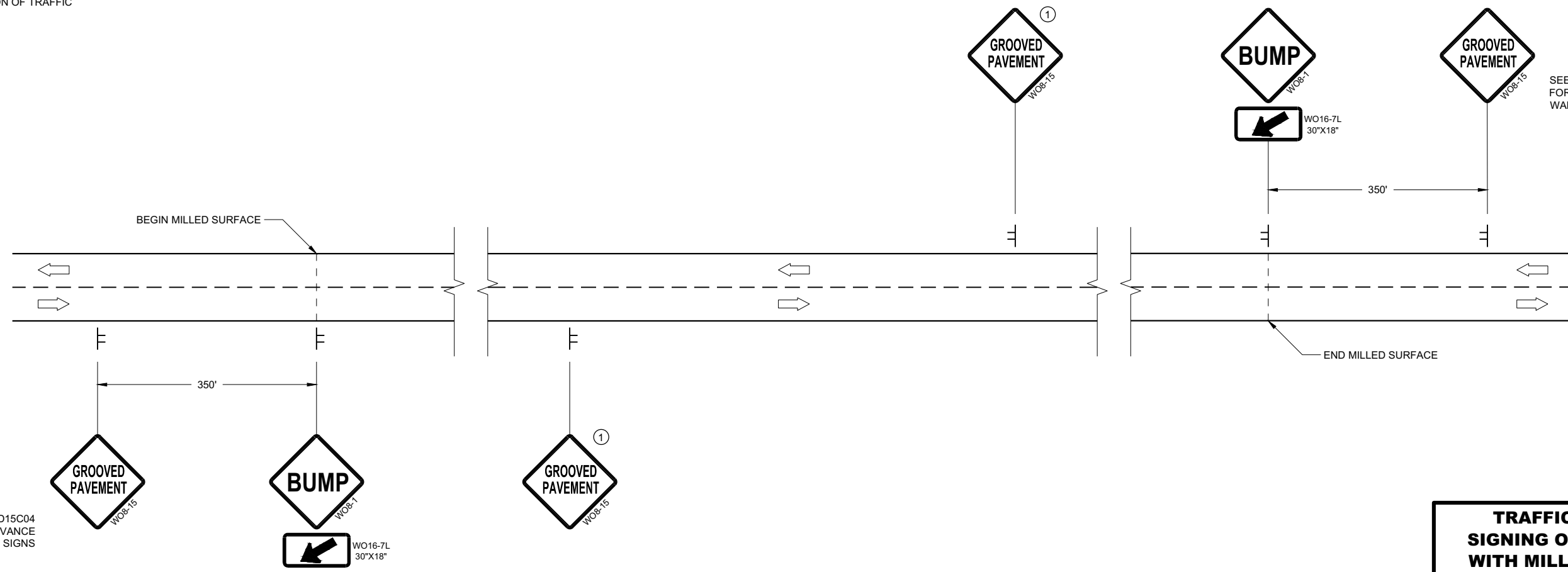
LEGEND

⊥ SIGN ON TEMPORARY SUPPORT

⇨ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

6

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SDD 15D44 - 02

SDD 15D44 - 02

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.

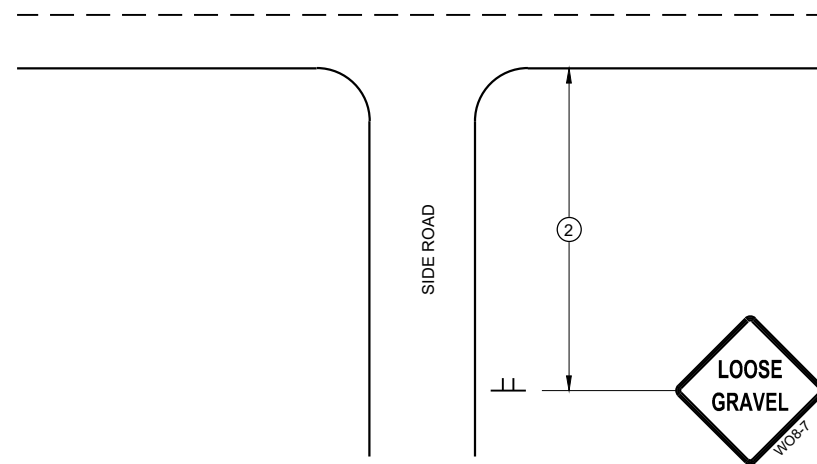
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

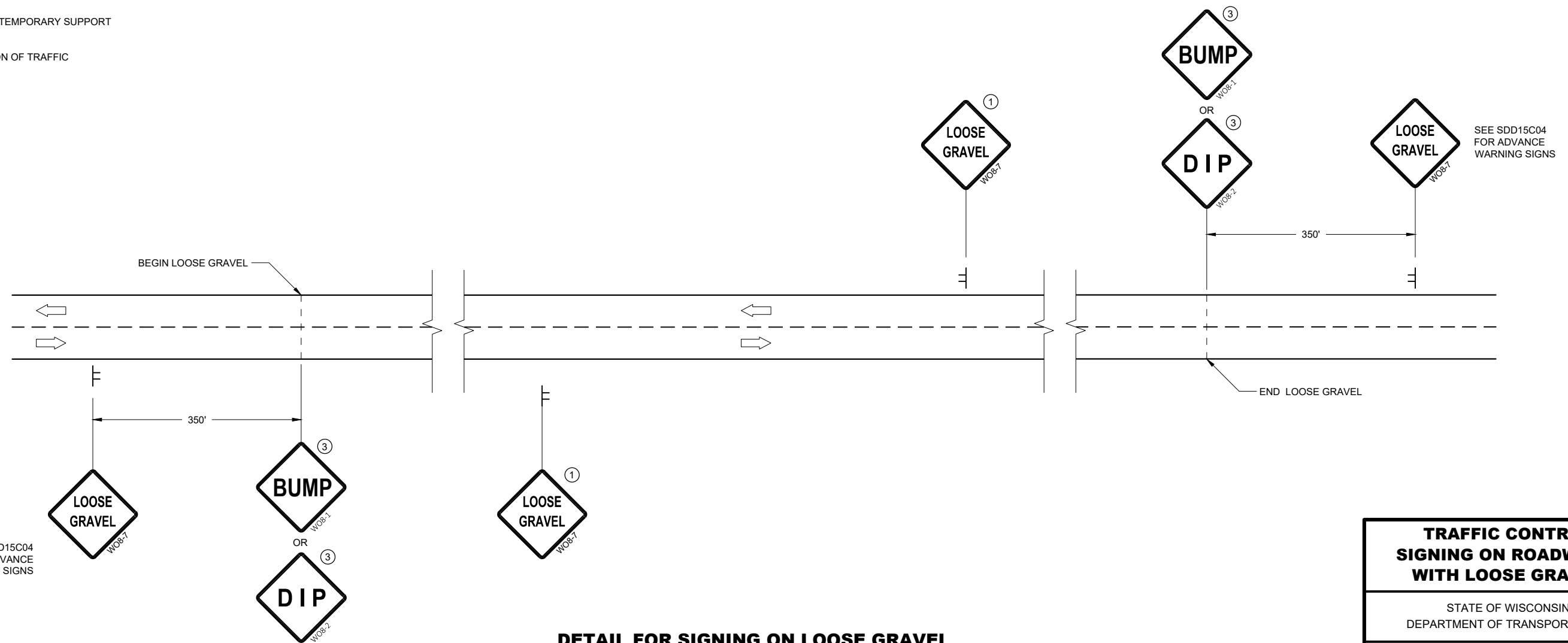
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL

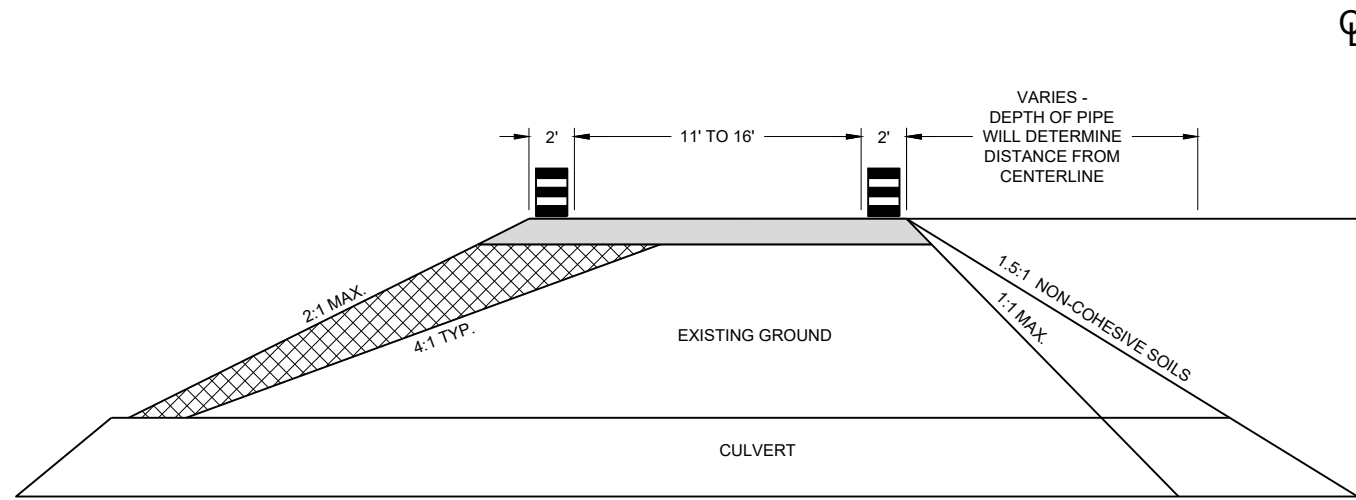


SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
 USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.






ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

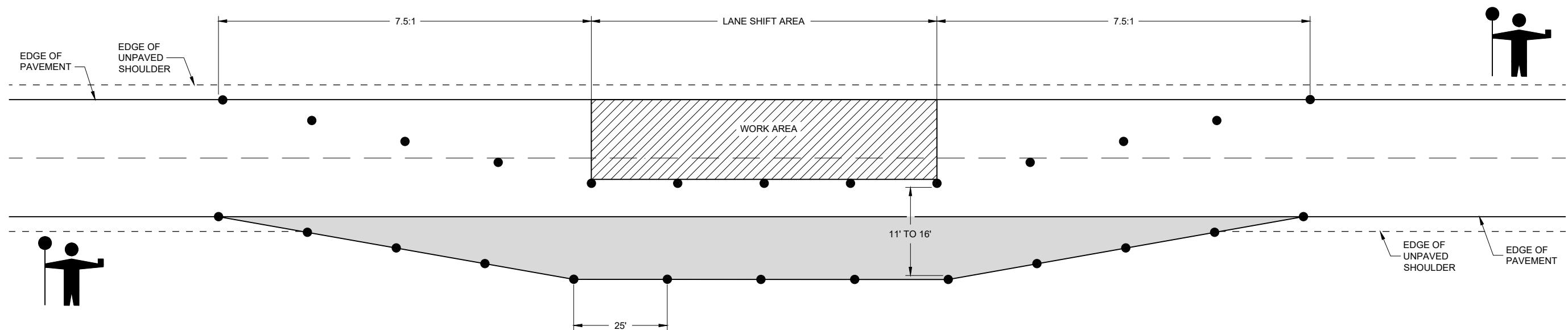
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

-  DRUM WITHOUT WARNING LIGHT
-  6" BASE AGGREGATE DENSE 1 1/2" - INCIDENTAL TO LANE SHIFT ITEM
-  FILL - INCIDENTAL TO LANE SHIFT ITEM
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

**TRAFFIC CONTROL,
 TEMPORARY LANE SHIFT
 DURING CULVERT WORK**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 February 2021 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER

FHWA





6

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SDD 15D48 - 01

SDD 15D48 - 01

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.

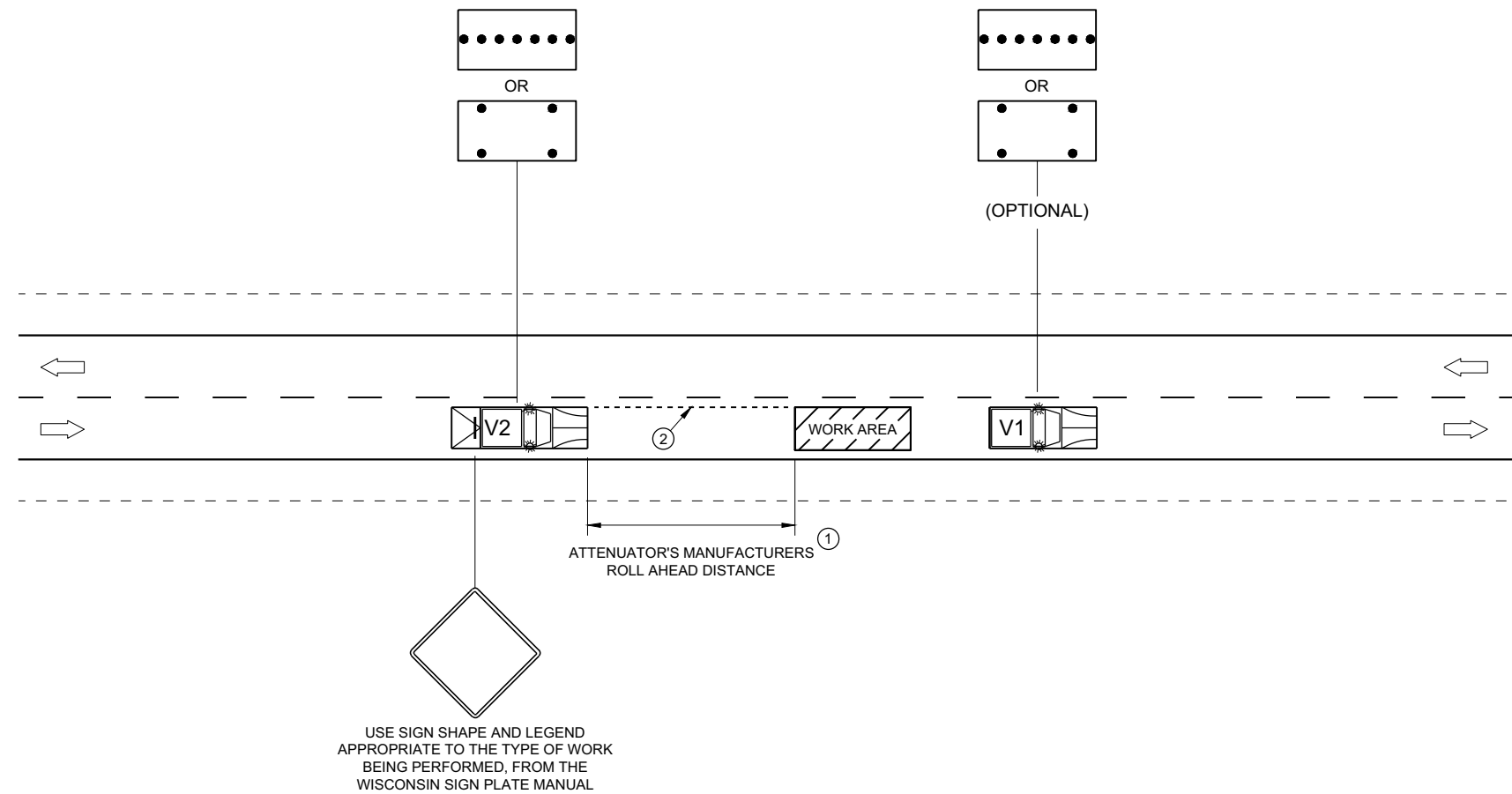
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

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**

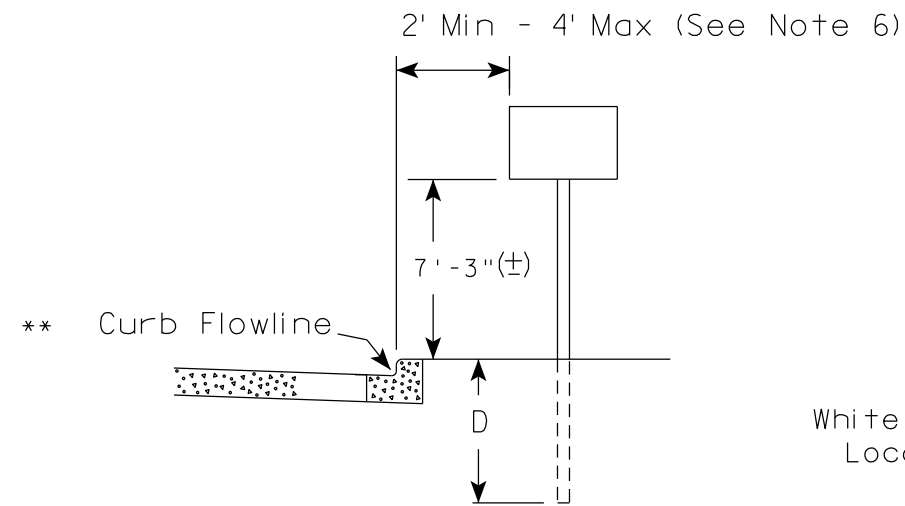
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 DATE /S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

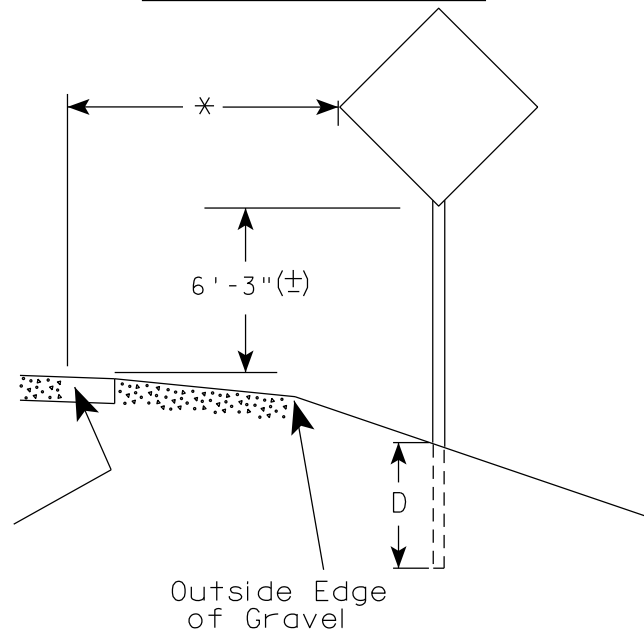
FHWA

URBAN AREA

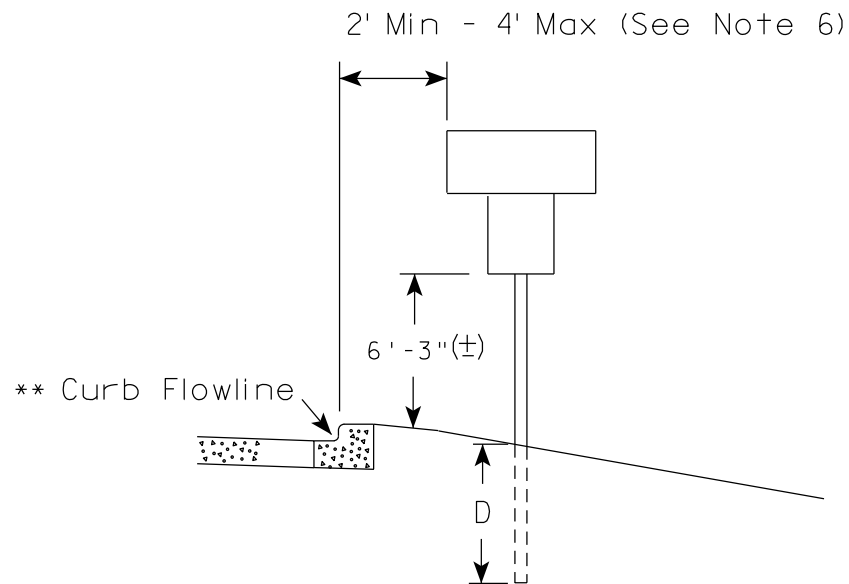
RURAL AREA (See Note 2)



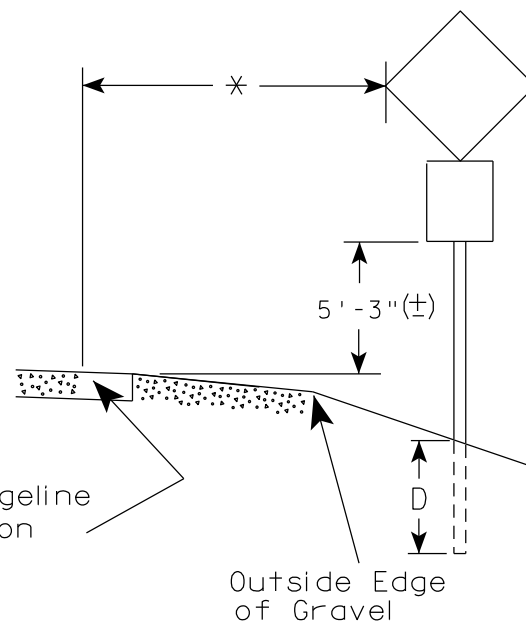
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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.

* * 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.

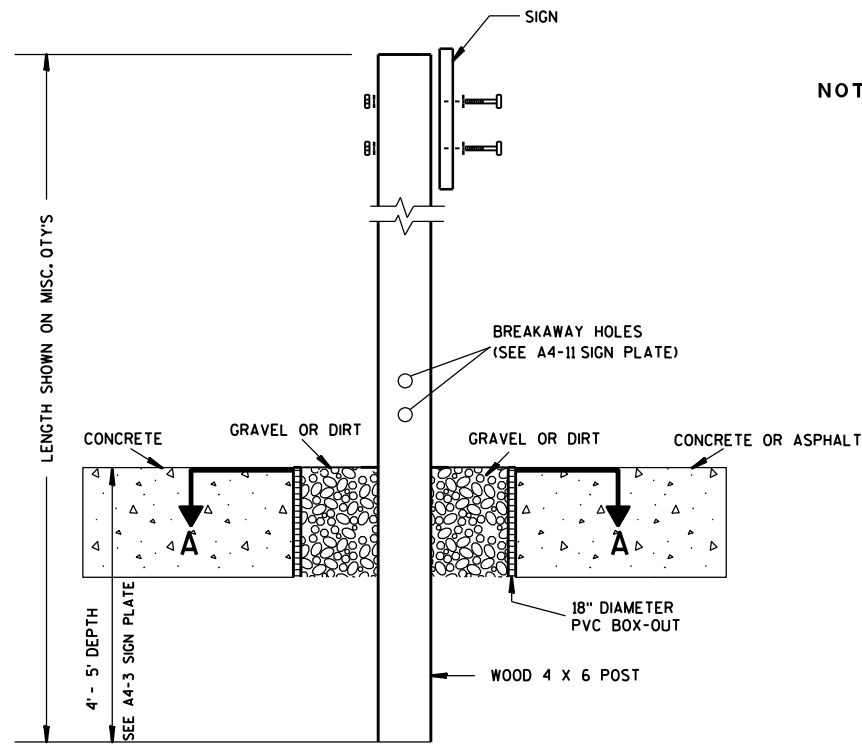
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

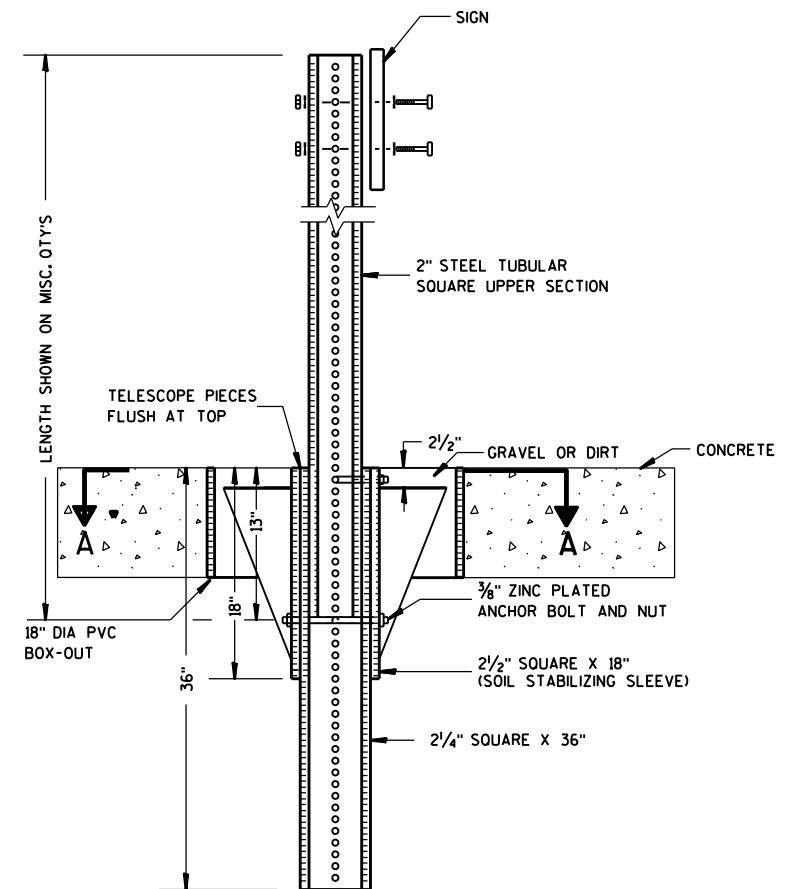
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

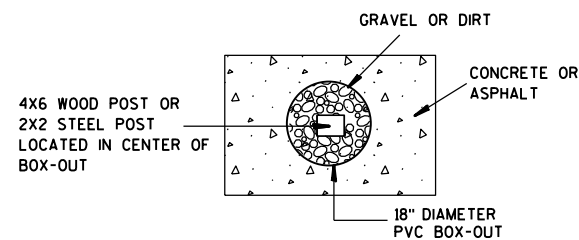
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

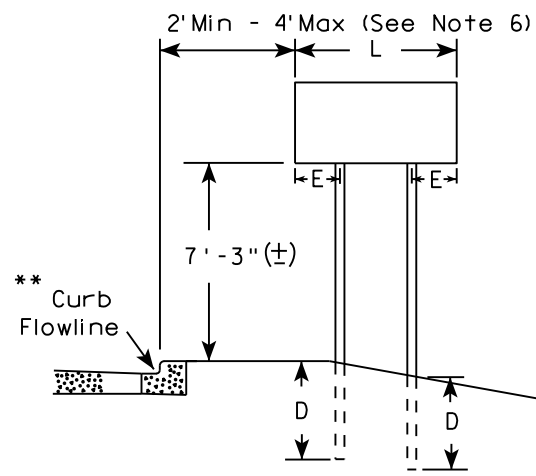
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<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>

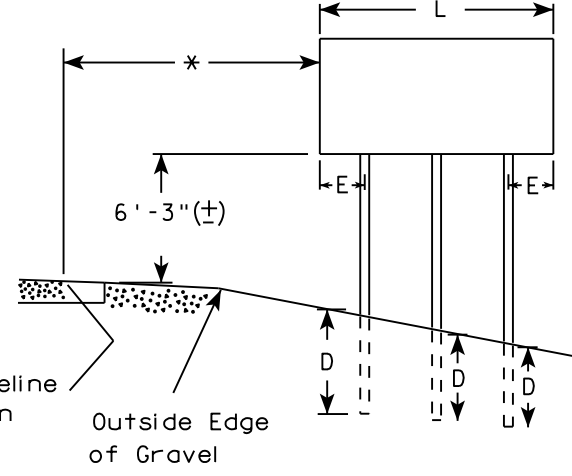
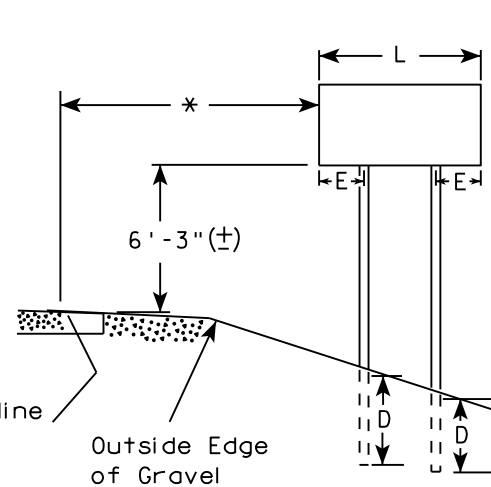
GENERAL NOTES

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" (±).

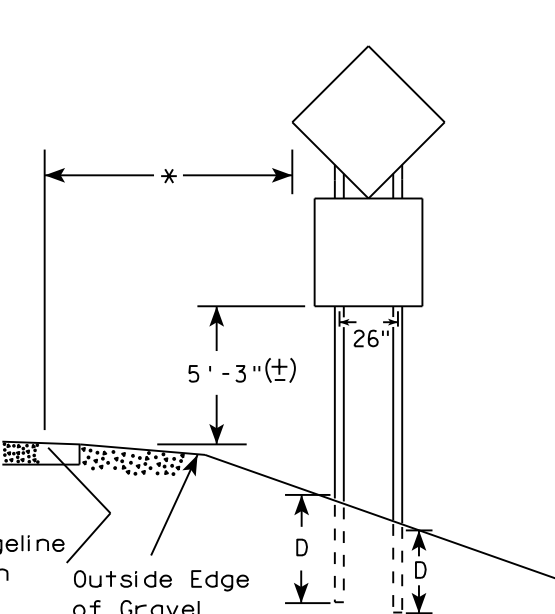
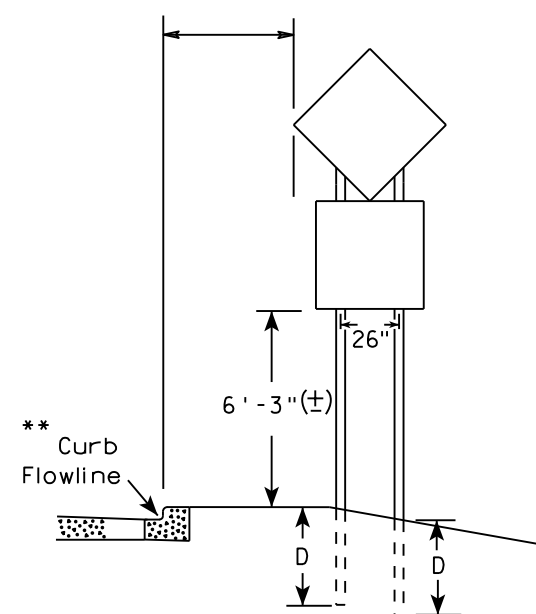
URBAN AREA



RURAL AREA (See Note 3)



URBAN AREA



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

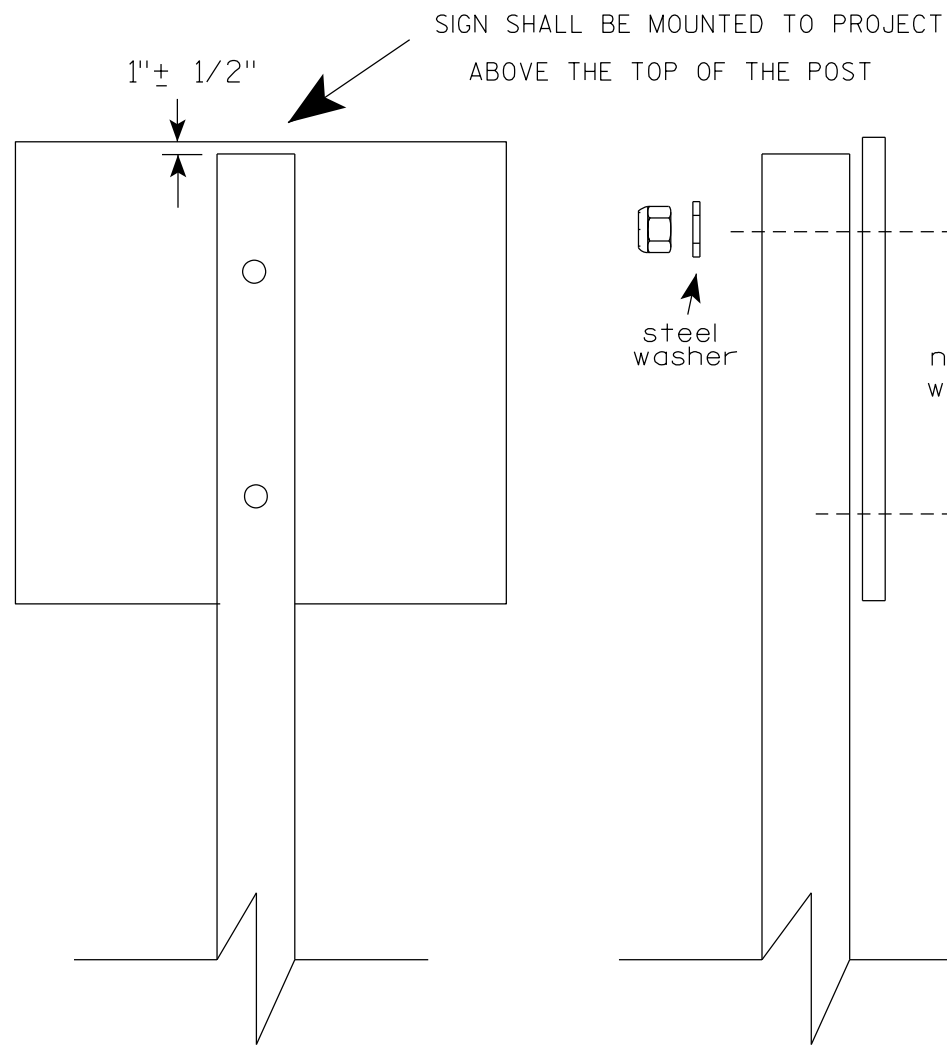
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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 :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS
TO POSTS

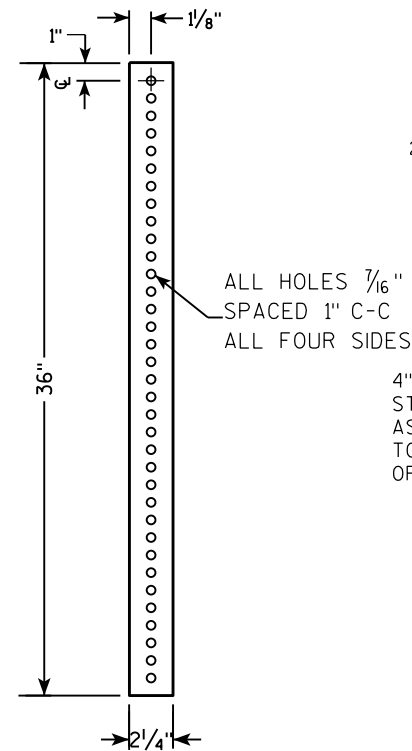
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

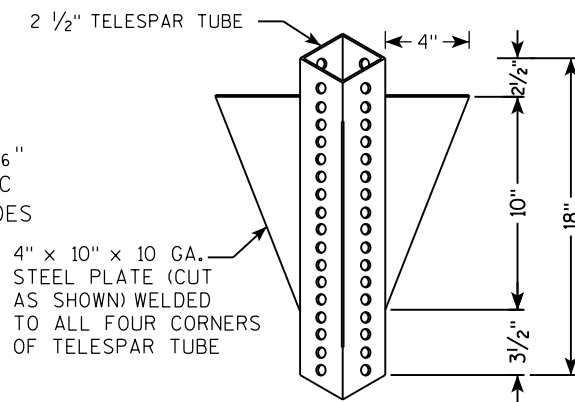
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

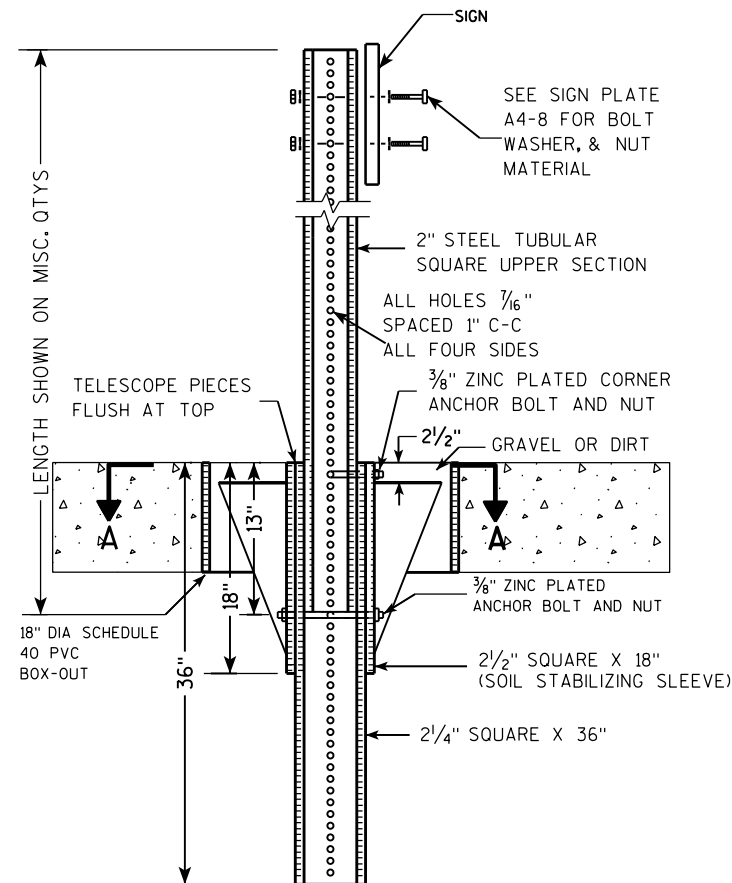
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



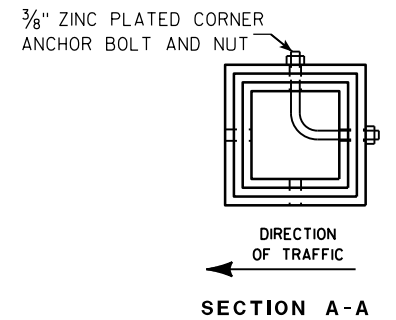
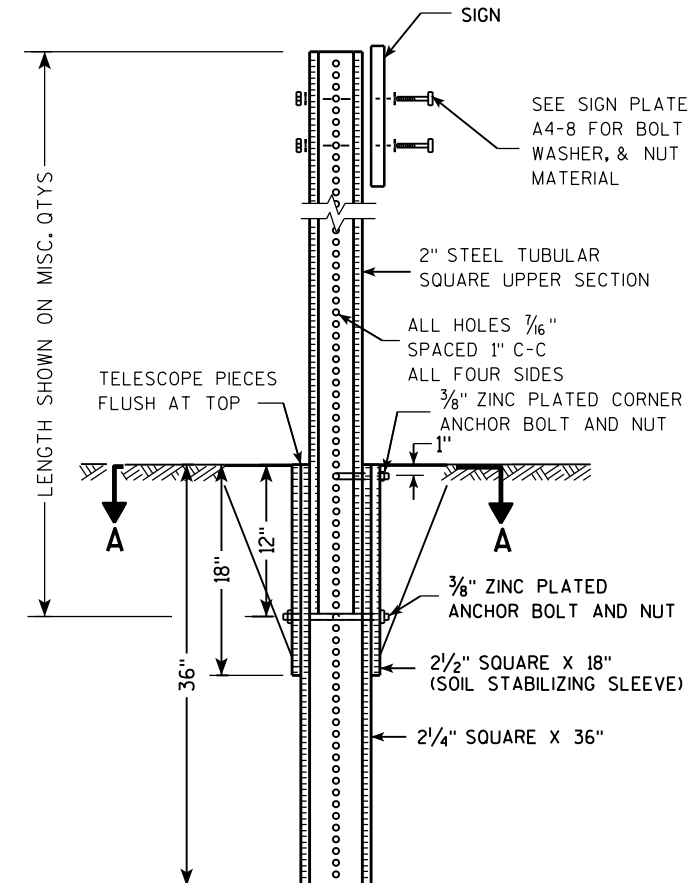
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**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

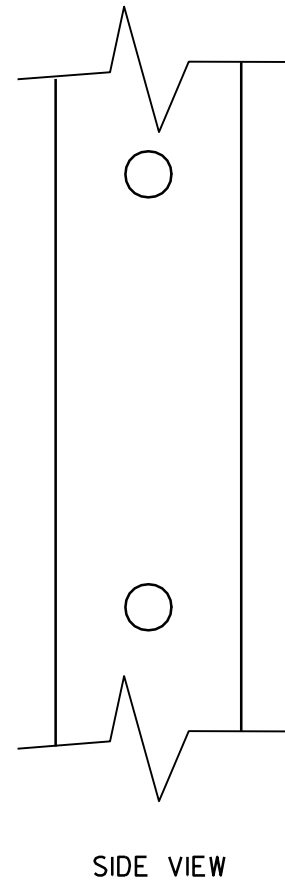
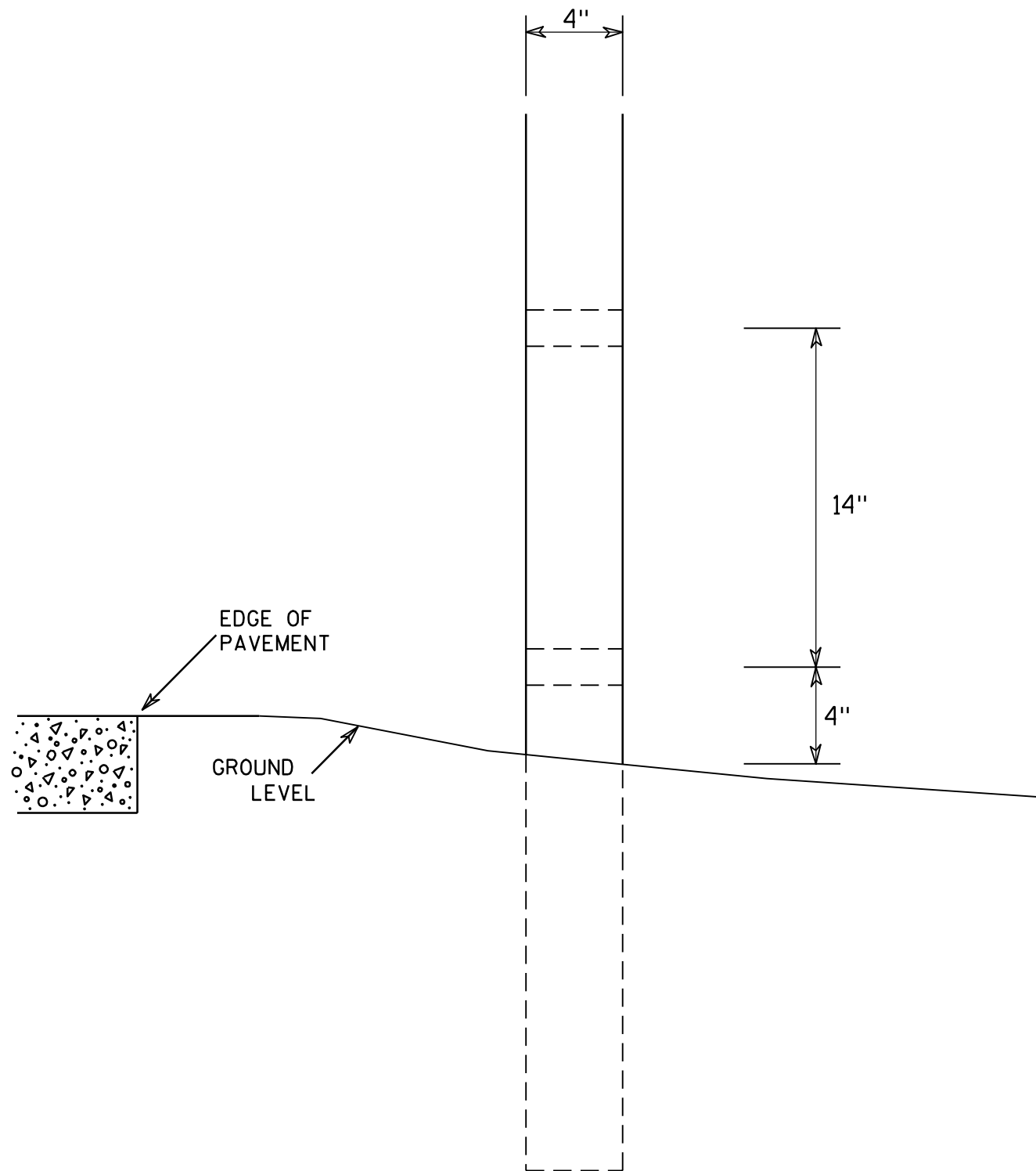
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**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.

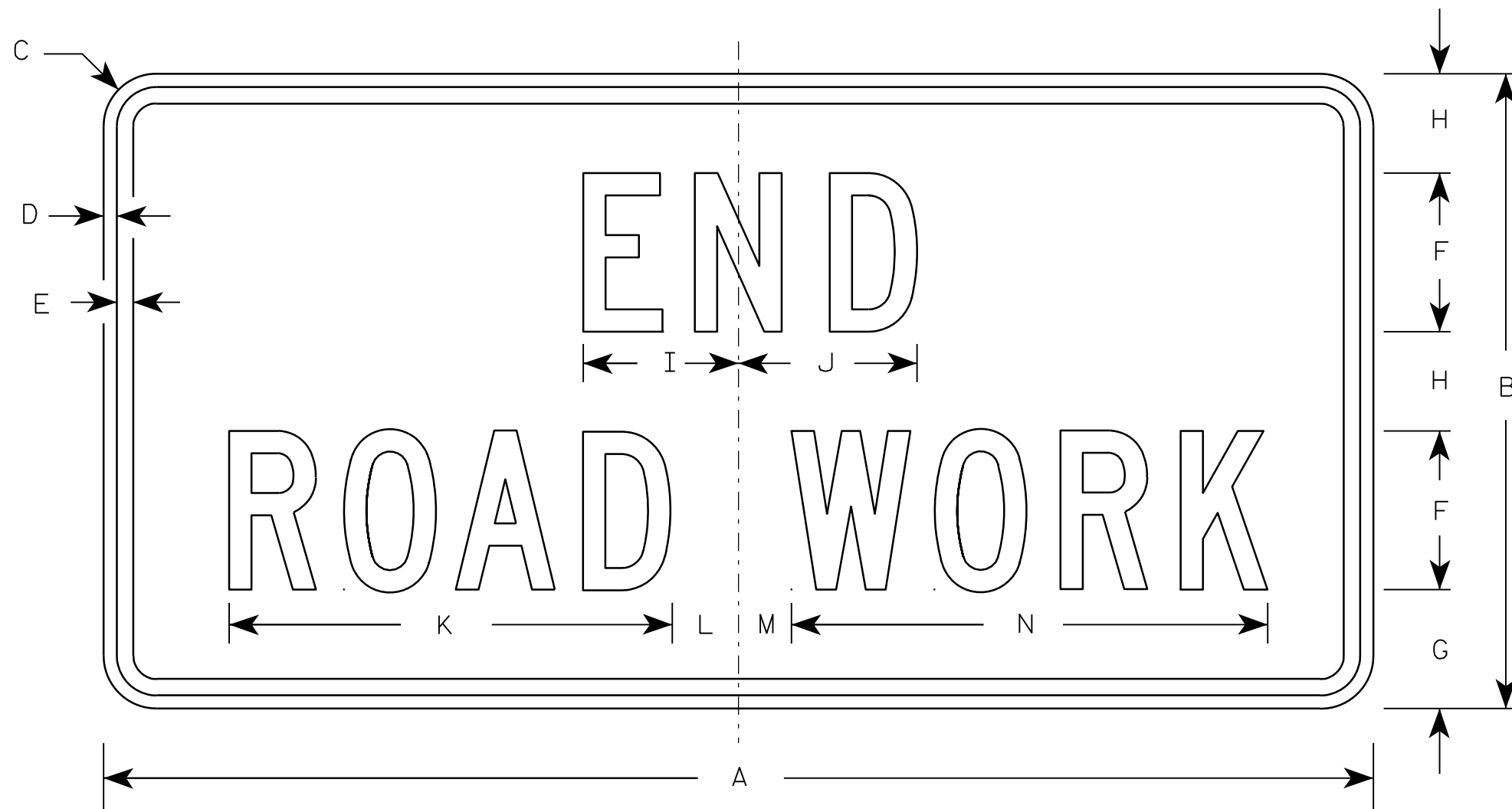
7

7

4 X 6 WOOD POST MODIFICATIONS	
<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>

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

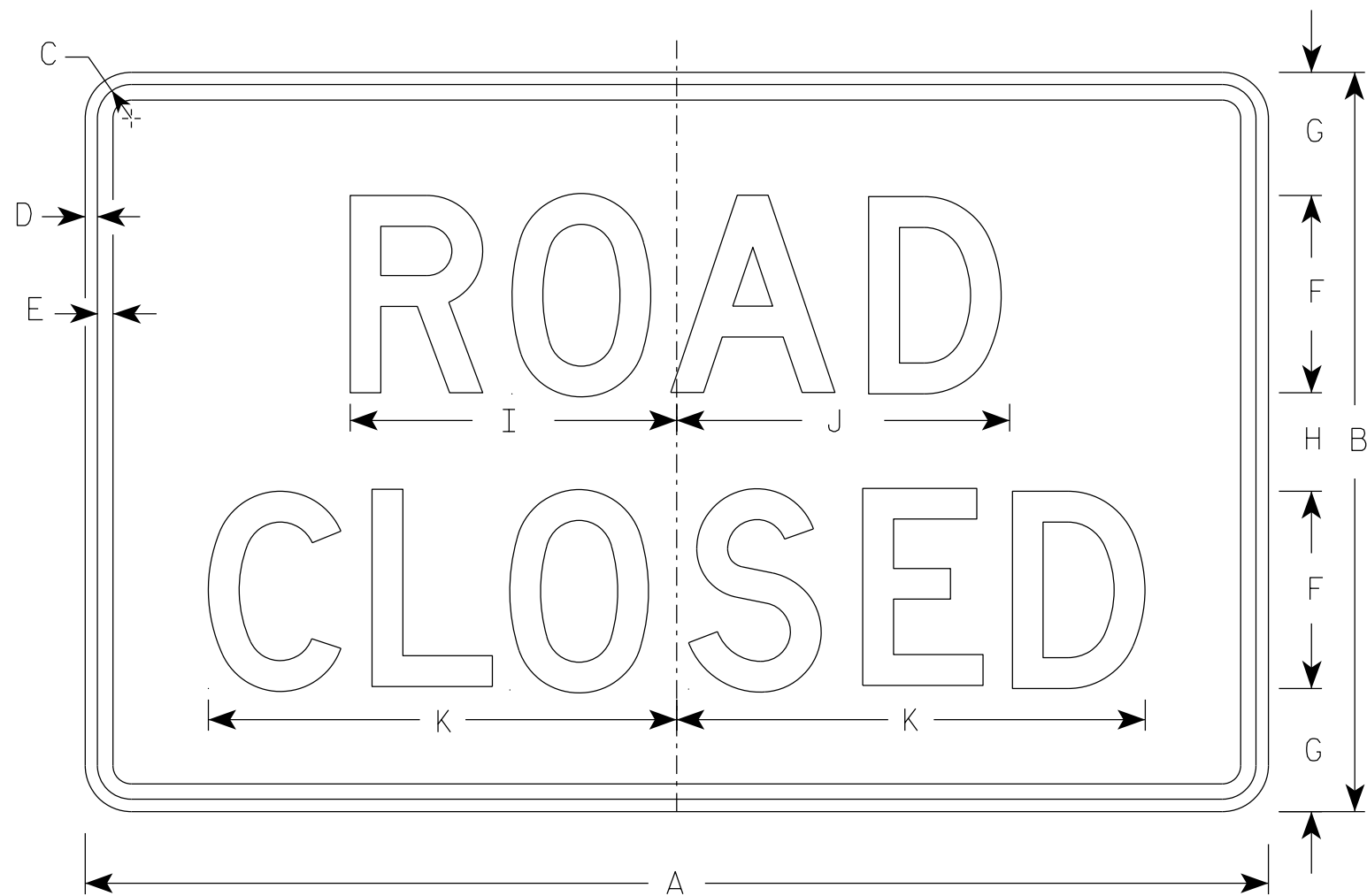
Metric equivalent for this sign is:

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:	E
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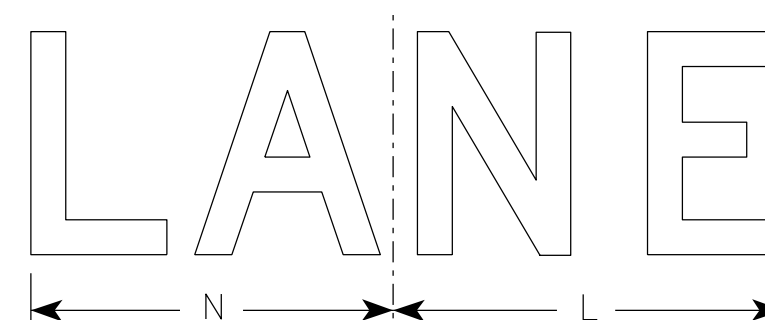
R11-2



R11-2R



R11-2T



R11-2L

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.

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	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

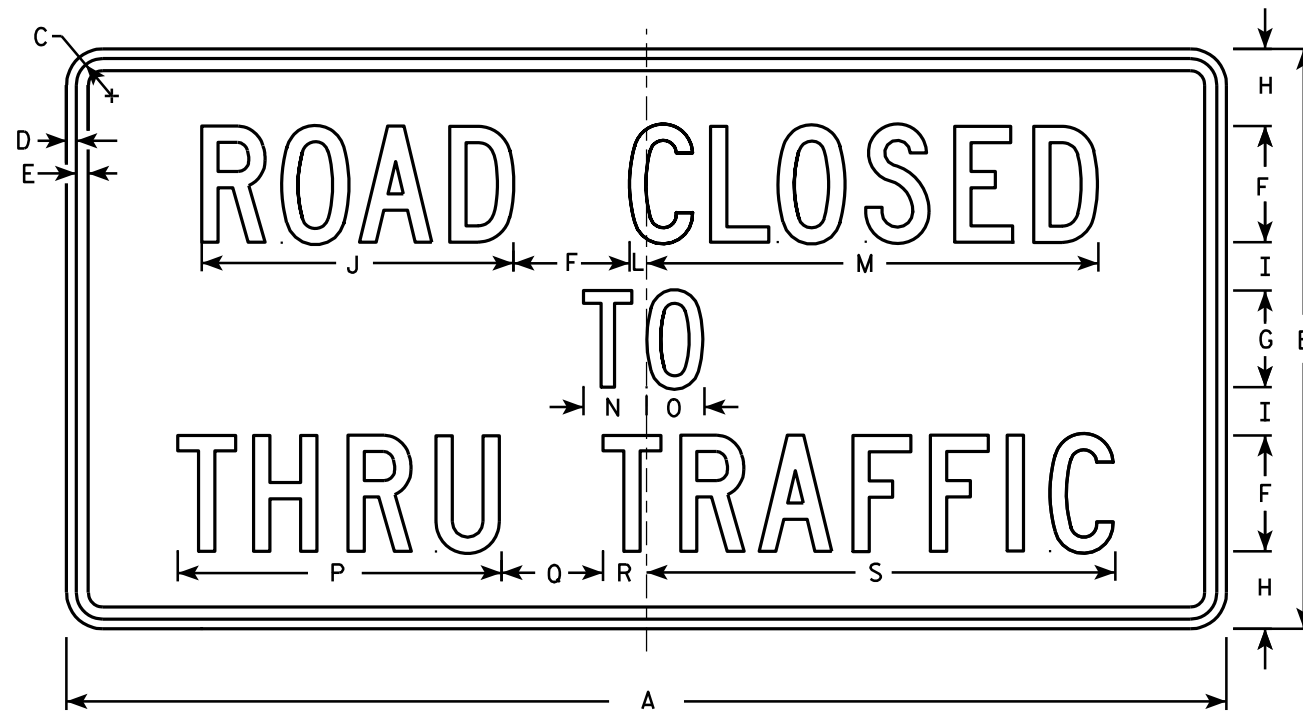
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

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 - 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

WISCONSIN DEPT OF TRANSPORTATION

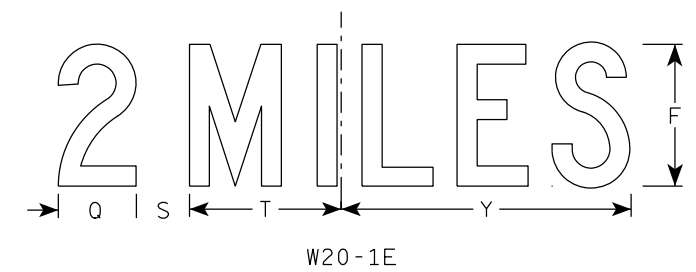
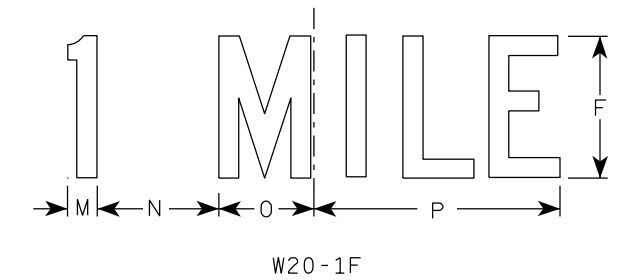
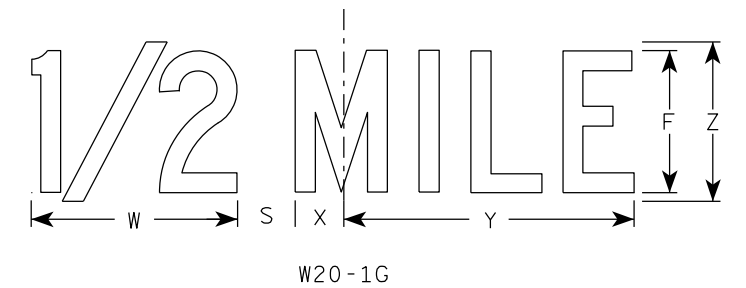
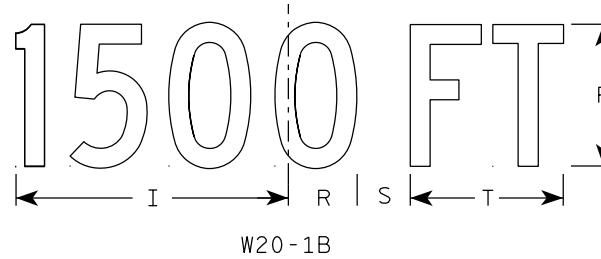
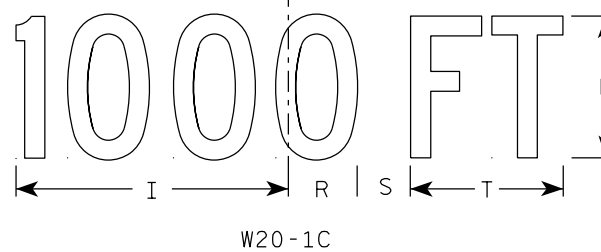
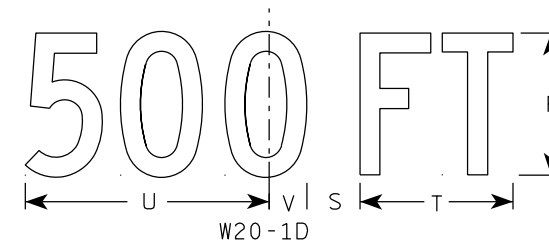
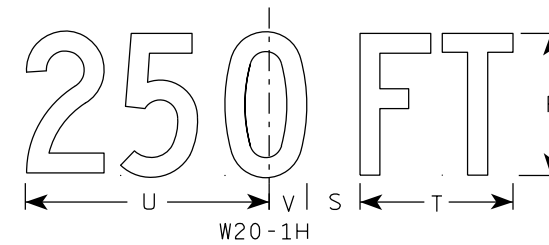
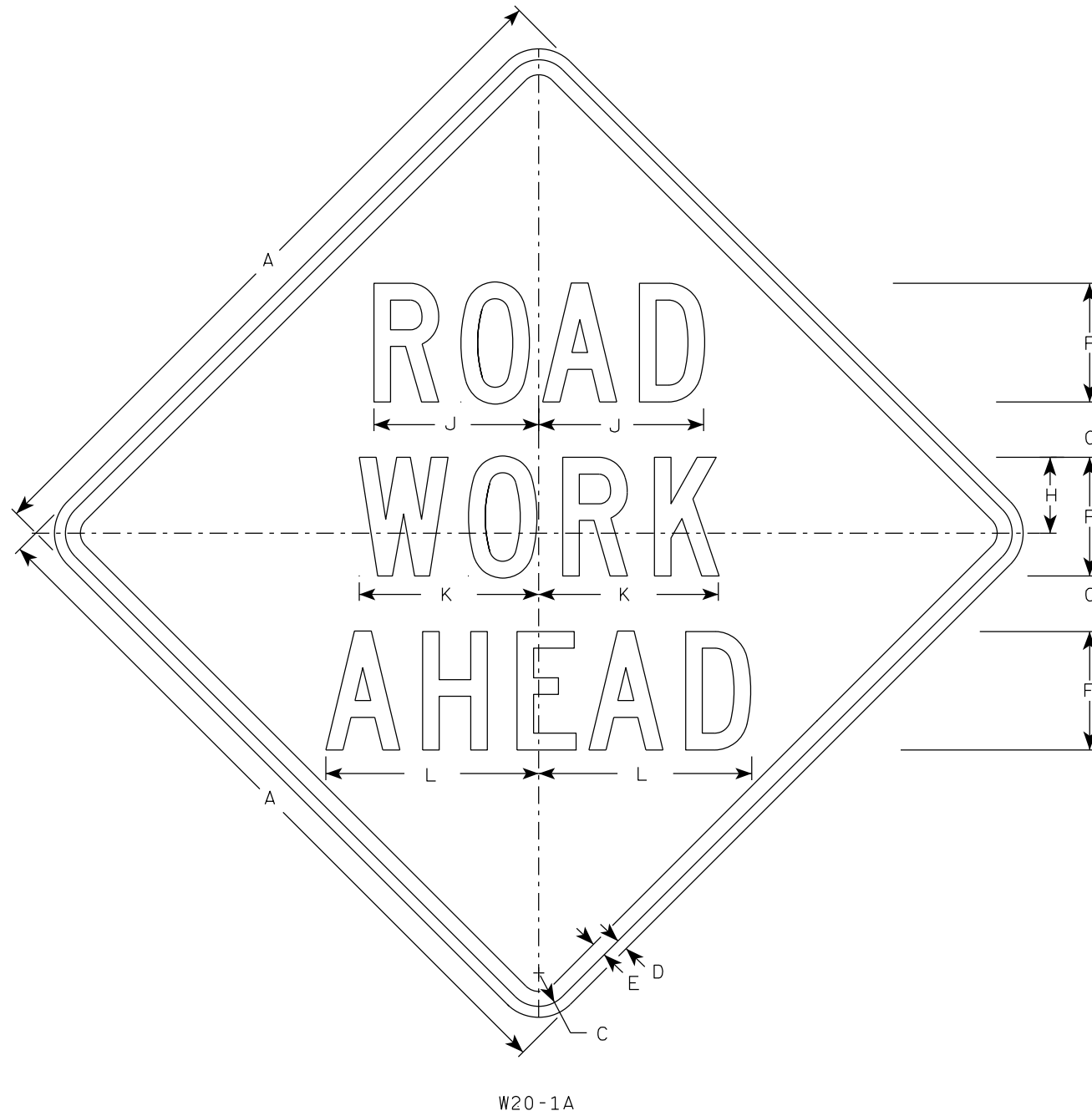
APPROVED *Matthew R. Raush*
for State Traffic Engineer

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
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



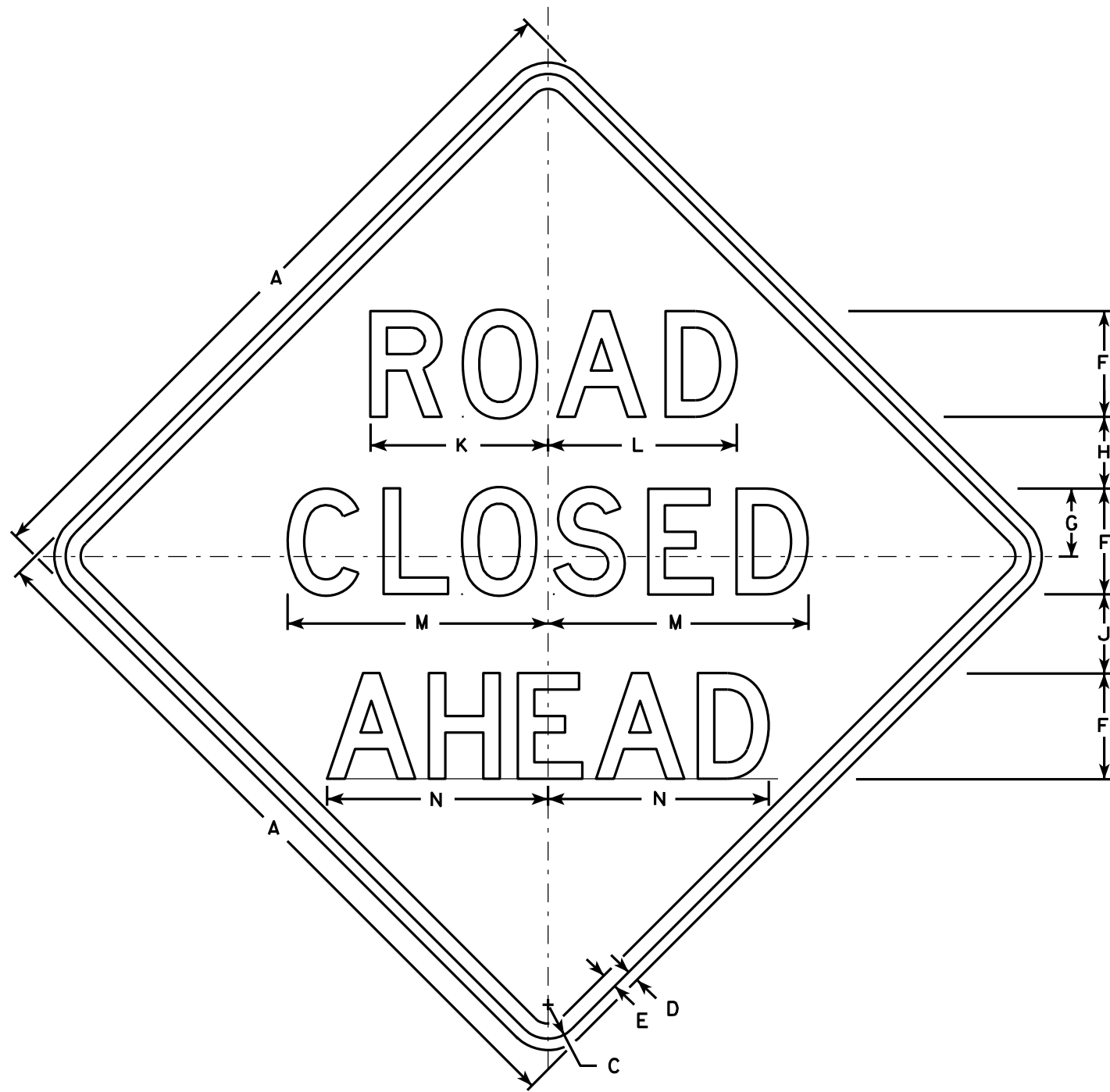
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	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

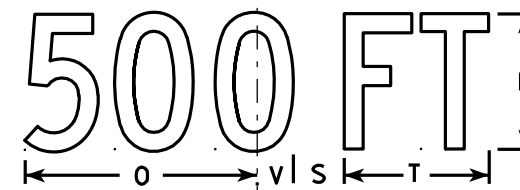
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

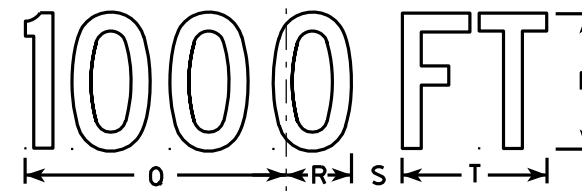
DATE 3/25/2020 PLATE NO. W20-1.11



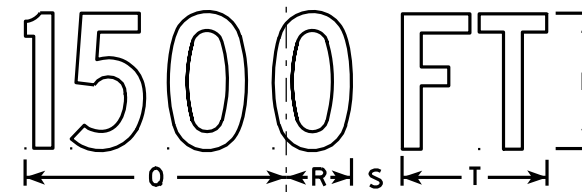
W20-3A



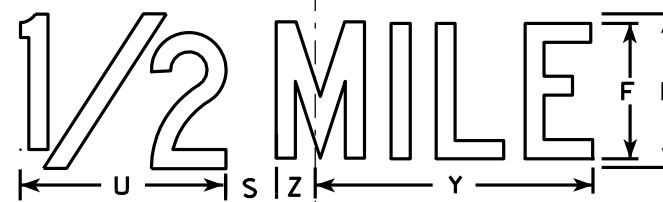
W20-3D



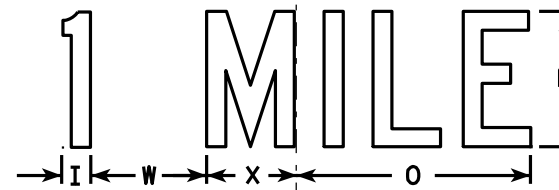
W20-3C



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

Project ID: 4140-28-71
Division 1 - STH 42

STATION	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Expanded		
								1.00	1.25	
339+32	0	19.8	0.0	0.0	0	0	0	0	0	0
339+50	18	19.8	0.0	0.0	13	0	0	13	0	13
340+00	50	20.9	0.0	0.0	38	0	0	51	0	51
340+50	50	20.6	0.0	0.0	38	0	0	89	0	89
341+00	50	20.4	0.0	0.0	38	0	0	127	0	127
341+50	50	19.6	0.0	0.0	37	0	0	164	0	164
342+00	50	16.8	0.0	0.4	34	0	0	198	0	198
342+50	50	16.4	0.0	4.5	31	0	5	229	6	223
343+00	50	17.0	0.0	5.8	31	0	10	260	18	242
343+50	50	17.5	0.0	7.5	32	0	12	292	34	258
344+00	50	17.7	0.0	7.2	33	0	14	324	51	274
344+21	21	18.8	0.0	5.1	14	0	5	339	57	282
344+50	29	22.1	0.0	14.2	22	0	10	361	70	291
345+00	50	20.6	0.0	0.0	40	0	13	400	86	314
345+04	4	19.4	0.0	0.0	3	0	0	403	86	317
345+08	4	22.4	0.0	0.0	3	0	0	406	86	320
345+50	42	49.6	0.0	27.6	56	0	22	462	113	349
346+00	50	33.9	0.0	0.9	77	0	26	540	146	394
346+50	50	18.6	0.0	0.0	49	0	1	588	147	441
347+00	50	0.0	0.0	0.0	17	0	0	606	147	458
347+50	50	0.0	0.0	0.0	0	0	0	606	147	458
348+00	50	0.0	0.0	0.0	0	0	0	606	147	458
348+50	50	0.0	0.0	0.0	0	0	0	606	147	458
349+00	50	0.0	0.0	0.0	0	0	0	606	147	458
349+11	11	0.0	0.0	0.0	0	0	0	606	147	458
349+40	29	0.0	0.0	0.0	0	0	0	606	147	458
		Column totals			606	0	118			

Project ID: 4140-28-71
Division 1 - Monument Point Rd E

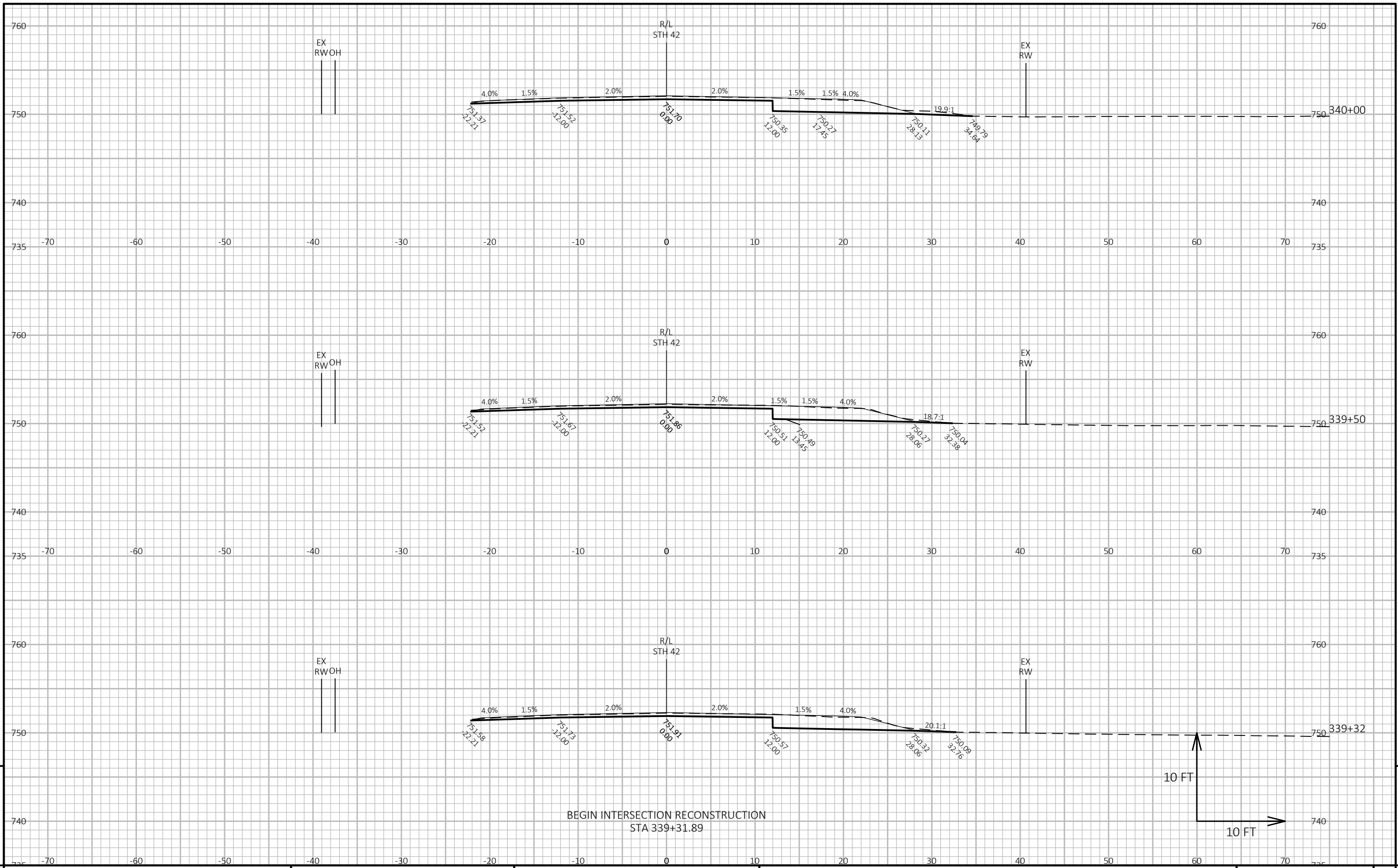
STATION	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Expanded		
								1.00	1.25	
10+65	0	52.6	0.0	23.2	0	0	0	0	0	0
11+00	35	22.9	0.0	11.7	49	0	23	49	28	21
11+50	50	15.2	0.0	5.5	35	0	16	84	48	36
11+74	24	11.0	0.0	4.8	11	0	5	96	54	42
		Column totals			96	0	43			

Project ID: 4140-28-71
Division 2 - STH 42

STATION	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Expanded		
								1.00	1.25	
339+32	0	0.0	0.0	0.0	0	0	0	0	0	0
339+50	18	0.0	0.0	0.0	0	0	0	0	0	0
340+00	50	0.0	0.0	0.0	0	0	0	0	0	0
340+50	50	0.0	0.0	0.0	0	0	0	0	0	0
341+00	50	0.0	0.0	0.0	0	0	0	0	0	0
341+50	50	0.0	0.0	0.0	0	0	0	0	0	0
342+00	50	0.0	0.0	0.0	0	0	0	0	0	0
342+50	50	0.0	0.0	0.0	0	0	0	0	0	0
343+00	50	0.0	0.0	0.0	0	0	0	0	0	0
343+50	50	0.0	0.0	0.1	0	0	0	0	0	0
344+00	50	13.5	0.0	2.5	13	0	2	13	3	9
344+21	21	33.5	0.0	0.0	18	0	1	31	4	26
344+50	29	16.7	0.0	7.5	27	0	4	58	9	48
345+00	50	16.6	0.0	0.0	31	0	7	89	18	70
345+04	4	14.8	0.0	0.0	2	0	0	91	18	72
345+08	4	13.3	0.0	0.0	2	0	0	93	18	75
345+50	42	25.7	0.0	14.1	31	0	11	123	32	91
346+00	50	19.1	0.0	5.0	42	0	18	165	54	111
346+50	50	16.0	0.0	5.4	33	0	10	197	66	131
347+00	50	16.3	0.0	2.9	30	0	8	227	76	152
347+50	50	18.6	0.0	0.0	32	0	3	259	79	181
348+00	50	21.7	0.0	0.0	37	0	0	297	79	218
348+50	50	20.0	0.0	0.0	39	0	0	335	79	256
349+00	50	22.2	0.0	0.0	39	0	0	374	79	295
349+11	11	23.1	0.0	0.0	9	0	0	384	79	305
349+40	29	16.7	0.0	0.0	21	0	0	405	79	326
Column totals					405	0	63			

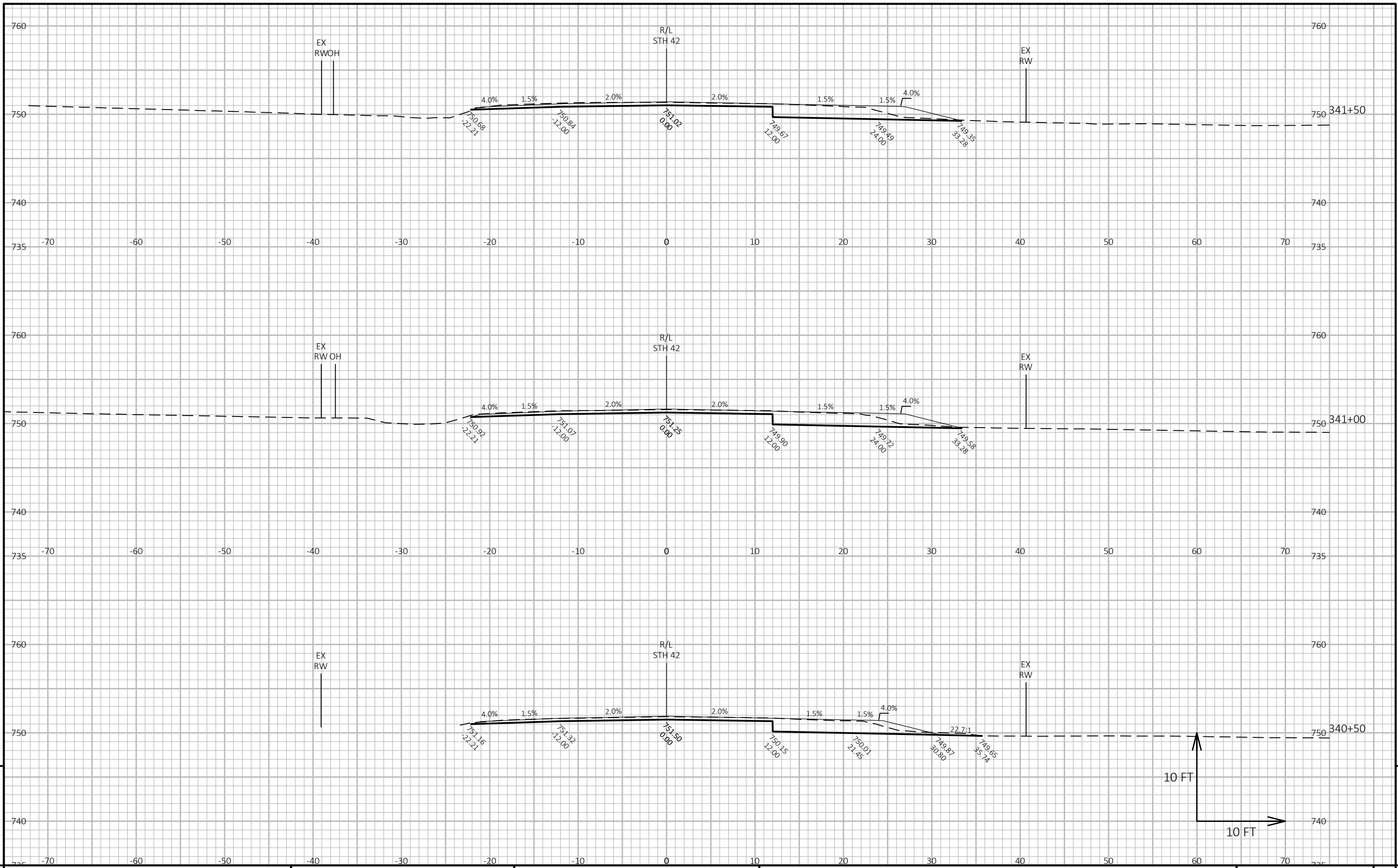
Project ID: 4140-28-71
Division 2 - Monument Point Rd W

STATION	Distance	Area (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		Mass Ordinate
		Cut	Salvaged/ Unusable Pavement Material	Fill	Cut	Salvaged/ Unusable Pavement Material	Fill	Expanded		
								1.00	1.25	
0+66	0	9.3	0.0	0.0	0	0	0	0	0	0
1+00	34	11.4	0.0	0.0	13	0	0	13	0	13
1+29	29	22.9	0.0	0.0	18	0	0	31	0	31
1+50	21	22.7	0.0	1.7	18	0	1	49	1	48
1+81	31	34.2	0.0	3.4	32	0	3	81	5	77
Column totals					81	0	4			

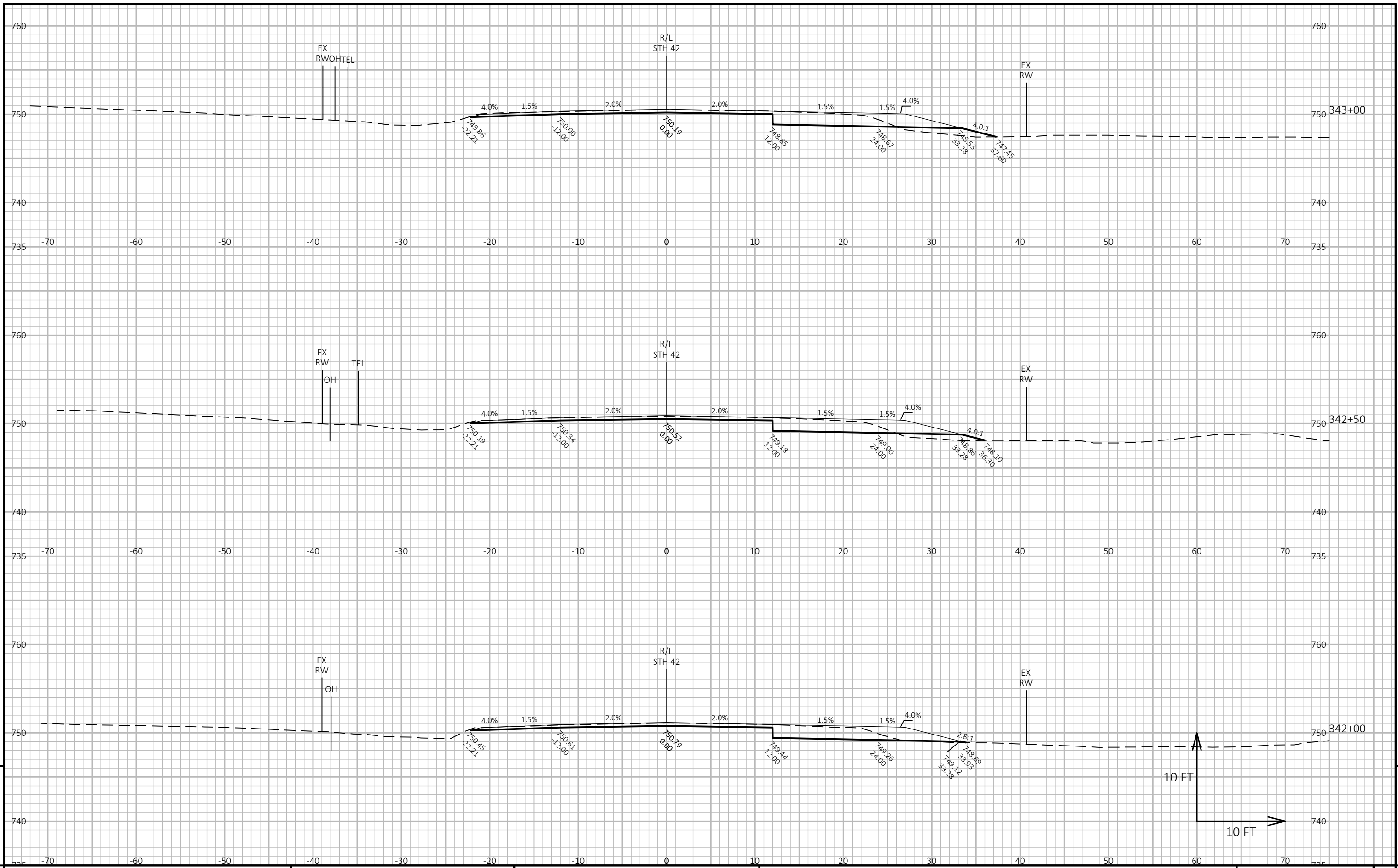


BEGIN INTERSECTION RECONSTRUCTION
 STA 339+31.89

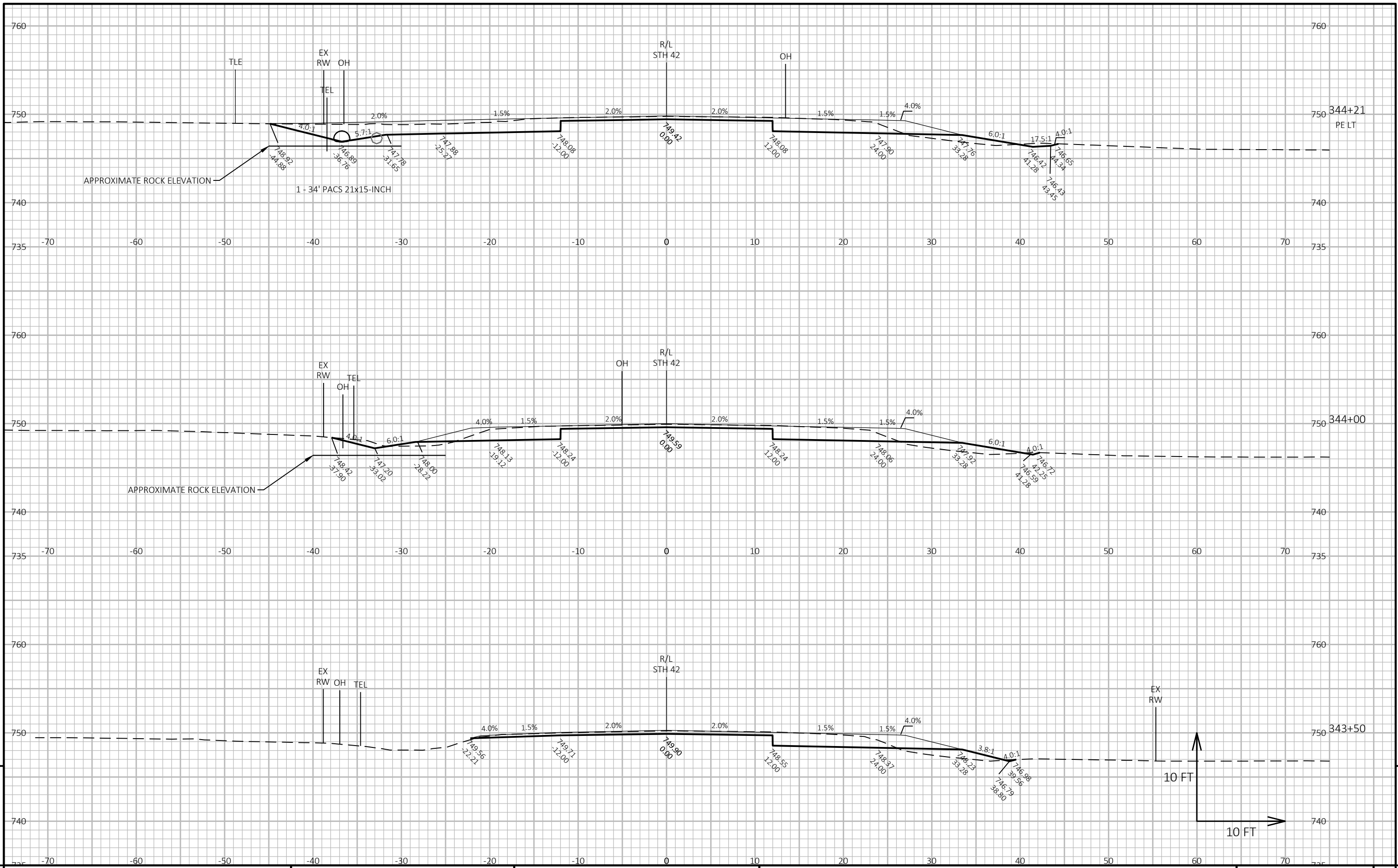
PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	CROSS SECTIONS: STH 42	SHEET	E
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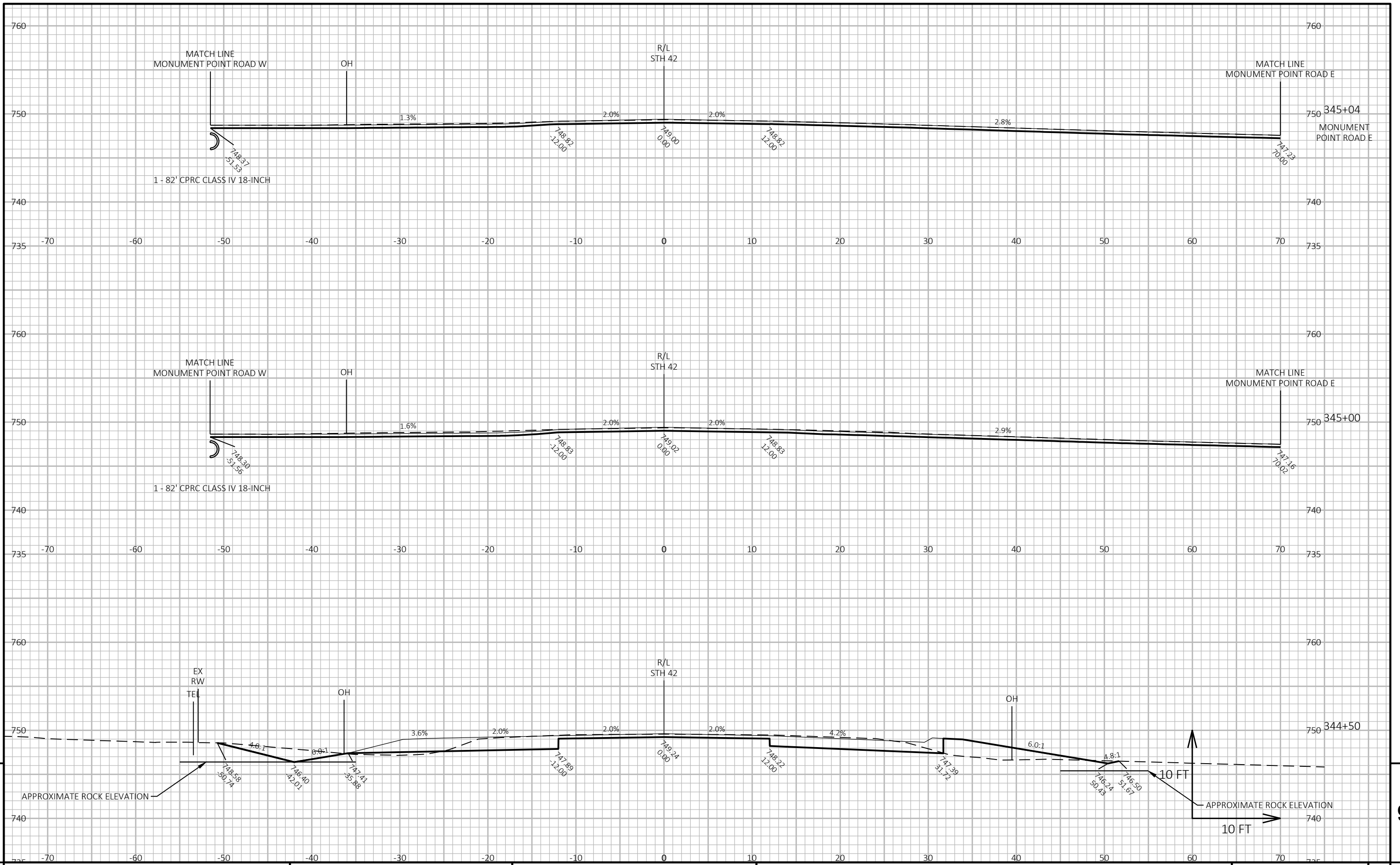
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: STH 42 SHEET 9



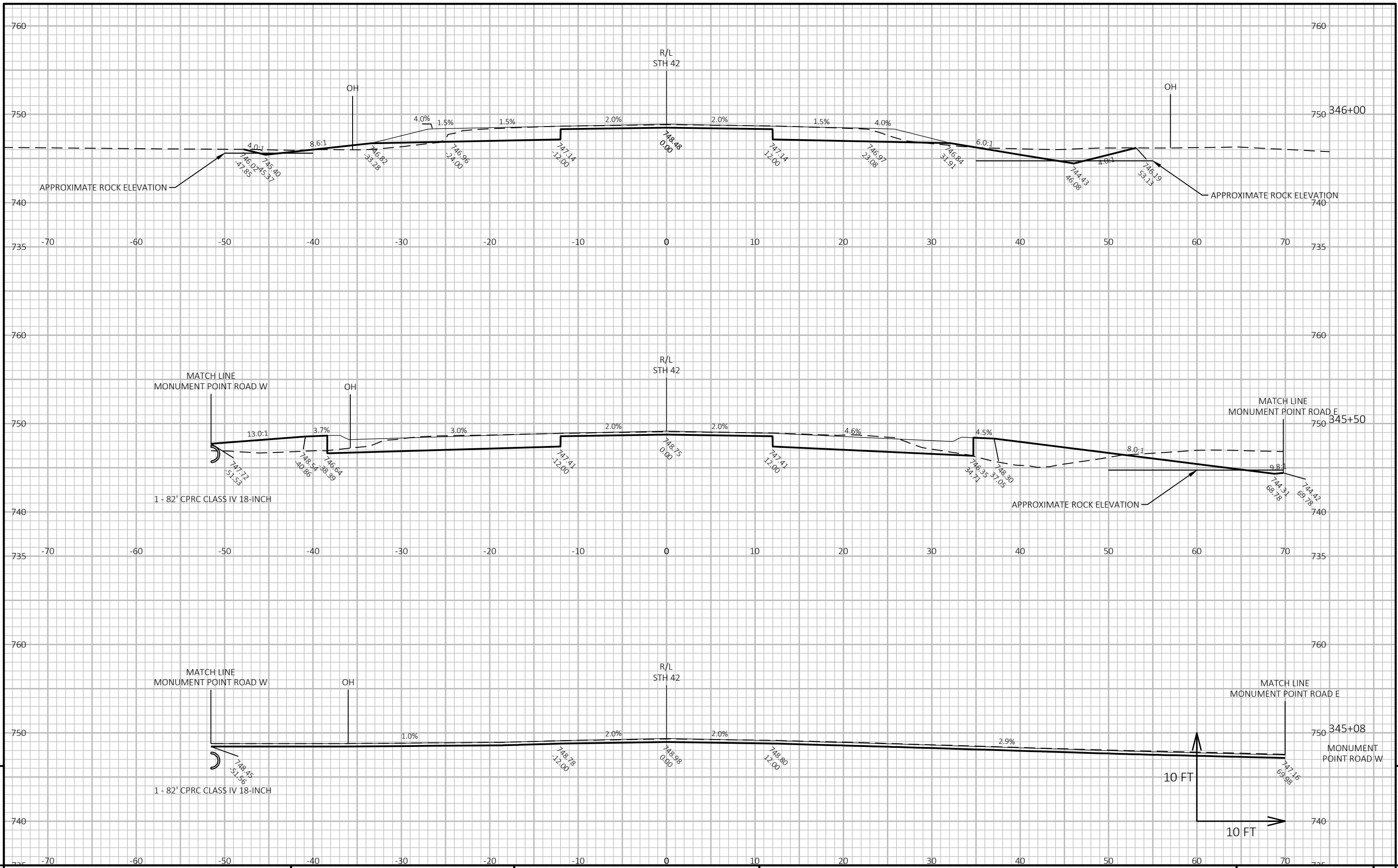
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: STH 42 SHEET 9



PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: STH 42 SHEET 9



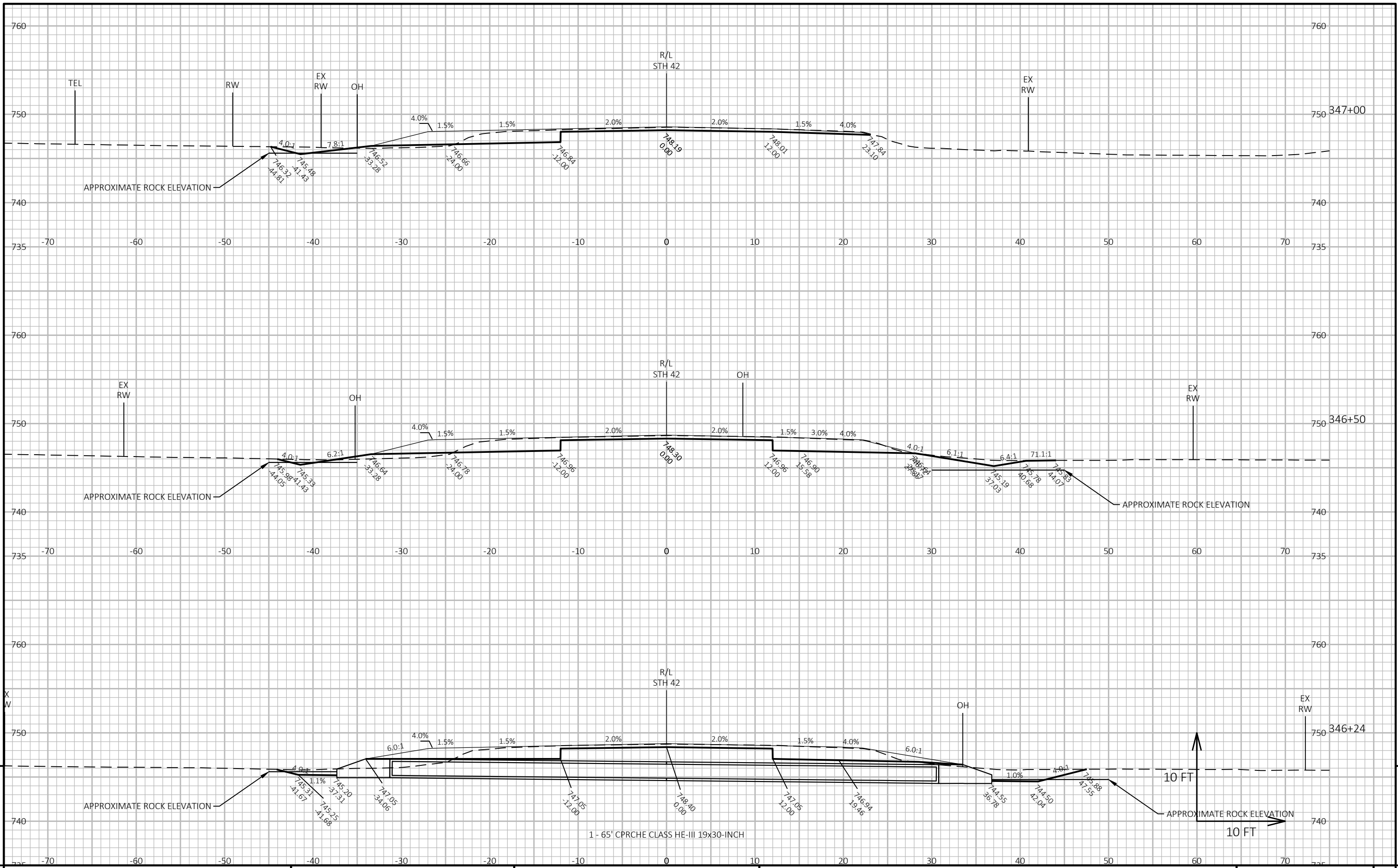
PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	CROSS SECTIONS: STH 42	SHEET 9
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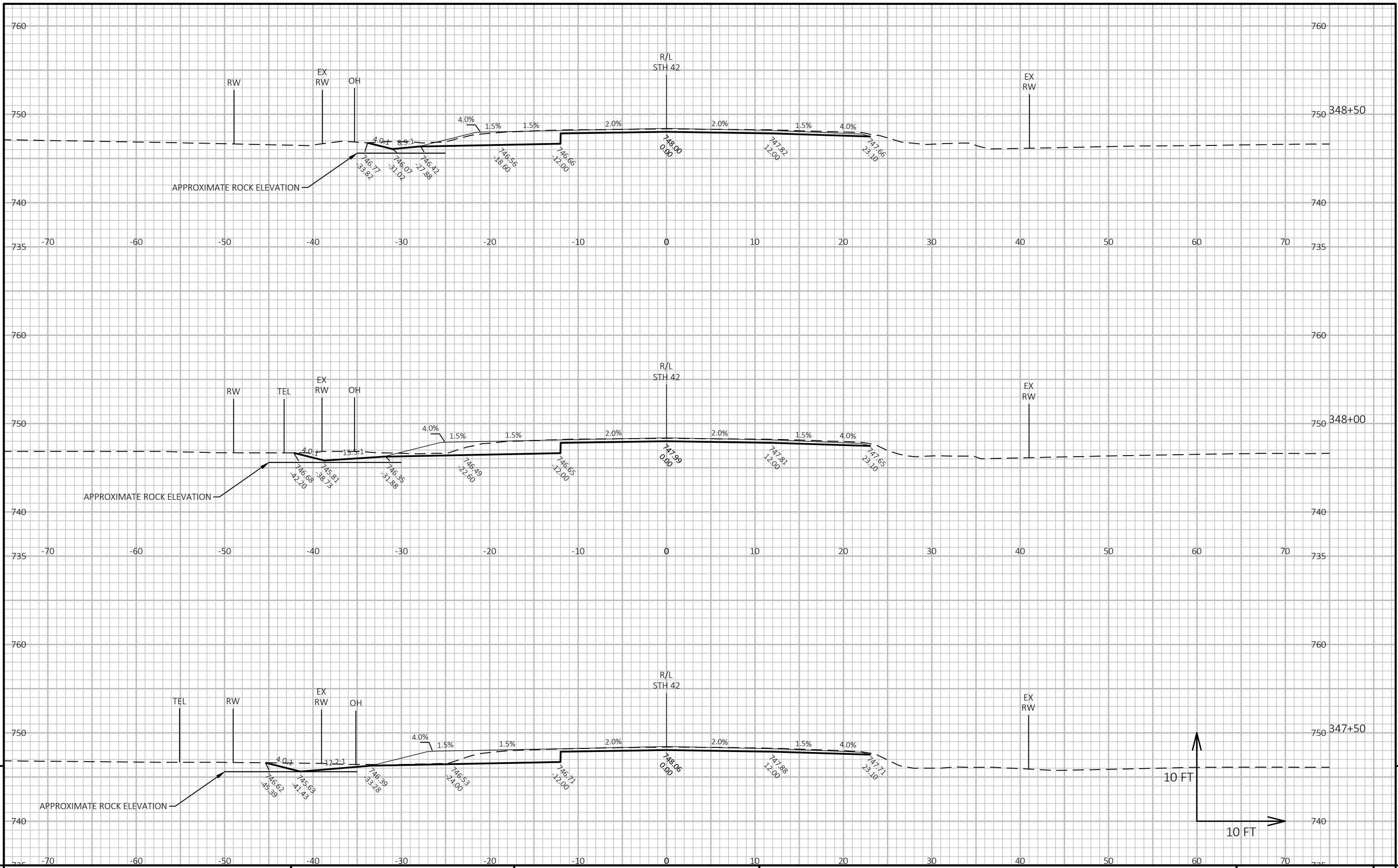
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: STH 42 SHEET 9

FILE NAME: X:\BM1-3964 STH 42 DOOR COUNTY\5_DESIGN\03_ROADS\41402800\SHEETS\PLAN\090201-XS.DWG PLOT DATE: 8/30/2023 2:27 PM PLOT BY: VALBON LATIFI PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

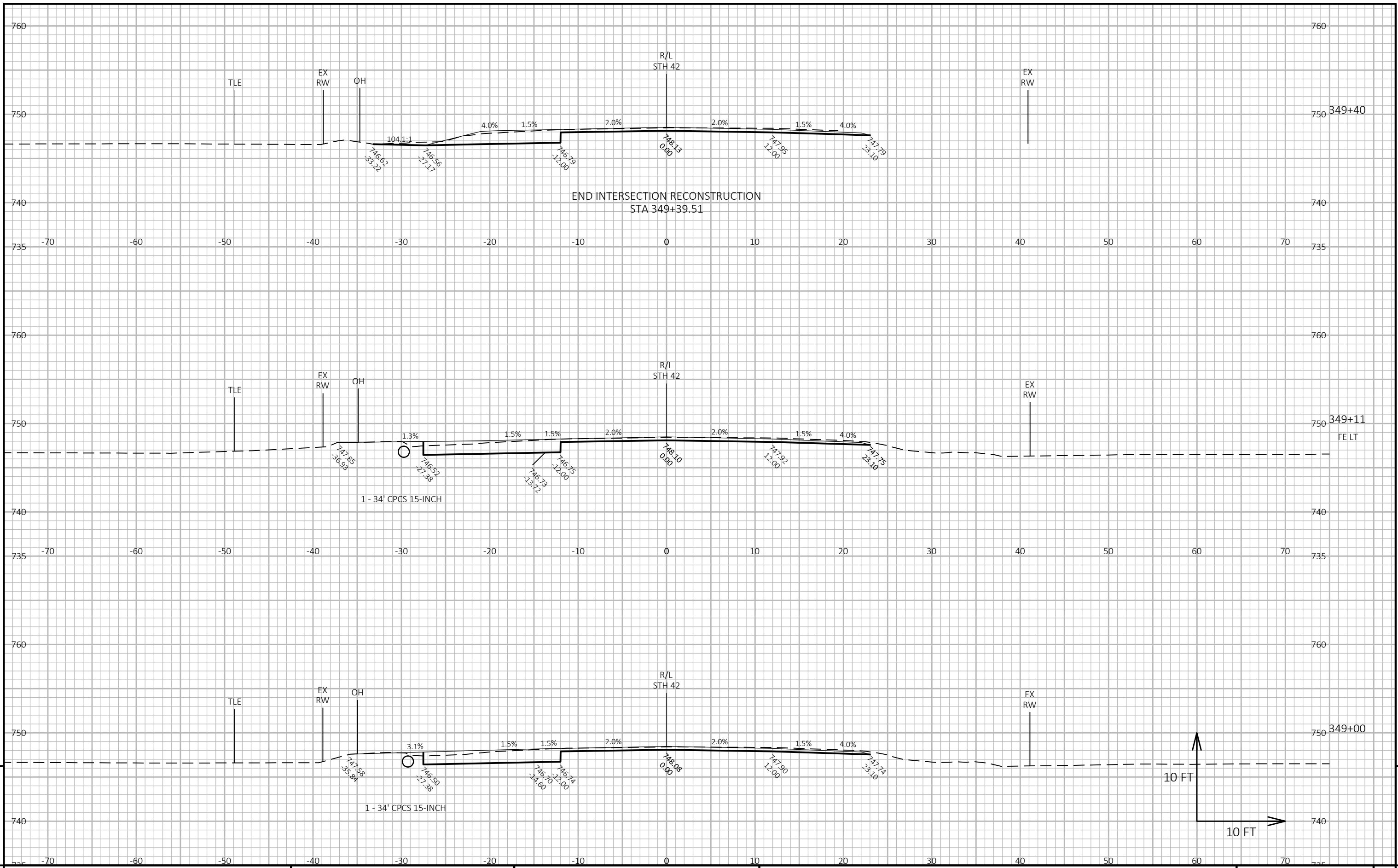
LAYOUT NAME: 42-06-xs



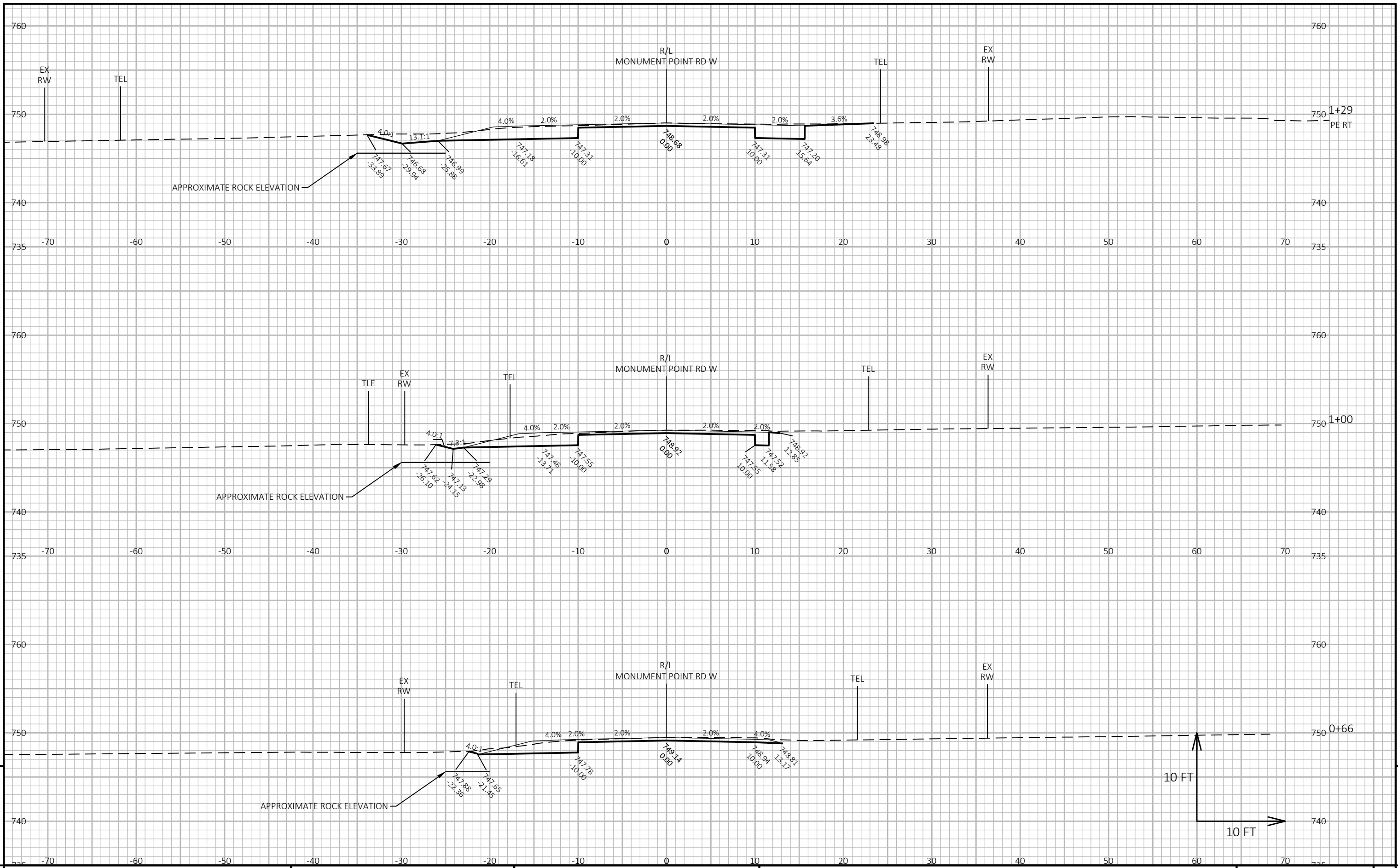
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: STH 42 SHEET E



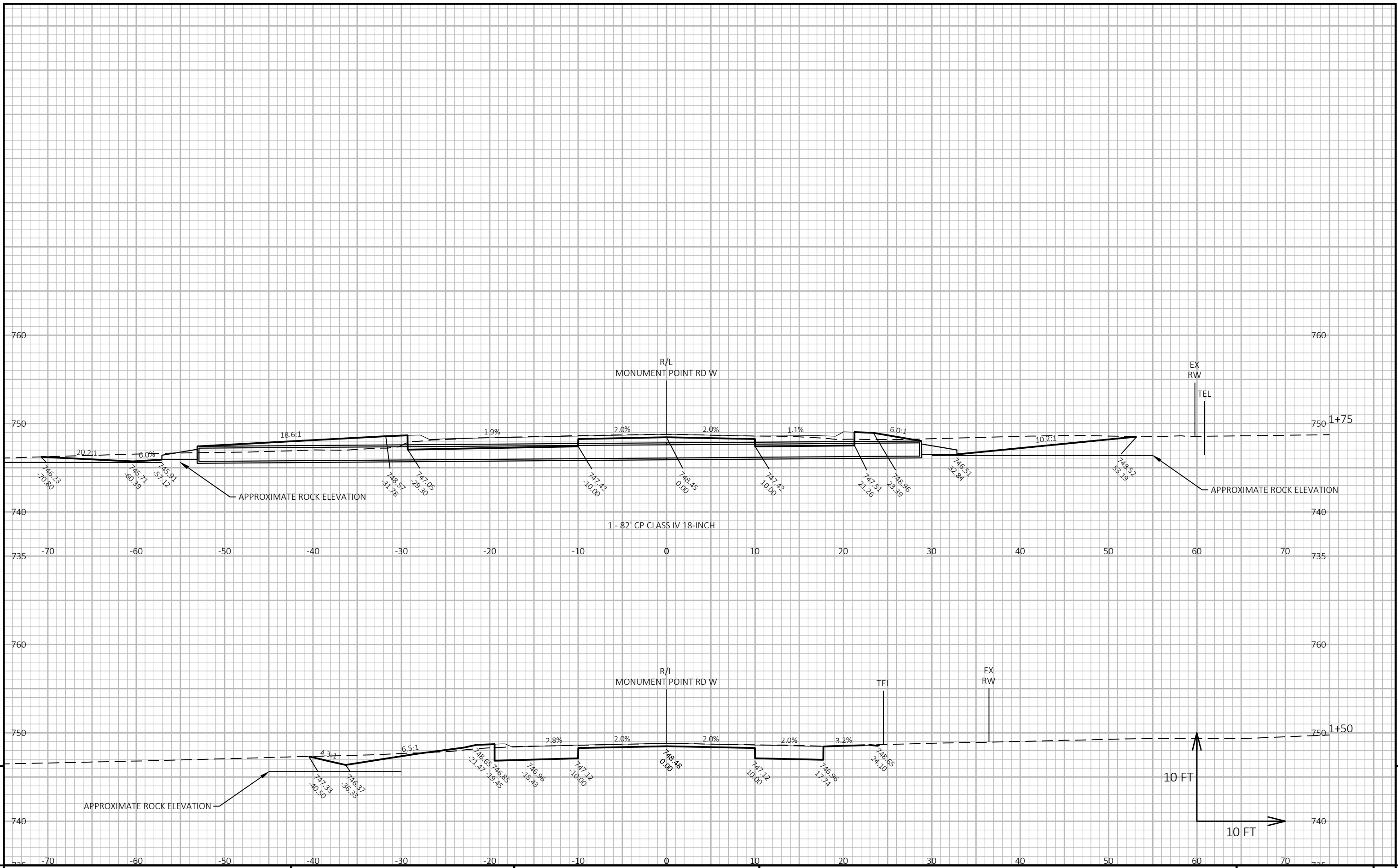
PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	CROSS SECTIONS: STH 42	SHEET	E
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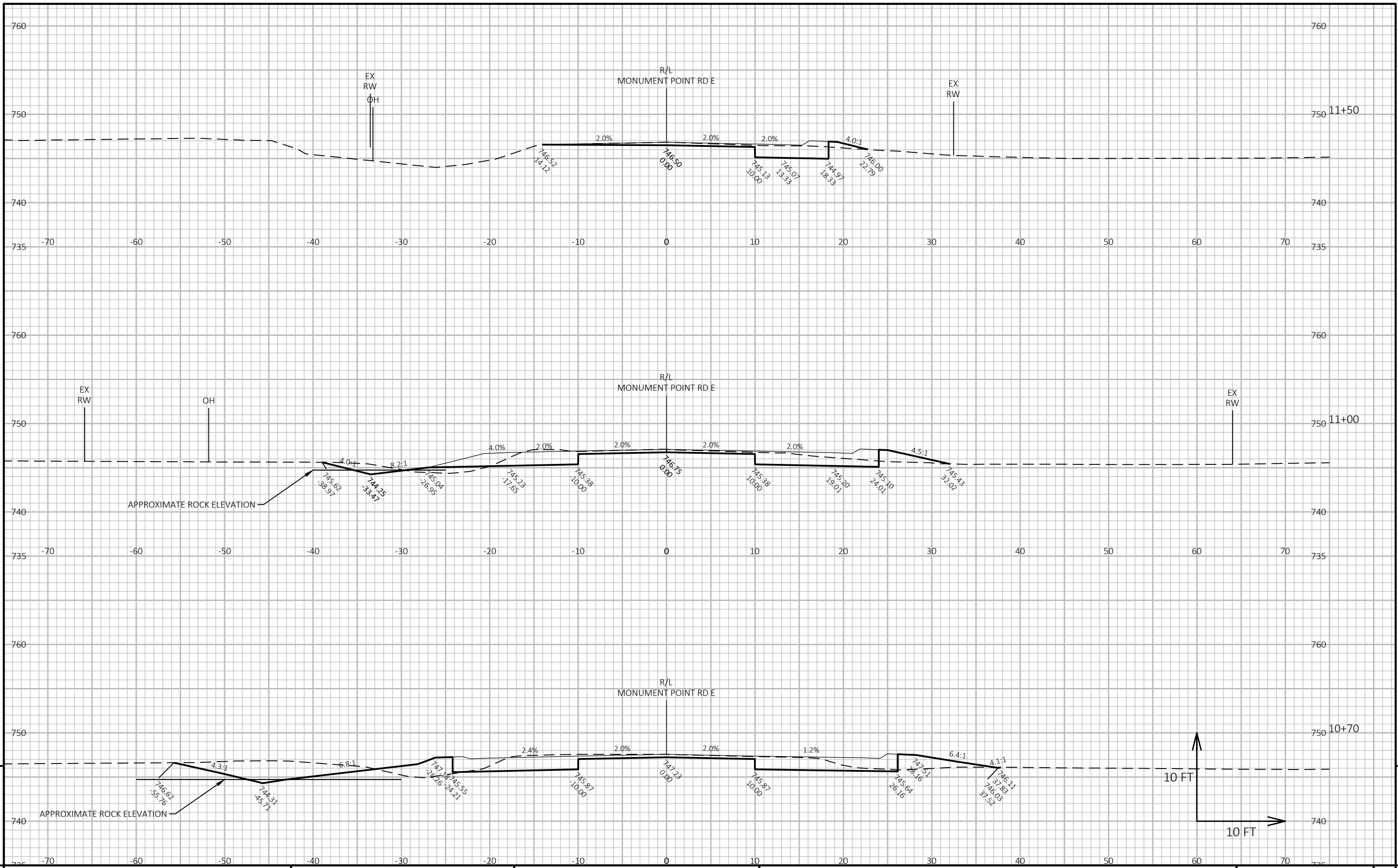
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: STH 42 SHEET E



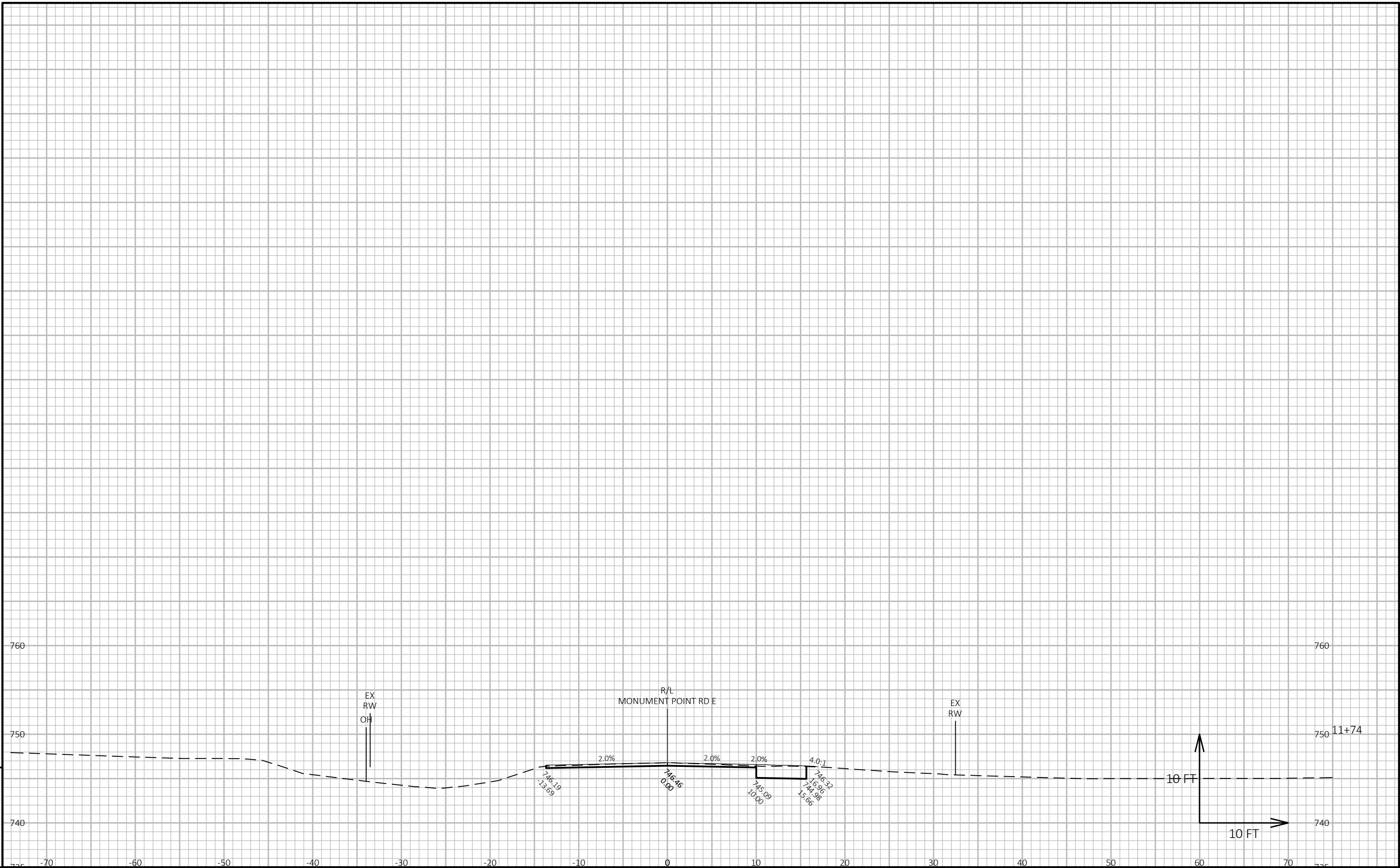
PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: MONUMENT POINT RD W SHEET E



PROJECT NO: 4140-28-71 HWY: STH 42 COUNTY: DOOR CROSS SECTIONS: MONUMENT POINT RD W SHEET 9



PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	CROSS SECTIONS: MONUMENT POINT RD E	SHEET	E
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9

PROJECT NO: 4140-28-71	HWY: STH 42	COUNTY: DOOR	CROSS SECTIONS: MONUMENT POINT RD E	SHEET	E
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 PLOT BY : VALBON LATIFI
 PLOT NAME :
 PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
 WISDOT/CADD SHEET 49



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