

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5010-06-72	WISC 2022065	1

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HILLSBORO - MAUSTON

STH 80 TO CTH G/ B-29-61, -62, -63

STH 82

JUNEAU COUNTY

STATE PROJECT NUMBER
5010-06-72

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 Plan
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 = 90



PROJECT LOCATION

05

DESIGN DESIGNATION

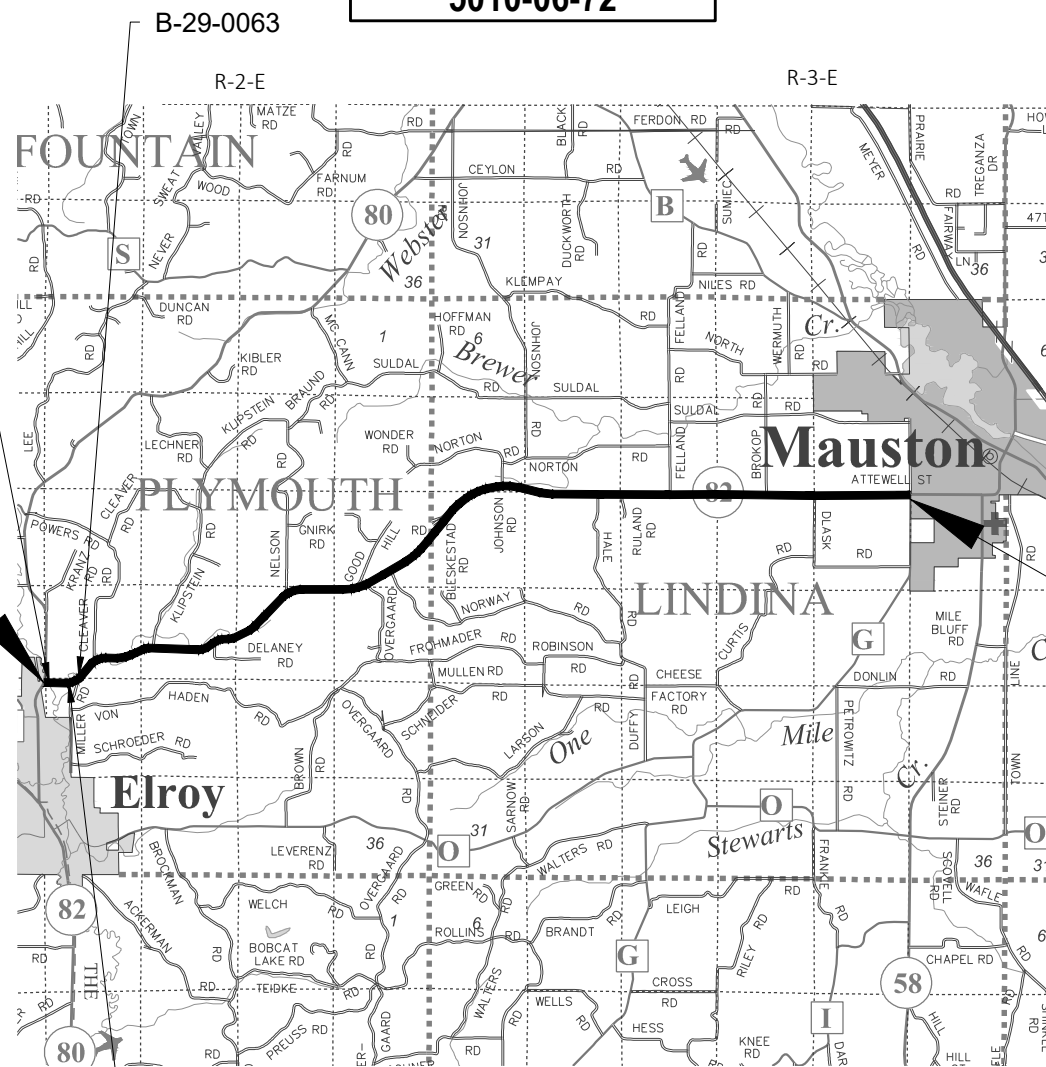
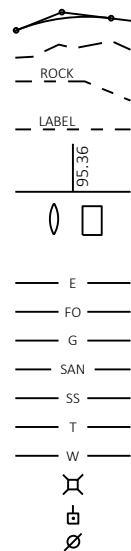
A.A.D.T.	2022	=	2,400
A.A.D.T.	2042	=	2,900
D.H.V.		=	15.3%
D.D.		=	60/40
T.		=	20.1%
DESIGN SPEED		=	55 MPH
ESALS		=	1,200,000

BEGIN PROJECT
STA 1+43.26
Y = 143,675.574
X = 411,243.163

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	



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 9.741 MILES

END PROJECT
STA 515+81.32

ORIGINAL PLANS PREPARED BY



7/26/2021
(Date) *Jeremy J. Tomesh*
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	Surveyor	WISDOT
Designer	SEH	
Project Manager	NATHANIEL SCHUMAKER	
Regional Examiner	WISDOT SW REGION	
Regional Supervisor	DANIEL KLEINERTZ	

APPROVED FOR THE DEPARTMENT
DATE: 7/26/21 *Nathaniel Schumaker*
(Signature)

E

PROJECT ID: 5010-06-72
WITH: N/A

COUNTY: JUNEAU

GENERAL NOTES

REFERENCE LINES SHOWN ON THE PLANS ARE APPROXIMATE IN RELATION TO EXISTING CENTERLINE. CONTRACTOR SHALL VERIFY THAT PLAN OFFSETS ARE ACCURATE IN RELATION TO THE EXISTING CENTERLINE.

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

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

THE EXACT LOCATION OF THE EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOIL, FERTILIZED AND SEEDED.

ALL PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND SHALL BE RESTORED IN-KIND. LIMITS TO BE DETERMINED BY ENGINEER

WHEN PORTION OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION, THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUT JOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTION, THE LOCATION OF SAW JOINT AND THE AMOUNT REMOVED AT SIDE ROADS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER

BEARINGS SHOWN ON THE PLAN ARE REFERENCED TO THE EXISTING ROADWAY CENTERLINE AND ARE ASSUMED.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

SHOULDER TAPER LOCATIONS SHALL MATCH EXISTING.

HMA PAVEMENT SHALL BE PLACED IN LIFTS AS FOLLOWS:

- 4": 2.25" LOWER LAYER (3 MT 58-28 S), 1.75" UPPER LAYER (4 MT 58-28 S)

A CONVERSION FACTOR OF 2.1 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE 3/4-INCH.

A CONVERSION FACTOR OF 112 LBS/IN/SY IS USED TO ESTIMATE QUANTITIES FOR HMA PAVEMENT.

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

STANDARD ABBREVIATIONS:

ABUT	ABUTMENT	CWT	HUNDREDWEIGHT
AC	ACRE	HYD	HYDRANT
AGG	AGGREGATE	ID	INSIDE DIAMETER
AECPRC	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE	INV	INVERT
	APRON ENDWALL FOR CULVERT PIPE CORRUGATED STEEL	IP	IRON PIPE OR PIN
AECPCS		LHF	LEFT-HAND FORWARD
	ASPHALTIC	L	LENGTH OF CURVE
ASPH	ASPHALTIC	LF	LINEAR FOOT
AVG	AVERAGE	LC	LONG CHORD OF CURVE
ADT	AVERAGE DAILY TRAFFIC	LS	LUMP SUM
BF	BACK FACE	MH	MANHOLE
BM	BENCH MARK	MOR	MID POINT OF RADIUS
BR	BRIDGE	MCE	MARKERS CULVERT END
CE	COMMERCIAL ENTRANCE	NC	NORMAL CROWN
CL OR C/L OR *	CENTER LINE	NO	NUMBER
Δ	CENTRAL ANGLE OR DELTA	OBLIT	OBLITERATE
CONC	CONCRETE	PAVT	PAVEMENT
CPRC	CULVERT PIPE REINFORCED CONCRETE	PE	PRIVATE ENTRANCE
CPCS	CULVERT PIPE CORRUGATED STEEL	PVRC	POINT OF VERTICAL REVERSE CURVE
CR	CREEK	QOR	QUARTER POINT OF RADIUS
CY	CUBIC YARD	R	RADIUS
C & G	CURB AND GUTTER	REQ'D	REQUIRED
D	DEGREE OF CURVE	RES	RESIDENCE OR RESIDENTIAL
DHV	DESIGN HOUR VOLUME	RHF	RIGHT-HAND FORWARD
DISCH	DISCHARGE	R/W	RIGHT-OF-WAY
DG	DITCH GRADE	R	RIVER
DWY	DRIVEWAY	RDWY	ROADWAY
X	EAST GRID COORDINATE	R/L OR ~	REFERENCE LINE
EAT	STEEL PLATE BEAM GUARD	SALV	SALVAGED
	ENERGY ABSORBING TERMINAL	SAN	SANITARY SEWER
EOR	END POINT OF RADIUS	SF	SQUARE FEET
EL	ELEVATION	SY	SQUARE YARD
ENT	ENTRANCE	SDD	STANDARD DETAIL DRAWINGS
ESALS	EQUIVALENT SINGLE AXLE LOADS	STA	STATION
EXC	EXCAVATION	SS	STORM SEWER
EBS	EXCAVATION BELOW SUBGRADE	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EXIST	EXISTING	SE	SUPERELEVATION RATE
FC	FACE OF CURB	TC	TOP OF CURB
FF	FACE TO FACE	T OR TN	TOWN
FERT	FERTILIZE	T	TRUCKS (PERCENT OF)
FE	FIELD ENTRANCE	TYP	TYPICAL
FL	FLOW LINE	VAR	VARIABLE
FO	FIBER OPTIC	VC	VERTICAL CURVE
		Y	NORTH GRID COORDINATE
		YD	YARD

DESIGN CONTACTS

SEH
ATTENTION: JEREMY TOMESH
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LA CROSSE, WI 54601
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WISDOT SW REGION
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3550 MORMON COULEE RD
LA CROSSE, WI 54601
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EMAIL: NATHANIEL.SCHUMAKER@DOT.WI.GOV

WDNR LIASON
DNR SERVICE CENTER
ATTENTION: KAREN KALVELAGE
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LA CROSSE, WI 54601
PHONE: 608.785.9115
EMAIL: KAREN.KALVELAGE@WISCONSIN.GOV

UTILITY CONTACTS

ALLIANT ENERGY - ELECTRICITY & GAS/PETROLEUM
ATTENTION: TYLER DONOVAN
338 E STATE ST
MAUSTON, WI 53948
PHONE: 608.847.1302
EMAIL: TYLERDONOVAN@ALLIANTENERGY.COM

CENTURYLINK - COMMUNICATION
ATTENTION: BRIAN STELPLUGH
333 NORTH FRONT ST
LA CROSSE, WI 54601
PHONE: 608.615.4136
EMAIL: BRIAN.STELPLUGH@LUMEN.COM

FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION
ATTENTION: JERRY MOORE
2222 WEST WISCONSIN ST
PORTAGE, WI 53901
PHONE: 608.742.9507
EMAIL: JERALD.R.MOORE@FTR.COM

HILLSBORO TELEPHONE COMPANY INC. - COMMUNICATION
ATTENTION: CHAD SCHMIDT
121 MILL ST, P.O. BOX 409
HILLSBORO, WI 54634
PHONE: 608.489.4415
EMAIL: CSCHMIDT@HILLSBOROTEL.COM

LEMONWEIR VALLEY TELEPHONE COMPANY - COMMUNICATION
ATTENTION: BEN GRILLEY
127 US HWY 12, P.O. BOX 267
CAMP DOUGLAS, WI 54618
PHONE: 608.427.6515
EMAIL: BEN.GRILLEY@GETLYNXX.COM

MADISON GAS AND ELECTRIC COMPANY - GAS/PETROLEUM
ATTENTION: SHAUN ENDRES
P.O. BOX 1231
MADISON, WI 53701-1231
PHONE: 608.252.7224
EMAIL: WORKPLANS@MGE.COM
SKIP500@HOTMAIL.COM

MEDIACOM WISCONSIN LLC - COMMUNICATION
ATTENTION: CRAIG EGGERT
1240 HIGHWAY 52
CHATFIELD, MN 55923
PHONE: 563.419.5160
EMAIL: CEGGERT@MEDIACOMCC.COM

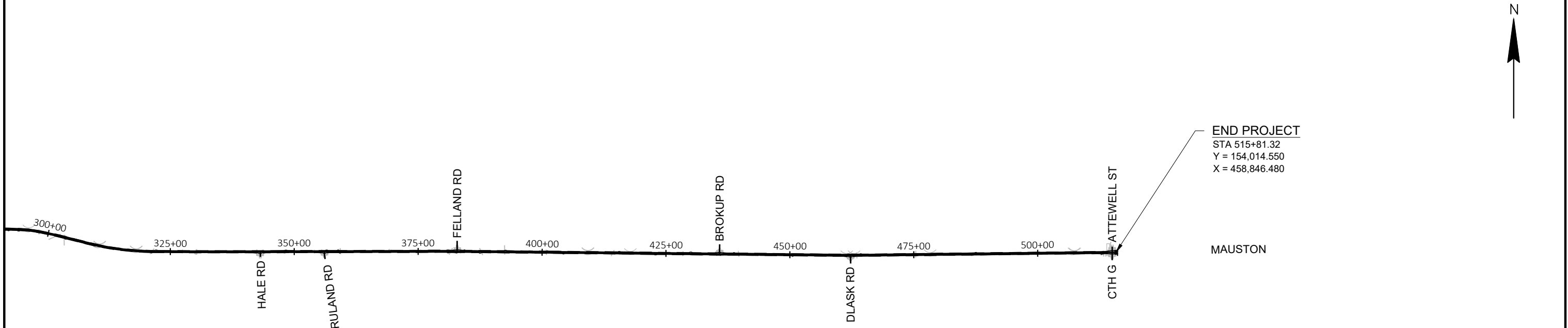
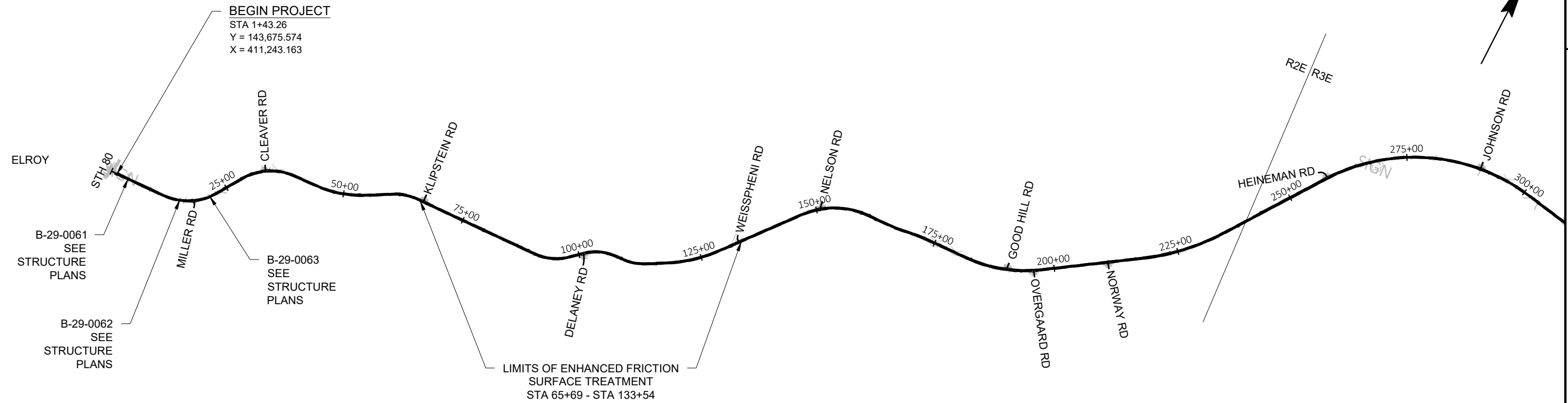
NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM
ATTENTION: SERGIO GONZALEZ
8101 BIRCHWOOD CT., SUITE F
JOHNSTON, IA 50131
PHONE: 402.530.2026
EMAIL: SERGIO.GONZALEZ@NNGCO.COM

OAKDALE ELECTRIC COOPERATIVE - ELECTRICITY
ATTENTION: MATT RIGGS
P.O. BOX 128
OAKDALE, WI 54649-0128
PHONE: 608.372.4131
EMAIL: MRIGGS@OAKDALEREC.COM

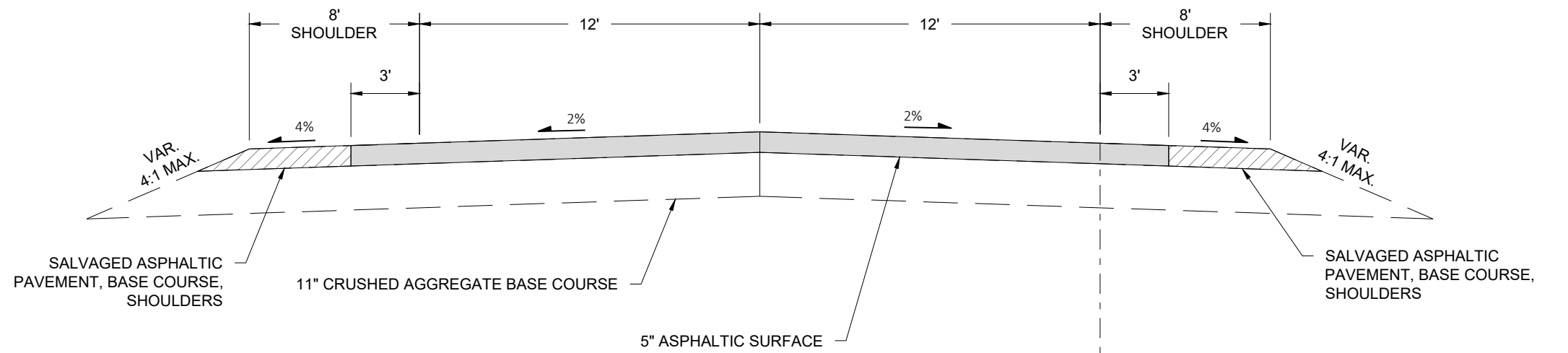


Dial 811 or (800)242-8511

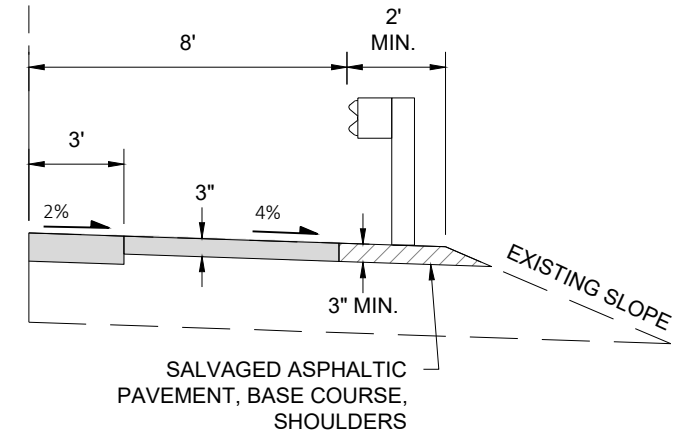
www.DiggersHotline.com



PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PROJECT OVERVIEW	SHEET	E
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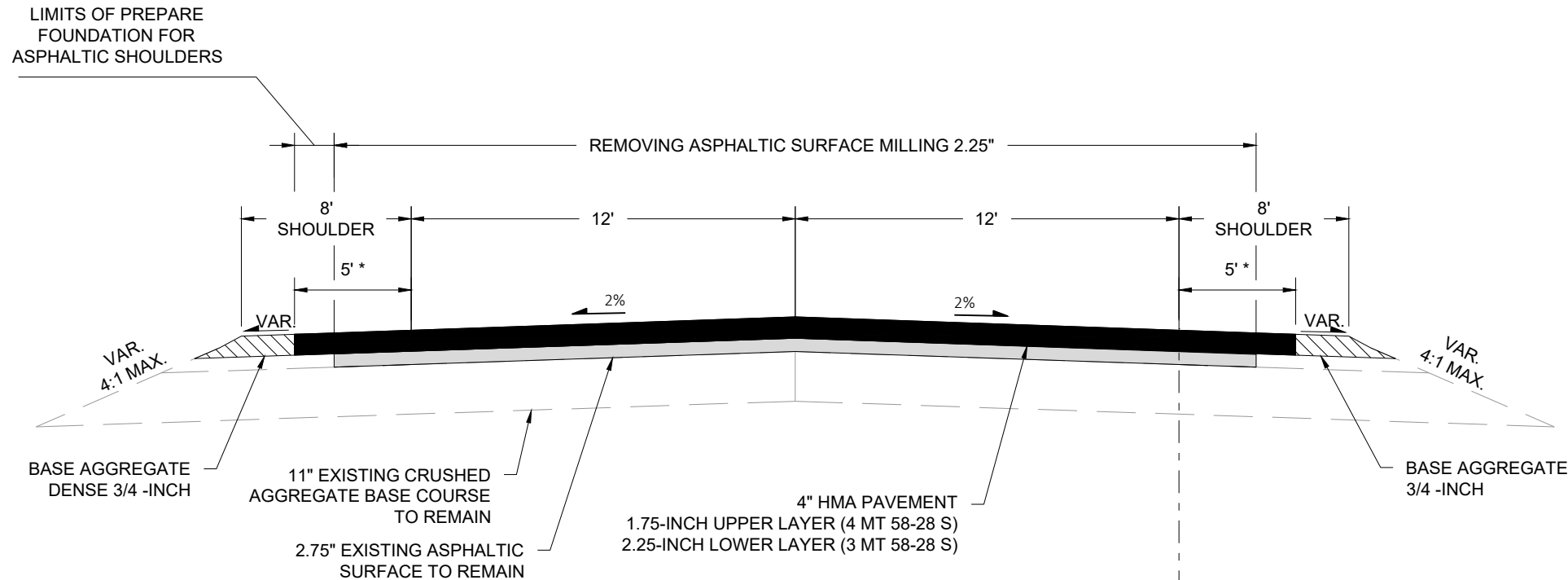
EXISTING TYPICAL SECTION



EXISTING PAVED SHOULDER AT BEAM GUARD

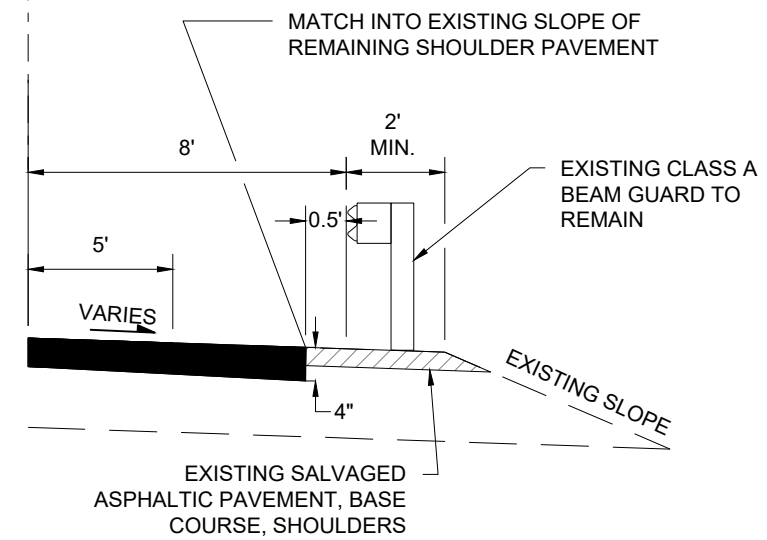
BORING LOG

BORING #	LOG MILE	OFFSET	CURVE/ TAN	RT/ LT	REMARKS
	0.0000				STH 80/STH 82 INTERSECTION
	1.9100				DELANEY LANE
B-1	2.3800	6' RT	CURVE	LT	CUT
B-2	2.4900	3' RT	TAN		CUT
	2.5200				OLD STH 82 LANE
B-3	2.5700	9' RT	TAN		FILL
B-4	2.7700	6' LT	TAN		CUT
B-5	2.8400	6' RT	CURVE	RT	CUT
	2.8800				NELSON RD
B-6	2.9500	9' RT	CURVE	RT	FILL
B-7	3.0500	3' RT	TAN		CUT
B-8	3.1600	6' RT	CURVE	LT	CUT
B-9	3.3000	6' RT	TAN		FILL
B-10	3.6700	6' RT	CURVE	LT	FILL
	3.7000				OVERGAARD RD



PROPOSED TYPICAL SECTION
STA 1+43 - 515+81

*STA 462+77 - STA 514+44
6-FT PAVED, 2-FT AGGREGATE SHOULDERS (8-FT OVERALL)



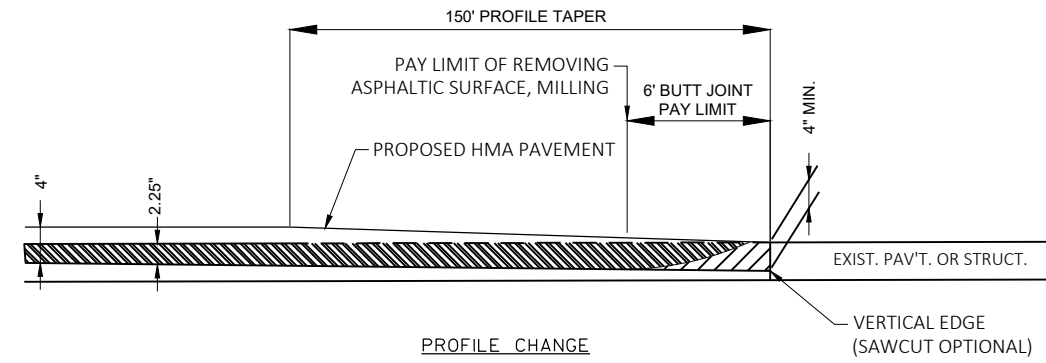
PROPOSED PAVED SHOULDER AT BEAM GUARD

- STA 181+99 RT - STA 191+73 RT
- STA 216+54 LT - STA 222+99 LT
- STA 216+95 RT - STA 222+99 RT
- STA 243+62 LT - STA 257+71 LT
- STA 247+25 RT - STA 253+42 RT
- STA 253+87 RT - STA 260+25 RT
- STA 258+87 LT - STA 264+45 LT

NOTES
VARY MILL DEPTH ACROSS SHOULDER IN BEAM GUARD AREAS. MILL FROM 2.25" DEPTH AT TRAVEL LANE EDGE, TO 4" DEPTH AT APPROXIMATELY 1/2 -FT FROM FACE OF RAIL. REFER TO CONSTRUCTION DETAIL.

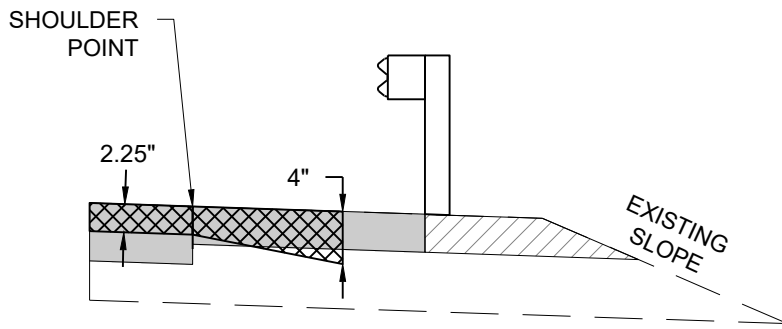
REMOVAL OF 1" OF UNDERLYING CRUSHED AGGREGATE BASE COURSE SHALL BE INCLUDED IN REMOVING ASPHALTIC SURFACE MILLING QUANTITY.

THE REMOVAL OF EXISTING DRIVEWAY/FIELD ENTRANCE BUMPOUTS WILL BE PAID FOR AS BID ITEM REMOVING ASPHALTIC SURFACE.



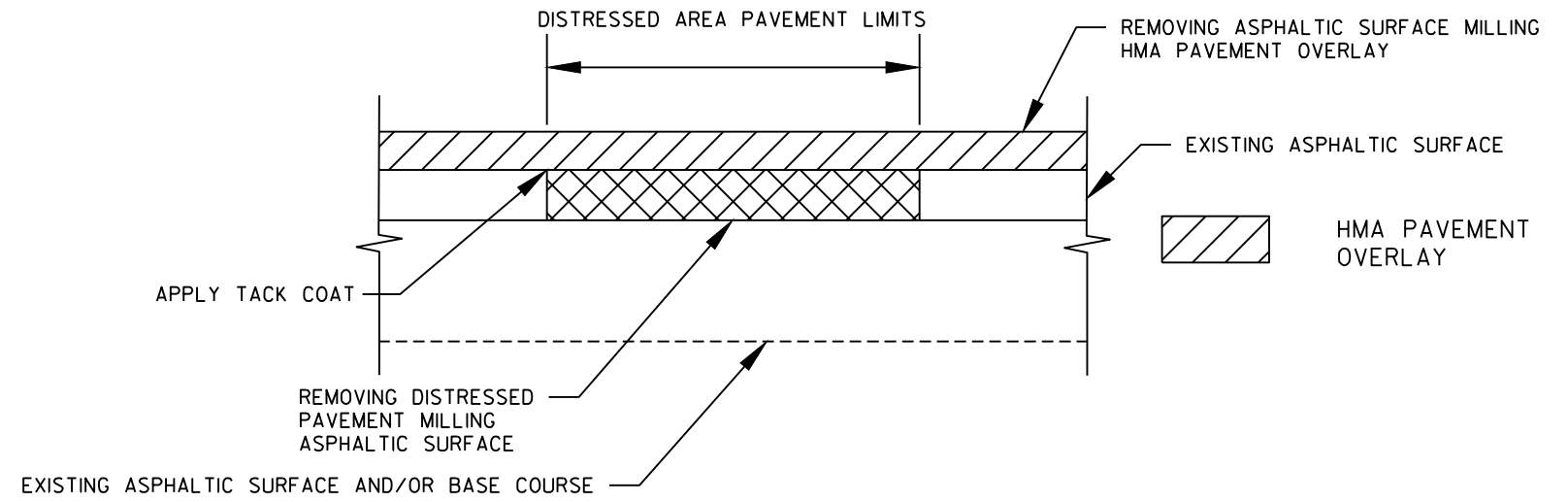
- REMOVING ASPHALTIC SURFACE, MILLING
- REMOVING ASPHALTIC SURFACE BUTT JOINT

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS

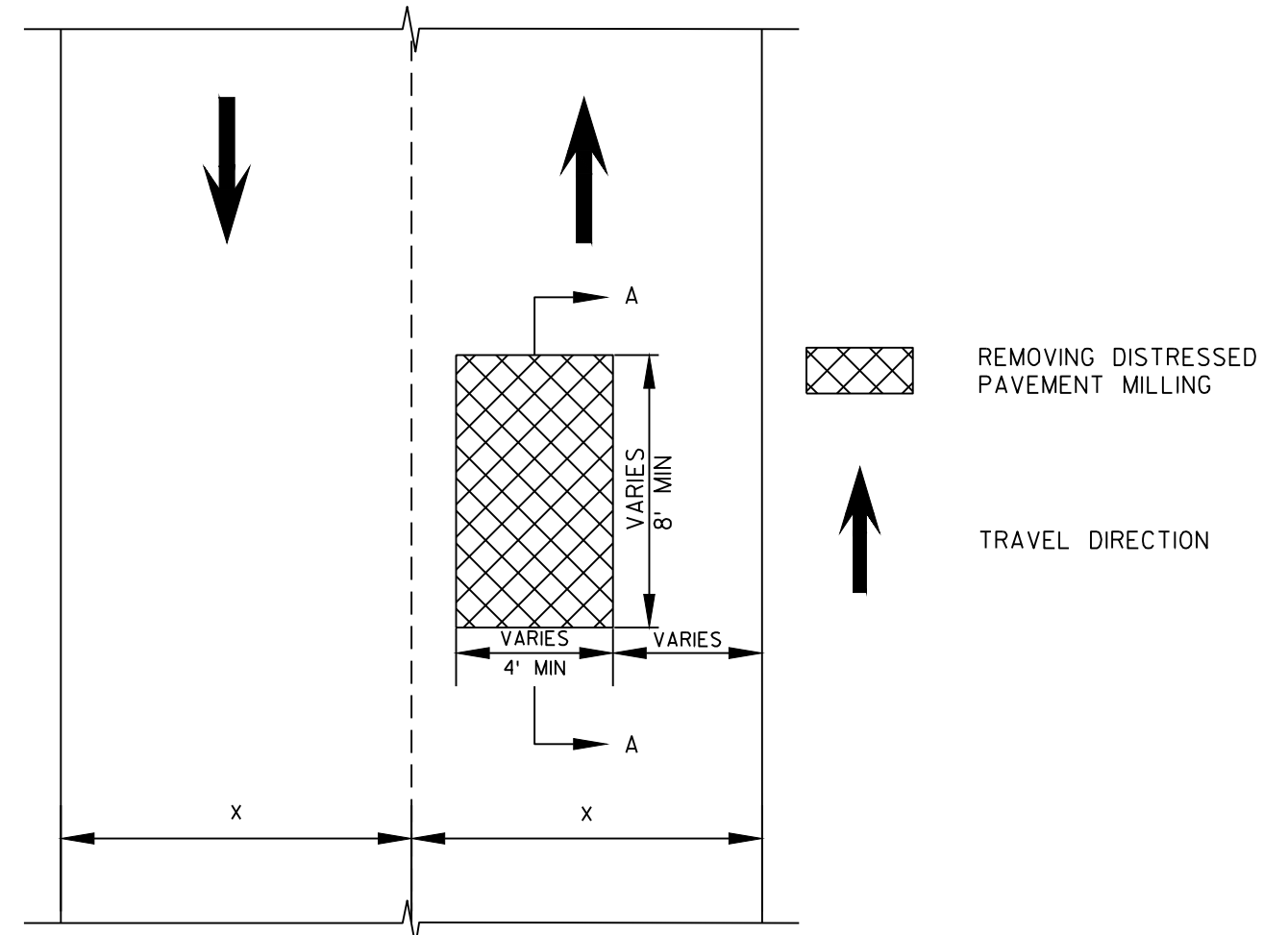


PAVEMENT MILLING AT BEAM GUARD AREAS
 VARY MILLING DEPTH ACROSS SHOULDER IN BEAM GUARD AREAS. FROM 2.25" DEPTH AT SHOULDER POINT TO 4" DEPTH AT APPROXIMATELY 1/2 -FT FROM FACE OF BEAM GUARD.

REMOVAL OF 1" OF UNDERLYING CRUSHED AGGREGATE BASE COURSE SHALL BE INCLUDED IN REMOVING ASPHALTIC SURFACE MILLING QUANTITY.

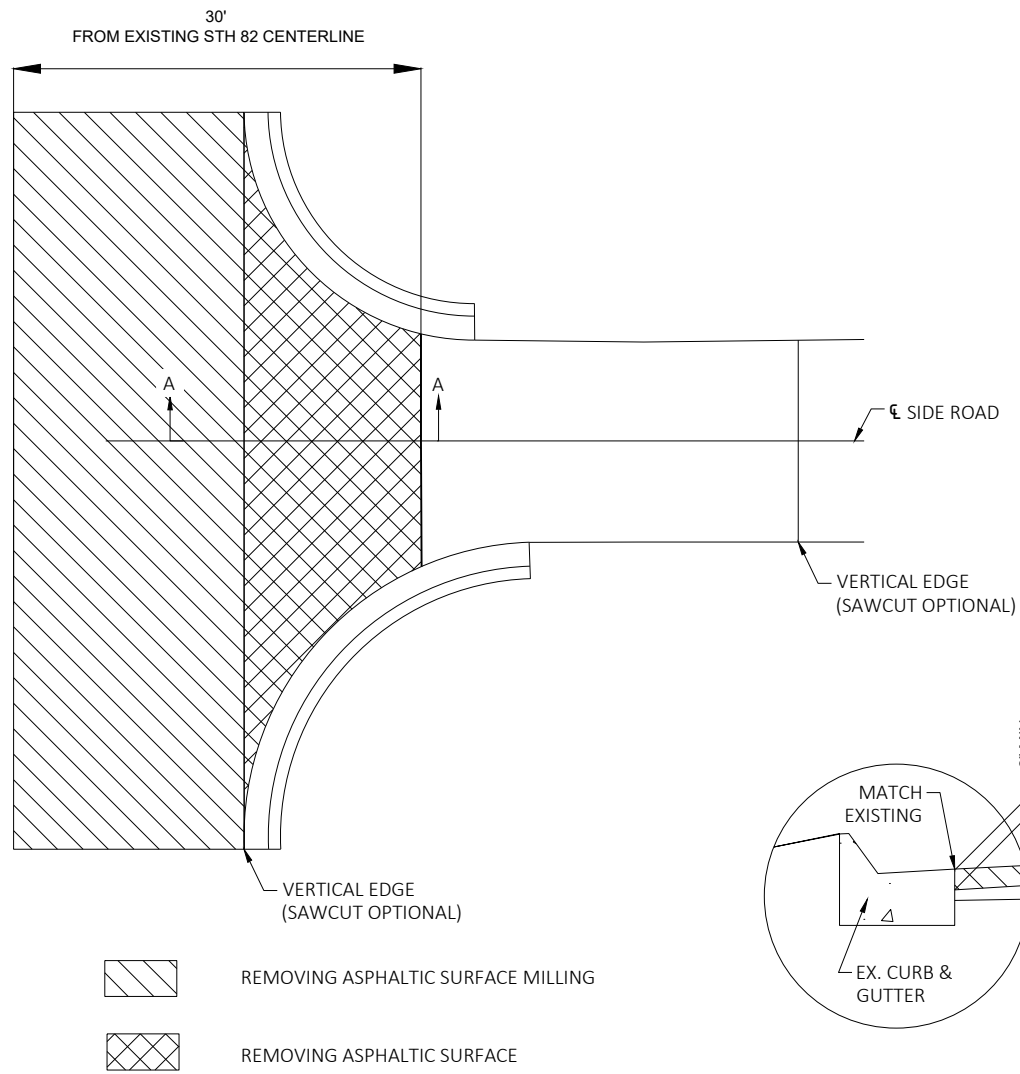
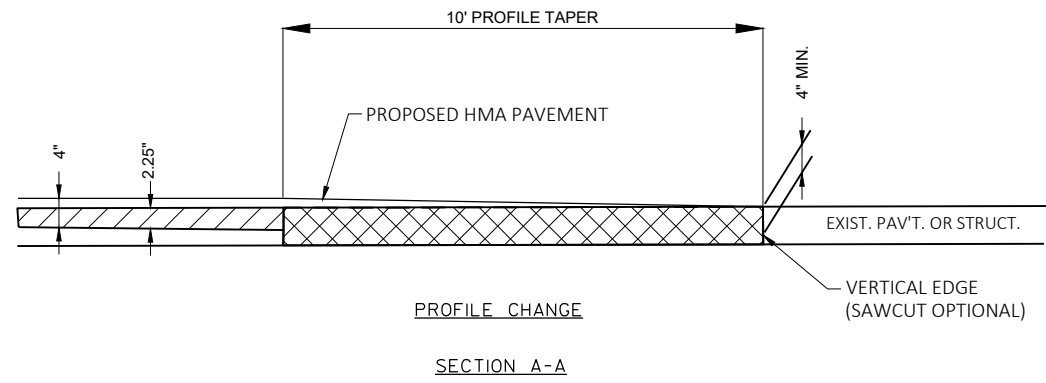


REMOVING DISTRESSED PAVEMENT MILLING SECTION A-A

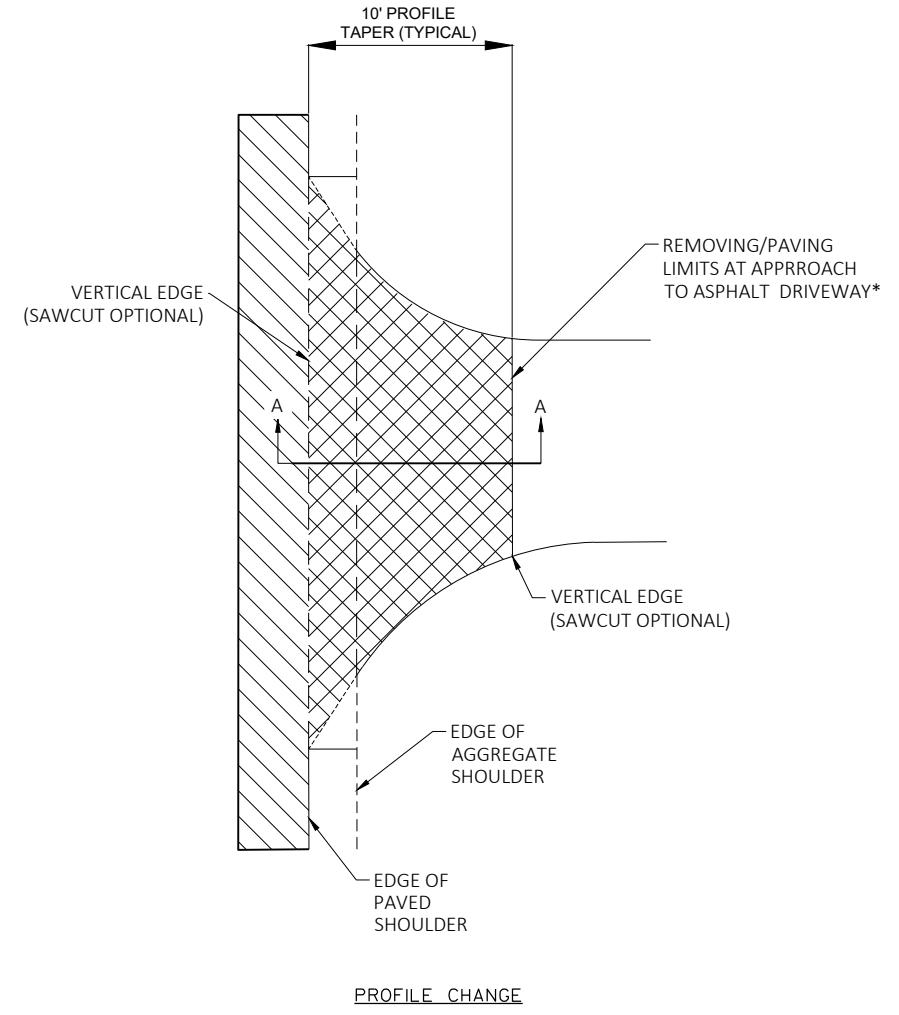
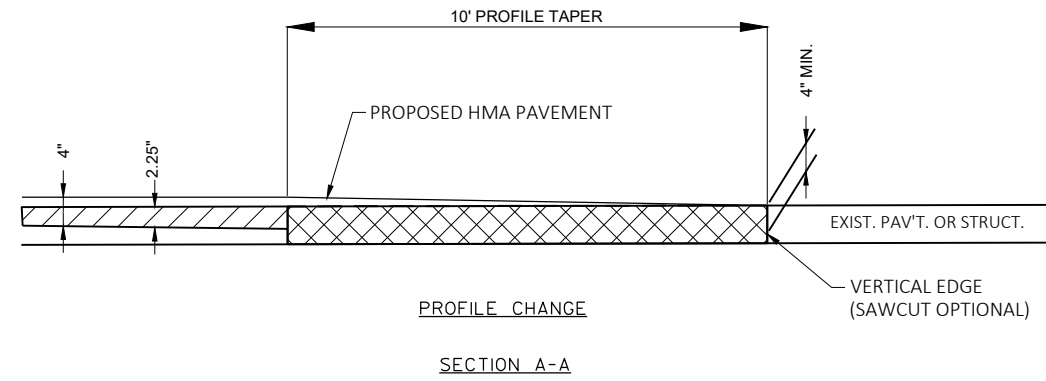


EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD AFTER THE ORIGINAL MILLING OPERATION.

REMOVING DISTRESSED PAVEMENT MILLING DETAIL



RURAL ASPHALTIC SURFACE SIDE ROAD DETAIL



PRIVATE ENTRANCE DETAIL

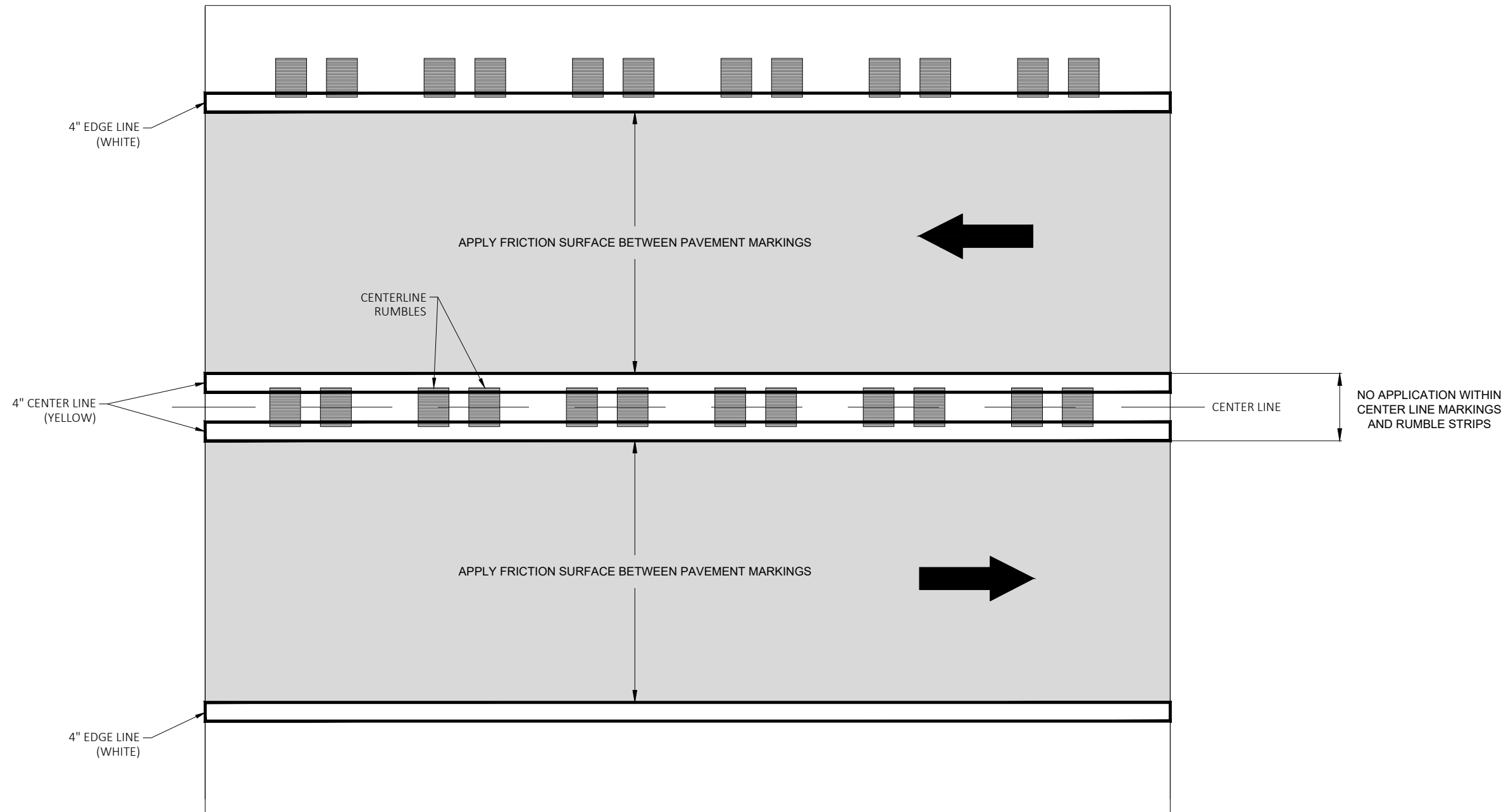
NOTE

PROVIDE 30-DAYS CURE TIME ON NEW HMA PAVEMENT PRIOR TO PLACING FRICTION SURFACE.

PLACE WHEN AMBIENT AIR OR PAVEMENT SURFACE TEMPERATURE IS ABOVE 50 DEGREES.

REMOVE PAVEMENT MARKINGS PRIOR TO PLACING FRICTION SURFACE, WATERBORNE PAINT MAY REMAIN IN PLACE.

WITHIN 3 TO 7 DAYS AFTER OPENING TO TRAFFIC, THE CONTRACTOR SHALL VACUUM SWEEP THE PAVEMENT TO REMOVE LOOSENEED AGGREGATE.



ASPHALTIC BINDER ENHANCED FRICTION SURFACE TREATMENT

NOTES
 STRUCTURE B-29-0061 REPLACE ALL 4 WING WALLS. SEE STRUCTURE PLANS.
 BID ITEM 999.2000.S INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM REQUIRED AT STRUCTURE.
 CONSTRUCTION TO UTILIZE SHOULDER CLOSURES AND ONE LANE FLAGGING OPERATIONS AS NEEDED.
 SEE SDD 15C12 TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION & SDD 15D28 TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



UTILIZE SILT FENCE AND DITCH CHECKS AT WING WALL REPLACEMENT LOCATIONS AS REQUIRED

 WORK ZONE



85' EX R/W

MADISON GAS & ELECTRIC CO. (GAS)

MEDIACOM

3
 STH 82

4
 B-29-0061 REPLACE ALL 4 WING WALLS

5
 INSTALL ASPHALTIC INTERSECTION RUMBLE STRIPS

AREA OF RESTORATION, INCLUDES SALVAGED TOPSOIL, SEEDING, FERTILIZER & EROSION MAT.

75' EX R/W

HILLSBORO TELEPHONE COMPANY

OAKDALE ELECTRIC COOP



NOTES
 STRUCTURE B-29-0062 REPLACE THE 2 SOUTHERN WING WALLS. SEE STRUCTURE PLANS.
 BID ITEM 999.2000.S INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM REQUIRED AT STRUCTURE.
 CONSTRUCTION TO UTILIZE SHOULDER CLOSURES AND ONE LANE FLAGGING OPERATIONS AS NEEDED.
 SEE SDD 15C12 TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION & SDD 15D28 TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

 WORK ZONE

MADISON GAS & ELECTRIC CO. (GAS)

MEDIACOM

B-29-0062 REPLACE 2 SOUTHERN WING WALLS

STH 82

AREA OF RESTORATION, INCLUDES SALVAGED TOPSOIL, SEEDING, FERTILIZER & EROSION MAT.

HILLSBORO TELEPHONE COMPANY

OAKDALE ELECTRIC COOP

UTILIZE SILT FENCE AND DITCH CHECKS AT WING WALL REPLACEMENT LOCATIONS AS REQUIRED

CANYON

NOTES
 STRUCTURE B-29-0063 REPLACE ALL 4 WING WALLS. SEE STRUCTURE PLANS.
 BID ITEM 999.2000.S INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM REQUIRED AT STRUCTURE.
 CONSTRUCTION TO UTILIZE SHOULDER CLOSURES AND ONE LANE FLAGGING OPERATIONS AS NEEDED.
 SEE SDD 15C12 TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION & SDD 15D28 TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

 WORK ZONE

AREA OF RESTORATION, INCLUDES SALVAGED TOPSOIL, SEEDING, FERTILIZER & EROSION MAT.

UTILIZE SILT FENCE AND DITCH CHECKS AT WING WALL REPLACEMENT LOCATIONS AS REQUIRED

B-29-0063 REPLACE ALL 4 WING WALLS

CAPTION

OAKDALE ELECTRIC COOP

90' EX R/W

MEDIACOM

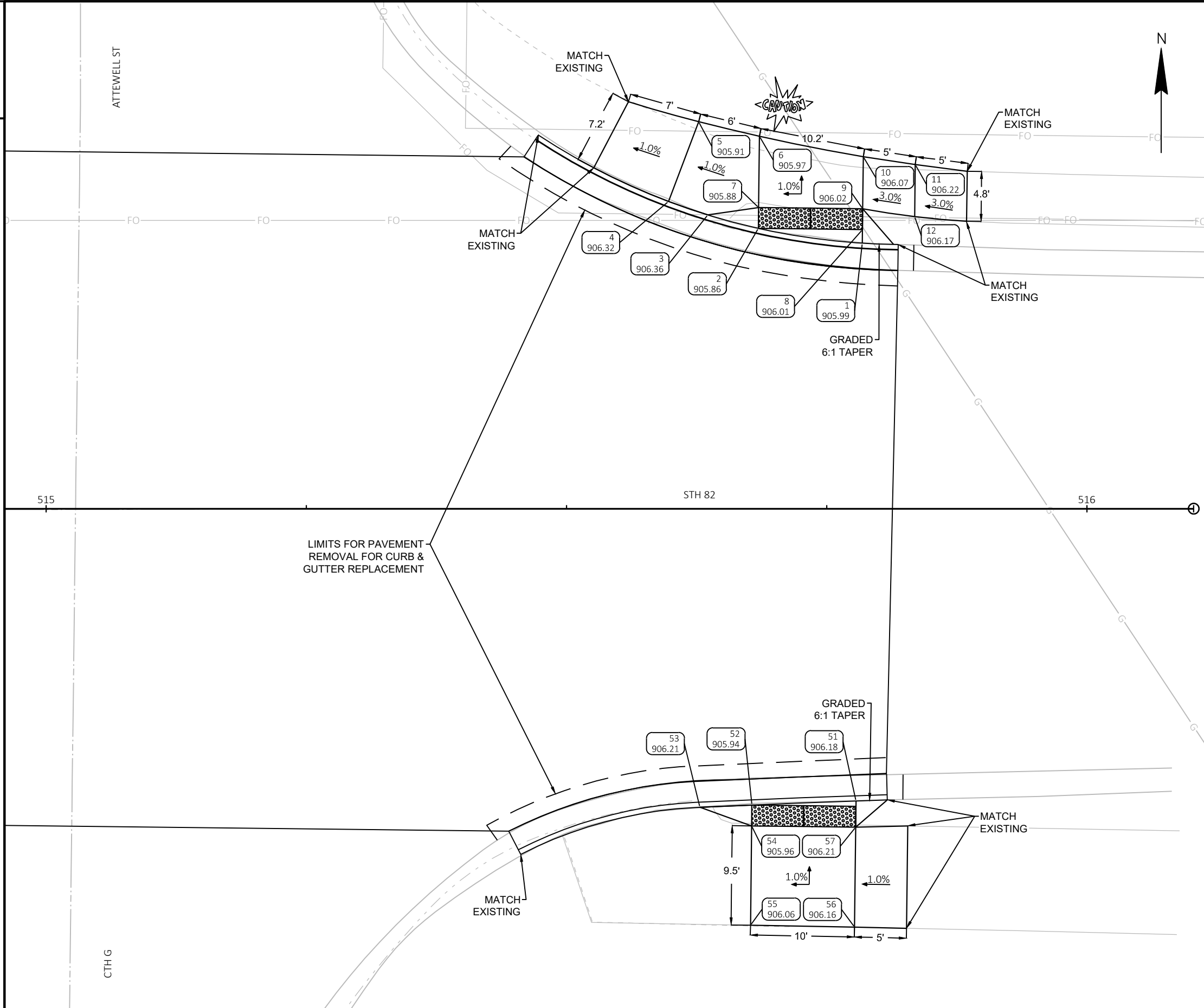
STH 82

117' EX R/W

MADISON GAS & ELECTRIC CO. (GAS)

EX R/W





CURB RAMP NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1	515+78.42	25.51' LT	905.99	154040.02	458843.29
2	515+68.43	26.93' LT	905.86	154041.33	458833.29
3	515+63.58	28.22' LT	906.36	154042.57	458828.42
4	515+59.80	29.52' LT	906.32	154043.82	458824.63
5	515+62.70	37.18' LT	905.91	154051.51	458827.44
6	515+68.53	35.78' LT	905.97	154050.18	458833.29
7	515+68.45	28.93' LT	905.88	154043.33	458833.29
8	515+78.43	26.81' LT	906.01	154041.33	458843.29
9	515+78.45	28.81' LT	906.02	154043.33	458843.29
10	515+78.51	33.81' LT	906.07	154048.33	458843.29
11	515+83.50	33.05' LT	906.22	154047.63	458848.29
12	515+83.44	28.07' LT	906.17	154042.64	458848.29

NOTE:
EXISTING IRON PIPE STA 515+36, 55.2 FT LT, ELEVATION 905.40

CURB RAMP SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
51	515+77.81	28.07' RT	906.18	153986.45	458843.29
52	515+67.81	28.46' RT	905.94	153985.94	458833.29
53	515+62.81	28.67' RT	906.21	153985.68	458828.30
54	515+67.78	30.46' RT	905.96	153983.94	458833.29
55	515+67.68	39.99' RT	906.06	153974.41	458833.29
56	515+77.67	40.18' RT	906.16	153974.33	458843.29
57	515+77.78	30.57' RT	906.21	153983.94	458843.29





ATTEWELL ST

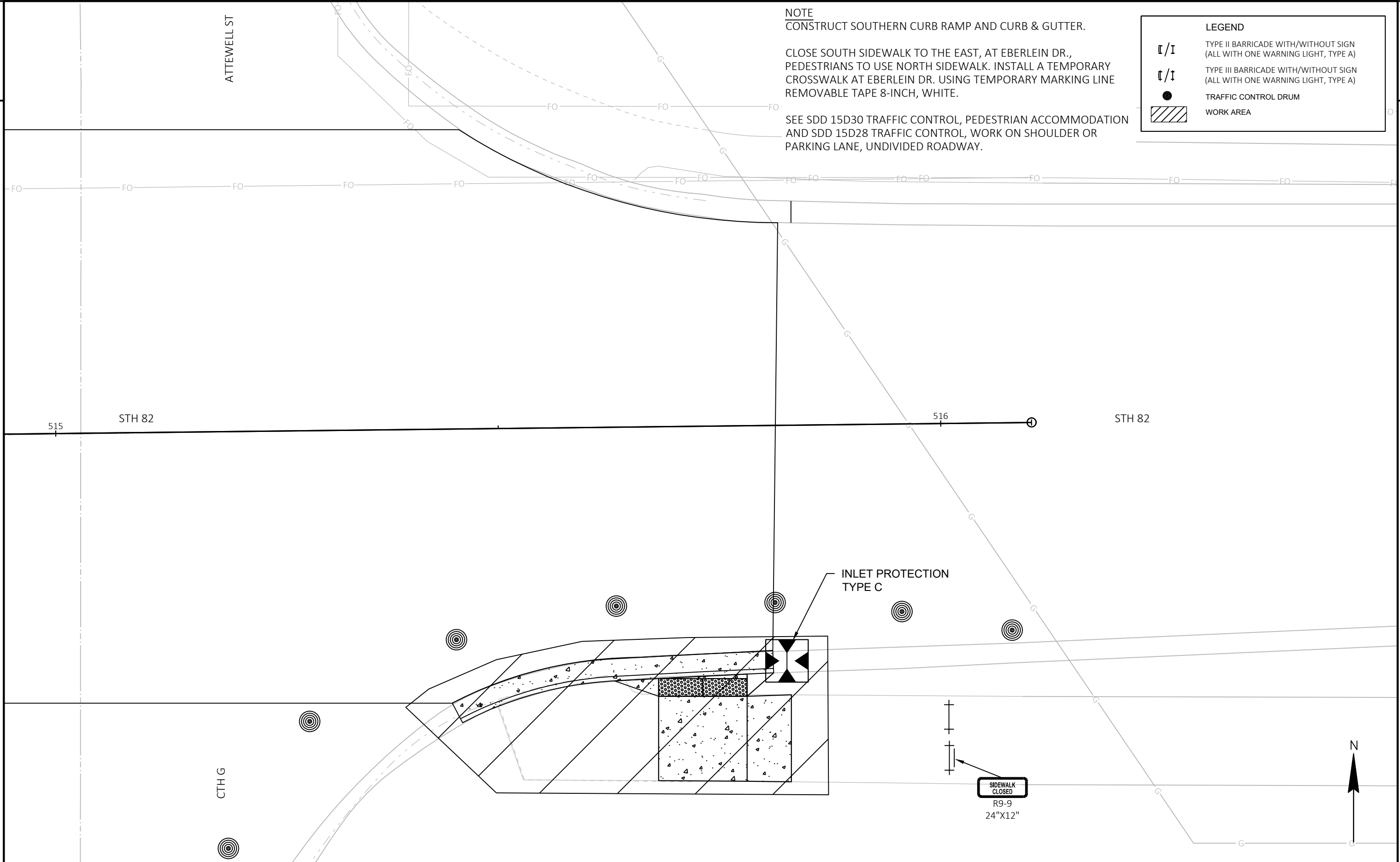
NOTE
CONSTRUCT SOUTHERN CURB RAMP AND CURB & GUTTER.

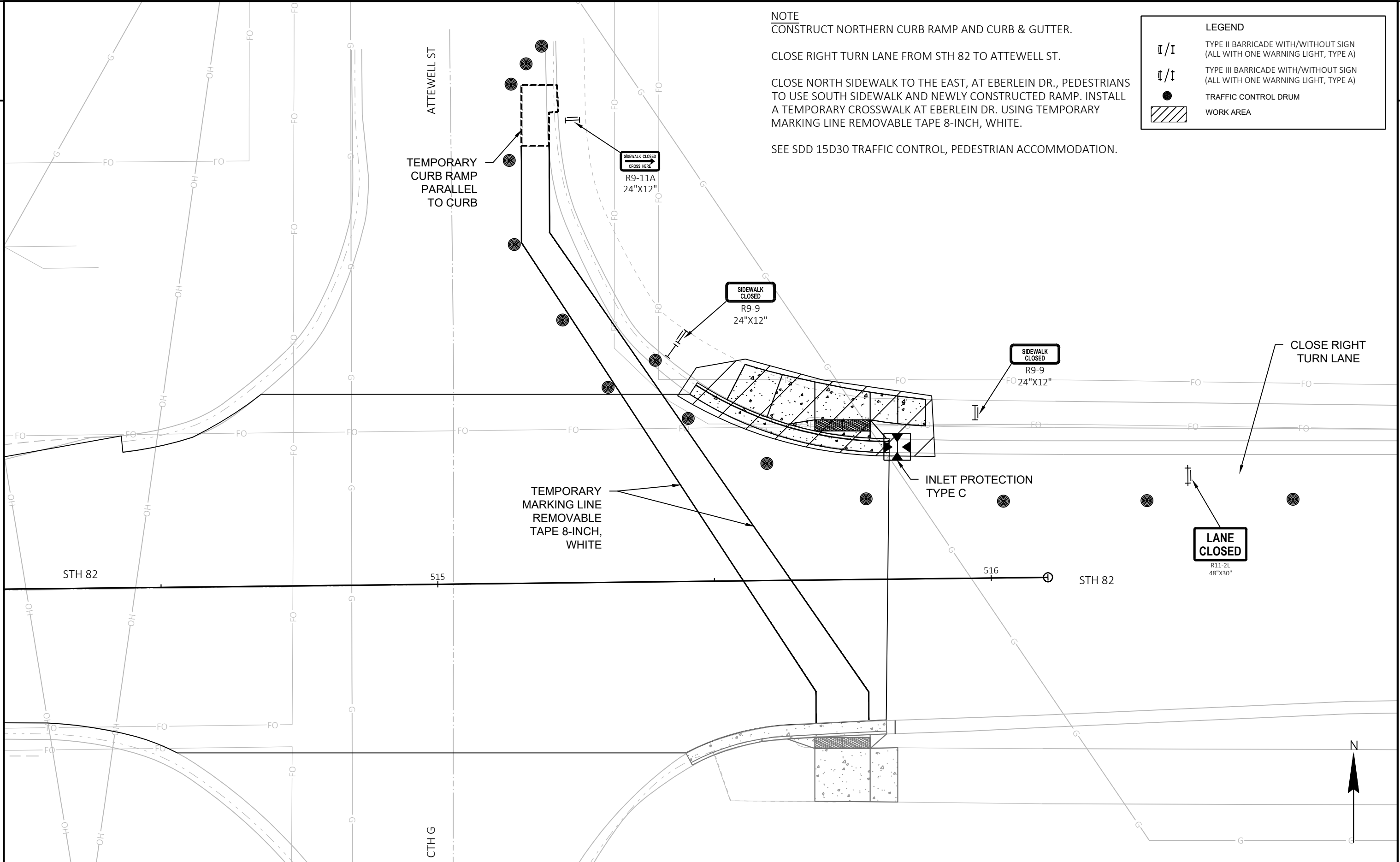
CLOSE SOUTH SIDEWALK TO THE EAST, AT EBERLEIN DR.,
PEDESTRIANS TO USE NORTH SIDEWALK. INSTALL A TEMPORARY
CROSSWALK AT EBERLEIN DR. USING TEMPORARY MARKING LINE
REMOVABLE TAPE 8-INCH, WHITE.

SEE SDD 15D30 TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
AND SDD 15D28 TRAFFIC CONTROL, WORK ON SHOULDER OR
PARKING LANE, UNDIVIDED ROADWAY.

LEGEND

-  TYPE II BARRICADE WITH/WITHOUT SIGN
(ALL WITH ONE WARNING LIGHT, TYPE A)
-  TYPE III BARRICADE WITH/WITHOUT SIGN
(ALL WITH ONE WARNING LIGHT, TYPE A)
-  TRAFFIC CONTROL DRUM
-  WORK AREA









NOTE
 CONSTRUCT NORTHERN CURB RAMP AND CURB & GUTTER.

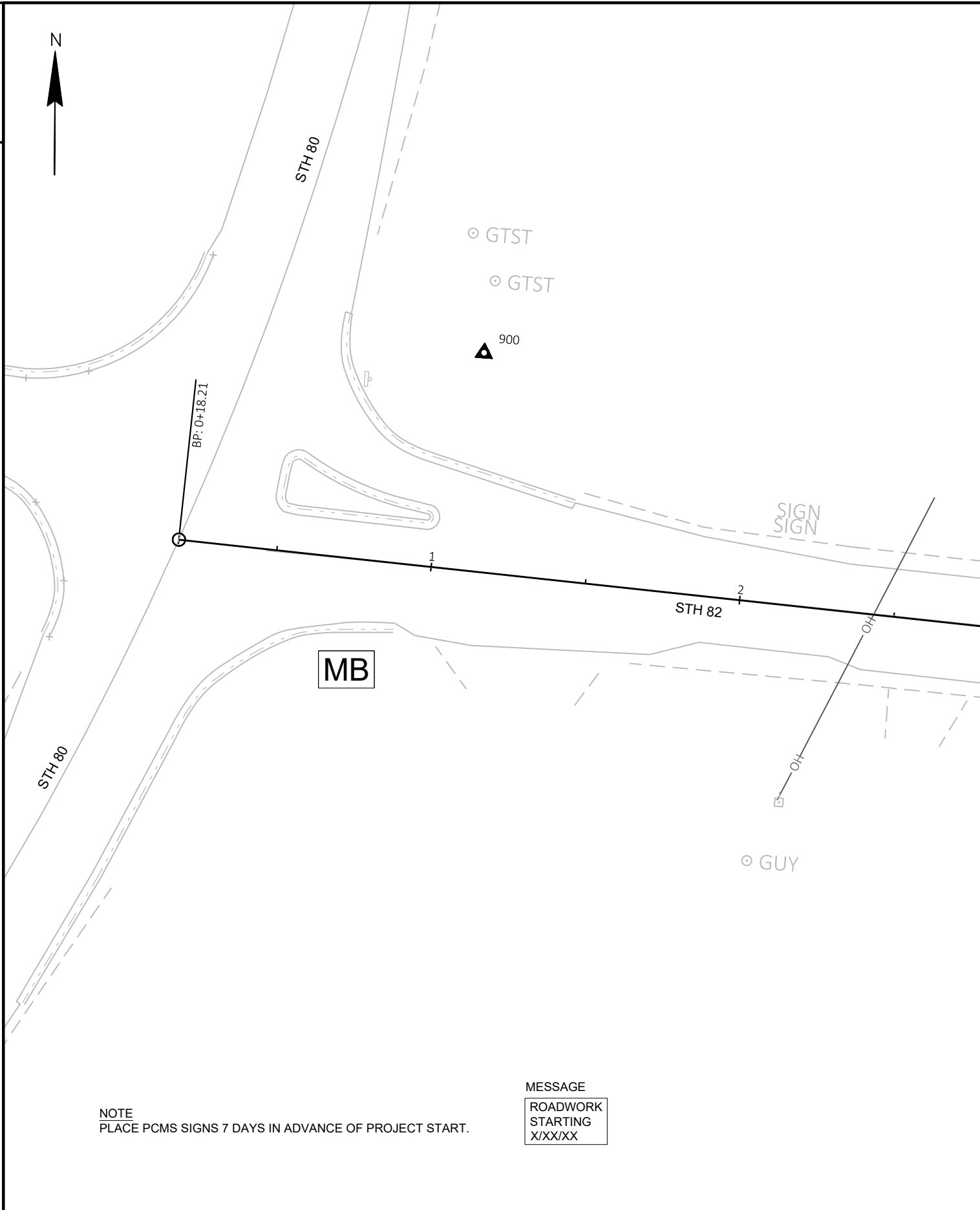
CLOSE RIGHT TURN LANE FROM STH 82 TO ATTEWELL ST.

CLOSE NORTH SIDEWALK TO THE EAST, AT EBERLEIN DR., PEDESTRIANS TO USE SOUTH SIDEWALK AND NEWLY CONSTRUCTED RAMP. INSTALL A TEMPORARY CROSSWALK AT EBERLEIN DR. USING TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH, WHITE.

SEE SDD 15D30 TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION.

LEGEND

-  TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A)
-  TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A)
-  TRAFFIC CONTROL DRUM
-  WORK AREA



BP: 0+18.21

GTST

GTST

900

SIGN
SIGN

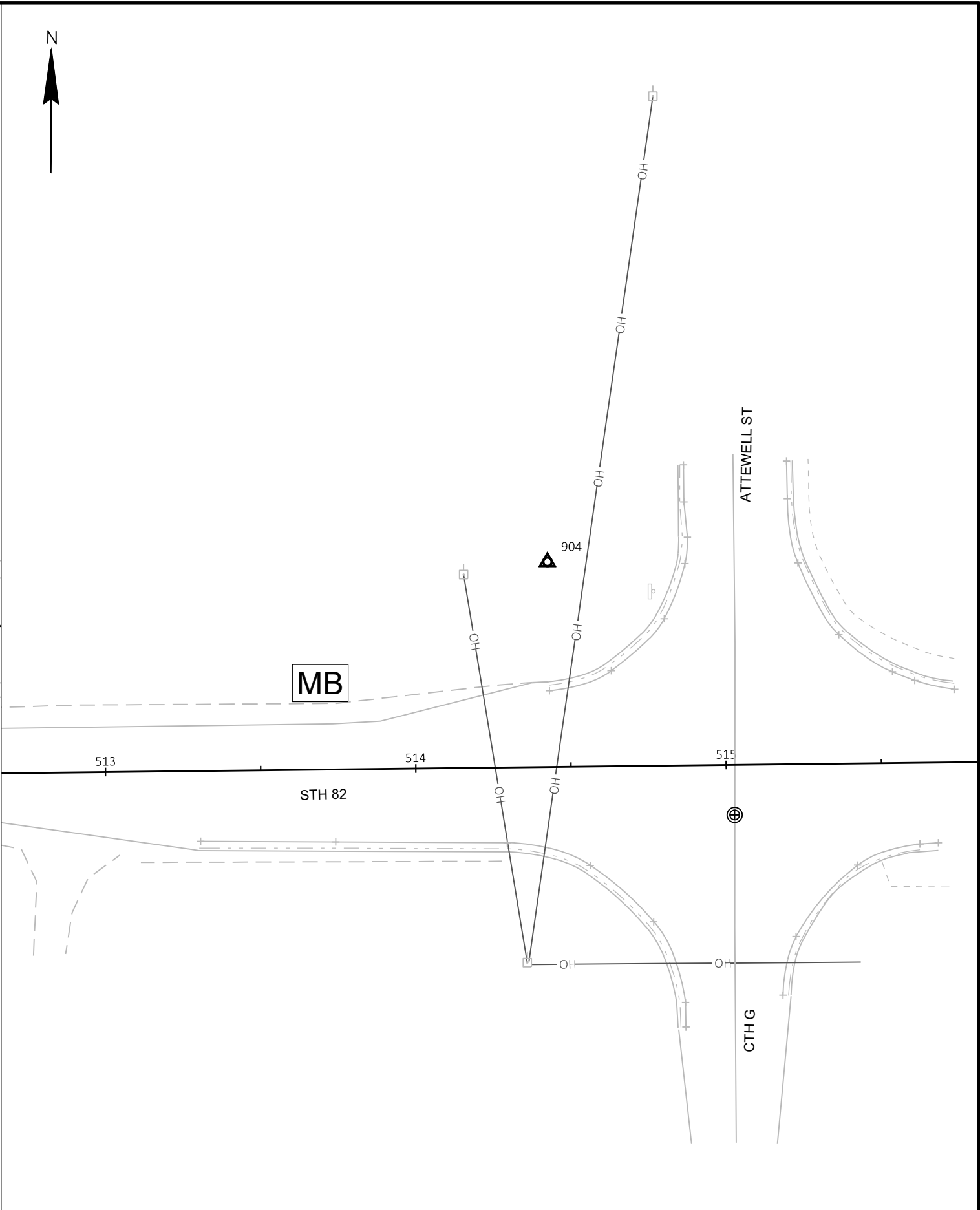
STH 82

MB

GUY

NOTE
PLACE PCMS SIGNS 7 DAYS IN ADVANCE OF PROJECT START.

MESSAGE
ROADWORK
STARTING
X/XX/XX



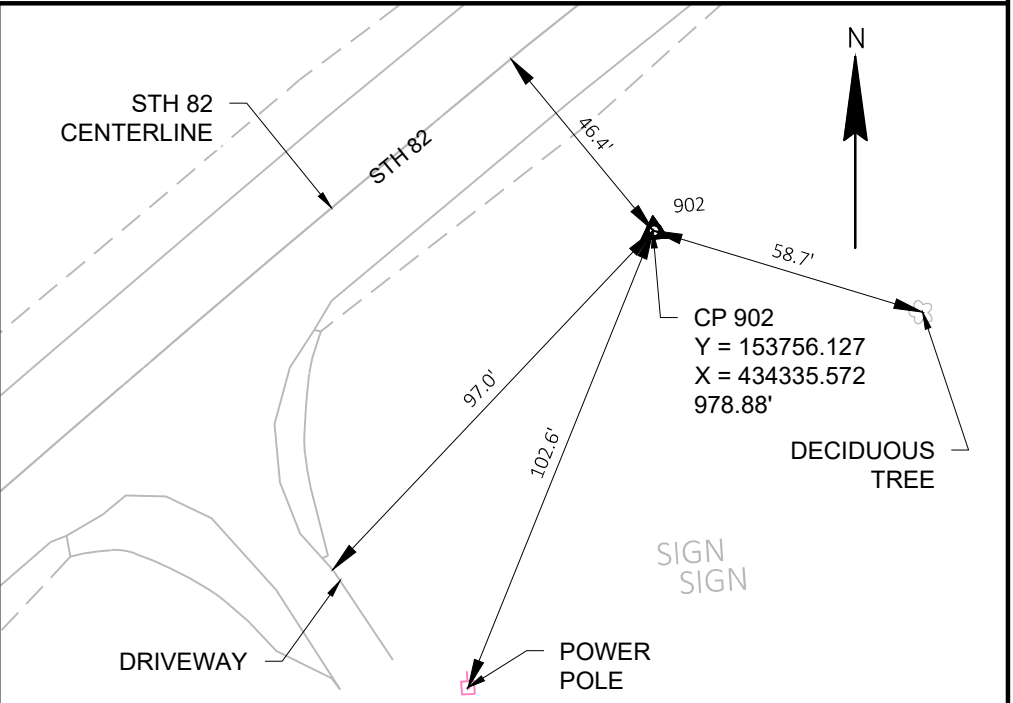
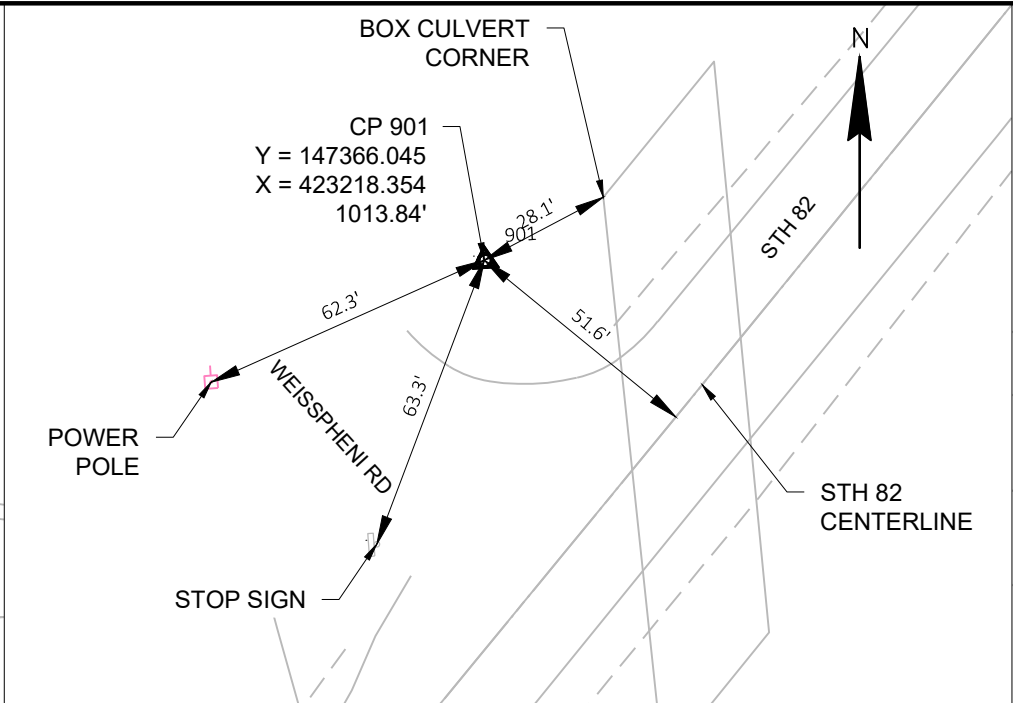
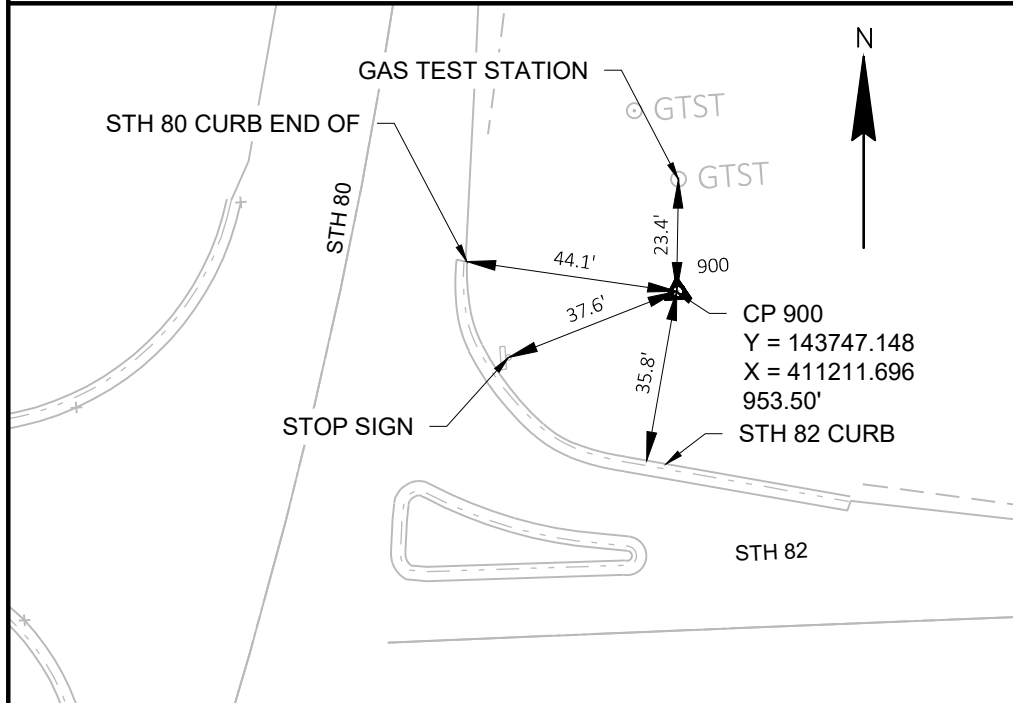
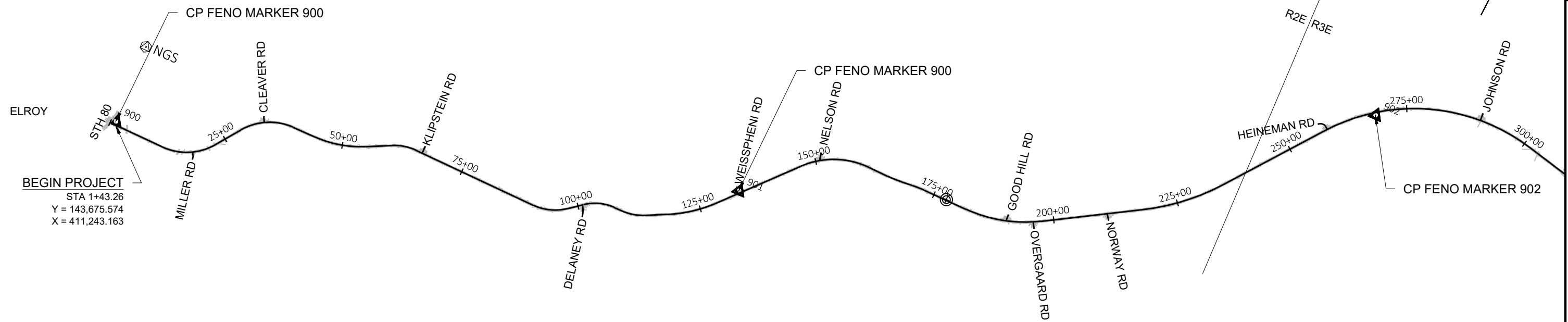
904

MB

STH 82

ATTEWELL ST

CTHG



CONTROL POINT 900
WISDOT FENO MARKER

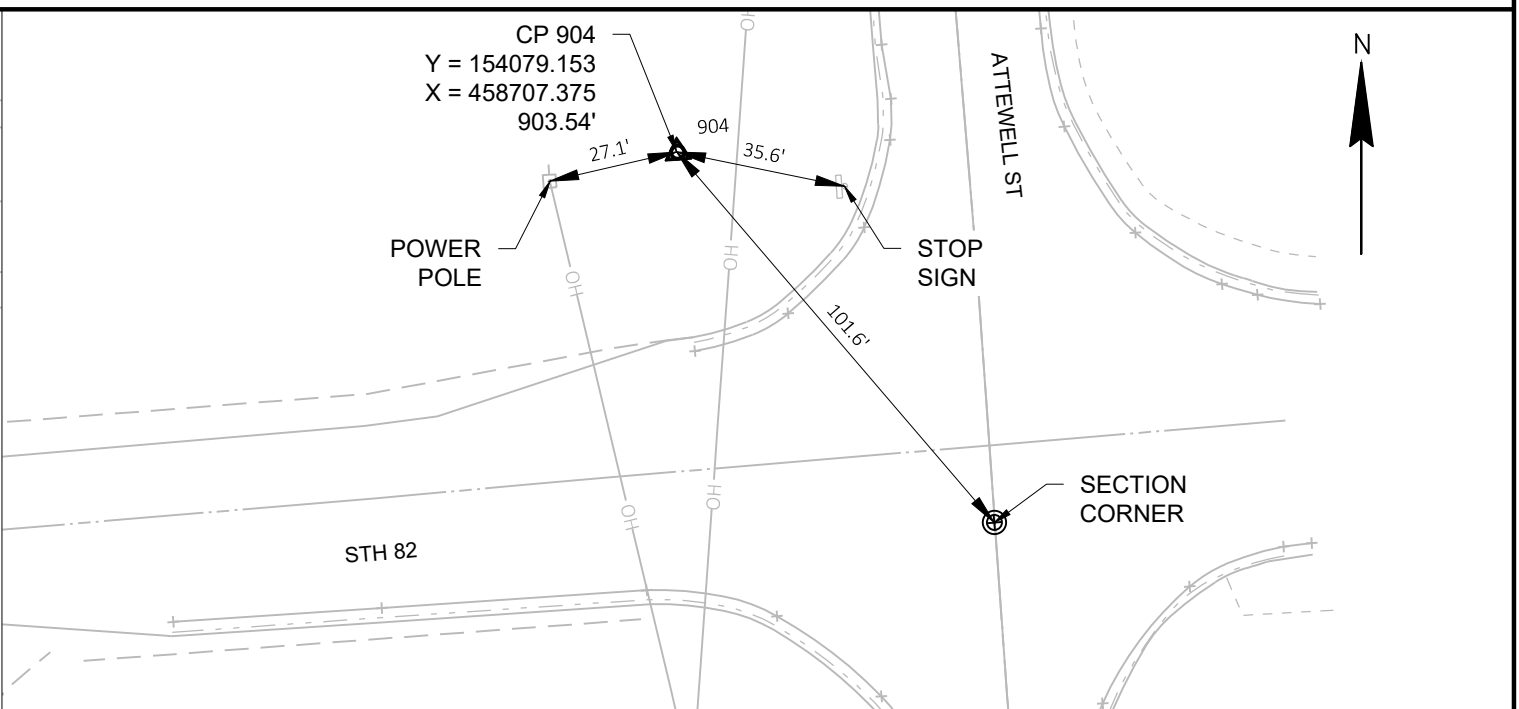
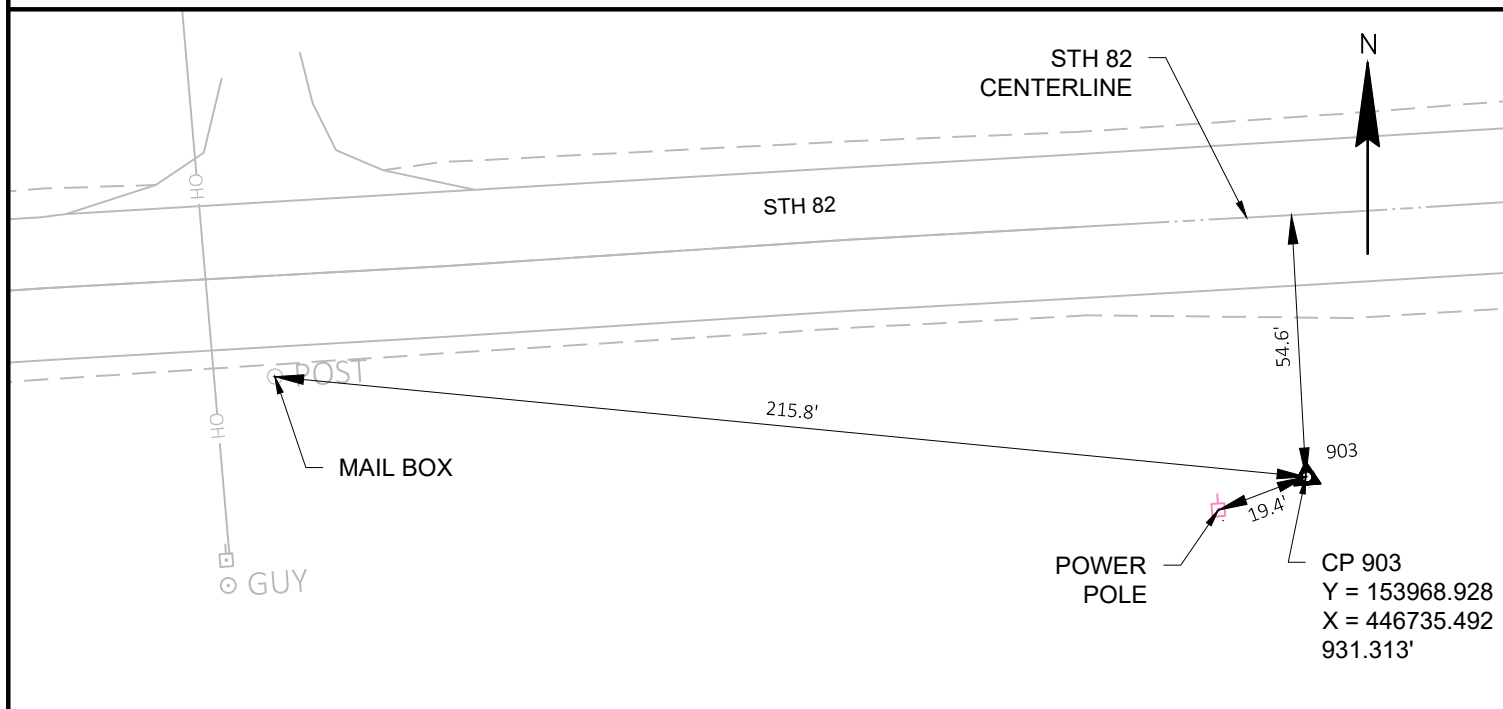
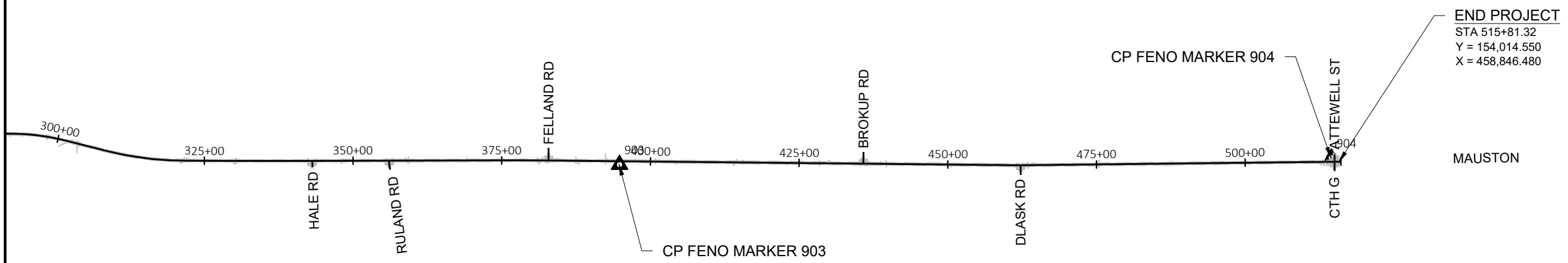
CONTROL POINT 901
WISDOT FENO MARKER

CONTROL POINT 902
WISDOT FENO MARKER

TO REACH THE STATION FROM THE JUNCTION OF STH 82 WITH STH 80 IN THE CITY OF ELROY, TO THE STATION IN THE NORTHEAST QUADRANT OF THE INTERSECTION

TO REACH THE STATION FROM THE JUNCTION OF STH 82 WITH WEISSPHENI RD IN THE TOWN OF PLYMOUTH, TO THE STATION IN THE NORTH QUADRANT OF THE INTERSECTION

TO REACH THE STATION FROM THE JUNCTION OF STH 82 WITH JOHNSON RD IN THE TOWN OF PLYMOUTH, HEAD WEST ALONG STH 82 FOR 0.4 MI TO THE STATION ON THE LEFT



CONTROL POINT 903
WISDOT FENO MARKER

CONTROL POINT 904
WISDOT FENO MARKER

TO REACH THE STATION FROM THE JUNCTION OF STH 82 WITH FELLAND RD IN THE TOWN OF LINDINA, HEAD EAST ALONG STH 82 FOR 0.2 MI TO THE STATION ON THE RIGHT

TO REACH THE STATION FROM THE JUNCTION OF STH 82 WITH ATTEWELL ST IN THE TOWN OF LINDINA, TO THE STATION IN THE NORTHWEST QUADRANT OF THE INTERSECTION

PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	ALIGNMENT TIES	SHEET	E
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Estimate Of Quantities

5010-06-72

Line	Item	Item Description	Unit	Total	Qty
0002	203.0220	Removing Structure (structure) 01. B-29-0061	EACH	1.000	1.000
0004	203.0220	Removing Structure (structure) 02. B-29-0062	EACH	1.000	1.000
0006	203.0220	Removing Structure (structure) 03. B-29-0063	EACH	1.000	1.000
0008	204.0109.S	Removing Concrete Surface Partial Depth	SF	886.000	886.000
0010	204.0110	Removing Asphaltic Surface	SY	4,159.000	4,159.000
0012	204.0115	Removing Asphaltic Surface Butt Joints	SY	716.000	716.000
0014	204.0120	Removing Asphaltic Surface Milling	SY	178,025.000	178,025.000
0016	204.0150	Removing Curb & Gutter	LF	73.000	73.000
0018	204.0155	Removing Concrete Sidewalk	SY	59.000	59.000
0020	206.2000	Excavation for Structures Culverts (structure) 01. B-29-0061	LS	1.000	1.000
0022	206.2000	Excavation for Structures Culverts (structure) 02. B-29-0062	LS	1.000	1.000
0024	206.2000	Excavation for Structures Culverts (structure) 03. B-29-0063	LS	1.000	1.000
0026	206.5000	Cofferdams (structure) 01. B-29-0061	LS	1.000	1.000
0028	206.5000	Cofferdams (structure) 02. B-29-0062	LS	1.000	1.000
0030	206.5000	Cofferdams (structure) 03. B-29-0063	LS	1.000	1.000
0032	210.2500	Backfill Structure Type B	TON	516.000	516.000
0034	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 5010-06-72	LS	1.000	1.000
0036	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1,026.000	1,026.000
0038	213.0100	Finishing Roadway (project) 01. 5010-06-72	EACH	1.000	1.000
0040	305.0110	Base Aggregate Dense 3/4-Inch	TON	7,363.000	7,363.000
0042	311.0115	Breaker Run	CY	57.000	57.000
0044	455.0605	Tack Coat	GAL	22,661.000	22,661.000
0046	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0048	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0050	460.2005	Incentive Density PWL HMA Pavement	DOL	15,370.000	15,370.000
0052	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	20,570.880	20,570.880
0054	460.2010	Incentive Air Voids HMA Pavement	DOL	27,400.000	27,400.000
0056	460.6223	HMA Pavement 3 MT 58-28 S	TON	25,548.000	25,548.000
0058	460.6224	HMA Pavement 4 MT 58-28 S	TON	19,870.000	19,870.000
0060	465.0105	Asphaltic Surface	TON	296.000	296.000
0062	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	186.000	186.000
0064	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	66,914.000	66,914.000
0066	465.0450	Asphaltic Intersection Rumble Strips	SY	75.000	75.000
0068	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	44,253.000	44,253.000
0070	502.4204	Adhesive Anchors No. 4 Bar	EACH	37.000	37.000
0072	504.0100	Concrete Masonry Culverts	CY	107.000	107.000
0074	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	11,160.000	11,160.000
0076	511.1200	Temporary Shoring (structure) 01. B-29-0061	SF	865.000	865.000
0078	511.1200	Temporary Shoring (structure) 02. B-29-0062	SF	430.000	430.000
0080	511.1200	Temporary Shoring (structure) 03. B-29-0063	SF	935.000	935.000
0082	516.0500	Rubberized Membrane Waterproofing	SY	52.000	52.000
0084	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	73.000	73.000
0086	602.0405	Concrete Sidewalk 4-Inch	SF	429.000	429.000
0088	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	40.000	40.000
0090	606.0300	Riprap Heavy	CY	84.000	84.000
0092	614.0400	Adjusting Steel Plate Beam Guard	LF	272.000	272.000
0094	619.1000	Mobilization	EACH	1.000	1.000
0096	624.0100	Water	MGAL	74.000	74.000
0098	625.0500	Salvaged Topsoil	SY	2,405.000	2,405.000

Estimate Of Quantities

5010-06-72

Line	Item	Item Description	Unit	Total	Qty
0100	628.1504	Silt Fence	LF	250.000	250.000
0102	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0104	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0106	628.2008	Erosion Mat Urban Class I Type B	SY	2,405.000	2,405.000
0108	628.7015	Inlet Protection Type C	EACH	2.000	2.000
0110	628.7504	Temporary Ditch Checks	LF	120.000	120.000
0112	629.0210	Fertilizer Type B	CWT	1.600	1.600
0114	630.0120	Seeding Mixture No. 20	LB	65.000	65.000
0116	630.0140	Seeding Mixture No. 40	LB	1.000	1.000
0118	630.0200	Seeding Temporary	LB	67.000	67.000
0120	630.0500	Seed Water	MGAL	55.000	55.000
0122	642.5001	Field Office Type B	EACH	1.000	1.000
0124	643.0300	Traffic Control Drums	DAY	1,550.000	1,550.000
0126	643.0410	Traffic Control Barricades Type II	DAY	56.000	56.000
0128	643.0420	Traffic Control Barricades Type III	DAY	7.000	7.000
0130	643.0705	Traffic Control Warning Lights Type A	DAY	14.000	14.000
0132	643.0900	Traffic Control Signs	DAY	3,020.000	3,020.000
0134	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0136	643.5000	Traffic Control	EACH	1.000	1.000
0138	644.1420	Temporary Pedestrian Surface Plywood	SF	63.000	63.000
0140	644.1601	Temporary Pedestrian Curb Ramp	DAY	7.000	7.000
0142	645.0120	Geotextile Type HR	SY	243.000	243.000
0144	646.1020	Marking Line Epoxy 4-Inch	LF	63,781.000	63,781.000
0146	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	100,726.000	100,726.000
0148	646.3020	Marking Line Epoxy 8-Inch	LF	103.000	103.000
0150	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	51,989.000	51,989.000
0152	646.6120	Marking Stop Line Epoxy 18-Inch	LF	52.000	52.000
0154	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	195.000	195.000
0156	648.0100	Locating No-Passing Zones	MI	9.740	9.740
0158	649.0105	Temporary Marking Line Paint 4-Inch	LF	107,864.000	107,864.000
0160	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	25,135.000	25,135.000
0162	649.0250	Temporary Marking Line Removable Tape 8-Inch	LF	350.000	350.000
0164	650.8000	Construction Staking Resurfacing Reference	LF	51,435.000	51,435.000
0166	650.9000	Construction Staking Curb Ramps	EACH	2.000	2.000
0168	650.9910	Construction Staking Supplemental Control (project) 01. 5010-06-72	LS	1.000	1.000
0170	690.0150	Sawing Asphalt	LF	2,023.000	2,023.000
0172	690.0250	Sawing Concrete	LF	32.000	32.000
0174	740.0440	Incentive IRI Ride	DOL	19,480.000	19,480.000
0176	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 3+87	EACH	1.000	1.000
0178	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 02. 15+05	EACH	1.000	1.000
0180	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 03. 21+20	EACH	1.000	1.000
0182	ASP.1TOA	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
0184	ASP.1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	2,500.000	2,500.000
0186	SPV.0060	Special 01. Landmark Reference Monuments Special	EACH	9.000	9.000
0188	SPV.0060	Special 02. Verify Landmark Reference Monuments	EACH	9.000	9.000
0190	SPV.0180	Special 01. Asphaltic Binder Enhanced Friction Surface Treatment	SY	19,480.000	19,480.000
0192	SPV.0180	Special 02. Removing Distressed Pavement Milling	SY	1,790.000	1,790.000

REMOVING ASPHALT ITEMS

204.0115

204.0110 REMOVING ASPHALTIC 204.0120
 REMOVING SURFACE REMOVING ASPHALTIC
ASPHALTIC SURFACE BUTT JOINTS SURFACE MILLING

CATEGORY	STATION	LOCATION	(SY)	(SY)	(SY)
0010	1+43 to 515+78	MAINLINE	-	-	178025
	1+43	PROJECT BEGIN	-	31	-
	515+78	PROJECT END	-	32	-
	7+03	RT, DWY	33	-	-
	8+65	LT, DWY	44	-	-
	8+81	RT, DWY	36	-	-
	17+94	MILLER RD	126	41	-
	30+71	LT, DWY	65	-	-
	33+62	CLEAVER RD	104	40	-
	66+33	KLIPSTEIN RD	118	47	-
	87+82	LT, DWY	38	-	-
	89+45	LT, DWY	42	-	-
	100+84	DELANEY RD	151	41	-
	108+68	LT, DWY	52	-	-
	115+80	RT, DWY	33	-	-
	133+18	WEISSPHENI RD	65	20	-
	150+92	NELSON RD	146	47	-
	160+85	LT, DWY	49	-	-
	172+71	LT, DWY	45	-	-
	172+71	RT, DWY	41	-	-
	177+48	LT, DWY	46	-	-
	190+56	GOOD HILL RD	107	50	-
	195+87	OVERGAARD RD	101	40	-
	210+83	NORWAY RD	117	43	-
	211+00	LT, DWY	52	-	-
	223+37	LT, DWY	35	-	-
	258+42	HEINEMAN RD	82	20	-
	264+73	LT, DWY	45	-	-
	267+54	RT, DWY	41	-	-
	290+04	JOHNSON RD	116	44	-
	291+91	RT, DWY	31	-	-
	303+61	RT, DWY	35	-	-
	321+17	RT, DWY	33	-	-
	322+12	LT, DWY	50	-	-
	343+12	HALE RD	119	46	-
	356+06	RULAND RD	101	38	-
	381+03	RT, DWY	34	-	-
	382+84	FELLAND RD	99	46	-
	387+48	RT, DWY	52	-	-
	392+59	LT, DWY	49	-	-
	430+02	LT, DWY	63	-	-
	435+78	BROKUP RD	172	46	-
	462+23	DLASK RD	181	44	-
PROJECT	FE BUMP OUTS		1201	-	-
515+65	C&G REPLACEMENT		9	-	-
PROJECT TOTALS			4159	716	178025

REMOVING CONCRETE ITEMS

204.0109.S 204.0150 204.0155
 REMOVING REMOVING REMOVING
 CONCRETE SURFACE CURB & CONCRETE
PARTIAL DEPTH GUTTER SIDEWALK

CATEGORY	STATION	LOCATION	(SF)	LF	SY	COMMENT
0010	4+43	WB LANE	301	-	-	INTERSECTION RUMBLE STRIPS
	6+68	WB LANE	292	-	-	INTERSECTION RUMBLE STRIPS
	11+97	WB LANE	293	-	-	INTERSECTION RUMBLE STRIPS
	515+45 - 515+89	LT	-	37	23	NE CORNER OF CTH G INTERSECTION
	515+44 - 515+82	RT	-	36	36	SE CORNER OF CTH G INTERSECTION
PROJECT TOTALS			886	73	59	

3

3

BASE AGGREGATE DENSE

305.0110 211.0400
 BASE PREPARE
 AGGREGATE FOUNDATION
 DENSE FOR ASPHALTIC
3/4-INCH SHOULDERS

CATEGORY	STATION	LOCATION	TON	STA	REMARKS
0010	1+43	RT, DWY	8	-	AGGREGATE DW
	2+64	RT, DWY	4	-	AGGREGATE DW
	17+55	LT, DWY	4	-	AGGREGATE DW
	24+55	LT, DWY	6	-	AGGREGATE DW
	28+58	LT, DWY	7	-	AGGREGATE DW
	48+04	RT, DWY	6	-	AGGREGATE DW
	53+25	LT, DWY	8	-	AGGREGATE DW
	61+28	RT, DWY	6	-	AGGREGATE DW
	78+90	LT, DWY	4	-	AGGREGATE DW
	79+62	LT, DWY	5	-	AGGREGATE DW
	79+64	RT, DWY	6	-	AGGREGATE DW
	86+93	LT, DWY	5	-	AGGREGATE DW
	131+41	RT, DWY	8	-	AGGREGATE DW
	150+59	RT, DWY	6	-	AGGREGATE DW
	159+11	LT, DWY	6	-	AGGREGATE DW
	159+14	RT, DWY	5	-	AGGREGATE DW
	162+35	RT, DWY	5	-	AGGREGATE DW
	176+15	LT, DWY	4	-	AGGREGATE DW
	182+96	LT, DWY	5	-	AGGREGATE DW
	193+32	RT, DWY	5	-	AGGREGATE DW
	223+45	RT, DWY	4	-	AGGREGATE DW
	238+18	RT, DWY	6	-	AGGREGATE DW
	243+37	LT, DWY	4	-	AGGREGATE DW
	289+95	RT, DWY	5	-	AGGREGATE DW
	293+95	RT, DWY	5	-	AGGREGATE DW
	348+30	LT, DWY	7	-	AGGREGATE DW
	356+53	LT, DWY	6	-	AGGREGATE DW
	358+86	LT, DWY	5	-	AGGREGATE DW
	359+20	RT, DWY	4	-	AGGREGATE DW
	382+70	RT, DWY	5	-	AGGREGATE DW
	384+32	LT, DWY	4	-	AGGREGATE DW
	401+04	LT, DWY	3	-	AGGREGATE DW
	404+30	RT, DWY	4	-	AGGREGATE DW
	415+58	LT, DWY	6	-	AGGREGATE DW
	422+92	RT, DWY	6	-	AGGREGATE DW
	438+70	LT, DWY	5	-	AGGREGATE DW
	450+54	RT, DWY	3	-	AGGREGATE DW
	464+30	LT, DWY	4	-	AGGREGATE DW
	487+50	LT, DWY	5	-	AGGREGATE DW
	512+86	RT, DWY	4	-	AGGREGATE DW
CATEGORY SUBTOTAL 0010			208	0	
0050	MAINLINE	SHOULDERS	7155	1026	MAINLINE, SHOULDER WIDENING
CATEGORY SUBTOTAL 0050			7155	1026	
PROJECT TOTAL			7363	1026	

3

3

ASPHALT PAVEMENT												
CATEGORY	LOCATION	LOWER	UPPER	455.0605	460.6223	460.6224	465.0105	465.0120	SPV.0180.02	460.0105.S	460.0105.S	REMARKS
		LAYER	LAYER	TACK	HMA	HMA	ASPHALTIC	ASPHALTIC SURFACE	REMOVING	HMA PERCENT	HMA PERCENT	
		THICKNESS	THICKNESS	COAT	3 MT 58-28.S	4 MT 58-28.S	SURFACE	DRIVEWAYS AND	DISTRESSED	WITHIN LIMITS (PWL)	WITHIN LIMITS (PWL)	
		IN	IN	GAL	TON	TON	TON	TON	SY	EACH	EACH	
0010	MAINLINE	-	-	12523	-	-	-	-	-	-	-	MAINLINE, MILLED SURFACE
	MAINLINE	2.25	1.75	9029	22755	17698	-	-	-	-	-	MAINLINE, BETWEEN LIFTS
	MAINLINE	-	2.75	-	-	-	276	-	1790	-	-	1% OF MAINLINE PAVT
	PROJECT	-	-	-	-	-	-	-	-	2	2	ENTIRE PROJECT
	4+44	-	2.75	-	-	-	6	-	-	-	-	INTERSECTION RUMBLE REMOVAL
	6+68	-	2.75	-	-	-	6	-	-	-	-	INTERSECTION RUMBLE REMOVAL
	11+95	-	2.75	-	-	-	6	-	-	-	-	INTERSECTION RUMBLE REMOVAL
	7+03	-	3.00	-	-	-	-	6	-	-	-	RT, DWY
	8+65	-	3.00	-	-	-	-	8	-	-	-	LT, DWY
	8+81	-	3.00	-	-	-	-	7	-	-	-	RT, DWY
	30+71	-	3.00	-	-	-	-	11	-	-	-	LT, DWY
	87+82	-	3.00	-	-	-	-	7	-	-	-	LT, DWY
	89+45	-	3.00	-	-	-	-	8	-	-	-	LT, DWY
	108+68	-	3.00	-	-	-	-	9	-	-	-	LT, DWY
	115+80	-	3.00	-	-	-	-	6	-	-	-	RT, DWY
	160+85	-	3.00	-	-	-	-	9	-	-	-	LT, DWY
	172+71	-	3.00	-	-	-	-	8	-	-	-	LT, DWY
	172+71	-	3.00	-	-	-	-	7	-	-	-	RT, DWY
	177+48	-	3.00	-	-	-	-	8	-	-	-	LT, DWY
	211+00	-	3.00	-	-	-	-	9	-	-	-	LT, DWY
	223+37	-	3.00	-	-	-	-	6	-	-	-	LT, DWY
	264+73	-	3.00	-	-	-	-	8	-	-	-	LT, DWY
	267+54	-	3.00	-	-	-	-	7	-	-	-	RT, DWY
	291+91	-	3.00	-	-	-	-	6	-	-	-	RT, DWY
	303+61	-	3.00	-	-	-	-	6	-	-	-	RT, DWY
	321+17	-	3.00	-	-	-	-	6	-	-	-	RT, DWY
	322+12	-	3.00	-	-	-	-	9	-	-	-	LT, DWY
	381+03	-	3.00	-	-	-	-	6	-	-	-	RT, DWY
	387+48	-	3.00	-	-	-	-	9	-	-	-	RT, DWY
	392+59	-	3.00	-	-	-	-	9	-	-	-	LT, DWY
	430+02	-	3.00	-	-	-	-	11	-	-	-	LT, DWY
	515+65	-	2.75	-	-	-	2	-	-	-	-	C&G REPLACEMENTS
SUBTOTAL CATEGORY 0010		-	-	21552	22755	17698	296	186	1790	2	2	

ASPHALT PAVEMENT (CONTINUED)

CATEGORY	LOCATION	LOWER	UPPER	455.0605	460.6223	460.6224	465.0105	465.0120	SPV.0180.02	460.0105.S	460.0105.S	REMARKS
		LAYER	LAYER	TACK	HMA	HMA	ASPHALTIC	ASPHALTIC SURFACE	REMOVING	HMA PERCENT	HMA PERCENT	
		THICKNESS	THICKNESS	COAT	3 MT 58-28 S	4 MT 58-28 S	SURFACE	DRIVEWAYS AND	PAVEMENT	WITHIN LIMITS (PWL)	WITHIN LIMITS (PWL)	
		IN	IN	GAL	TON	TON	TON	TON	SY	EACH	EACH	
0050	STA 1+43 - STA 17+48, RT	2.25	1.75	18	45	35	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 18+69 - STA 33+07, RT	2.25	1.75	16	40	31	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 33+07 - STA 100+16, RT	2.25	1.75	75	188	146	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 101+55 - STA 181+90, RT	2.25	1.75	89	225	175	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 191+83 - STA 195+20, RT	2.25	1.75	4	9	7	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 196+35 - STA 210+15, RT	2.25	1.75	15	39	30	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 211+49 - STA 216+93, LT	2.25	1.75	6	15	12	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 223+08 - STA 247+15, RT	2.25	1.75	27	67	52	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 260+33 - STA 342+39, RT	2.25	1.75	91	230	179	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 343+71 - STA 355+48, RT	2.25	1.75	13	33	26	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 356+63 - STA 461+58, RT	2.25	1.75	117	294	229	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 462+79 - STA 513+29, RT	2.25	1.75	84	212	165	-	-	-	-	-	WIDEN SHOULDER AREA, 3-FT
	STA 1+43 - STA 18+69, LT	2.25	1.75	19	48	38	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 18+69 - STA 33+07, LT	2.25	1.75	16	40	31	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 34+29 - STA 65+68, LT	2.25	1.75	35	88	68	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 67+00 - STA 132+59, LT	2.25	1.75	73	184	143	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 133+67 - STA 150+19, LT	2.25	1.75	18	46	36	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 151+59 - STA 189+87, LT	2.25	1.75	43	107	83	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 191+18 - STA 216+19, LT	2.25	1.75	28	70	54	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 223+54 - STA 243+14, LT	2.25	1.75	22	55	43	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 265+08 - STA 289+45, LT	2.25	1.75	27	68	53	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 290+76 - STA 382+29, LT	2.25	1.75	102	256	199	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 383+52 - STA 435+21, LT	2.25	1.75	57	145	113	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 436+51 - STA 462+79, LT	2.25	1.75	29	74	57	-	-	-	-	-	WIDEN SHOULDER AREA, 2-FT
	STA 462+79 - STA 513+89, LT	2.25	1.75	85	215	167	-	-	-	-	-	WIDEN SHOULDER AREA, 3-FT
SUBTOTAL CATEGORY 0050				1109	2793	2172	0	0	0	0	0	
PROJECT TOTALS				22661	25548	19870	296	186	1790	2	2	

RUMBLE STRIPS

RUMBLE STRIPS			
465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL			
CATEGORY	STATION	LOCATION	LF
0050	2+99 - 6+44	RT SHOULDER	276
	7+57 - 8+18	RT SHOULDER	48
	9+35 - 16+39	RT SHOULDER	564
	19+27 - 47+46	RT SHOULDER	2252
	48+55 - 60+78	RT SHOULDER	980
	61+77 - 79+06	RT SHOULDER	1383
	80+05 - 98+91	RT SHOULDER	1508
	102+14 - 115+36	RT SHOULDER	1056
	116+14 - 130+85	RT SHOULDER	1176
	131+87 - 150+14	RT SHOULDER	1464
	151+02 - 158+69	RT SHOULDER	615
	159+53 - 161+94	RT SHOULDER	192
	162+74 - 172+13	RT SHOULDER	754
	173+28 - 181+89	RT SHOULDER	692
	191+83 - 192+90	RT SHOULDER	87
	193+71 - 194+11	RT SHOULDER	40
	212+05 - 216+73	RT SHOULDER	375
	223+79 - 237+70	RT SHOULDER	1114
	238+61 - 247+14	RT SHOULDER	682
	260+33 - 266+33	RT SHOULDER	480
	268+40 - 289+57	RT SHOULDER	105
	290+29 - 291+54	RT SHOULDER	101
	292+27 - 297+78	RT SHOULDER	442
	298+51 - 303+01	RT SHOULDER	360
	304+18 - 320+84	RT SHOULDER	1335
	321+53 - 341+39	RT SHOULDER	1589
	344+21 - 354+48	RT SHOULDER	821
	357+12 - 358+86	RT SHOULDER	140
	359+55 - 380+66	RT SHOULDER	1690
	381+36 - 382+34	RT SHOULDER	77
	383+06 - 387+09	RT SHOULDER	322
	387+85 - 403+92	RT SHOULDER	1287
	404+67 - 422+51	RT SHOULDER	1426
	423+29 - 450+22	RT SHOULDER	2156
	450+86 - 460+57	RT SHOULDER	778
	463+29 - 512+30	RT SHOULDER	3922

CONTINUED

RUMBLE STRIPS (CONTINUED)

RUMBLE STRIPS (CONTINUED)			
465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL			
CATEGORY	STATION	LOCATION	LF
0050	3+35 - 8+12	LT SHOULDER	382
	9+23 - 17+17	LT SHOULDER	634
	17+94 - 24+10	LT SHOULDER	495
	25+05 - 28+07	LT SHOULDER	240
	29+12 - 30+09	LT SHOULDER	77
	31+35 - 32+49	LT SHOULDER	92
	35+35 - 52+64	LT SHOULDER	1383
	53+80 - 65+19	LT SHOULDER	912
	68+00 - 78+46	LT SHOULDER	836
	80+01 - 87+25	LT SHOULDER	581
	88+44 - 88+85	LT SHOULDER	41
	89+98 - 108+00	LT SHOULDER	1440
	109+41 - 132+44	LT SHOULDER	1844
	133+78 - 149+58	LT SHOULDER	1263
	152+71 - 158+67	LT SHOULDER	476
	159+52 - 160+16	LT SHOULDER	53
	161+44 - 172+08	LT SHOULDER	850
	173+35 - 176+90	LT SHOULDER	284
	178+10 - 182+57	LT SHOULDER	358
	183+34 - 189+35	LT SHOULDER	480
	192+22 - 210+23	LT SHOULDER	1440
	211+49 - 216+19	LT SHOULDER	375
	223+84 - 242+97	LT SHOULDER	1532
	265+29 - 288+97	LT SHOULDER	1896
	291+75 - 321+66	LT SHOULDER	2393
	322+54 - 347+94	LT SHOULDER	2031
	348+68 - 356+13	LT SHOULDER	596
	356+90 - 358+51	LT SHOULDER	130
	359+21 - 381+79	LT SHOULDER	1805
	384+65 - 392+21	LT SHOULDER	605
	392+99 - 400+69	LT SHOULDER	615
	401+37 - 415+17	LT SHOULDER	1104
	415+92 - 429+63	LT SHOULDER	1097
	430+46 - 434+72	LT SHOULDER	341
	437+51 - 438+35	LT SHOULDER	68
	439+04 - 463+97	LT SHOULDER	1997
	464+63 - 487+12	LT SHOULDER	1800
	487+92 - 513+89	LT SHOULDER	2079
PROJECT TOTALS			66914

RUMBLE STRIPS

RUMBLE STRIPS			
465.0450 ASPHALTIC INTERSECTION RUMBLE STRIPS			
CATEGORY	STATION	LOCATION	SY
0010	4+43	WB LANE	25
	6+68	WB LANE	25
	11+97	WB LANE	25
PROJECT TOTALS			75

RUMBLE STRIPS

RUMBLE STRIPS			
465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL			
CATEGORY	STATION	LOCATION	LF
0050	2+50 - 15+95	CL	1345
	19+97 - 29+72	CL	975
	35+67 - 64+27	CL	2860
	68+28 - 98+85	CL	3057
	102+86 - 131+13	CL	2827
	135+13 - 148+90	CL	1377
	152+90 - 188+52	CL	3562
	192+52 - 193+80	CL	128
	197+80 - 208+81	CL	1101
	212+81 - 256+45	CL	4364
	260+45 - 266+33	CL	588
	268+33 - 288+00	CL	1967
	292+00 - 341+14	CL	4914
	345+14 - 354+07	CL	893
	358+07 - 380+87	CL	2280
	384+87 - 433+80	CL	4893
	437+80 - 460+21	CL	2241
	464+21 - 513+02	CL	4881
PROJECT TOTALS			44253

CONCRETE ITEMS

CATEGORY	STATION - STATION	601.0411 602.0405 CONCRETE CONCRETE CURB & GUTTER SIDEWALK		REMARKS
		30-INCH TYPED LF	4-INCH SF	
0010	515+45 - 515+89, LT	37	257	CTH G, NE CORNER
	515+45 - 515+82, RT	36	172	CTH G, SE CORNER
PROJECT TOTAL		73	429	

WARNING FIELD

CATEGORY	LOCATION	602.0515 DETECTABLE WARNING FIELD	
		NATURAL PATINA SF	
0010	515+65, LT	20	
	515+65, RT	20	
PROJECT TOTALS		40	

BEAM GUARD

CATEGORY	LOCATION	614.0400 ADJUSTING STEEL PLATE	
		BEAM GUARD LF	COMMENT
0010	PROJECT	272	5% OF OVERALL RAIL
PROJECT TOTALS		272	

EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1910 628.1905 MOBILIZATION MOBILIZATIONS	
		EROSION CONTROL (EACH)	EROSION CONTROL (EACH)
0010	PROJECT	3	1
PROJECT TOTALS		3	1

FINISHING ITEMS

CATEGORY	LOCATION	625.0500	628.1504	628.2008	628.7015	628.7504	629.0210	630.0120	630.0140	630.0200	630.0500	NOTES
		SEED AREA (SF)	SALVAGED TOPSOIL (SY)	EROSION MAT URBAN CLASS I (SY)	INLET PROTECTION (EACH)	TEMPORARY DITCH (LF)	FERTILIZER (CWT)	SEEDING NO. 20 (LB)	SEEDING NO. 40 (LB)	SEEDING TEMPORARY (LB)	SEED WATER (MGAL)	
0010	B-29-0061	8400	933	933	-	48	0.6	26	-	26	21	4 WING WALL REPLACEMENTS
	B-29-0062	4200	467	467	-	24	0.3	13	-	13	11	2 WING WALL REPLACEMENTS
	B-29-0063	8400	933	933	-	48	0.6	26	-	26	21	4 WING WALL REPLACEMENTS
	515+65, LT/RT	641	71	72	-	-	0.1	-	1	2	2	CURB RAMP REPLACEMENT
	515+82, LT/RT	-	-	-	2	-	-	-	-	-	-	CURB RAMP REPLACEMENT
PROJECT TOTAL		2405	250	2405	2	120	1.6	65	1	67	55	

TRAFFIC CONTROL

CATEGORY	PROJECT LOCATION	APPROX. SERVICE PERIOD DAYS	643.0300 TRAFFIC CONTROL DRUMS		643.0410 TRAFFIC CONTROL BARRICADES TYPE II		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900 TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS		NOTES
			QTY.	DAYS	QTY.	DAYS	QTY.	DAYS	QTY.	DAYS	QTY.	DAYS	QTY.	DAYS	
0010	PRE-CONSTRUCTION	7	0	0	0	0	0	0	0	0	0	0	2	14	PRIOR TO CONSTRUCTION
	ENTIRE PROJECT AREA	65	0	0	0	0	0	0	0	0	29	1885	0	0	ADVANCED WARNING
	MILLED SURFACE	32	0	0	0	0	0	0	0	0	30	960	0	0	SDD 15D44, MILLED SURFACES
	DROP OFF SIGNING	32	0	0	0	0	0	0	0	0	2	64	0	0	SDD 15D39, DROP OFF SIGNINGS
	BOX CULVERTS, RT	35	25	875	0	0	0	0	0	0	1	35	0	0	SHOULDER CLOSURES, WING WALL REPLACEMENTS
	BOX CULVERTS,LT	20	25	500	0	0	0	0	0	0	1	20	0	0	SHOULDER CLOSURES, WING WALL REPLACEMENTS
	NORTH CURB RAMP	7	14	98	5	35	1	7	2	14	6	42	0	0	NORTH CURB RAMP
	SOUTH CURB RAMP	7	10	70	3	21	0	0	0	0	2	14	0	0	SOUTH CURB RAMP
PROJECT TOTALS				1543		56		7		14		3020		14	

TEMPORARY PEDESTRIAN

CATEGORY	STATION	APPROX. SERVICE PERIOD DAYS	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD		644.1601 TEMPORARY PEDESTRIAN CURB RAMP		COMMENT
			SF	QTY	DAY	DAY	
0010	515+40, LT	7	63	1	7		NORTH CURB RAMP
PROJECT TOTALS			63		7		

MARKING LINE ITEMS

CATEGORY	STATION - STATION	CL LENGTH	LOCATION	646.1040 MARKING LINE										REMARKS
				*646.1020 MARKING LINE EPOXY 4-INCH		GROOVED WET REF EPOXY 4-INCH		**646.452 MARKING LINE SAME DAY EPOXY 4-INCH		646.3020 MARKING LINE EPOXY 8-INCH		646.7520 MARKING CROSSWALK LADDER		
				SOLID YELLOW	SKIPS YELLOW	SOLID WHITE	SKIPS WHITE	SOLID YELLOW	SKIPS YELLOW	SOLID WHITE	SKIPS WHITE	EPOXY 18-INCH	PATTERN 24-INCH	
				LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	
0010	1+43 - 54+23	5,280	CL	10560	-	-	-	10,560	-	-	-	-	-	
	1+43 - 54+23		LT/RT	-	-	10314	43	-	-	-	-	-	-	CLEAVER RD INTERSECTION SKIPS
	54+23 - 107+03	5,280	CL	9060	375	-	-	2,292	-	-	-	-	-	
	54+23 - 107+03		LT/RT	-	-	10288	-	-	-	-	-	-	-	
	107+03 - 159+83	5,280	CL	8160	600	-	-	3,728	383	-	-	-	-	
	107+03 - 159+83		LT/RT	-	-	10348	44	-	-	-	-	-	-	NELSON RD INTERSECTION SKIPS
	159+83 - 212+63	5,280	CL	8942	405	-	-	8,942	405	-	-	-	-	
	159+83 - 212+63		LT/RT	-	-	10176	-	-	-	-	-	-	-	
	212+63 - 265+43	5,280	CL	8191	593	-	-	8,191	593	-	-	-	-	
	212+63 - 265+43		LT/RT	-	-	10472	-	-	-	-	-	-	-	
	265+43 - 318+23	5,280	CL	10154	51	-	-	10,154	51	-	-	-	-	
	265+43 - 318+23		LT/RT	-	-	10433	-	-	-	-	-	-	-	
	318+23 - 371+03	5,280	CL	903	1320	-	-	903	1,320	-	-	-	-	
	318+23 - 371+03		LT/RT	-	-	10319	-	-	-	-	-	-	-	
	371+03 - 423+83	5,280	CL	-	1320	-	-	-	1,320	-	-	-	-	
	371+03 - 423+83		LT/RT	-	-	10432	-	-	-	-	-	-	-	
	423+83 - 476+63	5,280	CL	-	1320	-	-	-	1,320	-	-	-	-	
	423+83 - 476+63		LT/RT	-	-	10309	-	-	-	-	-	-	-	
	476+63 - 516+00	3,937	CL	874	953	-	-	874	953	-	-	-	-	
	476+63 - 516+00		LT/RT	-	-	7548	-	-	-	103	52	195	-	CTH G INTERSECTION
PROJECT TOTALS				63781		100,726		51,989		103	52	195		

* APPLIED AFTER CENTERLINE RUMBLE STRIPS ARE INSTALLED

** THE AREA OF FRICTION SURFACE TREATMENT IS EXCLUDED, TEMPORARY EPOXY TO BE USED FOR THAT AREA PRIOR TO FRICTION TREATMENT

3

3

TEMPORARY MARKING ITEMS

CATEGORY	STATION - STATION	LOCATION	649.0105*		649.0120**			649.0250	REMARKS
			TEMPORARY MARKING LINE	PAINT 4-INCH	SOLID YELLOW	SKIPS YELLOW	SOLID WHITE	SOLID YELLOW	
0010	1+43 - 54+23	CL	10,560	0	-	-	-	-	4' SKIPS 50' C-C
	54+23 - 107+03	CL	5,633	22	-	-	-	-	4' SKIPS 50' C-C
	65+69 - 133+54	CL/LT/RT	-	-	13,424	11,091	620	-	PRIOR TO FRICTION SURFACE TREATMENT
	107+03 - 159+83	CL	8,123	49	-	-	-	-	4' SKIPS 50' C-C
	159+83 - 212+63	CL	8,942	33	-	-	-	-	4' SKIPS 50' C-C
	212+63 - 265+43	CL	8,191	48	-	-	-	-	4' SKIPS 50' C-C
	265+43 - 318+23	CL	10,154	5	-	-	-	-	4' SKIPS 50' C-C
	318+23 - 371+03	CL	903	106	-	-	-	-	4' SKIPS 50' C-C
	371+03 - 423+83	CL	0	106	-	-	-	-	4' SKIPS 50' C-C
	423+83 - 476+63	CL	0	106	-	-	-	-	4' SKIPS 50' C-C
	476+63 - 516+00	CL	874	77	-	-	-	-	4' SKIPS 50' C-C
	515+95	-	-	-	-	-	-	240	TEMPORARY CROSSWALK
	CROSSING AT EBERLEIN DR	-	-	-	-	-	-	110	TEMPORARY CROSSWALK
SUBTOTAL			53,932		25,135		350		
PROJECT TOTALS			107,864		25,135		350		

* TOTAL QUANTITY IS APPLIED 2 TIMES OVER CONSTRUCTION TIMEFRAME OF JOB (MILLED SURFACE & 1ST LIFT)
 ** APPLIED ON FINAL SURFACE LAYER TO ALLOW FOR 30 DAY PAVT CURE TIME PRIOR TO ASPHALTIC BINDER ENHANCED FRICTION SURFACE TREATMENT

CONSTRUCTION STAKING

CATEGORY	STATION	MI	650.8000 CONSTRUCTION STAKING			REMARKS
			CONSTRUCTION STAKING REFERENCE	650.9000 CONSTRUCTION STAKING CURB RAMPS	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT)	
0010	1+43 - 515+78	9.74	51435	-	1	MAINLINE
	515+65, LT/RT		-	2	-	CTH G INTERSECTION RAMPS
PROJECT TOTALS			51435	2	1	

SAWCUT

CATEGORY	STATION	LOCATION	690.0150	690.0250	REMARKS
			SAWING ASPHALT	SAWING CONCRETE	
0010	1+41	CL	45	-	BEGIN PROJECT
	7+03	RT, DWY	14	-	-
	8+65	LT, DWY	28	-	-
	8+81	RT, DWY	17	-	-
	17+94	MILLER RD	69	-	-
	30+71	LT, DWY	44	-	-
	33+62	CLEAVER RD	71	-	-
	66+33	KLIPSTEIN RD	70	-	-
	87+82	LT, DWY	20	-	-
	89+45	LT, DWY	24	-	-
	100+84	DELANEY RD	77	-	-
	108+68	LT, DWY	32	-	-
	115+80	RT, DWY	20	-	-
	133+18	WEISSPHENI RD	44	-	-
	150+92	NELSON RD	84	-	-
	160+85	LT, DWY	29	-	-
	172+71	LT, DWY	21	-	-
	172+71	RT, DWY	25	-	-
	177+48	LT, DWY	23	-	-
	190+56	GOOD HILL RD	77	-	-
	195+87	OVERGAARD RD	68	-	-
	210+83	NORWAY RD	75	-	-
	211+00	LT, DWY	32	-	-
	223+37	LT, DWY	22	-	-
	258+42	HEINEMAN RD	46	-	-
	264+73	LT, DWY	22	-	-
	267+54	RT, DWY	26	-	-
	290+04	JOHNSON RD	68	-	-
	291+91	RT, DWY	19	-	-
	303+61	RT, DWY	15	-	-
	321+17	RT, DWY	16	-	-
	322+12	LT, DWY	31	-	-
	343+12	HALE RD	69	-	-
	356+06	RULAND RD	57	-	-
	381+03	RT, DWY	17	-	-
	382+84	FELLAND RD	69	-	-
	387+48	RT, DWY	31	-	-
	392+59	LT, DWY	27	-	-
	430+02	LT, DWY	45	-	-
	435+78	BROKUP RD	69	-	-
	462+23	DLASK RD	65	-	-
	515+03	ATTEWELL ST	78	-	-
	515+02	CTH G	92	-	-
	515+78	STH 82/GREYSIDE AVE	51	-	END PROJECT
	515+65	C&G REPLACEMENT	79	-	C&G REPLACEMENT
	515+66	NE CURB RAMP	-	17	C&G, SIDEWALK
	515+66	SE CURB RAMP	-	15	C&G, SIDEWALK
PROJECT TOTALS			2023	32	

WATER

624.0100

CATEGORY	LOCATION	MGAL
0010	PROJECT	74
PROJECT TOTALS		74

FRICTION SURFACE TREATMENT

SPV.0180.01

ASPHALTIC BINDER

ENHANCED FRICTION

SURFACE TREATMENT

CATEGORY	LOCATION	SY	COMMENT
0010	65+69 - 133+54	19480	KLIPSTEIN RD TO WEISSPHENI RD
PROJECT TOTALS		19480	

SECTION CORNERS

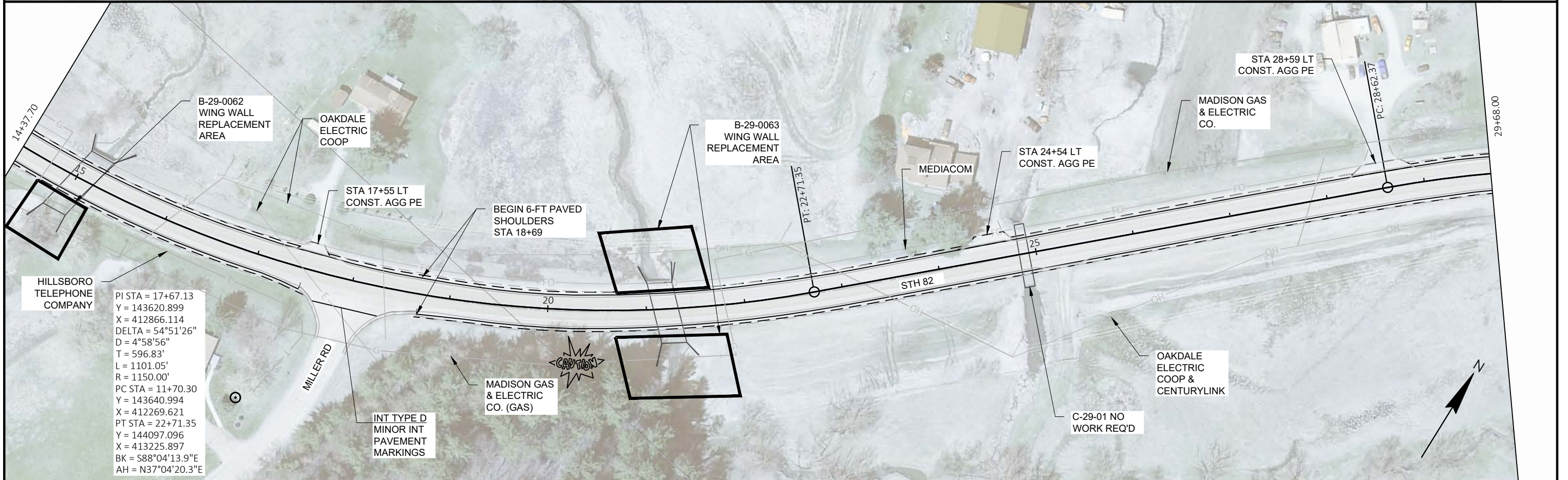
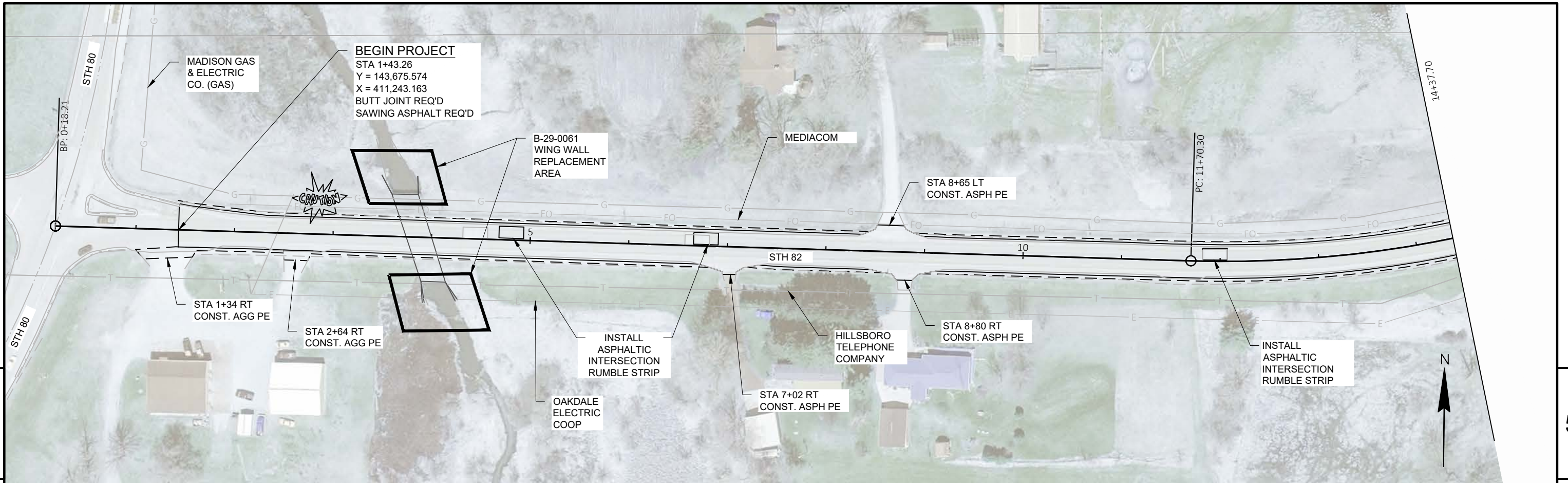
*SPV.0060.01	*SPV.0060.02
LANDMARK	VERIFY
REFERENCE	LANDMARK
MONUMENTS	REFERENCE
<u>SPECIAL</u>	<u>MONUMENTS</u>

CATEGORY	STATION	LOCATION	EACH	EACH
0010	177+65	9 FT, LT	1	1
	330+25	CL	1	1
	356+21	CL	1	1
	382+82	CL	1	1
	409+21	16 FT, LT	1	1
	435+69	22 FT, LT	1	1
	462+26	30 FT, LT	1	1
	488+69	CL	1	1
	515+02	31 FT, RT	1	1
PROJECT TOTALS			9	9

*LOCATION APPROXIMATE, TO BE DETERMINED BY CONTRACTOR IN FIELD

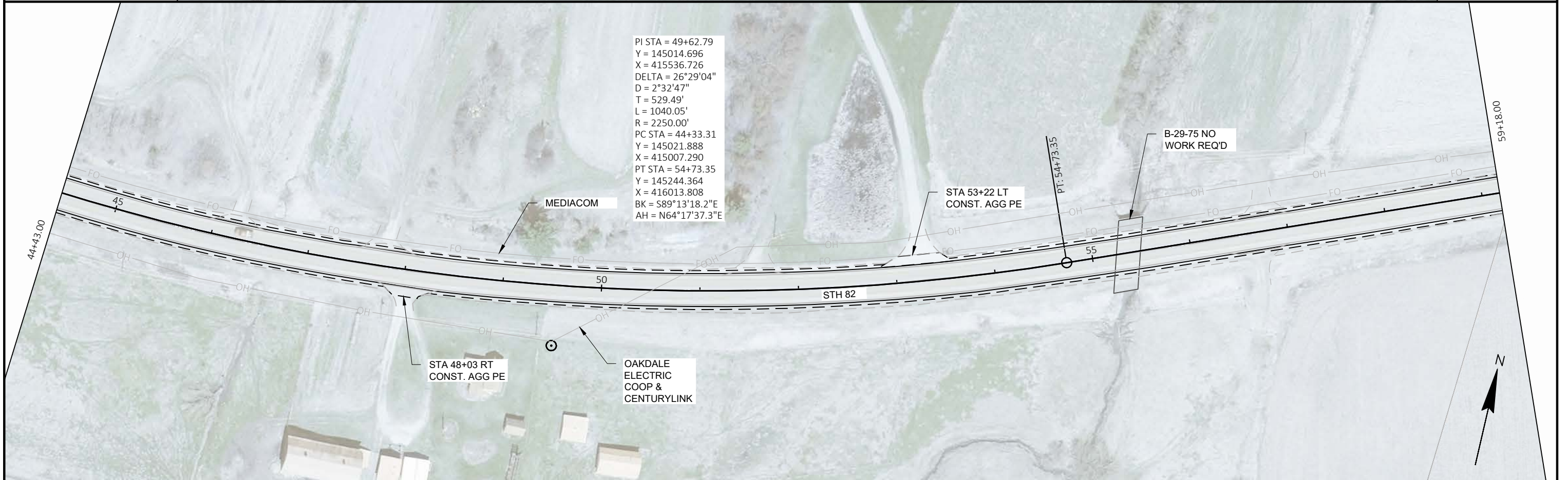
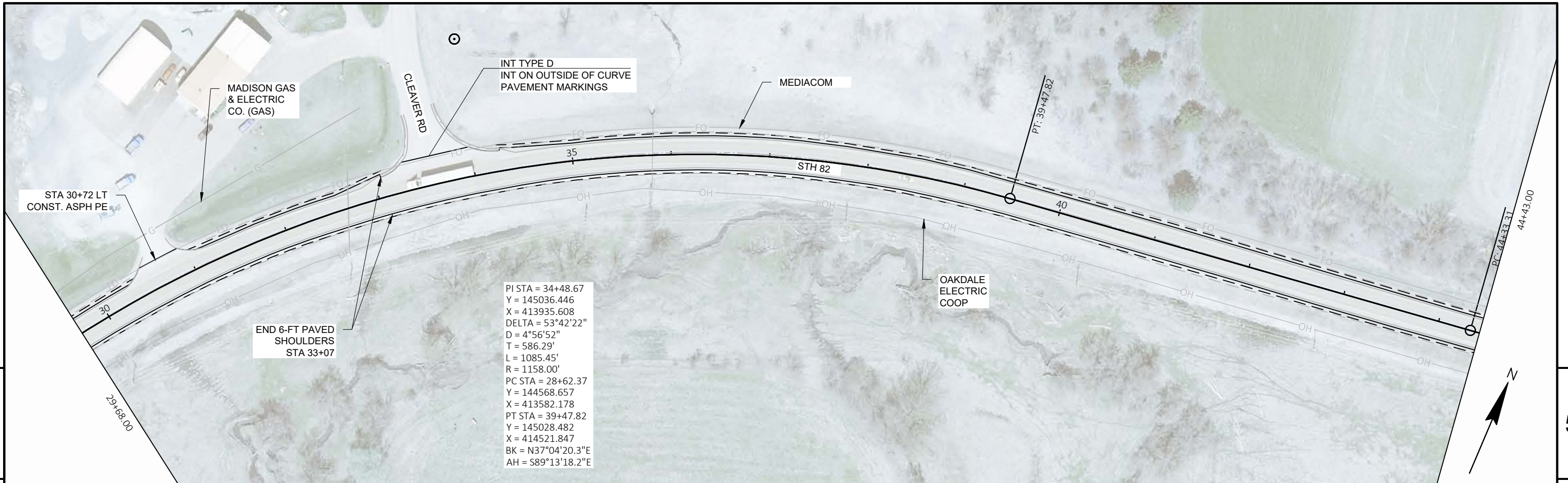
HMA PWL MIXTURE ACCEPTANCE

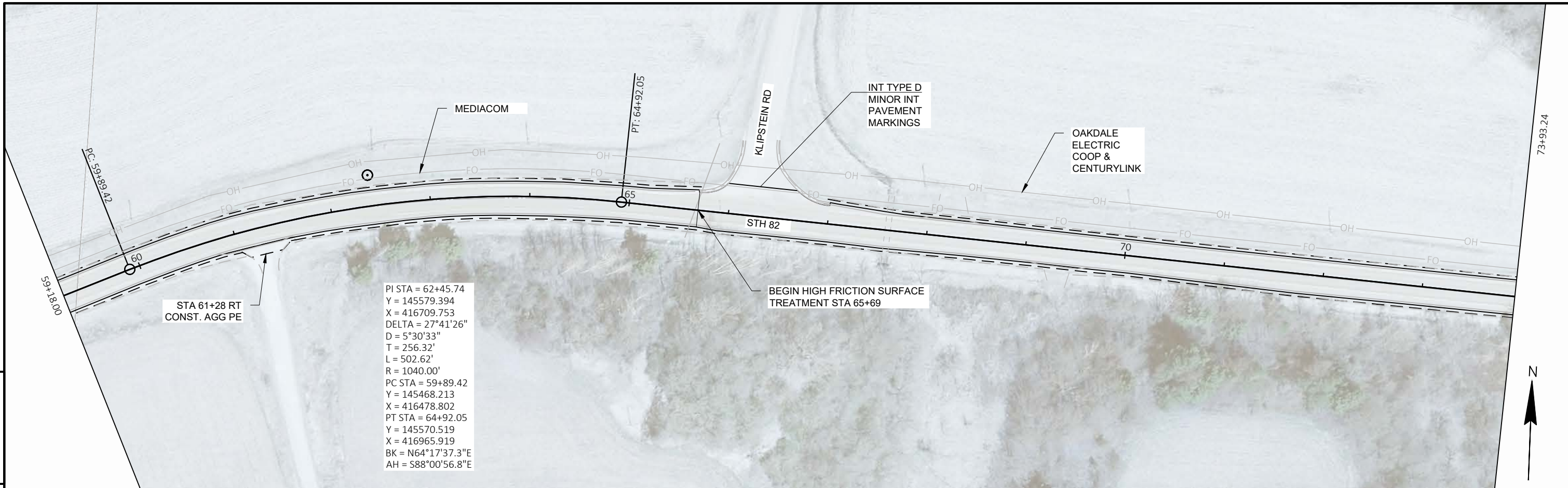
Location	Station	Mixture Use:	Underlying Surface	Bid Item	TONS	Thickness	Quality Management Program to be used for:	
							Mixture Acceptance	Density Acceptance
12 FT DRIVING LANE	STA 1+43 - STA 515+81	UPPER LAYER	3 M" 58-28 S	4 MI 58-28 S	6722	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement: 460.2005
12 FT DRIVING LANE	STA 1+43 - STA 515+81	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	8642	2.25"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement: 460.2005
5 FT SHOULDER	STA 1+43 - STA 462+77 & STA & STA 514+44 - STA 515+81	UPPER LAYER	3 M" 58-28 S	4 MT 58-28 S	4599	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance Testing by the Department; Not eligible for incentive or disincentive
5 FT SHOULDER	STA 1+43 - STA 462+77 & STA & STA 514+44 - STA 515+81	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	5918	2.25"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance Testing by the Department; Not eligible for incentive or disincentive
6 FT SHOULDER	STA 462+77 - STA 514+44	UPPER LAYER	3 M" 58-28 S	4 MT 58-28 S	664	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance Testing by the Department; Not eligible for incentive or disincentive
6 FT SHOULDER	STA 462+77 - STA 514+44	LOWER LAYER	MILLED EXISTING HMA SURFACE	3 MT 58-28 S	853	2.25"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance Testing by the Department; Not eligible for incentive or disincentive



PI STA = 17+67.13
 Y = 143620.899
 X = 412866.114
 DELTA = 54°51'26"
 D = 4°58'56"
 T = 596.83'
 L = 1101.05'
 R = 1150.00'
 PC STA = 11+70.30
 Y = 143640.994
 X = 412269.621
 PT STA = 22+71.35
 Y = 144097.096
 X = 413225.897
 BK = S88°04'13.9"E
 AH = N37°04'20.3"E

PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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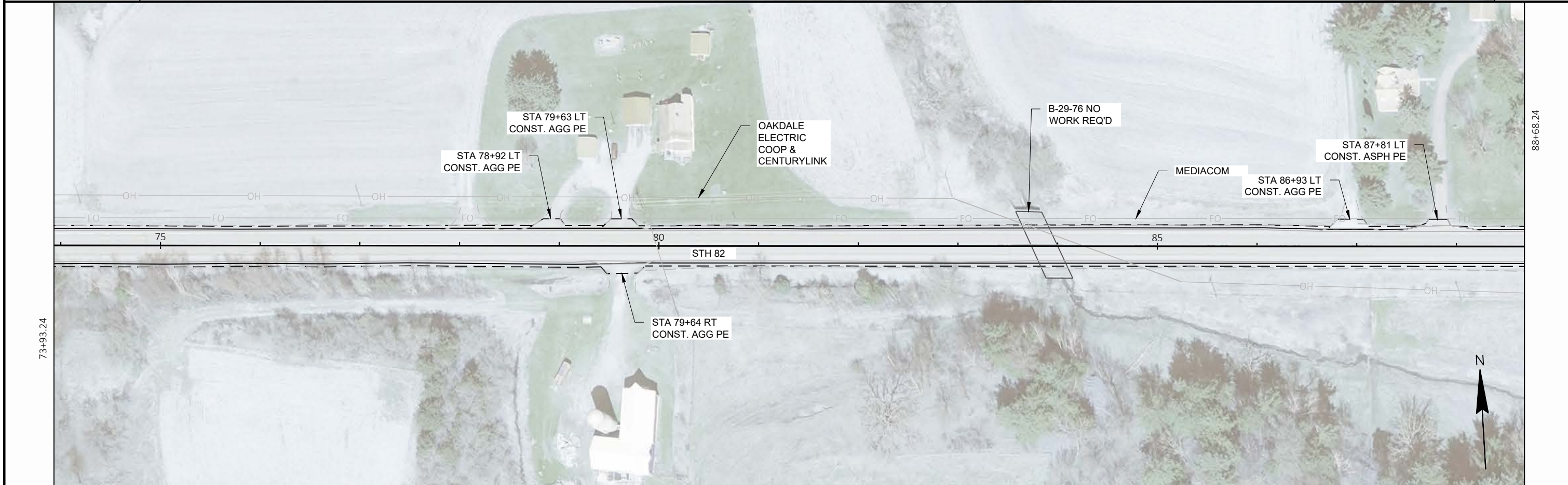




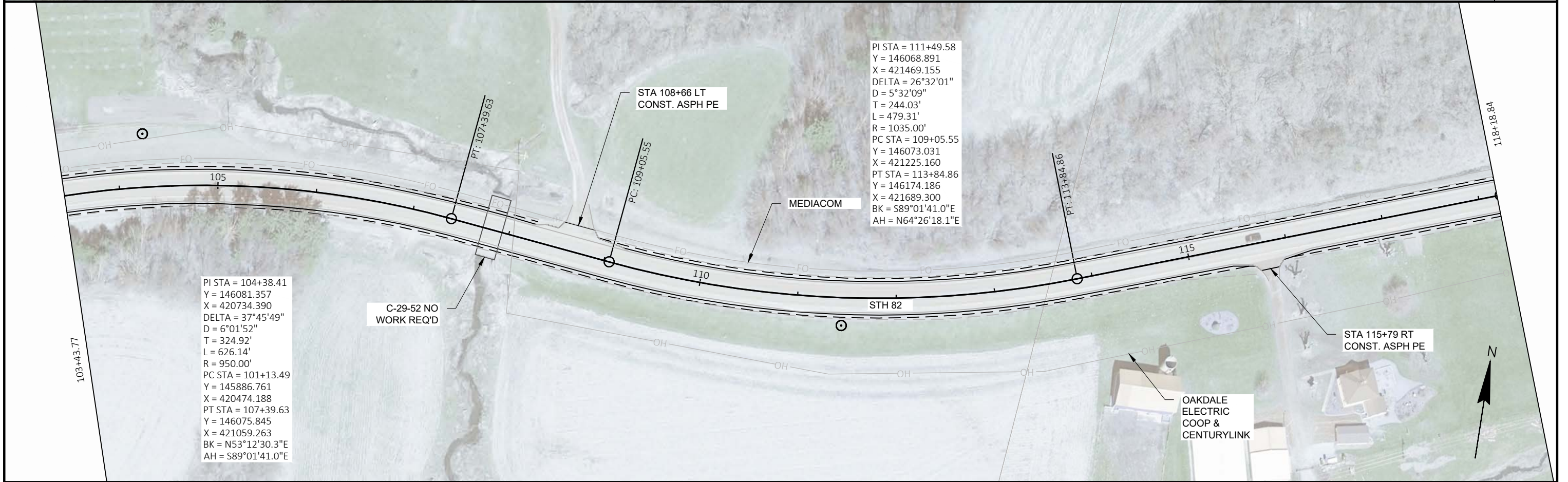
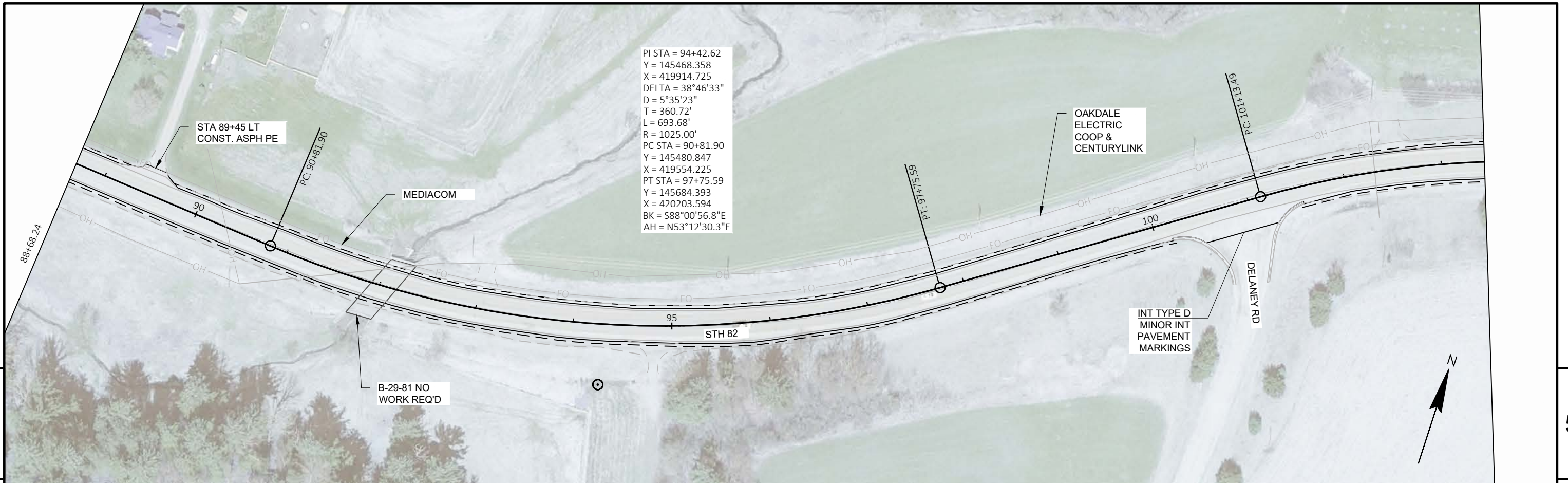
PI STA = 62+45.74
 Y = 145579.394
 X = 416709.753
 DELTA = 27°41'26"
 D = 5°30'33"
 T = 256.32'
 L = 502.62'
 R = 1040.00'
 PC STA = 59+89.42
 Y = 145468.213
 X = 416478.802
 PT STA = 64+92.05
 Y = 145570.519
 X = 416965.919
 BK = N64°17'37.3"E
 AH = S88°00'56.8"E

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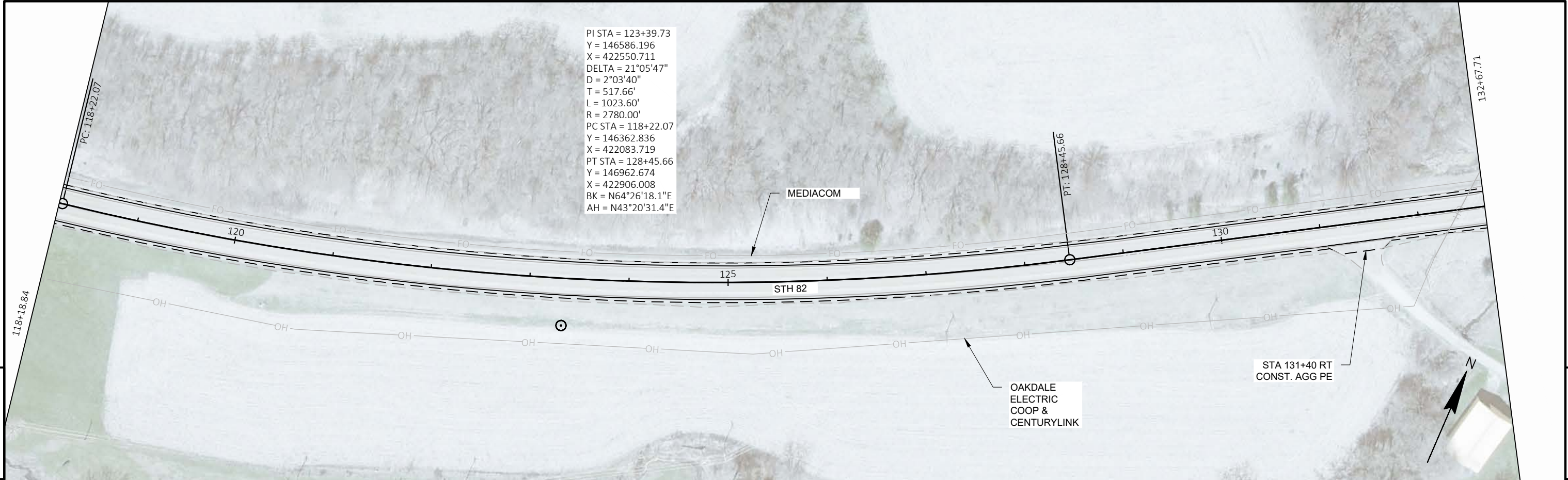


PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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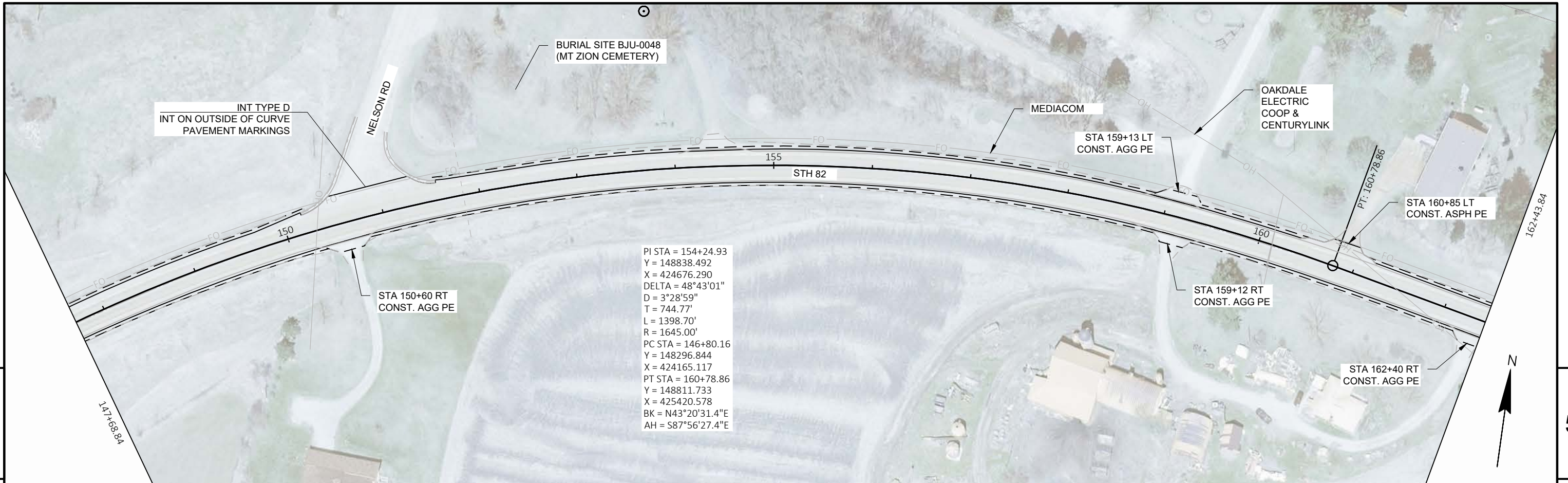


PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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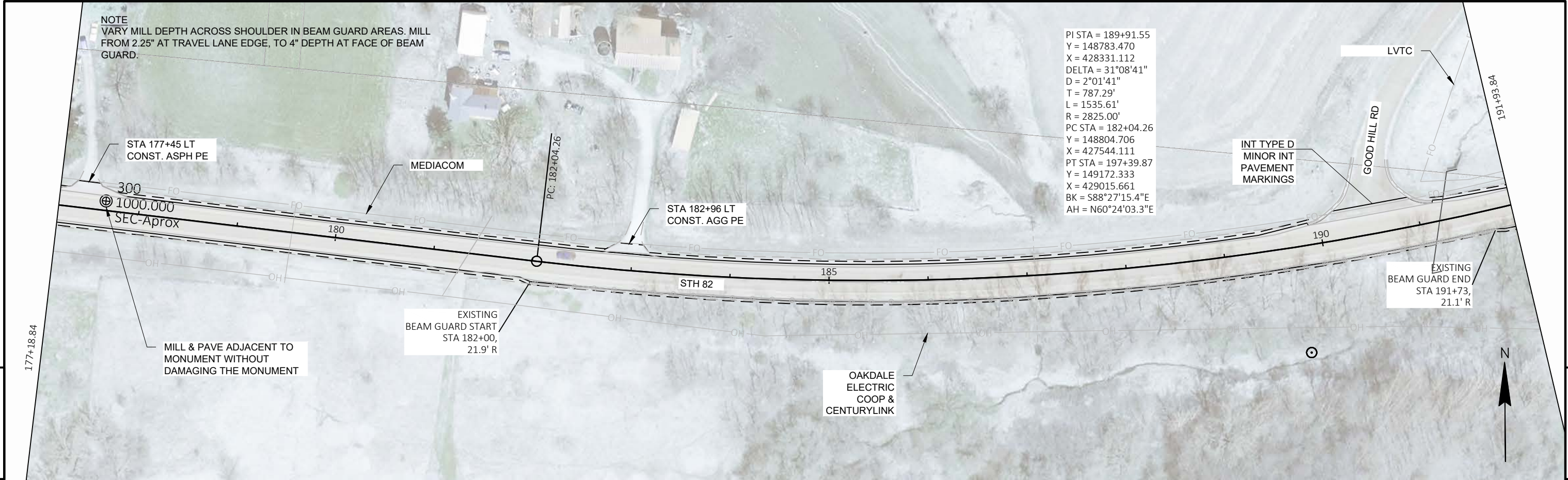
PI STA = 123+39.73
 Y = 146586.196
 X = 422550.711
 DELTA = 21°05'47"
 D = 2°03'40"
 T = 517.66'
 L = 1023.60'
 R = 2780.00'
 PC STA = 118+22.07
 Y = 146362.836
 X = 422083.719
 PT STA = 128+45.66
 Y = 146962.674
 X = 422906.008
 BK = N64°26'18.1"E
 AH = N43°20'31.4"E



PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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NOTE
 VARY MILL DEPTH ACROSS SHOULDER IN BEAM GUARD AREAS. MILL FROM 2.25" AT TRAVEL LANE EDGE, TO 4" DEPTH AT FACE OF BEAM GUARD.

PI STA = 189+91.55
 Y = 148783.470
 X = 428331.112
 DELTA = 31°08'41"
 D = 2°01'41"
 T = 787.29'
 L = 1535.61'
 R = 2825.00'
 PC STA = 182+04.26
 Y = 148804.706
 X = 427544.111
 PT STA = 197+39.87
 Y = 149172.333
 X = 429015.661
 BK = S88°27'15.4"E
 AH = N60°24'03.3"E

STA 177+45 LT
 CONST. ASPH PE

MEDIACOM

STA 182+96 LT
 CONST. AGG PE

INT TYPE D
 MINOR INT
 PAVEMENT
 MARKINGS

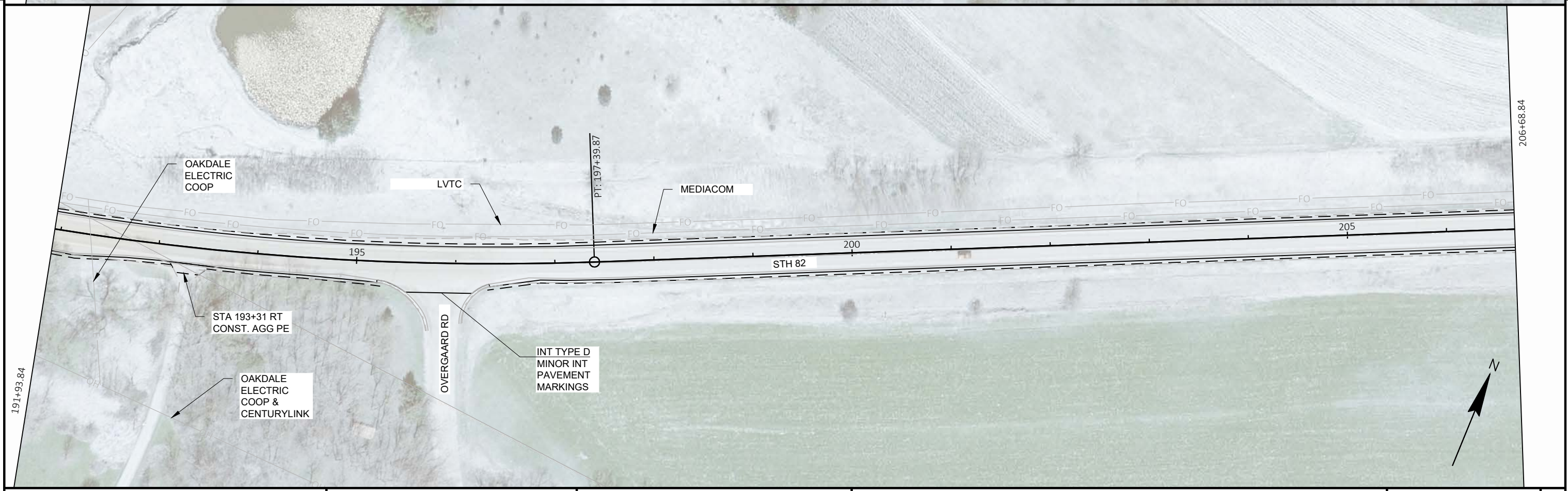
GOOD HILL RD

EXISTING
 BEAM GUARD END
 STA 191+73,
 21.1' R

MILL & PAVE ADJACENT TO
 MONUMENT WITHOUT
 DAMAGING THE MONUMENT

EXISTING
 BEAM GUARD START
 STA 182+00,
 21.9' R

OAKDALE
 ELECTRIC
 COOP &
 CENTURYLINK



OAKDALE
 ELECTRIC
 COOP

LVTC

MEDIACOM

STA 193+31 RT
 CONST. AGG PE

OAKDALE
 ELECTRIC
 COOP &
 CENTURYLINK

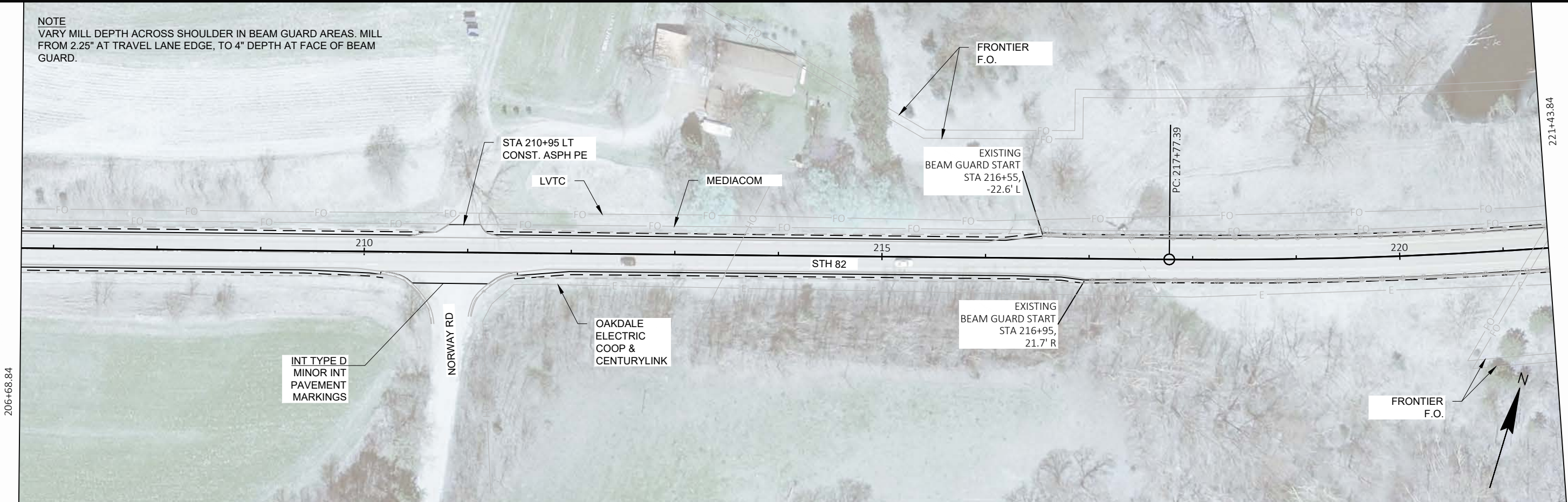
OVERGAARD RD

INT TYPE D
 MINOR INT
 PAVEMENT
 MARKINGS



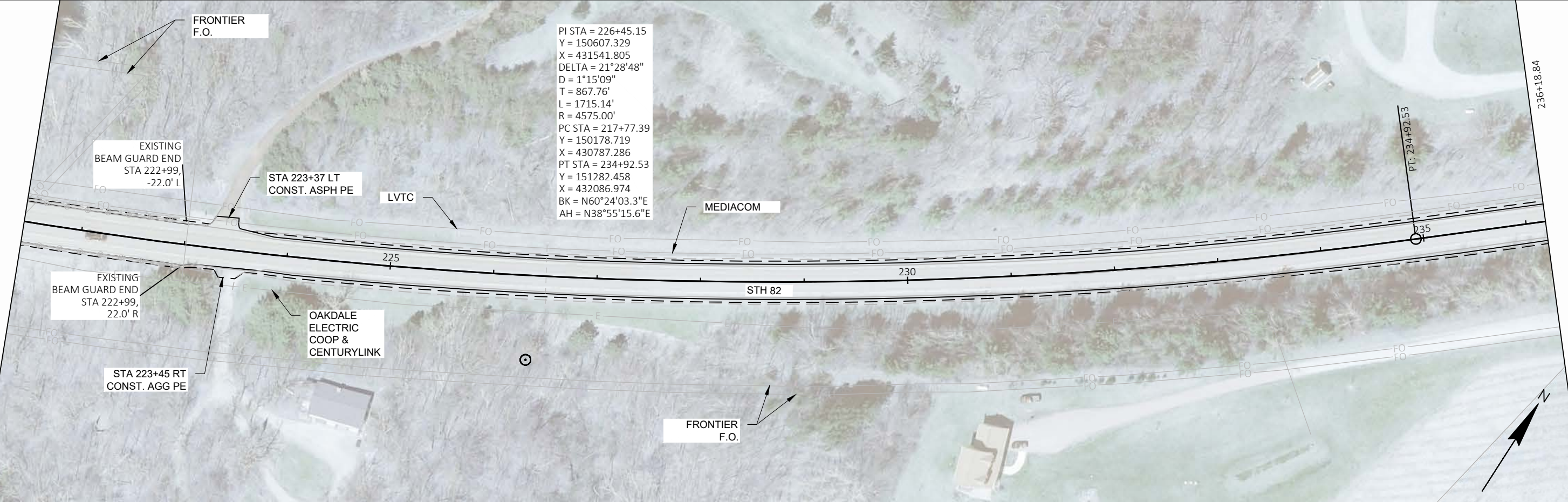
PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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NOTE
 VARY MILL DEPTH ACROSS SHOULDER IN BEAM GUARD AREAS. MILL
 FROM 2.25" AT TRAVEL LANE EDGE, TO 4" DEPTH AT FACE OF BEAM
 GUARD.



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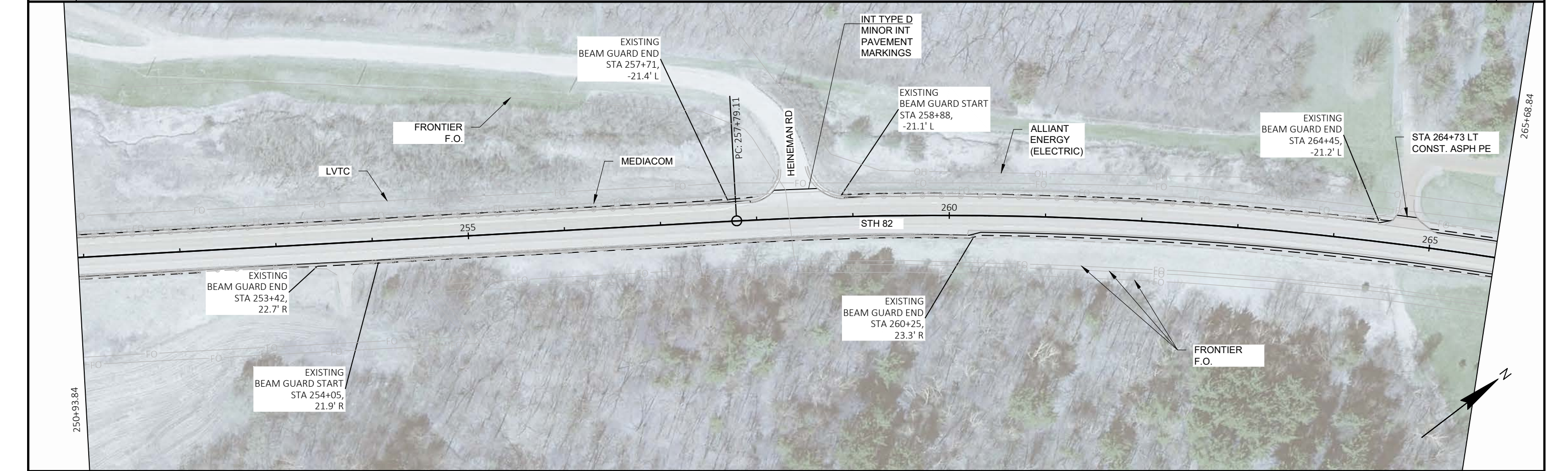
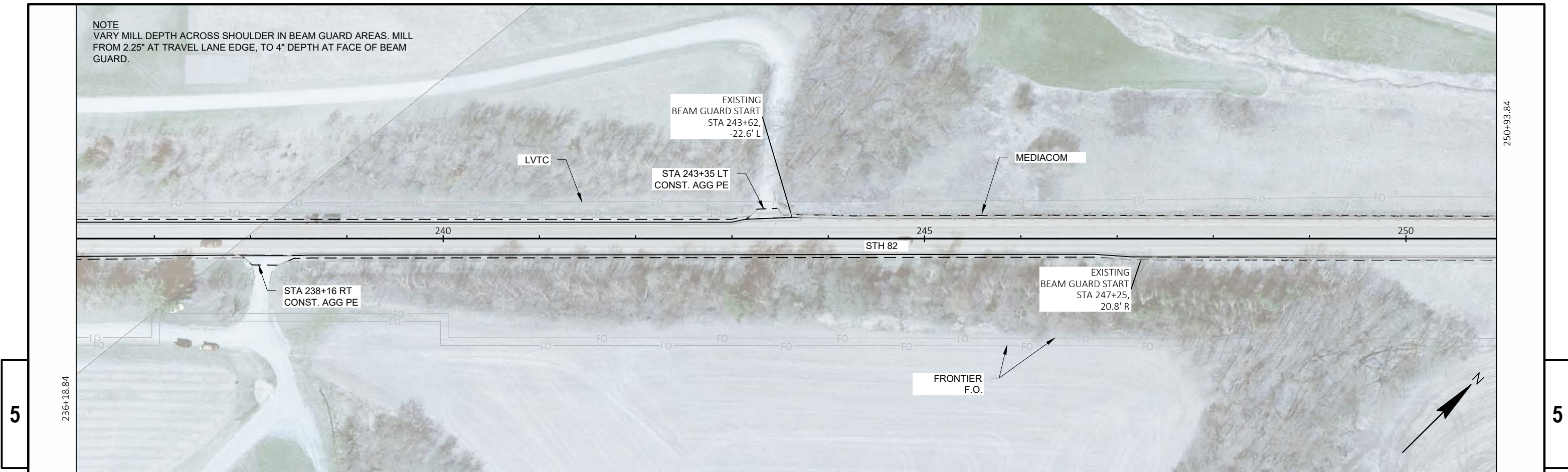
PI STA = 226+45.15
 Y = 150607.329
 X = 431541.805
 DELTA = 21°28'48"
 D = 1°15'09"
 T = 867.76'
 L = 1715.14'
 R = 4575.00'
 PC STA = 217+77.39
 Y = 150178.719
 X = 430787.286
 PT STA = 234+92.53
 Y = 151282.458
 X = 432086.974
 BK = N60°24'03.3"E
 AH = N38°55'15.6"E

221+43.84

236+18.84

PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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NOTE
VARY MILL DEPTH ACROSS SHOULDER IN BEAM GUARD AREAS. MILL
FROM 2.25" AT TRAVEL LANE EDGE, TO 4" DEPTH AT FACE OF BEAM
GUARD.



PROJECT NO: 5010-06-72

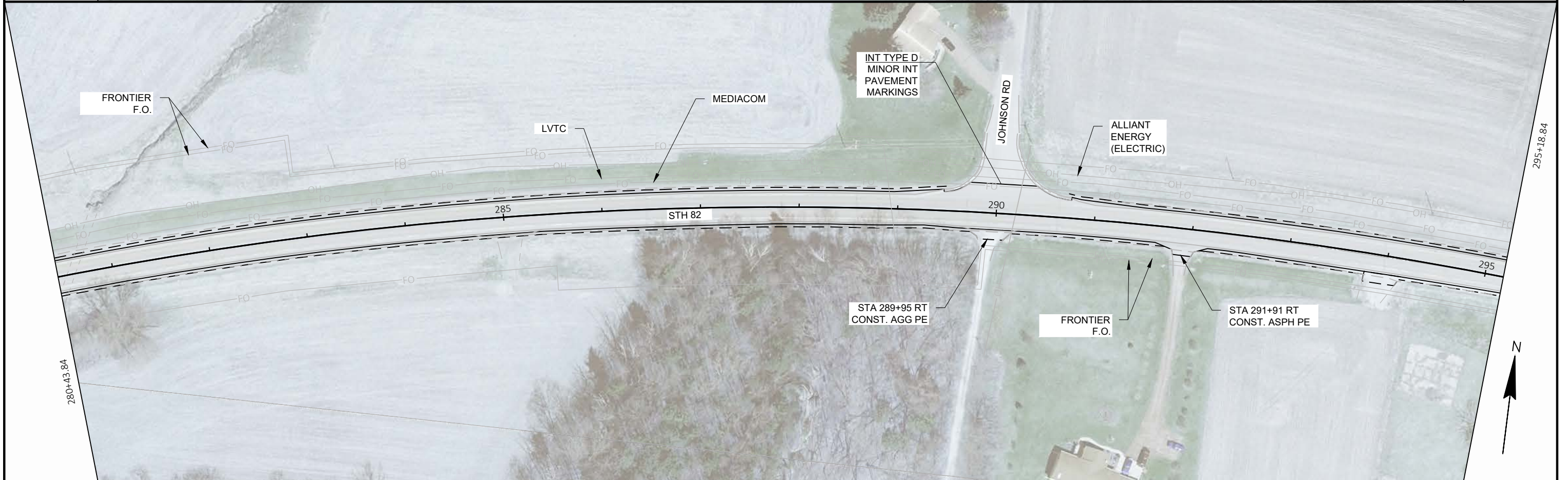
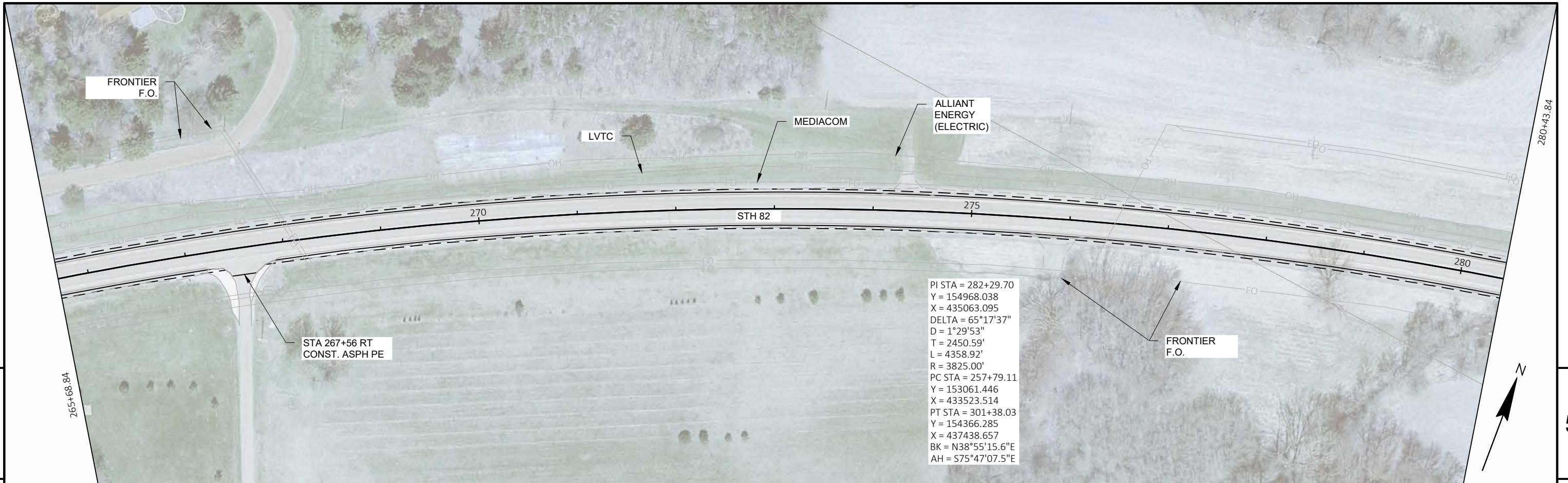
HWY: STH 82

COUNTY: JUNEAU

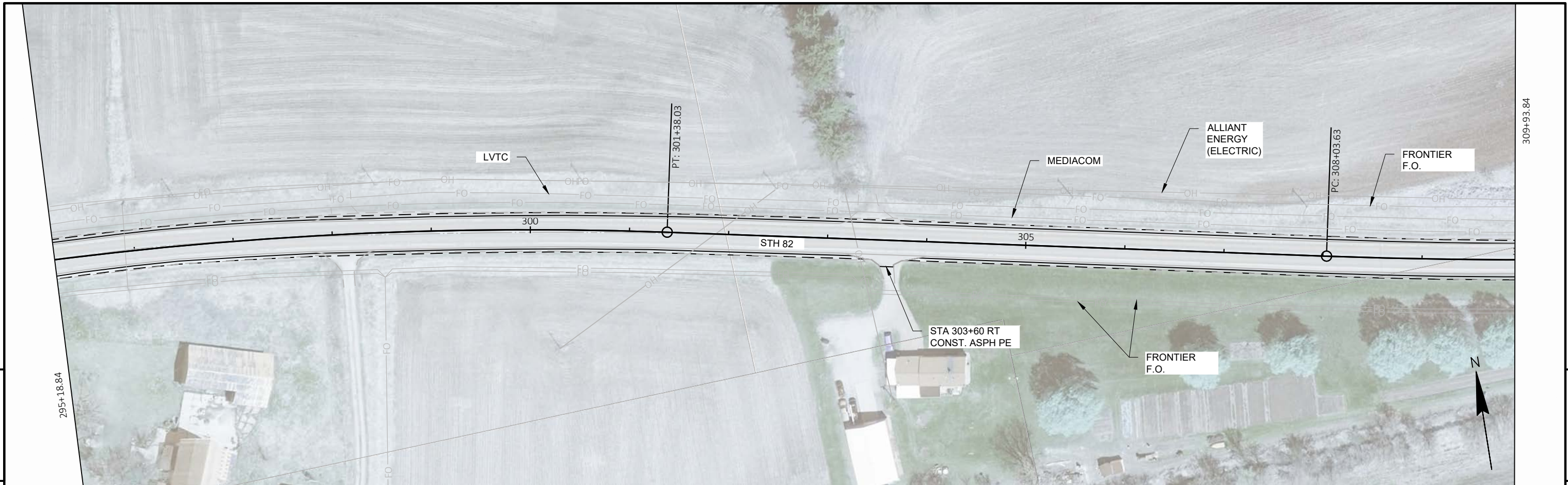
PLAN DETAILS

SHEET

E

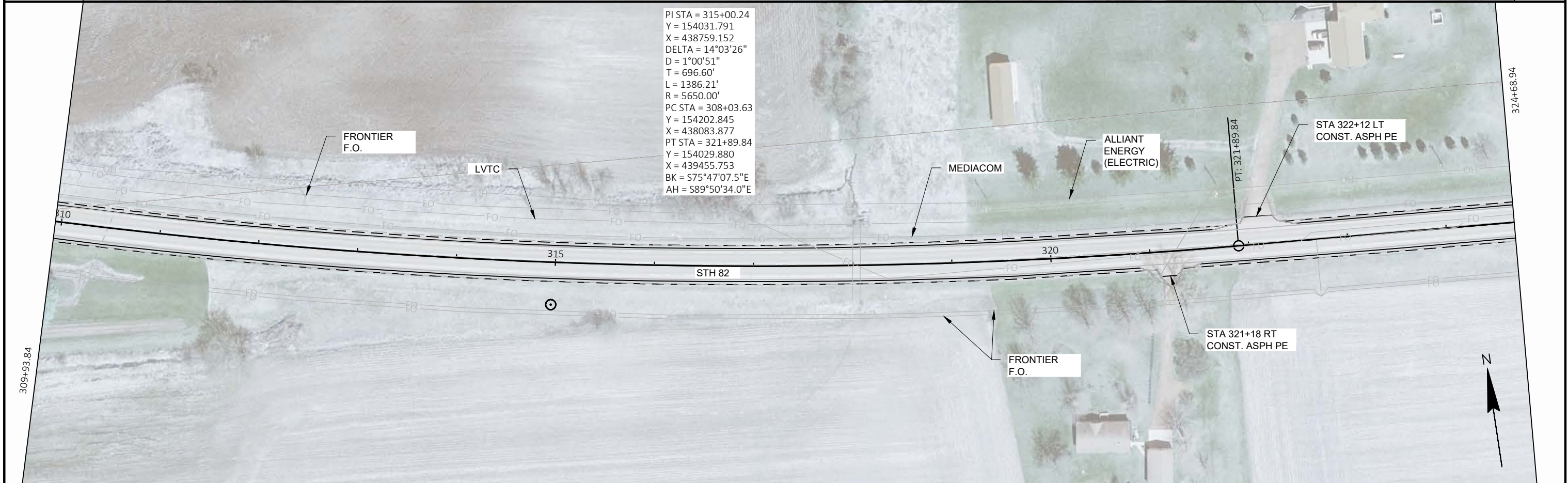


PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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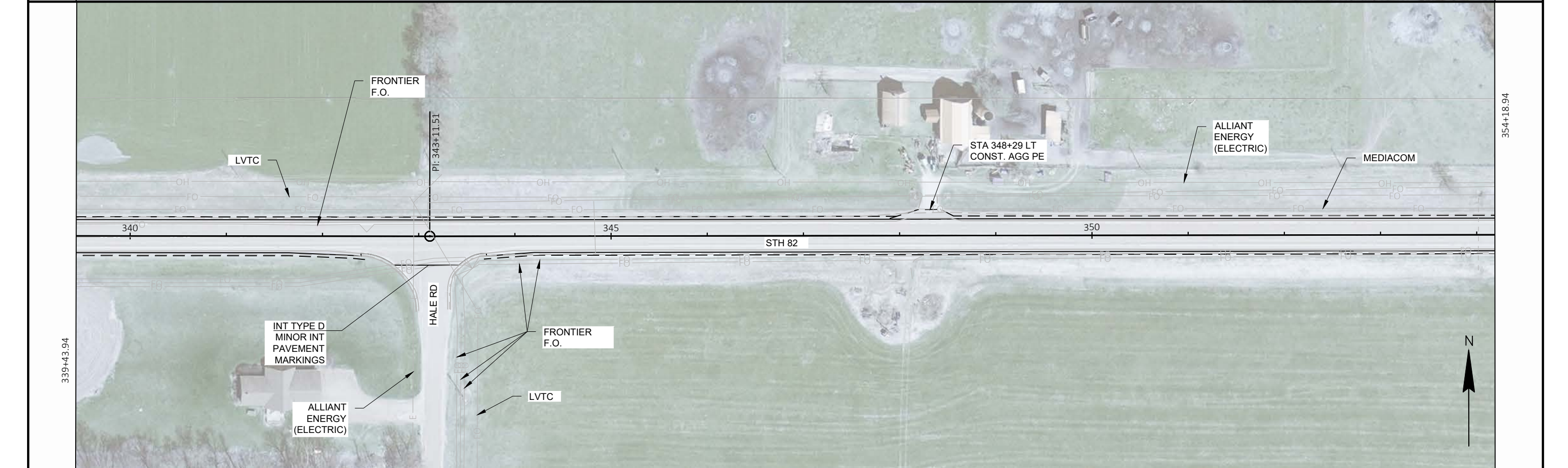
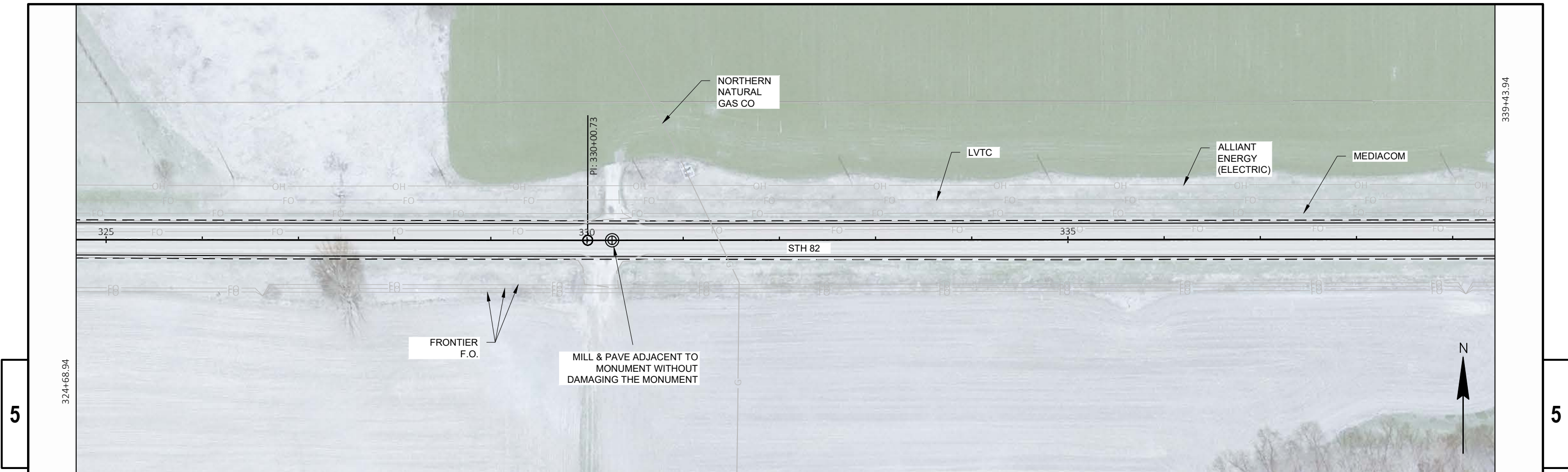


PI STA = 315+00.24
 Y = 154031.791
 X = 438759.152
 DELTA = 14°03'26"
 D = 1°00'51"
 T = 696.60'
 L = 1386.21'
 R = 5650.00'
 PC STA = 308+03.63
 Y = 154202.845
 X = 438083.877
 PT STA = 321+89.84
 Y = 154029.880
 X = 439455.753
 BK = S75°47'07.5"E
 AH = S89°50'34.0"E

309+93.84

324+68.94

PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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PROJECT NO: 5010-06-72

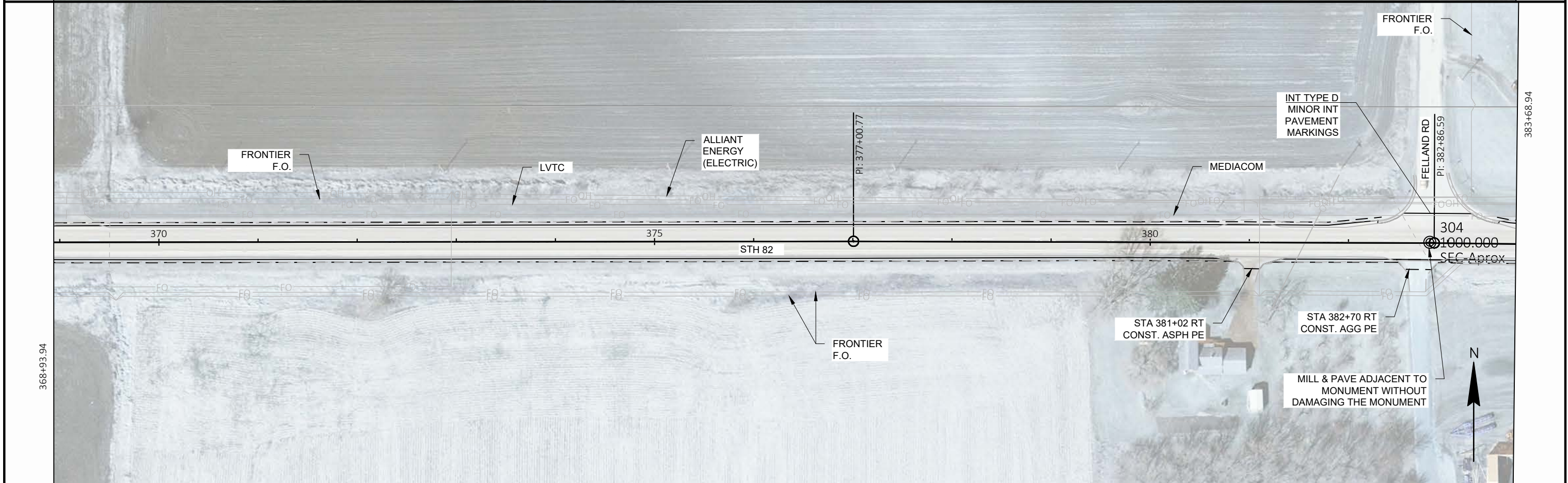
HWY: STH 82

COUNTY: JUNEAU

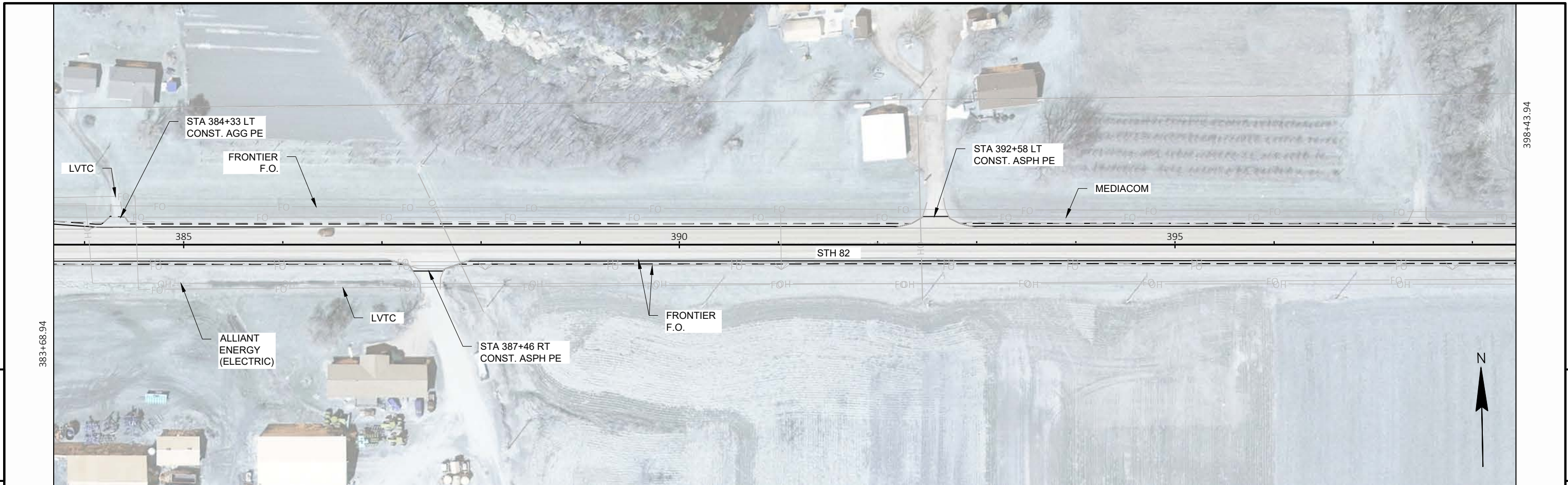
PLAN DETAILS

SHEET

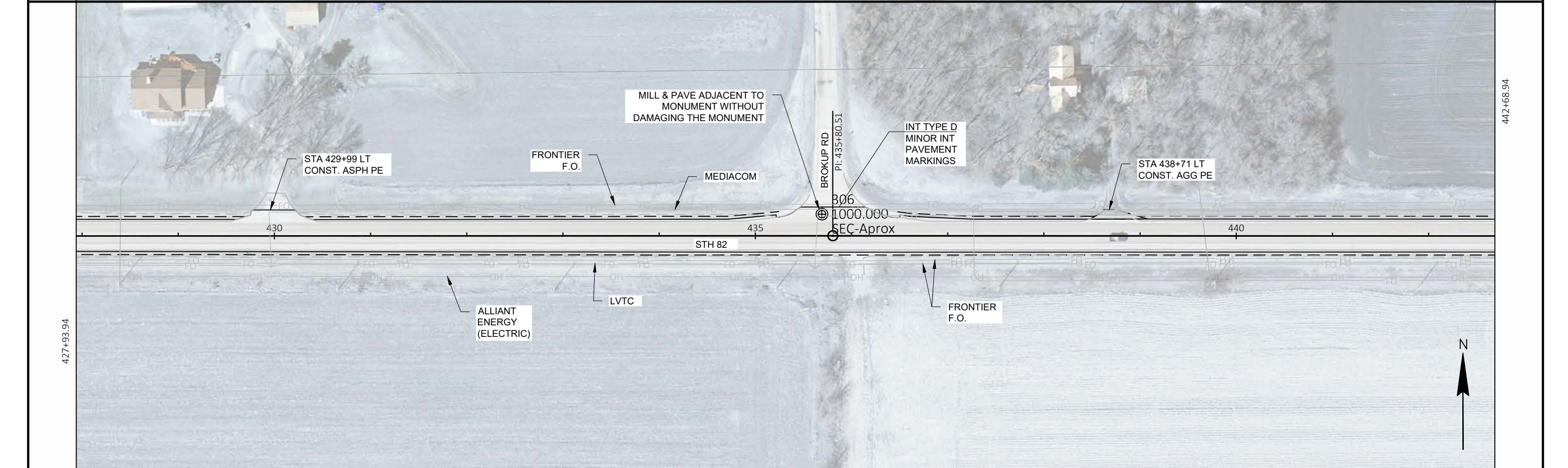
E



PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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PROJECT NO: 5010-06-72

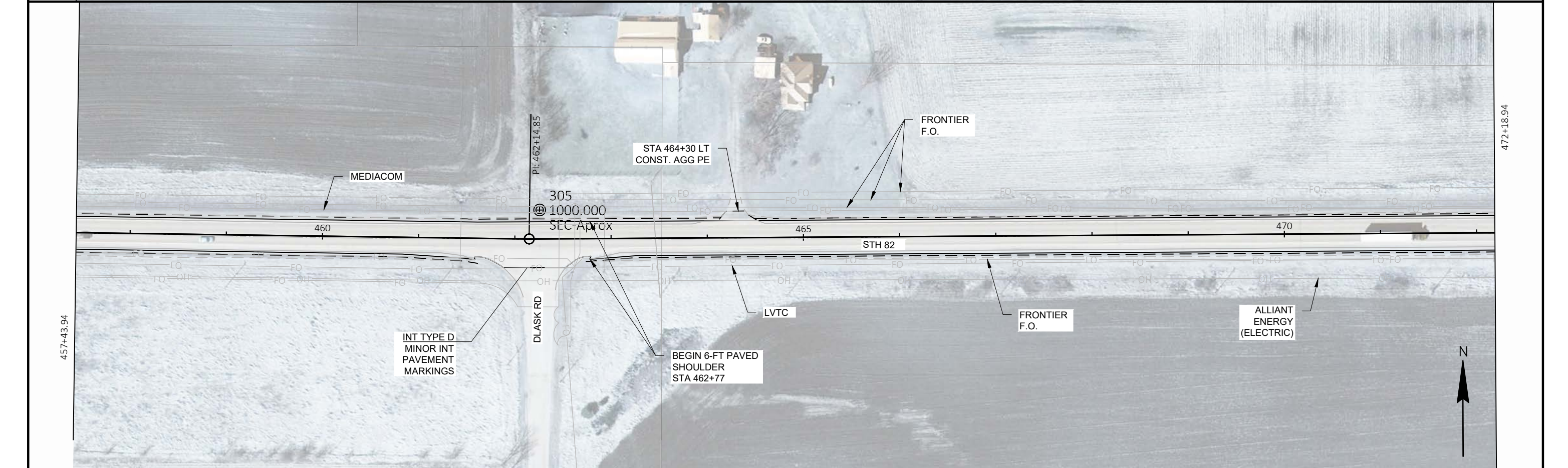
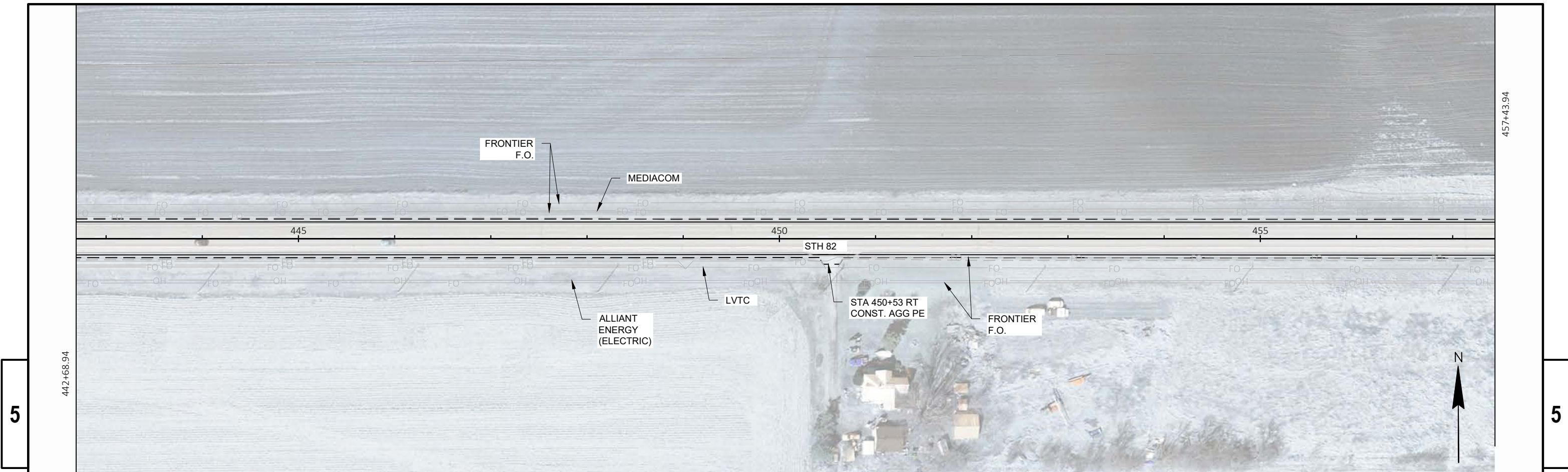
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COUNTY: JUNEAU

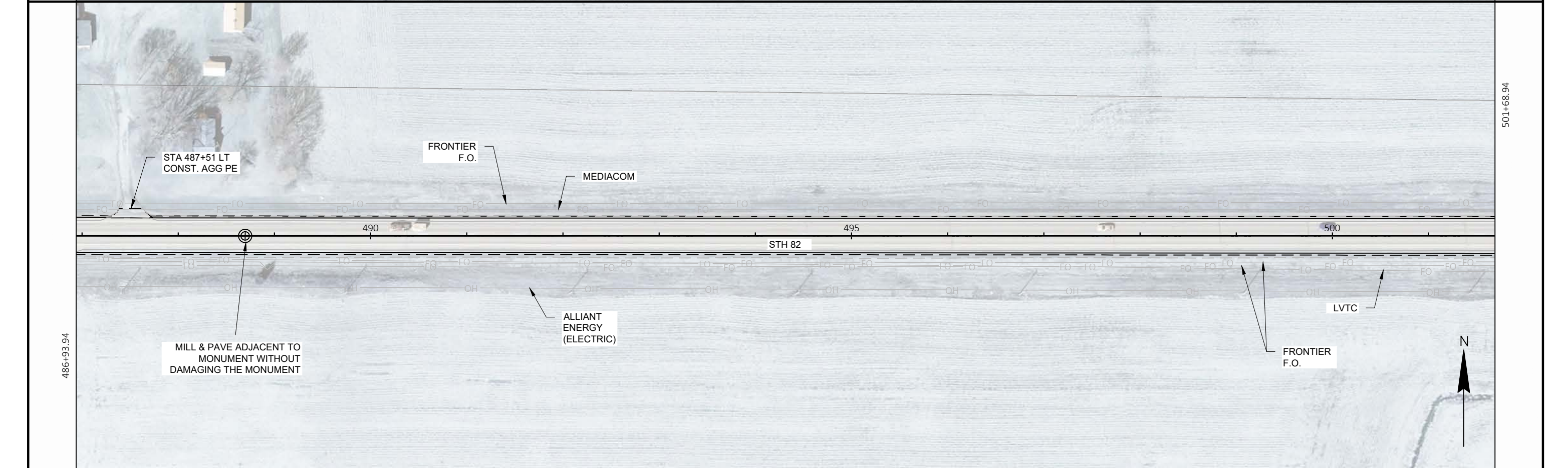
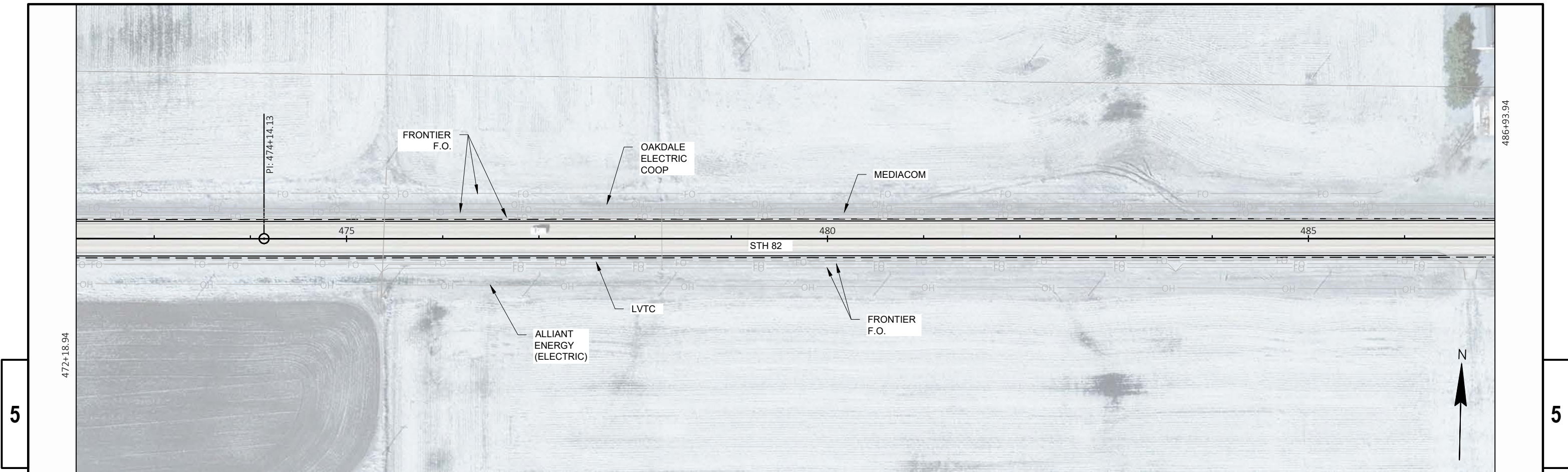
PLAN DETAILS

SHEET

E



PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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PROJECT NO: 5010-06-72

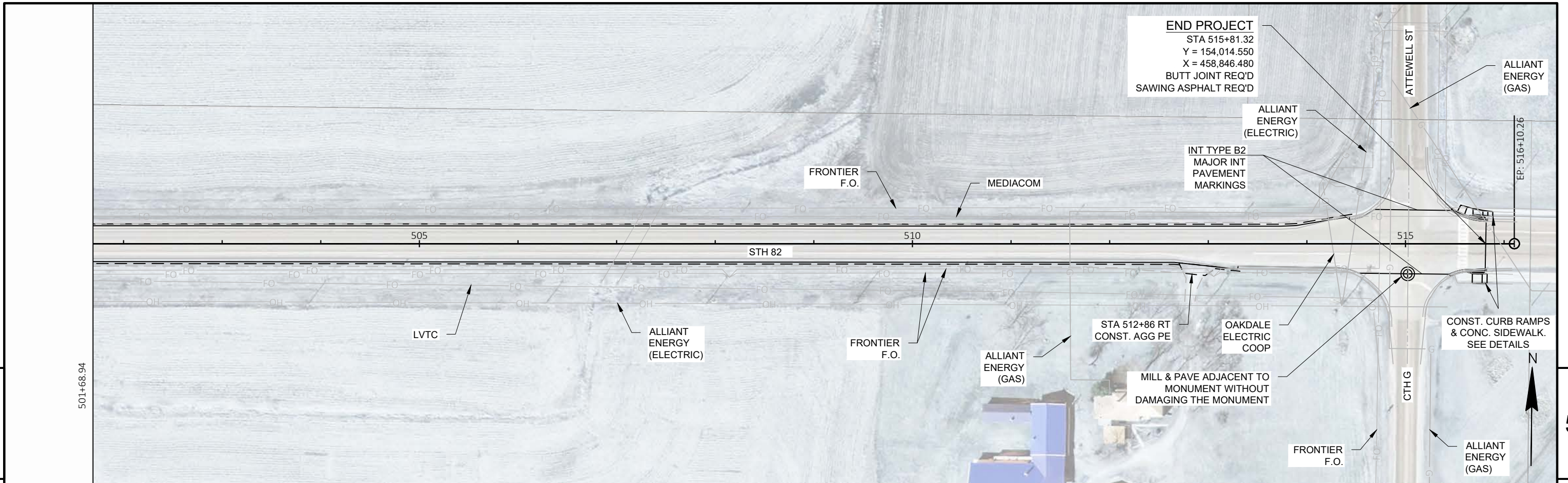
HWY: STH 82

COUNTY: JUNEAU

PLAN DETAILS

SHEET

E



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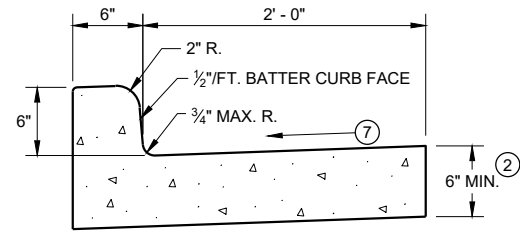
501+68.94

5

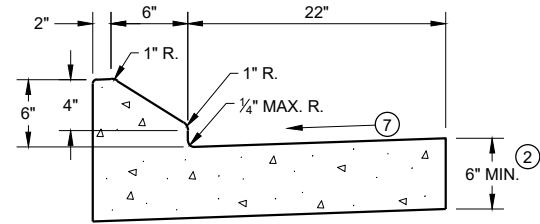
PROJECT NO: 5010-06-72	HWY: STH 82	COUNTY: JUNEAU	PLAN DETAILS	SHEET	E
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Standard Detail Drawing List

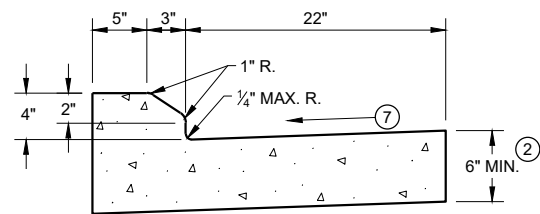
08D01-22A	CONCRETE CURB & GUTTER
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
12A03-10	NAME PLATE (STRUCTURES)
13A08-01	ASPHALTIC RUMBLE STRIPS AT INTERSECTION
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES



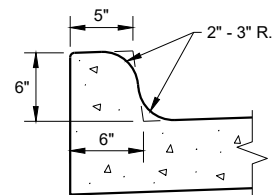
TYPES A^① & D



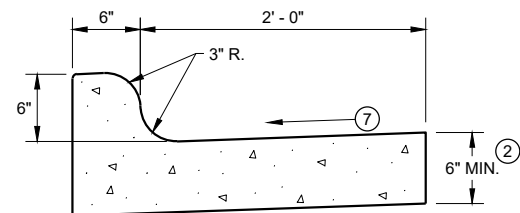
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

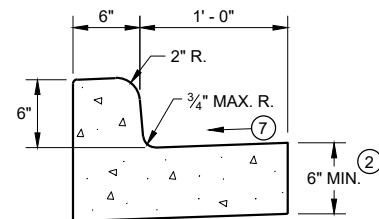


TYPES K^① & L
(OPTIONAL CURB SHAPE)



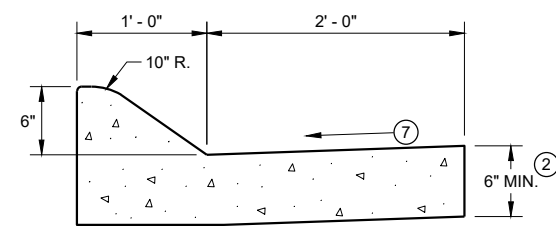
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

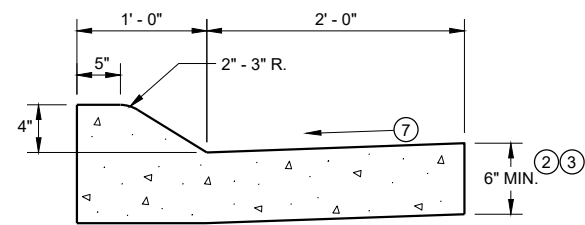


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

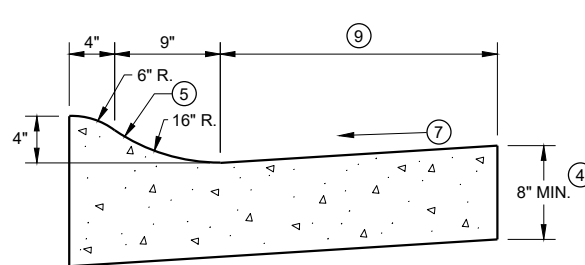


6" SLOPED CURB TYPES A^① & D



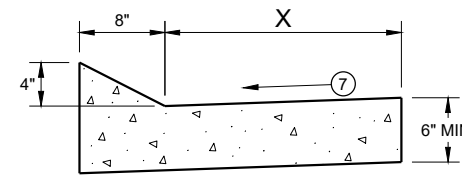
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

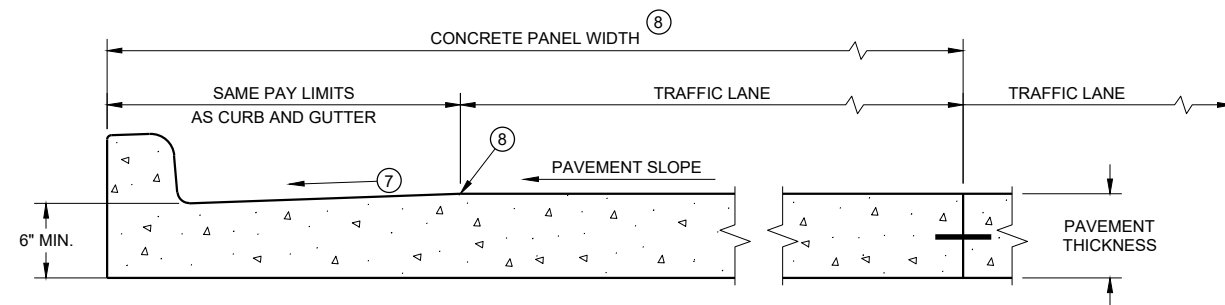


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

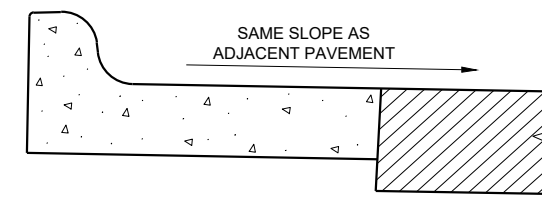
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

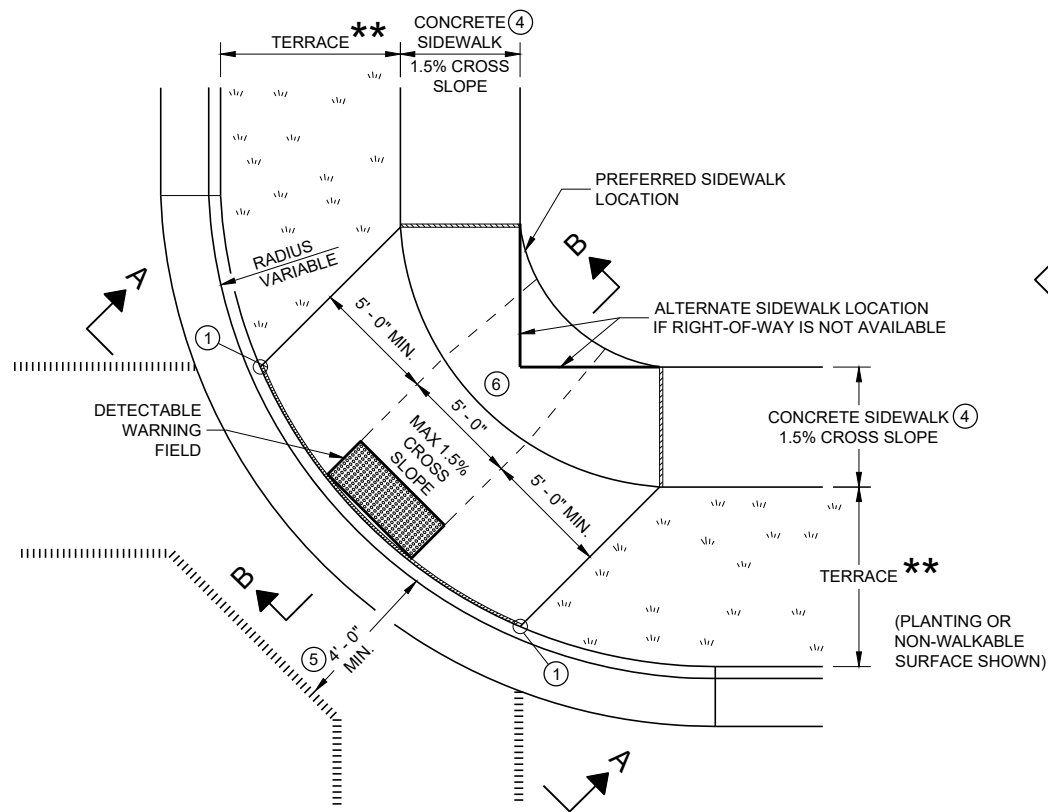
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

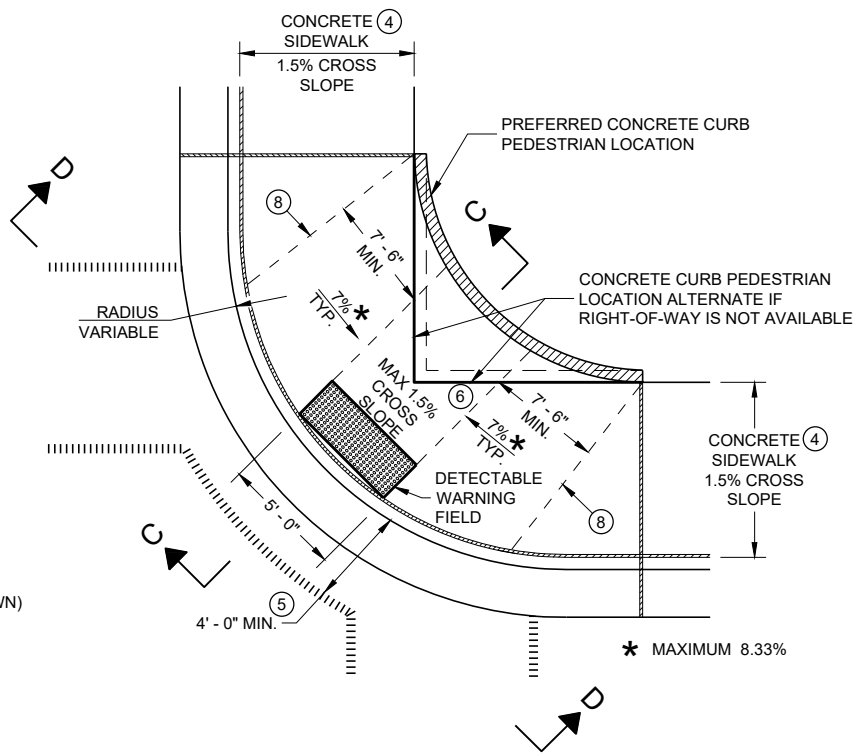
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

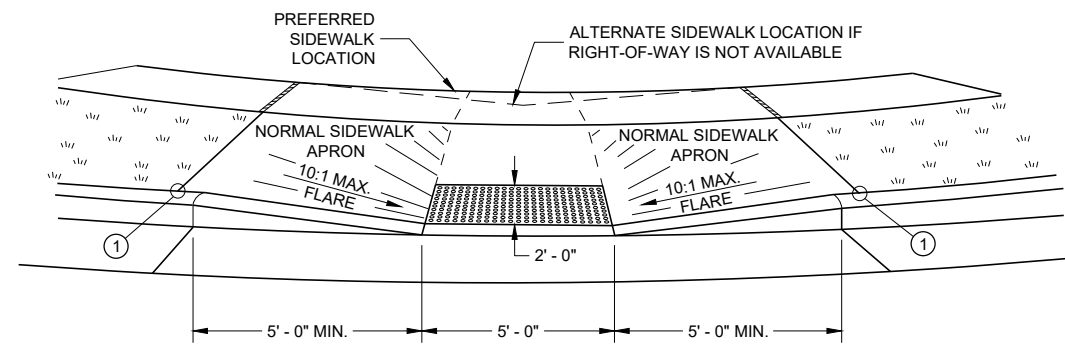
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH 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



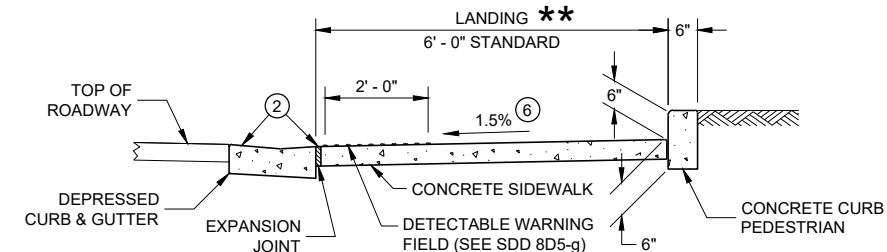
**PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)**



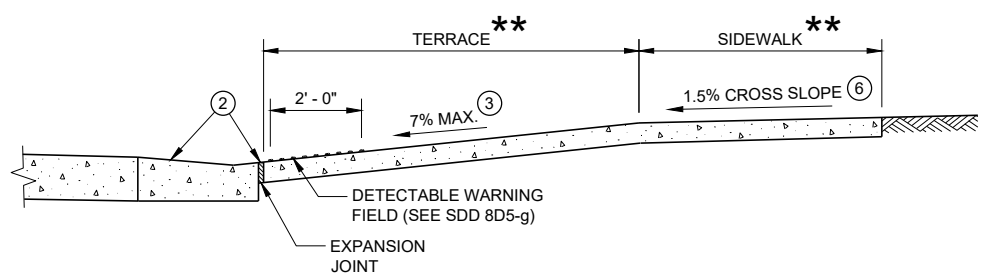
**PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)**



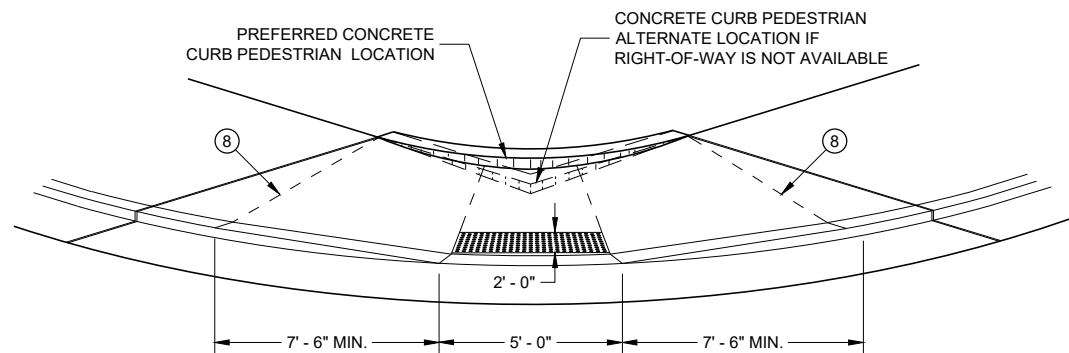
VIEW A - A FOR TYPE 1



SECTION C - C FOR TYPE 1 - A



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

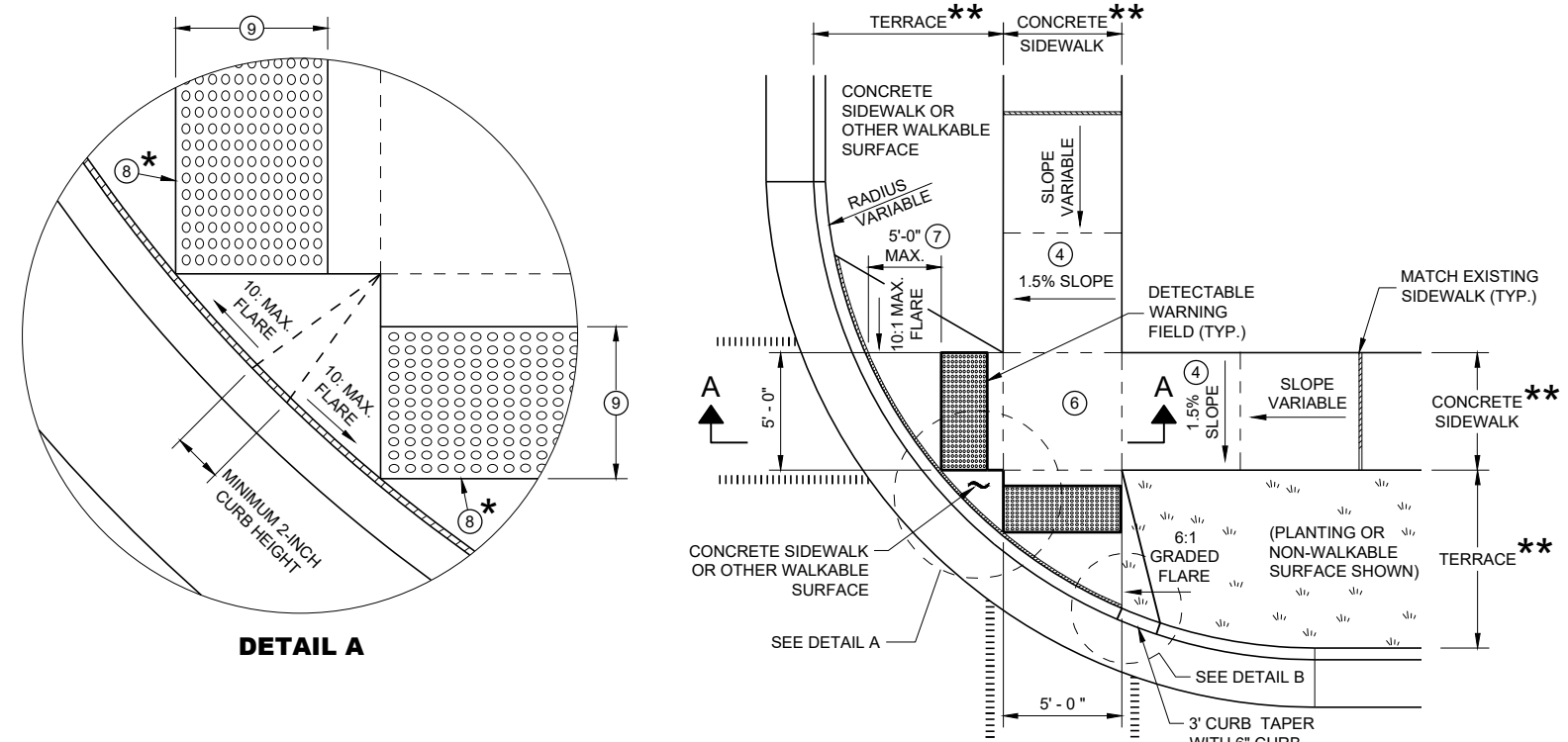
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.
- DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.
- SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

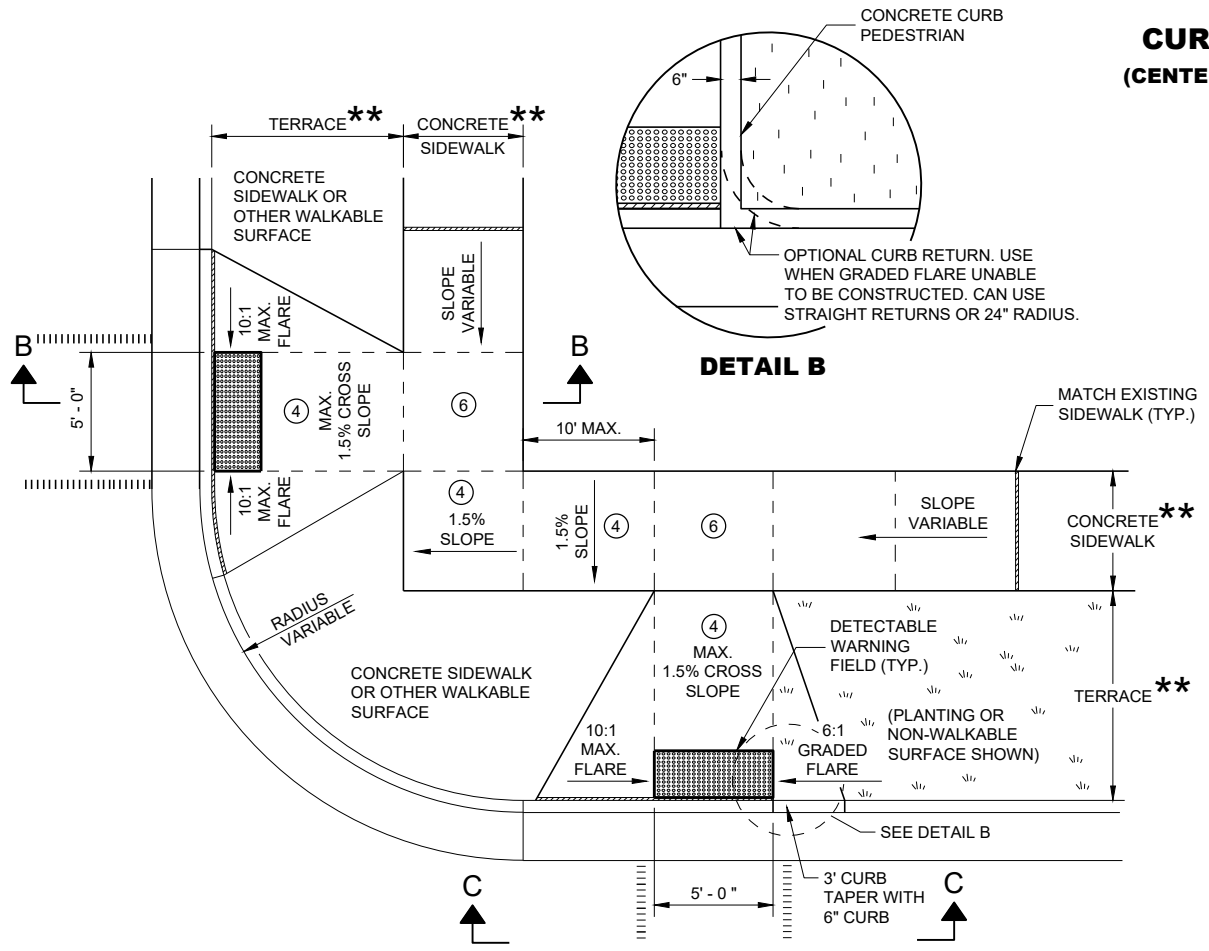
- 1/2" EXPANSION JOINT SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)

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

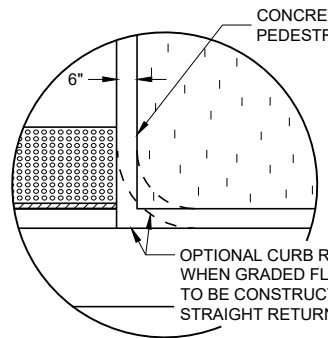
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PLAN VIEW CURB RAMP TYPE 2 (CENTER OF CORNER RADIUS)



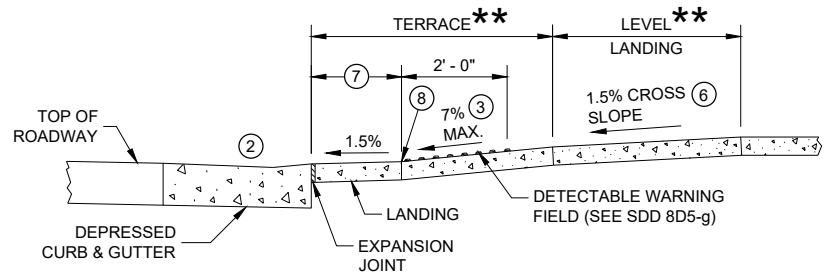
PLAN VIEW CURB RAMP TYPE 3 (OUTSIDE OF CROSSWALK AREA)



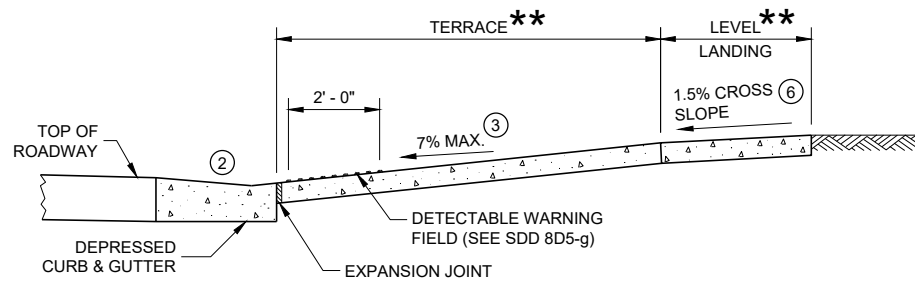
DETAIL B

GENERAL NOTES

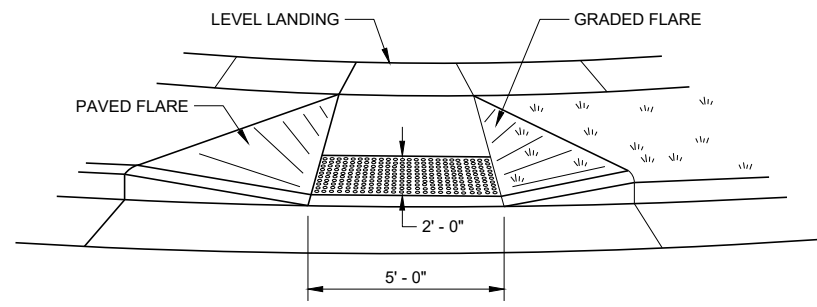
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

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

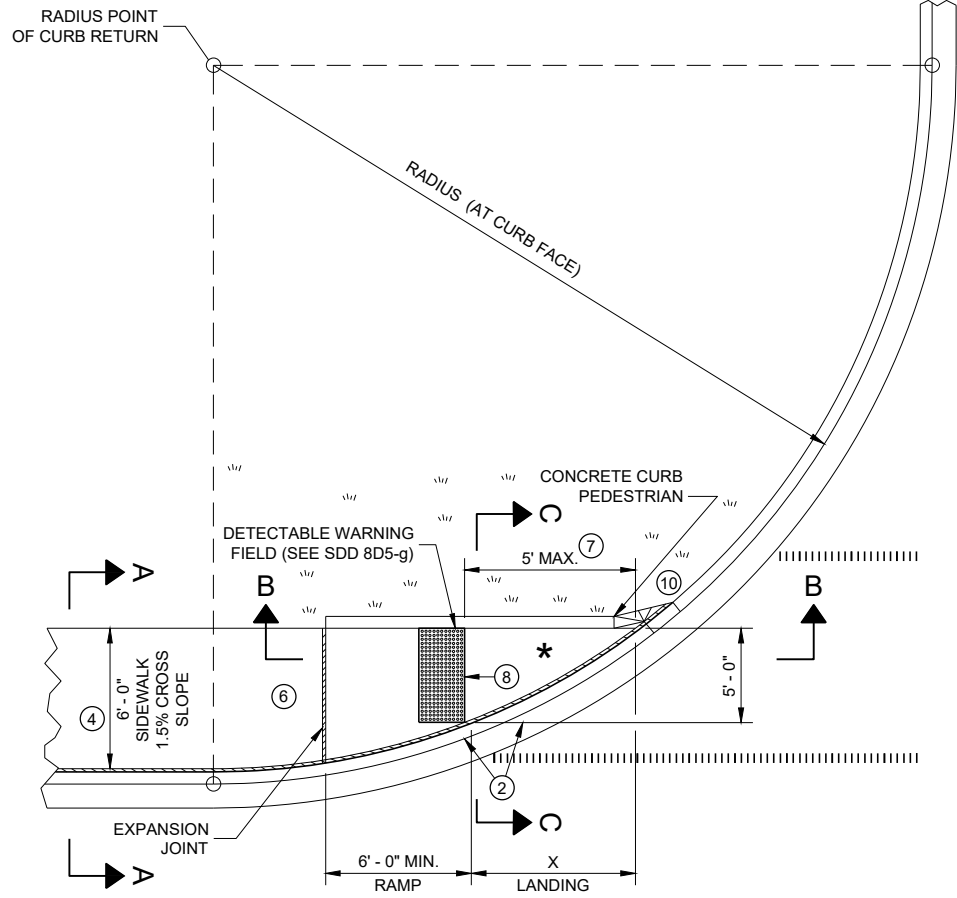
** WIDTH SHOWN ELSEWHERE IN THE PLANS

LEGEND

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

CURB RAMPS TYPE 2 AND 3

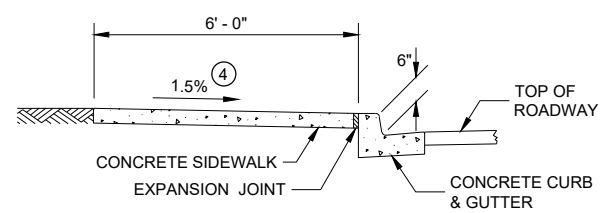
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**PLAN VIEW
CURB RAMP TYPE 4A**

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

INTERMEDIATE RADII CAN BE INTERPOLATED



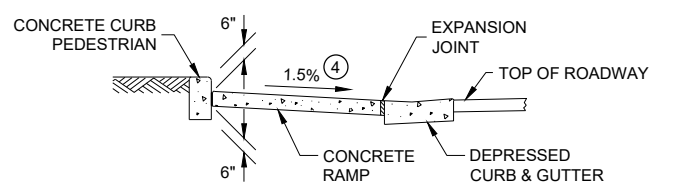
SECTION A - A FOR TYPE 4A

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

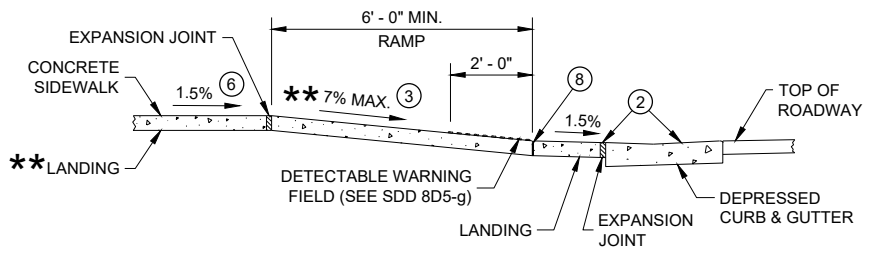
LEGEND

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



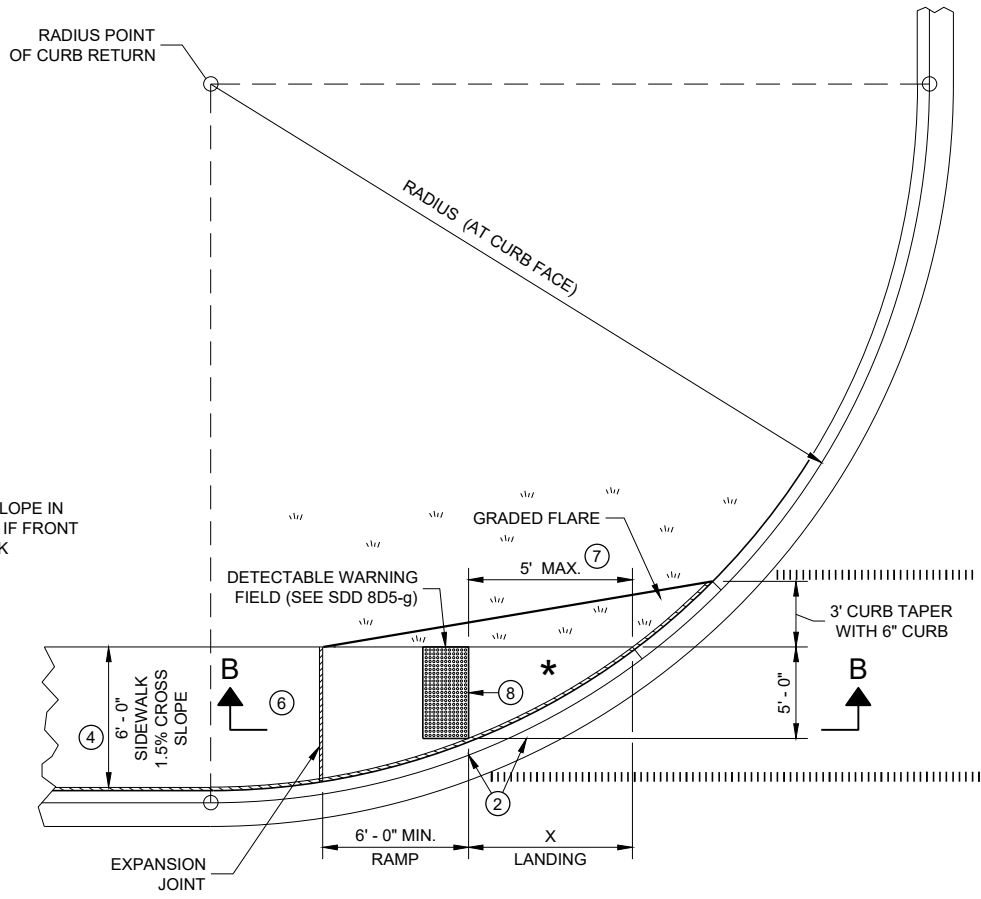
SECTION C - C FOR TYPE 4A

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

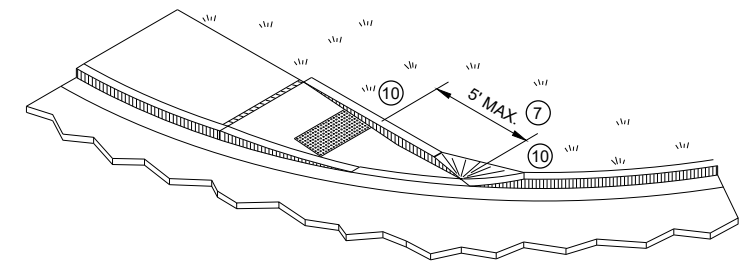


**SECTION B - B FOR
TYPE 4A AND TYPE 4A1**

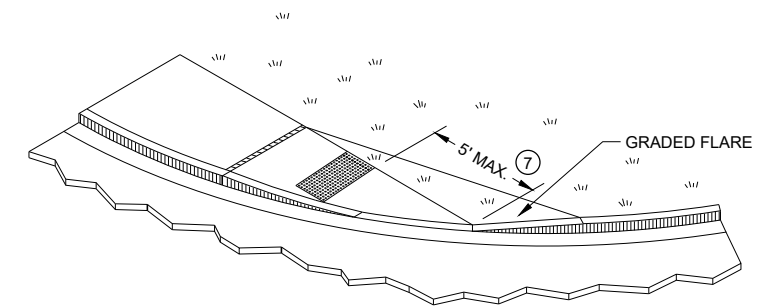
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



**PLAN VIEW
CURB RAMP TYPE 4A1**



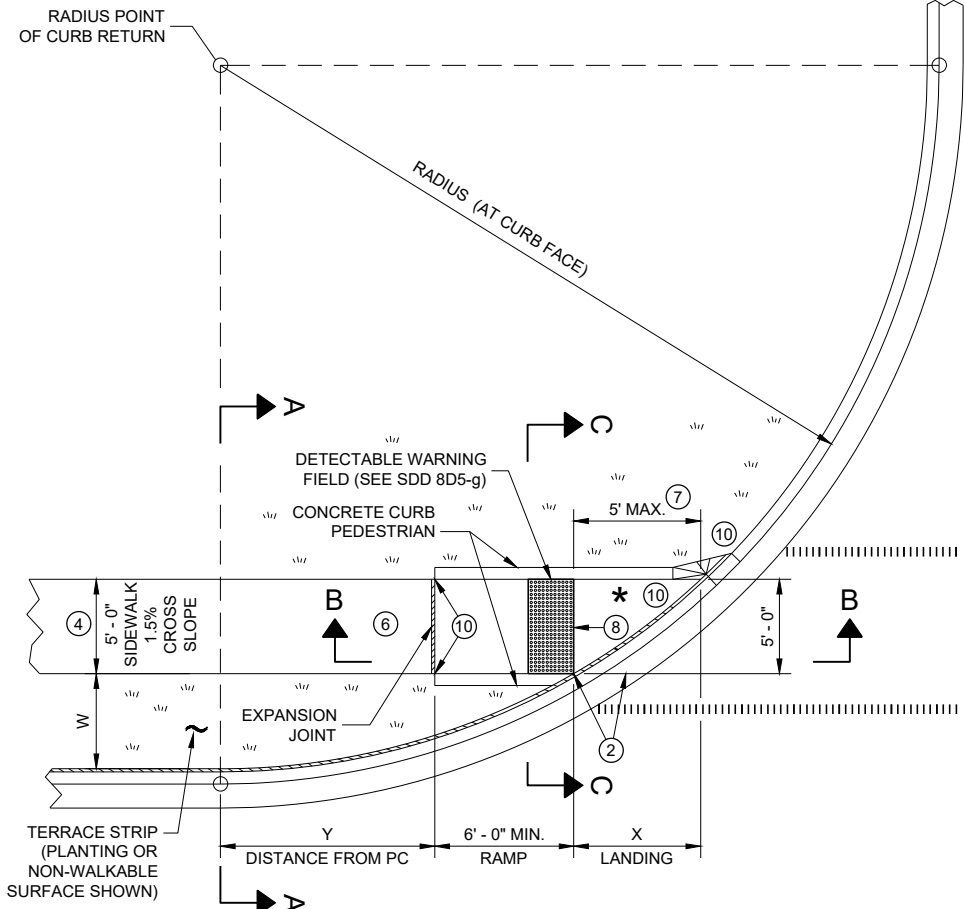
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

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

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PLAN VIEW CURB RAMP TYPE 4B

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

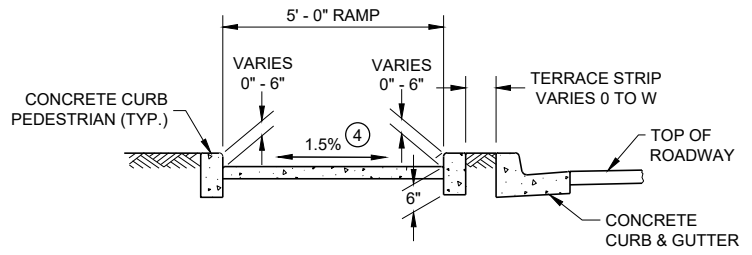
INTERMEDIATE RADII CAN BE INTERPOLATED
 DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
 DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

LEGEND

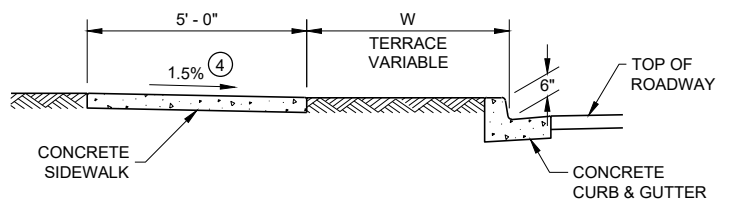
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

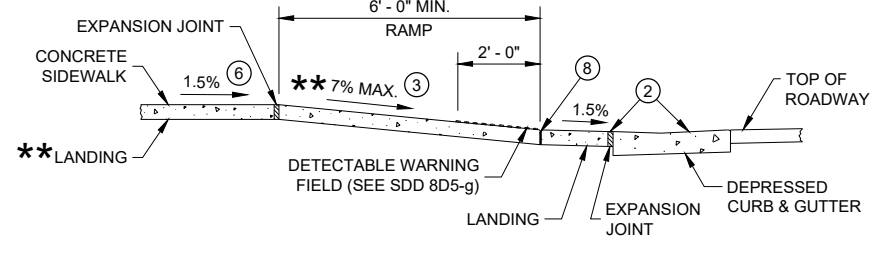


SECTION C - C FOR TYPE 4B



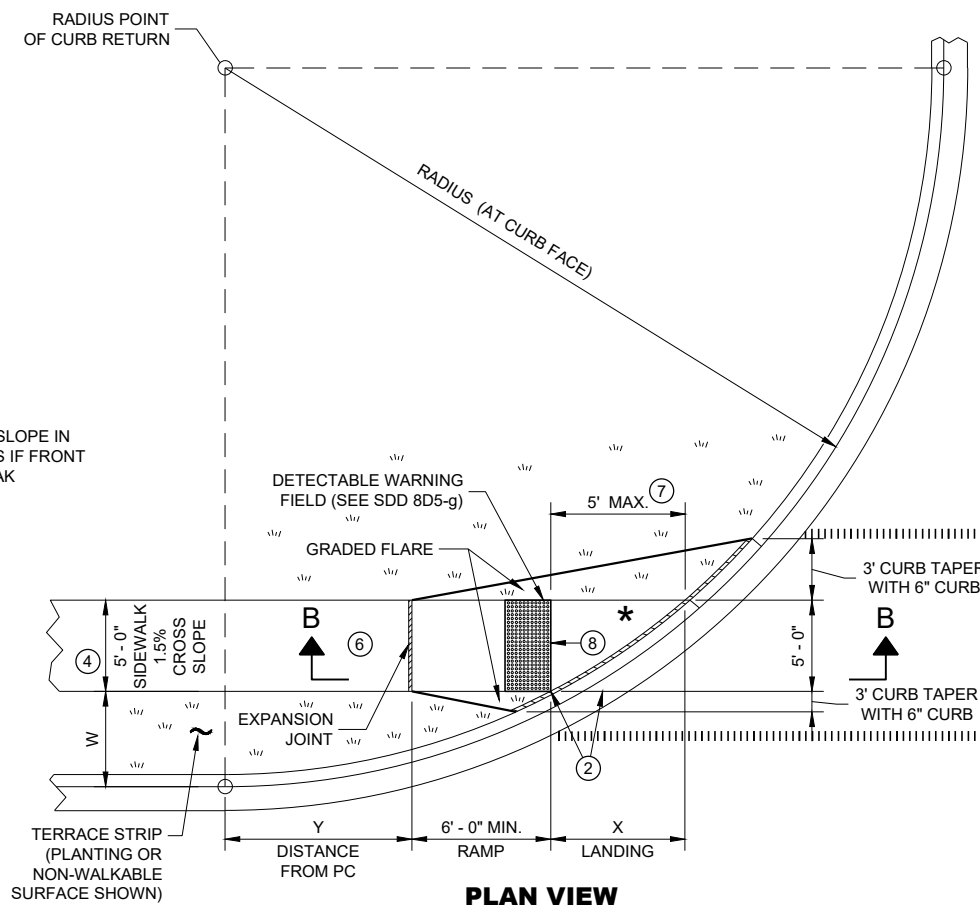
SECTION A - A FOR TYPE 4B

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

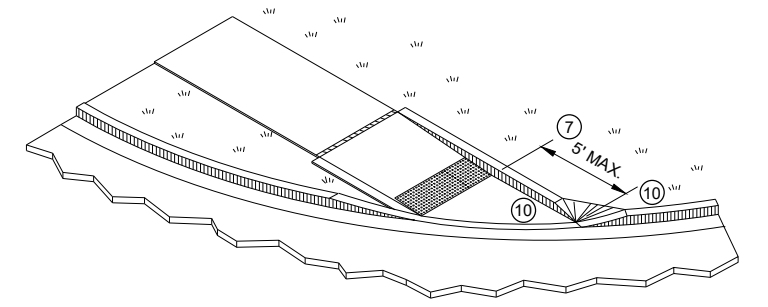


SECTION B - B FOR TYPE 4B AND TYPE 4B1

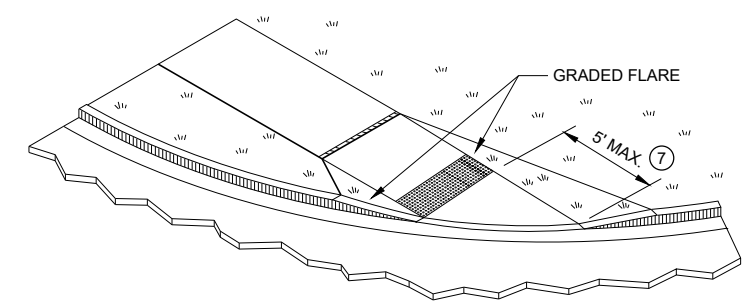
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



PLAN VIEW CURB RAMP TYPE 4B1



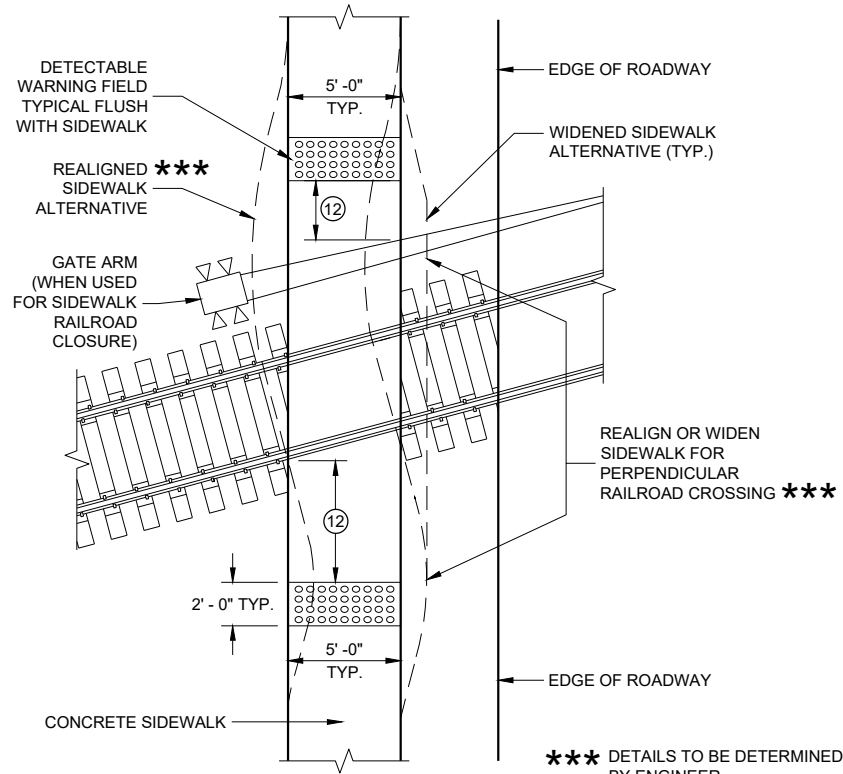
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

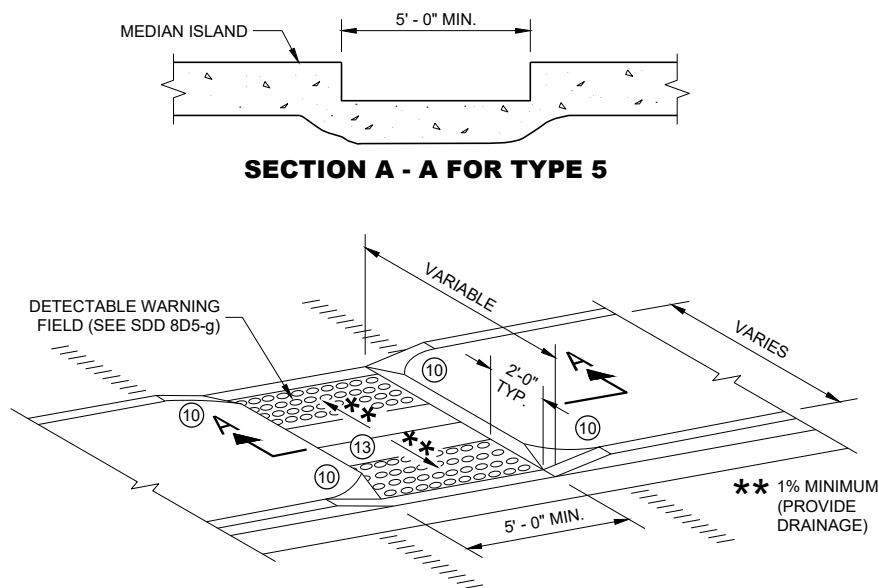
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CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY ENGINEER



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

**MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING**

GENERAL NOTES

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

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

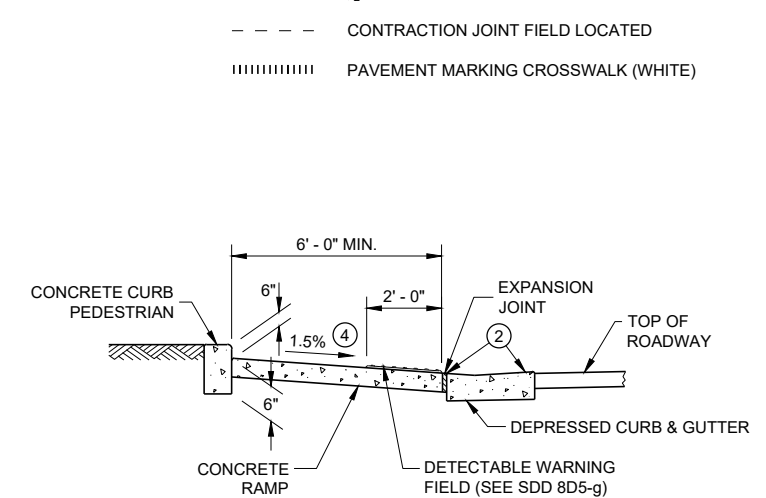
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

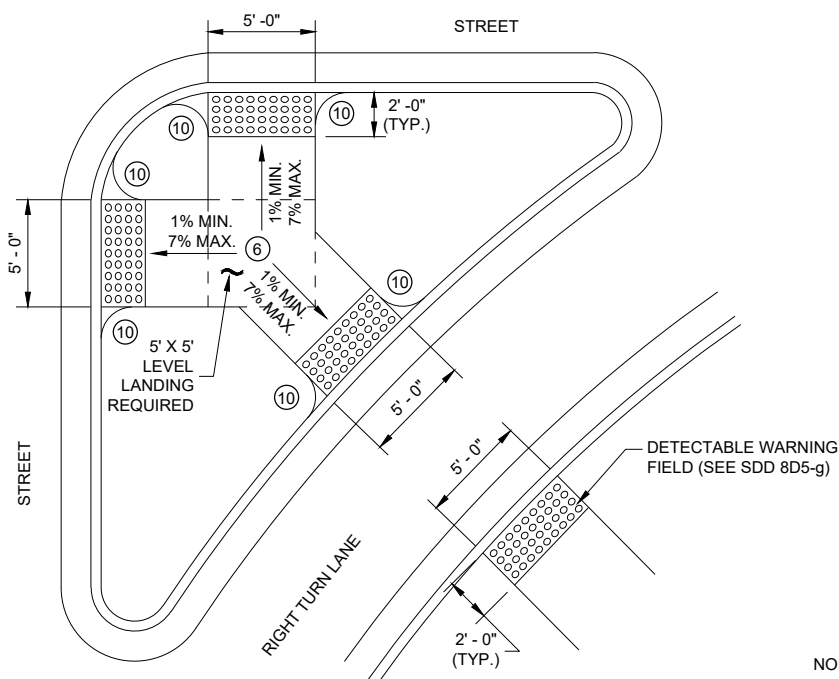
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

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



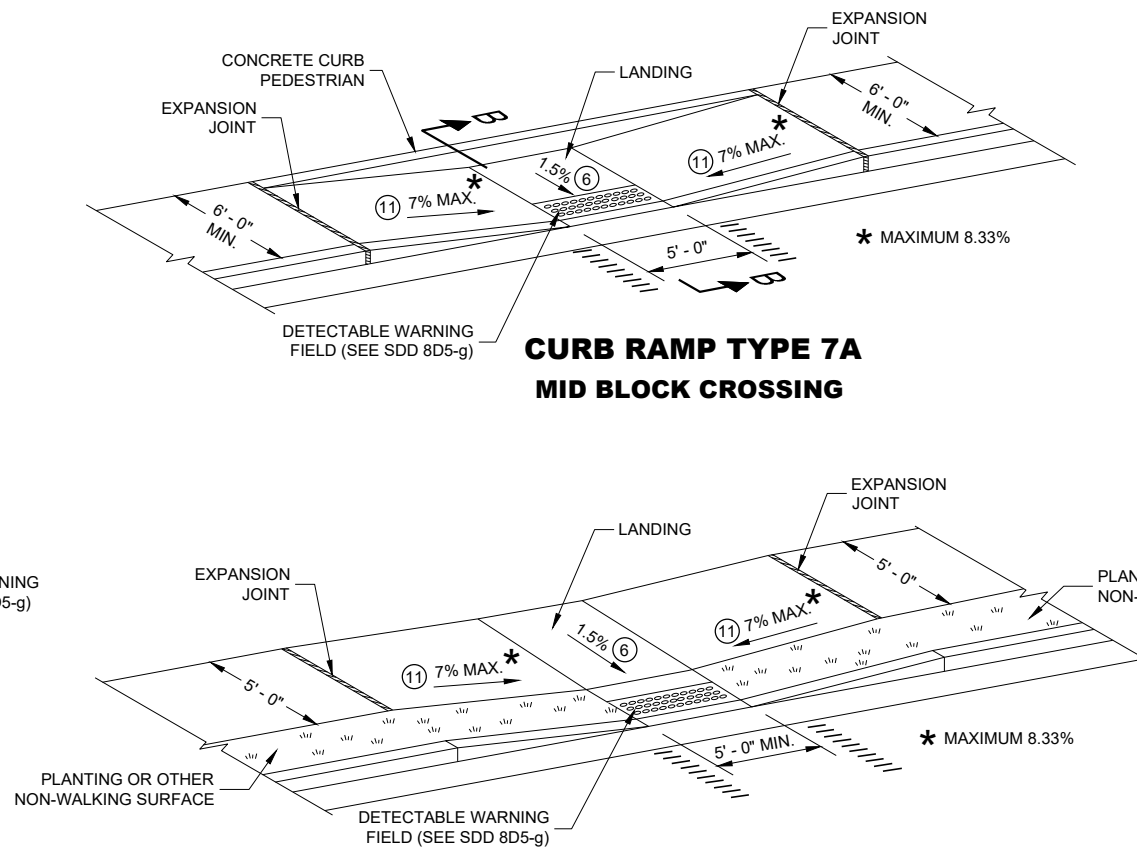
SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

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



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

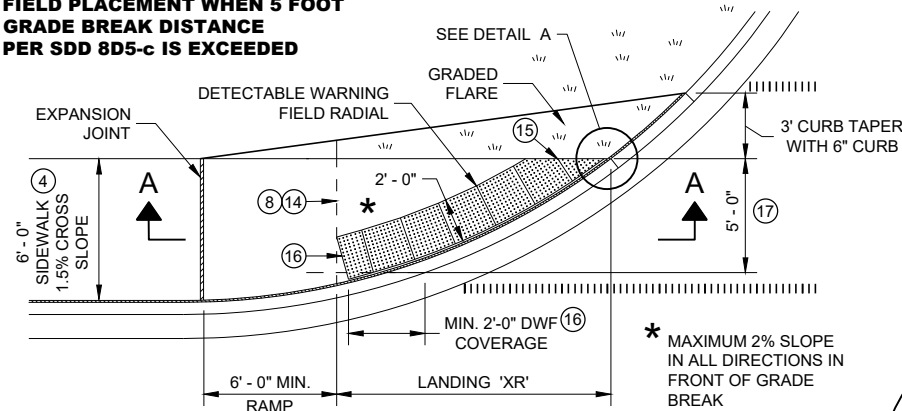
**CURB RAMP TYPE 7B
MID BLOCK CROSSING**

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

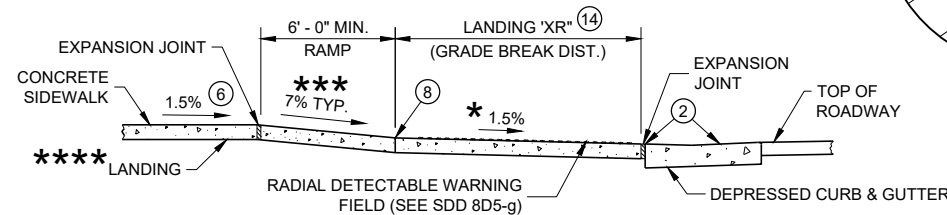
**CURB RAMPS
TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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

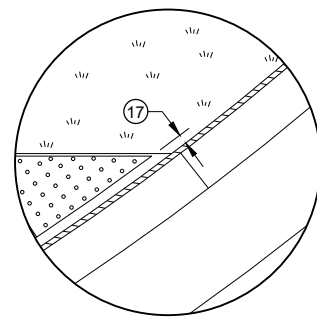


SECTION A - A FOR TYPE 4A1

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

*** MAXIMUM 8.33%

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

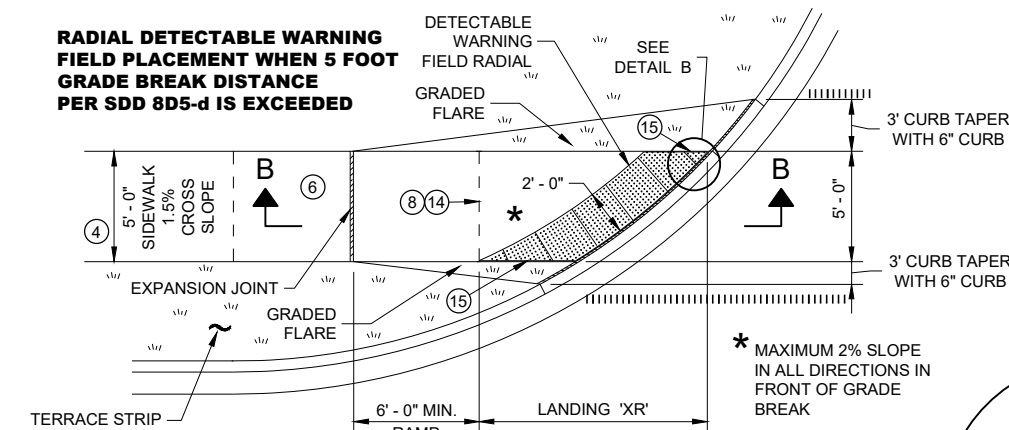


DETAIL A

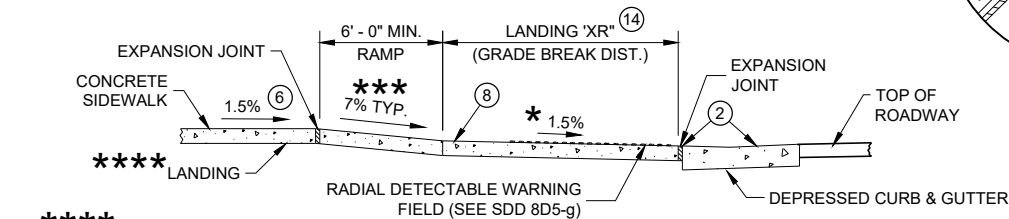
GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16 USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17 A MAXIMUM 3 INCH CONCRETE BORDER WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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



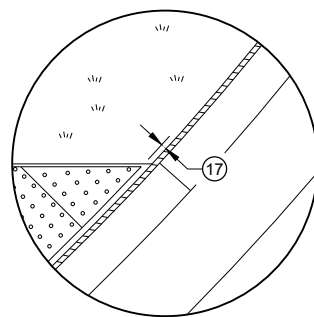
PLAN VIEW CURB RAMP TYPE 4B1 (GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION B - B FOR TYPE 4B1

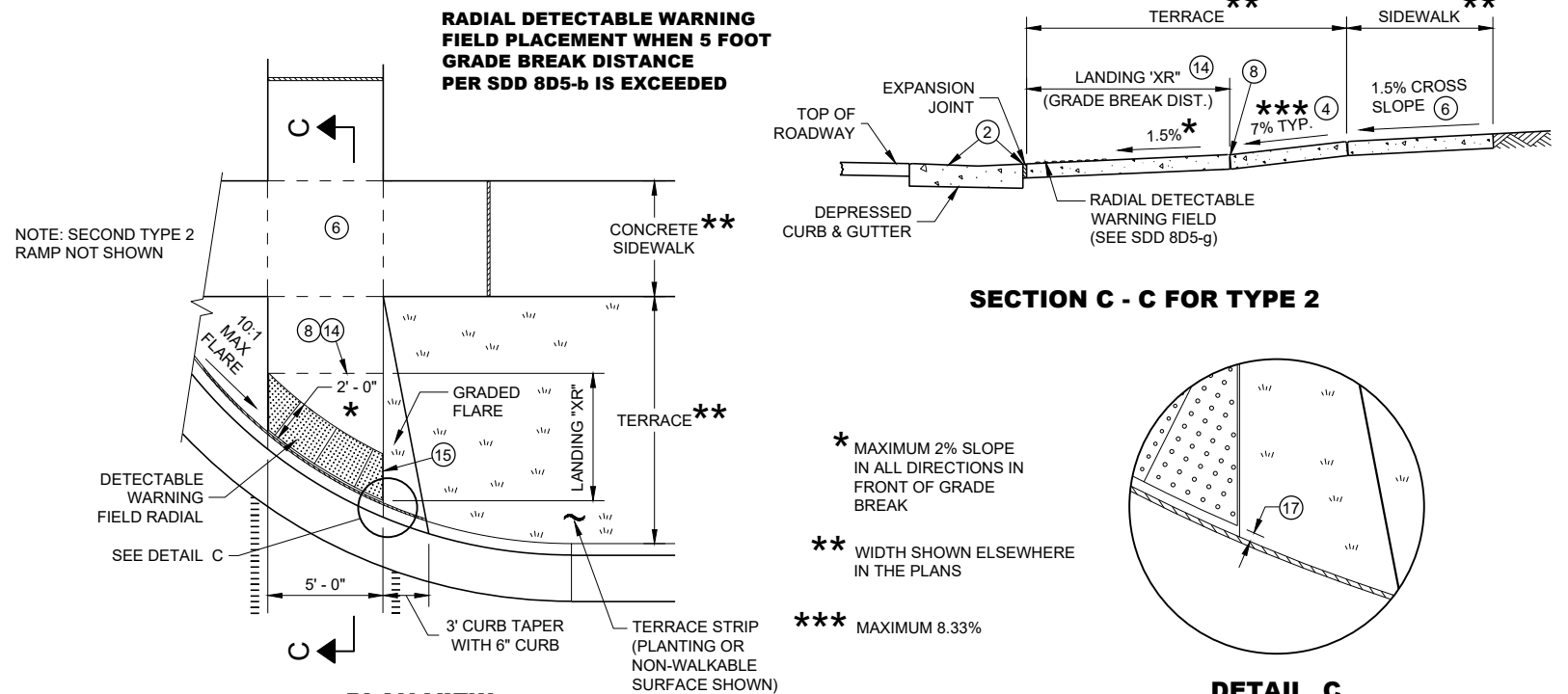
**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%



DETAIL B

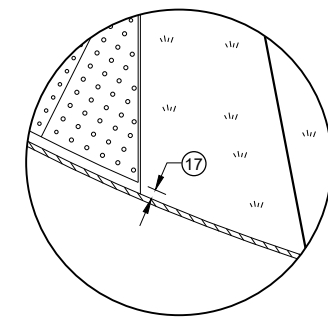
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED



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

NOTE: SECOND TYPE 2 RAMP NOT SHOWN

- * MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- *** MAXIMUM 8.33%



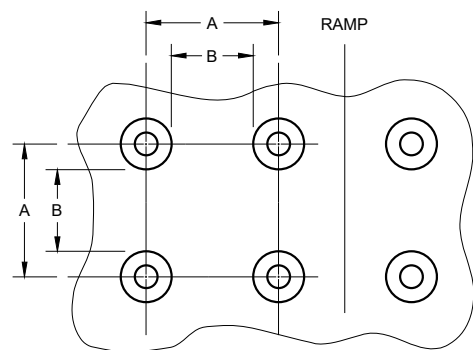
DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

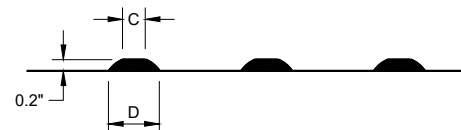
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

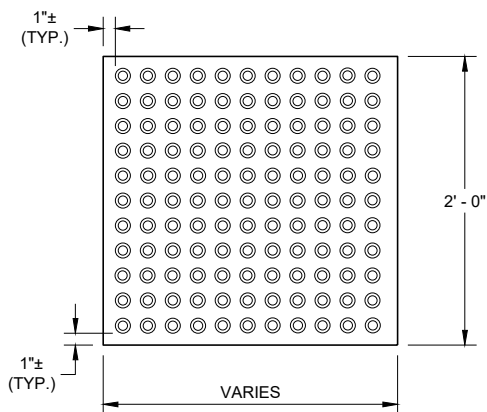


PLAN VIEW

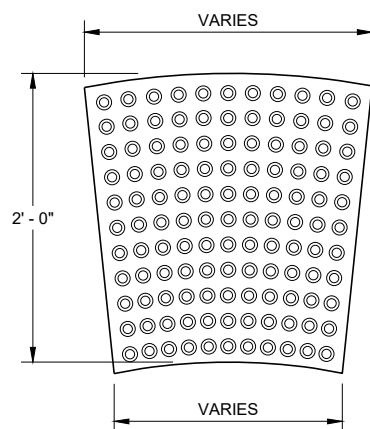


ELEVATION VIEW

**TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL**

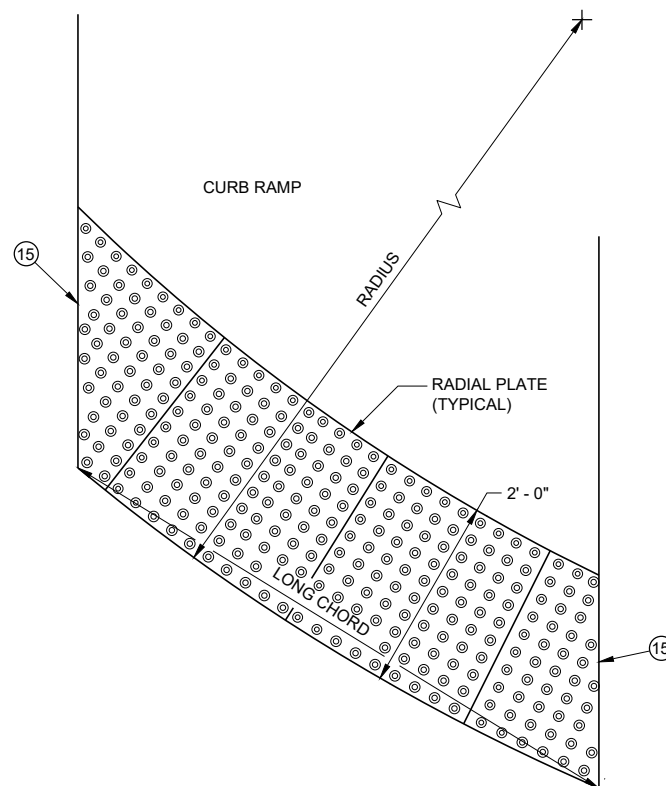


RECTANGULAR
PLATES

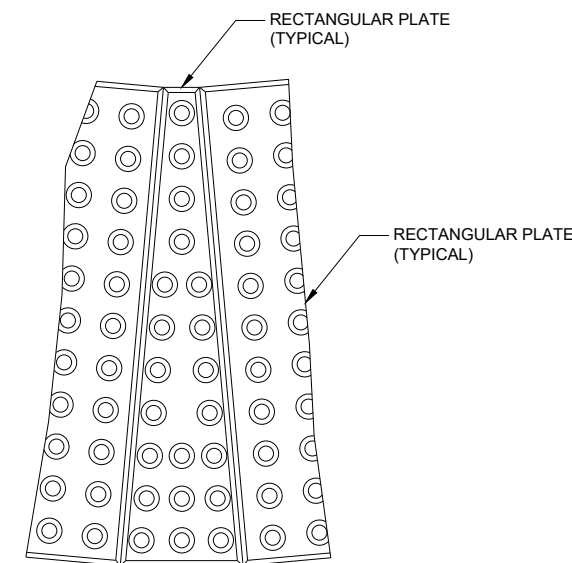


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

GENERAL NOTES

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

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

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

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

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

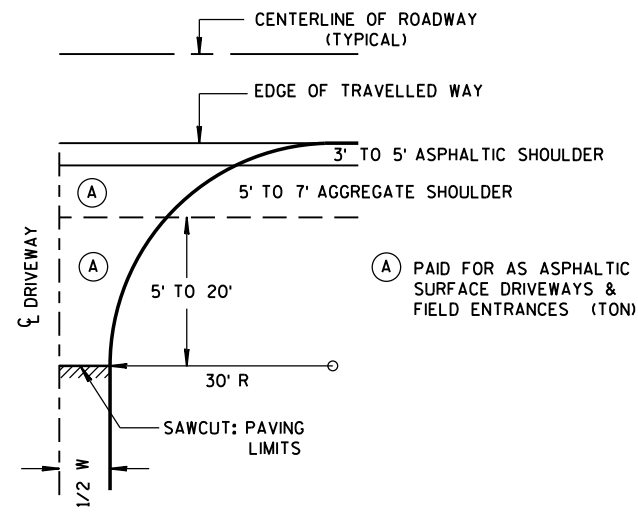
DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

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

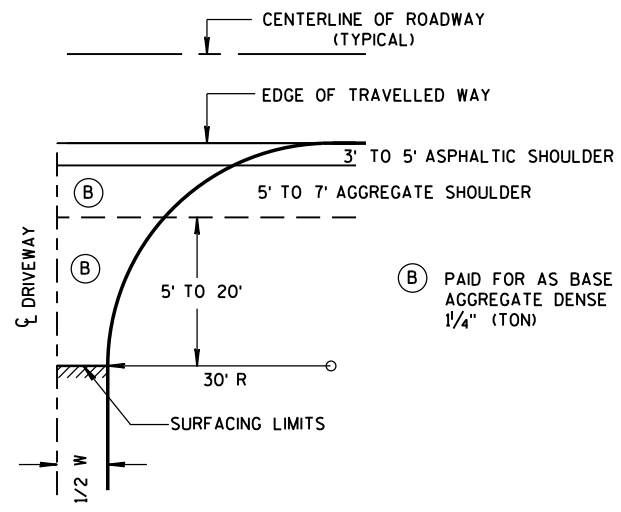
CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
<small>FHWA</small>	

GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

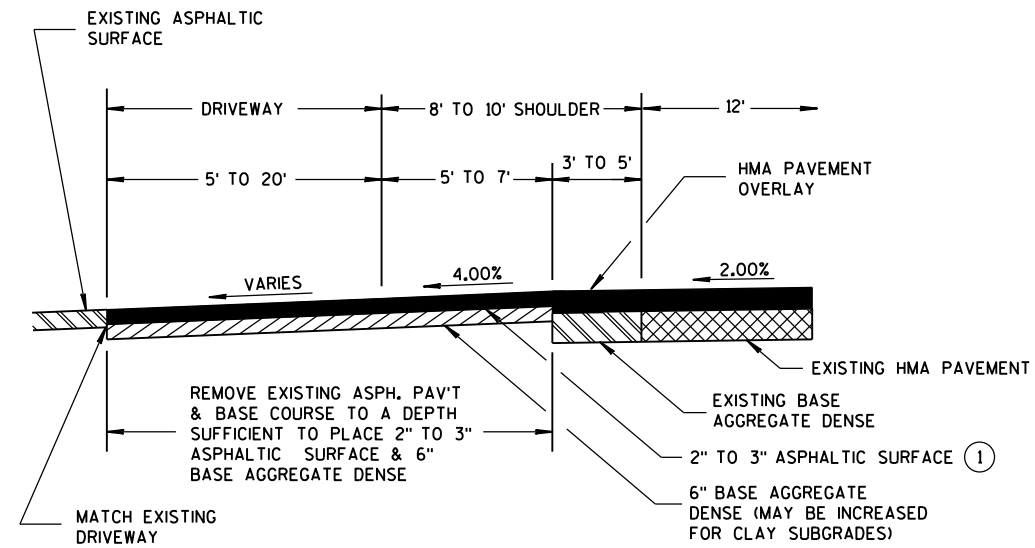


W MIN. = 16'
W MAX. = 24'

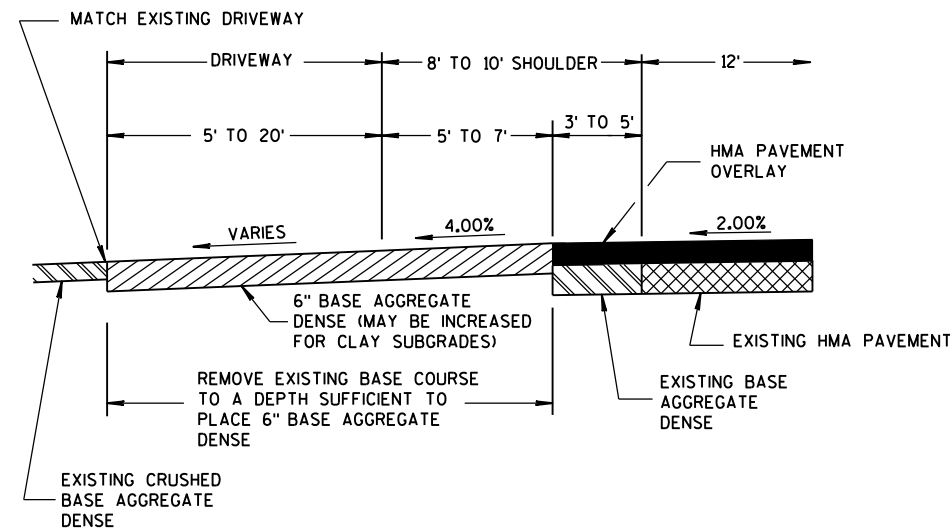


**PLAN VIEW
HALF SECTION**

**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

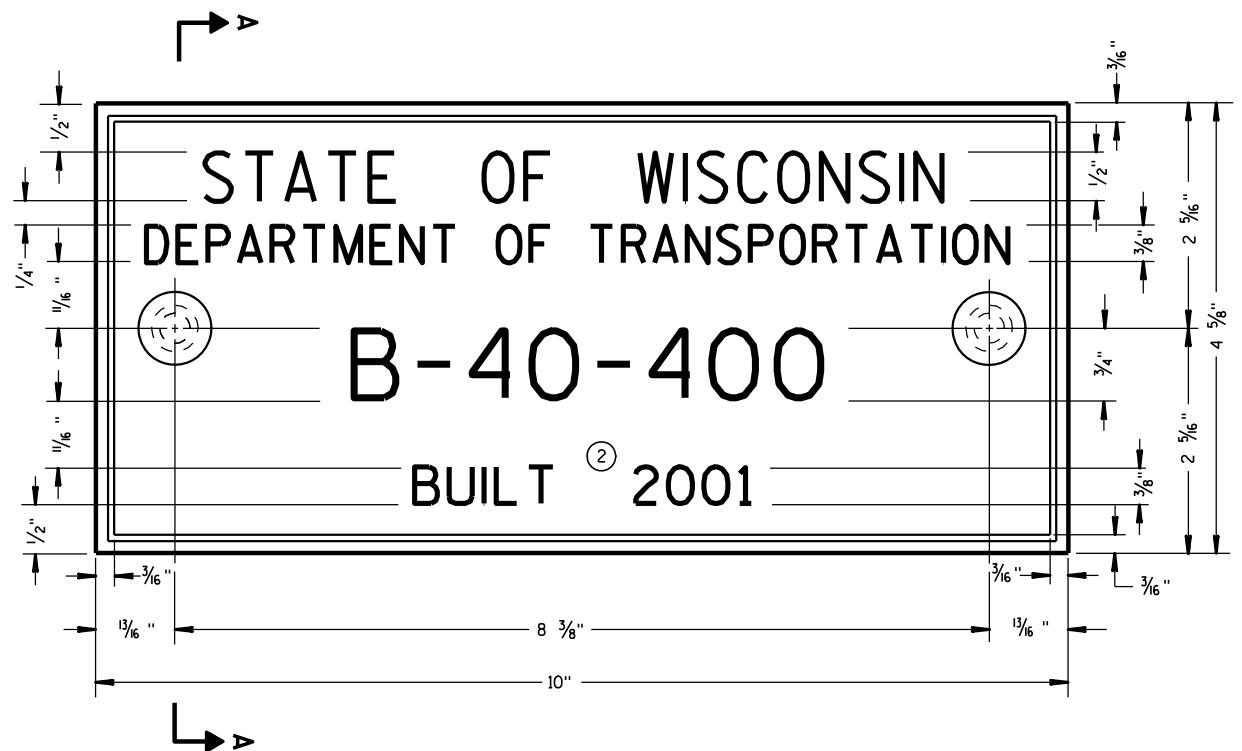
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S.D.D. 8 D 22-1

S.D.D. 8 D 22-1

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December, 2016	/s/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
DATE	FHWA



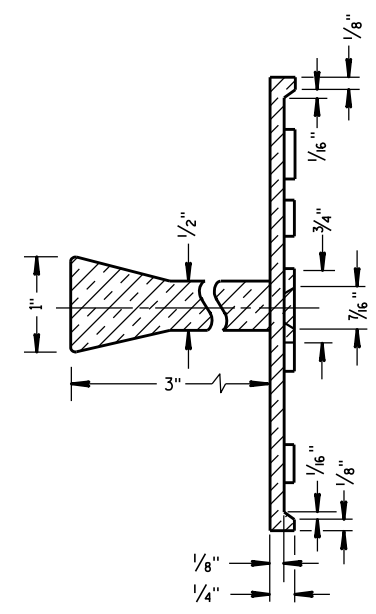
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

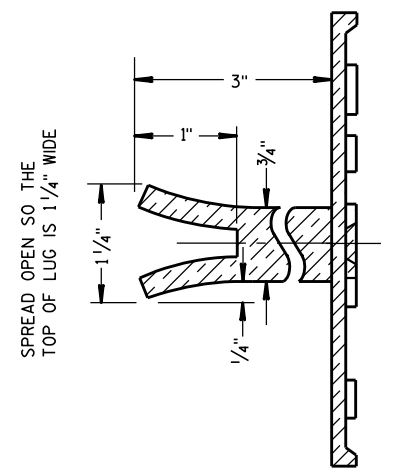
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

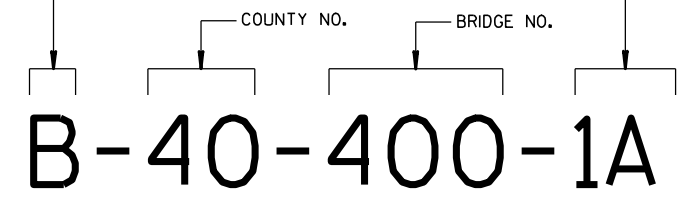
6

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FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

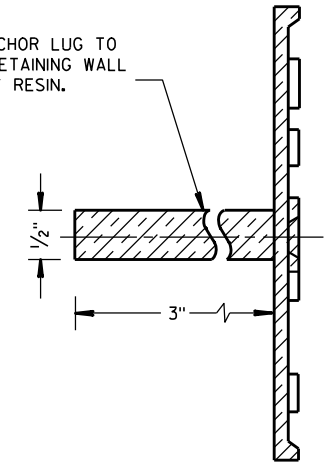
B = BRIDGE
C = CULVERT
R = RETAINING WALL

UNIT NO. FOR MULTIPLE
UNIT BRIDGE



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.

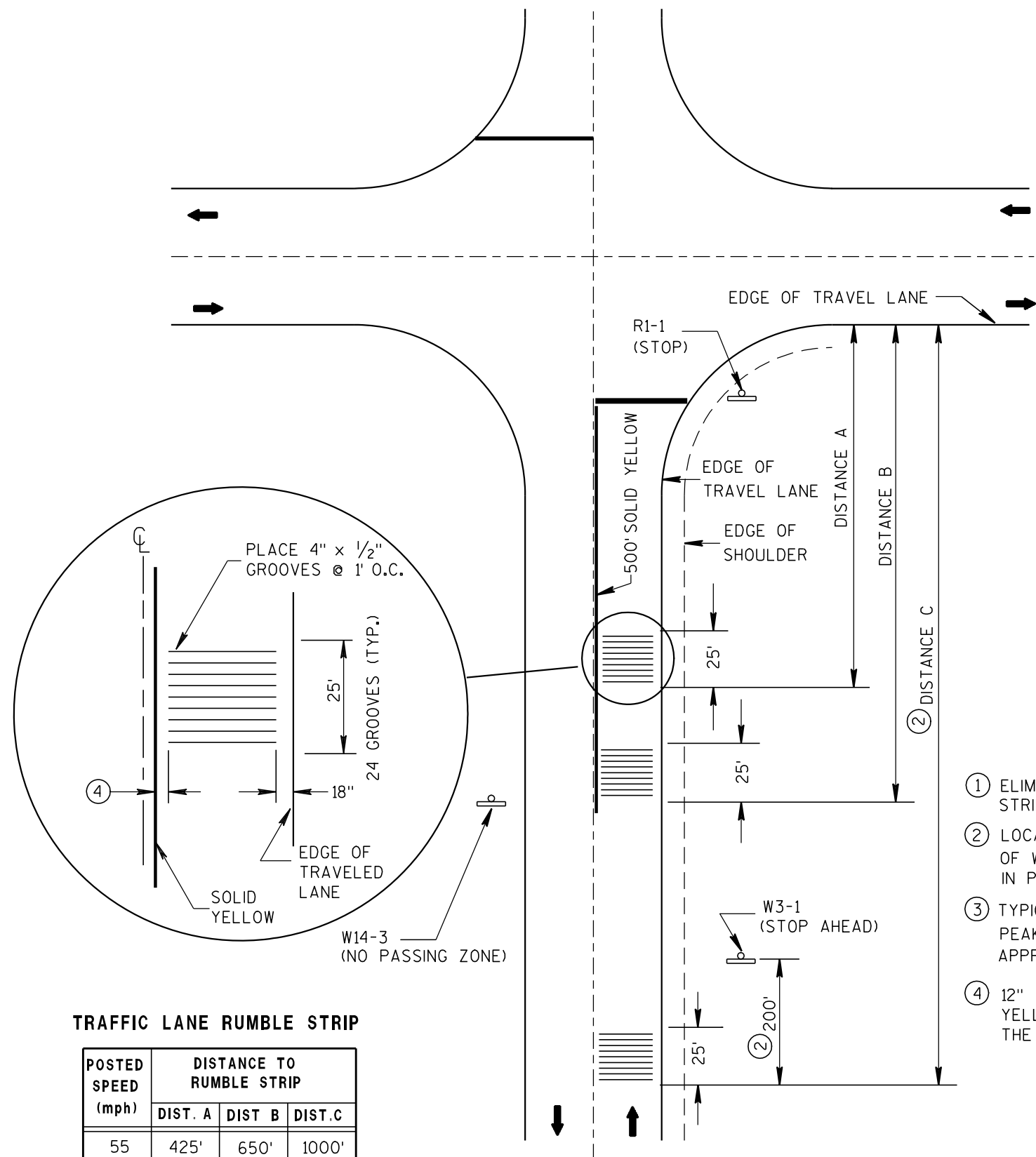


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



TRAFFIC LANE RUMBLE STRIP

POSTED SPEED (mph)	DISTANCE TO RUMBLE STRIP		
	DIST. A	DIST. B	DIST. C
55	425'	650'	1000'
50	325'	450'	800'
45	275'	400'	650'
40	225'	①	550'
35	175'	①	475'
≤ 30	125'	①	425'

ARROW SYMBOL (➔) SHOWS DIRECTION OF TRAVEL

**PLAN VIEW
RUMBLE STRIP LOCATION**

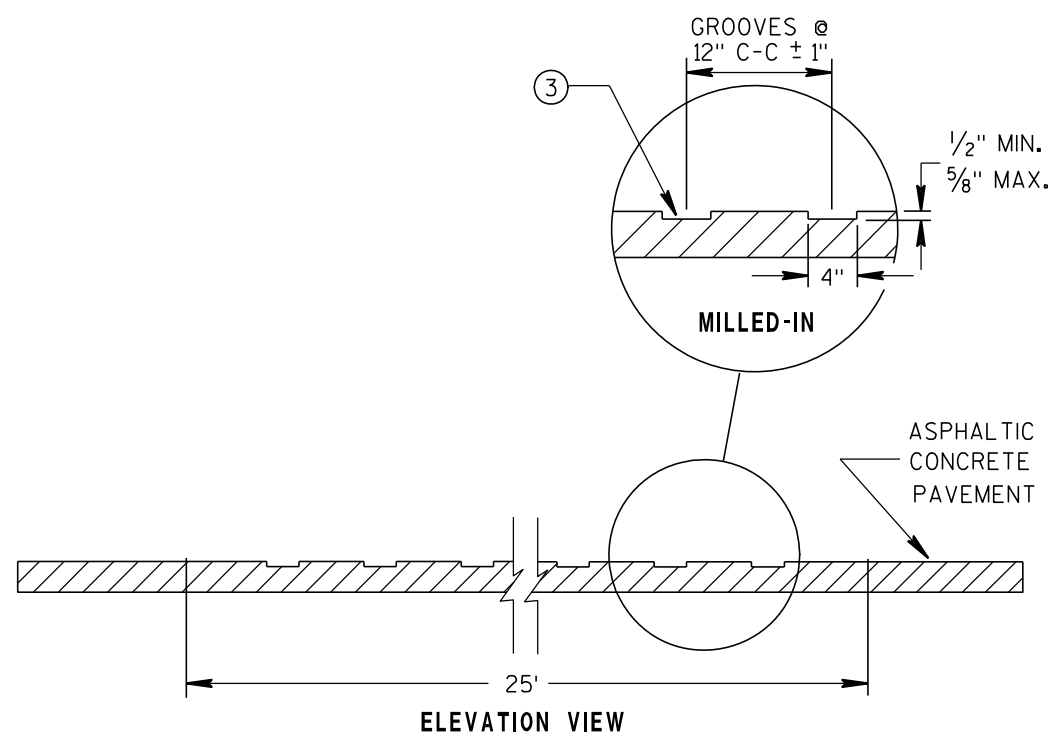
- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
- ② LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.
- ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY 1/16"
- ④ 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE.

GENERAL NOTES

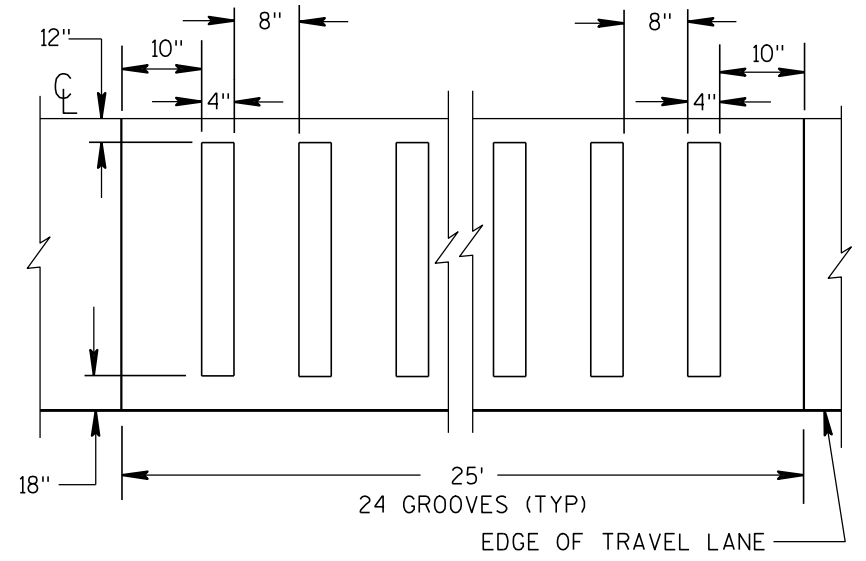
CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

WHEN ASPHALTIC PAVEMENT IS NEW IN THE RUMBLE AREA THE CONTRACTOR SHALL ALLOW THE PAVEMENT TO CURE A MINIMUM OF 7 DAYS PRIOR TO RUMBLE INSTALLATION.

PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

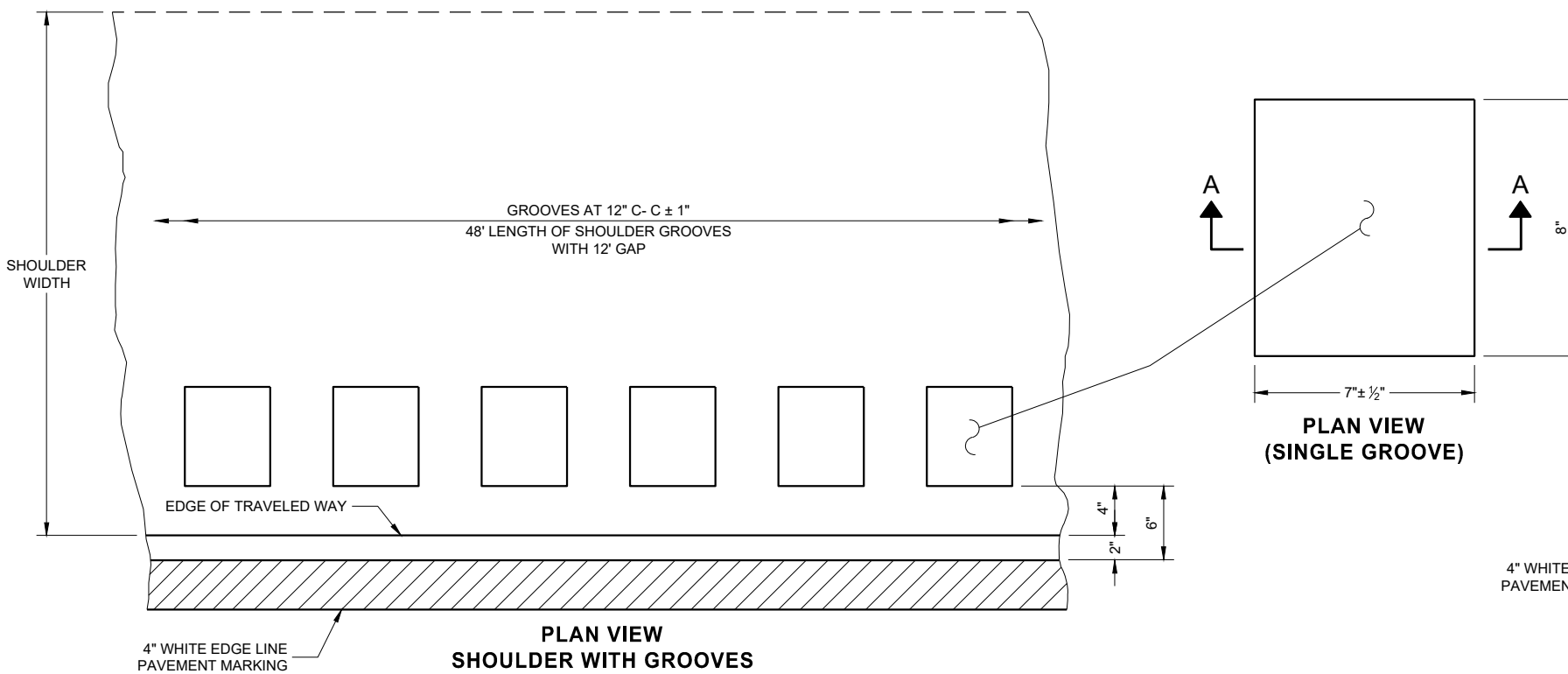


ELEVATION VIEW



**PLAN VIEW
ASPHALTIC PAVEMENT
MILLED-IN**

ASPHALTIC RUMBLE STRIPS AT INTERSECTION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/17/2011 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



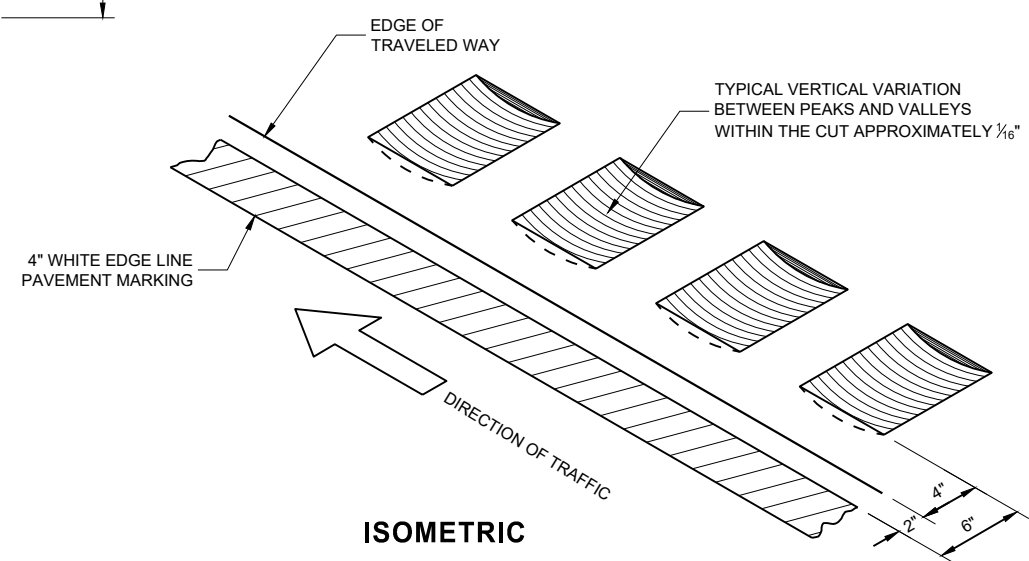
PLAN VIEW SHOULDER WITH GROOVES
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

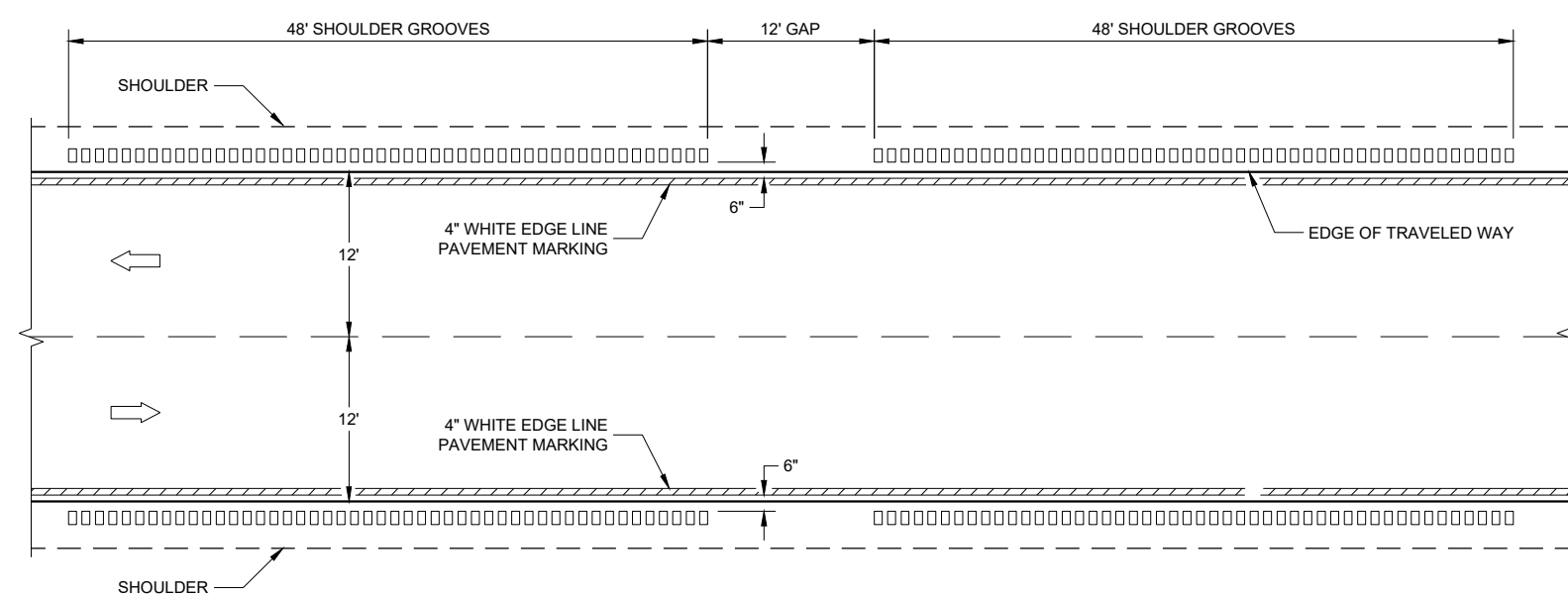
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

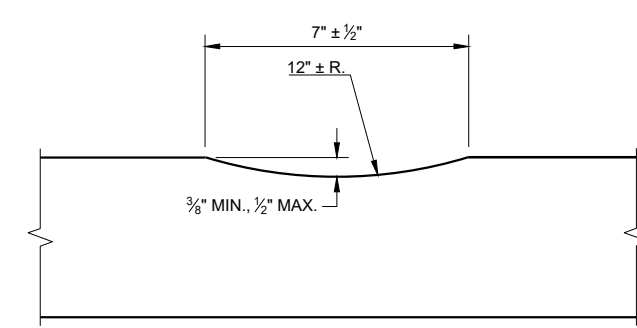
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



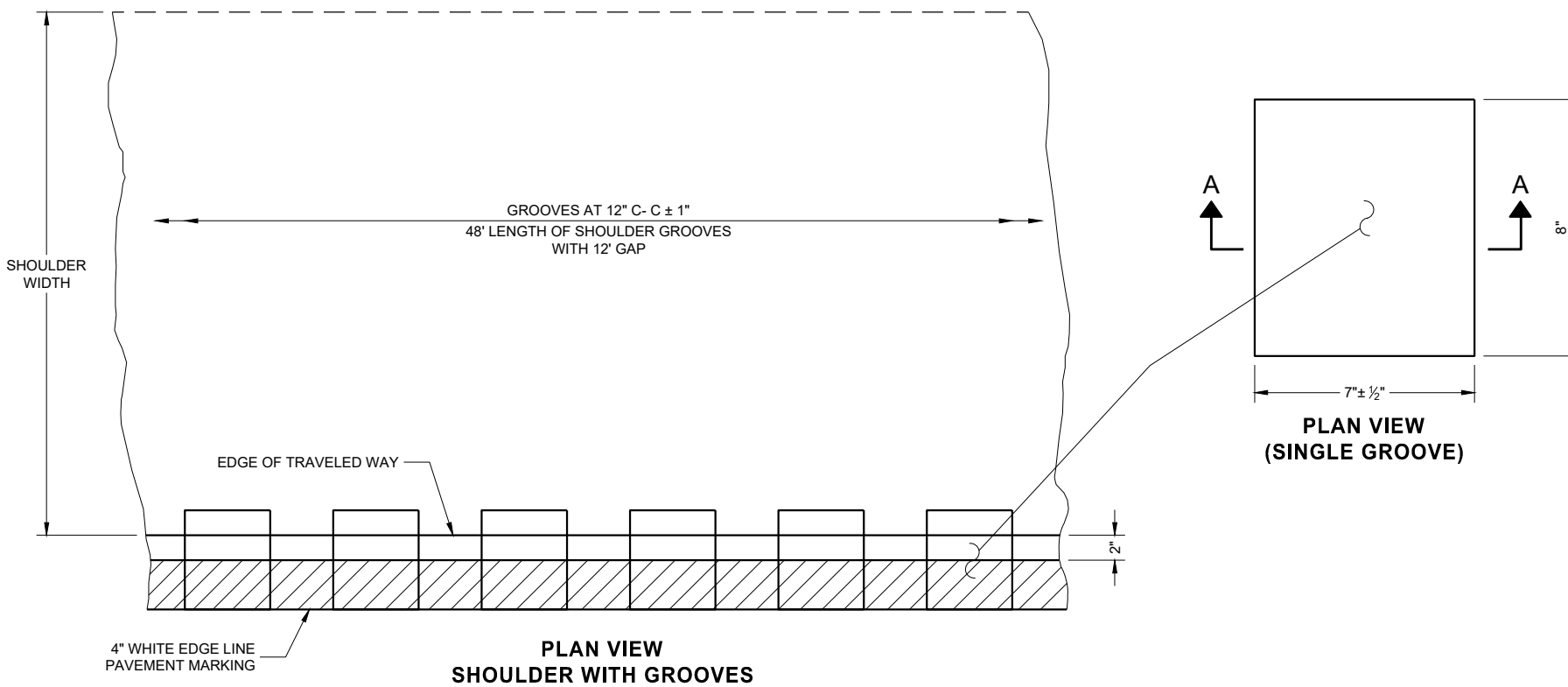
TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



6

6

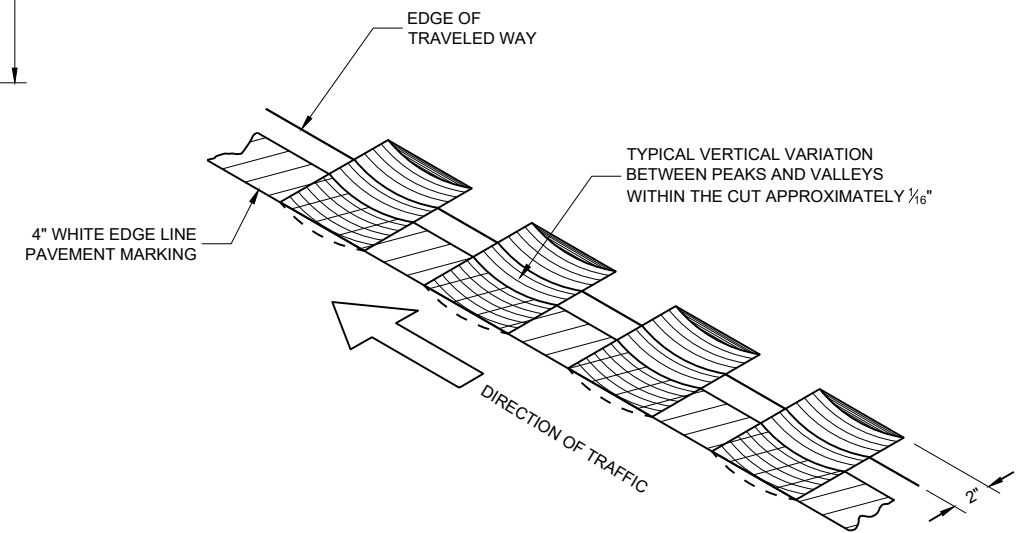
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

GENERAL NOTES

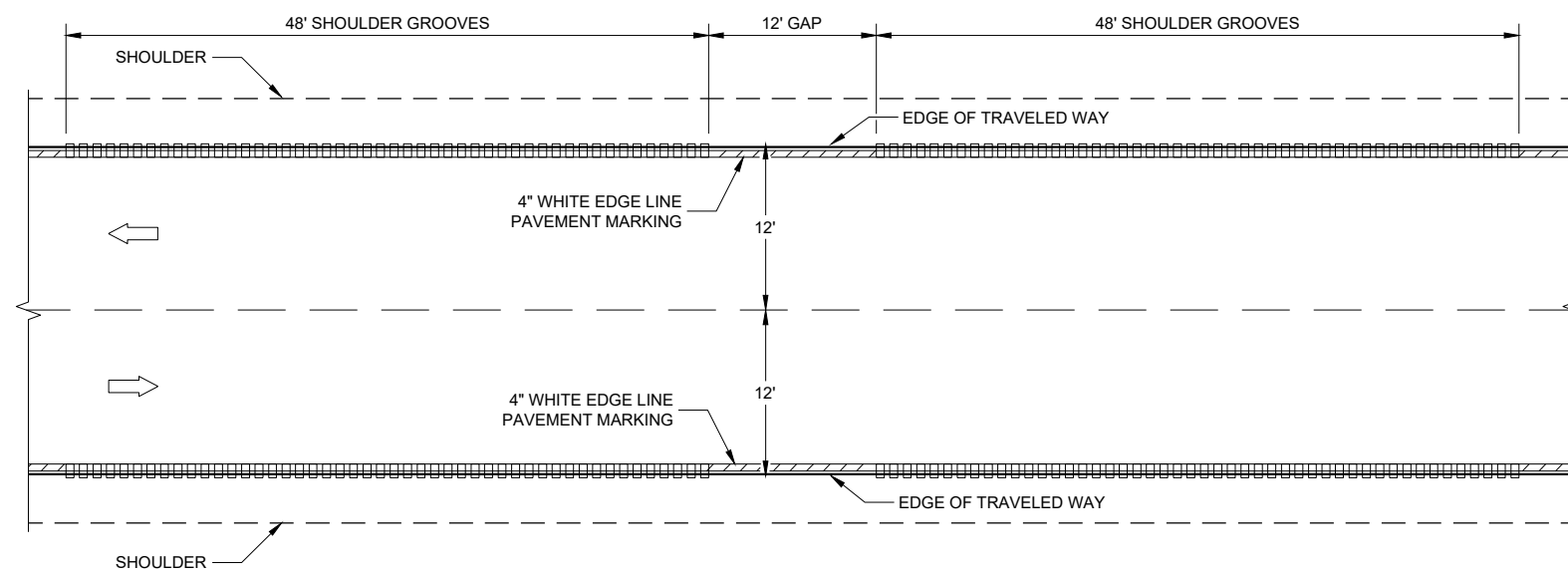
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

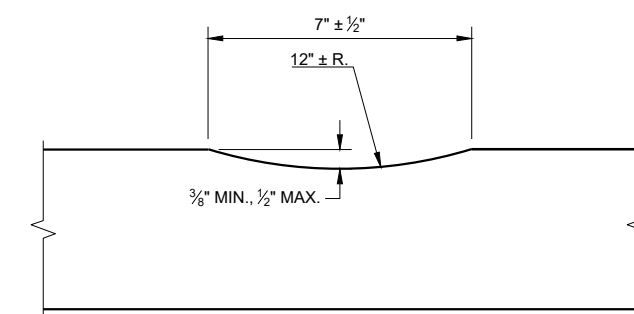
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



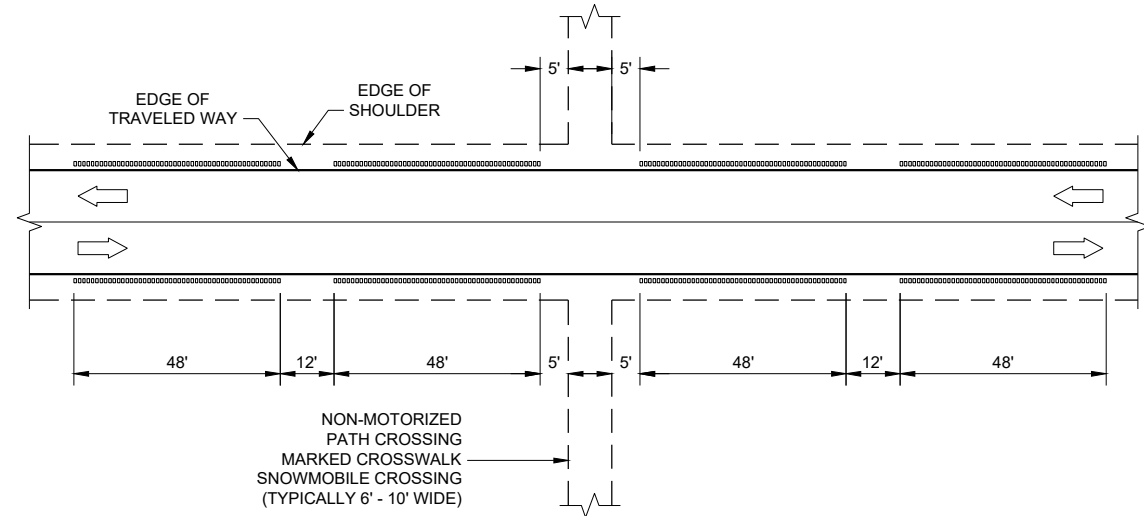
TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



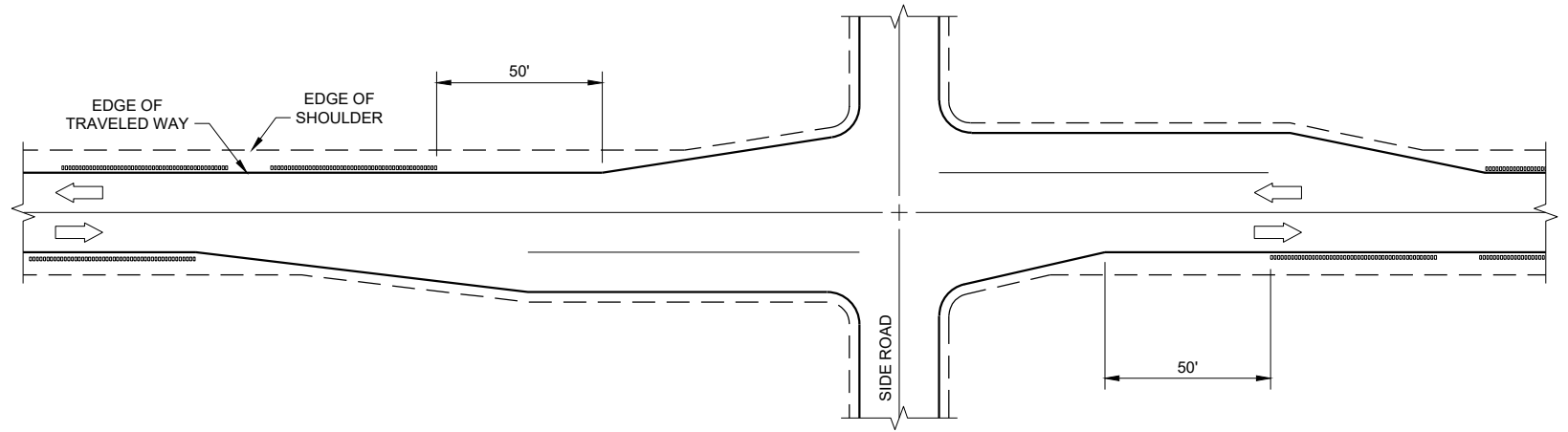
SECTION A - A

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

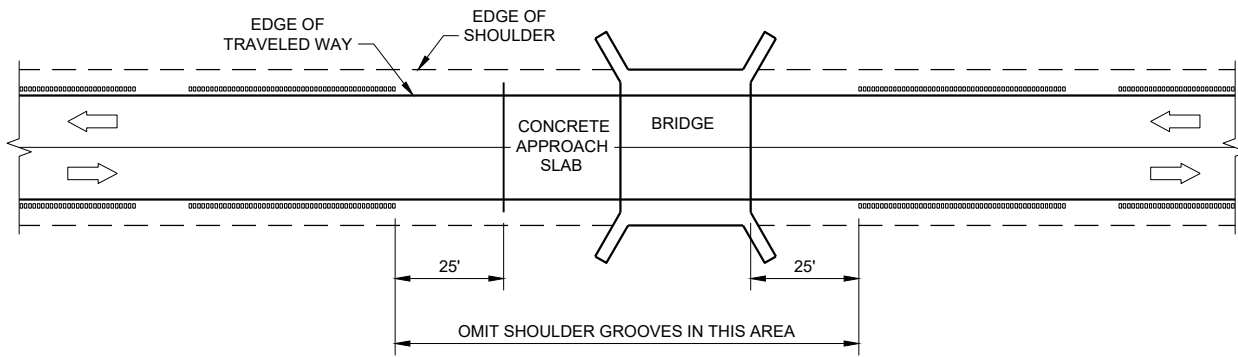
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



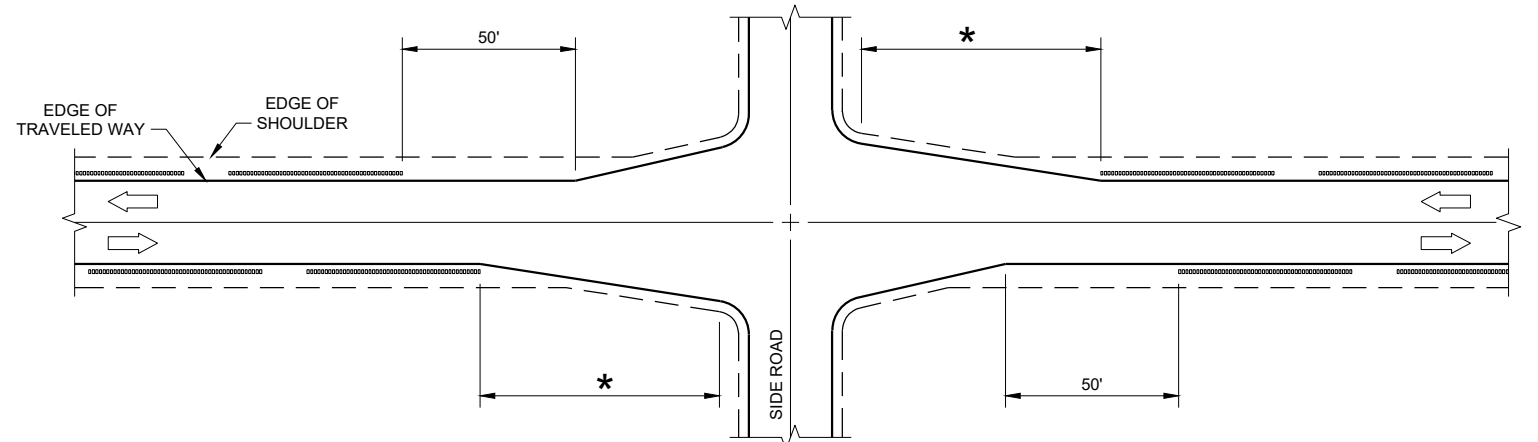
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

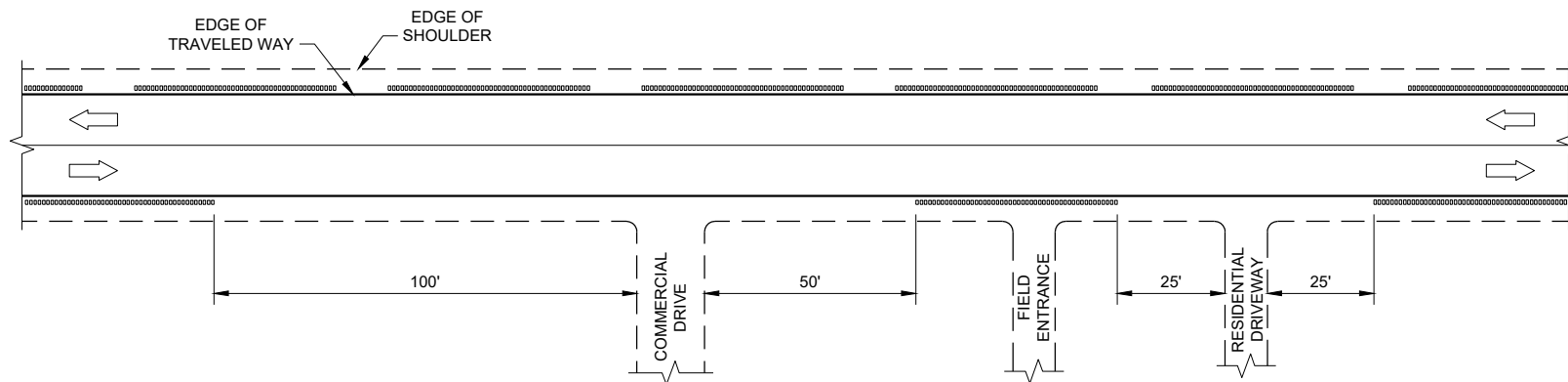


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



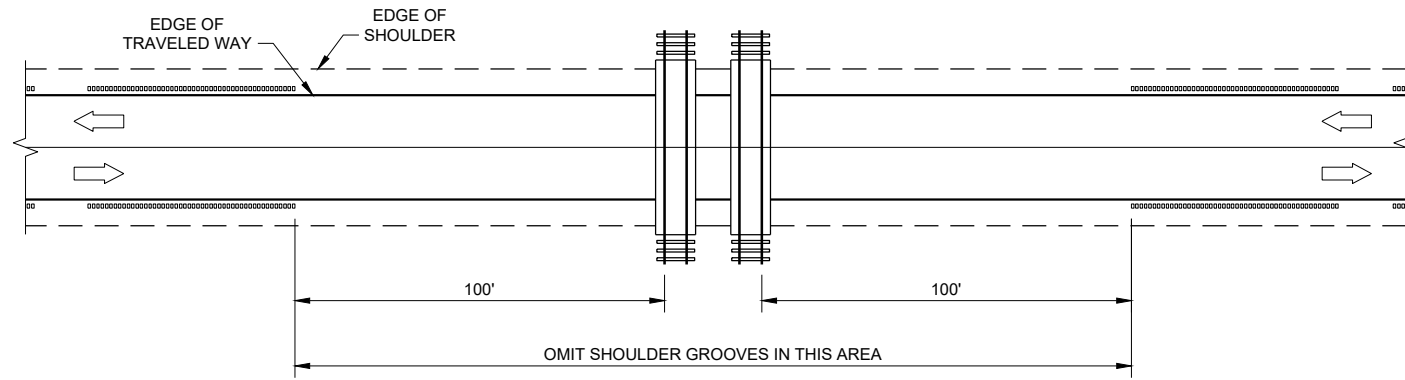
SHOULDER GROOVES AT DRIVEWAYS^①

GENERAL NOTES

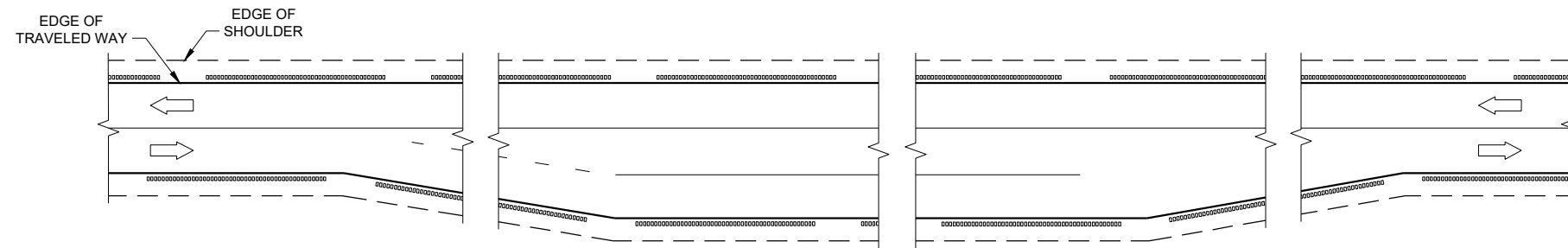
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

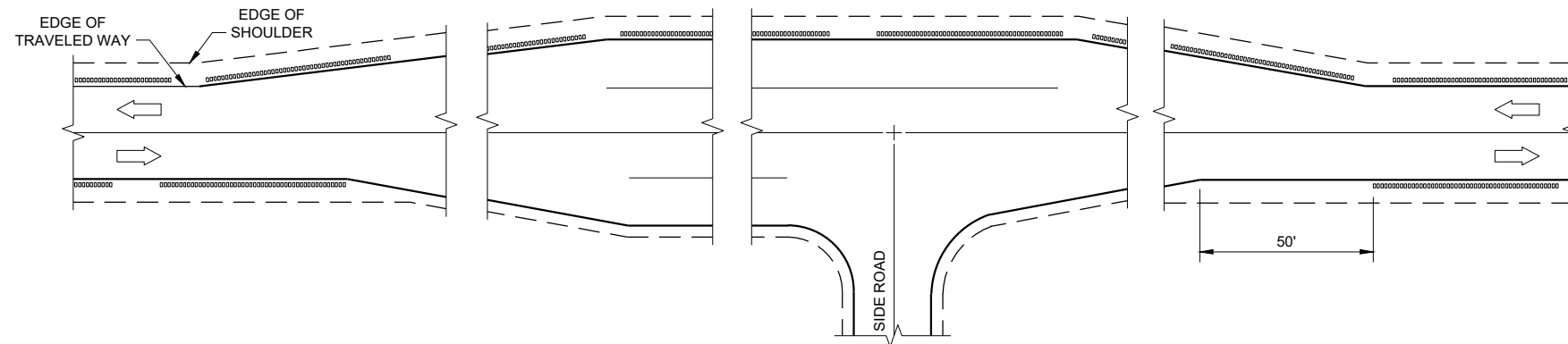
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

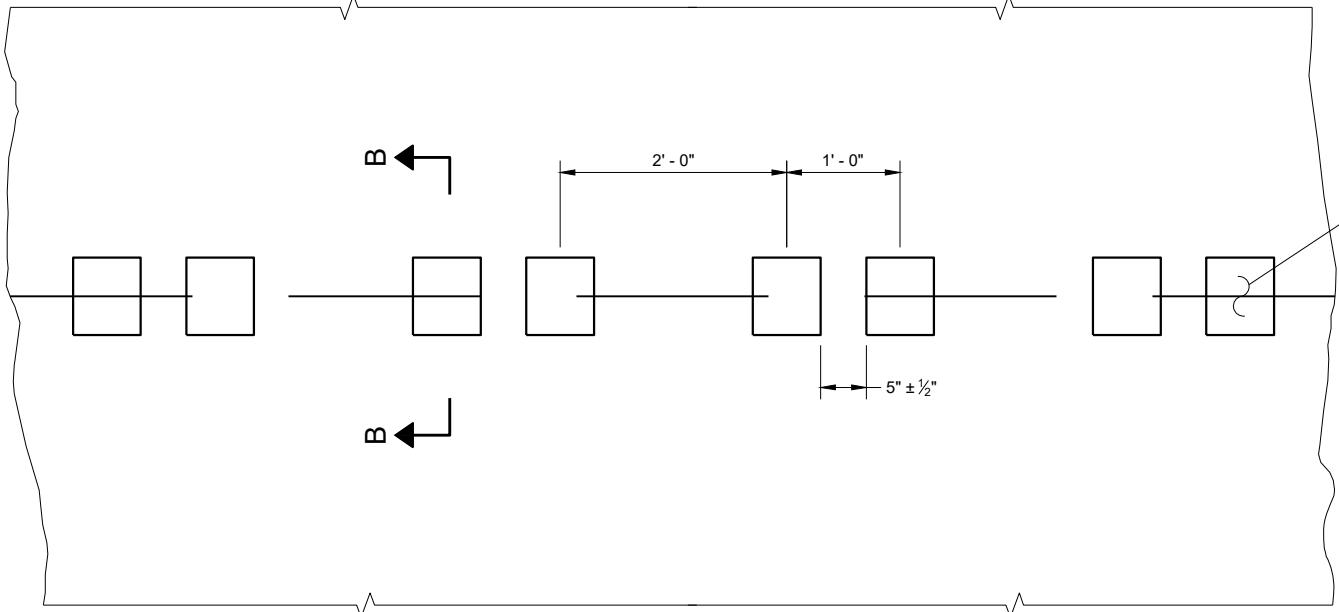
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

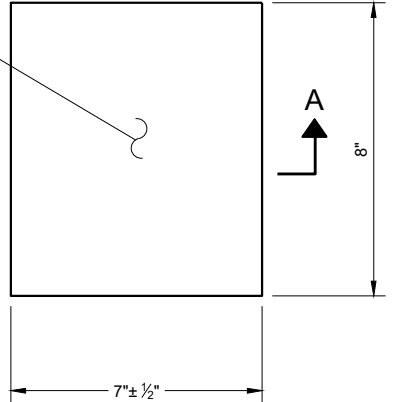
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

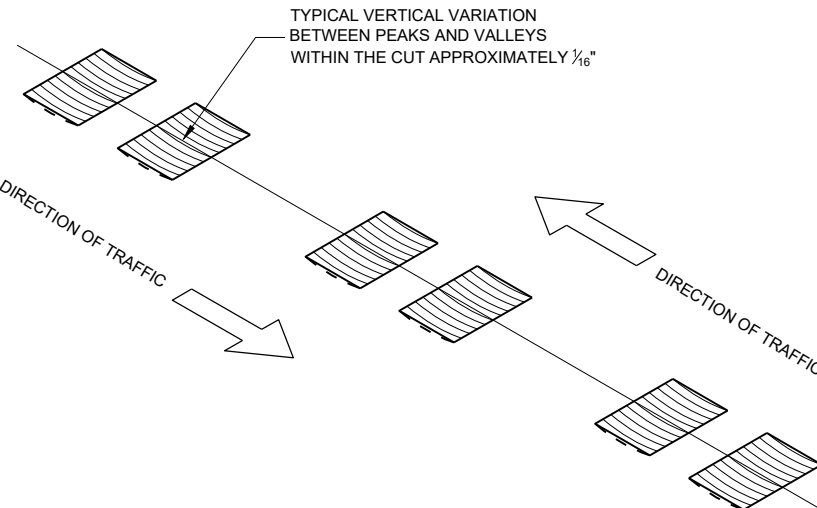
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

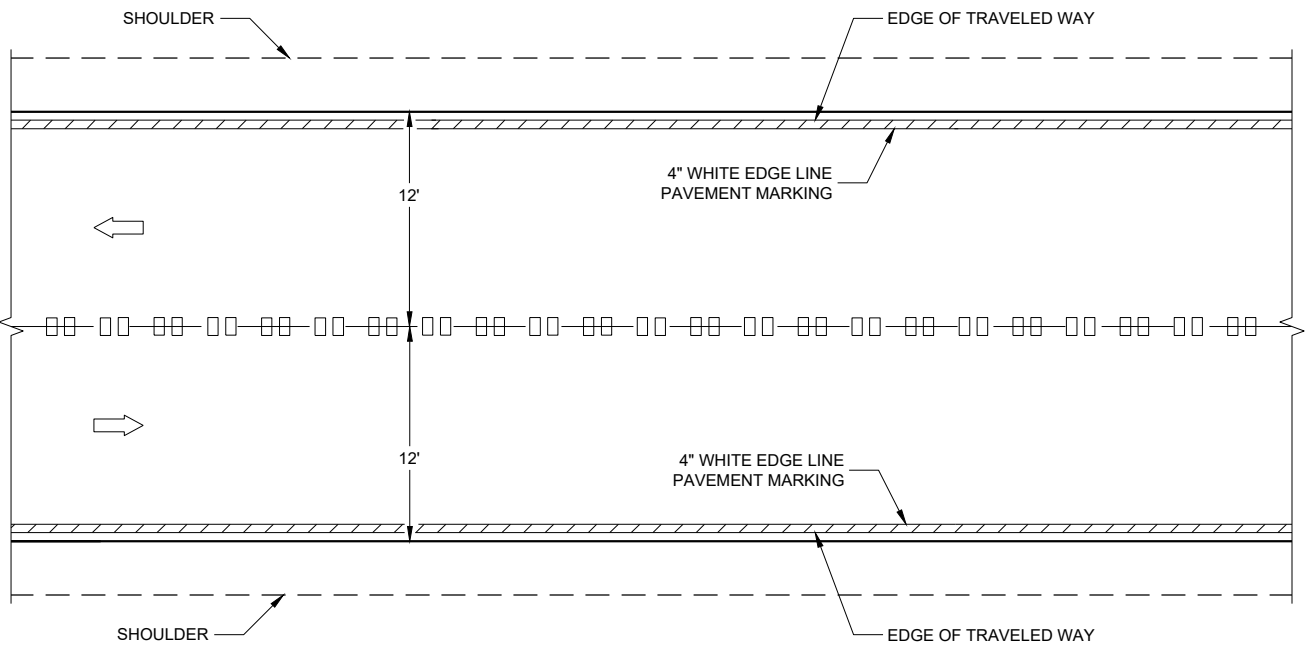


**PLAN VIEW
(SINGLE GROOVE)**

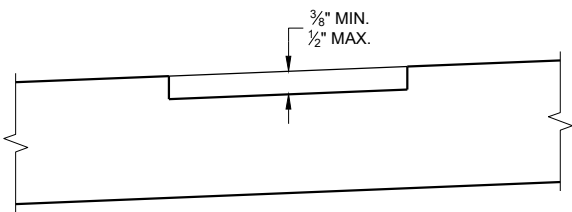


ISOMETRIC

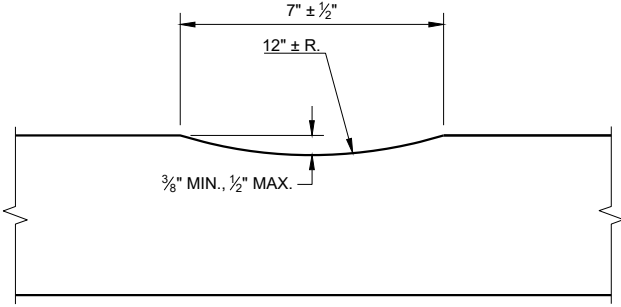
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



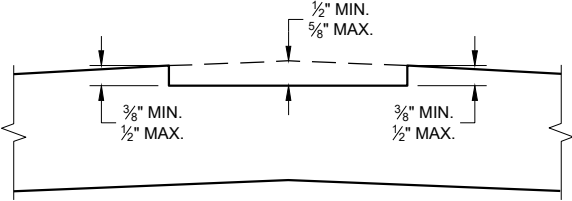
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



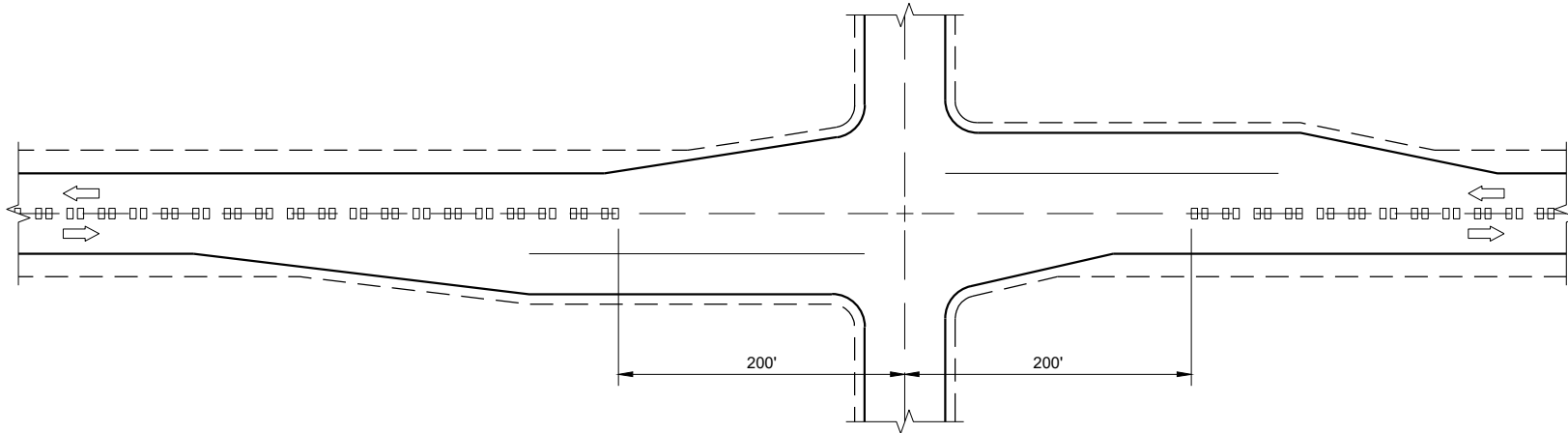
SECTION A - A



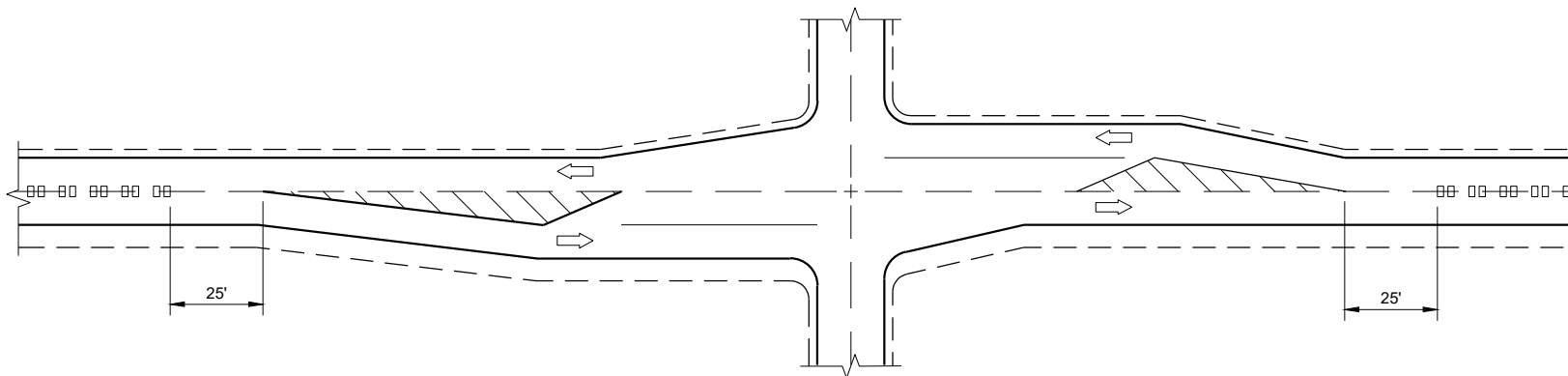
**SECTION B - B
CROWNED ROADWAY**

**2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING**

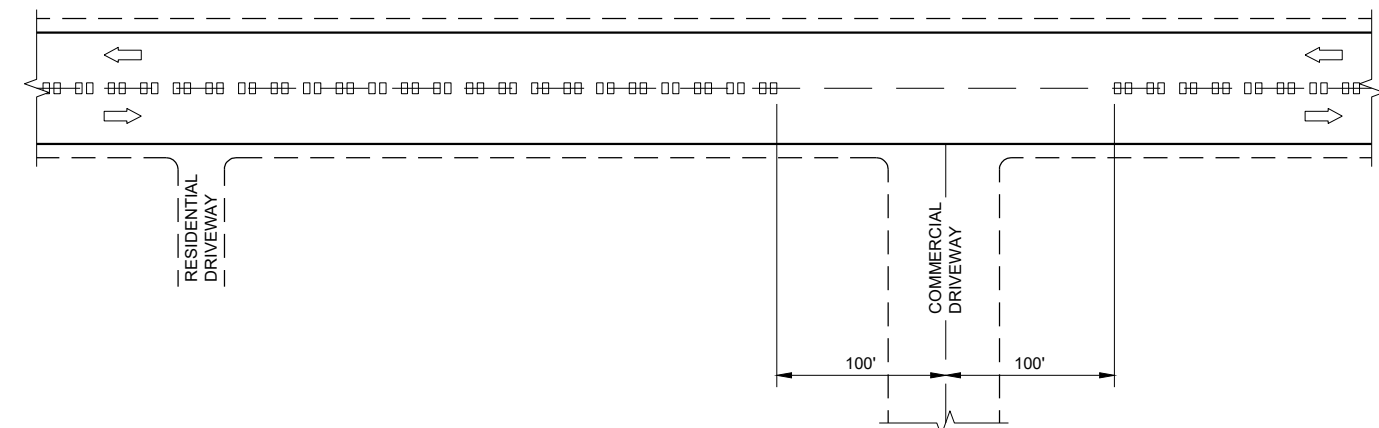
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



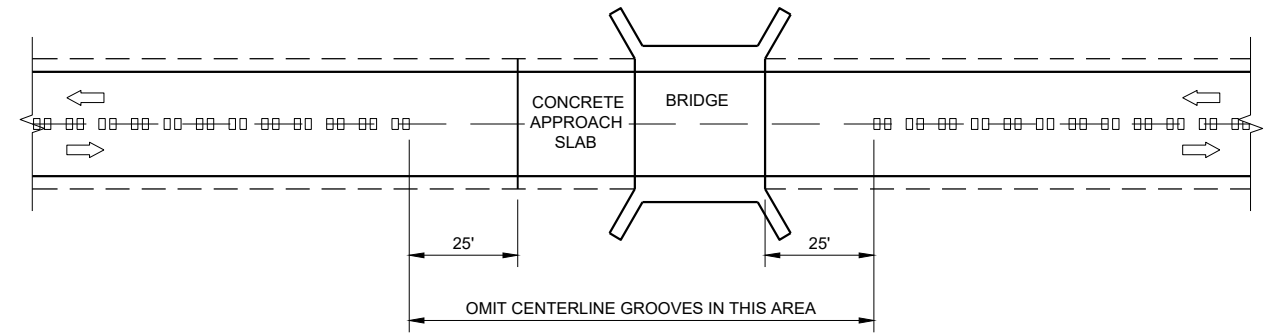
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



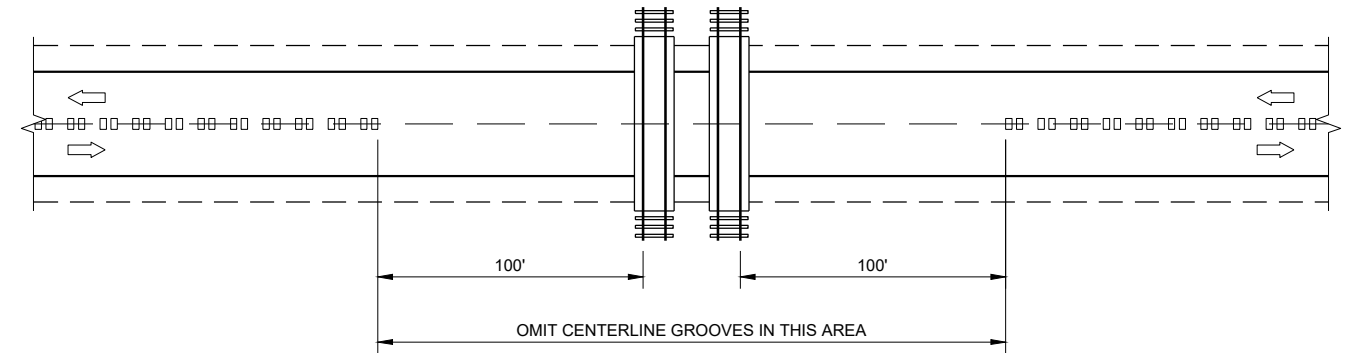
CENTERLINE GROOVES AT DRIVEWAYS^①

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

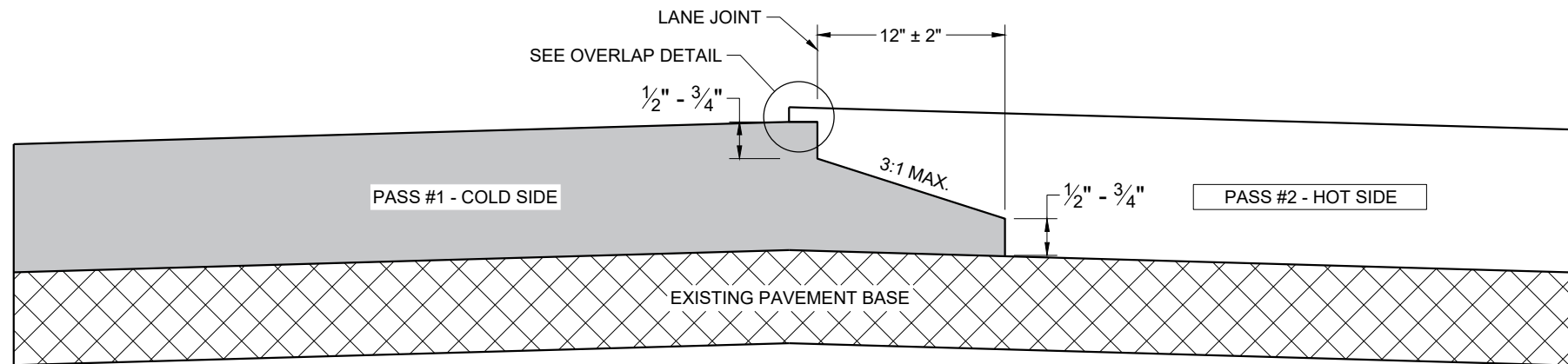
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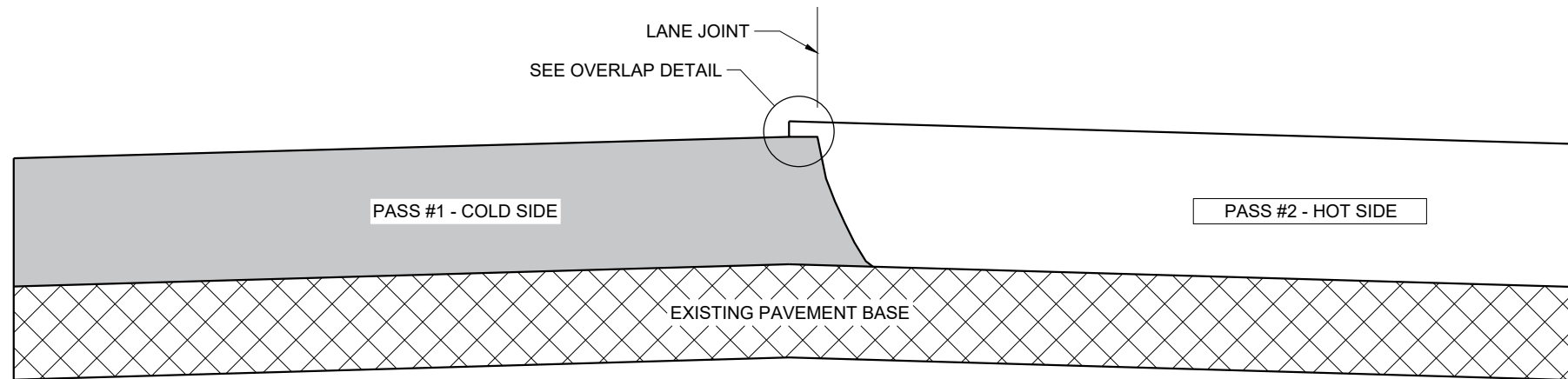
SDD 13A11 - 03b

SDD 13A11 - 03b

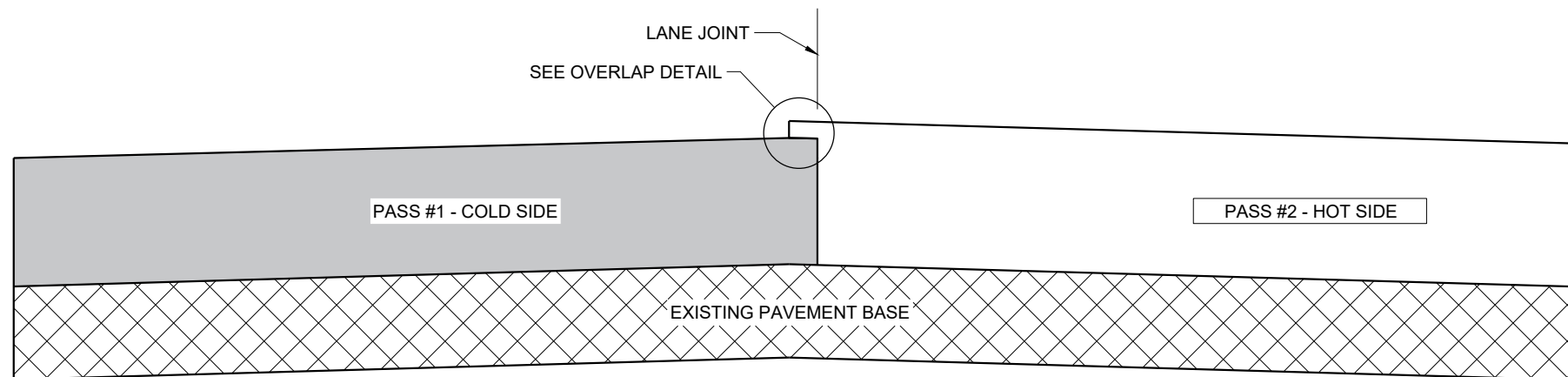
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 7/2018	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

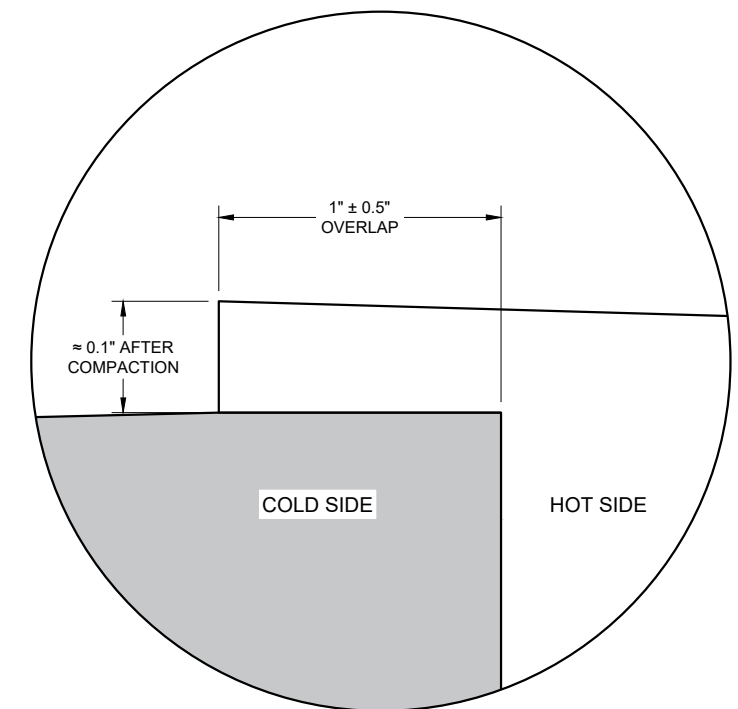
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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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	

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




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

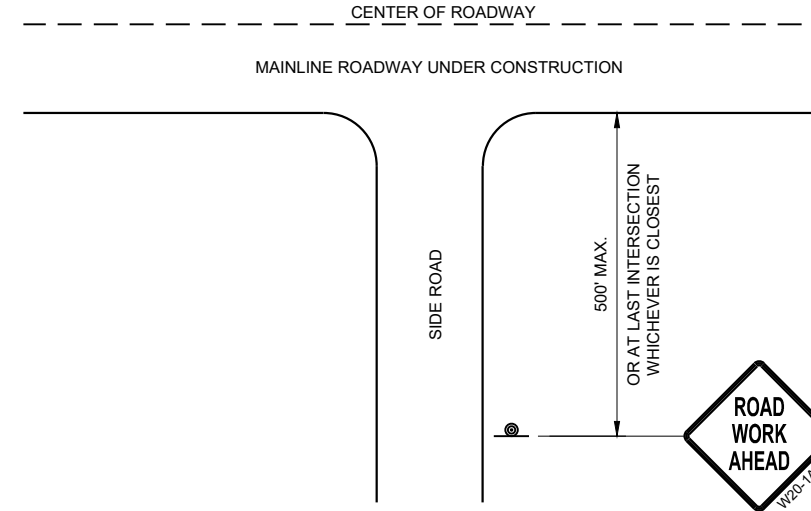
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

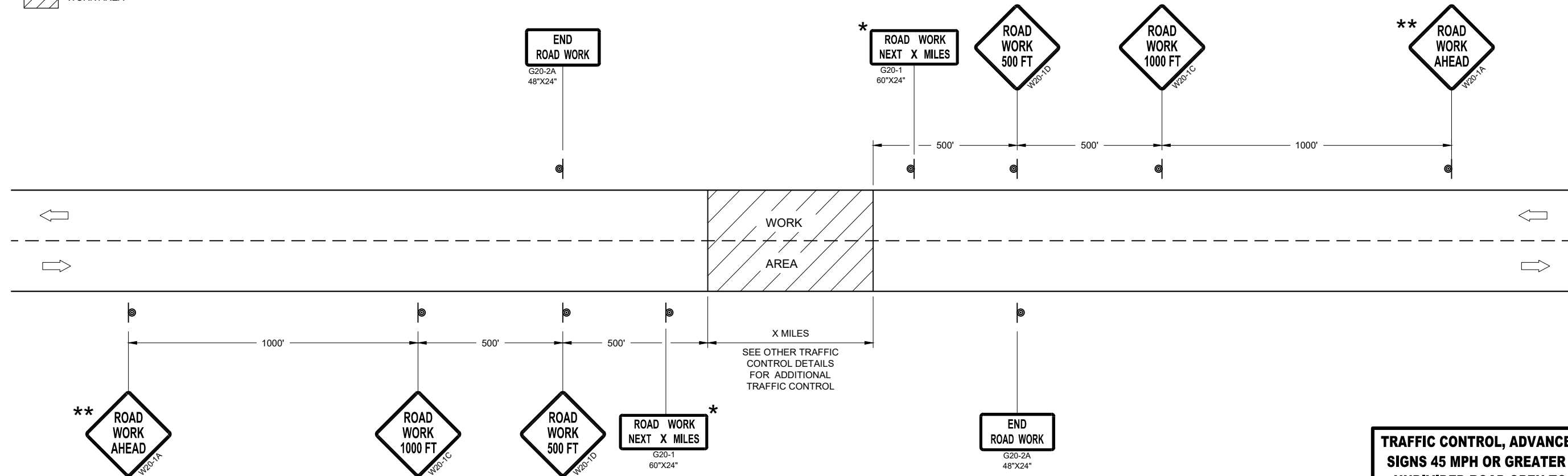
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
DATE July 2018 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.




ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

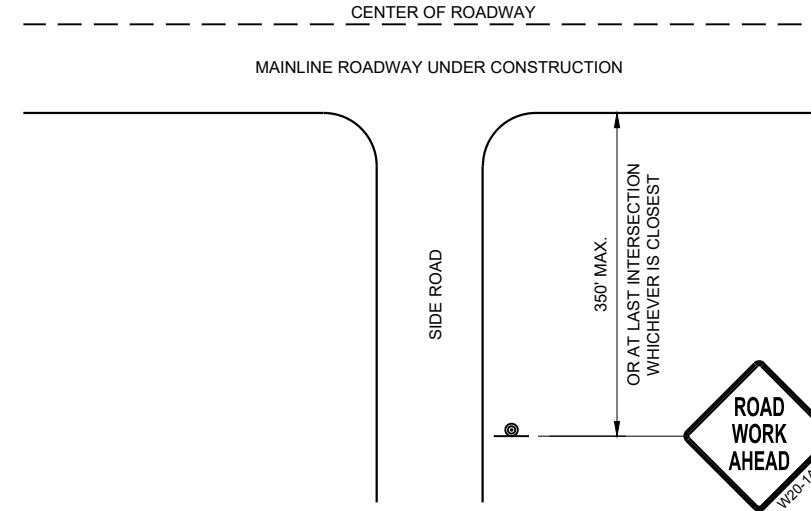
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

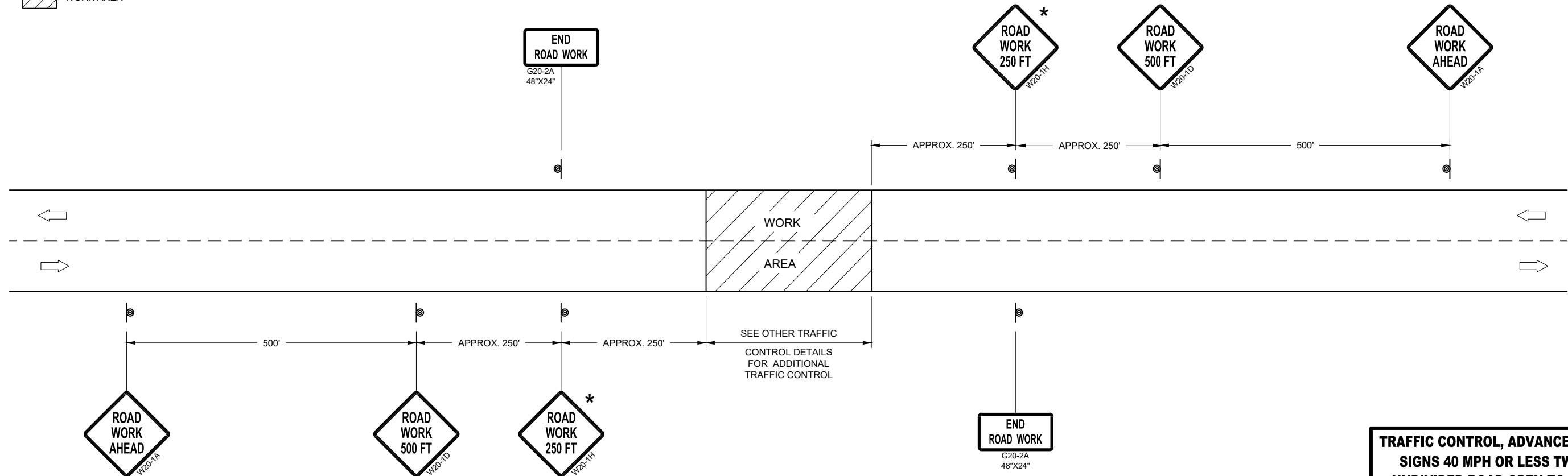
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



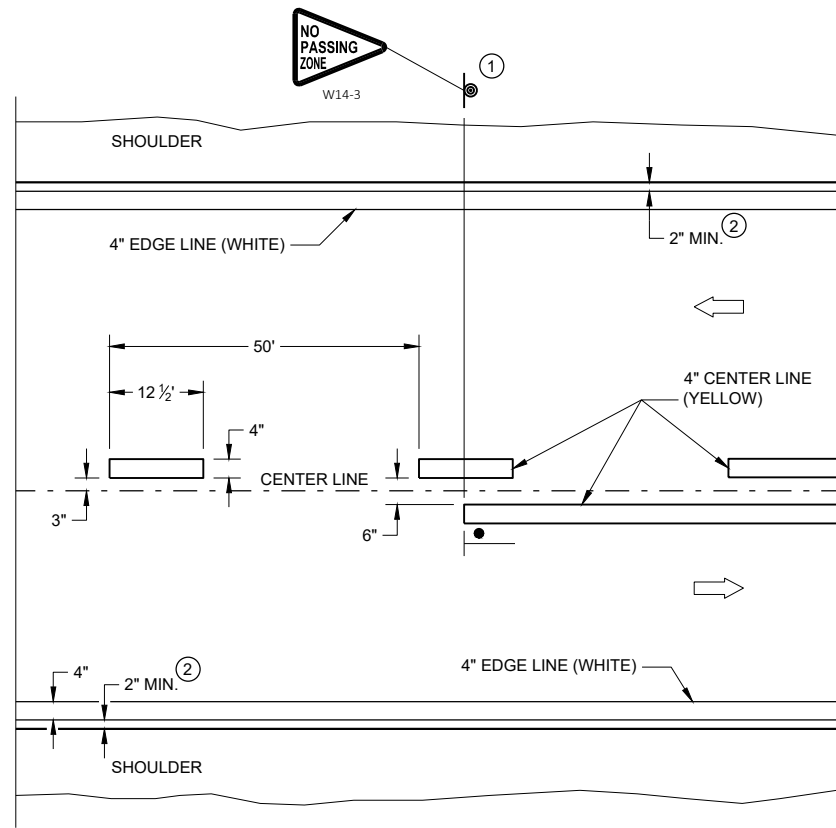
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

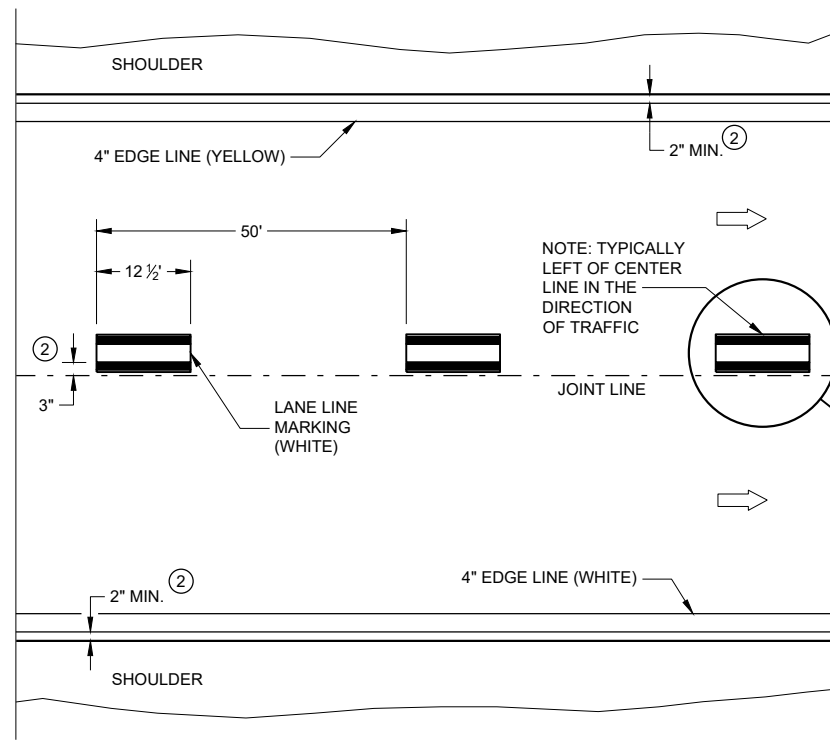
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

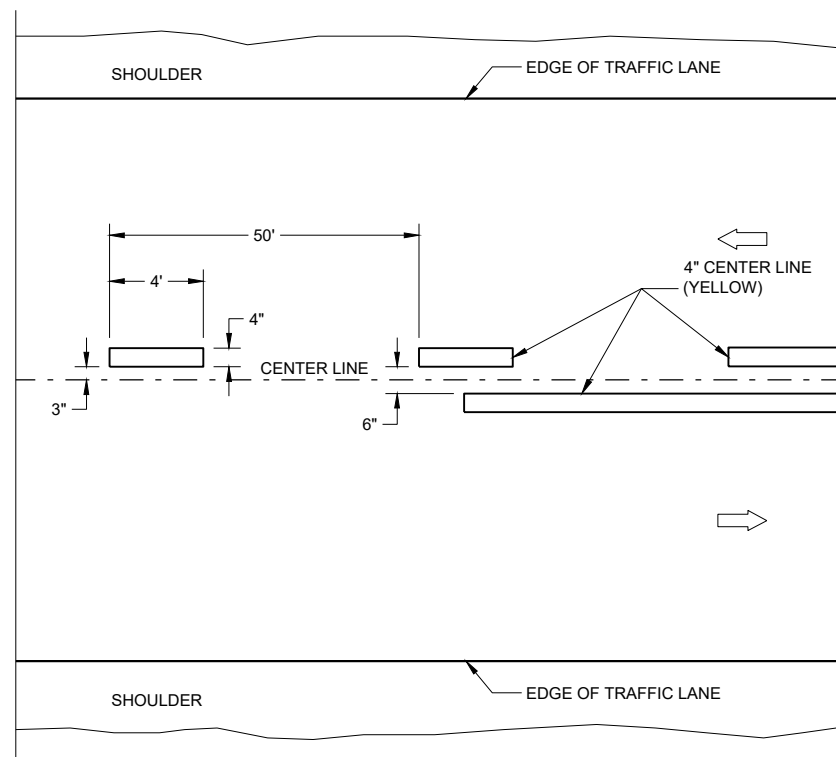


TWO WAY TRAFFIC

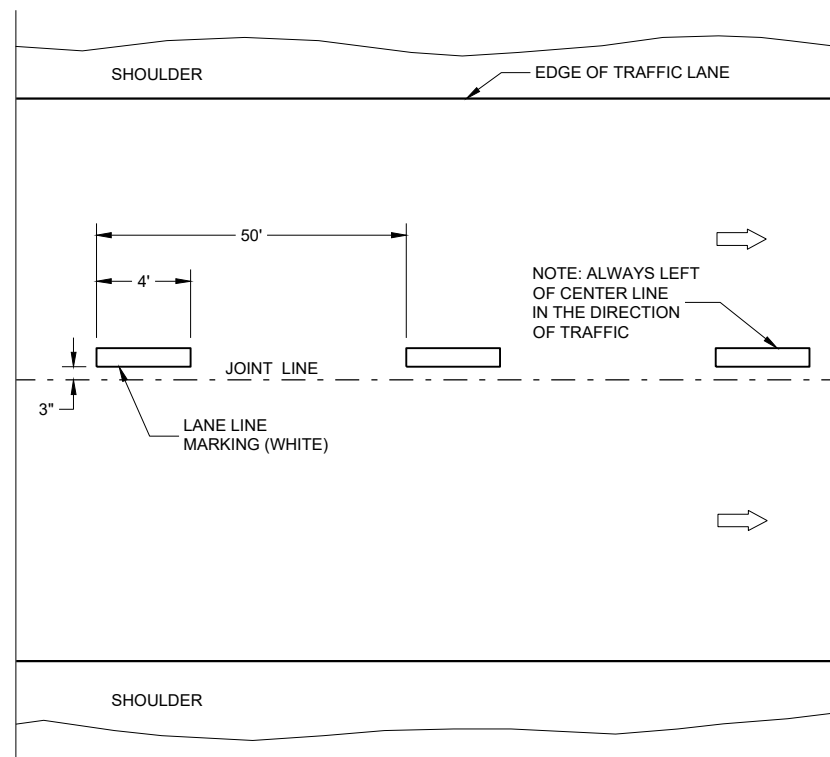


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

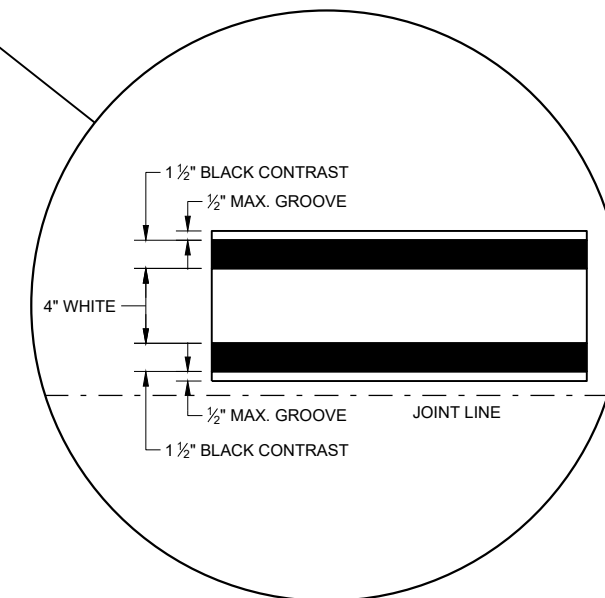
GENERAL NOTES

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

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

LEGEND

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








**LONGITUDINAL MARKING
(MAINLINE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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.

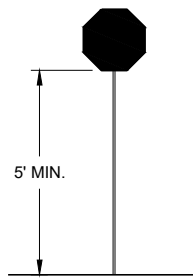
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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 SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



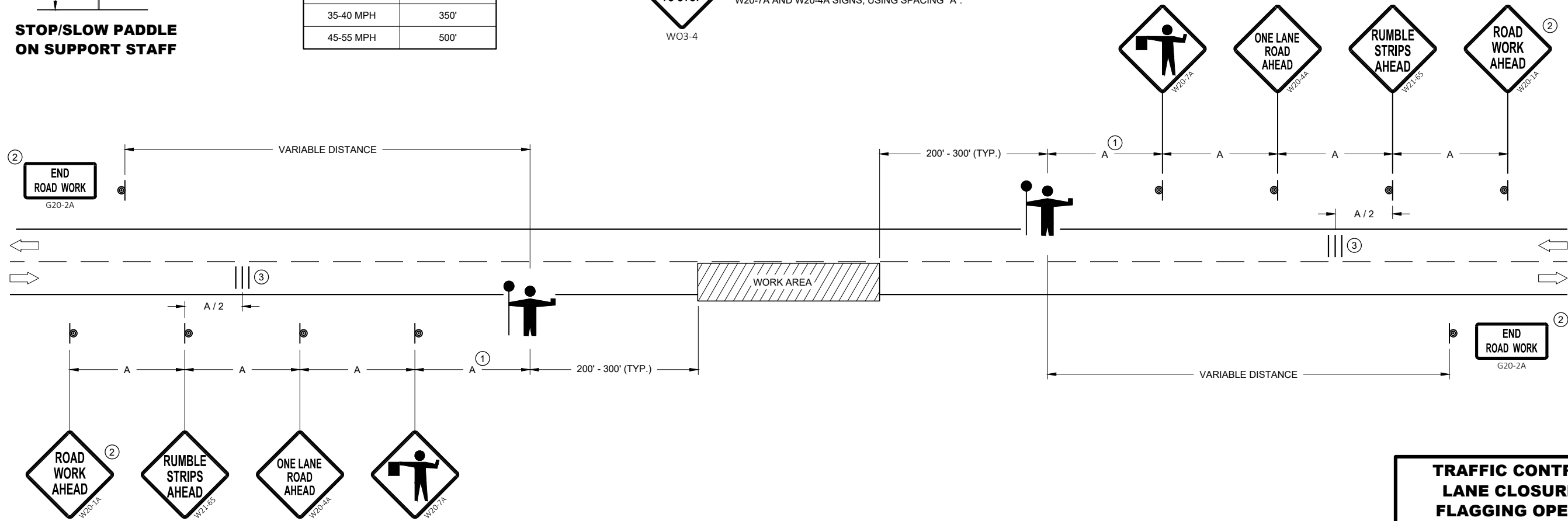
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION





TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2019 /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.

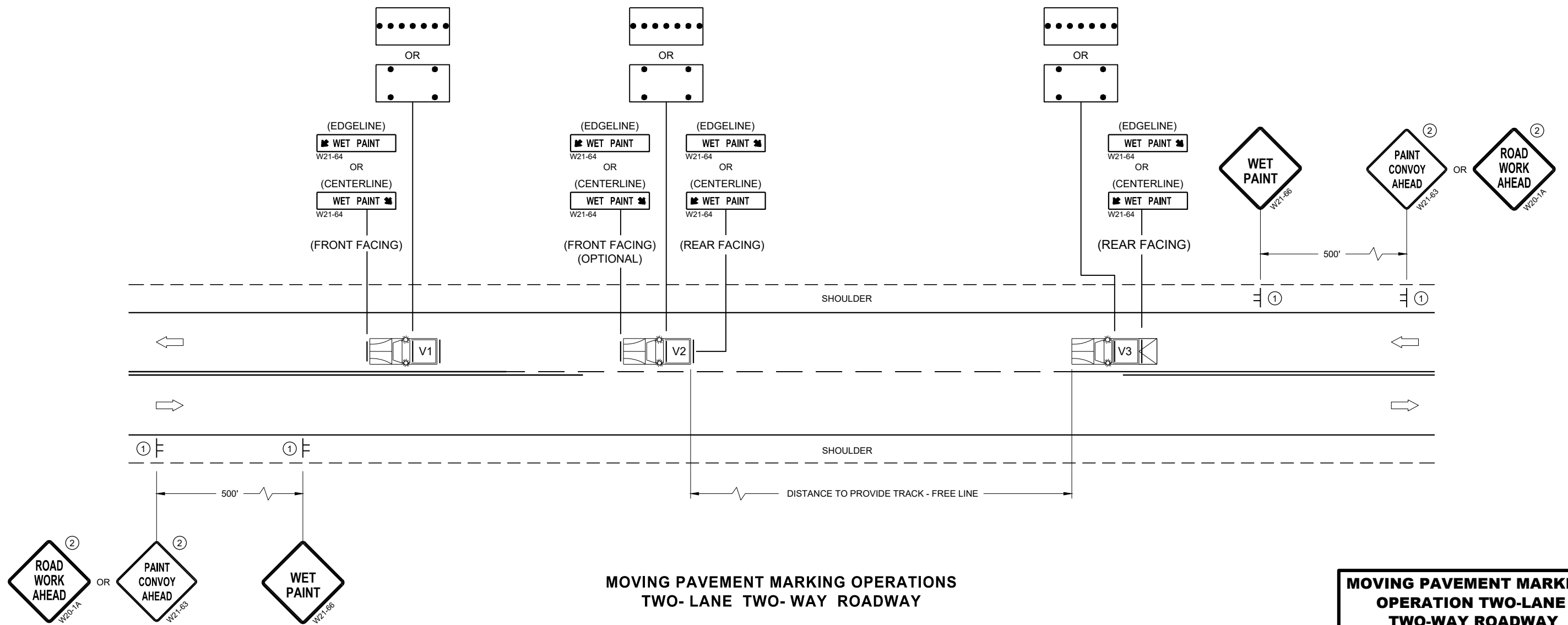
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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.

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

SDD 15C19 - 06a

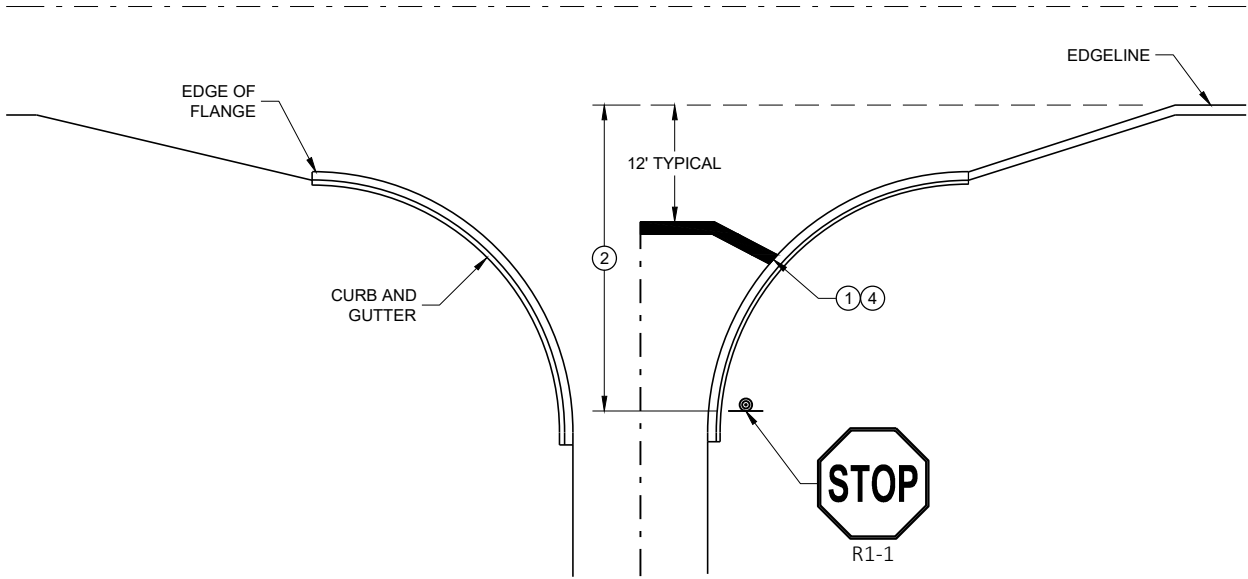
SDD 15C19 - 06a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

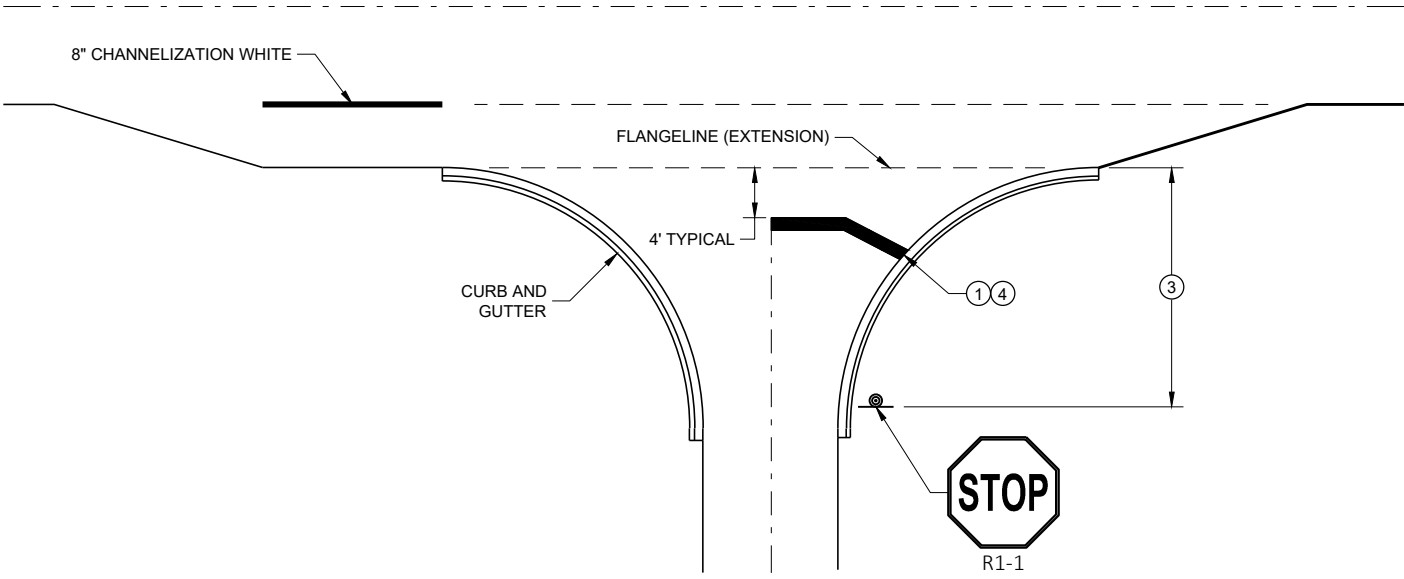
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

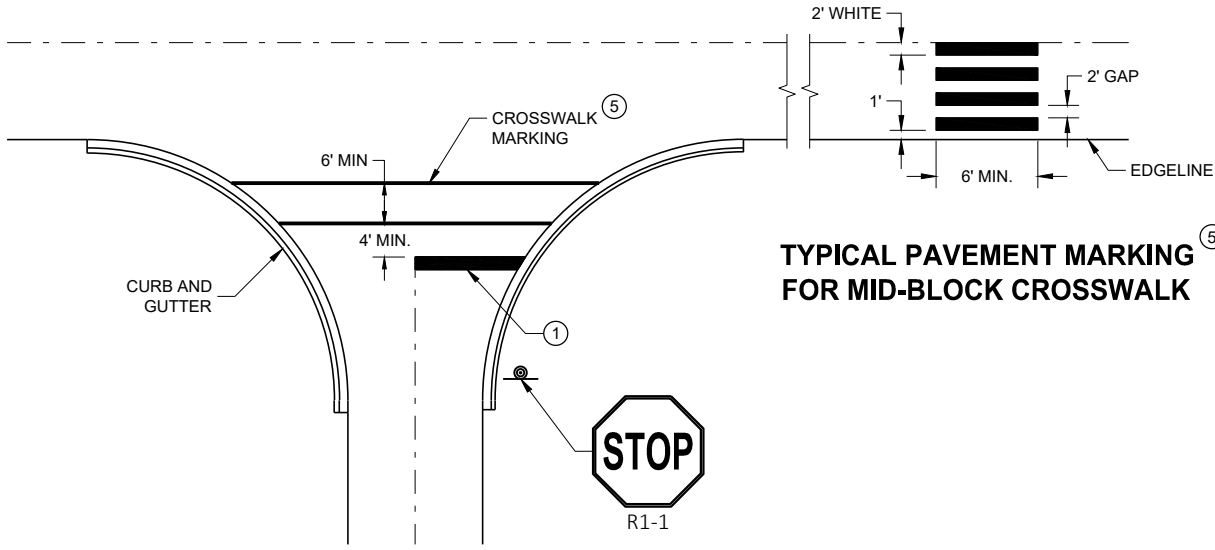
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

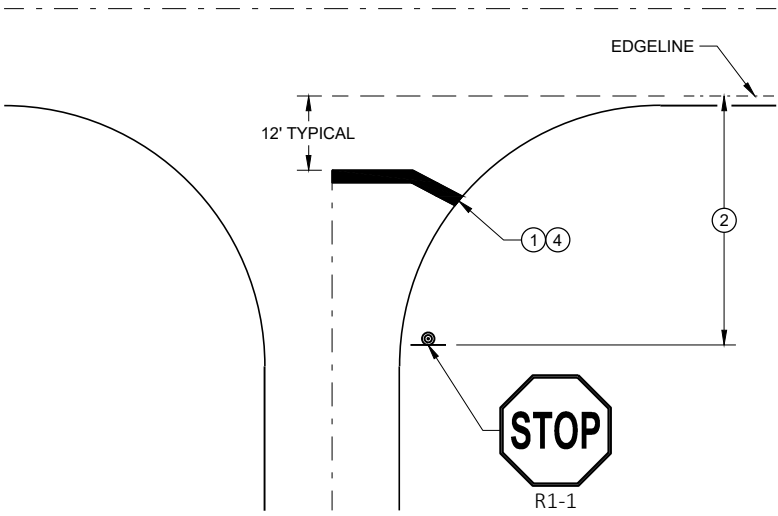


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER

FHWA

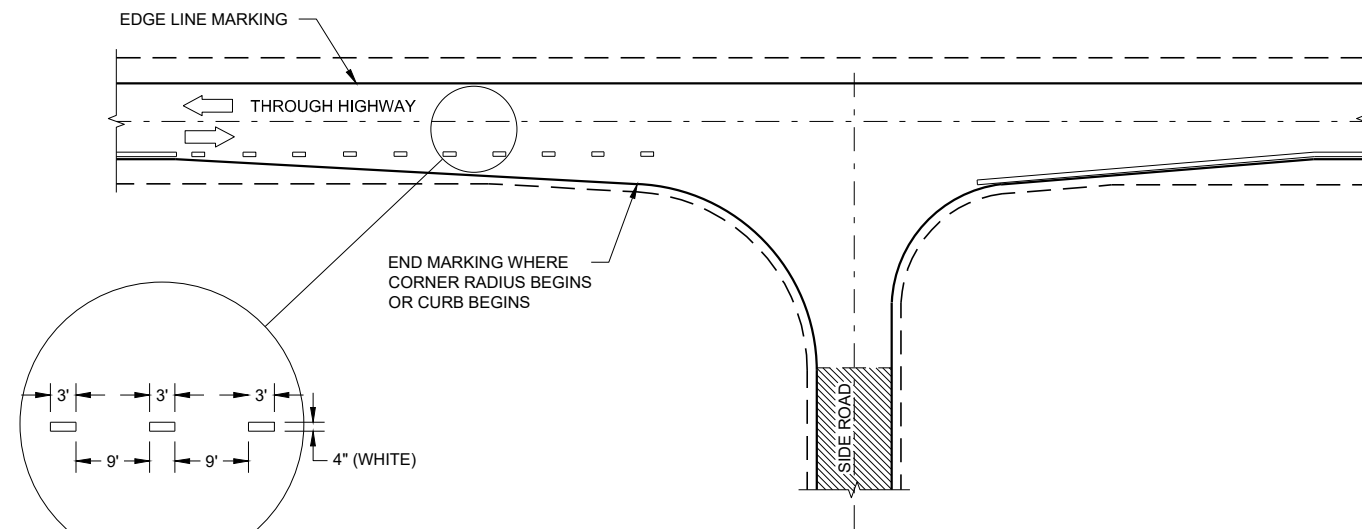
GENERAL NOTES

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

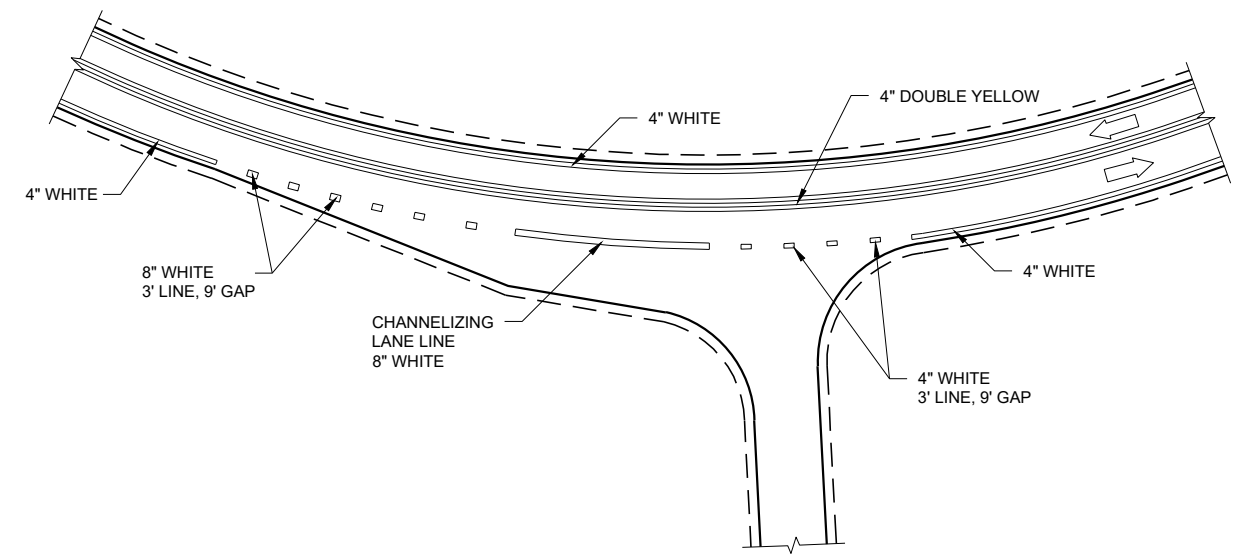
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

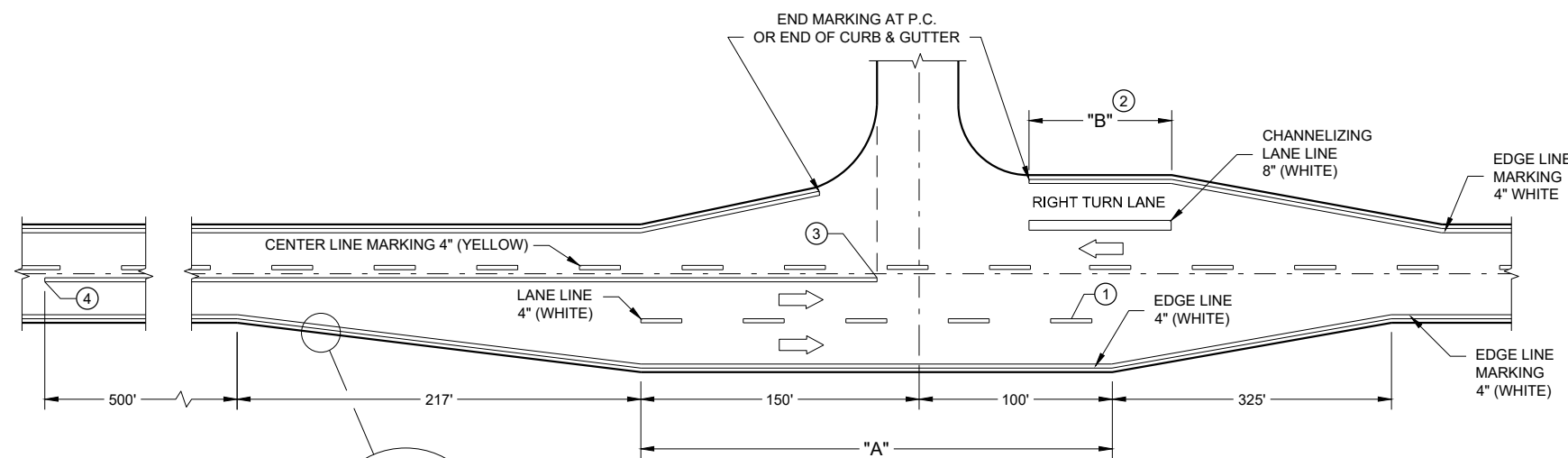
➔ DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE







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

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

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

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

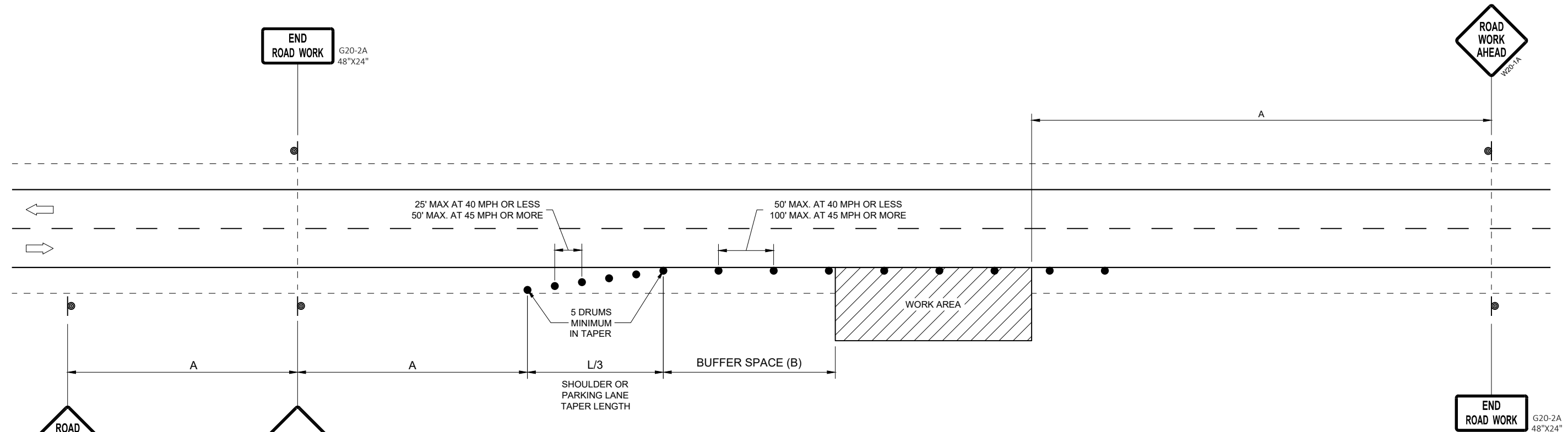
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

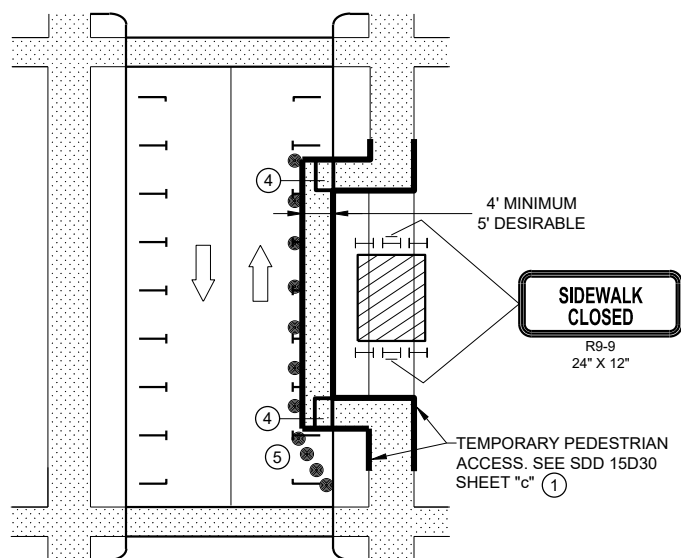
APPROVED
May 2020 DATE /S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

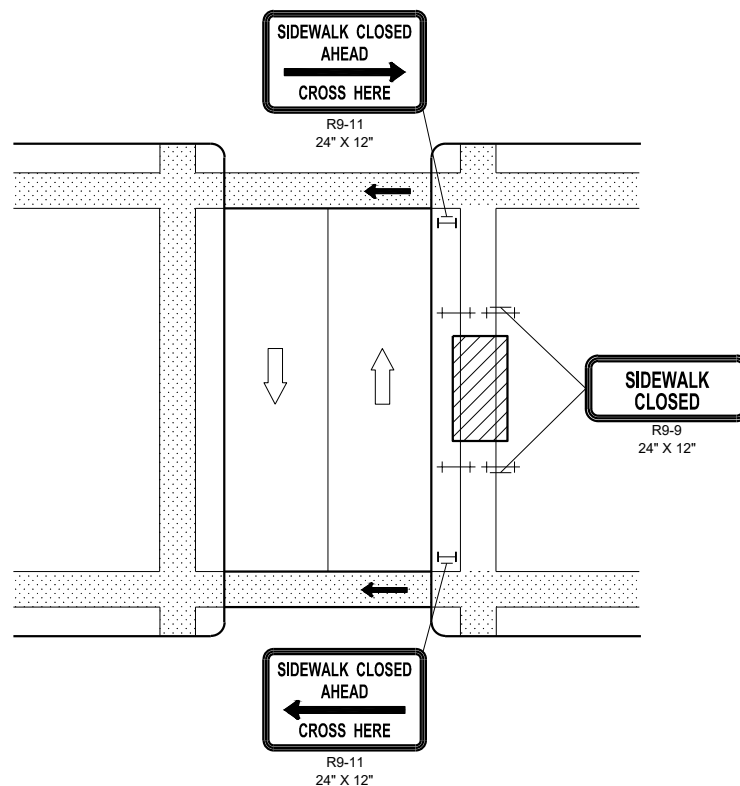
SDD 15D28 - 04

SDD 15D28 - 04

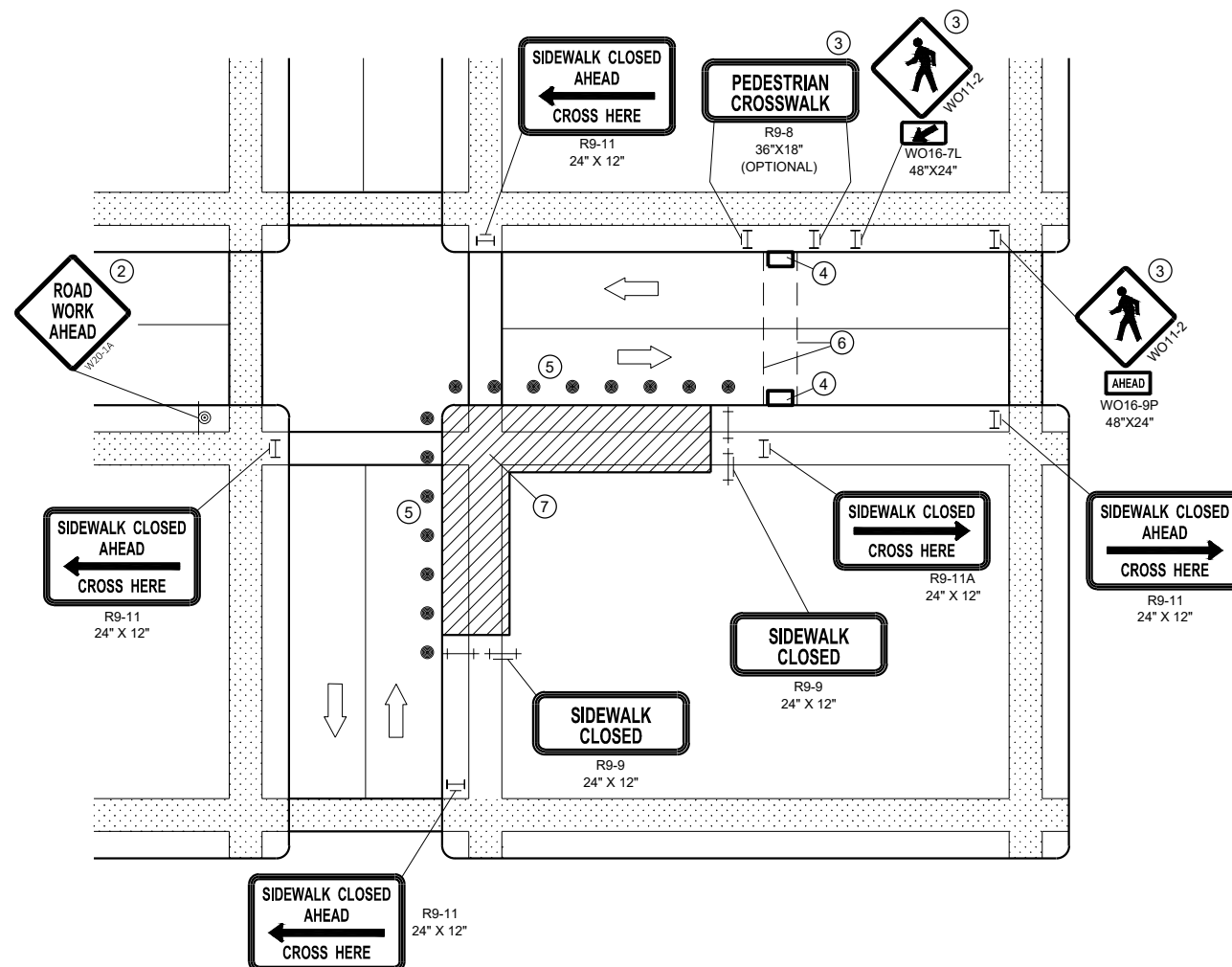
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.



MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

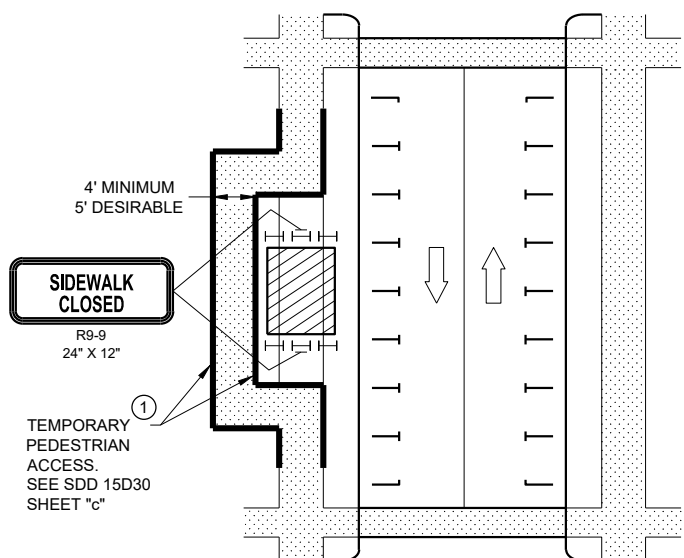


MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b".
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

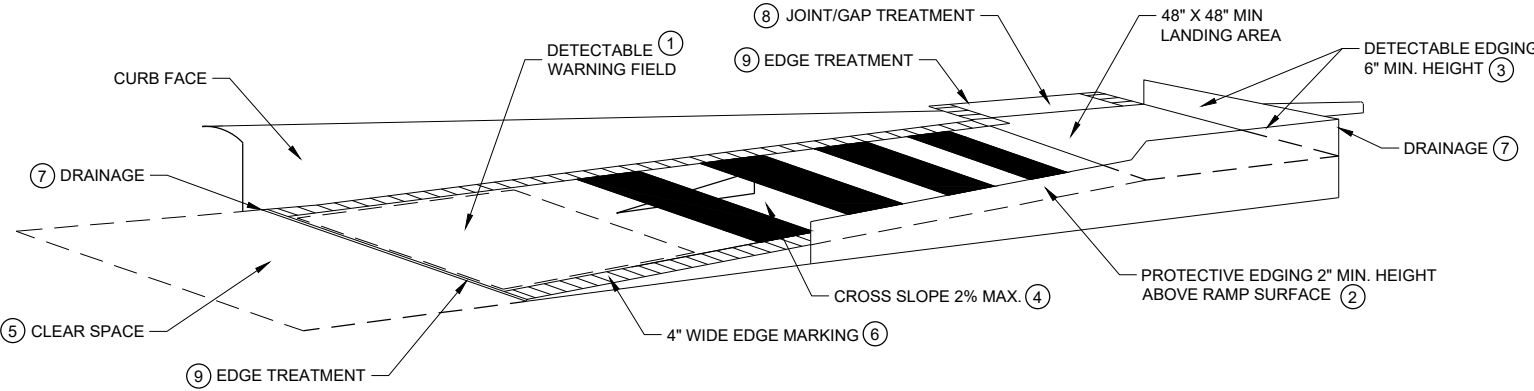
**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

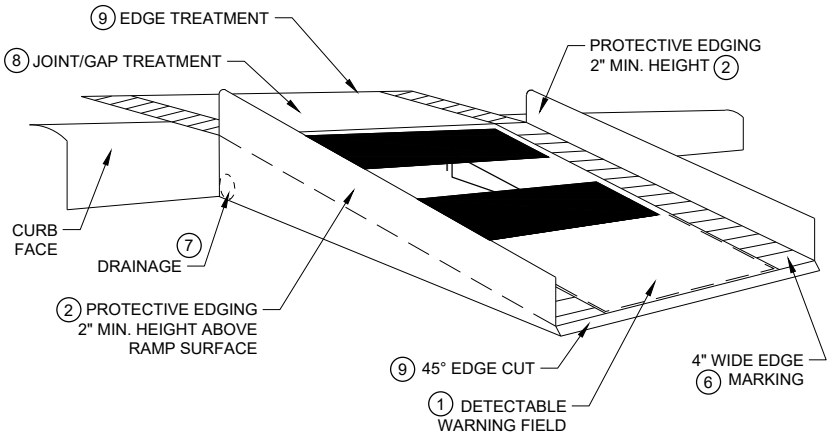
GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
 ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

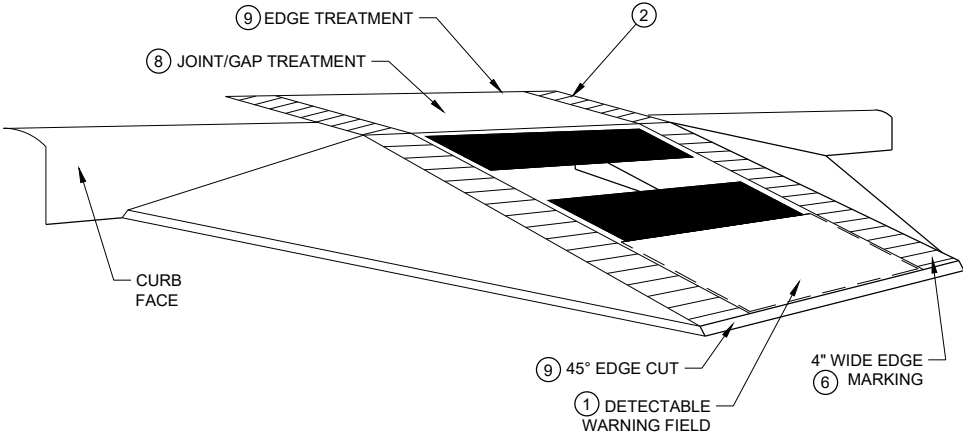
- ① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- ⑤ CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- ⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- ⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- ⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- ⑩ 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



TEMPORARY CURB RAMP PARALLEL TO CURB

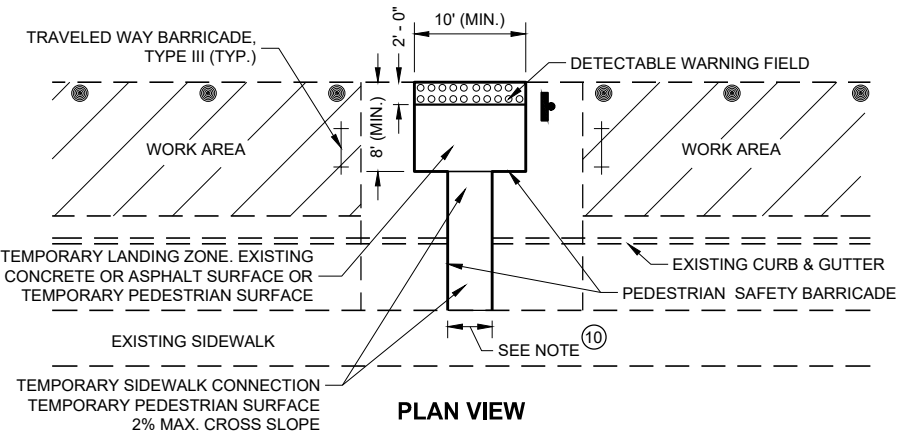


WITH PROTECTIVE EDGE

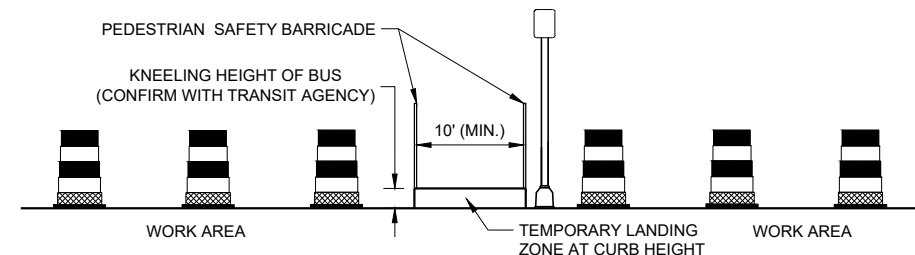


WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB



PLAN VIEW



PROFILE VIEW

TEMPORARY BUS STOP PAD

- LEGEND**
- TRAFFIC CONTROL DRUM
 - ⊥ TYPE III BARRICADE
 - ▨ WORK AREA

**TRAFFIC CONTROL,
 PEDESTRIAN ACCOMMODATION**

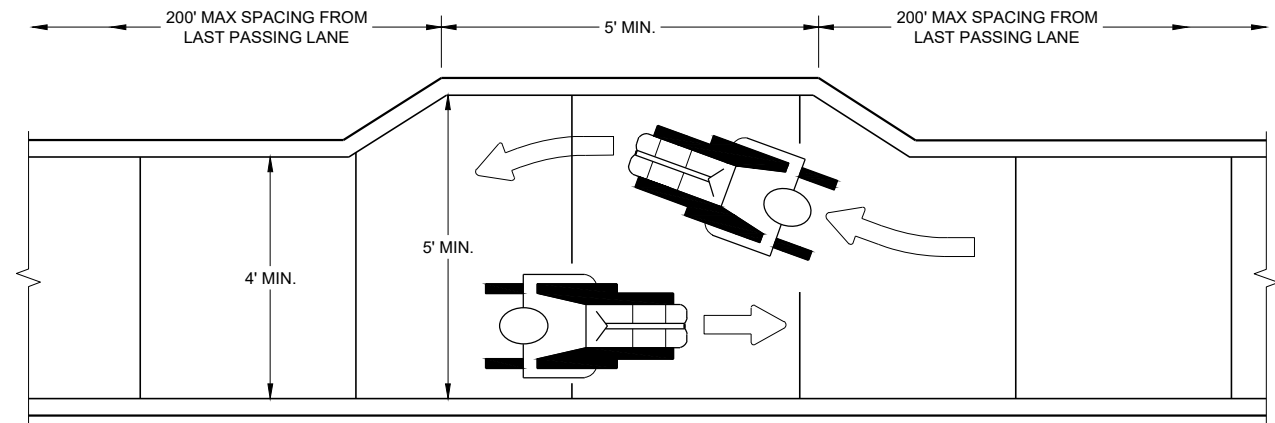
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

6

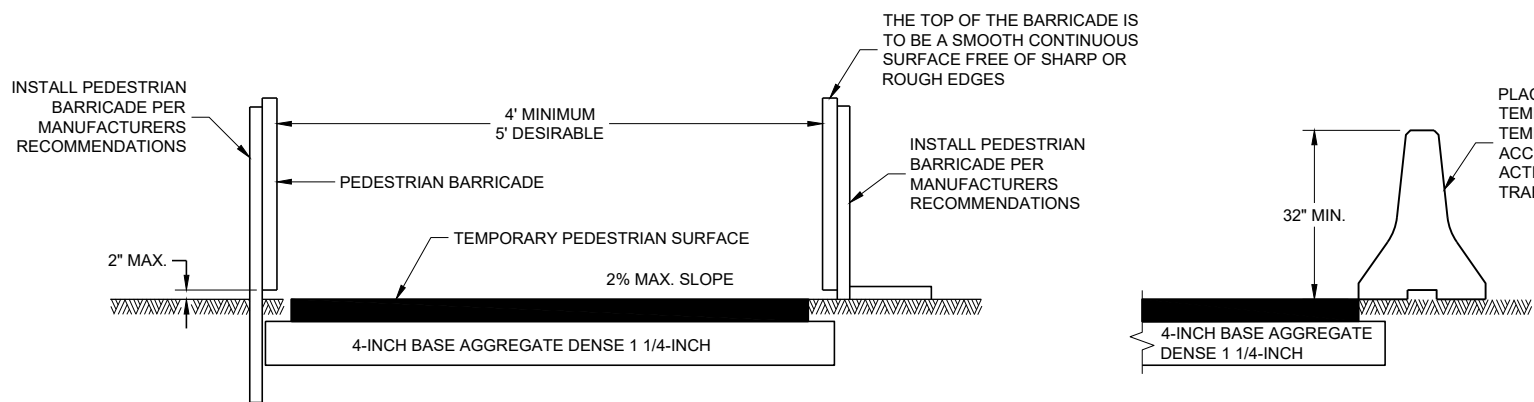
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SDD 15D30 - 06b

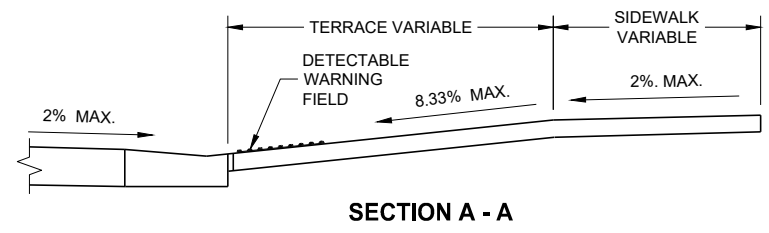
SDD 15D30 - 06b



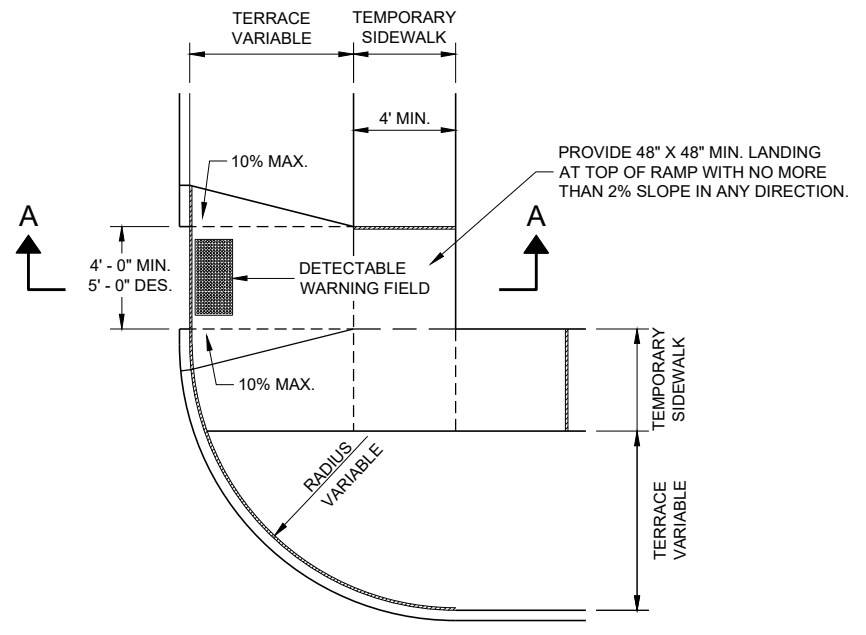
NARROW SIDEWALK PASSING DETAIL



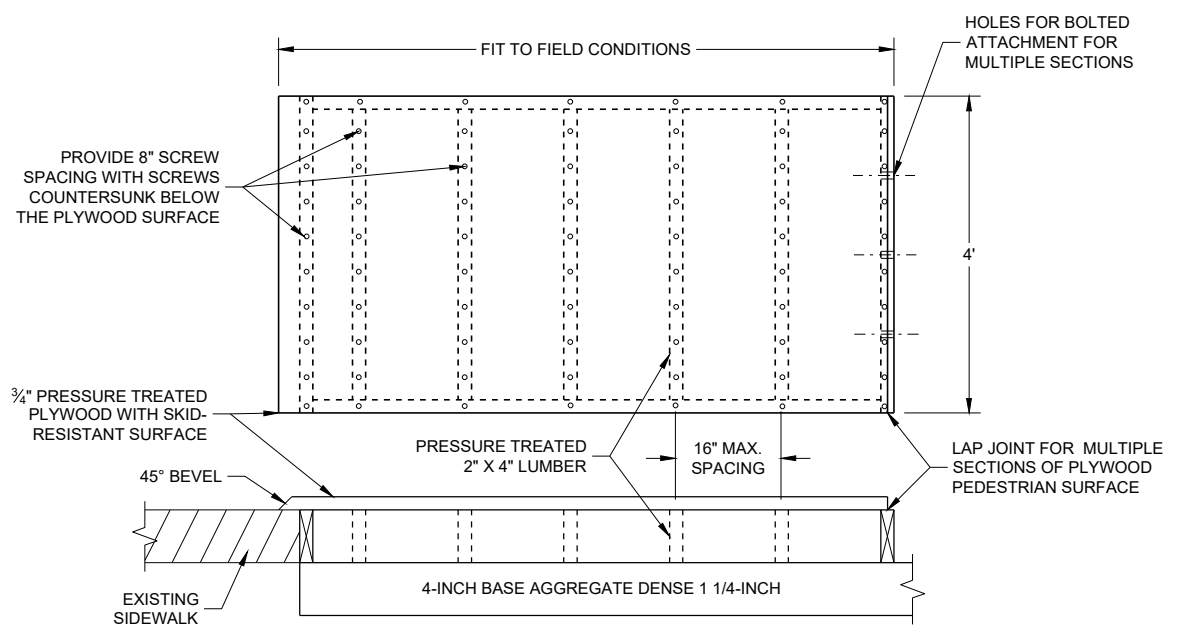
TEMPORARY PEDESTRIAN ACCESS



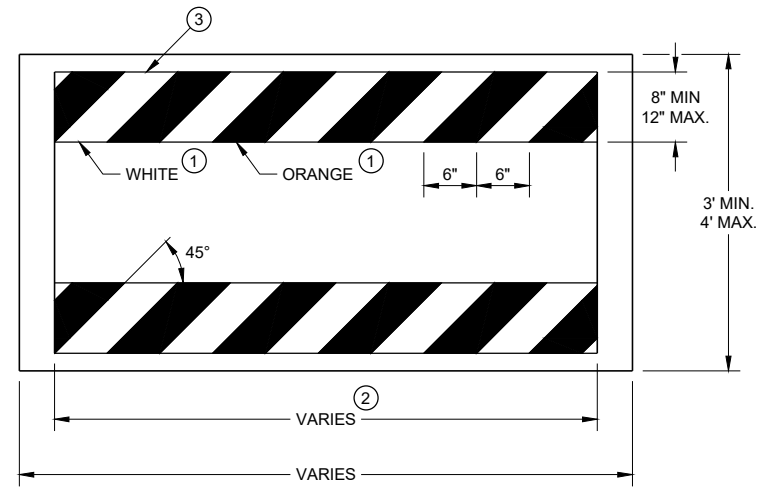
SECTION A - A



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



TEMPORARY PEDESTRIAN SURFACE PLYWOOD

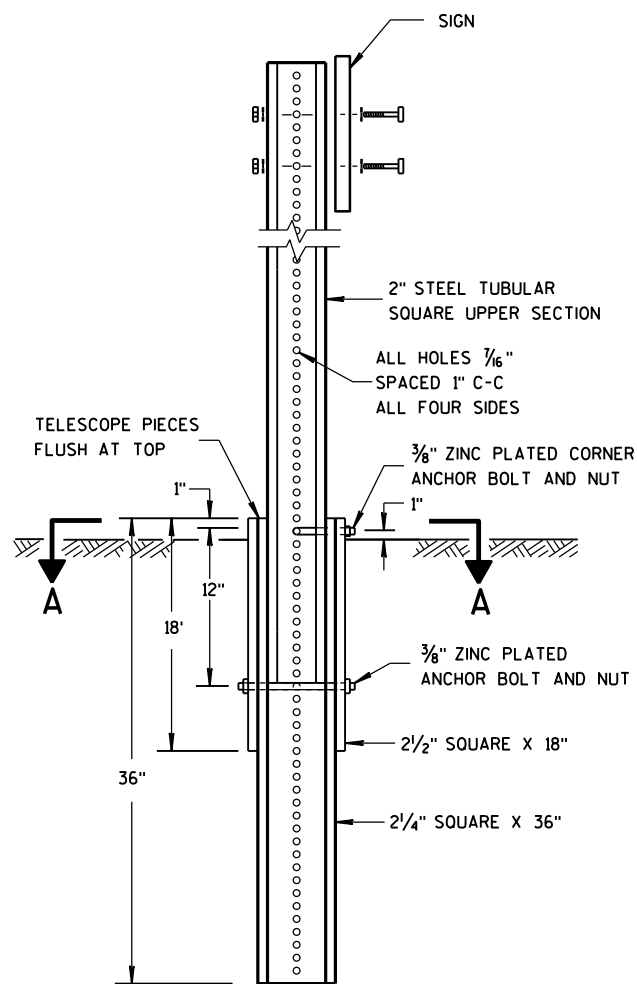


TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- * USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



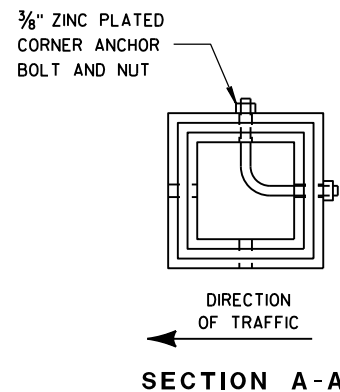
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

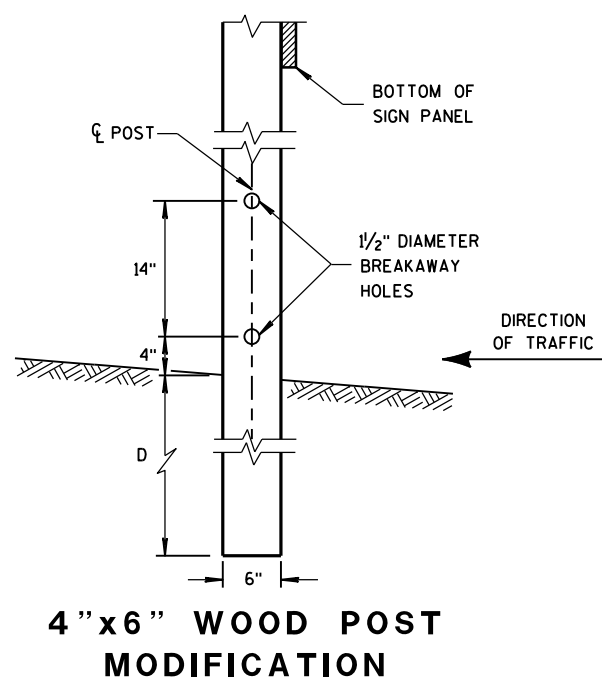
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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

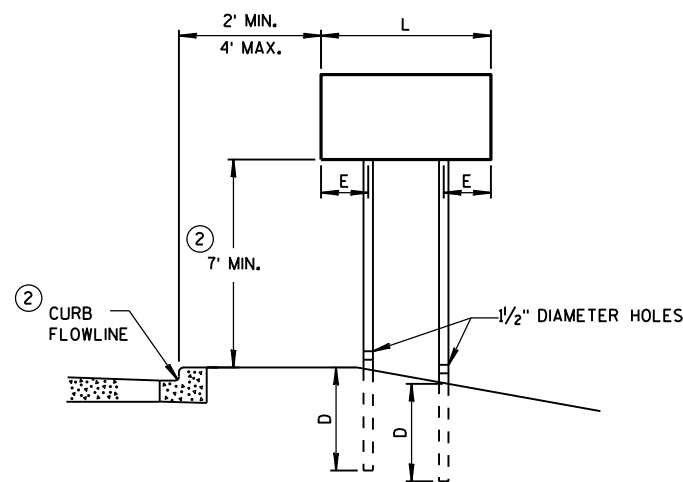
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.



SECTION A-A



4" X 6" WOOD POST MODIFICATION

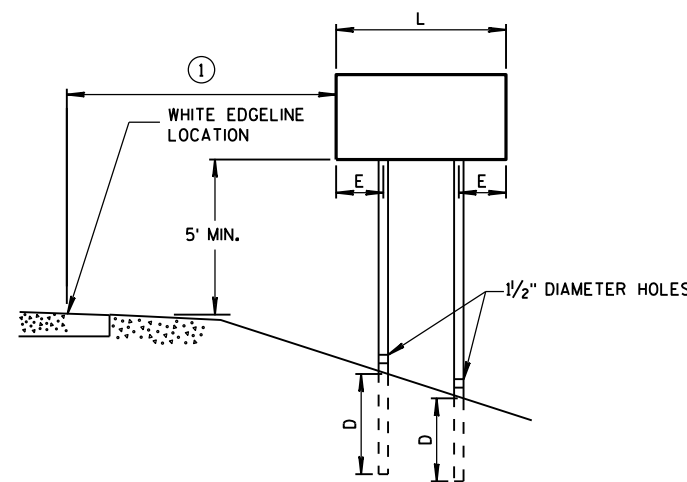


URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST EMBEDMENT DEPTH

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



RURAL AREA

4" X 6" WOOD POST

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

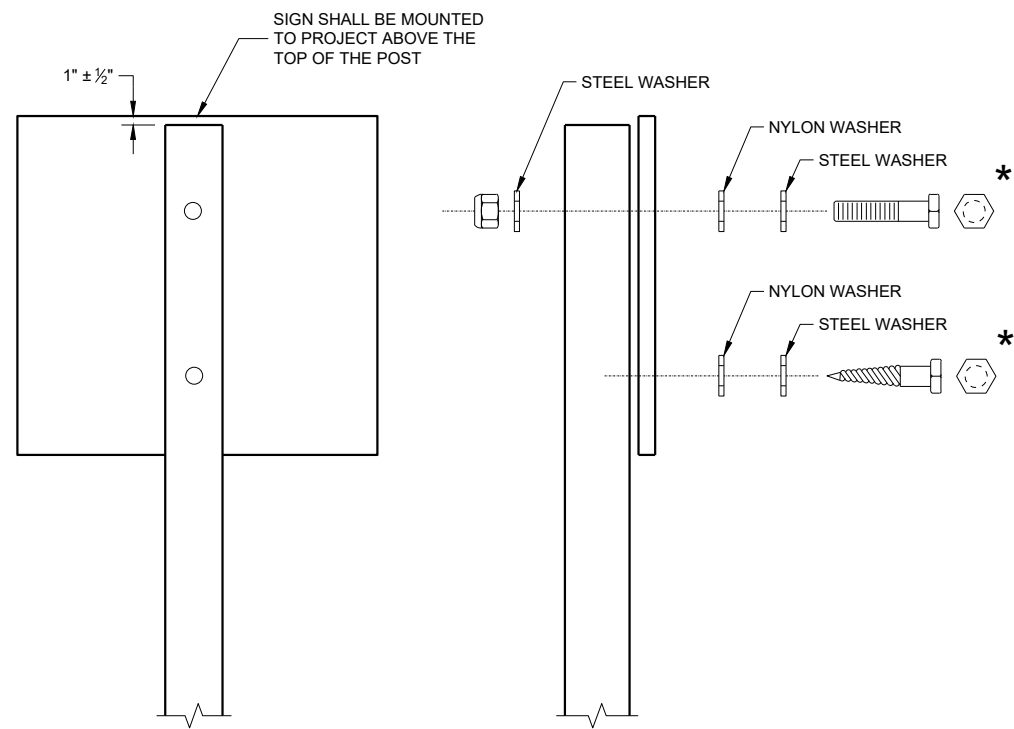
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

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

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

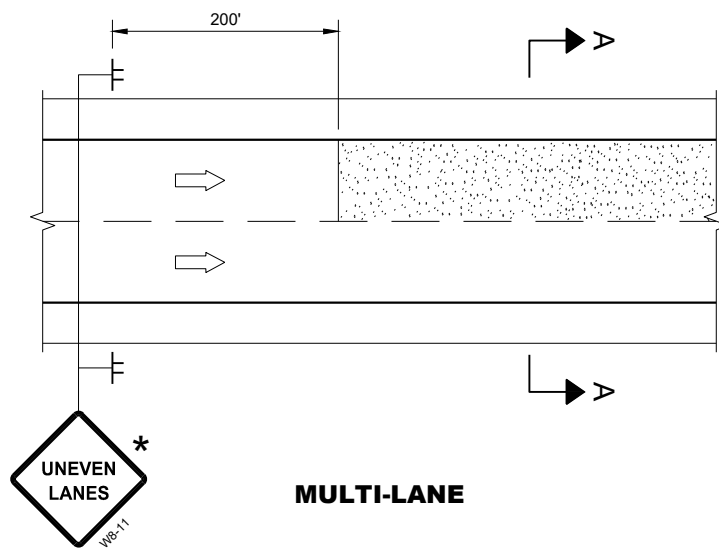
WOOD POST (4" x 6")
LAG SCREWS - 3/8" x 3"
MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

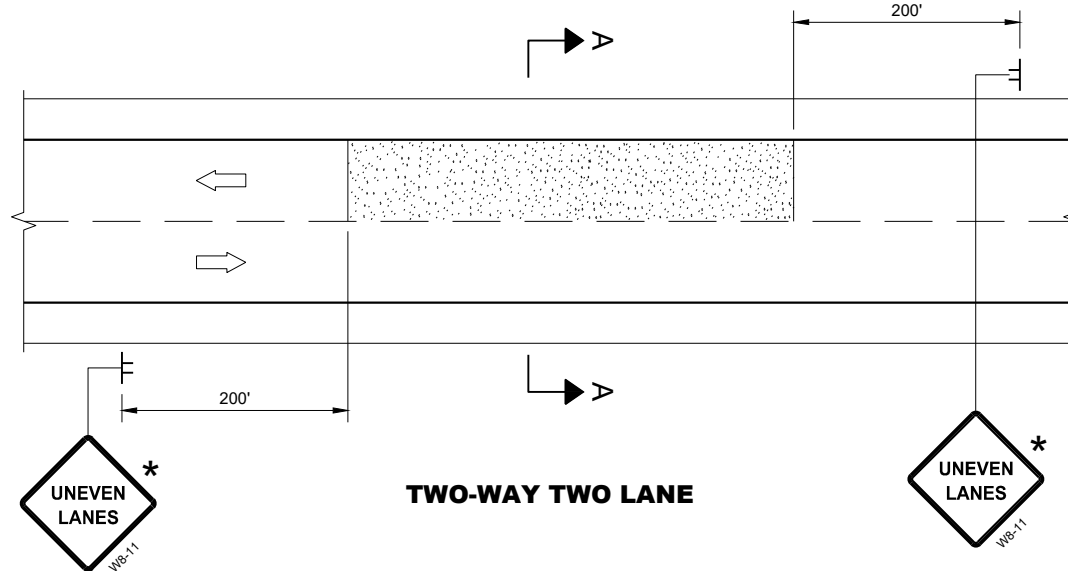
WASHERS (ALL POSTS) -
1 1/4" O.D. x 3/8" I.D. x 1/16" STEEL
1 1/4" O.D. x 3/8" I.D. x 0.080 NYLON

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

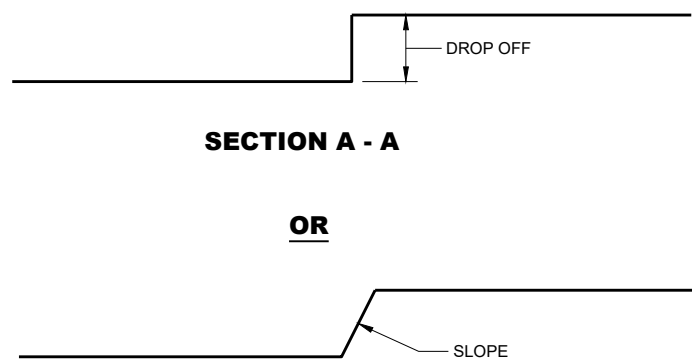
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	



MULTI-LANE



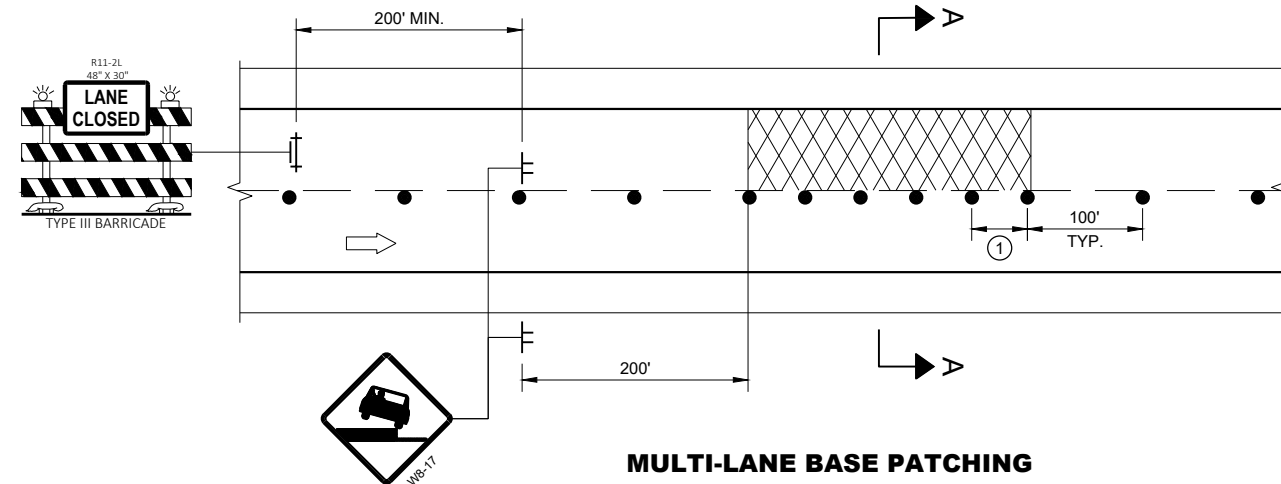
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

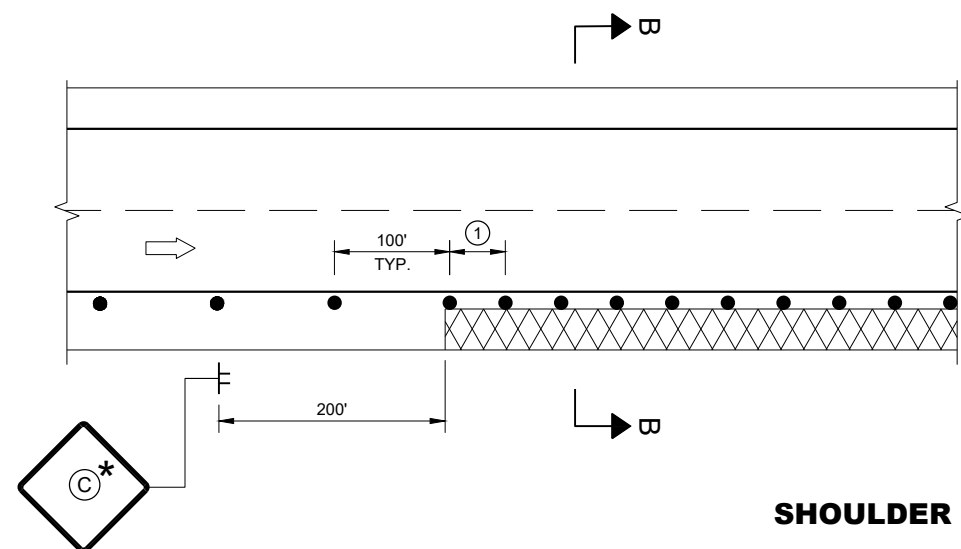
GENERAL NOTES

- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

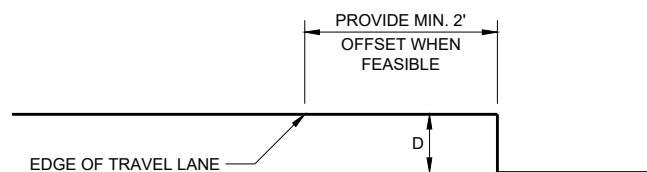
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
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



SHOULDER DROP-OFFS



SECTION B - B

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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.

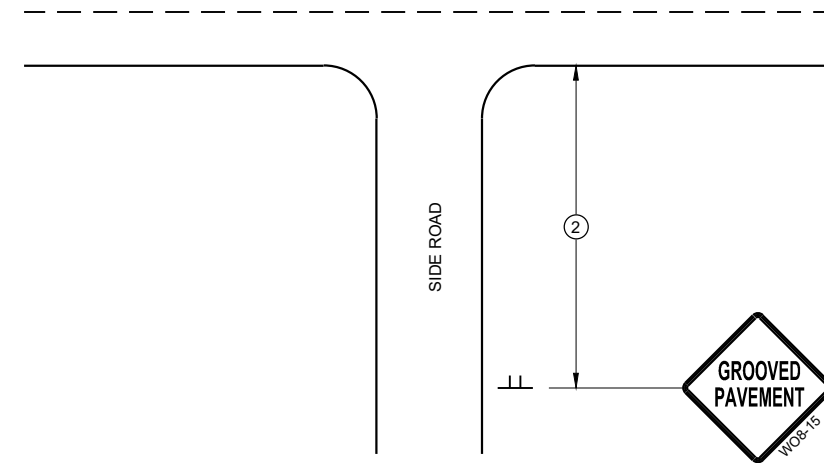
SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

- 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.

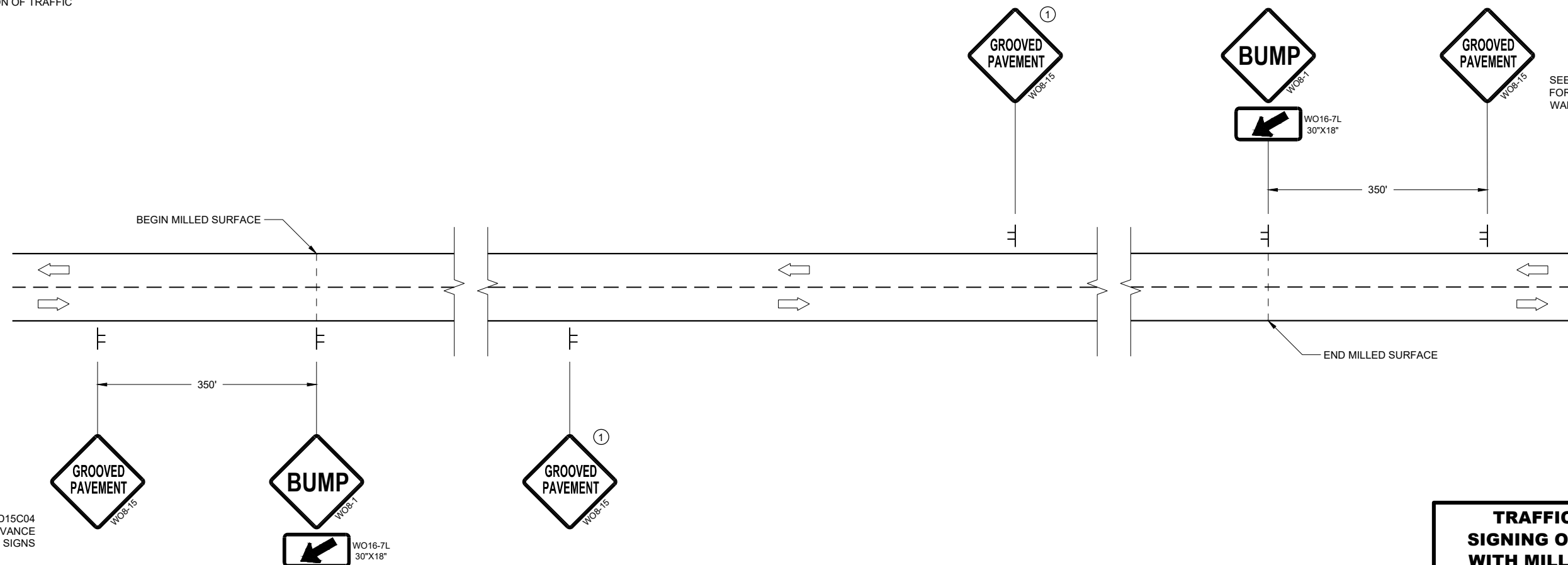
LEGEND

⊥ SIGN ON TEMPORARY SUPPORT

⇨ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

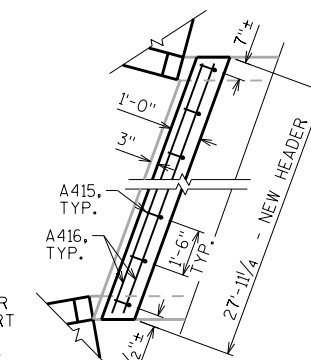
TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

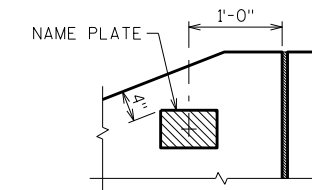
FHWA

- ▲ SEE CORNER DETAILS ON "WING DETAILS" SHEET
- NAME PLATE LOCATION (SEE BELOW)
- INDICATES WING NUMBER (NOTE: WING NUMBERS DIFFER FROM ORIGINAL PLANS)



INLET HEADER - PLAN

SECTION THRU INLET HEADER DETAIL ON "WING DETAILS" SHEET



NAME PLATE LOCATION WING 4

LIST OF DRAWINGS

- 1. WING REPLACEMENTS
- 2. WING DETAILS

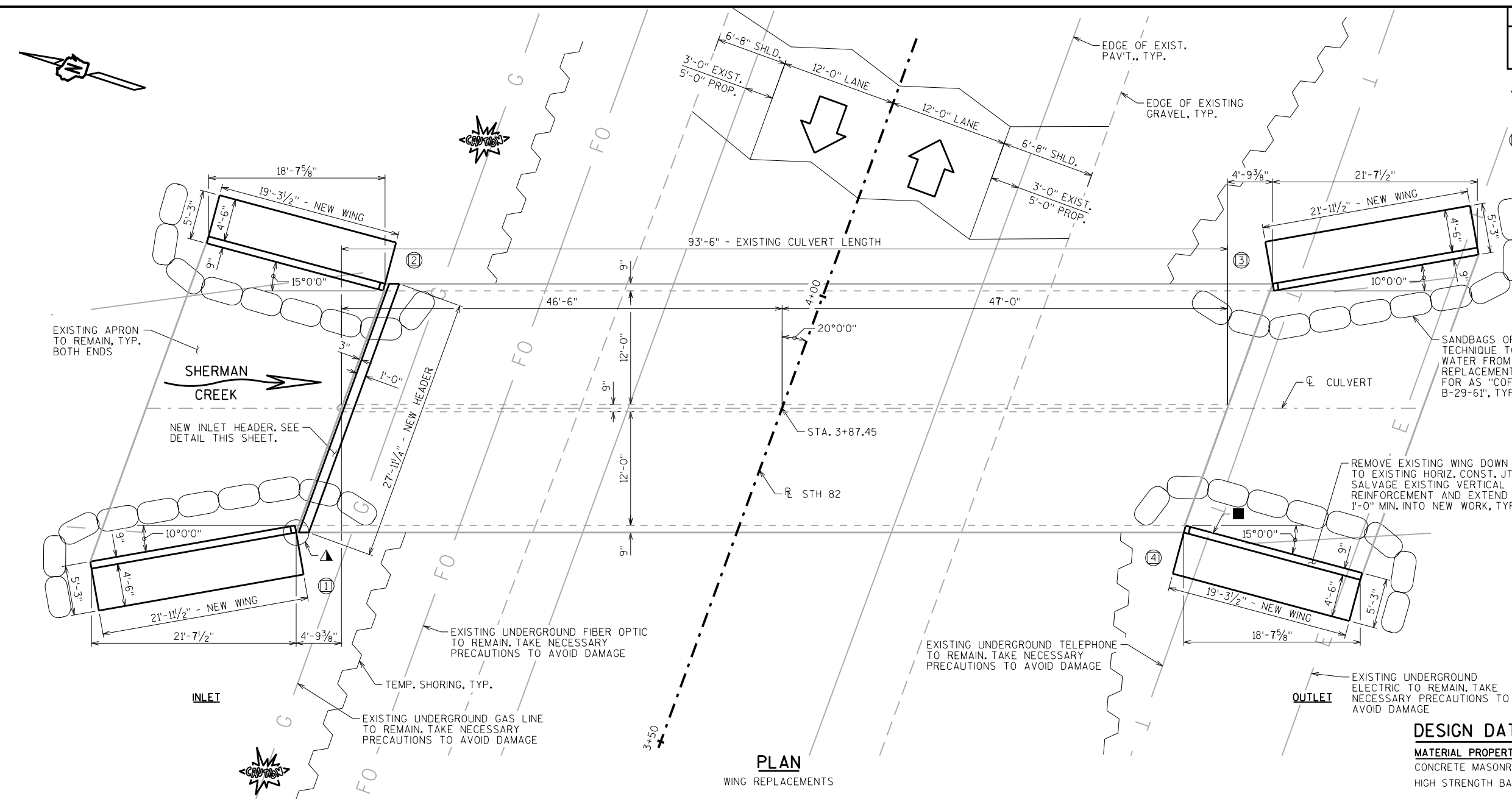
DESIGN DATA

MATERIAL PROPERTIES:
 CONCRETE MASONRY $f'_c = 3,500$ P.S.I.
 HIGH STRENGTH BAR STEEL REINFORCEMENT $f_y = 60,000$ P.S.I.

STRUCTURE DESIGN CONTACTS:

ADAM SWIERCZEK (608) 267-4593
 DOMINIQUE BECHLE (608) 261-8205

NO.		DATE		REVISION		BY	
				09/13/21			
ACCEPTED				DATE			
CHIEF STRUCTURES DESIGN ENGINEER				DATE			
STRUCTURE B-29-61							
STH 82 OVER SHERMAN CREEK							
COUNTY		JUNEAU		TOWN		PLYMOUTH	
DESIGN SPEC. REHABILITATION N/A							
DESIGNED BY	DESIGNED CK'D.	IFC	DRAWN BY	ABS	PLANS CK'D.	IFC	
WING REPLACEMENTS						SHEET 1 OF 2	



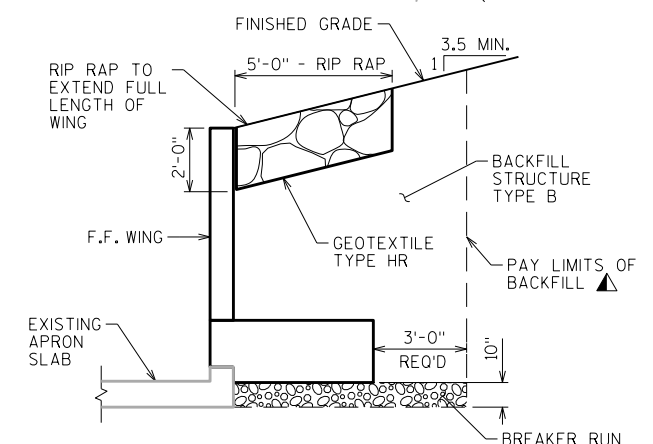
PLAN
WING REPLACEMENTS

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0220	REMOVING STRUCTURE B-29-61	EACH	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-29-61	LS	1
206.5000	COFFERDAMS B-29-61	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	205
311.0115	BREAKER RUN	CY	23
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	19
504.0100	CONCRETE MASONRY CULVERTS	CY	43
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,450
511.1200	TEMPORARY SHORING B-29-61	SF	865
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	21
606.0300	RIPRAP HEAVY	CY	34
645.0120	GEOTEXTILE TYPE HR	SY	96
NON-BID ITEMS			
	FILLER	SIZE	3/4"

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-29-61" SHALL BE THE EXISTING GROUNDLINE.
- ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT WING AND FOOTING CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE ELEMENTS SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.
- THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
- PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON VERTICAL AND HORIZONTAL WING CONSTRUCTION JOINTS.
- THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 504.3.4 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1967. WORK SHALL BE INCLUDED IN THE BID ITEM "CONCRETE MASONRY CULVERTS".



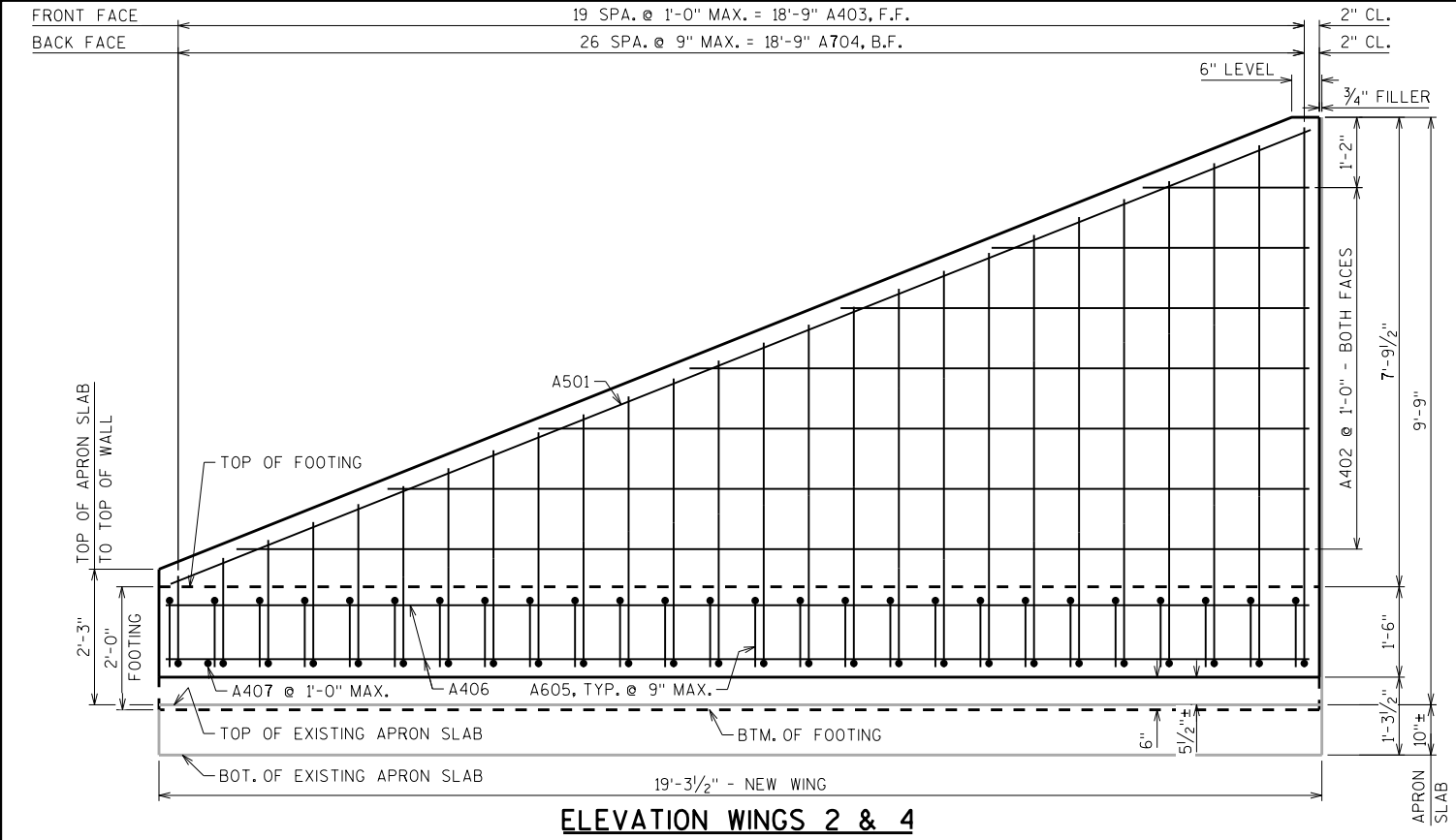
TYPICAL SECTION THRU WING WALL

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

8

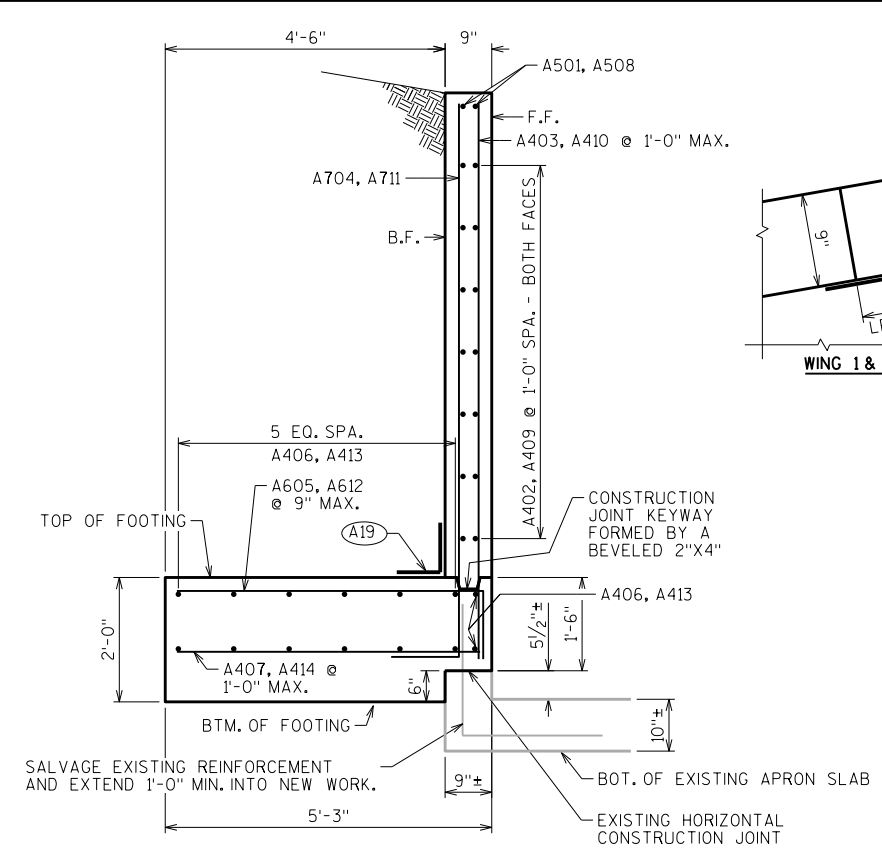
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SCALE = 6:00



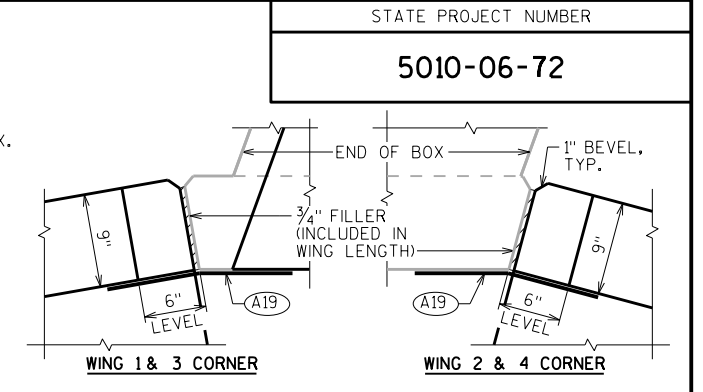
ELEVATION WINGS 2 & 4

LOOKING EAST
SHOWING WING 2 B.F. REINF.
WING 4 SIMILAR

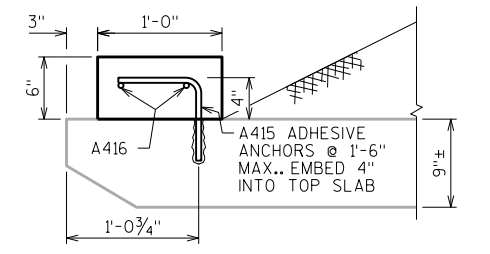


SECTION THRU WING DETAILS

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

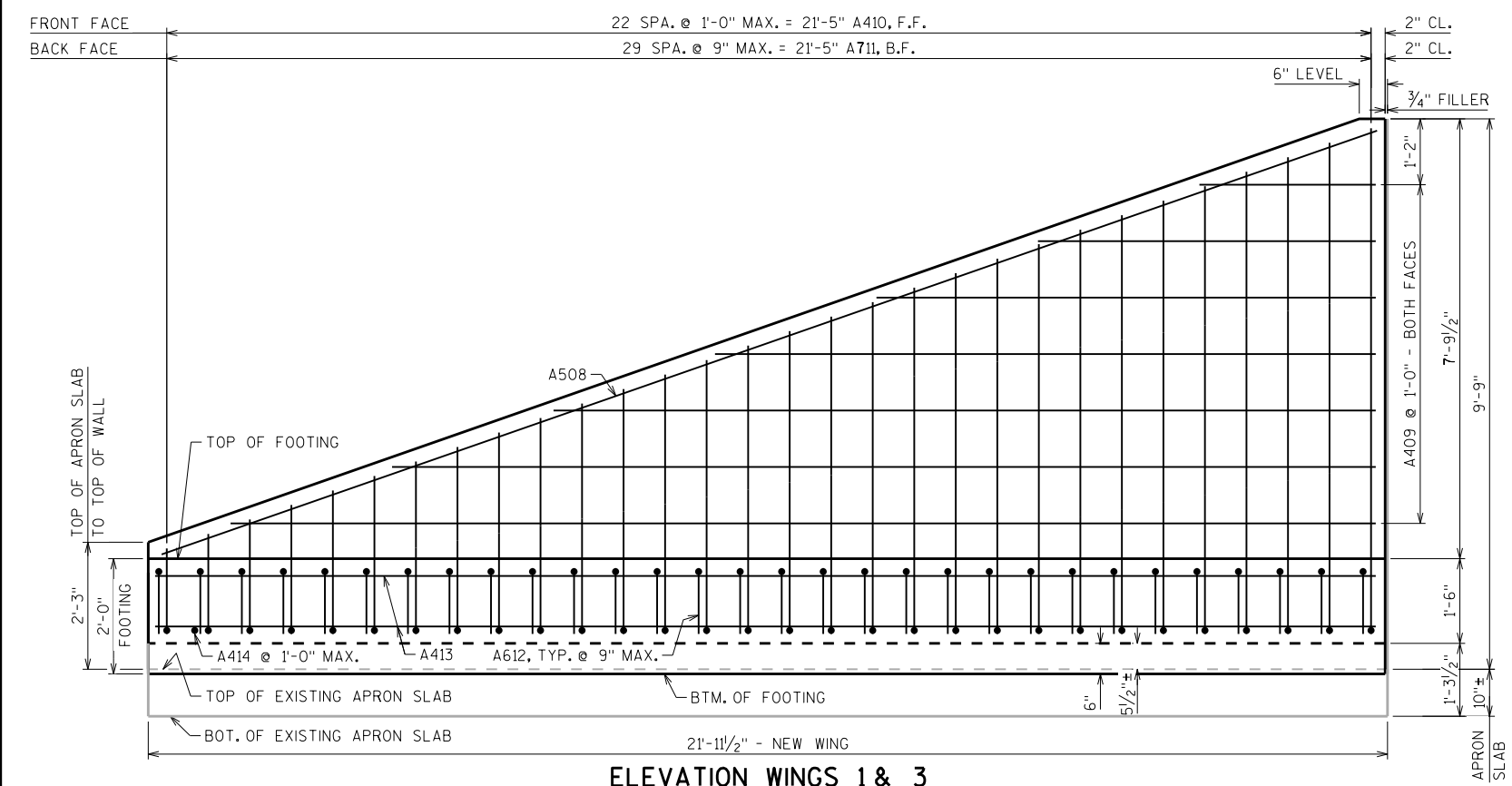


CORNER DETAILS



SECTION THRU INLET HEADER

NOTES: THE FIRST OR FIRST TWO DIGITS OF THE MARK SIGNIFIES THE BAR SIZE.



ELEVATION WINGS 1 & 3

LOOKING EAST
SHOWING WING 1 B.F. REINF.
WING 3 SIMILAR

**A704, A605,
A711, A612**

A415

BILL OF BARS

THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR.

BAR MARK	COAT	NO. REQ'D		LENGTH	BENT	BAR SERIES	LOCATION
		INLET	OUTLET				
A501	X	2	2	20'-4"	NO		WING 2 & 4 - HORIZ. - BOTH FACES - TOP
A402	X	14	14	10'-3"	NO	▲	WING 2 & 4 - HORIZ. - BOTH FACES
A403	X	20	20	5'-3"	NO	▲	WING 2 & 4 - VERT. - F.F.
A704	X	27	27	6'-3"	1'-2"	▲	WING 2 & 4 - VERT. - B.F.
A605	X	27	27	5'-11"	1'-2"		WING 2 & 4 - FOOTING - TOP
A406	X	14	14	18'-11"	NO		WING 2 & 4 - FOOTING - LONGIT.
A407	X	20	20	4'-11"	NO		WING 2 & 4 - FOOTING - BOTTOM
A508	X	2	2	22'-9"	NO		WING 1 & 3 - HORIZ. - BOTH FACES - TOP
A409	X	14	14	11'-9"	NO	▲	WING 1 & 3 - HORIZ. - BOTH FACES
A410	X	23	23	5'-3"	NO	▲	WING 1 & 3 - VERT. - F.F.
A711	X	30	30	6'-3"	1'-2"	▲	WING 1 & 3 - VERT. - B.F.
A612	X	30	30	5'-11"	1'-2"		WING 1 & 3 - FOOTING - TOP
A413	X	14	14	21'-7"	NO		WING 1 & 3 - FOOTING - LONGIT.
A414	X	23	23	4'-11"	NO		WING 1 & 3 - FOOTING - BOTTOM
A415	X	19	--	1'-3"	0'-8"		INLET HEADER - ADHESIVE ANCHORS
A416	X	2	--	27'-6"	NO		INLET HEADER - LONGIT.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

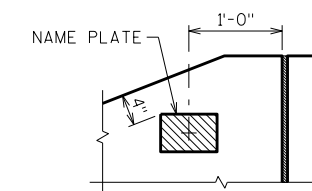
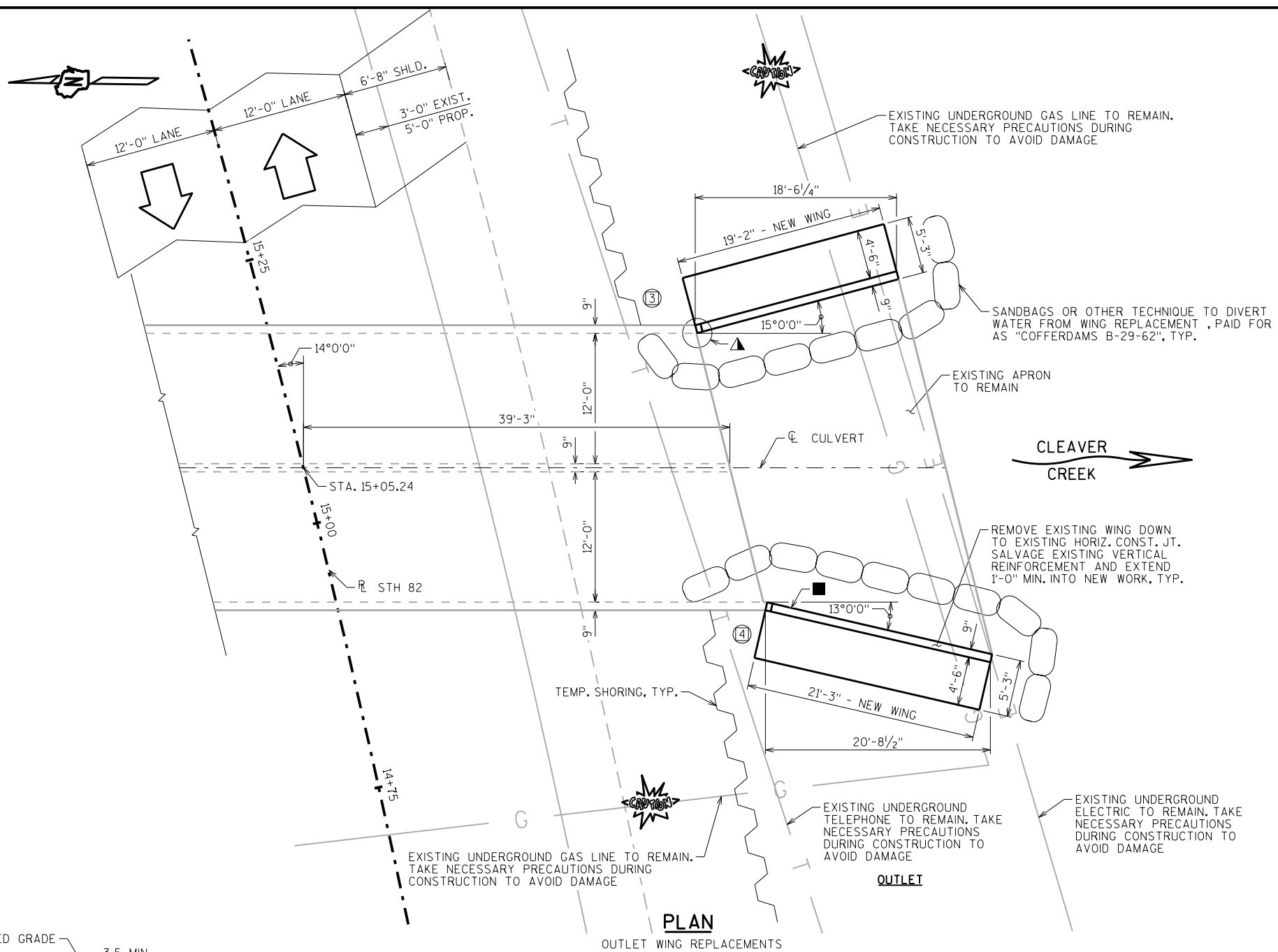
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
A402	4 SERIES OF 7	2'-9" TO 17'-9"
A403	2 SERIES OF 20	1'-6" TO 8'-11"
A704	2 SERIES OF 27	2'-6" TO 9'-11"
A409	4 SERIES OF 7	3'-2" TO 20'-4"
A410	2 SERIES OF 23	1'-6" TO 8'-11"
A711	2 SERIES OF 30	2'-6" TO 9'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-29-61			
DRAWN BY		ABS	PLANS CK'D. IFC
WING DETAILS		SHEET 2	

- ▲ SEE CORNER DETAILS ON "WING DETAILS" SHEET
- NAME PLATE LOCATION (SEE BELOW)
- INDICATES WING NUMBER



**NAME PLATE LOCATION
WING 4**

LIST OF DRAWINGS

- 1. WING REPLACEMENTS
- 2. WING DETAILS

DESIGN DATA

MATERIAL PROPERTIES:
 CONCRETE MASONRY ————— $f'_c = 3,500$ P.S.I.
 HIGH STRENGTH BAR STEEL REINFORCEMENT — $f_y = 60,000$ P.S.I.

STRUCTURE DESIGN CONTACTS:

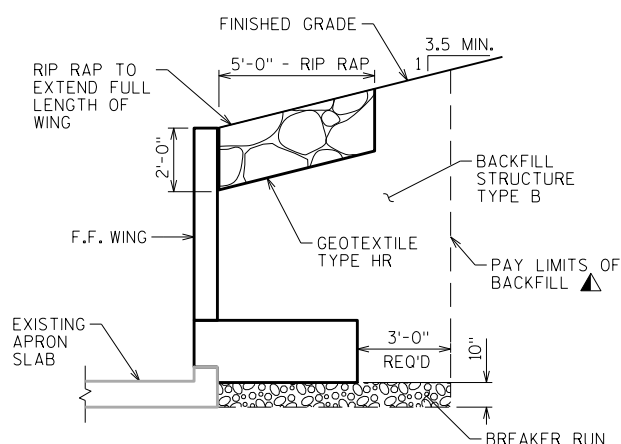
ADAM SWIERCZEK (608) 267-4593
 DOMINIQUE BECHLE (608) 261-8205

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0220	REMOVING STRUCTURE B-29-62	EACH	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-29-62	LS	1
206.5000	COFFERDAMS B-29-62	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	101
311.0115	BREAKER RUN	CY	11
504.0100	CONCRETE MASONRY CULVERTS	CY	21
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,140
511.1200	TEMPORARY SHORING B-29-62	SF	430
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10
606.0300	RIPRAP HEAVY	CY	17
645.0120	GEOTEXTILE TYPE HR	SY	48
	NON-BID ITEMS		
	FILLER	SIZE	3/4"

GENERAL NOTES

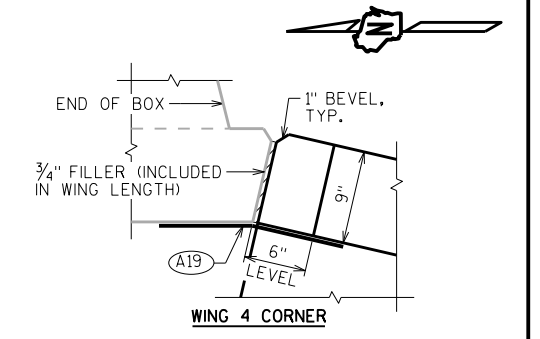
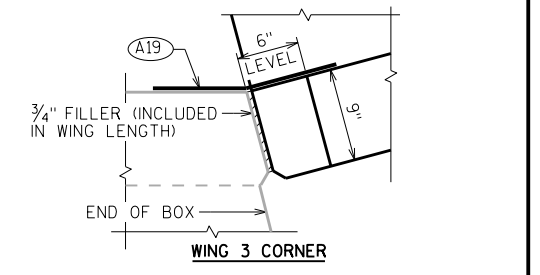
- DRAWINGS SHALL NOT BE SCALED.
- DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-29-62" SHALL BE THE EXISTING GROUNDLINE.
- ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT WING AND FOOTING CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE ELEMENTS SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.
- THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
- PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON VERTICAL AND HORIZONTAL WING CONSTRUCTION JOINTS.
- THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 504.3.4 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1967. WORK SHALL BE INCLUDED IN THE BID ITEM "CONCRETE MASONRY CULVERTS".



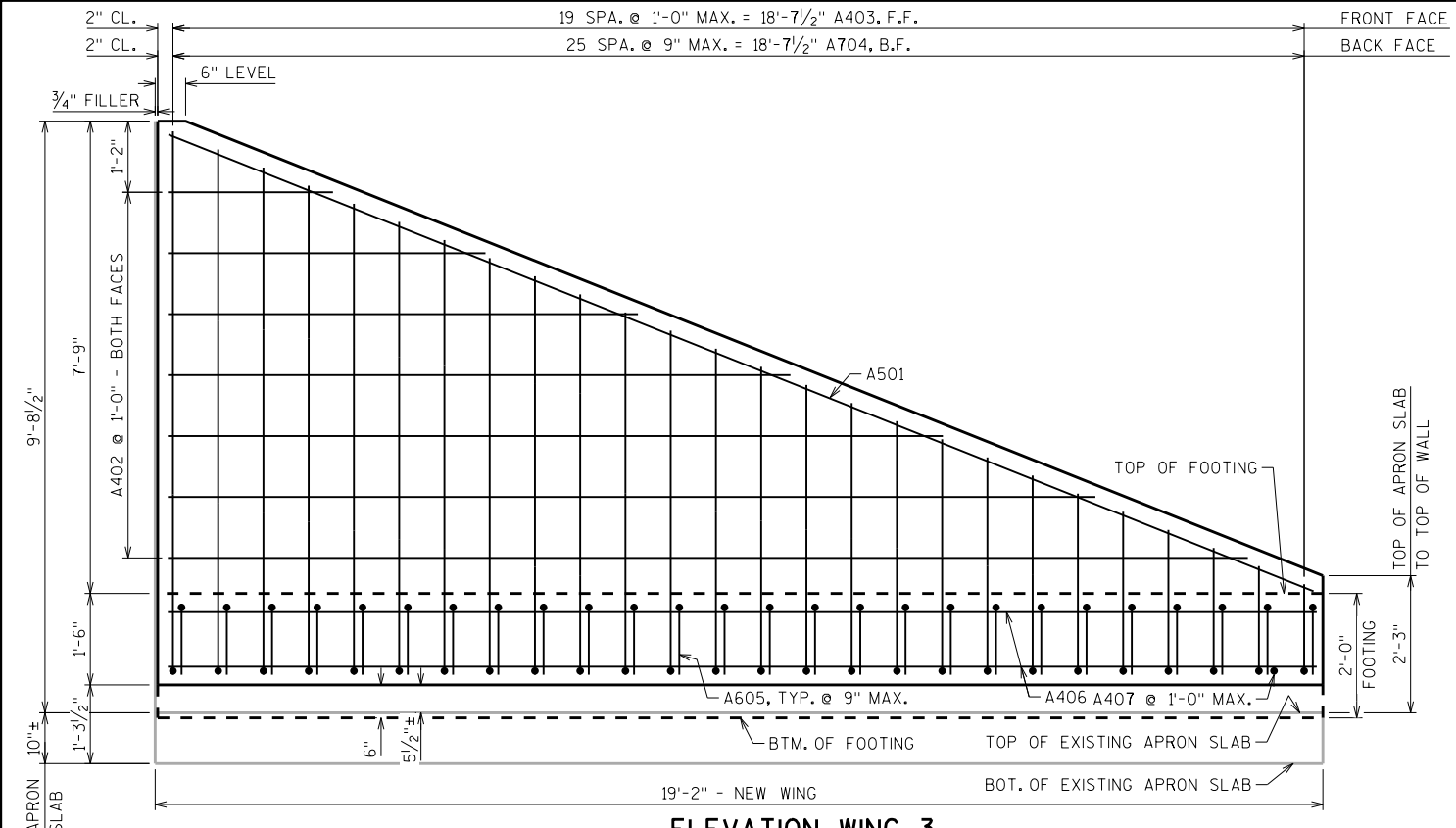
**TYPICAL SECTION
THRU WING WALL**

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

NO.		DATE		REVISION		BY	
STRUCTURE B-29-62							
STH 82 OVER CLEAVER CREEK							
COUNTY		JUNEAU		TOWN		PLYMOUTH	
DESIGN SPEC. REHABILITATION N/A							
DESIGNED BY	ABS	DESIGNED CK'D.	IFC	DRAWN BY	ABS	PLANS CK'D.	IFC
WING REPLACEMENTS						SHEET 1 OF 2	

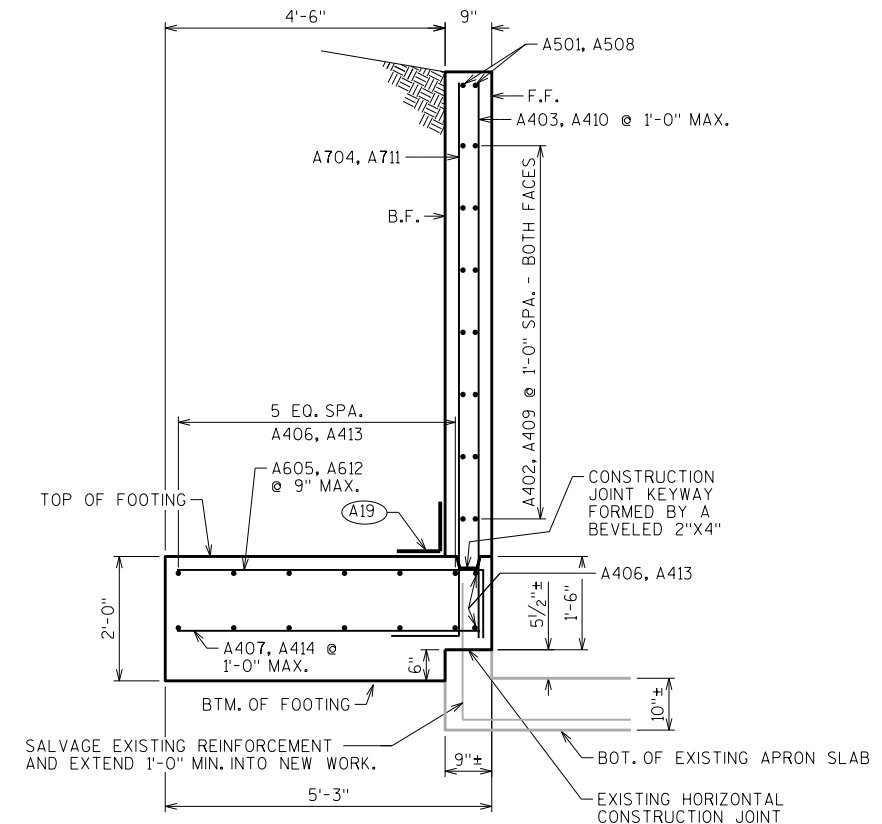


CORNER DETAILS



ELEVATION WING 3

LOOKING EAST
SHOWING B.F. REINF.



SECTION THRU WING DETAILS

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NOTES: THE FIRST OR FIRST TWO DIGITS OF THE MARK SIGNIFIES THE BAR SIZE.

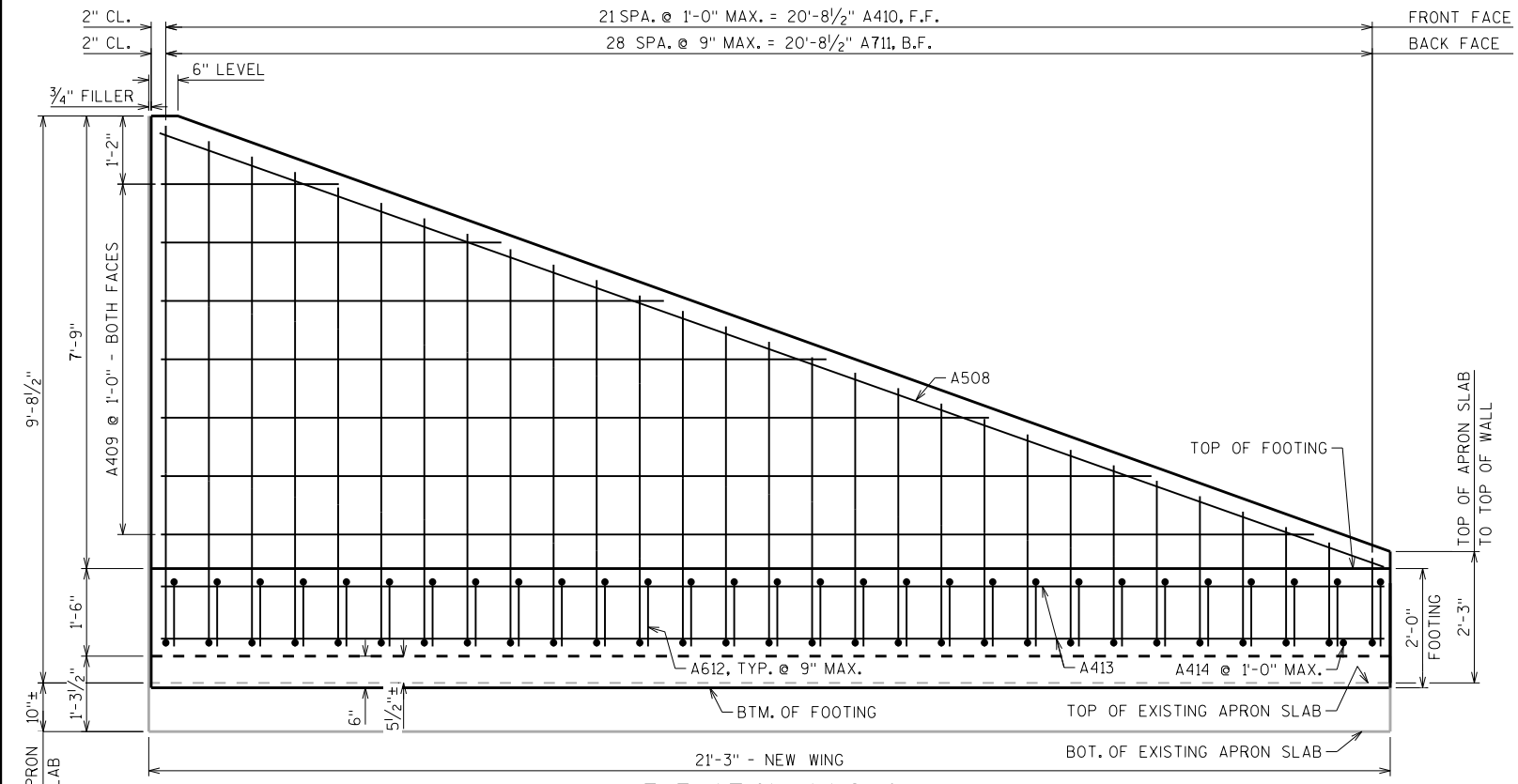
BILL OF BARS

THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR.

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	2	20'-3"	NO		WING 3 - HORIZ. - BOTH FACES - TOP
A402	X	14	10'-3"	NO	▲	WING 3 - HORIZ. - BOTH FACES
A403	X	20	5'-3"	NO	▲	WING 3 - VERT. - F.F.
A704	X	26	6'-3"	1'-2"	▲	WING 3 - VERT. - B.F.
A605	X	26	5'-11"	1'-2"		WING 3 - FOOTING - TOP
A406	X	14	18'-9"	NO		WING 3 - FOOTING - LONGIT.
A407	X	20	4'-11"	NO		WING 3 - FOOTING - BOTTOM
A508	X	2	22'-3"	NO		WING 4 - HORIZ. - BOTH FACES - TOP
A409	X	14	11'-5"	NO	▲	WING 4 - HORIZ. - BOTH FACES
A410	X	22	5'-3"	NO	▲	WING 4 - VERT. - F.F.
A711	X	29	6'-3"	1'-2"	▲	WING 4 - VERT. - B.F.
A612	X	29	5'-11"	1'-2"		WING 4 - FOOTING - TOP
A413	X	14	20'-10"	NO		WING 4 - FOOTING - LONGIT.
A414	X	22	4'-11"	NO		WING 4 - FOOTING - BOTTOM

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

A704, A605, A711, A612



ELEVATION WING 4

LOOKING EAST
SHOWING B.F. REINF.

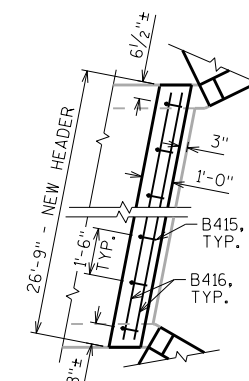
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
A402	2 SERIES OF 7	2'-9" TO 17'-8"
A403	1 SERIES OF 20	1'-6" TO 8'-11"
A704	1 SERIES OF 26	2'-6" TO 9'-11"
A409	2 SERIES OF 7	3'-0" TO 19'-9"
A410	1 SERIES OF 22	1'-6" TO 8'-11"
A711	1 SERIES OF 29	2'-6" TO 9'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY

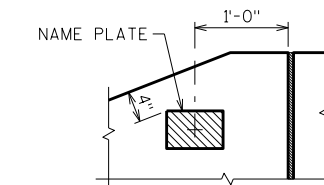
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-29-62			
DRAWN BY		ABS	PLANS CK'D. IFC
WING DETAILS			SHEET 2

- ▲ SEE CORNER DETAILS ON OUTLET & INLET WING DETAIL SHEETS
- NAME PLATE LOCATION (SEE BELOW)
- INDICATES WING NUMBER (NOTE: WING NUMBERS DIFFER FROM ORIGINAL PLANS)



INLET HEADER - PLAN

SECTION THRU INLET HEADER DETAIL ON "INLET WING DETAILS" SHEET



NAME PLATE LOCATION WING 4

LIST OF DRAWINGS

1. WING REPLACEMENTS
2. OUTLET WING DETAILS
3. INLET WING DETAILS


DESIGN DATA

MATERIAL PROPERTIES:
 CONCRETE MASONRY ————— $f'_c = 3,500$ P.S.I.
 HIGH STRENGTH BAR STEEL REINFORCEMENT — $f_y = 60,000$ P.S.I.

STRUCTURE DESIGN CONTACTS:

ADAM SWIERCZEK (608) 267-4593
 DOMINIQUE BECHLE (608) 261-8205

NO.	DATE	REVISION	BY

ACCEPTED  DMB 09/13/21
 CHIEF STRUCTURES DESIGN ENGINEER DATE

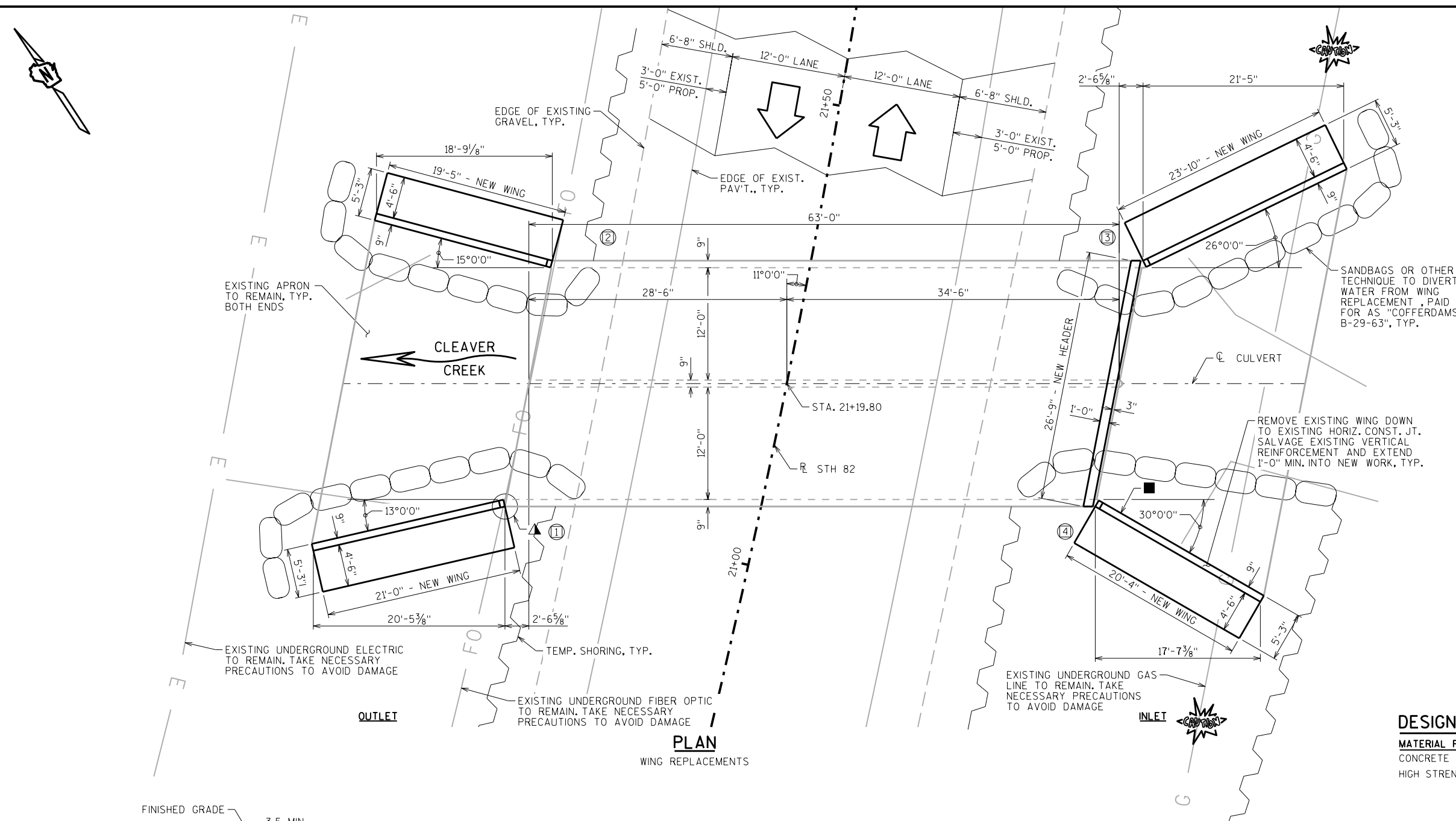
STRUCTURE B-29-63

STH 82 OVER CLEAVER CREEK

COUNTY JUNEAU TOWN PLYMOUTH

DESIGN SPEC. REHABILITATION N/A
 DESIGNED BY ABS DESIGNED CK'D. IFC DRAWN BY ABS PLANS CK'D. IFC

WING REPLACEMENTS SHEET 1 OF 3



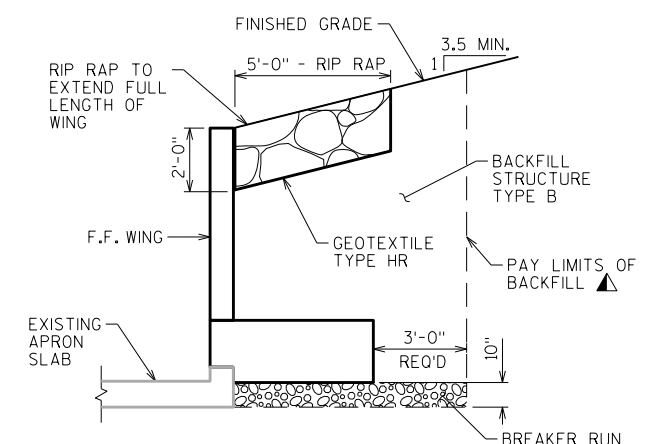
PLAN
WING REPLACEMENTS

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
203.0220	REMOVING STRUCTURE B-29-63	EACH	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-29-63	LS	1
206.5000	COFFERDAMS B-29-63	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	210
311.0115	BREAKER RUN	CY	23
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	18
504.0100	CONCRETE MASONRY CULVERTS	CY	43
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,570
511.1200	TEMPORARY SHORING B-29-63	SF	935
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	21
606.0300	RIPRAP HEAVY	CY	33
645.0120	GEOTEXTILE TYPE HR	SY	99
	NON-BID ITEMS		
	FILLER	SIZE	3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
 DIMENSIONS SHOWN ARE BASED ON THE AS-BUILT STRUCTURE PLANS.
 BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
 THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
 BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
 THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-29-63" SHALL BE THE EXISTING GROUNDLINE.
 ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT WING AND FOOTING CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE ELEMENTS SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.
 THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
 PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON VERTICAL AND HORIZONTAL WING CONSTRUCTION JOINTS.
 THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 504.3.4 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1967. WORK SHALL BE INCLUDED IN THE BID ITEM "CONCRETE MASONRY CULVERTS".



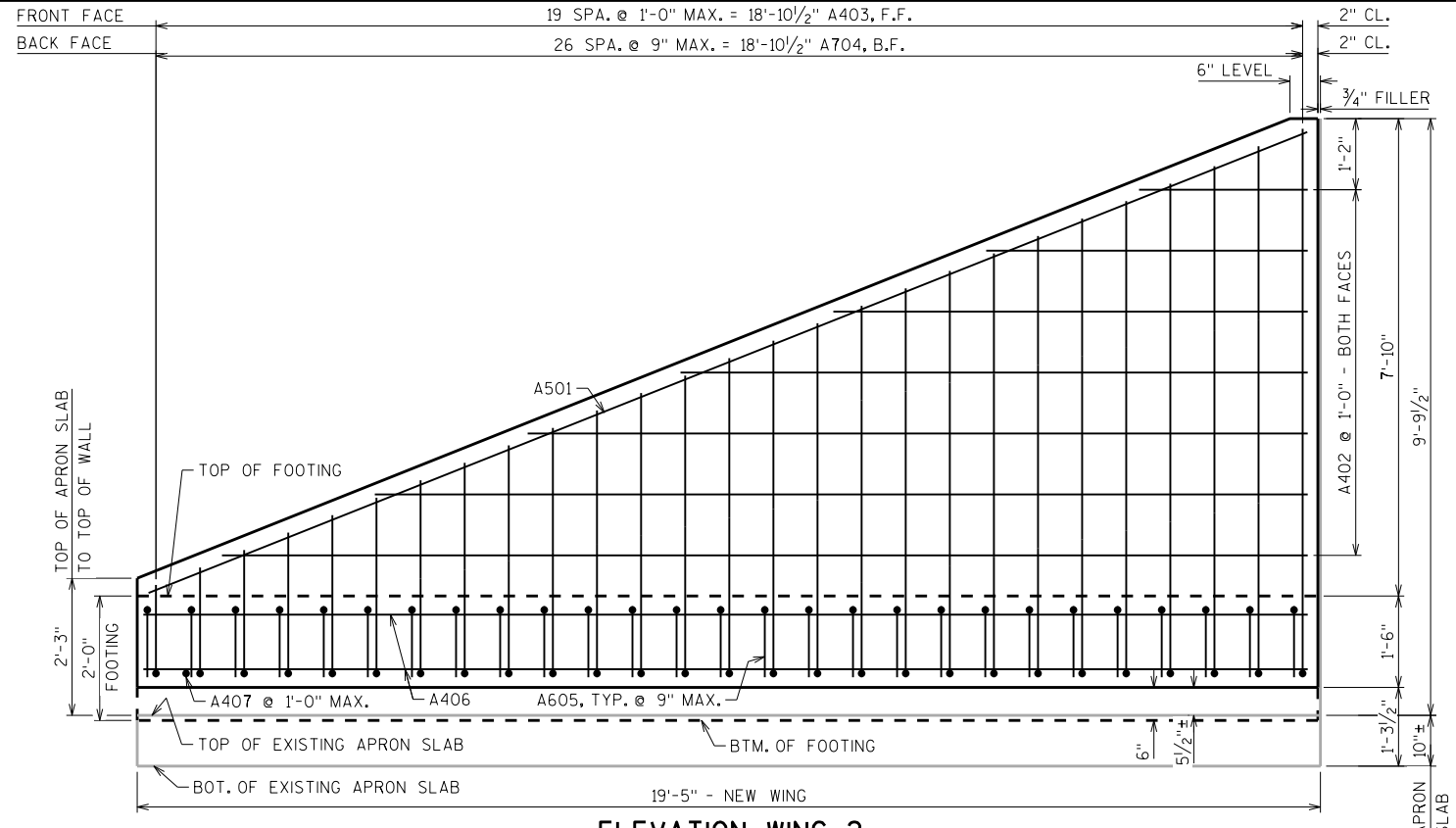
TYPICAL SECTION THRU WING WALL

▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

8

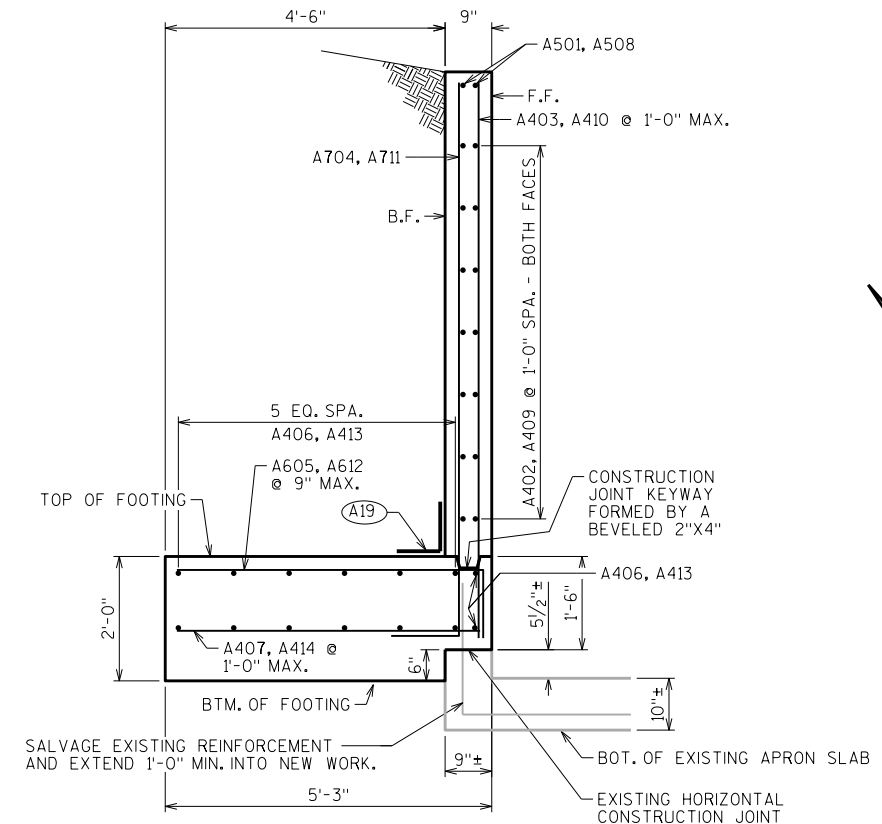
8

SCALE = 6.00



ELEVATION WING 2

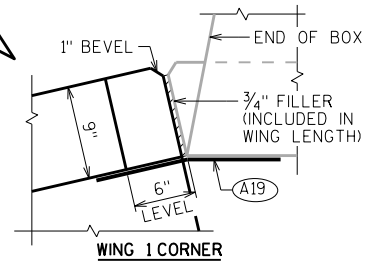
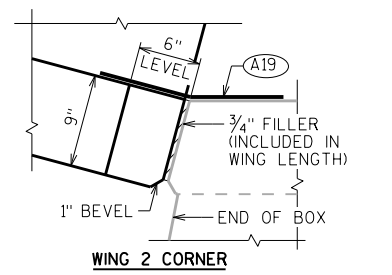
LOOKING NORTH
SHOWING B.F. REINF.



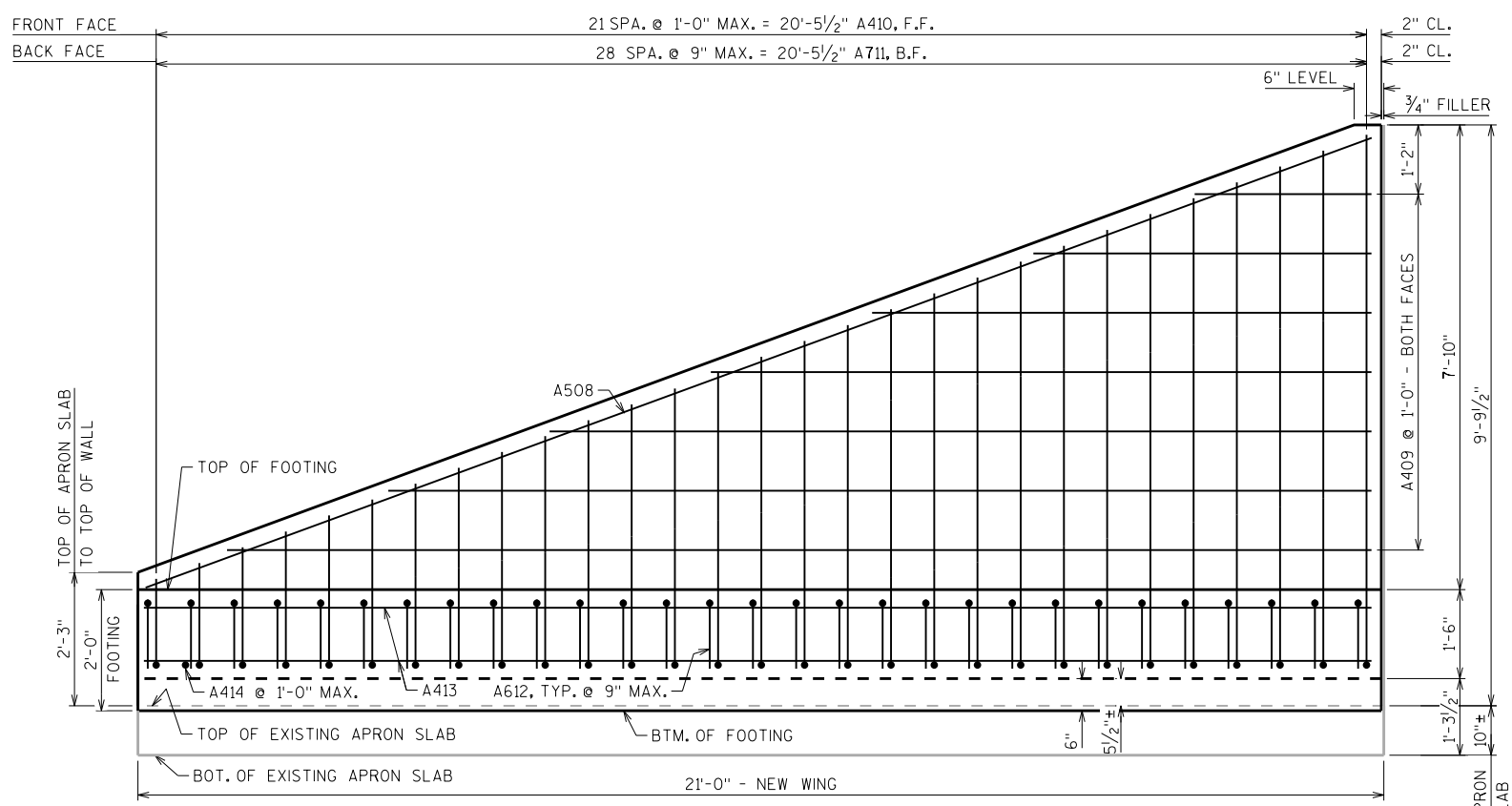
SECTION THRU WING DETAILS

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NOTES: THE FIRST OR FIRST TWO DIGITS OF THE MARK SIGNIFIES THE BAR SIZE.



CORNER DETAILS



ELEVATION WING 1

LOOKING NORTH
SHOWING B.F. REINF.

**A704, A605,
A711, A612**

BILL OF BARS

THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR.

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	2	20'-4"	NO		WING 2 - HORIZ. - BOTH FACES - TOP
A402	X	14	10'-4"	NO	▲	WING 2 - HORIZ. - BOTH FACES
A403	X	20	5'-3"	NO	▲	WING 2 - VERT. - F.F.
A704	X	27	6'-3"	1'-2"	▲	WING 2 - VERT. - B.F.
A605	X	27	5'-11"	1'-2"		WING 2 - FOOTING - TOP
A406	X	14	19'-0"	NO		WING 2 - FOOTING - LONGIT.
A407	X	20	4'-11"	NO		WING 2 - FOOTING - BOTTOM
A508	X	2	22'-0"	NO		WING 1 - HORIZ. - BOTH FACES - TOP
A409	X	14	11'-2"	NO	▲	WING 1 - HORIZ. - BOTH FACES
A410	X	22	5'-3"	NO	▲	WING 1 - VERT. - F.F.
A711	X	29	6'-3"	1'-2"	▲	WING 1 - VERT. - B.F.
A612	X	29	5'-11"	1'-2"		WING 1 - FOOTING - TOP
A413	X	14	20'-7"	NO		WING 1 - FOOTING - LONGIT.
A414	X	22	4'-11"	NO		WING 1 - FOOTING - BOTTOM

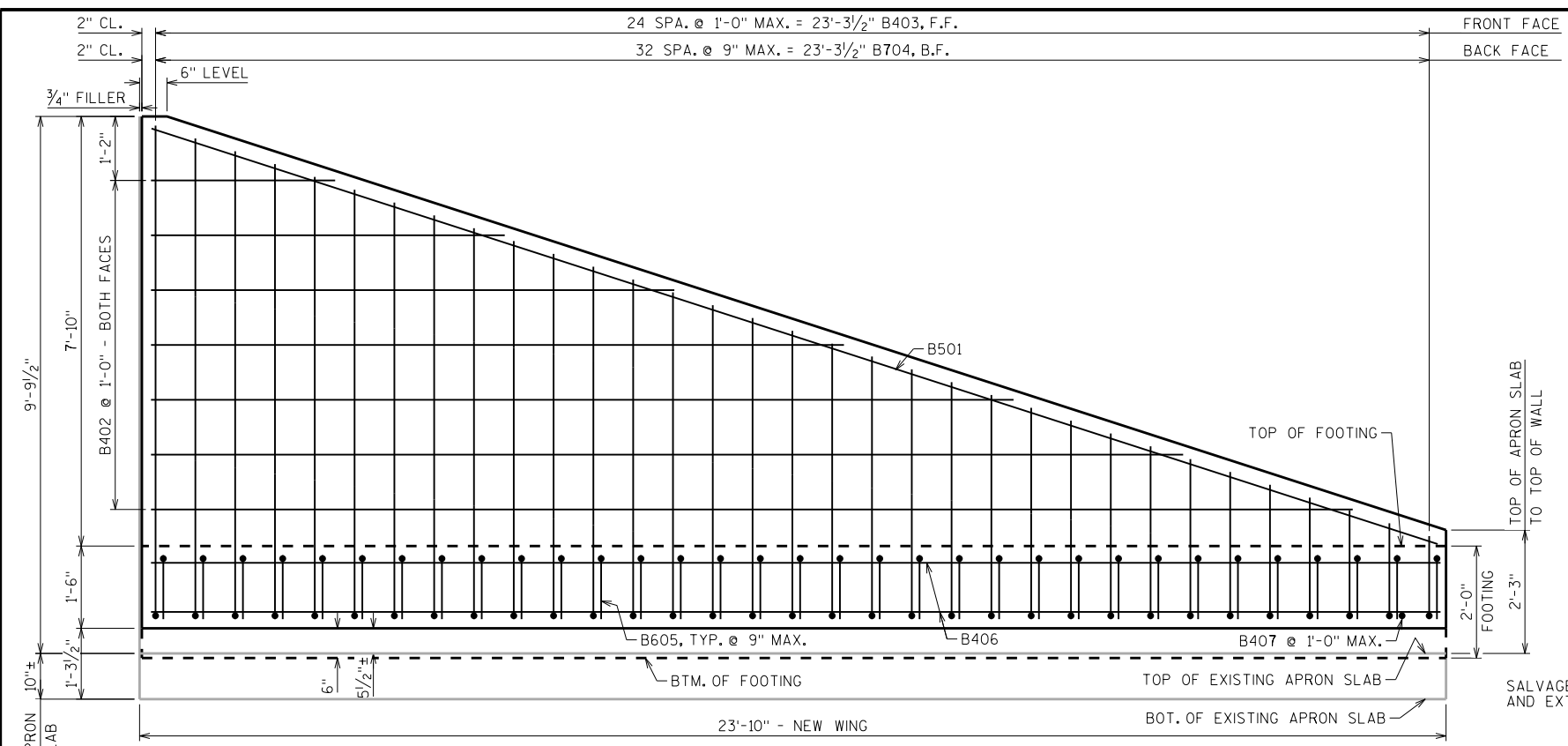
▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

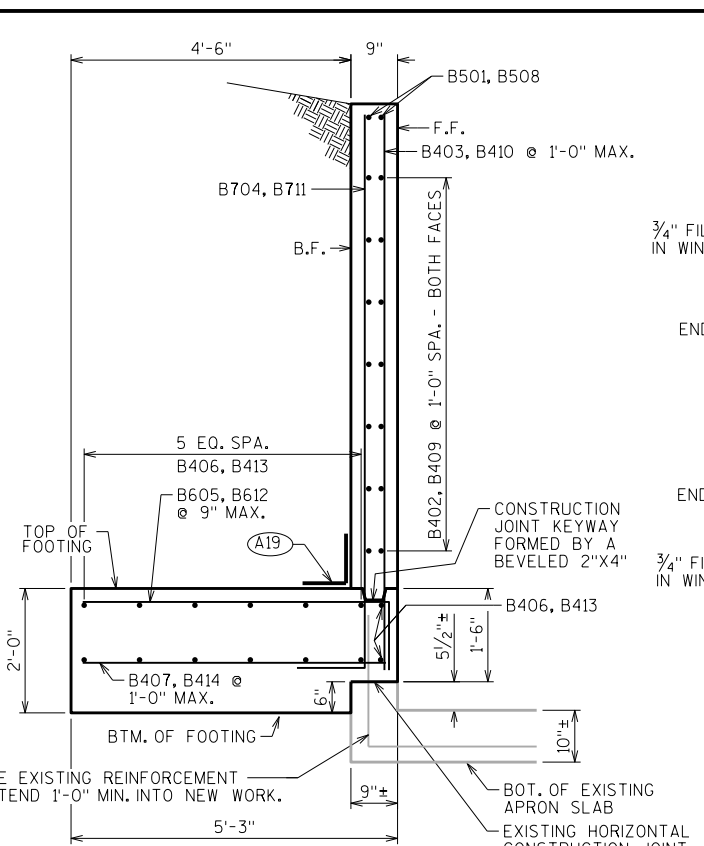
BAR MARK	NO. REQ'D	LENGTH
A402	2 SERIES OF 7	2'-9" TO 17'-10"
A403	1 SERIES OF 20	1'-6" TO 9'-0"
A704	1 SERIES OF 27	2'-6" TO 10'-0"
A409	2 SERIES OF 7	3'-0" TO 19'-5"
A410	1 SERIES OF 22	1'-6" TO 9'-0"
A711	1 SERIES OF 29	2'-6" TO 10'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-29-63			
DRAWN BY		ABS	PLANS CK'D. IFC
OUTLET WING DETAILS		SHEET 2	



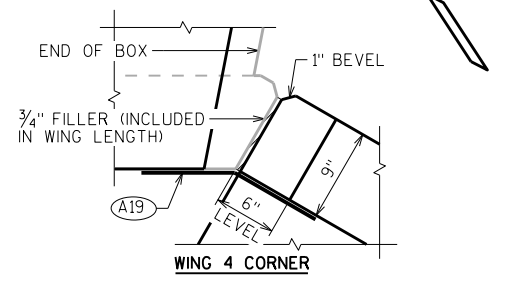
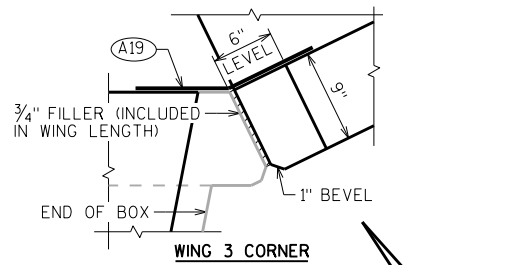
ELEVATION WING 3
LOOKING NORTH
SHOWING B.F. REINF.



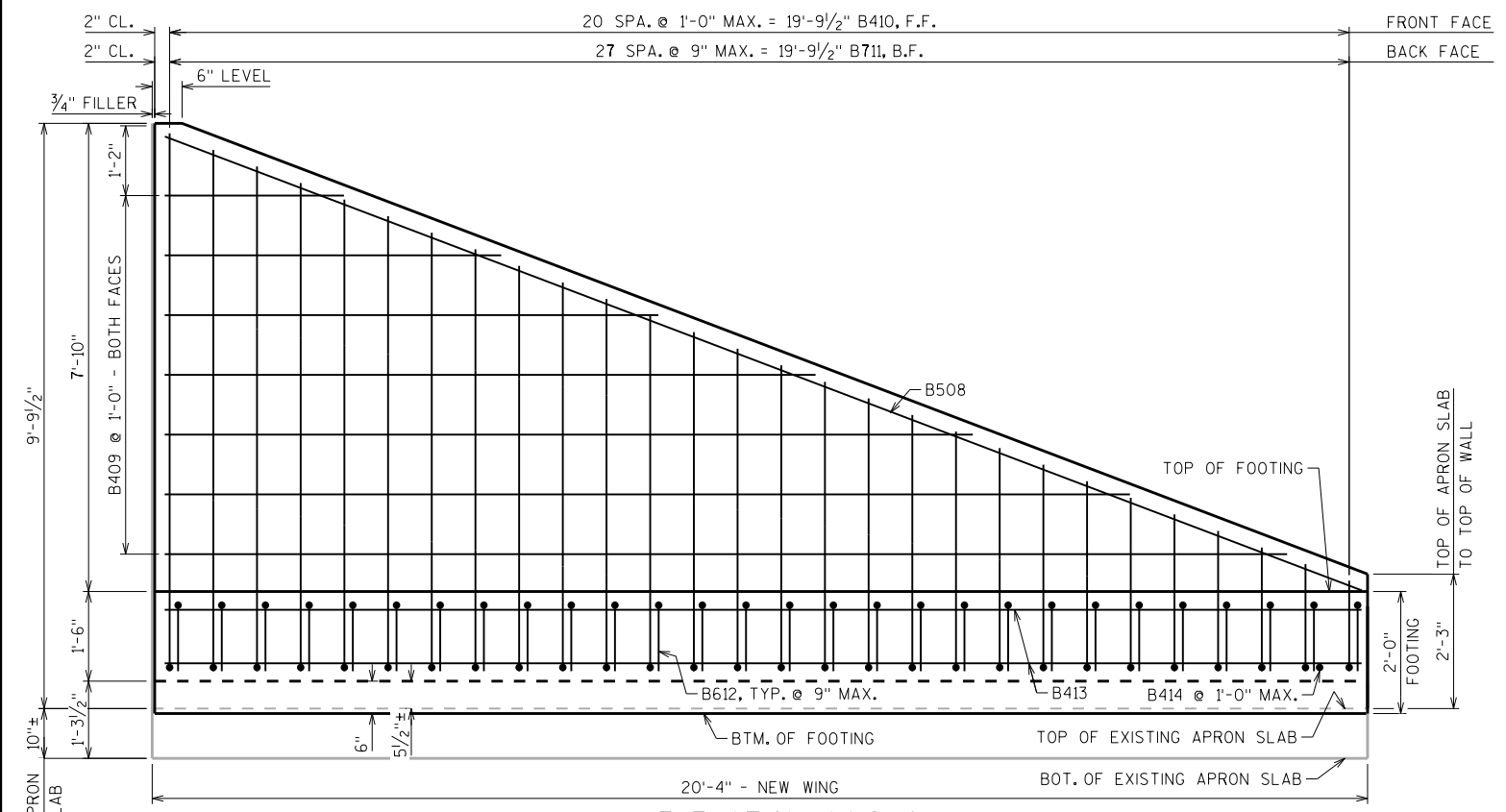
SECTION THRU WING DETAILS

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

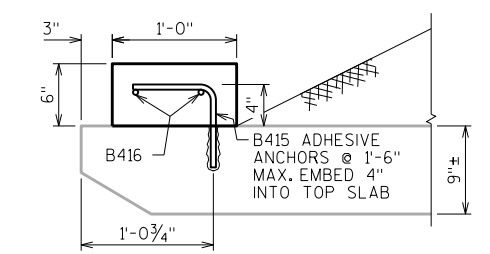
NOTES: THE FIRST OR FIRST TWO DIGITS OF THE MARK SIGNIFIES THE BAR SIZE.



CORNER DETAILS



ELEVATION WING 4
LOOKING NORTH
SHOWING B.F. REINF.



SECTION THRU INLET HEADER

BILL OF BARS

THE DIMENSION IN THE BENT COLUMN IS THE OUT TO OUT HORIZONTAL LEG OF A "L" SHAPED BAR.

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B501	X	2	24'-7"	NO		WING 3 - HORIZ. - BOTH FACES - TOP
B402	X	14	12'-8"	NO	▲	WING 3 - HORIZ. - BOTH FACES
B403	X	25	5'-3"	NO	▲	WING 3 - VERT. - F.F.
B704	X	33	6'-3"	1'-2"	▲	WING 3 - VERT. - B.F.
B605	X	33	5'-11"	1'-2"		WING 3 - FOOTING - TOP
B406	X	14	23'-5"	NO		WING 3 - FOOTING - LONGIT.
B407	X	25	4'-11"	NO		WING 3 - FOOTING - BOTTOM
B508	X	2	21'-4"	NO		WING 4 - HORIZ. - BOTH FACES - TOP
B409	X	14	10'-11"	NO	▲	WING 4 - HORIZ. - BOTH FACES
B410	X	21	5'-3"	NO	▲	WING 4 - VERT. - F.F.
B711	X	28	6'-3"	1'-2"	▲	WING 4 - VERT. - B.F.
B612	X	28	5'-11"	1'-2"		WING 4 - FOOTING - TOP
B413	X	14	19'-11"	NO		WING 4 - FOOTING - LONGIT.
B414	X	21	4'-11"	NO		WING 4 - FOOTING - BOTTOM
B415	X	18	1'-3"	0'-8"		INLET HEADER - ADHESIVE ANCHORS
B416	X	2	26'-3"	NO		INLET HEADER - LONGIT.

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
B402	2 SERIES OF 7	3'-4" TO 21'-11"
B403	1 SERIES OF 25	1'-6" TO 9'-0"
B704	1 SERIES OF 33	2'-6" TO 10'-0"
B409	2 SERIES OF 7	3'-0" TO 18'-9"
B410	1 SERIES OF 21	1'-6" TO 9'-0"
B711	1 SERIES OF 28	2'-6" TO 10'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-29-63			
DRAWN BY		ABS	PLANS CK'D. IFC
INLET WING DETAILS		SHEET 3	

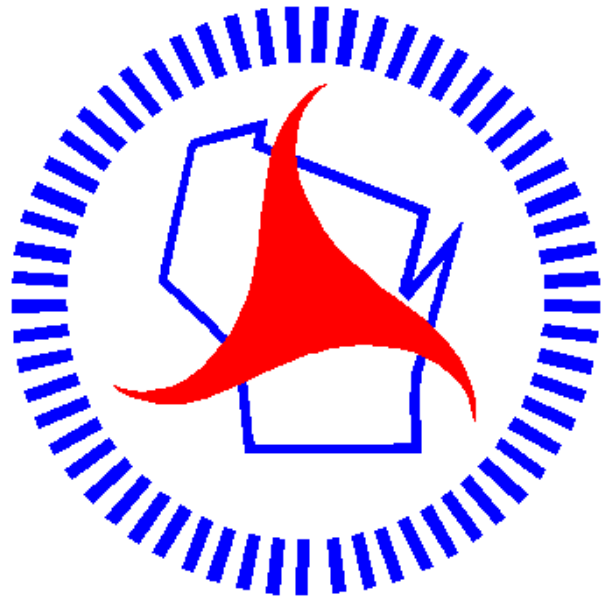
B704, B605, B711, B612

B415

8

8

Notes



Wisconsin Department of Transportation

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